LAX DECEMBER 2015

PROJECT ID: 1071-06-79/81
WITH: 7190-03-71

COUNTY: LA CROSSE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 914

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1071-06-79	WISC 2015632	1
1071-06-81	WISC 2015633	1

MN STATE LN - USH 53/35

(ROUND LAKE BR TO BLACK RIVER BR/EB RDWY)

IH 90

LA CROSSE COUNTY

STATE PROJECT NUMBER
1071-06-81

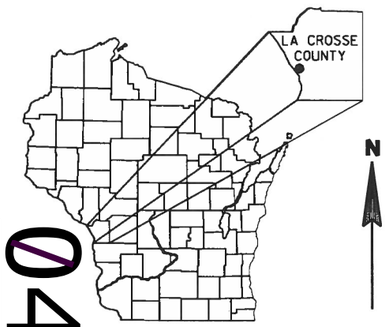
USH 53/35 - THEATER RD

(BLACK RIVER BR TO THEATER RD/EB RDWY)

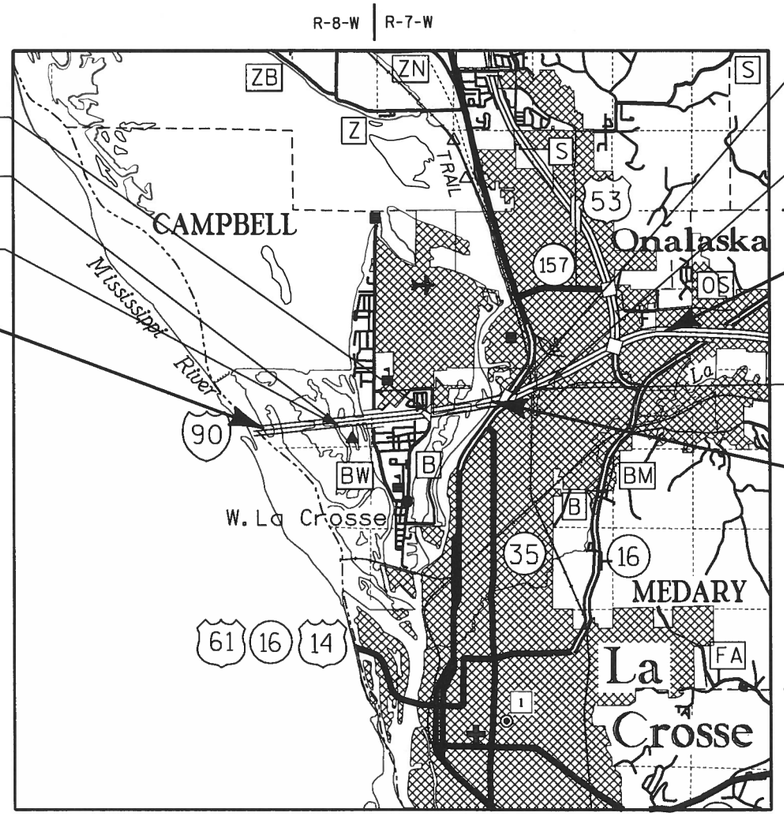
IH 90

LA CROSSE COUNTY

STATE PROJECT NUMBER
1071-06-79



04



STRUCTURE B-32-52 (1071-06-81)
(CTH B OVER IH 90)

STRUCTURE B-32-48 (1071-06-81)
(IH 90 EB OVER FRENCH SLOUGH)

STRUCTURE B-32-75 (1071-06-81)
(IH 90 EB TO REST AREA
OVER FRENCH SLOUGH)

BEGIN PROJECT 1071-06-81
STA 71+96.90 EB
Y 148748.39
X 436994.91

STRUCTURE B-32-218 (1071-06-79)
(IH 90 EB OVER USH 53/STH 35)

STRUCTURE B-32-107 (1071-06-79)
(IH 90 EB OVER 12TH AVE)

END PROJECT 1071-06-79
STA 312+07.00 EB

STRUCTURE B-32-39 (1071-06-79)
(IH 90 EB OVER OAK STREET & RAILROAD)

END PROJECT 1071-06-81
STA 168+64.20 EB
BEGIN PROJECT 1071-06-79
STA 174+26.70 EB
Y 150179.07
X 447116.15

DESIGN DESIGNATION

		IH 90	CTH B
A.A.D.T. (2016)	=	43,700	9,200
A.A.D.T. (2036)	=	56,700	11,600
D.H.V.	=	---	---
D.D.	=	60/40	50/50
T.	=	16.6%	3.6%
DESIGN SPEED	=	70 MPH (75 MPH)	40 MPH
ESALS	=	27,637,800	1,766,600

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

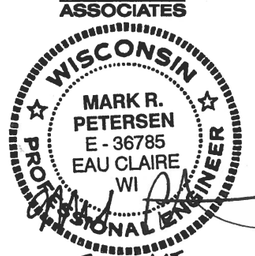
UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE (1071-06-79) = 2.610 MI.
TOTAL NET LENGTH OF CENTERLINE (1071-06-81) = 1.831 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), LACROSSE COUNTY.

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES



DATE: 7/28/15

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT / K SINGH
Designer	AYRES ASSOCIATES
Project Manager	ANTHONY VANDER WIELEN
Regional Examiner	ANTHONY VANDER WIELEN
Regional Supervisor	JOE GREGAS

APPROVED FOR THE DEPARTMENT

DATE: 7-29-2015 (Signature)

E

UTILITIES

CHARTER COMMUNICATIONS - COMMUNICATION LINE
1228 12TH AVENUE SOUTH
ONALASKA, WI 54650
ATTN: PERRY MCCLELLAN
(715) 370-7140
perry.mcclellan@charter.com

XCEL ENERGY - ELECTRIC DISTRIBUTION
3215 COMMERCE STREET
LA CROSSE, WI 54603
ATTN: SCOTT ROBERTS
OFFICE: (608) 789-3625
CELL: (608) 518-0806
scott.w.roberts@xcelenergy.com

XCEL ENERGY - NATURAL GAS
3215 COMMERCE STREET
LA CROSSE, WI 54603
ATTN: ED PRZYTARSKI
OFFICE: (608) 789-3631
CELL: (608) 780-0151
edward.r.przytarski@xcelenergy.com

XCEL ENERGY - ELECTRICAL TRANSMISSION
414 NICOLLET MALL
MINNEAPOLIS, MN 55401
ATTN: BRUCE ZEMKE
OFFICE: (612) 330-7815
CELL: (651) 214-2620
bruce.m.zemke@xcelenergy.com

CENTURYLINK - COMMUNICATION LINE
333 NORTH FRONT STREET
LA CROSSE, WI 54601
ATTN: TOM MURRAY
OFFICE: (608) 796-7869
CELL: (608) 780-0865
tom.l.murray@centurylink.com

DAIRYLAND POWER COOPERATIVE - ELECTRIC TRANSMISSION
3200 EAST AVENUE SOUTH
P.O. BOX 817
LA CROSSE, WI 54602
ATTN: KURT CHILDS
(608) 788-4000
kdc@dairynet.com

CITY OF LA CROSSE - WATER, SANITARY & STORM SEWER
400 LA CROSSE STREET
LA CROSSE, WI 54601
ATTN: JIM FREDRICKSON
OFFICE: (608) 789-7384
CELL: (608) 797-8673
fredricksonj@cityoflacrosse.org

CITY OF ONALASKA - WATER, SANITARY & STORM SEWER
415 MAIN STREET
ONALASKA, WI 54650
ATTN: JARROD HOLTER
OFFICE: (608) 781-9537
CELL: (608) 780-1024
jholter@cityofonalaska.com

* WISCONSIN STOC - ITS ITEMS
433 WEST ST PAUL AVENUE, SUITE 300
MILWAUKEE, WI 53203
ATTN: DEAN BEEKMAN, PE
(414) 227-2154
Dean.Beekman@dot.wi.us

WISCONSIN INDEPENDENT NETWORK, LLC - COMMUNICATION LINE
800 WISCONSIN STREET SUITE 219
EAU CLAIRE, WI 54703
ATTN: JOHN LOUIS
OFFICE: (715) 838-4012
CELL: (715) 864-2918
Jlouis@wins.net

WINDSTREAM KDL, INC - COMMUNICATION LINE
13935 BISHOPS DRIVE
BROOKFIELD, WI 53005
ATTN: JIM KOSTUCH
(262) 792-7938
James.Kostuch@windstream.com

* NOT A MEMBER OF DIGGERS HOTLINE

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

RAILROAD COORDINATOR

BNSF RAILWAY COMPANY
80-44TH AVENUE NE
MINNEAPOLIS, MN 55421
ATTN: CALVIN NUTT
(763) 782-3495
calvin.nutt@bnsf.com

ENVIRONMENTAL COORDINATOR

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
LA CROSSE SERVICE CENTER
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
ATTN: KAREN KALVELAGE
(608) 785-9115
karen.kalvelage@wisconsin.gov

DOT CONTACT

SOUTHWEST REGION - LA CROSSE OFFICE
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
ATTN: ANTHONY VANDER WIELEN, PE - PROJECT MANAGER
(608) 789-7878
anthony.vanderwielen@dot.wi.gov

DESIGN CONTACTS

AYRES ASSOCIATES
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: MARK PETERSEN, PE
(715) 831-3161
petersenm@ayresassociates.com

GENERAL NOTES

REMOVALS
NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

DRAINAGE
PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

GRADING/EROSION CONTROL
EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION. THE LOCATION FOR EBS WILL BE DETERMINED BY THE ENGINEER.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS.

BROKEN CONCRETE CONTAINING REBAR SHALL NOT BE USED AS RIPRAP OR RIPRAP HEAVY.

SEED, INSTALL EROSION MAT, AND FERTILIZE ALL SALVAGED TOPSOILED AREAS WITHIN 7 WORKING DAYS AFTER GRADING WORK IS COMPLETED.

DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A WATER BODY OR WETLAND.

MISCELLANEOUS
A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT THAT ARE NOT SHOWN.

STATIONING, DISTANCES, AND OFFSETS FOR SIGNS SHOWN IN THE PLANS ARE APPROXIMATE AND THE FINAL LOCATION OF SIGNS ARE TO BE DETERMINED BY THE ENGINEER.

SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER ITEMS TRAFFIC CONTROL COVERING SIGNS TYPE I OR TRAFFIC CONTROL COVERING SIGNS TYPE II.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

EXISTING ELEVATIONS SHALL BE VERIFIED IN THE FIELD.

ASPHALTIC SURFACE TEMPORARY SHALL BE CONSTRUCTED IN A SINGLE LAYER.

HMA PAVEMENTS

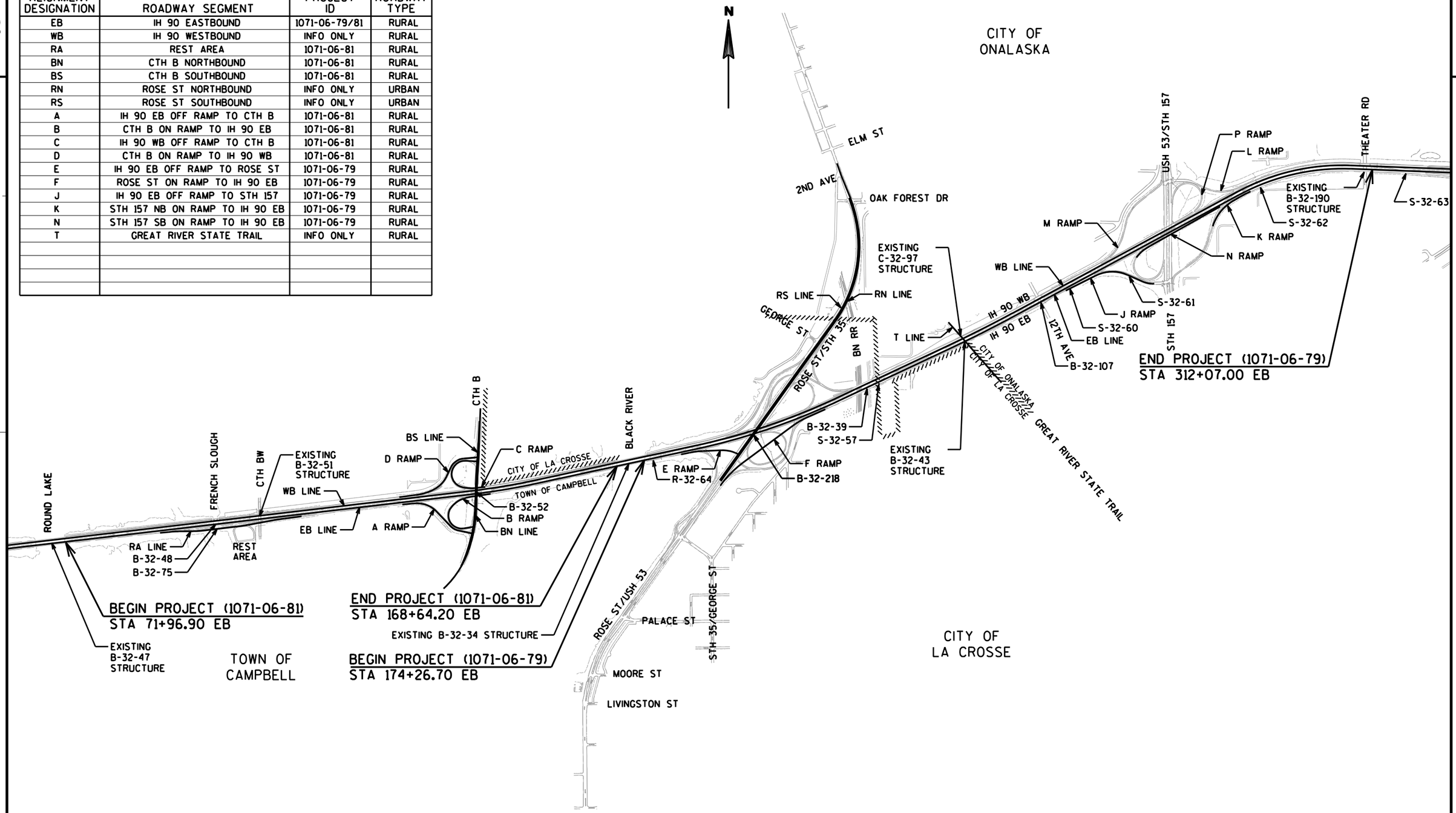
TOTAL LAYER THICKNESS	LAYERS	ASPHALTIC MATERIAL
3 1/2"	3.5" UPPER LAYER	PG 58-28
4"	2" UPPER LAYER	PG 58-28
	2" LOWER LAYER	PG 58-28
5"	2" UPPER LAYER	PG 58-28
	3" LOWER LAYER	PG 58-28

PLACE PAVEMENT FOR TEMPORARY PURPOSES IN A SINGLE LIFT.

ORDER OF SECTION 2 DETAIL SHEETS

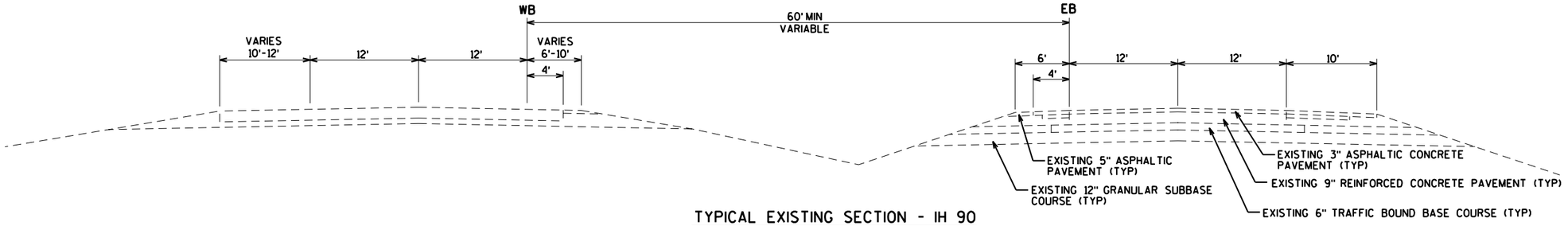
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION AND INTERCHANGE
EROSION CONTROL
PERMANENT SIGNING
PAVEMENT MARKING
TRAFFIC CONTROL
DETOUR ROUTE
FENCING
SUPERELEVATION TABLES
ALIGNMENT DIAGRAM

ALIGNMENT DESIGNATION	ROADWAY SEGMENT	PROJECT ID	ROADWAY TYPE
EB	IH 90 EASTBOUND	1071-06-79/81	RURAL
WB	IH 90 WESTBOUND	INFO ONLY	RURAL
RA	REST AREA	1071-06-81	RURAL
BN	CTH B NORTHBOUND	1071-06-81	RURAL
BS	CTH B SOUTHBOUND	1071-06-81	RURAL
RN	ROSE ST NORTHBOUND	INFO ONLY	URBAN
RS	ROSE ST SOUTHBOUND	INFO ONLY	URBAN
A	IH 90 EB OFF RAMP TO CTH B	1071-06-81	RURAL
B	CTH B ON RAMP TO IH 90 EB	1071-06-81	RURAL
C	IH 90 WB OFF RAMP TO CTH B	1071-06-81	RURAL
D	CTH B ON RAMP TO IH 90 WB	1071-06-81	RURAL
E	IH 90 EB OFF RAMP TO ROSE ST	1071-06-79	RURAL
F	ROSE ST ON RAMP TO IH 90 EB	1071-06-79	RURAL
J	IH 90 EB OFF RAMP TO STH 157	1071-06-79	RURAL
K	STH 157 NB ON RAMP TO IH 90 EB	1071-06-79	RURAL
N	STH 157 SB ON RAMP TO IH 90 EB	1071-06-79	RURAL
T	GREAT RIVER STATE TRAIL	INFO ONLY	RURAL

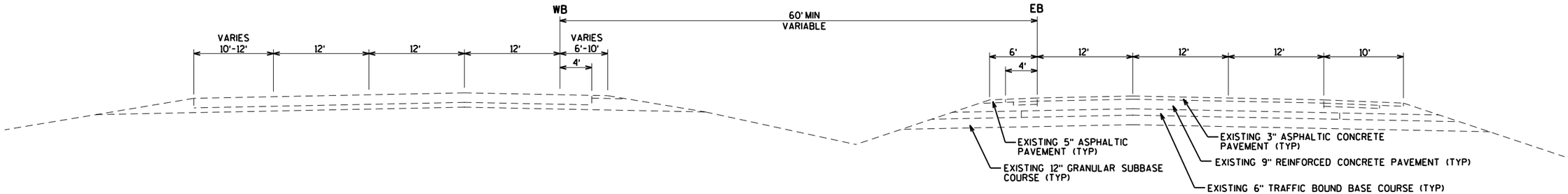


PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	PROJECT OVERVIEW	SHEET	E

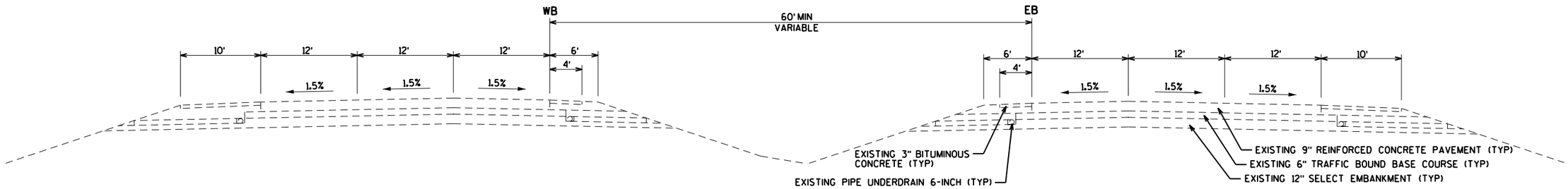
FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_020201_po.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:1600
WISDOT/CADDS SHEET 42



TYPICAL EXISTING SECTION - IH 90

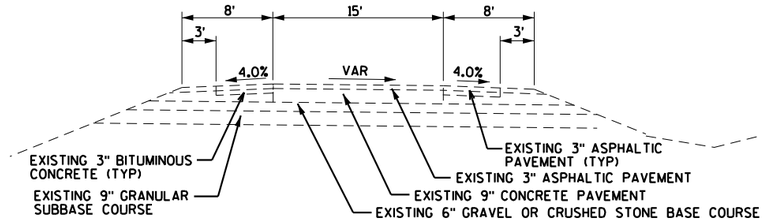


TYPICAL EXISTING SECTION - IH 90 W/AUXILARY LANES
WEST OF THEATER ROAD

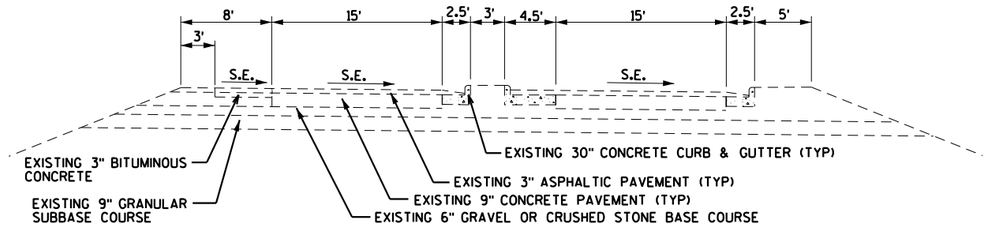


TYPICAL EXISTING SECTION - IH 90 W/AUXILARY LANES
EAST OF THEATER ROAD

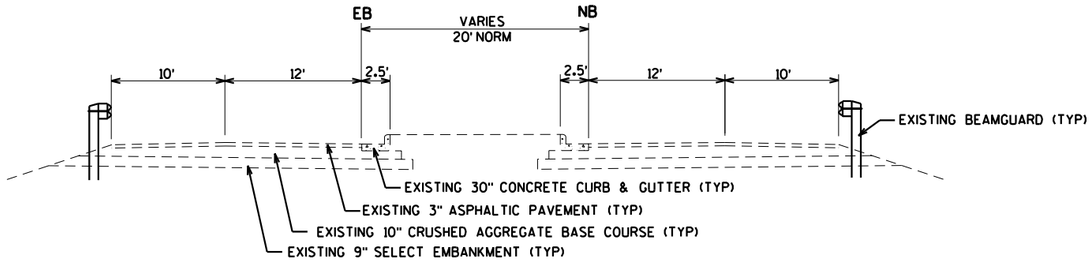
PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LACROSSE	TYPICAL SECTIONS - EXISTING	SHEET 4	E



TYPICAL EXISTING SECTION - RAMPS

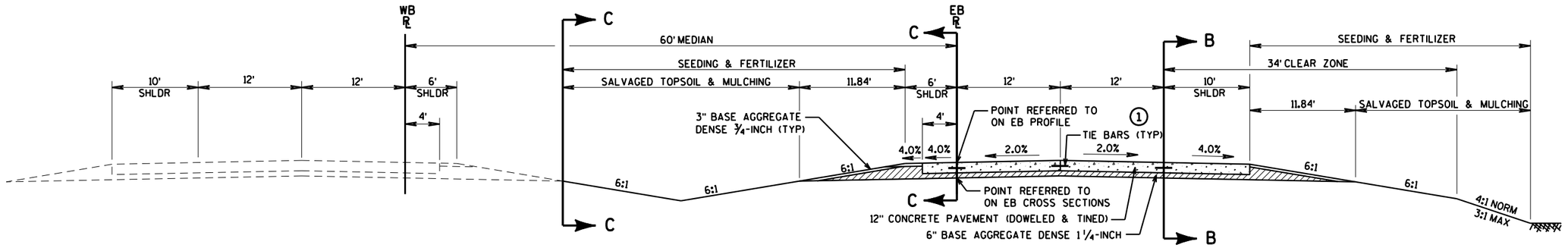


TYPICAL EXISTING SECTION - COMBINED RAMP-LOOP



TYPICAL EXISTING SECTION - CTH B

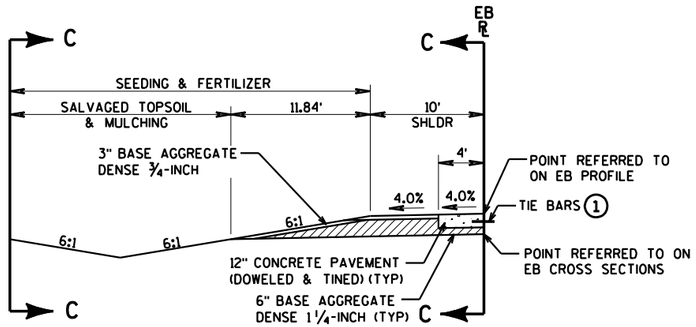
PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LACROSSE	TYPICAL SECTIONS - EXISTING	SHEET 5	E



TYPICAL FINISHED SECTION - IH 90

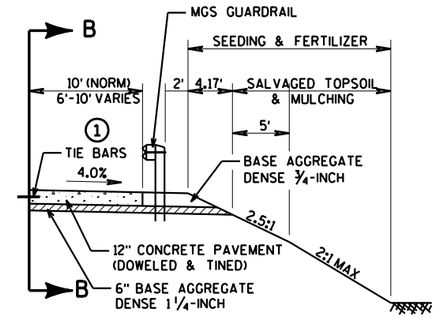
STA 71+96.90 EB - STA 143+35.74 EB
STA 154+45.57 EB - STA 183+25.12 EB
STA 209+42.80 EB - STA 288+02.01 EB
STA 308+34.08 EB - STA 312+07.00 EB

IN FILL



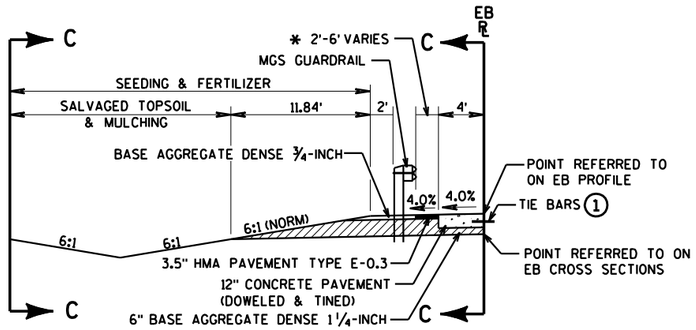
SECTION C-C (10' MEDIAN SHOULDER)

STA 209+42.80 EB - STA 248+00.00 EB
BETWEEN ROSE STREET
AND 12TH AVENUE



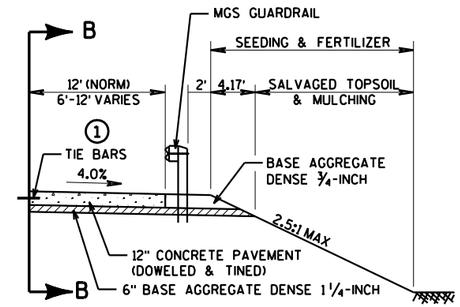
SECTION B-B

STA 71+96.90 EB - STA 82+40.29 EB



SECTION C-C

STA 99+08.00 EB - STA 107+36.00 EB (2' NORM) *
STA 209+42.80 EB - STA 212+14.90 EB (6' NORM) *



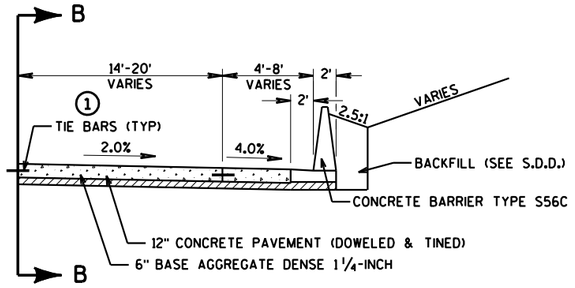
SECTION B-B

STA 159+04.23 EB - STA 168+45.62 EB

(1) TIE BARS ARE INCIDENTAL TO CONCRETE PAVEMENT (UNLESS DRILLED INTO EXISTING PAVEMENT)

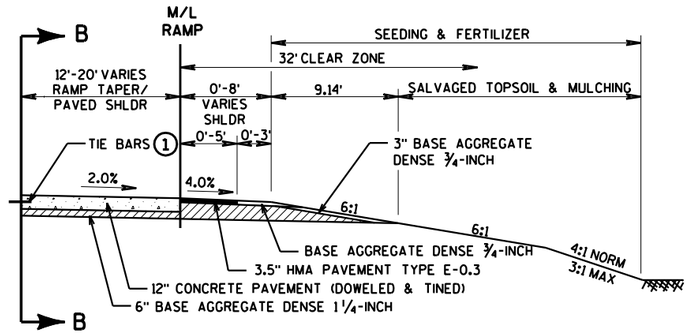
NOTE: ROUTE AND SEAL ALL CONCRETE/ASPHALT JOINTS (SEE DETAIL)

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	TYPICAL SECTIONS - IH 90 - TANGENT SECTIONS	SHEET 6	E



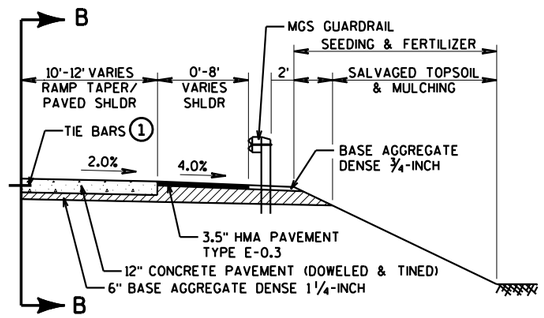
SECTION B-B

STA 272+25.85 EB - STA 276+00.00 EB



SECTION B-B (RA, A, B, E, N PARALLEL RAMPS)

STA 89+00.00 EB - STA 90+73.09 EB
STA 110+27.54 EB - STA 123+07.62 EB
STA 124+94.76 EB - STA 133+00.54 EB
STA 181+00.00 EB - STA 182+62.53 EB
STA 276+00.00 EB - STA 287+13.98 EB

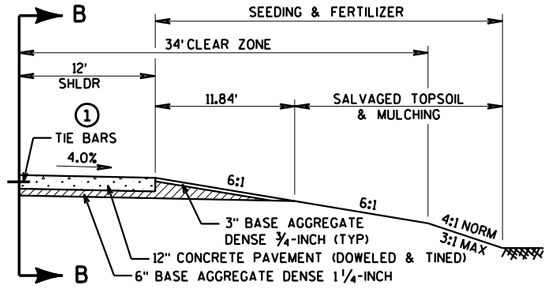


1 TIE BARS ARE INCIDENTAL TO CONCRETE PAVEMENT (UNLESS DRILLED INTO EXISTING PAVEMENT)

NOTE: ROUTE AND SEAL ALL CONCRETE/ASPHALT JOINTS (SEE DETAIL)

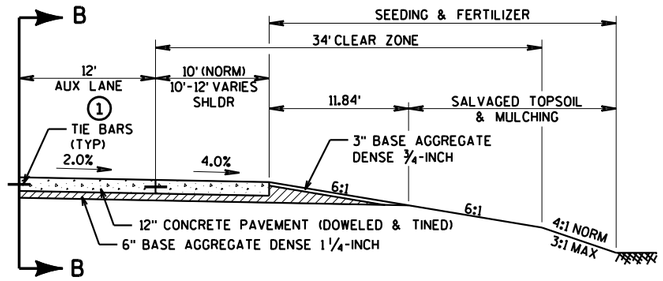
SECTION B-B (RA, B, E PARALLEL RAMPS)

STA 82+40.29 EB - STA 89+00.00 EB
STA 154+47.57 EB - STA 159+04.23 EB
STA 177+75.00 EB - STA 181+00.00 EB



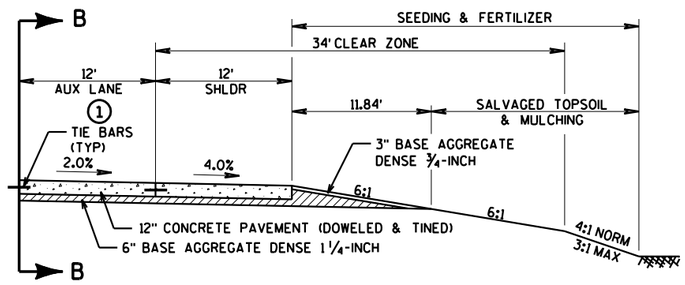
SECTION B-B

STA 123+07.62 EB - STA 124+94.76 EB
STA 133+00.54 EB - STA 143+35.74 EB
STA 159+00.00 EB - STA 183+25.12 EB
STA 258+72.12 EB - STA 272+51.46 EB



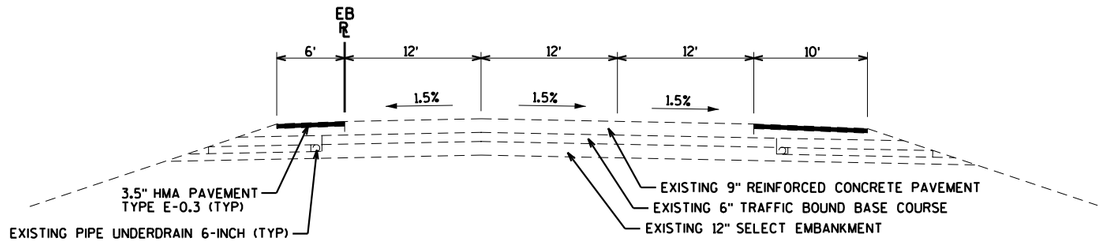
SECTION B-B (AT AUXILIARY LANE)

STA 309+39.27 EB - STA 312+07.00 EB



SECTION B-B (AT AUXILIARY LANE)

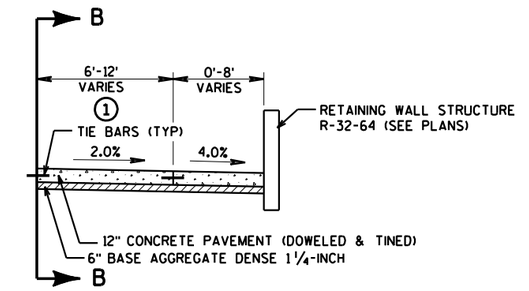
STA 209+42.80 EB - STA 254+26.08 EB
STA 287+13.98 EB - STA 288+02.01 EB
STA 308+34.08 EB - STA 309+39.27 EB



TYPICAL FINISHED SECTION - IH 90

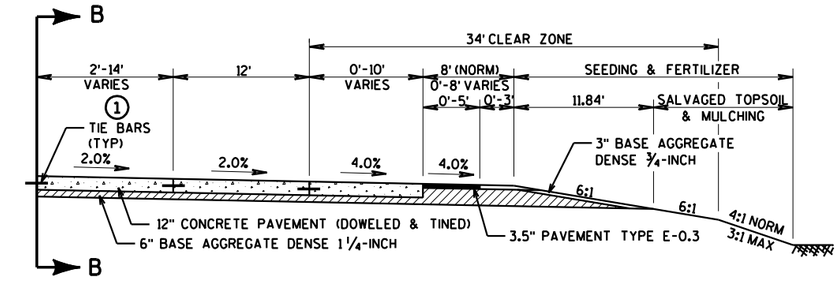
STA 312+07.00 EB - STA 321+80.00 EB

RT SHOULDER REPLACEMENT ENDS AT STA 317+00 EB
SAWCUT EXISTING ASPHALT IN AREA OF CROSSOVER
FOR 6'PAVED SHOULDER FROM STA 317+15 EB -
STA 321+80 EB, LT.



SECTION B-B

STA 174+29.66 EB - STA 177+75.00 EB

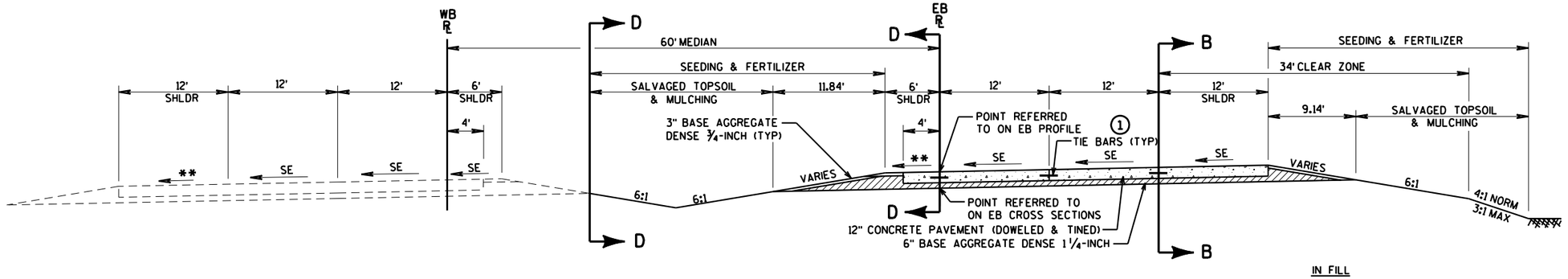


SECTION B-B (J RAMP DUAL LANE EXIT RAMP)

STA 254+26.08 EB - STA 258+72.12 EB

① TIE BARS ARE INCIDENTAL TO CONCRETE PAVEMENT
(UNLESS DRILLED INTO EXISTING PAVEMENT)

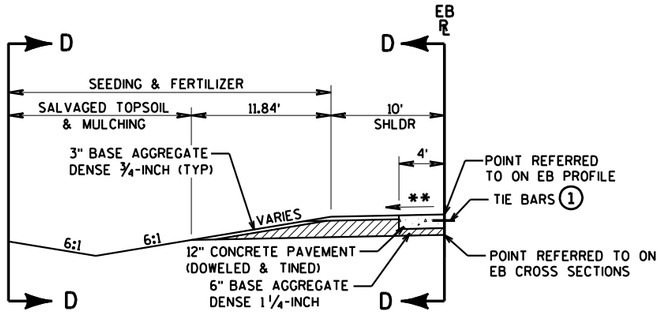
NOTE: ROUTE AND SEAL ALL CONCRETE/ASPHALT JOINTS
(SEE DETAIL)



IN FILL

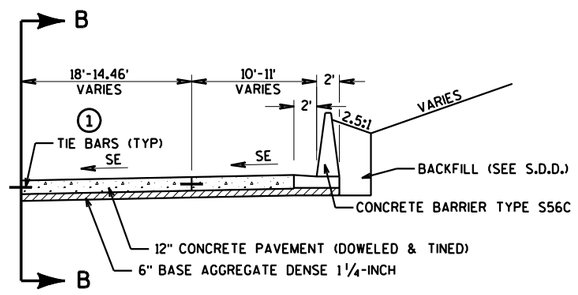
TYPICAL SUPERELEVATED FINISHED SECTION - IH 90

STA 143+35.74 EB - STA 154+45.57 EB
STA 183+25.12 EB - STA 209+42.80 EB
STA 288+02.01 EB - STA 308+34.08 EB



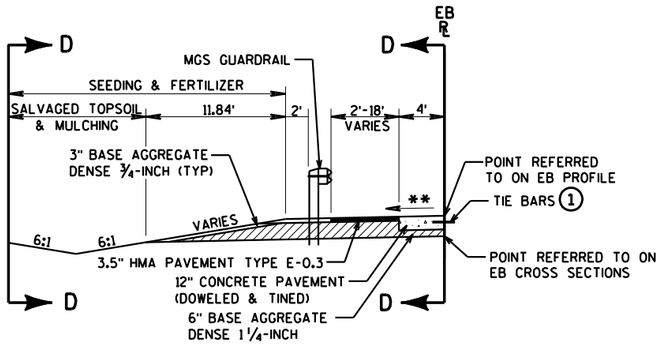
SECTION D-D (10' MEDIAN SHOULDER)

STA 200+89.00 EB - STA 209+42.90 EB
BETWEEN ROSE STREET
AND 12TH AVENUE



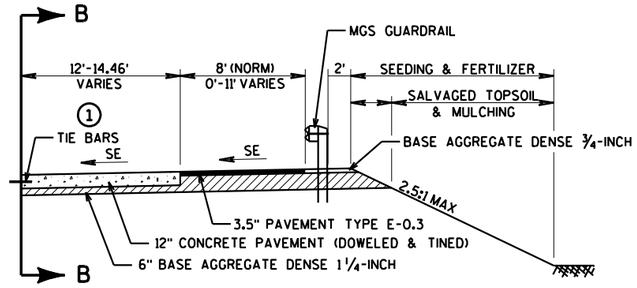
SECTION B-B

STA 143+01.64 EB - STA 144+76.19 EB



SECTION D-D

STA 185+56.00 EB - STA 209+42.80 EB



SECTION B-B

STA 144+76.19 EB - STA 154+45.57 EB

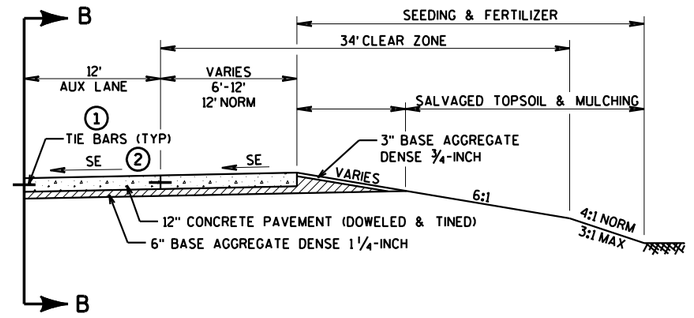
1. TIE BARS ARE INCIDENTAL TO CONCRETE PAVEMENT (UNLESS DRILLED INTO EXISTING PAVEMENT)
2. AUXILARY LANE ON HIGH SIDE OF CURVE HAS A MAX SUPERELEVATION OF 4%

   NOTE: ROUTE AND SEAL ALL CONCRETE/ASPHALT JOINTS (SEE DETAIL)

** THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTION EQUALS THE SUPERELEVATION RATE WHEN THE SUPERELEVATION RATE IS GREATER THAN 4%. IF THE SUPERELEVATION RATE IS LESS THAN OR EQUAL TO 4%. THE LOW SIDE SHOULDER SLOPE IS 4%. HIGH SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION RATE. SEE SUPERELEVATION TABLES FOR SE

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	TYPICAL SECTIONS - IH 90 - CURVED SECTIONS	SHEET 9	E

2



SUPERELEVATION SECTION B-B (AT AUXILIARY LANE)

STA 203+74.29 EB - STA 209+42.80 EB
STA 287+45.57 EB - STA 308+34.08 EB

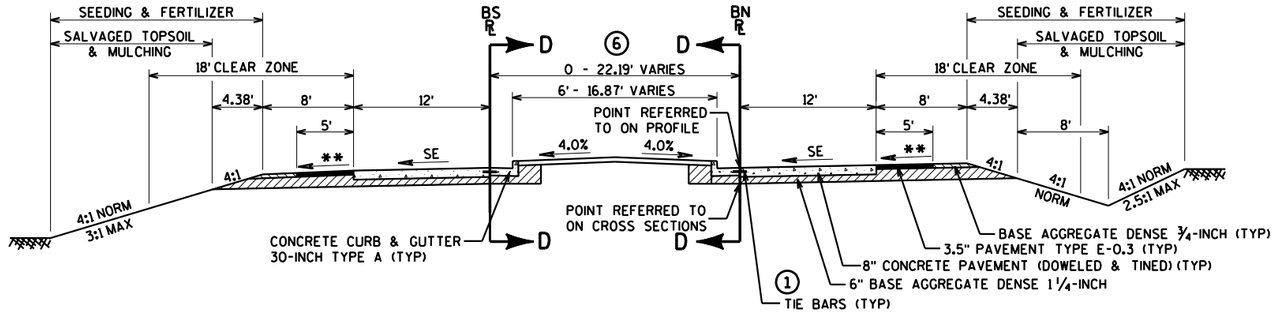
① TIE BARS ARE INCIDENTAL TO CONCRETE PAVEMENT (UNLESS DRILLED INTO EXISTING PAVEMENT)

② AUXILARY LANE ON HIGH SIDE OF CURVE HAS A MAX SUPERELEVATION OF 4%

NOTE: ROUTE AND SEAL ALL CONCRETE/ASPHALT JOINTS (SEE DETAIL)

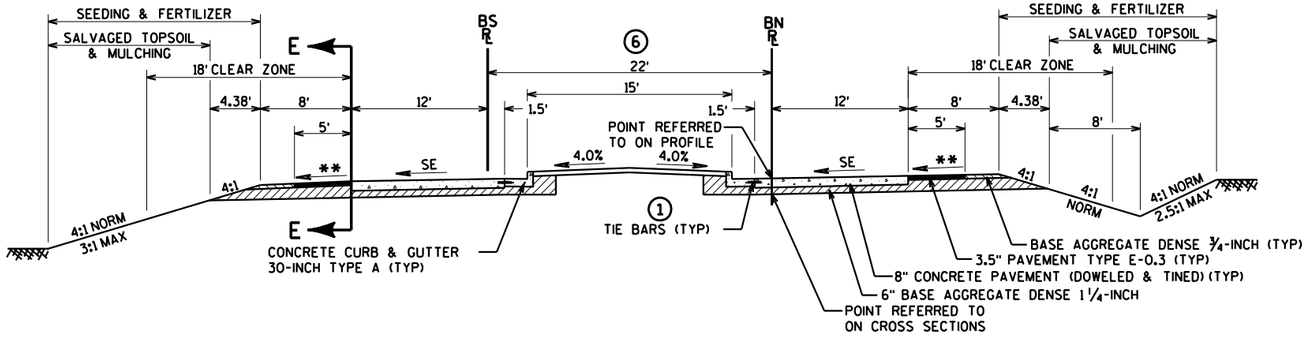
** THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTION EQUALS THE SUPERELEVATION RATE WHEN THE SUPERELEVATION RATE IS GREATER THAN 4%. IF THE SUPERELEVATION RATE IS LESS THAN OR EQUAL TO 4%. THE LOW SIDE SHOULDER SLOPE IS 4%. HIGH SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION RATE. SEE SUPERELEVATION TABLES FOR SE

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	TYPICAL SECTIONS - IH 90 - CURVED SECTIONS	SHEET 10	E



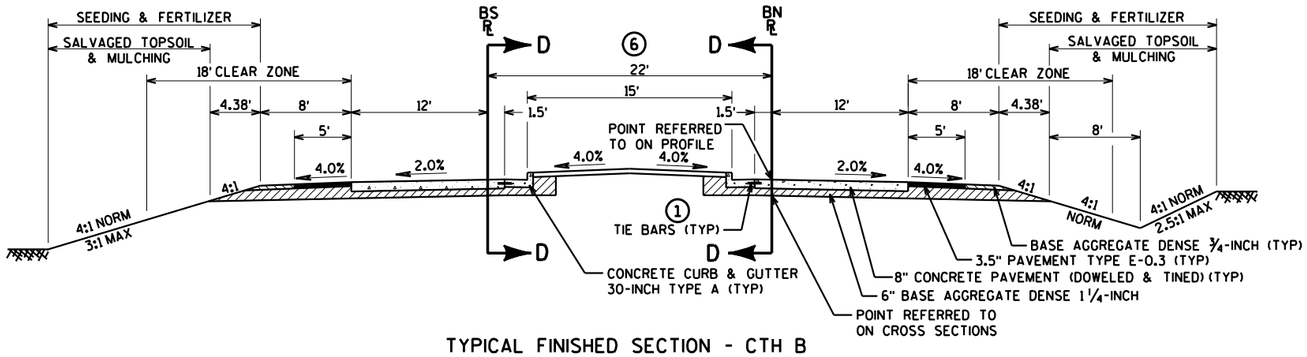
TYPICAL SUPERELEVATED FINISHED SECTION - CTH B

STA 30+00.00 BN - STA 37+60.80 BN



TYPICAL SUPERELEVATED FINISHED SECTION - CTH B

STA 37+60.80 BN - STA 40+54.22 BN



TYPICAL FINISHED SECTION - CTH B

STA 40+54.22 BN - STA 49+99.06 BN

① TIE BARS ARE INCIDENTAL TO CONCRETE PAVEMENT (UNLESS DRILLED INTO EXISTING PAVEMENT)

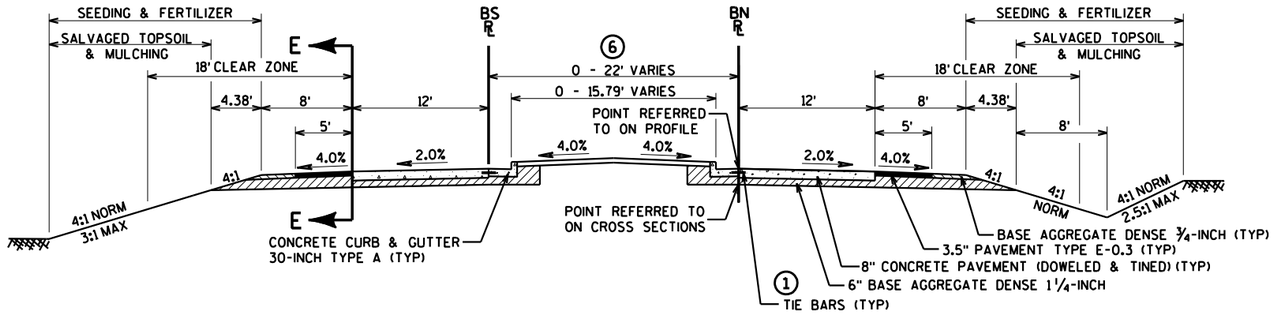
⑥ CONCRETE SIDEWALK 4" OR SALVAGED TOPSOIL, MULCHING, SEEDING & FERTILIZER. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS OF CONCRETE SIDEWALK.

NOTE: ROUTE AND SEAL ALL CONCRETE/ASPHALT JOINTS (SEE DETAIL)

** THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTION EQUALS THE SUPERELEVATION RATE WHEN THE SUPERELEVATION RATE IS GREATER THAN 4%. IF THE SUPERELEVATION RATE IS LESS THAN OR EQUAL TO 4%. THE LOW SIDE SHOULDER SLOPE IS 4%. HIGH SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION RATE. SEE SUPERELEVATION TABLES FOR SE

NOTE:
CROSS SECTIONS FOR CTH B SHOW TEMPORARY WIDENING ALONG SB LANES. SEE CROSS SECTION "CTH B TEMP WIDENING REMOVAL STAGE 5B" FOR FINAL SHOULDER.

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TYPICAL SECTIONS - CTH B	SHEET 11	E



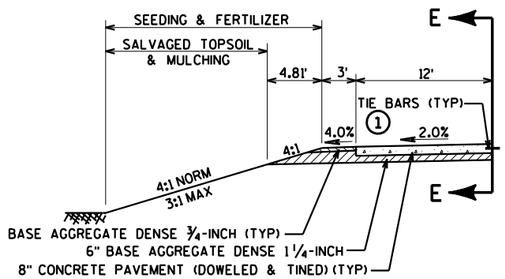
TYPICAL FINISHED SECTION - CTH B

STA 49+99.06 BN - STA 53+50.00 BN

(1) TIE BARS ARE INCIDENTAL TO CONCRETE PAVEMENT (UNLESS DRILLED INTO EXISTING PAVEMENT)

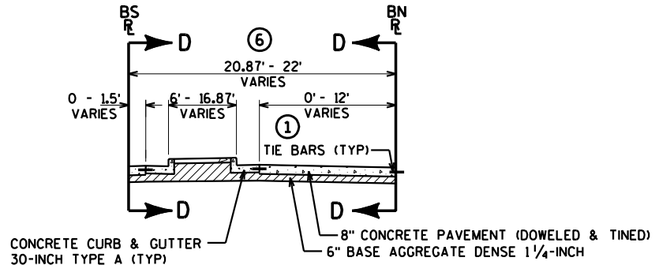
(6) CONCRETE SIDEWALK 4" OR SALVAGED TOPSOIL, MULCHING, SEEDING & FERTILIZER. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS OF CONCRETE SIDEWALK.

NOTE: ROUTE AND SEAL ALL CONCRETE/ASPHALT JOINTS (SEE DETAIL)



SECTION E-E

RIGHT TURN LANE

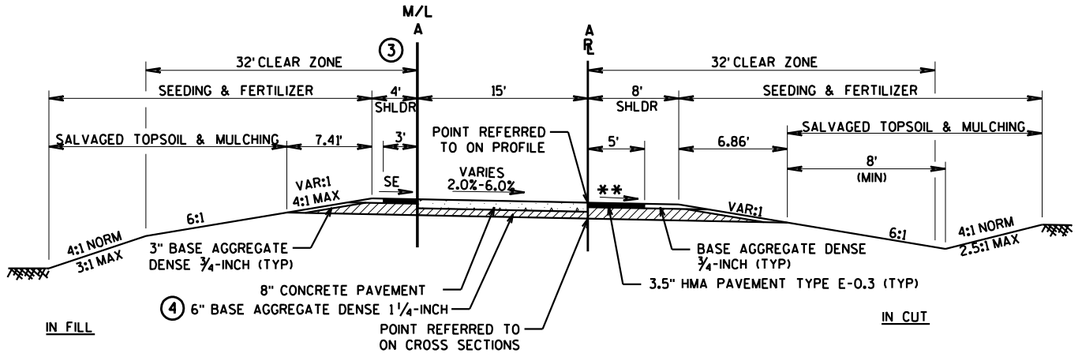


SECTION D-D

LEFT TURN LANE

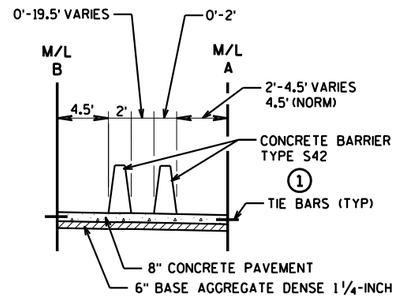
NOTE:
CROSS SECTIONS FOR CTH B SHOW TEMPORARY WIDENING ALONG SB LANES. SEE CROSS SECTION "CTH B TEMP WIDENING REMOVAL STAGE 5B" FOR FINAL SHOULDER.

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TYPICAL SECTIONS - CTH B	SHEET 12	E



TYPICAL FINISHED SECTION - A RAMP

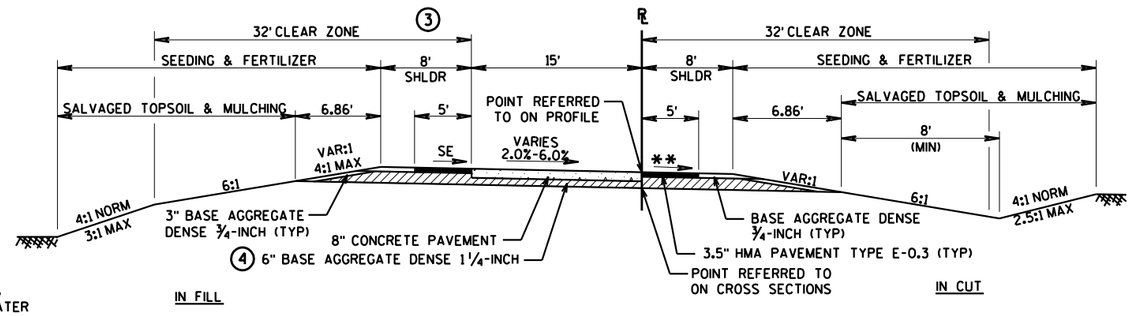
STA 130+94.75 A - STA 144+88.61 A



STA 139+85.00 A - STA 143+71.50 A
STA 136+66.00 B - STA 134+38.00 B

LAYOUT SHOWN BASED ON 'A' RAMP STATIONING.
FOR 'B' RAMP STATIONING LAYOUT IS REVERSED.

SEE SDD "CONCRETE BARRIER SINGLE SLOPE"
FOR ADDITIVE INFORMATION.



(1) TIE BARS ARE INCIDENTAL TO CONCRETE PAVEMENT (UNLESS DRILLED INTO EXISTING PAVEMENT)

(3) SEE INTERCHANGE DETAIL FOR LOCATION OF CONCRETE BARRIER WALL/CURB AND GUTTER.

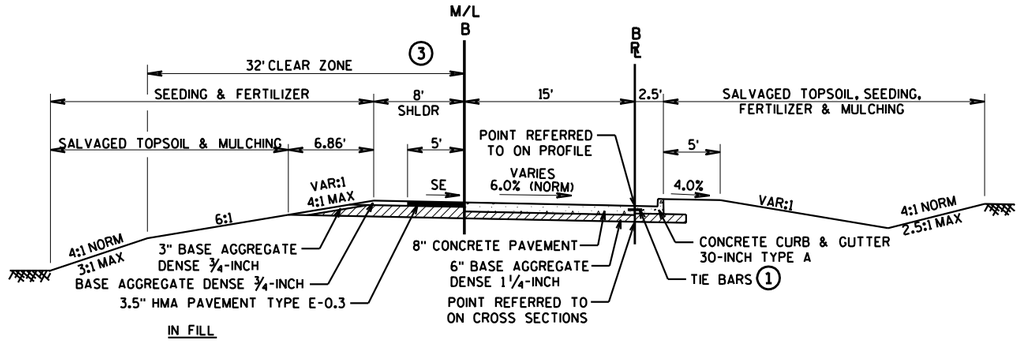
(4) 10" BASE AGGREGATE DENSE WHERE RAMP TIES INTO EB LANES

NOTE: ROUTE AND SEAL ALL CONCRETE/ASPHALT JOINTS (SEE DETAIL)

** THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTION EQUALS THE SUPERELEVATION RATE WHEN THE SUPERELEVATION RATE IS GREATER THAN 4%. IF THE SUPERELEVATION RATE IS LESS THAN OR EQUAL TO 4%. THE LOW SIDE SHOULDER SLOPE IS 4%. HIGH SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION RATE. SEE SUPERELEVATION TABLES FOR SE

TYPICAL FINISHED SECTION - RAMPS

RA RAMP
B RAMP



TYPICAL FINISHED SECTION - B RAMP

STA 131+83.94 B - STA 139+02.58 B

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	TYPICAL SECTIONS - RAMPS	SHEET 13	E

2

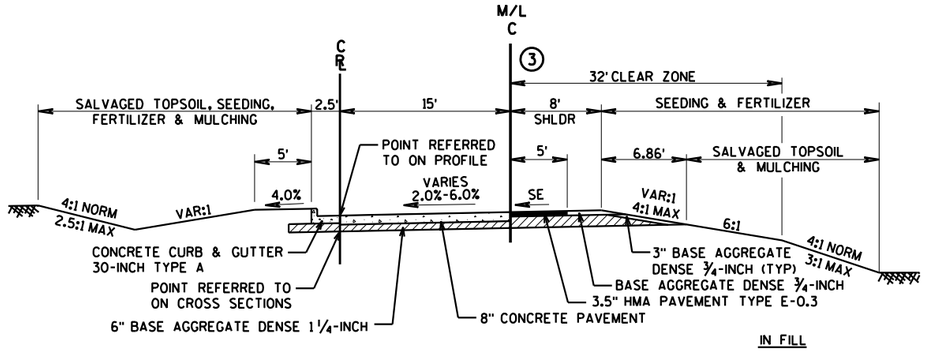
(1) TIE BARS ARE INCIDENTAL TO CONCRETE PAVEMENT (UNLESS DRILLED INTO EXISTING PAVEMENT)

(3) SEE INTERCHANGE DETAIL FOR LOCATION OF CONCRETE BARRIER WALL/CURB AND GUTTER.

(4) 10" BASE AGGREGATE DENSE WHERE RAMP TIES INTO EB LANES

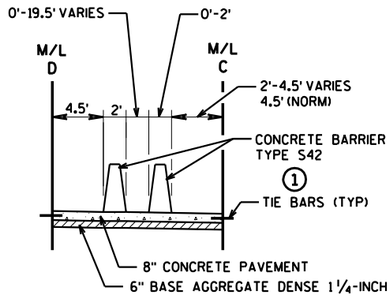
NOTE: ROUTE AND SEAL ALL CONCRETE/ASPHALT JOINTS (SEE DETAIL)

** THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTION EQUALS THE SUPERELEVATION RATE WHEN THE SUPERELEVATION RATE IS GREATER THAN 4%. IF THE SUPERELEVATION RATE IS LESS THAN OR EQUAL TO 4%. THE LOW SIDE SHOULDER SLOPE IS 4%. HIGH SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION RATE. SEE SUPERELEVATION TABLES FOR SE



TYPICAL FINISHED SECTION - C RAMP

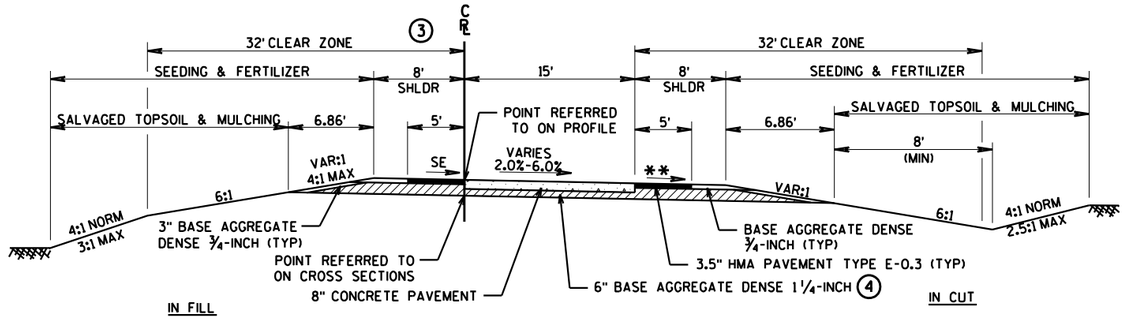
STA 132+73.68 C - STA 141+55.00 C



STA 133+63.30 C - STA 138+34.00 C
STA 140+78.00 D - STA 144+62.00 D

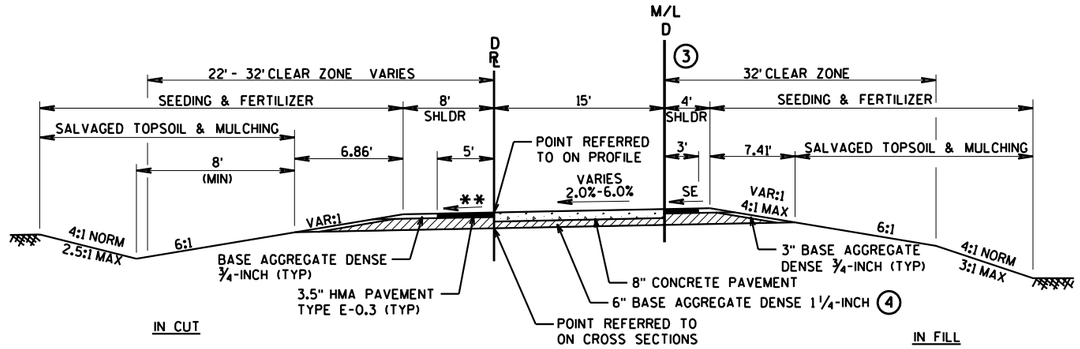
LAYOUT SHOWN BASED ON 'D' RAMP STATIONING. FOR 'C' RAMP STATIONING LAYOUT IS REVERSED.

SEE SDD "CONCRETE BARRIER SINGLE SLOPE" FOR ADDITIONAL INFORMATION.



TYPICAL FINISHED SECTION - C RAMP

STA 141+55.00 C - STA 142+00.00 C



TYPICAL FINISHED SECTION - D RAMP

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	TYPICAL SECTIONS - RAMPS	SHEET 14	E

2

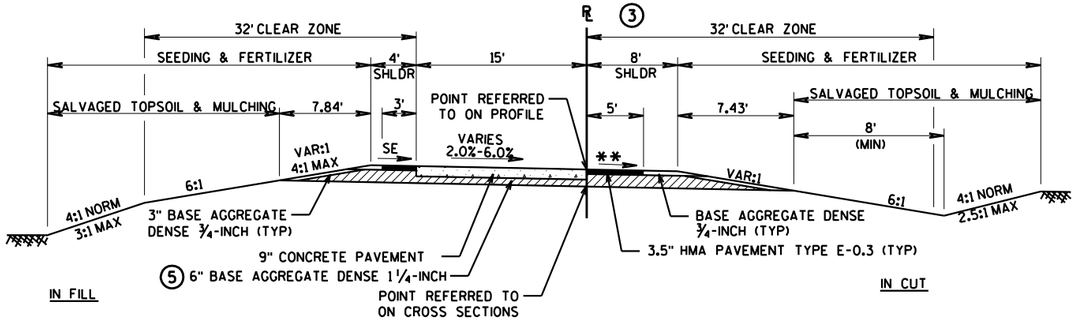
(1) TIE BARS ARE INCIDENTAL TO CONCRETE PAVEMENT (UNLESS DRILLED INTO EXISTING PAVEMENT)

(3) SEE INTERCHANGE DETAIL FOR LOCATION OF CONCRETE BARRIER WALL/CURB AND GUTTER.

(5) 9" BASE AGGREGATE DENSE WHERE RAMP TIES INTO EB LANES

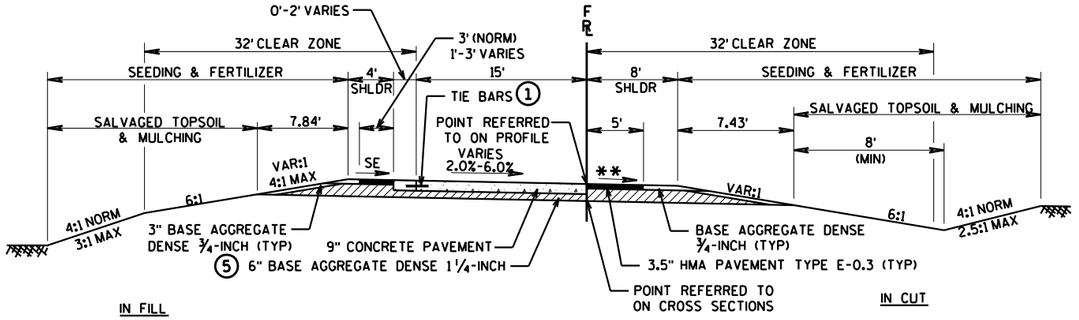
NOTE: ROUTE AND SEAL ALL CONCRETE/ASPHALT JOINTS (SEE DETAIL)

** THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTION EQUALS THE SUPERELEVATION RATE WHEN THE SUPERELEVATION RATE IS GREATER THAN 4%. IF THE SUPERELEVATION RATE IS LESS THAN OR EQUAL TO 4%. THE LOW SIDE SHOULDER SLOPE IS 4%. HIGH SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION RATE. SEE SUPERELEVATION TABLES FOR SE

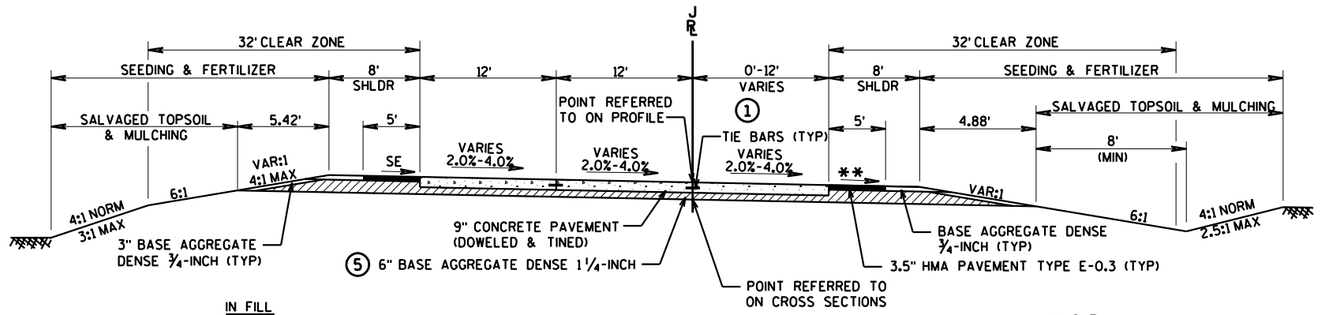


TYPICAL FINISHED SECTION - RAMPS

E RAMP
K RAMP
N RAMP



TYPICAL FINISHED SECTION - F RAMP



TYPICAL FINISHED SECTION - J RAMP

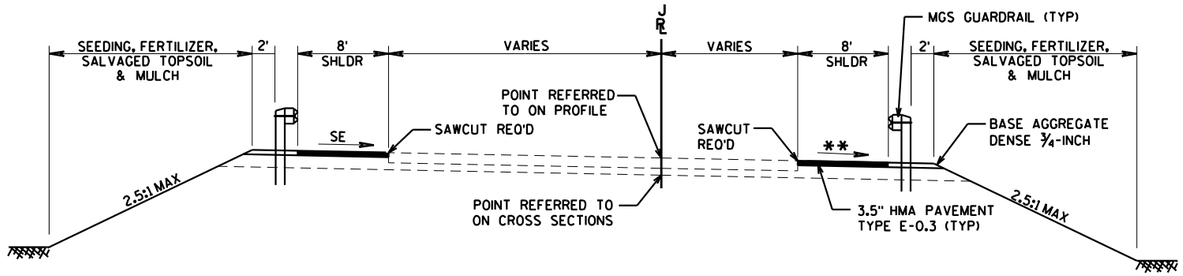
2

① TIE BARS ARE INCIDENTAL TO CONCRETE PAVEMENT (UNLESS DRILLED INTO EXISTING PAVEMENT)

③ SEE INTERCHANGE DETAIL FOR LOCATION OF CONCRETE BARRIER WALL/CURB AND GUTTER.

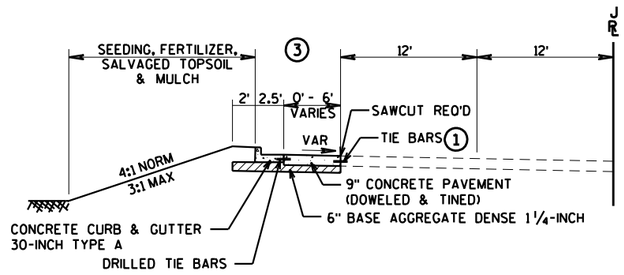
NOTE: ROUTE AND SEAL ALL CONCRETE/ASPHALT JOINTS (SEE DETAIL)

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TYPICAL FINISHED SECTION - J RAMP

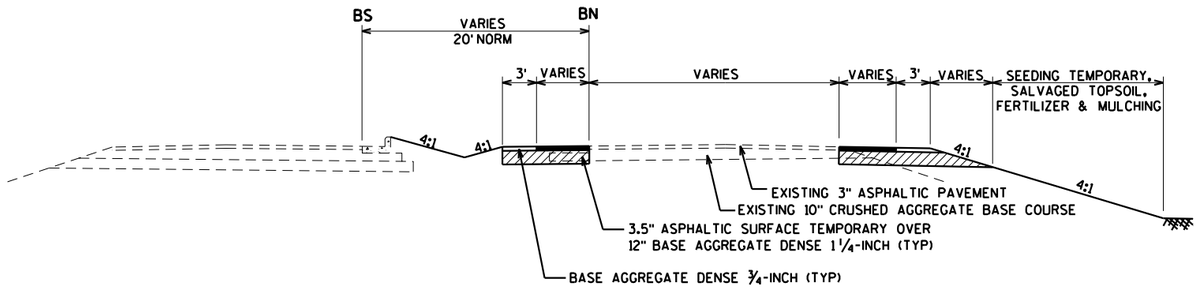
STA 265+41.48 J - STA 266+00.00 J



TYPICAL FINISHED SECTION - J RAMP

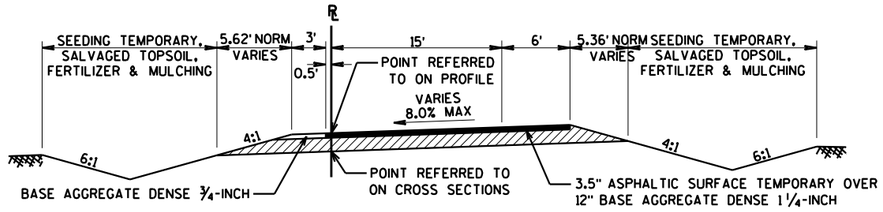
STA 266+00.00 J - STA 267+10.00 J

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	TYPICAL SECTIONS - RAMPS	SHEET 16	E

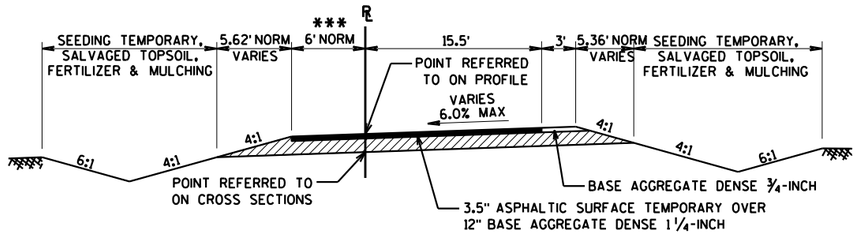


TYPICAL FINISHED SECTION - CTH B NB WIDENING

STA 28+17.00 BN - STA 36+62.00 BN
STA 50+50.00 BN - STA 57+53.00 BN

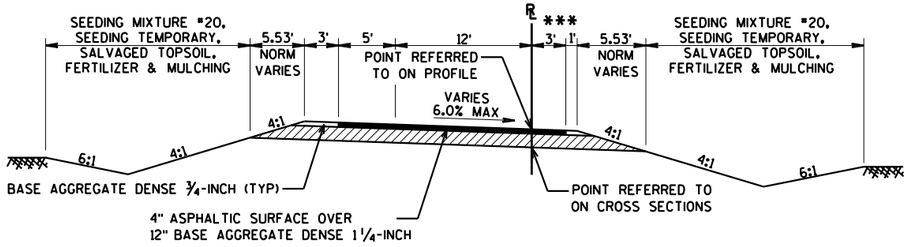


TYPICAL FINISHED SECTION - 'CV' TEMPORARY RAMP



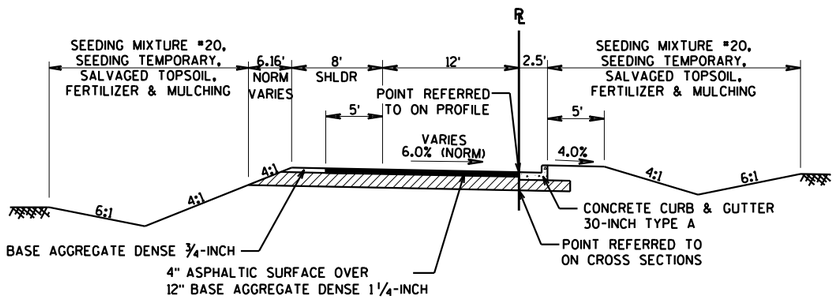
TYPICAL FINISHED SECTION - 'DV' TEMPORARY RAMP

*** ASPHALTIC CURB FROM STA 145+08 DV - STA 146+70 DV



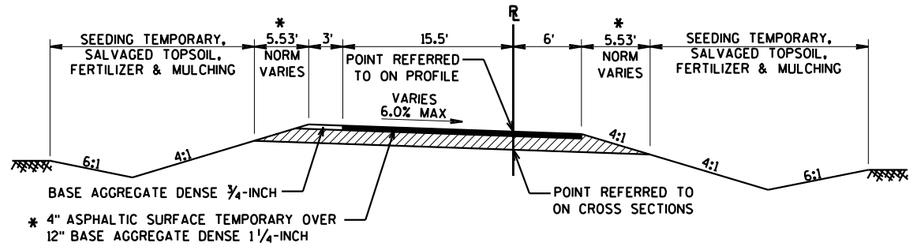
TYPICAL FINISHED SECTION - 'EV' TEMPORARY RAMP

*** CONCRETE CURB & GUTTER 30-INCH TYPE D FROM STA 183+84 EV - STA 185+26.61 EV



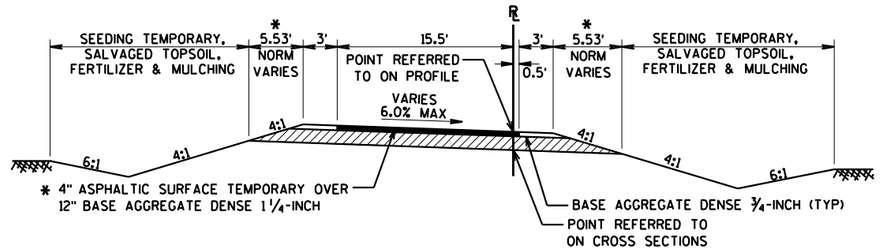
TYPICAL FINISHED SECTION - 'EX' TEMPORARY RAMP

** FOR INFORMATION ONLY PREVIOUSLY CONSTRUCTED BY OTHERS



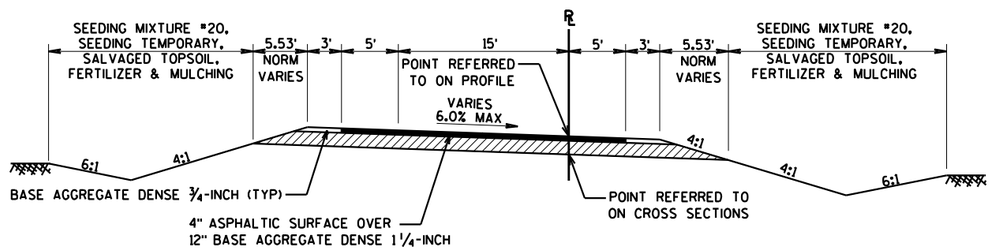
TYPICAL FINISHED SECTION - TEMPORARY RAMPS

'AT' RAMP (3.5" HMA/5.62' GRAVEL RUNOUT) *
'BU' RAMP (3.5" HMA/5.62' GRAVEL RUNOUT) *
'ET' RAMP **
'FU' RAMP **
'JV' RAMP
'KU' RAMP

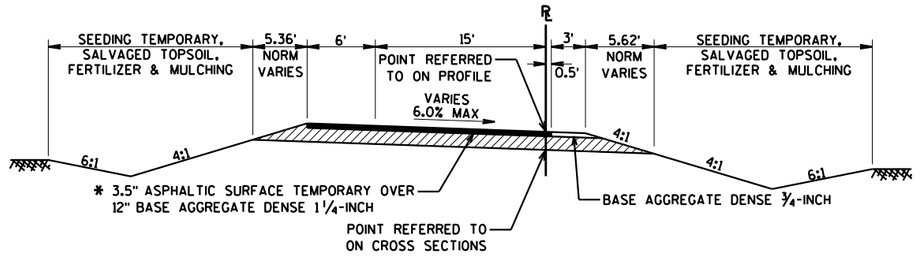


TYPICAL FINISHED SECTION - TEMPORARY RAMPS

'BU' RAMP (3.5" HMA/4.78' GRAVEL RUNOUT) (MEDIAN X-OVER) *
'EU' RAMP
'EW' RAMP
'FU' RAMP **
'KT' RAMP **



TYPICAL FINISHED SECTION - 'FQ' TEMPORARY RAMP

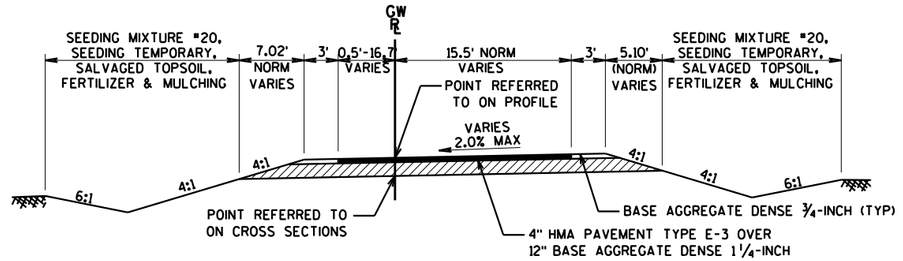


TYPICAL FINISHED SECTION - TEMPORARY RAMPS

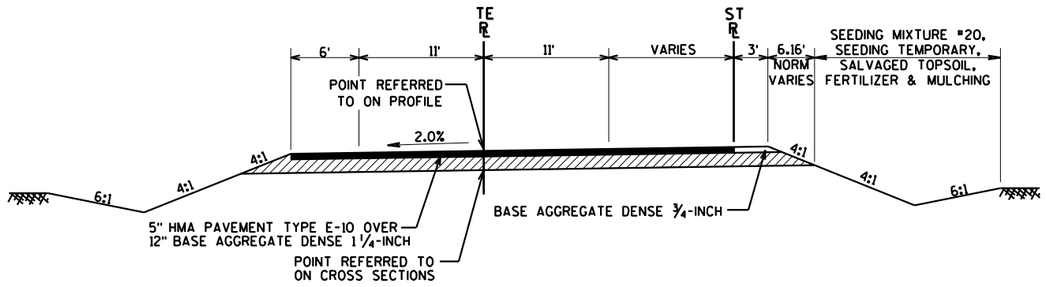
'AU' RAMP
'BT' RAMP
'JU' RAMP (4" HMA/5.53' GRAVEL RUNOUT) *

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	TYPICAL SECTIONS - TEMPORARY	SHEET 18	E

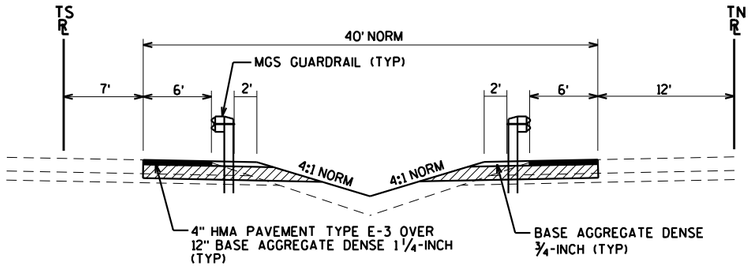
2



TYPICAL FINISHED SECTION - 'GW' TEMPORARY RAMP **



TYPICAL FINISHED SECTION - 'TE' LINE (TEMPORARY CROSSOVER) **



TYPICAL FINISHED SECTION - TN & TS LINE (ROSE TEMPORARY WIDENING) **

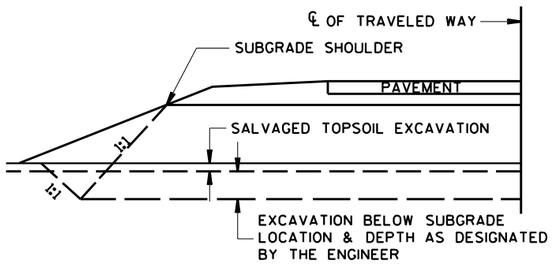
** FOR INFORMATION ONLY PREVIOUSLY CONSTRUCTED BY OTHERS

2

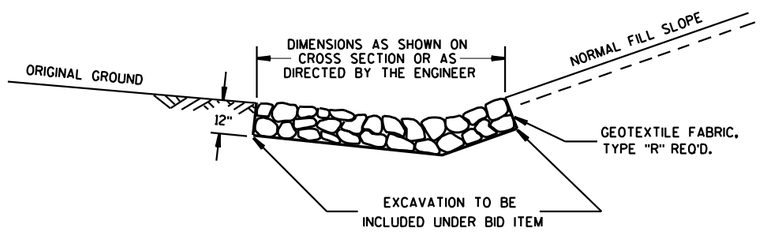
RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

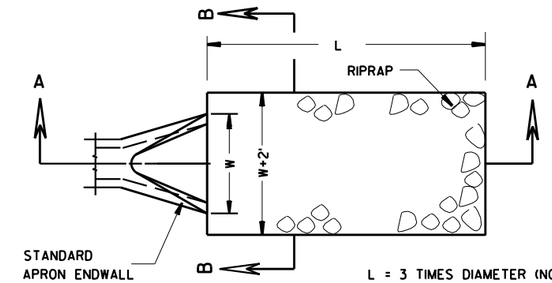
TOTAL PROJECT AREA = 232.5 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 73.5 ACRES



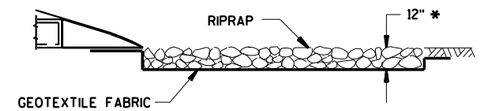
DETAIL FOR EXCAVATION BELOW SUBGRADE



DETAIL FOR RIPRAP IN DITCHES

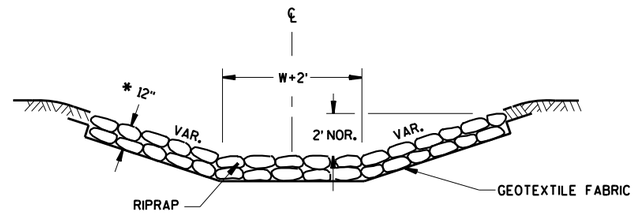


L = 3 TIMES DIAMETER (NOR.) OR
10' MIN. OR AS DIRECTED BY THE
ENGINEER



SECTION A-A

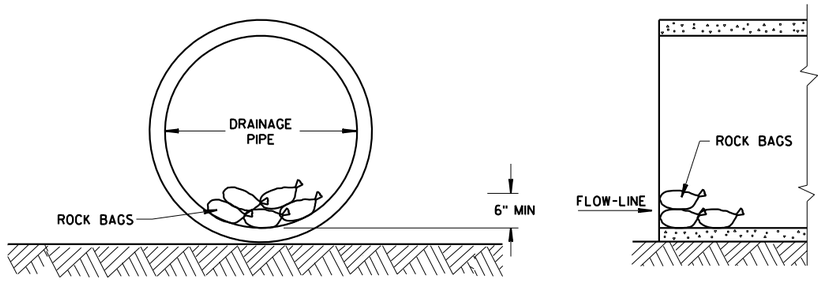
* USE 1' MIN DEPTH FOR RIPRAP LIGHT
USE 2' MIN DEPTH FOR RIPRAP HEAVY



SECTION B-B

RIPRAP AND GEOTEXTILE FABRIC DETAIL
AT APRON ENDWALLS

NOTE: SEE MISCELLANEOUS QUANTITIES FOR TYPE
OF RIPRAP AND GEOTEXTILE FABRIC TO BE USED.

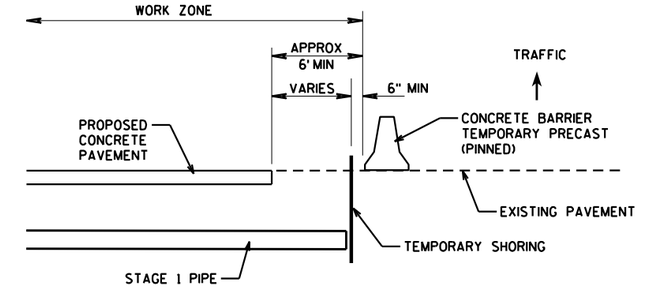


FRONT VIEW

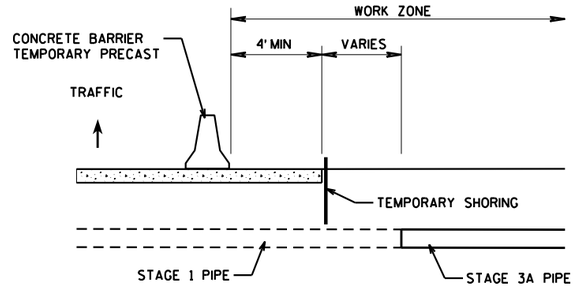
SECTION VIEW

CULVERT PIPE CHECKS
(PLACE AT ALL INLET ENDS OF ALL PIPES)

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	CONSTRUCTION DETAILS	SHEET 20	E



STAGE 1



STAGE 3A

PIPE CONSTRUCTION DETAIL

STA 264+50 J

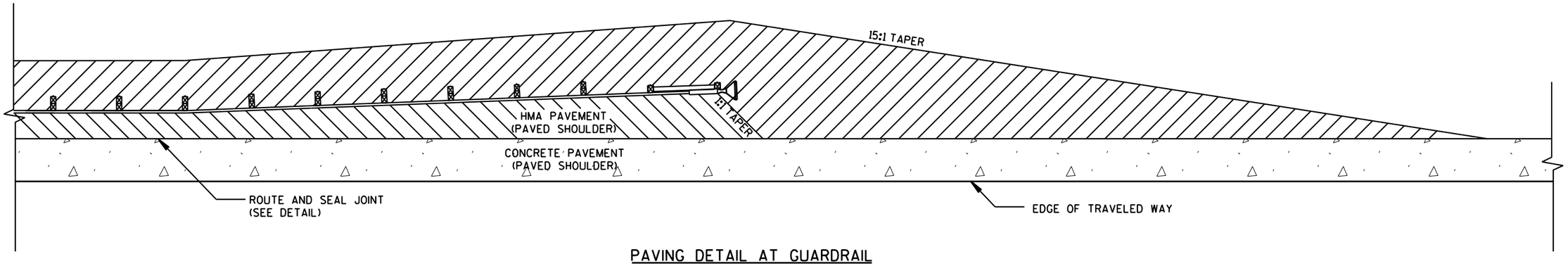
PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	CONSTRUCTION DETAILS	SHEET 21	E

BASE AGGREGATE DENSE (SHOULDER)

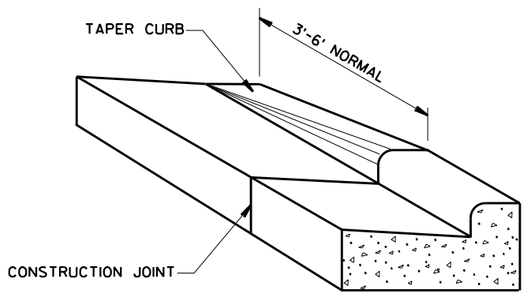
3.5" HMA PAVEMENT E-0.3 (SHOULDER)

CONCRETE PAVEMENT (SHOULDER)
(SEE TYPICAL SECTIONS)

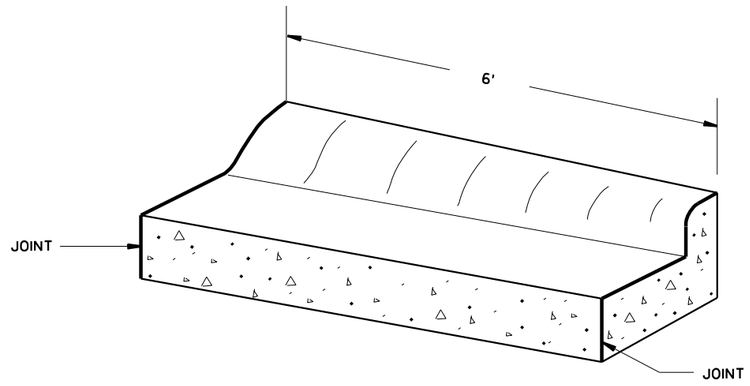
NOTE: SEE STANDARD DETAIL DRAWINGS
MIDWEST GUARDRAIL SYSTEM SYSTEM (MGS) GUARDRAIL
MIDWEST GUARDRAIL SYSTEM (MGS) EAT
MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION
FOR ADDITIONAL INFORMATION



PAVING DETAIL AT GUARDRAIL

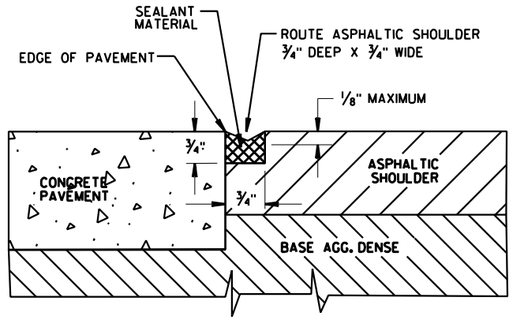


DETAIL OF CURB & GUTTER TERMINI



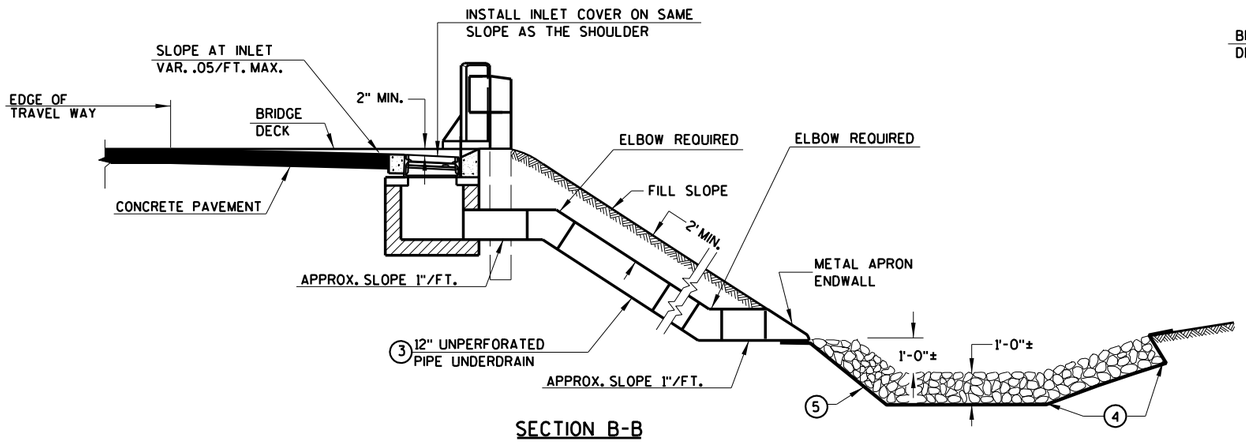
TRANSITION DETAIL

36" TYPE "A" CURB & GUTTER TO 30" TYPE "A" CURB & GUTTER
(TO BE MEASURED & PAID FOR AS 36" CONC. C&G)

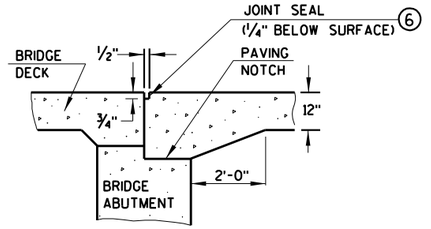


ROUTE AND SEAL DETAIL

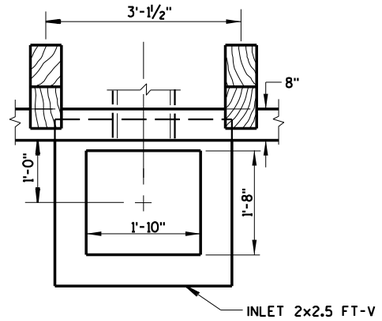
PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	CONSTRUCTION DETAILS	SHEET 22	E



SECTION B-B



SECTION D-D

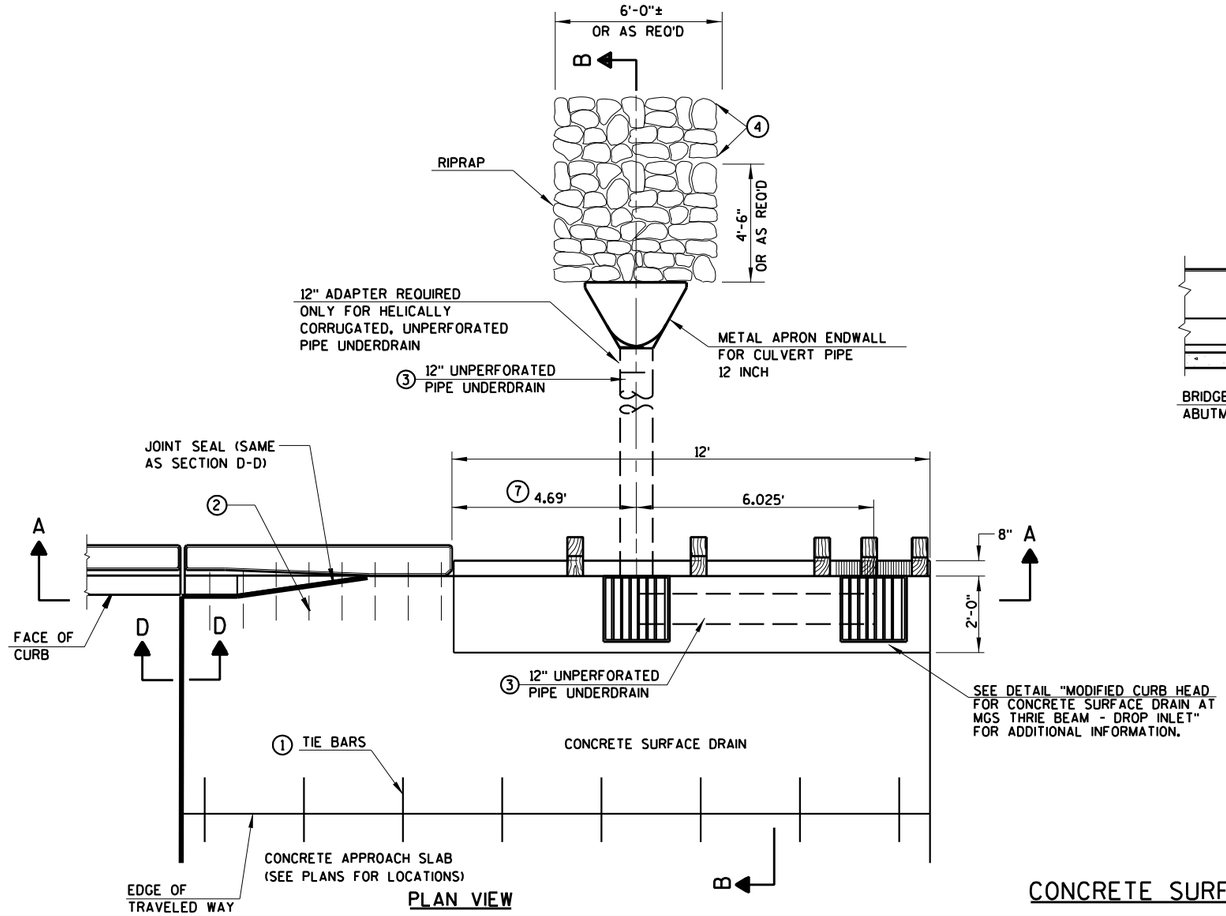


PLAN VIEW

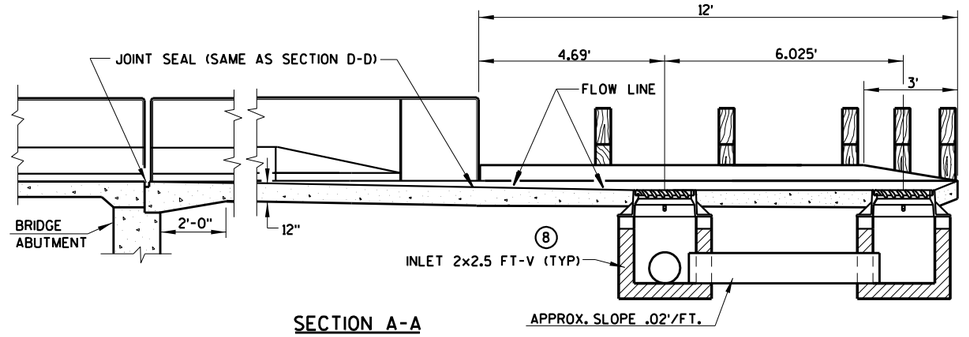
GENERAL NOTES

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

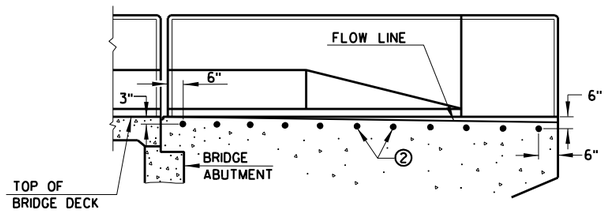
1. NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS.
2. NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. THE PIPE UNDERDRAIN MAY BE CORRUGATED POLYETHYLENE, POLYVINYL CHLORIDE, OR ACRYLONITRILE-BUTADIENE-STYRENE DRAINAGE PIPES AS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2.
4. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
5. GEOTEXTILE FABRIC, TYPE R
6. HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.
7. THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE MGS THRIE BEAM TRANSITION. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½". LAYOUT POSTS BEFORE INLET INSTALLATION.
8. SEE STANDARD DETAIL DRAWINGS "INLET AND MANHOLE COVERS" AND "INLETS 2x2-FT, 2x2.5-FT, 2x3-FT, & 2.5x3-FT" FOR ADDITIONAL DETAILS.



PLAN VIEW



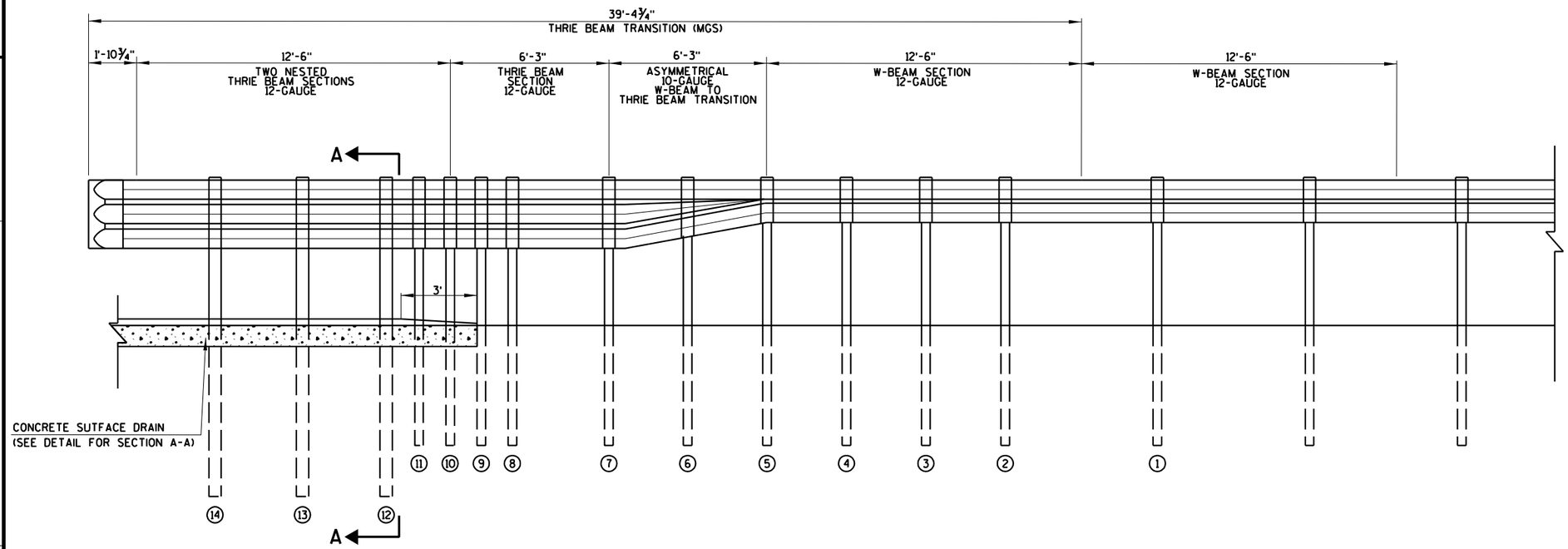
SECTION A-A



LOCATION OF TIE BARS IN WINGWALL

CONCRETE SURFACE DRAIN DROP INLET

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	CONSTRUCTION DETAILS	SHEET 23	E

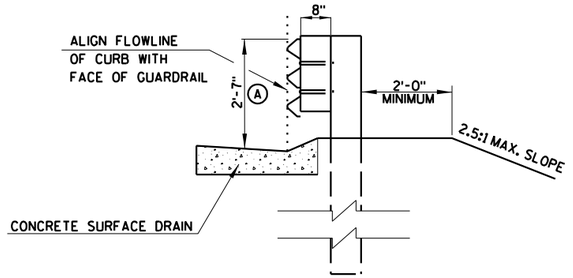


SEE SDD "MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL" AND "MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)" FOR ADDITIONAL DETAIL.

SEE SDD "CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES" FOR ADDITIONAL DETAILS

MODIFIED CURB HEAD CONSTRUCTION IS INCIDENTAL TO CONCRETE SURFACE DRAIN

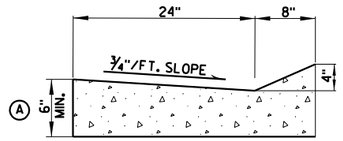
MODIFIED CURB HEAD FOR CONCRETE SURFACE DRAIN AT MGS THRIE BEAM - DROP INLET



SECTION A-A
POSTS 12-14

(A) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1".

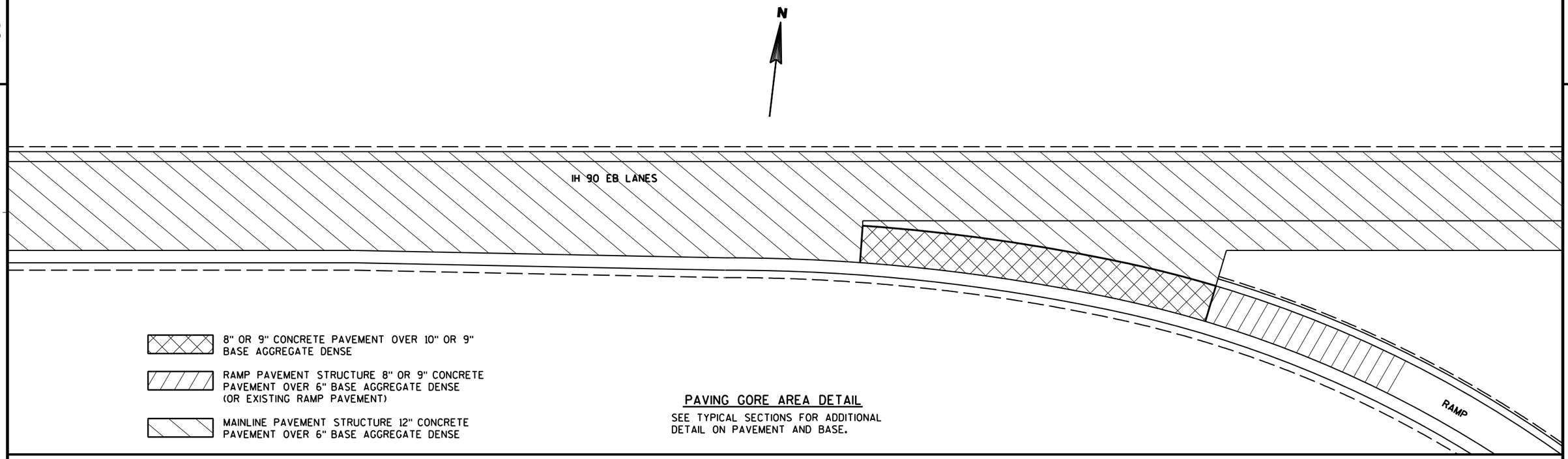
(A) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.



CONCRETE SURFACE DRAIN

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	CONSTRUCTION DETAILS	SHEET 24	E

2



8" OR 9" CONCRETE PAVEMENT OVER 10" OR 9" BASE AGGREGATE DENSE

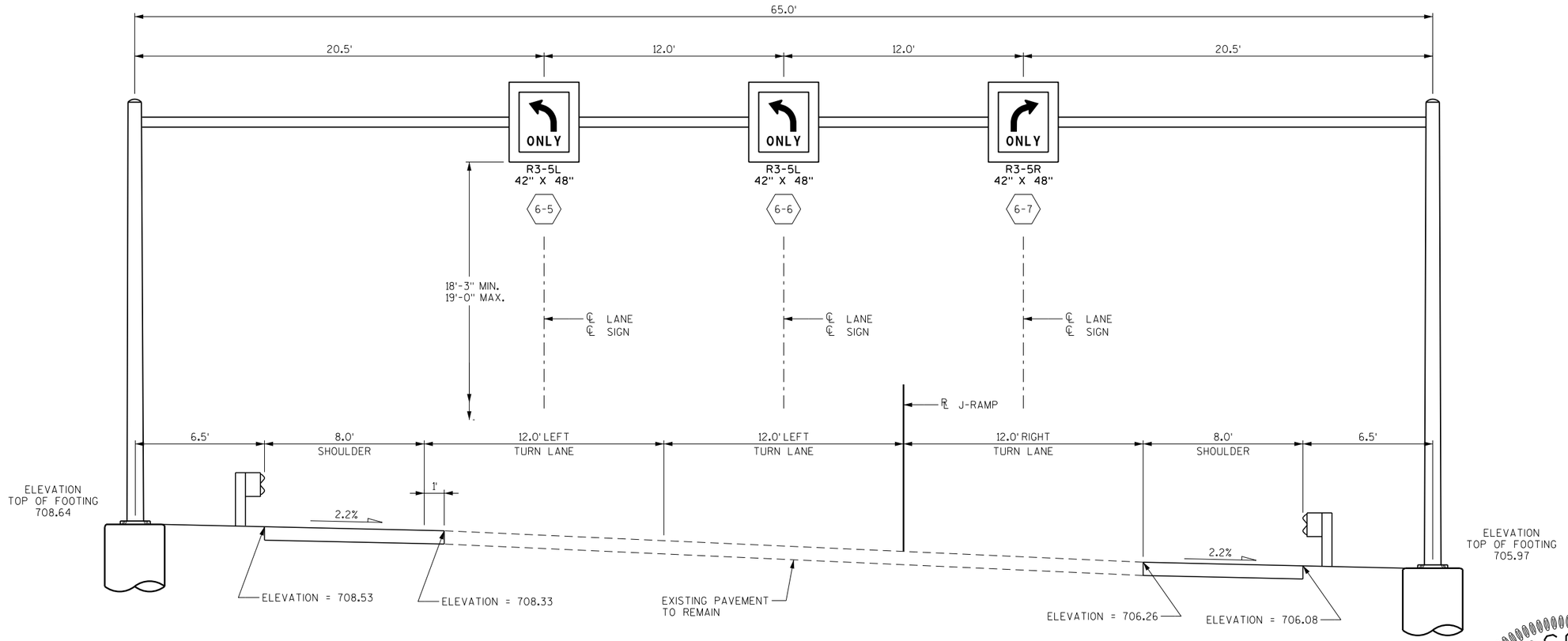
RAMP PAVEMENT STRUCTURE 8" OR 9" CONCRETE PAVEMENT OVER 6" BASE AGGREGATE DENSE (OR EXISTING RAMP PAVEMENT)

MAINLINE PAVEMENT STRUCTURE 12" CONCRETE PAVEMENT OVER 6" BASE AGGREGATE DENSE

PAVING GORE AREA DETAIL

SEE TYPICAL SECTIONS FOR ADDITIONAL DETAIL ON PAVEMENT AND BASE.

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	CONSTRUCTION DETAIL	SHEET 25	E



LEGEND

(X-X) DENOTES SIGN NUMBER

GENERAL NOTES:

DRAWINGS ARE NOT TO BE SCALED.

DESIGN ACCORDING TO AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SIGN SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS".

WIND VELOCITY PER WISDOT STANDARD SPECIFICATIONS.

FOOTING SHALL BE PER STANDARD DETAIL DRAWING, "36-INCH DIAMETER FULL SPAN OVERHEAD SIGN SUPPORT BASE".

SIGN SUPPORT BEAMS AND REQUIRED PER SPECIFICATIONS AND ARE INCIDENTAL TO THE SIGN.

OVERHEAD SIGN SUPPORT DETAIL

S-32-61
STA. 265+50 J
IH 90 EB OFF RAMP
(FACING EAST)

NOTE:

CONTRACTOR SHALL:

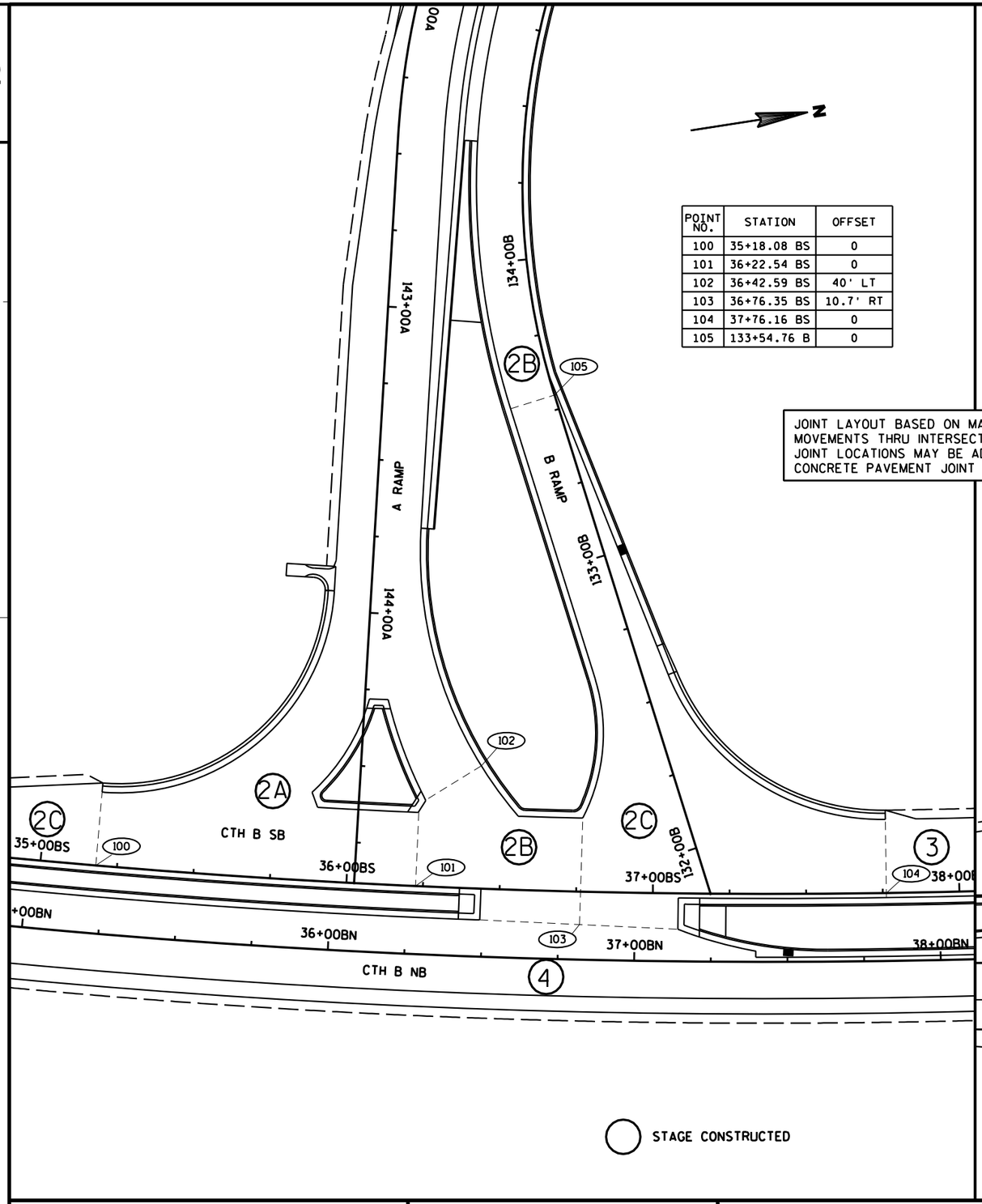
- SUBMIT SHOP DRAWINGS OF OVERHEAD SIGN SUPPORT. FOOTING IS INCIDENTAL TO OVERHEAD SIGN SUPPORT.
- PROVIDE DESIGN CALCULATIONS.
- SHOW SIGNS ON SHOP DRAWINGS.
- I.D. PLAQUE INCIDENTAL TO OVERHEAD SIGN SUPPORT.
- 6 ANCHOR RODS PER STANDARD DETAIL DRAWING ARE REQUIRED.

ALLOWABLE DESIGN STRESSES	
CONCRETE MASONRY	f'c = 3,500 PSI
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 PSI
FOUNDATION DATA	
ALLOWABLE SOIL BEARING PRESSURE	3,000 PSF

WISCONSIN
MOAZ A. KHAN
E-43764
WAUKESHA
WI
PROFESSIONAL ENGINEER
7/30/15

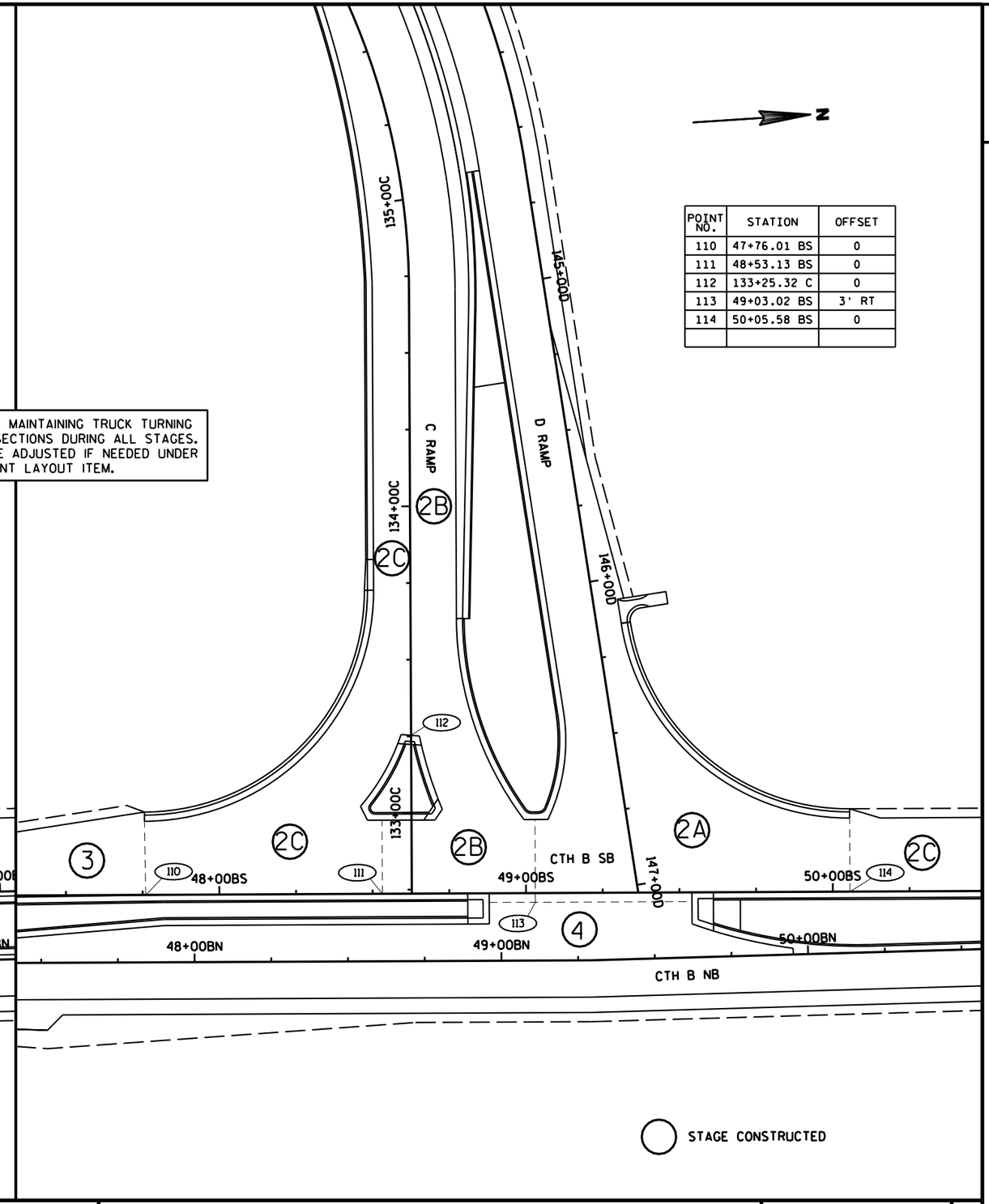
KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Consultants
3636 N. 124th Street
Wauwatosa, WI 53222
Phone: (262) 821-1171 www.ksaconsultants.com

2



POINT NO.	STATION	OFFSET
100	35+18.08 BS	0
101	36+22.54 BS	0
102	36+42.59 BS	40' LT
103	36+76.35 BS	10.7' RT
104	37+76.16 BS	0
105	133+54.76 B	0

JOINT LAYOUT BASED ON MAINTAINING TRUCK TURNING MOVEMENTS THRU INTERSECTIONS DURING ALL STAGES. JOINT LOCATIONS MAY BE ADJUSTED IF NEEDED UNDER CONCRETE PAVEMENT JOINT LAYOUT ITEM.



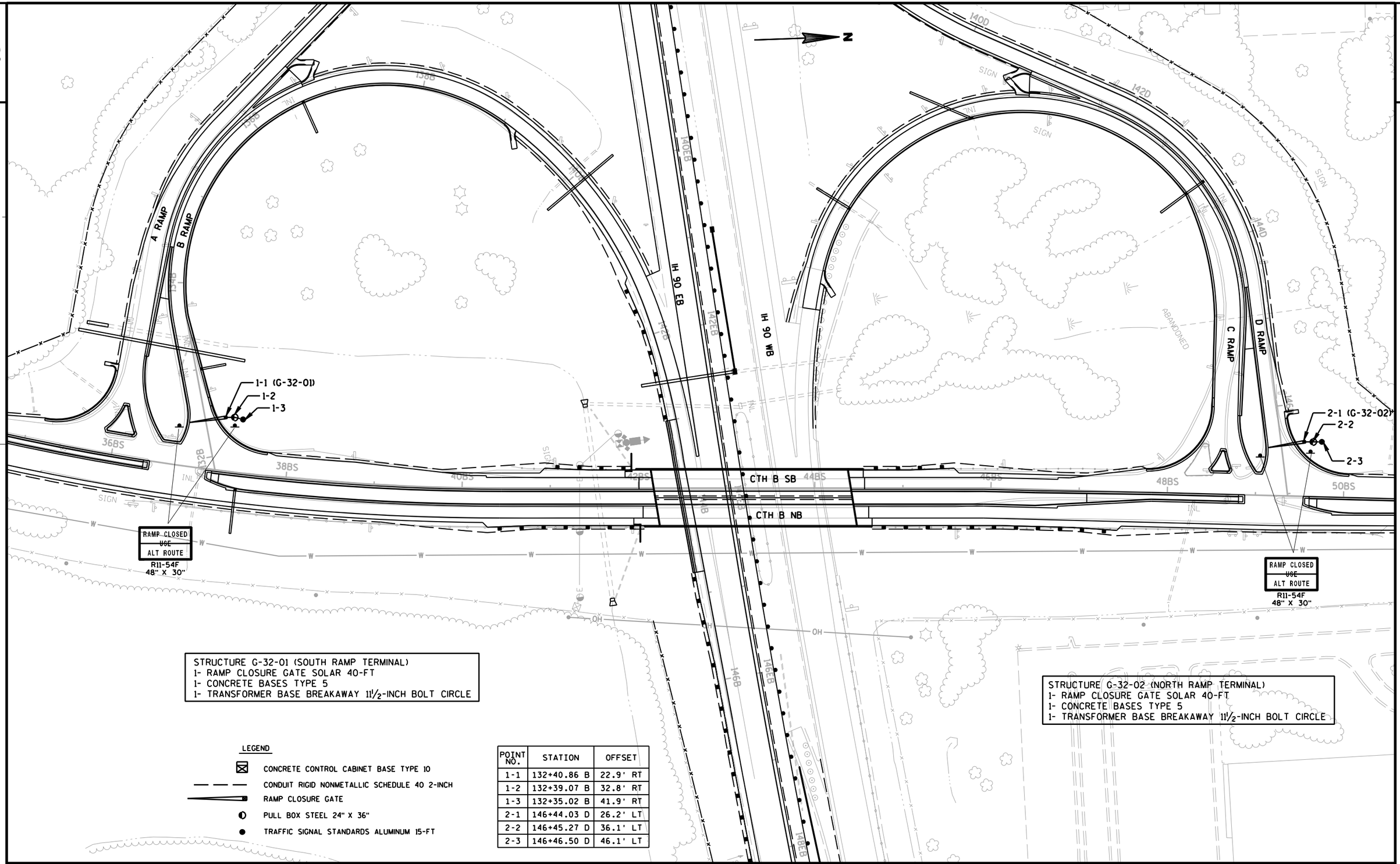
POINT NO.	STATION	OFFSET
110	47+76.01 BS	0
111	48+53.13 BS	0
112	133+25.32 C	0
113	49+03.02 BS	3' RT
114	50+05.58 BS	0

STAGE CONSTRUCTED

STAGE CONSTRUCTED

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CONSTRUCTION DETAIL - STAGING JOINTS	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_021004_cd.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42



STRUCTURE G-32-01 (SOUTH RAMP TERMINAL)
1- RAMP CLOSURE GATE SOLAR 40-FT
1- CONCRETE BASES TYPE 5
1- TRANSFORMER BASE BREAKAWAY 11½-INCH BOLT CIRCLE

STRUCTURE G-32-02 (NORTH RAMP TERMINAL)
1- RAMP CLOSURE GATE SOLAR 40-FT
1- CONCRETE BASES TYPE 5
1- TRANSFORMER BASE BREAKAWAY 11½-INCH BOLT CIRCLE

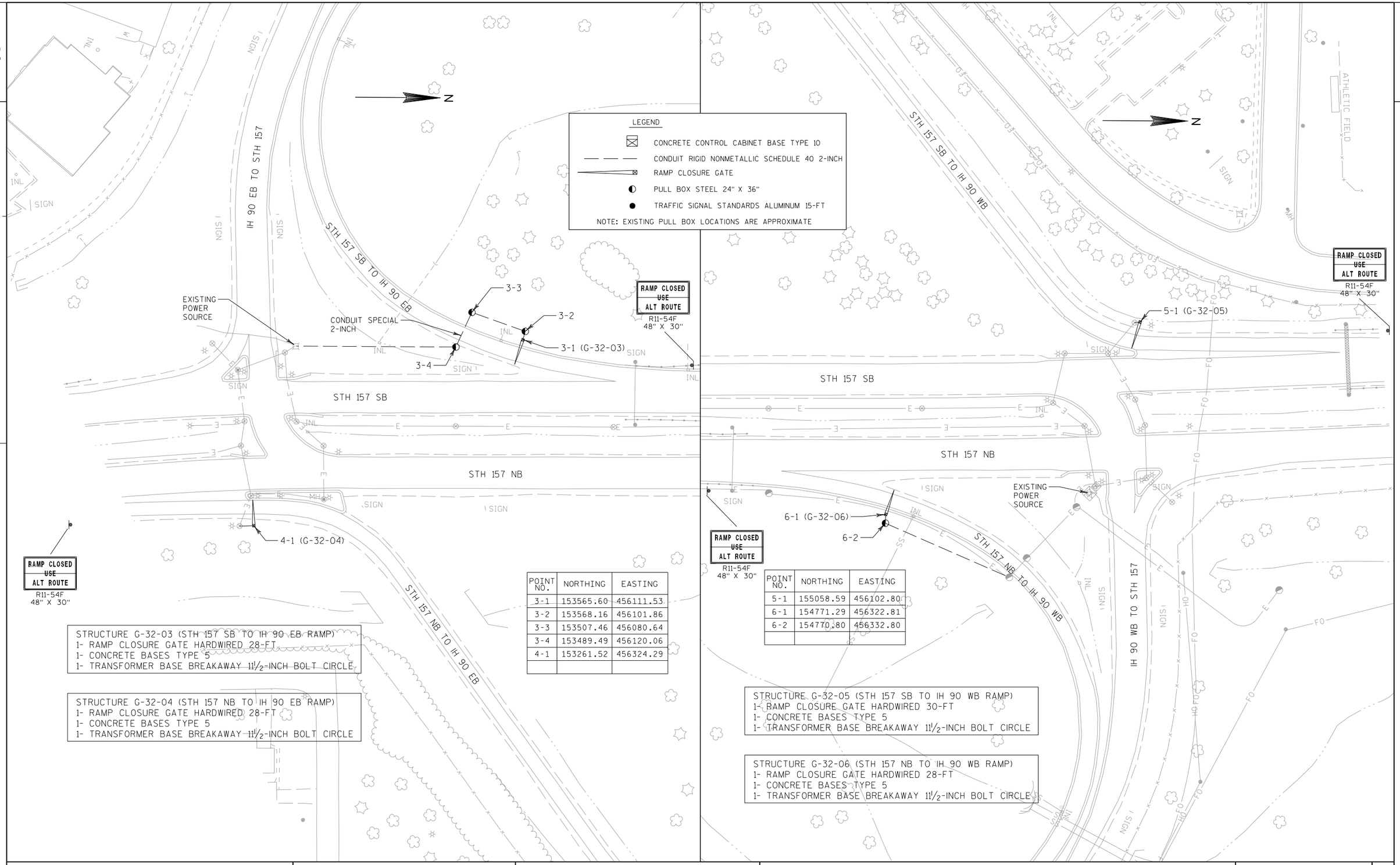
LEGEND

- CONCRETE CONTROL CABINET BASE TYPE 10
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
- RAMP CLOSURE GATE
- PULL BOX STEEL 24" X 36"
- TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT

POINT NO.	STATION	OFFSET
1-1	132+40.86 B	22.9' RT
1-2	132+39.07 B	32.8' RT
1-3	132+35.02 B	41.9' RT
2-1	146+44.03 D	26.2' LT
2-2	146+45.27 D	36.1' LT
2-3	146+46.50 D	46.1' LT

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	RAMP GATE SOLAR POWER DETAIL - CTH B	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_021005_cd.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100



POINT NO.	NORTHING	EASTING
3-1	153565.60	456111.53
3-2	153568.16	456101.86
3-3	153507.46	456080.64
3-4	153489.49	456120.06
4-1	153261.52	456324.29

POINT NO.	NORTHING	EASTING
5-1	155058.59	456102.80
6-1	154771.29	456322.81
6-2	154770.80	456332.80

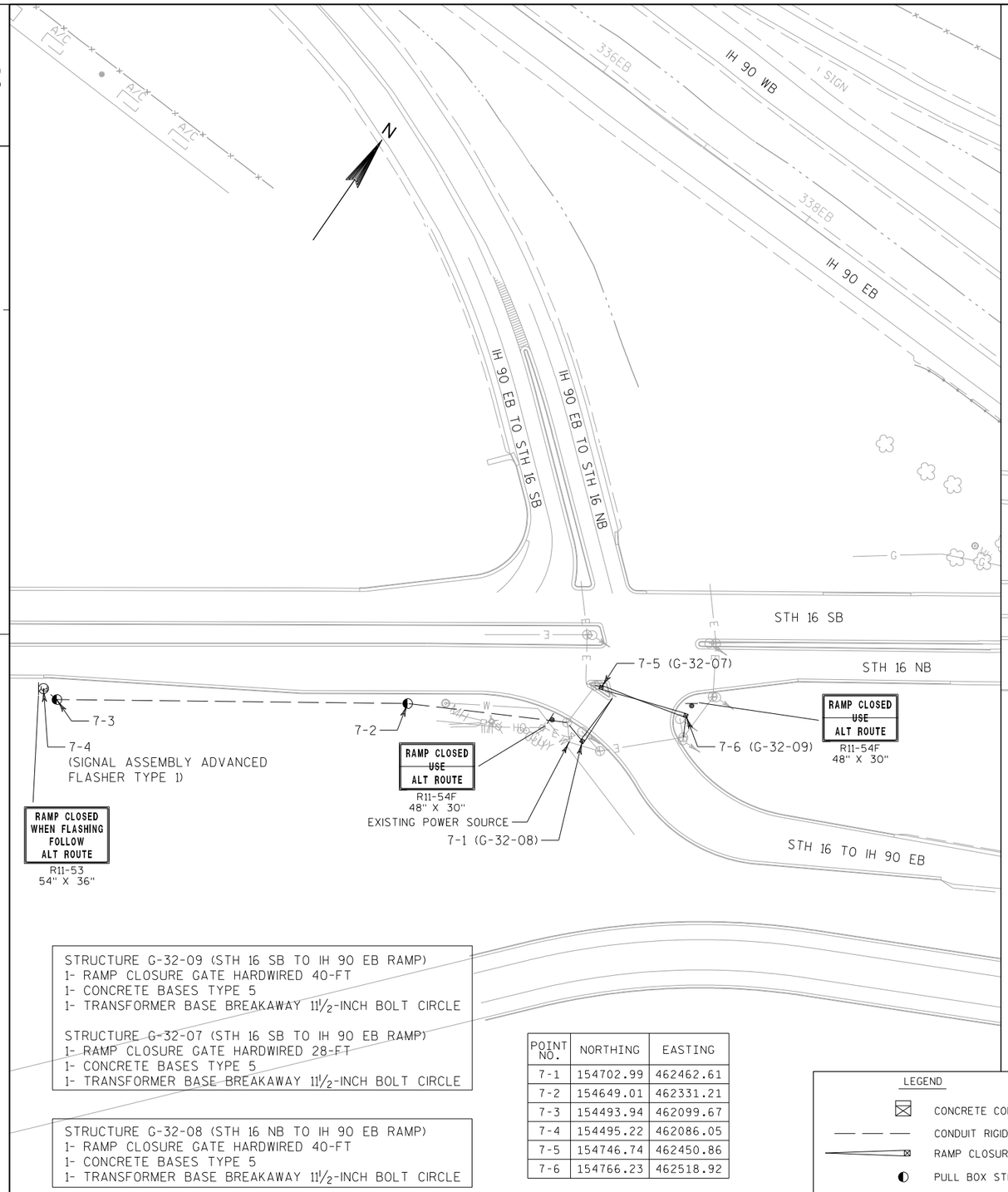
STRUCTURE G-32-03 (STH 157 SB TO IH 90 EB RAMP)
1- RAMP CLOSURE GATE HARDWIRED 28-FT
1- CONCRETE BASES TYPE 5
1- TRANSFORMER BASE BREAKAWAY 11½-INCH BOLT CIRCLE

STRUCTURE G-32-04 (STH 157 NB TO IH 90 EB RAMP)
1- RAMP CLOSURE GATE HARDWIRED 28-FT
1- CONCRETE BASES TYPE 5
1- TRANSFORMER BASE BREAKAWAY 11½-INCH BOLT CIRCLE

STRUCTURE G-32-05 (STH 157 SB TO IH 90 WB RAMP)
1- RAMP CLOSURE GATE HARDWIRED 30-FT
1- CONCRETE BASES TYPE 5
1- TRANSFORMER BASE BREAKAWAY 11½-INCH BOLT CIRCLE

STRUCTURE G-32-06 (STH 157 NB TO IH 90 WB RAMP)
1- RAMP CLOSURE GATE HARDWIRED 28-FT
1- CONCRETE BASES TYPE 5
1- TRANSFORMER BASE BREAKAWAY 11½-INCH BOLT CIRCLE

PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	RAMP GATE HARD WIRED DETAIL - STH 157	SHEET 29	E



STRUCTURE G-32-09 (STH 16 SB TO IH 90 EB RAMP)
1- RAMP CLOSURE GATE HARDWIRED 40-FT
1- CONCRETE BASES TYPE 5
1- TRANSFORMER BASE BREAKAWAY 11½-INCH BOLT CIRCLE

STRUCTURE G-32-07 (STH 16 SB TO IH 90 EB RAMP)
1- RAMP CLOSURE GATE HARDWIRED 28-FT
1- CONCRETE BASES TYPE 5
1- TRANSFORMER BASE BREAKAWAY 11½-INCH BOLT CIRCLE

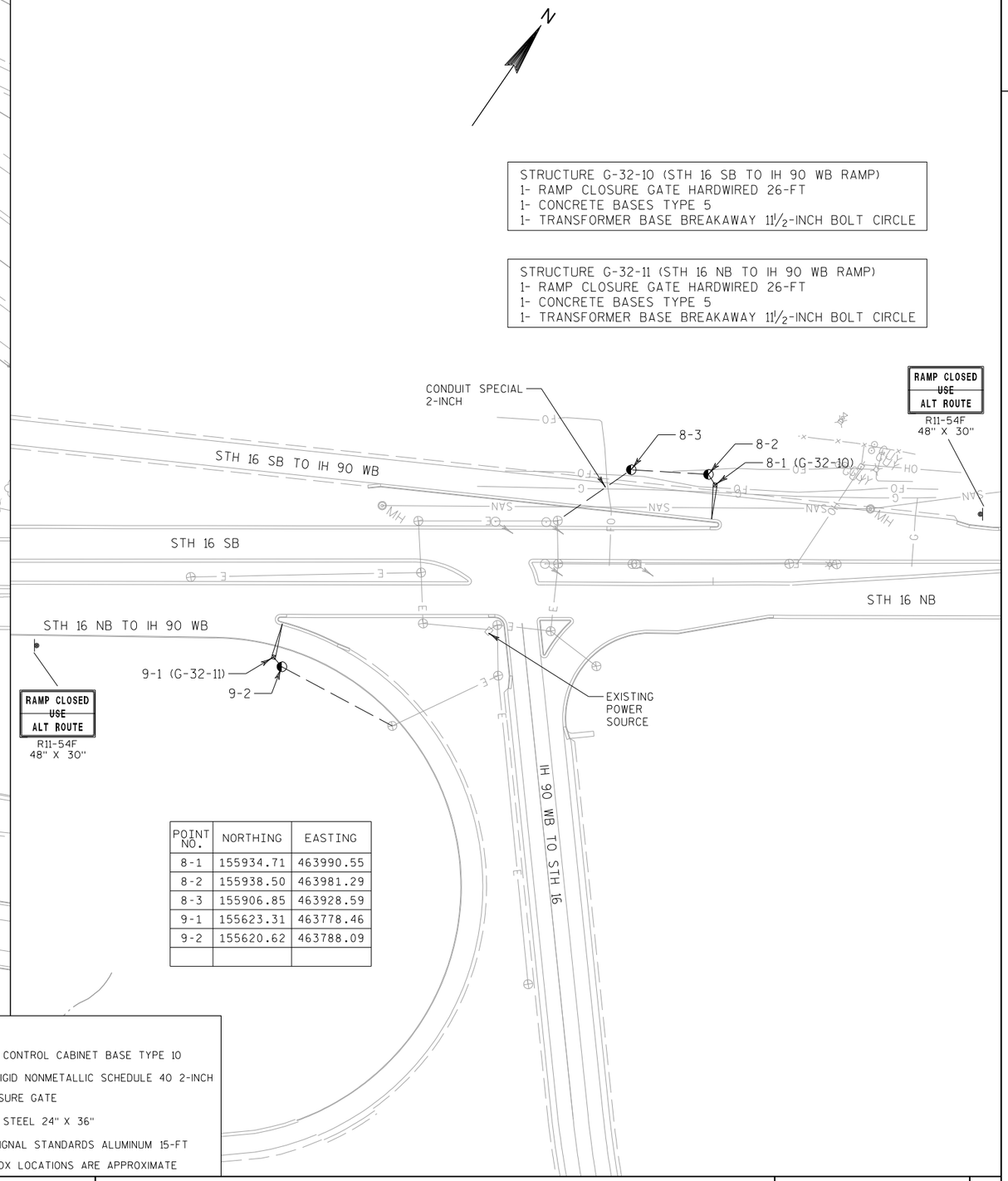
STRUCTURE G-32-08 (STH 16 NB TO IH 90 EB RAMP)
1- RAMP CLOSURE GATE HARDWIRED 40-FT
1- CONCRETE BASES TYPE 5
1- TRANSFORMER BASE BREAKAWAY 11½-INCH BOLT CIRCLE

POINT NO.	NORTHING	EASTING
7-1	154702.99	462462.61
7-2	154649.01	462331.21
7-3	154493.94	462099.67
7-4	154495.22	462086.05
7-5	154746.74	462450.86
7-6	154766.23	462518.92

LEGEND

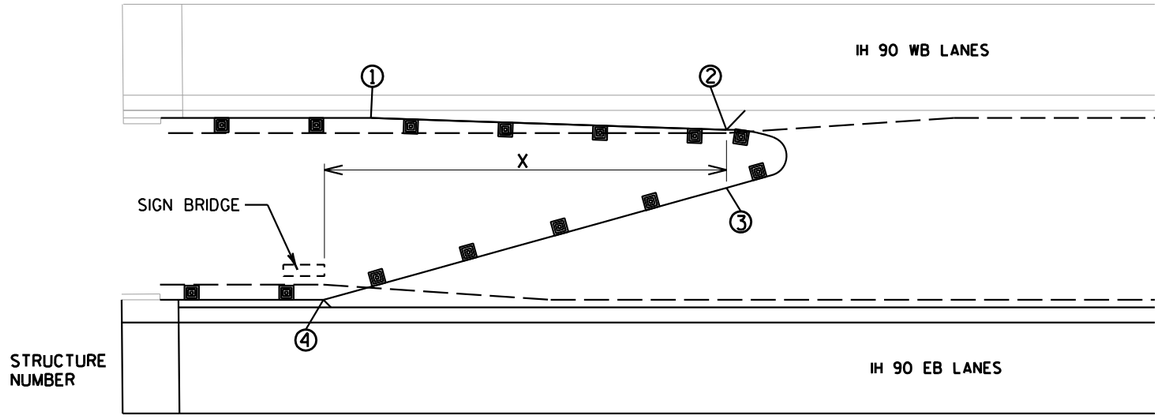
- CONCRETE CONTROL CABINET BASE TYPE 10
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
- RAMP CLOSURE GATE
- PULL BOX STEEL 24" X 36"
- TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT

NOTE: EXISTING PULL BOX LOCATIONS ARE APPROXIMATE



POINT NO.	NORTHING	EASTING
8-1	155934.71	463990.55
8-2	155938.50	463981.29
8-3	155906.85	463928.59
9-1	155623.31	463778.46
9-2	155620.62	463788.09

PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	RAMP GATE HARD WIRED DETAIL - STH 16	SHEET 30	E

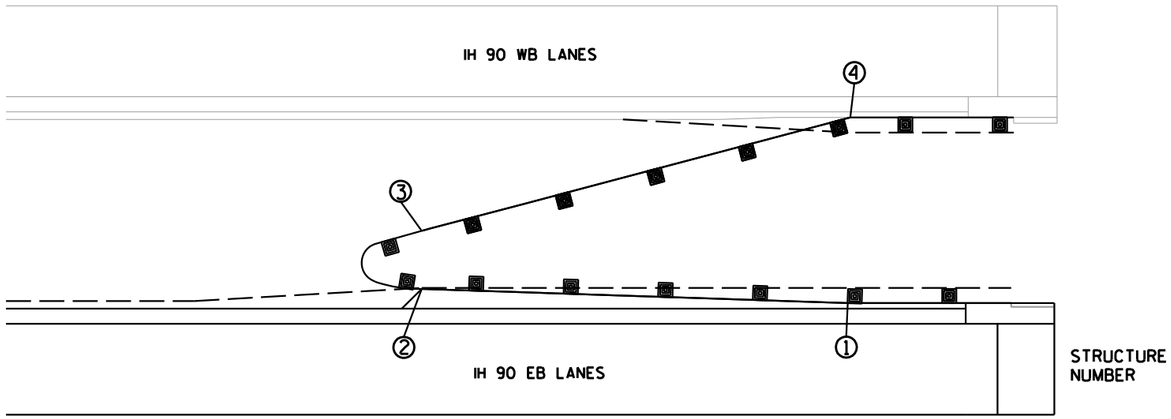


STRUCTURE #	X	POINT NO.	STATION	OFFSET
B-32-47	N/A	1	72+62.85 WB	6' RT
		2	73+56.61 WB	9.1' RT
		3	73+56.57 EB	35.6' LT
		4	72+50.15 EB	6' LT
B-32-34	± 126'	1	177+17.43 WB	6' RT
		2	178+11.18 WB	9.1' RT
		3	178+16.91 EB	35.6' LT
		4	177+05.89 WB	6' LT

BULLNOSE DETAIL WB DIRECTION

SEE SDD "STEEL THRIE BEAM BULLNOSE TERMINAL" FOR ADDITIONAL INFORMATION.

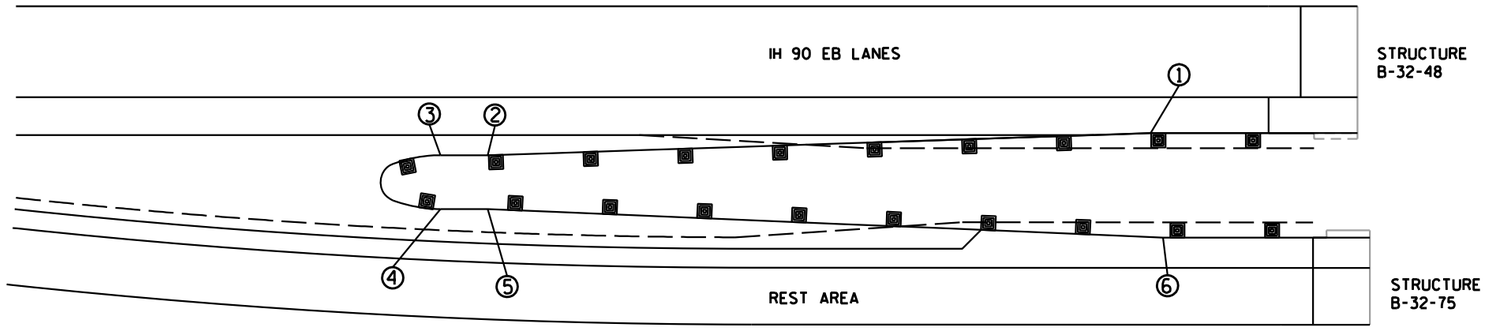
STRUCTURE #	POINT NO.	STATION	OFFSET
B-32-48	1	97+04.16 EB	5.5' LT
	2	95+91.66 EB	9.25' LT
	3	95+91.70 WB	35.5' RT
	4	97+04.90 WB	5.5' RT
B-32-34	1	168+12.96 EB	6' LT
	2	167+19.21 EB	9.1' LT
	3	167+13.48 WB	35.6' RT
	4	168+24.46 WB	6' RT



BULLNOSE DETAIL EB DIRECTION

SEE SDD "STEEL THRIE BEAM BULLNOSE TERMINAL" FOR ADDITIONAL INFORMATION.

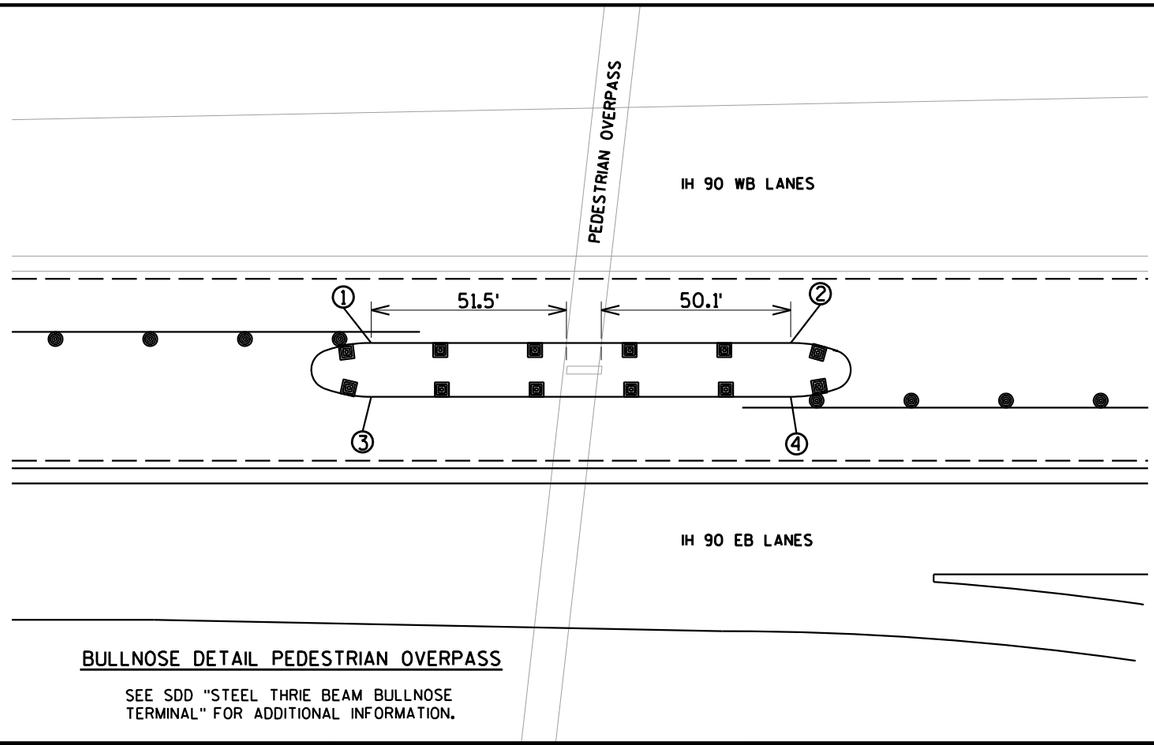
POINT NO.	STATION	OFFSET
1	97+04.16 EB	33.5' RT
2	95+29.16 EB	39.3' RT
3	95+16.66 EB	39.3' RT
4	95+17.41 RA	28.6' LT
5	95+30.10 RA	29.1' LT
6	97+09.52 RA	23' LT



BULLNOSE DETAIL REST AREA RAMP

SEE SDD "STEEL THRIE BEAM BULLNOSE TERMINAL" FOR ADDITIONAL INFORMATION.

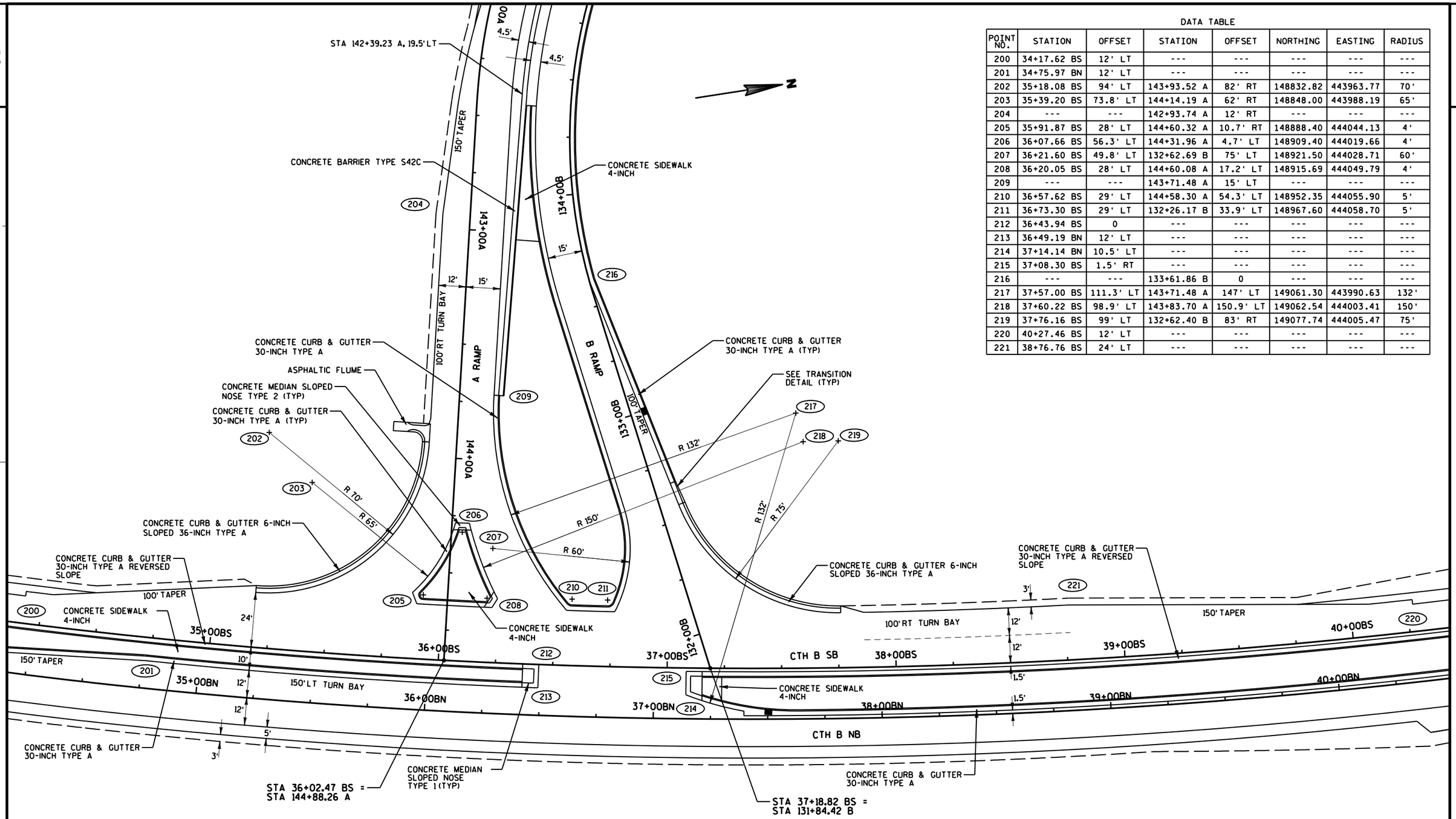
POINT NO.	STATION	OFFSET
1	131+52.09 WB	22.9' RT
2	132+62.87 WB	22.9' RT
3	131+52.06 EB	22.9' LT
4	132+62.84 EB	22.9' LT



BULLNOSE DETAIL PEDESTRIAN OVERPASS

SEE SDD "STEEL THRIE BEAM BULLNOSE TERMINAL" FOR ADDITIONAL INFORMATION.

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CONSTRUCTION DETAIL	SHEET 32	E



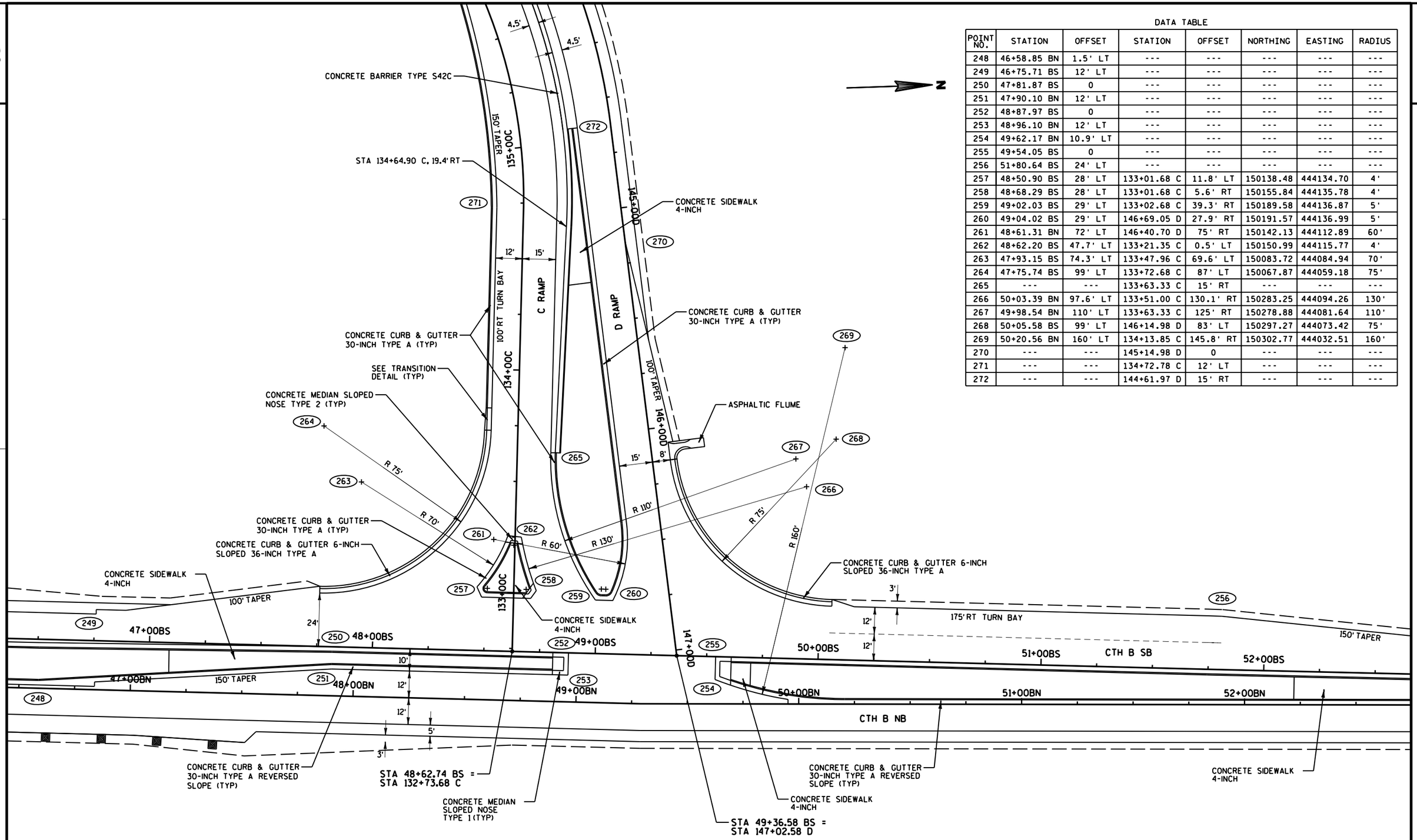
DATA TABLE

POINT NO.	STATION	OFFSET	STATION	OFFSET	NORTHING	EASTING	RADIUS
200	34+17.62 BS	12' LT	---	---	---	---	---
201	34+75.97 BN	12' LT	---	---	---	---	---
202	35+18.08 BS	94' LT	143+93.52 A	82' RT	148832.82	443963.77	70'
203	35+39.20 BS	73.8' LT	144+14.19 A	62' RT	148848.00	443988.19	65'
204	---	---	142+93.74 A	12' RT	---	---	---
205	35+91.87 BS	28' LT	144+60.32 A	10.7' RT	148888.40	444044.13	4'
206	36+07.66 BS	56.3' LT	144+31.96 A	4.7' LT	148909.40	444019.66	4'
207	36+21.60 BS	49.8' LT	132+62.69 B	75' LT	148921.50	444028.71	60'
208	36+20.05 BS	28' LT	144+60.08 A	17.2' LT	148915.69	444049.79	4'
209	---	---	143+71.48 A	15' LT	---	---	---
210	36+57.62 BS	29' LT	144+58.30 A	54.3' LT	148952.35	444055.90	5'
211	36+73.30 BS	29' LT	132+26.17 B	33.9' LT	148967.60	444058.70	5'
212	36+43.94 BS	0	---	---	---	---	---
213	36+49.19 BN	12' LT	---	---	---	---	---
214	37+14.14 BN	10.5' LT	---	---	---	---	---
215	37+08.30 BS	1.5' RT	---	---	---	---	---
216	---	---	133+61.86 B	0	---	---	---
217	37+57.00 BS	111.3' LT	143+71.48 A	147' LT	149061.30	443990.63	132'
218	37+60.22 BS	98.9' LT	143+83.70 A	150.9' LT	149062.54	444003.41	150'
219	37+76.16 BS	99' LT	132+62.40 B	83' RT	149077.74	444005.47	75'
220	40+27.46 BS	12' LT	---	---	---	---	---
221	38+76.76 BS	24' LT	---	---	---	---	---

2

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	INTERSECTION DETAIL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_021101_id.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42



DATA TABLE

POINT NO.	STATION	OFFSET	STATION	OFFSET	NORTHING	EASTING	RADIUS
248	46+58.85 BN	1.5' LT	---	---	---	---	---
249	46+75.71 BS	12' LT	---	---	---	---	---
250	47+81.87 BS	0	---	---	---	---	---
251	47+90.10 BN	12' LT	---	---	---	---	---
252	48+87.97 BS	0	---	---	---	---	---
253	48+96.10 BN	12' LT	---	---	---	---	---
254	49+62.17 BN	10.9' LT	---	---	---	---	---
255	49+54.05 BS	0	---	---	---	---	---
256	51+80.64 BS	24' LT	---	---	---	---	---
257	48+50.90 BS	28' LT	133+01.68 C	11.8' LT	150138.48	444134.70	4'
258	48+68.29 BS	28' LT	133+01.68 C	5.6' RT	150155.84	444135.78	4'
259	49+02.03 BS	29' LT	133+02.68 C	39.3' RT	150189.58	444136.87	5'
260	49+04.02 BS	29' LT	146+69.05 D	27.9' RT	150191.57	444136.99	5'
261	48+61.31 BN	72' LT	146+40.70 D	75' RT	150142.13	444112.89	60'
262	48+62.20 BS	47.7' LT	133+21.35 C	0.5' LT	150150.99	444115.77	4'
263	47+93.15 BS	74.3' LT	133+47.96 C	69.6' LT	150083.72	444084.94	70'
264	47+75.74 BS	99' LT	133+72.68 C	87' LT	150067.87	444059.18	75'
265	---	---	133+63.33 C	15' RT	---	---	---
266	50+03.39 BN	97.6' LT	133+51.00 C	130.1' RT	150283.25	444094.26	130'
267	49+98.54 BN	110' LT	133+63.33 C	125' RT	150278.88	444081.64	110'
268	50+05.58 BS	99' LT	146+14.98 D	83' LT	150297.27	444073.42	75'
269	50+20.56 BN	160' LT	134+13.85 C	145.8' RT	150302.77	444032.51	160'
270	---	---	145+14.98 D	0	---	---	---
271	---	---	134+72.78 C	12' LT	---	---	---
272	---	---	144+61.97 D	15' RT	---	---	---

2

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	INTERSECTION DETAIL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_021102_id.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

2

FTMS STANDARD ABBREVIATIONS

CCTV	CLOSED CIRCUIT TELEVISION SITE
CB	CONTROLLER CABINET
PB	PULL BOX
CV	COMMUNICATIONS VAULT
MD	MICROWAVE DETECTOR
MB	METER BREAKER
FOC	FIBER OPTIC CABLE

LEGEND	PROPOSED	EXISTING
JUNCTION BOX	■	■
VIDEO SENSOR	▶■	▶■
CAMERA SITE	◀■	◀■
CONTROL BOX	▣	▣
24" PULL BOX	◑	◑
12" PULL BOX	⊗	⊗
ANTENNA POLE	⊢●	⊢●
ETHERNET RADIO ANTENNA	⊣	⊣
METER BREAKER	⊠	⊠
MANHOLE	Ⓜ	Ⓜ
MICROWAVE DETECTOR	◆	◆
CCTV CAMERA	CCTV	CCTV
CONDUIT	----	----

FTMS CONTACTS

WISCONSIN DOT
SOUTHWEST REGION
MR. KYLE HEMP
2101 WRIGHT ST.
MADISON, WI 53704
608-246-5367

WISCONSIN DOT
STATEWIDE TRAFFIC OPERATIONS CENTER
MR. DON SCHELL
433 W. ST. PAUL AVE., SUITE 300
MILWAUKEE, WI 53203
414-227-2148

FTMS PLANS PREPARED BY

ALLIANT
ENGINEERING

WISCONSIN
THOMAS J. JENSEN
E-39710
MINNEAPOLIS, MN
PROFESSIONAL ENGINEER
7/27/15

FTMS GENERAL NOTES

THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

BE AWARE THAT NO TEST BORING WERE MADE WHERE CONDUITS, PULL BOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.

NO TREES (AND/OR SHRUBS) ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION ARE TO BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER AND SEED, AND MULCH. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION WILL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS. NO PAYMENT WILL BE MADE FOR RESTORING AREAS DISTURBED FOR FTMS CONSTRUCTION OPERATIONS.

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

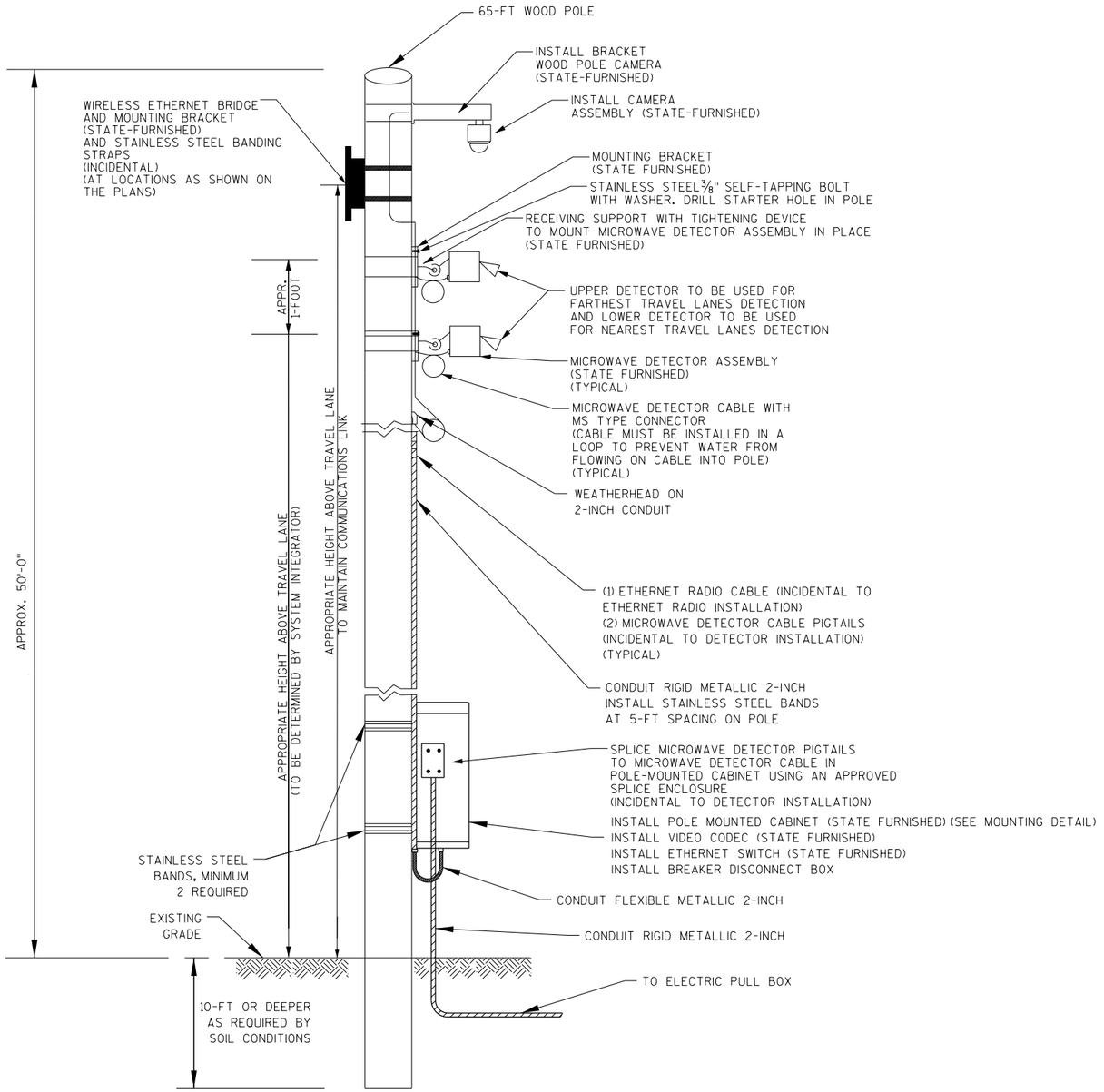
BE ADVISED THAT DUE TO RAMP, LANE, AND SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.

CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414) 227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.

HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.

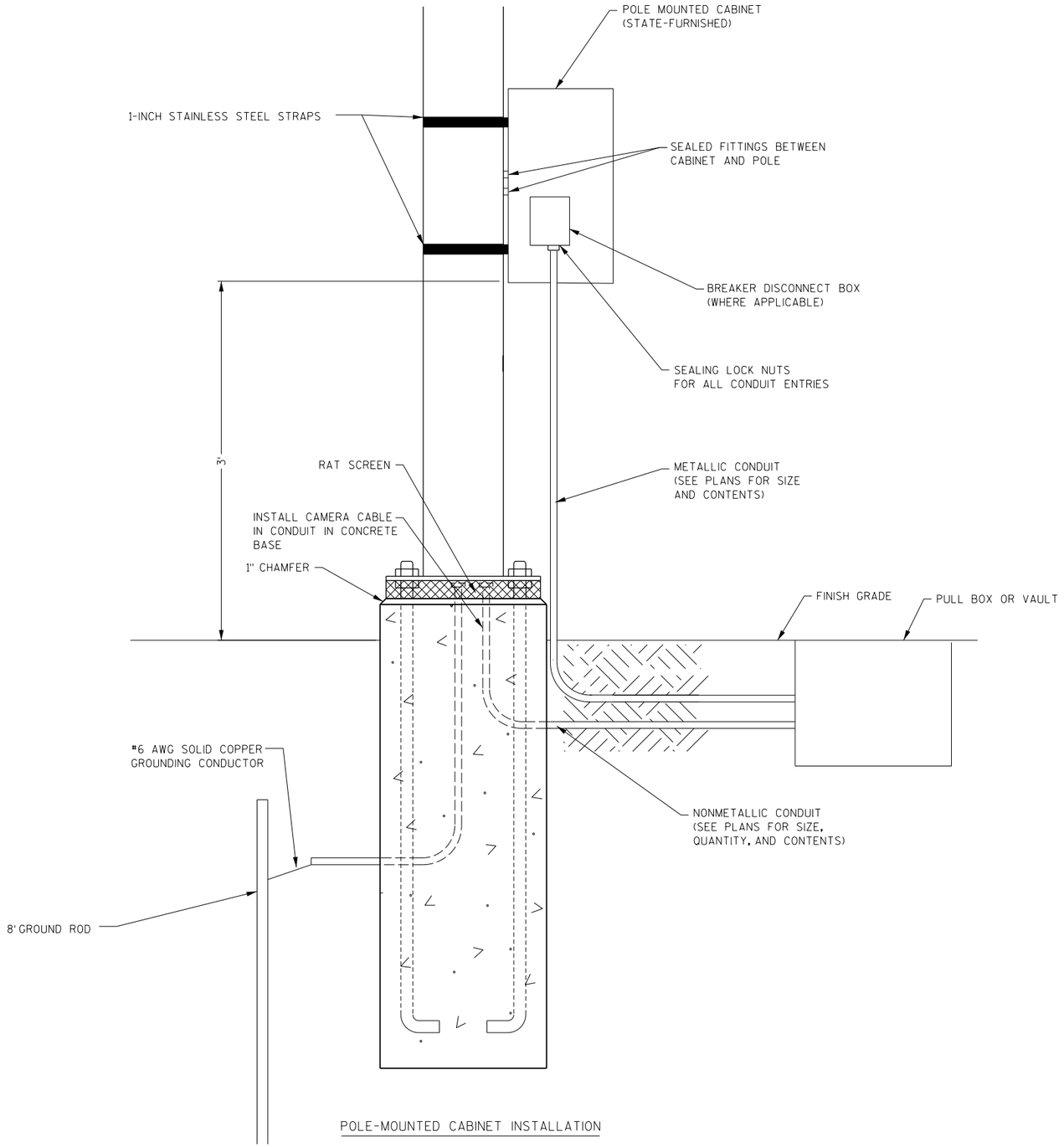
VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.



NOTES:

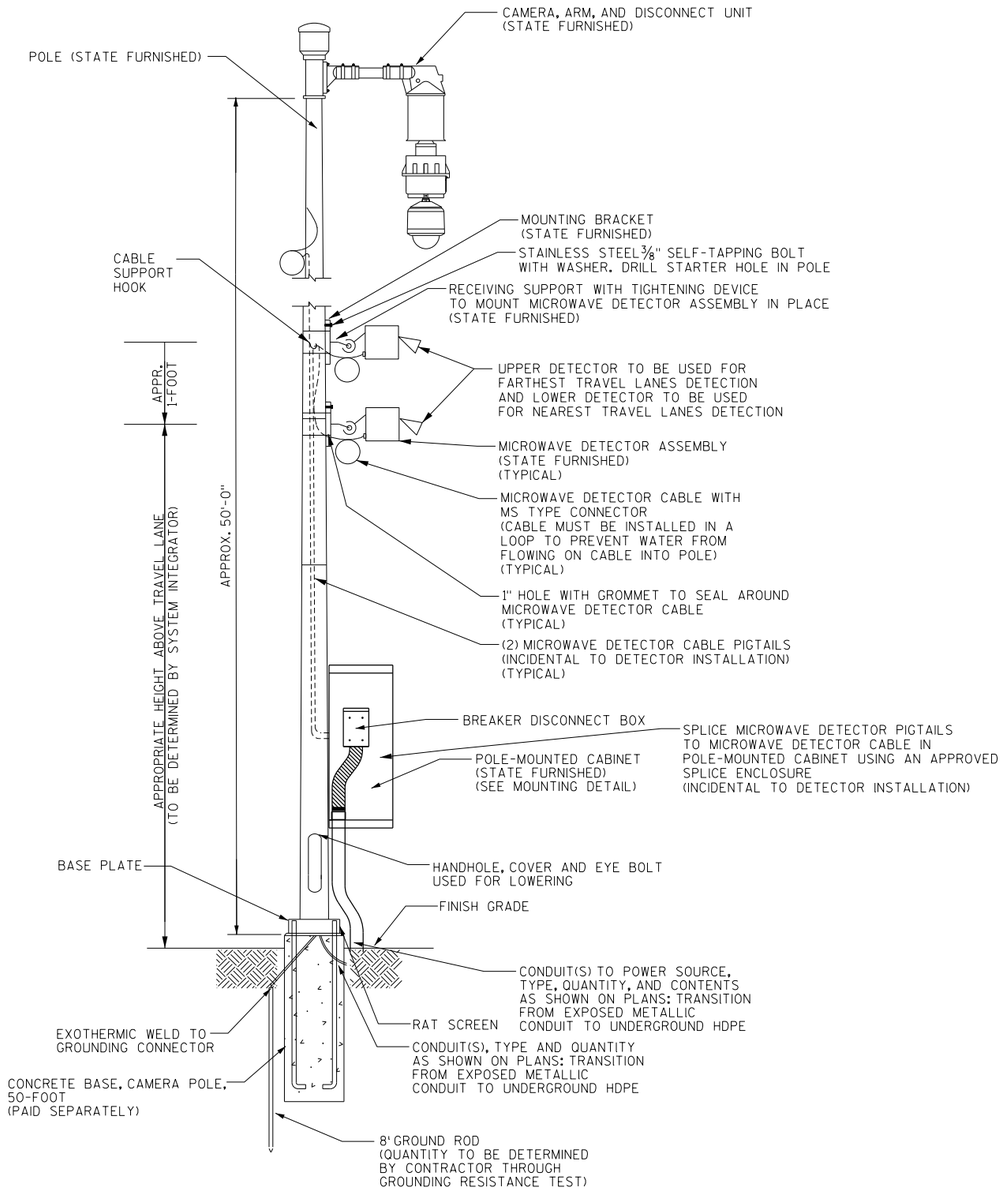
1) SECURE LOOSE CABLES TO POLE AT 5-FT INTERVALS.
2) INSTALL DRIP LOOPS ON LOOSE CABLES TO PREVENT WATER FROM FLOWING ON CABLE AND ENTERING POLES/ENCLOSURES.
3) MOUNT EQUIPMENT UTILIZING STAINLESS STEEL BANDS OR METHOD APPROVED BY THE ENGINEER.
4) CONDUIT FLEXIBLE METALLIC SHALL BE LIQUID TIGHT.

CCTV-32-0071
I-90

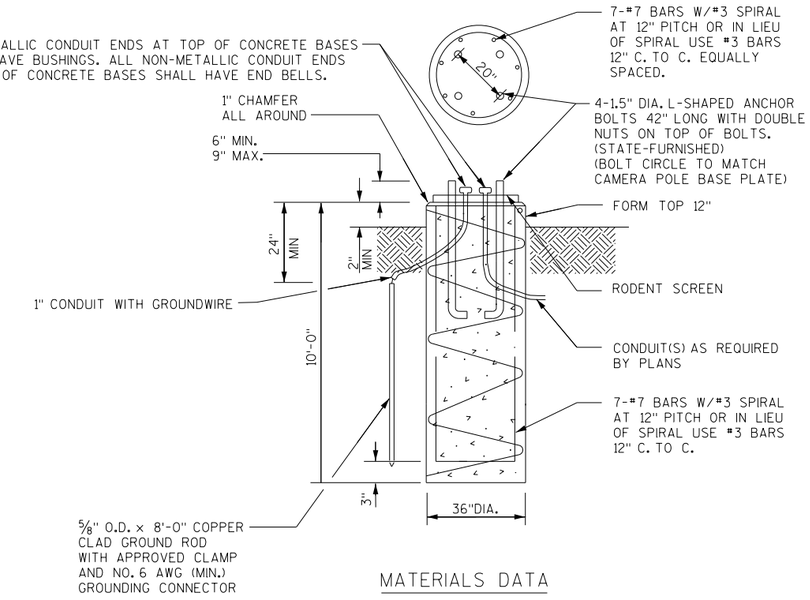


POLE-MOUNTED CABINET INSTALLATION

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	FTMS CONSTRUCTION DETAILS	SHEET 37	E



50-FT CAMERA POLE WITH CAMERA LOWERING HARDWARE

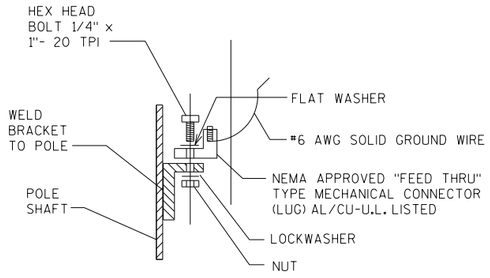


MATERIALS DATA

CONCRETE	f'c=3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi

CONCRETE BASE, 50' CAMERA POLE

NOT TO SCALE



FIELD INSTALLED GROUNDING LUG

NOTES:

1) ALL HARDWARE AND FASTENERS SHALL BE STAINLESS STEEL
2) POLE DRAWINGS SHOWN FOR BIDDING INFORMATION PURPOSES ONLY. POLES WILL BE STATE FURNISHED. BASE TO BE CONTRACTOR DESIGNED.
3) CONTRACTOR SHALL CONFIRM BOLT PATTERN OF CAMERA POLE PRIOR TO CONSTRUCTION OF CONCRETE BASE.
4) CONTRACTOR SHALL INSTALL GROUNDING LUG AS SHOWN

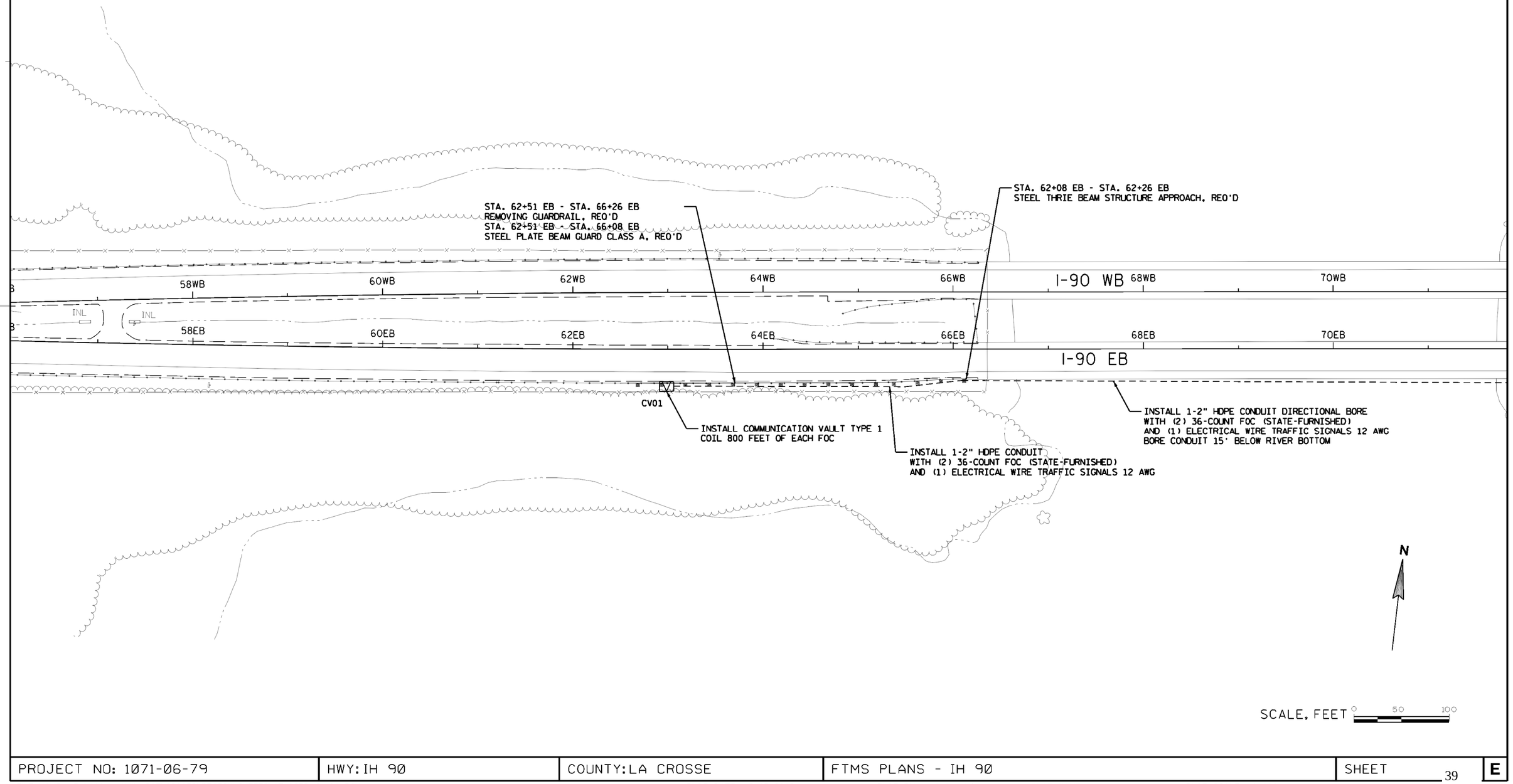
50-FT CAMERA POLES & FOUNDATIONS

2

2

SCHEDULING NOTES:

NOTIFY THE REGIONAL TRAFFIC UNIT CONTACT KYLE HEMP AT (608) 246-5367)
A MINIMUM OF 2-WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING
ITEMS: CONDUIT; PULL BOXES; AND COMMUNICATION VAULTS.



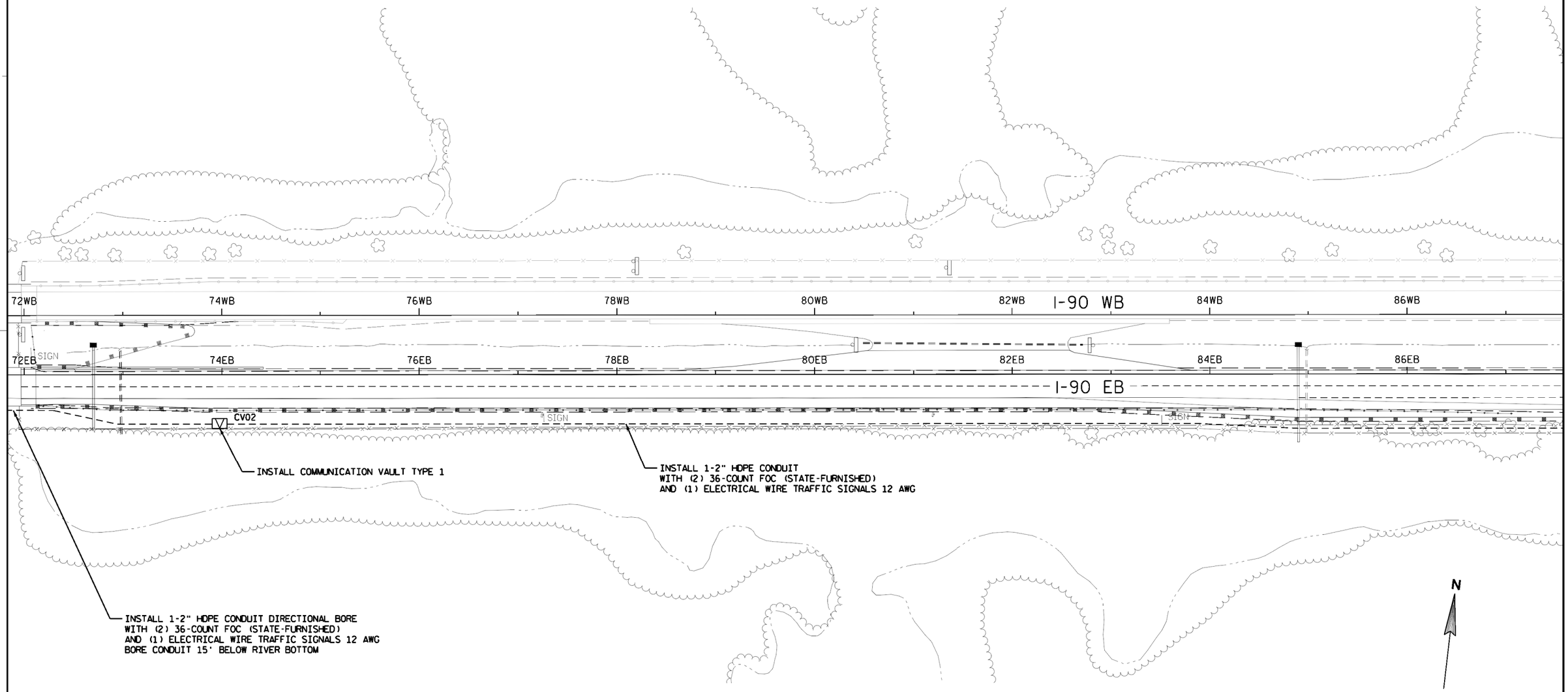
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	FTMS PLANS - IH 90	SHEET 39	E

2

2

SCHEDULING NOTES:

NOTIFY THE REGIONAL TRAFFIC UNIT CONTACT KYLE HEMP AT ((608) 246-5367)
A MINIMUM OF 2-WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING
ITEMS: CONDUIT; PULL BOXES; AND COMMUNICATION VAULTS.



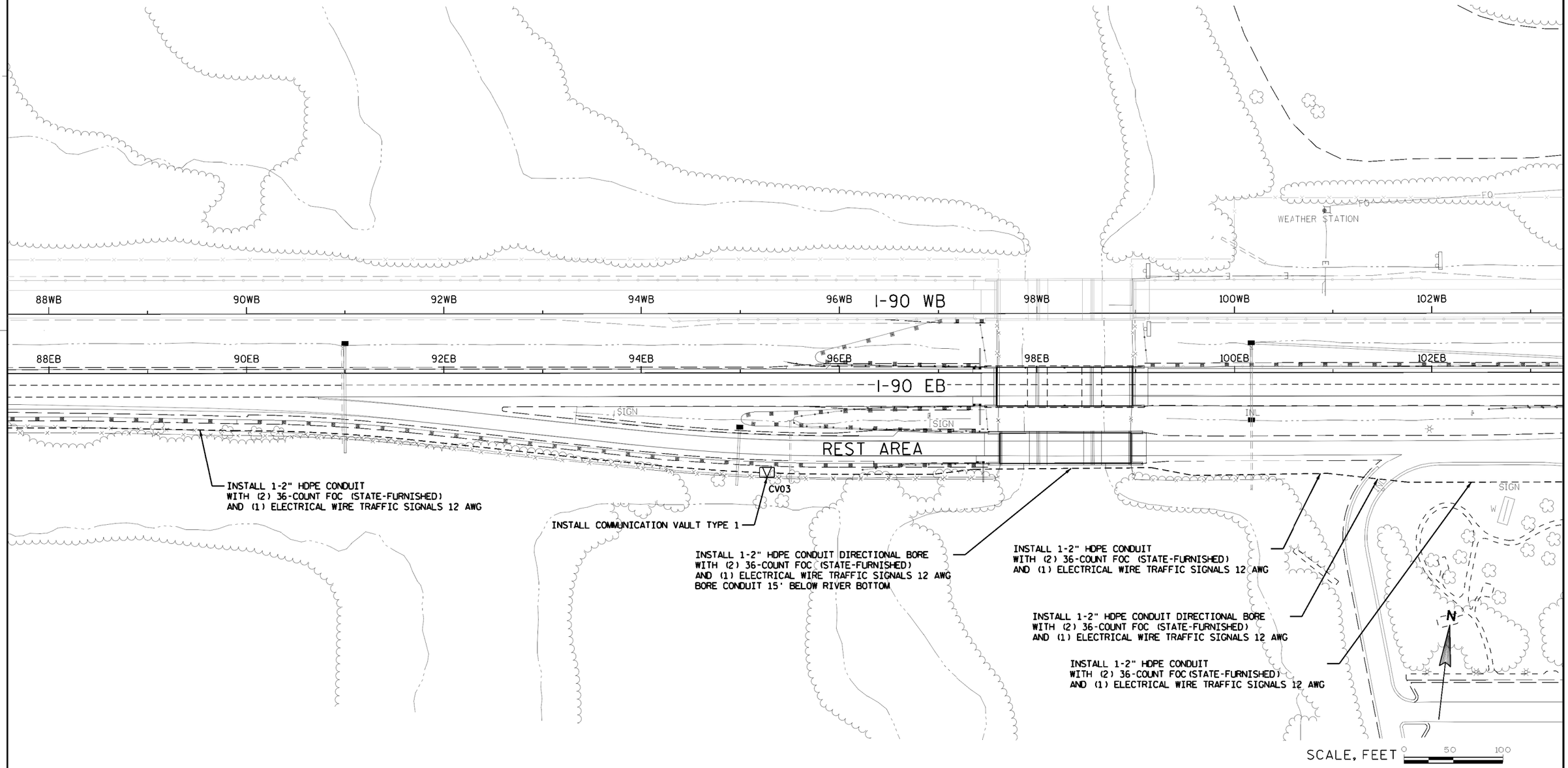
PROJECT NO:1071-06-79	HWY: IH 90	COUNTY:LA CROSSE	FTMS PLANS - IH 90	SHEET 40	E

2

2

SCHEDULING NOTES:

NOTIFY THE REGIONAL TRAFFIC UNIT CONTACT KYLE HEMP AT ((608) 246-5367)
A MINIMUM OF 2-WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING
ITEMS: CONDUIT; PULL BOXES; AND COMMUNICATION VAULTS.



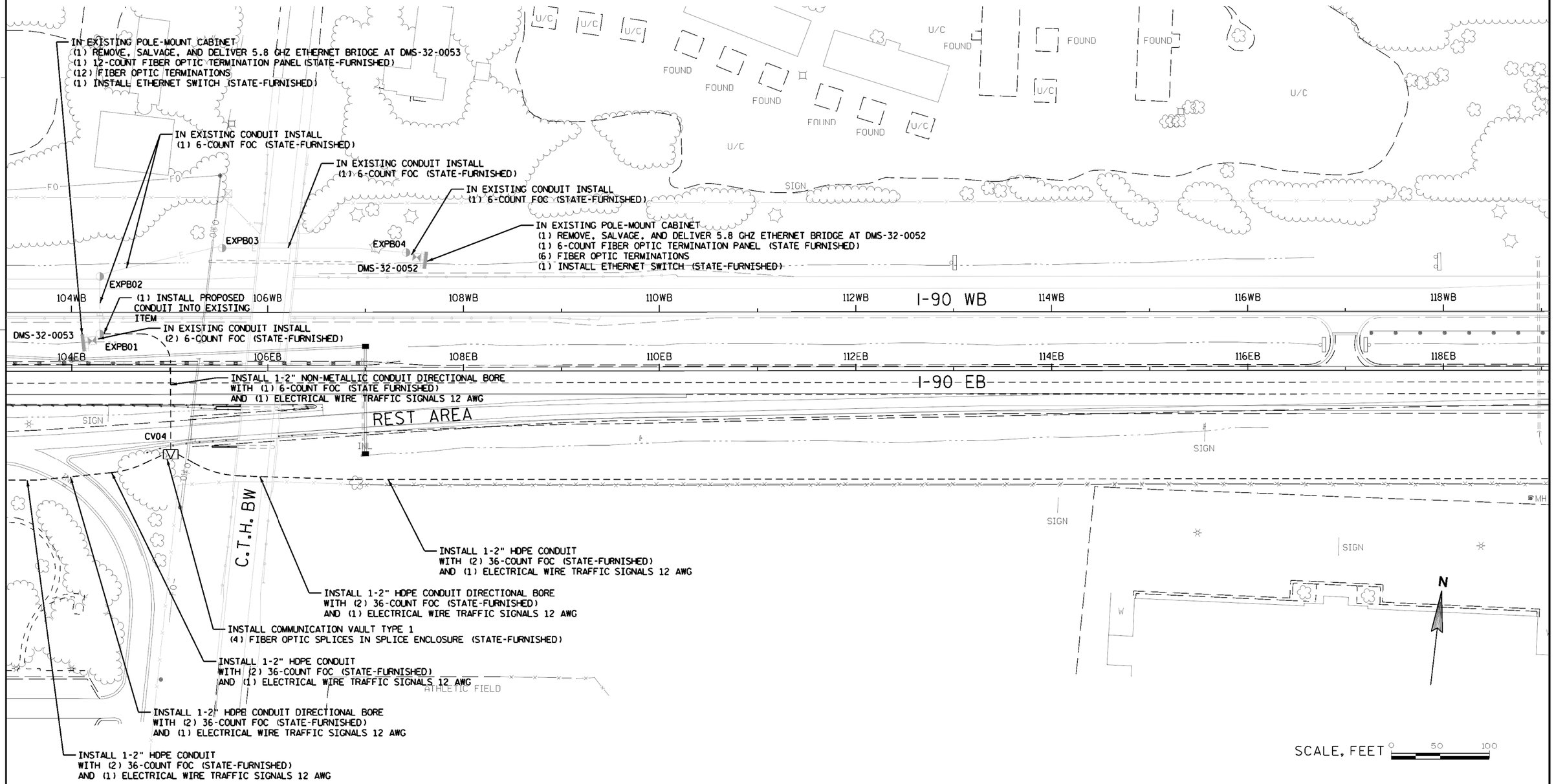
PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	FTMS PLANS - IH 90	SHEET 41	E

SCHEDULING NOTES:

NOTIFY THE REGIONAL TRAFFIC UNIT CONTACT KYLE HEMP AT ((608) 246-5367)
A MINIMUM OF 2-WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING
ITEMS: CONDUIT; PULL BOXES; AND COMMUNICATION VAULTS.

COMMUNICATION NOTES:

DMS-32-0052 TO BE LINKED TO PROPOSED FIBER OPTIC CABLE.
DMS-32-0053 TO BE LINKED TO PROPOSED FIBER OPTIC CABLE.

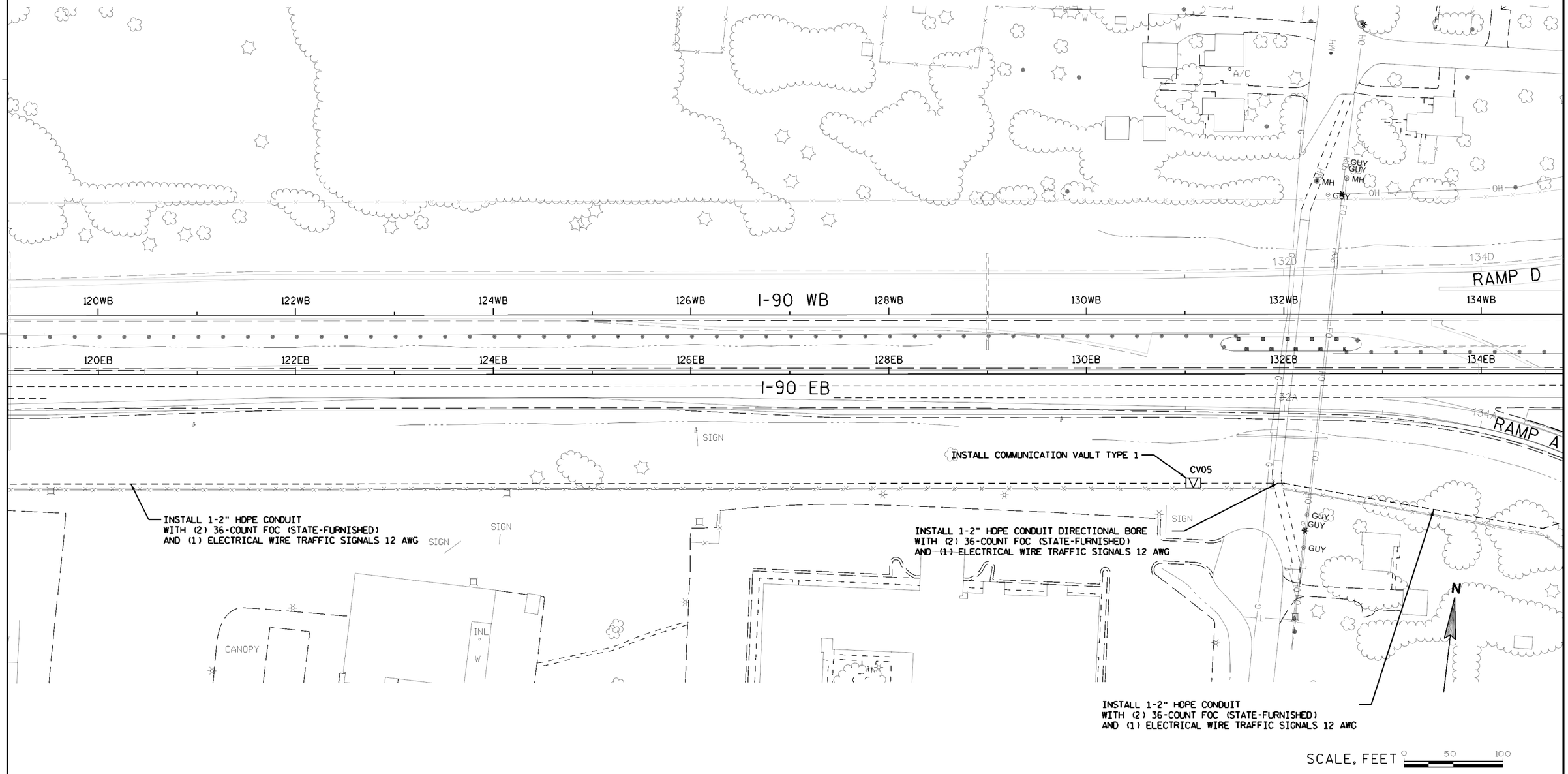


PROJECT NO:1071-06-79	HWY: IH 90	COUNTY:LA CROSSE	FTMS PLANS - IH 90 NEAR CTH BW OVERPASS	SHEET 42	E

2

SCHEDULING NOTES:

NOTIFY THE REGIONAL TRAFFIC UNIT CONTACT KYLE HEMP AT ((608) 246-5367)
A MINIMUM OF 2-WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING
ITEMS: CONDUIT; PULL BOXES; AND COMMUNICATION VAULTS.



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	FTMS PLANS - IH 90	SHEET 43	E

SCHEDULING NOTES:
NOTIFY THE REGIONAL TRAFFIC UNIT CONTACT KYLE HEMP AT (608) 246-5367) A MINIMUM OF 2 WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING ITEMS: CONDUIT; PULL BOXES; AND COMMUNICATION VAULTS.

COMMUNICATION NOTES:
CCTV-32-0070 TO BE LINKED TO PROPOSED FIBER OPTIC CABLE.

EXISTING CCTV-32-0070
(1) REMOVE, SALVAGE, AND DELIVER 5.8 GHZ ETHERNET BRIDGES AT CCTV-32-0070
(1) 6-COUNT FIBER OPTIC TERMINATION PANEL (STATE-FURNISHED)
(6) FIBER OPTIC TERMINATIONS

INSTALL COMMUNICATION VAULT TYPE 1
2-(36) FIBER OPTIC SPLICES IN
SPLICE ENCLOSURE (STATE-FURNISHED)

INSTALL 1-2" HDPE CONDUIT
WITH (2) 36-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG

INSTALL 1-2" HDPE CONDUIT DIRECTIONAL BORE
WITH (2) 36-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG

INSTALL 1-2" HDPE CONDUIT
WITH (2) 36-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG

INSTALL 1-2" HDPE CONDUIT DIRECTIONAL BORE
WITH (2) 36-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG

INSTALL 1-2" HDPE CONDUIT
WITH (2) 36-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG

INSTALL 1-2" NON-METALLIC CONDUIT
WITH (1) 6-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG
(1) INSTALL PROPOSED CONDUIT INTO EXISTING ITEM

IN EXISTING 2" NON-METALLIC CONDUIT
FROM EXPB104 TO THE 30-FOOT CAMERA POLE BASE
INSTALL (1) 6-COUNT FOC (STATE-FURNISHED)
AND (1) NO. 12 AWG TRAFFIC SIGNAL WIRE

INSTALL 1-2" HDPE CONDUIT DIRECTIONAL BORE
WITH (2) 36-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG

INSTALL 1-2" HDPE CONDUIT
WITH (2) 36-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG

CCTV-32-0070
MD101
MD102
CV06
EXPB104

RAMP D
RAMP C
RAMP B
RAMP A
C.T.H. B
I-90 WB
I-90 EB
136WB 138WB 140WB 142WB 144WB 146WB 148WB 150WB
136EB 138EB 140EB 142EB 144EB 146EB 148EB 150EB
140D 142C 142B 140A 138B 144C 144B 46BN 48BN 42BN 40BN
SIGN
MH
OH
INL
ABANDONED

N

SCALE, FEET 0 50 100

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	FTMS PLANS - IH 90 / CTH B INTERCHANGE	SHEET 44	E

FILE NAME : P:\Alliant\WisDOT\080078\DESIGN\SHEETS\AE_0679_fm_06.DGN PLOT DATE : 9/13/2015 PLOT BY : atutewohl PLOT NAME : _____ PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

SCHEDULING NOTES:

NOTIFY THE REGIONAL TRAFFIC UNIT CONTACT KYLE HEMP AT ((608) 246-5367) A MINIMUM OF 2-WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING ITEMS: CONDUIT; PULL BOXES; AND COMMUNICATION VAULTS.

I-90 WB

I-90 EB

152WB 154WB 156WB 158WB 160WB 162WB 164WB 166WB

152EB 154EB 156EB 158EB 160EB 162EB 164EB 166EB

CV07

INSTALL COMMUNICATION VAULT TYPE 1

INSTALL 1-2" HDPE CONDUIT
WITH (2) 36-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG

INSTALL 1-2" HDPE CONDUIT
WITH (2) 36-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG

N

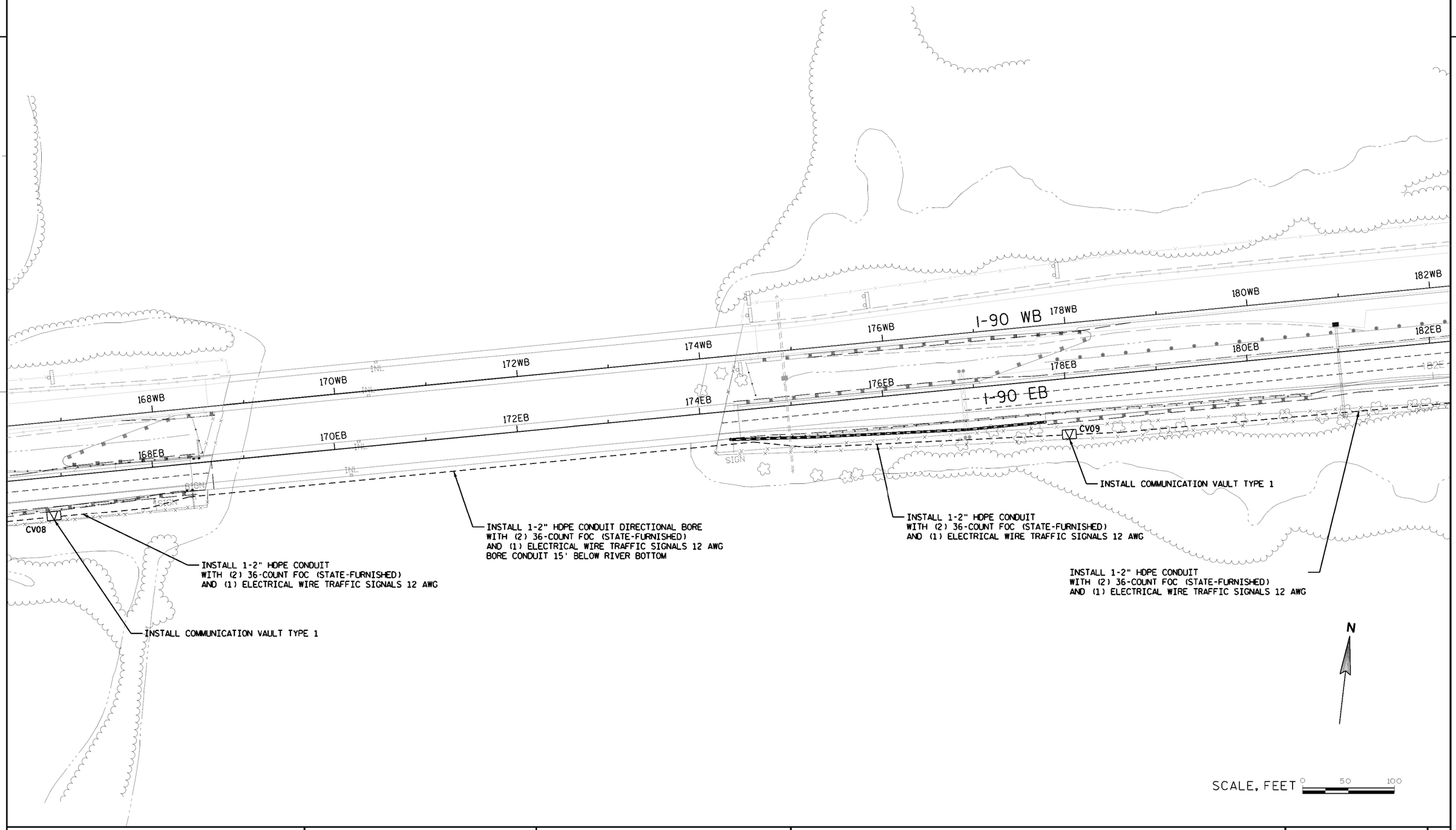
SCALE, FEET 0 50 100

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	FTMS PLANS - IH 90	SHEET 45	E

2

SCHEDULING NOTES:

NOTIFY THE REGIONAL TRAFFIC UNIT CONTACT KYLE HEMP AT ((608) 246-5367) A MINIMUM OF 2-WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING ITEMS: CONDUIT; PULL BOXES; AND COMMUNICATION VAULTS.



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	FTMS PLANS - IH 90	SHEET 46	E

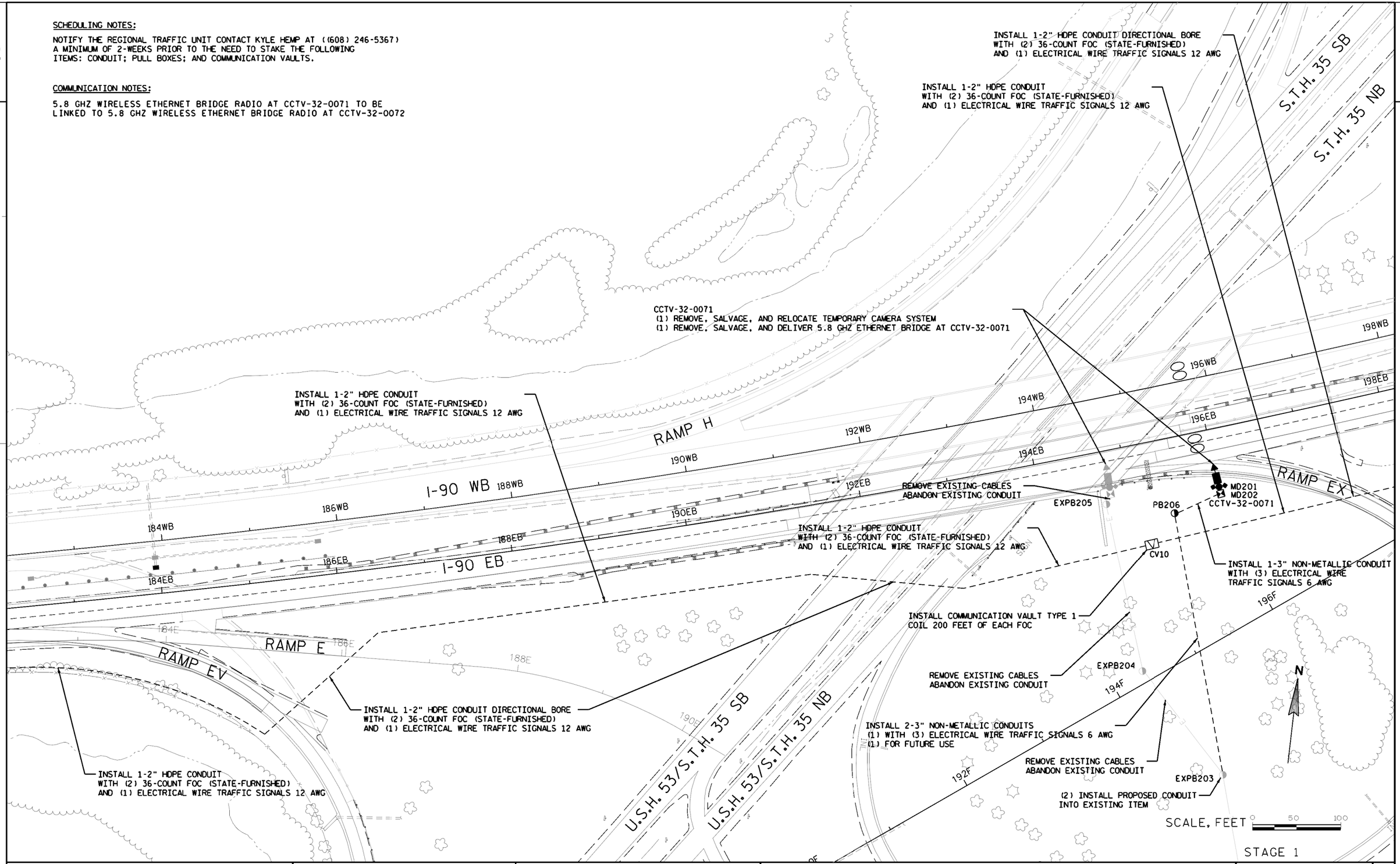
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SCHEDULING NOTES:

NOTIFY THE REGIONAL TRAFFIC UNIT CONTACT KYLE HEMP AT ((608) 246-5367) A MINIMUM OF 2-WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING ITEMS: CONDUIT; PULL BOXES; AND COMMUNICATION VAULTS.

COMMUNICATION NOTES:

5.8 GHZ WIRELESS ETHERNET BRIDGE RADIO AT CCTV-32-0071 TO BE LINKED TO 5.8 GHZ WIRELESS ETHERNET BRIDGE RADIO AT CCTV-32-0072



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	FTMS PLANS - IH 90 / USH 53 / STH 35 INTERCHANGE	SHEET 47	E

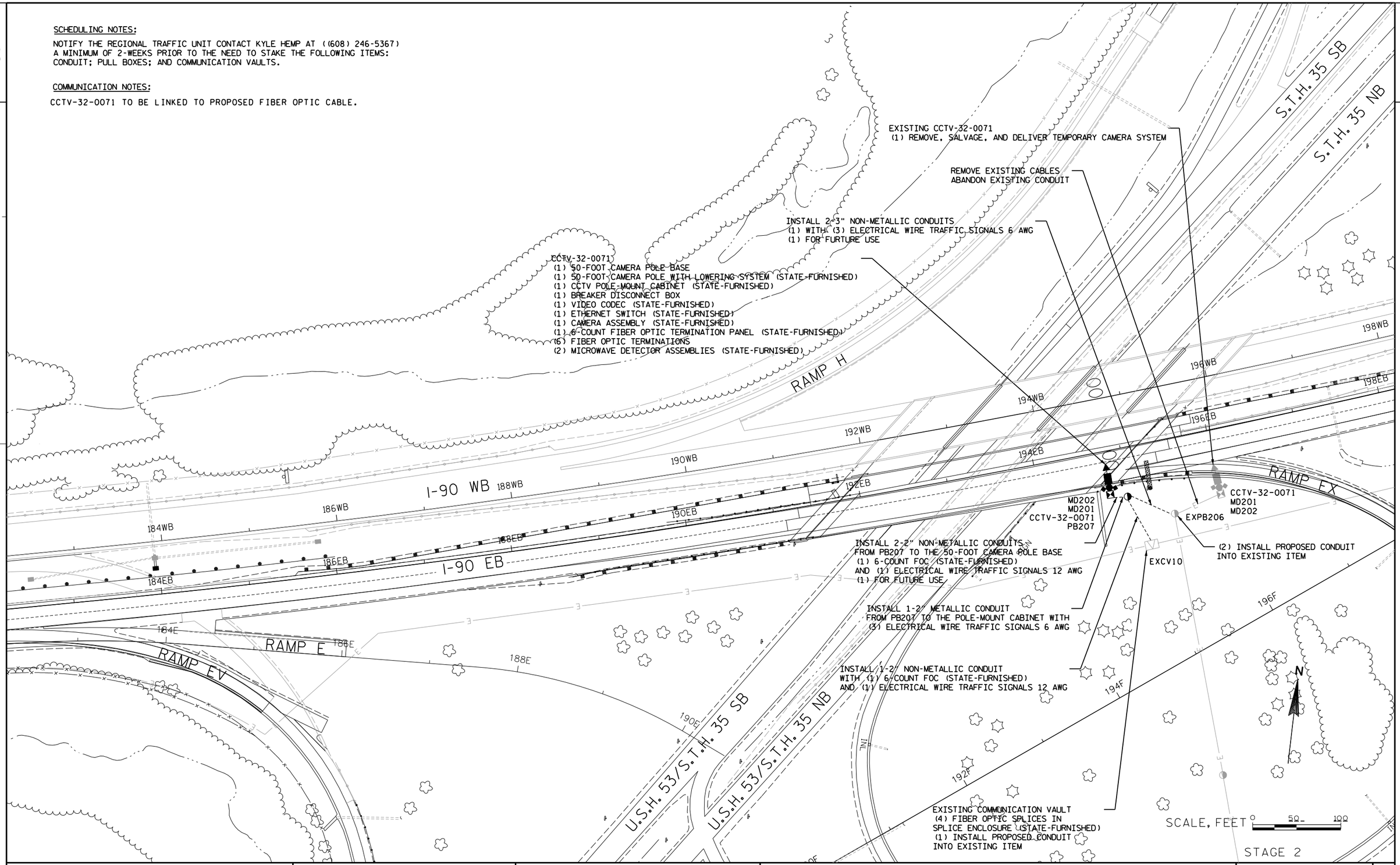
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SCHEDULING NOTES:

NOTIFY THE REGIONAL TRAFFIC UNIT CONTACT KYLE HEMP AT ((608) 246-5367) A MINIMUM OF 2-WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING ITEMS: CONDUIT; PULL BOXES; AND COMMUNICATION VAULTS.

COMMUNICATION NOTES:

CCTV-32-0071 TO BE LINKED TO PROPOSED FIBER OPTIC CABLE.



2

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	FTMS PLANS - IH 90 / USH 53 / STH 35 INTERCHANGE	SHEET 48 E

FILE NAME : P:\Alliant\WisDOT\080078\DESIGN\SHEETS\AE_0679_fm_09B.DGN PLOT DATE : 7/27/2015 PLOT BY : atutewohl PLOT NAME : _____ PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

S.T.H. 35 SB
S.T.H. 35 NB
RAMP GV
RAMP HW
RAMP F
RAMP FX
RAMP EX
I-90 WB
I-90 EB
214WB
212WB
210WB
208WB
206WB
204WB
202WB
200WB
214EB
212EB
210EB
208EB
206EB
204EB
202EB
200EB
206F
204F
202F
200F
198F
SAN
MH
WV
FO
OH
SIGN
POOL
INL
EL

INSTALL 1-2" HDPE CONDUIT DIRECTIONAL BORE
WITH (2) 36-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG

(1) INSTALL PROPOSED CONDUIT
INTO EXISTING ITEM

EXCV11

EXISTING COMMUNICATIONS VAULT
FIBER OPTIC SPLICING (BY OTHERS)

EXISTING FIBER OPTIC CABLE

INSTALL 1-2" HDPE CONDUIT
WITH (2) 36-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG

INSTALL 1-2" HDPE CONDUIT
WITH (2) 36-COUNT FOC (STATE-FURNISHED)
AND (1) ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG

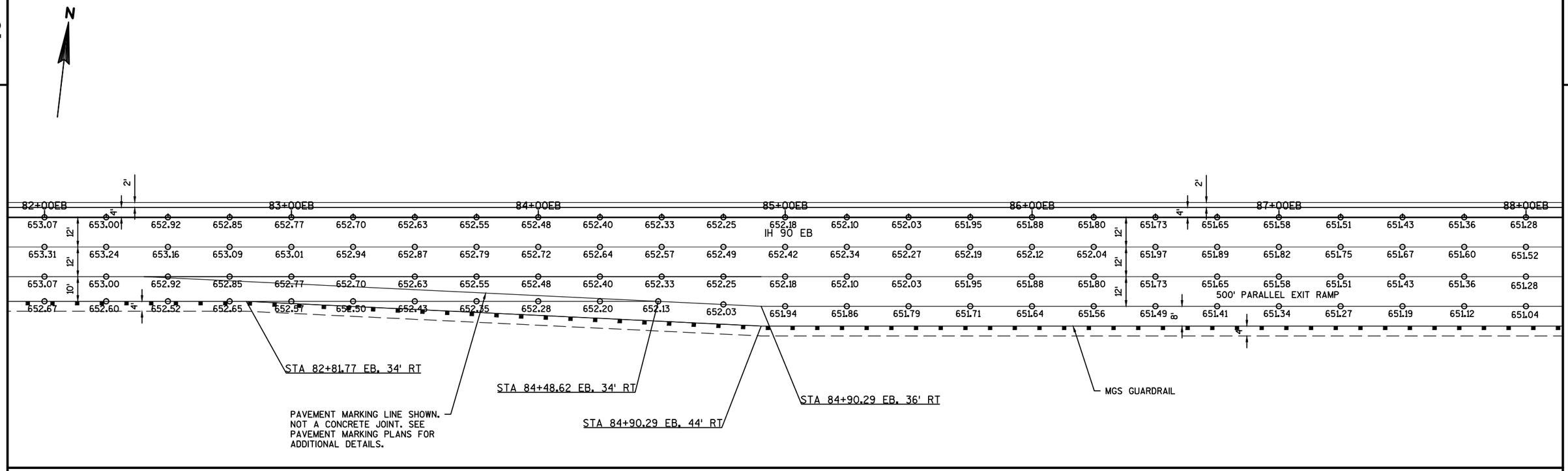
SCHEDULING NOTES:

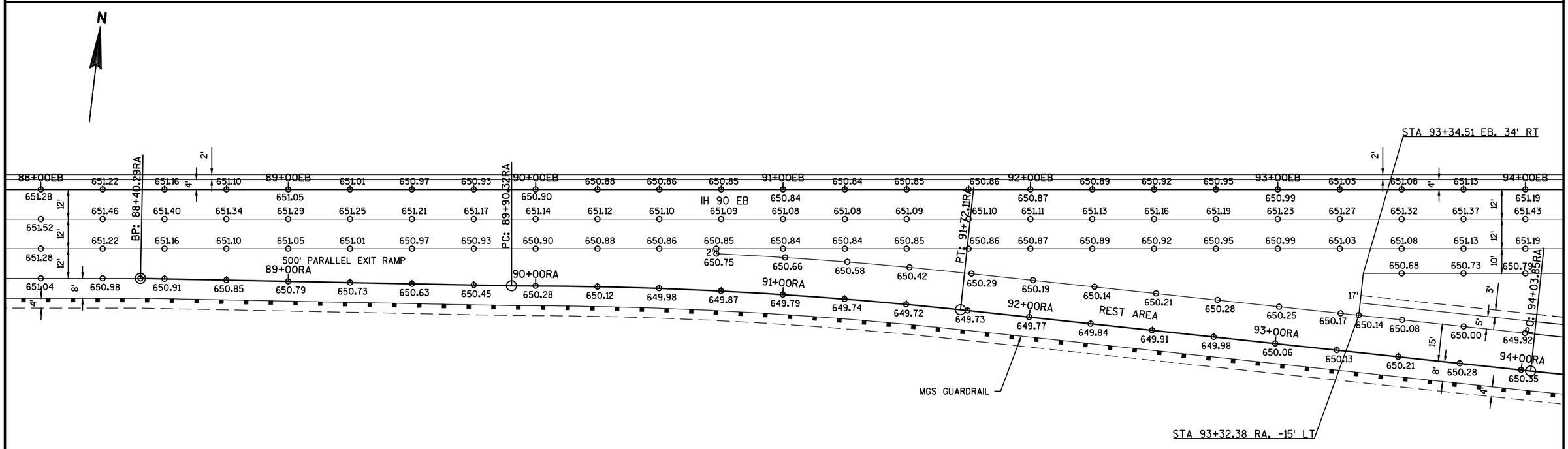
NOTIFY THE REGIONAL TRAFFIC UNIT CONTACT KYLE HEMP AT ((608) 246-5367)
A MINIMUM OF 2-WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING
ITEMS: CONDUIT; PULL BOXES; AND COMMUNICATION VAULTS.

N

SCALE, FEET 0 50 100

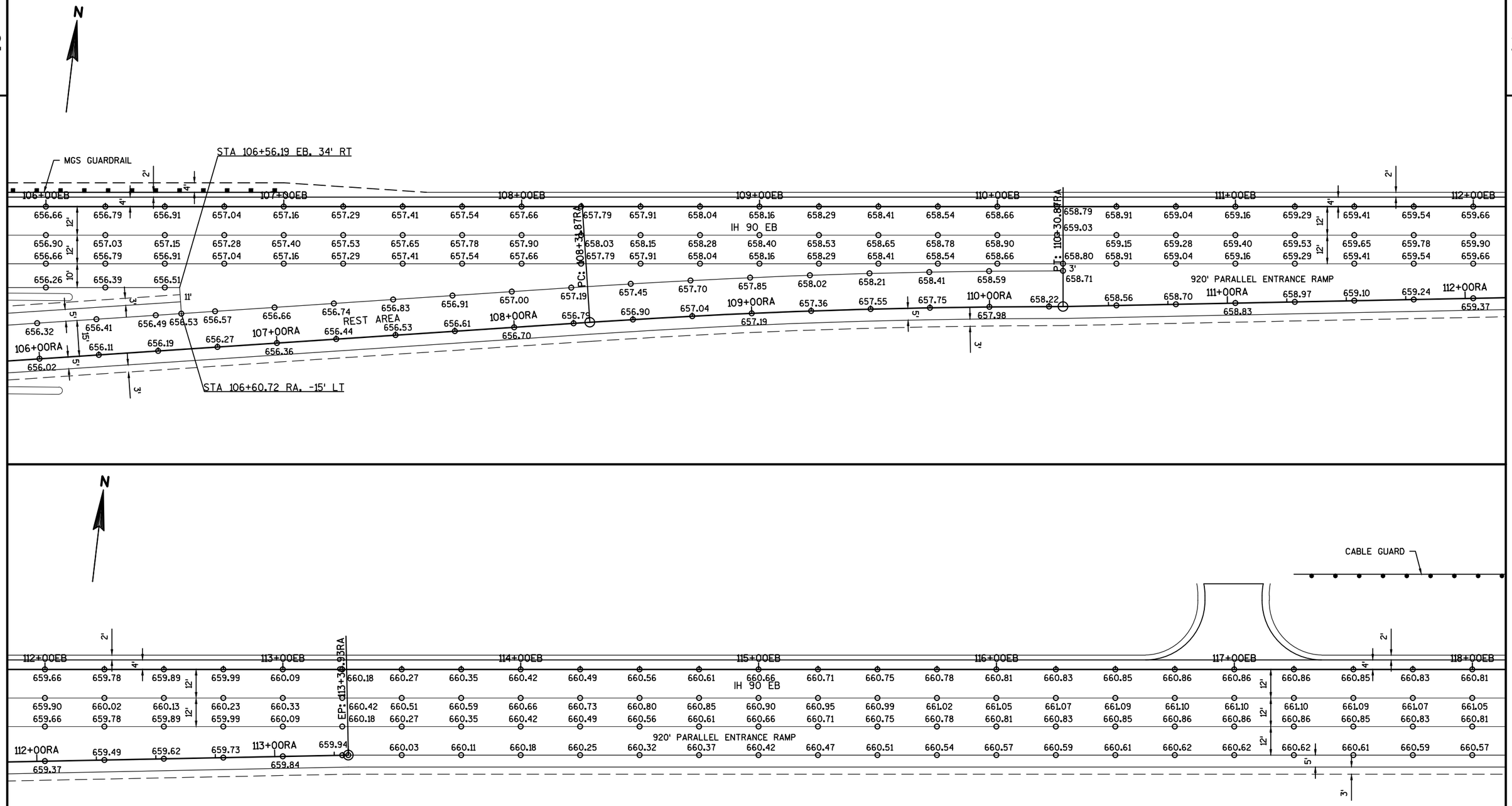
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	FTMS PLANS - IH90 / USH 53 / STH 35 INTERCHANGE	SHEET 49	E





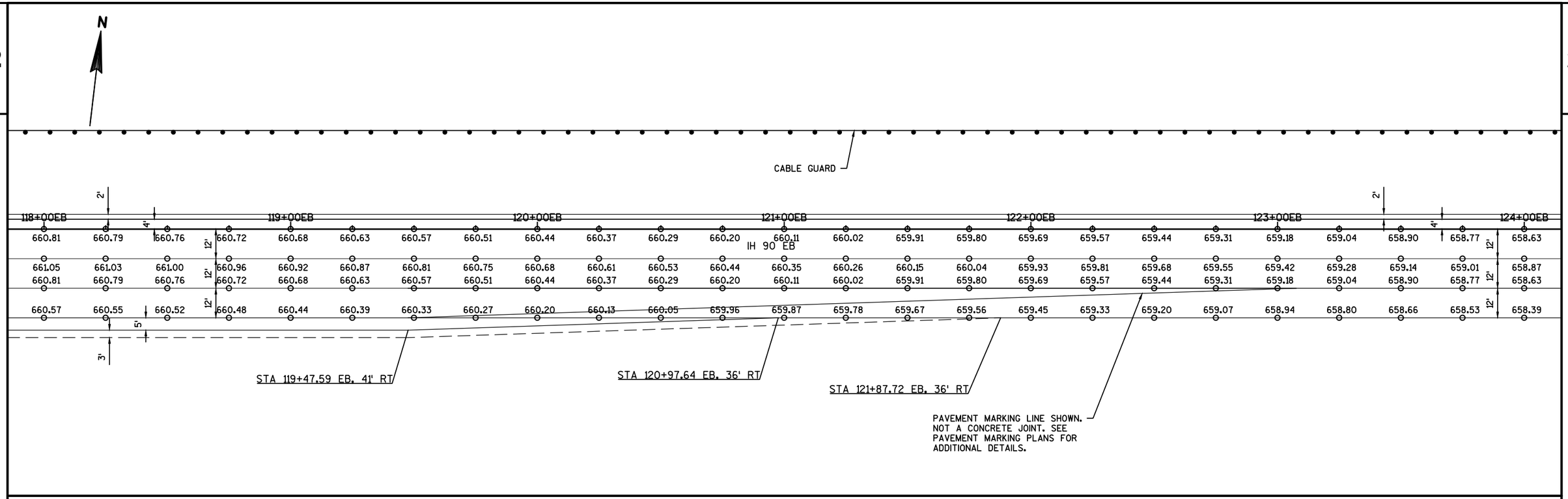
PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	INTERCHANGE DETAILS	SHEET 50	E

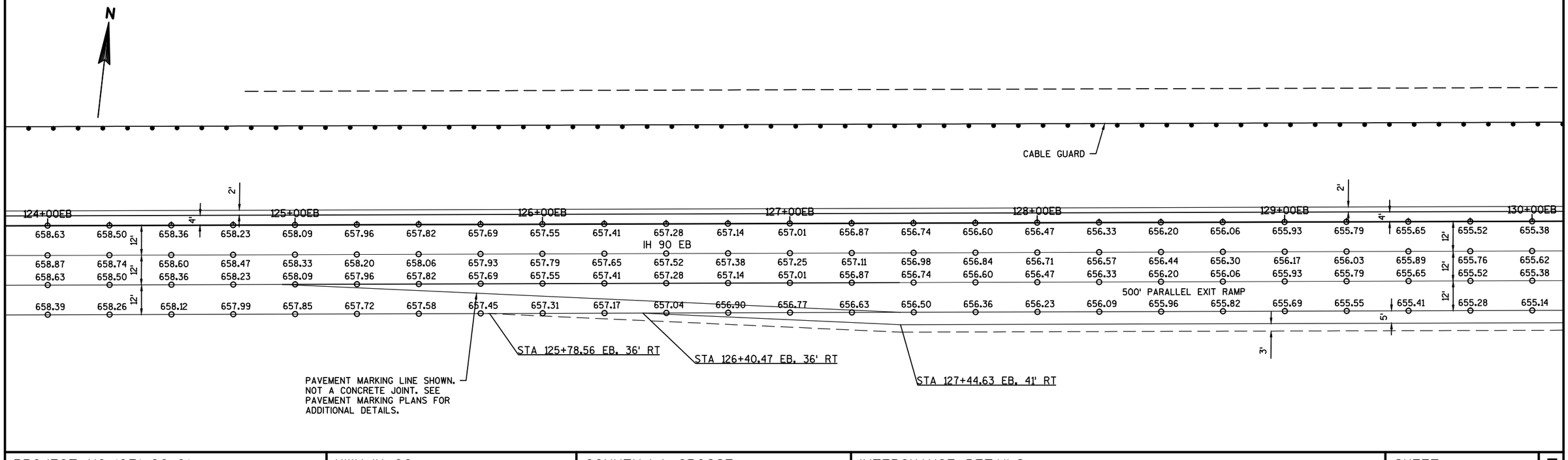
FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\0681_021200_PD.DWG
LAYOUT NAME - INTERCHANGE DETAILS
PLOT DATE : 7/30/2015 2:10 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



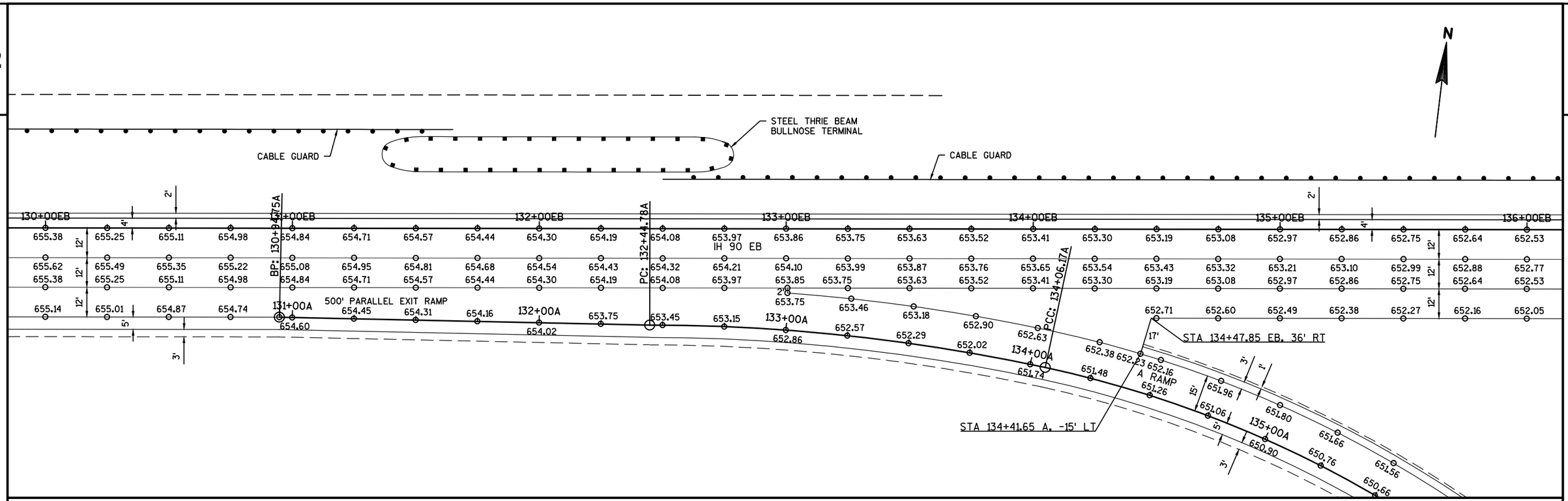
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	INTERCHANGE DETAILS	SHEET 51	E

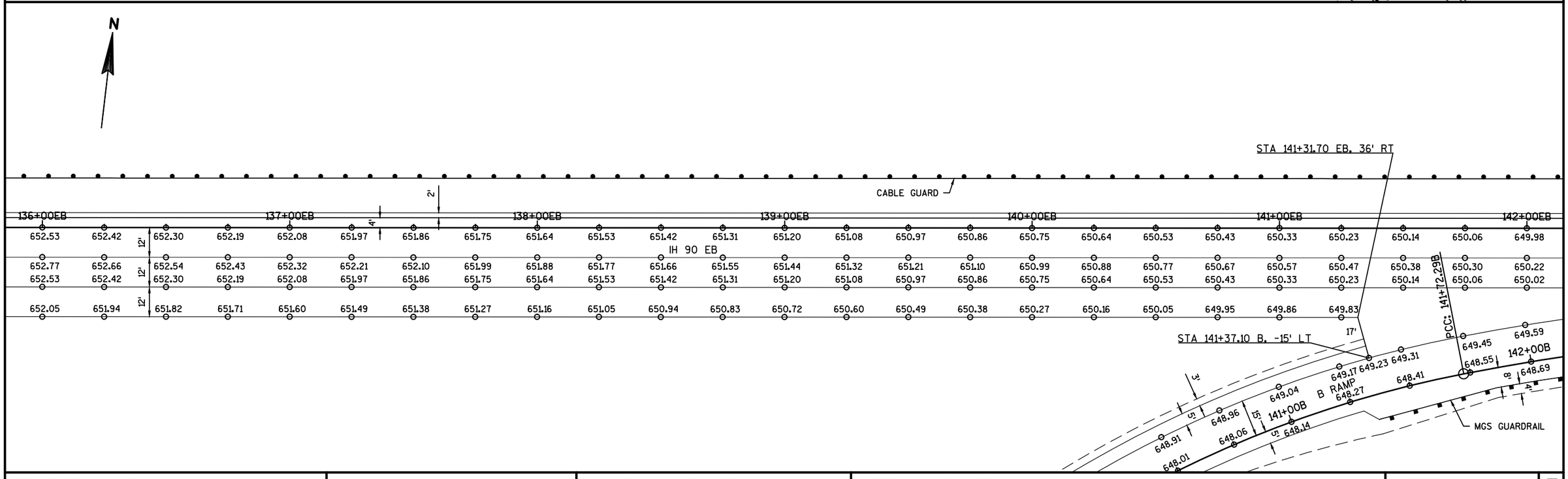
FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\0681_021200_PD.DWG
LAYOUT NAME - INTERCHANGE DETAILS
PLOT DATE : 7/30/2015 2:10 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



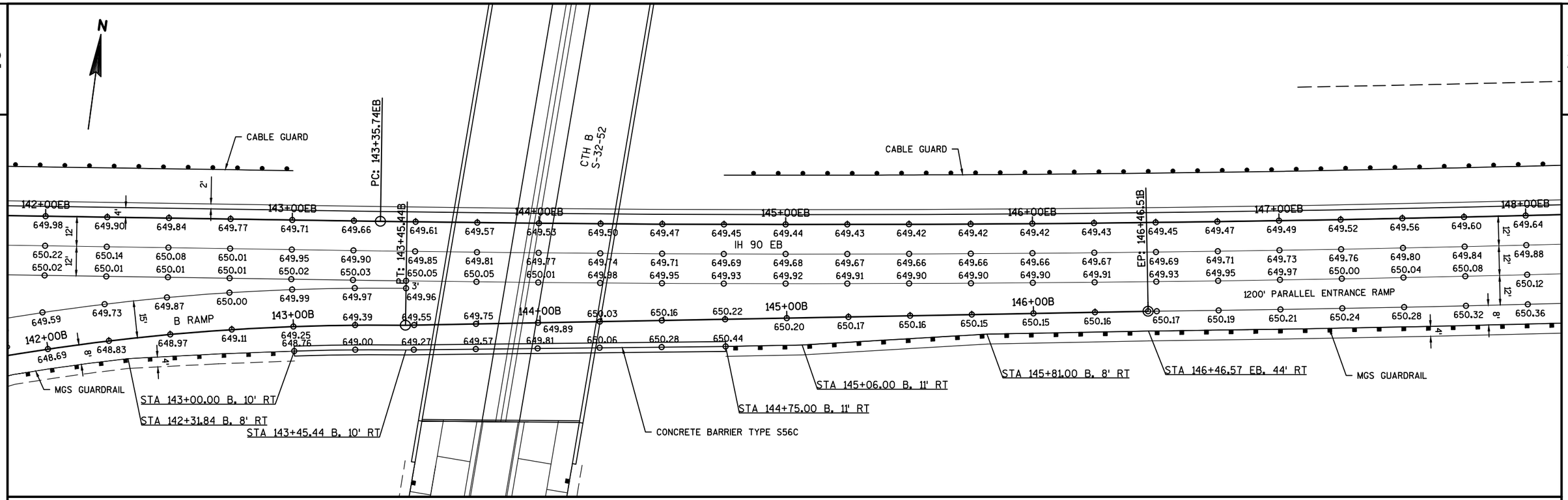


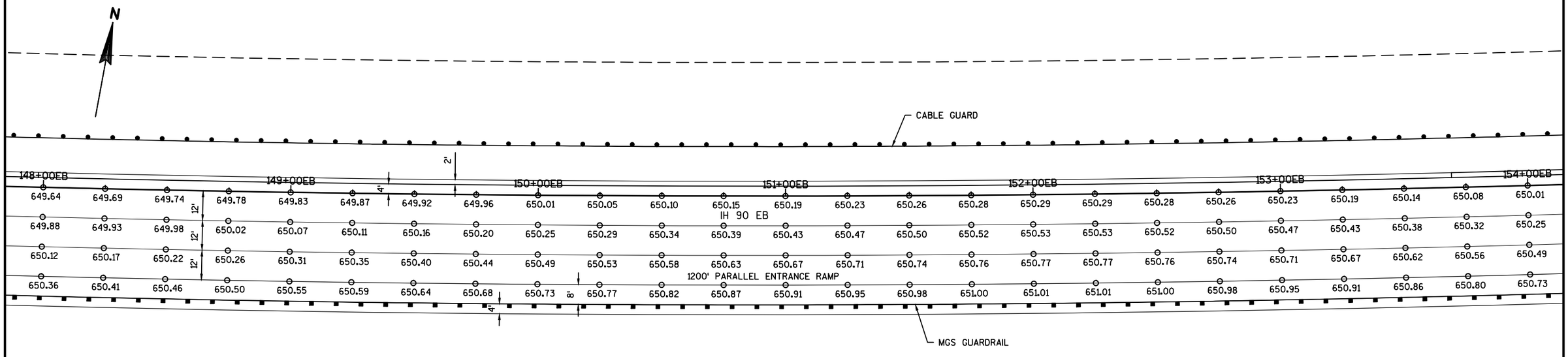
PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	INTERCHANGE DETAILS	SHEET 52	E



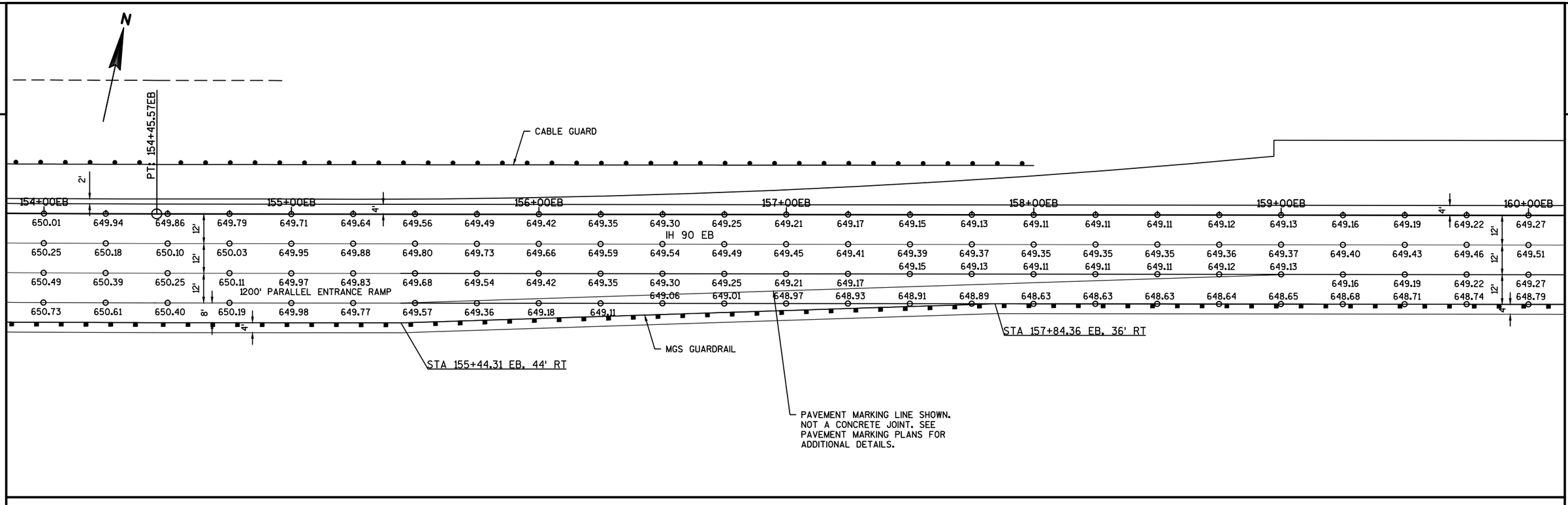


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	INTERCHANGE DETAILS	SHEET 53	E



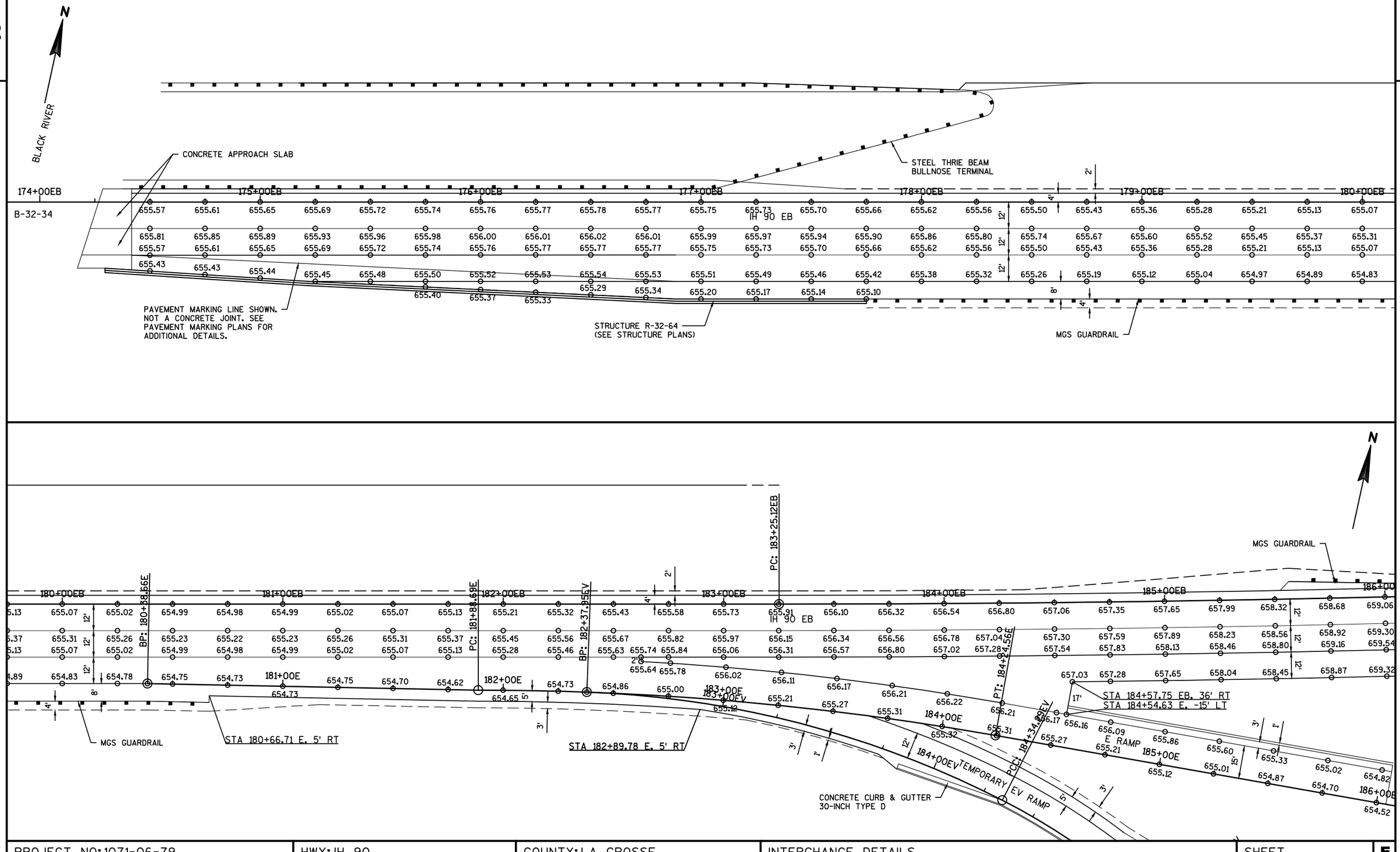


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	INTERCHANGE DETAILS	SHEET 54	E

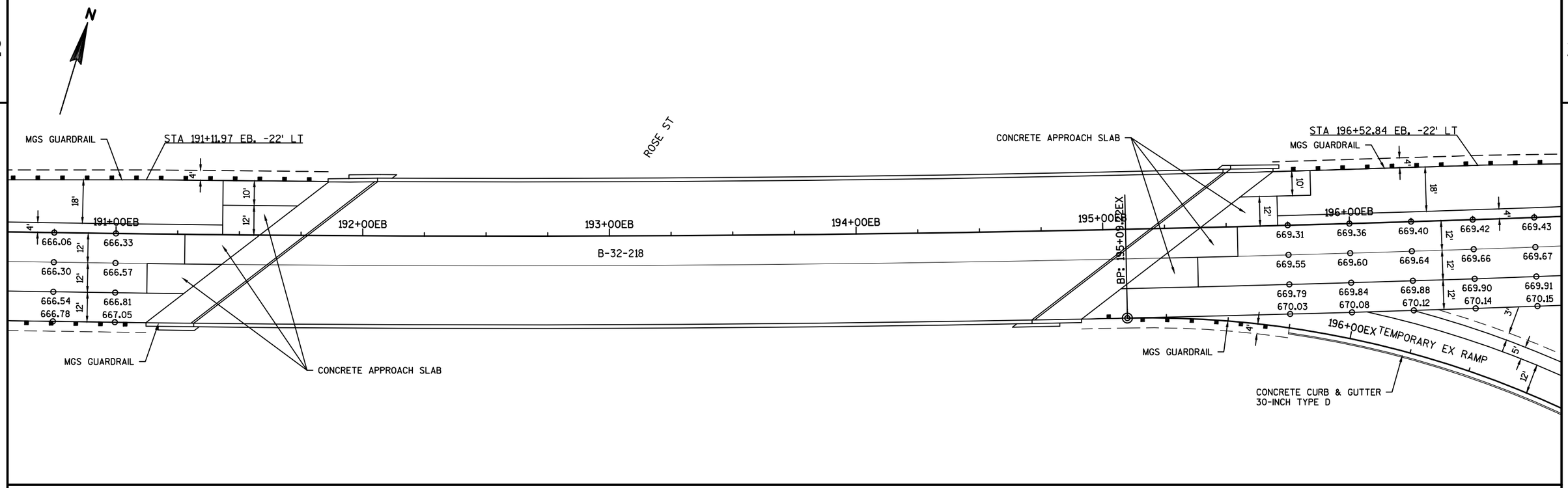


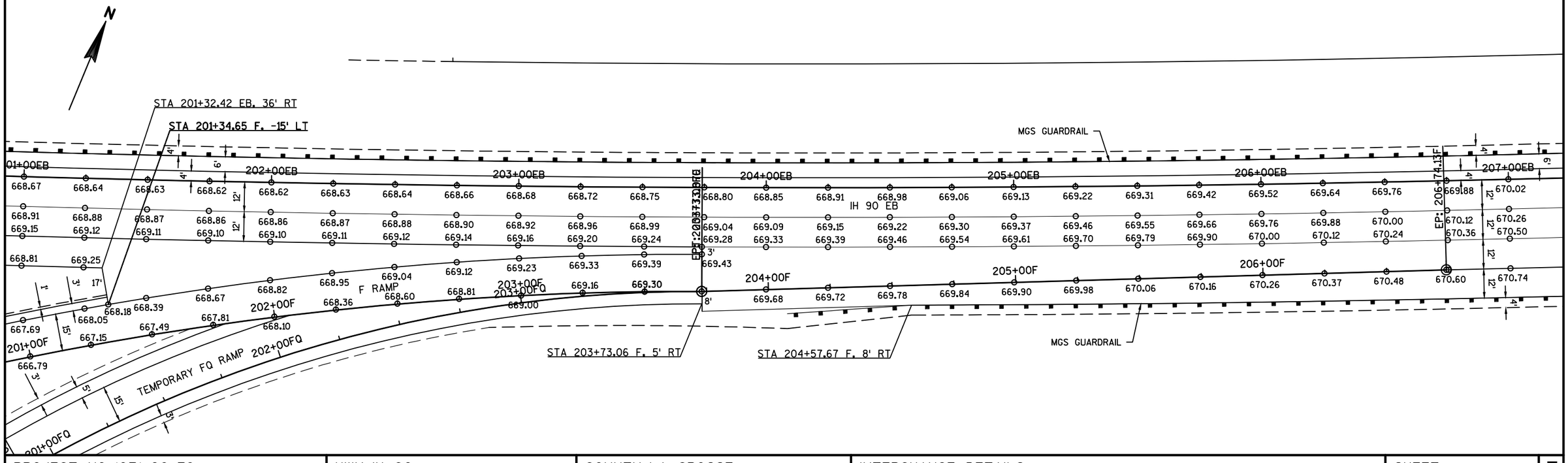
PROJECT NO:1071-06-81	HWY:IH 90	COUNTY:LA CROSSE	INTERCHANGE DETAILS	SHEET 55	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\0681_021200_PD.DWG
LAYOUT NAME - INTERCHANGE DETAILS
PLOT DATE : 7/30/2015 2:11 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

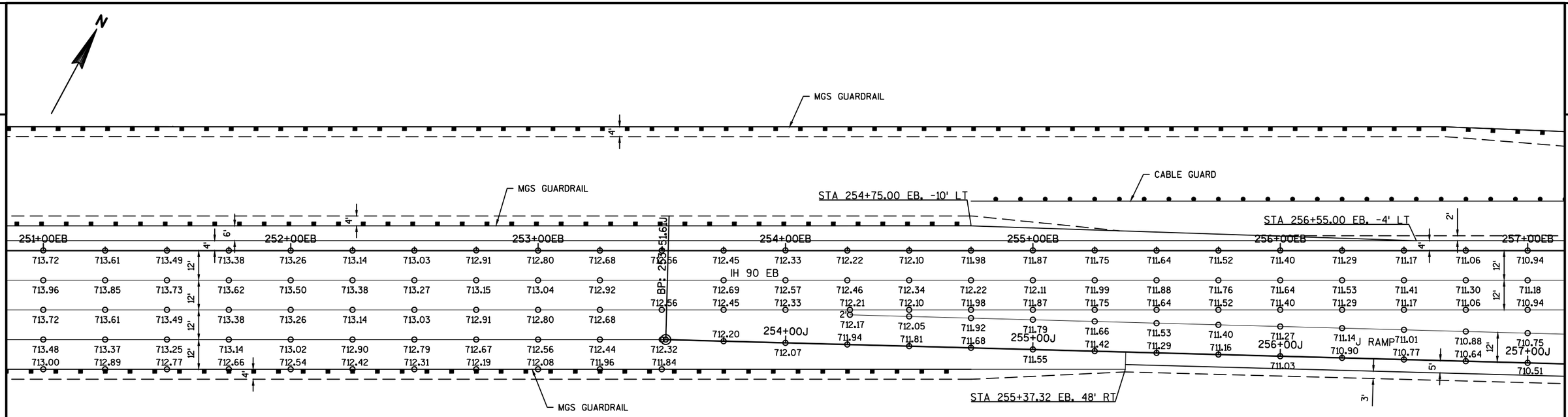


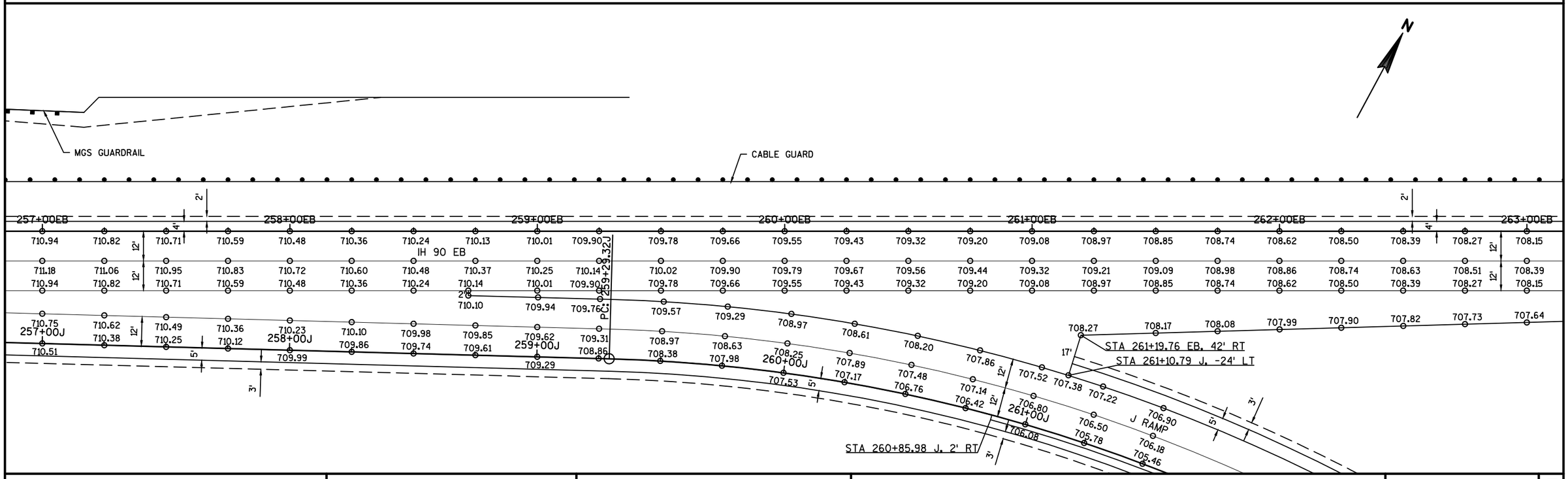
PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	INTERCHANGE DETAILS	SHEET 56 E





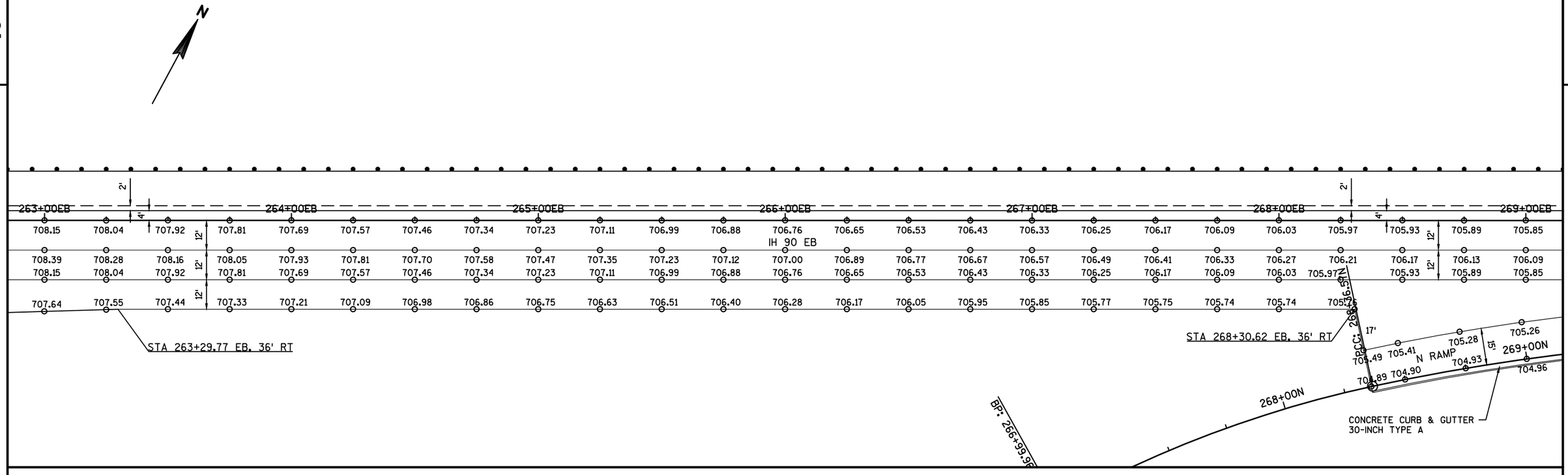
PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	INTERCHANGE DETAILS	SHEET 57	E





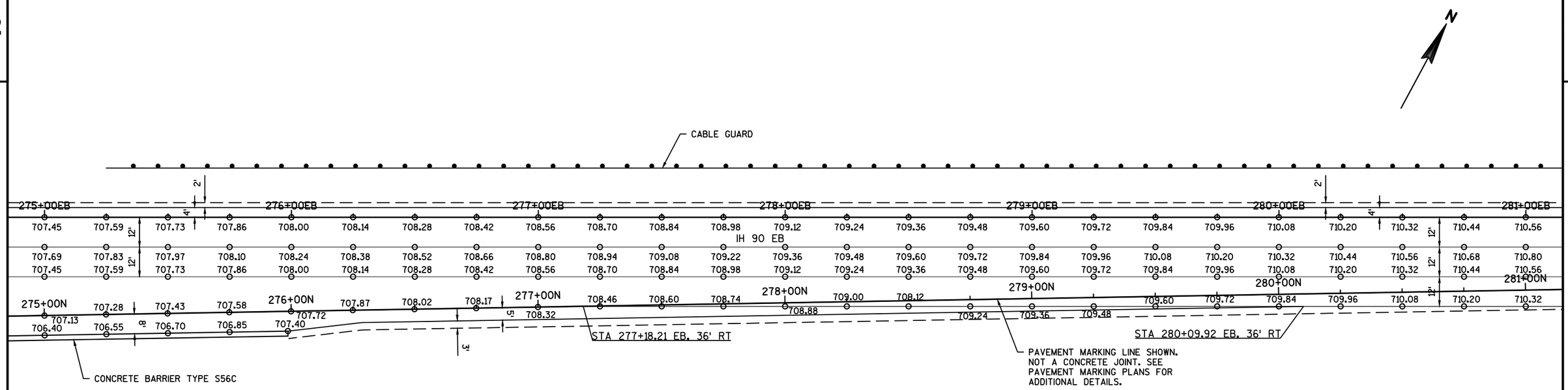
PROJECT NO:1071-06-79	HWY: IH 90	COUNTY:LA CROSSE	INTERCHANGE DETAILS	SHEET 58	E

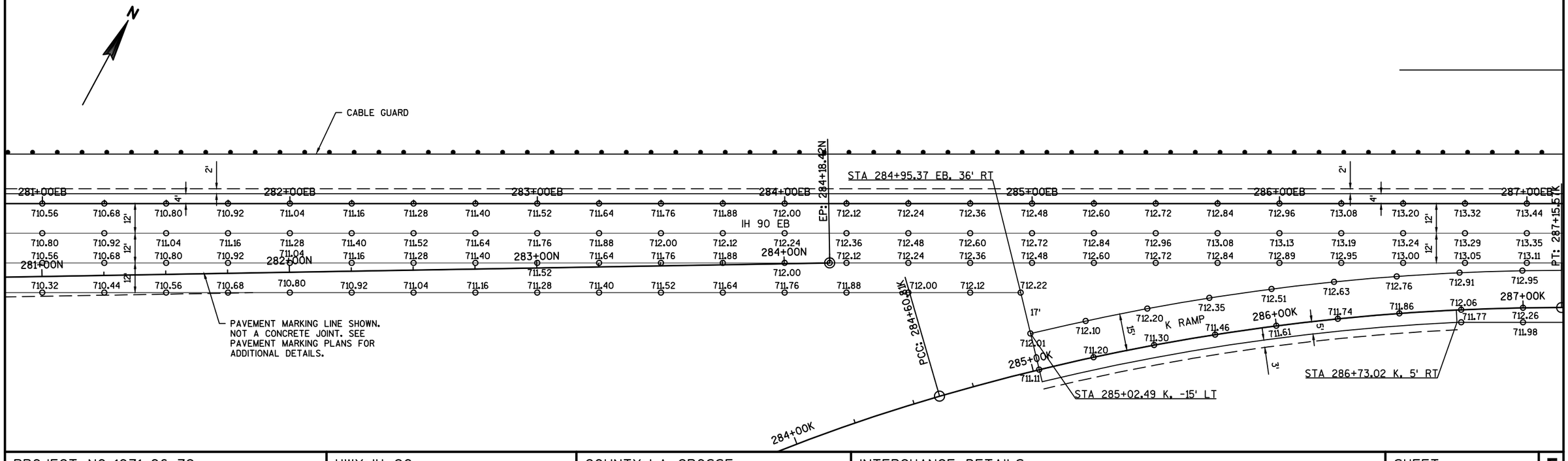
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	INTERCHANGE DETAILS	SHEET 59	E

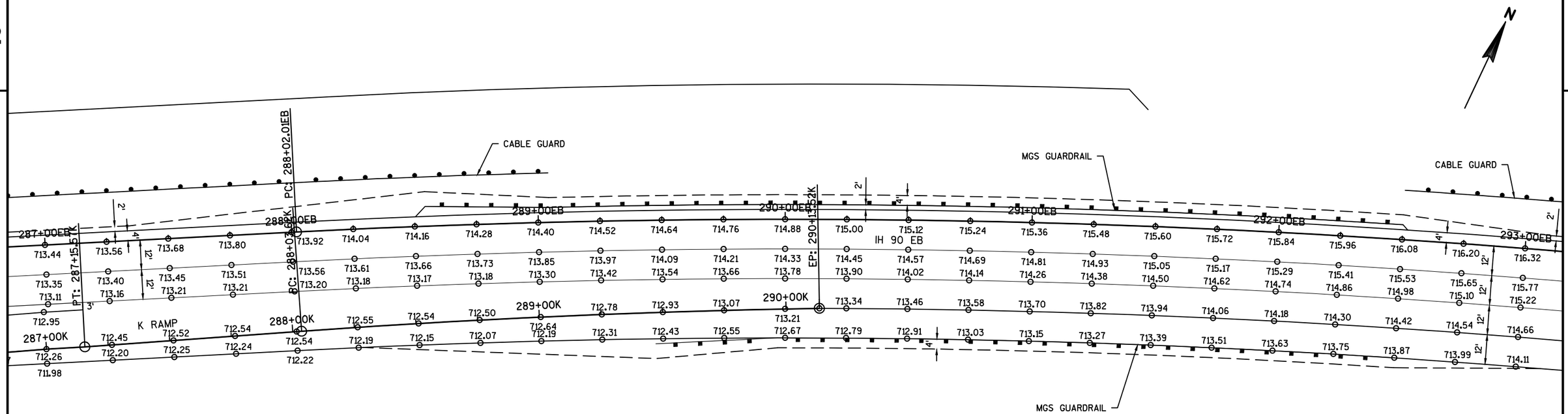
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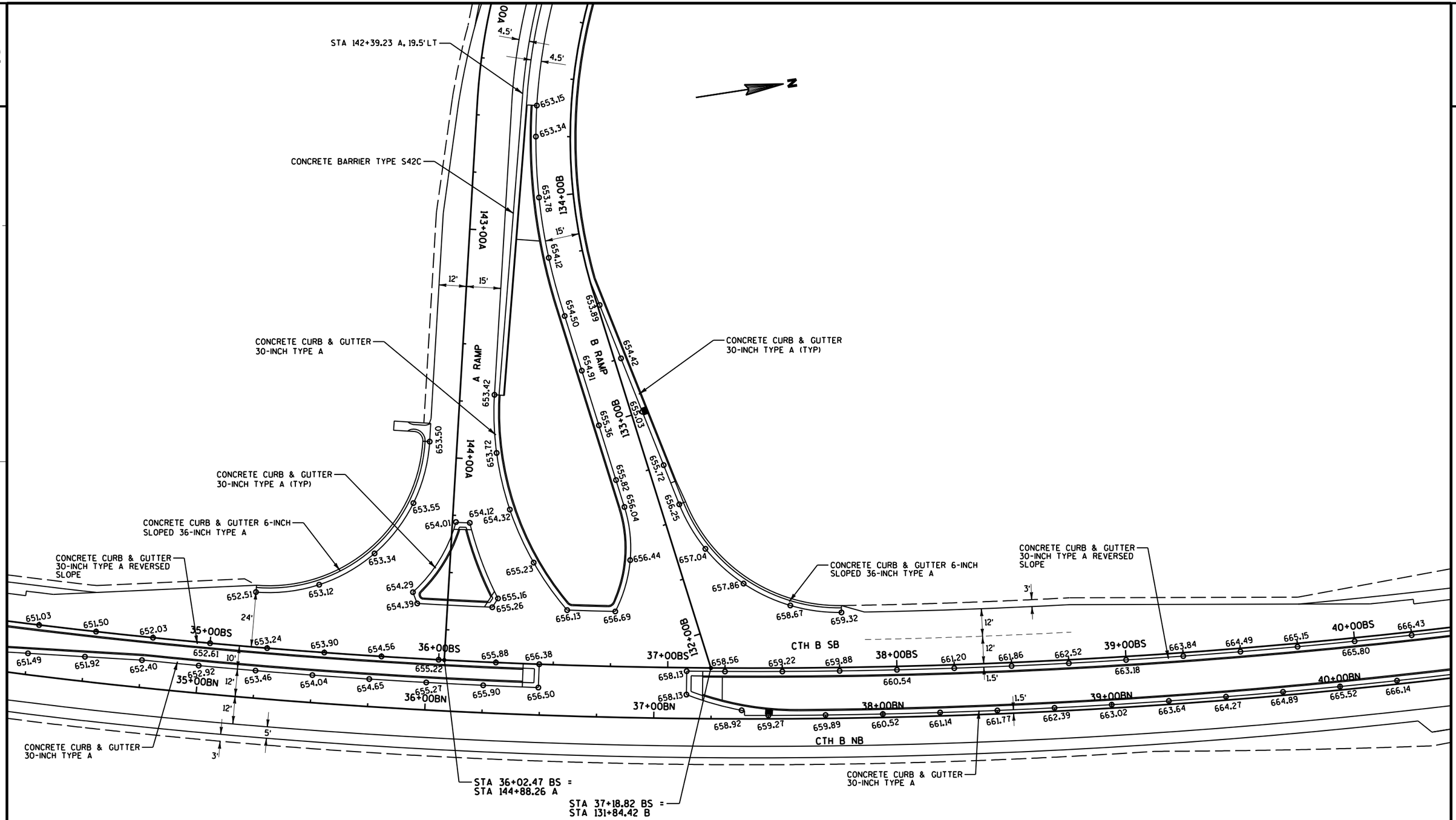
PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	INTERCHANGE DETAILS	SHEET 60	E

2



PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	INTERCHANGE DETAILS	SHEET 61 E

2



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PAVING DETAIL	SHEET 62	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_021201_pd.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:40

2

N

CONCRETE BARRIER TYPE S42C

STA 134+64.90 C, 19.4' RT

CONCRETE CURB & GUTTER 30-INCH TYPE A (TYP)

CONCRETE CURB & GUTTER 30-INCH TYPE A (TYP)

CONCRETE CURB & GUTTER 30-INCH TYPE A (TYP)

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A

CONCRETE CURB & GUTTER 30-INCH TYPE A REVERSED SLOPE (TYP)

CONCRETE CURB & GUTTER 30-INCH TYPE A REVERSED SLOPE (TYP)

STA 48+62.74 BS =
STA 132+73.68 C

STA 49+36.58 BS =
STA 147+02.58 D

C RAMP

D RAMP

133+00C

134+00C

145+00D

146+00D

147+00D

CTH B SB

CTH B NB

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PAVING DETAIL	SHEET 63	E

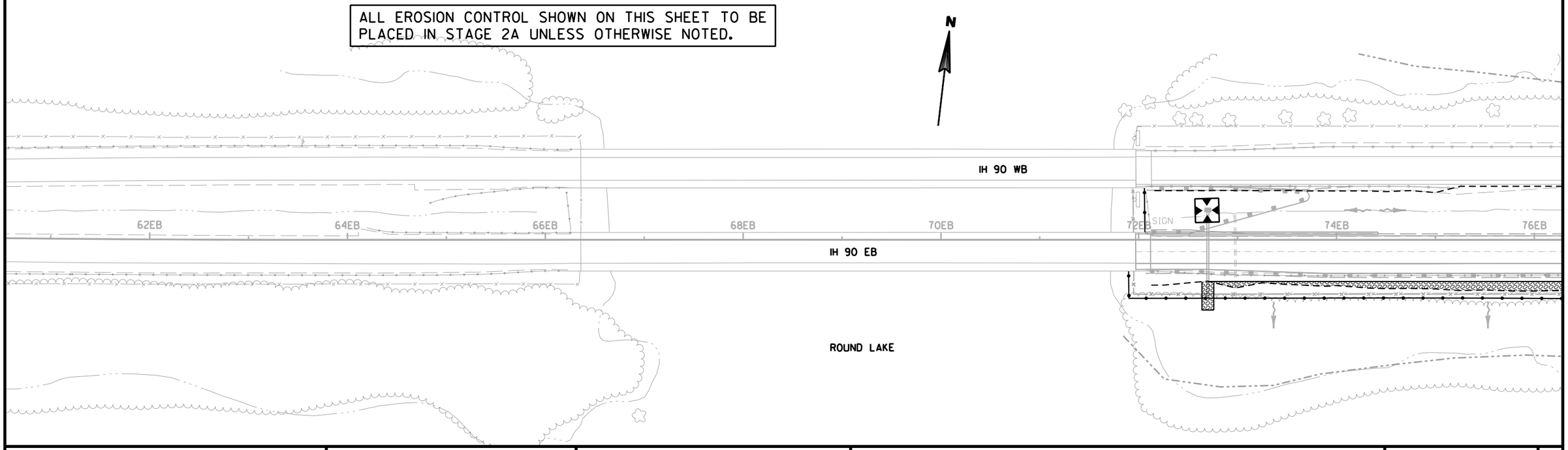
FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_021202_pd.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:40

2

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- BERM
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION TYPE A (UNLESS OTHERWISE NOTED)
- CULVERT PIPE CHECKS
- RIPRAP LIGHT (UNLESS OTHERWISE NOTED)
- SURFACE WATER FLOW

ALL EROSION CONTROL SHOWN ON THIS SHEET TO BE PLACED IN STAGE 2A UNLESS OTHERWISE NOTED.



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 64	E

2

2

N

IH 90 WB

76EB 78EB 80EB 82EB 84EB 86EB 88EB 90EB

IH 90 EB

90RA

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- BERM
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION TYPE A (UNLESS OTHERWISE NOTED)
- CULVERT PIPE CHECKS
- RIPRAP LIGHT (UNLESS OTHERWISE NOTED)
- SURFACE WATER FLOW

ALL EROSION CONTROL SHOWN ON THIS SHEET TO BE PLACED IN STAGE 2A UNLESS OTHERWISE NOTED.

N

WEATHER STATION

CTH BW

TYPES A/B

FRENCH SLOUGH

TURBIDITY BARRIER

IH 90 WB

92EB 94EB 96EB 98EB 100EB 102EB 106EB

B-32-48

IH 90 EB

B-32-75

92RA 94RA 96RA 98RA 100RA 102RA 104RA 106RA

SIGN

REST AREA RAMP

INL

SIGN

W

INL

TYPES A/B

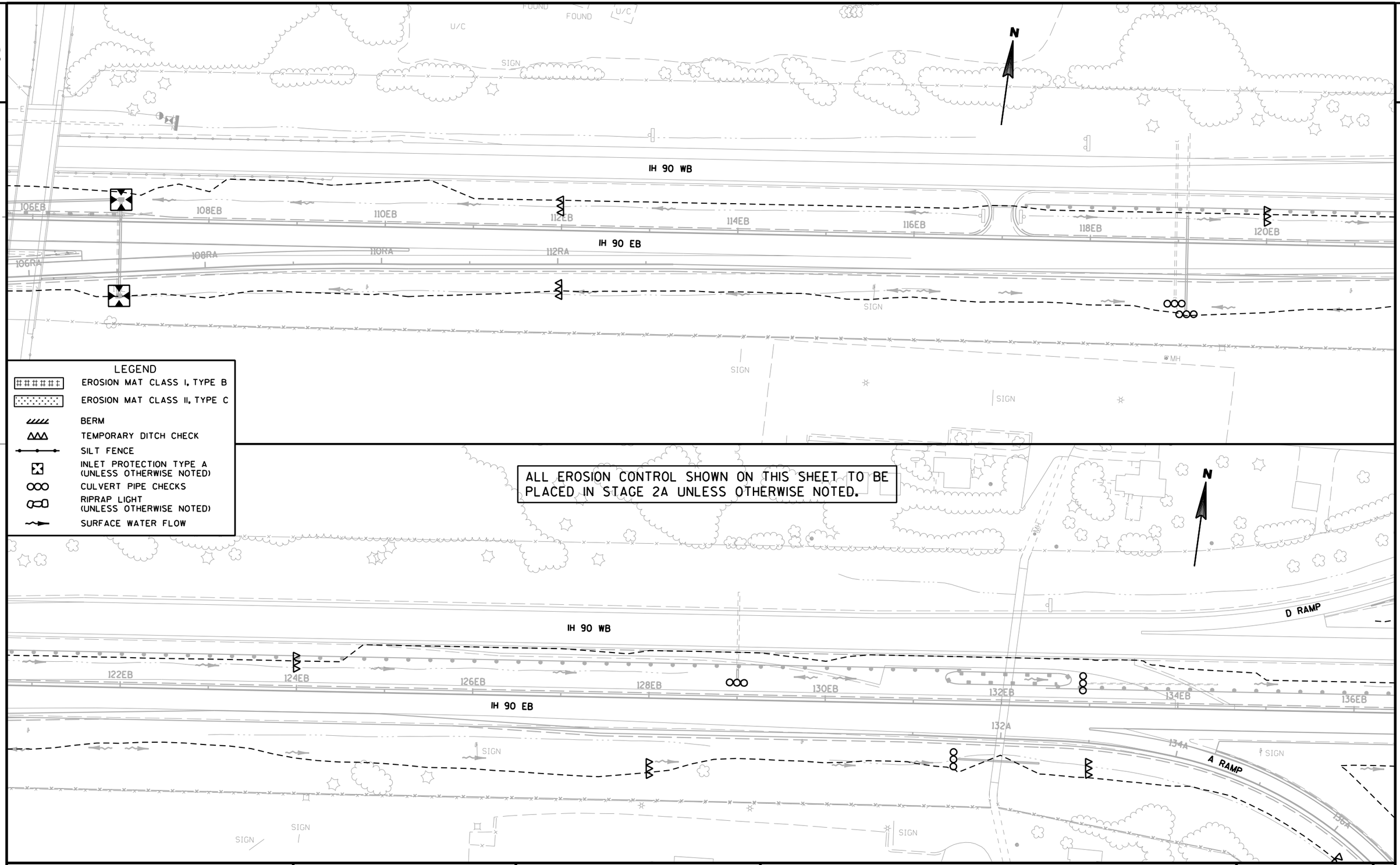
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_022002_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_022003_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

ALL EROSION CONTROL SHOWN ON THIS SHEET TO BE PLACED IN STAGE 2A UNLESS OTHERWISE NOTED.

N

CTH B TO IH 90 WB

IH 90 WB TO CTH B

IH 90 WB

IH 90 EB

CTH B TO IH 90 EB

IH 90 EB TO CTH B

CTH B

STAGE 1

STAGE 1A

STAGE 2C

STAGE 4A

STAGE 3

RIPRAP HEAVY
STAGE 2C

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- BERM
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION TYPE A (UNLESS OTHERWISE NOTED)
- CULVERT PIPE CHECKS
- RIPRAP LIGHT (UNLESS OTHERWISE NOTED)
- SURFACE WATER FLOW

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_022004_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

N

IH 90 WB

152EB 154EB 156EB 158EB 160EB 162EB 164EB 166EB

IH 90 EB

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- BERM
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION TYPE A (UNLESS OTHERWISE NOTED)
- CULVERT PIPE CHECKS
- RIPRAP LIGHT (UNLESS OTHERWISE NOTED)
- SURFACE WATER FLOW

BLACK RIVER

N

ALL EROSION CONTROL SHOWN ON THIS SHEET TO BE PLACED IN STAGE 2A UNLESS OTHERWISE NOTED.

IH 90 WB

166EB 168EB 170EB 172EB 174EB 176EB 178EB 180EB

IH 90 EB

TYPES A/B

STAGE 1

STAGE 5

STAGE 1

STAGE 1

STAGE 1

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_022005_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- BERM
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION TYPE A (UNLESS OTHERWISE NOTED)
- CULVERT PIPE CHECKS
- RIPRAP LIGHT (UNLESS OTHERWISE NOTED)
- SURFACE WATER FLOW

N

ALL EROSION CONTROL SHOWN ON THIS SHEET TO BE PLACED IN STAGE 1 UNLESS OTHERWISE NOTED.

ROSE ST SB TO IH 90 WB

TYPES A/B STAGE 3A

IH 90 WB

STAGE 3A

STAGE 3A

IH 90 EB

182EB

184EB

186EB

188EB

190EB

192EB

194EB

196EB

196EX

184EV

EV RAMP

STAGE 3A

STAGE 3A

ROSE ST SB

ROSE ST NB

IH 90 EB TO ROSE ST NB

SIGN

INL

INL

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 69	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_022006_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

ALL EROSION CONTROL SHOWN ON THIS SHEET TO BE PLACED IN STAGE 1 UNLESS OTHERWISE NOTED.

ROSE ST SB

ROSE ST NB

ROSE ST NB TO IH 90 WB

IH 90 WB TO ROSE ST

IH 90 WB

IH 90 EB

STAGE 3A

STAGE 3A

EX RAMP

ROSE ST TO IH 90 EB

196EB

198EB

204EB

208EB

210EB

196EX

198EX

202FO

200FO

POOL

LEGEND

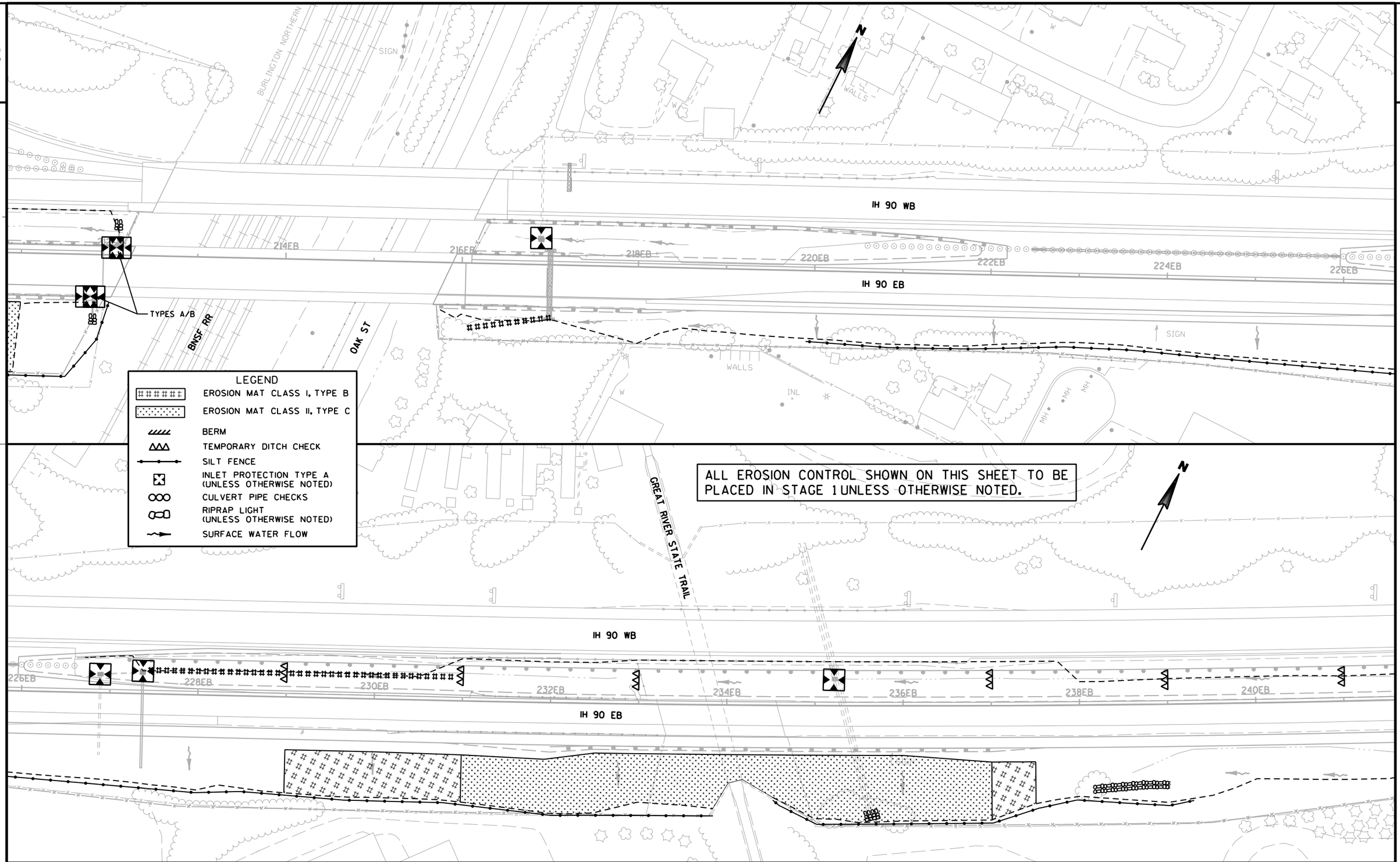
- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- BERM
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION TYPE A (UNLESS OTHERWISE NOTED)
- CULVERT PIPE CHECKS
- RIPRAP LIGHT (UNLESS OTHERWISE NOTED)
- SURFACE WATER FLOW

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_022007_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_022008_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

ALL EROSION CONTROL SHOWN ON THIS SHEET TO BE PLACED IN STAGE 1 UNLESS OTHERWISE NOTED.

IH 90 WB

IH 90 EB

STH 157 SB TO IH 90 WB

12TH AVE

J RAMP

N RAMP

STAGE 3A

TYPES A/B

242EB 244EB 246EB 248EB 250EB 252EB 254EB 256EB

254J 256J 256N

256EB 258EB 260EB 262EB 264EB 266EB 268EB 270EB

270N 268N

256J 258J 260J 262J 264J

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- BERM
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION TYPE A (UNLESS OTHERWISE NOTED)
- CULVERT PIPE CHECKS
- RIPRAP LIGHT (UNLESS OTHERWISE NOTED)
- SURFACE WATER FLOW

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_022009_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

STH 157 NB TO IH 90 WB

IH 90 WB

IH 90 EB

272EB 274EB 276EB 278EB 280EB 282EB 284EB 286EB

286K 284K 282K

K RAMP

STH 157

INL

SIGN

ALL EROSION CONTROL SHOWN ON THIS SHEET TO BE PLACED IN STAGE 1 UNLESS OTHERWISE NOTED.

IH 90 WB TO STH 157

STH 157 NB TO IH 90 EB

286EB 288EB 290EB 292EB 294EB 296EB 298EB 300EB

286K 288K 290K

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- BERM
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION TYPE A (UNLESS OTHERWISE NOTED)
- CULVERT PIPE CHECKS
- RIPRAP LIGHT (UNLESS OTHERWISE NOTED)
- SURFACE WATER FLOW

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_022010_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

N

IH 90 WB

IH 90 EB

302EB

304EB

306EB

308EB

310EB

312EB

314EB

316EB

TYPES A/B

THEATER RD

SIGN

INL

MH

W

N

ALL EROSION CONTROL SHOWN ON THIS SHEET TO BE PLACED IN STAGE 1UNLESS OTHERWISE NOTED.

STAGE 5

STAGE 5

316EB

318EB

320EB

322EB

324EB

326EB

328EB

330EB

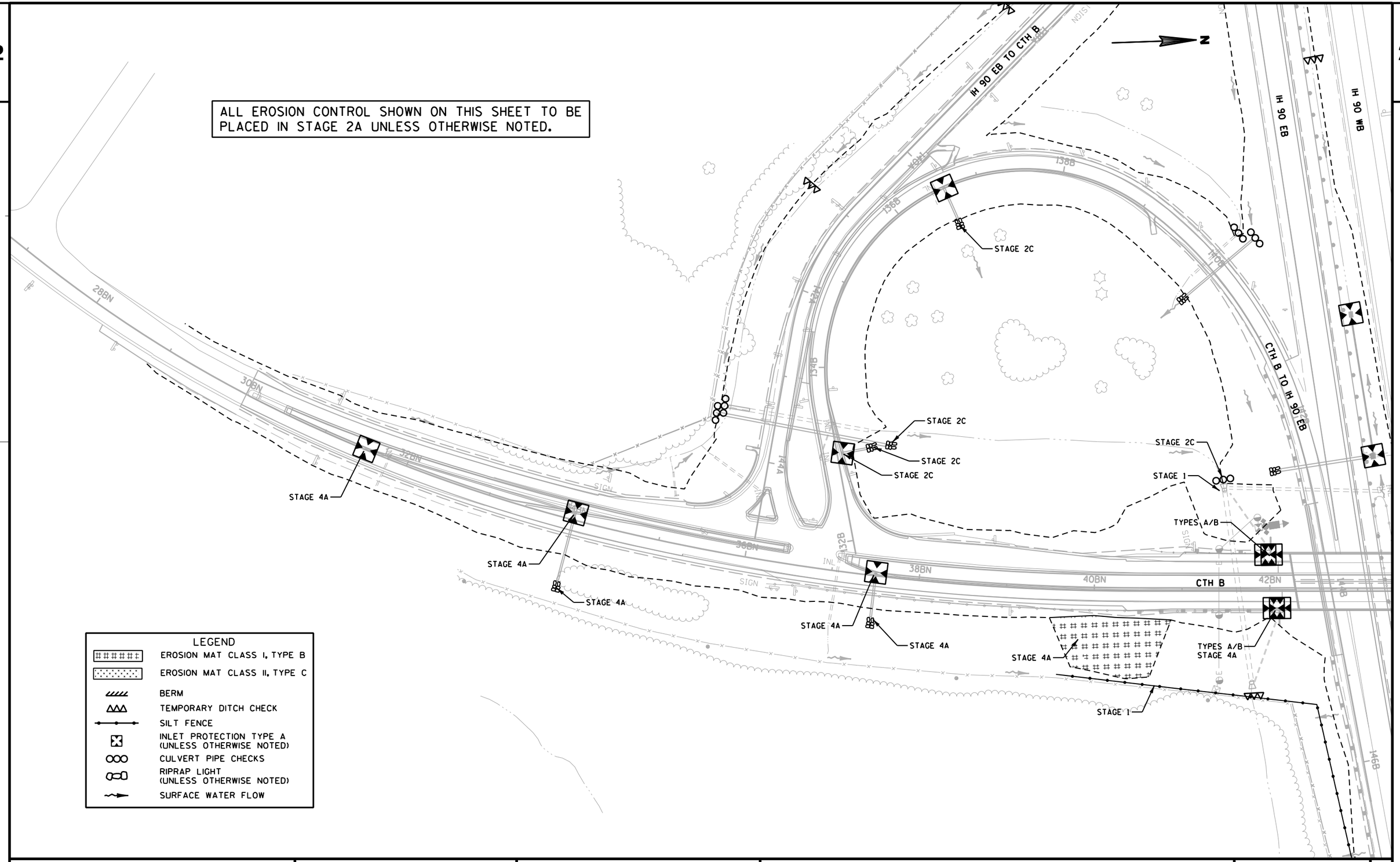
I 90

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- BERM
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION TYPE A (UNLESS OTHERWISE NOTED)
- CULVERT PIPE CHECKS
- RIPRAP LIGHT (UNLESS OTHERWISE NOTED)
- SURFACE WATER FLOW

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 74	E

ALL EROSION CONTROL SHOWN ON THIS SHEET TO BE PLACED IN STAGE 2A UNLESS OTHERWISE NOTED.



LEGEND

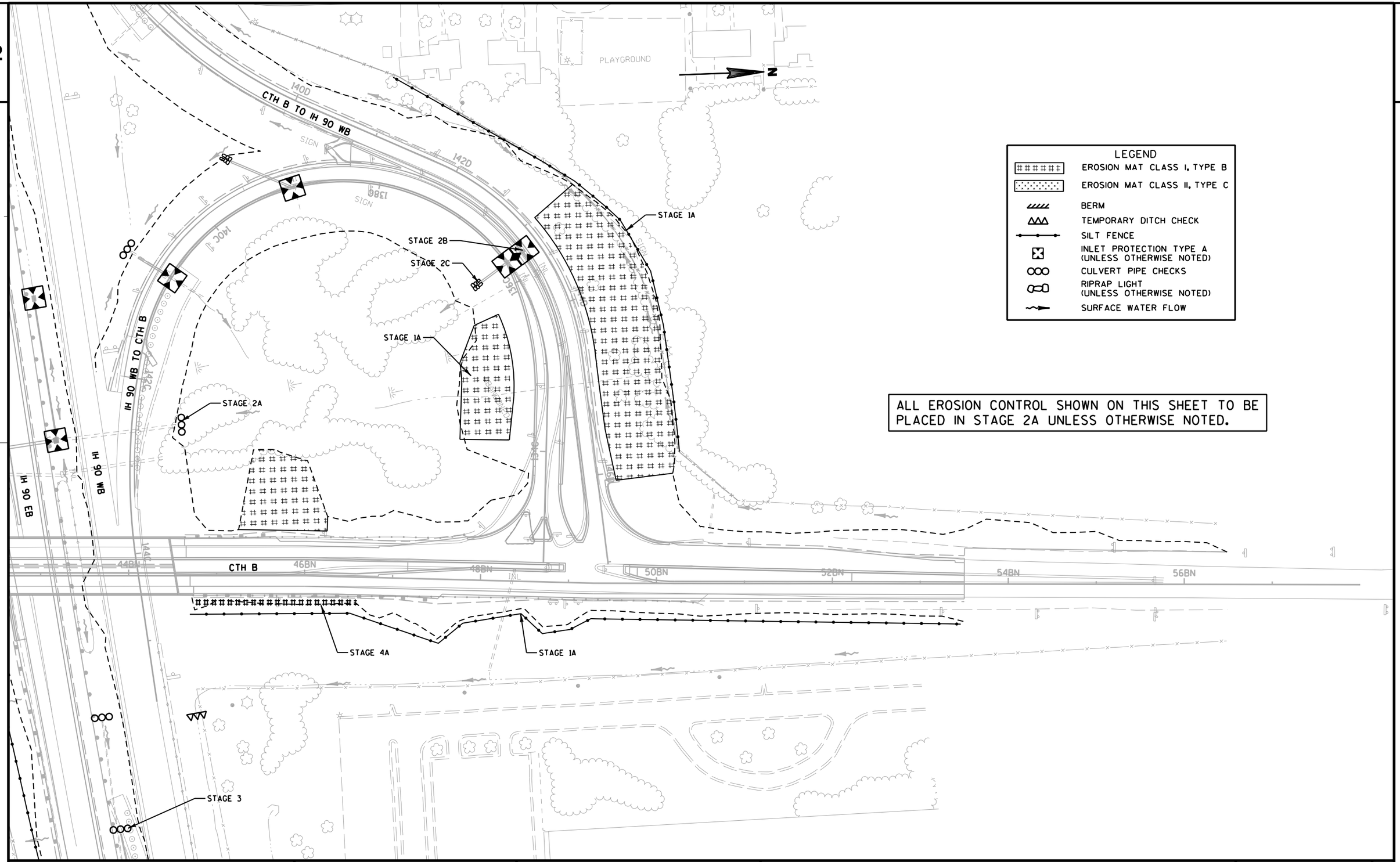
- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- BERM
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION TYPE A (UNLESS OTHERWISE NOTED)
- CULVERT PIPE CHECKS
- RIPRAP LIGHT (UNLESS OTHERWISE NOTED)
- SURFACE WATER FLOW

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL - CTH B	SHEET 75	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_022012_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- BERM
- TEMPORARY DITCH CHECK
- SILT FENCE
- INLET PROTECTION TYPE A (UNLESS OTHERWISE NOTED)
- CULVERT PIPE CHECKS
- RIPRAP LIGHT (UNLESS OTHERWISE NOTED)
- SURFACE WATER FLOW

ALL EROSION CONTROL SHOWN ON THIS SHEET TO BE PLACED IN STAGE 2A UNLESS OTHERWISE NOTED.

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	EROSION CONTROL - CTH B	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_022013_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

N

LEGEND

ESTR	EXISTING SIGN TO REMAIN		TYPE II SIGN ON WOOD POST
X-XX	SIGN - MOVE		EXISTING GROUND MOUNTED TYPE I SIGN
X-XX	SIGN - REMOVE AND REPLACE		PROPOSED GROUND MOUNTED TYPE I SIGN
X-XX	SIGN - REMOVE EXISTING		EXISTING OVERHEAD SIGN STRUCTURE
X-XX	SIGN - PLACE NEW		PROPOSED OVERHEAD SIGN STRUCTURE

WISCONSIN
JOEL D. JURSS
E-32142
WAUKESHA
WI
PROFESSIONAL ENGINEER

9/16/15

BEGIN PROJECT (1071-06-81)
STA 71+96.90 EB

MATCHLINE STA 95+00 EB

ROUND LAKE

50EB 50WB 55EB 55WB 60EB 60WB 65EB 65WB 70EB 70WB 75EB 75WB 80EB 80WB 85EB 85WB 90EB 90WB 95

MILE 1
D10-1
12" X 24"
1-1

REST AREA
E5-52
144" X 54"
1-2 *

NO OVERSIZE LOADS
144" X 18"
1-4 *

REST AREA
E5-54
60" X 66"
*1-3

* COORDINATE PLACEMENT OF SIGNS WITH REST AREA IMPROVEMENT PROJECT (BY OTHERS)

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PERMANENT SIGNING PLAN	SHEET	E

FILE NAME : ch_EB_023201_ps.dgn PLOT DATE : 15-SEP-2015 PLOT BY : jjurss PLOT NAME : PLOT SCALE : 300:1 WISDOT/CADDS 77 12

LEGEND

ESTR	EXISTING SIGN TO REMAIN
X-XX	SIGN - MOVE
X-XX	SIGN - REMOVE AND REPLACE
X-XX	SIGN - REMOVE EXISTING
X-XX	SIGN - PLACE NEW
	TYPE II SIGN ON WOOD POST
	EXISTING GROUND MOUNTED TYPE I SIGN
	PROPOSED GROUND MOUNTED TYPE I SIGN
	EXISTING OVERHEAD SIGN STRUCTURE
	PROPOSED OVERHEAD SIGN STRUCTURE

N

WRONG WAY
R5-1A
36" X 24"
ESTR

SIS
CONTACT INTERSTATE LOGOS - WISCONSIN TO MOVE SIGNS (844) 496-9163

CTH BW

2-3
W5-52R
18" X 54"

2-5
W5-52L
18" X 54"

2-13
WATCH FOR FALLING CONCRETE

DO NOT ENTER
R5-1
30" X 30"
ESTR

MATCHLINE STA 95+00 EB

WB
EB

100WB
100EB
105WB
105EB
110WB
110EB
115WB
115EB
120WB
120EB
125WB
125EB
130

WB I-90
EB I-90

MATCHLINE STA 130+00 EB

2-7
W4-1
48" X 48"

2-8
CLICK-IT
WHY RISK IT?
R5-53A
42" X 54"

EXIT
35
M.P.H.
W13-2
48" X 60"
2-12

STATE LAW
MOVE OVER OR SLOW DOWN FOR STOPPED EMERGENCY VEHICLES
2-10
R5-60
138" X 60"

2-1
RAMP
25
M.P.H.
W13-3
48" X 60"

W5-52R
18" X 54"
2-4

W5-52L
18" X 54"
2-6

R3-1
24" X 24"

NO PARKING ANY TIME
R7-1D
18" X 24"
(WEST)
ESTR

DO NOT ENTER
R5-1
30" X 30"
(EAST)
ESTR

ONE WAY
R6-2R
24" X 30"
ESTR
(MOUNTED ON LIGHT POLE)

NO PARKING ANY TIME
R7-1D
18" X 24"
ESTR

E1-5
96" X 30"
EXIT 2
B
French Island
½ MILE
2-2
E1-1A
252" X 120"

NO OVERNIGHT CAMPING
R55-51
18" X 18"

WRONG WAY
R5-1A
36" X 24"

NO PARKING ANY TIME
R7-1D
18" X 24"
(WEST)
ESTR

NO FISHING OR DIVING FROM BRIDGE
R9-56
18" X 24"
(EAST)
ESTR

La Crosse Airport
EXIT 2
2-9
E3-1
216" X 60"

E1-5
96" X 30"
EXIT 2
B
French Island
2-11
E4-1A
288" X 90"

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PERMANENT SIGNING PLAN	SHEET 78	E

2

LEGEND

ESTR	EXISTING SIGN TO REMAIN		TYPE II SIGN ON WOOD POST
X-XX	SIGN - MOVE		EXISTING GROUND MOUNTED TYPE I SIGN
X-XX	SIGN - REMOVE AND REPLACE		PROPOSED GROUND MOUNTED TYPE I SIGN
X-XX	SIGN - REMOVE EXISTING		EXISTING OVERHEAD SIGN STRUCTURE
X-XX	SIGN - PLACE NEW		PROPOSED OVERHEAD SIGN STRUCTURE

NOTES:

1. MOVE EXISTING SIGNS TO NEW SUPPORTS. SIGNS TO BE REPLACED BY OTHERS UNDER SEPERATE PROJECT (I.D. 1071-06-83)
2. SEE SIGNING DETAIL - TYPE I SIGNS AS REFERENCE FOR SIGN SUPPORTS.

N

BEGIN PROJECT (1071-06-79)
STA 174+26.70 EB

END PROJECT (1071-06-81)
STA 168+64.20 EB

MATCHLINE STA 175+00 EB

MATCHLINE STA 130+00 EB

CTH B

WB I-90

EB I-90

140WB 135WB 145WB 150WB 155WB 160WB 165WB 170WB

135EB 140EB 145EB 150EB 155EB 160EB 165EB 170EB

3-1 MILE 2 — D10-1, 12" X 24"

3-2 EXIT 2 — E5-1A, 72" X 60"

3-3 La Crosse-Onalaska Exits — 300" X 120"

53 SOUTH 35		1
53 NORTH 157		2 ¼
16		3 ½

3-4 W4-1, 48" X 48"

3-5 EXIT 3 / SOUTH 53 35 / La Crosse Onalaska ¾ MILE — E1-1A, 180" X 180"

E1-5, 96" X 30"

3-6 Amtrak Station EXIT 3A / Great River State Trail EXIT 3B — E3-1, 192" X 144" — SEE NOTE (1)

3-7 SPEED LIMIT 70 — R2-1, 48" X 60"

3-8 TOURIST INFO / HOSPITAL EXIT 3A — E3-1, 144" X 120" — SEE NOTE (1)

3-9 Historic Downtown La Crosse EXIT 3A — E3-1, 132" X 108" — SEE NOTE (1)

3-10 BLACK RIVER — I3-1, 36" X 24"

3-11 W5-52R, 18" X 54"

3-12 W5-52L, 18" X 54"

SIS
CONTACT INTERSTATE LOGOS - WISCONSIN TO MOVE SIGNS (844) 496-9163

3-13 EAST INTERSTATE 90 — J4-1, 36" X 54"

3-14 EXIT 25 MPH — W13-2A, 48" X 90"

PROJECT NO: 1071-06-81/79	HWY: IH 90	COUNTY: LA CROSSE	PERMANENT SIGNING PLAN	SHEET 79 E

2

LEGEND

ESTR	EXISTING SIGN TO REMAIN		TYPE II SIGN ON WOOD POST
X-XX	SIGN - MOVE		EXISTING GROUND MOUNTED TYPE I SIGN
X-XX	SIGN - REMOVE AND REPLACE		PROPOSED GROUND MOUNTED TYPE I SIGN
X-XX	SIGN - REMOVE EXISTING		EXISTING OVERHEAD SIGN STRUCTURE
X-XX	SIGN - PLACE NEW		PROPOSED OVERHEAD SIGN STRUCTURE

N

STH 35

MATCHLINE STA 222+00 EB

WB I-90/USH 53

EB I-90/USH 53

220WB 220EB 215WB 215EB 210WB 210EB 205WB 205EB 200WB 200EB 195WB 195EB 190WB 190EB 185WB 185EB 180WB 180EB

WB I-90

EB I-90

S-32-57

4-12
EXIT 3A
E5-1B
72" X 60"

MILE 3
D10-1
12" X 24"
4-2

SIGN STRUCTURE REMOVED BY PROJECT 1071-06-80

MATCHLINE STA 175+00 EB

USH 53/STH 35

W5-52L
18" X 54"
4-6

W5-52R
18" X 54"
4-5

EXIT 30 M.P.H.
W13-2
48" X 60"
4-4

EXIT 35 M.P.H.
W13-2
48" X 60"
4-1

EXIT 4
NORTH 53 157
La Crosse
Onalaska
¾ MILE
4-11

W4-3
48" X 48"
4-8

EXIT 3B
NORTH 53 35
Onalaska
¼ MILE
ESTR

EXIT 3A
SOUTH 53 35
La Crosse

NORTH 53 AHEAD

NORTH
M 3-3
35
M1-6

LOW BRIDGE
14' - 10" MAX
W12-50
144" X 48"
4-3

TRAFFIC CONTROL
COVERING SIGNS TYPE I

EXIT 3B
E5-1B
72" X 60"
4-7

EXIT 3B
NORTH 35
Onalaska
4-12

REMOVE CANTILEVER SIGN STRUCTURE
MOUNT EXISTING SIGN ON GROUND SUPPORTS

EAST INTERSTATE 90
J4-1
36" X 54"
4-10

E1-5
96" X 30"

EXIT 4
90 EAST
Madison
53 157 NORTH
La Crosse
Onalaska
¾ MILE
EXIT ONLY
384" X 180"
S-32-57
4-9

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PERMANENT SIGNING PLAN	SHEET 80	E

FILE NAME : ch_EB_023204_ps.dgn PLOT DATE : 27-JUL-2015 PLOT BY : jpieroni PLOT NAME : PLOT SCALE : 300:1

2

LEGEND

ESTR	EXISTING SIGN TO REMAIN		TYPE II SIGN ON WOOD POST
X-XX	SIGN - MOVE		EXISTING GROUND MOUNTED TYPE I SIGN
X-XX	SIGN - REMOVE AND REPLACE		PROPOSED GROUND MOUNTED TYPE I SIGN
X-XX	SIGN - REMOVE EXISTING		EXISTING OVERHEAD SIGN STRUCTURE
X-XX	SIGN - PLACE NEW		PROPOSED OVERHEAD SIGN STRUCTURE

N

MATCHLINE STA 260+00 EB

MATCHLINE STA 222+00 EB

WB I-90/USH 53

EB I-90/USH 53

12th AVE

255WB 255EB 250WB 250EB 245WB 245EB 240WB 240EB 235WB 235EB 230WB 230EB 225WB 225EB

S-32-60

E1-5
96" X 30"

EXIT 4

90 EAST
Madison

53 NORTH 157
La Crosse
Onalaska

EXIT ONLY

384" X 168"
S-32-60

5-8

5-2

SPEED LIMIT 70

R2-1
48" x 60"

SIS

CONTACT INTERSTATE
LOGOS - WISCONSIN
TO MOVE SIGN
(844) 496-9163

E1-5
96" X 30"

EXIT 4

NORTH
53 157
La Crosse
Onalaska

EXIT ONLY

E6-51
180" X 186"

5-7

5-5

MILE 4

D10-1
12" X 24"

SIS

CONTACT INTERSTATE
LOGOS - WISCONSIN
TO MOVE SIGN
(844) 496-9163

5-6

Western
Technical College
EXIT 4

E3-1
216" X 84"

5-3

UW La Crosse
Viterbo University
EXIT 4

E3-1
228" X 96"

Western
Technical College
EXIT 4

5-4

UW La Crosse
Viterbo University
EXIT 4

5-1

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PERMANENT SIGNING PLAN	SHEET 81	E

LEGEND

ESTR	EXISTING SIGN TO REMAIN
X-XX	SIGN - MOVE
X-XX	SIGN - REMOVE AND REPLACE
X-XX	SIGN - REMOVE EXISTING
X-XX	SIGN - PLACE NEW
	TYPE II SIGN ON WOOD POST
	EXISTING GROUND MOUNTED TYPE I SIGN
	PROPOSED GROUND MOUNTED TYPE I SIGN
	EXISTING OVERHEAD SIGN STRUCTURE
	PROPOSED OVERHEAD SIGN STRUCTURE

N

6-5 ONLY R3-5L 42" X 48"

6-6 ONLY R3-5L 42" X 48" S-32-61

6-7 ONLY R3-5R 42" X 48"

NORTH 53 | WEST 157 | EAST 157 | ALTERNATE INTERSTATE 90

J2-4 144" X 84" 6-3

SIS

CONTACT INTERSTATE LOGOS - WISCONSIN TO MOVE SIGN (844) 496-9163

EXIT 4

E5-1A 72" X 60" 6-1

W3-3 36" X 36" 6-2

W4-1 48" X 48" 6-8

S-32-61

W4-3 48" X 48" 6-9

MILE 5 D10-1 12" X 24" 6-10

J4-1 36" X 54"

S-32-62

6-4

EAST INTERSTATE 90

La Crosse River State Trail EXIT 5

E3-1 192" X 84" 6-13

E1-5 96" X 30"

EXIT 5

90 EAST Madison | 16 La Crosse Onalaska ¾ MILE | EXIT | ONLY

S-32-62 384" X 180" 6-12

90 Madison | 16 Onalaska ¾ MILE

NEXT EXIT 7 MILES

E2-1 156" X 24"

REMOVE EXISTING SIGN STRUCTURE S-32-24

6-11

MATCHLINE STA 300+00 EB

MATCHLINE STA 260+00 EB

295WB 295EB 290WB 290EB WB I-90 EB I-90 285WB 285EB 280WB 280EB 275WB 275EB 270WB WB I-90/USH 53 270EB EB I-90/USH 53 265WB 265EB 260WB 260EB

USH 53/STH 157

STH 157

PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	PERMANENT SIGNING PLAN	SHEET 82	E

FILE NAME : ch_EB_023206_ps.dgn PLOT DATE : 31-JUL-2015 PLOT BY : jpieroni PLOT NAME : PLOT SCALE : 300:1

WISDOT/CADDS SHEET 42

2

LEGEND

ESTR	EXISTING SIGN TO REMAIN
X-XX	SIGN - MOVE
X-XX	SIGN - REMOVE AND REPLACE
X-XX	SIGN - REMOVE EXISTING
X-XX	SIGN - PLACE NEW
	TYPE II SIGN ON WOOD POST
	EXISTING GROUND MOUNTED TYPE I SIGN
	PROPOSED GROUND MOUNTED TYPE I SIGN
	EXISTING OVERHEAD SIGN STRUCTURE
	PROPOSED OVERHEAD SIGN STRUCTURE

N

7-1
SPEED LIMIT 70
R2-1
48" x 60"

END PROJECT (1071-06-79)
STA 312+07.00 EB

MATCHLINE STA 300+00 EB

305WB 310WB 315WB 320WB WB I-90 325WB 330WB 335WB
305EB 310EB 315EB 320EB EB I-90 325EB 330EB 335EB

THEATER RD

S-32-63

EXIT 5
16
Onalaska
¼ MILE
EXIT ONLY
7-5
REMOVE EXISTING SIGN STRUCTURE S-32-25

W5-52L
18" X 54"
7-3

W5-52R
18" X 54"
7-4

Our Lady of Guadalupe Shrine
EXIT 5
216" X 84"
7-2

E1-5
96" X 30"
EXIT 5
90 EAST
Madison
16
La Crosse
Onalaska
EXIT ONLY
S-32-63
384" X 168"
7-6

EXIT
5
E5-1A
72" X 60"
ESTR

W3-3
36" X 36"
ESTR

16 EAST
Onalaska
West Salem
E6-51
180" X 150"
7-9

16 WEST
Onalaska
La Crosse
E6-51
156" X 150"
7-10

EXISTING SIGN STRUCTURE TO REMAIN

84" X 30"
EXIT 5
90
Madison
16
Onalaska
EXIT ONLY
E6-51
204" X 120"
7-7
156" X 132"
7-8

REMOVE EXISTING SIGN STRUCTURE S-32-26

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PERMANENT SIGNING PLAN	SHEET 83	E

A — WRONG WAY (R5-1A, 36" X 24") — 8-31, 8-36, 8-37, 8-38, 8-40

B — DO NOT ENTER (R5-1, 30" X 30") — 8-19, 8-34, 8-35, 8-39

N

BEGIN CONSTRUCTION
STA 30+00.00 BS

END CONSTRUCTION
STA 55+68.82 BS

CTH B

30BS 30BN 35BS 35BN 40BS 40BN 45BS 45BN 50BS 50BN 55BS 55BN

135A 135EB 135WB 135D 135C 135B 140D 140C 140B 140EB 140WB 145D 145C 145B 145EB 145WB 150EB 150WB

EB I-90 WB I-90

8-1 W6-2 36" X 36"

8-2 ALTERNATE INTERSTATE 90 / COUNTY B — J1-1 24" X 36" / M1-5A 24" X 24"

8-3 STOP — R1-1 36" X 36"

8-4 ONE WAY — R6-2R 24" X 30"

8-5 W12-1D 24" X 24"

8-6 8-7 STOP — R1-1 36" X 36"

8-8 8-9 8-10 — R4-7 24" X 30"

8-11 DO NOT ENTER — R5-1C 36" X 36"

8-12 EAST INTERSTATE 90 — J3-1 24" X 57"

8-13 EAST INTERSTATE 90 — J3-1 24" X 57"

8-14 WEST INTERSTATE 90 — J2-1 24" X 57"

8-15 SPEED LIMIT 35 — R2-1 24" X 30"

8-16 La Crosse / Madison — D1-2 72" X 24"

8-17 EAST INTERSTATE 90 — J2-1 24" X 57"

8-18 MINNESOTA — D1-1 72" X 15"

8-20 WEST INTERSTATE 90 — J3-1 24" X 57"

8-21 ONE WAY — R6-2L 24" X 30"

8-22 8-23 8-24 — R4-7 24" X 30"

8-25 STOP — R1-1 36" X 36"

8-26 W12-1D 24" X 24"

8-27 8-28 STOP — R1-1 36" X 36"

8-29 WEST INTERSTATE 90 — J3-1 24" X 57"

8-30 COUNTY B — M1-5A 24" X 24"

8-32 W6-2 36" X 36"

8-33 8-41 DO NOT ENTER — R5-1C 36" X 36"

ALTERNATE INTERSTATE 90 / COUNTY B — J4-2 48" X 36"

NOTE: SIGNS FOR RAMPS SHOWN ELSEWHERE IN THE PLANS

LEGEND

ESTR	EXISTING SIGN TO REMAIN		WOOD POST
X-XX	SIGN - MOVE		EXISTING GROUND MOUNTED SIGN
X-XX	SIGN - REMOVE AND REPLACE		PROPOSED GROUND MOUNTED SIGN
X-XX	SIGN - REMOVE EXISTING		EXISTING OVERHEAD SIGN STRUCTURE
X-XX	SIGN - PLACE NEW		PROPOSED OVERHEAD SIGN STRUCTURE

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PERMANENT SIGNING PLAN	SHEET 84	E

2

N

C 9-8 9-9 9-10 9-11 9-12 9-13 9-14 9-15 9-16 9-17 9-18 9-19 9-23 9-24 9-25 9-26 9-34 9-35 9-36 9-37 9-38 9-39 9-40 9-41 9-42 9-43 9-44 9-45

W1-8
24" X 30"

9-33
W3-1
48" X 48"

SIS
CONTACT INTERSTATE LOGOS - WISCONSIN TO MOVE SIGNS (844) 496-9163

SIS
CONTACT INTERSTATE LOGOS - WISCONSIN TO MOVE SIGNS (844) 496-9163

9-7
9-32
W3-1
48" X 48"

SIS
CONTACT INTERSTATE LOGOS - WISCONSIN TO MOVE SIGNS (844) 496-9163

9-6
La Crosse AIRPORT
D9-52
36" X 36"

9-21
W3-1
48" X 48"

9-22
La Crosse AIRPORT
D9-52
36" X 36"

9-2
ALTERNATE
COUNTY B
INTERSTATE 90
J3-2
48" X 57"

9-1
WRONG WAY
R5-1A
36" X 24"

9-20
PEDESTRIANS
BICYCLES
NON MOTORIZED TRAFFIC
MOTOR BICYCLES
PROHIBITED
R5-57
36" X 36"

9-27
ALTERNATE
COUNTY B
INTERSTATE 90
J3-2
48" X 57"

CTH B

30BS
30BN
35BS
35BN
40BS
40BN
45BS
45BN
50BS
50BN
55BS
55BN

135A
135B
135C
135D
135EB
135WB
140A
140B
140C
140D
140EB
140WB
145A
145B
145C
145D
145EB
145WB
150EB
150WB

EB I-90
WB I-90

SIGNS MOUNTED ON BARRIER WALL

9-5
PEDESTRIANS
BICYCLES
NON MOTORIZED TRAFFIC
MOTOR BICYCLES
PROHIBITED
R5-57
36" X 36"

SIGNS MOUNTED ON BARRIER WALL

9-31
W3-1
48" X 48"

RAMP
30
M.P.H.
9-30
W13-3
24" X 30"

END CONSTRUCTION
STA 55+68.82 BS

BEGIN CONSTRUCTION
STA 30+00.00 BS

9-3
WRONG WAY
R5-1A
36" X 24"

9-4
RAMP
25
MPH
W13-3A
36" X 60"

9-28
9-29
WRONG WAY
R5-1A
36" X 24"

NOTE: SIGNS FOR CTH B SHOWN ELSEWHERE IN THE PLANS

LEGEND

ESTR	EXISTING SIGN TO REMAIN		WOOD POST
X-XX	SIGN - MOVE		EXISTING GROUND MOUNTED SIGN
(X-XX)	SIGN - REMOVE AND REPLACE		PROPOSED GROUND MOUNTED SIGN
[X-XX]	SIGN - REMOVE EXISTING		EXISTING OVERHEAD SIGN STRUCTURE
X-XX	SIGN - PLACE NEW		PROPOSED OVERHEAD SIGN STRUCTURE

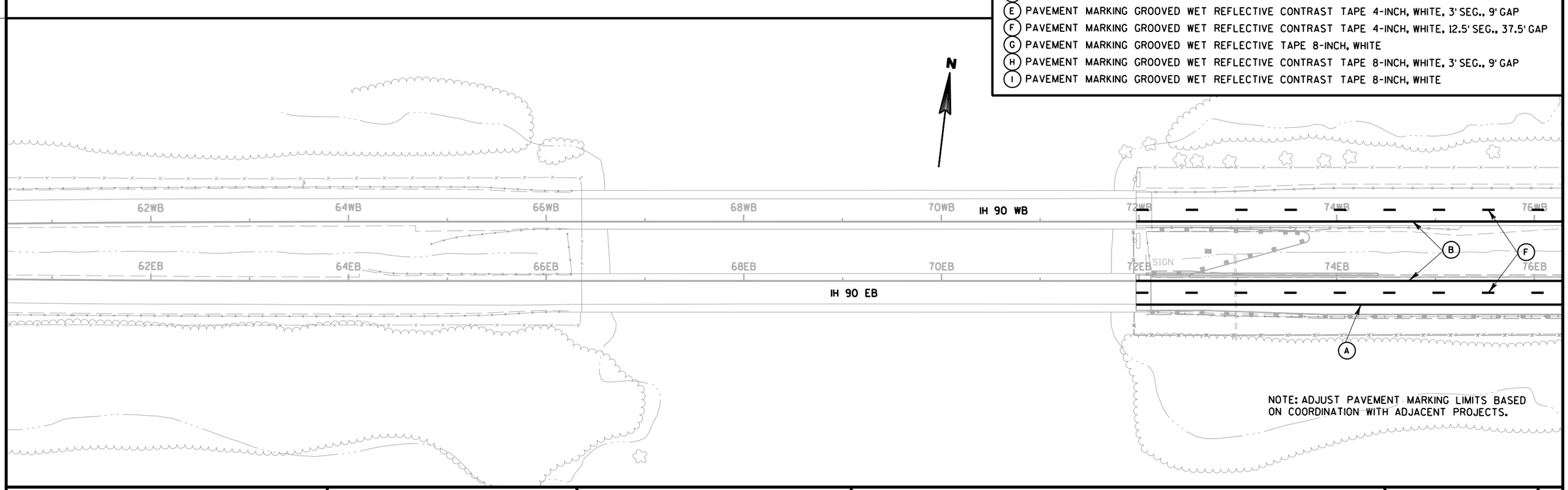
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PERMANENT SIGNING PLAN	SHEET 85	E

2

2

LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 8-INCH, WHITE
- (D) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (E) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (G) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH, WHITE
- (H) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE, 3' SEG., 9' GAP
- (I) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE



NOTE: ADJUST PAVEMENT MARKING LIMITS BASED ON COORDINATION WITH ADJACENT PROJECTS.

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_024501_pm.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

N

FLEXIBLE TUBULAR MARKER
POSTS TO REMAIN

76WB 78WB 80WB 82WB 84WB 86WB 88WB 90WB

IH 90 WB

76EB 78EB 80EB 82EB 84EB 86EB 88EB 90EB

IH 90 EB

SIGN SIGN 90RA

B F E A G

LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 8-INCH, WHITE
- (D) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (E) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (G) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH, WHITE
- (H) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE, 3' SEG., 9' GAP
- (I) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE

N

WEATHER STATION

FRENCH
SLOUGH

CTH BW

92WB 94WB 96WB 98WB 100WB 102WB 104WB 106WB

IH 90 WB

92EB 94EB 96EB 98EB 100EB 102EB 104EB 106EB

IH 90 EB

B F

G B A A

SIGN SIGN INL 100RA 102RA SIGN 104RA REST AREA RAMP

REST AREA RAMP

INL INL SIGN

B A

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_024502_pm.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2



LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 8-INCH, WHITE
- (D) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (E) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (G) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH, WHITE
- (H) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE, 3' SEG., 9' GAP
- (I) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_024503_pm.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

CTH B TO IH 90 WB

IH 90 WB TO CTH B

IH 90 WB

IH 90 EB

CTH B TO IH 90 EB

IH 90 EB TO CTH B

CTH B

ABANDONED

SIGN

INL

136D 138D 140D 142C 140C

136WB 138WB 140WB 142WB 146WB 148WB 150WB

136EB 138EB 140EB 142EB 146EB 148EB 150EB

N

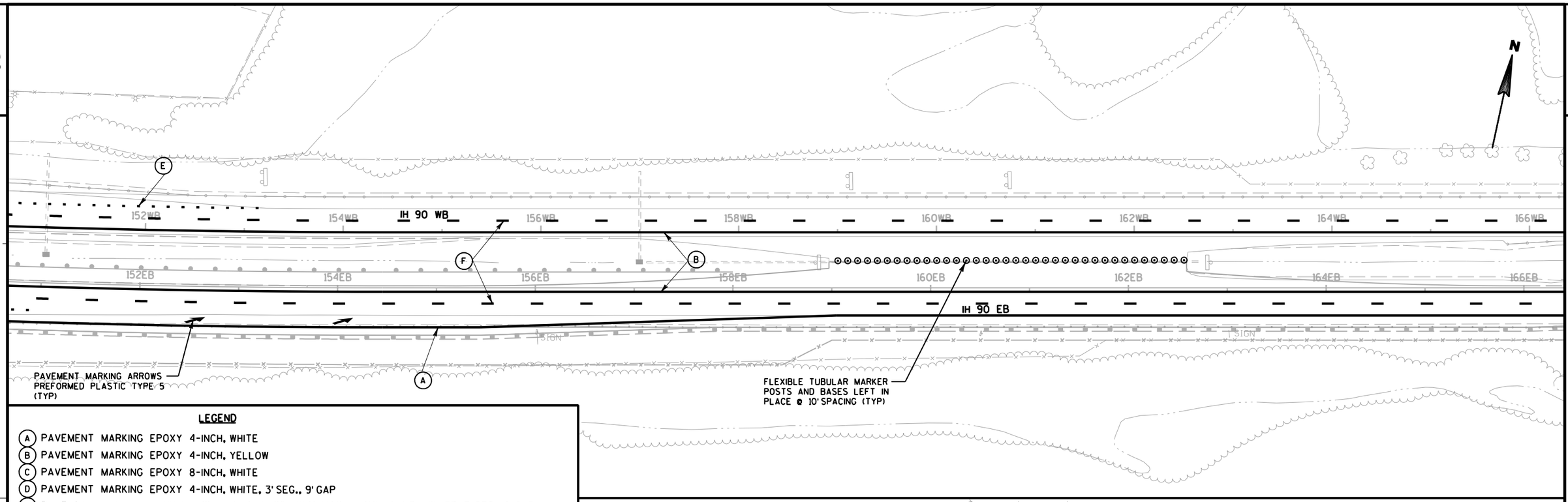
LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 8-INCH, WHITE
- (D) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (E) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (G) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH, WHITE
- (H) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE, 3' SEG., 9' GAP
- (I) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET 89	E

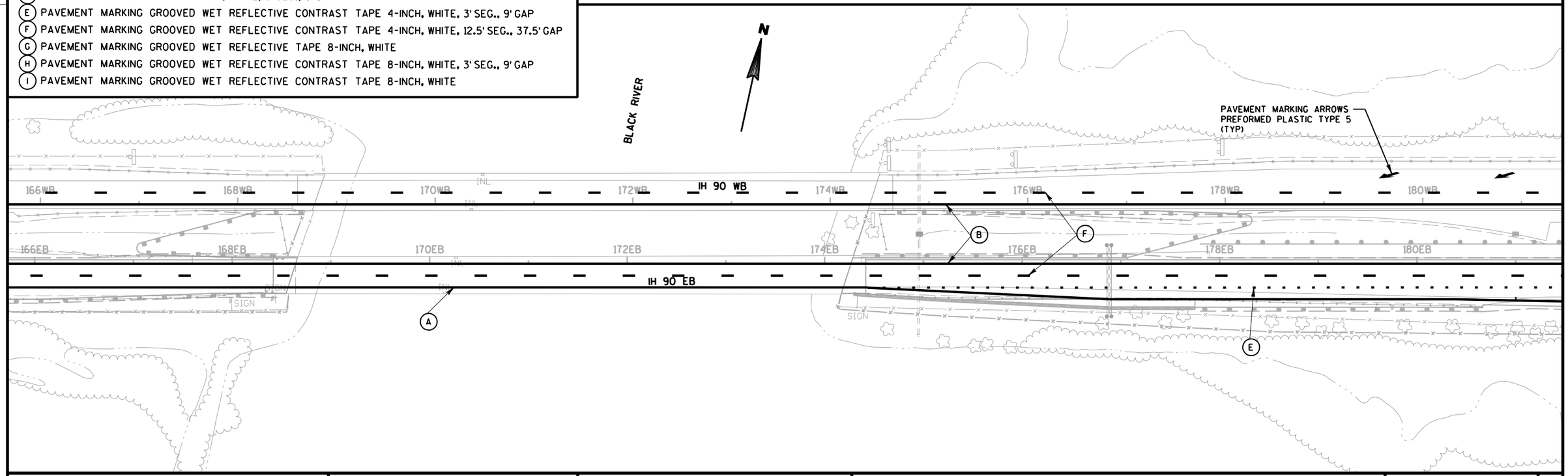
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2



LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 8-INCH, WHITE
- (D) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (E) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (G) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH, WHITE
- (H) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE, 3' SEG., 9' GAP
- (I) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE



PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET 90	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_024505_pm.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 8-INCH, WHITE
- (D) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (E) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (G) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH, WHITE
- (H) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE, 3' SEG., 9' GAP
- (I) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE

N

ROSE ST SB TO IH 90 WB

IH 90 WB

IH 90 EB

182WB 184WB 186WB 188WB 190WB 192WB 194WB 196WB

182EB 184EB 186EB 188EB 190EB 192EB 194EB 196EB

FLEXIBLE TUBULAR MARKER POSTS AND BASES LEFT IN PLACE @ 10' SPACING (TYP)

FLEXIBLE TUBULAR MARKER POSTS AND BASES LEFT IN PLACE @ 10' SPACING (TYP)

IH 90 EB TO ROSE ST SB

ROSE ST SB

ROSE ST NB

IH 90 EB TO ROSE ST NB

SIGN

INL

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_024506_pm.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

N

ROSE ST SB

ROSE ST NB

ROSE ST NB TO IH 90 WB

IH 90 WB TO ROSE ST

IH 90 WB

IH 90 EB

IH 90 EB TO ROSE ST NB

ROSE ST TO IH 90 EB

196WB 198WB 200WB 202WB 204WB 206WB 208WB 210WB

196EB 198EB 200EB 202EB 204EB 206EB 208EB 210EB

SIGN

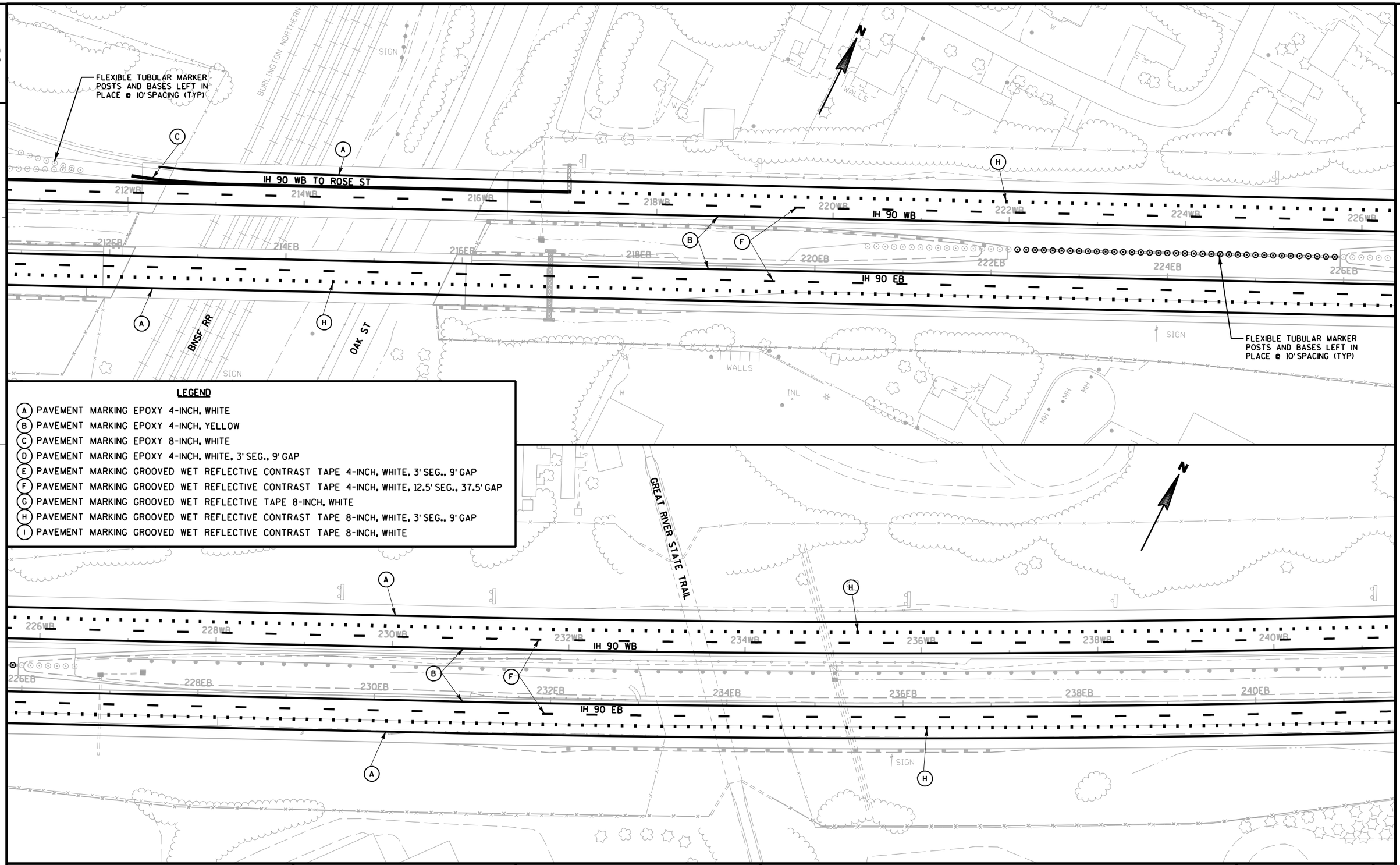
POOL

LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 8-INCH, WHITE
- (D) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (E) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (G) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH, WHITE
- (H) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE, 3' SEG., 9' GAP
- (I) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET 92	E

2

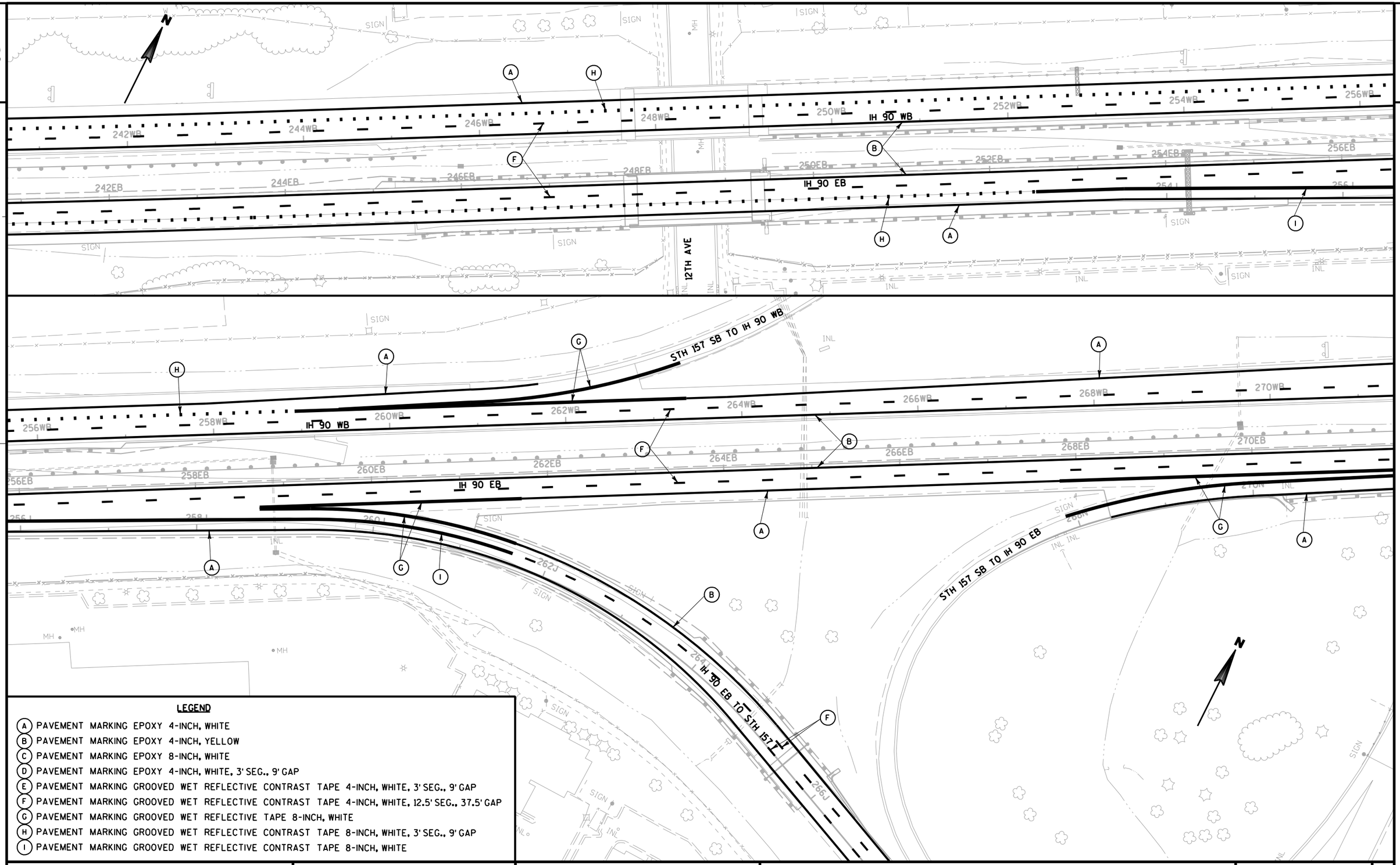


LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 8-INCH, WHITE
- (D) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (E) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (G) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH, WHITE
- (H) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE, 3' SEG., 9' GAP
- (I) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_024508_pm.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42



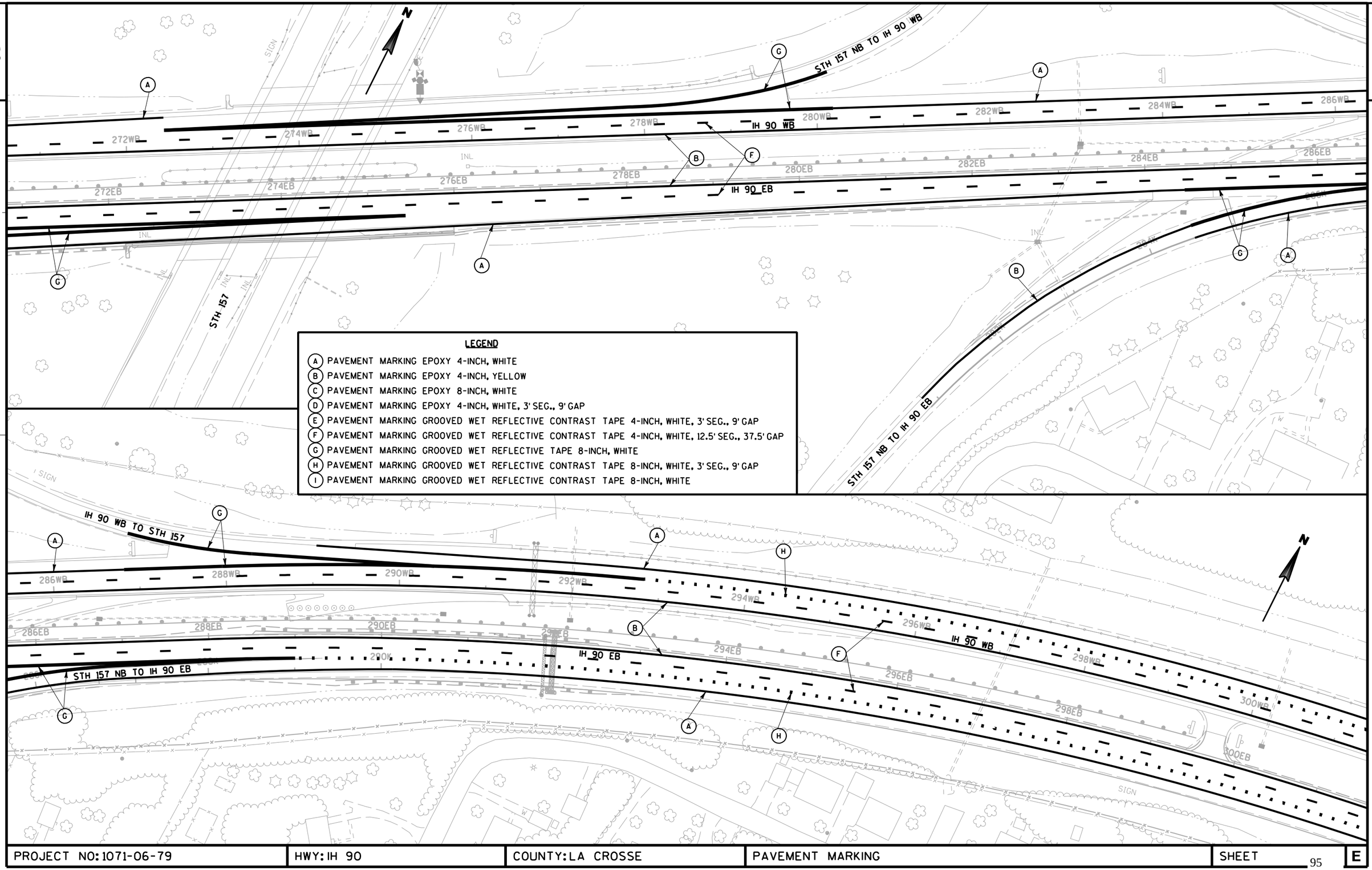
LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 8-INCH, WHITE
- (D) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (E) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (G) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH, WHITE
- (H) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE, 3' SEG., 9' GAP
- (I) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_024509_pm.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

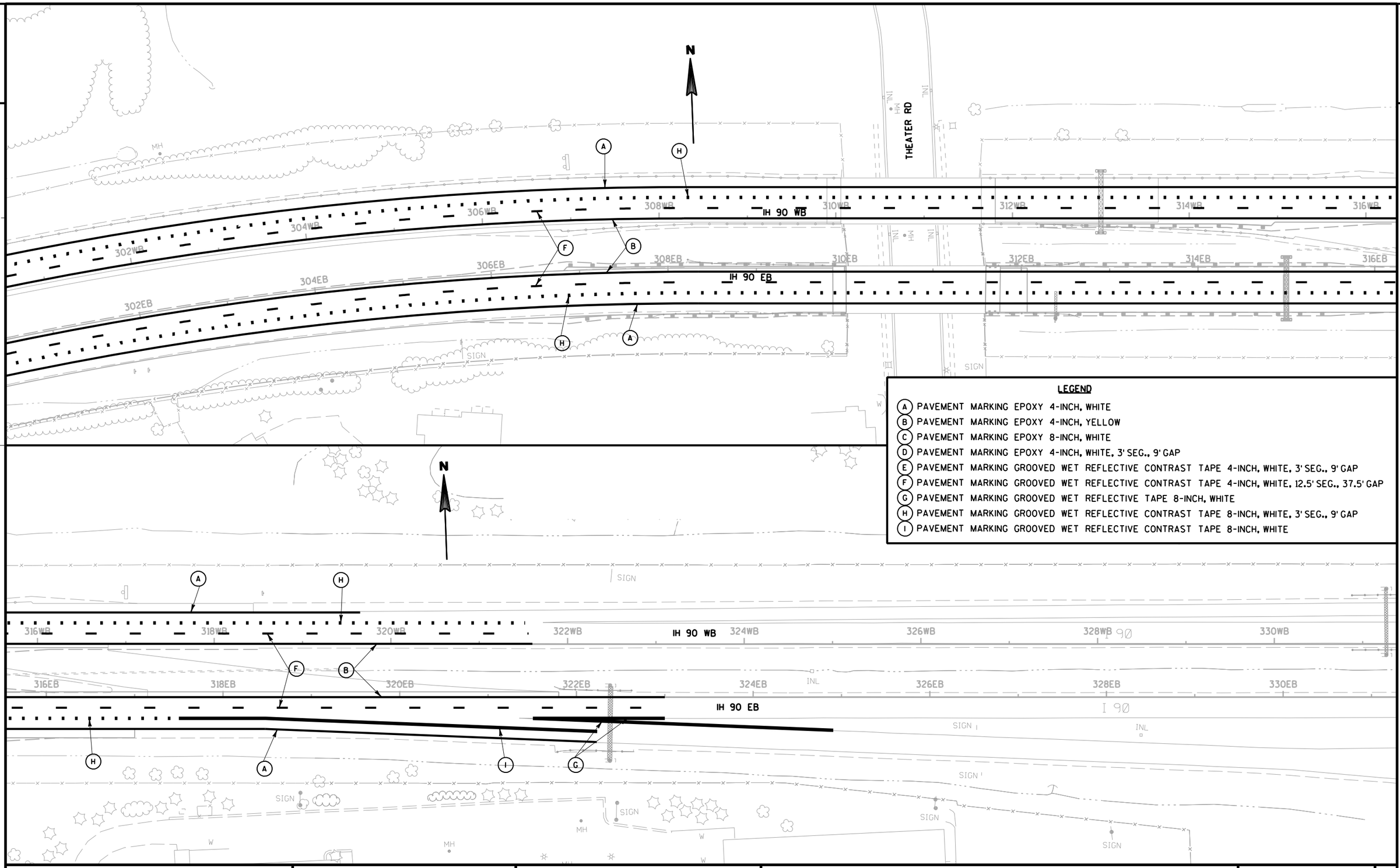


LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 8-INCH, WHITE
- (D) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (E) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (G) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH, WHITE
- (H) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE, 3' SEG., 9' GAP
- (I) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET 95	E

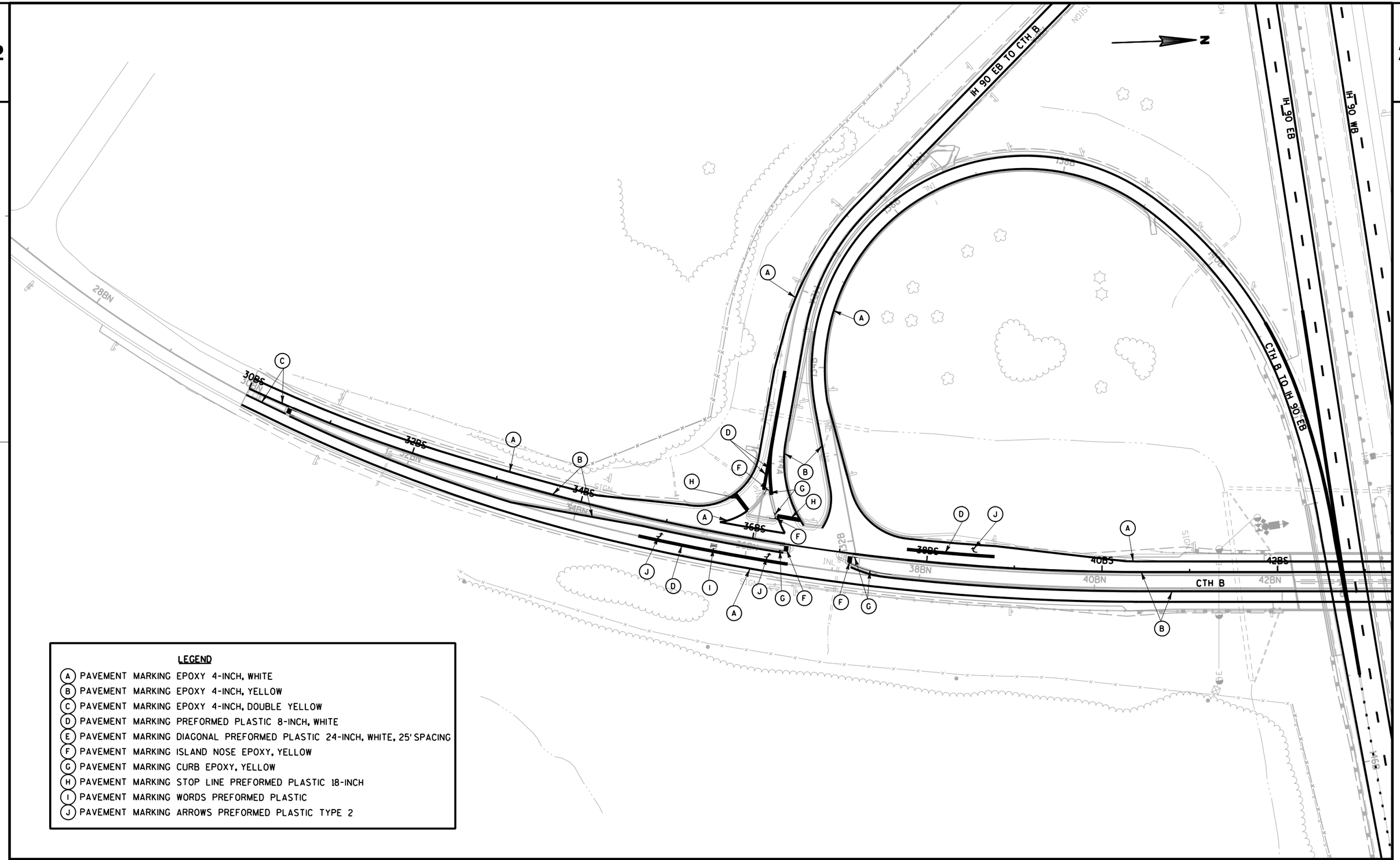
2



LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 8-INCH, WHITE
- (D) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (E) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (G) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH, WHITE
- (H) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE, 3' SEG., 9' GAP
- (I) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH, WHITE

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET 96	E



LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 4-INCH, DOUBLE YELLOW
- (D) PAVEMENT MARKING PREFORMED PLASTIC 8-INCH, WHITE
- (E) PAVEMENT MARKING DIAGONAL PREFORMED PLASTIC 24-INCH, WHITE, 25' SPACING
- (F) PAVEMENT MARKING ISLAND NOSE EPOXY, YELLOW
- (G) PAVEMENT MARKING CURB EPOXY, YELLOW
- (H) PAVEMENT MARKING STOP LINE PREFORMED PLASTIC 18-INCH
- (I) PAVEMENT MARKING WORDS PREFORMED PLASTIC
- (J) PAVEMENT MARKING ARROWS PREFORMED PLASTIC TYPE 2

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING - CTH B	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_024512_pm.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

PLAYGROUND

N

CTH B TO IH 90 WB

IH 90 WB TO CTH B

IH 90 EB

IH 90 WB

CTH B

SIGN

140D

142D

144D

146D

140C

142C

144C

146C

138B

ABANDONED

46BS

46BN

48BS

48BN

50BS

50BN

52BS

52BN

54BS

54BN

56BN

A

B

D

F

G

H

I

J

LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 4-INCH, DOUBLE YELLOW
- (D) PAVEMENT MARKING PREFORMED PLASTIC 8-INCH, WHITE
- (E) PAVEMENT MARKING DIAGONAL PREFORMED PLASTIC 24-INCH, WHITE, 25' SPACING
- (F) PAVEMENT MARKING ISLAND NOSE EPOXY, YELLOW
- (G) PAVEMENT MARKING CURB EPOXY, YELLOW
- (H) PAVEMENT MARKING STOP LINE PREFORMED PLASTIC 18-INCH
- (I) PAVEMENT MARKING WORDS PREFORMED PLASTIC
- (J) PAVEMENT MARKING ARROWS PREFORMED PLASTIC TYPE 2

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PAVEMENT MARKING - CTH B	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_024513_pm.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

GENERAL NOTES FOR TRAFFIC CONTROL

DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON CONTRACTOR METHODS OR SEQUENCE OF OPERATION.

ADJUST SIGN SPACING TO AVOID CONFLICT WITH AND TO PROVIDE A MINIMUM SPACING OF 200 FEET (500 FEET DESIRABLE) TO EXISTING SIGNS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

REMOVE OR COVER ANY TEMPORARY OR EXISTING SIGNS THAT CONFLICT WITH "IN USE" TRAFFIC CONTROL.

ALL TRAFFIC CONTROL SIGNING WILL CONFORM TO PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION, & THE WISCONSIN SUPPLEMENT, DATED MAY 25, 2011.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF DRUMS.

IF LANE CLOSURES ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

INSTALL THE LANE CLOSURE SERIES AS A COMPLETE UNIT THAT INCLUDES ALL ADVANCE WARNING SIGNING, DRUMS, AND ARROW BOARDS.

WARNING LIGHTS SHALL NOT BE WORKING ON "COVERED" OR "DOWNED" SIGNS OR BARRICADES.

DURING HOURS OF DARKNESS, ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH TYPE "A" LIGHTS.

ALL TYPE III BARRICADES SHALL HAVE AN EQUIVALENT WIDTH OF 8 FEET.

REMOVE ALL EXISTING PAVEMENT MARKINGS CONFLICTING WITH THE TRAFFIC CONTROL OR NOT APPROPRIATE TO THE TRAVEL PATH FOR OPERATIONS IN PLACE FOR MORE THAN 4 CONTINUOUS DAYS.

SEE SIGNING PLAN FOR STAGES/LOCATIONS PERMANENT SIGNS ARE PLACED.

PROVIDE 2' SHY DISTANCE FROM LANE LINE TO FACE OF CONCRETE BARRIER UNLESS CALLED OUT OTHERWISE.

FOR TEMPORARY PAVEMENT MARKINGS CALLED OUT AS REFLECTIVE PAINT/REMOVABLE TAPE, THE INTENT IS TO USE REMOVABLE TAPE IN AREAS DIAGONAL TO FINAL LANES OF CONCRETE AND REFLECTIVE PAINT ELSEWHERE. THE ENGINEER MAY MODIFY THE LOCATIONS OF REFLECTIVE PAINT/REMOVABLE TAPE TO FIT FIELD CONDITIONS AND SAFETY CONCERNS.

FLAGS PLACED ON TRAFFIC CONTROL SIGNS ARE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL SIGN.

TEMPORARY ALIGNMENT DESIGNATION	ROADWAY SEGMENT	PROJECT	STAGE(S) CONSTRUCTED	STAGE(S) IN USE
AT	TEMP IH90 EB TO CTH B RAMP	1071-06-81	1A,WB	2A
AU	TEMP IH90 EB TO CTH B RAMP	1071-06-81	2A,WB	2B
BT	TEMP CTH B TO IH90 EB RAMP	1071-06-81	1	2A,2B
BU	TEMP CTH B TO IH90 EB RAMP	1071-06-81	2A,WB	2C
CV	TEMP IH90 WB TO CTH B RAMP	1071-06-81	1A,WB	2A,2B
DV	TEMP CTH B TO IH90 WB RAMP	1071-06-81	1A,WB	2A
ET	TEMP IH90 EB TO ROSE ST SB RAMP	1071-06-79	WB	1,2
EU	TEMP IH90 EB TO ROSE ST SB RAMP	1071-06-79	1,2,WB	3,4
EV	TEMP IH90 EB TO ROSE ST SB RAMP	1071-06-79	1	5A
EW	TEMP IH90 EB TO ROSE ST RAMP	1071-06-79	3	**
EX	TEMP IH90 EB TO ROSE ST NB RAMP	1071-06-79	3	5A
FO	TEMP ROSE ST TO IH90 EB RAMP	1071-06-79	1	5A
FU	TEMP ROSE ST TO IH90 EB RAMP	1071-06-79	WB	1,2
FW	TEMP ROSE ST TO IH90 EB RAMP (ALI ONLY)	1071-06-79	1,2	3,4
GW	TEMP IH90 WB TO ROSE ST SB RAMP	1071-06-79	WB	1A,1B,1C
GX	FINAL IH90 WB TO ROSE ST SB RAMP(ALI ONLY)	1071-06-79	WB	1,2,3,4,5
JU	TEMP IH90 EB TO STH 157 RAMP	1071-06-79	WB	1,2
JV	TEMP IH90 EB TO STH 157 RAMP	1071-06-79	WB,1,2	3,4
KT	TEMP STH 157 NB TO IH90 EB RAMP	1071-06-79	WB	1,2
KU	TEMP STH 157 NB TO IH90 EB RAMP	1071-06-79	WB,1,2	3,4
ST	TEMP IH90 EB TO STH 16 RAMP	1071-06-79	WB	1,2,3,4
TE	TEMP IH90 EB X-OVER	1071-06-79	WB	1,2,3,4
TN	TEMP WIDENING NB ROSE ST	1071-06-79	WB	1A,1B,1C
TS	TEMP WIDENING SB ROSE ST	1071-06-79	WB	1A,1B,1C
UE	TEMP IH90 EB X-OVER	1071-06-79	WB	1,3,4
VW	TEMP IH90 WB X-OVER	1071-06-79	2C	**
WE	TEMP IH90 EB & WB (ALI ONLY)	1071-06-79	WB	1,2,3,4

WB (WB PROJECT - CONSTRUCTED PREVIOUSLY BY OTHERS)

** FOR USE IN FUTURE

2

GENERAL NOTES FOR PCMS

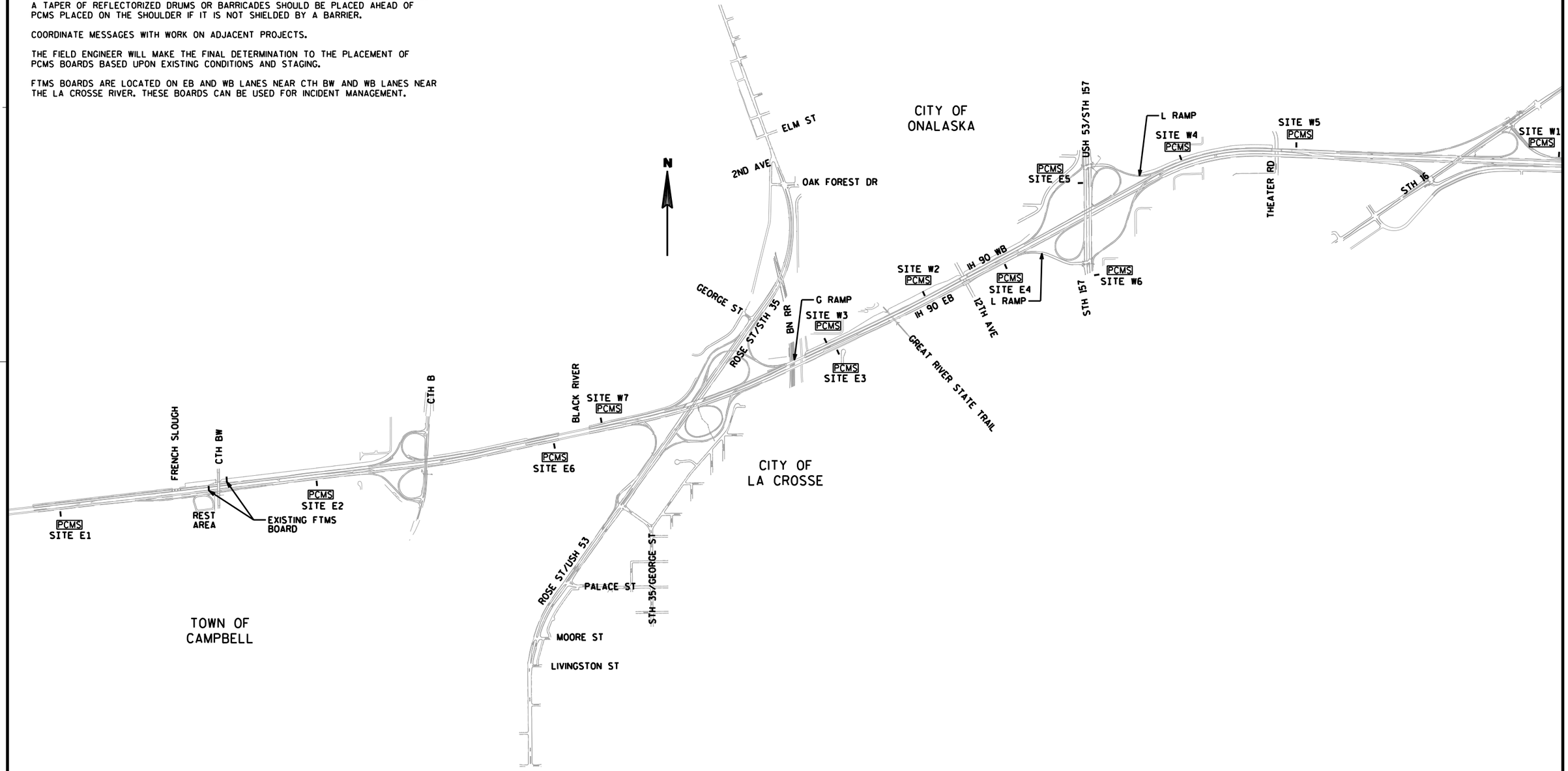
CONSIDER GEOMETRICS WHEN LOCATING PCMS SO THE DRIVER HAS A CLEAR VIEW OF THE BOARD FOR A MINIMUM OF 1000 FEET IN FRONT OF THE PCMS.

PCMS SHOULD BE PLACED AS FAR AWAY FROM LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY. IN ADVANCE OF HIGHWAY CONSTRUCTION PROJECTS, THE SIGNS SHOULD BE PLACED ON THE BACKSLOPE BEHIND THE DITCH. THE LOCATION FOR INTERMITTENT WORK SUCH AS FREEWAY LANE CLOSURE, OR WHERE SITE CONDITIONS DO NOT ALLOW OTHERWISE, THE SIGNS MAY BE PLACED ON THE SHOULDER. THE SITE SHOULD BE VISITED TO ASSURE VISIBILITY, SAFETY AND MAINTENANCE CONSIDERATIONS. A TAPER OF REFLECTORIZED DRUMS OR BARRICADES SHOULD BE PLACED AHEAD OF PCMS PLACED ON THE SHOULDER IF IT IS NOT SHIELDED BY A BARRIER.

COORDINATE MESSAGES WITH WORK ON ADJACENT PROJECTS.

THE FIELD ENGINEER WILL MAKE THE FINAL DETERMINATION TO THE PLACEMENT OF PCMS BOARDS BASED UPON EXISTING CONDITIONS AND STAGING.

FTMS BOARDS ARE LOCATED ON EB AND WB LANES NEAR CTH BW AND WB LANES NEAR THE LA CROSSE RIVER. THESE BOARDS CAN BE USED FOR INCIDENT MANAGEMENT.



PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL PCMS MESSAGES	SHEET 100	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_025001_tcmb.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:1800

WISDOT/CADDS SHEET 42

2

SITE NO.	APPROXIMATE LOCATION
E1	EAST OF ROUND LAKE
E2	PRIOR TO CTH B EXIT RAMP
E3	BETWEEN RAILROAD AND GREAT RIVER STATE TRAIL
E4	J RAMP DIVERGENCE POINT
E5	ON STH 157 BETWEEN RAMP TERMINALS
E6	WEST OF BLACK RIVER
W1	PRIOR TO STH 16 EXIT RAMP
W2	BETWEEN 12TH AVENUE AND GREAT RIVER STATE TRAIL
W3	EAST OF G RAMP DIVERGENCE POINT
W4	EAST OF L RAMP DIVERGENCE POINT
W5	BETWEEN THEATER ROAD AND STH 16
W6	NEAR STH 157 AND STH 16 INTERSECTION
W7	WEST OF ROSE STREET

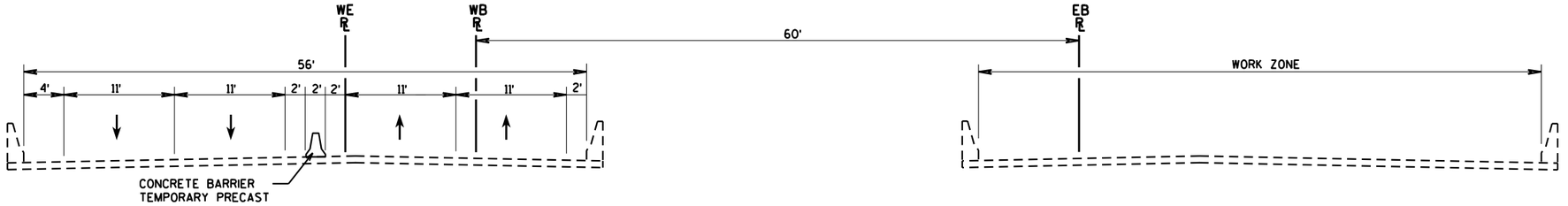
ROADWAY CONSTRUCTION OPERATION/CONFIGURATION

	PRIOR TO CONSTRUCTION 2016 (7 DAYS)		MEDIAN/OUTSIDE LANE/SHOULDER CLOSURE (ANY STAGE)		PRIOR TO HWY 157 NB TO IH-90 WB RAMP CLOSURE (7 DAYS)		STAGE 1		STAGE 2		STAGE 3		STAGE 4		STAGE 5		DURING STH 35/ROSE STREET NB TO IH 90 WB RAMP CLOSURE		INCIDENT MANAGEMENT		DURING ROLLING STOPS	
SITE NO.	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)
SITE E1	IH-90 WORK STARTS	"DATE"	LANE/SHLDR CLOSED	XX MILES AHEAD	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		TRAFFIC STOPPED AHEAD	BE PREPARED TO STOP	TEMP CLOSURE AHEAD	EXPECT DELAYS
SITE E2	NO MESSAGE BOARD USED		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		TRAFFIC STOPPED AHEAD	BE PREPARED TO STOP	TEMP CLOSURE AHEAD	EXPECT DELAYS
SITE E3	IH-90 WORK STARTS	"DATE"	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		RT LANE MUST EXIT	53 NORTH 157	RT LANE MUST EXIT	53 NORTH 157	RT LANE MUST EXIT	53 NORTH 157	RT LANE MUST EXIT	53 NORTH 157	RT LANE MUST EXIT	53 NORTH 157	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		TEMP CLOSURE AHEAD	EXPECT DELAYS
SITE E4	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		53 NORTH 157	RT LANE EXIT ONLY	53 NORTH 157	RT LANE EXIT ONLY	53 NORTH 157	RT LANE EXIT ONLY	53 NORTH 157	RT LANE EXIT ONLY	53 NORTH 157	RT LANE EXIT ONLY	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		TEMP CLOSURE AHEAD	EXPECT DELAYS
SITE E5	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		IH-90 EB ON RAMP	CLOSES "DATE"	IH-90 EB ON RAMP CLOSED	USE DETOUR	IH-90 EB ON RAMP CLOSED	USE DETOUR	IH-90 EB ON RAMP CLOSED	USE DETOUR	IH-90 EB ON RAMP CLOSED	USE DETOUR	IH-90 EB ON RAMP CLOSED	USE DETOUR	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED	
SITE E6	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		IH-90 EB ON RAMP	CLOSES "DATE"	IH-90 EB ON RAMP CLOSED	USE DETOUR	IH-90 EB ON RAMP CLOSED	USE DETOUR	IH-90 EB ON RAMP CLOSED	USE DETOUR	IH-90 EB ON RAMP CLOSED	USE DETOUR	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED	
SITE W1	IH-90 WORK STARTS	"DATE"	LANE/SHLDR CLOSED	XX MILES AHEAD	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		IH-90 WEST	LEFT LANE ONLY	IH-90 WEST	LEFT LANE ONLY	IH-90 WEST	LEFT LANE ONLY	IH-90 WEST	LEFT LANE ONLY	IH-90 WEST	LEFT LANE ONLY	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		TRAFFIC STOPPED AHEAD	BE PREPARED TO STOP	TEMP CLOSURE AHEAD	EXPECT DELAYS
SITE W2	IH-90 WORK STARTS	"DATE"	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		RT LANE MUST EXIT	53 SOUTH 35	RT LANE MUST EXIT	53 SOUTH 35	RT LANE MUST EXIT	53 SOUTH 35	RT LANE MUST EXIT	53 SOUTH 35	RT LANE MUST EXIT	53 SOUTH 35	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED	
SITE W3	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		53 SOUTH 35	RT LANE EXIT ONLY	53 SOUTH 35	RT LANE EXIT ONLY	53 SOUTH 35	RT LANE EXIT ONLY	53 SOUTH 35	RT LANE EXIT ONLY	53 SOUTH 35	RT LANE EXIT ONLY	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED	
SITE W4	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		53 NORTH 157	RT LANE EXIT ONLY	53 NORTH 157	RT LANE EXIT ONLY	53 NORTH 157	RT LANE EXIT ONLY	53 NORTH 157	RT LANE EXIT ONLY	53 NORTH 157	RT LANE EXIT ONLY	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED	
SITE W5	IH-90 WORK STARTS	"DATE"	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		RT LANE MUST EXIT	53 NORTH 157	RT LANE MUST EXIT	53 NORTH 157	RT LANE MUST EXIT	53 NORTH 157	RT LANE MUST EXIT	53 NORTH 157	RT LANE MUST EXIT	53 NORTH 157	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		TRAFFIC STOPPED AHEAD	BE PREPARED TO STOP	TEMP CLOSURE AHEAD	EXPECT DELAYS
SITE W6	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		IH-90 WB ON RAMP	CLOSES "DATE"	IH-90 WB ON RAMP CLOSED	USE DETOUR	IH-90 WB ON RAMP CLOSED	USE DETOUR	IH-90 WB ON RAMP CLOSED	USE DETOUR	IH-90 WB ON RAMP CLOSED	USE DETOUR	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED	
SITE W7	IH-90 WORK STARTS	"DATE"	NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED		NO MESSAGE BOARD USED	

SITE NO.	APPROXIMATE LOCATION
E1	EAST OF ROUND LAKE
E2	PRIOR TO CTH B EXIT RAMP
E3	BETWEEN RAILROAD AND GREAT RIVER STATE TRAIL
E4	J RAMP DIVERGENCE POINT
E5	ON STH 157 BETWEEN RAMP TERMINALS
E6	WEST OF BLACK RIVER
W1	PRIOR TO STH 16 EXIT RAMP
W2	BETWEEN 12TH AVENUE AND GREAT RIVER STATE TRAIL
W3	EAST OF G RAMP DIVERGENCE POINT
W4	EAST OF L RAMP DIVERGENCE POINT
W5	BETWEEN THEATER ROAD AND STH 16
W6	NEAR STH 157 AND STH 16 INTERSECTION
W7	WEST OF ROSE STREET

ROADWAY CONSTRUCTION OPERATION/CONFIGURATION

	CTH B RAMP WITH WB IH-90 CLOSURES		CTH B RAMP WITH EB IH-90 CLOSURES		USH 53/STH 35/ROSE STREET RAMPS WITH WB IH-90 CLOSURES		USH 53/STH 35/ROSE STREET RAMPS WITH EB IH-90 CLOSURES		STH 157/USH 53 RAMPS WITH WB IH-90 CLOSURES		STH 157/USH 53 RAMPS WITH EB IH-90 CLOSURES	
SITE NO.	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)
SITE E1	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		CTH B RAMP CLOSED	USE EXIT 3	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT	
SITE E2	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		CTH B RAMP CLOSED	USE EXIT 3	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		EXIT 3 RAMP CLOSED	USE EXIT 4	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT	
SITE E3	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		EXIT 4 RAMP CLOSED	USE EXIT 5
SITE E4	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		EXIT 4 RAMP CLOSED	USE EXIT 5
SITE E5	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT	
SITE E6	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		EXIT 3 RAMP CLOSED	USE EXIT 4	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT	
SITE W1	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT	
SITE W2	CTH B RAMP CLOSED	USE EXIT 273 B	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		EXIT 3 RAMP CLOSED	USE EXIT 2	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT	
SITE W3	CTH B RAMP CLOSED	USE EXIT 273 B	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		EXIT 3 RAMP CLOSED	USE EXIT 2	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT	
SITE W4	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		EXIT 4 RAMP CLOSED	USE EXIT 3	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT	
SITE W5	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		EXIT 4 RAMP CLOSED	USE EXIT 3	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT	
SITE W6	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT	
SITE W7	CTH B RAMP CLOSED	USE EXIT 273 B	MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT		MESSAGE BOARD ON SITE FOR INCIDENT MANAGEMENT	

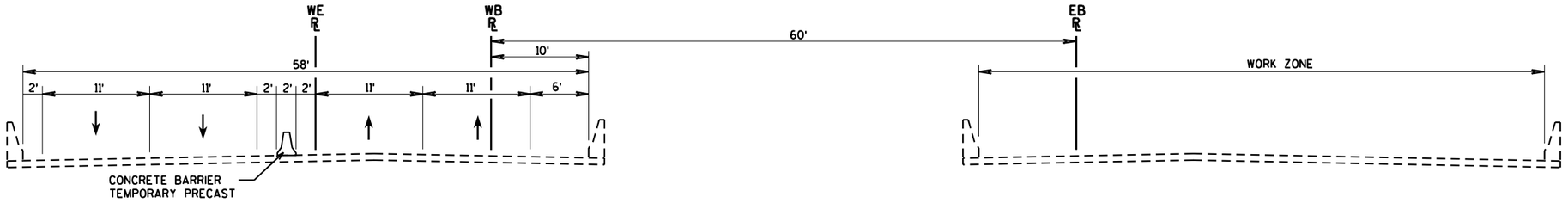


EXISTING WB (B-32-40)

I-90 STRUCTURES OVER RAILROAD/OAK ST

(LOOKING EAST)

EXISTING EB (B-32-39)

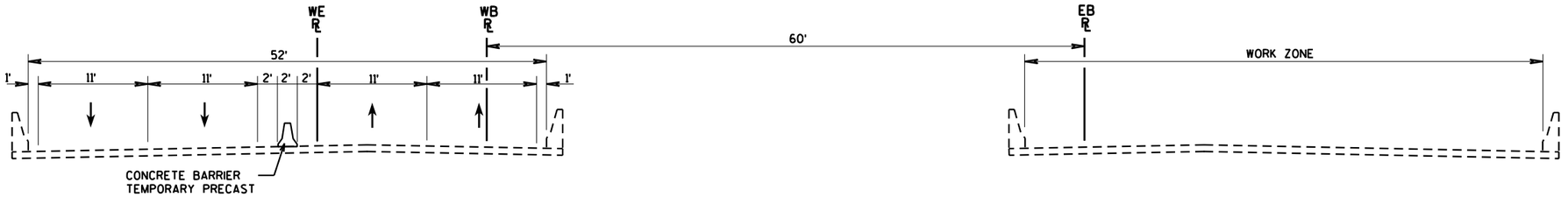


EXISTING WB (B-32-108)

I-90 STRUCTURES OVER 12TH AVE

(LOOKING EAST)

EXISTING EB (B-32-107)



EXISTING WB (B-32-190)

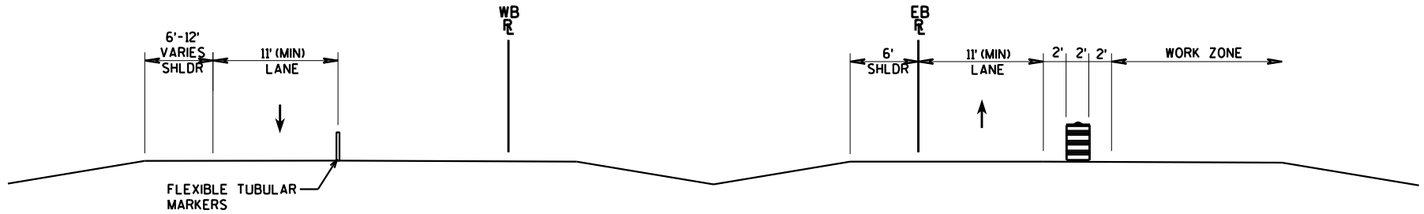
I-90 STRUCTURES OVER THEATER RD

(LOOKING EAST)

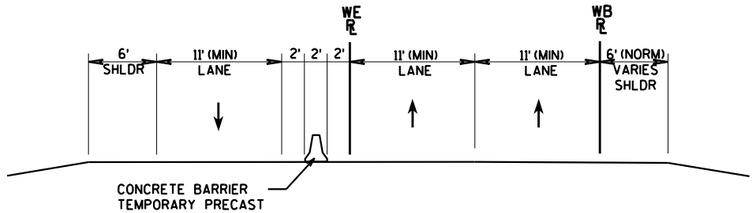
EXISTING EB (B-32-189)

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL TYPICAL LAYOUT - STAGE 1 (STRUCTURES)	SHEET 103	E

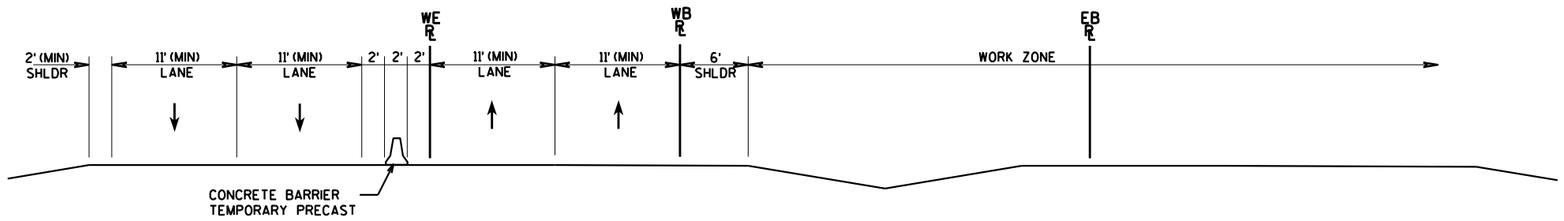
2



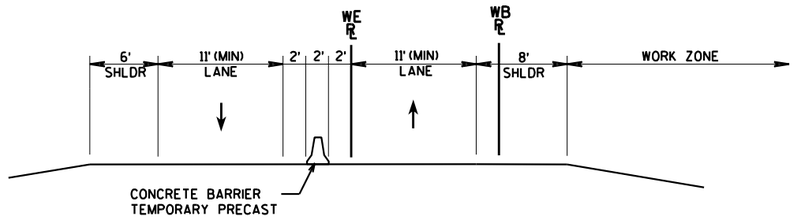
TRAFFIC LAYOUT - STAGE 1
I-90 WEST OF ROSE STREET
1



TRAFFIC LAYOUT - STAGE 1
I-90 WEST OF RAILROAD
2



TRAFFIC LAYOUT - STAGE 1
I-90 BETWEEN TRAIL AND 12TH AVENUE
I-90 EAST OF STH 157
3



TRAFFIC LAYOUT - STAGE 1
I-90 UNDER STH 157
4

PROJECT NO: 1071-06-81/79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL TYPICAL LAYOUT - STAGE 1 (ROADWAY)	SHEET 104	E

2

WORK:
BEGIN CONSTRUCTION OF EB LANES FROM BLACK RIVER TO END OF PROJECT. GAP CONSTRUCTION AT THE ET, FU, JU, AND KT RAMPS. CONSTRUCT THE AT, BT, CV, AND DV TEMPORARY RAMPS. CONSTRUCT THE EU, FV, JV, AND KU TEMPORARY RAMPS. BEGIN CONSTRUCTION OF STRUCTURES B-32-218, B-32-107, AND B-32-39.

TRAFFIC:
CLOSE OUTSIDE LANES OF IH 90 FROM BEGINNING OF PROJECT TO WEST OF THE BLACK RIVER. MAINTIN 2 LANES OF TRAFFIC FROM EAST ROSE STREET RAMP TO STH 157 WEST RAMPS AND FROM STH 157 EAST RAMPS TO END OF PROJECT. MAINTAIN SINGLE BIDIRECTIONAL ELSEWHERE.
CLOSE REST AREA AND REST AREA RAMPS.
CLOSE N RAMP, P RAMP, AND IH 90 EB TO ROSE STREET NB RAMP.

SEE SDD "TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H." FOR ADDITIONAL INFORMATION.

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" & "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE" FOR WORK REQUIRING MORE THAN A SHOULDER CLOSURE.

N

SIGN
SIGN
46WB
46EB
INL
INL
48WB
48EB
50WB
50EB
52WB
52EB
54WB
54EB
IH 90 WB
56WB
56EB
INL
INL
58WB
58EB
60WB
60EB
IH 90 EB
SIGN
SIGN

WISCONSIN TRAVEL INFO
REST AREA 1/2 MILE
WEATHER INFORMATION
NEXT REST AREA 20 MILES
COVERING SIGNS TYPE II

LEGEND
- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

N

STA 72+00 WB - STA 174+00 WB
REMOVING PAVEMENT MARKING
(DASHED LANE LINE)

W06-1

FLEXIBLE TUBULAR MARKER POSTS @ 25' SPACING (TYP)
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
FLEXIBLE TUBULAR MARKER POSTS @ 50' SPACING (TYP)

62WB
64WB
66WB
68WB
70WB
IH 90 WB
72WB
74WB
76WB
62EB
64EB
66EB
68EB
70EB
72EB
SIGN
74EB
76EB
IH 90 EB

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

SPEED LIMIT 55
R2-1
48" X 60"

W01-4R

COORDINATE TRAFFIC CONTROL WEST OF PROJECT LIMITS WITH DRESBACH PROJECTS

ROUND LAKE

2

PROJECT NO:1071-06-81	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET 105	E

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER" FOR ADDITIONAL INFORMATION.

25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

CRASH CUSHION TEMPORARY

R4-7 48" X 60"

W01-6 60" X 30"

W5-52L 18" X 54"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (DOUBLE YELLOW)

FLEXIBLE TUBULAR MARKER POSTS @ 50' SPACING (TYP)

LANE CLOSED R11-2L 48" X 30"

IH 90 WB

IH 90 EB

50' (TYP)

76EB 78EB 80EB 82EB 84EB 86EB 88EB 90EB

76WB 78WB 80WB 82WB 84WB 86WB 88WB 90WB

SIGN

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

25' SPACING (TYP)

LANE CLOSED R11-2L 48" X 30"

TRAFFIC CONTROL FOR CROSSOVER TO BE INSTALLED AND MAINTAINED BY DRESBACH PROJECT. ANY CHANGES TO INITIAL LAYOUT TO BE COORDINATED WITH DRESBACH CONTRACTOR. THERE ARE NO PLANNED ACCESS POINTS PROVIDED TO THE DRESBACH PROJECT. THE DRESBACH PROJECT DOES NOT PROVIDE ANY ACCESS POINTS INTO THIS PROJECT.

REST AREA

REMOVING SIGNS TYPE I SEE PERMANENT SIGNING PLAN

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (DOUBLE YELLOW)

FLEXIBLE TUBULAR MARKER POSTS @ 50' SPACING (TYP)

LANE CLOSED R11-2L 48" X 30"

COVERING SIGNS TYPE II

SPEED LIMIT 55 R2-1 48" X 60"

WEATHER

CTH BW

92WB 94WB 96WB 98WB 100WB 102WB 104WB 106WB

92EB 94EB 96EB 98EB 100EB 102EB 104EB 106EB

IH 90 WB

IH 90 EB

100' (TYP)

SIGN

REST AREA RAMP CLOSED

25' SPACING (TYP)

RAMP CLOSED R11-2R 48" X 30"

REST AREA

FRENCH SLOUGH

LANE CLOSED R11-2L 48" X 30"

REMOVING SIGNS TYPE II SEE PERMANENT SIGNING PLAN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026002_s1.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

CTH BW

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH
(DOUBLE YELLOW)

FLEXIBLE TUBULAR MARKER
POSTS @ 50' SPACING (TYP)

LANE CLOSED
R11-2L
48" X 30"

FLEXIBLE TUBULAR MARKER
POSTS @ 25' SPACING (TYP)

IH 90 WB

IH 90 EB

RAMP CLOSED

100'
(TYP)

LANE CLOSED
R11-2L
48" X 30"

COUNTY B
M1-5A
36" X 36"

MAX.
10'
WIDTH
W12-52

.5 MILES
AHEAD
W057-52
48" X 36"

N

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH
(DOUBLE YELLOW)

FLEXIBLE TUBULAR MARKER
POSTS @ 25' SPACING (TYP)

LANE CLOSED
R11-2L
48" X 30"

IH 90 WB

CRASH CUSHION PLACED
PREVIOUSLY BY OTHERS

PLACED PREVIOUSLY
BY OTHERS

IH 90 EB

100'
(TYP)

100

MERGING TRAFFIC
BE PREPARED
TO STOP

LANE CLOSED
R11-2L
48" X 30"

25' SPACING (TYP)

EXIT 2
B
French Island

STA 126+50 EB - STA 128+50 EB
REMOVING PAVEMENT MARKING
(DASHED LANE LINE)

EXIT
30
M.P.H.

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
8-INCH (WHITE)

25' SPACING (TYP)

EXIT
E5-1
72" X 60"

IH 90 EB TO CTH B

LANE CLOSED
R11-2L
48" X 30"

YIELD
R1-2
48" X 42"

CTH B TO IH 90 WB

N

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026003_s1.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

MERGE AHEAD
BE PREPARED
TO STOP

101

CTH B TO IH 90 WB

302

Airport
MOVING

W03-2

25' SPACING (TYP)

301

MOVING

25' SPACING (TYP)

FLEXIBLE TUBULAR MARKER
POSTS PLACED PREVIOUSLY
BY OTHERS

FLEXIBLE TUBULAR MARKER
POSTS PLACED PREVIOUSLY
BY OTHERS

LANE
CLOSED
R11-2L
48" X 30"

IH 90 WB TO CTH B

IH 90 WB

136WB 138WB 140WB 142WB 144WB 146WB 148WB 150WB

INL

136EB 138EB 140EB 142EB 144EB 146EB 148EB 150EB

IH 90 EB

100'
(TYP)

50'
(TYP)

SIGN

W04-1

CTH B TO IH 90 EB

W03-2

25' SPACING (TYP)

25' SPACING (TYP)

IH 90 EB TO CTH B

MOVING

300

102

MERGE AHEAD
BE PREPARED
TO STOP

SEE "TRAFFIC CONTROL - CTH B
(STAGE 1A/1B)" SHEETS FOR
ADDITIONAL TRAFFIC CONTROL
DEVICES ALONG CTH B AND RAMPS.

CTH B

SIGN

N

MERGING TRAFFIC
BE PREPARED
TO STOP

103

FLEXIBLE TUBULAR MARKER
POSTS @ 25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH
(DOUBLE YELLOW)

50'
(TYP)

TEMPORARY PAVEMENT MARKING
REFLECTIVE TAPE 4-INCH (WHITE)

104

R1-2
48" X 42"

EXIT 3A-B
SOUTH
53 35
La Crosse
Onalaska
3/4 MILE

REMOVING SIGNS TYPE I
SEE PERMANENT SIGNING PLAN

EXIT 3A
SOUTH SOUTH
53 35
La Crosse
3/4 MILE

STA 147+00 EB - STA 151+50 EB
REMOVING PAVEMENT MARKING
(DASHED LANE LINE)

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026004_s1.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

COUNTY B
M1-5A
36" X 36"

MAX. 10' WIDTH
W12-52

LANE CLOSED
R11-2L
48" X 30"

FLEXIBLE TUBULAR MARKER
POSTS @ 25' SPACING (TYP)

FLEXIBLE TUBULAR MARKER
POSTS @ 50' SPACING (TYP)

COVERING SIGNS
TYPE II

SPEED LIMIT 55
R2-1
48" X 60"

STA 162+00 WB - STA 174+00 WB
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINE)

FLEXIBLE TUBULAR MARKER
POSTS @ 25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH
(DOUBLE YELLOW)

TEMPORARY PAVEMENT MARKING
REFLECTIVE TAPE 4-INCH (YELLOW)

25' SPACING (TYP)

N

IH 90 WB

IH 90 EB

50' (TYP)

100' (TYP)

TEMPORARY PAVEMENT MARKING
REFLECTIVE TAPE 4-INCH (WHITE)

LANE CLOSED
R11-2L
48" X 30"

SPEED LIMIT 55
R2-1
48" X 60"

W01-6
96" X 48"

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

COVERING SIGNS
TYPE II

ROAD CLOSED
R11-2
48" X 30"

106

HOSPITAL
EXIT 3A

W06-3

NEXT MILE
W057-51
48" X 24"

STA 155+20 EB - STA 159+00 EB
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINE)

STA 159+00 EB - STA 162+50 EB
REMOVING FLEXIBLE TUBULAR
MARKER POSTS AND BASES

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATOR TEMPORARY
- POST WITH ATTACHED SIGN

STA 174+00 WB - STA 318+50 WB
REMOVING PAVEMENT MARKING
(DASHED LANE LINE)

STA 174+00 WB - STA 318+00 WB
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINE)

N

BLACK RIVER

WEST 90

FLEXIBLE TUBULAR MARKER
POSTS @ 25' SPACING (TYP)

FLEXIBLE TUBULAR MARKER
POSTS @ 50' SPACING (TYP)

IH 90 WB

IH 90 EB

50' (TYP)

EXIT 25 M.P.H.
W013-2
48" X 60"

COVERING SIGNS
TYPE II

SPEED LIMIT 55
R2-1
48" X 60"

EXIT 2
B
French Island
½ MILE

FLEXIBLE TUBULAR MARKER
POSTS @ 25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH
(DOUBLE YELLOW)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 8-INCH (WHITE)

CRASH CUSHION
TEMPORARY

108

EXIT 3A
SOUTH SOUTH
53 35
La Crosse

EXIT 25 M.P.H.
W013-2
48" X 60"

PROJECT NO:1071-06-79/81	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET 109	E

2

2

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

N

MERGE AHEAD
BE PREPARED
TO STOP

109

W03-2

YIELD
R1-2
48" X 42"

FLEXIBLE TUBULAR MARKER
POSTS @ 25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH
(DOUBLE YELLOW)

ROSE ST SB TO IH 90 WB

EXIT
E5-1
72" X 60"

W01-6
60" X 30"

TEMPORARY PAVEMENT
MARKING 8-INCH (WHITE)

IH 90 WB

IH 90 EB

50'
(TYP)

ROAD
CLOSED
R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

IH 90 EB TO ROSE ST SB

STA 183+50 EB - STA 184+50 EB
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINE, OUTSIDE EDGELINE
AND DASHED LANE LINE)

STA 186+25 ET - STA 187+25 ET
REMOVING PAVEMENT MARKING
(EDGELINE)

END
ROAD WORK
G20-2A
48" X 24"

ROSE ST SB

ROSE ST NB

IH 90 EB TO ROSE ST NB

CLOSED

SIGN

SEE "TRAFFIC CONTROL - ROSE ST"
SHEETS FOR ADDITIONAL TRAFFIC
CONTROL DEVICES ALONG ROSE ST
FOR STRUCTURE B-32-218.

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET 110	E

ROAD WORK AHEAD W20-1A

ROSE ST SB TO IH 90 WB

IH 90 WB TO ROSE ST SB

ROSE ST SB

ROSE ST NB

STA 201+50 WB - STA 204+25 WB
STA 210+50 WB - STA 217+20 WB
REMOVING PAVEMENT MARKING
(CHANNELIZING)

STA 204+25 WB - STA 210+50 WB
REMOVING PAVEMENT MARKING
(OUTSIDE EDGELINE)

ROAD WORK AHEAD W20-1A

110

MERGE AHEAD
BE PREPARED
TO STOP

W03-2

IH 90 WB TO ROSE ST

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 8-INCH (WHITE)

MERGING TRAFFIC
BE PREPARED
TO STOP

R1-2
48" X 42"

ROSE ST NB TO IH 90 WB

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 8-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)
(12.5' LINE, 37.5' GAP)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

111

FLEXIBLE TUBULAR MARKER
POSTS PLACED PREVIOUSLY
BY OTHERS

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (DOUBLE YELLOW)

FLEXIBLE TUBULAR MARKER
POSTS @ 25' SPACING (TYP)

CRASH CUSHION
TEMPORARY

W06-3

NEXT
XX MILES
W057-51
48" X 24"

W04-3R
36" X 36"

W4-6
36" X 36"

50'
(TYP)

IH 90 EB

IH 90 EB TO ROSE ST NB

ROAD CLOSED
R11-2
48" X 30"

50'
(TYP)

ROSE ST TO IH 90 EB

SEE "IH 90 EB TO ROSE
STREET NB RAMP DETOUR"
FOR ADDITIONAL SIGNS.

CRASH CUSHION
TEMPORARY

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

W01-2R
30" X 30"

30
M.P.H.
W013-1
24" X 24"

ROAD WORK AHEAD W20-1A

STA 197+80 FU - STA 199+50 FU
REMOVING PAVEMENT MARKING
(EDGELINE)

STA 198+50 FU - STA 199+75 FU
STA 201+90 FU - STA 202+30 FU
REMOVING FLEXIBLE TUBULAR
MARKER POST AND BASES

STA 201+00 EB - STA 202+00 EB
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINE, OUTSIDE EDGELINE
AND DASHED LANE LINE)

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET 111	E

STA 212+50 WB - STA 262+00 WB
REMOVING PAVEMENT MARKING
(OUTSIDE EDGELINE)

STA 217+20 WB - STA 260+00 WB
REMOVING PAVEMENT MARKING
(8" DOTTED LANE LINE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 8-INCH (WHITE)

PLACED PREVIOUSLY
BY OTHERS

EXIT 3
SOUTH
53 35
La Crosse
Onalaska
EXIT ONLY

303

MOVING SIGNS TYPE I
(MOVE SIGN OVER IH-90 WB
OUTSIDE LANE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)
(12.5' LINE, 37.5' GAP)

COUNTY B
M1-5A
36" X 36"

MAX.
10'
WIDTH
W12-52

2 MILES
AHEAD
W057-52
48" X 36"

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT
MARKING 8-INCH (WHITE)
(3' LINE, 9' GAP)

10' RT @ 25' SPACING (TYP)

IH 90 WB TO ROSE ST

IH 90 WB

IH 90 EB

212WE 214WE 216WE 218WE 220WE 222WE 224WE 226WE

214EB 216EB 218EB 220EB 222EB 224EB

112

EXIT 4
NORTH
53 157
Onalaska
La Crosse
½ MILE
RIGHT LANE ONLY

FLEXIBLE TUBULAR MARKER
POSTS PLACED PREVIOUSLY
BY OTHERS

BNSF RR

OAK ST

GREAT RIVER STATE TRAIL

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

RIGHT LANE
MUST EXIT
R3-33R
78" X 36"

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

Interstate
90 WEST
LEFT LANE
ONLY

113

Historic
Downtown
La Crosse
EXIT 3

COVERING SIGNS
TYPE II

SPEED
LIMIT
55
R2-1
48" X 60"

TEMPORARY PAVEMENT
MARKING 8-INCH (WHITE)
(3' LINE, 9' GAP)

3

IH 90 WB

IH 90 EB

226WE 228WE 230WE 232WE 234WE 236WE 238WE 240WE

226EB 228EB 230EB 232EB 234EB 236EB 238EB 240EB

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026008_s1.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

Amtrak Station
EXIT 3

Great River State Trail
EXIT 3

INTERSTATE 90 EAST
LEFT LANE ONLY

114

EXIT 4
NORTH 53 157
Onalaska
La Crosse
RIGHT LANE ONLY

RIGHT LANE MUST EXIT

115

R3-33R
78" X 36"

TEMPORARY PAVEMENT MARKING 8-INCH (WHITE) (3' LINE, 9' GAP)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 8-INCH (WHITE)

304

EXIT 3
SOUTH 53 35
La Crosse
Onalaska
1/4 MILE
EXIT ONLY

MOVING SIGNS TYPE I (MOVE SIGN OVER IH-90 WB OUTSIDE LANE)

WEST SOUTH
INTERSTATE 90 53

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)

IH 90 WB

IH 90 EB

IH 90 EB TO STH 157

50' (TYP)

50' (TYP)

EXIT

E5-1
72" X 60"

W01-6
60" X 30"

ROAD CLOSED

R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

12TH AVE

STA 260+00 WB - STA 263+75 WB
REMOVING PAVEMENT MARKING
(CHANNELIZING)

STA 263+75 WB - STA 268+00 WB
REMOVING PAVEMENT MARKING
(EDGELINE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 8-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING 8-INCH (WHITE) (3' LINE, 9' GAP)

STH 157 SB TO IH 90 WB

W04-3R
36" X 36"

4

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

100' (TYP)

IH 90 WB

IH 90 EB

50' (TYP)

50' (TYP)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)

STH 157 SB TO IH 90 EB

CLOSED

IH 90 EB TO STH 157

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET 113	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026009_s1.dgn PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

STA 274+50 WB - STA 280+50 WB
REMOVING PAVEMENT MARKING
(CHANNELIZING)

STA 280+50 WB - STA 287+00 WB
REMOVING PAVEMENT MARKING
(OUTSIDE EDGELINE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

STH 157 NB TO IH 90 WB

W04-3R
36" X 36"

ROAD
CLOSED
R11-2
48" X 30"

W04-3R
36" X 36"

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 8-INCH (WHITE)

100'
(TYP)

CLOSED

IH 90 WB
IH 90 EB

50'
(TYP)

STH 157

STA 279+25 KT - STA 280+50 KT
STA 283+23 KT - STA 284+00 KT
REMOVING FLEXIBLE TUBULAR
MARKER POSTS AND BASES

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

SEE "STH 157 SB TO
IH 90 EB RAMP DETOUR"
AND "P RAMP DETOUR"
FOR ADDITIONAL SIGNS

STH 157 NB TO IH 90 EB

CRASH CUSHION
TEMPORARY

ROAD
WORK
AHEAD
W20-1A

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

STA 287+00 WB - STA 291+70 WB
REMOVING PAVEMENT MARKING
(CHANNELIZING)

STA 291+70 WB - STA 319+00 WB
REMOVING PAVEMENT MARKING
(8" DOTTED LANE LINE)

MOVING SIGNS TYPE I
(MOVE SIGN OVER IH-90
WB THRU LANE)

EXIT 4
NORTH
53 157
La Crosse
Onalaska
EXIT ONLY

WEST
90
AHEAD

SOUTH
53

128

COVERING SIGNS
TYPE I

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

FLEXIBLE TUBULAR MARKER
POSTS PLACED PREVIOUSLY
BY OTHERS

TEMPORARY PAVEMENT MARKING
REFLECTIVE TAPE 8-INCH (WHITE)

CRASH CUSHION
TEMPORARY

305

COVERING SIGNS
TYPE I

MOVING SIGNS TYPE I
(MOVE SIGN OVER IH-90
WB RAMP LANE)

306

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT
MARKING 8-INCH (WHITE)
(3' LINE, 9' GAP)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)
(12.5' LINE, 37.5' GAP)

IH 90 WB TO STH 157

STH 157 NB TO IH 90 EB

50'
(TYP)

IH 90 WB

IH 90 EB

3

WEST SOUTH
90 53
LEFT LANE ONLY

117

116

EXIT 5
16
Onalaska
¾ MILE

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026010_s1.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

RIGHT LANE MUST EXIT
R3-33R
78" X 36"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING 8-INCH (WHITE) (3' LINE, 9' GAP)

SPEED LIMIT 65
COVERING SIGNS TYPE II

SPEED LIMIT 55
R2-1
48" X 60"

N

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE) (12.5' LINE, 37.5' GAP)

MOVING SIGNS TYPE I (MOVE SIGN OVER IH-90 WB THRU LANE)

WEST 90 AHEAD
COVERING SIGNS TYPE I

SOUTH 53
COVERING SIGNS TYPE I

EXIT 4
NORTH 53 157
La Crosse
Onalaska
½ MILE
EXIT ONLY

MOVING SIGNS TYPE I (MOVE SIGN OVER IH-90 WB RAMP LANE)

127
307
308

IH 90 WB
IH 90 EB
THEATER RD

W01-4BR

118

EXIT 5
16
Onalaska

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

N

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING 8-INCH (WHITE) (3' LINE, 9' GAP)

W01-4R

EXIT 5
Madison
16
Onalaska
EXIT ONLY

AHEAD
119

LANE CLOSED
R11-2L
48" X 30"

COVERING SIGNS TYPE I

IH 90 WB

50' (TYP)

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 8-INCH (WHITE)

IH 90 EB

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE) (12.5' LINE, 37.5' GAP)

ROAD CLOSED
R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH (WHITE) (12.5' LINE, 37.5' GAP)

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH (WHITE)

EXIT
E5-1
72" X 60"

STA 317+00 EB - STA 323+25 EB
REMOVING PAVEMENT MARKING
(MEDIAN EDGELING, DASHED LANE LINE, 8" DOTTED LANE LINE AND CHANNELIZING)

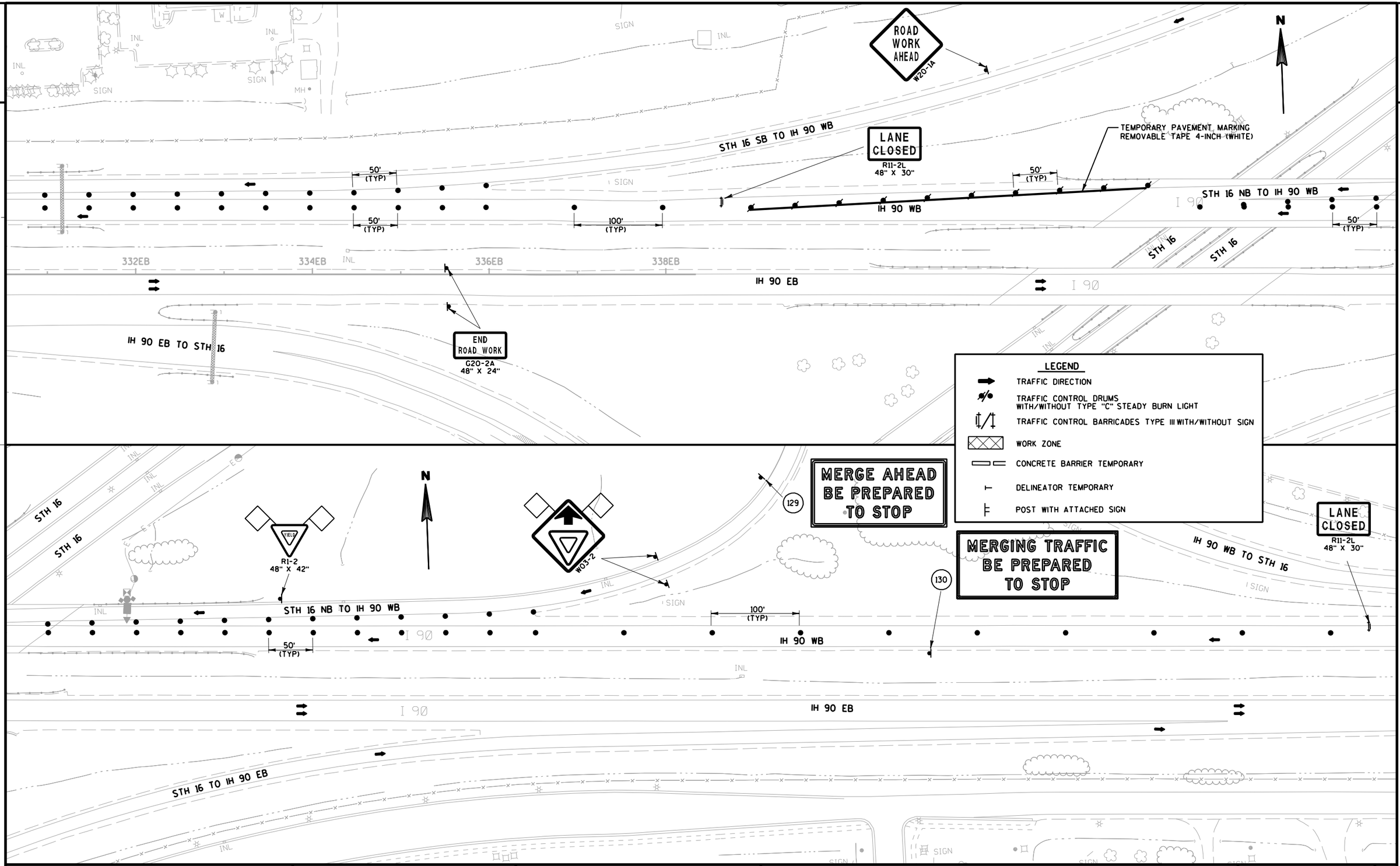
EXIT 5
COVERING SIGNS TYPE II

END ROAD WORK
G20-2A
48" X 24"

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026011_s1.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026012_s1.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2

N

EXIT
E5-1
72" X 60"

25' SPACING (TYP)

IH 90 WB TO STH 16

100'
(TYP)

IH 90 WB

IH 90 EB

25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

50'
(TYP)

LANE
CLOSED
R11-2L
48" X 30"

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" FOR ADDITIONAL INFORMATION.

SIGN
INL
MH
W

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATOR TEMPORARY
- POST WITH ATTACHED SIGN

N

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

ARROW BOARD

50'
(TYP)

IH 90 WB

IH 90 EB

ARROW BOARD

500'

575'

W04-2L

LEFT LANE
CLOSED
1500 FT
W20-5SG

SPEED
LIMIT
55
R2-1
48" X 60"

500'

LEFT LANE
CLOSED
1/2 MILE
W20-5SG

SPEED
LIMIT
55
W03-5

500'

ROAD
WORK
1 MILE
W20-1F

SIGN
INL

PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 1	SHEET 117	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026013_s1.dgn PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WORK:
REMOVE EXISTING STRUCTURE B-32-36.
CONSTRUCT STRUCTURE B-32-218.

TRAFFIC:
SHIFT TRAFFIC ONTO THE 'TS' AND 'TN' LINES. SHIFT TRAFFIC AS NECESSARY BETWEEN LAYOUTS FOR STAGE 1A/1B/1C FOR THE REMOVAL OF EXISTING STRUCTURE B-32-36 AND THE CONSTRUCTION OF STRUCTURE B-32-218. MAINTAIN TWO LANES ON NB ROSE STREET SOUTH OF THE IH 90 WB TO ROSE STREET SB RAMP MERGE POINT AT ALL TIMES DURING PEAK HOURS. MAINTAIN ONE LANE ON SB ROSE STREET NORTH OF THE 'GW' RAMP ENTRANCE AND TWO LANES ON SB ROSE STREET SOUTH OF THE 'GW' RAMP ENTRANCE AT ALL TIMES DURING PEAK HOURS.

SEE SDD "TRAFFIC CONTROL, TEMPORARY ENTRANCE RAMP CROSSOVER" FOR ADDITIONAL INFORMATION.

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATOR TEMPORARY
- POST WITH ATTACHED SIGN

IH 90 EB TO ROSE ST SB
IH 90 WB
IH 90 EB
ROSE ST SB
ROSE ST NB
ROSE ST NB TO IH 90 EB
ROSE ST SB TO IH 90 EB
IH 90 EB TO ROSE ST NB
CLOSED
ROSE ST SB TO IH 90 WB
IH 90 WB TO ROSE ST SB
ROSE ST NB TO IH 90 WB
IH 90 WB TO ROSE ST NB

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE) 12.5' LINE, 37.5' GAP)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

W05-52R
12" X 36"

CRASH CUSHION TEMPORARY

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

STA 107+65 TS - STA 108+65 TS
CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE

STA 106+15 TS - STA 116+60 TS
REMOVING PAVEMENT MARKING (SKIPS)

STA 107+60 TS - STA 116+60 TS
REMOVING PAVEMENT MARKING (EDGELINE)

STA 107+30 TN - STA 115+30 TN
REMOVING PAVEMENT MARKING (SKIPS & EDGELINE)

ROAD CLOSED
R11-2
48" X 30"

W04-3R
36" X 36"

25' SPACING (TYP)

COVERING SIGNS TYPE II

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)

100' (TYP)

TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE) 12.5' LINE, 37.5' GAP)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

MERGE AHEAD BE PREPARED TO STOP
COVERING SIGNS TYPE II

MERGING TRAFFIC BE PREPARED TO STOP
COVERING SIGNS TYPE II

ARROW BOARD

50' (TYP)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

STA 114+60 TS - STA 116+60 TS
REMOVING PAVEMENT MARKING (EDGELINE)

SPEED LIMIT 40
R2-1
24" X 30"

W04-2R

1000'

RIGHT LANE CLOSED AHEAD
W20-5A

1000'

SPEED LIMIT 40
W03-5

ROAD WORK AHEAD
W20-1A

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" FOR ADDITIONAL INFORMATION.

NOTE: ADJUST LOCATION AND NUMBER OF SIGNS TO ACCOUNT FOR TRAFFIC CONTROL REQUIRED FOR PROJECT ID 7190-03-71

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - ROSE ST (STAGE 1A) PEAK HOUR	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026013_s1a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

NOTE:
ADJUST LOCATIONS AND NUMBER OF SIGNS TO ACCOUNT FOR WEST GEORGE STREET INTERSECTION.

WORK:
REMOVE EXISTING STRUCTURE B-32-36.
CONSTRUCT STRUCTURE B-32-218.

TRAFFIC:
SHIFT TRAFFIC AS NECESSARY BETWEEN LAYOUTS FOR STAGE 1A/1B/1C FOR THE REMOVAL OF EXISTING STRUCTURE B-32-36 AND THE CONSTRUCTION OF STRUCTURE B-32-218. MAINTAIN ONE LANE ON SB ROSE STREET AND ONE LANE ON THE ROSE STREET ENTRANCE RAMP FROM IH 90 WB AT ALL TIMES DURING PEAK HOURS. OFF-PEAK LANE CLOSURES WILL BE ALLOWED IN STAGES 1B AND 1C.

SEE SDD "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE" FOR ADDITIONAL INFORMATION.

IH 90 EB TO ROSE ST SB

ARROW BOARD

500'

50' (TYP)

100' (TYP)

END ROAD WORK
G20-2A
48" X 24"

ROSE ST SB

ROSE ST NB

ROSE ST NB TO IH 90 EB

ROSE ST SB TO IH 90 EB

IH 90 EB TO ROSE ST NB

IH 90 WB

IH 90 EB

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

W05-52R
12" X 36"

CRASH CUSHION TEMPORARY

25' SPACING (TYP)

1000'

ROAD WORK AHEAD
W20-1A

LEFT LANE CLOSED AHEAD
W20-55A

W04-2L

SPEED LIMIT 40
W03-5

SPEED LIMIT 40
R2-1
24" X 30"

CLOSED

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATOR TEMPORARY
- POST WITH ATTACHED SIGN

ROSE ST SB TO IH 90 WB

W03-2

IH 90 WB TO ROSE ST SB

ROAD CLOSED
R11-2
48" X 30"

YIELD
R1-2
48" X 42"

MERGE AHEAD BE PREPARED TO STOP

MERGING TRAFFIC BE PREPARED TO STOP

121

120

ROSE ST NB

ROSE ST NB TO IH 90 WB

ROSE ST SB

ARROW BOARD

END ROAD WORK
G20-2A
48" X 24"

IH 90 WB TO ROSE ST NB

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" FOR ADDITIONAL INFORMATION.

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	T.C. - ROSE ST (STAGE 1B) OFF-PEAK HOUR MEDIAN LANE CLOSURE	SHEET 119	E

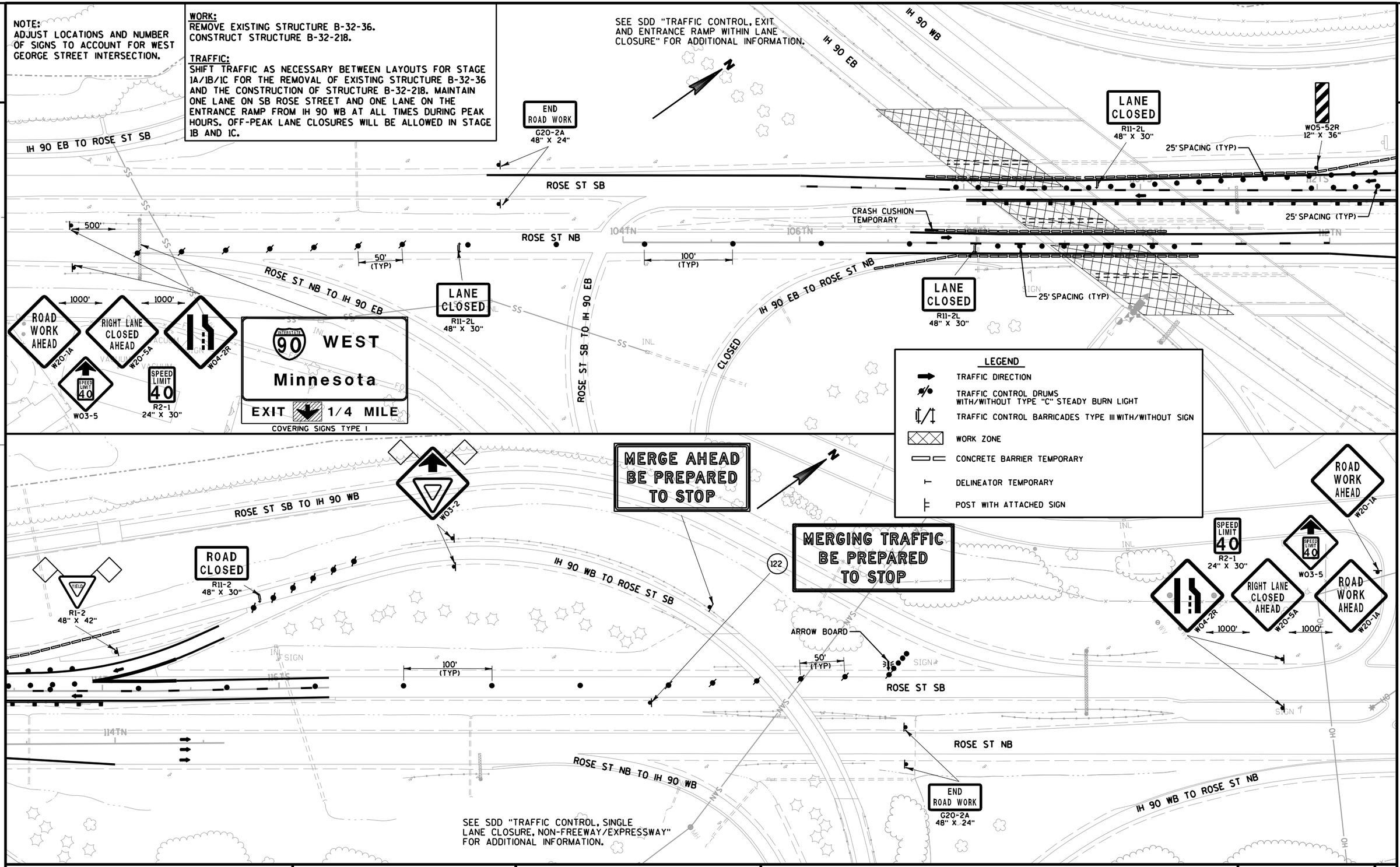
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NOTE:
ADJUST LOCATIONS AND NUMBER OF SIGNS TO ACCOUNT FOR WEST GEORGE STREET INTERSECTION.

WORK:
REMOVE EXISTING STRUCTURE B-32-36.
CONSTRUCT STRUCTURE B-32-218.

TRAFFIC:
SHIFT TRAFFIC AS NECESSARY BETWEEN LAYOUTS FOR STAGE 1A/1B/1C FOR THE REMOVAL OF EXISTING STRUCTURE B-32-36 AND THE CONSTRUCTION OF STRUCTURE B-32-218. MAINTAIN ONE LANE ON SB ROSE STREET AND ONE LANE ON THE ENTRANCE RAMP FROM IH 90 WB AT ALL TIMES DURING PEAK HOURS. OFF-PEAK LANE CLOSURES WILL BE ALLOWED IN STAGE 1B AND 1C.

SEE SDD "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE" FOR ADDITIONAL INFORMATION.



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	T.C. - ROSE ST (STAGE 1C) OFF-PEAK HOUR OUTSIDE LANE CLOSURE	SHEET 120	E

WORK:
CONSTRUCT WIDENING ON THE OUTSIDE LANES OF NB CTH B. CONSTRUCT WIDENING ON 'A', B, & C RAMPS. DO NOT WORK IN MEDIAN ISLAND OF 'A' RAMP AND THE 'A' RAMP/B RAMP MEDIAN AT THE SAME TIME. ONLY WORK IN ONE AREA (OUTSIDE, INSIDE OR MEDIAN) OF THE C RAMP AT A TIME.

TRAFFIC:
CLOSE OUTSIDE SHOULDERS OF NB CTH B. CLOSE SHOULDERS ON 'A', B, & C RAMPS. OFF-PEAK FLAGGING OPERATIONS ARE ALLOWED FOR WORK REQUIRING MORE THAN A SHOULDER CLOSURE.

SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR ADDITIONAL INFORMATION.

SEE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL INFORMATION.

SEE PERMANENT SIGNING PLAN FOR ADDITIONAL INFORMATION ON REMOVING SIGNS.

SEE "TRAFFIC CONTROL - STAGE 1" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

SHOULDER WORK W21-5

25' SPACING (TYP)

50' (TYP)

EXISTING SIGN TO REMAIN

EXISTING SIGN TO REMAIN

EXISTING SIGN TO REMAIN

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

25' SPACING (TYP)

EXISTING SIGN TO REMAIN

25' SPACING (TYP)

STOP MOVING 309

10' SPACING (TYP)

STOP MOVING 310

REMOVE

PEDESTRIANS BICYCLES NON MOTORIZED TRAFFIC MOTOR BICYCLES PROHIBITED MOVING 311

EXISTING SIGN TO REMAIN

10' SPACING (TYP)

EXISTING SIGN TO REMAIN

IH 90 EB TO CTH B

CTH B TO IH 90 EB

IH 90 EB

CTH B

26BN 28BN 30BN 32BN 34BN 36BN 38BN 40BN 42BN

138BT 138AT 140AT 140BT 138EB

OH SIGN INL W

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

DESIGN NOTE:
NEED TEMPORARY X-SECTIONS TO DETERMINE IF SIGNS ALONG BN NEED TO BE MOVED FOR CONSTRUCTION.

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 1A)	SHEET 121	E

2

N

PLAYGROUND

CTH B TO IH 90 WB

IH 90 WB TO CTH B

SEE "TRAFFIC CONTROL - STAGE 1" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

NORTH COUNTY B | SOUTH COUNTY B

MOVING 312

WRONG WAY MOVING 313

STOP MOVING 314

REMOVE

MOVING 315

STOP MOVING 316

WRONG WAY MOVING 317

25' SPACING (TYP)

10' SPACING (TYP)

CTH B

46BN 48BN 50BN 52BN 54BN 56BN

50' (TYP)

25' SPACING (TYP)

EXISTING SIGN TO REMAIN

EXISTING SIGN TO REMAIN

EXISTING SIGN TO REMAIN

EXISTING SIGN TO REMAIN

SEE PERMANENT SIGNING PLAN FOR ADDITIONAL INFORMATION ON REMOVING SIGNS.

SHOULDER WORK W21-5

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

IH 90 WB

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 1A)	SHEET E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026018_s1a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WORK:
CONSTRUCT WIDENING IN THE MEDIAN OF CTH B.

TRAFFIC:
CLOSE MEDIAN SHOULDERS OF CTH B. OFF-PEAK FLAGGING OPERATIONS ARE ALLOWED FOR WORK REQUIRING MORE THAN A SHOULDER CLOSURE.

SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR ADDITIONAL INFORMATION.

SEE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL INFORMATION.

SEE PERMANENT SIGNING PLAN FOR ADDITIONAL INFORMATION ON REMOVING SIGNS.

SEE "TRAFFIC CONTROL - STAGE 1" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

SHOULDER WORK W21-5

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

ROAD CLOSED R11-2 48" X 30"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

25' SPACING (TYP)

PAVEMENT MARKING PAINT 8-INCH (WHITE)

STOP 309

STOP 310

25' SPACING (TYP)

ONE WAY REMOVE

REMOVE

REMOVE

25' SPACING (TYP)

50' (TYP)

IH 90 EB TO CTH B

IH 90 EB

CTH B TO IH 90 EB

CTH B

26BN 28BN 30BN 32BN 34BN 36BN 38BN 40BN 42BN

136BT 138BT 140BT 142BT

138EB

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 1B)	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026017_s1b.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

N

PLAYGROUND

CTH B TO IH 90 WB

IH 90 WB TO CTH B

SEE "TRAFFIC CONTROL - STAGE 1" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

SEE PERMANENT SIGNING PLAN FOR ADDITIONAL INFORMATION ON REMOVING SIGNS.

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)

STOP 314

STOP 316

REMOVE

REMOVE

50' (TYP)

CTH B

25' SPACING (TYP)

25' SPACING (TYP)

SHOULDER WORK W21-5

ROAD WORK AHEAD W20-1A

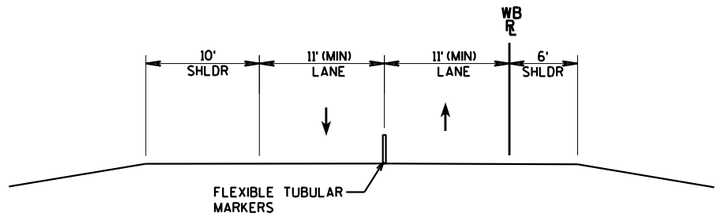
END ROAD WORK G20-2A 48" X 24"

IH 90 WB

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 1B)	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026018_s1b.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2



TRAFFIC LAYOUT - STAGE 2 A/B/C
I-90 WEST OF ROSE STREET

1

PROJECT NO: 1071-06-81/79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL TYPICAL LAYOUT - STAGE 2 (ROADWAY)	SHEET 125	E

2

WORK:
CONSTRUCT THE EB LANES FROM THE BEGINNING OF THE PROJECT TO THE BLACK RIVER WITH GAPS AT THE 'AT' RAMP AND BT RAMPS. CONTINUE CONSTRUCTION EAST OF THE BLACK RIVER AS DESCRIBED IN STAGE 1. BEGIN CONSTRUCTION OF THE 'A', B, C, AND D RAMPS. BEGIN CONSTRUCTION OF THE B-32-48 AND B-32-75 STRUCTURES. BEGIN CONSTRUCTION OF THE RA RAMP. CONSTRUCT THE AU AND BU TEMPORARY RAMPS.

TRAFFIC:
SWITCH IH 90 TRAFFIC TO BE SINGLE LANE BIDIRECTIONAL ON WB IH 90 FROM THE BEGINNING OF THE PROJECT TO THE BLACK RIVER. SWITCH RAMP TRAFFIC TO THE 'AT', BT, CV, AND DV TEMPORARY RAMPS.

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION", "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE" & "TRAFFIC CONTROL TWO LANE TWO WAY OPERATION" FOR ADDITIONAL INFORMATION.

N

SIGN
SIGN
SIGN
SIGN

46WB 46EB INL
48WB 48EB
50WB 50EB
52WB 52EB
54WB 54EB
IH 90 WB
56WB 56EB
INL
INL
58WB 58EB
60WB 60EB
IH 90 EB

WISCONSIN TRAVEL INFO
REST AREA 1/2 MILE
WEATHER INFORMATION
NEXT REST AREA 20 MILES

LEGEND
- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

N

SPEED LIMIT 55
R2-1
48" X 60"

FLEXIBLE TUBULAR MARKER POSTS INSTALLED PREVIOUSLY

62WB 64WB 66WB 68WB 70WB IH 90 WB 72WB 74WB
62EB 64EB 66EB 68EB 70EB IH 90 EB

COORDINATE TRAFFIC CONTROL WEST OF PROJECT LIMITS WITH DRESBACH PROJECTS

ROUND LAKE

PROJECT NO:1071-06-81	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 2A	SHEET 126	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026101_s2a.dgn
PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2

STA 77+69 WB - STA 82+00 WB
REMOVING PAVEMENT MARKING
(YELLOW EDGELINE EB TRAFFIC)
(WHITE EDGELINE EB TRAFFIC)

STA 77+69 WB - STA 83+70 WB
TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH
(DOUBLE YELLOW)

STA 78+00 WB - STA 84+00 WB
FLEXIBLE TUBULAR MARKER
POSTS @ 50' SPACING

10' LT @ 25' SPACING (TYP)

STA 82+00 WB - STA 162+00 WB
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINE)

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

N

IH 90 WB

IH 90 EB

2

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

W06-3

DO NOT PASS
R4-1
48" X 60"

EXIT 2
B
French Island
½ MILE
123

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

WEATHER STATION

SPEED LIMIT 55
R2-1
48" X 60"

1

CTH BW

REST AREA RAMP CLOSED

SIGN

FRENCH SLOUGH

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 2A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026102_s2a.dgn
PLOT DATE : 8/3/2015
PLOT BY : AYRES-EC
PLOT NAME :
PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2

CTH BW

W06-3

NEXT XX MILES
W057-51
48" X 24"
COORDINATE DISTANCES SHOWN WITH ADJACENT PROJECTS.

FLEXIBLE TUBULAR MARKER POSTS INSTALLED PREVIOUSLY

1

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

N

106WB 108WB 110WB 112WB IH 90 WB 114WB 116WB 118WB 120WB

IH 90 EB

124

La Crosse Airport
EXIT 2

COUNTY B
M1-5A
36" X 36"

MAX. 10' WIDTH
W12-52

.5 MILES AHEAD
W057-52
48" X 36"

318

MERGING TRAFFIC BE PREPARED TO STOP
MOVING SIGNS TYPE II

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

STA 134+00 EB - STA 135+00 EB
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINE, OUTSIDE EDGELINE, AND DASHED LANE LINE)

STA 135+50 DV - STA 136+10 DV
REMOVING PAVEMENT MARKING
(CHANNELIZING)

N

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 8-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

YIELD
R1-2
48" X 42"

EXIT
E5-1
72" X 60"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 8-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

FLEXIBLE TUBULAR MARKER POSTS INSTALLED PREVIOUSLY

CHASH CUSHION TEMPORARY

IH 90 WB

CTH B TO IH 90 WB

25' SPACING (TYP)

50' (TYP)

IH 90 EB

IH 90 EB TO CTH B

125

EXIT 2
B
French Island

EXIT
25
M.P.H.
W013-2
48" X 60"

ROAD CLOSED
R11-2
48" X 30"

PROJECT NO:1071-06-81	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 2A	SHEET 128 E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026103_s2a.dgn PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

CRASH CUSHION TEMPORARY

MERGE AHEAD BE PREPARED TO STOP

319

MOVING SIGNS TYPE II

STA 136+10 DV - STA 137+50 DV
REMOVING PAVEMENT MARKING
(EDGELINE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

W03-2

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 8-INCH (WHITE)

CTH B TO IH 90 WB

Airport

STA 143+40 CV - STA 144+25 CV
REMOVING PAVEMENT MARKING
(CHANNELIZING)

STA 142+00 CV - STA 144+25 CV
REMOVING PAVEMENT MARKING
(EDGELINE)

W03-1

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

ROAD CLOSED
R11-2
48" X 30"

IH 90 WB TO CTH B

CRASH CUSHION TEMPORARY

IH 90 WB

IH 90 EB

CTH B TO IH 90 EB

CRASH CUSHION TEMPORARY

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

IH 90 EB TO CTH B

W03-1

CTH B

SEE "TRAFFIC CONTROL - CTH B (STAGE 2A)" FOR TRAFFIC CONTROL DEVICES ALONG CTH B AND RAMPS.

N

STA 136+60 D - STA 139+25 D, RT
STA 141+00 C - STA 143+00 C, RT
REMOVING FLEXIBLE TUBULAR
MARKER POSTS & BASES

MERGING TRAFFIC BE PREPARED TO STOP

EXIT 3A
SOUTH SOUTH
53 35
La Crosse
¾ MILE

MOVING SIGNS TYPE II

320

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 8-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

W01-4L

ROAD CLOSED
R11-2
48" X 30"

321

MERGE AHEAD BE PREPARED TO STOP

MOVING SIGNS TYPE II

LANE CLOSED
R11-2L
48" X 30"

STA 141+00 BT - STA 149+00 BT
REMOVING PAVEMENT MARKING
(EDGELINE)

STA 148+00 EB - STA 158+00 EB
REMOVING PAVEMENT MARKING
(DASHED LANE LINE)

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 2A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026104_s2a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

COUNTY B
M1-5A
36" X 36"

MAX. 10' WIDTH
W12-52

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY

COVERING SIGNS
TYPE II

SPEED LIMIT 55
R2-1
48" X 60"

W04-1

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 8-INCH (WHITE)

YIELD
R1-2
48" X 42"

W06-3
NEXT XX MILE
W057-51
48" X 24"

N

IH 90 WB

IH 90 EB

152EB 154EB 156EB 158EB 160EB

152WB 154WB 156WB 158WB 160WB 162WB 164WB 166WB

50' (TYP)

100' (TYP)

SIGN

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

W01-6
96" X 48"

W03-2

ROAD CLOSED
R11-2
48" X 30"

HOSPITAL
EXIT 3A

W06-3
NEXT XX MILE
W057-51
48" X 24"

STA 159+00 EB - STA 160+00 EB
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINE)

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATOR TEMPORARY
- POST WITH ATTACHED SIGN

WEST INTERSTATE 90

BLACK RIVER

N

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY

IH 90 WB

IH 90 EB

166WB 168WB 170WB 172WB 174WB 176WB 178WB 180WB

170EB 172EB 174EB 176EB 178EB 180EB

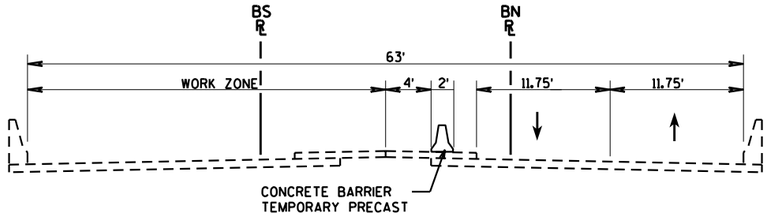
50' (TYP)

SIGN

EXIT 25 M.P.H.
W013-2
48" X 60"

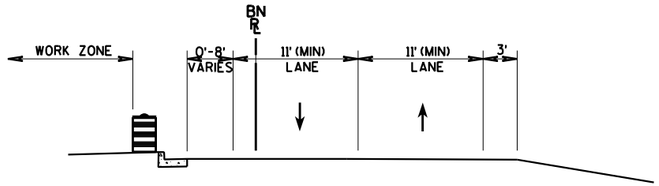
SEE "TRAFFIC CONTROL - STAGE 1"
FOR TRAFFIC CONTROL DEVICES
EAST OF BLACK RIVER.

PROJECT NO:1071-06-79/81	HWY: IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 2A	SHEET 130	E



CTH B STRUCTURE OVER I-90

EXISTING CTH B (B-32-52)



CTH B TRAFFIC LAYOUT

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	T.C. TYPICAL LAYOUT CTH B - STAGES 2A/2B/2C & 3A/3B/3C	SHEET 131	E

2

WORK:
CONSTRUCT SOUTHBOUND CTH B LANES SOUTH OF THE IH 90 EB RAMP TERMINAL AND NORTH OF THE IH 90 WB RAMP TERMINAL. CONSTRUCT THE A & D RAMPS.

TRAFFIC:
SWITCH CTH B TRAFFIC TO SINGLE LANE BI-DIRECTIONAL ON EXISTING NORTHBOUND LANES AND WIDENING. SWITCH RAMP TRAFFIC TO AT, BT, CV, AND DV TEMPORARY RAMPS.

SEE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL INFORMATION.

SEE "TRAFFIC CONTROL - STAGE 2A" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

PLACE WIDTH RESTRICTION SIGN ON APPROACHES TO CTH B NARROW LANES

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW CENTERLINE)

ROAD CLOSED R11-2 48" X 30"

50' (TYP)

ROAD WORK AHEAD W20-1A

COVERING SIGNS TYPE II

W01-6 48" X 24"

TEMPORARY PAVEMENT MARKING 4-INCH PAINT (WHITE)

STA 132+40 B - STA 136+25 B
REMOVING PAVEMENT MARKING
(RT/LT, EDGELINE)

NORTH SOUTH COUNTY B COUNTY B MOVING

DO NOT ENTER R5-1 36" X 36"

WRONG WAY

STOP 323

TEMPORARY PAVEMENT MARKING 4-INCH PAINT (WHITE)

TEMPORARY PAVEMENT MARKING 4-INCH PAINT (YELLOW)

CRASH CUSHION TEMPORARY

RAMP 25 M.P.H.

R4-7 24" X 30"

PEDESTRIANS BICYCLES ON LIMITED-ACCESS HIGHWAYS MOTOR BICYCLES PROHIBITED

EAST INTERSTATE 90 MOVING

La Crosse Madison MOVING

TEMPORARY PAVEMENT MARKING STOP LINE 24-INCH

25' SPACING (TYP)

SPEED LIMIT 35 MOVING

COUNTY B MOVING

ROAD CLOSED R11-2 48" X 30"

TEMPORARY PAVEMENT MARKING 4-INCH PAINT (WHITE)

TEMPORARY PAVEMENT MARKING 4-INCH (DOUBLE YELLOW CENTERLINE)

IH 90 EB

IH 90 EB TO CTH B

CTH B TO IH 90 EB

CTH B

STA 27+60 BN - STA 30+00 BN
REMOVING PAVEMENT MARKING
(DOUBLE YELLOW CENTERLINE, LT)

STA 27+60 BN - STA 58+75 BN
REMOVING PAVEMENT MARKING
(RT, EDGELINE)

STA 30+00 BN - STA 36+50 BN
REMOVING PAVEMENT MARKING
(LT, EDGELINE)

STA 30+00 BN - STA 36+50 BN
REMOVING PAVEMENT MARKING
(CHANNELIZING)

STA 37+00 BN - STA 48+80 BN
REMOVING PAVEMENT MARKING
(LT, EDGELINE)

STA 35+50 BN
STA 36+25 BN
REMOVING PAVEMENT
MARKING ARROWS

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 2A)	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026117_s2a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2

N

PLAYGROUND

CTH B TO IH 90 WB

IH 90 WB TO CTH B

SEE "TRAFFIC CONTROL - STAGE 2A" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

TEMPORARY PAVEMENT MARKING
4-INCH PAINT (WHITE)

NORTH COUNTY B | SOUTH COUNTY B

333

WRONG WAY
332

TEMPORARY PAVEMENT MARKING
4-INCH PAINT (YELLOW)

25' SPACING (TYP)

EAST INTERSTATE 90
MOVING
330

DO NOT ENTER
R5-1
36" X 36"

STOP
MOVING
331

STA 145+08 DV - STA 146+70 DV
ASPHALTC CURB

RAMP 25 M.P.H.
MOVING
334

WEST INTERSTATE 90
MOVING
335

CRASH CUSHION TEMPORARY

R4-7
24" X 30"

La Crosse
Madison
Minnesota
MOVING
336

W01-6
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

ROAD WORK AHEAD
W20-1A

COVERING SIGNS TYPE II

50' (TYP)

46BN

CTH B

54BN

56BN

50' (TYP)

TEMPORARY PAVEMENT MARKING
4-INCH PAINT (WHITE)

ROAD CLOSED
R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING
STOP LINE 24-INCH

ROAD CLOSED
R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING
4-INCH (DOUBLE YELLOW CENTERLINE)

TEMPORARY PAVEMENT MARKING
4-INCH PAINT (WHITE)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH
(DOUBLE YELLOW CENTERLINE)

END ROAD WORK
G20-2A
48" X 24"

IH 90 WB

STA 133+00 C - STA 138+50 C
REMOVING PAVEMENT MARKING
(LT/RT, EDGELINE)

STA 133+00 C - STA 133+50 C
REMOVING PAVEMENT MARKING
(CHANNELIZING)

STA 133+00 C
REMOVING PAVEMENT MARKING
(STOP LINE)

STA 46+80 BN - STA 48+80 BN
REMOVING PAVEMENT MARKING
(CHANNELIZING)

STA 49+30 BN - STA 55+80 BN
REMOVING PAVEMENT MARKING
(LT, EDGELINE)

STA 55+80 BN - STA 58+75 BN
REMOVING PAVEMENT MARKING
(DOUBLE YELLOW CENTERLINE)

STA 47+50 BN
STA 48+25 BN
REMOVING PAVEMENT
MARKING ARROWS

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 2A)	SHEET 133	E

2

2

WORK:
CONSTRUCT THE EB LANES AT 'AT' RAMP. CONTINUE CONSTRUCTION OF THE BU TEMPORARY RAMP. CONTINUE CONSTRUCTION EAST OF THE BLACK RIVER AS DESCRIBED IN STAGE 1.

TRAFFIC:
SWITCH RAMP TRAFFIC TO THE AU TEMPORARY RAMP AND D RAMP.

CTH BW

W06-3
NEXT XX MILES
W057-51
48" X 24"
COORDINATE DISTANCES SHOWN WITH ADJACENT PROJECTS.

FLEXIBLE TUBULAR MARKER POSTS INSTALLED PREVIOUSLY

1

IH 90 WB

IH 90 EB

SEE "TRAFFIC CONTROL - STAGE 2A" FOR TRAFFIC CONTROL DEVICES WEST OF CTH BW.

La Crosse Airport
EXIT 2

COUNTY B
M1-5A
36" X 36"

MAX. 10' WIDTH
W12-52

.5 MILES AHEAD
W057-52
48" X 36"

MERGING TRAFFIC BE PREPARED TO STOP

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

STA 128+50 AU - STA 130+50 AU
REMOVING PAVEMENT MARKING (EDGELINE)

EXIT
E5-1
72" X 60"

FLEXIBLE TUBULAR MARKER POSTS INSTALLED PREVIOUSLY

CRASH CUSHION TEMPORARY

R1-2
48" X 42"

CTH B TO IH 90 WB

IH 90 EB TO CTH B

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 8-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)

EXIT 2
B
French Island

EXIT
25
M.P.H.
W013-2
48" X 60"

ROAD CLOSED
R11-2
48" X 30"

PROJECT NO:1071-06-81	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 2B	SHEET 134	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026203_s2b.dgn
PLOT DATE : 9/14/2015
PLOT BY : AYRES-EC
PLOT NAME :
PLOT SCALE : 1:100

2

MERGE AHEAD
BE PREPARED
TO STOP

337

MOVING SIGNS TYPE II

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

W03-2

CTH B TO IH 90 WB

Airport

W03-1

ROAD
CLOSED

R11-2
48" X 30"

IH 90 WB TO CTH B

CRASH CUSHION
TEMPORARY

IH 90 WB

IH 90 EB

CTH B TO IH 90 EB

CRASH CUSHION
TEMPORARY

IH 90 EB TO CTH B

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

SEE "TRAFFIC CONTROL - CTH B
(STAGE 2B)" FOR TRAFFIC CONTROL
DEVICES ON CTH B AND RAMPS.

CTH B

W01-4L

ROAD
CLOSED

R11-2
48" X 30"

MERGE AHEAD
BE PREPARED
TO STOP

LANE
CLOSED

R11-2L
48" X 30"

MERGING TRAFFIC
BE PREPARED
TO STOP

EXIT 3A
SOUTH SOUTH
53 35
La Crosse
3/4 MILE

SEE "TRAFFIC CONTROL - STAGE 2A"
FOR TRAFFIC CONTROL DEVICES
EAST OF CTH B.

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY

N

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 2B	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026204_s2b.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

WORK;
CONSTRUCT SOUTHBOUND CTH B BETWEEN THE A RAMP AND BT RAMP. CONSTRUCT SOUTHBOUND CTH B BETWEEN THE CU RAMP AND D RAMP. BEGIN CONSTRUCTION OF THE B RAMP AND C RAMP.

TRAFFIC;
KEEP CTH B TRAFFIC SINGLE LANE BI-DIRECTIONAL ON NORTHBOUND LANES. SWITCH A RAMP AND D RAMP TRAFFIC TO NEWLY CONSTRUCTED RAMPS AND SHOULDERS.

N

SEE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL INFORMATION.

PLACE WIDTH RESTRICTION SIGN ON APPROACHES TO CTH B NARROW LANES

SEE "TRAFFIC CONTROL - STAGE 2B" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

ROAD CLOSED
R11-2
48" X 30"

50' (TYP)

W01-6
48" X 24"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

CRASH CUSHION TEMPORARY

25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH

STOP
MOVING
338

25' SPACING (TYP)

10' SPACING (TYP)

ROAD CLOSED
R11-2
48" X 30"

IH 90 EB TO CTH B

CTH B TO IH 90 EB

IH 90 EB

CTH B

26BN 28BN 34BN 36BN 38BN 40BN 42BN 138BT 138EB

50' (TYP)

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 2B)	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026217_s2b.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

N

PLAYGROUND

140D

CTH B TO IH 90 WB

SIGN

142D

INT

SIGN

136CV

140CV

IH 90 WB TO CTH B

SEE "TRAFFIC CONTROL - STAGE 2B" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

CRASH CUSHION TEMPORARY

144D

136CV

142CV

ABANDONED

TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)

25' SPACING (TYP)

DO NOT ENTER

R5-1
36" X 36"

25' SPACING (TYP)

STOP

25' SPACING (TYP)

146D

142CV

50' (TYP)

46BN

48BN

CTH B

10' SPACING (TYP)

ROAD CLOSED

R11-2
48" X 30"

ROAD CLOSED

R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH

52BN

54BN

56BN

W01-6
48" X 24"

ROAD CLOSED

R11-2
48" X 30"

50' (TYP)

ROAD WORK AHEAD

W20-1A

END ROAD WORK

G20-2A
48" X 24"

IH 90 EB

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 2B)	SHEET E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026218_s2b.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

WORK:
CONSTRUCT THE EB LANES AT BT RAMP. CONTINUE CONSTRUCTION EAST OF THE BLACK RIVER AS DESCRIBED IN STAGE 1.

TRAFFIC:
SWITCH RAMP TRAFFIC TO THE BU TEMPORARY RAMP AND C RAMP.

W06-3
NEXT XX MILES
W057-51
48" X 24"
COORDINATE DISTANCES SHOWN WITH ADJACENT PROJECTS.

FLEXIBLE TUBULAR MARKER POSTS INSTALLED PREVIOUSLY

1

CTH BW

IH 90 WB

IH 90 EB

SEE "TRAFFIC CONTROL - STAGE 2A" FOR TRAFFIC CONTROL DEVICES WEST OF CTH BW.

La Crosse Airport
EXIT 2

COUNTY B
M1-5A
36" X 36"

MAX. 10' WIDTH
W12-52

MERGING TRAFFIC BE PREPARED TO STOP

.5 MILES AHEAD
W057-52
48" X 42"

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

EXIT
E5-1
72" X 60"

R1-2
48" X 42"

CRASH CUSHION TEMPORARY INSTALLED PREVIOUSLY

FLEXIBLE TUBULAR MARKER POSTS INSTALLED PREVIOUSLY

CTH B TO IH 90 WB

IH 90 EB TO CTH B

EXIT 2
B
French Island

EXIT
25
M.P.H.
W013-2
48" X 60"

ROAD CLOSED
R11-2
48" X 30"

PROJECT NO:1071-06-81	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 2C	SHEET 138 E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026303_s2c.dgn PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

MERGE AHEAD
BE PREPARED
TO STOP

Airport

CTH B TO IH 90 WB

W03-1

W03-2

W04-1

STA 142+25 C - STA 144+25 C
REMOVING PAVEMENT MARKING
(CHANNELIZING)

STA 143+35 C - STA 144+25 C
REMOVING PAVEMENT MARKING
(EDGELINE)

25' SPACING (TYP)

IH 90 WB TO CTH B

N

STA 147+10 WB - STA 156+00 WB
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINE)

STA 146+85 EB & STA 147+50 EB, LT
REMOVING FLEXIBLE TUBULAR
MARKER POSTS & BASES

MERGING TRAFFIC
BE PREPARED
TO STOP

EXIT 3A
SOUTH SOUTH
53 35
La Crosse
3/4 MILE

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 8-INCH (WHITE)

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY

IH 90 WB

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (YELLOW)

25' SPACING (TYP)

50'
(TYP)

50'
(TYP)

IH 90 EB

CTH B TO IH 90 EB

ROAD
CLOSED
R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

CRASH CUSHION
TEMPORARY

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

YIELD
R1-2
48" X 42"

W04-2R

CTH B

IH 90 EB TO CTH B

W03-2

339

MERGE AHEAD
BE PREPARED
TO STOP

MOVING SIGNS TYPE II

SEE "TRAFFIC CONTROL - CTH B
(STAGE 2C)" FOR TRAFFIC CONTROL
DEVICES ON CTH B AND RAMPS.

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO:1071-06-81	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 2C	SHEET 139	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026304_s2c.dgn PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

COUNTY B
M1-5A
36" X 36"

MAX. 10' WIDTH
W12-52

STA 160+75 BT - STA 168+50 BT
REMOVING PAVEMENT MARKING
(RT. EDGELINE)

STA 160+75 BT - STA 161+50 BT
REMOVING PAVEMENT MARKING
(LT EDGELINE)

STA 161+50 WB - STA 162+50 WB
REMOVING PAVEMENT MARKING
(CHANNELIZING)

SPEED LIMIT 55
R2-1
48" X 60"

10' RT @ 25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

W06-3
NEXT MILE
W057-51
48" X 24"

N

IH 90 WB

IH 90 EB

100' (TYP)

100' (TYP)

HOSPITAL
EXIT 3A

W06-3
NEXT MILE
W057-51
48" X 24"

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATOR TEMPORARY
- POST WITH ATTACHED SIGN

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

WEST INTERSTATE 90

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY

BLACK RIVER

N

IH 90 WB

IH 90 EB

SIGN

EXIT 25 M.P.H.
W013-2
48" X 60"

SEE "TRAFFIC CONTROL - STAGE 1"
FOR TRAFFIC CONTROL DEVICES
EAST OF BLACK RIVER.

PROJECT NO:1071-06-79/81	HWY: IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 2C	SHEET 140	E

2

WORK:
CONSTRUCT SOUTHBOUND CTH B AT THE B RAMP AND C RAMP TERMINALS.

TRAFFIC:
KEEP CTH B TRAFFIC SINGLE LANE BI-DIRECTIONAL ON NORTHBOUND LANES. SWITCH B RAMP TRAFFIC ON TO THE BU ALIGNMENT. SWITCH C RAMP TRAFFIC ON TO NEWLY CONSTRUCTED RAMP AND SHOULDERS.

SEE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL INFORMATION.

SEE "TRAFFIC CONTROL - STAGE 2C" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

PLACE WIDTH RESTRICTION SIGN ON APPROACHES TO CTH B NARROW LANES

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

ROAD CLOSED R11-2 48" X 30"

W01-6 48" X 24"

ROAD WORK AHEAD W20-1A

KEEP RIGHT

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

15' LANE / VARIES 10' (NORM) MEDIAN / 15' LANE

CRASH CUSHION TEMPORARY

25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH

STOP MOVING 356

PEDESTRIANS BICYCLES NON MOTORIZED TRAFFIC MOTOR BICYCLES PROHIBITED MOVING 340

RAMP 25 M.P.H. MOVING 341

IH 90 EB TO CTH B

CTH B TO IH 90 EB

IH 90 EB

CTH B

50' (TYP)

ROAD CLOSED R11-2 48" X 30"

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 2C)	SHEET 141	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026317_s2c.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

N

PLAYGROUND

CTH B TO IH 90 WB

IH 90 WB TO CTH B

140D

142D

144D

SIGN

SEE "TRAFFIC CONTROL - STAGE 2C" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

WRONG WAY
MOVING
343

NORTH COUNTY B | SOUTH COUNTY B
MOVING
344

DO NOT ENTER
R5-1
36" X 36"

STOP
MOVING
342

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (YELLOW)

CONCRETE CURB & GUTTER
30-INCH TYPE A

15' LANE / VARIES 10' (NORM) MEDIAN / 15' LANE

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (YELLOW)

25' SPACING (TYP)

50' (TYP)

48BN

52BN

56BN

54BN

CTH B

TEMPORARY PAVEMENT MARKING
STOP LINE REMOVABLE TAPE
24-INCH

ROAD CLOSED
R11-2
48" X 30"

WO1-6
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

ROAD WORK AHEAD
W20-1A

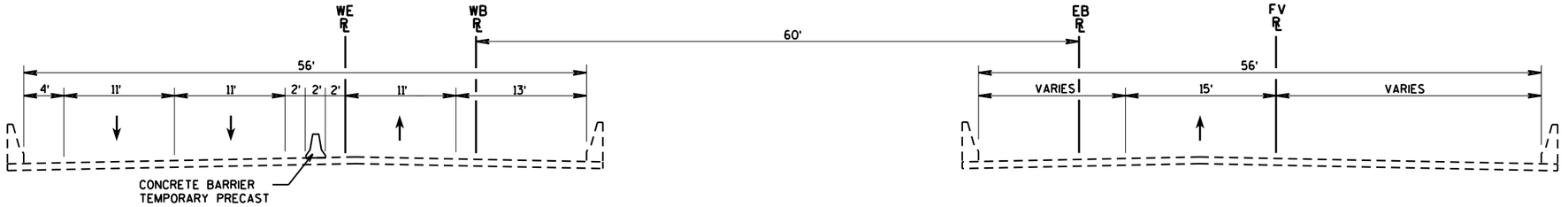
END ROAD WORK
G20-2A
48" X 24"

IH 90 EB

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 2C)	SHEET 142	E

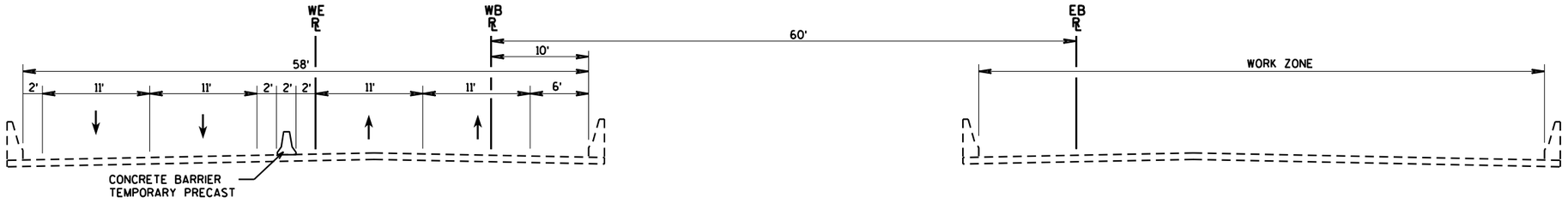


EXISTING WB (B-32-40)

I-90 STRUCTURES OVER RAILROAD/OAK ST

(LOOKING EAST)

EXISTING EB (B-32-39)

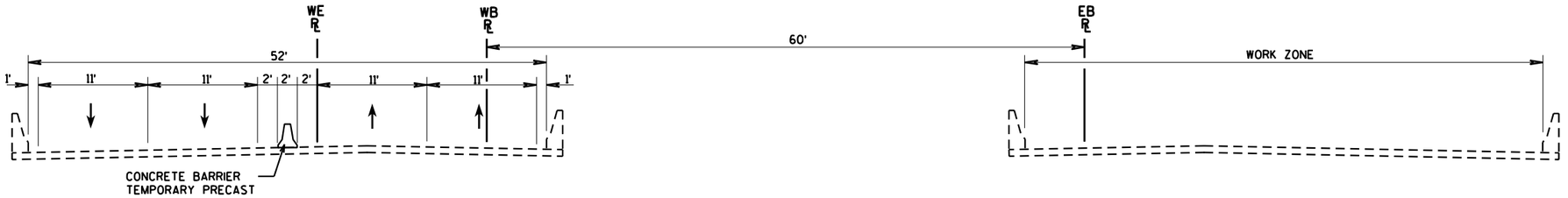


EXISTING WB (B-32-108)

I-90 STRUCTURES OVER 12TH AVE

(LOOKING EAST)

EXISTING EB (B-32-107)



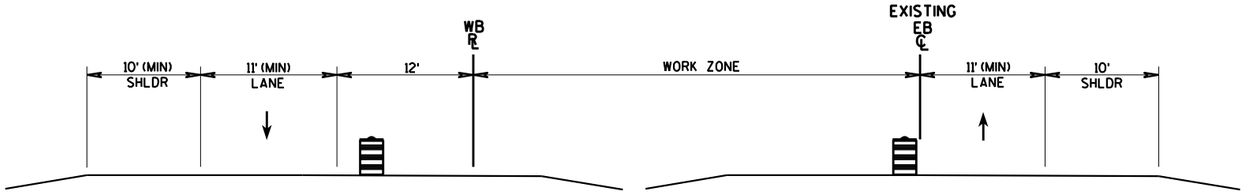
EXISTING WB (B-32-190)

I-90 STRUCTURES OVER THEATER RD

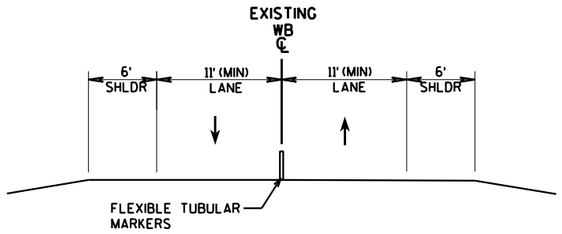
(LOOKING EAST)

EXISTING EB (B-32-189)

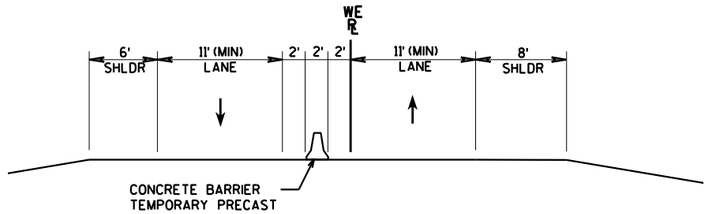
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	T.C. TYPICAL LAYOUT - STAGE 3A/3B/3C (STRUCTURES)	SHEET 143	E



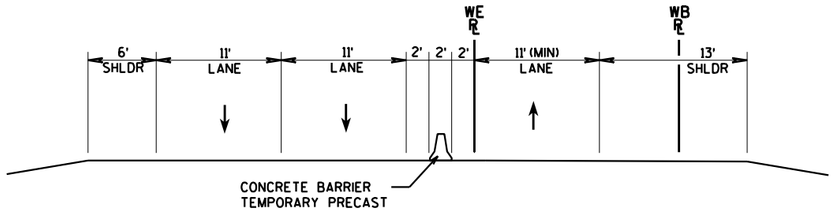
TRAFFIC LAYOUT - STAGE 3A
I-90 WEST OF BLACK RIVER
1



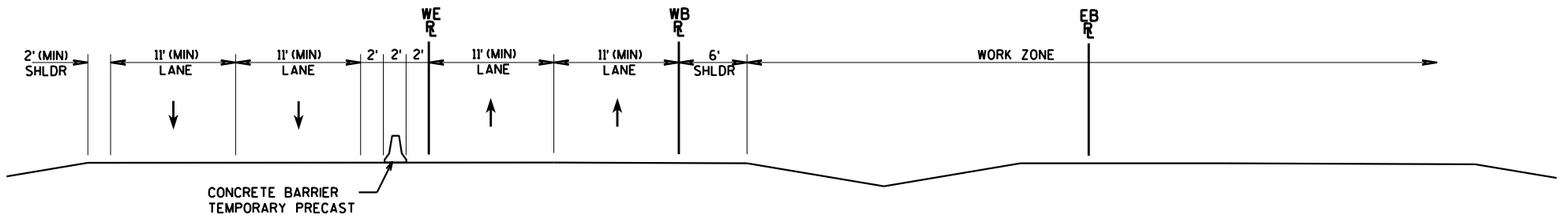
TRAFFIC LAYOUT - STAGE 3A/3B
I-90 BLACK RIVER TO WEST OF RAILROAD
2



TRAFFIC LAYOUT - STAGE 3A/3B
I-90 UNDER STH 157
5



TRAFFIC LAYOUT - STAGE 3A/3B
I-90 NEAR RAILROAD
3



TRAFFIC LAYOUT - STAGE 3A/3B
I-90 BETWEEN TRAIL AND 12TH AVENUE
I-90 EAST OF STH 157
4

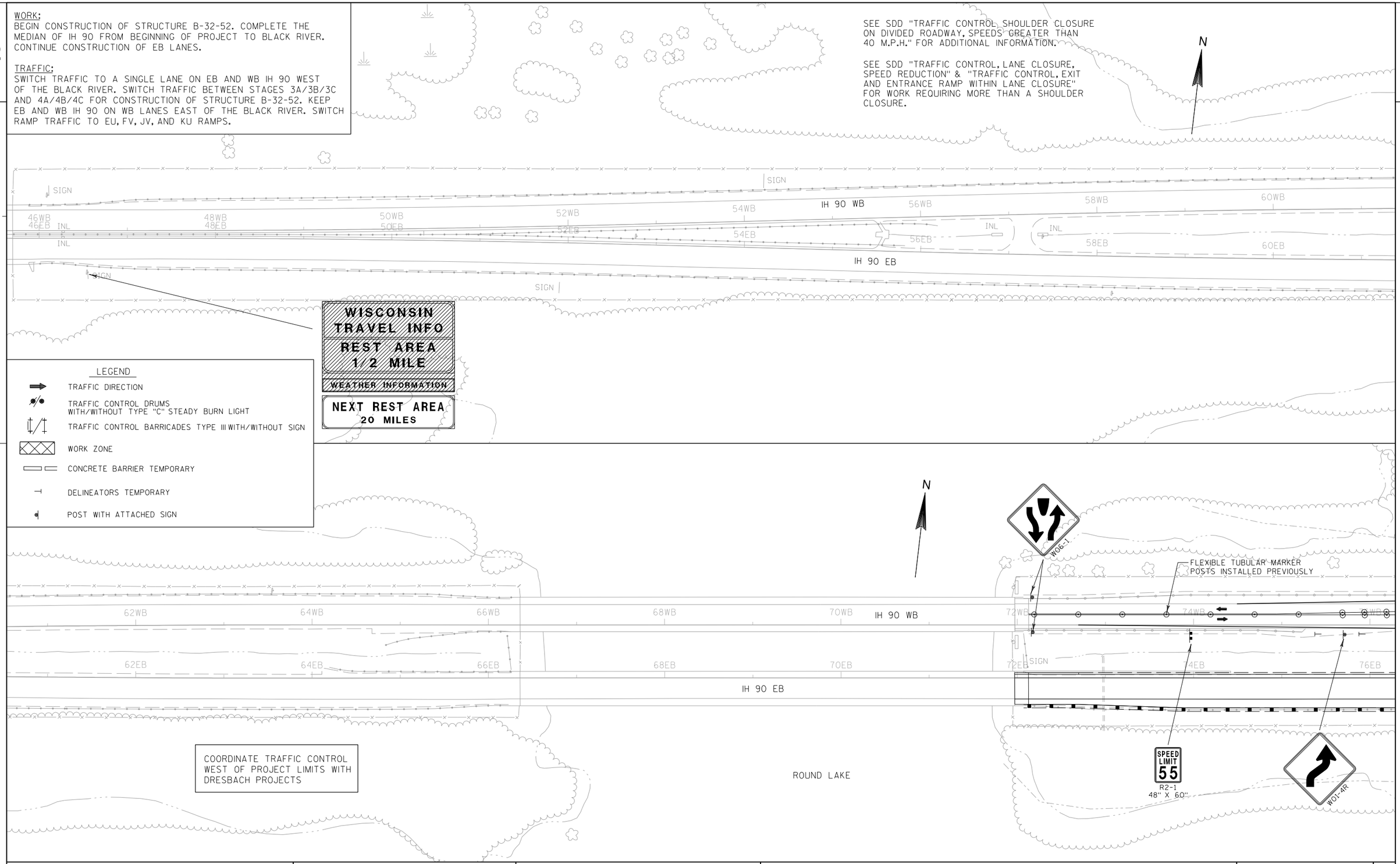
2

WORK:
BEGIN CONSTRUCTION OF STRUCTURE B-32-52. COMPLETE THE MEDIAN OF IH 90 FROM BEGINNING OF PROJECT TO BLACK RIVER. CONTINUE CONSTRUCTION OF EB LANES.

TRAFFIC:
SWITCH TRAFFIC TO A SINGLE LANE ON EB AND WB IH 90 WEST OF THE BLACK RIVER. SWITCH TRAFFIC BETWEEN STAGES 3A/3B/3C AND 4A/4B/4C FOR CONSTRUCTION OF STRUCTURE B-32-52. KEEP EB AND WB IH 90 ON WB LANES EAST OF THE BLACK RIVER. SWITCH RAMP TRAFFIC TO EU, FV, JV, AND KU RAMPS.

SEE SDD "TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H." FOR ADDITIONAL INFORMATION.

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" & "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE" FOR WORK REQUIRING MORE THAN A SHOULDER CLOSURE.



PROJECT NO:1071-06-81	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 3A	SHEET 145	E

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER" FOR ADDITIONAL INFORMATION.

25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

CRASH CUSHION TEMPORARY

R4-7
48" X 60"

W01-6
66" X 30"

W5-52L
18" X 54"

LANE CLOSED
R11-2L
48" X 30"

IH 90 WB

IH 90 EB

50' (TYP)

100' (TYP)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

25' SPACING (TYP)

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

LANE CLOSED
R11-2L
48" X 30"

SPEED LIMIT 55
R2-1
48" X 60"

REST AREA RAMP CLOSED

25' SPACING (TYP)

RAMP CLOSED
R11-2R
48" X 30"

FRENCH SLOUGH

CTH BW

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3A	SHEET E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026402_s3a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

CTH BW

N

LANE CLOSED
R11-2L
48" X 30"

IH 90 WB

IH 90 EB

RAMP CLOSED

100'
(TYP)

COUNTY
B
M1-5A
36" X 36"

MAX
10'
WIDTH
W12-52

.5 MILES
AHEAD
W057-52
48" X 36"

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

YIELD
R1-2
48" X 42"

CTH B TO IH 90 WB

IH 90 EB TO CTH B

345

MERGING TRAFFIC
BE PREPARED
TO STOP

SIGN

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3A/4A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026403_s3a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

MERGE AHEAD
BE PREPARED
TO STOP

CTH B TO IH 90 WB

W03-2

LANE
CLOSED
R11-2L
48" X 30"

IH 90 WB TO CTH B

MERGING TRAFFIC
BE PREPARED
TO STOP

EXIT 3A
SOUTH SOUTH
53 35
La Crosse
¾ MILE

N

136WB 138WB IH 90 WB 140WB 142WB 144WB 146WB 148WB 150WB

100' (TYP)

50' (TYP)

136EB 138EB 140EB 142EB 144EB 146EB 148EB 150EB

IH 90 EB

100' (TYP)

50' (TYP)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH
(DASHED WHITE)

W04-1

CTH B TO IH 90 EB

YIELD
R1-2
48" X 42"

CTH B

IH 90 EB TO CTH B

W03-2

346

MERGE AHEAD
BE PREPARED
TO STOP

MOVING SIGNS TYPE II

SEE "TRAFFIC CONTROL - CTH B (STAGE 3A/3B/3C)" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG CTH B AND RAMPS.

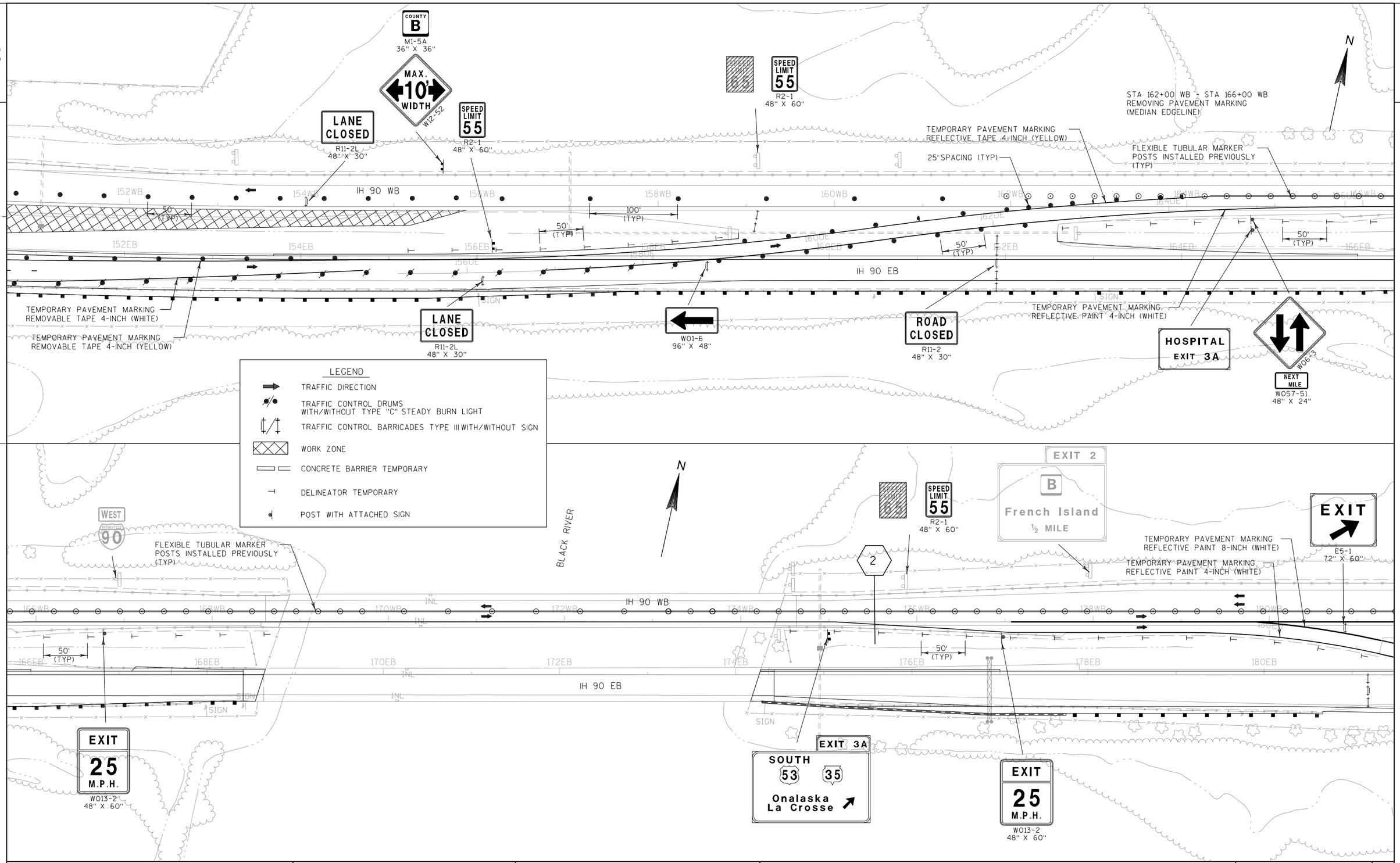
LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3A/4A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026404_s3a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42



PROJECT NO:1071-06-79/81	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 3A/4A	SHEET 149	E

2

2

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

N

MERGE AHEAD
BE PREPARED
TO STOP

W03-2

R1-2
48" X 42"

FLEXIBLE TUBULAR MARKER POSTS INSTALLED PREVIOUSLY (TYP)

ROSE ST SB TO IH 90 WB

W01-6
96" X 48"

IH 90 WB

50' (TYP)

IH 90 EB

ROAD
CLOSED
R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

IH 90 EB TO ROSE ST SB

ROSE ST SB

ROSE ST NB

IH 90 EB TO ROSE ST NB

CLOSED

SIGN

SEE "TRAFFIC CONTROL - ROSE ST" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG ROSE ST FOR STRUCTURE B-32-218.

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026406_s3a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

ROSE ST SB TO IH 90 WB

ROAD WORK AHEAD W20-1A

IH 90 WB TO ROSE ST SB

ROSE ST SB

ROSE ST NB

ROAD WORK AHEAD W20-1

MERGE AHEAD BE PREPARED TO STOP

W03-2

R1-2 48" X 42"

MERGING TRAFFIC BE PREPARED TO STOP

IH 90 WB TO ROSE ST

STA 208+00 WB - STA 231+00 WB
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINE)

PLACED PREVIOUSLY BY OTHERS

W06-3

NEXT XX MILES
W057-51
30" X 15"

FLEXIBLE TUBULAR MARKER POSTS INSTALLED PREVIOUSLY

CRASH CUSHION TEMPORARY INSTALLED PREVIOUSLY

ROSE ST NB TO IH 90 WB

STA 202+20 WB - STA 226+00 WB
TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

IH 90 WB

IH 90 EB

50' (TYP)

ROAD CLOSED
R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (YELLOW)

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

IH 90 EB TO ROSE ST NB CLOSED

CRASH CUSHION TEMPORARY

ROSE ST TO IH 90 EB

W01-2R
30" X 30"

STA 199+37 FW - STA 200+37 FW
REMOVING PAVEMENT MARKING

ROAD WORK AHEAD W20-1A

SEE "IH 90 EB TO ROSE STREET NB RAMP DETOUR" FOR ADDITIONAL SIGNS.

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3A	SHEET 151	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026407_s3a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

EXIT 3
SOUTH
53 35
La Crosse
Onalaska
EXIT ONLY

COUNTY B
M1-5A
36" X 36"

MAX. 10' WIDTH
W12-52

2 MILES AHEAD
W057-52
48" X 36"

STA 222+00 WB - STA 227+00 WB
REMOVING PAVEMENT MARKING
(DOTTED LANE LINE)

W04-3R

PLACED PREVIOUSLY BY OTHERS

IH 90 WB TO ROSE ST

3

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

IH 90 WB

IH 90 EB

50'
(TYP)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (YELLOW)

W01-6
96" X 48"

BNSF RR

OAK ST

WALLS

SIGN

BURLINGTON NORTHERN

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

EXIT 4
NORTH
53 157
Onalaska
La Crosse
½ MILE
RIGHT LANE ONLY
MOVING SIGNS TYPE II

348

90 WEST
LEFT LANE ONLY

GREAT RIVER STATE TRAIL

Historic
Downtown
La Crosse
EXIT 3

RIGHT LANE MUST EXIT
R3-33R
78" X 36"

200

4

SPEED LIMIT 55
R2-1
48" X 60"

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

TEMPORARY PAVEMENT
MARKING 8-INCH (WHITE)

50'
(TYP)

IH 90 WB

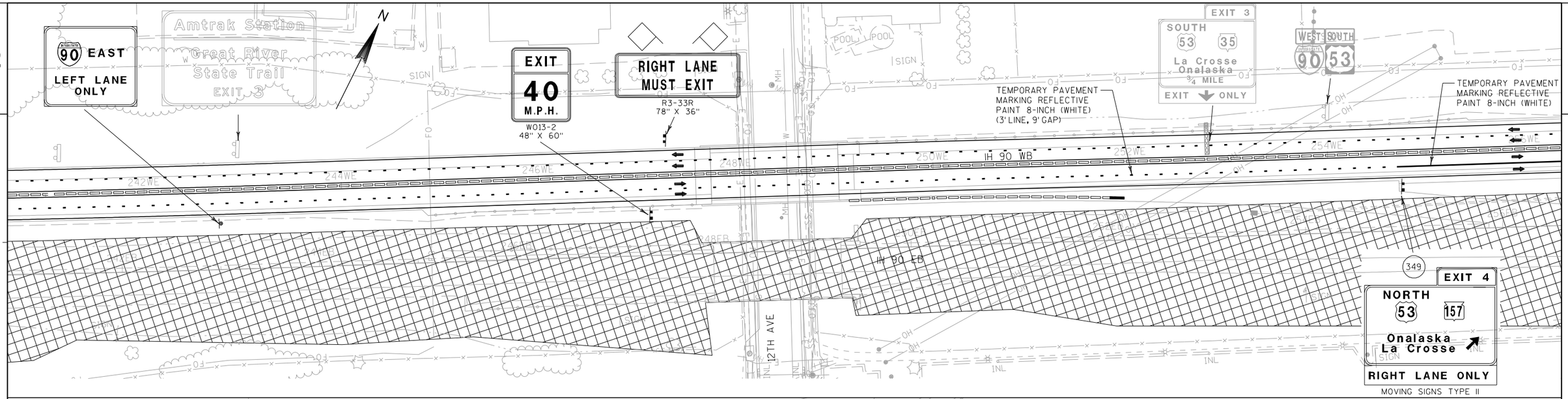
IH 90 EB

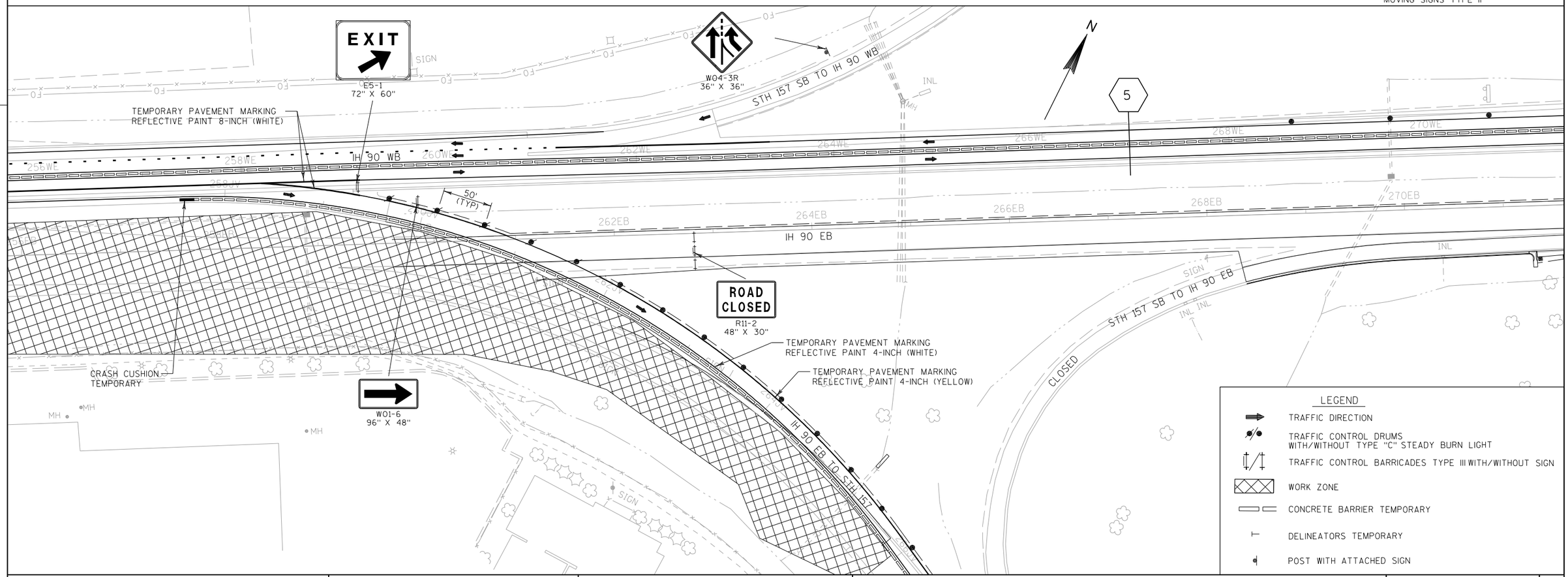
ROAD CLOSED
R11-2
48" X 30"

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3A	SHEET E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026408_s3a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2





PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 3A	SHEET 153	E

2

2

N

IH 90 WB
IH 90 EB
CLOSED
STH 157 NB TO IH 90 WB
STH 157
272EB
274EB
276EB
278EB
280EB
282EB
284EB
286EB
276WE
278WE
280WE
282WE
284WE
286WE
SS
INL
OH
SIGN

SEE "STH 157 SB TO IH 90 EB RAMP DETOUR" AND "P RAMP DETOUR" FOR ADDITIONAL SIGNS

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
CRASH CUSHION TEMPORARY
STH 157 NB TO IH 90 EB

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

EXIT 4
NORTH 53 157 La Crosse Onalaska
EXIT ONLY
WEST 90 AHEAD
SOUTH 53

W04-3R
TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 8-INCH (WHITE)
CRASH CUSHION TEMPORARY
IH 90 WB TO STH 157
STH 157 NB TO IH 90 EB
50' (TYP)
50' (TYP)
IH 90 EB
IH 90 WB
286WE
288WE
290WE
292WE
294WE
296WE
298WE
300WE
286EB
290EB
292EB
294EB
296EB
298EB
300EB

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

EXIT 5
16
Onalaska
¾ MILE

SEE "TRAFFIC CONTROL - STAGE 1" FOR TRAFFIC CONTROL DEVICES TO END OF PROJECT.

WEST SOUTH
90 53
LEFT LANE ONLY

4

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026410_s3a.dgn
PLOT DATE : 8/3/2015
PLOT BY : AYRES-EC
PLOT NAME :
PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2

WORK:
CONSTRUCT THE SOUTHBOUND PORTION OF STRUCTURE B-32-52.

TRAFFIC:
KEEP CTH B TRAFFIC SINGLE LANE BI-DIRECTIONAL ON NORTHBOUND LANES. KEEP RAMP TRAFFIC IN SAME LOCATION AS STAGE 2C AT RAMP TERMINALS.

N

SEE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL INFORMATION.

PLACE WIDTH RESTRICTION SIGN ON APPROACHES TO CTH B NARROW LANES

SEE "TRAFFIC CONTROL - STAGE 3A/3B/3C" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

W01-6
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

50' (TYP)

25' SPACING (TYP)

STOP

ROAD CLOSED
R11-2
48" X 30"

IH 90 EB TO CTH B

CTH B TO IH 90 EB

IH 90 EB

CTH B

8:1 TAPER

26BN 28BN 34BN 36BN 38BN 40BN

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 3A/3B/3C)	SHEET E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026417_s3a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

N

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PLAYGROUND

CTH B TO IH 90 WB

IH 90 WB TO CTH B

SIGN

140D

142D

144D

138D

140C

136C

SEE "TRAFFIC CONTROL - STAGE 3A/3B/3C" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

ABANDONED

146D

STOP

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

ROAD WORK AHEAD
W20-1A

17

8:1 TAPER

50' (TYP)

46BN

48BN

52BN

54BN

56BN

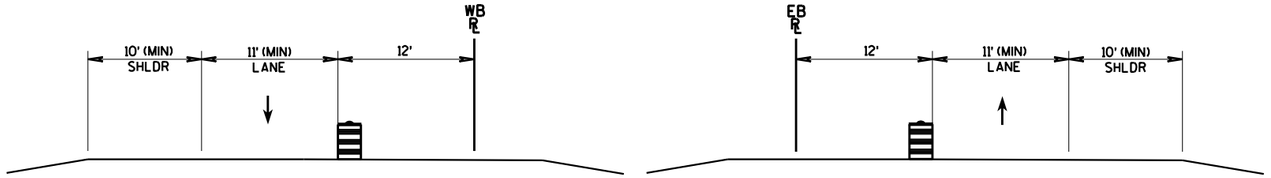
CTH B

END ROAD WORK
G20-2A
48" X 24"

IH 90 EB

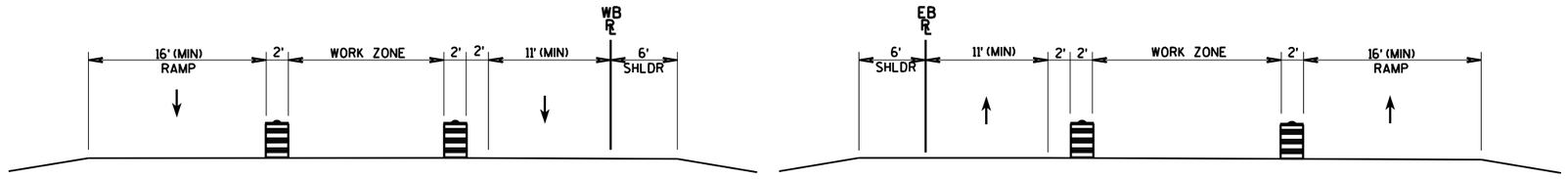
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 3A/3B/3C)	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026418_s3a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100



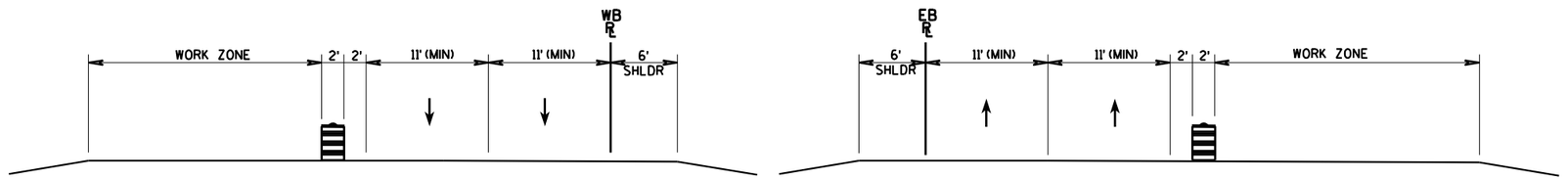
TRAFFIC LAYOUT - STAGE 3B/3C — 1

I-90 WEST OF CTH B
I-90 BETWEEN CTH B AND BLACK RIVER



TRAFFIC LAYOUT - STAGE 3B — 2

I-90 UNDER CTH B



TRAFFIC LAYOUT - STAGE 3C — 2

I-90 UNDER CTH B

WORK:
OVERHEAD WORK OVER THE OUTSIDE LANES OF IH 90 FOR STRUCTURE B-32-52.

TRAFFIC:
SHIFT MAINLINE TRAFFIC FROM MEDIAN LANE CLOSURE TO AN OUTSIDE LANE CLOSURE UNDER CTH B.

2

CTH BW

1

LANE CLOSED
R11-2L
48" X 30"

IH 90 WB

IH 90 EB

RAMP CLOSED

100' (TYP)

COUNTY B
M1-5A
36" X 36"

MAX 10' WIDTH
W12-52

.5 MILES AHEAD
W057-52
48" X 36"

SEE "TRAFFIC CONTROL - STAGE 3A" FOR TRAFFIC CONTROL DEVICES WEST OF CTH BW.

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

NOTE:
IF STAGE 3B/3C OR 4B/4C LANE SHIFT UNDER CTH B STRUCTURE IS IN PLACE FOR 4 OR MORE CALENDER DAYS AND NIGHTS, REMOVE ANY LANE LINE PAVEMENT MARKING (INCIDENTAL).

LANE CLOSED
R11-2L
48" X 30"

YIELD
R1-2
48" X 42"

CTH B TO IH 90 WB

50' (TYP)

IH 90 EB TO CTH B

W01-4L

MERGING TRAFFIC BE PREPARED TO STOP

LANE CLOSED
R11-2L
48" X 30"

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3B/4B	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026503_s3b.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2

MERGE AHEAD
BE PREPARED
TO STOP

CTH B TO IH 90 WB

W03-2

IH 90 WB TO CTH B

IH 90 WB

136WB 138WB 140WB 142WB 144WB 146WB 148WB 150WB

50' (TYP)

2

136EB 138EB 140EB 142EB 144EB 146EB 148EB 150EB

IH 90 EB

50' (TYP)

100' (TYP)

50' (TYP)

LANE
CLOSED
R11-2L
48" X 30"

CTH B TO IH 90 EB

IH 90 EB TO CTH B

W03-2

SEE "TRAFFIC CONTROL - CTH B (STAGE 3A/3B/3C)" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG CTH B AND RAMPS.

MERGE AHEAD
BE PREPARED
TO STOP

CTH B

W04-1

N

MERGING TRAFFIC
BE PREPARED
TO STOP

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 8-INCH
(CHANNELIZING)

25' SPACING (TYP)

25' SPACING (TYP)

EXIT
E5-1
72" X 60"

LANE
CLOSED
R11-2L
48" X 30"

EXIT 3A
SOUTH SOUTH
53 35
La Crosse
3/4 MILE

YIELD
R1-2
48" X 42"

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 8-INCH
(CHANNELIZING)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (YELLOW)

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3B/4B	SHEET 159	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026504_s3b.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

COUNTY B
M1-5A
36" X 36"

MAX. 10' WIDTH
W12-52

25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 8-INCH
(CHANNELIZING)

50' (TYP)

154WB

IH 90 WB

156WB

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

1

LANE CLOSED
R11-2L
48" X 30"

50' (TYP)

158WB

160WB

SPEED LIMIT 65

SPEED LIMIT 55
R2-1
48" X 60"

25' SPACING (TYP)

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY
(TYP)

162WB

164WB

166WB

152EB

154EB

156EB

158EB

160EB

162EB

164EB

166EB

IH 90 EB

SIGN

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 8-INCH
(CHANNELIZING)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (YELLOW)

LANE CLOSED
R11-2L
48" X 30"

W01-6
96" X 48"

ROAD CLOSED
R11-2
48" X 30"

HOSPITAL
EXIT 3A

W06-3

NEXT MILE
W057-51
48" X 24"

N

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATOR TEMPORARY
- POST WITH ATTACHED SIGN

WEST
INTERSTATE
90

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY
(TYP)

BLACK RIVER

N

SEE "TRAFFIC CONTROL - STAGE 3A"
FOR TRAFFIC CONTROL DEVICES EAST
OF BLACK RIVER.

166WB

168WB

170WB

172WB

IH 90 WB

174WB

176WB

178WB

180WB

166EB

168EB

170EB

172EB

174EB

176EB

178EB

180EB

IH 90 EB

INL

SIGN

50' (TYP)

EXIT
35
M.P.H.
W013-2
48" X 60"

PROJECT NO:1071-06-79/81	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 3B/4B	SHEET 160	E

WORK:
OVERHEAD WORK OVER THE CTH B RAMPS FOR STRUCTURE B-32-52.

TRAFFIC:
SHIFT MAINLINE TRAFFIC FROM MEDIAN LANE CLOSURE TO AN OUTSIDE LANE/RAMP LANE CLOSURE UNDER CTH B.

SEE "TRAFFIC CONTROL - STAGE 3A" FOR TRAFFIC CONTROL DEVICES WEST OF CTH BW.

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

CTH BW

IH 90 WB

IH 90 EB

RAMP CLOSED

LANE CLOSED
R11-2L
48" X 30"

100' (TYP)

COUNTY B
M1-5A
36" X 36"

MAX 10' WIDTH
W12-52

.5 MILES AHEAD
W057-52
48" X 36"

YIELD
R1-2
48" X 42"

CTH B TO IH 90 WB
50' (TYP)

IH 90 EB TO CTH B
W01-4L

MERGING TRAFFIC BE PREPARED TO STOP

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3C/4C	SHEET E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026603_s3c.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2

MERGE AHEAD
BE PREPARED
TO STOP

CTH B TO IH 90 WB

W03-2

IH 90 WB TO CTH B

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 8-INCH
(CHANNELIZING)

136WB 138WB 140WB 142WB 144WB 146WB 148WB 150WB

50'
(TYP)

IH 90 WB

N

MERGING TRAFFIC
BE PREPARED
TO STOP

LANE
CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

25' SPACING (TYP)

136EB 138EB 140EB 142EB 144EB 146EB 148EB 150EB

IH 90 EB

50'
(TYP)

SIGN

LANE
CLOSED
R11-2L
48" X 30"

W04-1

CTH B TO IH 90 EB

TEMPORARY PAVEMENT
MARKING REMOVABLE
TAPE 8-INCH
(CHANNELIZING)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (YELLOW)

R1-2
48" X 42"

LANE
CLOSED
R11-2L
48" X 30"

CTH B

EXIT 3A
SOUTH SOUTH
53 35
La Crosse
3/4 MILE

IH 90 EB TO CTH B

W03-2

SEE "TRAFFIC CONTROL - CTH B
(STAGE 3A/3B/3C)" SHEETS FOR
ADDITIONAL TRAFFIC CONTROL
DEVICES ALONG CTH B AND RAMPS.

MERGE AHEAD
BE PREPARED
TO STOP

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3C/4C	SHEET 162	E

2

COUNTY B
M1-5A
36" X 36"

MAX. 10' WIDTH
W12-52

LANE CLOSED
R11-2L
48" X 30"

SPEED LIMIT 55
R2-1
48" X 60"

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

50' (TYP)

100' (TYP)

25' SPACING (TYP)

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY
(TYP)

IH 90 WB

IH 90 EB

152WB 154WB 156WB 158WB 160WB 162WB 164WB 166WB

152EB 154EB 156EB 158EB 160EB 162EB 164EB 166EB

SIGN

LANE CLOSED
R11-2L
48" X 30"

W01-6
96" X 48"

ROAD CLOSED
R11-2
48" X 30"

HOSPITAL
EXIT 3A

W06-3

NEXT MILE
W057-51
48" X 24"

N

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATOR TEMPORARY
- POST WITH ATTACHED SIGN

WEST
INTERSTATE
90

FLEXIBLE TUBULAR MARKER
POSTS INSTALLED PREVIOUSLY
(TYP)

BLACK RIVER

N

SEE "TRAFFIC CONTROL - STAGE 3A" FOR TRAFFIC CONTROL DEVICES EAST OF BLACK RIVER.

166WB 168WB 170WB 172WB 174WB 176WB 178WB 180WB

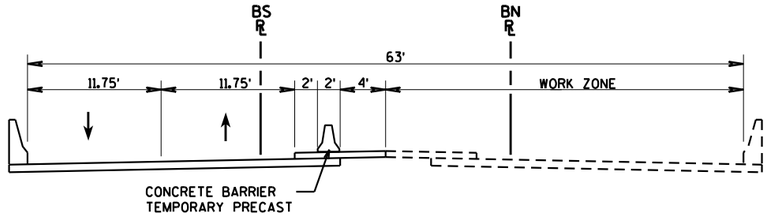
166EB 168EB 170EB 172EB 174EB 176EB 178EB 180EB

INL

EXIT
35
M.P.H.
W013-2
48" X 60"

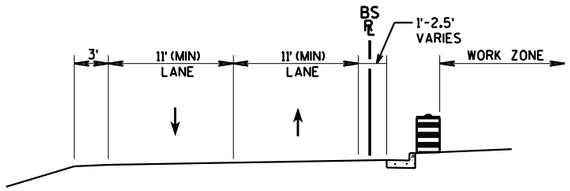
PROJECT NO:1071-06-79/81	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 3C/4C	SHEET 163 E

2



CTH B STRUCTURE OVER I-90

EXISTING CTH B (B-32-52)



CTH B TRAFFIC LAYOUT

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	T.C. TYPICAL LAYOUT CTH B - STAGES 4A/4B/4C	SHEET 164	E

2

WORK;
CONSTRUCT NORTHBOUND CTH B. CONSTRUCT THE NORTHBOUND PORTION OF STRUCTURE B-32-52.

TRAFFIC;
SWITCH CTH B TRAFFIC TO SINGLE LANE BI-DIRECTIONAL ON NEW SOUTHBOUND LANES AND SHOULDER.

SEE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL INFORMATION.

PLACE WIDTH RESTRICTION SIGN ON APPROACHES TO CTH B NARROW LANES

SEE "TRAFFIC CONTROL - STAGE 4A/4B/4C" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

W01-6
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

KEEP RIGHT

350
Minnesota
La Crosse
Madison
MOVING

50' (TYP)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

25' SPACING (TYP)

STOP
MOVING
351

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING
STOP LINE REMOVABLE TAPE
24-INCH

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH
(DOUBLE YELLOW CENTERLINE)

IH 90 EB TO CTH B

CTH B TO IH 90 EB

IH 90 EB

CTH B

8:1 TAPER

352
Airport
MOVING

353
EAST
INTERSTATE
90
MOVING

354
WEST
INTERSTATE
90
MOVING

355
SPEED LIMIT
35
MOVING

STA 28+60 BS - STA 300+00 BS
REMOVING PAVEMENT MARKING
(LT, EDGELINE)

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 4A/4B/4C)	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026717_s4a.dgn PLOT DATE : 8/3/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

N

PLAYGROUND

140D

CTH B TO IH 90 WB

142D

SIGN

138D

IH 90 WB TO CTH B

140C

144D

136C

SIGN

SIGN

SEE "TRAFFIC CONTROL - STAGE 4A/4B/4C" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

50' (TYP)

ABANDONED

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

STOP
MOVING
358

25' SPACING (TYP)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING
STOP LINE REMOVABLE TAPE
24-INCH

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 4-INCH
(DOUBLE YELLOW CENTERLINE)

CTH B

8:1 TAPER

45BN

46BN

50' (TYP)

54BN

56BN

50' (TYP)

25' SPACING (TYP)

357
Minnesota
MOVING

359
Airport
MOVING

360
WEST
INTERSTATE
90
MOVING

361
COUNTY
B
MOVING

ROAD
CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

362
SPEED
LIMIT
35
MOVING

ROAD
WORK
AHEAD
W20-1A

END
ROAD WORK
G20-2A
48" X 24"

IH 90 EB

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

STA 53+42 BS - STA 55+80 BS
REMOVING PAVEMENT MARKING
(RT. EDGELINE)

STA 53+42 BS - STA 58+20 BS
REMOVING PAVEMENT MARKING
(LT. EDGELINE)

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 4A/4B/4C)	SHEET 166	E

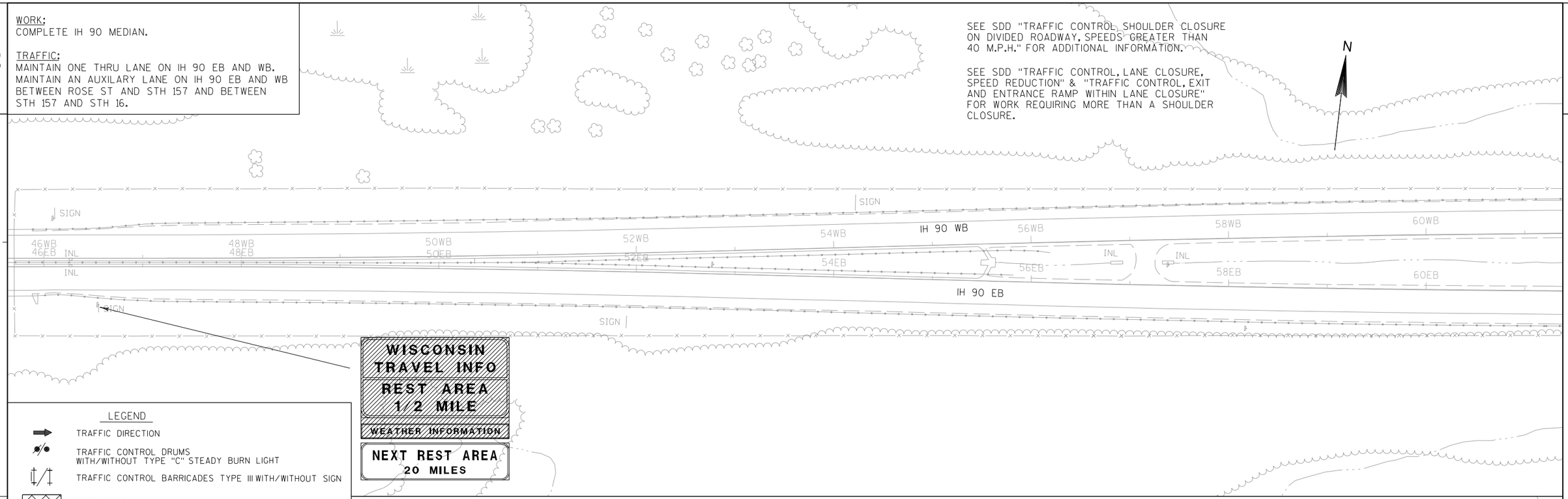
2

WORK:
COMPLETE IH 90 MEDIAN.

TRAFFIC:
MAINTAIN ONE THRU LANE ON IH 90 EB AND WB. MAINTAIN AN AUXILARY LANE ON IH 90 EB AND WB BETWEEN ROSE ST AND STH 157 AND BETWEEN STH 157 AND STH 16.

SEE SDD "TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H." FOR ADDITIONAL INFORMATION.

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" & "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE" FOR WORK REQUIRING MORE THAN A SHOULDER CLOSURE.



COORDINATE TRAFFIC CONTROL WEST OF PROJECT LIMITS WITH DRESBACH PROJECTS

NOTE: KEEP TRAFFIC ON EXISTING CROSSOVER AT APPROX. STA 82+00 EB UNTIL DRESBACH PROJECT DOES TRAFFIC SWITCH.

PROJECT NO:1071-06-81	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET 167	E

2

N

LANE CLOSED
R11-2L
48" X 30"

76WB 78WB 80WB 82WB 84WB 86WB 88WB 90WB

100' (TYP)

IH 90 WB

76EB 78EB 80EB 82EB 84EB 86EB 88EB 90EB

IH 90 EB

100' (TYP)

SIGN SIGN

LANE CLOSED
R11-2L
48" X 30"

25' SPACING (TYP)

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

N

SPEED LIMIT 55
R2-1
48" X 60"

LANE CLOSED
R11-2L
48" X 30"

WEATHER

CTH BW

OH OH

92WB 94WB 96WB 98WB 100WB 102WB 104WB 106WB

IH 90 WB

100' (TYP)

92EB 94EB 96EB 98EB 100EB 102EB 104EB 106EB

IH 90 EB

100' (TYP)

SIGN SIGN SIGN

INL INL

REST AREA RAMP CLOSED

REST AREA RAMP CLOSED

25' SPACING (TYP)

RAMP CLOSED
R11-2R
48" X 30"

FRENCH SLOUGH

LANE CLOSED
R11-2L
48" X 30"

SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026802_s5a.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

CTH BW

N

LANE CLOSED
R11-2L
48" X 30"

106WB 108WB 110WB 112WB IH 90 WB 114WB 116WB 118WB 120WB

100'
(TYP)

106EB 108EB 110EB 112EB 114EB 116EB 118EB 120EB

IH 90 EB

RAMP CLOSED

INL

SIGN

LANE CLOSED
R11-2L
48" X 30"

SIGN

MH

SIGN

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

N

YIELD
R1-2
48" X 42"

OH

LANE CLOSED
R11-2L
48" X 30"

CTH B TO IH 90 WB

122WB 124WB 126WB IH 90 WB 128WB 130WB 132WB 134WB 136WB

100'
(TYP)

122EB 124EB 126EB IH 90 EB 128EB 130EB 132EB 134EB 136EB

IH 90 EB TO CTH B

MERGING TRAFFIC
BE PREPARED
TO STOP

SIGN

LANE CLOSED
R11-2L
48" X 30"

SIGN

SIGN

SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026803_s5a.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

MERGE AHEAD
BE PREPARED
TO STOP

CTH B TO IH 90 WB

W03-2

LANE
CLOSED
R11-2L
48" X 30"

IH 90 WB TO CTH B

MERGING TRAFFIC
BE PREPARED
TO STOP

N

136WB 138WB 140WB 142WB 144WB 146WB 148WB 150WB

IH 90 WB

100'
(TYP)

136EB 138EB 140EB 142EB 146EB 148EB 150EB

IH 90 EB

100'
(TYP)

CTH B TO IH 90 EB

IH 90 EB TO CTH B

R1-2
48" X 42"

CTH B

SEE "TRAFFIC CONTROL - CTH B (STAGE 5A)" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG CTH B AND RAMPS.

MERGE AHEAD
BE PREPARED
TO STOP

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET 170	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026804_s5a.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

LANE CLOSED
R11-2L
48" X 30"

SPEED LIMIT 55
R2-1
48" X 60"

152WB 154WB 156WB 158WB 160WB 162WB 164WB 166WB

100' (TYP)

IH 90 WB

152EB 154EB 156EB 158EB 160EB 162EB 164EB 166EB

IH 90 EB

100' (TYP)

SIGN

LANE CLOSED
R11-2L
48" X 30"

N

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATOR TEMPORARY
- POST WITH ATTACHED SIGN

BLACK RIVER

WEST 90

LANE CLOSED
R11-2L
48" X 30"

166WB 168WB 170WB 172WB 174WB 176WB 178WB 180WB

INL

100' (TYP)

IH 90 WB

166EB 168EB 170EB 172EB 174EB 176EB 178EB 180EB

IH 90 EB

100' (TYP)

SIGN

LANE CLOSED
R11-2L
48" X 30"

SPEED LIMIT 55
R2-1
48" X 60"

EXIT 2
B
French Island
½ MILE

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026805_s5a.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

N

MERGE AHEAD
BE PREPARED
TO STOP

W03-2

YIELD
R1-2
48" X 42"

LANE
CLOSED
R11-2L
48" X 30"

ROSE ST SB TO IH 90 WB

IH 90 WB

IH 90 EB

100'
(TYP)

182WB 184WB 186WB 188WB 190WB 192WB 194WB 196WB

182EB 184EB 186EB 188EB 190EB 192EB 194EB 196EB

PLACE FLEXIBLE TUBULAR
MARKERS TO REMAIN
SEE PAVEMENT MARKING

IH 90 EB TO ROSE ST SB

ROSE ST SB

ROSE ST NB

IH 90 EB TO ROSE ST NB

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026806_s5a.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2

ROAD WORK AHEAD W20-1A

ROSE ST SB TO IH 90 WB

IH 90 WB TO ROSE ST SB

ROSE ST SB

ROSE ST NB

ROAD WORK AHEAD W20-1A

MERGE AHEAD BE PREPARED TO STOP

W03-2

IH 90 WB TO ROSE ST

MERGING TRAFFIC BE PREPARED TO STOP

R1-2
48" X 42"

ROSE ST NB TO IH 90 WB

PLACED PREVIOUSLY BY OTHERS

LANE CLOSED
R11-2L
48" X 30"

196WB 198WB 200WB 202WB 204WB 206WB 208WB 210WB

100' (TYP)

196EB 198EB 202EB 204EB 206EB 208EB 210EB

IH 90 EB

IH 90 EB TO ROSE ST NB

ROSE ST TO IH 90 EB

ROAD WORK AHEAD W20-1A

LANE CLOSED
R11-2L
48" X 30"

POOL

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026807_s5a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

EXIT 3

SOUTH

53 35

La Crosse
Onalaska

EXIT ONLY

363

MOVING SIGNS TYPE I
(MOVE SIGN OVER IH-90 WB
AUXILARY LANE)

PLACED PREVIOUSLY
BY OTHERS

IH 90 WB TO ROSE ST

100'
(TYP)

LANE
CLOSED
R11-2L
48" X 30"

IH 90 WB

IH 90 EB

BURLINGTON NORTHERN

BNSF RR

OAK ST

SIGN

WALLS

INL

MH

212WB 214WB 216WB 218WB 220WB 222WB 224WB 226WB

212EB 214EB 216EB 218EB 220EB 222EB 224EB 226EB

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

GREAT RIVER STATE TRAIL

Historic
Downtown
La Crosse
EXIT 3

SPEED LIMIT
55
R2-1
48" X 60"

226WB 228WB 230WB 232WB 234WB 236WB 238WB 240WB

226EB 228EB 230EB 232EB 234EB 236EB 238EB 240EB

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026808_s5a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

90 EAST
LEFT LANE ONLY
MOVING SIGNS TYPE II

371

Amtrak Station
Great River State Trail
EXIT 3

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

EXIT 3
SOUTH 53 35
La Crosse Onalaska
3/4 MILE
EXIT ONLY

364

MOVING SIGNS TYPE I
(MOVE SIGN OVER IH-90 WB AUXILARY LANE)

WEST SOUTH
90 53

IH 90 WB

IH 90 EB

100' (TYP)

50' (TYP)

12TH AVE

365

EXIT 4
NORTH 53 157
Onalaska
La Crosse
RIGHT LANE ONLY
MOVING SIGNS TYPE II

W04-3R

STH 157 SB TO IH 90 WB

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

EXIT
E5-1
72" X 60"

NOTE:
DO NOT WORK ON MEDIAN AND OUTSIDE SHOULDERS OF IH 90 AT THE SAME TIME.

IH 90 EB TO STH 157

STH 157 SB TO IH 90 EB

CLOSED

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET 175	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026809_s5a.dgn PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

STH 157

IH 90 WB

IH 90 EB

STH 157 NB TO IH 90 WB

CLOSED

STH 157 NB TO IH 90 EB

100'
(TYP)

272WB 274WB 276WB 278WB 280WB 282WB 284WB 286WB

272EB 274EB 276EB 278EB 280EB 282EB 284EB

EXIT 4
NORTH 53 157
La Crosse
Onalaska
EXIT ONLY
WEST 90
AHEAD
SOUTH 53

IH 90 WB TO STH 157

STH 157 NB TO IH 90 EB

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

288WB 290WB 292WB 294WB 296WB 298WB 300WB

288EB 290EB 292EB 294EB 296EB 298EB 300EB

IH 90 EB

IH 90 WB

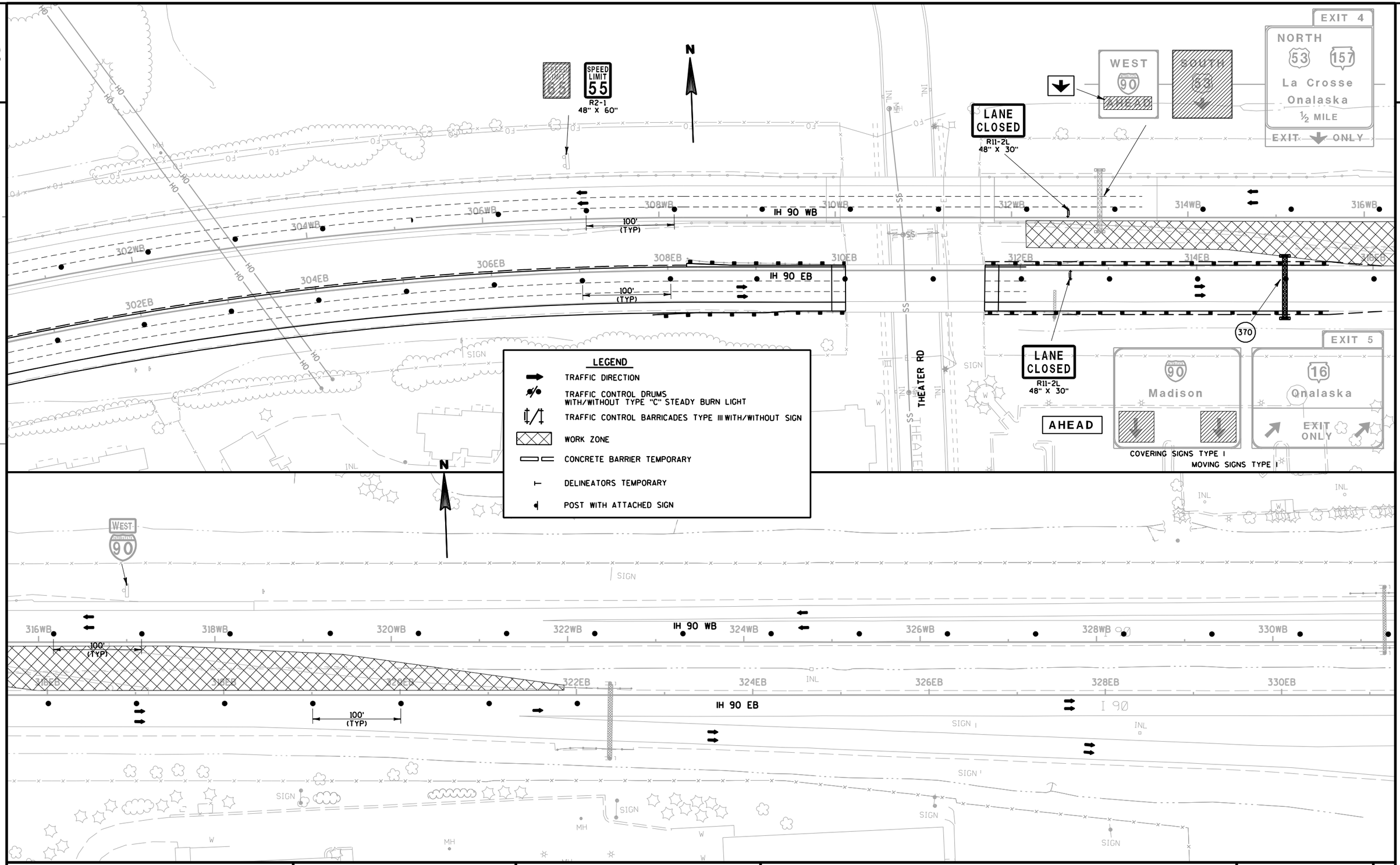
100'
(TYP)

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

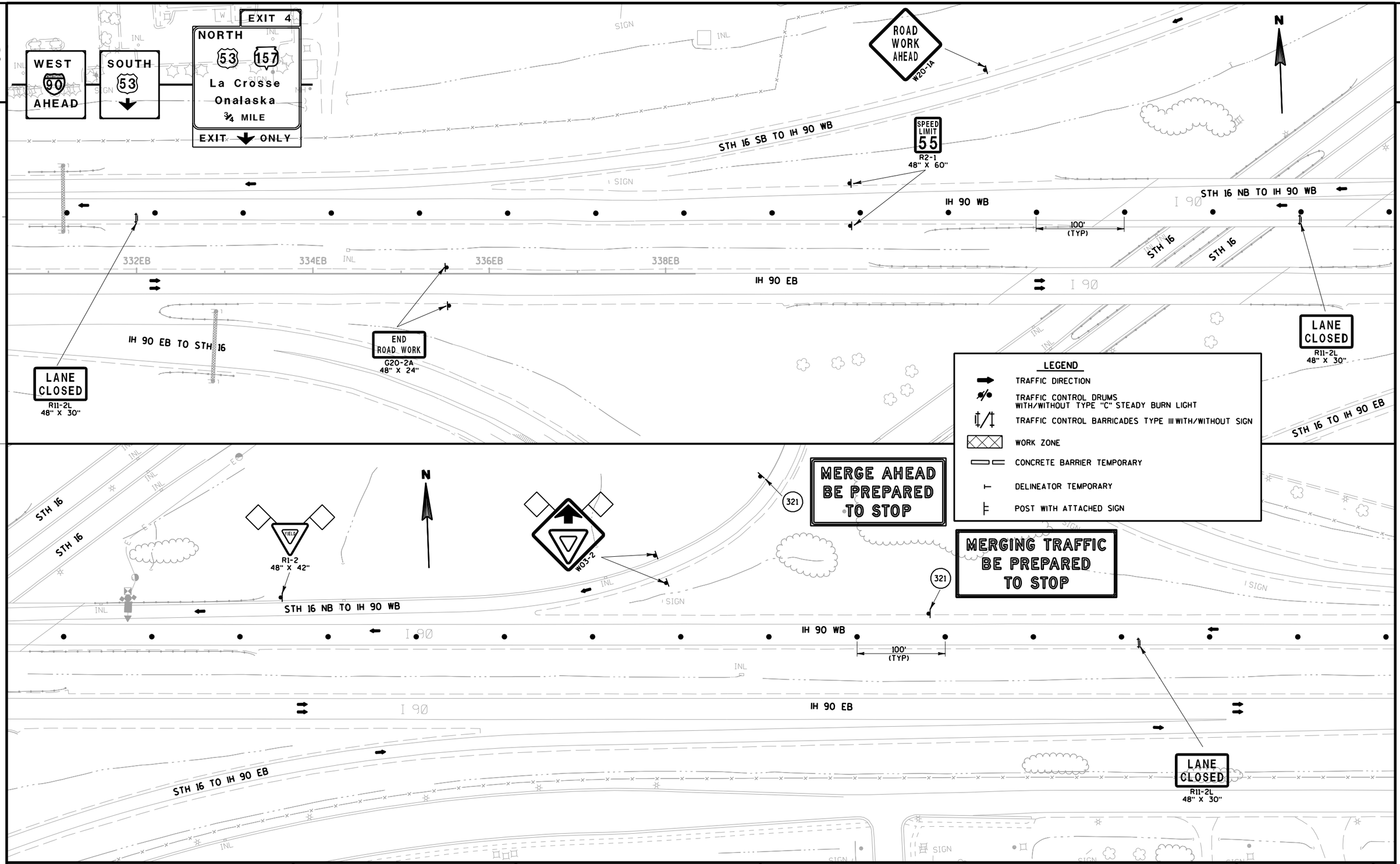
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026810_s5a.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET 177	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026811_s5a.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026812_s5a.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

N

SIGN

IH 90 WB TO STH 16

IH 90 WB

100'
(TYP)

INL

IH 90 EB

TEMPORARY PAVEMENT MARKING
REFLECTIVE PAINT 4-INCH (YELLOW)

50'
(TYP)

ARROW BOARD

LANE
CLOSED
R11-2L
48" X 30"

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" FOR ADDITIONAL INFORMATION.

MH

W

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATOR TEMPORARY
- POST WITH ATTACHED SIGN

W04-2L

LEFT LANE
CLOSED
1500 FT
W20-5SB

SPEED
LIMIT
55
R2-1
48" X 60"

LEFT LANE
CLOSED
1/2 MILE
W20-5SG

SPEED
LIMIT
55
W03-5

ROAD
WORK
1 MILE
W20-1F

500'

575'

500'

500'

PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET 179	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026813_s5a.dgn PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

WORK;
FINISH MEDIAN OF CTH B.

TRAFFIC;
SWITCH CTH B TRAFFIC TO FINAL NORTHBOUND AND OUTHBOUND LANES. CLOSE MEDIAN SHOULDERS OF CTH B. OFF-PEAK FLAGGING OPERATIONS ARE ALLOWED FOR WORK REQUIRING MORE THAN A SHOULDER CLOSURE.

N

SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR ADDITIONAL INFORMATION.

SEE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL INFORMATION.

SEE "TRAFFIC CONTROL - STAGE 5" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

PLACE WIDTH RESTRICTION SIGN ON APPROACHES TO CTH B NARROW LANES

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

SHOULDER WORK W21-5

10' SPACING (TYP)

25' SPACING (TYP)

25' SPACING (TYP)

25' SPACING (TYP)

50' (TYP)

IH 90 EB TO CTH B

CTH B TO IH 90 EB

IH 90 EB

CTH B

26BN 28BN 30BN 32BN 34BN 36BN 38BN 40BN 42BN 44A 138B 138EB 138D 138E 138F 138G 138H 138I 138J 138K 138L 138M 138N 138P 138Q 138R 138S 138T 138U 138V 138W 138X 138Y 138Z 138AA 138AB 138AC 138AD 138AE 138AF 138AG 138AH 138AI 138AJ 138AK 138AL 138AM 138AN 138AP 138AQ 138AR 138AS 138AT 138AU 138AV 138AW 138AX 138AY 138AZ 138BA 138BB 138BC 138BD 138BE 138BF 138BG 138BH 138BI 138BJ 138BK 138BL 138BM 138BN 138BP 138BQ 138BR 138BS 138BT 138BU 138BV 138BW 138BX 138BY 138BZ 138CA 138CB 138CC 138CD 138CE 138CF 138CG 138CH 138CI 138CJ 138CK 138CL 138CM 138CN 138CP 138CQ 138CR 138CS 138CT 138CU 138CV 138CW 138CX 138CY 138CZ 138DA 138DB 138DC 138DD 138DE 138DF 138DG 138DH 138DI 138DJ 138DK 138DL 138DM 138DN 138DP 138DQ 138DR 138DS 138DT 138DU 138DV 138DW 138DX 138DY 138DZ 138EA 138EB 138EC 138ED 138EE 138EF 138EG 138EH 138EI 138EJ 138EK 138EL 138EM 138EN 138EP 138EQ 138ER 138ES 138ET 138EU 138EV 138EW 138EX 138EY 138EZ 138FA 138FB 138FC 138FD 138FE 138FF 138FG 138FH 138FI 138FJ 138FK 138FL 138FM 138FN 138FP 138FQ 138FR 138FS 138FT 138FU 138FV 138FW 138FX 138FY 138FZ 138GA 138GB 138GC 138GD 138GE 138GF 138GG 138GH 138GI 138GJ 138GK 138GL 138GM 138GN 138GP 138GQ 138GR 138GS 138GT 138GU 138GV 138GW 138GX 138GY 138GZ 138HA 138HB 138HC 138HD 138HE 138HF 138HG 138HH 138HI 138HJ 138HK 138HL 138HM 138HN 138HP 138HQ 138HR 138HS 138HT 138HU 138HV 138HW 138HX 138HY 138HZ 138IA 138IB 138IC 138ID 138IE 138IF 138IG 138IH 138II 138IJ 138IK 138IL 138IM 138IN 138IP 138IQ 138IR 138IS 138IT 138IU 138IV 138IW 138IX 138IY 138IZ 138JA 138JB 138JC 138JD 138JE 138JF 138JG 138JH 138JI 138JJ 138JK 138JL 138JM 138JN 138JP 138JQ 138JR 138JS 138JT 138JU 138JV 138JW 138JX 138JY 138JZ 138KA 138KB 138KC 138KD 138KE 138KF 138KG 138KH 138KI 138KJ 138KK 138KL 138KM 138KN 138KP 138KQ 138KR 138KS 138KT 138KU 138KV 138KW 138KX 138KY 138KZ 138LA 138LB 138LC 138LD 138LE 138LF 138LG 138LH 138LI 138LJ 138LK 138LL 138LM 138LN 138LP 138LQ 138LR 138LS 138LT 138LU 138LV 138LW 138LX 138LY 138LZ 138MA 138MB 138MC 138MD 138ME 138MF 138MG 138MH 138MI 138MJ 138MK 138ML 138MM 138MN 138MP 138MQ 138MR 138MS 138MT 138MU 138MV 138MW 138MX 138MY 138MZ 138NA 138NB 138NC 138ND 138NE 138NF 138NG 138NH 138NI 138NJ 138NK 138NL 138NM 138NN 138NP 138NQ 138NR 138NS 138NT 138NU 138NV 138NW 138NX 138NY 138NZ 138PA 138PB 138PC 138PD 138PE 138PF 138PG 138PH 138PI 138PJ 138PK 138PL 138PM 138PN 138PP 138PQ 138PR 138PS 138PT 138PU 138PV 138PW 138PX 138PY 138PZ 138QA 138QB 138QC 138QD 138QE 138QF 138QG 138QH 138QI 138QJ 138QK 138QL 138QM 138QN 138QP 138QQ 138QR 138QS 138QT 138QU 138QV 138QW 138QX 138QY 138QZ 138RA 138RB 138RC 138RD 138RE 138RF 138RG 138RH 138RI 138RJ 138RK 138RL 138RM 138RN 138RP 138RQ 138RR 138RS 138RT 138RU 138RV 138RW 138RX 138RY 138RZ 138SA 138SB 138SC 138SD 138SE 138SF 138SG 138SH 138SI 138SJ 138SK 138SL 138SM 138SN 138SP 138SQ 138SR 138SS 138ST 138SU 138SV 138SW 138SX 138SY 138SZ 138TA 138TB 138TC 138TD 138TE 138TF 138TG 138TH 138TI 138TJ 138TK 138TL 138TM 138TN 138TP 138TQ 138TR 138TS 138TT 138TU 138TV 138TW 138TX 138TY 138TZ 138UA 138UB 138UC 138UD 138UE 138UF 138UG 138UH 138UI 138UJ 138UK 138UL 138UM 138UN 138UP 138UQ 138UR 138US 138UT 138UU 138UV 138UW 138UX 138UY 138UZ 138VA 138VB 138VC 138VD 138VE 138VF 138VG 138VH 138VI 138VJ 138VK 138VL 138VM 138VN 138VP 138VQ 138VR 138VS 138VT 138VU 138VV 138VW 138VX 138VY 138VZ 138WA 138WB 138WC 138WD 138WE 138WF 138WG 138WH 138WI 138WJ 138WK 138WL 138WM 138WN 138WP 138WQ 138WR 138WS 138WT 138WU 138WV 138WW 138WX 138WY 138WZ 138XA 138XB 138XC 138XD 138XE 138XF 138XG 138XH 138XI 138XJ 138XK 138XL 138XM 138XN 138XP 138XQ 138XR 138XS 138XT 138XU 138XV 138XW 138XX 138XY 138XZ 138YA 138YB 138YC 138YD 138YE 138YF 138YG 138YH 138YI 138YJ 138YK 138YL 138YM 138YN 138YP 138YQ 138YR 138YS 138YT 138YU 138YV 138YW 138YX 138YY 138YZ 138ZA 138ZB 138ZC 138ZD 138ZE 138ZF 138ZG 138ZH 138ZI 138ZJ 138ZK 138ZL 138ZM 138ZN 138ZP 138ZQ 138ZR 138ZS 138ZT 138ZU 138ZV 138ZW 138ZX 138ZY 138ZZ

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 5A)	SHEET 180	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026817_s5a.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

N

PLAYGROUND

CTH B TO IH 90 WB

IH 90 WB TO CTH B

SIGN

SIGN

SIGN

140D

142D

144D

138C

140C

136C

SEE "TRAFFIC CONTROL - STAGE 5" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

ABANDONED

25' SPACING (TYP)

25' SPACING (TYP)

25' SPACING (TYP)

50' (TYP)

CTH B

46BN

48BN

50BN

52BN

54BN

56BN

W

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

SHOULDER WORK
W21-5

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

IH 90 EB

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 5A)	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026818_s5a.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

WORK:
FINISH OUTSIDE SHOULDERS OF CTH B. FINISH THE 'A', B, C, AND D RAMPS. DO NOT WORK IN MEDIAN ISLAND OF A RAMP AND THE 'A' RAMP/B RAMP MEDIAN AT THE SAME TIME. DO NOT WORK IN MEDIAN ISLAND OF C RAMP AND THE C RAMP/D RAMP MEDIAN AT THE SAME TIME.

TRAFFIC:
KEEP CTH B TRAFFIC TO FINAL NORTHBOUND AND SOUTHBOUND LANES. CLOSE OUTSIDE SHOULDER OF SB CTH B. CLOSE SHOULDERS OF 'A', B, C, AND D RAMPS. OFF-PEAK FLAGGING OPERATIONS ARE ALLOWED FOR WORK REQUIRING MORE THAN A SHOULDER CLOSURE.

SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY", "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC", AND "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)" FOR ADDITIONAL INFORMATION.

SEE "TRAFFIC CONTROL - STAGE 5" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

PLACE WIDTH RESTRICTION SIGN ON APPROACHES TO CTH B NARROW LANES

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

SHOULDER WORK W21-5

25' SPACING (TYP)

10' SPACING (TYP)

50' (TYP)

IH 90 EB TO CTH B

CTH B TO IH 90 EB

IH 90 EB

CTH B

SEE "TRAFFIC CONTROL PCMS MESSAGES FOR RAMP CLOSURES" FOR MESSAGE BOARDS TO CLOSE 'A' RAMP.

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 5B)	SHEET 182	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026917_s5b.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

N

PLAYGROUND

140D

CTH B TO IH 90 WB

SIGN

142D

138D

SIGN

IH 90 WB TO CTH B

140C

SIGN

136C

144D

SEE "TRAFFIC CONTROL - STAGE 5" SHEETS FOR ADDITIONAL TRAFFIC CONTROL DEVICES ALONG MAINLINE IH 90 AND RAMPS.

ABANDONED

25' SPACING (TYP)

25' SPACING (TYP)

10' SPACING (TYP)

10' SPACING (TYP)

146D

50' (TYP)

50' (TYP)

25' SPACING (TYP)

CTH B

46BN

48BN

50BN

52BN

54BN

56BN

W

SHOULDER WORK W21-5

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

SEE "TRAFFIC CONTROL PCMS MESSAGES FOR RAMP CLOSURES" FOR MESSAGE BOARDS TO CLOSE C RAMP.

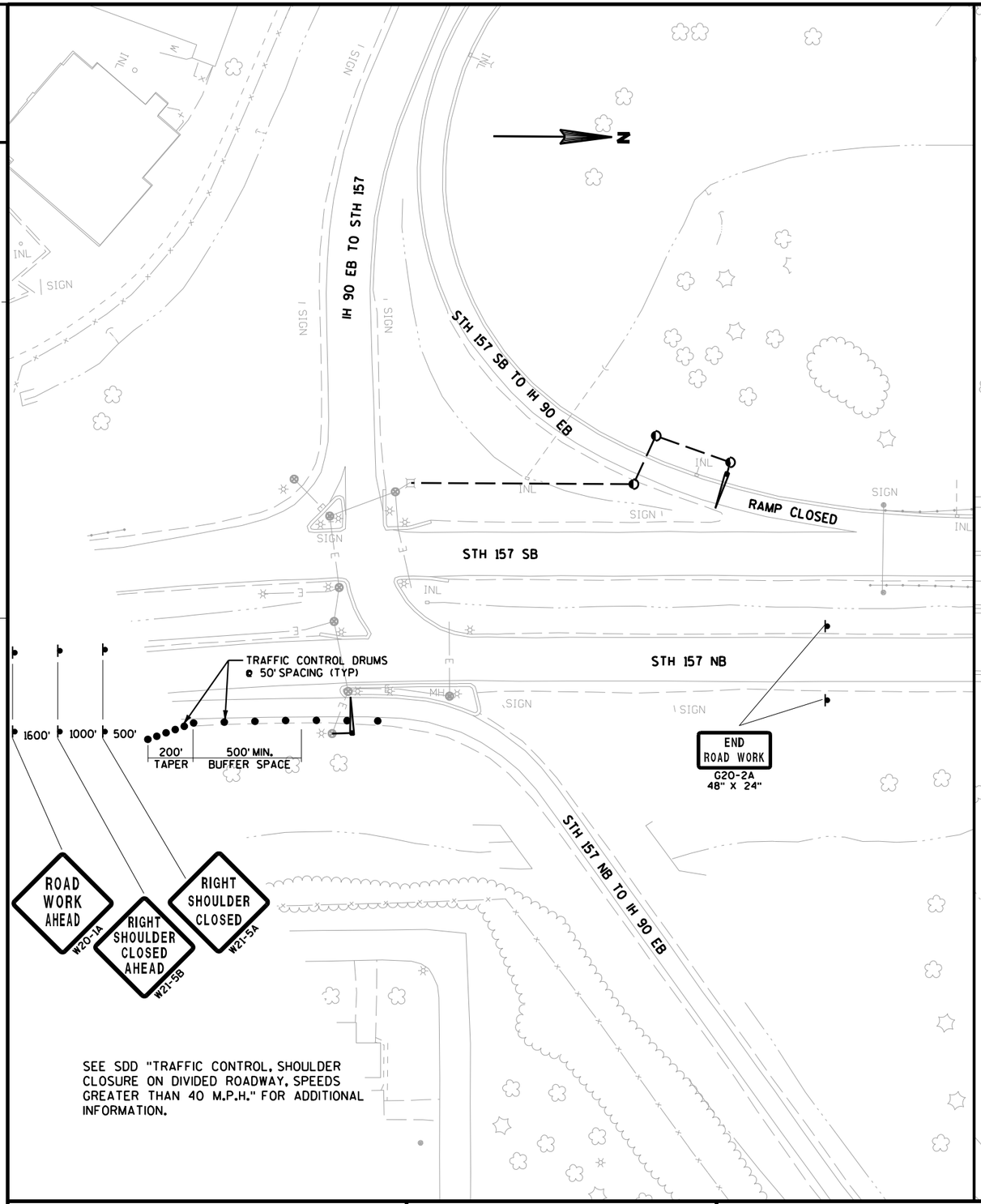
IH 90 WB

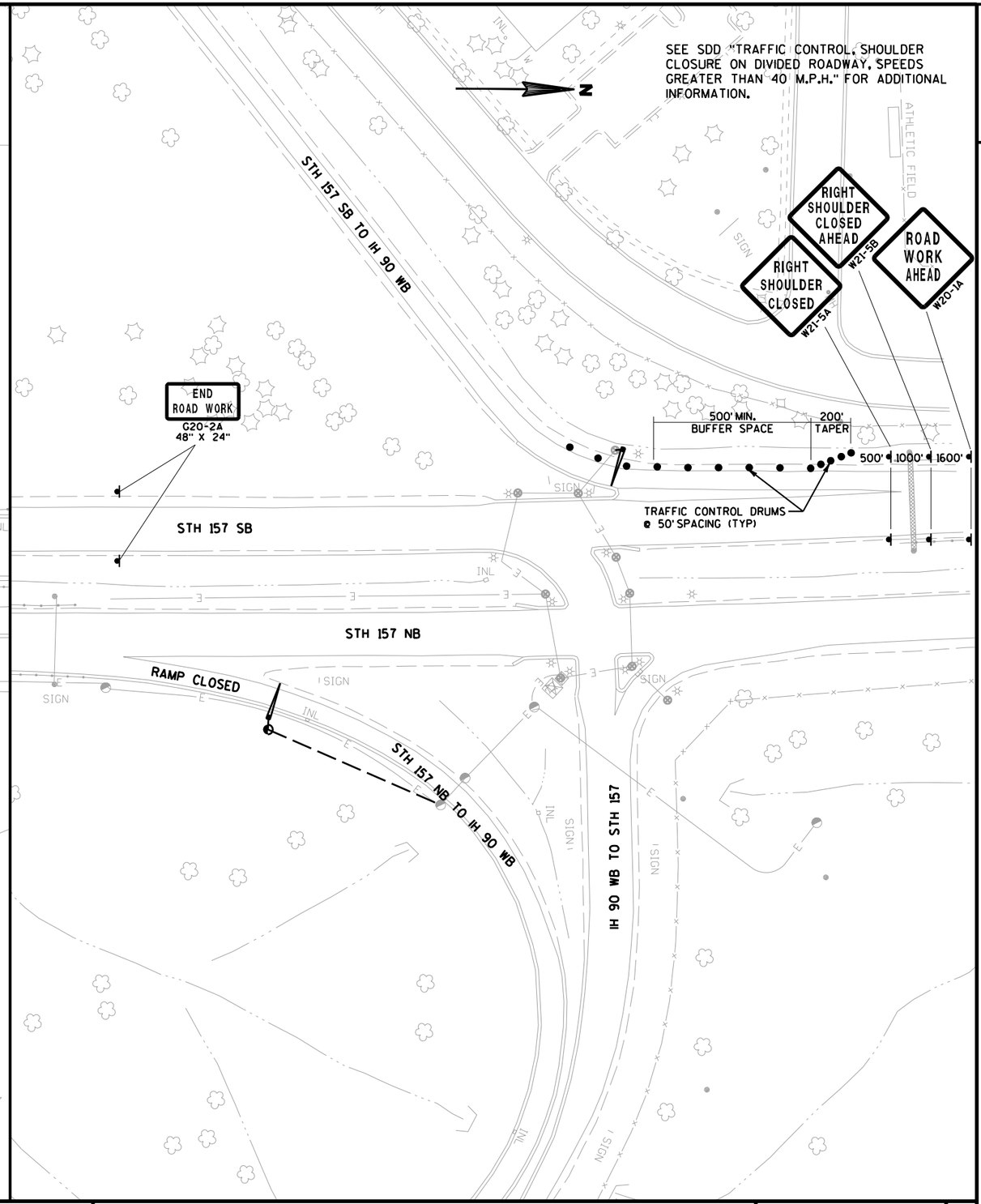
LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL - CTH B (STAGE 5B)	SHEET 183	E

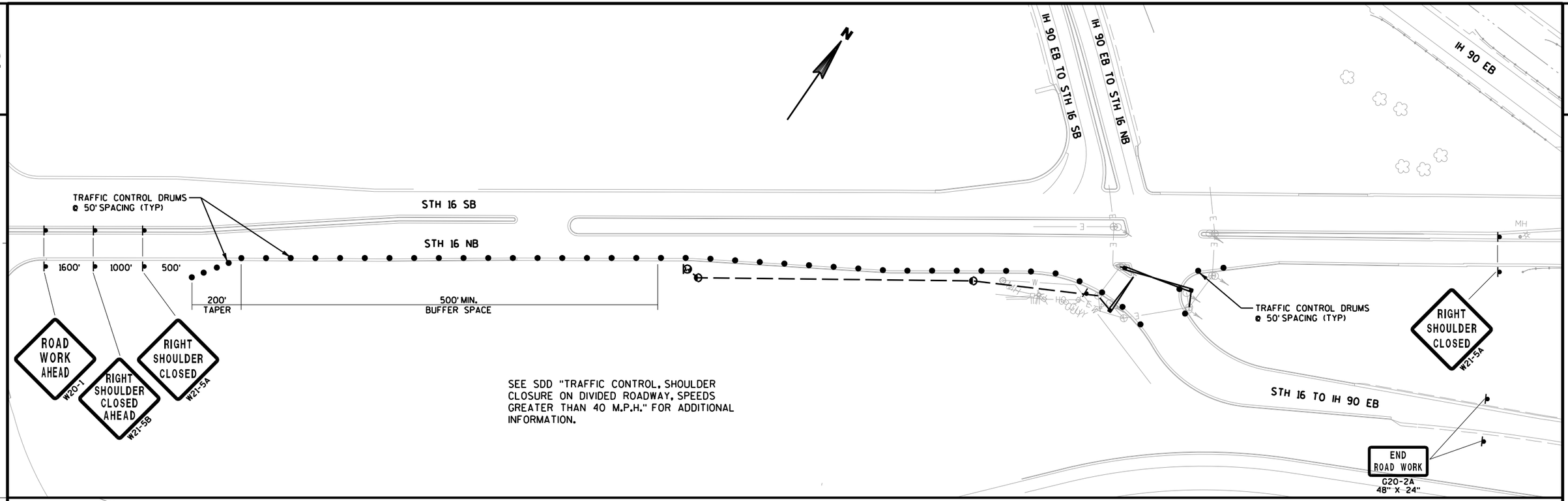
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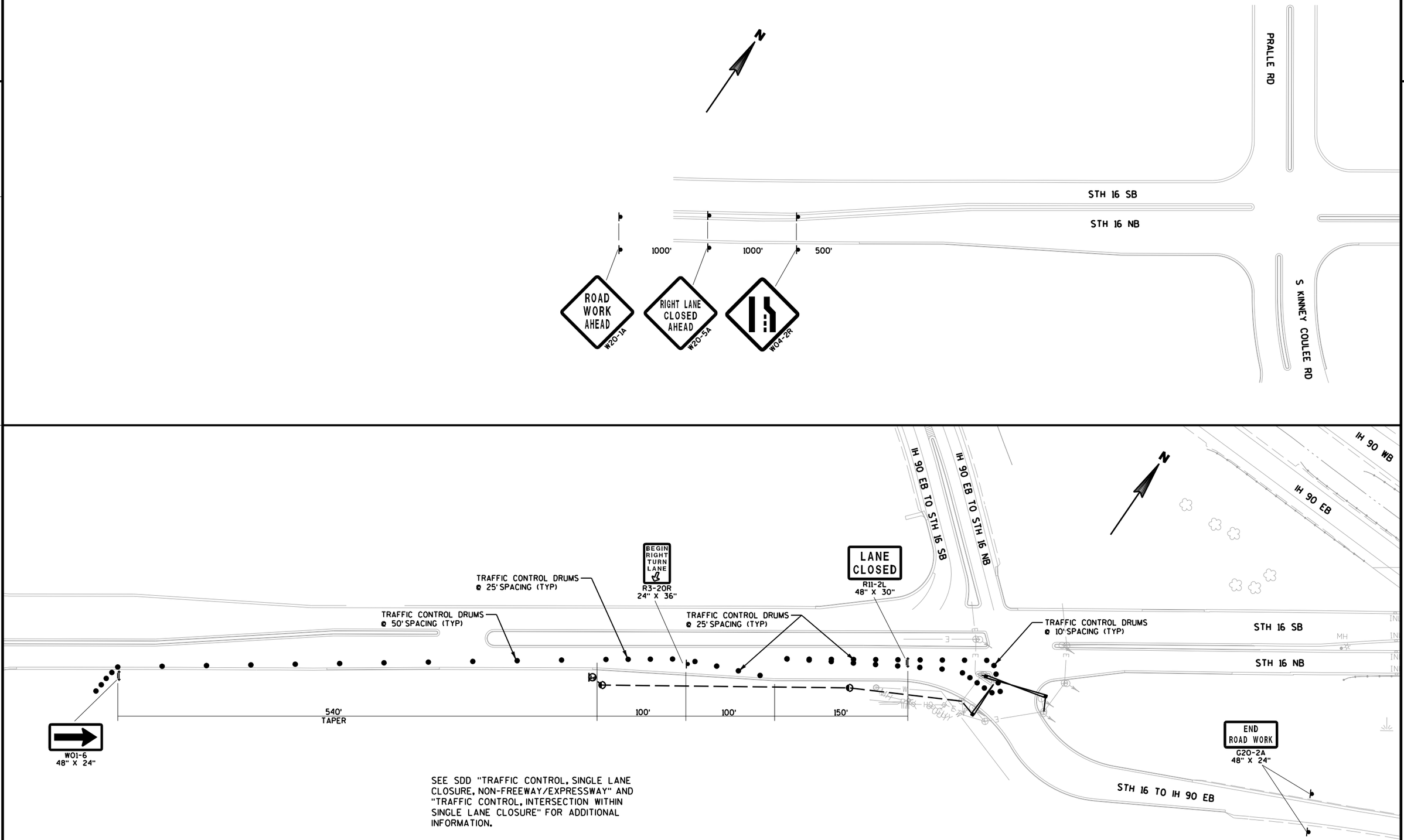
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL FOR RAMP GATES - STH 157	SHEET 184	E



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL FOR RAMP GATES - STH 16	SHEET 185	E

2



SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" AND "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE" FOR ADDITIONAL INFORMATION.

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL FOR RAMP GATES - STH 16	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_026921_s5c.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2

2

N

CTH BW

CTH B

IH 90 WB

IH 90 EB

BLACK RIVER

NORTH M3-1 36" X 18"

35 M1-6 36" X 36"

M1-96 36" X 36"

DETOUR AHEAD W20-2A

DETOUR M4-8 36" X 18"

TO M4-5 36" X 18"

NORTH M3-1 36" X 18"

35 M1-6 36" X 36"

M1-96 36" X 36"

M06-1 30" X 30"

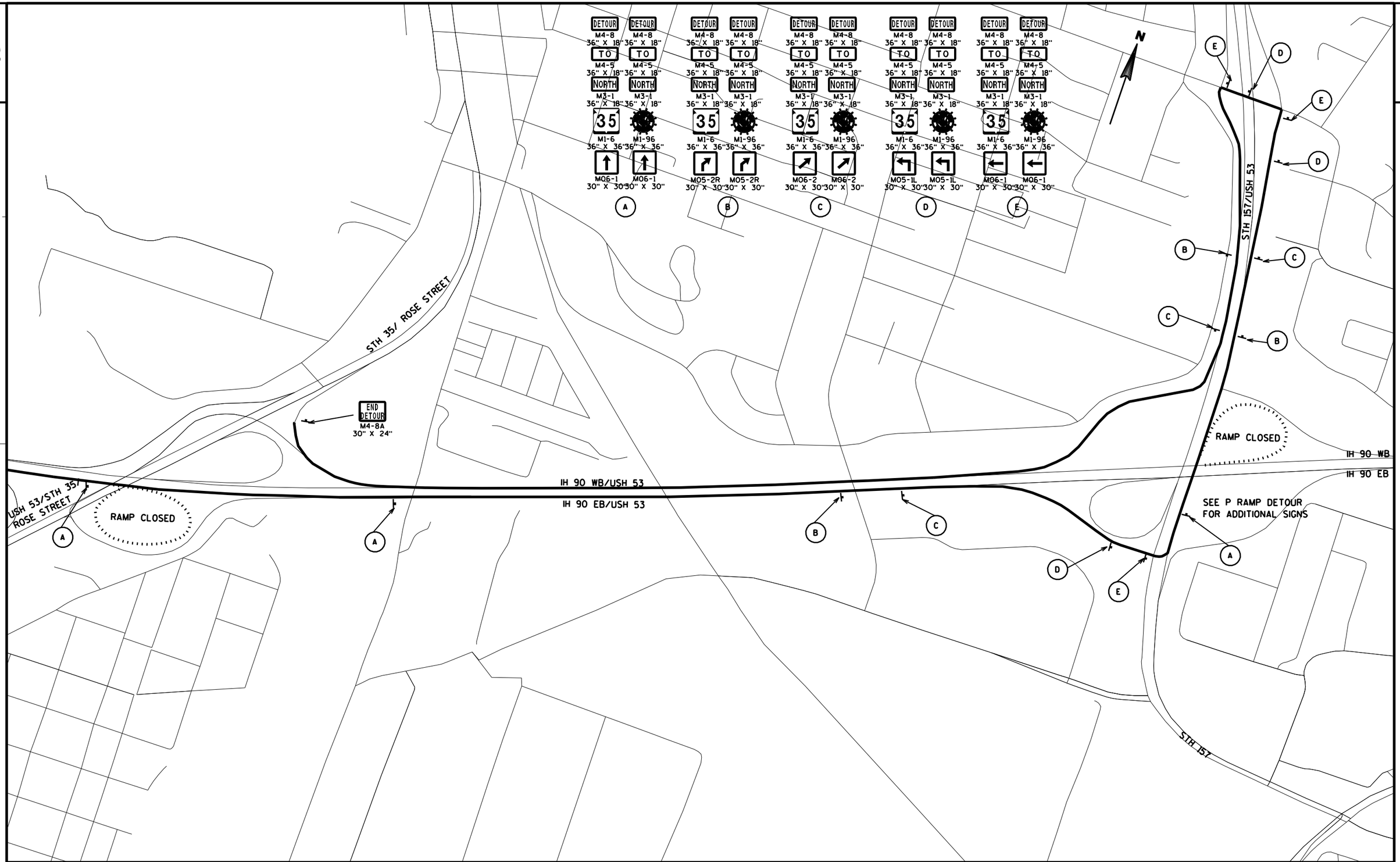
RAMP CLOSED

USH 53/STH 35/ROSE ST

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	IH 90 EB TO ROSE ST NB RAMP DETOUR (STAGES 1-4)	SHEET	E

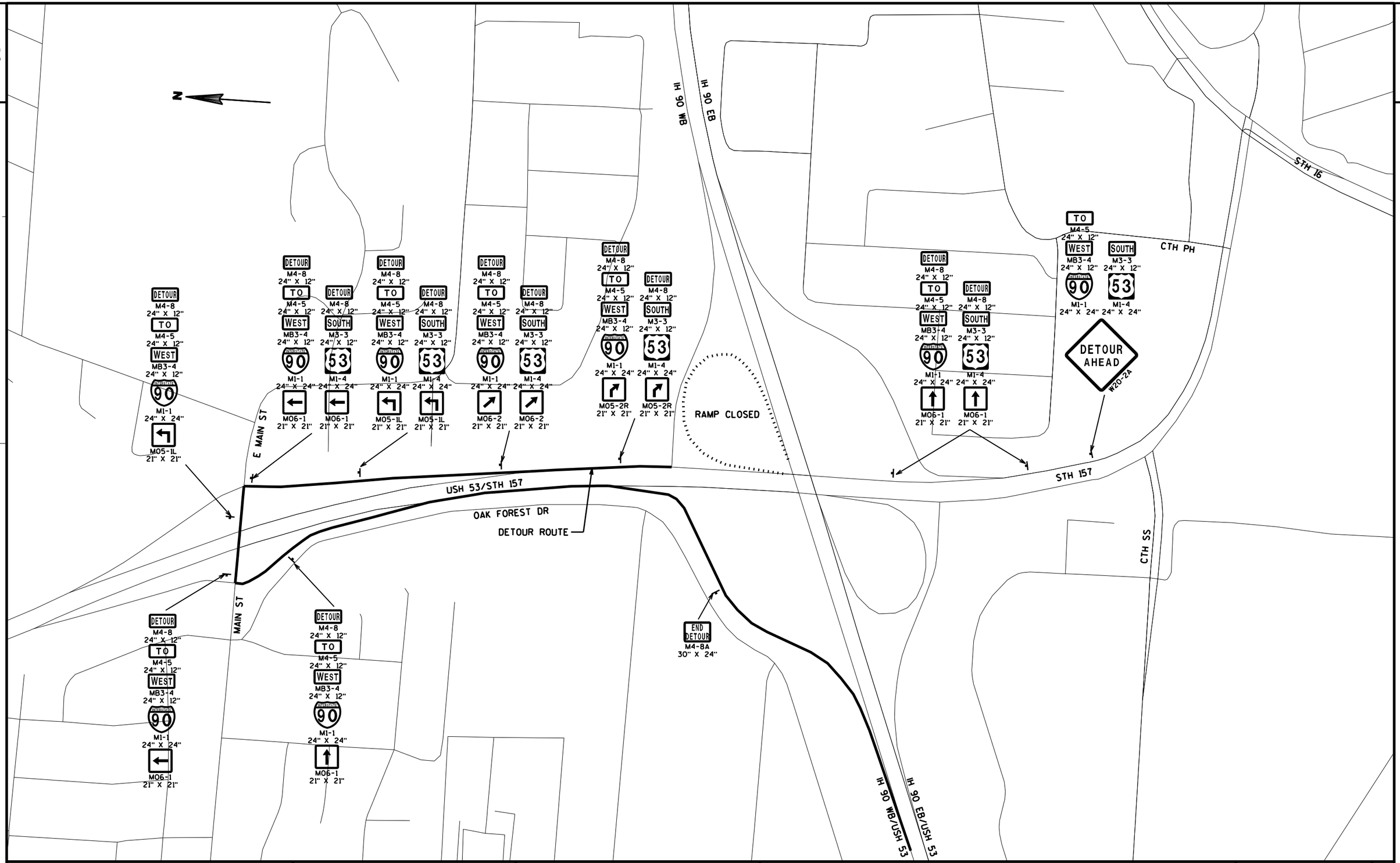
FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_027001_dt.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:2400

WISDOT/CADDS SHEET 42



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	IH 90 EB TO ROSE ST NB RAMP DETOUR (STAGES 1-4)	SHEET E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_027002_dt.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:2400



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	P RAMP DETOUR (STAGES 1-5A)	SHEET E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_027003_dt.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:1600

PLACE NORTH SIGN OF INTERCHANGE

EAST
MB3-2
24" X 12"

INTERSTATE 90
M1-1
24" X 24"

DETOUR AHEAD
W20-2A

DETOUR
M4-8
24" X 12"
TO
M4-5
24" X 12"
EAST
MB3-2
24" X 12"
INTERSTATE 90
M1-1
24" X 24"
M06-1
21" X 21"

USH 53/STH 157

IH 90 WB

IH 90 EB

IH 90 WB/USH 53

IH 90 EB/USH 53

RAMP CLOSED

STH 157

CTH SS

CTH PH

DETOUR ROUTE

M05-1L
21" X 21"

STH 16

THEATER RD

END DETOUR
M4-8A
30" X 24"

N

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	STH 157 SB TO IH 90 EB RAMP DETOUR (STAGES 1-5A)	SHEET 190 E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_027004_dt.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:2400

WISDOT/CADDS SHEET 42

2

2

N

STH 157/USH 53

STH 35/ ROSE STREET

ROAD CLOSED

RAMP CLOSED

RAMP CLOSED

USH 53/STH 35/
ROSE STREET

IH 90 WB/USH 53

IH 90 EB/USH 53

IH 90 WB

IH 90 EB

STH 157

DETOUR AHEAD
W20-2A

TO M4-5 24" X 12"
WEST MB3-4 24" X 12"
NORTH M3-1 24" X 12"
NORTH M3-1 24" X 12"
INTERSTATE 90 M1-1 24" X 24"
35 M1-6 24" X 24"
M1-96 24" X 24"

DETOUR M4-8 24" X 12"
TO M4-5 24" X 12"
WEST MB3-4 24" X 12"
NORTH M3-1 24" X 12"
NORTH M3-1 24" X 12"
INTERSTATE 90 M1-1 24" X 24"
35 M1-6 24" X 24"
M1-96 24" X 24"
M5-1R 21" X 21"
M5-1R 21" X 21"
M5-1R 21" X 21"

DETOUR M4-8 24" X 12"
TO M4-5 24" X 12"
DETOUR M4-8 24" X 12"
DETOUR M4-8 24" X 12"
WEST MB3-4 24" X 12"
NORTH M3-1 24" X 12"
NORTH M3-1 24" X 12"
INTERSTATE 90 M1-1 24" X 24"
35 M1-6 24" X 24"
M1-96 24" X 24"
M06-1 21" X 21"
M06-1 21" X 21"
M06-1 21" X 21"

DETOUR M4-8 36" X 18"
TO M4-5 36" X 18"
WEST MB3-4 36" X 18"
INTERSTATE 90 M1-1 36" X 36"
M06-1 30" X 30"

DETOUR M4-8 36" X 18"
TO M4-5 36" X 18"
WEST MB3-4 36" X 18"
INTERSTATE 90 M1-1 36" X 36"
M05-2R 30" X 30"

DETOUR M4-8 36" X 18"
TO M4-5 36" X 18"
WEST MB3-4 36" X 18"
INTERSTATE 90 M1-1 36" X 36"
M06-2 30" X 30"

DETOUR M4-8 24" X 12"
TO M4-5 24" X 12"
WEST MB3-4 24" X 12"
INTERSTATE 90 M1-1 24" X 24"
M05-1L 21" X 21"

DETOUR M4-8 24" X 12"
TO M4-5 24" X 12"
WEST MB3-4 24" X 12"
INTERSTATE 90 M1-1 24" X 24"
M06-1 21" X 21"

SEE "IH 90 EB TO ROSE ST NB RAMP DETOUR (STAGE 1-4)" AND "P RAMP DETOUR (STAGES 1-5A)" FOR ADDITIONAL SIGNS.

PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	STH 35 NORTHBOUND DETOUR	SHEET 191	E



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	STH 35 SOUTHBOUND DETOUR	SHEET 192	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_027007_dt.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:2400

WISDOT/CADDS SHEET 42

2

EAST MB3-2 24" X 12" | SOUTH M3-3 24" X 12" | SOUTH M3-3 24" X 12" | SOUTH M3-3 24" X 12"
M1-1 24" X 24" | M1-4 24" X 24" | M1-6 24" X 24" | M1-96 24" X 24"

DETOUR M4-8 24" X 12" | DETOUR M4-8 24" X 12"
TO M4-5 24" X 12" | TO M4-5 24" X 12" | DETOUR M4-8 24" X 12" | DETOUR M4-8 24" X 12"
EAST MB3-2 24" X 12" | SOUTH M3-3 24" X 12" | SOUTH M3-3 24" X 12" | SOUTH M3-3 24" X 12"
M1-1 24" X 24" | M1-4 24" X 24" | M1-6 24" X 24" | M1-96 24" X 24"
M05-1R 21" X 21" | M05-1R 21" X 21" | M05-1R 21" X 21" | M05-1R 21" X 21"

DETOUR AHEAD W20-2A

DETOUR M4-8 24" X 12" | DETOUR M4-8 24" X 12"
TO M4-5 24" X 12" | TO M4-5 24" X 12" | DETOUR M4-8 24" X 12" | DETOUR M4-8 24" X 12"
EAST MB3-2 24" X 12" | SOUTH M3-3 24" X 12" | SOUTH M3-3 24" X 12" | SOUTH M3-3 24" X 12"
M1-1 24" X 24" | M1-4 24" X 24" | M1-6 24" X 24" | M1-96 24" X 24"
M06-1 21" X 21" | M06-1 21" X 21" | M06-1 21" X 21" | M06-1 21" X 21"

RAMP CLOSED

ROAD CLOSED

STH 35/ ROSE STREET

SEE SDD "TRAFFIC CONTROL. EXIT RAMP CLOSURE" FOR ADDITIONAL INFORMATION.

DETOUR M4-8 36" X 18" | DETOUR M4-8 36" X 18" | DETOUR M4-8 36" X 18"
NORTH M3-1 36" X 18" | SOUTH M3-3 36" X 18" | SOUTH M3-3 36" X 18" | SOUTH M3-3 36" X 18"
M1-4 36" X 36" | M1-6 36" X 36" | M1-96 36" X 36"
M06-1 30" X 30" | M06-1 30" X 30" | M06-1 30" X 30"

DETOUR M4-8 36" X 18" | DETOUR M4-8 36" X 18" | DETOUR M4-8 36" X 18"
NORTH M3-1 36" X 18" | SOUTH M3-3 36" X 18" | SOUTH M3-3 36" X 18" | SOUTH M3-3 36" X 18"
M1-4 36" X 36" | M1-6 36" X 36" | M1-96 36" X 36"
M06-1 30" X 30" | M06-1 30" X 30" | M06-1 30" X 30"

DETOUR M4-8 36" X 18" | DETOUR M4-8 36" X 18"
SOUTH M3-3 36" X 18" | SOUTH M3-3 36" X 18"
M1-4 36" X 36" | M1-6 36" X 36"
M06-1 30" X 30" | M06-1 30" X 30"

SOUTH M3-3 36" X 18" | SOUTH M3-3 36" X 18" | SOUTH M3-3 36" X 18"
M1-4 36" X 36" | M1-6 36" X 36" | M1-96 36" X 36"

DETOUR AHEAD W20-2A

STH 157/USH 53

IH 90 WB

IH 90 EB

IH 90 WB/USH 53

IH 90 EB/USH 53

RAMP CLOSED

USH 53/STH 35/ ROSE STREET

STH 157

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	STH 35 SOUTHBOUND DETOUR	SHEET 193	E

SEE DETOUR PLAN FOR ADDITIONAL INFORMATION.

N

IH 90 EB TO STH 157

STH 157 SB TO IH 90 EB

EXIT

COVERING SIGNS TYPE II

RAMP CLOSED
R11-2R
48" X 30"

90 EAST
Madison

COVERING SIGNS TYPE I

IH 90 EB

IH 90 WB

RAMP 20 MPH

COVERING SIGNS TYPE II

25' SPACING (TYP)

STH 157 SB

STH 157 NB

STH 157 NB TO IH 90 EB

ROAD WORK AHEAD
W20-1A

RAMP CLOSED AHEAD
W20-3A(MOD)

WEST SOUTH
90 53
Minnesota
EXIT 1/4 MILE

COVERING SIGNS TYPE I

RAMP CLOSED 500 FT
W20-3D(MOD)

COVERING SIGNS TYPE II

EXIT
30 MPH

COVERING SIGNS TYPE II

EAST
90
Madison
1/4 MILE

COVERING SIGNS TYPE I

RAMP CLOSED AHEAD
W20-3A(MOD)

ROAD WORK AHEAD
W20-1A

RAMP CLOSED 500 FT
W20-3D(MOD)

STH 157 SB TO IH 90 WB

STH 157 NB

WEST SOUTH
90 53
Minnesota

COVERING SIGNS TYPE I

RAMP CLOSED
R11-2R
48" X 30"

EXIT

COVERING SIGNS TYPE II

STH 157 NB TO IH 90 WB

IH 90 WB TO STH 157

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLASHING ARROW BOARD IN CAUTION MODE (UNLESS OTHERWISE NOTED)
- POST WITH ATTACHED SIGN

SEE SDD "TRAFFIC CONTROL, EXIT RAMP CLOSURE" FOR ADDITIONAL INFORMATION.

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	TRAFFIC CONTROL STH 157 - STAGES 1-5	SHEET 194	E

2

2

SEE SDD "FENCE CHAIN LINK" FOR ADDITIONAL INFORMATION.

N

FRENCH SLOUGH

ROUND LAKE

MATCH TO STRUCTURE

STA 71+94 EB
GATE CHAIN LINK 3.5-FT

STA 71+94.84 EB, 55' RT

STA 83+85.64 EB, 55' RT

STA 84+89.90 EB, 60' RT

FENCE CHAIN LINK 6-FT (TYP)

STA 88+40.30 RA, 24' RT

STA 97+60 EB
GATE CHAIN LINK 3.5-FT

MATCH TO STRUCTURE

MATCH TO STRUCTURE
STA 97+59.88 RA, 24' RT
MATCH TO STRUCTURE

STA 99+00 EB
GATE CHAIN LINK 3.5-FT

MATCH TO STRUCTURE

IH 90 WB

IH 90 EB

REST AREA

STA 99+12.80.00 RA, 24.7' RT
MATCH EXISTING FENCE

STA 99+00.00 RA, 24' RT

STA 106+80.48 EB, 116' RT
GATE CHAIN LINK 3.5-FT
MATCH EXISTING FENCE

EXISTING FENCE TO REMAIN

CTH BW

STA 106+80 EB - STA 131+90 EB, RT
REMOVING FENCE

STA 71+96 EB - STA 97+65 EB, RT
STA 71+96 EB, MEDIAN
REMOVING FENCE

STA 97+61 EB, MEDIAN LT
STA 97+61 EB, MEDIAN RT
STA 98+97 EB, MEDIAN LT
STA 98+97 EB, MEDIAN RT
STA 98+97 RA - STA 99+12.80 RA, RT
REMOVING FENCE

EXISTING FENCE TO REMAIN

STA 50+92.48 BN, 94.2' LT
MATCH EXISTING FENCE

STA 145+85.00 D, 95' LT

STA 144+58.36 D, 89.8' LT

300' RADIUS

STA 142+56.33 D, 64' LT

STA 140+96.31 D, 72' LT

STA 139+08.92 D, 52' LT

STA 138+25.00 D, 70' LT
MATCH EXISTING FENCE

STA 131+80 EB
GATE CHAIN LINK 3.5-FT

D RAMP

C RAMP

B RAMP

A RAMP

CTH B

STA 131+90.50 EB, 116' RT
MATCH EXISTING FENCE

STA 131+98.67 EB, 116' RT
MATCH EXISTING FENCE

STA 135+00.00 A, 84' RT

STA 137+33.43 A, 74' RT

STA 132+00 A - STA 144+60 A, RT
STA 33+41 BN - STA 35+30 BN, LT
REMOVING FENCE

STA 143+60.00 A, 74' RT

STA 33+93.22 BN, 59' LT
MATCH EXISTING FENCE

N

STA 138+20 D - STA 145+82 D, LT
STA 50+24 BN - STA 50+92 BN, LT
REMOVING FENCE

EXISTING FENCE TO REMAIN

STA 145+21.20 EB, 105.1' RT
MATCH EXISTING FENCE

STA 154+45.57 EB, 74' RT

EXISTING FENCE TO REMAIN

STA 145+21 EB - STA 168+57 EB, RT
STA 168+66 EB, MEDIAN
REMOVING FENCE

STA 168+64 EB
GATE CHAIN LINK 3.5-FT

MATCH TO STRUCTURE

MATCH TO STRUCTURE

STA 168+55.26 EB, 49' RT

FENCE CHAIN LINK 6-FT (TYP)

STA 159+00.00 EB, 49' RT

STA 158+50.00 EB, 74' RT

IH 90 WB

IH 90 EB

STA 174+36 EB
GATE CHAIN LINK 3.5-FT

STA 174+13.74 EB, 46' RT

STA 178+54.64 EB, 69' RT

STA 182+03.15 EB, 72.1' RT

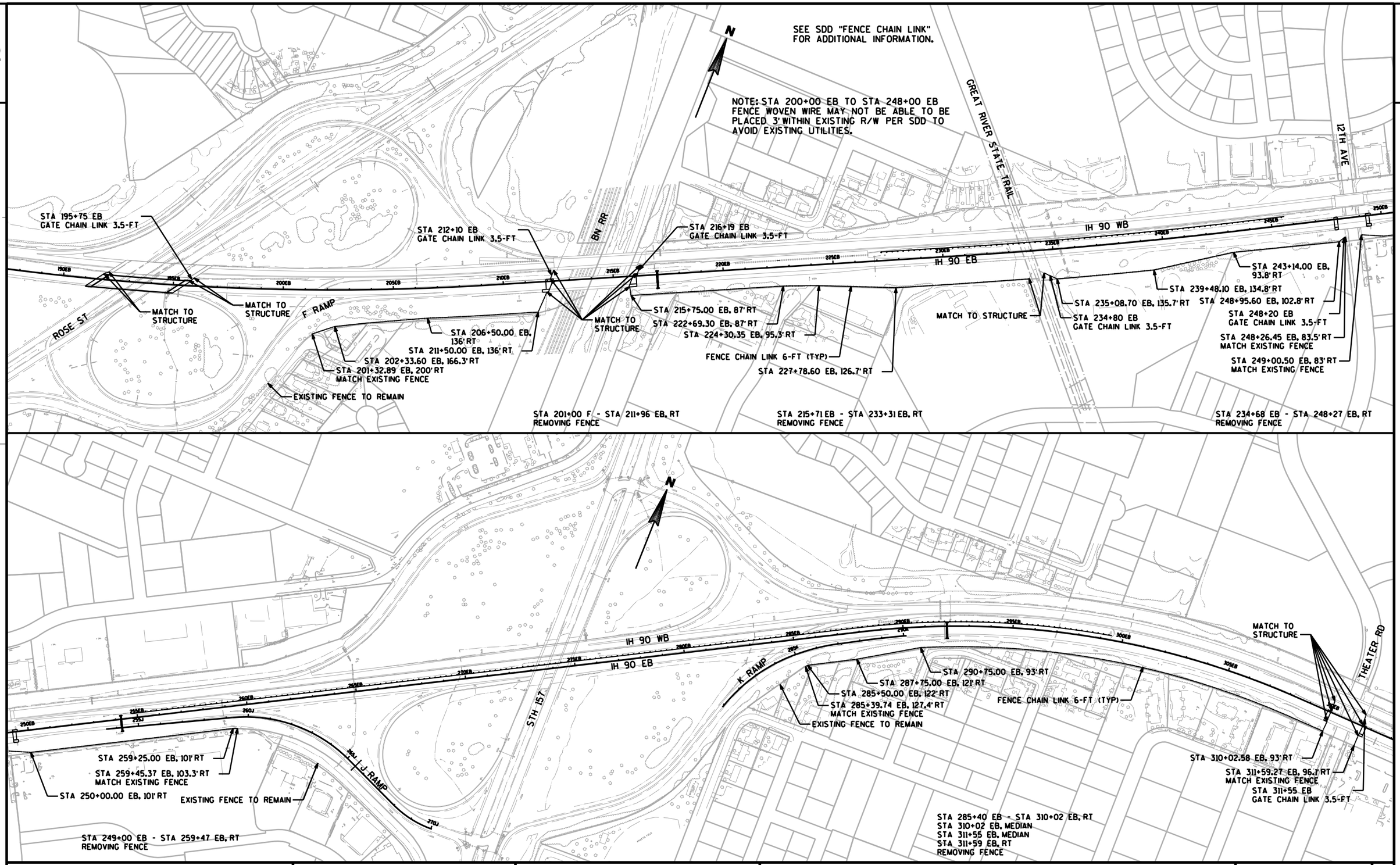
480' RADIUS

STA 185+39.00 EV, 27.1' RT
MATCH EXISTING FENCE

BLACK RIVER

STA 174+17 EB - STA 185+30 EV, RT
STA 174+29 EB, MEDIAN
REMOVING FENCE

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	FENCING DETAIL	SHEET 195	E



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	FENCING DETAIL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_027102_fn.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:400
WISDOT/CADDS SHEET 42

2

IH 90 EASTBOUND (EB)

Station	Description	LEFT	RIGHT
18+30.87	Begin Alignment	-2.00%	-2.00%
141+85.74	End Normal Crown	-2.00%	-2.00%
142+75.74	Level Crown	-2.00%	0.00%
143+65.74	Begin Full Super	-2.00%	2.00%
154+15.58	End Full Super	-2.00%	2.00%
155+05.58	Level Crown	-2.00%	0.00%
155+95.58	Begin Normal Crown	-2.00%	-2.00%
181+75.12	End Normal Crown	-2.00%	-2.00%
182+65.12	Level Crown	-2.00%	0.00%
183+55.12	Begin Full Super	-2.00%	2.00%
209+12.81	End Full Super	-2.00%	2.00%
210+02.81	Level Crown	-2.00%	0.00%
210+92.81	Begin Normal Crown	-2.00%	-2.00%
285+74.00	End Normal Crown	-2.00%	-2.00%
286+64.00	Level Crown	0.00%	-2.00%
287+54.00	Reverse Crown	2.00%	-2.00%
288+71.00	Begin Full Super	4.60%	-4.60%
307+65.09	End Full Super	4.60%	-4.60%
308+82.09	Reverse Crown	2.00%	-2.00%
309+72.09	Level Crown	0.00%	-2.00%
310+62.09	Begin Normal Crown	-2.00%	-2.00%
338+34.08	End Alignment	-2.00%	-2.00%

A RAMP (A)

Station	Description	LEFT	RIGHT
130+94.75	Begin Alignment	2.00%	-2.00%
132+01.85	End Normal Crown	2.00%	-2.00%
132+88.44	Begin Full Super	5.90%	-5.90%
133+62.51	End Full Super	5.90%	-5.90%
134+50.49	Begin Full Super	6.00%	-6.00%
136+89.11	End Full Super	6.00%	-6.00%
137+77.77	Begin Normal Crown	2.00%	-2.00%
137+77.78	End Normal Crown	2.00%	-2.00%
138+22.11	Level Crown	0.00%	0.00%
139+55.11	Begin Full Super	-6.00%	6.00%
142+47.67	End Full Super	-6.00%	6.00%
143+36.34	Manual station	-2.00%	2.00%
144+25.00	Manual station	2.00%	-2.00%
144+88.26	End Alignment	2.00%	-2.00%

B RAMP (B)

Station	Description	LEFT	RIGHT
131+84.42	Begin Alignment	2.00%	-2.00%
133+06.75	End Normal Crown	2.00%	-2.00%
134+02.75	Begin Full Super	6.00%	-6.00%
142+73.44	End Full Super	6.00%	-6.00%
143+45.44	Manual station	3.00%	-3.00%
144+65.44	Manual station	-2.00%	2.00%
146+46.51	End Alignment	2.00%	-2.00%

C RAMP (C)

Station	Description	LEFT	RIGHT
132+73.68	Begin Alignment	-2.00%	2.00%
134+26.53	End Normal Crown	-2.00%	2.00%
135+15.20	Begin Full Super	-6.00%	6.00%
143+75.72	End Full Super	-6.00%	6.00%

D RAMP (D)

Station	Description	LEFT	RIGHT
134+05.27	Begin Full Super	-6.00%	6.00%
139+68.20	End Full Super	-6.00%	6.00%
140+50.87	Begin Normal Crown	-2.00%	2.00%
140+70.65	End Normal Crown	-2.00%	2.00%
141+06.65	Level Crown	0.00%	0.00%
142+15.65	Begin Full Super	6.00%	-6.00%
144+25.64	End Full Super	6.00%	-6.00%
145+34.64	Level Crown	0.00%	0.00%
145+70.64	Begin Normal Crown	-2.00%	2.00%
147+02.58	End Alignment	-2.00%	2.00%

E RAMP (E)

Station	Description	LEFT	RIGHT
180+38.66	Begin Alignment	2.00%	-2.00%
181+35.35	End Normal Crown	2.00%	-2.00%
181+88.69	Manual station	4.00%	-4.00%
182+43.12	Manual station	4.00%	-4.00%
182+96.44	Begin Full Super	6.00%	-6.00%
184+71.24	End Full Super	6.00%	-6.00%
185+77.90	Begin Normal Crown	2.00%	-2.00%
187+13.03	End Normal Crown	2.00%	-2.00%

F RAMP (F)

Station	Description	LEFT	RIGHT
190+03.02	Begin Normal Crown	2.00%	-2.00%
199+86.17	End Normal Crown	2.00%	-2.00%
200+92.84	Begin Full Super	6.00%	-6.00%
201+69.75	End Full Super	6.00%	-6.00%
202+76.42	Begin Normal Crown	2.00%	-2.00%
204+89.76	Manual station	-2.00%	2.00%
206+74.13	Manual station	-2.00%	2.00%

J RAMP (J)

Station	Description	LEFT	RIGHT
253+51.61	Begin Alignment	2.00%	-2.00%
258+84.98	End Normal Crown	2.00%	-2.00%
259+73.64	Begin Full Super	6.00%	-6.00%
264+66.36	End Full Super	6.00%	-6.00%
265+55.03	Begin Normal Crown	2.00%	-2.00%
266+65.27	End Normal Crown	2.00%	-2.00%
267+09.60	Level Crown	0.00%	0.00%

K RAMP (K)

Station	Description	LEFT	RIGHT
281+34.79	Begin Full Super	6.00%	-6.00%
286+67.58	End Full Super	6.00%	-6.00%
287+63.58	Begin Normal Crown	2.00%	-2.00%
288+05.23	End Normal Crown	2.00%	-2.00%
288+26.95	Begin Full Super	2.90%	-2.90%
289+90.19	End Full Super	2.90%	-2.90%
290+11.91	Begin Normal Crown	2.00%	-2.00%
290+13.52	End Alignment	2.00%	-2.00%

N RAMP (N)

Station	Description	LEFT	RIGHT
267+88.57	End Full Super	6.00%	-6.00%
268+84.57	Begin Normal Crown	2.00%	-2.00%
284+18.42	End Alignment	2.00%	-2.00%

RA RAMP (RA)

Station	Description	LEFT	RIGHT
88+40.29	Begin Alignment	2.00%	-2.00%
88+87.10	Manual station	2.00%	-2.00%
89+40.43	End Normal Crown	2.00%	-2.00%
90+41.98	Begin Full Super	5.80%	-5.80%
91+20.46	End Full Super	5.80%	-5.80%
92+22.01	Begin Normal Crown	2.00%	-2.00%
92+82.69	End Normal Crown	2.00%	-2.00%
93+30.51	Level Crown	0.00%	0.00%
94+40.51	Begin Full Super	-4.60%	4.60%
95+64.19	End Full Super	-4.60%	4.60%
96+74.19	Level Crown	0.00%	0.00%
97+22.02	Begin Normal Crown	1.50%	-1.50%
101+43.37	End Normal Crown	1.50%	-1.50%
104+92.68	Begin Normal Crown	2.00%	-2.00%
108+07.04	End Normal Crown	2.00%	-2.00%
108+60.37	Manual station	4.00%	-4.00%
108+70.86	Begin Full Super	4.40%	-4.40%
109+91.88	End Full Super	4.40%	-4.40%
110+02.37	Manual station	4.00%	-4.00%
110+55.70	Begin Normal Crown	2.00%	-2.00%
113+30.93	End Alignment	2.00%	-2.00%

CTH B NORTHBOUND (BN)

Station	Description	LEFT	RIGHT
25+00.00	Begin Alignment	-2.00%	-2.00%
24+27.66	End Normal Crown	-2.00%	-2.00%
24+68.80	Level Crown	-2.00%	0.00%
25+09.95	Reverse Crown	-2.00%	2.00%
25+40.80	Begin Full Super	-3.50%	3.50%
26+15.65	End Full Super	-3.50%	3.50%
27+33.84	Begin Full Super	-2.90%	2.90%
30+45.05	End Full Super	-2.90%	2.90%
30+83.71	Begin Full Super	-2.70%	2.70%
34+34.85	End Full Super	-2.70%	2.70%
34+69.51	Begin Full Super	-2.30%	2.30%
40+35.25	End Full Super	-2.30%	2.30%
40+41.51	Reverse Crown	-2.00%	2.00%
40+83.25	Level Crown	0.00%	0.00%
41+24.99	Begin Normal Crown	2.00%	-2.00%
58+00.00	End Alignment	-2.00%	-2.00%

CTH B SOUTHBOUND (BS)

Station	Description	LEFT	RIGHT
29+11.04	Begin Alignment	-2.00%	2.00%
30+08.70	End Normal Crown	-4.55%	4.55%
30+45.00	Begin Full Super	-2.80%	2.80%
32+35.90	End Full Super	-2.80%	2.80%
32+52.47	Begin Normal Crown	-2.30%	2.30%
33+05.88	End Normal Crown	-2.30%	2.30%
33+12.14	Begin Full Super	-2.30%	2.30%
40+37.21	End Full Super	-2.30%	2.30%
40+43.48	Begin Normal Crown	-2.00%	2.00%
58+00.00	End Alignment	-2.00%	2.00%

2

2

P.I. DATA
P.I. 18+30.87 EB
Y 148149.14
X 431662.63

CURVE DATA
P.I. 50+00.01 EB
Y 148517.94
X 434810.24
△ = 1°30'00"
D = 0°15'00"
T = 300.02'
L = 600.00'
E = 1.96'
R = 22918.39'
P.C. 47+00.00 EB
P.T. 53+00.00 EB
S.E. NC
L.R. N/A

CURVE DATA
P.I. 59+68.24 EB
Y 148605.40
X 435774.54
△ = 1°30'00"
D = 0°11'00"
T = 409.12'
L = 818.18'
E = 2.68'
R = 31252.33'
P.C. 55+59.12 EB
P.T. 63+77.31 EB
S.E. NC
L.R. N/A

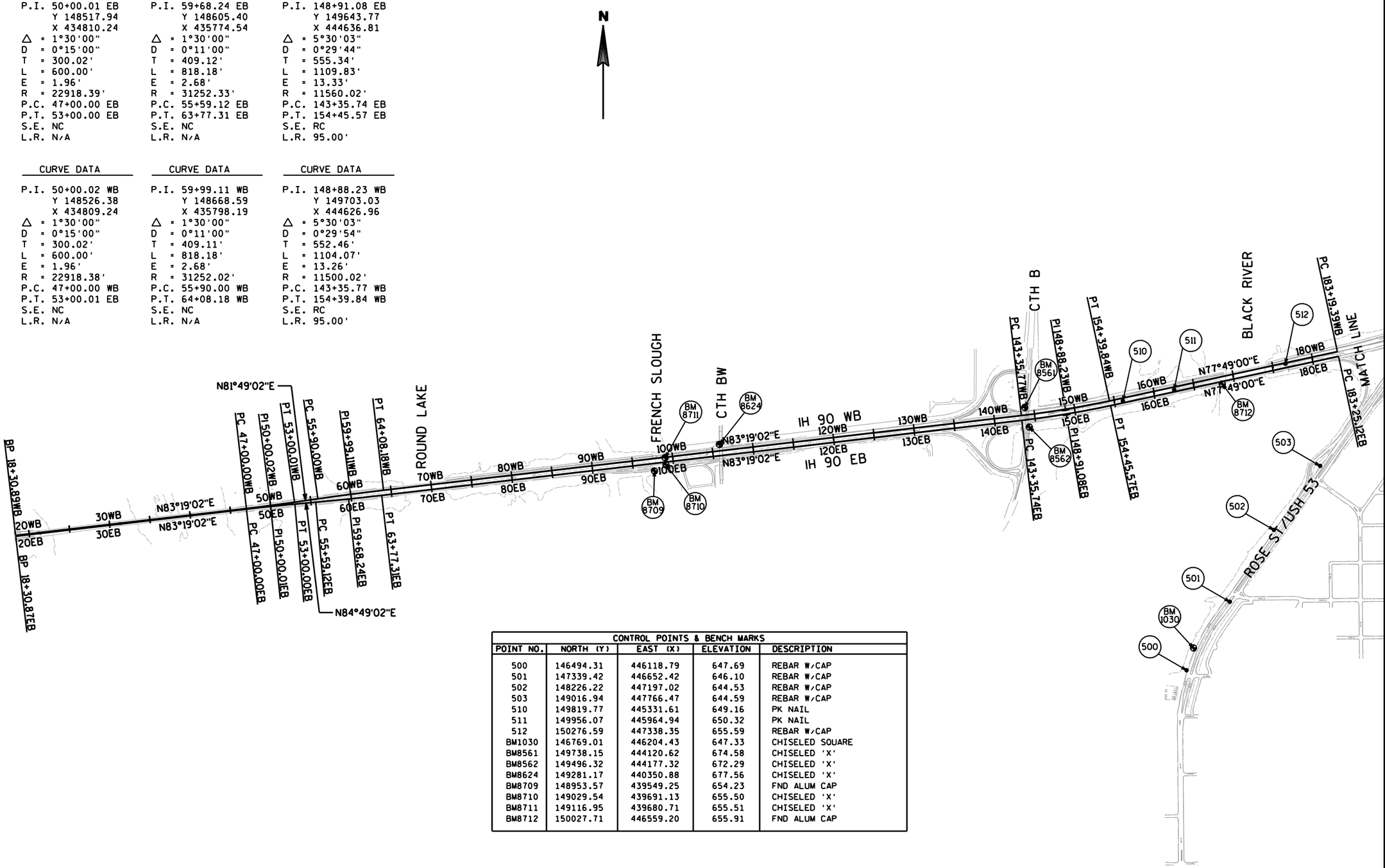
CURVE DATA
P.I. 148+91.08 EB
Y 149643.77
X 444636.81
△ = 5°30'03"
D = 0°29'44"
T = 555.34'
L = 1109.83'
E = 13.33'
R = 11560.02'
P.C. 143+35.74 EB
P.T. 154+45.57 EB
S.E. RC
L.R. 95.00'

P.I. DATA
P.I. 18+30.89 WB
Y 148157.58
X 431661.64

CURVE DATA
P.I. 50+00.02 WB
Y 148526.38
X 434809.24
△ = 1°30'00"
D = 0°15'00"
T = 300.02'
L = 600.00'
E = 1.96'
R = 22918.38'
P.C. 47+00.00 WB
P.T. 53+00.01 EB
S.E. NC
L.R. N/A

CURVE DATA
P.I. 59+99.11 WB
Y 148668.59
X 435798.19
△ = 1°30'00"
D = 0°11'00"
T = 409.11'
L = 818.18'
E = 2.68'
R = 31252.02'
P.C. 55+90.00 WB
P.T. 64+08.18 WB
S.E. NC
L.R. N/A

CURVE DATA
P.I. 148+88.23 WB
Y 149703.03
X 444626.96
△ = 5°30'03"
D = 0°29'54"
T = 552.46'
L = 1104.07'
E = 13.26'
R = 11500.02'
P.C. 143+35.77 WB
P.T. 154+39.84 WB
S.E. RC
L.R. 95.00'



CONTROL POINTS & BENCH MARKS				
POINT NO.	NORTH (Y)	EAST (X)	ELEVATION	DESCRIPTION
500	146494.31	446118.79	647.69	REBAR W/CAP
501	147339.42	446652.42	646.10	REBAR W/CAP
502	148226.22	447197.02	644.53	REBAR W/CAP
503	149016.94	447766.47	644.59	REBAR W/CAP
510	149819.77	445331.61	649.16	PK NAIL
511	149956.07	445964.94	650.32	PK NAIL
512	150276.59	447338.35	655.59	REBAR W/CAP
BM1030	146769.01	446204.43	647.33	CHISELED SQUARE
BM8561	149738.15	444120.62	674.58	CHISELED 'X'
BM8562	149496.32	444177.32	672.29	CHISELED 'X'
BM8624	149281.17	440350.88	677.56	CHISELED 'X'
BM8709	148953.57	439549.25	654.23	FND ALUM CAP
BM8710	149029.54	439691.13	655.50	CHISELED 'X'
BM8711	149116.95	439680.71	655.51	CHISELED 'X'
BM8712	150027.71	446559.20	655.91	FND ALUM CAP

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_027201_ad.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:1200

CONTROL POINTS & BENCH MARKS				
POINT NO.	NORTH (Y)	EAST (X)	ELEVATION	DESCRIPTION
504	149752.61	448506.44	645.87	REBAR W/CAP
505	150342.44	448860.17	645.78	REBAR W/CAP
506	151299.07	449393.98	644.67	REBAR W/CAP
507	152241.55	450130.37	654.27	REBAR W/CAP
508	152839.03	450531.25	672.13	REBAR W/CAP
509	153372.06	450804.43	678.15	REBAR W/CAP
513	150587.98	448682.15	661.02	REBAR W/CAP
515	151240.16	450511.00	671.61	REBAR W/CAP
516	151770.22	451612.73	683.51	PK NAIL
517	152140.68	452434.80	697.15	REBAR W/CAP
518	152552.75	453194.52	710.24	DOT ALUMINUM DISK
519	152924.29	453909.57	714.84	REBAR W/CAP
520	153699.02	455207.68	707.84	REBAR W/CAP
521	154277.14	456657.62	712.49	REBAR W/CAP
522	154984.52	457738.49	713.23	REBAR W/CAP
523	155299.42	459404.28	722.11	REBAR W/CAP
524	155274.12	459740.25	722.85	REBAR W/CAP
BM8559	154248.95	456143.67	731.26	FND ALUM CAP
BM8560	154075.55	456288.75	730.26	CHISELED SQUARE
BM8705	155348.94	459735.65	722.40	FND ALUM CAP
BM8706	153051.60	454000.35	717.31	FND ALUM CAP
BM8707	152286.76	452549.33	702.96	CHISELED 'X'
BM8708	151602.48	451064.42	680.82	FND ALUM CAP



CURVE DATA	CURVE DATA	CURVE DATA	P.I. DATA
P.I. 196+39.58 EB	P.I. 237+24.12 EB	P.I. 298+42.71 EB	P.I. 338+34.08 EB
Y 150646.09	Y 152387.25	Y 155292.17	Y 155141.40
X 449279.19	X 452986.45	X 458371.85	X 462409.73
△ = 12°58'27"	△ = 3°11'06"	△ = 30°28'52"	
D = 0°29'44"	D = 0°14'58"	D = 1°30'00"	
T = 1314.46'	T = 638.87'	T = 1040.70'	
L = 2617.68'	L = 1277.40'	L = 2032.07'	
E = 74.49'	E = 8.88'	E = 139.23'	
R = 11559.98'	R = 22979.74'	R = 3819.73'	
P.C. 183+25.12 EB	P.C. 230+85.26 EB	P.C. 288+02.01 EB	
P.T. 209+42.80 EB	P.T. 243+62.66 EB	P.T. 308+34.08 EB	
S.E. RC	S.E. NC	S.E. 5.1%	
L.R. 95.00'	L.R. N/A	L.R. 242.00'	

CURVE DATA	CURVE DATA	CURVE DATA	P.I. DATA
P.I. 196+27.03 WB	P.I. 237+03.14 WB	P.I. 298+36.40 WB	P.I. 338+44.12 WB
Y 150703.30	Y 152440.85	Y 155352.74	Y 155201.36
X 449259.86	X 452959.43	X 458357.76	X 462411.97
△ = 12°58'27"	△ = 3°11'06"	△ = 30°28'52"	
D = 0°29'54"	D = 0°15'00"	D = 1°30'00"	
T = 1307.64'	T = 637.20'	T = 1040.69'	
L = 2604.09'	L = 1274.07'	L = 2032.07'	
E = 74.11'	E = 8.86'	E = 139.23'	
R = 11499.98'	R = 22919.74'	R = 3819.71'	
P.C. 183+19.39 WB	P.C. 230+65.94 WB	P.C. 287+95.71 WB	
P.T. 209+23.49 WB	P.T. 243+40.01 WB	P.T. 308+27.77 WB	
S.E. RC	S.E. NC	S.E. 5.1%	
L.R. 95.00'	L.R. N/A	L.R. 242.00'	

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM	SHEET 199	E

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P.I. DATA

P.I. 130+57.22 D
Y 149525.71
X 442804.20

CURVE DATA

P.I. 135+10.55 D
Y 149584.41
X 443253.69
△ = 19°19'46"
D = 6°21'58"
T = 153.27'
L = 303.63'
E = 12.96'
R = 900.00'
P.C. 133+57.28 D
P.C.C136+60.90 D
S.E. **
L.R. **

CURVE DATA

P.I. 138+42.02 D
Y 149731.06
X 443554.26
△ = 38°20'19"
D = 10°59'50"
T = 181.12'
L = 348.62'
E = 30.58'
R = 521.00'
P.C.C136+60.90 D
P.T. 140+09.52 D
S.E. **
L.R. **

CURVE DATA

P.I. 143+34.79 D
Y 150187.55
X 443773.40
△ = 59°19'16"
D = 20°59'15"
T = 155.47'
L = 282.65'
E = 41.16'
R = 273.00'
P.C. 141+79.32 D
P.T. 144+61.97 D
S.E. **
L.R. **

P.I. DATA

P.I. 147+02.58 D
Y 150222.27
X 444167.95

P.I. DATA

P.I. 132+73.68 C
Y 150148.57
X 444163.38

P.I. DATA

P.I. 145+70.05 C
Y 149704.03
X 444305.73

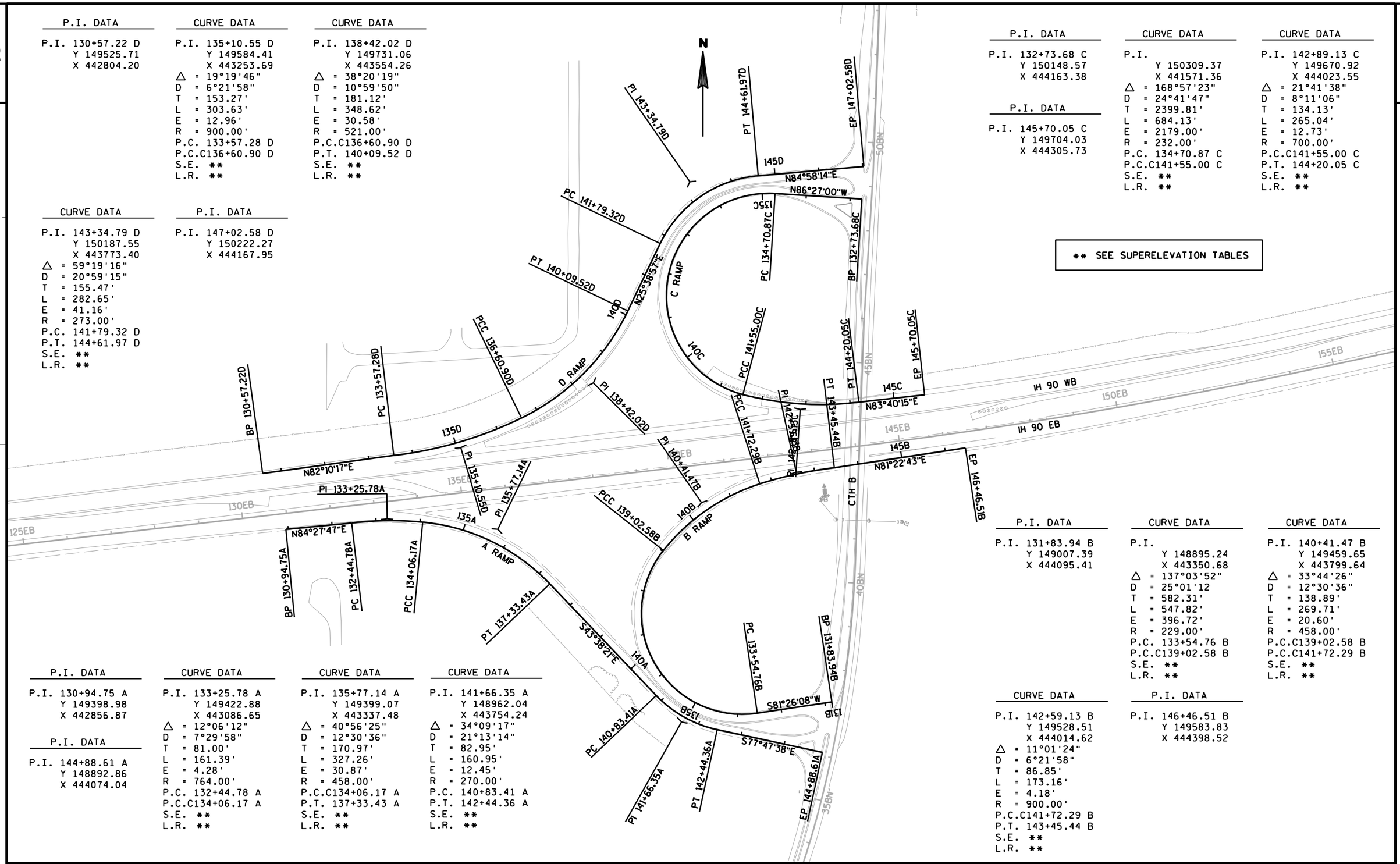
CURVE DATA

P.I.
Y 150309.37
X 441571.36
△ = 168°57'23"
D = 24°41'47"
T = 2399.81'
L = 684.13'
E = 2179.00'
R = 232.00'
P.C. 134+70.87 C
P.C.C141+55.00 C
S.E. **
L.R. **

CURVE DATA

P.I. 142+89.13 C
Y 149670.92
X 444023.55
△ = 21°41'38"
D = 8°11'06"
T = 134.13'
L = 265.04'
E = 12.73'
R = 700.00'
P.C.C141+55.00 C
P.T. 144+20.05 C
S.E. **
L.R. **

** SEE SUPERELEVATION TABLES



P.I. DATA

P.I. 130+94.75 A
Y 149398.98
X 442856.87

P.I. DATA

P.I. 144+88.61 A
Y 148892.86
X 444074.04

CURVE DATA

P.I. 133+25.78 A
Y 149422.88
X 443086.65
△ = 12°06'12"
D = 7°29'58"
T = 81.00'
L = 161.39'
E = 4.28'
R = 764.00'
P.C. 132+44.78 A
P.C.C134+06.17 A
S.E. **
L.R. **

CURVE DATA

P.I. 135+77.14 A
Y 149399.07
X 443337.48
△ = 40°56'25"
D = 12°30'36"
T = 170.97'
L = 327.26'
E = 30.87'
R = 458.00'
P.C.C134+06.17 A
P.T. 137+33.43 A
S.E. **
L.R. **

CURVE DATA

P.I. 141+66.35 A
Y 148962.04
X 443754.24
△ = 34°09'17"
D = 21°13'14"
T = 82.95'
L = 160.95'
E = 12.45'
R = 270.00'
P.C. 140+83.41 A
P.T. 142+44.36 A
S.E. **
L.R. **

P.I. DATA

P.I. 131+83.94 B
Y 149007.39
X 444095.41

CURVE DATA

P.I.
Y 148895.24
X 443350.68
△ = 137°03'52"
D = 25°01'12
T = 582.31'
L = 547.82'
E = 396.72'
R = 229.00'
P.C. 133+54.76 B
P.C.C139+02.58 B
S.E. **
L.R. **

CURVE DATA

P.I. 140+41.47 B
Y 149459.65
X 443799.64
△ = 33°44'26"
D = 12°30'36"
T = 138.89'
L = 269.71'
E = 20.60'
R = 458.00'
P.C.C139+02.58 B
P.C.C141+72.29 B
S.E. **
L.R. **

CURVE DATA

P.I. 142+59.13 B
Y 149528.51
X 444014.62
△ = 11°01'24"
D = 6°21'58"
T = 86.85'
L = 173.16'
E = 4.18'
R = 900.00'
P.C.C141+72.29 B
P.T. 143+45.44 B
S.E. **
L.R. **

P.I. DATA

P.I. 146+46.51 B
Y 149583.83
X 444398.52

2

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM	SHEET 200	E

2

P.I. DATA
P.I. 180+38.66 E
Y 150273.04
X 447721.92

CURVE DATA
P.I. 183+06.93 E
Y 150326.71
X 447984.75
△ = 10°00'38"
D = 4°14'39"
T = 118.24'
L = 235.87'
E = 5.17'
R = 1350.00'
P.C. 181+88.69 E
P.T. 184+24.56 E
S.E. **
L.R. **

CURVE DATA
P.I. 188+82.52 E
Y 150348.56
X 448560.53
△ = 26°13'57"
D = 10°25'03"
T = 128.15'
L = 251.81'
E = 14.73'
R = 550.00'
P.C. 187+54.37 E
P.T. 190+06.18 E
S.E. **
L.R. **

P.I. DATA
P.I. 190+55.47 E
Y 150276.22
X 448722.56

** SEE SUPERELEVATION TABLES

N

ROSE ST/STH 35

IH 90 WB

IH 90 EB

BP 180+38.66E

PC 181+88.69E

PI 183+06.93E

PT 184+24.56E

PC 187+54.37E

PI 188+82.52E

PT 190+06.18E

EP 190+55.47E

PC 200+39.52F

PI 202+07.15F

PT 203+73.08F

EP 206+74.13F

N65°46'32"E

205F

200F

195F

N53°30'15"E

F RAMP

N87°49'38"E

E RAMP

N78°57'44"E

S65°56'25"E

185E

190E

190F

PI 186+74.66F

PT 189+55.02F

BP 183+89.60F

185F

180EB

185EB

190EB

195EB

200EB

205EB

210EB

WITTENBERG PL

TAYLOR ST

ONALASKA AVE

CURVE DATA
P.I. 186+74.66 F
Y 149959.06
X 448573.67
△ = 17°59'52"
D = 3°10'59"
T = 285.06'
L = 565.42'
E = 22.43'
R = 1800.00'
P.C. 183+89.60 F
Y 149727.01
X 448408.11
P.T. 189+55.02 F
S.E. **
L.R. **

CURVE DATA
P.I. 202+07.15 F
Y 150873.33
X 449809.41
△ = 14°09'24"
D = 4°14'39"
T = 167.63'
L = 333.56'
E = 10.37'
R = 1350.00'
P.C. 200+39.52 F
P.T. 203+73.08 F
S.E. **
L.R. **

P.I. DATA
P.I. 206+74.13 F
Y 151060.57
X 450239.01

2

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM	SHEET 201	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_027204_ad.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:200

2

P.I. DATA

P.I. 253+51.61 J
Y 153128.36
X 454436.22

CURVE DATA

P.I. 262+40.38 J
Y 153529.10
X 455229.52
△ = 50°28'11"
D = 8°40'52"
T = 311.06'
L = 581.37'
E = 69.63'
R = 660.00'
P.C. 259+29.32 J
P.T. 265+10.69 J
S.E. **
L.R. **

CURVE DATA

P.I. 269+03.56 J
Y 153246.51
X 455874.24
△ = 25°50'18"
D = 12°28'58"
T = 105.29'
L = 206.99'
E = 11.92'
R = 459.00'
P.C. 267+98.27 J
P.T. 270+05.27 J
Y 153250.50
X 455979.45
S.E. **
L.R. **

CURVE DATA

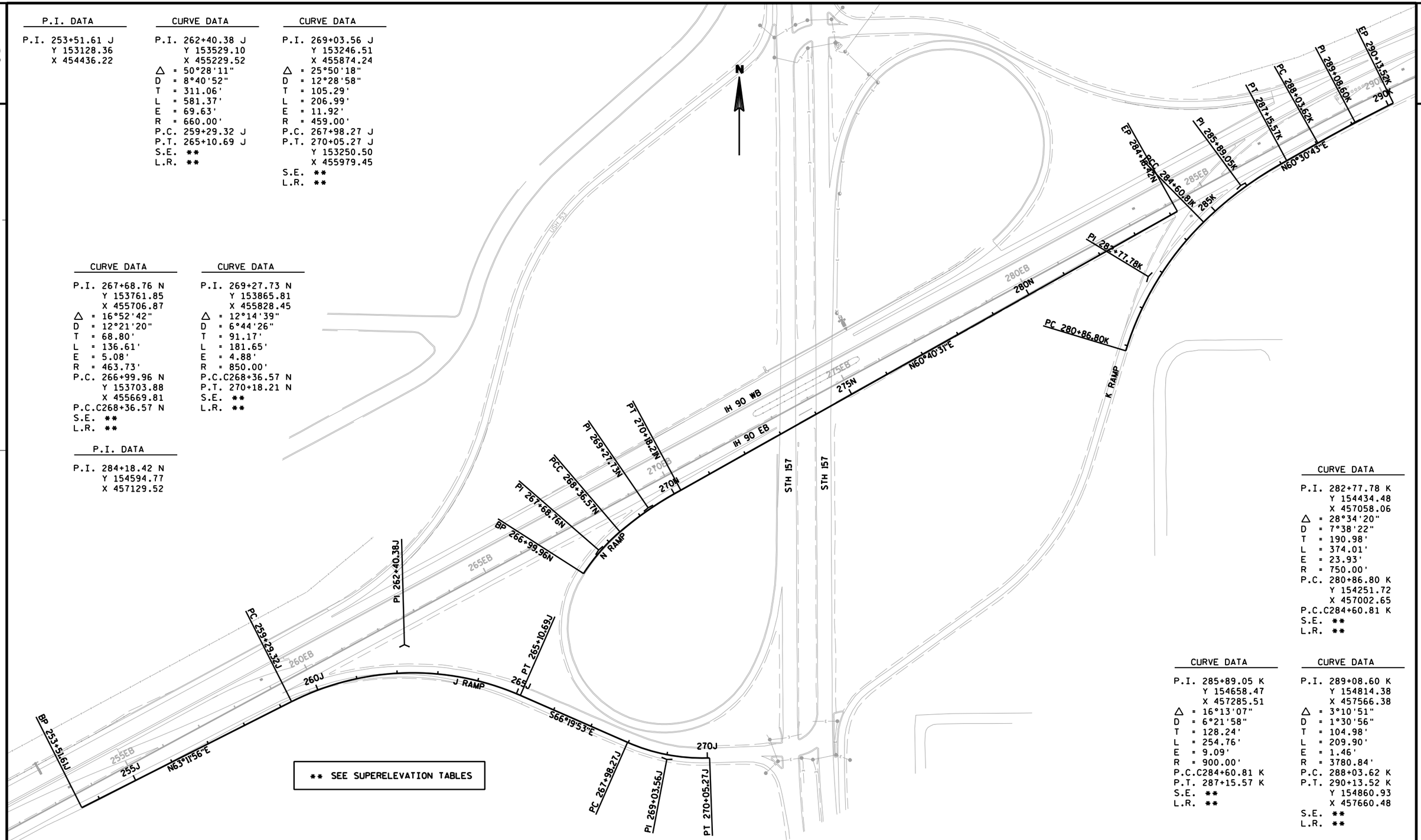
P.I. 267+68.76 N
Y 153761.85
X 455706.87
△ = 16°52'42"
D = 12°21'20"
T = 68.80'
L = 136.61'
E = 5.08'
R = 463.73'
P.C. 266+99.96 N
Y 153703.88
X 455669.81
P.C.C268+36.57 N
S.E. **
L.R. **

CURVE DATA

P.I. 269+27.73 N
Y 153865.81
X 455828.45
△ = 12°14'39"
D = 6°44'26"
T = 91.17'
L = 181.65'
E = 4.88'
R = 850.00'
P.C.C268+36.57 N
P.T. 270+18.21 N
S.E. **
L.R. **

P.I. DATA

P.I. 284+18.42 N
Y 154594.77
X 457129.52



** SEE SUPERELEVATION TABLES

CURVE DATA

P.I. 282+77.78 K
Y 154434.48
X 457058.06
△ = 28°34'20"
D = 7°38'22"
T = 190.98'
L = 374.01'
E = 23.93'
R = 750.00'
P.C. 280+86.80 K
Y 154251.72
X 457002.65
P.C.C284+60.81 K
S.E. **
L.R. **

CURVE DATA

P.I. 285+89.05 K
Y 154658.47
X 457285.51
△ = 16°13'07"
D = 6°21'58"
T = 128.24'
L = 254.76'
E = 9.09'
R = 900.00'
P.C.C284+60.81 K
P.T. 287+15.57 K
S.E. **
L.R. **

CURVE DATA

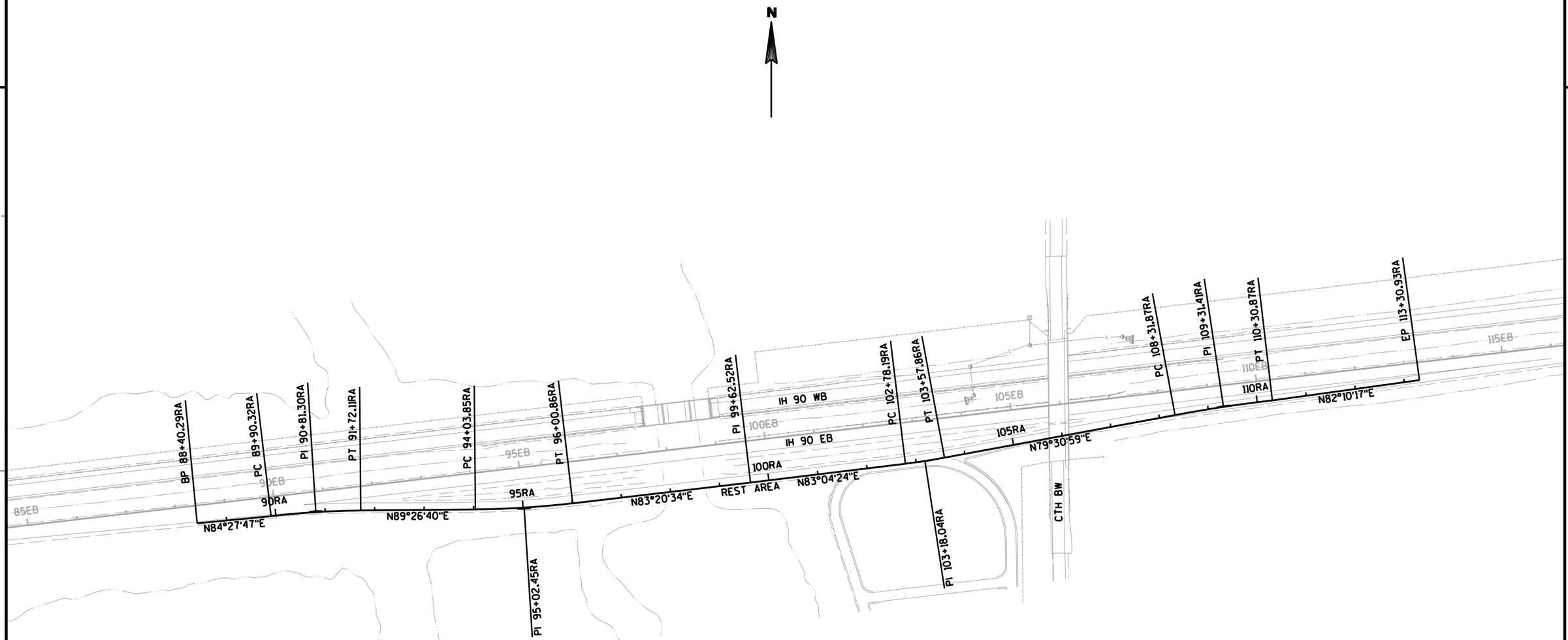
P.I. 289+08.60 K
Y 154814.38
X 457566.38
△ = 3°10'51"
D = 1°30'56"
T = 104.98'
L = 209.90'
E = 1.46'
R = 3780.84'
P.C. 288+03.62 K
P.T. 290+13.52 K
Y 154860.93
X 457660.48
S.E. **
L.R. **

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM	SHEET 202	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_027205_ad.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:220

WISDOT/CADDS SHEET 42

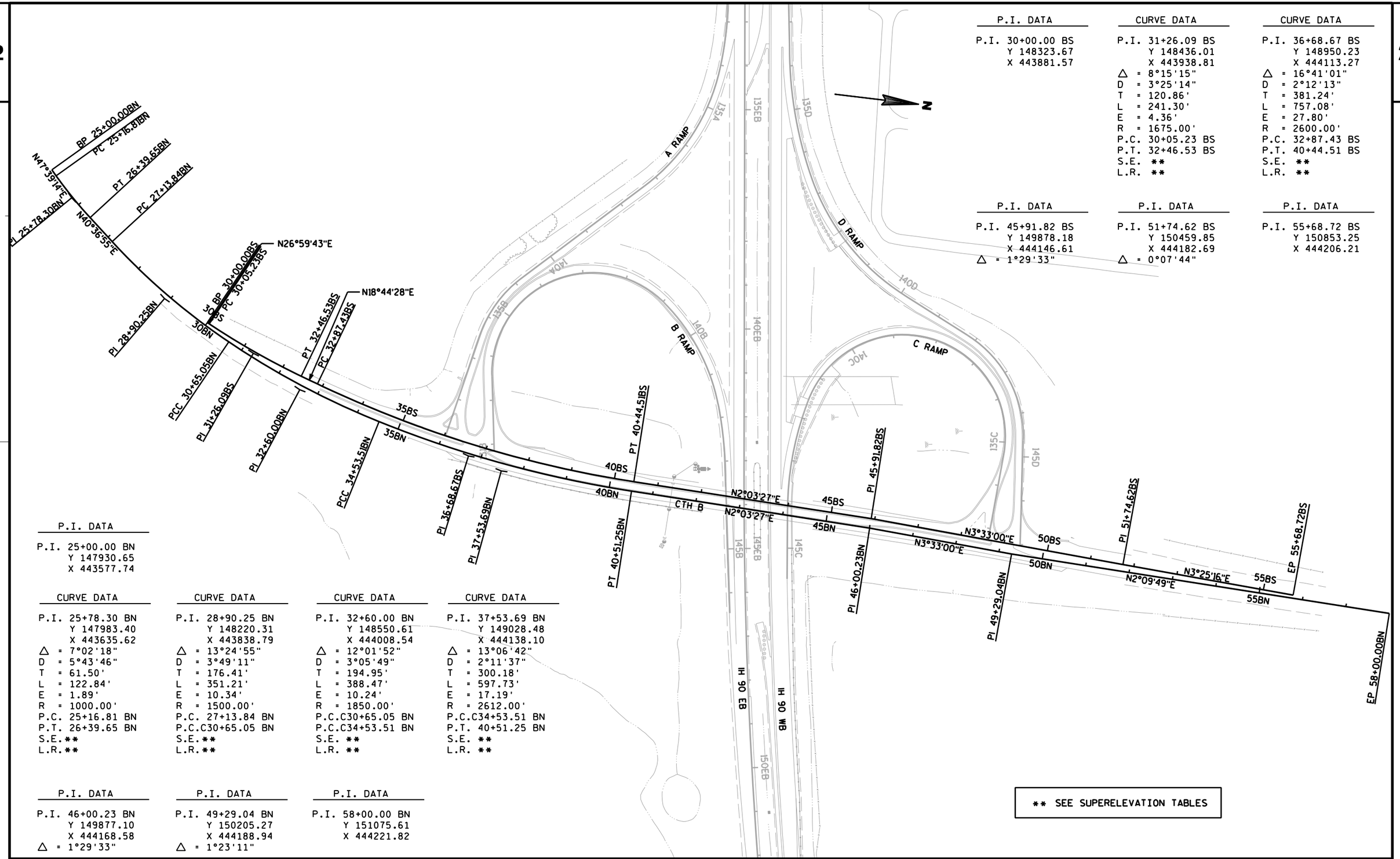
2



P.I. DATA	CURVE DATA	CURVE DATA	P.I. DATA	CURVE DATA	CURVE DATA	P.I. DATA
P.I. 88+40.29 RA	P.I. 90+81.30 RA	P.I. 95+02.45 RA	P.I. 99+62.52 RA	P.I. 103+18.04 RA	P.I. 109+31.41 RA	P.I. 113+30.93 RA
N 148903.88	N 147229.90	N 150781.98	N 148986.38	N 150298.53	N 146172.83	N 149193.32
E 438631.31	E 438978.47	E 439175.77	E 439749.46	E 439908.04	E 441153.52	E 441101.67
	△ = 6°07'37"	△ = 6°06'05"		△ = 3°33'24"	△ = 3°48'03"	
	D = 3°22'14"	D = 3°05'50"		D = 4°27'52"	D = 1°54'36"	
	T = 90.98'	T = 98.60'		T = 39.85'	T = 99.54'	
	L = 181.79'	L = 197.01'		L = 79.67'	L = 199.01'	
	E = 2.43'	E = 2.63'		E = 0.62'	E = 1.65'	
	R = 1700.00'	R = 1850.00'		R = 1283.44'	R = 3000.00'	
	P.C. 89+90.32 RA	P.C. 94+03.85 RA		P.C. 102+78.19 RA	P.C. 108+31.87 RA	
	P.T. 91+72.11 RA	P.T. 96+00.86 RA		P.T. 103+57.86 RA	P.T. 110+30.87 RA	
	S.E. **	S.E. **		S.E. **	S.E. **	
	L.R. **	L.R. **		L.R. **	L.R. **	

** SEE SUPERELEVATION TABLES

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM	SHEET 203	E



P.I. DATA

P.I. 25+00.00 BN
Y 147930.65
X 443577.74

CURVE DATA

P.I. 25+78.30 BN
Y 147983.40
X 443635.62
△ = 7°02'18"
D = 5°43'46"
T = 61.50'
L = 122.84'
E = 1.89'
R = 1000.00'
P.C. 25+16.81 BN
P.T. 26+39.65 BN
S.E.**
L.R.**

CURVE DATA

P.I. 28+90.25 BN
Y 148220.31
X 443838.79
△ = 13°24'55"
D = 3°49'11"
T = 176.41'
L = 351.21'
E = 10.34'
R = 1500.00'
P.C. 27+13.84 BN
P.C.C30+65.05 BN
S.E.**
L.R.**

CURVE DATA

P.I. 32+60.00 BN
Y 148550.61
X 444008.54
△ = 12°01'52"
D = 3°05'49"
T = 194.95'
L = 388.47'
E = 10.24'
R = 1850.00'
P.C.C30+65.05 BN
P.C.C34+53.51 BN
S.E. **
L.R. **

CURVE DATA

P.I. 37+53.69 BN
Y 149028.48
X 444138.10
△ = 13°06'42"
D = 2°11'37"
T = 300.18'
L = 597.73'
E = 17.19'
R = 2612.00'
P.C.C34+53.51 BN
P.T. 40+51.25 BN
S.E. **
L.R. **

P.I. DATA

P.I. 46+00.23 BN
Y 149877.10
X 444168.58
△ = 1°29'33"

P.I. DATA

P.I. 49+29.04 BN
Y 150205.27
X 444188.94
△ = 1°23'11"

P.I. DATA

P.I. 58+00.00 BN
Y 151075.61
X 444221.82

P.I. DATA

P.I. 30+00.00 BS
Y 148323.67
X 443881.57

CURVE DATA

P.I. 31+26.09 BS
Y 148436.01
X 443938.81
△ = 8°15'15"
D = 3°25'14"
T = 120.86'
L = 241.30'
E = 4.36'
R = 1675.00'
P.C. 30+05.23 BS
P.T. 32+46.53 BS
S.E. **
L.R. **

CURVE DATA

P.I. 36+68.67 BS
Y 148950.23
X 444113.27
△ = 16°41'01"
D = 2°12'13"
T = 381.24'
L = 757.08'
E = 27.80'
R = 2600.00'
P.C. 32+87.43 BS
P.T. 40+44.51 BS
S.E. **
L.R. **

P.I. DATA

P.I. 45+91.82 BS
Y 149878.18
X 444146.61
△ = 1°29'33"

P.I. DATA

P.I. 51+74.62 BS
Y 150459.85
X 444182.69
△ = 0°07'44"

P.I. DATA

P.I. 55+68.72 BS
Y 150853.25
X 444206.21

** SEE SUPERELEVATION TABLES

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM	SHEET 204	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_027207_ad.dgn PLOT DATE : 7/29/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1071-06-79 QUANTITY	1071-06-81 QUANTITY
0010	201.0105	Clearing	STA	126.000	66.000	60.000
0020	201.0205	Grubbing	STA	126.000	66.000	60.000
0030	203.0100	Removing Small Pipe Culverts	EACH	42.000	19.000	23.000
0040	203.0200	Removing Old Structure (station) 01. 234+00 EB	LS	1.000	1.000	
0050	203.0200	Removing Old Structure (station) 02. 193+75 EB	LS	1.000	1.000	
0070	203.0200	Removing Old Structure (station) 04. 43+41.43 BN	LS	1.000		1.000
0080	203.0200	Removing Old Structure (station) 05. 214+01.88 EB	LS	1.000	1.000	
0090	203.0200	Removing Old Structure (station) 06. 174+29.66 EB	LS	1.000	1.000	
0100	203.0210.S	Abatement of Asbestos Containing Material (structure) 01. B-32-36	LS	1.000	1.000	
0110	203.0210.S	Abatement of Asbestos Containing Material (structure) 02. B-32-52	LS	1.000		1.000
0120	203.0210.S	Abatement of Asbestos Containing Material (structure) 03. B-32-48	LS	1.000		1.000
0130	203.0210.S	Abatement of Asbestos Containing Material (structure) 04. B-32-75	LS	1.000		1.000
0140	203.0225.S	Debris Containment (structure) 01. B-32-36	LS	1.000	1.000	
0150	203.0225.S	Debris Containment (structure) 02. B-32-52	LS	1.000		1.000
0160	203.0225.S	Debris Containment (structure) 03. B-32-48	LS	1.000		1.000
0170	203.0225.S	Debris Containment (structure) 04. B-32-75	LS	1.000		1.000
0180	203.0225.S	Debris Containment (structure) 05. B-32-107	LS	1.000	1.000	
0200	204.0100	Removing Pavement	SY	83,842.000	44,865.000	38,977.000
0210	204.0150	Removing Curb & Gutter	LF	5,792.000	168.000	5,624.000
0230	204.0165	Removing Guardrail	LF	15,703.000	6,786.000	8,917.000
0240	204.0170	Removing Fence	LF	19,248.000	9,306.000	9,942.000
0250	204.0175	Removing Concrete Slope Paving	SY	155.000	155.000	
0260	204.0180	Removing Delineators and Markers	EACH	140.000	90.000	50.000
0270	204.0190	Removing Surface Drains	EACH	8.000	3.000	5.000
0300	204.0220	Removing Inlets	EACH	37.000	21.000	16.000
0350	204.0270	Abandoning Culvert Pipes	EACH	6.000	1.000	5.000
0360	204.9060.S	Removing (item description) 01. Flexable Tubular Marker Posts and Bases	EACH	201.000	120.000	81.000
0370	204.9060.S	Removing (item description) 02. Apron Endwall for Pipe Underdrain	EACH	1.000	1.000	
0380	204.9060.S	Removing (item description) 03. Crash Cusions Left In Place	EACH	2.000	1.000	1.000
0400	204.9090.S	Removing (item description) 01. Pipe Underdrain	LF	47.000	47.000	
0410	204.9090.S	Removing (item description) 02. Concrete Barrier Temporary Precast Left In Place	LF	1,239.000	614.000	625.000
0430	205.0100	Excavation Common	CY	160,175.000	79,508.000	80,667.000
0450	206.1000	Excavation for Structures Bridges (structure) 02. B-32-52	LS	1.000		1.000
0460	206.1000	Excavation for Structures Bridges (structure) 03. B-32-218	LS	1.000	1.000	
0470	206.1000	Excavation for Structures Bridges (structure) 05. B-32-39	LS	1.000	1.000	

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DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1071-06-79 QUANTITY	1071-06-81 QUANTITY
0480	206.1000	Excavation for Structures Bridges (structure) 10. B-32-0051	LS	1.000		1.000
0490	208.1100	Select Borrow	CY	15,000.000	8,000.000	7,000.000
0500	209.0200.S	Backfill Controlled Low Strength	CY	113.000	23.000	90.000
0510	210.0100	Backfill Structure	CY	1,200.000	1,040.000	160.000
0520	213.0100	Finishing Roadway (project) 01. 1071-06-79	EACH	1.000	1.000	
0530	213.0100	Finishing Roadway (project) 02. 1071-06-81	EACH	1.000		1.000
0550	305.0110	Base Aggregate Dense 3/4-Inch	TON	12,715.000	6,715.000	6,000.000
0560	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	97,771.000	44,960.000	52,811.000
0570	312.0110	Select Crushed Material	TON	258.000	100.000	158.000
0590	415.0080	Concrete Pavement 8-Inch	SY	19,396.000		19,396.000
0600	415.0090	Concrete Pavement 9-Inch	SY	4,391.000	4,391.000	
0610	415.0120	Concrete Pavement 12-Inch	SY	108,233.000	66,415.000	41,818.000
0620	415.0410	Concrete Pavement Approach Slab	SY	977.000	663.000	314.000
0630	415.6000.S	Rout and Seal	LF	25,325.000	9,764.000	15,561.000
0650	416.0610	Drilled Tie Bars	EACH	578.000	451.000	127.000
0660	416.0620	Drilled Dowel Bars	EACH	114.000	100.000	14.000
0670	416.1010	Concrete Surface Drains	CY	113.200	68.800	44.400
0680	416.1110	Concrete Shoulder Rumble Strips	LF	36,905.000	21,633.000	15,272.000
0690	440.4410	Incentive IRI Ride	DOL	24,940.000	13,740.000	11,200.000
0700	455.0105	Asphaltic Material PG58-28	TON	235.900	98.000	137.900
0710	460.1100	HMA Pavement Type E-0.3	TON	2,506.000	1,057.000	1,449.000
0720	460.1110	HMA Pavement Type E-10	TON	1,587.000	712.000	875.000
0730	460.2000	Incentive Density HMA Pavement	DOL	2,630.000	1,140.000	1,490.000
0740	460.4000	HMA Cold Weather Paving	TON	500.000		500.000
0750	465.0105	Asphaltic Surface	TON	443.000	443.000	
0760	465.0125	Asphaltic Surface Temporary	TON	2,305.000	358.000	1,947.000
0770	465.0310	Asphaltic Curb	LF	162.000		162.000
0780	465.0315	Asphaltic Flumes	SY	55.000	15.000	40.000
0790	502.0100	Concrete Masonry Bridges	CY	2,845.000	2,183.000	662.000
0800	502.0717.S	Crack Sealing Epoxy	LF	3,920.000	620.000	3,300.000
0810	502.2000	Compression Joint Sealer Preformed Elastomeric (width) 01. 2-Inch	LF	221.000		221.000
0830	502.3100	Expansion Device (structure) 02. B-32-52	LS	1.000		1.000
0840	502.3100	Expansion Device (structure) 03. B-32-39	LS	1.000	1.000	
0850	502.3100	Expansion Device (structure) 04. B-32-218	LS	1.000	1.000	
0860	502.3200	Protective Surface Treatment	SY	3,605.000	943.000	2,662.000
0870	502.3210	Pigmented Surface Sealer	SY	1,025.000	535.000	490.000
0880	502.5002	Masonry Anchors Type L No. 4 Bars	EACH	11.000	11.000	
0890	502.5005	Masonry Anchors Type L No. 5 Bars	EACH	676.000	320.000	356.000
0900	502.5010	Masonry Anchors Type L No. 6 Bars	EACH	90.000		90.000
0920	503.0146	Prestressed Girder Type I 45W-Inch	LF	2,700.000	2,700.000	
0930	504.0500	Concrete Masonry Retaining Walls	CY	142.000	142.000	
0940	505.0400	Bar Steel Reinforcement HS Structures	LB	32,572.000	32,570.000	2.000
0950	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	520,560.000	384,340.000	136,220.000
0960	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	2,100.000	2,100.000	
0970	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	16.000	16.000	
0980	506.2610	Bearing Pads Elastomeric Laminated	EACH	64.000	48.000	16.000

DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1071-06-79 QUANTITY	1071-06-81 QUANTITY
0990	506.4000	Steel Diaphragms (structure) 01. B-32-218	EACH	42.000	42.000	
1010	506.7050.S	Removing Bearings (structure) 01. B-32-52	EACH	16.000		16.000
1020	509.0301	Preparation Decks Type 1	SY	268.000	85.000	183.000
1030	509.0302	Preparation Decks Type 2	SY	127.000	35.000	92.000
1040	509.0500	Cleaning Decks	SY	835.000	835.000	
1050	509.1000	Joint Repair	SY	58.000	58.000	
1060	509.1500	Concrete Surface Repair	SF	430.000	10.000	420.000
1070	509.2000	Full-Depth Deck Repair	SY	77.000	5.000	72.000
1080	509.2500	Concrete Masonry Overlay Decks	CY	198.000	85.000	113.000
1090	509.5100.S	Polymer Overlay	SY	2,590.000	2,590.000	
1100	509.9005.S	Removing Concrete Masonry Deck Overlay (structure) 01. B-32-75	SY	461.000		461.000
1110	509.9005.S	Removing Concrete Masonry Deck Overlay (structure) 02. B-32-48	SY	602.000		602.000
1120	509.9050.S	Cleaning Parapets	LF	630.000		630.000
1130	511.1100	Temporary Shoring	SF	1,550.000	1,550.000	
1150	516.0500	Rubberized Membrane Waterproofing	SY	189.000	153.000	36.000
1160	517.0900.S	Preparation and Coating of Top Flanges (structure) 01. B-32-52	LS	1.000		1.000
1170	517.1010.S	Concrete Staining (structure) 01. B-32-52	SF	1,930.000		1,930.000
1180	517.1010.S	Concrete Staining (structure) 02. B-32-218	SF	13,320.000	13,320.000	
1200	517.1010.S	Concrete Staining (structure) 04. B-32-51	SF	770.000		770.000
1210	517.1015.S	Concrete Staining Multi-Color (structure) 01. B-32-52	SF	1,110.000		1,110.000
1220	517.1015.S	Concrete Staining Multi-Color (structure) 02. B-32-218	SF	6,190.000	6,190.000	
1240	517.1050.S	Architectural Surface Treatment (structure) 01. B-32-52	SF	1,110.000		1,110.000
1250	517.1050.S	Architectural Surface Treatment (structure) 02. B-32-218	SF	6,190.000	6,190.000	
1270	517.3000.S	Structure Overcoating Cleaning and Priming (structure) 01. B-32-52	LS	1.000		1.000
1280	517.4000.S	Containment and Collection of Waste Materials (structure) 01. B-32-52	LS	1.000		1.000
1290	520.2012	Culvert Pipe Temporary 12-Inch	LF	122.000		122.000
1300	520.8000	Concrete Collars for Pipe	EACH	4.000	2.000	2.000
1310	520.8700	Cleaning Culvert Pipes	EACH	3.000	2.000	1.000
1320	521.0112	Culvert Pipe Corrugated Steel 12-Inch	LF	210.000		210.000
1330	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	16.000	7.000	9.000
1340	522.0112	Culvert Pipe Reinforced Concrete Class III 12-Inch	LF	632.000	92.000	540.000
1350	522.0118	Culvert Pipe Reinforced Concrete Class III 18-Inch	LF	112.000	20.000	92.000
1360	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	2,556.000	950.000	1,606.000
1370	522.0136	Culvert Pipe Reinforced Concrete Class III 36-Inch	LF	598.000	280.000	318.000
1380	522.0318	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	34.000		34.000
1390	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1.000		1.000

DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1071-06-79 QUANTITY	1071-06-81 QUANTITY
1400	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	3.000	1.000	2.000
1410	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	26.000	7.000	19.000
1420	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	6.000	3.000	3.000
1430	522.1054	Apron Endwalls for Culvert Pipe Reinforced Concrete 54-Inch	EACH	2.000		2.000
1450	550.2106	Piling CIP Concrete 10 3/4 X 0.365-Inch	LF	20,930.000	20,930.000	
1460	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	6,370.000	292.000	6,078.000
1470	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	509.000	509.000	
1480	601.0555	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	LF	427.000		427.000
1500	602.0405	Concrete Sidewalk 4-Inch	SF	5,971.000		5,971.000
1530	603.1142	Concrete Barrier Type S42	LF	1,005.000	21.000	984.000
1540	603.1456	Concrete Barrier Type S56C	LF	410.000	305.000	105.000
1550	603.3513	Concrete Barrier Transition Type S32 to S36	EACH	2.000		2.000
1560	603.3535	Concrete Barrier Transition Type S36 to S42	EACH	2.000		2.000
1570	603.3559	Concrete Barrier Transition Type S42 to S56	EACH	4.000	2.000	2.000
1580	603.8000	Concrete Barrier Temporary Precast Delivered	LF	22,865.000	14,974.000	7,891.000
1590	603.8125	Concrete Barrier Temporary Precast Installed	LF	22,865.000	14,974.000	7,891.000
1600	604.0400	Slope Paving Concrete	SY	982.000	800.000	182.000
1610	604.0500	Slope Paving Crushed Aggregate	SY	60.000	60.000	
1620	606.0100	Riprap Light	CY	2,235.000	85.000	2,150.000
1630	606.0200	Riprap Medium	CY	68.000		68.000
1640	606.0300	Riprap Heavy	CY	115.000		115.000
1670	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	250.000		250.000
1680	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	66.000		66.000
1740	611.0530	Manhole Covers Type J	EACH	2.000	1.000	1.000
1760	611.0612	Inlet Covers Type C	EACH	1.000	1.000	
1770	611.0624	Inlet Covers Type H	EACH	10.000	2.000	8.000
1790	611.0642	Inlet Covers Type MS	EACH	40.000	20.000	20.000
1800	611.0654	Inlet Covers Type V	EACH	28.000	14.000	14.000
1820	611.2004	Manholes 4-FT Diameter	EACH	1.000		1.000
1840	611.2006	Manholes 6-FT Diameter	EACH	1.000	1.000	
1850	611.2008	Manholes 8-FT Diameter	EACH	1.000	1.000	
1880	611.3225	Inlets 2x2.5-FT	EACH	28.000	14.000	14.000
1890	611.3230	Inlets 2x3-FT	EACH	9.000	1.000	8.000
1910	611.3902	Inlets Median 2 Grate	EACH	20.000	10.000	10.000
1930	611.8120.S	Cover Plates Temporary	EACH	1.000		1.000
1940	612.0212	Pipe Underdrain Unperforated 12-Inch	LF	688.000	316.000	372.000
1950	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	1,320.000	1,245.000	75.000
1960	613.1100.S	Cable Barrier Type 1	LF	11,124.000	7,134.000	3,990.000
1970	613.1200.S	Cable Barrier End Terminal Type 1	EACH	10.000	6.000	4.000
1980	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	16.000	9.000	7.000
1990	614.0200	Steel Thrie Beam Structure Approach	LF	223.000	59.000	164.000
2000	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	7.000	1.000	6.000
2010	614.0230	Steel Thrie Beam	LF	922.000	527.000	395.000

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DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1071-06-79 QUANTITY	1071-06-81 QUANTITY
2020	614.0305	Steel Plate Beam Guard Class A	LF	357.000	357.000	
2030	614.0396	Guardrail Mow Strip Asphalt	SY	4,943.000	3,170.000	1,773.000
2040	614.0800	Crash Cushions Permanent	EACH	6.000	2.000	4.000
2050	614.0905	Crash Cushions Temporary	EACH	14.000	5.000	9.000
2090	614.2300	MGS Guardrail 3	LF	15,623.000	9,470.000	6,153.000
2100	614.2500	MGS Thrie Beam Transition	LF	849.000	510.000	339.000
2110	614.2610	MGS Guardrail Terminal EAT	EACH	22.000	16.000	6.000
2120	614.2620	MGS Guardrail Terminal Type 2	EACH	14.000	13.000	1.000
2130	616.0206	Fence Chain Link 6-FT	LF	18,937.000	9,233.000	9,704.000
2140	616.0329	Gates Chain Link (width) 01. 3.5-FT	EACH	13.000	7.000	6.000
2150	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1071-06-79	EACH	1.000	1.000	
2160	618.0100	Maintenance And Repair of Haul Roads (project) 02. 1071-06-81	EACH	1.000		1.000
2180	619.1000	Mobilization	EACH	0.700	0.400	0.300
2190	620.0300	Concrete Median Sloped Nose	SF	381.000		381.000
2200	624.0100	Water	MGAL	2,330.000	1,110.000	1,220.000
2210	625.0100	Topsoil	SY	10,000.000	5,000.000	5,000.000
2220	625.0500	Salvaged Topsoil	SY	191,800.000	86,200.000	105,600.000
2230	627.0200	Mulching	SY	239,000.000	107,000.000	132,000.000
2240	628.1504	Silt Fence	LF	18,200.000	9,300.000	8,900.000
2250	628.1520	Silt Fence Maintenance	LF	18,200.000	9,300.000	8,900.000
2260	628.1905	Mobilizations Erosion Control	EACH	30.000	15.000	15.000
2270	628.1910	Mobilizations Emergency Erosion Control	EACH	20.000	10.000	10.000
2280	628.2004	Erosion Mat Class I Type B	SY	17,600.000	6,000.000	11,600.000
2300	628.2027	Erosion Mat Class II Type C	SY	19,700.000	19,700.000	
2310	628.6005	Turbidity Barriers	SY	250.000		250.000
2320	628.7005	Inlet Protection Type A	EACH	82.000	46.000	36.000
2330	628.7010	Inlet Protection Type B	EACH	37.000	15.000	22.000
2350	628.7504	Temporary Ditch Checks	LF	615.000	405.000	210.000
2360	628.7555	Culvert Pipe Checks	EACH	112.000	36.000	76.000
2370	628.7560	Tracking Pads	EACH	10.000	5.000	5.000
2380	629.0210	Fertilizer Type B	CWT	220.000	105.000	115.000
2390	630.0120	Seeding Mixture No. 20	LB	5,710.000	2,550.000	3,160.000
2400	630.0130	Seeding Mixture No. 30	LB	2,730.000	1,440.000	1,290.000
2420	630.0200	Seeding Temporary	LB	4,420.000	2,030.000	2,390.000
2430	630.0300	Seeding Borrow Pit	LB	100.000	50.000	50.000
2450	633.0100	Delineator Posts Steel	EACH	290.000	140.000	150.000
2460	633.0500	Delineator Reflectors	EACH	370.000	190.000	180.000
2470	633.1000	Delineator Brackets	EACH	15.000	10.000	5.000
2480	633.1100	Delineators Temporary	EACH	87.000	41.000	46.000
2490	633.5200	Markers Culvert End	EACH	29.000	21.000	8.000
2510	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	17.000	3.000	14.000
2520	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	73.000	10.000	63.000
2530	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	22.000	7.000	15.000
2540	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	43.000	27.000	16.000
2550	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	18.000	4.000	14.000
2560	634.0624	Posts Wood 4x6-Inch X 24-FT	EACH	9.000	9.000	
2570	634.0805	Posts Tubular Steel 2x2-Inch X 5-FT	EACH	6.000		6.000
2580	635.0200	Sign Supports Structural Steel HS	LB	13,200.000	4,700.000	8,500.000
2590	636.0100	Sign Supports Concrete Masonry	CY	134.600	120.000	14.600
2600	636.1000	Sign Supports Steel Reinforcement HS	LB	15,232.000	14,370.000	862.000
2610	637.1220	Signs Type I Reflective SH	SF	4,035.670	2,948.670	1,087.000

DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1071-06-79 QUANTITY	1071-06-81 QUANTITY
2620	637.2210	Signs Type II Reflective H	SF	772.500	209.000	563.500
2640	637.2230	Signs Type II Reflective F	SF	445.500	124.000	321.500
2650	637.3210	Sign S Type III Reflective H	SF	623.750	523.750	100.000
2660	638.2101	Moving Signs Type I	EACH	18.000	15.000	3.000
2670	638.2102	Moving Signs Type II	EACH	64.000	10.000	54.000
2680	638.2601	Removing Signs Type I	EACH	21.000	12.000	9.000
2690	638.2602	Removing Signs Type II	EACH	153.000	30.000	123.000
2700	638.3000	Removing Small Sign Supports	EACH	191.000	54.000	137.000
2710	638.3100	Removing Structural Steel Sign Supports	EACH	30.000	12.000	18.000
2720	638.3620	Erecting State Owned Signs Type II	EACH	16.000	9.000	7.000
2730	638.4000	Moving Small Sign Supports	EACH	95.000	22.000	73.000
2740	641.6600	Sign Bridge (structure) 01. S-32-0057	LS	1.000	1.000	
2750	641.6600	Sign Bridge (structure) 02. S-32-0060	LS	1.000	1.000	
2760	641.6600	Sign Bridge (structure) 03. S-32-0062	LS	1.000	1.000	
2770	641.6600	Sign Bridge (structure) 04. S-32-0063	LS	1.000	1.000	
2780	641.8100	Overhead Sign Support (structure) 01. S-32-0061	LS	1.000	1.000	
2790	642.5201	Field Office Type C	EACH	0.700	0.400	0.300
2800	643.0200	Traffic Control Surveillance and Maintenance (project) 01. 1071-06-79	DAY	218.000	218.000	
2810	643.0200	Traffic Control Surveillance and Maintenance (project) 02. 1071-06-81	DAY	218.000		218.000
2830	643.0300	Traffic Control Drums	DAY	149,400.000	65,400.000	84,000.000
2850	643.0420	Traffic Control Barricades Type III	DAY	14,600.000	7,000.000	7,600.000
2860	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	387.000	100.000	287.000
2870	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	387.000	100.000	287.000
2880	643.0705	Traffic Control Warning Lights Type A	DAY	29,200.000	14,000.000	15,200.000
2890	643.0715	Traffic Control Warning Lights Type C	DAY	13,900.000	7,350.000	6,550.000
2900	643.0800	Traffic Control Arrow Boards	DAY	170.000	170.000	
2910	643.0900	Traffic Control Signs	DAY	24,650.000	13,700.000	10,950.000
2920	643.0910	Traffic Control Covering Signs Type I	EACH	19.000	19.000	
2930	643.0920	Traffic Control Covering Signs Type II	EACH	51.000	44.000	7.000
2940	643.1050	Traffic Control Signs PCMS	DAY	3,370.000	2,030.000	1,340.000
2950	643.2000	Traffic Control Detour (project) 01. 1071-06-79	EACH	1.000	1.000	
2970	643.3000	Traffic Control Detour Signs	DAY	59,100.000	59,100.000	
2980	645.0120	Geotextile Fabric Type HR	SY	370.000		370.000
2990	645.0130	Geotextile Fabric Type R	SY	6,735.000	265.000	6,470.000
3000	646.0106	Pavement Marking Epoxy 4-Inch	LF	105,381.000	57,058.000	48,323.000
3010	646.0126	Pavement Marking Epoxy 8-Inch	LF	2,981.000	2,981.000	
3020	646.0129	Pavement Marking Preformed Plastic 8-Inch	LF	974.000		974.000
3030	646.0600	Removing Pavement Markings	LF	79,151.000	50,535.000	28,616.000
3040	646.0841.S	Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	LF	13,846.000	7,901.000	5,945.000
3050	646.0843.S	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF	5,064.000	5,064.000	
3060	646.0883.S	Pavement Marking Grooved Wet Reflective Tape 8-Inch	LF	12,437.000	7,771.000	4,666.000
3070	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	6.000		6.000
3100	647.0199	Pavement Marking Arrows Preformed Plastic Type 5	EACH	8.000	2.000	6.000
3110	647.0356	Pavement Marking Words Epoxy	EACH	2.000		2.000

DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1071-06-79 QUANTITY	1071-06-81 QUANTITY
3130	647.0456	Pavement Marking Curb Epoxy	LF	50.000		50.000
3140	647.0569	Pavement Marking Stop Line Preformed Plastic 18-Inch	LF	98.000		98.000
3150	647.0606	Pavement Marking Island Nose Epoxy	EACH	4.000		4.000
3180	647.0955	Removing Pavement Markings Arrows	EACH	4.000		4.000
3200	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	37,327.000	8,056.000	29,271.000
3210	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	155,942.000	86,141.000	69,801.000
3230	649.0802	Temporary Pavement Marking Paint 8-Inch	LF	2,048.000	1,743.000	305.000
3250	649.1300	Temporary Pavement Marking Stop Line 24-Inch	LF	64.000		64.000
3260	649.1400	Temporary Pavement Marking Stop Line Removable Tape 24-Inch	LF	228.000		228.000
3290	650.4000	Construction Staking Storm Sewer	EACH	93.000	42.000	51.000
3300	650.4500	Construction Staking Subgrade	LF	43,166.000	18,086.000	25,080.000
3310	650.5000	Construction Staking Base	LF	6,660.000	2,212.000	4,448.000
3320	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	7,306.000	801.000	6,505.000
3330	650.6000	Construction Staking Pipe Culverts	EACH	7.000	1.000	6.000
3340	650.6500	Construction Staking Structure Layout (structure) 01. S-32-57	LS	1.000	1.000	
3350	650.6500	Construction Staking Structure Layout (structure) 02. S-32-60	LS	1.000	1.000	
3360	650.6500	Construction Staking Structure Layout (structure) 03. S-32-61	LS	1.000	1.000	
3370	650.6500	Construction Staking Structure Layout (structure) 04. S-32-62	LS	1.000	1.000	
3380	650.6500	Construction Staking Structure Layout (structure) 05. B-32-218	LS	1.000	1.000	
3400	650.6500	Construction Staking Structure Layout (structure) 10. R-32-64	LS	1.000	1.000	
3410	650.6500	Construction Staking Structure Layout (structure) 11. S-32-63	LS	1.000	1.000	
3420	650.6500	Construction Staking Structure Layout (structure) 12. B-32-39	LS	1.000	1.000	
3430	650.7000	Construction Staking Concrete Pavement	LF	36,506.000	15,874.000	20,632.000
3440	650.7500	Construction Staking Concrete Barrier	LF	1,525.000	375.000	1,150.000
3450	650.8500	Construction Staking Electrical Installations (project) 01. 1071-06-79	LS	1.000	1.000	
3460	650.8500	Construction Staking Electrical Installations (project) 02. 1071-06-81	LS	1.000		1.000
3480	650.9910	Construction Staking Supplemental Control (project) 01. 1071-06-79	LS	1.000	1.000	
3490	650.9910	Construction Staking Supplemental Control (project) 02. 1071-06-81	LS	1.000		1.000
3510	650.9920	Construction Staking Slope Stakes	LF	43,166.000	18,086.000	25,080.000
3520	652.0125	Conduit Rigid Metallic 2-Inch	LF	44.000	20.000	24.000
3530	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,185.000	655.000	530.000
3540	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	775.000	775.000	
3550	652.0605	Conduit Special 2-Inch	LF	300.000	300.000	
3560	652.0700.S	Install Conduit into Existing Item	EACH	15.000	15.000	
3580	653.0135	Pull Boxes Steel 24x36-Inch	EACH	13.000	11.000	2.000
3590	653.0222	Junction Boxes 18x12x6-Inch	EACH	2.000		2.000
3600	653.0905	Removing Pull Boxes	EACH	2.000	2.000	
3610	654.0101	Concrete Bases Type 1	EACH	1.000	1.000	

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DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1071-06-79 QUANTITY	1071-06-81 QUANTITY
3630	654.0105	Concrete Bases Type 5	EACH	11.000	9.000	2.000
3660	654.0220	Concrete Control Cabinet Bases Type 10	EACH	2.000		2.000
3690	655.0230	Cable Traffic Signal 5-14 AWG	LF	420.000	420.000	
3730	655.0510	Electrical Wire Traffic Signals 12 AWG	LF	20,364.000	20,244.000	120.000
3740	655.0525	Electrical Wire Traffic Signals 6 AWG	LF	1,308.000	1,308.000	
3800	657.0100	Pedestal Bases	EACH	3.000	1.000	2.000
3810	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	11.000	9.000	2.000
3840	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	2.000		2.000
4000	662.1026.S	Ramp Closure Gates Hardwired 26-FT	EACH	2.000	2.000	
4010	662.1028.S	Ramp Closure Gates Hardwired 28-FT	EACH	4.000	4.000	
4020	662.1030.S	Ramp Closure Gates Hardwired 30-FT	EACH	1.000	1.000	
4030	662.1040.S	Ramp Closure Gates Hardwired 40-FT	EACH	2.000	2.000	
4040	662.2040.S	Ramp Closure Gates Solar 40-FT	EACH	2.000		2.000
4050	670.0100	Field System Integrator	LS	1.000	1.000	
4060	670.0200	ITS Documentation	LS	1.000	1.000	
4070	671.0112	Conduit HDPE 1-Duct 2-Inch	LF	10,490.000	10,490.000	
4080	671.0212	Conduit HDPE Directional Bore 1-Duct 2-Inch	LF	3,603.000	3,603.000	
4090	671.0300	Fiber Optic Cable Marker	EACH	58.000	58.000	
4100	672.0250	Base Camera Pole 50-FT	EACH	1.000	1.000	
4110	673.0105	Communication Vault Type 1	EACH	10.000	10.000	
4120	673.0225.S	Install Pole Mounted Cabinet	EACH	1.000	1.000	
4130	674.0300	Remove Cable	LF	412.000	412.000	
4140	675.0300	Install Mounted Controller Microwave Detector Assembly	EACH	2.000	2.000	
4150	675.0400.S	Install Ethernet Switch	EACH	3.000	3.000	
4160	676.0300	Signal Assembly Advance Flasher Type 1	EACH	1.000	1.000	
4170	677.0100	Install Camera Pole	EACH	1.000	1.000	
4180	677.0200	Install Camera Assembly	EACH	1.000	1.000	
4190	677.0300.S	Install Video Encoder	EACH	1.000	1.000	
4200	678.0006	Install Fiber Optic Cable Outdoor Plant 6-CT	LF	1,090.000	1,090.000	
4210	678.0036	Install Fiber Optic Cable Outdoor Plant 36-CT	LF	32,186.000	32,186.000	
4220	678.0300	Fiber Optic Splice	EACH	80.000	80.000	
4230	678.0400	Fiber Optic Termination	EACH	30.000	30.000	
4240	678.0500	Communication System Testing	LS	1.000	1.000	
4250	690.0150	Sawing Asphalt	LF	13,421.000	6,139.000	7,282.000
4260	690.0250	Sawing Concrete	LF	2,812.000	669.000	2,143.000
4270	715.0415	Incentive Strength Concrete Pavement	DOL	39,470.000	21,120.000	18,350.000
4280	715.0502	Incentive Strength Concrete Structures	DOL	17,760.000	13,944.000	3,816.000
4300	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,400.000	700.000	700.000
4310	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	4,320.000	2,160.000	2,160.000
4320	SPV.0060	Special 02. Flexable Tubular Marker Bases Left In Place	EACH	141.000	74.000	67.000
4330	SPV.0060	Special 03. Flexable Tubular Marker Posts Left In Place	EACH	141.000	74.000	67.000
4350	SPV.0060	Special 06. Connection To Existing Inlets	EACH	2.000		2.000
4540	SPV.0060	Special 84. Ground Rod	EACH	1.000	1.000	
4590	SPV.0090	Special 04. Concrete Barrier Temporary Precast Left In Place	LF	450.000	450.000	

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DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1071-06-79 QUANTITY	1071-06-81 QUANTITY
4600	SPV.0090	Special 05. Fence Chain Link Polymer-Coated 6-Ft	LF	510.000		510.000
4620	SPV.0105	Special 01. Adjusting Construction Staking Project 1071-06-79	LS	1.000	1.000	
4630	SPV.0105	Special 02. Adjusting Construction Staking Project 1071-06-81	LS	1.000		1.000
4650	SPV.0105	Special 04. Concrete Pavement Joint Layout Project 1071-06-79	LS	1.000	1.000	
4660	SPV.0105	Special 05. Concrete Pavement Joint Layout Project 1071-06-81	LS	1.000		1.000
4680	SPV.0105	Special 10. Undermining Repair	LS	1.000		1.000
4690	SPV.0105	Special 20. Removing Sign Bridge S-32-0024	LS	1.000	1.000	
4700	SPV.0105	Special 21. Removing Sign Bridge S-32-0025	LS	1.000	1.000	
4710	SPV.0105	Special 22. Removing Sign Bridge S-32-0026	LS	1.000	1.000	
4720	SPV.0105	Special 23. Removing Sign Bridge S-32-0034	LS	1.000	1.000	
4730	SPV.0105	Special 80. Remove, Salvage, and Deliver 5.8 GHZ Ethernet Bridge At DMS-32-0052	LS	1.000	1.000	
4740	SPV.0105	Special 81. Remove, Salvage, and Deliver 5.8 GHZ Ethernet Bridge At DMS-32-0053	LS	1.000	1.000	
4750	SPV.0105	Special 82. Remove, Salvage, and Deliver 5.8 GHZ Ethernet Bridge At CCTV-32-0070	LS	1.000	1.000	
4760	SPV.0105	Special 83. Remove, Salvage, and Deliver 5.8 GHZ Ethernet Bridge At CCTV-32-0071	LS	1.000	1.000	
4770	SPV.0105	Special 85. Remove, Salvage, and Relocate Temporary Camera System	LS	1.000	1.000	
4780	SPV.0105	Special 86. Remove, Salvage, and Deliver Temporary Camera System	LS	1.000	1.000	
4800	SPV.0165	Special 02. Wall Concrete Panel Mechanically Stabilized Earth LRFD/QMP **P**	SF	1,475.000	1,475.000	
4810	SPV.0165	Special 03. Shotcrete	SF	765.000		765.000

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CLEARING AND GRUBBING

STATION TO STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
176+00 EB - 182+00 EB	6	6
187+00 EB - 188+00 EB	1	1
189+00 EB - 191+00 EB	2	2
204+00 EB - 206+00 EB	2	2
215+00 EB - 223+00 EB	8	8
227+00 EB - 230+00 EB	3	3
235+00 EB - 239+00 EB	3	3
242+00 EB - 248+00 EB	6	6
279+00 EB - 280+00 EB	1	1
285+00 EB - 311+00 EB	26	26
182+00 EV - 185+00 EV	3	3
200+00 FQ - 204+00 FQ	4	4
271+00 N - 272+00 N	1	1
PROJECT ID 1071-06-79 SUMMARY	**66**	**66**
72+00 EB - 88+00 EB	16	16
88+00 RA - 98+00 RA	10	10
99+00 RA - 100+00 RA	1	1
106+00 RA - 107+00 RA	1	1
124+00 EB - 126+00 EB	2	2
133+00 A - 138+00 A	5	5
139+00 A - 145+00 A	6	6
142+00 D - 147+00 D	5	5
152+00 EB - 159+00 EB	7	7
160+00 EB - 167+00 EB	7	7
PROJECT ID 1071-06-81 SUMMARY	**60**	**60**
PROJECT TOTALS	**126**	**126**

NOTE: CLEARING AND GRUBBING LIMITS EXTENDED TO R/W LIMITS OR 6′ BEYOND R/W FENCE ON AREAS WHERE R/W FENCE IS REPLACED.

REMOVING CURB & GUTTER

STATION TO STATION	204.0150 LF
265+42 J - 267+10 J	168
PROJECT ID 1071-06-79 SUMMARY	**168**
30+01 BN - 36+03 BN	1301
37+02 BN - 42+30 BN	1021
44+51 BN - 48+80 BN	857
49+30 BN - 53+50 BN	841
144+32 A - 144+69 A	108
132+79 B - 133+66 B	105
132+20 B - 136+80 B	532
137+00 B - 139+90 B	290
132+93 C - 133+34 C	113
132+90 C - 134+63 C	188
132+93 C - 133+43 C	153
137+40 C - 138+55 C	115
PROJECT ID 1071-06-81 SUMMARY	**5624**
PROJECT TOTAL	**5792**

REMOVING SMALL PIPE CULVERTS

STATION TO STATION	LOCATION	TYPE	DIAMETER INCHES	LENGTH LF	STAGE	203.0100 EACH
174+95 EB	I90 EB	CMCP	18	96	1	1
198+36 EX	EX RAMP	RCCP	18	46	1	1
197+48 EB - 199+02 EB	LT	CMCP	18	154	1	1
197+45 EB	I90 EB	RCCP	18	72	1	1
226+89 EB - 227+37 EB	LT	CMCP	12	46	1	1
226+89 EB	I90 EB	RCCP	24	92	1	1
269+69 EB	I90 EB	RCCP	30	134	1	1
270+38 N	RT	RCCP	12	34	1	1
272+40 N	RT	CMCP	12	24	1	1
200+25 F - 201+03 F	F RAMP	CMCP	12	80	3A	1
253+50 EB - 258+88 EB	LT	RCCP	18	540	3A	1
258+88 EB	I90 EB	RCCP	24	108	3A	1
283+28 EB - 286+75 EB	LT	RCCP	12	350	3A	1
264+90 J	LT/RT	RCCP	36	26	3A	1
283+52 K - 284+50 K	LT	RCCP	12	112	3A	1
182+54 EB - 183+96 EB	LT	RCCP	12	142	5A	1
183+96 EB - 184+83 EB	LT	RCCP	12	186	5A	1
286+75 EB - 290+70 EB	LT	RCCP	12	396	5A	1
315+12 EB - 319+40 EB	LT	CMCP	15	428	5A	1
PROJECT ID 1071-06-79 SUMMARY						**19**
73+00 EB	I90 EB	CMCP	18	86	2A	1
85+00 EB	I90 EB	CMCP	18	84	2A	1
90+98 EB	I90 EB	CMCP	18	98	2A	1
95+53 RA	RAMP RA	CMCP	18	62	2A	1
100+17 EB	I90 EB	CMCP	18	72	2A	1
106+97 EB	I90 EB	RCCP	18	98	2A	1
142+95 EB	I90 EB	RCCP	36	170	2A/2C	1
35+05 BS	LT	CMCP	18	28	2A	1
50+51 BS	LT	CMCP	18	46	2A	1
144+37 A	RT	RCCP	24	70	2A	1
118+97 EB	I90 EB	RCCP	24	100	2A	1
41+91 BS	RT	CMCP	12	80	2A	1
140+78 C	RT	RCCP	24	56	2A	1
133+00 EB - 134+45 EB	LT	CMCP	12	148	2B	1
136+00 C	LT/RT	RCCP	24	96	2B/2C	1
133+00 B - 133+35 B	RAMP B	RCCP	12	42	2C	1
136+46 B	RT	CMCP	24	20	2C	1
138+98 C	LT/RT	CMCP	24	30	2C	1
145+83 EB - 147+62 EB	LT	CMCP	12	178	3A	1
31+75 BN	LT	RCCP	18	40	4A	1
37+07 BN	LT	RCCP	24	76	4A	1
48+38 BN	LT	RCCP	24	120	4A	1
42+10 BN	RT	CMCP	12	84	4A	1
PROJECT ID 1071-06-81 SUMMARY						**23**
PROJECT TOTAL						**42**

REMOVING OLD STRUCTURE

ITEM	PROJECT	CATEGORY	STATION	DESCRIPTION	203.0200 LS
203.0200.01	1071-06-79	0010	234+00 EB	B-32-43	1

REMOVING PAVEMENT

STATION TO STATION	LOCATION	204.0100 SY
174+24 EB - 191+79 EB	EB LANES	4940
194+86 EB - 212+16 EB	EB LANES	5200
215+80 EB - 233+25 EB	EB LANES	5055
234+60 EB - 248+99 EB	EB LANES	3529
249+29 EB - 310+02 EB	EB LANES	19025
311+60 EB - 312+07 EB	EB LANES	185
180+38 EB - 185+27 EV	RAMP EV	815
195+09 EX - 199+40 EX	RAMP EX	805
200+41 FV - 207+12 FV	RAMP FV	1100
253+51 J - 265+42 J	RAMP J	2251
268+36 N - 274+00 N	RAMP N	1110
285+02 K - 290+13 K	RAMP K	850
PROJECT ID 1071-06-79 SUMMARY		**44865**
71+97 EB - 97+60 EB	EB LANES	6940
98+97 EB - 168+86 EB	EB LANES	19620
88+40 RA - 97+64 RA	RAMP RA	1440
98+99 RA - 99+18.80 RA	RAMP RA	52
105+25 RA - 113+31 RA	RAMP RA	1385
130+95 A - 144+67 A	RAMP A	2625
132+10 B - 146+46 B	RAMP B	3220
132+74 C - 141+55 C	RAMP C	1990
138+25 D - 146+82 D	RAMP D	1705
PROJECT ID 1071-06-81 SUMMARY		**38977**
PROJECT TOTAL		**83842**

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ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REMOVING GUARDRAIL

STATION TO STATION	LOCATION	204.0165 LF
174+30 EB - 180+67 EB	RT	637
174+55 EB - 177+71 EB	WB LANES	316
174+62 EB	MEDIAN	40
188+64 EB - 191+42 EB	RT	278
189+78 EB - 191+90 EB	LT	212
191+89 EB	MEDIAN	43
194+65 EB - 195+78 EB	RT	114
195+24 EB - 197+89 EB	LT	265
195+50 EB	MEDIAN	55
208+54 EB - 211+87 EB	RT	333
209+15 EB - 212+32 EB	WB LANES	317
210+07 EB - 212+16 EB	LT	209
212+17 EB	MEDIAN	40
215+82 EB - 217+13 EB	RT	131
216+11 EB - 218+38 EB	LT	227
216+14 EB	MEDIAN	40
216+27 EB - 219+06 EB	WB LANES	279
230+16 EB - 233+23 EB	RT	307
230+69 EB - 236+71 EB	WB LANES	602
231+10 EB - 233+10 EB	LT	200
233+09 EB	MEDIAN	40
245+25 EB - 247+89 EB	LT	264
245+46 EB - 247+90 EB	RT	244
275+00 EB - 276+12 EB	RT	112
291+26 EB - 292+15 EB	RT	89
291+30 EB - 292+17 EB	LT	87
306+82 EB - 309+97 EB	WB LANES	315
307+81 EB - 310+01 EB	RT	220
308+22 EB - 310+03 EB	LT	181
311+60 EB - 312+66 EB	LT	106
311+60 EB - 312+68 EB	RT	108
CATEGORY TOTAL		**6411**
PROJECT ID 1071-06-79 SUMMARY		**6786 ***
72+07 EB - 87+07 EB	RT	1500
72+07 EB - 75+23 EB	WB LANES	316
72+07 EB	MEDIAN	40
94+32 EB - 97+48 EB	WB LANES	316
95+53 EB - 97+50 EB	RT	377
97+50 EB	RT MEDIAN	21
97+50 EB	LT MEDIAN	40
95+44 EB - 97+50 EB	LT	206
96+24 RA - 97+54 RA	RT	130
99+08 EB - 107+36 EB	LT	828
99+10 EB	LT MEDIAN	40
102+57 EB - 106+47 EB	RT	780
104+78 RA - 106+54 RA	RT	176
40+63 BN - 42+05 BN	LT	142
36+28 BN - 42+18 BN	RT	590
44+63 BN - 47+92 BN	LT	331
44+72 BN - 50+54 BN	RT	582
148+92 EB - 168+45 EB	RT	1953
165+83 EB - 168+74 EB	WB LANES	291
166+38 EB - 168+56 EB	LT	218
168+56 EB	MEDIAN	40
CATEGORY TOTAL		**8917**
PROJECT ID 1071-06-81 SUMMARY		**8917**
PROJECT TOTAL		**15328 ***

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

REMOVING FENCE

STATION TO STATION	LOCATION	204.0170 LF
174+29 EB	MEDIAN	48
174+17 EB - 185+39 EV	RT	1117
201+00 F - 211+96 EB	RT	1170
215+71 EB - 233+31 EB	RT	1870
234+68 EB - 248+27 EB	RT	1444
249+00 EB - 259+47 EB	RT	1054
285+40 EB - 310+02 EB	RT	2460
310+02 EB	MEDIAN	47
311+55 EB	MEDIAN	47
311+59 EB	RT	49
PROJECT ID 1071-06-79 SUMMARY		**9306**
71+96 EB	MEDIAN	45
71+96 EB - 97+65 RA	RT	2608
97+61 EB	LT MEDIAN	47
97+61 EB	RT MEDIAN	25
98+97 EB	LT MEDIAN	47
98+97 EB	RT MEDIAN	25
98+97 RA - 99+12.80 RA	RT	27
106+80 EB - 131+90 EB	RT	2510
132+00 A - 144+60 A	RT	1285
138+20 D - 145+82 D	LT	910
145+21 EB - 168+57 EB	RT	2363
168+66 EB	MEDIAN	50
PROJECT ID 1071-06-81 SUMMARY		**9942**
PROJECT TOTAL		**19248**

REMOVING CONCRETE SLOPE PAVING

STATION TO STATION	LOCATION	204.0175 SY
272+90 - 273+53	RT	80
273+95 - 274+56	RT	75
PROJECT ID 1071-06-79 SUMMARY		**155**
NONE		---
PROJECT ID 1071-06-81 SUMMARY		**---**
PROJECT TOTAL		**155**

REMOVING DELINEATOR AND MARKERS

STATION TO STATION	LOCATION	204.0180 EACH
174+40 EB - 192+86 EB	EB LANES	10
195+80 EB - 212+49 EB	EB LANES	25
215+98 EB - 232+85 EB	EB LANES	10
234+14 EB - 247+77 EB	EB LANES	10
249+06 EB - 310+05 EB	EB LANES	30
311+65 EB - 312+07 EB	EB LANES	5
PROJECT ID 1071-06-79 SUMMARY		**90**
71+97 EB - 97+60 EB	EB LANES	15
98+97 EB - 168+86 EB	EB LANES	35
PROJECT ID 1071-06-81 SUMMARY		**50**
PROJECT TOTAL		**140**

REMOVING SURFACE DRAINS

STATION	LOCATION	204.0190 EACH
191+75 EB	LT	1
194+63 EB	LT	1
233+00 EB	LT	1
PROJECT ID 1071-06-79 SUMMARY		**3**
212+00 EB	LT/RT	2
311+60 EB	RT	1
42+10 BN	RT	1
41+91 BS	LT	1
PROJECT ID 1071-06-81 SUMMARY		**5**
PROJECT TOTAL		**8**

ABANDONING CULVERT PIPES

STATION	204.0270 EACH
264+90 J	1
PROJECT ID 1071-06-79 SUMMARY	**1**
119+00 EB	1
142+95 EB (WB LANES)	1
143+43 A	1
139+97 B	1
136+00 C	1
PROJECT ID 1071-06-81 SUMMARY	**5**
PROJECT TOTAL	**6**

REMOVING INLETS

STATION	LOCATION	STAGE	204.0220 EACH
198+36 EX	RT	1	1
211+85 EB	RT	1	1
226+89 EB	LT	1	1
227+37 EB	LT	1	1
269+69 EB	LT	1	1
283+28 EB	LT	1	1
282+90 K	LT	1	1
270+38 N	RT	1	1
272+40 N	RT	1	1
253+50 EB	LT	3A	1
258+88 EB	LT	3A	1
286+75 EB	LT	3A	1
258+91 J	RT	3A	1
264+90 J	RT	3A	1
284+50 K	LT	3A	1
182+54 EB	LT	5A	1
183+86 EB	LT	5A	1
184+83 EB	LT	5A	1
206+07 EB	LT	5A	1
235+22 EB	LT	5A	1
290+70 EB	LT	5A	1
PROJECT ID 1071-06-79 SUMMARY			**21**
35+05 BS	LT	2A	1
50+51 BS	LT	2A	1
144+37 A	RT	2A	1
138+98 C	LT	2A	1
140+78 C	LT	2A	1
100+17 EB	RT	2A	1
106+97 EB	RT	2A	1
142+95 EB	LT	2A	1
143+25 D	RT	2A	1
136+00 C	RT	2B	1
133+00 B	LT	2C	1
133+35 B	RT	2C	1
136+46 B	RT	2C	1
31+75 BN	LT	4A	1
37+07 BN	LT	4A	1
48+38 BN	LT	4A	1
PROJECT ID 1071-06-81 SUMMARY			**16**
PROJECT TOTAL			**37**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

REMOVING CRASH CUSHIONS LEFT IN PLACE

STATION	LOCATION	204.9060.S.03 EACH
252+18 EB	WB LANES	1
PROJECT ID 1071-06-79 SUMMARY		**1**
128+50 EB	LT	1
PROJECT ID 1071-06-81 SUMMARY		**1**
PROJECT TOTAL		**2**

REMOVING FLEXIBLE TUBULAR MARKER POSTS AND BASES

STATION TO STATION	LOCATION	204.9060.S.01 EACH
201+90 FU - 202+30 FU	LT/RT	5
220+30 WB - 226+30 WB	RT	61
279+25 KT - 280+50 KT	LT/RT	14
285+50 WB - 286+90 WB	RT	5
288+80 WB - 289+20 WB	RT	8
315+90 WB - 318+50 WB	RT	27
UNDISTRIBUTED		
PROJECT ID 1071-06-79 SUMMARY		**120**
136+60 D - 138+25 D	RT	17
141+00 C - 143+00 C	LT	21
146+80 WB - 147+50 WB	RT	7
159+00 WB - 162+50 WB	RT	36
UNDISTRIBUTED		
PROJECT ID 1071-06-81 SUMMARY		**81**
PROJECT TOTAL		**201**

REMOVING APRON ENDWALL FOR PIPE UNDERDRAIN

LOCATION	204.9060.S.02 EACH
EB LANES UNDISTRIBUTED	1
PROJECT ID 1071-06-79 SUMMARY	**1**
NONE	---
PROJECT ID 1071-06-81 SUMMARY	**---**
PROJECT TOTAL	**1**

REMOVING PIPE UNDERDRAIN

STATION TO STATION	LOCATION	204.9090.S.01 LF
311+60 EB - 312+07 EB	RT	47
PROJECT ID 1071-06-79 SUMMARY		**47**
NONE		
PROJECT ID 1071-06-81 SUMMARY		**---**
PROJECT TOTAL		**47**

REMOVING CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE

STATION TO STATION	LOCATION	204.9090.S.02 LF
174+38 EB - 177+88 EB	LT	350
249+38 EB - 252+18 EB	WB LANES	264
PROJECT ID 1071-06-79 SUMMARY		**614**
128+50 EB - 132+50 EB	LT	400
131+50 EB - 133+71 EB	WB LANES	225
PROJECT ID 1071-06-81 SUMMARY		**625**
PROJECT TOTAL		**1239**

BACKFILL CONTROLLED LOW STRENGTH

STATION	209.0200.S CY
264+90 J	23
PROJECT ID 1071-06-79 SUMMARY	**23**
118+97 EB	8
142+95 EB	31
143+43 A	40
139+97 B	8
136+00 C	3
PROJECT ID 1071-06-81 SUMMARY	**90**
PROJECT TOTAL	**113**

FINISHING ROADWAY

LOCATION	213.0100 EACH
01. 1071-06-79	1
PROJECT ID 1071-06-79 SUMMARY	**1**
02. 1071-06-81	1
PROJECT ID 1071-06-81 SUMMARY	**1**
PROJECT TOTAL	**2**

SELECT CRUSHED MATERIAL

STATION	312.0110 TON
UNDISTRIBUTED	100
PROJECT ID 1071-06-79 SUMMARY	**100**
UNDISTRIBUTED	100
PROJECT ID 1071-06-81 SUMMARY	**100**
PROJECT TOTAL	**200**

BASE AGGREGATE DENSE

STATION TO STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON
SHOULDERS	WB LANES	200	---
174+44 EB - 191+28 EB	EB LANES	790	4570
195+38 EB - 211+92 EB	EB LANES	410	5250
216+05 EB - 247+84 EB	EB LANES	1640	10480
249+29 EB - 309+86 EB	EB LANES	2670	15880
311+85 EB - 321+80 EB	EB LANES	200	1700
180+38 E - 186+05 E	RAMP E	97	430
199+80 F - 206+74 F	RAMP F	39	340
253+52 J - 266+00 J	RAMP J	480	2330
268+36 N - 272+52 N	RAMP N	40	420
285+02 K - 287+15 K	RAMP K	40	270
B-32-39 APPROACHES	PAVED SHLD	---	20
B-32-107 APPROACHES	PAVED SHLD	---	10
B-32-190 APPROACHES	PAVED SHLD	---	10
B-32-34 APPROACHES	PAVED SHLD	---	10
B-32-218 APPROACHES	PAVED SHLD	---	10
182+62 EV - 184+34 EV	EV RAMP	---	190
184+92 EW - 186+00 EW	EW RAMP	10	160
195+09 EX - 199+40 EX	EX RAMP	20	730
200+44 FQ - 203+73 FQ	FQ RAMP	20	430
181+32 EU - 182+52 EU	EU RAMP	10	240
259+65 JV - 267+41 JV	JV RAMP	40	1170
287+15 KU - 288+71 KU	KU RAMP	10	310
PROJECT ID 1071-06-79 SUMMARY		**6715**	**44960**
SHOULDERS	WB LANES	200	---
72+13 EB - 97+43 EB	EB LANES	560	8260
99+14 EB - 168+61 EB	EB LANES	3060	19020
88+40 RA - 97+48 RA	REST AREA	330	1670
99+13 RA - 99+12.80 RA	REST AREA	10	40
105+25 RA - 113+31 RA	REST AREA	290	1180
130+95 A - 144+89 A	RAMP A	470	2210
131+84 B - 146+47 B	RAMP B	170	1530
30+00 BN - 42+14 BN	CTH B NB	80	2060
132+74 C - 142+00 C	RAMP C	110	1360
138+00 D - 147+03 D	RAMP D	170	1300
30+00 BS - 42+01 BS	CTH B SB	80	1500
44+70 BN - 53+50 BN	CTH B NB	60	1540
44+57 BS - 53+41 BS	CTH B SB	60	1120
B-32-47 APPROACH	PAVED SHLDS	---	10
B-32-75 APPROACH	PAVED SHLDS	---	10
B-32-48 APPROACH	PAVED SHLDS	---	10
28+17 BN - 57+53 BN	TEMP LANE WIDENING	80	1710
134+90 AT - 145+00 AT	TEMP RAMP AT	60	1670
133+48 BT - 148+22 BT	TEMP RAMP BT	80	2410
130+64 AU - 132+31 AU	TEMP RAMP AU	10	330
138+94 BU - 146+60 BU	TEMP RAMP BU	40	820
133+79 CV - 140+75 CV	TEMP RAMP CV	40	1630
138+31 DV - 141+90 DV	TEMP RAMP DV	20	670
142+45 A - 144+63 A	TEMP LANE WIDENING	10	410
132+98 C - 134+70 C	TEMP LANE WIDENING	10	300
PROJECT ID 1071-06-81 SUMMARY		**6000**	**52770**
PROJECT TOTALS		**12715**	**97730**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

EARTHWORK SUMMARY

DIVISION	PROJECT	STATION TO STATION	LOCATION	205.0100 EXCAVATION COMMON CUT CY	205.0100 EXCAVATION COMMON EBS (8) CY	SALVAGED/ UNUSABLE PAVEMENT MATERIAL CY	(6) AVAILABLE MATERIAL CY	(9) EXPANDED EBS BACKFILL CY	(1) REDUCED EBS IN FILL CY	UNEXPANDED FILL CY	(2) (4) EXPANDED FILL CY	(5) MASS ORDINATE +/- CY	(3) 208.1100 SELECT BORROW CY
	1071-06-79	174+23 EB - 191+58 EB	EB LANES	6396	3150	1235	5161	4095	2520	10605	13392	-8232	
	1071-06-79	195+40 EB - 212+19 EB	EB LANES	4624	1300	1300	3324	1690	1040	5678	7024	-3700	
	1071-06-79	215+81 EB - 248+00 EB	EB LANES	13073	6100	2146	10927	7930	4880	25525	31672	-20745	
	1071-06-79	249+44 EB - 310+02 EB	EB LANES	25932	11100	4756	21176	14430	8880	4462	9349	11827	
	1071-06-79	311+60 EB - 312+07 EB	EB LANES	2385	100	46	2339	130	80	37	80	2259	
	1071-06-79	180+38 E - 186+05 E	RAMP E	763	200	---	763	260	160	1561	1871	-1108	
	1071-06-79	199+80 F - 206+74 F	RAMP F	414	200	---	414	260	160	356	486	-72	
	1071-06-79	253+52 J - 266+00 J	RAMP J	1444	370	563	881	481	296	1098	1403	-521	
	1071-06-79	285+02 K - 287+13 K	RAMP K	384	80	213	171	104	64	49	87	85	
	1071-06-79	268+36 N - 272+52 N	RAMP N	345	150	278	68	195	120	---	57	11	
	1071-06-79	181+25 EU - 182+52 EU	TEMP RAMP EU	24	---	---	24	---	---	84	96	-72	
	1071-06-79	182+38 EV - 185+26 EV	RAMP EV	478	---	204	275	---	---	281	323	-48	
	1071-06-79	184+93 EW - 186+00 EW	RAMP EW	68	---	---	68	---	---	116	133	-65	
	1071-06-79	199+54 FQ - 203+73 FQ	RAMP FQ	111	---	275	-164	---	---	1957	2251	-2415	
	1071-06-79	259+65 JV - 267+41 JV	TEMP RAMP JV	216	---	---	216	---	---	1503	1728	-1512	
	1071-06-79	287+15 KU - 288+71 KU	TEMP RAMP KU	24	---	---	24	---	---	72	83	-58	
	1071-06-79	195+09 EX - 199+40 EX	EX RAMP	75	---	201	-127	---	---	1789	2058	-2184	
	1071-06-81	71+97 EB - 97+57 EB	EB LANES	5500	1900	1735	3765	2470	1520	2510	3609	156	
	1071-06-81	98+99 EB - 168+66 EB	EB LANES	31231	10634	4905	26326	13824	8507	5679	10572	15754	
	1071-06-81	30+00 BN - 53+50 BN	CTH B	6956	890	774	6182	1157	712	1475	2034	4148	
	1071-06-81	130+95 A - 144+89 A	RAMP A	3309	560	656	2653	728	448	1730	2203	450	
	1071-06-81	131+84 B - 146+47 B	RAMP B	3865	560	805	3060	728	448	135	368	2692	
	1071-06-81	132+74 C - 142+00 C	RAMP C	3679	300	498	3181	390	240	89	216	2965	
	1071-06-81	138+00 D - 147+03 D	RAMP D	2893	370	426	2467	481	296	2253	2731	-264	
	1071-06-81	88+40 RA - 99+12.80 RA	REST AREA	1757	750	381	1375	975	600	8	294	1081	
	1071-06-81	105+25 RA - 113+31 RA	REST AREA	1342	450	346	996	585	360	1	172	824	
	1071-06-81	28+17 BN - 36+62 BN	TEMP WIDENING	560	---	---	560	---	---	157	180	380	
	1071-06-81	50+50 BN-57+53 BN	TEMP WIDENING	562	---	---	562	---	---	28	32	530	
	1071-06-82	30+00 BS - 55+69 BS	TEMP REMOVAL	411	---	---	411	---	---	---	---	411	
	1071-06-81	134+90 AT - 145+00 AT	TEMP RAMP AT	363	---	---	363	---	---	256	294	69	
	1071-06-81	133+48 BT - 148+22 BT	TEMP RAMP BT	809	---	---	809	---	---	399	459	351	
	1071-06-81	130+64 AU - 131+38 AU	TEMP RAMP AU	106	---	---	106	---	---	10	12	94	
	1071-06-81	138+94 BU - 141+16 BU	TEMP RAMP BU	125	---	---	125	---	---	32	37	88	
	1071-06-81	144+50 BU - 146+60 BU	TEMP RAMP BU	109	---	---	109	---	---	31	36	74	
	1071-06-81	133+79 CV - 140+75 CV	TEMP RAMP CV	624	---	---	624	---	---	2006	2307	-1683	
	1071-06-81	138+31 DV - 141+90 DV	TEMP RAMP DV	52	---	---	52	---	---	627	721	-669	
DIVISION 1 SUBTOTAL				121011	39164	21743	99269	50913	31331	72597	98369	900	
		UNDISTRIBUTED (7)											15000
PROJECT ID 1071-06-79 SUMMARY				**79508**									**8000**
PROJECT ID 1071-06-81 SUMMARY				**80667**									**7000**
PROJECT TOTALS				**160175**									**15000**

(1) REDUCED EBS IN FILL IS EXCAVATED EBS MATERIAL THAT IS USUABLE OUTSIDE THE 1:1 SLOPES. EBS IN FILL REDUCTION FACTOR = 0.8
(2) EXPANSION FACTOR = 1.15
(3) SELECT BORROW = EXPANDED FILL - EXCAVATION COMMON
(4) EXPANDED FILL = (UNEXPANDED FILL - REDUCED EBS)* EXPANSION FACTOR + EXPANDED EBS BACKFILL
(5) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(6) AVAILABLE MATERIAL = COMMON EXCAVATION - SALVAGED/UNUSABLE MATERIAL
(7) UNDISTRIBUTED SELECT BORROW IS INCLUDED TO ACCOUNT FOR LACK OF AVAILABILITY OF MATERIALS DURING STAGING AND POTENTIAL UNUSABLE MATERIALS WITHIN THE PROJECT DURING THE EARLY STAGES OF CONSTRUCTION.
(8) EBS QUANTITY IS BASED ON OBSERVED TOPSOIL IN EXCESS OF 1' IN SOME AREAS AND AREAS SHOWN IN THE CROSS SECTIONS. QUANTITIES SHOWN ARE UNDISTRIBUTED. VOLUMES LOCATED ALONG TEMPORARY ALIGNMENTS ARE INCLUDED WITHIN THE VOLUMES FOR PERMANENT ALIGNMENTS. EBS IS NOT INCLUDED IN THE EARTHWORK DATA TABLE.
(9) EXPANDED EBS BACKFILL 1.3

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

CONCRETE PAVEMENT

STATION TO STATION	LOCATION	415.0080 8-INCH SY	415.0090 9-INCH SY	415.0120 12-INCH SY
174+44 EB - 191+28 EB	EB LANES	---	---	7686
195+38 EB - 211+92 EB	EB LANES	---	---	8440
216+05 EB - 247+84 EB	EB LANES	---	---	18478
249+29 EB - 309+86 EB	EB LANES	---	---	31462
311+85 EB - 312+07 EB	EB LANES	---	---	170
180+38 E - 186+05 E	RAMP E	---	572	---
199+80 F - 206+74 F	RAMP F	---	681	---
253+52 J - 266+00 J	RAMP J	---	2086	---
268+36 N - 272+52 N	RAMP N	---	695	---
285+02 K - 287+15 K	RAMP K	---	357	---
B-32-39 APPROACHES	PAVED SHLD	---	---	67
B-32-107 APPROACHES	PAVED SHLD	---	---	35
B-32-190 APPROACHES	PAVED SHLD	---	---	27
B-32-34 APPROACHES	PAVED SHLD	---	---	25
B-32-218 APPROACHES	PAVED SHLD	---	---	25
PROJECT ID 1071-06-79 SUMMARY		---	**4391**	**66415**
72+13 EB - 97+43 EB	EB LANES	---	---	10932
99+14 EB - 168+61 EB	EB LANES	---	---	30841
88+40 RA - 97+48 RA	REST AREA	1161	---	---
105+25 RA - 113+31 RA	REST AREA	844	---	---
130+95 A - 144+89 A	RAMP A	2666	---	---
131+84 B - 146+47 B	RAMP B	2183	---	---
30+00 BN - 42+14 BN	CTH B NB	2237	---	---
132+74 C - 142+00 C	RAMP C	2354	---	---
138+00 D - 147+03 D	RAMP D	1859	---	---
30+00 BS - 42+01 BS	CTH B SB	2422	---	---
44+70 BN - 53+50 BN	CTH B NB	1614	---	---
44+57 BS - 53+41 BS	CTH B SB	2016	---	---
B-32-47 APPROACH	PAVED SHLDS	---	---	20
B-32-75 APPROACH	PAVED SHLDS	40	---	---
B-32-48 APPROACH	PAVED SHLDS	---	---	25
PROJECT ID 1071-06-81 SUMMARY		**19396**	**---**	**41818**
PROJECT TOTALS		**19396**	**4391**	**108233**

DRILLED DOWEL BARS

STATION	LOCATION	416.0620 EACH
265+41 J	J RAMP	37
268+36 N	N RAMP	14
285+02 K	K RAMP	14
312+07 EB	EB LANES	35
PROJECT ID 1071-06-79 SUMMARY		**100**
105+25 RA	RA RAMP	14
PROJECT ID 1071-06-81 SUMMARY		**14**
PROJECT TOTAL		**114**

CONCRETE PAVEMENT APPROACH SLAB

STATION	LOCATION	415.0410 SY
174+25 EB	B-32-34 (EAST END)	50
191+40 EB	B-32-218 (WEST END)	90
195+60 EB	B-32-218 (EAST END)	93
212+00 EB	B-32-39 (WEST END)	93
216+00 EB	B-32-39 (EAST END)	92
247+85 EB	B-32-107 (WEST END)	60
249+30 EB	B-32-107 (EAST SIDE)	60
310+00 EB	B-32-189 (WEST SIDE)	60
311+75 EB	B-32-189 (EAST SIDE)	65
PROJECT ID 1071-06-79 SUMMARY		**663**
72+00 EB	B-32-46 (EAST END)	40
97+50 EB	B-32-48 (WEST END)	40
99+10 EB	B-32-48 (EAST END)	40
97+50 RA	B-32-75 (EAST END)	25
98+90 RA	B-32-75 (WEST END)	25
168+50 EB	B-32-34 (WEST END)	50
42+25 BN	B-32-52 (SOUTH END)	24
42+10 BS	B-32-52 (SOUTH END)	23
44+60 BN	B-32-52 (NORTH END)	23
44+50 BS	B-32-52 (NORTH END)	24
PROJECT ID 1071-06-81 SUMMARY		**314**
PROJECT TOTAL		**977**

DRILLED TIE BARS

STATION TO STATION	LOCATION	416.0610 EACH
174+17 EB - 174+42 EB	RT/LT	20
191+13 EB - 191+86 EB	RT/LT	24
195+07 EB - 195+85 EB	RT/LT	15
211+75 EB - 212+29 EB	RT/LT	32
215+58 EB - 216+11 EB	RT/LT	27
247+85 EB - 247+99 EB	RT/LT	15
249+29 EB - 249+51 EB	RT/LT	22
261+80 J - 267+10 J	LT	265
309+86 EB - 310+02 EB	RT/LT	15
311+60 EB - 311+76 EB	RT/LT	16
PROJECT ID 1071-06-79 SUMMARY		**451**
97+35 EB - 97+59 EB	RT/LT	24
97+40 RA - 97+64 EB	RT/LT	20
98+97 EB - 99+12 EB	RT/LT	15
98+98 RA - 99+13 RA	RT/LT	15
41+85 BS - 42+15 BS	LT	15
42+03 BN - 42+31 BN	RT	14
168+33 EB - 168+66 EB	RT/LT	24
PROJECT ID 1071-06-81 SUMMARY		**127**
PROJECT TOTAL		**578**

ROUTE AND SEAL

STATION - STATION	LOCATION	415.6000.S LF
174+41 EB - 177+08 EB	LT SHOULDER	267
175+22 EB - 182+62 EB	RT SHOULDER	740
185+52 EB - 191+43 EB	LT SHOULDER	591
195+71 EB - 200+97 EB	LT SHOULDER	526
210+94 EB - 211+93 EB	RT SHOULDER	99
216+11 EB - 232+72 EB	MEDIAN CROSSOVER	1661
245+02 EB - 247+84 EB	LT SHOULDER	282
249+51 EB - 256+55 EB	LT SHOULDER	704
256+38 EB - 258+72 EB	RT SHOULDER	234
272+51 EB - 280+10 EB	RT SHOULDER	759
299+50 EB - 300+00 EB	MEDIAN CROSSOVER	50
306+82 EB - 309+87 EB	LT SHOULDER	305
180+38 E - 186+05 E	LT SHOULDER	567
182+62 EV - 184+34 EV	RT SHOULDER	172
183+64 EV - 184+87 EV	LT SHOULDER	123
184+92 EW - 186+00 EW	RAMP EW	108
195+09 EX - 199+40 EX	RAMP EX	431
199+80 F - 201+35 F	LT SHOULDER	155
200+41 FW - 203+70 FW	RAMP FW	329
258+72 J - 266+00 J	RT SHOULDER	728
261+11 J - 266+48 J	LT SHOULDER	537
285+02 K - 286+73 K	RT SHOULDER	171
270+26 N - 272+51 N	RT SHOULDER	225
PROJECT ID 1071-06-79 SUMMARY		**9764**
72+52 WB 72+63 WB	RT SHOULDER	11
72+12 EB - 72+52 EB	LT SHOULDER	40
78+62 EB - 83+80 EB	MEDIAN CROSSOVER	518
82+40 EB - 89+00 EB	RT SHOULDER	660
95+86 EB - 97+35 EB	LT SHOULDER	149
96+27 EB - 96+89 EB	RT SHOULDER	62
99+12 EB - 107+02 EB	LT SHOULDER	790
110+27 EB - 120+98 EB	RT SHOULDER	1071
126+40 EB - 133+01 EB	RT SHOULDER	661
144+46 EB - 157+84 EB	RT SHOULDER	1338
153+70 EB - 166+00 EB	MEDIAN CROSSOVER	1230
167+15 EB - 168+41 EB	LT SHOULDER	126
133+00 A - 142+13 A	LT SHOULDER	913
134+42 A - 139+85 A	RT SHOULDER	543
90+72 RA - 97+40 RA	RT SHOULDER	668
93+32 RA - 97+48 RA	LT SHOULDER	416
105+25 RA - 110+31 RA	RT SHOULDER	506
105+25 RA - 106+61 RA	LT SHOULDER	136
136+66 B - 144+37 B	LT SHOULDER	771
139+11 B - 143+45 B	RT SHOULDER	434
139+65 C - 142+18 C	RT SHOULDER	253
141+63 C - 143+35 C	LT SHOULDER	172
138+00 D - 145+60 D	LT SHOULDER	760
138+00 D - 140+79 D	RT SHOULDER	279
30+00 BN - 42+04 BN	RT SHOULDER	1204
30+00 BS - 34+48 BS	LT SHOULDER	448
39+78 BS - 41+85 BS	LT SHOULDER	207
44+86 BN - 53+50 BN	RT SHOULDER	864
44+57 BS - 47+09 BS	LT SHOULDER	252
52+68 BS - 53+47 BS	LT SHOULDER	79
PROJECT ID 1071-06-81 SUMMARY		**15561**
PROJECT TOTAL		**25325**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

HMA PAVEMENT ITEMS

STATION TO STATION	LOCATION	460.1100 HMA PAVEMENT TYPE E-0.3 TON	460.1110 HMA PAVEMENT TYPE E-10 TON	460.4000 HMA COLD WEATHER PAVING TON	465.0105 ASPHALTIC SURFACE TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	455.0105 ASPHALTIC MATERIAL PG58-28 TON
174+41 EB - 177+08 EB	LT SHOULDER	12	---	---	---	---	0.7
177+75 EB - 182+62 EB	RT SHOULDER	102	---	---	---	---	5.6
185+52 EB - 191+43 EB	LT SHOULDER	139	---	---	---	---	7.6
195+71 EB - 200+97 EB	LT SHOULDER	142	---	---	---	---	7.8
210+94 EB - 211+93 EB	RT SHOULDER	16	---	---	---	---	0.9
216+11 EB - 232+72 EB	MEDIAN CROSSOVER	---	688	---	---	---	37.8
245+02 EB - 247+84 EB	LT SHOULDER	38	---	---	---	---	2.1
249+51 EB - 256+55 EB	LT SHOULDER	80	---	---	---	---	4.4
256+38 EB - 258+72 EB	RT SHOULDER	36	---	---	---	---	2.0
276+00 EB - 280+10 EB	RT SHOULDER	78	---	---	---	---	4.3
299+67 EB	MEDIAN CROSSOVER	---	24	---	---	---	1.3
306+82 EB - 309+87 EB	LT SHOULDER	14	---	---	---	---	0.8
312+07 EB - 317+15 EB	LT SHOULDER	70	---	---	---	---	4.2
312+07 EB - 317+00 EB	RT SHOULDER	110	---	---	---	---	6.6
180+38 E - 186+05 E	LT SHOULDER	10	---	---	---	---	0.6
182+37 EV - 185+27 EV	RAMP EV	---	---	---	105	---	---
184+92 EW - 186+00 EW	RAMP EW	---	---	---	33	---	---
195+09 EX - 199+40 EX	RAMP EX	---	---	---	155	---	---
199+80 F - 201+35 F	LT SHOULDER	7	---	---	---	---	0.4
200+44 FQ - 203+73 FQ	RAMP FQ	---	---	---	150	---	---
258+72 J - 266+00 J	RT SHOULDER	88	---	---	---	---	4.8
261+11 J - 266+48 J	LT SHOULDER	76	---	---	---	---	4.2
285+02 K - 286+73 K	RT SHOULDER	19	---	---	---	---	1.0
270+26 N - 272+26 N	RT SHOULDER	20	---	---	---	---	1.1
181+32 EU - 182+52 EU	TEMP RAMP EU	---	---	---	---	41	---
259+65 JV - 267+41 JV	TEMP RAMP JV	---	---	---	---	258	---
287+15 KU - 288+71 KU	TEMP RAMP KU	---	---	---	---	59	---
PROJECT ID 1071-06-79 SUMMARY		**1057**	**712**	**0**	**443**	**358**	**98**
72+63 WB - 72+52 WB	RT SHOULDER	3	---	---	---	---	0.2
72+12 EB - 72+52 EB	LT SHOULDER	2	---	---	---	---	0.1
78+62 EB - 83+80 EB	MEDIAN CROSSOVER	---	404	---	---	---	22.2
82+40 EB - 89+00 EB	RT SHOULDER	123	---	---	---	---	6.8
95+86 EB - 97+35 EB	LT SHOULDER	10	---	---	---	---	0.6
96+27 EB - 96+89 EB	RT SHOULDER	1	---	---	---	---	0.1
99+12 EB - 107+02 EB	LT SHOULDER	34	---	---	---	---	1.9
110+27 EB - 120+98 EB	RT SHOULDER	108	---	---	---	---	5.9
126+40 EB - 133+01 EB	RT SHOULDER	66	---	---	---	---	3.6
144+76 EB - 157+84 EB	RT SHOULDER	63	---	---	---	---	3.5
153+70 EB - 166+00 EB	MEDIAN CROSSOVER	---	471	---	---	---	25.9
167+15 EB - 168+41 EB	LT SHOULDER	9	---	---	---	---	0.5
133+00 A - 142+13 A	LT SHOULDER	96	---	---	---	---	5.3
134+42 A - 139+85 A	RT SHOULDER	36	---	---	---	---	2.0
90+72 RA - 97+40 RA	RT SHOULDER	116	---	---	---	---	6.4
93+32 RA - 97+48 RA	LT SHOULDER	52	---	---	---	---	2.9
105+25 RA - 110+31 RA	RT SHOULDER	55	---	---	---	---	3.0
105+25 RA - 106+61 RA	LT SHOULDER	15	---	---	---	---	0.8
136+66 B - 141+37 B	LT SHOULDER	53	---	---	---	---	2.9
139+11 B - 143+02 B	RT SHOULDER	65	---	---	---	---	3.6
139+65 C - 142+18 C	RT SHOULDER	51	---	---	---	---	2.8
141+63 C - 143+35 C	LT SHOULDER	19	---	---	---	---	1.0
138+00 D - 145+60 D	LT SHOULDER	80	---	---	---	---	4.4
138+00 D - 140+79 D	RT SHOULDER	19	---	---	---	---	1.0
30+00 BN - 42+04 BN	RT SHOULDER	144	---	---	---		7.9
30+00 BS - 34+48 BS	LT SHOULDER	50	---	---	---	---	2.8

- CONTINUED -

3

HMA PAVEMENT ITEMS

STATION TO STATION	LOCATION	460.1100 HMA PAVEMENT TYPE E-0.3 TON	460.1110 HMA PAVEMENT TYPE E-10 TON	460.4000 HMA COLD WEATHER PAVING TON	465.0105 ASPHALTIC SURFACE TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	455.0105 ASPHALTIC MATERIAL PG58-28 TON
39+78 BS - 41+85 BS	LT SHOULDER	28	---	---	---	---	1.5
44+86 BN - 53+50 BN	RT SHOULDER	114	---	---	---	---	6.3
44+57 BS - 47+09 BS	LT SHOULDER	33	---	---	---	---	1.8
52+68 BS - 53+47 BS	LT SHOULDER	4	---	---	---	---	0.2
28+17 BN - 57+53 BN	TEMP LANE WIDENING	---	---	---	---	277	---
134+90 AT - 145+00 AT	TEMP RAMP AT	---	---	---	---	339	---
133+48 BT - 148+22 BT	TEMP RAMP BT	---	---	---	---	486	---
130+64 AU - 132+31 AU	TEMP RAMP AU	---	---	---	---	56	3.1
138+94 BU - 146+60 BU	TEMP RAMP BU	---	---	---	---	125	6.9
133+79 CV - 140+75 CV	TEMP RAMP CV	---	---	---	---	372	---
138+31 DV - 141+90 DV	TEMP RAMP DV	---	---	---	---	143	---
142+45 A - 144+63 A	TEMP LANE WIDENING	---	---	---	---	87	---
132+98 C - 134+70 C	TEMP LANE WIDENING	---	---	---	---	62	---
ENTIRE PROJECT		---	---	500	---	---	---
PROJECT ID 1071-06-81 SUMMARY		**1449**	**875**	**500**	**---**	**1947**	**137.9**
PROJECT TOTALS		**2506**	**1587**	**500**	**443**	**2305**	**236.1**

CONCRETE SURFACE DRAINS

STATION	LOCATION	416.1010 CY
191+68 EB	B-32-218 (NW QUAD)	13.9
212+00 EB	B-32-39 (NW QUAD)	12.8
212+00 EB	B-32-39 (SW QUAD)	13.9
249+40 EB	B-32-107 (NE QUAD)	8.1
249+40 EB	B-32-107 (SE QUAD)	9.7
311+70 EB	B-32-190 (NE QUAD)	4.0
311+70 EB	B-32-190 (SE QUAD)	6.4
PROJECT ID 1071-06-79 SUMMARY		**68.8**
97+50 EB	B-32-48 (NW QUAD)	5.1
97+50 EB	B-32-48 (SW QUAD)	8.6
97+50 RA	B-32-75 (SW QUAD)	7.1
42+15 BN	B-32-52 (SE QUAD)	6.2
42+00 BS	B-32-52 (SW QUAD)	6.5
168+50 EB	B-32-64 (NW QUAD)	5.3
168+50 EB	B-32-64 (SW QUAD)	5.6
PROJECT ID 1071-06-81 SUMMARY		**44.4**
PROJECT TOTAL		**113.2**

CONCRETE SHOULDER RUMBLE STRIPS

STATION TO STATION	LOCATION	416.1110 LF
174+25 EB - 191+58 EB	LT SHLD	1733
174+25 EB - 191+58 EB	RT SHLD	725
195+70 EB - 212+30 EB	LT SHLD	1660
195+70 EB - 212+30 EB	RT SHLD	1218
215+68 EB - 248+00 EB	LT SHLD	3190
215+68 EB - 248+00 EB	RT SHLD	3196
249+51 EB - 309+87 EB	LT SHLD	6036
249+51 EB - 309+87 EB	RT SHLD	3811
311+75 EB - 312+07 EB	RT SHLD	32
311+75 EB - 312+07 EB	LT SHLD	32
PROJECT ID 1071-06-79 SUMMARY		**21633**
71+97 EB - 97+59 EB	LT SHLD	2562
71+97 EB - 97+59 EB	RT SHLD	1386
98+97 EB - 168+41 EB	LT SHLD	6944
98+97 EB - 168+41 EB	RT SHLD	4380
PROJECT ID 1071-06-81 SUMMARY		**15272**
PROJECT TOTAL		**36905**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

TEMPORARY SHORING

STATION	LOCATION	STAGE	511.1100 SF
264+50 J	PIPE INSTALLATION	1	200
264+50 J	PIPE INSTALLATION	3A	200
PROJECT ID 1071-06-79 SUMMARY			**400**
NONE			---
PROJECT ID 1071-06-81 SUMMARY			**---**
PROJECT TOTAL			**400**

CONNECTION TO EXISTING INLETS

STATION	SPV.0060.06 EACH
NONE	---
PROJECT ID 1071-06-79 SUMMARY	**---**
150+00 WB	1
140+78 C	1
PROJECT ID 1071-06-81 SUMMARY	**2**
PROJECT TOTAL	**2**

CULVERT PIPE TEMPORARY 12-INCH

STATION	OFFSET	520.2012 LF	INVERT IN	INVERT OUT	SLOPE
NONE		---	---	---	---
PROJECT ID 1071-06-79 SUMMARY		**---**	**---**	**---**	**---**
135+00 AT	15.0 RT	122	651.13	---	---
136+12 AT	31.1 LT	---	---	650.23	0.74%
PROJECT ID 1071-06-81 SUMMARY		**122**			
PROJECT TOTAL		**122**			

NOTES:
OFFSET IS MEASURED TO THE TOP OF PIPE DAYLIGHTS OR CENTER OF INLET
STRUCTURE TIE JOINTS AS SPECIFIED IN SECTION 520.3.3 OF THE STANDARI
SPECIFICATIONS, 6 JOINT TIES REQUIRED AT PIPE ENDS.

DROP INLETS

STRUCTURE NUMBER	STATION	OFFSET	LOCATION	611.3225 INLETS 2x2.5-FT EACH	611.0654 INLET COVERS TYPE V EACH	521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH EACH	612.0212 PIPE UNDERDRAIN UNPERFORATED 12-INCH LF	GRATE ELEV	TOP OF BOX ELEV	OUTLET INVERT ELEV	STRUCTURE DEPTH FT	650.4000 CONSTRUCTION STAKING STORM SEWER EACH
109	191+62.7	21' LT	IH 90 EB ALIGNMENT	1	1	1	30	666.94	665.94	663.44	2.50	2
109A	191+68.7	21' LT	IH 90 EB ALIGNMENT	1	1	---	6	666.96	665.96	663.46	2.50	1
95	211+82	47' RT	IH 90 EB ALIGNMENT	1	1	1	38	673.23	672.23	669.48	2.75	2
95A	211+76	47' RT	IH 90 EB ALIGNMENT	1	1	---	6	673.18	672.18	669.68	2.50	1
96	212+10	9' LT	IH 90 EB ALIGNMENT	1	1	1	32	673.82	672.82	670.07	2.75	2
96A	212+04	9' LT	IH 90 EB ALIGNMENT	1	1	---	6	673.77	672.77	670.27	2.50	1
97	249+43	9' LT	IH 90 EB ALIGNMENT	1	1	1	46	714.17	713.17	710.42	2.75	2
97A	249+49	9' LT	IH 90 EB ALIGNMENT	1	1	---	6	714.14	713.14	710.64	2.50	1
98	249+43	47' RT	IH 90 EB ALIGNMENT	1	1	1	40	713.72	712.72	709.97	2.75	2
98A	249+49	47' RT	IH 90 EB ALIGNMENT	1	1	---	6	713.74	712.74	710.24	2.50	1
99	311+65	5' LT	IH 90 EB ALIGNMENT	1	1	1	28	722.98	721.98	719.23	2.75	2
99A	311+71	5' LT	IH 90 EB ALIGNMENT	1	1	---	6	722.98	721.98	719.48	2.50	1
100	311+64	45' RT	IH 90 EB ALIGNMENT	1	1	1	60	722.50	721.50	718.75	2.75	2
100A	311+70	45' RT	IH 90 EB ALIGNMENT	1	1	---	6	722.49	721.49	718.99	2.50	1
PROJECT ID 1071-06-79 SUMMARY				**14**	**14**	**7**	**316**					**42 ***
90	97+43	4.5' LT	IH 90 EB ALIGNMENT	1	1	1	40	652.44	651.44	648.69	2.75	2
90A	97+37	4.5' LT	IH 90 EB ALIGNMENT	1	1	---	6	652.40	651.40	648.90	2.50	1
91	97+43	32.5' RT	IH 90 EB ALIGNMENT	1	1	1	37	652.20	651.20	648.45	2.75	2
91A	97+37	32.5' RT	IH 90 EB ALIGNMENT	1	1	---	6	652.16	651.16	648.66	2.50	1
92	97+48	7' RT	REST AREA ALIGNMENT	1	1	1	33	651.49	650.49	647.74	2.75	2
92A	97+42	7' RT	REST AREA ALIGNMENT	1	1	---	6	651.47	650.47	647.97	2.50	1
93	168+51	5' LT	IH 90 EB ALIGNMENT	1	1	1	40	652.90	651.90	649.15	2.75	2
93A	168+45	5' LT	IH 90 EB ALIGNMENT	1	1	---	6	652.87	651.87	649.37	2.50	1
94	168+41	28.9' RT	IH 90 EB ALIGNMENT	1	1	1	30	652.86	651.86	649.11	2.75	2
94A	168+35	29' RT	IH 90 EB ALIGNMENT	1	1	---	6	652.82	651.82	649.32	2.50	1
110	42+05	19.5' RT	CTH B NB ALIGNMENT	1	1	1	80	669.76	668.76	666.26	2.50	2
110A	42+12	19.5' RT	CTH B NB ALIGNMENT	1	1	---	6	669.88	668.88	666.38	2.50	1
111	42+05	41.5' LT	CTH B NB ALIGNMENT	1	1	1	70	669.72	668.72	666.22	2.50	2
111A	42+12	41.5' LT	CTH B NB ALIGNMENT	1	1	---	6	669.84	668.84	666.34	2.50	1
PROJECT ID 1071-06-81 SUMMARY				**14**	**14**	**9 ***	**372**					**51 ***
PROJECT TOTALS				**28**	**28**	**16 ***	**688**					**93 ***

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

NOTES:
- ALL SUBSURFACE ELEVATIONS ARE PIPE FLOWLINES
- STRUCTURE DEPTH = DISTANCE FROM TOP OF BOX TO DISCHARGE ELEVATION
- TOP OF BOX ELEVATION = GRATE ELEVATION - (10")INLET COVER DEPTH - (2") ADJUSTMENT
- GRATE ELEVATION MEASURED FROM THE FLOWLINE OF THE INLET
- OFFSETS ARE MEASURED TO THE CENTER OF THE INLET
- ALL PIPES ARE MEASURE CENTER OF STRUCTURE TO CENTER OF STRUCTURE
- MINIMUM STRUCTURE DEPTH IS 2.0'
- THE PIPE UNDERDRAIN MAY BE CORRUGATED POLYETHYLENE, POLYVINYL CHLORIDE, OR ACRYLONITRILE-BUTADIENE-STYRENE DRAINAGE PIPES AS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2.

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

STORM SEWER SCHEDULE (CONCRETE PIPE)

STRUCT NUMBER	STATION	OFFSET	522.0112 CULVERT PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	522.0118 CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.0136 CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	522.0318 CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH	INVERT IN	INVERT OUT	RIM EL	DEPTH LF	SLOPE	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	522.1054 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 54-INCH EACH	611.2004 MANHOLES 4-FT EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT EACH	611.3230 INLETS 2x3-FT EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH	611.0642 INLET COVERS TYPE MS EACH
INL	174+96 EB	30.0 LT	---	---	---	---	---	---	646.40	653.32	6.92	---	---	---	---	---	---	---	---	---	---	1	---	---	---	2
AE	181+00 EB	76.0 RT	---	---	106	---	---	---	646.00	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---
INL	181+00 EB	30.0 LT	---	---	---	---	---	646.83	---	650.83	4.00	0.78%	---	---	---	---	---	---	---	---	---	1	---	---	---	2
INL	183+96 EB	29.3 LT	---	---	12	---	---	---	647.94	652.46	4.52	---	---	---	---	---	---	---	---	---	---	1	---	---	---	2
AE	199+20 EB	86.4 RT	---	---	150	---	---	---	659.68	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
INL	200+00 EB	28.2 LT	---	---	210	---	---	660.91	---	664.91	4.00	0.82%	---	---	---	---	---	---	---	---	---	1	---	---	---	2
INL	202+09 EB	24.0 LT	---	---	---	---	---	661.47	---	665.47	4.00	0.27%	---	---	---	---	---	---	---	---	---	1	---	---	---	2
INL	206+07 EB	25.2 LT	---	---	---	---	---	---	662.28	666.20	3.92	---	---	---	---	---	---	---	---	---	---	1	---	---	---	2
AE	227+37 EB	84.0 RT	---	---	116	---	---	---	679.13	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
INL	227+37 EB	25.5 LT	---	---	---	---	---	684.81	---	688.81	4.00	4.90%	---	---	---	---	---	---	---	---	---	1	---	---	---	2
AE	246+00 EB	26.5' LT	---	---	---	---	---	---	708.30	712.59	4.29	0.00%	---	---	---	---	---	---	---	---	---	1	---	---	---	2
INL	246+00 EB	79.8' RT	---	---	104	---	---	706.06	---	---	---	2.15%			1	---	---	---	---	---	---	---	---	---	---	---
INL	258+89 EB	26.5 LT	---	---	98	---	---	702.49	698.00	706.49	4.00	---	---	---	---	---	---	---	---	---	---	1	---	---	---	2
MH	258+89 EB	76.0 RT	---	---	---	---	---	698.00	691.72	706.29	14.57	4.58%	---	---	---	---	---	---	---	1	---	---	1	---	---	---
AE	258+89 EB	97.3 RT	18	---	---	---	---	699.18	698.00	---	---	6.56%	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AE	264+86 EB	74.4 RT	---	---	---	6	---	---	699.06	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---
AE	264+91 EB	75.0 RT	---	---	---	6	---	---	698.88	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---
AE	269+32 EB	93.9 RT	---	---	140	---	---	---	697.50	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
INL	269+88 EB	29.5 LT	---	---	8	---	---	698.03	---	701.73	3.70	0.38%	---	---	---	---	---	---	---	---	---	1	---	---	---	2
INL	282+73 EB	78.5 RT	---	---	---	132	---	---	702.10	706.05	3.95	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
INL	283+26 EB	29.5 LT	---	---	6	---	---	701.85	---	707.57	---	0.19%	---	---	---	---	---	---	---	---	---	---	---	---	---	---
INL	284+00 EB	32.1 LT	74	---	---	---	---	701.85	---	707.57	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AE	264+50 J	70.5 LT	---	---	---	---	---	698.86	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
AE	264+50 J	59.5 RT	---	---	---	130	---	---	693.20	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
AE	198+50 EX	21.5 RT	---	20	---	---	---	655.00	---	---	---	0.90%	---	1	---	---	---	---	---	---	---	---	---	---	---	---
INL	198+50 EX	1.5 RT	---	---	---	---	---	---	655.18	661.18	6.00	---	---	---	---	---	---	---	---	---	1	---	---	---	1	---
AE	265+18 JV	45.3 LT	---	---	---	6	---	698.38	697.96	---	---	7.00%	---	---	---	1	---	---	---	---		---	---	---	1	---
PROJECT ID 1071-06-79 SUMMARY			**92**	**20**	**950**	**280**	**---**						**---**	**1**	**7**	**3**	**---**	**---**	**1**	**1**	**1**	**10**	**1**	**1**	**2**	**20**
AE	72+70 EB	48.0 RT	---	---	78	---	---	---	646.17	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
INL	72+70 EB	30.0 LT	---	---	---	---	---	647.10	---	651.10	4.00	1.19%	---	---	---	---	---	---	---	---	---	1	---	---	---	2
AE	84+90 EB	62.4 RT	---	---	92	---	---	---	643.15	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
INL	84+90 EB	29.6 LT	---	---	---	---	---	644.21	---	648.21	4.00	1.15%	---	---	---	---	---	---	---	---	---	1	---	---	---	2
AE	91+00 EB	67.9 RT	---	---	98	---	---	---	641.57	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
INL	91+00 EB	30.1 LT	---	---	---	---	---	642.66	---	646.66	---	1.11%	---	---	---	---	---	---	---	---	---	1	---	---	---	2
INL	100+17 EB	47.8 RT	---	---	74	---	---	---	645.67	651.17	5.50	---	---	---	---	---	---	---	---	---	---	1	---	---	---	2
INL	100+17 EB	30.0 LT	---	---	384	---	---	646.22	---	650.22	4.00	0.74%	---	---	---	---	---	---	---	---	---	1	---	---	---	2
MH	104+00 EB	12.0 LT	---	---	300	---	---	---	647.91	655.01	7.10	0.44%	---	---	---	---	---	1	---	---	---	---	1	---	---	---
INL	107+00 EB	25.0 LT	---	---	112	---	---	---	649.43	653.93	4.50	0.51%	---	---	1	---	---	---	---	---	---	1	---	---	---	2
INL	107+00 RA	27.0 RT	---	---	---	---	---	652.94	---	---	---	0.00%	---	---	---	---	---	---	---	---	---	1	---	---	---	2
AE	119+10 EB	64.0 RT	---	---	94	---	---	654.74	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
EX	119+10 EB	30.0 LT	---	---	---	---	---	---	654.49	---	---	0.27%	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AE	129+00 EB	24.1 LT	---	---	---	---	---	652.74	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
AE	131+52 EB	55.9 RT	---	92	---	---	---	651.13	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---
AE	132+44 EB	65.3 RT	---	---	---	---	---	---	649.99	---	---	1.24%	---	1	---	---	---	---	---	---	---	---	---	---	---	---
INL	140+95 EB	29.5 LT	150	---	---	---	---	---	643.27	646.27	3.00	---	---	---	---	---	---	---	---	---	---	1	---	---	---	2
INL	142+58 EB	27.8 LT	---	---	---	---	---	638.32	---	647.57	9.25	---	---	---	---	---	---	---	---	---	---	1	---	---	---	2
AE	142+58 EB	76.2 RT	---	---	---	104	---	---	638.00	---	---	4.76%	---	---	1	---	---	---	---	---	---	---	---	---	---	---
AE	147+13 EB	28.9 LT	390	---	---	---	---	645.53	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---
INL	151+04 EB	25.1 LT	---	---	8	---	---	642.19	642.19	646.78	4.59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
INL	37+50 BN	3.1 LT	---	---	44	---	---	654.04	---	659.25	5.21	---	---	---	---	---	---	---	---	---	1	---	---	---	1	---
AE	37+50 BN	41.0 RT	---	---	---	---	---	---	653.55	---	---	1.11%	---	---	1	---	---	---	---	---	---	---	---	---	---	---
AE	41+48 BN	113.8 LT	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---
AE	41+79 BN	102.9 RT	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---

- CONTINUED -

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

STORM SEWER SCHEDULE (CONCRETE PIPE)

STRUCT NUMBER	STATION	OFFSET	522.0112 CULVERT PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	522.0118 CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.0136 CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	522.0318 CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH	INVERT IN	INVERT OUT	RIM EL	DEPTH LF	SLOPE	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	522.1054 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 54-INCH EACH	611.2004 MANHOLES 4-FT EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT EACH	611.3230 INLETS 2x3-FT EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH	611.0642 INLET COVERS TYPE MS EACH
AE	143+45 A	52.9 RT	---	---	---	32	---	643.65	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---
AE	143+55 A	54.0' RT	---	---	---	182	---	643.72	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---
AE	133+00 B	56.1 RT	---	---	---	---	---	---	642.15	---	---	0.86%	---	---	---	1	---	---	---	---	---	---	---	---	---	---
AE	133+00 B	26.9 RT	---	---	20	---	---	---	649.00	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
INL	133+00 B	6.9 RT	---	---	---	---	---	649.85	---	654.89	5.04	4.25%	---	---	---	---	---	---	---	---	---	---	1	---	---	---
AE	136+60 B	36.0 RT	---	---	---	---	34	---	645.57	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
INL	136+60 B	2.0 RT	---	---	---	---	---	646.35	---	649.51	3.16	2.29%	---	---	---	---	---	---	---	---	---	---	1	---	---	---
AE	140+10 B	33.7 RT	---	---	80	---	---	---	642.00	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
AE	140+10 B	46.3 LT	---	---	---	---	---	644.00	---	---	---	2.50%	---	---	1	---	---	---	---	---	---	---	---	---	---	---
INL	143+22 D	19.5 RT	---	---	24	---	---	---	655.70	661.37	5.67	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---
INL	136+25 C	2.0 LT	---	---	24	---	---	656.14	---	659.99	3.85	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---
AE	136+25 C	26.0 LT	---	---	---	---	---	---	655.00	---	---	4.75%	---	---	1	---	---	---	---	---	---	---	---	---	---	---
INL	139+00 C	2.0 LT	---	---	76	---	---	648.66	---	652.35	3.69	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---
AE	139+50 C	44.8 RT	---	---	---	---	---	---	648.39	---	---	0.36%	---	---	1	---	---	---	---	---	---	---	---	---	---	---
AE	140+78 C	2.0 LT	---	---	44	---	---	645.65	---	---	---	0.00%	---	---	1	---	---	---	---	---	---	---	---	---	---	---
EX	140+78 C	42.0 RT	---	---	---	---	---	---	643.84	---	---	4.11%	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AE	95+00 RA	26.3 RT	---	---	54	---	---	---	643.00	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
INL	95+00 RA	27.7 LT	---	---	---	---	---	644.00	---	649.01	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	2
PROJECT ID 1071-06-81 SUMMARY			**540**	**92**	**1606**	**318**	**34**						**1**	**2**	**19 ***	**3**	**2**	**1**	**---**	**---**	**8 ***	**10**	**1**	**---**	**8 ***	**20**
PROJECT TOTALS			**632**	**112**	**2556**	**598**	**34**						**1**	**3**	**26 ***	**6**	**2**	**1**	**1**	**1**	**11 ***	**20**	**2**	**1**	**9 ***	**40**

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

NOTE: OFFSET IS MEASURED TO THE END OF PIPE OR CENTER OF INLET STRUCTURE
TIE JOINTS AS SPECIFIED IN SECTION 520.3.3 OF THE STANDARD SPECIFICATIONS, 6 JOINT TIES REQUIRED AT PIPE ENDS.

CULVERT PIPE CORRUGATED STEEL 12-INCH

STATION	OFFSET	THICKNESS	521.0112 CULVERT PIPE CORRUGATED STEEL 12-INCH LF	INVERT IN	INVERT OUT	SLOPE	521.1012 APRON ENDWALL 12-INCH EACH
NONE			---	---	---	---	---
PROJECT ID 1071-06-79 SUMMARY			**---**				**---**
79+00 EB	32.8 LT	0.064	150	649.70	---	---	1
80+50 EB	30.9 LT	---	---	---	649.49	0.14%	---
82+70 EB	29.7 LT	0.064	60	649.19	---	---	---
83+30 EB	29.2 LT	---	---	---	649.11	0.13%	1
PROJECT ID 1071-06-81 SUMMARY			**210**				**9 ***
PROJECT TOTALS			**210**				**16 ***

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

NOTES:
NOTE: OFFSET IS MEASURED TO THE TOP OF PIPE DAYLIGHTS OR CENTER OF INLET STRUCTURE
TIE JOINTS AS SPECIFIED IN SECTION 520.3.3 OF THE STANDARD SPECIFICATIONS, 6 JOINT TIES REQUIRED AT PIPE ENDS.

STORM SEWER PIPE SCHEDULE

STRUCTURE NUMBER	STATION	OFFSET	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	INVERT IN	INVERT OUT	RIM EL	DEPTH LF	SLOPE	522.1024 APRON ENDWALL 24-INCH EACH	611.3230 INLETS 2x3-FT EACH	611.0624 INLET COVERS TYPE H EACH
	NONE		---	---	---	---	---	---	---	---	---	---
PROJECT ID 1071-06-79 SUMMARY			**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
INL	31+50 BN	2.0 LT	250	---	---	644.61	648.71	4.10	---	---	1	1
INL	34+00 BN	9.4 LT	---	66	643.61	---	651.12	7.51	---	---	1	1
AE	34+00 BN	71.4 RT	---	---	---	643.06	---	---	0.83%	1	---	---
PROJECT ID 1071-06-81 SUMMARY			**250**	**66**						**19 ***	**8 ***	**8 ***
PROJECT TOTALS			**250**	**66**						**26 ***	**11 ***	**9 ***

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

NOTES:
NOTE: OFFSET IS MEASURED TO THE TOP OF PIPE DAYLIGHTS OR CENTER OF INLET STRUCTURE
TIE JOINTS AS SPECIFIED IN SECTION 520.3.3 OF THE STANDARD SPECIFICATIONS, 6 JOINT TIES REQUIRED AT PIPE ENDS.

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

ASPHALTIC CURB

STATION TO STATION	465.0310 LF	COMMENTS
NONE	---	
PROJECT ID 1071-06-79 SUMMARY	**---**	
145+08 DV - 146+70 DV	162	SEE CV RAMP X-SECTIONS
PROJECT ID 1071-06-81 SUMMARY	**162**	
PROJECT TOTAL	**162**	

ASPHALTIC FLUME

STATION	LOCATION	465.0315 SY
266+00 J	LT	5
270+18 N	RT	5
272+25 N	RT	5
PROJECT ID 1071-06-79 SUMMARY		**15**
143+93 A	RT	10
136+66 B	LT	5
139+03 B	RT	5
141+55 C	LT	5
140+79 D	RT	5
146+15 D	RT	10
PROJECT ID 1071-06-81 SUMMARY		**40**
PROJECT TOTAL		**55**

CONCRETE COLLARS FOR PIPE

STATION	LOCATION	520.8000 EACH
UNDISTRIBUTED		2
PROJECT ID 1071-06-79 SUMMARY		**2**
UNDISTRIBUTED		2
PROJECT ID 1071-06-81 SUMMARY		**2**
PROJECT TOTAL		**4**

CONCRETE CURB AND GUTTER

STATION TO STATION	LOCATION	601.0409 30-INCH TYPE A LF	601.0411 30-INCH TYPE D LF	601.0555 6-INCH SLOPED 36-INCH TYPE A LF
183+83 EV - 185+27 EV	RT	---	144	---
195+75 EX - 199+40 EX	RT	---	365	---
266+00 J - 267+10 J	LT	110	---	---
268+36 N - 270+18 N	RT	182	---	---
PROJECT ID 1071-06-79 SUMMARY		**292**	**509**	**---**
30+48 BN - 36+49 BN	MEDIAN	1184	---	---
37+14 BN - 42+29 BN	MEDIAN	1032	---	---
44+53 BN - 48+96 BN	MEDIAN	895	---	---
49+62 BN - 53+50 BN	MEDIAN	770	---	---
144+30 A - 144+64 A	MEDIAN ISLAND	100	---	---
143+93 A - 144+64 A	RT RADIUS	---	---	109
143+93 A - 144+88 A	LT	116	---	---
133+80 B - 135+63 B	RT	222	---	---
131+84 B - 139+02 B	LT	633	---	94
132+97 C - 133+25 C	MEDIAN ISLAND	81	---	---
132+97 C - 141+55 C	LT	763	---	120
132+97 C - 133+63 C	RT	72	---	---
144+62 D - 147+02 D	RT	210	---	---
146+15 D - 147+02 D	LT	---	---	104
PROJECT ID 1071-06-81 SUMMARY		**6078**	**0**	**427**
PROJECT TOTALS		**6370**	**509**	**427**

CONCRETE SIDEWALK 4-INCH

STATION TO STATION	LOCATION	602.0405 SF
NONE		---
PROJECT ID 1071-06-79 SUMMARY		**---**
30+55 BN - 31+73 BN	MEDIAN	883
33+93 BN - 36+41 BN	MEDIAN	1463
37+21 BN - 37+30 BN	MEDIAN	76
47+17 BN - 48+90 BN	MEDIAN	1043
49+69 BN - 49+78 BN	MEDIAN	77
52+22 BN - 53+50 BN	MEDIAN	1099
133+84 B - 134+38 B	MEDIAN	273
144+62 D - 145+31 D	MEDIAN	328
144+30 A - 144+64 A	MEDIAN ISLAND	480
132+97 C - 133+25 C	MEDIAN ISLAND	249
PROJECT ID 1071-06-81 SUMMARY		**5971**
PROJECT TOTAL		**5971**

CONCRETE BARRIER

STATION TO STATION	LOCATION	603.1456 TYPE S56C LF	603.1142 TYPE S42 LF	603.3513 TRANSITION TYPE S32 T0 S36 EACH	603.3535 TRANSITION TYPE S36 T0 S42 EACH	603.3559 TRANSITION TYPE S42 T0 S56 EACH
272+25 EB - 276+00 EB	RT	305	21	---	---	2
PROJECT ID 1071-06-79 SUMMARY		**305**	**21**	**---**	**---**	**2**
139+85 A - 143+71 A	LT	---	357	1	1	---
136+10 B - 136+66 B	LT	---	56	---	---	---
143+00 B - 144+75 B	RT	105	21	---	---	2
133+63 C - 138+34 C	LT	---	488	1	1	---
140+78 D - 141+40 D	RT	---	62	---	---	---
PROJECT ID 1071-06-81 SUMMARY		**105**	**984**	**2**	**2**	**2**
PROJECT TOTALS		**410**	**1005**	**2**	**2**	**4**

CLEANING CULVERT PIPES

STATION	520.8700 EACH
264+88 EB	1
264+93 EB	1
PROJECT ID 1071-06-79 SUMMARY	**2**
41+69 BN	1
PROJECT ID 1071-06-81 SUMMARY	**1**
PROJECT TOTAL	**3**

COVER PLATES TEMPORARY

STATION	LOCATION	611.8120.S EACH
NONE		---
PROJECT ID 1071-06-79 SUMMARY		**---**
134+02 BT	LT	1
PROJECT ID 1071-06-81 SUMMARY		**1**
PROJECT TOTAL		**1**

SLOPE PAVING

STATION TO STATION	LOCATION	604.0400 CONCRETE SY	604.0500 CRUSHED AGGREGATE SY
272+84 N - 273+48 N	STH 157 STRUCTURE	---	30
273+87 N - 274+50 N	STH 157 STRUCTURE	---	30
PROJECT ID 1071-06-79 SUMMARY		**---**	**60**
143+55 B - 144+21 B	CTH B STRUCTURE	35	---
PROJECT ID 1071-06-81 SUMMARY		**35**	**---**
PROJECT TOTALS		**35**	**60**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

CONCRETE BARRIER TEMPORARY PRECAST

STATION TO STATION	LOCATION	STAGE	603.8000 DELIVERED LF	603.8125 INSTALLED LF	614.0905 CRASH CUSHION TEMPORARY EACH	OBJECT MARKING PATTERN	CRASH TEST LEVEL	BACK WIDTH	TRAFFIC LOCATION	TRAFFIC DIRECTION	CRASH CUSHION SHIELDS
199+05 WE - 318+23 WE	WB LANES	1	11918	11918	1	OM-3C	TL-3	2	L/R	BIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
106+84 TN - 110+50 TN	RT	1A	370	370	---	---	---	---	---	---	---
107+40 TN - 110+20 TN	LT	1A	280	280	1	OM-3R	TL-3	2	R	UNIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
107+65 TS - 108+65 TS	LT	1A	100	100	---	---	---	---	---	---	---
281+35 K - 286+25 KU	LT	3A	525	525	1	OM-3C	TL-3	2	R	UNIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
257+54 JV - 268+30 JV	RT	3A	1076	1076	1	OM-3R	TL-3	2	L	UNIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
196+70 FW - 202+75 FW	LT	3A	605	605	1	OM-3L	TL-3	2	R	UNIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
183+05 EU - 184+05 EU	LT	3A	100	100	---	---	---	---	---	---	---
PROJECT ID 1071-06-79 SUMMARY			**14974**	**14974**	**5**	**---**					
129+30 AT - 130+55 AT	RT	2A	125	125	1	OM-3R	TL-3	2	R	UNIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
133+75 AT - 143+10 AT	RT	2A	935	935	---	---	---	---	---	---	---
133+30 BT - 147+00 BT	LT	2A	1370	1370	1	OM-3L	TL-3	2	R	UNIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
135+40 D - 141+80 D	LT	2A	640	640	1	OM-3R	TL-3	2	L	UNIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
134+24 CV - 142+50 CV	RT	2A	825	825	1	OM-3R	TL-3	2	L	UNIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
130+50 AU - 143+85 A	LT	2B	1345	1345	1	OM-3C	TL-3	6	L/R	UNIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
138+95 D - 144+60 D	RT	2B	565	565	1	OM-3L	TL-3	2	R	UNIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
142+92 A - 143+95 A	LT	2C	103	103	1	OM-3C	TL-3	2	L/R	BIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
138+75 BU - 146+10 BU	RT	2C	735	735	1	OM-3R	TL-3	2	L	UNIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
41+27 BN - 45+56 BN	LT	3A	430	430	---	---	---	---	---	---	---
79+30 WB - 83+18 WB	LT	3A	388	388	1	OM 3C	TL-3	2	L/R	BIDIRECTIONAL	TEMPORARY CONCRETE BARRIER
41+17 BS - 45+46 BS	LT	4A	430	430	---	---	---	---	---	---	---
PROJECT ID 1071-06-81 SUMMARY			**7891**	**7891**	**9**						
PROJECT TOTALS			**22865**	**22865**	**14**						

STEEL THRIE BEAM

STATION TO STATION	LOCATION	614.0200 STRUCTURE APPROACH LF	614.0220 BULLNOSE TERMINAL EACH	614.0230 STEEL THRIE BEAM LF
174+38 EB - 178+27 EB	LT	41	1	527
CATEGORY TOTALS		**41**	**1**	**527**
PROJECT ID 1071-06-79 SUMMARY		**59 ***	**1**	**527**
72+07 EB - 73+73 EB	LT	41	1	89
95+00 EB - 97+53 EB	RT	41	1	77
95+75 EB - 97+48 EB	LT	41	1	77
131+36 EB - 132+79 EB	LT	---	2	75
167+03 EB - 168+56 EB	LT	41	1	77
CATEGORY TOTALS		**164**	**6**	**395**
PROJECT ID 1071-06-81 SUMMARY		**164**	**6**	**395**
PROJECT TOTALS		**223 ***	**7**	**922**

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

CRASH CUSHIONS PERMANENT

CATEGORY	STATION	LOCATION	614.0800 EACH	OBJECT MARKING PATTERN	CRASH TEST LEVEL	BACK WIDTH	TRAFFIC LOCATION	TRAFFIC DIRECTION	CRASH CUSHION SHIELDS
0120	222+45 EB	LT	1	OM-3C	TL-3	2	L/R	BIDIRECTIONAL	CONCRETE BARRIER TEMP PRECAST LEFT IN PLACE
0120	225+95 EB	LT	1	OM-3C	TL-3	2	L/R	BIDIRECTIONAL	CONCRETE BARRIER TEMP PRECAST LEFT IN PLACE
PROJECT ID 1071-06-79 SUMMARY			**2**						
0010	105+47 EB	RT	1	OM-3C	TL-3	3	LT/RT	UNIDIRECTIONAL	CONCRETE BARRIER
0010	105+46 RA	RT	1	OM-3R	TL-3	2	LT	UNIDIRECTIONAL	CONCRETE BARRIER
0010	139+85 A	LT	1	OM-3L	TL-3	2	RT	UNIDIRECTIONAL	CONCRETE BARRIER
0010	138+84 C	RT	1	OM-3L	TL-3	2	RT	UNIDIRECTIONAL	CONCRETE BARRIER
PROJECT ID 1071-06-81 SUMMARY			**4**						
PROJECT TOTAL			**6**						

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

RIPRAP AND GEOTEXTILE FABRIC

STATION TO STATION	LOCATION	606.0100 LIGHT CY	606.0300 HEAVY CY	645.0130 TYPE R SY	645.0120 TYPE HR SY
181+00 EB	RT PIPE END	2	---	7	---
191+68 EB	DROP INLET END	1	---	4	---
198+35 EX	RT PIPE END	2	---	7	---
199+20 EB	RT PIPE END	2	---	7	---
211+82 EB	DROP INLET END	1	---	4	---
212+10 EB	DROP INLET END	1	---	4	---
235+60 EB	DROP INLET END	8	---	20	---
238+15 EB - 238+98 EB	EB DITCH RT	20	---	70	---
246+00 EB	RT PIPE END	2	---	7	---
249+50 EB	DROP INLET END	1	---	4	---
249+50 EB	DROP INLET END	1	---	4	---
264+50 J	RT PIPE END	3	---	9	---
264+86 EB	RT PIPE END	8	---	20	---
264+91 EB	RT PIPE END	8	---	20	---
270+25 EB	FLUME END	2	---	6	---
276+00 EB	EB DITCH RT	4	---	10	---
311+70 EB	DROP INLET END	1	---	4	---
311+70 EB	DROP INLET END	1	---	4	---
UNDISTRIBUTED		17	---	54	---
PROJECT ID 1071-06-79 SUMMARY		**85**	**---**	**265**	**---**
72+70 EB	RT PIPE END	13	---	38	---
72+75 EB - 88+00 EB	EB SLOPE RT	900	---	2700	---
91+00 EB	RT PIPE END	22	---	65	---
95+00 RA	RT PIPE END	32	---	95	---
97+45 RA	DROP INLET END	1	---	4	---
97+40 EB	DROP INLET END	1	---	4	---
97+40 EB	DROP INLET END	1	---	4	---
133+00 B	RT PIPE END	5	---	15	---
136+60 B	RT PIPE END	2	---	7	---
140+10 B	RT PIPE END	2	---	7	---
142+58 EB	RT PIPE END	---	7	---	15
34+00 BN	RT PIPE END	2	---	7	---
37+50 BN	RT PIPE END	2	---	7	---
136+25 C	LT PIPE END	2	---	7	---
139+50 C	RT PIPE END	2	---	7	---
160+00 EB - 167+25 EB	EB SLOPE RT	730	---	2200	---
168+38 EB	DROP INLET END	1	---	4	---
168+48 EB	DROP INLET END	1	---	4	---
UNDISTRIBUTED		431	3	1295	5
PROJECT ID 1071-06-81 SUMMARY		**2150**	**10**	**6470**	**20**
PROJECT TOTALS		**2235**	**10**	**6735**	**20**

MOBILIZATION

PROJECT	619.1000 EACH
1071-06-79	0.4
PROJECT ID 1071-06-79 SUMMARY	**0.4**
1071-06-81	0.3
PROJECT ID 1071-06-81 SUMMARY	**0.3**
PROJECT TOTAL	**0.7**

MGS GUARDRAIL

STATION TO STATION	LOCATION	614.2300 GUARDRAIL 3 LF	614.2610 TERMINAL EAT EACH	614.2500 THRIE BEAM TRANSITION LF	614.2620 TERMINAL TYPE 2 EACH
177+75 EB - 180+66.5 EB	RT	288	---	9	1
188+50.9 EB - 191+03.0 EB	RT	163	1	39	---
185+56.4 EB - 191+76.7 EB	LT	525	1	39	---
195+00.6 EB - 195+75 EB	RT	63	---	9	1
195+79.8 EB - 212+14.9 EB	LT	1588	---	48	---
204+08.6 EB - 211+86.8 EB	RT	675	1	39	---
215+67 EB - 218+11.5 EB	RT	238	---	9	1
216+08 WB - 221+88 WB	RT	488	1	39	---
216+11 EB - 217+33 EB	LT	113	---	9	1
232+00 EB - 237+00 EB	RT	450	1	---	1
245+36.5 EB - 247+89.6 EB	RT	163	1	39	---
245+10 EB - 247+88.1 EB	LT	188	1	39	---
249+38.6 EB - 254+75 EB	RT	525	---	9	1
249+40.1 EB - 254+75 EB	LT	525	---	9	1
249+16 WB - 256+94.1 WB	RT	688	1	39	---
263+84.4 J - 266+00 J	RT	163	1	---	1
263+84.4 J - 266+00 J	LT	163	1	---	1
270+34.3 EB - 272+25 EB	RT	100	1	39	---
289+46.9 EB - 292+50 EB	RT	250	1	---	1
288+54.4 EB - 292+50 EB	LT	338	1	---	1
306+86 EB - 310+01.8 EB	RT	225	1	39	---
306+86 EB - 310+01.6 EB	LT	225	1	39	---
311+59.3 EB - 315+50 EB	RT	388	---	9	1
311+59.9 EB - 315+50 EB	LT	388	---	9	1
312+27.3 WB - 318+30.5 WB	RT	550	1	---	---
PROJECT ID 1071-06-79 SUMMARY		**9470**	**16**	**510**	**13**
72+07 EB - 97+53 RA	RT	2500	---	48	---
99+09 EB - 107+00 EB	LT	788	---	9	1
102+50 EB - 105+00 EB	RT	163	1	39	---
40+93.7 BS - 41+96.8 BS	LT	13	1	39	---
40+37.9 BN - 42+15.60 BN	RT	88	1	39	---
44+55 BS - 45+58.1 BS	LT	13	1	39	---
44+73.8 BN - 47+51.9 BN	RT	188	1	39	---
141+34.4 B - 143+00 B	RT	75	1	39	---
144+76 EB - 168+45.6 EB	RT	2325	---	48	---
PROJECT ID 1071-06-81 SUMMARY		**6153**	**6**	**339**	**1**
PROJECT TOTALS		**15623**	**22**	**849**	**14**

GUARDRAIL MOW STRIP ASPHALT

CATEGORY	STATION TO STATION	LOCATION	614.0396 SY
0120	177+80 EB - 186+00 EB	LT	364
	227+00 WB - 245+39 WB	RT	817
	254+75 EB - 299+50 EB	LT	1989
	PROJECT ID 1071-06-79 SUMMARY		**3170**
0060	117+25 WB - 131+65 WB	RT	640
	132+50 EB - 158+00 EB	LT	1133
	PROJECT ID 1071-06-81 SUMMARY		**1773**
	PROJECT TOTAL		**4943**

MAINTENANCE AND REPAIR OF HAUL ROADS

PROJECT	618.0100.01 EACH
1071-06-79	1
PROJECT ID 1071-06-79 SUMMARY	**1**

PROJECT	618.0100.02 EACH
1071-06-81	1
PROJECT ID 1071-06-81 SUMMARY	**1**

CONCRETE MEDIAN SLOPE NOSE

STATION	LOCATION	620.0300 SF
NONE		---
PROJECT ID 1071-06-79 SUMMARY		**0**
36+45 BN	LT	71
37+20 BN	LT	80
48+90 BN	LT	70
49+65 BN	LT	19
144+30 A	LT	21
144+60 A	LT	19
133+00 C	RT	21
133+25 C	LT/RT	80
PROJECT ID 1071-06-81 SUMMARY		**381**
PROJECT TOTAL		**381**

WATER

LOCATION	624.0100 MGAL
BASE COMPACTION	670
DUST CONTROL	440
PROJECT ID 1071-06-79 SUMMARY	**1110**
BASE COMPACTION	780
DUST CONTROL	440
PROJECT ID 1071-06-81 SUMMARY	**1220**
PROJECT TOTAL	**2330**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

FENCE CHAIN LINK 6-FT

STATION TO STATION	LOCATION	616.0206 LF
174+13 EB - 185+39 EV	RT	1115
193+00 EB	LT	22
195+80 EB	LT	27
201+31 EB - 211+95 EB	RT	1135
212+23 EB	LT	42
215+75 EB - 233+83 EB	RT	1850
216+18 EB	LT	41
234+53 EB - 248+26 EB	RT	1393
249+00 EB - 259+45 EB	RT	1048
285+40 EB - 310+02 EB	RT	2460
310+00 EB	RT	50
311+59 EB	RT	50
PROJECT ID 1071-06-79 SUMMARY		**9233**
71+95 EB - 97+60 RA	RT	2605
99+00 RA - 99+12.8 RA	RT	27
106+80 EB - 131+90 EB	RT	2510
131+99 EB - 33+93 BN	RT	1286
138+25 D - 50+92 BN	LT	910
145+21 EB - 168+55 EB	RT	2366
PROJECT ID 1071-06-81 SUMMARY		**9704**
PROJECT TOTAL		**18937**

GATES CHAIN LINK 3.5-FT

STATION	LOCATION	616.0329 EACH
174+36 EB	MEDIAN	1
195+75 EB	MEDIAN	1
212+10 EB	MEDIAN	1
216+19 EB	MEDIAN	1
234+80 EB	RT	1
248+20 EB	RT	1
311+55 EB	MEDIAN	1
PROJECT ID 1071-06-79 SUMMARY		**7**
71+94 EB	MEDIAN	1
97+60 EB	MEDIAN	1
99+00 EB	MEDIAN	1
106+80.48 EB	RT	1
131+80 EB	RT	1
168+64 EB	MEDIAN	1
PROJECT ID 1071-06-81 SUMMARY		**6**
PROJECT TOTAL		**13**

SILT FENCE

STATION TO STATION	LOCATION	STAGE	628.1504 LF	628.1520 MAINTENANCE LF
174+00 EB - 185+25 EV	RT	1	1160	1160
185+40 EB - 191+50 EB	RT	1	670	670
201+20 EB - 212+15 EB	RT	1	1170	1170
219+90 EB - 233+85 EB	RT	1	1398	1398
234+50 EB - 239+00 EB	RT	1	474	474
245+65 EB - 248+00 EB	RT	1	270	270
249+00 EB - 266+00 J	RT	1	1670	1670
274+44 EB - 276+05 EB	RT	1	190	190
295+00 EB - 299+00 EB	RT	1	405	405
UNDISTRIBUTED			1893	1893
PROJECT ID 1071-06-79 SUMMARY			**9300**	**9300**
140+91 D - 145+86 D	LT	1	582	582
39+62 BN - 168+65 EB	RT	1	2665	2665
44+60 BN - 53+50 BN	RT	1A	910	910
71+96 EB - 97+70 RA	RT	2A	2682	2682
72+00 EB	LT	2A	45	45
99+00 RA - 99+50 RA	RT	2A	76	76
97+50 EB	RT	2A	22	22
97+50 EB	LT	2A	45	45
99+05 EB	RT	2A	22	22
99+05 EB	LT	2A	45	45
168+70 EB	LT	2A	45	45
UNDISTRIBUTED			1761	1761
PROJECT ID 1071-06-81 SUMMARY			**8900**	**8900**
PROJECT TOTALS			**18200**	**18200**

TURBIDITY BARRIERS

STATION	LOCATION	628.6005 SY
NONE		---
PROJECT ID 1071-06-79 SUMMARY		**0**
98+55 EB	LT/RT	250
PROJECT ID 1071-06-81 SUMMARY		**250**
PROJECT TOTAL		**250**

TOPSOIL, SALVAGED TOPSOIL, MULCHING, FERTILIZER, & SEEDING

STATION TO STATION	LOCATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING NO. 20 LB	630.0130 MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB
174+23 EB - 191+58 EB	EB LANES	---	11000	11000	10	236	150	193	---
195+40 EB - 212+19 EB	EB LANES	---	10000	10000	9	211	150	181	---
215+81 EB - 248+00 EB	EB LANES	---	18000	18000	16	368	300	334	---
249+44 EB - 310+02 EB	EB LANES	---	32000	32000	29	706	500	603	---
311+60 EB - 312+07 EB	EB LANES	---	1500	1500	3	45	50	48	---
180+38 E - 186+05 E	RAMP E	---	900	900	1	39	---	20	---
199+80 F - 206+74 F	RAMP F	---	700	700	1	36	---	18	---
253+52 J - 266+00 J	RAMP J	---	3500	3500	3	126	---	63	---
285+02 K - 287+13 K	RAMP K	---	500	500	1	19	---	10	---
268+36 N - 272+52 N	RAMP N	---	500	500	1	24	---	12	---
181+25 EU - 182+52 EU	TEMP RAMP EU	---	100	100	1	3	---	3	---
182+38 EV - 185+26 EV	RAMP EV	---	500	500	1	19	---	10	---
184+93 EW - 186+00 EW	RAMP EW	---	200	200	1	6	---	3	---
199+54 FQ - 203+73 FQ	RAMP FQ	---	2300	2300	2	70	---	35	---
259+65 JV - 267+41 JV	TEMP RAMP JV	---	1900	1900	2	52	---	52	---
287+15 KU - 288+71 KU	TEMP RAMP KU	---	200	200	1	6	---	6	---
195+09 EX - 199+40 EX	EX RAMP	---	2400	2400	2	72	---	36	---
UNDISTRIBUTED		5000	---	20800	21	512	290	403	50
PROJECT ID 1071-06-79 SUMMARY		**5000**	**86200**	**107000**	**105**	**2550**	**1440**	**2030**	**50**
71+97 EB - 97+57 EB	EB LANES	---	12000	12000	10	248	180	214	---
98+99 EB - 168+66 EB	EB LANES	---	40000	40000	35	829	650	740	---
30+00 BN - 53+50 BN	CTH B NB	---	26100	26100	18	562	200	381	---
130+95 A - 144+89 A	RAMP A	---	5000	5000	4	164	---	82	---
131+84 B - 146+47 B	RAMP B	---	2800	2800	3	112	---	56	---
132+74 C - 142+00 C	RAMP C	---	2400	2400	3	89	---	45	---
138+00 D - 147+03 D	RAMP D	---	5500	5500	4	162	---	81	---
88+40 RA - 99+50 RA	REST AREA	---	1100	1100	2	49	---	25	---
105+25 RA - 113+31 RA	REST AREA	---	900	900	2	44	---	22	---
28+17 BN - 36+62 BN	TEMP WIDENING	---	1500	1500	1	41	---	41	---
50+50 BN - 57+53 BN	TEMP WIDENING	---	1400	1400	1	38	---	38	---
134+90 AT - 145+00 AT	TEMP RAMP AT	---	1100	1100	1	30	---	30	---
133+48 BT - 148+22 BT	TEMP RAMP BT	---	100	100	1	3	---	3	---
130+64 AU - 131+38 AU	TEMP RAMP AU	---	1900	1900	2	52	---	52	---
138+94 BU - 141+16 BU	TEMP RAMP BU	---	200	200	1	6	---	6	---
144+50 BU - 146+60 BU	TEMP RAMP BU	---	200	200	1	6	---	6	---
133+79 CV - 140+75 CV	TEMP RAMP CV	---	2500	2500	2	68	---	68	---
138+31 DV - 141+90 DV	TEMP RAMP DV	---	900	900	1	25	---	25	---
UNDISTRIBUTED		5000	---	26400	23	632	260	475	50
PROJECT ID 1071-06-81 SUMMARY		**5000**	**105600**	**132000**	**115**	**3160**	**1290**	**2390**	**50**
PROJECT TOTALS		**10000**	**191800**	**239000**	**220**	**5710**	**2730**	**4420**	**100**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

MOBILIZATIONS EROSION CONTROL AND EMERGENCY EROSION CONTROL

PROJECT	628.1905 EACH	628.1910 EMERGENCY EACH
1071-06-79	15	10
PROJECT ID 1071-06-79 SUMMARY	**15**	**10**
1071-06-81	15	10
PROJECT ID 1071-06-81 SUMMARY	**15**	**10**
PROJECT TOTALS	**30**	**20**

EROSION MAT

STATION TO STATION	LOCATION	STAGE	628.2004 CLASS I TYPE B SY	628.2027 CLASS II TYPE C SY
177+50 EB - 183+50 EV	EB SLOPE RT	1	---	2200
199+75 EB - 201+00 EB	EB DITCH RT	1	110	---
200+50 FQ - 211+00 EB	EB SLOPE RT	1	---	8120
216+00 EB - 217+00 EB	EB DITCH RT	1	90	---
229+00 EB - 231+00 EB	EB SLOPE RT	1	1140	---
231+00 EB - 237+00 EB	EB SLOPE RT	1	---	4145
237+00 EB - 237+50 EB	EB SLOPE RT	1	310	---
227+25 EB - 231+00 EB	EB DITCH LT	1	380	380
288+75 EB - 292+00 EB	EB SLOPE RT	1	---	900
295+10 EB - 298+90 EB	EB DITCH RT	1	430	---
301+40 EB - 302+00 EB	EB DITCH RT	1	50	---
302+25 EB - 303+00 EB	EB DITCH RT	1	70	---
184+00 EB - 191+75 EB	EB DITCH LT	3A	680	---
188+75 EB - 191+00 EB	EB SLOPE RT	3A	1375	---
185+25 E - 186+15 E	RAMP E SLOPE RT	3A	170	---
UNDISTRIBUTED			1195	3955
PROJECT ID 1071-06-79 SUMMARY			**6000**	**19700**
134+12 C - 135+75 C	TEMP RAMP SLOPE LT	1A	820	---
45+41 BS - 46+89 BS	SB SLOPE LT	2A	910	---
143+00 D - 146+10 D	RAMP SLOPE LT	2A	2800	---
149+50 EB - 160+00 EB	EB SLOPE RT	2A	3400	---
39+55 BN - 40+68 BN	NB SLOPE RT	4A	600	---
44+75 BN - 46+50 BN	NB SLOPE RT	4A	120	---
41+50 BN - 42+54 BN	NB SLOPE RT	5A	600	---
UNDISTRIBUTED			2350	---
PROJECT ID 1071-06-81 SUMMARY			**11600**	---
PROJECT TOTALS			**17600**	**19700**

INLET PROTECTION

STATION	LOCATION	STAGE	628.7005 TYPE A EACH	628.7010 TYPE B EACH
174+96 EB	LT	1	1	---
182+50 EB	LT	1	1	---
183+96 EB	LT	1	1	---
185+85 EB	LT	1	1	---
200+00 EB	LT	1	1	---
206+07 EB	LT	1	2	---
198+35 EX	RT	1	1	1
199+85 EX	LT	1	1	---
211+80 EB	RT	1	2	2
212+05 EB	LT	1	2	2
216+89 EB	LT	1	1	---
226+90 EB	LT	1	1	---
227+37 EB	LT	1	1	---
235+22 EB	LT	1	1	---
246+00 EB	LT	1	1	---
249+50 EB	LT	1	2	2
249+50 EB	RT	1	2	2
253+50 EB	LT	1	1	---
258+89 EB	LT	1	1	---
258+89 EB	RT	1	1	---
269+88 EB	LT	1	2	---
276+10 EB	LT	1	1	---
282+73 EB	RT	1	1	---
283+26 EB	LT	1	2	---
284+43 EB	RT	1	1	---
286+75 EB	LT	1	1	---
290+70 EB	LT	1	1	---
292+16 EB	LT	1	1	---
300+25 EB	LT	1	1	---
311+70 EB	LT	1	2	2
311+70 EB	RT	1	2	2
324+75 EB	LT	1	1	---
184+00 EB	LT	3A	1	---
191+69 EB	LT	3A	2	2
202+09 EB	LT	3A	1	---
181+00 EB	LT	5	1	---
PROJECT ID 1071-06-79 SUMMARY			**46**	**15**
72+70 EB	LT	2A	1	---
84+90 EB	LT	2A	1	---
91+00 EB	LT	2A	1	---
95+00 RA	LT	2A	1	---
97+45 RA	RT	2A	2	2
97+40 EB	RT	2A	2	2
97+40 EB	LT	2A	2	2
100+17 EB	RT	2A	1	---
100+17 EB	LT	2A	1	---
104+00 EB	LT	2A	1	---
107+00 EB	LT	2A	1	---
107+00 EB	RT	2A	1	---
136+60 B	RT	2A	1	1
140+95 EB	LT	2A	1	---
142+58 EB	LT	2A	1	---
151+00 EB	LT	2A	1	---

- CONTINUED -

INLET PROTECTION

STATION	LOCATION	STAGE	628.7005 TYPE A EACH	628.7010 TYPE B EACH
42+00 BS	LT	2A	2	2
157+00 EB	LT	2A	1	---
168+38 EB	RT	2A	2	2
168+48 EB	LT	2A	2	2
143+22 D	RT	2B	1	1
136+25 C	LT	2B	1	1
139+00 C	LT	2B	1	1
140+70 C	LT	2B	1	1
133+00 B	RT	2C	1	1
31+50 BN	LT	4A	1	---
34+00 BN	LT	4A	1	1
37+50 BN	LT	4A	1	1
42+00 BN	RT	4A	2	2
PROJECT ID 1071-06-81 SUMMARY			**36**	**22**
PROJECT TOTALS			**82**	**37**

CULVERT PIPE CHECKS

STATION	LOCATION	STAGE	628.7555 EACH
184+10 EB	RT	1	2
197+45 EB	LT	1	2
201+10 EB	RT	1	2
258+89 J	RT	1	2
264+50 J	LT	1	7
264+80 J	LT	1	7
296+75 EB	RT	1	5
315+00 EB	LT	1	2
UNDISTRIBUTED			7
PROJECT ID 1071-06-79 SUMMARY			**36**
139+95 B	LT	1	3
41+55 BN	LT	1	13
138+00 D	LT	1	3
79+00 EB	LT	2A	2
119+00 EB	RT	2A	3
119+10 EB	RT	2A	3
129+00 EB	LT	2A	3
131+52 EB	RT	2A	5
133+00 EB	LT	2A	2
140+10 B	LT	2A	3
143+55 A	RT	2A	5
145+83 EB	LT	2A	2
140+78 C	RT	2A	3
162+72 EB	LT	2A	2
142+60 C	LT	2C	7
147+13 EB	LT	3	2
UNDISTRIBUTED			15
PROJECT ID 1071-06-81 SUMMARY			**76**
PROJECT TOTAL			**112**

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

TEMPORARY DITCH CHECKS

STATION	LOCATION	STAGE	628.7504 LF
210+10 EB	LT	1	12
229+00 EB	LT	1	12
231+00 EB	LT	1	12
233+00 EB	LT	1	12
237+00 EB	LT	1	12
239+00 EB	LT	1	12
241+00 EB	LT	1	12
244+00 EB	LT	1	12
255+00 EB	LT	1	12
265+10 EB	LT	1	12
269+00 EB	LT	1	12
265+00 J	RT	1	12
276+25 EB	RT	1	12
279+00 EB	LT	1	12
279+00 EB	RT	1	12
282+00 K	LT	1	12
282+50 K	RT	1	12
286+00 K	RT	1	12
288+00 K	RT	1	12
290+25 K	RT	1	12
292+00 EB	RT	1	12
293+50 EB	LT	1	12
304+00 EB	LT	1	12
306+00 EB	RT	1	12
316+50 EB	RT	1	12
318+00 EB	LT	5	12
322+40 EB	LT	5	12
UNDISTRIBUTED			81
PROJECT ID 1071-06-81 SUMMARY			**405**
138+00 D	LT	1	12
146+00 WB	LT	1	12
41+80 BN	RT	1	12
77+50 EB	LT	2A	12
112+00 EB	RT	2A	12
112+00 EB	LT	2A	12
120+00 EB	LT	2A	12
124+00 EB	LT	2A	12
128+00 EB	RT	2A	12
133+00 A	RT	2A	12
136+25 A	RT	2A	12
138+00 A	RT	2A	12
141+00 A	RT	2A	12
138+00 EB	LT	2A	12
UNDISTRIBUTED			42
PROJECT ID 1071-06-81 SUMMARY			**210**
PROJECT TOTAL			**615**

DELINEATORS TEMPORARY

STATION TO STATION	LOCATION	STAGE	633.1100 EACH
174+50 WB - 179+75 WB	RT	1	11
202+00 FU - 205+10 FU	RT	1	7
183+80 KT - 186+25 KT	RT	1	6
179+75 WB - 181+60 WB	RT	3A	2
226+50 FW - 230+50 WB	RT	3A	9
288+40 KU - 291+10 KU	RT	3A	6
UNDISTRIBUTED			
PROJECT ID 1071-06-79 SUMMARY			**41**
155+00 EB - 159+00 EB	LT	1	8
162+75 WB - 168+50 WB	RT	1	13
124+30 WB - 128+40 AT	RT	2A	9
146+50 BU - 154+00 BU	RT	2C	16
UNDISTRIBUTED			
PROJECT ID 1071-06-81 SUMMARY			**46**
PROJECT TOTAL			**87**

DELINEATORS

STATION TO STATION	LOCATION	633.0100 POSTS STEEL EACH	633.0500 REFLECTORS EACH	633.1000 BRACKETS EACH
174+23 EB - 312+07 EB	LT	105	155	8
253+52 J - 266+00 J	LT	12	12	---
285+02 K - 287+13 K	LT	2	2	---
268+36 N - 272+52 N	LT	3	3	---
UNDISTRIBUTED		18	18	2
PROJECT ID 1071-06-79 SUMMARY		**140**	**190**	**10**
71+97 EB - 168+66 EB	LT	80	110	2
130+95 A - 144+89 A	LT	13	13	---
131+84 B - 146+47 B	LT	15	15	---
132+74 C - 142+00 C	LT	9	9	---
138+00 D - 147+03 D	LT	9	9	---
88+40 RA - 113+31 RA	LT	6	6	---
UNDISTRIBUTED		18	18	3
PROJECT ID 1071-06-81 SUMMARY		**150**	**180**	**5**
PROJECT TOTALS		**290**	**370**	**15**

TRACKING PADS

LOCATION	628.7560 EACH
UNDISTRIBUTED	5
PROJECT ID 1071-06-79 SUMMARY	**5**
UNDISTRIBUTED	5
PROJECT ID 1071-06-81 SUMMARY	**5**
PROJECT TOTAL	**10**

MARKERS CULVERT END

STATION	LOCATION	633.5200 EACH
72+70 EB	RT	1
84+90 EB	RT	1
91+00 EB	RT	1
119+10 EB	RT	1
129+00 EB	LT	1
131+52 EB	RT	1
132+44 EB	RT	1
142+58 EB	RT	1
147+13 EB	LT	1
34+00 BN	RT	1
37+50 BN	RT	1
143+55 A	RT	1
133+00 B	RT	1
133+00 B	RT	1
136+60 B	RT	1
140+10 B	RT	1
140+10 B	LT	1
136+25 C	LT	1
139+50 C	RT	1
140+78 C	LT	1
95+00 RA	RT	1
PROJECT ID 1071-06-79 SUMMARY		**21**
181+00 EB	RT	1
199+20 EB	RT	1
227+37 EB	RT	1
264+86 EB	RT	1
264+91 EB	RT	1
269+32 EB	RT	1
264+50 J	LT	1
264+50 J	RT	1
PROJECT ID 1071-06-81 SUMMARY		**8**
PROJECT TOTAL		**29**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

SIGNS TYPE III

	SIGN NUMBER	STATION	SIZE FEET	DESCRIPTION	SIGN MESSAGE (ORDER LINES)	637.3210 SIGNS TYPE III REFLECTIVE H SF	638.3620 ERECTING STATE OWNED SIGNS TYPE II EACH	634.0620 POSTS WOOD 4X6-INCH 20-FT EACH	634.0622 POSTS WOOD 4X6-INCH 22-FT EACH	634.0624 POSTS WOOD 4X6-INCH 24-FT EACH
	108	175+00 WB	1.5 X 6 5.5 X 11	EXIT GUIDE SIGN EXIT NUMBER 3	EXIT 3 SOUTH SOUTH 53 35 LA CROSSE	69.5	---	---	---	3
**	109	H RAMP			MERGE AHEAD BE PREPARED TO STOP	---	1	2	---	---
**	110	HV RAMP			MERGE AHEAD BE PREPARED TO STOP	---	1	2	---	---
**	111	208+60 WB			MERGING TRAFFIC BE PREPARED TO STOP	---	1	2	---	---
	112	220+10 WE	1.5 X 8.5 8 X 8.5 1.5 X 5	EXIT ONLY PANEL ADVANCE GUIDE SIGN EXIT NUMBER 4	NORTH 53 157 ONALASKA LA CROSSE 1/2 MILE RIGHT LANE ONLY	88.25	---	---	---	3
	113	232+00 WE	4 X 10	EXIT GUIDE SIGN	90 WEST LEFT LANE ONLY	40	---	2	---	---
	114	242+50 WE	4 X 10	EXIT GUIDE SIGN	90 EAST LEFT LANE ONLY	40	---	2	---	---
	115	247+25 WE	1.5 X 10.5 7 X 10.5 1.5 X 5	EXIT ONLY PANEL EXIT GUIDE SIGN EXIT NUMBER 4	NORTH 53 157 LA CROSSE ONALASKA RIGHT LANE ONLY	96.75	---	---	---	3
	116	291+00 WE	1.5 X 5 6 X 8	ADVANCE GUIDE SIGN	16 ONALASKA 3/4 MILE	55.5	---	3	---	---
	117	300+25 WE	5.5 X 10	EXIT GUIDE SIGN	WEST SOUTH 90 53 LEFT LANE ONLY	55	---	---	3	---
	118	314+80 WE	1.5 X 5 4.5 X 10.5	EXIT GUIDE SIGN	16 LA CROSSE ONALASKA	54.75	---	3	---	---
**	119	322+40 EB		AHEAD	AHEAD	---	1	---	---	---
**	120	ROSE STREET			MERGING TRAFFIC BE PREPARED TO STOP	---	1	2	---	---
**	121	FLYOVER RAMP			MERGE AHEAD BE PREPARED TO STOP	---	1	2	---	---
**	122	ROSE STREET			MERGING TRAFFIC BE PREPARED TO STOP	---	1	2	---	---
	127	312+90 WE	2 X 6		ARROW	12	---	---	---	---
	128	291+50 WE	2 X 6		ARROW	12	---	---	---	---

- CONTINUED -

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

SIGNS TYPE III

SIGN NUMBER	STATION	SIZE FEET	DESCRIPTION	SIGN MESSAGE (ORDER LINES)	637.3210 SIGNS TYPE III REFLECTIVE H SF	638.3620 ERECTING STATE OWNED SIGNS TYPE II EACH	634.0620 POSTS WOOD 4X6-INCH 20-FT EACH	634.0622 22-FT EACH	634.0624 24-FT EACH
** 129	STH 16 RAMP			MERGE AHEAD BE PREPARED TO STOP	---	1	2	---	---
** 130	IH 90 WB			MERGING TRAFFIC BE PREPARED TO STOP	---	1	2	---	---
PROJECT ID 1071-06-79 SUMMARY					**523.75**	**9**	**27 ***	**4 ***	**9**
** 100	122+25 EB			MERGING TRAFFIC BE PREPARED TO STOP	---	1	2	---	---
** 101	140+60 D			MERGE AHEAD BE PREPARED TO STOP	---	1	2	---	---
** 102	137+50 B			MERGE AHEAD BE PREPARED TO STOP	---	1	2	---	---
** 103	148+00 WB			MERGING TRAFFIC BE PREPARED TO STOP	---	1	2	---	---
104	147+80 EB	1.5 X 6 7 X 9	ADVANCE GUIDE SIGN EXIT NUMBER 3	EXIT 3A SOUTH SOUTH 53 35 LA CROSSE 3/4 MILE	72	---	---	3	---
106	164+80 WB	3.5 X 8	SUPPLEMENTAL GUIDE SIGN	HOSPITAL EXIT 3A	28	---	2	---	---
** 123	96+80 WB		ADVANCE GUIDE SIGN EXIT NUMBER 2	B FRENCH ISLAND 1/2 MILE	---	1	---	3	---
** 124	111+00 WB		ADVANCE GUIDE SIGN	LA CROSSE AIRPORT EXIT 2	---	1	---	3	---
** 125	124+30 WB		EXIT GUIDE SIGN EXIT NUMBER 2	B FRENCH ISLAND	---	1	---	3	---
PROJECT ID 1071-06-81 SUMMARY					**100.00**	**7**	**16 ***	**14 ***	**---**
PROJECT TOTALS					**623.75**	**16**	**43 ***	**18 ***	**9**

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**
**** CONTACT IVER PETERSON 608-785-9060 TO ARRANGE PICK UP**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.1220 SIGNS TYPE I REFLECTIVE SH SF	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4x6 14-FT EACH	634.0616 POSTS WOOD 4x6 16-FT EACH	634.0618 POSTS WOOD 4x6 18-FT EACH	634.0620 POSTS WOOD 4x6 20-FT EACH	634.0622 POSTS WOOD 4x6 22-FT EACH	634.0805 POSTS TUBULAR STEEL 2x2x5 EACH	638.2101 MOVING SIGNS TYPE I EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN EACH	638.4000 MOVING SUPPORTS EACH	638.3100 REMOVING STRUCTURAL STEEL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	COMMENTS
4-1	IH 90 EB	W13-2	48" X 60"	--	--	20.00	--	--	2	--	--	--	--	--	--	1	1	--	--		35 MPH
4-2	IH 90 EB	D10-1	12" X 24"	--	2.00	--	1	--	--	--	--	--	--	--	--	1	1	--	--		MILE 3
4-3	IH 90 EB	W12-50	144" X 48"	--	--	--	--	--	--	--	--	--	--	1	--	--	--	3	--		
		M3-1	36" X 18"	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	4-3	
		M1-6	36" X 36"	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	4-3	
4-4	IH 90 EB	W13-2	48" X 60"	--	--	20.00	--	--	--	--	--	--	--	1	--	--	--	2	--		30 MPH
4-5	IH 90 EB	W5-52R	18" X 54"	--	--	6.75	--	1	--	--	--	--	--	--	--	1	1	--	--		
4-6	IH 90 EB	W5-52L	18" X 54"	--	--	6.75	--	1	--	--	--	--	--	--	--	1	1	--	--		
4-7	IH 90 EB	E5-1B	72" X 60"	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2	--		EXIT 3B
4-8	IH 90 EB	W4-3	48" X 48"	--	--	16.00	--	--	1	--	--	--	--	--	--	1	1	--	--		
4-9	IH 90 EB		384" X 180"	480.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	S-32-57	MADISON, LA CROSSE, ONALASKA
		E1-5	96" X 30"	20.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4-9	EXIT 4
4-10	IH 90 EB	J4-1	36" X 54"	--	--	--	--	1	--	--	--	--	--	--	--	1	2	--	--		ROUTE MARKER
		MB3-2	36" X 18"	--	4.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4-10	EAST
		M1-1	36" X 36"	--	9.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4-10	INTERSTATE 90
4-11	IH 90 EB		X	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2		53/157 LA CROSSE ONALASKA
4-12	IH 90 EB	E5-1B	72" X 60"	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--		NORTH 35 ONALASKA EXIT 3B
5-1	IH 90 EB	E3-1	228" X 96"	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2		UW LA CROSSE, VITERBO UNIVERSITY
5-2	IH 90 EB	R2-1	48" X 60"	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2	--		70 MPH
5-3	IH 90 EB	E3-1	228" X 96"	152.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		UW LA CROSSE, VITERBO UNIVERSITY
5-4	IH 90 EB	E3-1	216" X 84"	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2		WESTERN TECHNICAL COLLEGE, EXIT 4
5-5	IH 90 EB	D10-1	12" X 24"	--	2.00	--	1	--	--	--	--	--	--	--	--	1	1	--	--		MILE 4
5-6	IH 90 EB	E3-1	216" X 84"	126.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		WESTERN TECHNICAL COLLEGE, EXIT 4
5-7	IH 90 EB	E6-51	180" X 186"	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2		53/157 LA CROSSE ONALASKA
		E1-5	96" X 30"	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5-7	EXIT 4
5-8	IH 90 EB		384" X 168"	448.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	S-32-60	90 MADISON, 53/157 LA CROSSE ONALASKA
		E1-5	96" X 30"	20.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5-8	EXIT 4
6-1	IH 90 EB	E5-1A	72" X 60"	--	30.00	--	--	--	2	--	--	--	--	--	--	1	2	--	--		EXIT 4
6-2	IH 90 EB	W3-3	36" X 36"	--	--	9.00	--	1	--	--	--	--	--	--	--	1	1	--	--		
6-3	IH 90 EB	J3-3	144" X 84"	--	--	--	--	--	1	1	1	--	--	--	--	1	2	--	--		DIRECTIONAL ASSEMBLY
	IH 90 EB	M3-1	36" X 18"	--	4.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-3	NORTH
	IH 90 EB	M1-4	36" X 36"	--	9.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-3	USH 53
	IH 90 EB	M5-1L	36" X 30"	--	7.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-3	DIRECTIONAL - NEXT LEFT
	IH 90 EB	M3-4	36" X 18"	--	4.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-3	WEST
	IH 90 EB	M1-6	36" X 36"	--	9.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-3	STH 157
	IH 90 EB	M5-1L	36" X 30"	--	7.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-3	DIRECTIONAL - NEXT LEFT
	IH 90 EB	M3-2	36" X 18"	--	4.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-3	EAST
	IH 90 EB	M1-6	36" X 36"	--	9.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-3	STH 157
	IH 90 EB	M5-1R	36" X 30"	--	7.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-3	DIRECTIONAL - NEXT RIGHT
	IH 90 EB	M4-1	36" X 18"	--	4.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-3	ALTERNATE
	IH 90 EB	M1-1	36" X 36"	--	9.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-3	INTERSTATE 90
	IH 90 EB	M5-1R	36" X 30"	--	7.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-3	DIRECTIONAL - NEXT RIGHT
6-4	IH 90 EB	J4-1	36" X 54"	--	0.00	--	--	--	1	--	--	--	--	--	--	--	--	--	--		DIRECTIONAL ASSEMBLY
	IH 90 EB	M3-2	36" X 18"	--	4.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--		EAST
	IH 90 EB	M1-1	36" X 36"	--	9.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--		INTERSTATE 90
6-5	IH 90 EB	R3-5L	42" X 48"	--	14.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	S-32-61	
6-6	IH 90 EB	R3-5L	42" X 48"	--	14.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-5	
6-7	IH 90 EB	R3-5R	42" X 48"	--	14.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-5	
6-8	IH 90 EB	W4-1	48" X 48"	--	--	16.00	--	2	--	--	--	--	--	--	--	1	2	--	--		
6-9	IH 90 EB	W4-3	48" X 48"	--	--	16.00	--	2	--	--	--	--	--	--	--	1	2	--	--		
6-10	IH 90 EB	D10-1	12" X 24"	--	2.00	--	1	--	--	--	--	--	--	--	--	1	1	--	--		MILE 5
6-11	IH 90 EB		X	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--		90 MADISON, 16 ONALASKA
6-12	IH 90 EB		384" X 180"	480.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	S-32-62	90 MADISON, 16 LA CROSSE ONALASKA
		E1-5	96" X 30"	20.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6-12	EXIT 5
6-13	IH 90 EB	E3-1	192" X 84"	112.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2		LA CROSSE RIVER STATE TRAIL EXIT 5
7-1	IH 90 EB	R2-1	48" X 60"	--	20.00	--	--	--	--	--	--	--	--	--	--	--	--	2	--		70 MPH
7-2	IH 90 EB	E3-1	216" X 84"	126.00	--	--	--	--	--	--	--	--	--	1	--	--	--	--	2		OUR LADY OF GUADALUPE SHRINE
7-3	IH 90 EB	W5-52L	18" X 54"	--	--	6.75	--	1	--	--	--	--	--	--	--	1	1	--	--		
7-4	IH 90 EB	W5-52R	18" X 54"	--	--	6.75	--	1	--	--	--	--	--	--	--	1	1	--	--		
7-5	IH 90 EB	-	- X -	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--		16 ONALASKA 1/4 MILE, EXIT 5, EXIT ONLY

- CONTINUED -

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.1220 SIGNS TYPE I REFLECTIVE SH SF	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4x6 14-FT EACH	634.0616 POSTS WOOD 4x6 16-FT EACH	634.0618 POSTS WOOD 4x6 18-FT EACH	634.0620 POSTS WOOD 4x6 20-FT EACH	634.0622 POSTS WOOD 4x6 22-FT EACH	634.0805 POSTS TUBULAR STEEL 2x2x5 EACH	638.2101 MOVING SIGNS TYPE I EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN EACH	638.4000 MOVING SUPPORTS EACH	638.3100 REMOVING STRUCTURAL STEEL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	COMMENTS
7-6	IH 90 EB		364" X 168"	424.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	S-32-63	90 EAST MADISON, 16 LA CROSSE ONALASKA
		E1-5	96" X 30"	20.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7-6	EXIT 5
7-7	IH 90 EB	E6-51	204" X 120"	170.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--		90 MADISON
7-8	IH 90 EB		156" X 132"	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	7-7	16 ONALASKA/EXIT ONLY
7-9	IH 90 EB	E6-51	180" X 150"	187.50	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--		16 EAST ONALASKA WEST SALEM
7-10	IH 90 EB	E6-51	156" X 150"	162.50	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--		16 WEST ONALASKA LA CROSSE
PROJECT ID 1071-06-79 SUMMARY				**2,948.67**	**209.00**	**124.00**	**3**	**10**	**7**	**27 ***	**4 ***	**0**	**15 ***	**10 ***	**12**	**30 ***	**54 ***	**22 ***	**12**		
1-1	IH 90 EB	D10-1	12" X 24"	--	2.00	--	1	--	--	--	--	--	--	--	--	1	1	--	--		MILE 1
1-2	IH 90 EB	E5-52	144" X 54"	54.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2		REST AREA W/ ARROW
1-3	IH 90 EB	E5-54	60" X 66"	--	27.50	--	--	--	--	--	2	--	--	--	--	1	2	--	--		REST AREA W/ ARROW
1-4	IH 90 EB	-	144" X 18"	18.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1-2	NO OVERSIZE LOADS
2-1	RAMP	W13-3	48" X 60"	--	--	20.00	--	--	2	--	--	--	--	--	--	1	2	--	--		25 MPH
2-2	IH 90 EB	E1-1A	252" X 120"	210.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2		FRENCH ISLAND, 1/2 MILE
		E1-5	96" X 30"	20.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	2-2	EXIT 2
2-3	IH 90 EB	W5-52R	18" X 54"	--	--	6.75	--	1	--	--	--	--	--	--	--	1	1	--	--		
2-4	RAMP	W5-52R	18" X 54"	--	--	6.75	--	1	--	--	--	--	--	--	--	1	1	--	--		
2-5	IH 90 EB	W5-52L	18" X 54"	--	--	6.75	--	1	--	--	--	--	--	--	--	1	1	--	--		
2-6	RAMP	W5-52L	18" X 54"	--	--	6.75	--	1	--	--	--	--	--	--	--	1	1	--	--		
2-7	IH 90 EB	W4-1	48" X 48"	--	--	16.00	--	2	--	--	--	--	--	--	--	1	2	--	--		
2-8	RAMP	R5-53A	42" X 54"	--	15.75	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
2-9	IH 90 EB	E3-1	216" X 60"	90.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2		LA CROSSE AIRPORT, EXIT 2
2-10	IH 90 EB	R5-60	138" X 60"	--	57.50	--	--	--	3	--	--	--	--	--	--	1	3	--	--		
2-11	IH 90 EB	E4-1A	288" X 90"	180.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2		FRENCH ISLAND
		E4-1	96" X 30"	20.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	2-11	EXIT 2
2-12	IH 90 EB	W13-2A	48" X 60"	--	--	20.00	--	2	--	--	--	--	--	--	--	1	2	--	--		35 MPH
2-13	IH 90 EB	-	- X -	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--		WATCH FOR FALLING CONCRETE
3-1	IH 90 EB	D10-1	12" X 24"	--	2.00	--	1	--	--	--	--	--	--	--	--	1	1	--	--		MILE 2
3-2	IH 90 EB	E5-1A	72" X 60"	--	30.00	-	--	--	--	2	--	--	--	--	--	1	2	--	--		EXIT 2
3-3	IH 90 EB	-	300" X 120"	250.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2		LA CROSSE - ONALASKA EXITS
3-4	IH 90 EB	W4-1	48" X 48"	--	--	16.00	--	2	--	--	--	--	--	--	--	1	2	--	--		
3-5	IH 90 EB	E1-1A	180" X 180"	225.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2		SOUTH 53 35 LA CROSSE ONALASKA
	IH 90 EB	E1-5	96" X 30"	20.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	3-5	EXIT 3
3-6	IH 90 EB	E3-1	192" X 144"	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	2		AMTRAK STATION, EXIT 3A
3-7	IH 90 EB	R2-1	48" X 60"	--	20.00	--	--	--	2	--	--	--	--	1	--	--	--	2	--		GREAT RIVER STATE TRAIL, EXIT 3B 70 MPH
3-8	IH 90 EB	E3-1	144" X 120"	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	2		TOURIST INFO, HOSPITAL, EXIT 3A
3-9	IH 90 EB	E3-1	132" X 108"	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	2		HISTORIC DOWNTOWN LA CROSSE, EXIT 3A
3-10	IH 90 EB	I3-1	36" X 24"	--	6.00	--	--	1	--	--	--	--	--	--	--	1	2	--	--		BLACK RIVER
3-11	IH 90 EB	W5-52R	18" X 54"	--	--	6.75	--	1	--	--	--	--	--	--	--	1	1	--	--		
3-12	IH 90 EB	W5-52L	18" X 54"	--	--	6.75	--	1	--	--	--	--	--	--	--	1	1	--	--		
3-13	IH 90 EB	J4-1	36" X 54"	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--		DIRECTIONAL ASSEMBLY
	IH 90 EB	M3-2	36" X 18"	--	4.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--		EAST
	IH 90 EB	M1-1	36" X 36"	--	9.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--		INTERSTATE 90
3-14	IH 90 EB	W13-2A	48" X 90"	--	30.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--		EXIT 25 MPH
8-1	CTH B	W6-2	36" X 36"	--	--	--	--	--	--	--	--	--	--	--	--	1	1	--	--		
8-2	CTH B	J1-1	24" X 36"	--	--	--	--	--	--	--	--	--	--	--	--	1	1	--	--		ROUTE MARKER
	CTH B	M4-1	24" X 12"	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8-2	ALTERNATE
	CTH B	M1-1	24" X 24"	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8-2	INTERSTATE 90
	CTH B	M1-5A	24" X 24"	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-2	COUNTY B
8-3	CTH B	R1-1	36" X 36"	--	9.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-4	CTH B	R6-2R	24" X 30"	--	5.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-5	CTH B	W12-1D	24" X 24"	--	--	4.00	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-6	CTH B	R1-1	36" X 36"	--	9.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-7	CTH B	R1-1	36" X 36"	--	9.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-8	CTH B	R4-7	24" X 30"	--	5.00	--	--	--	--	--	--	--	--	--	--	1	1	--	--		
8-9	CTH B	R4-7	24" X 30"	--	5.00	--	--	--	--	--	--	--	--	--	--	1	1	--	--		
8-10	CTH B	R4-7	24" X 30"	--	5.00	--	--	--	--	--	--	--	--	--	--	1	1	--	--		
8-11	CTH B	R5-1C	36" X 36"	--	9.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8-7	

- CONTINUED -

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.1220 SIGNS TYPE I REFLECTIVE SH SF	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4x6 14-FT EACH	634.0616 POSTS WOOD 4x6 16-FT EACH	634.0618 POSTS WOOD 4x6 18-FT EACH	634.0620 POSTS WOOD 4x6 20-FT EACH	634.0622 POSTS WOOD 4x6 22-FT EACH	634.0805 POSTS TUBULAR STEEL 2x2x5 EACH	638.2101 MOVING SIGNS TYPE I EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN EACH	638.4000 MOVING SUPPORTS EACH	638.3100 REMOVING STRUCTURAL STEEL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	COMMENTS
8-12	CTH B	J3-1	24" X 57"	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--		DIRECTIONAL ASSEMBLY
		MB3-2	24" X 12"	--	2.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-12	EAST
		M1-1	24" X 24"	--	4.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-12	INTERSTATE 90
		MB6-1	24" X 21"	--	3.50	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-12	DIRECTIONAL - LEFT
8-13	CTH B	J3-1	24" X 57"	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--		DIRECTIONAL ASSEMBLY
		MB3-2	24" X 12"	--	2.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-13	EAST
		M1-1	24" X 24"	--	4.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-13	INTERSTATE 90
		MB6-1	24" X 21"	--	3.50	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-13	DIRECTIONAL - RIGHT
8-14	CTH B	J2-1	24" X 57"	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--		DIRECTIONAL ASSEMBLY
		MB3-4	24" X 12"	--	2.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-14	WEST
		M1-1	24" X 24"	--	4.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-14	INTERSTATE 90
		MB5-1L	24" X 21"	--	3.50	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-14	DIRECTIONAL - NEXT LEFT
8-15	CTH B	R2-1	24" X 30"	--	5.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		35 MPH
8-16	CTH B	D1-2	72" X 24"	--	12.00	--	--	2	--	--	--	--	--	--	--	1	2	--	--		LA CROSSE MADISON, W/ ARROW
8-17	CTH B	J2-1	24" X 57"	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--		DIRECTIONAL ASSEMBLY
		MB3-2	24" X 12"	--	2.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-14	EAST
		M1-1	24" X 24"	--	4.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-14	INTERSTATE 90
		MB5-1R	24" X 21"	--	3.50	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-14	DIRECTIONAL - NEXT RIGHT
8-18	CTH B	D1-1	72" X 15"	--	7.50	--	--	2	--	--	--	--	--	--	--	1	2	--	--		MINNESOTA, W/ ARROW
8-19	CTH B	R5-1	30" X 30"	--	6.25	--	--	--	1	--	--	--	--	--	--	--	--	--	--		
8-20	CTH B	J3-1	24" X 57"	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--		DIRECTIONAL ASSEMBLY
		MB3-4	24" X 12"	--	2.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-13	WEST
		M1-1	24" X 24"	--	4.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-13	INTERSTATE 90
		MB6-1	24" X 21"	--	3.50	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-13	DIRECTIONAL - LEFT
8-21	CTH B	R6-2L	24" X 30"	--	5.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-22	CTH B	R4-7	24" X 30"	--	5.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-23	CTH B	R4-7	24" X 30"	--	5.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-24	CTH B	R4-7	24" X 30"	--	5.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-25	CTH B	R1-1	36" X 36"	--	9.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-26	CTH B	W12-1D	24" X 24"	--	--	4.00	1	--	--	--	--	--	--	--	--	1	1	--	--		
8-27	CTH B	R1-1	36" X 36"	--	9.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-28	CTH B	R1-1	36" X 36"	--	9.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-29	CTH B	J3-1	24" X 57"	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--		DIRECTIONAL ASSEMBLY
		MB3-4	24" X 12"	--	2.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-13	WEST
		M1-1	24" X 24"	--	4.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-13	INTERSTATE 90
		MB6-1	24" X 21"	--	3.50	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8-13	DIRECTIONAL - RIGHT
8-30	CTH B	M1-5A	24" X 24"	--	4.00	--	1	--	--	--	--	--	--	--	--	1	1	--	--		COUNTY B
8-31	CTH B	R5-1A	36" X 24"	--	6.00	--	--	1	--	--	--	--	--	--	--	--	--	--	--	8-32	
8-32	CTH B	W6-2	36" X 36"	--	--	9.00	--	1	--	--	--	--	--	--	--	--	--	--	--		
8-33	CTH B	J4-2	48" X 36"	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--		DIRECTIONAL ASSEMBLY
	CTH B	M4-1	24" X 12"	--	2.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--		ALTERNATE
	CTH B	M1-1	24" X 24"	--	4.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--		INTERSTATE 90
	CTH B	M1-5A	24" X 24"	--	4.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--		COUNTY B
8-34	CTH B	R5-1	30" X 30"	--	6.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8-20	
8-35	CTH B	R5-1	30" X 30"	--	6.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8-13	
8-36	CTH B	R5-1A	36" X 24"	--	6.00	--	--	1	--	--	--	--	--	--	--	--	--	--	--		
8-37	CTH B	R5-1A	36" X 24"	--	6.00	--	--	1	--	--	--	--	--	--	--	--	--	--	--		
8-38	CTH B	R5-1A	36" X 24"	--	6.00	--	--	1	--	--	--	--	--	--	--	--	--	--	--		
8-39	CTH B	R5-1	30" X 30"	--	6.25	--	--	--	1	--	--	--	--	--	--	--	--	--	--		
8-40	CTH B	R5-1A	36" X 24"	--	6.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
8-41	CTH B	R5-1C	36" X 36"	--	9.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8-27	
9-1	CTH B	R5-1A	36" X 24"	--	6.00	--	--	--	--	--	--	--	--	--	--	1	1	--	--	9-2	
9-2	CTH B	J3-2	48" X 57"	--	--	--	--	--	--	2	--	--	--	--	--	--	1	--	--		DIRECTIONAL ASSEMBLY
		M1-5A	24" X 24"	--	4.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	9-2	COUNTY B
		M6-4	24" X 21"	--	3.50	--	--	--	--	--	--	--	--	--	--	1	--	--	--	9-2	DOUBLE DIRECTIONAL ARROW
		M4-1	24" X 12"	--	2.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	9-2	ALTERNATE
		M1-1	24" X 24"	--	4.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	9-2	INTERSTATE 90
		MB6-1	24" X 21"	--	3.50	--	--	--	--	--	--	--	--	--	--	1	--	--	--	9-2	DIRECTIONAL - RIGHT
9-3	CTH B	R5-1A	42" X 30"	--	8.75	--	1	--	--	--	--	--	--	--	--	1	1	--	--		
9-4	CTH B	W13-3A	36" X 60"	--	--	15.00	--	1	--	--	--	--	--	--	--	1	1	--	--		25 MPH

- CONTINUED -

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.1220 SIGNS TYPE I REFLECTIVE SH SF	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4x6 14-FT EACH	634.0616 16-FT EACH	634.0618 18-FT EACH	634.0620 20-FT EACH	634.0622 22-FT EACH	634.0805 POSTS TUBULAR STEEL 2x2x5 EACH	638.2101 MOVING SIGNS TYPE I EACH	638.2102 TYPE II EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 TYPE II EACH	638.3000 REMOVING SMALL SIGN EACH	638.4000 MOVING SUPPORTS EACH	638.3100 REMOVING STRUCTURAL STEEL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	COMMENTS
9-5	CTH B	R5-57	36" X 36"	--	9.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
9-6	CTH B	D9-52	36" X 36"	--	9.00	--	--	--	1	--	--	--	--	--	--	1	2	--	--		AIRPORT, W/ ARROW
9-7	CTH B	W3-1	48" X 48"	--	--	--	--	--	--	--	--	--	--	--	--	1	2	--	--		
9-8	CTH B	W1-8	24" X 30"	--	--	5.00	--	--	--	--	--	1	--	--	--	1	1	--	--		RIGHT (MOUNTED ON BARRIER)
9-9	CTH B	W1-8	24" X 30"	--	--	5.00	--	--	--	--	--	1	--	--	--	1	1	--	--		RIGHT (MOUNTED ON BARRIER)
9-10	CTH B	W1-8	24" X 30"	--	--	5.00	--	--	--	--	--	1	--	--	--	1	1	--	--		RIGHT (MOUNTED ON BARRIER)
9-11	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		RIGHT
9-12	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		RIGHT
9-13	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		RIGHT
9-14	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		RIGHT
9-15	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		RIGHT
9-16	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		RIGHT
9-17	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		RIGHT
9-18	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		RIGHT
9-19	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		RIGHT
9-20	CTH B	R5-57	36" X 36"	--	9.00	--	--	1	--	--	--	--	--	--	--	1	1	--	--		
9-21	CTH B	W3-1	48" X 48"	--	--	--	--	--	--	--	--	--	--	--	--	1	2	--	--		
9-22	CTH B	D9-52	36" X 36"	--	9.00	--	--	--	1	--	--	--	--	--	--	1	2	--	--		AIRPORT, W/ ARROW
9-23	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		LEFT
9-24	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		LEFT
9-25	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		LEFT
9-26	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		LEFT
9-27	CTH B	J3-2	48" X 57"	--	--	--	--	--	--	2	--	--	--	--	--	--	1	--	--		DIRECTIONAL ASSEMBLY
	CTH B	M1-5A	24" X 24"	--	4.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	9-27	COUNTY B
	CTH B	M6-4	24" X 21"	--	3.50	--	--	--	--	--	--	--	--	--	--	1	--	--	--	9-27	DOUBLE DIRECTIONAL ARROW
	CTH B	M4-1	24" X 12"	--	2.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	9-27	ALTERNATE
	CTH B	M1-1	24" X 24"	--	4.00	--	--	--	--	--	--	--	--	--	--	1	--	--	--	9-27	INTERSTATE 90
	CTH B	MB6-1	24" X 21"	--	3.50	--	--	--	--	--	--	--	--	--	--	1	--	--	--	9-27	DIRECTIONAL - RIGHT
9-28	CTH B	R5-1A	36" X 24"	--	6.00	--	1	--	--	--	--	--	--	--	--	1	1	--	--		
9-29	CTH B	R5-1A	36" X 24"	--	6.00	--	1	--	--	--	--	--	--	--	--	1	1	--	--		
9-30	CTH B	W13-3	24" X 30"	--	--	5.00	1	--	--	--	--	--	--	--	--	1	1	--	--		30 MPH
9-31	CTH B	W3-1	48" X 48"	--	--	16.00	--	2	--	--	--	--	--	--	--	--	--	--	--		
9-32	CTH B	W3-1	48" X 48"	--	--	--	--	--	--	--	--	--	--	--	--	1	2	--	--		
9-33	CTH B	W3-1	48" X 48"	--	--	16.00	--	2	--	--	--	--	--	--	--	--	--	--	--		
8-34	CTH B	W1-8	24" X 30"	--	--	5.00	--	--	--	--	--	1	--	--	--	1	1	--	--		
8-35	CTH B	W1-8	24" X 30"	--	--	5.00	--	--	--	--	--	1	--	--	--	1	1	--	--		
8-36	CTH B	W1-8	24" X 30"	--	--	5.00	--	--	--	--	--	1	--	--	--	1	1	--	--		
8-37	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-38	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-39	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-40	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-41	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-42	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-43	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-44	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		
8-45	CTH B	W1-8	24" X 30"	--	--	5.00	--	1	--	--	--	--	--	--	--	1	1	--	--		
PROJECT ID 1071-06-81 SUMMARY				**1,087.00**	**563.50**	**321.50**	**14**	**63**	**15**	**16 ***	**14 ***	**6**	**3**	**54 ***	**9**	**123 ***	**137 ***	**73 ***	**18**		
PROJECT TOTALS				**4,035.67**	**772.50**	**445.50**	**17**	**73**	**22**	**43 ***	**18 ***	**6**	**18 ***	**64 ***	**21**	**153 ***	**191 ***	**95 ***	**30**		

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

TYPE I SIGN SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	STEEL POST TYPE	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS LB	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	636.1000 SIGN SUPPORTS STEEL REINFORCEMENT HS LB	SIGN MOUNTED ON SAME POSTS AS	COMMENTS
4-12	IH 90 EB		B	1,100	1.6	98		(EXISTING) NORTH 35 ONALASKA
5-3	IH 90 EB	E3-1	B	1,000	1.6	98		UW LA CROSSE, VITERBO UNIVERSITY
5-6	IH 90 EB	E3-1	B	900	1.6	98		WESTERN TECHNICAL COLLEGE
6-13	IH 90 EB	E3-1	B	900	1.6	98		LA CROSSE RIVER STATE TRAIL EXIT
7-2	IH 90 EB		B	800	1.6	98		OUR LADY OF GUADALUPE SHRINE
PROJECT ID 1071-06-79 SUMMARY				**4,700**	**8.0**	**490**		
1-2	IH 90 EB	E5-52	A	600	1.2	68		REST AREA W/ ARROW
2-2	IH 90 EB	E1-1A	B	1,000	1.6	98		FRENCH ISLAND 1/2 MILE
2-9	IH 90 EB	E3-1	A	500	1.2	68		LA CROSSE AIRPORT EXIT 2
2-10	IH 90 EB	R5-60	A	500	1.2	68		STATE LAW
2-11	IH 90 EB	E4-1A	B	900	1.6	98		CTH B FRENCH ISLAND
	IH 90 EB	E1-5					2-17	EXIT 2
3-3	IH 90 EB		B	900	1.6	98		LA CROSSE - ONALASKA EXITS
3-5	IH 90 EB	E1-1A	C	1,300	1.8	100		53/35 LA CROSSE ONALASKA
	IH 90 EB	E1-5					3-5	EXIT 3
3-6	IH 90 EB	E3-1	B	1,100	1.6	98		AMTRAK STATION
3-8	IH 90 EB	E3-1	B	1,000	1.6	98		TOURIST INFO, HOSPITAL
3-9	IH 90 EB	E3-1	A	700	1.2	68		HISTORIC DOWNTOWN LA CROSSE
PROJECT ID 1071-06-81 SUMMARY				**8,500**	**14.6**	**862**		
PROJECT TOTALS				**13,200**	**22.6**	**1,352**		

REMOVING SIGNS TYPE II

SIGN NUMBER	STATION	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
108	175+00 WB	1	3
109	H RAMP	1	2
110	HV RAMP	1	2
111	208+60 WB	1	2
112	220+10 WE	1	3
113	232+00 WE	1	2
114	242+50 WE	1	2
115	247+25 WE	1	3
116	291+00 WE	1	2
117	300+25 WE	1	3
118	314+80 WE	1	2
119	322+40 EB	1	2
120	ROSE STREET	1	2
121	FLYOVER RAMP	1	2
122	ROSE STREET	1	2
PROJECT ID 1071-06-79 SUMMARY		**30 ***	**54 ***
100	122+25 EB	1	2
101	140+60 D	1	2
102	137+50 B	1	2
103	148+00 WB	1	2
104	147+80 EB	1	3
105	153+50 EB	1	3
106	164+80 WB	1	2
107	168+50 WB	1	2
123	96+80 WB	1	4
124	111+00 WB	1	4
125	124+30 WB	1	4
126	135+20 WB	1	3
PROJECT ID 1071-06-81 SUMMARY		**123 ***	**137 ***
PROJECT TOTALS		**153 ***	**191 ***

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

MOVING SIGNS

SIGN NUMBER	STAGE	STATION FROM	STATION TO	638.2101 MOVING SIGNS TYPE I EACH	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	COMMENTS
303	1	217+00 WE	217+00 WE	1	---	---	MOVE LOCATION ON EXISTING SIGN BRIDGE
304	1	252+75 WE	252+75 WE	1	---	---	MOVE LOCATION ON EXISTING SIGN BRIDGE
305	1	291+50 WE	291+50 WE	1	---	---	MOVE LOCATION ON EXISTING SIGN BRIDGE
306	1	291+50 WE	291+50 WE	1	---	---	MOVE LOCATION ON EXISTING SIGN BRIDGE
307	1	312+90 WE	312+90 WE	1	---	---	MOVE LOCATION ON EXISTING SIGN BRIDGE
308	1	312+90 WE	312+90 WE	1	---	---	MOVE LOCATION ON EXISTING SIGN BRIDGE
348	3A	220+10 WE	230+50 WB	---	1	3	SIGN 112 PLACED PREVIOUSLY
349	3A	247+25 WE	255+00 WB	---	1	3	SIGN 115 PLACED PREVIOUSLY
363	5A	217+00 WE	217+00 WE	1	---	---	SIGN 303 MOVED PREVIOUSLY
364	5A	252+75 WE	252+75 WE	1	---	---	SIGN 304 MOVED PREVIOUSLY
365	5A	247+25 WE	255+00 WB	---	1	3	SIGN 349 MOVED PREVIOUSLY
370	5A	322+30 EB	315+00 EB	2	---	---	MOVE TO NEW SIGN BRIDGE
371	5A	232+00 WE	259+50 WB	---	1	2	SIGN 113 PLACED PREVIOUSLY
366	FINAL	291+50 WE	291+50 WE	1	---	---	SIGN 305 MOVED PREVIOUSLY
367	FINAL	291+50 WE	291+50 WE	1	---	---	SIGN 306 MOVED PREVIOUSLY
368	FINAL	312+90 WE	312+90 WE	1	---	---	SIGN 307 MOVED PREVIOUSLY
369	FINAL	312+90 WE	312+90 WE	1	---	---	SIGN 308 MOVED PREVIOUSLY
PROJECT ID 1071-06-79 SUMMARY				**15 ***	**10 ***	**22 ***	
300	1	138+80 A	138+80 A	---	1	2	
301	1	140+20 C	140+20 C	---	1	2	
302	1	138+10 C	138+10 C	---	1	2	
309	1A	144+90 A	144+90 A	---	1	1	
310	1A	144+90 A	144+90 A	---	1	1	
311	1A	134+50 B	134+50 B	---	1	1	
312	1A	135+60 CV	135+60 CV	---	1	1	
313	1A	135+10 CV	135+10 CV	---	1	1	
314	1A	133+90 CV	133+90 CV	---	1	1	
315	1A	146+60 DV	146+60 DV	---	1	1	
316	1A	146+60 DV	146+60 DV	---	1	1	
317	1A	145+50 DV	145+50 DV	---	1	1	
318	2A	122+25 EB	120+00 WB	---	1	2	SIGN 100 PLACED PREVIOUSLY
319	2A	140+60 D	141+00 DV	---	1	2	SIGN 101 PLACED PREVIOUSLY
320	2A	147+80 EB	148+80 WB	---	1	3	SIGN 104 PLACED PREVIOUSLY
321	2A	137+50 B	147+95 BT	---	1	2	SIGN 102 PLACED PREVIOUSLY
323	2A	144+90 A	144+50 AT	---	1	1	SIGN 309 MOVED PREVIOUSLY
324	2A	143+00 A	143+70 AT	---	1	1	
325	2A	134+50 B	134+40 BT	---	1	1	SIGN 311 MOVED PREVIOUSLY
326	2A	32+10 BS	32+10 BN	---	1	1	
327	2A	34+20 BS	34+20 BN	---	1	1	
328	2A	38+80 BS	38+80 BN	---	1	1	
329	2A	41+10 BS	41+10 BN	---	1	2	
330	2A	46+20 BS	46+20 BN	---	1	1	
331	2A	133+90 CV	133+80 CV	---	1	1	SIGN 314 MOVED PREVIOUSLY
332	2A	135+10 CV	135+60 CV	---	1	1	SIGN 313 MOVED PREVIOUSLY
333	2A	135+60 CV	135+60 CV	---	1	1	SIGN 312 MOVED PREVIOUSLY
334	2A	145+70 D	145+70 DV	---	1	1	
335	2A	51+00 BS	51+00 BN	---	1	1	
336	2A	53+80 BS	53+80 BN	---	1	2	
337	2B	141+00 DV	140+55 D	---	1	2	SIGN 319 MOVED PREVIOUSLY
338	2B	144+50 AT	144+70 AT	---	1	1	SIGN 323 MOVED PREVIOUSLY
339	2C	147+95 BT	137+50 B	---	1	2	SIGN 321 MOVED PREVIOUSLY
340	2C	134+40 BT	143+70 AT	---	1	1	SIGN 325 MOVED PREVIOUSLY
341	2C	133+50 BT	144+20 AT	---	1	1	

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FIELD OFFICE TYPE C

PROJECT	642.5201 EACH
1071-06-79	0.4
PROJECT ID 1071-06-79 SUMMARY	**0.4**
1071-06-81	0.3
PROJECT ID 1071-06-81 SUMMARY	**0.3**
PROJECT TOTAL	**0.7**

TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE

PROJECT	643.0200 DAYS
01. 1071-06-79	218
PROJECT ID 1071-06-79 SUMMARY	**218**
02. 1071-06-81	218
PROJECT ID 1071-06-81 SUMMARY	**218**

TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER

STATION TO STATION	LOCATION	STAGE	643.0500 POSTS EACH	643.0600 BASES EACH
174+00 WB - 199+00 WB UNDISTRIBUTED	CL WB	1	100	100
PROJECT ID 1071-06-79 SUMMARY			**100**	**100**
84+00 WB - 174+00 WB	CL WB	1	275	275
78+00 WB - 84+00 WB UNDISTRIBUTED	CL WB	2	12	12
PROJECT ID 1071-06-81 SUMMARY			**287**	**287**
PROJECT TOTALS			**387**	**387**

TRAFFIC CONTROL DETOUR

PROJECT	643.2000 EACH
1071-06-79	1
PROJECT ID 1071-06-79 SUMMARY	**1**
NONE	---
PROJECT ID 1071-06-81 SUMMARY	---

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

MOVING SIGNS

SIGN NUMBER	STAGE	STATION FROM	STATION TO	638.2101 MOVING SIGNS TYPE I EACH	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	COMMENTS
342	2C	133+80 CV	132+90 C	---	1	1	SIGN 331 MOVED PREVIOUSLY
343	2C	135+60 CV	134+15 C	---	1	1	SIGN 332 MOVED PREVIOUSLY
344	2C	135+60 CV	134+15 C	---	1	1	SIGN 333 MOVED PREVIOUSLY
356	2C	144+70 AT	144+65 AT	---	1	1	SIGN 338 MOVED PREVIOUSLY
345	3A	120+00 WB	122+25 EB	---	1	2	SIGN 318 MOVED PREVIOUSLY
346	3A	137+50 B	136+70 B	---	1	2	SIGN 339 MOVED PREVIOUSLY
350	4A	31+00 BN	31+00 BS	---	1	2	
351	4A	144+65 AT	144+35 A	---	1	1	SIGN 356 MOVED PREVIOUSLY
352	4A	36+30 BN	36+30 BS	---	1	2	
353	4A	36+70 BN	36+70 BS	---	1	1	
354	4A	39+00 BN	39+00 BS	---	1	1	
355	4A	41+50 BN	41+50 BS	---	1	1	
357	4A	45+70 BN	45+70 BS	---	1	2	
358	4A	132+90 C	133+15 C	---	1	1	SIGN 342 MOVED PREVIOUSLY
359	4A	48+80 BN	48+80 BS	---	1	2	
360	4A	49+10 BN	49+10 BS	---	1	1	
361	4A	51+10 BN	51+10 BS	---	1	1	
362	4A	55+65 BN	57+50 BN	---	1	1	
PROJECT ID 1071-06-81 SUMMARY				**3 ***	**54 ***	**73 ***	
PROJECT TOTALS				**18 ***	**64 ***	**95 ***	

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

TRAFFIC CONTROL DETOUR SIGNS

STAGE	643.3000 EACH	643.3000 DAYS
STAGES 1-4 I90 EB TO ROSE	165	33165
STAGES 1-5A P RAMP	66	13794
STAGES 1-5A STH 157 SB TO I90	42	8778
STH 35 NORTHBOUND DETOUR	59	118
STH 35 SOUTHBOUND DETOUR	215	430
UNDISTRIBUTED	---	2815
PROJECT ID 1071-06-79 SUMMARY		**59100**
NONE	---	---
PROJECT ID 1071-06-81 SUMMARY		**---**
PROJECT TOTAL		**59100**

OVERHEAD SIGN SUPPORT

PROJECT	CATEGORY	STRUCTURE	641.8100 LS
1071-06-79	0080	01. S-32-0061	1

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

TRAFFIC CONTROL SIGNS, LIGHTS, AND BARRICADES

STAGE	643.0300 DRUMS EACH	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A EACH	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C EACH	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS EACH	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS EACH	643.0900 SIGNS DAYS	643.1050 PCMS EACH	643.1050 PCMS DAYS
STAGE 1	102	8160	14	1120	28	2240	33	2640	---	---	46	3680	10	800
STAGE 1A ROSE ST PEAK	27	405	1	15	2	30	12	180	1	15	17	255	---	---
STAGE 1B ROSE ST OFF PEAK	60	900	4	60	8	120	27	405	2	30	25	375	---	---
STAGE 1C ROSE ST OFF PEAK	75	1125	4	60	8	120	19	285	1	15	25	375	---	---
STAGE 3A	169	13520	30	2400	60	4800	34	2720	---	---	44	3520	9	720
STAGE 5A	416	21216	27	1377	54	2754	15	765	2	102	62	3162	8	408
STAGES 1-5 STH 157	83	16600	8	1600	16	3200	---	---	---	---	8	1600	---	---
RAMP GATES AT STH 16	80	160	---	---	---	---	---	---	---	---	20	40	---	---
LANE CLOSURE FOR RAMP GATES AT	50	100	2	4	---	---	---	---	---	---	13	26	---	---
RAMP GATES AT STH 157	40	80	---	---	---	---	---	---	---	---	16	32	---	---
UNDISTRIBUTED		3134		364		736		355		8		635		102
PROJECT ID 1071-06-79 SUMMARY		**65400**		**7000**		**14000**		**7350**		**170**		**13700**		**2030**
STAGE 1	321	5136	27	432	54	864	32	512	---	---	32	512	3	48
STAGE 1A CTH B	155	1240	---	---	---	---	---	---	---	---	11	88	3	24
STAGE 1B CTH B	113	904	---	---	---	---	---	---	---	---	8	64	3	24
STAGE 2A	55	825	12	180	24	360	13	195	---	---	37	555	3	45
STAGE 2A CTH B	92	1380	18	270	36	540	---	---	---	---	17	255	3	45
STAGE 2B	52	780	15	225	30	450	10	150	---	---	40	600	3	45
STAGE 2B CTH B	118	1770	18	270	36	540	---	---	---	---	14	210	3	45
STAGE 2C	76	1140	6	90	12	180	11	165	---	---	38	570	3	45
STAGE 2C CTH B	107	1605	18	270	36	540	---	---	---	---	14	210	3	45
STAGE 3A	313	15650	24	1200	48	2400	23	1150	---	---	37	1850	3	150
STAGE 3B	398	3980	23	230	46	460	71	710	---	---	39	390	3	30
STAGE 3C	376	3760	26	260	52	520	74	740	---	---	42	420	3	30
STAGE 3A/3B/3C CTH B	84	5880	18	1260	36	2520	---	---	---	---	13	910	3	210
STAGE 4A	313	15650	24	1200	48	2400	23	1150	---	---	37	1850	3	150
STAGE 4B	398	3980	23	230	46	460	71	710	---	---	37	370	3	30
STAGE 4C	376	3760	26	260	52	520	74	740	---	---	42	420	3	30
STAGE 4A/4B/4C CTH B	89	6230	7	490	14	980	---	---	---	---	9	630	3	210
STAGE 5A	257	4369	20	340	40	680	---	---	---	---	20	340	2	34
STAGE 5A CTH B	108	864	---	---	---	---	---	---	---	---	7	56	2	16
STAGE 5B CTH B	120	1080	---	---	---	---	---	---	---	---	7	63	2	18
UNDISTRIBUTED		4017		393		786		328		---		587		66
PROJECT ID 1071-06-81 SUMMARY		**84000**		**7600**		**15200**		**6550**		**---**		**10950**		**1340**
PROJECT TOTALS		**149400**		**14600**		**29200**		**13900**		**170**		**24650**		**3370**

REMOVING PAVEMENT MARKINGS

STATION TO STATION	DESCRIPTION	STAGE	646.0600 LF
174+00 WB - 318+50 WB	MEDIAN EDGELINE	1	14450
174+00 WB - 318+00 WB	MEDIAN EDGELINE	1	14400
183+50 EB - 184+50 EB	INSIDE/OUTSIDE EDGELINE	1	200
183+50 EB - 184+50 EB	DASHED LANE LINE	1	50
186+25 ET - 187+25 ET	EDGELINE	1	100
201+50 WB - 204+25 WB	CHANNELIZING	1	550
210+50 WB - 217+20 WB	CHANNELIZING	1	1340
197+80 FU - 199+50 FU	EDGELINE	1	170
201+00 EB - 202+00 EB	MEDIAN/OUTSIDE EDGELINE	1	200
201+00 EB - 202+00 EB	DASHED LANE LINE	1	50
212+50 WB - 262+00 WB	OUTSIDE EDGELINE	1	4950
217+20 WB - 260+00 WB	DOTTED LANE LINE	1	2140
260+00 WB - 263+75 WB	CHANNELIZING	1	750

- CONTINUED -

REMOVING PAVEMENT MARKINGS

STATION TO STATION	DESCRIPTION	STAGE	646.0600 LF
274+50 WB - 280+50 WB	CHANNELIZING	1	1200
280+50 WB - 287+00 WB	OUTSIDE EDGELINE	1	650
287+00 WB - 291+70 WB	CHANNELIZING	1	940
291+70 WB - 319+00 WB	DOTTED LANE LINE	1	1365
317+00 EB - 323+25 EB	MEDIAN EDGELINE	1	625
317+00 EB - 323+25 EB	DASHED LANE LINE	1	156
317+00 EB - 323+25 EB	DOTTED LANE LINE	1	313
317+00 EB - 323+25 EB	CHANNELIZING	1	1250
106+15 TS - 116+60 TS	SKIPS	1	261
107+60 TS - 116+60 TS	EDGELINE	1	900
107+30 TN - 115+30 TN	SKIPS/EDGELINE	1	1000
199+37 FW - 200+37 FW	EDGELINE	3A	100
208+00 WB - 231+00 WB	MEDIAN EDGELINE	3A	2300
222+00 WB - 227+00 WB	DOTTED LANE LINE	3A	125
PROJECT ID 1071-06-79 SUMMARY			**50535**
72+00 WB - 174+00 WB	DASHED LANE LINE	1	2550
126+50 EB - 128+50 EB	DASHED LANE LINE	1	50
147+00 EB - 151+50 EB	DASHED LANE LINE	1	113
155+20 EB - 159+00 EB	MEDIAN EDGELINE	1	380
162+00 WB - 174+00 WB	MEDIAN EDGELINE	1	1200
77+69 WB - 82+00 WB	LT/RT EDGELINE	2A	862
82+00 WB - 162+00 WB	MEDIAN EDGELINE	2A	8000
134+00 EB - 135+00 EB	MEDIAN/OUTSIDE EDGELINE	2A	200
134+00 EB - 135+00 EB	DASHED LANE LINE	2A	25
135+50 DV - 136+10 DV	CHANNELIZING	2A	120
136+10 DV - 137+50 DV	EDGELINE	2A	140
143+40 CV - 144+25 CV	CHANNELIZING	2A	170
142+00 CV - 144+25 CV	EDGELINE	2A	25
141+00 BT - 149+00 BT	EDGELINE	2A	800
148+00 EB - 158+00 EB	DASHED LANE LINE	2A	250
159+00 EB - 160+00 EB	MEDIAN EDGELINE	2A	100
132+40 B - 136+25 B	RT/LT EDGELINE	2A	770
27+60 BN - 30+00 BN	CENTERLINE	2A	480
27+60 BN - 58+75 BN	RT EDGELINE	2A	3115
30+00 BN - 36+50 BN	LT EDGELINE	2A	650
30+00 BN - 36+50 BN	CHANNELIZING	2A	1300
37+00 BN - 48+80 BN	LT EDGELINE	2A	1180
46+80 BN - 48+80 BN	CHANNELIZING	2A	400
49+30 BN - 55+80 BN	LT EDGELINE	2A	650
55+80 BN - 58+75 BN	CENTERLINE	2A	590
133+00 C - 138+50 C	RT/LT EDGELINE	2A	550
133+00 C - 133+50 C	CHANNELIZING	2A	100
133+00 C	STOP LINE	2A	120
128+50 AU - 130+50 AU	EDGELINE	2B	200
142+25 C - 144+25 C	CHANNELIZING	2C	400
143+35 C - 144+25 C	EDGELINE	2C	90
147+10 WB - 156+00 WB	MEDIAN EDGELINE	2C	890
160+75 BT - 168+50 BT	RT EDGELINE	2C	775
160+75 BT - 161+50 BT	LT EDGELINE	2C	75
161+60 WB - 162+50 WB	CHANNELIZING	2C	180
162+00 WB - 166+00 WB	MEDIAN EDGELINE	3A	400
53+42 BS - 55+80 BS	RT EDGELINE	4A	238
53+42 BS - 58+20 BS	LT EDGELINE	4A	478
PROJECT ID 1071-06-81 SUMMARY			**28616**
PROJECT TOTAL			**79151**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

PAVEMENT MARKING

STATION TO STATION	DESCRIPTION	646.0106 EPOXY 4-INCH WHITE LF	646.0106 EPOXY 4-INCH YELLOW LF	646.0126 EPOXY 8-INCH WHITE LF	646.0129 PREFORMED PLASTIC 8-INCH WHITE LF	646.0841.S GROOVED WET CONTRAST TAPE 4-INCH WHITE LF	646.0843.S REFLECTIVE TAPE 8-INCH WHITE LF	646.0883.S GROOVED WET REFLECTIVE TAPE 8-INCH WHITE LF	647.0356 WORDS EPOXY EACH	647.0456 CURB EPOXY LF	647.0606 ISLAND NOSE EPOXY WHITE EACH
172+00 EB - 323+00 EB	EB LANES	11285	15100	1664	---	3925	2382	3463	---	---	---
172+00 WB - 321+60 WB	WB LANES	9075	14960	1317	---	3738	1770	4308	---	---	---
182+38 EV - 185+27 EV	EV RAMP	289	198	---	---	---	---	---	---	---	---
195+09 EX - 199+40 EX	EX RAMP	431	303	---	---	---	---	---	---	---	---
199+54 FQ - 203+73 FQ	FQ RAMP	536	266	---	---	---	---	---	---	---	---
253+51 J - 267+98 J	J RAMP	1436	644	---	---	238	912	---	---	---	---
268+36 N - 284+18 N	N RAMP	1609	---	---	---	---	---	---	---	---	---
280+86 K - 290+13 K	K RAMP	552	374	---	---	---	---	---	---	---	---
SUBTOTALS		**25213**	**31845**	**2981**	**---**	**7901**	**5064**	**7771**	**---**	**---**	**---**
PROJECT ID 1071-06-79 SUMMARY		**57058**		**2981**	**---**	**7901**	**5064**	**7771**	**---**	**---**	**---**
71+97 EB - 172+00 EB	EB LANES	7770	10003	---	---	3097	---	3384	---	---	---
71+97 WB - 172+00 WB	WB LANES	---	10003	---	---	2848	---	1282	---	---	---
88+40 RA - 99+12.80 RA	RA RAMP	1073	533	---	---	---	---	---	---	---	---
105+25 RA - 113+31 RA	RA RAMP	806	86	---	---	---	---	---	---	---	---
130+95 A - 144+88 A	A RAMP	1513	982	---	203	---	---	---	---	25	2
131+84 B - 146+46 B	B RAMP	1738	915	---	---	---	---	---	---	---	---
132+74 C - 145+70 C	C RAMP	1267	920	---	215	---	---	---	---	25	2
130+57 D - 147+02 D	D RAMP	1516	1061	---	---	---	---	---	---	---	---
30+00 BN - 53+50 BN	CTH B	3649	4488	---	556	---	---	---	2	---	---
SUBTOTALS		**19332**	**28991**	**---**	**974**	**5945**	**---**	**4666**	**2**	**50**	**4**
PROJECT ID 1071-06-81 SUMMARY		**48323**		**---**	**974**	**5945**	**---**	**4666**	**2**	**50**	**4**
PROJECT TOTALS		**105381**		**2981**	**974**	**13846**	**5064**	**12437**	**2**	**50**	**4**

PAVEMENT MARKING STOP LINE PREFORMED PLASTIC 18-INCH

STATION	LOCATION	647.0569 LF
NONE		---
PROJECT ID 1071-06-79 SUMMARY		**---**
144+50 RT	RAMP A	24
144+58 LT	RAMP A	26
133+10 LT	RAMP D	24
133+10 RT	RAMP D	24
PROJECT ID 1071-06-81 SUMMARY		**98**
PROJECT TOTAL		**98**

REMOVING PAVEMENT MARKING ARROWS

STATION	LOCATION	STAGE	647.0955 EACH
NONE			---
PROJECT ID 1071-06-79 SUMMARY			**---**
35+50 BN			1
36+25 BN			1
47+50 BN			1
48+25 BN			1
PROJECT ID 1071-06-81 SUMMARY			**4**
PROJECT TOTAL			**4**

PAVEMENT MARKING ARROWS

STATION	DESCRIPTION	647.0166 EPOXY TYPE 2 EACH	647.0199 PREFORMED PLASTIC TYPE 5 EACH
179+65 WB	WB LANES	---	1
180+80 WB	WB LANES	---	1
PROJECT ID 1071-06-79 SUMMARY		**---**	**2**
117+50 EB	EB LANES	---	1
118+50 EB	EB LANES	---	1
123+00 WB	WB LANES	---	1
124+50 WB	WB LANES	---	1
152+50 EB	EB LANES	---	1
154+00 EB	EB LANES	---	1
35+00 BN	CTH B	1	---
36+25 BN	CTH B	1	---
48+15 BN	CTH B	1	---
38+50 BS	CTH B	1	---
50+25 BS	CTH B	1	---
51+55 BS	CTH B	1	---
PROJECT ID 1071-06-81 SUMMARY		**6**	**6**
PROJECT TOTALS		**6**	**8**

TRAFFIC CONTROL COVERING SIGNS

STATION	STAGE	CYCLES	643.0910 TYPE I EACH	643.0920 TYPE II EACH
175+90 WB LT	1	1	---	1
242+00 WB LT	1	1	---	1
291+75 WB OVERHEAD	1	1	2	---
307+00 WB LT	1	1	---	1
313+00 WB OVERHEAD	1	1	2	---
322+50 EB OVERHEAD	1	1	3	---
326+50 EB RT	1	1	---	1
ROSE ST SB	1A	10	---	40
ROSE ST NB OVERHEAD	1C	10	10	---
315+00 EB OVERHEAD	5A	1	2	---
PROJECT ID 1071-06-79 SUMMARY			**19**	**44**
46+50 EB RT	1	1	---	1
102+10 WB LT	1	1	---	1
159+10 WB LT	1	1	---	1
160+50 EB RT	1	1	---	1
CTH B	2B	1	---	3
PROJECT ID 1071-06-81 SUMMARY			**---**	**7**
PROJECT TOTALS			**19**	**51**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

TEMPORARY PAVEMENT MARKING

STATION TO STATION	DESCRIPTION	STAGE	649.0402 PAINT 4-INCH WHITE LF	649.0402 PAINT 4-INCH YELLOW LF	649.0400 REMOVABLE TAPE 4-INCH WHITE LF	649.0400 REMOVABLE TAPE 4-INCH YELLOW LF	649.0802 PAINT 8-INCH WHITE LF	649.1300 STOP LINE 24-INCH LF	649.1400 STOP LINE REMOVABLE TAPE 24-INCH LF
174+00 WB - 199+00 WB	CENTERLINE	1	---	5400	---	---	---	---	---
199+00 WB - 323+00 WB	EDGELINE	1	---	24300	---	---	---	---	---
174+00 WB - 187+25 ET	EDGELINE	1	1325	387	---	---	---	---	---
180+00 WB - 183+50 WB	CHANNELIZING	1	---	---	---	---	395	---	---
183+50 WB - 202+20 WB	EDGELINE	1	1870	---	---	---	---	---	---
202+20 WB - 203+70 WB	CHANNELIZING	1	---	---	---	---	350	---	---
197+65 FU - 265+00 JU	EDGELINE	1	6735	1581	---	---	---	---	---
203+85 EB - 222+00 EB	SKIPS	1	454	---	---	---	---	---	---
222+00 EB - 248+00 EB	DASHES	1	---	---	---	---	650	---	---
248+00 EB - 254+25 EB	CHANNELIZING	1	1800	---	---	---	---	---	---
254+25 EB - 286+20 EB	EDGELINE	1	3195	---	---	---	---	---	---
278+27 KT - 323+25 EB	EDGELINE	1	4315	582	---	---	---	---	---
286+20 EB - 288+50 EB	CHANNELIZING	1	830	---	---	---	---	---	---
288+50 EB - 323+00 EB	SKIPS	1	863	---	---	---	---	---	---
316+90 EB - 323+00 EB	CHANNELIZING	1	2040	---	---	---	---	---	---
201+25 WB - 204+15 WB	CHANNELIZING	1	900	---	---	---	---	---	---
204+15 WB - 210+50 WB	EDGELINE	1	635	---	---	---	---	---	---
210+50 WB - 217+50 WB	CHANNELIZING	1	1400	---	---	---	---	---	---
212+35 WB - 261+70 WB	EDGELINE	1	4935	---	---	---	---	---	---
217+50 WB - 261+20 WB	DASHES	1	1093	---	---	---	---	---	---
261+20 WB - 263+40 WB	CHANNELIZING	1	440	---	---	---	---	---	---
263+40 WB - 286+90 WB	EDGELINE	1	2350	---	---	---	---	---	---
286+90 WB - 291+50 WB	CHANNELIZING	1	932	---	---	---	---	---	---
289+00 WB - 319+00 WB	EDGELINE	1	3000	---	---	---	---	---	---
291+50 WB - 318+50 WB	DASHES	1	675	---	---	---	---	---	---
ROSE STREET	EDGELINE	1A	2200	1435	---	---	---	---	---
ROSE STREET	SKIPS	1A	388	---	---	---	---	---	---
ROSE STREET	CHANNELIZING	1A	---	---	---	---	195	---	---
174+00 WB - 185+36 EU	EDGELINE	3A	1136	420	---	---	---	---	---
177+10 WB - 183+50 WB	CHANNELIZING	3A	844	---	---	---	---	---	---
202+20 WB - 226+00 WB	EDGELINE	3A	2380	---	---	---	---	---	---
199+36 FW - 232+00 WB	EDGELINE	3A	---	---	3070	2786	---	---	---
226+90 WB - 228+50 WB	CHANNELIZING	3A	---	---	---	---	153	---	---
248+00 WB - 254+75 WB	DASHES	3A	338	---	---	---	---	---	---
254+75 WB - 259+25 WB	CHANNELIZING	3A	1100	---	---	---	---	---	---
248+00 WB - 267+98 J	EDGELINE	3A	1815	906	---	---	---	---	---
280+50 KU - 294+00 WB	EDGELINE	3A	---	---	1350	850	---	---	---
288+85 WB - 292+00 WB	CHANNELIZING	3A	---	1144	---	---	---	---	---
SUBTOTALS			**49986**	**36155**	**4420**	**3636**	**1743**	**---**	**---**
PROJECT ID 1071-06-79 SUMMARY			**86141**		**8056**		**1743**	**---**	**---**
72+00 WB - 174+00 WB	CENTERLINE	1	---	20400	---	---	---	---	---
126+50 EB - 134+04 EB	EDGELINE	1	754	---	---	---	305	---	---
147+00 EB - 152+00 EB	EDGELINE	1	---	---	500	---	---	---	---
155+00 EB - 164+25 EB	EDGELINE	1	---	925	---	---	---	---	---
157+75 EB - 174+00 ET	EDGELINE	1	1625	---	---	---	---	---	---
77+69 WB - 140+25 AT	EDGELINE	2A	6256	650	---	---	---	---	---
77+69 WB - 83+70 WB	CENTERLINE	2A	---	1202	---	---	---	---	---
126+30 WB - 133+90 WB	CHANNELIZING	2A	1730	---	---	---	---	---	---
133+90 WB - 161+50 WB	EDGELINE	2A	2760	---	---	---	---	---	---
137+00 BT - 150+53 BT	EDGELINE	2A	1353	1353	---	---	---	---	---
155+00 EB - 174+50 WB	EDGELINE	2A	1950	642	---	---	---	---	---
161+40 WB - 162+40 WB	CHANNELIZING	2A	400	---	---	---	---	---	---
137+50 C - 144+25 C	EDGELINE	2A	1029	456	---	---	---	---	---
135+40 D - 141+79 D	EDGELINE	2A	798	600	---	---	---	---	---
27+67 BN - 58+75 BN	CENTERLINE	2A	---	6216	---	---	---	---	---

- CONTINUED -

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

TEMPORARY PAVEMENT MARKING

STATION TO STATION	DESCRIPTION	STAGE	649.0402 PAINT 4-INCH WHITE LF	649.0402 PAINT 4-INCH YELLOW LF	649.0400 REMOVABLE TAPE 4-INCH WHITE LF	649.0400 REMOVABLE TAPE 4-INCH YELLOW LF	649.0802 PAINT 8-INCH WHITE LF	649.1300 STOP LINE 24-INCH LF	649.1400 STOP LINE REMOVABLE TAPE 24-INCH LF
27+67 BN - 58+75 BN	EDGELINE	2A	6251	---	---	---	---	---	---
132+80 BT - 137+00 BT	EDGELINE	2A	420	420	---	---	---	---	---
140+25 AT - 145+00 AT	EDGELINE	2A	475	475	---	---	---	24	---
132+74 C - 135+40 C	EDGELINE	2A	266	266	---	---	---	40	---
141+79 D - 147+00 D	EDGELINE	2A	521	521	---	---	---	---	---
129+00 AT - 130+10 AT	CHANNELIZING	2B	200	---	---	---	---	---	---
129+00 AT - 140+25 AT	EDGELINE	2B	1125	975	---	---	---	---	---
136+50 D - 141+79 D	EDGELINE	2B	529	529	---	---	---	---	---
140+25 AT - 145+00 AT	EDGELINE	2B	---	---	475	475	---	---	24
132+74 C - 137+50 C	EDGELINE	2B	---	---	476	476	---	---	40
141+79 D - 147+00 D	EDGELINE	2B	---	---	521	521	---	---	---
BU RAMP - 175+50 WB	EDGELINE	2C	2300	---	1550	1097	---	---	---
147+18 WB - 148+65	CHANNELIZING	2C	---	592	---	---	---	---	---
140+25 AT - 145+00 AT	EDGELINE	2C	---	---	505	240	---	---	24
132+80 BT - 137+00 BT	EDGELINE	2C	---	---	730	471	---	---	---
132+74 C - 137+50 C	EDGELINE	2C	---	---	640	558	---	---	40
77+69 WB - 82+00 WB	RT EDGELINE	3A	431	---	---	---	---	---	---
77+69 WB - 82+00 WB	LT EDGELINE	3A	---	431	---	---	---	---	---
148+00 EB - 174+00 WB	EDGELINE	3A	1900	---	700	1625	---	---	---
148+00 EB - 151+00 EB	DASHES	3A	75	---	---	---	---	---	---
150+20 WB - 152+40 WB	CHANNELIZING	3B	---	---	872	---	---	---	---
148+00 EB - 151+00 EB	EDGELINE	3B	---	---	---	305	---	---	---
151+00 EB - 152+00 EB	CHANNELIZING	3B	---	---	---	400	---	---	---
153+25 WB - 155+10 WB	EDGELINE	3B	---	---	183	---	---	---	---
140+00 B - 143+45 B	EDGELINE	3C	---	---	366	210	---	---	---
141+80 EB - 142+85 EB	CHANNELIZING	3C	---	---	412	---	---	---	---
140+85 C - 143+80 C	EDGELINE	3C	---	---	305	140	---	---	---
142+10 EB - 143+28 EB	CHANNELIZING	3C	---	---	480	---	---	---	---
150+75 WB - 153+25 WB	EDGELINE	3C	---	---	250	---	---	---	---
150+65 EB - 154+45 EB	EDGELINE	3C	---	---	380	---	---	---	---
26+65 BS - 58+70 BS	EDGELINE	4A	---	---	6443	715	---	---	100
26+65 BS - 58+70 BS	CENTERLINE	4A	---	---	---	6250	---	---	---
SUBTOTALS			**33148**	**36653**	**15788**	**13483**	**305**	**64**	**228**
PROJECT ID 1071-06-81 SUMMARY			**69801**		**29271**		**305**	**64**	**228**
PROJECT TOTALS			**155942**		**37327**		**2048**	**64**	**228**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

CONSTRUCTION STAKING

STATION TO STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.9920 SLOPE STAKES LF	650.7000 CONCRETE PAVEMENT LF
174+23 EB - 191+58 EB	EB LANES	1735	---	1735	1735
195+40 EB - 212+19 EB	EB LANES	1679	---	1679	1679
215+81 EB - 248+00 EB	EB LANES	3219	---	3219	3219
249+44 EB - 310+02 EB	EB LANES	6058	---	6058	6058
311+60 EB - 312+07 EB	EB LANES	47	---	47	47
180+38 E - 186+05 E	RAMP E	567	---	567	567
199+80 F - 206+74 F	RAMP F	694	---	694	694
253+52 J - 266+00 J	RAMP J	1248	---	1248	1248
268+36 N - 272+52 N	RAMP N	416	---	416	416
285+02 K - 287+13 K	RAMP K	211	---	211	211
181+25 EU - 182+52 EU	TEMP RAMP EU	126	126	126	---
182+38 EV - 185+26 EV	RAMP EV	288	288	288	---
184+93 EW - 186+00 EW	RAMP EW	107	107	107	---
259+65 JV - 267+41 JV	TEMP RAMP JV	776	776	776	---
287+15 KU - 288+71 KU	TEMP RAMP KU	156	156	156	---
200+45 FQ - 203+73 FQ	FQ RAMP	328	328	328	---
195+09 EX - 199+40 EX	EX RAMP	431	431	431	---
PROJECT ID 1071-06-79 SUMMARY		**18086**	**2212**	**18086**	**15874**
71+97 EB - 97+57 EB	EB LANES	2560	---	2560	2560
98+99 EB - 168+66 EB	EB LANES	6952	---	6952	6952
30+00 BS - 53+41 BS	CTH B SB	2341	---	2341	2341
30+00 BN - 53+50 BN	CTH B NB	2350	---	2350	2350
88+40 RA - 97+63 RA	REST AREA	923	---	923	923
130+95 A - 144+89 A	RAMP A	1394	---	1394	1394
131+84 B - 146+47 B	RAMP B	1463	---	1463	1463
132+74 C - 142+00 C	RAMP C	926	---	926	926
138+00 D - 147+03 D	RAMP D	903	---	903	903
98+99 RA - 99+12.80 RA	REST AREA	14	---	14	14
105+25 RA - 113+31 RA	REST AREA	806	---	806	806
134+90 AT - 145+00 AT	TEMP RAMP AT	1213	1213	1213	---
133+48 BT - 148+22 BT	TEMP RAMP BT	1474	1474	1474	---
130+64 AU - 131+38 AU	TEMP RAMP AU	74	74	74	---
138+94 BU - 141+16 BU	TEMP RAMP BU	252	252	252	---
144+50 BU - 146+60 BU	TEMP RAMP BU	210	210	210	---
133+79 CV - 140+75 CV	TEMP RAMP CV	696	696	696	---
138+31 DV - 141+90 DV	TEMP RAMP DV	359	359	359	---
145+00 DV - 146+70 DV	TEMP RAMP DV	170	170	170	---
PROJECT ID 1071-06-81 SUMMARY		**25080**	**4448**	**25080**	**20632**
PROJECT TOTALS		**43166**	**6660**	**43166**	**36506**

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

PROJECT	650.9910.01 LS
1071-06-79	1

PROJECT	650.9910.02 LS
1071-06-81	1

CONSTRUCTION STAKING STRUCTURE LAYOUT

PROJECT	CATEGORY	STRUCTURE	650.6500 LS
1071-06-79	0080	03. S-32-61	1

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

STATION TO STATION	LOCATION	650.5500 LF
183+83 EV - 185+27 EV	RT	144
195+75 EX - 199+40 EX	RT	365
266+00 J - 267+10 J	LT	110
268+36 N - 270+18 N	RT	182
PROJECT ID 1071-06-79 SUMMARY		**801**
30+48 BN - 36+49 BN	MEDIAN	1184
37+14 BN - 42+29 BN	MEDIAN	1032
44+53 BN - 48+96 BN	MEDIAN	895
49+62 BN - 53+50 BN	MEDIAN	770
144+30 A - 144+64 A	MEDIAN ISLAND	100
143+93 A - 144+64 A	RT RADIUS	109
143+93 A - 144+88 A	LT	116
133+80 B - 135+63 B	RT	222
131+84 B - 139+02 B	LT	727
132+97 C - 133+25 C	MEDIAN ISLAND	81
132+97 C - 141+55 C	LT	883
132+97 C - 133+63 C	LT	72
144+62 D - 147+02 D	RT	210
146+15 D - 147+02 D	LT	104
PROJECT ID 1071-06-81 SUMMARY		**6505**
PROJECT TOTAL		**7306**

CONSTRUCTION STAKING CONCRETE BARRIER

STATION TO STATION	LOCATION	650.7500 LF
272+25 EB - 276+00 EB	RT	375
PROJECT ID 1071-06-79 SUMMARY		375
139+85 A - 143+71 A	LT	386
136+10 B - 136+66 B	LT	56
143+00 B - 144+75 B	RT	175
133+63 C - 138+34 C	LT	471
140+78 D - 141+40 D	RT	62
PROJECT ID 1071-06-81 SUMMARY		**1150**
PROJECT TOTAL		**1525**

SAWING

STATION TO STATION	LOCATION	STAGE	690.0150 ASPHALT LF	690.0250 CONCRETE LF
185+27 EV	RT/LT	1	8	15
199+25 EX	RT/LT	1	5	15
200+41 FW	RT/LT	1	10	15
222+18 EB - 225+95 EB	LT	1	377	---
261+80 JU - 267+10 JU	LT	1	---	532
268+36 N	RT/LT	1	5	17
285+02 K	RT/LT	1	10	15
312+07 EB	RT/LT	1	20	36
185+50 EW - 186+10 EW	RT	3	60	---
199+00 FU - 199+75 FU	RT/LT	3	75	---

- CONTINUED -

SAWING

STATION TO STATION	LOCATION	STAGE	690.0150 ASPHALT LF	690.0250 CONCRETE LF
265+42 J	RT/LT	3	6	24
281+75 K - 283+25 K	LT	3	150	---
175+00 WB - 183+00 WB	RT	5A	800	---
202+57 WB - 210+48 WB	RT	5A	791	---
217+16 EB - 222+18 EB	LT	5A	860	---
225+95 EB - 232+00 EB	LT	5A	1312	---
257+00 WB - 259+15 WB	RT	5A	215	---
286+25 WB - 291+30 WB	RT	5A	500	---
312+25 WB - 316+80 WB	RT	5A	455	---
317+00 EB - 321+30 EB	LT	5A	480	---
PROJECT ID 1071-06-79 SUMMARY			**6139**	**669**
134+50 EB - 135+50 EB	RT	1A	110	0
137+00 B - 139+97 B	RT	1A	---	297
139+97 B - 148+22 BT	RT	1A	825	---
144+50 A	ISLAND	1A	---	117
132+20 B - 134+00 B	LT	1A	---	215
132+75 B - 133+75 B	RT	1A	---	100
135+72 B -136+68 B	LT	1A	---	98
133+29 C - 135+00 C	LT	1A	---	171
133+00 C	ISLAND	1A	---	136
132+92 C - 134+63 C	RT	1A	---	191
137+50 C - 138+75 C	RT	1A	---	125
35+30 BN - 36+53 BN	LT	1B	250	---
37+02 BN - 37+93 BN	LT	1B	150	---
47+51 BN - 48+80 BN	LT	1B	270	---
49+30 BN - 51+63 BN	LT	1B	280	---
80+50 EB - 82+60 EB	LT	2A	210	---
99+12.80 RA	RT/LT	2A	10	15
105+72 RA	RT/LT	2A	7	17
30+00 BS	LT	2A	26	---
142+00 C	RT/LT	2A	5	---
138+00 D	RT/LT	2A	5	---
53+41 BS	LT	2A	19	3
131+00 B - 135+00 B	LT	2B	125	455
132+65 C - 134+50 C	RT/LT	2B	125	200
136+15 D - 138+00 D	RT	2B	185	---
142+00 C - 143+35 C	LT	2C	135	---
158+90 EB - 162+60 EB	LT	2C	370	---
124+80 WB - 133+50 WB	RT	3A	870	---
131+00 EB - 132+25 EB	LT	3A	125	---
144+50 EB - 146+25 EB	LT	3A	175	---
147+50 WB - 153+40 WB	RT	3A	790	---
133+95 EB - 134+50 EB	LT	3A	55	---
28+20 BN - 30+00 BN	RT	4A	210	---
53+50 BN - 57+55 BN	RT/LT	4A	430	3
30+00 BS - 34+95 BS	LT	5B	495	---
38+75 BS - 40+90 BS	LT	5B	205	---
45+60 BS - 47+60 BS	LT	5B	200	---
51+80 BS - 58+00 BS	LT	5B	620	---
PROJECT ID 1071-06-81 SUMMARY			**7282**	**2143**
PROJECT TOTALS			**13421**	**2812**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

CONSTRUCTION STAKING PIPE CULVERTS

STATION TO STATION	LOCATION	650.6000 EACH
264+50 J	J RAMP	1
PROJECT ID 1071-06-79 SUMMARY		**1**
129+00 EB	MEDIAN	1
131+52 EB - 132+44 EB	PEDESTRIAN STRUCTURE	1
147+13 EB - 151+00 WB	MEDIAN	1
143+55 A	A AND B RAMPS	1
140+10 B	B RAMP	1
140+78 C	C RAMP	1
PROJECT ID 1071-06-81 SUMMARY		**6**
PROJECT TOTAL		**7**

CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS

PROJECT	650.8500.01 LS
1071-06-79	1

PROJECT	650.8500.02 LS
1071-06-81	1

ADJUSTING CONSTRUCTION STAKING

PROJECT	SPV.0105.01 LS
1071-06-79	1

PROJECT	SPV.0105.02 LS
1071-06-81	1

CABLE BARRIER TYPE I

CATEGORY	STATION TO STATION	LOCATION	613.1100.S LF
0120	177+80 EB - 186+00 EB	LT	820
	227+00 WB - 245+39 WB	RT	1839
	254+75 EB - 299+50 EB	LT	4475
	PROJECT ID 1071-06-79 SUMMARY		**7134**
0060	117+25 WB - 131+65 WB	RT	1440
	132+50 EB - 158+00 EB	LT	2550
	PROJECT ID 1071-06-81 SUMMARY		**3990**
	PROJECT TOTAL		**11124**

FLEXIBLE TUBULAR MARKER LEFT IN PLACE

STATION TO STATION	LOCATION	SPV.0060.03 POSTS EACH	SPV.0060.02 BASES EACH
182+75 EV - 183+80 EV	GORE	20	20
185+00 EW - 185+60 EW	GORE	7	7
222+20 EB - 225+90 EB	MEDIAN X-OVER	37	37
UNDISTRIBUTED		10	10
PROJECT ID 1071-06-79 SUMMARY		**74**	**74**
80+60 EB - 82+50 EB	MEDIAN X-OVER	21	21
159+00 EB - 162+50 EB	MEDIAN X-OVER	36	36
UNDISTRIBUTED		10	10
PROJECT ID 1071-06-81 SUMMARY		**67**	**67**
PROJECT TOTALS		**141**	**141**

CONCRETE PAVEMENT JOINT LAYOUT

PROJECT	SPV.0105.04 LS
1071-06-79	1

PROJECT	SPV.0105.05 LS
1071-06-81	1

CABLE BARRIER END TERMINAL TYPE I

CATEGORY	STATION	LOCATION	613.1200.S EACH
0120	177+80 EB	LT	1
	186+00 EB	LT	1
	227+00 WB	RT	1
	245+39 WB	RT	1
	254+75 EB	LT	1
	289+04 EB	LT	1
	PROJECT ID 1071-06-79 SUMMARY		**6**
0060	117+25 WB	RT	1
	131+65 EB	RT	1
	132+50 EB	LT	1
	158+00 EB	LT	1
	PROJECT ID 1071-06-81 SUMMARY		**4**
	PROJECT TOTALS		**10**

CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE

CATEGORY	STATION TO STATION	LOCATION	SPV.0090.04 LF
0120	222+45 EB - 225+95 EB	LT	350
0010	107+65 TS - 108+65 TS	LT	100
	PROJECT ID 1071-06-79 SUMMARY		**450**
	NONE		---
	PROJECT ID 1071-06-81 SUMMARY		**---**
	PROJECT TOTAL		**450**

REMOVING SIGN BRIDGE

ITEM	DESCRIPTION	PROJECT	STATION	LS
SPV.0105.20	S-32-0024	1071-06-79	291+90 EB	1
SPV.0105.21	S-32-0025	1071-06-79	312+39 EB	1
SPV.0105.22	S-32-0026	1071-06-79	322+38 EB	1
SPV.0105.23	S-32-0034	1071-06-79	195+28 EB	1

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

CONSTRUCTION STAKING STORM SEWER

NUMBER	STATION	LOCATION	650.4000 EACH
INL	174+96 EB	30.0 LT	1
AE	181+00 EB	76.0 RT	1
INL	181+00 EB	30.0 LT	1
INL	183+96 EB	29.3 LT	1
AE	199+20 EB	86.4 RT	1
INL	200+00 EB	28.2 LT	1
INL	202+09 EB	24.0 LT	1
INL	206+07 EB	25.2 LT	1
AE	227+37 EB	84.0 RT	1
INL	227+37 EB	25.5 LT	1
INL	246+00 EB	26.5 LT	1
AE	246+00 EB	79.8 RT	1
INL	258+89 EB	26.5 LT	1
MH	258+89 EB	76.0 RT	1
AE	269+32 EB	93.9 RT	1
INL	269+88 EB	29.5 LT	1
INL	282+73 EB	78.5 RT	1
INL	283+26 EB	29.5 LT	1
INL	284+00 EB	32.1 LT	1
INL	198+50 EX	1.5 RT	1
AE	198+50 EX	21.5 RT	1
PROJECT ID 1071-06-79 SUMMARY			**42 ***
AE	72+70 EB	48.0 RT	1
INL	72+70 EB	30.0 LT	1
AE	84+90 EB	62.4 RT	1
INL	84+90 EB	29.6 LT	1
AE	91+00 EB	67.9 RT	1
INL	91+00 EB	30.1 LT	1
INL	100+17 EB	47.8 RT	1

- CONTINUED -

CONSTRUCTION STAKING STORM SEWER

NUMBER	STATION	LOCATION	650.4000 EACH
INL	100+17 EB	30.0 LT	1
INL	107+00 EB	25.0 LT	1
INL	107+00 EB	27.0 RT	1
AE	119+10 EB	64.0 RT	1
INL	140+95 EB	29.5 LT	1
INL	142+58 EB	27.8 LT	1
AE	142+58 EB	76.2 RT	1
INL	31+50 BN	2.0 LT	1
INL	34+00 BN	9.4 LT	1
AE	34+00 BN	71.4 RT	1
INL	37+50 BN	3.1 LT	1
AE	37+50 BN	47.1 RT	1
AE	133+00 B	26.9 RT	1
INL	133+00 B	6.9 RT	1
AE	136+60 B	36.0 RT	1
INL	136+60 B	2.0 RT	1
INL	143+22 D	19.5 RT	1
INL	136+25 C	2.0 LT	1
AE	136+25 C	26.0 LT	1
INL	139+00 C	2.0 LT	1
AE	139+50 C	42.0 RT	1
AE	95+00 RA	26.3 RT	1
INL	95+00 RA	27.7 LT	1
PROJECT ID 1071-06-81 SUMMARY			**51 ***
PROJECT TOTAL			**93 ***

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

RAMP GATES

LOCATION	NUMBER	662.1026.S RAMP CLOSURE GATES HARDWIRED 26-FT EACH	662.1028.S RAMP CLOSURE GATES HARDWIRED 28-FT EACH	662.1030.S RAMP CLOSURE GATES HARDWIRED 30-FT EACH	662.1040.S RAMP CLOSURE GATES HARDWIRED 40-FT EACH	662.2040.S RAMP CLOSURE GATES SOLAR 40-FT EACH
K RAMP		---	1	---	---	---
M RAMP		---	---	1	---	---
N RAMP		---	1	---	---	---
P RAMP		---	1	---	---	---
STH 16 EB RAMP		---	1	---	2	---
STH 16 WB LOOP RAMP		1	---	---	---	---
STH 16 WB RAMP		1	---	---	---	---
PROJECT ID 1071-06-79 SUMMARY		2	4	1	2	---
B RAMP		---	---	---	---	1
D RAMP		---	---	---	---	1
PROJECT ID 1071-06-81 SUMMARY		---	---	---	---	2
PROJECT TOTALS		2	4	1	2	2

RAMP GATE ITEMS

LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0105 CONCRETE BASES TYPE 5 EACH	654.0220 CONCRETE CONTROL CABINET BASE TYPE 10 EACH	653.0135 PULL BOX STEEL 24 X 36-INCH EACH	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0605 CONDUIT SPECIAL 2-INCH LF	655.0510 ELECTRIC WIRE TRAFFIC SIGNALS 12 AWG LF	655.0230 TRAFFIC SIGNAL 5-14 AWG LF	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASE BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	676.0300 SIGNAL ASSEMBLY ADVANCED FLASHER TYPE 1 EACH	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
K RAMP	---	1	---	---	20	---	830	---	---	1	---	---	1
M RAMP	---	1	---	---	10	---	870	---	---	1	---	---	1
N RAMP	---	1	---	3	130	45	920	---	---	1	---	---	1
P RAMP	---	1	---	1	150	---	930	---	---	1	---	---	1
STH 16 NB	1	---	---	2	---	---	---	420	1	---	---	1	1
STH 16 EB RAMP	---	3	---	---	40	---	600	---	---	3	---	---	---
STH 16 WB LOOP RAMP	---	1	---	1	110	---	800	---	---	1	---	---	1
STH 16 WB RAMP	---	1	---	2	80	70	910	---	---	1	---	---	1
CATEGORY TOTALS	**1**	**9**	**---**	**9**	**540**	**115**	**5860**	**420**	**1**	**9**	**---**	**1**	**7**
PROJECT ID 1071-06-79 SUMMARY	**1**	**9**	**---**	**11 ***	**655 ***	**115**	**20244 ***	**420**	**1**	**9**	**---**	**1**	**15 ***
B RAMP	---	1	1	1	20	---	60	---	1	1	1	---	---
D RAMP	---	1	1	1	20	---	60	---	1	1	1	---	---
CATEGORY TOTALS	**---**	**2**	**2**	**2**	**40**	**---**	**120**	**---**	**2**	**2**	**2**	**---**	**---**
PROJECT ID 1071-06-81 SUMMARY	**---**	**2**	**2**	**2**	**40**	**---**	**120**	**---**	**2**	**2**	**2**	**---**	**---**
PROJECT TOTALS	**1**	**11**	**2**	**13 ***	**695 ***	**115**	**20364 ***	**420**	**3**	**11**	**2**	**1**	**15 ***

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

L ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

ITS PULL BOXES STEEL 24 X 36-INCH

LOCATION	CHAIN	STATION	OFFSET	ITEM ID	653.0135 EACH
I.H. 90 AT U.S.H. 53 / S.T.H. 35	I-90 EB	195+46	85 RT	PB206	1
I.H. 90 AT U.S.H. 53 / S.T.H. 35	I-90 EB	194+98	55 RT	PB207	1
TOTAL					**2**
PROJECT ID 1071-06-79 TOTAL					**11 ***
PROJECT TOTAL					**13 ***

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

ITS REMOVING PULL BOXES

LOCATION	CHAIN	STATION	OFFSET	ITEM ID	653.0905 EACH
I.H. 90 AT U.S.H. 53 / S.T.H. 35	I-90 EB	194+75	253 RT	EXPB204	1
I.H. 90 AT U.S.H. 53 / S.T.H. 35	I-90 EB	194+72	60 RT	EXPB205	1
PROJECT ID 1071-06-79 TOTAL					**2**

ITS COMMUNICATION VAULT TYPE 1

LOCATION	CHAIN	STATION	OFFSET	ITEM ID	673.0105 EACH
I.H. 90 WEST SIDE OF BRIDGE B-32-46	I-90 EB	62+99	40 RT	CV01	1
I.H. 90 EAST SIDE OF BRIDGE B-32-46	I-90 EB	73+98	50 RT	CV02	1
I.H. 90 WEST SIDE OF BRIDGE B-32-75	I-90 EB	95+27	102 RT	CV03	1
I.H. 90 NEAR C.T.H. BW	I-90 EB	105+01	84 RT	CV04	1
I.H. 90 WEST SIDE OF BRIDGE B-32-73	I-90 EB	131+08	111 RT	CV05	1
I.H. 90 NEAR C.T.H. B	I-90 EB	143+01	99 RT	CV06	1
I.H. 90 EAST OF C.T.H. B	I-90 EB	154+97	69 RT	CV07	1
I.H. 90 WEST OF BRIDGE B-32-34	I-90 EB	166+88	43 RT	CV08	1
I.H. 90 EAST OF BRIDGE B-32-34	I-90 EB	177+99	61 RT	CV09	1
I.H. 90 AT U.S.H. 53 / S.T.H. 35	I-90 EB	195+14	115 RT	CV10	1
PROJECT ID 1071-06-79 TOTAL					**10**

ITS CABINET ITEMS

ITEM I.D.	LOCATION	CHAIN	STATION	OFFSET	673.0225.S INSTALL POLE MOUNTED CABINET EACH	675.0400.S INSTALL ETHERNET SWITCH EACH	677.0300.S INSTALL VIDEO ENCODER EACH
DMS-32-0053	I.H. 90 AT C.T.H. BW	I-90 EB	104+21	31 LT	--	1	--
DMS-32-0052	I.H. 90 AT C.T.H. BW	I-90 WB	107+52	56 LT	--	1	--
CCTV-32-0071 PERMANENT	I.H. 90 AT U.S.H. 53 / S.T.H. 35	I-90 EB	194+79	49 RT	1	1	1
PROJECT ID 1071-06-79 TOTALS					**1**	**3**	**1**

STEEL PLATE BEAM GUARD ITEMS

STATION TO STATION	LOCATION	ROADWAY	204.0165 REMOVING GUARDRAIL LF	614.0200 STEEL THIRE BEAM STRUCTURE APPROACH LF	614.0305 STEEL PLATE BEAM GUARD CLASS A LF
62+51 - 66+08	RT	I-90 EB	--	--	357
66+08 - 66+26	RT	I-90 EB	--	18	--
62+51 - 66+26	RT	I-90 EB	375	--	--
TOTALS			**375**	**18**	**357**
PROJECT ID 1071-06-79 TOTALS			**6786 ***	**59 ***	**357**
PROJECT TOTALS			**15328 ***	**223 ***	**357**

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

ITS CCTV ITEMS

ITEM I.D.	LOCATION	CHAIN	STATION	OFFSET	672.0250 BASE CAMERA POLE 50-FT EACH	675.0300 INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY EACH	677.0100 INSTALL CAMERA POLE EACH	677.0200 CAMERA ASSEMBLY EACH	SPV.0060.84 GROUND ROD EACH
CCTV-32-0071 PERMANENT	I.H. 90 AT U.S.H. 53 / S.T.H. 35	I-90 EB	194+79	49 RT	1	2	1	1	1
PROJECT ID 1071-06-79 TOTALS					**1**	**2**	**1**	**1**	**1**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0110
UNLESS OTHERWISE NOTED

3

ITS CONDUIT

FROM	TO	LINEAR DISTANCE	652.0225 CONDUIT RIGID NONMETALLIC 2-INCH LF	652.0235 CONDUIT RIGID SCHEDULE 40 3-INCH LF	652.0125 CONDUIT RIGID METALLIC 2-INCH LF	652.0605 CONDUIT SPECIAL 2-INCH LF	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH	671.0112 CONDUIT HDPE 1-DUCT 2-INCH LF	671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2 INCH LF
CV04	EXPB01	185	--	--	--	185	1	--	--
CV06	EXPB104	14	14	--	--	--	1	--	--
EXPB203	PB206	302	--	604	--	--	2	--	--
PB206	CCTV-32-0071	57	--	57	--	--	--	--	--
EXPB206	PB207	57	--	114	--	--	2	--	--
EXCV10	PB207	61	61	--	--	--	1	--	--
PB207	CCTV-32-0071	20	40	--	20	--	--	--	--
CV01	CV02	1,150	--	--	--	--	--	187	963
CV02	CV03	2,132	--	--	--	--	--	2,132	--
CV03	CV04	1,000	--	--	--	--	--	360	640
CV04	CV05	2,612	--	--	--	--	--	2,452	160
CV05	CV06	1,206	--	--	--	--	--	931	275
CV06	CV07	1,206	--	--	--	--	--	986	220
CV07	CV08	1,197	--	--	--	--	--	1,197	--
CV08	CV09	1,150	--	--	--	--	--	190	960
CV09	CV10	1,790	--	--	--	--	--	1,530	260
CV10	EXV11	650	--	--	--	--	1	525	125
TOTALS			**115**	**775**	**20**	**185**	**8**	**10,490**	**3,603**
PROJECT ID 1071-06-79 TOTALS			**655 ***	**775**	**20**	**185**	**15 ***	**10490**	**3603**
PROJECT TOTALS			**695 ***	**775**	**20**	**185**	**15 ***	**10490**	**3603**

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**

ITS LUMP SUM ITEMS

ITEM ID	670.0100 FIELD SYSTEM INTEGRATOR LS	670.0200 ITS DOCUMENTATION LS	678.0500 COMMUNICATION SYSTEM TESTING LS	SPV.0105.80 REMOVE, SALVAGE, AND DELIVER DMS-32-0052 LS	SPV.0105.81 DMS-32-0053 LS	SPV.0105.82 5.8 GHZ ETHERNET BRIDGE AT CCTV-32-0070 LS	SPV.0105.83 CCTV-32-0071 LS	SPV.0105.85 REMOVE, SALVAGE, AND RELOCATE TEMPORARY CAMERA SYSTEM LS	SPV.0105.86 REMOVE, SALVAGE, AND DELIVER TEMPORARY CAMERA SYSTEM LS
PROJECT	1	1	1	1	1	1	1	1	1
PROJECT ID 1071-06-79 TOTALS	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0110
UNLESS OTHERWISE NOTED

ITS CABLING ITEMS

FROM	TO	LINEAR DISTANCE	655.0510 ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG LF	655.0525 ELECTRICAL WIRE TRAFFIC SIGNALS 6 AWG LF	FIBER OPTIC CABLE SLACK LF **	671.0300 FIBER OPTIC CABLE MARKER EACH	674.0300 REMOVE CABLE LF	678.0006 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-COUNT LF	678.0036 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-COUNT LF	678.0300 FIBER OPTIC SPLICE EACH	678.0400 FIBER OPTIC TERMINATION EACH
CV04	EXPB01	185	185	--	100	3	--	285	--	4	--
EXPB01	DMS-32-0053	12	--	--	24	1	--	48	--	--	12
EXPB01	EXPB02	58	--	--	6	2	--	64	--	--	--
EXPB02	EXPB03	128	--	--	6	2	--	134	--	--	--
EXPB03	EXPB04	189	--	--	6	2	--	195	--	--	--
EXPB04	DMS-32-0052	22	--	--	12	1	--	34	--	--	6
CV06	EXPB104	14	14	--	100	1	--	114	--	72	--
EXPB104	CCTV-32-0070	11	11	--	12	1	--	23	--	--	6
EXPB203	EXPB204	149	--	--	--	--	149	--	--	--	--
EXPB204	EXPB205	194	--	--	--	--	194	--	--	--	--
EXPB205	CCTV-32-0071	12	--	--	--	--	12	--	--	--	--
EXPB203	PB206	302	--	906	--	--	--	--	--	--	--
PB206	CCTV-32-0071	57	--	171	--	--	--	--	--	--	--
EXPB206	CCTV-32-0071	57	--	--	--	--	57	--	--	--	--
EXPB206	PB207	57	--	171	--	--	--	--	--	--	--
PB207	CCTV-32-0071	20	20	60	12	1	--	32	--	--	6
EXCV10	PB207	61	61	--	100	2	--	161	--	4	--
CV01	CV02	1,150	1,150	--	1,800	4	--	--	4,100	--	--
CV02	CV03	2,132	2,132	--	200	4	--	--	4,464	--	--
CV03	CV04	1,000	1,000	--	200	4	--	--	2,200	--	--
CV04	CV05	2,612	2,612	--	200	4	--	--	5,424	--	--
CV05	CV06	1,206	1,206	--	200	4	--	--	2,612	--	--
CV06	CV07	1,206	1,206	--	200	4	--	--	2,612	--	--
CV07	CV08	1,197	1,197	--	200	4	--	--	2,594	--	--
CV08	CV09	1,150	1,150	--	200	4	--	--	2,500	--	--
CV09	CV10	1,790	1,790	--	600	6	--	--	4,180	--	--
CV10	EXV11	650	650	--	200	4	--	--	1,500	--	--
TOTALS			**14,384**	**1,308**		**58**	**412**	**1,090**	**32,186**	**80**	**30**
PROJECT ID 1071-06-79 TOTALS			**20244 ***	**1308**		**58**	**412**	**1090**	**32186**	**44**	**30**
PROJECT TOTALS			**20364 ***	**1308**		**58**	**412**	**1090**	**32186**	**44**	**30**

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS**
**** FOR INFORMATION ONLY**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0110
UNLESS OTHERWISE NOTED

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EXISTING R/W

STA 72+07 EB - STA 73+73 EB
STEEL THRIE BEAM BULLNOSE TERMINAL

STA 79+00 EB, LT
1-150'x12" CPRC EXTENSION
1-APRON ENDWALL REQ'D
STA 83+30 EB, LT
1-60'x12" CPRC EXTENSION
1-APRON ENDWALL REQ'D

70WB 72WB 74WB 76WB 78WB IH 90 WB 80WB 82WB 84WB

70EB 72EB 74EB 76EB SLOPE INTERCEPT 78EB 80EB 82EB 84EB

B-32-46

IH 90 EB

ROUND LAKE

STA 73+89.56 EB, 34' RT

STA 72+69.56 EB, 30' RT

SLOPE INTERCEPT

FENCE CHAIN LINK 6-FT

BEGIN PROJECT 1071-06-81
STA 71+96.90 EB
Y 148748.39
X 436994.91
MATCH EXISTING

STA 72+07 EB - STA 74+42 EB, LT
COORDINATE REMOVAL OF CONCRETE
BARRIER TEMPORARY PRECAST WITH
DRESBACH PROJECT

STA 71+96 EB - STA 97+65 RA, RT
STA 71+96 EB (MEDIAN)
REMOVING FENCE

WETLAND

EXISTING R/W

STA 72+00 EB
B-32-46 (EAST END)
CONCRETE PAVEMENT
APPROACH SLAB

STA 73+00 EB
REMOVING SMALL PIPE CULVERT

STA 72+07 EB - STA 97+53 RA
MGS GUARDRAIL, RT

STA 72+07 EB - STA 75+23 EB, WB LANES
STA 72+07 EB - STA 87+07 EB, RT
STA 72+07 EB, MEDIAN
REMOVING GUARDRAIL

STA 71+96 EB - STA 97+65 RA, RT
STA 71+96 EB (MEDIAN)
REMOVING FENCE

STA 85+00 EB
REMOVING SMALL PIPE CULVERT

5 5

VPC STA 72+60.00
VPC EL 653.47

VPI STA 76+60.00
VPI EL 654.69

VPT STA 80+60.00
VPT EL 653.49

FINISHED PROFILE

EXISTING PROFILE

0.30% -0.30%

STA 72+70 EB
1-78'x24" CPRC CL.III
1-APRON ENDWALL REQ'D
1-INLET MEDIAN 2 GRATE, 30' LT

VCL = 800.00
K = 1326.65

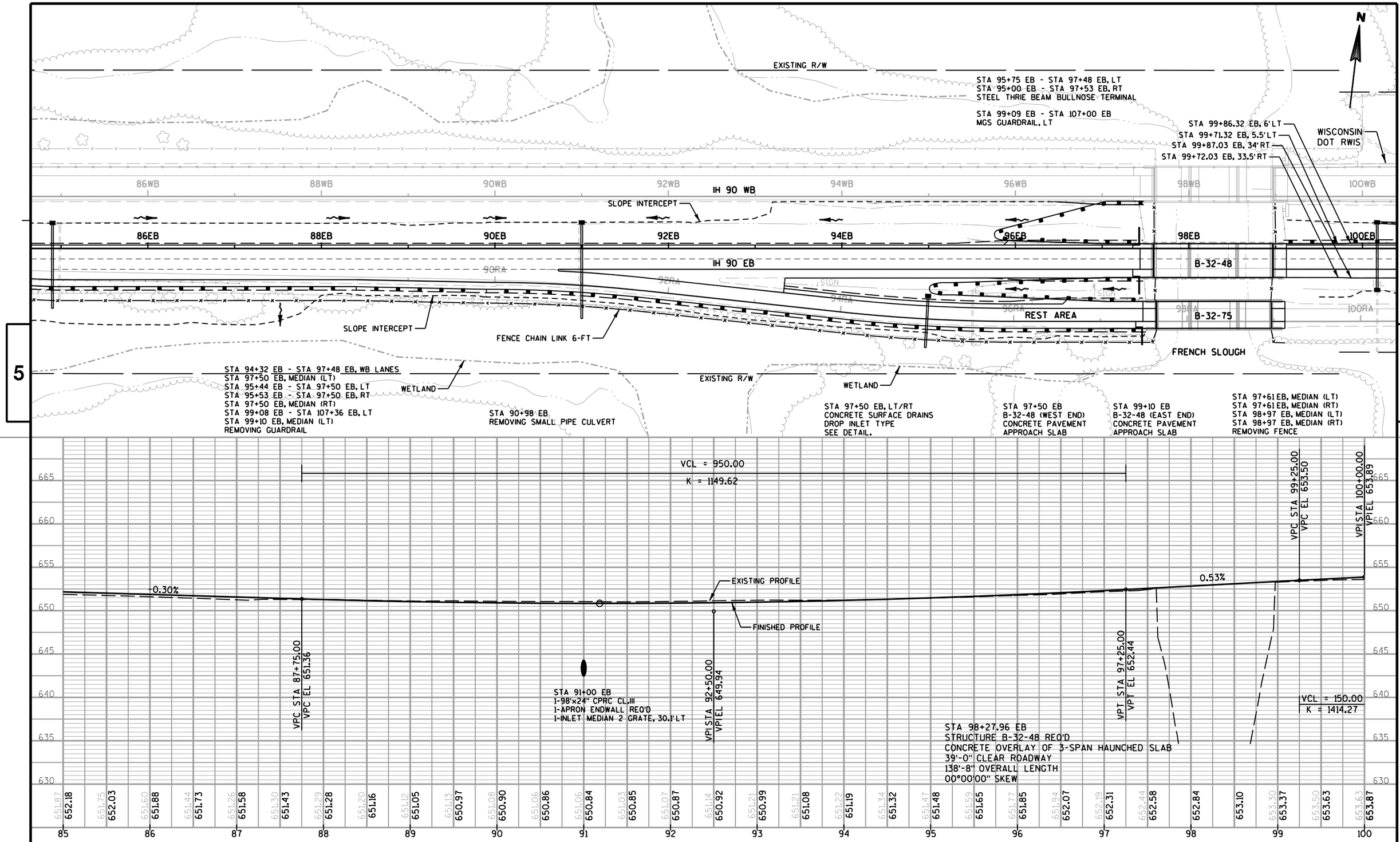
STA 84+90 EB
1-92'x24" CPRC CL.III
1-APRON ENDWALL REQ'D
1-INLET MEDIAN 2 GRATE, 29.6' LT

665 660 655 650 645 640 635 630

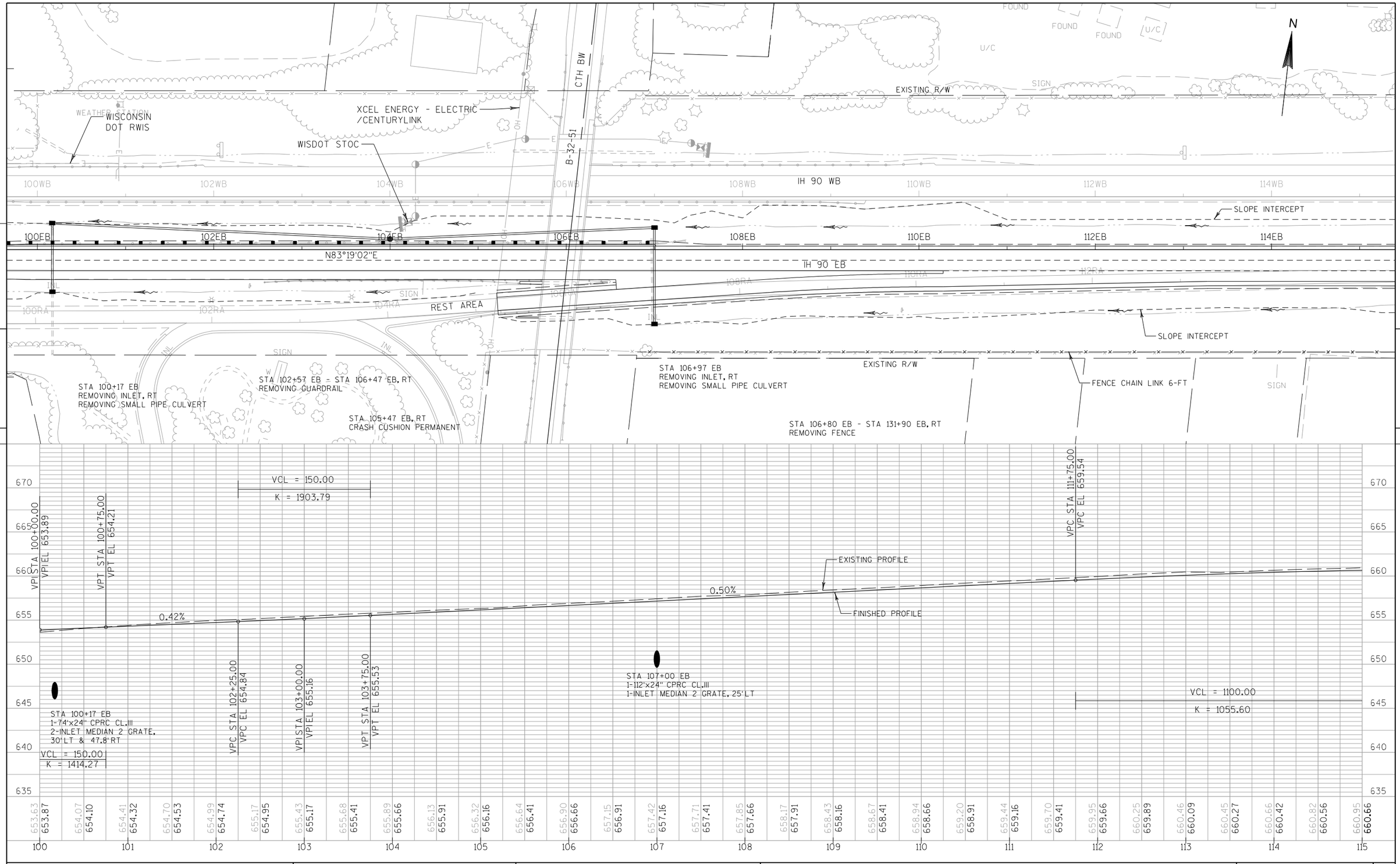
652.68 652.83 652.98 653.13 653.28 653.29 653.44 653.44 653.43 653.58 653.34 653.71 653.32 653.82 653.38 653.91 653.42 653.98 653.47 654.03 653.57 654.07 653.55 654.08 653.47 654.08 653.38 654.06 653.33 654.01 653.28 653.95 653.20 653.87 652.82 653.77 653.08 653.66 652.88 653.52 652.86 653.37 652.68 653.22 652.61 653.07 652.53 652.92 652.34 652.77 652.22 652.63 652.08 652.48 651.93 652.33 651.87 652.18

70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 248	E

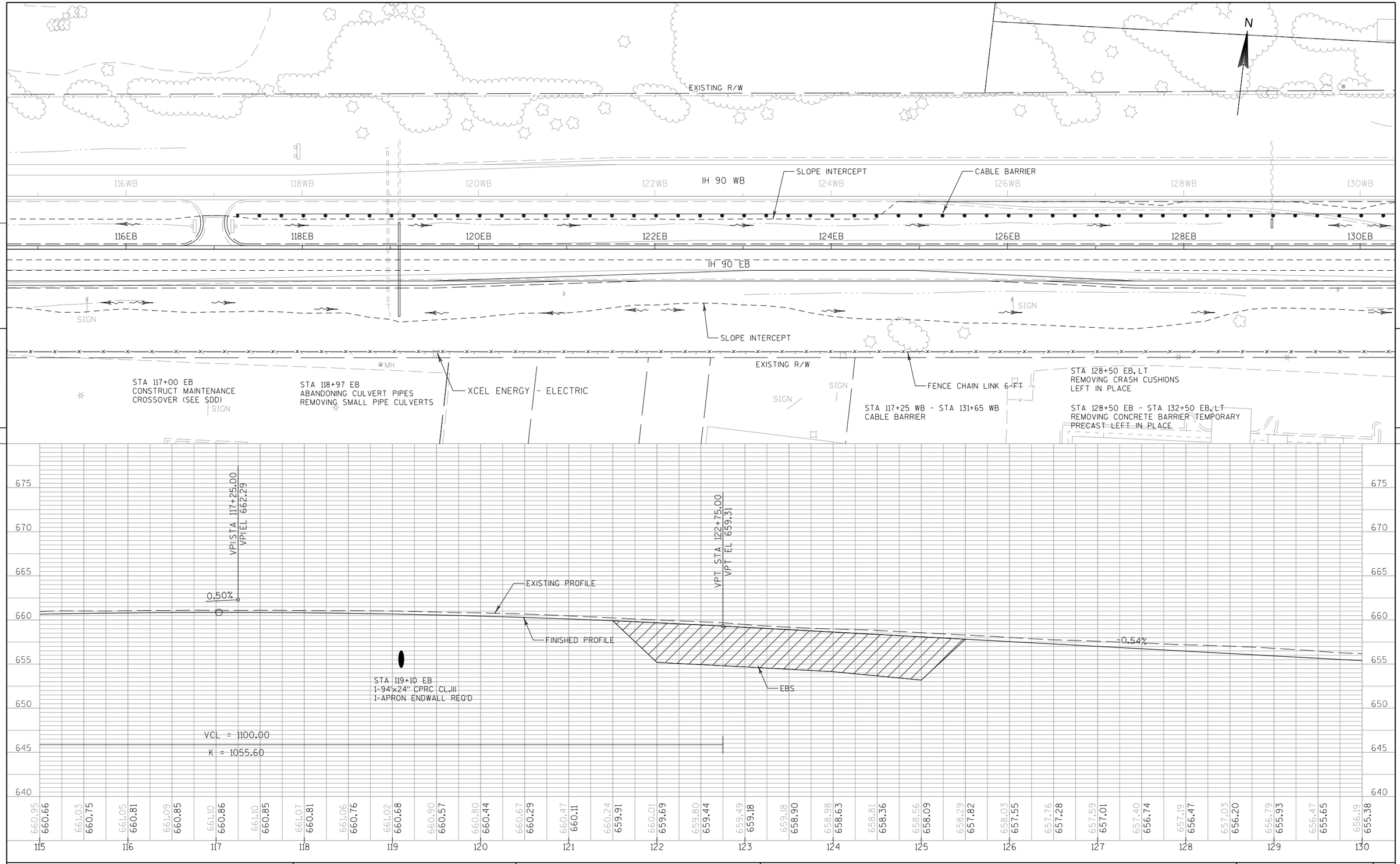


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 249 E



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 250 E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050103_ppeb.dgn PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 251	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050104_ppeb.dgn PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

XCEL ENERGY - ELECTRIC

EXISTING R/W

STA 131+36 EB - STA 132+79 EB, LT
STEEL THRIE BEAM BULLNOSE TERMINAL

STA 131+50 EB - STA 133+71 EB, WB LANES
REMOVING CONCRETE BARRIER TEMPORARY
PRECAST LEFT IN PLACE

D RAMP

STA 132+50 EB - STA 158+00 EB
CABLE BARRIER

STA 143+00 EB (WB LANES)
ABANDONING CULVERT PIPES

C RAMP

CTH B

B-32-52

PC 143+35.74 EB

130WB 132WB 134WB 136WB 138WB 140WB 142WB

IH 90 WB

CABLE BARRIER

CABLE BARRIER

SLOPE INTERCEPT

130EB 132EB 134EB 136EB 138EB 140EB 142EB 144EB

IH 90 EB

CAUTION

SIGN

SIGN

B RAMP

A RAMP

EXISTING B-32-73

XCEL ENERGY - GAS

XCEL ENERGY - ELECTRIC/
CENTURYLINK

SLOPE INTERCEPT

STA 133+00 EB - STA 134+45 EB, LT
REMOVING SMALL PIPE CULVERT

STA 143+05 EB - STA 145+02 EB, LT
REMOVING GUARDRAIL

WISDOT STOC

XCEL ENERGY - ELECTRIC

CITY OF LA CROSSE - WATER

STA 142+95 EB
REMOVING INLETS, LT
REMOVING SMALL PIPE CULVERT
ABANDONING CULVERT PIPE

SIGN

SIGN

EXISTING R/W

FENCE CHAIN LINK 6-FT

5

5

ADJUST PROFILE ON EB LANES IF NECESSARY
TO PROVIDE 16'-9" MINIMUM VERTICAL CLEARANCE
UNDER EXISTING CTH B OVERPASS.

VCL = 750.00

K = 1198.82

STA 132+00.00
EL 654.30

-0.54%

-0.44%

EXISTING PROFILE

FINISHED PROFILE

VPC STA 140+35.00
VPC EL 650.60

0.18%

STA 142+58 EB
1-104'x36" CPRC CL.III
1-APRON ENDWALL REQ'D
1-INLET MEDIAN 2 GRATE, 30.9' LT

VPI STA 144+10.00
VPI EL 648.93

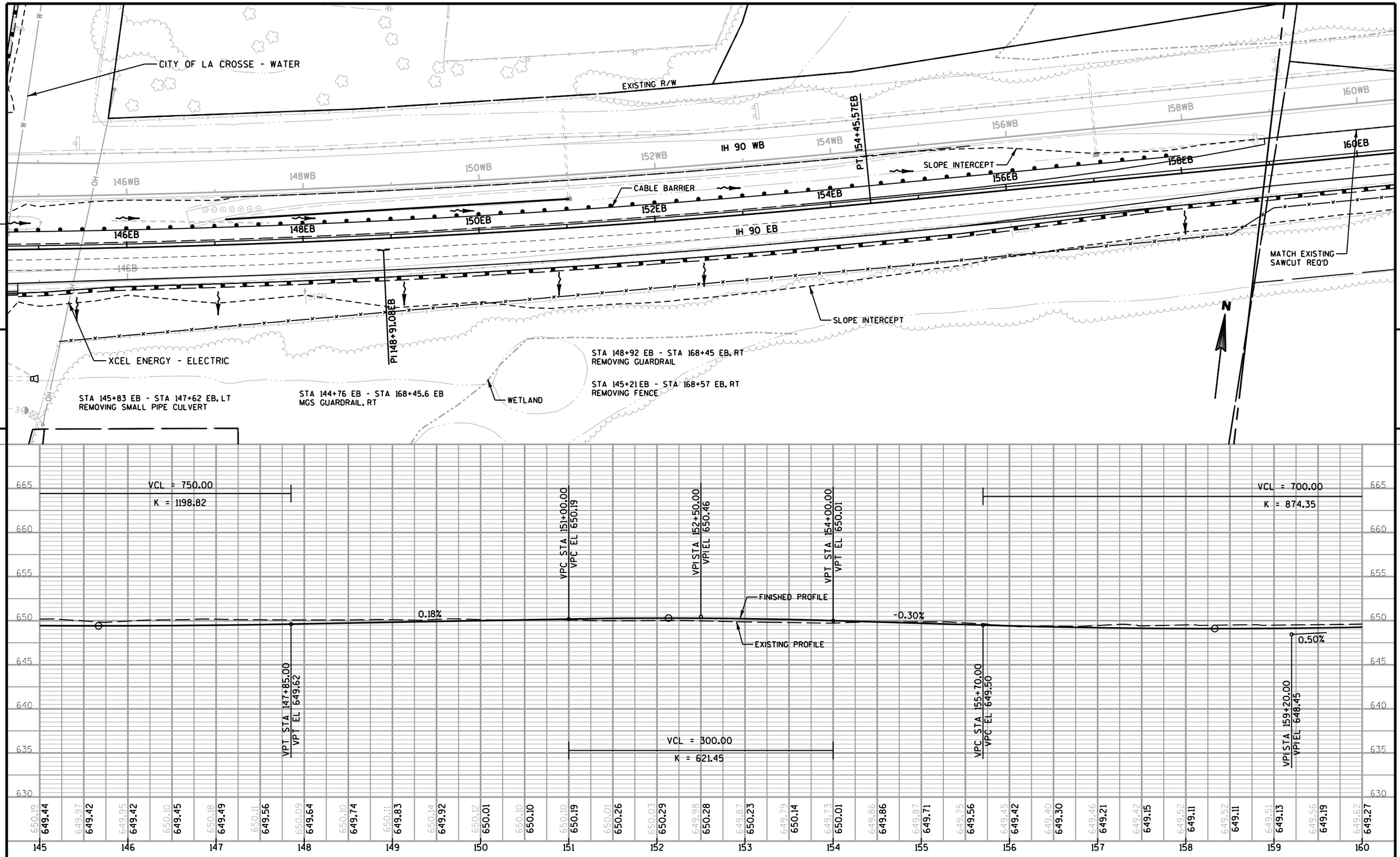
670 665 660 655 650 645 640 635

656.19 655.38 | 655.96 655.11 | 655.68 654.84 | 655.40 654.57 | 655.06 654.30 | 654.78 654.08 | 654.53 653.86 | 654.27 653.63 | 654.07 653.41 | 653.84 653.19 | 653.66 652.97 | 653.38 652.75 | 653.05 652.53 | 652.85 652.30 | 652.55 652.08 | 652.04 651.86 | 651.87 651.64 | 651.89 651.42 | 651.57 651.20 | 651.48 650.97 | 651.35 650.75 | 651.14 650.53 | 650.89 650.33 | 650.62 650.14 | 650.56 649.98 | 650.48 649.84 | 650.38 649.71 | 650.30 649.61 | 650.21 649.53 | 650.12 649.47 | 650.19 649.44

130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 252	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050105_ppeb.dgn PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100



5

5

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 253 E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050106_ppeb.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

EXISTING R/W

STA 167+03 EB - STA 168+56 EB, LT
STEEL THRIE BEAM BULLNOSE TERMINAL

160WB 162WB 164WB 166WB IH 90 WB 168WB 170WB 172WB 174WB

160EB 162EB 164EB 166EB 168EB 170EB 172EB 174EB

SLOPE INTERCEPT

IH 90 EB

EXISTING B-32-34

N 77°49'00" E

END PROJECT 1071-06-81
STA 168+64.20 EB
MATCH EXISTING

N

FENCE CHAIN LINK 6-FT

SLOPE INTERCEPT

WETLAND

EXISTING R/W

STA 165+83 EB - STA 168+74 EB, WB LANES
STA 166+38 EB - STA 168+56 EB, LT
STA 168+56 EB, MEDIAN
REMOVING GUARDRAIL

STA 168+66 EB, MEDIAN
REMOVING FENCE

STA 168+50 EB, LT/RT
CONCRETE SURFACE DRAINS
DROP INLET TYPE
SEE DETAIL.

STA 168+50 EB
B-32-34 (WEST END)
CONCRETE PAVEMENT
APPROACH SLAB

VCL = 700.00
K = 874.35

VPT STA 162+70.00
VPT EL 650.20

FINISHED PROFILE

EXISTING PROFILE

0.50%

0.50%

0.15%

STA 173+00.00
EL 655.35

665	660	655	650	645	640	635	630

649.62	649.69	649.78	649.88	649.97	650.17	650.39	650.62	650.43	651.04	651.38	651.58	651.69	651.80	652.07	652.40	652.74	653.02
649.27	649.38	649.52	649.68	649.88	650.10	650.35	650.60	650.85	651.10	651.35	651.60	651.85	652.10	652.35	652.60	652.85	653.10

160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
653.35	653.60	653.85	654.10	654.35	654.60	654.85	655.10	655.35	655.42	637.38	655.50	655.29	655.58	655.45	655.65

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 254	E

N

EXISTING R/W

STA 177+80 EB - STA 186+00 EB
CABLE BARRIER

STA 174+38 EB - STA 178+27 EB, LT
STEEL THRIE BEAM BULLNOSE TERMINAL

STA 182+54 EB - STA 183+96 EB, LT
REMOVING SMALL PIPE CULVERTS

STA 182+54 EB, LT
STA 183+96 EB, LT
REMOVING INLETS

PC 183+25.12EB

170WB 172WB 174WB 176WB 178WB IH 90 WB 180WB 182WB 184WB

INL

SLOPE INTERCEPT

CABLE BARRIER

170EB 172EB 174EB 176EB 178EB 180EB 182EB 184EB

77°49'00"E

EXISTING B-32-34

IH 90 EB

182E

E RAMP

184E

SIGN

BLACK RIVER

R-32-64

EXISTING S-32-48
TO REMAIN

SLOPE INTERCEPT

WETLAND

FENCE CHAIN LINK 6-FT

BEGIN PROJECT 1071-06-79
STA 174+26.70 EB
Y 150179.07
X 447116.15
MATCH EXISTING

STA 174+95 EB
REMOVING SMALL PIPE CULVERT

EXISTING R/W

STA 174+35 EB
B-32-34 (EAST END)
CONCRETE PAVEMENT
APPROACH SLAB

STA 174+38 EB - STA 177+88 EB, LT
REMOVING CONCRETE BARRIER TEMPORARY
PRECAST LEFT IN PLACE

STA 177+75 EB - STA 180+66.5 EB
MGS GUARDRAIL, RT

STA 174+55 EB - STA 177+71EB, WB LANES
STA 174+30 EB - STA 180+67 EB, RT
STA 174+62 EB, MEDIAN
REMOVING GUARDRAIL

STA 174+17 EB - STA 185+39 EV, RT
STA 174+29 EB, MEDIAN
REMOVING FENCE

5

5

VCL = 700.00
K = 337.81

STA 173+00.00
EL 655.35

VPC STA 175+25.00
VPC EL 655.69

VPI STA 177+00.00
VPI EL 655.95

VPT STA 178+75.00
VPT EL 655.43

FINISHED PROFILE

0.50%

0.15%

0.15%

0.30%

EXISTING PROFILE

1.78%

VPC STA 179+75.00
VPC EL 655.13

VPI STA 183+25.00
VPI EL 654.09

VCL = 350.00
K = 782.65

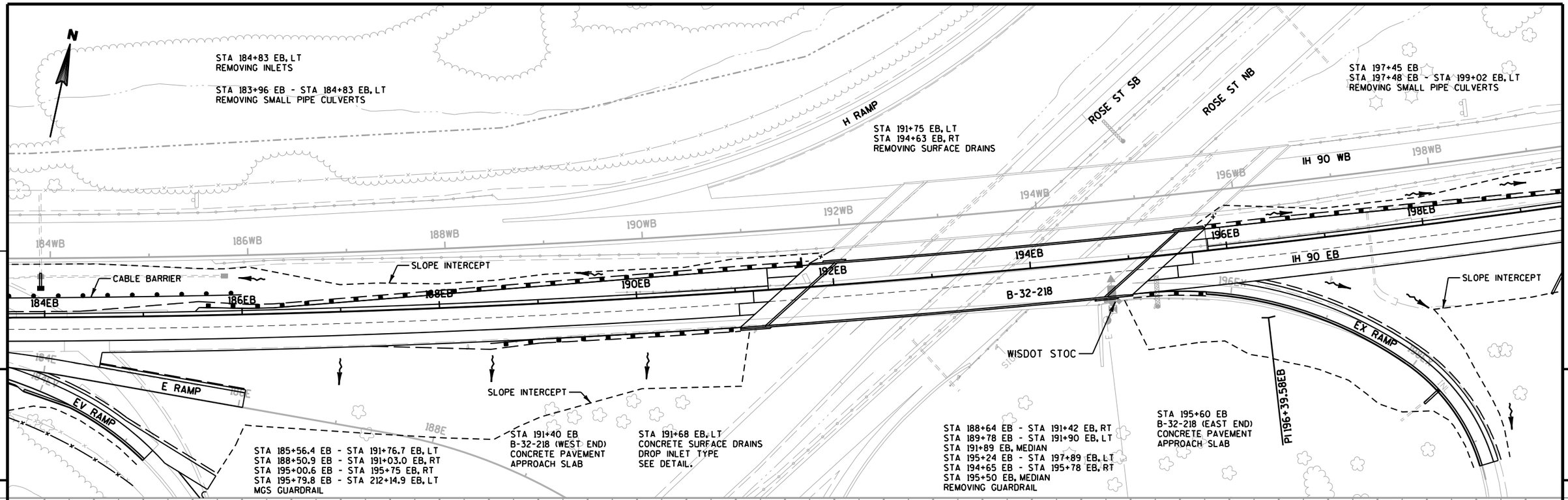
STA 181+00 EB
1-106'x24" CPRC CL.III
1-APRON ENDWALL REQ'D
1-INLET MEDIAN 2 GRATE, 30' LT

670 665 660 655 650 645 640 635

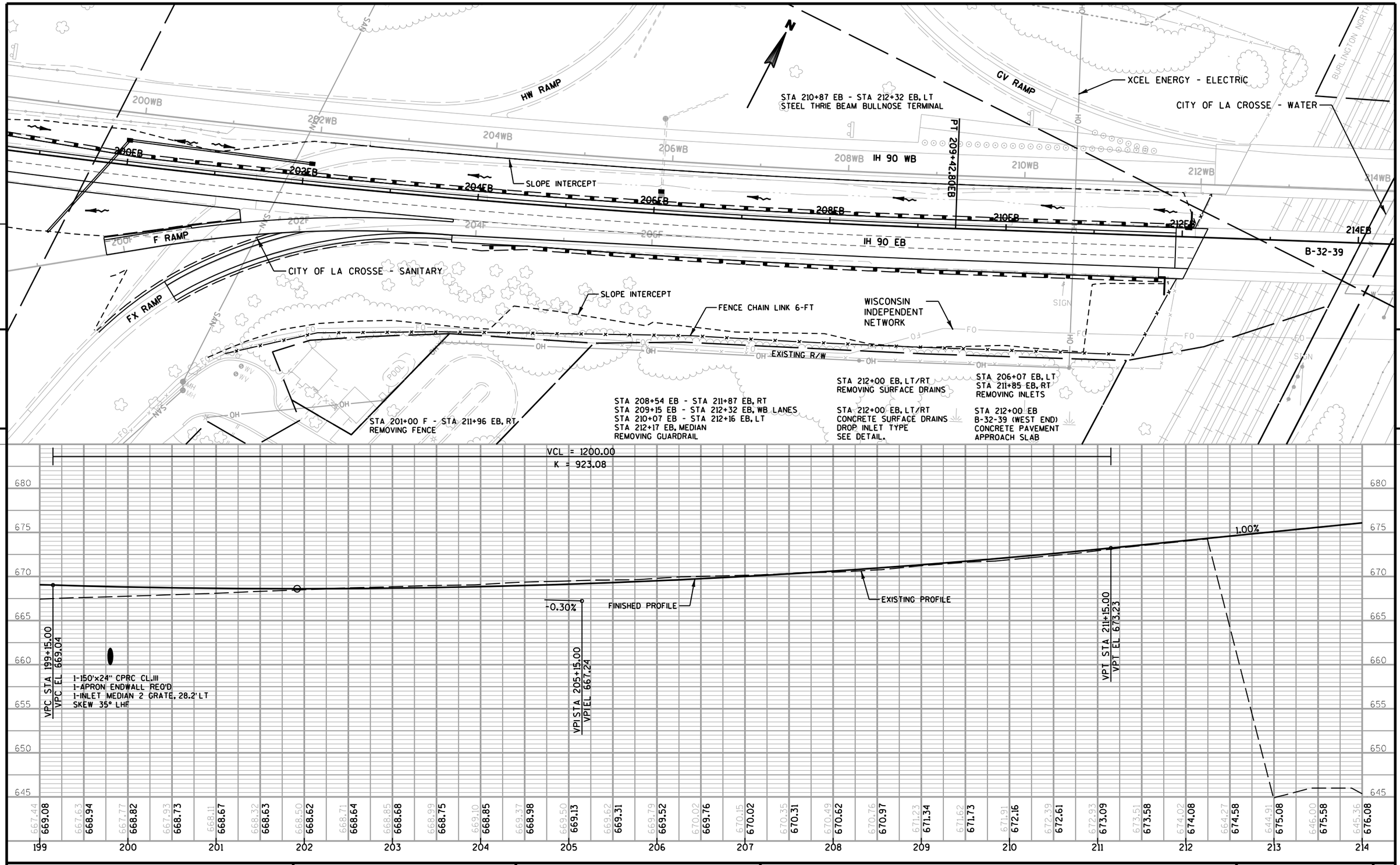
653.35 653.60 653.85 654.10 654.35 654.60 654.85 655.10 655.35 655.42 637.38 655.50 655.29 655.58 655.45 655.65 655.51 655.72 655.51 655.76 655.56 655.78 655.66 655.75 655.79 655.70 655.98 655.62 656.13 655.50 656.27 655.36 656.34 655.21 656.37 655.07 656.47 654.99 656.56 654.99 656.72 655.07 656.80 655.21 656.97 655.43 657.15 655.73 657.38 656.10 657.71 656.54

169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184

PROJECT NO:1071-06-79	HWY: IH 90	COUNTY:LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 255	E



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 256 E



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 257	E

STA 216+08 WB - STA 221+88 WB, RT
MGS GUARDRAIL

XCEL ENERGY - ELECTRIC

XCEL ENERGY - NATURAL GAS

XCEL ENERGY - ELECTRIC

SLOPE INTERCEPT

EXISTING R/W

STA 222+45 EB - STA 225+95 EB, LT
CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
2-CRASH CUSHION TEMPORARY LEFT IN PLACE

STA 226+89 EB
REMOVING INLETS, LT
REMOVING SMALL PIPE CULVERT

STA 226+89 EB - STA 227+37 EB, LT
REMOVING SMALL PIPE CULVERT
REMOVING INLETS, LT

STA 227+00 WB - STA 245+39 WB
CABLE BARRIER

IH 90 WB

IH 90 EB

N64°50'32"E

B-32-39

CABLE BARRIER

WISCONSIN INDEPENDENT NETWORK

STA 217+00 EB
S-32-57

WISCONSIN INDEPENDENT NETWORK

EXISTING R/W

SLOPE INTERCEPT
FENCE, CHAIN LINK, 6-FT

CITY OF LA CROSSE - WATER

STA 216+00 EB
B-32-39 (EAST END)
CONCRETE PAVEMENT
APPROACH SLAB

STA 215+82 EB - STA 217+13 EB, RT
STA 216+11 EB - STA 218+38 EB, LT
STA 216+14 EB, MEDIAN
STA 216+27 EB - STA 219+06 EB, WB LANES
REMOVING GUARDRAIL

STA 215+67 EB - STA 218+11.5 EB, RT
STA 216+11 EB - STA 217+33 EB, LT
MGS GUARDRAIL

STA 220+50 EB - STA 226+70 EB, MEDIAN
REMOVING FLEXIBLE TUBULAR MARKER
POSTS AND BASES

STA 215+71 EB - STA 233+31 EB, RT
REMOVING FENCE

VCL = 900.00
K = 1344.32

FINISHED PROFILE

EXISTING PROFILE

1.00%

1.67%

VPC STA 220+05.00
VPC EL 682.13

VPI STA 224+55.00
VPI EL 686.63

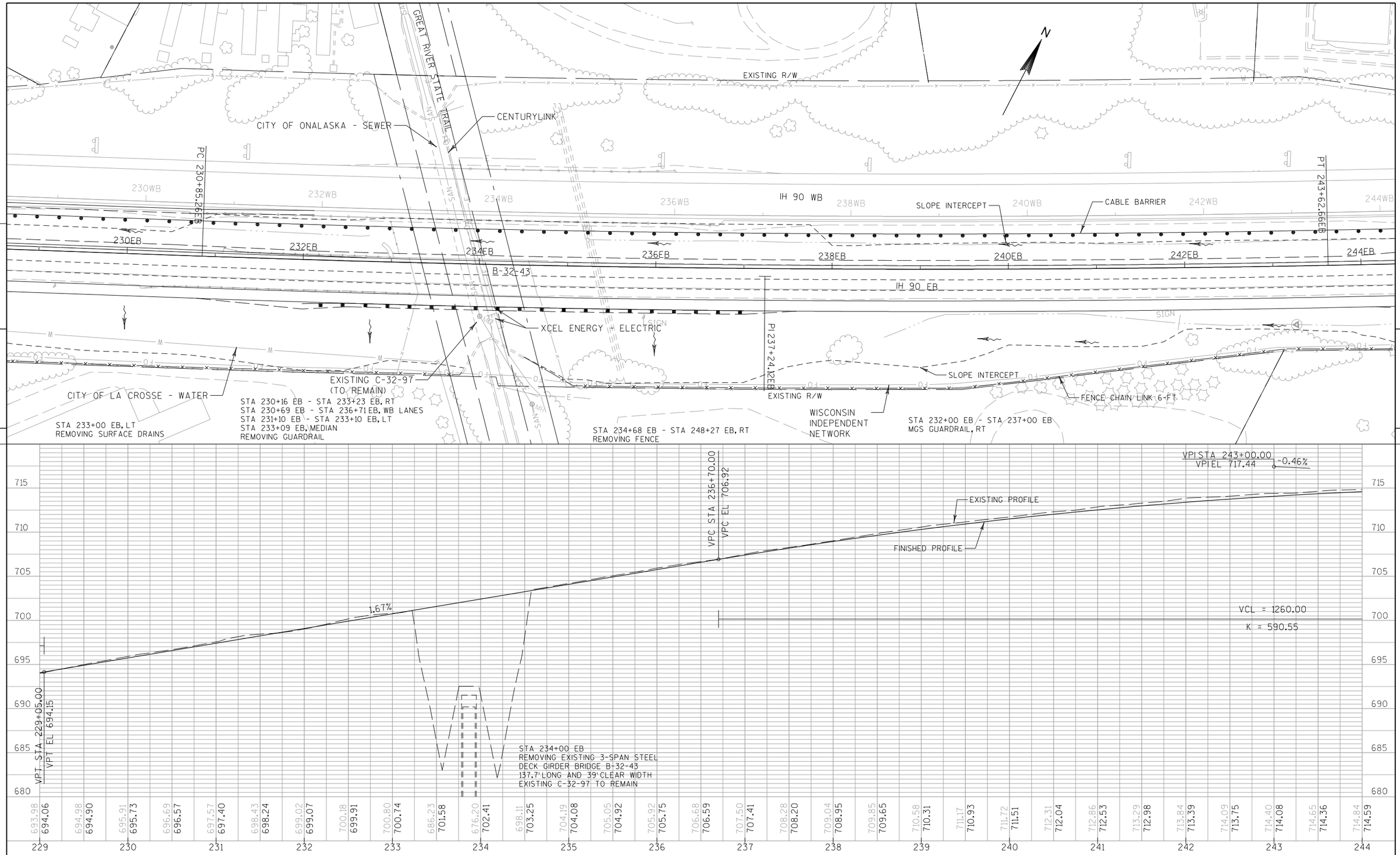
STA 227+37 EB
1-116'x24" CPRC CL.III
1-APRON ENDWALL REQ'D
1-INLET MEDIAN 2 GRATE, 25.5' LT

214	215	216	217	218	219	220	221	222	223	224	225	226	227	228
645.36 / 676.08	643.44 / 676.58	655.17 / 677.08	656.82 / 677.58	678.10 / 678.08	678.49 / 678.58	679.03 / 679.08	679.32 / 679.58	679.88 / 680.08	680.30 / 680.58	680.80 / 681.08	681.42 / 681.58	681.94 / 682.08	682.35 / 682.59	682.82 / 683.12	683.46 / 683.66	684.10 / 684.23	684.86 / 684.81	685.43 / 685.41	685.87 / 686.03	686.55 / 686.67	687.20 / 687.32	687.75 / 688.00	688.49 / 688.69	689.28 / 689.40	690.08 / 690.13	690.90 / 690.88	691.78 / 691.65	692.15 / 692.44	693.44 / 693.24

695 690 685 680 675 670 665 660

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND	SHEET 258	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050111_ppeb.dgn
PLOT DATE : 9/14/2015
PLOT BY : AYRES-EC
PLOT NAME :
PLOT SCALE : 1:100
WISDOT/CADDS SHEET 40



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 259 E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050112_ppeb.dgn PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISCONSIN INDEPENDENT NETWORK

CHARTER COMMUNICATIONS

CENTURYLINK

XCEL ENERGY - ELECTRIC

EXISTING R/W

STA 249+16 WB - STA 256+94.1 WB
MGS GUARDRAIL, RT

STA 254+75 EB - STA 299+50 EB
CABLE BARRIER

244WB CABLE BARRIER

246WB 248WB 250WB IH 90 WB 252WB 254WB

SLOPE INTERCEPT 256WB CABLE BARRIER 258WB

244EB 246EB 248EB 250EB 252EB 254EB 256EB 258EB

CAUTION B-32-107

IH 90 EB 254J 256J 258J J RAMP

STA 254+25 EB
S-32-60

EXISTING R/W

WISCONSIN INDEPENDENT NETWORK

FENCE CHAIN LINK 6-FT

XCEL ENERGY - TRANSMISSION

SLOPE INTERCEPT

FENCE CHAIN LINK 6-FT

12TH AVE

STA 245+36.5 EB - STA 247+89.6 EB, RT
STA 245+10 EB - STA 247+88.1 EB, LT
STA 249+38.6 EB - STA 254+75 EB, RT
STA 249+40.1 EB - STA 254+75 EB, LT
MGS GUARDRAIL

STA 247+95 EB
B-32-107 (WEST END)
CONCRETE PAVEMENT
APPROACH SLAB

STA 249+40 EB
B-32-107 (EAST END)
CONCRETE PAVEMENT
APPROACH SLAB

STA 249+40 EB, LT/RT
CONCRETE SURFACE DRAINS
DROP INLET TYPE
SEE DETAIL.

STA 249+38 EB - STA 252+18 EB, WB LANES
REMOVING CONCRETE BARRIER TEMPORARY
PRECAST LEFT IN PLACE

STA 252+18 EB, WB LANES
REMOVING CRASH CUSHIONS
LEFT IN PLACE

STA 249+00 EB - STA 259+47 EB, RT
REMOVING FENCE

STA 245+25 EB - STA 247+89 EB, LT
STA 245+46 EB - STA 247+90 EB, RT
REMOVING GUARDRAIL

STA 253+50 EB
REMOVING INLETS, LT
STA 253+50 EB - STA 258+88 EB
REMOVING SMALL PIPE CULVERTS
STA 258+88 EB
REMOVING INLETS, LT
REMOVING SMALL PIPE CULVERTS

730 725 720 715 710 705 700 695

VPT STA 249+30.00
VPT EL 714.51

FINISHED PROFILE

EXISTING PROFILE

-0.46%

STA 246+00 EB
1-104'x24" CPRC CL.III
1-APRON ENDWALL REO'D
1-INLET MEDIAN 2 GRATE, 26.5' LT

VCL = 1260.00

K = 590.55

STA 248+40.44 WB
STRUCTURE B-32-108
CONCRETE OVERLAY OF 3-SPAN HAUNCHED SLAB
58'-0" CLEAR ROADWAY
129'-4" OVERALL LENGTH
SKEW 90°03'49"

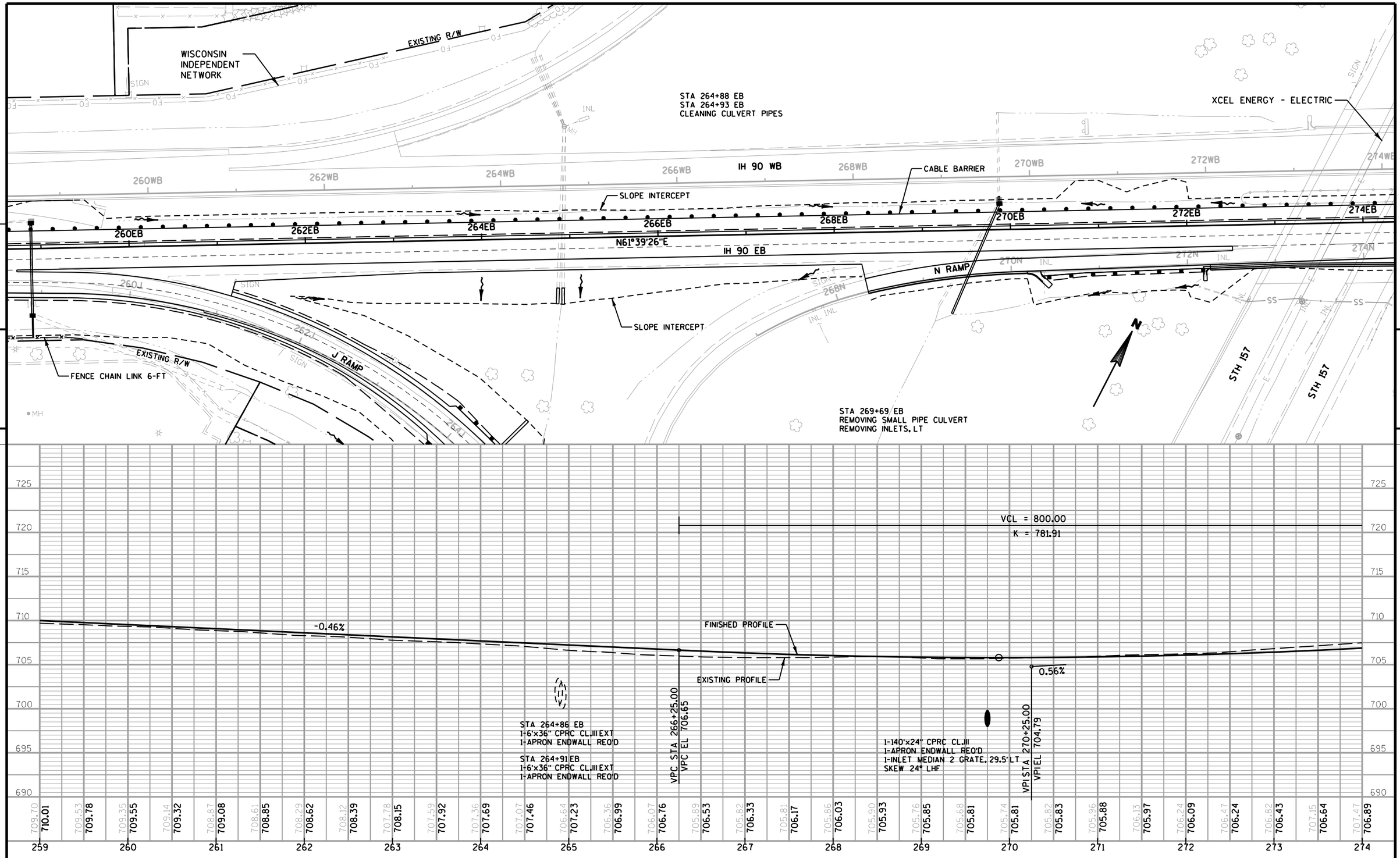
STA 258+89 EB
1-98'x24" CPRC CL.III
1-INLET MEDIAN 2 GRATE, 26.5' LT
1-MANHOLE 8-FT DIAMETER, 76' RT

244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259
714.84	715.23	715.23	715.37	715.28	715.37	715.21	715.12	714.81	697.65	697.81	714.30	714.00	713.80	713.53	713.25	713.02	712.90	712.61	712.49	712.20	712.00	711.80	711.39	711.04	710.84	710.48	710.33	710.22	709.90	709.70
714.59	714.79	714.94	715.05	715.12	715.15	715.13	715.07	714.97	714.83	714.64	714.42	714.19	713.96	713.72	713.49	713.26	713.03	712.80	712.56	712.33	712.10	711.87	711.64	711.40	711.17	710.94	710.71	710.48	710.24	710.01

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 260	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050113_ppeb.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 261	E

XCEL ENERGY - ELECTRIC

STH 157

STH 157

WISCONSIN INDEPENDENT NETWORK

EXISTING R/W

PC 288+02.00 EB

CABLE BARRIER

SLOPE INTERCEPT

IH 90 WB

IH 90 EB

N RAMP

K RAMP

SLOPE INTERCEPT

EXISTING R/W

XCEL ENERGY - ELECTRIC/ CHARTER COMMUNICATIONS/ CENTURYLINK

FENCE CHAIN LINK 6-FT

STA 275+00 EB - STA 276+12 EB, RT
REMOVING GUARDRAIL

STA 286+75 EB, LT
STA 283+28 EB, LT
REMOVING INLETS

STA 286+75 EB - STA 290+70 EB, LT
STA 283+28 EB - STA 286+75 EB, LT
REMOVING SMALL PIPE CULVERTS

STA 285+40 EB - STA 310+02 EB, RT
REMOVING FENCE

5

5

VPT STA 274+25.00
VPT EL 707.03

0.56%

STA 278+00.00
EL 709.12

0.48%

EXISTING PROFILE

FINISHED PROFILE

1-132'x36" CPRC CL.III
1-INLET MEDIAN 2 GRATE, 29.5' LT
1-MANHOLE 6-FT DIAMETER, 78.5' RT
SKEW 26° LHF

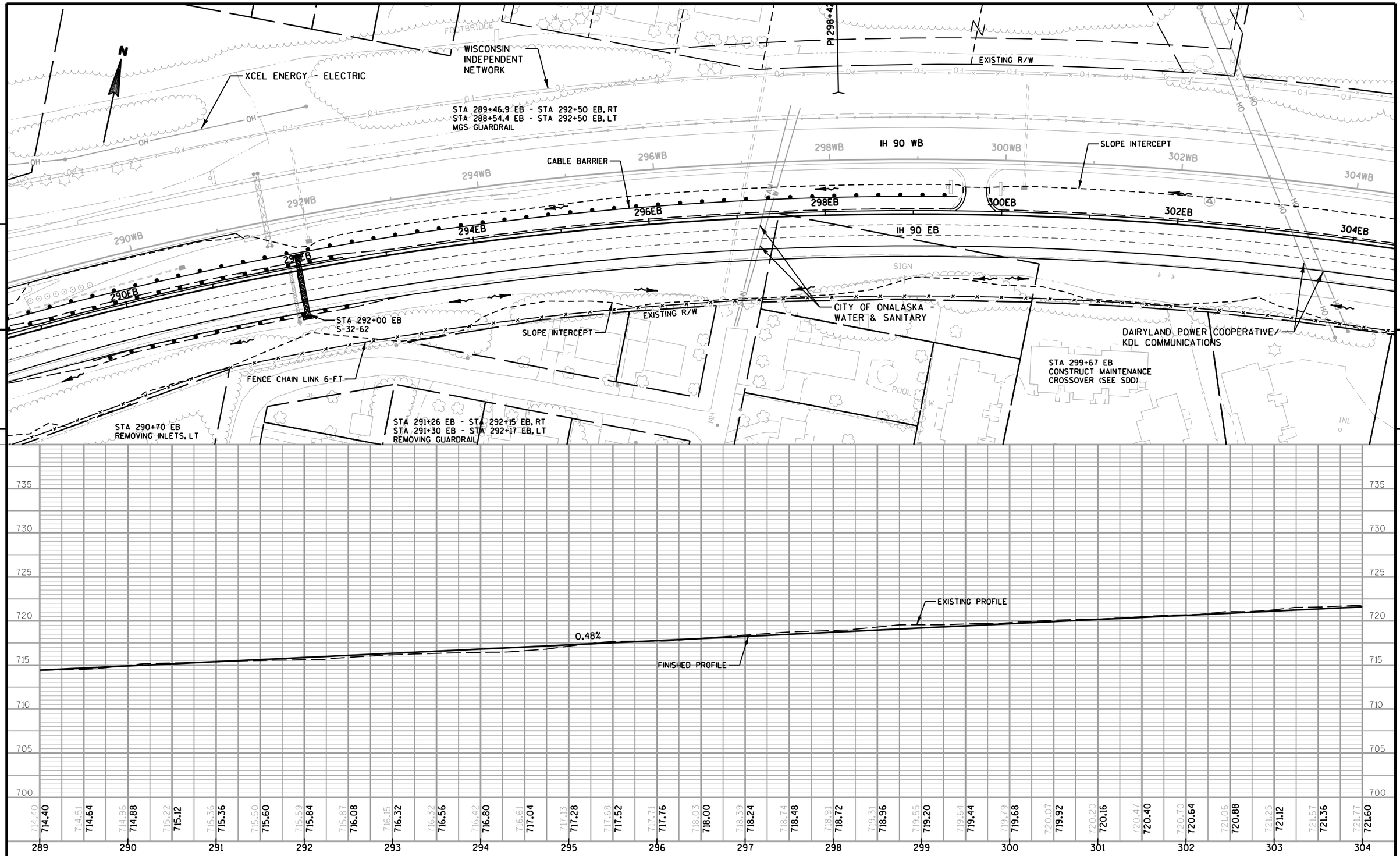
274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289
707.47	707.52	707.58	707.78	708.16	708.44	708.75	709.07	709.04	709.36	709.66	709.86	710.06	710.26	710.44	710.79	710.94	711.20	711.60	711.91	712.03	712.27	712.49	712.55	712.80	713.13	713.38	713.62	713.88	714.20	714.40
706.89	707.17	707.45	707.73	708.00	708.28	708.56	708.84	709.12	709.36	709.60	709.84	710.08	710.32	710.56	710.80	711.04	711.28	711.52	711.76	712.00	712.24	712.48	712.72	712.96	713.20	713.44	713.68	713.92	714.16	714.40

725	720	715	710	705	700	695	690

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 262	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050115_ppeb.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 263	E

WISCONSIN INDEPENDENT NETWORK

EXISTING R/W

THEATER RD

STA 306+86 EB - STA 310+01.8 EB, RT
STA 306+86 EB - STA 310+01.6 EB, LT
STA 311+59.3 EB - STA 315+50 EB, RT
STA 311+59.9 EB - STA 315+50 EB, LT
MGS GUARDRAIL

STA 312+27.3 WB - STA 318+30.5 WB
MGS GUARDRAIL, RT

N

EXISTING R/W

XCEL ENERGY - ELECTRIC

PT 308+34.08EB

IH 90 WB

304WB 306WB 308WB 310WB 312WB 314WB 316WB 318WB

SLOPE INTERCEPT

304EB 306EB 308EB 310EB 312EB 314EB 316EB 318EB

IH 90 EB

B-32-189

STA 315+00 EB
S-32-63

STA 315+12 EB - STA 319+40 EB, MEDIAN
REMOVING SMALL PIPE CULVERTS

SLOPE INTERCEPT

DAIRYLAND POWER COOPERATIVE/
KDL COMMUNICATIONS

FENCE CHAIN LINK 6-FT

STA 306+82 EB - STA 309+97 EB, WB LANES
STA 307+81 EB - STA 310+01 EB, RT
STA 308+22 EB - STA 310+03 EB, LT
STA 311+60 EB - STA 312+66 EB, LT
STA 311+60 EB - STA 312+68 EB, RT
REMOVING GUARDRAIL

STA 310+02 EB, MEDIAN
STA 311+55 EB, MEDIAN
STA 311+59 EB, RT
REMOVING FENCE

STA 310+00 EB
B-32-189 (WEST END)
CONCRETE PAVEMENT
APPROACH SLAB

STA 311+60 EB
B-32-189 (EAST END)
CONCRETE PAVEMENT
APPROACH SLAB

END PROJECT 1071-06-79
STA 312+07.00 EB
MATCH EXISTING
SAWCUT REQ'D

STA 311+60 EB, LT/RT
CONCRETE SURFACE DRAINS
DROP INLET TYPE
SEE DETAIL.

STA 317+15 EB - STA 321+80 EB, LT
SAWCUT

5

5

VPC STA 304+40.00
VPC EL 721.79

VPI STA 310+40.00
VPI EL 724.67

VPT STA 316+40.00
VPT EL 721.62

STA 318+11.43
EL 720.74

EXISTING PROFILE

FINISHED PROFILE

0.48%

-0.51%

VCL = 1200.00
K = 213.73

735 730 725 720 715 710 705 700

721.77 721.60 | 721.97 721.84 | 722.22 722.06 | 722.26 722.27 | 722.34 722.45 | 722.61 722.62 | 722.72 722.76 | 722.88 722.88 | 723.06 722.98 | 723.27 723.07 | 723.19 723.13 | 723.24 723.17 | 723.26 723.19 | 704.60 723.18 | 704.12 723.16 | 716.78 723.12 | 722.89 723.06 | 722.70 722.97 | 722.41 722.87 | 722.19 722.75 | 722.09 722.60 | 721.91 722.43 | 721.78 722.25 | 721.65 722.04 | 721.57 721.81 | 721.49 721.57 | 721.29 721.31 | 721.08 721.06 | 720.82 720.80 | 720.49 | 720.16

304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EASTBOUND (EB LINE)	SHEET 264	E

N40°36'55"E

28BN

PCC 30+65.05BN

30BN

PI 28+90.25BN

XCEL ENERGY - ELECTRIC

PCC 34+53.51BN

32BN

34BN

36BN

A RAMP

B RAMP

WISDOT STOC

SLOPE INTERCEPT

PT 40+51.25BN

CTH B SB

42BN

40BN

38BN

CTH B NB

SLOPE INTERCEPT

CITY OF LA CROSSE - WATER

XCEL ENERGY - ELECTRIC

PI 37+53.69BN

PI 32+60.00BN

N

CONSTRUCTION LIMITS
STA 30+00 BN
MATCH EXISTING
SAWCUT REQ'D

STA 31+50 BN - STA 34+00 BN
1-250'x18" SSPRC CL.III

STA 31+75 BN
REMOVING INLETS
REMOVING SMALL PIPE CULVERTS

STA 37+07 BN
REMOVING INLETS, LT
REMOVING SMALL PIPE CULVERTS

STA 42+10 BN, RT
REMOVING SURFACE DRAINS
REMOVING SMALL PIPE CULVERTS

STA 36+28 BN - STA 42+18 BN
REMOVING GUARDRAIL, RT

STA 40+37.9 BN - STA 42+15.6 BN
MGS GUARDRAIL, RT

STA 41+69 BN
CLEANING CULVERT PIPE
(60" RCCP)
2-APRON ENDWALLS REQ'D

STA 42+14 BN
B-32-52 (SOUTH END)
CONCRETE PAVEMENT
APPROACH SLAB

STA 42+12 BN, RT
CONCRETE SURFACE DRAINS
DROP INLET TYPE
SEE DETAIL.

VPC STA 40+90.00
VPC EL 667.80

VCL = 120.00
K = 68.99

VCL = 350.00
K = 198.19

FINISHED PROFILE

2.50%

EXISTING PROFILE

STA 30+00.00
EL 649.87

-1.01%

0.73%

VPC STA 30+70.00
VPC EL 649.17

VPI STA 31+30.00
VPI EL 648.57

VPT STA 31+90.00
VPT EL 649.01

VPC STA 32+25.00
VPC EL 649.27

VPI STA 34+00.00
VPI EL 650.55

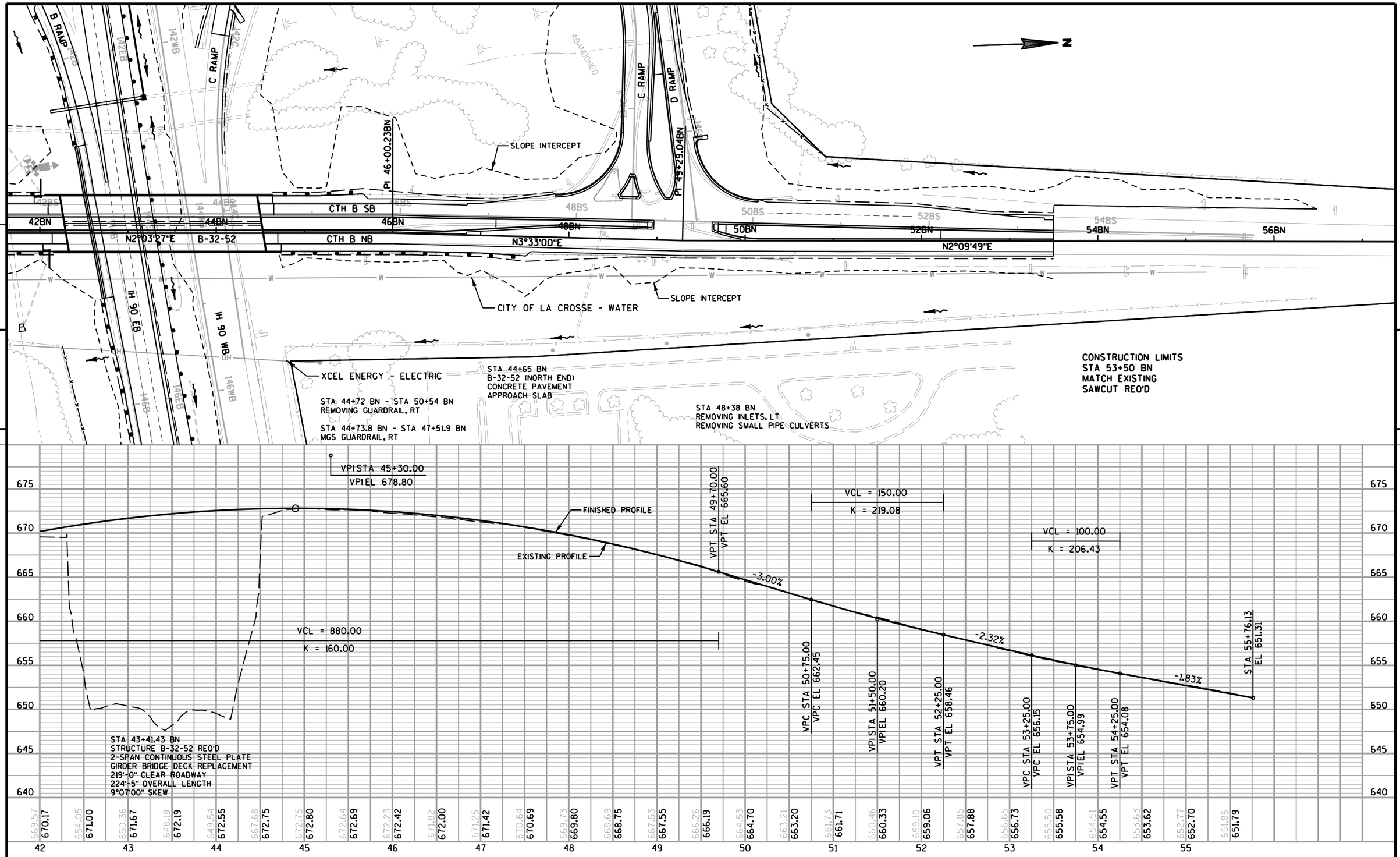
STA 34+00 BN
1-66'x24" SSPRC CL.III
1-APRON ENDWALL REQ'D
1-INLET 2x3-FT, 9.4'LT

VPT STA 35+75.00
VPT EL 654.92

STA 37+50 BN
1-44'x24" CPRC CL.III
1-APRON ENDWALL REQ'D
1-INLET 2x3-FT, 3.1'LT

STA 41+48 BN
STA 41+79 BN
EXISTING 54" CPRC
2-APRON ENDWALL REQ'D

| | | |



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - CTH B NORTHBOUND (BN LINE)	SHEET 266 E

STA 35+05 BS
REMOVING INLETS, LT
REMOVING SMALL PIPE CULVERTS

STA 33+41 BN - STA 35+30 BN
REMOVING FENCE, LT

STA 40+63 BN - STA 42+05 BN
REMOVING GUARDRAIL, LT

STA 40+93.7 BS - STA 41+96.8 BS
MGS GUARDRAIL, LT

STA 42+05 BS
B-32-52 (SOUTH END)
CONCRETE PAVEMENT
APPROACH SLAB

STA 41+92 BS, LT
CONCRETE SURFACE DRAINS
DROP INLET TYPE
SEE DETAIL.

STA 41+91 BS
REMOVING SURFACE DRAINS
REMOVING SMALL PIPE CULVERTS

FENCE CHAIN LINK 6-FT

SLOPE INTERCEPT

XCEL ENERGY - ELECTRIC

CITY OF LA CROSSE - WATER

WISDOT STOC

CTH B NB

CTH B SB

A RAMP

B RAMP

PT 32+46.53BS

PC 32+87.43BS

PT 31+26.09BS

PI 36+68.67BS

PT 40+44.51BS

30BS

32BS

34BS

36BS

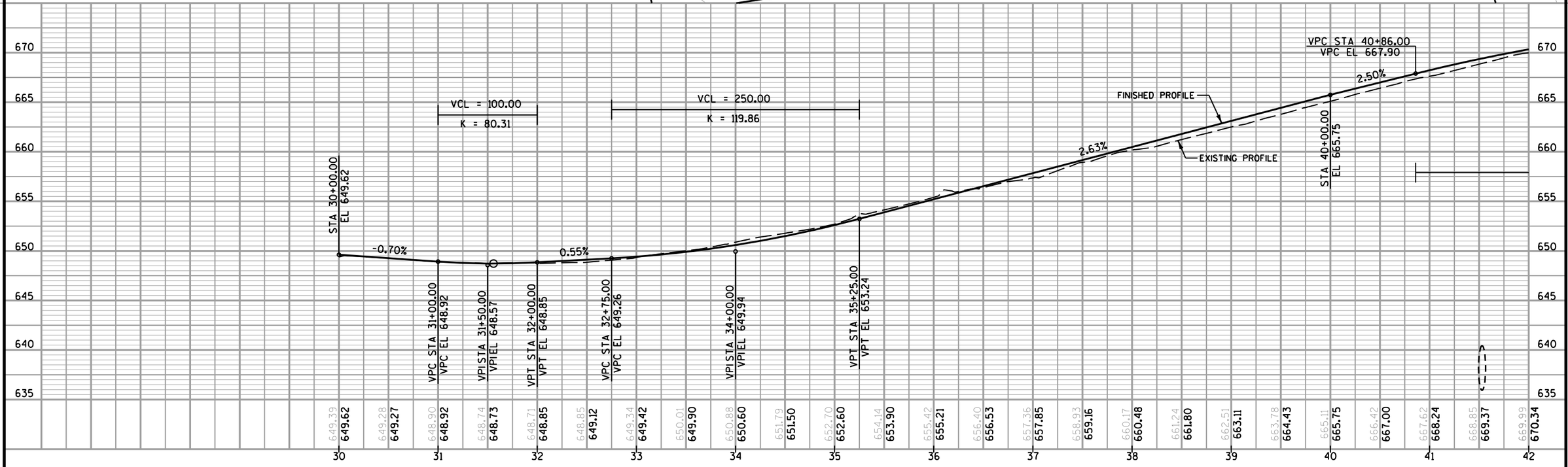
38BS

40BS

42BS

N26°59'43"E

N11°44'28"E



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - CTH B SOUTHBOUND (BS LINE)	SHEET 267 E

STA 44+55 BS
B-32-52 (NORTH END)
CONCRETE PAVEMENT
APPROACH SLAB

STA 50+24 BN - STA 50+92 BN
REMOVING FENCE, LT

STA 44+63 BN - STA 47+92 BN
REMOVING GUARDRAIL, LT

STA 44+55 BS - STA 45+58.1 BS
MGS GUARDRAIL, LT

FENCE CHAIN LINK 6-FT

STA 50+51 BS
REMOVING INLETS, LT
REMOVING SMALL PIPE CULVERTS

B RAMP
C RAMP
D RAMP
ABANDONED
142WB
142EB
142C
146D
146C
146B
146EB
146WB
IH 90 EB
IH 90 WB
SH

PI 45+91.82BS
PI 51+74.62BS
EP 55+68.72BS

SLOPE INTERCEPT
SLOPE INTERCEPT
CITY OF LA CROSSE - WATER
XCEL ENERGY - ELECTRIC

42BS
44BS
46BS
48BS
50BS
52BS
54BS
42BN
46BN
48BN
50BN
52BN
54BN
56BN

CTH B SB
CTH B NB
B-32-52
N21°03'27"E
N3°38'00"E
N3°25'16"E

VPI STA 45+26.00
VPI EL 678.90
VPT STA 49+66.00
VPT EL 665.70
VPC STA 51+25.00
VPC EL 660.93
VPI STA 52+00.00
VPI EL 658.68
VPT STA 52+75.00
VPT EL 656.97
VPC STA 53+00.00
VPC EL 656.39
VPI STA 54+00.00
VPI EL 654.11
VPT STA 55+00.00
VPT EL 652.48
STA 55+68.82
EL 651.36

FINISHED PROFILE
EXISTING PROFILE

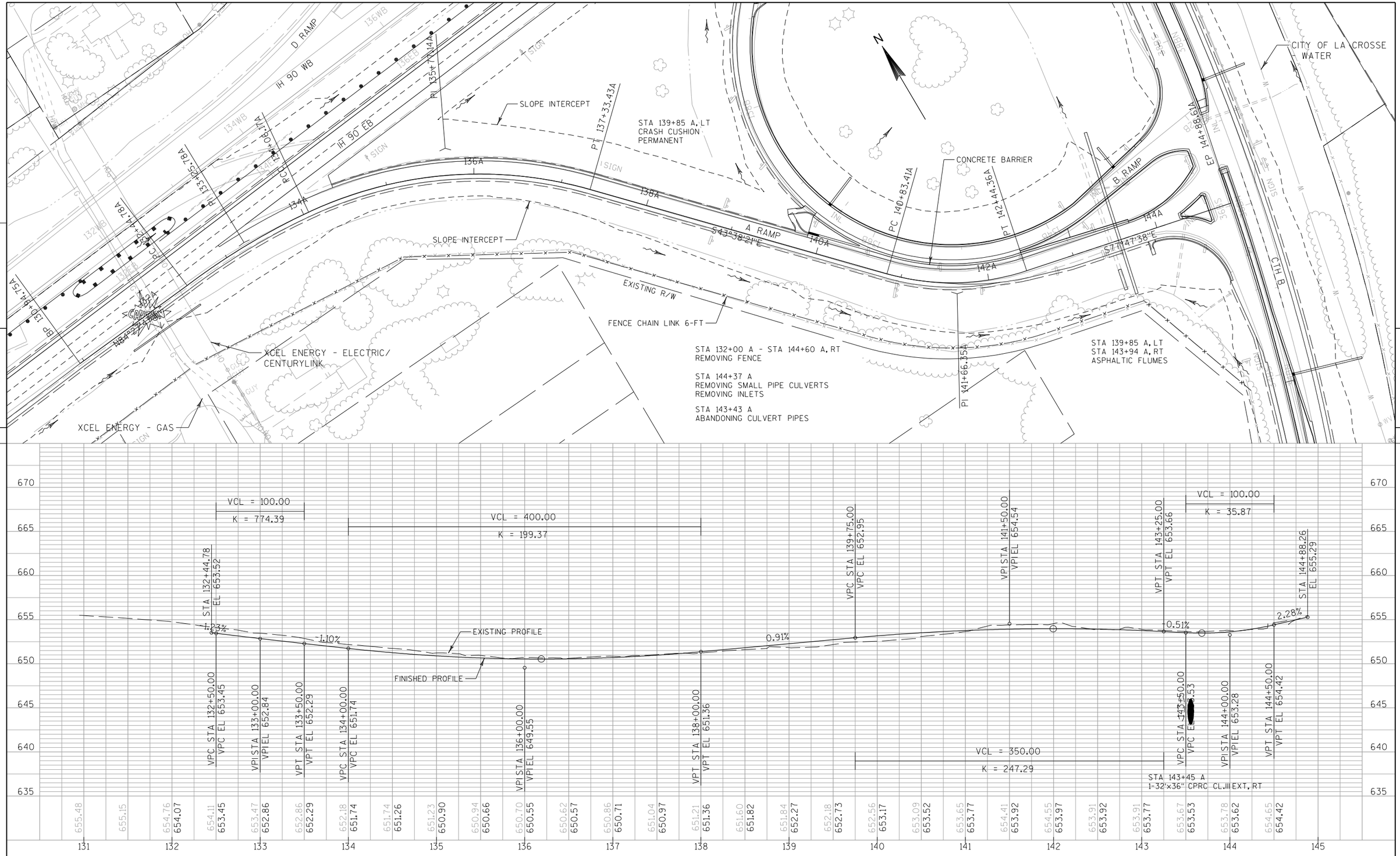
VCL = 880.00
K = 160.00
VCL = 150.00
K = 210.01
VCL = 200.00
K = 302.79

-3.00%
-2.29%
-1.63%

42	43	44	45	46	47	48	49	50	51	52	53	54	55
669.99	650.02	650.20	649.42	648.97	671.91	672.53	672.44	672.37	672.03	671.30	670.20	669.40	668.36
670.34	671.16	671.82	672.32	672.67	672.86	672.89	672.77	672.49	672.06	671.47	670.72	669.82	668.76
667.11	665.77	664.28	662.92	661.48	660.05	658.78	657.56	656.38	655.27	654.27	653.32	652.47	651.64
667.54	666.17	664.68	663.18	661.68	660.19	658.81	657.55	656.39	655.29	654.27	653.34	652.48	651.67

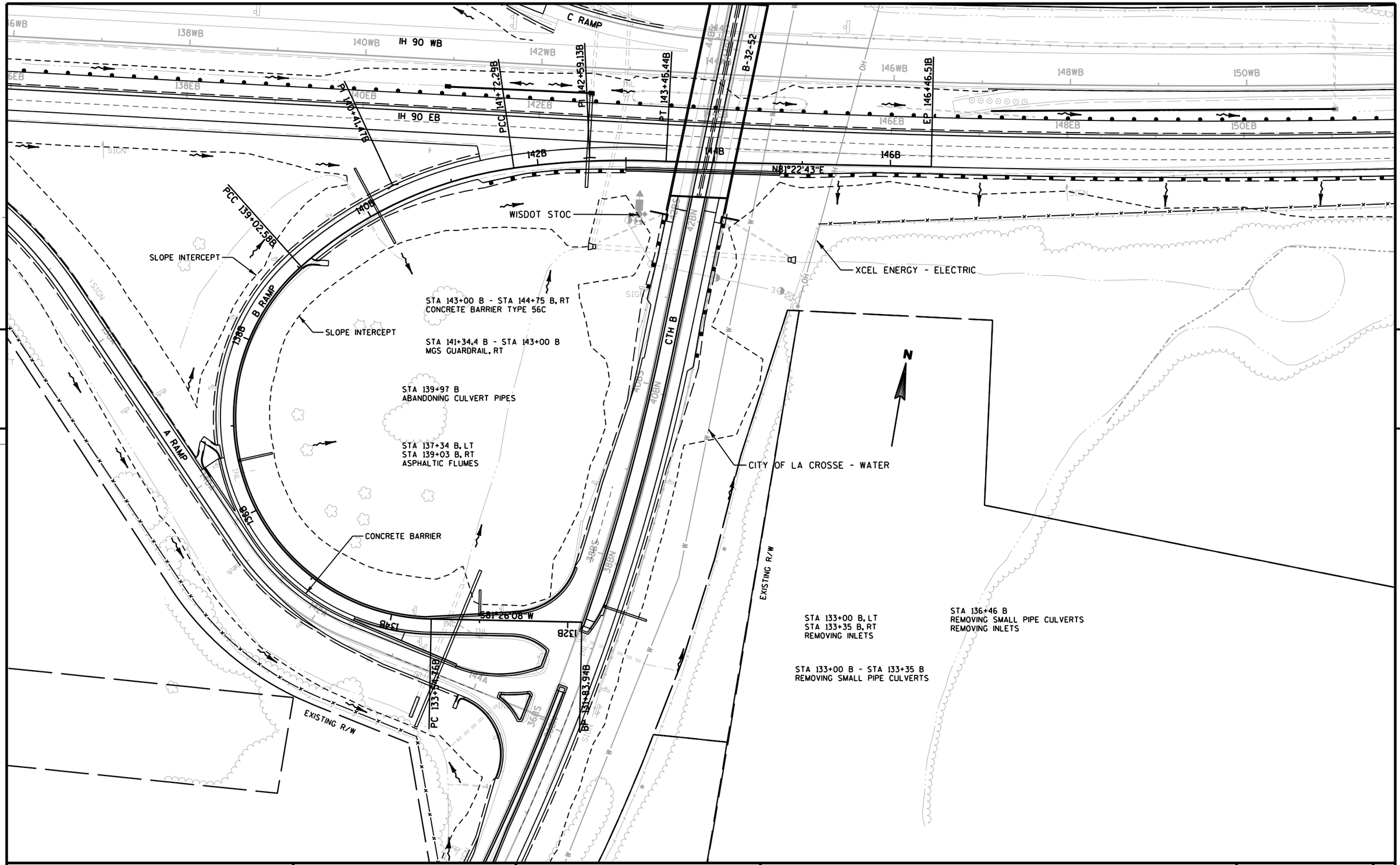
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - CTH B SOUTHBOUND (BS LINE)	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050121_ppbs.dgn
PLOT DATE : 7/30/2015
PLOT BY : AYRES-EC
PLOT NAME :
PLOT SCALE : 1:100
WISDOT/CADDS SHEET 40



PROJECT NO:1071-06-81	HWY: IH 90	COUNTY:LA CROSSE	PLAN & PROFILE - IH 90 EB OFF RAMP TO CTH B (A RAMP)	SHEET 269	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050122_ppa.dgn PLOT DATE : 9/14/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

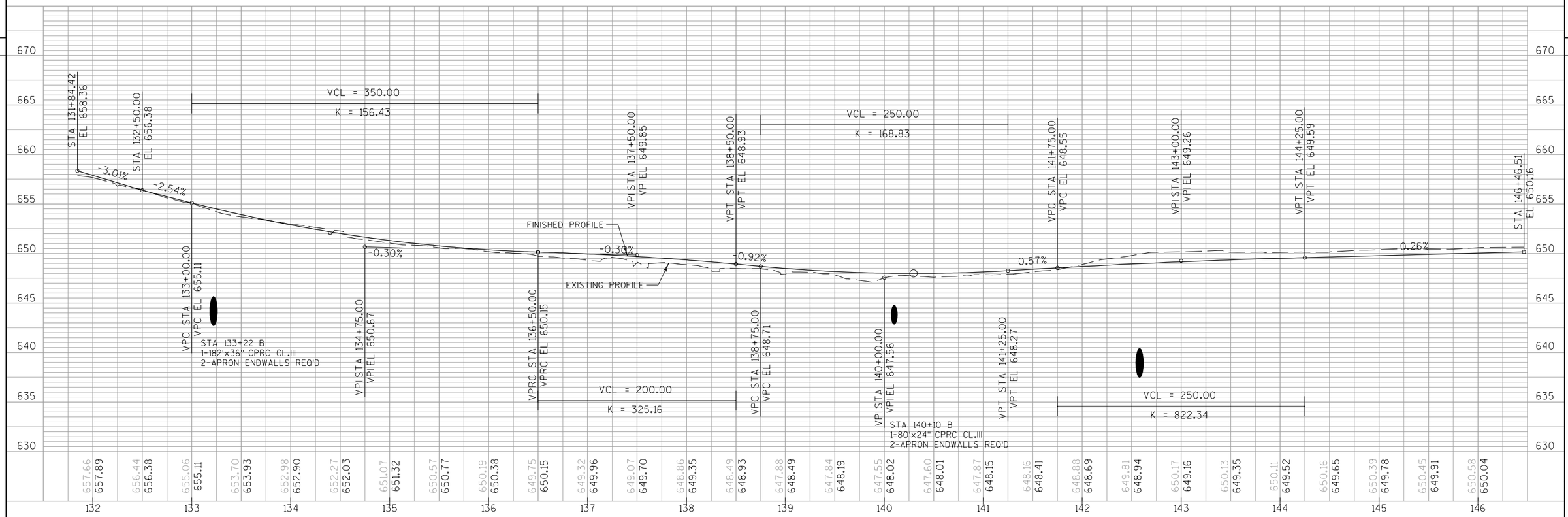


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - CTH B ON RAMP TO IH 90 EB (B RAMP)	SHEET 270	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050123_ppb.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 44

SEE PREVIOUS SHEET



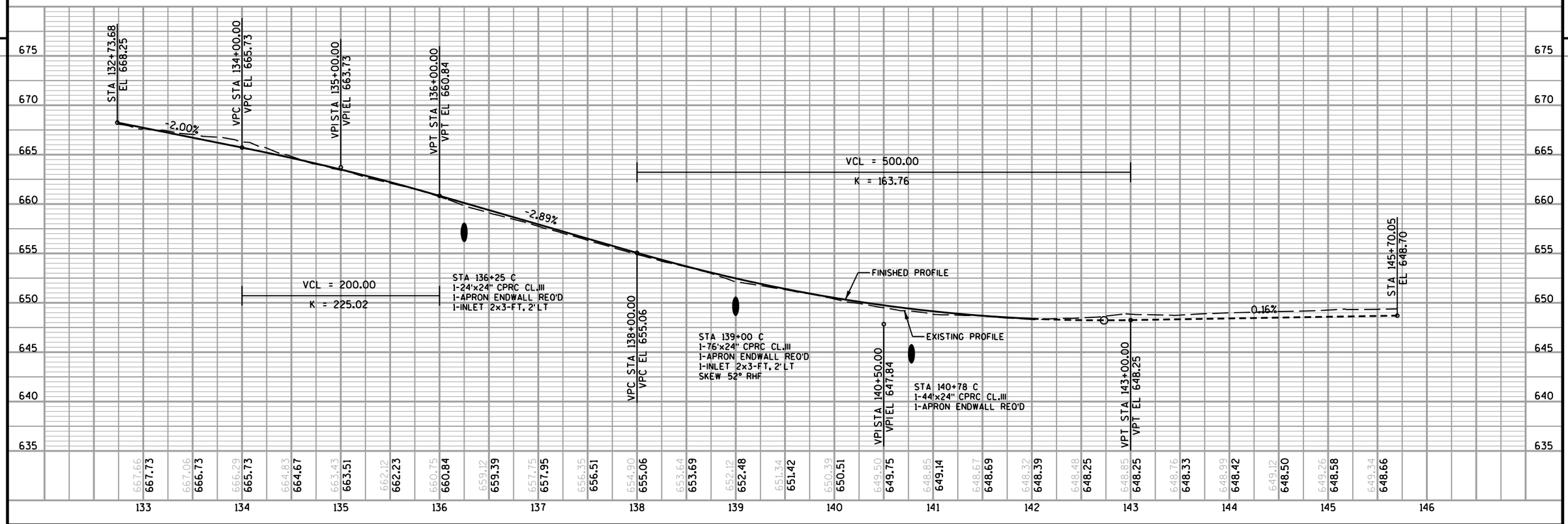
PROJECT NO:1071-06-81	HWY:IH 90	COUNTY:LA CROSSE	PLAN & PROFILE - CTH B ON RAMP TO IH 90 EB (B RAMP)	SHEET 271	E

PLAYGROUND
EXISTING R/W
144D
146D
142D
140D
138C
N86°27'00"W
134.87C
ABANDONED
CONCRETE BARRIER
SLOPE INTERCEPT
STA 138+35 C, RT
CRASH CUSHION
PERMANENT
STA 138+35 C, RT
STA 141+55 C, LT
ASPHALTIC FLUMES
CONSTRUCTION LIMITS
STA 142+00 C
MATCH EXISTING
PCC 141+55.00C
140C
142C
C RAMP
D RAMP
B RAMP
144C
B-32-92
N83°40'15"E
PI 142+89.13C
PI 144+20.05C
EP 145+70.05C
50BS
50BN
48BS
46BN
42BS
42BN
CTH B
EXISTING R/W
CITY OF LA CROSSE - WATER
XCEL ENERGY - ELECTRIC
STA 136+00 C, LT/RT
REMOVING INLETS
ABANDONING CULVERT PIPES
STA 138+98 C
REMOVING SMALL PIPE CULVERTS
REMOVING INLETS
STA 140+78 C
REMOVING INLETS
REMOVING SMALL PIPE CULVERTS
N
140WB
142WB
146WB
148WB
IH 90 WB
150WB
152WB
140EB
142EB
146EB
148EB
150EB
152EB
IH 90 EB
146B
142B
5
5

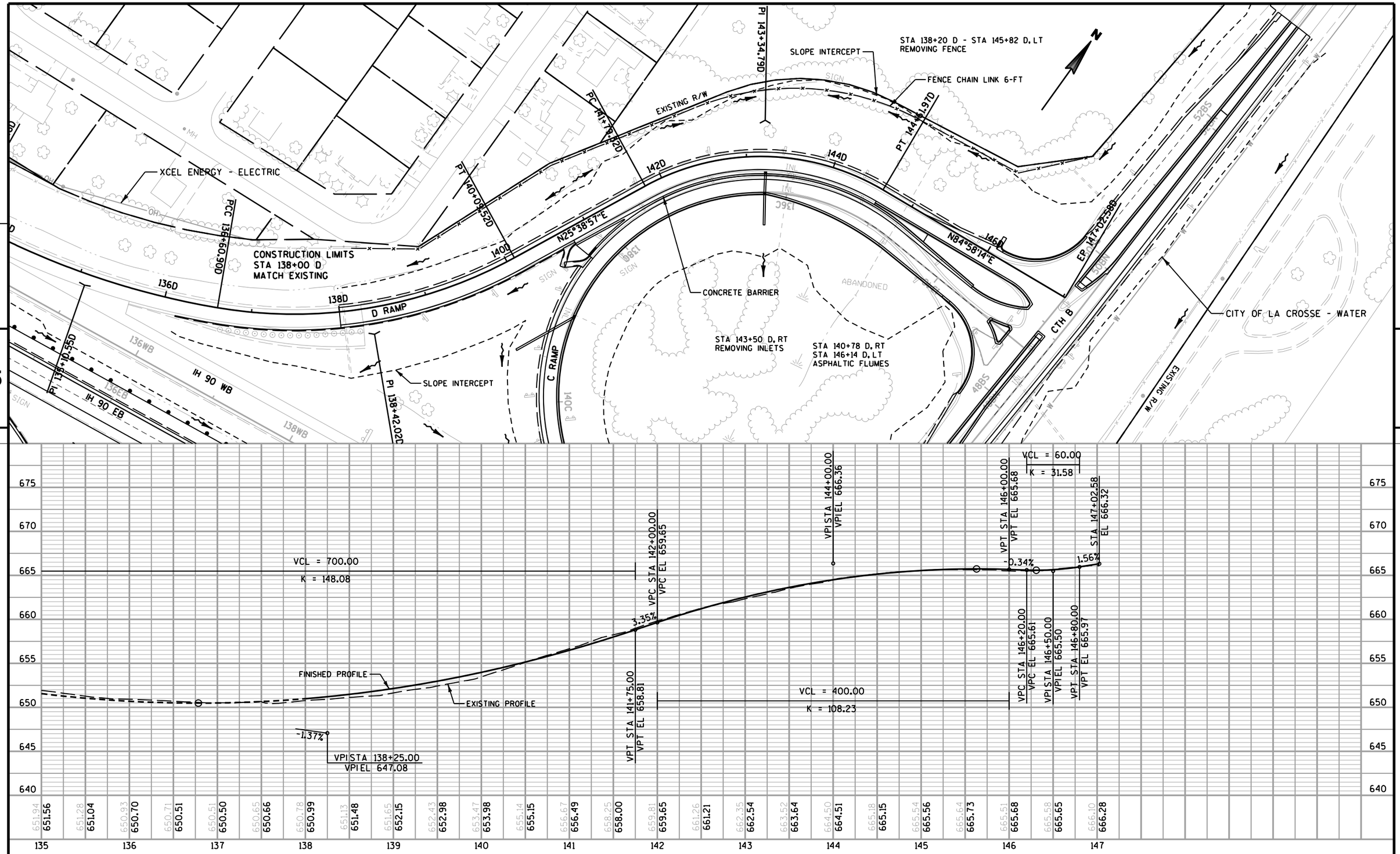
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 WB OFF RAMP TO CTH B (C RAMP)	SHEET 272	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050125_ppc.dgn
PLOT DATE : 7/30/2015
PLOT BY : AYRES-EC
PLOT NAME :
PLOT SCALE : 1:100
WISDOT/CADDS SHEET 44

SEE PREVIOUS SHEET



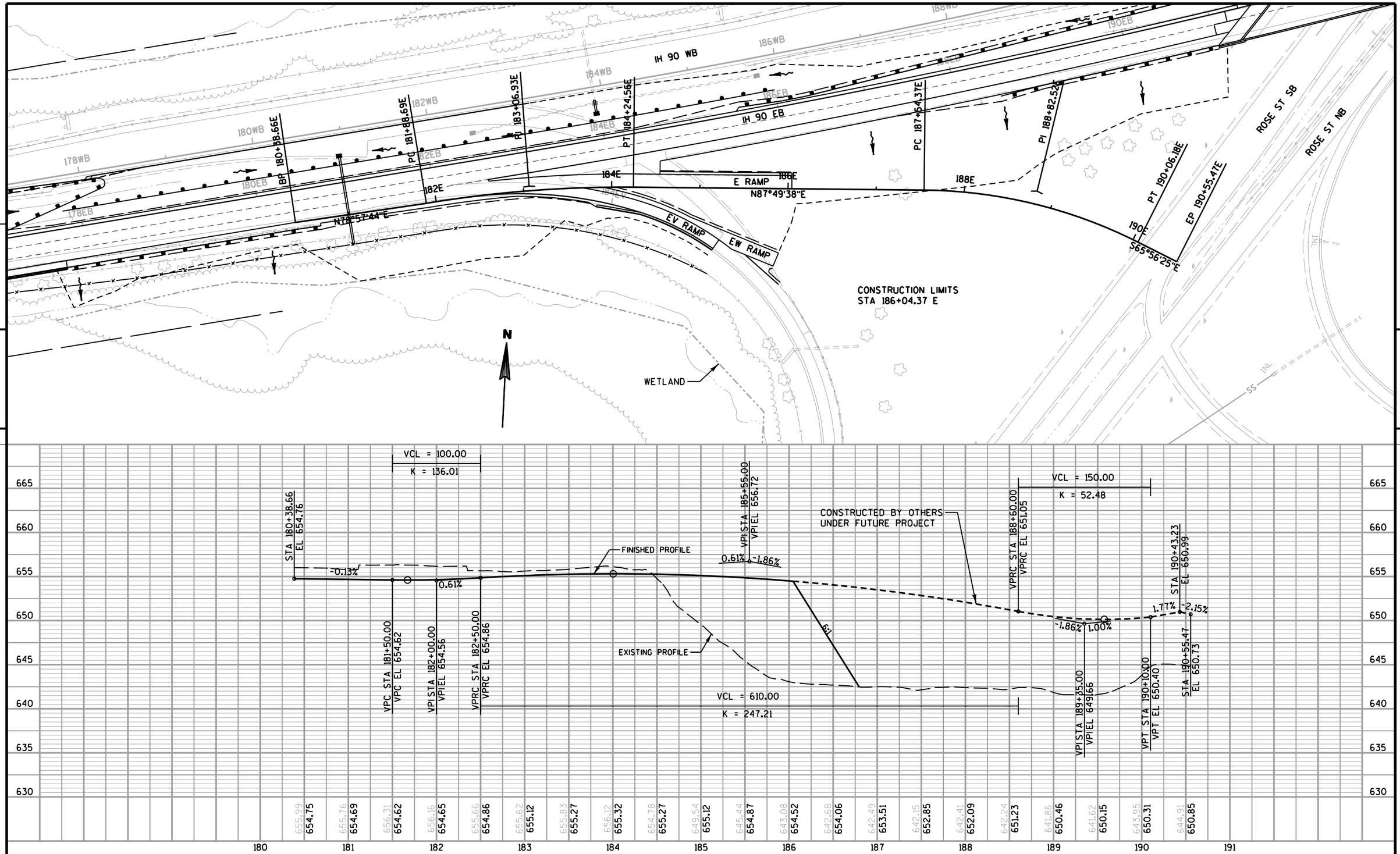
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 WB OFF RAMP TO CTH B (C RAMP)	SHEET 273	E



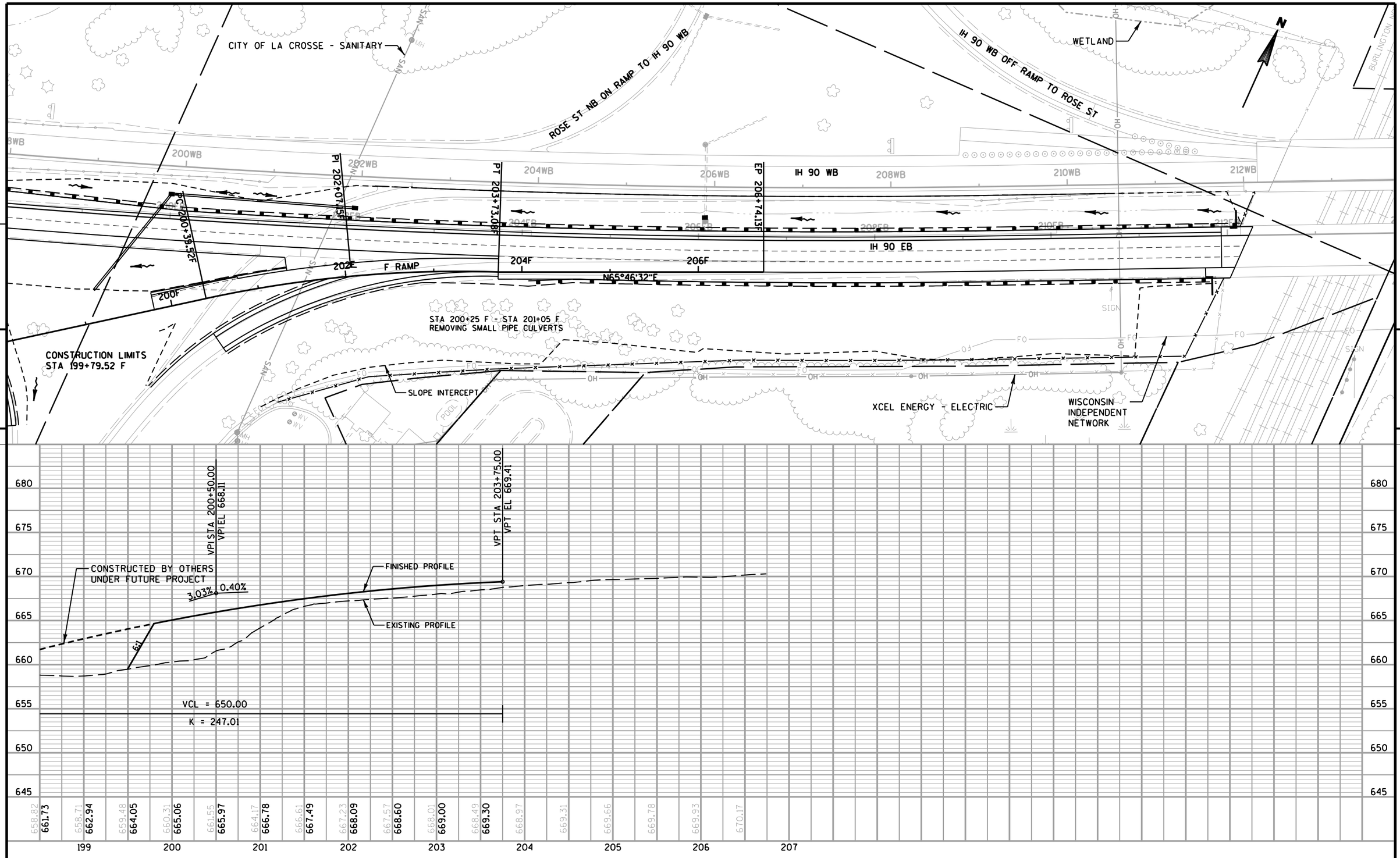
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - CTH B ON RAMP TO IH 90 WB (D RAMP)	SHEET 274	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050127_ppd.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40



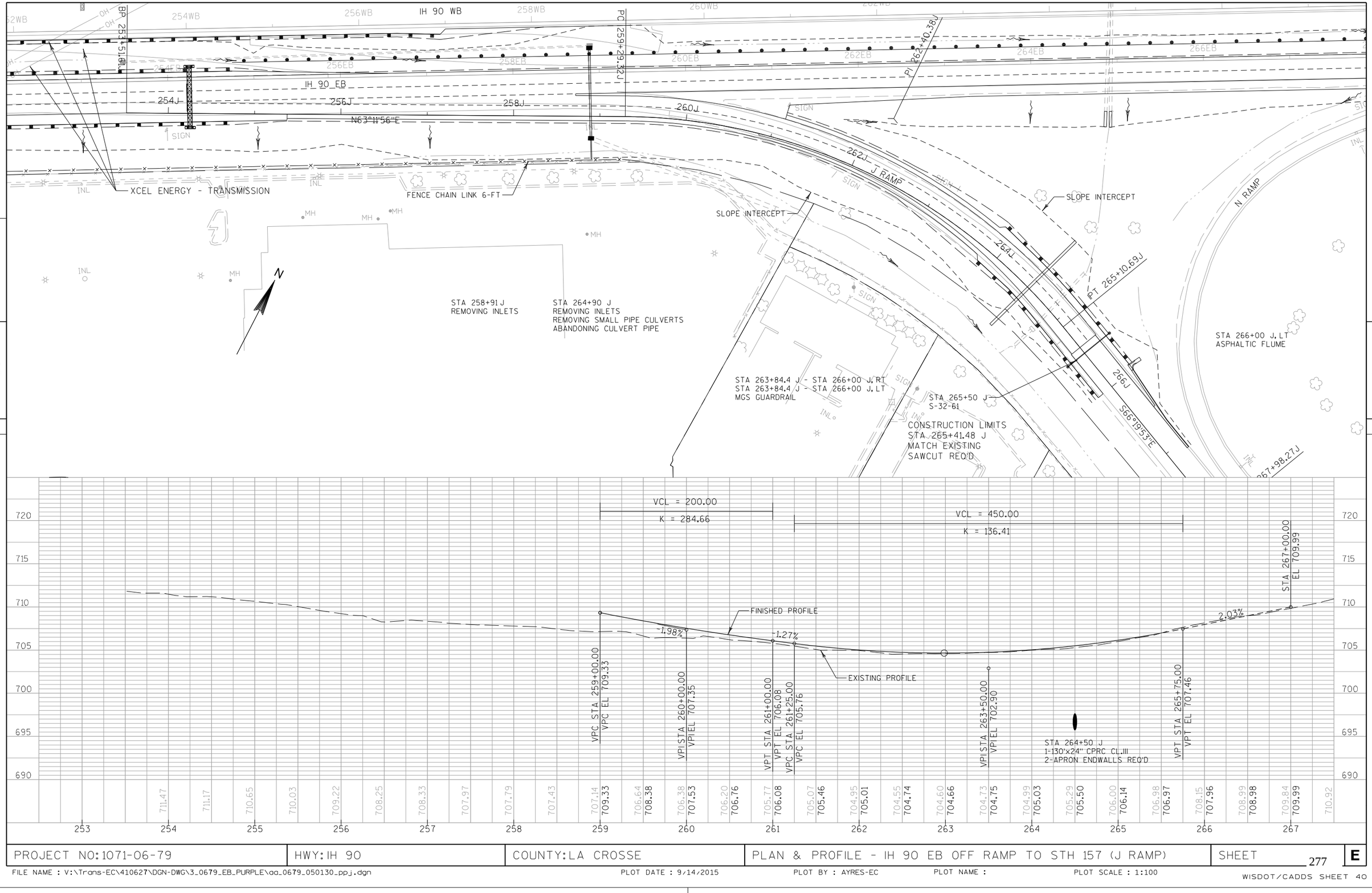
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - IH 90 EB OFF RAMP TO ROSE ST (E RAMP)	SHEET 275 E



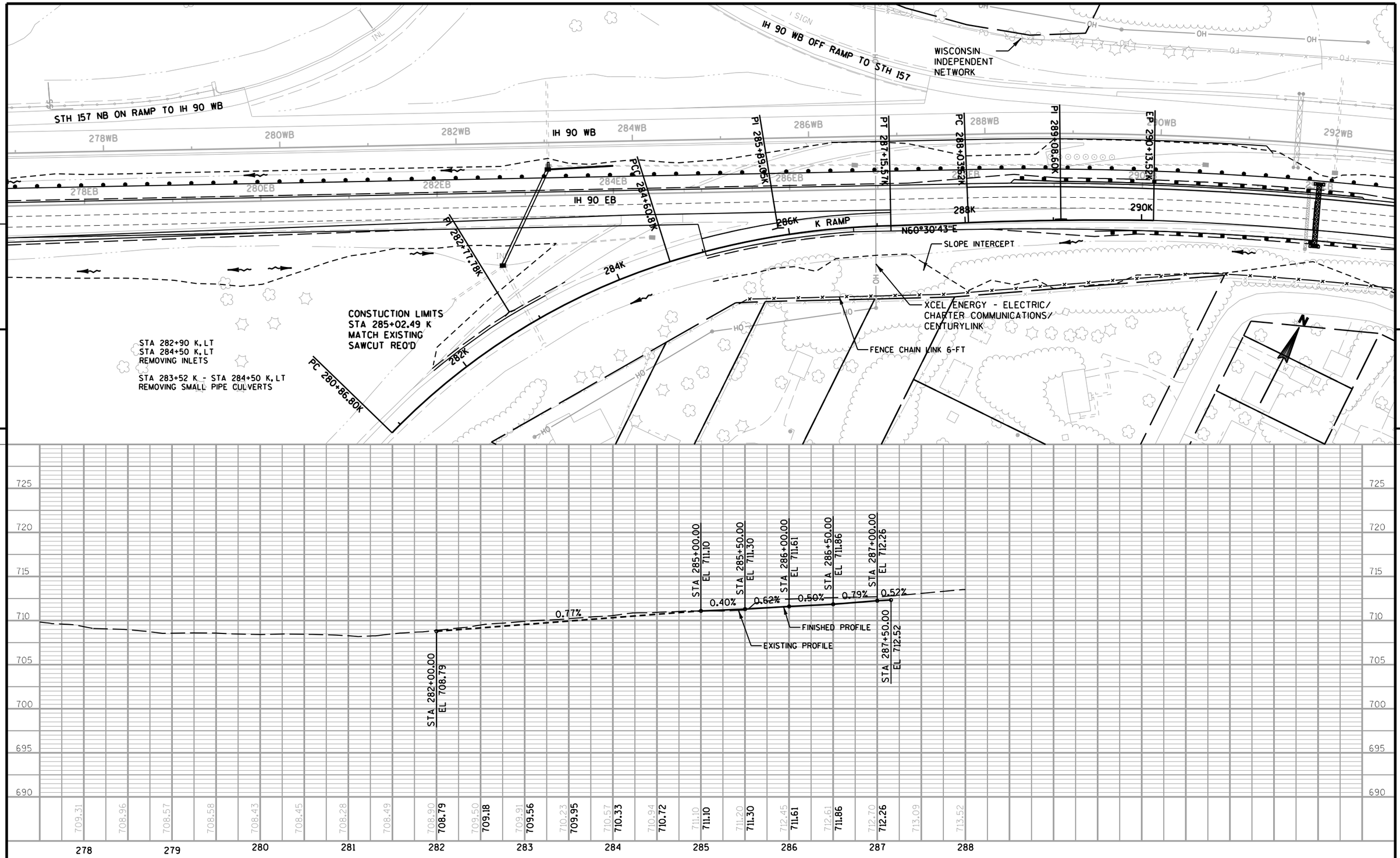
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - ROSE ST ON RAMP TO IH 90 EB (F RAMP)	SHEET 276	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050129_ppf.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

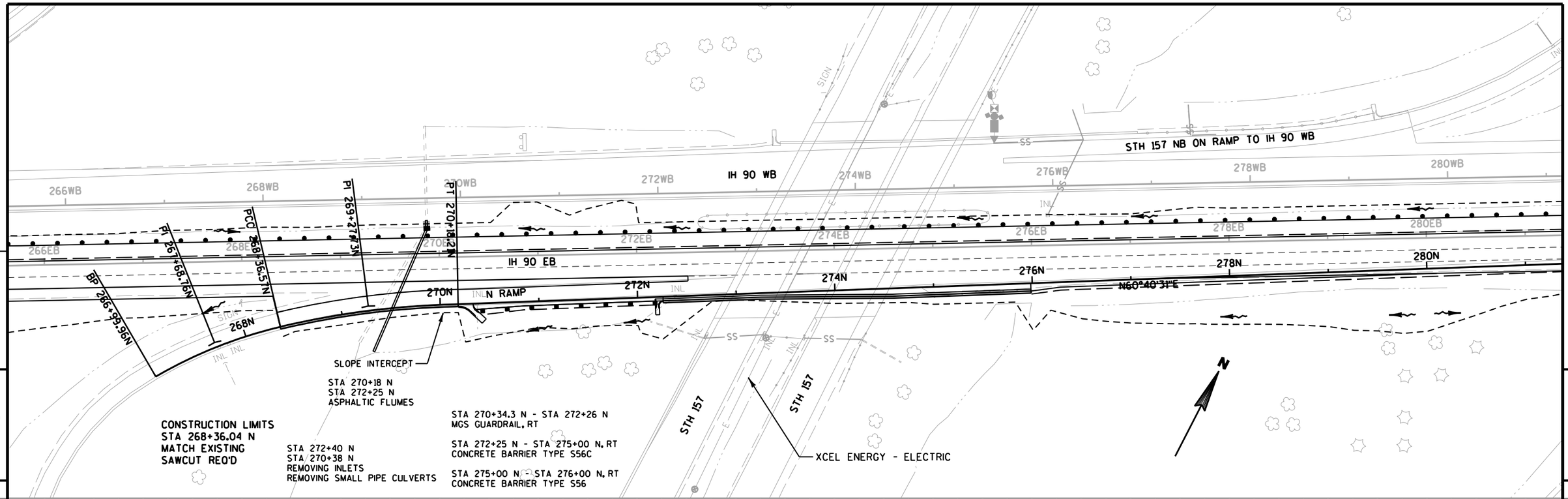


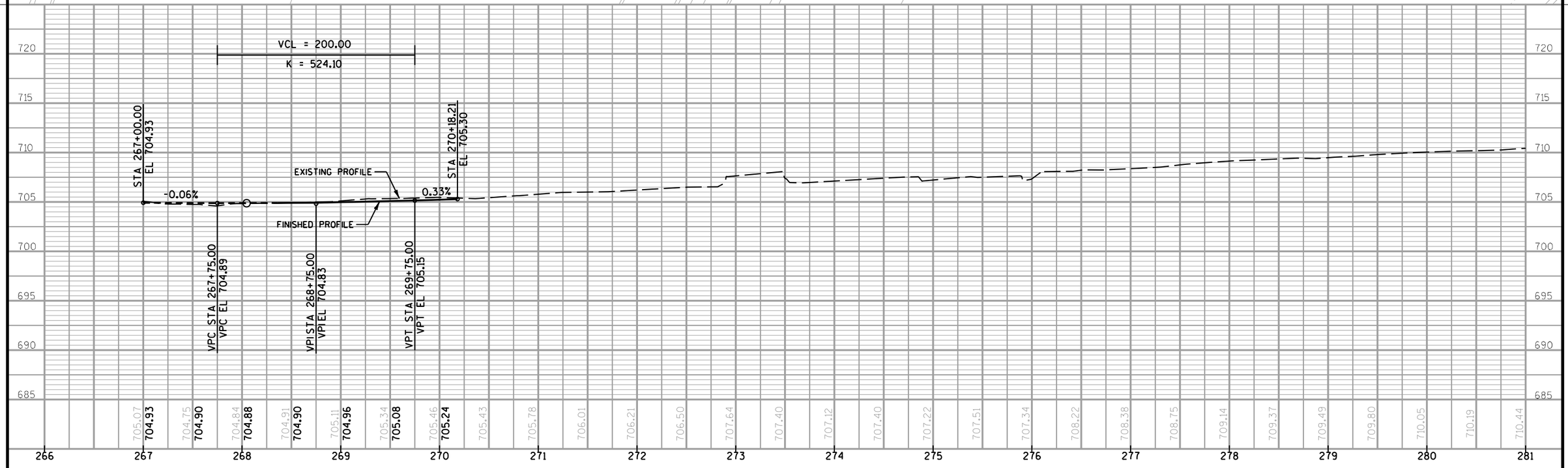
PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	PLAN & PROFILE - IH 90 EB OFF RAMP TO STH 157 (J RAMP)	SHEET 277	E



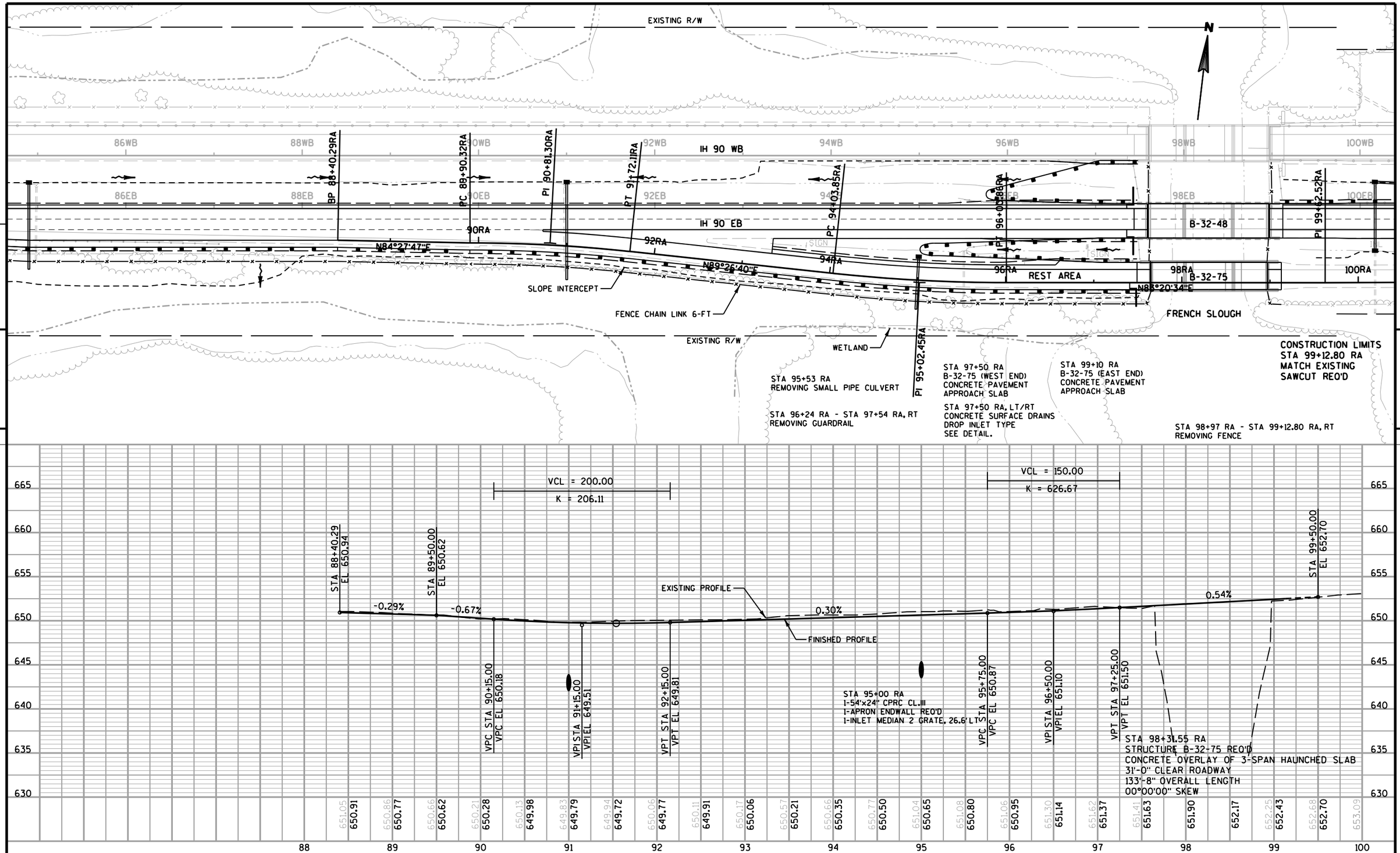
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - STH 157 NB ON RAMP TO IH 90 EB (K RAMP)	SHEET 278	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050131_ppk.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 40

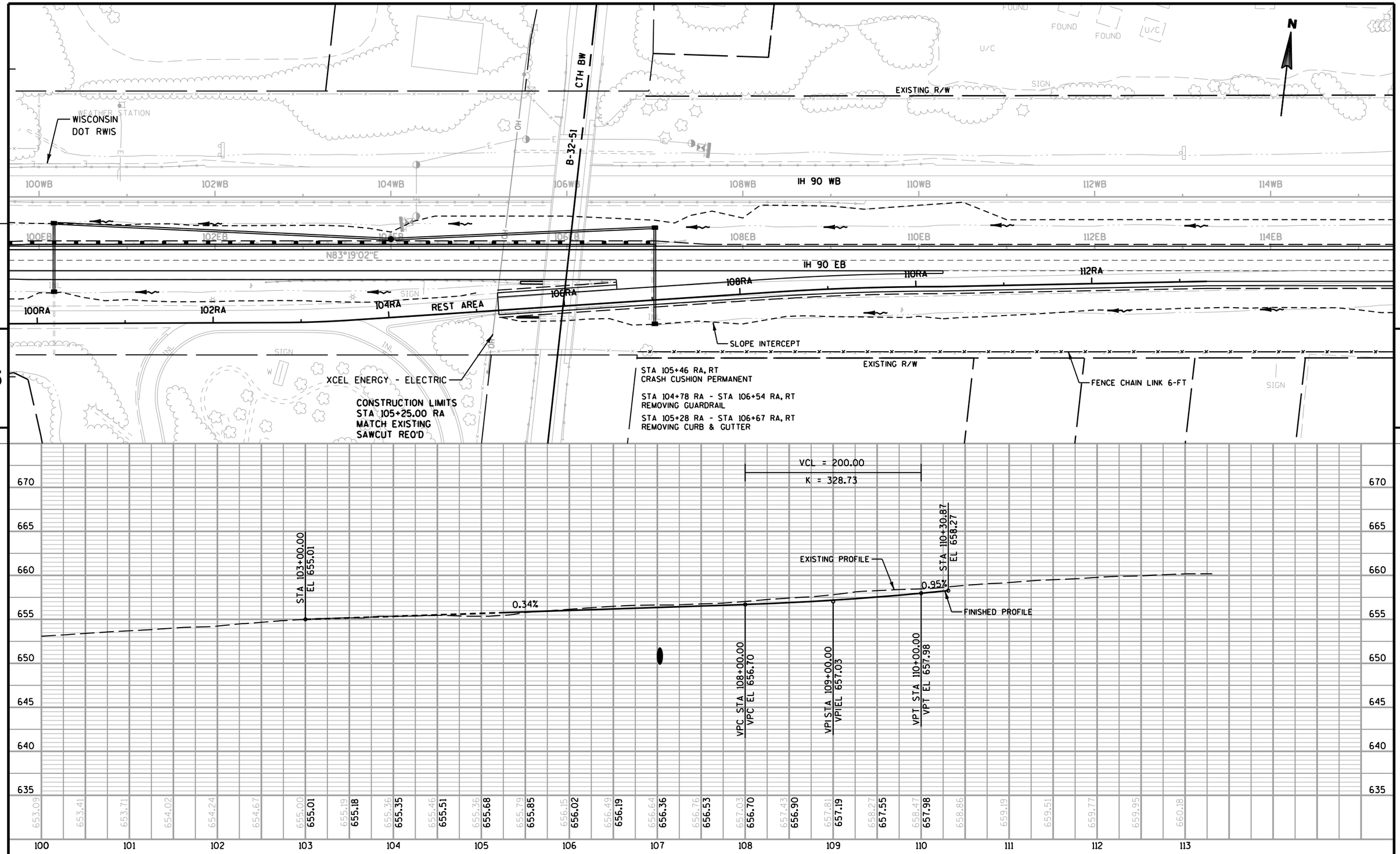




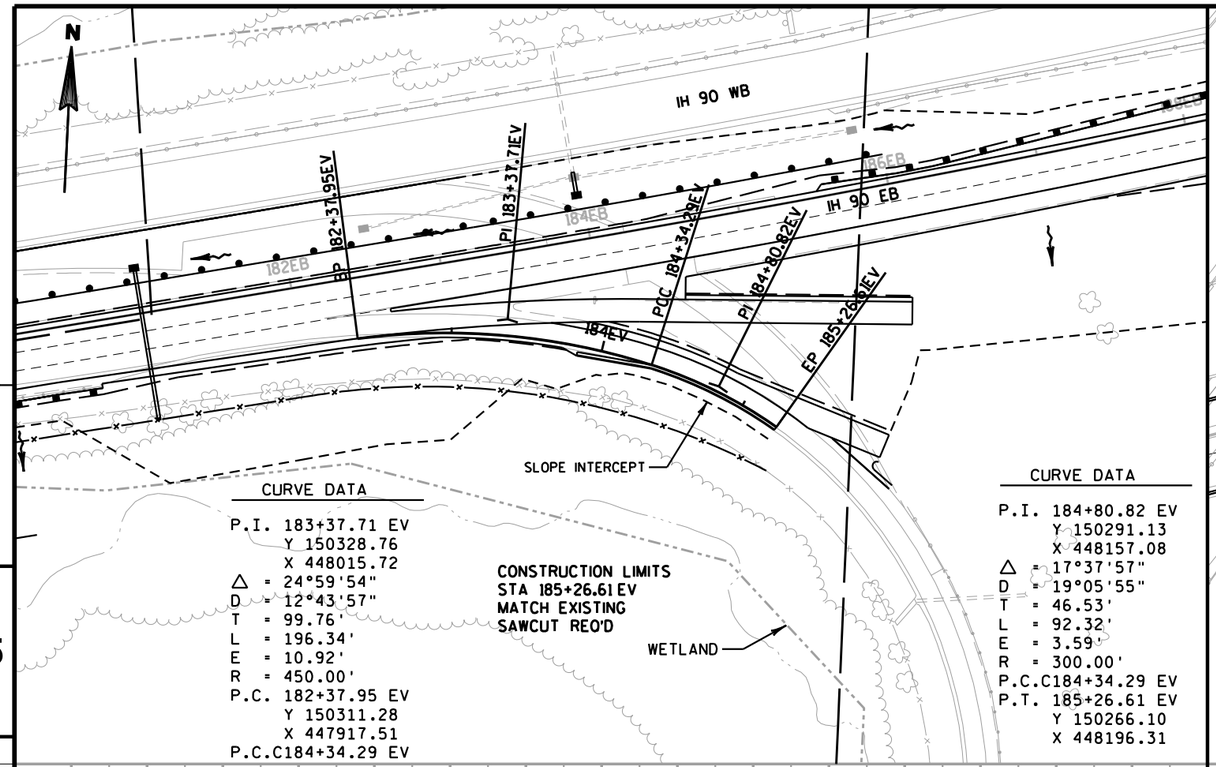
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - STH 157 SB ON RAMP TO IH 90 EB (N RAMP)	SHEET 279	E



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - REST AREA (RA LINE)	SHEET 280 E



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - REST AREA (RA LINE)	SHEET 281	E



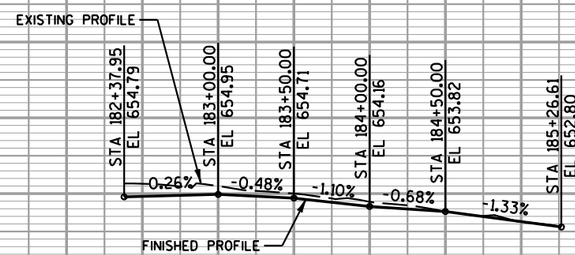
CURVE DATA

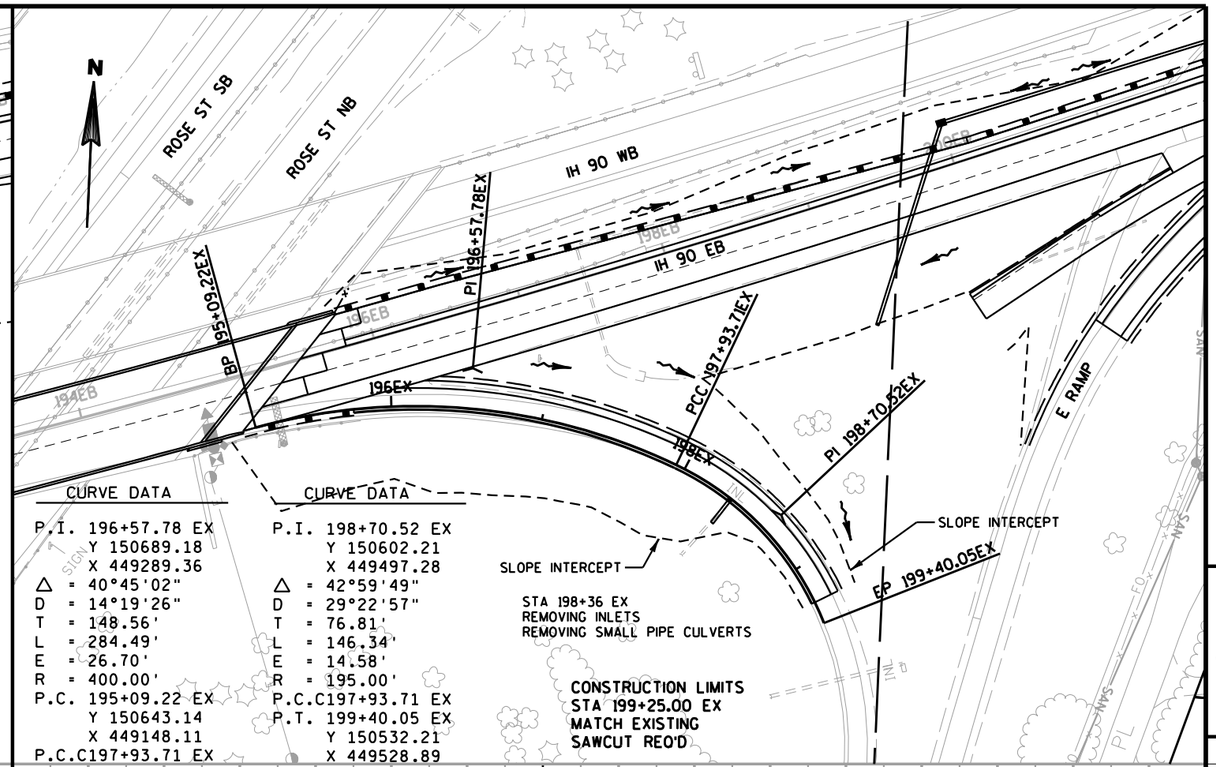
P.I. 183+37.71 EV
Y 150328.76
X 448015.72
△ = 24°59'54"
D = 12°43'57"
T = 99.76'
L = 196.34'
E = 10.92'
R = 450.00'
P.C. 182+37.95 EV
Y 150311.28
X 447917.51
P.C.C184+34.29 EV

CURVE DATA

P.I. 184+80.82 EV
Y 150291.13
X 448157.08
△ = 17°37'57"
D = 19°05'55"
T = 46.53'
L = 92.32'
E = 3.59'
R = 300.00'
P.C.C184+34.29 EV
P.T. 185+26.61 EV
Y 150266.10
X 448196.31

EV RAMP





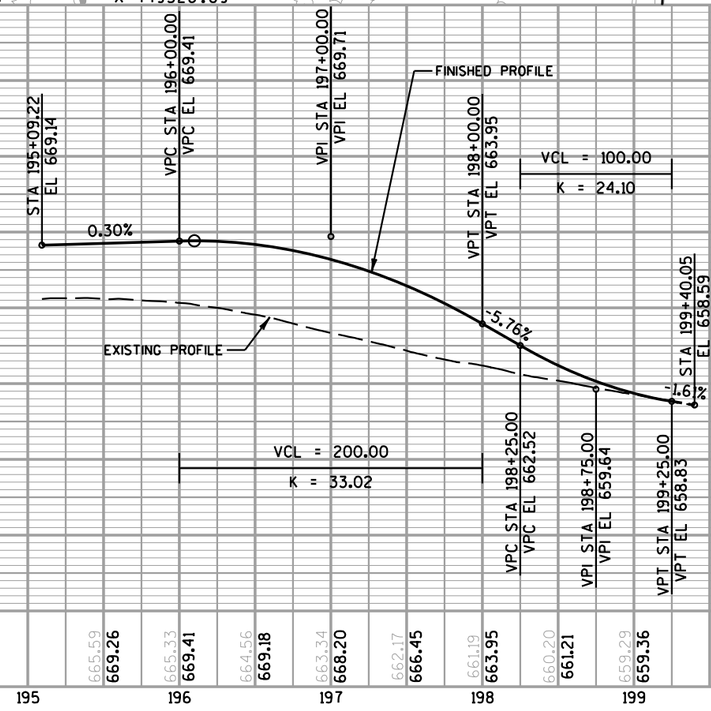
CURVE DATA

P.I. 196+57.78 EX
Y 150689.18
X 449289.36
△ = 40°45'02"
D = 14°19'26"
T = 148.56'
L = 284.49'
E = 26.70'
R = 400.00'
P.C. 195+09.22 EX
Y 150643.14
X 449148.11
P.C.C197+93.71 EX

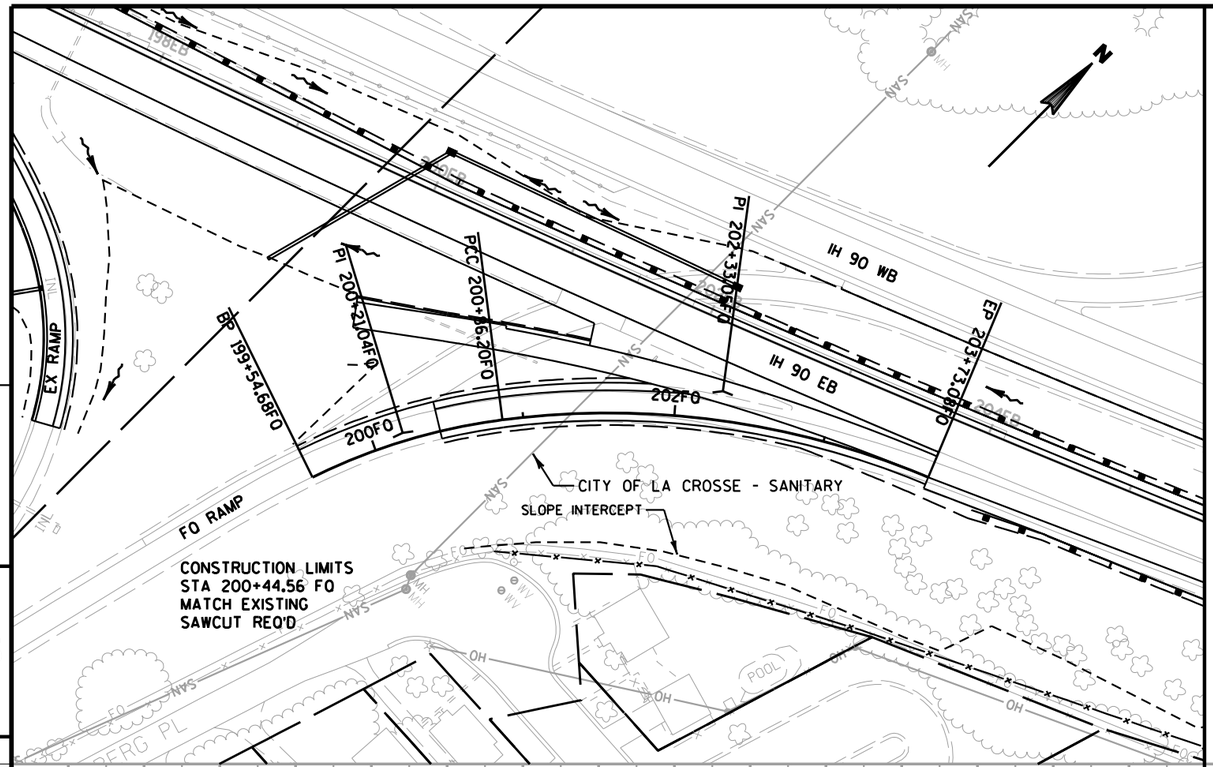
CURVE DATA

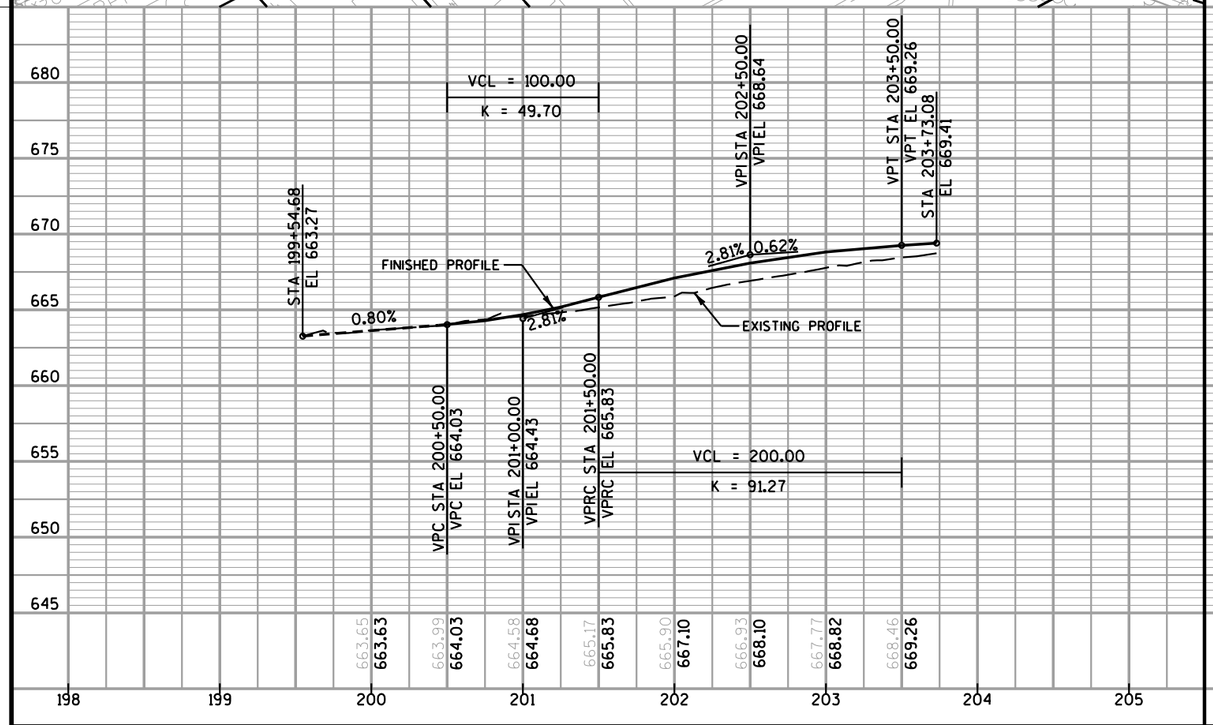
P.I. 198+70.52 EX
Y 150602.21
X 449497.28
△ = 42°59'49"
D = 29°22'57"
T = 76.81'
L = 146.34'
E = 14.58'
R = 195.00'
P.C.C197+93.71 EX
P.T. 199+40.05 EX
Y 150532.21
X 449528.89

EX RAMP



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - EV RAMP & EX RAMP	SHEET 282 E





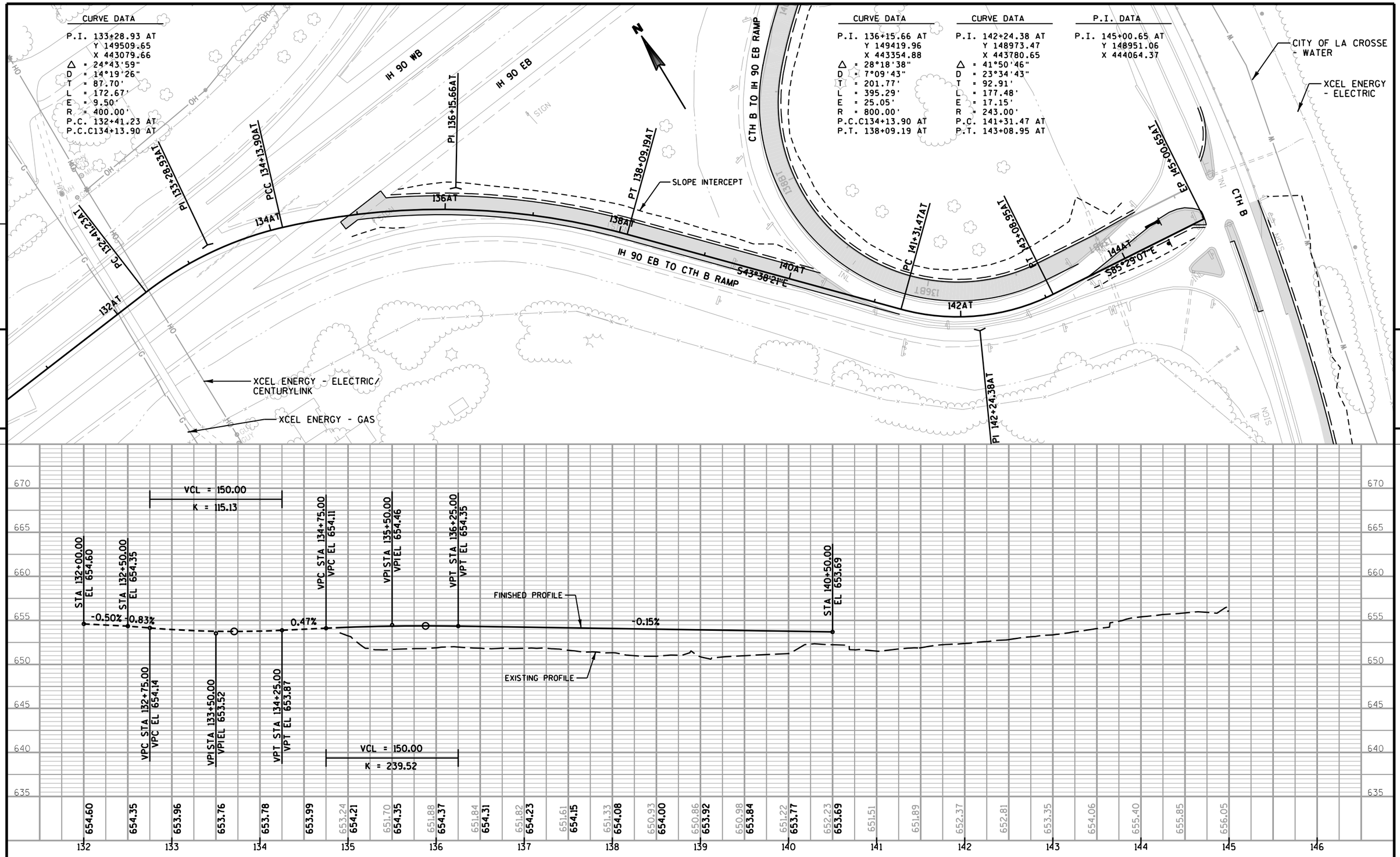
CURVE DATA

P.I. 200+21.04 FO
Y 150712.07
X 449698.84
△ = 18°50'20"
D = 14°19'26"
T = 66.36'
L = 131.52'
E = 5.47'
R = 400.00'
P.C. 199+54.68 FO
Y 150649.20
X 449677.61
P.C.C200+86.20 FO

CURVE DATA

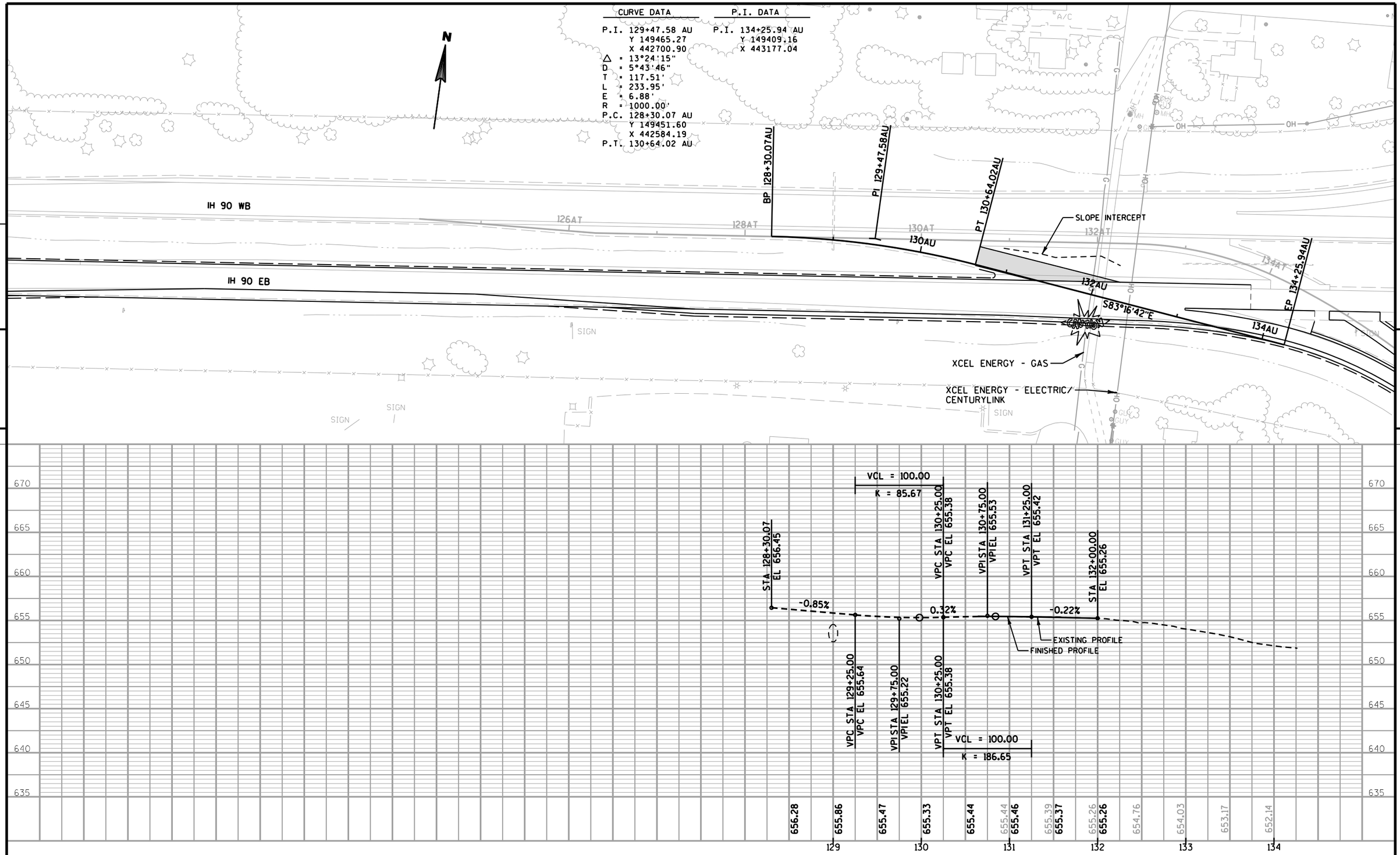
P.I. 202+33.05 FO
Y 150881.22
X 449828.63
△ = 30°09'33"
D = 10°30'47"
T = 146.84'
L = 286.88'
E = 19.44'
R = 545.00'
P.C.C200+86.20 FO
P.T. 203+73.08 FO
Y 150937.04
X 449964.45

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - ROSE ST ON RAMP TO IH 90 EB (FQ RAMP)	SHEET 283	E

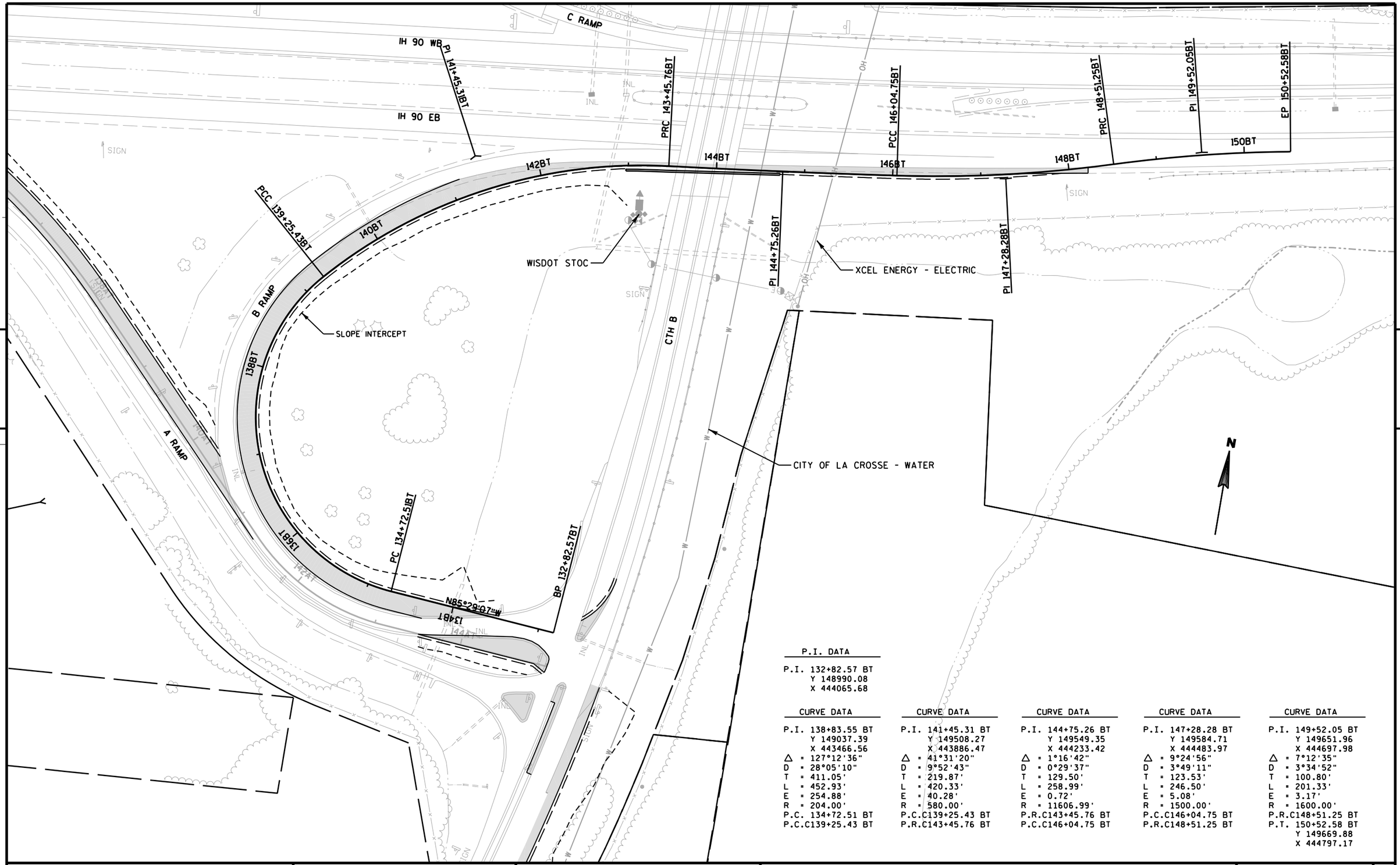


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - TEMP IH 90 EB TO CTH B RAMP (AT)	SHEET 284	E

CURVE DATA	P.I. DATA
P.I. 129+47.58 AU	P.I. 134+25.94 AU
Y 149465.27	Y 149409.16
X 442700.90	X 443177.04
△ = 13°24'15"	
D = 5°43'46"	
T = 117.51'	
L = 233.95'	
E = 6.88'	
R = 1000.00'	
P.C. 128+30.07 AU	
Y 149451.60	
X 442584.19	
P.T. 130+64.02 AU	



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - TEMP IH 90 EB TO CTH B RAMP (AU)	SHEET 285	E



P.I. DATA

P.I. 132+82.57 BT
Y 148990.08
X 444065.68

CURVE DATA

P.I. 138+83.55 BT
Y 149037.39
X 443466.56
△ = 127°12'36"
D = 28°05'10"
T = 411.05'
L = 452.93'
E = 254.88'
R = 204.00'
P.C. 134+72.51 BT
P.C.C139+25.43 BT

CURVE DATA

P.I. 141+45.31 BT
Y 149508.27
X 443886.47
△ = 41°31'20"
D = 9°52'43"
T = 219.87'
L = 420.33'
E = 40.28'
R = 580.00'
P.C.C139+25.43 BT
P.R.C143+45.76 BT

CURVE DATA

P.I. 144+75.26 BT
Y 149549.35
X 444233.42
△ = 1°16'42"
D = 0°29'37"
T = 129.50'
L = 258.99'
E = 0.72'
R = 11606.99'
P.R.C143+45.76 BT
P.C.C146+04.75 BT

CURVE DATA

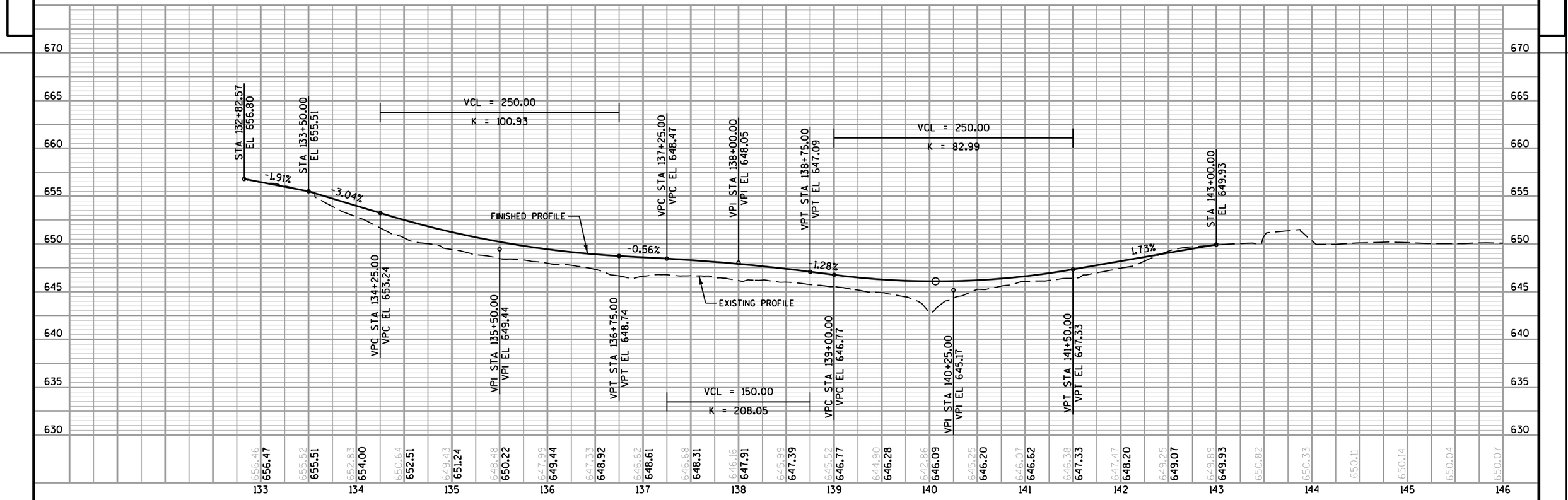
P.I. 147+28.28 BT
Y 149584.71
X 444483.97
△ = 9°24'56"
D = 3°49'11"
T = 123.53'
L = 246.50'
E = 5.08'
R = 1500.00'
P.C.C146+04.75 BT
P.R.C148+51.25 BT

CURVE DATA

P.I. 149+52.05 BT
Y 149651.96
X 444697.98
△ = 7°12'35"
D = 3°34'52"
T = 100.80'
L = 201.33'
E = 3.17'
R = 1600.00'
P.R.C148+51.25 BT
P.T. 150+52.58 BT
Y 149669.88
X 444797.17

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - TEMP CTH B TO IH 90 EB RAMP (BT)	SHEET 286	E

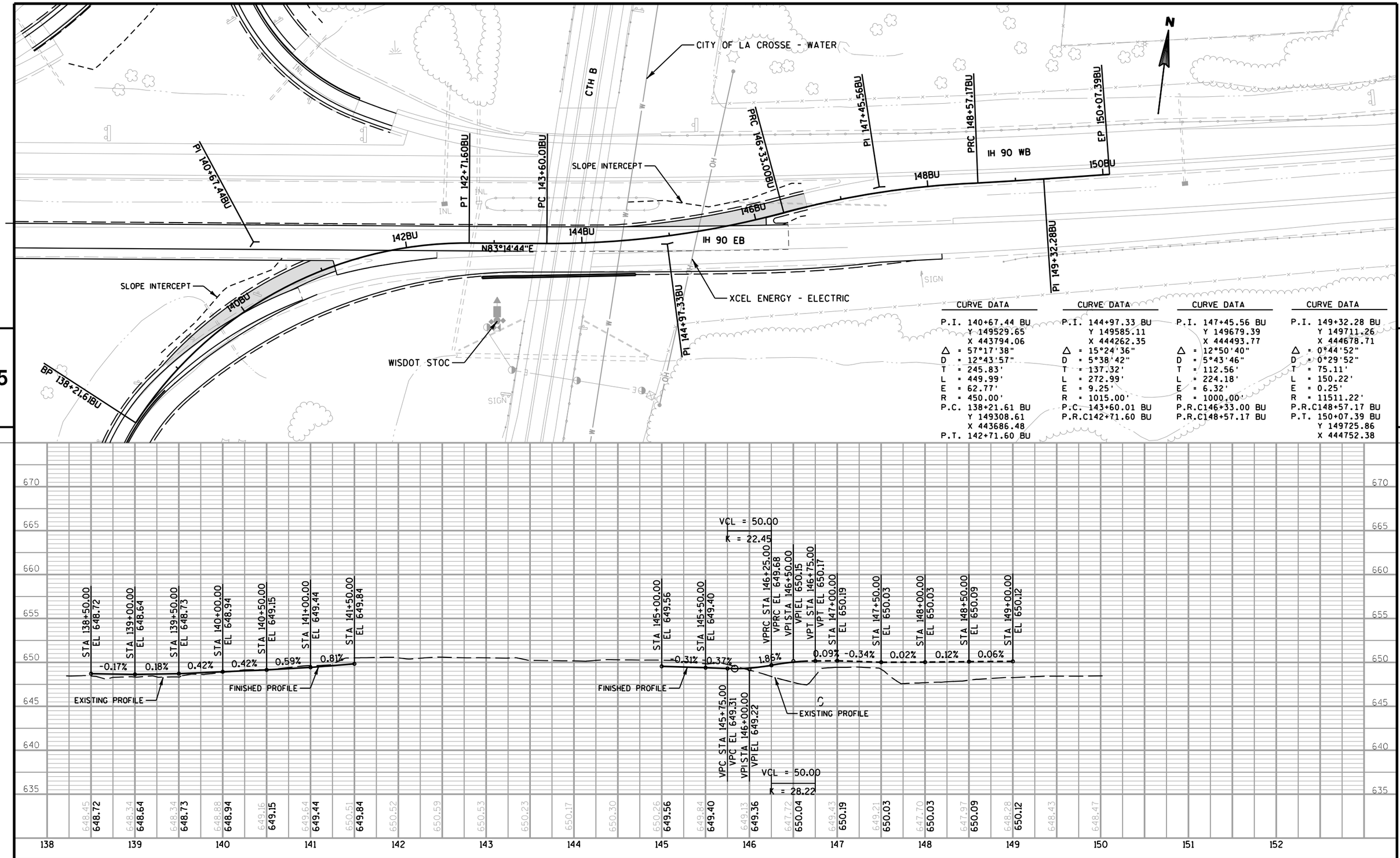
SEE PREVIOUS SHEET



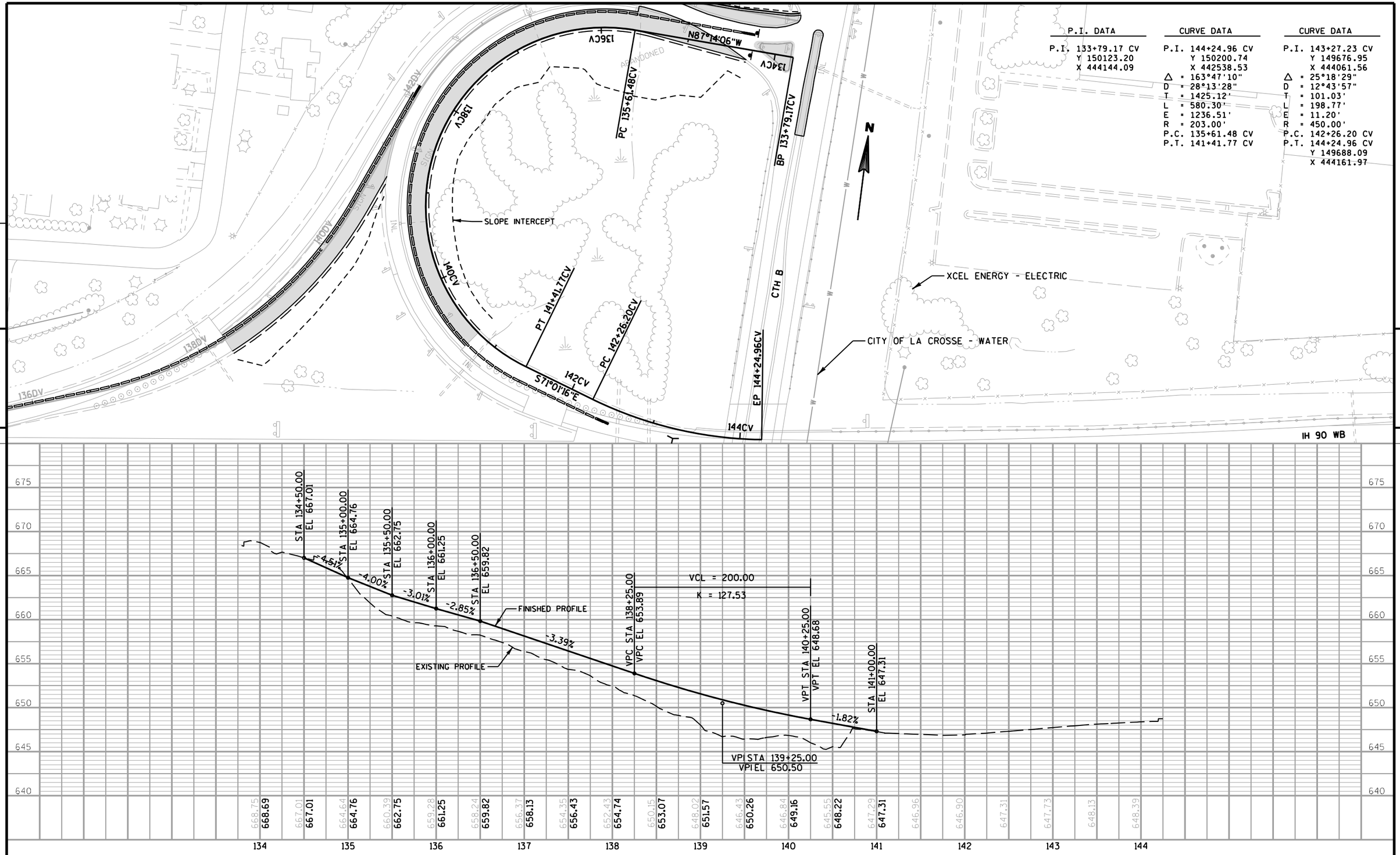
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - TEMP CTH B TO IH 90 EB RAMP (BT)	SHEET 287 E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050140_pptmpbt.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 45



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - TEMP CTH B TO IH 90 EB RAMP (BU)	SHEET 288	E



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - TEMP IH 90 WB TO CTH B RAMP (CV)	SHEET 289	E

P.I. DATA	CURVE DATA	CURVE DATA	P.I. DATA
P.I. 135+42.40 DV Y 149606.81 X 443281.83	P.I. 138+70.84 DV Y 149710.85 X 443593.35 △ = 48°48'32" D = 12°43'57" T = 204.17' L = 383.34' E = 44.15' R = 450.00' P.C. 136+66.67 DV P.T. 140+50.01 DV	P.I. 143+57.86 DV Y 150183.13 X 443791.13 △ = 70°11'31" D = 24°04'26" T = 167.24' L = 291.57' E = 52.89' R = 238.00' P.C. 141+90.61 DV P.T. 144+82.18 DV	P.I. 146+70.38 DV Y 150165.05 X 444146.11

N

XCEL ENERGY - ELECTRIC

BP 135+42.40DV

PC 136+66.67DV

136DV

N71°31'56"E

138DV

140DV

PT 140+50.01DV

N22°43'24"E

142DV

PC 141+90.61DV

144DV

PT 144+82.18DV

SLOPE INTERCEPT

146DV

S87°05'05"E

EP 146+70.38DV

ABANDONED

SLOPE INTERCEPT

PI 138

IH 90 WB

CTH B

XCEL ENERGY - ELECTRIC

CITY OF LA CROSSE - WATER

VCL = 200.00

K = 129.24

VPC STA 144+75.00
VPC EL 665.13

VPI STA 145+50.00
VPI EL 667.23

VPT STA 146+25.00
VPT EL 667.69

STA 146+50.00
EL 667.84

STA 146+70.38
EL 667.32

0.61%

1.56%

2.80%

MATCH EXISTING PAVEMENT

FINISHED PROFILE

1.25%

EXISTING PROFILE

STA 137+50.00
EL 651.79

VPC STA 141+00.00
VPC EL 656.18

VPI STA 142+00.00
VPI EL 657.43

VPT STA 143+00.00
VPT EL 660.23

VCL = 150.00

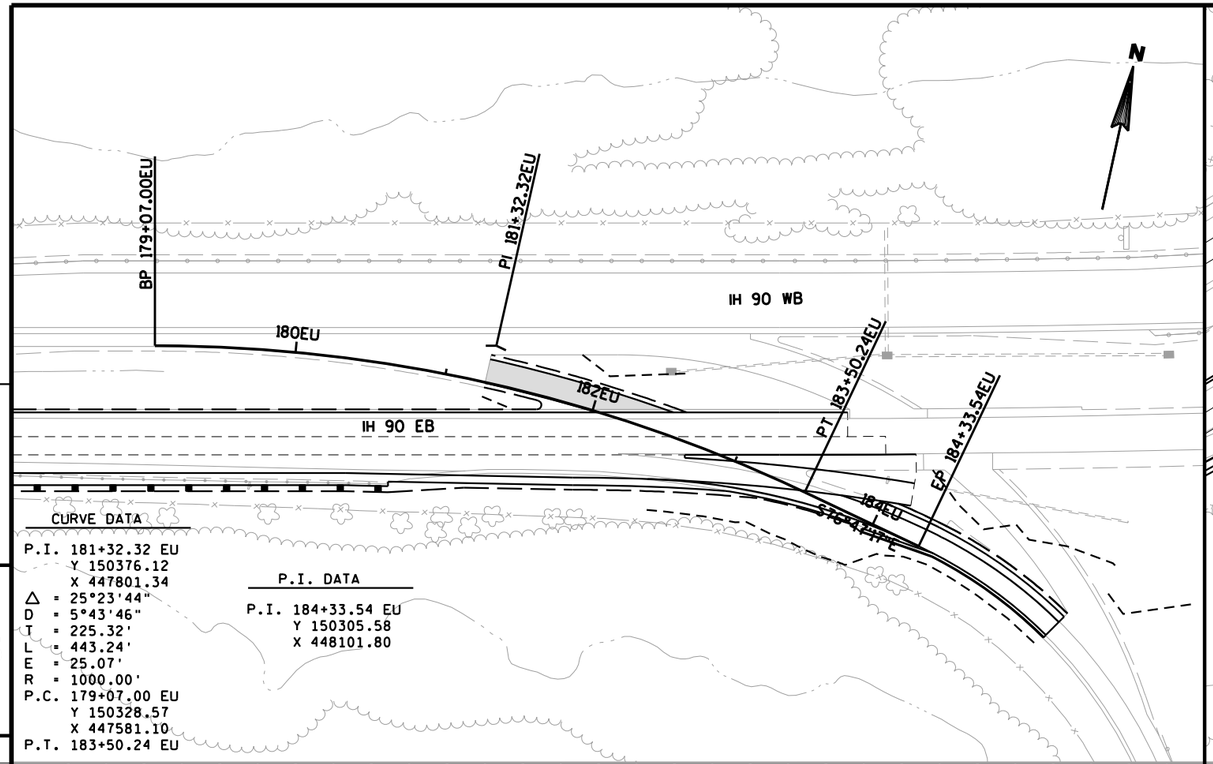
K = 68.36

135	136	137	138	139	140	141	142	143	144	145	146	147
651.05	650.81	650.90	651.28	651.79	652.38	652.26	651.12	652.16	653.15	654.09	655.11	656.61
651.79	652.42	653.04	653.67	654.30	654.92	655.55	656.18	656.90	657.68	657.82	658.93	660.48
659.01	660.23	661.51	661.63	662.82	663.03	663.96	664.43	665.58	665.78	666.91	666.82	667.53
667.49	667.84											

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - TEMP CTH B TO IH 90 WB RAMP (DV)	SHEET 290	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050143_pptmpdv.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

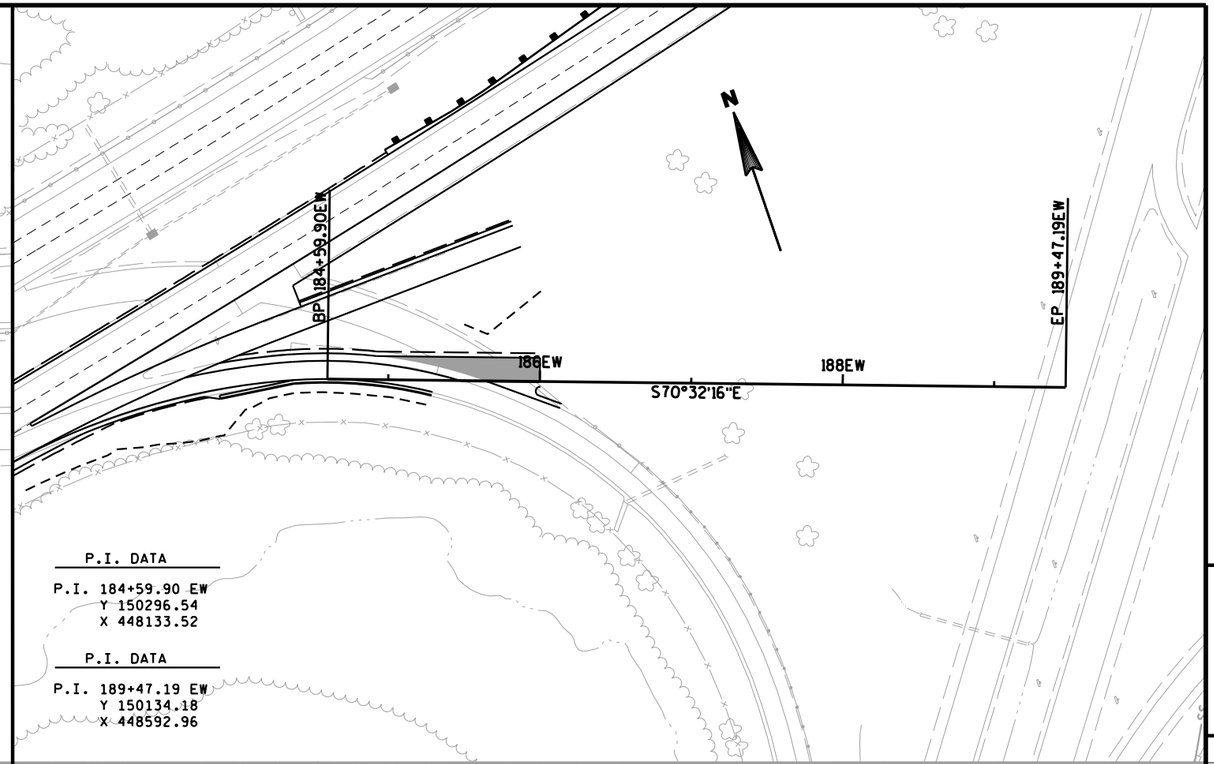


CURVE DATA

P.I. 181+32.32 EU
Y 150376.12
X 447801.34
△ = 25°23'44"
D = 5°43'46"
T = 225.32'
L = 443.24'
E = 25.07'
R = 1000.00'
P.C. 179+07.00 EU
Y 150328.57
X 447581.10
P.T. 183+50.24 EU

P.I. DATA

P.I. 184+33.54 EU
Y 150305.58
X 448101.80

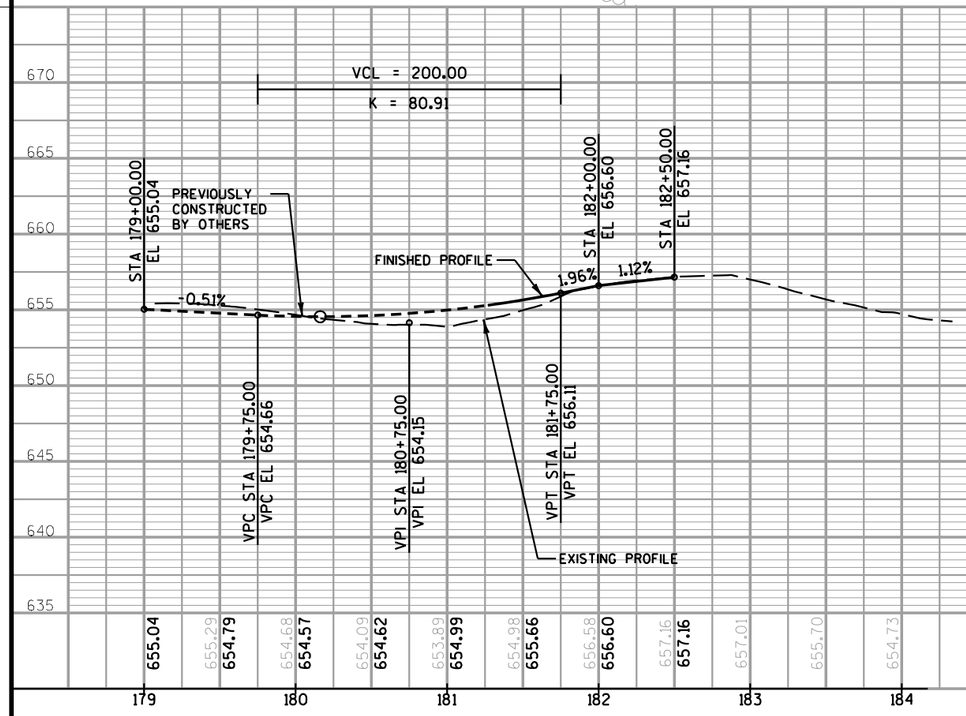


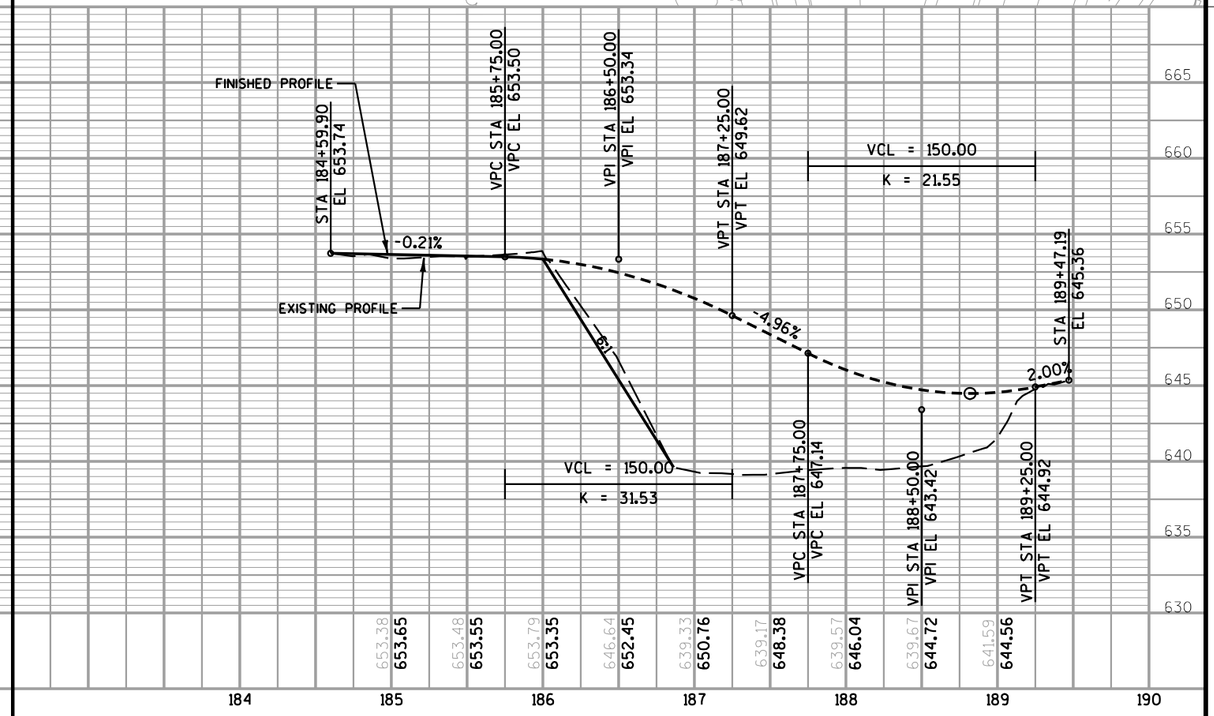
P.I. DATA

P.I. 184+59.90 EW
Y 150296.54
X 448133.52

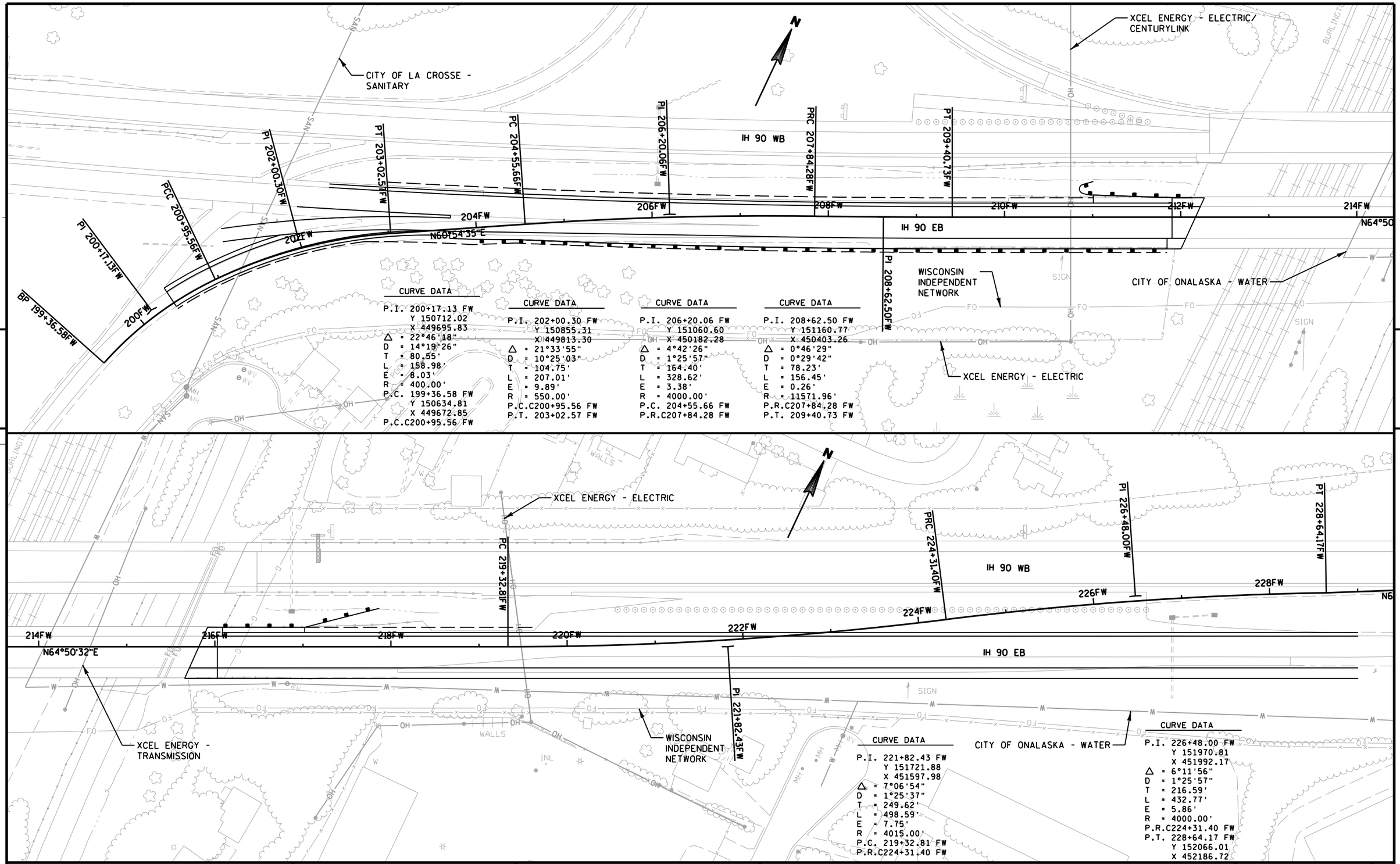
P.I. DATA

P.I. 189+47.19 EW
Y 150134.18
X 448592.96





PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - TEMP RAMPS (EU & EW)	SHEET 291 E

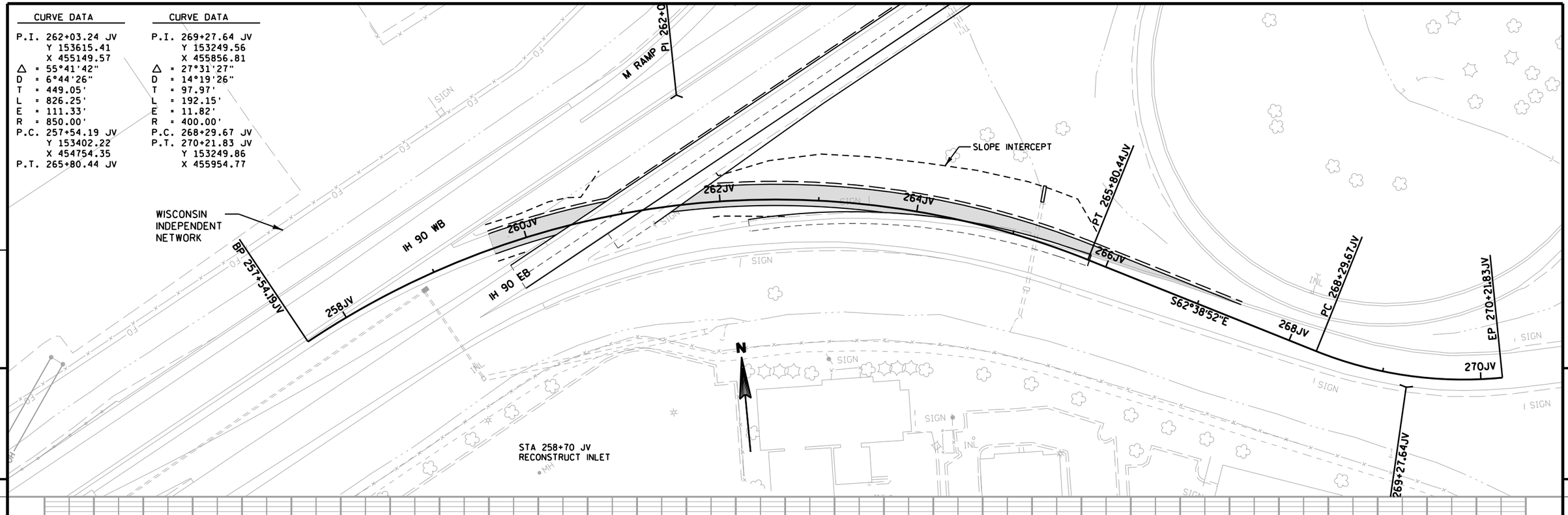


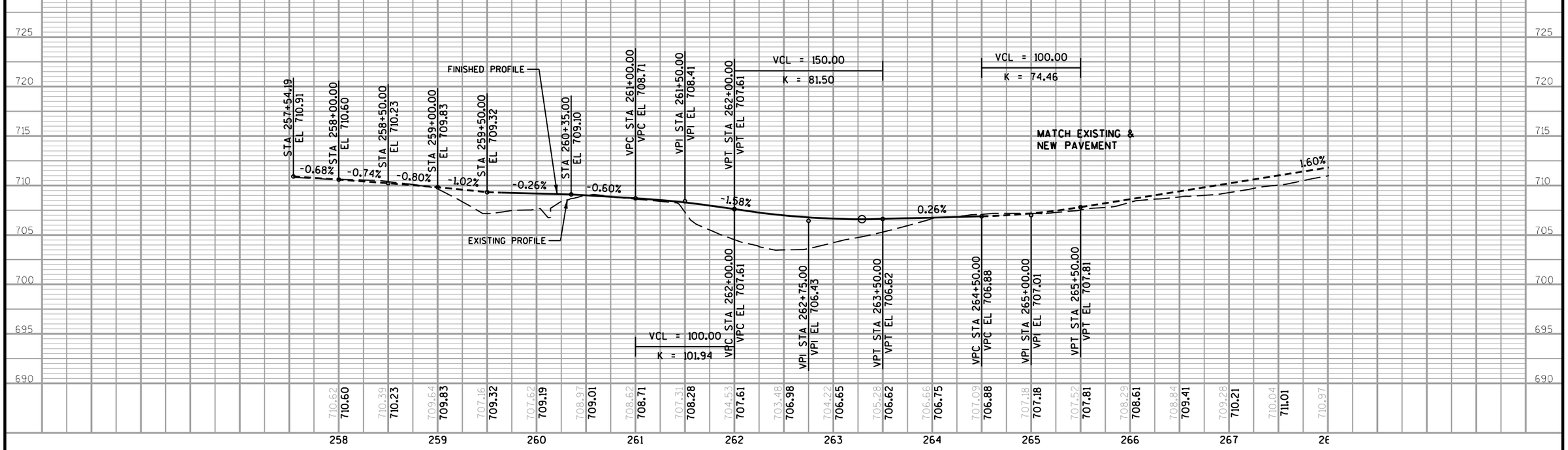
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN - TEMP ROSE ST TO IH 90 EB RAMP (FW)	SHEET 292	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_050145_pptmpfw.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

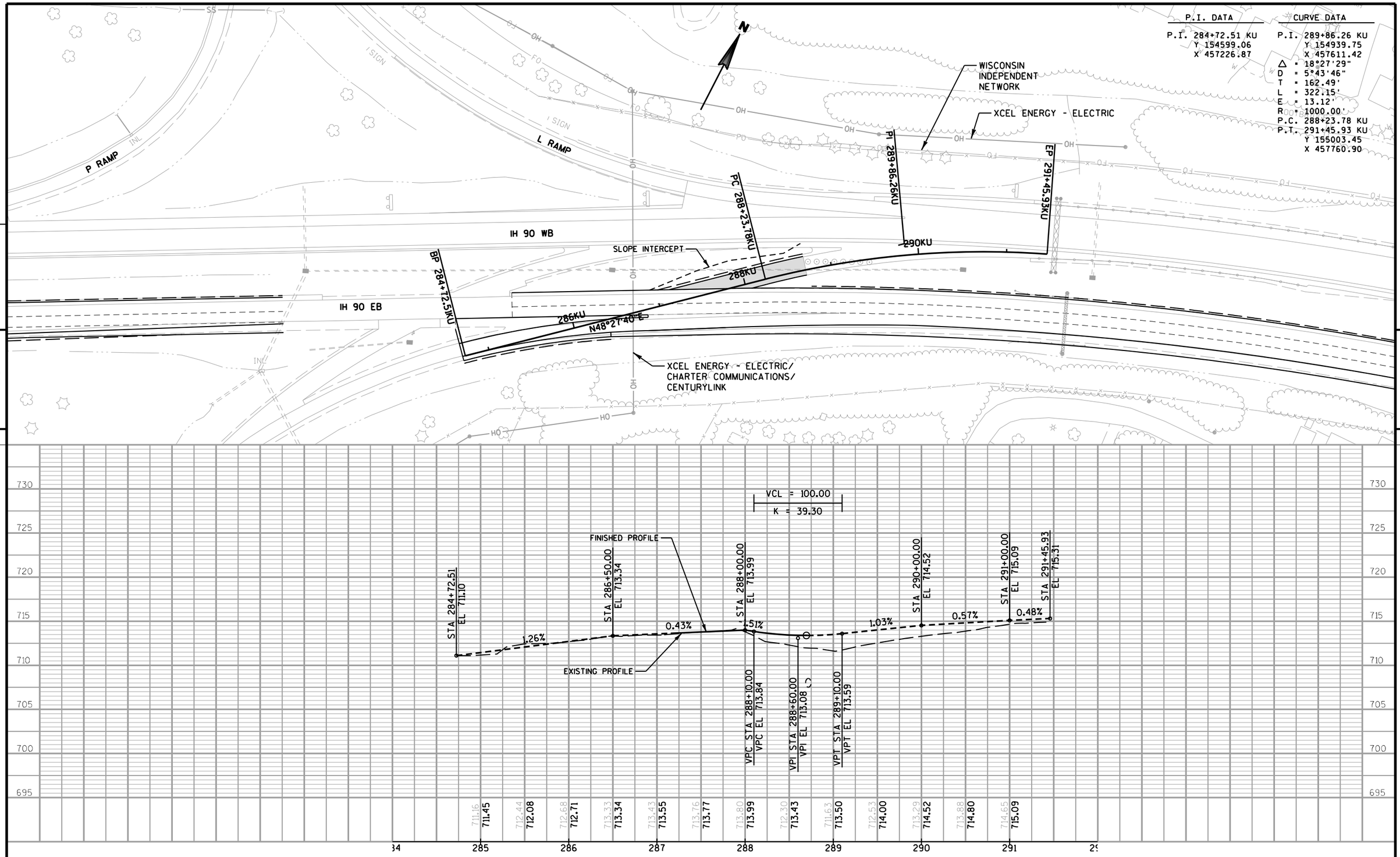
WISDOT/CADDS SHEET 44

CURVE DATA	CURVE DATA
P.I. 262+03.24 JV	P.I. 269+27.64 JV
Y 153615.41	Y 153249.56
X 455149.57	X 455856.81
△ = 55°41'42"	△ = 27°31'27"
D = 6°44'26"	D = 14°19'26"
T = 449.05'	T = 97.97'
L = 826.25'	L = 192.15'
E = 111.33'	E = 11.82'
R = 850.00'	R = 400.00'
P.C. 257+54.19 JV	P.C. 268+29.67 JV
Y 153402.22	P.T. 270+21.83 JV
X 454754.35	Y 153249.86
P.T. 265+80.44 JV	X 455954.77

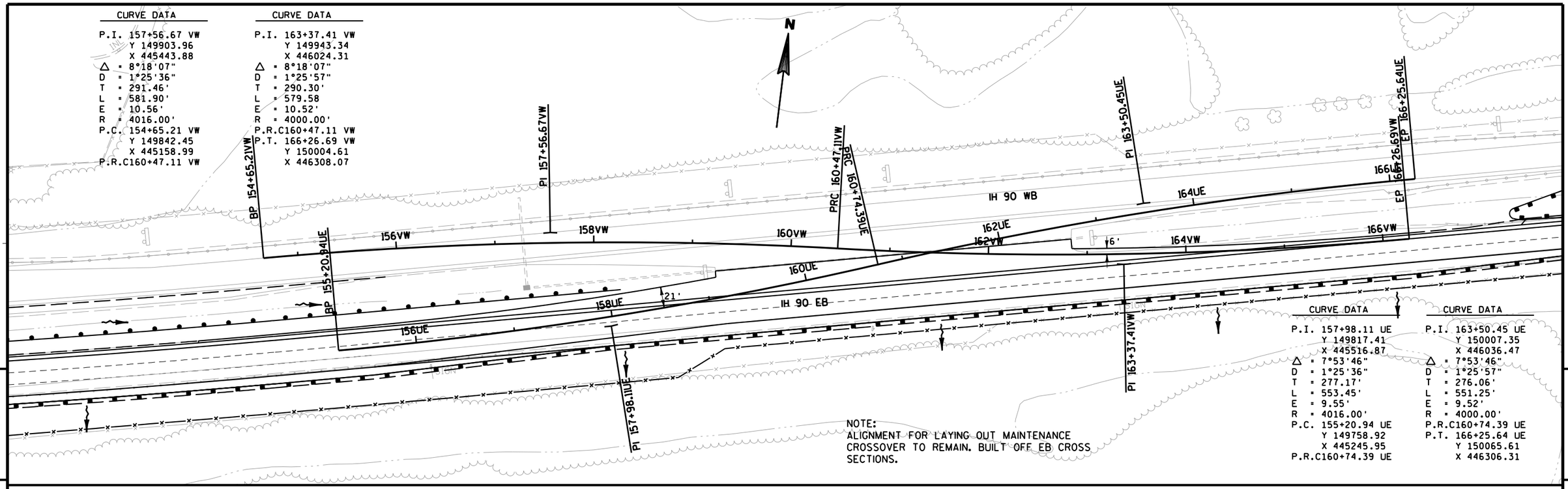




PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - TEMP IH 90 EB TO STH 157 RAMP (JV)	SHEET 293	E



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - TEMP STH 157 NB TO IH 90 EB RAMP (KU)	SHEET 294	E



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	PLAN - TEMP IH 90 EB & WB X-OVERS (VW & UE)	SHEET 295	E

FOR INFORMATION ONLY
PREVIOUSLY CONSTRUCTED BY OTHERS

VERIFY VERTICAL CLEARANCE ON 'TN' AND 'TS' LINE PRIOR TO OPENING TO TRAFFIC. ADJUST SHOULDER WIDTH TO KEEP VERTICAL CLEARANCE.
14'7" SOUTHBOUND / 15'1" NORTHBOUND

STA 107+47 TS - STA 110+85 TS, LT
REMOVING GUARDRAIL

STA 107+50 TS - STA 112+07 TS, RT
REMOVING GUARDRAIL

STA 110+00 TN - STA 111+50 TN, RT
REMOVING GUARDRAIL

P.I. DATA	CURVE DATA	CURVE DATA	P.I. DATA
P.I. 106+14.97 TS	P.I. 108+02.72 TS	P.I. 114+56.59 TS	P.I. 116+56.52 TS
Y 150403.91	Y 150554.29	Y 151086.46	Y 151251.54
X 448786.34	X 448898.75	X 449278.67	X 449391.45
	△ = 01°15'20"	△ = 1°10'54"	

P.I. DATA	CURVE DATA
P.I. 200+00.00 GW	P.I. 205+63.43 GW
Y 150603.55	Y 151069.85
X 448922.65	X 449238.90
	△ = 23°13'57"
	D = 12°43'57"
	T = 92.51'
	L = 182.47'
	E = 9.41'
	R = 450.00'
	P.C. 204+70.93 GW
	P.T. 206+53.39 GW

CURVE DATA
P.I. 208+57.40 GW
Y 151361.00
X 449295.03
△ = 13°29'22"
D = 12°43'57"
T = 53.22'
L = 105.95'
E = 3.14'
R = 450.00'
P.C. 208+04.18 GW
P.T. 209+10.13 GW
Y 151409.47
X 449317.01

BP 104+00.00TN
BP 106+14.97TS
PI 108+02.72TS
PI 108+02.26TN
BP 200+00.00GW
PI 109+32.72TN
PI 112+27.86TN
PC 204+70.93GW
PI 114+56.59GW
PT 206+53.39GW
PC 208+04.18GW
PI 208+57.40GW
EP 209+10.13GW
EP 115+23.72TN
EP 116+56.52TS
PI 205+63.43GW

104TN 106TN 108TN 110TN 112TN 114TN

200GW 202GW 204GW 206GW

108TS 110TS 112TS 114TS 116TS

N35°30'23"E N36°46'43"E N36°05'54"E N34°08'42"E N35°31'23"E N35°28'30"E N34°20'29"E N35°07'59"E N10°54'45"E

IH 90 WB
IH 90 EB
ROSE ST SB
ROSE ST NB
SIGN
INL
SS

P.I. DATA	CURVE DATA	CURVE DATA
P.I. 104+00.00 TN	P.I. 108+02.26 TN	P.I. 109+32.72 TN
Y 150203.51	Y 150530.97	Y 150636.38
X 448721.66	X 448955.29	X 449032.16
	△ = 00°35'31"	△ = 0°37'14"

CURVE DATA	P.I. DATA
P.I. 112+27.86 TN	P.I. 115+23.72 TN
Y 150876.74	Y 151118.69
X 449203.44	X 449373.70
△ = 0°20'31"	

GW PROFILE

VCL = 80.00
K = 42.63

FINISHED PROFILE
EXISTING PROFILE

STA 200+00.00 EL 645.31
STA 205+00.00 EL 644.98
STA 205+50.00 EL 644.56
STA 206+50.00 EL 645.28
STA 207+00.00 EL 646.65
STA 207+50.00 EL 648.31
STA 209+10.13 EL 654.36

VPC STA 205+60.00 VPC EL 644.54
VPI STA 206+00.00 VPI EL 644.45
VPT STA 206+40.00 VPT EL 645.11

-0.07% -0.85% 0.22% 1.66% 2.75% 3.32% 3.78%

680 675 670 665 660 655 650 645
660 655 650 645 640 635 630 625

645.31	645.33	645.34	645.30	645.13
645.31	645.28	645.24	645.21	645.18
200	201	202	203	204

645.19	645.12	645.06	645.00	645.04
645.15	645.11	645.08	645.05	645.02
204	205	206	207	208

644.97	644.41	642.97	644.16	646.65
644.98	644.56	644.64	645.28	646.65
205	206	207	208	209

648.54	650.17	652.07	653.94
648.31	650.20	652.09	653.97
209			

PROJECT NO: 1071-06-78	HWY: IH 90	COUNTY: LA CROSSE	PLAN & PROFILE - GW/TN/TS TEMPORARYS	SHEET 296	E

Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D02-06	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D03-06	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C05-09	CONCRETE CONTROL CABINET BASES
09C13-02	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
09H09-01	COMMUNICATION VAULT
09H11-01	IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS
11A01-05	MAINTENANCE CROSSOVER FOR FREEWAYS
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A03-06	CONCRETE PAVEMENT SHOULDERS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13B02-08B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-11A	RURAL DOWELED CONCRETE PAVEMENT
13C11-11B	RURAL DOWELED CONCRETE PAVEMENT
13C16-02A	DETAIL FOR RIGHT TURN LANE/TEE INTERSECTION BYPASS LANE ON A CONRETE ROADWAY
13C17-01A	CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI
13C17-01B	CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B18-06B	STEEL PLATE BEAM GUARD, CLASS "A" AT MEDIAN APPROACH TO BRIDGES
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-11C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B20-11D	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS
14B20-11E	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B20-11F	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"
14B20-11G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B20-11H	STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT

6

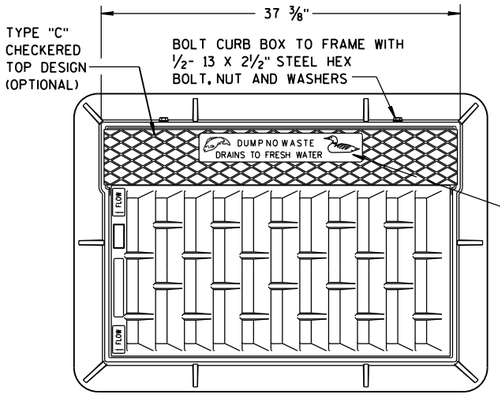
Standard Detail Drawing List

14B26-03A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B32-03A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-03B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-03C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-03D	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-03E	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B33-01G	CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR
14B33-01H	CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR
14B39-01A	32-INCH SSCB TO 36-INCH SSCB HEIGHT TRANSITION
14B39-01C	36-INCH SSCB TO 42-INCH SSCB HEIGHT TRANSITION
14B39-01E	42-INCH SSCB TO 56-INCH SSCB HEIGHT TRANSITION
14B41-01A	SINGLE SLOPE ROADSIDE RETAINING WALL
14B41-01B	SINGLE SLOPE ROADSIDE RETAINING WALL
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B52-1B	CABLE BARRIER TYPE I LAYOUT
14B52-1B	CABLE BARRIER TYPE I LAYOUT
15A02-08	DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A06-02	DELINEATOR LAYOUT
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C11-6	FLEXIBLE TUBULAR MARKER POST
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C19-02C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-01B	LANE DROP PAVEMENT MARKING
15C31-01D	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D05-04	TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER
15D06-03	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D07-04	TRAFFIC CONTROL, TEMPORARY EXIT RAMP CROSSOVER

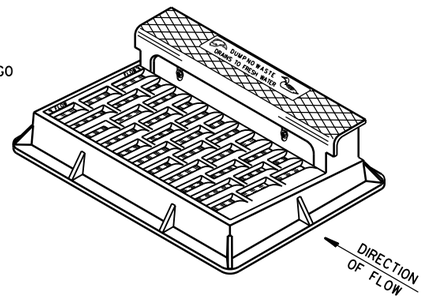
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Standard Detail Drawing List

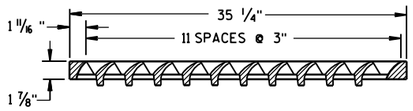
15D08-04	TRAFFIC CONTROL, TEMPORARY ENTRANCE RAMP CROSSOVER
15D09-03	TRAFFIC CONTROL, SINGLE LANE CROSSOVER EXIT
15D11-6	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D12-05B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-02	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-03	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D34-01A	RAMP GATE SOLAR POWER
15D34-01B	RAMP GATE SOLAR POWER
15D34-01C	RAMP GATE SOLAR POWER
15D34-01D	RAMP GATE SOLAR POWER
15D35-01A	RAMP GATE HARD WIRED
15D35-01B	RAMP GATE HARD WIRED
15D35-01C	RAMP GATE HARD WIRED
15D35-01D	RAMP GATE HARD WIRED

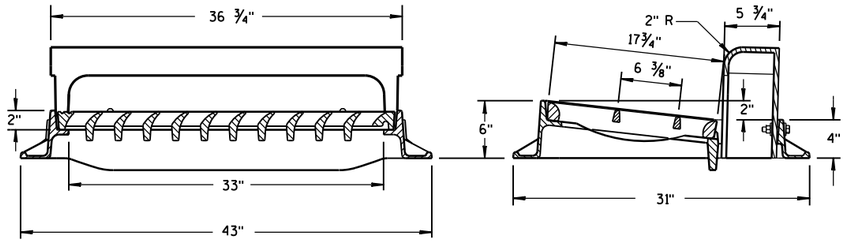


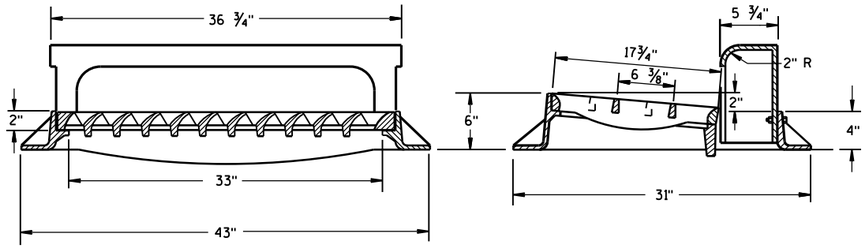
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

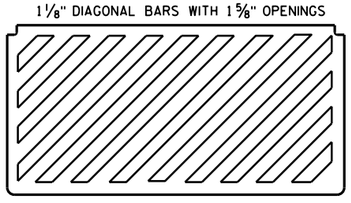






TYPE "H"

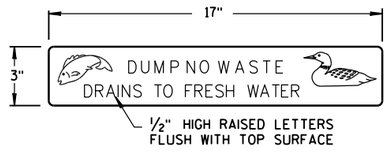
NOTE: EITHER CASTING IS ACCEPTABLE



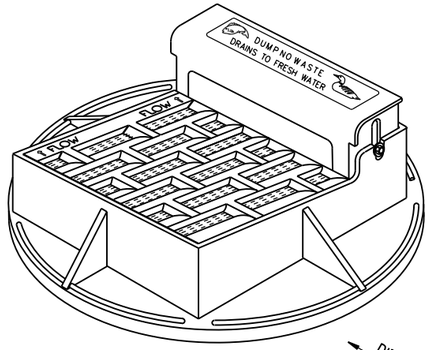
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

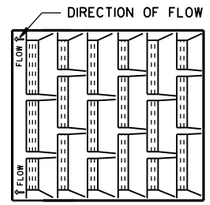
NOTE:
GRATE IS REVERSIBLE.

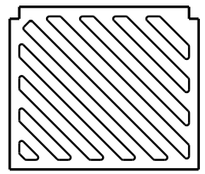
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

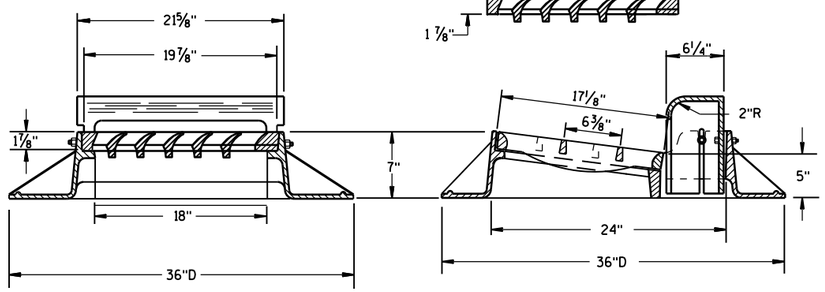




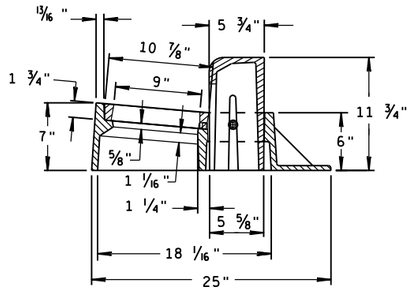
SPECIAL GRATE FOR TYPE "A" COVER

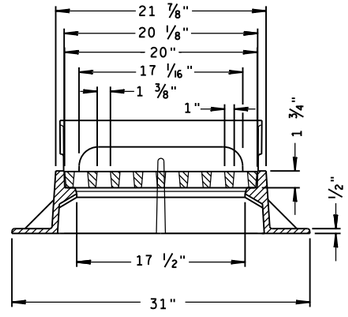
(MEASURES 19 3/4" X 17" X 1 7/8")

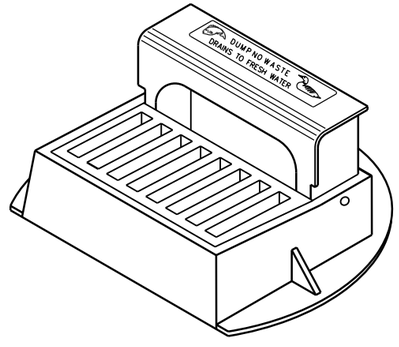
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"







TYPE "Z"

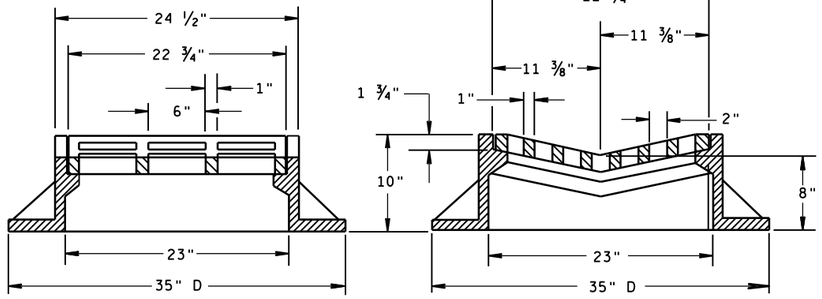
INLET COVERS
TYPE A, H, A-S, H-S & Z

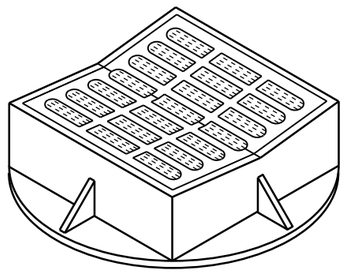
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

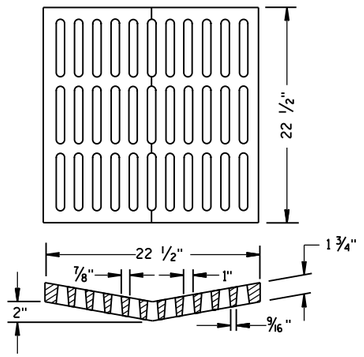
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S.D.D. 8 A 5-19a



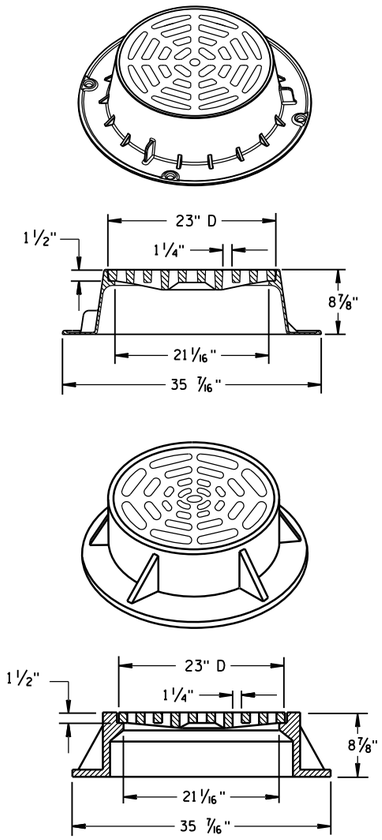


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

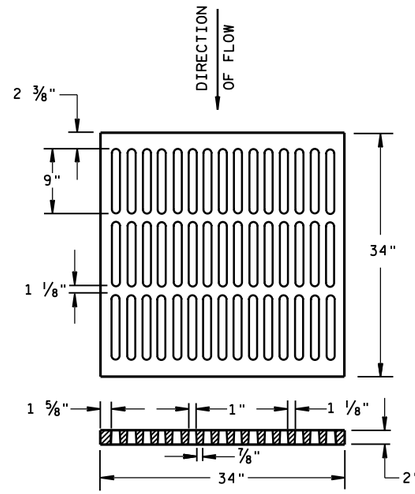
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

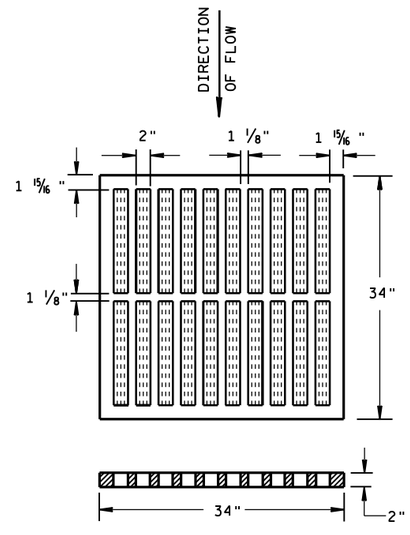
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



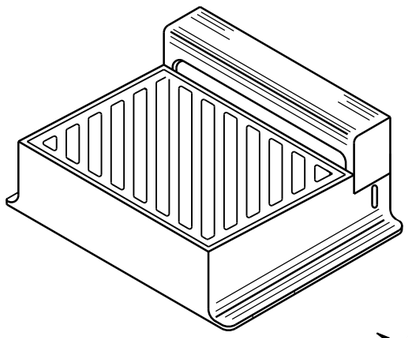
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

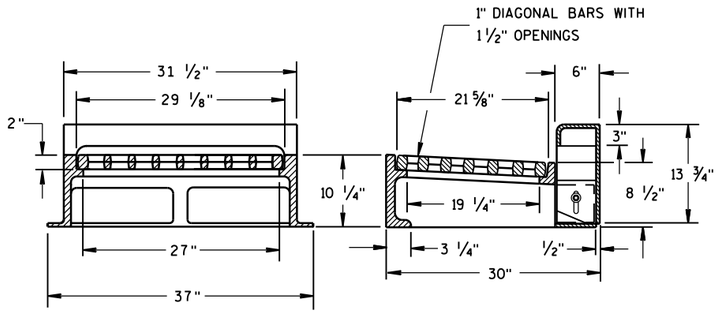


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

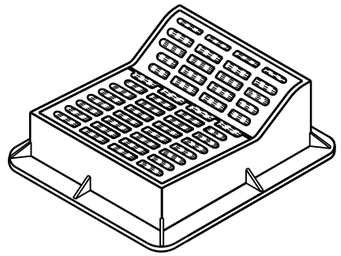
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

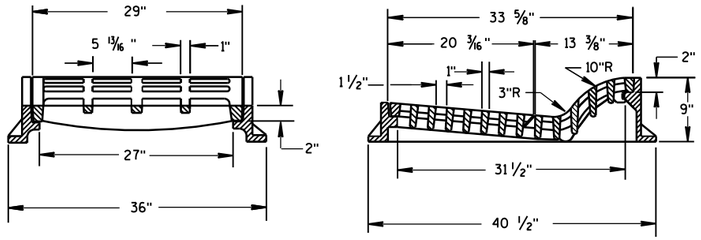
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

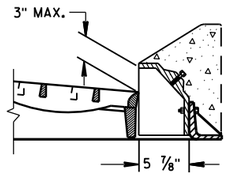
S.D.D. 8 A 5-19b





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

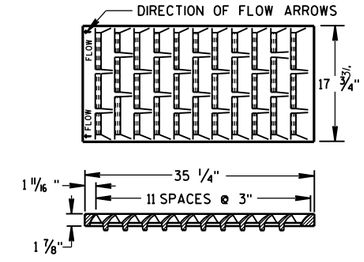
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

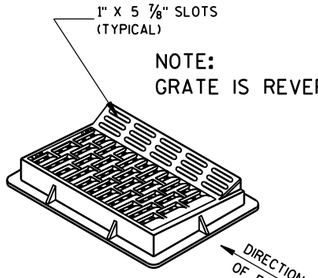
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

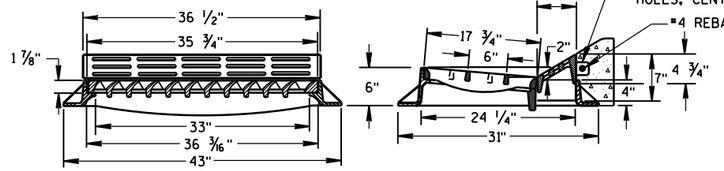
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



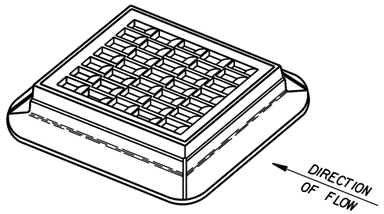


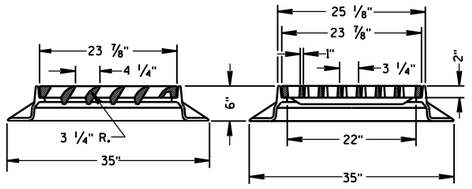


TYPE "HM"

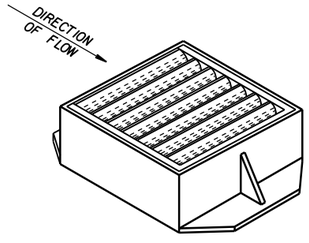
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

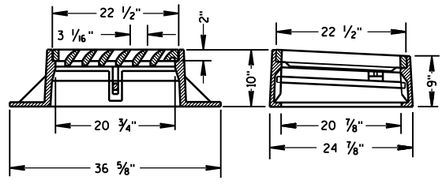
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



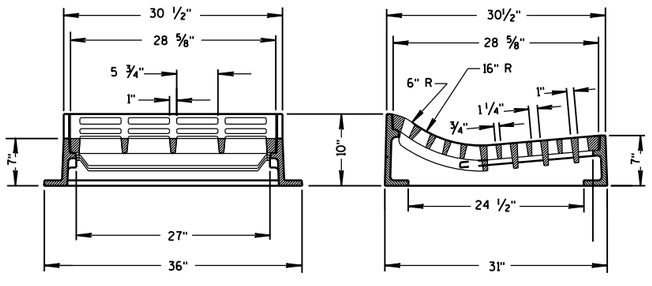


TYPE "S"



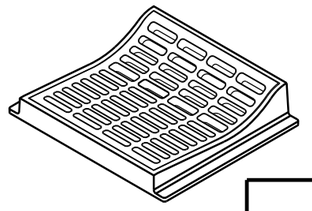


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

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DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

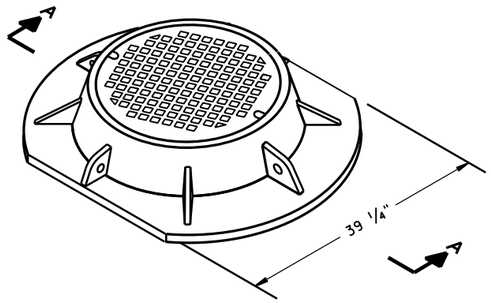
FHWA

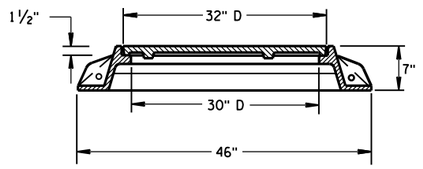
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S.D.D. 8 A 5-19c

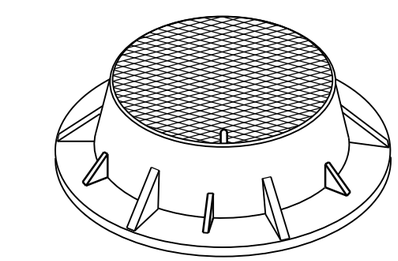
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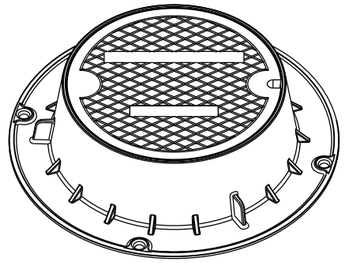
S.D.D. 8 A 5-19c

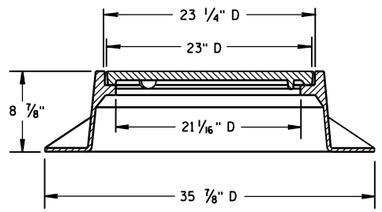


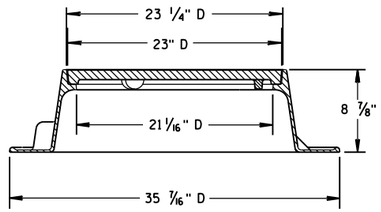


SECTION A-A
TYPE "K"









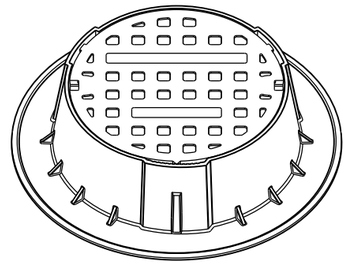
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

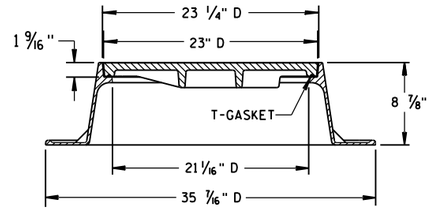
GENERAL NOTES

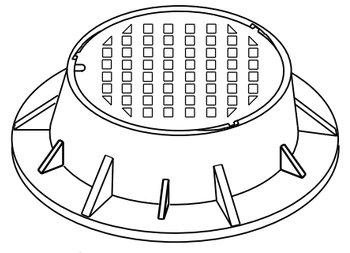
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

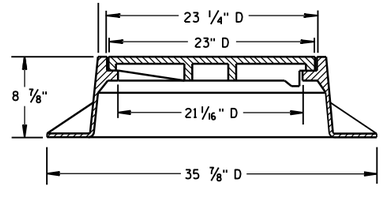
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

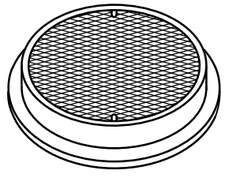


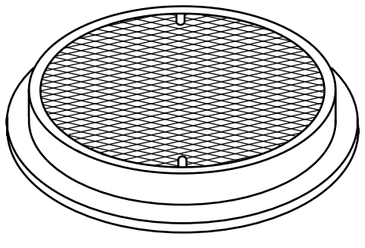


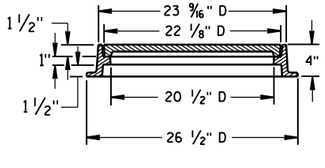




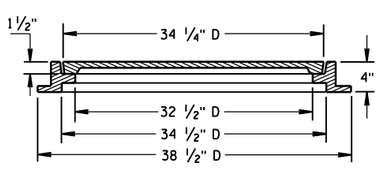
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



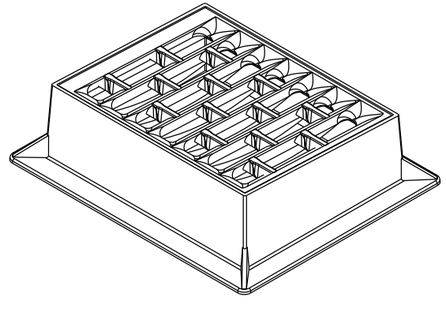


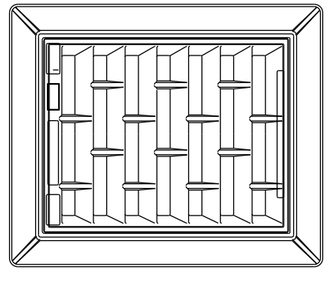


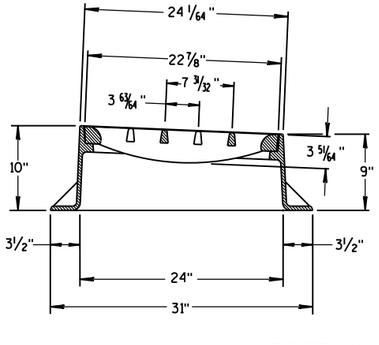
TYPE "L"

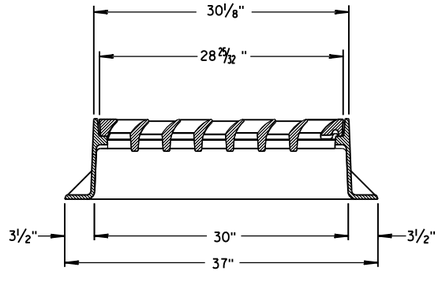


TYPE "M"









INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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11/27/2013
DATE
FHWA

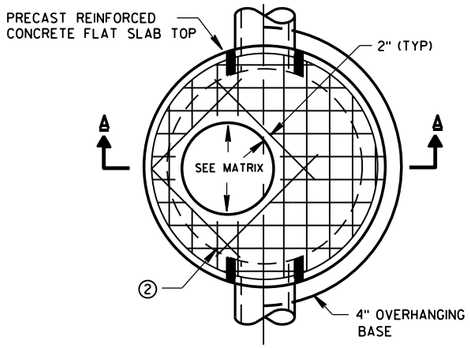
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

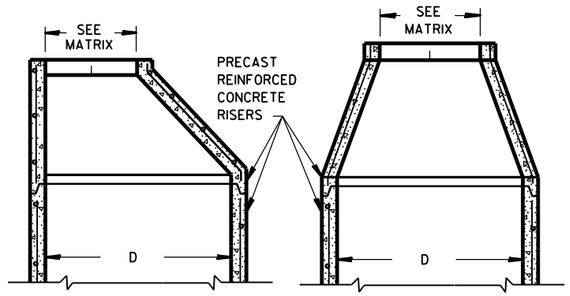
S.D.D. 8 A 5-19d

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S.D.D. 8 A 5-19d

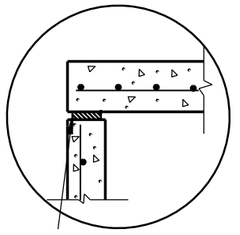


PLAN VIEW CIRCULAR OPENING

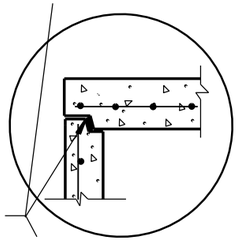


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

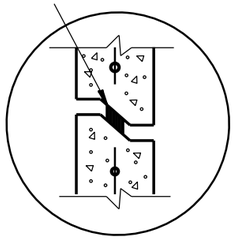


TOP WITH PLAIN END JOINT



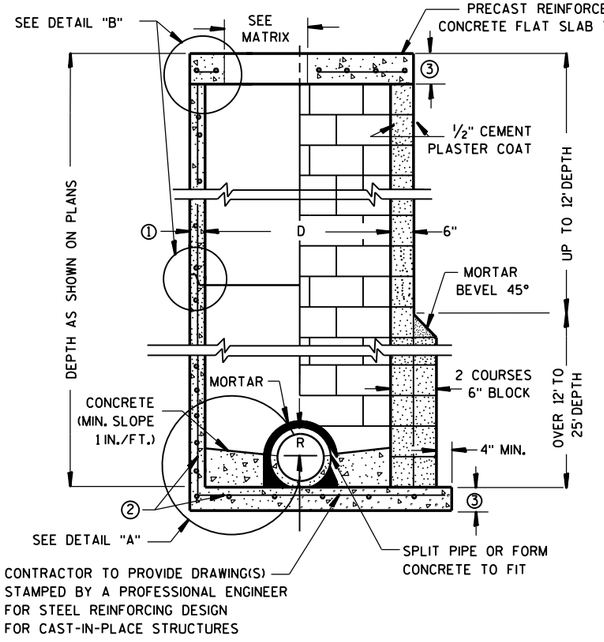
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



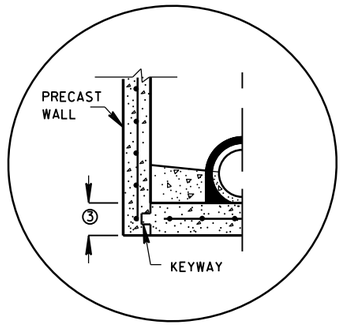
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

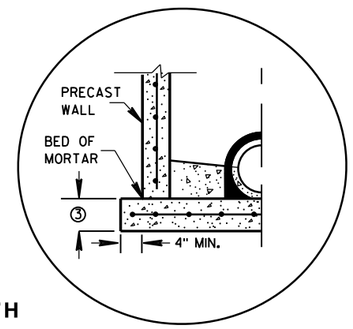


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

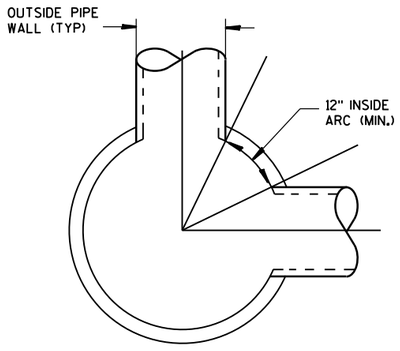


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

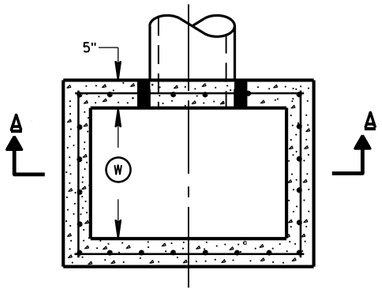
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

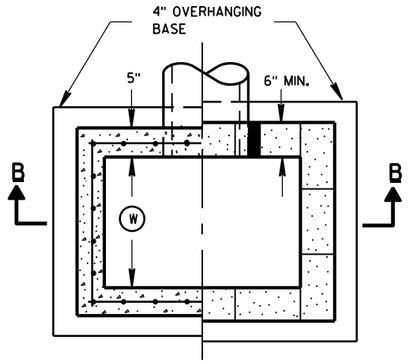
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

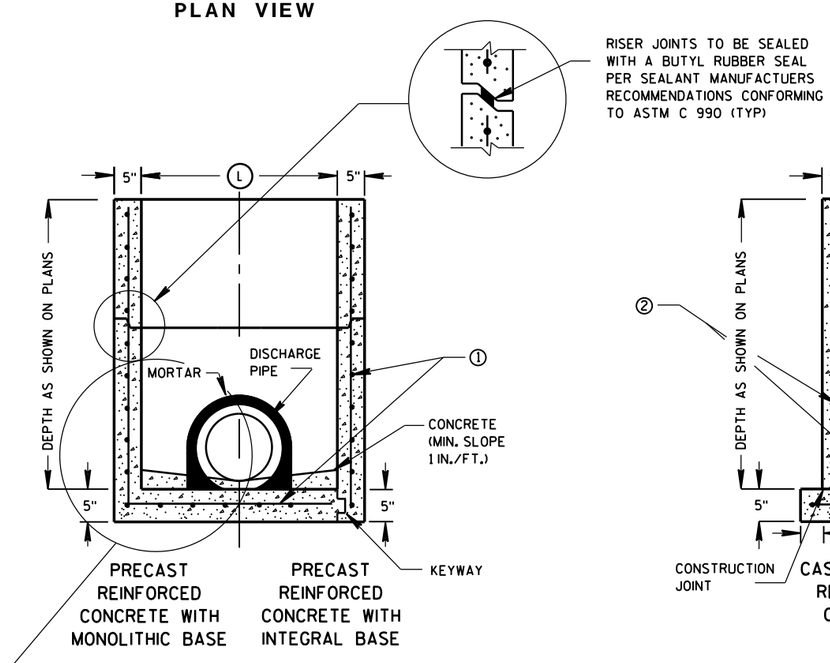
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S.D.D. 8 B 9-1



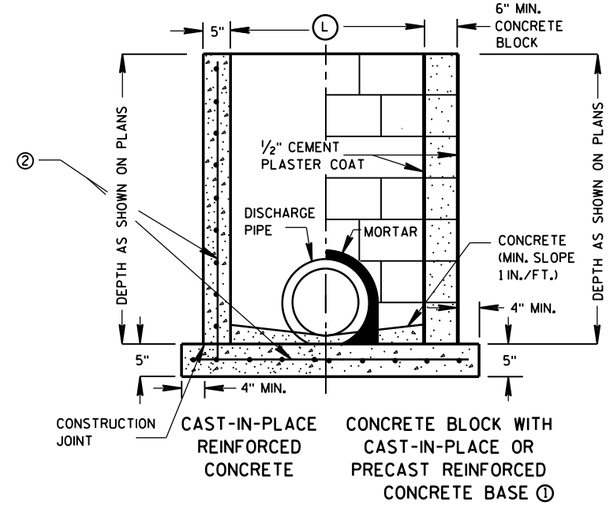
PLAN VIEW



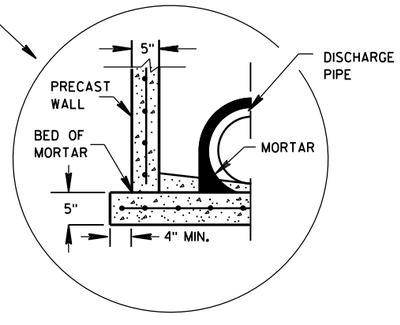
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

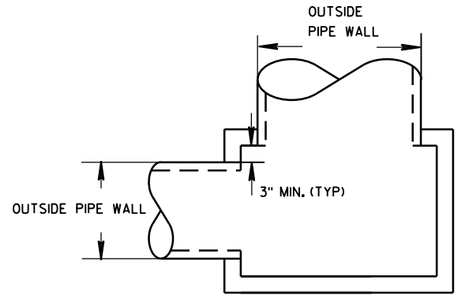
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



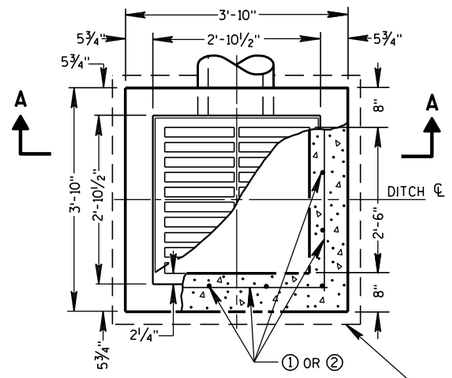
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

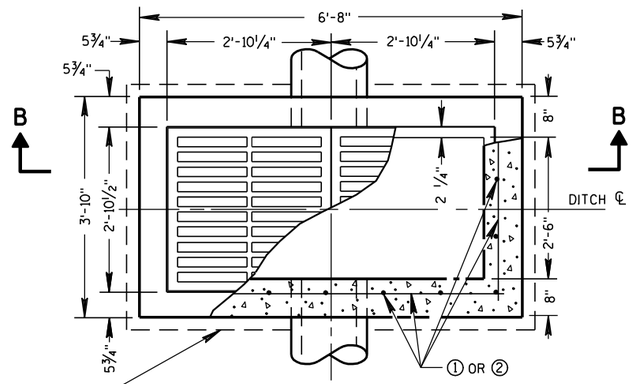
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER
FHWA

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S.D.D. 8 C 7-1

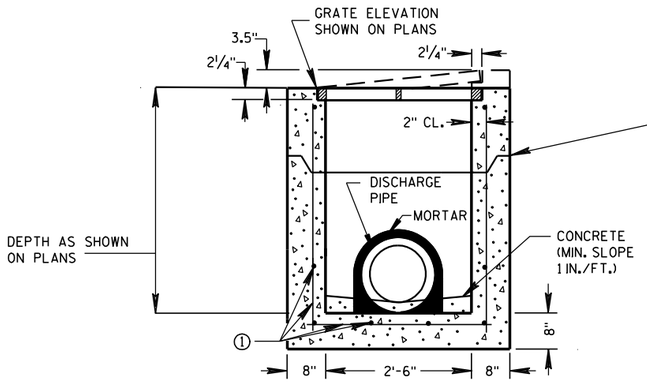


PLAN VIEW

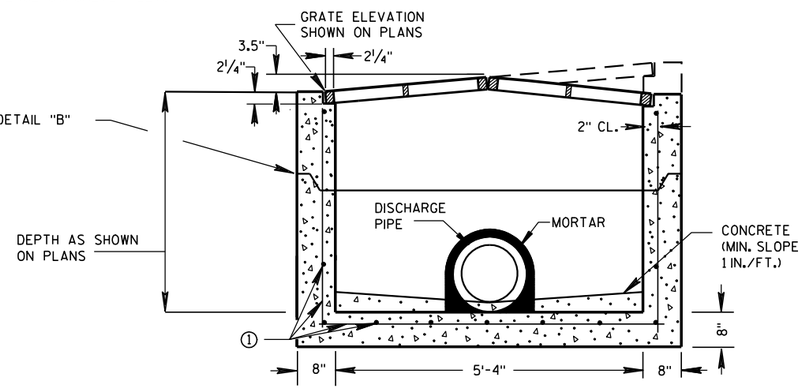


PLAN VIEW

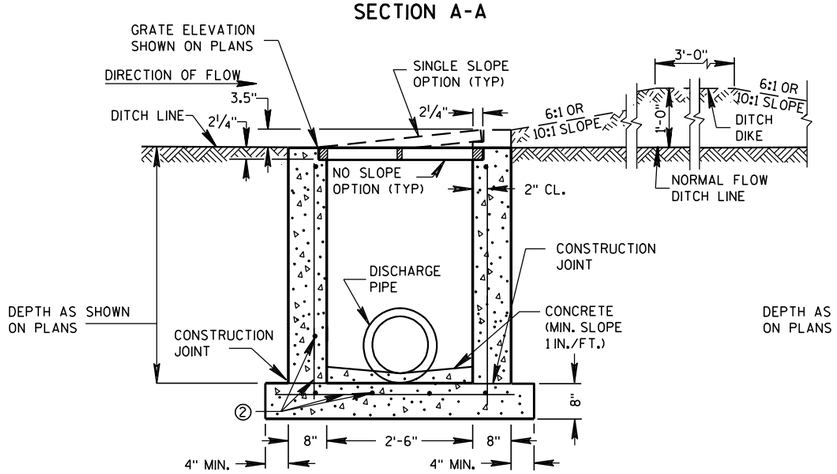
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



PRECAST REINFORCED CONCRETE SECTION A-A

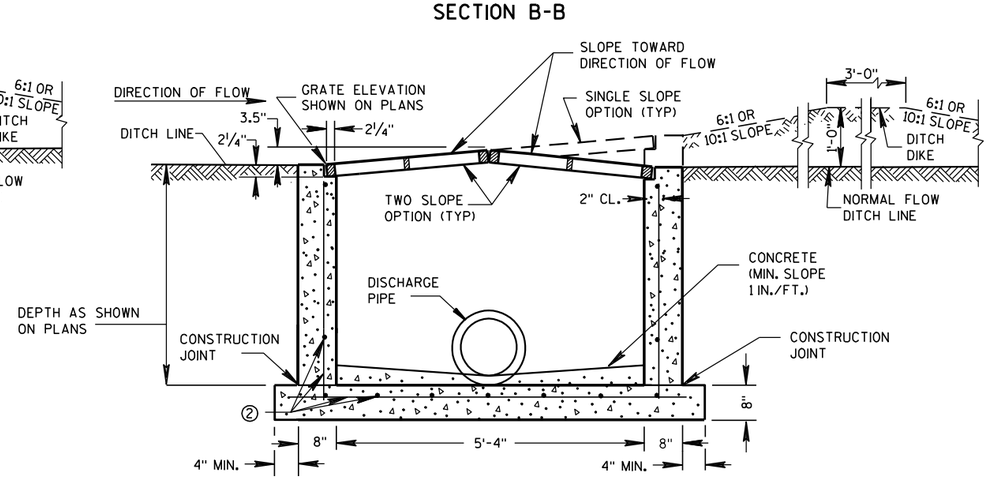


PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

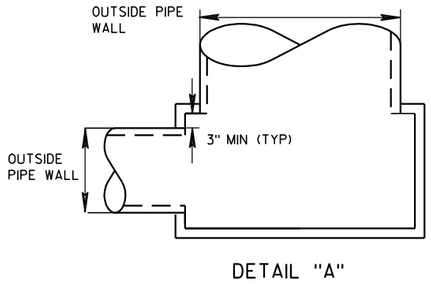
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

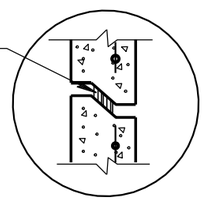
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

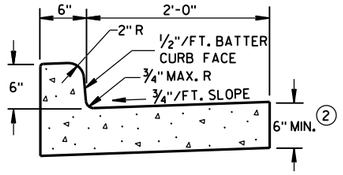
FHWA

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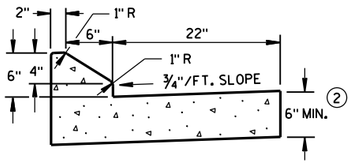
S.D.D. 8 C 8-1

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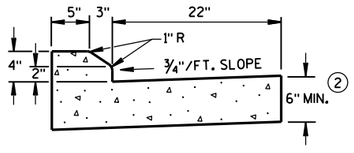
S.D.D. 8 C 8-1



TYPES A & D ①

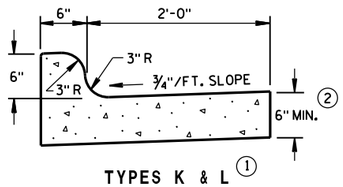


6" SLOPED CURB TYPES G & J ①

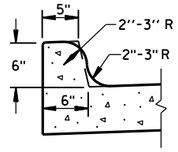


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

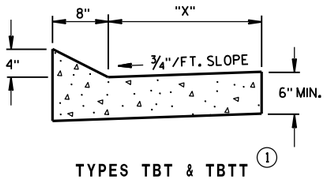


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

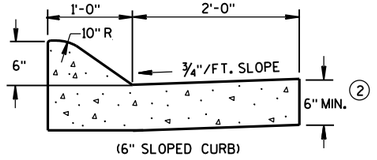
CONCRETE CURB & GUTTER 30"



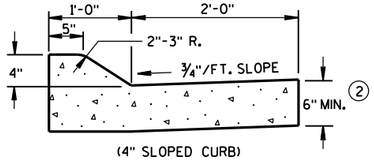
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

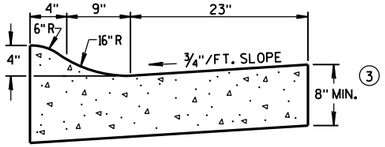


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

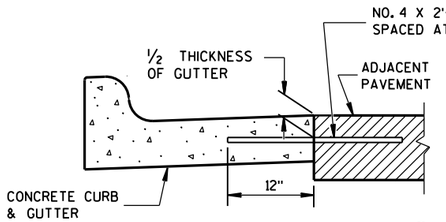
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

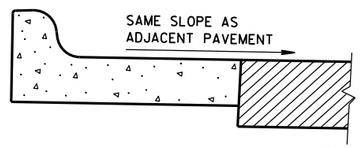
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

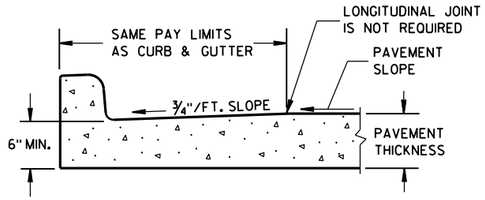
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



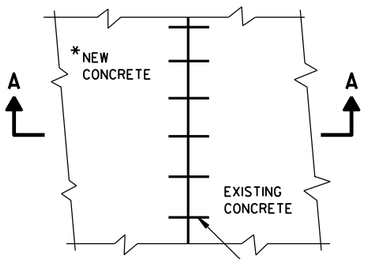
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

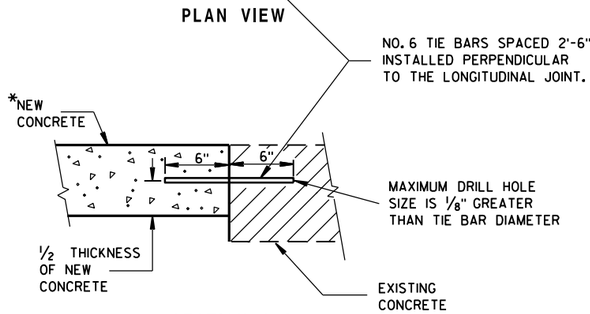


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



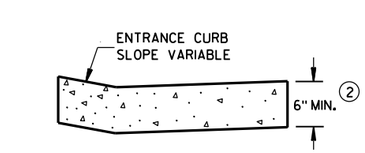
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW

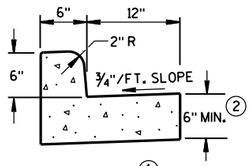


SECTION A-A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

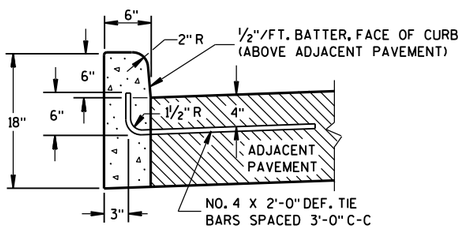


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

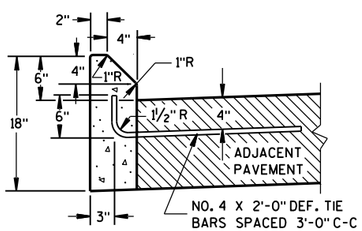


① TYPES A & D

CONCRETE CURB & GUTTER 18"

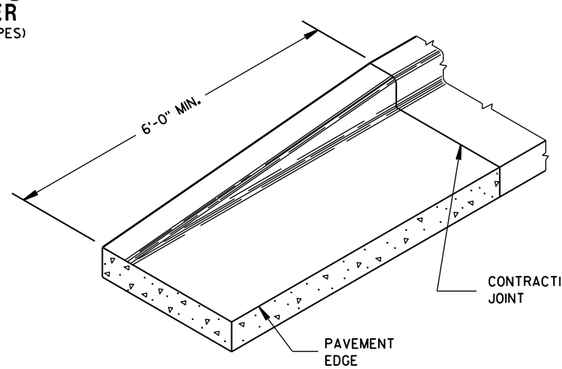


① TYPES A & D



① TYPES G & J

CONCRETE CURB



END SECTION CURB & GUTTER

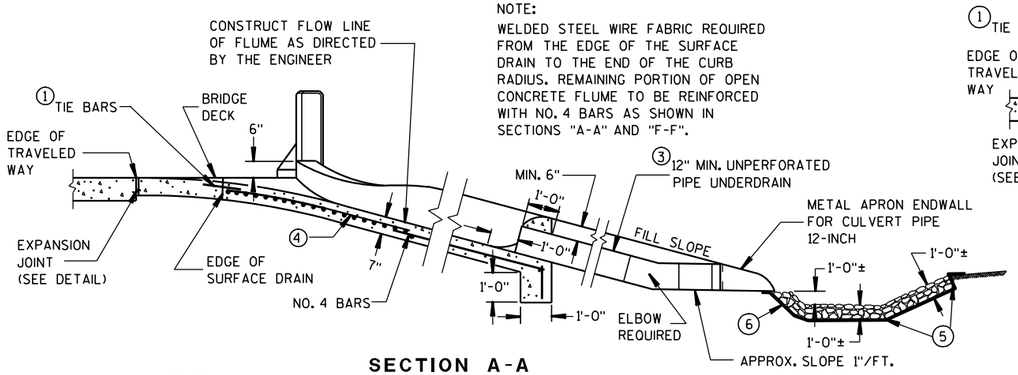
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

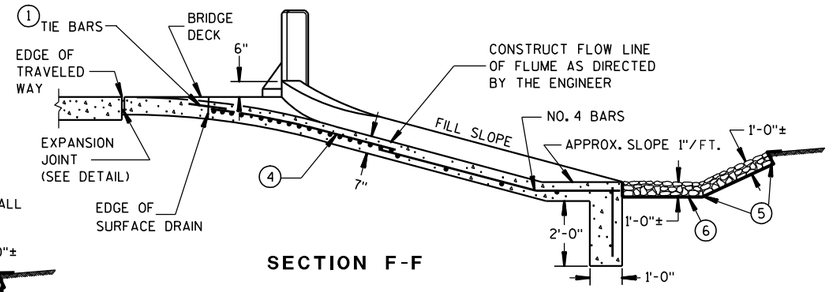
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 D 1-18



SECTION A-A



SECTION F-F

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PIPE UNDERDRAIN MAY BE ANY OF THE MATERIALS LISTED IN SECTION 612.2 OF THE STANDARD SPECIFICATIONS EXCEPT DRAIN TILE.

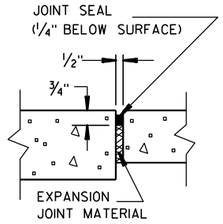
(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

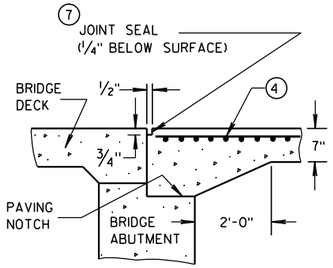
(6) GEOTEXTILE FABRIC, TYPE 'R"

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

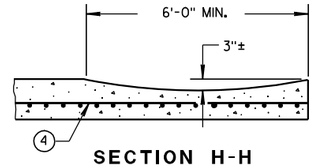
(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".



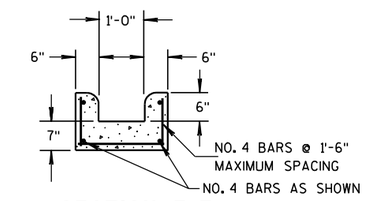
EXPANSION JOINT DETAIL



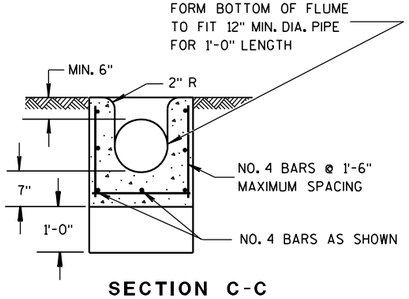
SECTION D-D



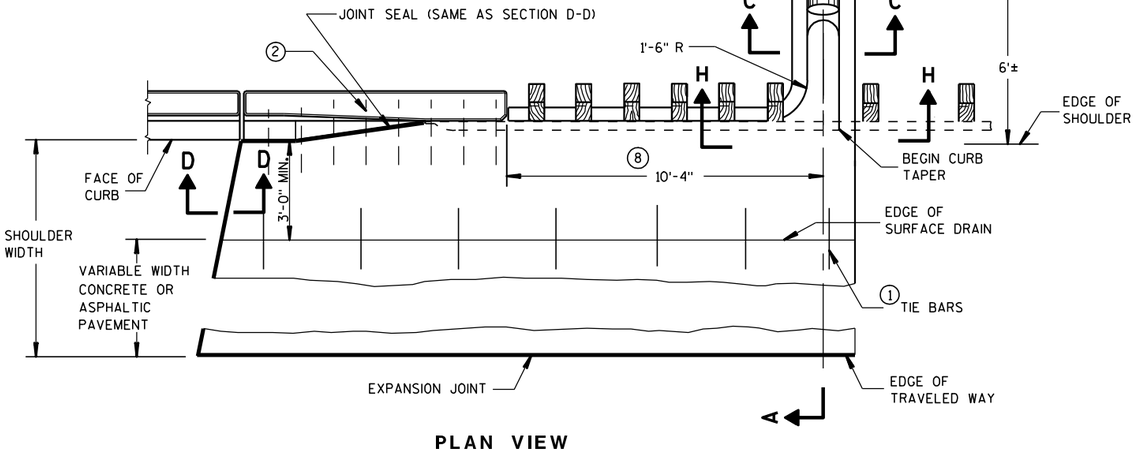
SECTION H-H



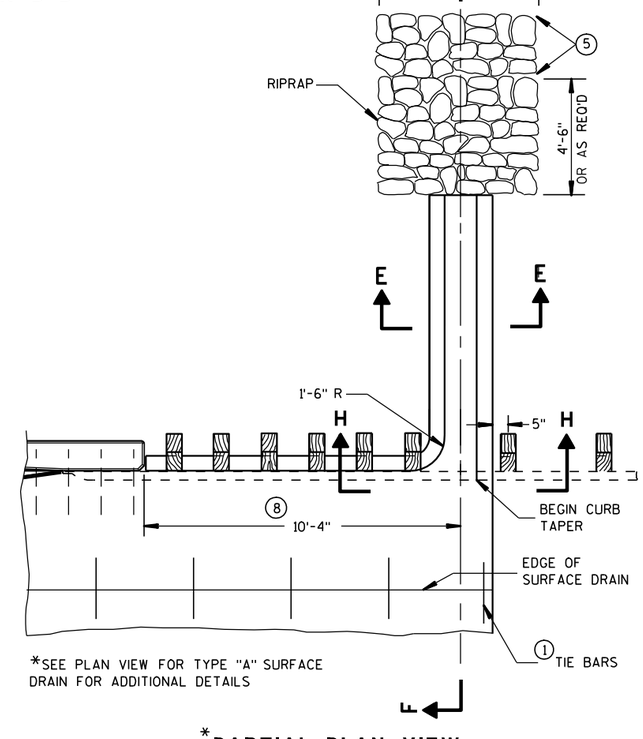
SECTION E-E



SECTION C-C

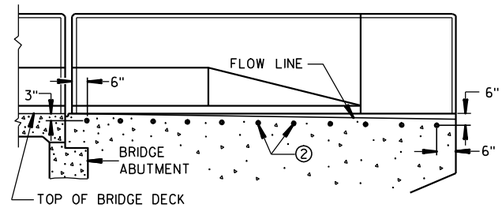


PLAN VIEW
SURFACE DRAIN WITH PIPE
TYPE "A"



*SEE PLAN VIEW FOR TYPE "A" SURFACE DRAIN FOR ADDITIONAL DETAILS

*PARTIAL PLAN VIEW
SURFACE DRAIN WITHOUT PIPE
TYPE "B"



LOCATION OF
TIE BARS IN WINGWALL

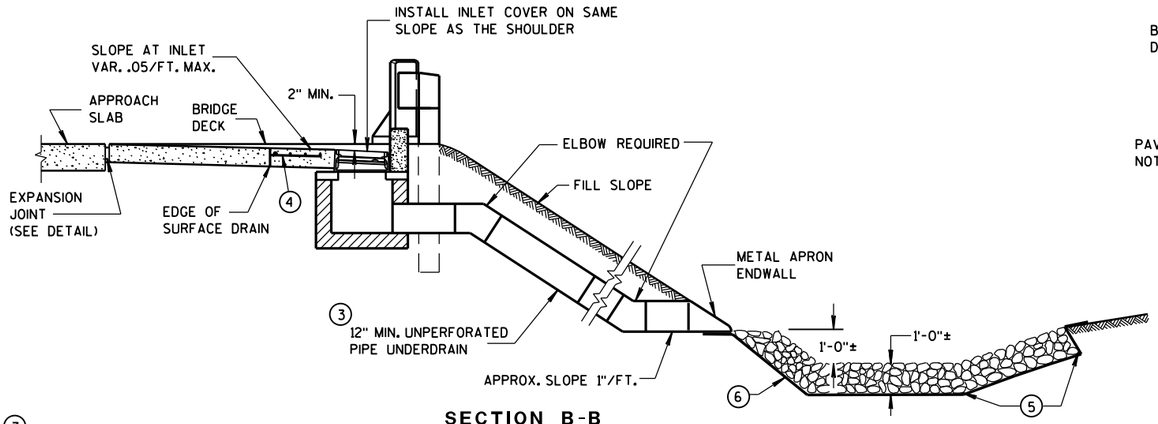
CONCRETE SURFACE DRAINS
FLUME TYPE
AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

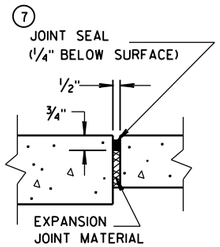
APPROVED
9/4/08
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

S.D.D. 8 D 2-6

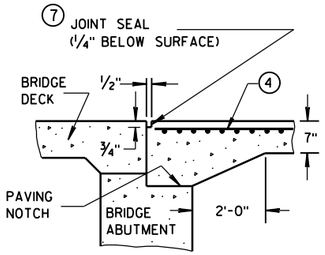
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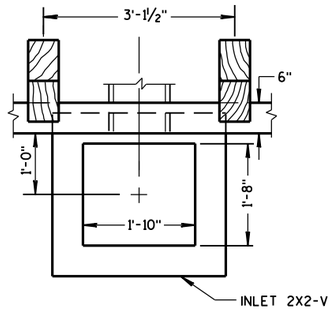
SECTION B-B



EXPANSION JOINT DETAIL



SECTION D-D



PLAN VIEW

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) THE PIPE UNDERDRAIN MAY BE ANY ONE OF THE SIX MATERIALS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2 EXCEPT DRAIN TILE.

(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

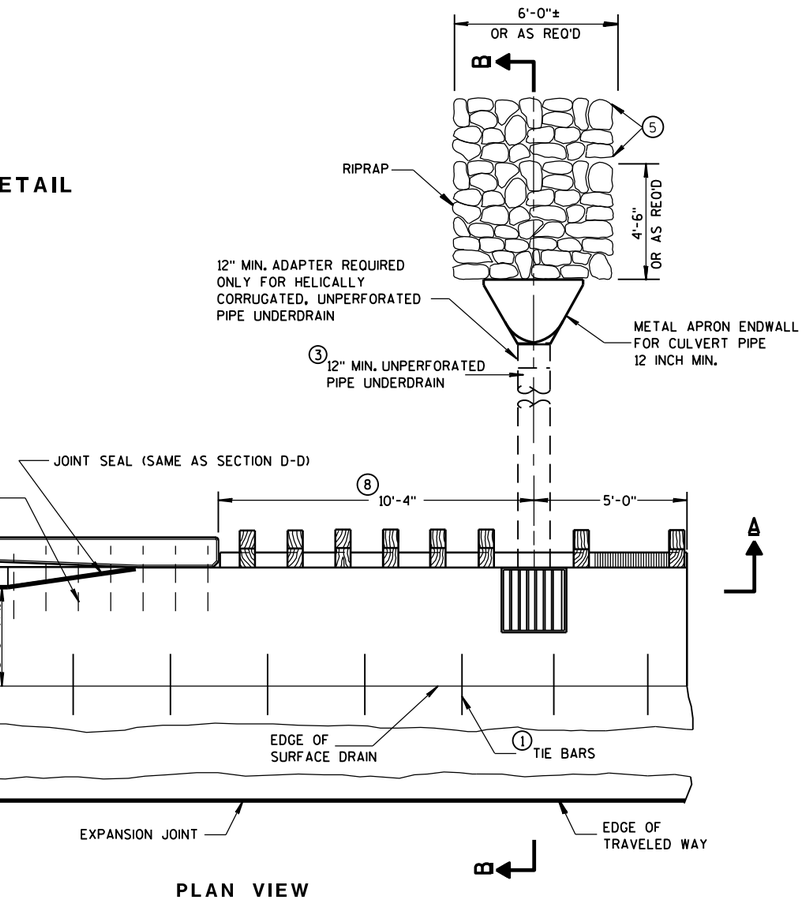
(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(6) GEOTEXTILE FABRIC, TYPE 'R"

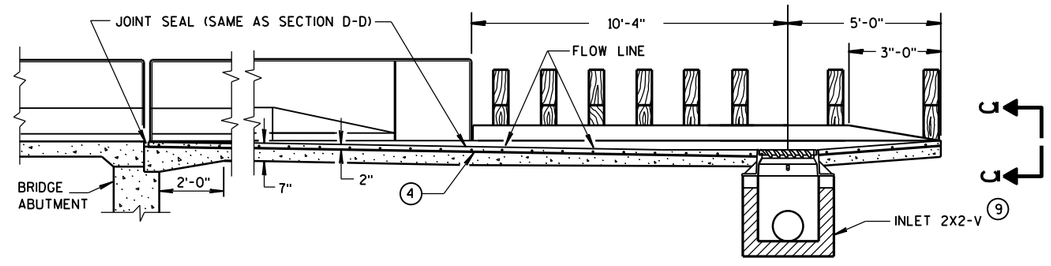
(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".

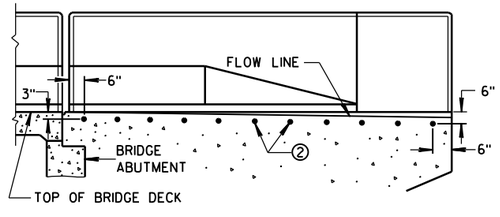
(9) SEE CURRENT STANDARD DETAIL DRAWINGS 8A5 AND 8C7 FOR DETAILS.



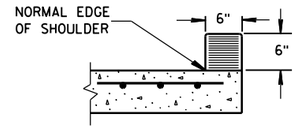
PLAN VIEW



SECTION A-A



LOCATION OF TIE BARS IN WINGWALL



SECTION C-C

CONCRETE SURFACE DRAINS
DROP INLET TYPE
AT STRUCTURES

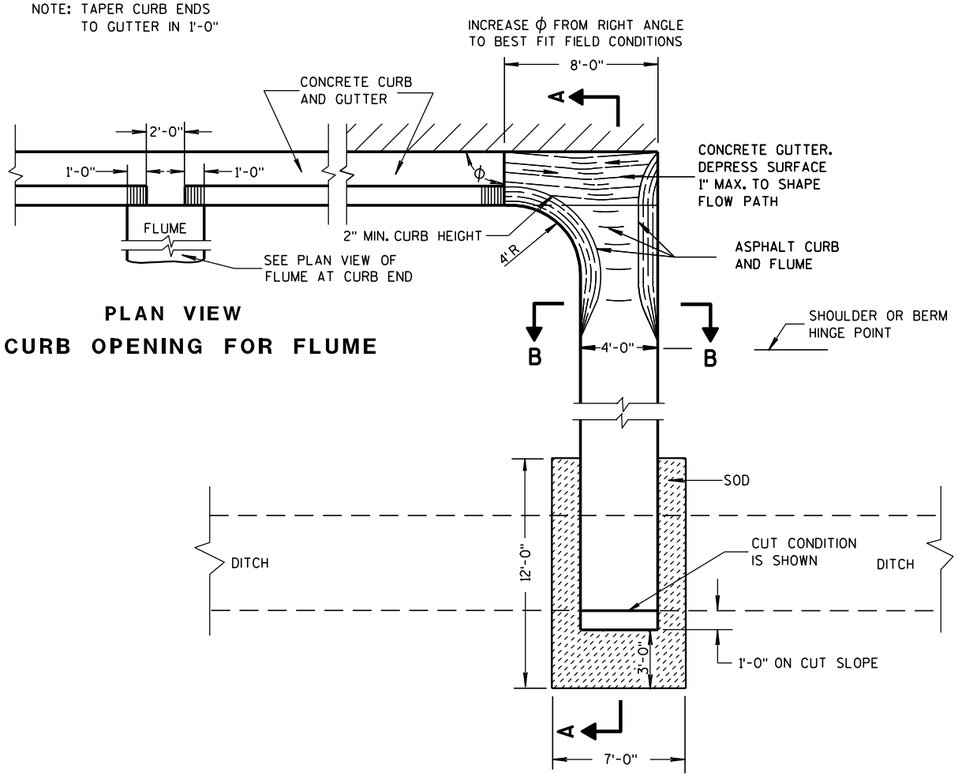
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

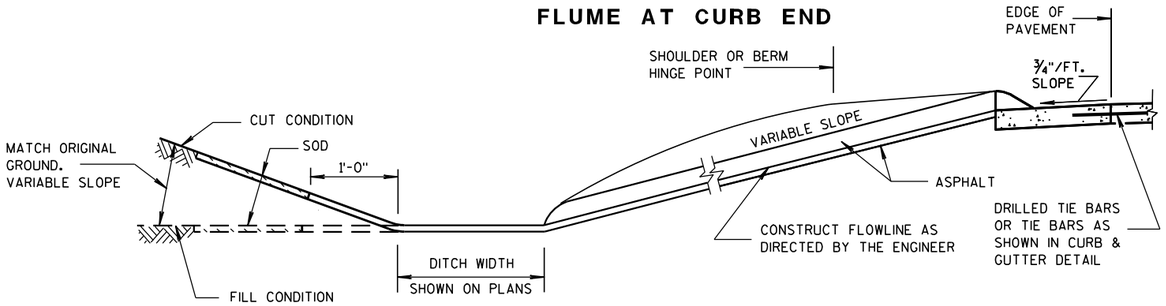
S.D.D. 8 D 3-6

ASPHALTIC FLUME

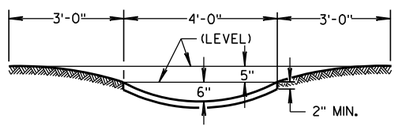


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

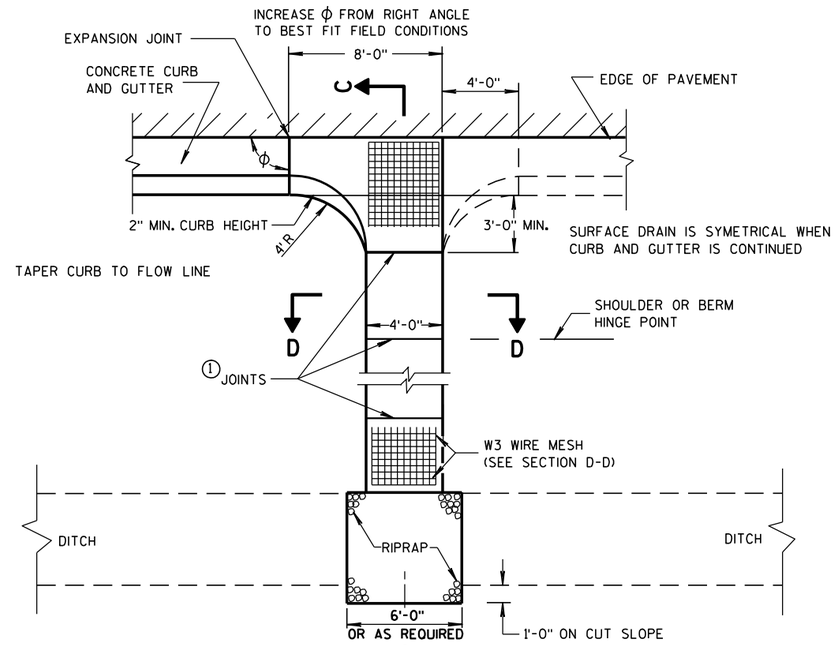
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

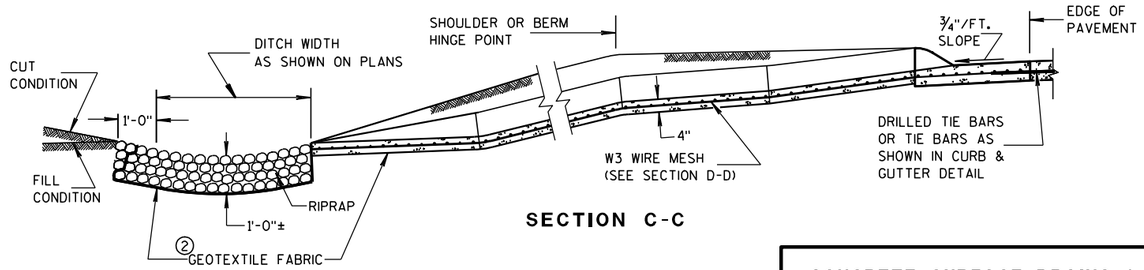
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

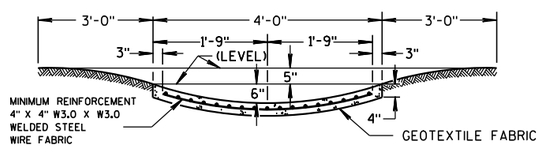
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-4-08 DATE — /S/ Jerry H. ... ROADWAY STANDARDS ENGINEER — MENT

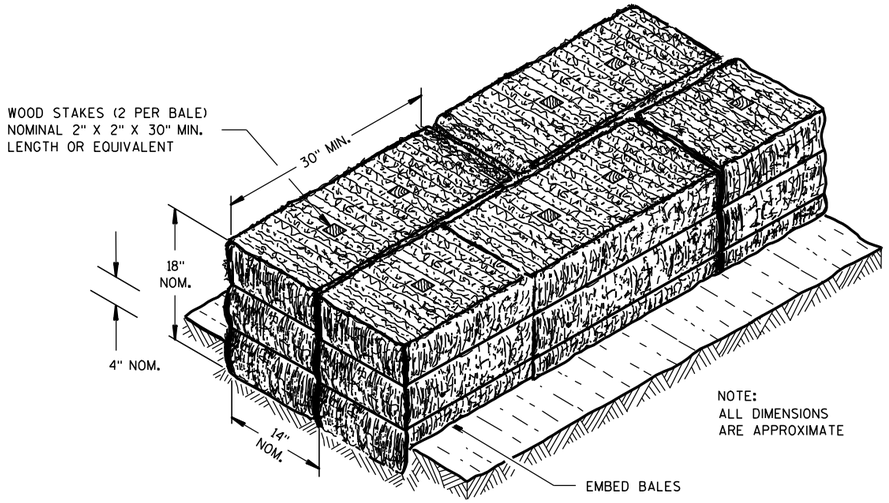
FHWA

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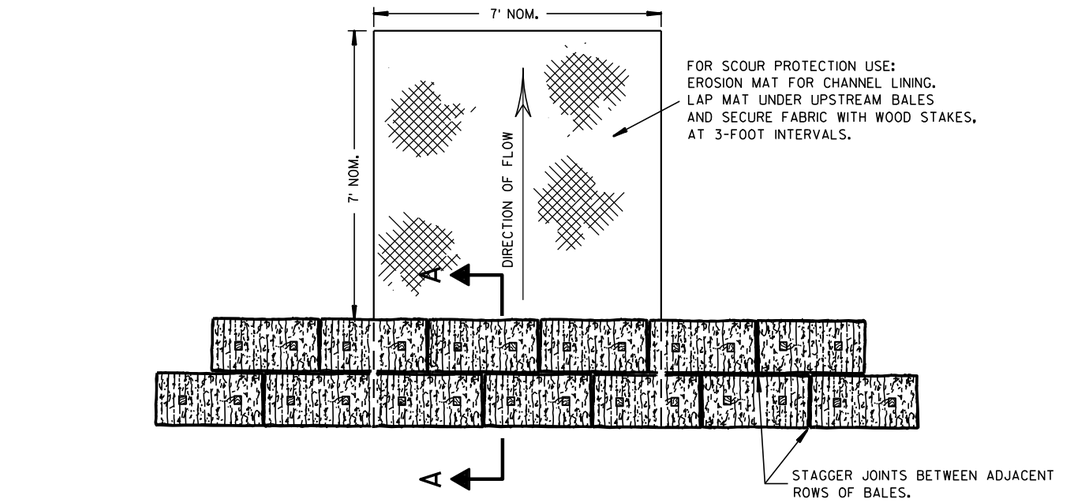
S.D.D. 8 D 4-5

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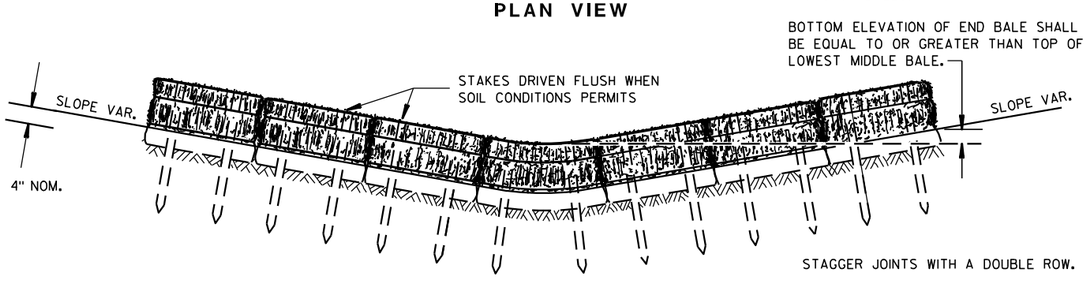
S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



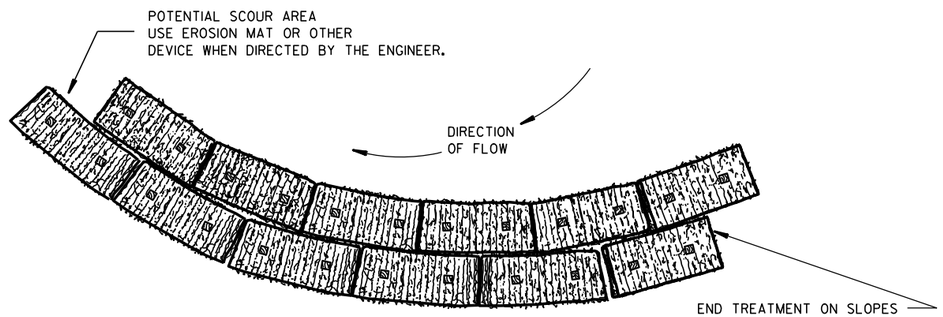
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

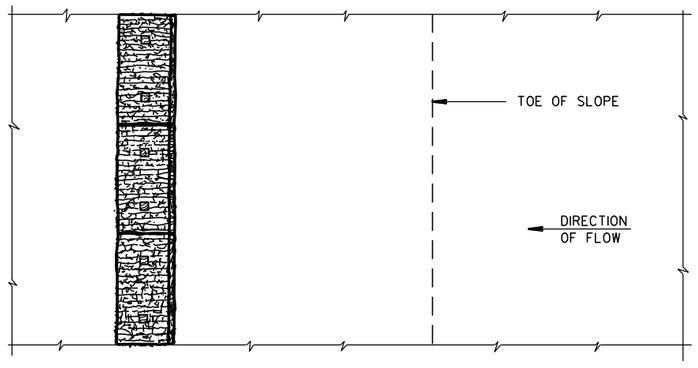
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

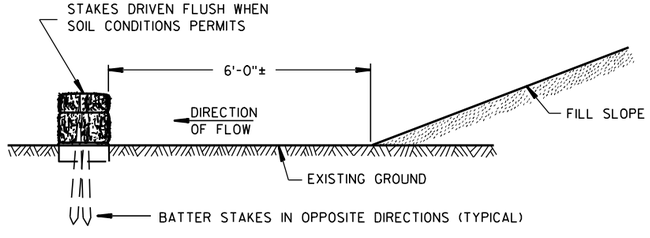


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

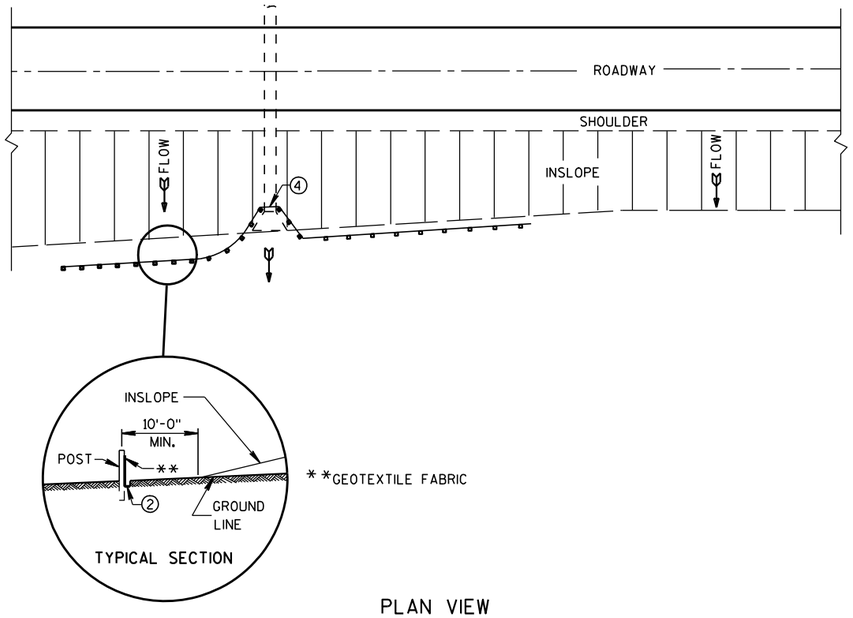
FHWA

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S.D.D. 8 E 8-3

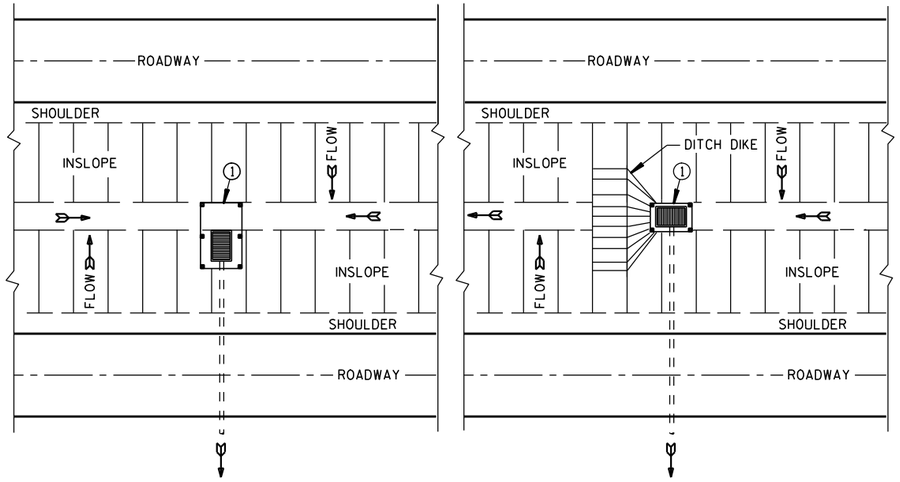
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

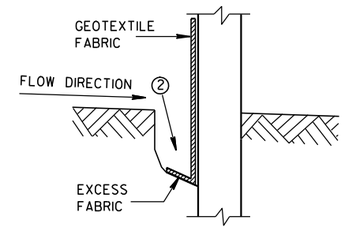
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

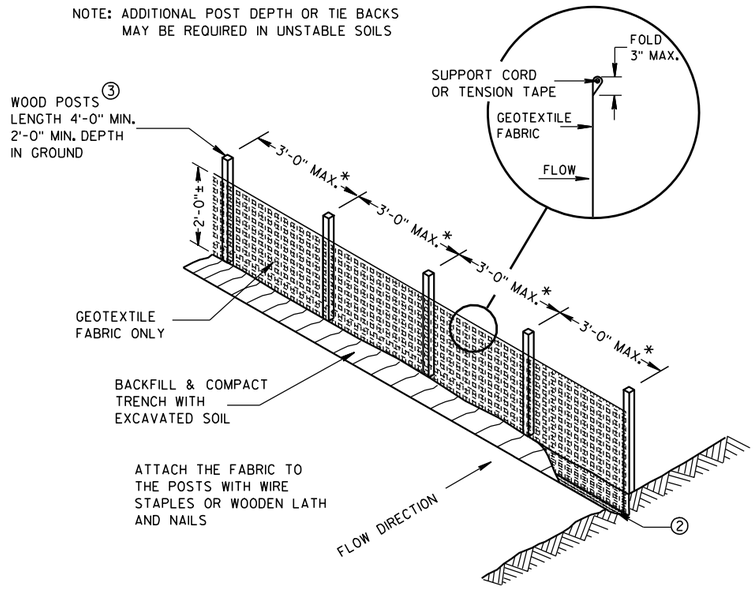
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

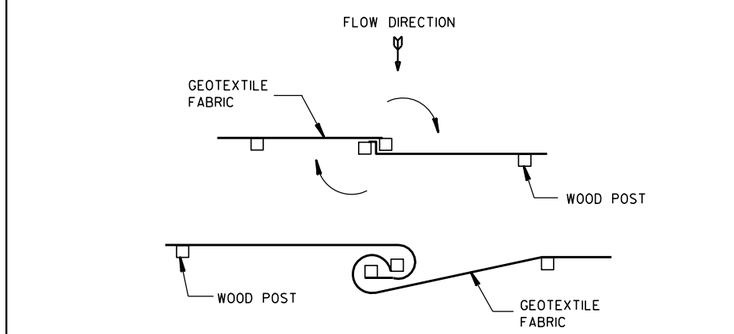
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



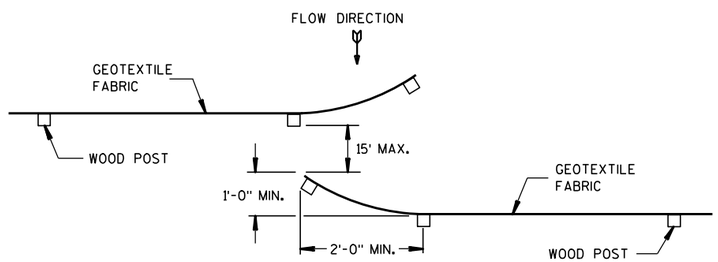
TRENCH DETAIL



SILT FENCE

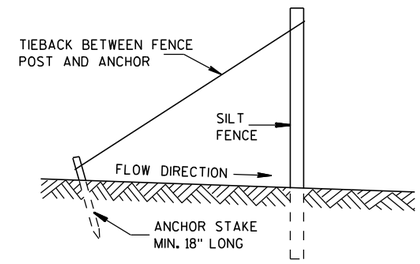


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

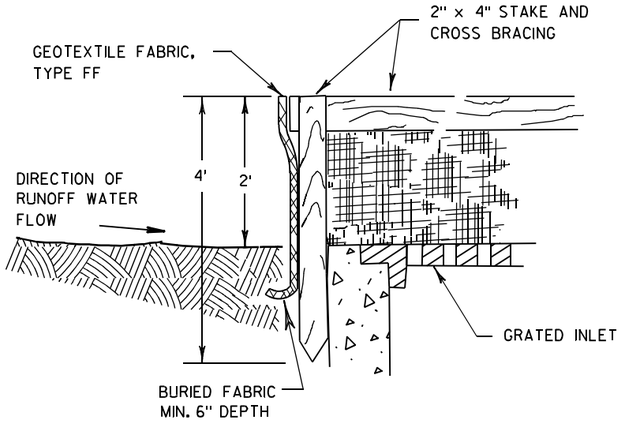
APPROVED
4-29-05
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

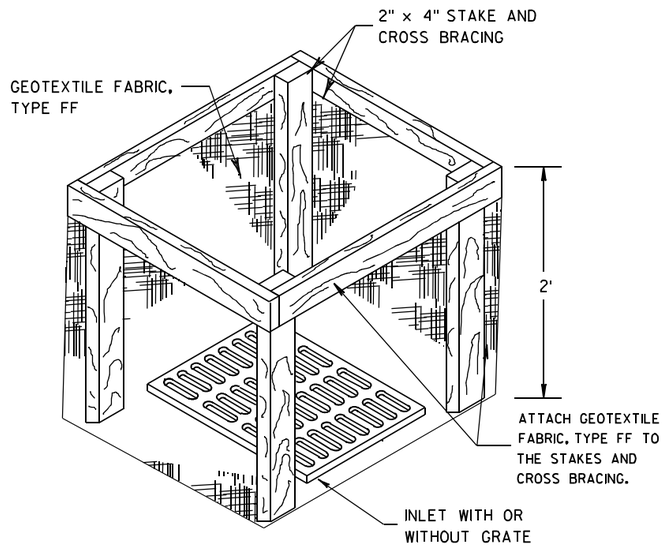
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S.D.D. 8 E 9-6

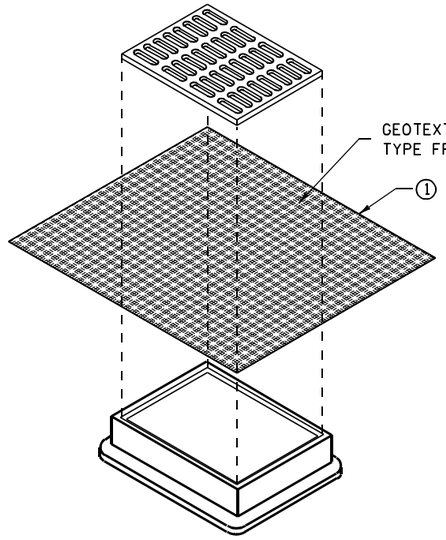
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S.D.D. 8 E 9-6



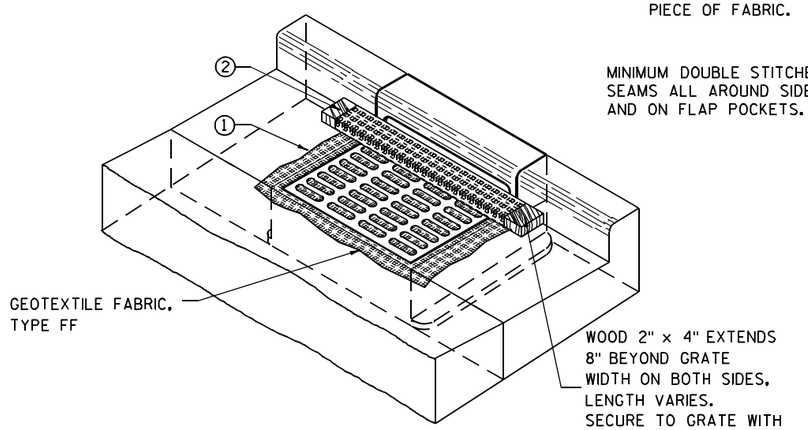


INLET PROTECTION, TYPE A

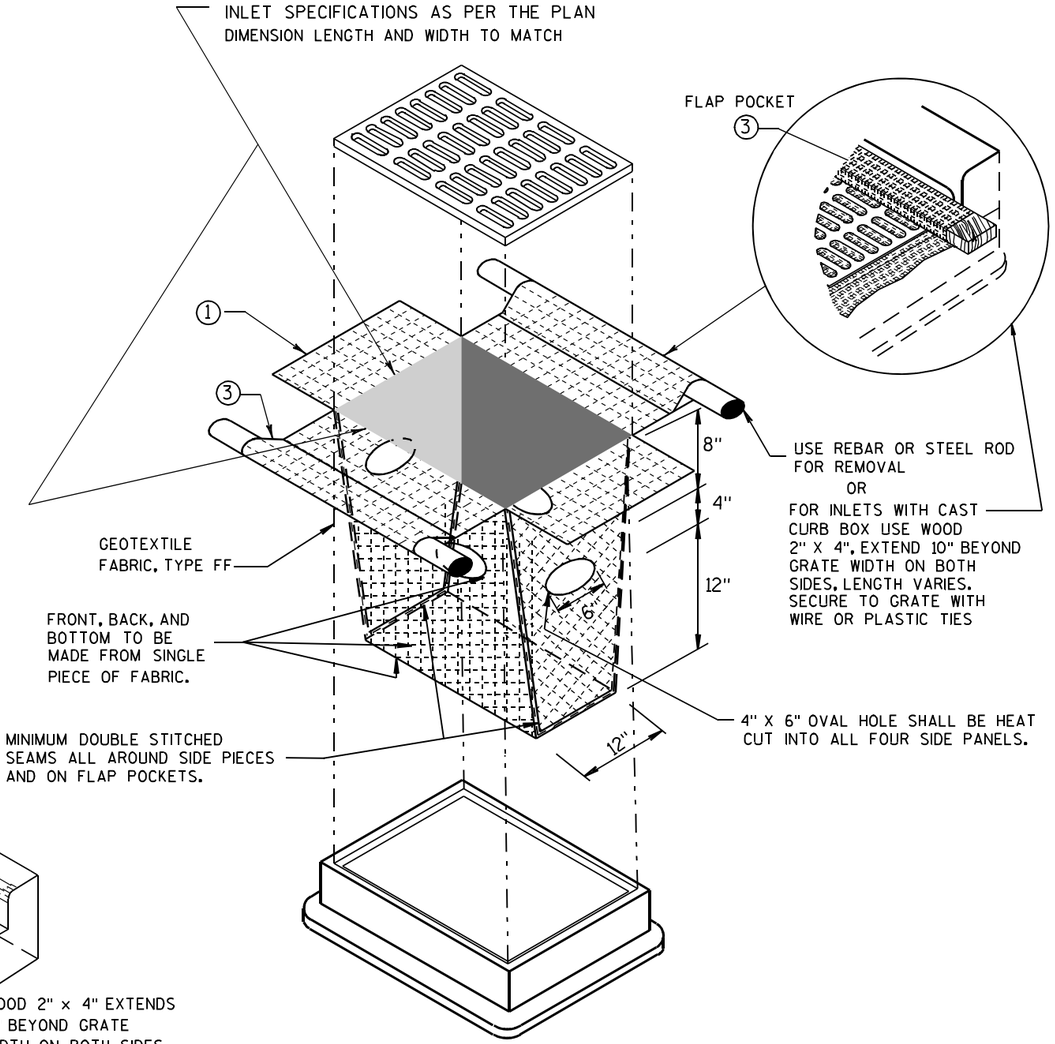


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

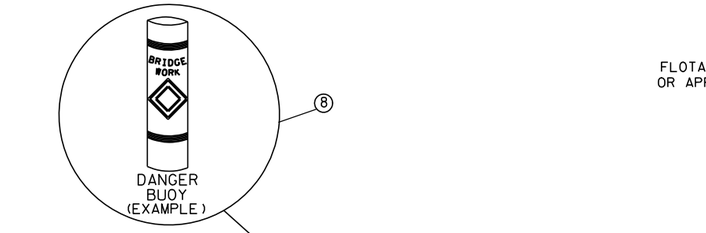
FHWA

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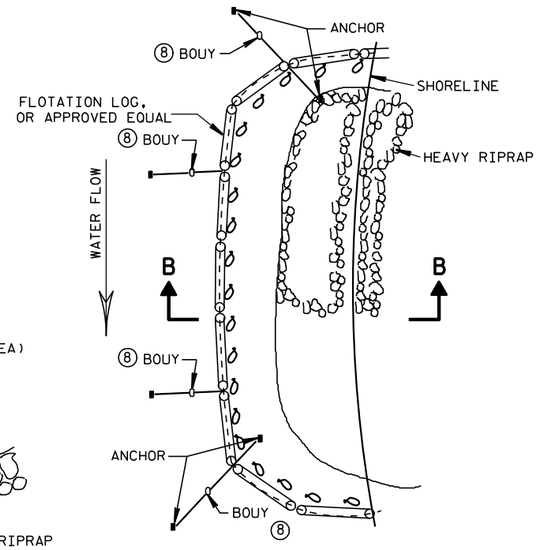
S.D.D. 8 E 10-2

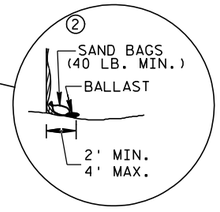
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S.D.D. 8 E 10-2

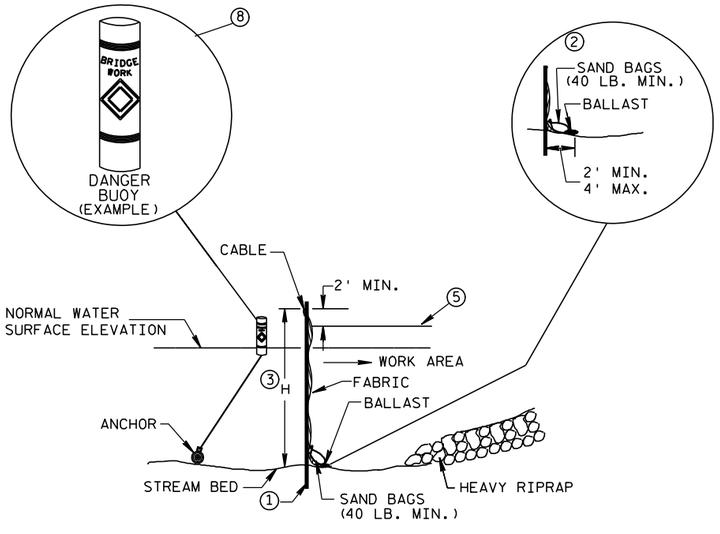


SECTION B-B

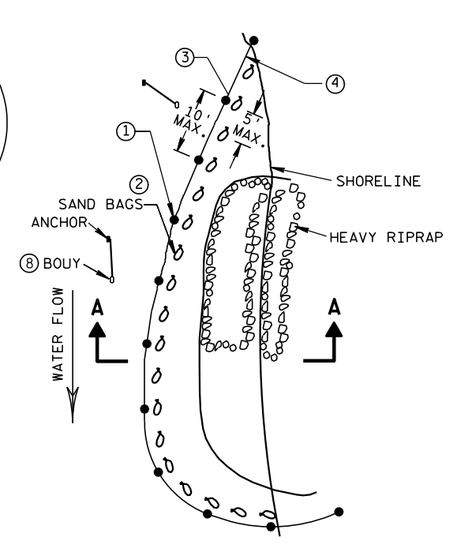




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

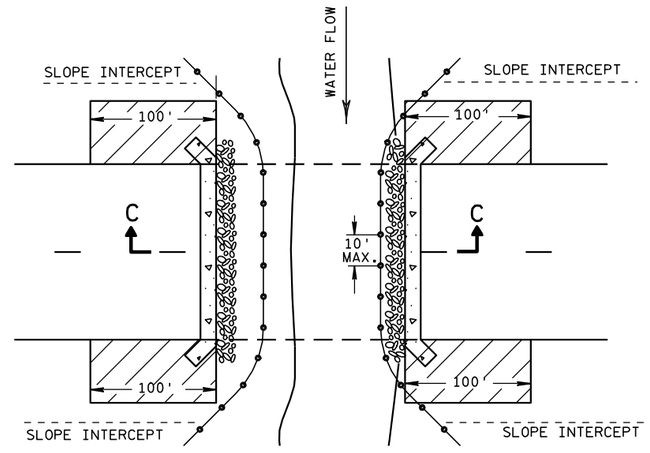
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

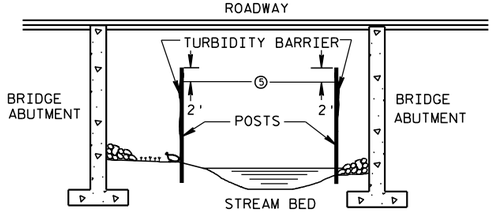
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



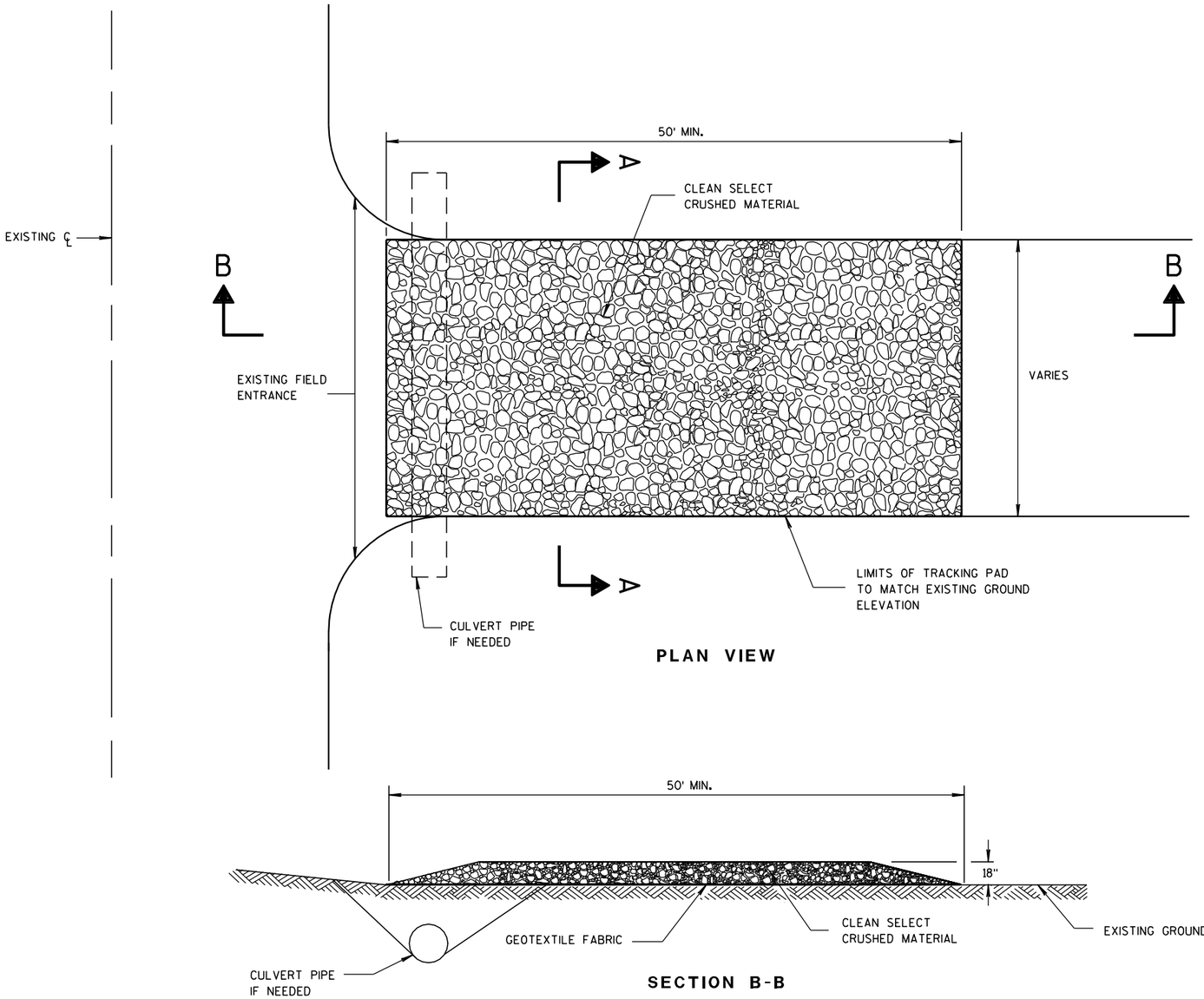
PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
6/04/02 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



PLAN VIEW

SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

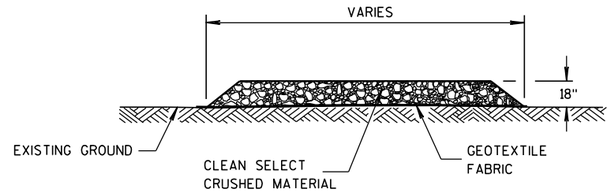
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

6

S.D.D. 8 E 14-1

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 DATE
/S/ Jerry H. Zoda
ROADWAY STANDARDS ENGINEER
FHWA

ENT

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

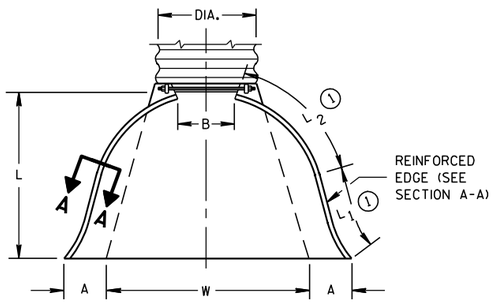
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

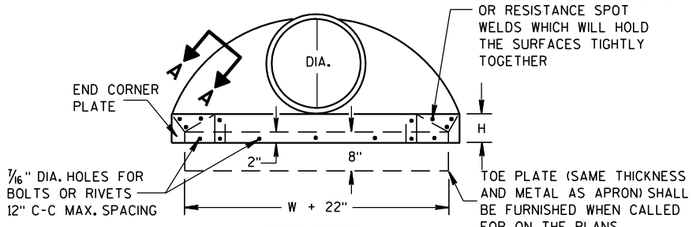
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

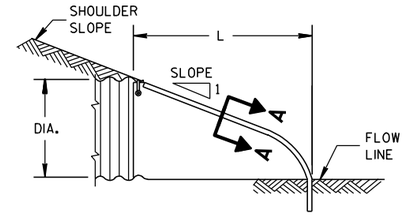
* MINIMUM
** MAXIMUM



PLAN VIEW

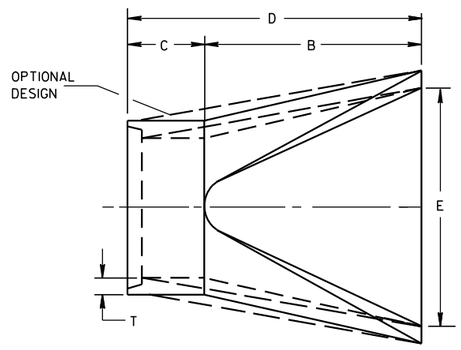


END VIEW

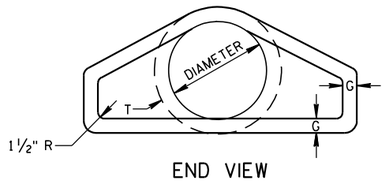


SIDE ELEVATION

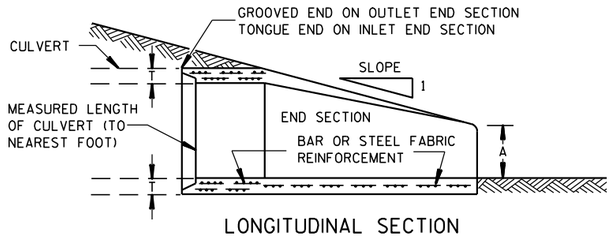
METAL ENDWALLS



PLAN

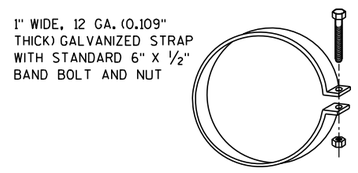


END VIEW



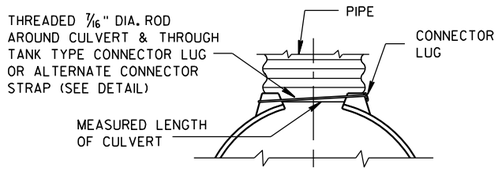
LONGITUDINAL SECTION

CONCRETE ENDWALLS

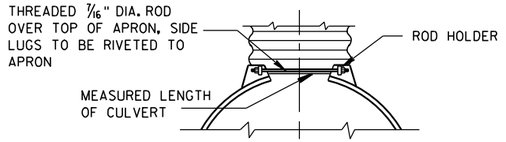


ALTERNATE FOR TYPE 1 CONNECTION

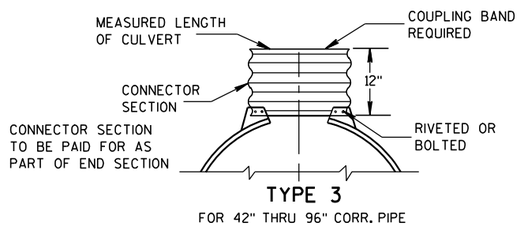
END SECTION CONNECTOR STRAP



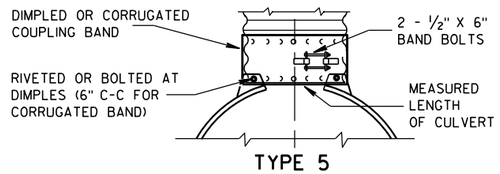
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

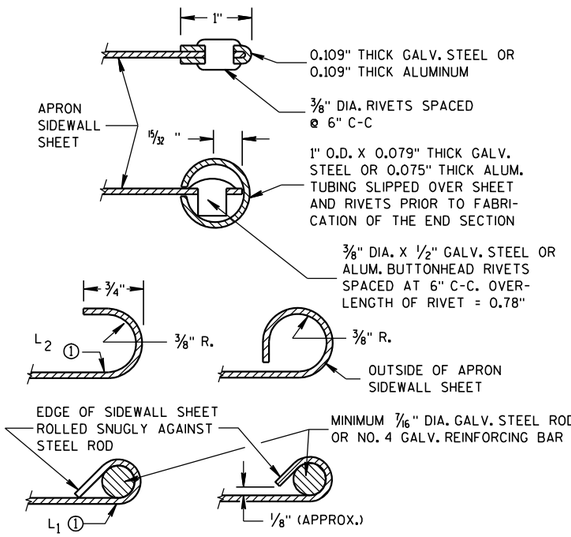
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

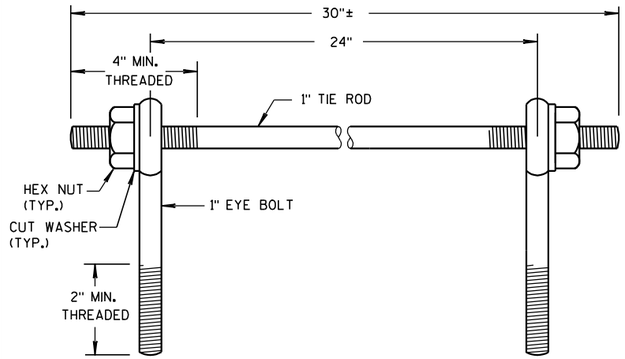
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

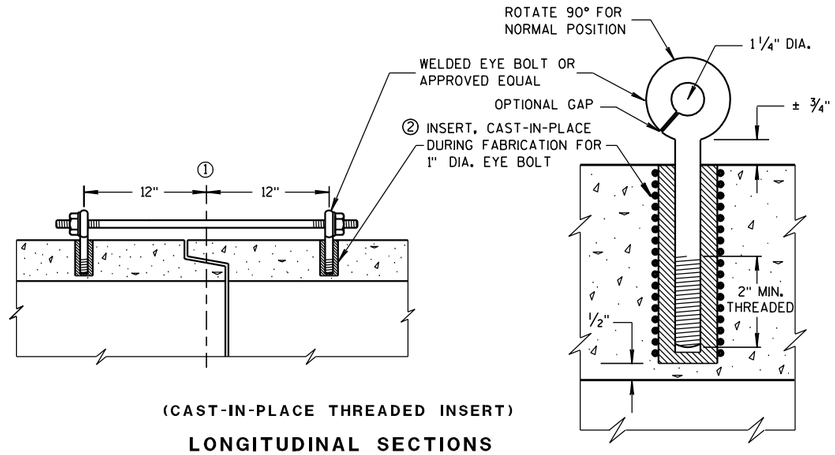
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

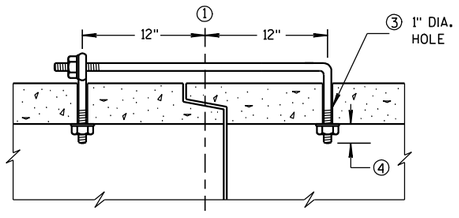
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

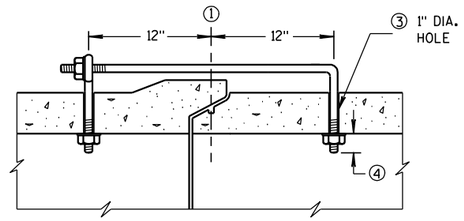
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

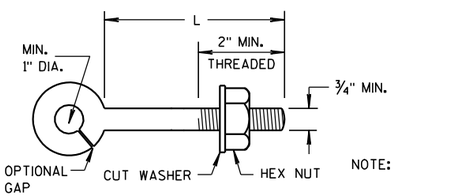


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

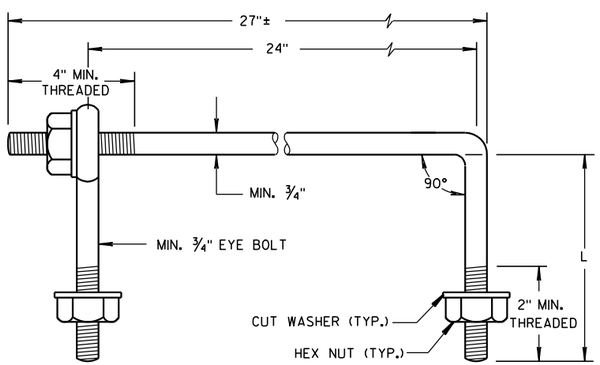
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

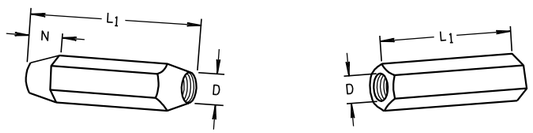
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

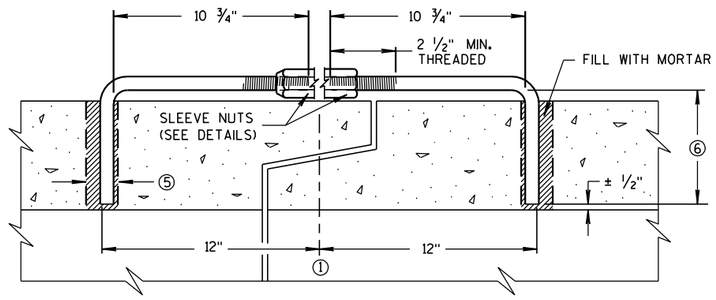
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

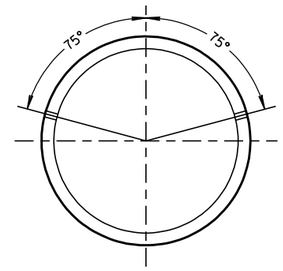
SLEEVE NUTS



LONGITUDINAL SECTION

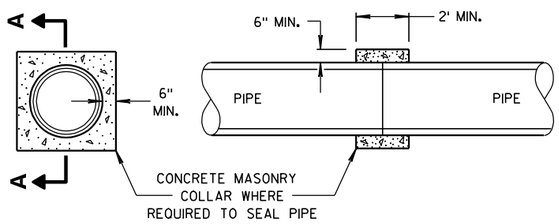
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

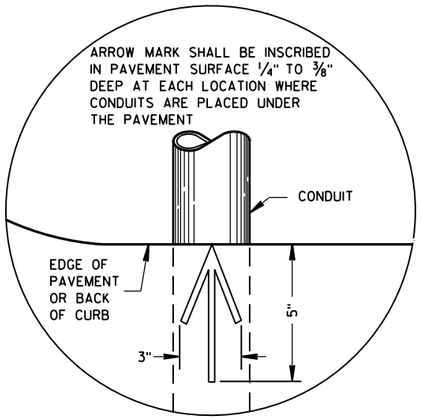
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
317
FHWA

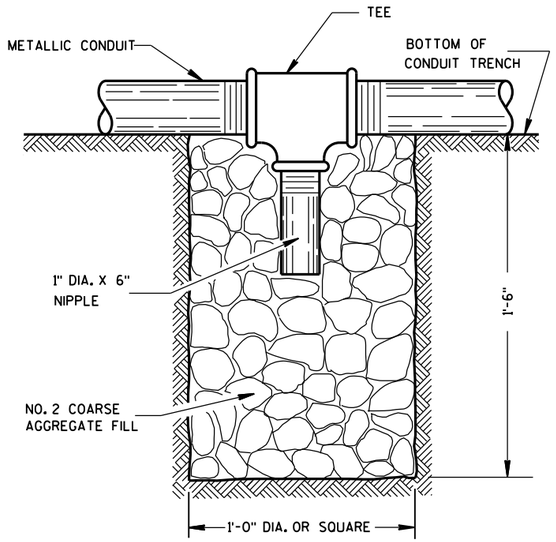
6

S.D.D. 8 F 4-7



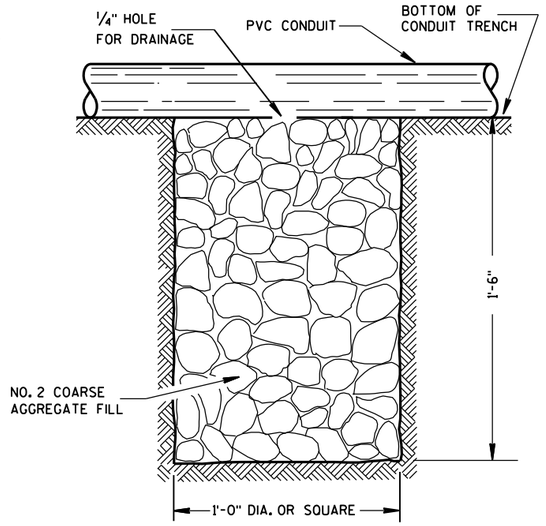
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

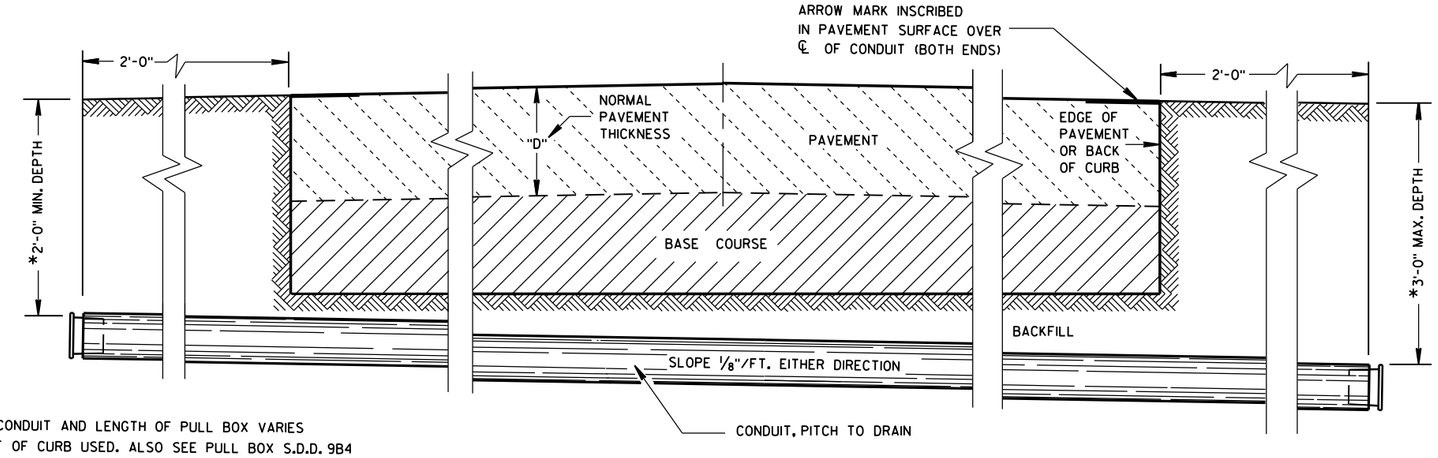
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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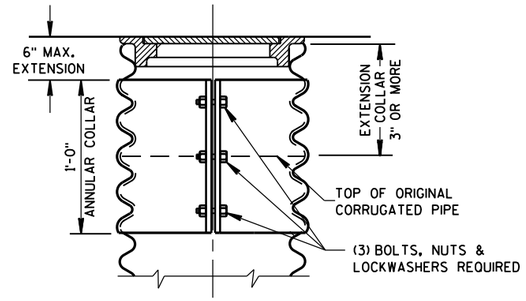
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

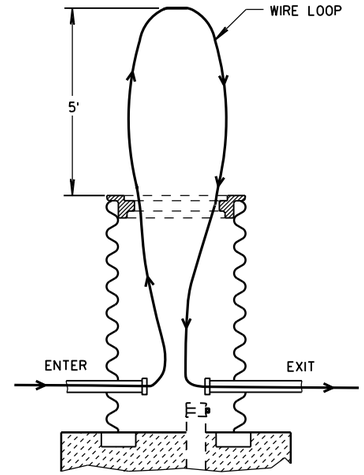
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

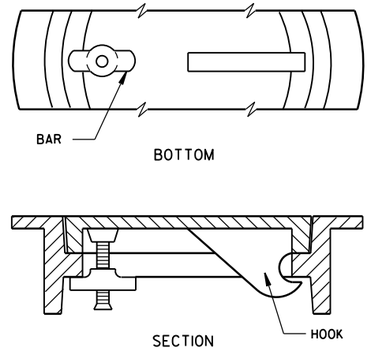
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

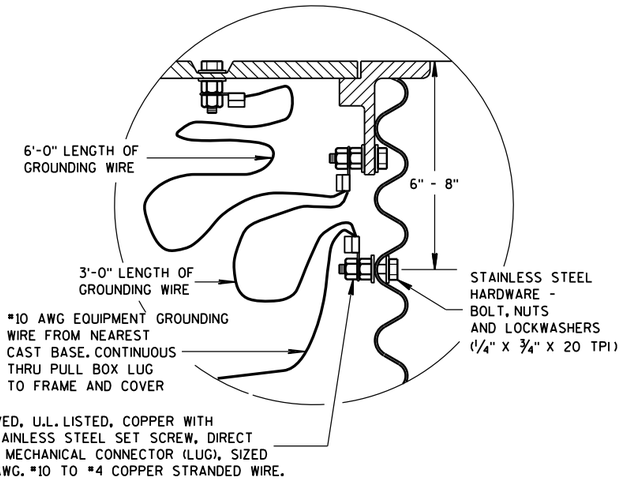


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

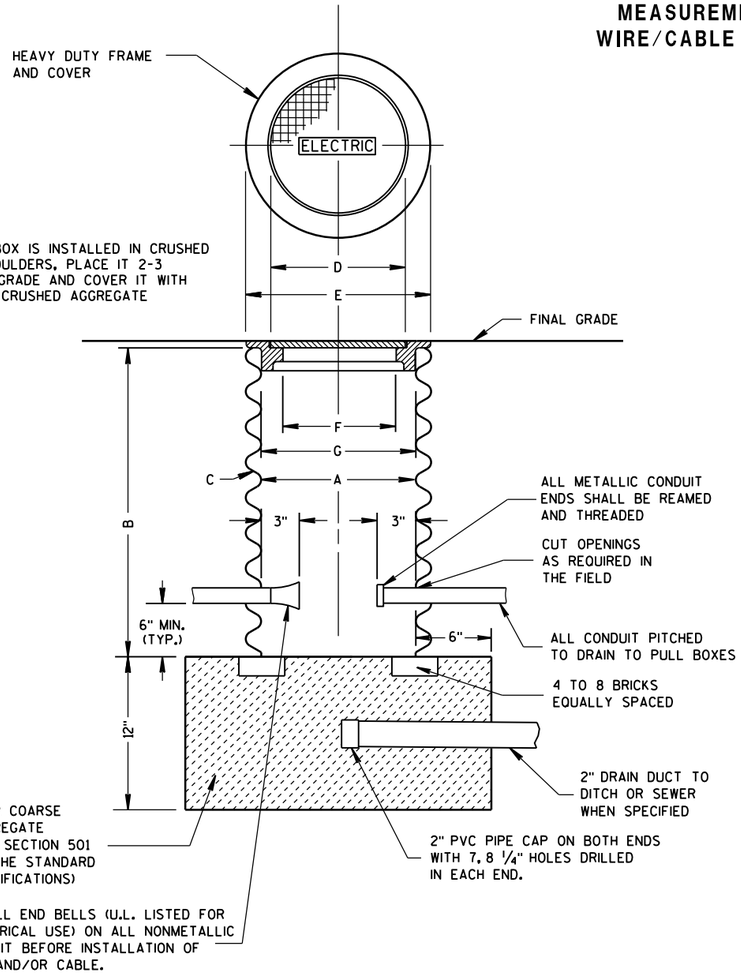


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

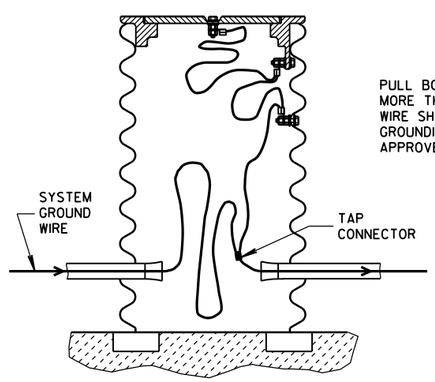
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

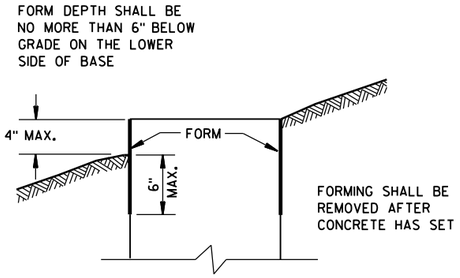
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 4-11



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

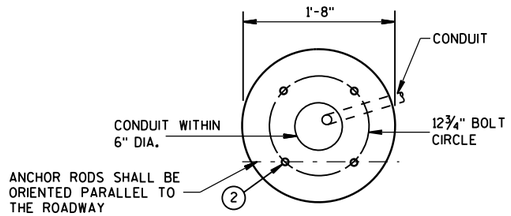
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

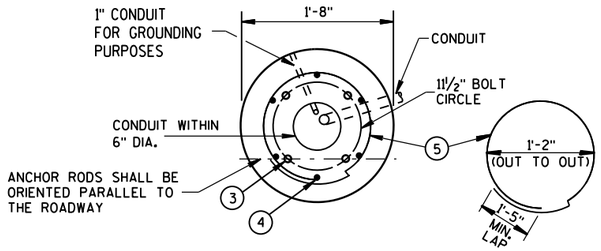
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

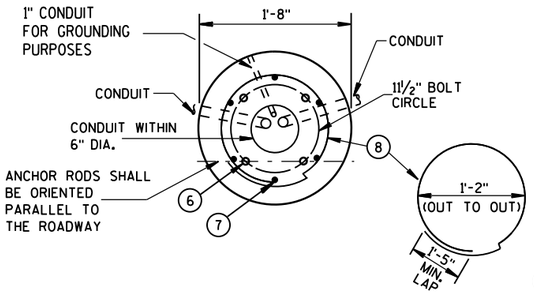
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

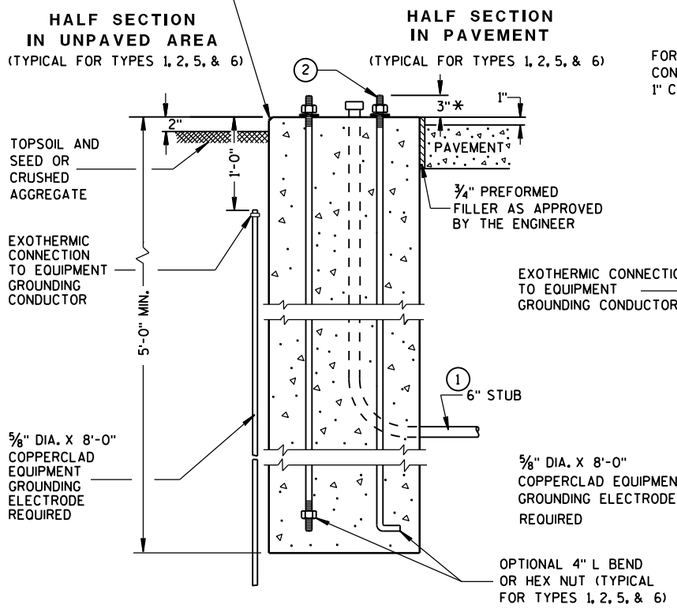


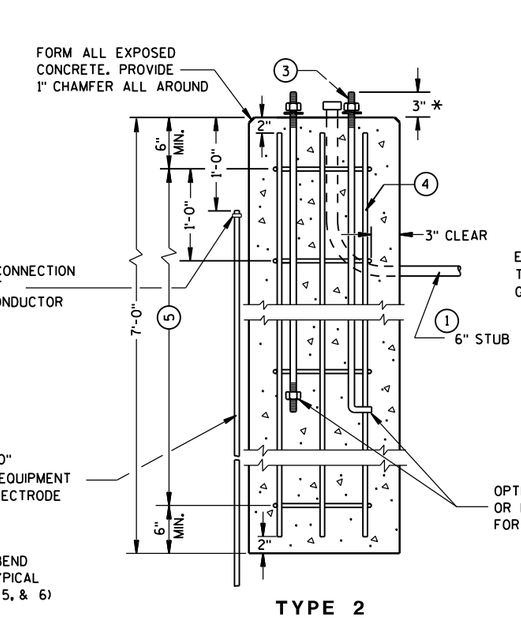




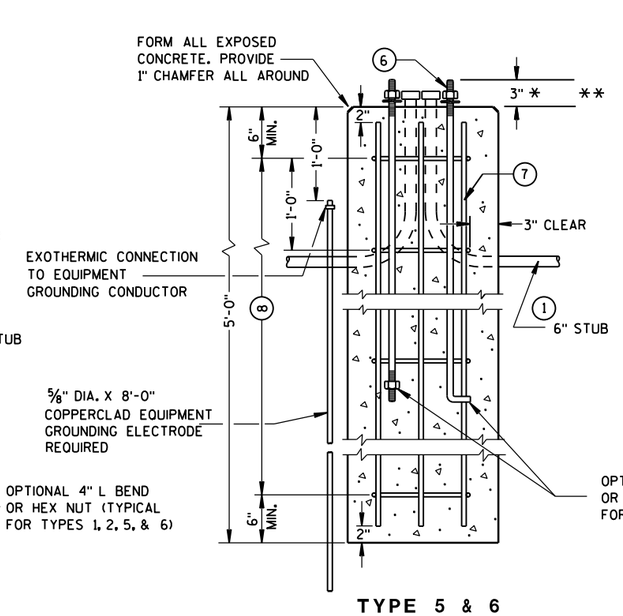
HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)





TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 2-7

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

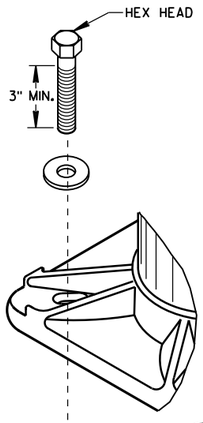
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

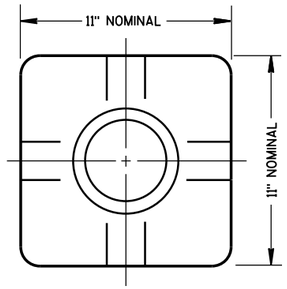
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

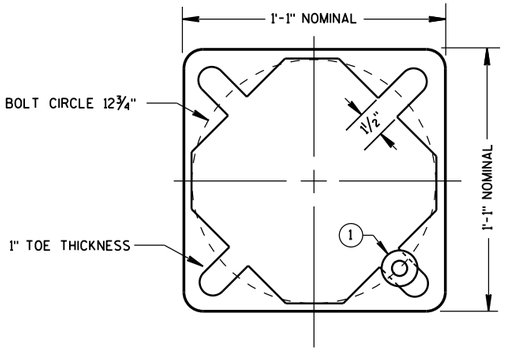
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

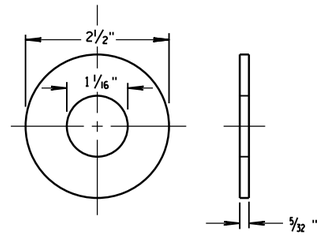




TOP VIEW
(PEDESTAL BASE)

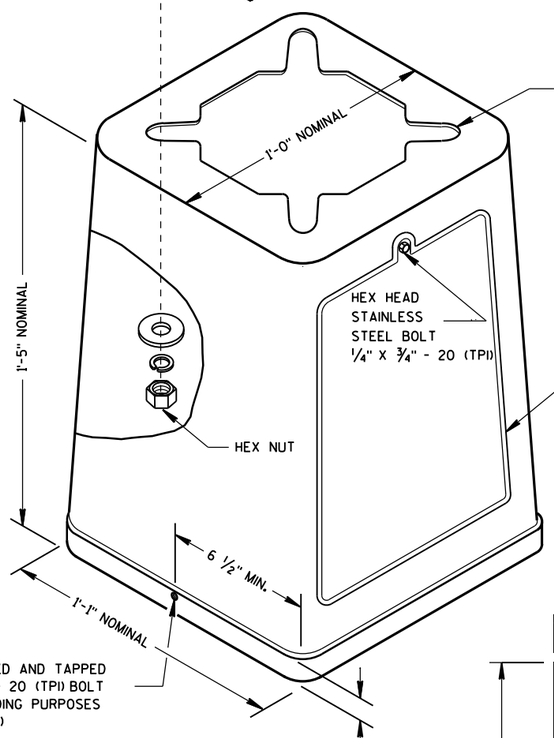


BOTTOM VIEW
(PEDESTAL BASE)

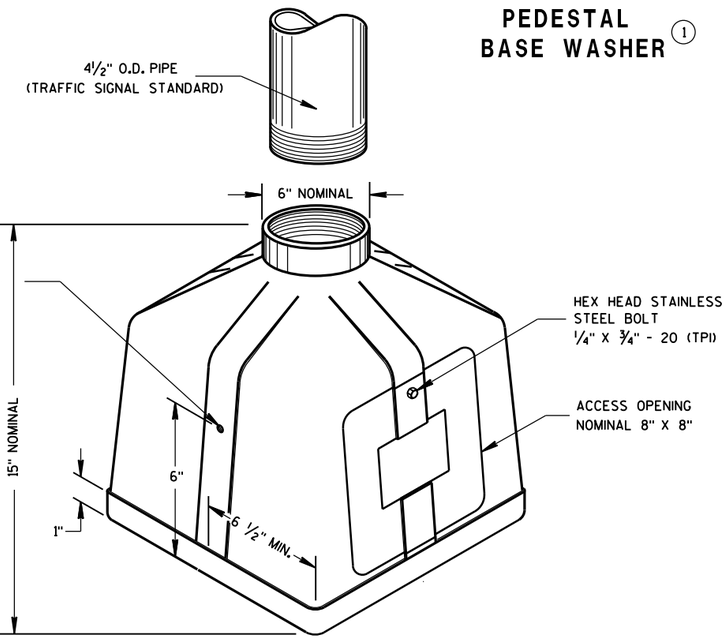


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

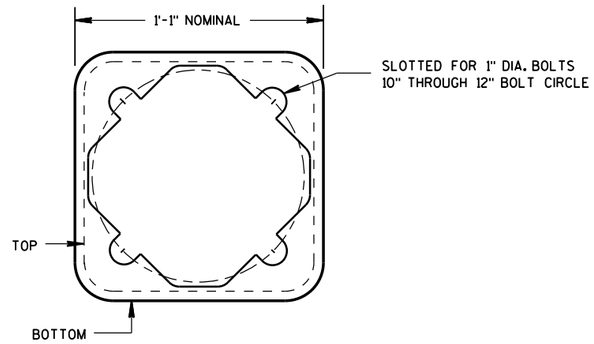


ISOMETRIC VIEW

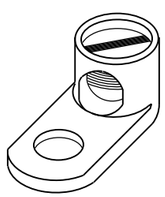


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

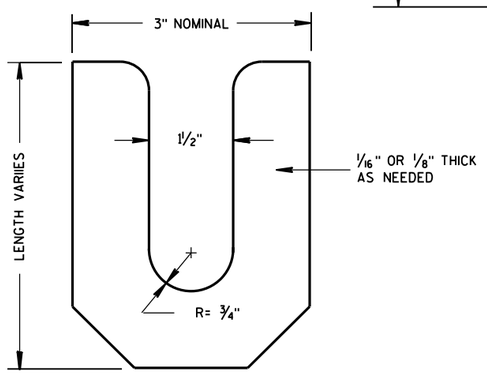


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

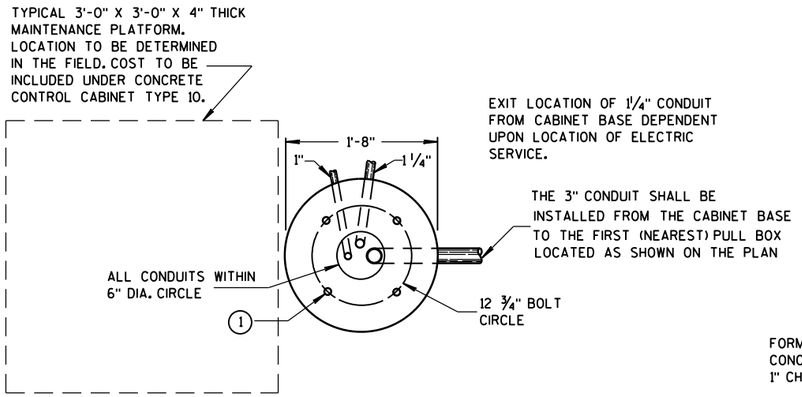
S.D.D. 9 C 3-4

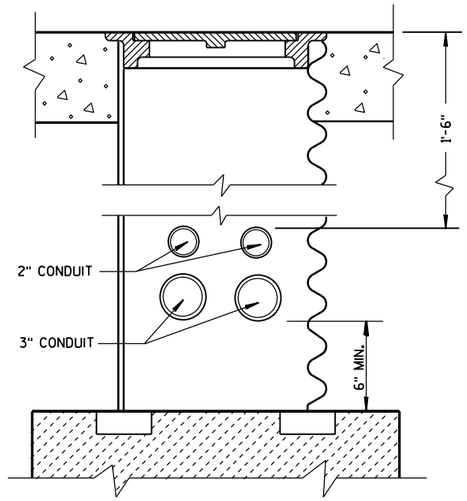
6

S.D.D. 9 C 3-4

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65 *

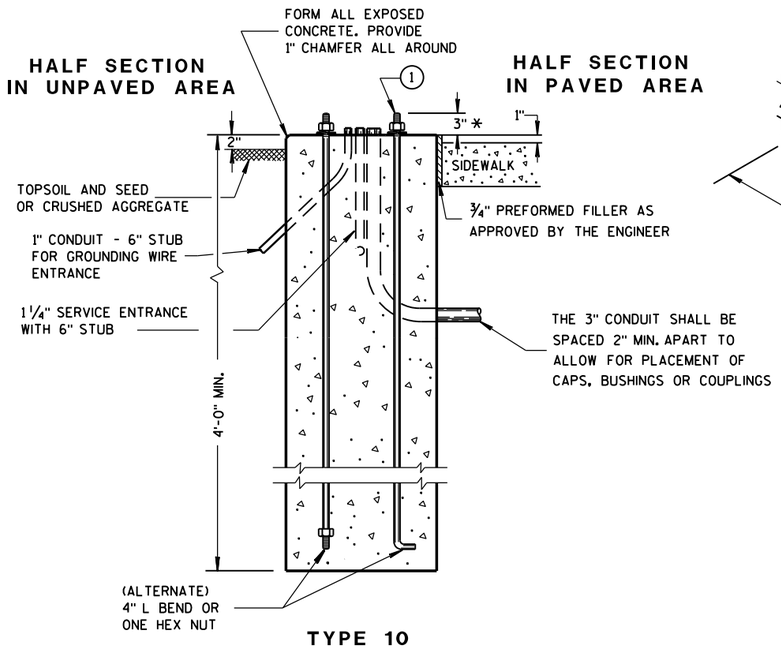
* INCLUDES MAINTENANCE PLATFORM.



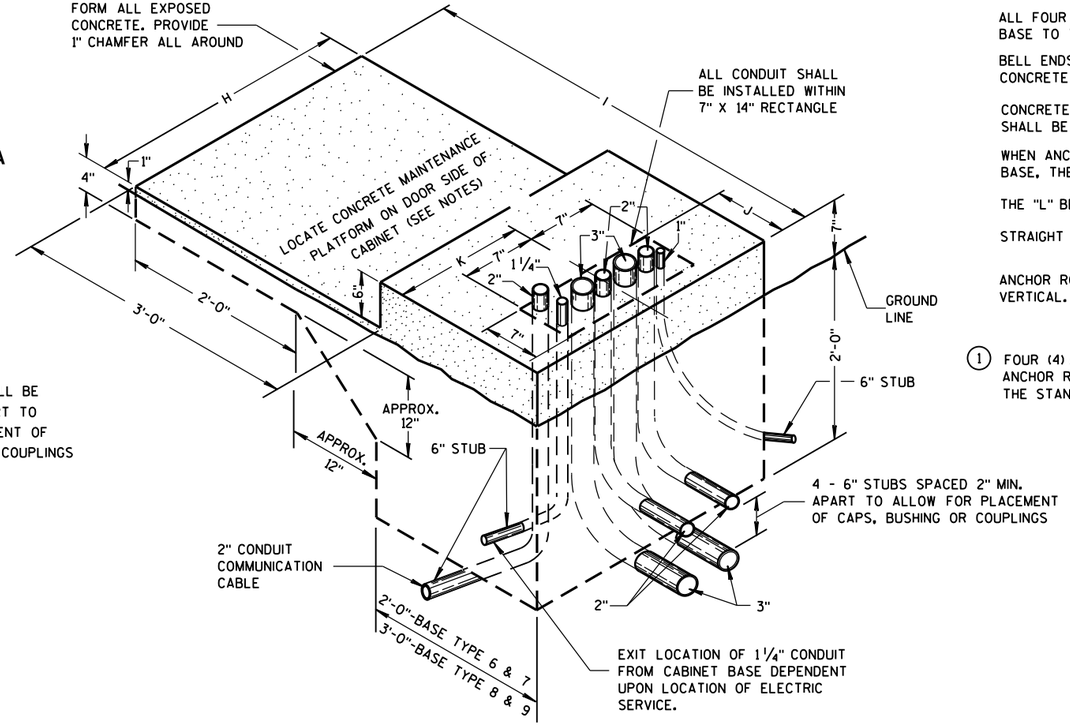


CONDUIT LOCATIONS IN 24" X 36" PULL BOX

(LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



TYPE 10



TYPE 6,7,8 AND 9
(ISOMETRIC VIEW)

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST PULL BOX LOCATED AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

(1) FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6". ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

CONCRETE CONTROL CABINET BASES

CONCRETE CONTROL CABINET BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

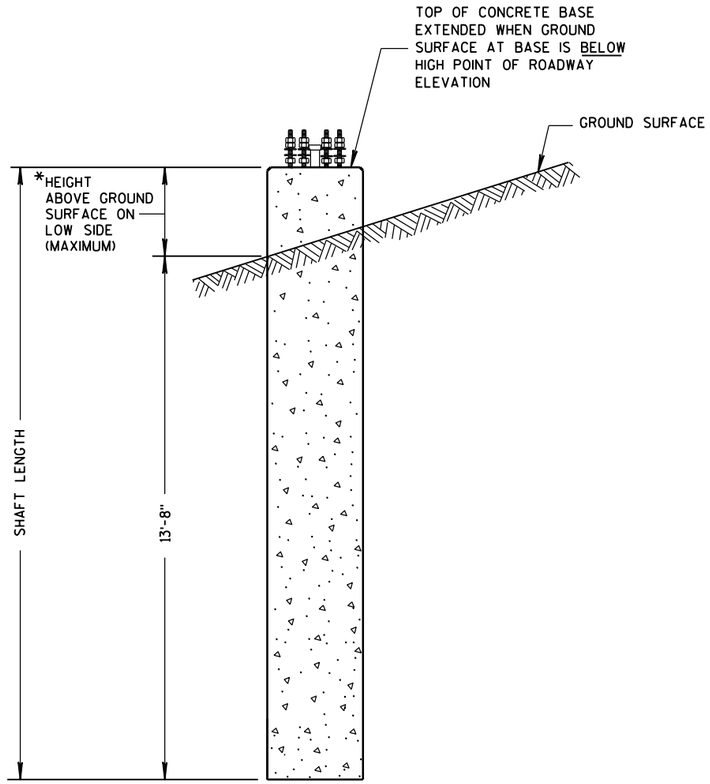
322

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S.D.D. 9 C 5-9

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

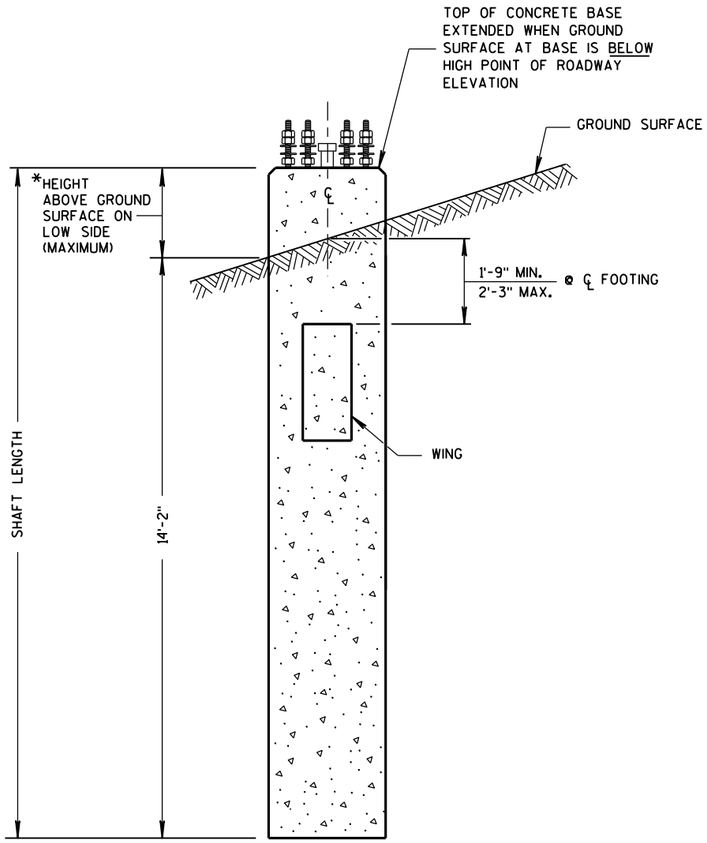
HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL BAR STEEL
>0" TO 6"	10"	14'-6"	14'-1"	16	2.6	78	127
>6" TO 1'-0"	1'-4"	15'-0"	14'-7"	16	2.7	78	131
>1'-0" TO 1'-6"	1'-10"	15'-6"	15'-1"	17	2.8	83	136
>1'-6" TO 2'-0"	2'-4"	16'-0"	15'-7"	17	2.9	83	141



CONCRETE BASE TYPE 10 (EXTENDED)

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 13 CONCRETE BASE

HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF H.S. BAR STEEL
>0" TO 6"	10"	15'-0"	14'-7"	16	6.5	447
>6" TO 1'-0"	1'-4"	15'-6"	15'-1"	16	6.6	454
>1'-0" TO 1'-6"	1'-10"	16'-0"	15'-7"	17	6.8	469
>1'-6" TO 2'-0"	2'-4"	16'-6"	16'-1"	17	7.0	476



CONCRETE BASE TYPE 13 (EXTENDED)

CONCRETE BASE
TYPE 10 & TYPE 13 EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

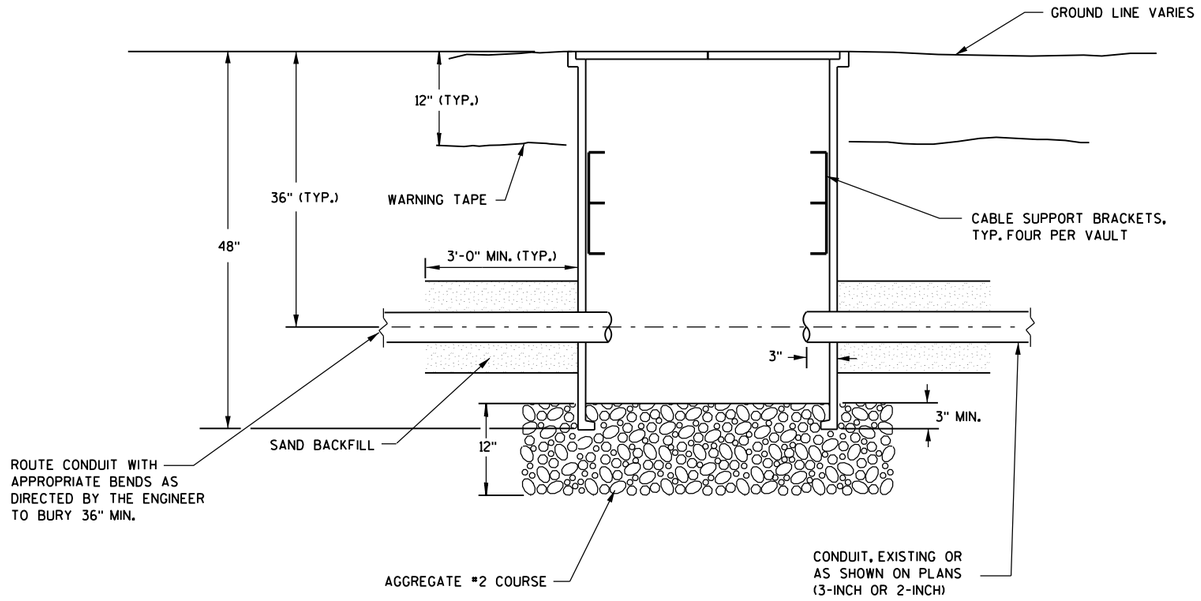
APPROVED
11-26-2013 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
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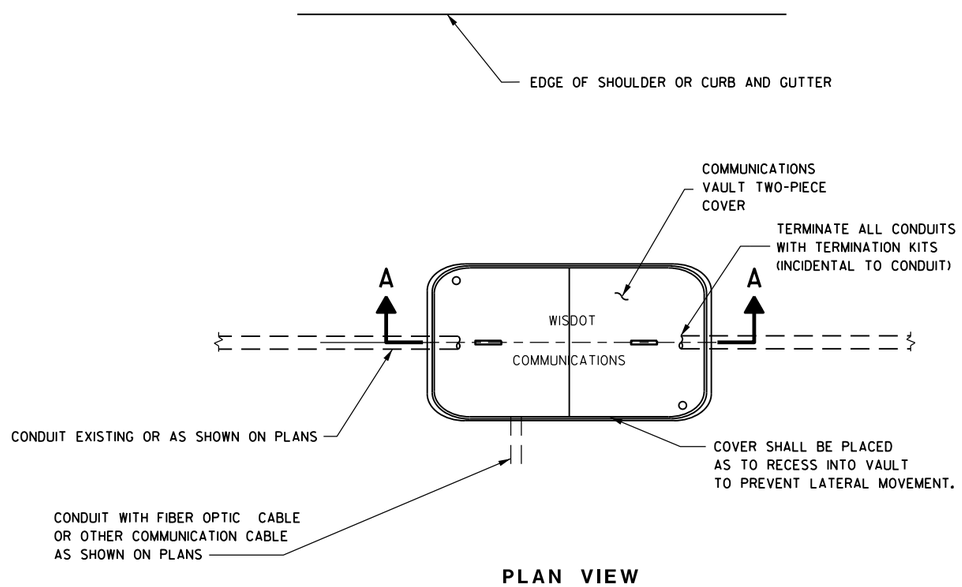
S.D.D. 9 C 13-2

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S.D.D. 9 C 13-2



SECTION A-A



PLAN VIEW

COMMUNICATIONS VAULT

GENERAL NOTES

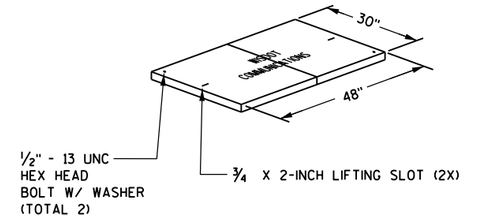
BOX SHALL HAVE AN OPEN BASE.

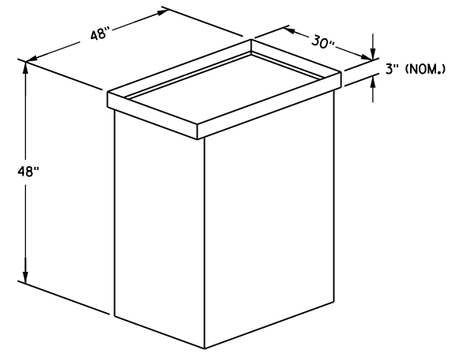
COVER SHALL BE DETECTABLE, AND HAVE A MINIMUM DESIGN LOAD OF 15,000 LBS AND SHALL LOCK.

ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION, OR PUNCH DRIVEN AT TIME OF PLACEMENT.

VAULTS SHALL BE OF ONE-PIECE CONSTRUCTION. TWO-PIECE/STACKABLE VAULTS WILL NOT BE PERMITTED.

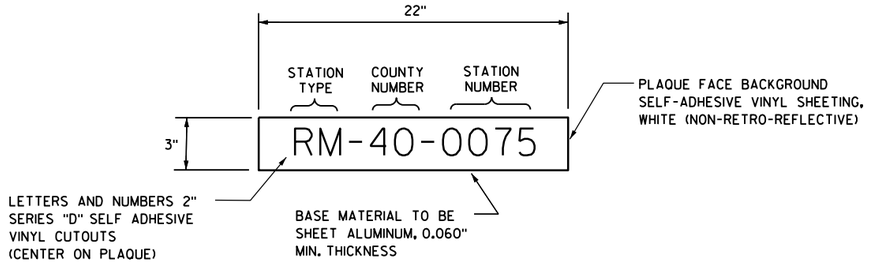
FIELD PLACEMENT OF COMMUNICATIONS VAULTS SHALL BE AS DIRECTED BY THE ENGINEER.



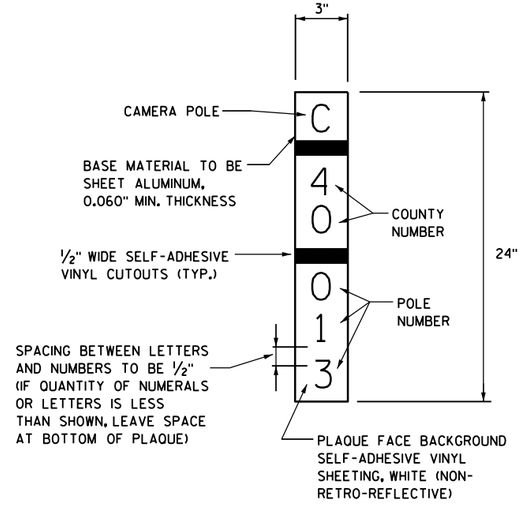


ISOMETRIC VIEW

COMMUNICATION VAULT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept. 2014	/S/ Ahmet Demirbilek
DATE	STATE ELECTRICAL
FHWA	



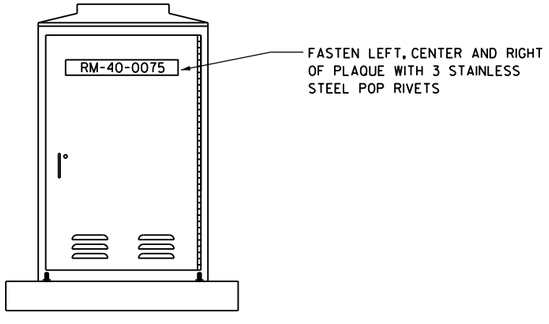
CONTROL CABINET IDENTIFICATION PLAQUE DETAIL



POLE IDENTIFICATION PLAQUE DETAIL

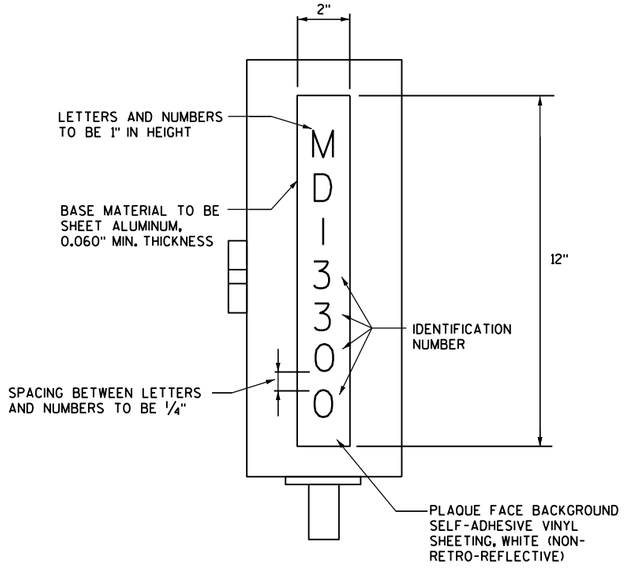
GENERAL NOTES

1. TWO PLAQUES PER CABINET REQUIRED ON CONTROL CABINET.
2. FASTEN ONE PLAQUE ON FRONT DOOR, UPPER HALF.
3. FASTEN ONE PLAQUE ON SIDE FACING LOCAL STREET. IF NO LOCAL STREET NEARBY, OR IF SUCH LOCATION COINCIDES WITH LOCATION OF PLAQUE IN NOTE (2), FASTEN PLAQUE ON REAR OF CABINET, UPPER HALF.
4. COUNTY NUMBER NOT REQUIRED ON RAMP METER CABINETS.



CONTROL CABINET IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS

(TYPICAL ALL CONTROL CABINETS)



MICROWAVE DETECTOR FIELD CABINET IDENTIFICATION PLAQUE DETAIL

LEGEND STATION TYPE

RM - RAMP METER
CCTV - CLOSED CIRCUIT TELEVISION
ATR - AUTOMATIC TRAFFIC RECORDER
SDS - SYSTEM DETECTOR STATION
MD - MICROWAVE DETECTOR

IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

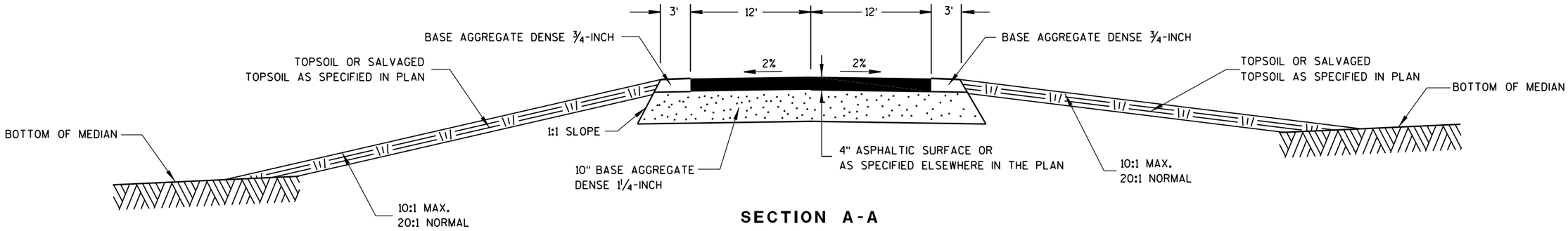
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demribilek — STATE ELECTRICAL
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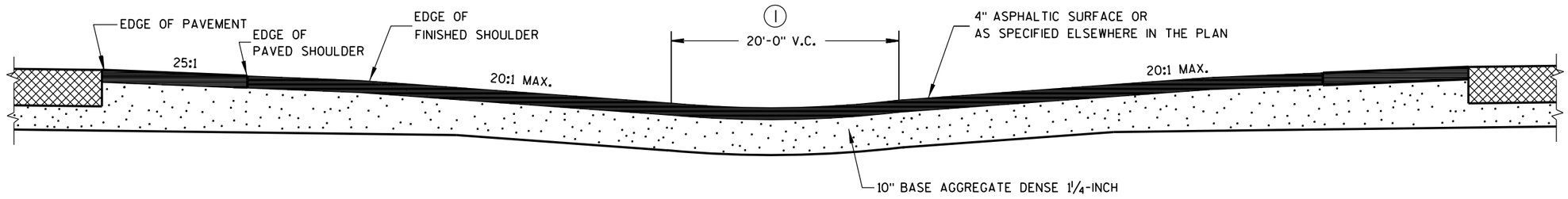
S.D.D. 9 H 11-1

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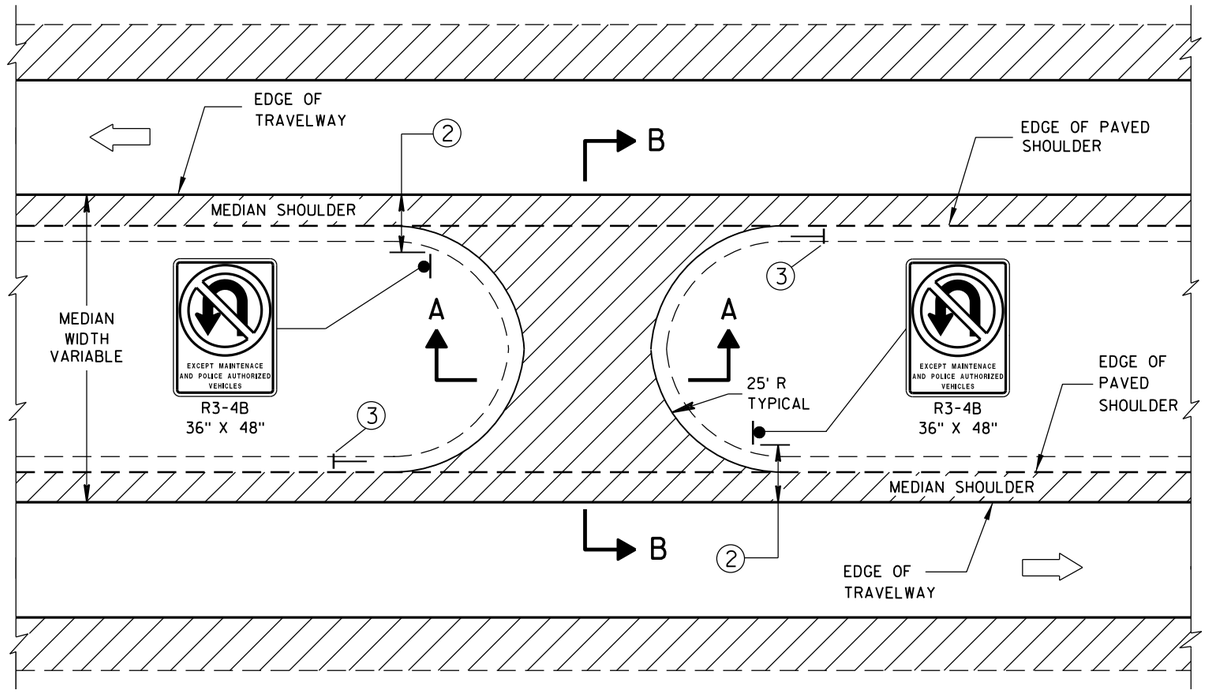
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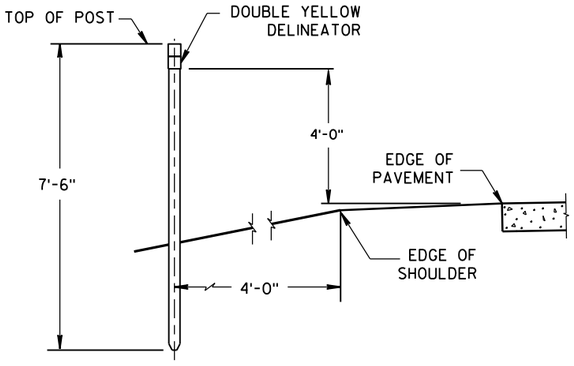
SECTION A-A



SECTION B-B



PLAN VIEW



DOUBLE YELLOW DELINEATOR INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.

(2) SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

(3) INSTALL DOUBLE YELLOW DELINEATOR. SEE STANDARD DETAIL DRAWING 15A2.

MAINTENANCE CROSSOVER FOR FREEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

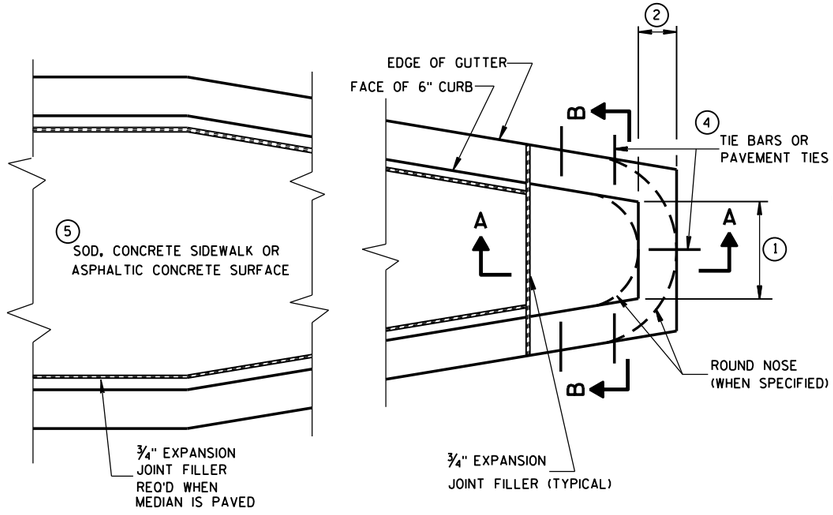
FHWA

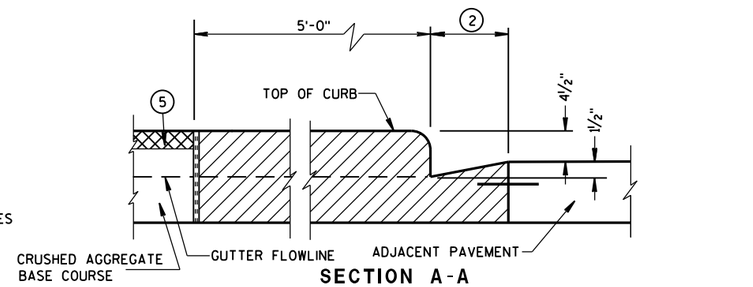
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S.D.D. 11 A 1-5

6

S.D.D. 11 A 1-5





CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

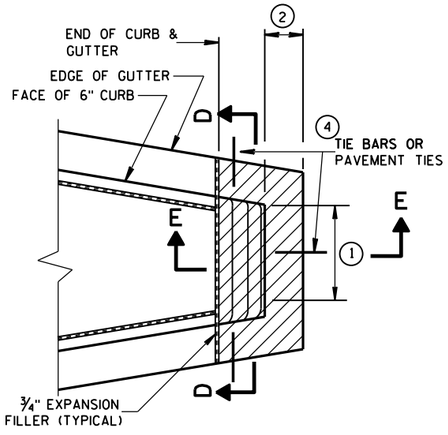
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

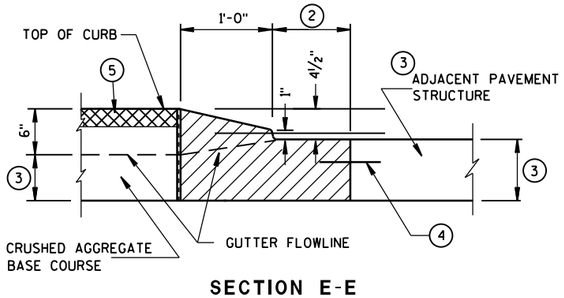
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

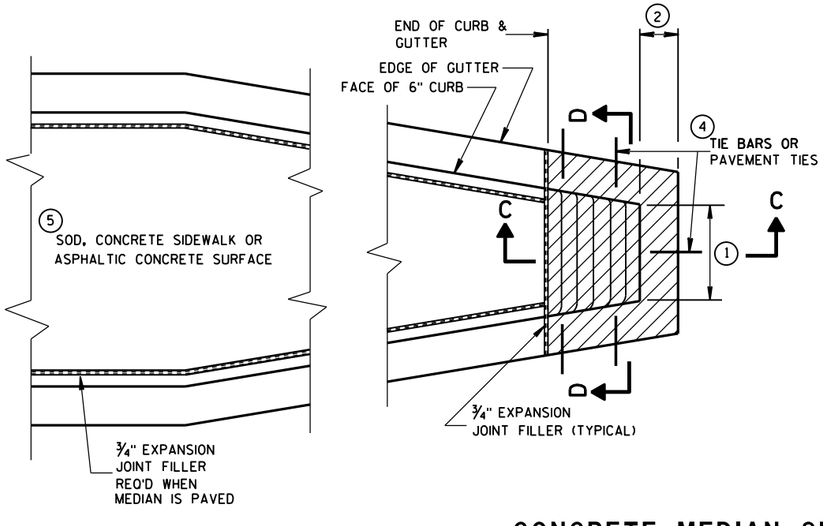
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

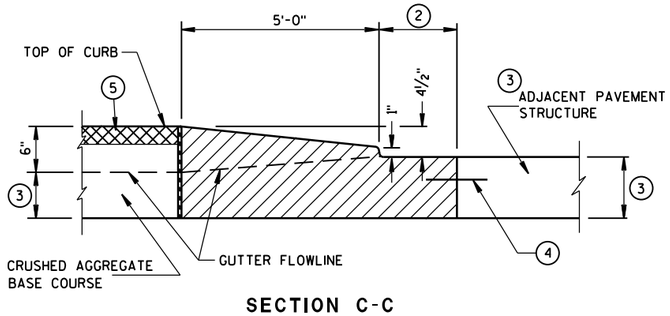




SECTION E-E

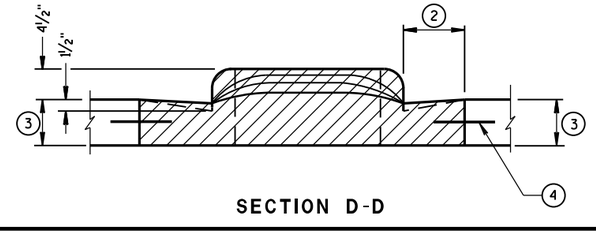
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

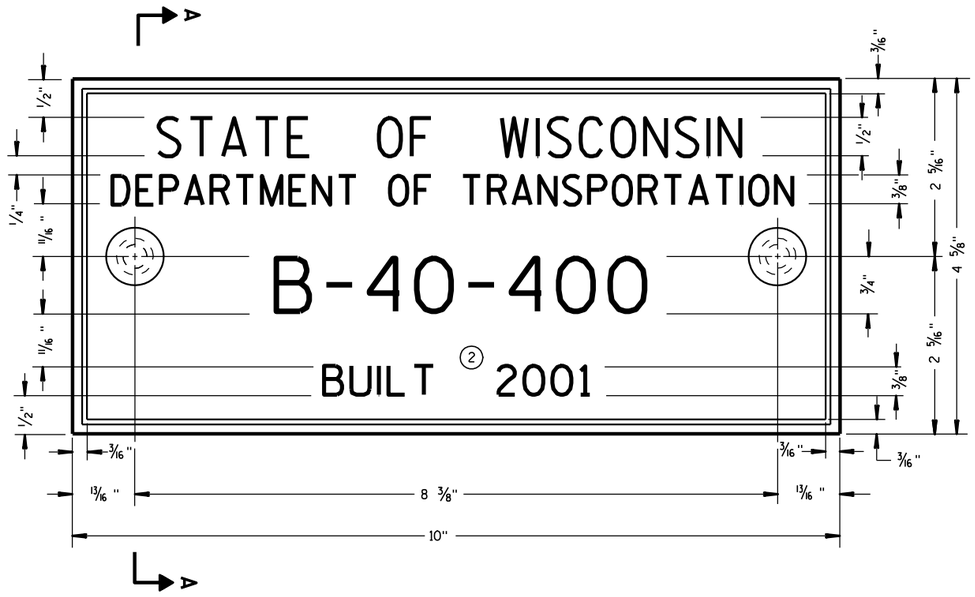
APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 11 B 2-2

6

S.D.D. 11 B 2-2



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

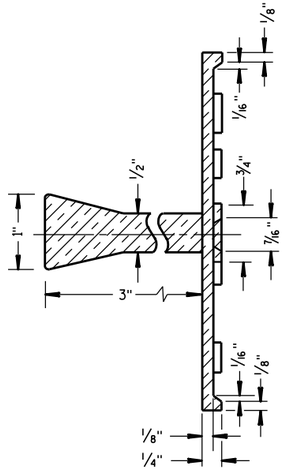
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

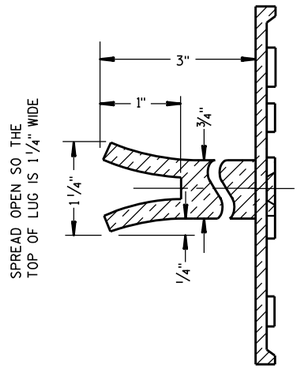
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

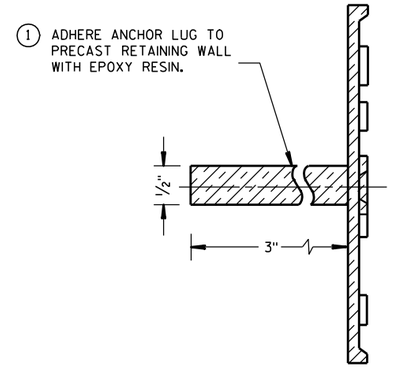
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP 328 ENGINEER

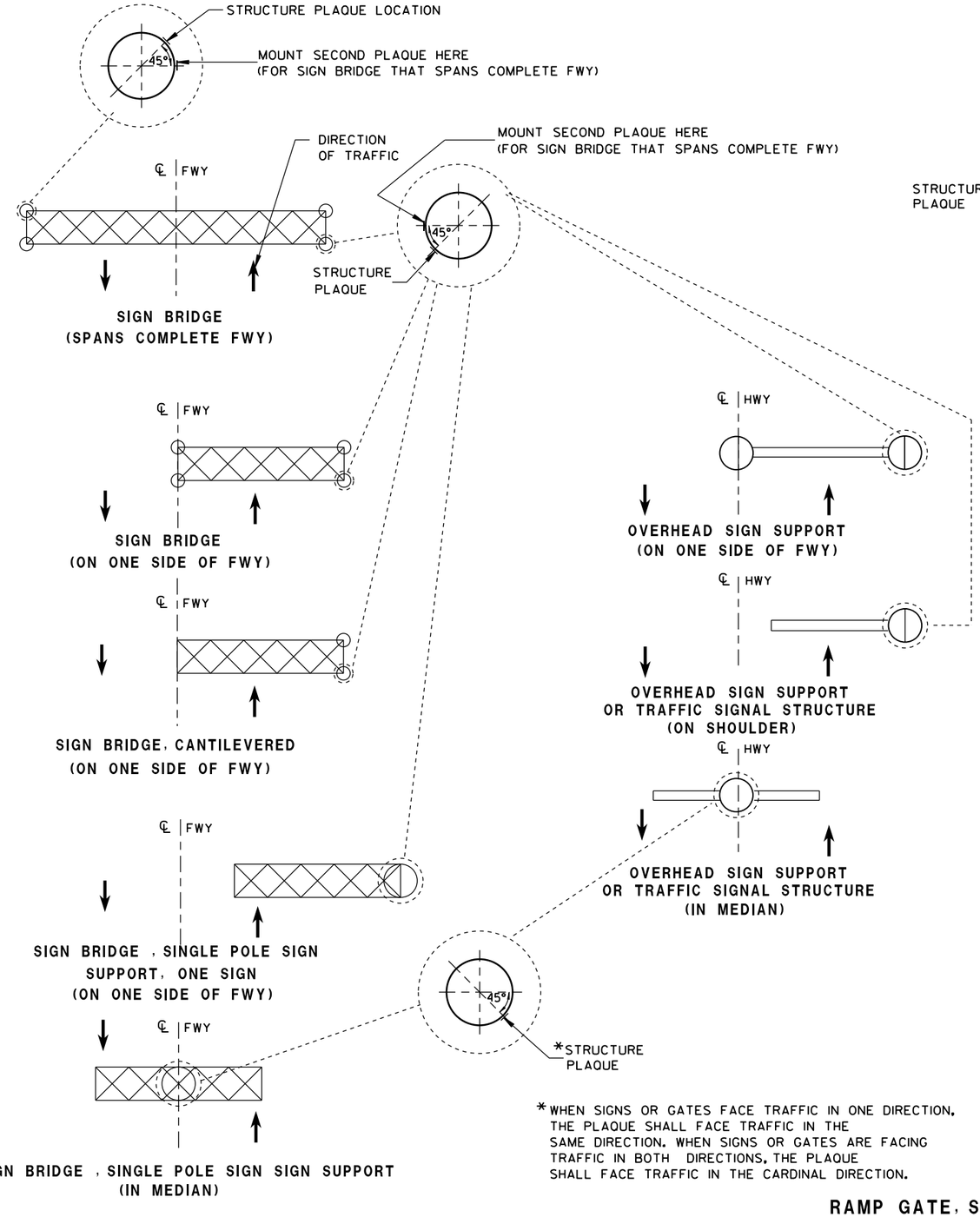
FHWA

6

S.D.D. 12 A 3-10

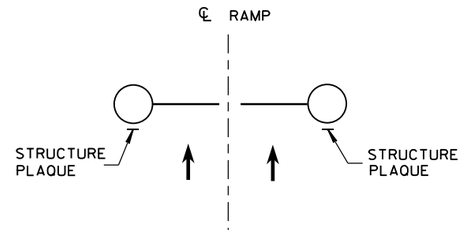
6

S.D.D. 12 A 3-10

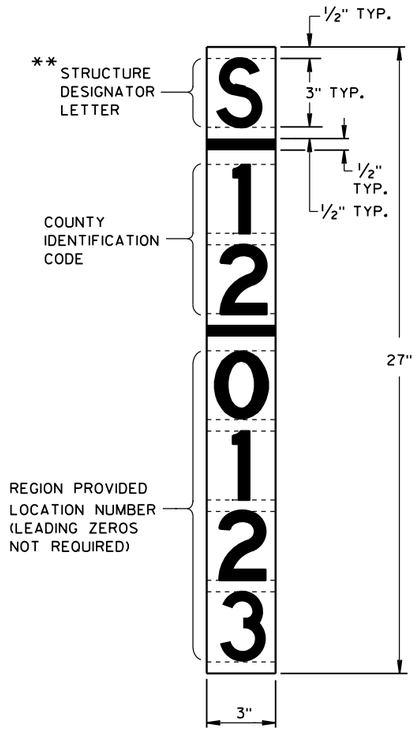


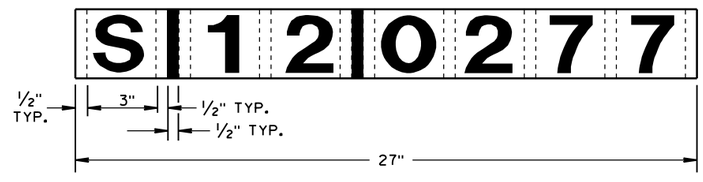
* WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



**RAMP GATE
(ACROSS FWY ON-RAMP)**





IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.

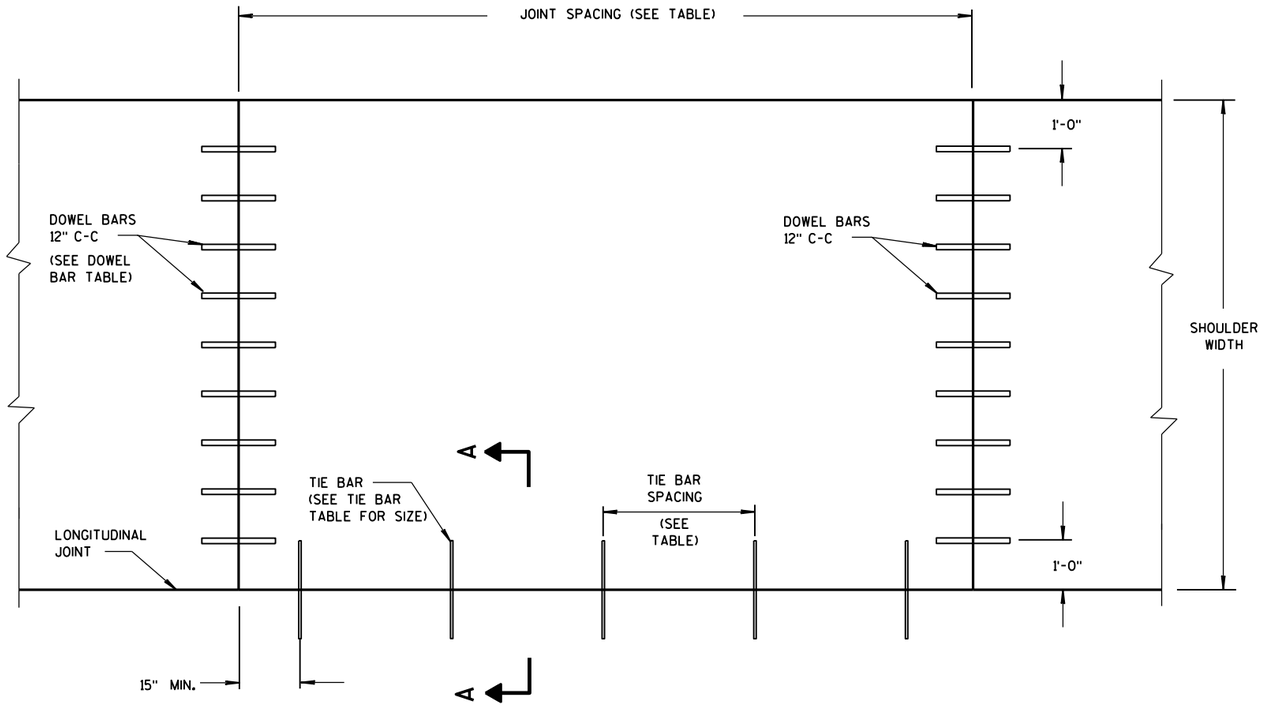
STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 12 A 4-3



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

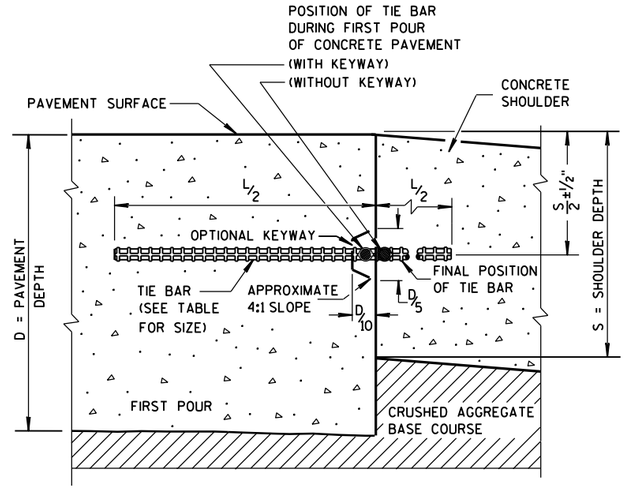
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER***	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

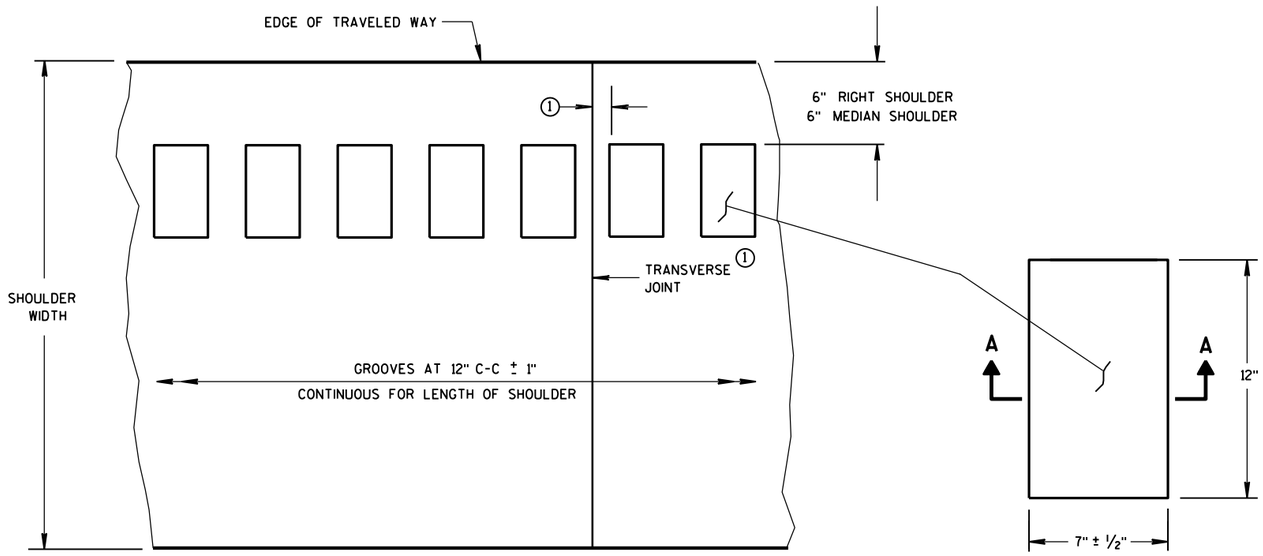
CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPERINTENDENT
FHWA

6

S.D.D. 13 A 3-6



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

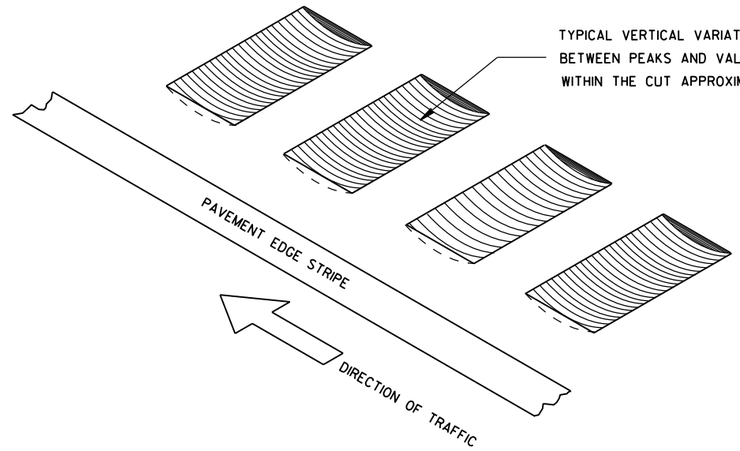
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

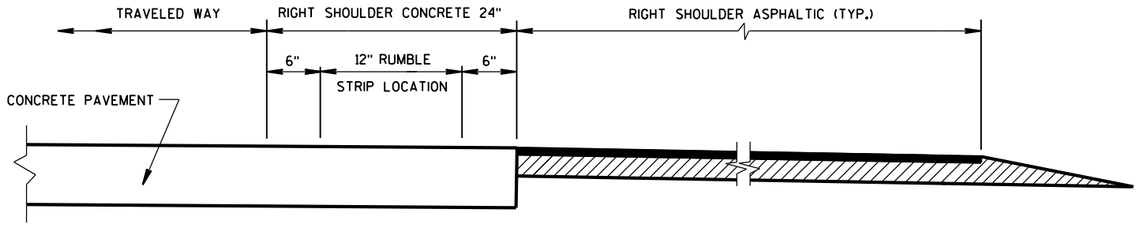
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

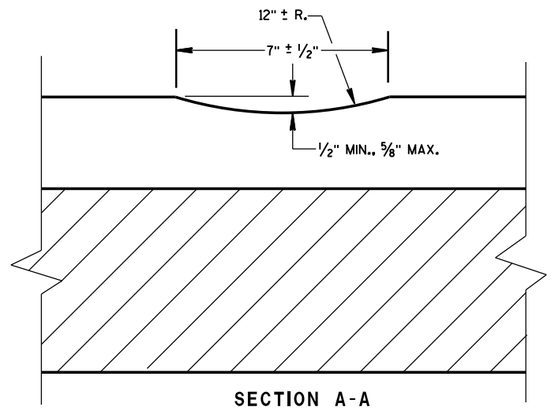
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



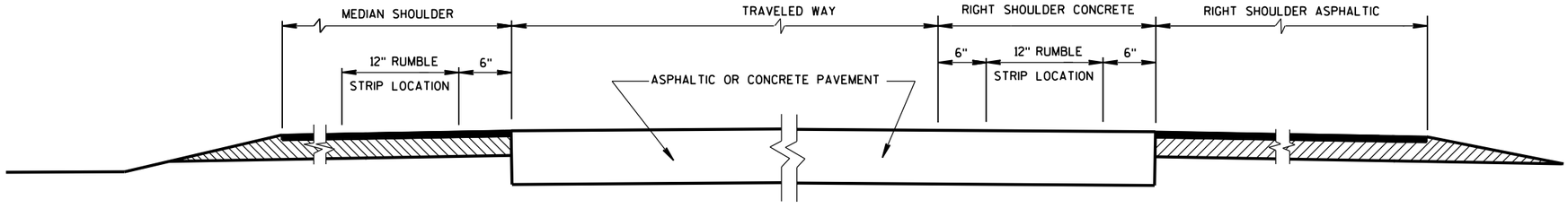
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION A-A



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIP, MILLING

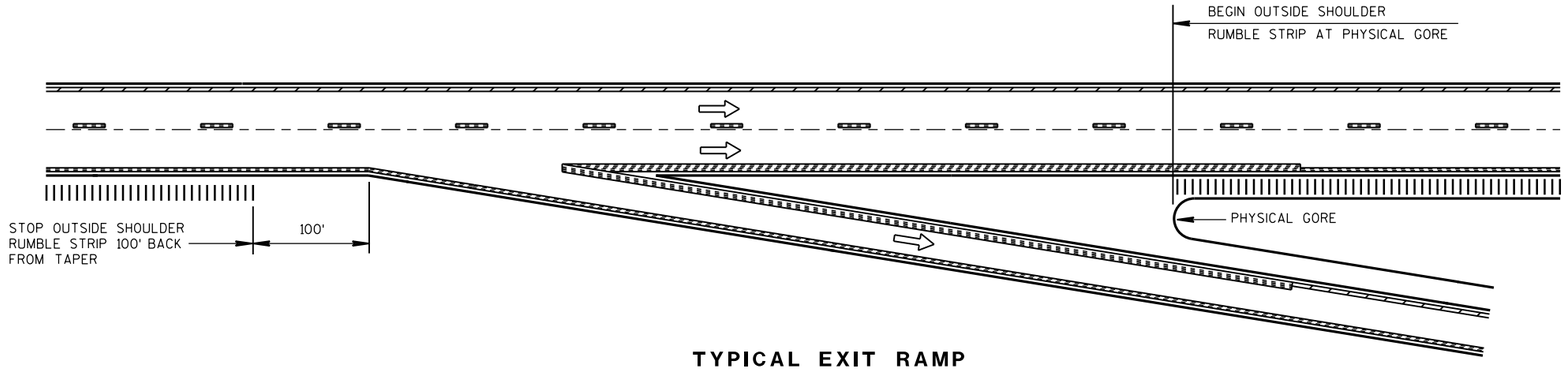
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 A 5-5a

6

S.D.D. 13 A 5-5a



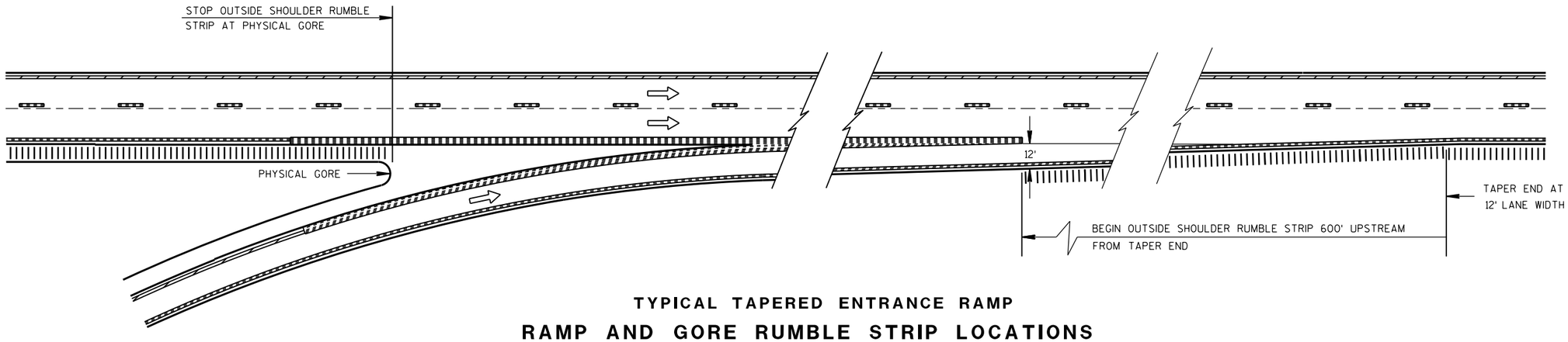
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

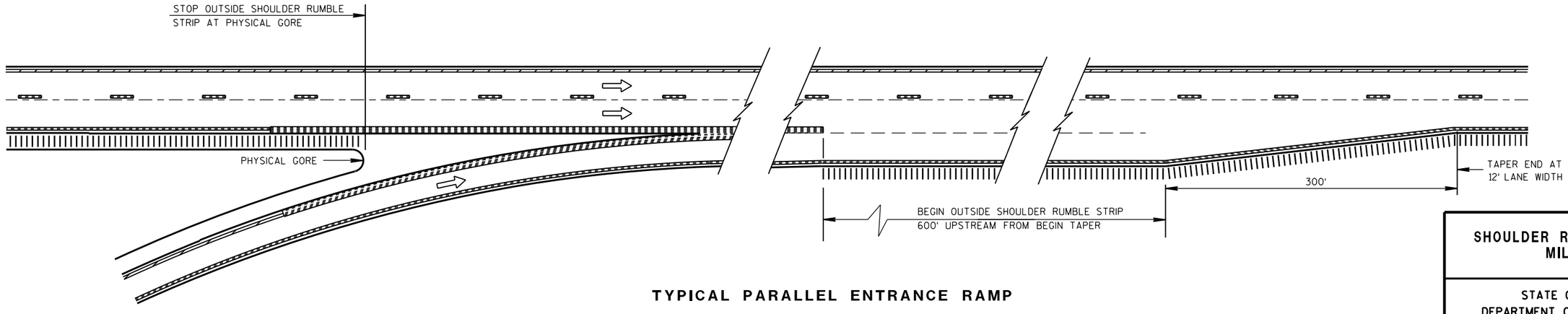
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

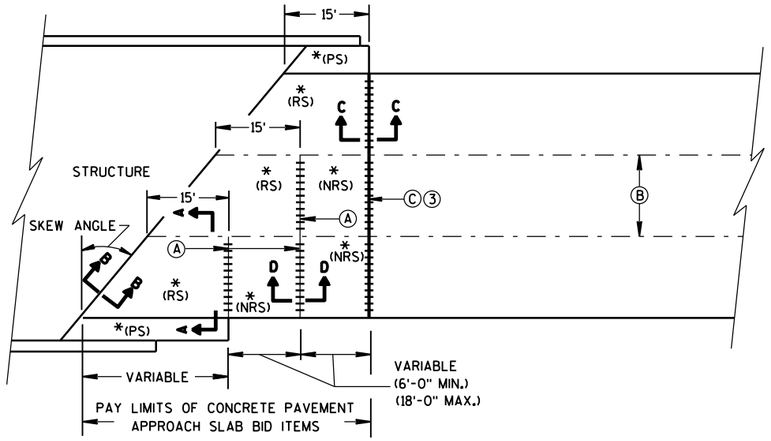
FHWA

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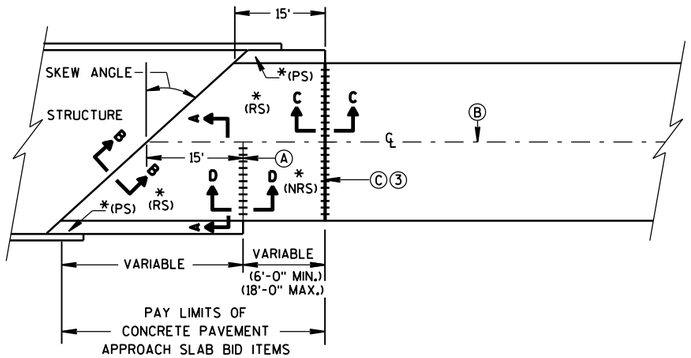
S.D.D. 13 A 5-5b

6

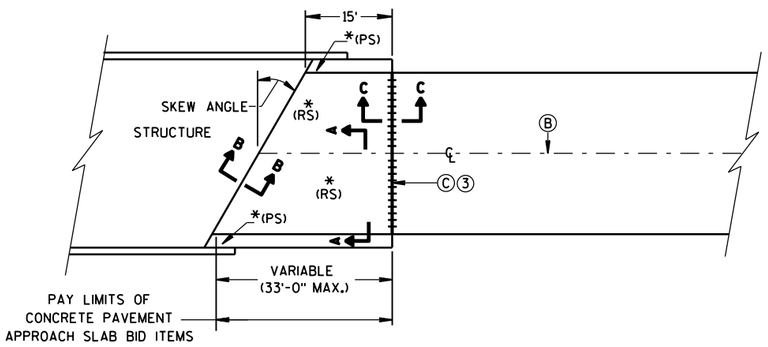
S.D.D. 13 A 5-5b



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



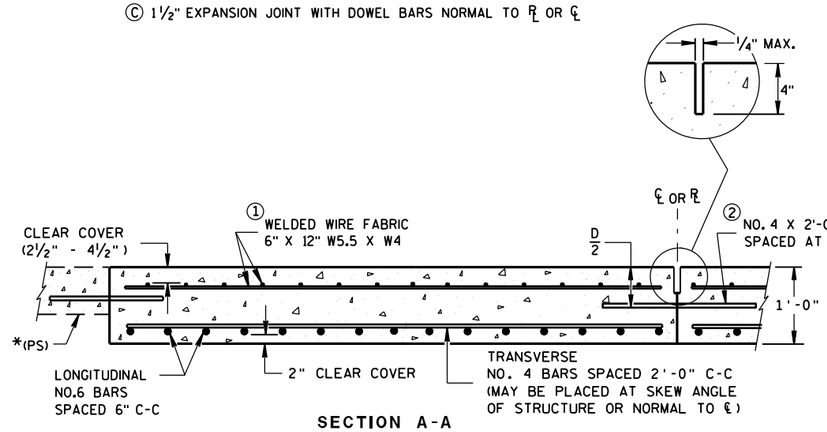
SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

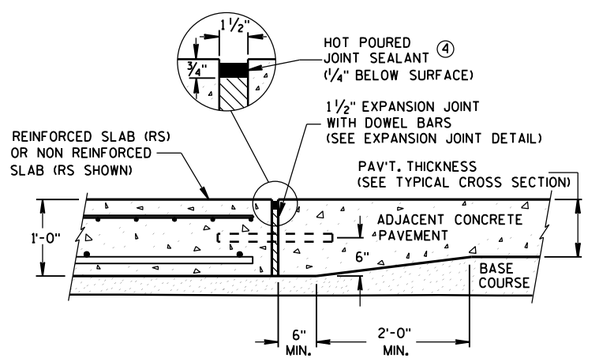
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

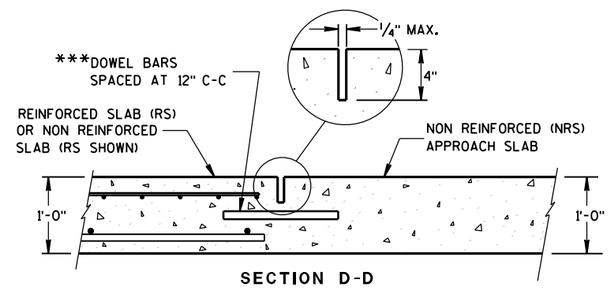
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

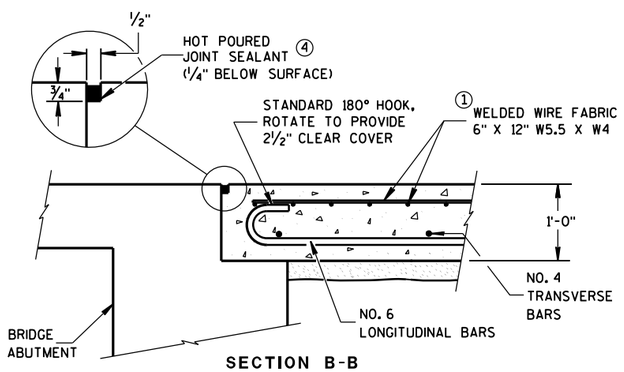
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

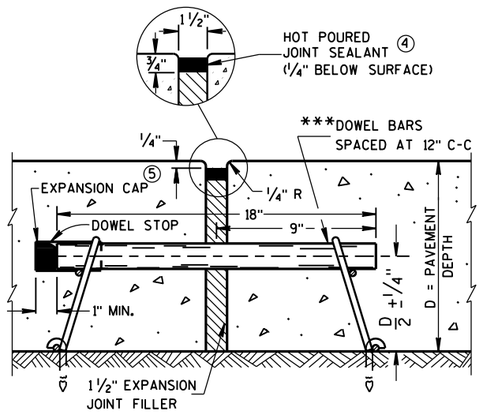
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



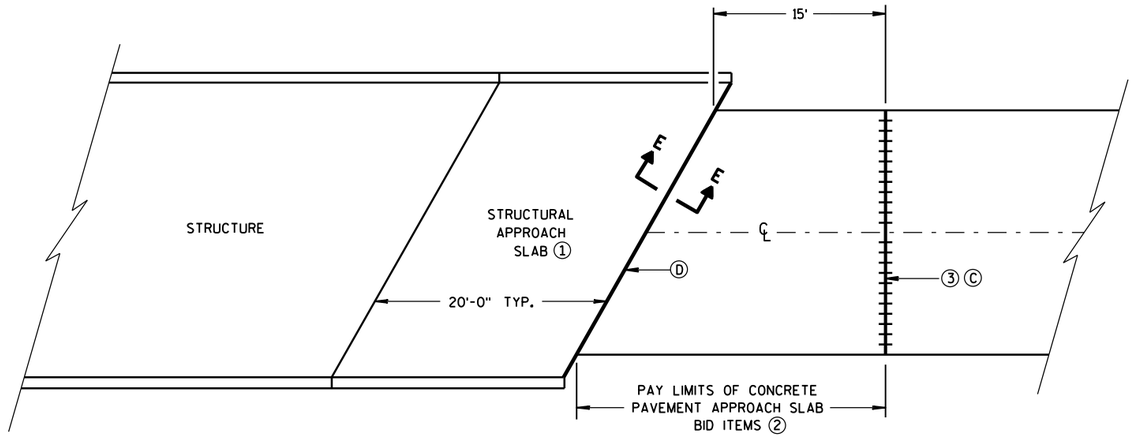
EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

6
S.D.D. 13 B 2-8a



GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

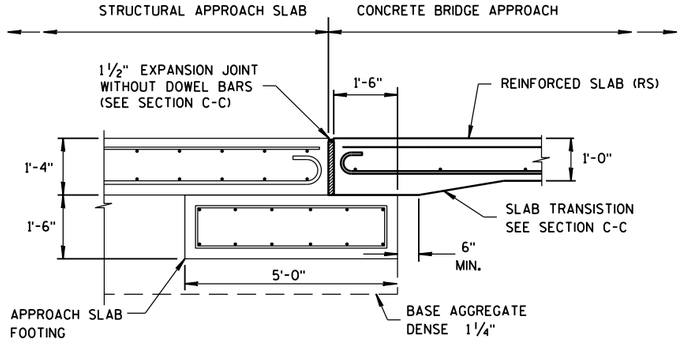
① SEE BRIDGE PLAN.

② CONFORM TO SHEET 13 B 2(A) FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS.

③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄

Ⓓ 1½" EXPANSION JOINT (NO DOWELS)



SECTION E-E

FOOTING DETAIL

STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

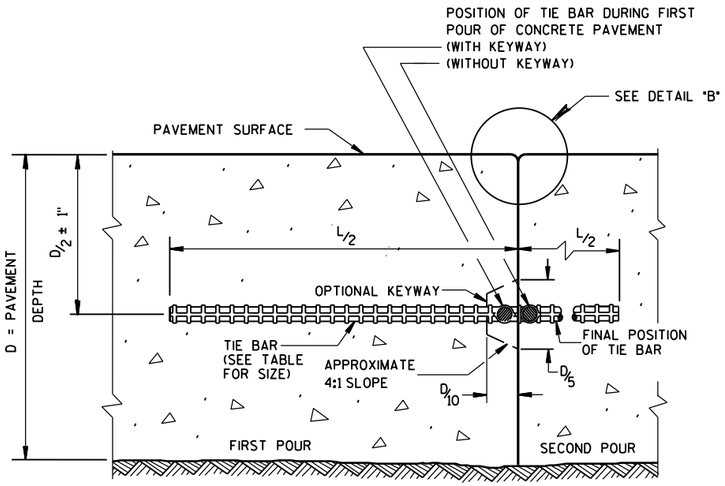
STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

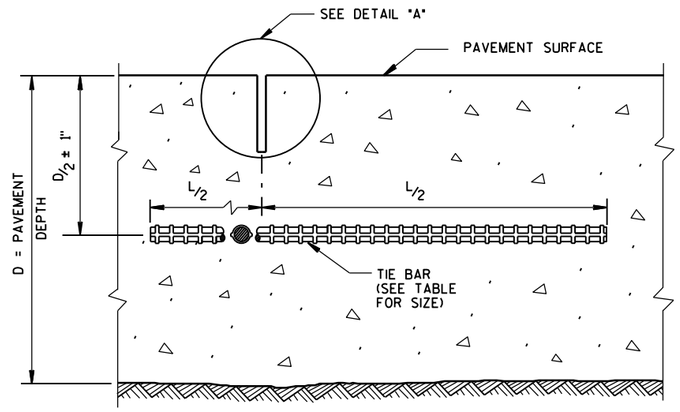
APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPERV
FHWA

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S.D.D. 13 B 2-8b



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

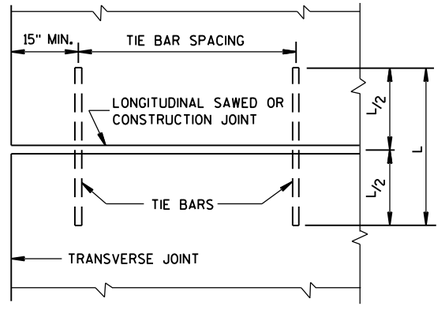
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

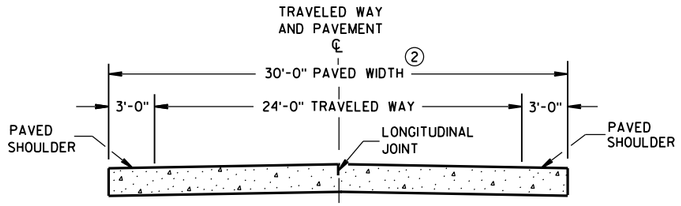
CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

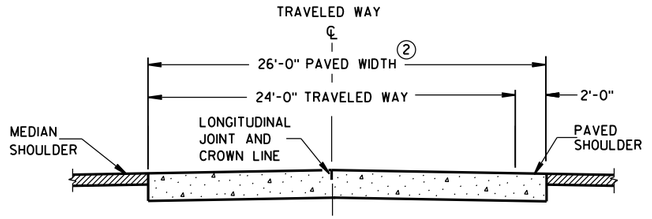
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S.D.D. 13 C 1-18

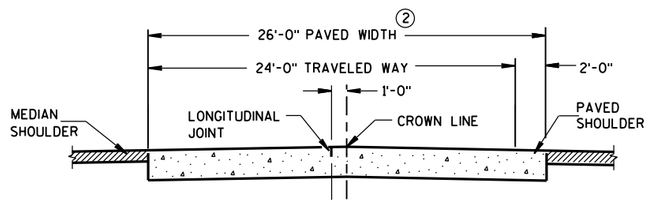


SECTION A-A ①

TWO-LANE TWO-WAY HIGHWAY



SECTION B-B



ALTERNATIVE SECTION B-B ①

DIVIDED HIGHWAY

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

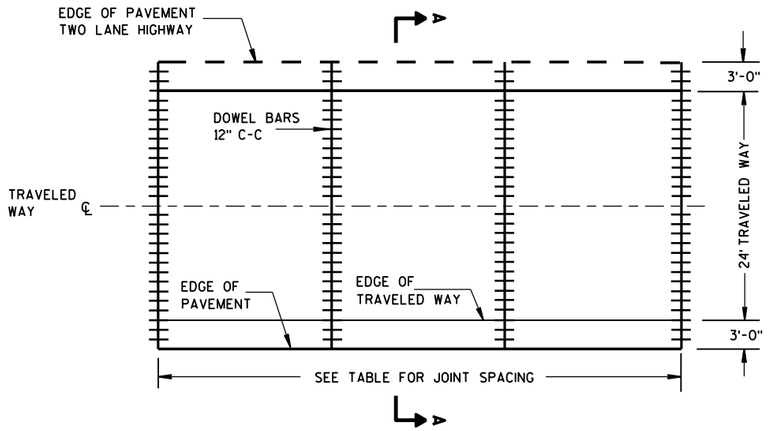
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

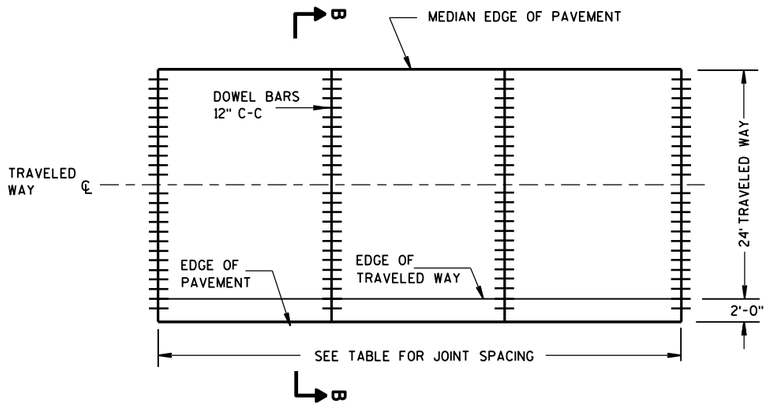
② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



CONTRACTION JOINT LAYOUT
FOR TWO-LANE TWO-WAY HIGHWAY



CONTRACTION JOINT LAYOUT
FOR DIVIDED HIGHWAY

RURAL DOWELED
CONCRETE PAVEMENT

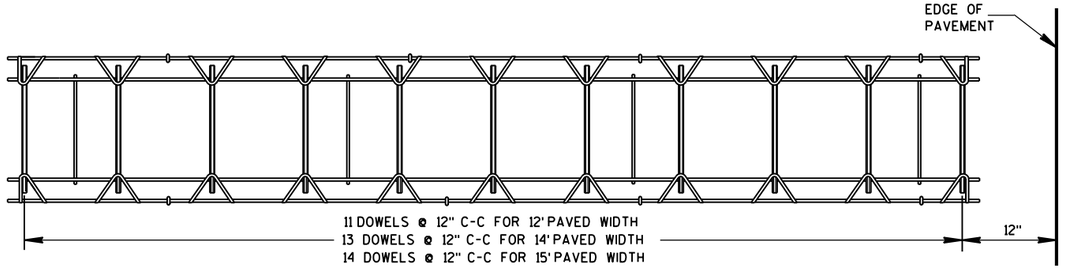
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI 336

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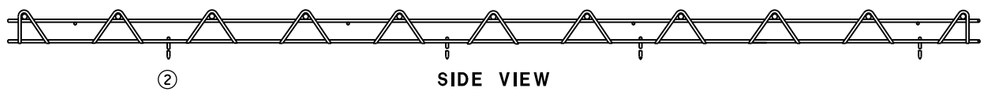
S.D.D. 13 C 11-11a

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S.D.D. 13 C 11-11a



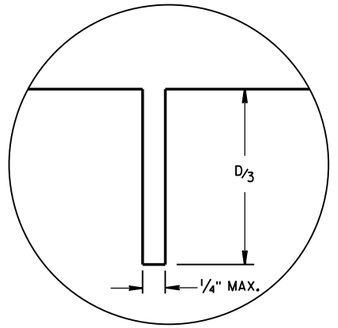
PLAN VIEW



SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY ①



JOINT DETAIL

GENERAL NOTES

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

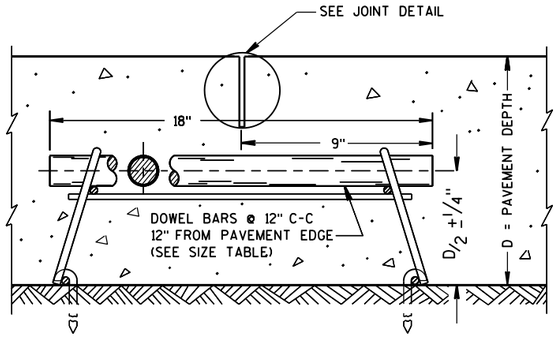
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

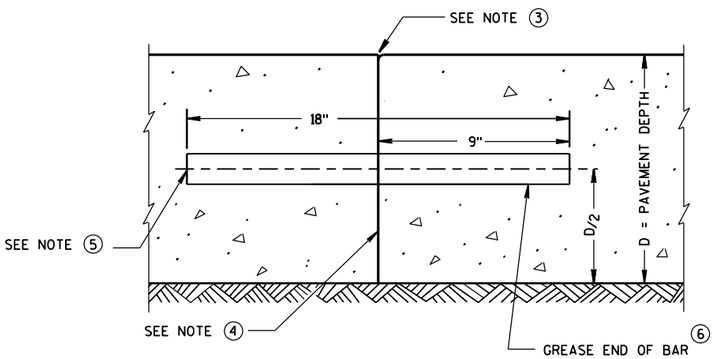
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

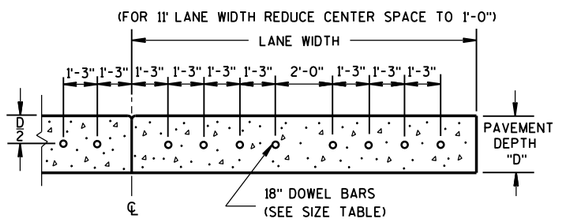
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE

FHWA

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S.D.D. 13 C 11-11b

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S.D.D. 13 C 11-11b

GENERAL NOTES

PCCP = PORTLAND CEMENT CONCRETE PAVEMENT.

SHLDR = SHOULDER.

CONTINUE SAW CUT CONTRACTION JOINT ACROSS TURN LANE, EXIT TAPER AND PASSING LANE.

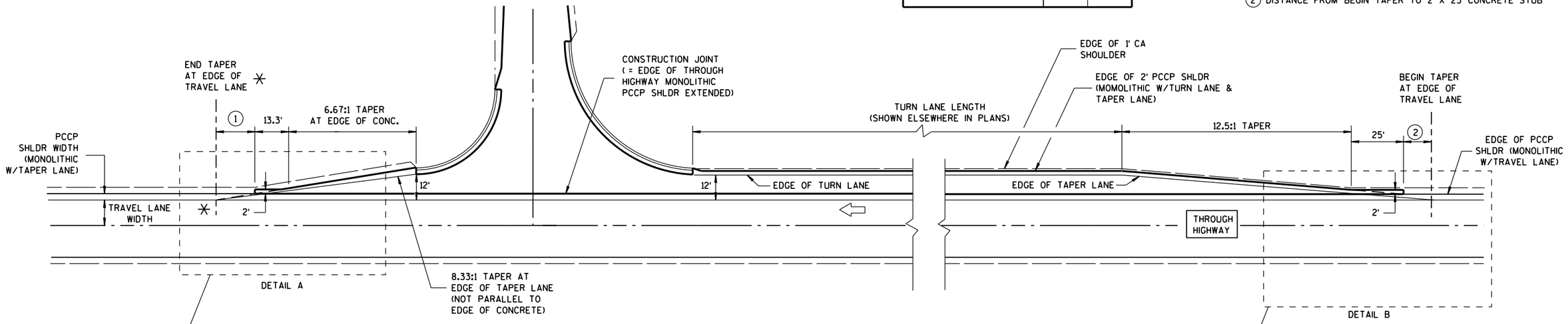
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

THROUGH HIGHWAY LANE WIDTH AND PCCP SHOULDER WIDTH ARE SHOWN ELSEWHERE IN PLANS

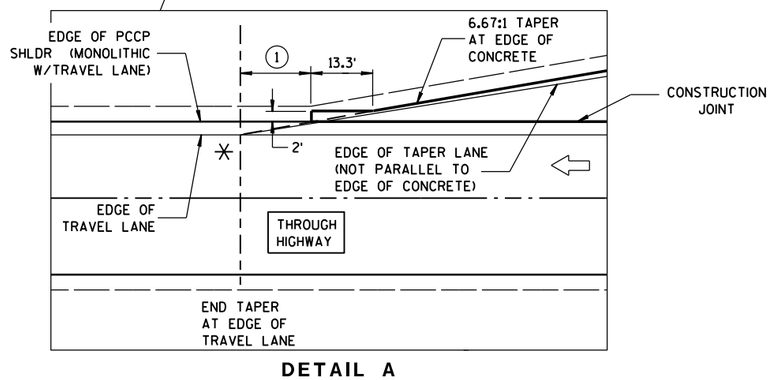
(1) DISTANCE FROM END TAPER TO 2' X 13.3' CONCRETE STUB

(2) DISTANCE FROM BEGIN TAPER TO 2' X 25' CONCRETE STUB

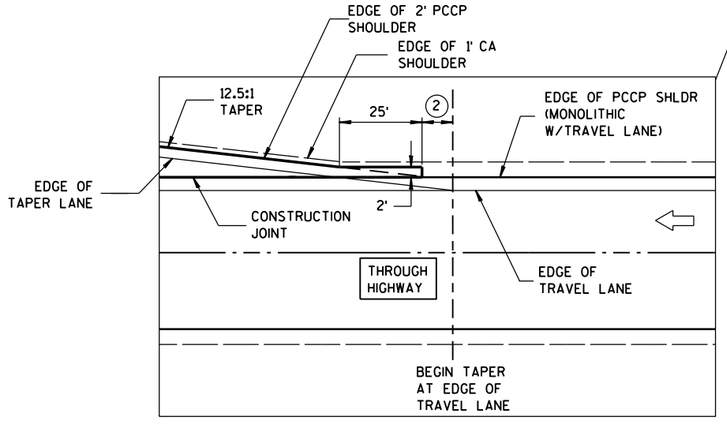
THROUGH HIGHWAY MONOLITHIC PCCP SHOULDER WIDTH (FEET)	DISTANCE (FEET) (1)	DISTANCE (FEET) (2)
2	13.3	0.0
3	20.0	12.5
TAPER RATE : 1	6.67	12.5



✳ NOTE: EDGE OF CONCRETE TAPER (EXTENDED) & EDGE OF TAPER LANE CONVERGE



DETAIL A



DETAIL B

RIGHT TURN LANE AND EXIT TAPER

DETAIL FOR RIGHT TURN LANE/ TEE INTERSECTION BYPASS LANE ON A CONCRETE ROADWAY

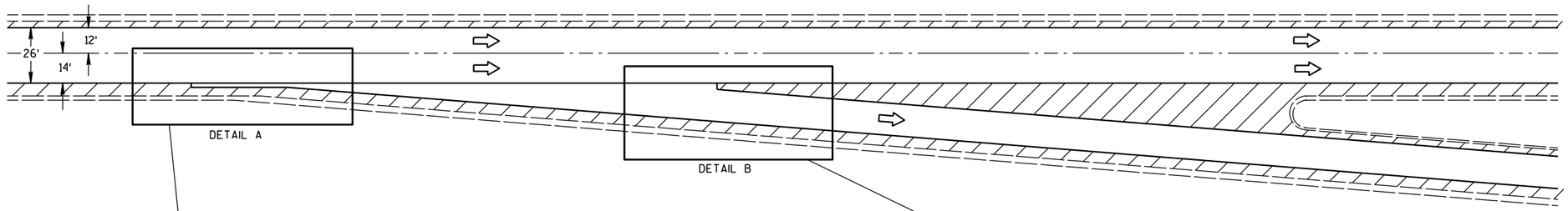
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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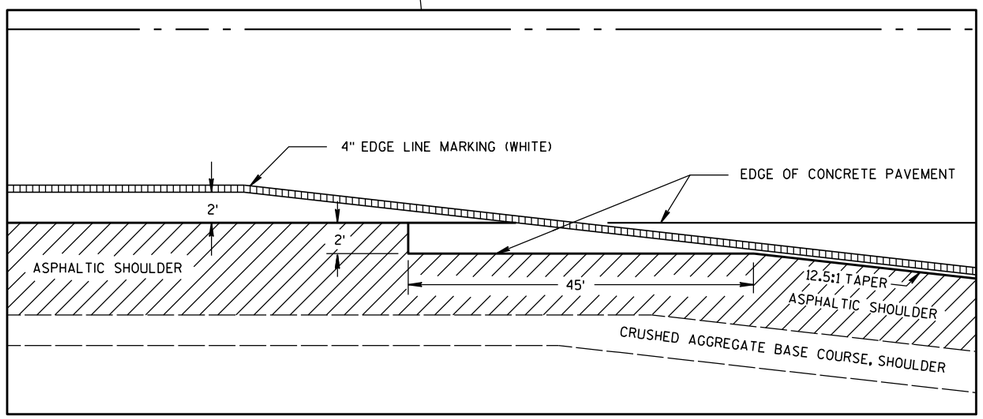
S.D.D. 13 C 16-2a

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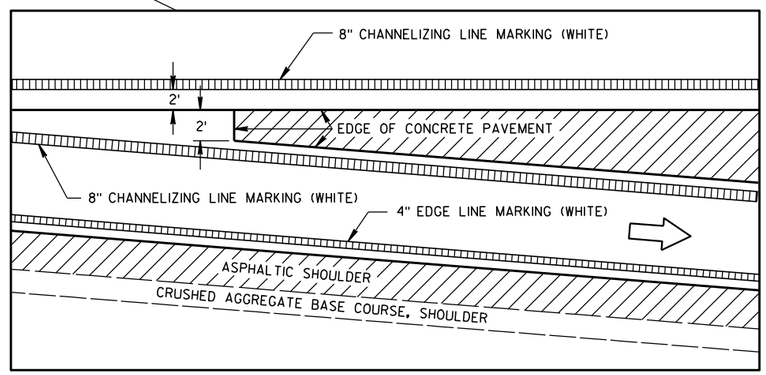
S.D.D. 13 C 16-2a



EXIT RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI

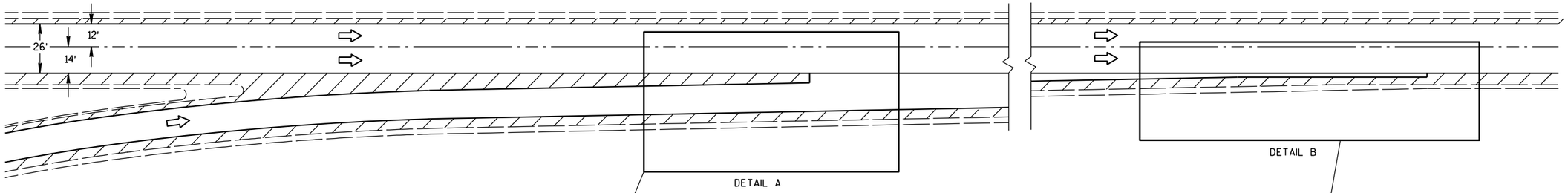
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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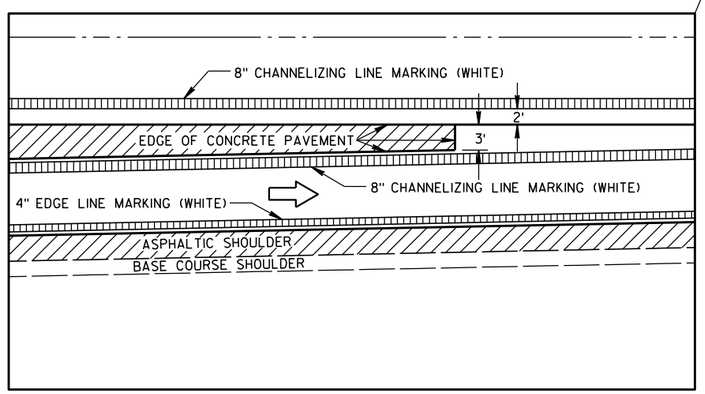
S.D.D. 13 C 17-1a

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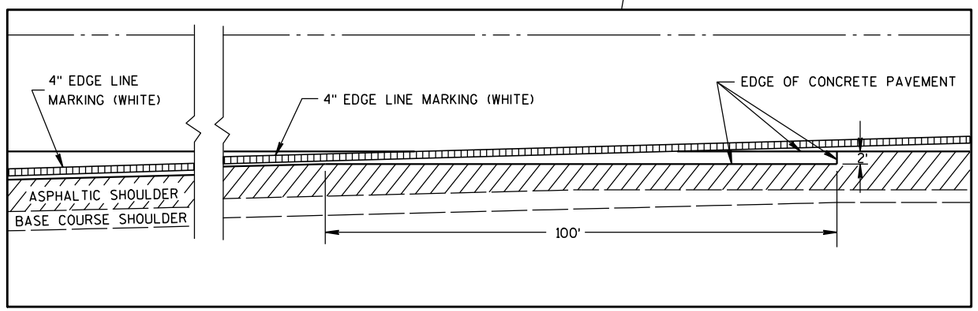
S.D.D. 13 C 17-1a



ENTRANCE RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

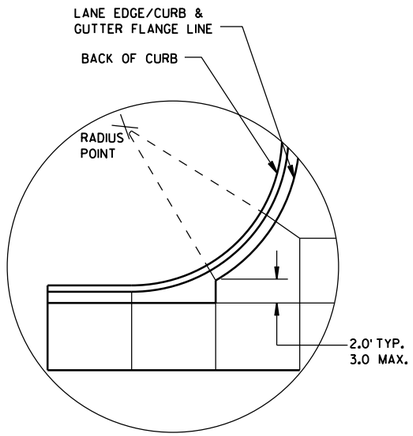
5/27/98
DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

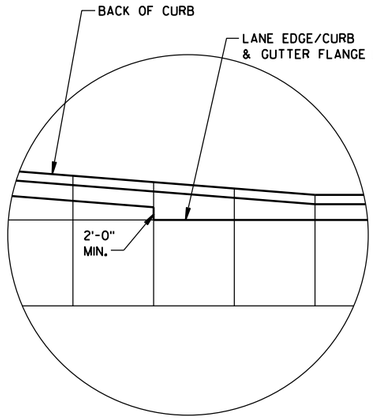
FHWA

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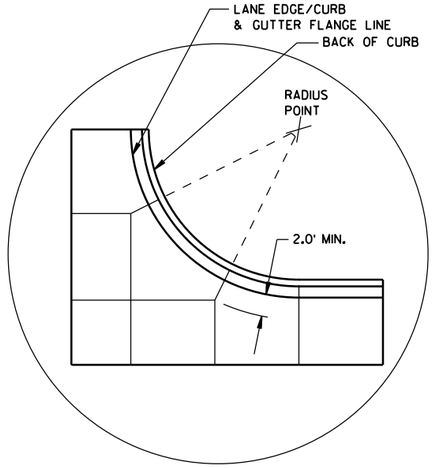
S.D.D. 13 C 17-1b



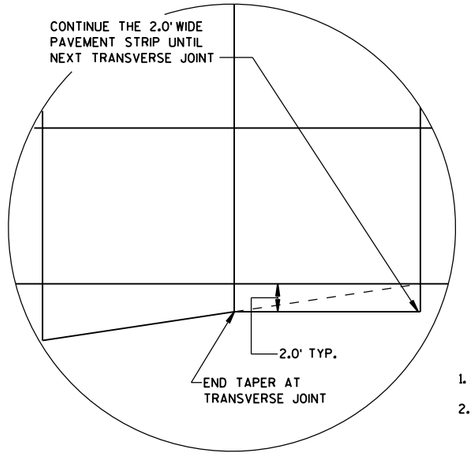
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

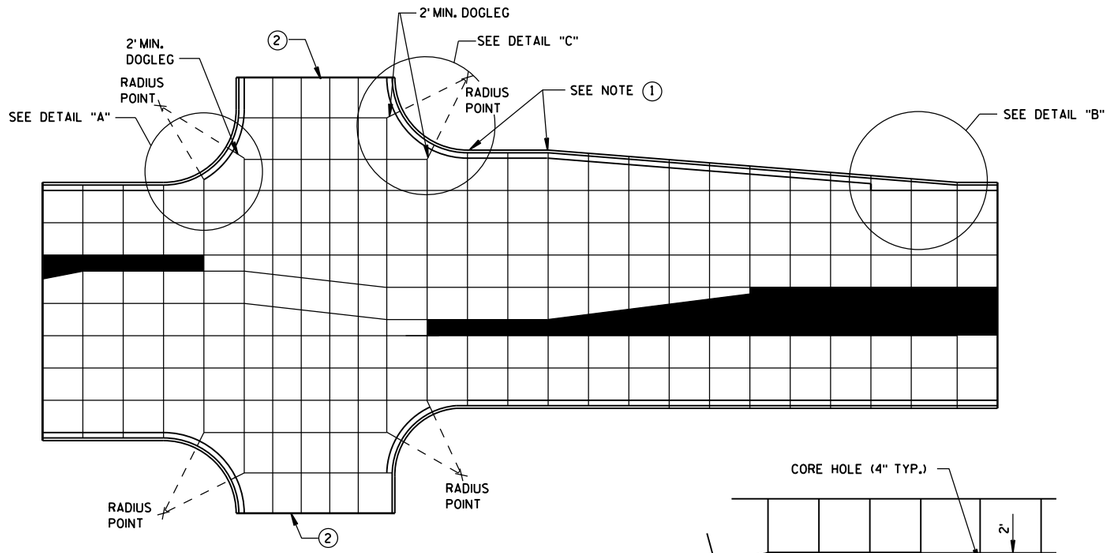
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

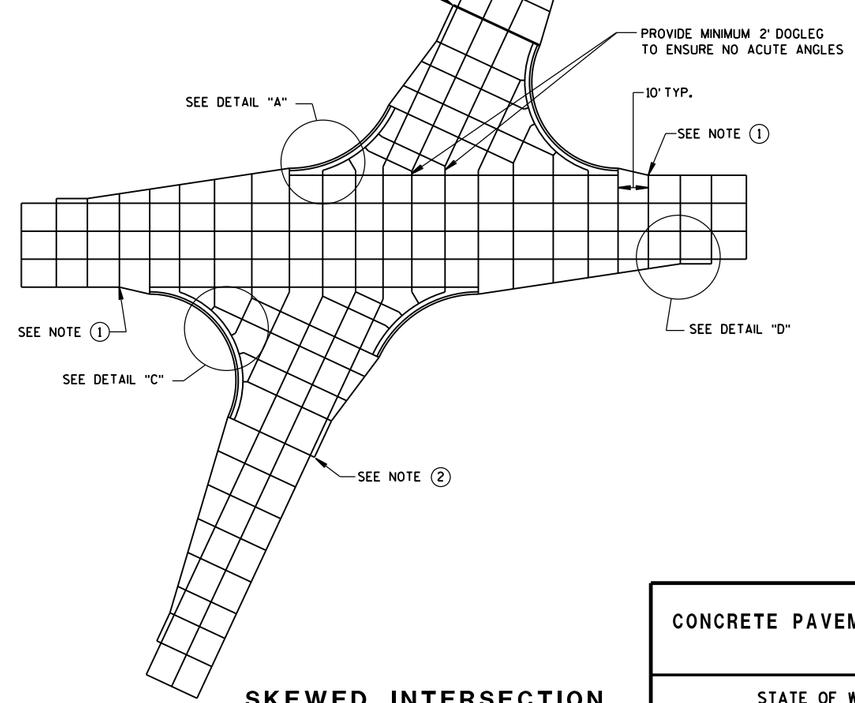
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



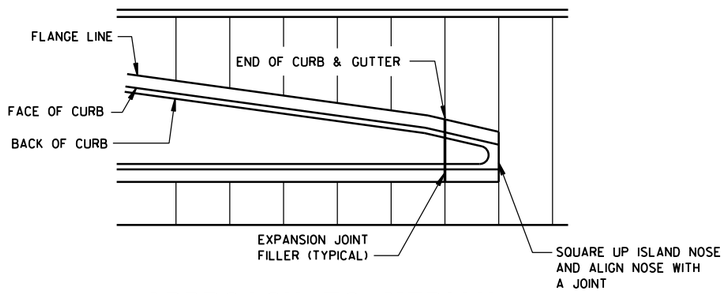
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

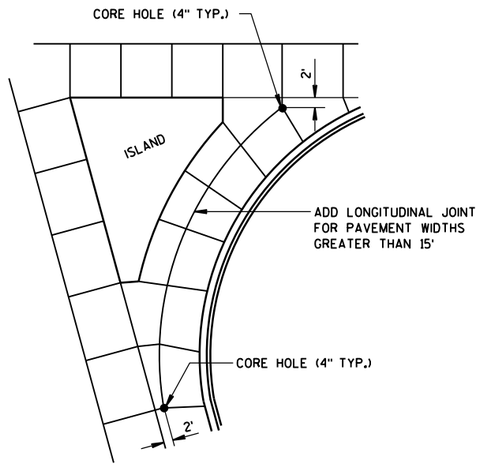
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

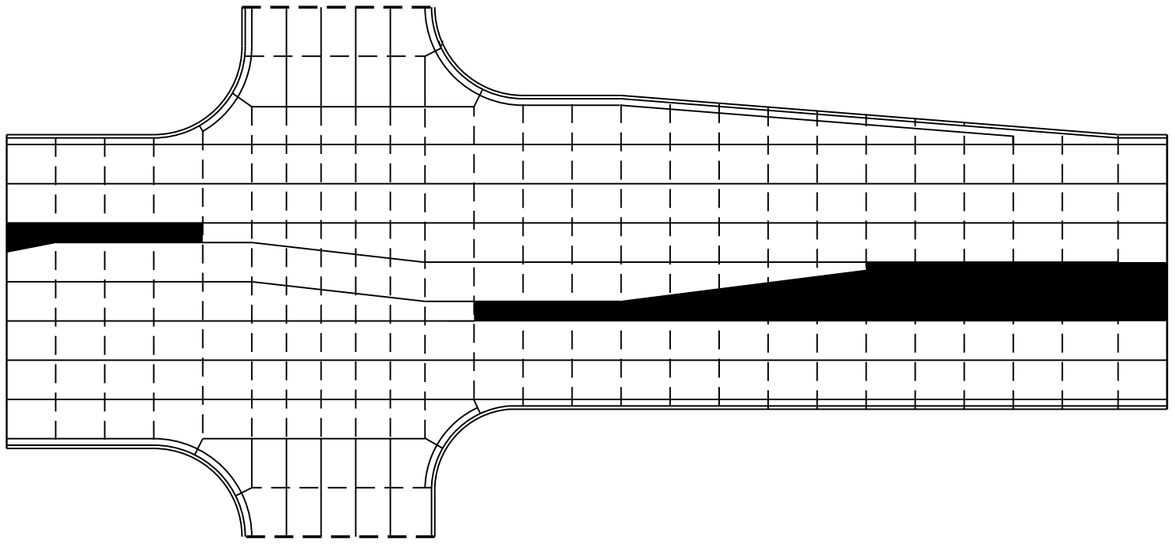
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S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

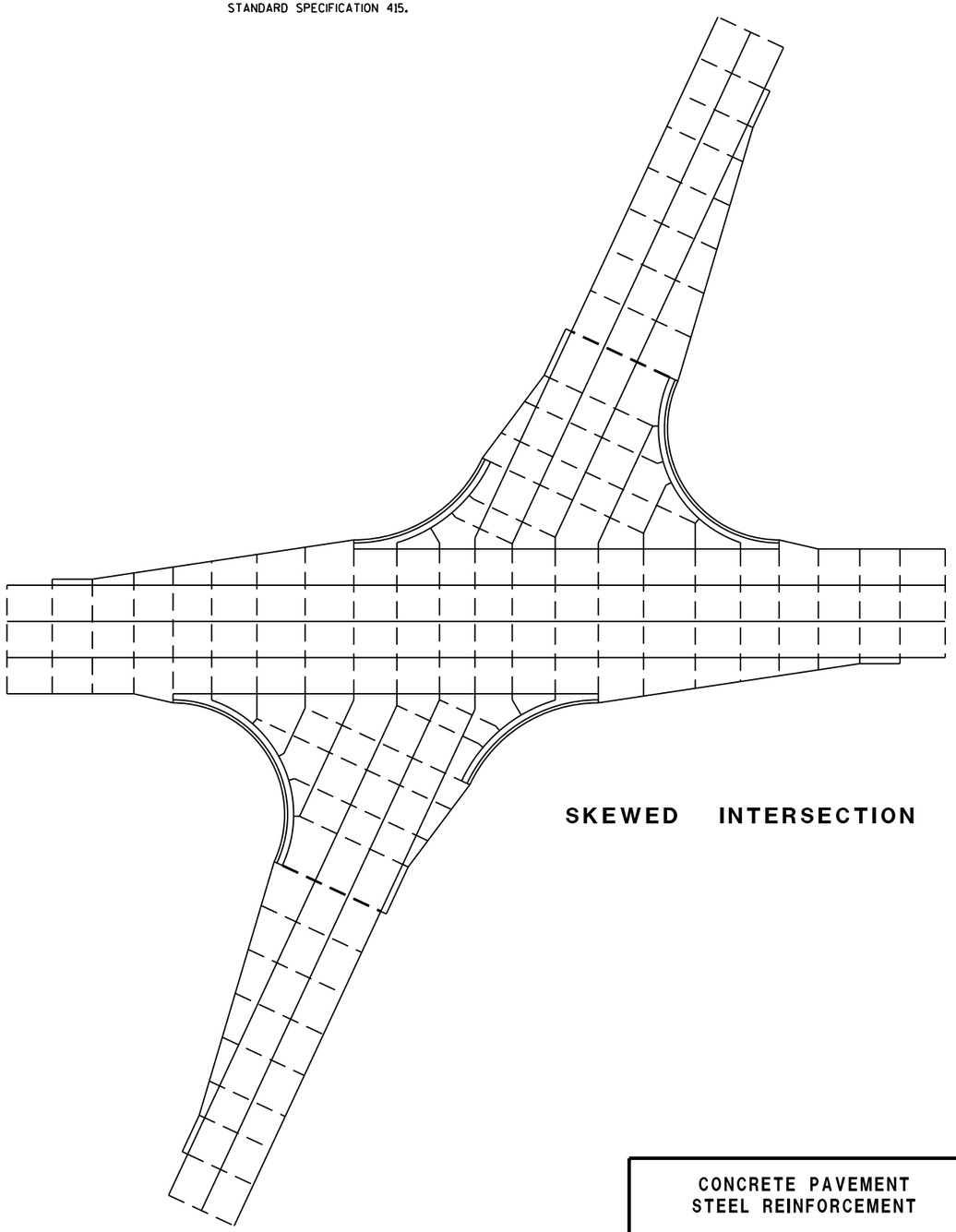
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

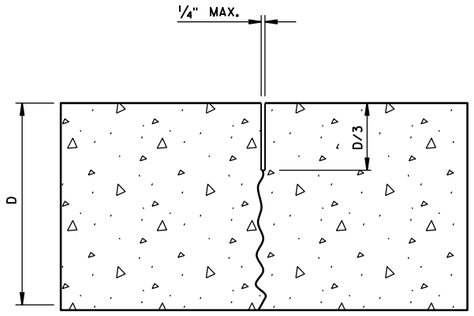
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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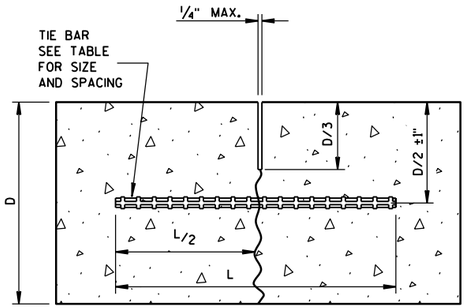
S.D.D. 13 C 18-3b

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S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

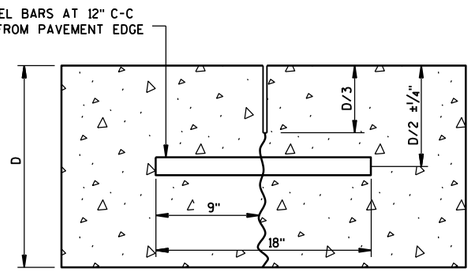
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

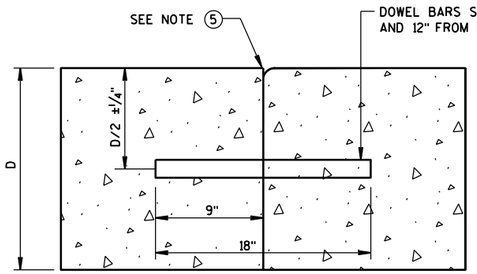
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



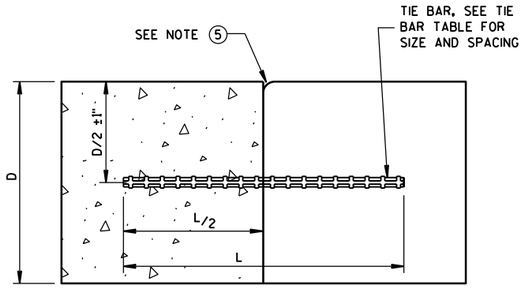
DOWELED-TRANSVERSE

CONTRACTION JOINTS

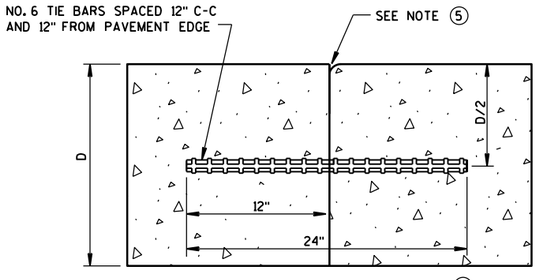
SEE NOTE (2)



DOWELED TRANSVERSE (3)

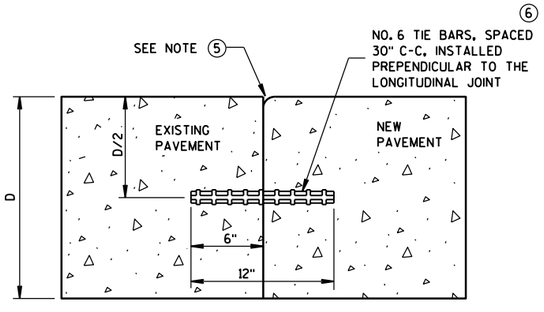


TIED LONGITUDINAL



TIED TRANSVERSE (3)

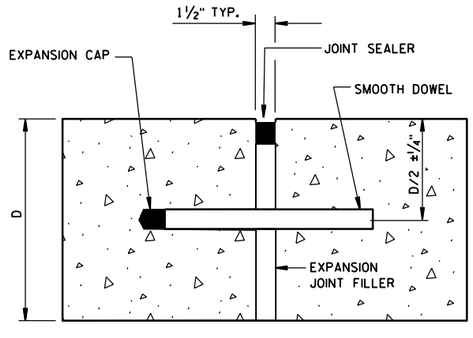
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

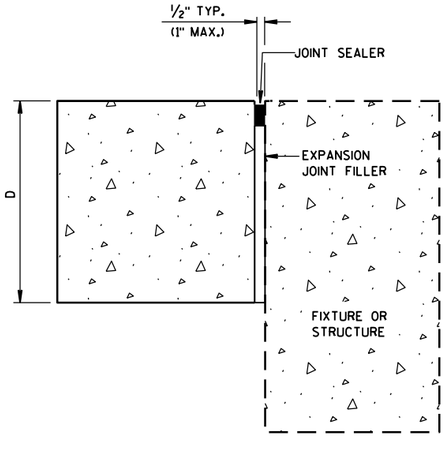
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

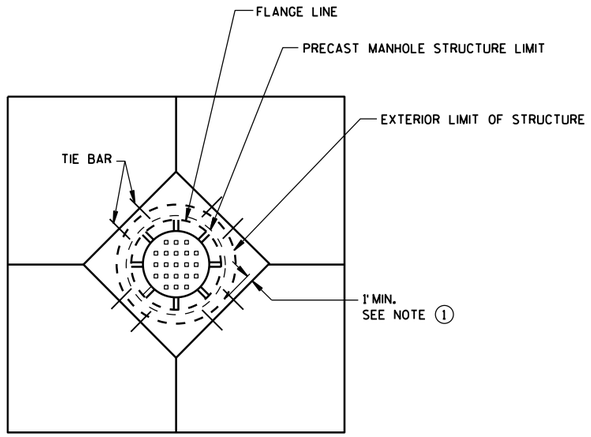
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

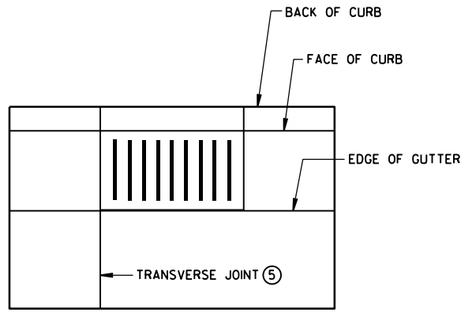
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

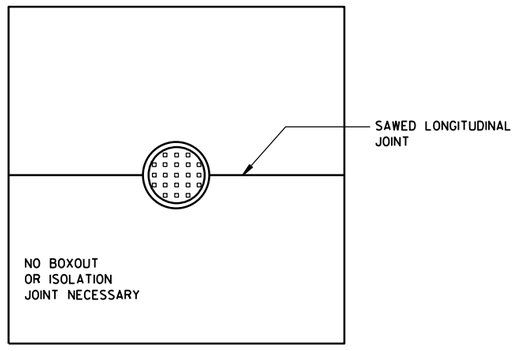
S.D.D. 13 C 18-3c



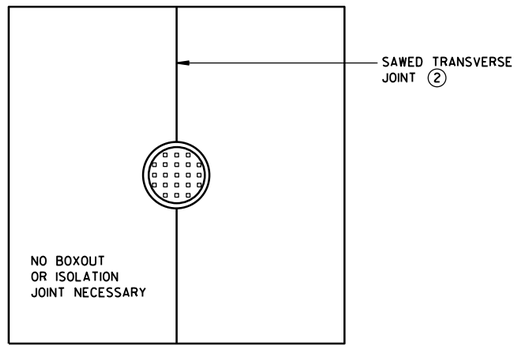
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



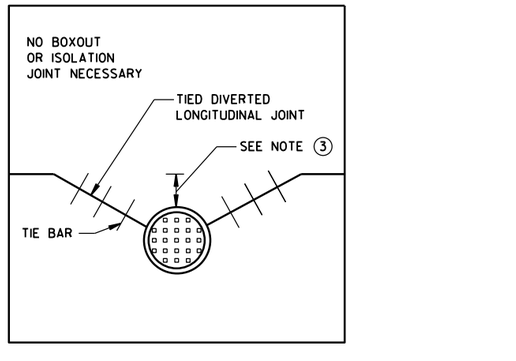
INLET WITH TRANSVERSE JOINT



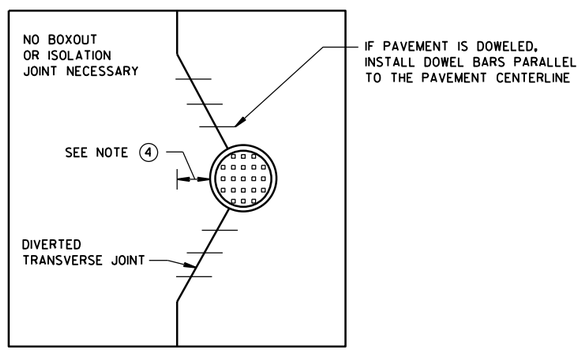
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

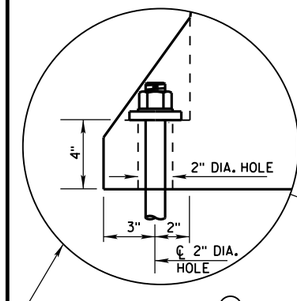
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

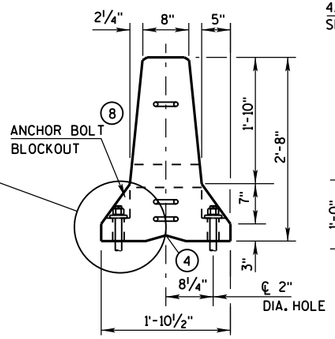
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

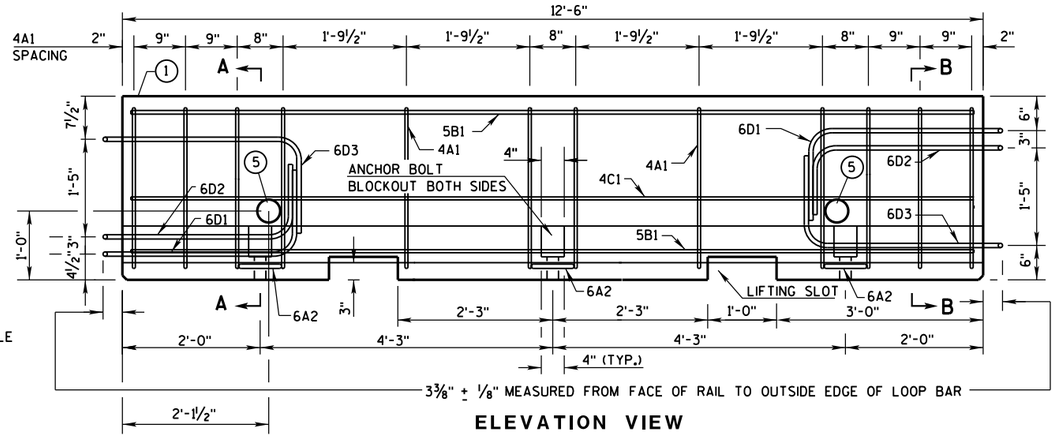
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S.D.D. 13 C 18-3d

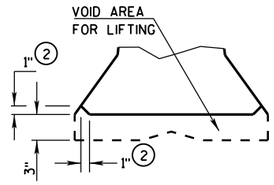




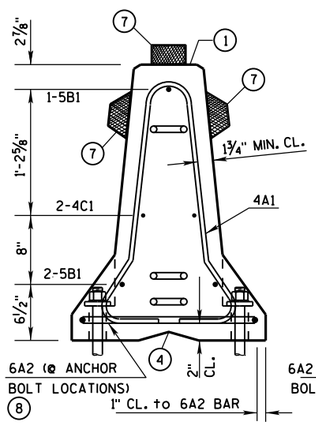
END VIEW



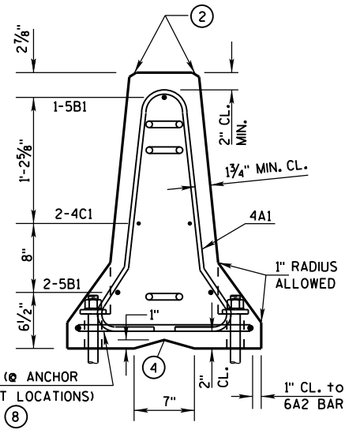
ELEVATION VIEW



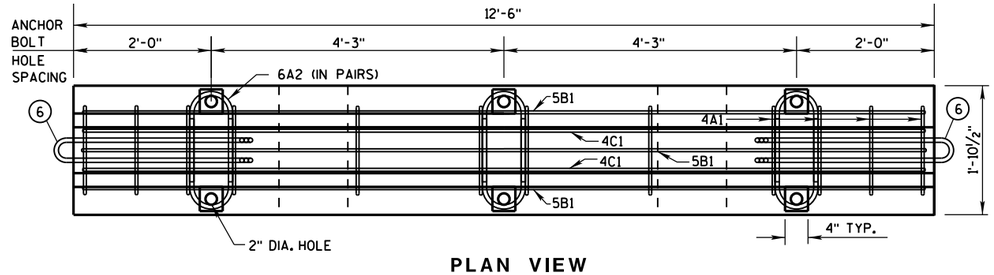
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

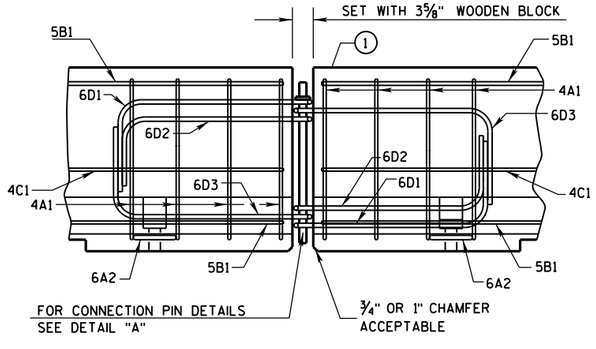


SECTION B-B
(STIRRUP PLACEMENT)

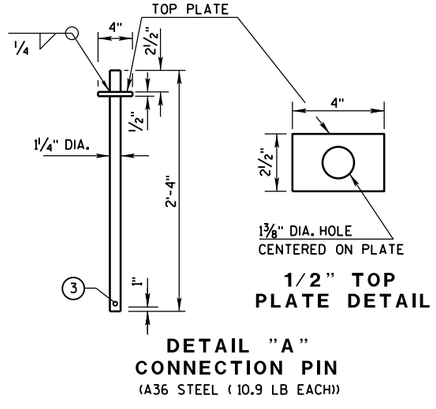


PLAN VIEW

DETAILS OF BARRIER SECTION

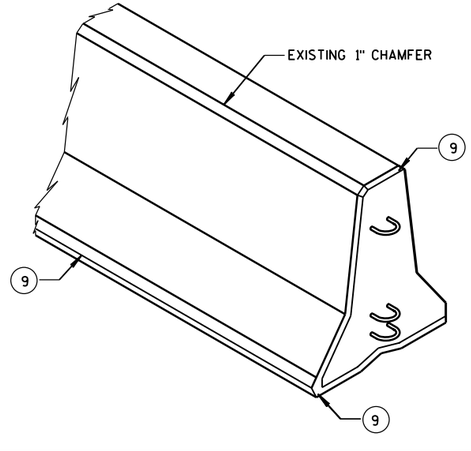


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

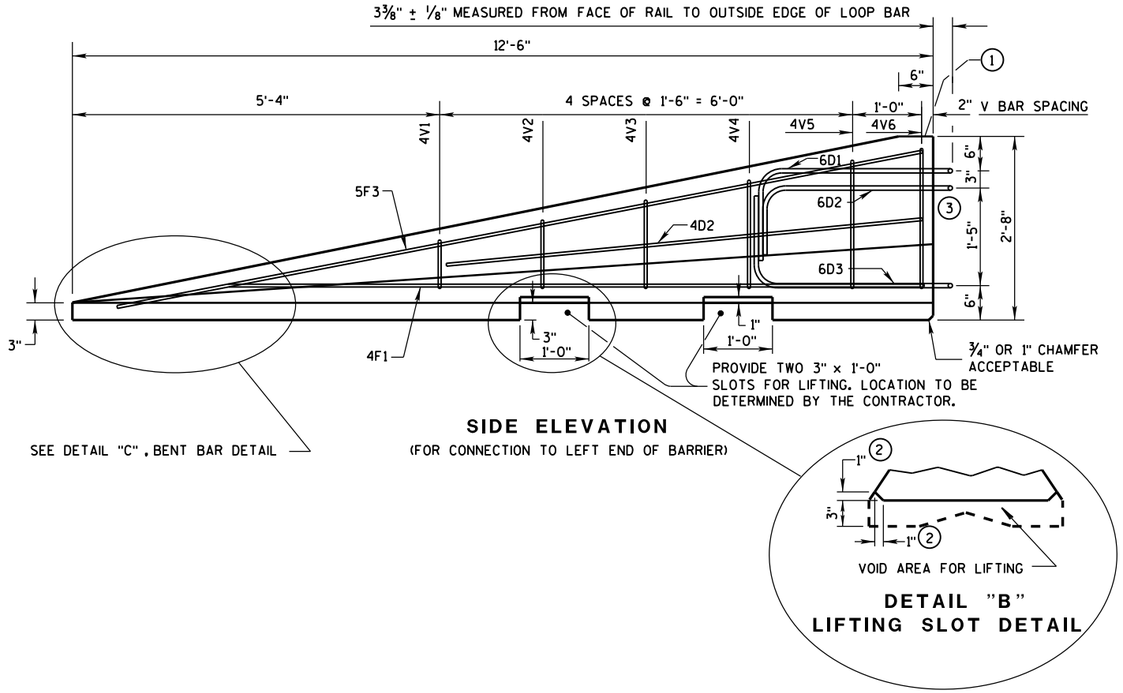
(9) 1" CHAMFER OPTIONAL.

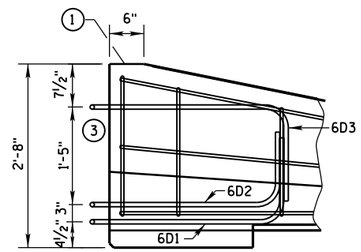
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

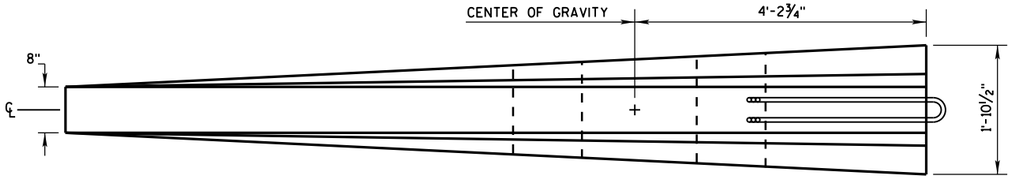
S.D.D. 14 B 7-14a

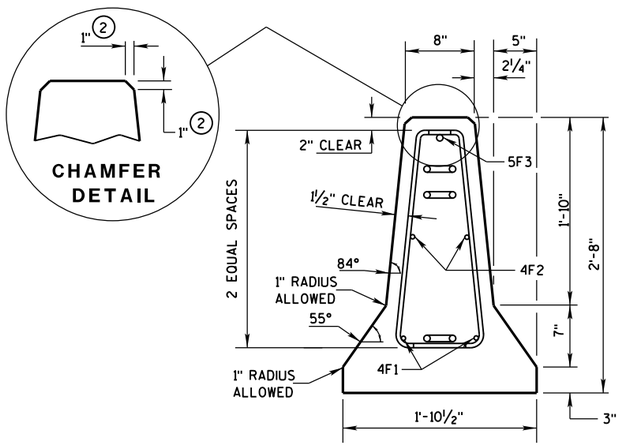


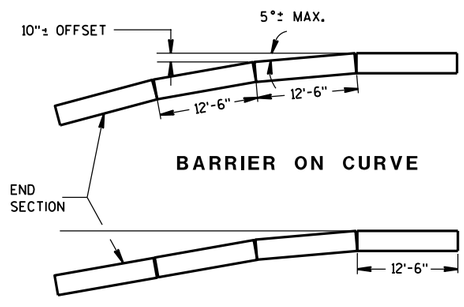


GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.







POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

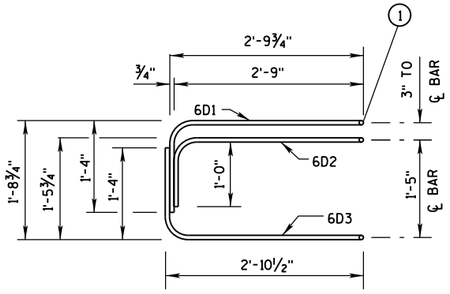
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S.D.D. 14 B 7-14b

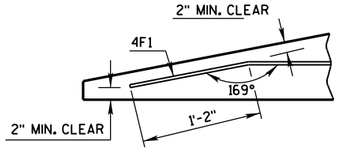
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

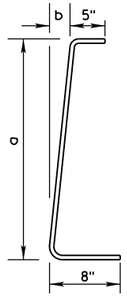
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

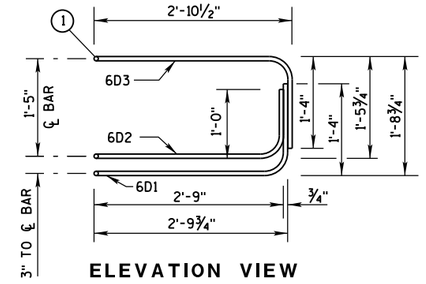
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

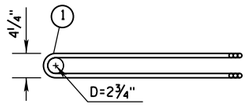
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

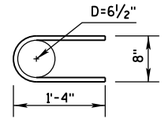
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



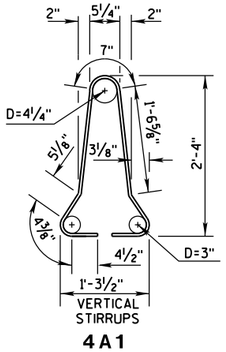
ELEVATION VIEW



PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



4A1

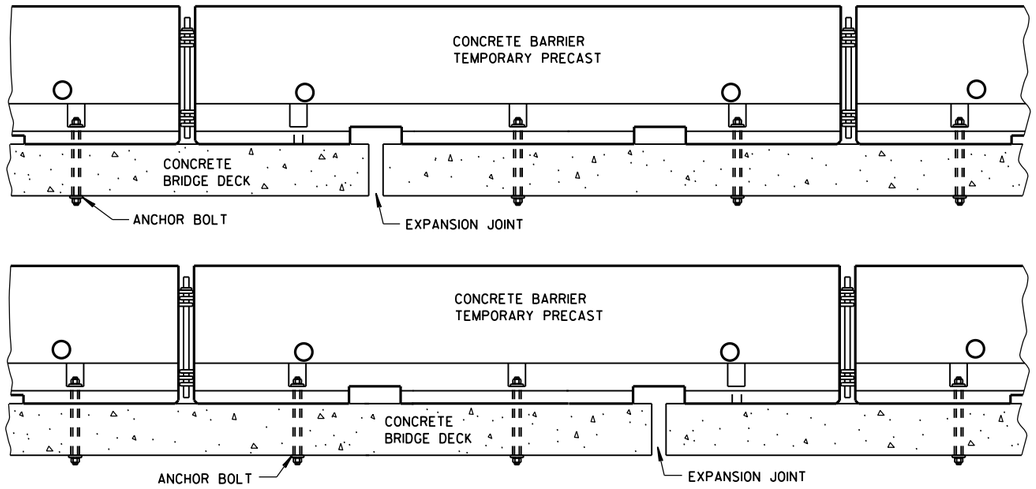
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

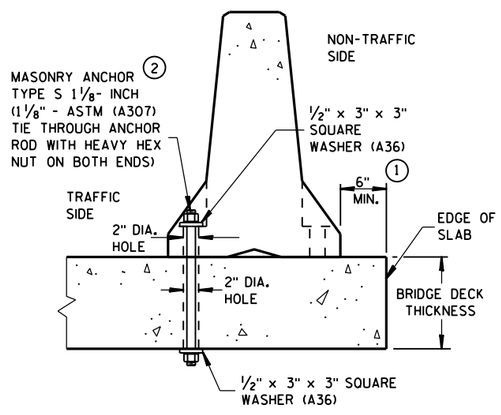
6

S.D.D. 14 B 7-14c



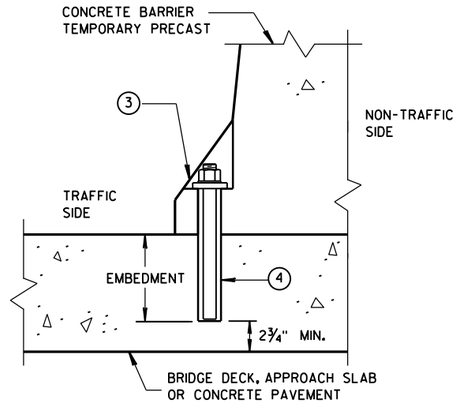
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR ② INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

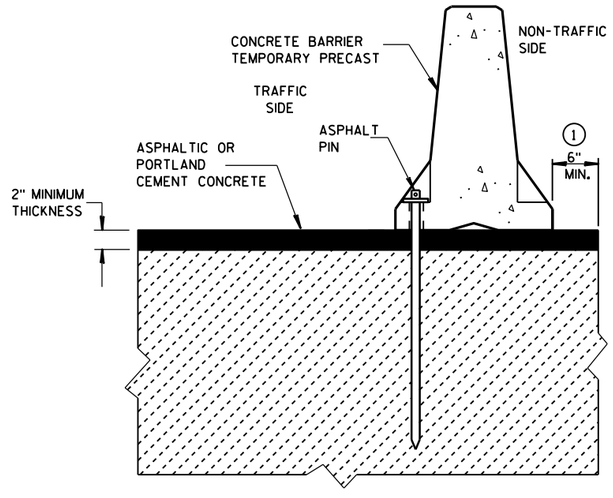
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

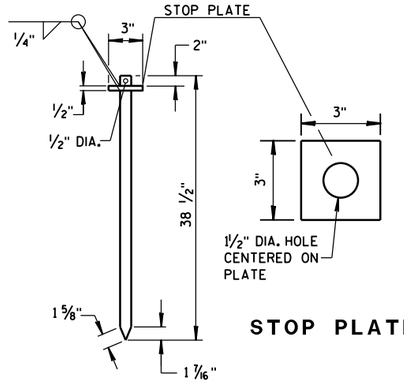
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

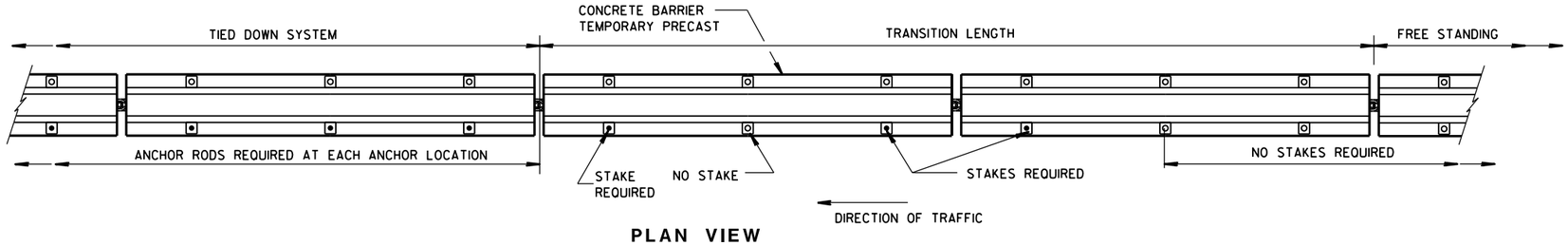
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

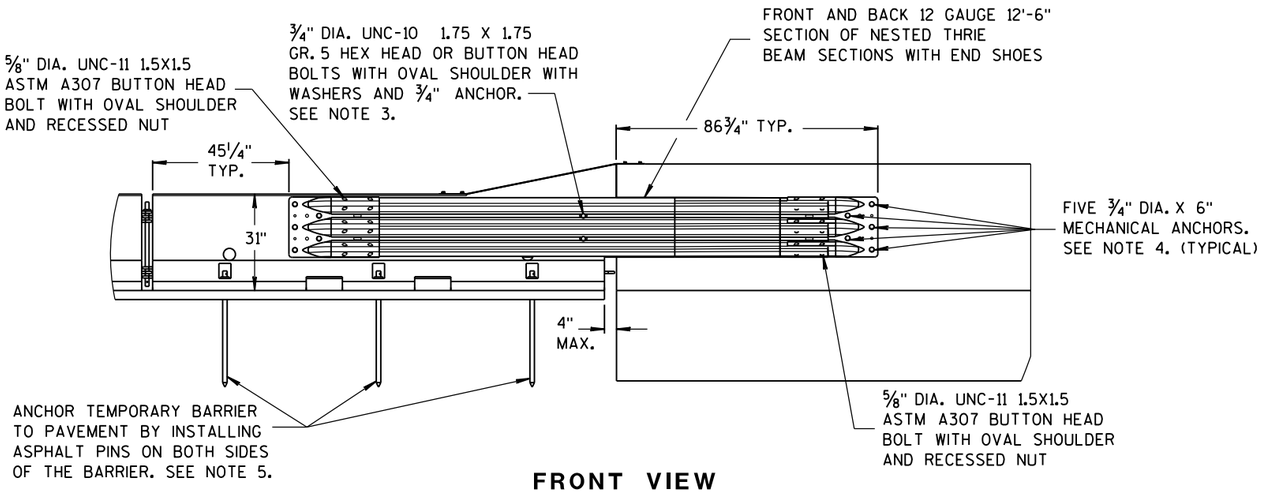
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

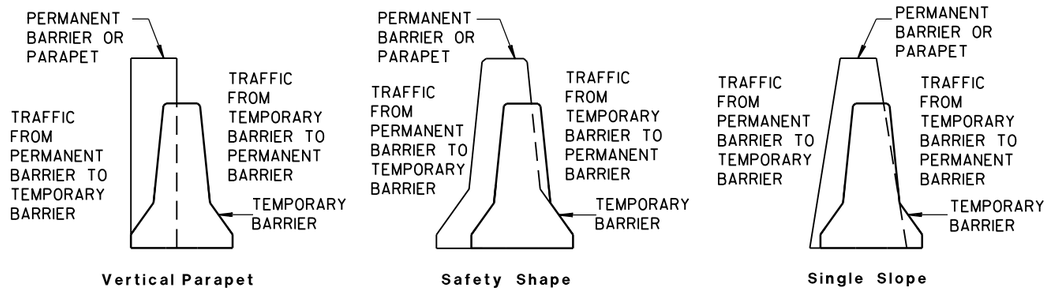
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 7-14d



FRONT VIEW



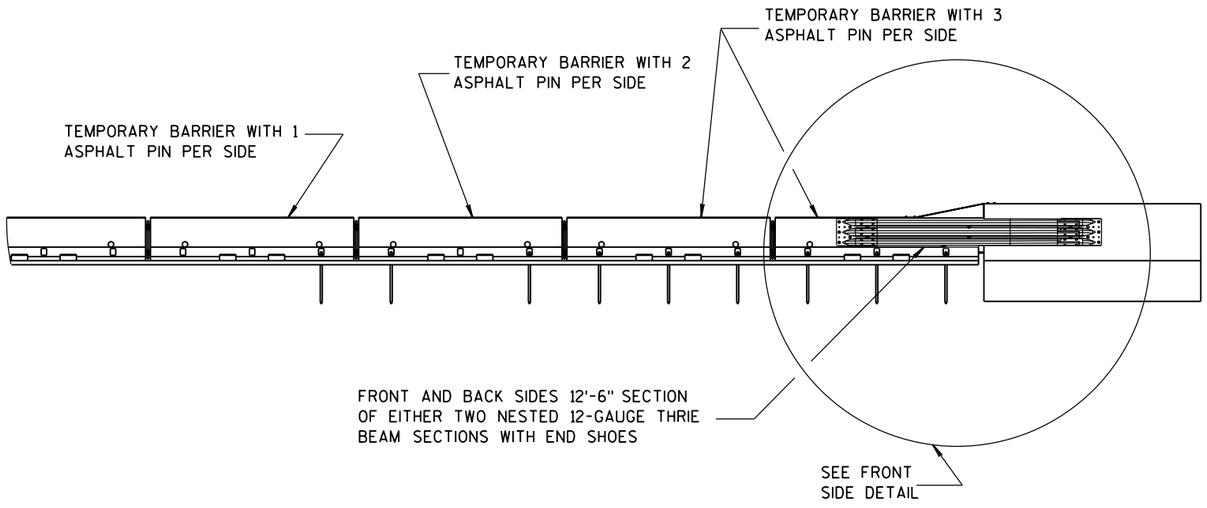
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

NOTES

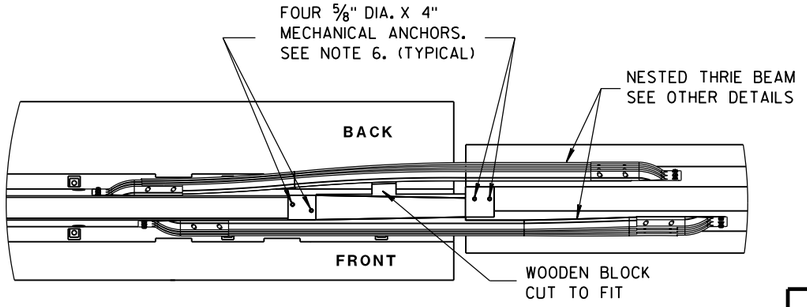
NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

BACK VIEW



FRONT VIEW



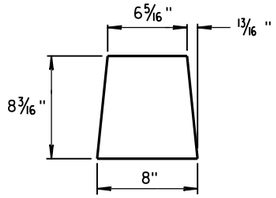
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

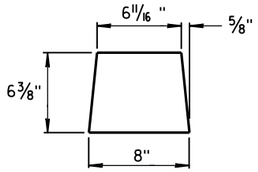
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

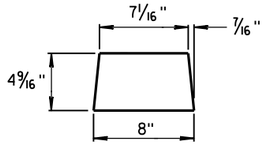
6
S.D.D. 14 B 7-14e



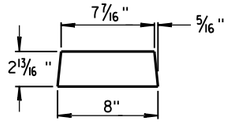
GUSSET 1



GUSSET 2

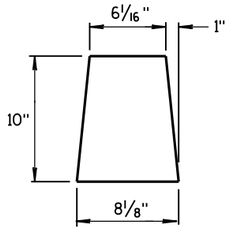


GUSSET 3

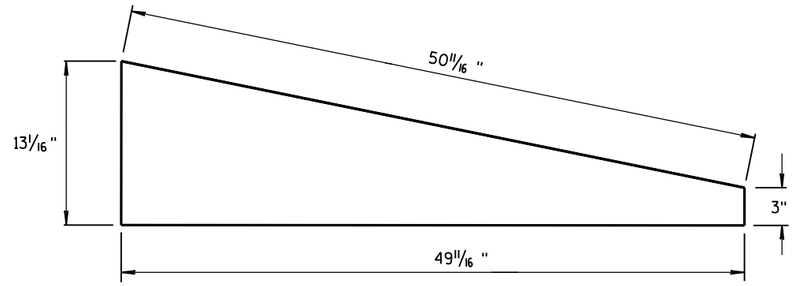


GUSSET 4

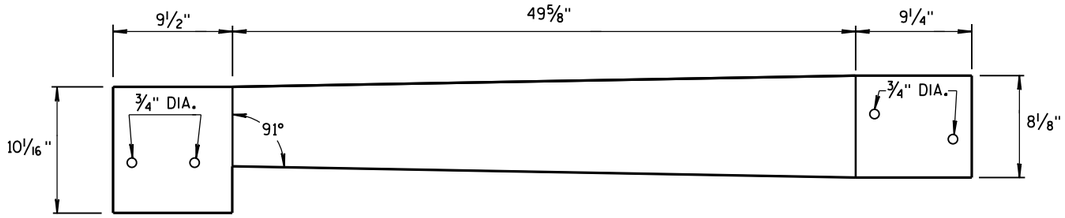
GUSSETS

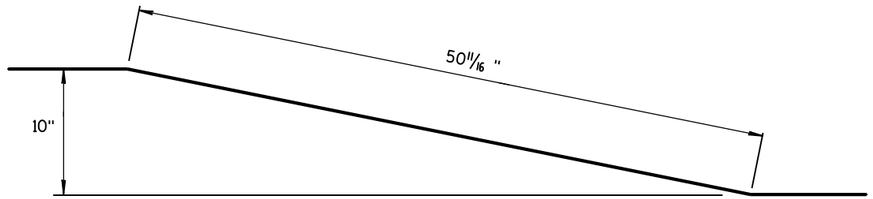


END PLATE



SIDE PLATE

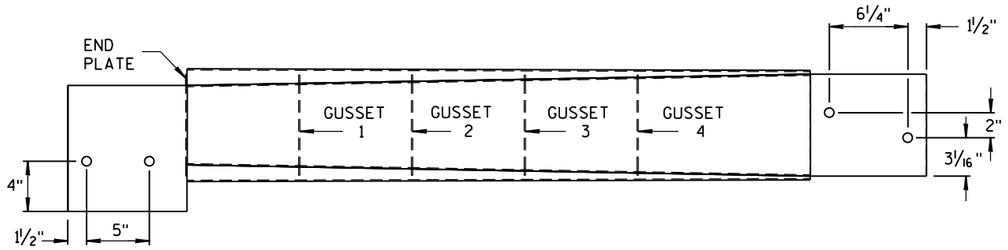


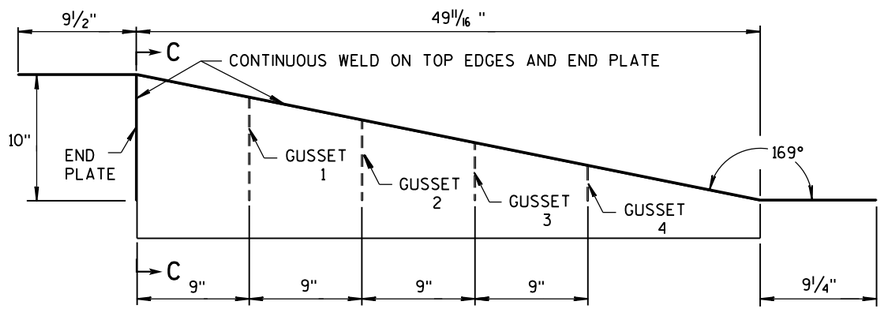


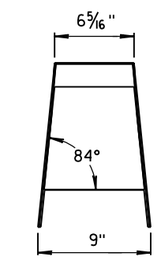
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

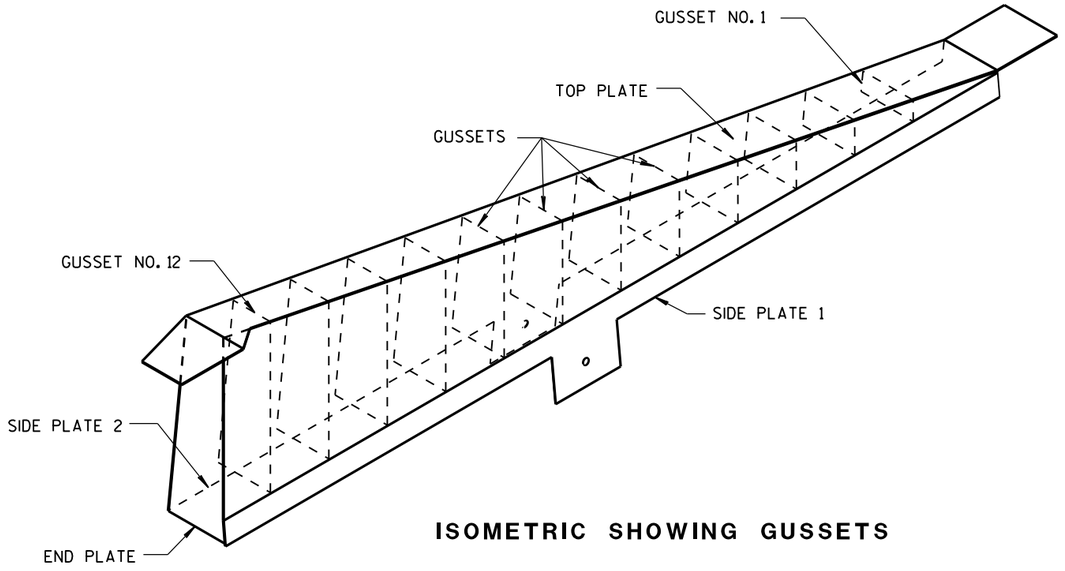
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

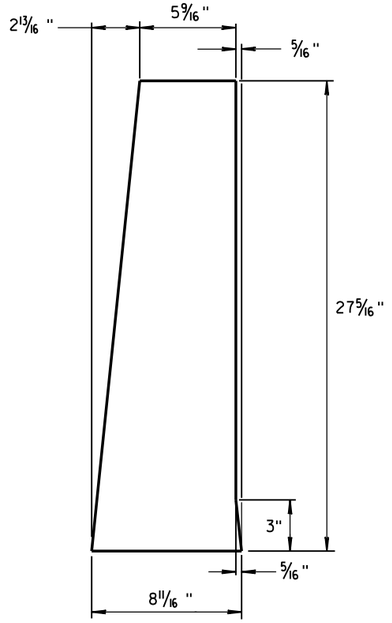
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 7-14f

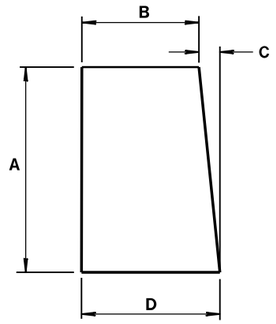


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



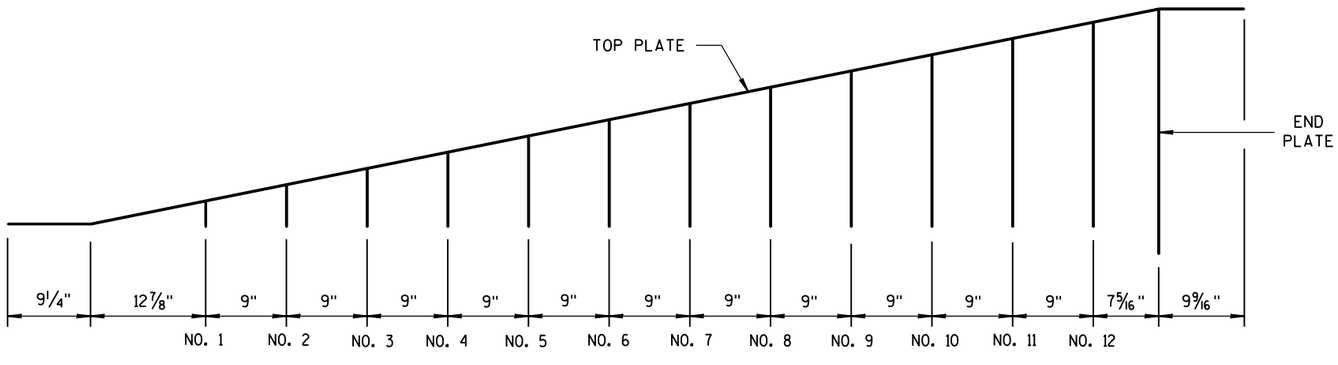
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

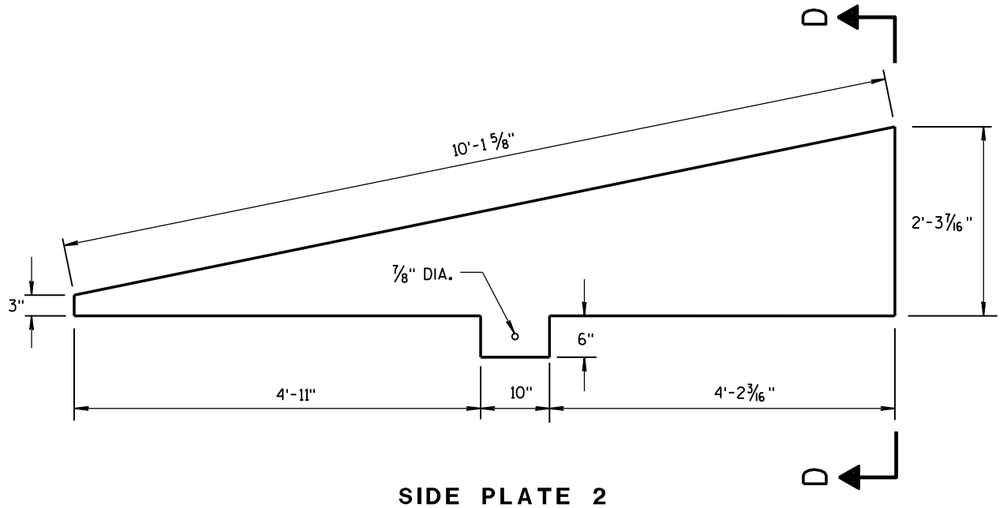
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

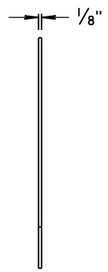
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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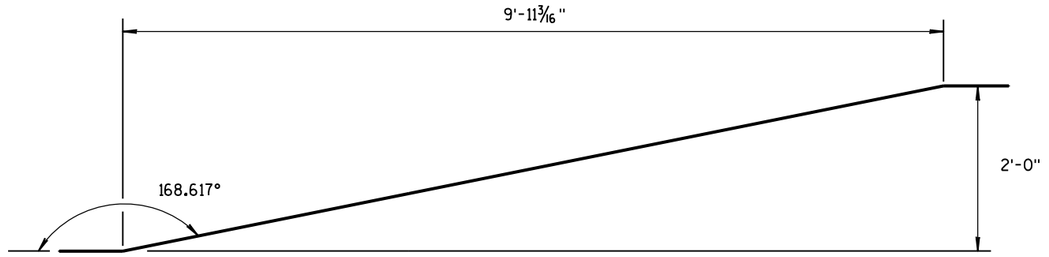
S.D.D. 14 B 7-14g



SIDE PLATE 2

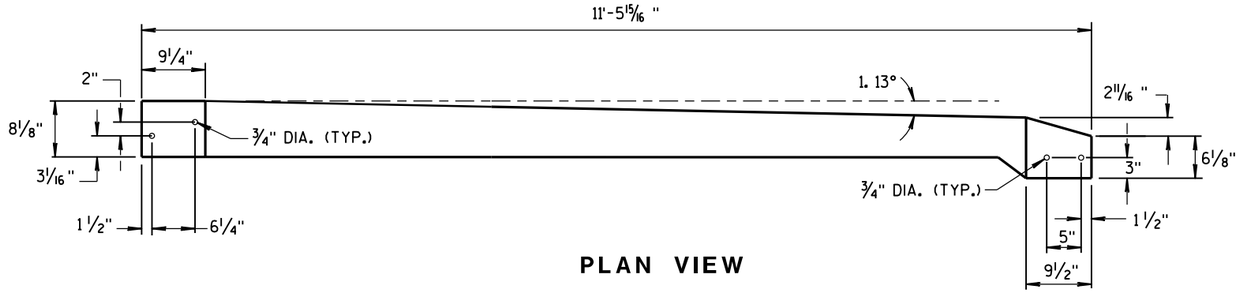


END VIEW



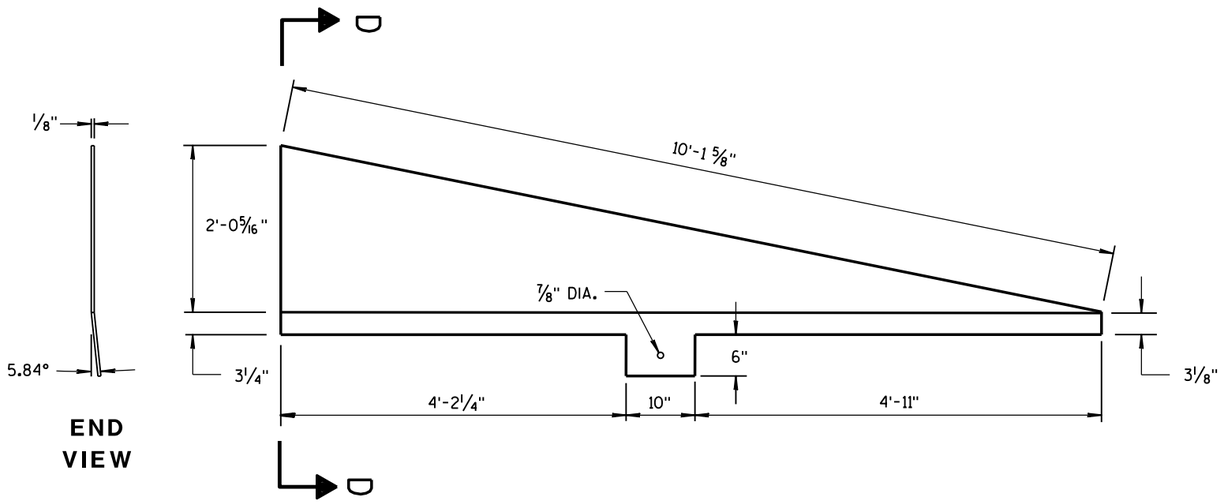
SIDE VIEW

TOP PLATE



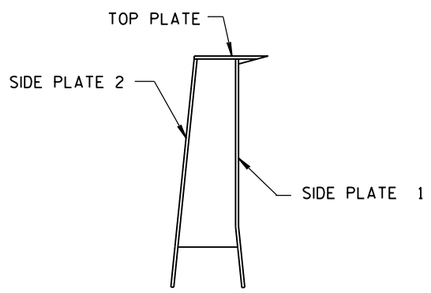
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

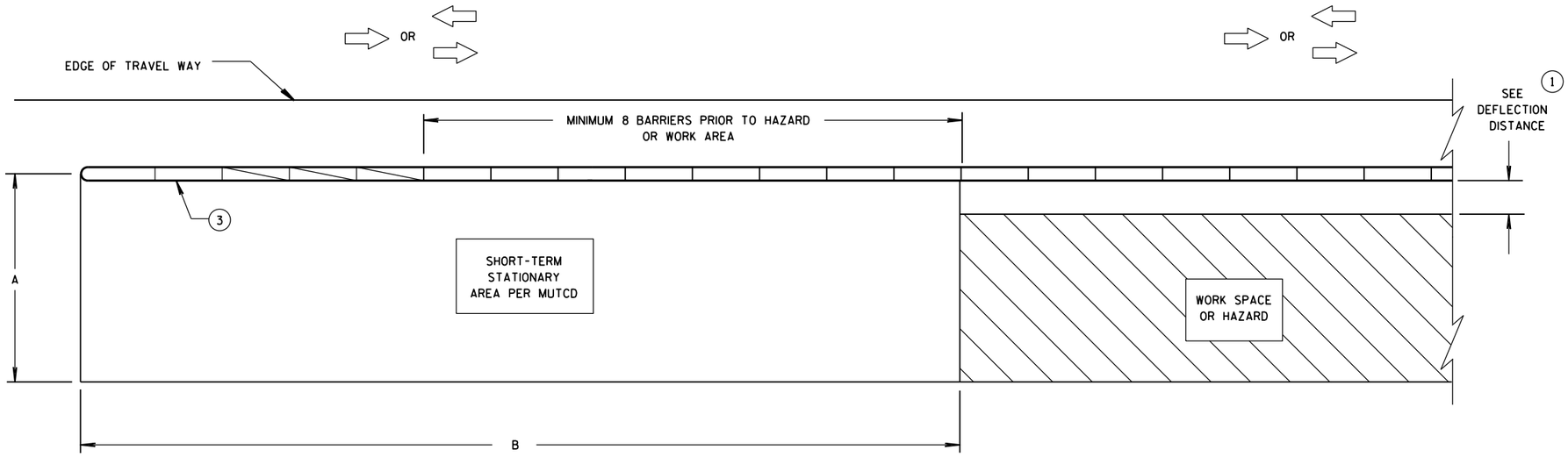
APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 7-14h

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S.D.D. 14 B 7-14h



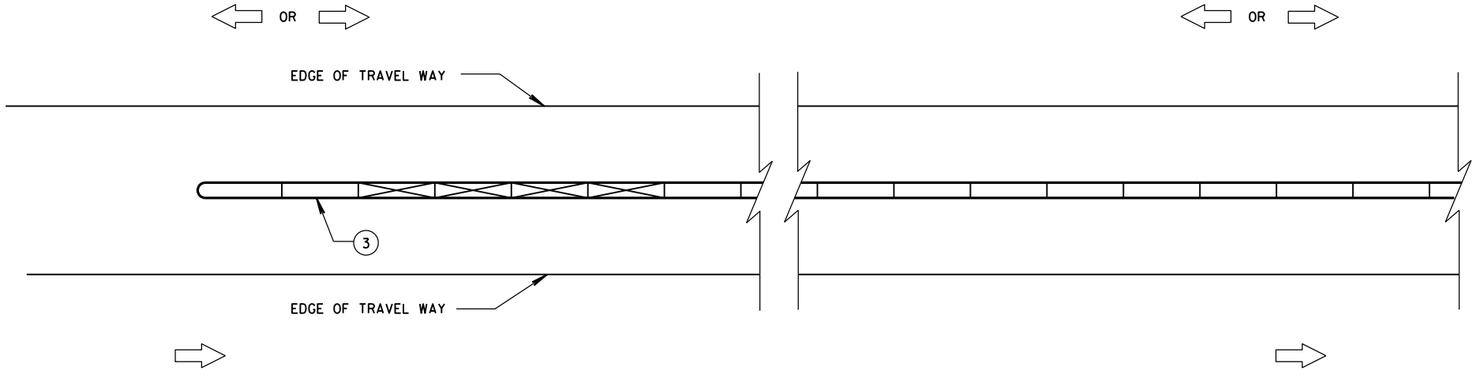
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

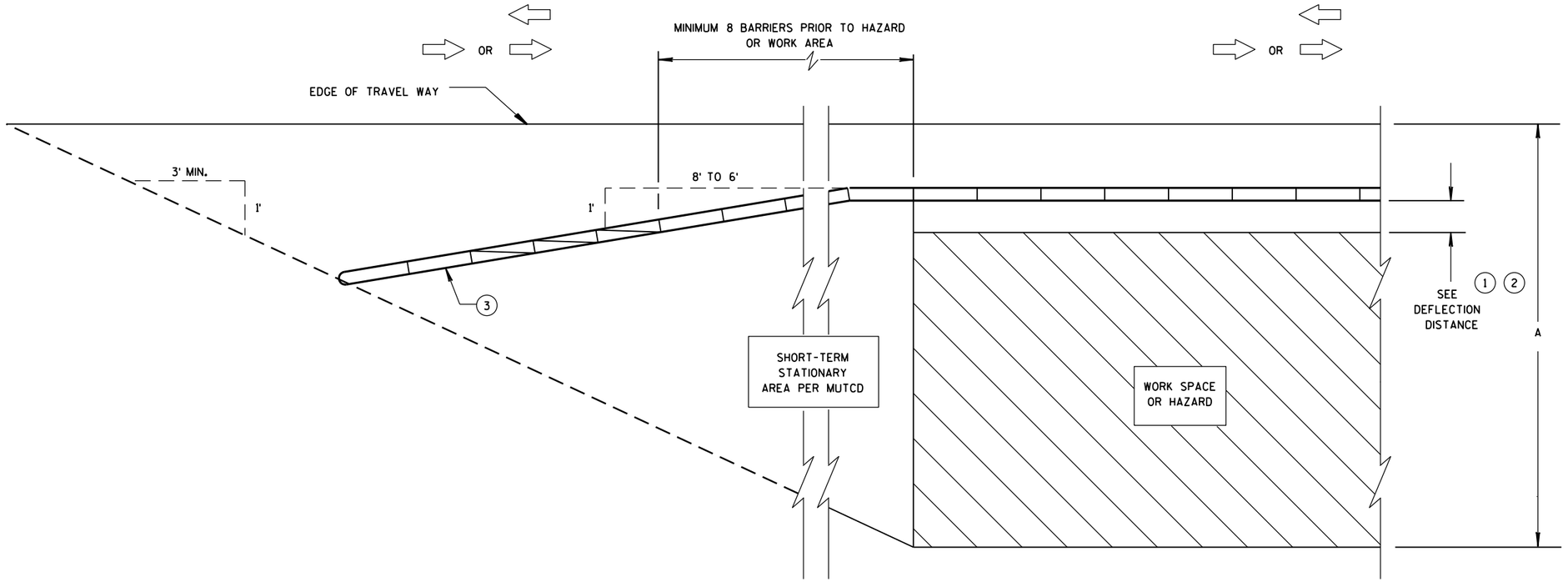
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

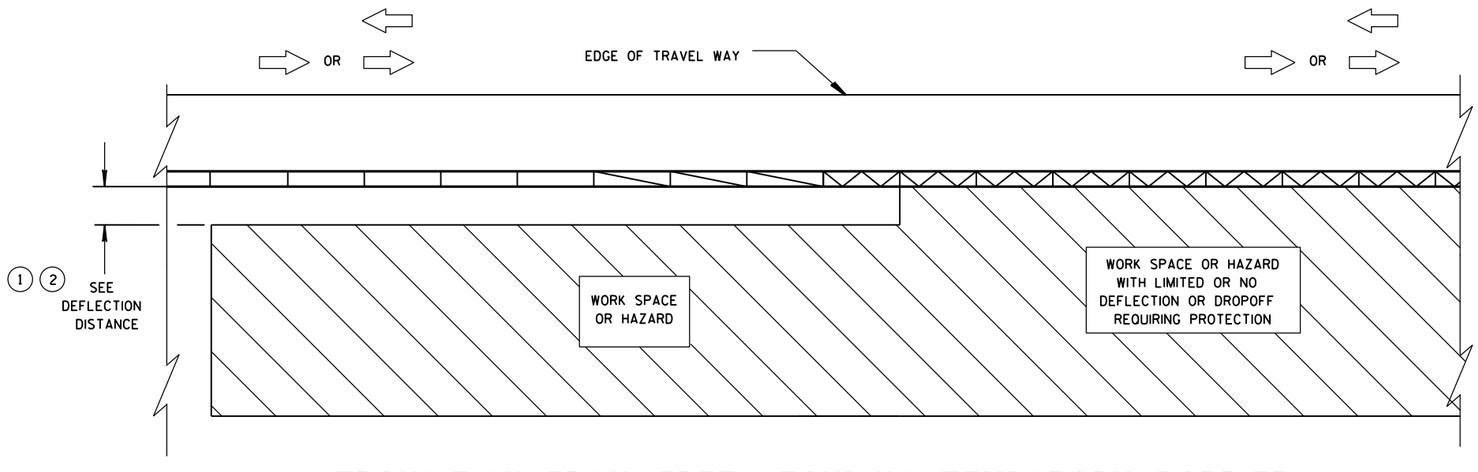
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

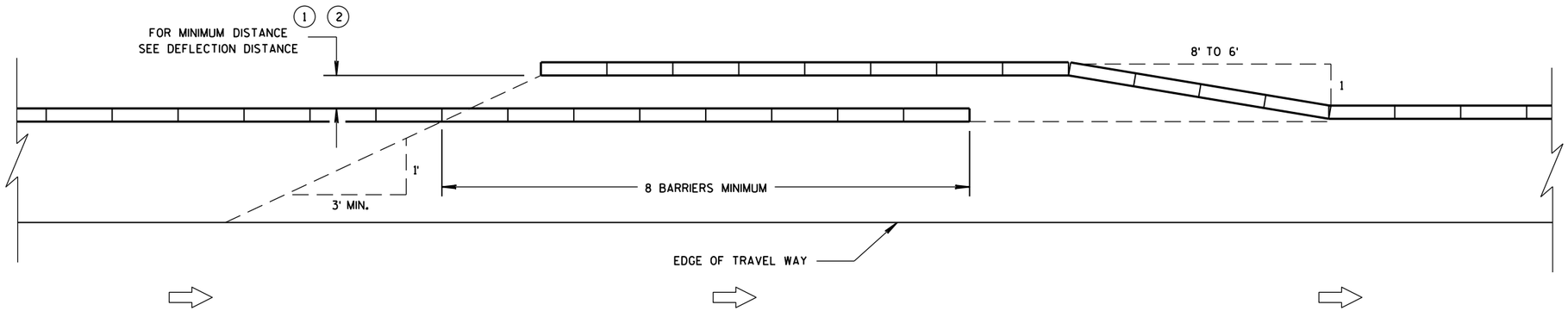
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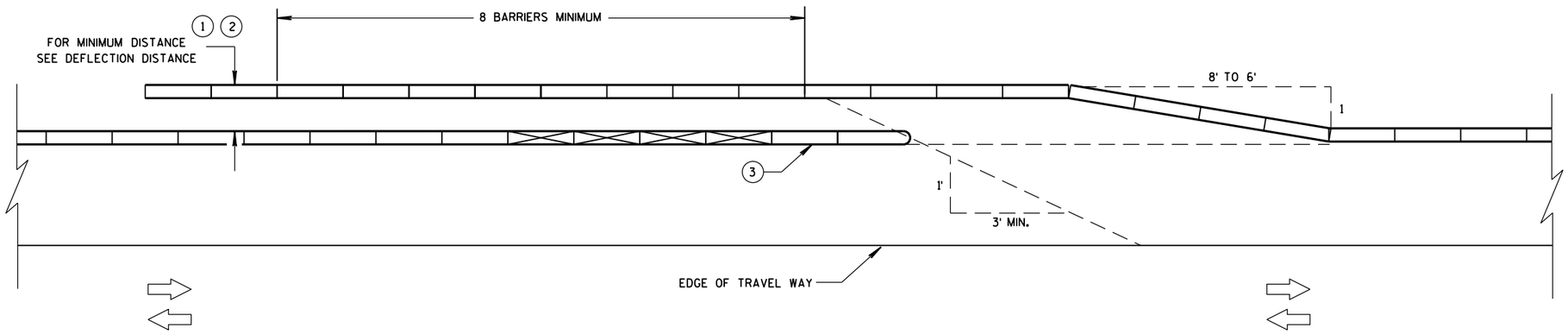
S.D.D. 14 B 8-2b

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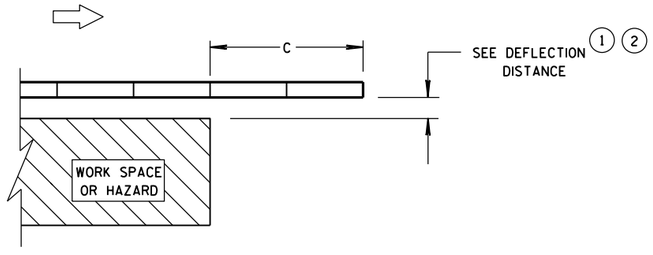
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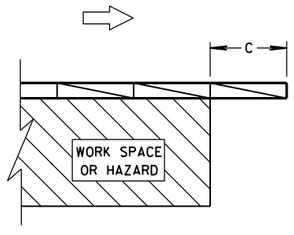
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

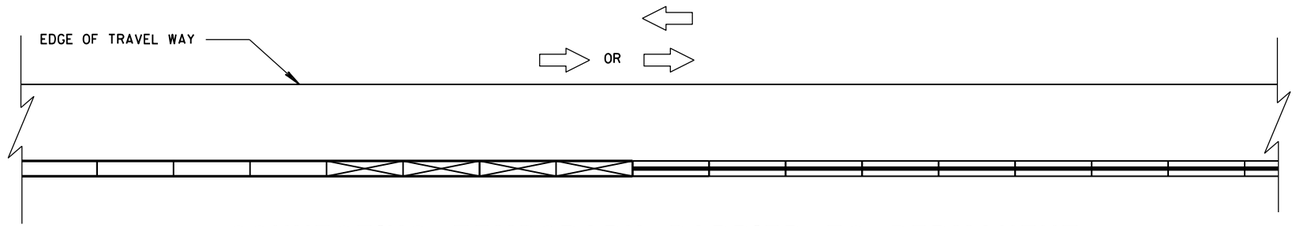
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

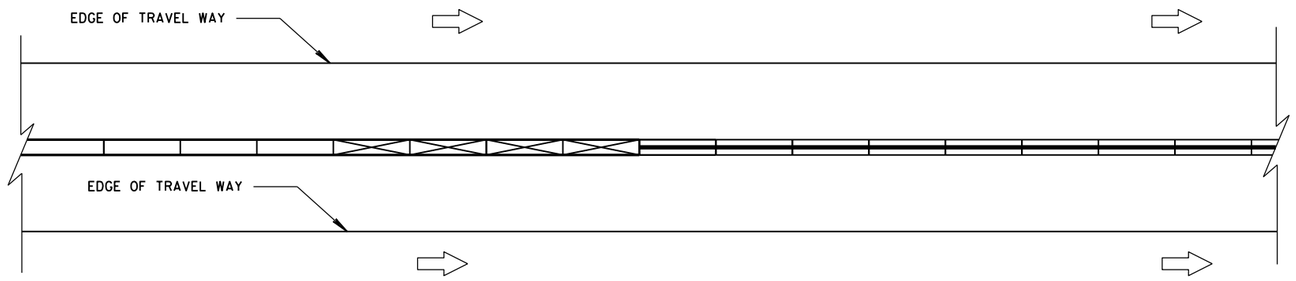
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S.D.D. 14 B 8-2c



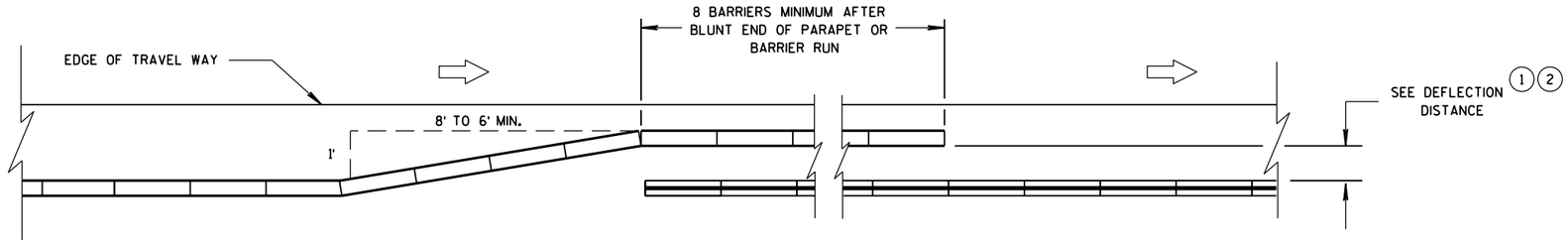
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



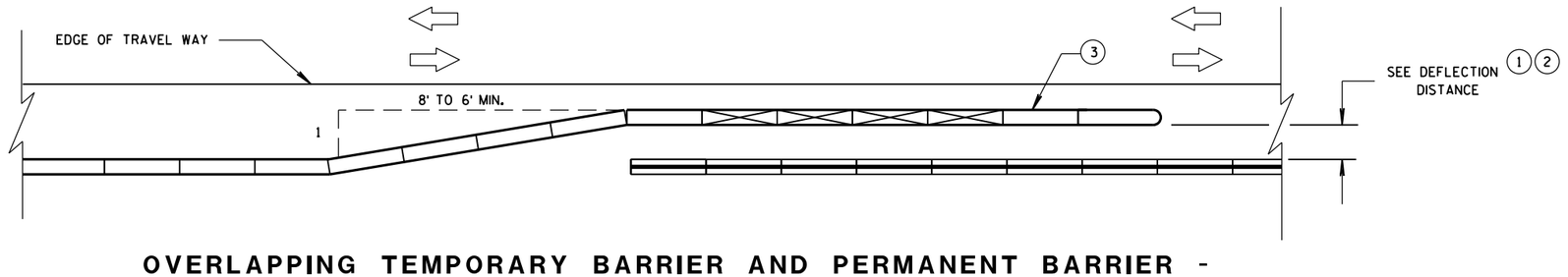
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
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S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

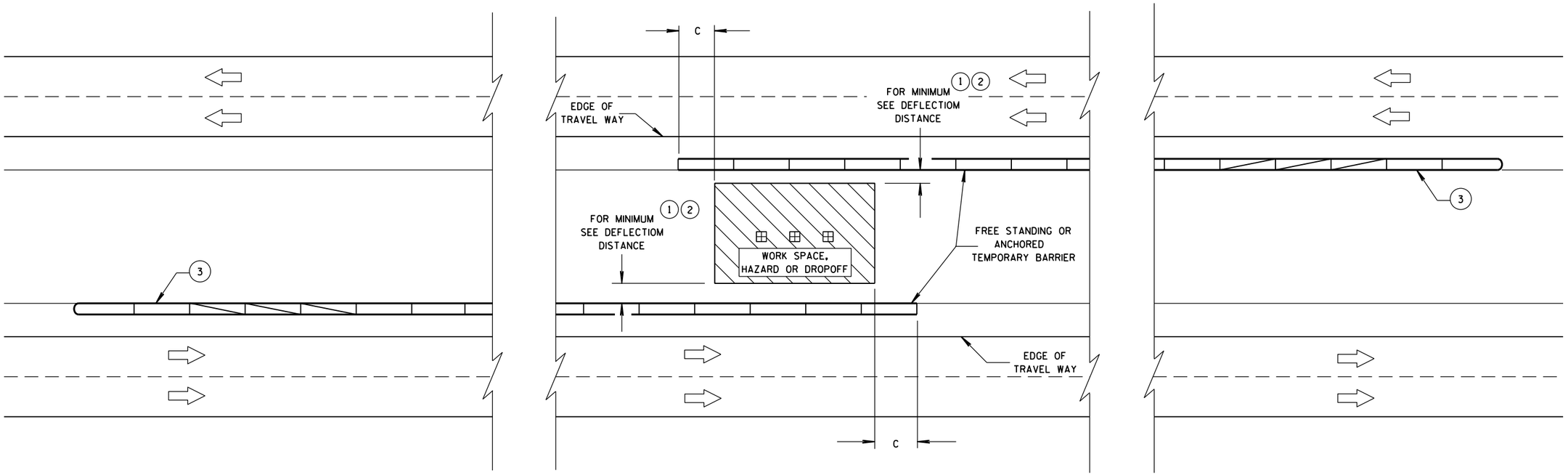
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



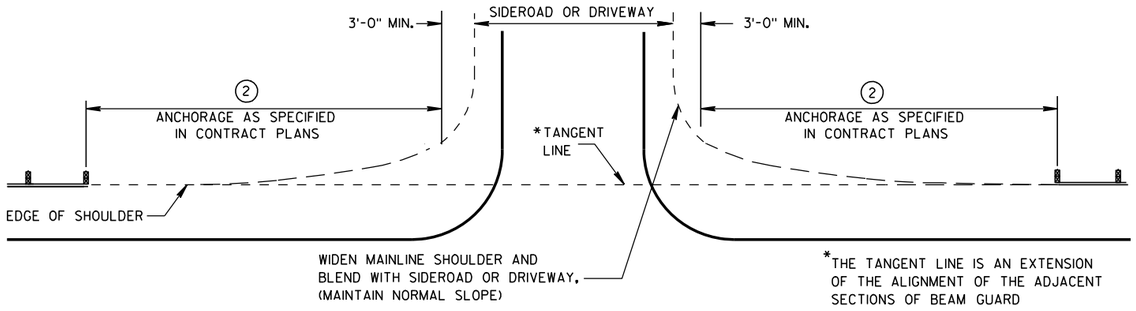
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

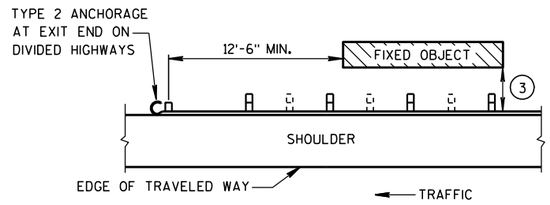
APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINNER
FHWA

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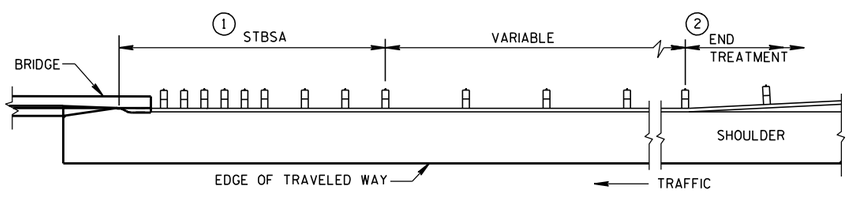
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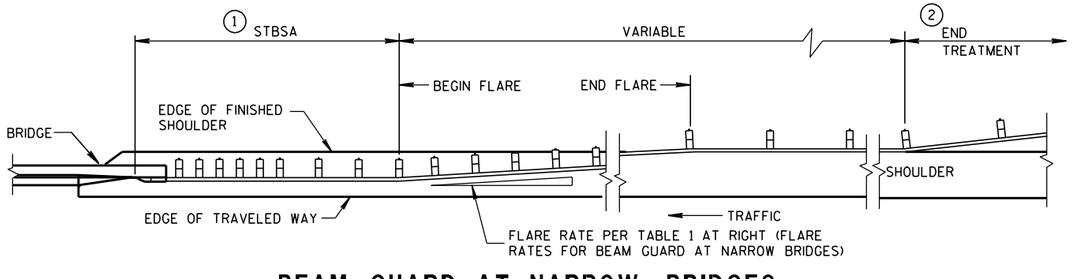
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



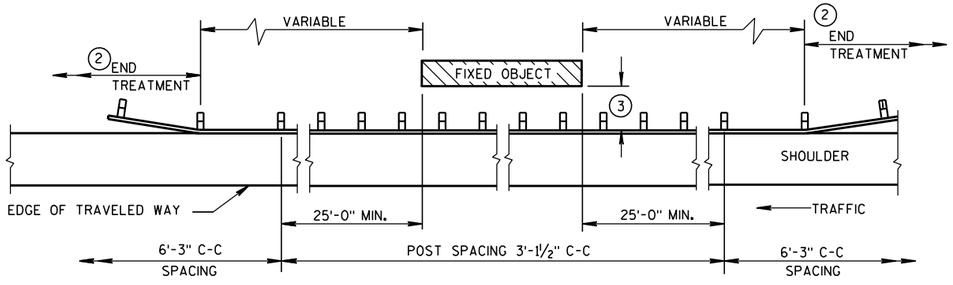
BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC



BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC
(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

STATE OF WISCONSIN
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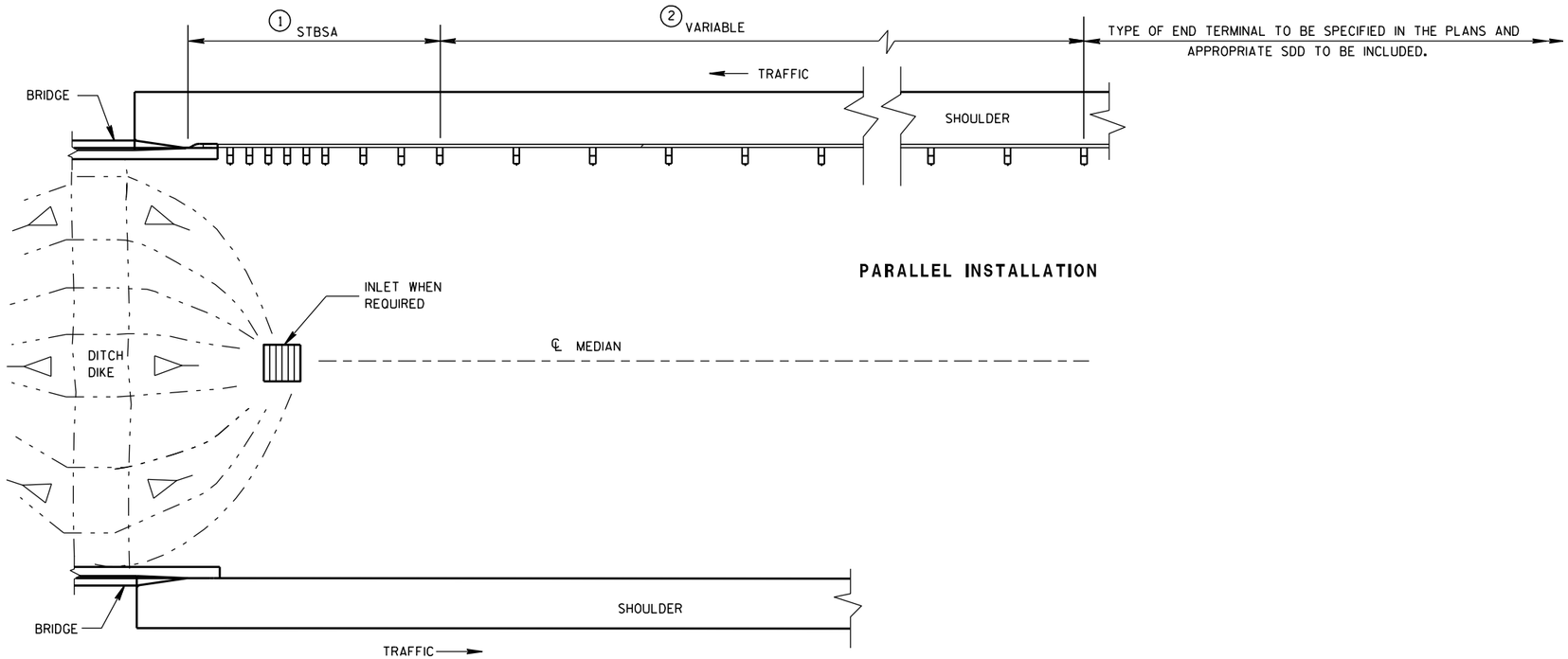
8-21-07
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

1. STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
2. LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.



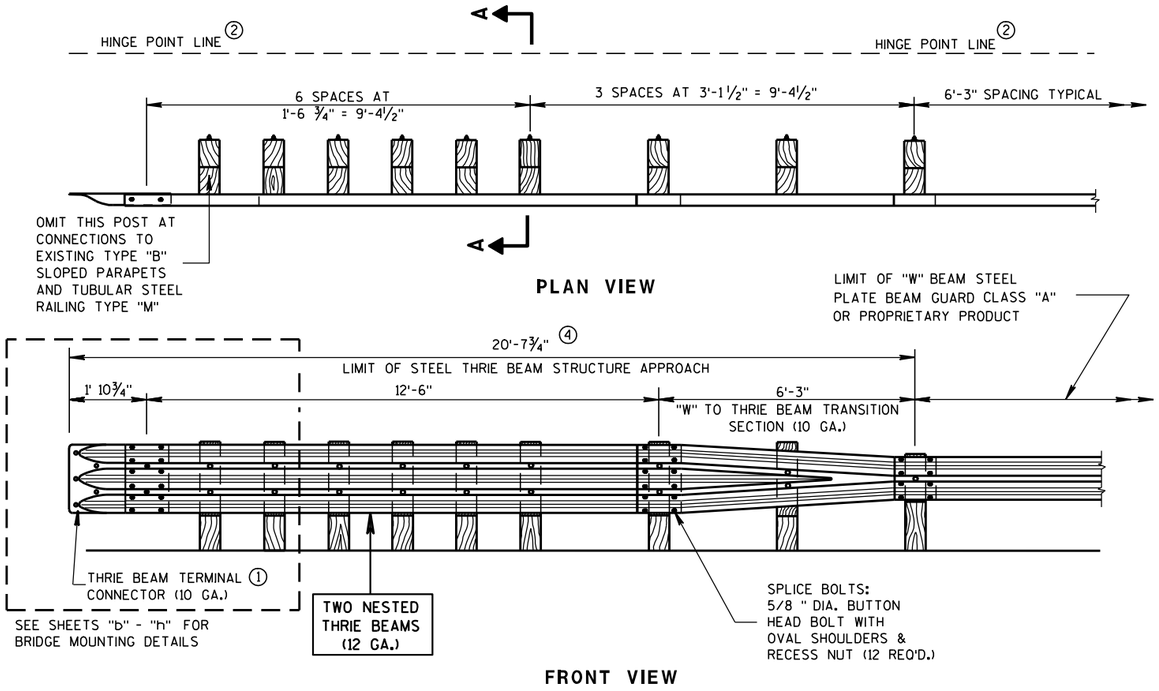
PARALLEL INSTALLATION

BEAM GUARD AT MEDIAN APPROACH TO BRIDGES

STEEL PLATE BEAM GUARD CLASS "A" AT MEDIAN APPROACH TO BRIDGES	
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S.D.D. 14 B 18-6b



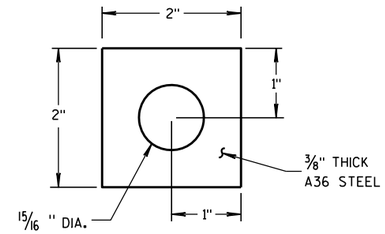


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

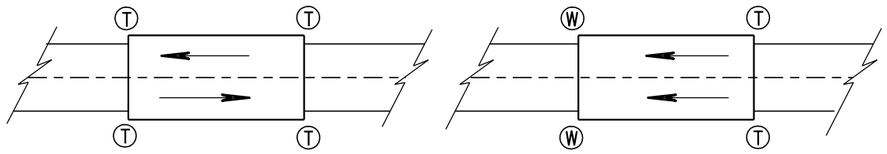
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



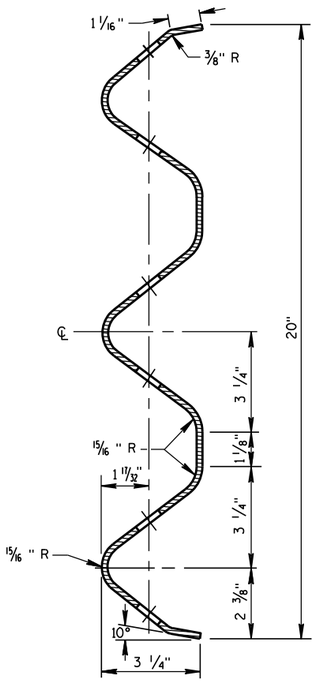
TWO WAY TRAFFIC

ONE WAY TRAFFIC

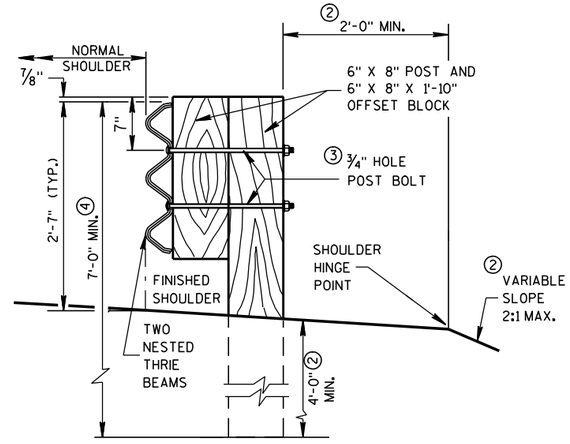
T THRIE BEAM CONNECTION

W W-BEAM CONNECTION WHEN REQUIRED

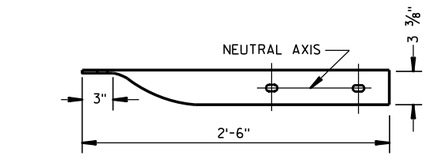
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

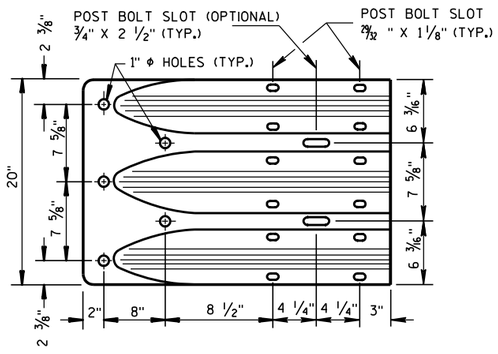


SECTION THRU THRIE BEAM RAIL ELEMENT

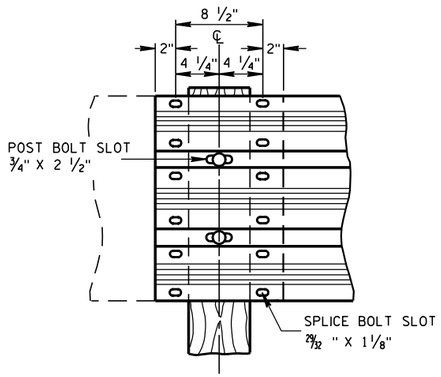


SECTION A-A





THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE

STEEL THRIE BEAM STRUCTURE APPROACH

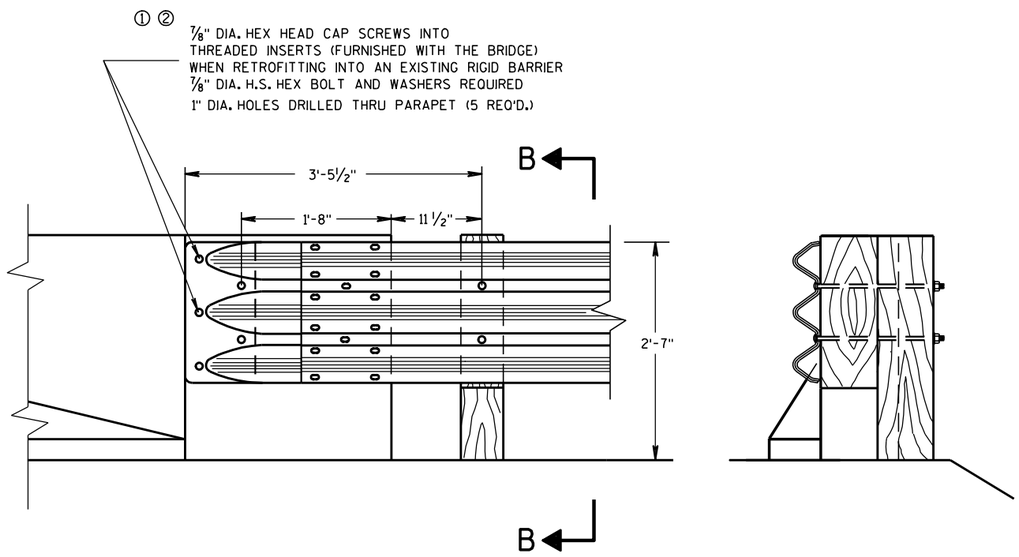
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8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

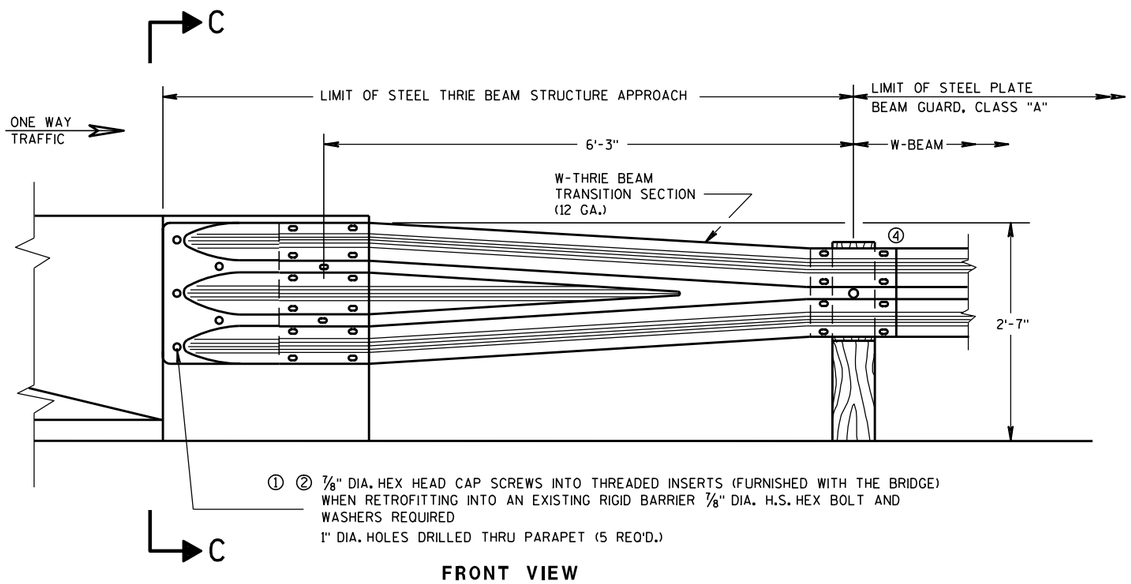
FHWA



FRONT VIEW

SECTION B-B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET (5 REQ'D.)

FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

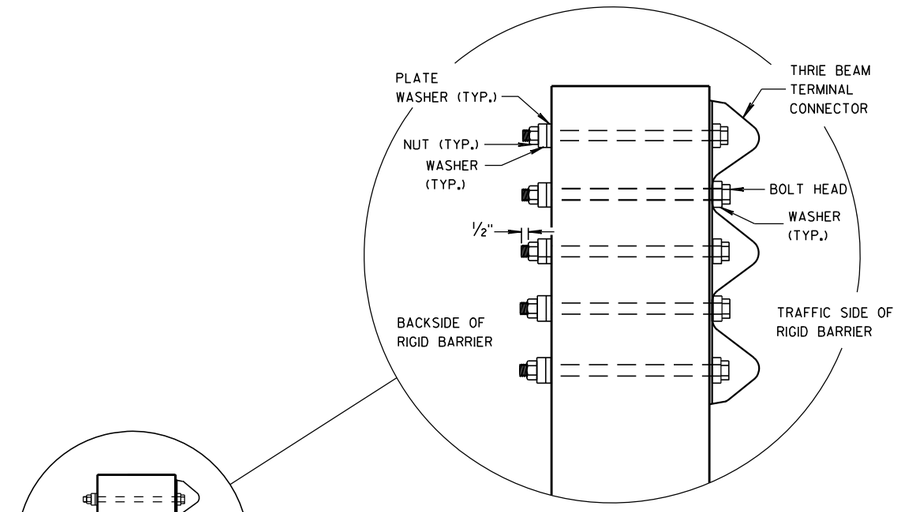
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

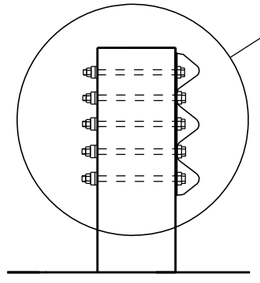
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





SECTION C-C

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

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APPROVED
8/31/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

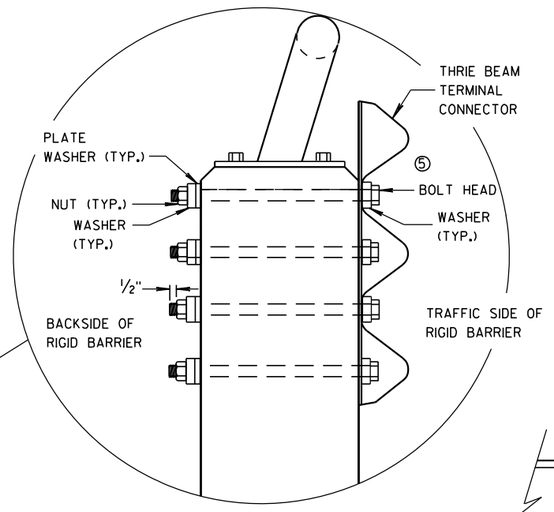
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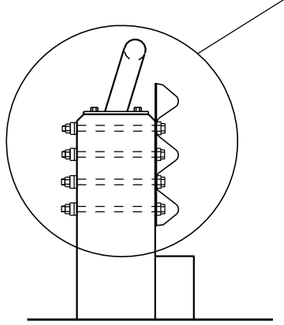
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

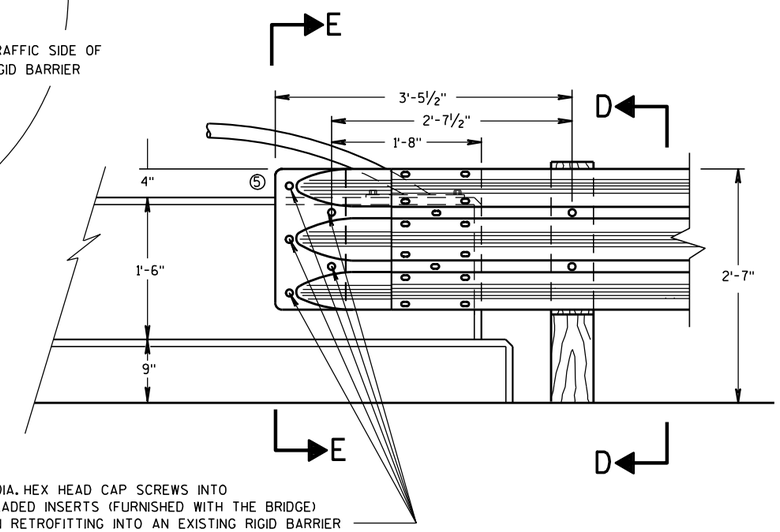
⑤ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





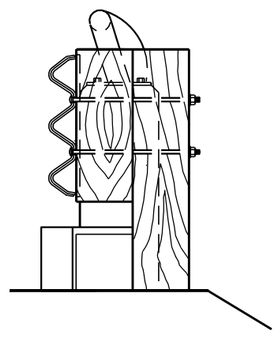
SECTION E-E



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED

1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)

FRONT VIEW

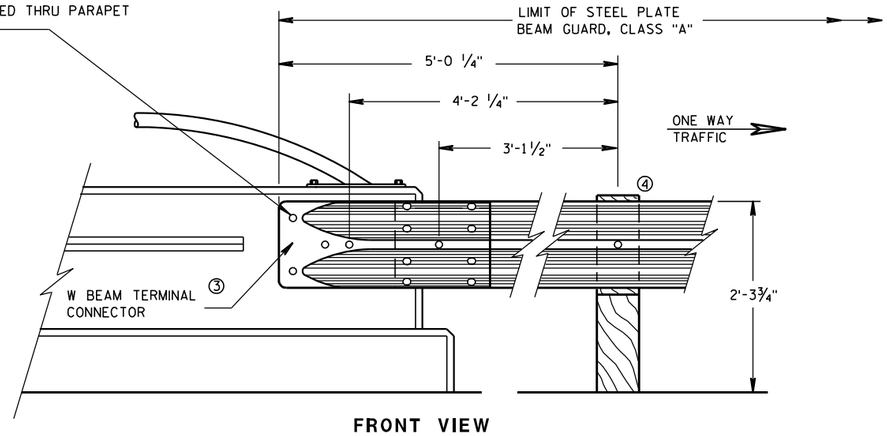


SECTION D-D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED

1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

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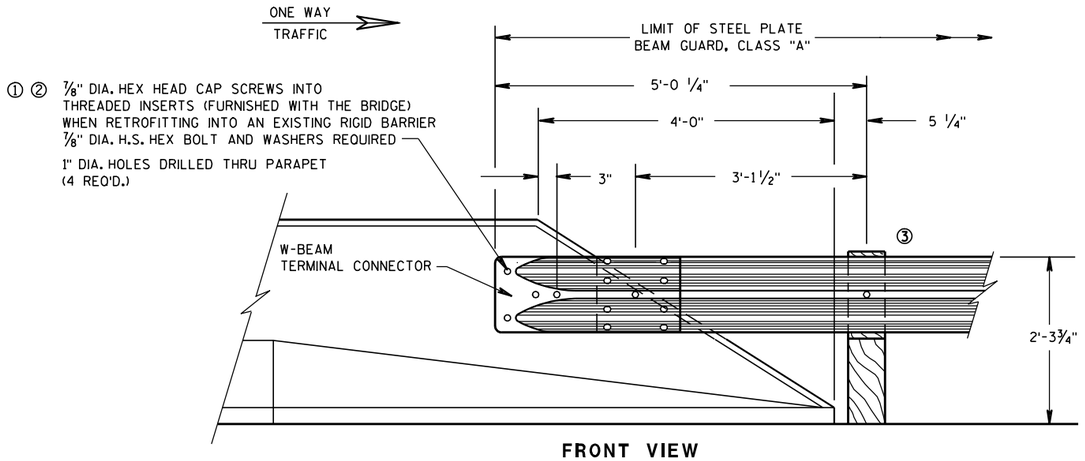
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FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

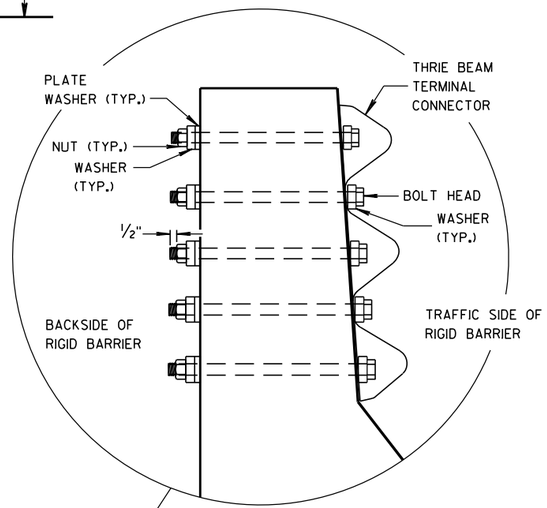
BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

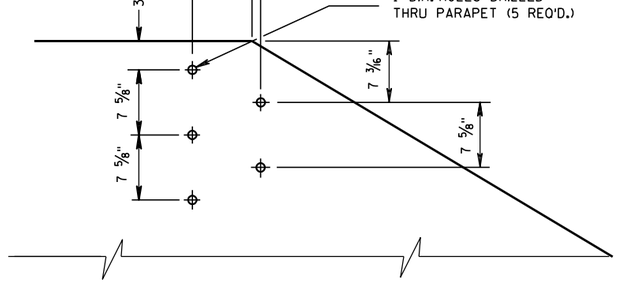
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

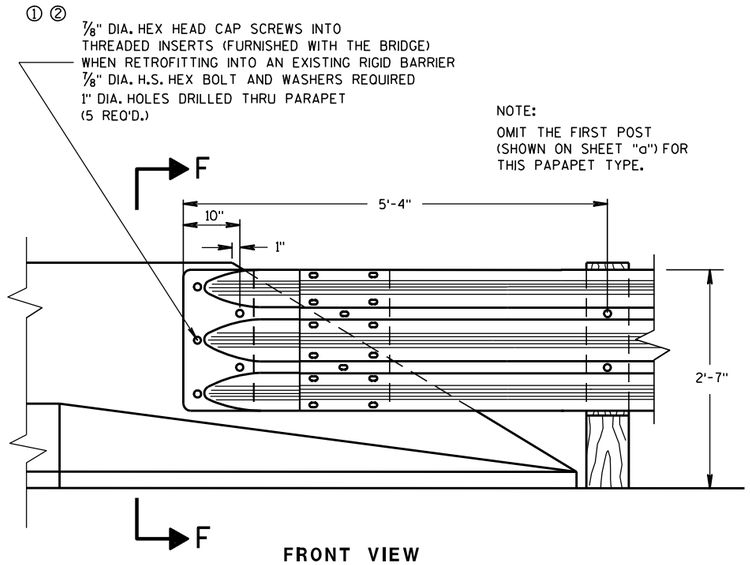
③ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

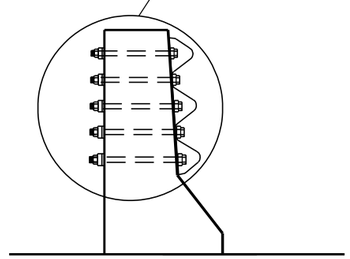




DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION F-F

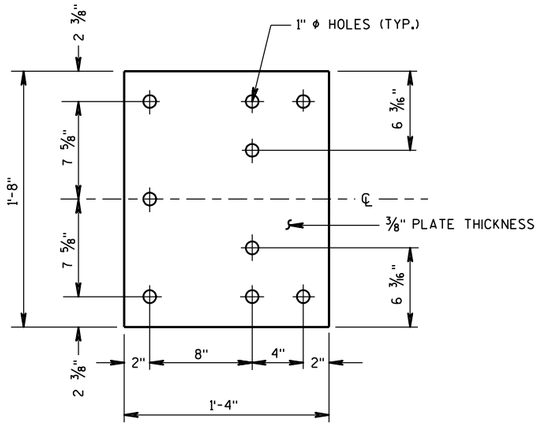
THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS

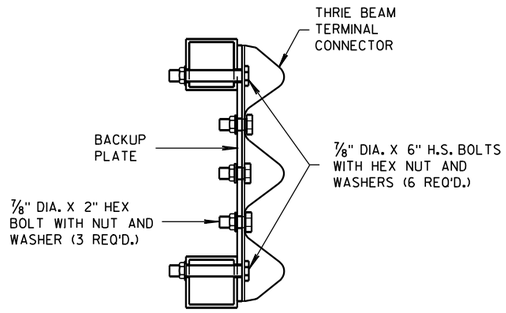
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BACK-UP PLATE DETAIL



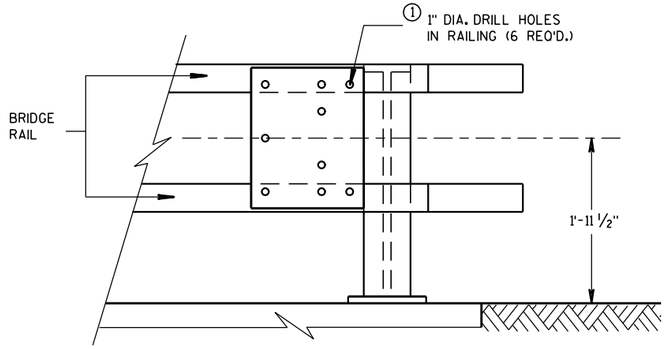
SECTION G-G

GENERAL NOTES

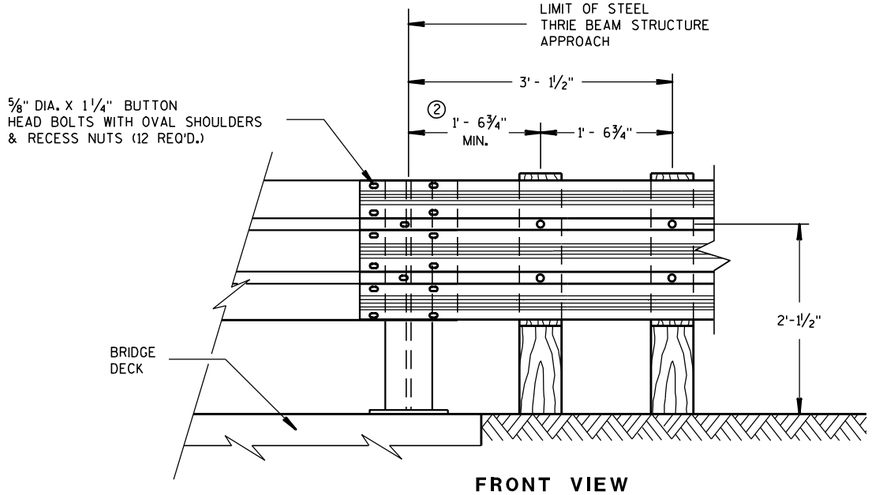
BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL AS CLOSE AS FEASIBLE TO THE STEEL END POST.

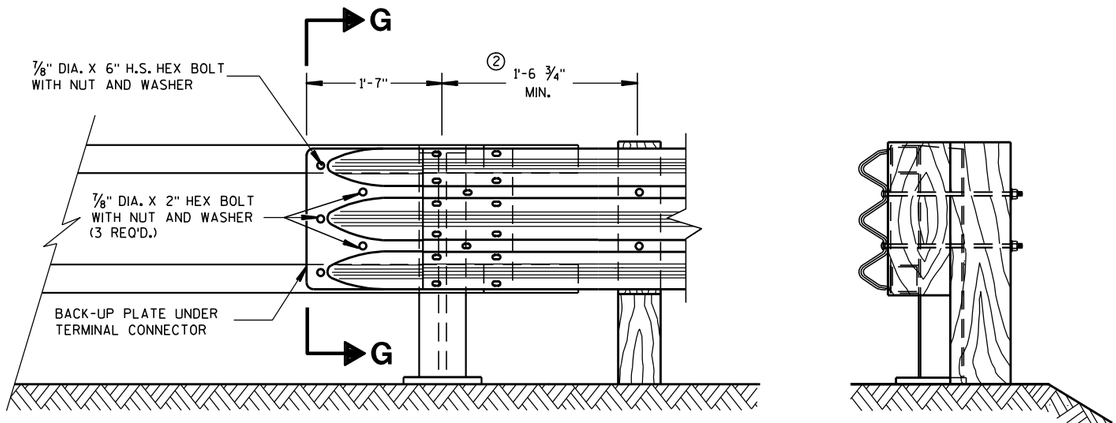


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW

END VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"

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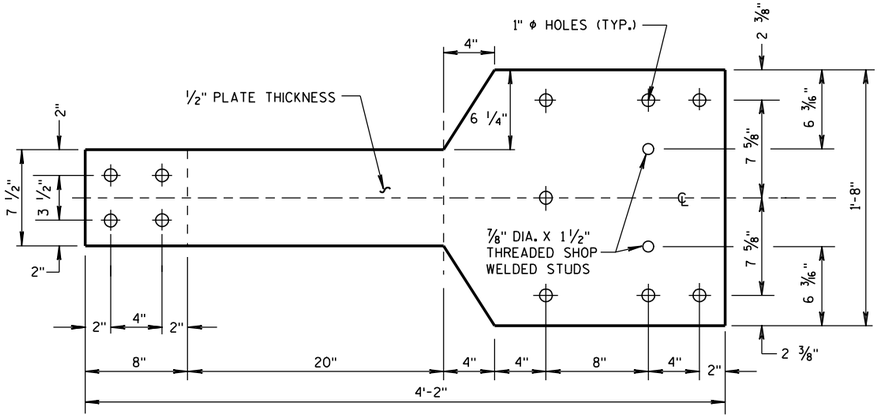
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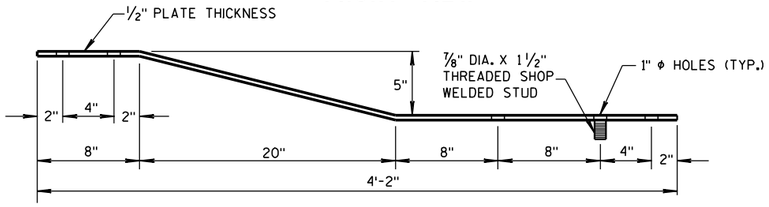
S.D.D. 14 B 20-11e

GENERAL NOTES

① VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL BE AS CLOSE AS FEASIBLE TO THE STEEL END POST.

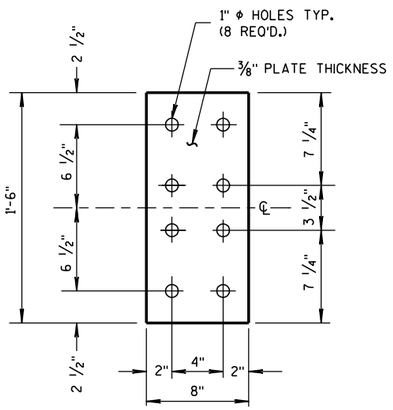


FRONT VIEW



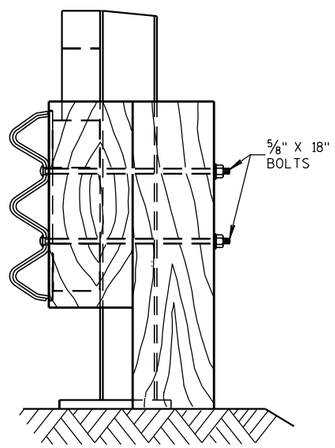
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

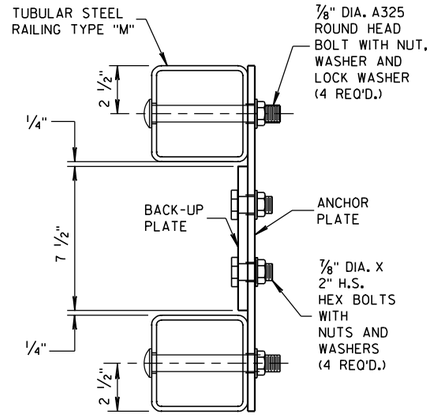


FRONT VIEW

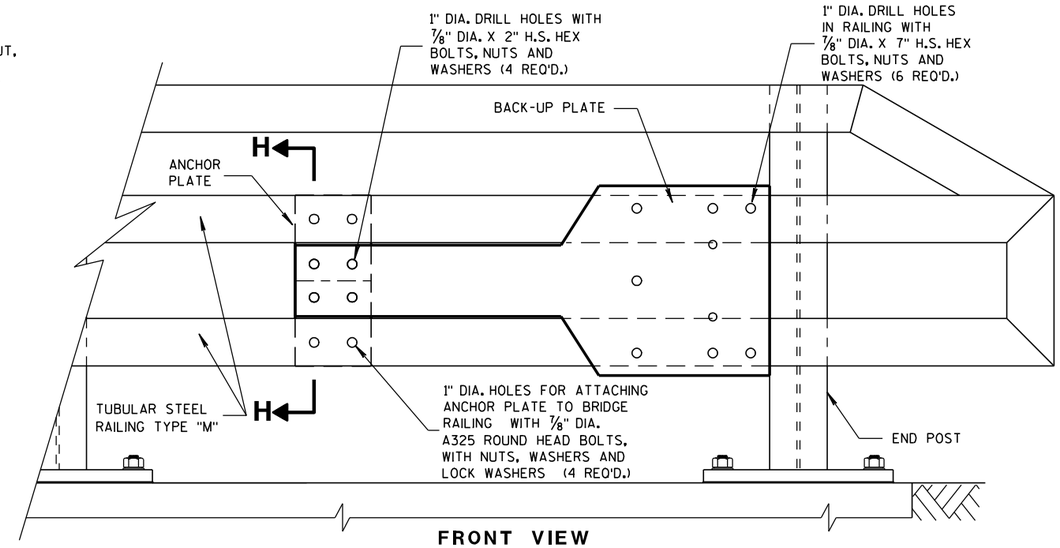
ANCHOR PLATE DETAIL, TYPE "M"



SECTION I-I

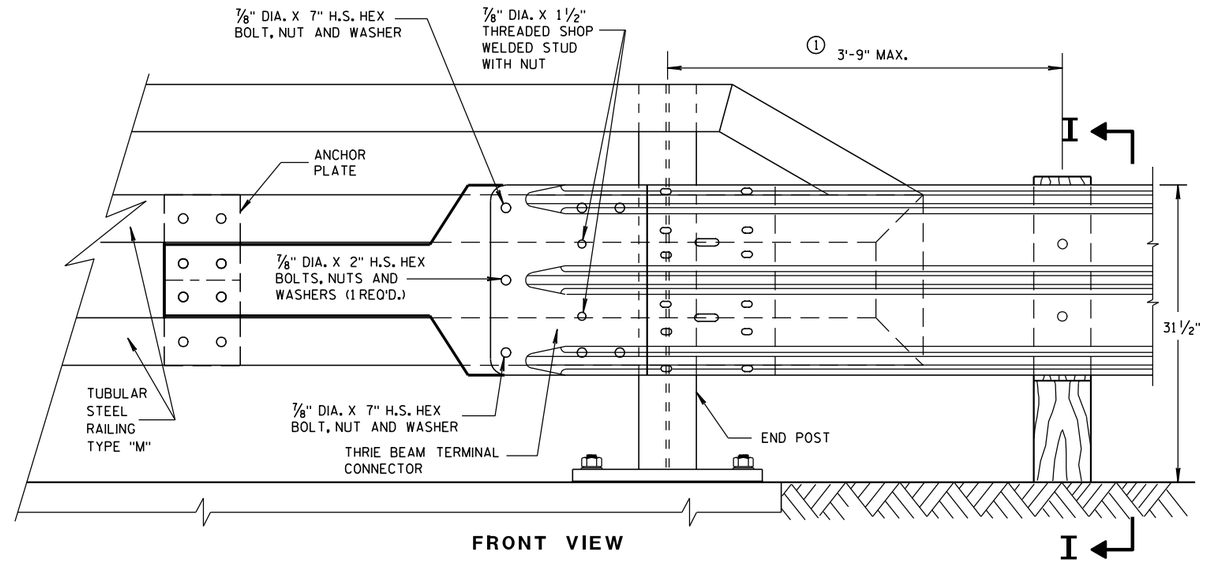


SECTION H-H

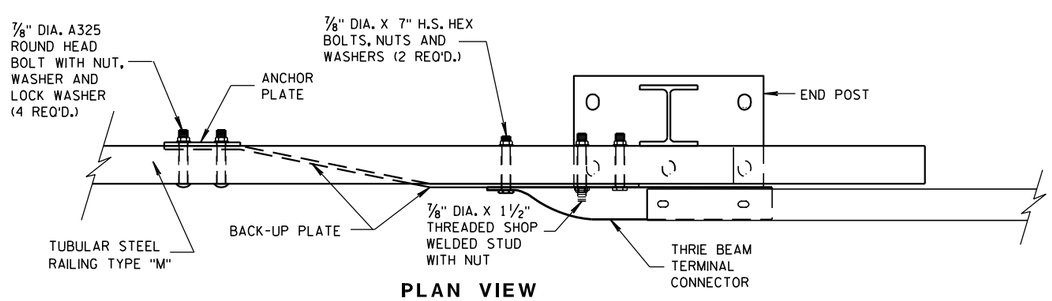


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"

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GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

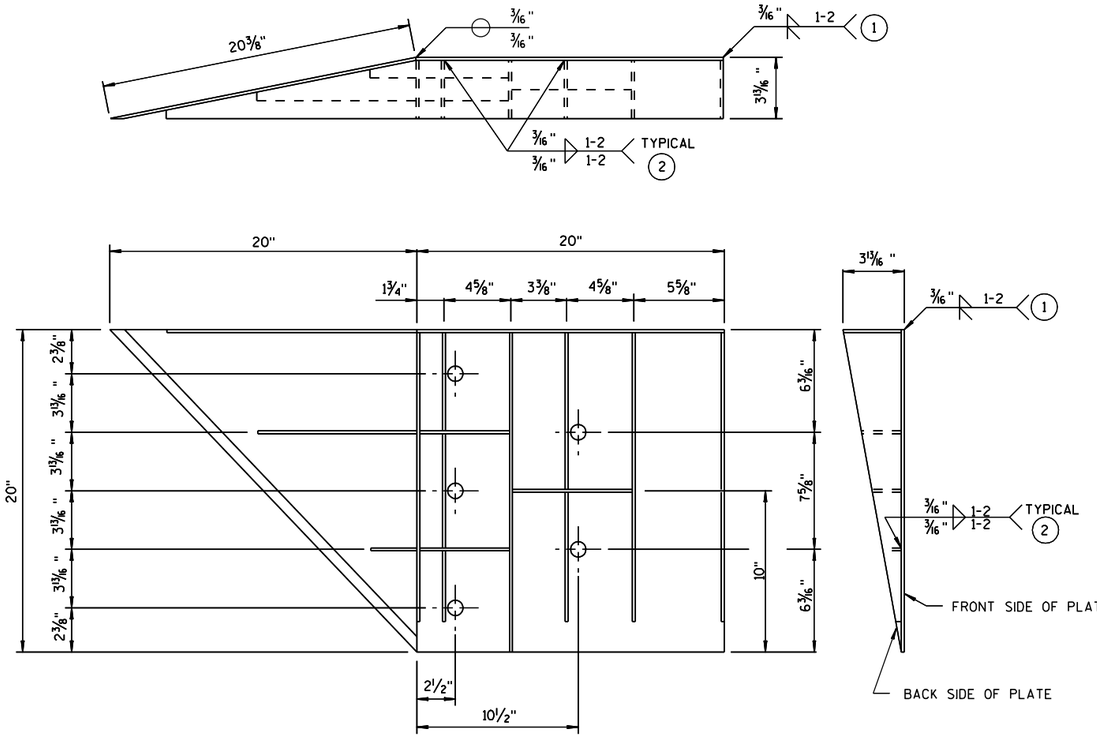
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

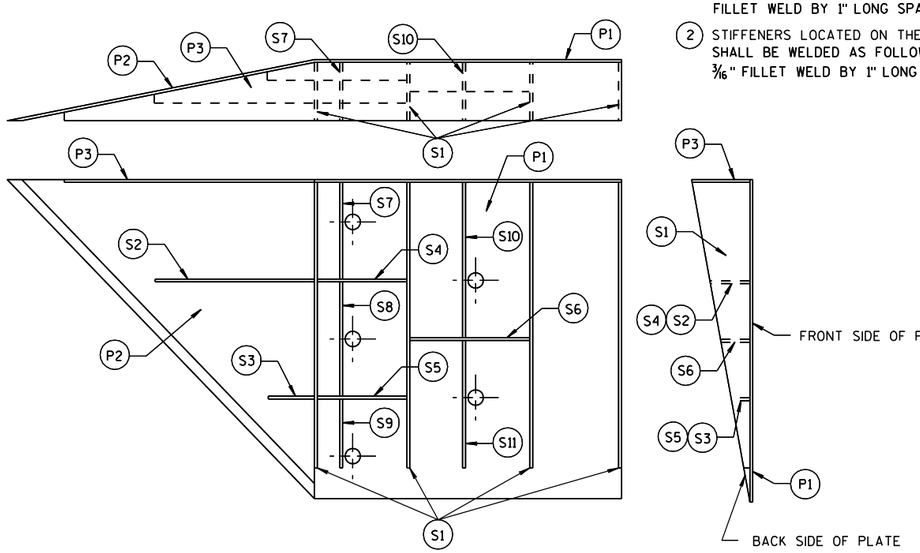


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

STEEL THRIE BEAM STRUCTURE APPROACH

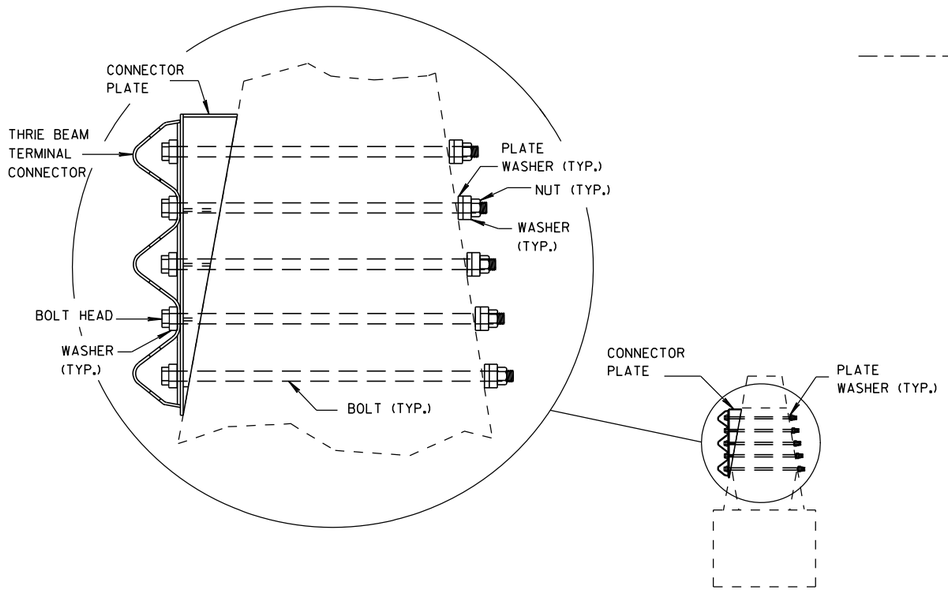
STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

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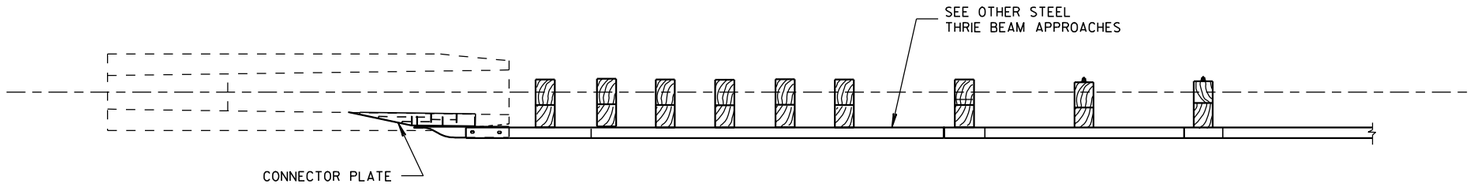
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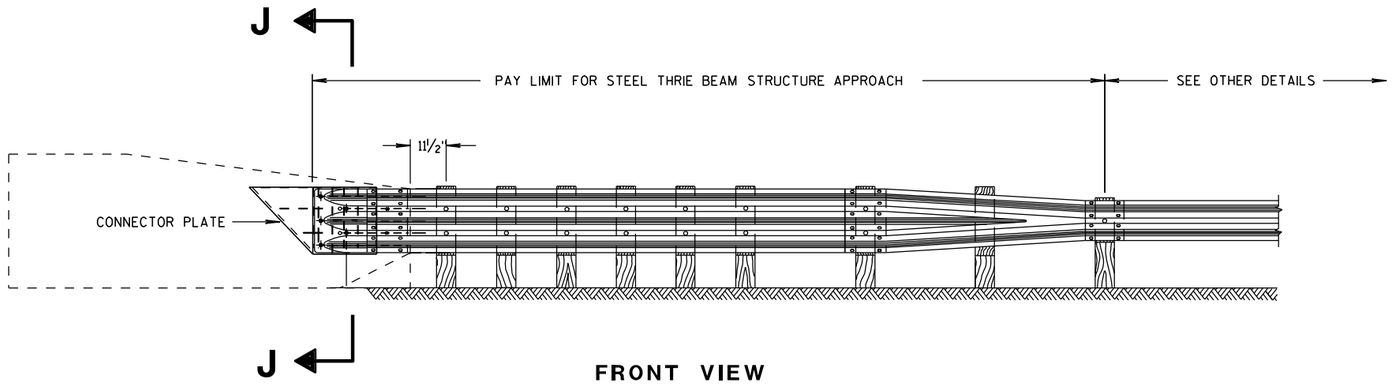
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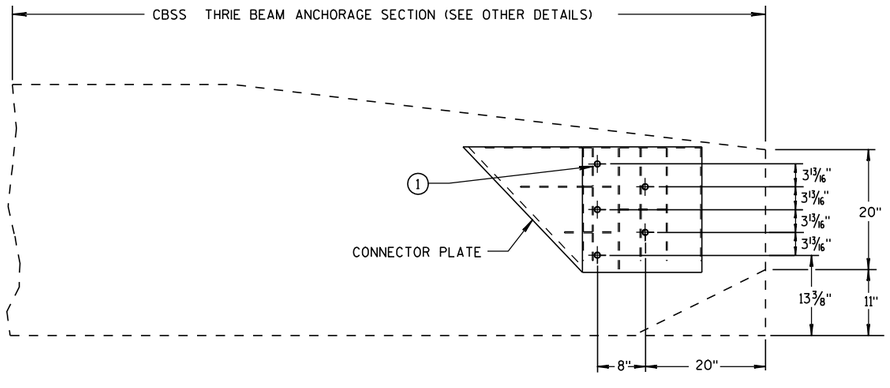
SECTION J-J



PLAN VIEW



FRONT VIEW



CONNECTOR PLATE LOCATION

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 614.

CONNECTOR PLATE, DRILLING HOLES THROUGH PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT

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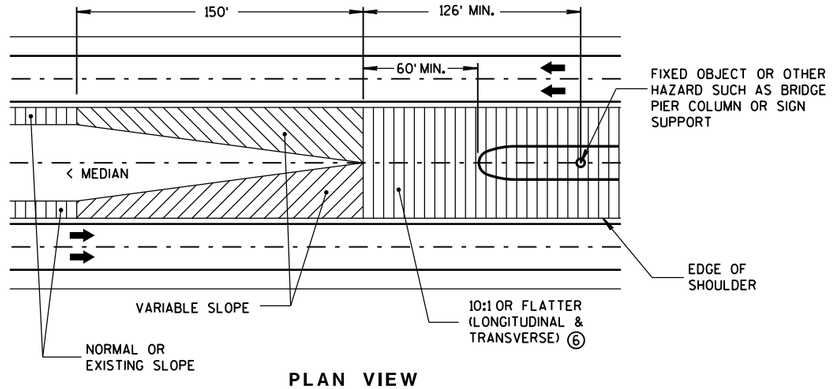
/S/ Jerry H. Zogg
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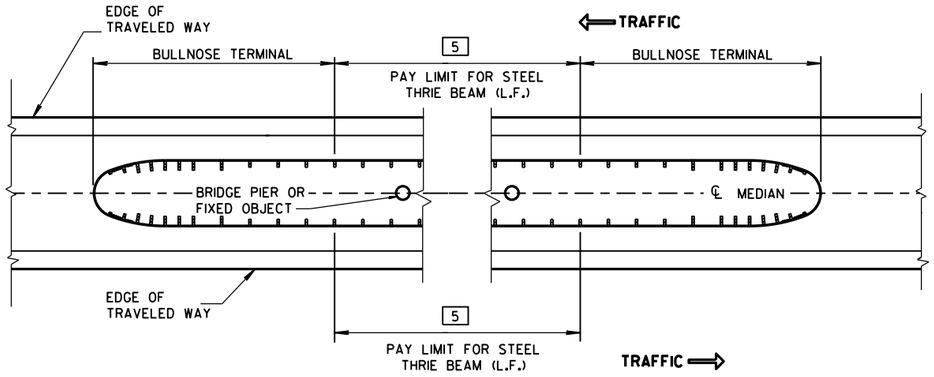
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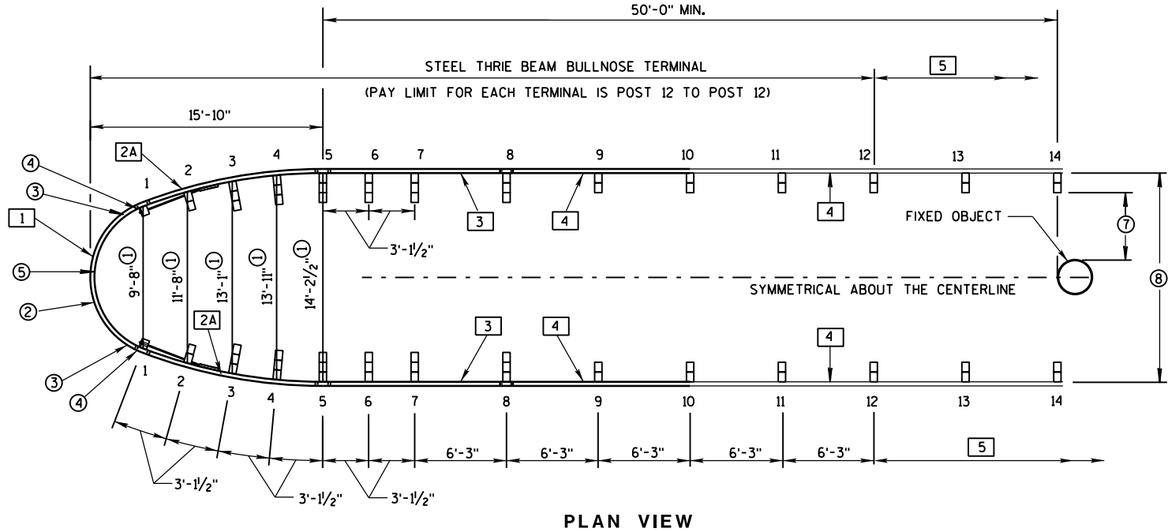


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

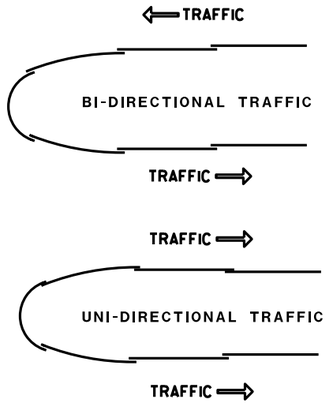


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½" AND 12" DIAMETER AROUND POST. SEE SDD 14B15 OR SDD 14B42 FOR MORE INFORMATION.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

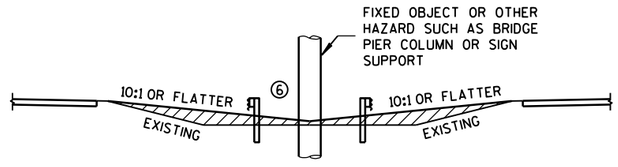
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

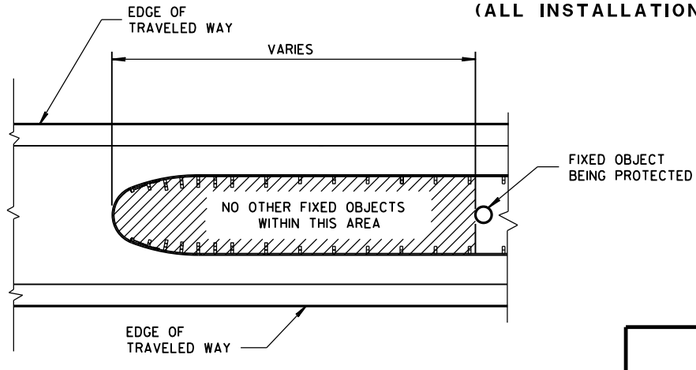
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)

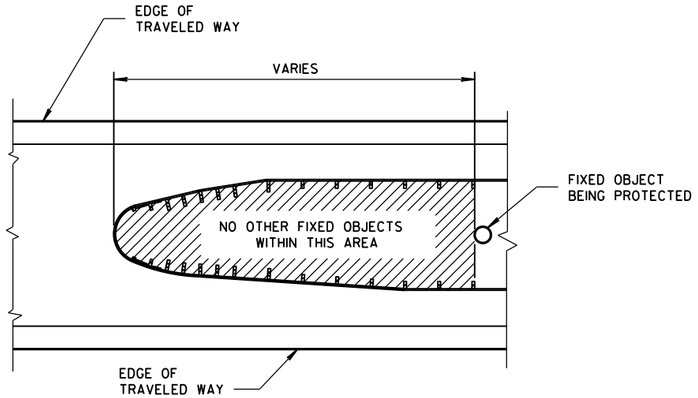


HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 26-3a



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

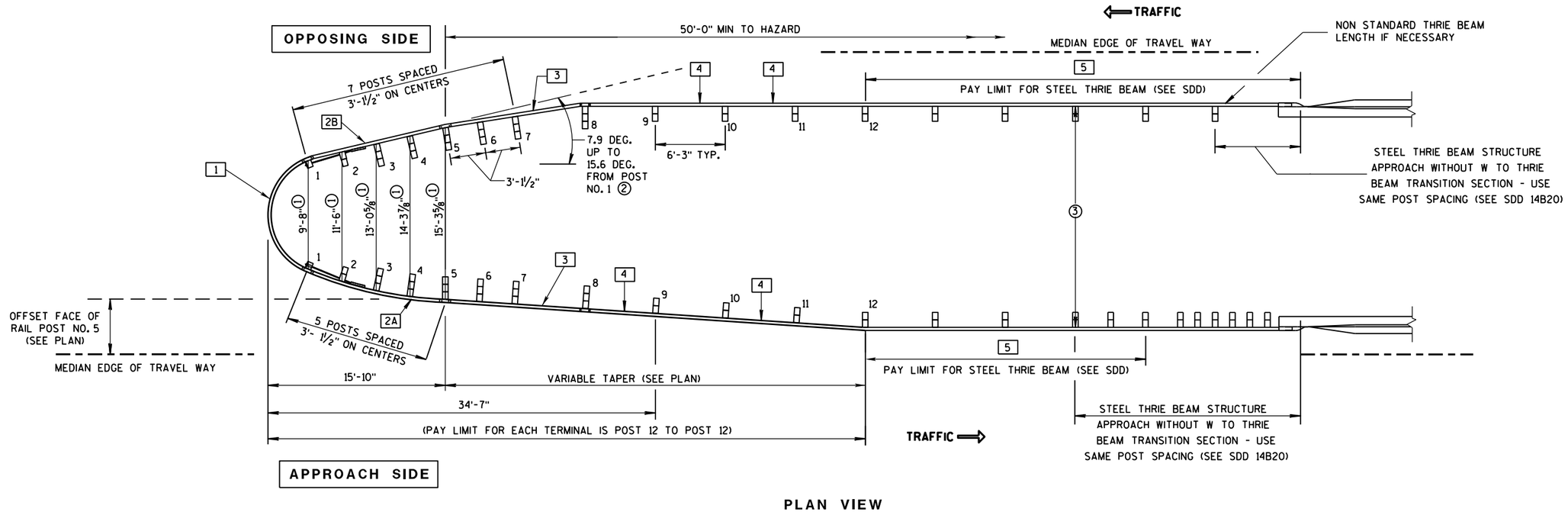
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

WIDENED BULLNOSE DESIGN

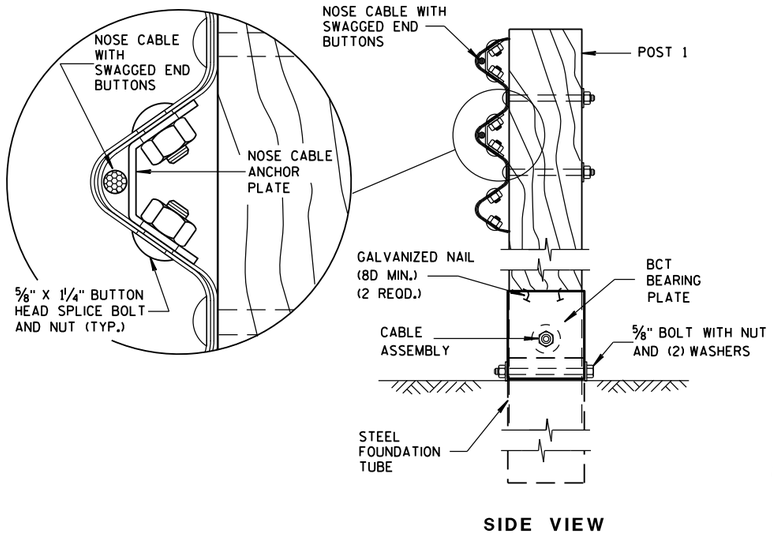
(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

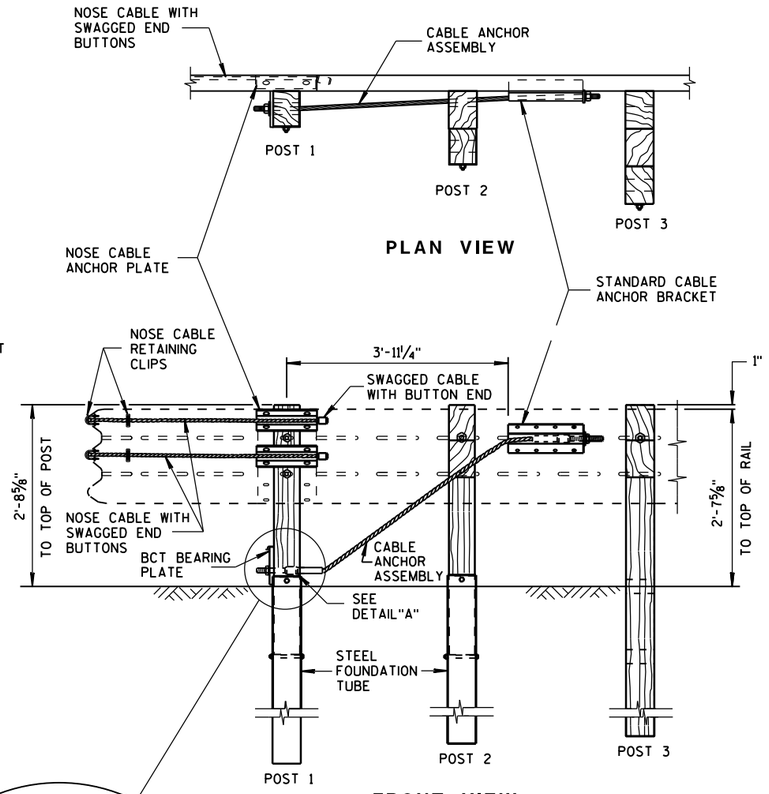
6

S.D.D. 14 B 26-3b



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



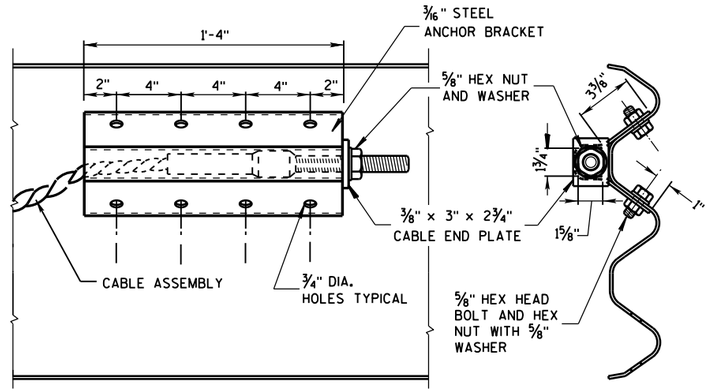
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

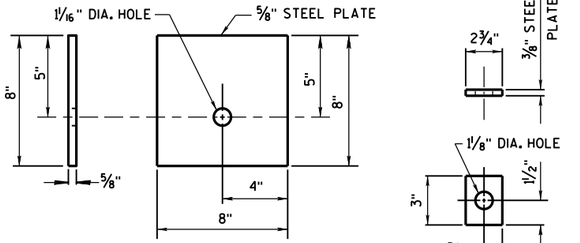
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



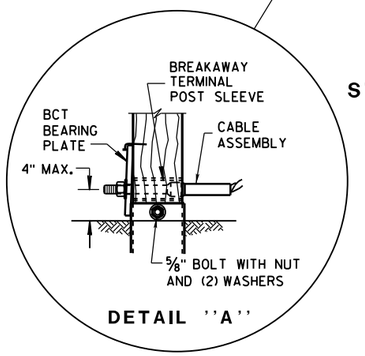
FRONT VIEW END VIEW

DETAILS OF CABLE ANCHOR BRACKET

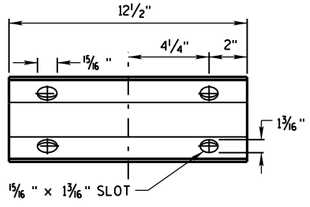


BCT BEARING PLATE

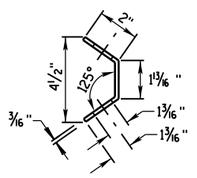
CABLE END PLATE



DETAIL ''A''



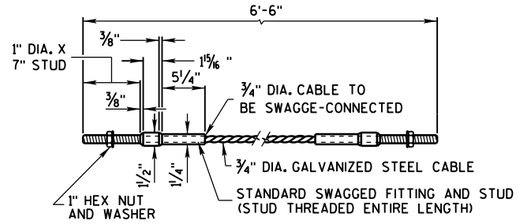
ELEVATION VIEW



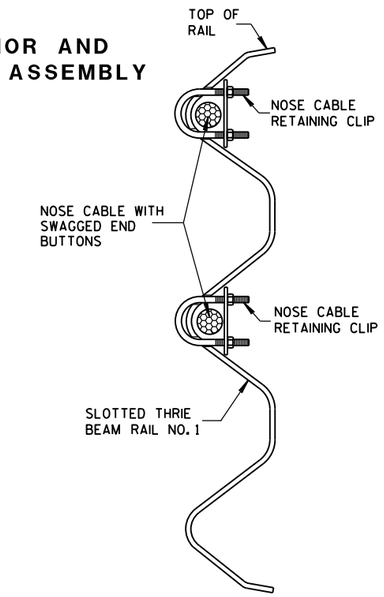
END VIEW

NOSE CABLE ANCHOR PLATE

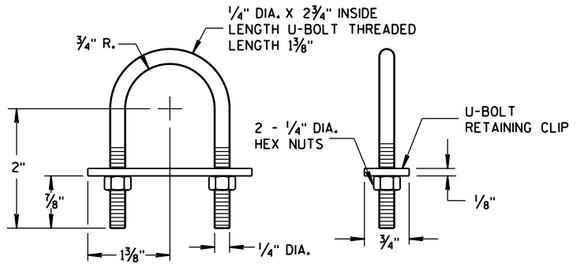
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



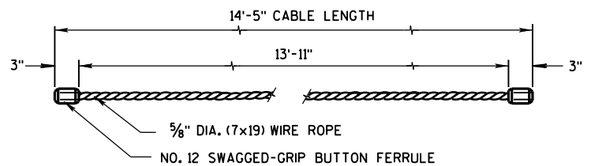
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP



NOSE CABLE RETAINING CLIP



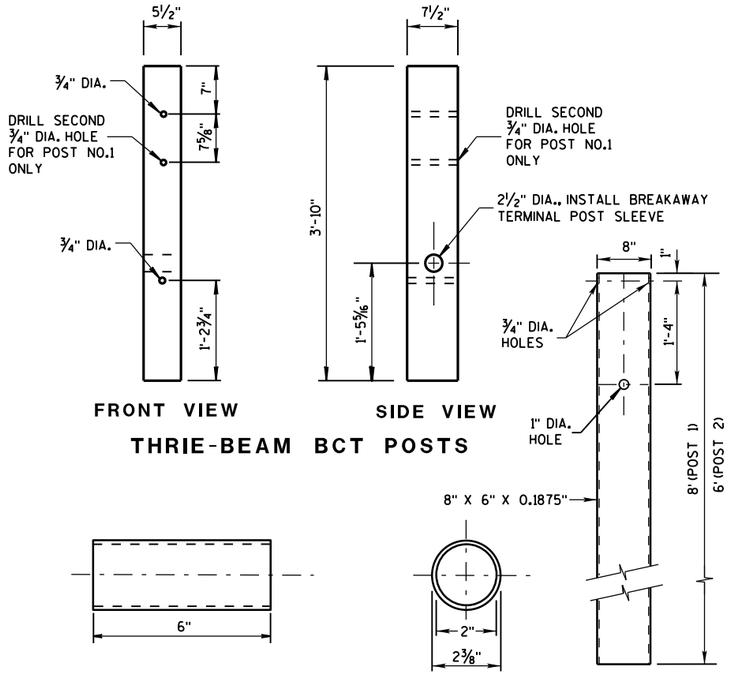
NOSE CABLE WITH SWAGGED END BUTTONS

TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

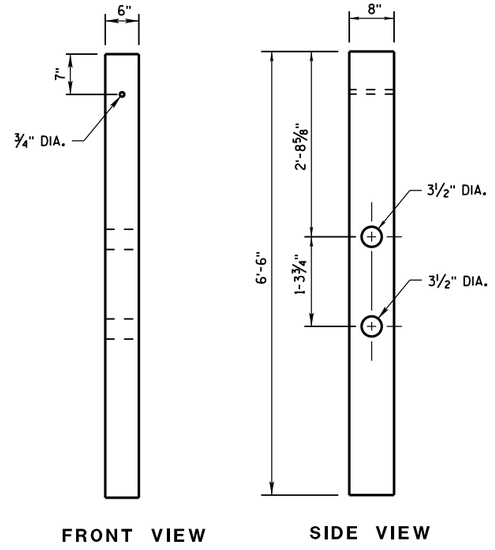
S.D.D. 14 B 26-3c



THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

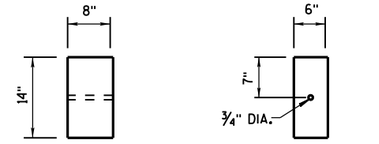
STEEL FOUNDATION TUBE



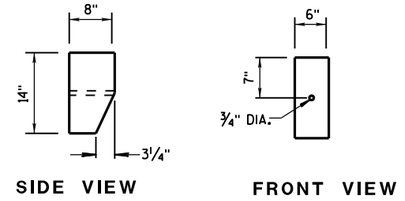
THRIE-BEAM CRT WOOD POSTS

GENERAL NOTES

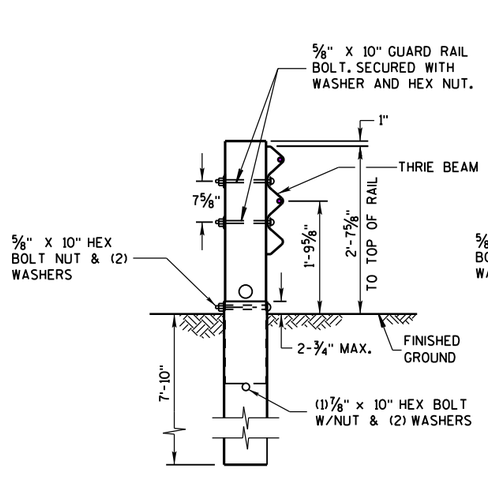
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



STANDARD WOOD BLOCK

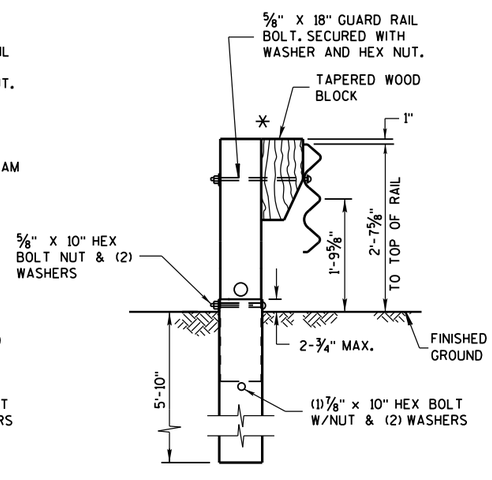


TAPERED WOOD BLOCK



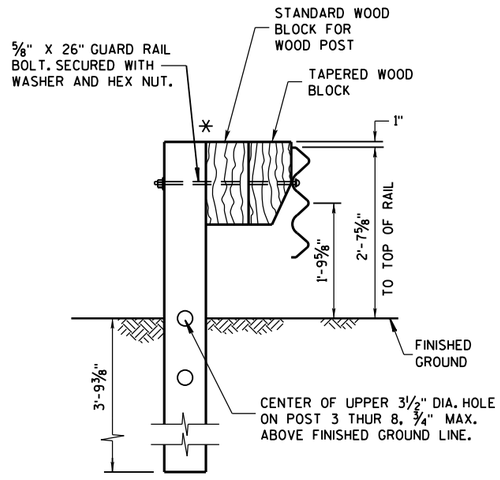
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



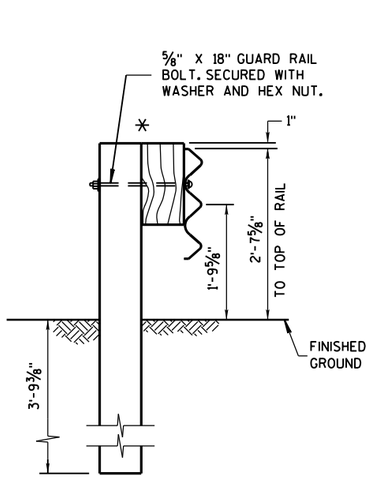
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12

(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

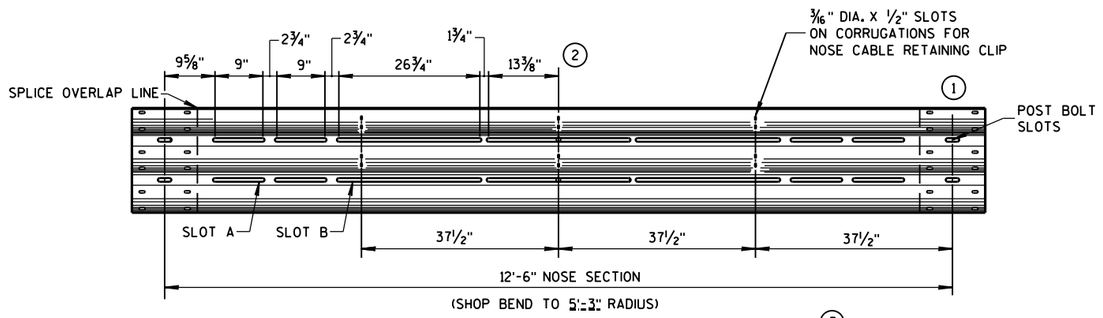
* IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

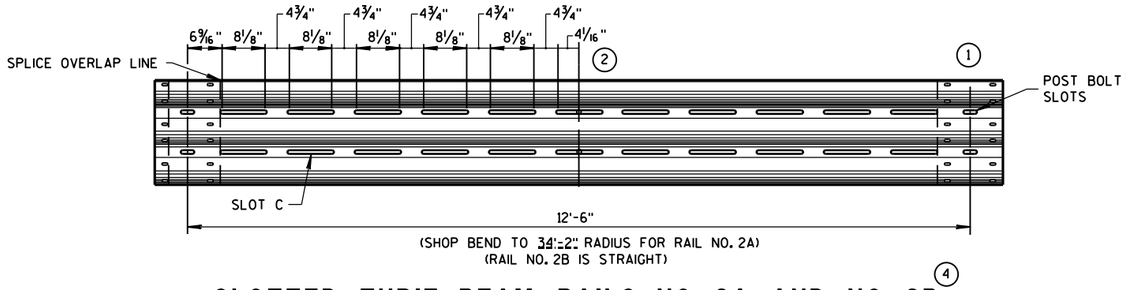
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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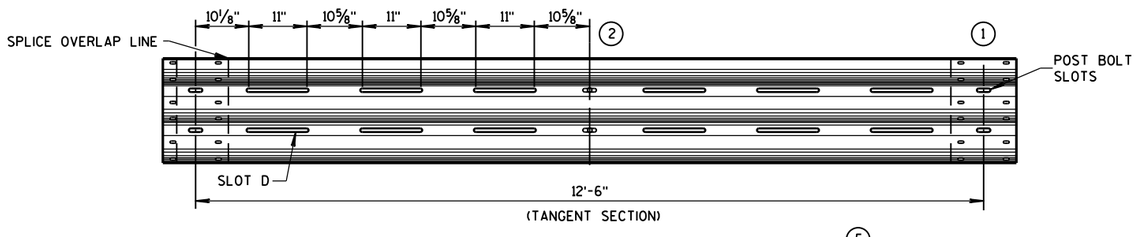
S.D.D. 14 B 26-3d



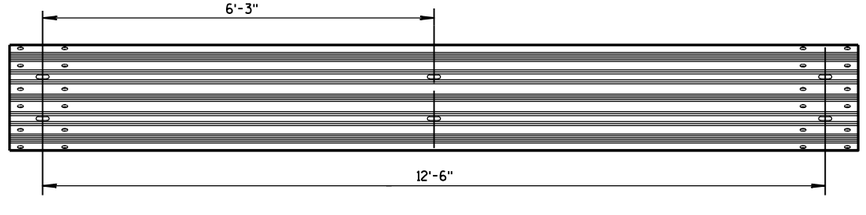
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

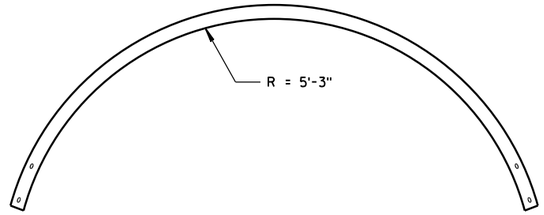
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

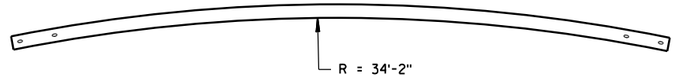
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



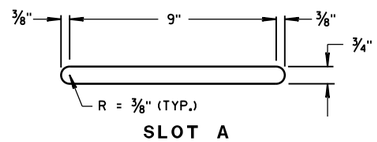
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

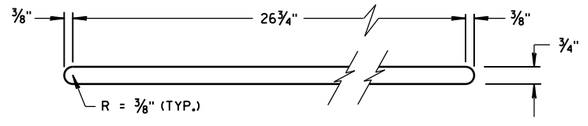


PLAN VIEW

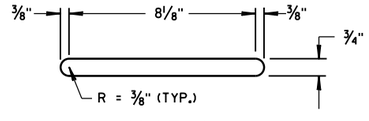
SLOTTED THRIE BEAM RAIL NO. 2A



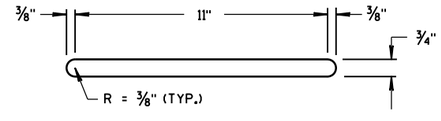
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2014 — DATE

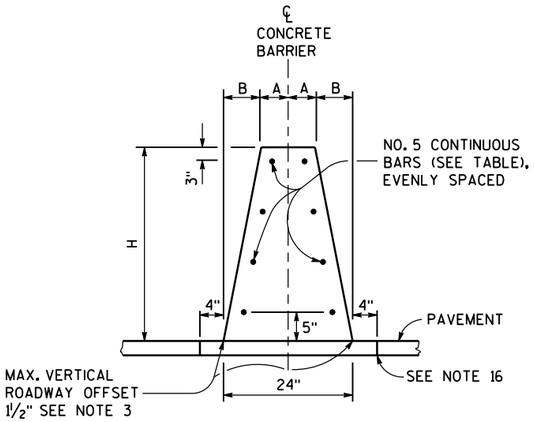
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

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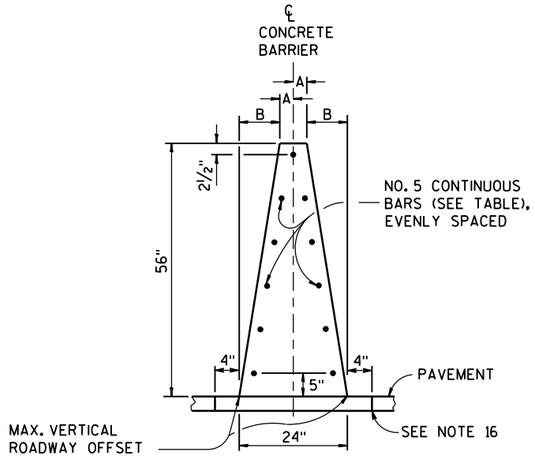
FHWA

6

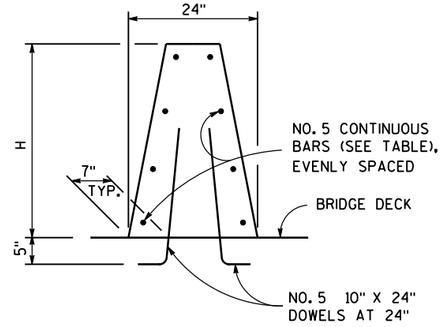
S.D.D. 14 B 26-3e



32-INCH, 36-INCH OR 42-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S32, TYPE S36, AND TYPE S42)



56-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S56)



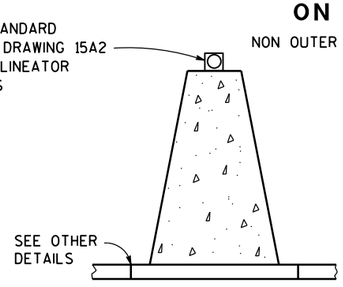
SINGLE SLOPE CONCRETE BARRIER ON BRIDGE

NON OUTER PARAPET APPLICATION

GENERAL NOTES

1. WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
2. EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK, AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OR ½" MINIMUM.
3. WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1½", USE TYPE A
4. PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
5. EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1'-0".
6. FOR TYPE S32, TYPE S36, TYPE S42, AND S56 MONOLITHIC FOOTING OR DOWELED FOOTING WITH 2-#8 x 8" @ 2'-0".
7. STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
8. 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
9. WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.
10. USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
11. 2" CLEAR COVER TYPICAL.
12. COLD-JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED.
13. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 NO ADDITIONAL VERTICAL STEEL NEEDED. IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A REQUIRES VERTICAL STEEL. SEE OTHER DETAIL.
14. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 DEPTH OF FOOTING 10". IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A MATCH TOTAL HEIGHT OF SINGLE SLOPE BARRIER RETAINING WALL.
15. FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON S.D.D. 14B33. ANCHORS INCIDENTAL TO CBSS.
16. CONCRETE PAD UNDER CBSS MAY BE PLACED INTEGRAL WITH BARRIER, PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED FULL DEPTH. CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6¼	5¾	8
42	5¼	6¾	10
56	3	9	11



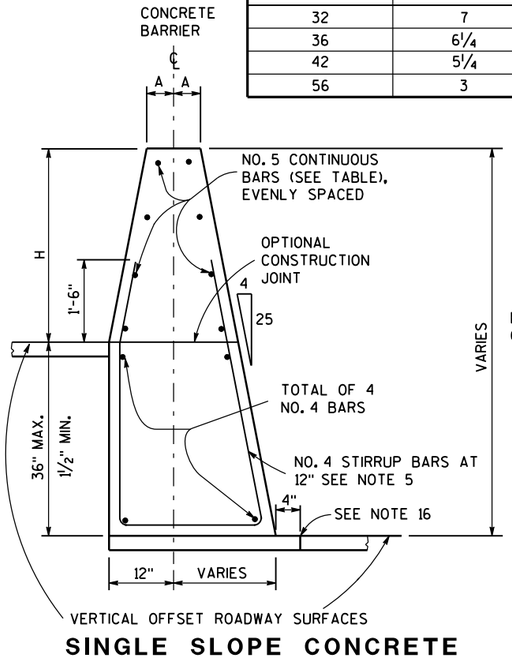
DELINEATION

DELINEATOR SPACING ON HORIZONTAL CURVES

RADIUS OF CURVE	APPROXIMATE SPACING ON CURVE
50 FEET	20 FEET
115 FEET	25 FEET
180 FEET	35 FEET
250 FEET	40 FEET
300 FEET	50 FEET
400 FEET	55 FEET
500 FEET	65 FEET
600 FEET	70 FEET
700 FEET	75 FEET
800 FEET	80 FEET
900 FEET	85 FEET
1000 FEET	90 FEET

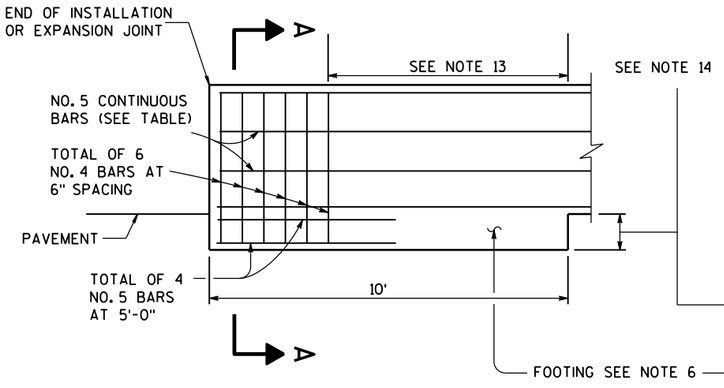
DELINEATOR SPACING ON RADIUS GREATER THAN 1000 FEET OR TANGENT SECTIONS

	LENGTH OF BARRIER	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2	



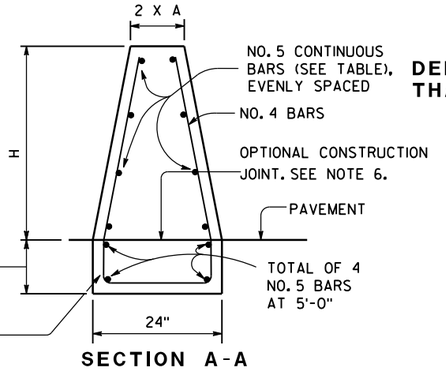
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)

(BETWEEN ADJACENT ROADWAYS)



END ANCHOR SINGLE SLOPE CONCRETE BARRIER

AT CONSTRUCTION JOINT

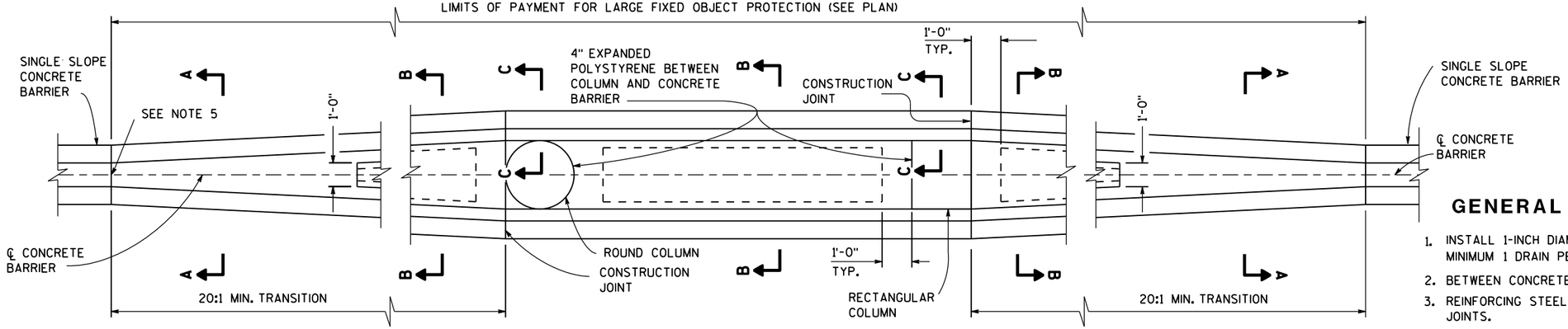


SECTION A-A

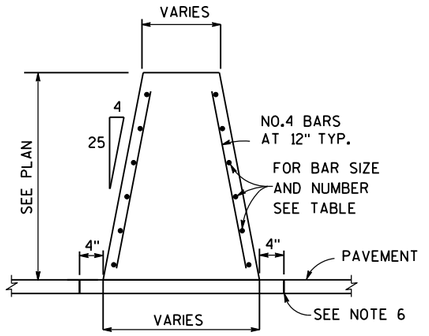
CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

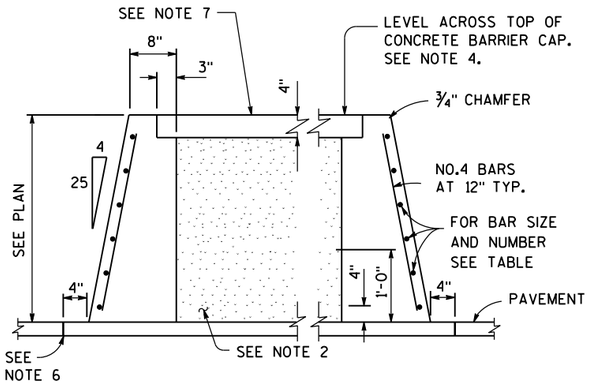
6
S.D.D. 14 B 32-3a



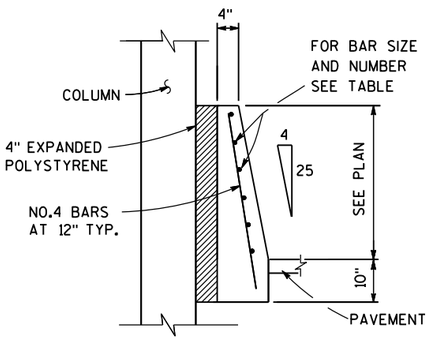
LARGE FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56



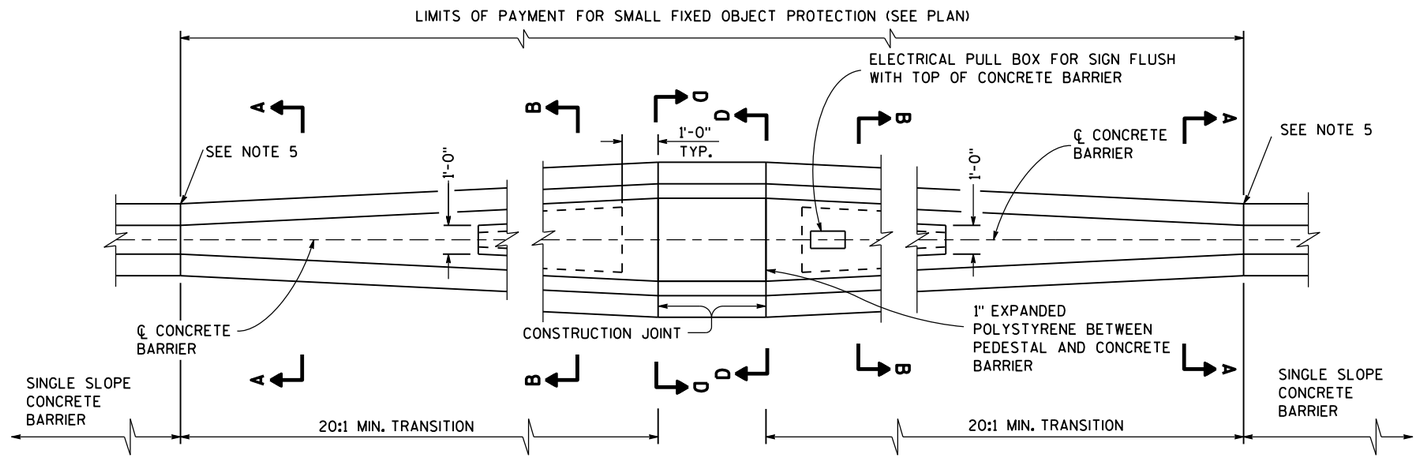
SECTION A-A



SECTION B-B



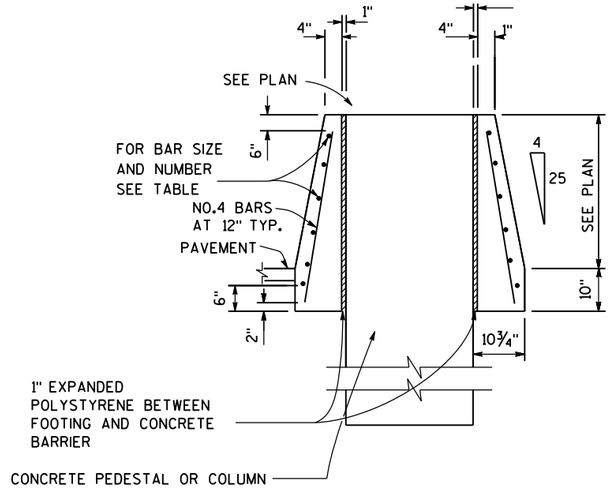
SECTION C-C



SMALL FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56

GENERAL NOTES

1. INSTALL 1-INCH DIAMETER DRAIN PIPE EVERY 20 FEET OF CROSS SECTION B-B. MINIMUM 1 DRAIN PER CAVITY.
2. BETWEEN CONCRETE BARRIER WALLS FILL WITH GRANULAR BACKFILL GRADE 2
3. REINFORCING STEEL SHALL EXTEND CONTINUOUS THROUGH CONSTRUCTION JOINTS.
4. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.
5. IF FIXED OBJECT PROTECTION IS INSTALLED FIRST, USE COLD JOINTS. IF CBSS PLACED FIRST, USE EXPANSION JOINT.
6. CONCRETE PAD UNDER CBSS MAY BE PLACED INTEGRAL WITH BARRIER, PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED FULL DEPTH. SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
7. USE NO. 3 BAR SPACED 12 INCHES CENTER TO CENTER (PLACED IN EACH DIRECTION) OR EQUIVALENT WIRE MESH.



SECTION D-D

BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	9

CONCRETE BARRIER SINGLE SLOPE (CBSS)

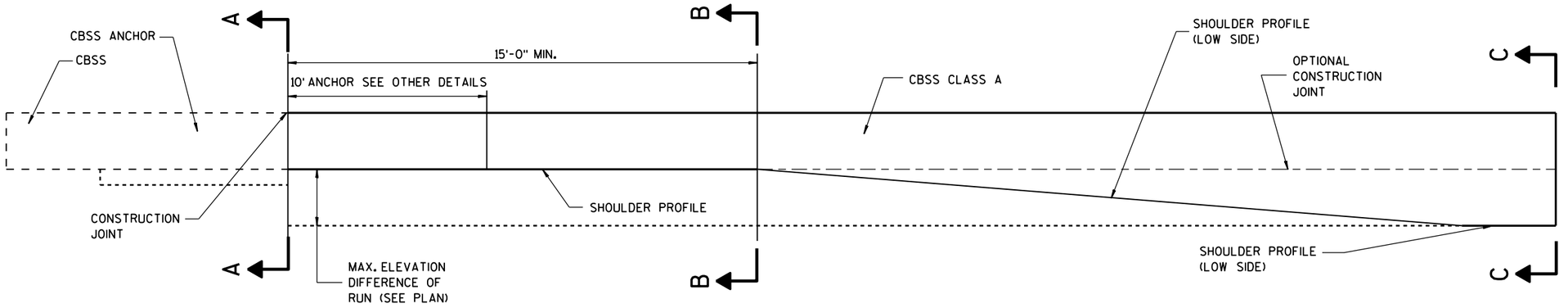
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI 374

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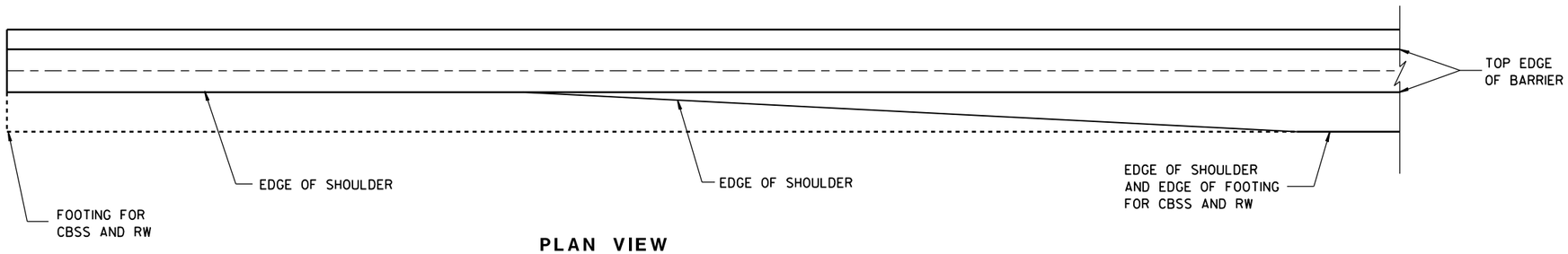
S.D.D. 14 B 32-3b

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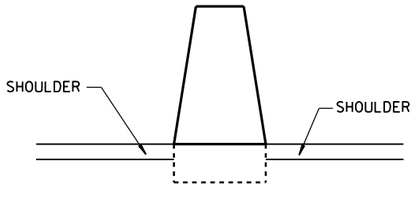
S.D.D. 14 B 32-3b



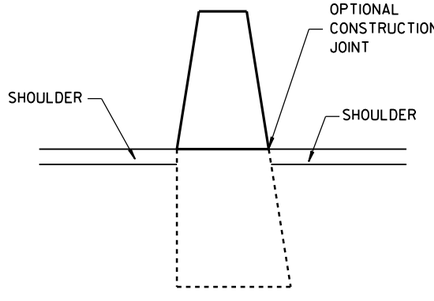
ELEVATION VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



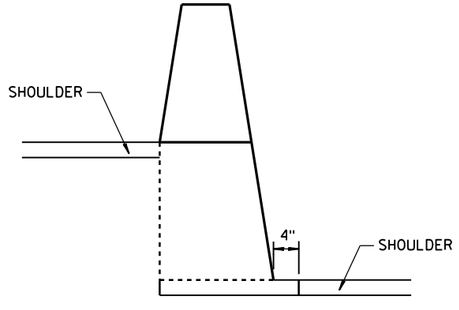
PLAN VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



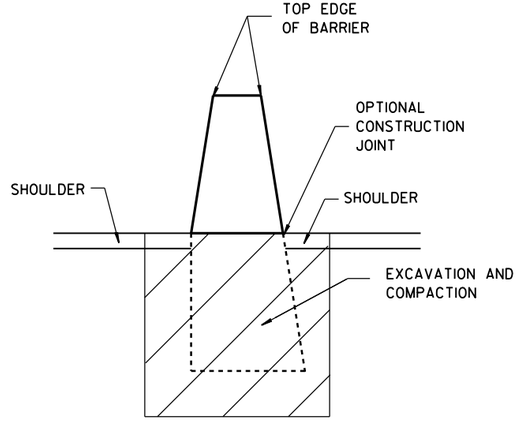
SECTION A-A



SECTION B-B



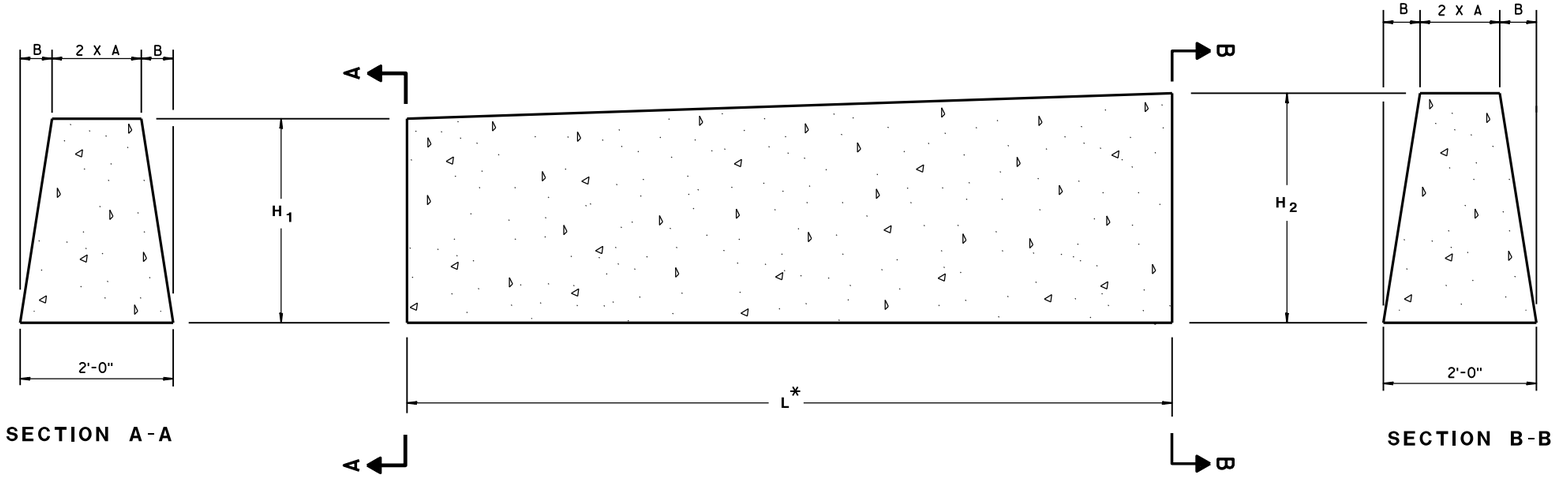
SECTION C-C



CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 32-3c



SECTION A-A

SECTION B-B

DOUBLE COLD JOINT HEIGHT TRANSITION

BARRIER DIMENSIONS

BARRIER HEIGHT INCHES	A INCHES	B INCHES
32	7	5
36	6 1/4	5 3/4
42	5 1/4	6 3/4
56	3	9

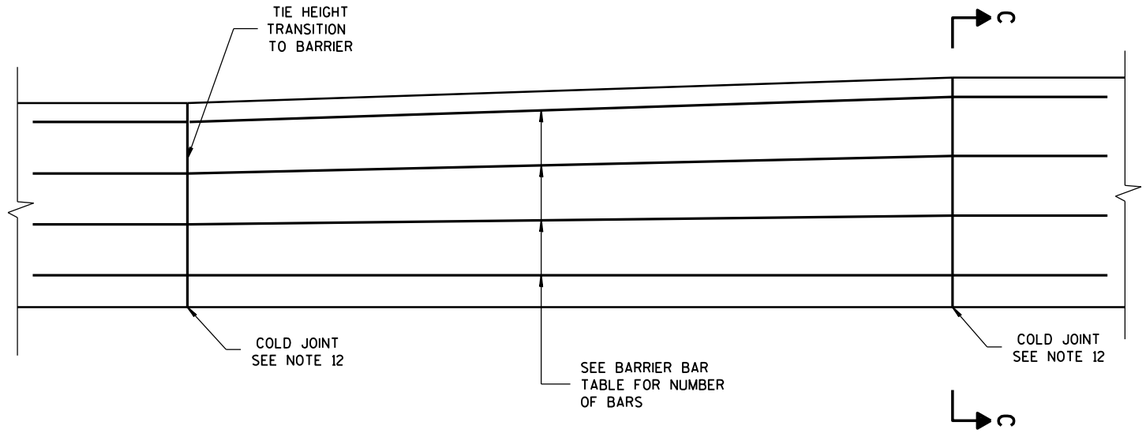
MULTIPLE HEIGHT TRANSITIONS MAY BE USED IN SEQUENCE TO GET TO APPROPRIATE HEIGHT.

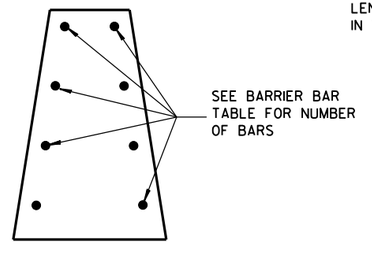
USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

BARRIER BARS

H_1	H_2	L*	NUMBER OF NO. 5 BARS
32"	36"	10'-0"	8
36"	42"	10'-6"	10
42"	56"	24'-6"	11

* LENGTH OF DOUBLE COLD JOINT INCLUDED IN THE TOTAL LENGTH OF CBSS.





SECTION C-C

STEEL REINFORCEMENT DETAIL

CONCRETE BARRIER SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2014 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

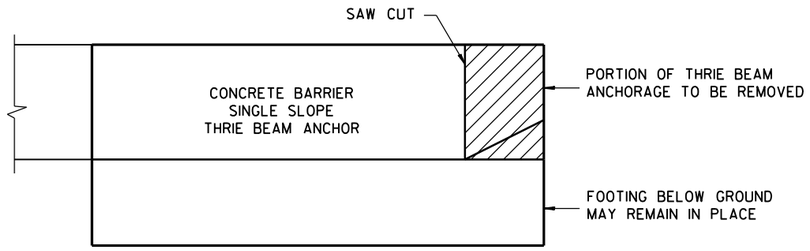
FHWA

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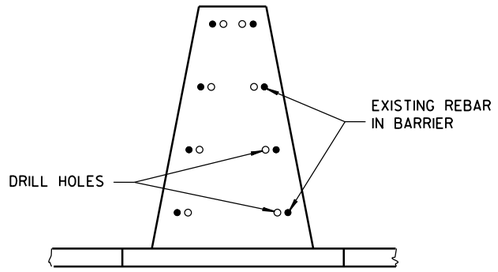
S.D.D. 14 B 32-3d

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S.D.D. 14 B 32-3d



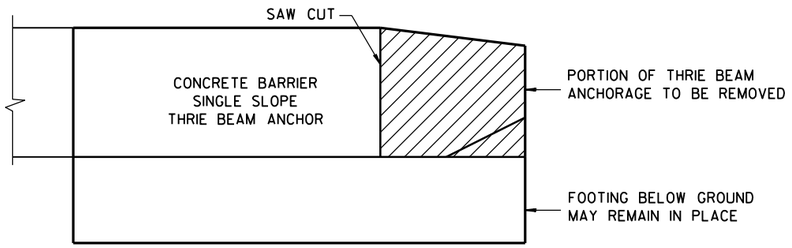
REMOVAL AREA OF
32" CONCRETE THRIE BEAM ANCHORAGE



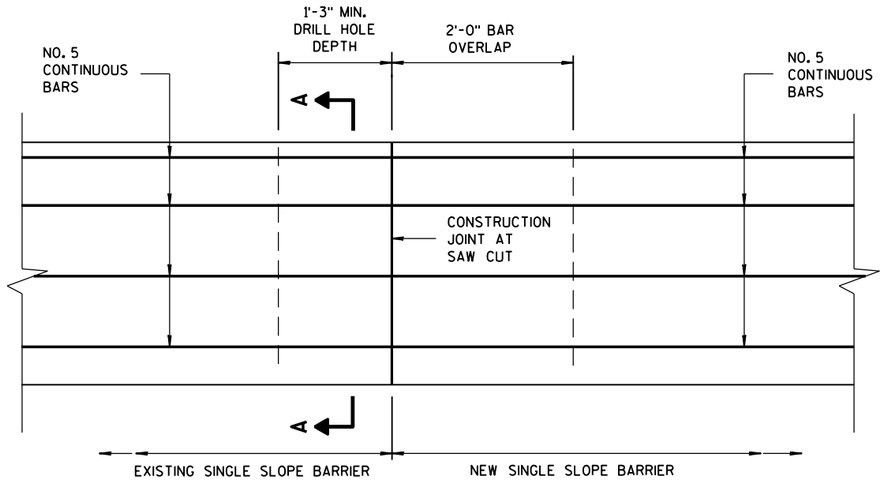
SECTION A-A

GENERAL NOTES

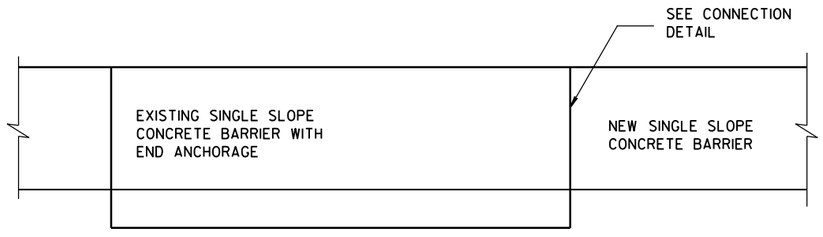
1. THE NUMBER OF DRILL HOLES IS EQUAL TO THE NUMBER OF REBAR IN BARRIER (SEE OTHER DETAILS).
2. MINIMUM DEPTH OF DRILL HOLES IS 1'-3".
3. DRILL HOLES TO BE A MINIMUM OF 4 INCHES FROM THE EDGE OF CONCRETE.
4. INSTALL EPOXY COATED NO. 5 BARS IN DRILL HOLES.
5. END ANCHORAGE MAY OR MAY NOT BE PRESENT ON EXISTING BARRIER.
6. REMOVE THRIE BEAM ANCHORAGE AS SHOWN.



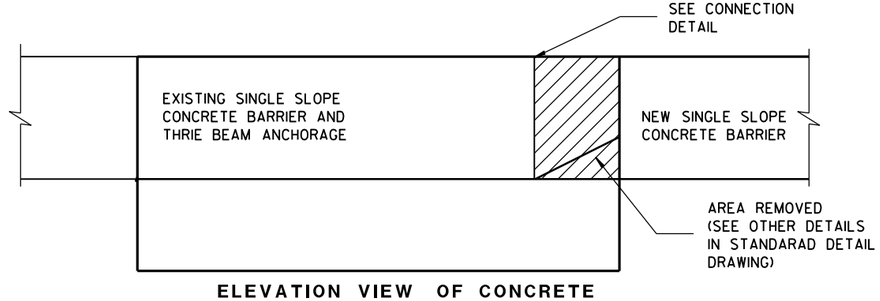
REMOVAL AREA OF CONCRETE THRIE BEAM
ANCHORAGE WITH HEIGHT GREATER THAN 32"



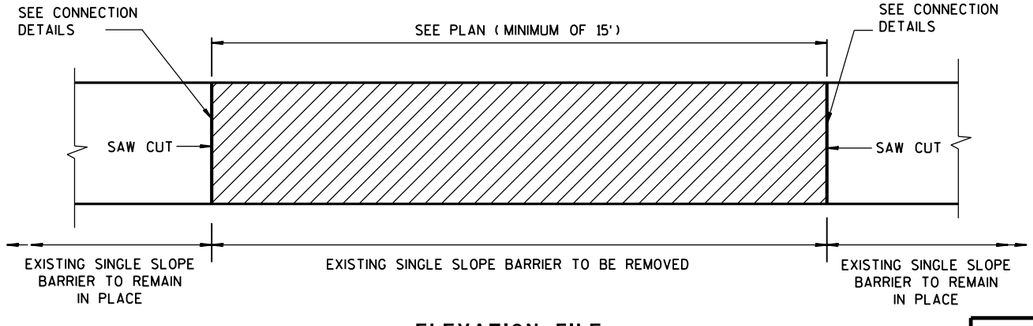
CONNECTION OF EXISTING SINGLE SLOPE CONCRETE BARRIER TO
NEW SINGLE SLOPE CONCRETE BARRIER



ELEVATION VIEW OF CONCRETE
BARRIER EXTENSION NEAR END ANCHORAGE



ELEVATION VIEW OF CONCRETE
BARRIER EXTENSION NEAR THRIE BEAM TERMINAL



ELEVATION FILE
BARRIER REMOVAL AND REPLACEMENT

CONCRETE BARRIER
SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

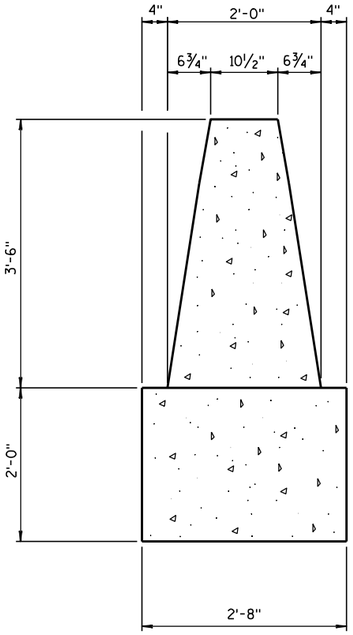
RETROFIT OR REPAIR SINGLE SLOPE CONCRETE BARRIER

6

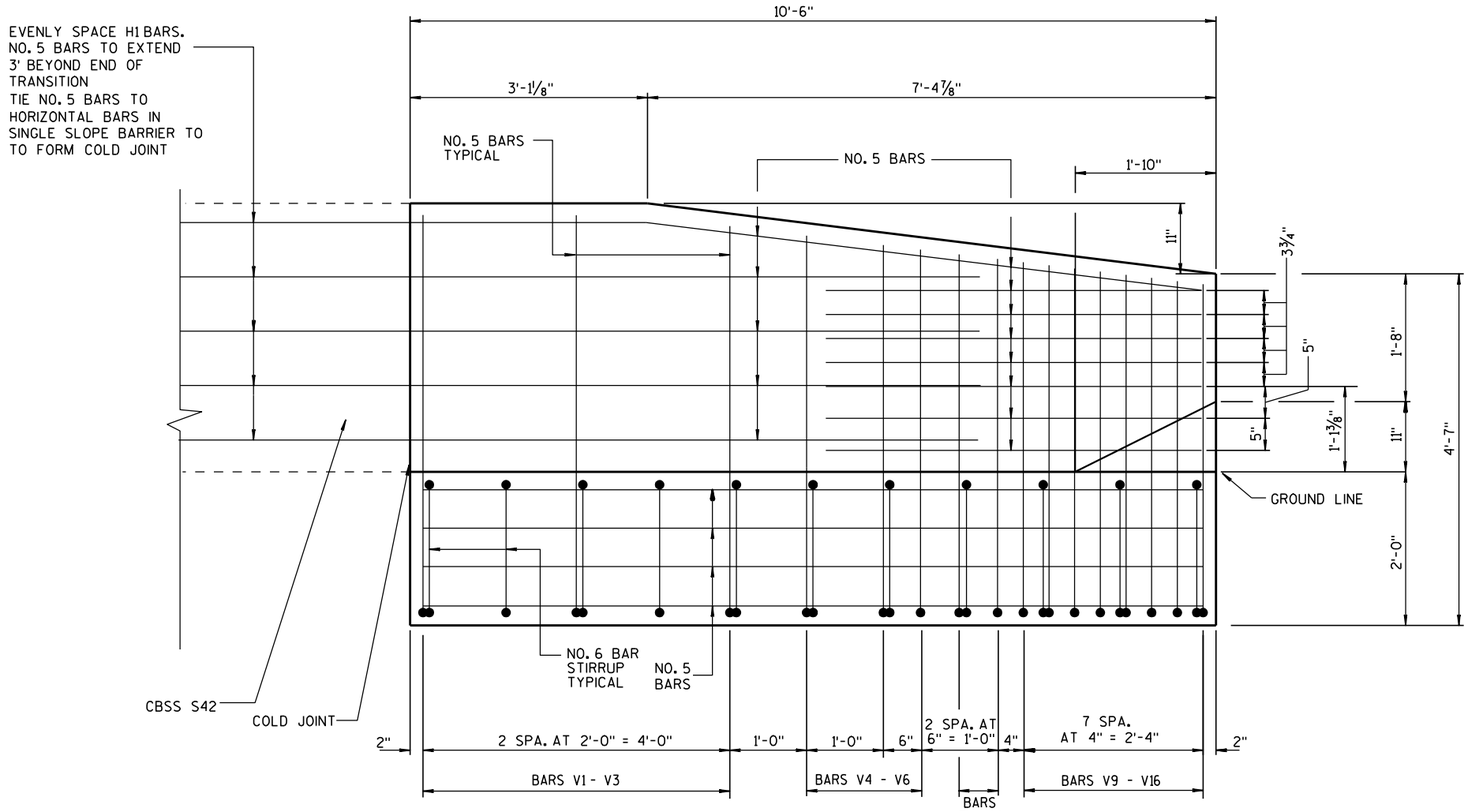
S.D.D. 14 B 32-3e

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S.D.D. 14 B 32-3e

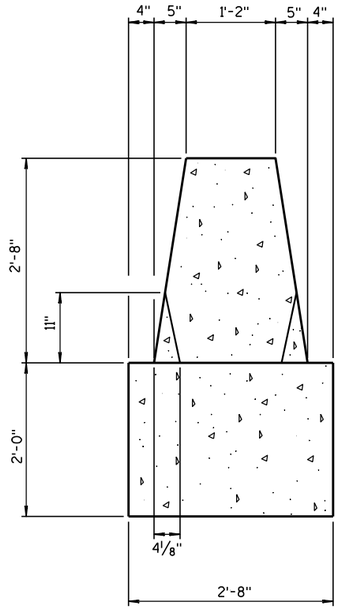


SECTION A-A

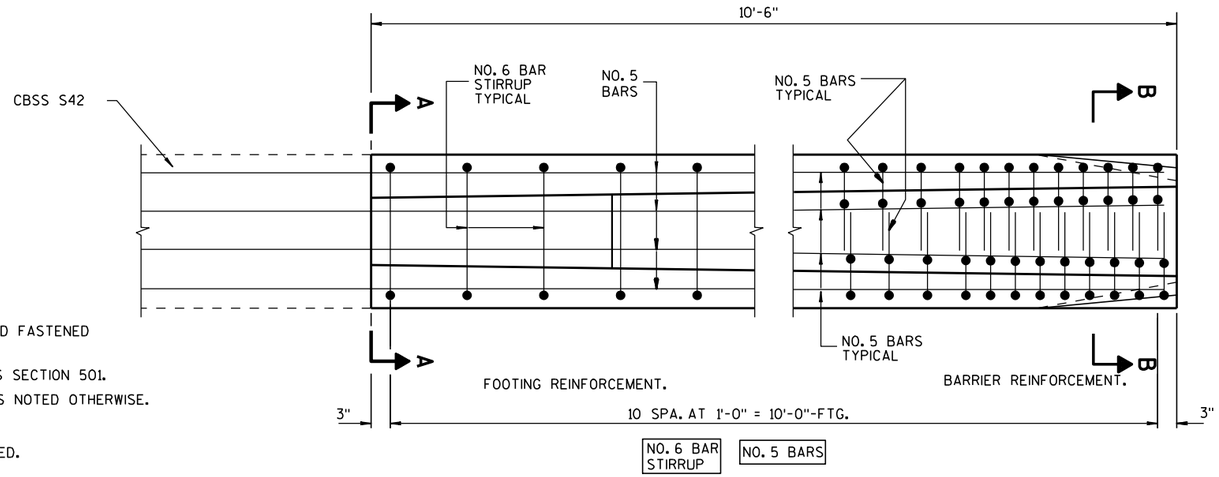


SEE SECTIONS ① THRU ⑯

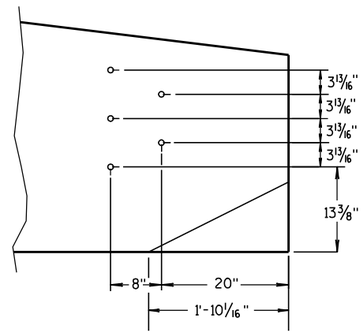
ELEVATION VIEW



SECTION B-B



PLAN VIEW



PVC PIPE LOCATIONS

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2'LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THRIE BEAM ANCHOR INCIDENTAL TO CONCRETE BARRIER ITEM.

INSTALL SCHEDULE 40 PVC PIPE 1" DIAMETER AT LOCATIONS INDICATED.

EXTEND PVC PIPE COMPLETELY THROUGH BARRIER.

CUT ENDS OF PVC PIPE FLUSH WITH FINISHED FACE of BARRIER.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR

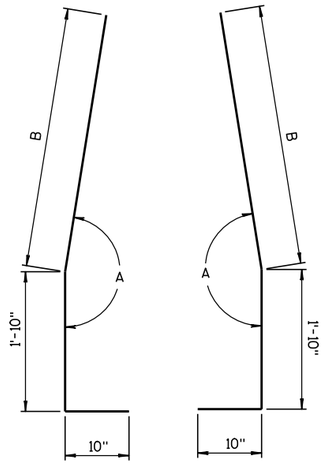
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 33-1g

BAR CHART
SECTIONS V1 - V11

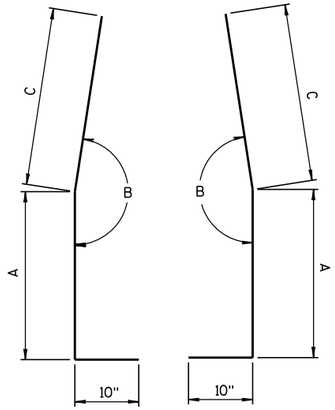
BAR	A	B
V1	170°-50'	3'-4½"
V2	171°-20'	3'-4½"
V3	171°-30'	3'-2½"
V4	171°-25'	3'-1½"
V5	171°-15'	3'-0"
V6	171°-15'	2'-11"
V7	171°-20'	2'-10½"
V8	171°-10'	2'-9½"
V9	171°-10'	2'-9"
V10	171°-05'	2'-8½"
V11	171°-10'	2'-8"



BAR BENDING DETAIL
FOR BARS V1 - V11

BAR CHART
SECTIONS V12 - V13

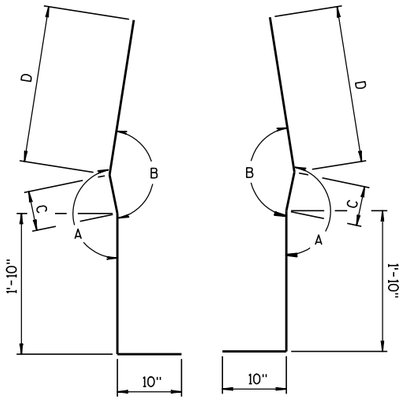
BAR	A	B	C
V12	2'-2"	171°-15'	2'-3½"
V13	2'-7"	171°-05'	1'-10"



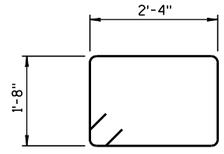
BAR BENDING DETAIL
FOR BARS V12 - V13

BAR CHART
SECTIONS V14 - V16

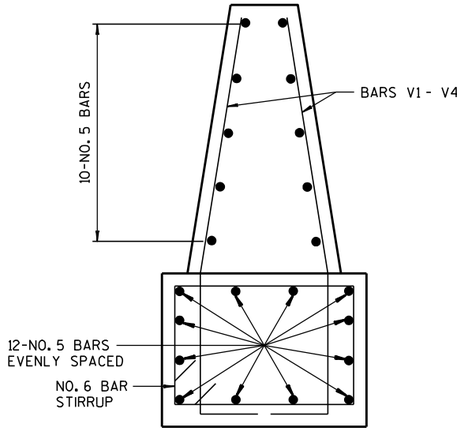
BAR	A	B	C	D
V14	168°-15'	159°-15'	6"	2'-0"
V15	169°-20'	161°-00'	8"	1'-10"
V16	168°-40'	160°-10'	10"	1'-8"



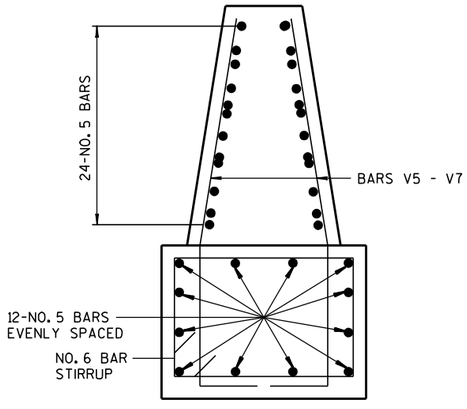
BAR BENDING DETAIL
FOR BARS V14 - V16



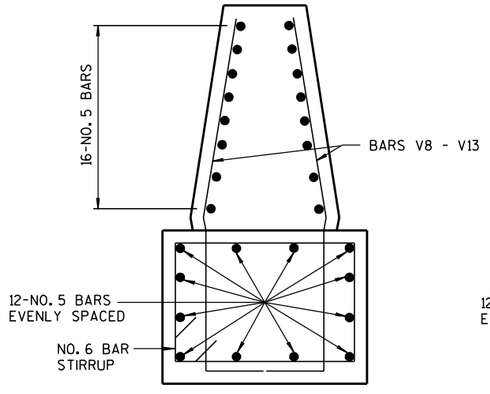
STIRRUP BAR
BENDING DETAIL



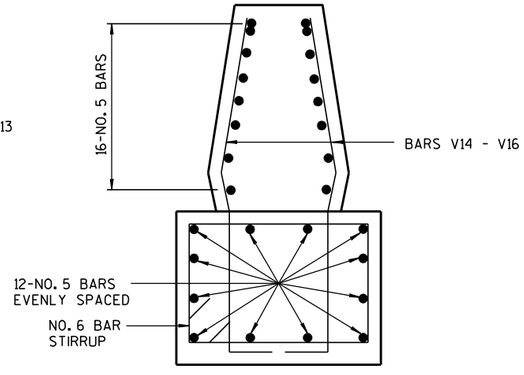
BAR DETAIL
SECTIONS V1 - V4



BAR DETAIL
SECTIONS V5 - V7



BAR DETAIL
SECTIONS V8 - V13



BAR DETAIL
SECTIONS V14 - V16

CONCRETE BARRIER
SINGLE SLOPE 42"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

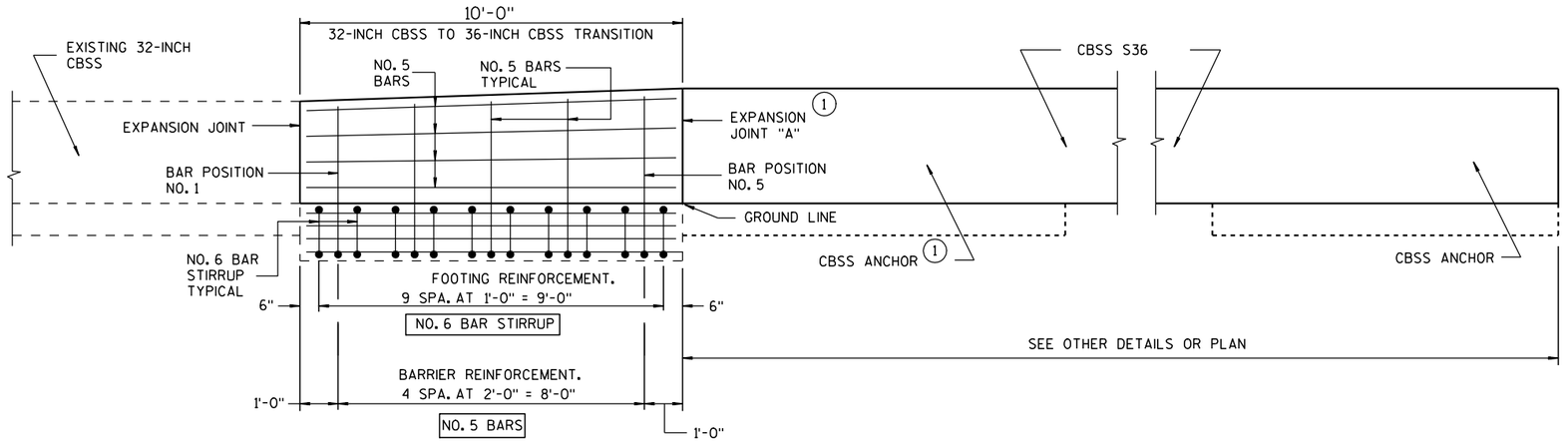
6-3-2010
DATE

/S/ Jerry H. Z---
ROADWAY STANDARDS ENGINEER

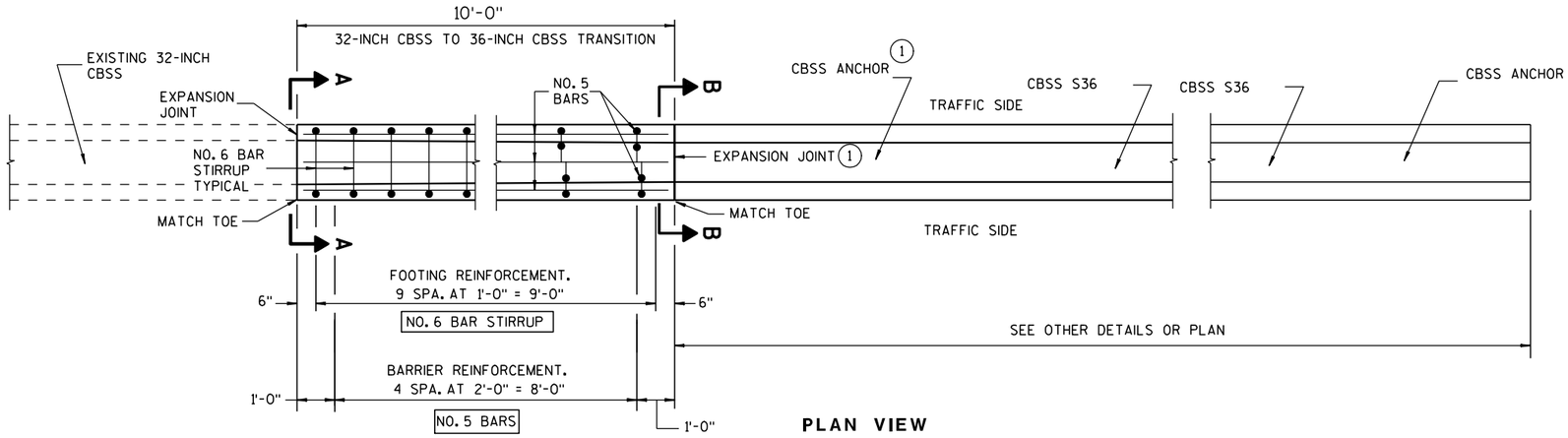
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ELEVATION VIEW



PLAN VIEW

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2'LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

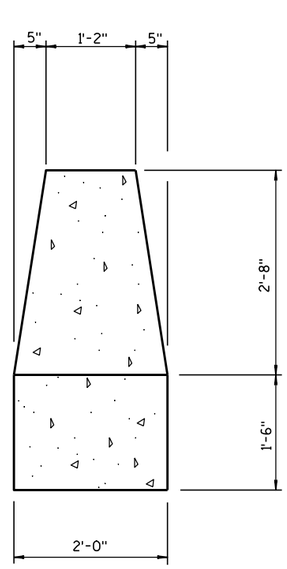
4000 PSICONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE $\frac{3}{4}$" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

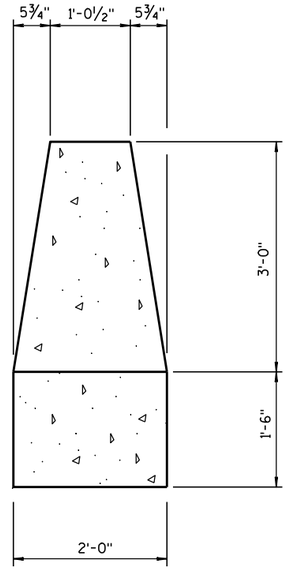
THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

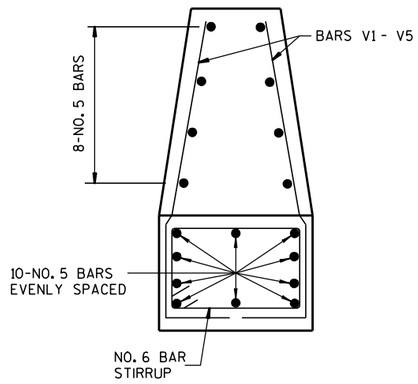
(1) EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD-JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD-JOINT IS USED ANCHOR NOT REQUIRED.



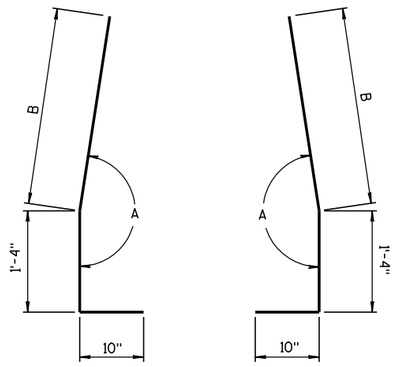
SECTION A-A



SECTION B-B



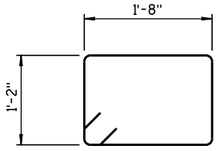
BAR DETAIL
BAR POSITION NO. 1 - NO. 5



BAR BENDING DETAIL
FOR BARS V1 - V5

BAR CHART
SECTIONS V1 - V5

BAR	A	B
V1	171°-10'	2'-6½"
V2	171°-05'	2'-8"
V3	170°-55'	2'-9"
V4	170°-40'	2'-9½"
V5	171°	2'-10"



STIRRUP BAR
BENDING DETAIL

32-INCH SINGLE SLOPE CONCRETE BARRIER TO 36-INCH SINGLE SLOPE CONCRETE BARRIER HEIGHT TRANSITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

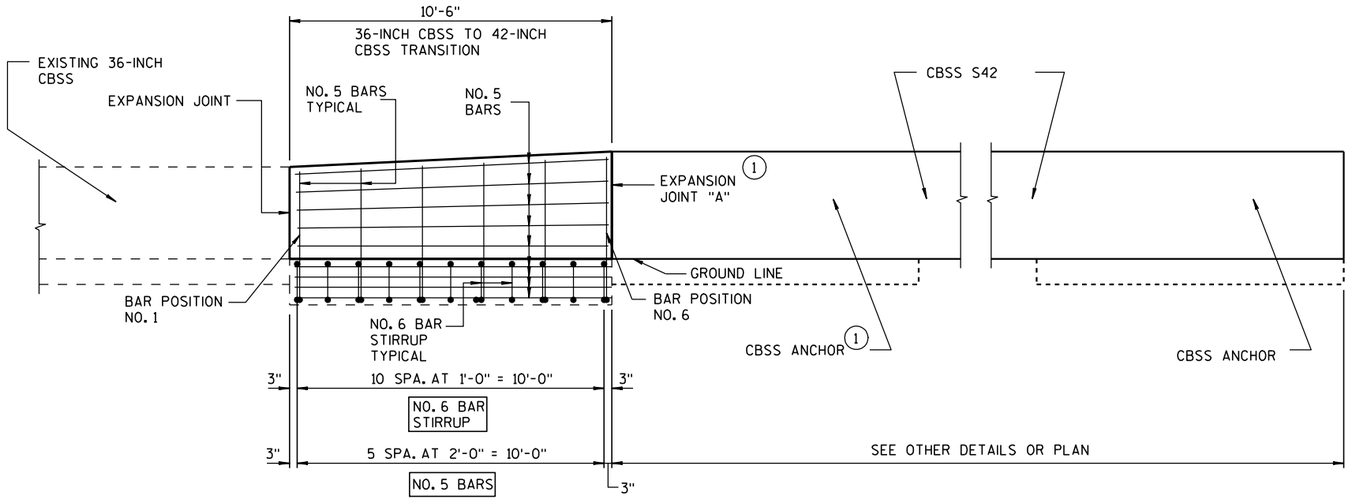
APPROVED
6-3-2010
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS I 380 ENGINEER
FHWA

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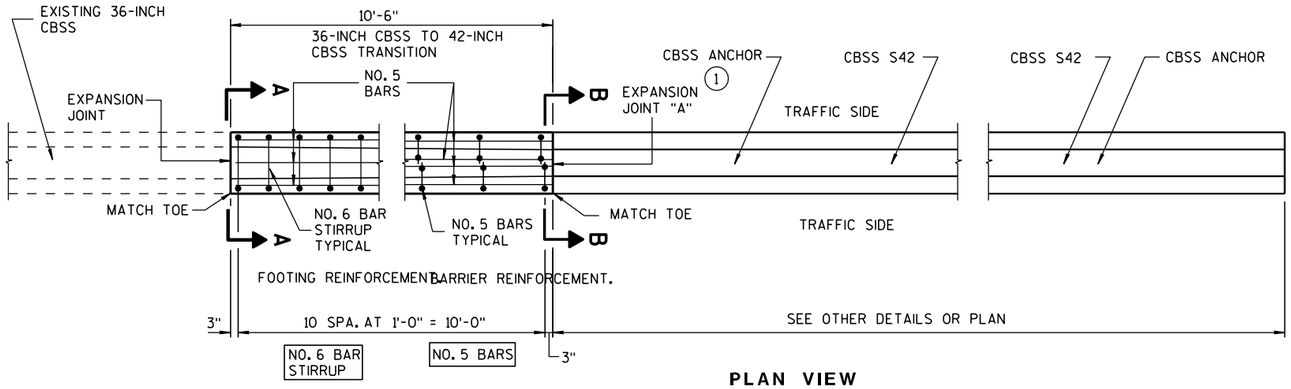
S.D.D. 14 B 39-1a

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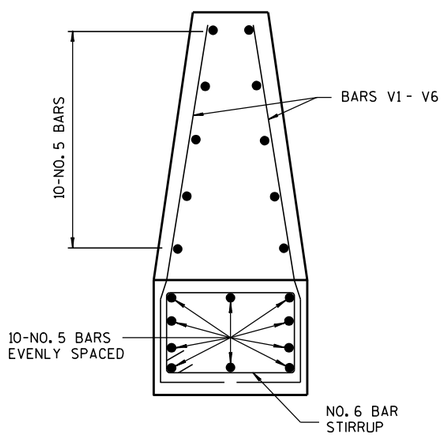
S.D.D. 14 B 39-1a



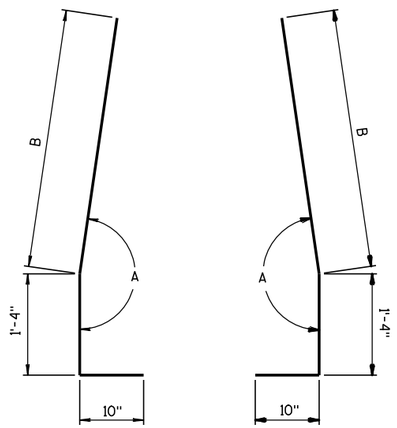
ELEVATION VIEW



PLAN VIEW



BAR DETAIL
BAR POSITION NO. 1 - NO. 6



BAR BENDING DETAIL
FOR BARS V1 - V6

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2'LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

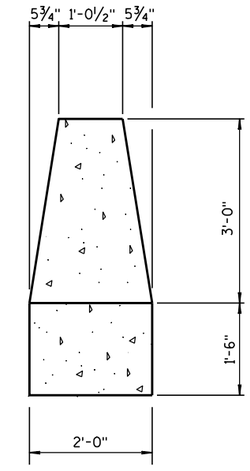
4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

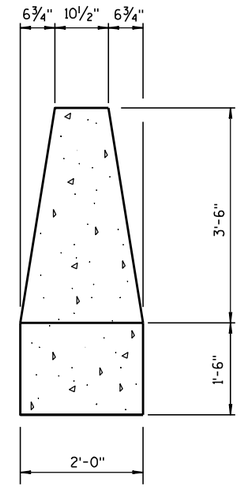
THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

(1) EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD-JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD-JOINT IS USED ANCHOR NOT REQUIRED.



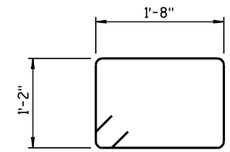
SECTION A-A



SECTION B-B

BAR CHART
SECTIONS V1 - V6

BAR	A	B
V1	170°-55'	2'-10½"
V2	171°-05'	3'-0"
V3	171°-20'	3'-1"
V4	171°-20'	3'-2"
V5	171°-35'	3'-3"
V6	171°-40'	3'-4½"



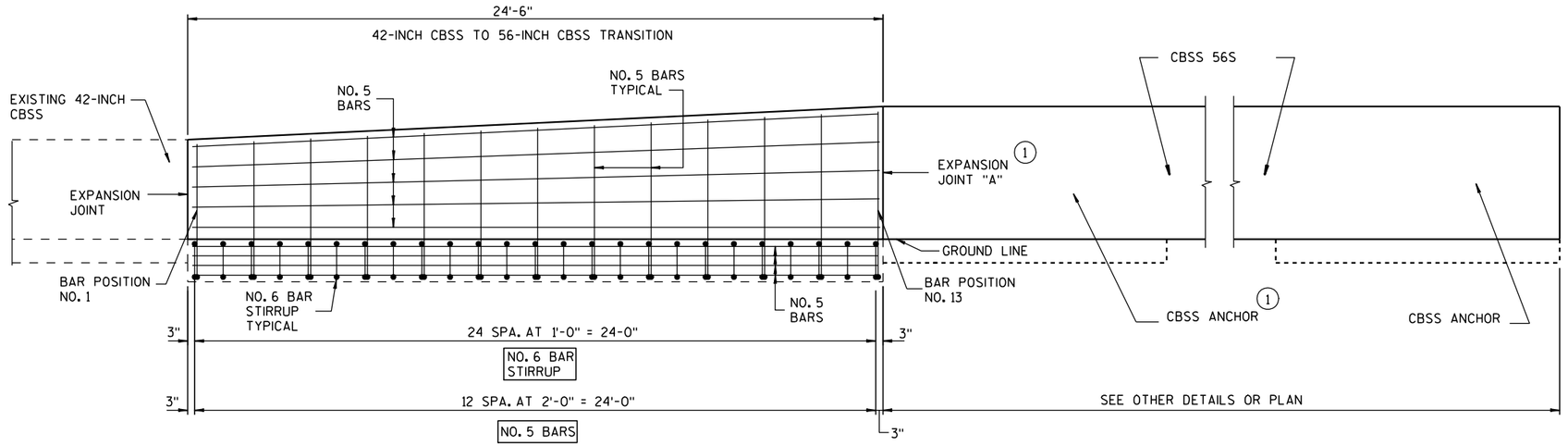
STIRRUP BAR
BENDING DETAIL

36-INCH SINGLE SLOPE CONCRETE BARRIER TO 42-INCH SINGLE SLOPE CONCRETE BARRIER HEIGHT TRANSITION

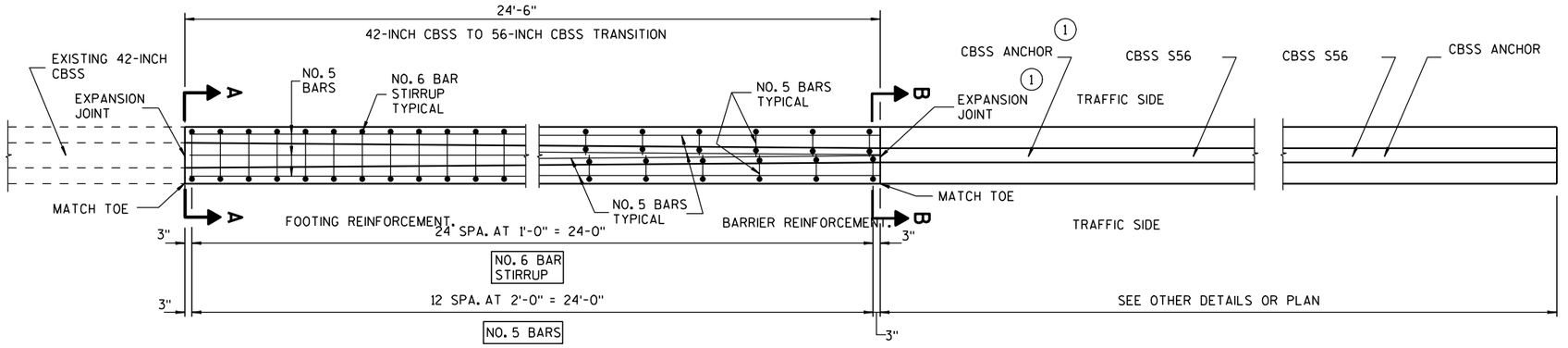
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6-3-2010
DATE
/S/ Jerry H. Zoo
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

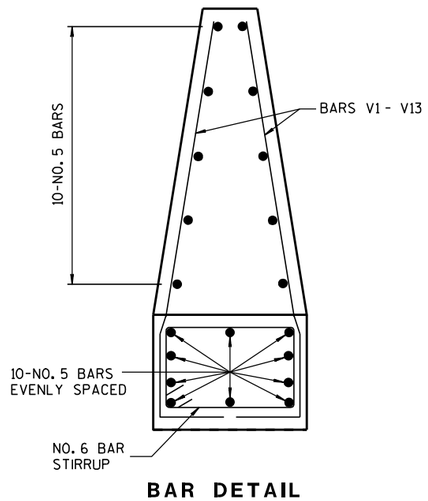
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S.D.D. 14 B 39-1c



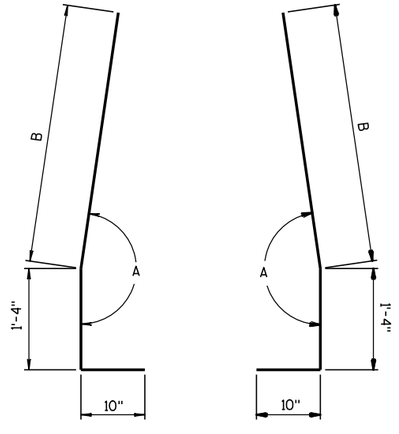
ELEVATION VIEW



PLAN VIEW



BAR DETAIL
BAR POSITION NO. 1 - NO. 13



BAR BENDING DETAIL
FOR BARS V1 - V13

BAR CHART SECTIONS V1 - V13

BAR	A	B
V1	170°-50'	3'-4½"
V2	170°-50'	3'-6"
V3	170°-55'	3'-7"
V4	171°	3'-8"
V5	170°-55'	3'-9½"
V6	170°-50'	3'-10½"
V7	170°-50'	3'-11½"

BAR	A	B
V8	170°-55'	4'-0½"
V9	170°-50'	4'-2"
V10	170°-50'	4'-3"
V11	170°-50'	4'-4½"
V12	170°-55'	4'-5½"
V13	170°-50'	4'-6½"

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2'LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

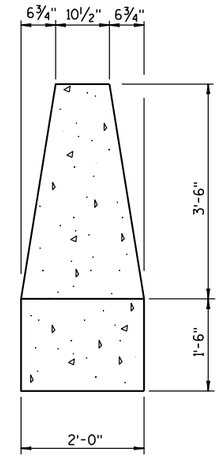
4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

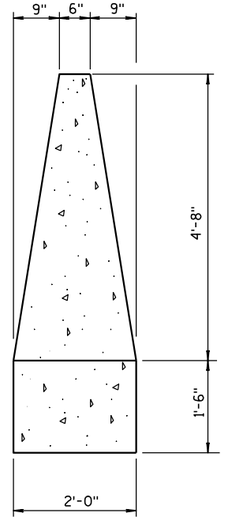
THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

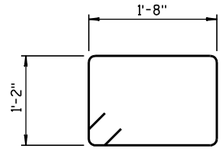
(1) EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD-JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD-JOINT IS USED ANCHOR NOT REQUIRED.



SECTION A-A



SECTION B-B

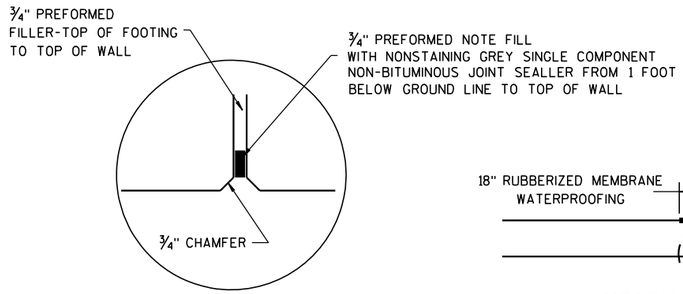


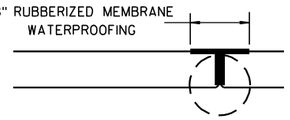
STIRRUP BAR
BENDING DETAIL

42-INCH SINGLE SLOPE CONCRETE BARRIER TO 56-INCH SINGLE SLOPE CONCRETE BARRIER HEIGHT TRANSITION

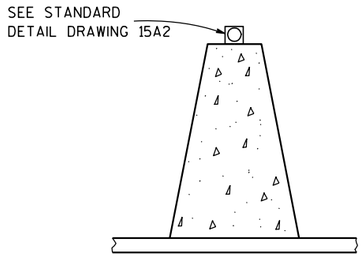
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6-3-2010 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
382
FHWA





VERTICAL EXPANSION JOINT



DELINEATION

SPACING FOR DELINEATORS ON HORIZONTAL CURVES

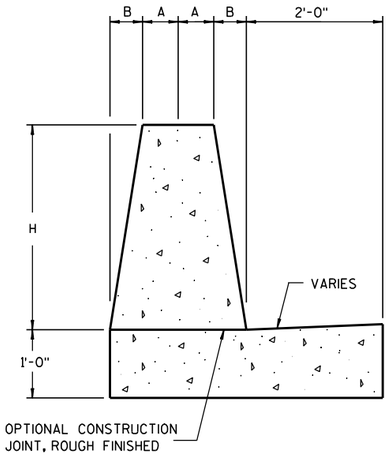
RADIUS OF CURVE	APPROXIMATE SPACING ON CURVE
50 FEET	20 FEET
115 FEET	25 FEET
180 FEET	35 FEET
250 FEET	40 FEET
300 FEET	50 FEET
400 FEET	55 FEET
500 FEET	65 FEET
600 FEET	70 FEET
700 FEET	75 FEET
800 FEET	80 FEET
900 FEET	85 FEET
1000 FEET	90 FEET

GENERAL NOTES

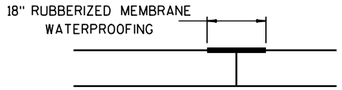
PROVIDE EXPANSION JOINTS WHERE EXISTING EXPANSION JOINTS OR AT THE END OF EACH POUR.

NO HORIZONTAL STEEL CROSSES EXPANSION JOINTS.

CONSTRUCT PER STANDARD SPECIFICATION 603.
SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASETENED TOGETHER UNLESS NOTED OTHERWISES.
4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.
USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.
2" CLEAR COVER (TYP.)



ROADSIDE RETAINING WALL



CONSTRUCTION JOINT

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
36	6¼	5¾	8
42	5¼	6¾	10
56	3	9	11

V1 BAR BENDING DETAIL

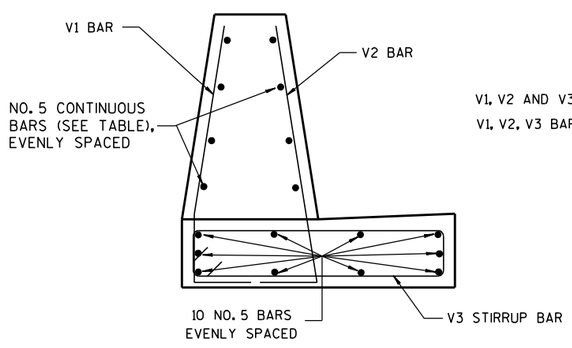
V2 BAR BENDING DETAIL

REFLECTOR SPACING

	LENGTH OF BARRIER	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2	3

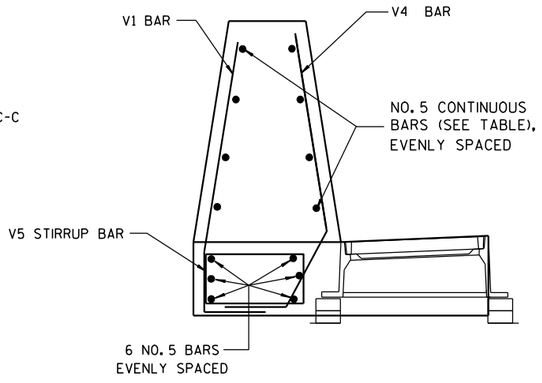
BAR CHART ROADSIDE RETAINING WALL

BARRIER HEIGHT	V1 BAR D	V2 BAR E	V4 BAR F
36"	2'-9⅝"	3'-9¾"	2'-8"
42"	3'-3⅝"	4'-2⅝"	3'-2⅛"
56"	4'-7½"	5'-6½"	4'-4⅜"

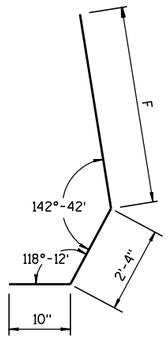


V1, V2 AND V3 ARE SPACED 18" C-C
V1, V2, V3 BARS ARE NO. 5 BARS

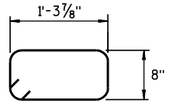
ROADSIDE RETAINING WALL NORMAL BAR PLACEMENT



ROADSIDE RETAINING WALL BAR PLACEMENT NEAR INLET



V4 BAR BENDING DETAIL



V5 STIRRUP BAR BENDING DETAIL



V3 STIRRUP BAR BENDING DETAIL

SINGLE SLOPE ROADSIDE RETAINING WALL

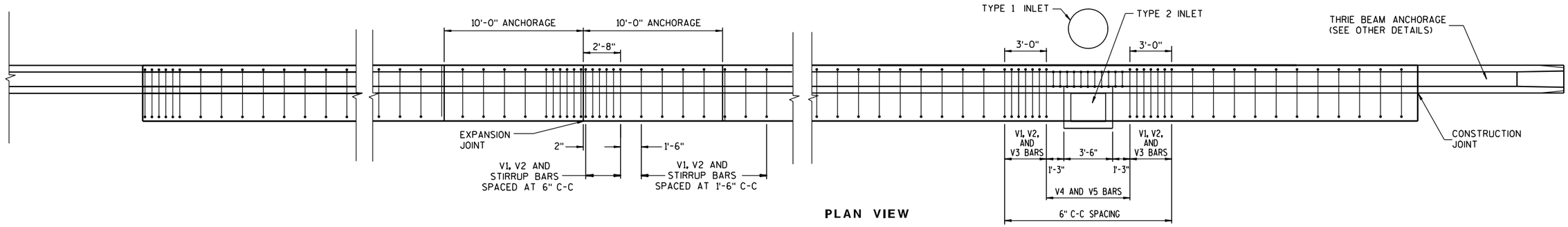
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 41-1a

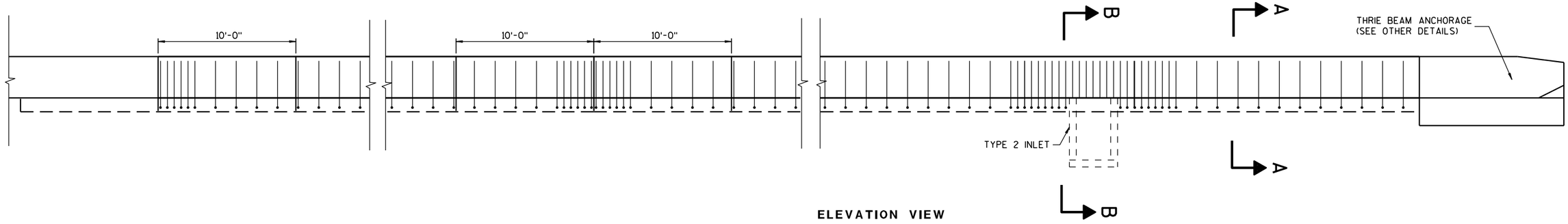
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S.D.D. 14 B 41-1a



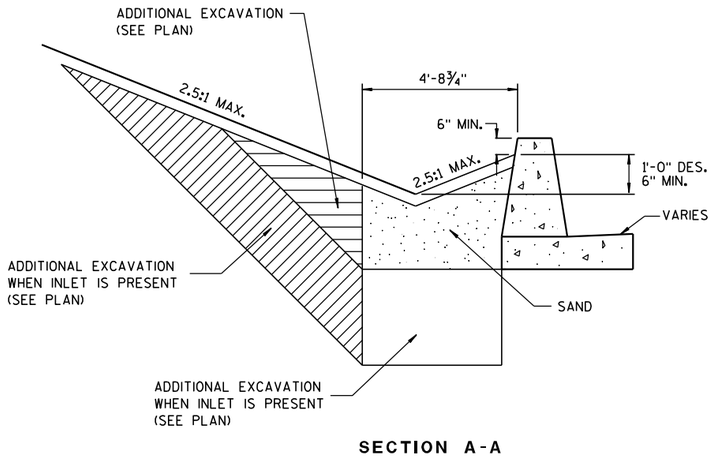
PLAN VIEW

NOTE: HORIZONTAL BARS ARE NOT SHOWN
SEE OTHER DETAILS FOR HORIZONTAL BARS.

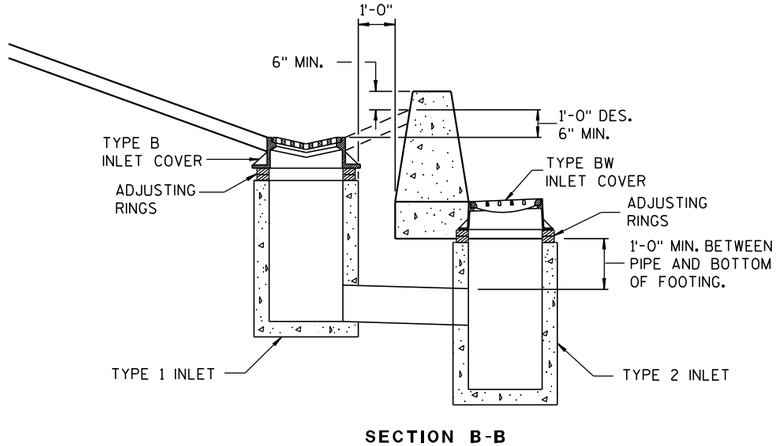


ELEVATION VIEW

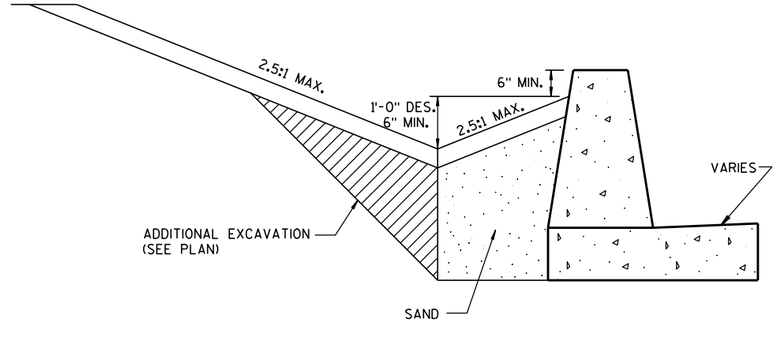
NOTE: HORIZONTAL BARS ARE NOT SHOWN
SEE OTHER DETAILS FOR HORIZONTAL BARS.



SECTION A-A



SECTION B-B



MINIMUM DESIGN OF EARTH WORK

MINIMUM DESIGN OF EARTH WORK FOR INLET

SINGLE SLOPE ROADSIDE RETAINING WALL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/13/2011
DATE
FHWA

/S/ Jerry H. Zaaa
ROADWAY STANDARDS ENGINEER

ENT

6

S.D.D. 14 B 41-1b

6

S.D.D. 14 B 41-1b

GENERAL NOTES

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

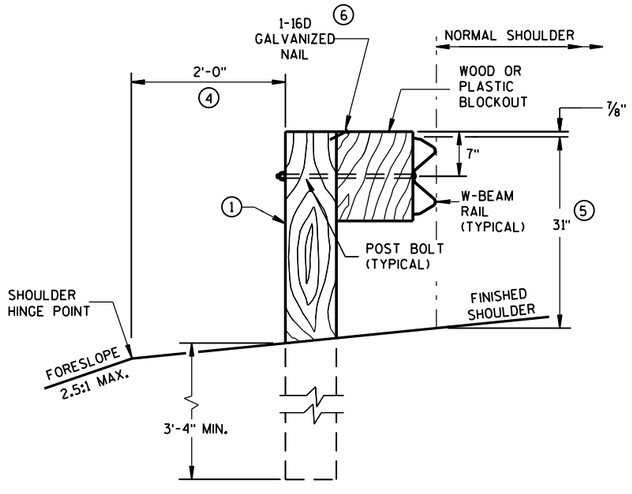
2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

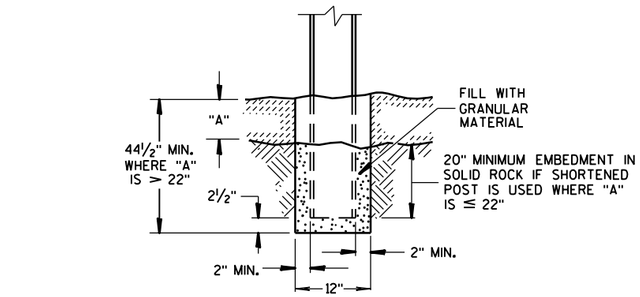
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

6. WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



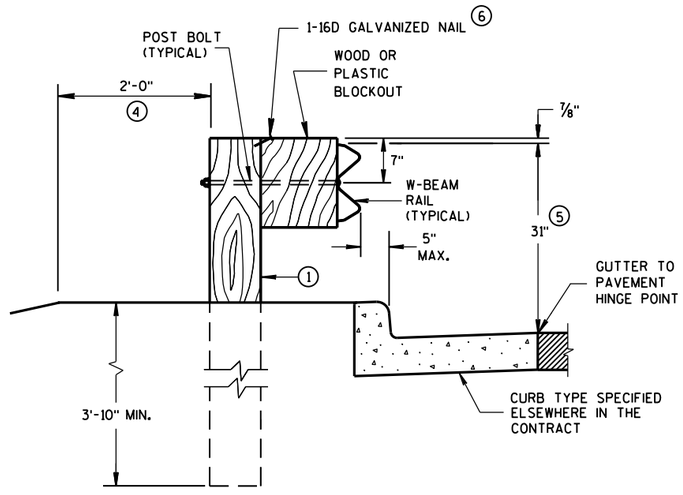
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



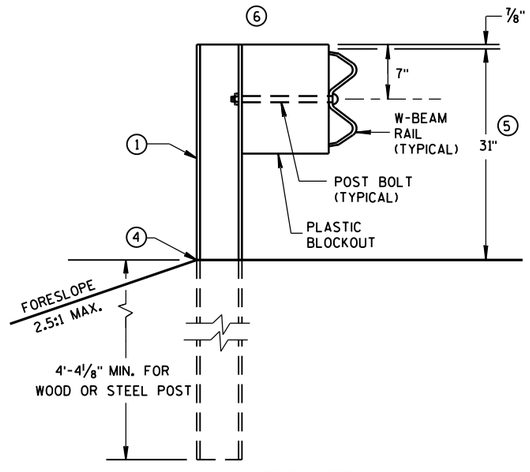
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



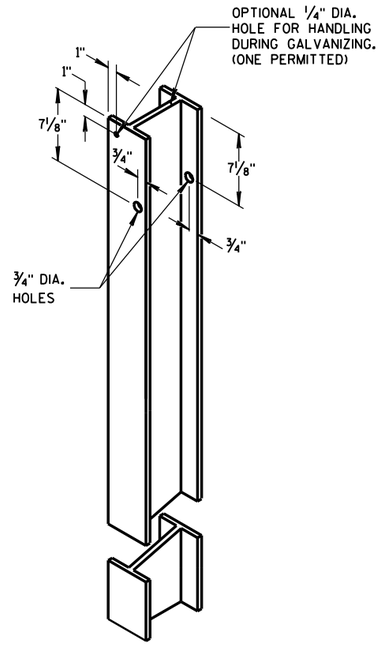
END VIEW

LOCATED ALONG A CURBED ROADWAY

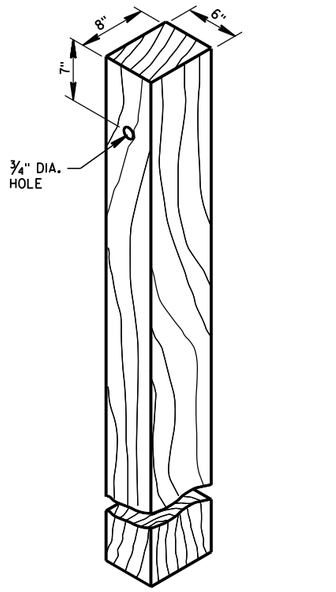


END VIEW

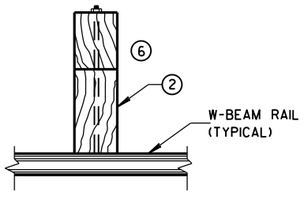
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



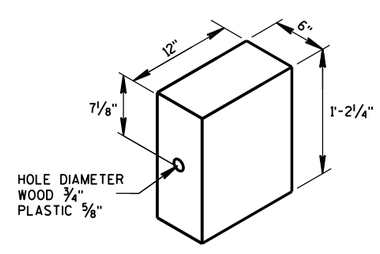
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



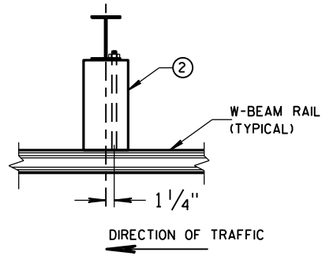
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

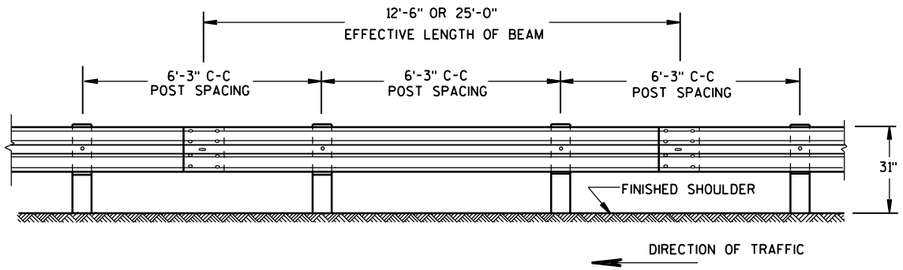


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

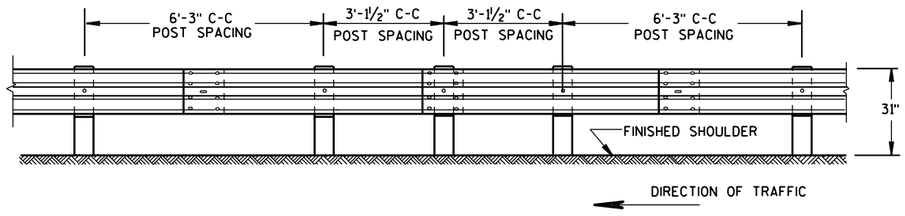
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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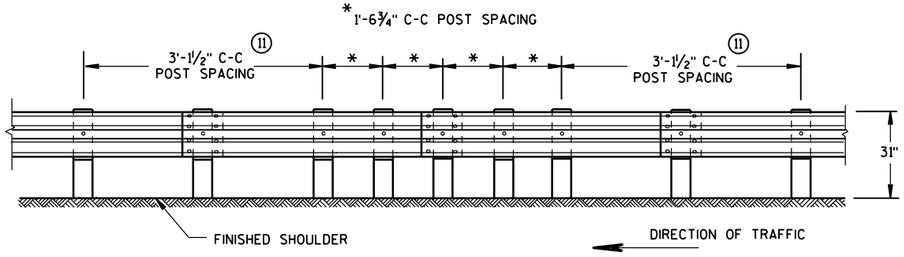
FRONT VIEW

POST SPACING STANDARD INSTALLATION



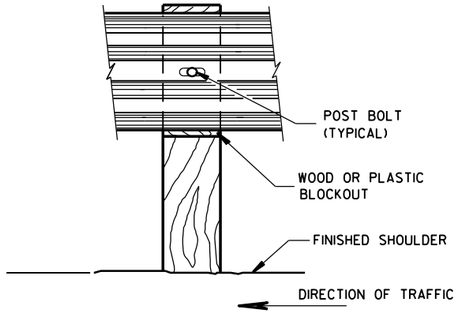
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

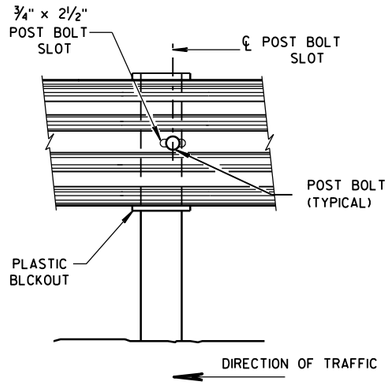


FRONT VIEW

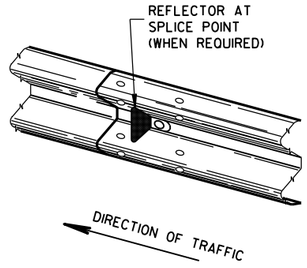
QUARTER POST SPACING (QS)

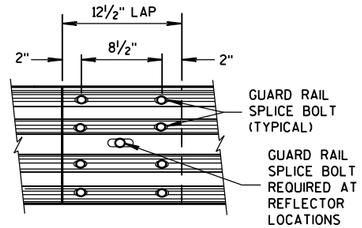


FRONT VIEW AT WOOD POST



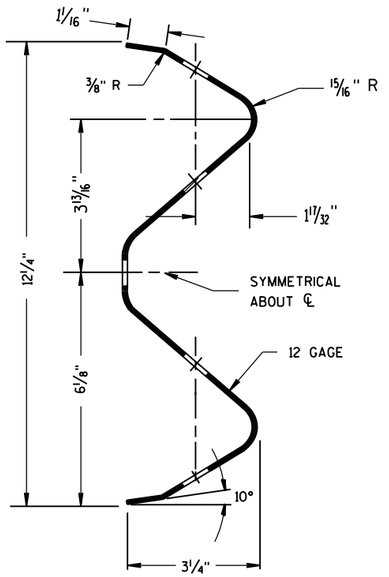
FRONT VIEW AT STEEL POST



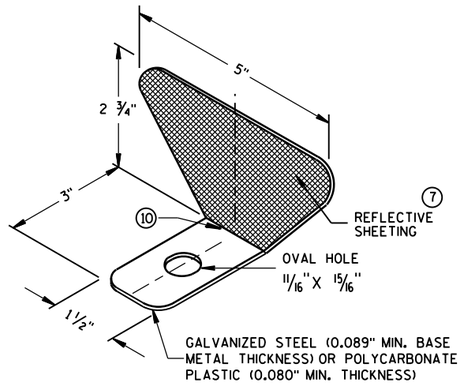


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

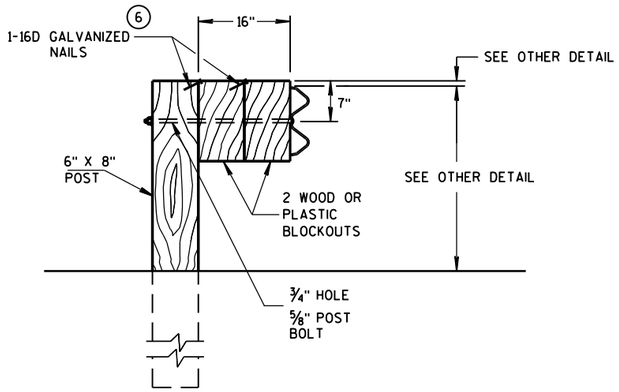
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 ⑩	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

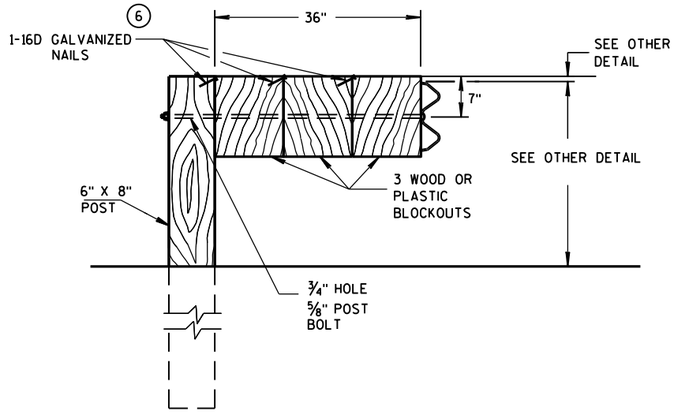
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DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

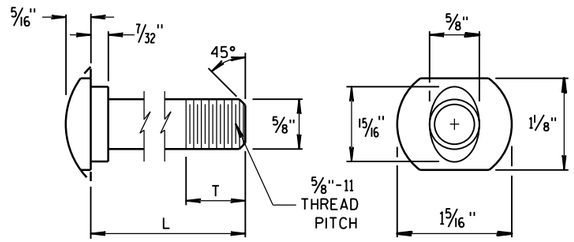


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

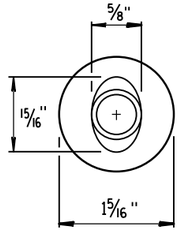
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

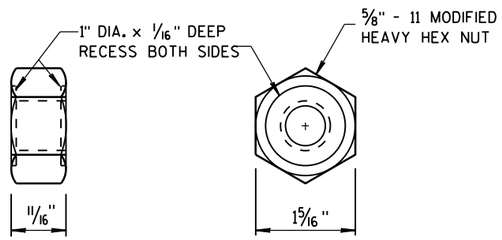


POST BOLT TABLE

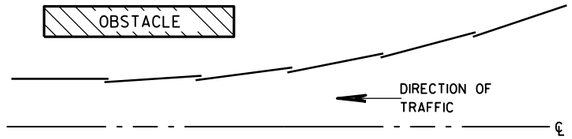
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

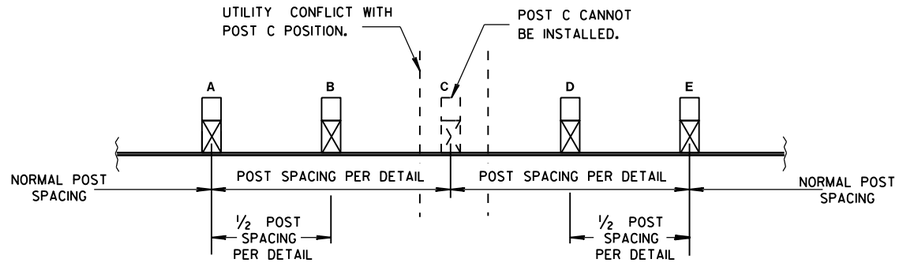


POST BOLT AND RECESS NUT

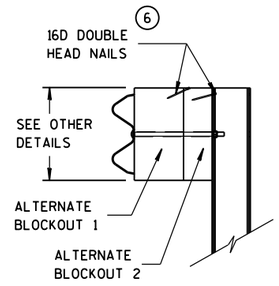


PLAN VIEW

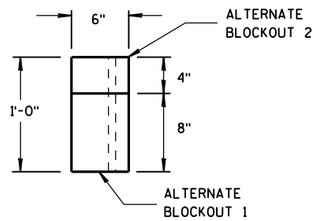
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

6

S.D.D. 14 B 42-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

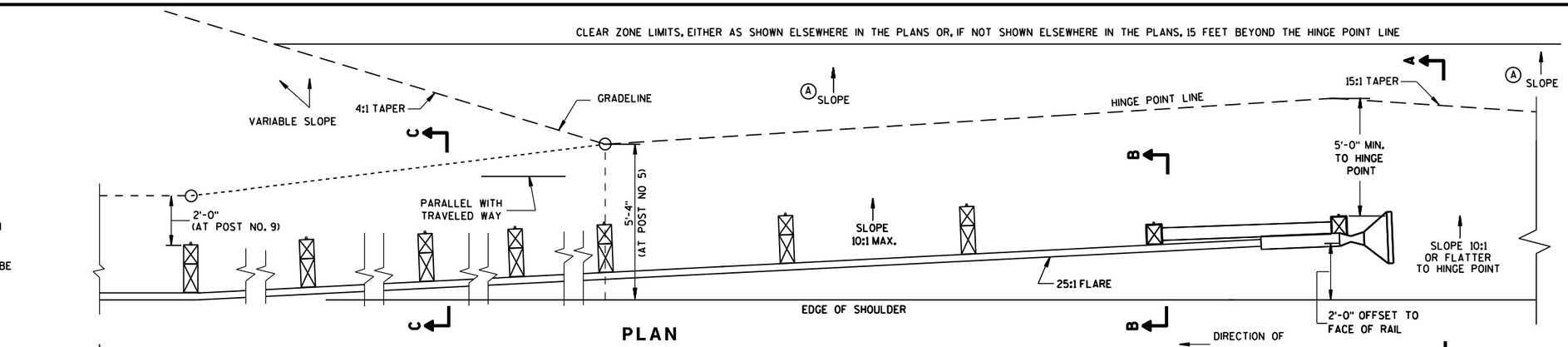
SEE SDD 14B42 FOR MORE INFORMATION.

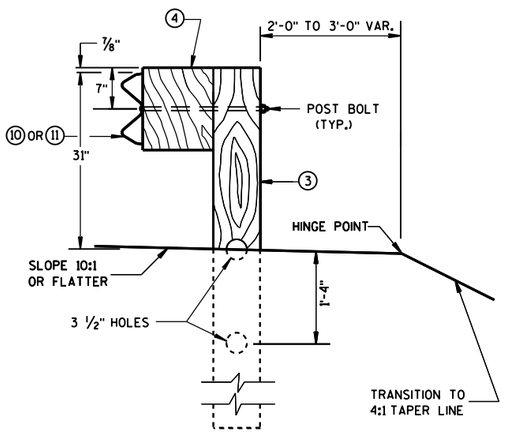
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

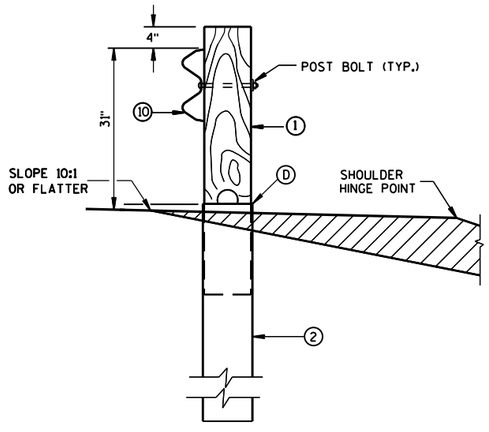
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

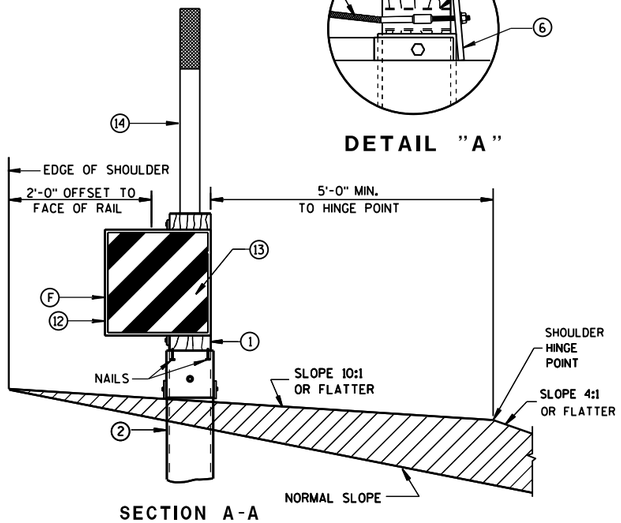




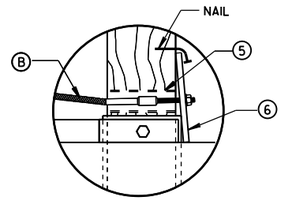
SECTION C-C
TYPICAL AT POST NOS. 3-9



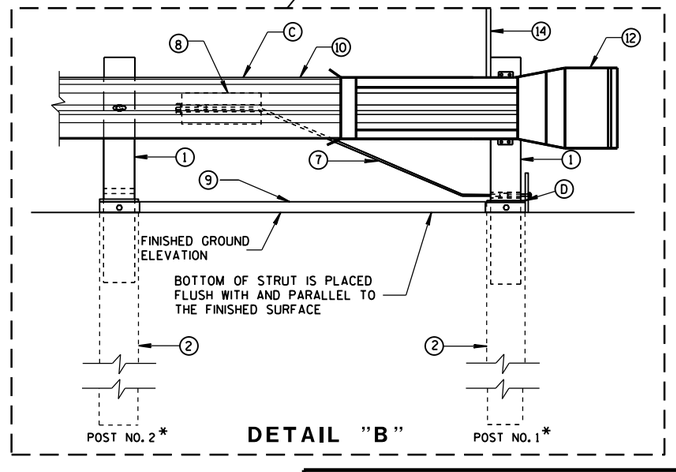
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



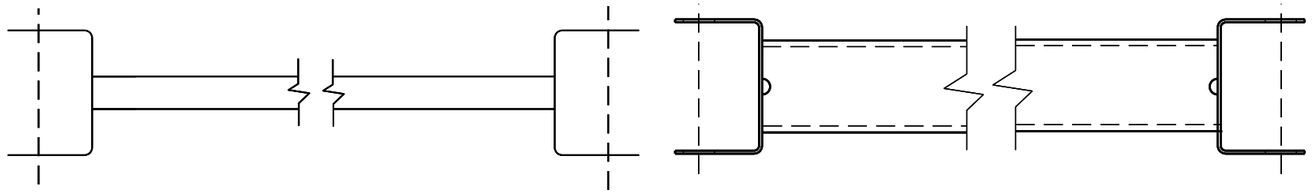
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO 388

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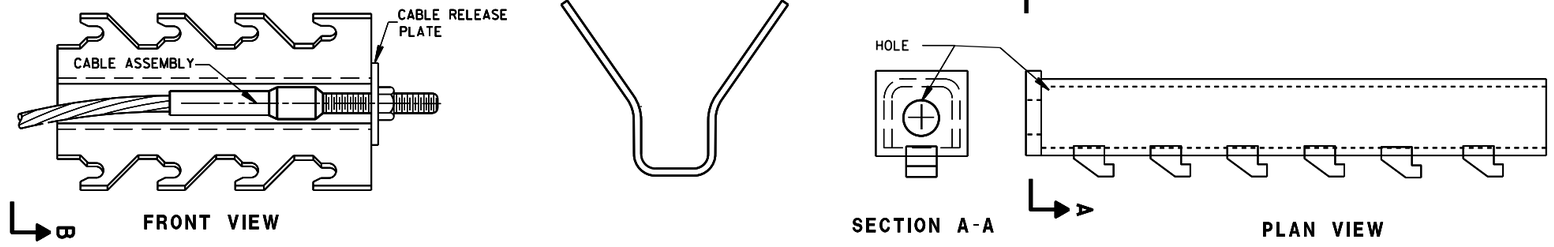
S.D.D. 14 B 44-2a



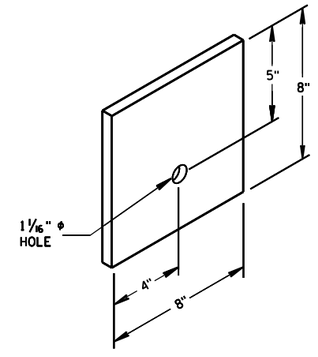
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)



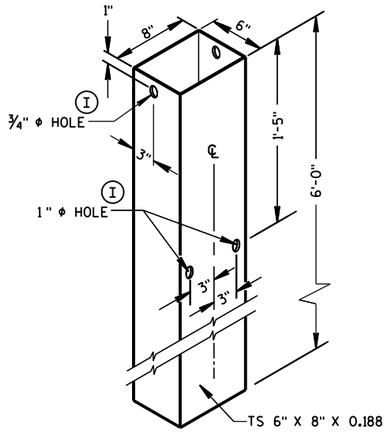
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

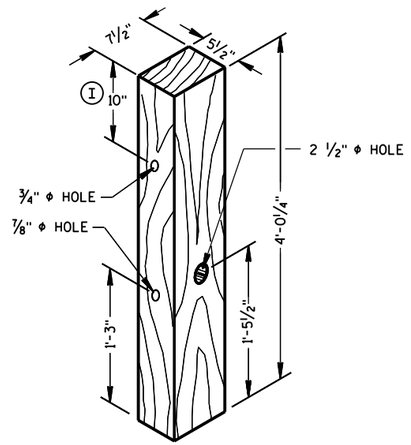
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

S.D.D. 14 B 44-2b

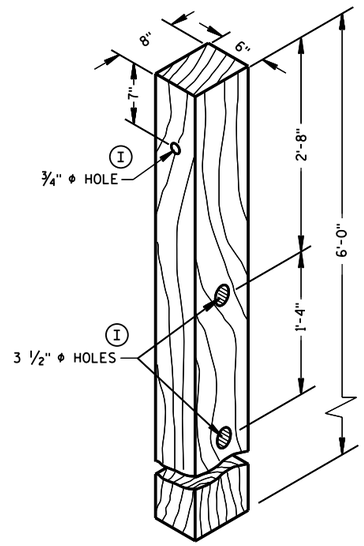


FOUNDATION TUBE (2)



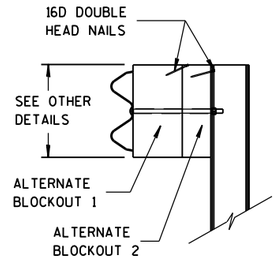
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

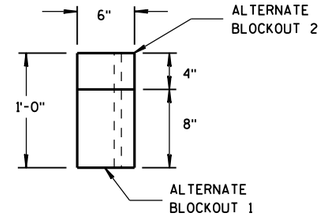


POSTS NUMBER 3-9

WOOD CRT POST (3)

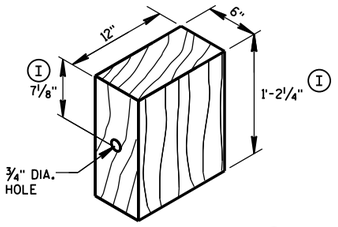


SIDE VIEW



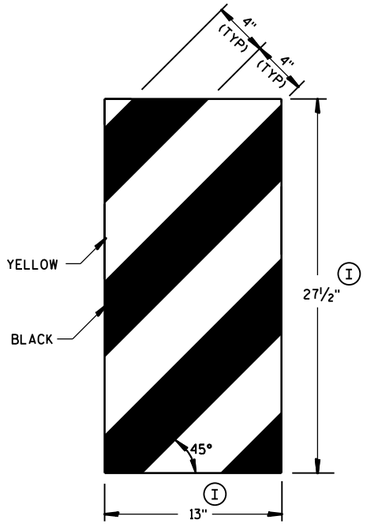
TOP VIEW

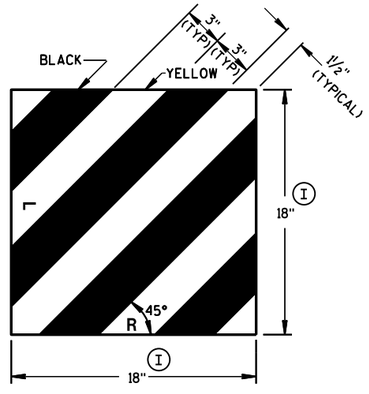
ALTERNATE WOOD BLOCKOUT DETAIL



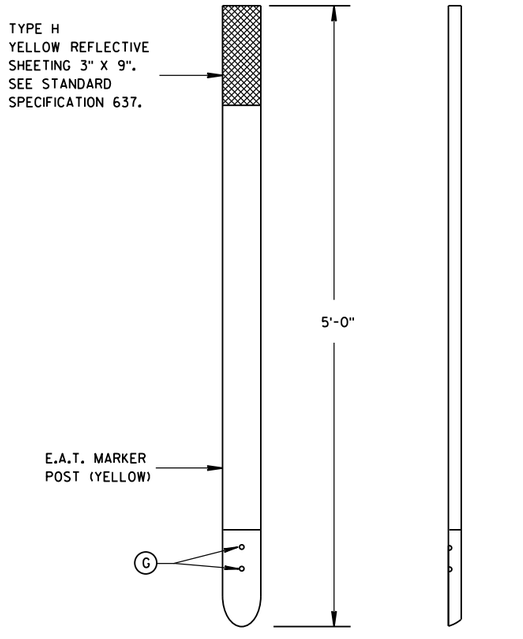
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





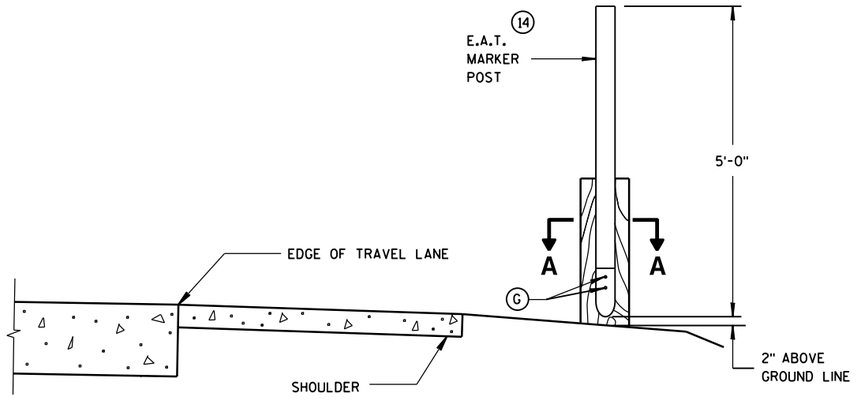
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

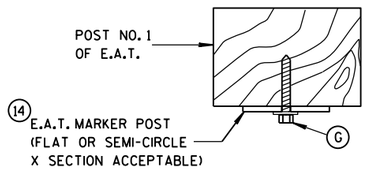
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

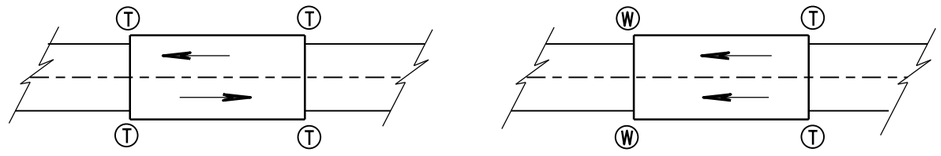
APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
390
FHWA

6

S.D.D. 14 B 44-2c

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

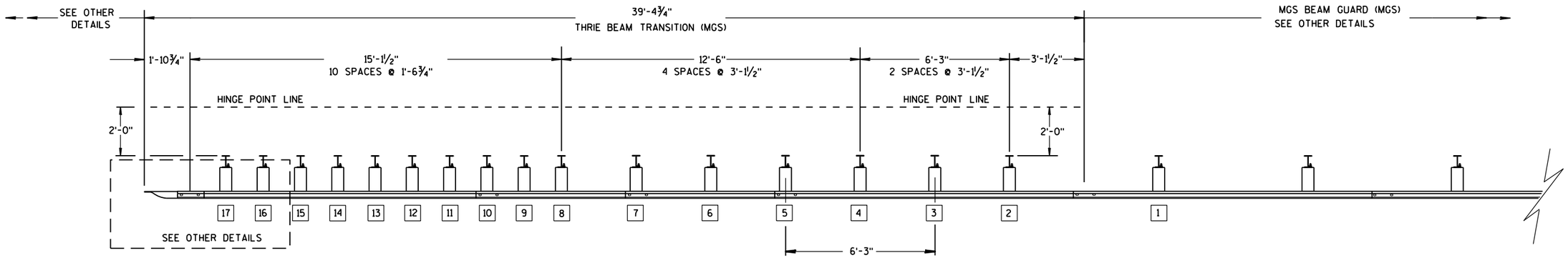
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

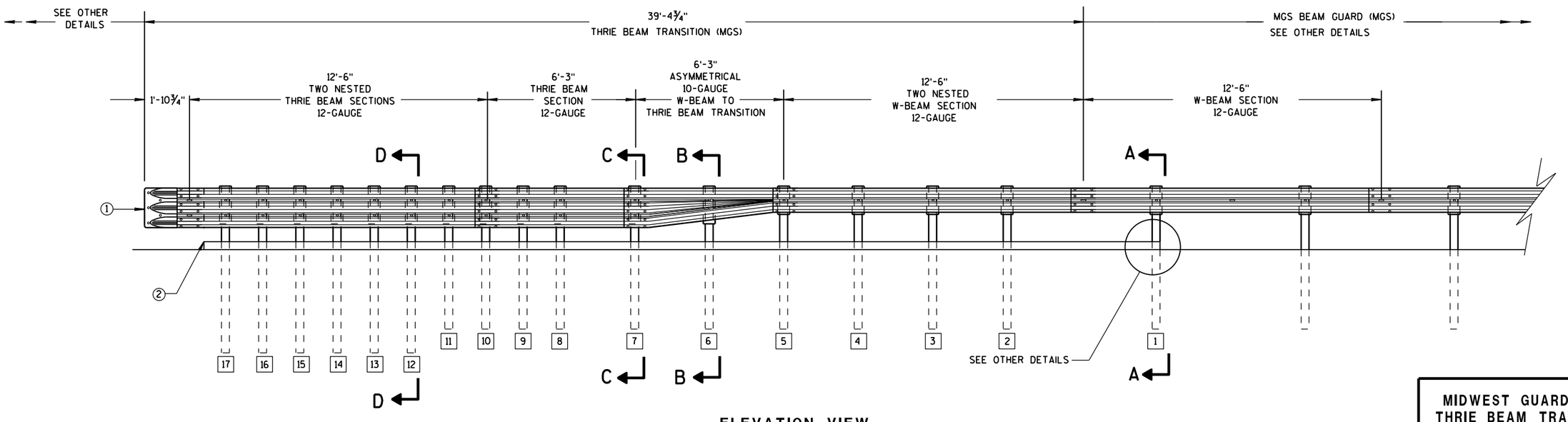
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

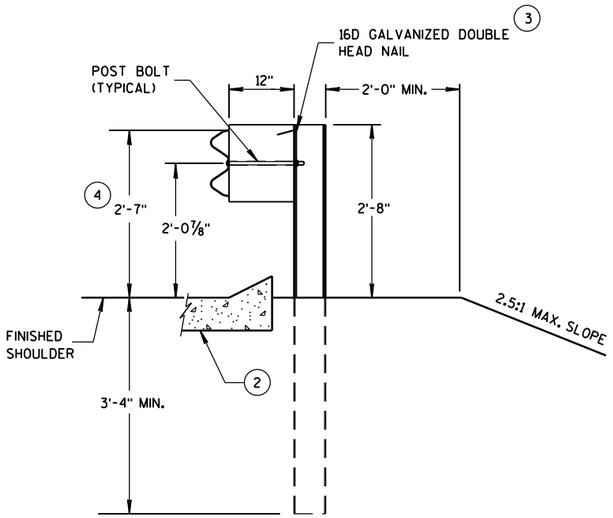
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

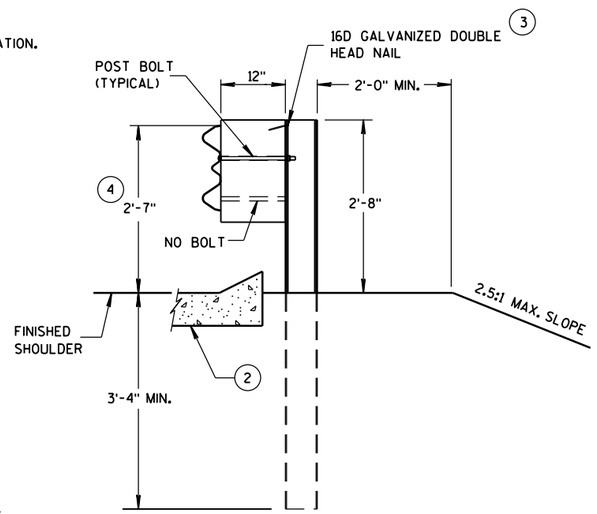
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



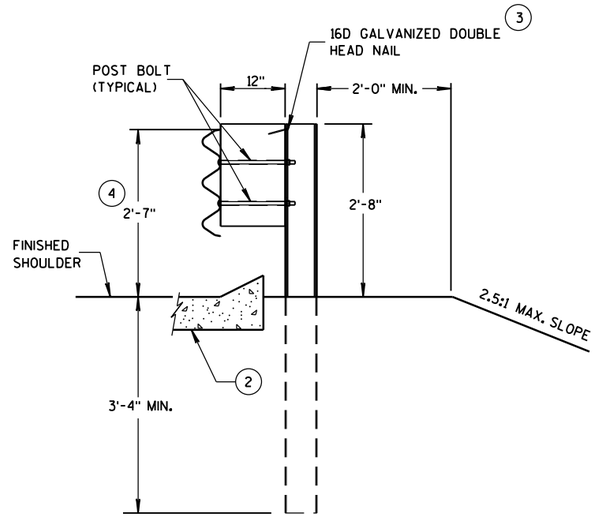
SECTION A-A

POSTS 1-5



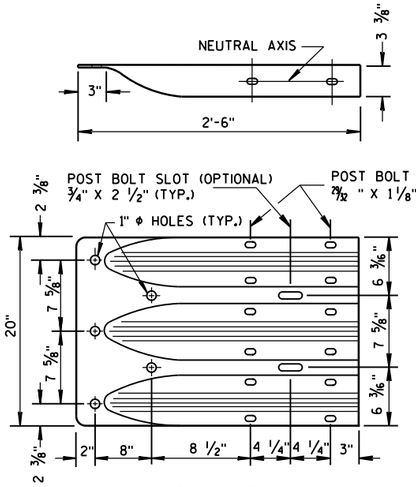
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

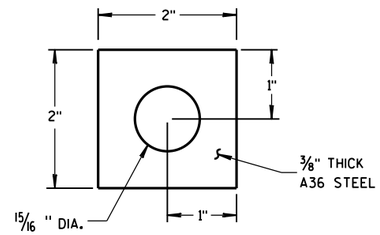
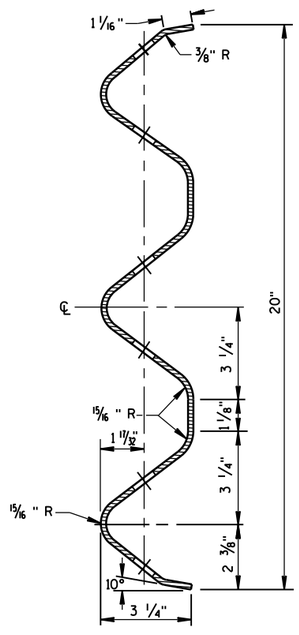
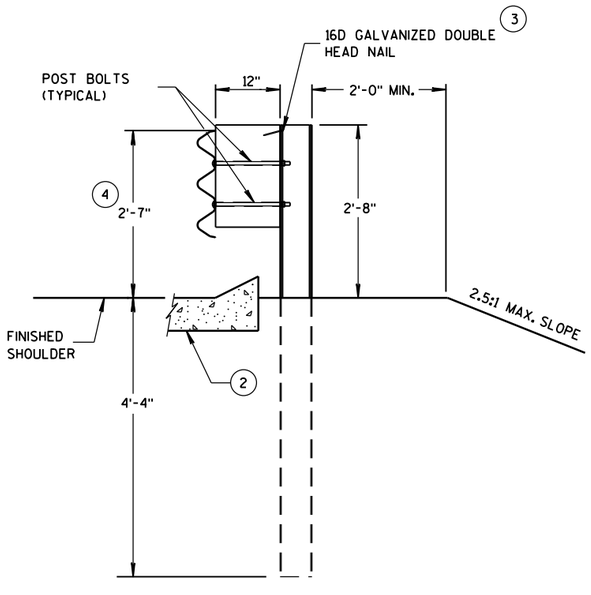


PLATE WASHER DETAIL

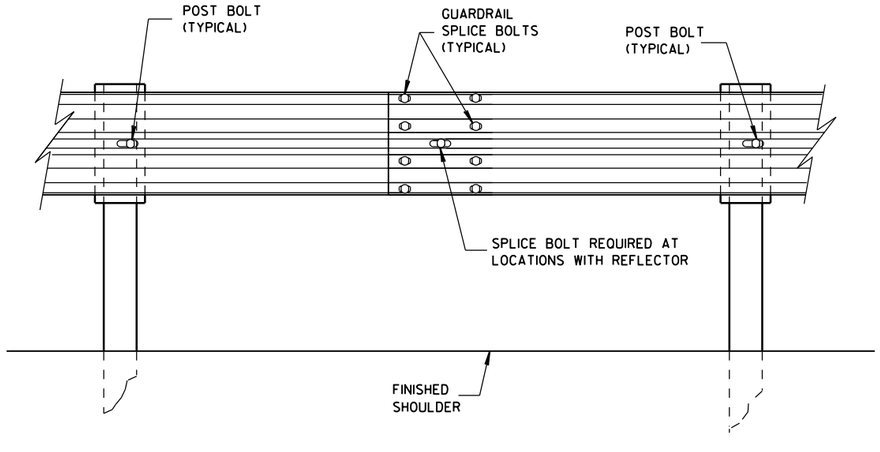


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



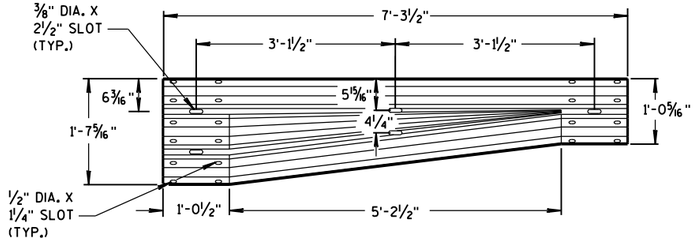
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

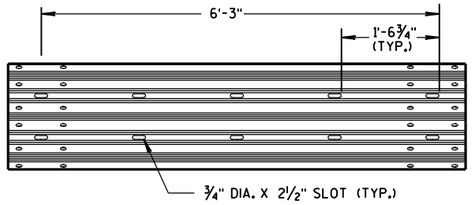
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

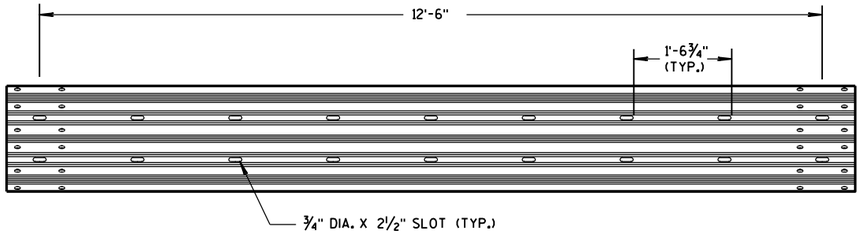
S.D.D. 14 B 45-4b



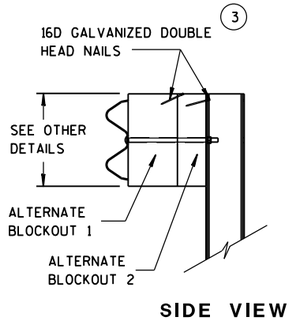
W-BEAM TO THRIE BEAM TRANSITION SECTION



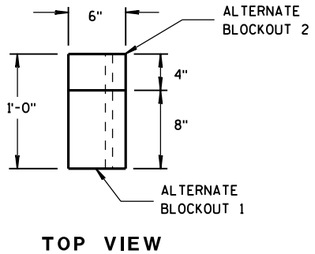
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

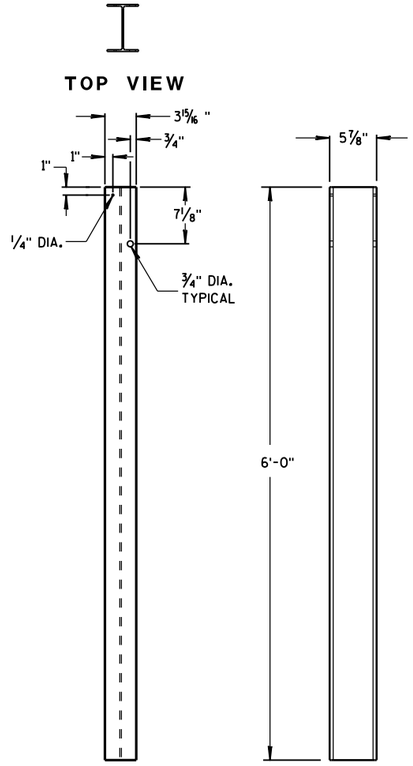


SIDE VIEW

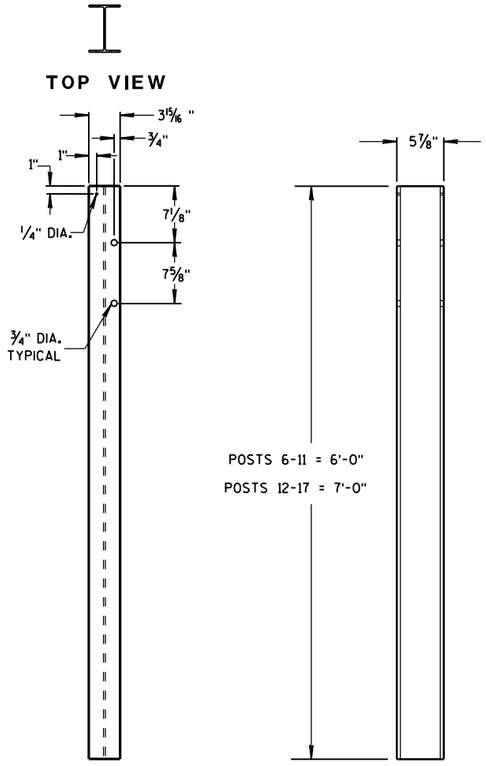


TOP VIEW

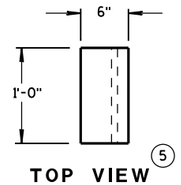
ALTERNATE WOOD BLOCKOUT DETAIL



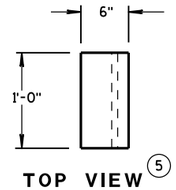
STEEL POSTS 1-5



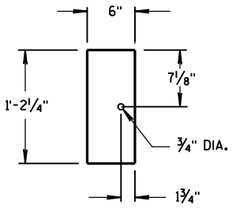
STEEL POSTS 6-17



TOP VIEW (5)

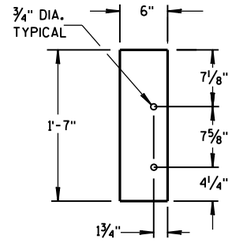


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

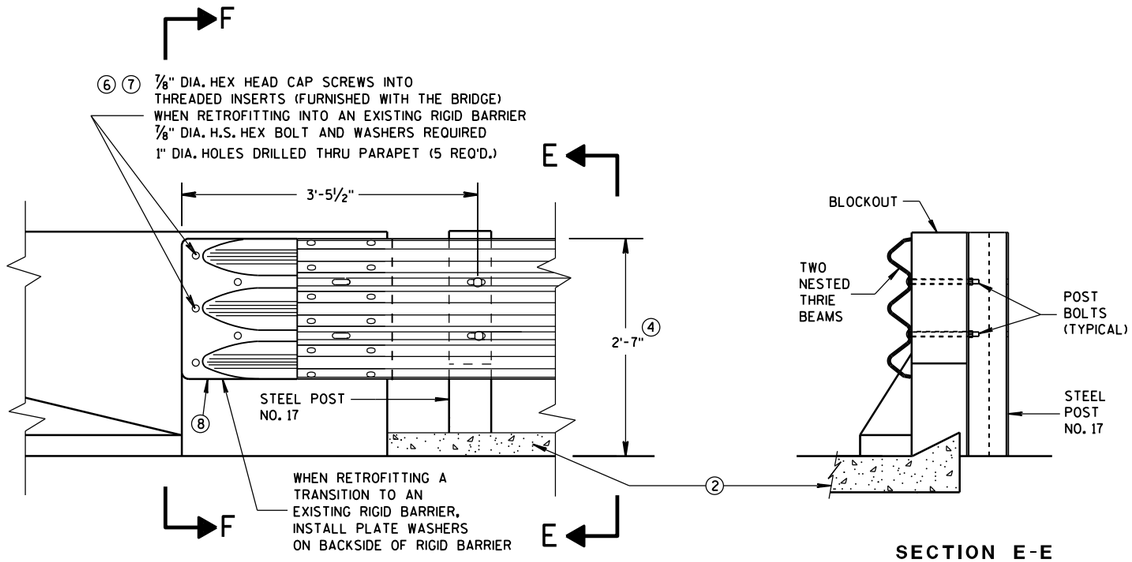
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-4c
S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

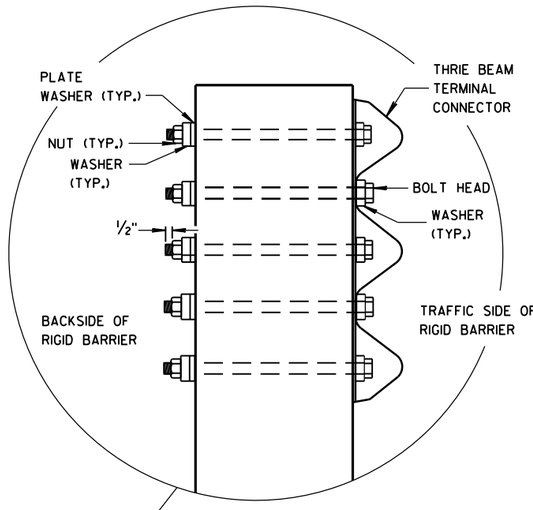
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

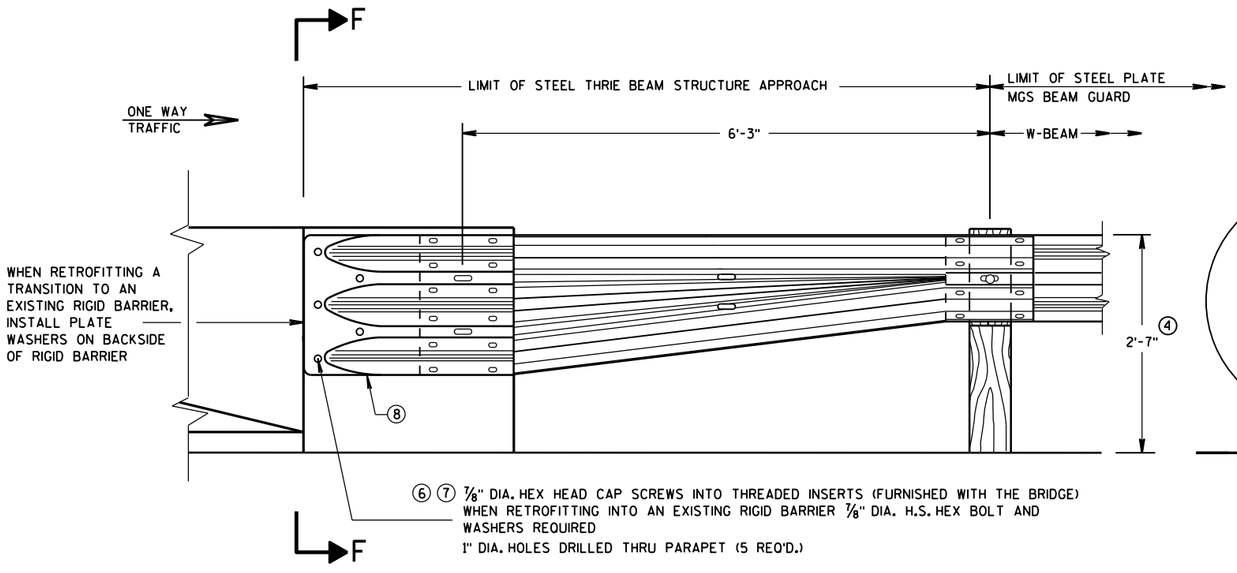
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

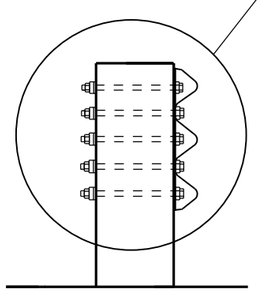
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

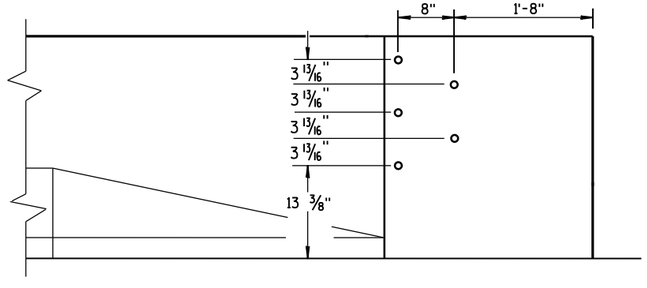




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 45-4d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

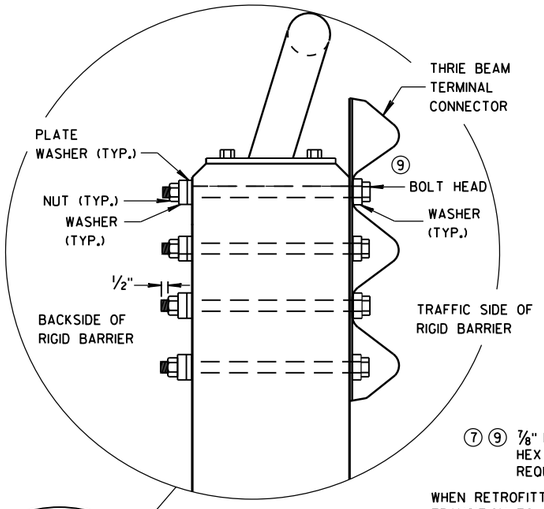
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

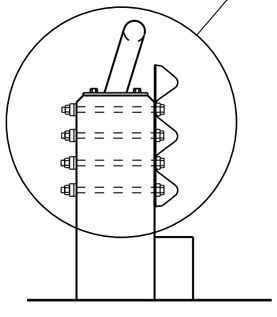
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

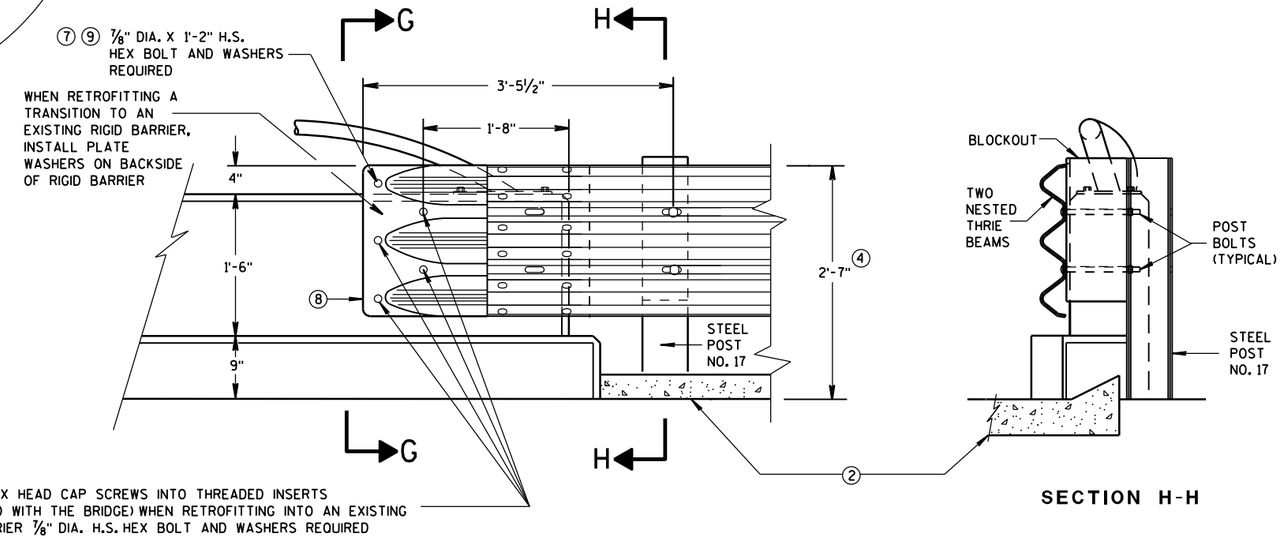
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





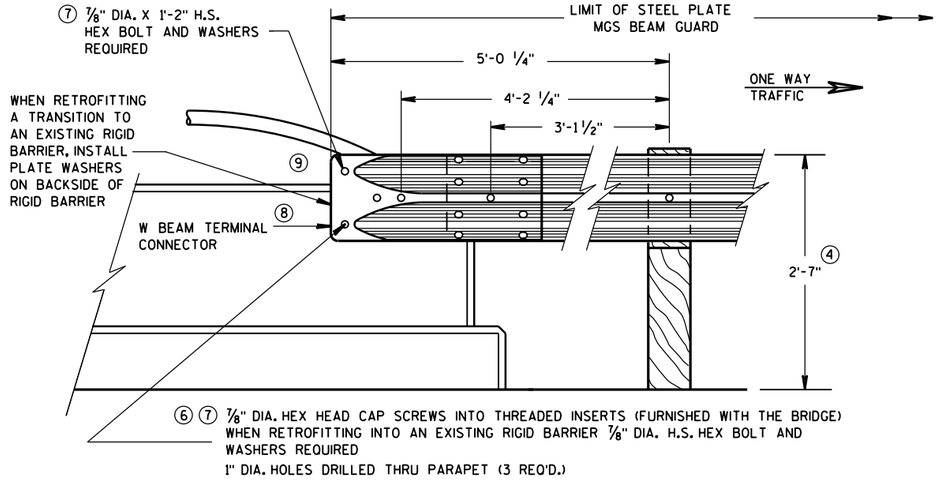
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

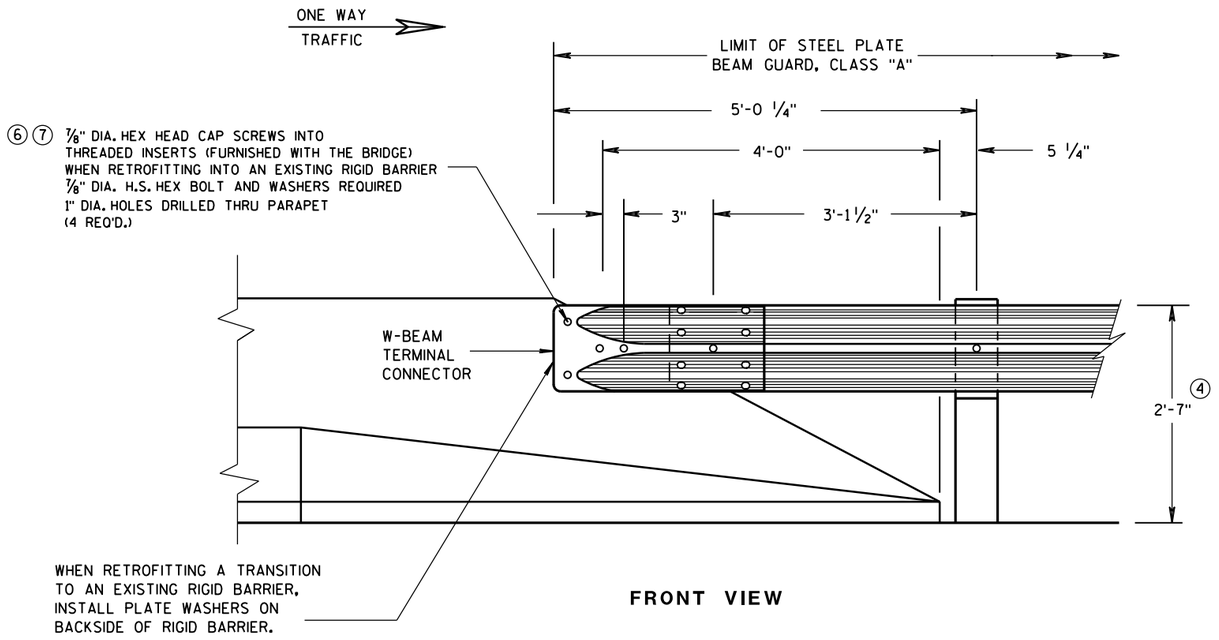
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 45-4e

6

S.D.D. 14 B 45-4e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

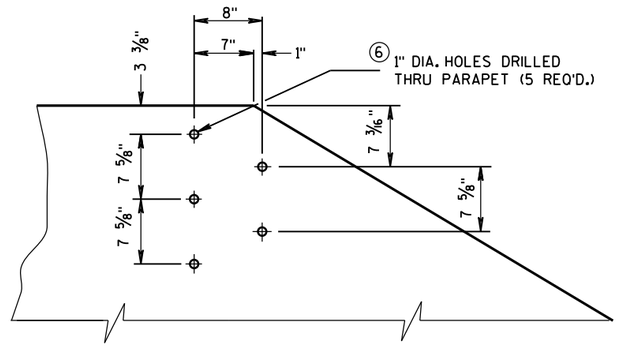
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

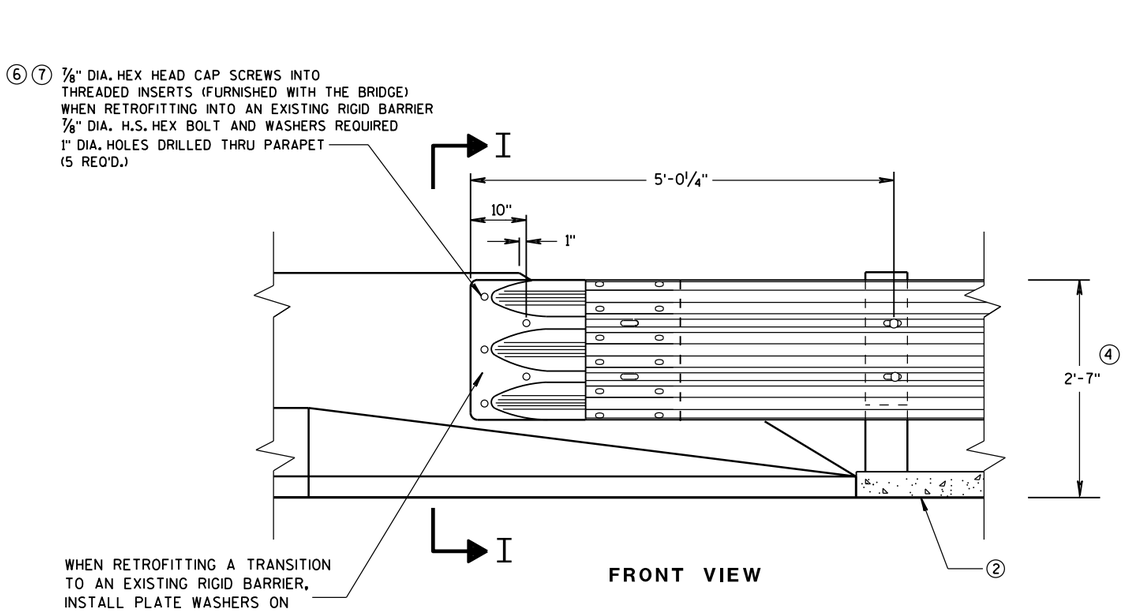
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

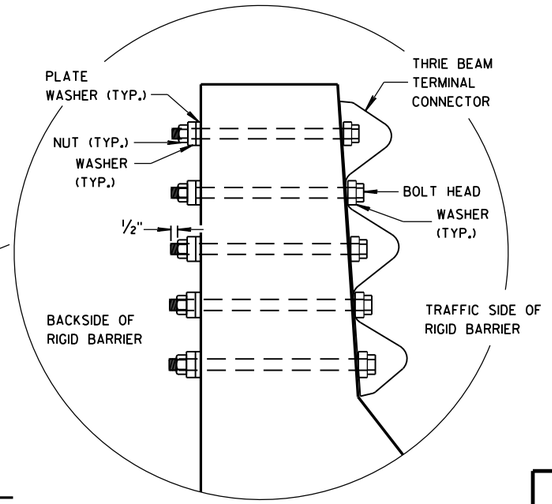


DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

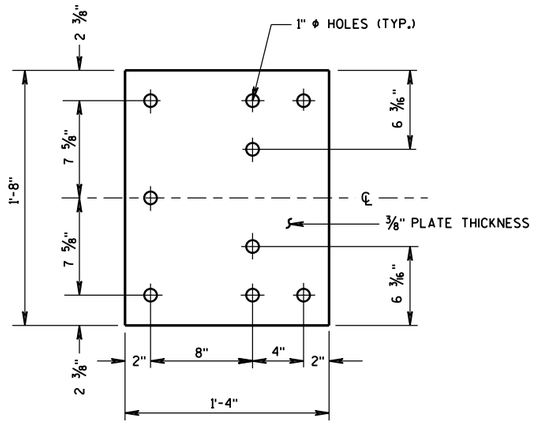
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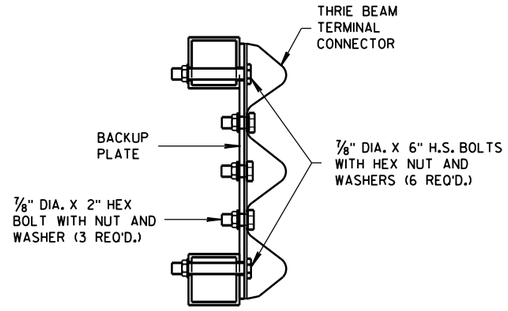
S.D.D. 14 B 45-4f

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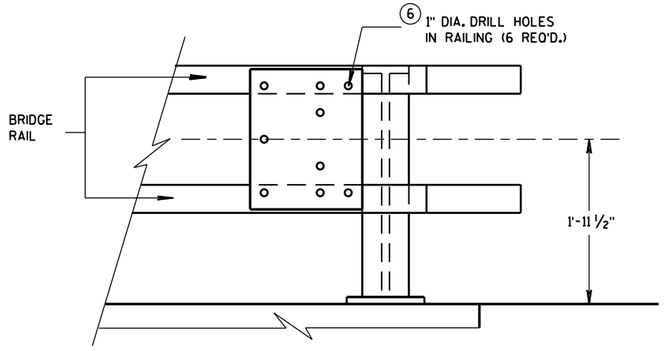
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BACK-UP PLATE DETAIL



SECTION J-J

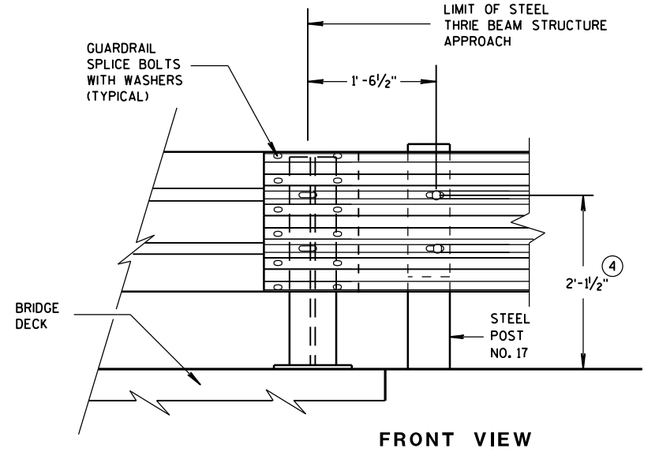


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

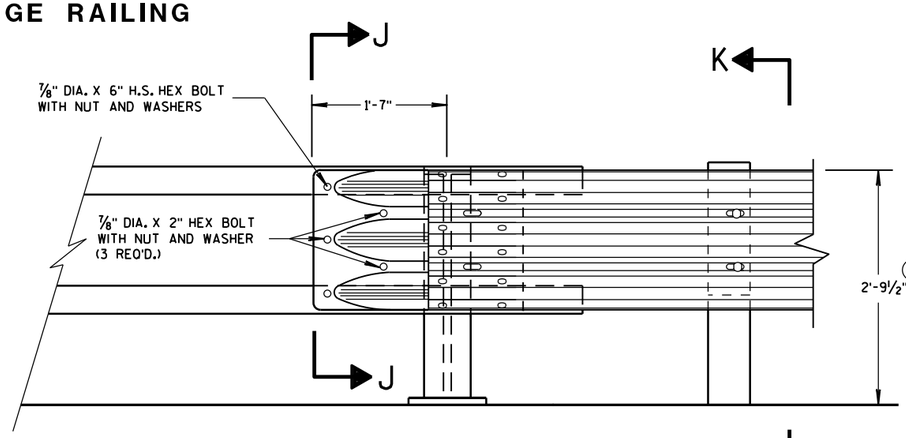
4 TOLERANCE FOR TOP OF BEAM IS ± 1".

6 DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

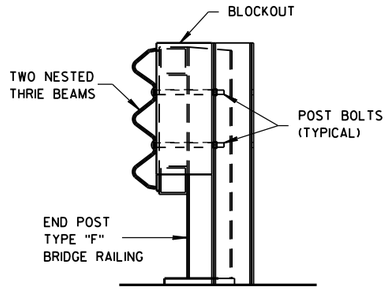


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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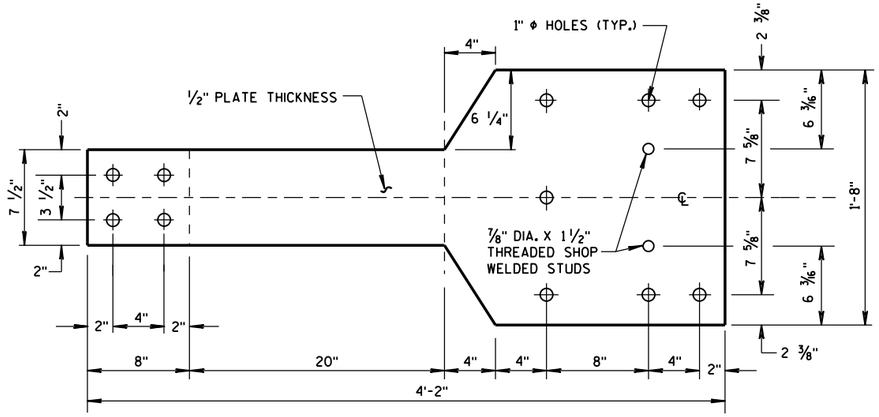
S.D.D. 14 B 45-4g

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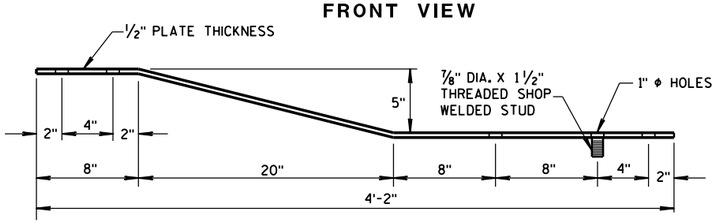
S.D.D. 14 B 45-4g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

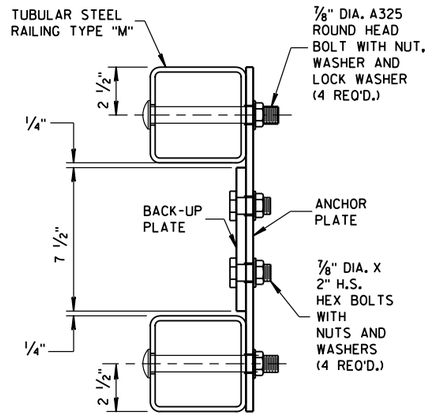


FRONT VIEW

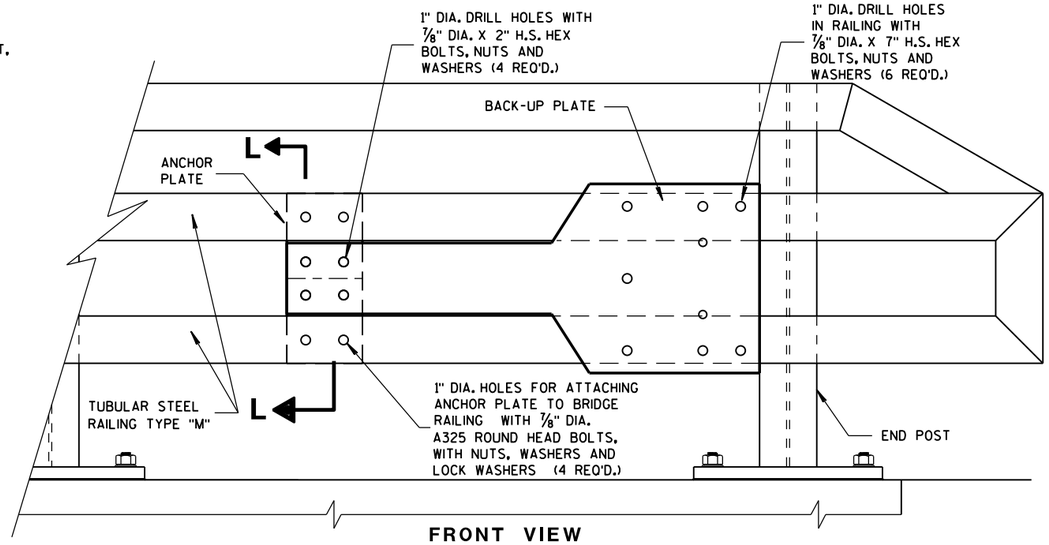


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

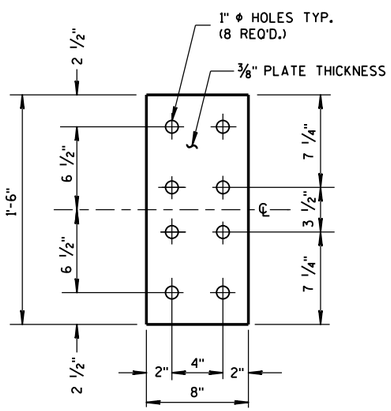


SECTION L-L



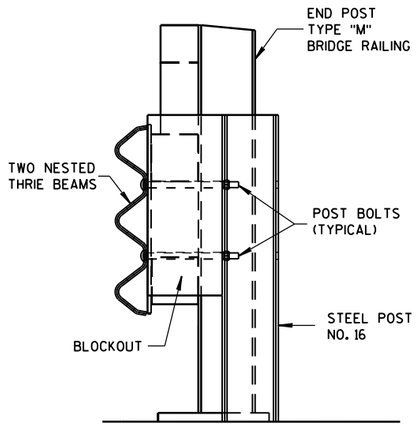
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

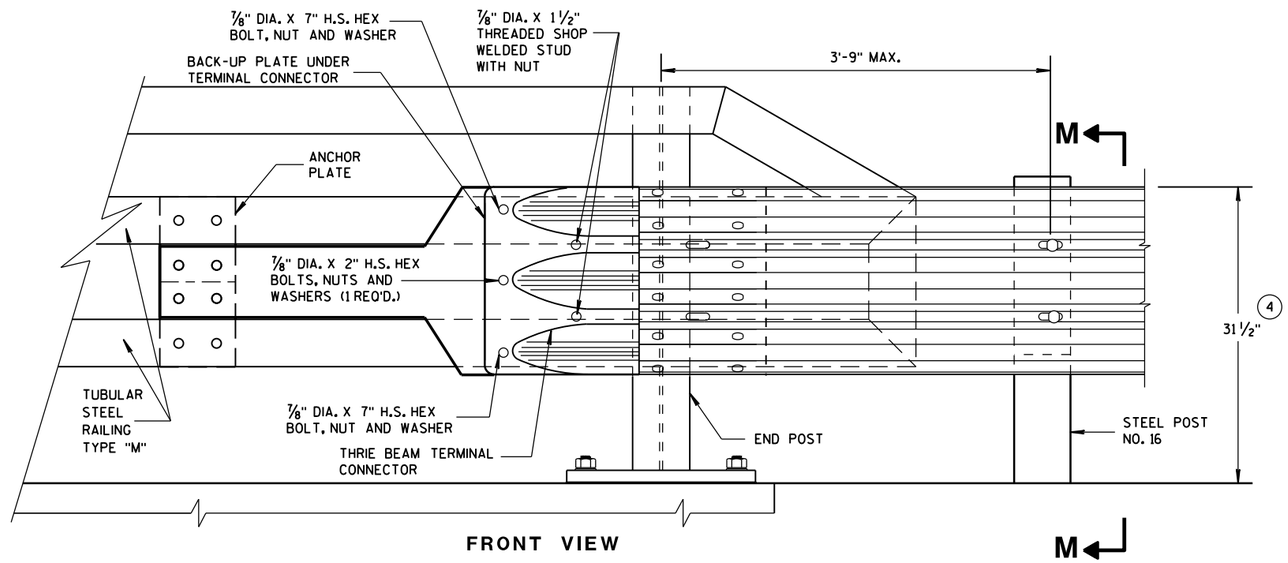


FRONT VIEW

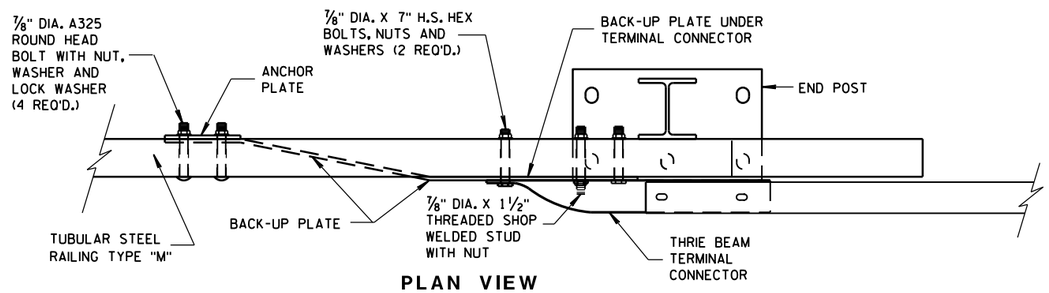
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

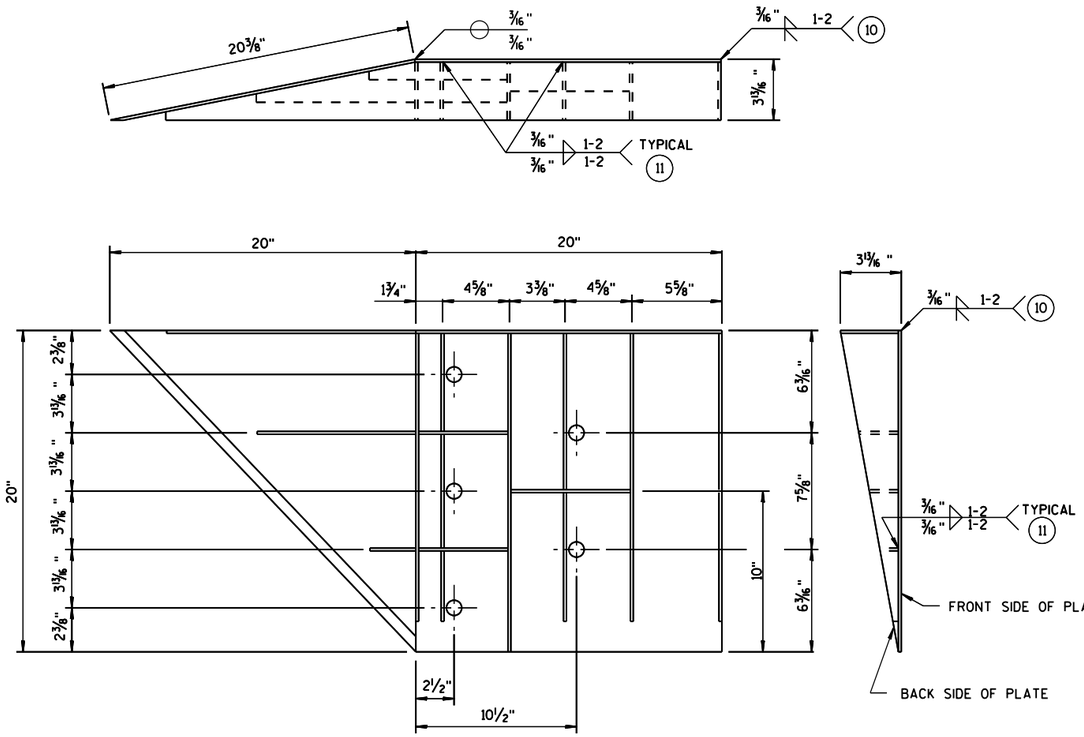
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WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

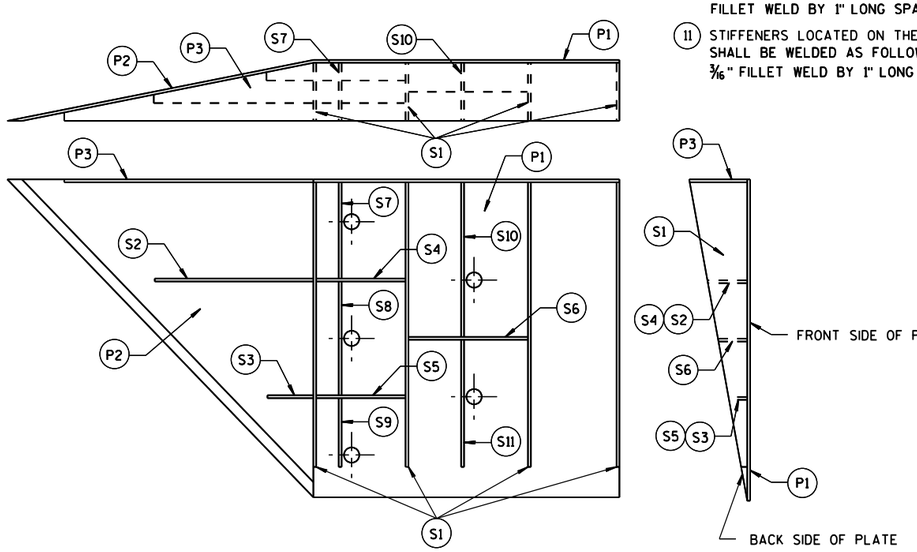


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 3/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

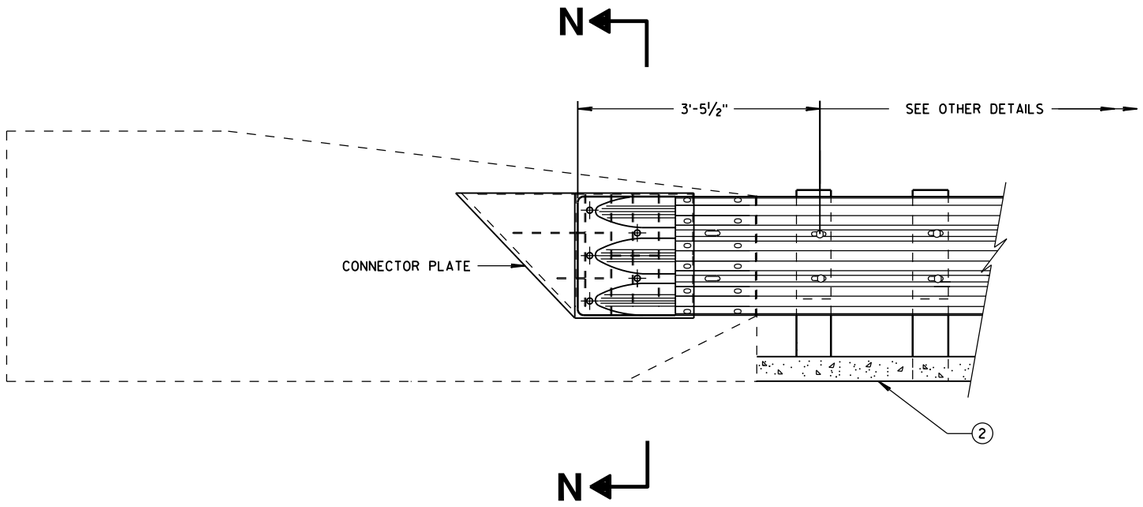
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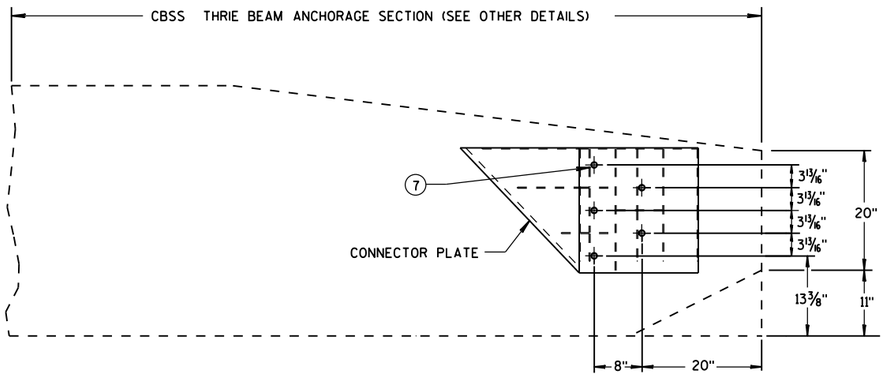
S.D.D. 14 B 45-4i

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S.D.D. 14 B 45-4i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



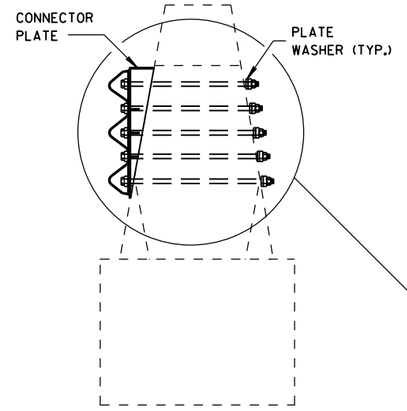
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

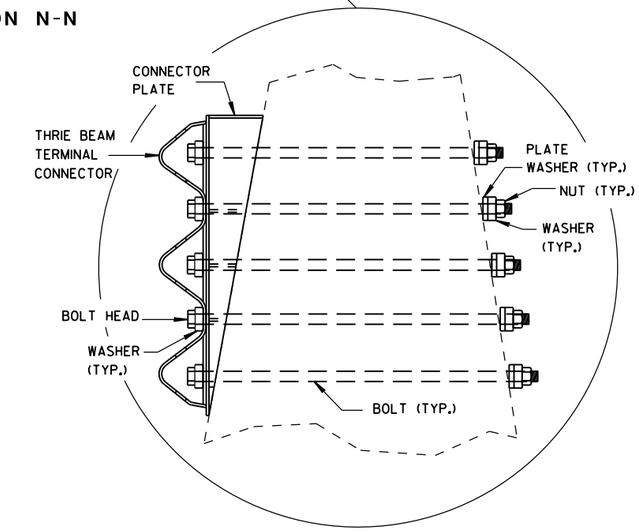
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

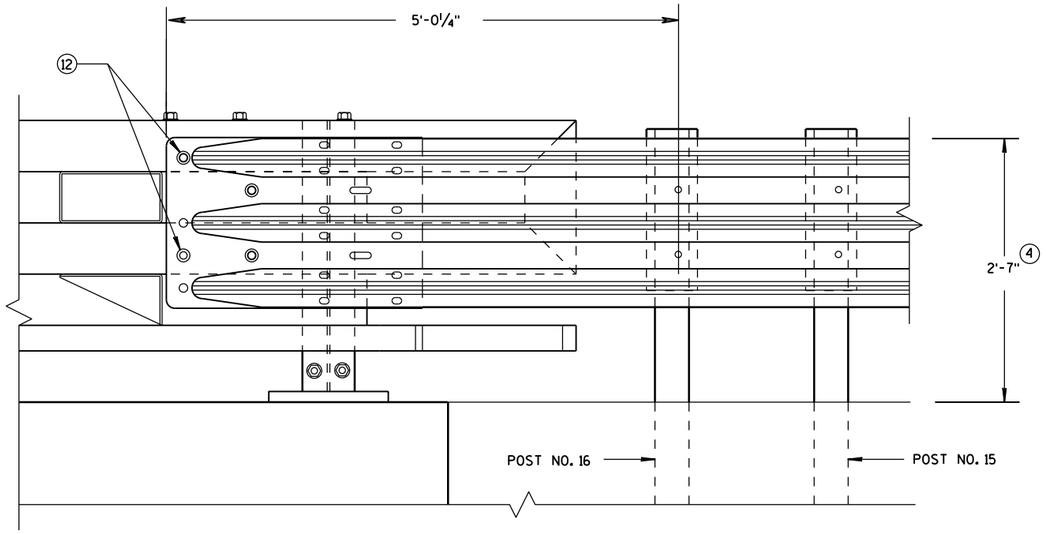
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June, 2015 — DATE
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FHWA

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S.D.D. 14 B 45-4j

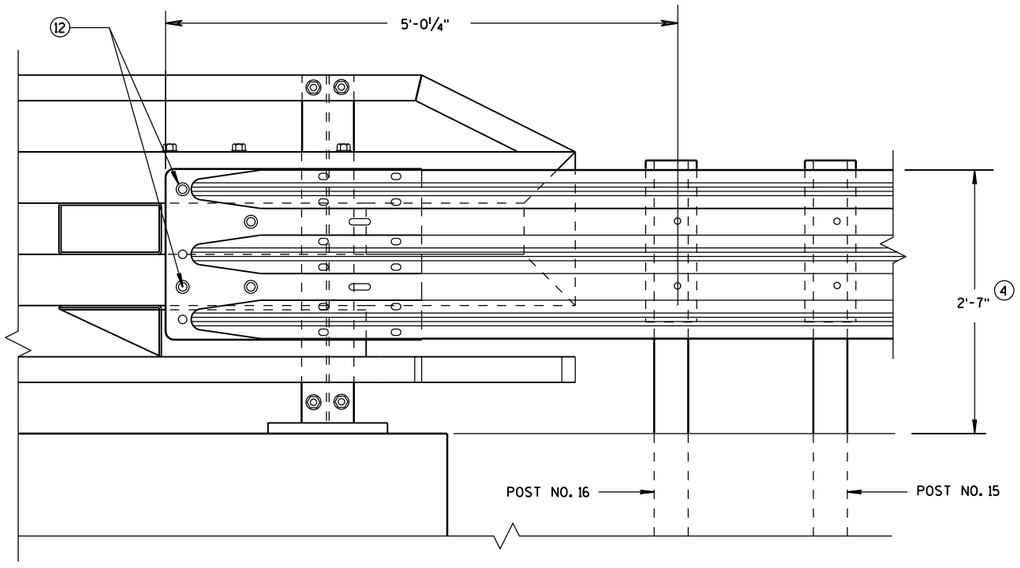
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S.D.D. 14 B 45-4j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS D401 NT
ENGINEER

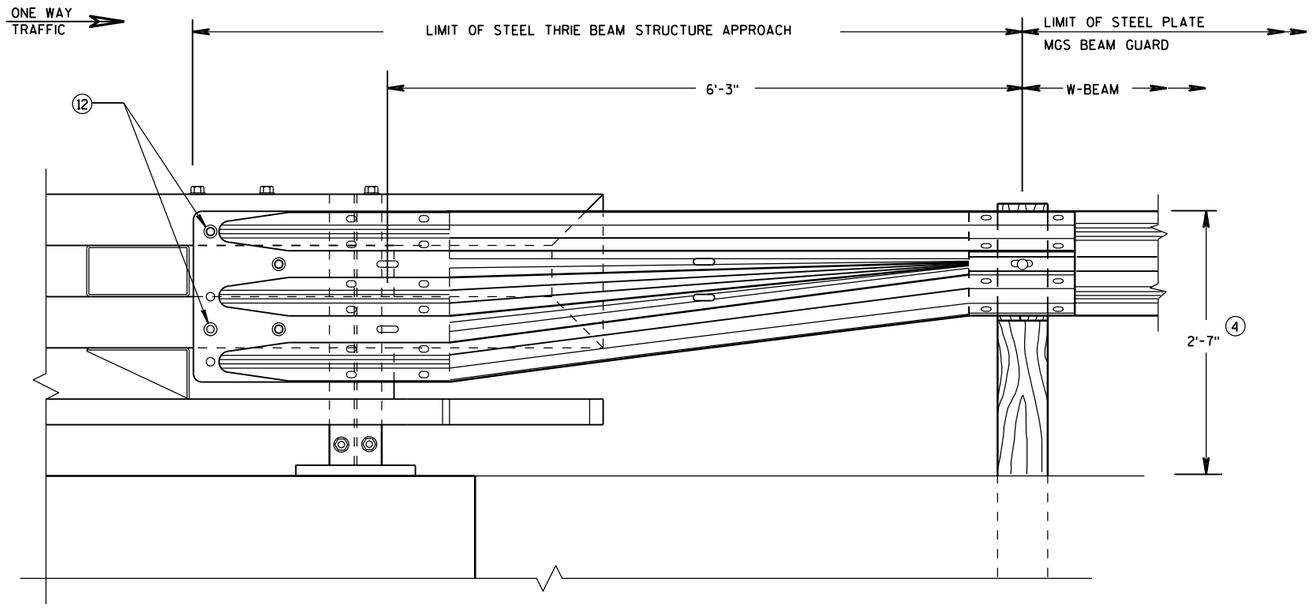
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S.D.D. 14 B 45-4k

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S.D.D. 14 B 45-4k



FRONT VIEW

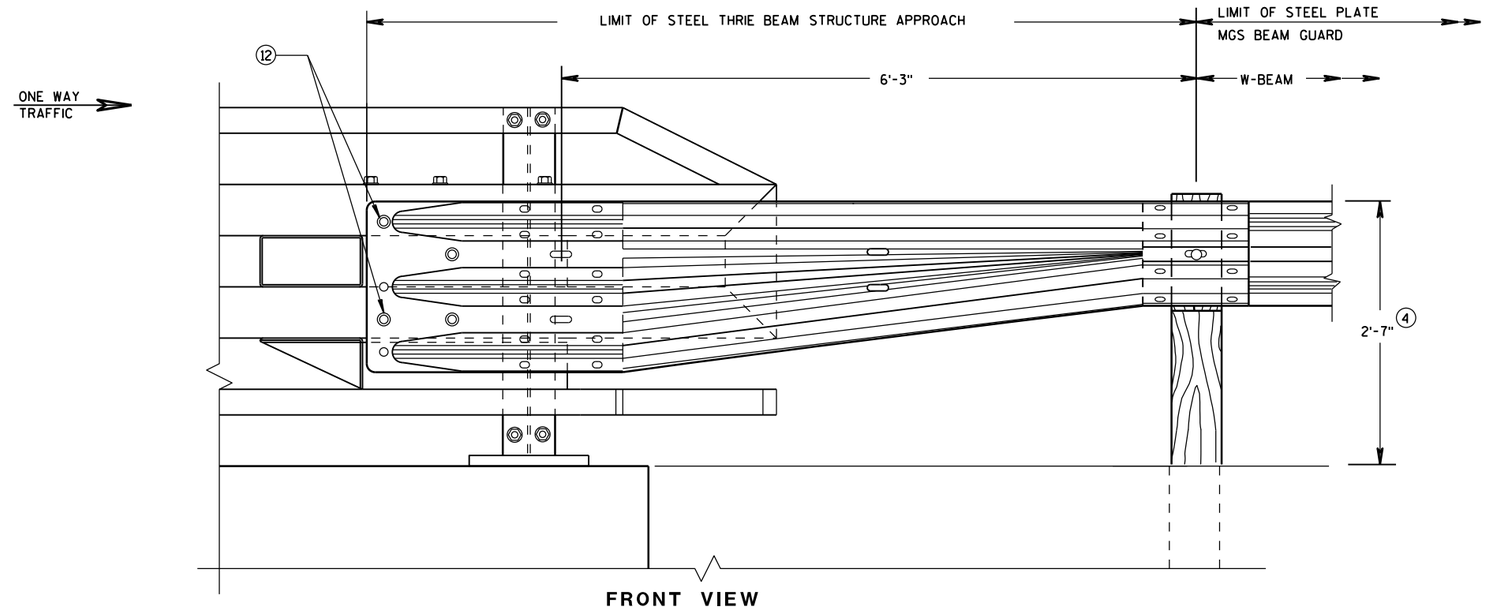
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

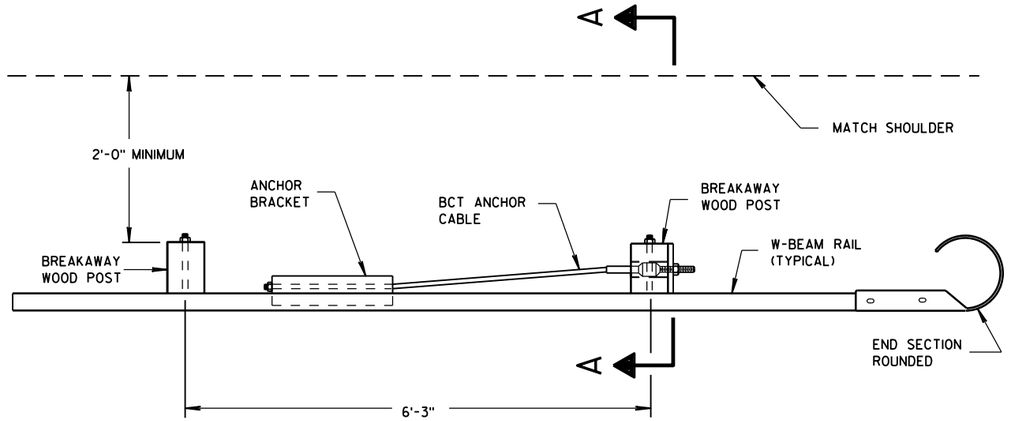
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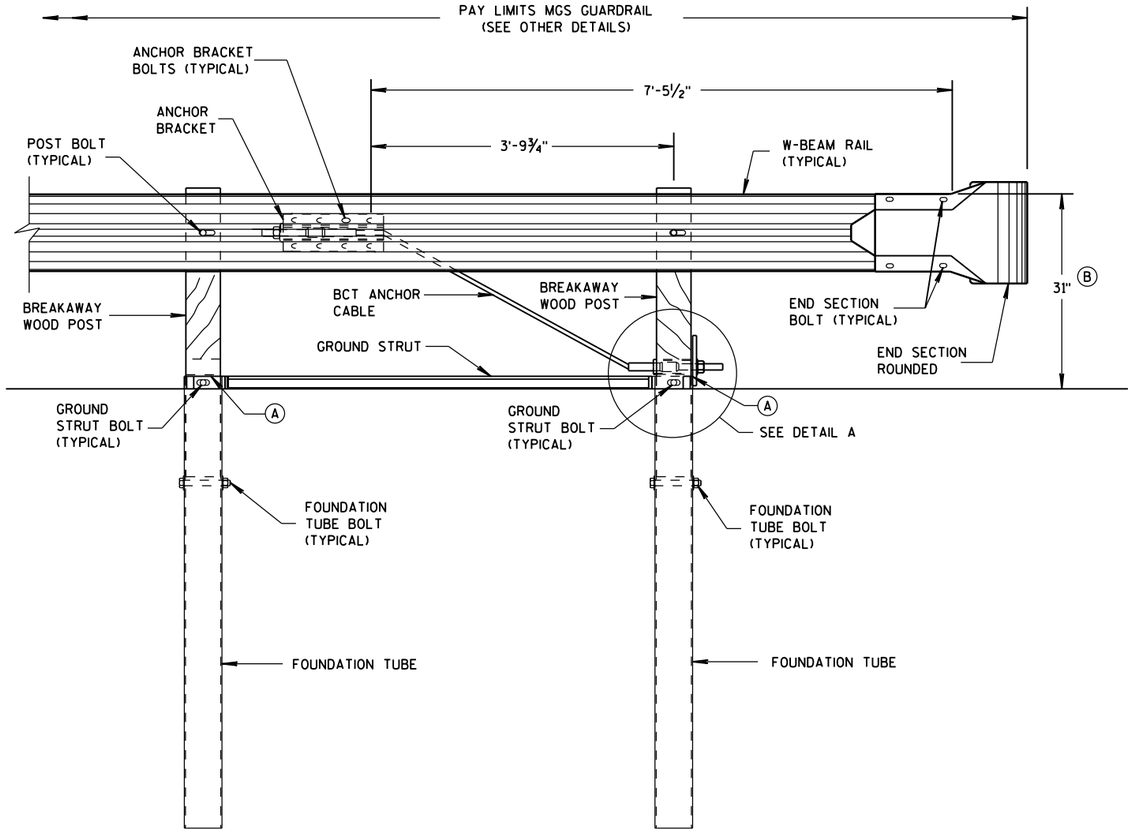
S.D.D. 14 B 45-4L

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S.D.D. 14 B 45-4L

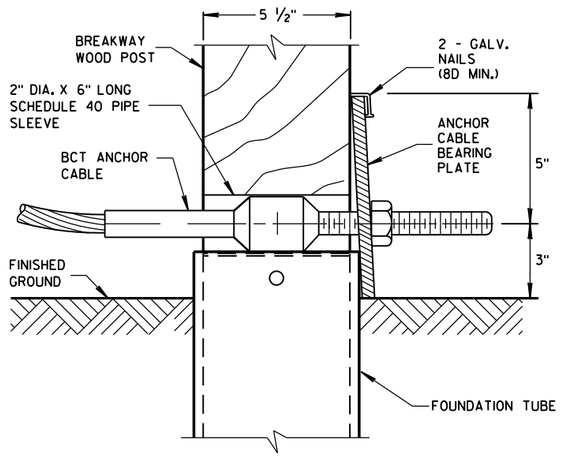


PLAN VIEW



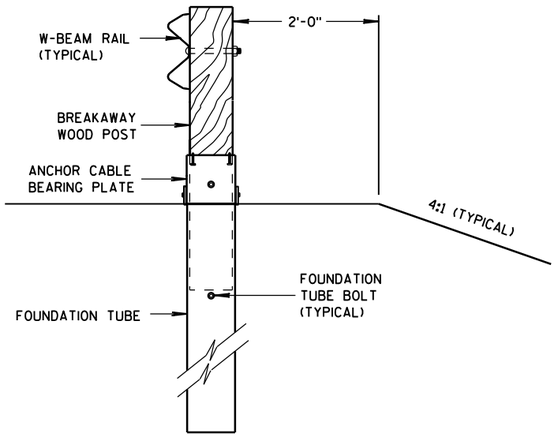
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

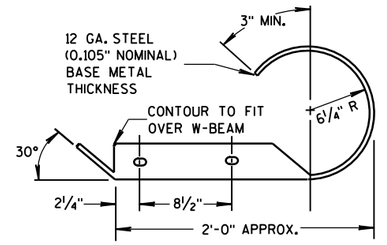
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

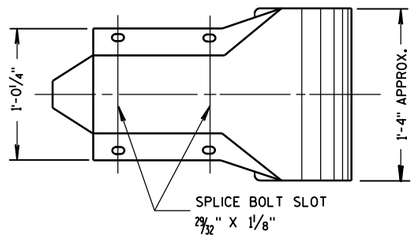
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



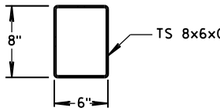
FRONT VIEW

W BEAM END SECTION ROUNDED

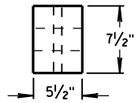
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

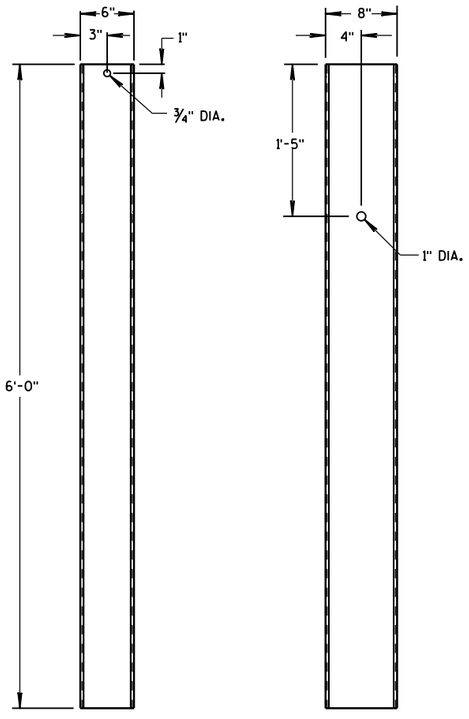
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S.D.D. 14 B 47-2a



PLAN VIEW

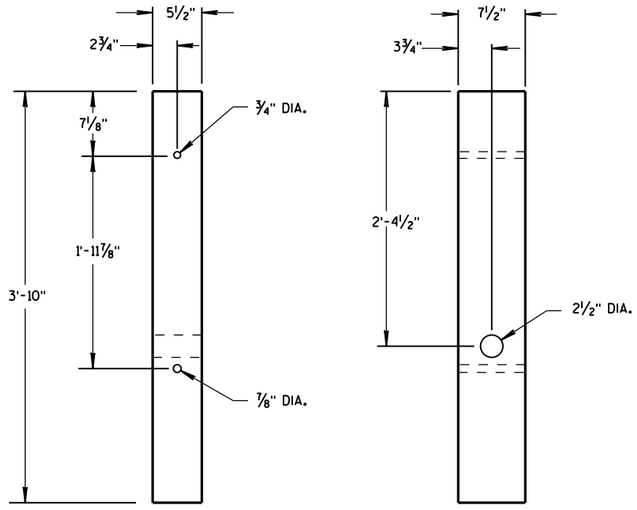


PLAN VIEW



FRONT VIEW SIDE VIEW

FOUNDATION TUBE

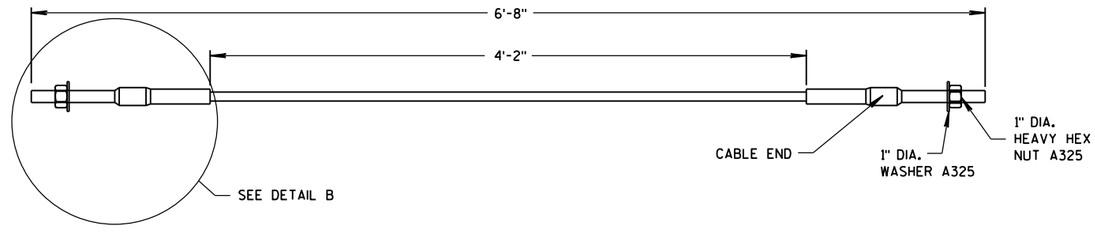


FRONT VIEW SIDE VIEW

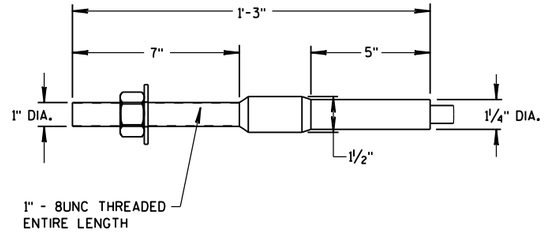
BREAKAWAY WOOD POST

GENERAL NOTES

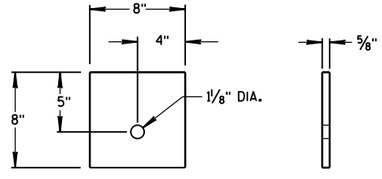
BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.



BCT ANCHOR CABLE



DETAIL B



SIDE VIEW FRONT VIEW

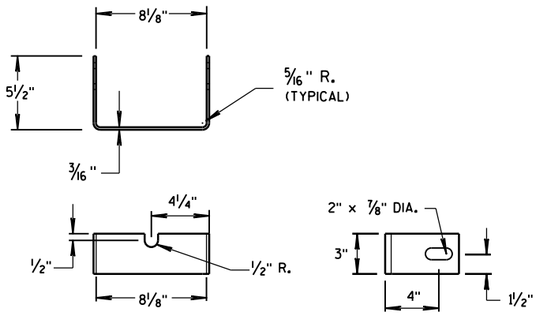
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

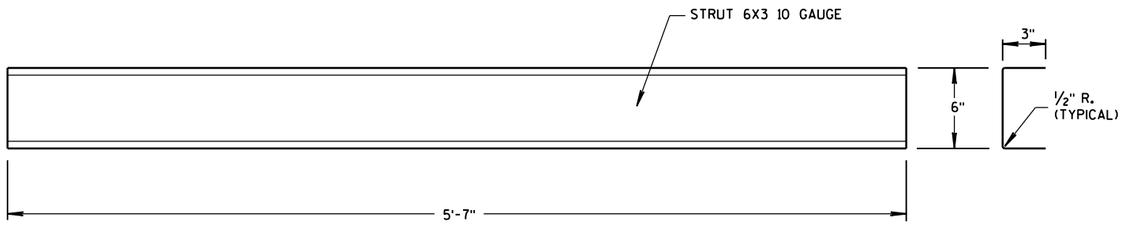
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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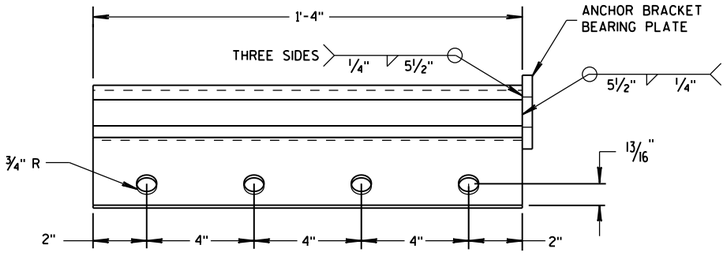
S.D.D. 14 B 47-2b

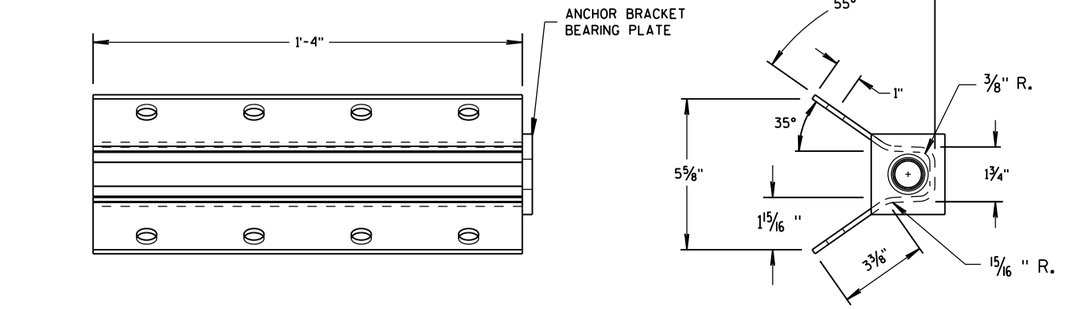


YOKE DETAIL

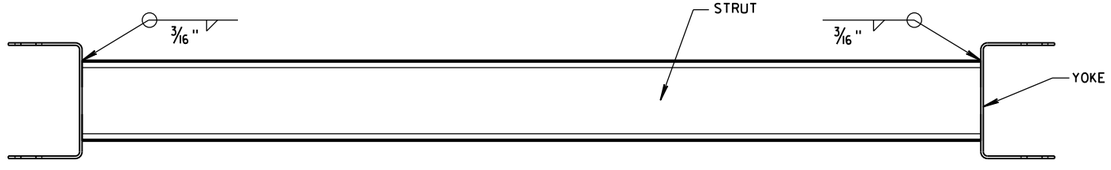


STRUT DETAIL

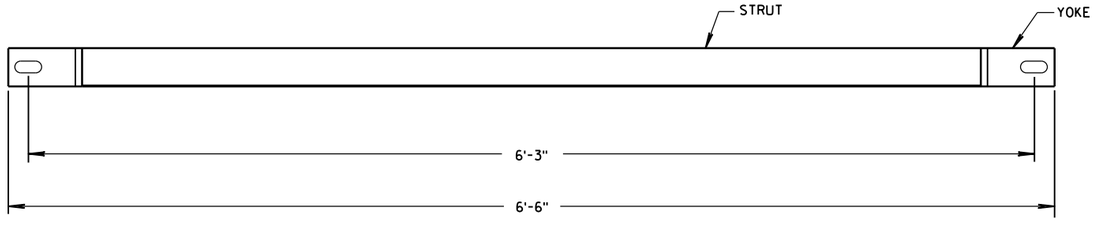




ANCHOR BRACKET

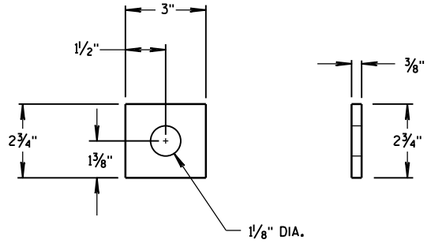


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

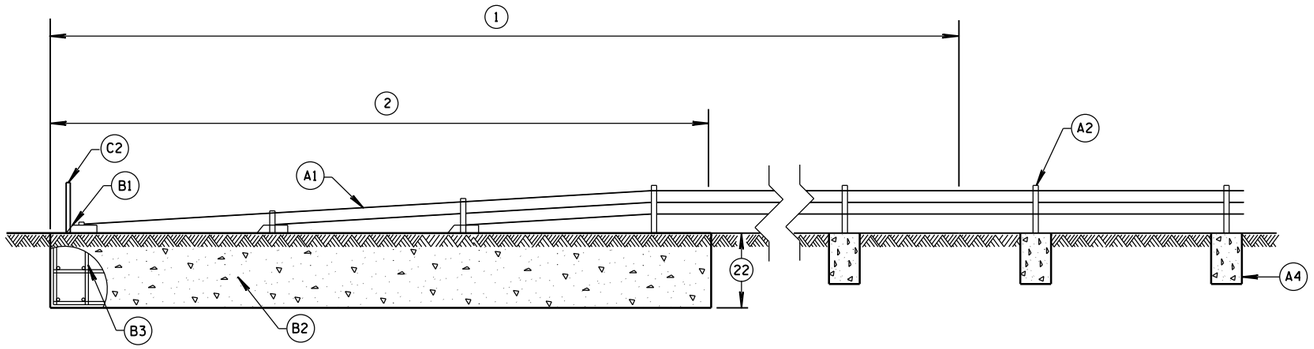
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

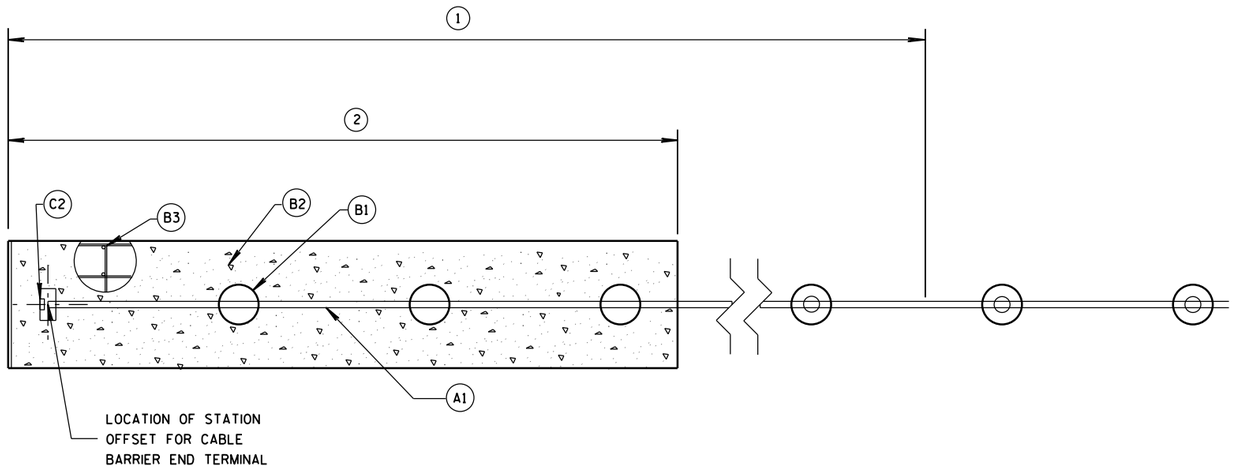
APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 47-2c

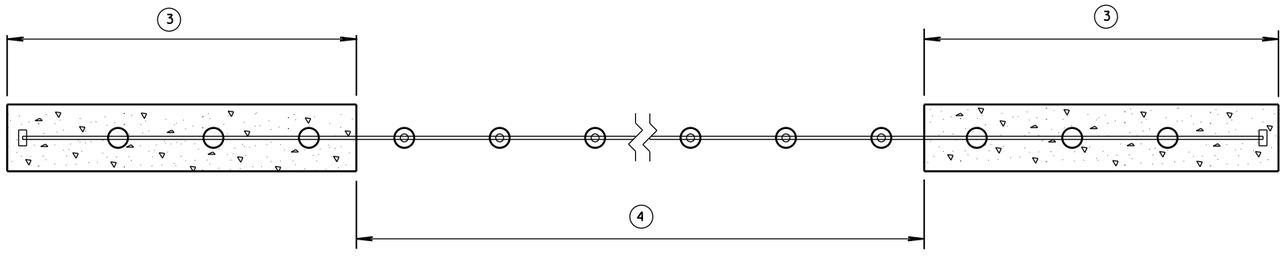


PROFILE VIEW



PLAN VIEW

TRANSITION FROM CABLE BARRIER TERMINAL TO CABLE BARRIER LINE POSTS



TYPICAL PLAN VIEW

GENERAL NOTES

DRAWINGS ARE GENERAL IN NATURE. SEE MANUFACTURER'S INFORMATION FOR MORE DETAIL.

PROVIDE 2 INCH CLEAR COVER FROM OUTER EDGE OF CONCRETE FOOTINGS TO REINFORCEMENT.

INSTALL LINE POST PLUMB. LINE POSTS ARE TO BE EASILY REMOVED BY HAND AND HOLD CABLES AT THE PROPER ELEVATION.

PROVIDE CABLE BARRIER SYSTEM FROM APPROVED PRODUCT LIST.

PROVIDE A SYSTEM TO HAVE THE WORKING WIDTH INDICTED IN PLAN.

PROVIDE DOCUMENTATION HOW POST SPACING, RADIUS OF CURVE AND ANCHOR SPACING INFLUENCES WORKING WIDTH TO CONSTRUCTION STAFF.

PROVIDE A WISCONSIN PROFESSIONAL ENGINEERS STAMPED ANALYSIS THAT THE LINE POST AND CABLE BARRIER END TERMINAL FOOTINGS ARE DESIGNED FOR THE SOIL CONDITIONS PRESENT. THE WISCONSIN P.E. STAMP ANALYSIS IS TO INCLUDE, BUT IS NOT LIMITED TO: DESIGN IMPACT LOADS, FOUNDATION DEISGN METHODOLOGY USED, FACTORS OF SAFETY, SOIL TYPE, SOIL CONDITIONS, AND TEMPERATURE RANGES.

DESIGN LINE POST FOOTINGS SO THAT LINE POST FOOTING MOVE LESS THAN 1 INCH WHEN LINE POST IS IMPACTED BY A TL-3 SMALL CAR.

BILL OF MATERIALS

PART NUMBER	QTY.	DESCRIPTION	MATERIALS SPECIFICATIONS
(A1)	3 OR 4	3/4" 3x7 PRESTRECHED GALVANIZED STEEL WIRE ROPE	ASTM A741 MIN. BREAKING STRENGTH 39,000 LBS.
			AASHTO M30 TYPE 1 CLASS A (GALVANIATION).
			MINIMUM WIRE ROPE MODULUS OF ELASTICITY OF 19,000 PSI ACCORDING TO ISO 12067-202 WIRE ROPE MODULUS OF ELASTICITY "INITIAL" (AS MANUFACTURED), WITH NO BEDDING OR PRESTRECHING OF THE ROPE PERMITTED DURING TESTING.
(A2)	1 PER LINE POST	GALVANIZED REMOVABLE STEEL LINE POST	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
(A3)	1 PER LINE POST	GALVANIZED METAL SLEEVE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
(A4)	VARIES	CONCRETE FOR LINE POST FOOTING	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2 OR AS MANUFACTURER SPECIFIES.
			STANDARD SPECIFICATION 716 OMP FOR CLASS II ANCILLARY CONCRETE.
			SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
(A5)	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
(A6)	VARIES	TURNBUCKLES AND OTHER CABLE CONNECTING HARDWARE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
			MINIMUM BREAKING STRENGTH OF TURNBUCKLES AND CONNECTION HARDWARE IS EQUAL TO CABLE.
			TURNBUCKLES AND OTHER CABLE CONNECTION HARDWARE IS FIELD SWAGED PER MANUFACTURER'S RECOMMENDATIONS AND DETAILS.
(B1)	VARIES	CABLE CONNECTION TO CABLE BARRIER END TERMINAL	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
(B2)	VARIES	CONCRETE FOR CABLE BARRIER END TERMINAL	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2.
			STANDARD SPECIFICATION 716 OMP FOR CLASS II ANCILLARY CONCRETE.
(B3)	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
(C1)	VARIES	LINE POST DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVE PRODUCT LIST YELLOW.
(C2)	VARIES	CABLE BARRIER END TERMINAL DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVE PRODUCT LIST OBJECT MARKER TYPE 3 PATTERN.

(1) LOCATION OF LENGTH OF NEED POINT FOR CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(2) PAY LIMIT FOR CABLE BARRIER END TERMINAL. LENGTH OF CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(3) CABLE BARRIER END TERMINAL

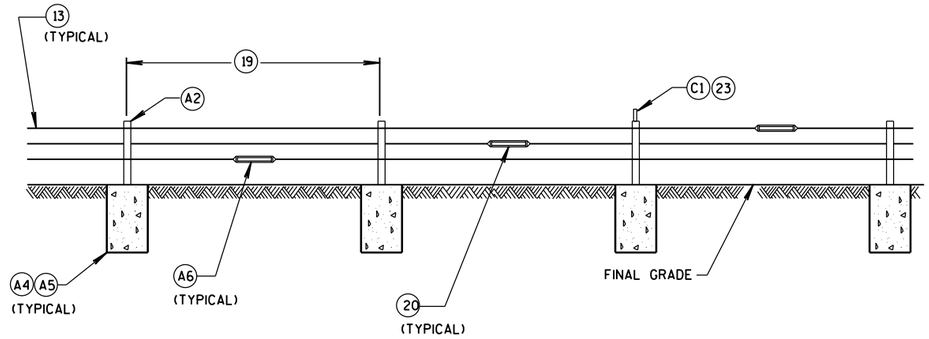
(4) CABLE BARRIER AND LINE POSTS

CABLE BARRIER TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

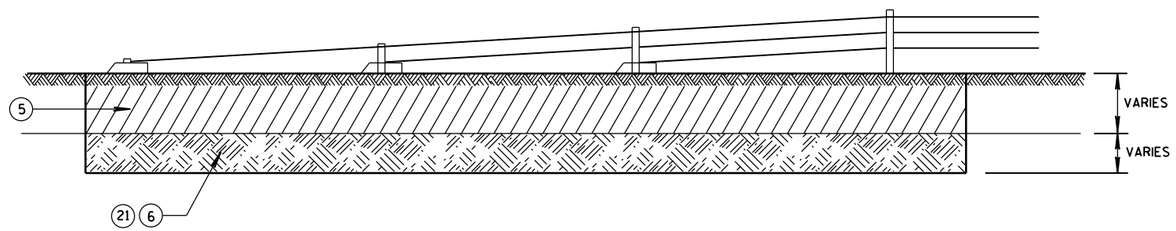
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S.D.D. 14 B 52-1a



PROFILE VIEW

LINE POST INSTALLATION



CABLE BARRIER END TERMINAL ROCK EXCAVATION DETAIL

(5) SOIL TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES).

(6) ROCK TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES).

(7) SOIL TO BE EXCAVATED FOR LINE POST (VARIES).

(8) ROCK TO BE EXCAVATED FOR LINE POST (VARIES).

(9) EXCAVATE AND GRADE LINE FOR LINE POST FOOTINGS. INSTALL LINE POST FOOTING TO MINIMIZE 4 INCH TALL OBJECT ON 5 FOOT CHORD.

(10) 2 INCHES OF CLEAR COVER FROM EDGE OF CONCRETE TO REINFORCEMENT.

(11) DIAMETER OF LINE POST FOOTING VARIES. SEE MANUFACTURER'S INFORMATION.

(12) MINIMUM DEPTH OF LINE POST FOOTING IS 48 INCHES IN SOIL. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

(13) NUMBER AND LOCATION OF CABLES VARY. SEE MANUFACTURER'S INFORMATION.

(14) LINE POST DIMENSIONS AND CONNECTION HARDWARE VARY. SEE MANUFACTURER'S INFORMATION.

(15) LANE OF ROADWAY (VARIES). SEE PLAN FOR MORE INFORMATION.

(16) PAVED SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

(17) GRAVEL SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

(18) CABLE BARRIER OFFSET FROM CENTERLINE OF MEDIAN DITCH (8 FOOT MINIMUM). SEE PLAN FOR MORE INFORMATION.

(19) MAXIMUM POST SPACING IS 15 FEET.

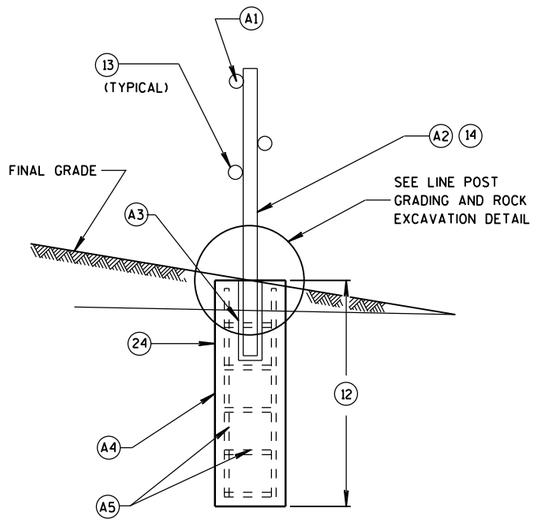
(20) STAGGER TURNBUCKLES (TYPICAL).

(21) SEE MANUFACTURER'S DESIGN WHEN ROCK IS ENCOUNTERED.

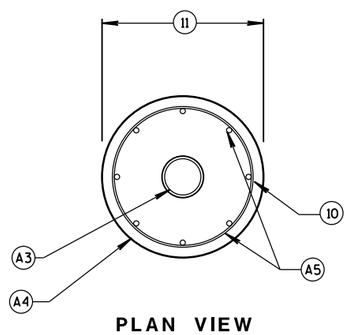
(22) IN SOIL MINIMUM DEPTH OF CABLE BARRIER END TERMINAL FOOTING IS 60 INCHES. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENATION ARE ACCEPTABLE.

(23) LINE POST DELINEATOR SPACING IS 100 FEET.

(24) LINE POST FOOTINGS ARE REQUIRED TO HAVE LESS THAN 1 INCH OF MOVEMENT WHEN LINE POST IS IMPACTED BY A NCHRP 350 SMALL CAR UNDER TL-3 TEST CONDITIONS.

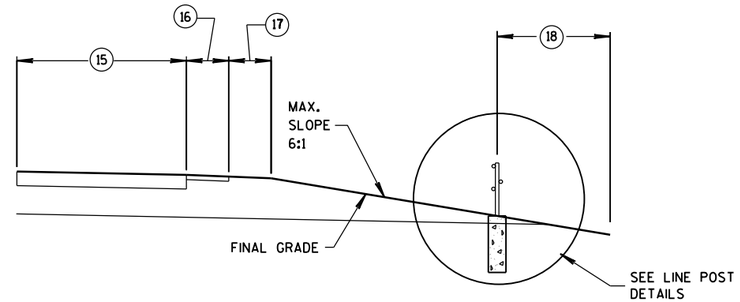


CROSS SECTION

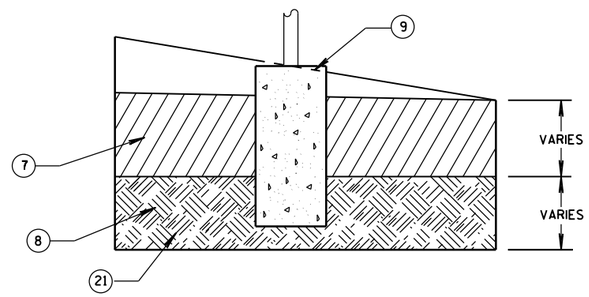


PLAN VIEW
(LINE POST AND CABLES NOT SHOWN)

LINE POST DETAILS



CABLE BARRIER OFFSET FROM DITCH LINE



LINE POST GRADING AND ROCK EXCAVATION DETAIL

CABLE BARRIER TYPE 1
LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

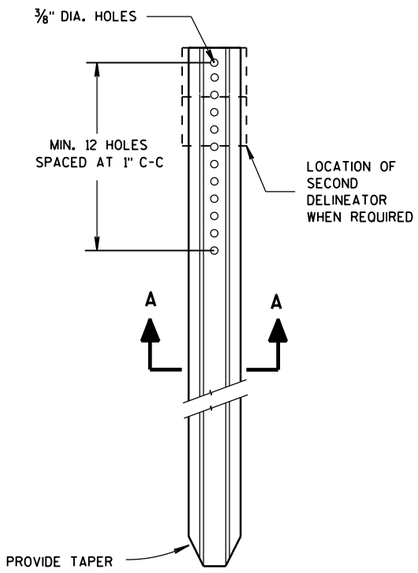
APPROVED
June. 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

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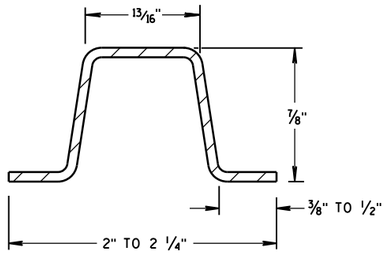
S.D.D. 14 B 52-1b

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S.D.D. 14 B 52-1b

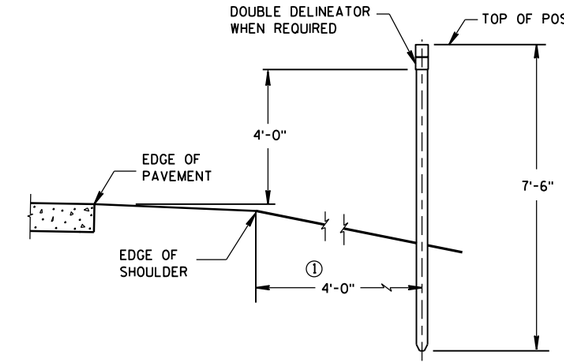


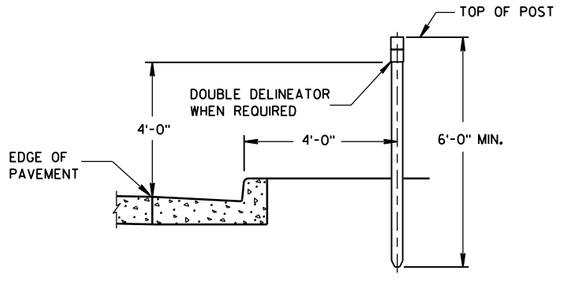
DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.



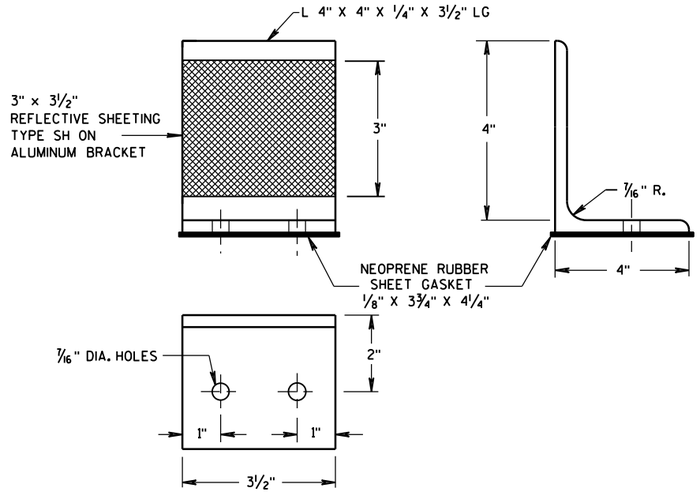


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

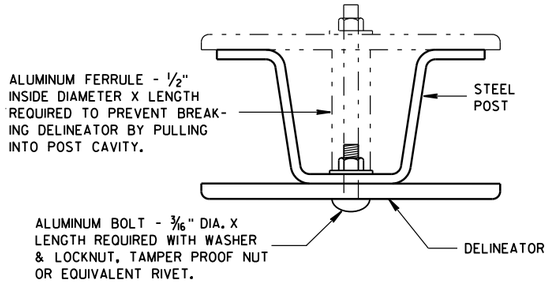
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

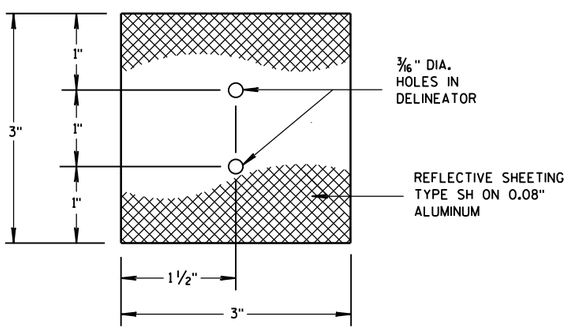
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



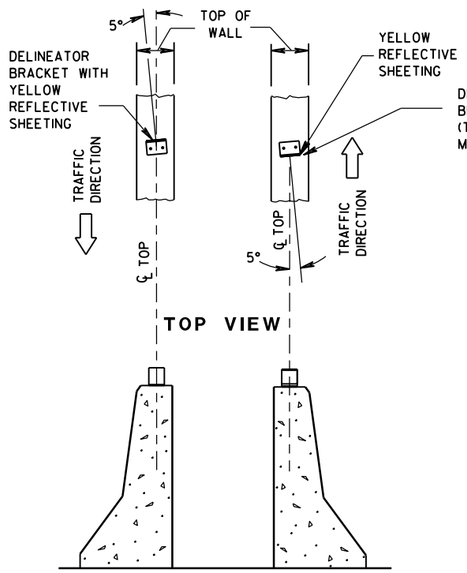
DELINEATOR BRACKET



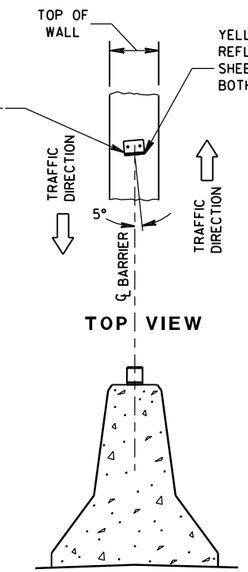
MOUNTING DETAIL FOR DELINEATOR



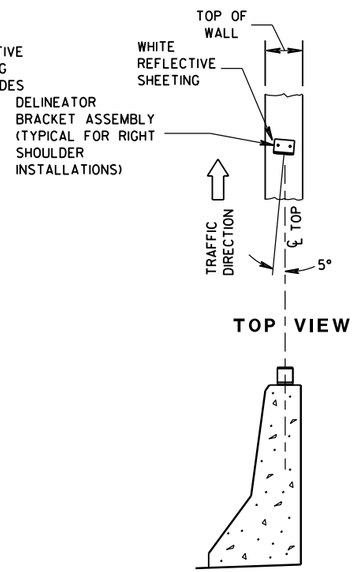
3"x 3" DELINEATOR



DOUBLE BARRIERS IN MEDIAN

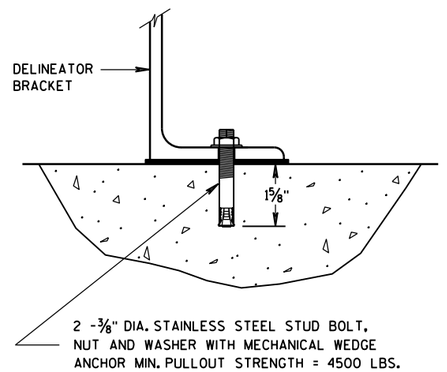


MEDIAN BARRIER



BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

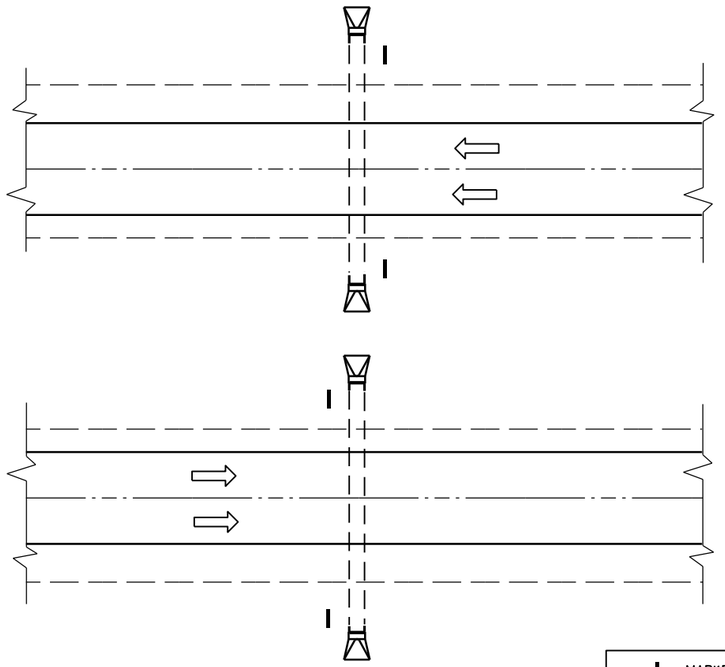
APPROVED
7/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA

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S.D.D. 15 A 2-8

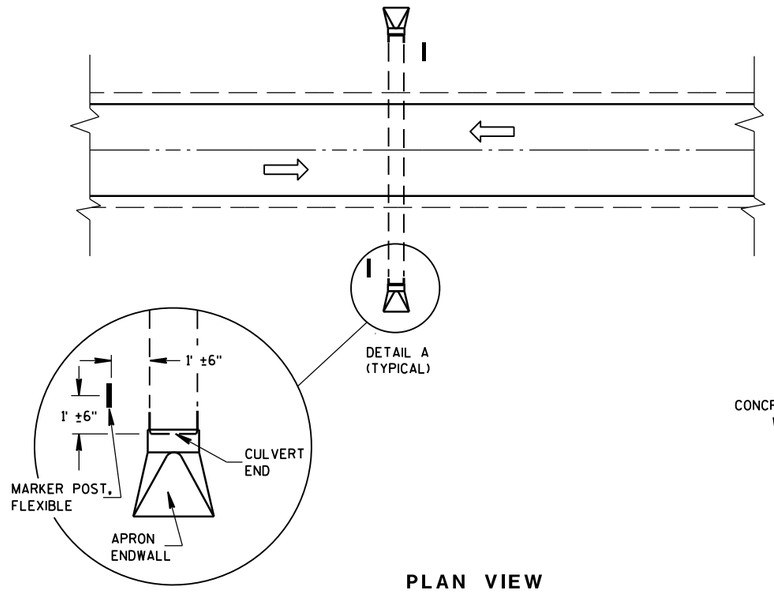
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S.D.D. 15 A 2-8



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

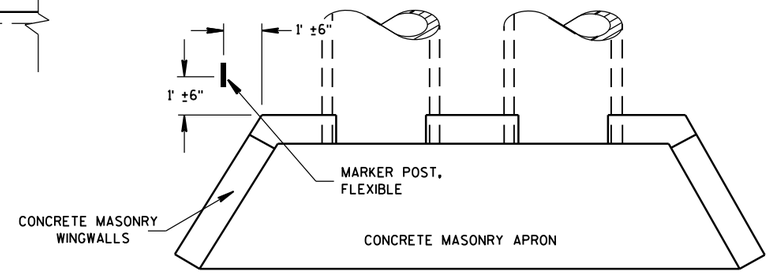
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

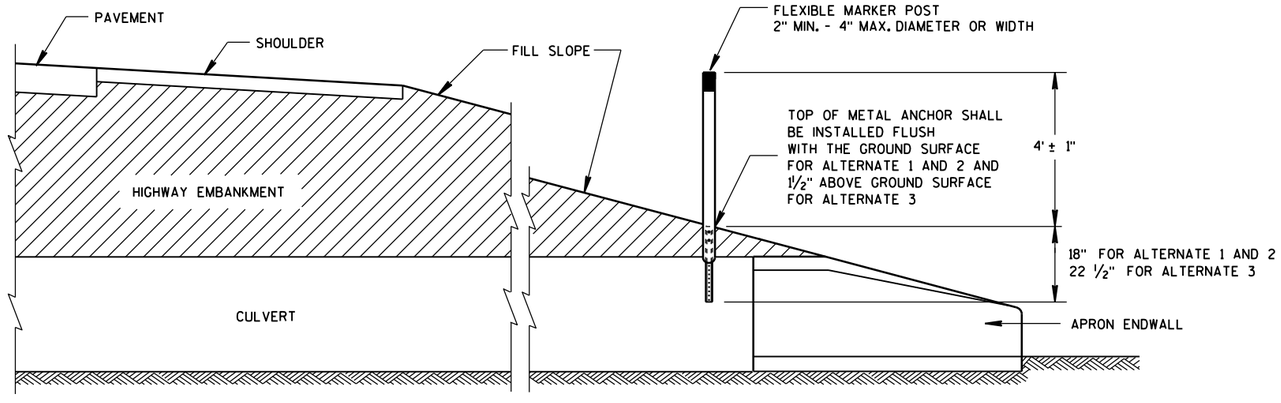
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

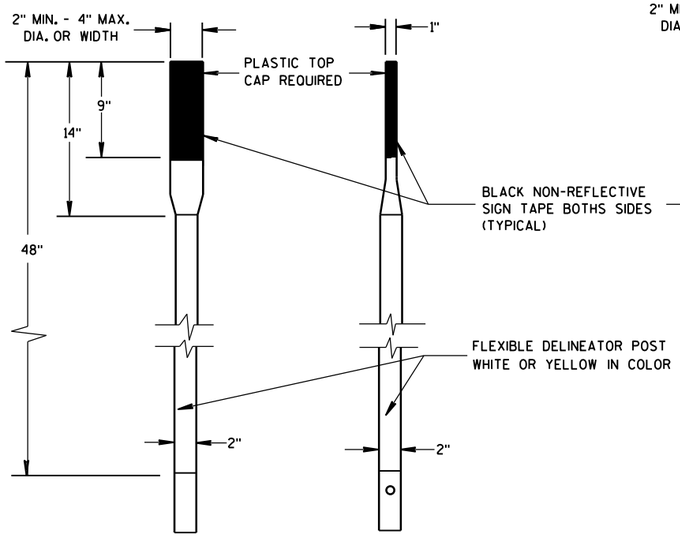
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

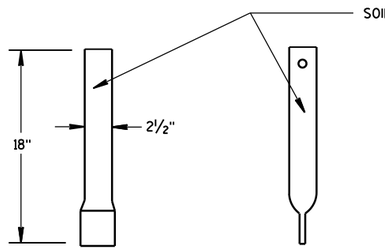
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S.D.D. 15 A 3-2a

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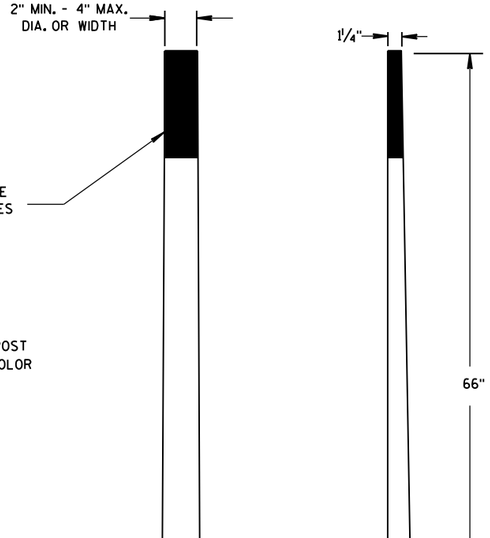
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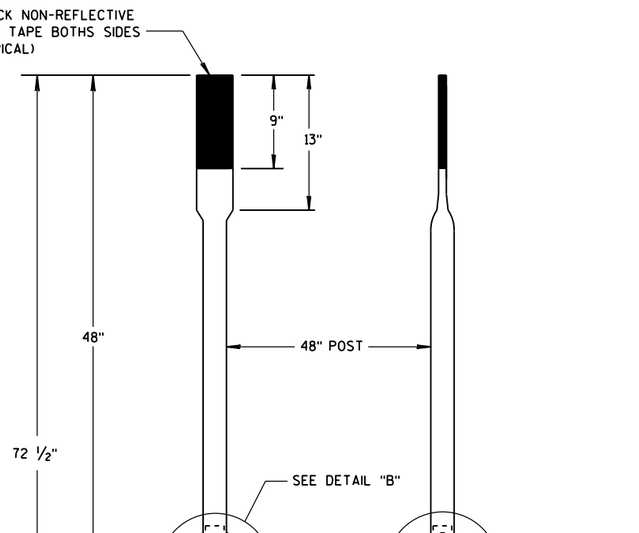
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

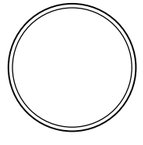
ALTERNATE 2



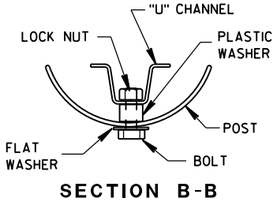
FRONT VIEW SIDE VIEW

ALTERNATE 3

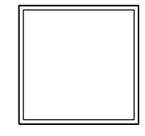
FLEXIBLE MARKER POSTS



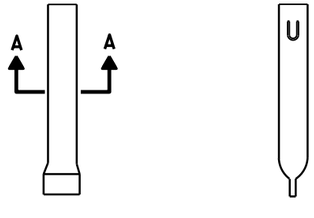
SECTION A-A



SECTION B-B

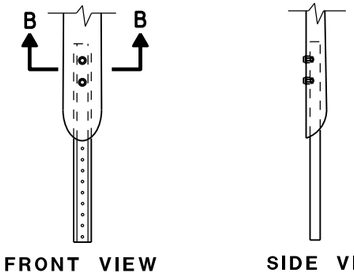


SECTION C-C



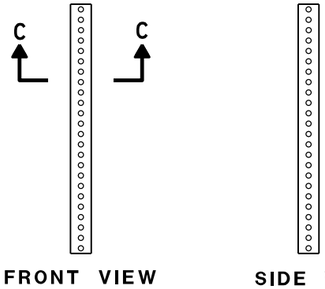
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

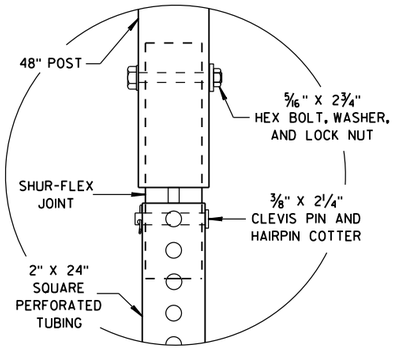
ALTERNATE 2



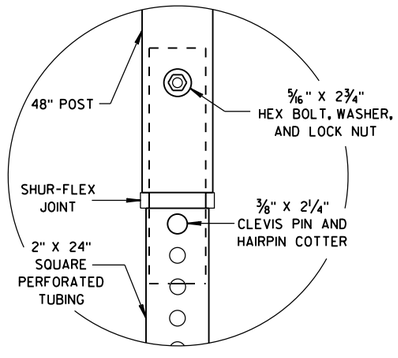
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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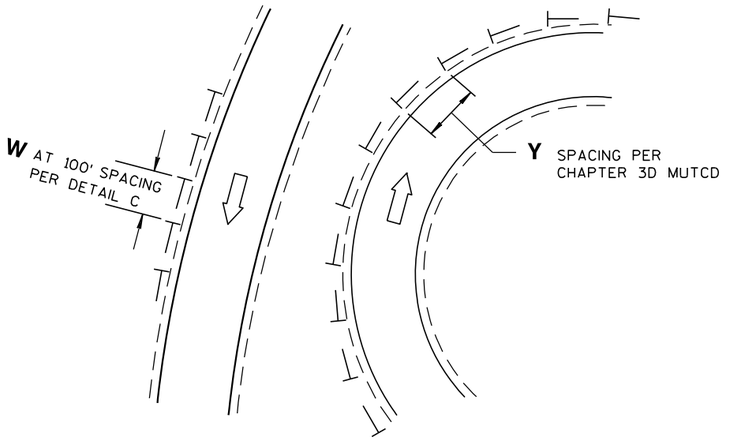
S.D.D. 15 A 3-2b

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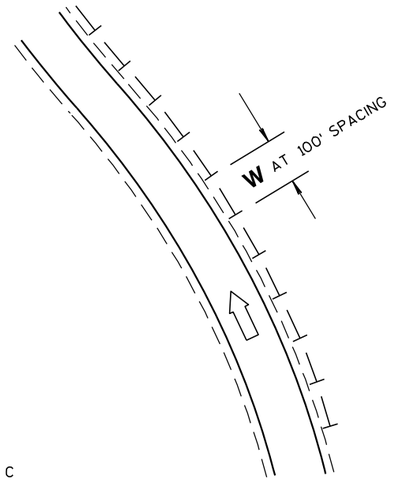
S.D.D. 15 A 3-2b

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



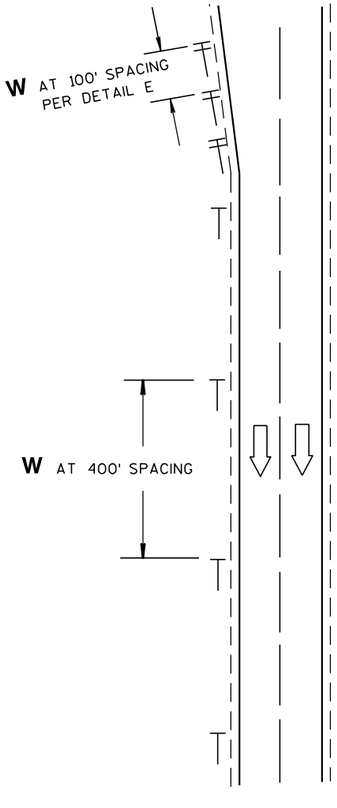
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



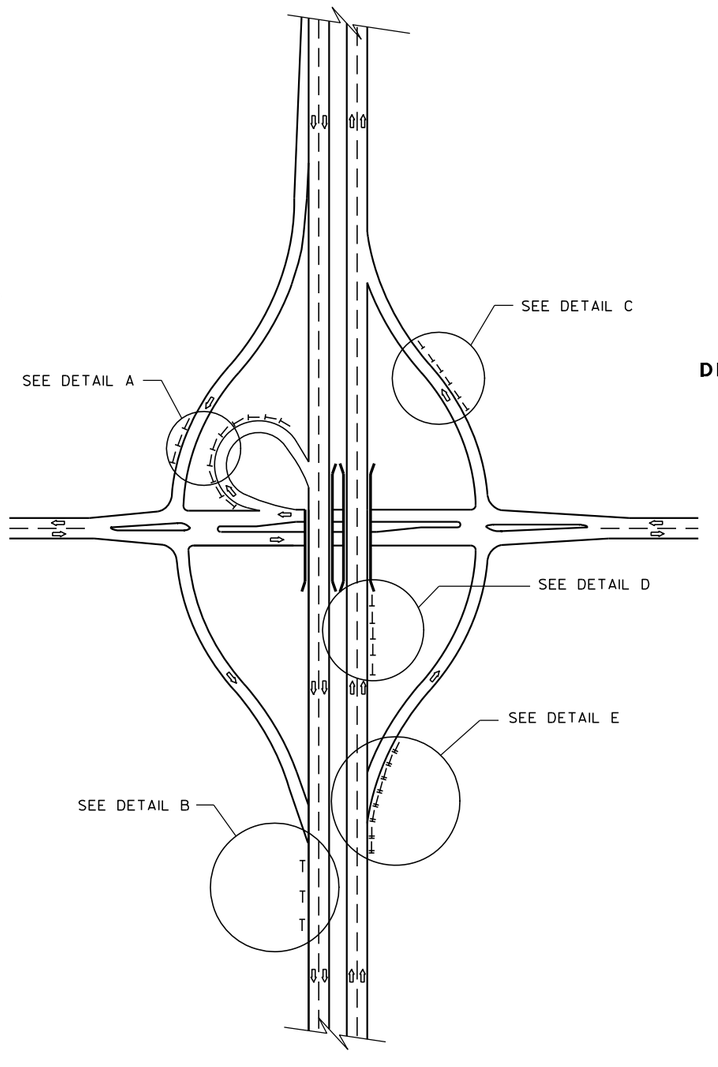
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

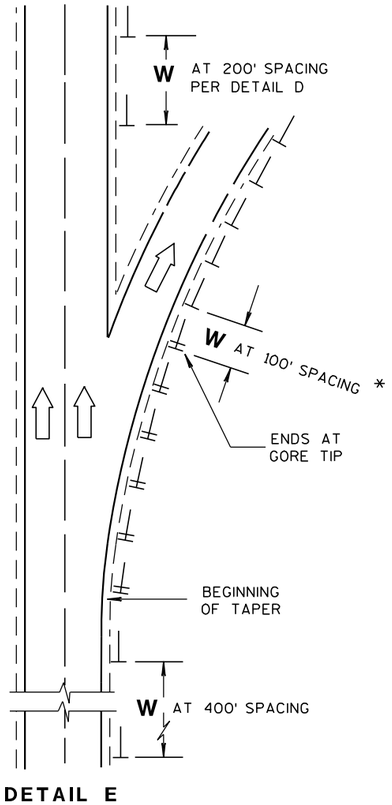
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



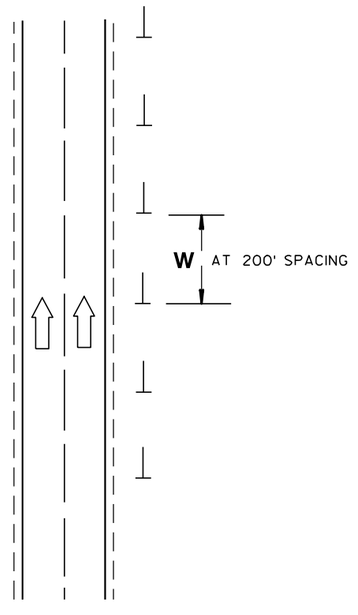
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

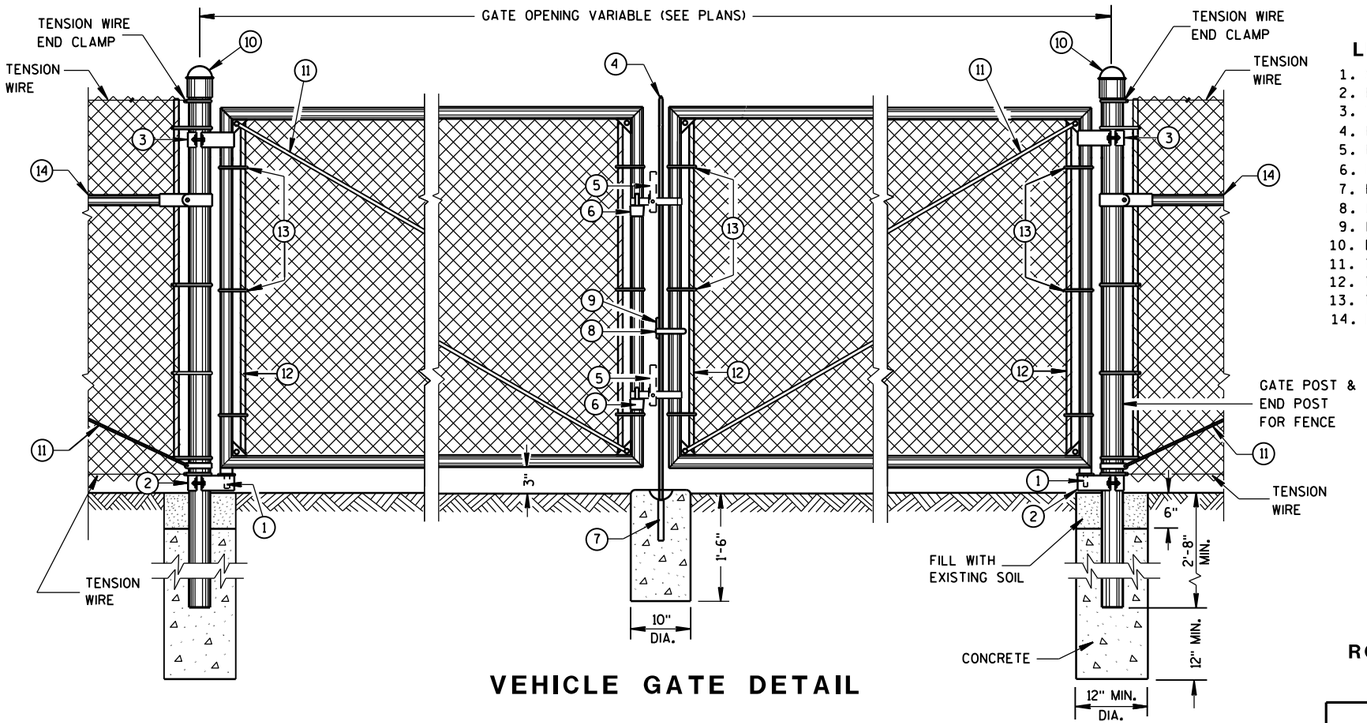
APPROVED
2/5/09 DATE
/S/ Thomas N. Nothdurft
STATE TRAFFIC ENGINEER
FHWA

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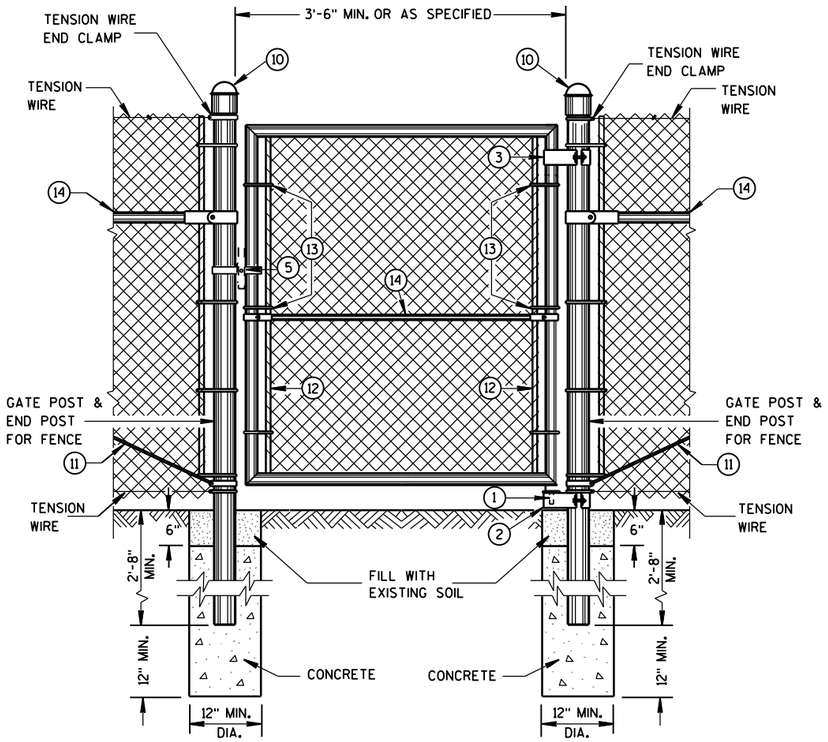
S.D.D. 15 A 6-2

6

S.D.D. 15 A 6-2



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

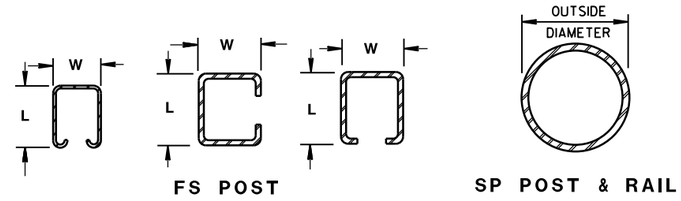
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



FS POST — SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

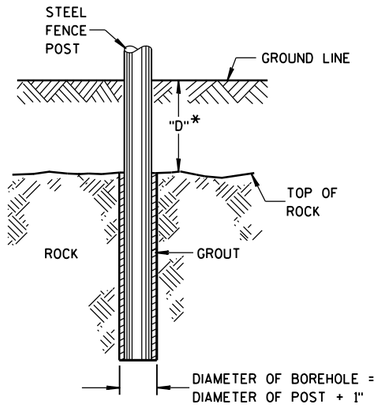
POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

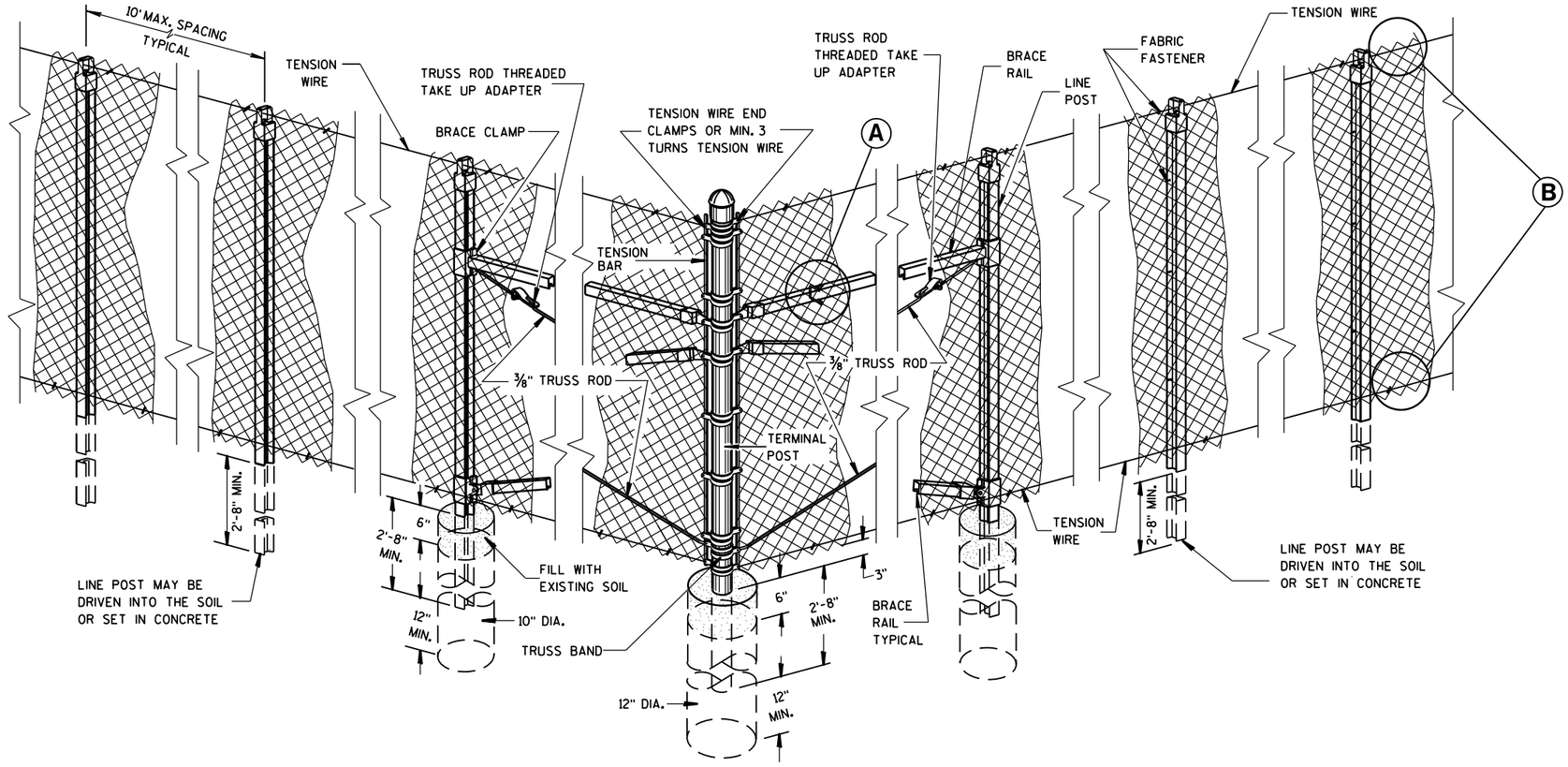
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S.D.D. 15 B 3-15a

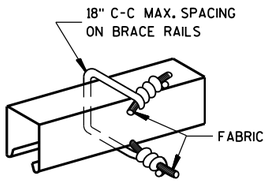


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



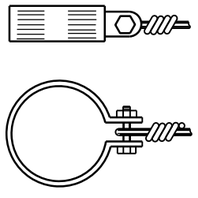
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



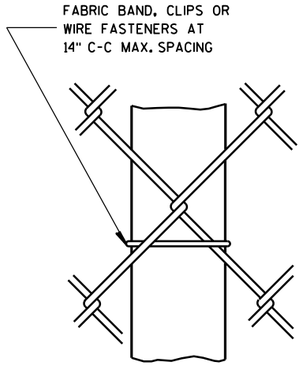
BRACE RAIL

FABRIC FASTENER

Ⓐ



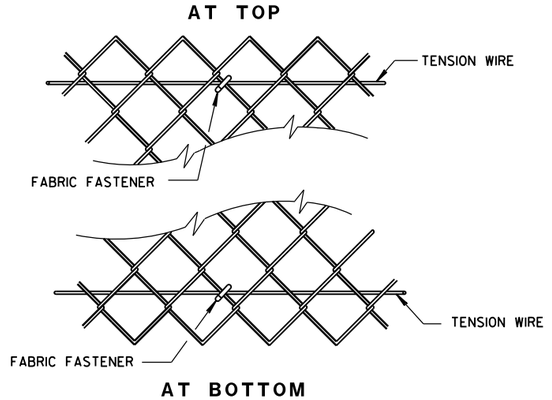
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

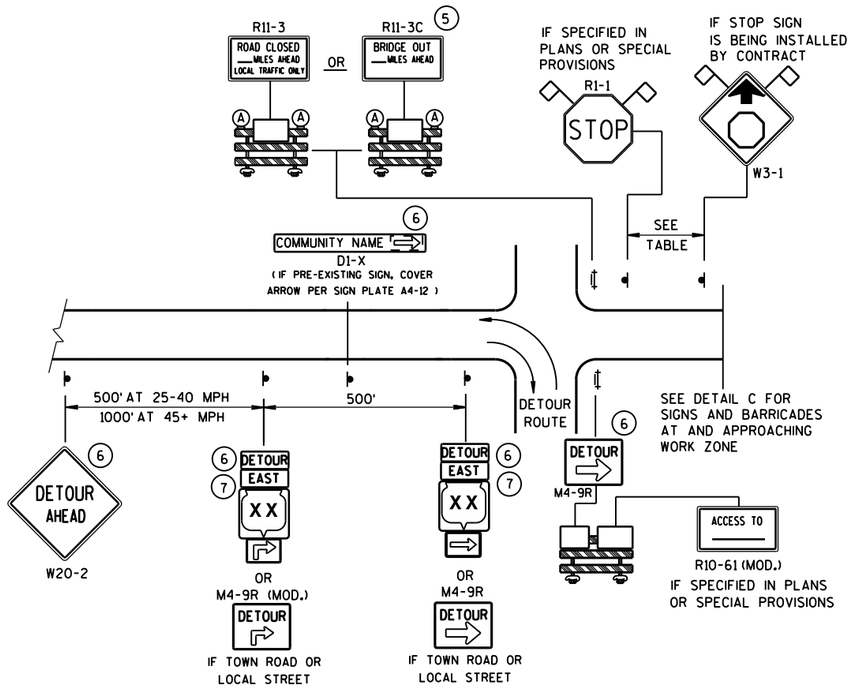
APPROVED
FEB. 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 15 B 3-15b

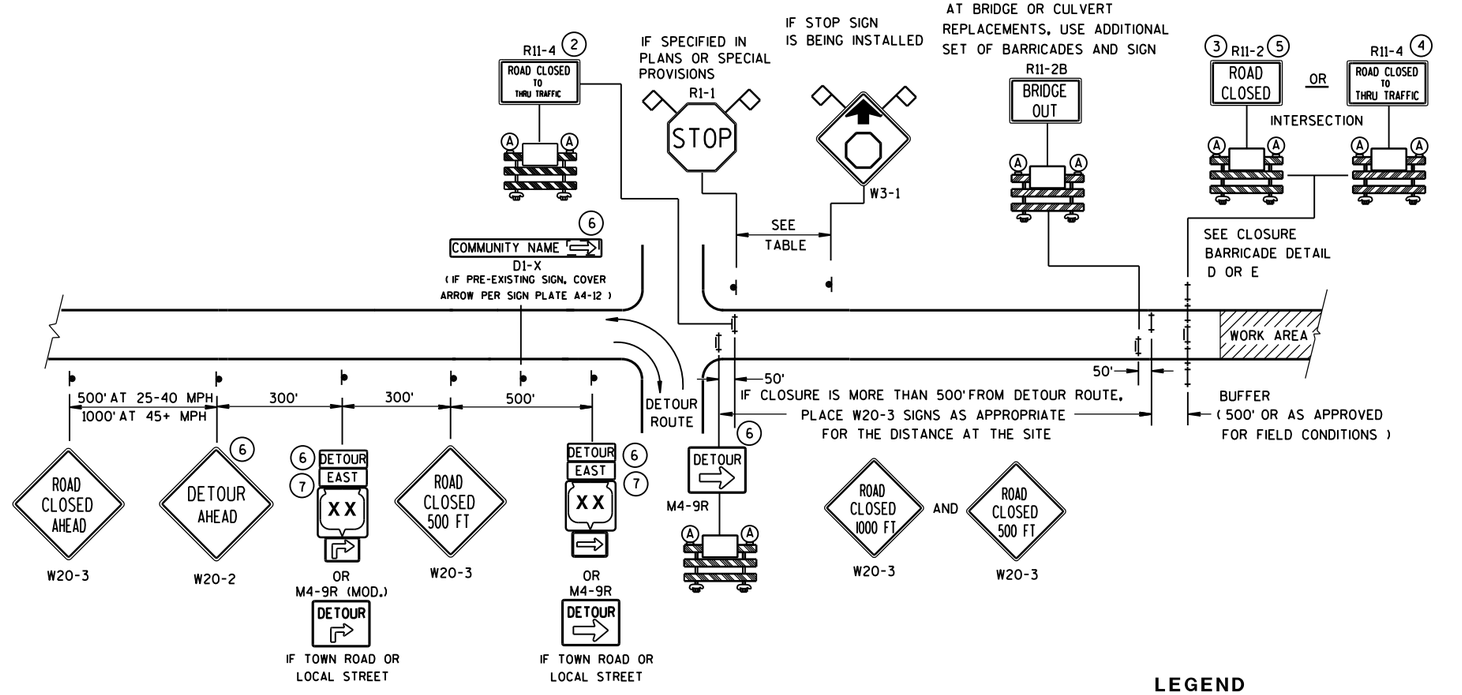
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S.D.D. 15 B 3-15b



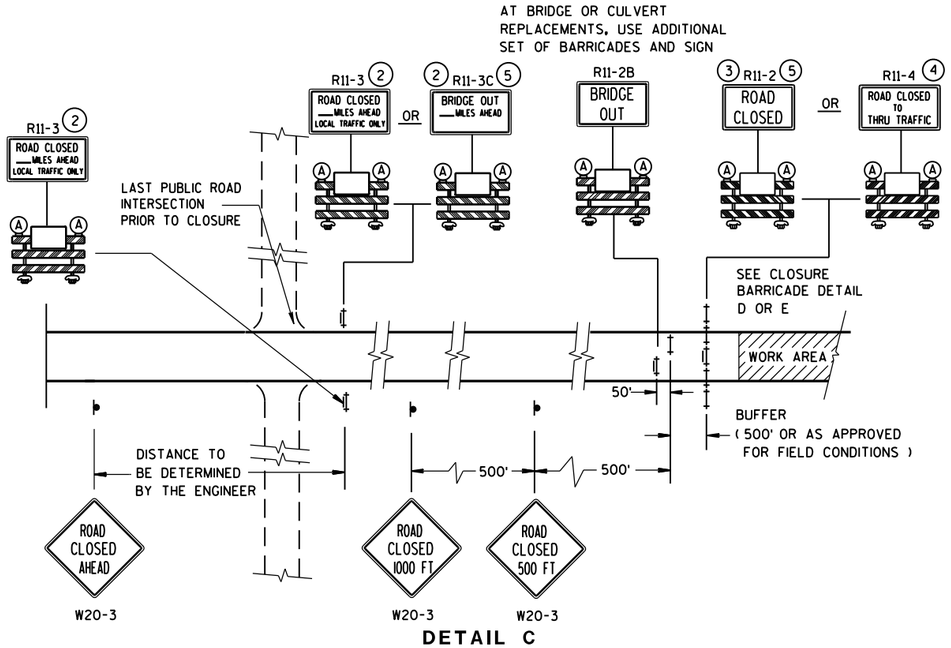
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

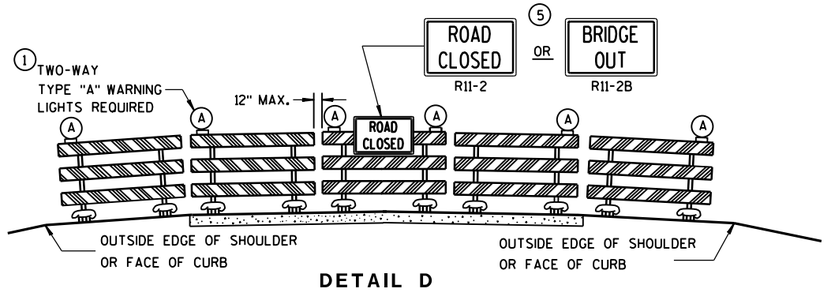
8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

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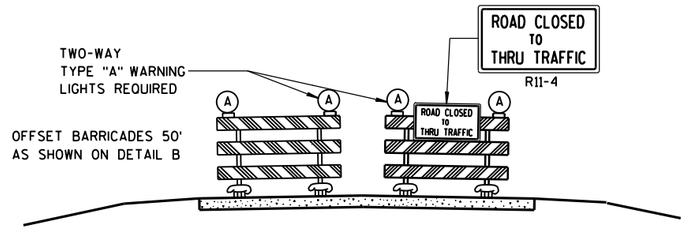
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 2-5b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

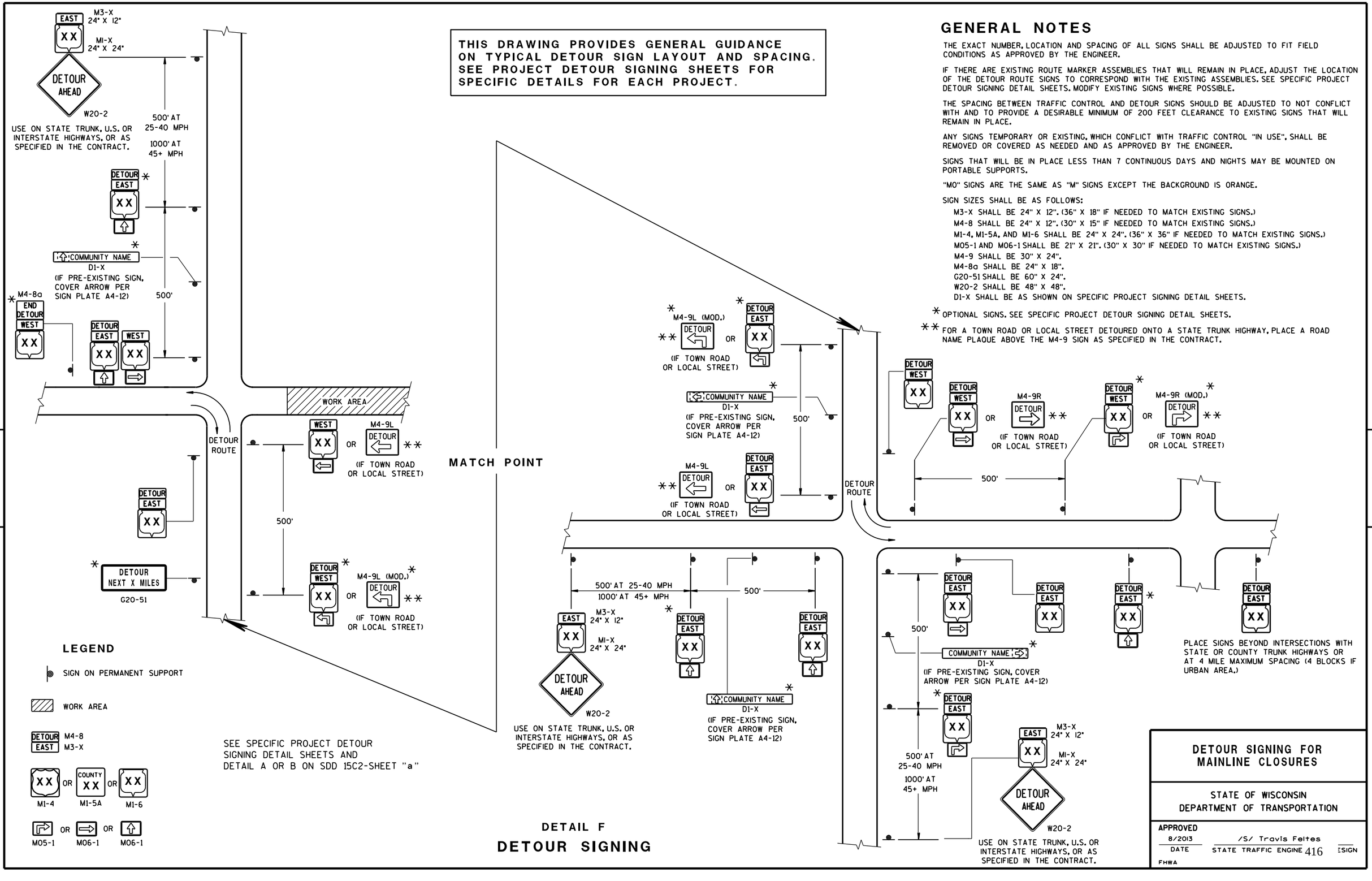
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR EAST M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- MO5-1 OR MO6-1 OR MO6-1

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

DETAIL F

DETOUR SIGNING

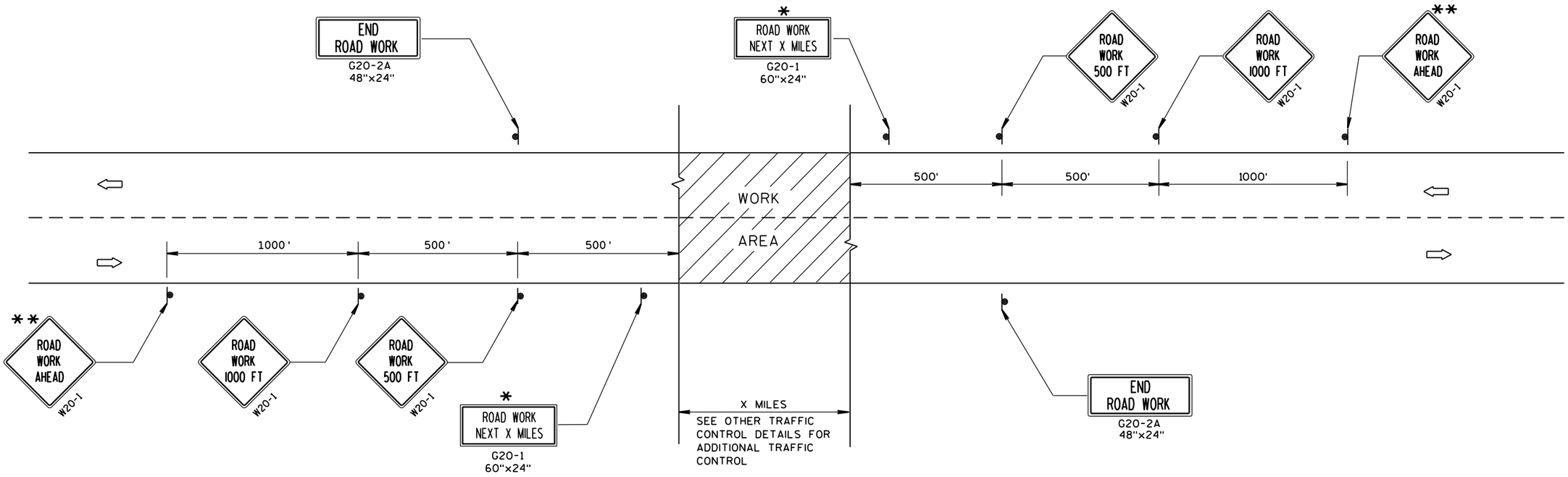
DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

6 S.D.D. 15 C 2-5c



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

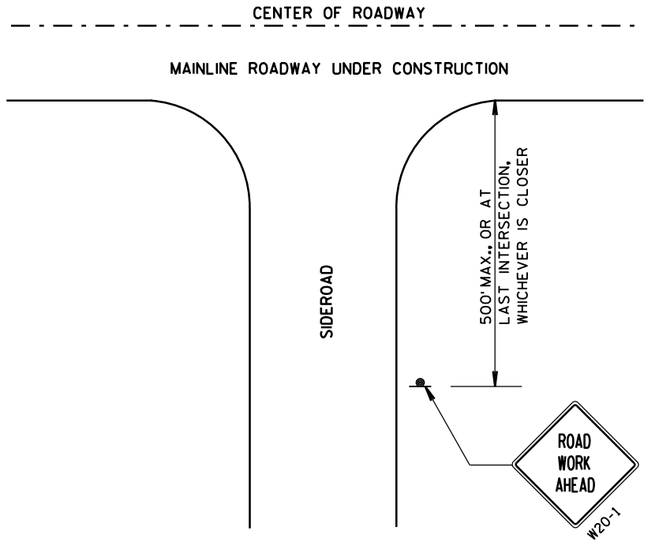
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

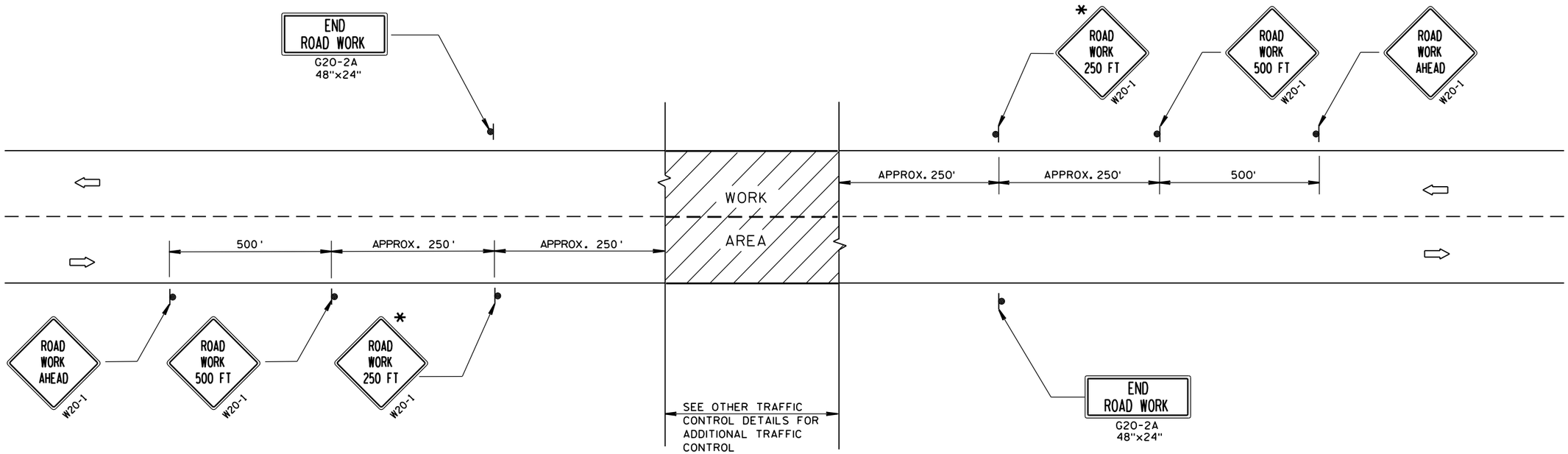
/S/ Travis Feltes — STATE TRAFFIC ENGINEER

SIGN

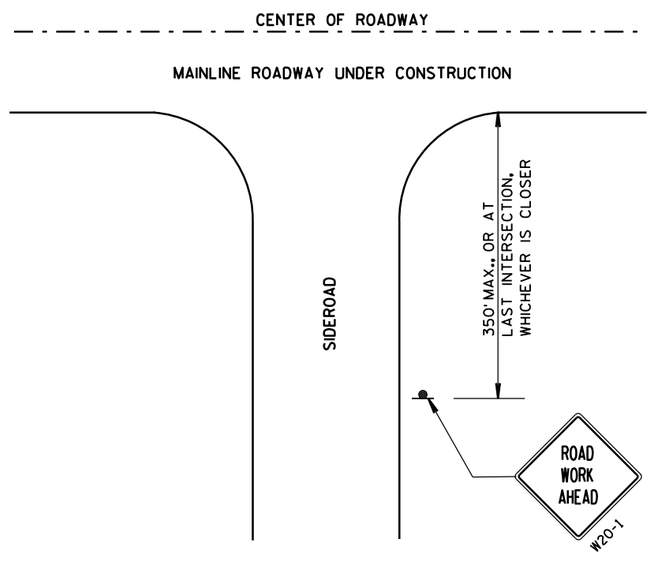
FHWA

6

S.D.D. 15 C 4-2



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

SIGN

6

S.D.D. 15 C 5-2

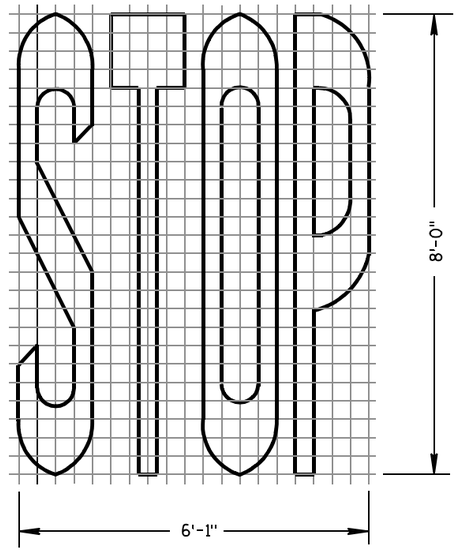
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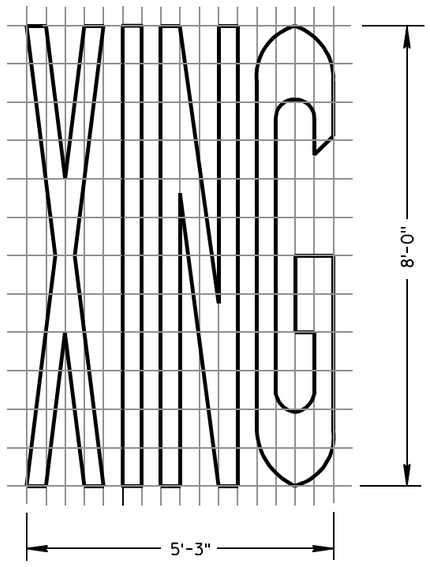
S.D.D. 15 C 5-2

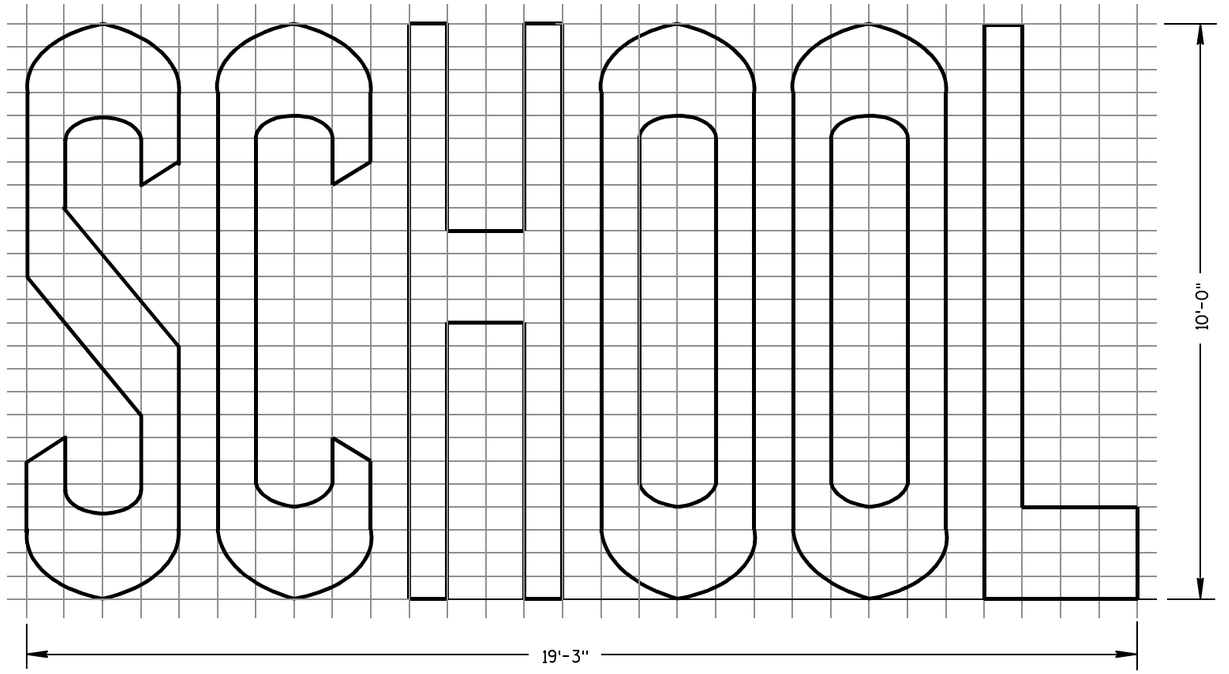
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

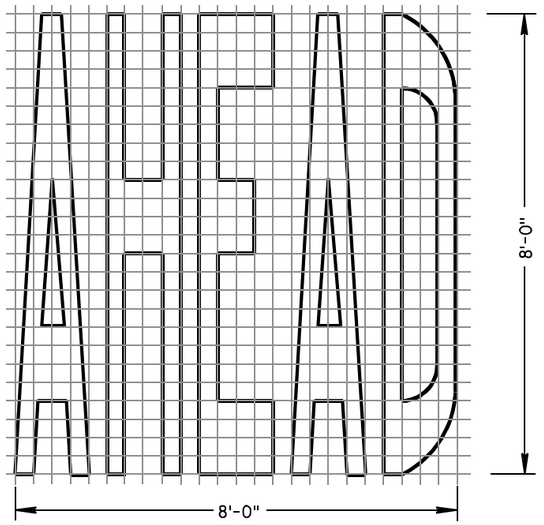
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

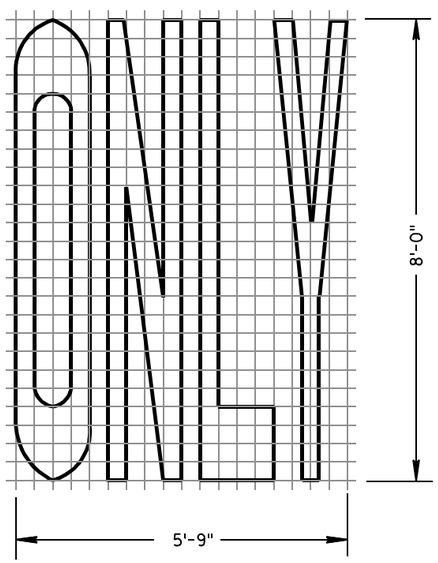


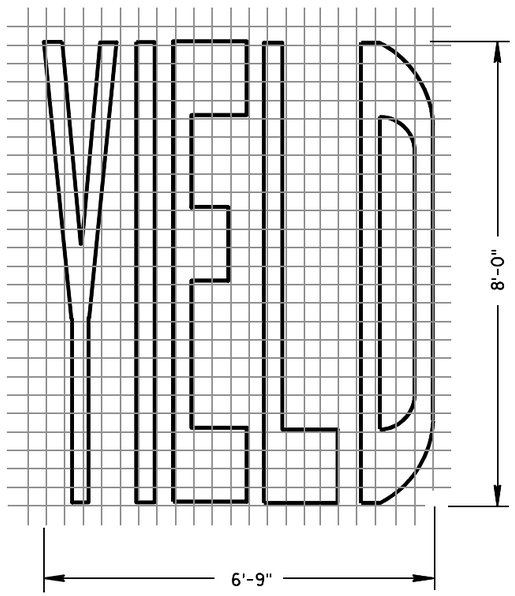


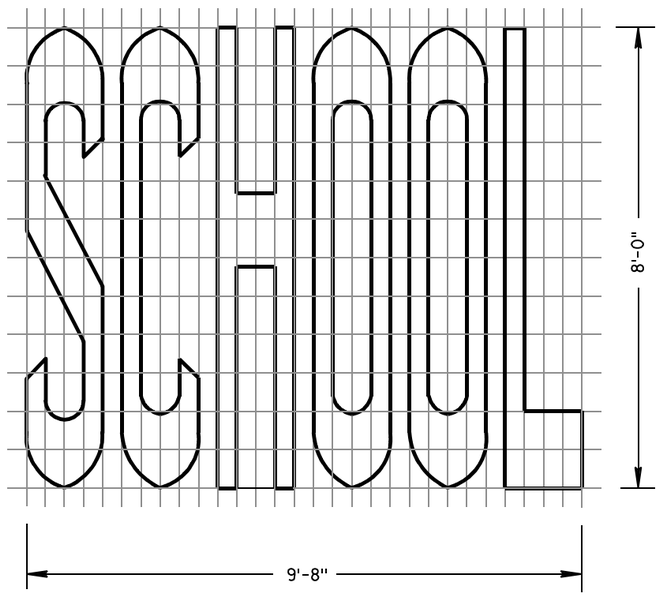


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE

/S/ Thomas N. Nothohm
STATE TRAFFIC ENGINEER

FHWA

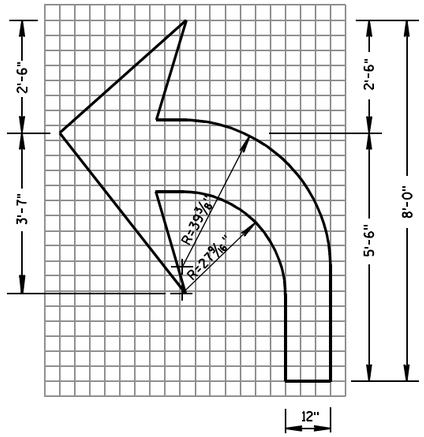
IGN

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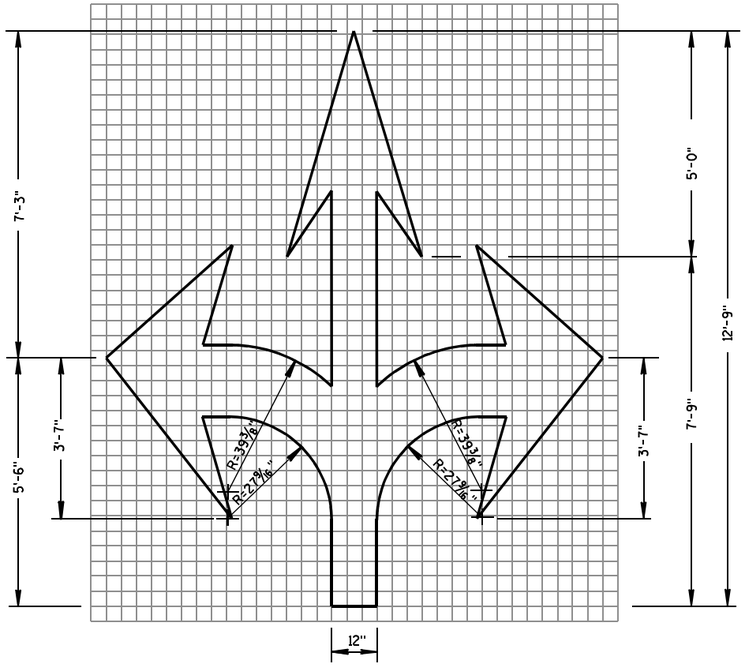
S.D.D. 15 C 7-12b

6

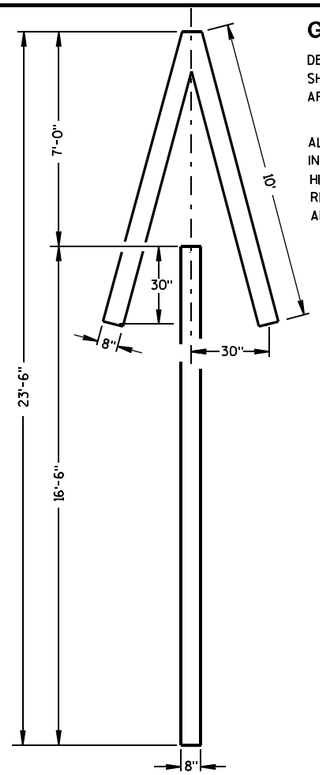
S.D.D. 15 C 7-12b



TYPE 2



TYPE 6

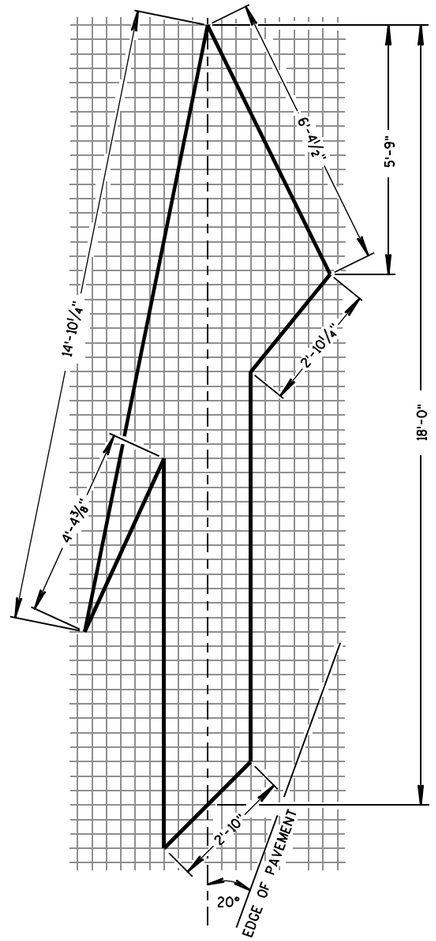


TYPE 4

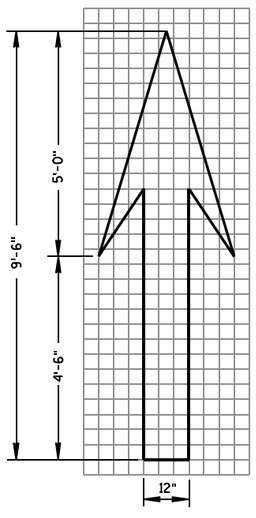
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

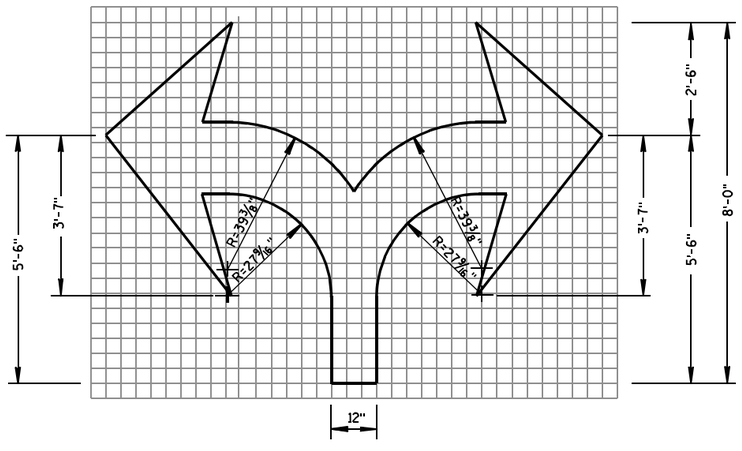
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



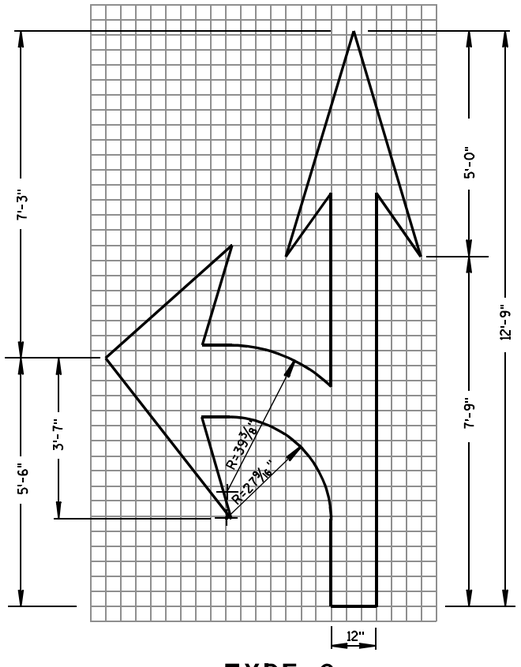
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

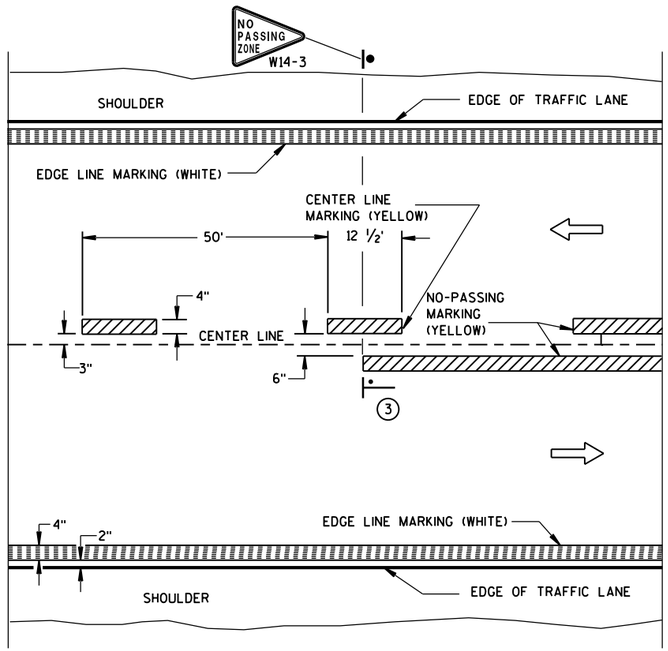
FHWA

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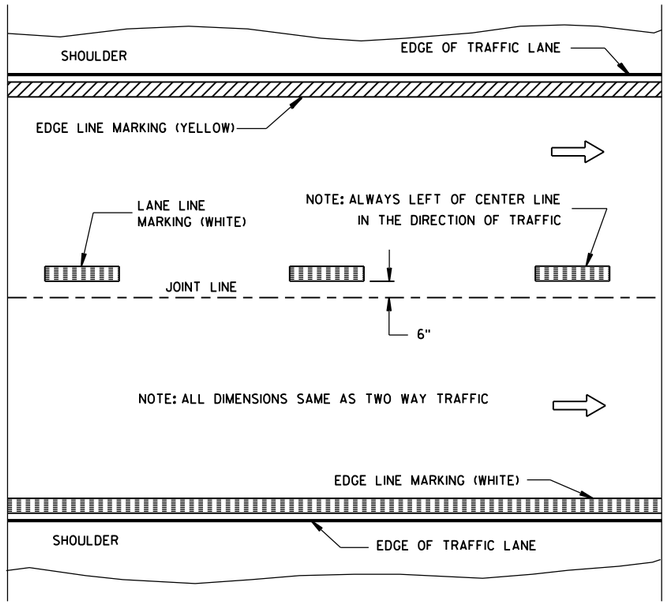
S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c

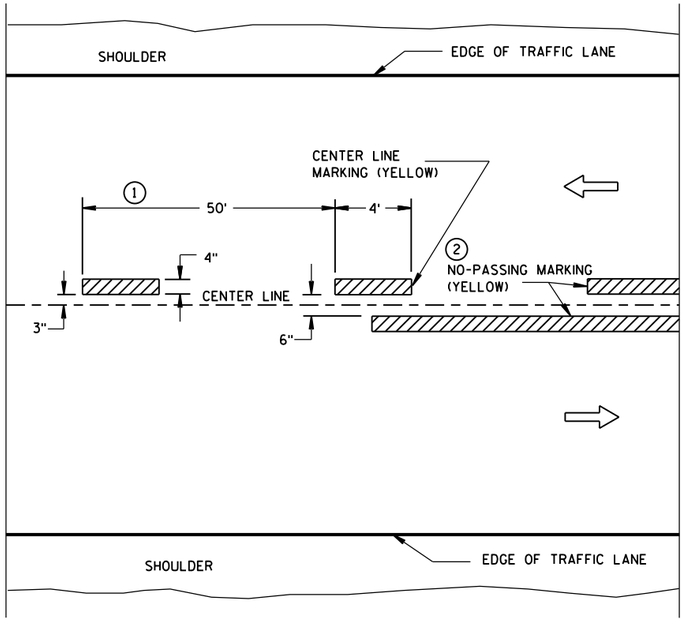


TWO WAY TRAFFIC

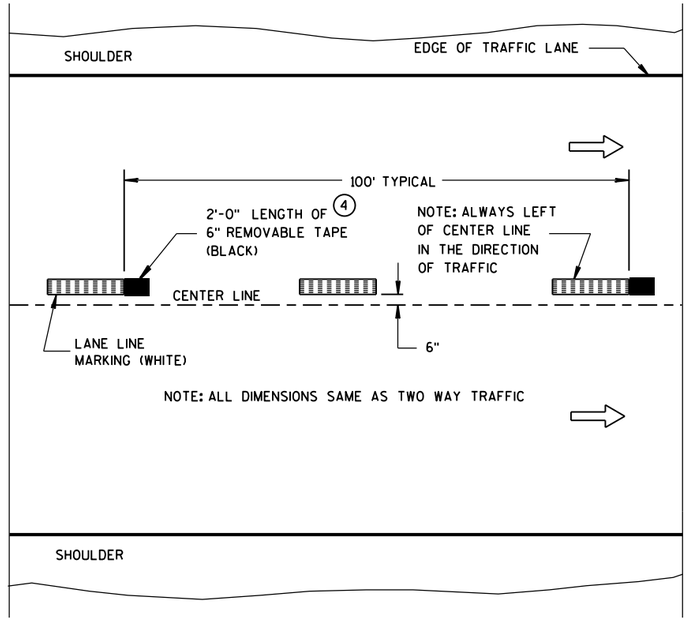


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

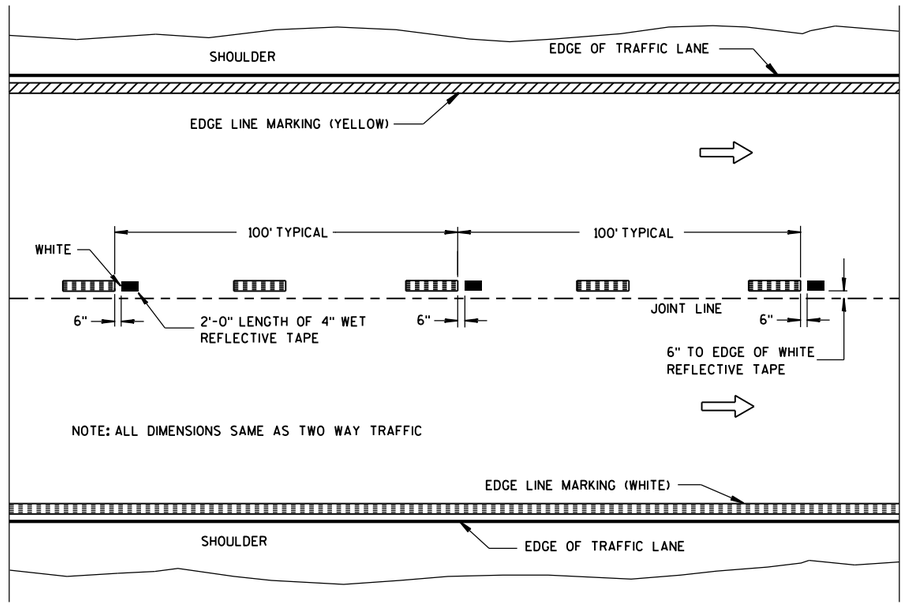
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 DATE

/S/ Travis Feltes STATE TRAFFIC E

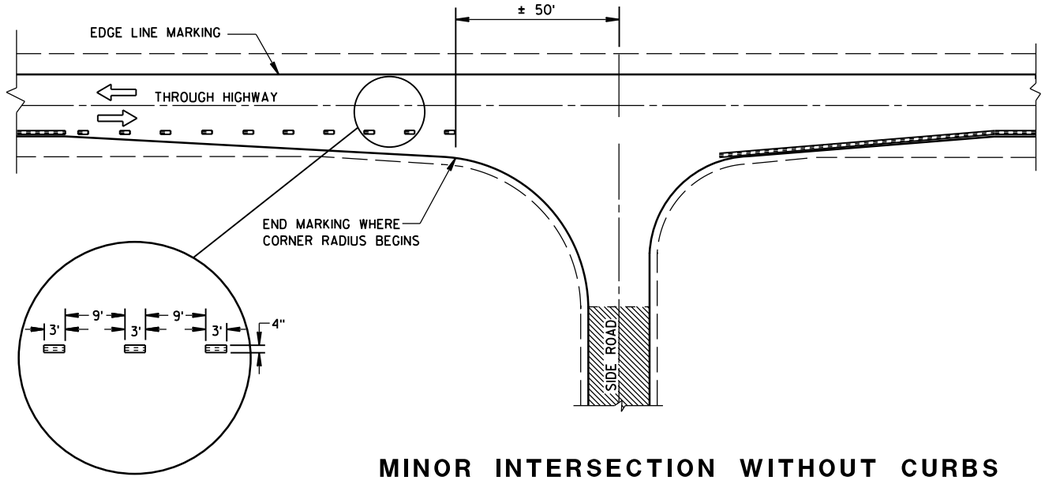
FHWA

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S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

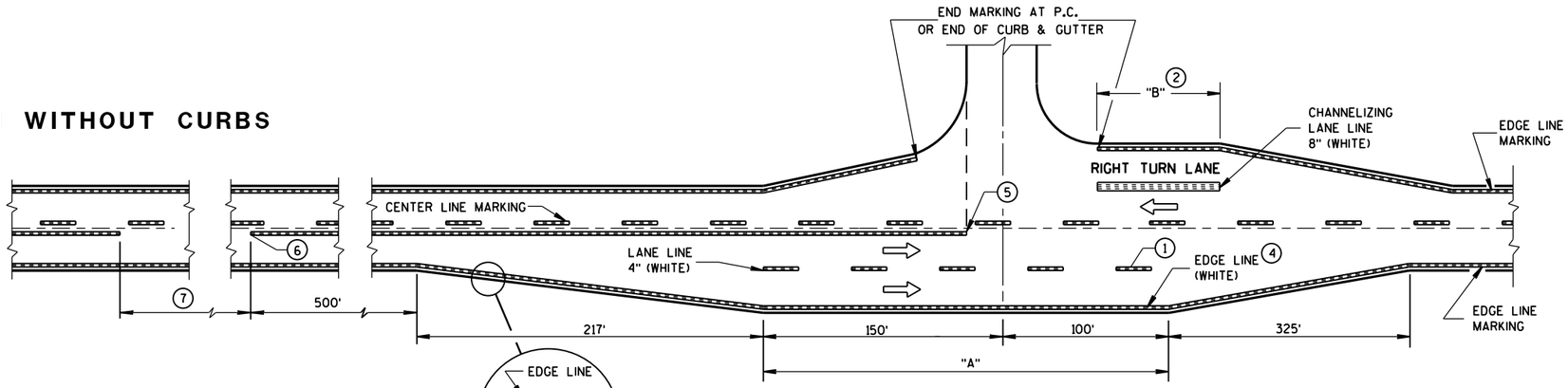
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

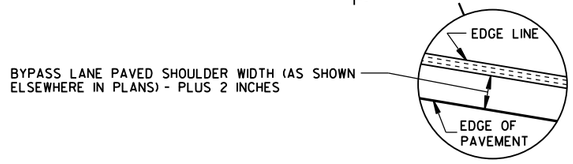
(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

(7)

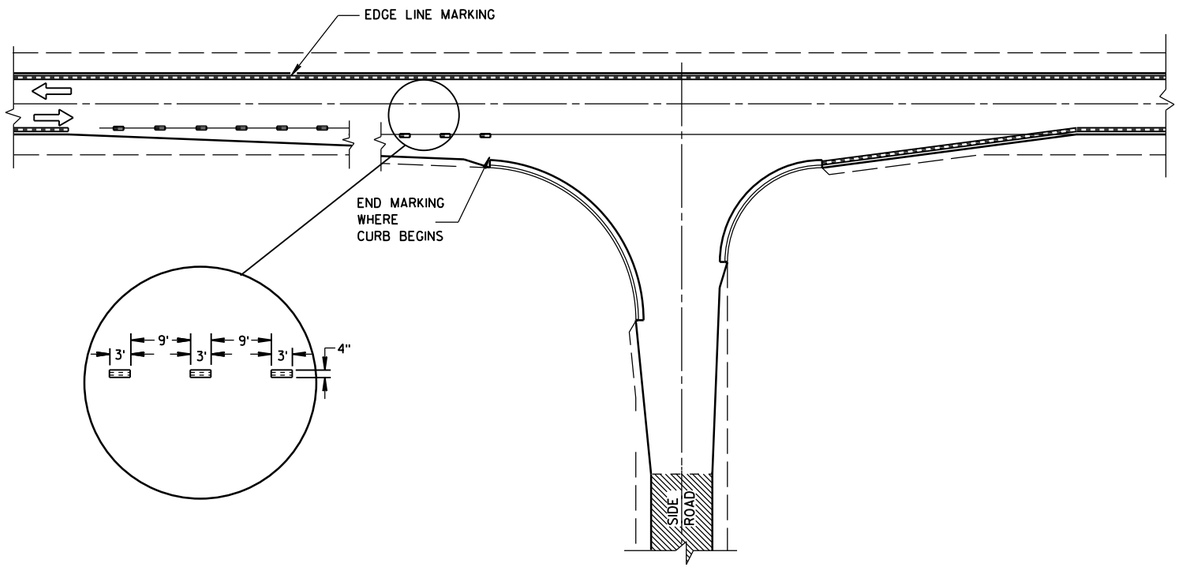
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792





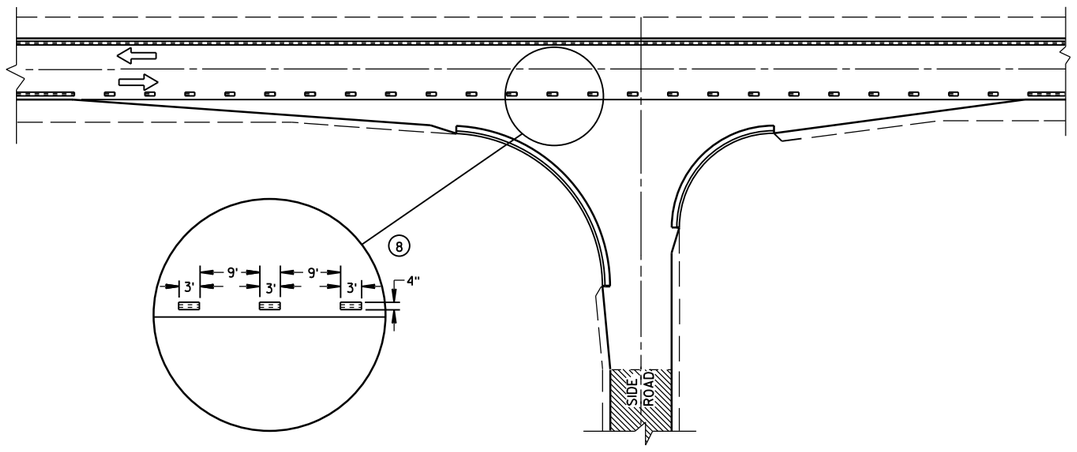
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

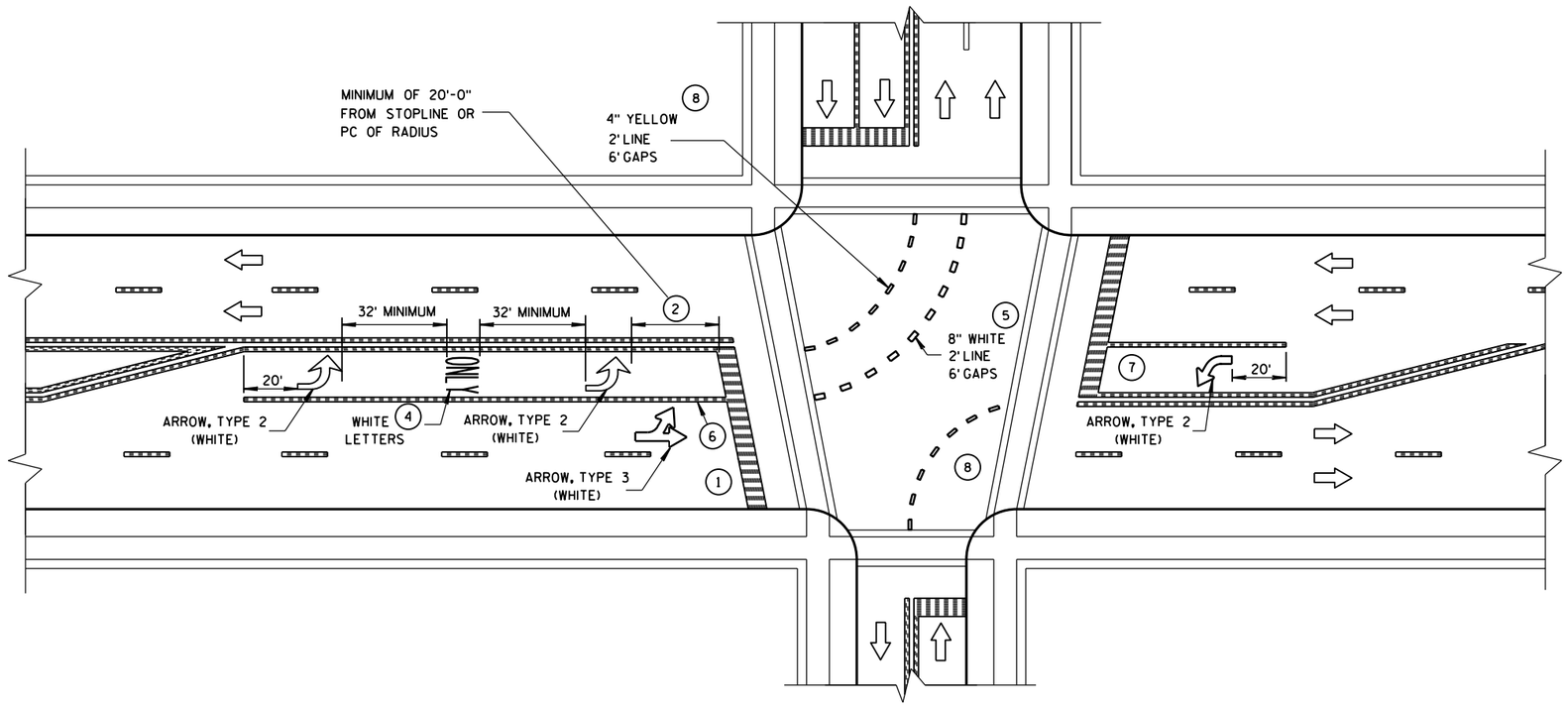
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

6

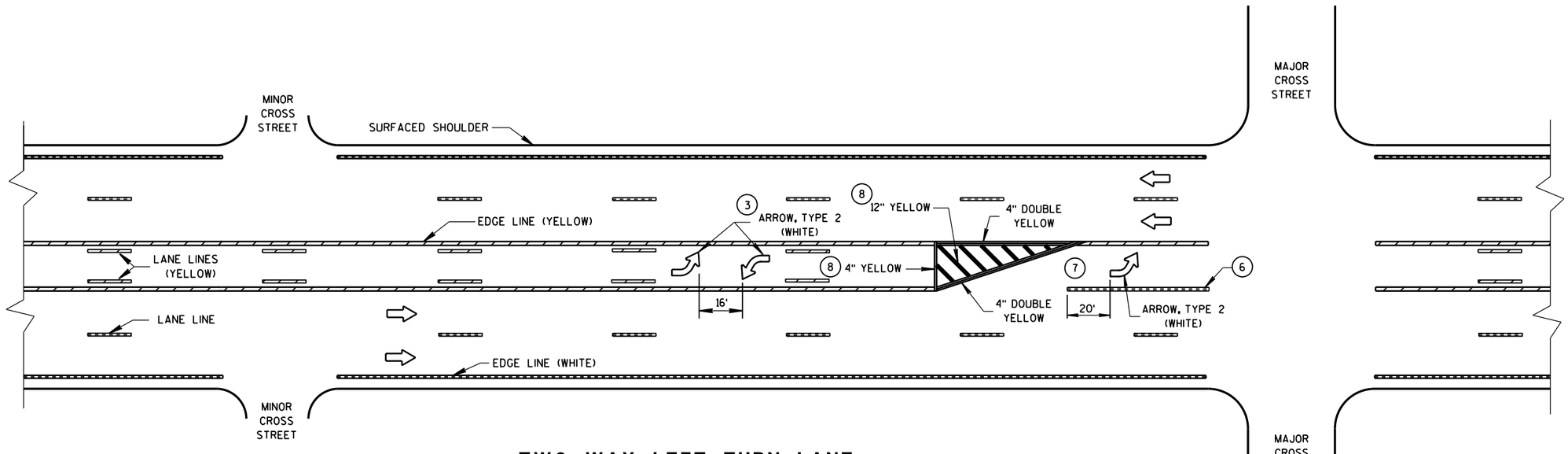
S.D.D. 15 C 8-16b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

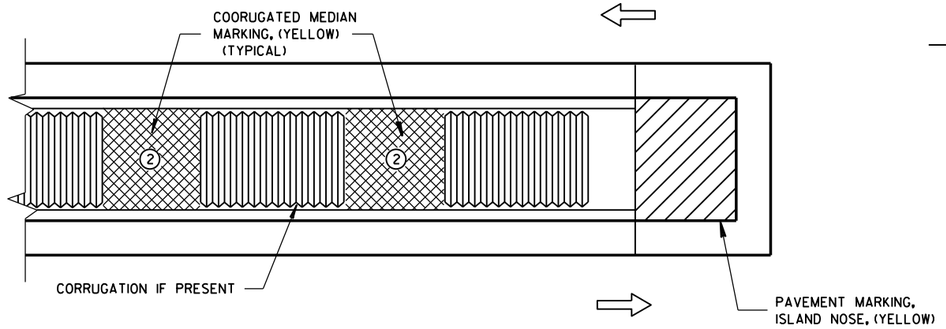
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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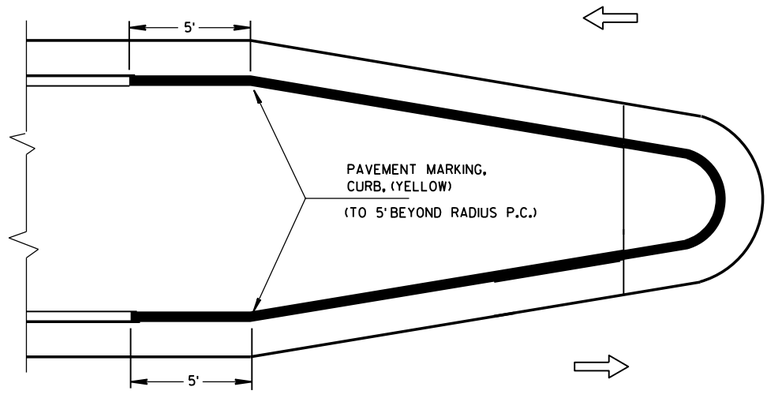
S.D.D. 15 C 8-16e

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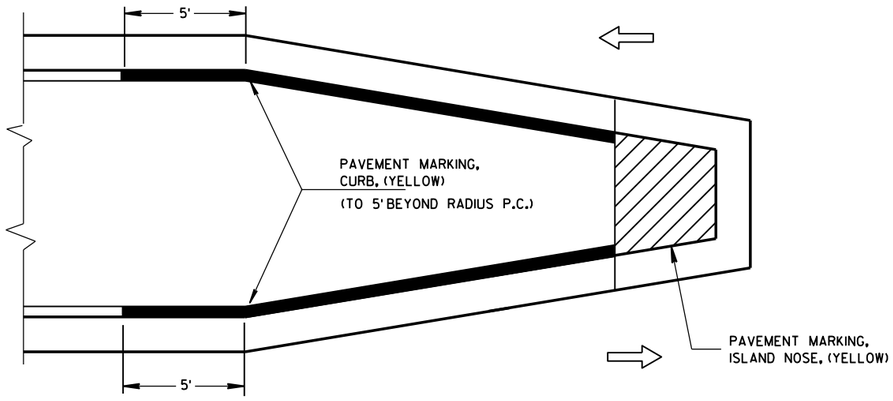
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

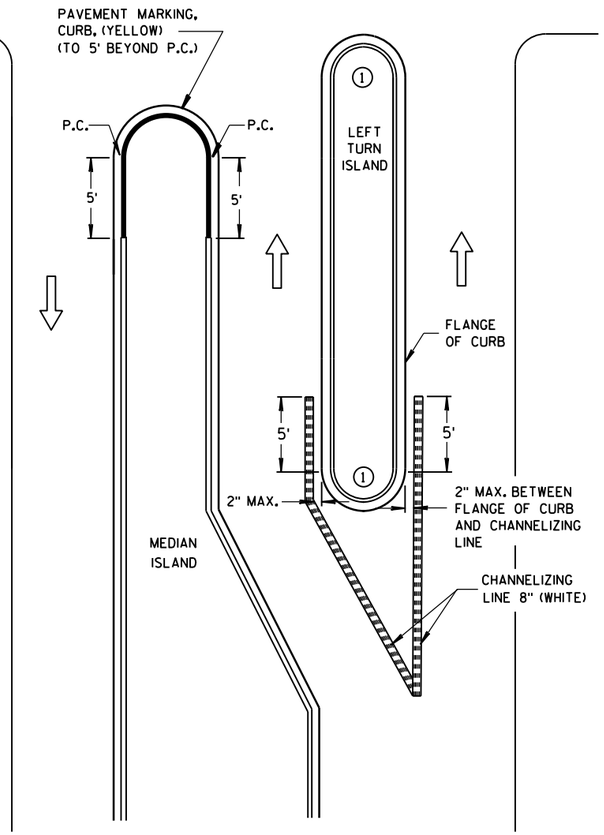


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

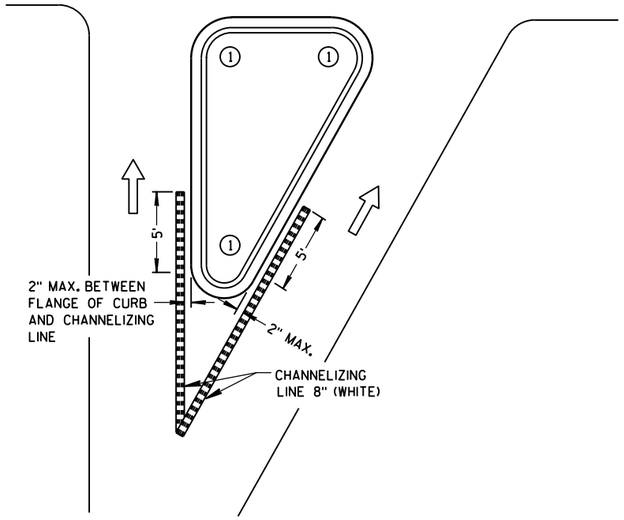


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

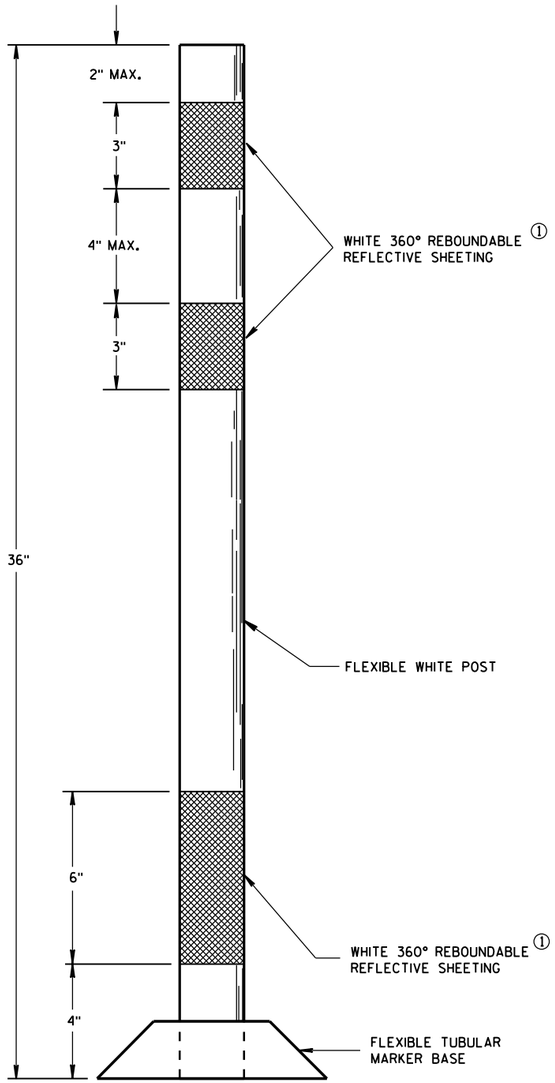
- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

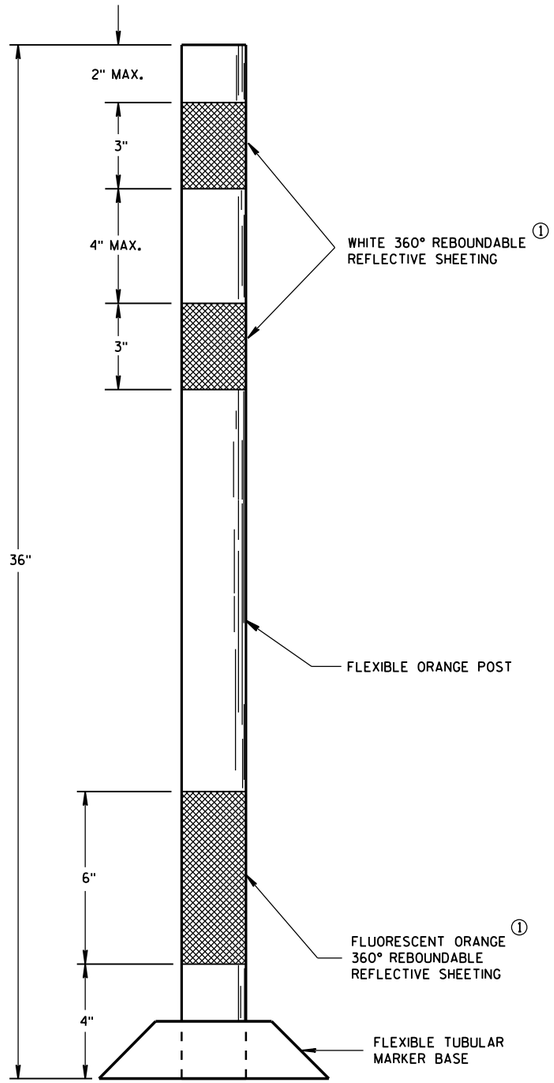
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 C 8-16f



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-16-2015
DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON
SAFETY ENGINE

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S.D.D. 15 C 11-6

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S.D.D. 15 C 11-6

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

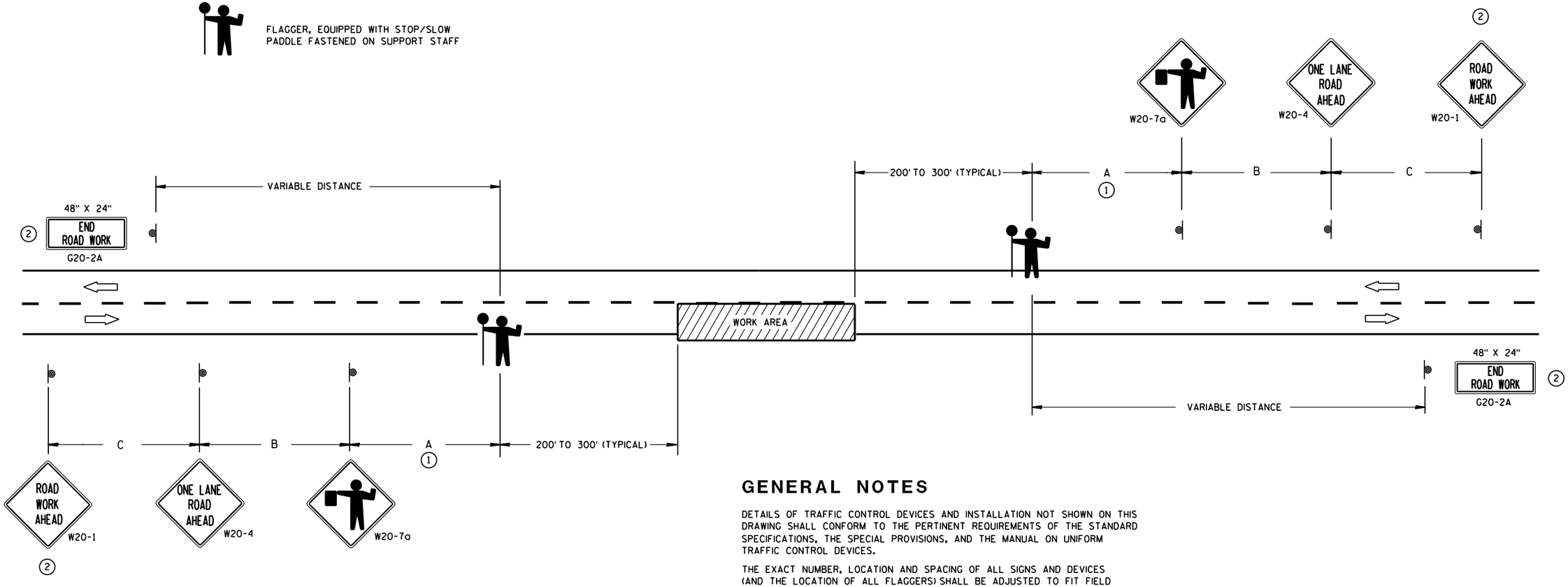
SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

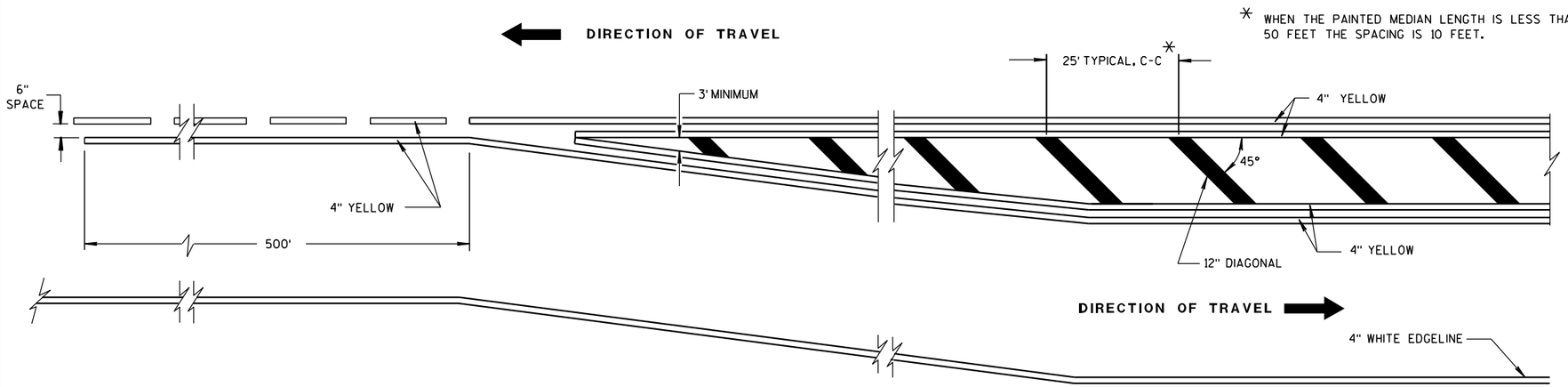
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 C 12-4

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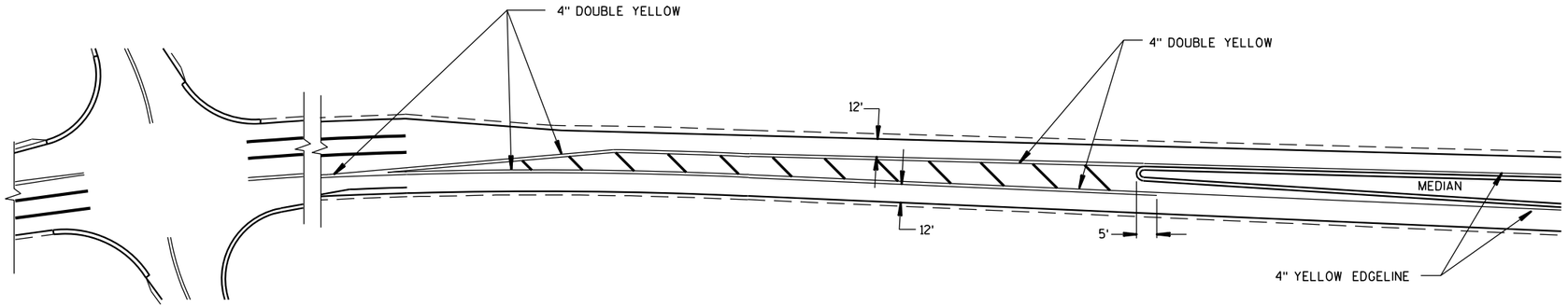
S.D.D. 15 C 12-4



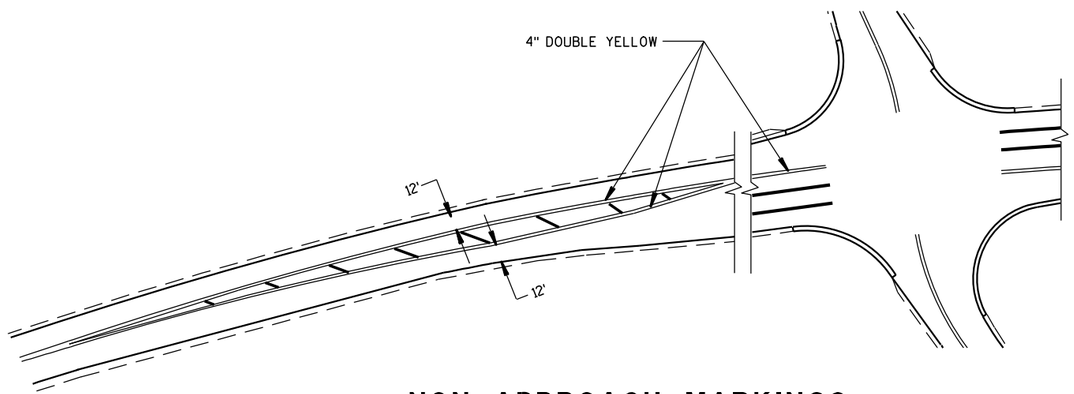
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

6

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S.D.D. 15 C 18-3

S.D.D. 15 C 18-3

MEDIAN ISLAND MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

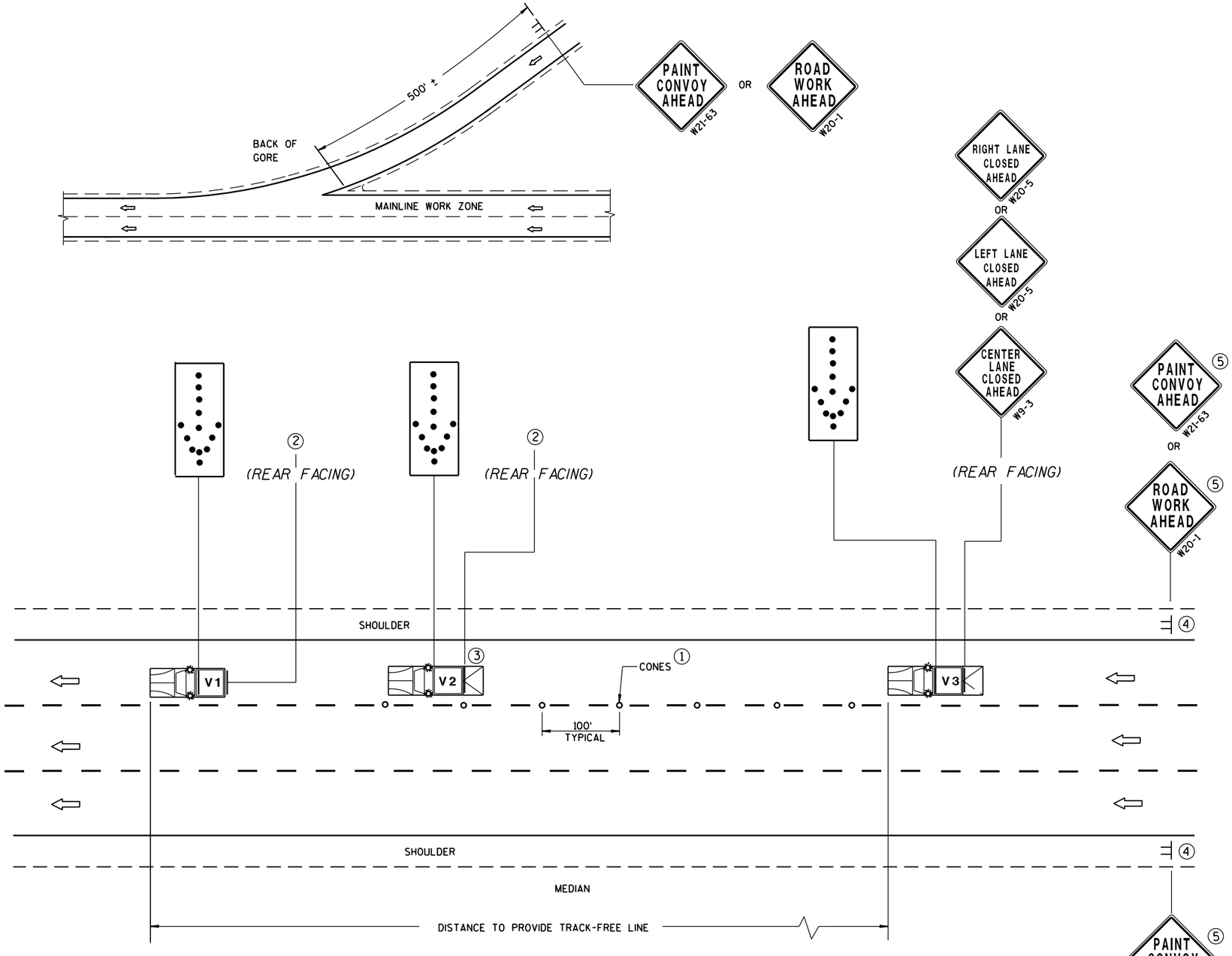
APPROVED

2-5-09 DATE

/S/ Thomas N. Nothohm
STATE TRAFFIC ENGINEER

427 IGN

FHWA



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC EN

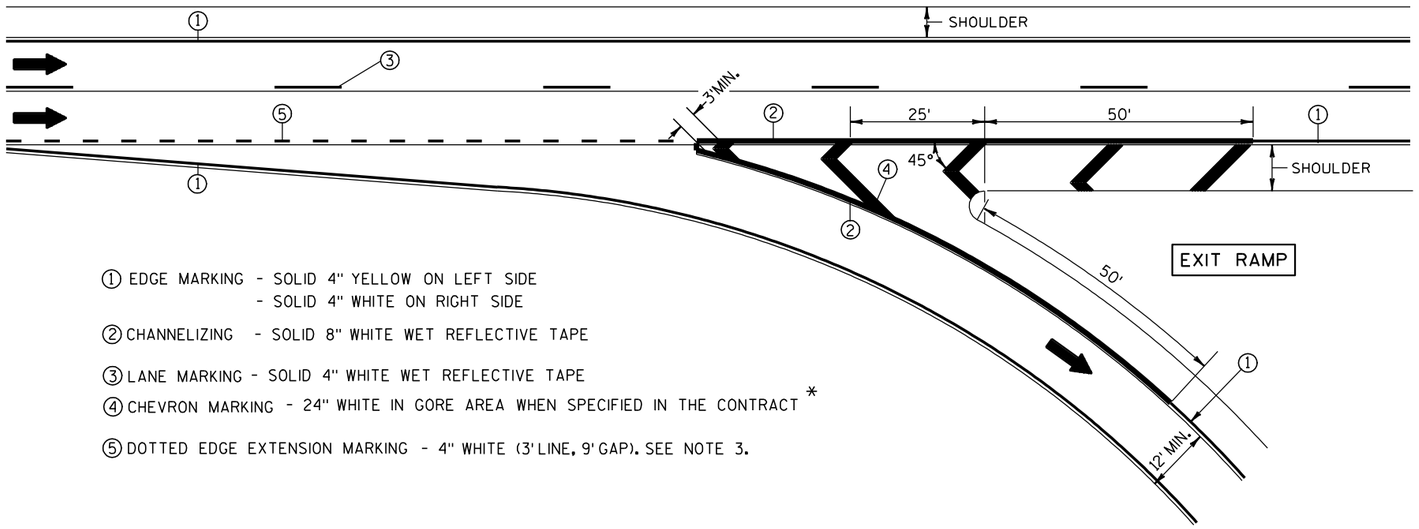
FHWA

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S.D.D. 15 C 19-2c

6

S.D.D. 15 C 19-2c



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

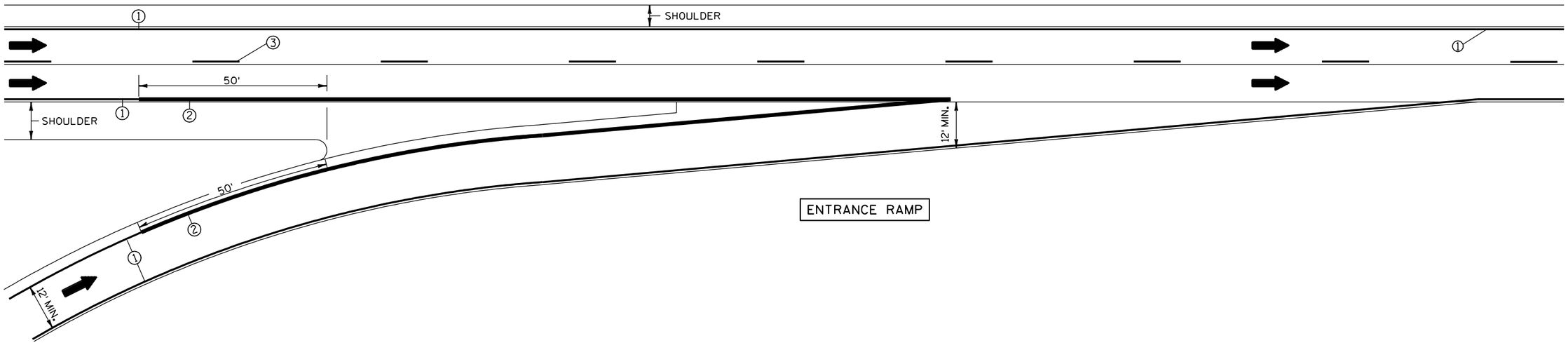
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



6

6

S.D.D. 15 C 31-1a

S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

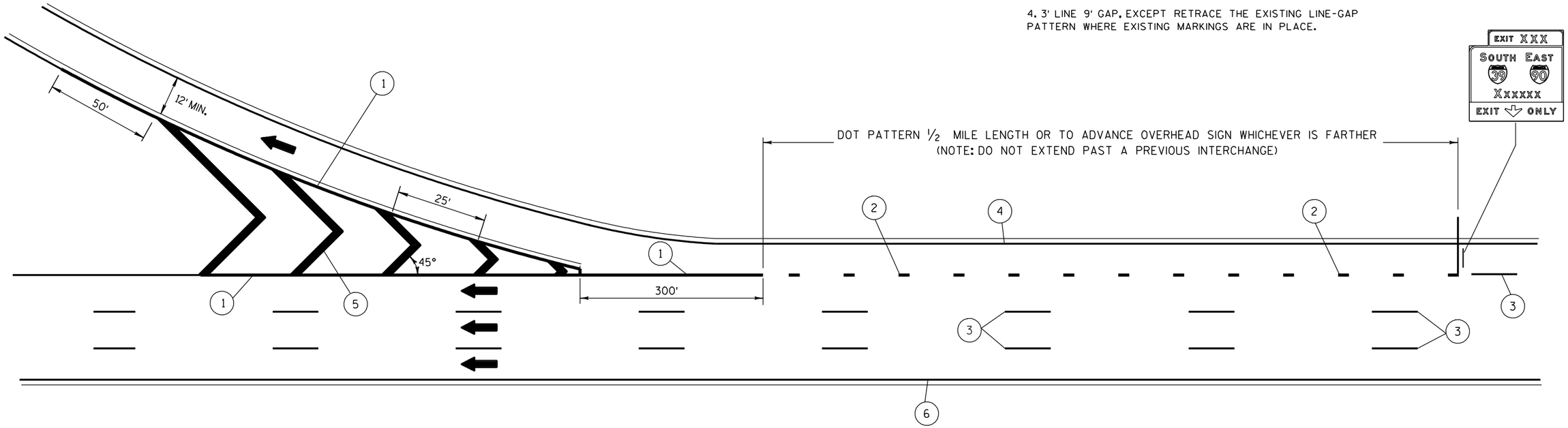
NOTES:

1. SEE STANDARD DETAIL DRAWING 15 C 10 FOR SPRAYED OR NON WET REFLECTIVE LINE SEGMENTS.

2. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

3. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

4. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.



1. CHANNELIZING - SOLID 8" WHITE WET RELECTIVE TAPE
2. 3' LINE, 9' GAP SOLID 8" WHITE WET REFLECTIVE TAPE. SEE NOTE 4.
3. SOLID 4" WHITE WET REFLECTIVE TAPE
4. 4" WHITE EDGELINE
5. CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT
6. 4" YELLOW EDGELINE

LANE DROP
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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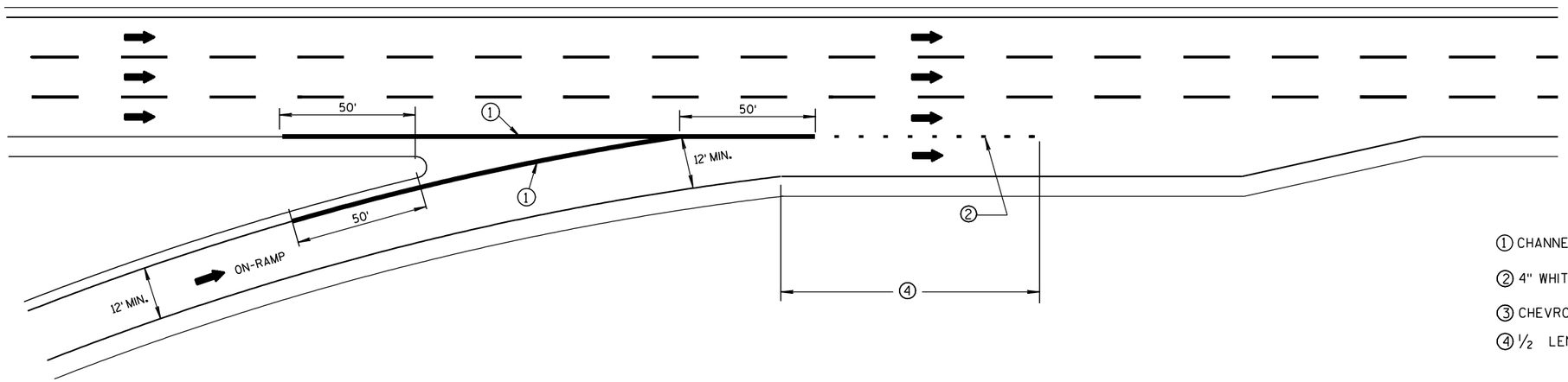
S.D.D. 15 C 31-1b

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S.D.D. 15 C 31-1b

NOTES:

1. AHEAD ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.
3. RETRACE EXISTING DIAGONAL MARKINGS.



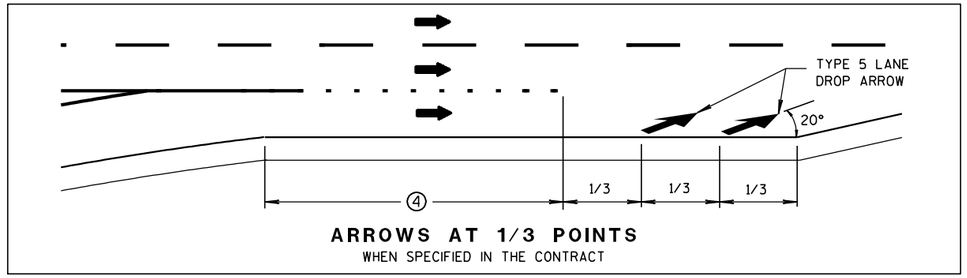
① CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE IN GORE AREA.

② 4" WHITE (3' LINE, 9' GAP).

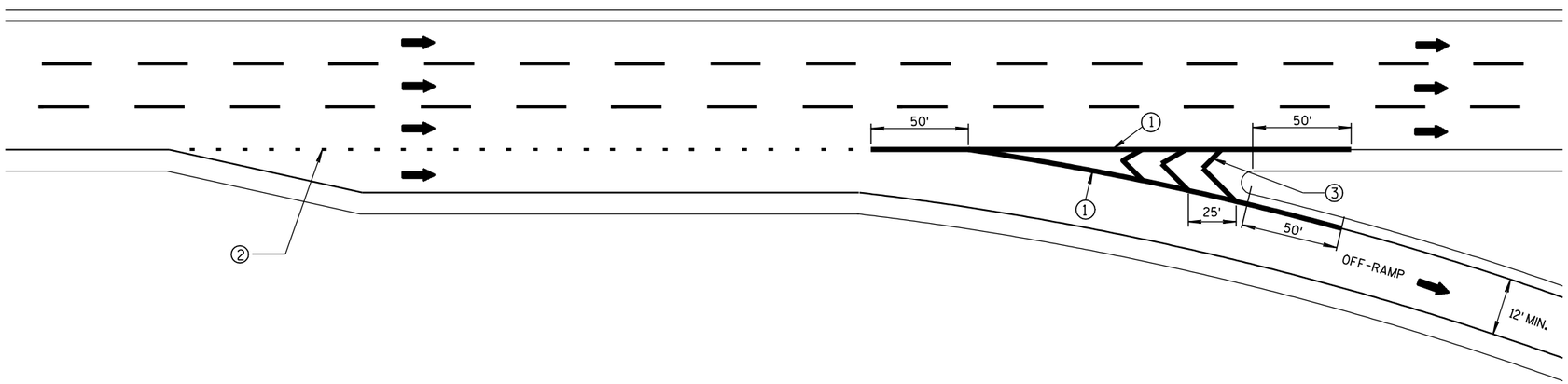
③ CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT.

④ ½ LENGTH OF FULL WIDTH ACCELERATION LANE.

SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP



ARROWS AT 1/3 POINTS
WHEN SPECIFIED IN THE CONTRACT



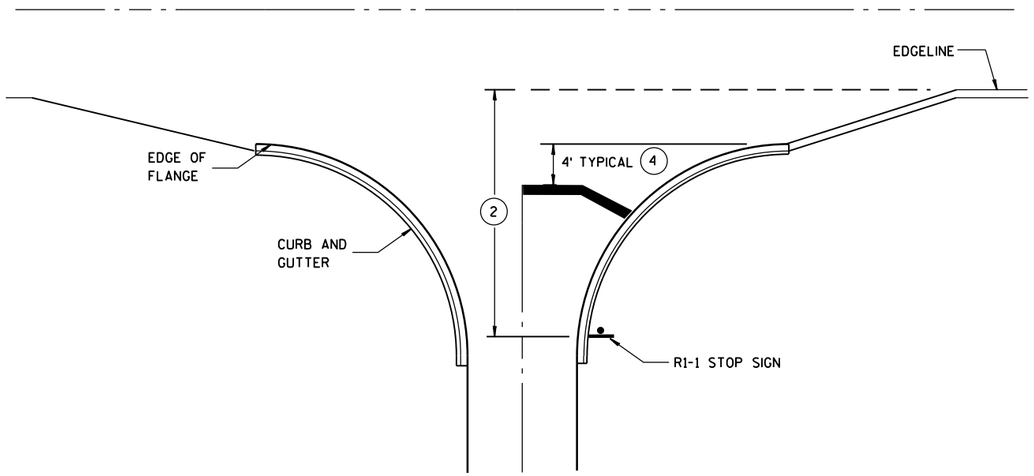
SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP

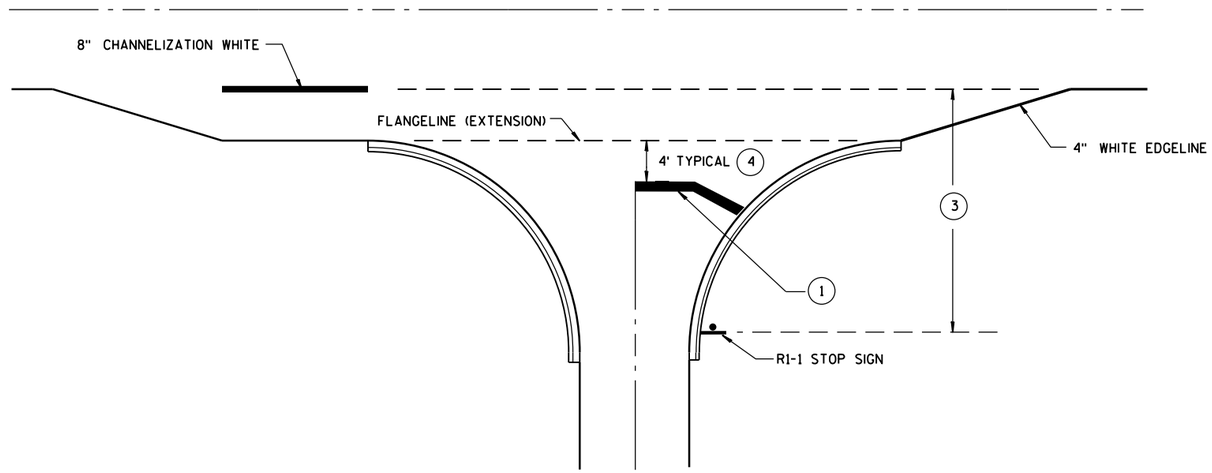
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/23/2011 DATE
/S/ Thomas N. Nothem
STATE TRAFFIC ENGINE 431 SIGN
FHWA

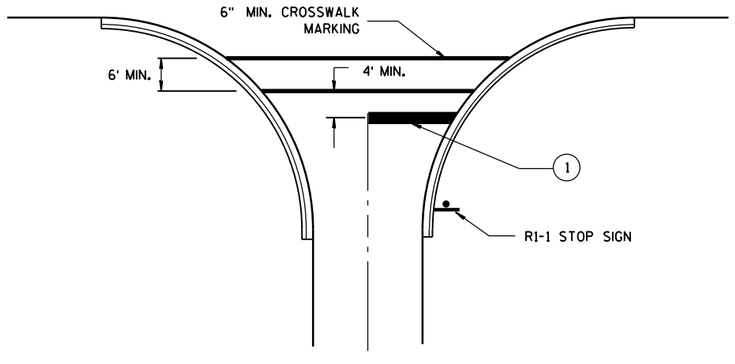
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S.D.D. 15 C 31-1d



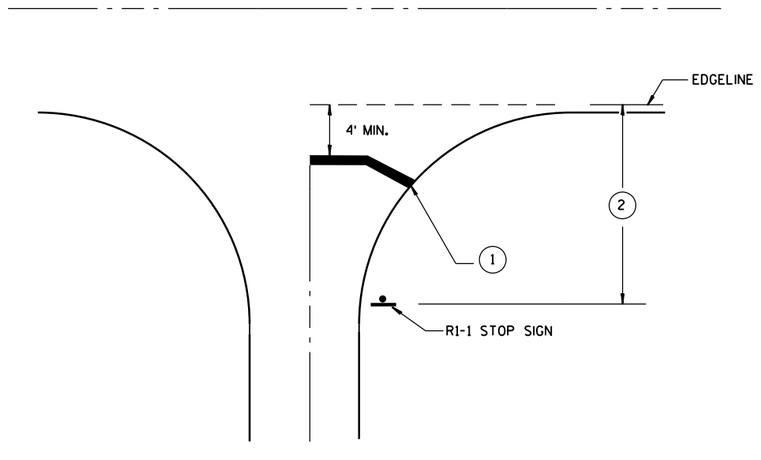
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 33-1

** NOTE: SEE SDD 15 D 12 FOR LANE CLOSURE DETAILS.

GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

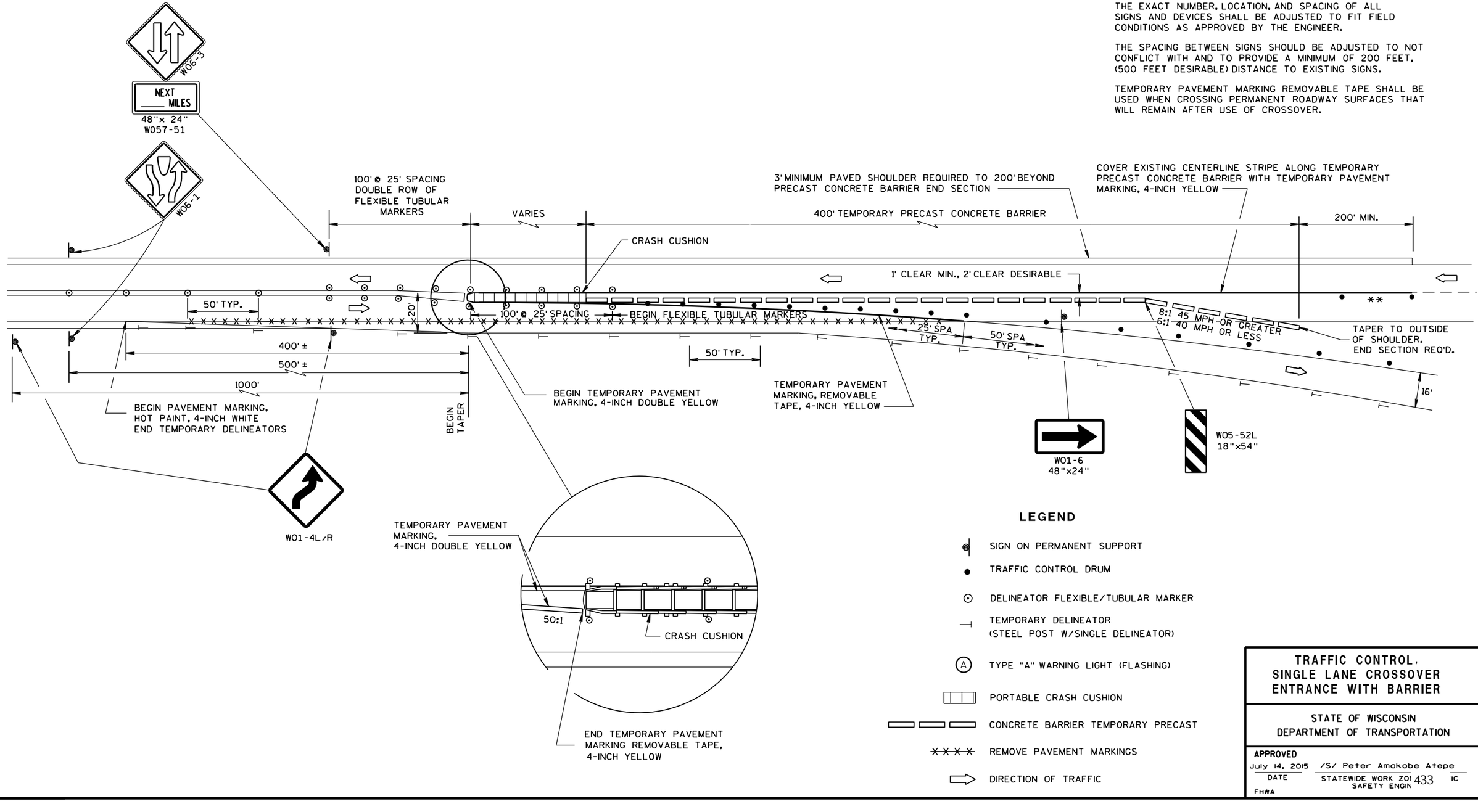
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER.



LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR)
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- PORTABLE CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

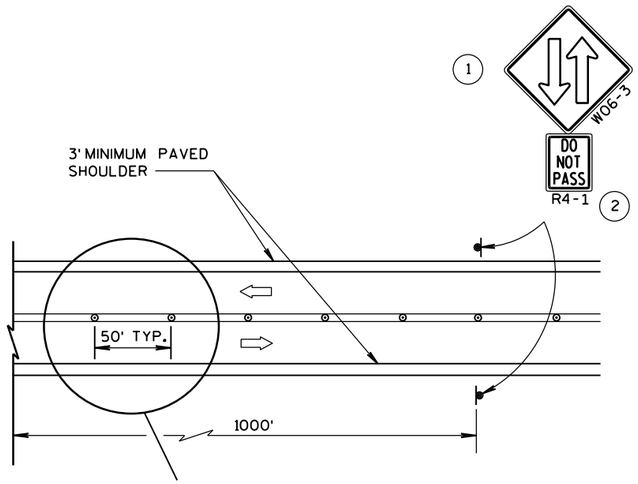
APPROVED
July 14, 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

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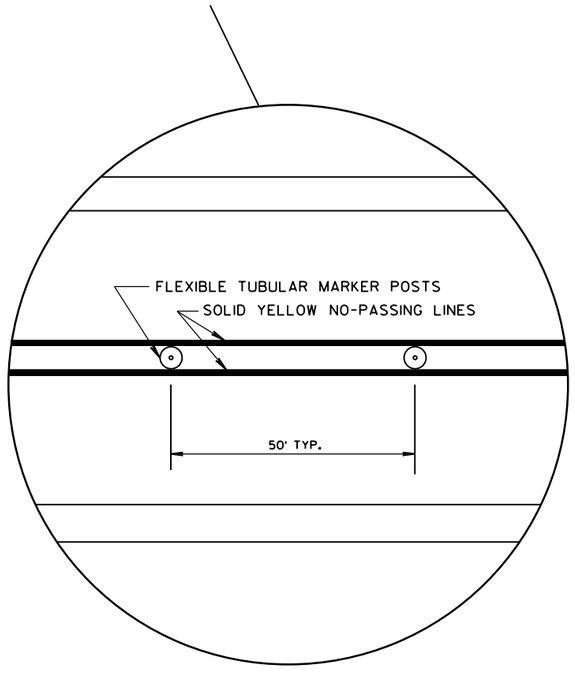
S.D.D. 15 D 5-4

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S.D.D. 15 D 5-4



TWO LANE, TWO WAY OPERATION



LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50-FOOT SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.

(1)



W057-51
48"x24"



R4-1 (2)

THE W06-3 WITH THE W057-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500 FEET BEYOND ANY SIDEROAD. THE W06-3 WITH THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN W06-3 SIGNS.

(2) CONVENTIONAL: 24"x30"
FREEWAY AND EXPRESSWAY: 36"x48"

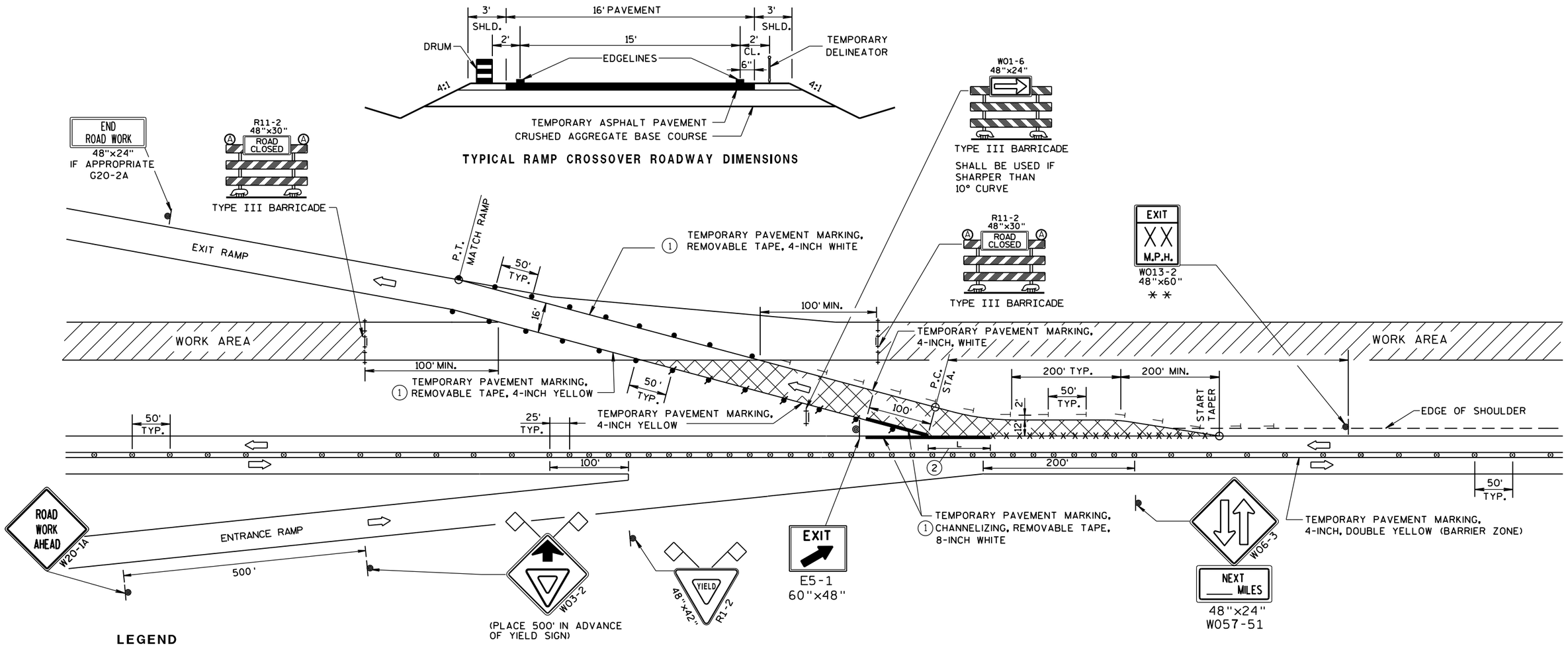
TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 DATE
/S/ Travis Feltes STATE TRAFFIC ENGINEER
SIGN
FHWA

6

S.D.D. 15 D 6-3



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TEMPORARY DELINEATOR - WHITE (STEEL POST W/SINGLE DELINEATOR)
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY CROSSOVER ASPHALTIC PAVEMENT
- REMOVING PAVEMENT MARKINGS
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- FLAGS, 16" X 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

(1) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER. OTHERWISE TEMPORARY PAVEMENT MARKING MAY BE USED.

TRAFFIC CONTROL FOR RAMP CROSSOVERS ARE TYPICAL FOR ALL CONSTRUCTION PHASES.

(2) LENGTH L SHALL BE REQUIRED WHEN TANGENT LENGTH OF EXIT RAMP PARALLEL TO MAINLINE EXCEEDS 300 FEET. LENGTH SHALL BE EQUAL TO THE EXIT RAMP TANGENT LENGTH MINUS 300 FEET OR AS APPROVED BY THE ENGINEER AND SHALL CHANGE TO ACCOMODATE PAVING GAPS.

* * ADJUST EXIT RAMP SPEED AS NEEDED IN THE FIELD. DISTANCE TO SIGN LOCATION SHALL ALSO BE PLACED ACCORDING TO TABLE.

WORK ALONG EDGES OF RAMP SHALL MAINTAIN A 10-FOOT AREA CLEAR OF PHYSICAL OBSTRUCTIONS SUCH AS DROP OFFS FROM PAVEMENT REMOVAL OR BROKEN CONCRETE CHUNKS DURING PAVEMENT REMOVAL. THESE AREAS SHALL BE LEVELED WITH TEMPORARY FILL TO PROTECT THE TRAVELING PUBLIC WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE CROSSOVER.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

* *

TABLE FOR ADVANCE WARNING SIGN PLACEMENT DISTANCE (FT)						
POSTED SPEED LIMIT (MPH)	DESIRED EXIT RAMP SPEED (MPH)					
	10	20	30	40	50	60
45	350	300	250			
50	425	400	325	225		
55	500	475	400	300		
60	575	550	500	400	300	
65	650	625	575	500	375	100
70	650	625	575	500	375	375

TRAFFIC CONTROL, TEMPORARY EXIT RAMP CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI

435

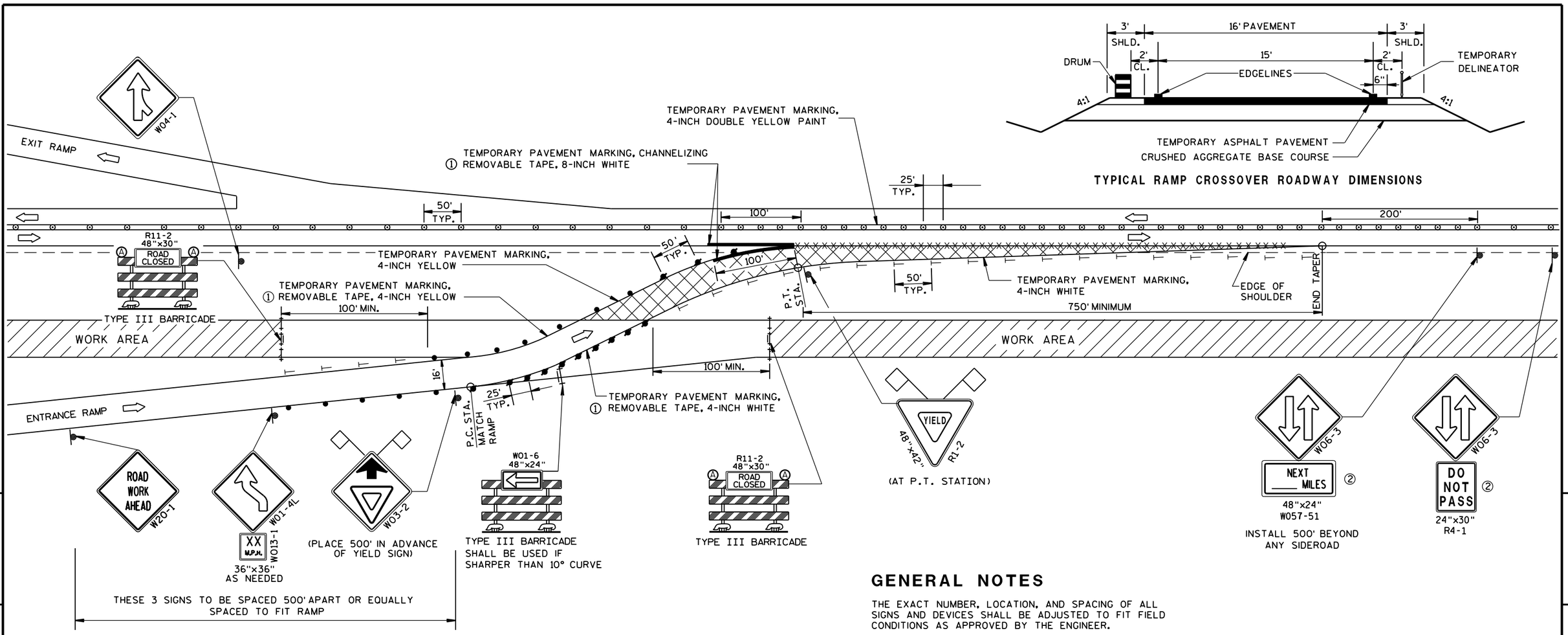
FHWA

6

S.D.D. 15 D 7-4

6

S.D.D. 15 D 7-4



TYPICAL RAMP CROSSOVER ROADWAY DIMENSIONS

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TEMPORARY DELINEATOR - WHITE (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- Ⓐ TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY CROSSOVER ASPHALTIC PAVEMENT
- ×××× REMOVING PAVEMENT MARKINGS
- ⊙ DELINEATOR FLEXIBLE/TUBULAR MARKER
- FLAGS, 16" X 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH PERMANENT SIGNS AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

① TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER.

② INSTALL THE W06-3 SIGN WITH THE R4-1 SIGN 1000 FEET BEYOND THE W06-3 SIGN WITH THE W057-51 SIGN AND ALTERNATE THE SEQUENCE OF THESE SIGNS EVERY 1 MILE.

TRAFFIC CONTROL FOR RAMP CROSSOVERS ARE TYPICAL FOR ALL CONSTRUCTION PHASES.

WORK ALONG EDGES OF RAMP SHALL MAINTAIN A 10-FOOT AREA CLEAR OF PHYSICAL OBSTRUCTIONS SUCH AS DROP OFFS FROM PAVEMENT REMOVAL OR BROKEN CONCRETE CHUNKS DURING PAVEMENT REMOVAL. THESE AREAS SHALL BE LEVELED WITH TEMPORARY FILL TO PROTECT THE TRAVELING PUBLIC WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE CROSSOVER.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

TRAFFIC CONTROL, TEMPORARY ENTRANCE RAMP CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

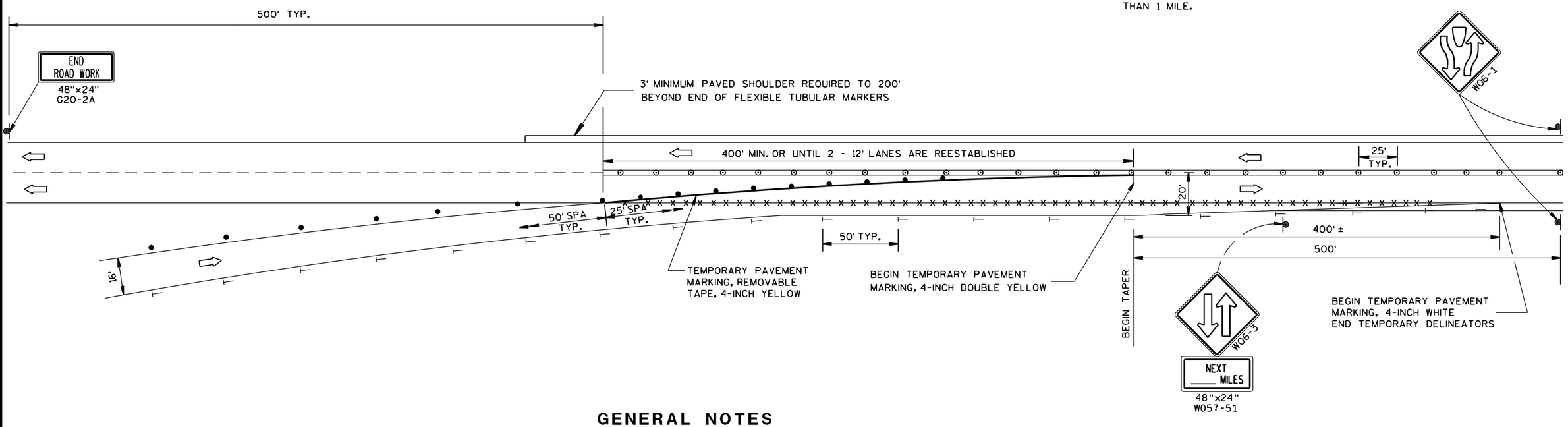
8/2013 DATE — /S/ Travis Feltes STATE TRAFFIC ENGINEER — SIGN

FHWA

S.D.D. 15 D 8-4

LEGEND

- SIGN ON PERMANEMT SUPPORT
- TRAFFIC CONTROL DRUM
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- ~~XXXX~~ REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC





REPEAT EVERY 1/4 MILE IF PROJECT IS LONGER THAN 1 MILE.

GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER.

TRAFFIC CONTROL, SINGLE LANE CROSSOVER EXIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

SIGN

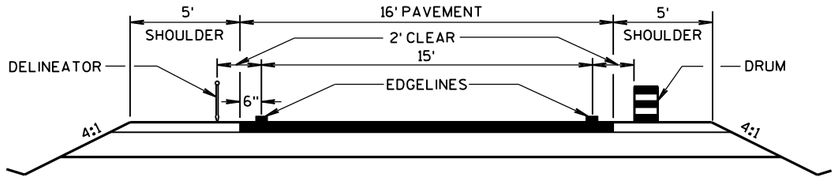
FHWA

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S.D.D. 15 D 9-3

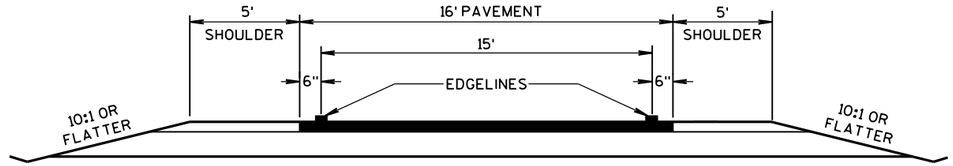
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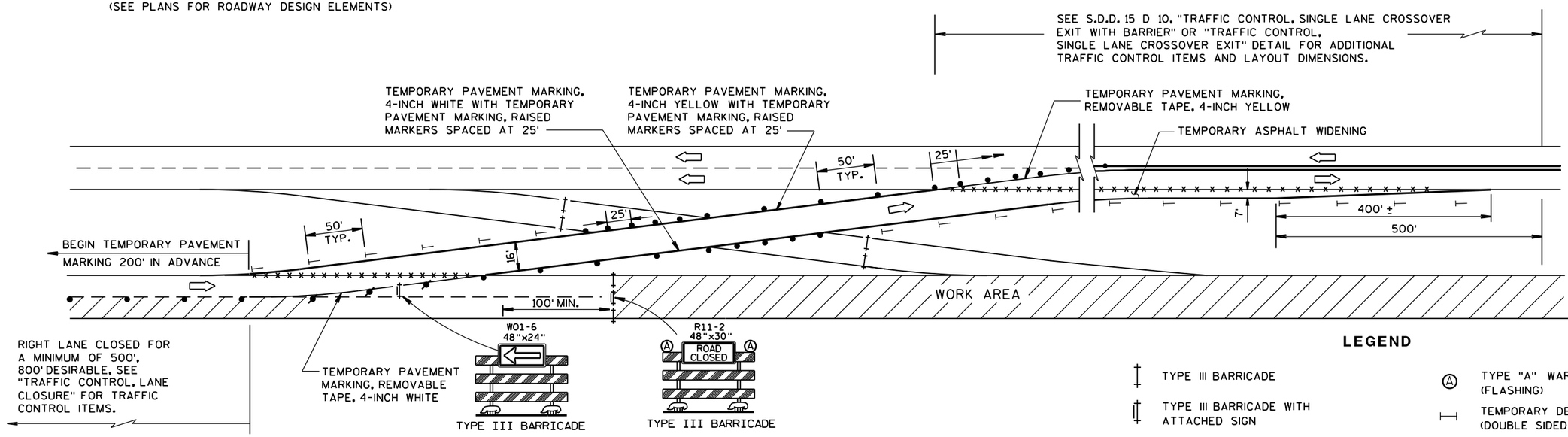
TYPICAL TEMPORARY CROSSOVER ROADWAY DIMENSIONS

(SEE PLANS FOR ROADWAY DESIGN ELEMENTS)



TYPICAL CROSSOVER TO REMAIN IN PLACE ROADWAY DIMENSIONS

(SEE PLANS FOR ROADWAY DESIGN ELEMENTS)



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- REMOVING PAVEMENT MARKINGS
- DELINEATOR FLEXIBLE/ TUBULAR MARKER
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER AND TEMPORARY PAVEMENT MARKING WHERE USED.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

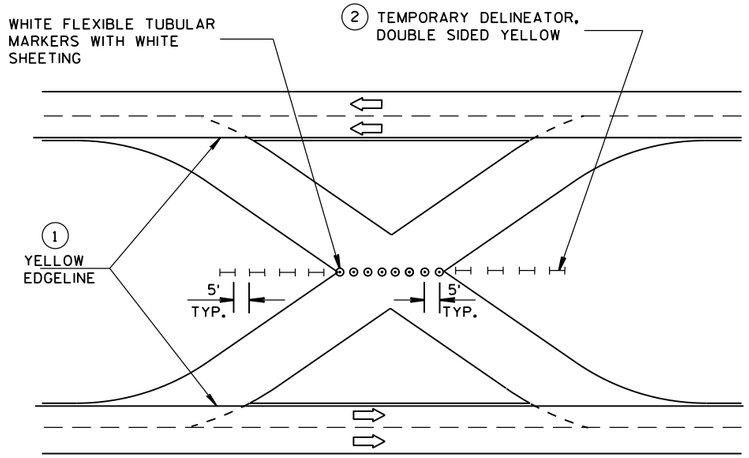
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.

(1) FOR PERMANENT CROSSOVER, PAVEMENT MARKING SHOULD CONFORM TO SECTION 646 OF THE STANDARD SPECIFICATIONS.

(2) FOR PERMANENT CROSSOVER, INSTALL PERMANENT DELINEATORS ACCORDING TO SECTION 633 OF THE STANDARD SPECIFICATIONS.



TRAFFIC CONTROL FOR CROSSOVER THAT IS NOT IN USE

TRAFFIC CONTROL, SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-16-2015 DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON SAFETY ENGINI IC
FHWA

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S.D.D. 15 D 11-6

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

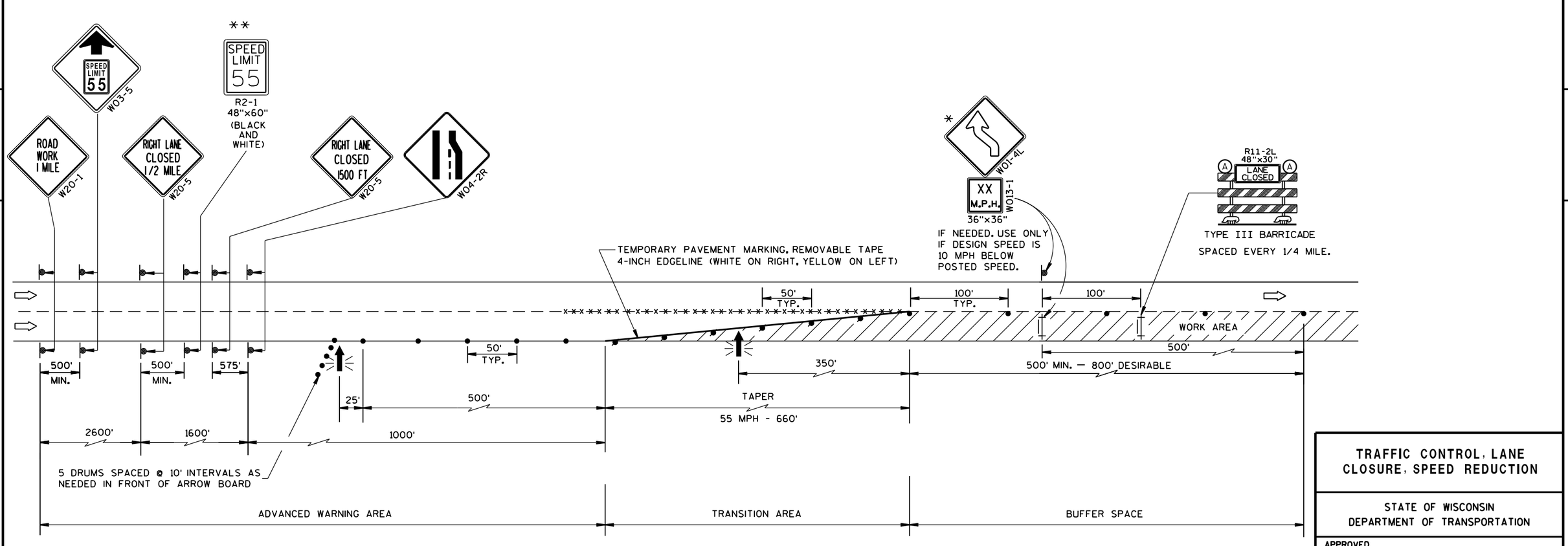
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



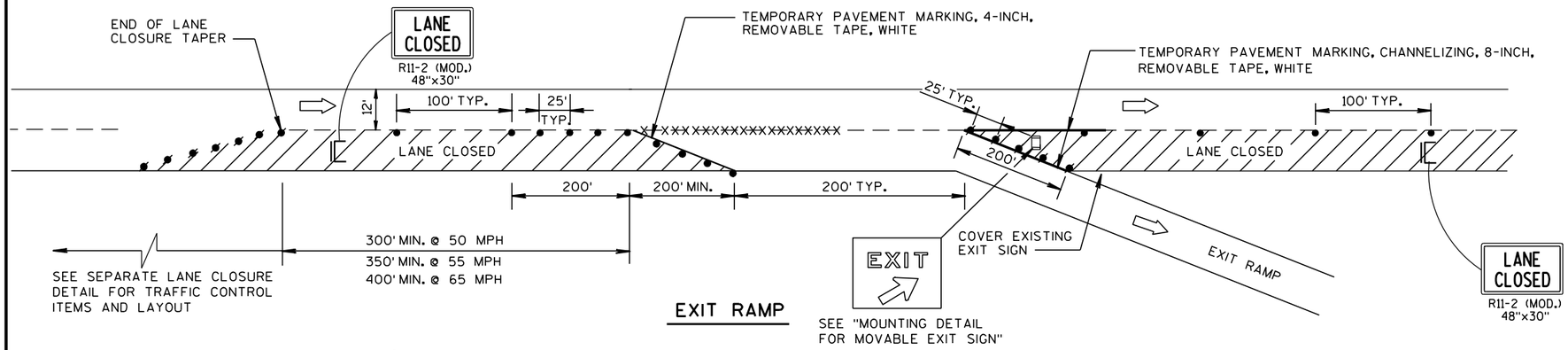
TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

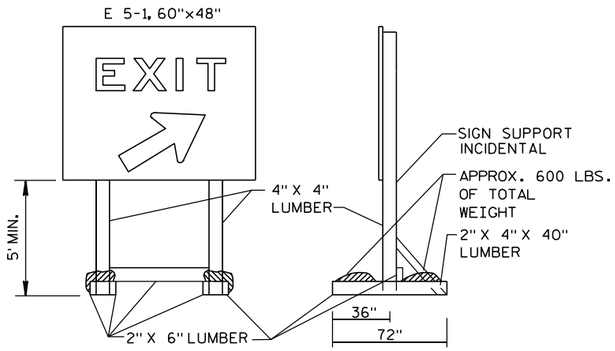
APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

S.D.D. 15 D 12-5b

S.D.D. 15 D 12-5b

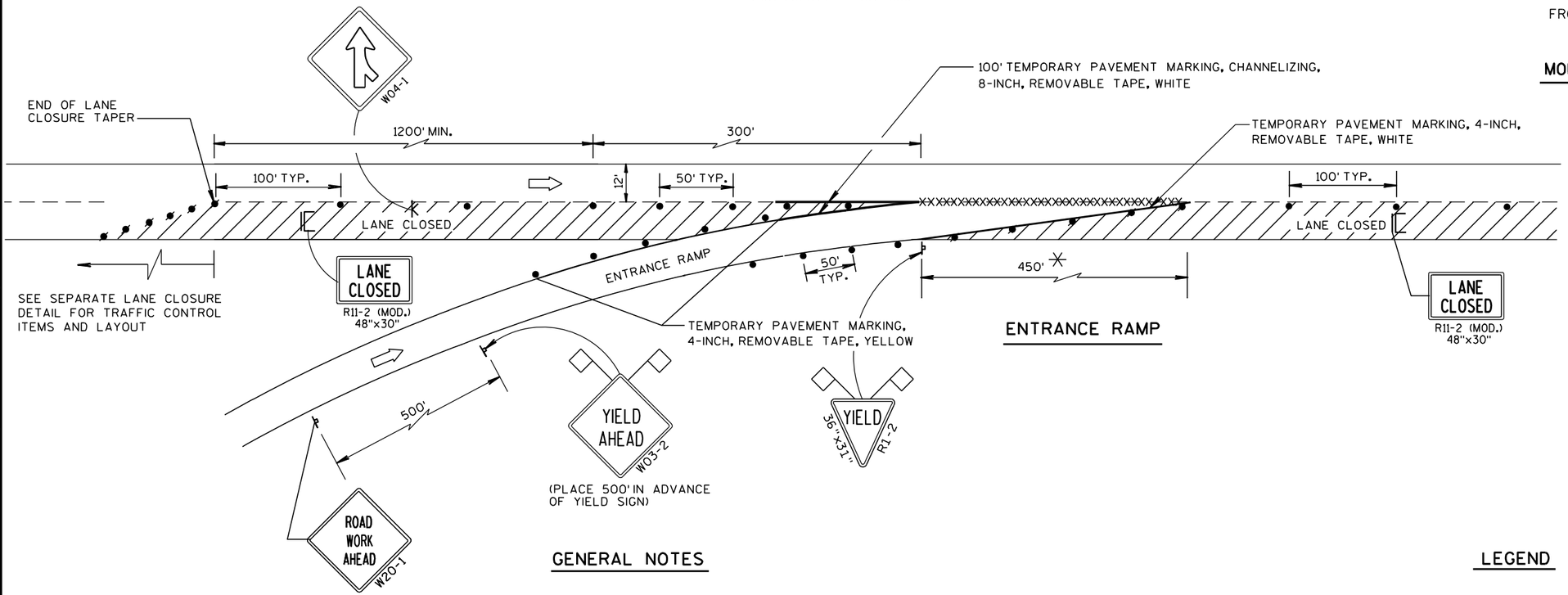


EXIT RAMP



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2 (MOD.) "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

✳ LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC CONTROL, DRUM
- TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN
- FLAGS, 16"x16" MIN., ORANGE
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

6
S.D.D. 15 D 15-1

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TRAFFIC CONTROL DRUM

SIGN ON PERMANENT SUPPORT

TYPE "A" WARNING LIGHT (FLASHING)

DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

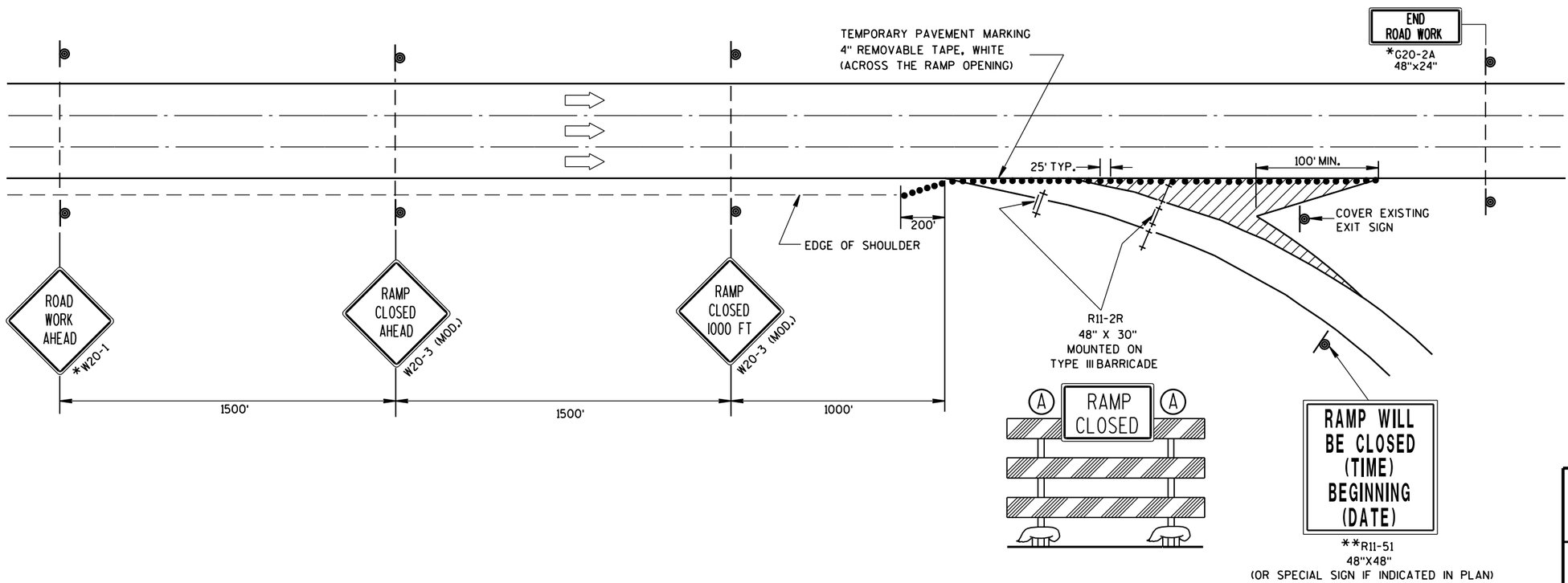
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

*W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP WILL BE CLOSED" SIGN 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



TRAFFIC CONTROL,
EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013
DATE

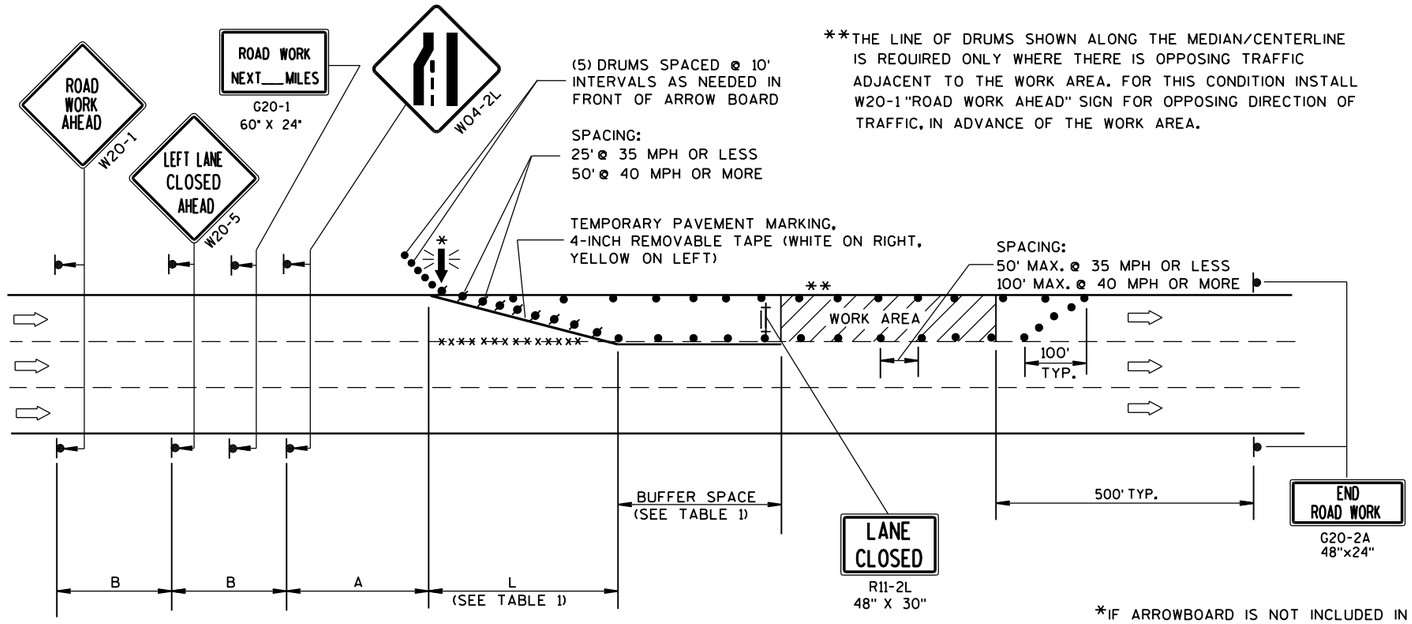
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

DESIGN

FHWA

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S.D.D. 15 D 16-2



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

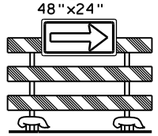


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
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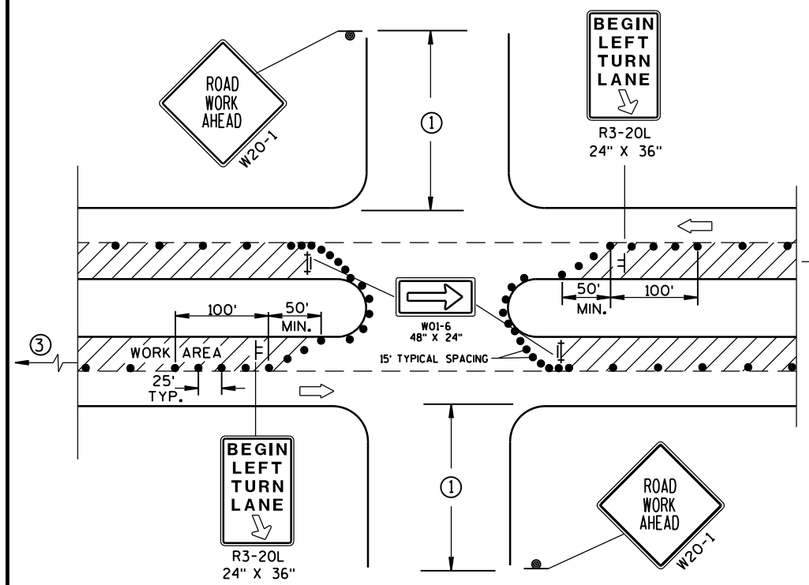
APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 D 20-3

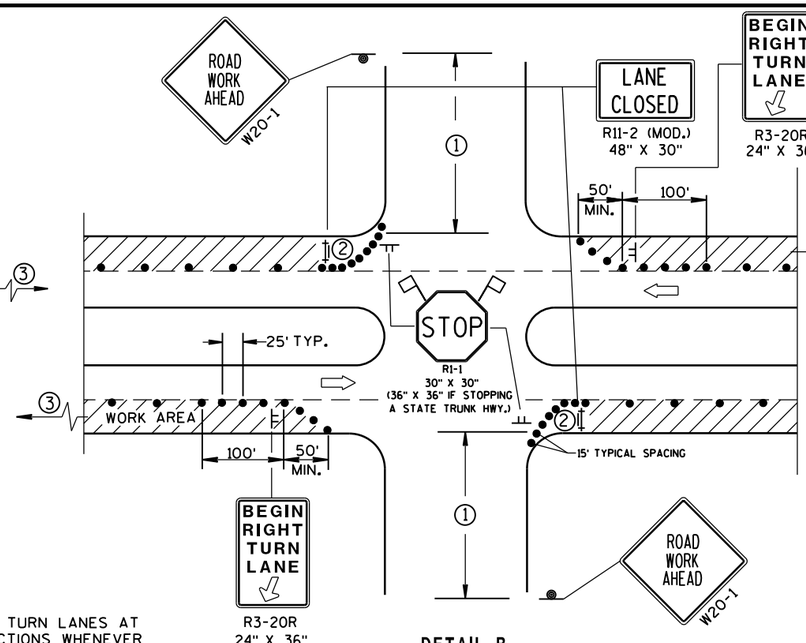
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S.D.D. 15 D 20-3



DETAIL A

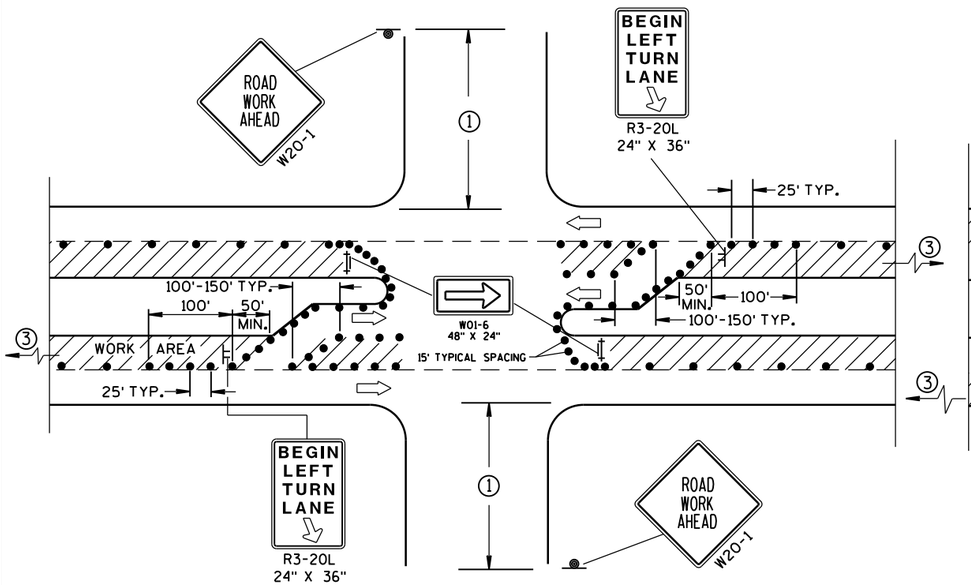
FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING



DETAIL B

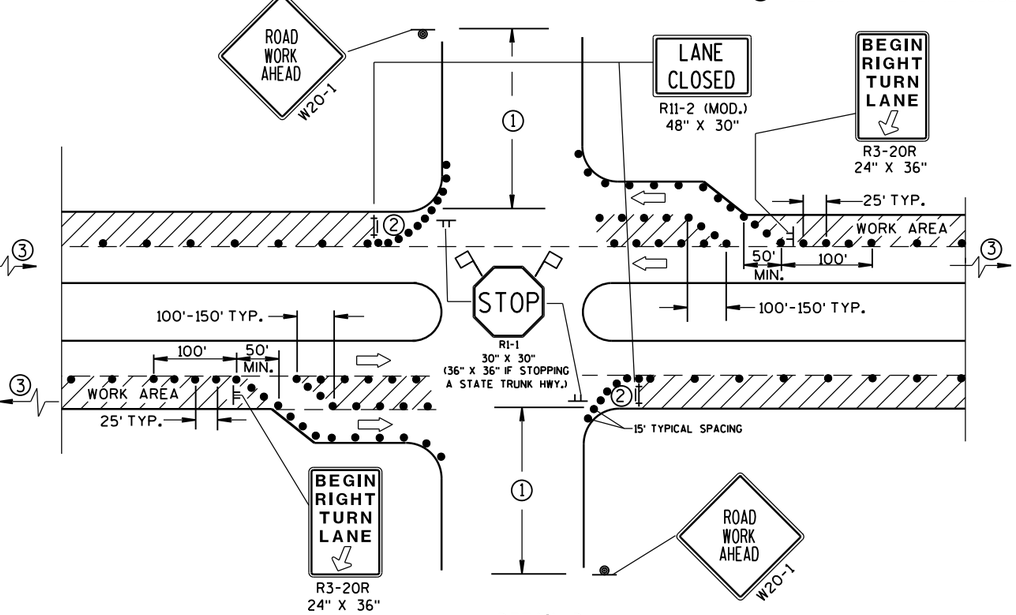
FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 D 21-3

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

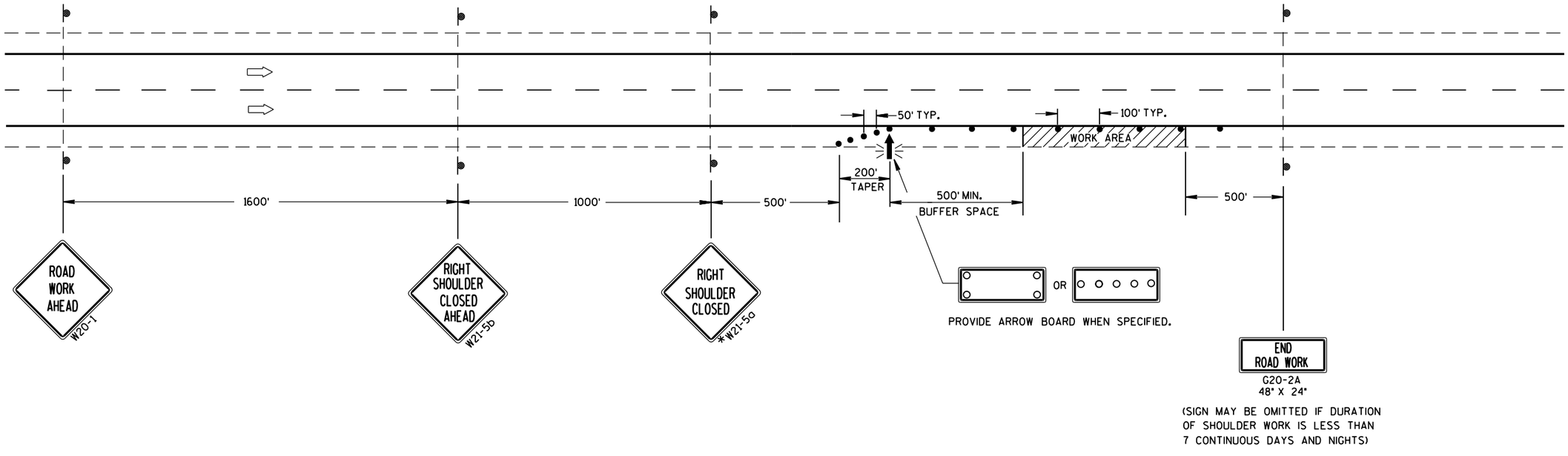
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 D 27-2

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

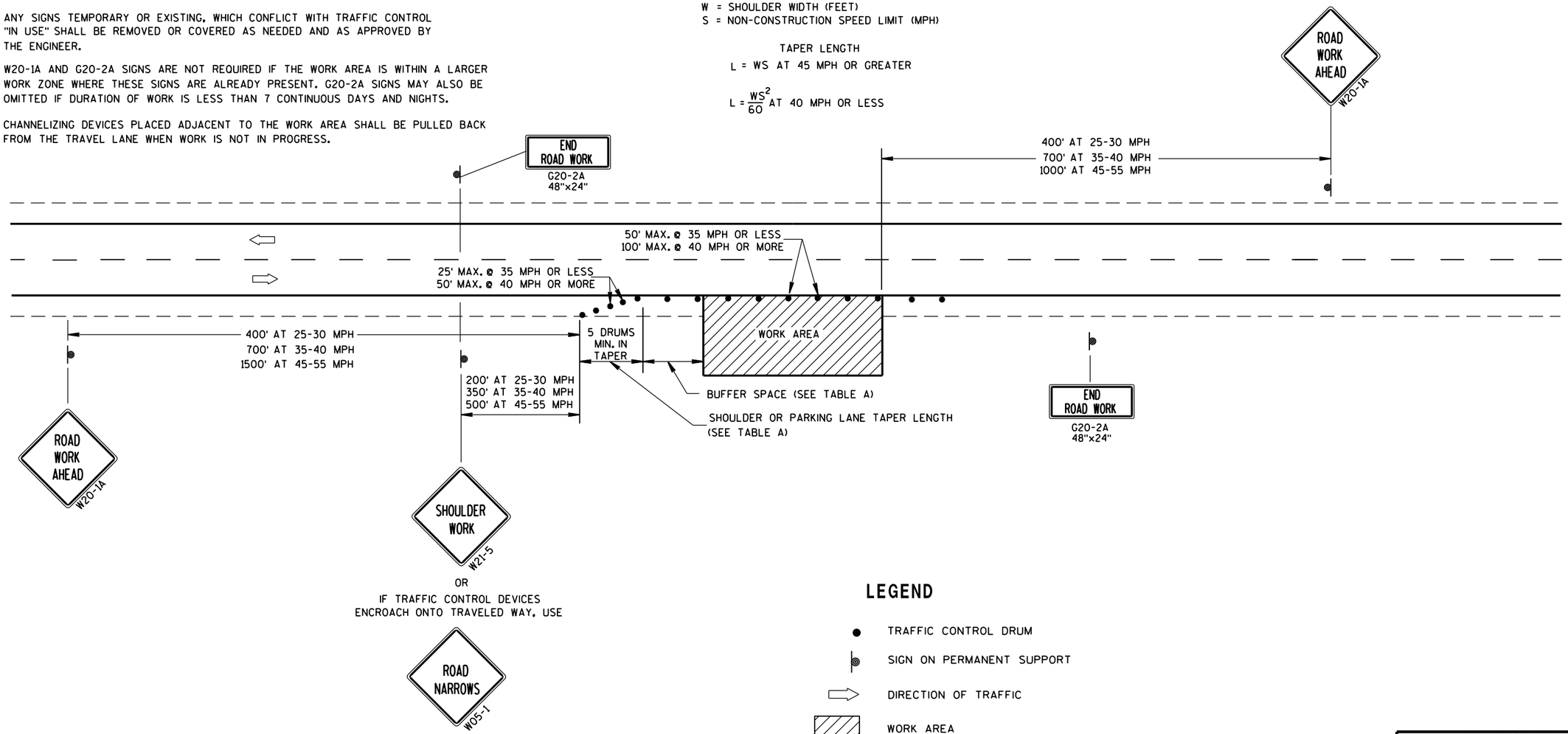
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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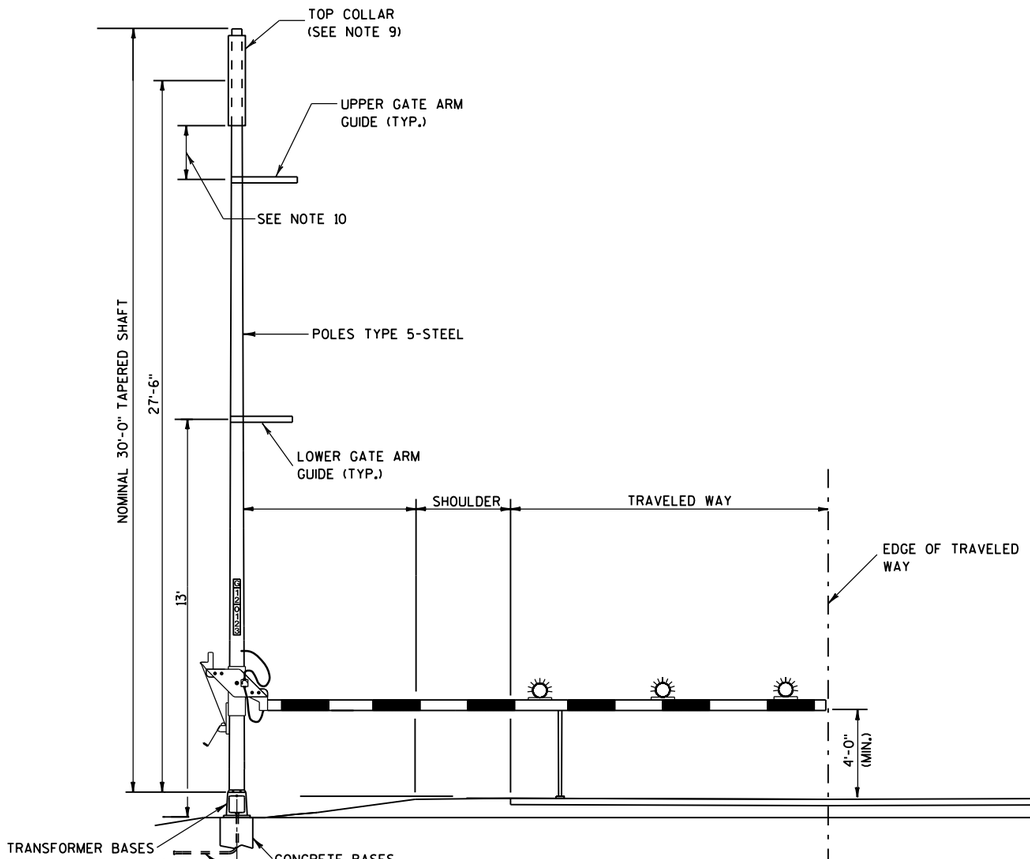
July 14, 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

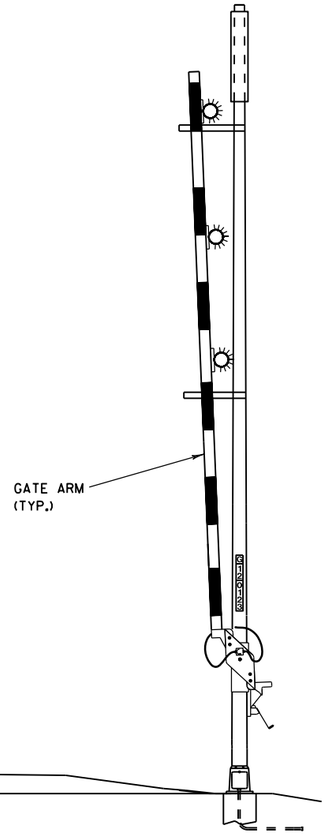
FHWA

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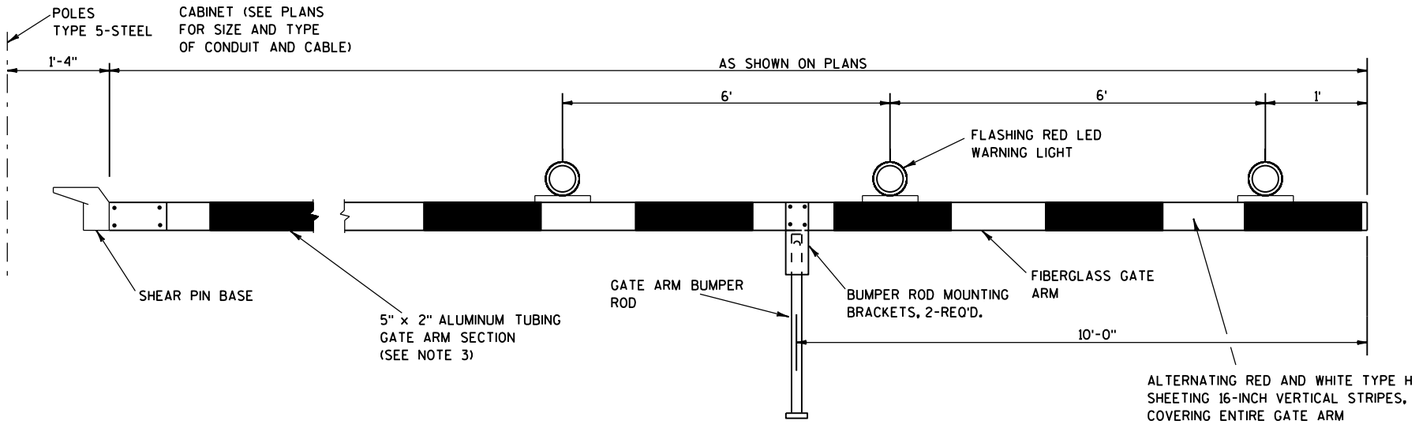
S.D.D. 15 D 28-3



TYPICAL LOWERED POSITION

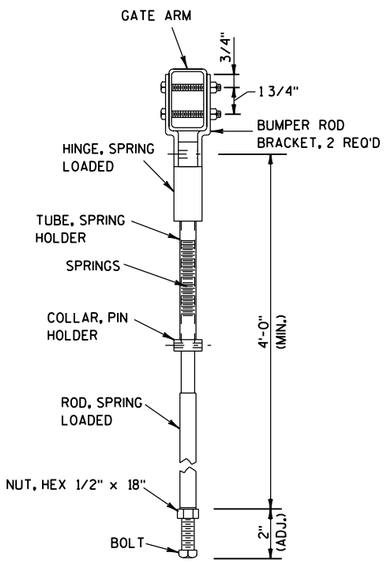


TYPICAL RAISED POSITION

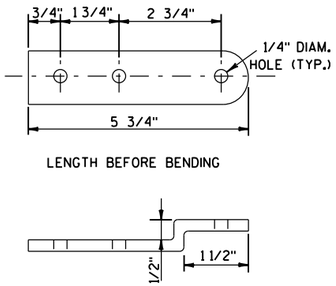


GATE DETAIL

(SOLAR POWER OPTION)



GATE ARM BUMPER ROD DETAIL



BUMPER ROD MOUNTING
BRACKET DETAIL

GENERAL NOTES

1. THE LOCATION OF RAMP CLOSURE GATES AND MOUNTING HEIGHT OF GATE ARM PIVOT SHALL BE VERIFIED BY THE ENGINEER.
2. HEIGHT OF GATE ARM GUIDES MAY BE VARIED AS REQUIRED FOR WARNING LIGHT CLEARANCE.
3. FIBERGLASS/ALUMINUM GATE ARM AND SHEAR PIN BASE SHALL BE SUPPLIED BY THE SAME VENDOR.
4. GATE ARM TO BE MOUNTED ON PROPOSED POLE AS INDICATED ON THE PLANS. PROPOSED POLE SHALL BE TYPE 5 POLE.
5. LOCATION OF THE CONCRETE BASE AND LENGTH OF THE GATE ARM WILL BE VERIFIED BY THE ENGINEER TO ENSURE ADEQUATE COVERAGE OF THE TRAVELED LANE.
6. GATE PIVOTS, SUPPORTS AND GUIDES, AND ALL ASSOCIATED HARDWARE SHALL BE GALVANIZED. ALL ROUGH EDGES AND BURRS SHALL BE GROUND SMOOTH PRIOR TO GALVANIZING.
7. ALL EXPOSED BOLT THREADS SHALL BE PAINTED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
8. ANY FIELD DAMAGE TO THE GALVANIZING SHALL BE REPAIRED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
9. A STANDARD LIGHTING LUMINAIRE ARM MAY BE MOUNTED TO THE TYPE 5 POLE IN LIEU OF THE TOP COLLAR.
10. UPPER GATE ARM GUIDE IS TO BE INSTALLED 6 TO 12-INCHES BELOW THE BOTTOM OF THE TOP COLLAR.

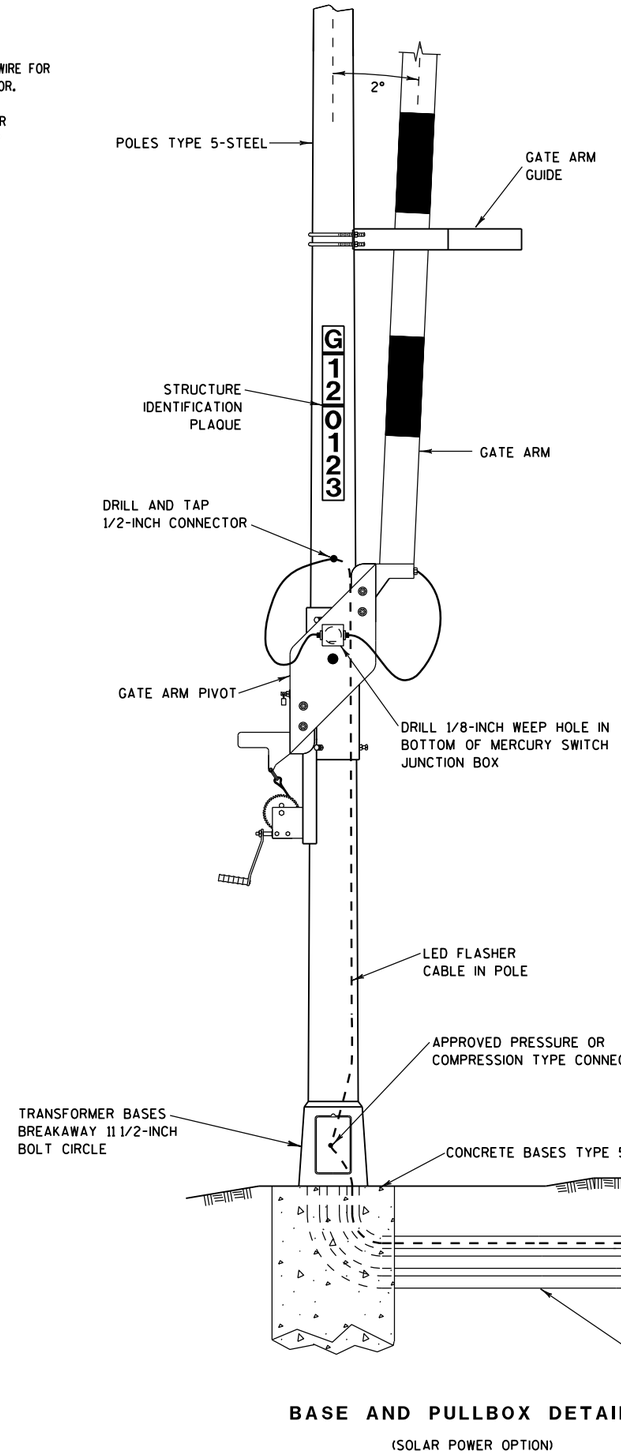
RAMP GATE
SOLAR POWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

WIRING NOTES

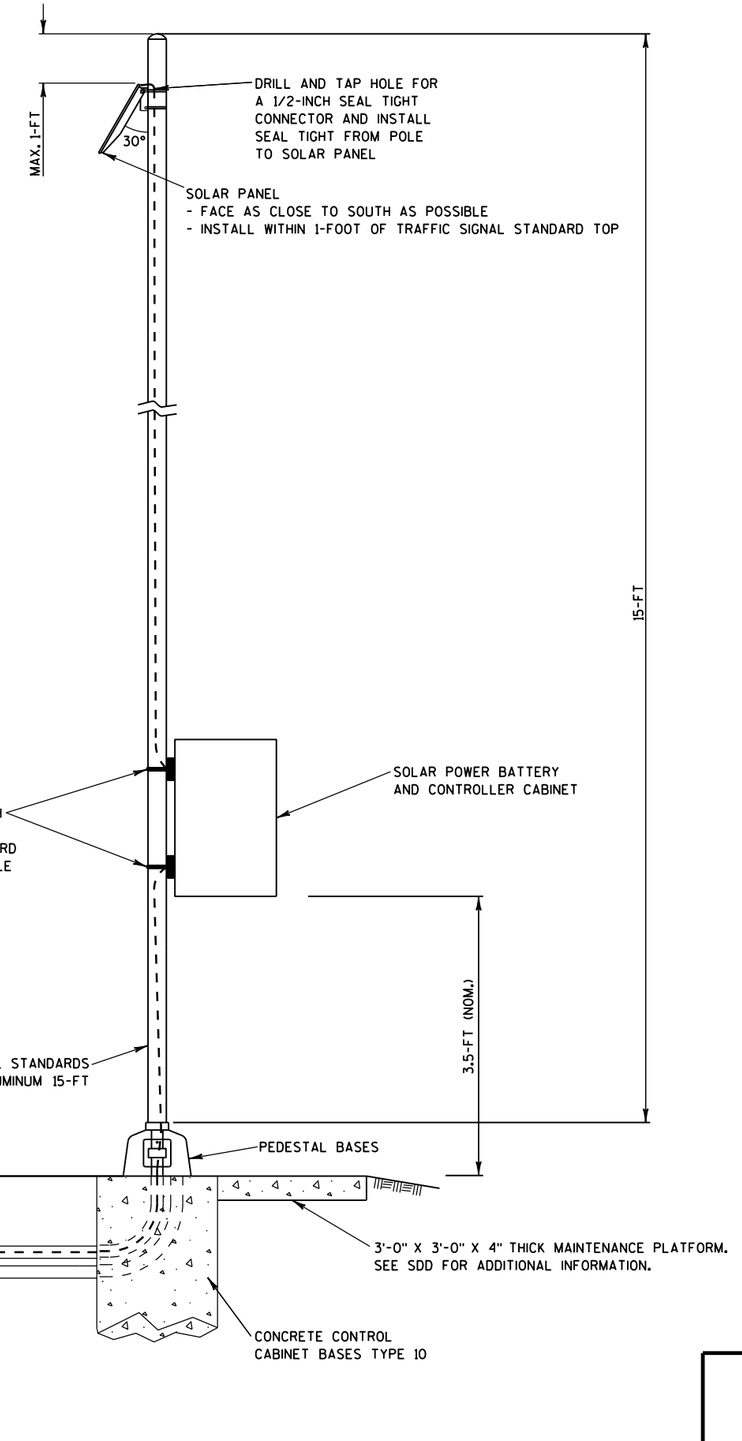
1. WIRING FROM SOLAR PANEL TO CABINET SHALL BE BLUE #10 XLP WIRE FOR POSITIVE CONDUCTOR AND WHITE #10 XLP FOR NEGATIVE CONDUCTOR.

2. WIRING FROM CABINET TO GATE ARM SHALL BE WHITE #10 XLP FOR COMMON, RED #10 XLP FOR FLASHER CIRCUIT 1, AND BLUE #10 XLP FOR FLASHER CIRCUIT 2.



BASE AND PULLBOX DETAIL

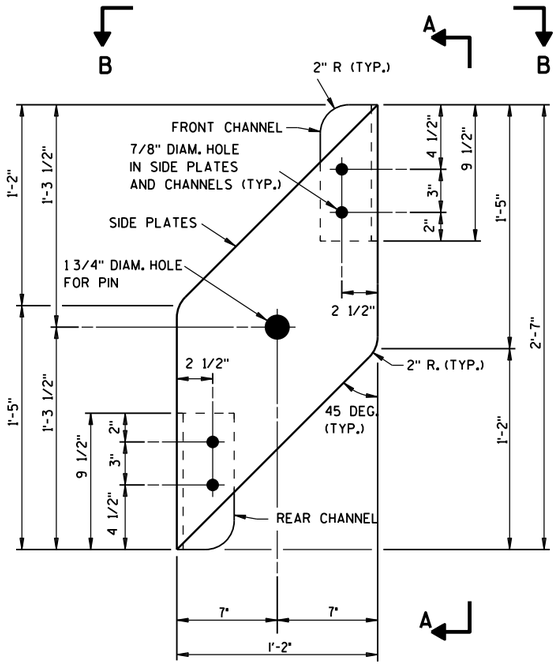
(SOLAR POWER OPTION)



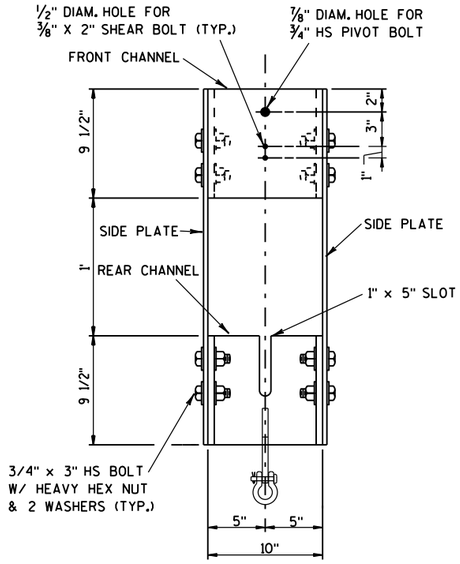
RAMP GATE
SOLAR POWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

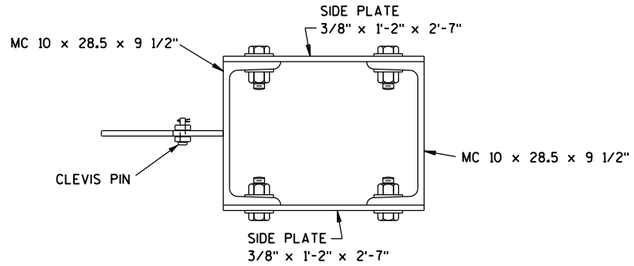
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S.D.D. 15 D 34-1b



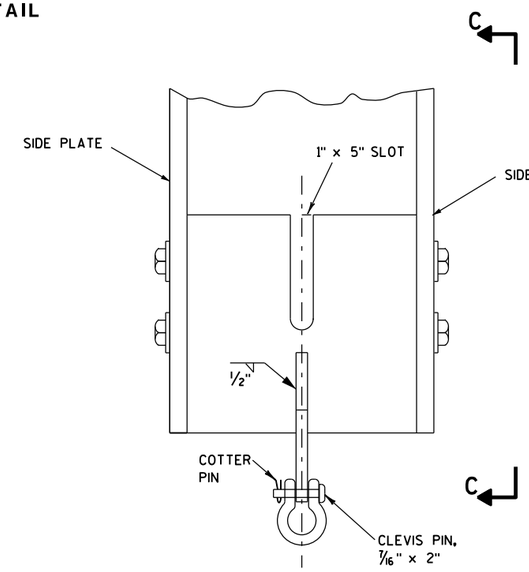
SIDE PLATE DETAIL



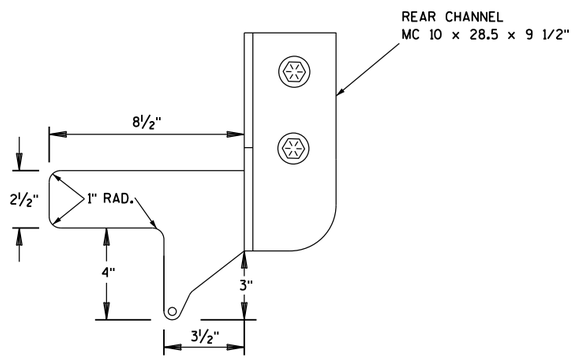
SECTION A-A



SECTION B-B



YOKE ASSEMBLY DETAIL



SECTION C-C

RAMP GATE
SOLAR POWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 34-1c

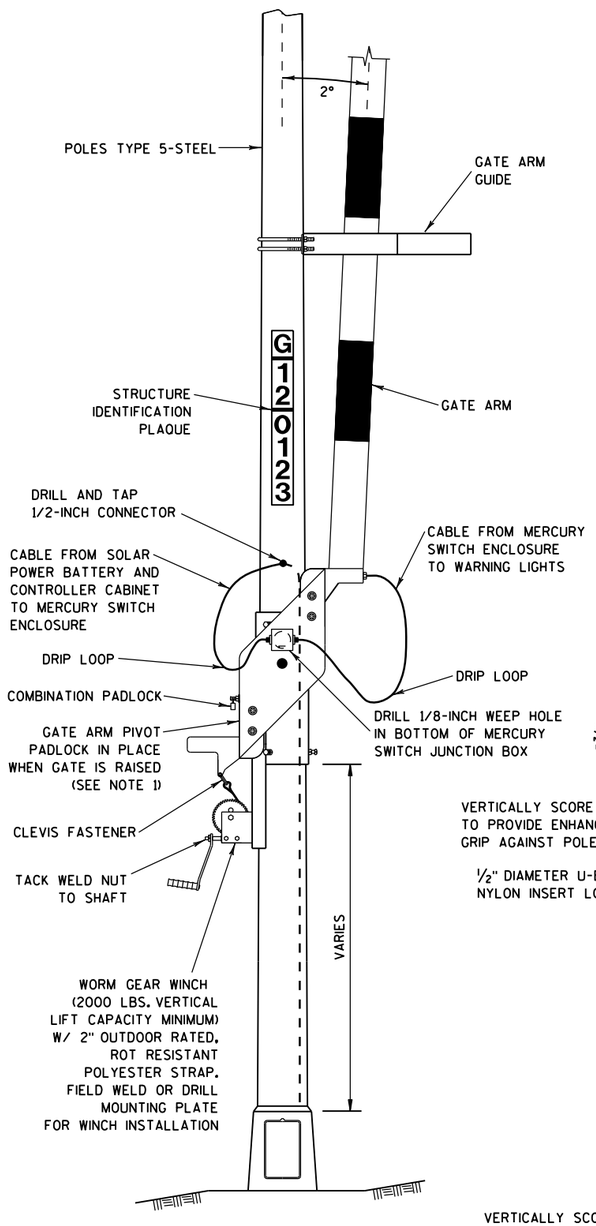
GENERAL NOTES

1. WHEN THE GATE IS FULLY RAISED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE OUTSIDE OF THE REAR CHANNEL AND PADLOCKED IN PLACE.

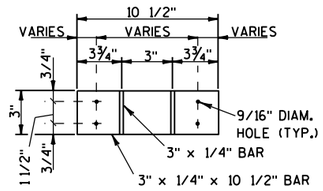
2. WHEN THE GATE IS FULLY LOWERED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE INSIDE OF THE REAR CHANNEL AND PADLOCKED INTO PLACE.

3. ANTI-SEIZE LUBRICATING MATERIAL SHALL BE USED ON ALL BOLT THREADS BEFORE INSTALLATION.

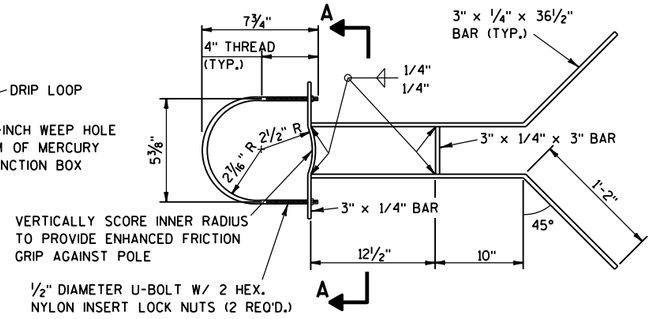
4. ALL BOLTS SHALL BE GALVANIZED AND CONFORM TO ASTM A307, GRADE A, UNLESS DESIGNATED AS HS (HIGH STRENGTH), WHICH SHALL CONFORM TO ASTM A325. BOLTS OF 1/2" NOMINAL DIAMTER OR LESS MAY BE STAINLESS STEEL.



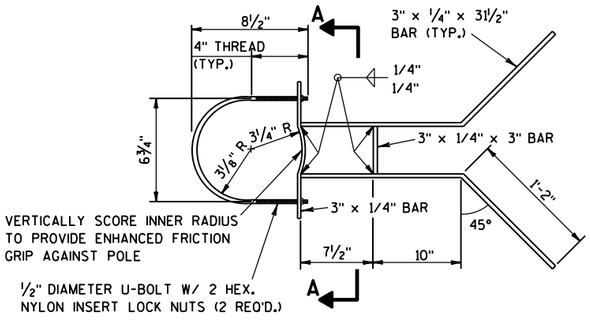
GATE PIVOT ASSEMBLY



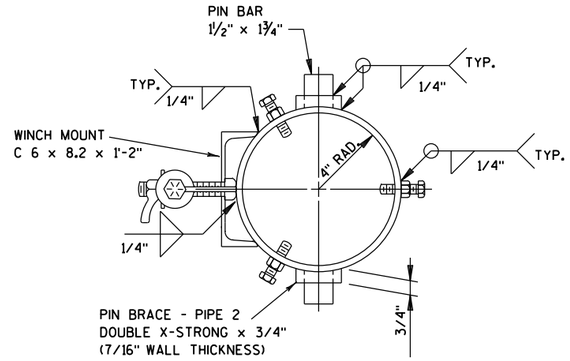
SECTION A-A
U-BOLTS NOT SHOWN



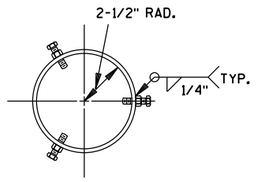
UPPER GATE ARM GUIDE DETAIL



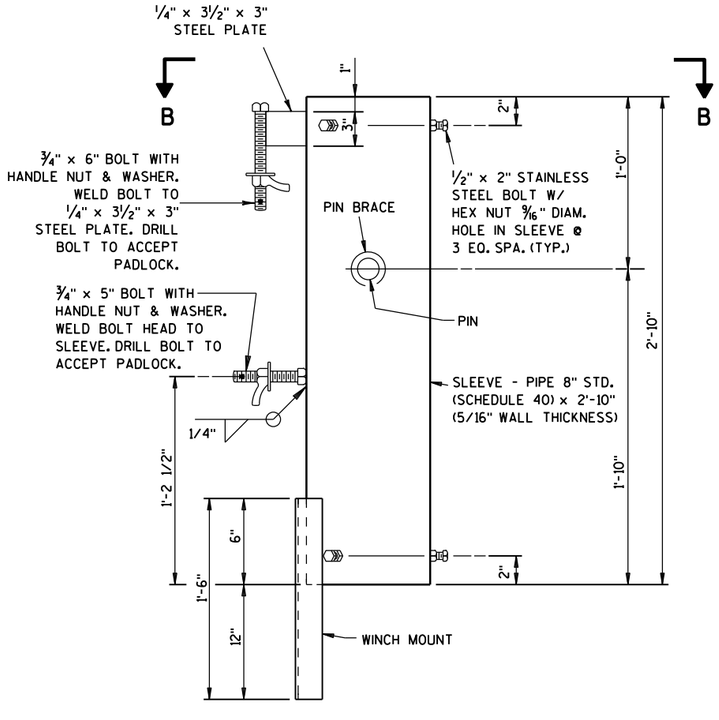
LOWER GATE ARM GUIDE DETAIL



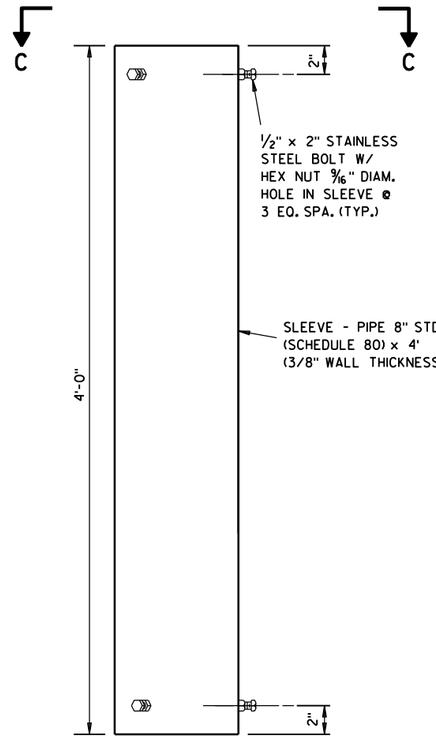
SECTION B-B



SECTION C-C



PIVOT SLEEVE DETAIL



TOP COLLAR

RAMP GATE
SOLAR POWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013
DATE
/S/ Bill Wondrachek
STATE TRAFFIC I
MANAGEMENT EN
FHWA

6

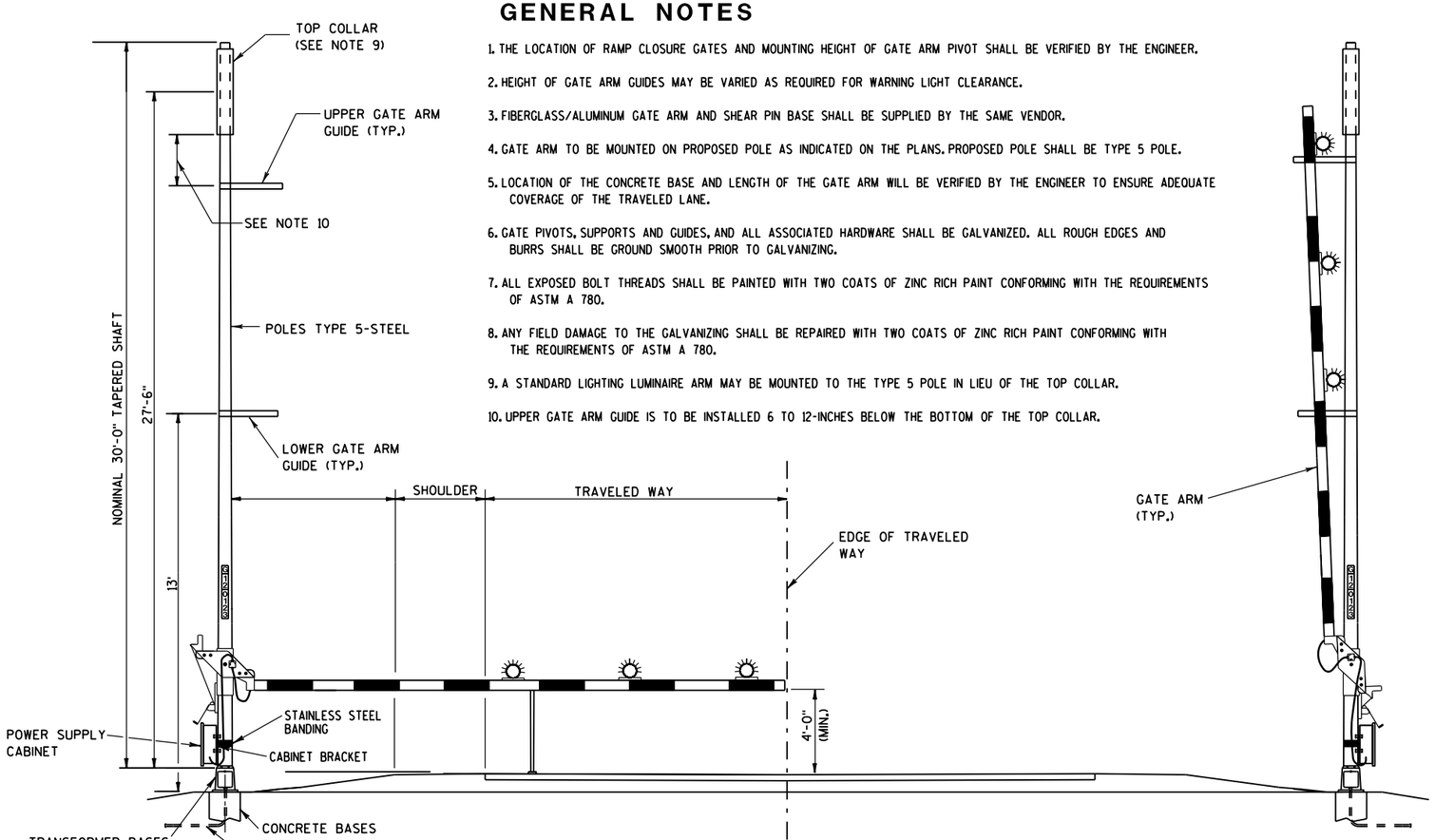
S.D.D. 15 D 34-1d

6

S.D.D. 15 D 34-1d

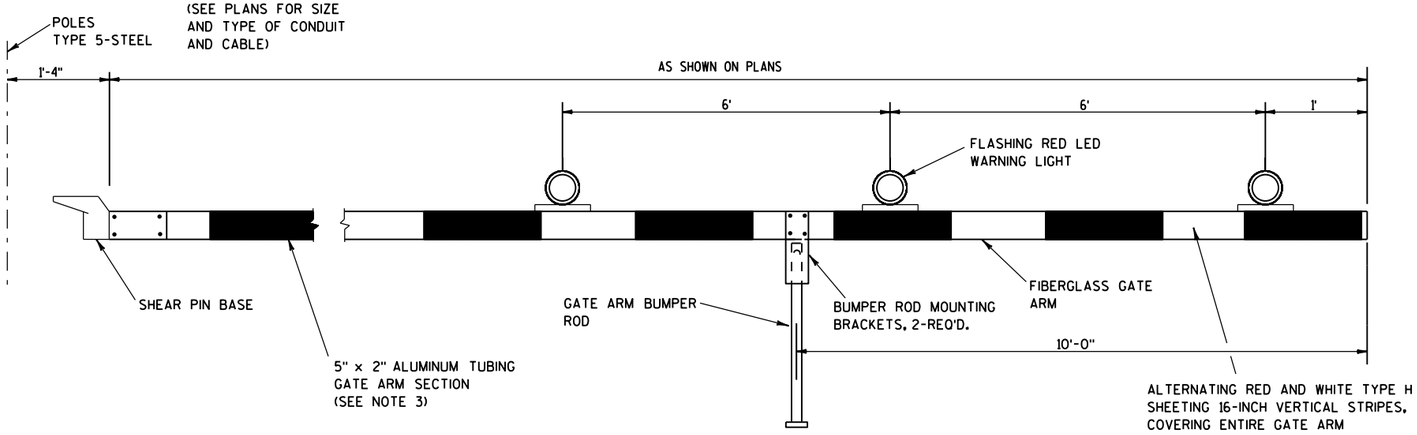
GENERAL NOTES

1. THE LOCATION OF RAMP CLOSURE GATES AND MOUNTING HEIGHT OF GATE ARM PIVOT SHALL BE VERIFIED BY THE ENGINEER.
2. HEIGHT OF GATE ARM GUIDES MAY BE VARIED AS REQUIRED FOR WARNING LIGHT CLEARANCE.
3. FIBERGLASS/ALUMINUM GATE ARM AND SHEAR PIN BASE SHALL BE SUPPLIED BY THE SAME VENDOR.
4. GATE ARM TO BE MOUNTED ON PROPOSED POLE AS INDICATED ON THE PLANS. PROPOSED POLE SHALL BE TYPE 5 POLE.
5. LOCATION OF THE CONCRETE BASE AND LENGTH OF THE GATE ARM WILL BE VERIFIED BY THE ENGINEER TO ENSURE ADEQUATE COVERAGE OF THE TRAVELED LANE.
6. GATE PIVOTS, SUPPORTS AND GUIDES, AND ALL ASSOCIATED HARDWARE SHALL BE GALVANIZED. ALL ROUGH EDGES AND BURRS SHALL BE GROUND SMOOTH PRIOR TO GALVANIZING.
7. ALL EXPOSED BOLT THREADS SHALL BE PAINTED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
8. ANY FIELD DAMAGE TO THE GALVANIZING SHALL BE REPAIRED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
9. A STANDARD LIGHTING LUMINAIRE ARM MAY BE MOUNTED TO THE TYPE 5 POLE IN LIEU OF THE TOP COLLAR.
10. UPPER GATE ARM GUIDE IS TO BE INSTALLED 6 TO 12-INCHES BELOW THE BOTTOM OF THE TOP COLLAR.

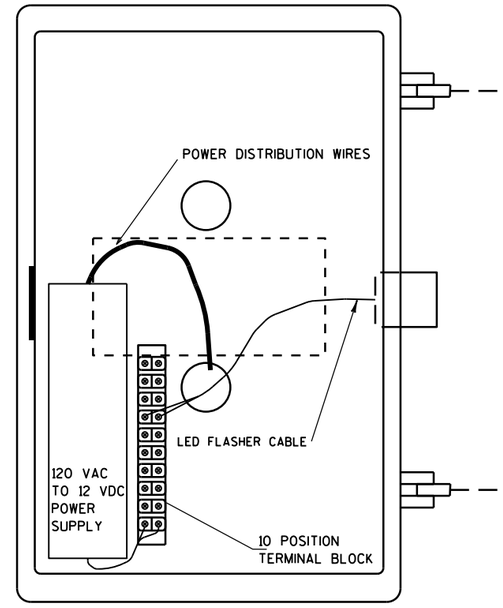


TYPICAL LOWERED POSITION

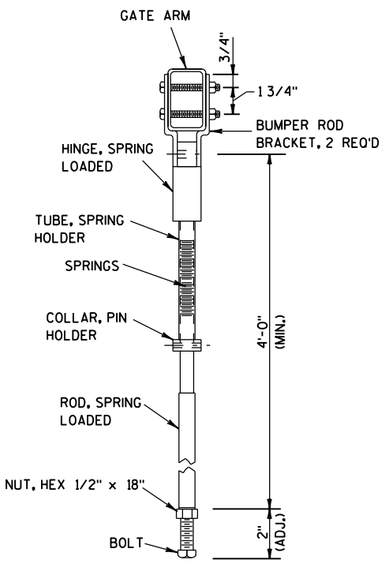
TYPICAL RAISED POSITION



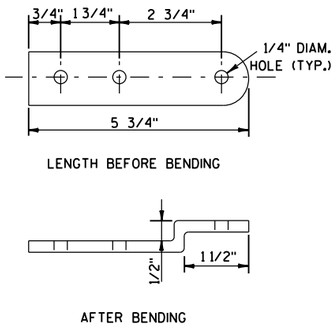
GATE DETAIL
(HARDWIRE POWER OPTION)



POWER SUPPLY CABINET



GATE ARM BUMPER ROD DETAIL



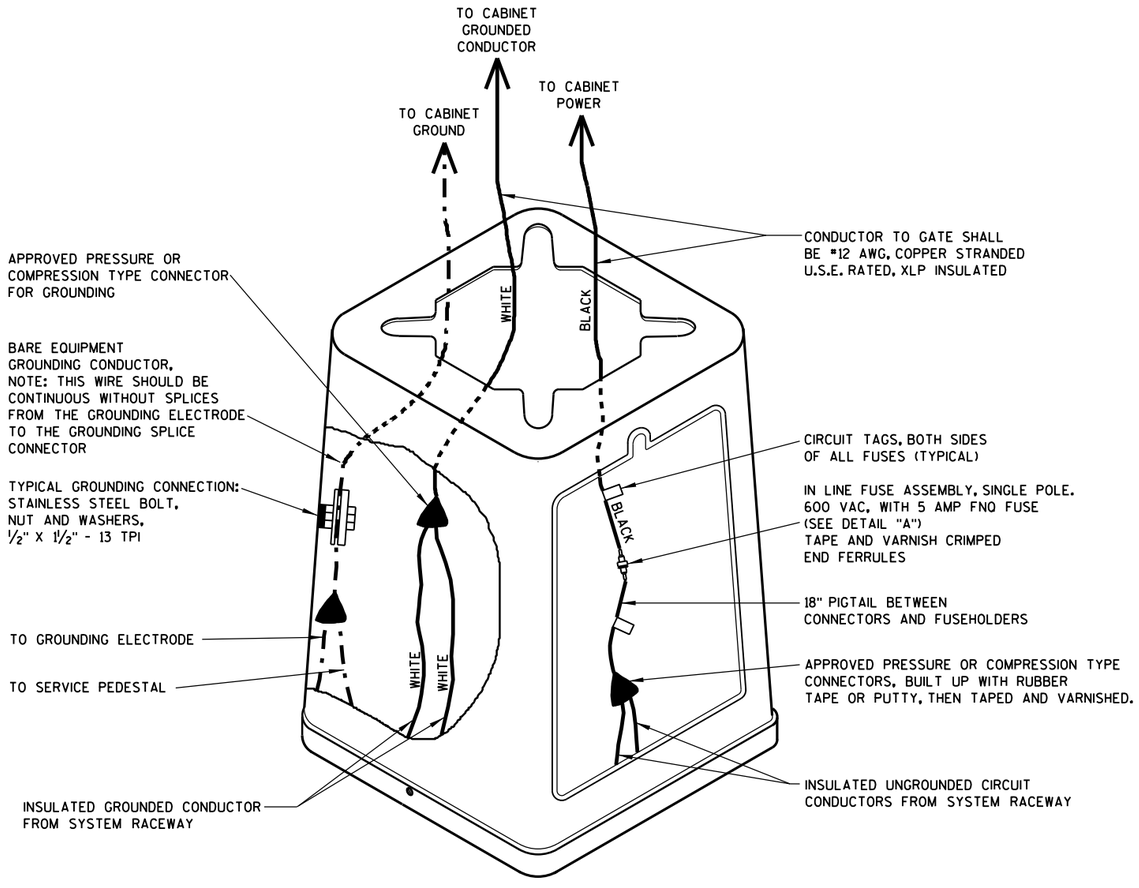
BUMPER ROD MOUNTING
BRACKET DETAIL

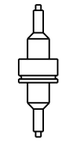
RAMP GATE
HARD WIRED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 35-1a





DETAIL "A"
SINGLE POLE

6

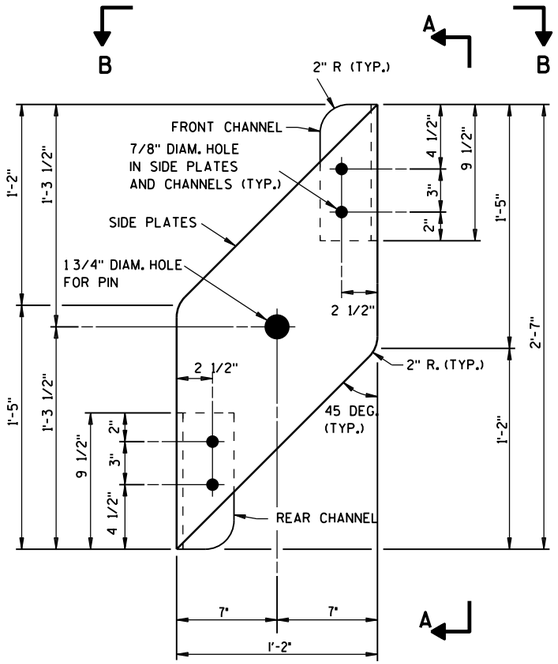
S.D.D. 15 D 35-1b

RAMP GATE
HARD WIRED

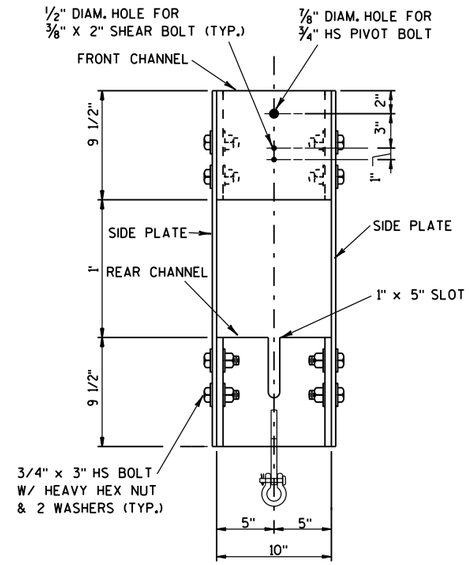
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

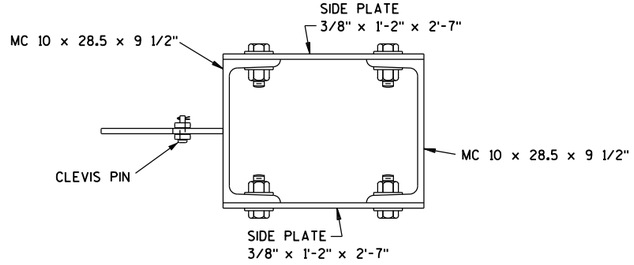
S.D.D. 15 D 35-1b



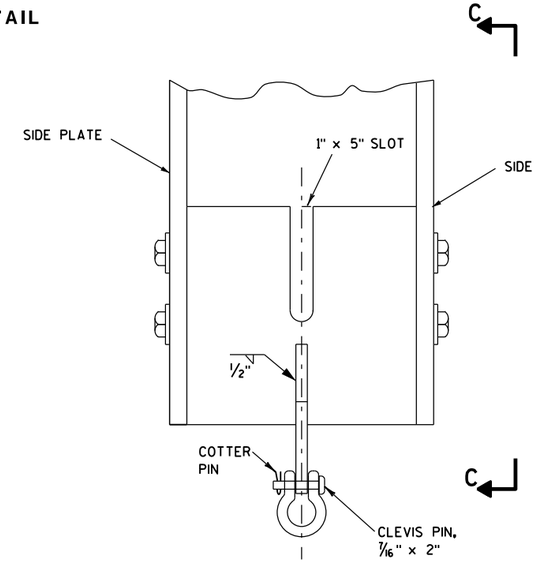
SIDE PLATE DETAIL



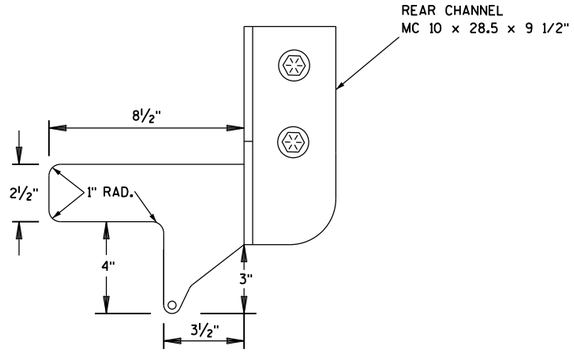
SECTION A-A



SECTION B-B



YOKE ASSEMBLY DETAIL



SECTION C-C

RAMP GATE
HARD WIRED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 35-1c

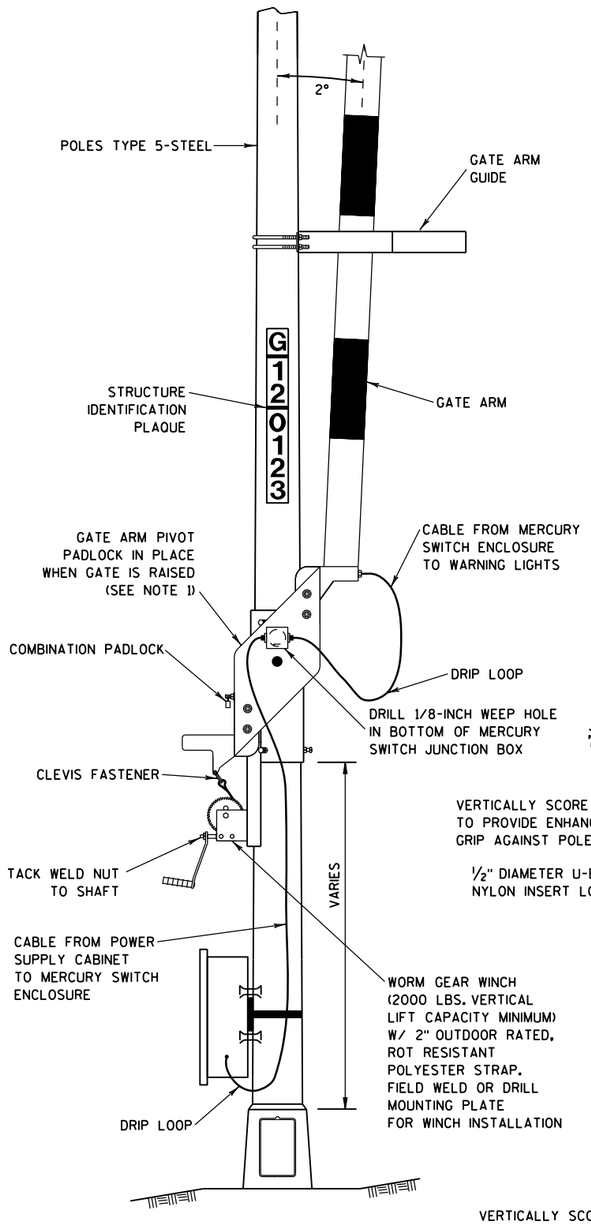
GENERAL NOTES

1. WHEN THE GATE IS FULLY RAISED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE OUTSIDE OF THE REAR CHANNEL AND PADLOCKED IN PLACE.

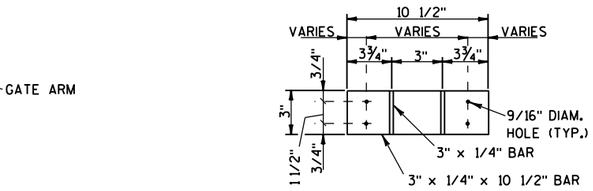
2. WHEN THE GATE IS FULLY LOWERED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE INSIDE OF THE REAR CHANNEL AND PADLOCKED INTO PLACE.

3. ANTI-SEIZE LUBRICATING MATERIAL SHALL BE USED ON ALL BOLT THREADS BEFORE INSTALLATION.

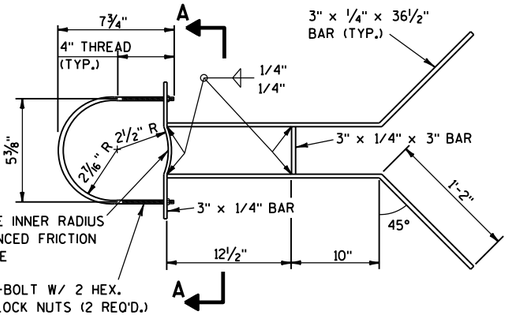
4. ALL BOLTS SHALL BE GALVANIZED AND CONFORM TO ASTM A307, GRADE A, UNLESS DESIGNATED AS HS (HIGH STRENGTH), WHICH SHALL CONFORM TO ASTM A325. BOLTS OF ½" NOMINAL DIAMTER OR LESS MAY BE STAINLESS STEEL.



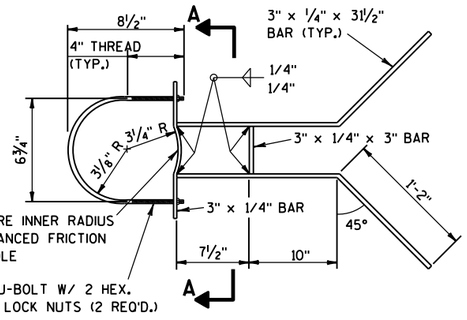
GATE PIVOT ASSEMBLY



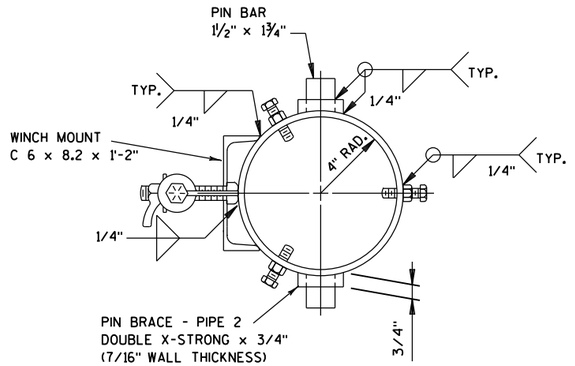
SECTION A-A
U-BOLTS NOT SHOWN



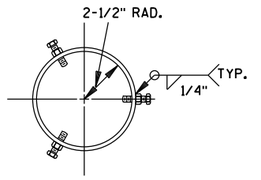
UPPER GATE ARM GUIDE DETAIL



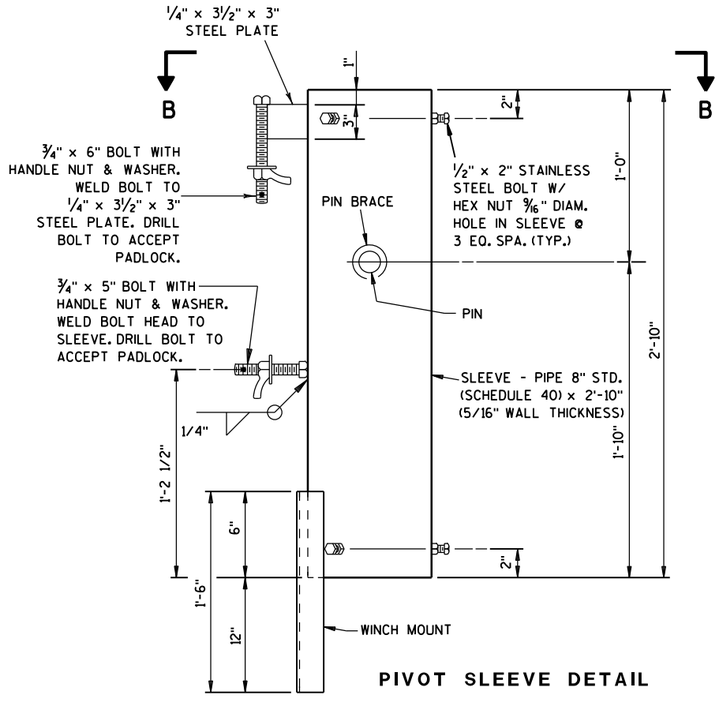
LOWER GATE ARM GUIDE DETAIL



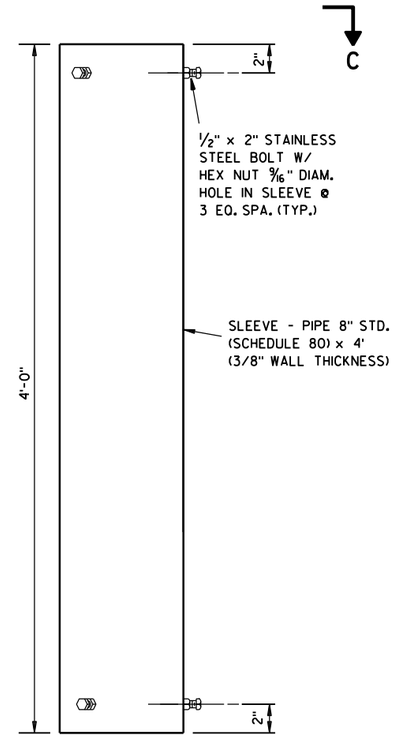
SECTION B-B



SECTION C-C



PIVOT SLEEVE DETAIL



TOP COLLAR

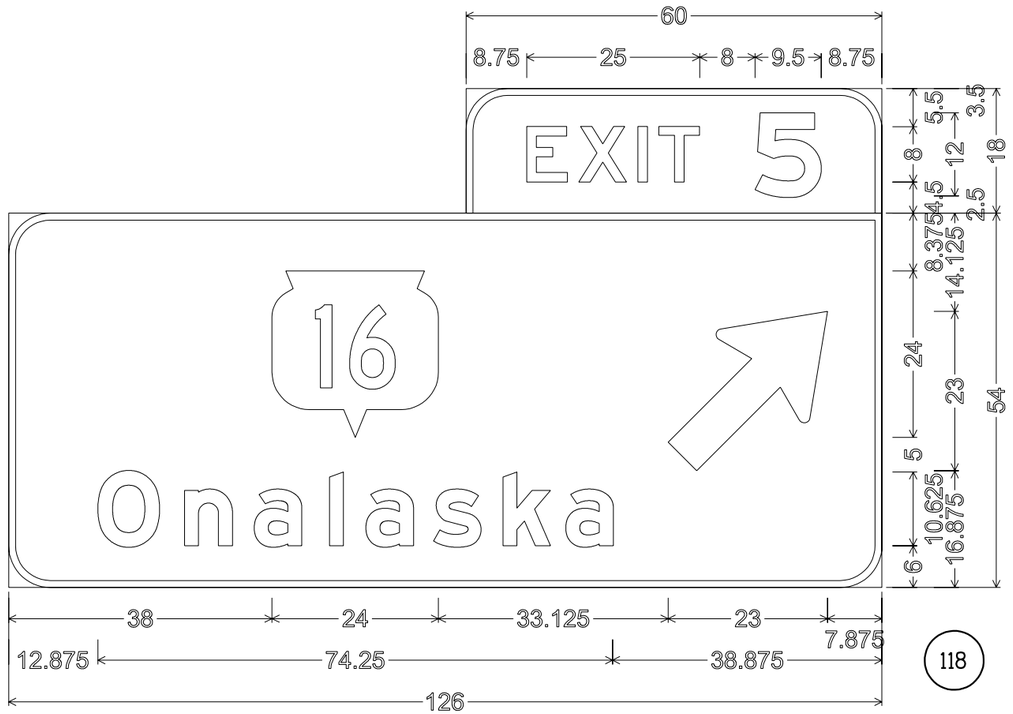
RAMP GATE
HARD WIRED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013
DATE
/S/ Bill Wondrachek
STATE TRAFFIC ENGINEER
MANAGEMENT EN
FHWA

6

S.D.D. 15 D 35-1d



118

6.000" Radius, 1.000" Border, White on Green;
"EXIT" E; "5" E Mod;
6.000" Radius, 1.000" Border, White on Green;
State Highway 16 M1-56; "Onalaska" E Mod;
Standard Arrow Custom 36.000" X 22.500" 45° White;

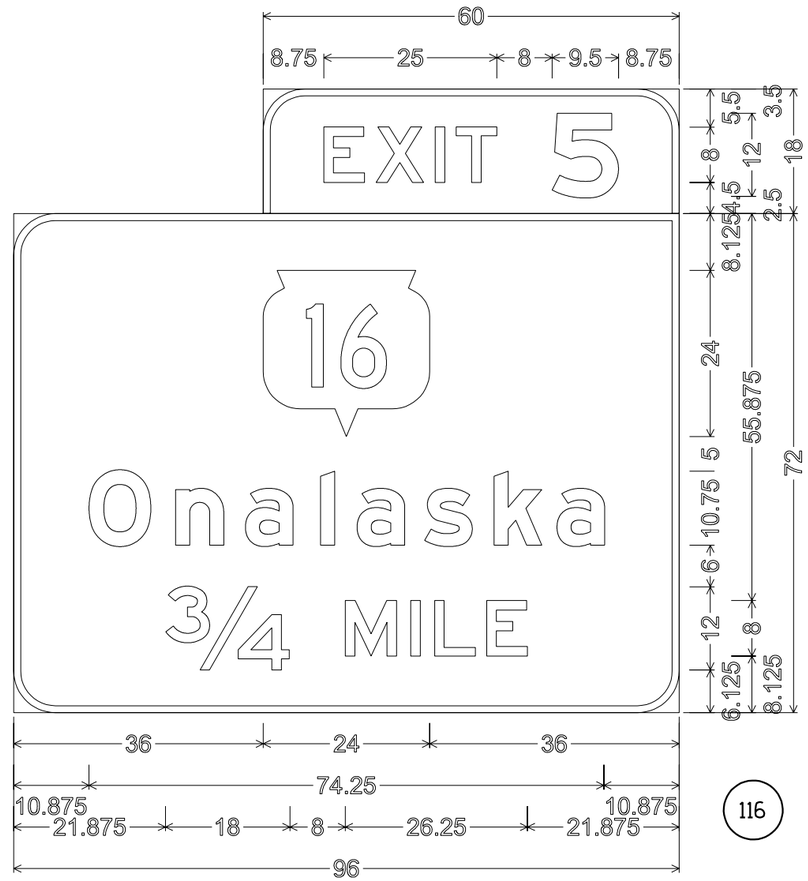


106

6.000" Radius, 1.250" Border, White on Blue;
"HOSPITAL" E Mod; "EXIT" E; "3A" E Mod;

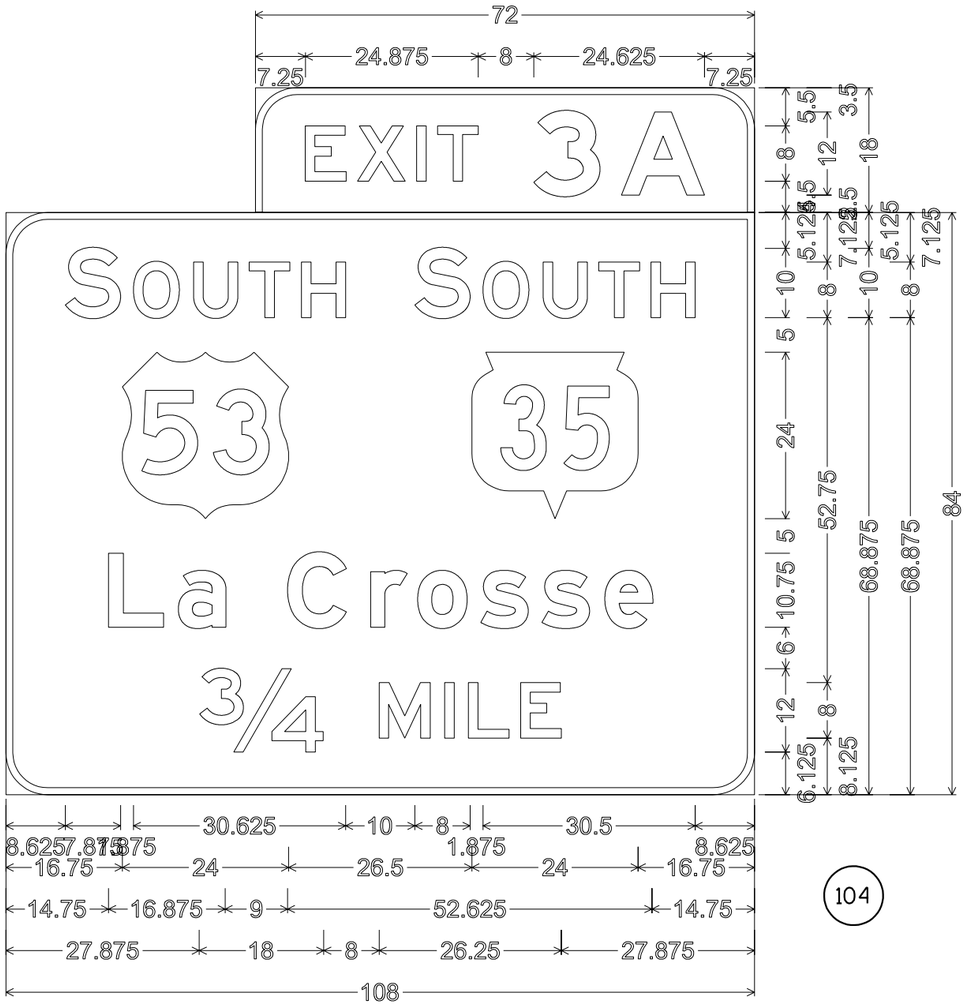
NOTES

1. Sign is Type III - Type H Reflective
2. Color:
   Background - Green except as noted
   Message - White
3. Message Series - E Modified except as noted



116

6.000" Radius, 1.000" Border, White on Green;
"EXIT" E; "5" E Mod;
6.000" Radius, 1.000" Border, White on Green;
State Highway 16 M1-56; "Onalaska" E Mod; "3/4" E;

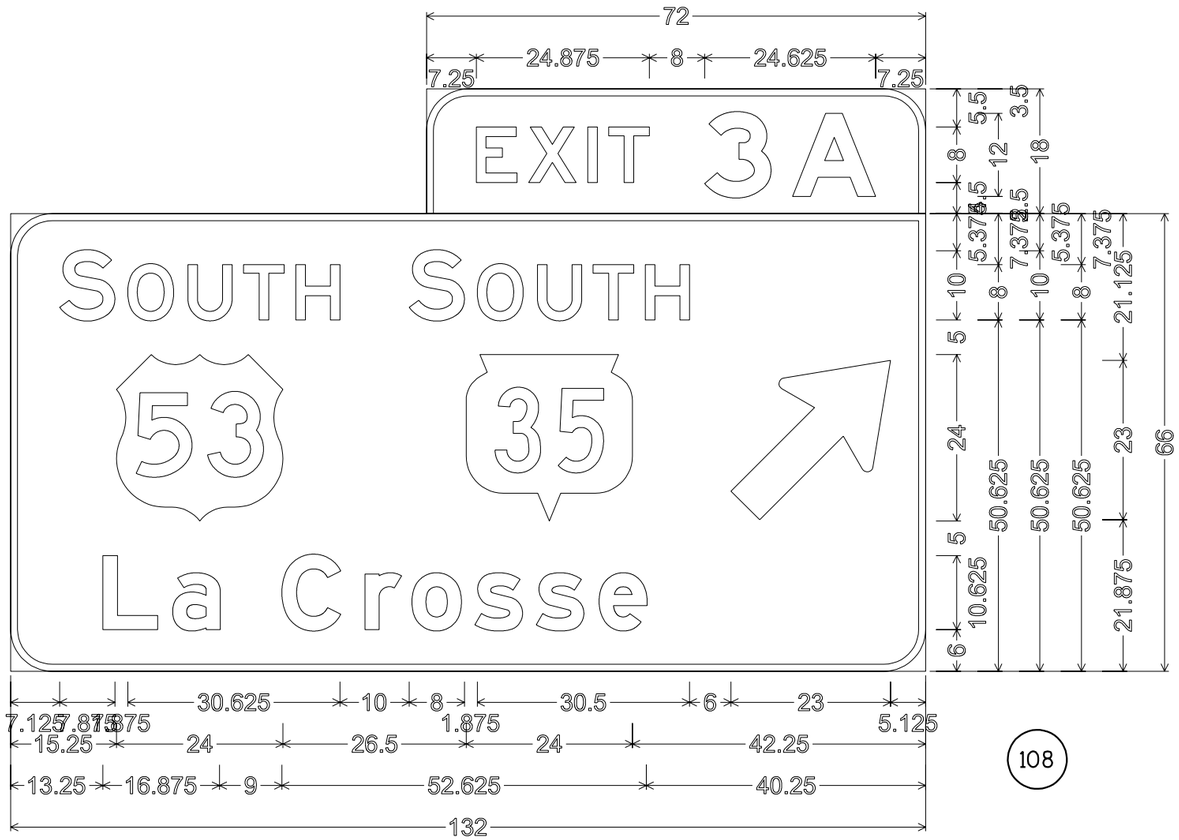


104

6.000" Radius, 1.000" Border, White on Green;
"EXIT" E; "3A" E Mod;
6.000" Radius, 1.000" Border, White on Green;
"SOUTH" E; "SOUTH" E; State Highway 35 M1-56; "La" E Mod;
"Crosse" E Mod; "¾" E; "MILE" E;

NOTES

1. Sign is Type III - Type H Reflective
2. Color:
   Background - Green except as noted
   Message - White except as noted
3. Message Series - E Modified except as noted



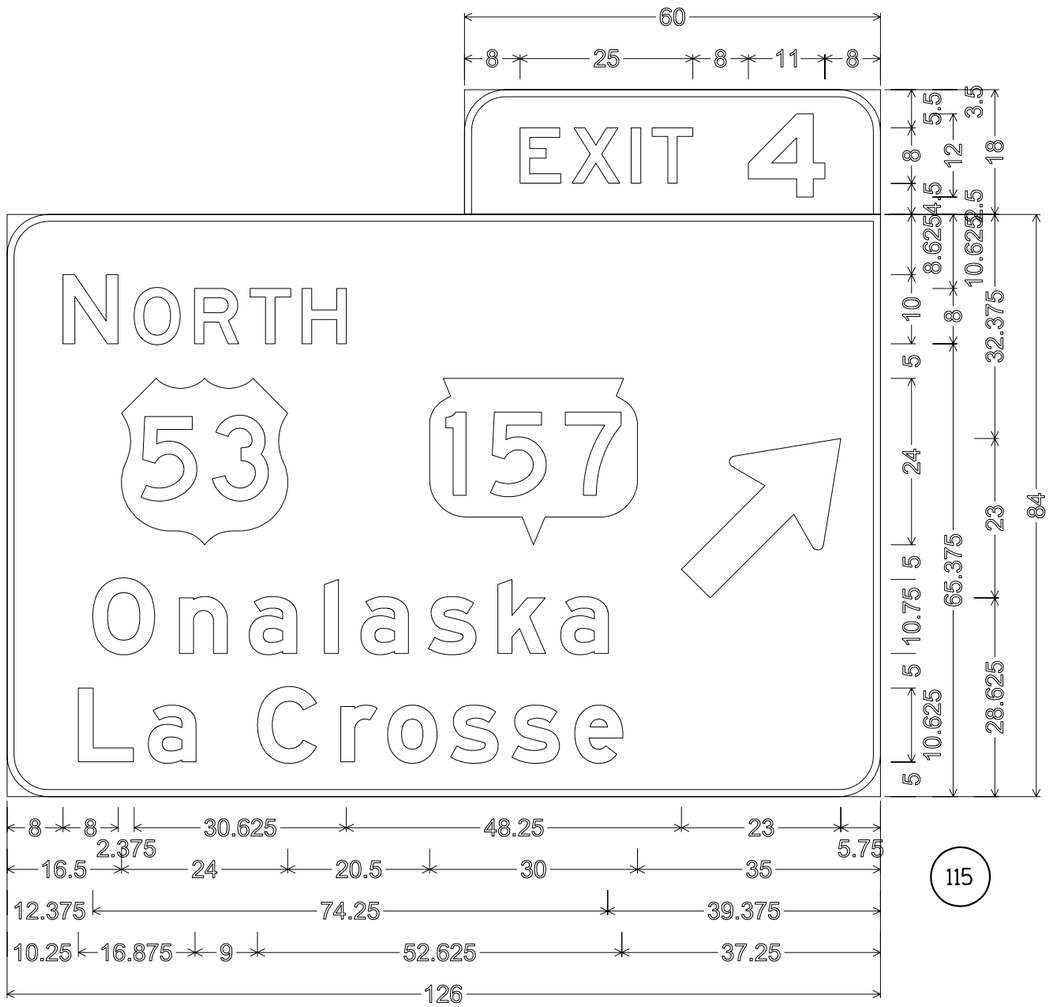
108

6.000" Radius, 1.000" Border, White on Green;
"EXIT" E; "3A" E Mod;
6.000" Radius, 1.000" Border, White on Green;
"SOUTH" E; "SOUTH" E; State Highway 35 M1-56; "La" E Mod;
"Crosse" E Mod; Standard Arrow Custom 36.000" X 22.500" 45° White;

7

7

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	TEMPORARY SIGNING	SHEET NO: 455	E

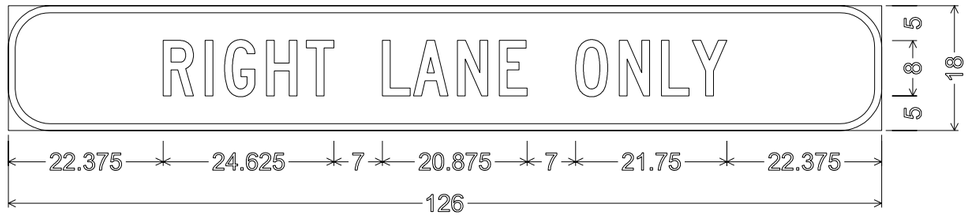


6.000" Radius, 1.000" Border, White on Green;
"EXIT" E; "4" E Mod;
6.000" Radius, 1.000" Border, White on Green;
"NORTH" E; State Highway 157 M1-56A; "Onalaska" E Mod; "La" E Mod;
"Crosse" E Mod; Standard Arrow Custom 36.000" X 22.500" 45° White;

115

NOTES

1. Sign is Type III - Type H Reflective
2. Color:
   Background - Green except as noted
   Message - White except as noted
3. Message Series - E Modified except as noted

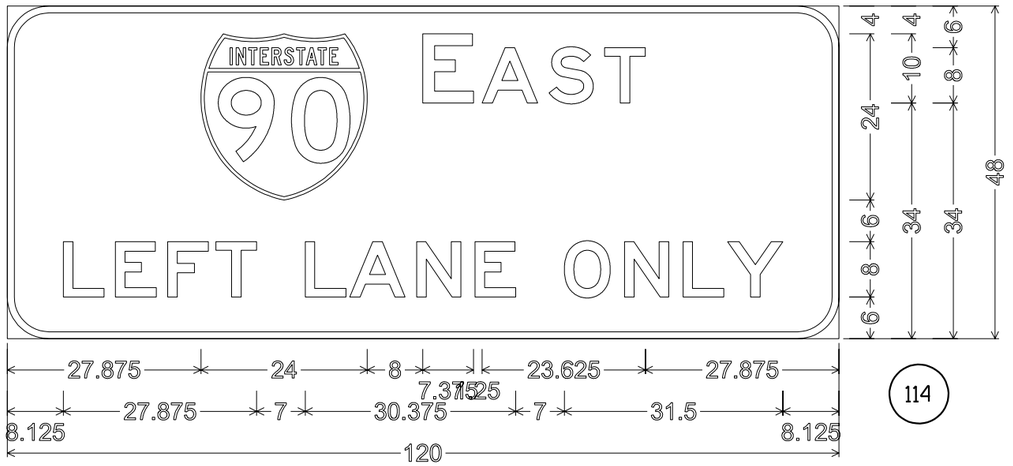


6.000" Radius, 1.000" Border, Black on Fluorescent orange;
"RIGHT" C; "LANE" C; "ONLY" C;

7

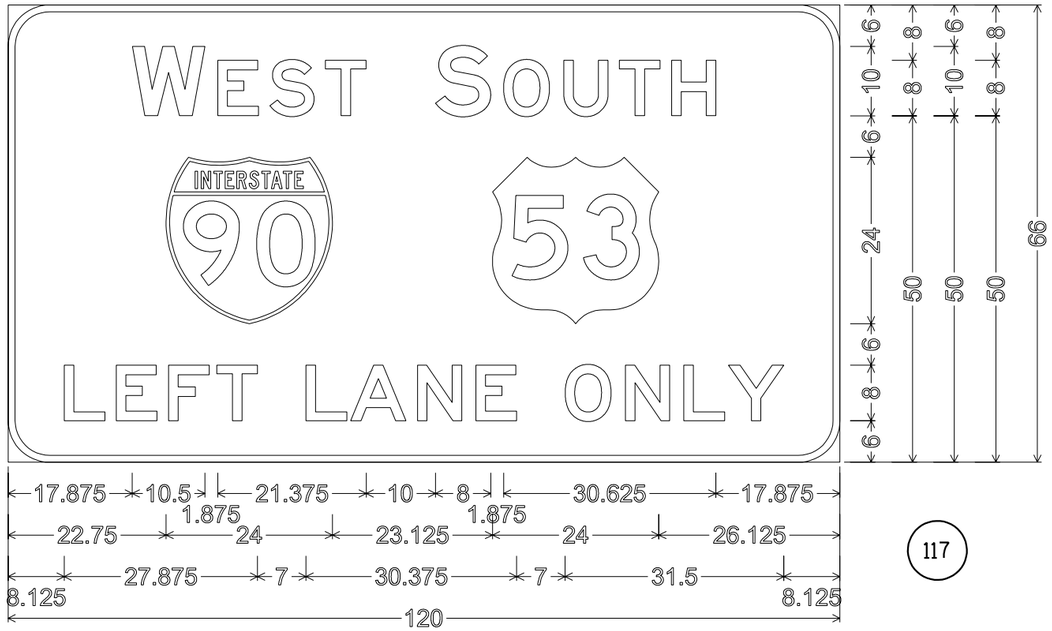
7

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	TEMPORARY SIGNING	SHEET NO: 456	E



114

6.000" Radius, 1.000" Border, White on Green;
"EAST" E; "LEFT" E; "LANE" E; "ONLY" E;



117

6.000" Radius, 1.000" Border, White on Green;
"WEST" E; "SOUTH" E; "LEFT" E; "LANE" E; "ONLY" E;

NOTES

1. Sign is Type III - Type H Reflective
2. Color:
   Background - Green except as noted
   Message - White
3. Message Series - E Modified except as noted

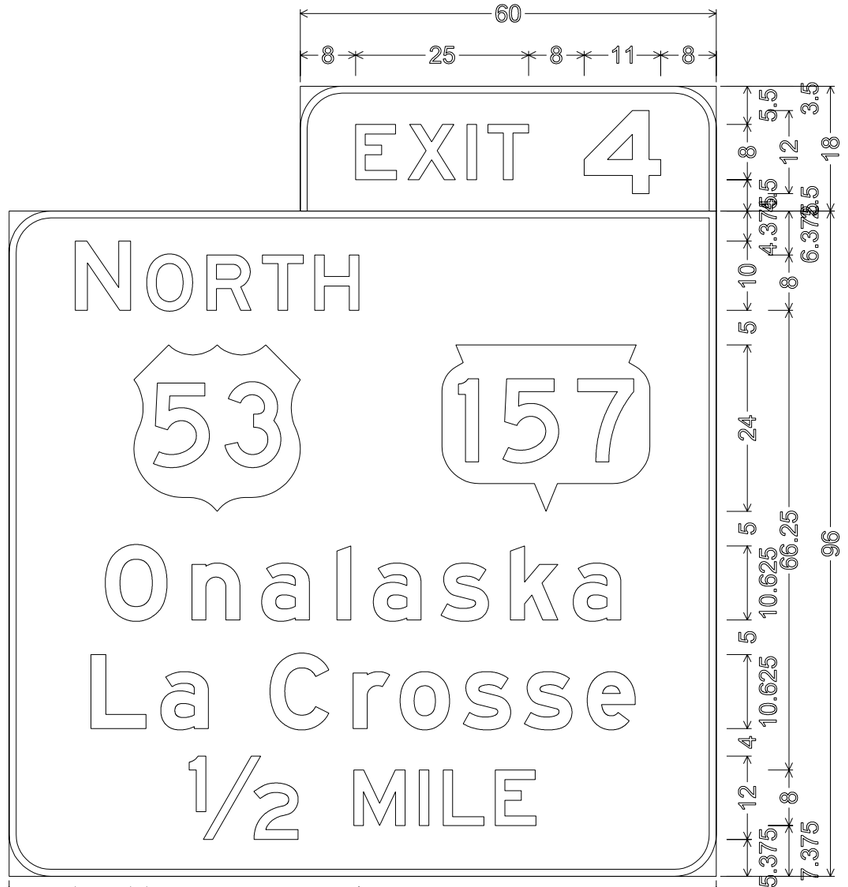
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7

PROJECT NO: 1071-06-79/81	HWY: IH 90	COUNTY: LA CROSSE	TEMPORARY SIGNING	SHEET NO: 457	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0679_EB_PURPLE\aa_0679_070101_sd.DGN PLOT DATE : 10/21/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:21.8613

WISDOT/CADDS SHEET 42

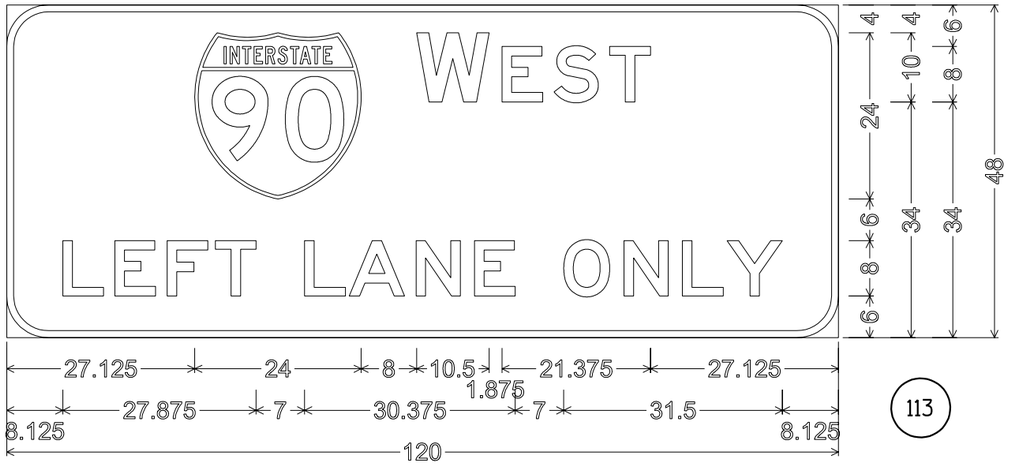


6.000" Radius, 1.000" Border, White on Green;
"EXIT" E; "4" E Mod;
6.000" Radius, 1.000" Border, White on Green;
"NORTH" E; State Highway 157 M1-56A; "Onalaska" E Mod;
"La" E Mod; "Crosse" E Mod; "½" E; "MILE" E;

112

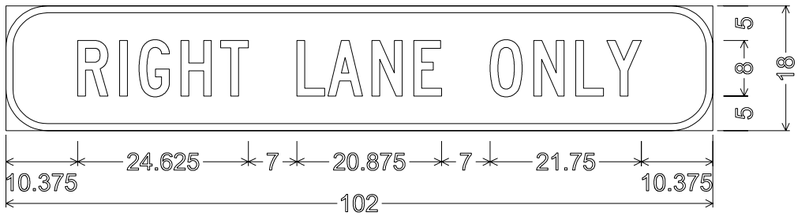
NOTES

1. Sign is Type III - Type H Reflective
2. Color:
   Background - Green except as noted
   Message - White except as noted
3. Message Series - E Modified except as noted



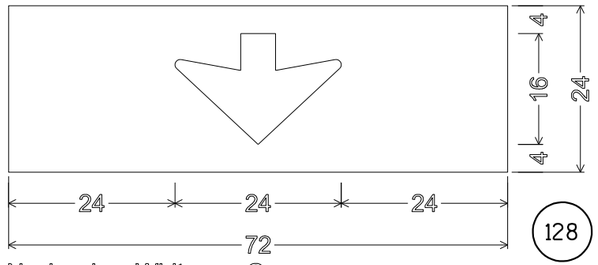
6.000" Radius, 1.000" Border, White on Green;
"WEST" E; "LEFT" E; "LANE" E; "ONLY" E;

113



6.000" Radius, 1.000" Border, Black on Fluorescent orange;
"RIGHT" C; "LANE" C; "ONLY" C;

On .040" aluminum



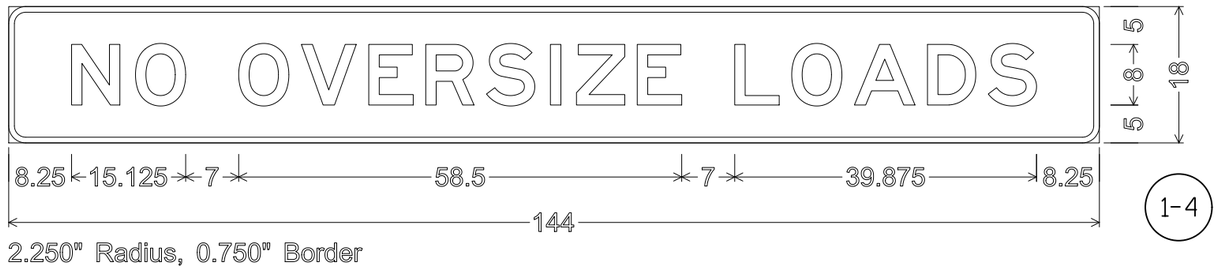
No border, White on Green;
Down Arrow C-Minimum - 16.000" 270°;

128

127

NOTES

1. Signs are Type I - Type SH Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - E



2.250" Radius, 0.750" Border

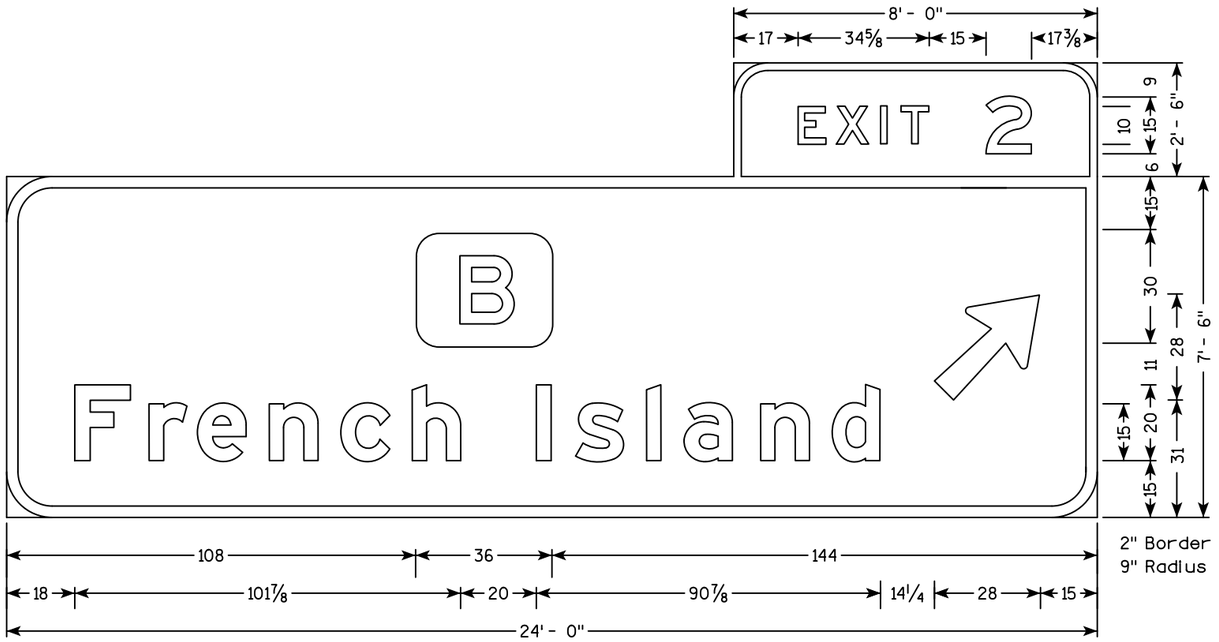
7

7

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	SIGNING DETAIL - TYPE I SIGNS	SHEET 459	E

NOTES

1. All Signs are Type I- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green except as Shown
   Message - White
3. Message Series - E Modified except all CAP Words are Series E



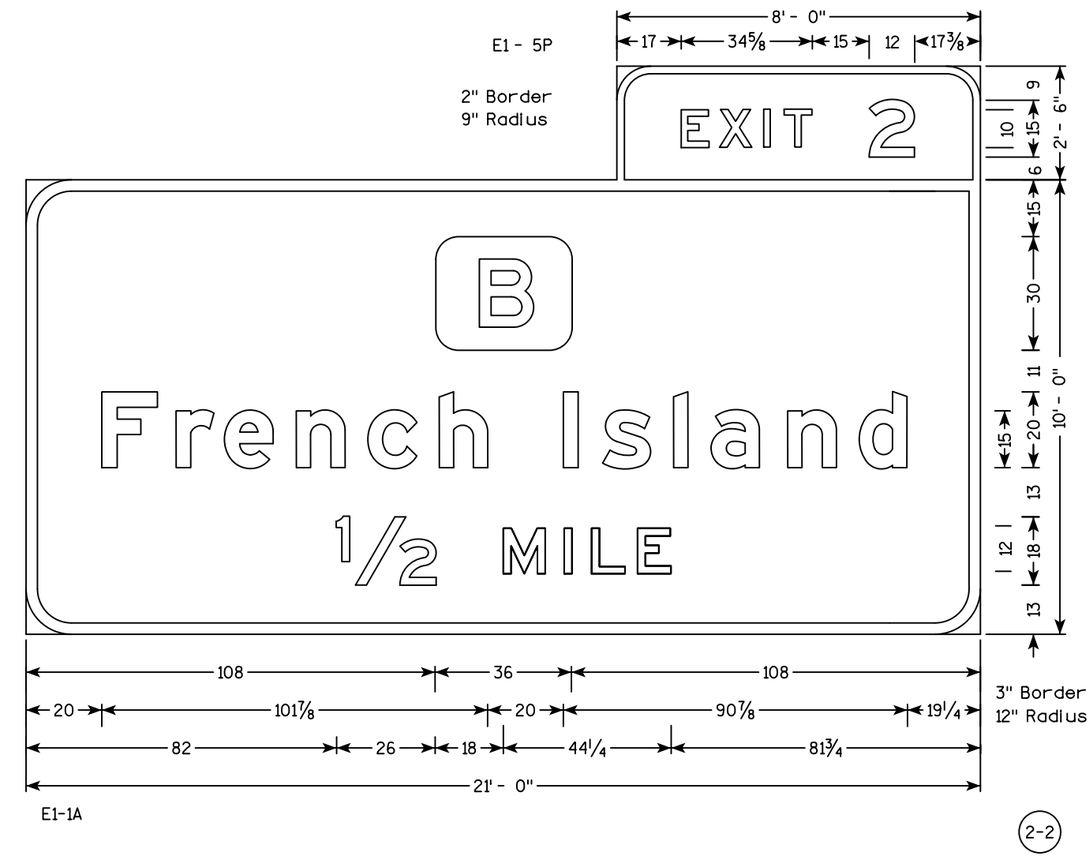
E4-1A

(2-11)

E3-1

(2-9)

E1 - 5P



E1-1A

(2-2)

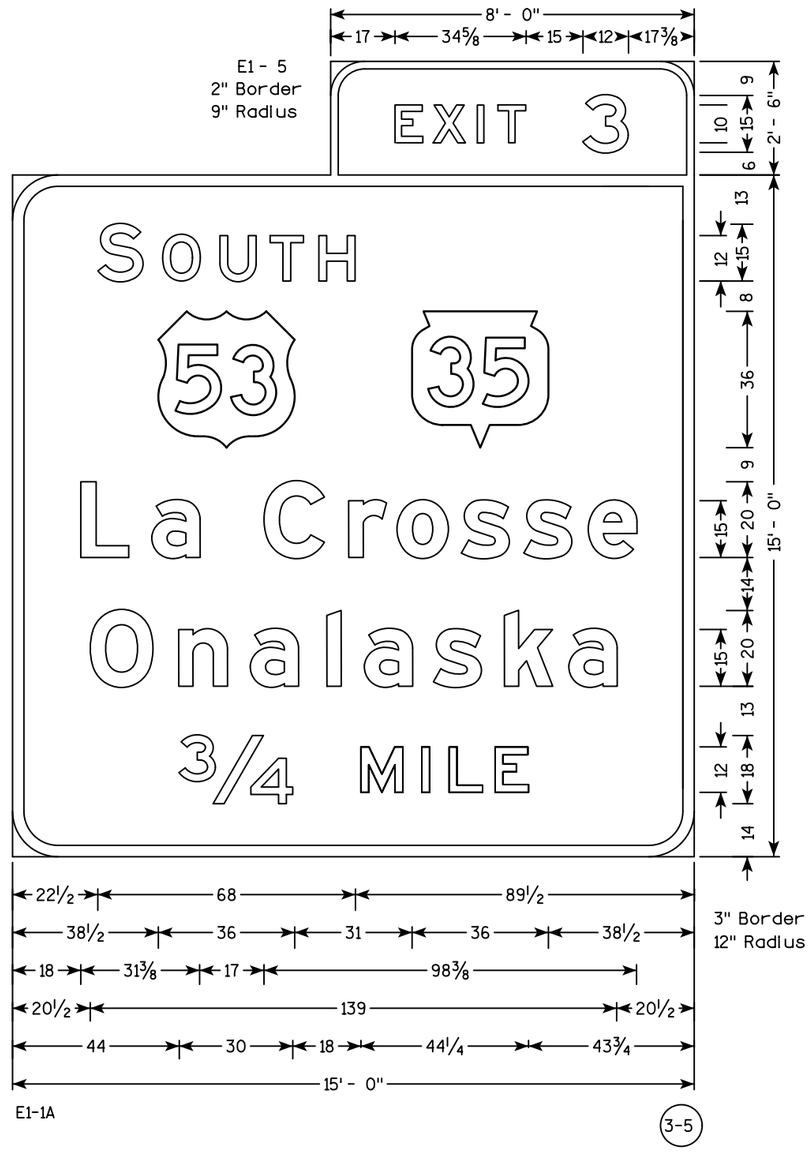
7

7

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	SIGNING DETAIL - TYPE I SIGNS	SHEET 460	E

NOTES

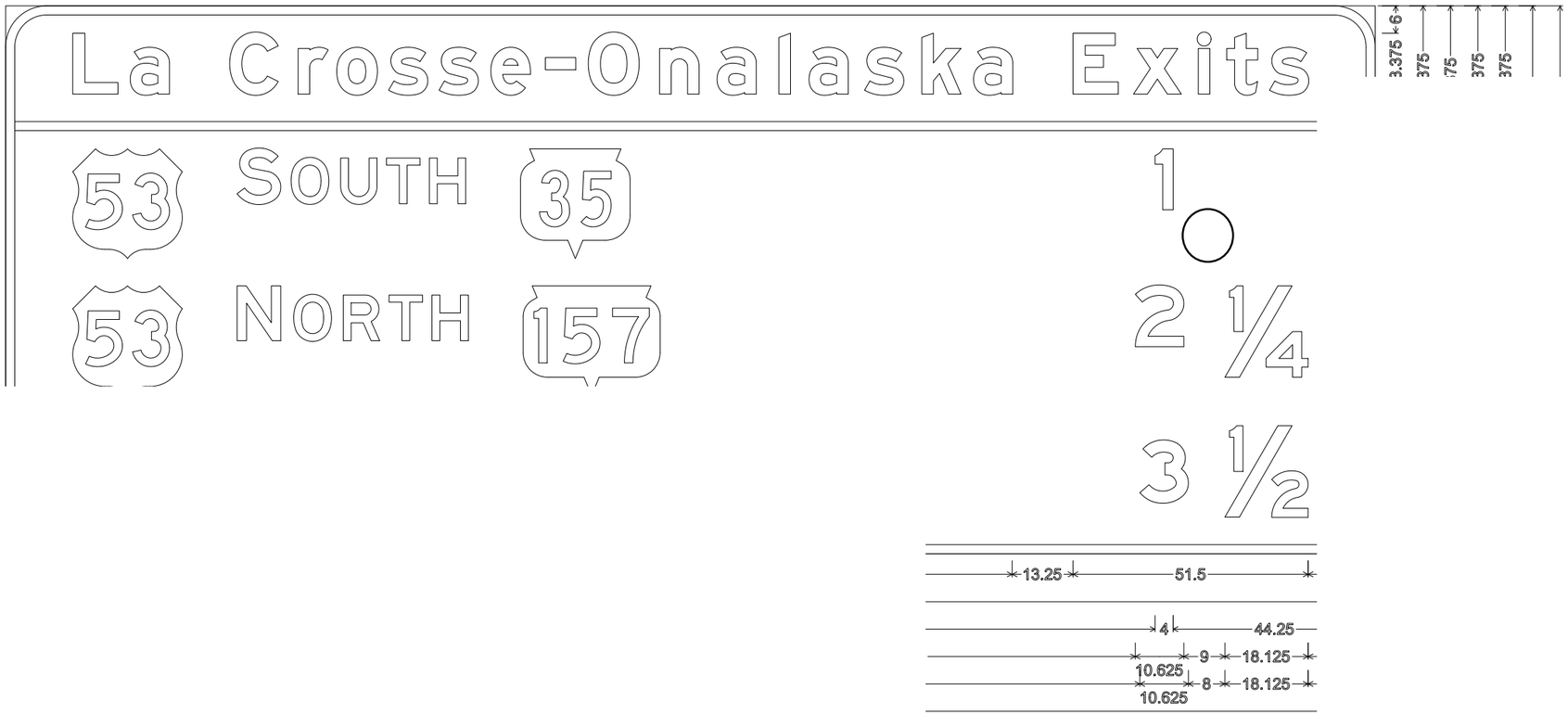
1. All Signs are Type 1- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green except as Shown
   Message - White
3. Message Series - E Modified except all CAP Words are Series E



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	SIGNING DETAIL - TYPE I SIGNS	SHEET 461	E

NOTES

1. Sign is Type I - Type SH Reflective
2. Color:
   Background - Green except as noted
   Message - White except as noted
3. Message Series - E Modified except as noted



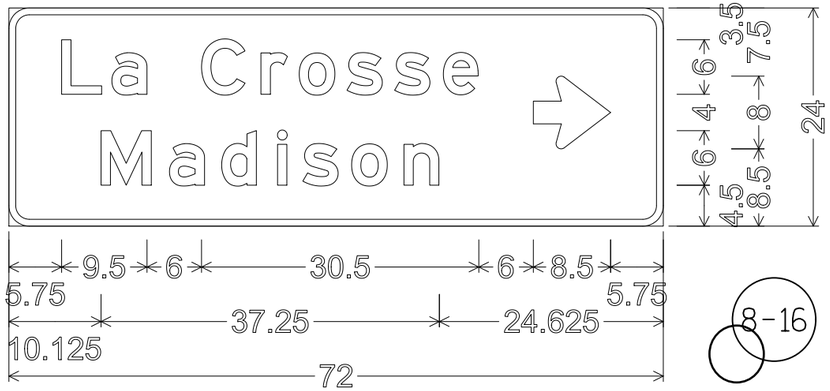
7

PROJECT NO:1071-08-81/79 | HWY:IH 90 | COUNTY:LA CROSSE | SIGNING DETAIL - TYPE

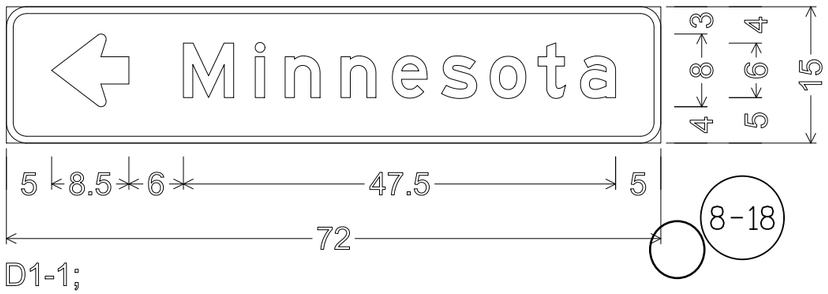
FILE NAME : ch_EB_070102a_sd.DGN PLOT DATE : 21-OCT-2015 PLOT BY : jpieroni PLOT NAME : PLOT SCALE : 40:1
WISDOT/CADDS SHEET 47

NOTES

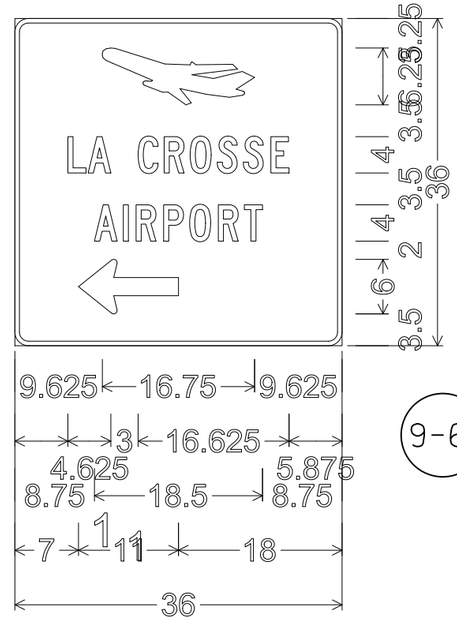
1. Sign Is Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E



D1-2;
2.250" Radius, 0.750" Border, White on Green;
"La" E; "Crosse" E; "Madison" E;
Standard Arrow Custom 8.500" X 8.000" 0°;



D1-1;
2.250" Radius, 0.750" Border, White on Green;
Standard Arrow Custom 8.500" X 8.000" 180°;
"Minnesota" E;



D9-52;
1.500" Radius, 0.500" Border
Airplane; "LA" C; "CROSSE" C;
"AIRPORT" C;

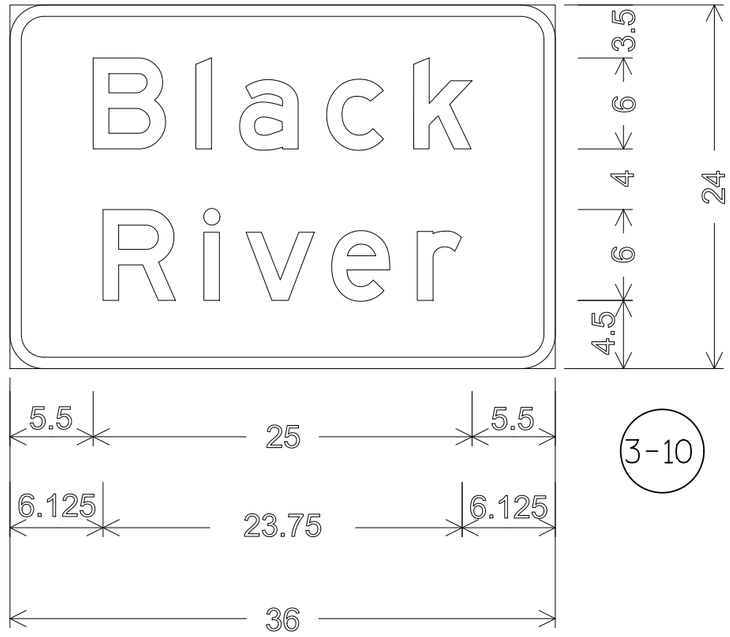
7

7

PROJECT NO: 1071-06-81/79	HWY: IH 90	COUNTY: LA CROSSE	SIGNING DETAIL - TYPE I SIGNS	SHEET 463	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E

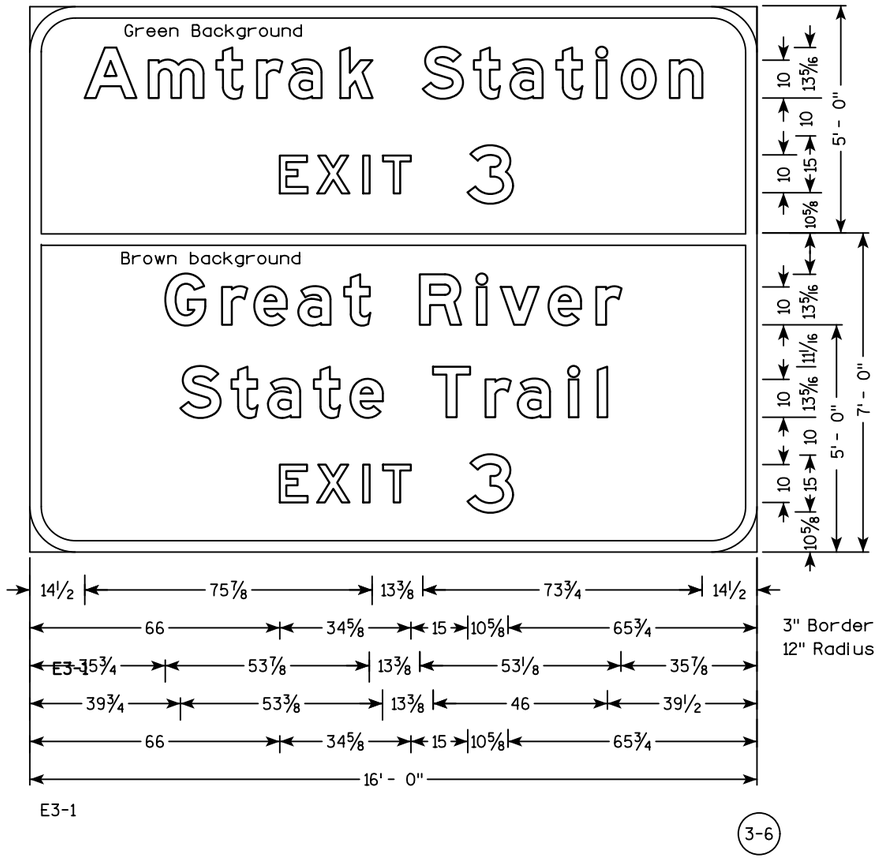


3-10

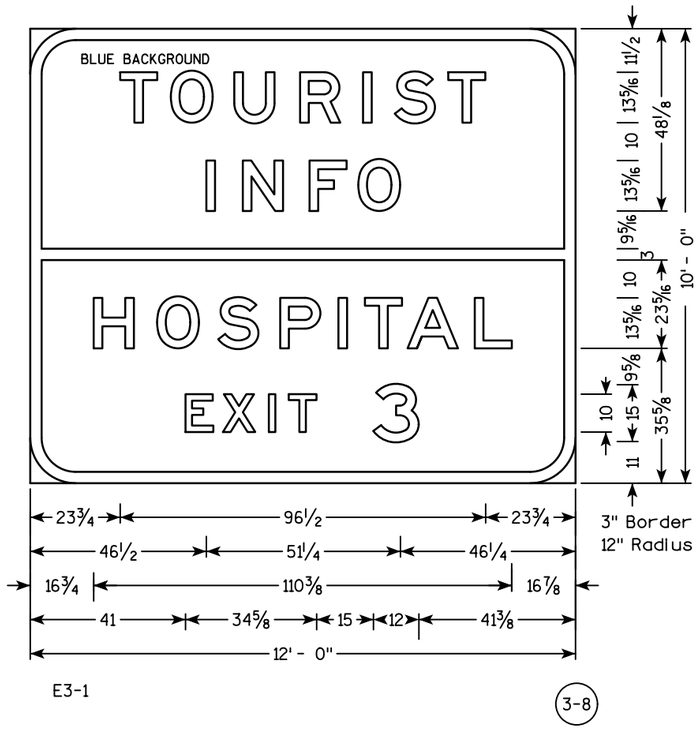
I3-1;
2.250" Radius, 0.750" Border, White on Green;
"Black" E; "River" E;

NOTES

1. All Signs are Type I- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green except as Shown
   Message - White
3. Message Series - E Modified except all CAP Words are Series E



FOR INFORMATION ONLY
(NEW SIGN 3-6 INSTALLED I.D. 1071-06-83, BY OTHERS)



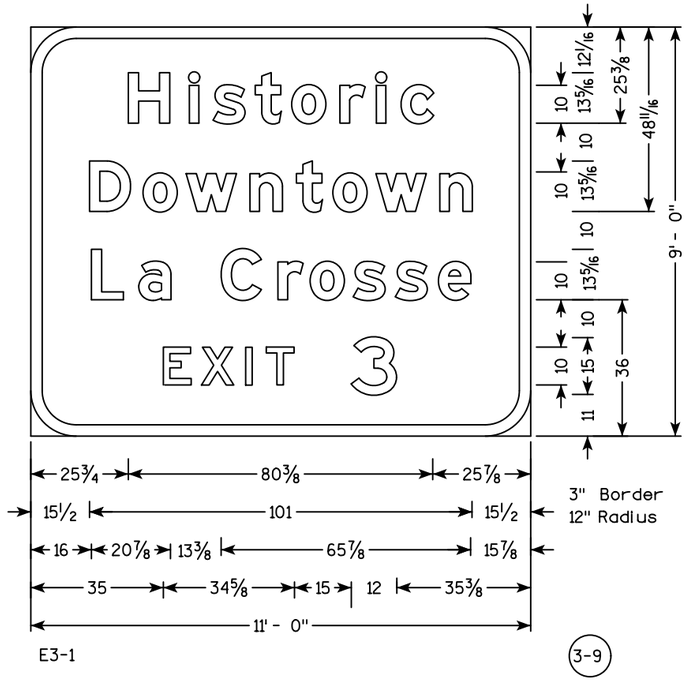
FOR INFORMATION ONLY
(NEW SIGN 3-8 INSTALLED I.D. 1071-06-83, BY OTHERS)

7

7

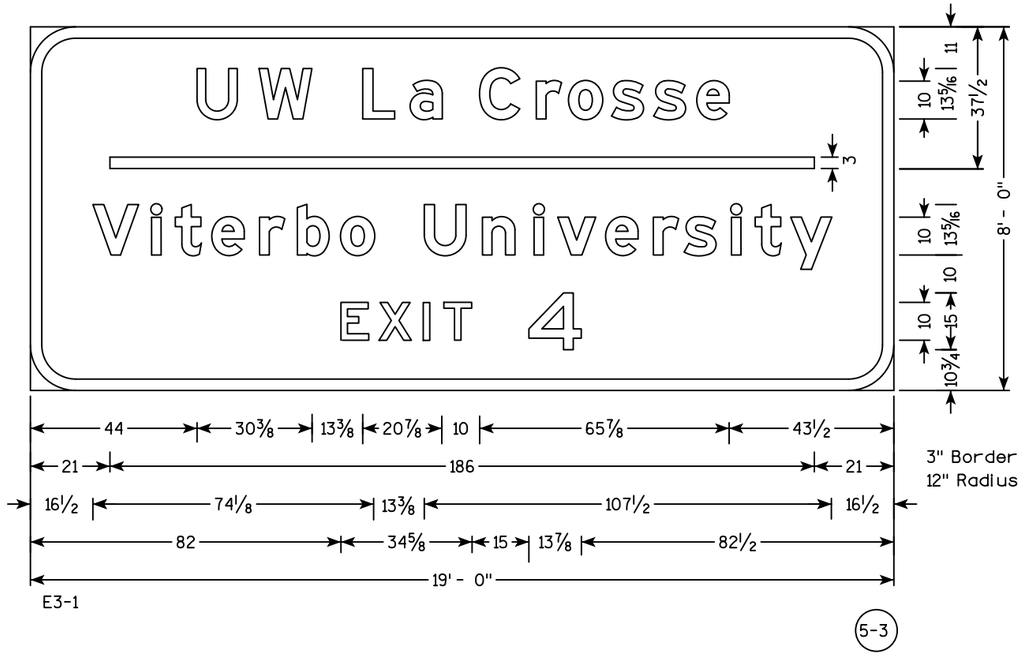
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	SIGNING DETAIL - TYPE I SIGNS	SHEET 465	E

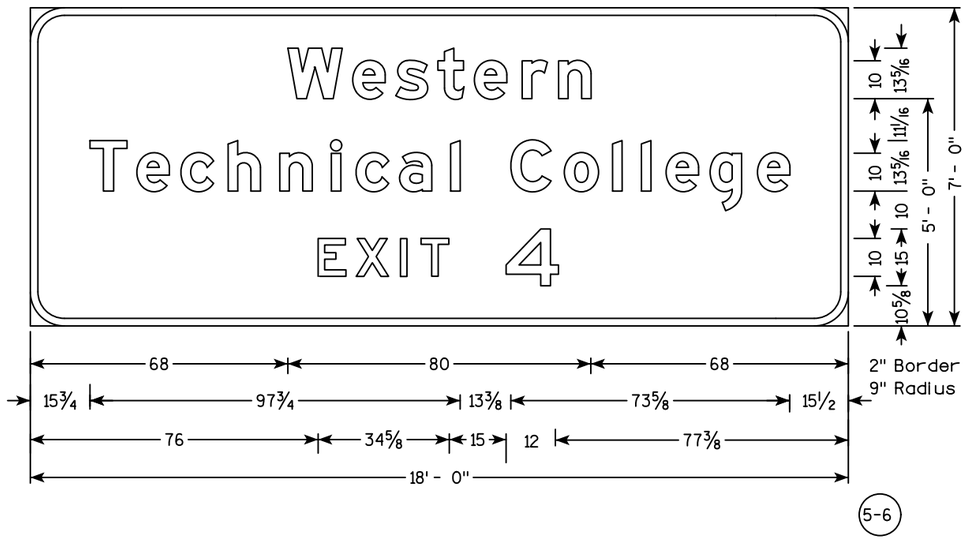
FOR INFORMATION ONLY
(NEW SIGN 3-9 INSTALLED
I.D. 1071-06-83, BY OTHERS)



NOTES

1. All Signs are Type I- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green except as Shown
   Message - White
3. Message Series - E Modified except all CAP Words are Series E

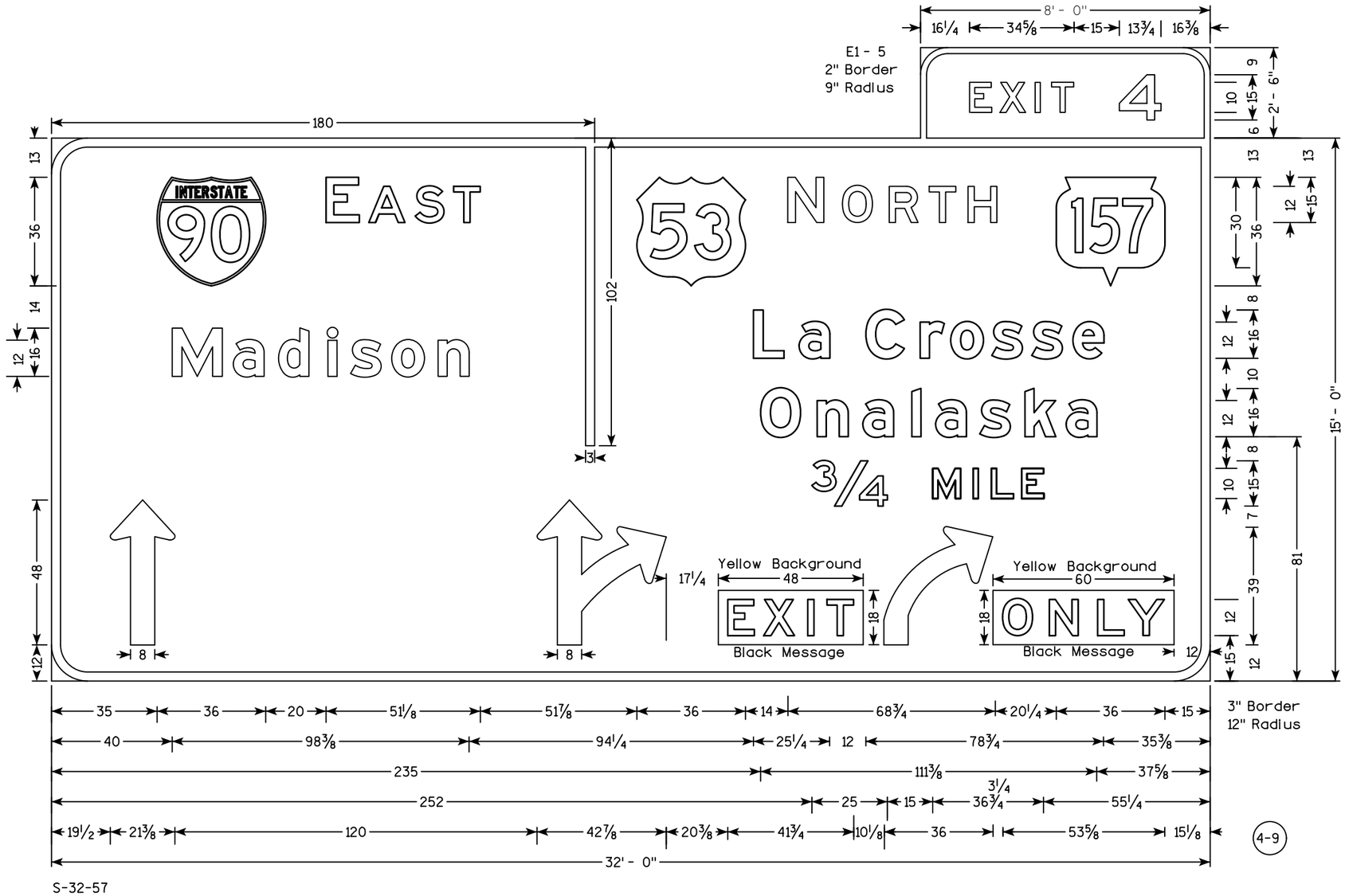




PROJECT NO: 1071-06-81/79	HWY: IH 90	COUNTY: LA CROSSE	SIGNING DETAIL - TYPE I SIGNS	SHEET 466	E

NOTES

1. All Signs are Type I- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green except see Note 4
   Message - White except see Note 4
3. Message Series - E Modified except all CAP Words are Series E
4. Exit Only Plaque is Type F Reflective Background with Black Message



7

7

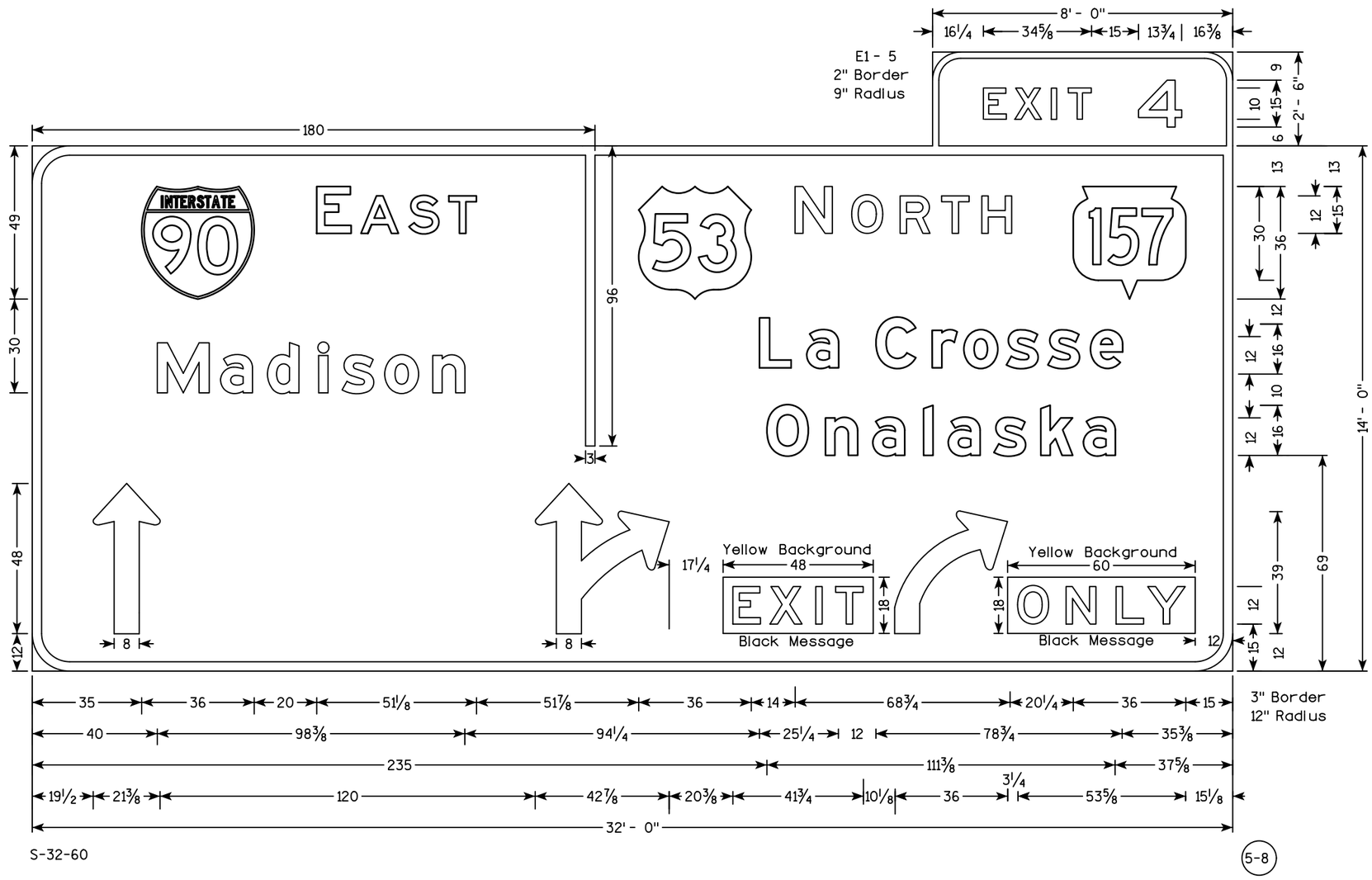
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	SIGNING DETAIL - TYPE I SIGNS	SHEET 467	E

FILE NAME : ch_EB_070106_sd.DGN PLOT DATE : 21-OCT-2015 PLOT BY : jpieroni PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 47

NOTES

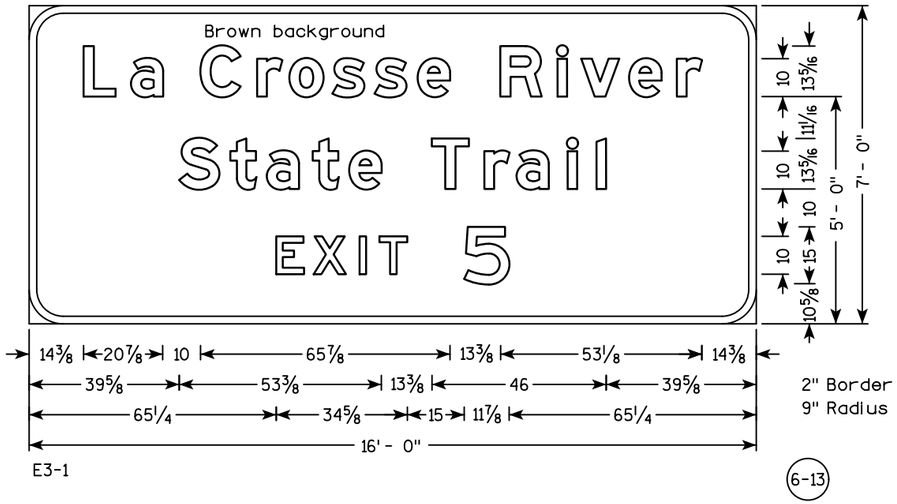
1. All Signs are Type I- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green except see Note 4
   Message - White except see Note 4
3. Message Series - E Modified except all CAP Words are Series E
4. Exit Only Plaque is Type F Reflective Background with Black Message



PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	SIGNING DETAIL - TYPE I SIGNS	SHEET 468	E

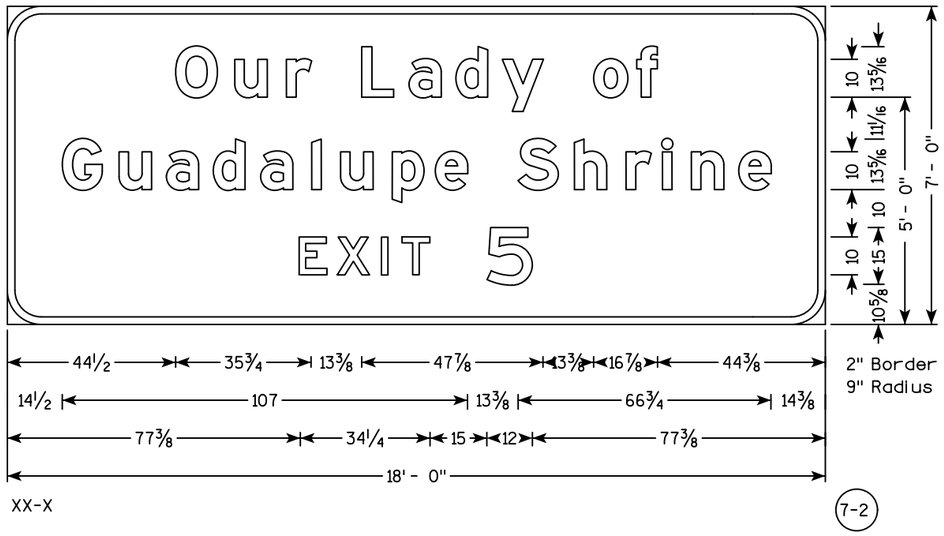
NOTES

1. All Signs are Type I- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green except as Shown
   Message - White
3. Message Series - E Modified except all CAP Words are Series E



E3-1

6-13



XX-X

7-2

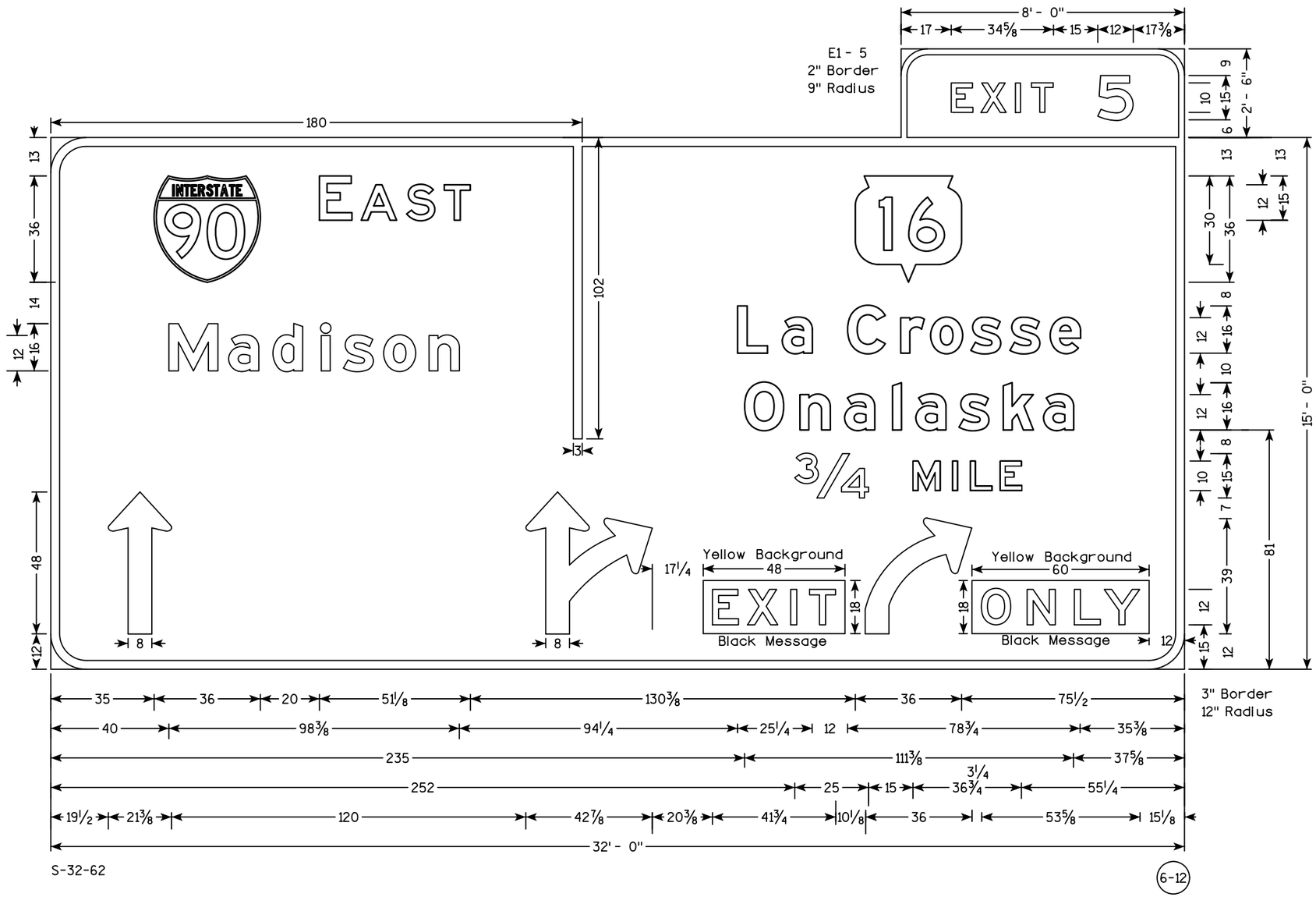
7

7

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	SIGNING DETAIL - TYPE I SIGNS	SHEET 469	E

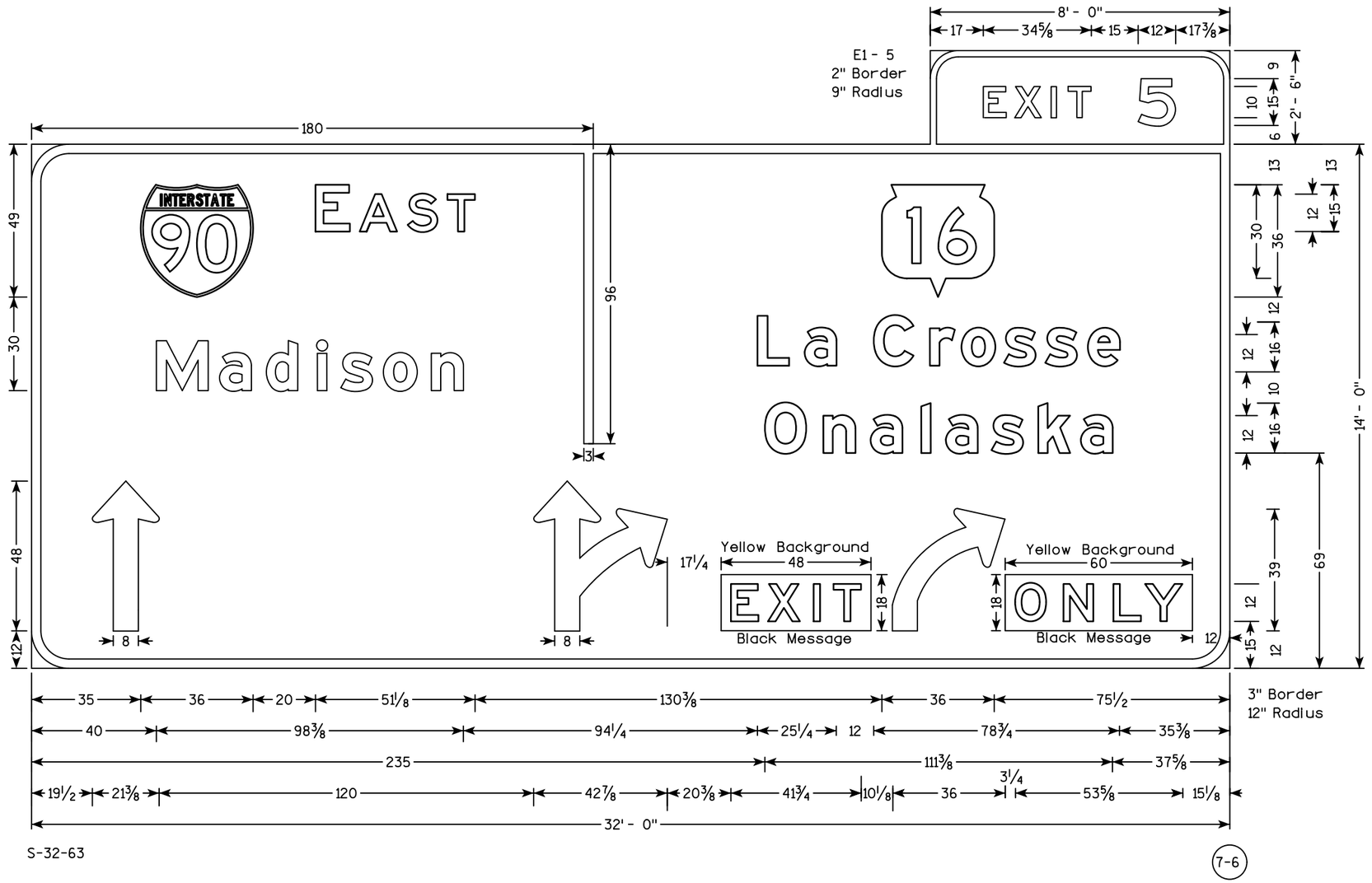
NOTES

1. All Signs are Type I- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green except see Note 4
   Message - White except see Note 4
3. Message Series - E Modified except all CAP Words are Series E
4. Exit Only Plaque is Type F Reflective Background with Black Message



NOTES

1. All Signs are Type I- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green except see Note 4
   Message - White except see Note 4
3. Message Series - E Modified except all CAP Words are Series E
4. Exit Only Plaque is Type F Reflective Background with Black Message



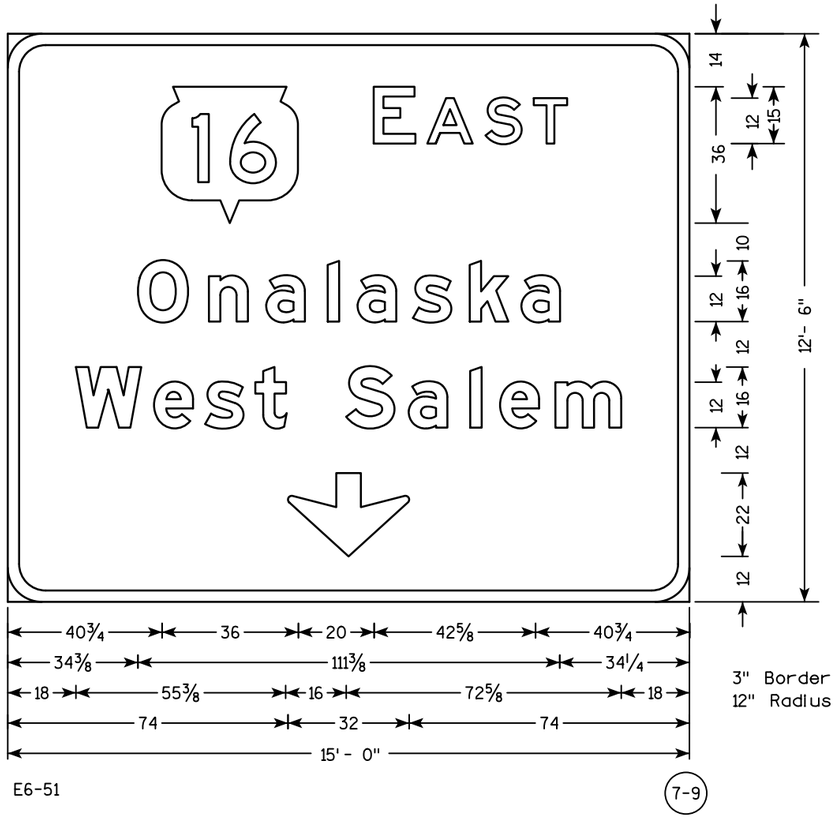
S-32-63

7-6

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	SIGNING DETAIL - TYPE I SIGNS	SHEET 471	E

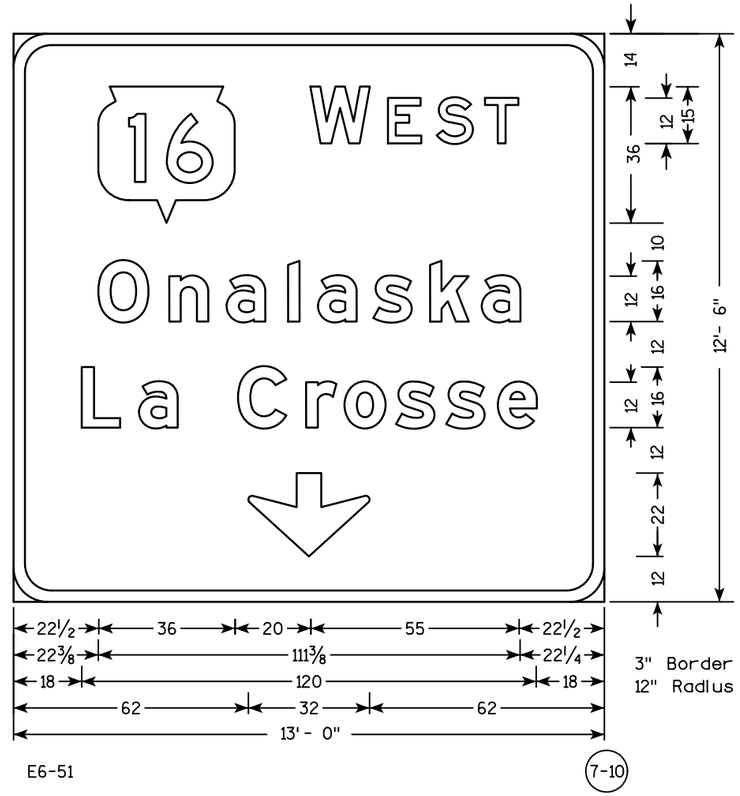
NOTES

1. All Signs are Type I- Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green except as Shown
   Message - White
3. Message Series - E Modified except all CAP Words are Series E



E6-51

7-9



E6-51

7-10

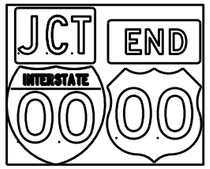
7

7

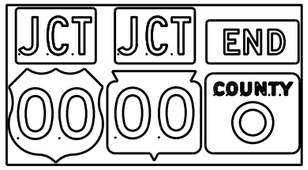
TYPICAL ASSEMBLIES



J1-1



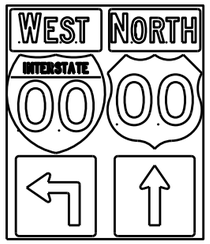
J1-2



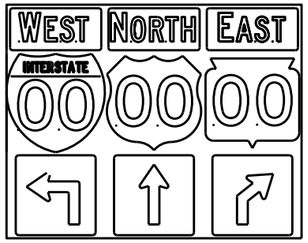
J1-3



J2-1



J2-2

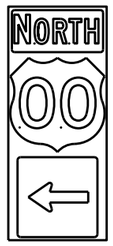


J2-3

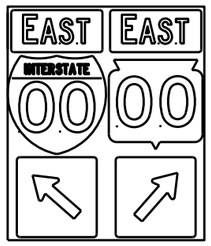


JV

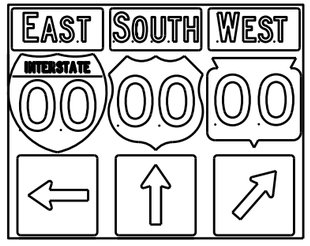
(Typical Vertical J-Assembly
See Note 10 and 11)



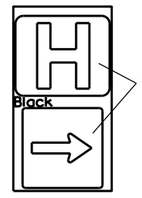
J3-1



J3-2



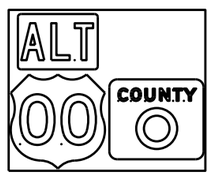
J3-3



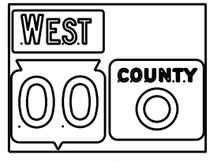
JH-1



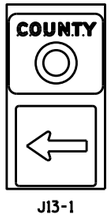
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

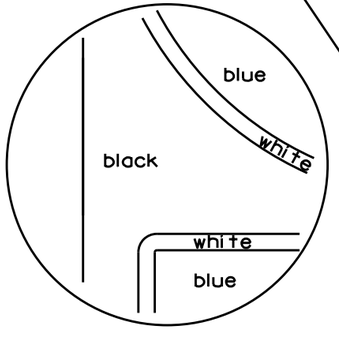


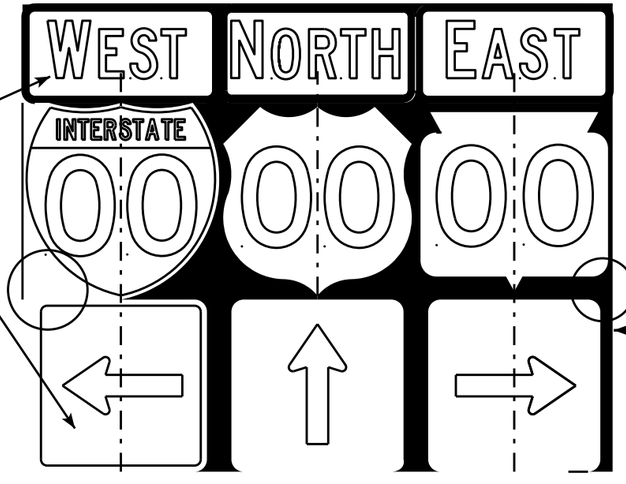
J23-1

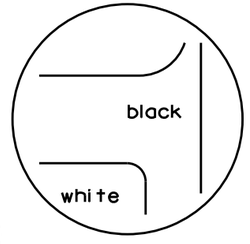


J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

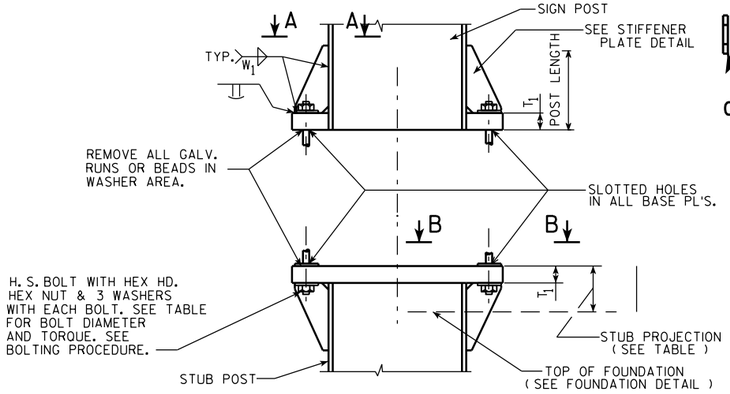
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

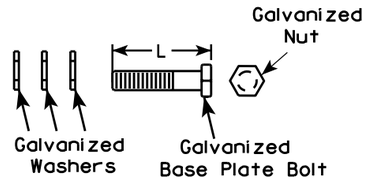
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42

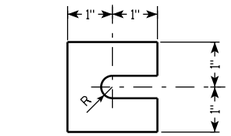


SIGN POST AND STUB POST ELEVATION



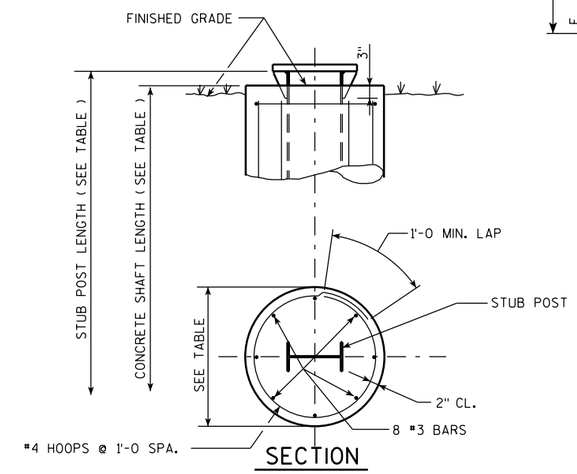
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)

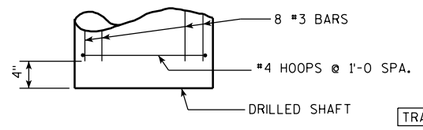


FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

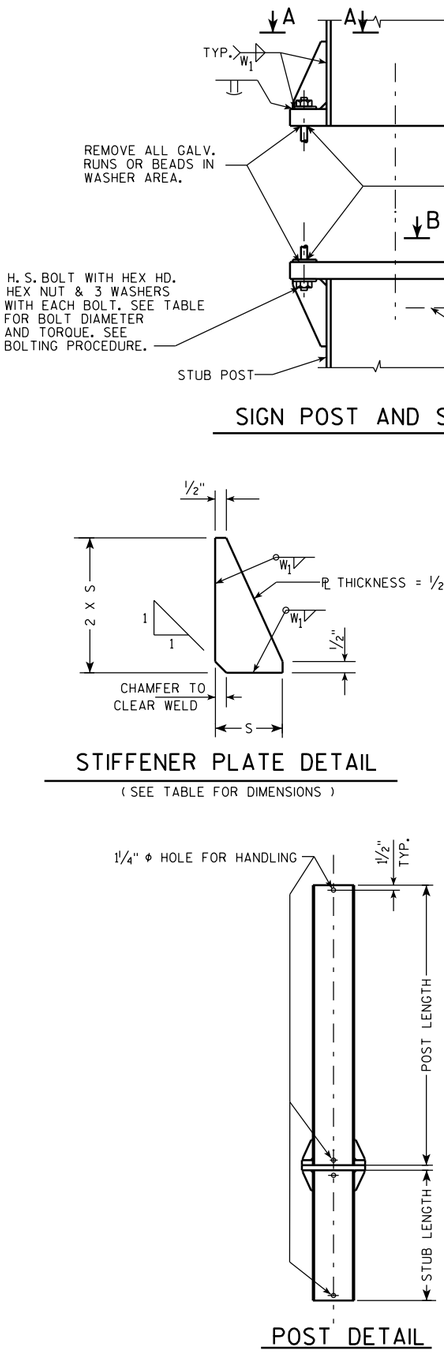
SHIM DETAIL



SECTION



FOUNDATION DETAIL



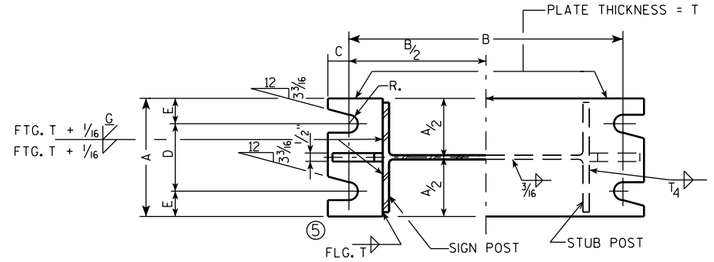
POST DETAIL

	QUANTITIES FOR 1 FOOTING	
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
E	1.0	62

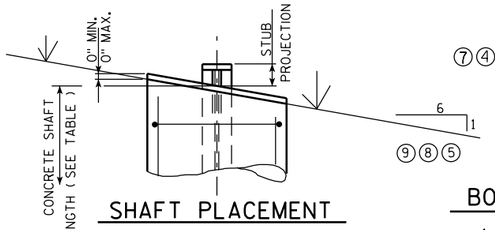
⑦

REINF.	TYPE	#3	#4
	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
	E	8 @ 7'-11	9 @ 6'-3

⑦



SECTION A-A SECTION B-B



SHAFT PLACEMENT

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS	
1. DEAD	100	
2. DEAD & WIND	140	
3. DEAD, ICE & ½ WIND[4]	140	[4]25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

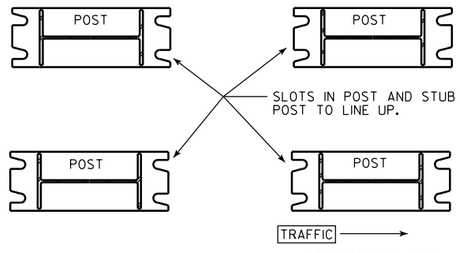
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50.
⑨ THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
H.S. BOLTS, WASHERS & NUTS SHALL BE A325 GALVANIZED WHEN POSTS, POST STUBS AND ATTACHMENTS ARE A709 GRADE 50 AND GALVANIZED.

BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
5. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.



POST SLOT ORIENTATION ⑦

L	X	TYPE	DIMENSION / POST SIZE	BASE CONNECTION DATA TABLE: BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	FOUNDATION DATA: STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	② K
3 ¾	④	A	W10"X12.0 #/FT.	¾" Φ @ 75#-FT.	5¼"	1'-0⅜	⅞"	3½"	⅞"	1"	3/16"	5/16"	13/32"	2⅛"	3'-6	3"	2'-0 Φ	5'-0	76.0# ④
4 ¾	④	B	W12"X16.0 #/FT.	⅞" Φ @ 85#-FT.	5½"	1'-4¼	1"	3½"	1"	1¼"	¼"	5/16"	15/32"	3"	5'-6	3"	2'-0 Φ	7'-0	146.5# ④
5		C	W12"X19.0 #/FT.	⅞" Φ @ 85#-FT.	5½"	1'-4¼	1"	3½"	1"	1½"	5/16"	5/16"	15/32"	3"	6'-0	3"	2'-0 Φ	7'-6	182.1#
5		D	W12"X22.0 #/FT.	⅞" Φ @ 85#-FT.	5½"	1'-4¼	1"	3½"	1"	1½"	⅜"	5/16"	15/32"	3"	6'-6	3"	2'-0 Φ	8'-0	210.5#
5	③	E	W12"X26.0 #/FT.	1" Φ @ 90#-FT.	7"	1'-4¼	1¼"	4"	1½"	1½"	⅜"	5/16"	11/32"	3"	7'-0	3"	2'-0 Φ	8'-6	293.0# ③

① ⑥ ①

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/30/14 PLATE NO. A3-1.15

⑩	1-21-14	LUBRICATION OF BASE BOLTS
⑨	4-26-11	REMOVE NON-GALVANIZED
⑧	10-30-96	NOT GALVANIZED/GALVANIZED
⑦	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
⑥	8-24-87	BASE CONN. WELD
⑤	10-13-81	BASE CONN. WELD & FUSE PL WASHERS
④	10-19-79	POST A & B, A572 GR. 50, & K
②	11-28-78	"K" ③ 4-23-79 TYPE "E"
①	5-4-78	T_1 , T_2 & W_1
NO.	DATE	REVISION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

CONST. SPEC. 2011	DRAWN BY JPH	PLANS CK'D.

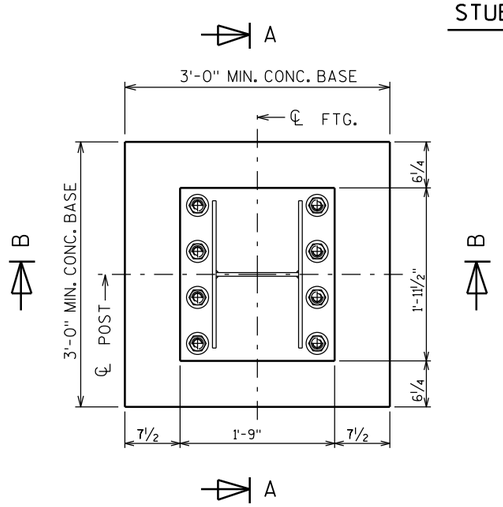
FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS SHEET 474

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

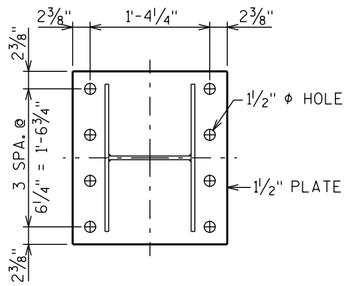
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WISDOT/CADDS SHEET 42

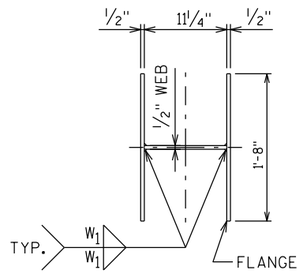
STUB AND MASONRY ANCHOR DETAILS



STUB SECTION



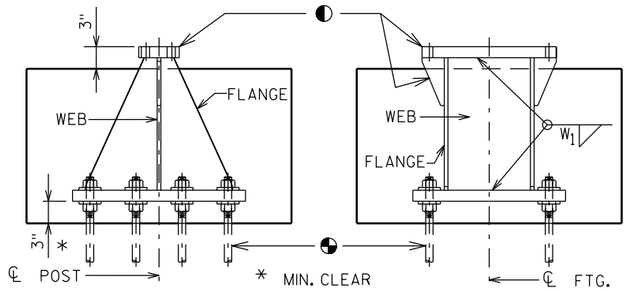
BASE PLATE



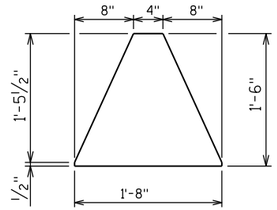
STUB

◐ SEE PLATE NO. A3-1 FOR DETAILS

◒ MASONRY ANCHORS TYPE S 1¼-INCHES (ADHESIVE). ALLOWABLE PULL OUT CAPACITY 14,995 KIPS. EMBED 1'-3" IN ROCK.



SECTION A SECTION B



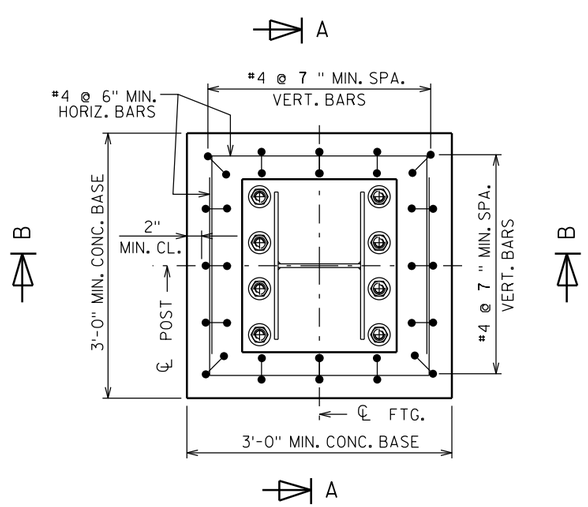
FLANGE

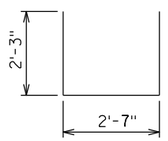
GENERAL NOTES

1. Quantities per Base:
   - REINFORCING BAR STEEL = 62 LBS
   - CONCRETE = 0.6 C.Y.
   - STEEL WEIGHT = 335 LBS
2. All materials, except anchor rod, nuts and washers, are to be A.S.T.M. A709 grade 50. All materials to be galvanized after fabrication.
3. If the contractor encounters rock before reaching the footing depth, per the A3-1 Sign Detail, determine the pull-out capacity of a test adhesive anchor installed in the rock. If the test result equals or exceeds the pull-out capacity of 14,995 KIPS, the contractor may install the breakaway stub for rock, according to this detail.

CONCRETE BASE AND REINFORCING STEEL DETAILS

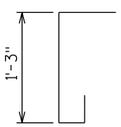
CONCRETE BASE SECTION





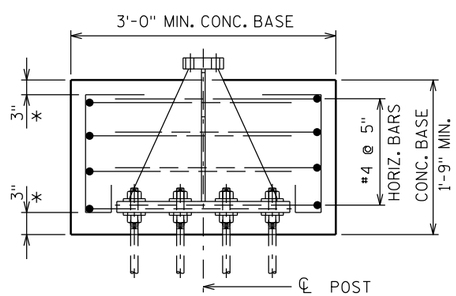
HORIZONTAL BAR

8 BARS @ 6'-11" LENGTH



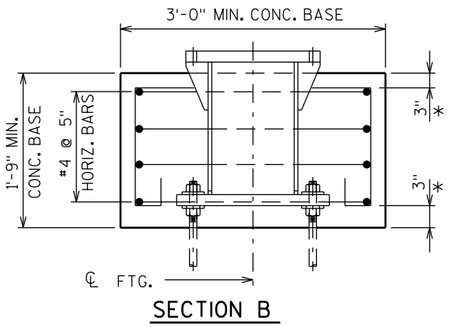
VERTICAL BARS

16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A

* MIN. CLEAR



SECTION B

ALTERNATE BREAK-AWAY BASE ON ROCK
A3-1M

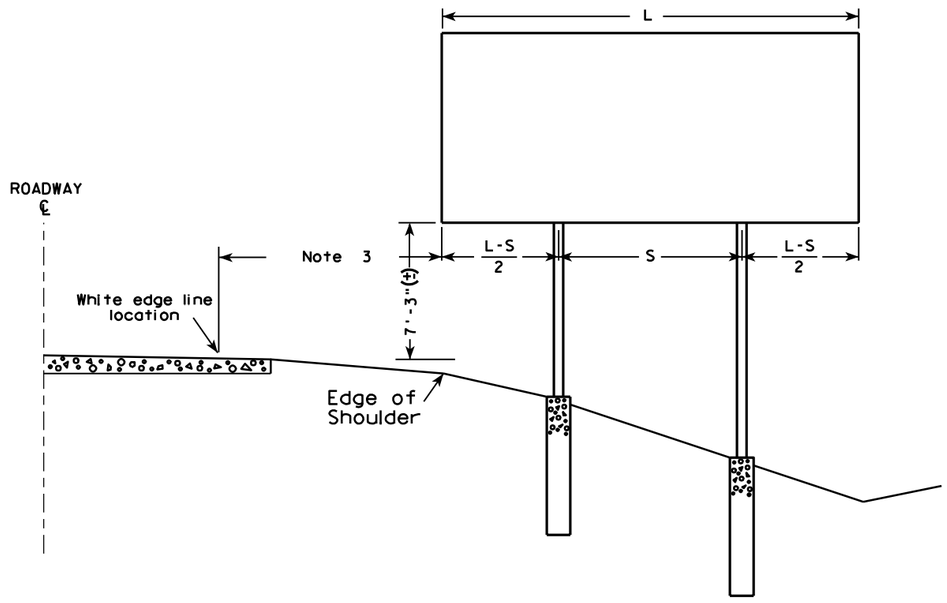
WISCONSIN DEPT OF TRANSPORTATION

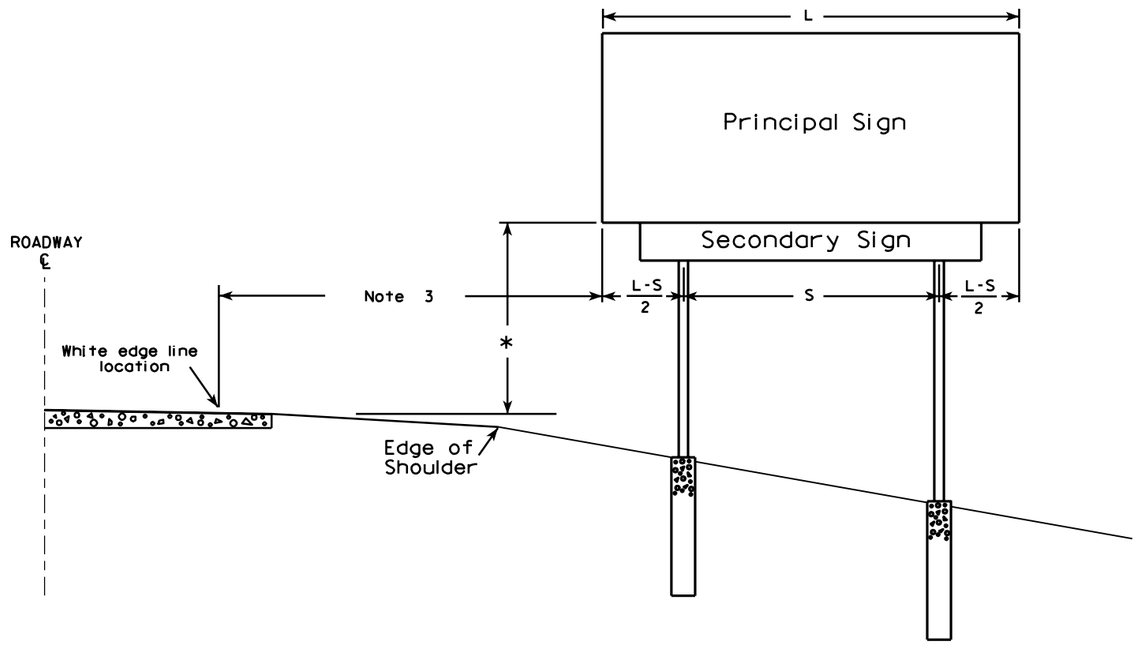
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 2/06/2014 PLATE A3-1M.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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WISDOT/CADDS SHEET 42





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

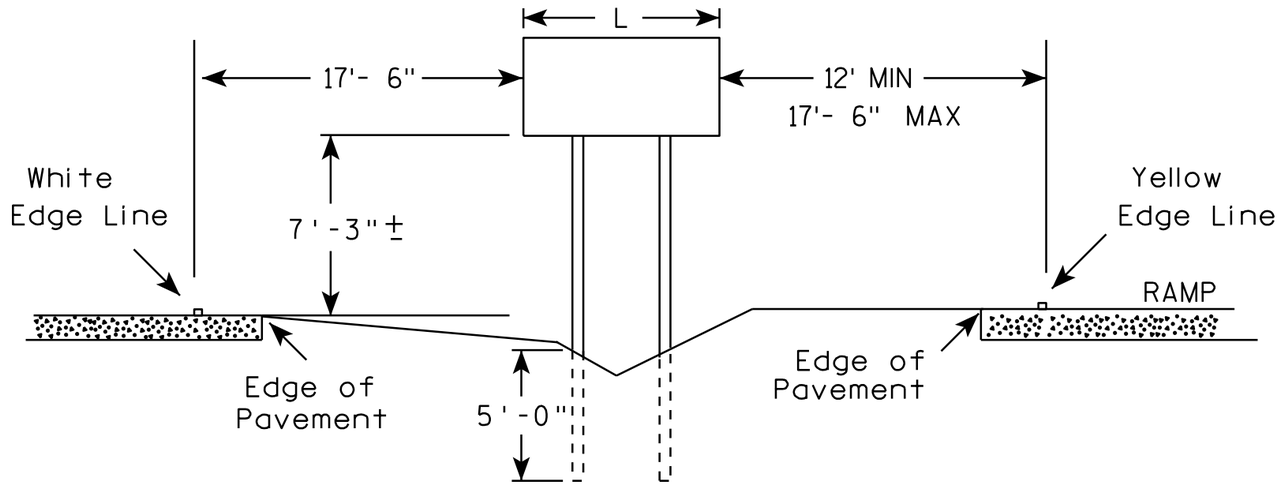
TYPICAL INSTALLATION
OF TYPE I SIGNS

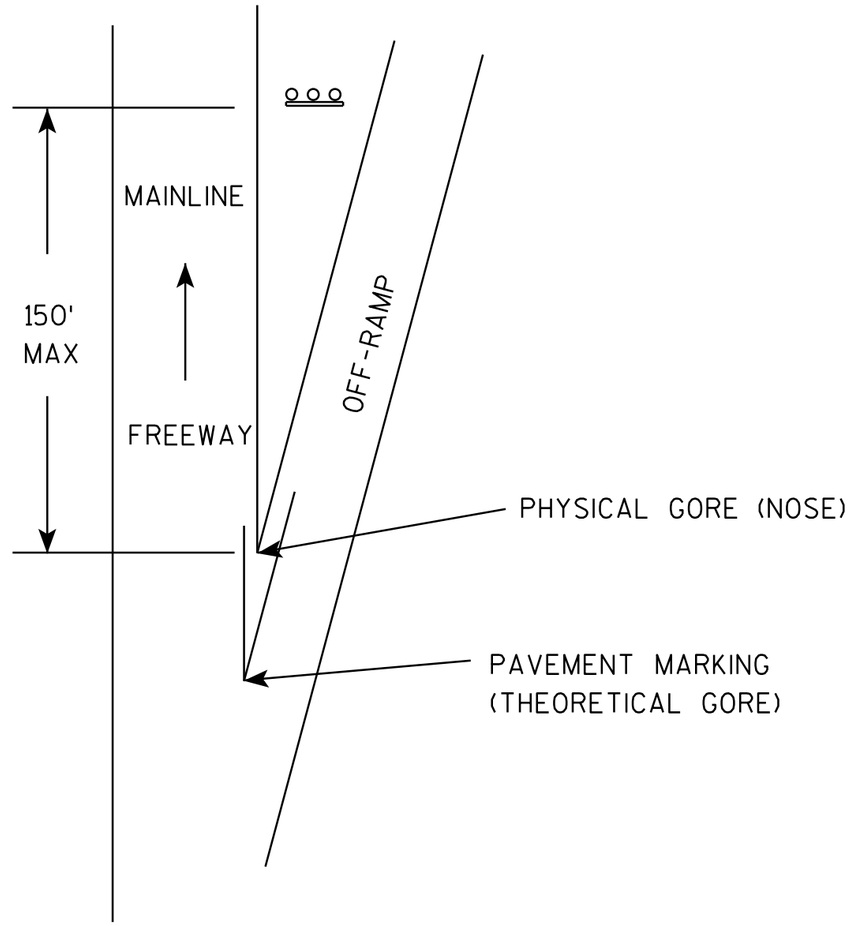
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:				SHEET NO: 476	E





GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 10 feet, use 3 posts as per A4-4.
6. The (∓) tolerance for the mounting height is 3 inches.

7

7

TYPICAL INSTALLATION
OF TYPE II SIGNS ON
WOOD POSTS IN GORE

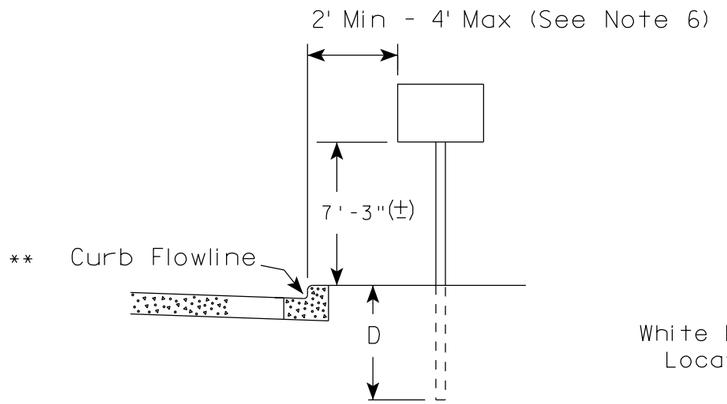
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

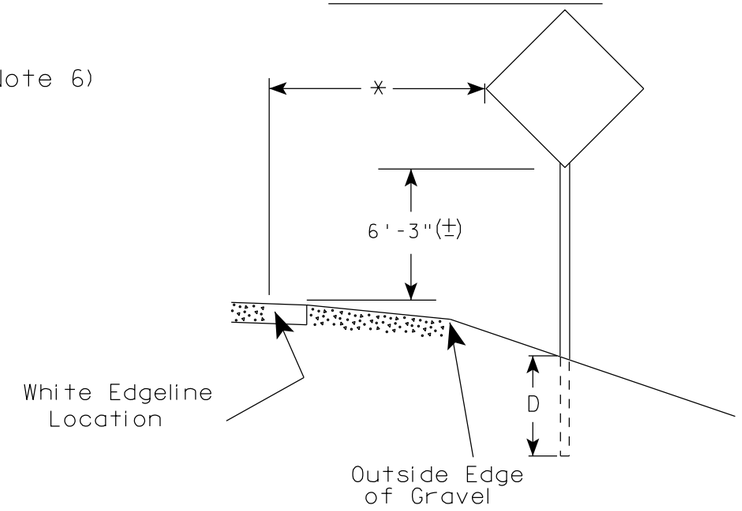
DATE 2/06/14 PLA 477 A4-2.3

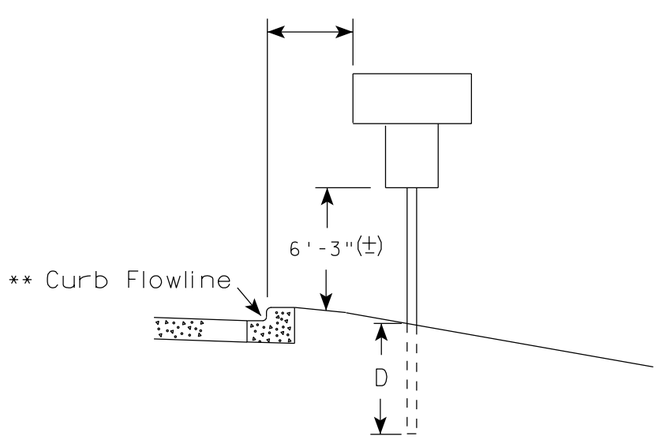
PROJECT NO: | SHEET NO: E

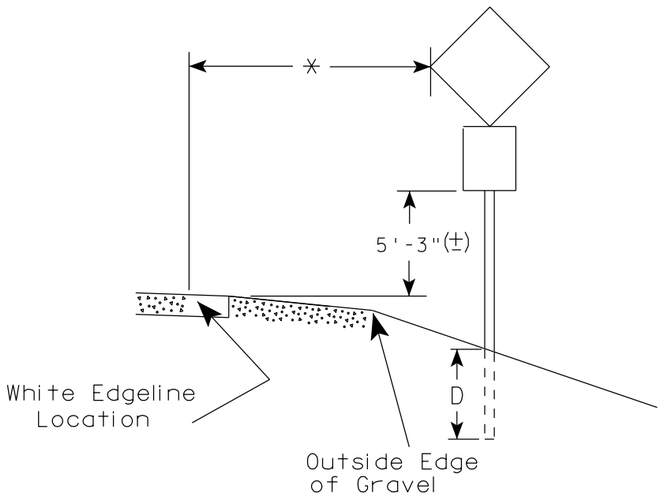
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

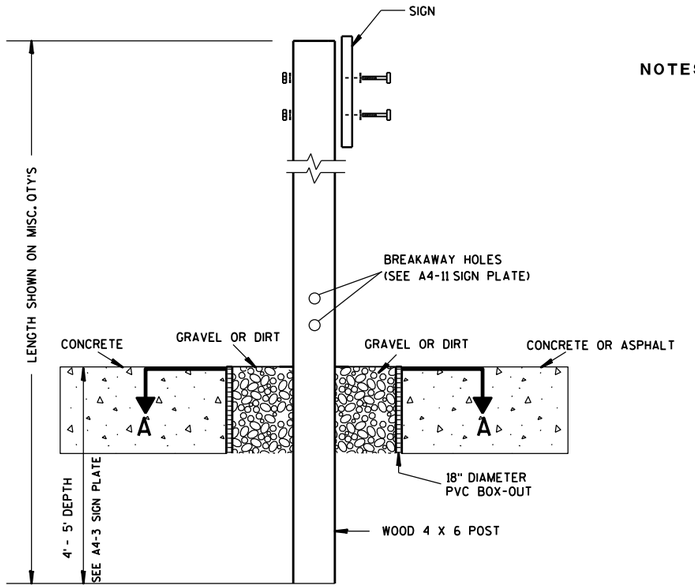
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

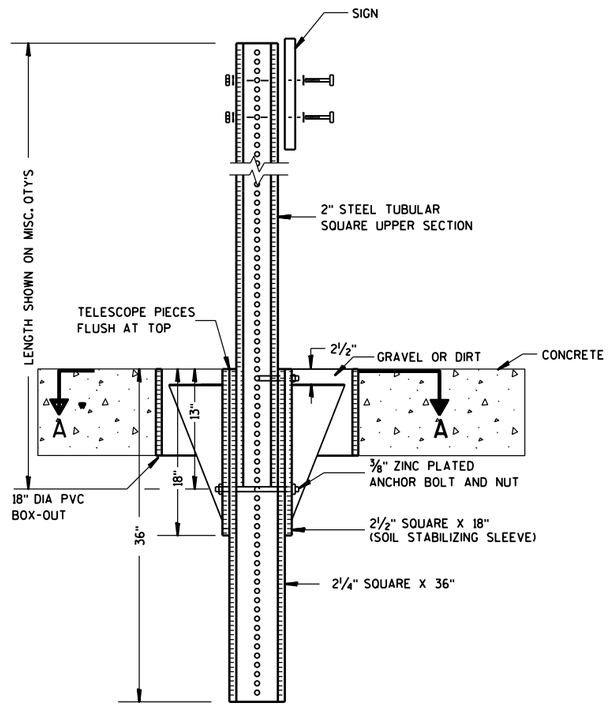
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

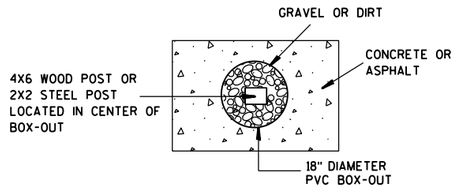
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

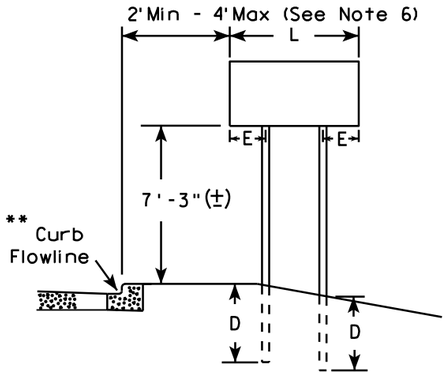
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

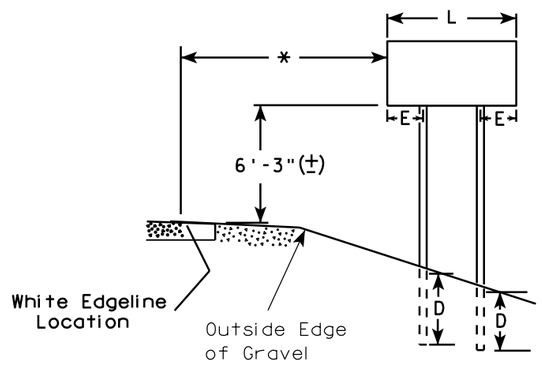
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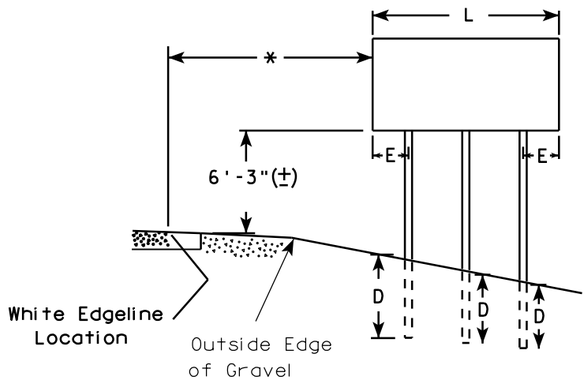
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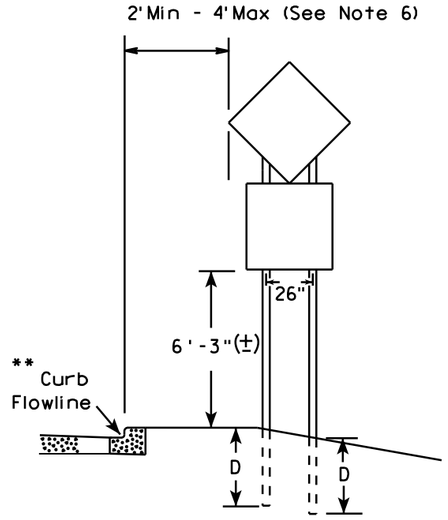
URBAN AREA



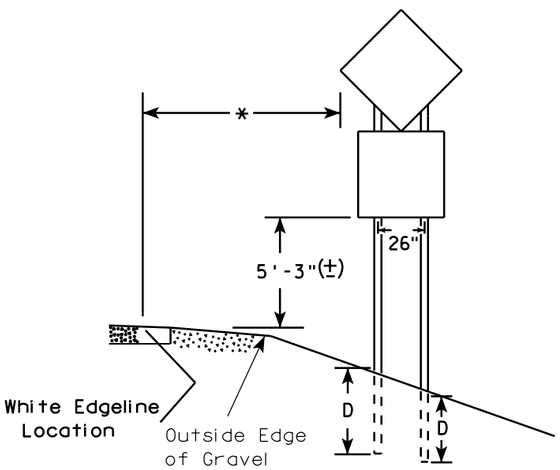
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

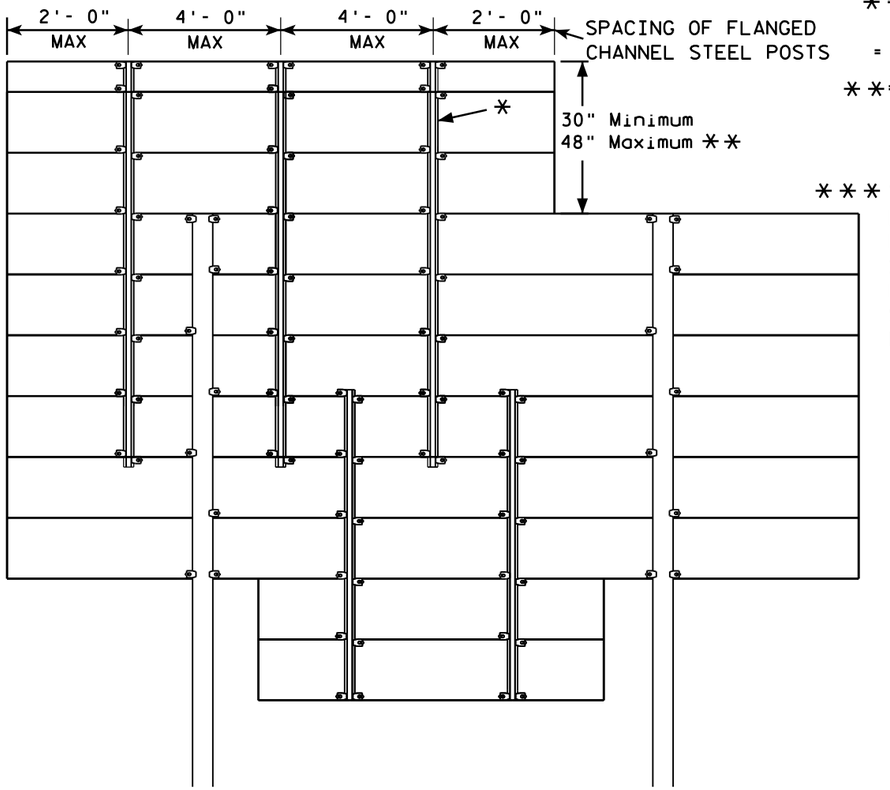
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 480 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

GROUND MOUNTED SIGN

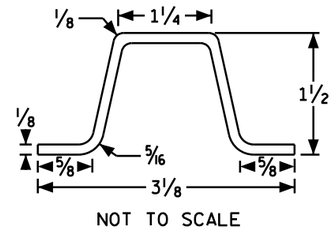


*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

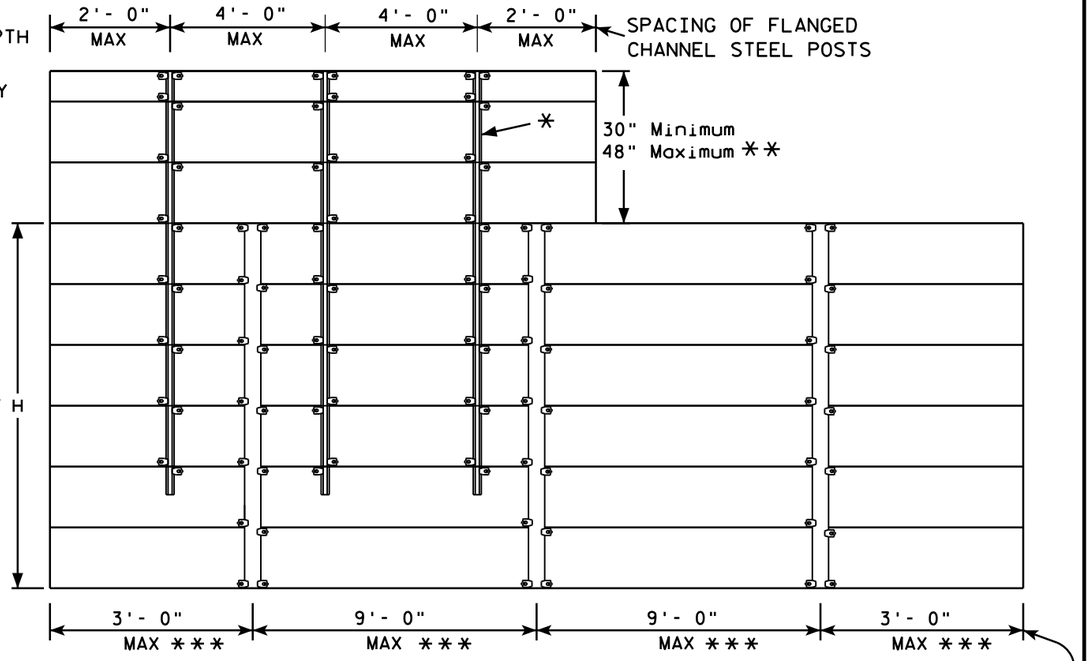
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



SPACING OF ALUMINUM SIGN SUPPORTS
5" X 3.5" X 3.7 LBS./ft.

GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

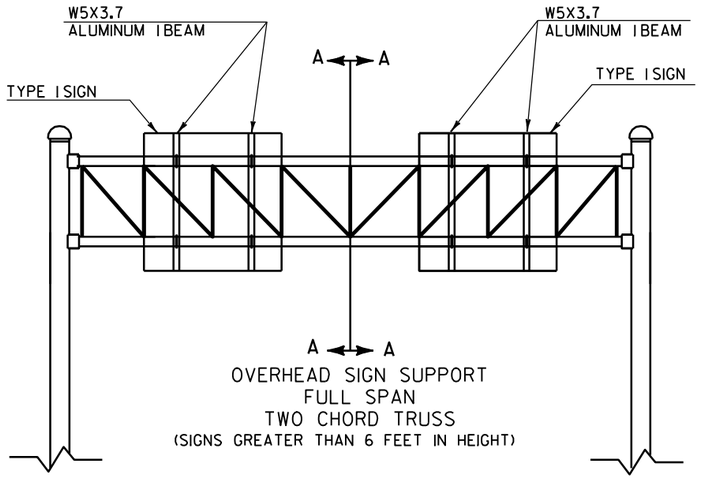
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

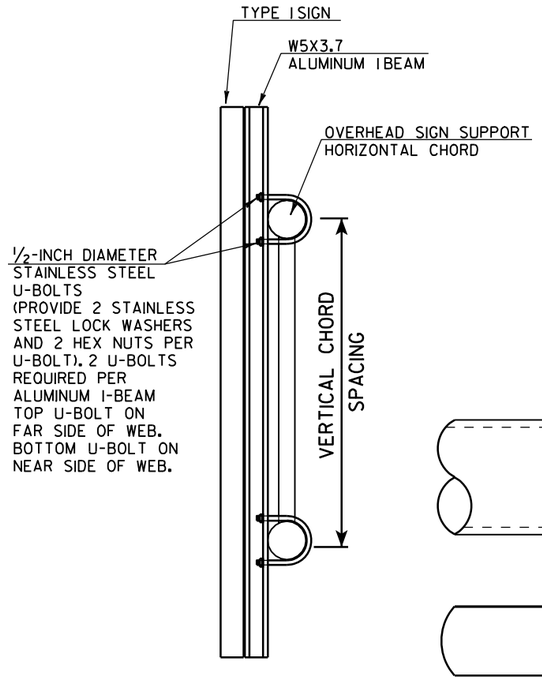
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 481 A4-6.12

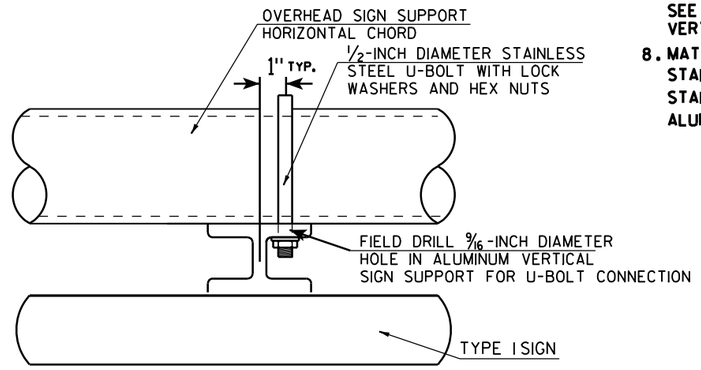
PROJECT NO:				SHEET NO:	E



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



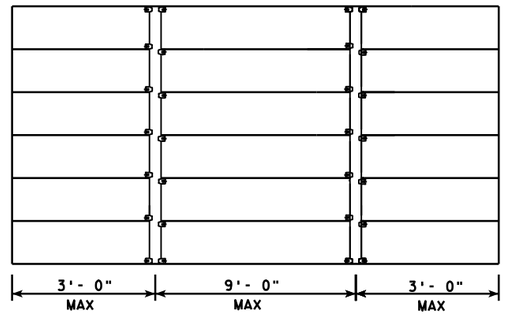
CUT SECTION A-A



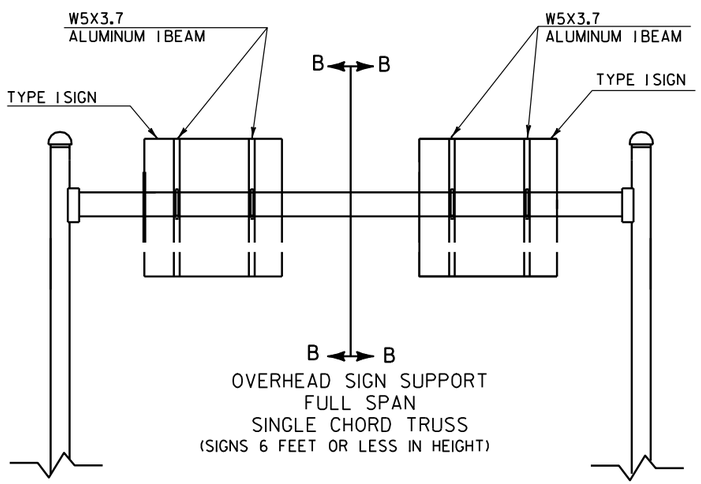
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

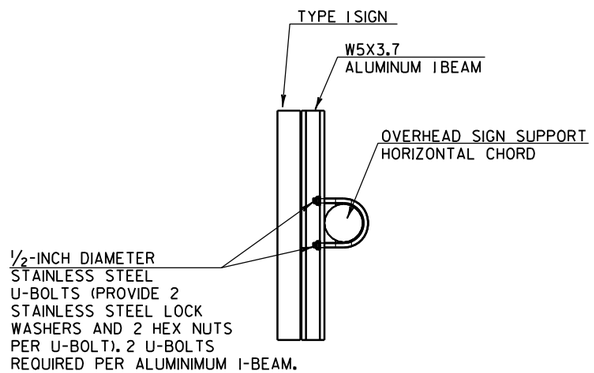
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.



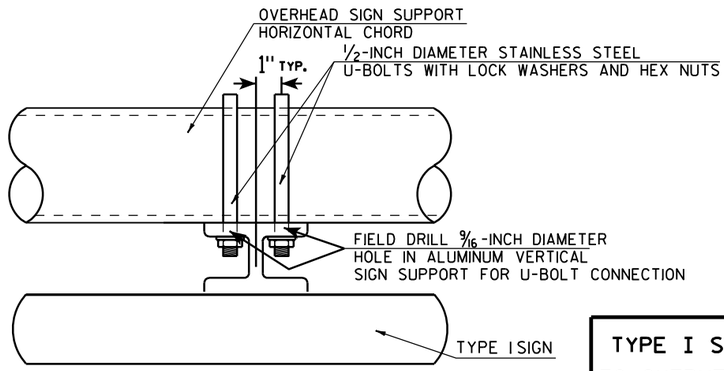
SPACING OF W5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

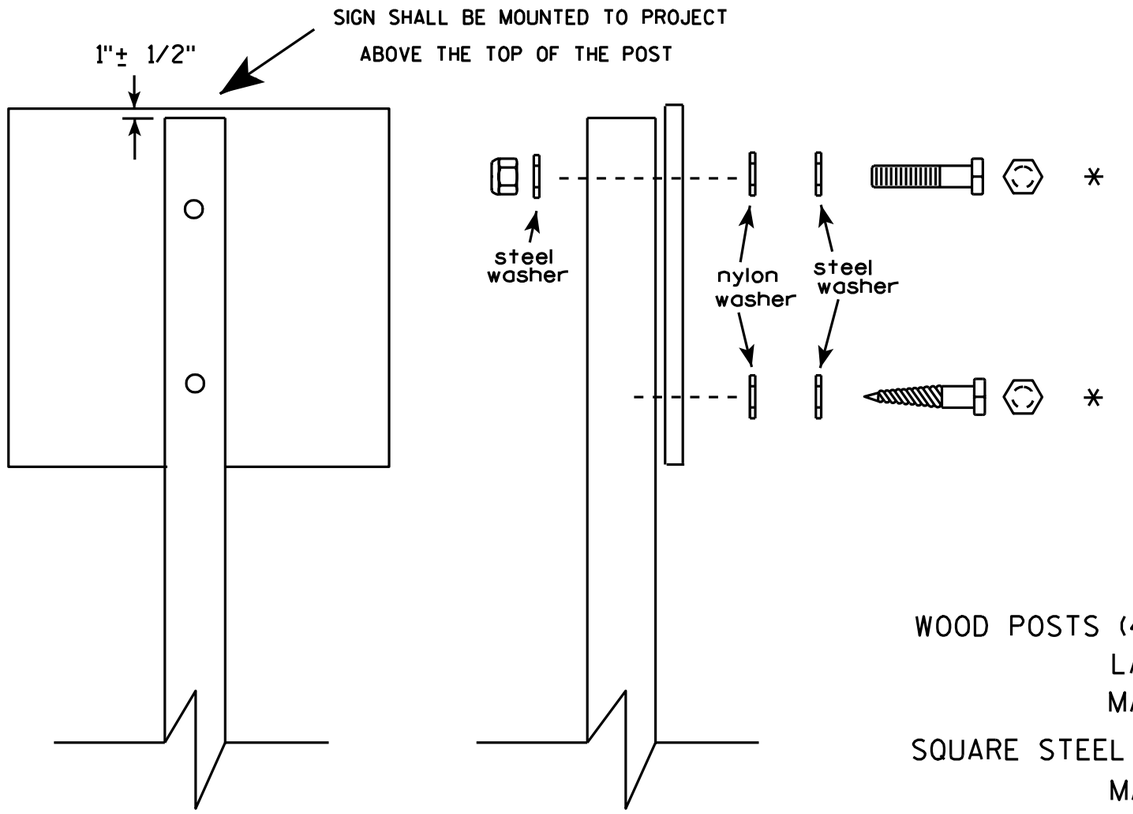
TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/12/12 PLATE NO. A4-7.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 482	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

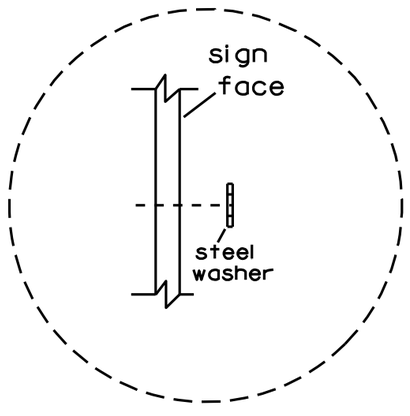
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

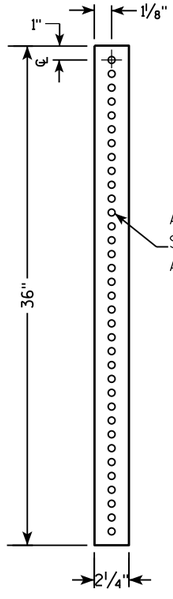
7

PROJECT NO:

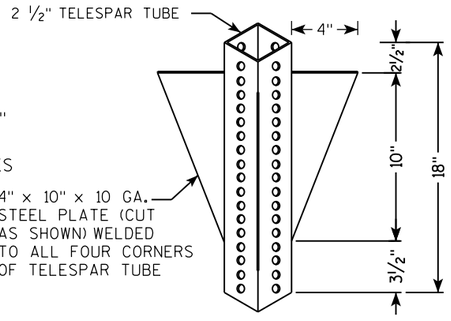
SHEET NO: 483 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

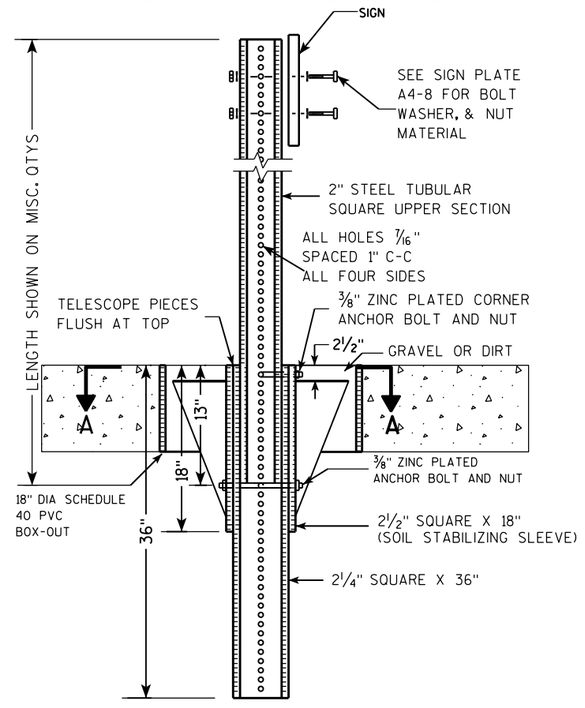
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



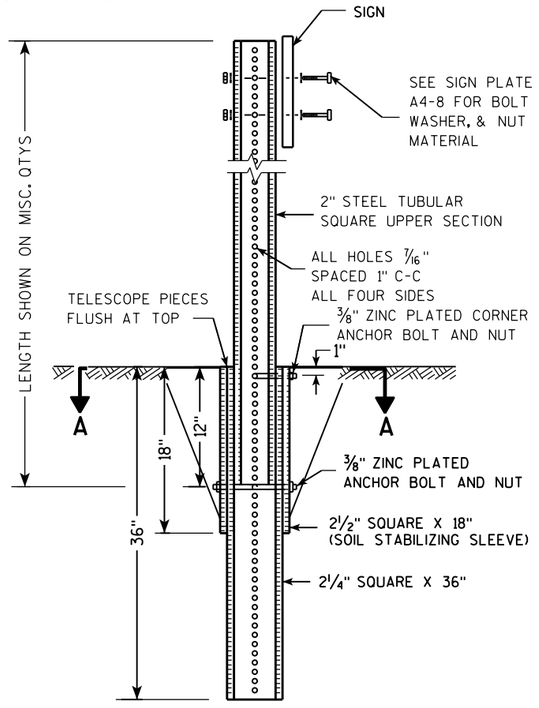
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

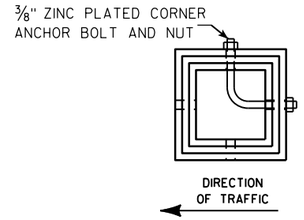


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

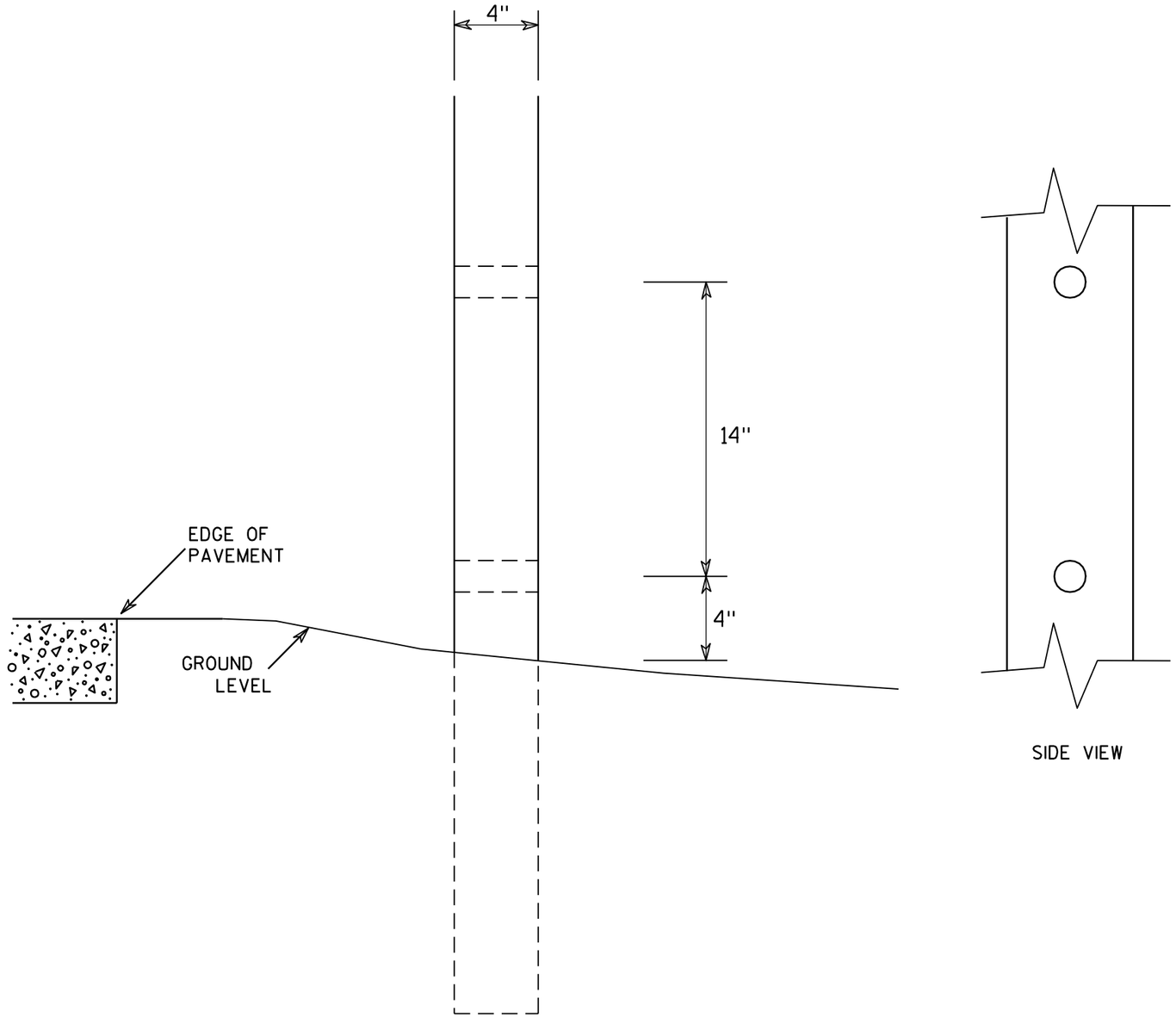
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 484 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

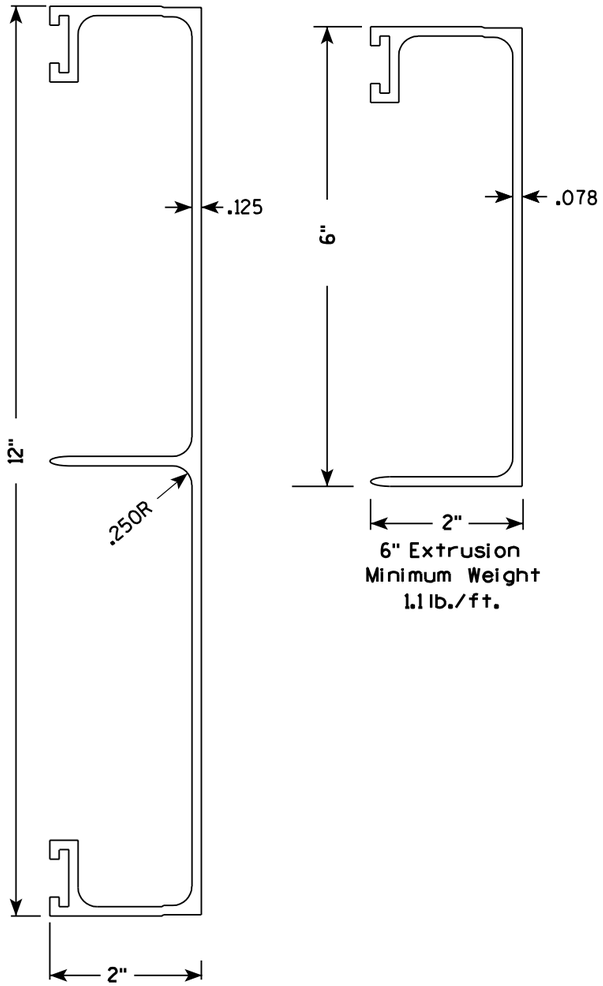
WISCONSIN DEPT OF TRANSPORTATION

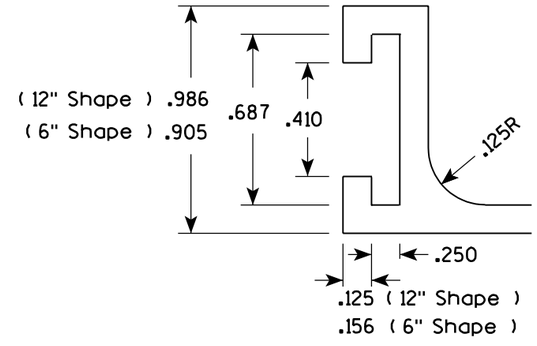
APPROVED Chester J Spang for State Traffic Engineer

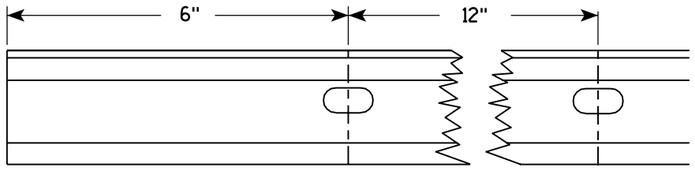
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 485	E

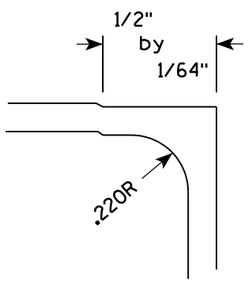
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

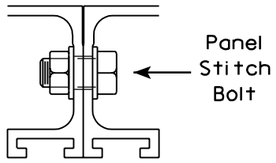


Hardware

STITCH BOLT, WASHER & NUT

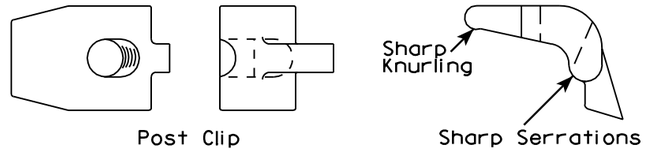
The hardware includes:

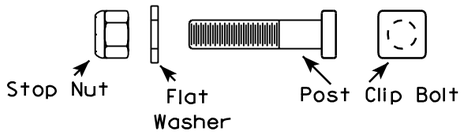
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

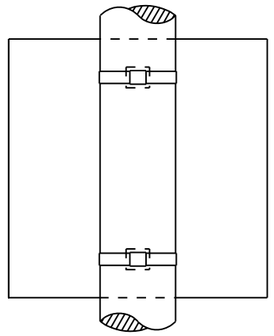
WISCONSIN DEPT OF TRANSPORTATION

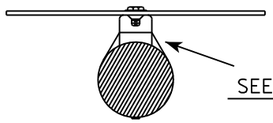
APPROVED Chester J Spagg
for State Traffic Engineer

DATE 11/18/99 PLATE NO. A5-2.9

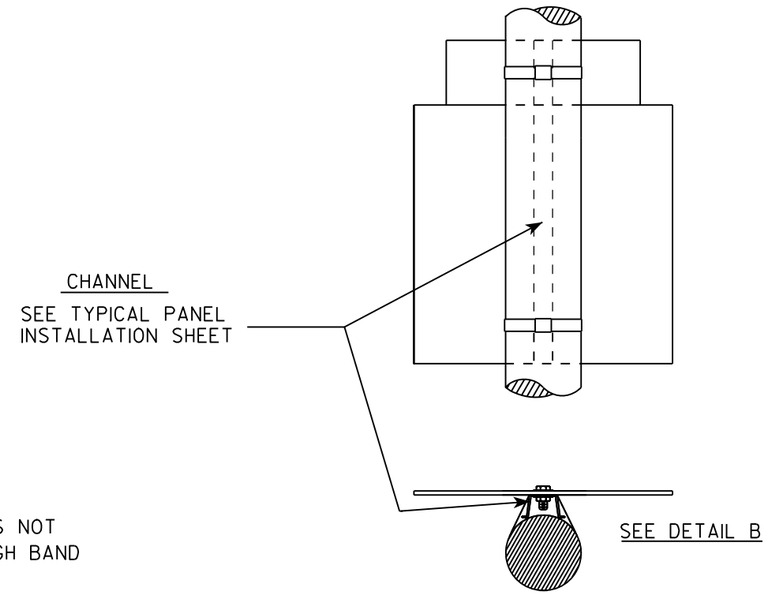
BANDING

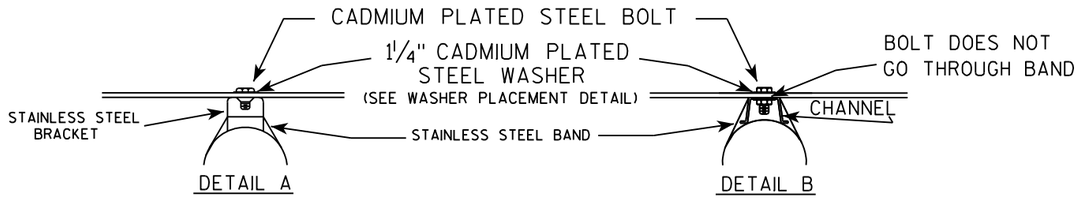
SINGLE SIGN



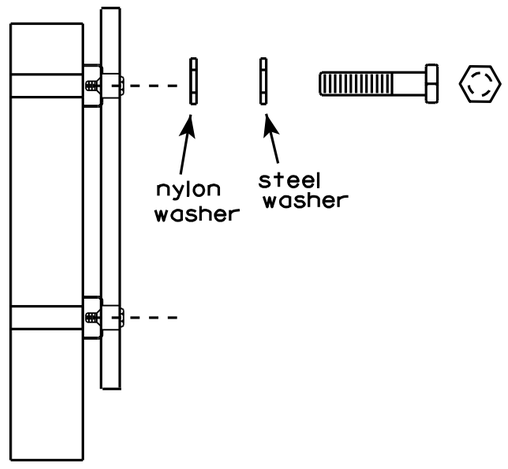


"J" ASSEMBLY





WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

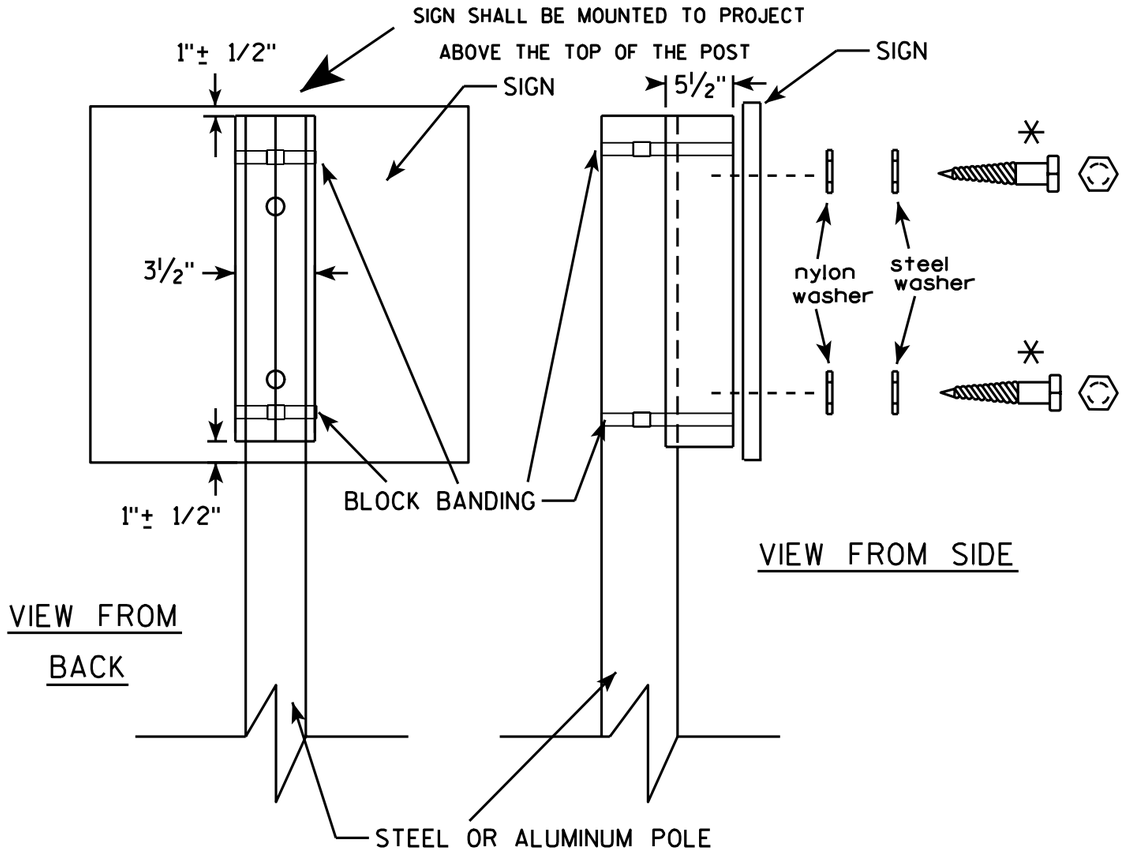
STANDARD SIGN
SIGN BANDING DETAILS

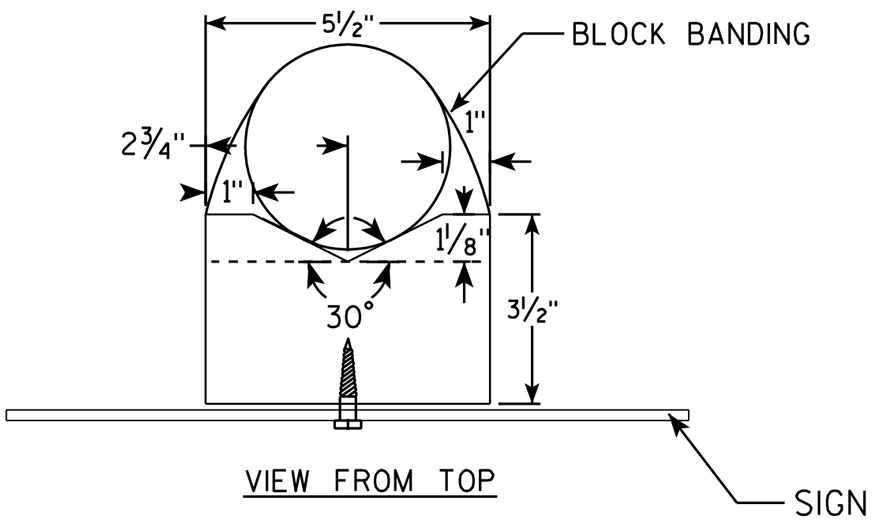
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 487	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

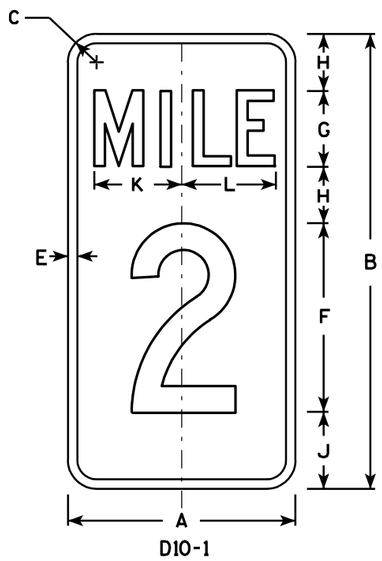
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

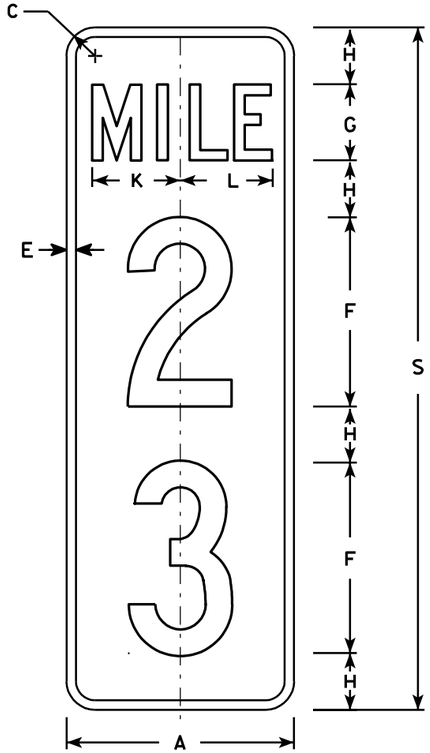
SHEET NO: 488 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

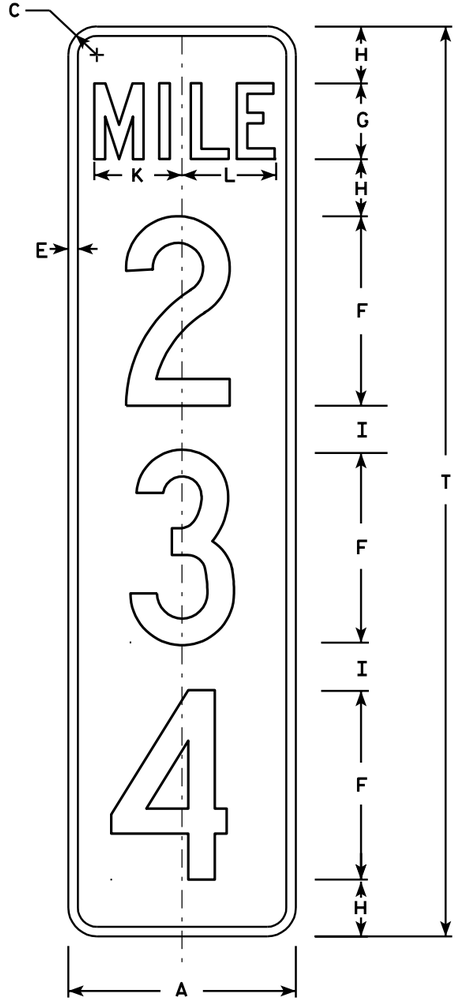
WISDOT/CADDS SHEET 42



D10-1



D10-2



D10-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White - Type H Reflective
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Optically adjust numerals about the centerline of the sign to achieve proper balance.

Metric equivalent for this sign is:

PHY. SIZE	
12 X 24	300 mm X 600 mm
12 X 36	300 mm X 900 mm
12 X 48	300 mm X 1200 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3																										
4	12	24	1 ½		½	10	4	3	2 ½	4	4 ⅝	4 ⅞							36	48						
5	12	24	1 ½		½	10	4	3	2 ½	4	4 ⅝	4 ⅞							36	48						

D10-1	D10-2	D10-3
Area sq. ft.	Area sq. ft.	Area sq. ft.
2.0	3.0	4.0
Area m2	Area m2	Area m2
.19	.28	.38

STANDARD SIGN
D10-1 , D10-2 & D10-3

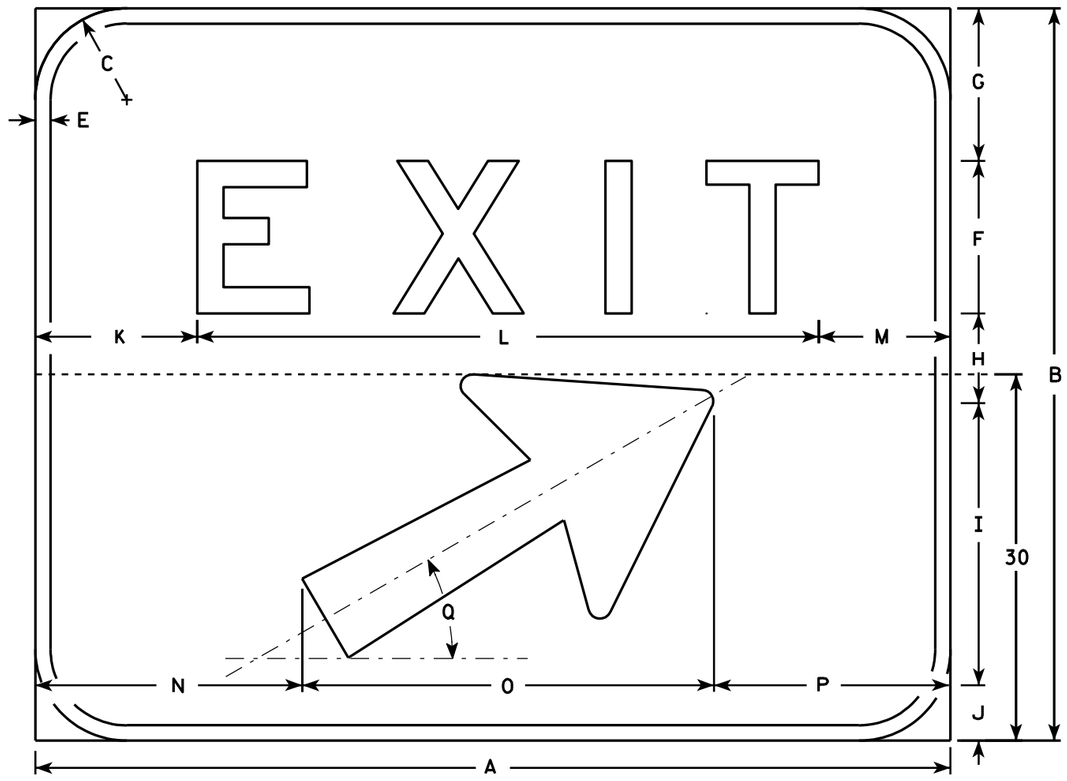
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for Director, Office of Traffic

DATE 1/16/02 PLATE NO. D10-3.2

PROJECT NO:

SHEET NO: 489 E



E5-1

NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but borders shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces for the 72 x 60 size as shown on the detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. As per the Standard Spec's, this sign shall not have a vertical joint.

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	1500 mm X 1200 mm
5	1800 mm X 1500 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2																												
3																												
4	60	48	6		1	10	10	5 7/8	18 1/2	3 5/8	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°										20.0	1.80
5	72	60	6		1	12	12	10	18 1/2	7 1/2	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°										30.0	2.70

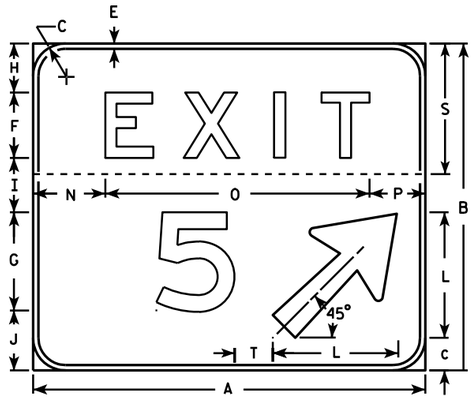
STANDARD SIGN
E5 - 1

WISCONSIN DEPT OF TRANSPORTATION

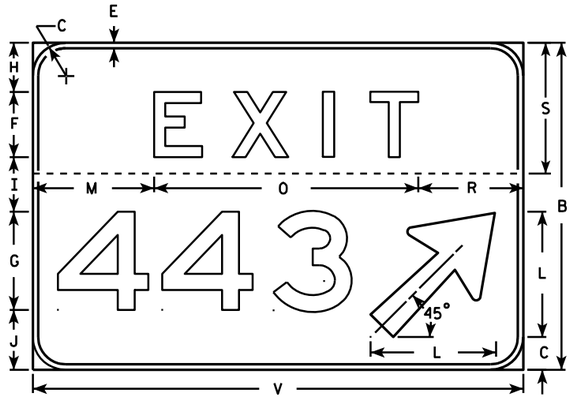
APPROVED Chester J Spang for State Traffic Engineer

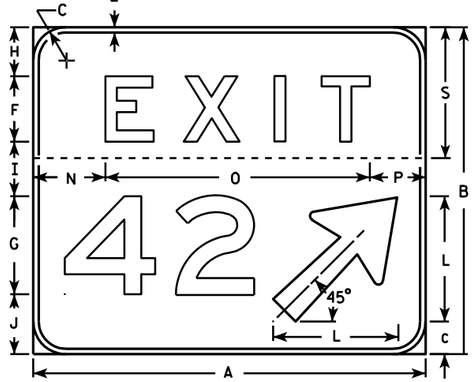
DATE 6/22/00 PLATE NO. E5-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 490	E

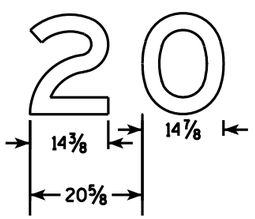


NOTE: T diminision shall be measured from the back of the number to the front of the arrow





EXAMPLE FOR USING SPACING CHART



NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but the border shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces as shown on each detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. Substitute appropriate message, space per the table and adjust placement on sign to achieve proper balance.
8. As per the Standard Spec's, these signs shall not have a vertical joint.

SPACING CHART FOR 18" NUMERALS

NUMBERS	WIDTH	0	1	2	3	4	5	6	7	8	9	A	B	C
0	14 7/8	21 5/8	21 5/8	21 1/4	20 3/8	21 1/4	21 1/4	21 5/8	19 7/8	22 1/8	21 5/8			
1	5 7/8	14	14	14	13 1/8	12 1/8	14	14	12 1/4	14	14			
2	14 3/8	20 5/8	21 1/8	20 5/8	19 3/4	20 1/4	20 5/8	20 5/8	18 7/8	21 1/8	20 5/8			
3	14 3/8	20 3/4	21 1/8	20 3/4	20 1/4	19 3/4	20 3/4	20 3/4	19 3/8	21 1/8	20 3/4			
4	16 5/8	22 7/8	22	22 1/2	21 5/8	21 5/8	22 7/8	22 7/8	20 5/8	23 3/8	22 7/8			
5	14 1/4	20 5/8	20 5/8	20 1/8	18 3/4	18 3/4	20 5/8	20 5/8	18 3/8	20 5/8	20 5/8			
6	14 1/2	21 1/4	20 3/4	20 3/4	19 7/8	19 1/2	20 3/8	20 3/4	19	20 3/4	20 3/8			
7	14 3/8	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4			
8	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8			
9	14 1/2	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4			
A	18	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4	21 5/8	23 7/8	23
B	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8	19 1/2	22 3/8	21 1/2
C	14 1/4	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4	18 3/8	21	19 3/4

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
2																										
3																										
4																										
5	72	60	6		1	12	18	9	10	11	8 7/8	23	22 1/4	13 1/4	48 1/2	10 1/4		19 1/4	24	7		90		96	7 1/2	

1-2 Digit Bid Area	3 Digit Bid Area
Sq. Ft.	
30	37.5

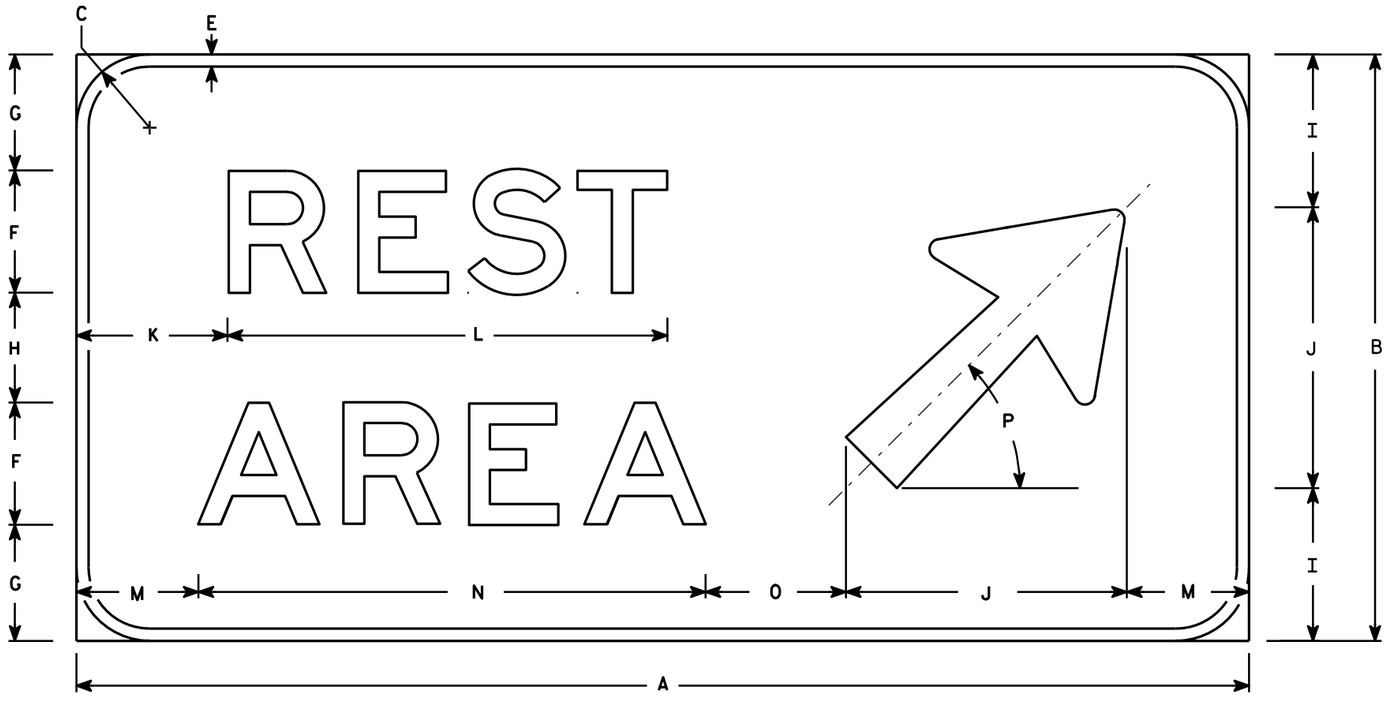
STANDARD SIGN
E5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/11/10 PLATE NO. E5-1A.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 491 | E



E5-52

NOTES

1. Sign is Type I - Type SH Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Arrow is standard Interstate Type A.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	96	48	6		1	10	9 ½	9	12 ½	23	12 ⅜	36 ⅜	10	41 ½	11 ½	45°											32.0
5	144	54	6		2	15	8	8	13	28	20 ¼	62	16 ¼	68	15 ½	45°											54.0

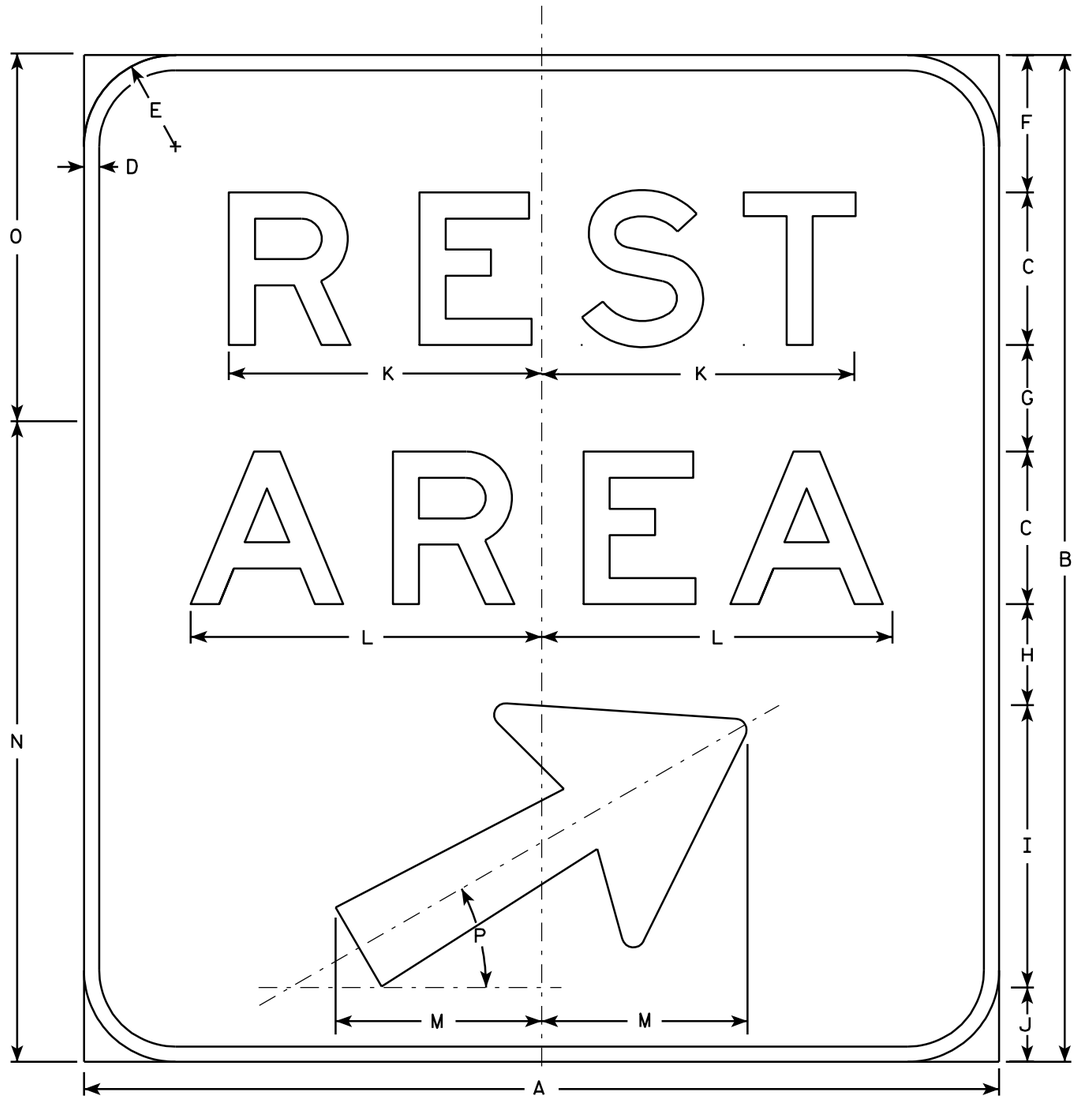
STANDARD SIGN
E5-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/30/13 PLATE NO. E5-52.11

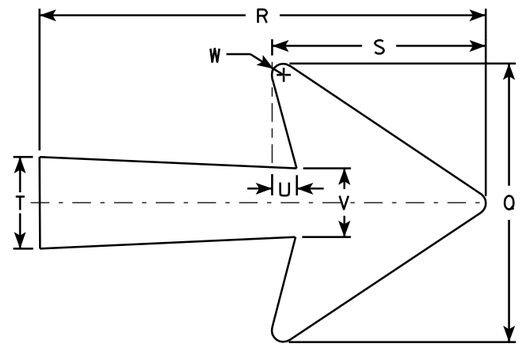
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 492 | E



E5-54

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Corners may be square or rounded but borders shall be rounded as shown. Base material for this sign shall be plywood.
5. Arrow is Type A as per A1-1 standard
6. Dimensions N & O indicate cutting lines for plywood panels.



Arrow Detail

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	1500 mm X 1650 mm
5	1800 mm X 1800 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2																												
3																												
4	60	66	10	1	6	9	7	6 5/8	18 1/2	4 7/8	21	23	13 1/2	42	24	30°	18 1/4	29 1/4	14	6	1 1/2	4 1/2	3/4				27.5	2.47
5	72	72	12	1	9	9	7	8	18 1/2	5 1/2	25	27	13 1/2	48	24	30°	18 1/4	29 1/4	14	6	1 1/2	4 1/2	3/4				36.0	3.24

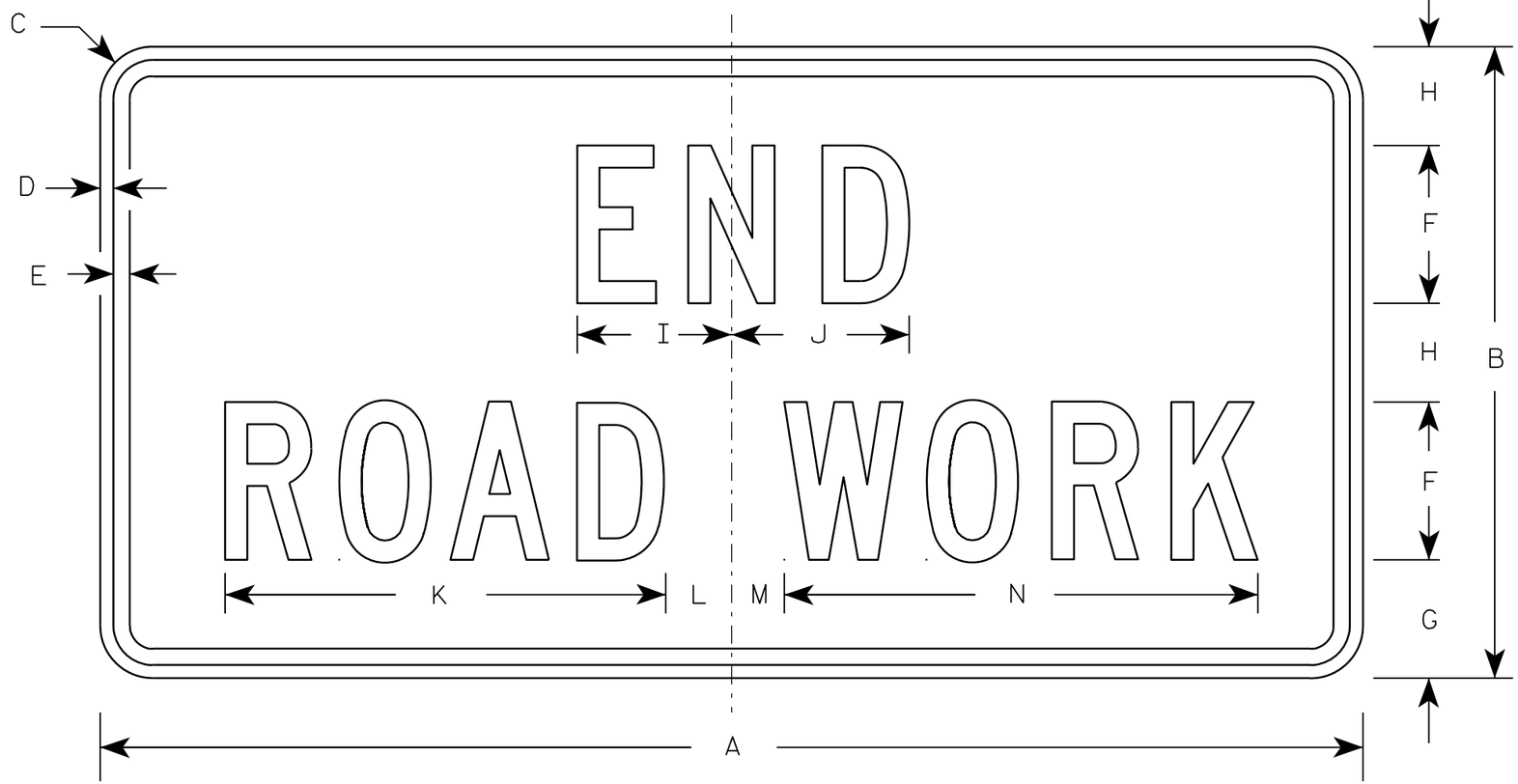
STANDARD SIGN
E5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spanz
for State Traffic Engineer

DATE 2/11/97 PLATE NO. E5-54.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 493	E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

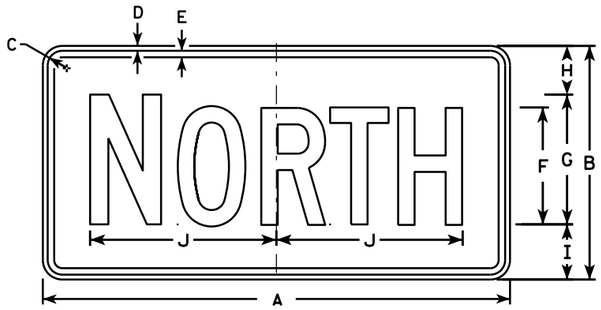
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

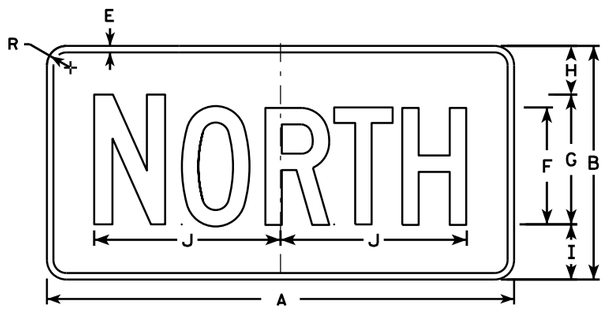
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 494	E



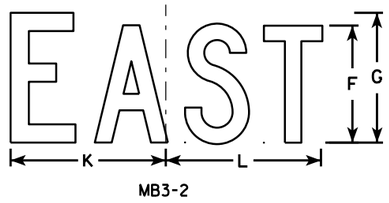
M3-1
MK3-1
MM3-1
MN3-1



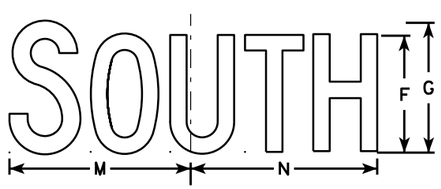
MB3-1



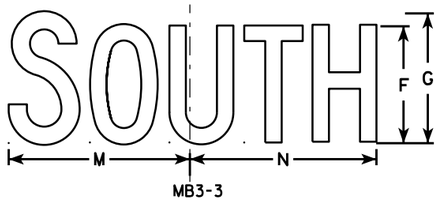
M3-2
MK3-2
MM3-2
MN3-2



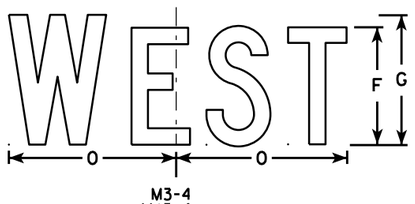
MB3-2



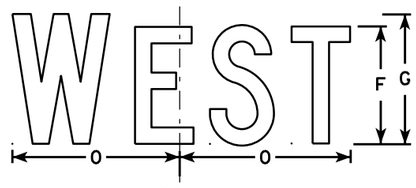
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



M3-4
MK3-4
MM3-4
MN3-4



MB3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

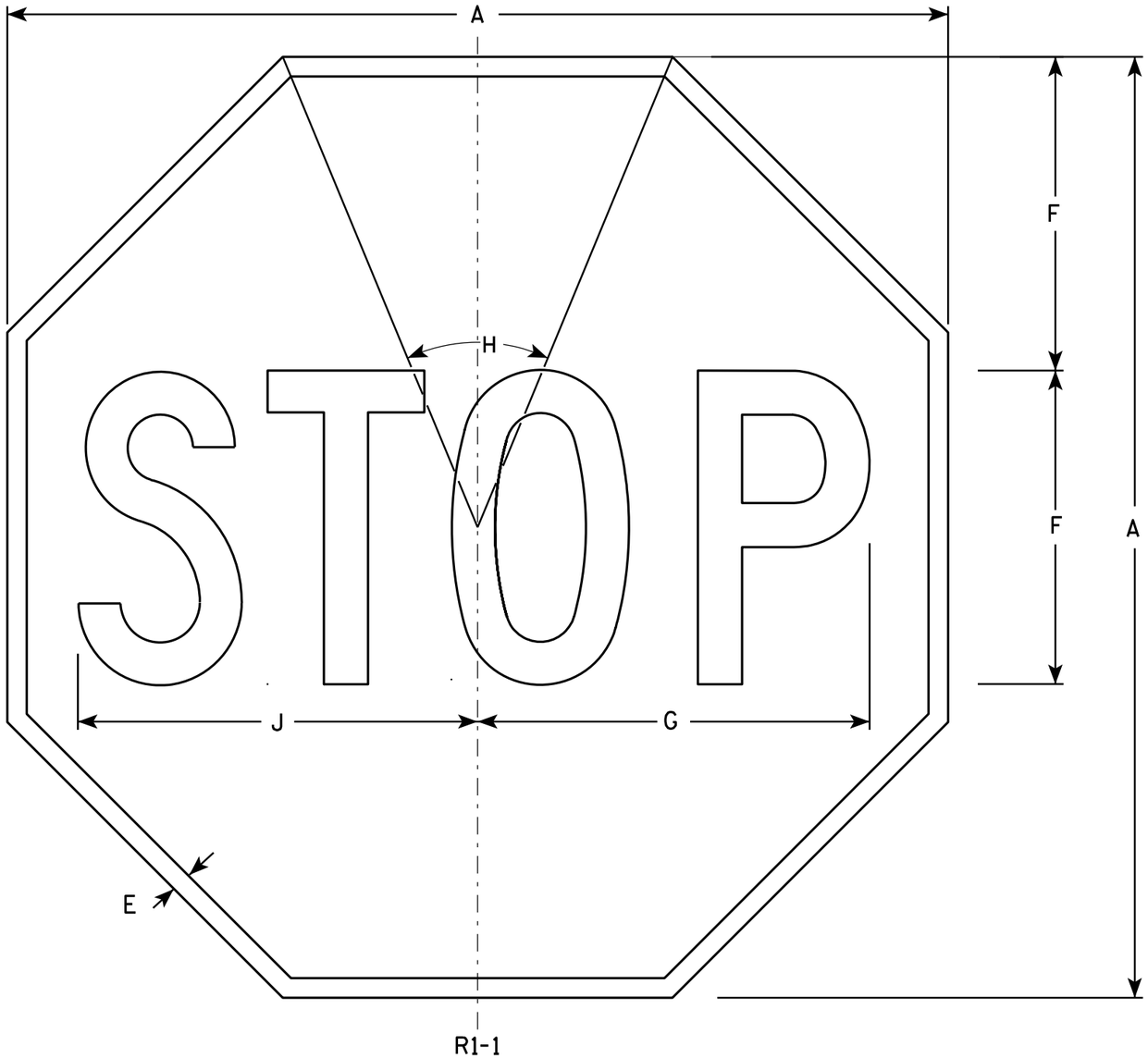
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/30/14 PLATE NO M3-1.13

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

7



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

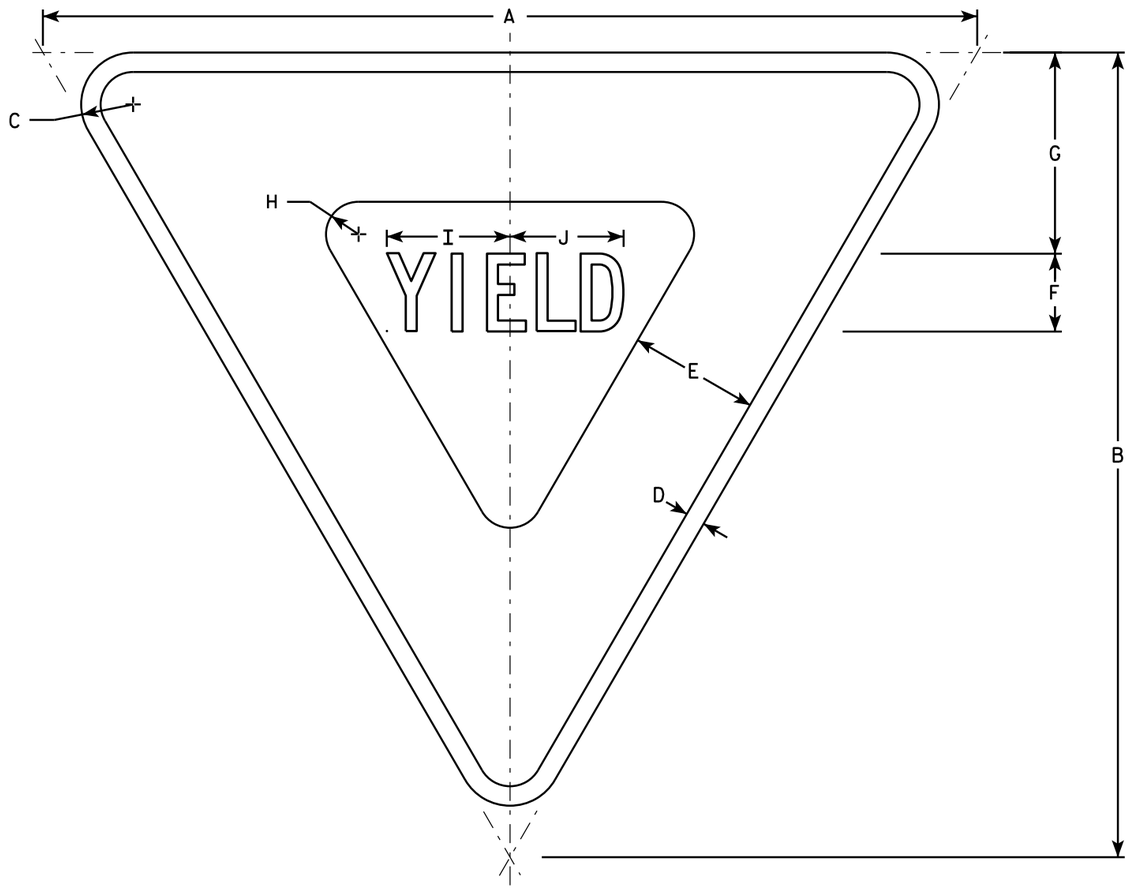
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 496	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

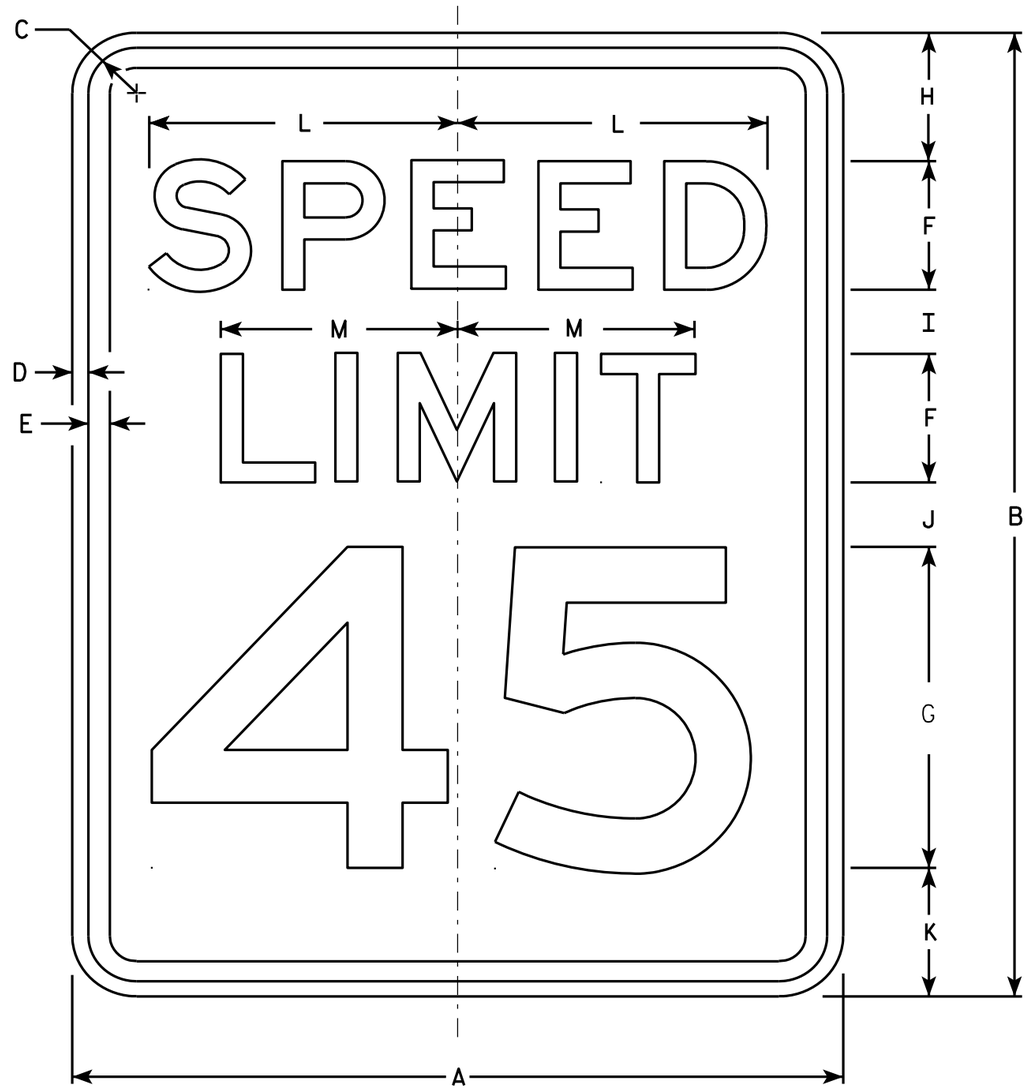
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

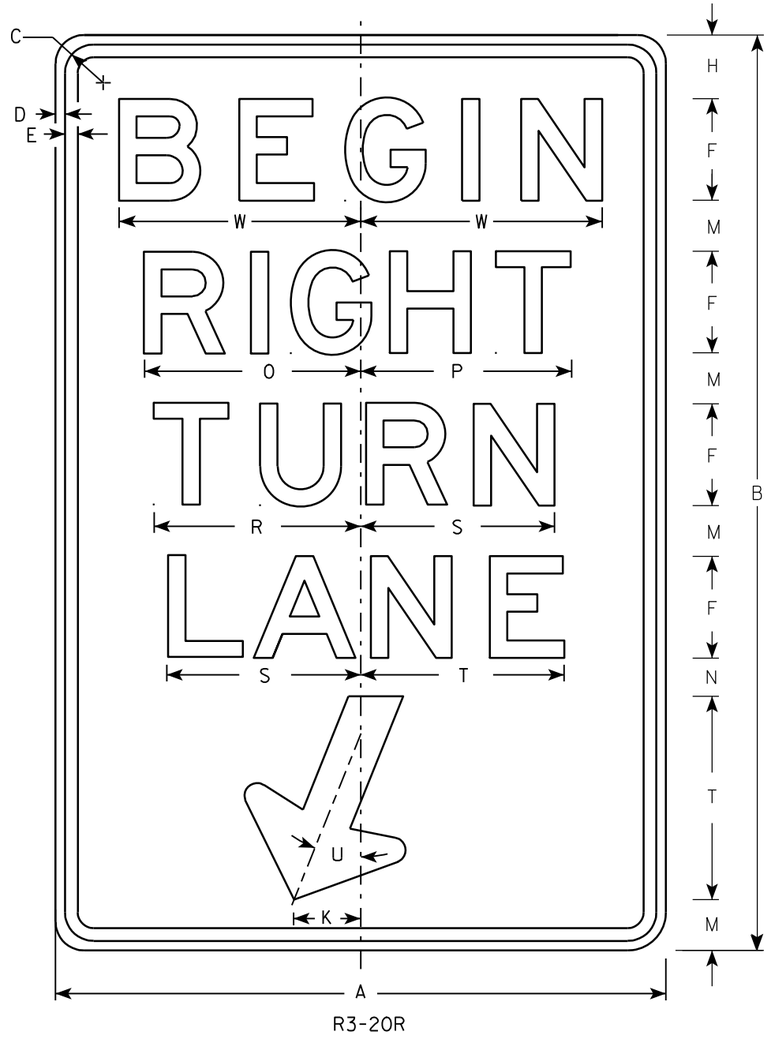
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

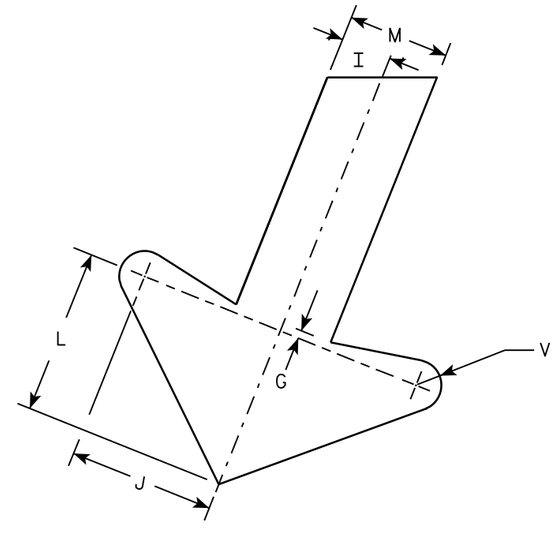
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 498 | E



R3-20R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

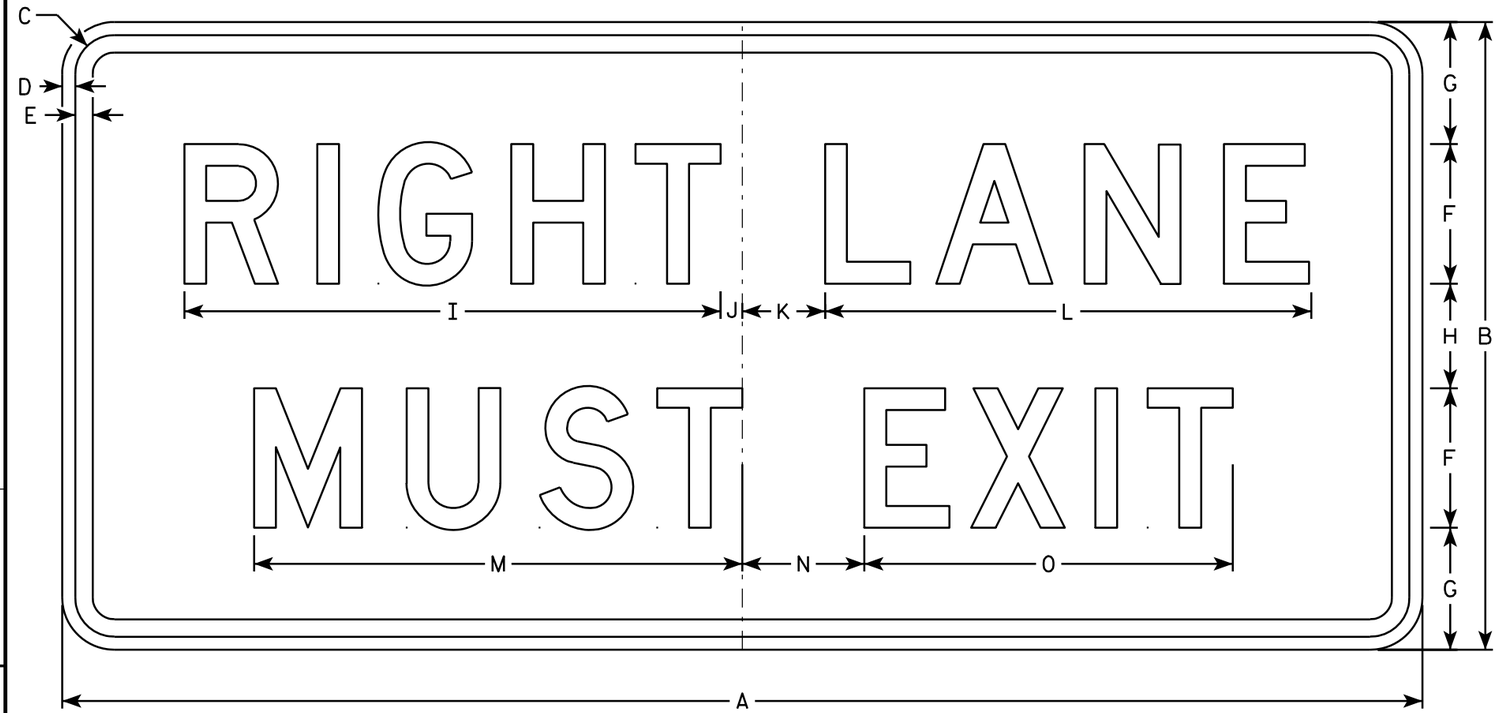
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

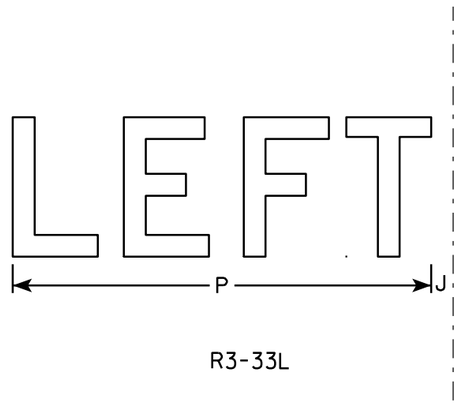
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 499 | E



R3-33R



R3-33L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	78	36	2 1/4	3/4	1	8	7	6	30 3/4	1 1/4	4 3/4	27 7/8	28	7	21 1/8	24											19.5
5	78	36	2 1/4	3/4	1	8	7	6	30 3/4	1 1/4	4 3/4	27 7/8	28	7	21 1/8	24											19.5

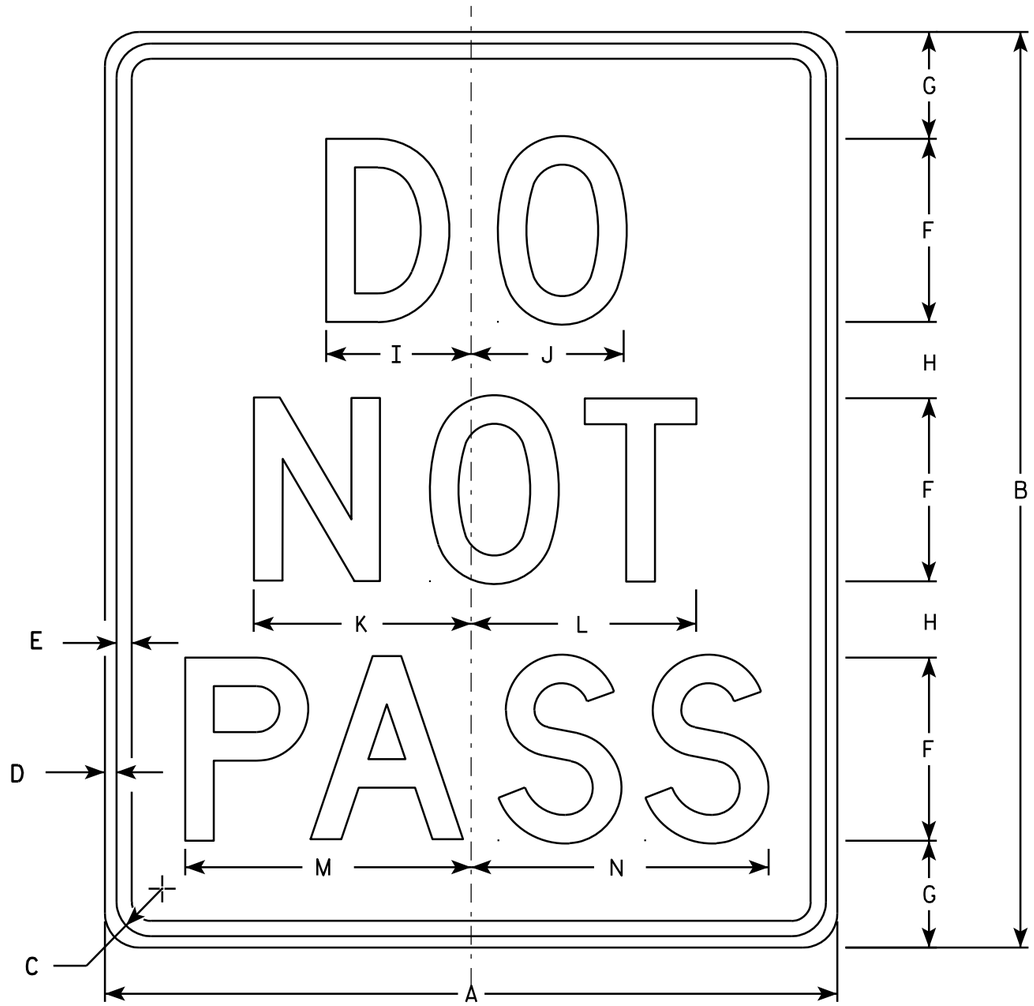
STANDARD SIGN
R3-33

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/7/10 PLATE NO. R3-33.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 500	E



R4-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 1/8	3 1/4	4 3/4	4 7/8	6 1/4	6 1/2													3.0
2S	24	30	1 1/8	3/8	1/2	6	3 1/2	2 1/2	4 3/4	5	7 1/8	7 3/8	9 3/8	9 3/4													5.0
2M	24	30	1 1/8	3/8	1/2	6	3 1/2	2 1/2	4 3/4	5	7 1/8	7 3/8	9 3/8	9 3/4													5.0
3																											
4	36	48	1 5/8	5/8	3/4	8	7	5	6 1/4	6 5/8	9 1/2	9 3/4	12 1/2	13													12.0
5	48	60	2 1/4	3/4	1	10	8	7	7 3/4	8 3/8	11 7/8	12 1/4	15 5/8	16 1/4													20.0

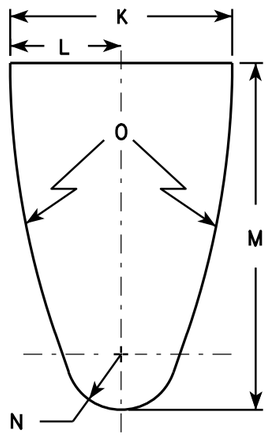
STANDARD SIGN
R4-1

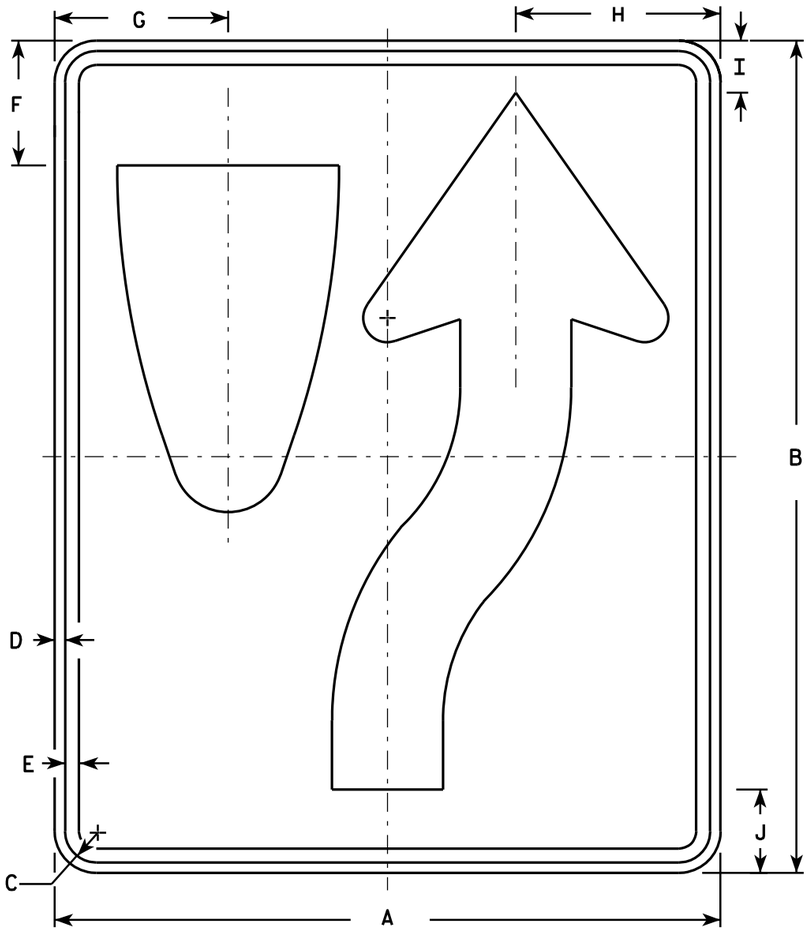
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-1.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 501 | E

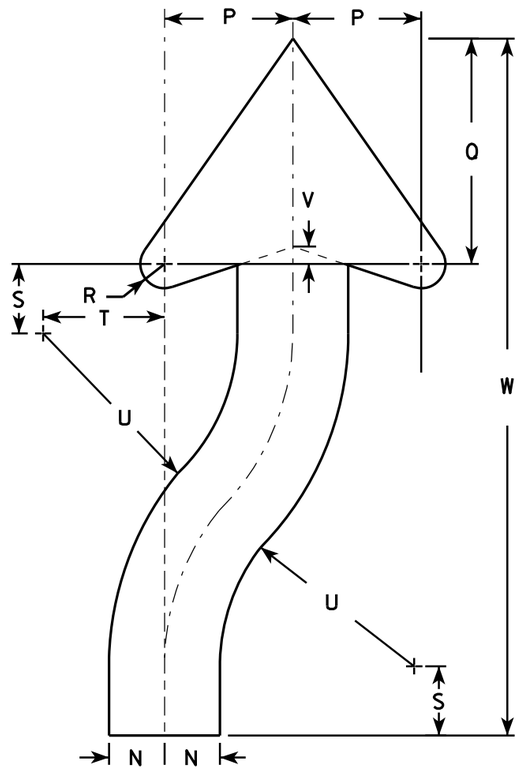




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

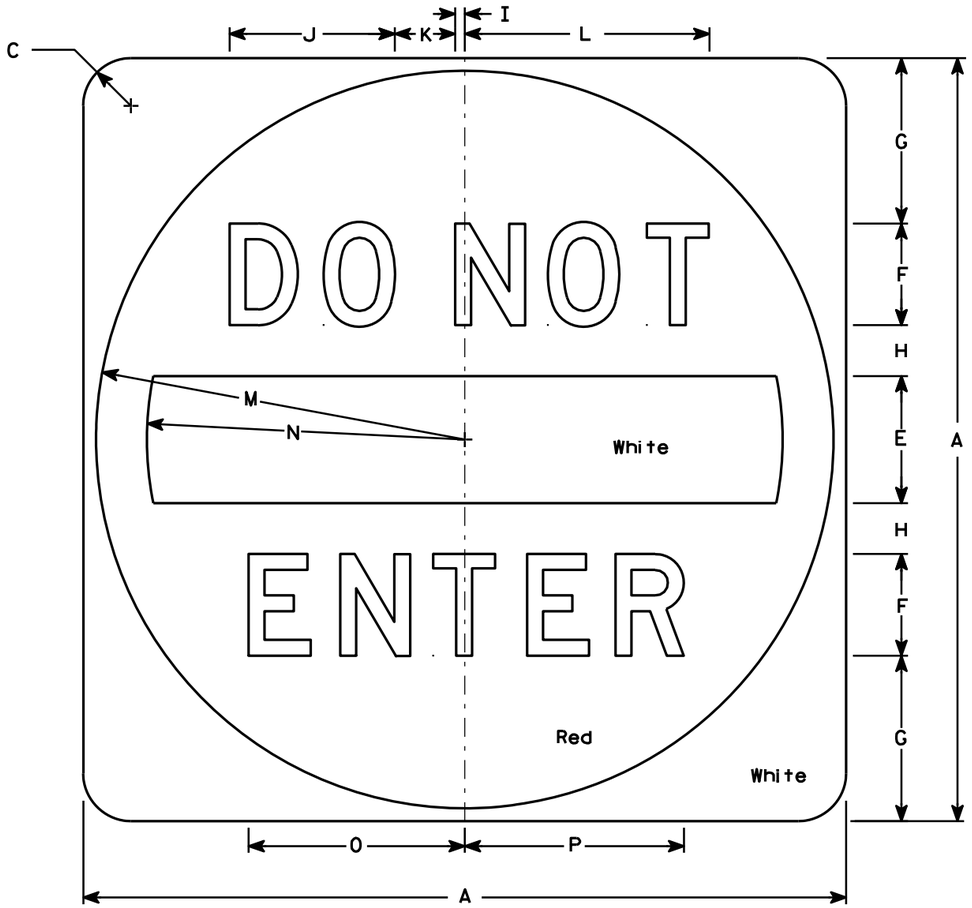
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 502	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

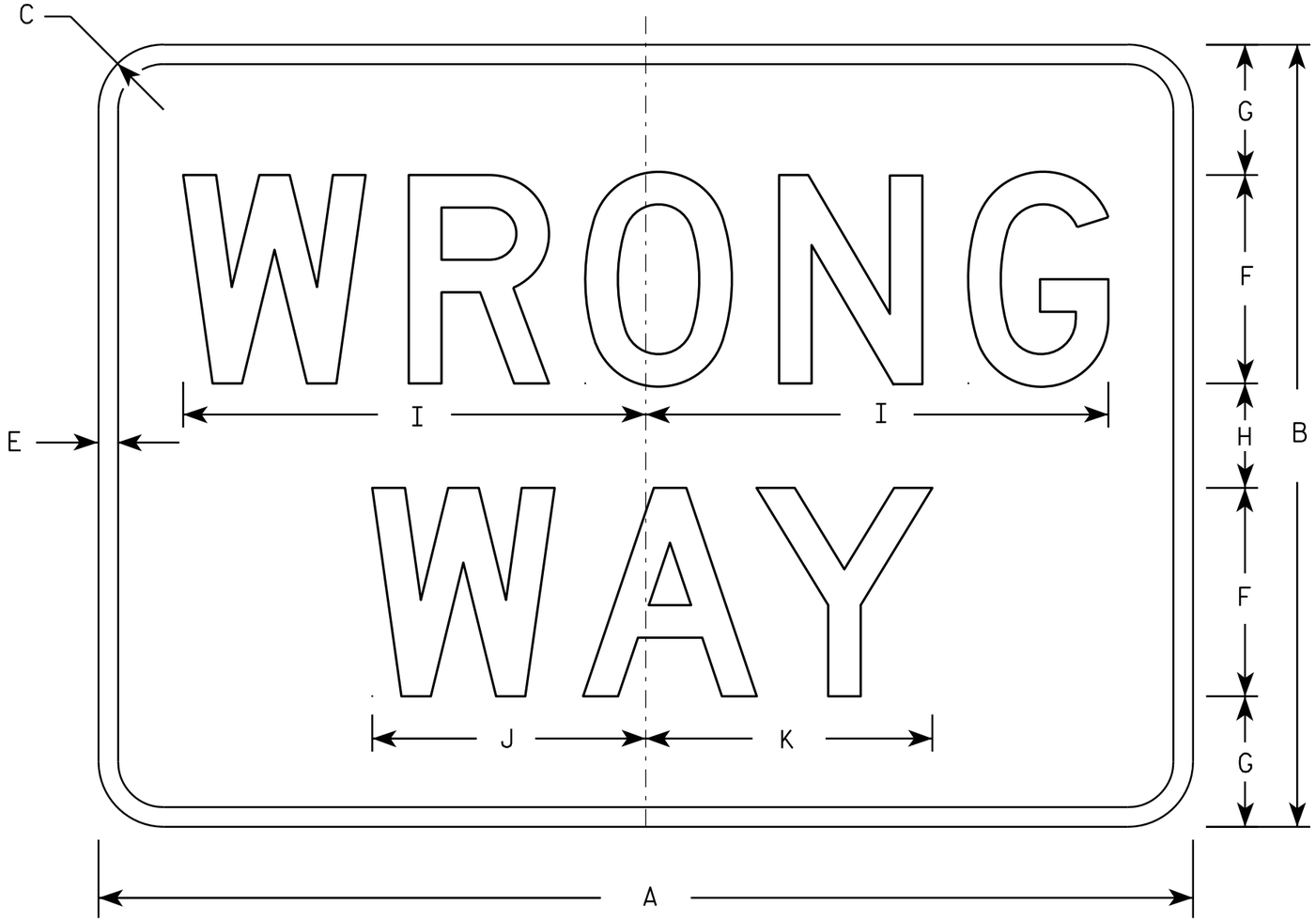
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 503 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

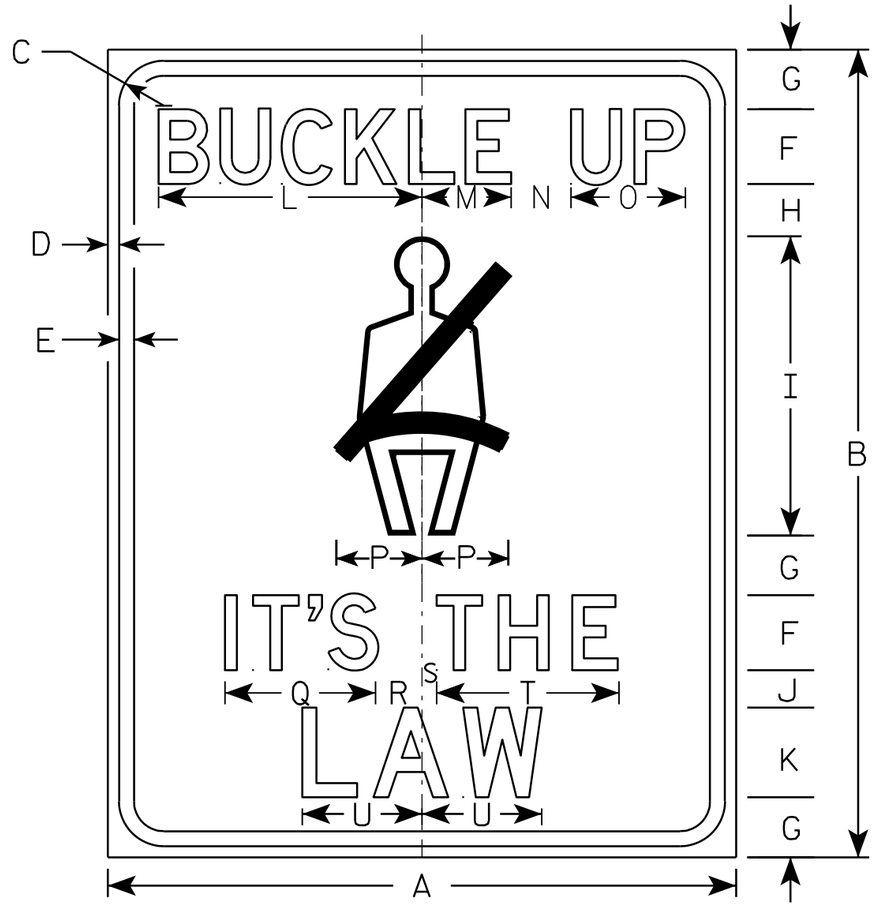
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

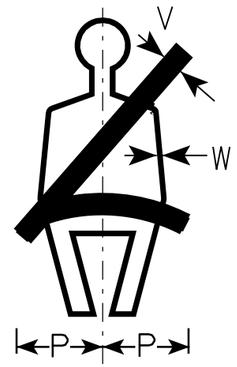
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 504 | E



R5-53A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18	24	1 1/8	3/8	3/8	2	1 3/4	1 1/2	9	1 1/4	3	6 3/4	2 1/4	1 1/2	2 7/8	2 1/2	3 7/8	1 1/4	3/8	4 5/8	3 7/8	5/8	1/8				3.00
2M	18	24	1 1/8	3/8	3/8	2	1 3/4	1 1/2	9	1 1/4	3	6 3/4	2 1/4	1 1/2	2 7/8	2 1/2	3 7/8	1 1/4	3/8	4 5/8	3 7/8	5/8	1/8				3.00
3																											
4																											
5	42	54	2 1/4	3/4	1	5	4	3 1/2	20	2 1/2	6	17 5/8	6	4	7 5/8	5 3/4	10	3 1/2	1	12 1/4	8	1 1/2	3/8				15.75

STANDARD SIGN
R5-53A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-53A.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 505 | E



R5-57

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Lines 1, 2, and 5 are Series C.
   Lines 3 and 4 are Series B.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0
5	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0

STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

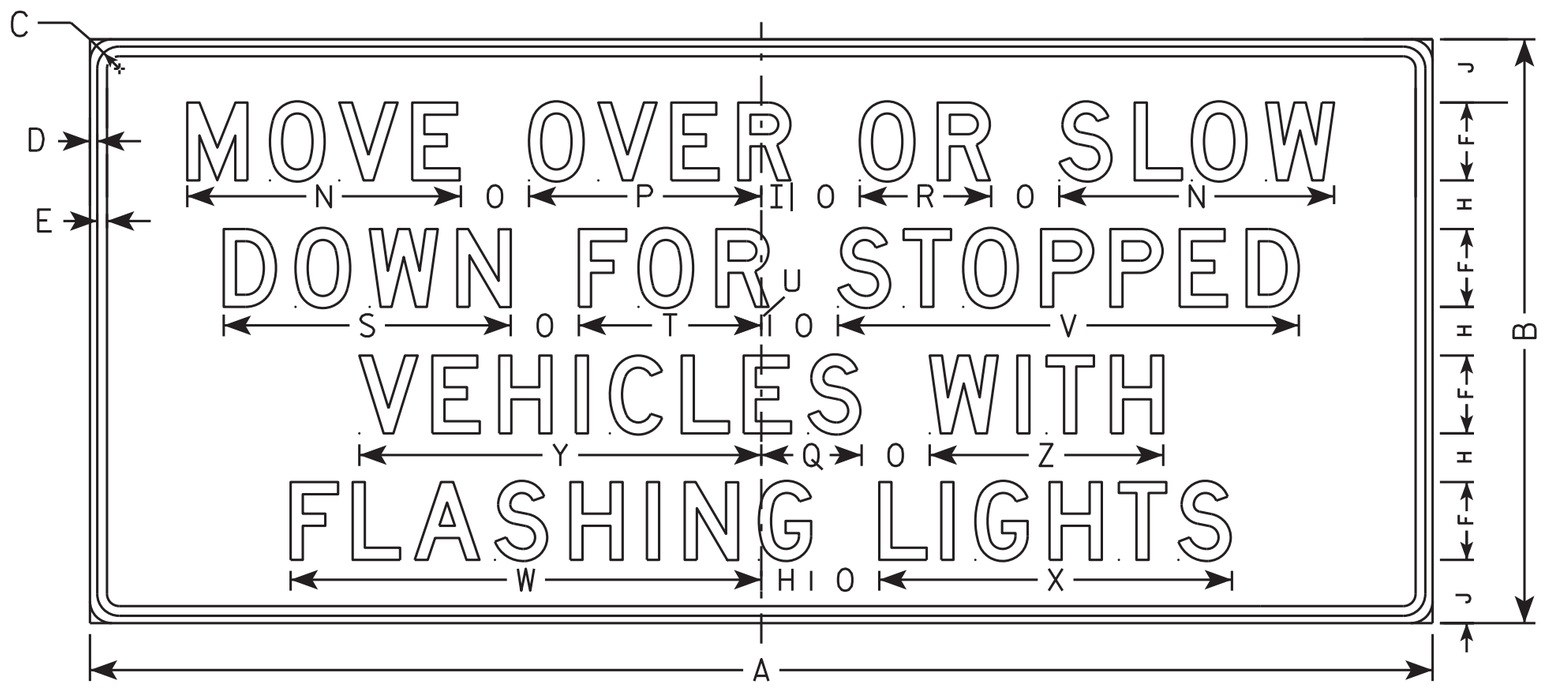
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 506 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R557.DGN PLOT DATE : 29-MAR-2011 14:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

7



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	138	60	2 1/4	3/4	1	8		5	3 1/8	6 1/2		4		28 1/4	7	23 7/8	10 3/8	13 1/2	29 1/2	18 3/4	7/8	47 3/8	48 3/8	36 1/4	41 3/8	24	57.5
2M	138	60	2 1/4	3/4	1	8		5	3 1/8	6 1/2		4		28 1/4	7	23 7/8		13 1/2	29 1/2	18 3/4	7/8	47 3/8					57.5
3																											
4																											
5																											

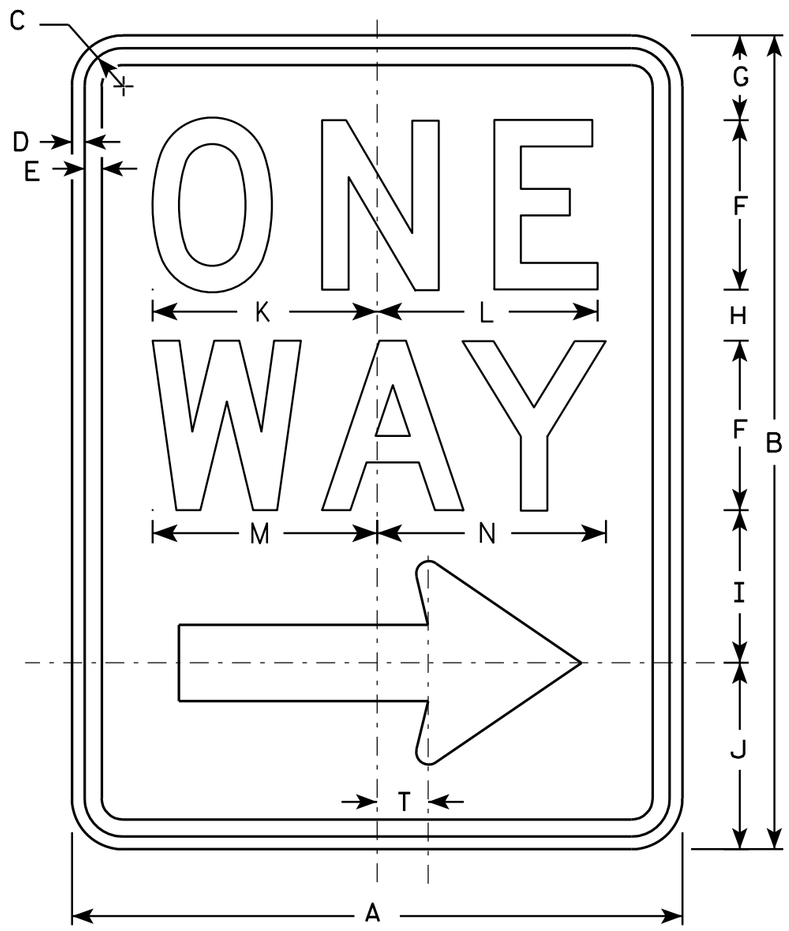
STANDARD SIGN
R5-60

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/3/15 PLATE NO. R5-60.3

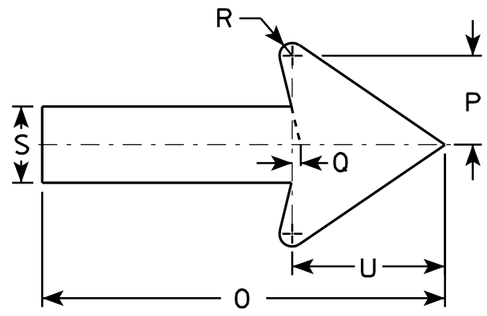
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

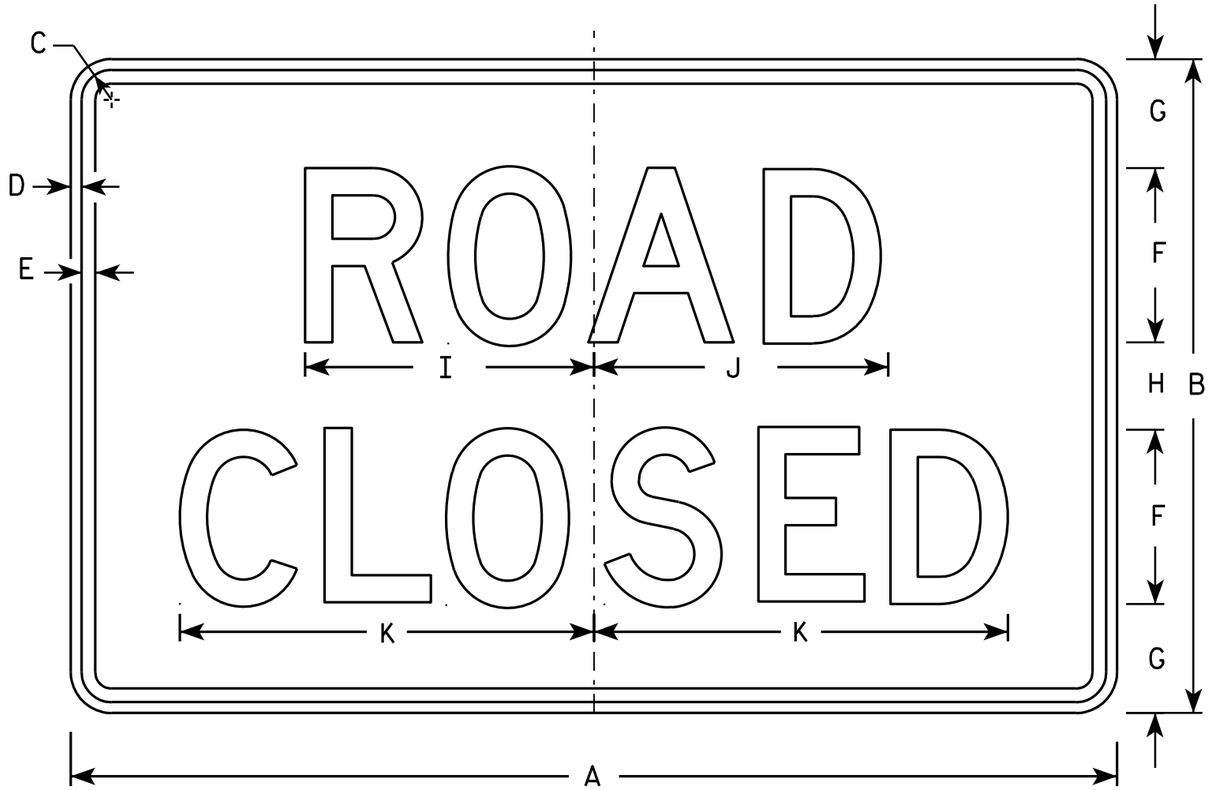
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

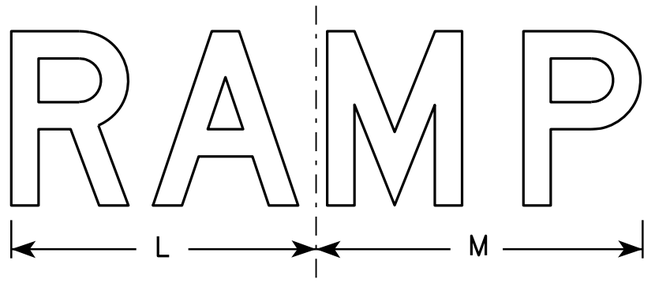
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 508	E



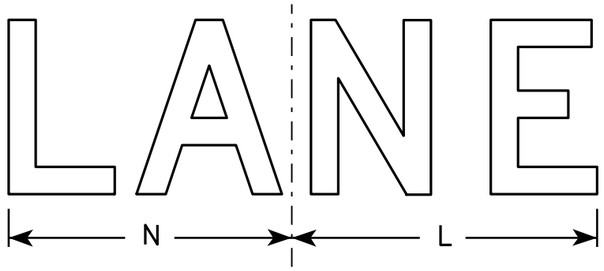
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

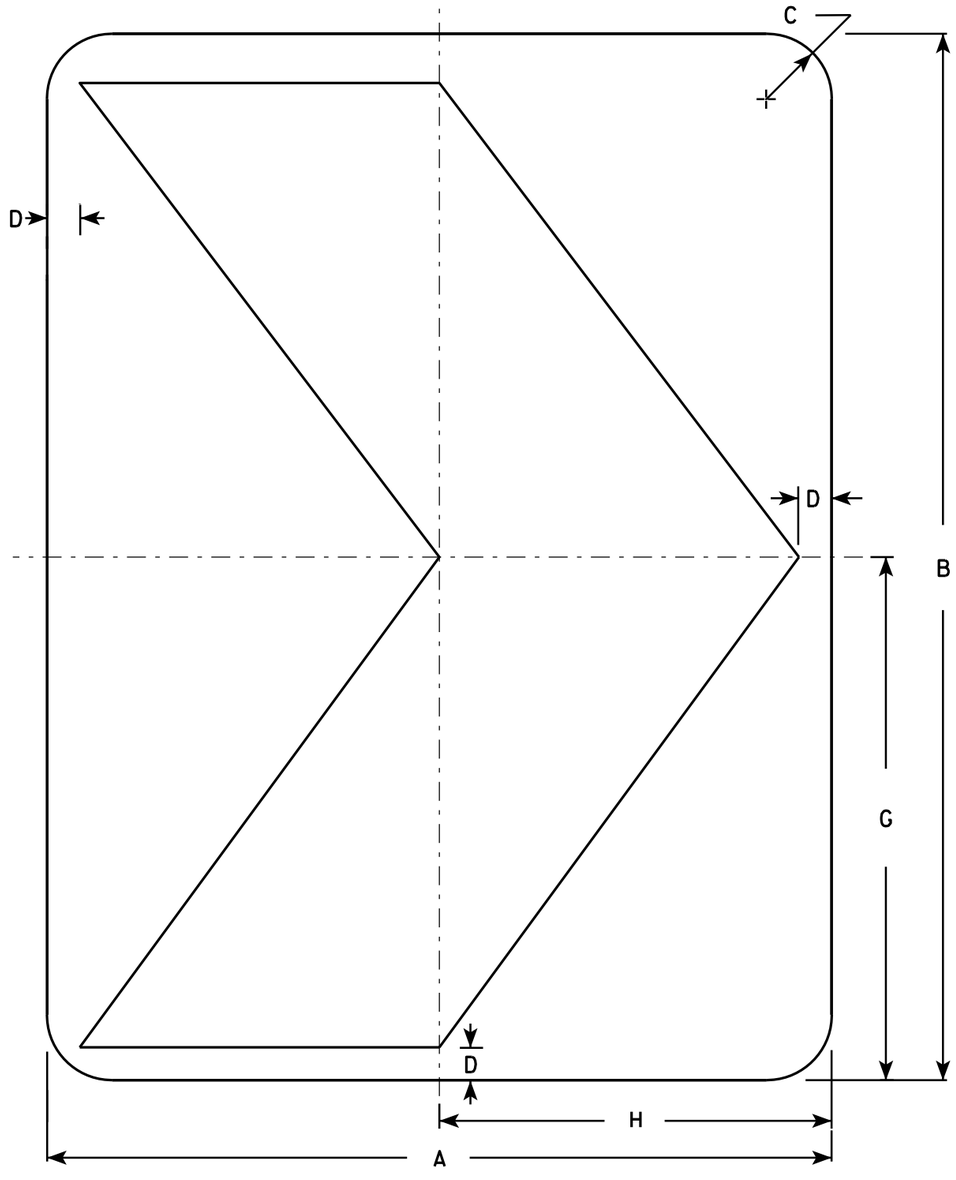
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 509	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

W1-8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

STANDARD SIGN
W1-8

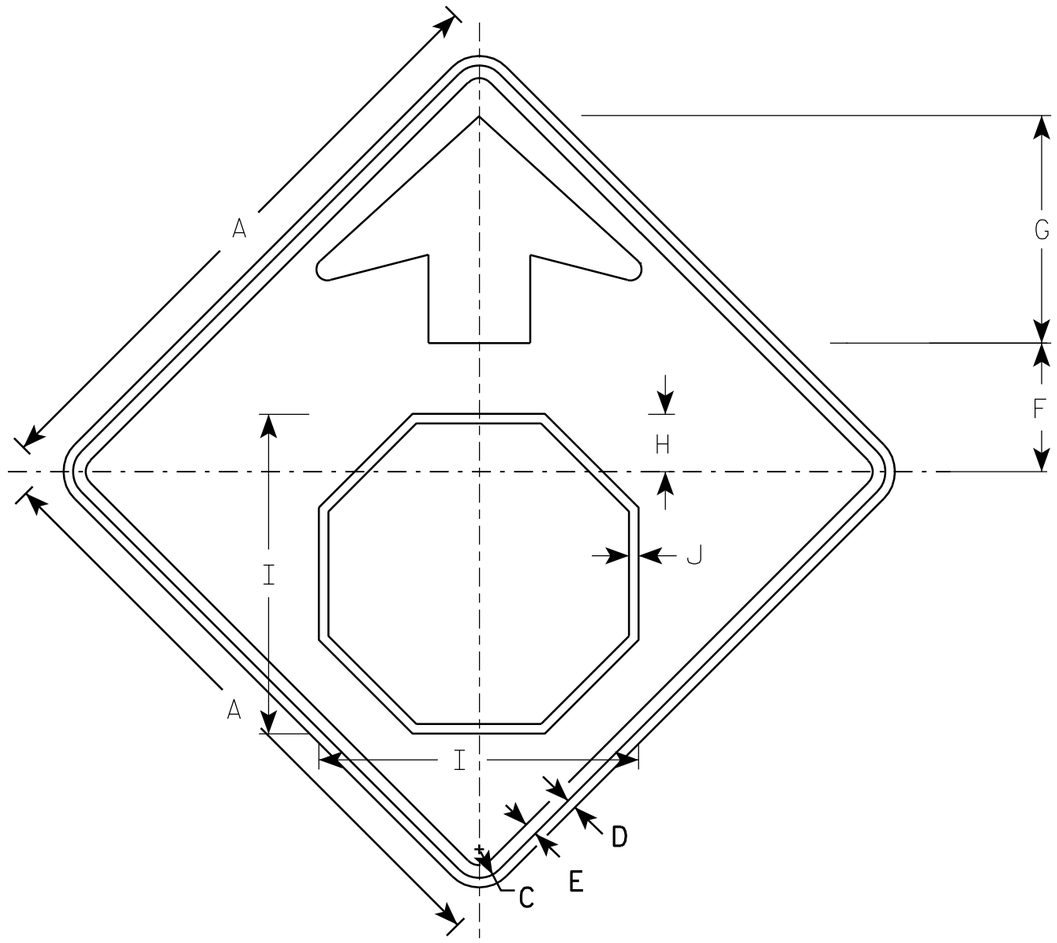
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

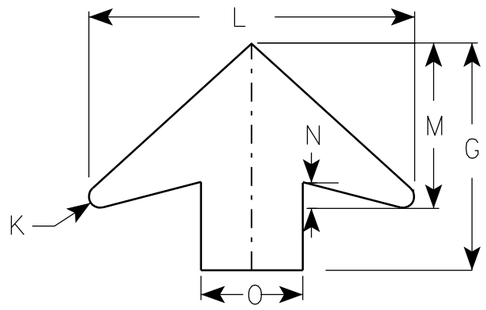
SHEET NO: 510 E



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

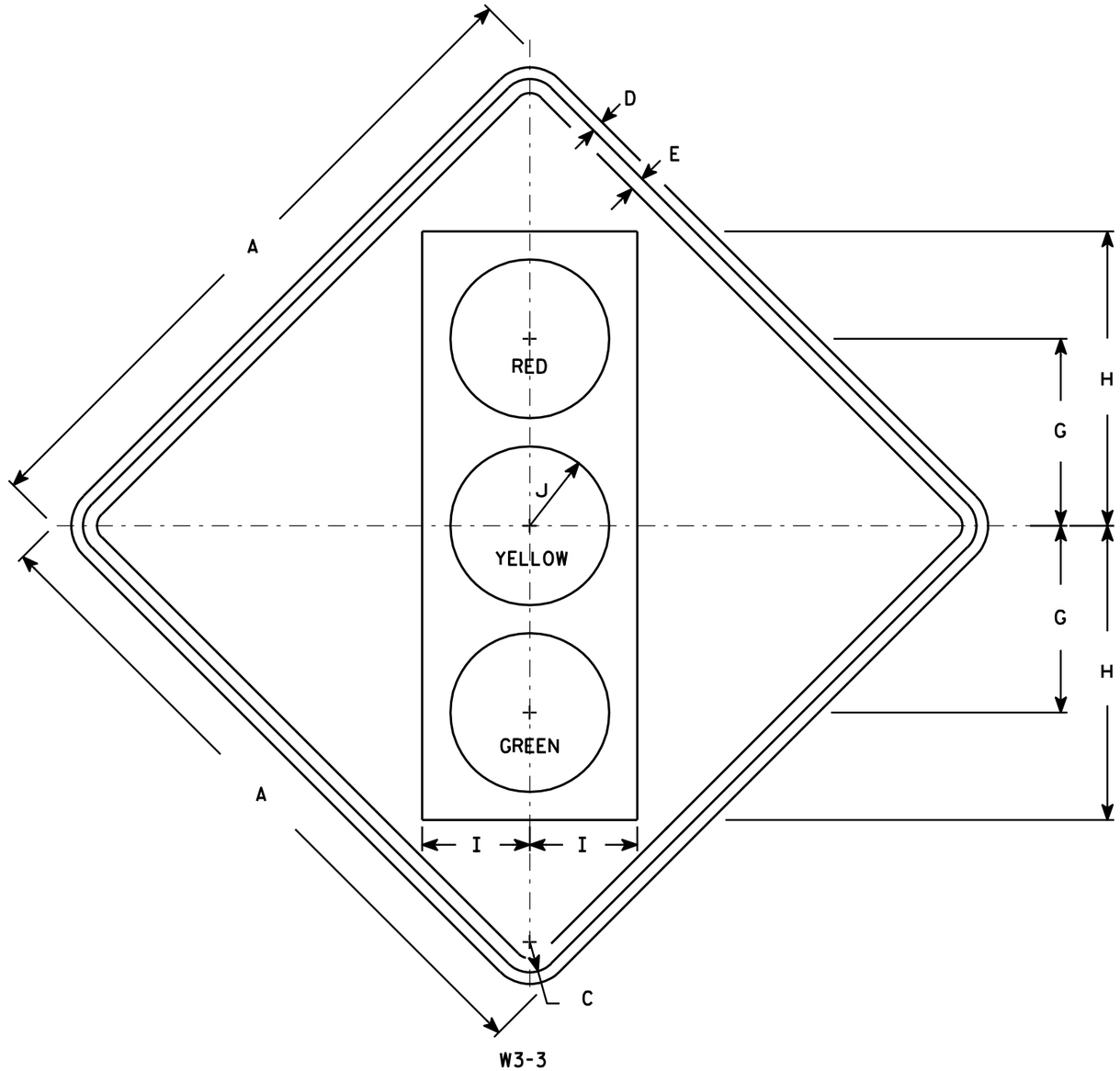
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 511 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

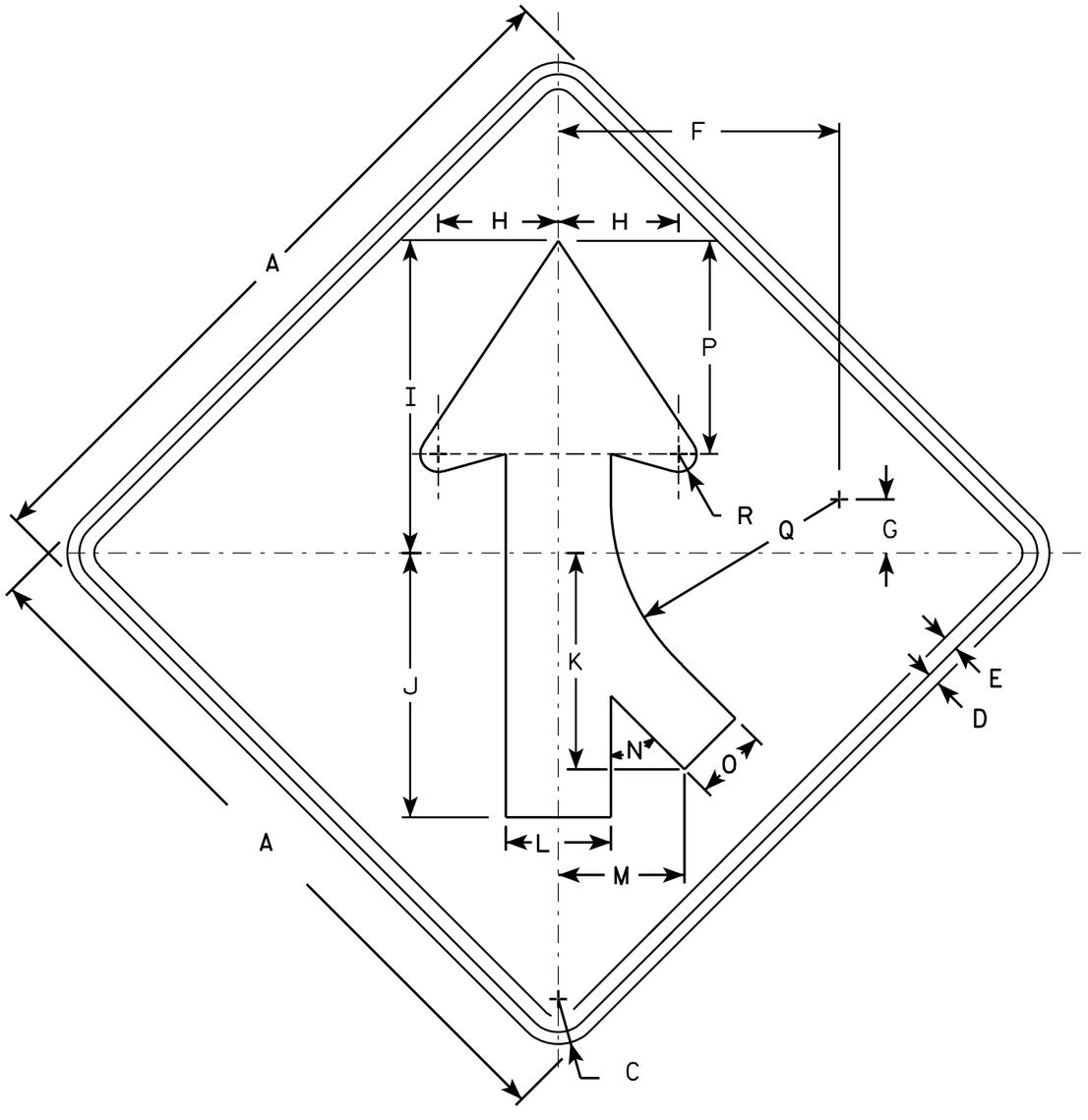
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 512 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000
WISDOT/CADDS SHEET 42



W4-1 R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

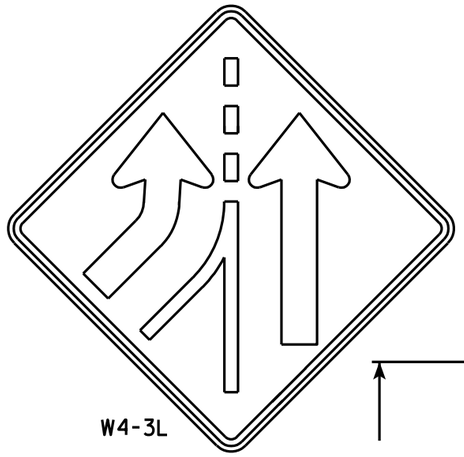
STANDARD SIGN
W4-1

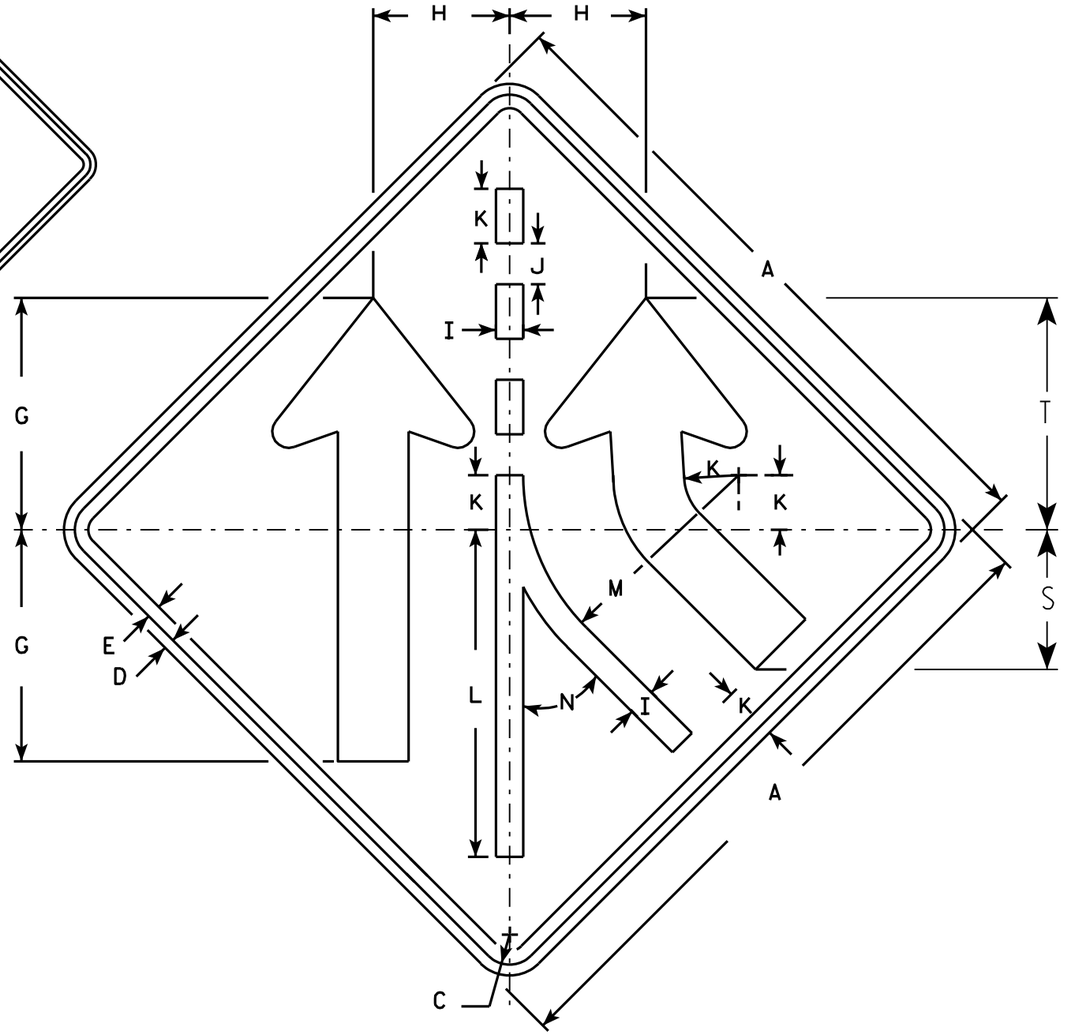
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 513	E

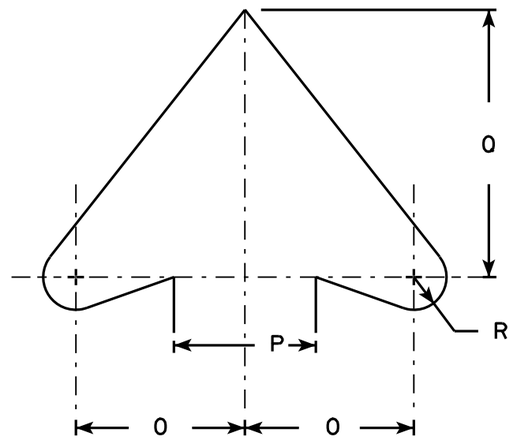




W4-3R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-3 L is the same as W4-3 R except the arrow is reversed along the vertical centerline.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		10 5/8	6 1/4	1 1/4	1 7/8	2 1/2	15	9 7/8	45°	3 7/8	3 1/4	6 1/8	3/4	6 3/8	10 5/8							6.25
2S	36		1 5/8	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
2M	36		1 5/8	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
3																											
4	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
5	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0

STANDARD SIGN
W4-3

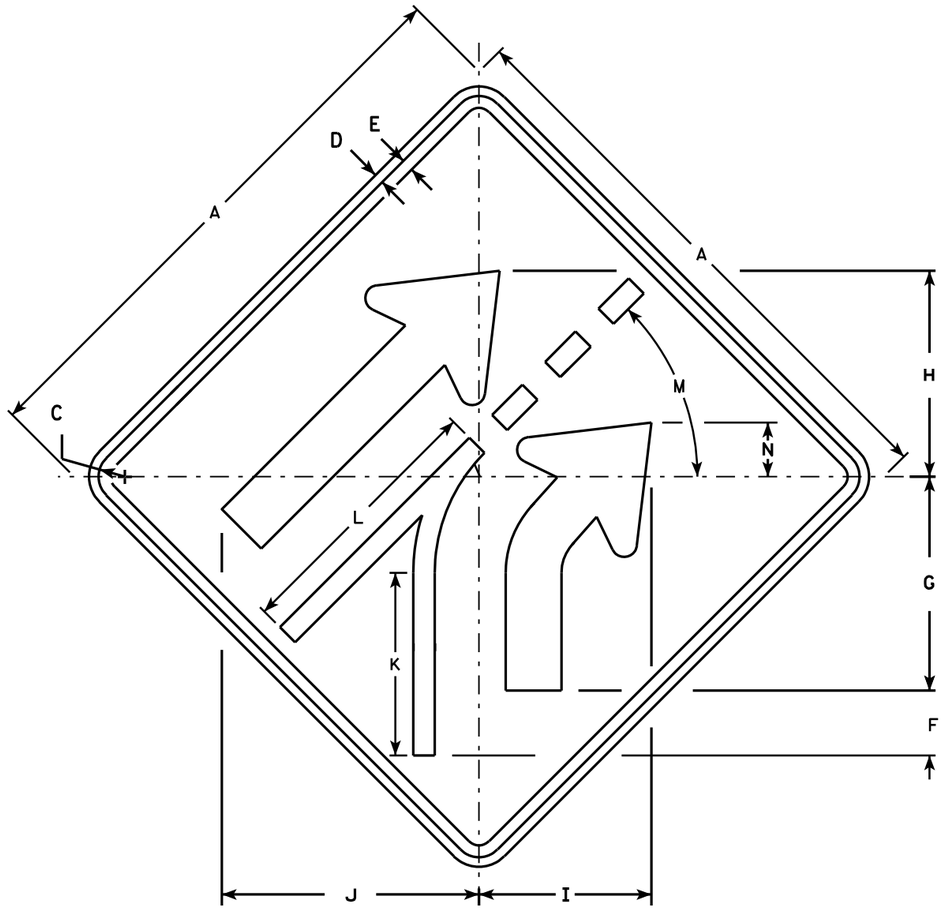
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-3.8

PROJECT NO:

SHEET NO: 514 E



W4-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Message - BLACK
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

* Scale and Rotate W4-3 and make modifications.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	3 3/8	11 1/4	10 3/4	9	13 1/2	9 1/2	14	45°	2 7/8													6.25
2S	36		1 5/8	5/8	3/4	4	13 1/2	13	10 7/8	16 1/4	11 1/2	16 7/8	45°	3 3/8													9.0
2M	36		1 5/8	5/8	3/4	4	13 1/2	13	10 7/8	16 1/4	11 1/2	16 7/8	45°	3 3/8													9.0
3																											
4	48		2 1/4	3/4	1	5 3/8	18	17 1/4	14 1/2	21 5/8	15 1/4	22 1/2	45°	4 1/2													16.0
5	48		2 1/4	3/4	1	5 3/8	18	17 1/4	14 1/2	21 5/8	15 1/4	22 1/2	45°	4 1/2													16.0

STANDARD SIGN
W4-6

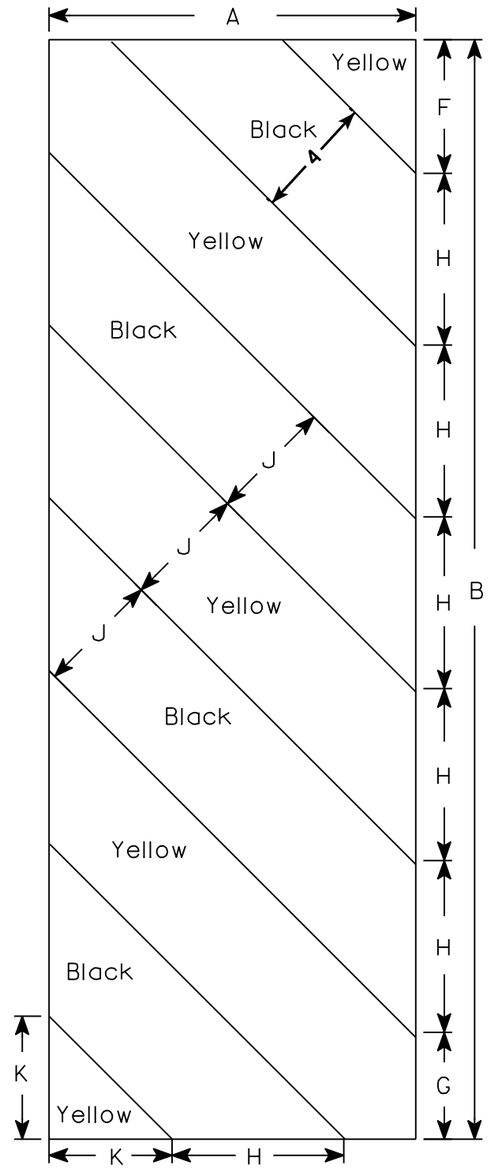
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

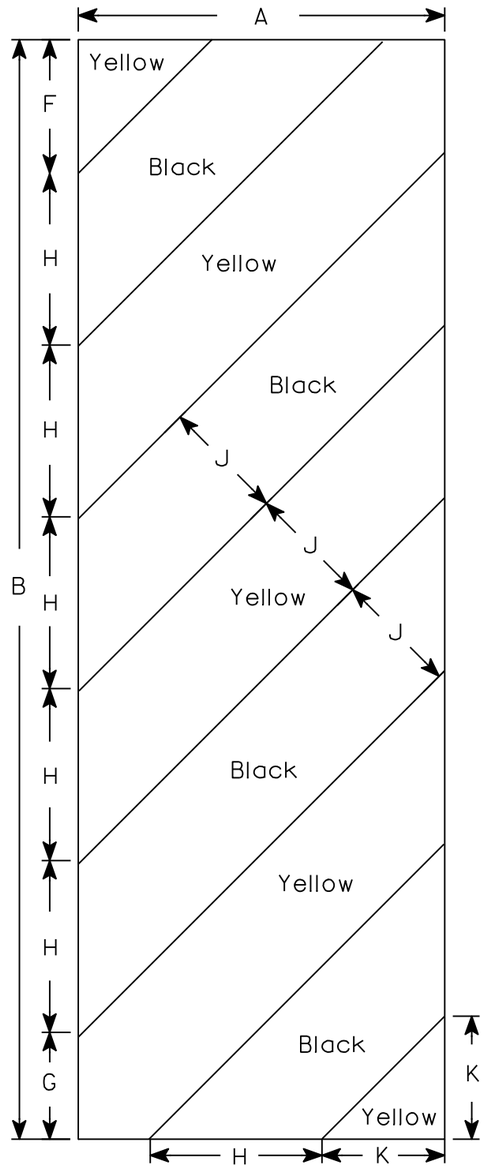
DATE 3/12/13 PLATE NO. W4-6.3

PROJECT NO:

SHEET NO: 515 E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

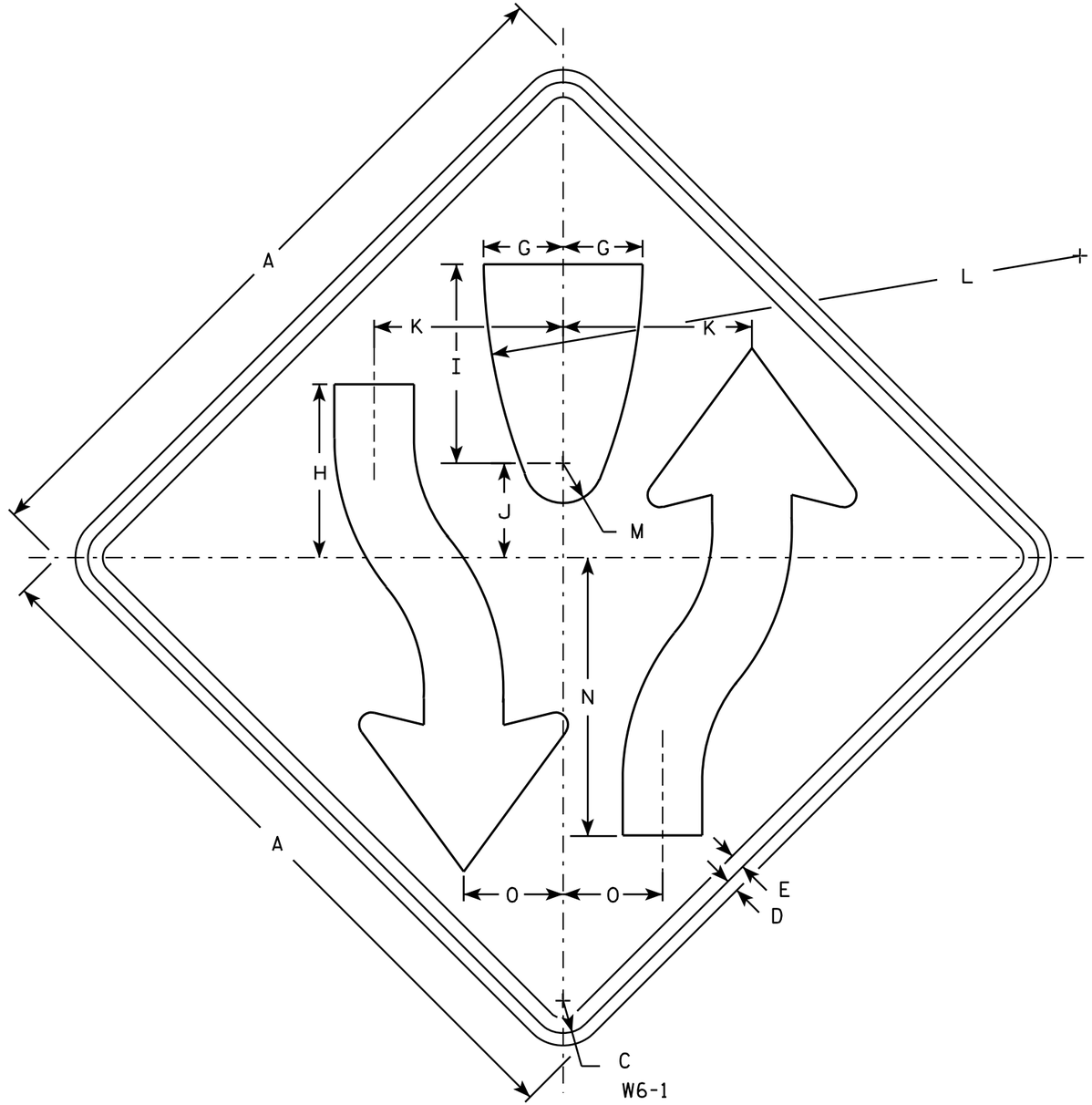
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

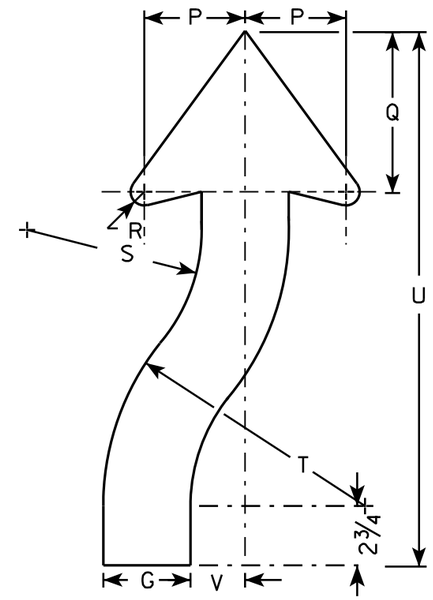
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 516	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 but is rotated 180° when mounted.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

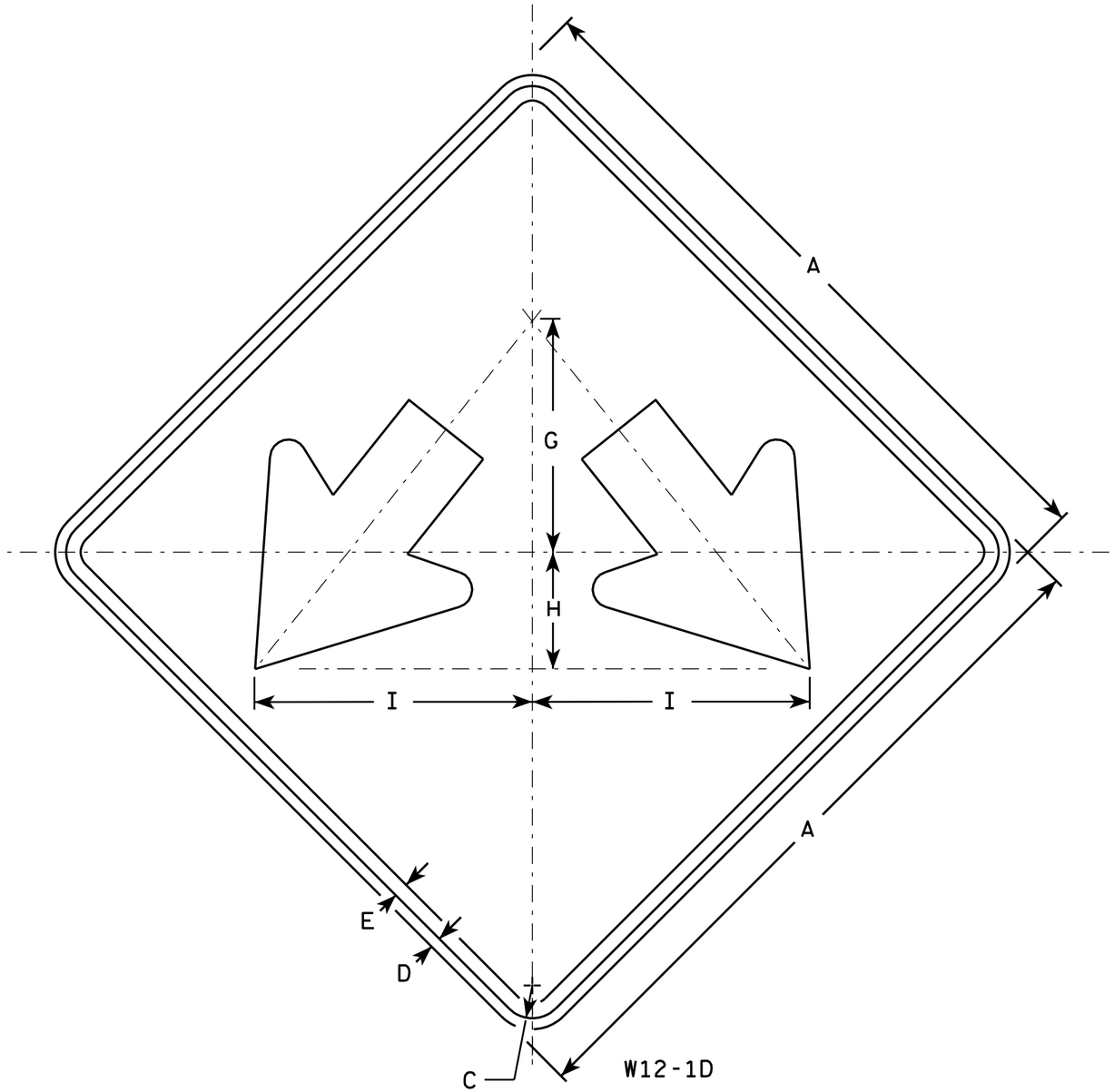
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 517	E

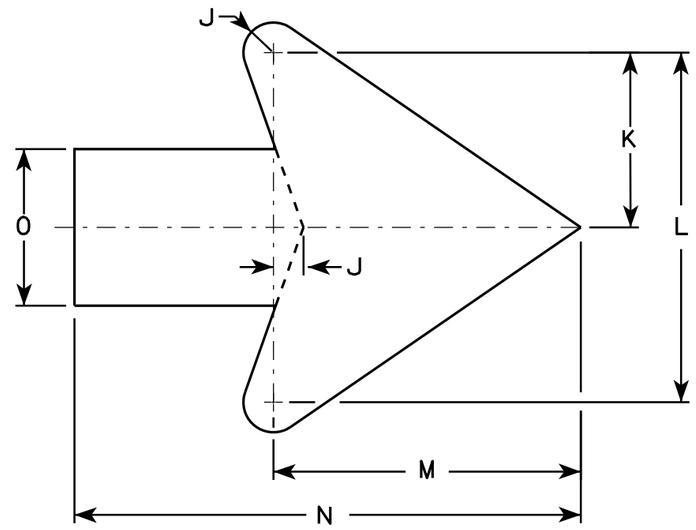
7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

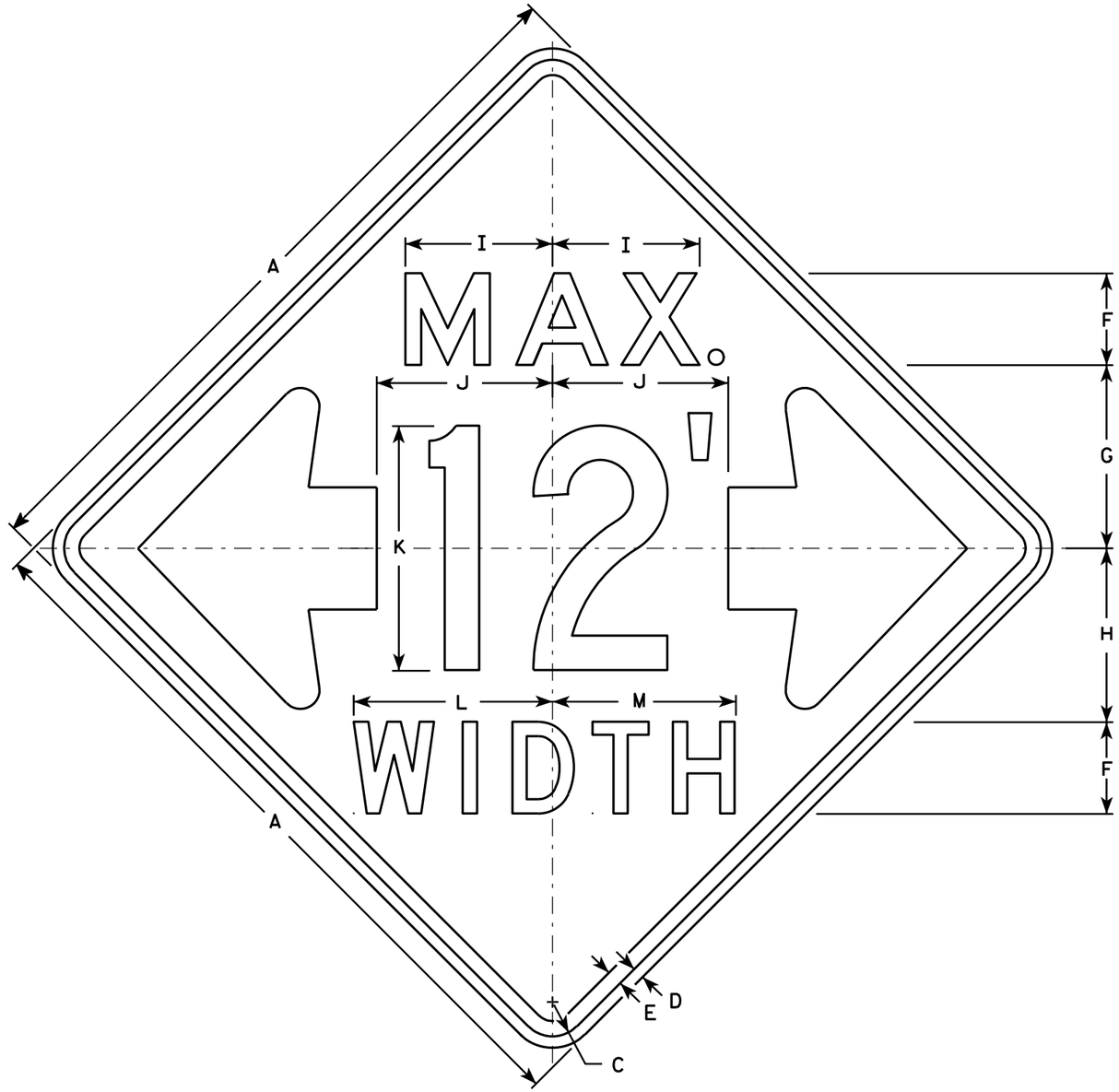
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

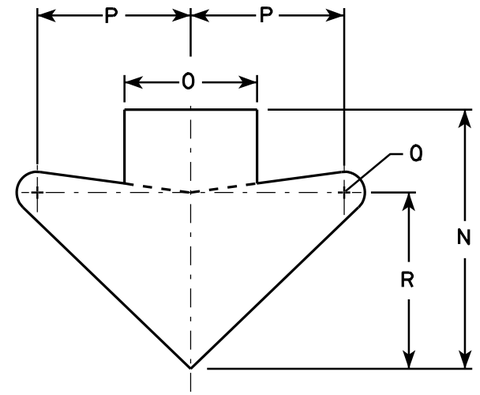
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 518	E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

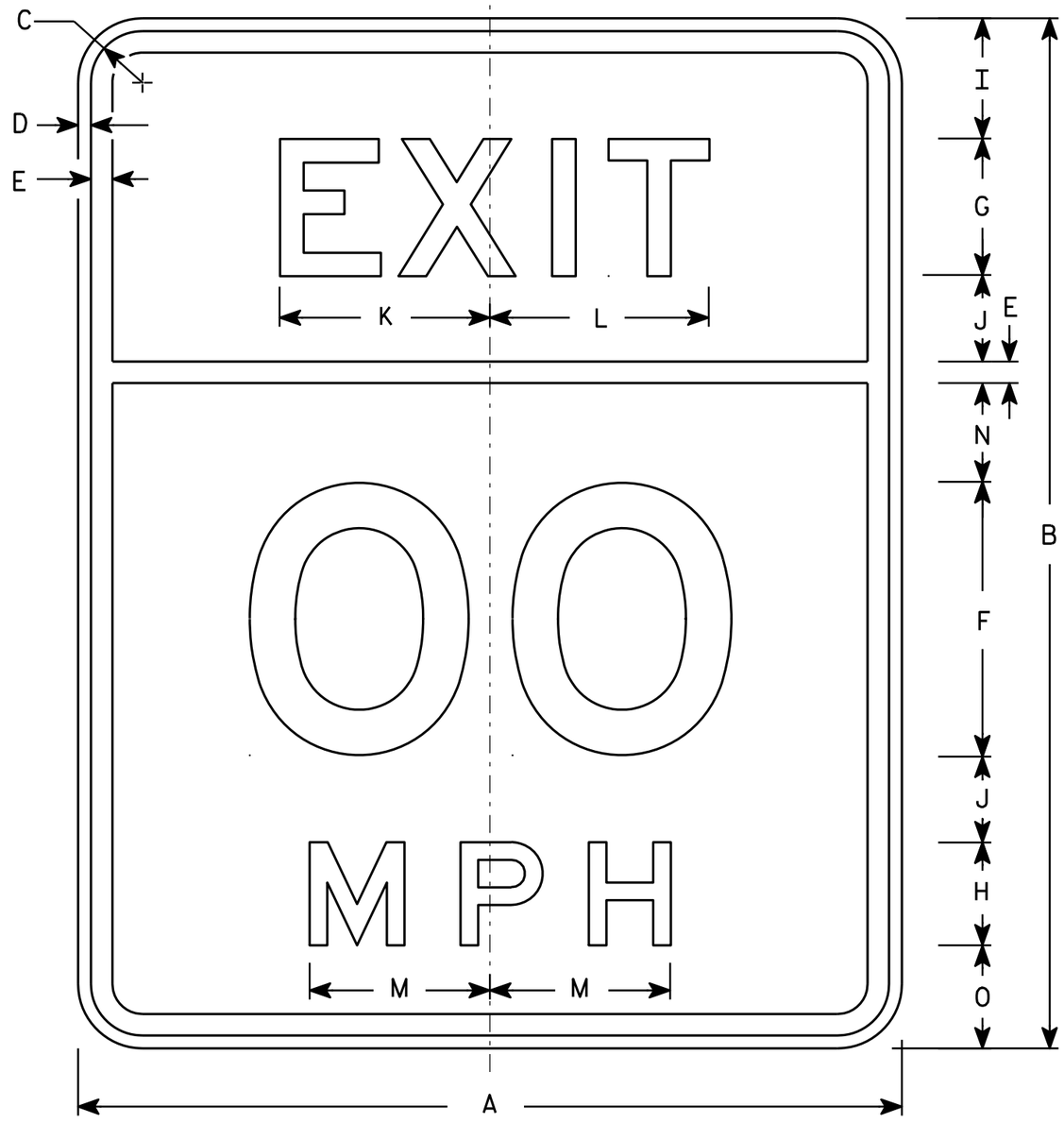
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 519	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000

WISDOT/CADDS SHEET 42

7

7



W13-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
2M	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
3	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
4	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
5	48	60	2 1/4	3/4	1	16	8	6	7	5	12 1/4	12 3/4	10 5/8	5 3/4	6												20.0

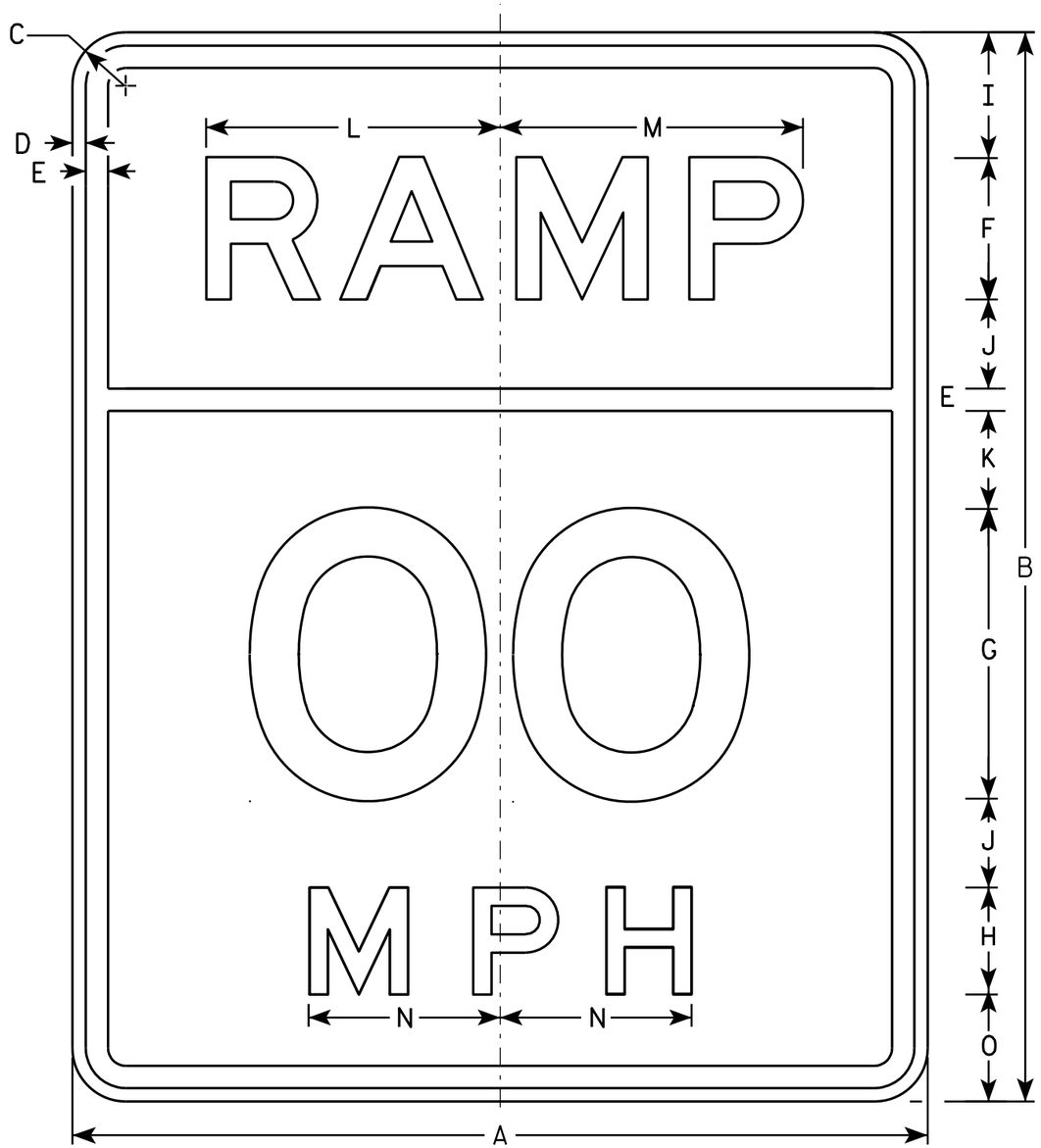
STANDARD SIGN
W13-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-2.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 520 | E



W13-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2S	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2M	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
3																											
4	36	48	1 5/8	5/8	7/8	6	12	4	6	4 1/8	5 1/8	13 1/2	13 5/8	7 1/8	6												12.0
5	48	60	2 1/4	3/4	1 1/4	8	16	6	7	5	5 3/4	16 1/2	17	10 5/8	6												20.0

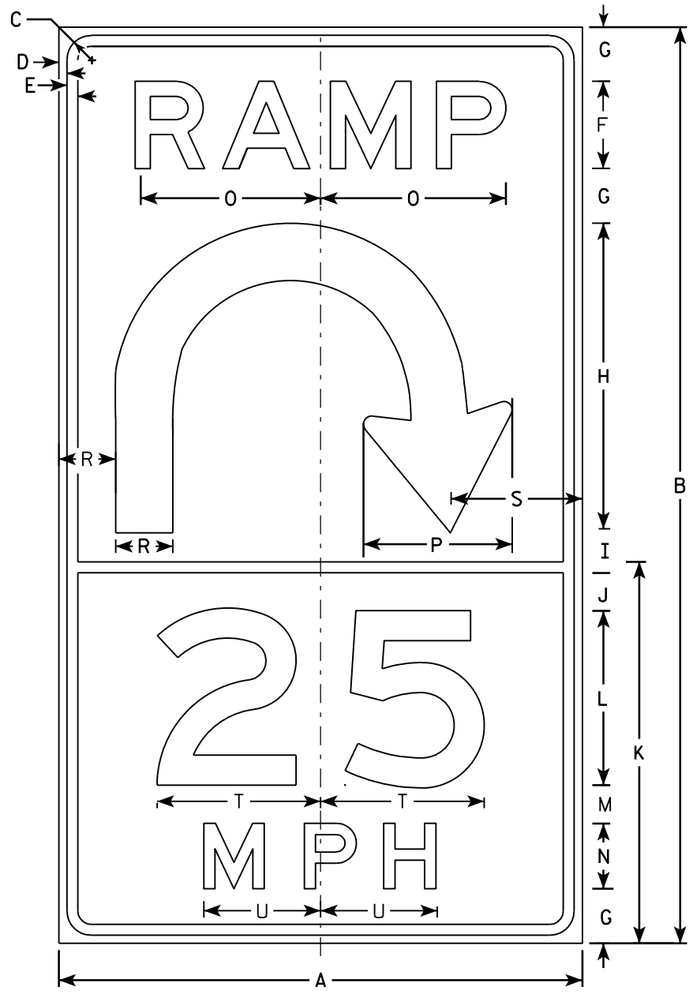
STANDARD SIGN
W13-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/13/13 PLATE NO. W13-3.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 521 | E



W13-3A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	60	1 5/8	3/4	5/8	6	3 1/2	20 1/4	2 1/2	3 1/2	25	10	2 1/4	5	12 3/4	10 1/4		4	9	10	8 1/2						15.0
2M	36	60	1 5/8	3/4	5/8	6	3 1/2	20 1/4	2 1/2	3 1/2	25	10	2 1/4	5	12 3/4	10 1/4		4	9	10	8 1/2						15.0
3																											
4	48	84	2 1/4	3/4	1	8	5	28	4	3 1/2	35	16	3 1/2	6	17	13 5/8		5 1/4	12	15	10 3/4						28.0
5	48	84	2 1/4	3/4	1	8	5	28	4	3 1/2	35	16	3 1/2	6	17	13 5/8		5 1/4	12	15	10 3/4						28.0

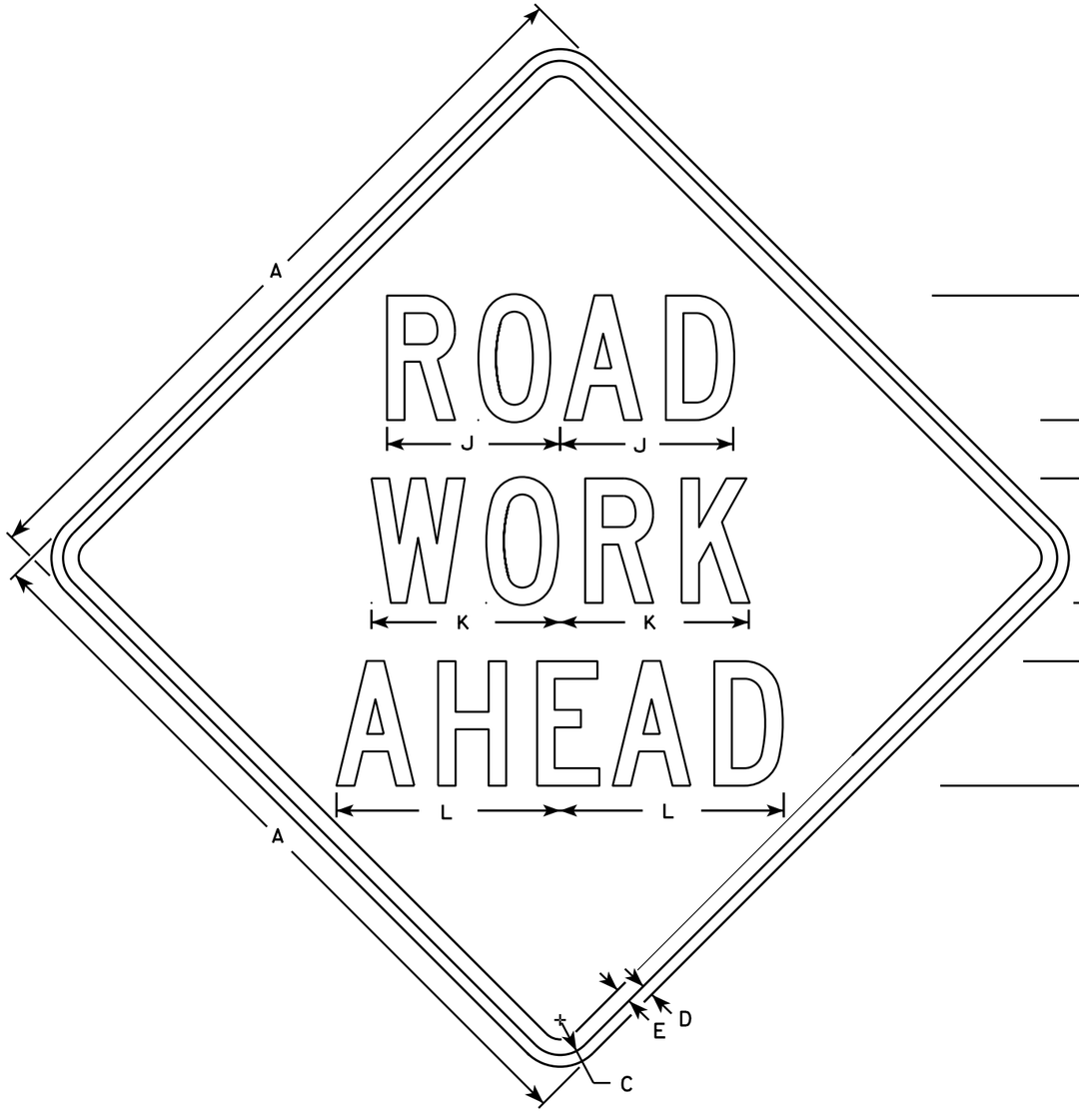
STANDARD SIGN
W13-3A

WISCONSIN DEPT OF TRANSPORTATION

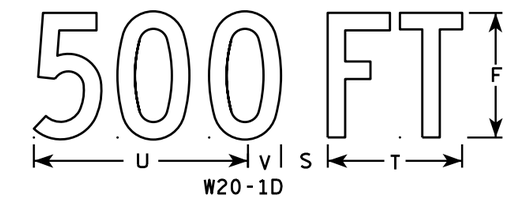
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/13 PLATE NO. W13-3A.1

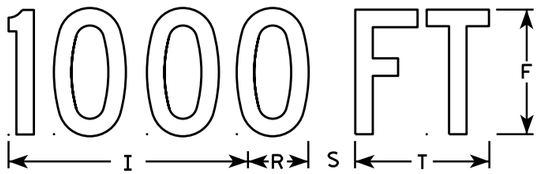
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 522 | E



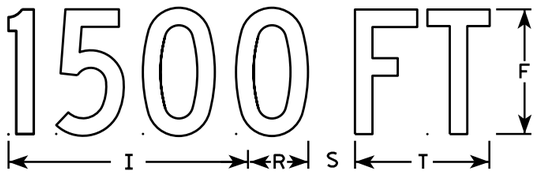
W20-1A



W20-1D



W20-1C



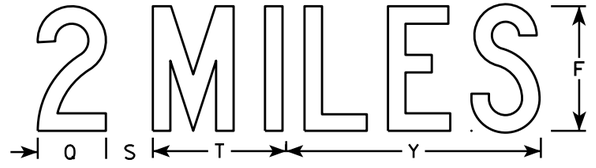
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

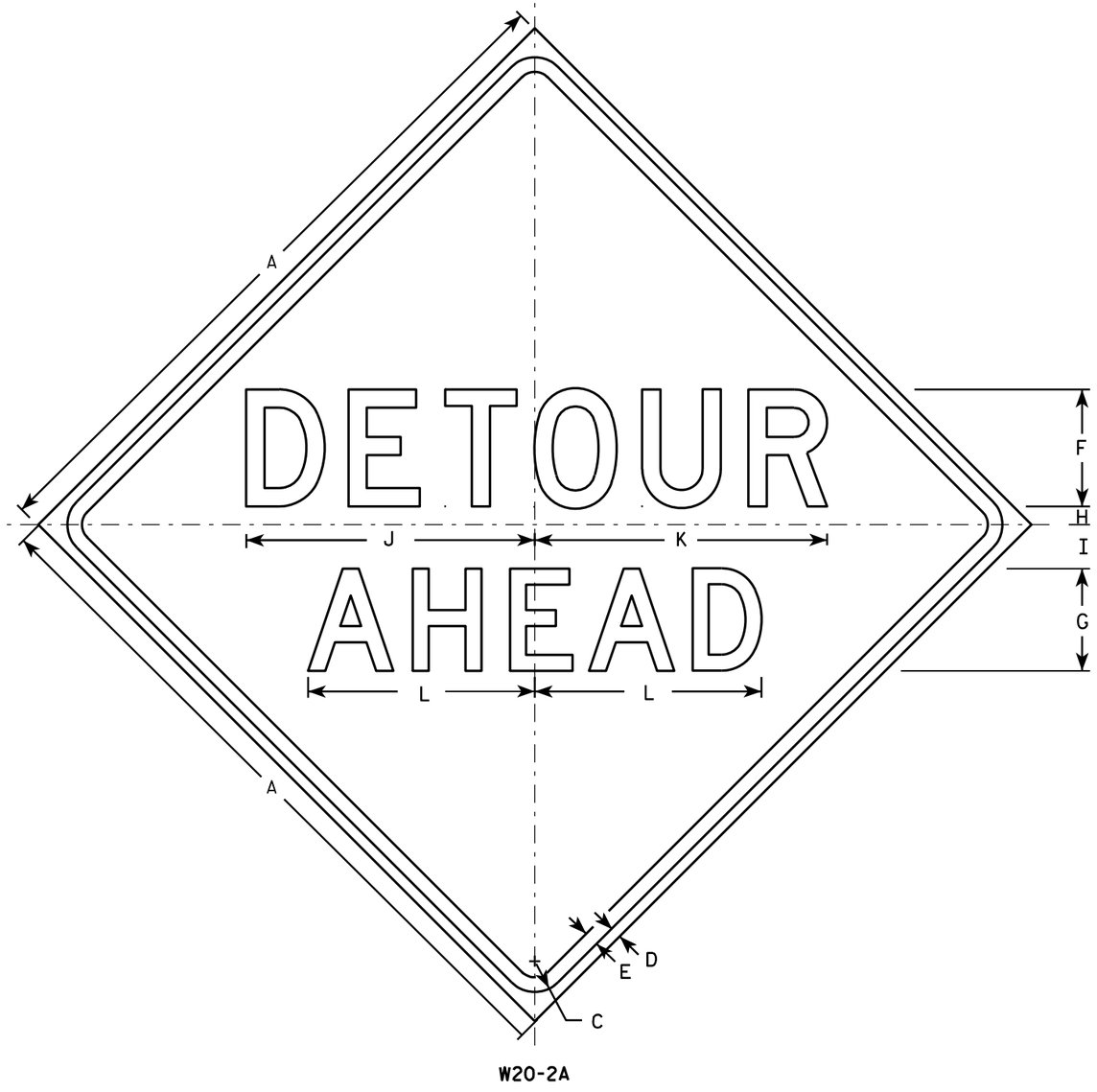
APPROVED

State Traffic Engineer

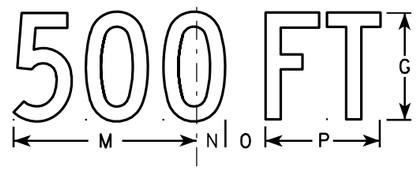
DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

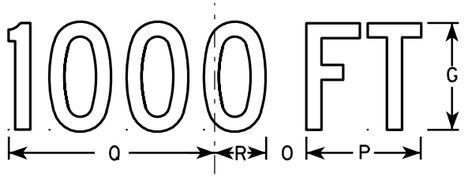
SHEET NO: E



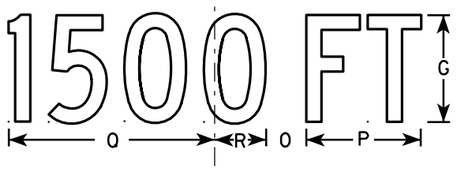
W20-2A



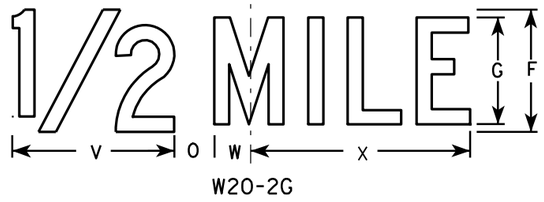
W20-2D



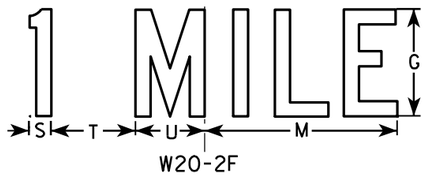
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

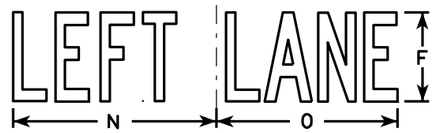
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

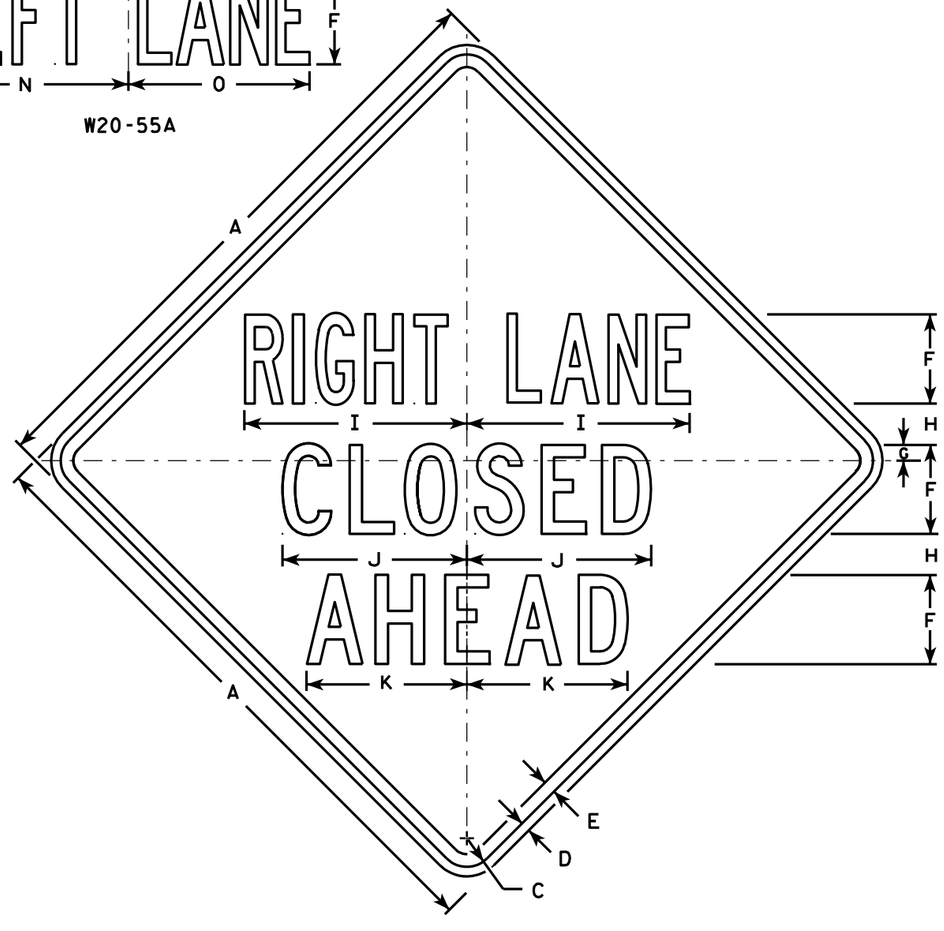
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 524	E



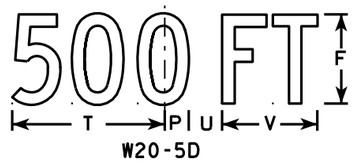
W20-56A



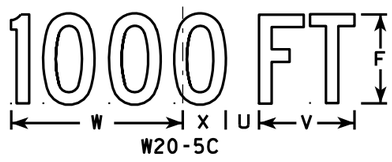
W20-55A



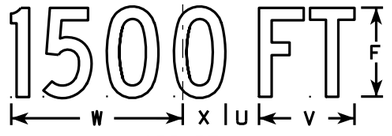
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

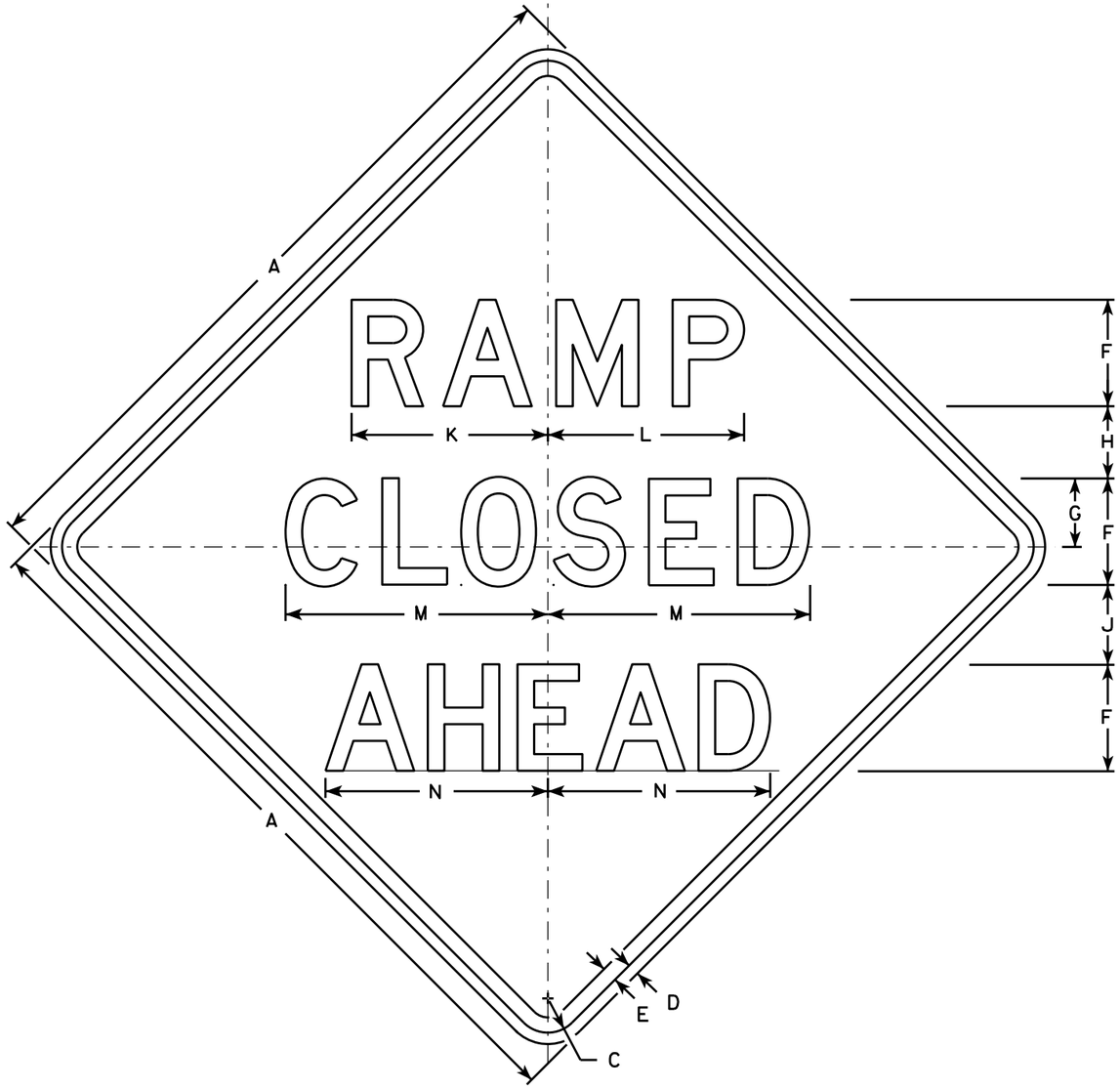
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

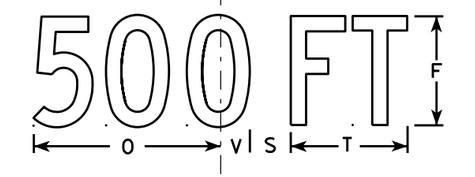
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 525	E

7

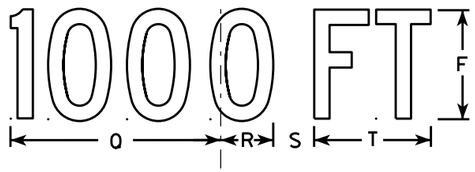
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



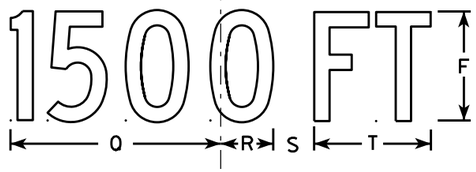
W20-53A



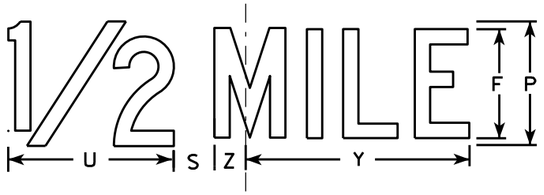
W20-53D



W20-53C



W20-53B



W20-53G



W20-53F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-53A,B,C,D,F,G

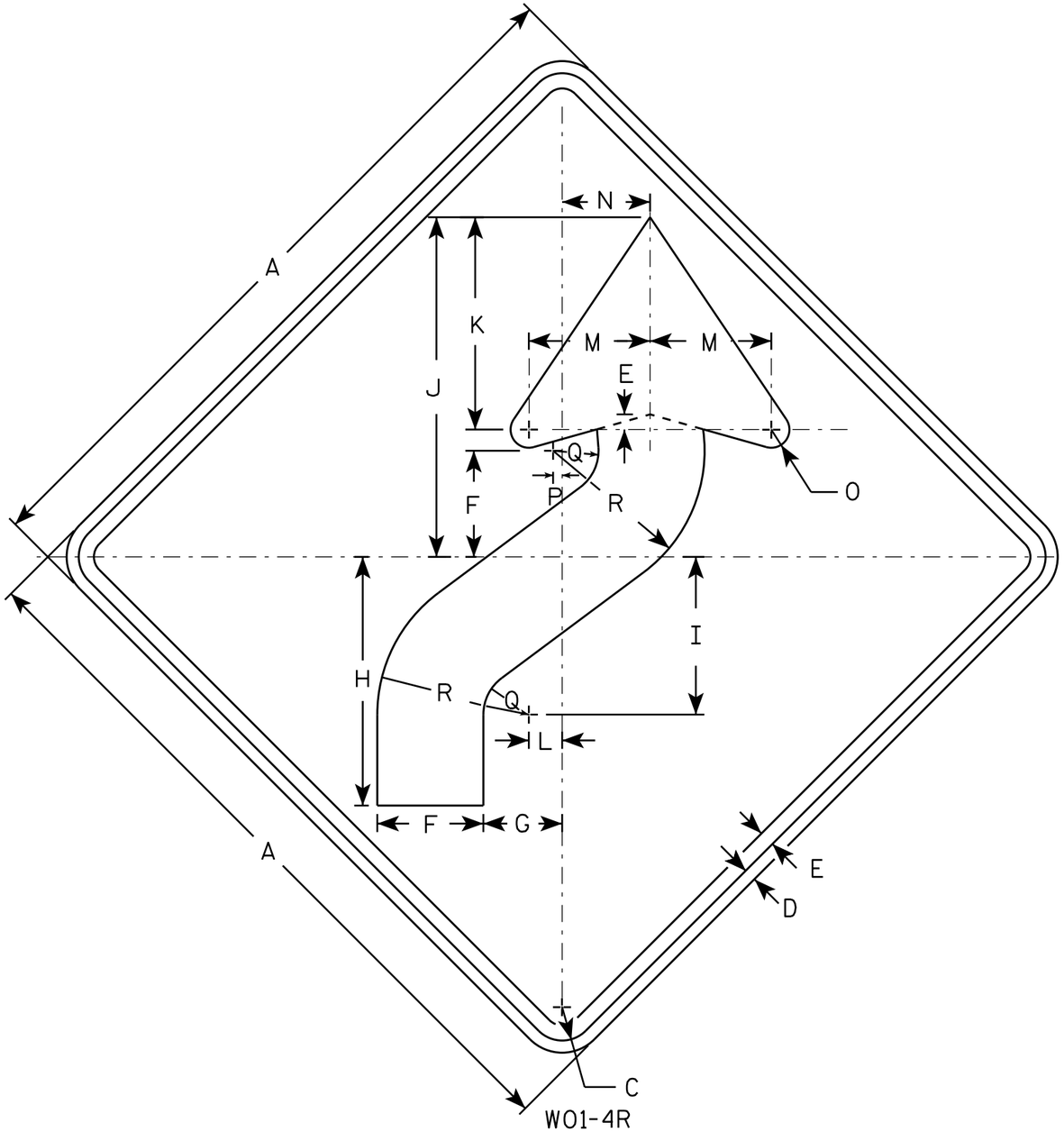
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/27/15 PLATE NO. W20-53.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W2053.DGN PLOT DATE : 27-MAY-2015 19:40 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.729210:1.000000
WISDOT/CADDS SHEET 42



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

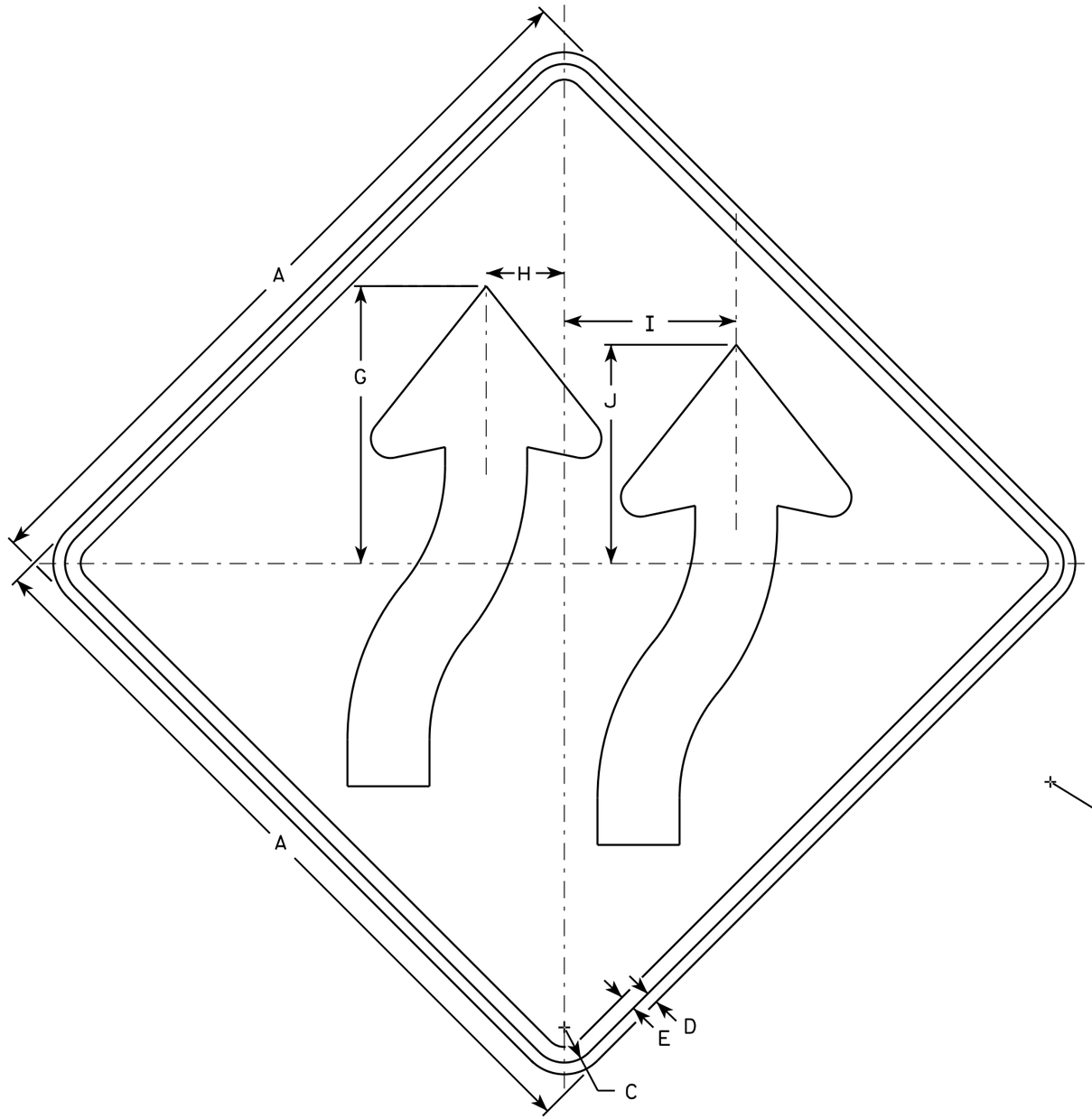
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

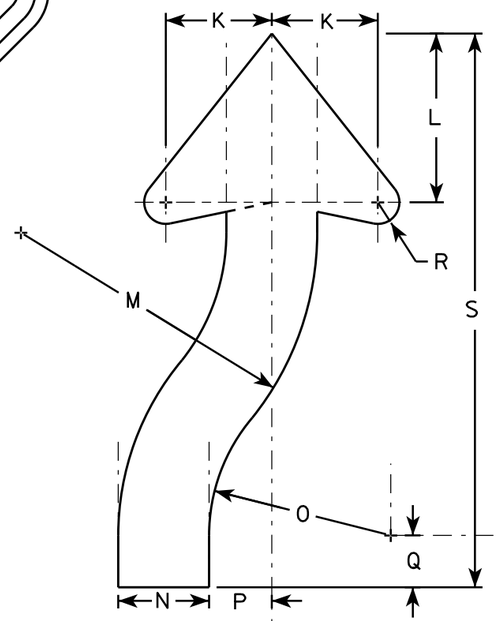
DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4bL is the same as W014-bR exept arrows are reversed along the vertical centerline

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

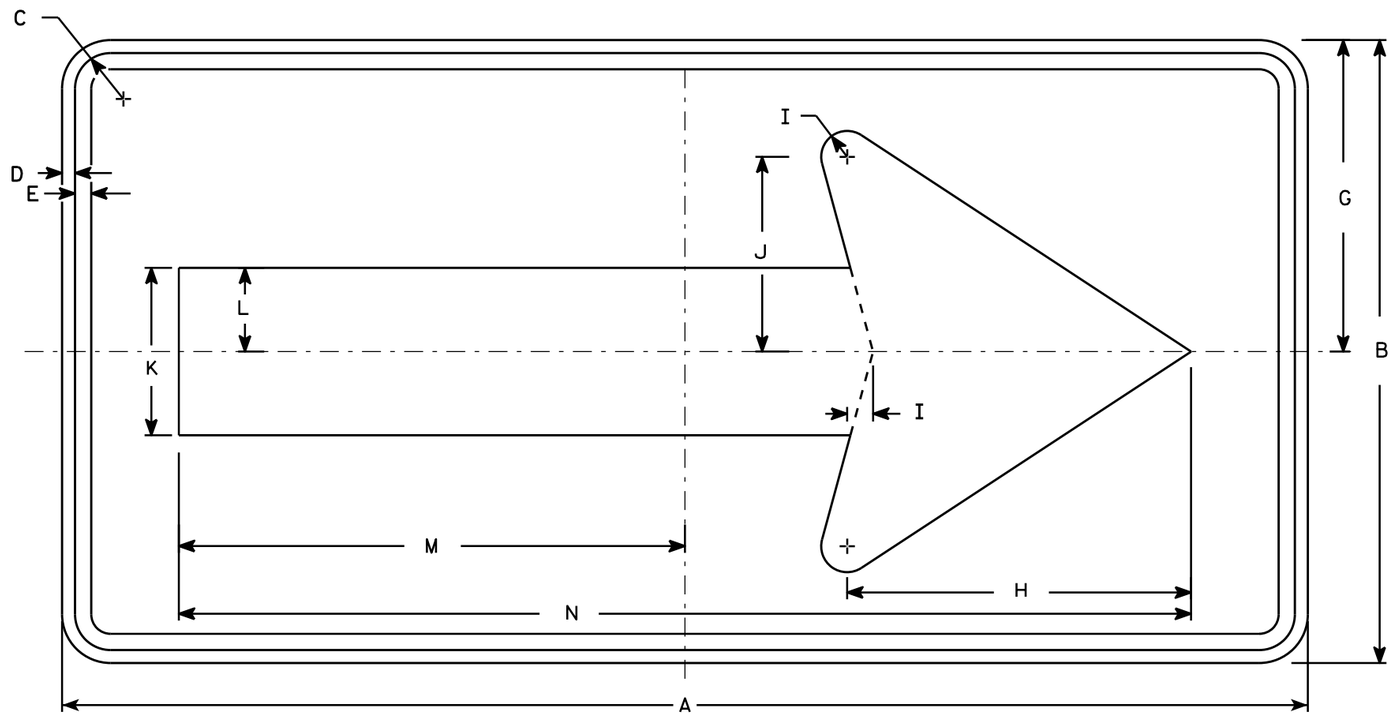
STANDARD SIGN
W01-4b

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

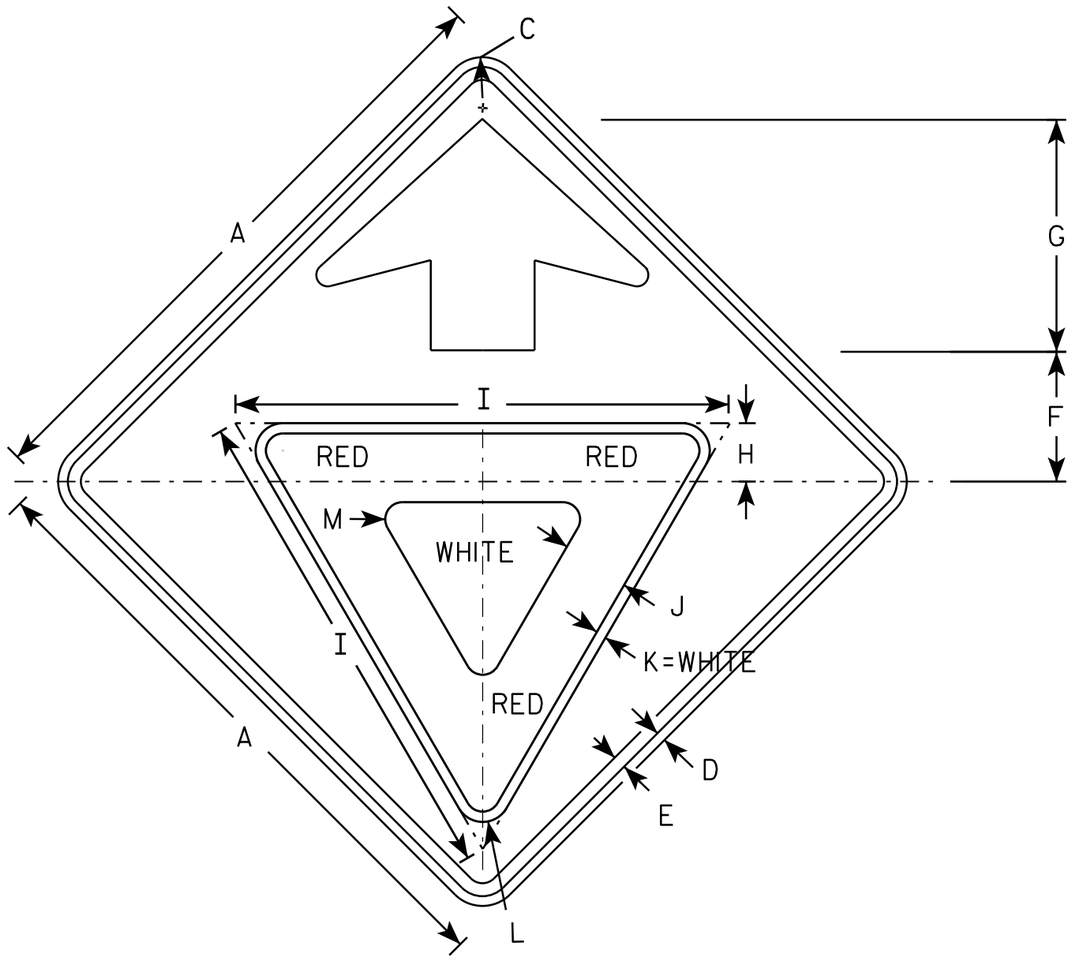
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

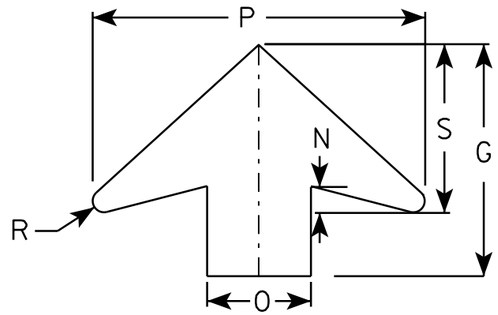
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W03-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

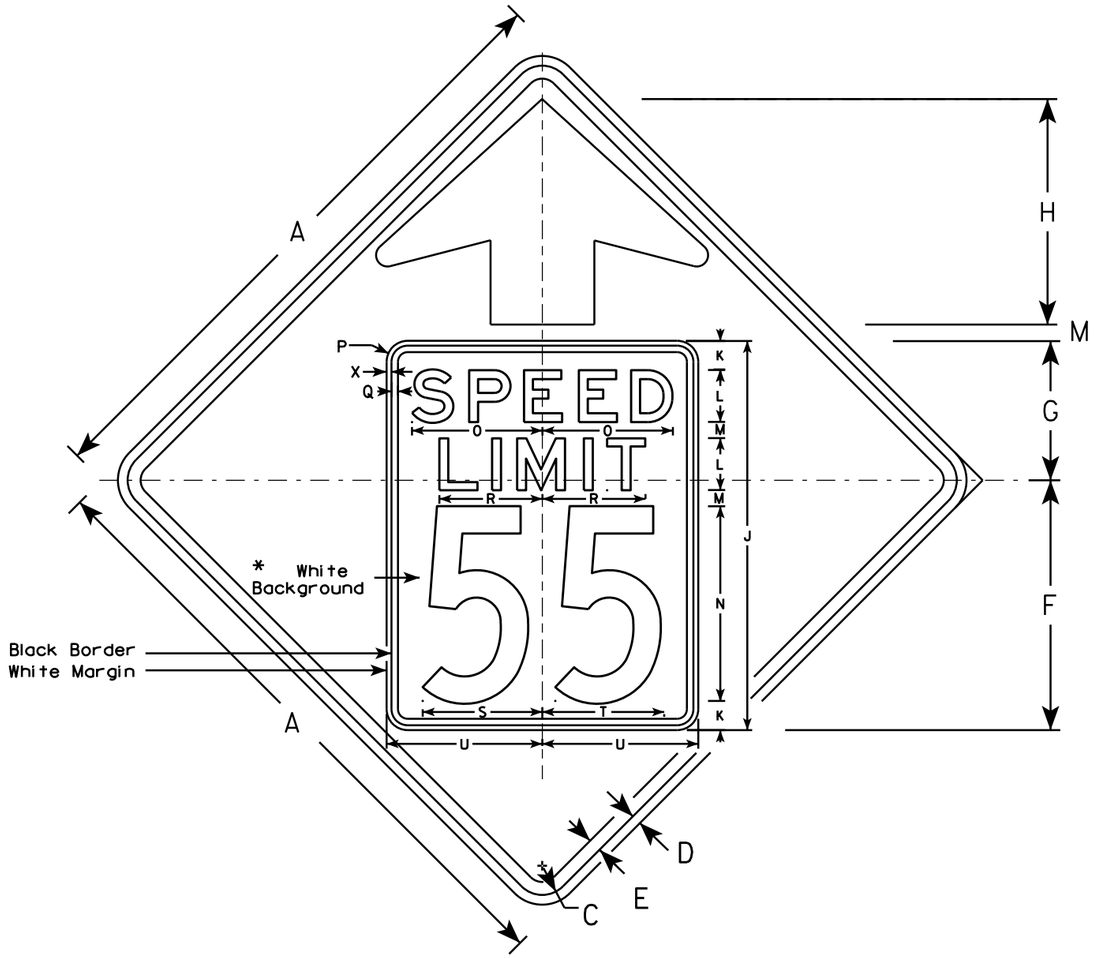
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-2.1

PROJECT NO:

SHEET NO: E

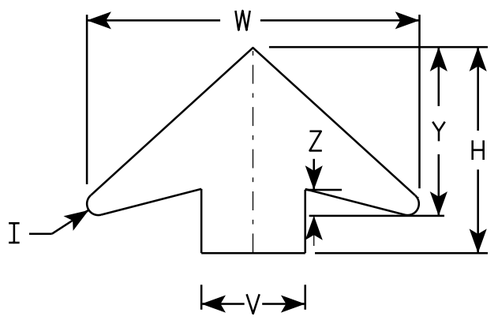


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

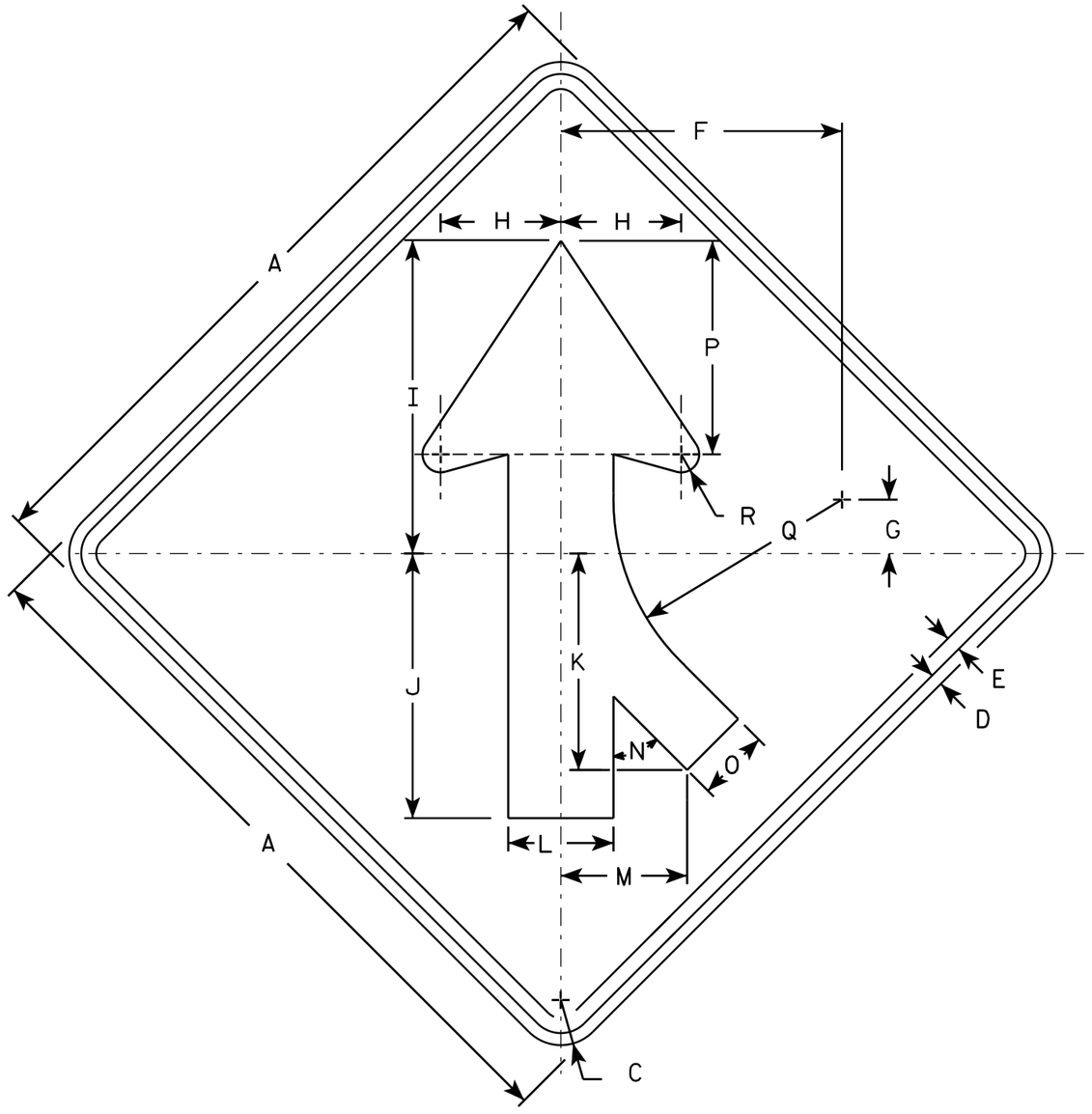
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W04-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

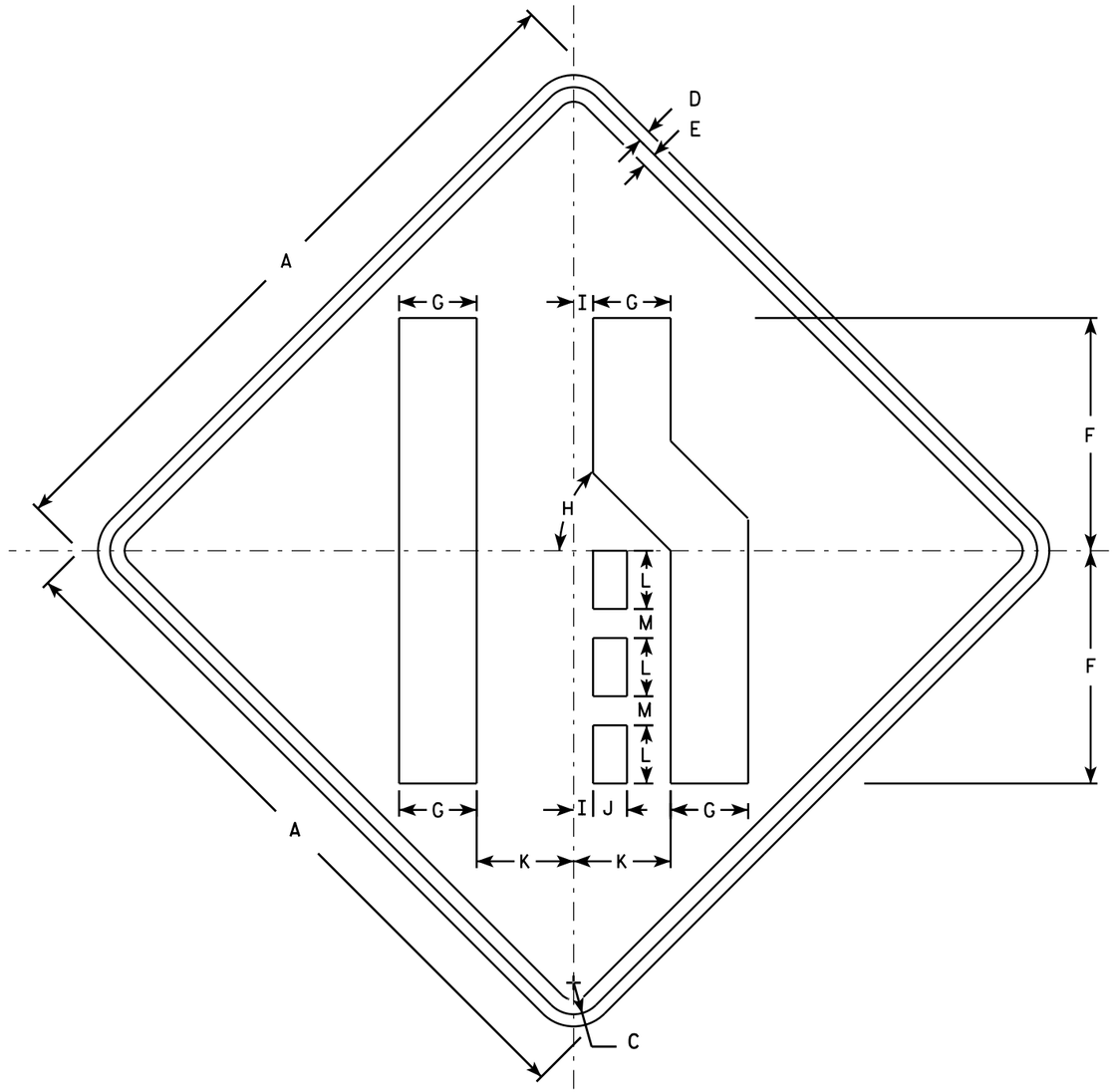
STANDARD SIGN
W04-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W04-1.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

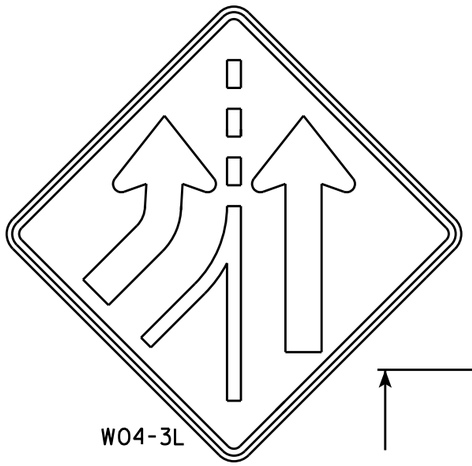
STANDARD SIGN
W04-2

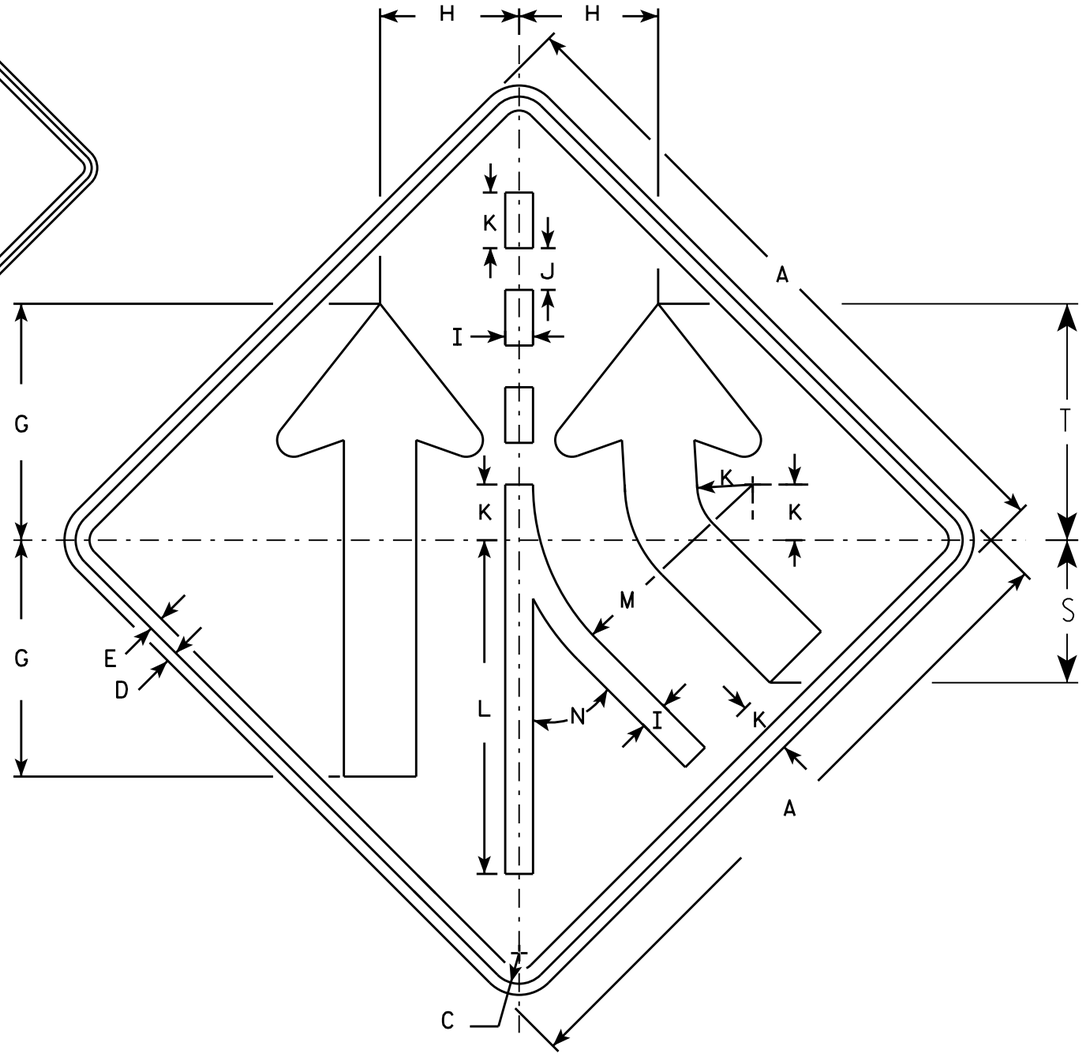
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 533 W04-2.1

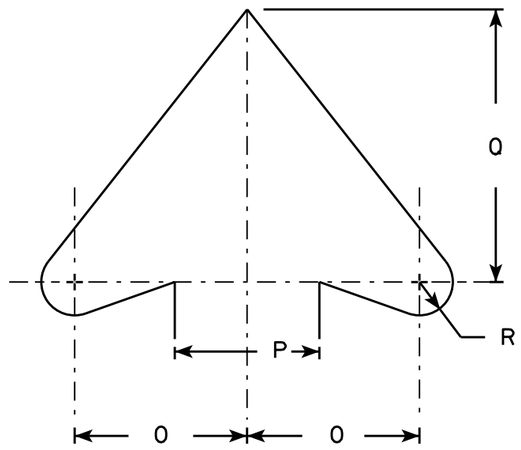
PROJECT NO: | SHEET NO: E





NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-3 L is the same as W04-3 R except the arrow is reversed along the vertical centerline.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
2S	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
2M	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
3	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
4	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
5	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0

STANDARD SIGN

W0433

WISCONSIN DEPT OF TRANSPORTATION

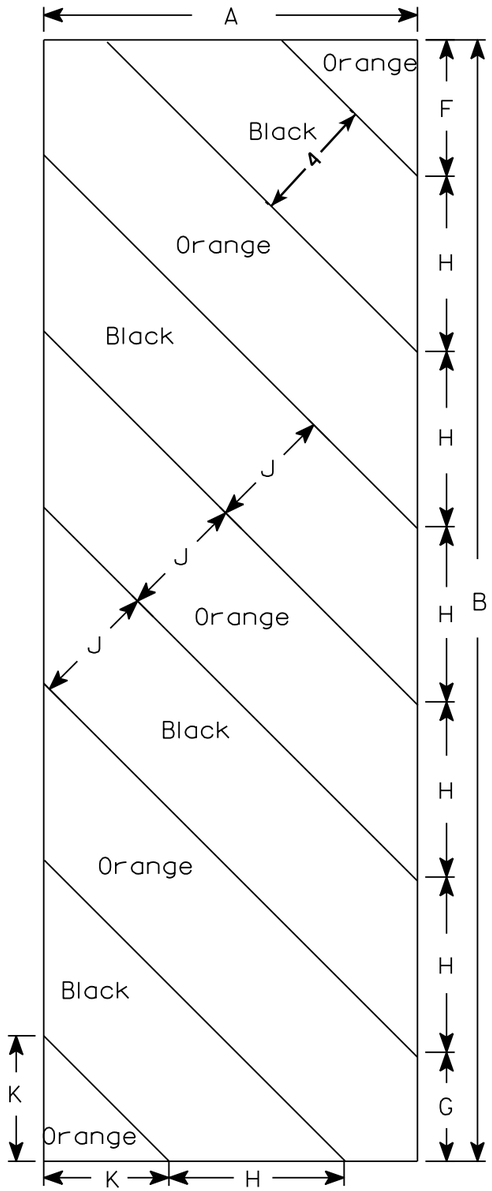
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W04-3.1

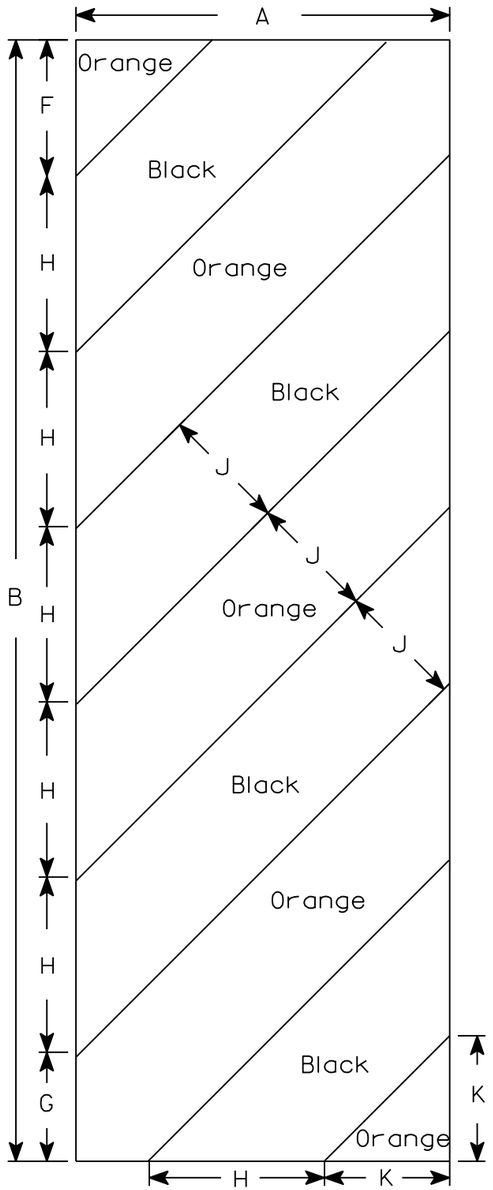
PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W043.DGN PLOT DATE : 20-NOV-2013 11:49 PLOT BY : mscsja 6.810449:1.000000

7 7



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

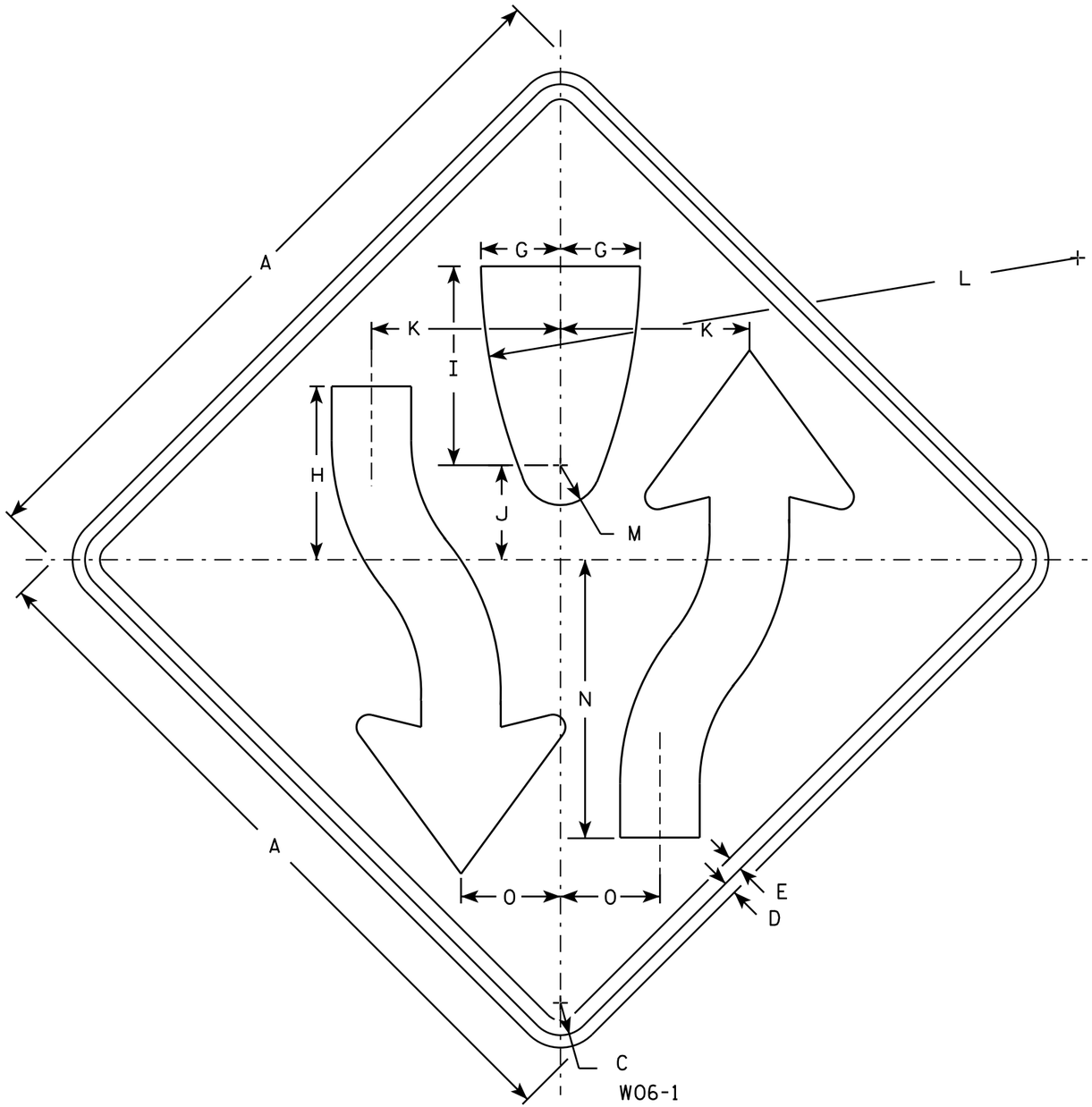
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE No. W05-52.1

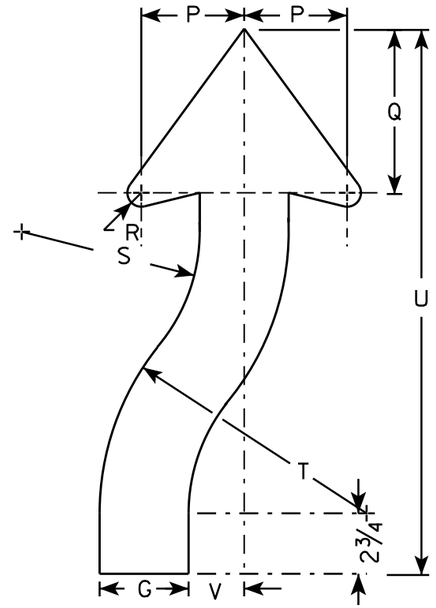
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W06-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W06-2 same as W06-1 but is rotated 180° when mounted.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2S	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
2M	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
3	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W06-1 & W06-2

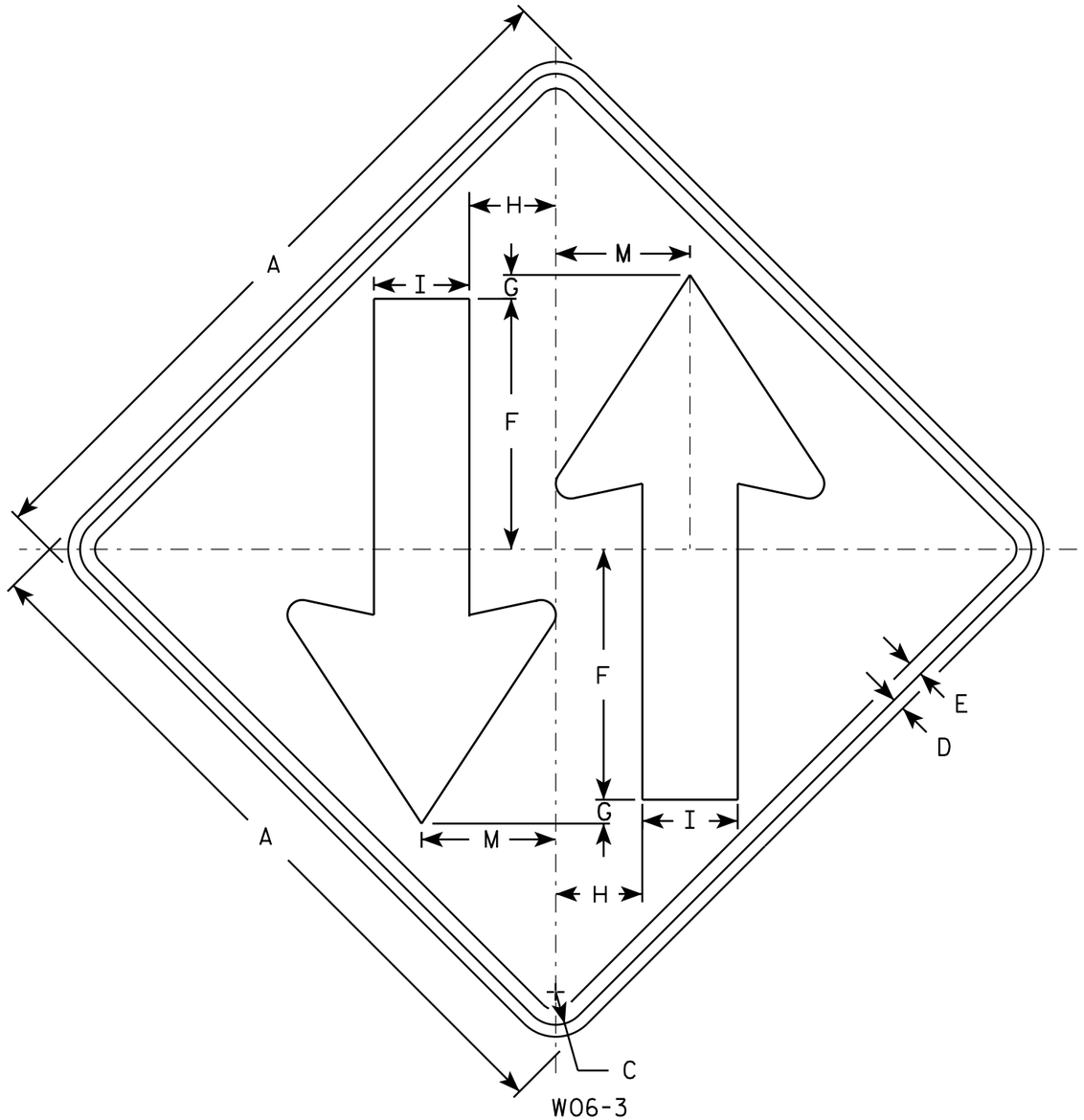
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO W06-1.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

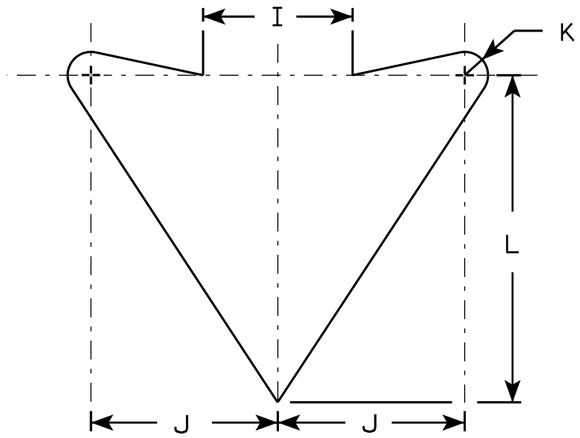
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W061.DGN PLOT DATE : 20-NOV-2013 12:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.810449:1.000000
WISDOT/CADDS SHEET 42



W06-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2S	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
2M	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
3	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

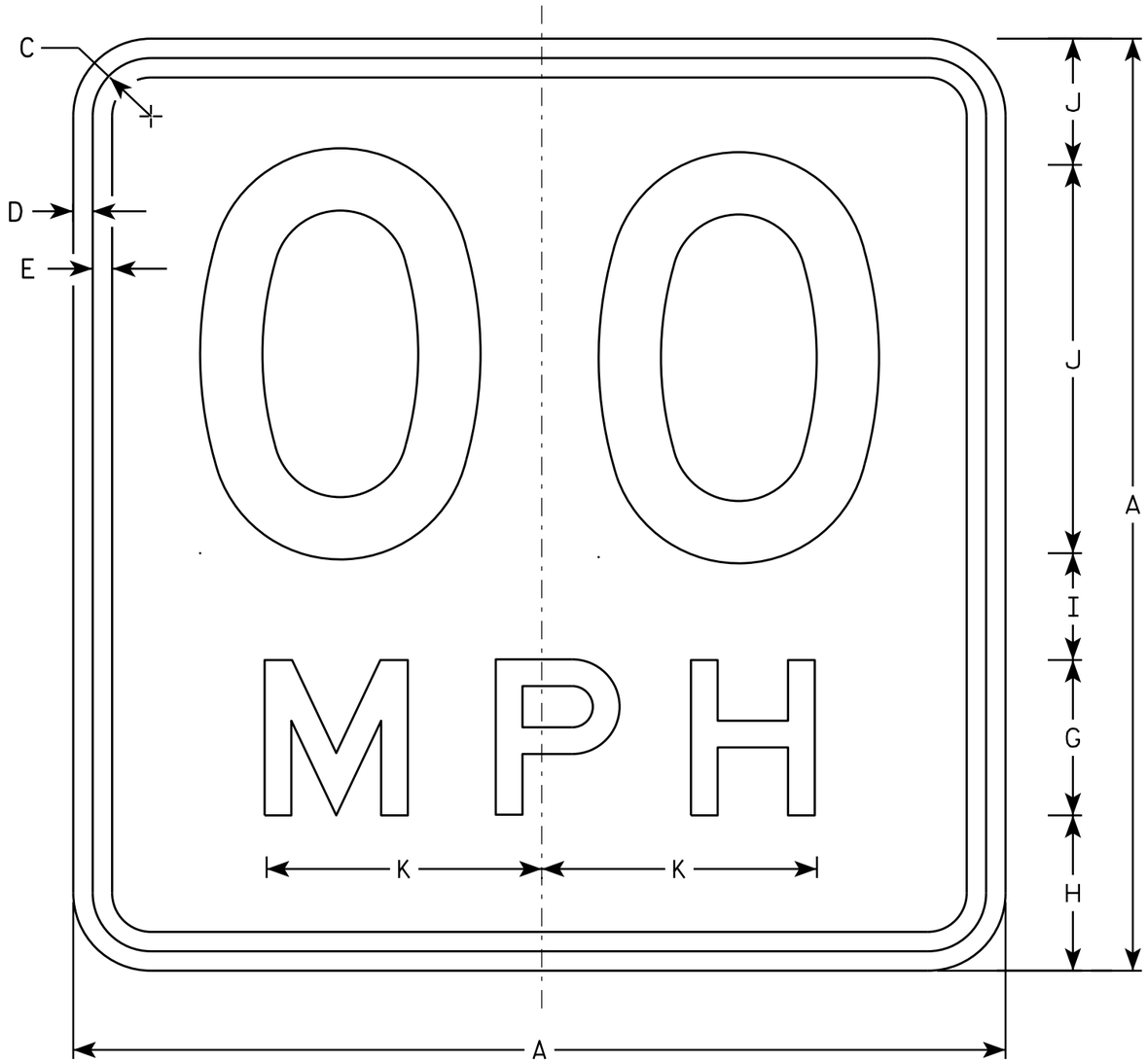
STANDARD SIGN
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 537 W06-3.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

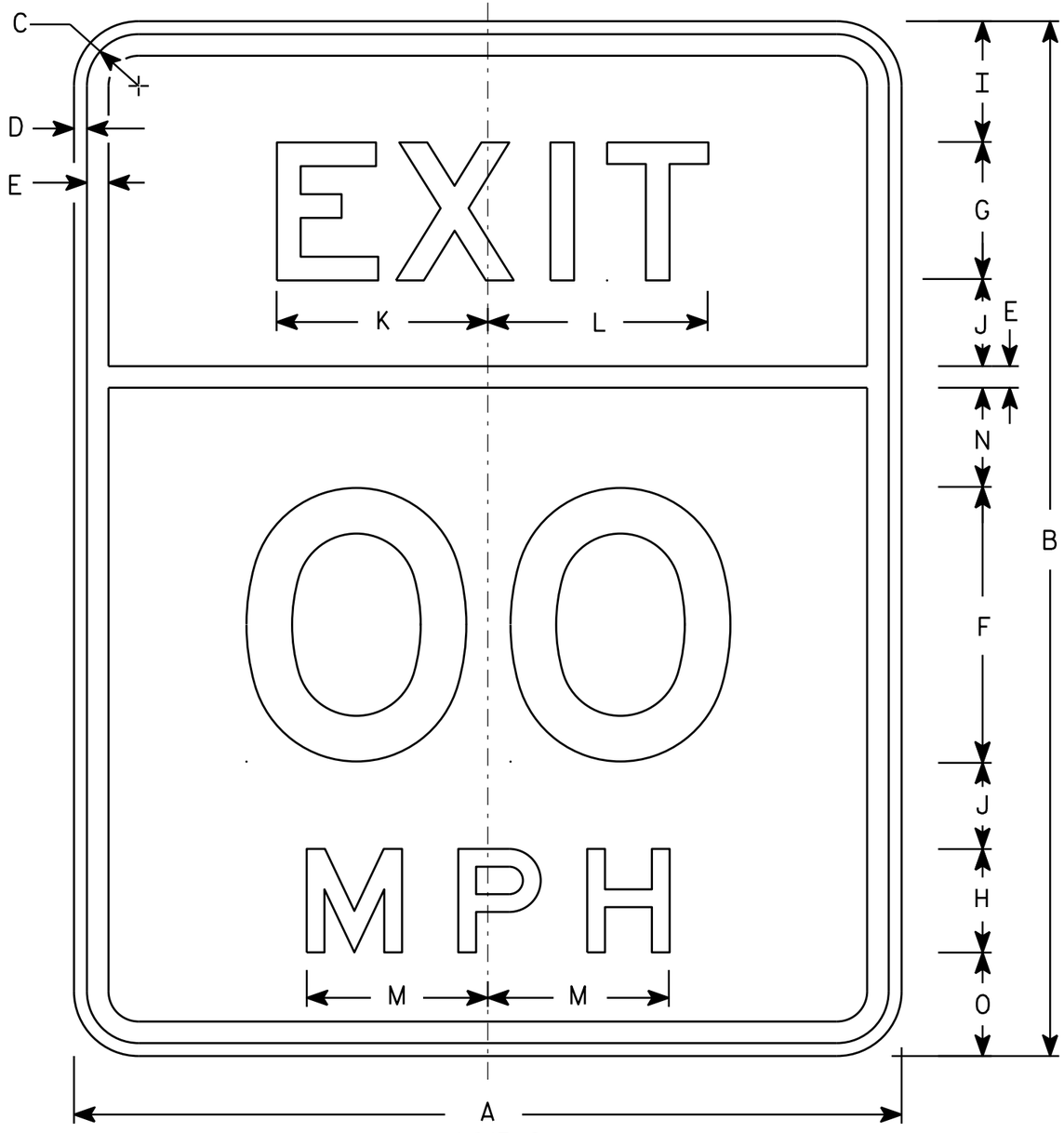
STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/13 PLATE 538 W013-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W013-2

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
2M	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
3	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
4	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
5	48	60	2 1/4	3/4	1	16	8	6	7	5	12 1/4	12 3/4	10 5/8	5 3/4	6												20.0

STANDARD SIGN
W013-2

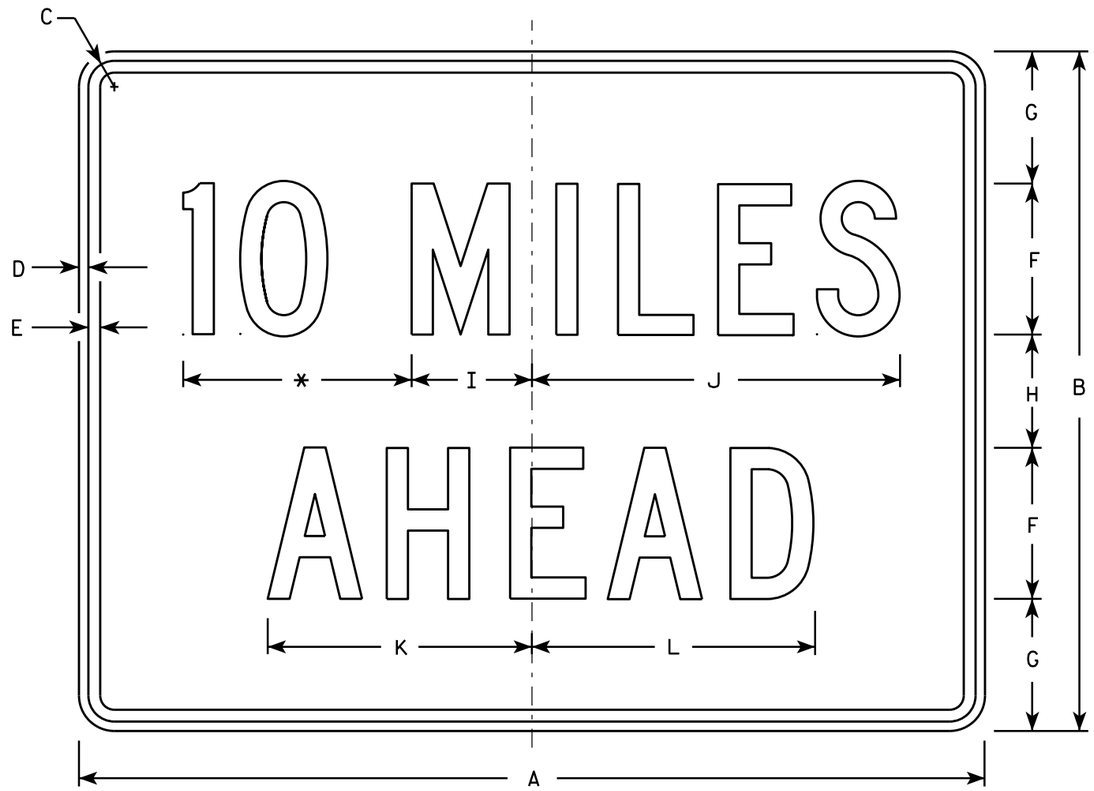
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

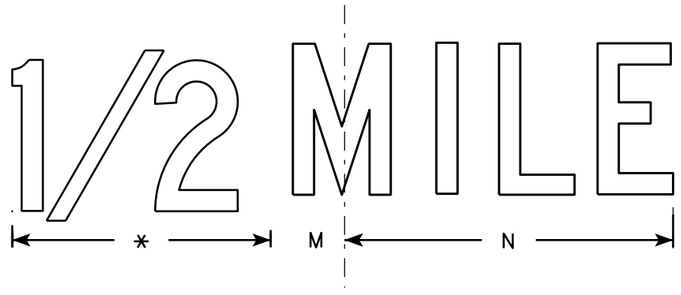
DATE 3/10/14 PLATE W013-2.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W0132.DGN PLOT DATE : 10-MAR-2014 13:35 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.086268:1.000000
WISDOT/CADDS SHEET 42



W057-52



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0

STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W057-52.1

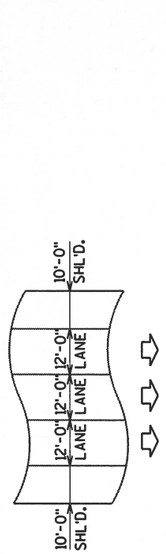
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

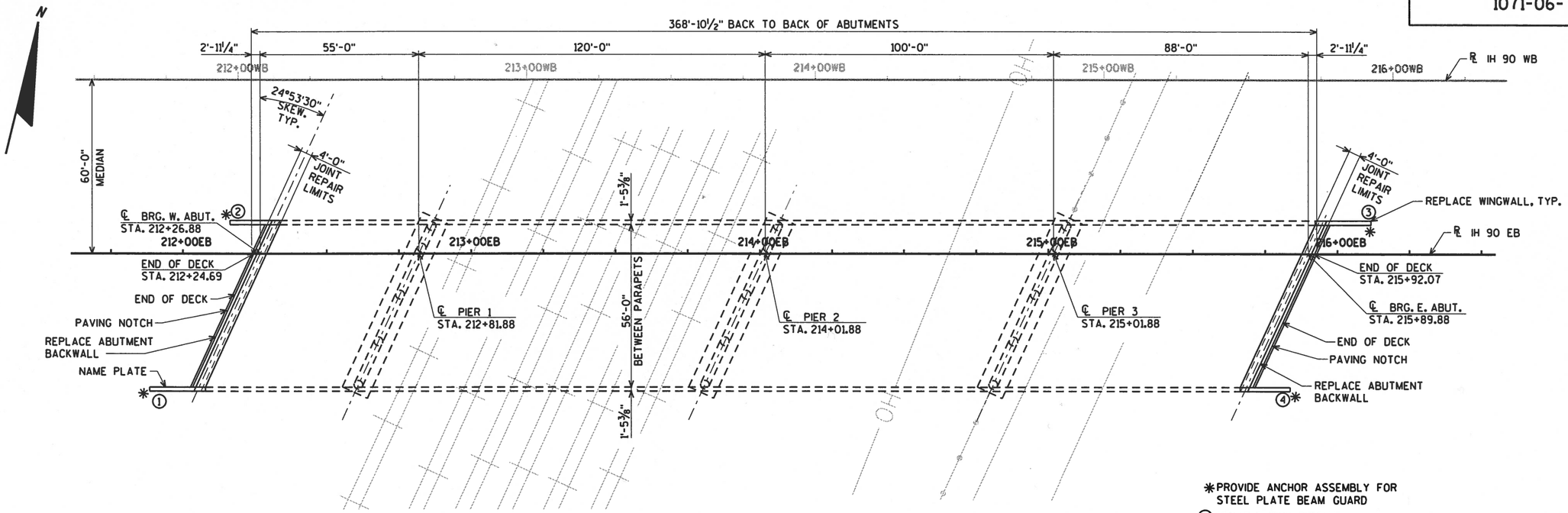
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W05752.DGN PLOT DATE : 28-FEB-2014 11:42 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 8.026599:1.000000 WISDOT/CADDS SHEET 42

$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-39 IH 90 EB over Oak St & RR\BRIDGE\B-32-39_GP.dgn

STATE PROJECT NUMBER

1071-06-79





PLAN

4-SPAN WELDED STEEL PLATE GIRDER BRIDGE
ABUTMENT BACKWALL AND EXPANSION JOINT REPLACEMENT

✱PROVIDE ANCHOR ASSEMBLY FOR STEEL PLATE BEAM GUARD

○ DENOTES WING NUMBER.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION AND QUANTITIES
3. ABUT. BACKWALL REPLACEMENT DETAILS
4. JOINT REPLACEMENT
5. JOINT REPLACEMENT DETAILS
6. WING REPLACEMENT DETAILS
7. PARAPET DETAILS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF THE DECK AT THE JOINT REPAIR AREAS. PIGMENTED SURFACE SEALER IS TO BE APPLIED TO THE TOP AND INSIDE FACES OF THE NEW PARAPETS.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.

AT THE BACK FACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE APPLICABLE FIGURES 12.6-1 AND 12.6-2 IN THE WISCONSIN DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID FOR IN THE LUMP SUM PRICE BID AS "EXPANSION DEVICE B-32-39".

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR.

ALL CONCRETE REMOVALS SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

DESIGN DATA

LIVE LOAD: TAKEN FROM HSI (03/26/2015)

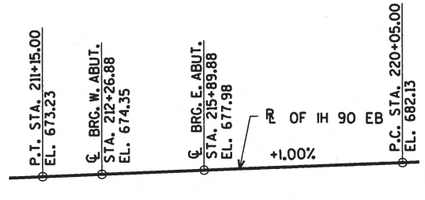
DESIGN LOADING: HS-20
INVENTORY RATING: HS-18
OPERATING RATING: HS-30
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 210 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY { SUPERSTRUCTURE ____ f'_c = 4,000 p.s.i.
ALL OTHER ____ f'_c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) ____ f_y = 60,000 p.s.i.

TRAFFIC DATA:

A.D.T. = 43,700 (2016)
A.D.T. = 56,700 (2036)
R.D.S. = 70 MPH



PROFILE GRADE LINE

(IH 90 EB)

WISCONSIN
DANIEL N. SYDOW
E-38363
WI
PROFESSIONAL ENGINEER
5/21/15

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
DAN SYDOW
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/04/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-32-39

IH 90 EB OVER OAK STREET & RAILROAD

COUNTY	TOWN/CITY/~~VILLAGE~~
LA CROSSE	LA CROSSE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JCK	JWZ	JCK	DNS

GENERAL PLAN

SHEET 541 OF 7

DATE:
DATE:
DATE:

CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

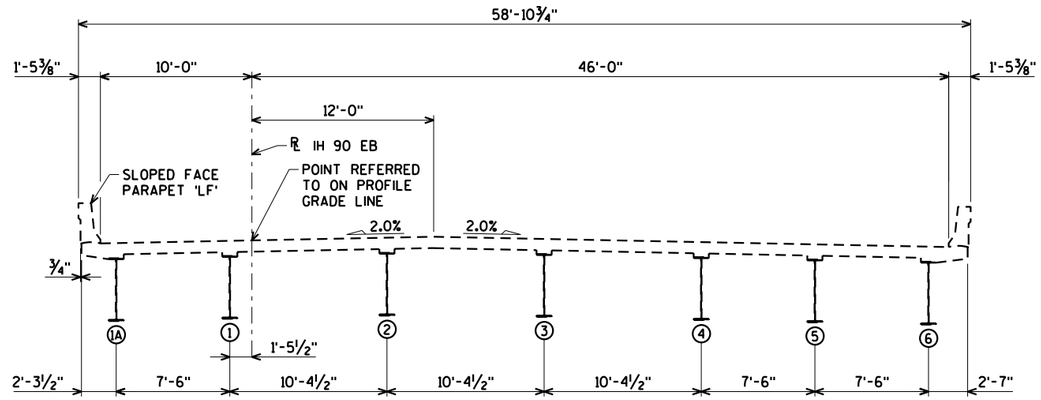
8

8

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
⊗	203.0200	REMOVING OLD STRUCTURE STATION 214+01.88	LS	1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-32-39	LS	1
	210.0100	BACKFILL STRUCTURE	CY	160
▲	502.0100	CONCRETE MASONRY BRIDGES	CY	72
	502.3100	EXPANSION DEVICE B-32-39	LS	1
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	55
	502.3210	PIGMENTED SURFACE SEALER	SY	30
	502.5002	MASONRY ANCHORS TYPE L NO. 4 BARS	EACH	8
	502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	320
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	11,630
	509.1000	JOINT REPAIR	SY	58
◑	509.1500	CONCRETE SURFACE REPAIR	SF	10
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	30
	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4

⊗ INCLUDES REMOVAL OF THE EXISTING ABUTMENT BACKWALLS, TOPS OF WINGWALLS, AND PARAPETS ON WINGWALLS.
▲ BID ITEM ALSO INCLUDES CONCRETE FOR "JOINT REPAIR".
◑ UNDISTRIBUTED FOR ABUTMENT FACE AS DIRECTED IN THE FIELD BY ENGINEER.



CROSS SECTION THRU ROADWAY
LOOKING EAST

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STRUCTURE B-32-39

DRAWN BY JCK | PLANS CK'D. JWZ

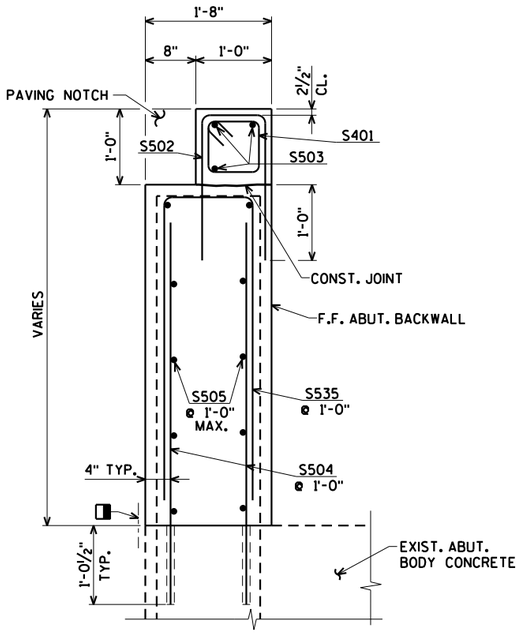
CROSS SECTION AND QUANTITIES

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U:±41-0627.00 - LaCrosse County, IH90±B-32-39 IH 90 EB over Oak St & RR±BRIDGE±B-32-39_GP.dgn

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$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-39 IH 90 EB over Oak St & RR\BRIDGE\B-32-39_details.dgn

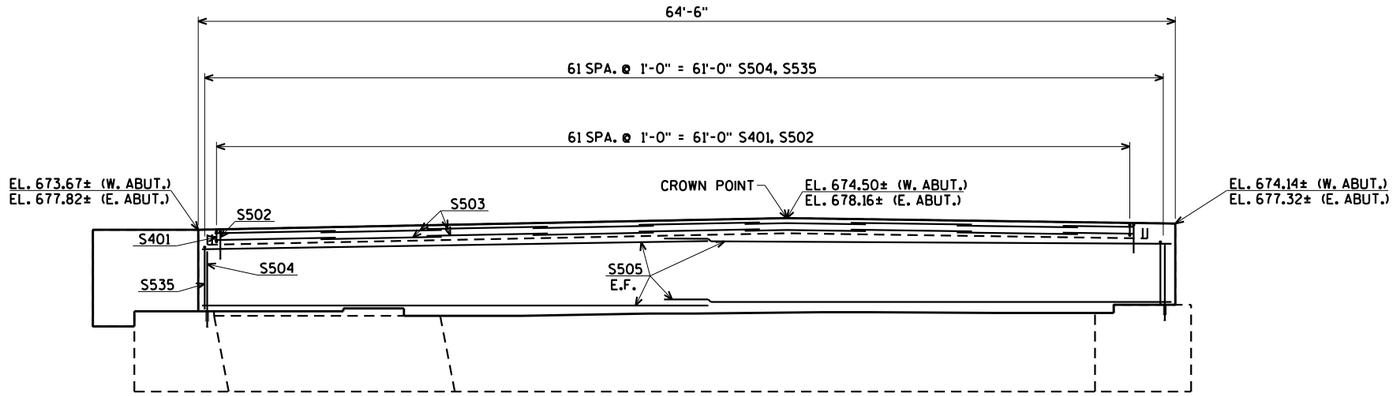


SECTION THRU ABUT. BACKWALL

18" RUBBERIZED MEMBRANE WATERPROOFING

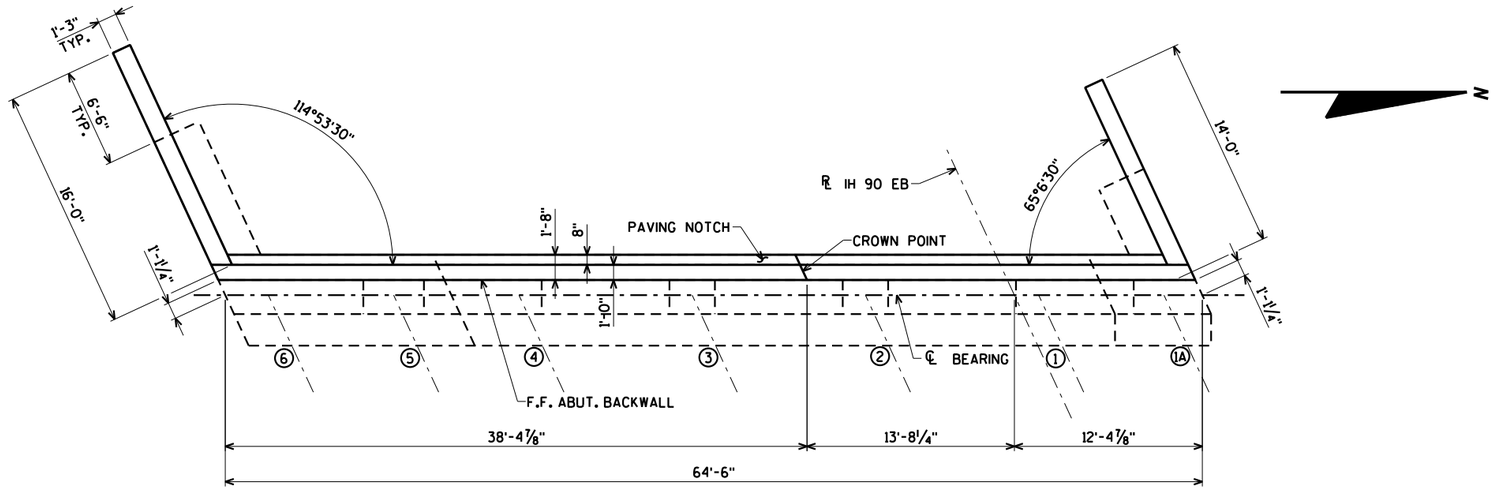
NOTE: PRESERVE AND INCORPORATE AS MUCH EXISTING VERTICAL REBAR AS PRACTICAL AND INCORPORATE INTO THE NEW WORK.

REMOVE EXISTING ABUTMENT BACKWALL TO THE TOP OF EXISTING ABUTMENT BODY.



ELEVATION

WEST ABUTMENT SHOWN
EAST ABUTMENT SIMILAR



PLAN

WEST ABUTMENT SHOWN
EAST ABUTMENT SIMILAR

8

8

WORK THIS SHEET WITH SHEETS 4 THRU 7

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

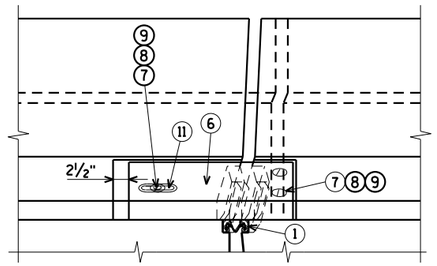
STRUCTURE B-32-39

DRAWN BY JCK | PLANS CK'D. JWZ

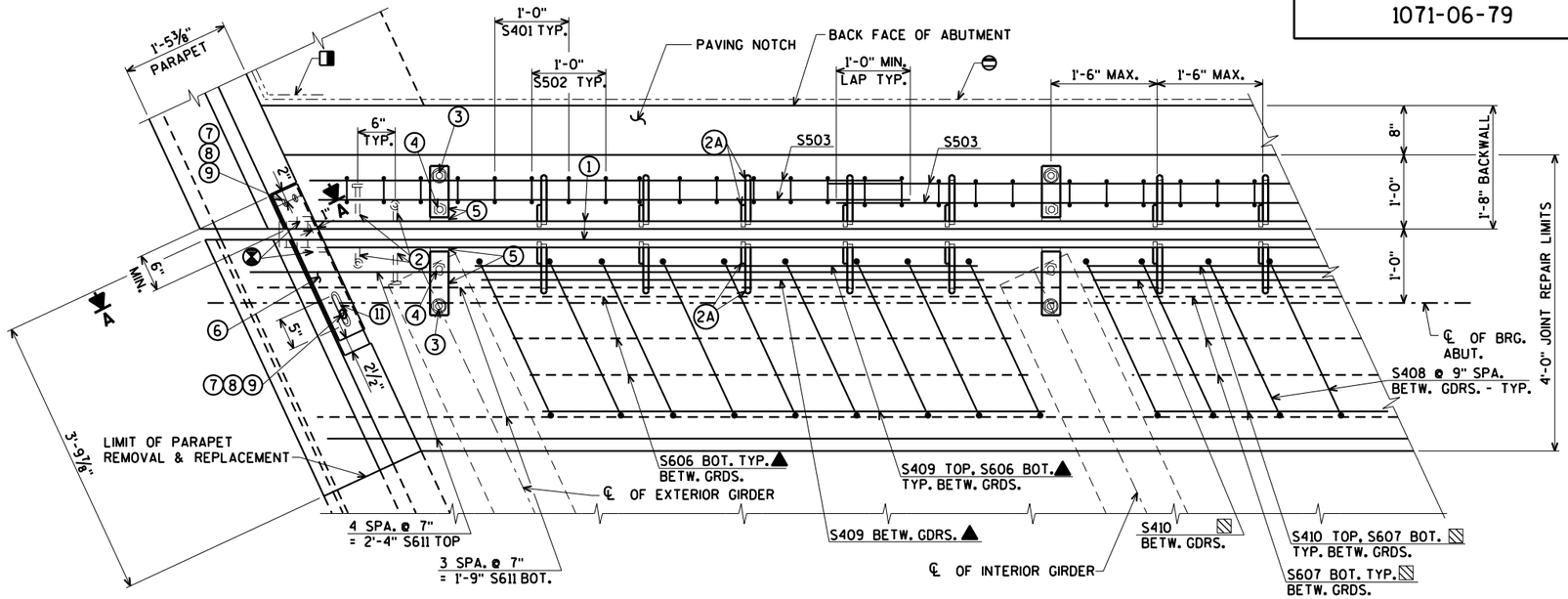
ABUT. BACKWALL REPLACEMENT DETAILS

SHEET 3 OF 7
543

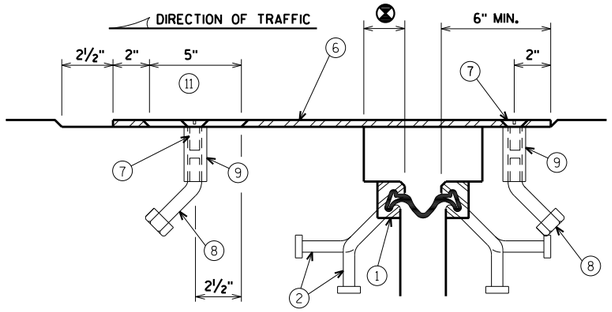
ORIGINAL PLANS PREPARED BY
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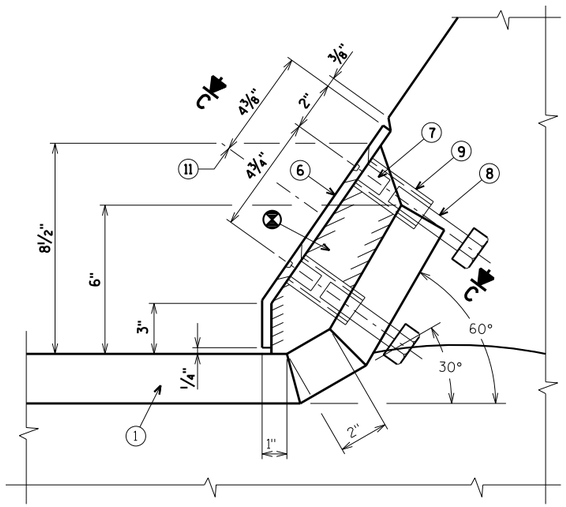
VIEW OF PARAPET PLATES FROM ROADWAY



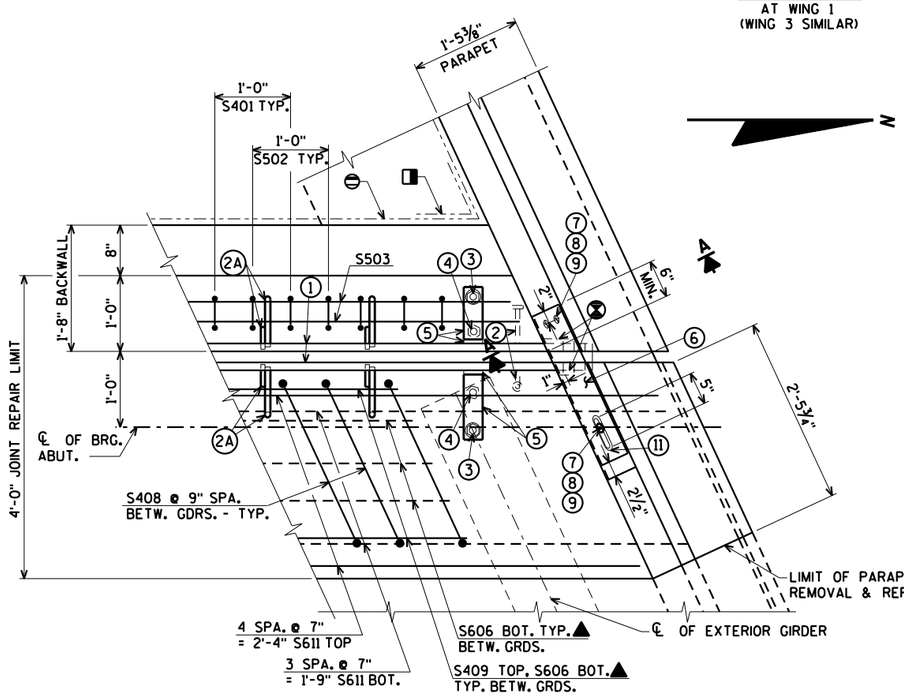
PART PLAN
AT WING 1
(WING 3 SIMILAR)



SECTION C



SECTION A



PART PLAN
AT WING 2
(WING 4 SIMILAR)

- ▨ BARS LOCATED BETWEEN GIRDERS 1 & 2, 2 & 3, 3 & 4.
- ▲ BARS LOCATED BETWEEN GIRDERS 1A & 1, 4 & 5, 5 & 6.
- ⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING
- ⊖ 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE
- ◨ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE
E.F. DENOTES EACH FACE

WORK THIS SHEET WITH SHEETS 3 & 5 THRU 7

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-39

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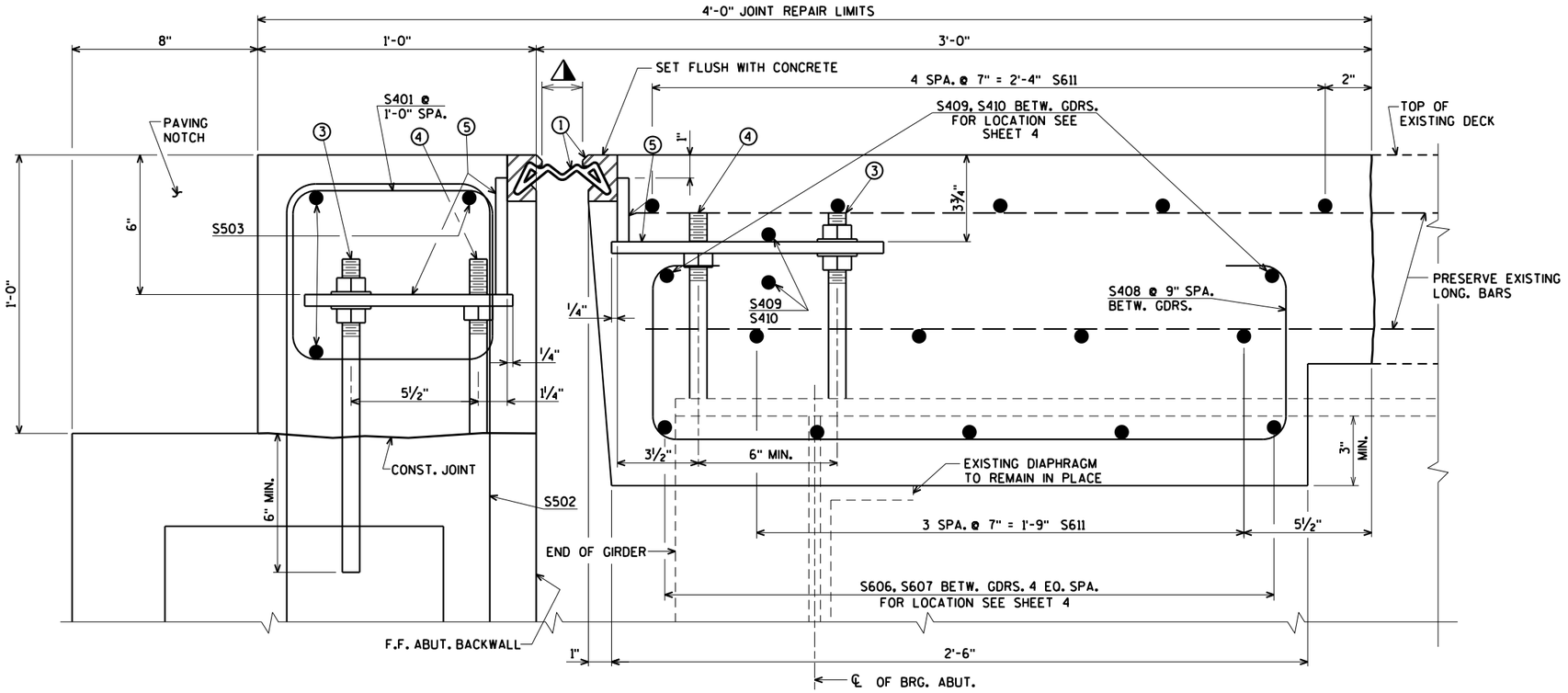
JOINT REPLACEMENT

SHEET 4 OF 7
544

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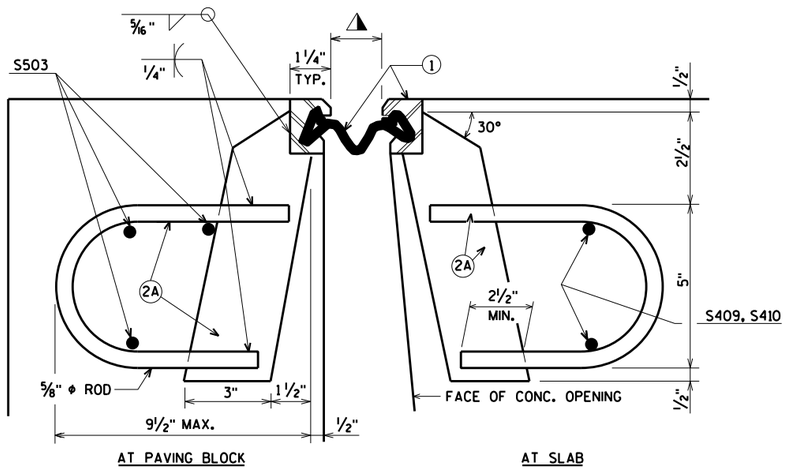
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STATE PROJECT NUMBER
1071-06-79



TYPICAL SECTION THRU JOINT

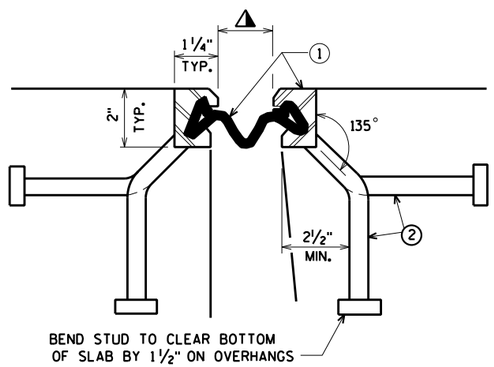
NORMAL TO ℄ SUBSTRUCTURE



SECTION THRU JOINT

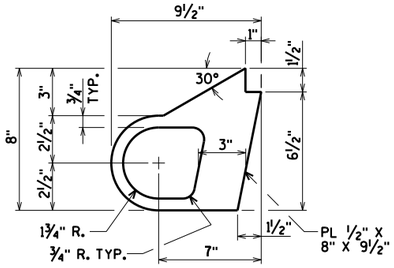
ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.

SYM. ABOUT ℄ JOINT UNLESS OTHERWISE SHOWN OR NOTED.



SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF SLAB & AT PARAPETS.



ALTERNATE STRIP SEAL ANCHOR

LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1¾".
2. STUDS ⅝" ø X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"ø ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO #1 AT 1'-6" CTRS. BETWEEN GIRDERS.
3. ¾" ø THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"ø THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" ø HOLE FOR NO. 3 & 1" ø HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" x 10½" x 2'-2" LONG WITH HOLES FOR #7. BEND AS SHOWN.
7. ¾" ø x 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLES. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾" ø x 4" GALV. HEX HEAD BOLT. BEND 45°.
9. ¾" ø x 2¼" GALV. THREADED COUPLING.
11. 1" x 5" SLOTTED CSK. HOLE FOR #7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS, & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES, SUPPORTS, & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM #8 & #9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-32-39".

WORK THIS SHEET WITH SHEETS 3, 4, 6, & 7

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-39

DRAWN BY JCK | PLANS CK'D. JWZ

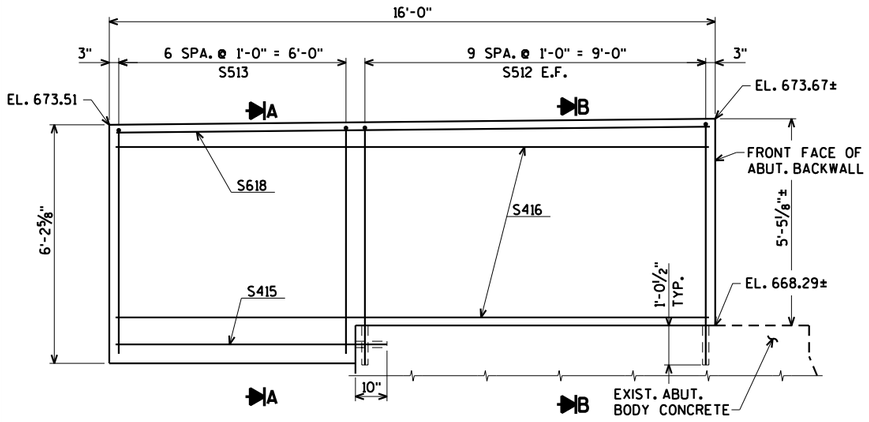
JOINT REPLACEMENT DETAILS

SHEET 5 OF 7
545

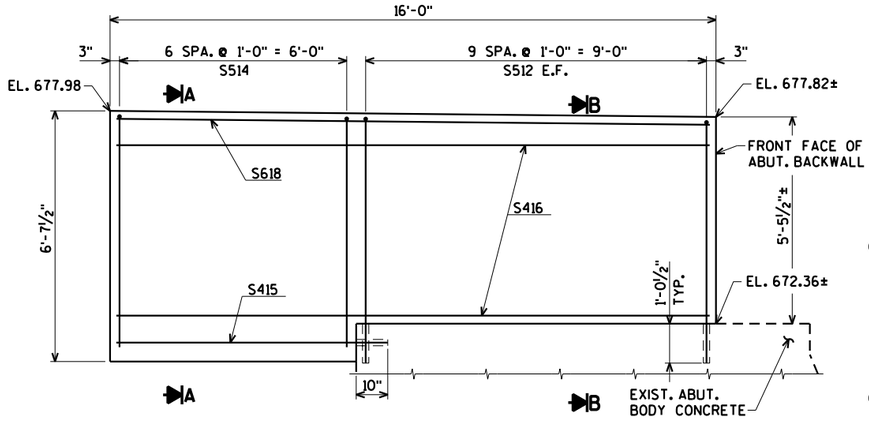
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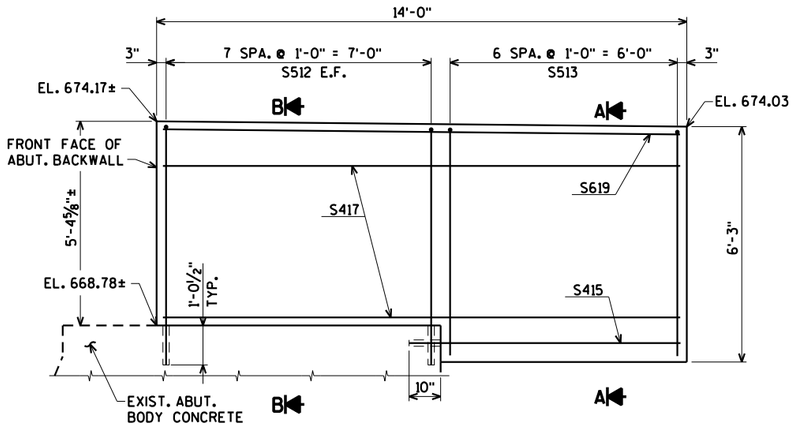
STATE PROJECT NUMBER
1071-06-79



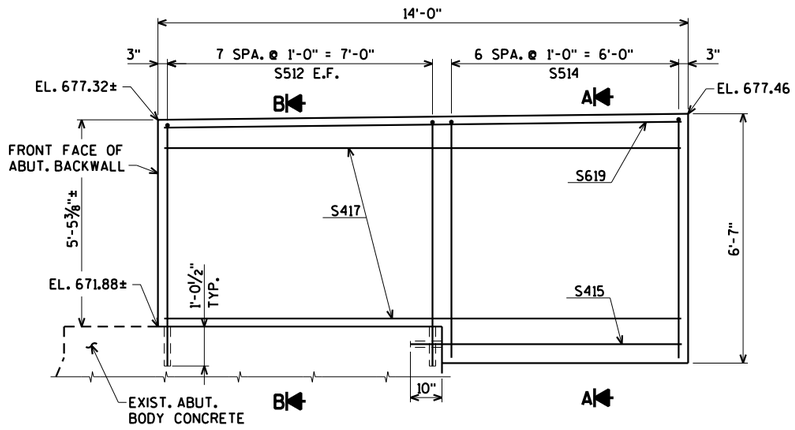
WING 1 ELEVATION



WING 3 ELEVATION



WING 2 ELEVATION



WING 4 ELEVATION

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	11,630# COATED LOCATION
S401	X	124	3-2	X		PAVING BLOCK VERT.
S502	X	124	4-1	X		ABUTMENT BACKWALL VERT.
S503	X	54	8-0			PAVING BLOCK HORIZ.
⊖ S504	X	248	6-0			ABUTMENT BACKWALL VERT.
S505	X	40	33-6			ABUTMENT BACKWALL HORIZ.
S606	X	30	6-11			HORIZ. BETWEEN GRDS 1A&1, 4&5, 5&6
S607	X	30	10-1			HORIZ. BETWEEN GRDS 1&2, 2&3, 3&4
S408	X	132	3-9	X		VERT. BETWEEN GIRDERS
S409	X	24	6-11			HORIZ. BETWEEN GRDS 1A&1, 4&5, 5&6
S410	X	24	10-1			HORIZ. BETWEEN GRDS 1&2, 2&3, 3&4
S611	X	36	33-10			DECK TRANSVERSE
⊖ S512	X	72	6-8	X		WING VERT. ANCHOR
S513	X	14	12-0	X		WING 1 AND WING 2 VERT.
S514	X	14	12-8	X		WING 3 AND WING 4 VERT.
⊕ S415	X	8	7-1			WING HORIZ. ANCHOR
S416	X	20	15-8			WING 1 AND WING 3 HORIZ.
S417	X	20	13-8			WING 2 AND WING 4 HORIZ.
S618	X	4	15-8			WING 1 AND WING 3 HORIZ.
S619	X	4	13-8			WING 2 AND WING 4 HORIZ.
S520	X	18	4-2	X		PARAPET VERT. AT BRIDGE
S521	X	32	2-4	X		PARAPET VERT. AT WINGWALLS
S522	X	56	4-7	X		PARAPET VERT. AT WINGWALLS
S523	X	50	4-7	X		PARAPET VERT. AT WINGWALLS
S524	X	2	15-7	X		PARAPET HORIZ. AT WING 1 & WING 3
S525	X	2	13-7	X		PARAPET HORIZ. AT WING 2 & WING 4
S526	X	8	15-7			PARAPET HORIZ. AT WING 1 & WING 3
S527	X	8	13-7			PARAPET HORIZ. AT WING 2 & WING 4
S528	X	122	4-10	X		PARAPET VERT.
S529	X	4	2-2			PARAPET HORIZ. WING 2 & 4 AT BRIDGE
S530	X	4	2-4			PARAPET HORIZ. WING 2 & 4 AT BRIDGE
S531	X	2	2-7			PARAPET HORIZ. WING 2 & 4 AT BRIDGE
S532	X	4	3-3			PARAPET HORIZ. WING 1 & 3 AT BRIDGE
S533	X	4	3-1			PARAPET HORIZ. WING 1 & 3 AT BRIDGE
S534	X	2	2-10			PARAPET HORIZ. WING 1 & 3 AT BRIDGE
S535	X	124	8-9	X		ABUTMENT BACKWALL VERT.

⊖ MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED 1'-0½" INTO EXISTING CONCRETE. EPOXY ANCHORED.

⊕ MASONRY ANCHORS TYPE L NO. 4 BARS. EMBED 10" INTO EXISTING CONCRETE. EPOXY ANCHORED.

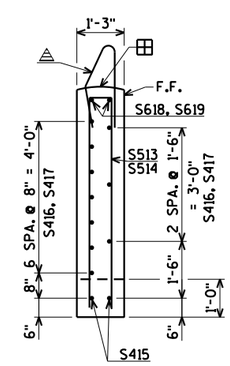
◨ 18" RUBBERIZED MEMBRANE WATERPROOFING

⊞ STRIKE OFF AS SHOWN AND LEAVE ROUGH

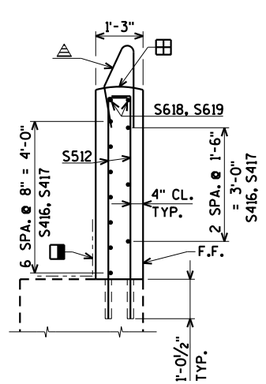
B.F. DENOTES BACK FACE

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE



SECTION A

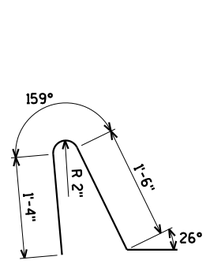


SECTION B

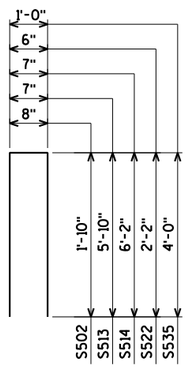
△ SEE SHEET 6 FOR PARAPET DETAILS

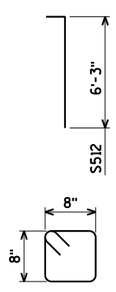
NOTE: PRESERVE AND INCORPORATE AS MUCH EXISTING VERTICAL REBAR AS PRACTICAL AND INCORPORATE INTO THE NEW WORK.

REMOVE TOPS OF EXISTING WINGWALLS.

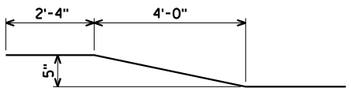


S520

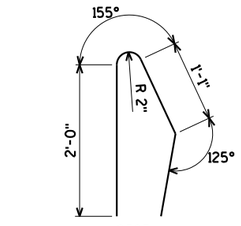




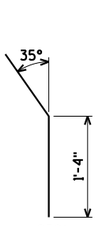
S401



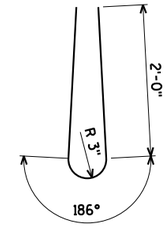
S524, S525



S523 S408



S521



S528

WORK THIS SHEET WITH SHEETS 3 THRU 5, & 7

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-39

DRAWN BY JCK | PLANS CK'D. JWZ

WING REPLACEMENT DETAILS

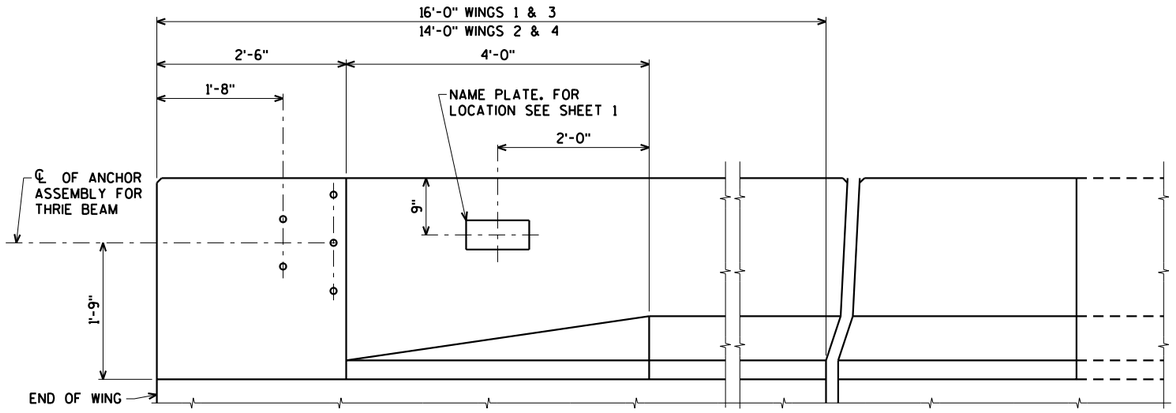
SHEET 6 OF 7
546

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

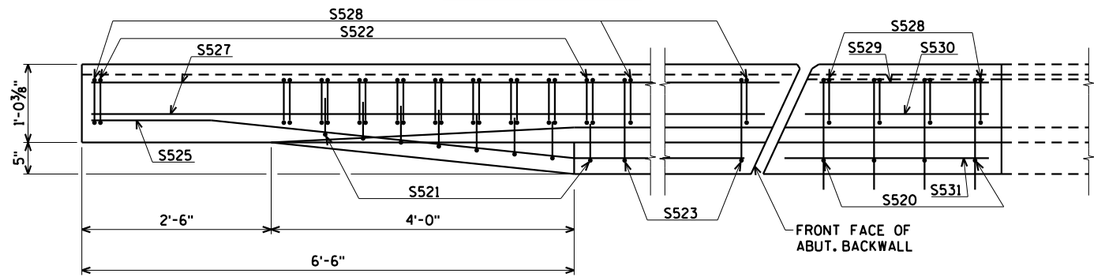
$PRFNAME$
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STATE PROJECT NUMBER

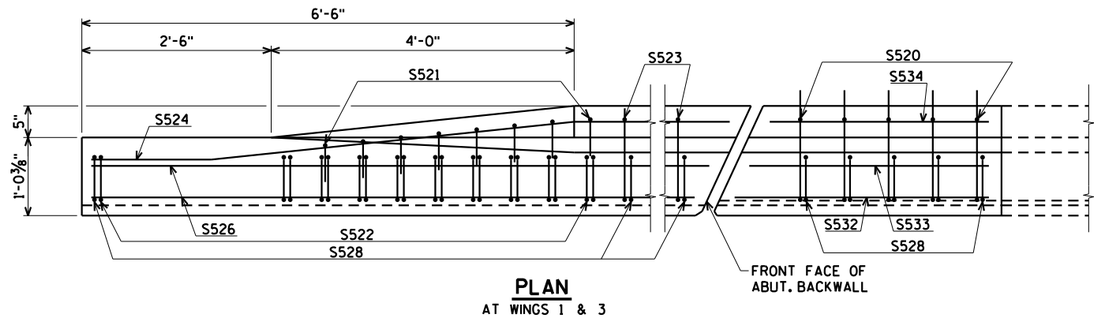
1071-06-79



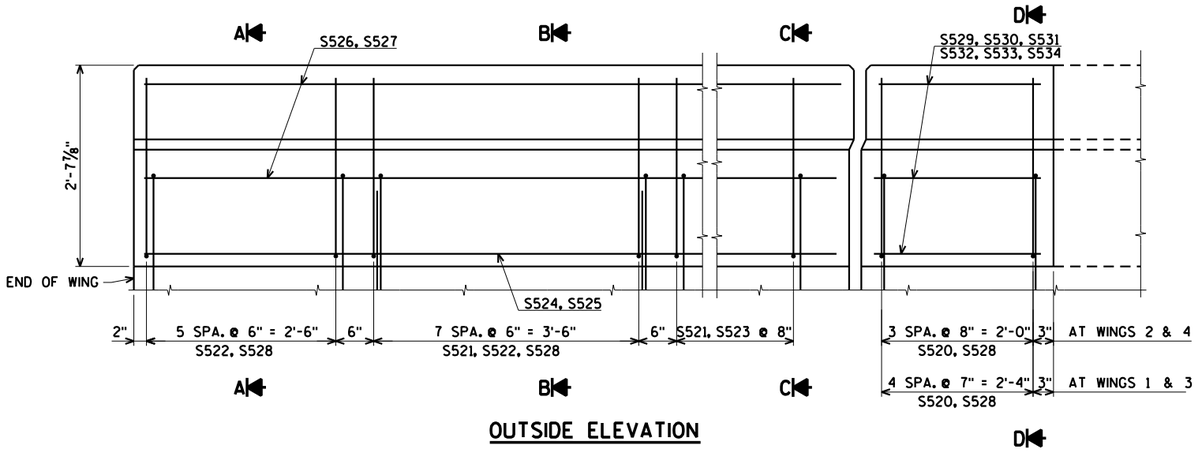
INSIDE ELEVATION



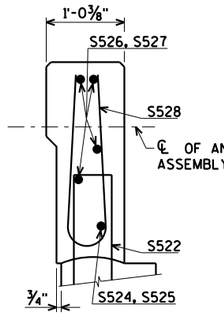
PLAN
AT WINGS 2 & 4



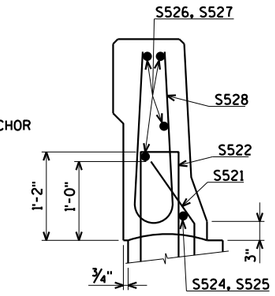
PLAN
AT WINGS 1 & 3



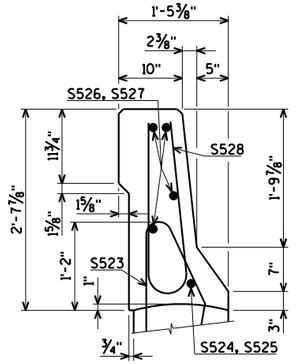
OUTSIDE ELEVATION



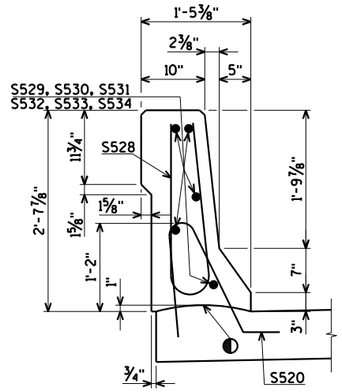
SECTION A



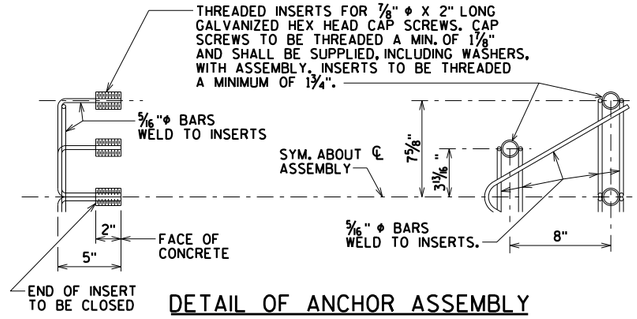
SECTION B



SECTION C



SECTION D



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NOTE: PRESERVE AND INCORPORATE AS MUCH EXISTING LONGITUDINAL PARPAET REBAR AS PRACTICAL AND INCORPORATE INTO THE NEW WORK.

UTILIZE EXISTING VERTICAL STEEL WITHIN PARAPET REMOVAL LIMITS AND OUTSIDE OF "JOINT REPAIR" LIMITS INDICATED ON THE PLANS.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

WORK THIS SHEET WITH SHEETS 3 THRU 6

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-39

DRAWN BY JCK | PLANS CK'D. JWZ

PARAPET DETAILS

SHEET 7 OF 7
547

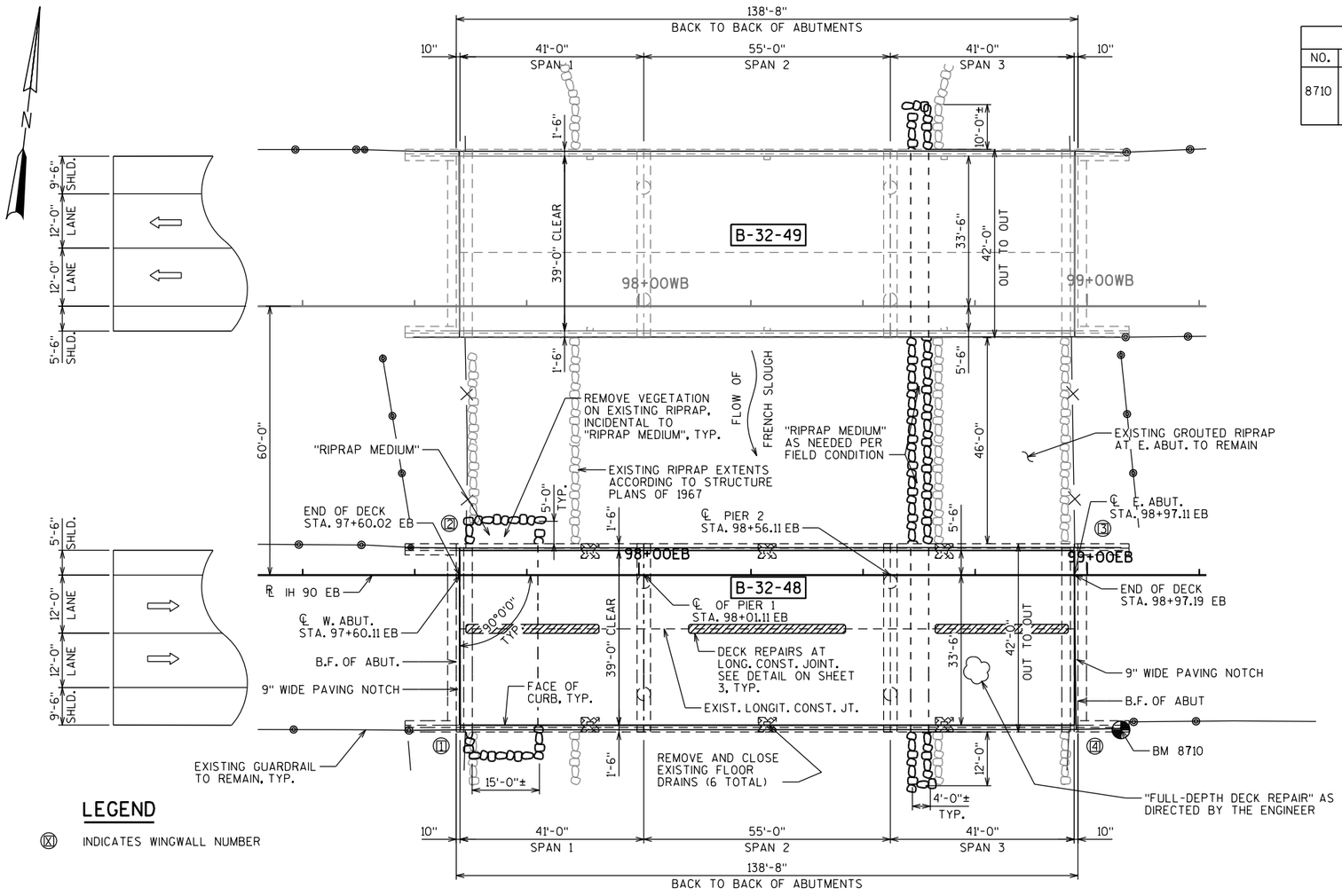
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-39 IH 90 EB over Oak St & RR\BRIDGE\B-32-39_details.dgn

STATE PROJECT NUMBER

1071-06-81

BENCHMARKS			
NO.	STATION	DESCRIPTION	ELEV.
8710	STA. 99+07.53 EB, 34.53' RT OFFSET	CHISELED "+" ON TOP OF SE BOLT OF RAILING AT SE CORNER OF PARAPET	655.50

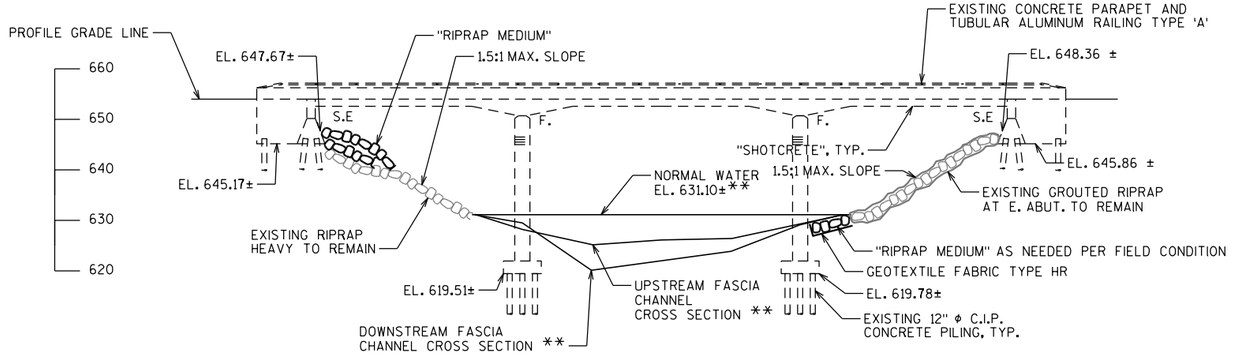


LEGEND

(X) INDICATES WINGWALL NUMBER

PLAN B-32-48

CONCRETE OVERLAY OF 3 SPAN HAUNCHED SLAB



ELEVATION

NORMAL TO FRENCH SLOUGH

** ACCORDING TO UW-DIVE INSPECTION REPORT DATED 2011-09-20. 'CHANNEL BOTTOM MATERIAL CONSISTED OF 2 FT DIAMETER AND SMALLER RIPRAP.'

DESIGN DATA

LIVE LOAD:
DESIGN LOADING = HS20
INVENTORY RATING = HS19
OPERATING RATING = HS32
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV) RATING = 180 KIPS

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY, OVERLAY DECKS---f'c = 4,000 P.S.I.
CONCRETE MASONRY, ALL OTHER--------f'c = 3,500 P.S.I.

TRAFFIC DATA IH 90

A.D.T. = 26,400 (2016)
= 34,600 (2036)

R.D.S. = 70 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTIONS & QUANTITIES
3. SHOTCRETE DETAILS

WISCONSIN PROFESSIONAL ENGINEER
SURENDRA K. GUPTA
E-41327
AMES, IA
7-31-2015

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER (608) 266-8489

CONSULTANT CONTACT:
SUREN GUPTA (262) 821-1171

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/04/15
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-32-48

IH 90 EB OVER FRENCH SLOUGH

COUNTY	TOWN/~~CITY/VILLAGE~~
LA CROSSE	CAMPBELL

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
NLD	SG	NLD	SG

GENERAL PLAN & ELEVATION

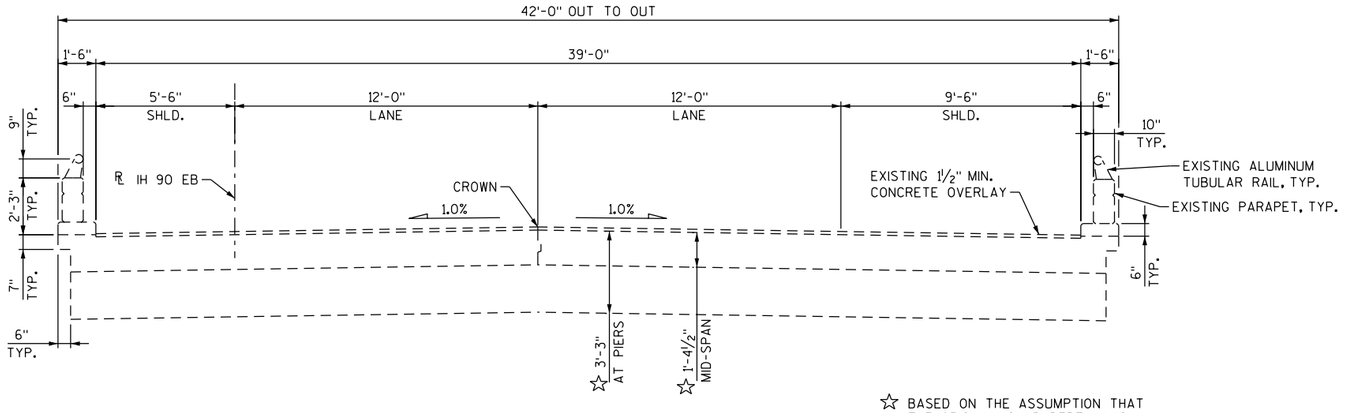
SHEET 1 OF 3
548

8

8

FILE NAME : P:\8384 I90_53_35 Interchange\Structural\CADD\1071-06-07\B-32-48\B-32-48_01.dgn PLOT DATE : 7/30/2015 11:15:51 AM PLOT BY : vdifrances PLOT NAME : B-32-48_01.dgn PLOT SCALE : 1:30

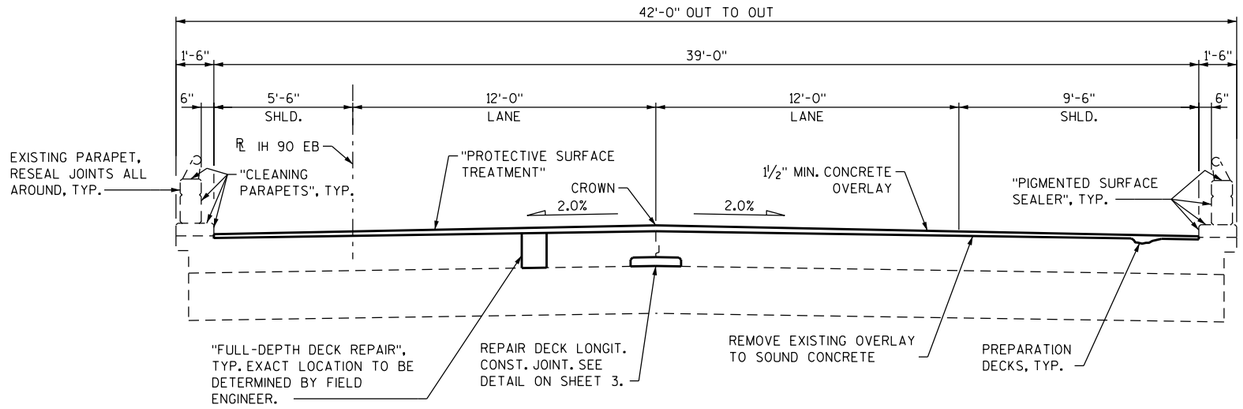
STATE PROJECT NUMBER
1071-06-81



☆ BASED ON THE ASSUMPTION THAT THE ORIGINAL SLAB DEPTH WAS REDUCED BY 1" DURING PLACEMENT OF PREVIOUS OVERLAY.

CROSS SECTION THRU EXISTING BRIDGE

(LOOKING EAST)



CROSS SECTION THRU BRIDGE

(LOOKING EAST)

TOTAL ESTIMATED QUANTITIES

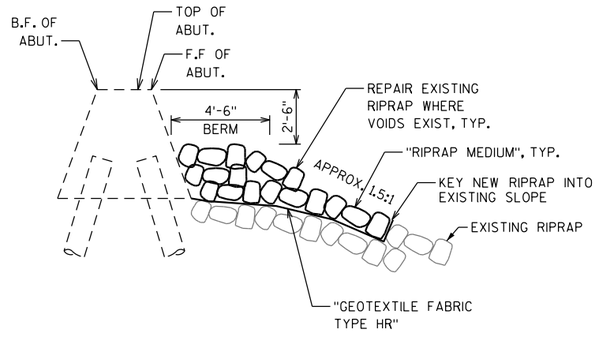
	ITEM NO.	BID ITEMS	UNIT	TOTAL
	203.0210.S.03	ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-32-0048	LS	1
	203.0225.S.03	DEBRIS CONTAINMENT STRUCTURE B-32-0048	LS	1
	502.0717.S	CRACK SEALING EPOXY	LF	1900
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	605
	502.3210	PIGMENTED SURFACE SEALER	SY	130
#	505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1
	509.0301	PREPARATION DECKS TYPE 1	SY	91
	509.0302	PREPARATION DECKS TYPE 2	SY	55
*	509.1500	CONCRETE SURFACE REPAIR	SF	200
	509.2000	FULL-DEPTH DECK REPAIR	SY	26
	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	63
	509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY	SY	602
	509.9050.S	CLEANING PARAPETS	LF	320
	606.0200	RIPRAP MEDIUM	CY	105
	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	210
**	SPV.0165.03	SHOTCRETE	SF	410

* REPAIR APPLIES TO PARAPETS, ABUTMENTS, AND/OR PIERS.

** REPAIR APPLIES TO UNDERSIDE OF DECK SLAB.

THIS IS A NOMINAL QUANTITY. TO BE DETERMINED BY THE FIELD ENGINEER.

ALL ITEMS ARE CATEGORY 0020.



SECTION AT WEST ABUTMENT

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURAL PLANS.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1" DEEP SAW CUT.

ALL PREVIOUS PATCHES SHALL BE REMOVED UNDER THE BID ITEM "PREPARATION DECKS TYPE 1" AND "PREPARATION DECKS TYPE 2".

EXISTING LONGITUDINAL AND TRANSVERSE CRACKS SHALL BE CLEANED AND FILLED WITH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER. WORK SHALL BE PAID FOR UNDER BID ITEM, "CRACK SEALING EPOXY".

BID ITEMS "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", "CONCRETE SURFACE REPAIR", AND "SHOTCRETE" SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER "REMOVING CONCRETE MASONRY DECK OVERLAY B-32-48". EXPECTED AVERAGE OVERLAY THICKNESS IS 3". IF THE EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

APPLY PROTECTIVE SURFACE TREATMENT TO TOP OF OVERLAY. WORK SHALL BE PAID FOR UNDER BID ITEM, "PROTECTIVE SURFACE TREATMENT".

APPLY PIGMENTED SURFACE SEALER TO THE CURB, INSIDE FACES AND TOPS OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS. WORK SHALL BE PAID FOR UNDER BID ITEM "PIGMENTED SURFACE SEALER".

EXTENTS OF RIPRAP MEDIUM AT ABUTMENTS SHALL BE AS DIRECTED BY THE FIELD ENGINEER.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

REMOVAL AND CLOSING OF FLOOR DRAINS SHALL BE INCLUDED IN BID ITEM "FULL-DEPTH DECK REPAIR".

SEE ROADWAY PLANS FOR APPROACH SLAB REPLACEMENT.

LAPS IN WELDED WIRE MESH SHALL BE MADE SO THAT THE OVERLAP, MEASURED BETWEEN OUTERMOST CROSS WIRES ON EACH SHEET, IS NOT LESS THAN THE SPACING ON CROSS WIRES PLUS 2 INCHES.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

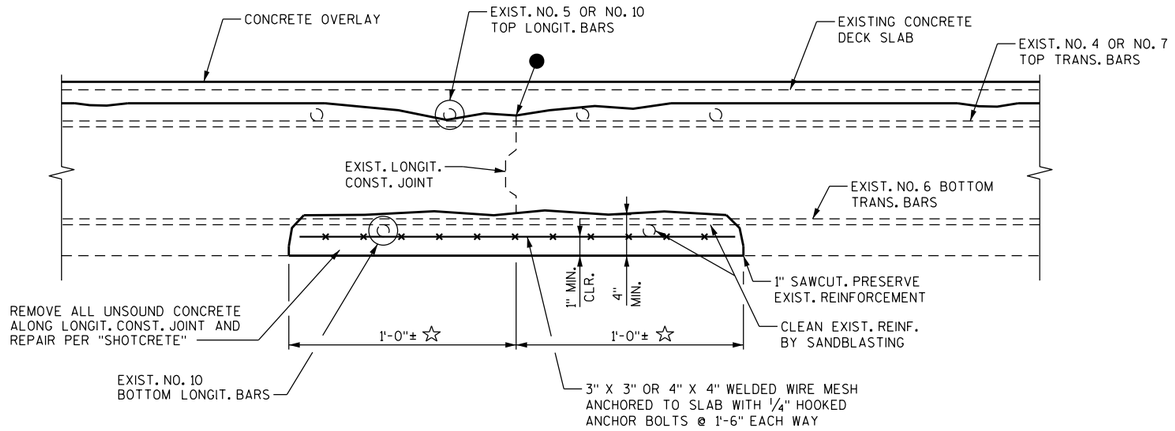
STRUCTURE B-32-48

DRAWN BY NLD | PLANS CK'D. SG

CROSS SECTION & QUANTITIES

SHEET 2 OF 3
549

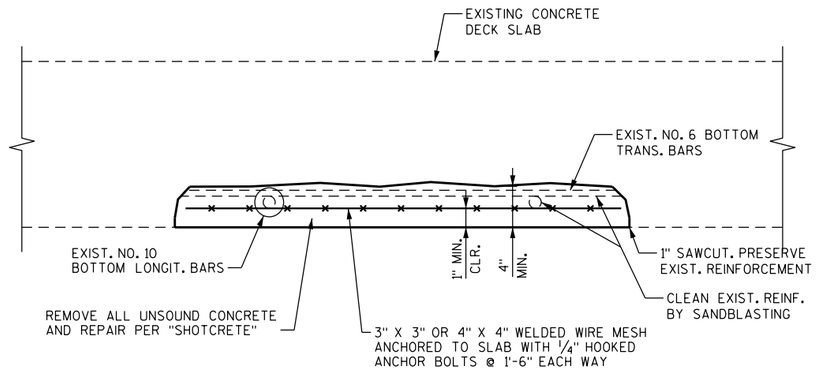
STATE PROJECT NUMBER
1071-06-81



DECK REPAIRS AT LONGITUDINAL CONSTRUCTION JOINT

● SEAL LONGITUDINAL CONSTRUCTION JOINT WITH CRACK SEALER. INCLUDED IN "CRACKING SEALING EPOXY".

☆ SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.



SHOTCRETE

8

8

NO.	DATE	REVISION	BY

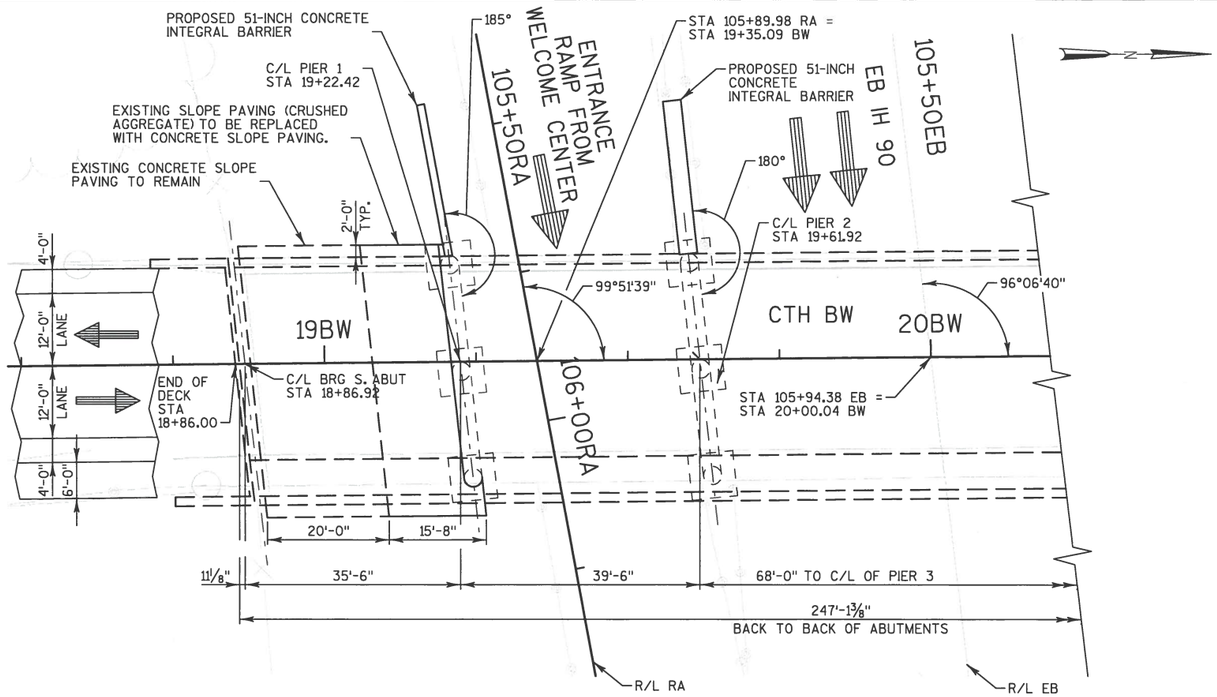
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-48

DRAWN BY VJD | PLANS CK'D. SG

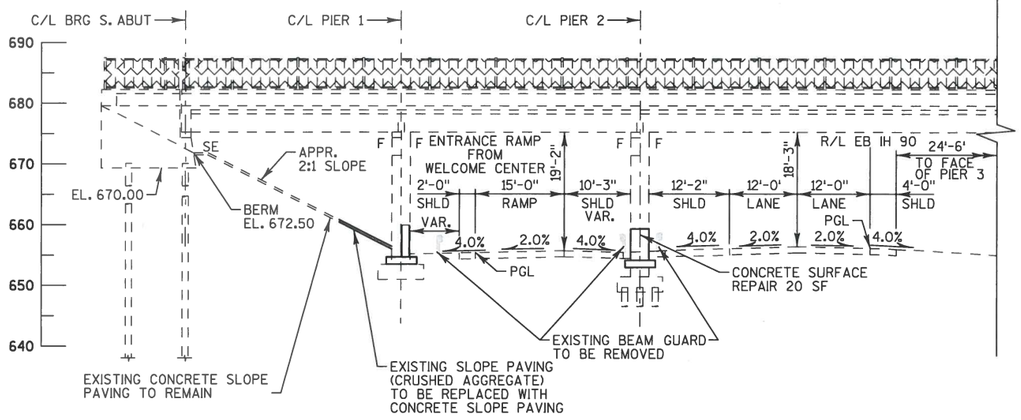
SHOTCRETE DETAILS

SHEET 3 OF 3
550



PLAN

5 SPAN 36" PRESTRESSED GIRDERS



ELEVATION

(LOOKING WEST)

STATE PROJECT NUMBER

1071-06-81

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES. ADDITIONAL UTILITIES NOT SHOWN ON THIS PLAN MAY BE PRESENT.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

EXISTING STRUCTURE B-32-51 IS A 5-SPAN 36" PRESTRESSED GIRDER BRIDGE CONSTRUCTED IN 1967.

CONCRETE SURFACE REPAIR SHALL BE PERFORMED AT PIER 2 AND AS DIRECTED BY THE FIELD ENGINEER.

STAIN SHALL BE APPLIED TO THE CRASH WALL VERTICAL SURFACES AS CALLED FOR ON PLANS. STAIN COLOR SHALL BE MEDIUM TAN, FEDERAL NO. 33446.

DESIGN DATA

ULTIMATE DESIGN STRESSES - PROPOSED WORK:

CONCRETE MASONRY	f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 P.S.I.

TRAFFIC VOLUME

CTH BW

A.D.T. (2016).....3,600
A.D.T. (2035).....3,900
R.D.S.....35 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION & QUANTITIES
3. PIER 1 INTEGRAL BARRIER
4. PIER 2 INTEGRAL BARRIER
5. INTEGRAL BARRIER DETAILS
6. SLOPE PAVING (CONCRETE CAST-IN-PLACE)

WISCONSIN
STEVEN G. MILLER
E-26710
MILWAUKEE, WI
PROFESSIONAL ENGINEER
9/21/2015

CONTACTS

BRIDGE OFFICE CONTACT
WILLIAM DREHER, PE.
(608) 266-8489

CONSULTANT CONTACT
STEVEN G. MILLER, PE.
(414) 847-0480

NO.	DATE	REVISION	BY

CH2MHILL
MILWAUKEE, WISCONSIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 09/21/15
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-32-51

CTH BW OVER IH 90

COUNTY	TOWN/~~CITY/VILLAGE~~
LA CROSSE	CAMPBELL

DESIGN SPEC. 51-INCH CONCRETE INTEGRAL BARRIERS - N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SGM	KES	JAP	KES

GENERAL PLAN & ELEVATION

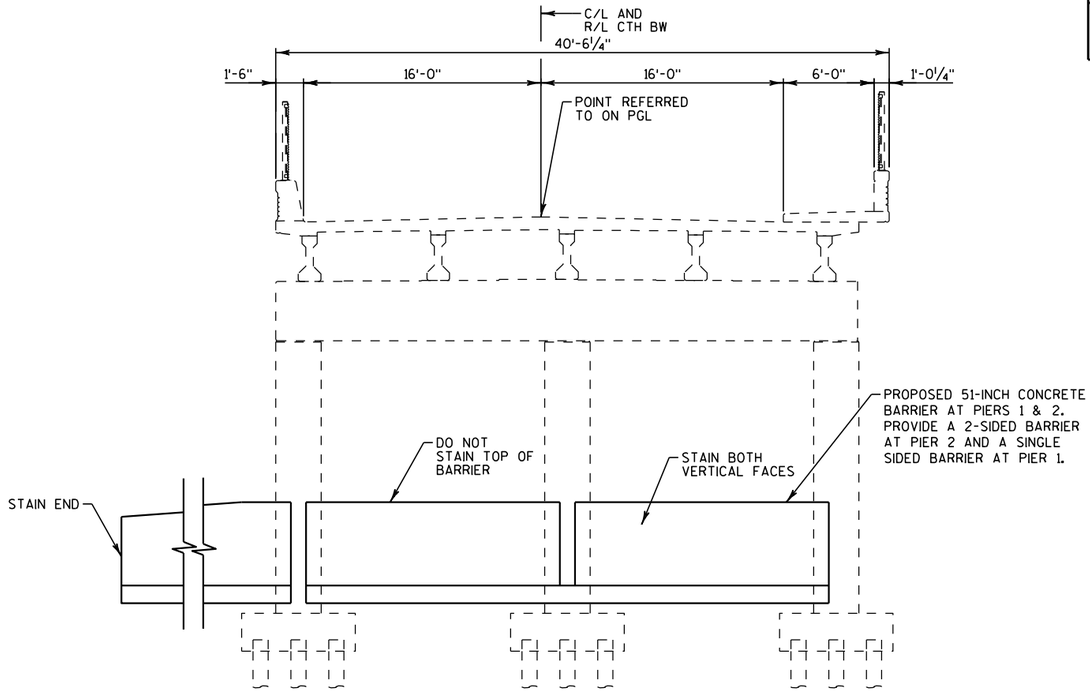
SHEET 1 OF 6

STATE PROJECT NUMBER

1071-06-81

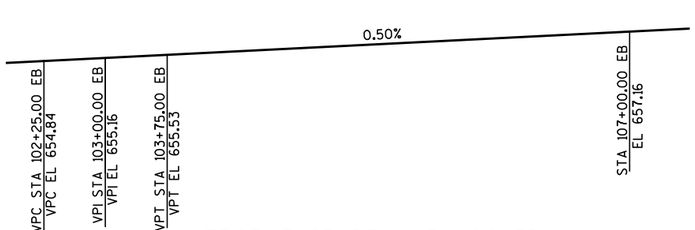
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	PIER 1	PIER 2	TOTAL
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-32-51	LS	-	-	1
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	20	21	41
312.0110	SELECT CRUSHED MATERIAL	TON	28	30	58
502.0100	CONCRETE MASONRY BRIDGES	CY	26	45	71
502.5010	MASONRY ANCHORS TYPE L NO. 6 BARS	EACH	30	60	90
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	3,560	4,150	7,710
509.1500	CONCRETE SURFACE REPAIR	SF	-	20	20
517.1010.S	CONCRETE STAINING B-32-51	SF	260	510	770
604.0400	SLOPE PAVING CONCRETE	SY	82	-	82
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	75	-	75
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1	2	3
	NON-BID ITEMS				
	FILLER	SIZE	½", 1"	½"	½", 1"

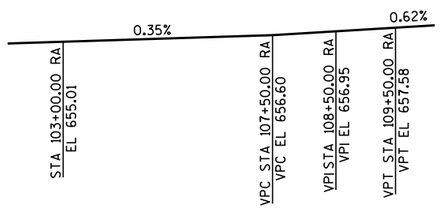


CROSS SECTION AT PIERS 1 & 2

(LOOKING NORTH)



PROFILE GRADE LINE I-90 EB



PROFILE GRADE LINE RA

BENCH MARKS

NO.	NORTH (Y)	EAST (X)	DESCRIPTION	ELEV.
8709	148953.57	439549.25	FND ALUM CAP	654.23
8710	149029.54	439691.13	CHISELED 'X'	655.50

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-51

DRAWN BY JAP | PLANS CK'D. KES

CROSS SECTION & QUANTITIES

SHEET 2 OF 6

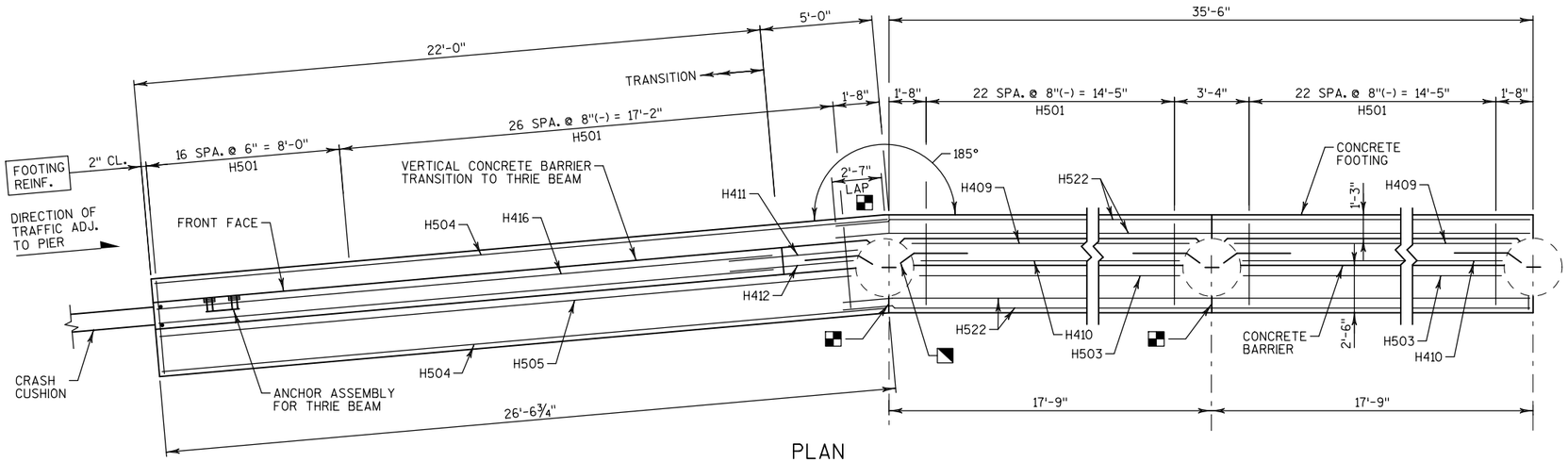
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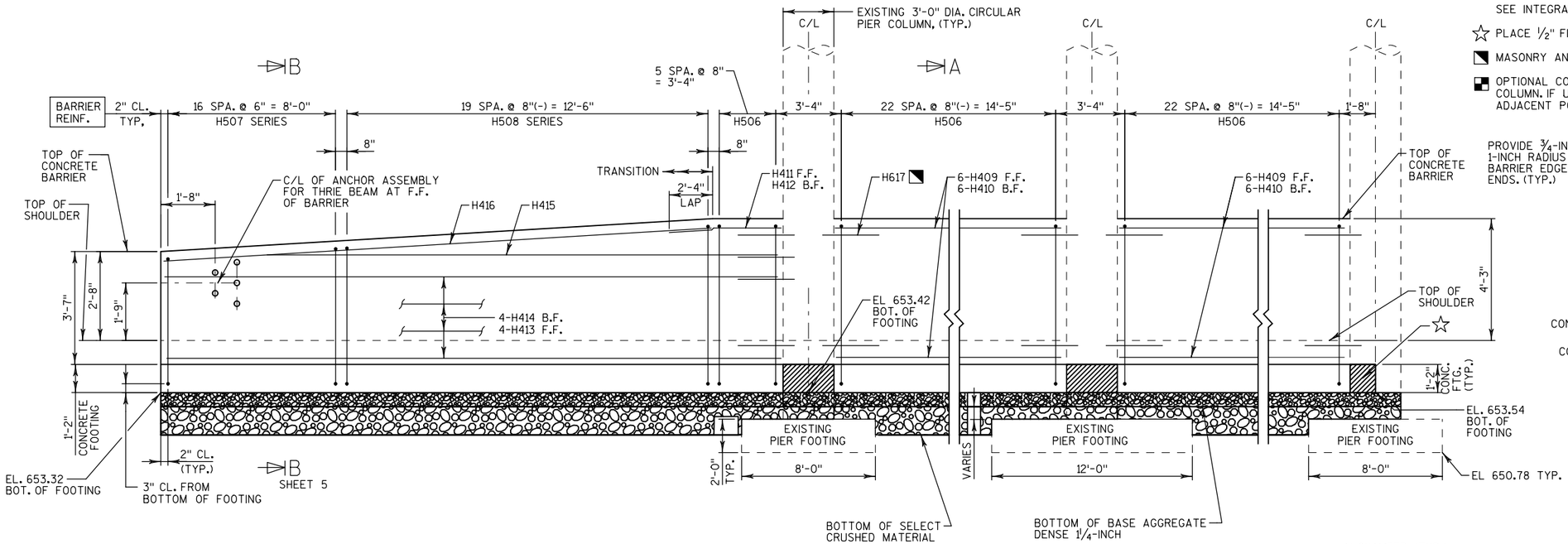
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STATE PROJECT NUMBER

1071-06-81

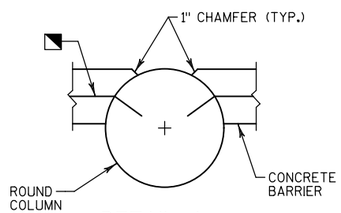


PLAN



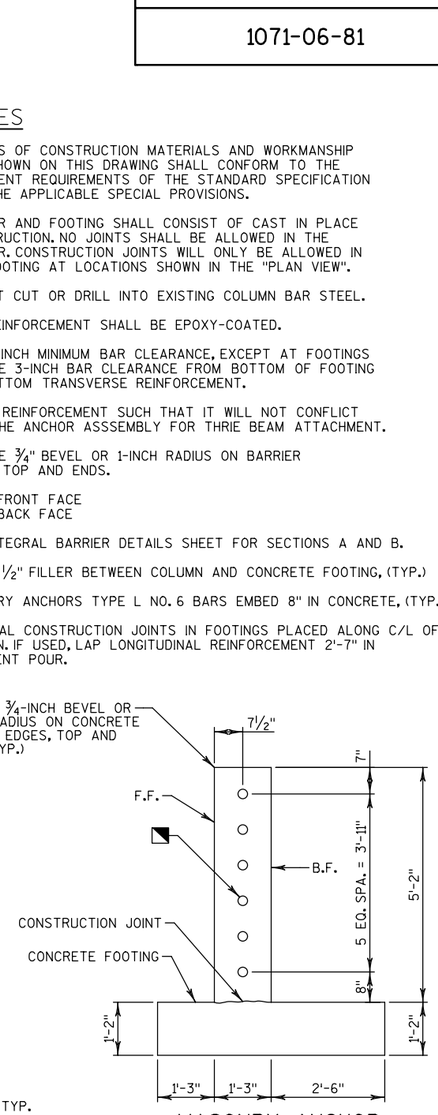
ELEVATION

LOOKING AT B.F. OF BARRIER
LOOKING NORTH



DETAIL A

F.F. OF BARRIER IS FLUSH WITH FACE OF COLUMN



MASONRY ANCHOR, TYPE L LAYOUT

NOTES

DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATION AND THE APPLICABLE SPECIAL PROVISIONS.

BARRIER AND FOOTING SHALL CONSIST OF CAST IN PLACE CONSTRUCTION. NO JOINTS SHALL BE ALLOWED IN THE BARRIER. CONSTRUCTION JOINTS WILL ONLY BE ALLOWED IN THE FOOTING AT LOCATIONS SHOWN IN THE "PLAN VIEW".

DO NOT CUT OR DRILL INTO EXISTING COLUMN BAR STEEL.

ALL REINFORCEMENT SHALL BE EPOXY-COATED.

USE 2-INCH MINIMUM BAR CLEARANCE, EXCEPT AT FOOTINGS PROVIDE 3-INCH BAR CLEARANCE FROM BOTTOM OF FOOTING TO BOTTOM TRANSVERSE REINFORCEMENT.

PLACE REINFORCEMENT SUCH THAT IT WILL NOT CONFLICT WITH THE ANCHOR ASSSEMBLY FOR THRIE BEAM ATTACHMENT.

PROVIDE ¾" BEVEL OR 1-INCH RADIUS ON BARRIER EDGES, TOP AND ENDS.

F.F. = FRONT FACE
B.F. = BACK FACE

SEE INTEGRAL BARRIER DETAILS SHEET FOR SECTIONS A AND B.

☆ PLACE ½" FILLER BETWEEN COLUMN AND CONCRETE FOOTING, (TYP.)

◥ MASONRY ANCHORS TYPE L NO. 6 BARS EMBED 8" IN CONCRETE, (TYP.)

◩ OPTIONAL CONSTRUCTION JOINTS IN FOOTINGS PLACED ALONG C/L OF COLUMN. IF USED, LAP LONGITUDINAL REINFORCEMENT 2'-7" IN ADJACENT POUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-51

DRAWN BY JAP | PLANS CK'D. KES

PIER 1
INTEGRAL BARRIER

SHEET 3 OF 6

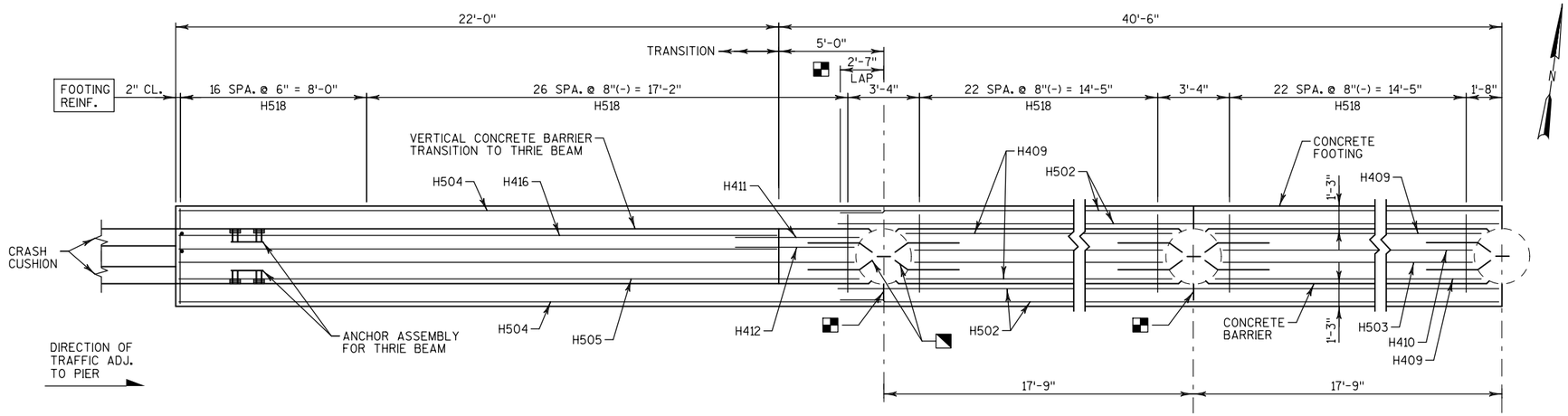
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FILE NAME : 1071-06-81_B-32-51_08103.dgn PLOT DATE : 29-JUL-2015 PLOT BY : jpieroni 1071-06-81_B-32-51_08103 PLOT SCALE : 5:1

STATE PROJECT NUMBER

1071-06-81



PLAN

NOTES

DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATION AND THE APPLICABLE SPECIAL PROVISIONS.

BARRIER AND FOOTING SHALL CONSIST OF CAST IN PLACE CONSTRUCTION. NO JOINTS SHALL BE ALLOWED IN THE BARRIER. CONSTRUCTION JOINTS WILL ONLY BE ALLOWED IN THE FOOTING AT LOCATIONS SHOWN IN THE "PLAN VIEW".

DO NOT CUT OR DRILL INTO EXISTING COLUMN BAR STEEL.

ALL REINFORCEMENT SHALL BE EPOXY-COATED.

USE 2-INCH MINIMUM BAR CLEARANCE, EXCEPT AT FOOTINGS PROVIDE 3-INCH BAR CLEARANCE FROM BOTTOM OF FOOTING TO BOTTOM TRANSVERSE REINFORCEMENT.

PLACE REINFORCEMENT SUCH THAT IT WILL NOT CONFLICT WITH THE ANCHOR ASSSEMBLY FOR THRIE BEAM ATTACHMENT.

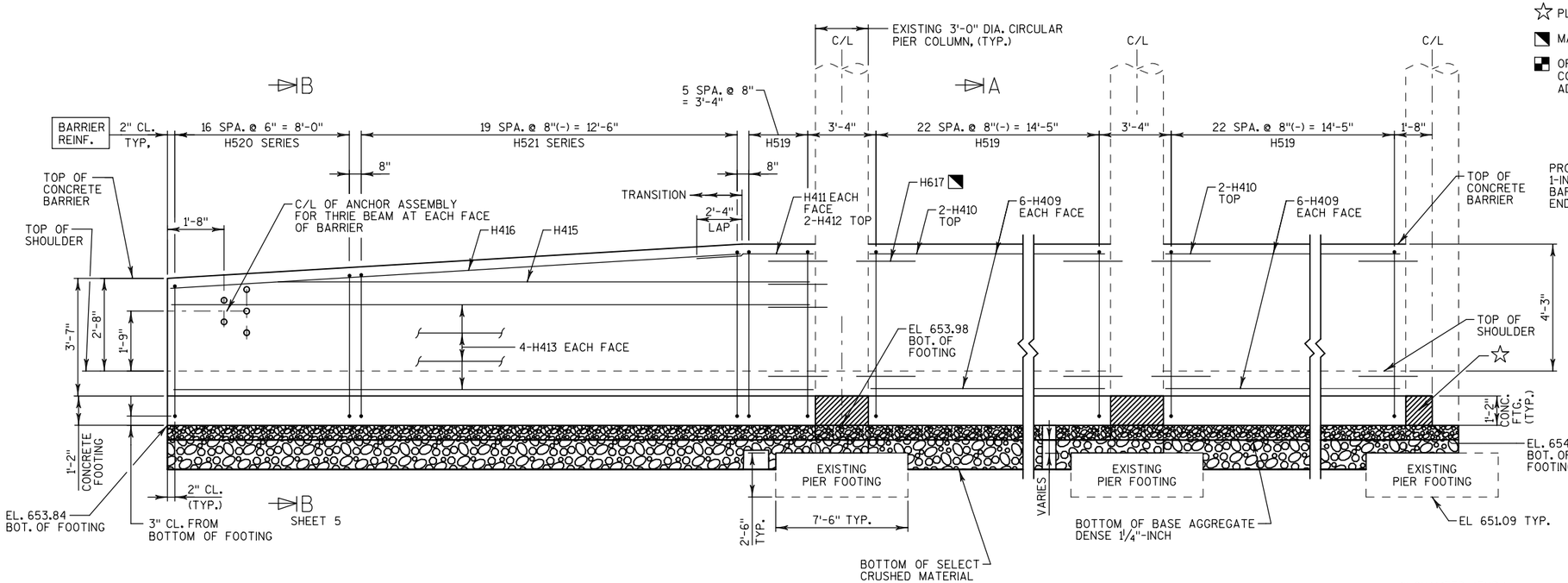
PROVIDE ¾" BEVEL OR 1-INCH RADIUS ON BARRIER EDGES, TOP AND ENDS.

SEE INTEGRAL BARRIER DETAILS SHEET FOR SECTIONS A AND B.

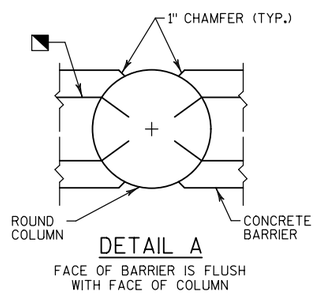
☆ PLACE ½" FILLER BETWEEN COLUMN AND CONCRETE FOOTING, (TYP.)

◥ MASONRY ANCHORS TYPE L NO. 6 BARS EMBED 8" IN CONCRETE (TYP.)

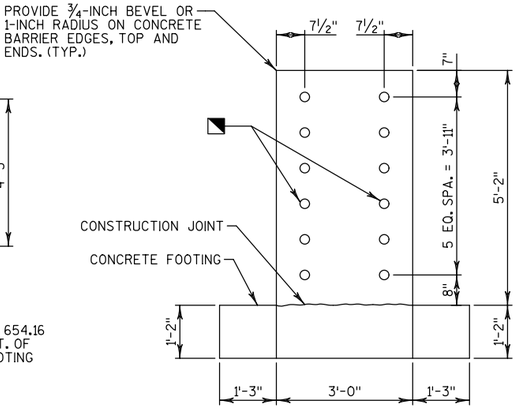
◩ OPTIONAL CONSTRUCTION JOINTS IN FOOTINGS PLACED ALONG C/L OF COLUMN. IF USED, LAP LONGITUDINAL REINFORCEMENT 2'-7" IN ADJACENT POUR.



ELEVATION
LOOKING NORTH



DETAIL A
FACE OF BARRIER IS FLUSH WITH FACE OF COLUMN



MASONRY ANCHOR, TYPE L LAYOUT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-51

DRAWN BY JAP | PLANS CK'D. KES

PIER 2
INTEGRAL BARRIER

SHEET 4 OF 6

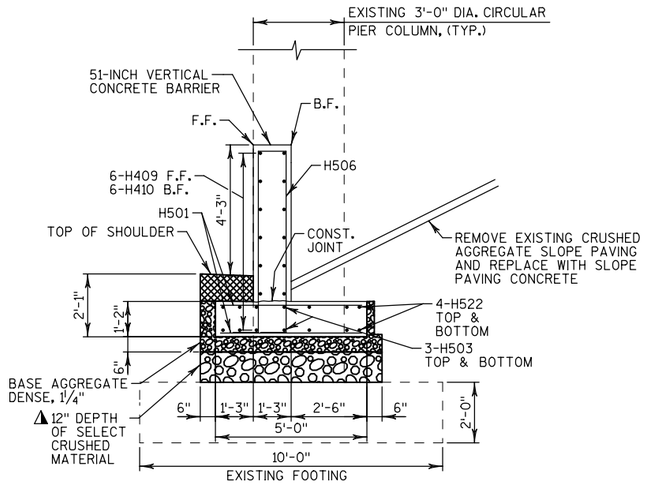
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FILE NAME : 1071-06-81_B-32-51_08104.dgn PLOT DATE : 29-JUL-2015 PLOT BY : jpieroni 1071-06-81_B-32-51_08104 PLOT SCALE : 5:1

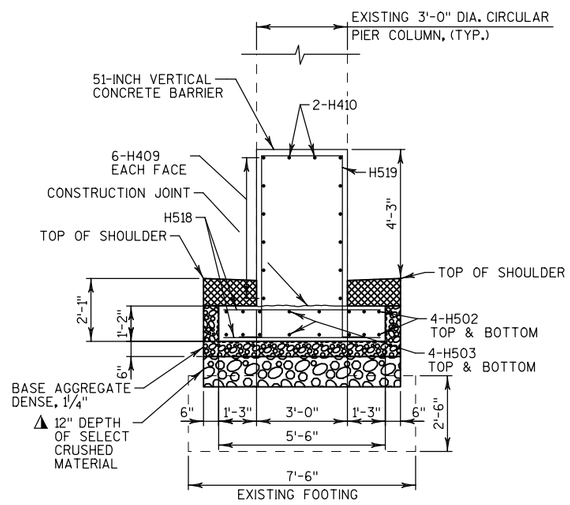
STATE PROJECT NUMBER

1071-06-81



PIER 1 SECTION A-A

BETWEEN COLUMNS



PIER 2 SECTION A-A

BETWEEN COLUMNS

BILL OF BARS

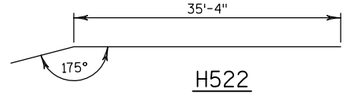
7,710 LB COATED

BAR MARK	COAT	NO. REQ'D PIER 1	NO. REQ'D PIER 2	TOTAL	LENGTH	BENT	BAR SERIES	LOCATION
H501	X	178	---	178	4'-8"			FOOTING - TRANSVERSE
H502	X	---	8	8	38'-1"			FOOTING - LONGITUDINAL BETWEEN COLUMNS
H503	X	12	16	28	14'-5"			FOOTING - LONGITUDINAL BETWEEN COLUMNS
H504	X	8	8	16	26'-10"			FOOTING - LONGITUDINAL
H505	X	6	8	14	25'-4"			FOOTING - LONGITUDINAL
H506	X	52	---	52	13'-11"	X		FOOTING - DOWELS BETWEEN COLUMNS
H507	X	17	---	17	11'-4"	X	△	FOOTING - DOWELS IN TRANSITION REGION
H508	X	20	---	20	12'-10"	X	△	FOOTING - DOWELS IN TRANSITION REGION
H409	X	12	24	36	15'-9"			WALL - HORIZONTAL BETWEEN COLUMNS
H410	X	12	4	16	14'-6"			WALL - HORIZONTAL BETWEEN COLUMNS
H411	X	1	2	3	6'-4"	X		WALL - HORIZONTAL IN TRANSITION REGION
H412	X	1	2	3	5'-11"	X		WALL - HORIZONTAL IN TRANSITION REGION
H413	X	4	8	12	25'-8"			WALL - HORIZONTAL IN TRANSITION REGION
H414	X	4	---	4	25'-2"			WALL - HORIZONTAL IN TRANSITION REGION
H415	X	2	2	4	18'-0"			WALL - HORIZONTAL IN TRANSITION REGION
H416	X	2	4	6	21'-11"			WALL - HORIZONTAL IN TRANSITION REGION - TOP
H617	X	30	60	90	3'-2"	X		COLUMN - TYPE L MASONRY ANCHOR
H518	X	---	178	178	5'-2"			FOOTING - TRANSVERSE
H519	X	---	52	52	15'-8"	X		FOOTING - DOWELS BETWEEN COLUMNS
H520	X	---	17	17	13'-1"	X	△	FOOTING - DOWELS IN TRANSITION REGION
H521	X	---	20	20	14'-7"	X	△	FOOTING - DOWELS IN TRANSITION REGION
H522	X	8	---	8	38'-3"	X		FOOTING - LONGITUDINAL BETWEEN COLUMS

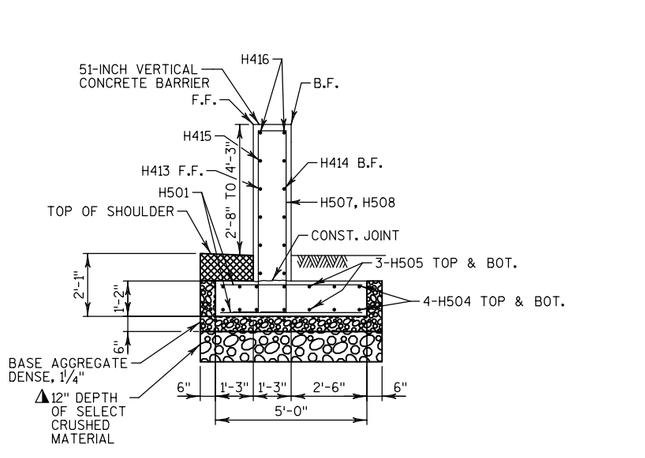
NOTES:
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.

ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT.

△ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

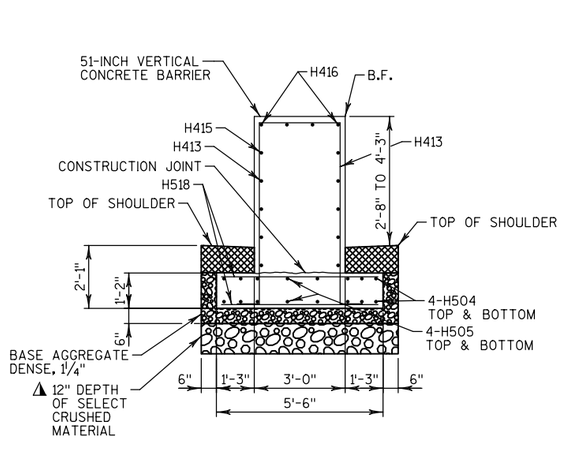


H522



PIER 1 SECTION B-B

TRANSITION REGION

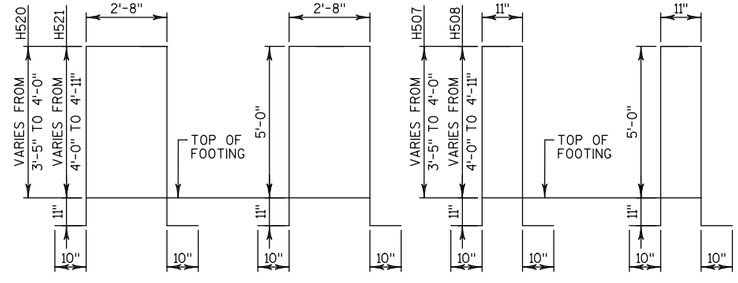


PIER 2 SECTION B-B

TRANSITION REGION

△ 12" SELECT CRUSHED MATERIAL MAY BE ELIMINATED IF IT IS DETERMINED BY THE ENGINEER THAT THE EXISTING MATERIAL IS COMPACTED, GRANULAR MATERIAL.

F.F. = FRONT FACE
B.F. = BACK FACE



H520, H521

BARRIER REINF. IN TRANSITION REGION PIER 2

H519

BARRIER REINF. BETWEEN COLUMNS PIER 2

H507, H508

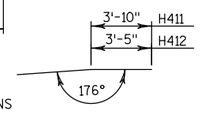
BARRIER REINF. IN TRANSITION REGION PIER 1

H506

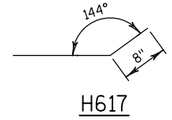
BARRIER REINF. BETWEEN COLUMNS PIER 1

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
H507	1 SERIES OF 17	10'-9" TO 11'-11"
H508	1 SERIES OF 20	11'-11" TO 13'-9"
H520	1 SERIES OF 17	12'-6" TO 13'-8"
H521	1 SERIES OF 20	13'-8" TO 15'-6"

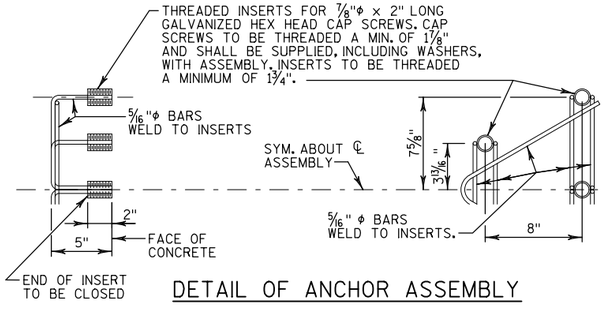


H411, H412



H617

MASONRY ANCHOR TYPE L NO. 6 BARS EMBED 8" IN CONCRETE.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-51

DRAWN BY JAP | PLANS CK'D. KES

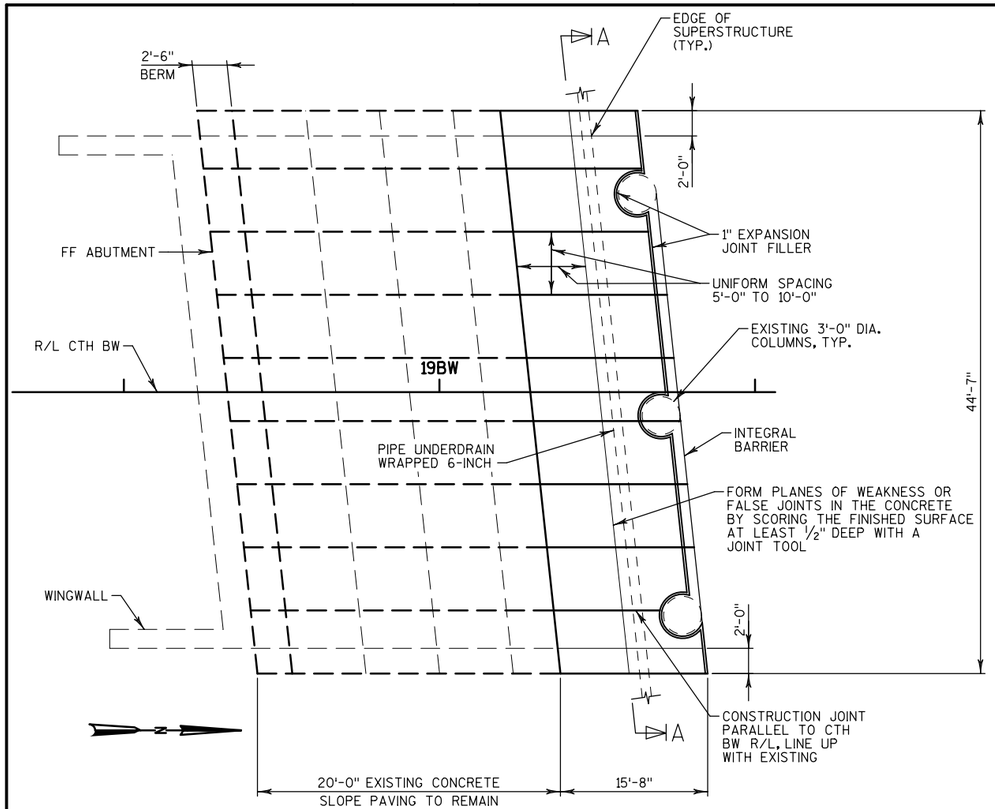
INTEGRAL BARRIER DETAILS

SHEET 5 OF 6

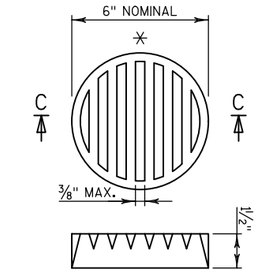
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STATE PROJECT NUMBER
1071-06-81



SLOPE PAVING PLAN AT PIER 1



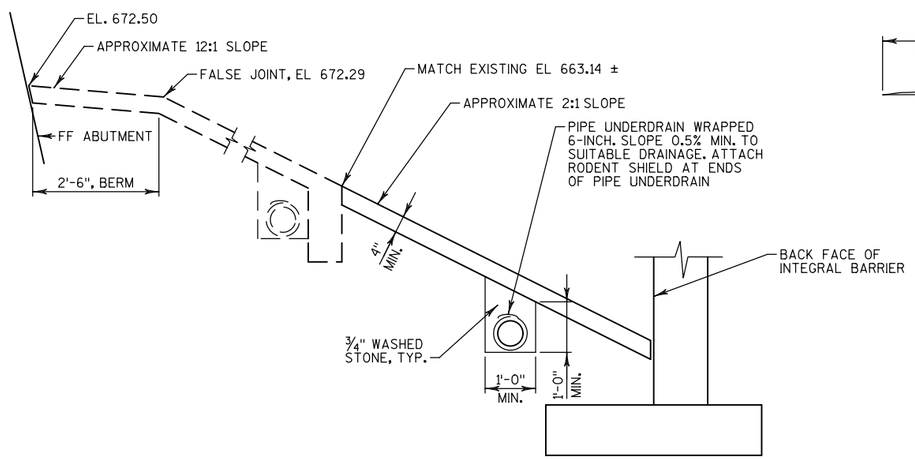
SECTION C-C

RODENT SCREEN DETAIL

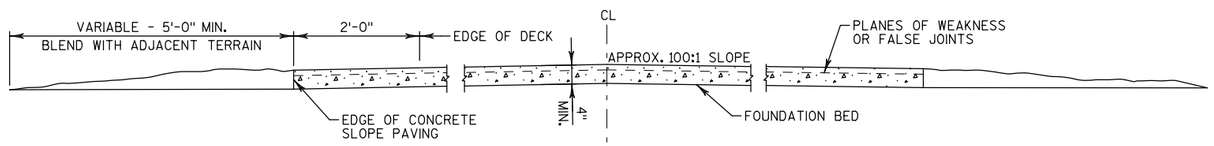
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

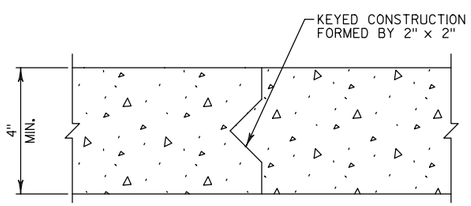
THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH SHEET METAL SCREWS.



TYPICAL SECTION AT PIER 1



SECTION A-A



CONSTRUCTION JOINT DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-51

DRAWN BY	JAP	PLANS CK'D.	KES

SLOPE PAVING (CONCRETE CAST-IN-PLACE)

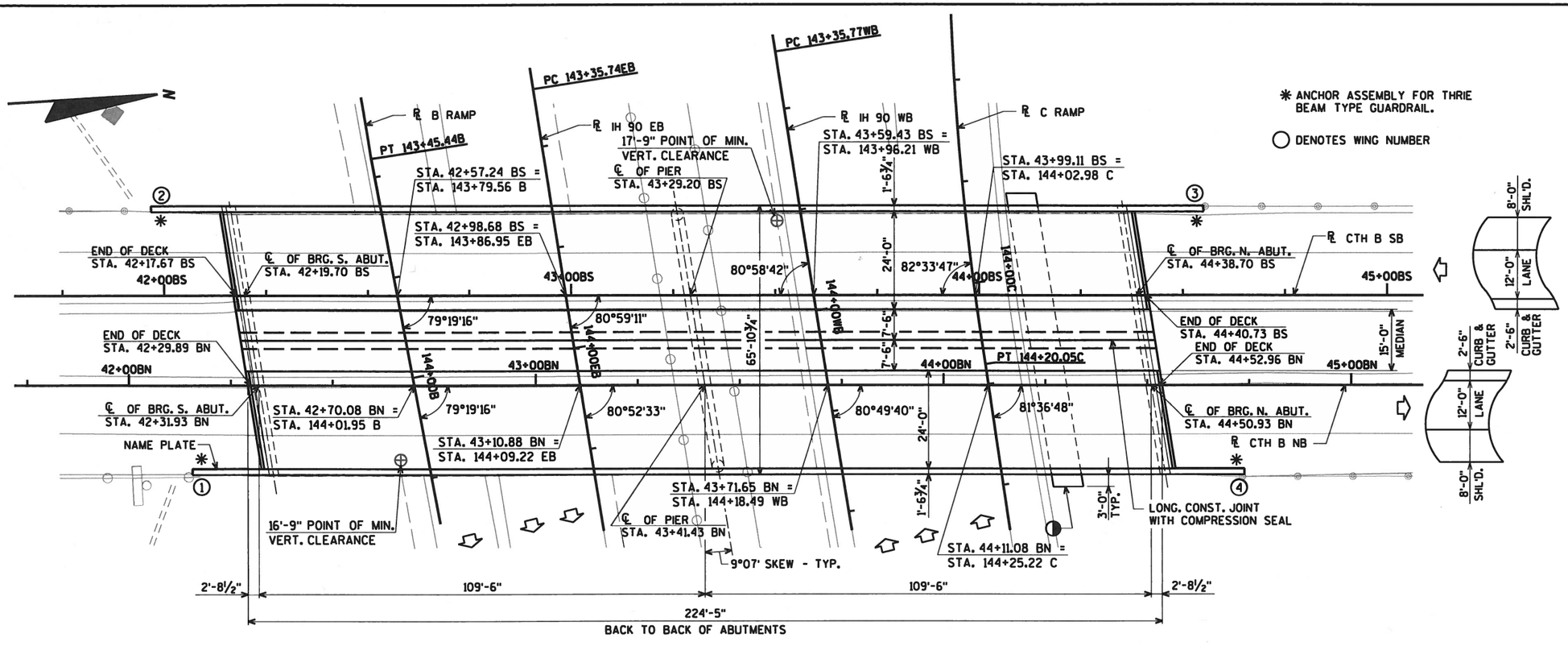
SHEET 6 OF 6

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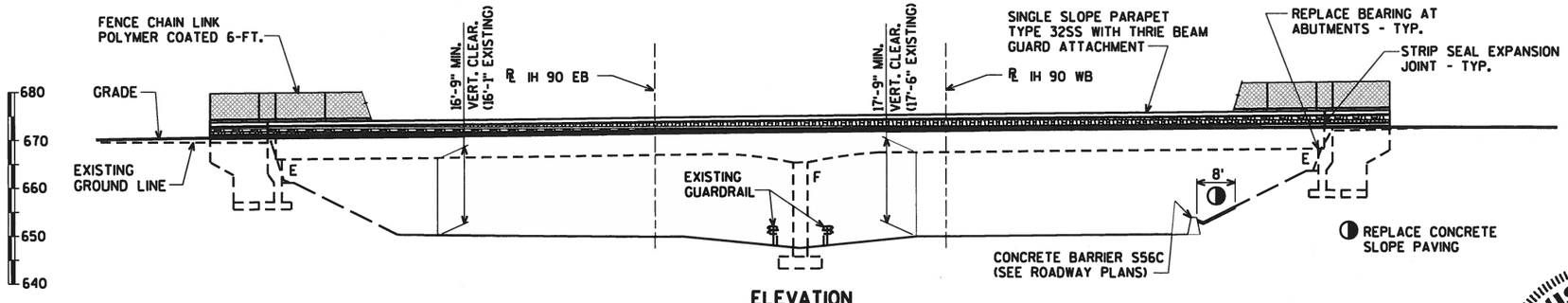
$PRFNAME$
U:±41-0627.00 - LaCrosse County, IH90±B-32-52 CTH B over IH 90 (deck replacmnt)±BRIDGE±B-32-52_gp

STATE PROJECT NUMBER
1071-06-81



PLAN

TWO-SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE
DECK REPLACEMENT



ELEVATION

(NORMAL TO IH 90)
(LOOKING WEST)

FOR DESIGN DATA AND PROFILE GRADE LINE SEE SHEET 2

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION AND NOTES
3. QUANTITIES AND SURFACE TREAT. DETAILS
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT WING 1 DETAILS
6. SOUTH ABUTMENT WING 2 DETAILS
7. SOUTH ABUTMENT DETAILS
8. NORTH ABUTMENT
9. NORTH ABUTMENT WING 3 DETAILS
10. NORTH ABUTMENT WING 4 DETAILS
11. NORTH ABUTMENT DETAILS
12. BEARING DETAILS AT ABUTMENT
13. EXPANSION JOINT DETAILS ABUTMENTS
14. EXPANSION JOINT DETAILS ABUTMENTS
15. COVER PLATE DETAILS
16. DECK ELEVATIONS
17. TABLE OF DEFLECTIONS
18. SUPERSTRUCTURE
19. HAUNCH REINFORCEMENT DETAILS
20. SUPERSTRUCTURE PLAN
21. SUPERSTRUCTURE DETAILS AND BILL OF BARS
22. SINGLE SLOPE PARAPET TYPE 32SS MODIFIED
23. FENCE CHAIN LINK 6-FT

WISCONSIN PROFESSIONAL ENGINEER
DANIEL N. SYDOW
E-38363
WI
7/27/15

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
DAN SYDOW
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/06/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-32-52

CTH B OVER IH 90

COUNTY	TOWN ~~CITY/VILLAGE~~
LA CROSSE	CAMPBELL

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
CJM	JWZ	CJM/CLS	DNS

GENERAL PLAN

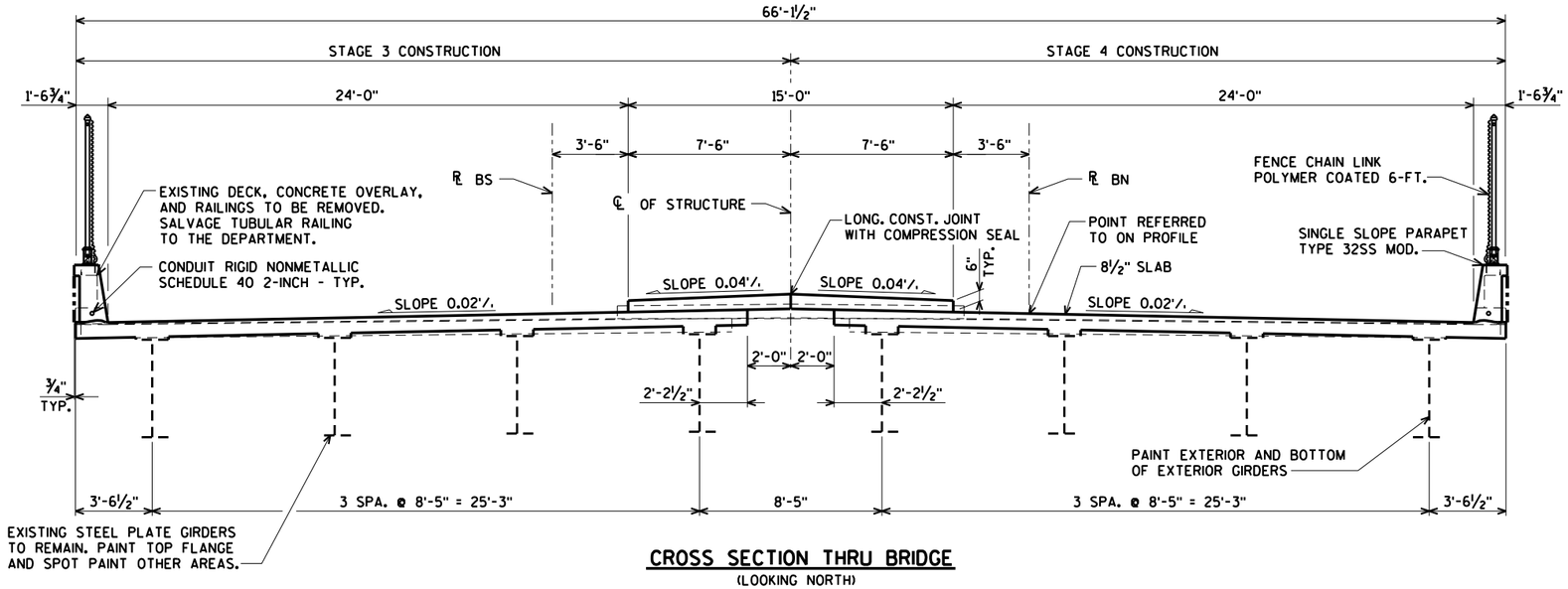
SHEET 1 OF 23
557

DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

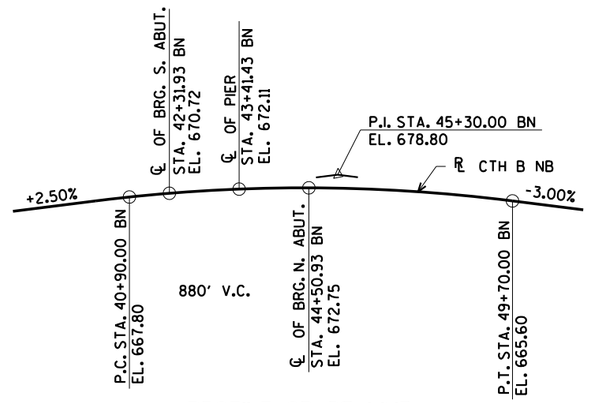
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7/26/2015 PENTABLE:BReau_shd_util.tbl LD DATE:



CROSS SECTION THRU BRIDGE
(LOOKING NORTH)



PROFILE GRADE LINE
(CTH B NB)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-19
OPERATING RATING: HS-33
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 230 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY	SUPERSTRUCTURE	f'_c =	4,000 p.s.i.
	ALL OTHER	f'_c =	3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60)		f_y =	60,000 p.s.i.

TRAFFIC DATA:

CTH B	IH 90
A.D.T. = 9,200 (2016)	A.D.T. = 43,700 (2016)
A.D.T. = 11,600 (2036)	A.D.T. = 56,700 (2036)
R.D.S. = 40 M.P.H.	R.D.S. = 70 M.P.H.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.

AT ABUTMENTS ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE DECK, MEDIAN, AND TOP AND FRONT OF PARAPETS.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 1967.

APPLY BRIDGE SEAT PROTECTION TO THE TOP OF THE ABUTMENT PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS.

VARIATIONS TO THE NEW GRADE LNE OVER ¼" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

BENCH MARK:

CHIS. X
STA. 42+20.10 BN, 21.65' RT
EL. 672.29

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

DRAWN BY CLS | PLANS CK'D. AEB

TYPICAL SECTION AND NOTES

SHEET 2 OF 23
558

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
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$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-52 CTH B over IH 90 (deck replacmnt)\BRIDGE\B-32-52 ty qn.dgn

STATE PROJECT NUMBER

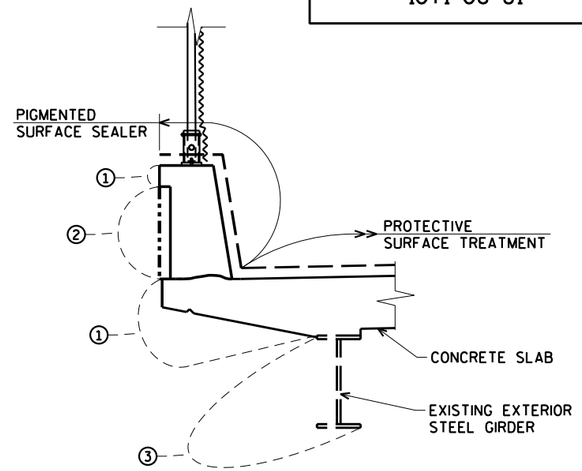
1071-06-81

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
	203.0210.S	ABATEMENT ASBESTOS MATERIAL B-32-52	LS	-----	-----	-----	1
	203.0200	REMOVING OLD STRUCTURE STATION 43+41.43 BN	LS	-----	-----	-----	1
	203.0225.S	DEBRIS CONTAINMENT B-32-52	LS	-----	-----	-----	1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-32-52	LS	-----	-----	-----	1
	210.0100	BACKFILL STRUCTURE	CY	80	80	-----	160
	502.0100	CONCRETE MASONRY BRIDGES	CY	29	29	533	591
	502.2000	COMPRESSION JOINT SEALER PREFORMED ELASTOMERIC 2 - INCH	LF	-----	-----	221	221
	502.3100	EXPANSION DEVICE B-32-52	LS	-----	-----	-----	1
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	1,596	1,596
	502.3210	PIGMENTED SURFACE SEALER	SY	15	15	190	220
	502.5005	MASONRY ANCHOR TYPE L NO. 5 BARS	EACH	178	178	-----	356
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4,070	4,020	120,420	128,510
	506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	8	8	-----	16
	506.7050.S	REMOVING BEARINGS B-32-52	EACH	8	8	-----	16
[1]	509.1500	CONCRETE SURFACE REPAIR	SF	20	20	-----	40
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	18	18	-----	36
	517.0900.S	PREPARATION AND COATING OF TOP FLANGES B-32-52	LS	-----	-----	-----	1
	517.1010.S	CONCRETE STAINING B-32-52	SF	20	20	1,890	1,930
	517.1015.S	CONCRETE STAINING MULTI-COLOR B-52-32	SF	75	75	960	1,110
	517.1050.S	ARCHITECTURAL SURFACE TREATMENT	SF	75	75	960	1,110
[2]	517.3000.S	STRUCTURE OVERCOATING CLEANING AND PRIMING B-32-52	LS	-----	-----	-----	1
	517.4000.S	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-32-52	LS	-----	-----	-----	1
	604.0400	SLOPE PAVING CONCRETE	SY	-----	65	-----	65
	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	2	-----	4
	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	12	12	-----	24
	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	30	30	430	490
	653.0222	JUNCTION BOX 18 X 12 X 6-INCH	EACH	-----	-----	2	2
	SPV.0090	FENCE CHAIN LINK POLYMER COATED 6-FT	LF	34	34	442	510
		NON-BID ITEMS					
		FILLER	SIZE	-----	-----	-----	½" & ¾"
		BRIDGE SEAT PROTECTION					
		NAME PLATE					

[1] UNDISTRIBUTED QUANTITY FOR REPAIRS AT ABUTMENTS AND AS DIRECTED BY THE ENGINEER.

[2] PAINT COLOR SHALL BE GRAY = 26293 PER FEDERAL COLOR STANDARD 595B.

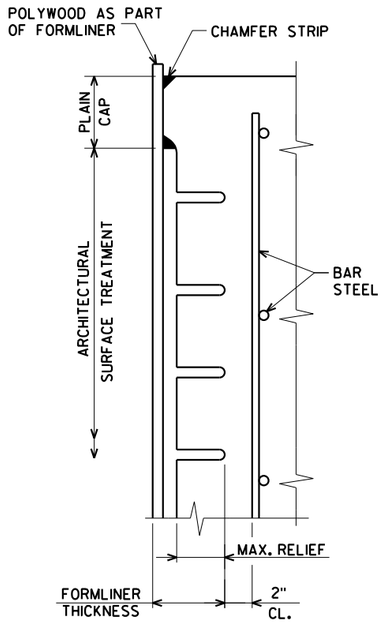


SURFACE TREATMENT DETAIL

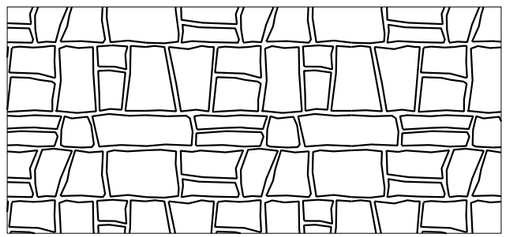
(1) LIMITS OF CONCRETE STAINING. FEDERAL STANDARD COLOR NUMBER 33446 (MEDIUM TAN).

(2) LIMITS OF CONCRETE STAINING MULTI-COLOR

(3) LIMITS OF STEEL GIRDER PAINTING FOR EXTERIOR GIRDERS. FEDERAL STANDARD COLOR NUMBER 26293. (GRAY)



SECTION THRU FORMLINER



RUSTIC ASHLAR

FORMLINER THICKNESS = 3"
SIZE = 8" TO 32"
MAX. RELIEF = 2"

PARAPET NOTES

THE FORMLINER COURSING ON PARAPETS SHALL BE PARALLEL TO THE TOP OF PARAPET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

DRAWN BY CLS | PLANS CK'D. AEB

QUANTITIES AND SURFACE TREAT. DETAILS

SHEET 3 OF 23
559

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AYRES ASSOCIATES
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Eau Claire, WI 54701
www.AyresAssociates.com

PENTABLE:BReau_shd_util.tbl

7/28/2015

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U:\41-0627.00 - LaCrosse County, IH90\B-32-52 CTH B over IH 90 (deck replacmnt)\BRIDGE\B-32-52 ty qn.dgn

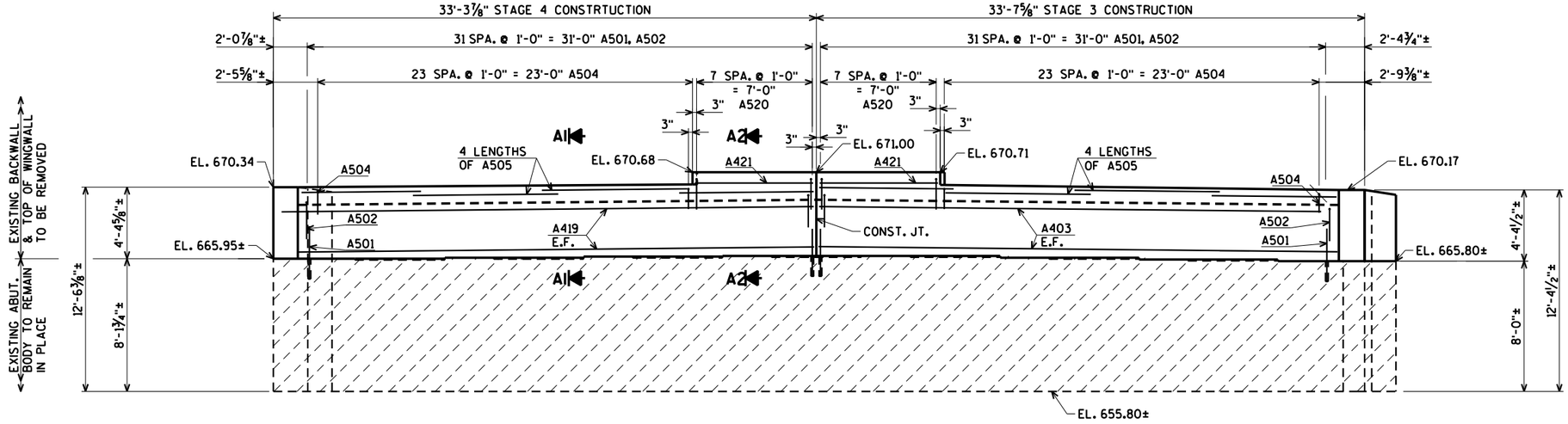
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8

$PRFNAME$
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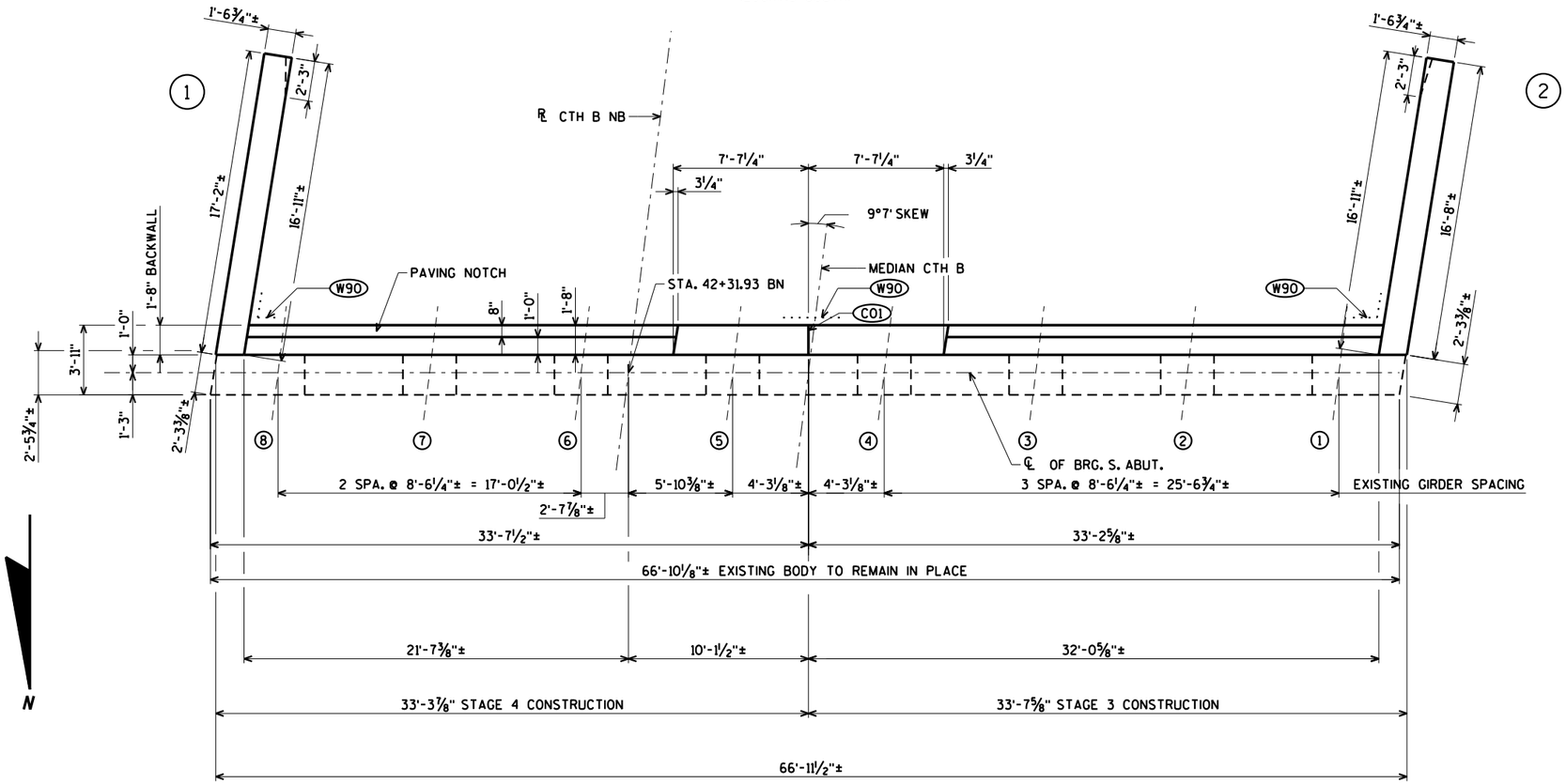
STATE PROJECT NUMBER
1071-06-81

A501 E.F. W/CONCRETE MASONRY ANCHORS #5 BARS. A502 (SPACING MAY BE ADJUSTED TO MISS EXISTING BAR STEEL)



ELEVATION
(LOOKING SOUTH)

FOR SECTIONS "A1 & A2" SEE SHEET 7.



PLAN

(W90) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE

(C01) VERT. CONST. JOINT KEYWAY FORMED BY A BEVELED 2" X 8" WITH A ¾" "V" GROOVE ON FRONT FACE.

WORK THIS SHEET WITH SHEETS 5 - 7.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

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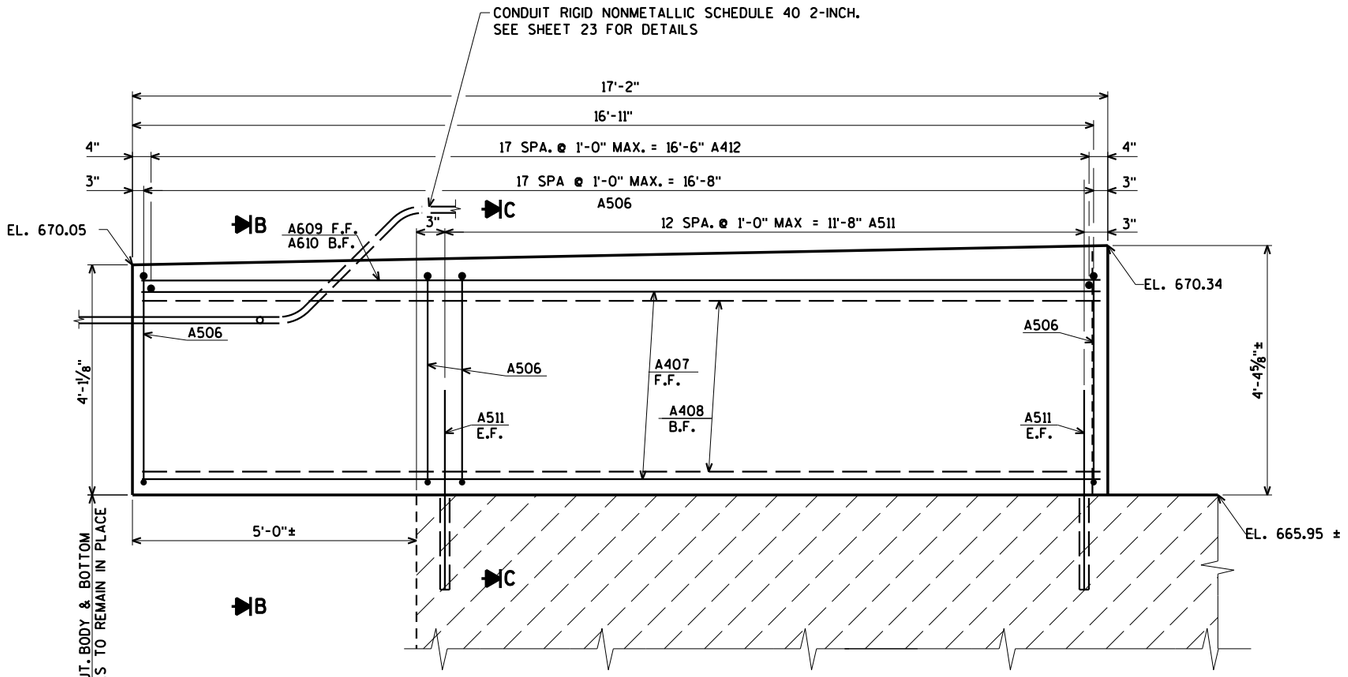
SOUTH ABUTMENT

SHEET 4 OF 23
560

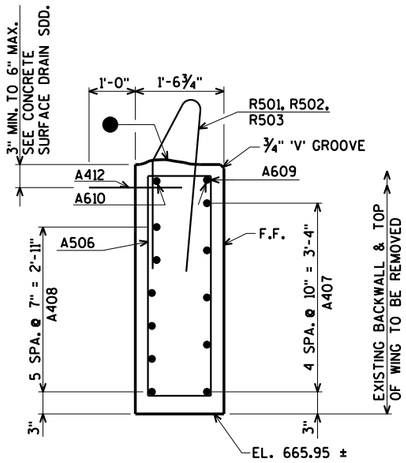
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
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8

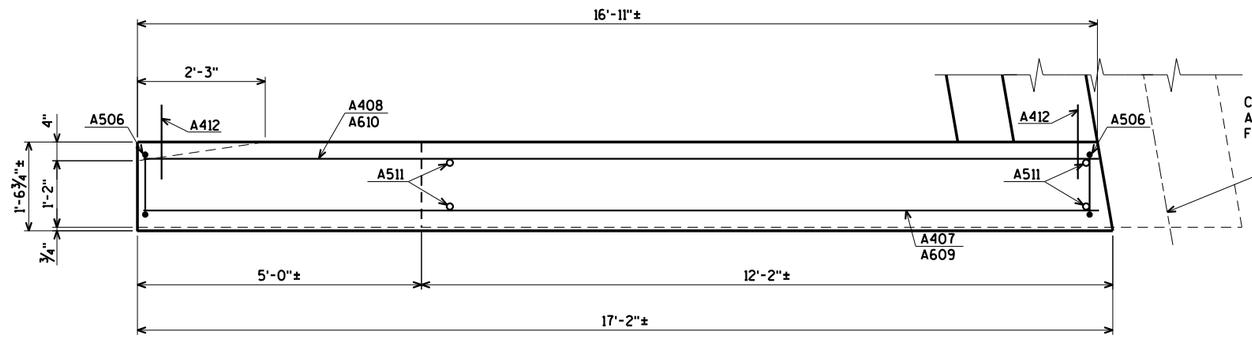
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TYPE 32SS MOD. NOT SHOWN.
FOR DETAILS SEE SHEET 23.



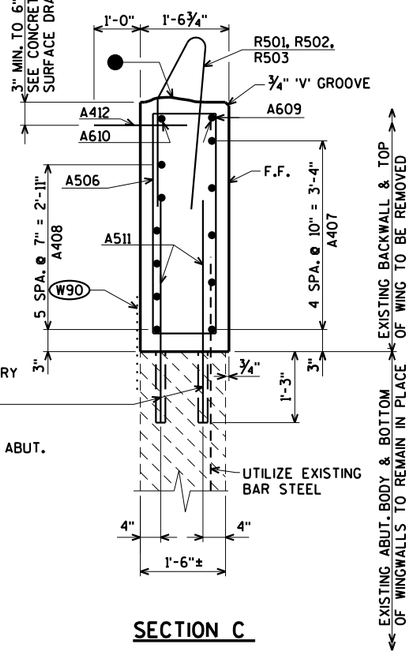
ELEVATION WING 1



SECTION B



PLAN - WING 1



SECTION C

● STRIKE OFF AS SHOWN AND LEAVE ROUGH.

(W90) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

WORK THIS SHEET WITH SHEETS 4, 6 & 7.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

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SOUTH ABUTMENT
WING 1 DETAILS

SHEET 5 OF 23
561

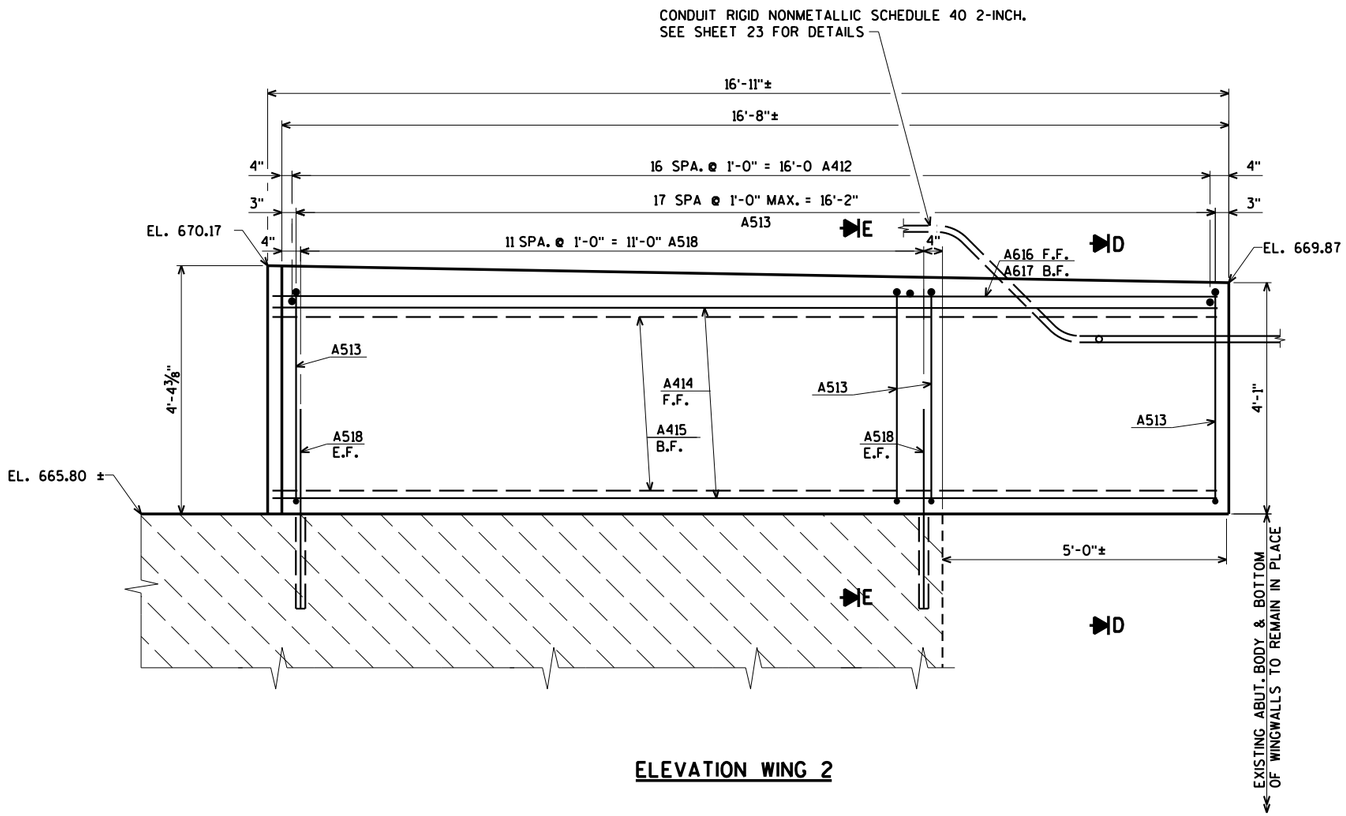
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8

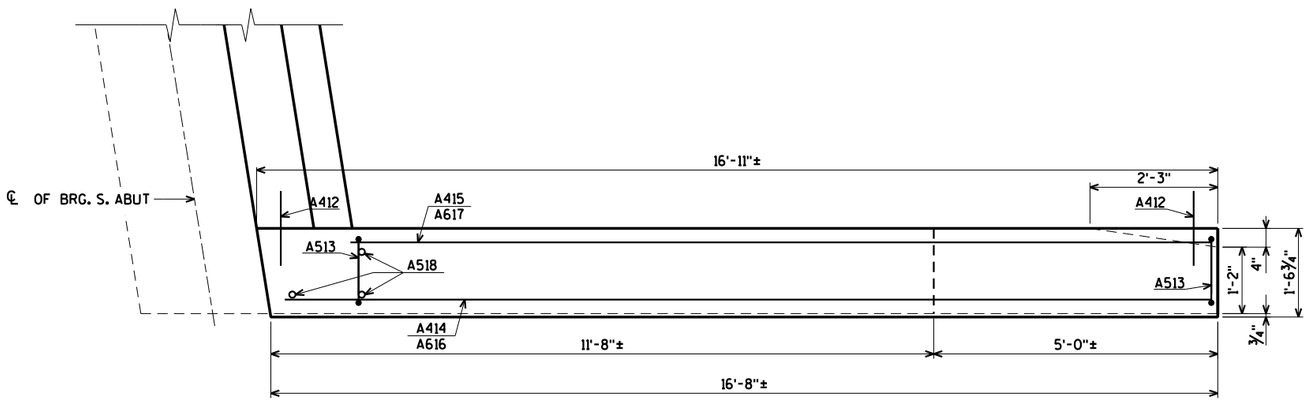
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$PRFNAME$
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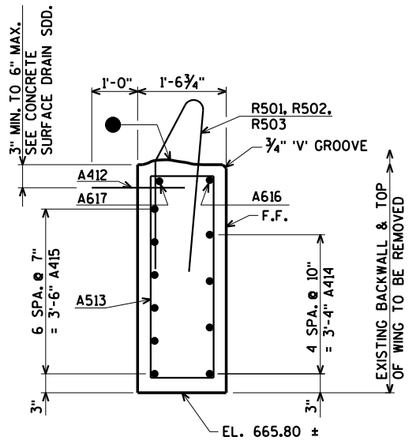
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TYPE 32SS MOD. NOT SHOWN.
FOR DETAILS SEE SHEET 23.



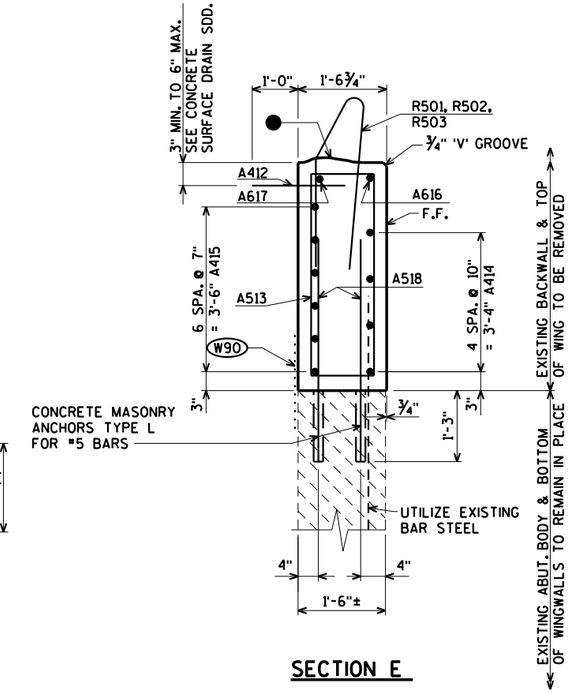
ELEVATION WING 2



PLAN - WING 2



SECTION D



SECTION E

● STRIKE OFF AS SHOWN AND LEAVE ROUGH.

(W90) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

WORK THIS SHEET WITH SHEETS 4, 5 & 7.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

DRAWN BY CJM | PLANS CK'D. AEB

SOUTH ABUTMENT
WING 2 DETAILS

SHEET 6 OF 23
562

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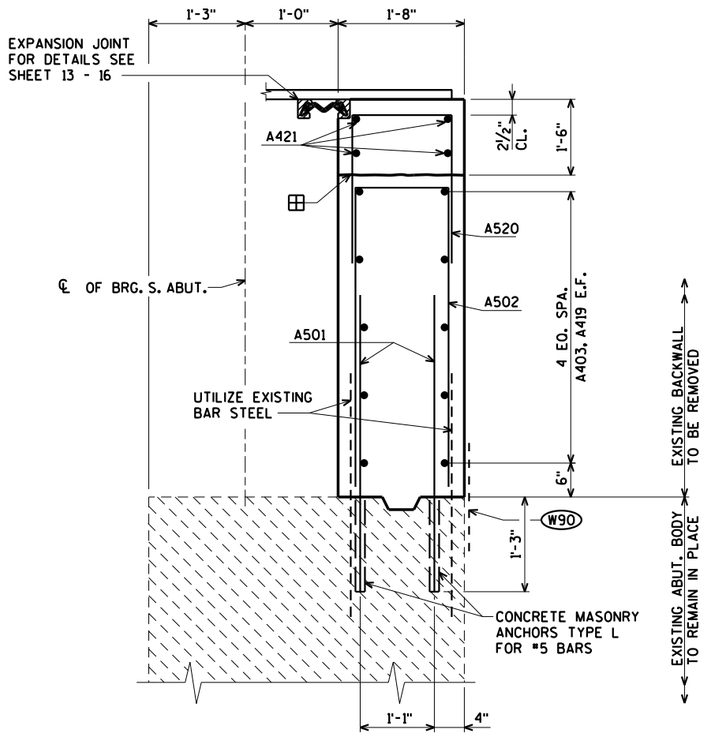
(W90) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

⊞ CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

F.F. DENOTES FRONT FACE

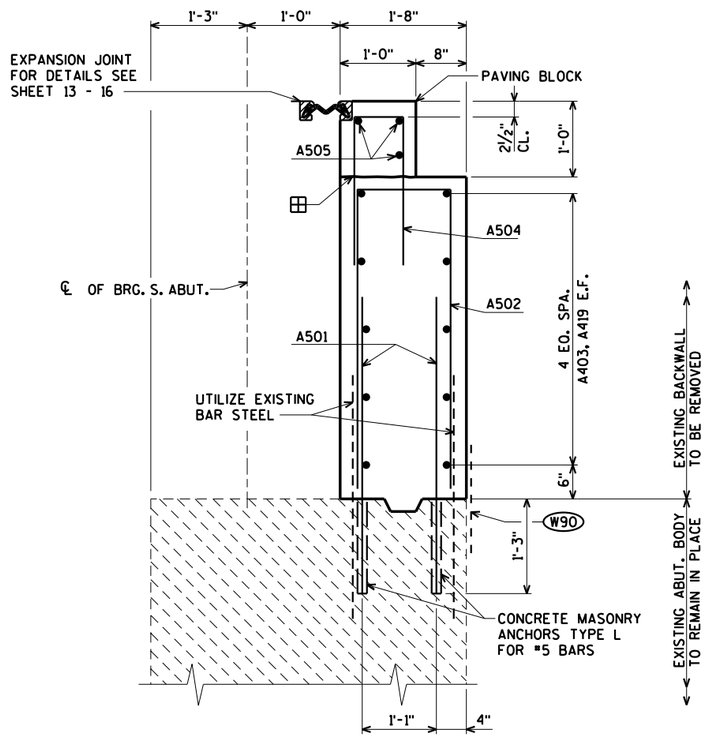
B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE



SECTION A2

FOR LOCATION OF SECTION "A2" SEE SHEET 4



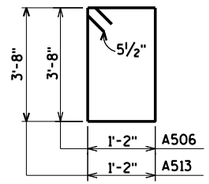
SECTION A1

FOR LOCATION OF SECTION "A1" SEE SHEET 4

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D. STAGE 3	NO. REQ'D. STAGE 4	LENGTH	BENT BAR	BUNDLED BAR SERIES	4,070# COATED LOCATION
A501	X	64	64	3-8			BACKWALL VERT. DOWELS E.F.
A502	X	32	32	9-3	X		BACKWALL VERT.
A403	X	10	0	33-3			BACKWALL HORIZ. STAGE 3
A504	X	24	24	4-9	X		BACKWALL ℄ PAVING VERT. BLOCK
A505	X	12	12	9-7			PAVING BLOCK HORIZ.
A506	X	0	18	10-2	X		WING 1 VERT.
A407	X	0	5	16-10			WING 1 HORIZ. F.F.
A408	X	0	6	16-7			WING 1 HORIZ. B.F.
A609	X	0	1	16-10			WING 1 HORIZ. F.F.
A610	X	0	1	16-7			WING 1 HORIZ. B.F.
A511	X	0	26	3-8			WING 1 DOWELS E.F.
A412	X	18	18	2-0			WING 1 & 2 DOWELS
A513	X	18	0	10-2	X		WING 2 VERT.
A414	X	5	0	16-4			WING 2 HORIZ. F.F.
A415	X	7	0	16-7			WING 2 HORIZ. B.F.
A616	X	1	0	16-4			WING 2 HORIZ. F.F.
A617	X	1	0	16-7			WING 2 HORIZ. B.F.
A518	X	24	0	3-8			WING 2 DOWELS E.F.
A419	X	0	10	33-0			BACKWALL HORIZ. STAGE 4
A520	X	8	8	5-6			BACKWALL VERT. ℄ MEDIAN
A421	X	4	4	7-0			BACKWALL HORIZ. ℄ MEDIAN

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



WORK THIS SHEET WITH SHEETS 4 - 6.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

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SOUTH ABUTMENT DETAILS

SHEET 7 OF 23
563

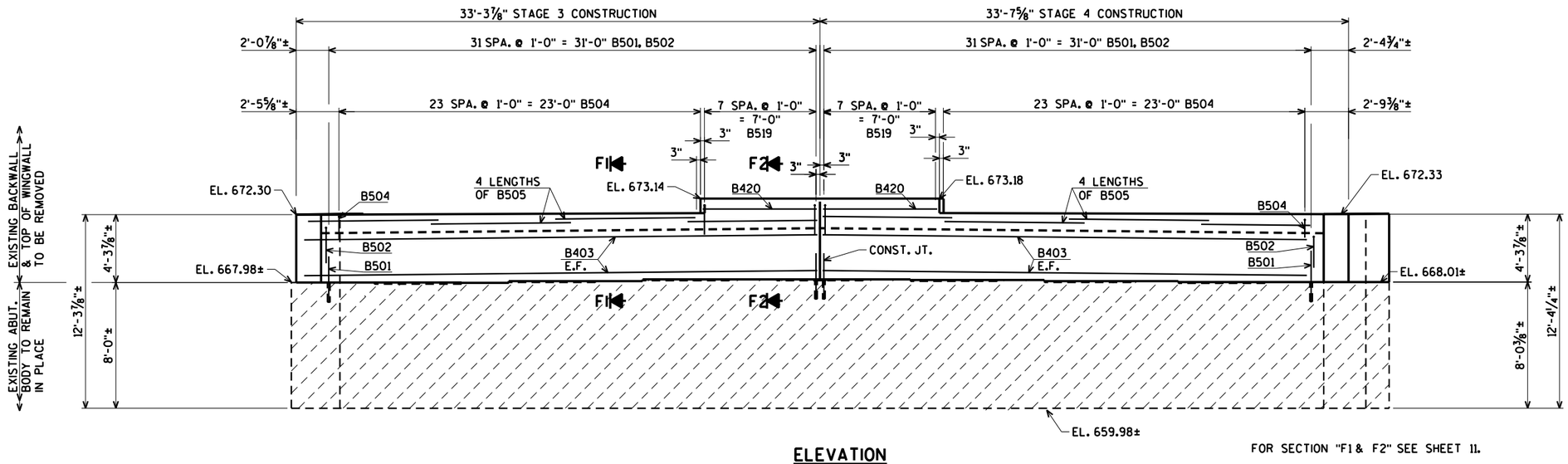
ORIGINAL PLANS PREPARED BY
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$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-52 CTH B over IH 90 (deck replacmnt)\BRIDGE\B-32-52_NA.DGN

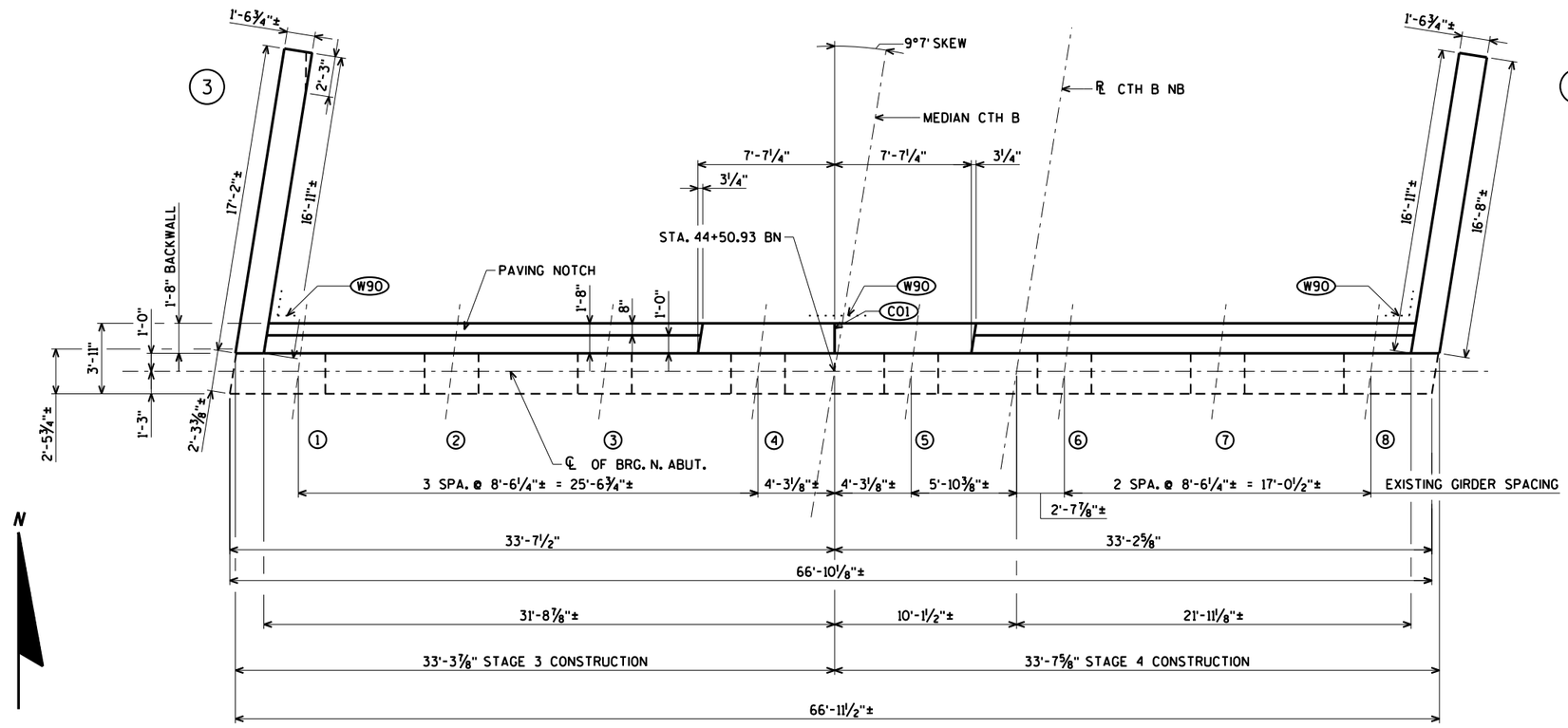
STATE PROJECT NUMBER
1071-06-81

B501 E.F. W/CONCRETE MASONRY ANCHORS #5 BARS. B502 (SPACING MAY BE ADJUSTED TO MISS EXISTING BAR STEEL)



ELEVATION
(LOOKING NORTH)

FOR SECTION "F1 & F2" SEE SHEET 11.



PLAN

W90 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE

C01 VERT. CONST. JOINT KEYWAY FORMED BY A BEVELED 2" X 8" WITH A ¾" "V" GROOVE ON FRONT FACE.

WORK THIS SHEET WITH SHEETS 9 - 11.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

DRAWN BY CJM | PLANS CK'D. AEB

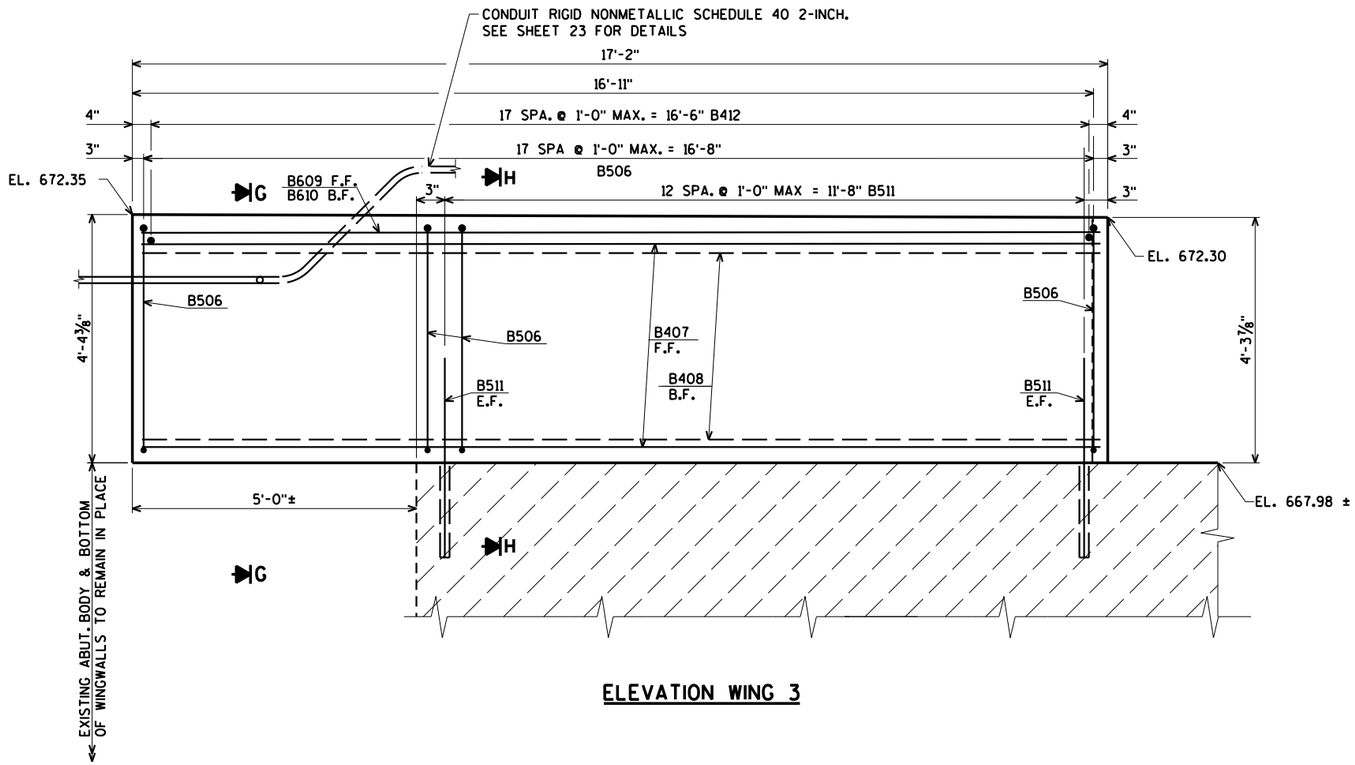
NORTH ABUTMENT

SHEET 8 OF 23
564

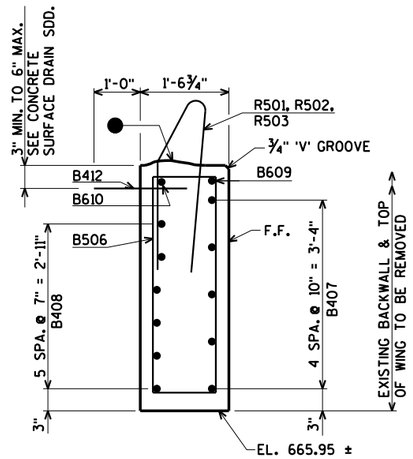
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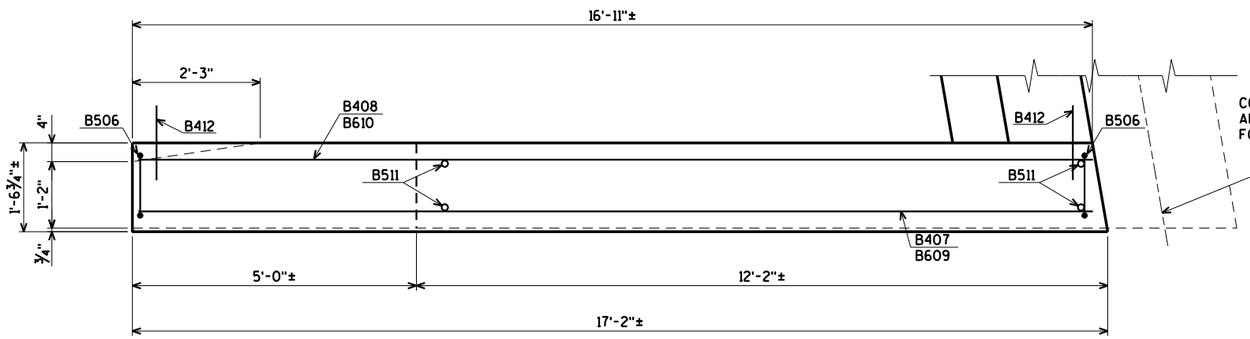
SINGLE SLOPE PARAPET
TYPE 32SS MOD. NOT SHOWN.
FOR DETAILS SEE SHEET 23.



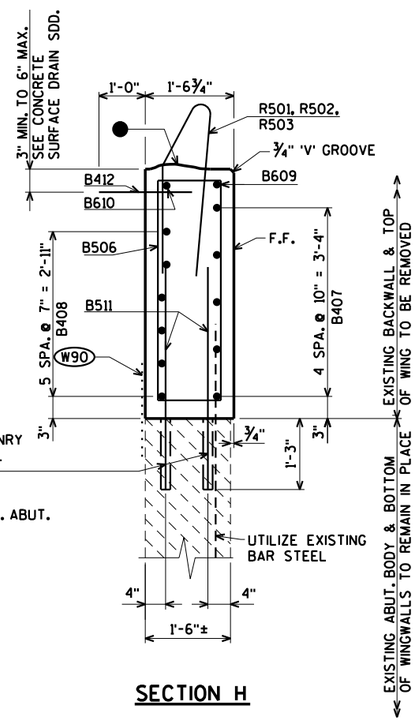
ELEVATION WING 3



SECTION G



PLAN - WING 3



SECTION H

● STRIKE OFF AS SHOWN AND LEAVE ROUGH.

(W90) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

WORK THIS SHEET WITH SHEETS 8, 10 & 11.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

DRAWN BY	CJM	PLANS CK'D.	AEB

NORTH ABUTMENT
WING 3 DETAILS

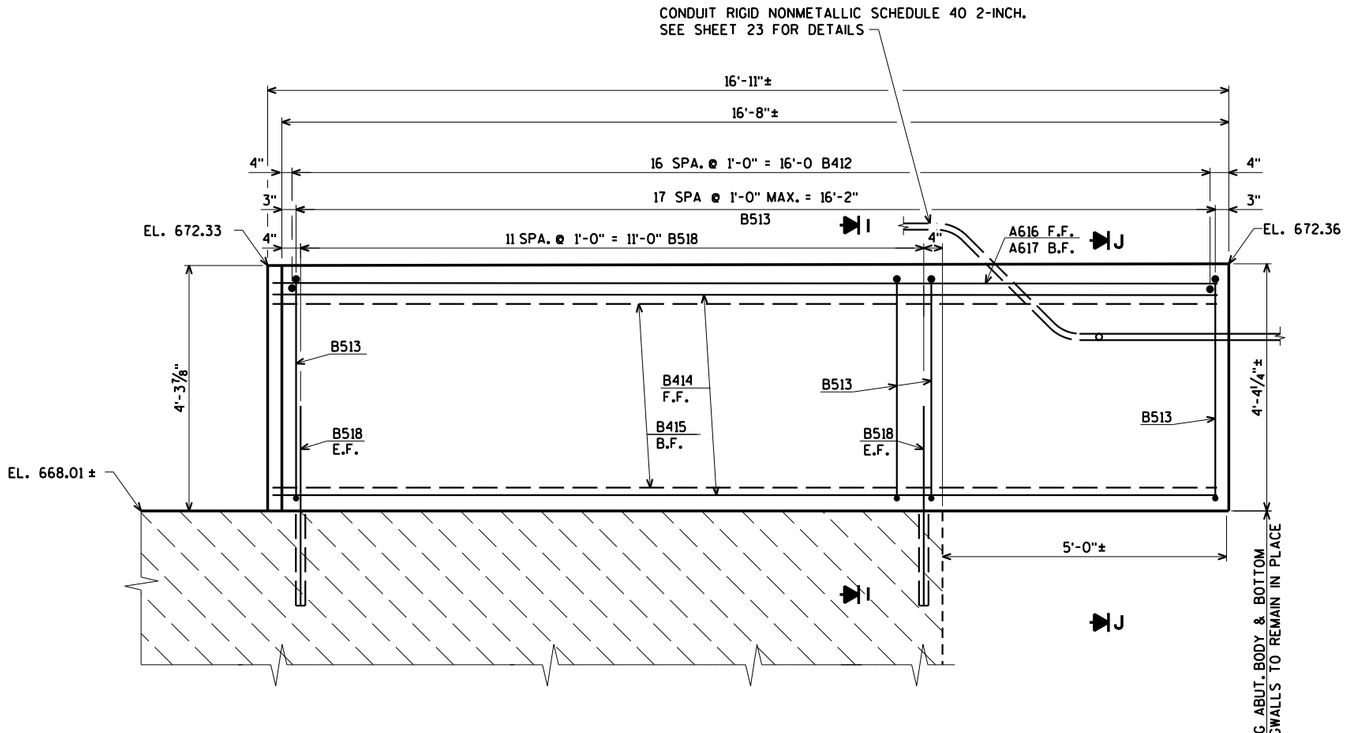
SHEET 9 OF 23
565

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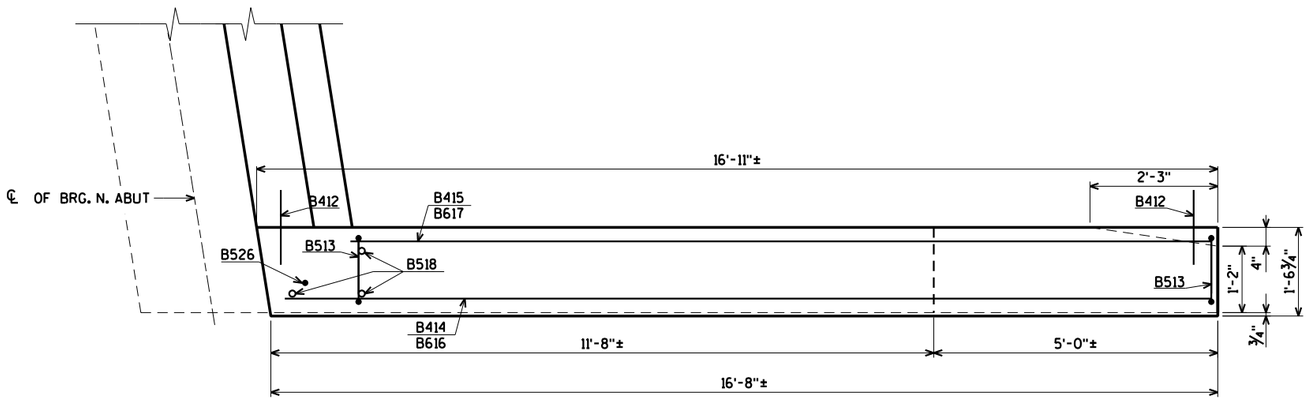
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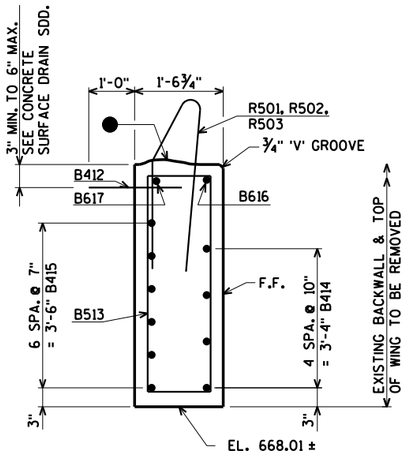
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ELEVATION WING 4



PLAN - WING 4



SECTION J

SECTION I

SINGLE SLOPE PARAPET
TYPE 32SS MOD. NOT SHOWN.
FOR DETAILS SEE SHEET 23.

● STRIKE OFF AS SHOWN AND LEAVE ROUGH.

W90 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

WORK THIS SHEET WITH SHEETS 8, 9 & 11.

NO.	DATE	REVISION	BY

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STRUCTURE B-32-52

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NORTH ABUTMENT WING 4 DETAILS

SHEET 10 OF 23
566

8

8

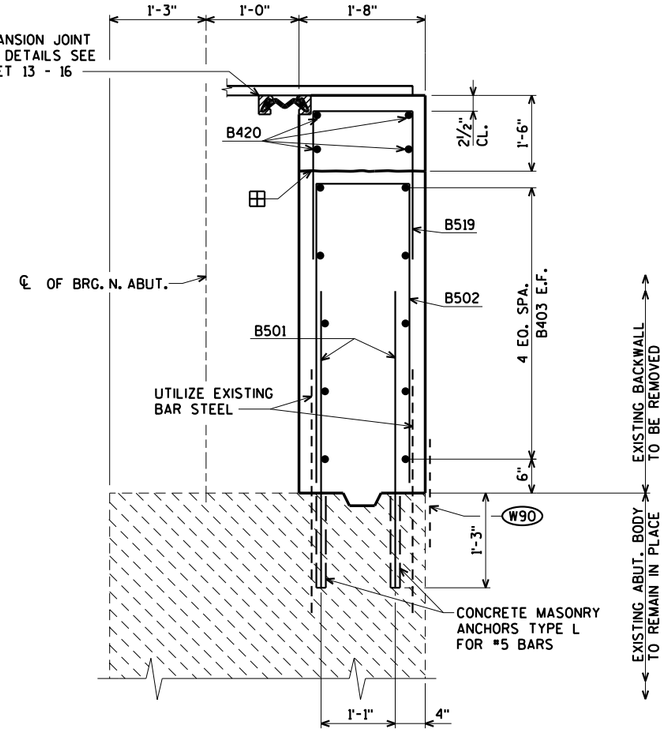
(W90) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

⊞ CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

F.F. DENOTES FRONT FACE

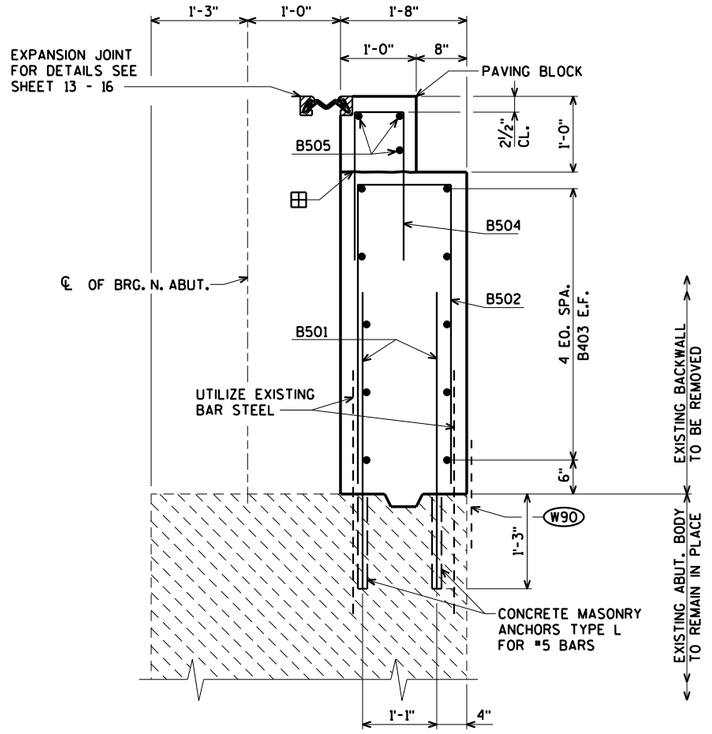
B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE



SECTION F2

FOR LOCATION OF SECTION "F2" SEE SHEET 8



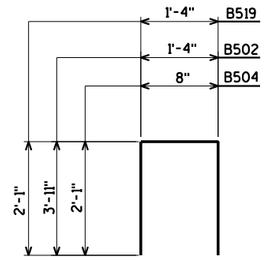
SECTION F1

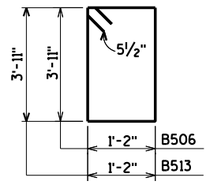
FOR LOCATION OF SECTION "F1" SEE SHEET 8

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D. STAGE 3	NO. REQ'D. STAGE 4	LENGTH	BENT BAR	BUNDLED BAR SERIES	4,020# COATED LOCATION
B501	X	64	64	3-8			BACKWALL VERT. DOWELS E.F.
B502	X	32	32	8-11	X		BACKWALL VERT.
B403	X	10	10	33-3			BACKWALL HORIZ.
B504	X	24	24	4-7	X		BACKWALL ℄ PAVING VERT. BLOCK
B505	X	12	12	8-11			PAVING BLOCK HORIZ.
B506	X	18	0	10-8	X		WING 3 VERT.
B407	X	5	0	16-10			WING 3 HORIZ. F.F.
B408	X	6	0	16-7			WING 3 HORIZ. B.F.
B609	X	1	0	16-10			WING 3 HORIZ. F.F.
B610	X	1	0	16-7			WING 3 HORIZ. B.F.
B511	X	26	0	3-8			WING 3 DOWELS E.F.
B412	X	18	18	2-0			WING 3 & 4 DOWELS
B513	X	0	18	10-8	X		WING 4 VERT.
B414	X	0	5	16-4			WING 4 HORIZ. F.F.
B415	X	0	7	16-7			WING 4 HORIZ. B.F.
B616	X	0	1	16-4			WING 4 HORIZ. F.F.
B617	X	0	1	16-7			WING 4 HORIZ. B.F.
B518	X	0	24	3-2			WING 4 DOWELS E.F.
B519	X	8	8	5-6			BACKWALL VERT. ℄ MEDIAN
B420	X	4	4	7-0			BACKWALL HORIZ. ℄ MEDIAN

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.





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STATE OF WISCONSIN
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STRUCTURE B-32-52

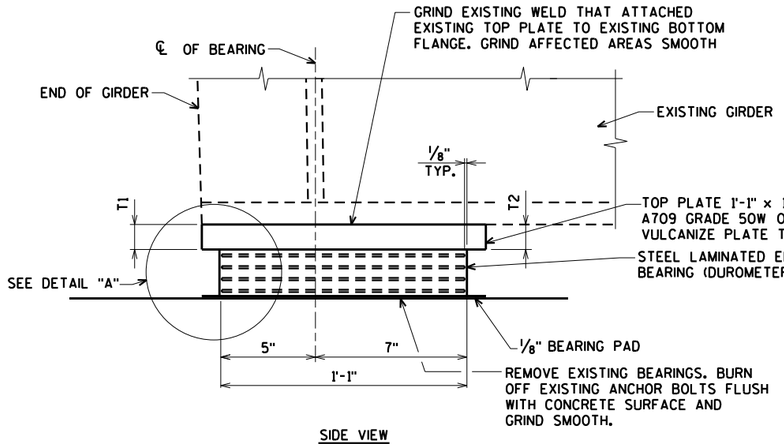
DRAWN BY CJM | PLANS CK'D. AEB

NORTH ABUTMENT DETAILS

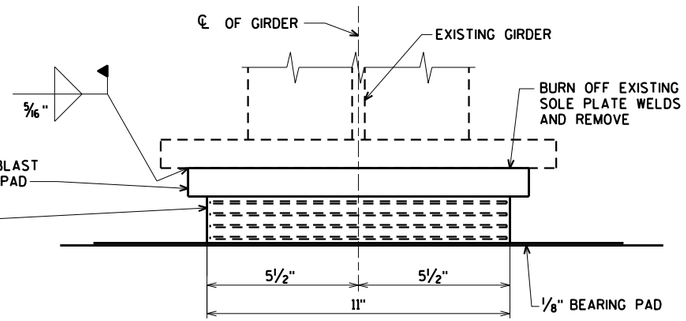
SHEET 11 OF 23
567

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PENTABLE:BReau_shd_util.tbl



SIDE VIEW



END VIEW

EXPANSION BEARING DETAIL AT ABUTMENTS

NOTES:

EXISTING ANCHOR BOLTS SHALL BE CUT OFF FLUSH WITH CONCRETE AND GROUND SMOOTH.

REMOVAL OF EXISTING EXPANSION BEARING ASSEMBLY SHALL BE PAID AT THE UNIT PRICE BID FOR "REMOVING BEARINGS B-32-52".

BEARING NOTES - EXPANSION BEARING

BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER.

ALL MATERIAL USED FOR EXPANSION BEARINGS SHALL BE PAID AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL PLATES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED".

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH & FREE FROM WARP & ALL EDGES SMOOTH, STRAIGHT & VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL PLATES SHALL BE SHOP PAINTED AFTER BEARING FABRICATION.

PROVIDE 1/8" THICK BEARING PAD SAME SIZE AS BOTTOM PLATE FOR EACH BEARING AT THE SOUTH ABUTMENT.

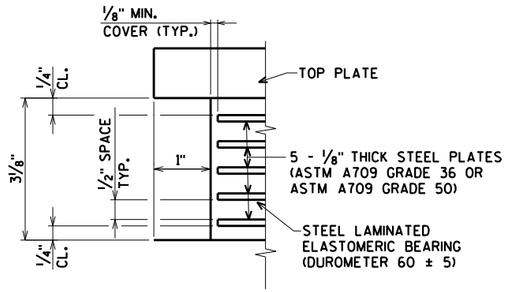
BEARING PADS ELASTOMERIC LAMINATED SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85° F.

ON BEARING REPLACEMENTS, COMPRESSION LOAD AND ADHESION TESTS WILL BE WAIVED WHERE BEARINGS ARE DETAILED TO MEET HEIGHT REQUIREMENTS.

WELDING PROCEDURES SHALL BE ESTABLISHED BY THE CONTRACTOR TO RESTRICT THE MAXIMUM TEMPERATURE REACHED BY SUFACES IN CONTACT WITH ELASTOMER TO 200°F (93°C). TEMPERATURE SHALL BE CONTROLLED BY TEMPERATURE INDICATING WAX PENCILS OR OTHER SUITABLE MEANS APPROVED BY THE ENGINEER.

TOP PLATE SHALL BE TAPERED TO FIT AT MOST LOCATIONS ON THE SPAN SIDE OF BEARING. SEE TABLE FOR DIMENSIONS AT PARTICULAR LOCATIONS.

GIRDER	ABUTMENT	TOP PLATE THICKNESS, T1 (INCHES)	TOP PLATE THICKNESS, T2 (INCHES)
ALL	SOUTH	1"	1 1/4"
ALL	NORTH	1 1/8"	1"



DETAIL A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

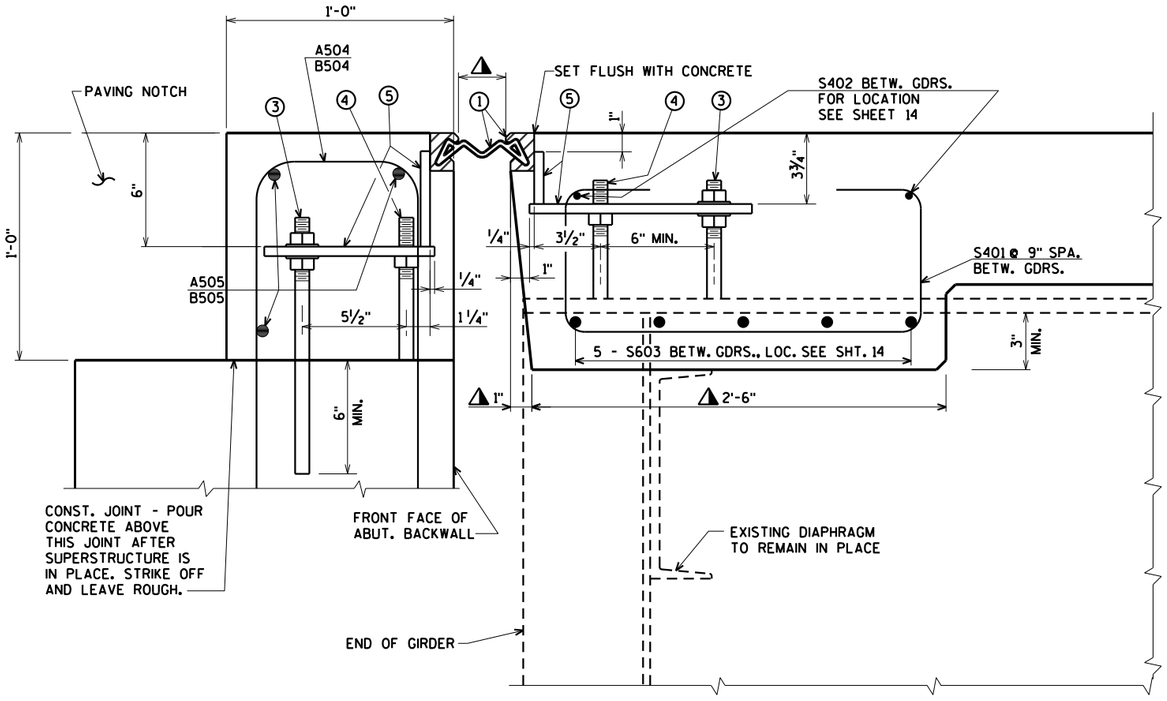
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BEARING DETAILS AT ABUTMENTS

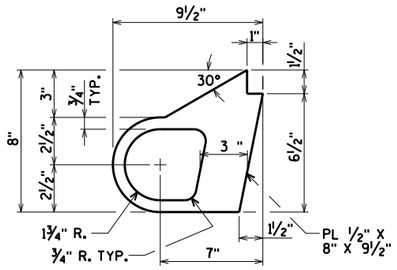
SHEET 12 OF 23
568

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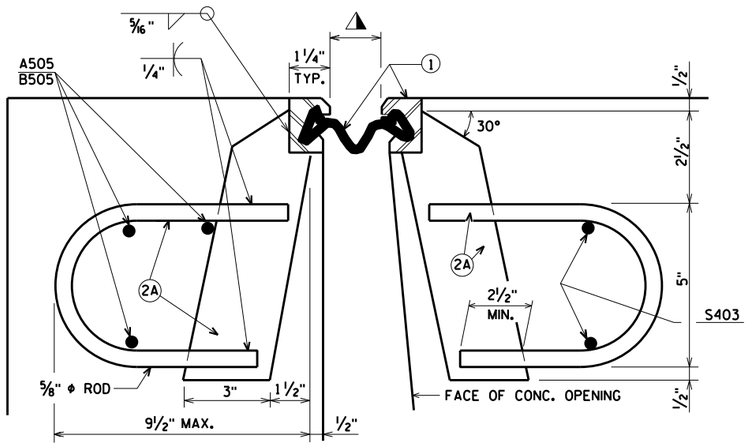
TYPICAL SECTION THRU JOINT
NORMAL TO ℄ SUBSTRUCTURE



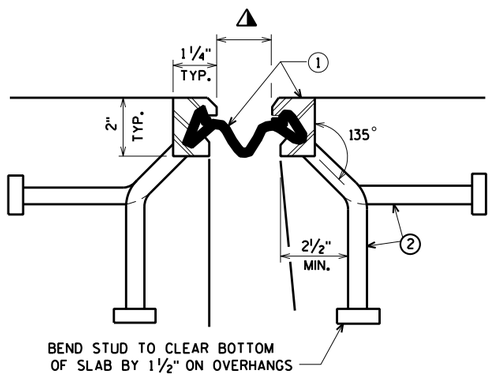
ALTERNATE STRIP SEAL ANCHOR

LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1¾".
2. STUDS ⅝" ϕ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CTRS. BETWEEN GIRDERS.
3. ¾" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" ϕ HOLE FOR NO. 3 & 1" ϕ HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" × 10½" × 2'-2" LONG WITH HOLES FOR #7.
7. ¾" ϕ × 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLES. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾" ϕ × 4" GALV. HEX HEAD BOLT. BEND 45°.
9. ¾" ϕ × 2 ¼" GALV. THREADED COUPLING.
10. 1" × 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.
11. SIDEWALK COVER PLATE ⅜" X 2'-0" X LIMITS SHOWN WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.



SECTION THRU JOINT
ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



SECTION THRU JOINT
EXTERIOR GIRDER TO EDGE OF SLAB & AT PARAPETS.

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-32-52".

⚠ DIMENSION IS TAKEN NORMAL TO CENTERLINE OF ABUTMENT.

WORK THIS SHEET WITH SHEET 14 - 15.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-32-52

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EXPANSION JOINT DETAILS ABUTMENTS

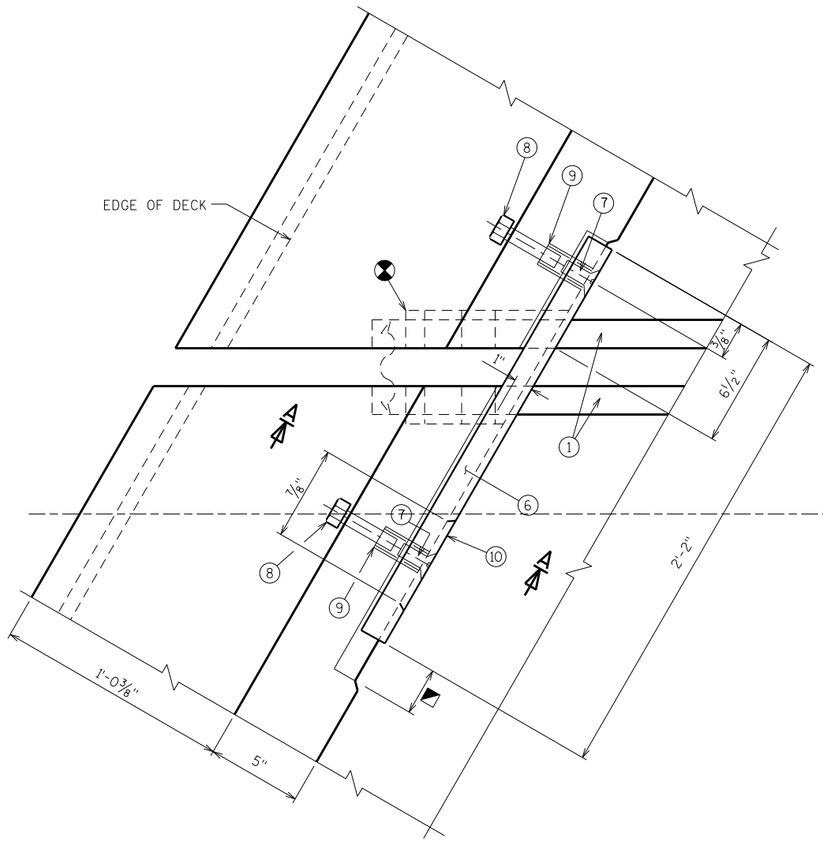
SHEET 13 OF 23
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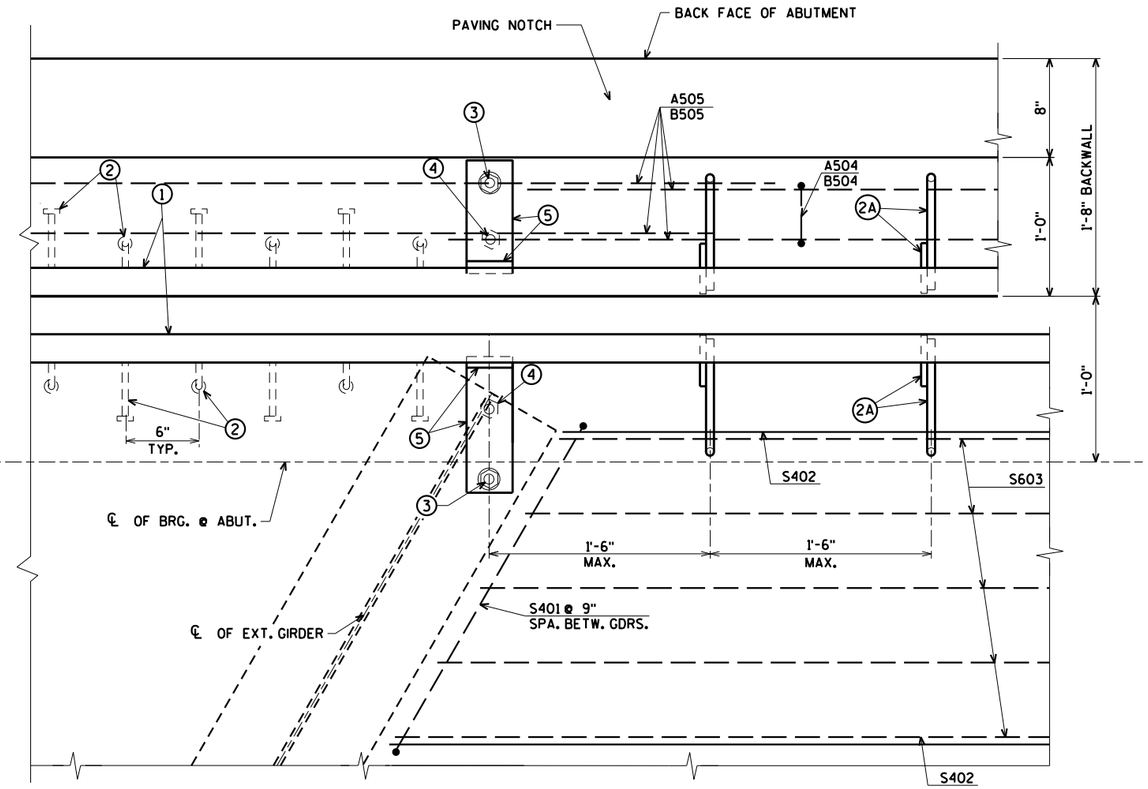
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7/26/2015
PENTABLE:BReau_shd_util.tbl

STATE PROJECT NUMBER

1071-06-81





PART PLAN

(WING 1 SHOWN, OTHERS SIMILAR)

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIM. ALONG SKEW PLUS ½".

WORK THIS SHEET WITH SHEETS 13 & 15.

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STRUCTURES DESIGN SECTION

STRUCTURE B-32-52

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EXPANSION JOINT DETAILS ABUTMENTS

SHEET 14 OF 23
570

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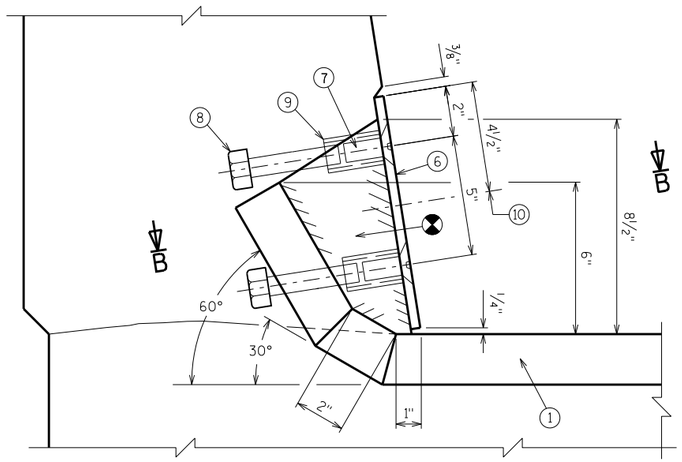
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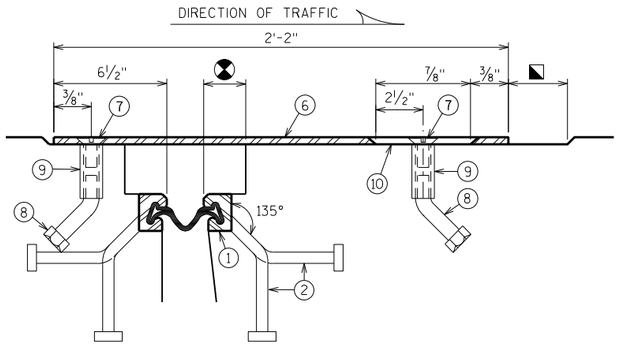
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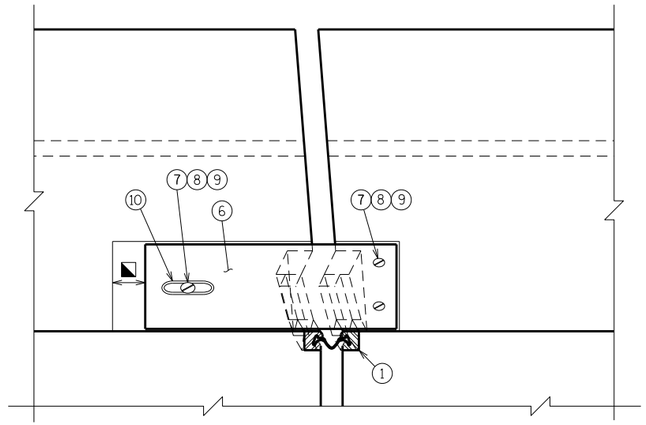
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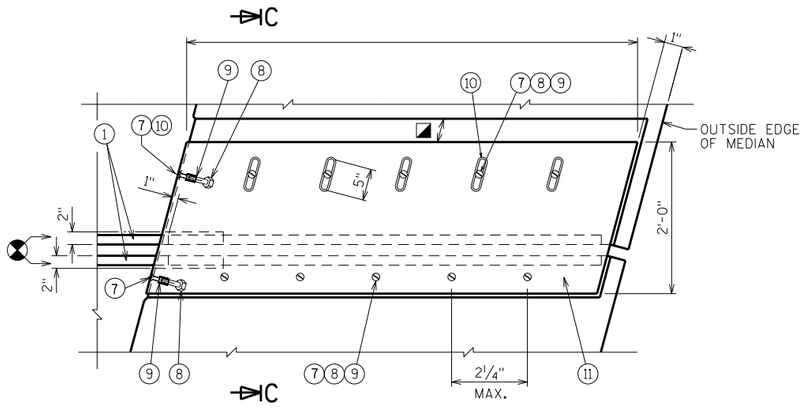
SECTION A-A



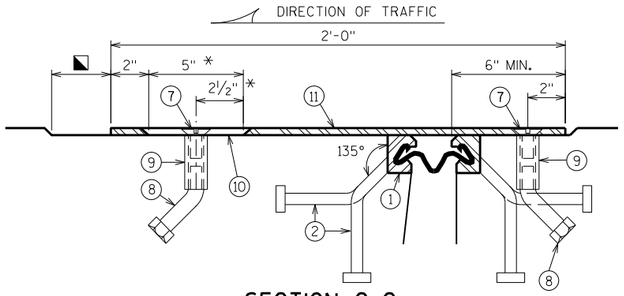
SECTION B-B



VIEW OF PARAPET PLATE FROM ROADWAY



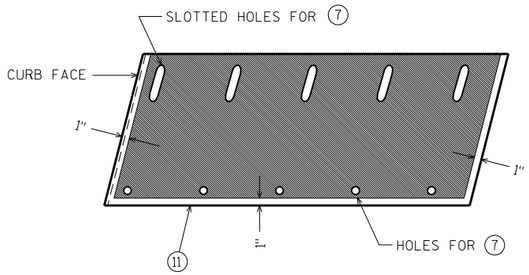
PLAN AT MEDIAN



SECTION C-C

* DIMENSION ALONG DIRECTION OF MOVEMENT

SECTION AT MEDIAN



PLAN OF MEDIAN COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY (NOT ON CURB FACE).

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W. S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170

⊠ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIM. ALONG SKEW PLUS ½".

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STRUCTURE B-32-52

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COVER PLATE DETAILS

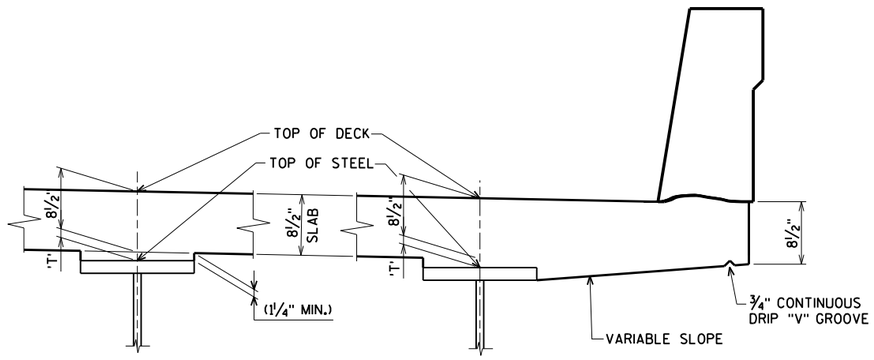
SHEET 15 OF 23
571

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ELEVATIONS AT TOP OF DECK

	℄ BRG. S. ABUT	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	℄ OF PIER	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	℄ BRG. N. ABUT
WEST EDGE OF DECK	670.17	670.35	670.52	670.68	670.83	670.98	671.12	671.25	671.38	671.50	671.61	671.71	671.81	671.89	671.97	672.05	672.11	672.17	672.22	672.26	672.30
GIRDER 1	670.24	670.42	670.59	670.75	670.91	671.05	671.19	671.33	671.45	671.57	671.68	671.78	671.88	671.96	672.04	672.12	672.18	672.24	672.29	672.33	672.37
GIRDER 2	670.43	670.61	670.78	670.94	671.09	671.24	671.38	671.51	671.63	671.75	671.86	671.96	672.06	672.14	672.22	672.29	672.36	672.41	672.46	672.50	672.54
GIRDER 3	670.62	670.80	670.97	671.13	671.28	671.43	671.56	671.69	671.82	671.93	672.04	672.14	672.24	672.32	672.40	672.47	672.53	672.59	672.64	672.68	672.71
GIRDER 4	670.81	670.99	671.16	671.32	671.47	671.61	671.75	671.88	672.00	672.12	672.22	672.32	672.41	672.50	672.58	672.65	672.71	672.76	672.81	672.85	672.88
GIRDER 5	670.84	671.01	671.18	671.33	671.49	671.63	671.77	671.89	672.02	672.13	672.24	672.33	672.43	672.51	672.59	672.65	672.72	672.77	672.82	672.85	672.89
REFERENCE LINE	670.72	670.89	671.06	671.21	671.36	671.51	671.64	671.77	671.89	672.00	672.11	672.21	672.30	672.38	672.46	672.52	672.59	672.64	672.68	672.72	672.75
GIRDER 6	670.69	670.86	671.03	671.19	671.34	671.48	671.61	671.74	671.86	671.97	672.08	672.18	672.27	672.35	672.43	672.49	672.55	672.61	672.65	672.69	672.72
GIRDER 7	670.54	670.71	670.88	671.04	671.19	671.33	671.46	671.59	671.71	671.82	671.92	672.02	672.11	672.19	672.27	672.33	672.39	672.44	672.49	672.53	672.56
GIRDER 8	670.40	670.57	670.73	670.89	671.03	671.18	671.31	671.43	671.55	671.66	671.77	671.86	671.95	672.03	672.11	672.17	672.23	672.28	672.33	672.36	672.39
EAST EDGE OF DECK	670.34	670.51	670.67	670.83	670.98	671.12	671.25	671.38	671.49	671.60	671.71	671.80	671.89	671.97	672.04	672.11	672.17	672.22	672.26	672.30	672.33



INTERIOR GIRDER

EXTERIOR GIRDER

SLAB HAUNCH DETAIL

TO DETERMINE 'T': AFTER ALL DECK IS REMOVED. ELEVATIONS OF THE TOP FLANGES OR TOP OF SPLICE PLATES, OR TOP OF COVER PLATES WHICHEVER APPLIES, SHALL BE TAKEN AT CENTERLINE OF BEARINGS, CENTERLINE OF FIELD SPLICES, AND AT TENTH POINTS OF EACH SPAN.

TOP OF DECK ELEVATION AT FINAL GRADE
- TOP OF STEEL ELEVATION AFTER DECK REMOVAL
+ CONCRETE ONLY DEFLECTION: DOWNWARD DEFLECTION IS ADDED, UPWARD DEFLECTION IS SUBTRACTED
- SLAB THICKNESS (8½")

= HAUNCH THICKNESS 'T'

AVERAGE "T" USED FOR ESTIMATING QUANTITIES = 4"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

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DECK ELEVATIONS

SHEET 16 OF 23
572

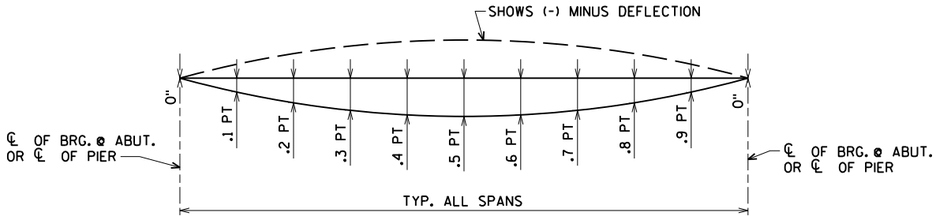
ORIGINAL PLANS PREPARED BY
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TABLE OF DEFLECTIONS (IN INCHES)

SPAN 1 DEFLECTIONS												
	DEFLECTION	℄ BRG. S. ABUT	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	℄ OF PIER
GIRDER 1	CONCRETE ONLY	0.0	0.8	1.4	1.8	1.9	1.7	1.3	0.8	0.3	0.1	0.0
GIRDER 2	CONCRETE ONLY	0.0	0.9	1.6	2.1	2.2	1.9	1.4	0.9	0.4	0.1	0.0
GIRDER 3	CONCRETE ONLY	0.0	0.9	1.6	2.1	2.2	1.9	1.4	0.9	0.4	0.1	0.0
GIRDER 4	CONCRETE ONLY	0.0	0.7	1.3	1.6	1.7	1.5	1.1	0.7	0.3	0.1	0.0
GIRDER 5	CONCRETE ONLY	0.0	0.7	1.3	1.6	1.7	1.5	1.1	0.7	0.3	0.1	0.0
GIRDER 6	CONCRETE ONLY	0.0	0.9	1.6	2.1	2.2	1.9	1.4	0.9	0.4	0.1	0.0
GIRDER 7	CONCRETE ONLY	0.0	0.9	1.6	2.1	2.2	1.9	1.4	0.9	0.4	0.1	0.0
GIRDER 8	CONCRETE ONLY	0.0	0.8	1.4	1.8	1.9	1.7	1.3	0.8	0.3	0.1	0.0

SPAN 2 DEFLECTIONS												
	DEFLECTION	℄ OF PIER	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	℄ BRG. N. ABUT.
GIRDER 1	CONCRETE ONLY	0.0	0.1	0.3	0.8	1.3	1.7	1.9	1.8	1.4	0.8	0.0
GIRDER 2	CONCRETE ONLY	0.0	0.1	0.4	0.9	1.4	1.9	2.2	2.1	1.6	0.9	0.0
GIRDER 3	CONCRETE ONLY	0.0	0.1	0.4	0.9	1.4	1.9	2.2	2.1	1.6	0.9	0.0
GIRDER 4	CONCRETE ONLY	0.0	0.1	0.3	0.7	1.1	1.5	1.7	1.6	1.3	0.7	0.0
GIRDER 5	CONCRETE ONLY	0.0	0.1	0.3	0.7	1.1	1.5	1.7	1.6	1.3	0.7	0.0
GIRDER 6	CONCRETE ONLY	0.0	0.1	0.4	0.9	1.4	1.9	2.2	2.1	1.6	0.9	0.0
GIRDER 7	CONCRETE ONLY	0.0	0.1	0.4	0.9	1.4	1.9	2.2	2.1	1.6	0.9	0.0
GIRDER 8	CONCRETE ONLY	0.0	0.1	0.3	0.8	1.3	1.7	1.9	1.8	1.4	0.8	0.0



DEFLECTION DIAGRAM

NOTE: DEFLECTIONS ARE THEORETICAL AND MAY VARY IN THE FIELD.
CONCRETE ONLY = CONCRETE DECK DEFLECTIOIN + COMPOSITE DEAD LOAD DEFLECTION.

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8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

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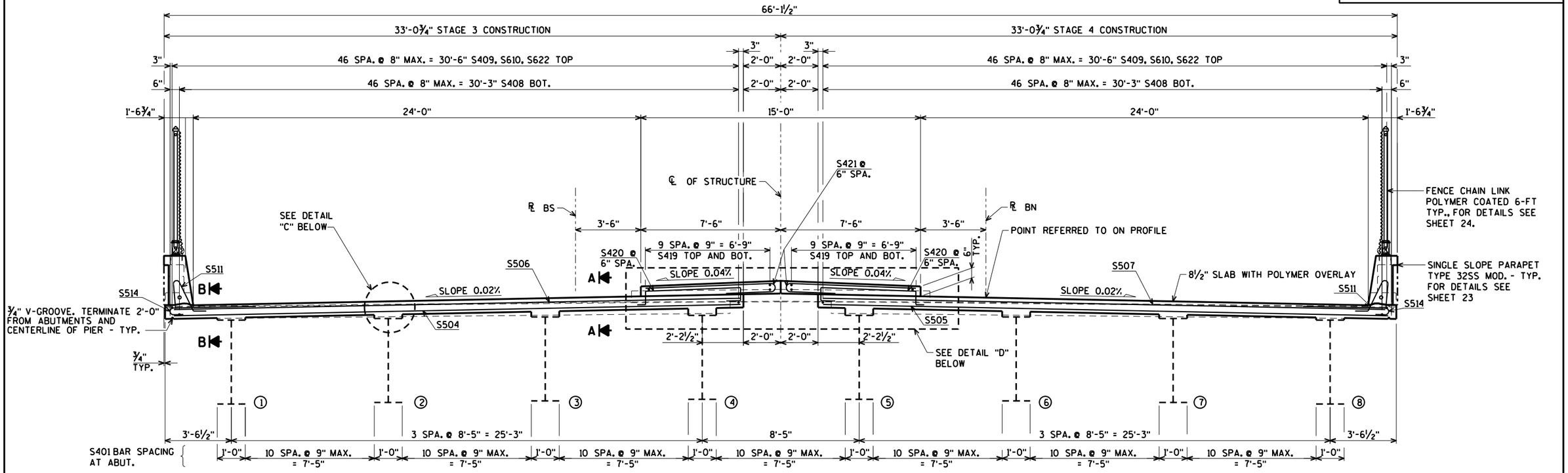
TABLE OF DEFLECTIONS

SHEET 17 OF 23
573

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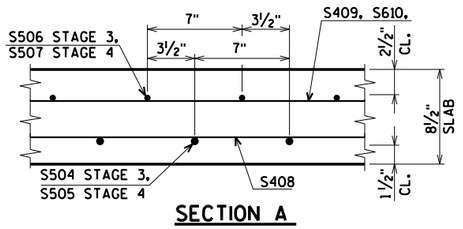
STATE PROJECT NUMBER

1071-06-81

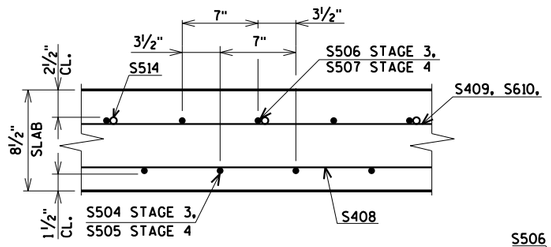


TYPICAL CROSS SECTION THRU DECK

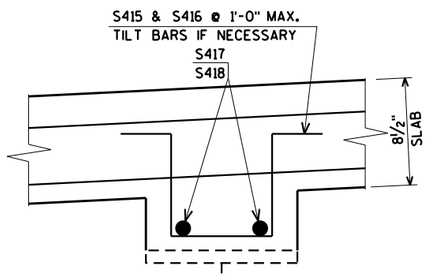
(LOOKING NORTH)



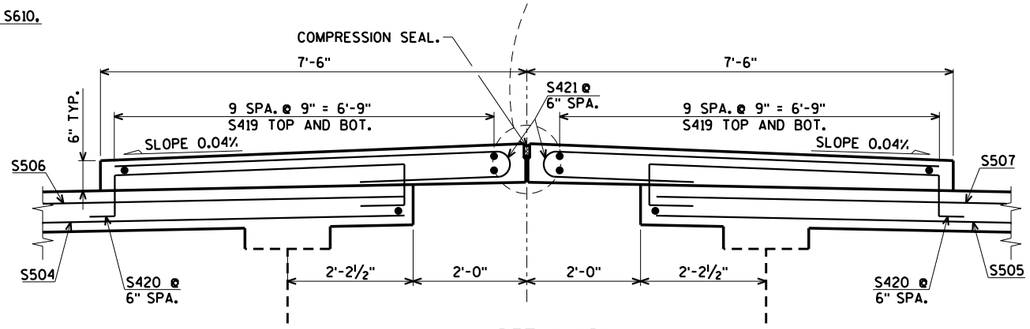
SECTION A



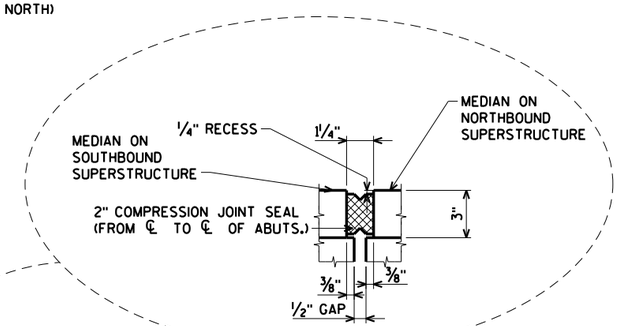
SECTION B



DETAIL "C"



DETAIL "D"



GENERAL NOTES FOR COMPRESSION SEAL

FORCED AIR CLEAN CONCRETE RECESS PRIOR TO COATING WITH LUBRICANT ADHESIVE FOR NEOPRENE SEAL.

COMPRESSION SEAL EXPANSION JOINT ASSEMBLY, INCLUDING FORMING CONCRETE RECESS WILL BE PAID FOR AT THE CONTRACT BID PRICE FOR "PREFORMED ELASTOMERIC 2-INCH COMPRESSION JOINT SEALER".

MANUFACTURER SHALL FURNISH SEAL WITH TOP SIDE LABELED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

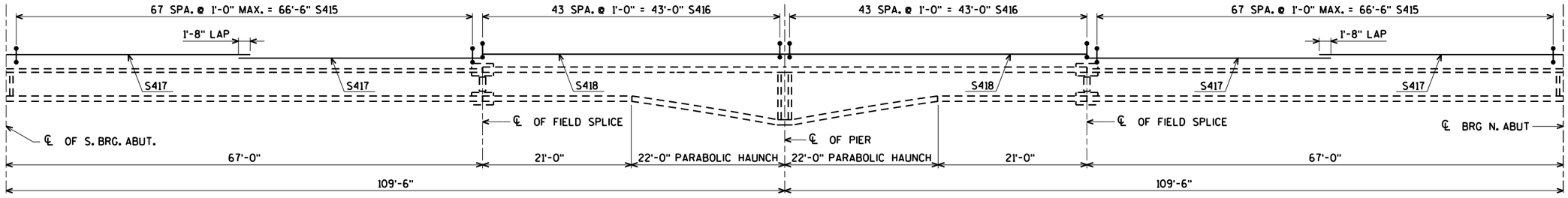
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SUPERSTRUCTURE

SHEET 18 OF 23
574

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HAT BAR LAYOUT - ALL GIRDERS

(SEE DETAIL C ON SHEET 19)

$PRFNAME$
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8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

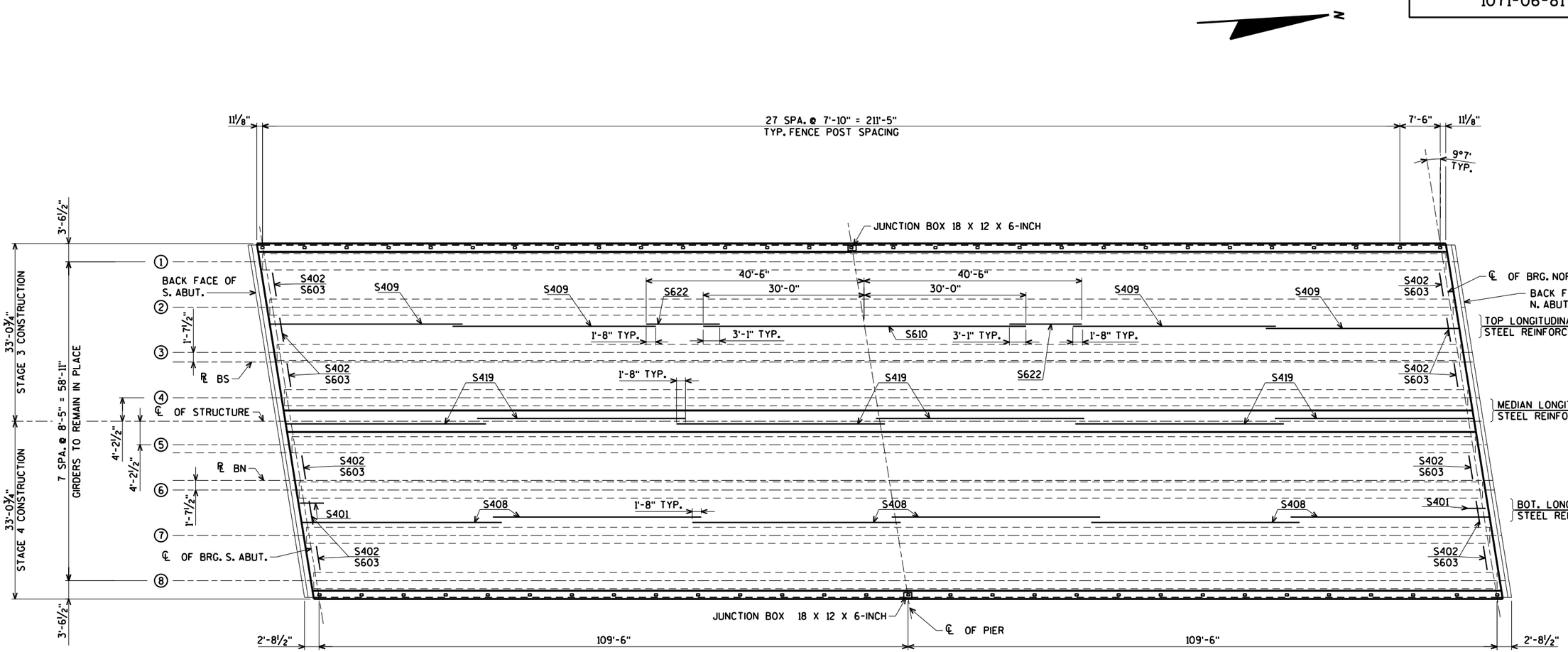
STRUCTURE B-32-52

DRAWN BY	CJM	PLANS CK'D.	AEB

HAUNCH REINFORCEMENT DETAILS

SHEET 19 OF 23
575

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PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

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SUPERSTRUCTURE PLAN

SHEET 20 OF 23
576

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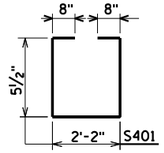
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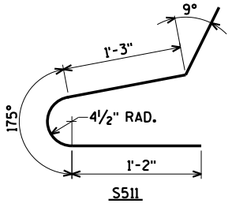
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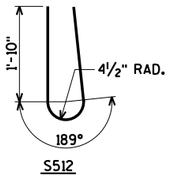
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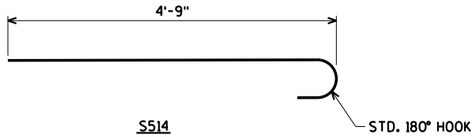
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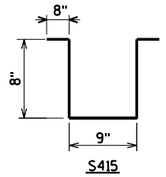
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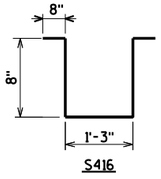


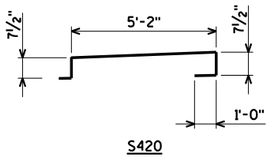


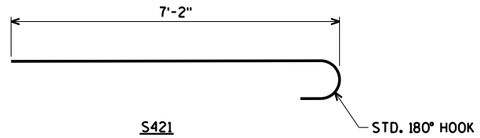








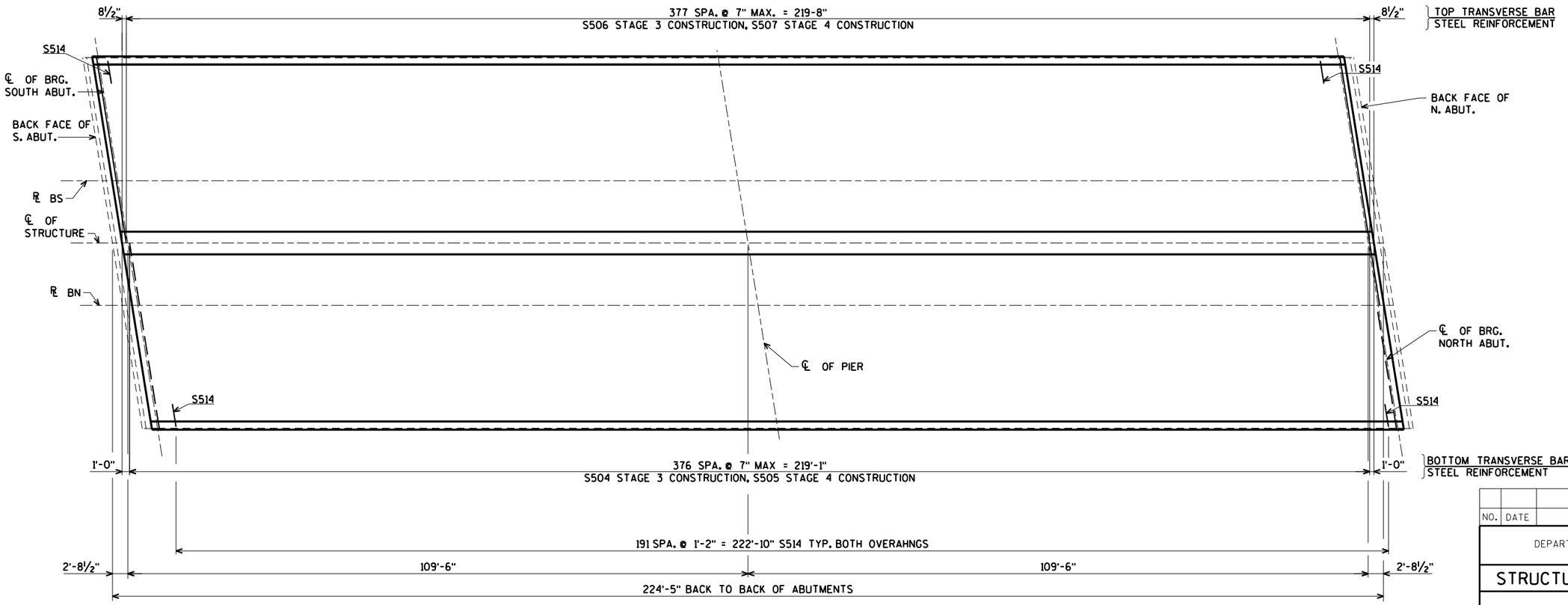




BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D. STAGE 3	NO. REQ'D. STAGE 4	LENGTH	BENT BAR	BUNDLED BAR SERIES	120,420* COATED LOCATION
S401	X	78	78	4-0	X		SLAB DIAPH. @ JOINTS STAGE 3 & 4
S402	X	12	12	8-2			SLAB DIAPH. @ JOINTS STAGE 3 & 4
S603	X	30	30	8-2			SLAB DIAPH. @ JOINTS STAGE 3 & 4
S504	X	377	0	31-0			SLAB TRANS. BOT. STAGE 3
S505	X	0	377	31-0			SLAB TRANS. BOT. STAGE 4
S506	X	378	0	31-0			SLAB TRANS. TOP STAGE 3
S507	X	0	378	31-0			SLAB TRANS. TOP STAGE 4
S408	X	282	282	38-9			SLAB LONG. BOT. STAGE 3 & 4.
S409	X	188	188	37-6			SLAB LONG. TOP STAGE 3 & 4
S610	X	47	47	60-0			SLAB LONG. TOP AT PIER STAGE 3 & 4
S511	X	338	338	4-5	X		SLAB AT PARAPET VERT. STAGE 3 & 4
S512	X	338	338	4-10	X		PARAPET VERT. STAGE 3 & 4
S513	X	24	24	58-8			PARAPET HORIZ. STAGE 3 & 4
S514	X	194	194	5-4	X		SLAB TRANS. TOP @ PARA. STAGE 3 & 4
S415	X	544	544	3-3	X		VERT. BARS @ SLAB HAUNCH AT 12" FLANGE
S416	X	352	352	3-9	X		VERT. BARS @ SLAB HAUNCH AT 18" FLANGE
S417	X	32	32	34-6			HORIZ. BARS @ SLAB HAUNCH AT 12" FLANGE
S418	X	16	16	43-10			HORIZ. BARS @ SLAB HAUNCH AT 18" FLANGE
S419	X	120	120	38-9			MEDIAN LONG. BARS
S420	X	450	450	8-0	X		MEDIAN HORIZ. BARS
S421	X	450	450	8-0	X		MEDIAN HORIZ. BARS
S622	X	94	94	13-7	X		SLAB LONG. TOP AT PIER STAGE 3 & 4

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



TRANSVERSE BAR STEEL LAYOUT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

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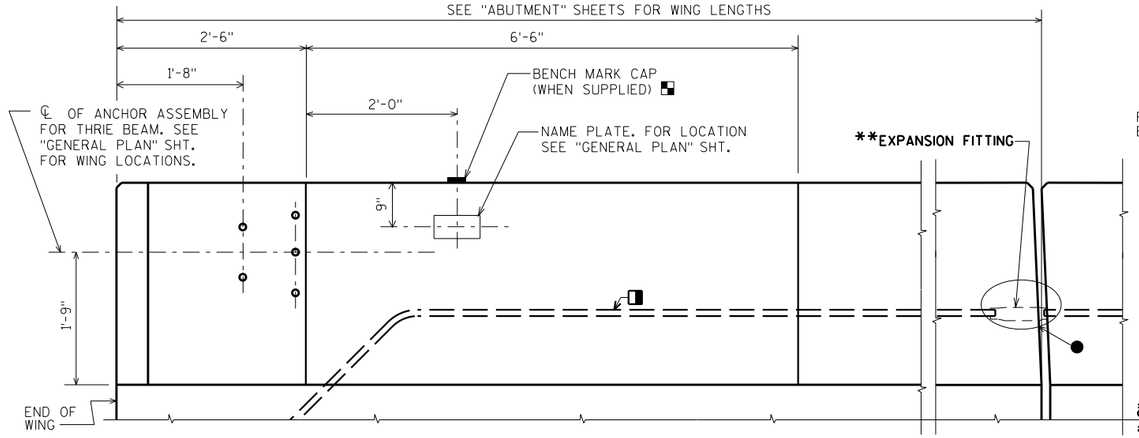
SUPERSTRUCTURE DETAILS AND BILL OF BARS

SHEET 21 OF 23
577

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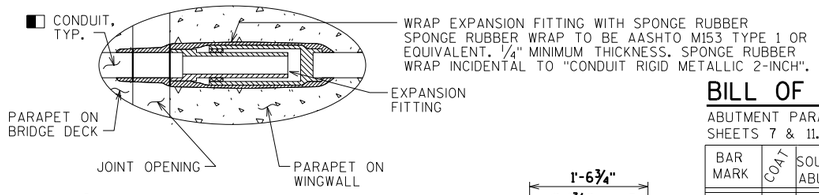
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STATE PROJECT NUMBER
1071-06-81



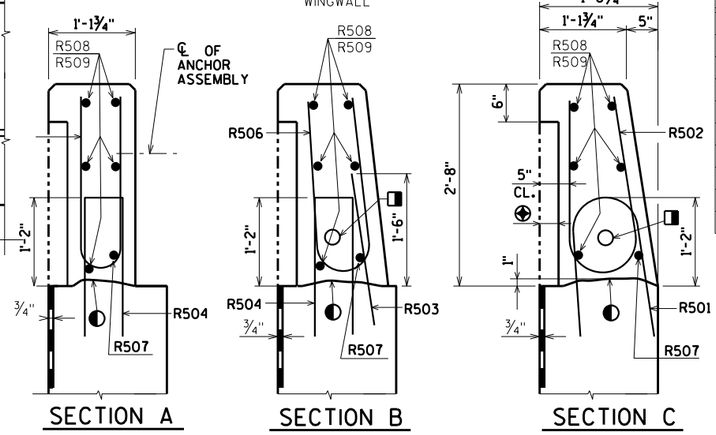
■ AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.

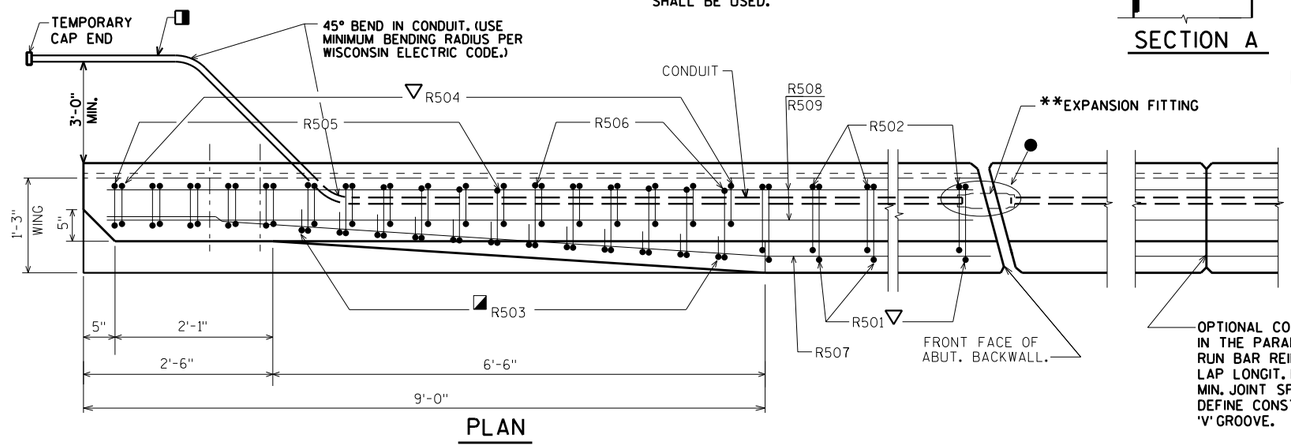
INSIDE ELEVATION



EXPANSION FITTINGS, ANGLES, AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. AND NRTL LISTED FOR ELECTRIAL USE SHALL BE USED.





PLAN

■ USE 2" DIA. RIGID NONMETALLIC CONDUIT EXCEPT AT EXPANSION FITTING. AT EXPANSION FITTING USE RIGID METALLIC CONDUIT 3'-0" INTO PARAPET ON DECK SIDE AND WING SIDES OF THE JOINT OPENING.

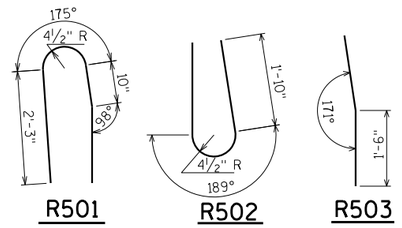
● POSITION MOVEABLE END OF CONDUIT INSIDE EXPANSION FITTING, SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE IN THE DECK BELOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.

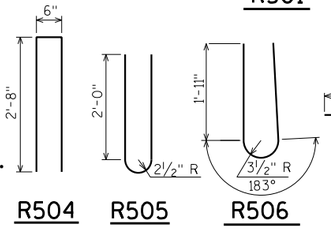
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.

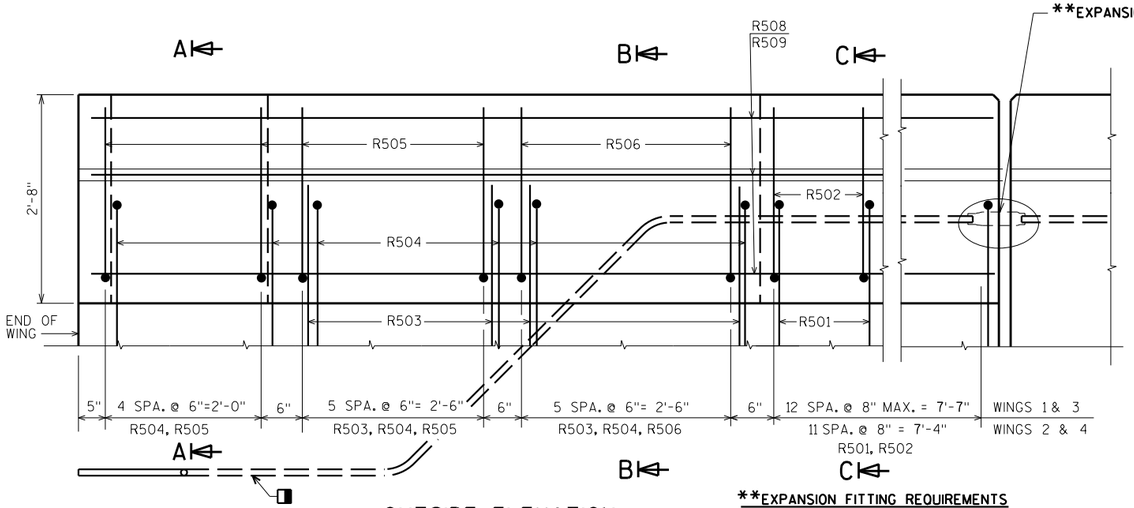
BILL OF BARS

ABUTMENT PARAPET WEIGHT INCLUDED ON ABUTMENTS SHEETS 7 & 11.

BAR MARK	COAT	SOUTH ABUT.	NORTH ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	25	25	5-10	X		PARAPET VERT.
R502	X	25	25	5-0	X		PARAPET VERT.
R503	X	24	24	3-0	X		PARAPET VERT.
R504	X	34	34	5-7	X		PARAPET VERT.
R505	X	22	22	4-9	X		PARAPET VERT.
R506	X	12	12	4-10	X		PARAPET VERT.
R507	X	2	2	16-6	X		PAR. HORIZ.
R508	X	5	5	16-7			PAR. HORIZ. WING 1 & 3
R509	X	5	5	16-3			PAR. HORIZ. WING 2 & 4



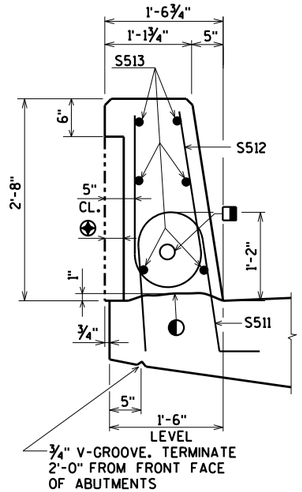




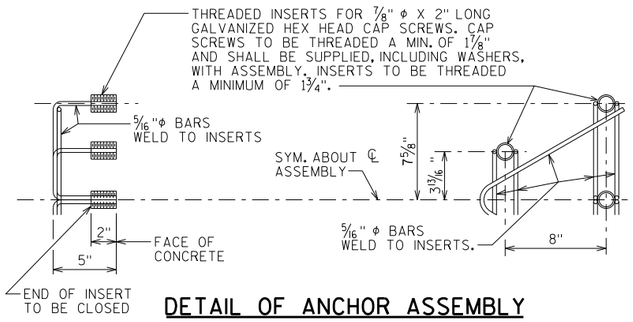
OUTSIDE ELEVATION

**EXPANSION FITTING REQUIREMENTS

USE AN APPROVED EXPANSION FITTING AT EACH SEMI-EXPANSION OR EXPANSION JOINT.



SECTION THRU PARAPET ON BRIDGE



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 OR S503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 3

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-52

DRAWN BY CJM | PLANS CK'D. AEB

SINGLE SLOPE PARAPET 32SS

SHEET 22 OF 23
578

SCALE = 1

$PRFNAME$
U:±41-0627.00 - LaCrosse County, IH90±B-32-52 CTH B over IH 90 (deck replacmnt)±BRIDGE±B-32-52 SS32WIN.DGN

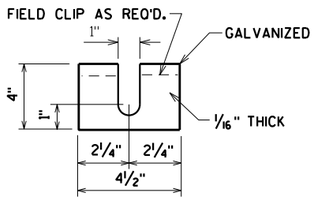
8 16

8

32SSWIN
1-14

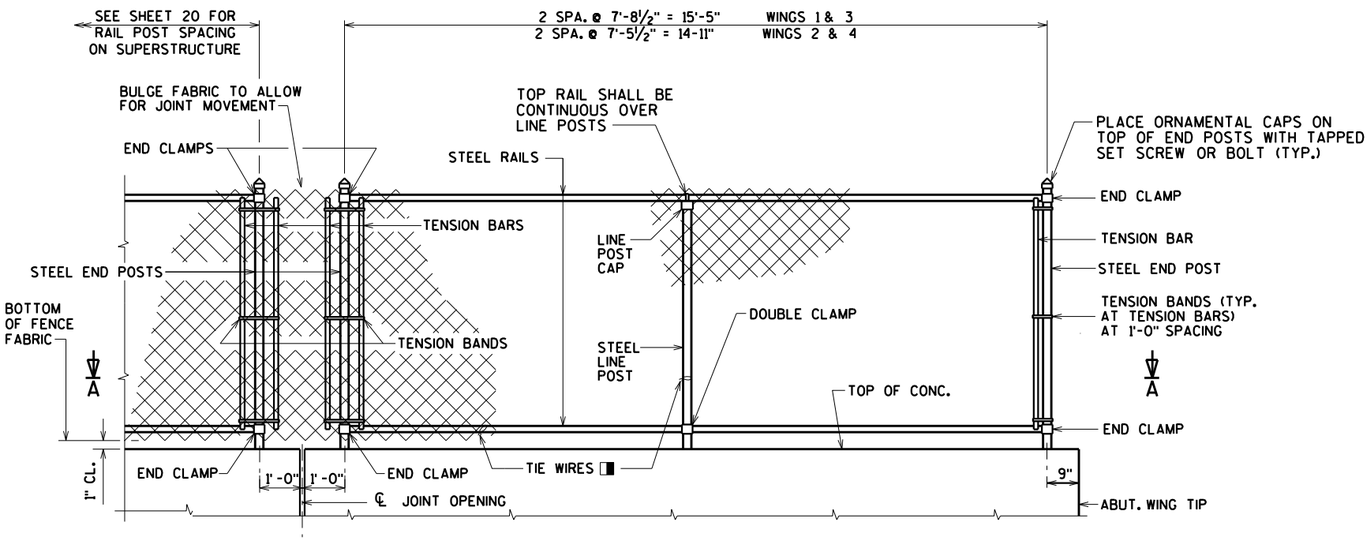
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



FENCE PART ELEVATION

VIEWING FABRIC SIDE

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER COATED 6-FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

■ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

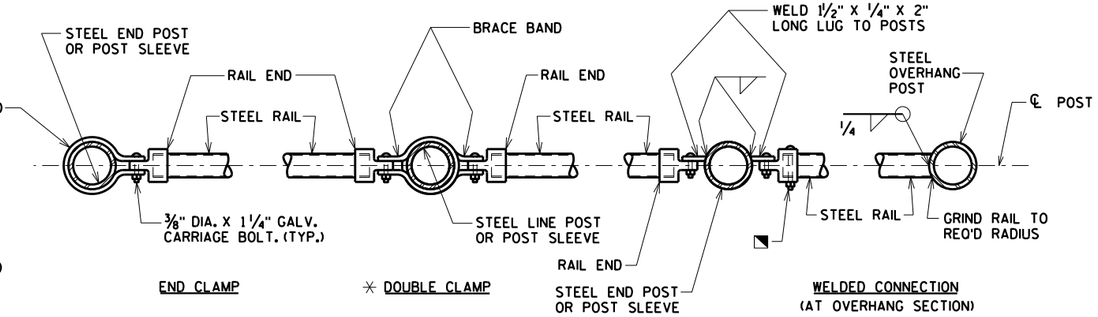
◭ 1/2" DIA. X 6 7/8" LONG GALVANIZED HEX BOLT WITH NUT & WASHER AT WINGWALLS. TYPE "S", 1/2" DIA. CONCRETE MASONRY ANCHORS FOR USE ON EXISTING PARAPETS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆

☆ 1/2" DIA. CONCRETE MASONRY ANCHOR, TYPE "S", 6" MIN. EMBEDMENT (EPOXY ANCHORED) INTO CONCRETE AND MINIMUM PULLOUT CAPACITY OF 10 KIPS. ANCHOR, WASHER AND NUT SHALL BE GALVANIZED.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

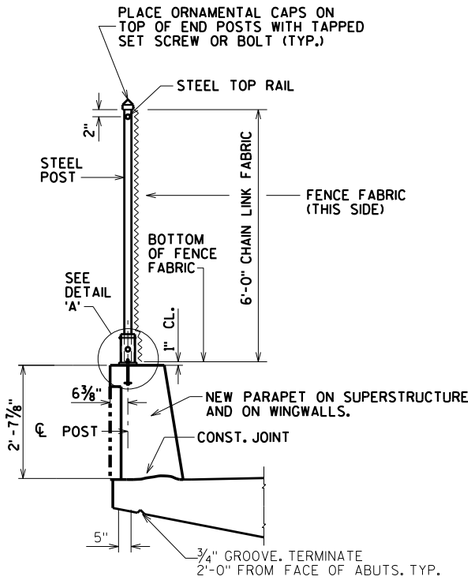
◹ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4 POINT OF POST SPACING.

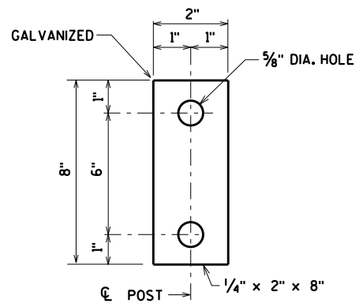


SECTION A-A

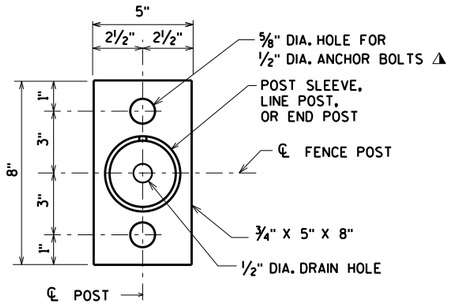
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



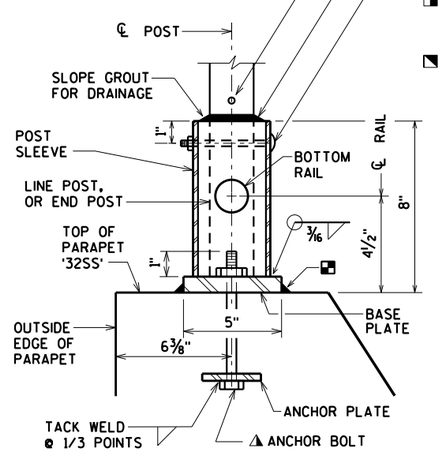
SECTION THRU FENCE



ANCHOR PLATE



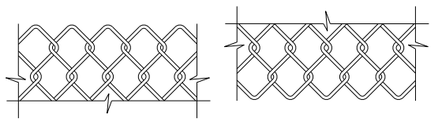
BASE PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.



FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-52

DRAWN BY CLS/CJM | PLANS CK'D. AEB

CHAIN LINK FENCE DETAILS

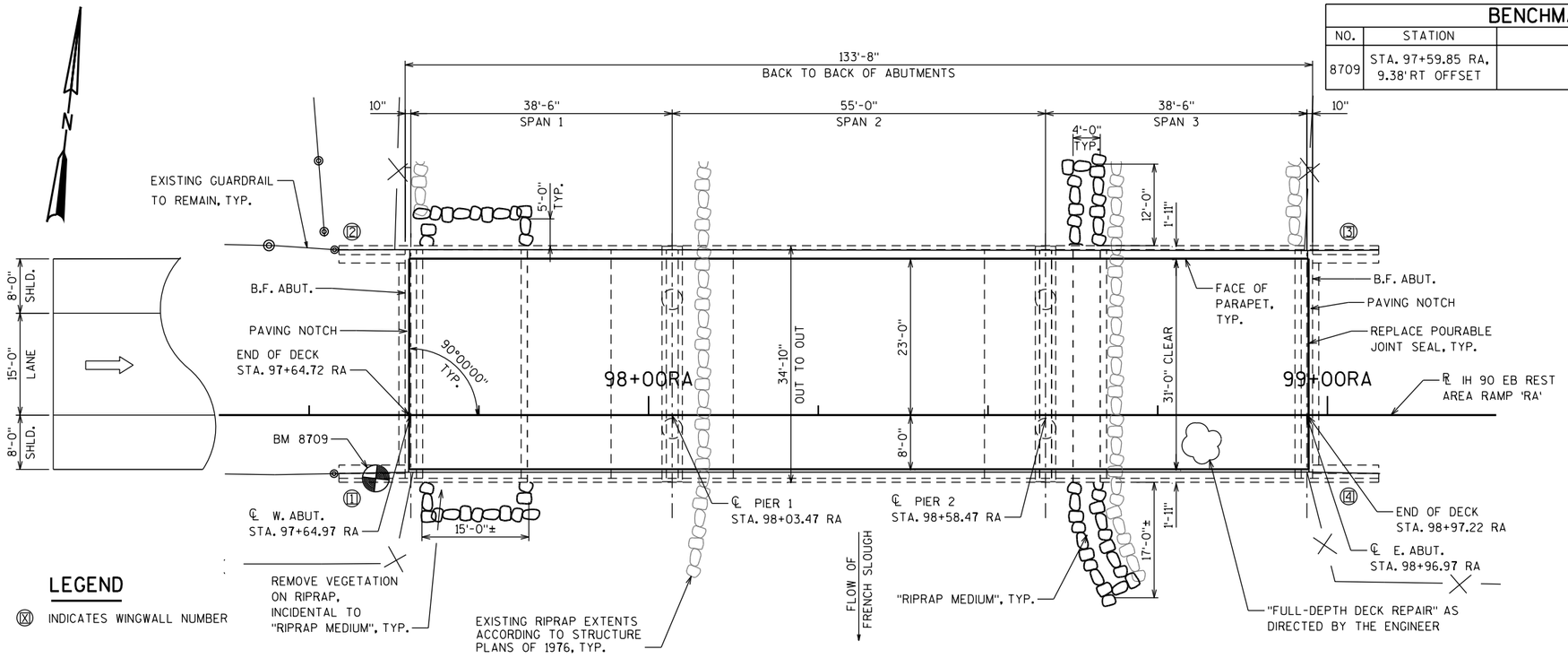
SHEET 23 OF 23
579

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-52 CTH B over IH 90 (deck replacmnt)\BRIDGE\B-32-52 chain.dgn

STATE PROJECT NUMBER
1071-06-81

BENCHMARK			
NO.	STATION	DESCRIPTION	ELEV.
8709	STA. 97+59.85 RA, 9.38' RT OFFSET	ALUMINUM CAP	654.23

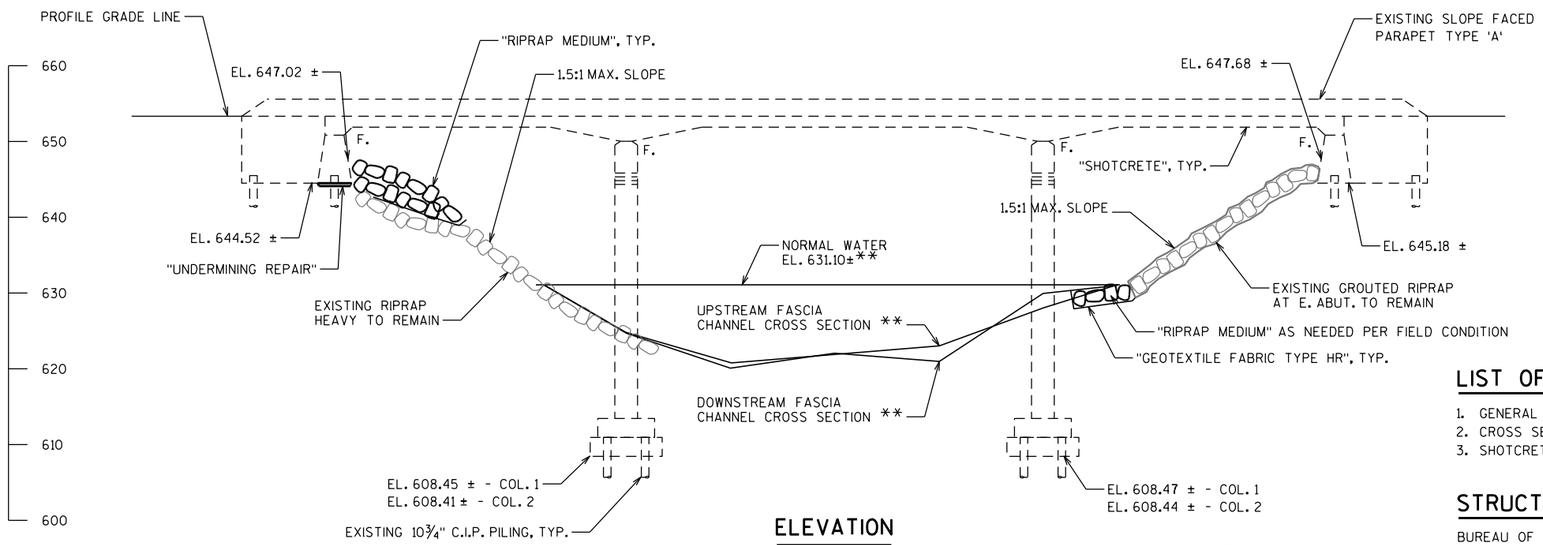


LEGEND

(XX) INDICATES WINGWALL NUMBER

PLAN B-32-75

CONCRETE OVERLAY OF 3 SPAN HAUNCHED SLAB



ELEVATION

NORMAL TO FRENCH SLOUGH

** ACCORDING TO UW-DIVE INSPECTION REPORT DATED 2011-09-20. 'CHANNEL BOTTOM MATERIAL CONSISTED OF 2 FT DIAMETER AND SMALLER RIPRAP.'

DESIGN DATA

LIVE LOAD:
DESIGN LOADING = HS20
INVENTORY RATING = HS22
OPERATING RATING = HS37
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV) RATING = 220 KIPS

MATERIAL PROPERTIES (NEW WORK):
CONCRETE MASONRY, OVERLAY DECKS---f'c = 4,000 P.S.I.
CONCRETE MASONRY, ALL OTHER--------f'c = 3,500 P.S.I.

TRAFFIC DATA IH 90

A.D.T. = 385 (2007)
= 990 (2027)

R.D.S. = 25 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTIONS & QUANTITIES
3. SHOTCRETE DETAILS

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER (608) 266-8489

CONSULTANT CONTACT:
SUREN GUPTA (262) 821-1171

WISCONSIN
SURENDRA K. GUPTA
E-41327
AMES, IA
PROFESSIONAL ENGINEER
7-31-2015

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/02/15
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-32-75

IH 90 EB REST AREA RAMP OVER FRENCH SLOUGH

COUNTY	TOWN ~~CITY/VILLAGE~~
LA CROSSE	CAMPBELL

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
NLD	SG	NLD	SG

GENERAL PLAN & ELEVATION

SHEET 1 OF 3
580

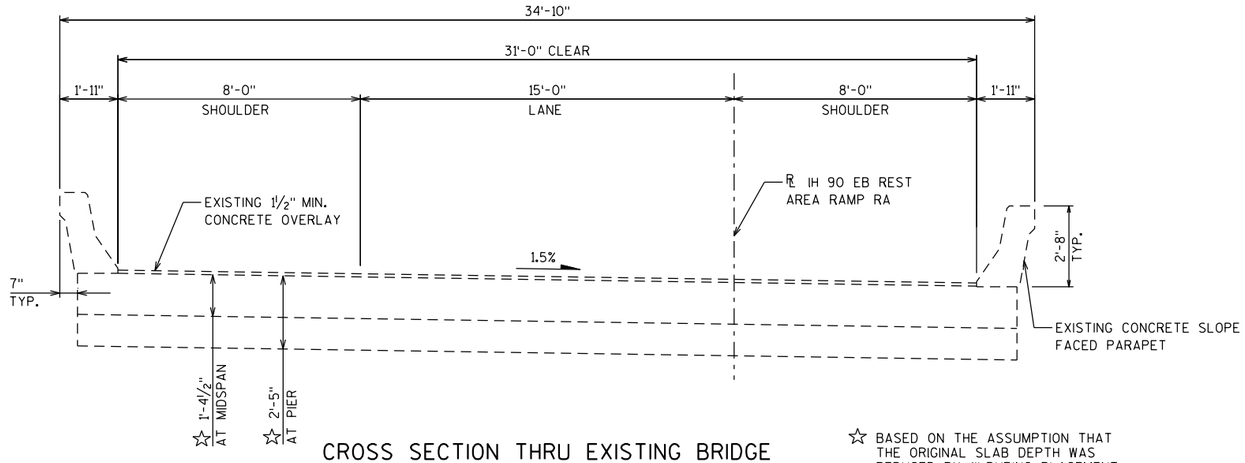
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8

FILE NAME : P:\8384 I90_53_35 Interchange\Structural\CADD\1071-06-07\B-32-75\B-32-75_01.dgn PLOT DATE : 7/30/2015 11:17:07 AM PLOT BY : vdifrances PLOT NAME : B-32-75_01.dgn PLOT SCALE : 1:20

STATE PROJECT NUMBER

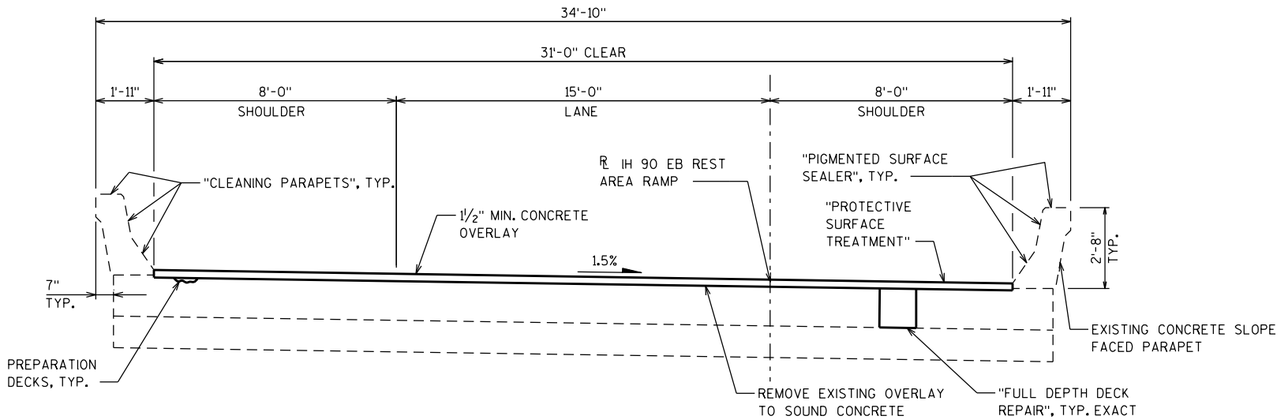
1071-06-81



CROSS SECTION THRU EXISTING BRIDGE

(LOOKING EAST)

☆ BASED ON THE ASSUMPTION THAT THE ORIGINAL SLAB DEPTH WAS REDUCED BY 1" DURING PLACEMENT OF PREVIOUS OVERLAY.



CROSS SECTION THRU BRIDGE

(LOOKING EAST)

NOTE: EXISTING CROSS SLOPE OF 1.5% WILL BE MAINTAINED.

TOTAL ESTIMATED QUANTITIES

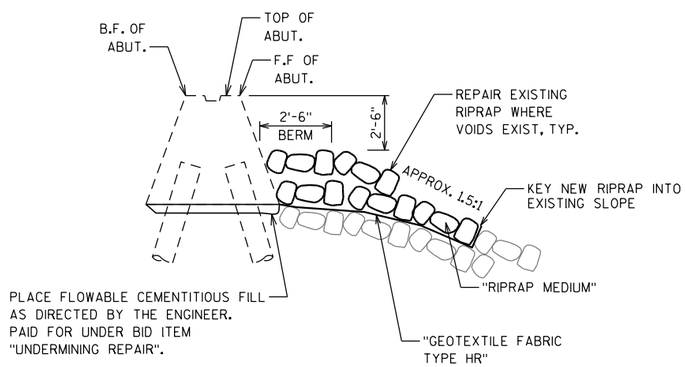
	ITEM NO.	BID ITEMS	UNIT	TOTAL
	203.0210.S.04	ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-32-0075	LS	1
	203.0225.S.04	DEBRIS CONTAINMENT STRUCTURE B-32-0075	LS	1
	502.0717.S	CRACK SEALING EPOXY	LF	1400
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	461
	502.3210	PIGMENTED SURFACE SEALER	SY	140
#	505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1
	509.0301	PREPARATION DECKS TYPE 1	SY	92
	509.0302	PREPARATION DECKS TYPE 2	SY	37
*	509.1500	CONCRETE SURFACE REPAIR	SF	160
	509.2000	FULL-DEPTH DECK REPAIR	SY	46
	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	50
	509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY	SY	461
	509.9050.S	CLEANING PARAPETS	LF	310
	606.0200	RIPRAP MEDIUM	CY	68
	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	140
	SPV.0105.10	UNDERMINING REPAIR	LS	1
**	SPV.0165.03	SHOTCRETE	SF	355

* REPAIR APPLIES TO PARAPETS, ABUTMENTS, AND/OR PIERS.

** REPAIR APPLIES TO UNDERSIDE OF DECK SLAB.

THIS IS A NOMINAL QUANTITY. TO BE DETERMINED BY THE FIELD ENGINEER.

ALL ITEMS ARE CATEGORY 0020.



SECTION AT WEST ABUTMENT

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURAL PLANS.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1" DEEP SAW CUT.

ALL PREVIOUS PATCHES SHALL BE REMOVED UNDER THE BID ITEM "PREPARATION DECKS TYPE 1" AND "PREPARATION DECKS TYPE 2".

EXISTING LONGITUDINAL AND TRANSVERSE CRACKS SHALL BE CLEANED AND FILLED WITH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER. WORK SHALL BE PAID FOR UNDER BID ITEM, "CRACK SEALING EPOXY".

BID ITEMS "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", "CONCRETE SURFACE REPAIR", AND "SHOTCRETE" SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER "REMOVING CONCRETE MASONRY DECK OVERLAY B-32-75". EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF THE EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

REPLACING POURABLE JOINT SEAL IS INCIDENTAL TO BID ITEM "CONCRETE MASONRY OVERLAY DECKS". (502.2.10 MATERIAL). REPLACING POURABLE JOINT SEAL IN THE PARAPETS SHALL TAKE PLACE AFTER CLEANING PARAPETS.

APPLY PROTECTIVE SURFACE TREATMENT TO TOP OF CONCRETE OVERLAY. WORK SHALL BE PAID FOR UNDER BID ITEM, "PROTECTIVE SURFACE TREATMENT".

APPLY PIGMENTED SURFACE SEALER TO INSIDE FACES AND TOPS OF PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS. WORK SHALL BE PAID FOR UNDER BID ITEM, "PIGMENTED SURFACE SEALER".

PLACE FLOWABLE CEMENTITIOUS FILL UNDERNEATH ABUTMENTS AT LOCATIONS OF UNDERMINING AS DETERMINED BY THE ENGINEER. PLACE FILL PRIOR TO PLACING MEDIUM RIPRAP. WORK SHALL BE PAID FOR UNDER BID ITEM "UNDERMINING REPAIR". SEE SPECIAL PROVISIONS FOR DETAILS.

EXTENTS OF RIPRAP MEDIUM AT ABUTMENTS SHALL BE AS DIRECTED BY THE FIELD ENGINEER.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

LAPS IN WELDED WIRE MESH SHALL BE MADE SO THAT THE OVERLAP, MEASURED BETWEEN OUTERMOST CROSS WIRES ON EACH SHEET, IS NOT LESS THAN THE SPACING ON CROSS WIRES PLUS 2 INCHES.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

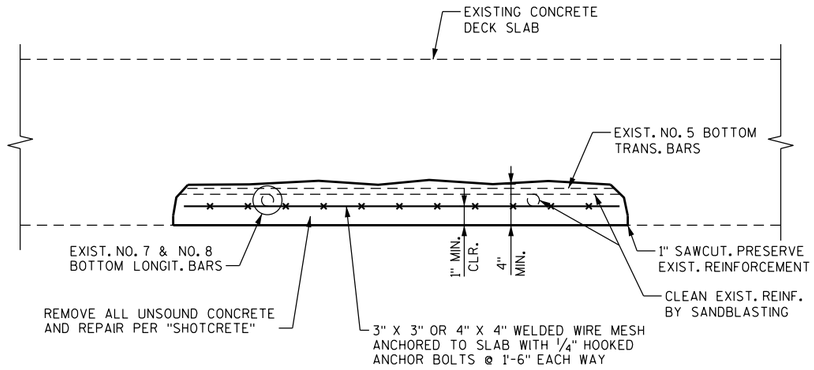
STRUCTURE B-32-75

DRAWN BY NLD | PLANS CK'D. SG

CROSS SECTIONS & QUANTITIES

SHEET 2 OF 3
581

STATE PROJECT NUMBER
1071-06-81



SHOTCRETE DETAILS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-75

DRAWN BY VJD | PLANS CK'D. SG

SHOTCRETE DETAILS

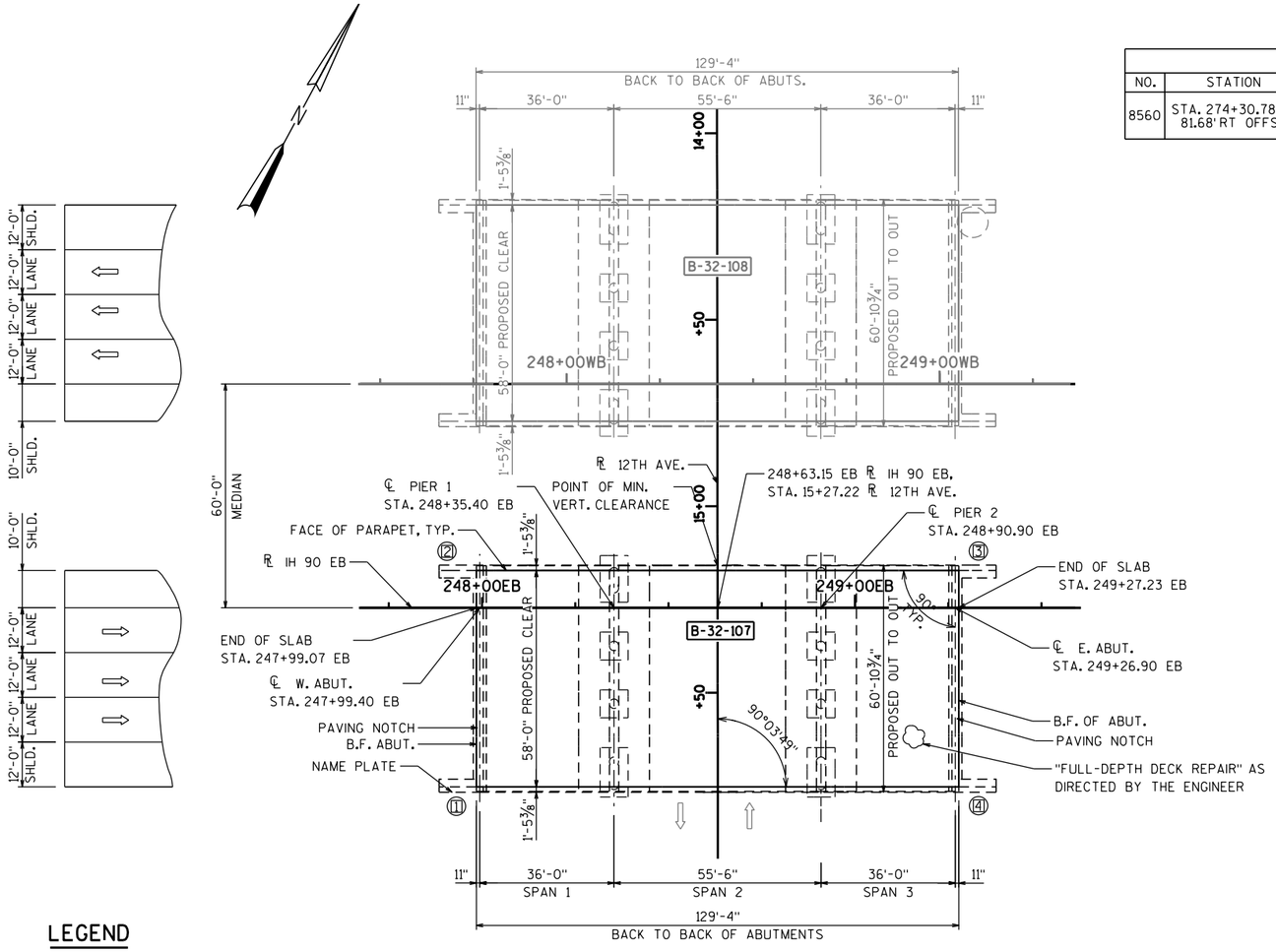
SHEET 3 OF 3
582

FILE NAME : P:\8384 I90_53_35 Interchange\Structural\CADD\1071-06-07\B-32-75\B-32-75_03_Shotcrete Details.dgn PLOT DATE : 7/30/2015 11:17:09 AM PLOT BY : vdifrances PLOT NAME : B-32-75_03_Shotcrete Details.dgn PLOT SCALE : 1:40

STATE PROJECT NUMBER

1071-06-79

BENCHMARK			
NO.	STATION	DESCRIPTION	ELEV.
8560	STA. 274+30.78 EB, 81.68' RT OFFSET	CHISELED '□' ON TOP OF PARAPET WALL, S.E. CORNER B-32-56	730.26

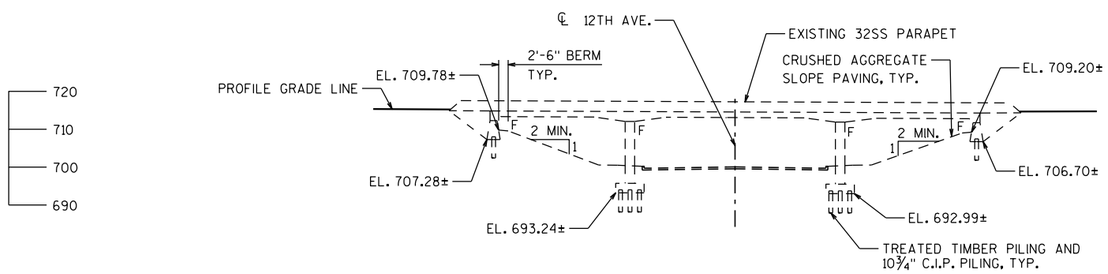


LEGEND

ⓧ INDICATES WINGWALL NUMBER

PLAN

CONCRETE OVERLAY OF 3 SPAN HAUNCHED SLAB



ELEVATION

NORMAL TO 12TH AVE.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING = HS-20
INVENTORY RATING = HS-21
OPERATING RATING = HS-36
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV) RATING = 230 KIPS

MATERIAL PROPERTIES (NEW WORK):

CONCRETE MASONRY, OVERLAY DECKS----f'c = 4,000 P.S.I.

TRAFFIC DATA IH 90

A.D.T. = 43,700 (2016)
= 56,700 (2036)

R.D.S. = 70 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION & QUANTITIES

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER (608) 266-8489

CONSULTANT CONTACT:
SUREN GUPTA (262) 821-1171

WISCONSIN
SURENDRA K. GUPTA
E-41327
AMES, IA
PROFESSIONAL ENGINEER
7-31-2015

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/05/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-32-107

IH 90 EB OVER 12TH AVE.

COUNTY		TOWN/CITY/~~VILLAGE~~	
LA CROSSE		ONALASKA	
DESIGN SPEC.			
REHABILITATION	N/A		
DESIGNED BY NLD	DESIGN CK'D. SG	DRAWN BY NLD	PLANS CK'D. SG

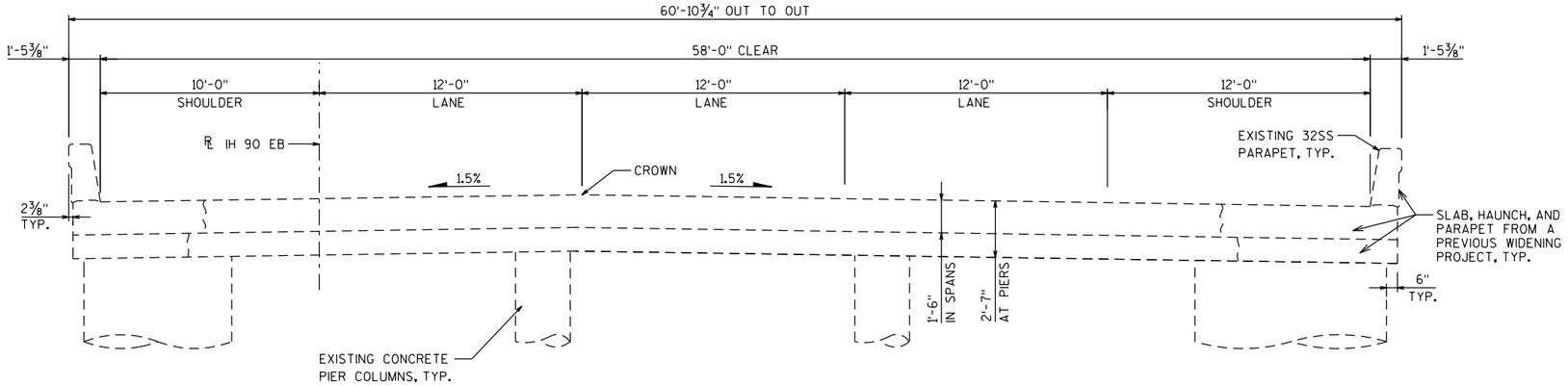
GENERAL PLAN & ELEVATION

SHEET 1 OF 2
583

8

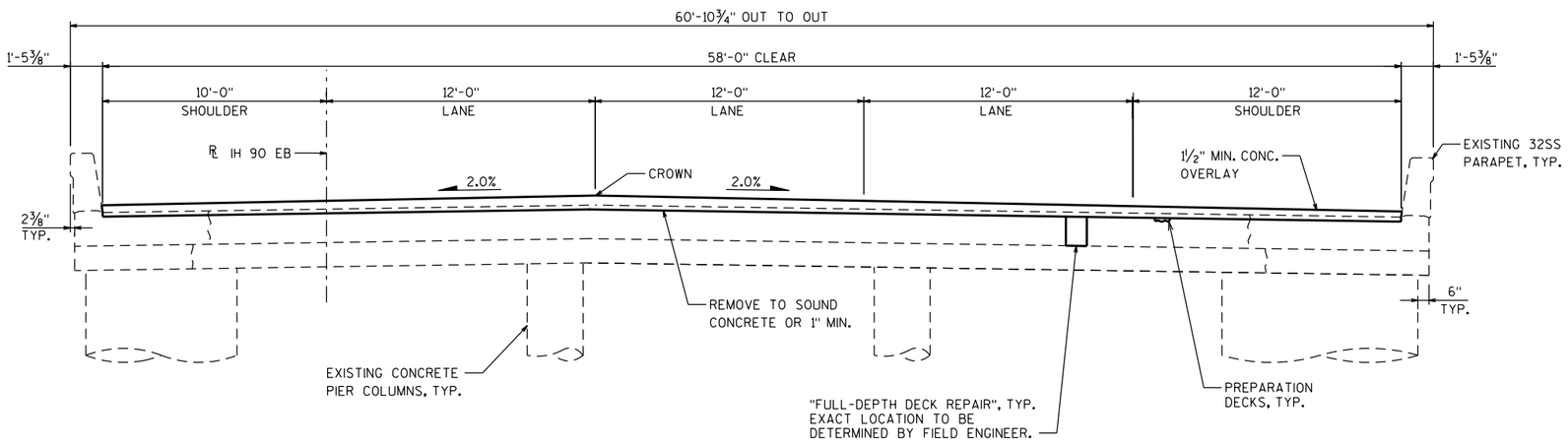
8

STATE PROJECT NUMBER
1071-06-79



CROSS-SECTION THRU EXISTING BRIDGE

(LOOKING EAST)



CROSS-SECTION THRU BRIDGE

(LOOKING EAST)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURAL PLANS.

A MINIMUM OF 1" OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

ALL PREVIOUS PATCHES SHALL BE REMOVED UNDER THE BID ITEMS "PREPARATION DECKS TYPE 1" AND "PREPARATION DECKS TYPE 2".

BID ITEMS "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2" AND "FULL DEPTH DECK REPAIR" SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.

EXISTING LONGITUDINAL AND TRANSVERSE CRACKS SHALL BE CLEANED AND FILLED WITH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER. WORK SHALL BE PAID FOR UNDER BID ITEM, "CRACK SEALING EPOXY".

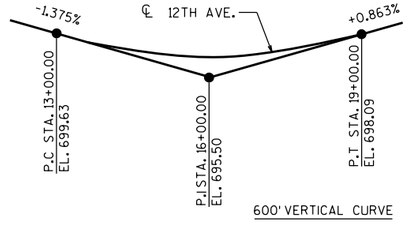
PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER "CLEANING DECKS". EXPECTED AVERAGE OVERLAY THICKNESS IS 2¾". IF THE EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

APPLY PROTECTIVE SURFACE TREATMENT TO TOP OF OVERLAY. WORK SHALL BE PAID FOR UNDER BID ITEM, "PROTECTIVE SURFACE TREATMENT".

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECK"

TOTAL ESTIMATED QUANTITIES

NO.	BID ITEMS	UNIT	TOTAL
203.0225.S.05	DEBRIS CONTAINMENT B-32-107	LS	1
502.0717.S	CRACK SEALING EPOXY	LF	620
502.3200	PROTECTIVE SURFACE TREATMENT	SY	835
509.0301	PREPARATION DECKS TYPE 1	SY	85
509.0302	PREPARATION DECKS TYPE 2	SY	35
509.0500	CLEANING DECKS	SY	835
509.2000	FULL-DEPTH DECK REPAIR	SY	5
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	84



PROFILE GRADE LINE 12TH AVE.

EXISTING PROFILE GRADE LINE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-107

DRAWN BY NLD | PLANS CK'D. SG

CROSS SECTION & QUANTITIES

SHEET 2 OF 2
584

8

8

STATE PROJECT NUMBER

1071-06-79

B-32-219

B-32-218

MEASURED ALONG TANGENT LINE 5'-10" | 76'-0" | 109'-0" | 103'-0" | 50'-0" | 5'-10"

349'-8" BACK TO BACK OF ABUTMENTS

EXISTING STRUCTURE (B-32-37) TO BE REMOVED

STRUCTURAL APPROACH SLAB - TYP.

TANGENT LINE - TANGENT TO ℄ IH 90 WB @ STA. 194+30.16 WB

℄ OF BRG. W. ABUT. STA. 192+47.10 WB

END OF DECK STA. 192+41.36 WB

℄ OF PIER 1 STA. 193+21.84 WB

P.O.T. STA. 194+30.16 WB

℄ OF PIER 2 STA. 194+30.16 WB

℄ OF PIER 3 STA. 195+33.73 WB

℄ OF BRG. E. ABUT. STA. 195+84.55 WB

END OF DECK STA. 195+90.49 WB

℄ OF RS

℄ OF RN

111+00RS

111+00RN

119+00RS

118+00RN

17'-2" MIN. CRITICAL VERT. CLEARANCE

17'-1" MIN. CRITICAL VERT. CLEARANCE

53°13'27" TYP.

36°-52'-58"

36°-39'-29"

22'-0"

20'-0" TYP.

1'-6¾"

1'-0¾"

SHLD 10'-0" | LANE 12'-0" | LANE 12'-0" | SHLD 22'-0"

191+00WB | 192+00WB | 193+00WB | 194+00WB | 195+00WB | 196+00WB

℄ IH 90 WB

STA. 194+03.44 WB ℄ IH 90 WB = STA. 110+01.53 RS ℄ STH 35

STA. 194+43.47 WB ℄ IH 90 WB = STA. 110+19.33 RN ℄ STH 35

STA. 193+75.00 EB ℄ IH 90 EB = STA. 109+19.44 RN ℄ STH 35

P.O.T. STA. 193+62.77 EB

16'-11" MIN. CRITICAL VERT. CLEARANCE

STA. 193+35.30 EB ℄ IH 90 EB = STA. 109+02.08 RS ℄ STH 35

TANGENT LINE - TANGENT TO ℄ IH 90 EB @ STA. 193+62.77 EB

℄ OF BRG. W. ABUT. STA. 191+79.68 EB

END OF DECK STA. 191+76.70 EB

℄ OF PIER 1 STA. 192+54.44 EB

℄ OF PIER 2 STA. 193+62.77 EB

℄ OF PIER 3 STA. 194+66.39 EB

℄ OF BRG. E. ABUT. STA. 195+17.14 EB

END OF DECK STA. 195+20.23 EB

℄ IH 90 EB

191+00EB | 192+00EB | 193+00EB | 194+00EB | 195+00EB | 196+00EB

37°-16'-01" | 37°-03'-22"

107+00RS

105+00RN

108+00RS

108+00RN

NAME PLATE

TEMPORARY SHORING

TEMPORARY SHORING

STRUCTURAL APPROACH SLAB - TYP.

EXISTING STRUCTURE (B-32-36) TO BE REMOVED

52°54'59" TYP.

36'-0"

2'-0" TYP.

1'-6¾"

5'-9⅝" | 76'-0" | 109'-0" | 103'-0" | 50'-0" | 5'-9⅝"

349'-7¼" BACK TO BACK OF ABUTMENTS

MEASURED ALONG TANGENT LINE

CURVE DATA

P.I. STA. 196+39.58 EB
△ = 12°58'27.27"
D = 0°29'44.30"
T = 1,314.46'
L = 2,617.68'
E = 74.49'
R = 11,559.98'
P.C. STA. 183+25.12 EB
P.T. STA. 209+42.80 EB

✳ ANCHOR ASSEMBLY FOR THRIE BEAM TYPE GUARDRAIL.

◯ DENOTES WING NUMBER.

▲ LIMITS OF SLOPE PAVING CONCRETE

680 | 670 | 660 | 650 | 640

PLAN

FOUR-SPAN 45W" PRESTRESSED CONCRETE GIRDER BRIDGE

SINGLE SLOPE PARAPET TYPE 32SS WITH THRIE BEAM GUARD ATTACHMENT

16'-11" MIN. VERT. CLEAR. (FUTURE)

17'-2" MIN. VERT. CLEAR. (FUTURE)

FUTURE GROUNDLINE UNDER BRIDGE

BERM EL. 657.66

BERM EL. 659.58

STRUCTURAL APPROACH SLAB - TYP.

GRADE

EXISTING GROUND LINE

EL. 654.41

EL. 640.17

EL. 639.72

EL. 641.36

EL. 656.33

SLOPE PAVING CONCRETE - TYP.

SLOPE PAVING SELECT CRUSHED MATERIAL

PILING CIP CONCRETE 10¾" ϕ x 0.365" TYP. @ ABUTMENTS & PIERS

ELEVATION

(TAKEN NORMAL TO ℄ OF STH 35)
(LOOKING NORTH)

▨ COST OF EXCAVATION IN THE HATCHED AREAS AND SHAPING OF EMBANKMENT BETWEEN B-32-218 AND B-32-219 SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-32-218".

LISTS OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTIONS & PROFILE GRADE LINES
3. QUANTITIES AND NOTES
4. SUBSURFACE EXPLORATION
5. WEST ABUTMENT
6. WEST ABUTMENT FOOTING LAYOUT
7. WEST ABUTMENT WING 1 DETAILS
8. WEST ABUTMENT WING 2 DETAILS
9. WEST ABUTMENT DETAILS AND BILL OF BARS
10. EAST ABUTMENT
11. EAST ABUTMENT FOOTING LAYOUT
12. EAST ABUTMENT WING 3 DETAILS
13. EAST ABUTMENT WING 4 DETAILS
14. EAST ABUTMENT DETAILS AND BILL OF BARS
15. PIER 1
16. PIER 1 PLAN AND FOOTING
17. PIER 1 DETAILS AND BILL OF BARS
18. PIER 2
19. PIER 2 PLAN AND FOOTING
20. PIER 2 DETAILS AND BILL OF BARS
21. PIER 3
22. PIER 3 PLAN AND FOOTING
23. PIER 3 DETAILS AND BILL OF BARS
24. ALTERNATE CONSTRUCTION JOINT
25. BEARING DETAILS
26. 45W" PRESTRESSED GIRDER DETAILS
27. 45W" PRESTRESSED GIRDER DETAILS
28. STEEL DIAPHRAGM DETAILS
29. SUPERSTRUCTURE GIRDER LAYOUT
30. TOP OF DECK ELEVATIONS
31. SUPERSTRUCTURE
32. LONGITUDINAL SLAB STEEL LAYOUT
33. TRANSVERSE SLAB STEEL LAYOUT
34. SUPERSTRUCTURE DETAILS
35. DIAPHRAGM DETAILS
36. DIAPHRAGM DETAILS
37. SUPERSTRUCTURE BILL OF BARS
38. EXPANSION DEVICE
39. EXPANSION DEVICE
40. WEST STRUCTURAL APPROACH SLAB
41. EAST STRUCTURAL APPROACH SLAB
42. STRUCTURAL APPROACH SLAB DETAILS
43. SINGLE SLOPE PARAPET 32SS MODIFIED
44. SLOPE PAVING
45. ARCHITECTURAL SURFACE TREATMENT

WISCONSIN ★ DANIEL N. SYDOW E-38363 WI ★ PROFESSIONAL ENGINEER

9/10/2015

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
DAN SYDOW
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 09/11/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-32-218

IH 90 EB OVER STH 35

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
LACROSSE	LACROSSE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AEB	CJM	CLS	DNS

GENERAL PLAN

SHEET 1 OF 45
585

DATE:
DATE:
DATE:

CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

11X17-5200.plt
B-32-218 gp.dgn

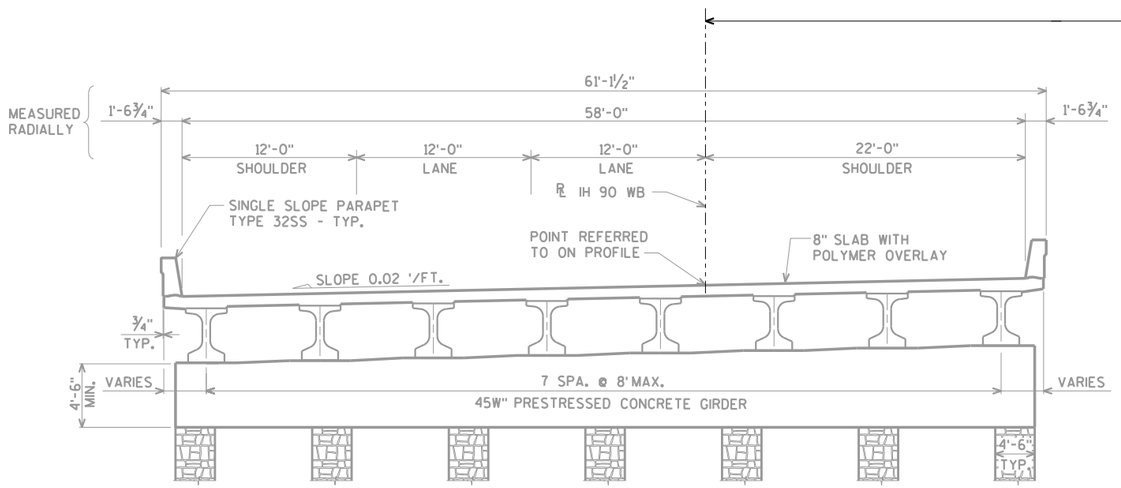
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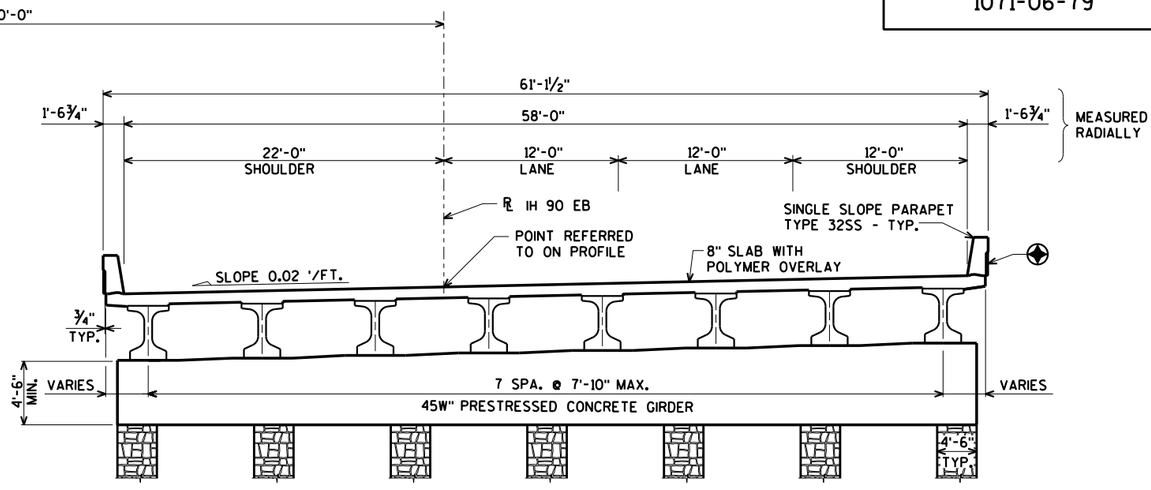
9/10/2015 black.tbl LD DATE:

STATE PROJECT NUMBER

1071-06-79



B-32-219

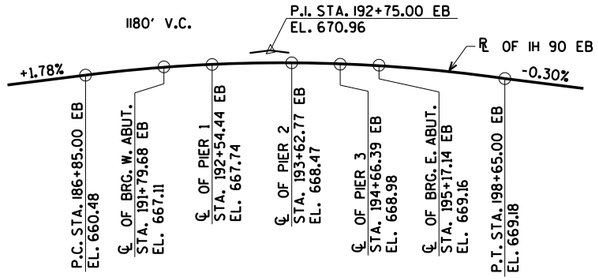


B-32-218

TYPICAL SECTION THRU BRIDGES

(LOOKING EAST)

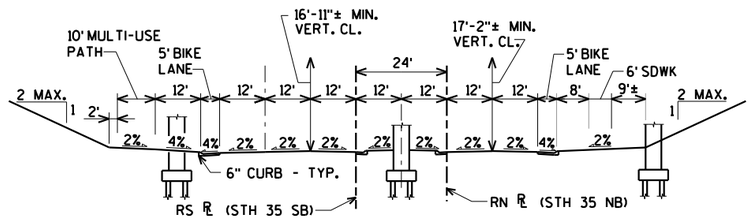
◈ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45



PROFILE GRADE LINE

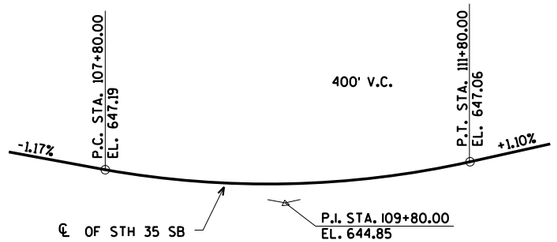
(IH 90 EB)

BENCH MARK:
CP 1900
STA. 195+76.78 EB, 23' LT. OF ℄
EL. 665.49



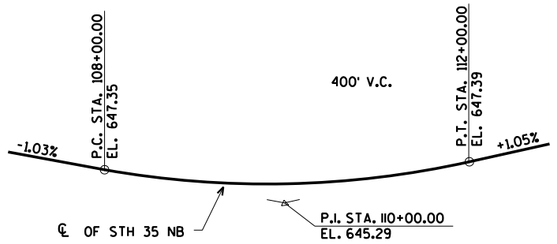
FUTURE TYPICAL FINISHED SECTION STH 35

ALLOWANCE FOR POTENTIAL FUTURE EXPANSION
(LOOKING NORTH)



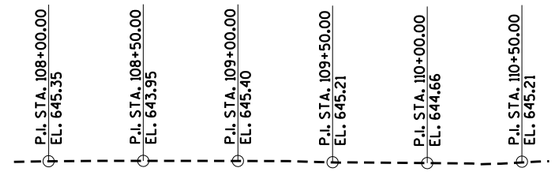
PROFILE GRADE LINE

(STH 35 SB)



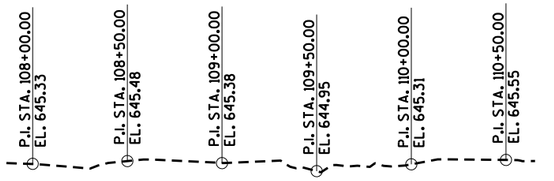
PROFILE GRADE LINE

(STH 35 NB)



PROFILE GRADE LINE

(EXISTING STH 35 SB)



PROFILE GRADE LINE

(EXISTING STH 35 NB)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

DRAWN BY CLS | PLANS CK'D. AEB

TYPICAL SECTIONS & PROFILE GRADE LINES

SHEET 2 OF 45
586

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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B-32-218 gp.dgn

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5/28/2015

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STATE PROJECT NUMBER

1071-06-79

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. STR. APP. SLAB	W. ABUT.	PIER 1	PIER 2	PIER 3	E. ABUT.	E. STR. APP. SLAB	SUPER.	TOTAL
203.0200	REMOVING OLD STRUCTURE STATION 193+75 EB	LS	-----	-----	-----	-----	-----	-----	-----	-----	1
203.0210.S.01	ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-32-36	LS	-----	-----	-----	-----	-----	-----	-----	-----	1
203.0225.S	DEBRIS CONTAINMENT B-32-36	LS	-----	-----	-----	-----	-----	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-32-218	LS	-----	-----	-----	-----	-----	-----	-----	-----	1
210.0100	BACKFILL STRUCTURE	CY	-----	420	-----	-----	-----	460	-----	-----	880
502.0100	CONCRETE MASONRY BRIDGES	CY	111	236	185	193	187	244	115	840	2,111
502.3100	EXPANSION DEVICE B-32-218	LS	-----	-----	-----	-----	-----	-----	-----	-----	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	-----	-----	-----	-----	-----	53	53
502.3210	PIGMENTED SURFACE SEALER	SY	-----	-----	-----	-----	-----	-----	-----	340	340
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	-----	-----	-----	-----	-----	-----	-----	2,700	2,700
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-----	8,890	4,420	5,290	4,420	9,550	-----	-----	32,570
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	19,620	7,460	28,560	31,240	28,760	7,340	19,630	213,040	355,650
505.8000.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	1,050	-----	-----	-----	-----	-----	1,050	-----	2,100
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-----	-----	-----	16	-----	-----	-----	-----	16
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	-----	8	16	-----	16	8	-----	-----	48
506.4000	STEEL DIAPHRAGMS B-32-218	EACH	-----	-----	-----	-----	-----	-----	-----	42	42
509.5100.S	POLYMER OVERLAY	SY	168	-----	-----	-----	-----	-----	168	2,254	2,590
511.1100	TEMPORARY SHORING	SF	-----	-----	575	575	-----	-----	-----	-----	1,150
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-----	24	-----	-----	-----	24	-----	-----	48
517.1010.S	CONCRETE STAINING B-32-218	SF	30	120	2,320	2,520	2,340	150	30	5,810	13,320
517.1015.S	CONCRETE STAINING MULTI-COLOR B-32-218	SF	120	660	1,040	1,030	1,040	680	120	1,500	6,190
517.1050.S	ARCHITECTURAL SURFACE TREATMENT B-32-218	SF	120	660	1,040	1,030	1,040	680	120	1,500	6,190
550.2106	PILING CIP CONCRETE 10¾ x 0.365 INCH	LF	-----	3,150	4,655	5,320	4,655	3,150	-----	-----	20,930
604.0400	SLOPE PAVING CONCRETE	SY	-----	380	-----	-----	-----	420	-----	-----	800
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-----	445	-----	-----	-----	445	-----	-----	890
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-----	-----	-----	-----	-----	2	-----	4
	NON-BID ITEMS										
	FILLER	SIZE		-----	-----	-----	-----	-----		-----	½" & ¾"

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.01
OPERATING RATING FACTOR: 1.36
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 220 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY { SUPERSTRUCTURE ——— f'c = 4,000 p.s.i.
CONCRETE MASONRY { ALL OTHER ——— f'c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) ——— fy = 60,000 p.s.i.

45W" PRESTRESSED GIRDER
CONCRETE MASONRY ——— f'c = 8,000 p.s.i.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF = 270,000 p.s.i.

FOUNDATION DATA:

WEST ABUTMENT TO BE SUPPORTED ON 10¾" Φ x 0.365" C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 140 TONS ǂ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 105'-0".

PIERS TO BE SUPPORTED ON 10¾" Φ x 0.365" C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS ǂ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 95'-0".

EAST ABUTMENT TO BE SUPPORTED ON 10¾" Φ x 0.365" C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 135 TONS ǂ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 105'-0".

ǂ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

IH 90	STH 35 / USH 53 / ROSE STREET
A.D.T. = 43,700 (2016)	A.D.T. = 24,400 (2016)
A.D.T. = 56,700 (2036)	A.D.T. = 29,500 (2036)
R.D.S. = 70 M.P.H.	R.D.S. = 45 M.P.H.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

PIGMENTED SURFACE SEALER IS TO BE APPLIED TO THE TOP AND INSIDE FACE OF PARAPETS. PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE PAVING NOTCH AT ABUTMENTS.

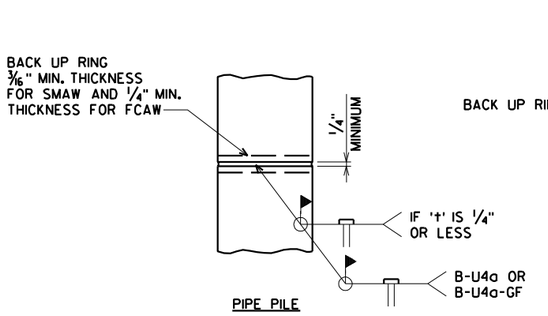
ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.

THE EXISTING BRIDGE, B-32-36, IS A FOUR SPAN STEEL DECK GIRDER BRIDGE, 321.5 FEET LONG AND HAS A CLEAR ROADWAY WIDTH OF 43.2 FEET MAX.

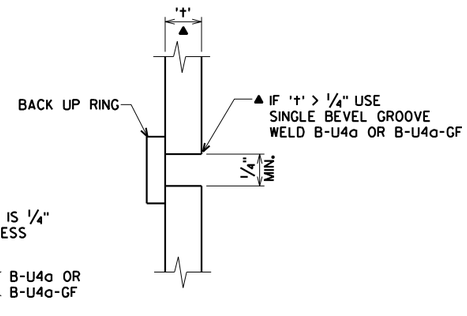
THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE HAUNCH DEPTH SHOWN ON THE TOP OF DECK ELEVATIONS SHEET, WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

AT THE BACK FACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.



PILE SPLICE DETAIL

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.



CIP PILE WELD DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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QUANTITIES AND NOTES

SHEET 3 OF 45
587

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U:\41-0627.00 - LaCrosse County, IH90\B-32-218 190 EB over STH 35\BRIDGE\FINAL\B-32-218 GN.dgn

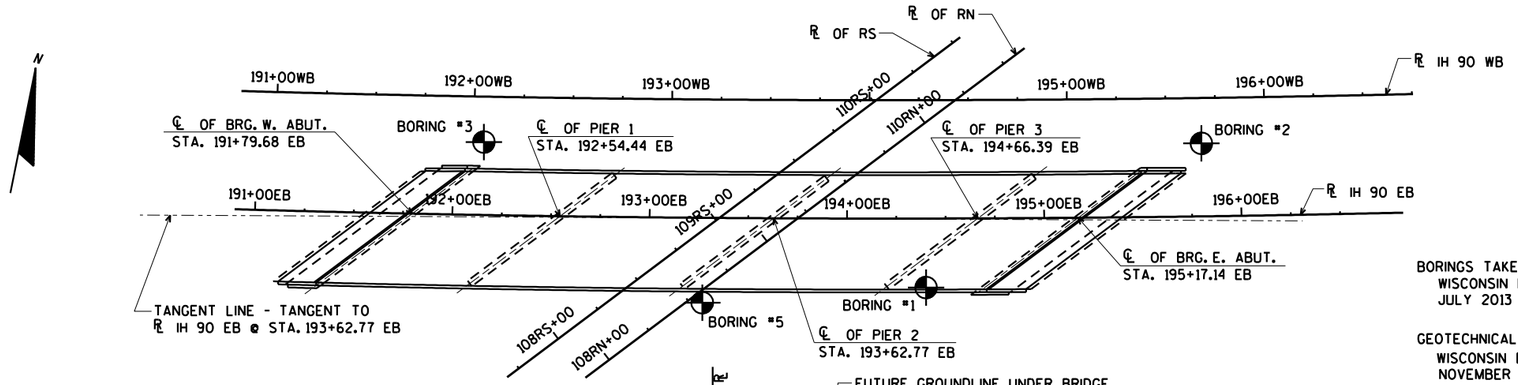
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9/10/2015

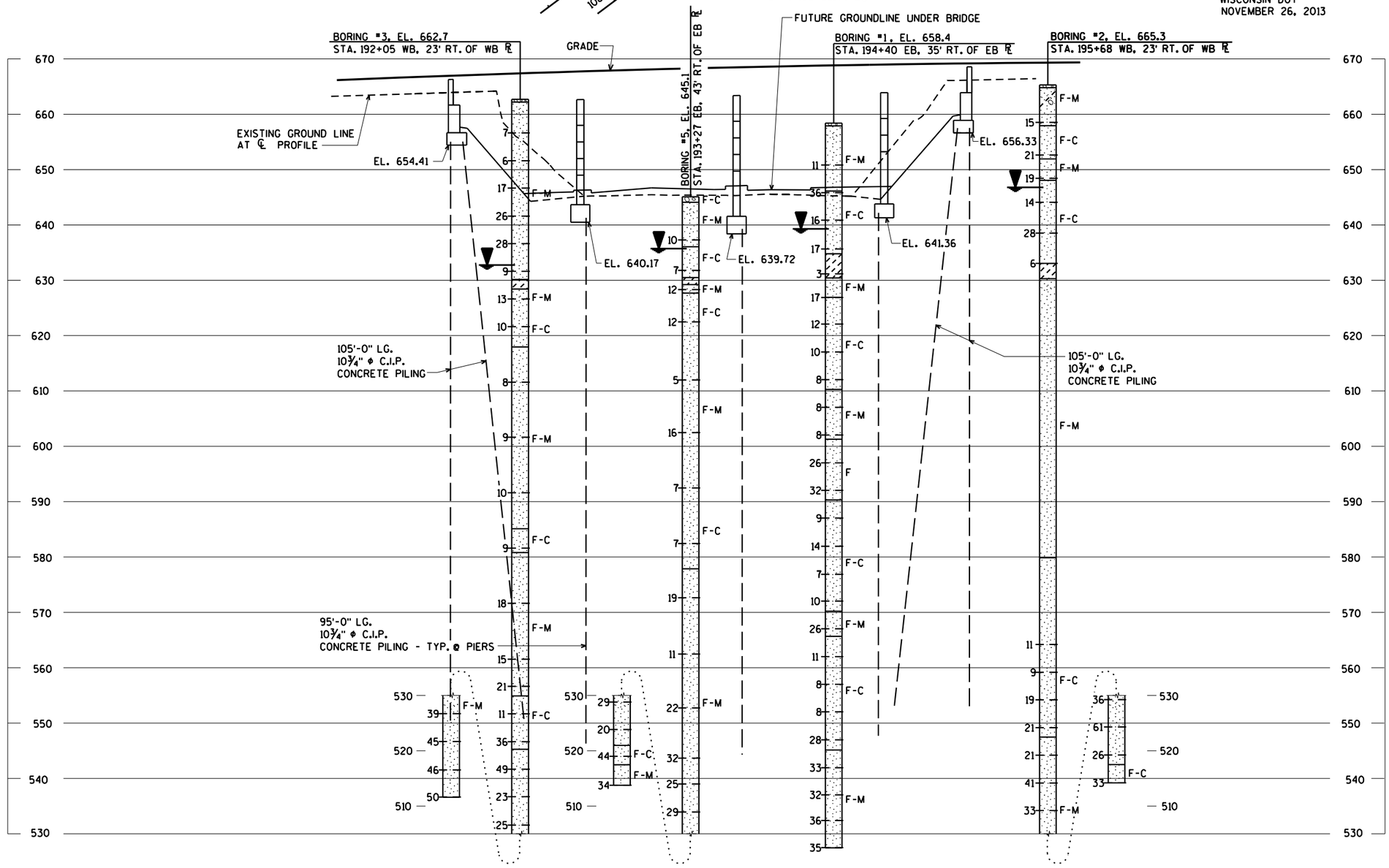
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BORINGS TAKEN BY:
WISCONSIN DOT
JULY 2013

GEOTECHNICAL REPORT BY:
WISCONSIN DOT
NOVEMBER 26, 2013



STATE PROJECT NUMBER

1071-06-79

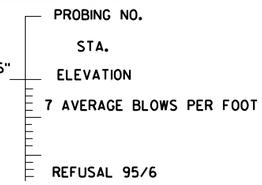
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

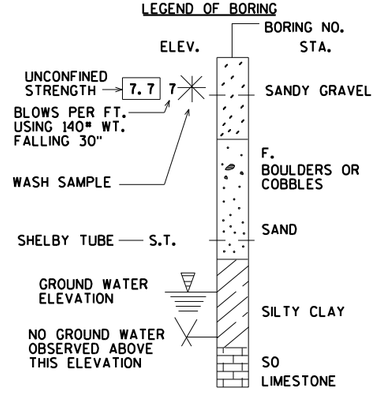
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

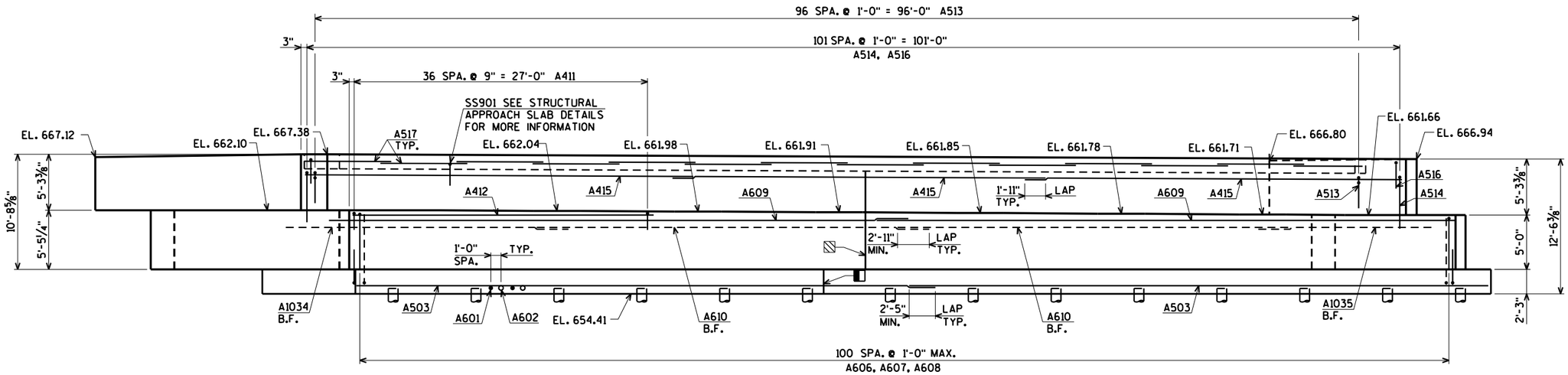
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SUBSURFACE EXPLORATION

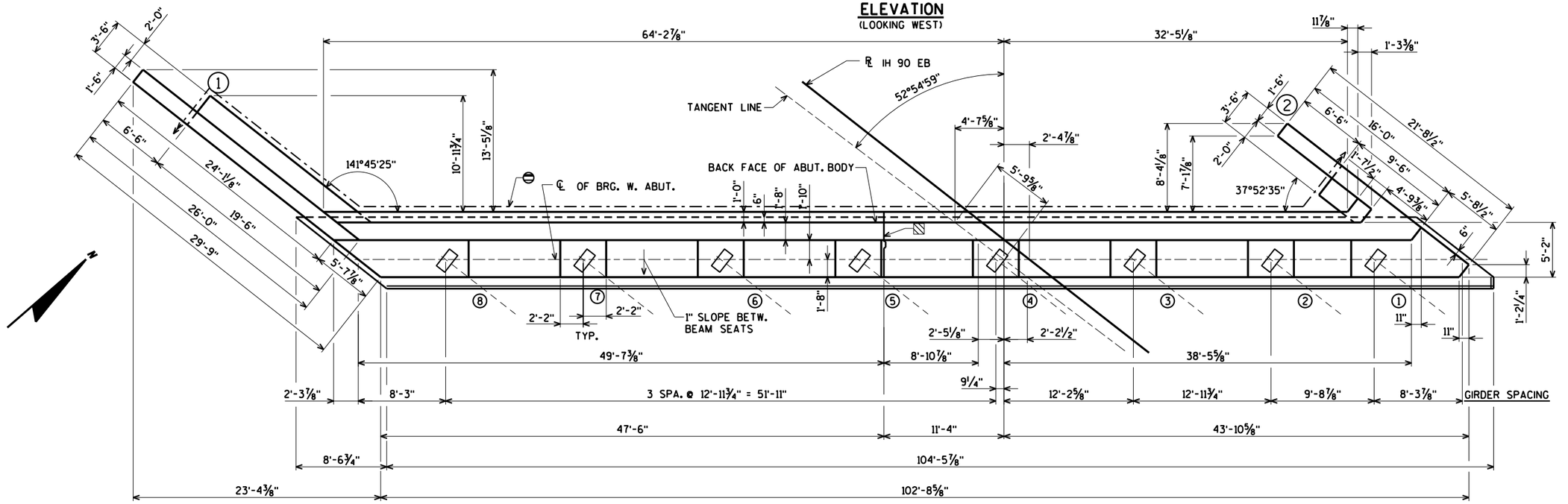
SHEET 4 OF 45
588

8

8



ELEVATION
(LOOKING WEST)



PLAN

- ⊖ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. FOR DETAILS SEE SHEET 9.
- ◧ VERT. CONST. JT. - OPTIONAL IN FOOTING. PLACE TO CLEAR PILES, 9" MIN.
- ▨ VERT. CONST. JT. - KEYWAY FORMED BY A BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 24. SEAL JOINT AT BACK FACE WITH 18" RUBBERIZED MEMBRANE WATERPROOFING

F.F. DENOTES FRONT FACE
B.F. DENOTES BACK FACE
E.F. DENOTES EACH FACE

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-32-218

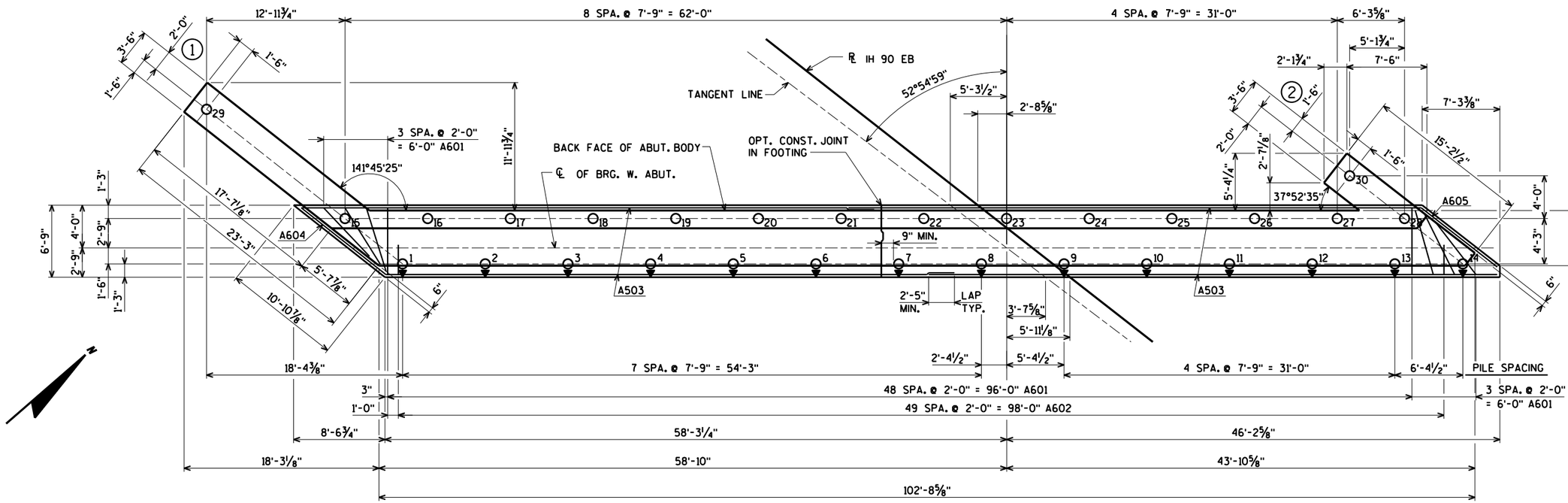
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WEST ABUTMENT

SHEET 5 OF 45
589

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5/26/2015
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FOOTING LAYOUT

DENOTES BATTERED PILES. BATTER 3" PER FOOT IN DIRECTION SHOWN.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-32-218

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WEST ABUTMENT FOOTING LAYOUT

SHEET 6 OF 45
590

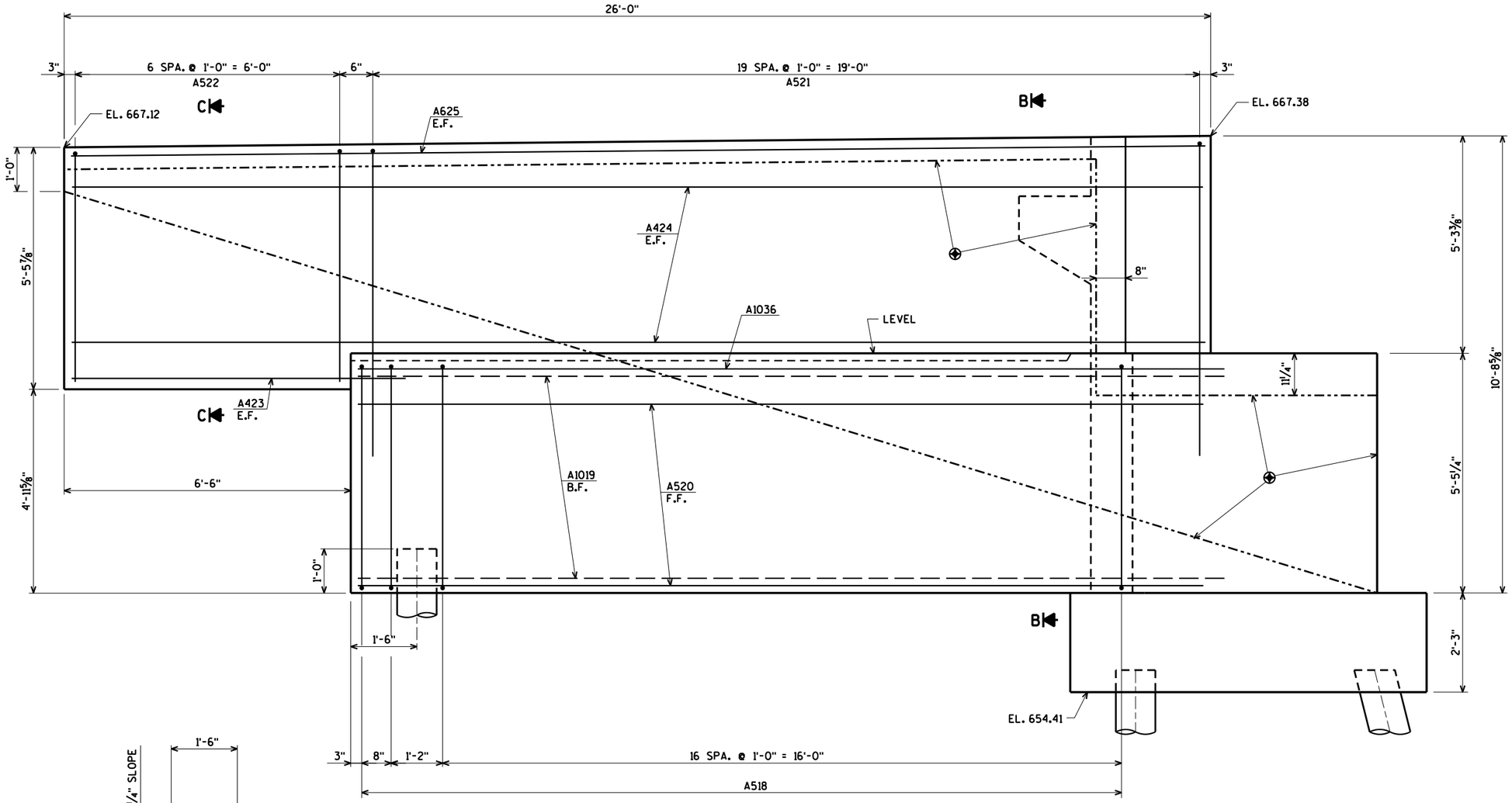
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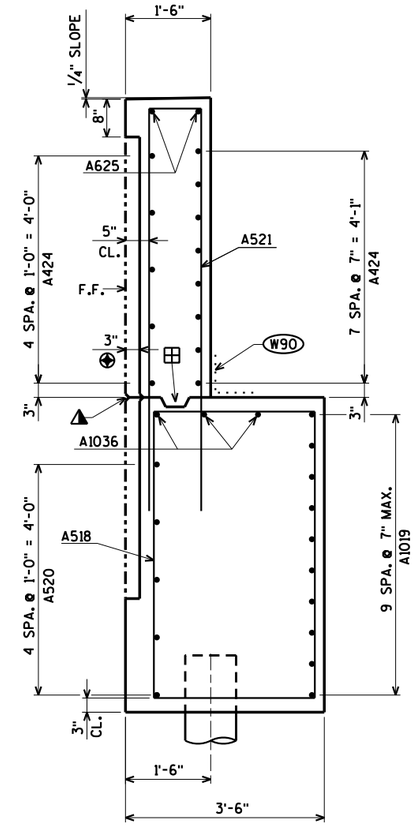
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STATE PROJECT NUMBER

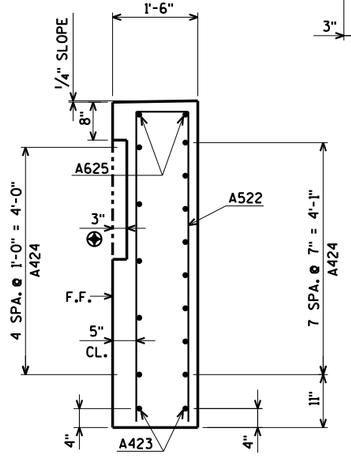
1071-06-79



ELEVATION WING 1



SECTION B



SECTION C

(W90) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

⊞ OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

⚠ ¾" 'V' GROOVE ON F.F. OF WINGWALL. OMIT IF CONST. JOINT NOT USED.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

⊕ LIMITS OF ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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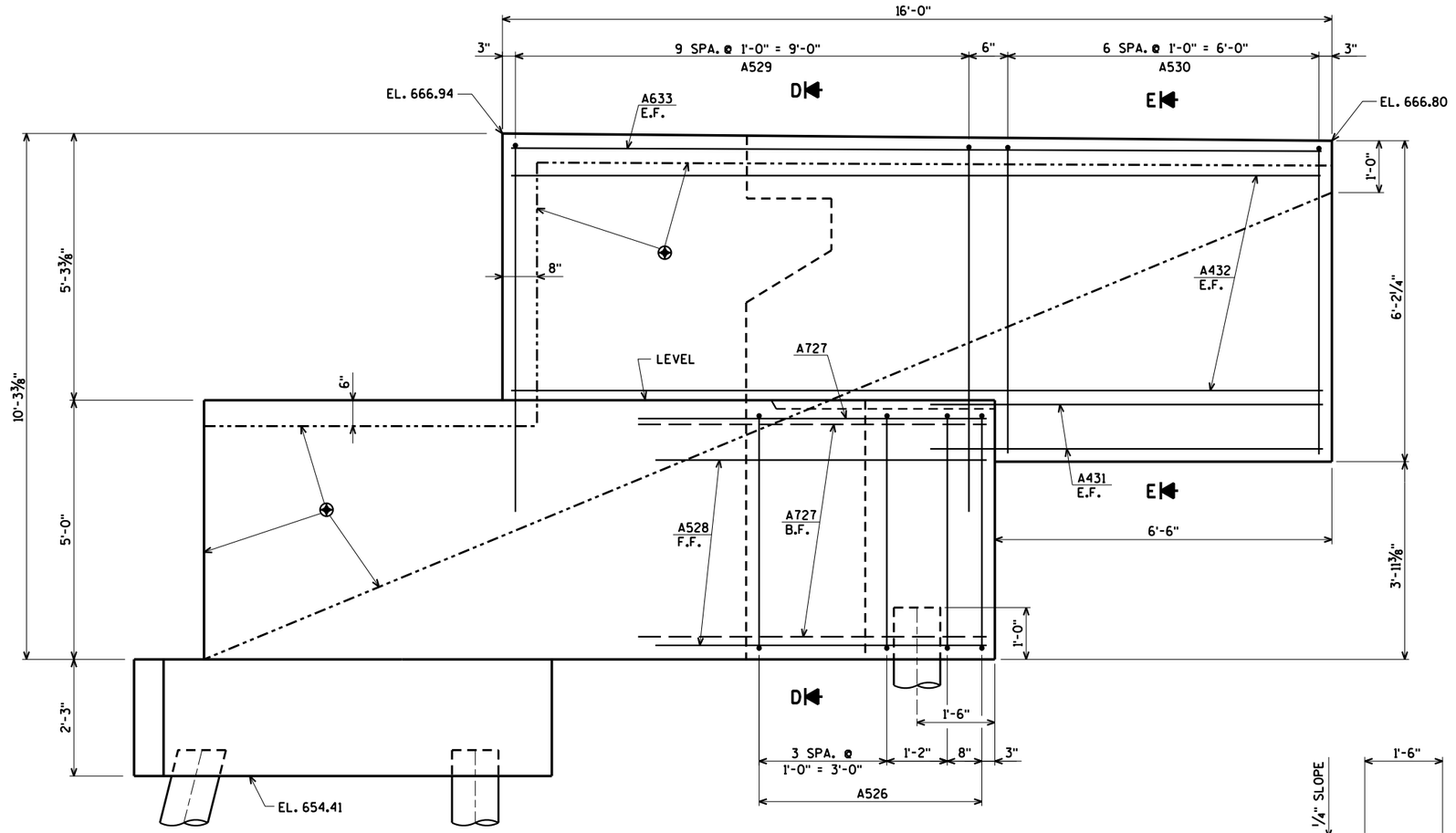
WEST ABUTMENT WING 1 DETAILS

SHEET 7 OF 45
591

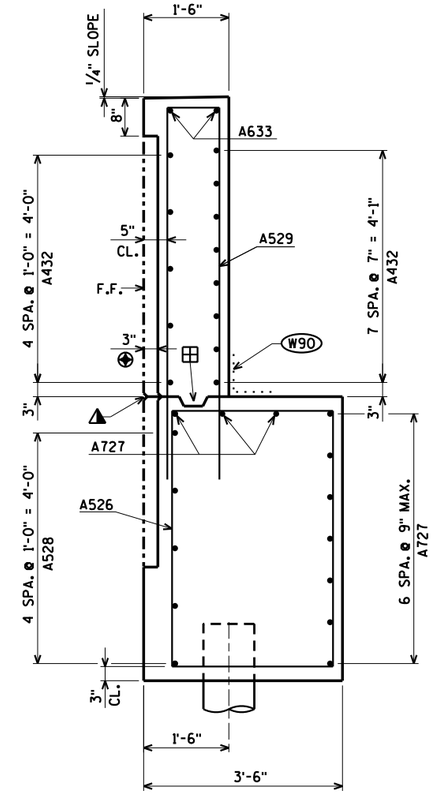
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8

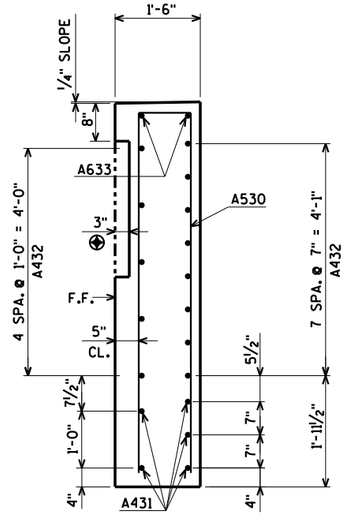
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ELEVATION WING 2



SECTION D



SECTION E

W90 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

⊞ OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

⚠ ¾" 'V' GROOVE ON F.F. OF WINGWALL. OMIT IF CONST. JOINT NOT USED.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

⊕ LIMITS OF ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

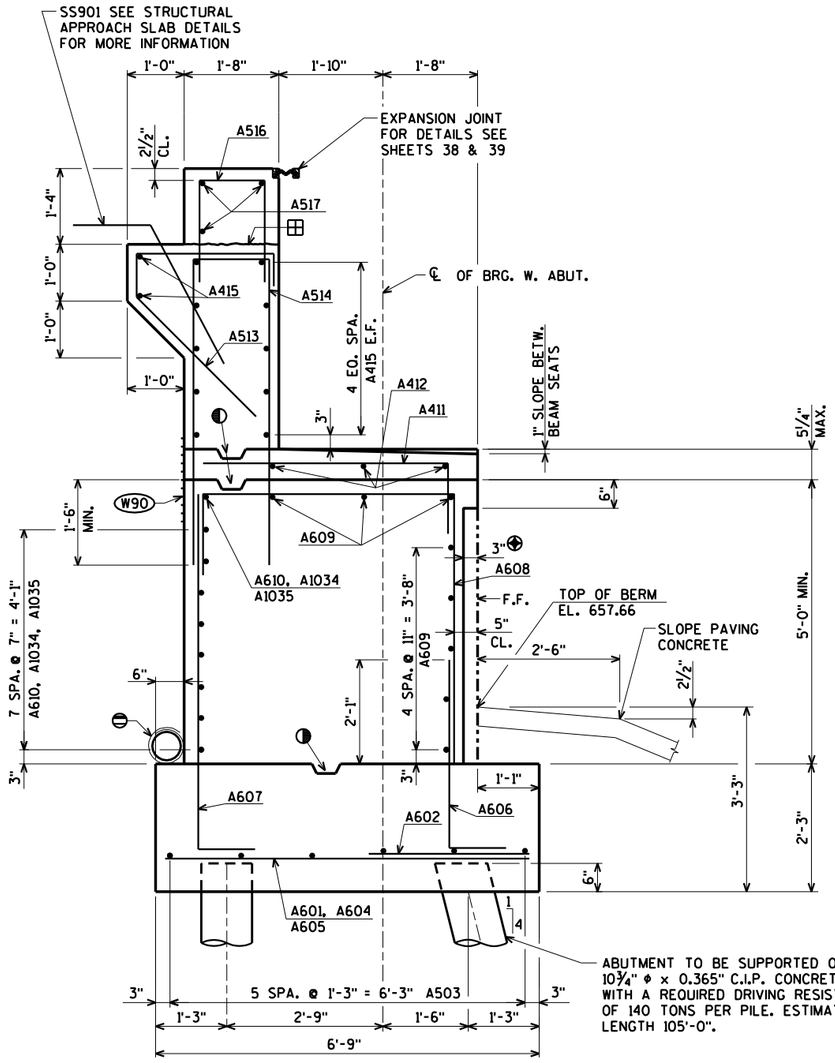
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WEST ABUTMENT WING 2 DETAILS

SHEET 8 OF 45
592

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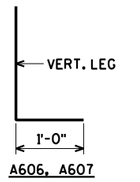


ABUTMENT TO BE SUPPORTED ON 10¾" ϕ x 0.365" C.I.P. CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 140 TONS PER PILE. ESTIMATED LENGTH 105'-0".

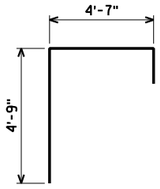
EXCAVATE OR FILL TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

TYPICAL SECTION THRU BODY SECTION A

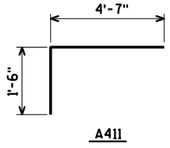
FOR LOCATION OF SECTION 'A' SEE SHEET 5



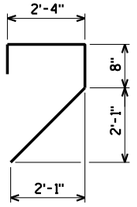
A606, A607



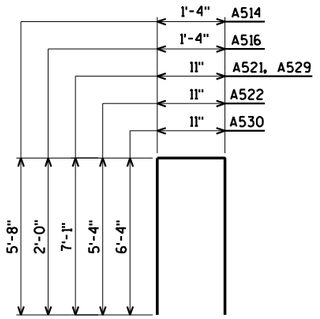
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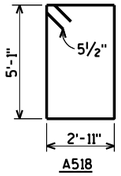


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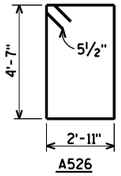


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A518

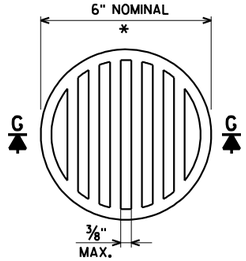


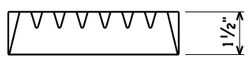
A526

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	7,460# COATED 8,890# UNCOATED LOCATION
A601		55	6-5				FOOTING
A602		50	2-5				FOOTING
A503		12	54-4				FOOTING
A604		1	10-1				FOOTING
A605		1	9-0				FOOTING
A606		101	4-6	X			FOOTING DOWELS F.F.
A607		101	7-3	X			FOOTING DOWELS B.F.
A608		101	10-6	X			BODY VERT.
A609		16	53-4				BODY HORIZ.
A610		18	36-2				BODY HORIZ. B.F.
A411		37	6-0	X			BODY VERT.
A412		3	27-6				BODY HORIZ.
A513	X	97	6-6	X			BACKWALL VERT.
A514	X	102	12-5	X			BACKWALL VERT.
A415	X	36	35-8				BACKWALL HORIZ.
A516	X	102	5-1	X			PAVING BLOCK VERT.
A517	X	42	8-0				PAVING BLOCK HORIZ.
A518	X	19	16-6	X			WING 1 VERT.
A1019	X	13	25-6				WING 1 HORIZ. B.F. & TOP
A520	X	5	22-11				WING 1 HORIZ. F.F.
A521	X	20	14-10	X			WING 1 VERT.
A522	X	7	11-4	X			WING 1 VERT.
A423	X	2	7-11				WING 1 HORIZ. E.F.
A424	X	13	23-9				WING 1 HORIZ. E.F.
A625	X	2	23-9				WING 1 HORIZ. E.F.
A526	X	6	15-6	X			WING 2 VERT.
A727	X	10	8-0				WING 2 HORIZ. B.F. & TOP
A528	X	5	8-0				WING 2 HORIZ. F.F.
A529	X	10	14-10	X			WING 2 VERT.
A530	X	7	13-4	X			WING 2 VERT.
A431	X	5	7-11				WING 2 HORIZ. E.F.
A432	X	13	15-8				WING 2 HORIZ. E.F.
A633	X	2	15-8				WING 2 HORIZ. E.F.
A1034		9	26-0				BODY HORIZ. B.F.
A1035		9	16-0				BODY HORIZ. B.F.
A1036	X	3	22-11				WING 1 HORIZ. TOP

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.





SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH SHEET METAL SCREWS.

RODENT SHIELD DETAIL

⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

⊖ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

(W90) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

◑ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F. AT BACKWALL.

⊞ CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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WEST ABUTMENT DETAILS AND BILL OF BARS

SHEET 9 OF 45
593

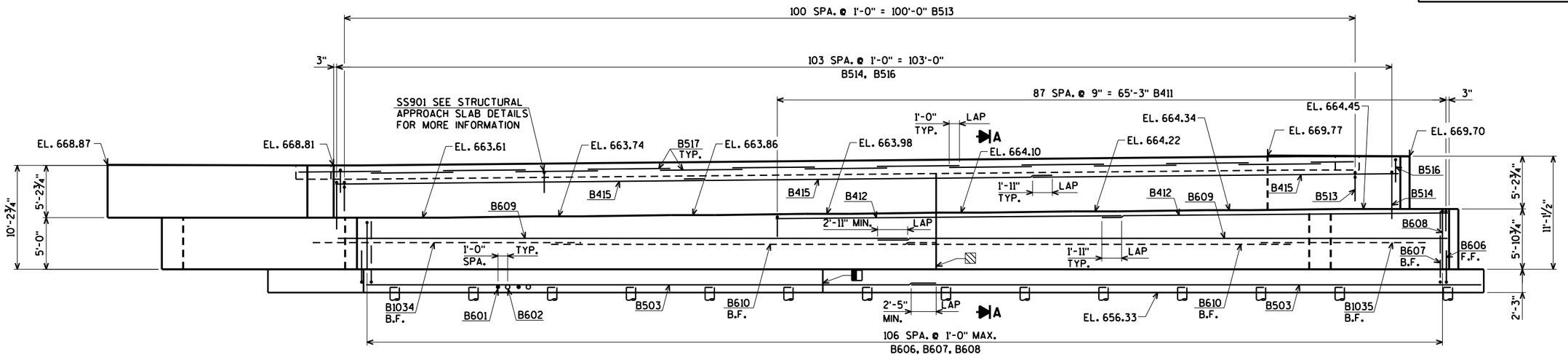
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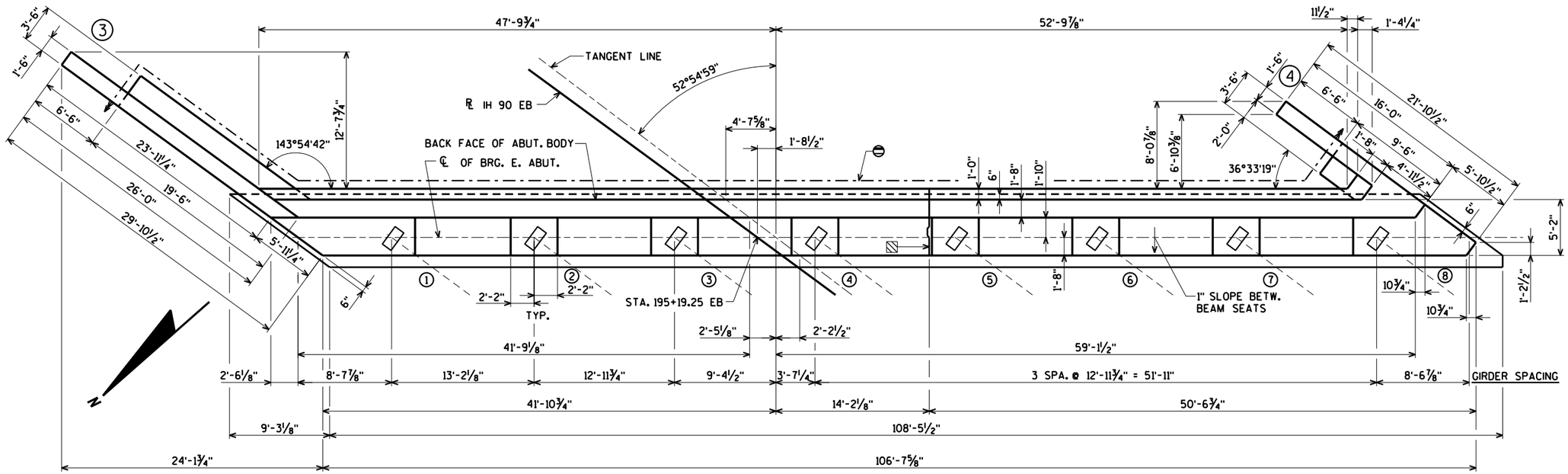
STATE PROJECT NUMBER

1071-06-79



ELEVATION
(LOOKING EAST)

FOR SECTION 'A' SEE SHEET 14



PLAN

⊖ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. FOR DETAILS SEE SHEET 14.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR PILE SPLICE DETAIL SEE SHEET 3.

◧ VERT. CONST. JT. - OPTIONAL IN FOOTING. PLACE TO CLEAR PILES, 9" MIN.

▨ VERT. CONST. JT. - KEYWAY FORMED BY A BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 24. SEAL JOINT AT BACK FACE WITH 18" RUBBERIZED MEMBRANE WATERPROOFING

NO.	DATE	REVISION	BY

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STRUCTURE B-32-218

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EAST ABUTMENT

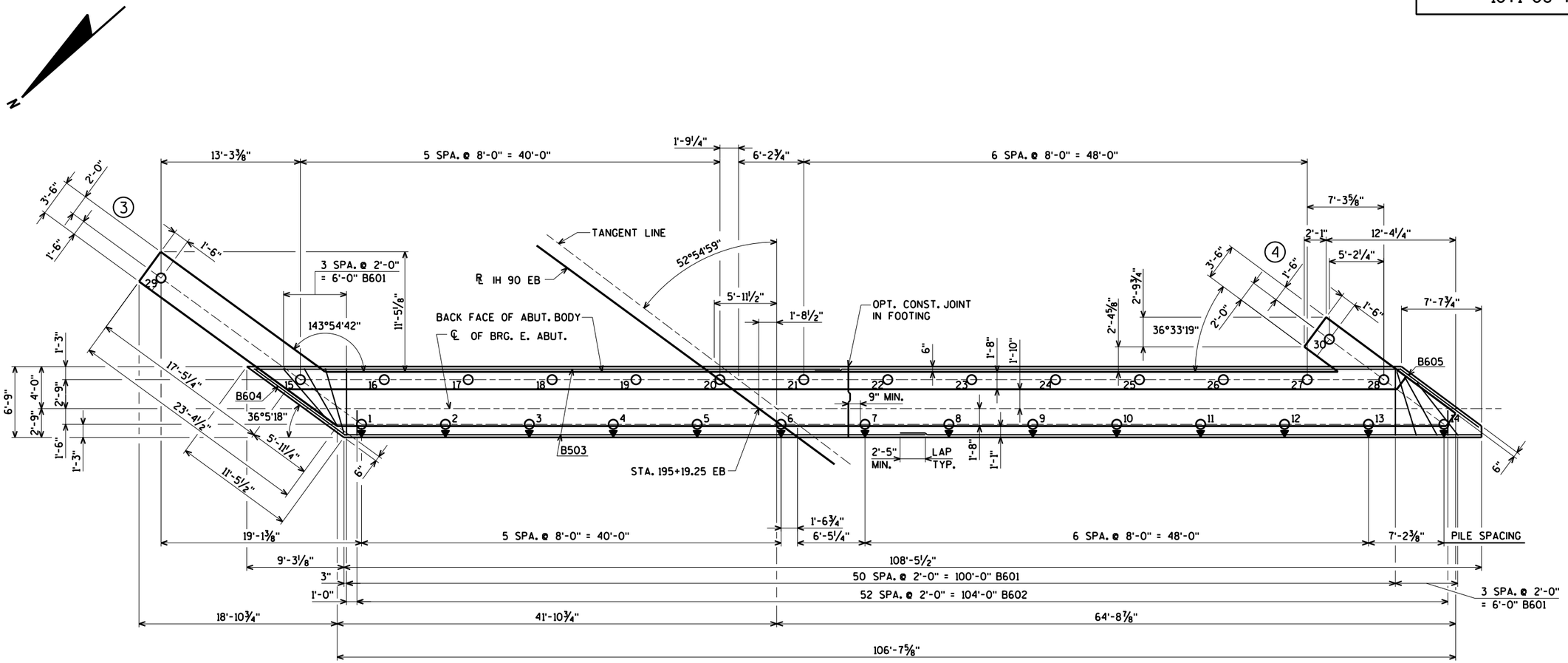
SHEET 10 OF 45
594

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8

8

STATE PROJECT NUMBER
1071-06-79



FOOTING LAYOUT

DENOTES BATTERED PILES.
BATTER 3" PER FOOT IN
DIRECTION SHOWN.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

DRAWN BY JCK | PLANS CK'D. AEB

EAST ABUTMENT
FOOTING LAYOUT

SHEET 11 OF 45
595

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8

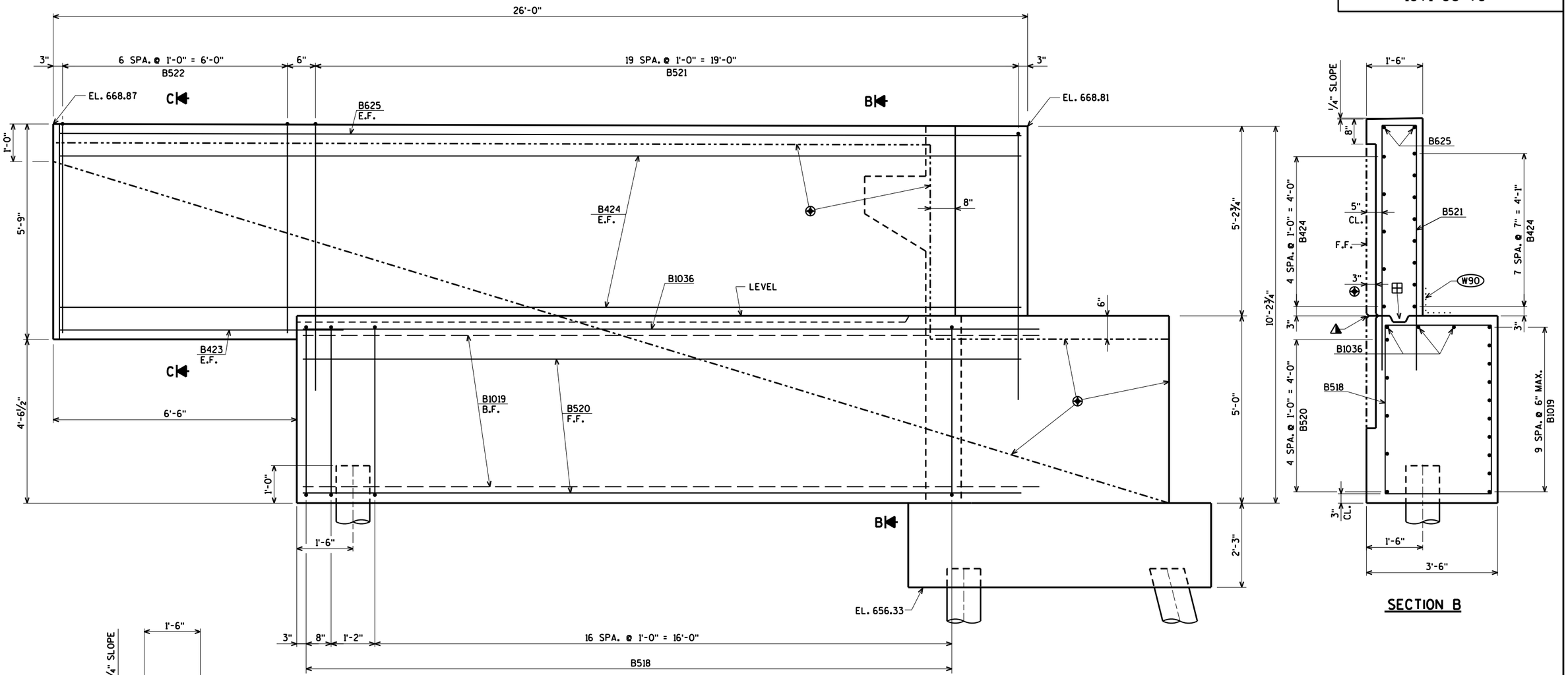
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U:±41-0627.00 - LaCrosse County, IH90±B-32-218 I90 EB over STH 35±BRIDGE±FINAL±B-32-218 ea.dgn

5/26/2015

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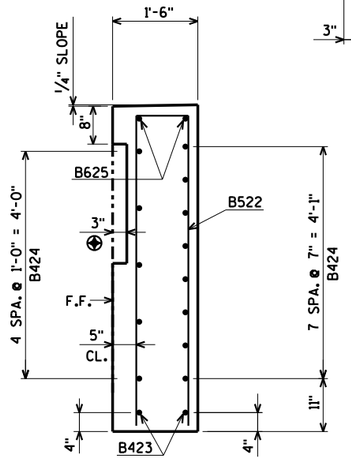
STATE PROJECT NUMBER

1071-06-79



ELEVATION WING 3

SECTION B



SECTION C

W90 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

¾" 'V' GROOVE ON F.F. OF WINGWALL. OMIT IF CONST. JOINT NOT USED.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

LIMITS OF ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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EAST ABUTMENT WING 3 DETAILS

SHEET 12 OF 45
596

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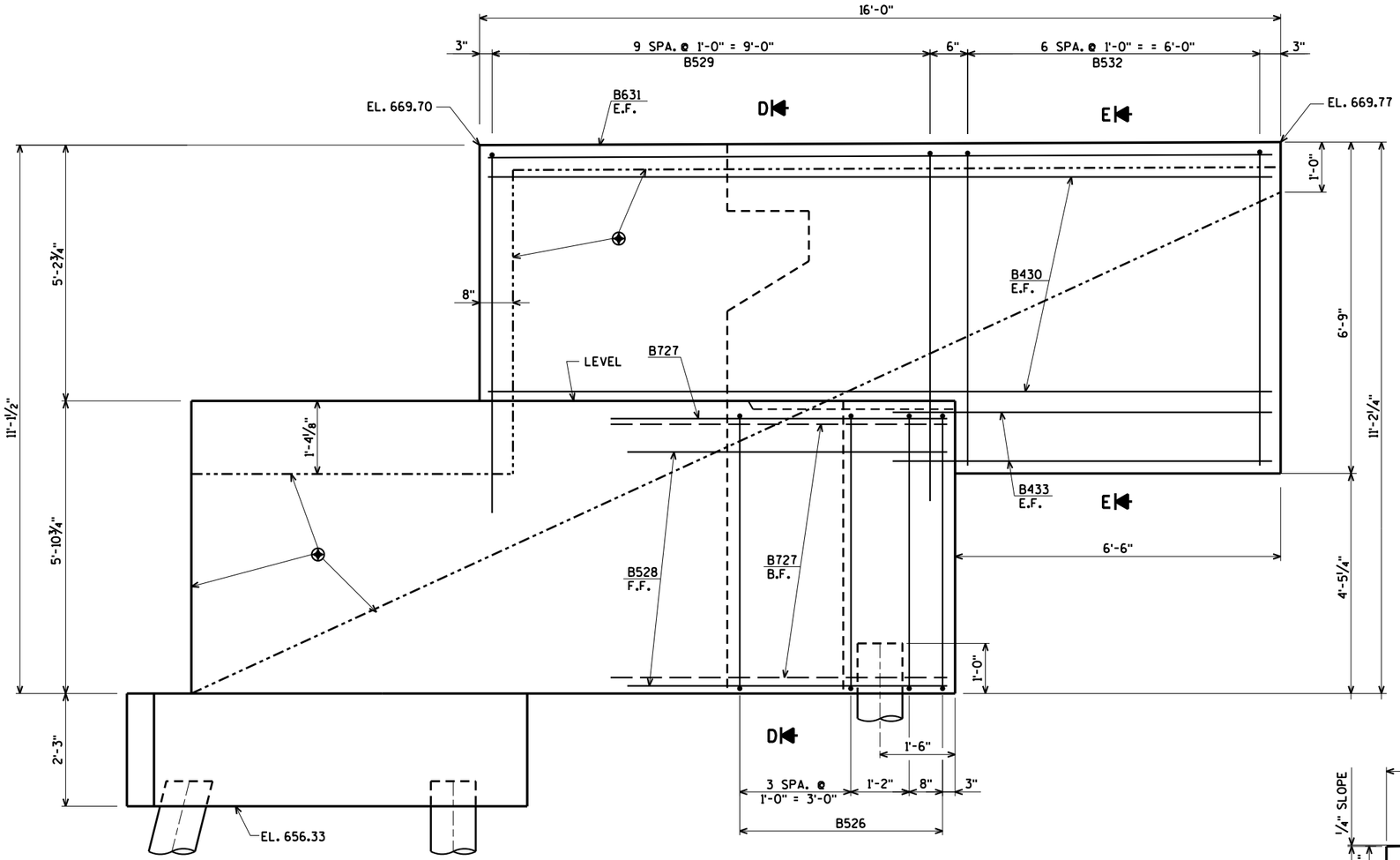
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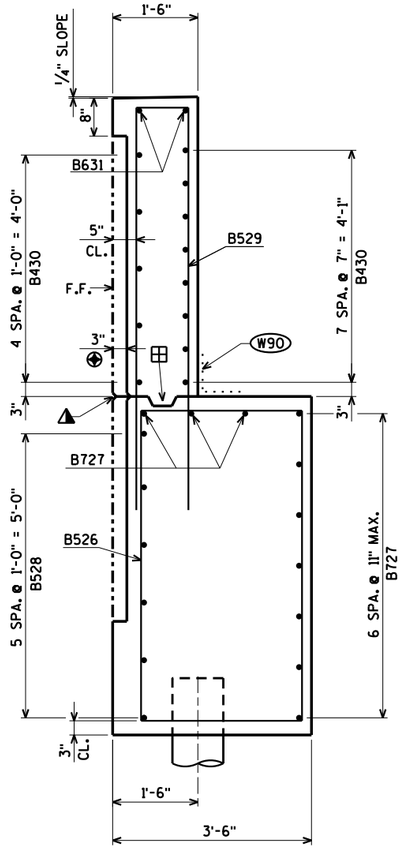
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5/26/2015

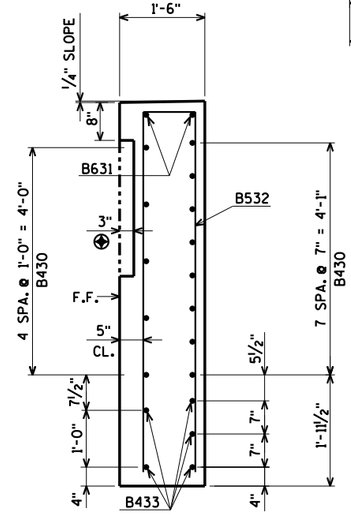
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ELEVATION WING 4



SECTION D



SECTION E

W90 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

⊞ OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

⚠ ¾" 'V' GROOVE ON F.F. OF WINGWALL. OMIT IF CONST. JOINT NOT USED.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

⊕ LIMITS OF ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

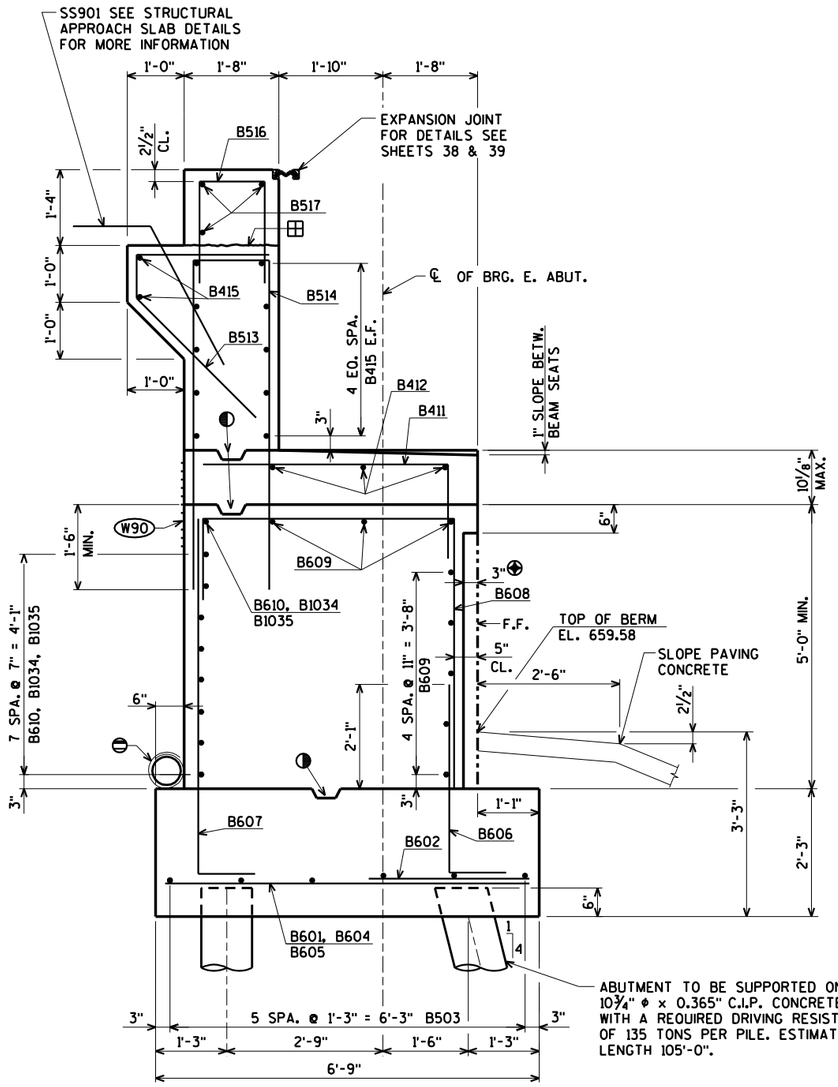
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EAST ABUTMENT WING 4 DETAILS

SHEET 13 OF 45
597

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5/26/2015
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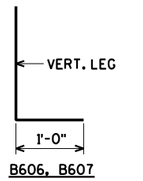


ABUTMENT TO BE SUPPORTED ON 10¾" ø x 0.365" C.I.P. CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 135 TONS PER PILE. ESTIMATED LENGTH 105'-0".

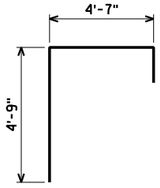
EXCAVATE OR FILL TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

TYPICAL SECTION THRU BODY SECTION A

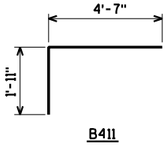
FOR LOCATION OF SECTION 'A' SEE SHEET 10



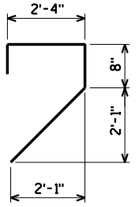
B606, B607



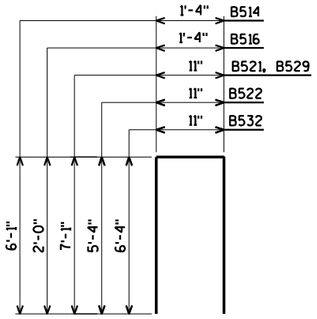
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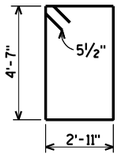


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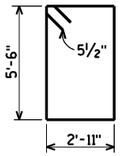


B513





B518

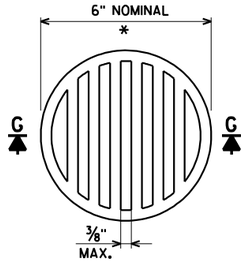


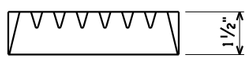
B526

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	7,340# COATED 9,550# UNCOATED LOCATION
B601		57	6-5				FOOTING
B602		53	2-5				FOOTING
B503		12	56-6				FOOTING
B604		1	10-8				FOOTING
B605		1	9-4				FOOTING
B606		107	4-6	X			FOOTING DOWELS F.F.
B607		107	7-3	X			FOOTING DOWELS B.F.
B608		107	10-6	X			BODY VERT.
B609		16	55-11				BODY HORIZ.
B610		18	37-6				BODY HORIZ. B.F.
B411		88	6-5	X			BODY VERT.
B412		6	33-6				BODY HORIZ.
B513	X	101	6-6	X			BACKWALL VERT.
B514	X	104	13-3	X			BACKWALL VERT.
B415	X	36	37-0				BACKWALL HORIZ.
B516	X	104	5-1	X			PAVING BLOCK VERT.
B517	X	45	8-0				PAVING BLOCK HORIZ.
B518	X	19	15-6	X			WING 3 VERT.
B1019	X	10	25-6				WING 3 HORIZ. B.F.
B520	X	5	22-11				WING 3 HORIZ. F.F.
B521	X	20	14-10	X			WING 3 VERT.
B522	X	7	11-4	X			WING 3 VERT.
B423	X	2	7-11				WING 3 HORIZ. E.F.
B424	X	13	23-9				WING 3 HORIZ. E.F.
B625	X	2	23-9				WING 3 HORIZ. E.F.
B526	X	6	17-4	X			WING 4 VERT.
B727	X	10	8-0				WING 4 HORIZ. B.F. & TOP
B528	X	6	8-0				WING 4 HORIZ. F.F.
B529	X	10	14-10	X			WING 4 VERT.
B430	X	13	15-8				WING 4 HORIZ. E.F.
B631	X	2	15-8				WING 4 HORIZ. E.F.
B532	X	7	13-4	X			WING 4 VERT.
B433	X	4	7-11				WING 4 HORIZ.
B1034		9	26-0				BODY HORIZ. B.F.
B1035		9	16-0				BODY HORIZ. B.F.
B1036	X	3	22-11				WING 3 HORIZ. TOP

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.





SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH SHEET METAL SCREWS.

RODENT SHIELD DETAIL

⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

⊖ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

(W90) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

◑ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F. AT BACKWALL.

⊞ CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

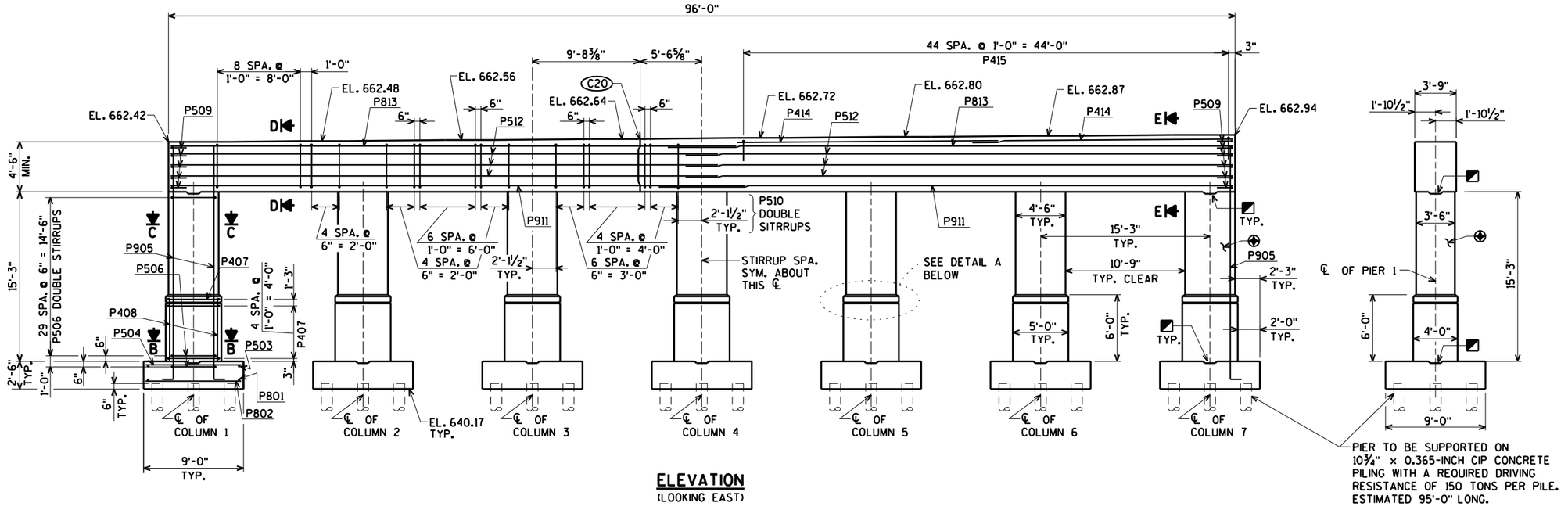
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EAST ABUTMENT DETAILS AND BILL OF BARS

SHEET 14 OF 45
598

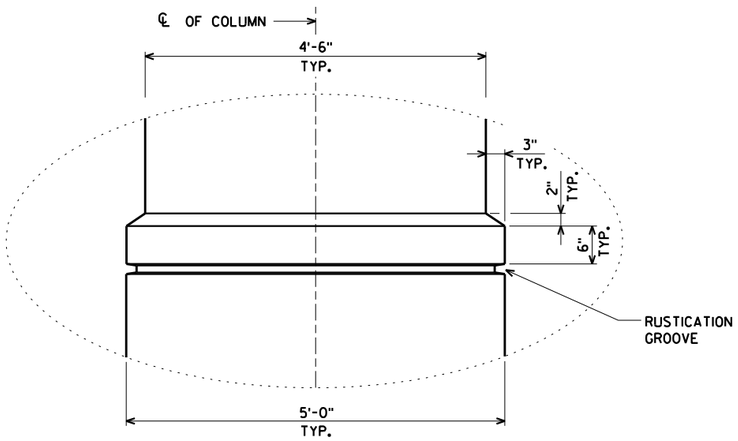
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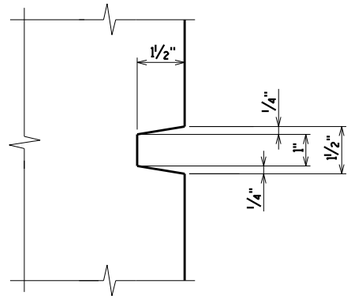


ELEVATION
(LOOKING EAST)

END VIEW
(LOOKING NORTH)



DETAIL A



RUSTICATION GROOVE DETAIL

RUSTICATION GROOVES SHALL BE LEVEL.

COST OF RUSTICATION GROOVES IN THE PIER AS SHOWN IS INCIDENTAL TO THE COST FOR "CONCRETE MASONRY BRIDGES".

(C20) VERT. CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONSTRUCTION JOINT DETAIL SEE SHEET 24.

⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

◪ 1'-3" x 2'-0" x 4" CONST. JOINT FORMED BY BEVELED KEYWAY.

FOR DETAIL OF SECTIONS B, C, D & E SEE SHEET 17

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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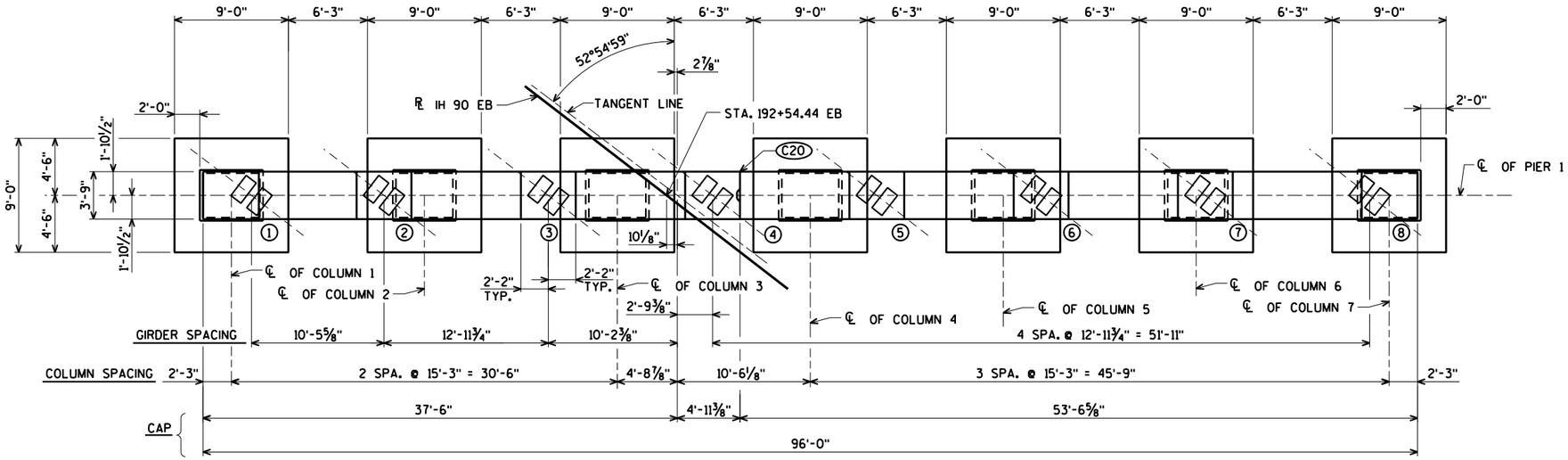
PIER 1

SHEET 15 OF 45
599

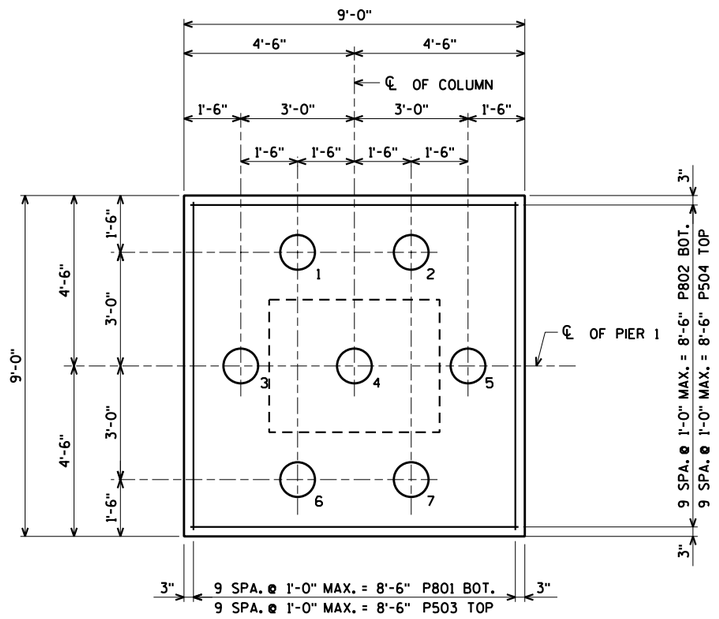
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$PRFNAME$
U:±41-0627.00 - LaCrosse County, IH90±B-32-218 190 EB over STH 35±BRIDGE±FINAL±B-32-218 pier 1.dgn



PLAN



FOOTING PLAN

(C20) VERT. CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONSTRUCTION JOINT DETAIL SEE SHEET 24.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

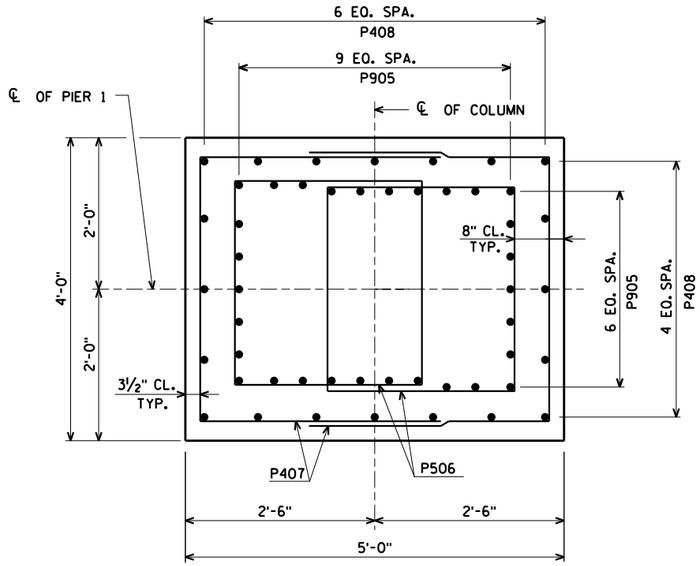
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PIER 1 PLAN AND FOOTING

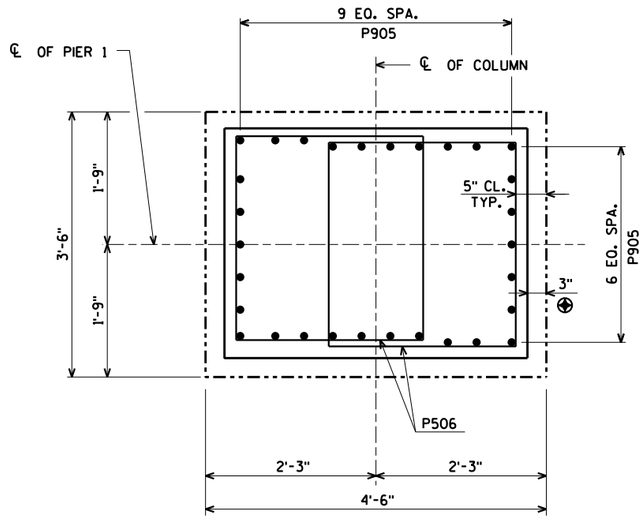
SHEET 16 OF 45
600

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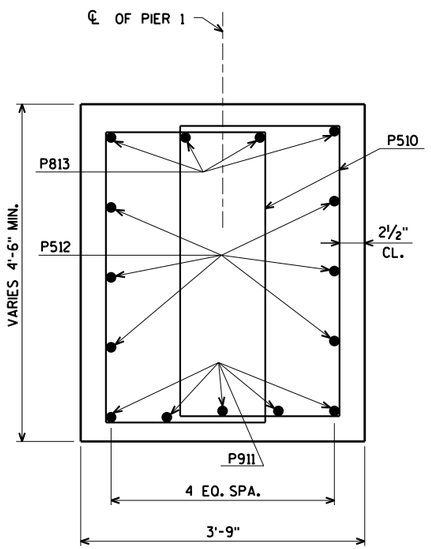


SECTION B

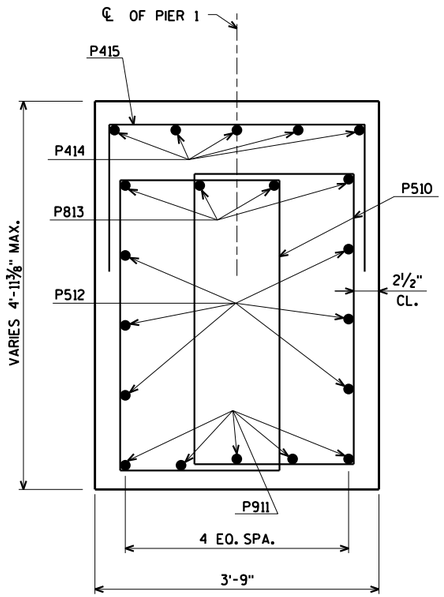


SECTION C

FOR LOCATIONS OF SECTIONS
B, C, D & E SEE SHEET 15



SECTION D

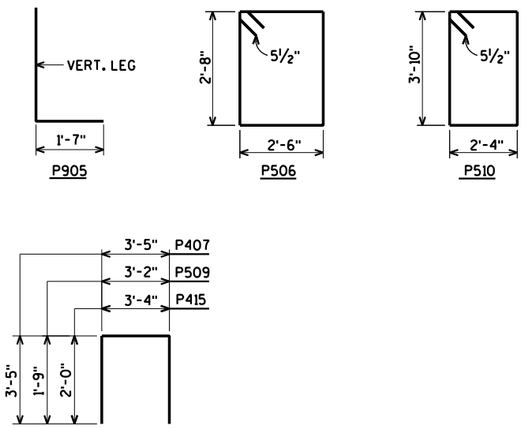


SECTION E

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	28,560# COATED 4,420# UNCOATED LOCATION
P801		70	8-6			FOOTING BOT.
P802		70	8-6			FOOTING BOT.
P503		70	8-6			FOOTING TOP
P504		70	8-6			FOOTING TOP
P905	X	210	22-5	X		FOOTING & COLUMN VERT.
P506	X	434	10-10	X		FOOTING & COLUMN STIRRUPS HORIZ.
P407	X	84	10-1	X		COLUMN STIRRUPS HORIZ.
P408	X	140	5-6			COLUMN VERT.
P509	X	11	6-5	X		CAP HORIZ. ℄ ENDS
P510	X	200	12-10	X		CAP STIRRUPS VERT.
P911	X	10	51-3			CAP HORIZ. BOT.
P512	X	12	49-7			CAP HORIZ. SIDES
P813	X	8	50-11			CAP HORIZ. TOP
P414	X	10	23-6			CAP HORIZ. TOP
P415	X	45	7-2	X		CAP VERT. TOP

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

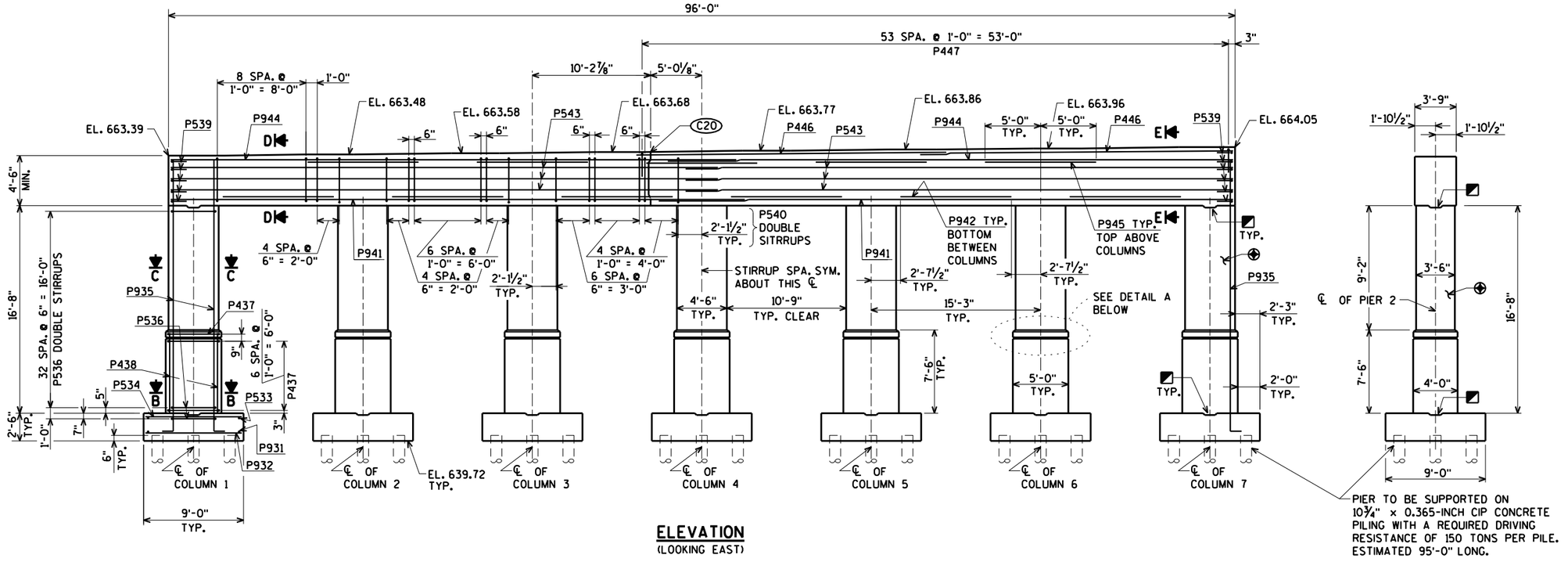
STRUCTURE B-32-218

DRAWN BY JCK | PLANS CK'D. AEB

PIER 1
DETAILS AND
BILL OF BARS

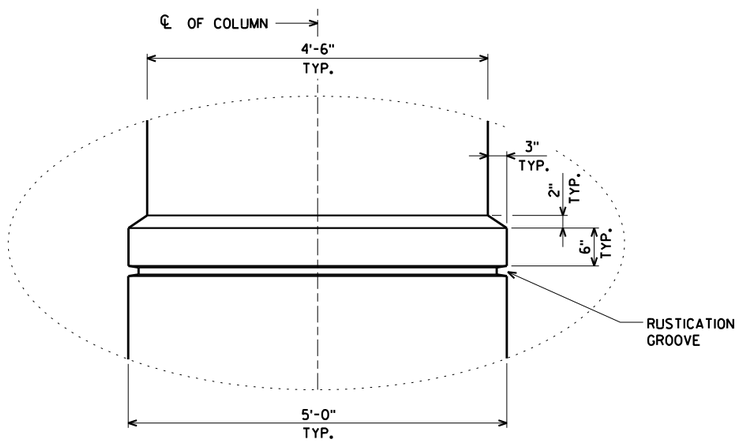
SHEET 17 OF 45
601

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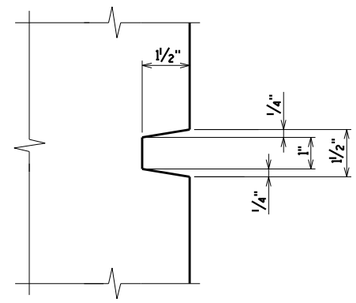


ELEVATION
(LOOKING EAST)

END VIEW
(LOOKING NORTH)



DETAIL A



RUSTICATION GROOVE DETAIL

RUSTICATION GROOVES SHALL BE LEVEL.

COST OF RUSTICATION GROOVES IN THE PIER AS SHOWN IS INCIDENTAL TO THE COST FOR "CONCRETE MASONRY BRIDGES".

(C20) VERT. CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONSTRUCTION JOINT DETAIL SEE SHEET 24.

⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

1'-3" x 2'-0" x 4" CONST. JOINT FORMED BY BEVELED KEYWAY.

FOR DETAIL OF SECTIONS B, C, D & E SEE SHEET 20

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

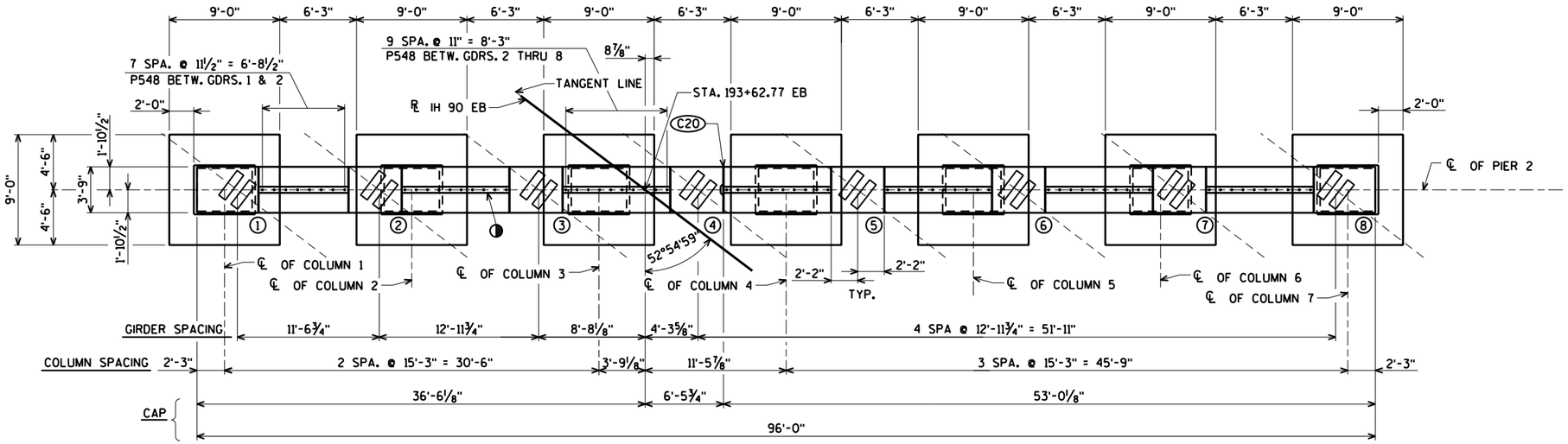
DRAWN BY JCK | PLANS CK'D. AEB

PIER 2

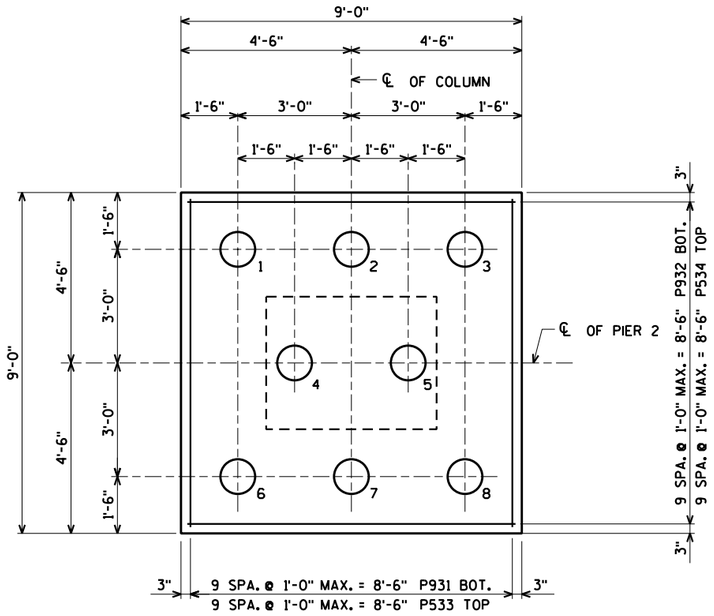
SHEET 18 OF 45
602

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PLAN



FOOTING PLAN

C20 VERT. CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONSTRUCTION JOINT DETAIL SEE SHEET 24.

◑ KEYED COST. JOINT - FORMED BY A SURFACE BEVELED 2" x 6".

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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PIER 2 PLAN AND FOOTING

SHEET 19 OF 45
603

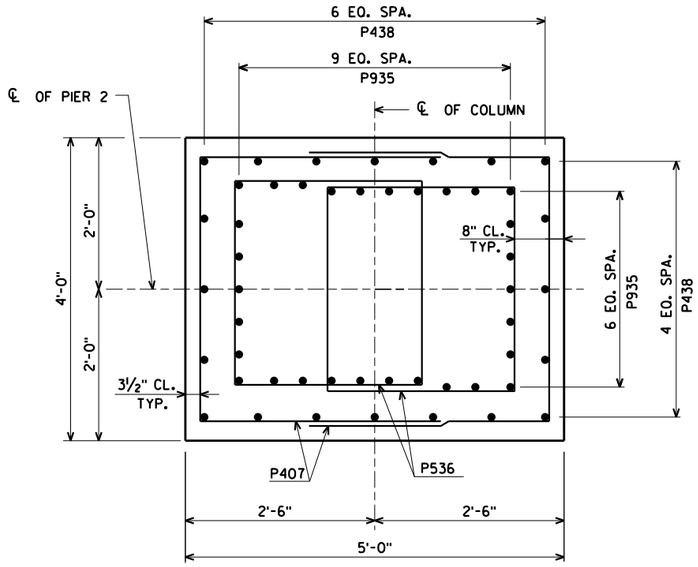
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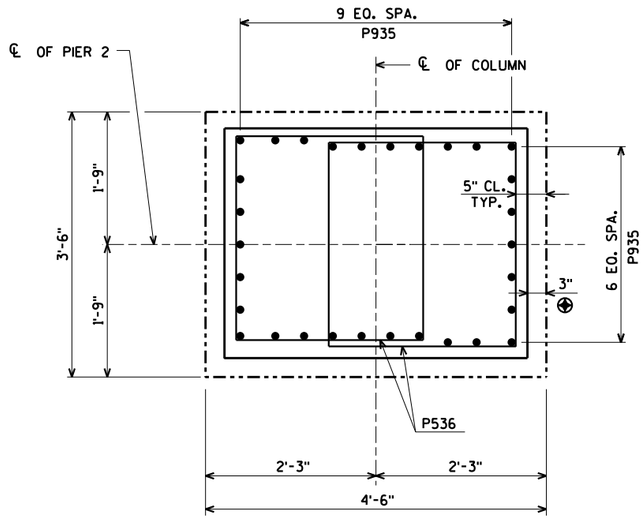
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STATE PROJECT NUMBER

1071-06-79

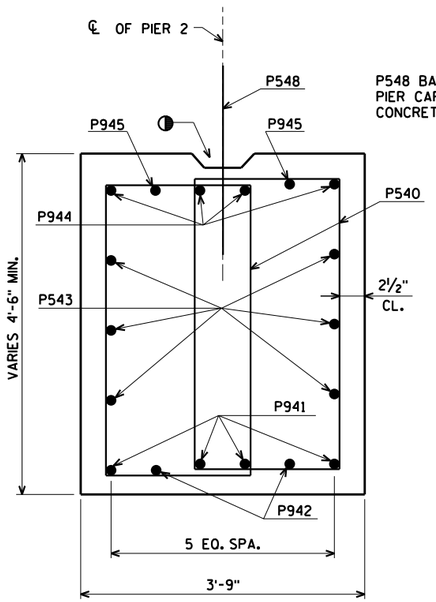


SECTION B



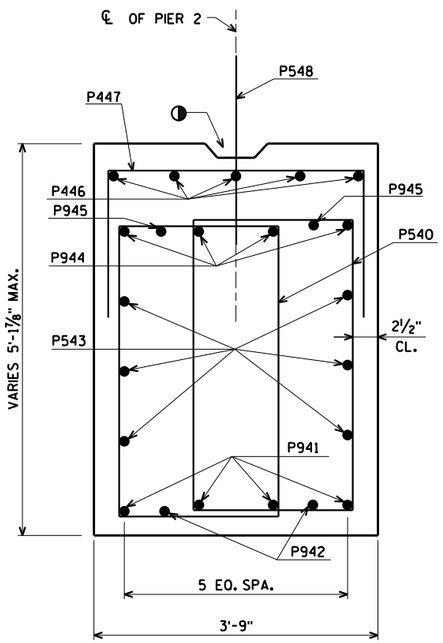
SECTION C

FOR LOCATIONS OF SECTIONS
B, C, D & E SEE SHEET 18



P548 BARS MAY BE PLACED AFTER PIER CAP IS POURED BUT BEFORE CONCRETE HAS SET. EMBED BARS 1'-0".

SECTION D

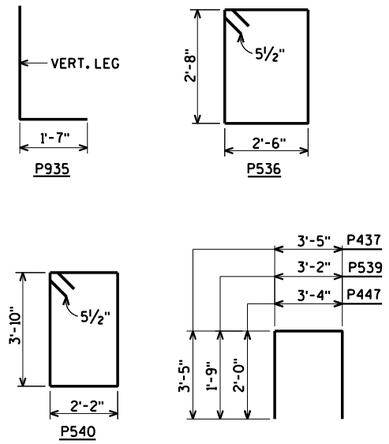


SECTION E

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	31,240# COATED 5,290# UNCOATED LOCATION
P931		70	8-6			FOOTING BOT.
P932		70	8-6			FOOTING BOT.
P533		70	8-6			FOOTING TOP
P534		70	8-6			FOOTING TOP
P935	X	210	23-10	X		FOOTING & COLUMN VERT.
P536	X	476	10-10	X		FOOTING & COLUMN STIRRUPS HORIZ.
P437	X	112	10-1	X		COLUMN STIRRUPS HORIZ.
P438	X	140	7-0			COLUMN VERT.
P539	X	11	6-5	X		CAP HORIZ. ℄ ENDS
P540	X	200	12-6	X		CAP STIRRUPS VERT.
P941	X	8	51-3			CAP HORIZ. BOT.
P942	X	12	10-0			CAP HORIZ. BOT.
P543	X	12	49-7			CAP HORIZ. SIDES
P944	X	8	51-8			CAP HORIZ. TOP
P945	X	10	10-0			CAP HORIZ. TOP
P446	X	10	28-1			CAP HORIZ. TOP
P447	X	54	7-2	X		CAP VERT. TOP
P548	X	68	2-0			CAP DOWELS

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

◑ KEYED CONST. JOINT BETWEEN GIRDERS - FORMED BY A SURFACE BEVELED 2" x 6".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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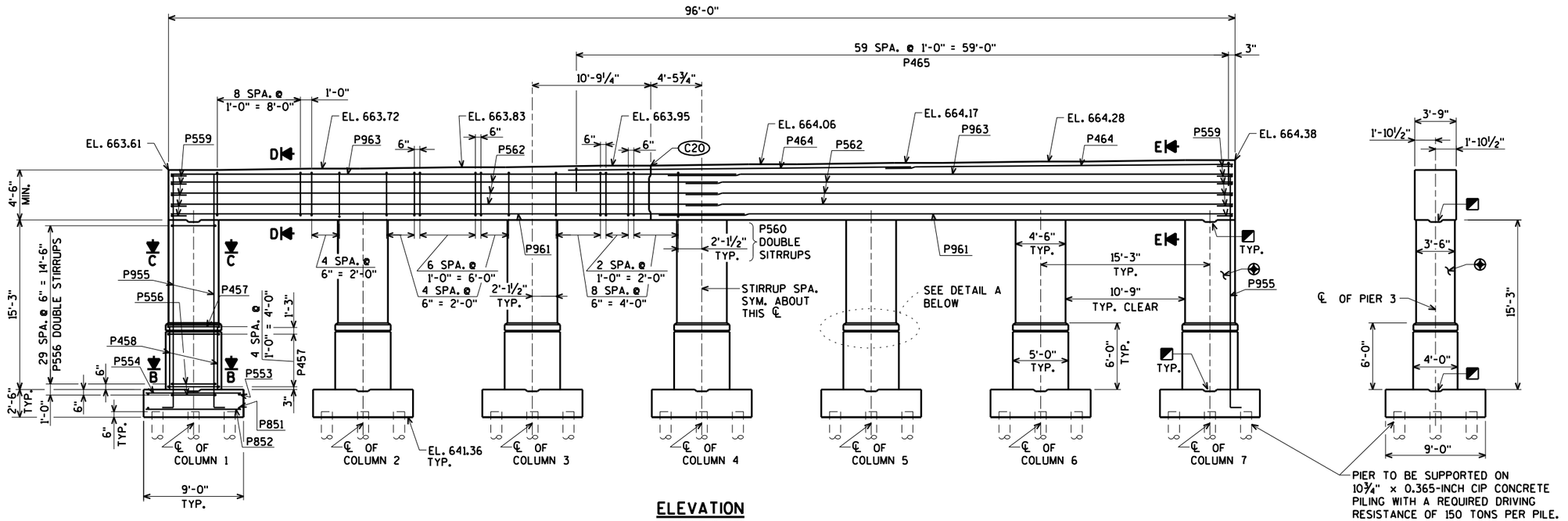
PIER 2
DETAILS AND
BILL OF BARS

SHEET 20 OF 45
604

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8

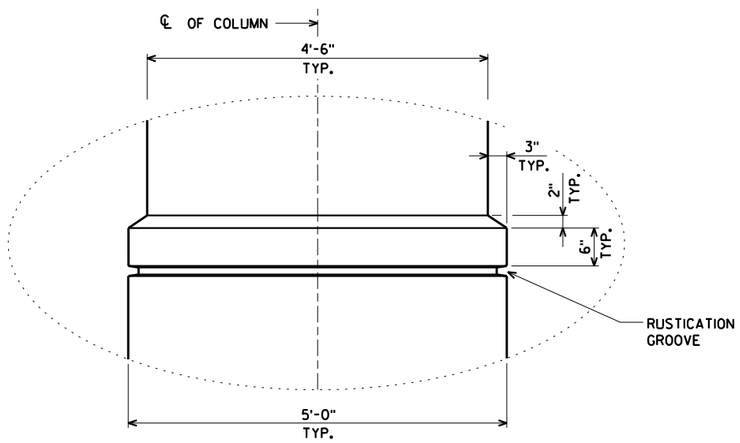
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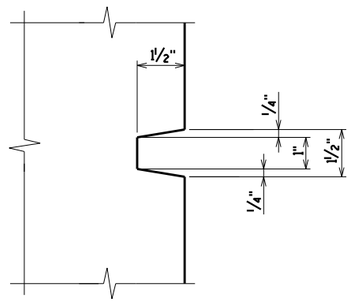
ELEVATION
(LOOKING EAST)

PIER TO BE SUPPORTED ON 10¾" x 0.365-INCH CIP CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE. ESTIMATED 95'-0" LONG.

END VIEW
(LOOKING NORTH)



DETAIL A



RUSTICATION GROOVE DETAIL

RUSTICATION GROOVES SHALL BE LEVEL.

COST OF RUSTICATION GROOVES IN THE PIER AS SHOWN IS INCIDENTAL TO THE COST FOR "CONCRETE MASONRY BRIDGES".

(C20) VERT. CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONSTRUCTION JOINT DETAIL SEE SHEET 24.

⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

◪ 1'-3" x 2'-0" x 4" CONST. JOINT FORMED BY BEVELED KEYWAY.

FOR DETAIL OF SECTIONS B, C, D & E SEE SHEET 23

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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PIER 3

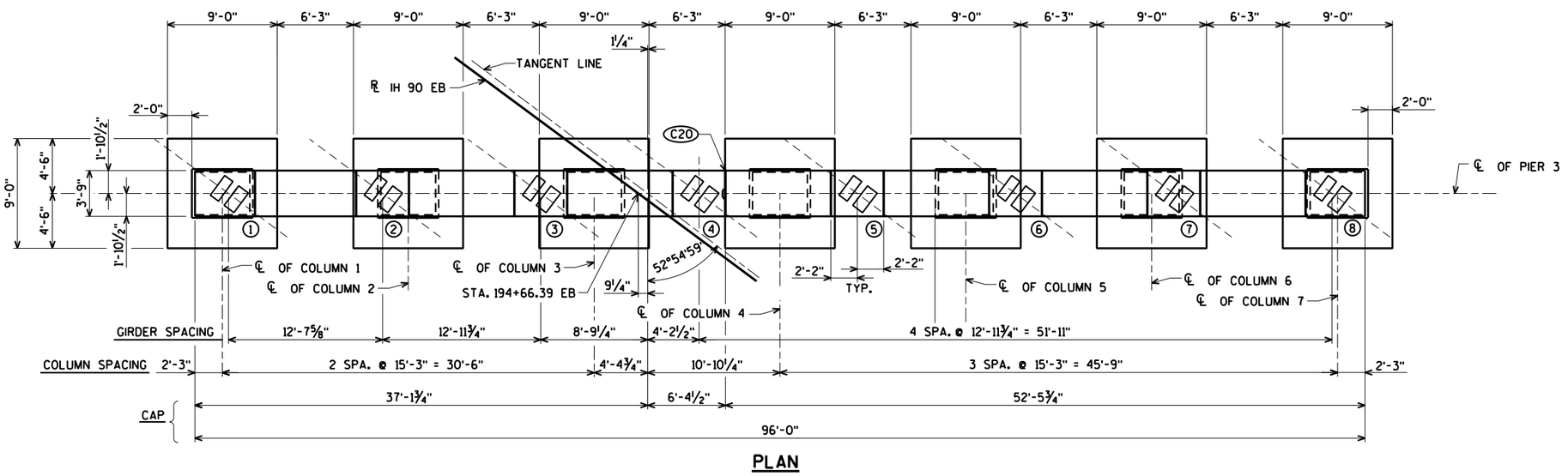
SHEET 21 OF 45
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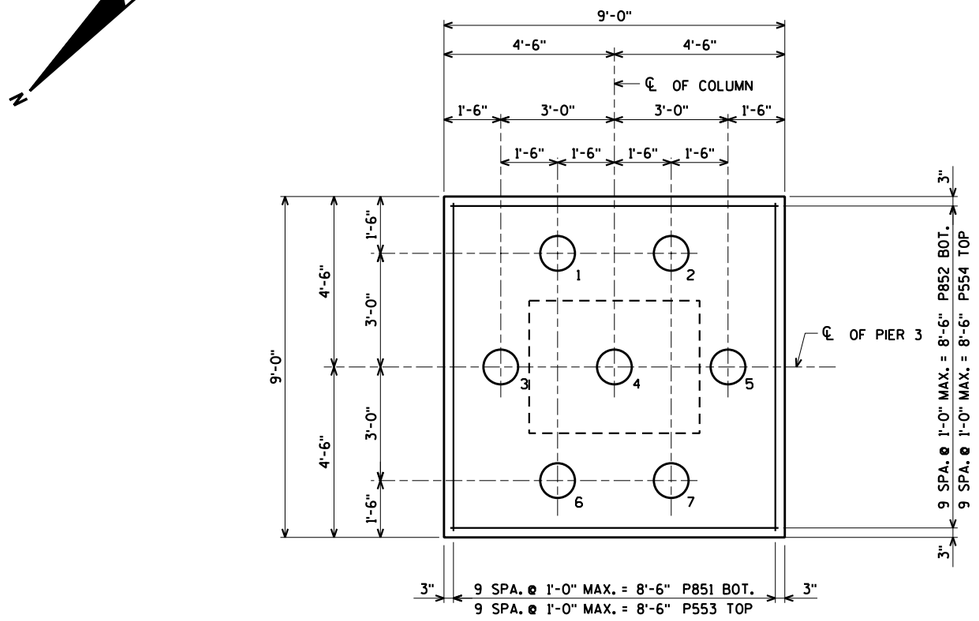
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STATE PROJECT NUMBER

1071-06-79



PLAN



FOOTING PLAN

(C20) VERT. CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONSTRUCTION JOINT DETAIL SEE SHEET 24.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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PIER 3 PLAN AND FOOTING

SHEET 22 OF 45
606

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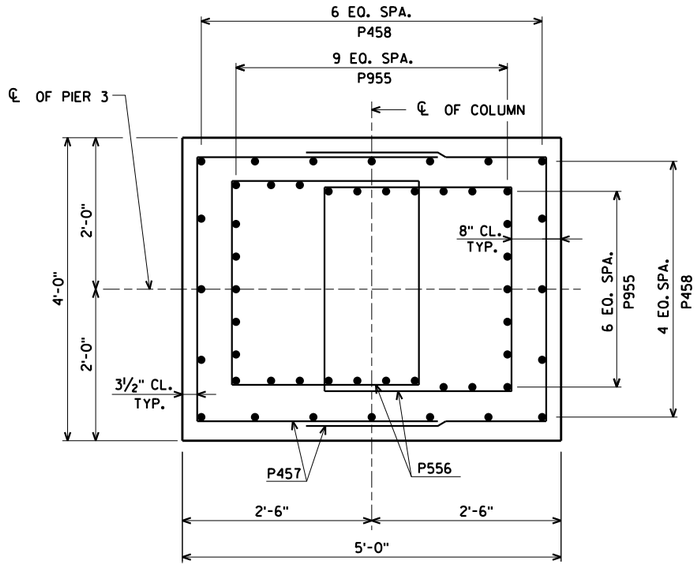
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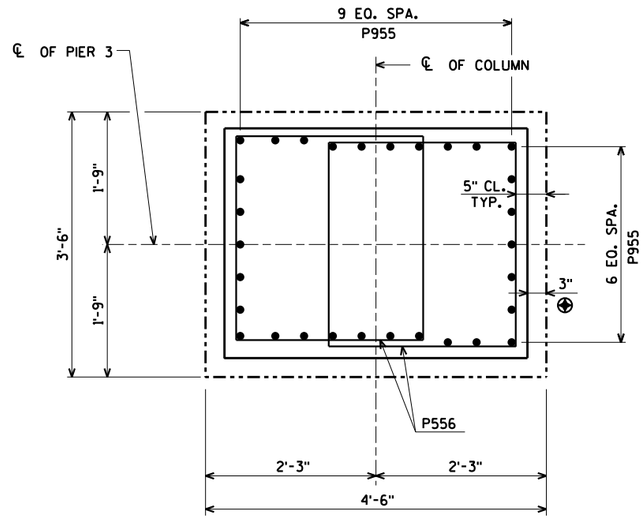
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5/27/2015

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U:±41-0627.00 - LaCrosse County, IH90±B-32-218 I90 EB over STH 35±BRIDGE±FINAL±B-32-218 pier 3.dgn



SECTION B



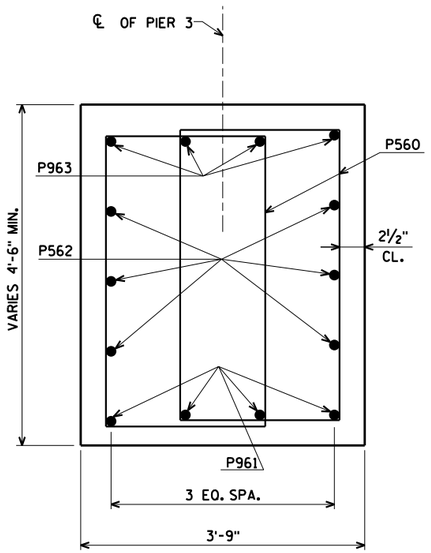
SECTION C

FOR LOCATIONS OF SECTIONS
B, C, D & E SEE SHEET 21

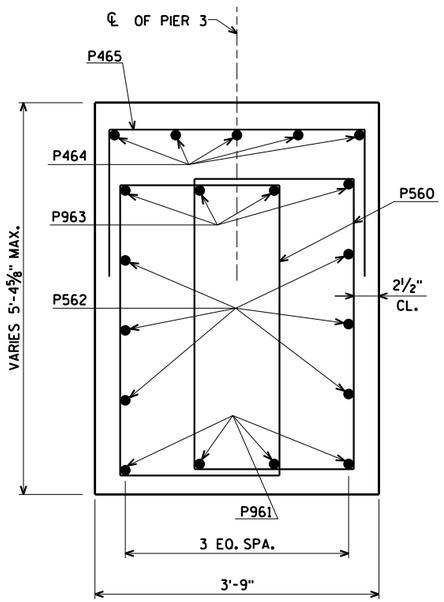
BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	28,760# COATED 4,420# UNCOATED LOCATION
P851		70	8-6			FOOTING BOT.
P852		70	8-6			FOOTING BOT.
P553		70	8-6			FOOTING TOP
P554		70	8-6			FOOTING TOP
P955	X	210	22-5	X		FOOTING & COLUMN VERT.
P556	X	434	10-10	X		FOOTING & COLUMN STIRRUPS HORIZ.
P457	X	84	10-1	X		COLUMN STIRRUPS HORIZ.
P458	X	140	5-6			COLUMN VERT.
P559	X	11	6-5	X		CAP HORIZ. ℄ ENDS
P560	X	208	12-10	X		CAP STIRRUPS VERT.
P961	X	8	51-3			CAP HORIZ. BOT.
P562	X	12	49-7			CAP HORIZ. SIDES
P963	X	8	51-8			CAP HORIZ. TOP
P464	X	10	31-2			CAP HORIZ. TOP
P465	X	60	7-2	X		CAP VERT. TOP

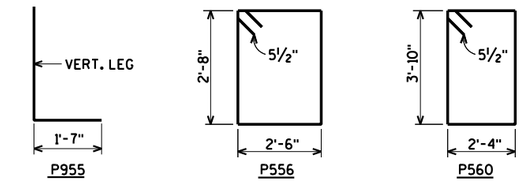
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

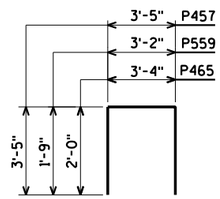


SECTION D



SECTION E





⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

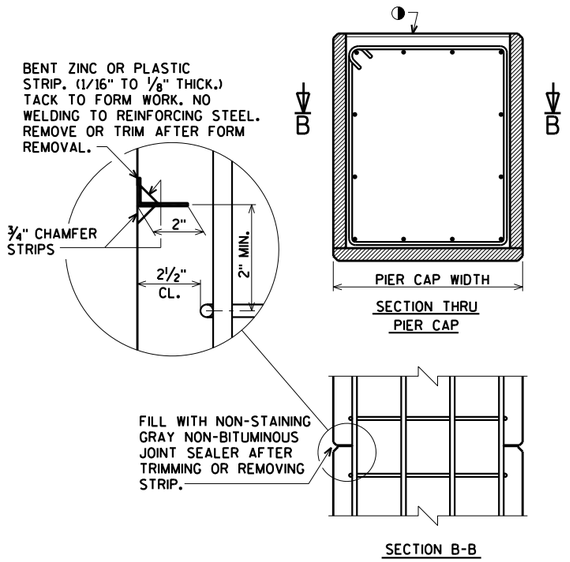
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PIER 3
DETAILS AND
BILL OF BARS

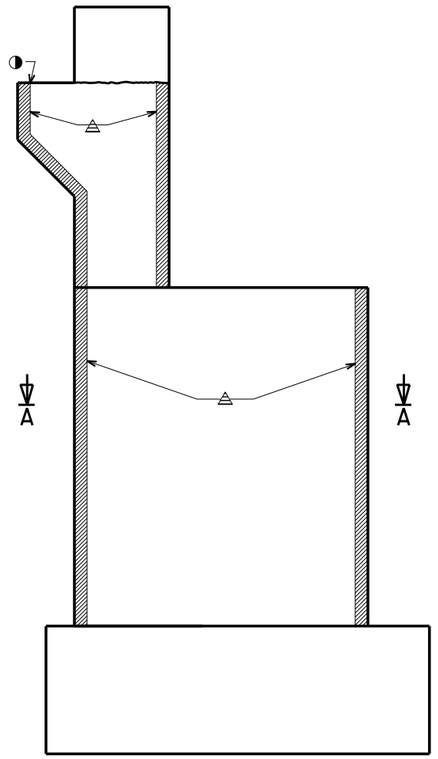
SHEET 23 OF 45
607

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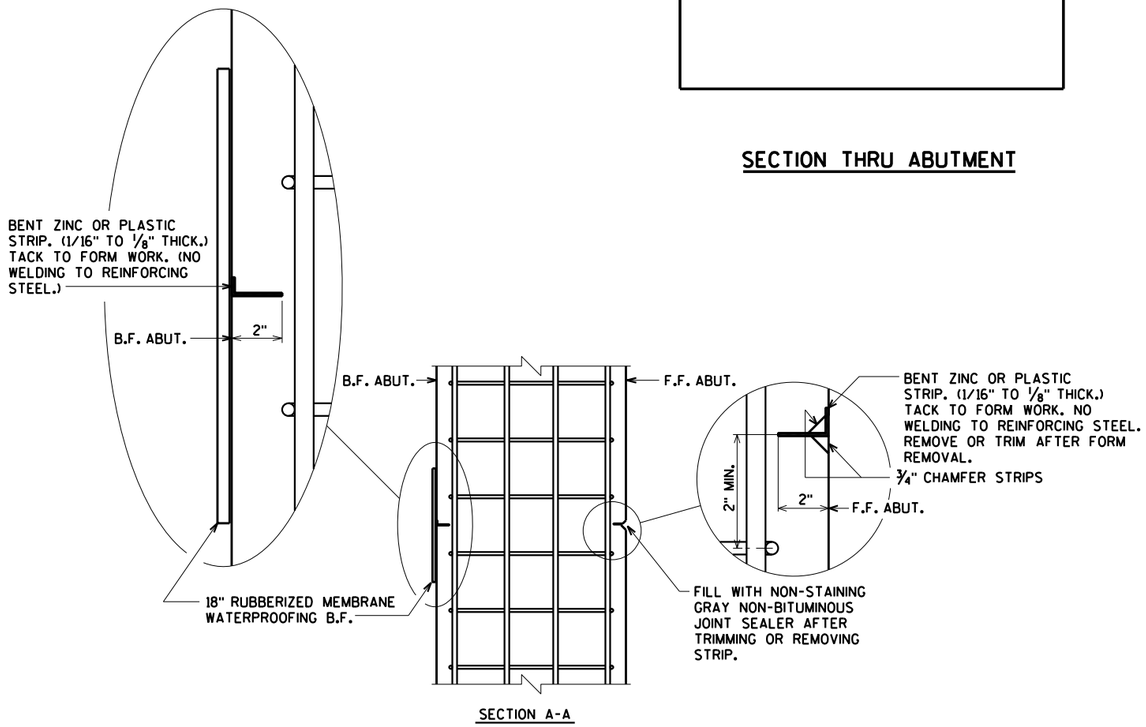
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ALTERNATE CONSTRUCTION JOINT AT PIER CAP



SECTION THRU ABUTMENT



ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

△ BENT ZINC OR PLASTIC STRIP.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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ALTERNATE CONSTRUCTION JOINT

SHEET 24 OF 45
608

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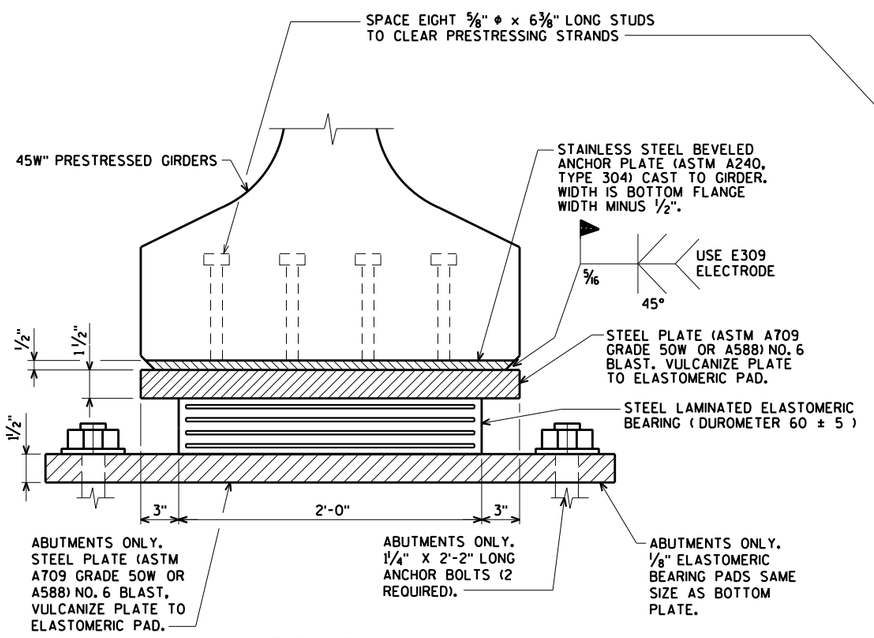
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5/26/2015

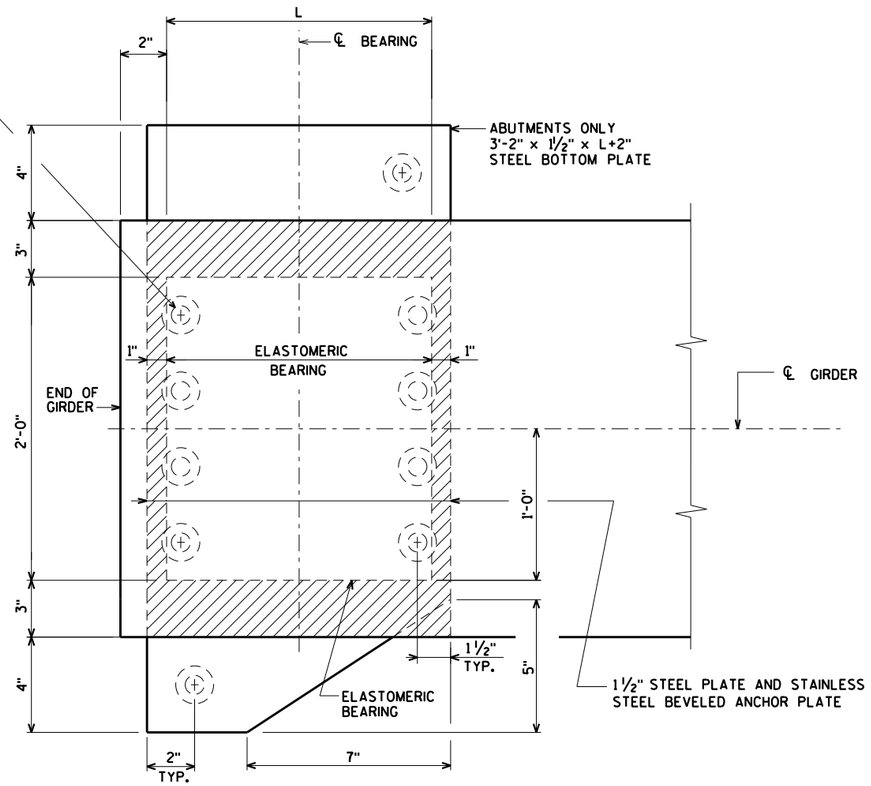
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STATE PROJECT NUMBER

1071-06-79



END VIEW



PLAN VIEW

ELASTOMERIC LAMINATED BEARING PAD TABLE

LOCATION	L	H	N
W. ABUT	1'-2"	4 3/8"	7
PIER 1 SPAN 1	1'-0"	2 1/2"	4
PIER 1 SPAN 2	1'-0"	2 1/2"	4
PIER 3 SPAN 3	1'-0"	2 1/2"	4
PIER 3 SPAN 4	10"	2 1/2"	4
E. ABUT.	1'-0"	3 3/4"	6

BEARING NOTES

BEARING PADS ELASTOMERIC LAMINATED SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85° F.

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

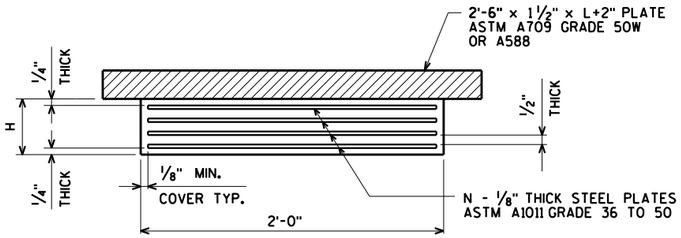
ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. PROJECT ANCHOR BOLTS 2 1/4" ABOVE TOP OF ANCHOR PLATE.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

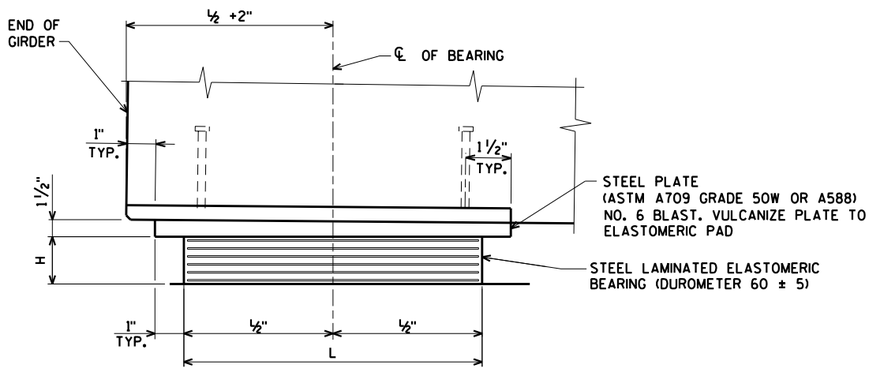
ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUILIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C. ALL PLATES SHALL BE SHOP PAINTED AFTER BEARING FABRICATION.

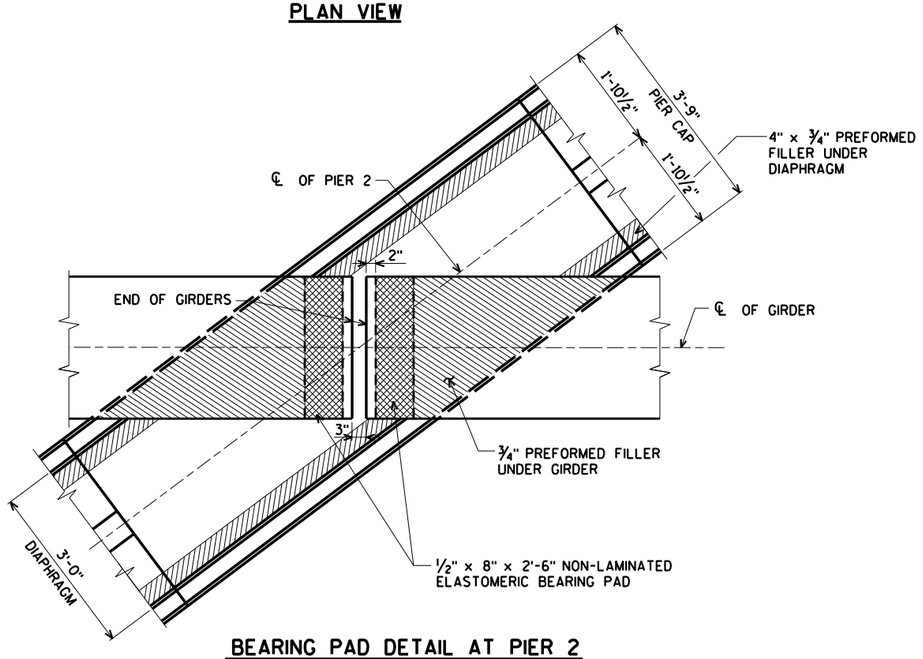
‡ DRILLED HOLES FOR ANCHOR BOLTS IN BOTTOM PLATE SHALL HAVE A DIAMETER 3/8" LARGER THAN ANCHOR BOLT.



SECTION THRU ELASTOMERIC BEARING



SIDE VIEW



BEARING PAD DETAIL AT PIER 2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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BEARING DETAILS

SHEET 25 OF 45
609

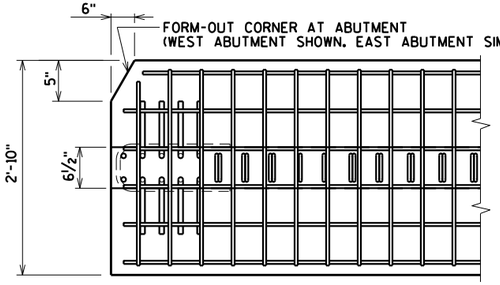
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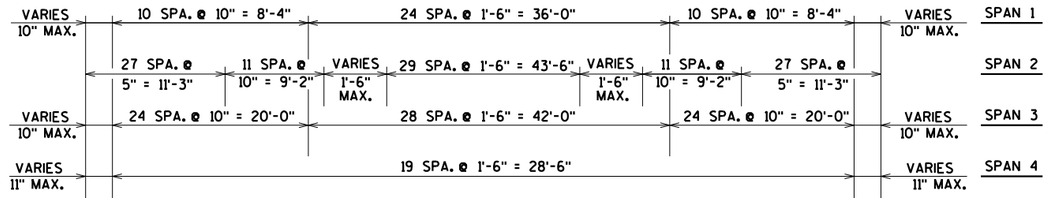
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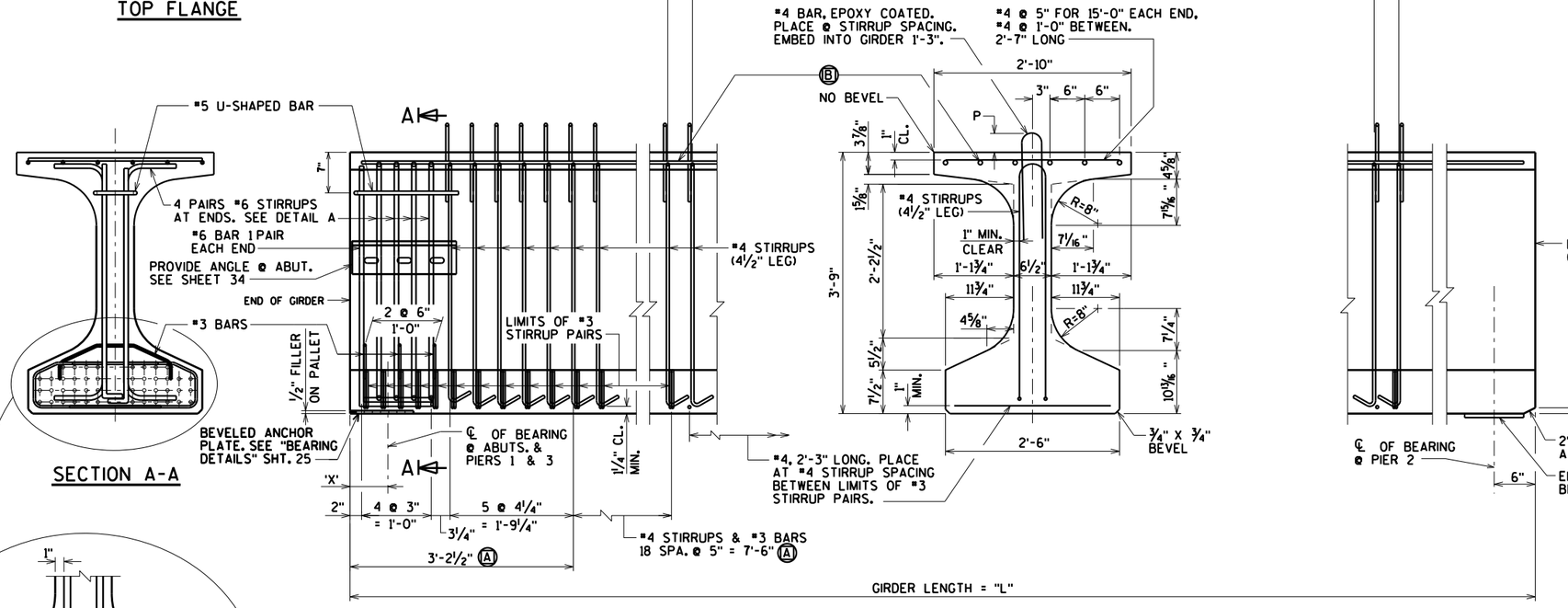
5/26/2015

PENTABLE:BReau_shd_util.tbl



TOP FLANGE





SECTION A-A

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY FOR BONDING TO THE SLAB, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

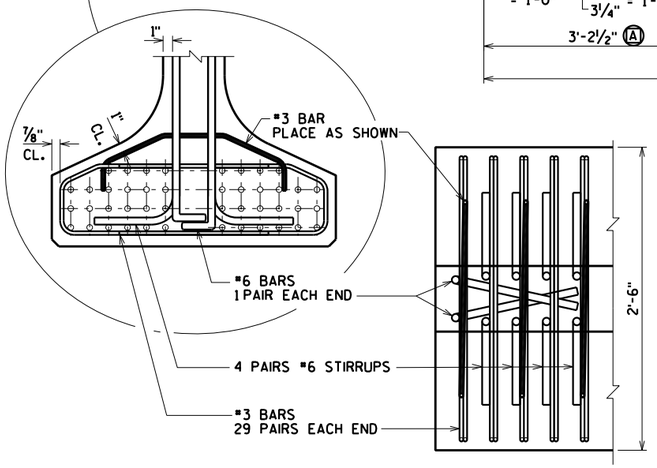
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR *4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT CHIEF, (608)266-5161.

PRESTRESSING STRANDS SHALL BE 0.6"ϕ -7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.



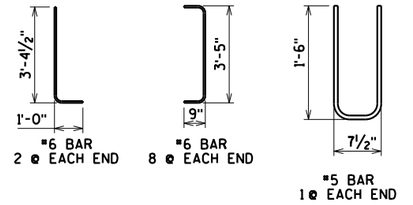
DETAIL A
BOTTOM FLANGE

DIMENSION 'X' TABLE	
LOCATION	'X' DIMENSION
W. ABUT.	9"
PIER 1, SPAN 1	8"
PIER 1, SPAN 2	8"
PIER 3, SPAN 3	8"
PIER 3, SPAN 4	7"
E. ABUT.	8"

SIDE VIEW & TYP. SECTION IN SPAN

(A) DETAIL TYP. AT EACH END

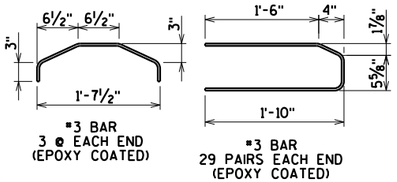
(B) 6 *4 BARS, FULL LENGTH, MIN. LAP = 2'-4"



* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST ⅓ OF GIRDER	"P" MID ⅓ OF GIRDER	"P" END ⅓ OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	DRAPED PATTERN f'ci (P.S.I.) *	DRAPED PATTERN (IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	UNDRAPED PATTERN f'ci (P.S.I.) *
1	1	75'-7¼"	0.1	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.1	8,000	8	7	8	0.6	18	6,400	40	13	16	4	-----	---
1	2, 8	75'-0⅜"	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	8,000	8	7	8	0.6	18	6,400	40	13	16	4	-----	---
1	3-7	75'-0⅜"	0.2	0.3	0.5	0.5	0.6	0.5	0.5	0.3	0.2	8,000	8	7	8	0.6	18	6,400	40	13	16	4	-----	---
2	1	108'-4⅞"	0.6	1.1	1.6	1.9	2.0	1.9	1.6	1.1	0.6	8,000	8	7	8	0.6	36	6,400	39	13.5	16.5	5	-----	---
2	2, 8	107'-6⅜"	0.6	1.2	1.7	1.9	2.0	1.9	1.7	1.2	0.6	8,000	8	7	8	0.6	36	6,400	39	13.5	16.5	5	-----	---
2	3-7	107'-6⅜"	0.7	1.3	1.8	2.1	2.2	2.1	1.8	1.3	0.7	8,000	8	7	8	0.6	36	6,400	39	13.5	16.5	5	-----	---
3	1	103'-8¼"	0.5	0.9	1.3	1.5	1.6	1.5	1.3	0.9	0.5	8,000	8	7	8	0.6	30	6,400	40	13	16	4	-----	---
3	2, 8	102'-9⅞"	0.5	1.0	1.3	1.6	1.7	1.6	1.3	1.0	0.5	8,000	8	7	8	0.6	30	6,400	40	13	16	4	-----	---
3	3-7	102'-9⅞"	0.5	1.0	1.4	1.7	1.7	1.7	1.4	1.0	0.5	8,000	8	7	8	0.6	30	6,400	40	13	16	4	-----	---
4	1	51'-5½"	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	8,000	8	7	8	0.6	18	6,400	32	11	14	4	-----	---
4	2-8	51'-0¼"	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	8,000	8	7	8	0.6	18	6,400	32	11	14	4	-----	---



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

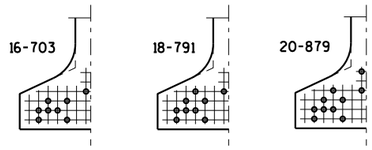
DRAWN BY JCK | PLANS CK'D. AEB

45W" PRESTRESSED GIRDER DETAILS

SHEET 26 OF 45
610

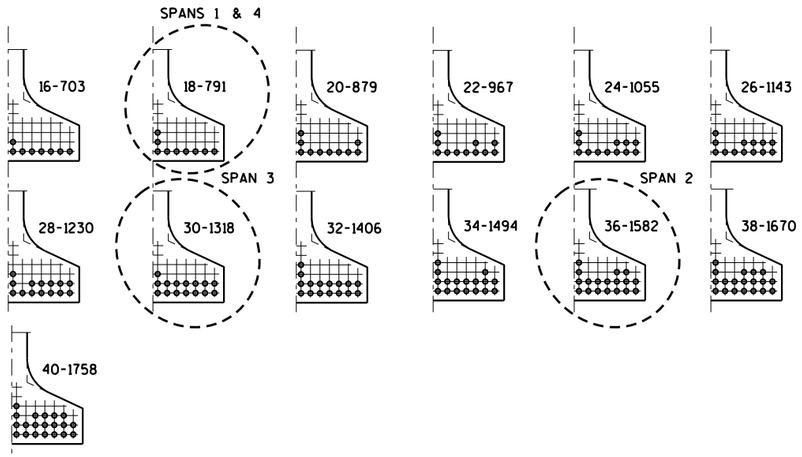
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

$PRFNAME$
U:±41-0627.00 - LaCrosse County, IH90±B-32-218 190 EB over STH 35±BRIDGE±FINAL±B-32-218 45wGDR.DGN



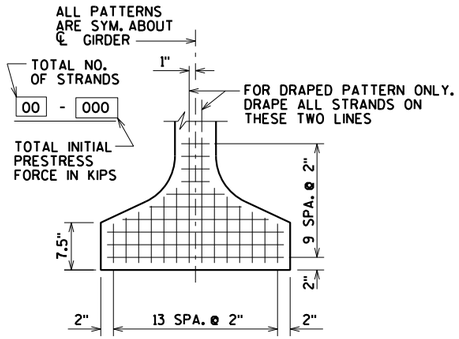
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"ϕ STRANDS

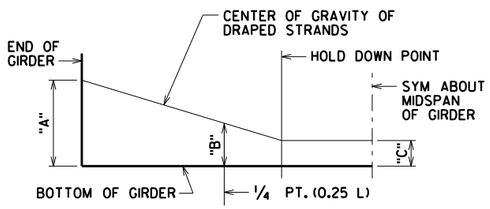


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"ϕ STRANDS



TYP. STRAND PATTERN



DRAPED STRAND PROFILE

THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN

SPAN	CAMBER (IN.)
1	1.2
2	4.5
3	3.5
4	0.7

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T'. USE ACTUAL GIRDER SHOTS. THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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45W" PRESTRESSED GIRDER DETAILS

SHEET 27 OF 45
611

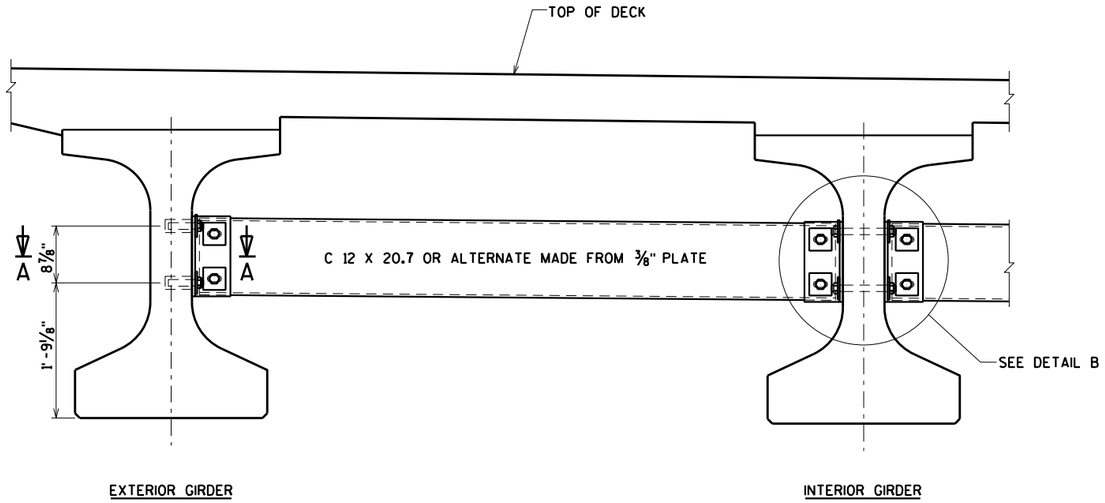
ORIGINAL PLANS PREPARED BY
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$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-218 190 EB over STH 35\BRIDGE\FINAL\B-32-218 45wGDR.DGN

$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90&B-32-218 190 EB over STH 35&BRIDGE&FINAL&B-32-218 45wDIA.DGN

STATE PROJECT NUMBER

1071-06-79



PART TRANSVERSE SECTION AT DIAPHRAGM

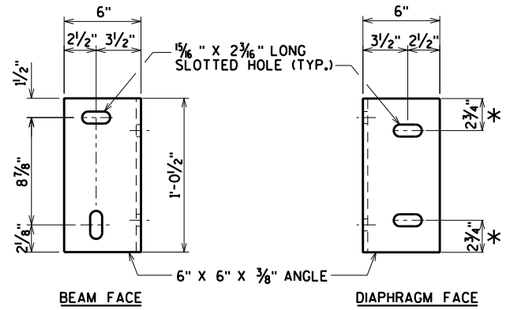
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-32-218", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

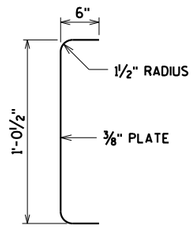
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

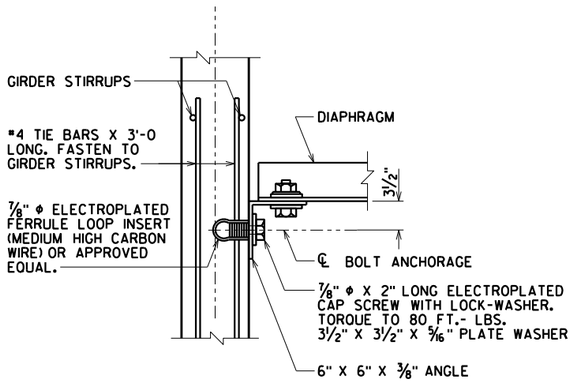


DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM

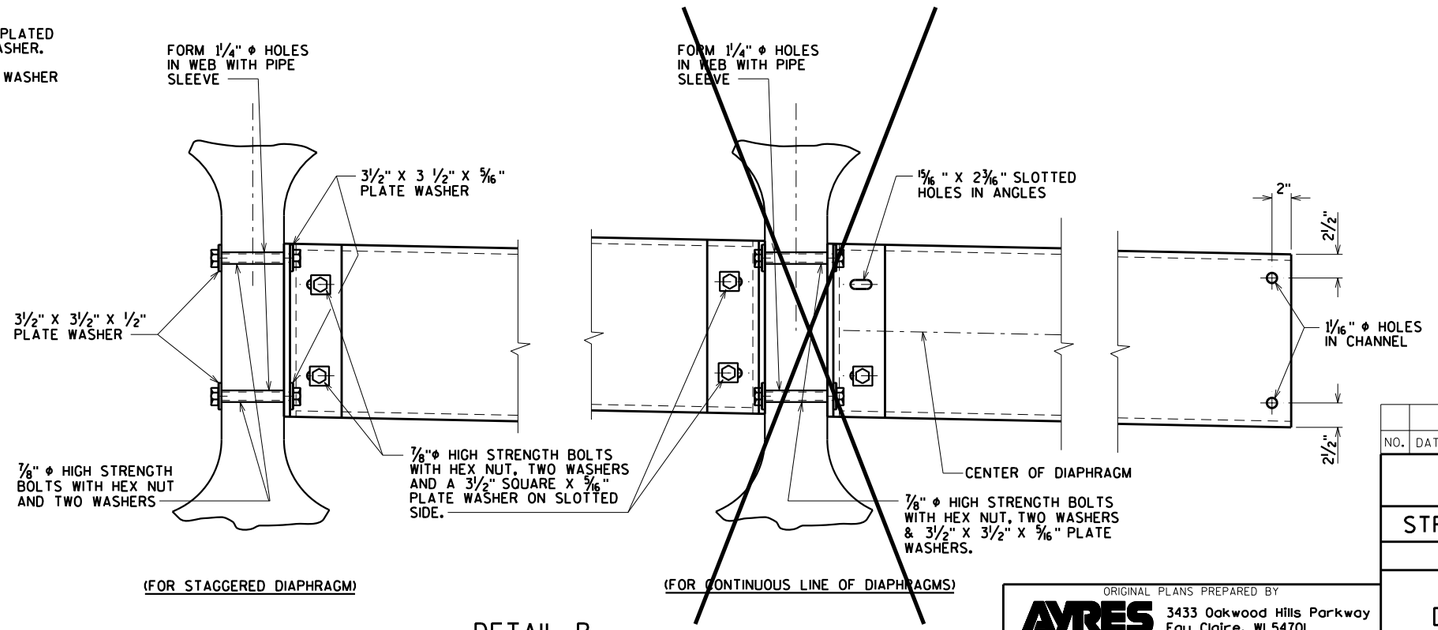


SECTION THRU ALTERNATE DIAPHRAGM



SECTION A-A

(FOR EXTERIOR ATTACHMENT)



DETAIL B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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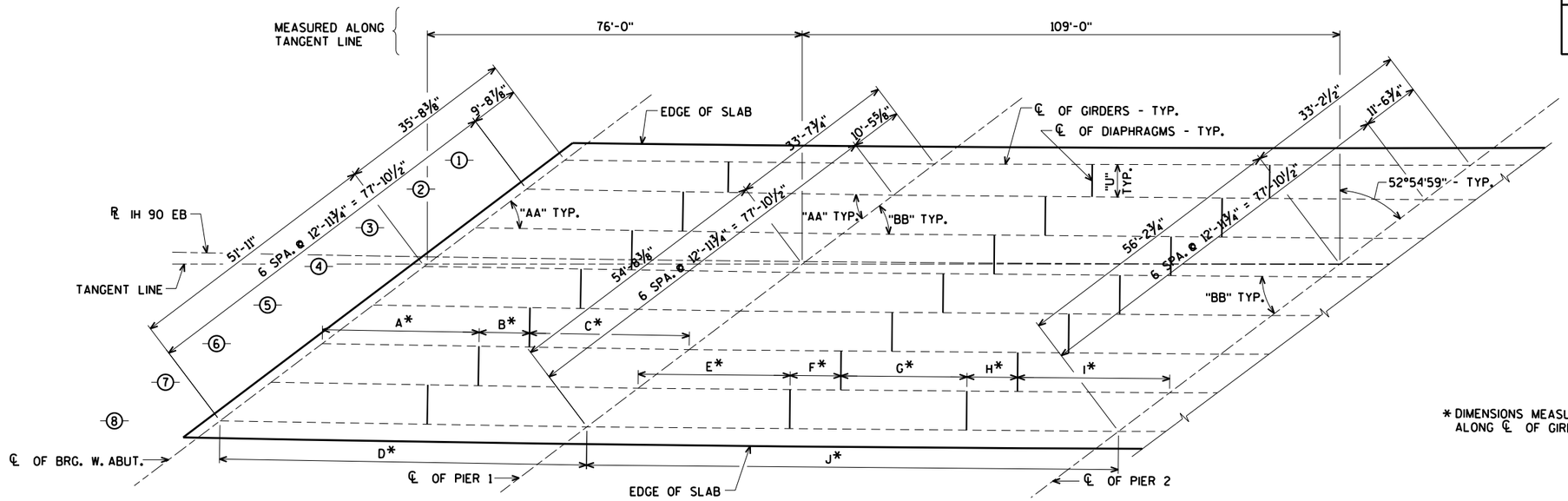
STEEL DIAPHRAGM DETAILS

SHEET 28 OF 45
612

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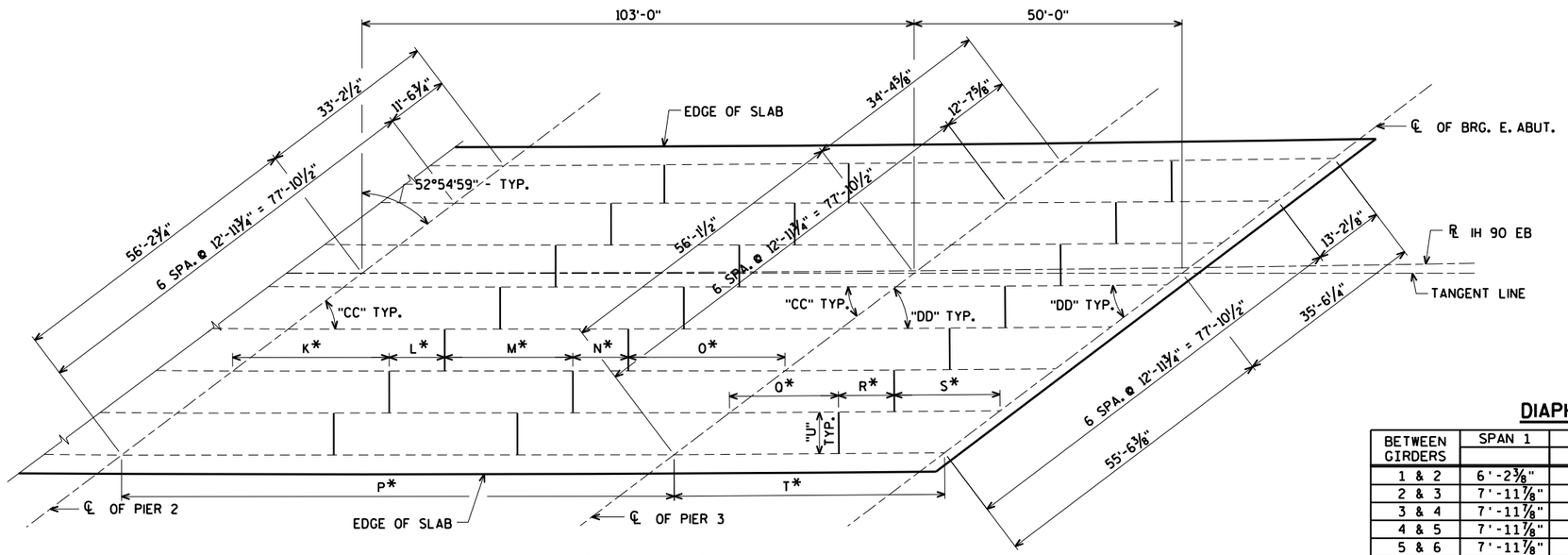
8

8



PARTIAL PLAN

* DIMENSIONS MEASURED ALONG ℄ OF GIRDER



PARTIAL PLAN

GIRDER ANGLES

GIRDER	"AA"	"BB"	"CC"	"DD"
1	37°40'26"	37°13'22"	36°41'45"	36°18'22"
2-8	38°01'01"	37°34'28"	37°03'08"	36°40'13"

DIAPHRAGM LENGTH "U"

BETWEEN GIRDERS	SPAN 1	SPAN 2		SPAN 3		SPAN 4
		WEST	EAST	WEST	EAST	
1 & 2	6'-2⅜"	6'-7"	6'-9⅝"	7'-1⅞"	7'-4⅜"	7'-8⅛"
2 & 3	7'-11⅞"	7'-11"	7'-11"	7'-9⅞"	7'-9⅞"	7'-9"
3 & 4	7'-11⅞"	7'-11"	7'-11"	7'-9⅞"	7'-9⅞"	7'-9"
4 & 5	7'-11⅞"	7'-11"	7'-11"	7'-9⅞"	7'-9⅞"	7'-9"
5 & 6	7'-11⅞"	7'-11"	7'-11"	7'-9⅞"	7'-9⅞"	7'-9"
6 & 7	7'-11⅞"	7'-11"	7'-11"	7'-9⅞"	7'-9⅞"	7'-9"
7 & 8	7'-11⅞"	7'-11"	7'-11"	7'-9⅞"	7'-9⅞"	7'-9"

GIRDER AND DIAPHRAGM DIMENSIONS

GIRDER	SPAN 1				SPAN 2						SPAN 3						SPAN 4			
	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"	DIM. "H"	DIM. "I"	DIM. "J"	DIM. "K"	DIM. "L"	DIM. "M"	DIM. "N"	DIM. "O"	DIM. "P"	DIM. "Q"	DIM. "R"	DIM. "S"	DIM. "T"
1	33'-0⅞"	-----	41'-10⅞"	74'-11¾"	31'-11⅝"	-----	35'-11⅞"	-----	40'-8⅜"	108'-7⅞"	29'-11⅛"	-----	34'-5"	-----	39'-7"	103'-11¼"	20'-8⅛"	-----	30'-2⅞"	50'-11"
2	31'-7⅞"	9'-1⅛"	33'-7⅞"	74'-4⅞"	30'-9⅞"	9'-5¼"	26'-4⅞"	9'-7"	31'-6⅜"	107'-9⅜"	29'-2⅝"	9'-11¼"	24'-4⅛"	10'-1"	29'-6"	103'-0⅞"	20'-5⅛"	10'-4⅝"	19'-8"	50'-5¾"
3	31'-7⅞"	10'-2¾"	32'-6⅜"	74'-4⅞"	30'-9⅞"	10'-3½"	25'-6¾"	10'-3½"	30'-9⅞"	107'-9⅜"	29'-2⅝"	10'-4¼"	23'-11"	10'-4¼"	29'-2⅝"	103'-0⅞"	20'-5⅛"	10'-4⅞"	19'-7⅝"	50'-5¾"
4	31'-7⅞"	10'-2¾"	32'-6⅜"	74'-4⅞"	30'-9⅞"	10'-3½"	25'-6¾"	10'-3½"	30'-9⅞"	107'-9⅜"	29'-2⅝"	10'-4¼"	23'-11"	10'-4¼"	29'-2⅝"	103'-0⅞"	20'-5⅛"	10'-4⅞"	19'-7⅝"	50'-5¾"
5	31'-7⅞"	10'-2¾"	32'-6⅜"	74'-4⅞"	30'-9⅞"	10'-3½"	25'-6¾"	10'-3½"	30'-9⅞"	107'-9⅜"	29'-2⅝"	10'-4¼"	23'-11"	10'-4¼"	29'-2⅝"	103'-0⅞"	20'-5⅛"	10'-4⅞"	19'-7⅝"	50'-5¾"
6	31'-7⅞"	10'-2¾"	32'-6⅜"	74'-4⅞"	30'-9⅞"	10'-3½"	25'-6¾"	10'-3½"	30'-9⅞"	107'-9⅜"	29'-2⅝"	10'-4¼"	23'-11"	10'-4¼"	29'-2⅝"	103'-0⅞"	20'-5⅛"	10'-4⅞"	19'-7⅝"	50'-5¾"
7	31'-7⅞"	10'-2¾"	32'-6⅜"	74'-4⅞"	30'-9⅞"	10'-3½"	25'-6¾"	10'-3½"	30'-9⅞"	107'-9⅜"	29'-2⅝"	10'-4¼"	23'-11"	10'-4¼"	29'-2⅝"	103'-0⅞"	20'-5⅛"	10'-4⅞"	19'-7⅝"	50'-5¾"
8	41'-10½"	-----	32'-6⅜"	74'-4⅞"	41'-1⅜"	-----	35'-10⅛"	-----	30'-9⅞"	107'-9⅜"	39'-7"	-----	34'-3¼"	-----	29'-2⅝"	103'-0⅞"	30'-10⅛"	-----	19'-7⅝"	50'-5¾"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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SUPERSTRUCTURE GIRDER LAYOUT

SHEET 29 OF 45
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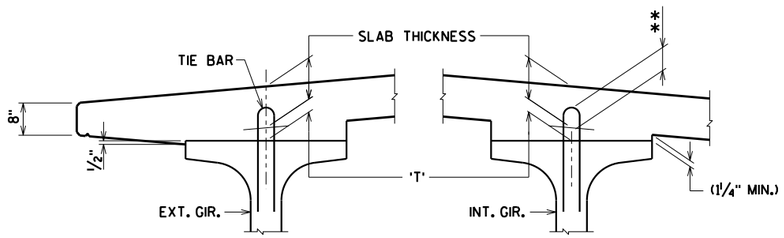
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U:±41-0627.00 - LaCrosse County, IH90±B-32-218 190 EB over STH 35±BRIDGE±FINAL±B-32-218 gdr layout.dgn

TOP OF DECK ELEVATIONS

LOCATION	℄ BEARING W. ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ PIER 1	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ PIER 2
WEST EDGE OF DECK	666.94	667.00	667.06	667.13	667.19	667.25	667.30	667.36	667.42	667.47	667.53	667.61	667.68	667.75	667.83	667.89	667.96	668.03	668.09	668.15	668.21
GUTTER LINE	666.92	666.98	667.05	667.11	667.17	667.23	667.29	667.35	667.40	667.46	667.51	667.59	667.67	667.74	667.81	667.88	667.95	668.01	668.08	668.14	668.20
GIRDER 1	666.94	667.00	667.07	667.13	667.19	667.25	667.31	667.37	667.42	667.48	667.54	667.61	667.69	667.76	667.83	667.90	667.97	668.01	668.10	668.16	668.22
GIRDER 2	666.99	667.06	667.12	667.18	667.25	667.31	667.37	667.43	667.49	667.54	667.60	667.68	667.76	667.83	667.91	667.98	668.05	668.12	668.18	668.25	668.31
GIRDER 3	667.06	667.13	667.19	667.26	667.32	667.38	667.44	667.51	667.57	667.62	667.68	667.76	667.84	667.92	668.00	668.07	668.14	668.21	668.28	668.35	668.41
℄ I-90 EB	667.11	667.18	667.25	667.31	667.38	667.44	667.50	667.56	667.62	667.68	667.74	667.82	667.90	667.98	668.06	668.13	668.21	668.28	668.34	668.41	668.47
GIRDER 4	667.13	667.20	667.26	667.33	667.39	667.46	667.52	667.58	667.64	667.70	667.76	667.84	667.93	668.00	668.08	668.16	668.23	668.30	668.37	668.44	668.51
GIRDER 5	667.19	667.26	667.33	667.39	667.46	667.53	667.59	667.66	667.72	667.78	667.84	667.92	668.01	668.09	668.17	668.24	668.32	668.39	668.46	668.53	668.60
GIRDER 6	667.26	667.33	667.40	667.47	667.53	667.60	667.66	667.73	667.79	667.85	667.92	668.00	668.09	668.17	668.25	668.33	668.40	668.48	668.55	668.62	668.69
GIRDER 7	667.32	667.40	667.47	667.53	667.60	667.66	667.73	667.80	667.86	667.93	667.99	668.08	668.16	668.25	668.33	668.41	668.49	668.57	668.64	668.71	668.79
GIRDER 8	667.38	667.46	667.53	667.60	667.67	667.73	667.80	667.87	667.93	668.00	668.06	668.15	668.24	668.33	668.41	668.49	668.57	668.65	668.73	668.80	668.88
GUTTER LINE	667.40	667.47	667.54	667.61	667.68	667.75	667.82	667.89	667.95	668.02	668.08	668.17	668.26	668.35	668.43	668.52	668.60	668.67	668.75	668.83	668.90
EAST EDGE OF DECK	667.38	667.45	667.52	667.60	667.67	667.73	667.80	667.87	667.94	668.00	668.06	668.16	668.25	668.33	668.42	668.50	668.58	668.66	668.74	668.81	668.89

LOCATION	℄ PIER 2	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ PIER 3	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ BEARING E. ABUT.
WEST EDGE OF DECK	668.21	668.26	668.31	668.36	668.41	668.46	668.50	668.55	668.59	668.63	668.66	668.68	668.70	668.71	668.73	668.74	668.76	668.77	668.79	668.80	668.81
GUTTER LINE	668.20	668.25	668.30	668.35	668.40	668.45	668.49	668.54	668.58	668.62	668.65	668.67	668.69	668.71	668.72	668.74	668.75	668.77	668.78	668.80	668.81
GIRDER 1	668.22	668.28	668.33	668.38	668.43	668.48	668.52	668.56	668.61	668.65	668.69	668.70	668.72	668.74	668.75	668.77	668.78	668.80	668.81	668.83	668.84
GIRDER 2	668.31	668.37	668.42	668.48	668.53	668.58	668.62	668.67	668.71	668.76	668.80	668.82	668.84	668.85	668.87	668.89	668.91	668.92	668.94	668.95	668.97
GIRDER 3	668.41	668.47	668.52	668.58	668.63	668.68	668.73	668.78	668.83	668.87	668.91	668.93	668.95	668.97	668.99	669.01	669.03	669.04	669.06	669.08	669.09
℄ I-90 EB	668.47	668.53	668.59	668.65	668.70	668.75	668.80	668.85	668.90	668.94	668.98	669.00	669.02	669.04	669.06	669.08	669.10	669.11	669.13	669.15	669.16
GIRDER 4	668.51	668.57	668.62	668.68	668.73	668.79	668.84	668.89	668.94	668.98	669.03	669.05	669.07	669.09	669.11	669.13	669.14	669.16	669.18	669.20	669.21
GIRDER 5	668.60	668.66	668.72	668.78	668.84	668.89	668.94	668.99	669.04	669.09	669.14	669.16	669.18	669.20	669.22	669.24	669.26	669.28	669.30	669.32	669.33
GIRDER 6	668.69	668.76	668.82	668.88	668.94	668.99	669.05	669.10	669.15	669.20	669.25	669.27	669.29	669.31	669.33	669.35	669.37	669.39	669.41	669.43	669.45
GIRDER 7	668.79	668.85	668.91	668.97	669.03	669.09	669.15	669.20	669.26	669.31	669.36	669.38	669.40	669.42	669.45	669.47	669.49	669.51	669.53	669.55	669.57
GIRDER 8	668.88	668.94	669.01	669.07	669.13	669.19	669.25	669.30	669.36	669.41	669.46	669.49	669.51	669.53	669.56	669.58	669.60	669.62	669.64	669.66	669.68
GUTTER LINE	668.90	668.97	669.03	669.10	669.16	669.22	669.28	669.33	669.39	669.44	669.49	669.51	669.54	669.56	669.58	669.61	669.63	669.65	669.67	669.69	668.71
EAST EDGE OF DECK	668.89	668.95	669.02	669.08	669.15	669.21	669.26	669.32	669.38	669.43	669.48	669.50	669.53	669.55	669.57	669.60	669.62	669.64	669.66	669.68	669.70



SLAB HAUNCH DETAIL

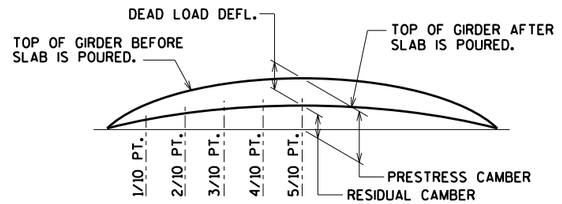
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
\- TOP OF GIRDER ELEVATION
\+ DEAD LOAD DEFLECTION
\- SLAB THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

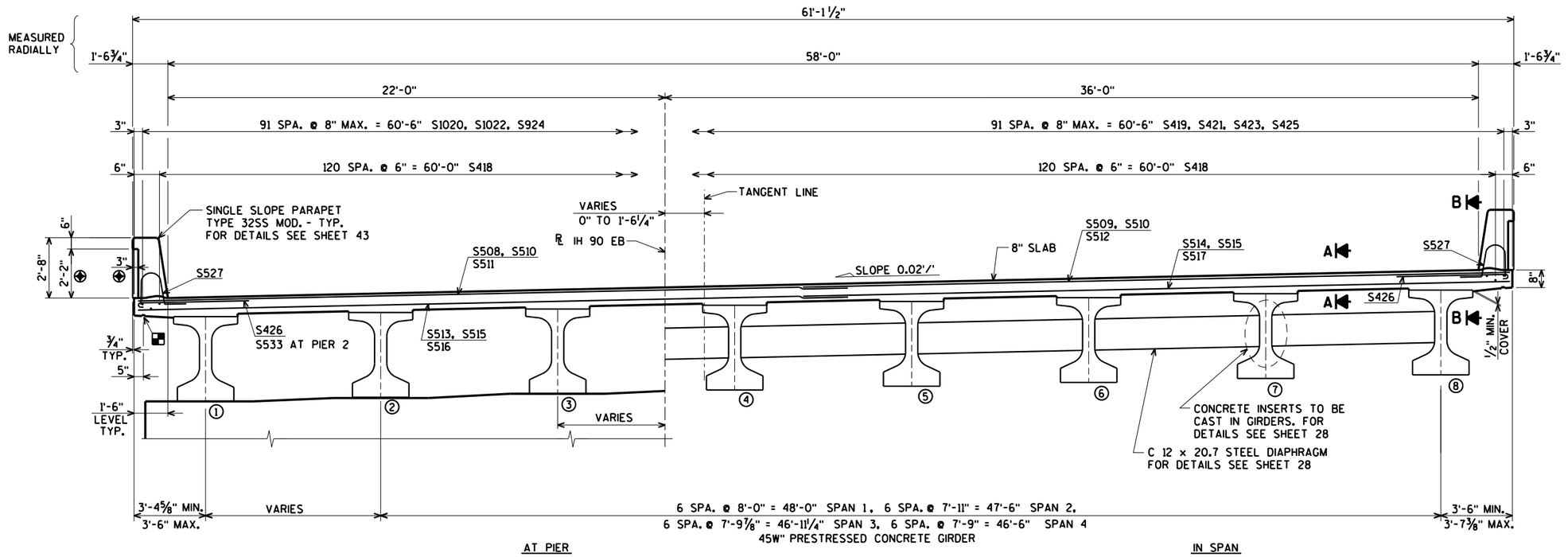
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TOP OF DECK ELEVATIONS

SHEET 30 OF 45
614

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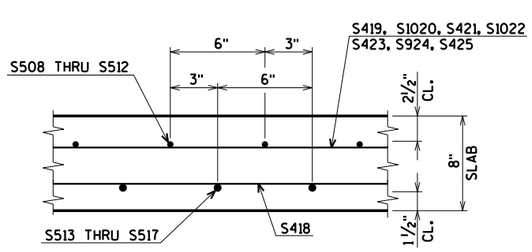
$PRFNAME$
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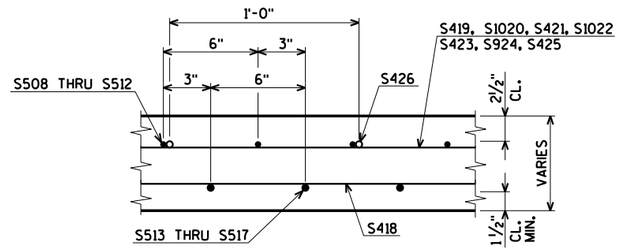
TYPICAL CROSS SECTION THRU DECK
(LOOKING EAST)

3/4" V-GROOVE TERMINATE 2'-0" FROM ABUTMENTS - TYP.

ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45



SECTION A



SECTION B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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SUPERSTRUCTURE

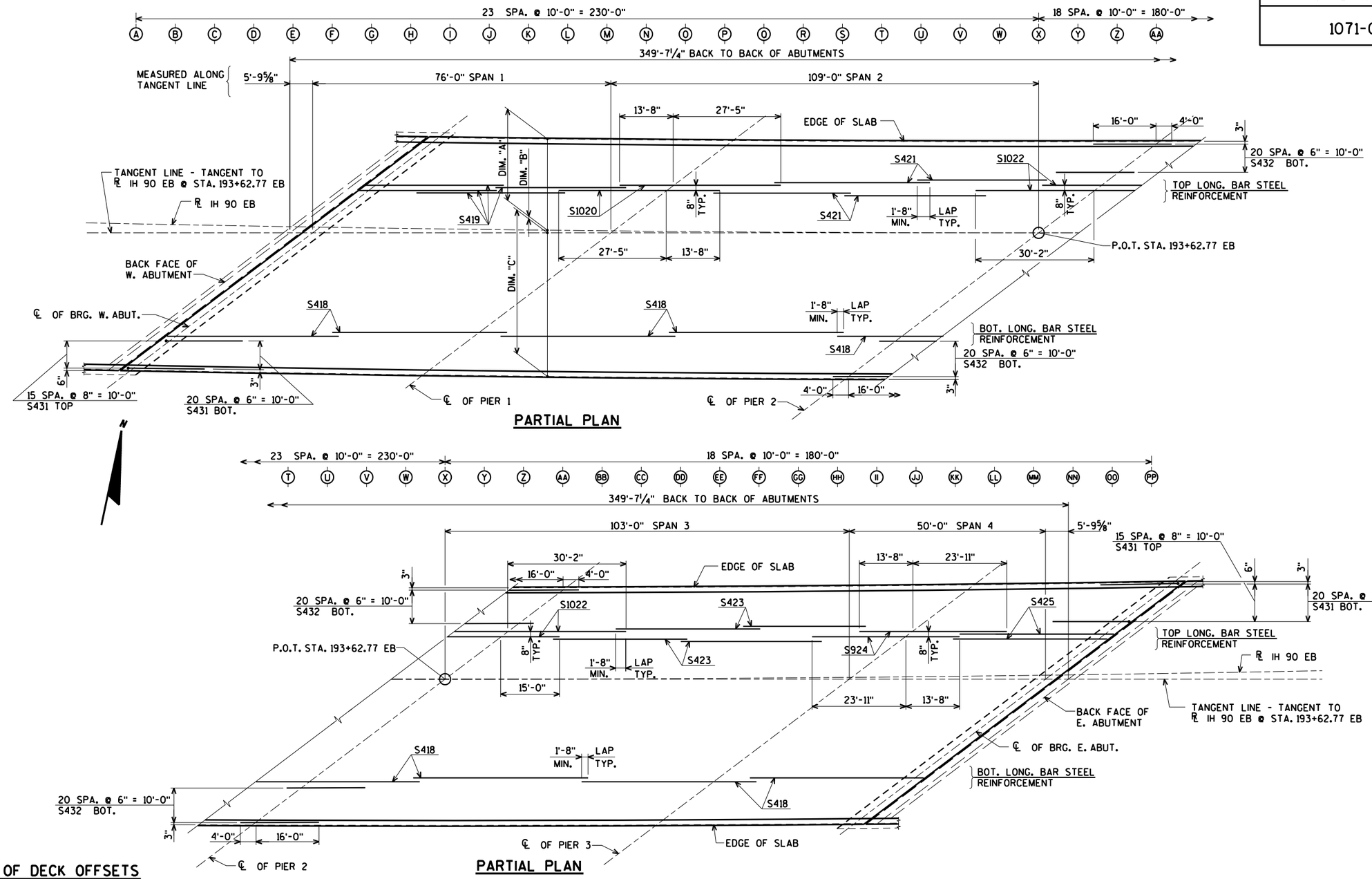
SHEET 31 OF 45
615

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STATE PROJECT NUMBER

1071-06-79



EDGE OF DECK OFFSETS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
DIM. "A"	------	------	------	------	------	------	------	------	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"
DIM. "B"	2'-3½"	2'-1⅛"	1'-10⅞"	1'-8¾"	1'-6¾"	1'-4⅞"	1'-3"	1'-1¼"	11⅝"	10⅛"	8¾"	7½"	6¼"	5¼"	4¼"	3⅜"	2½"	1⅞"	1¼"
DIM. "C"	35'-2⅝"	35'-5"	35'-7⅛"	35'-9¼"	35'-11⅜"	36'-1¼"	36'-3"	36'-4¾"	36'-6⅜"	36'-7⅞"	36'-9¼"	36'-10½"	36'-11¾"	37'-0⅞"	37'-1¾"	37'-2¾"	37'-3½"	37'-4⅛"	37'-4¾"

	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL
DIM. "A"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"	23'-6"
DIM. "B"	⅞"	½"	¼"	0"	0"	0"	¼"	½"	⅞"	1¼"	1⅞"	2½"	3⅜"	4¼"	5¼"	6¼"	7½"	8¾"	10⅛"
DIM. "C"	37'-5⅛"	37'-5½"	37'-5¾"	37'-6"	37'-6"	37'-6"	37'-5¾"	37'-5½"	37'-5⅛"	37'-4¾"	37'-4⅛"	37'-3½"	37'-2¾"	37'-2¾"	37'-0⅞"	------	------	------	------

	MM	NN	OO	PP
DIM. "A"	23'-6"	23'-6"	23'-6"	23'-6"
DIM. "B"	11⅝"	1'-1¼"	1'-3"	1'-4⅞"
DIM. "C"	------	------	------	------

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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LONGITUDINAL SLAB STEEL LAYOUT

SHEET 32 OF 45
616

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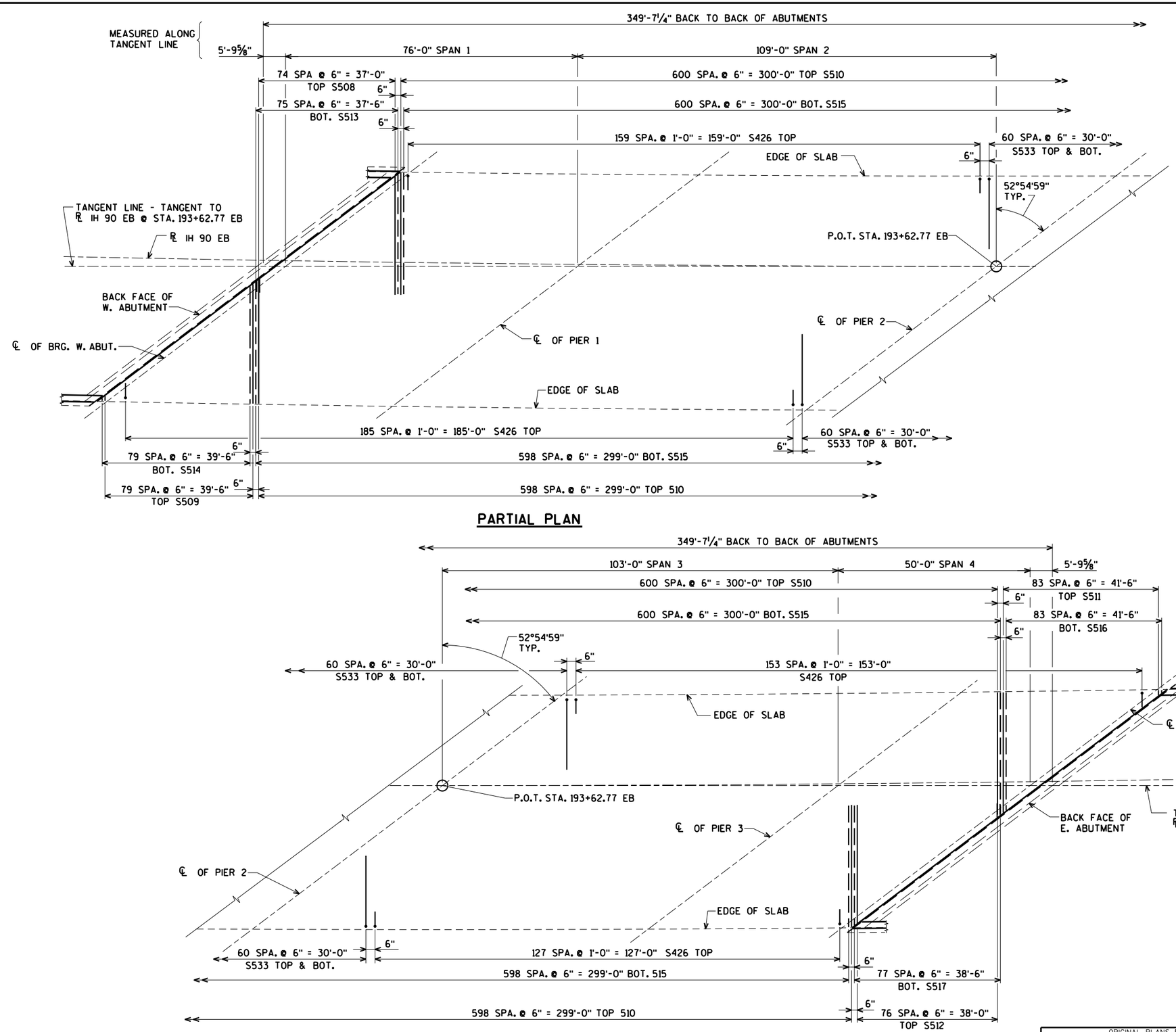
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5/26/2015

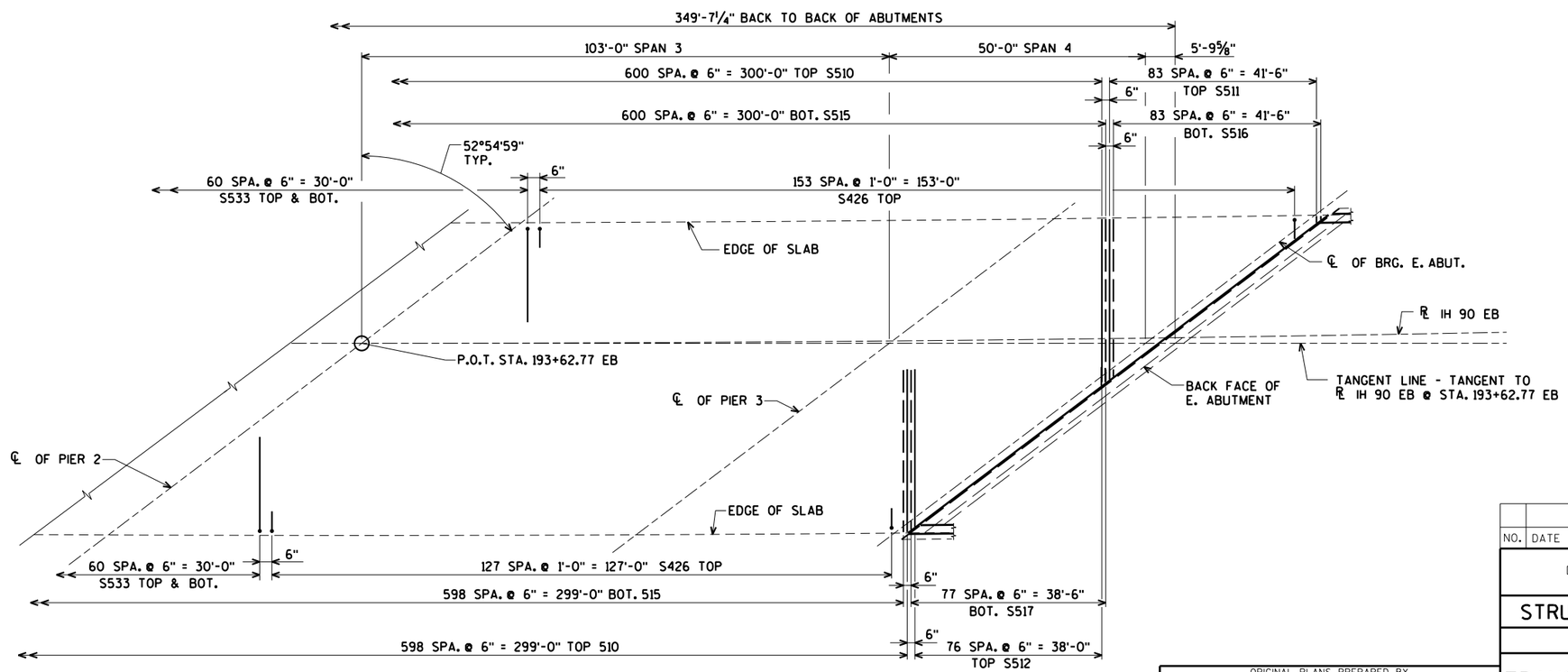
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STATE PROJECT NUMBER

1071-06-79



PARTIAL PLAN



PARTIAL PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

DRAWN BY JCK | PLANS CK'D. AEB

TRANSVERSE SLAB STEEL LAYOUT

SHEET 33 OF 45
617

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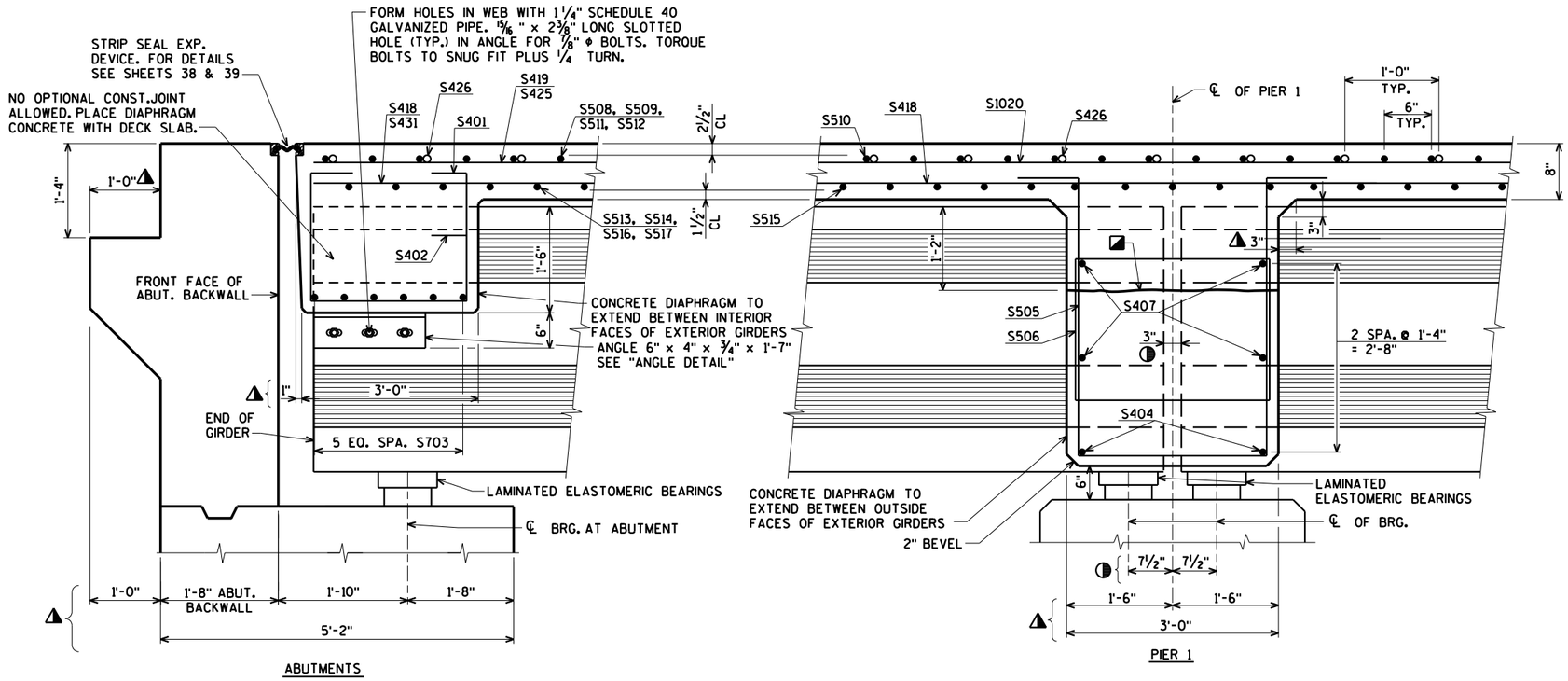
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U:±41-0627.00 - LaCrosse County, IH90±B-32-218 190 EB over STH 35±BRIDGE±FINAL±B-32-218 sup.dgn

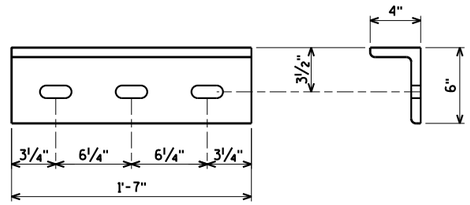
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STATE PROJECT NUMBER

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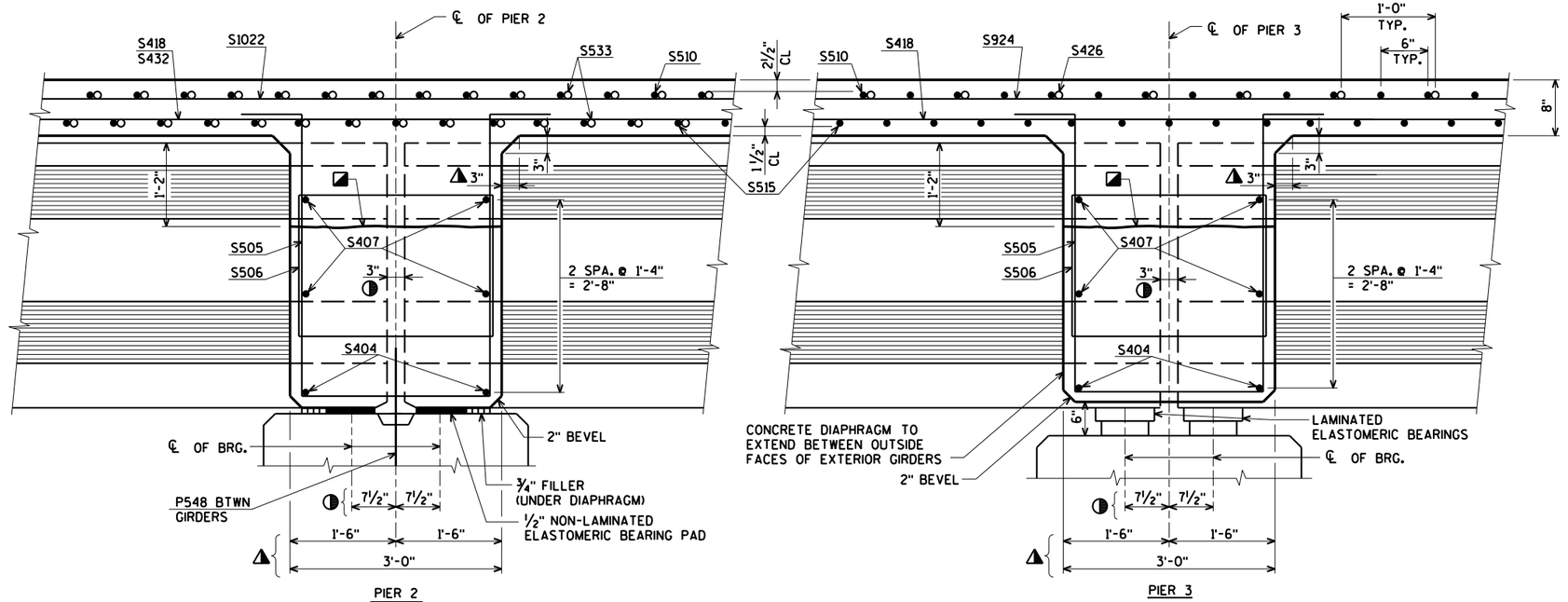


ANGLE DETAIL

DIAPHRAGM SUPPORT ANGLES SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL SUPPORT ANGELS SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM 153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563. LUBRICANT AND TEST FOR COATED NUTS.

ALL DIAPHRAM SUPPORT HARDWARE SHALL BE INCIDENTAL TO "CONCRETE MASONRY BRIDGES".



PART LONGITUDINAL SECTION

▲ DIMENSIONS MEASURED NORMAL TO ℄ OF SUBSTRUCTURE UNIT.

◑ DIMENSIONS MEASURED ALONG ℄ OF GIRDER.

◪ OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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SUPERSTRUCTURE DETAILS

SHEET 34 OF 45
618

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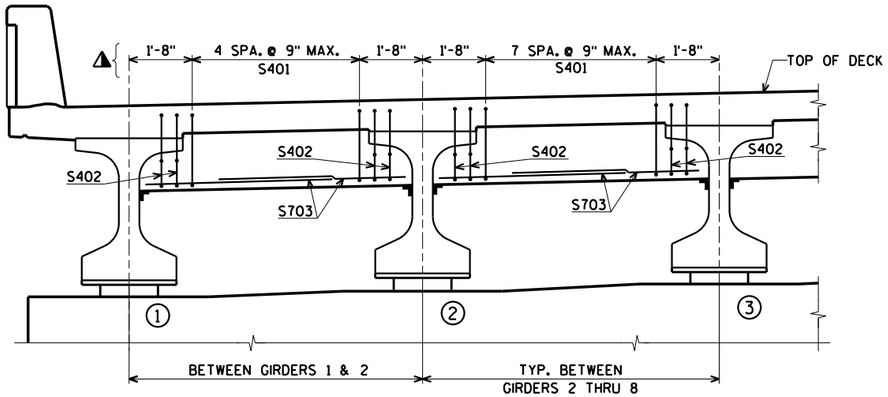
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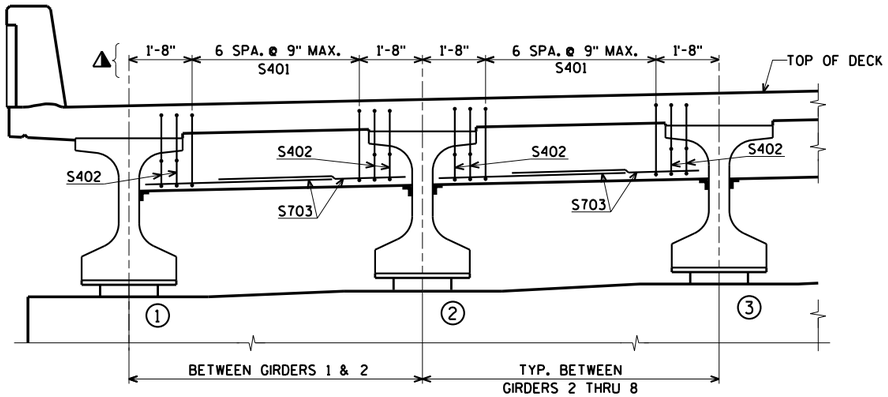
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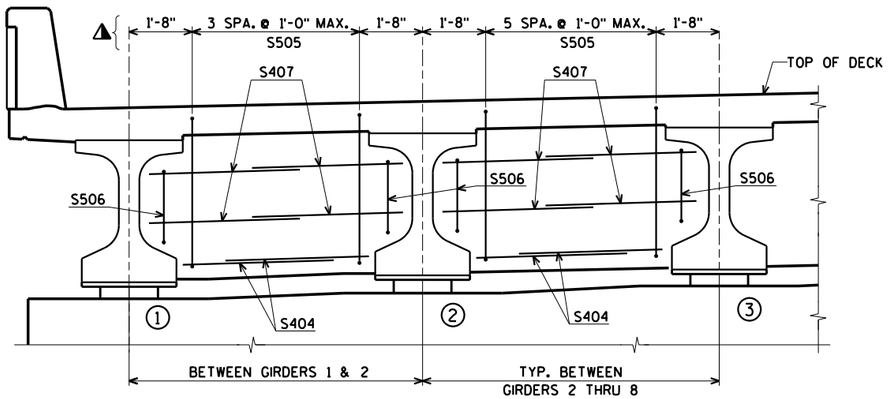
1071-06-79



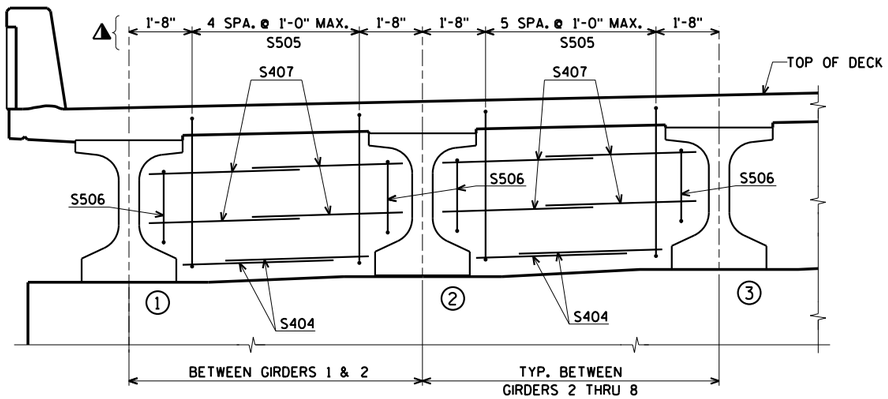
DIAPHRAGM DETAIL AT WEST ABUTMENT



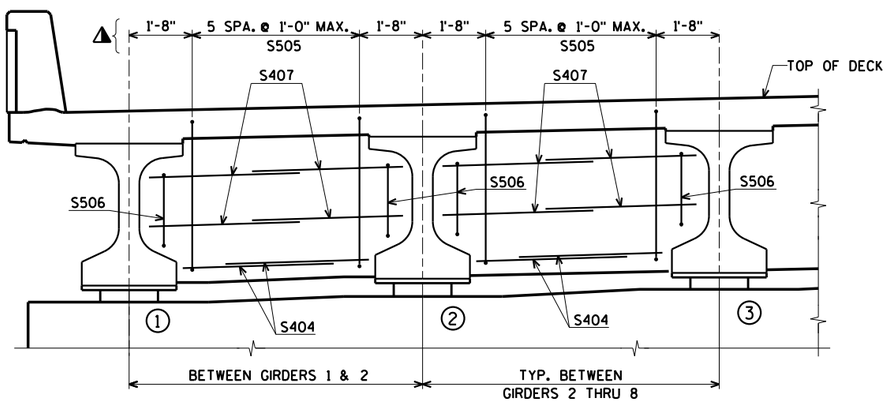
DIAPHRAGM DETAIL AT EAST ABUTMENT



DIAPHRAGM DETAIL AT PIER 1



DIAPHRAGM DETAIL AT PIER 2



DIAPHRAGM DETAIL AT PIER 3

⚠ DIMENSIONS MEASURED NORMAL TO GIRDERS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

DRAWN BY CLS | PLANS CK'D. AEB

DIAPHRAGM DETAILS

SHEET 35 OF 45
619

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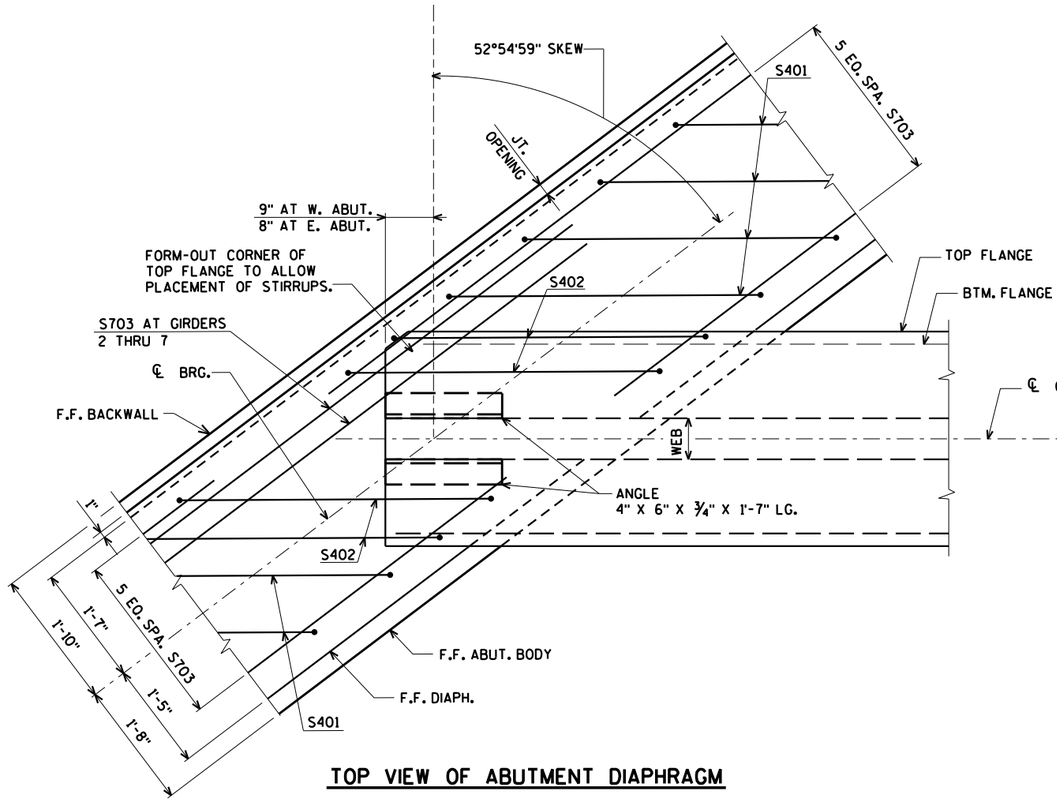
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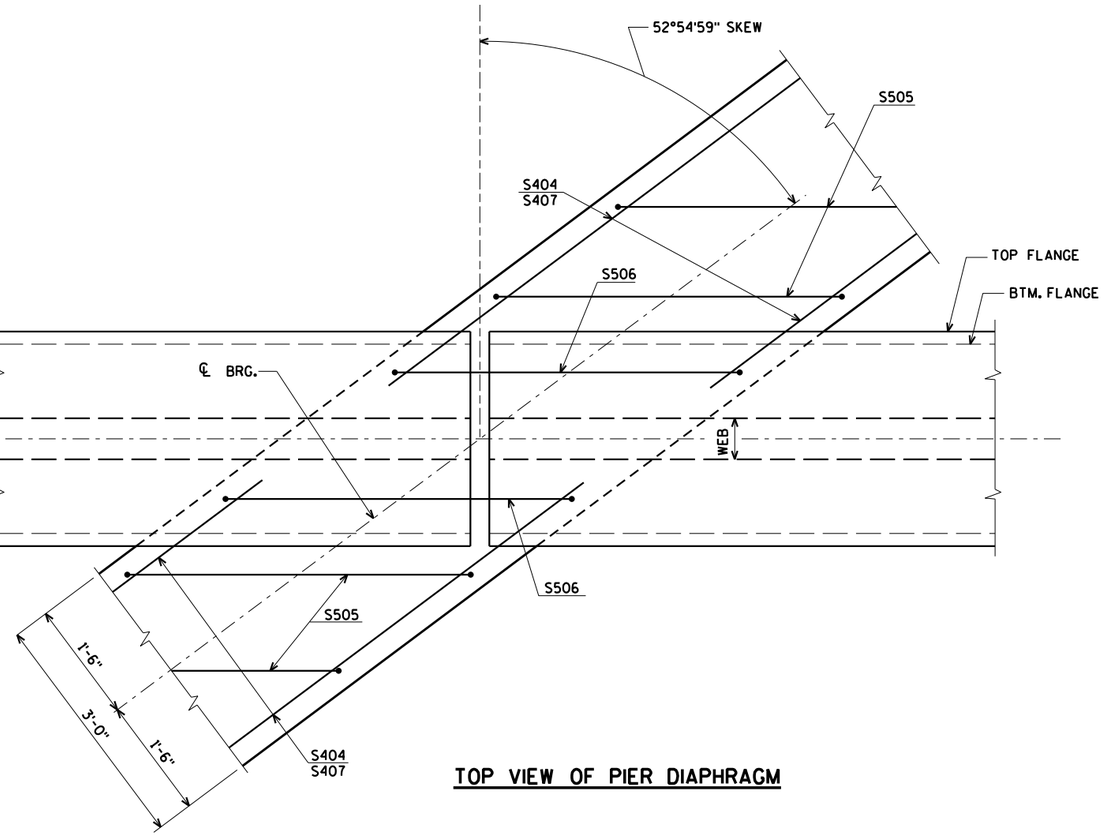
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TOP VIEW OF ABUTMENT DIAPHRAGM



TOP VIEW OF PIER DIAPHRAGM

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8

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-218

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DIAPHRAGM DETAILS

SHEET 36 OF 45
620

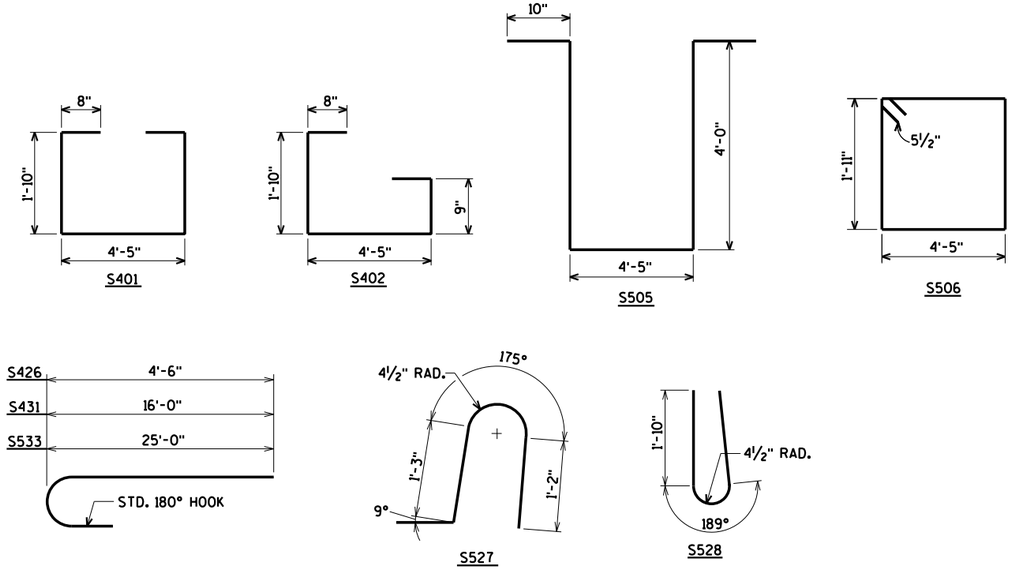
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BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	213,040# COATED LOCATION
S401	X	102	9-1	X			DIAPH. @ ABUT. VERT.
S402	X	56	8-0	X			DIAPH. @ ABUT. VERT.
S703	X	192	7-10				DIAPH. @ ABUT. HORIZ.
S404	X	84	5-2				DIAPH. @ PIERS HORIZ.
S505	X	123	13-7	X			DIAPH. @ PIERS VERT.
S506	X	42	13-3	X			DIAPH. @ PIERS VERT.
S407	X	168	7-2				DIAPH. @ PIERS HORIZ.
S508	X	81	16-8			⊗	SLAB TRANS. TOP SPAN 1
S509	X	79	15-10			⊗	SLAB TRANS. TOP SPAN 1
S510	X	1202	31-10				SLAB TRANS. TOP
S511	X	85	16-4			⊗	SLAB TRANS. TOP SPAN 4
S512	X	82	16-8			⊗	SLAB TRANS. TOP SPAN 4
S513	X	80	16-6			⊗	SLAB TRANS. BOT. SPAN 1
S514	X	79	16-2			⊗	SLAB TRANS. BOT. SPAN 1
S515	X	1202	31-8				SLAB TRANS. BOT.
S516	X	85	16-7			⊗	SLAB TRANS. BOT. SPAN 4
S517	X	81	16-6			⊗	SLAB TRANS. BOT. SPAN 4
S418	X	968	44-7				SLAB LONG. BOT.
S419	X	184	34-2				SLAB LONG. TOP SPAN 1
S1020	X	92	41-1				SLAB LONG. TOP PIER 1
S421	X	184	35-10				SLAB LONG. TOP SPAN 2
S1022	X	92	45-2				SLAB LONG. TOP PIER 2
S423	X	184	34-8				SLAB LONG. TOP SPAN 3
S924	X	92	37-7				SLAB LONG. TOP PIER 3
S425	X	92	40-7				SLAB LONG. TOP SPAN 4
S426	X	628	5-0	X			SLAB TRANS. TOP @ PARAPET
S527	X	1032	4-5	X			PARAPETS VERT.
S528	X	1032	5-0	X			PARAPETS VERT.
S529	X	72	59-0				PARAPETS HORIZ.
S430	X	28	12-0				EXP. JOINT HORIZ.
S431	X	74	16-6	X			SLAB LONG. CORNERS TOP & BOT.
S432	X	42	20-0				SLAB LONG. BOT. PIER 2
S533	X	244	25-7	X			SLAB TRANS. TOP & BOT. PIER 2

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
S508	1 SERIES OF 75	3'-0" TO 31'-6"
S509	1 SERIES OF 80	10" TO 31'-5"
S511	1 SERIES OF 84	11" TO 31'-8"
S512	1 SERIES OF 77	3'-2" TO 31'-6"
S513	1 SERIES OF 76	2'-7" TO 31'-6"
S514	1 SERIES OF 80	8" TO 31'-3"
S516	1 SERIES OF 84	8" TO 31'-6"
S517	1 SERIES OF 77	2'-10" TO 31'-6"

BUNDLE AND TAG EACH SERIES SEPARATELY.

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STRUCTURE B-32-218

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SUPERSTRUCTURE
BILL OF BARS

SHEET 37 OF 45
621

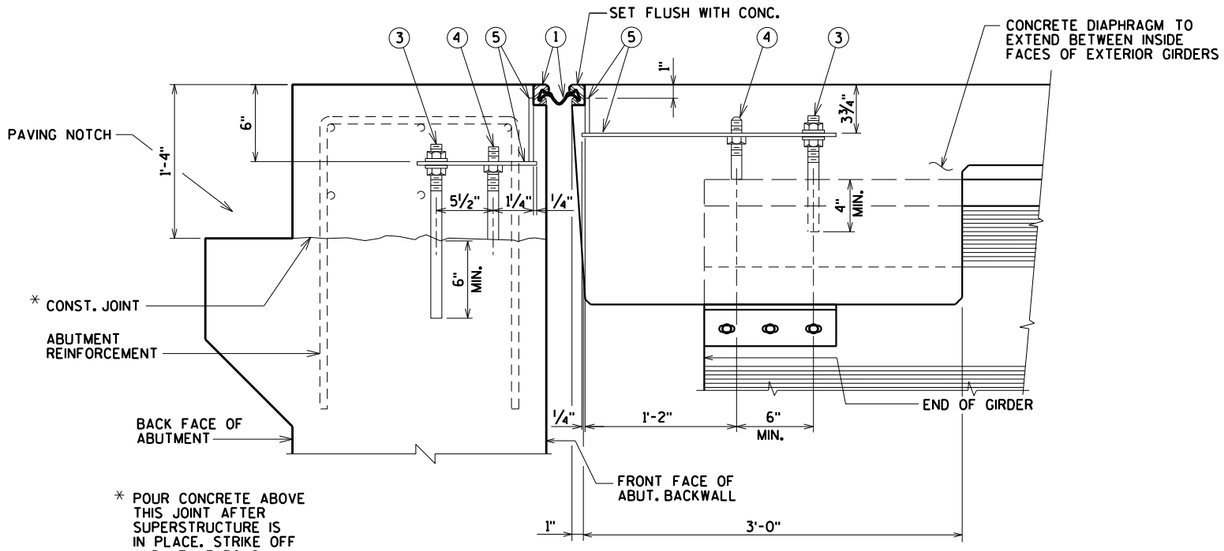
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U:\41-0627.00 - LaCrosse County, IH90\B-32-218 I90 EB over STH 35\BRIDGE\FINAL\B-32-218 sup.dgn

$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90&B-32-218 190 EB over STH 35&BRIDGE&FINAL&B-32-218 EXPJT.DGN

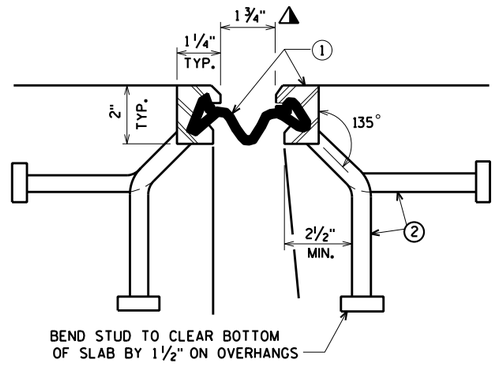
STATE PROJECT NUMBER

1071-06-79



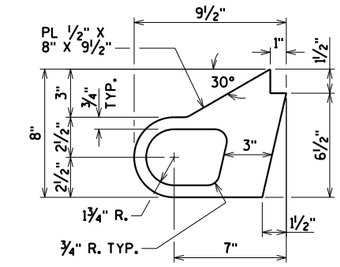
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

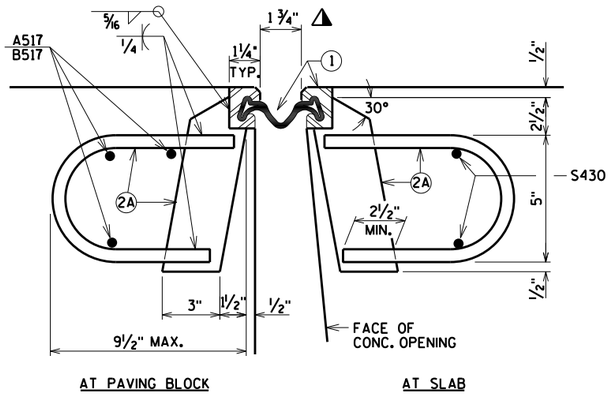


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF SLAB



ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.

LEGEND

① NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.

② STUDS 5/8"ϕ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

(2A) 1/2" THICK ANCHOR PLATE WITH 5/8"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

③ 3/4" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER AND ABUTMENT BACKWALL AS SHOWN.

④ 3/4"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

⑤ FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" ϕ HOLE FOR NO. 3 & 1" ϕ HOLE FOR NO. 4.

⑥ GALVANIZED PLATE 3/8" x 10" x 3'-0" LONG WITH HOLES FOR #7.

⑦ 3/4" ϕ x 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLES. RECESS 1/16" BELOW PLATE SURFACE.

⑧ 3/4" ϕ x 4" GALV. HEX HEAD BOLT. BEND 45°.

⑨ 3/4" ϕ x 2 1/4" GALV. THREADED COUPLING.

⑩ 1" x 5" SLOTTED CSK. HOLE FOR #7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS, & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES, SUPPORTS, & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-37-218".

ANCHOR SYSTEM #8 & #9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

⚠ DIMENSION MEASURED NORMAL TO JOINT.

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STRUCTURE B-32-218

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EXPANSION DEVICE

SHEET 38 OF 45
622

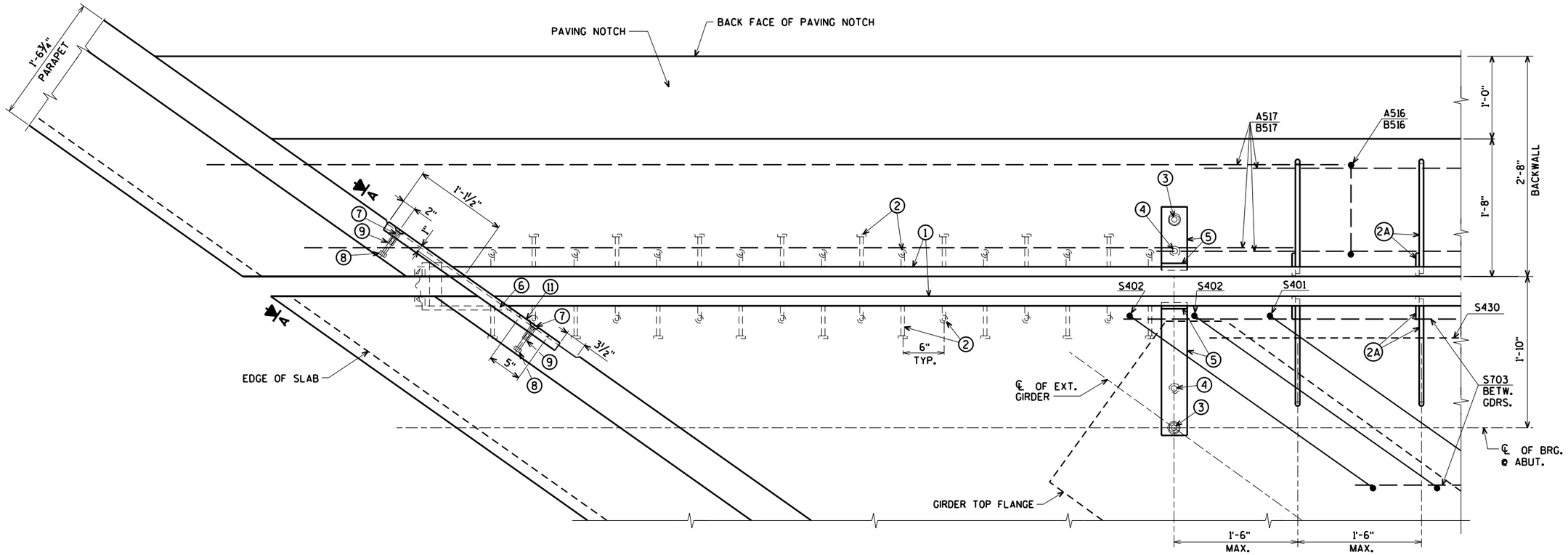
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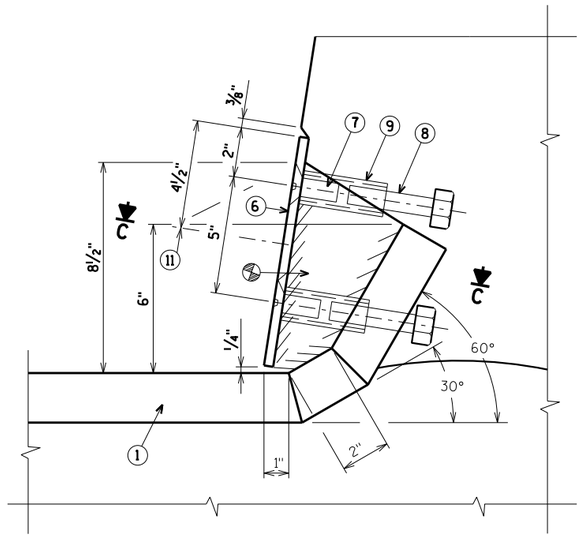
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STATE PROJECT NUMBER

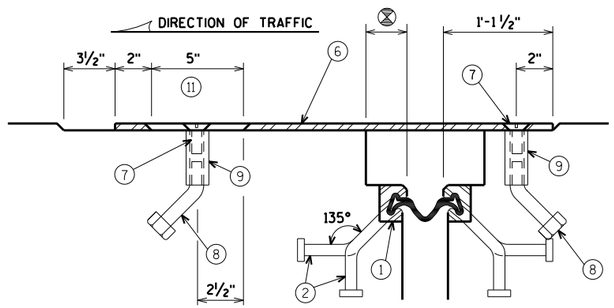
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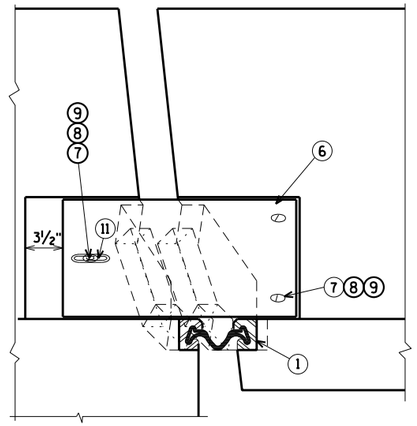
PART PLAN



SECTION A



SECTION C



VIEW OF PARAPET PLATES FROM ROADWAY

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING

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STRUCTURE B-32-218

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EXPANSION DEVICE

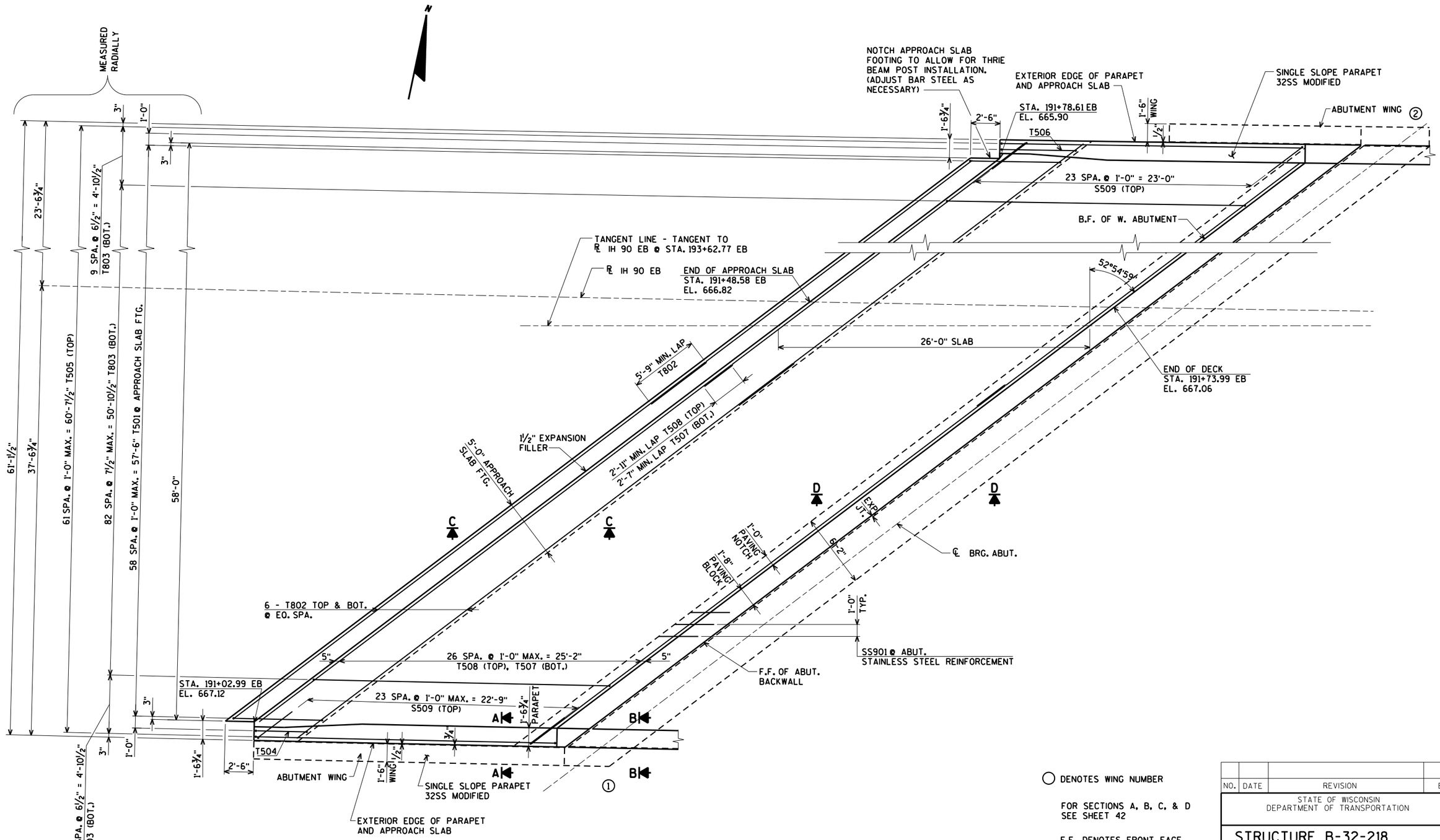
SHEET 39 OF 45
623

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WEST APPROACH SLAB

○ DENOTES WING NUMBER

FOR SECTIONS A, B, C, & D SEE SHEET 42

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

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STRUCTURE B-32-218

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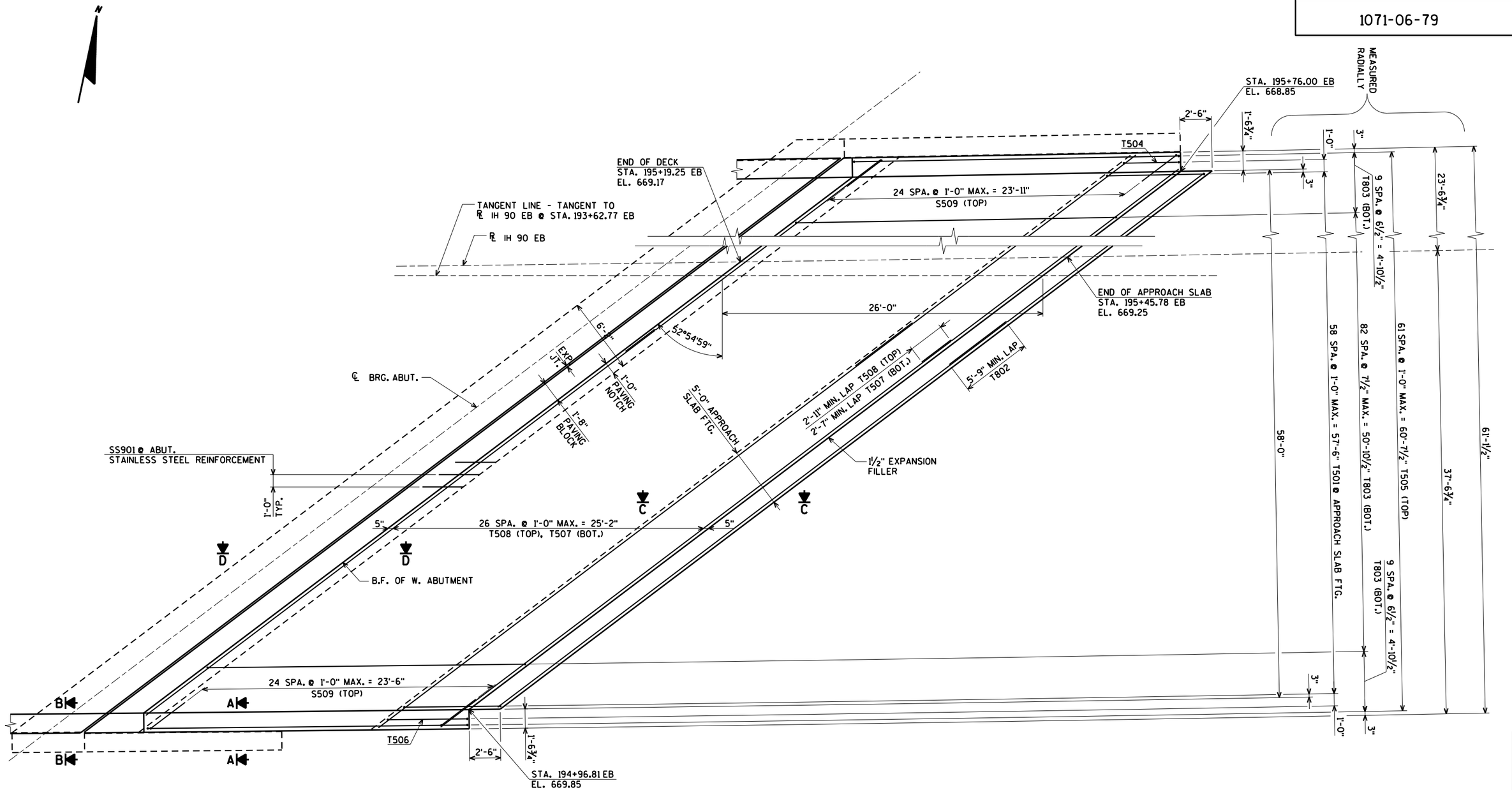
WEST STRUCTURAL APPROACH SLAB

SHEET 40 OF 45
624

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U:±41-0627.00 - LaCrosse County, IH90±B-32-218 I90 EB over STH 35±BRIDGE±FINAL±B-32-218 appr slab.dgn

STATE PROJECT NUMBER

1071-06-79



EAST APPROACH SLAB

○ DENOTES WING NUMBER

FOR SECTIONS A, B, C, & D
SEE SHEET 42

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

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STRUCTURE B-32-218

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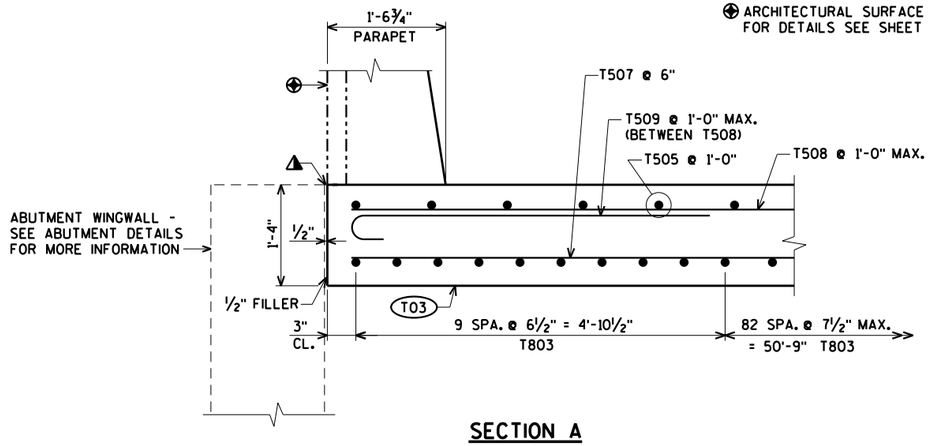
EAST STRUCTURAL APPROACH SLAB

SHEET 41 OF 45
625

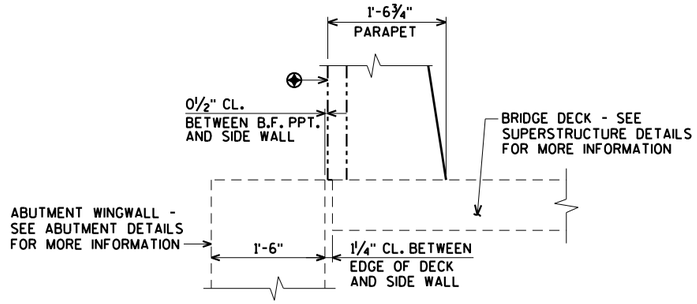
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5/26/2015

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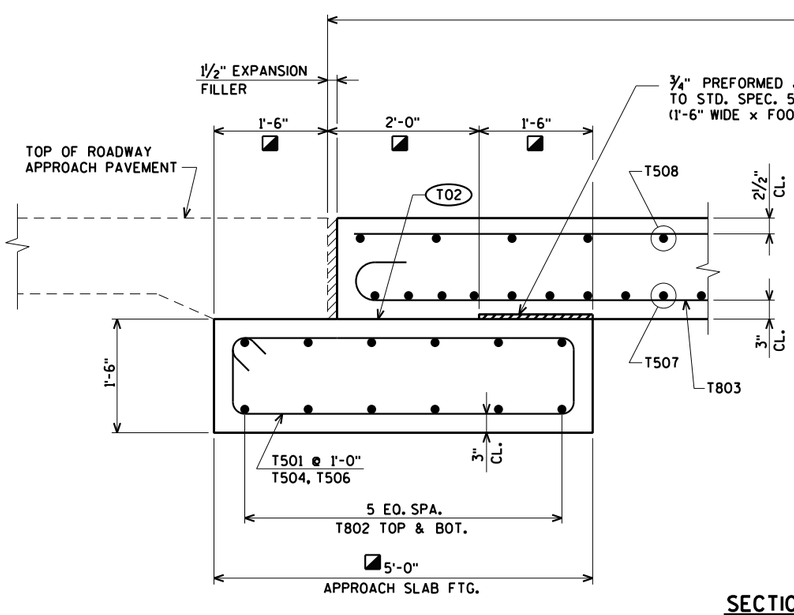


SECTION A

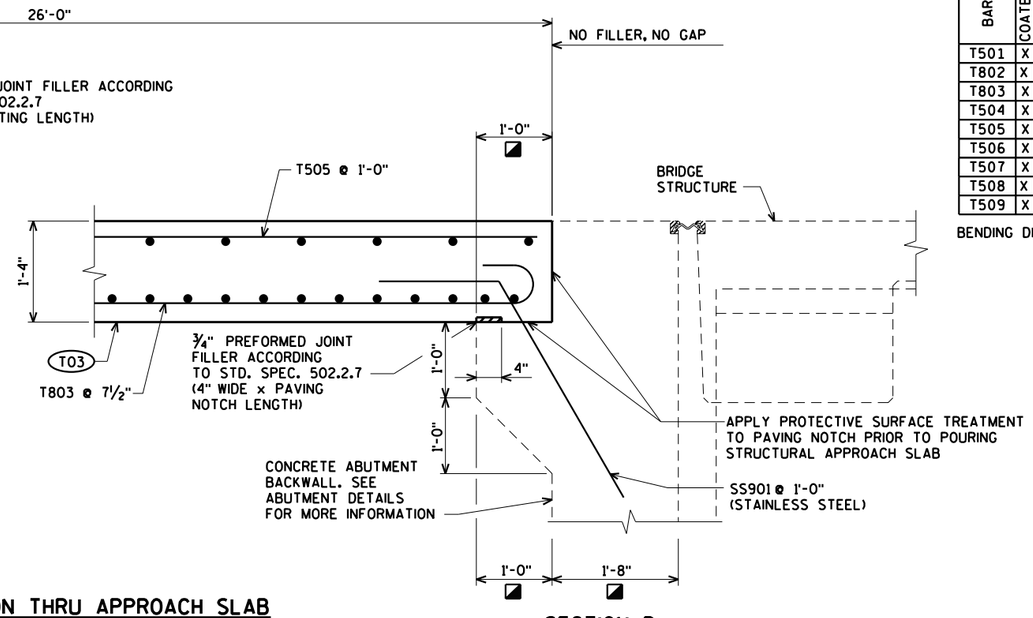


SECTION B

FOR LOCATIONS OF SECTIONS A, B, AND C SEE SHEETS 40 & 41



SECTION C



SECTION D

SECTION THRU APPROACH SLAB

◪ MEASURED NORMAL TO ABUTMENT

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1,050# STAINLESS STEEL (PER APPROACH SLAB) LOCATION
SS901		62	5-0	X		CONC. BACKWALL TO APPROACH SLAB

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	19,620# COATED (WEST APPROACH SLAB) LOCATION
T501	X	59	17-8	X		APPROACH SLAB FTG. - STIRRUP
T802	X	24	52-6			APPROACH SLAB FTG. - TRANS.
T803	X	101	27-4	X		APPROACH SLAB - LONG. - BOT.
T504	X	1	14-8	X		APPROACH SLAB FTG. - STIRRUP
T505	X	62	25-2			APPROACH SLAB - LONG. - TOP
T506	X	1	10-8	X		APPROACH SLAB FTG. - STIRRUP
T507	X	54	52-8			APPROACH SLAB - TRANS. - BOT.
T508	X	54	52-10			APPROACH SLAB - TRANS. - TOP
T509	X	48	4-1	X		APPROACH SLAB - TRANS. - TOP

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	19,630# COATED (EAST APPROACH SLAB) LOCATION
T501	X	59	17-8	X		APPROACH SLAB FTG. - STIRRUP
T802	X	24	52-6			APPROACH SLAB FTG. - TRANS.
T803	X	101	27-4	X		APPROACH SLAB - LONG. - BOT.
T504	X	1	14-8	X		APPROACH SLAB FTG. - STIRRUP
T505	X	62	25-2			APPROACH SLAB - LONG. - TOP
T506	X	1	10-8	X		APPROACH SLAB FTG. - STIRRUP
T507	X	54	52-8			APPROACH SLAB - TRANS. - BOT.
T508	X	54	52-10			APPROACH SLAB - TRANS. - TOP
T509	X	50	4-1	X		APPROACH SLAB - TRANS. - TOP

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

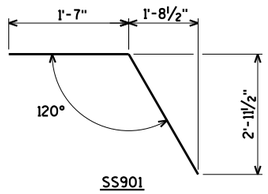
▲ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

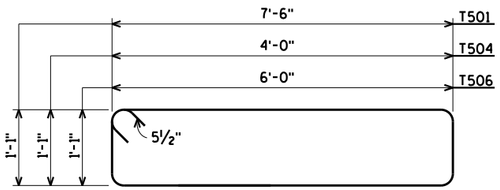
(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.

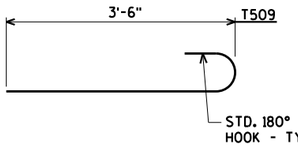
(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE.

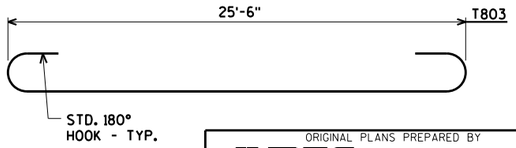
POLYETHYLENE SHEETS ARE INCIDENTAL TO "CONCRETE MASONRY BRIDGES".

ALL STRUCTURAL APPROACH SLAB CONCRETE PAID FOR UNDER "CONCRETE MASONRY BRIDGES".









NO.	DATE	REVISION	BY

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STRUCTURE B-32-218

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STRUCTURAL APPROACH SLAB DETAILS

SHEET 42 OF 45
626

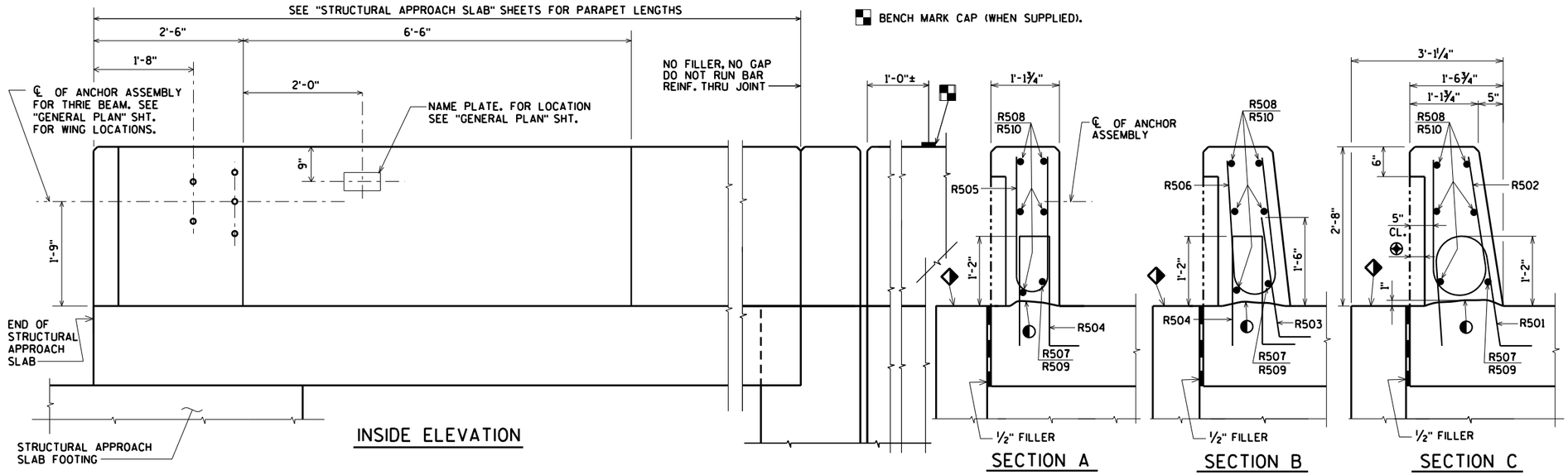
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5/26/2015
PENTABLE:BReau_shd_util.tbl

STATE PROJECT NUMBER

1071-06-79



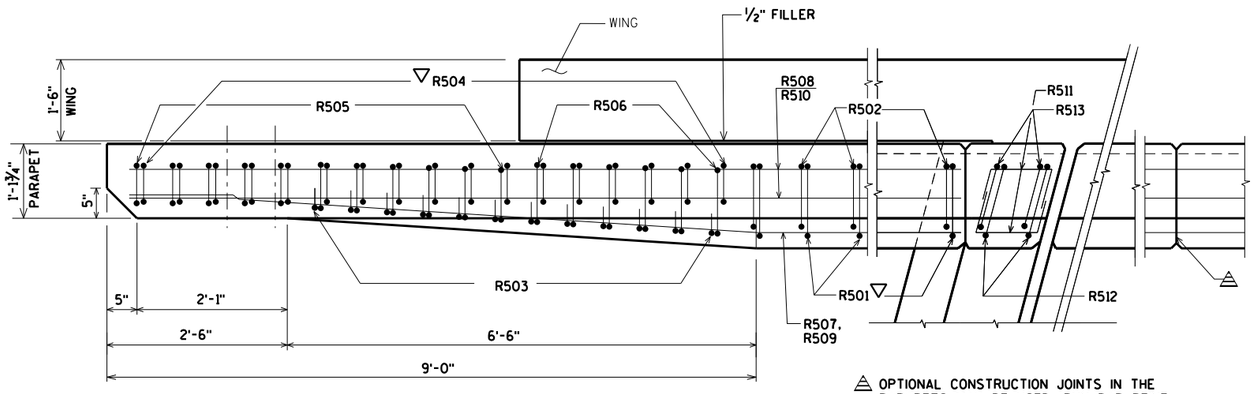
1,210# COATED WEST APPROACH SLAB
1,210# COATED EAST APPROACH SLAB
120# COATED WEST ABUTMENT
120# COATED EAST ABUTMENT

BILL OF BARS

FOR STRUCTURAL APPROACH SLAB PARAPETS

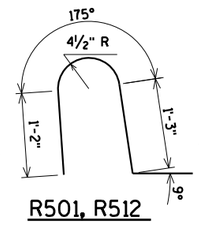
BAR MARK	COAT	W. ABUT.	E. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	52	52	4-5	X		PARAPET VERT.
R502	X	52	52	5-0	X		PARAPET VERT.
R503	X	24	24	2-9	X		PARAPET VERT.
R504	**X**	34	34	4-4	X		PARAPET VERT.
R505	**X**	22	22	4-9	X		PARAPET VERT.
R506	X	12	12	4-10	X		PARAPET VERT.
R507	X	1	1	25-2	X		PARAPET HORIZ.◨
R508	X	5	5	22-4			PARAPET HORIZ.◨
R509	X	1	1	25-4	X		PARAPET HORIZ ▲
R510	X	5	5	25-4			PARAPET HORIZ ▲
FOR ABUTMENT BACKWALL PARAPETS							
R511	X	12	12	3-7	X		PARAPET HORIZ
R512	X	8	8	4-5	X		PARAPET VERT.
R513	X	8	8	5-0	X		PARAPET VERT.

◨ FOR WINGS 1 & 3
▲ FOR WINGS 2 & 4

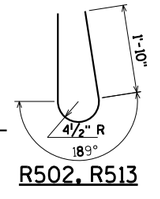


PLAN

△ OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



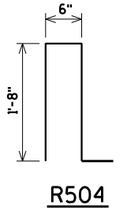
R501, R512



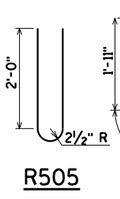
R502, R513



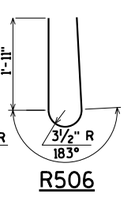
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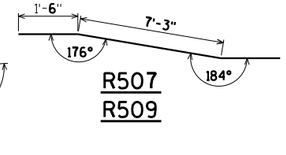
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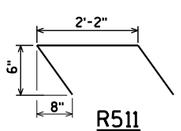
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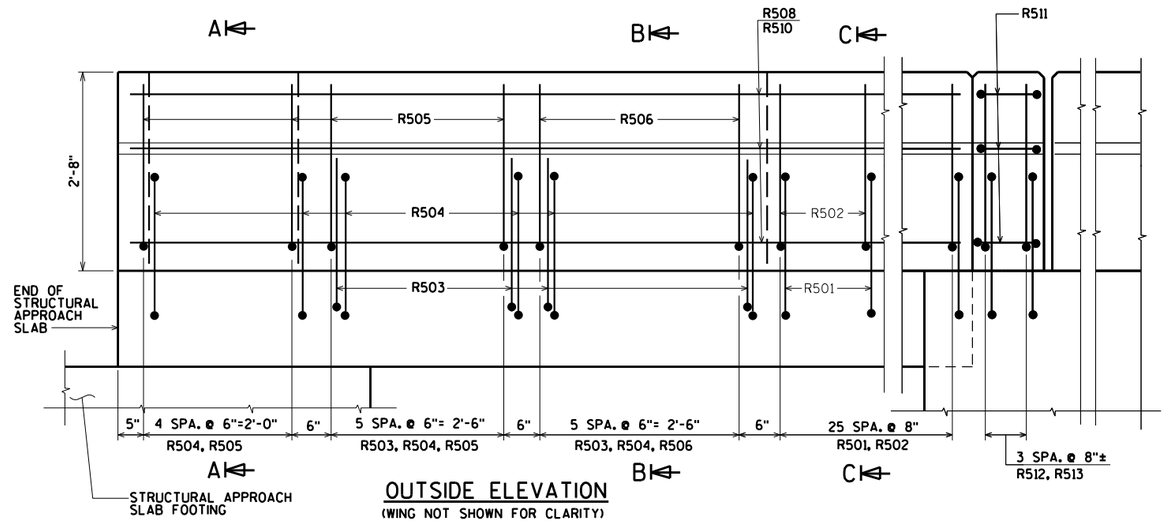
R506



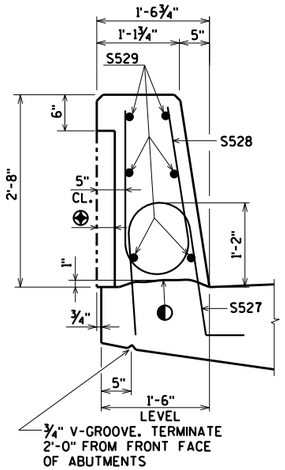
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R509



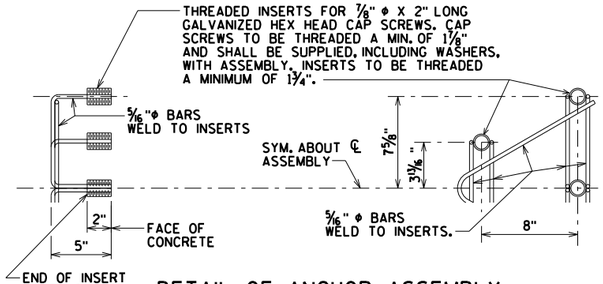
R511



OUTSIDE ELEVATION
(WING NOT SHOWN FOR CLARITY)



SECTION THRU PARAPET ON BRIDGE



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

⊕ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 45

◆ SLOPE FOR DRAINAGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ R501 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

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STRUCTURE B-32-218

DRAWN BY: CLS | PLANS CK'D.: AEB

SINGLE SLOPE PARAPET 32SS MODIFIED

SHEET 43 OF 45
627

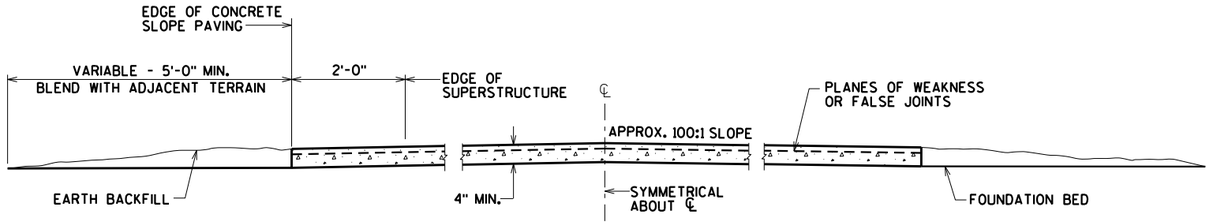
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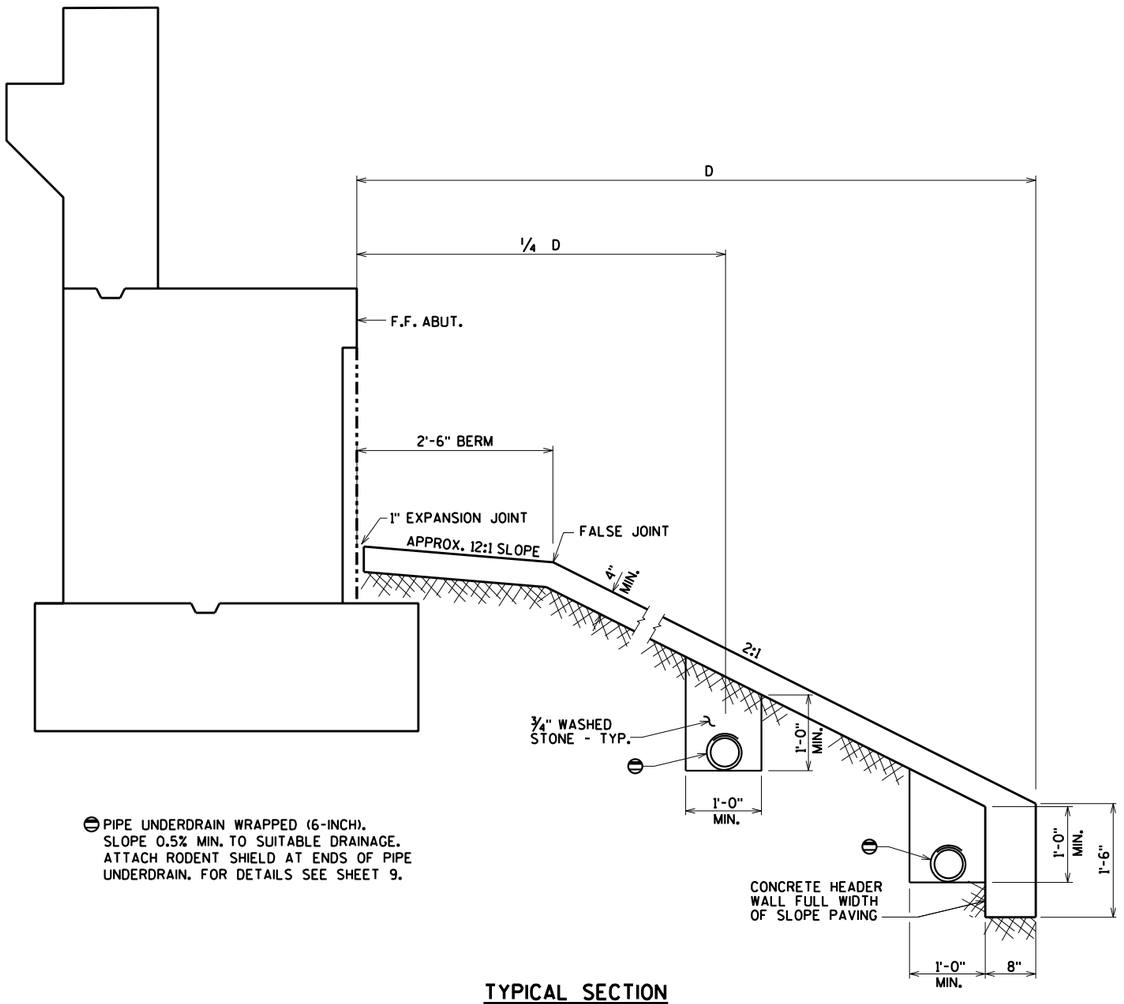
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1-14

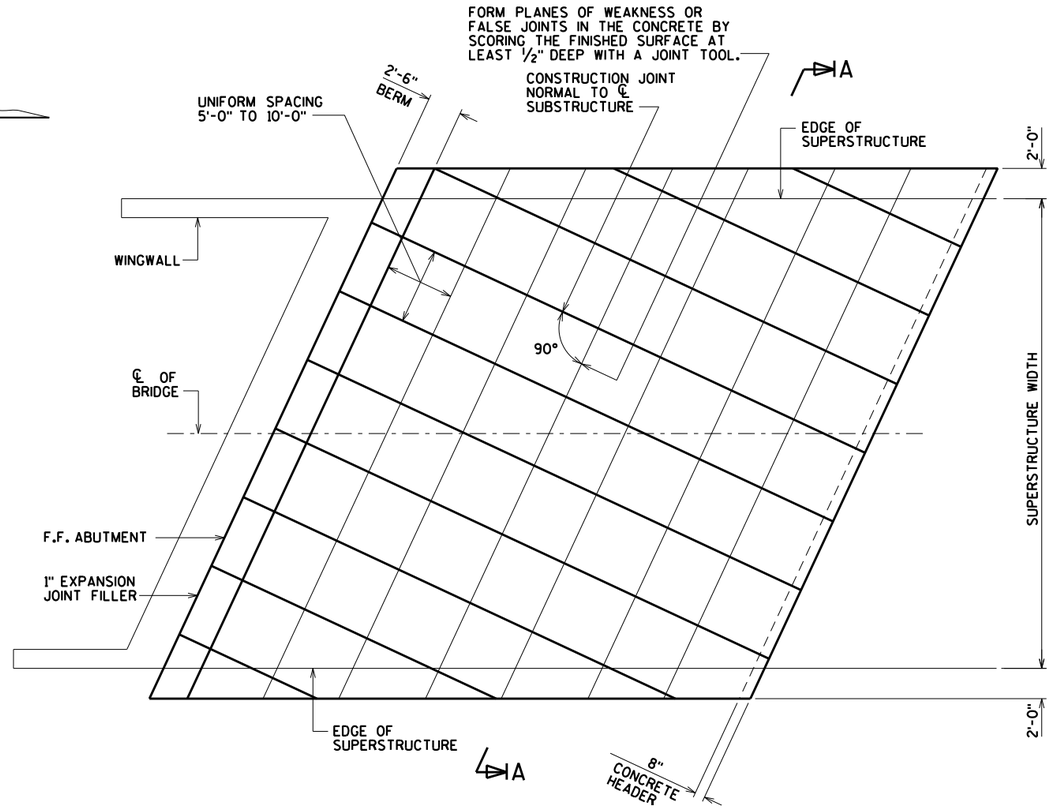


SECTION A-A

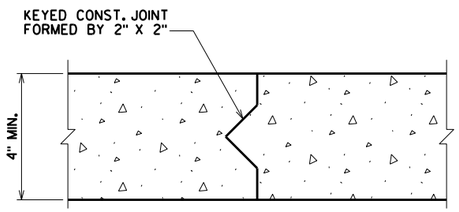


⊖ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. FOR DETAILS SEE SHEET 9.

TYPICAL SECTION



PLAN



CONSTRUCTION JOINT

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN HEREON SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

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SLOPE PAVING

SHEET 44 OF 45
628

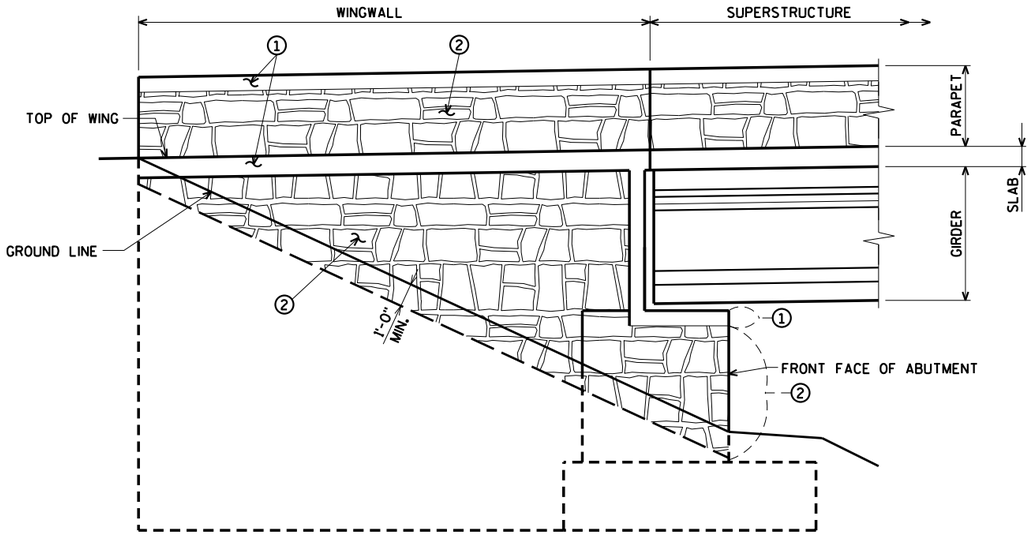
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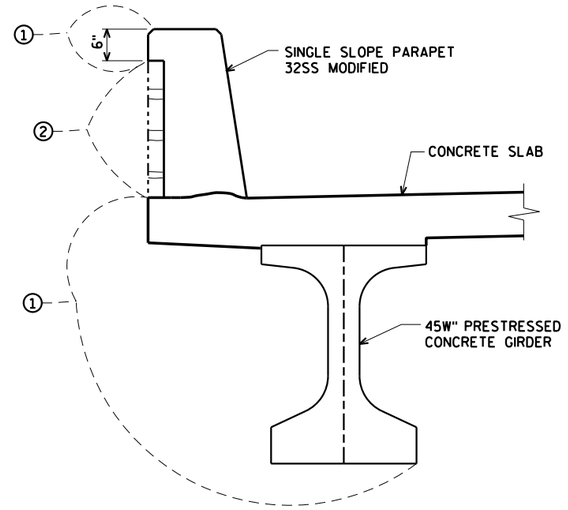
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STATE PROJECT NUMBER

1071-06-79

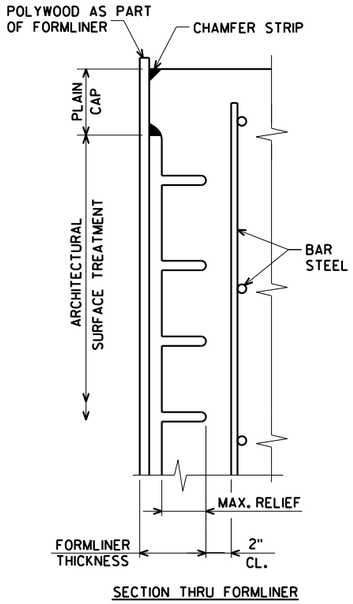


ARCHITECTURAL SURFACE TREATMENT AT ABUTMENT WINGWALLS

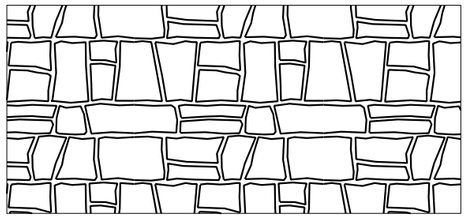


ARCHITECTURAL SURFACE TREATMENT AT SUPERSTRUCTURE

(TYPICAL BOTH SIDES OF SUPERSTRUCTURE)



SECTION THRU FORMLINER



RUSTIC ASHLAR

FORMLINER THICKNESS = 3"
SIZE = 8" TO 32"
MAX. RELIEF = 2"

ABUTMENT NOTES

FORMLINER COURSING ON ABUTMENTS AND WINGS SHALL BE LEVEL.

THE FORMLINER COURSING ON THE WINGS SHALL BE VERTICALLY ALIGNED WITH THE FORMLINER COURSING ON THE FRONT OF THE ABUTMENT.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

WRAPAROUND/MATCH FORMLINER PATTERN AT CORNERS.

PIER NOTES

FORMLINER COURSING ON PIERS SHALL BE LEVEL.

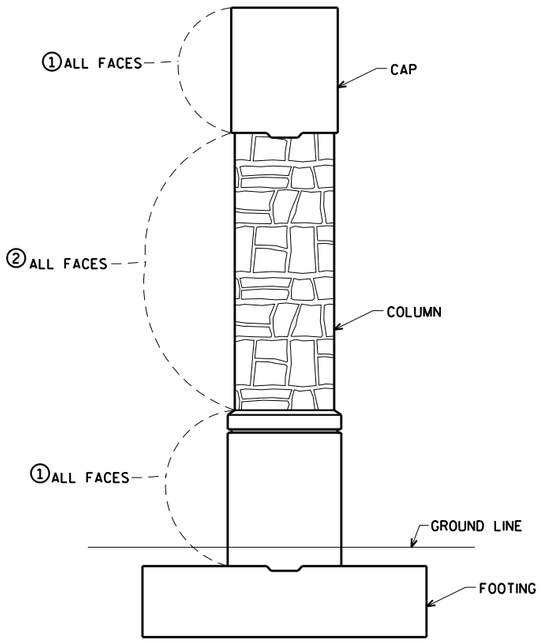
THE FORMLINER COURSING ON ALL FACES OF EACH COLUMN SHALL BE VERTICALLY ALIGNED.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

WRAPAROUND/MATCH FORMLINER PATTERN AT CORNERS.

PARAPET NOTES

THE FORMLINER COURSING ON PARAPETS SHALL BE PARALLEL TO THE TOP OF PARAPET.



ARCHITECTURAL SURFACE TREATMENT AT PIER

1 LIMITS OF CONCRETE STAINING. FEDERAL STANDARD COLOR NUMBER 33446 (MEDIUM TAN).

2 LIMITS OF CONCRETE STAINING MULTI-COLOR

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STRUCTURE B-32-218

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ARCHITECTURAL SURFACE TREATMENT

SHEET 45 OF 45
629

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DATE:
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BACK CHECKED BY:
CORRECTED BY:

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1071-06-79

B.F. DENOTES FRONT FACE.

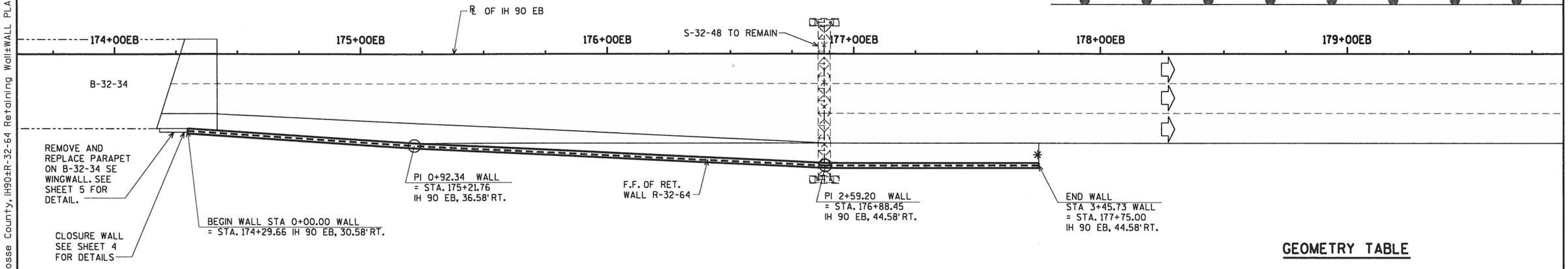
F.F. DENOTES FRONT FACE.

ALL STATIONS & DIMENSIONS ARE MEASURED ALONG FRONT FACE OF RETAINING WALL.

* ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD.

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES, NOTES, AND DESIGN DATA
3. WALL DETAILS
4. ANCHOR SLAB & CLOSURE WALL DETAILS
5. PARAPET DETAILS
6. SUBSURFACE EXPLORATION

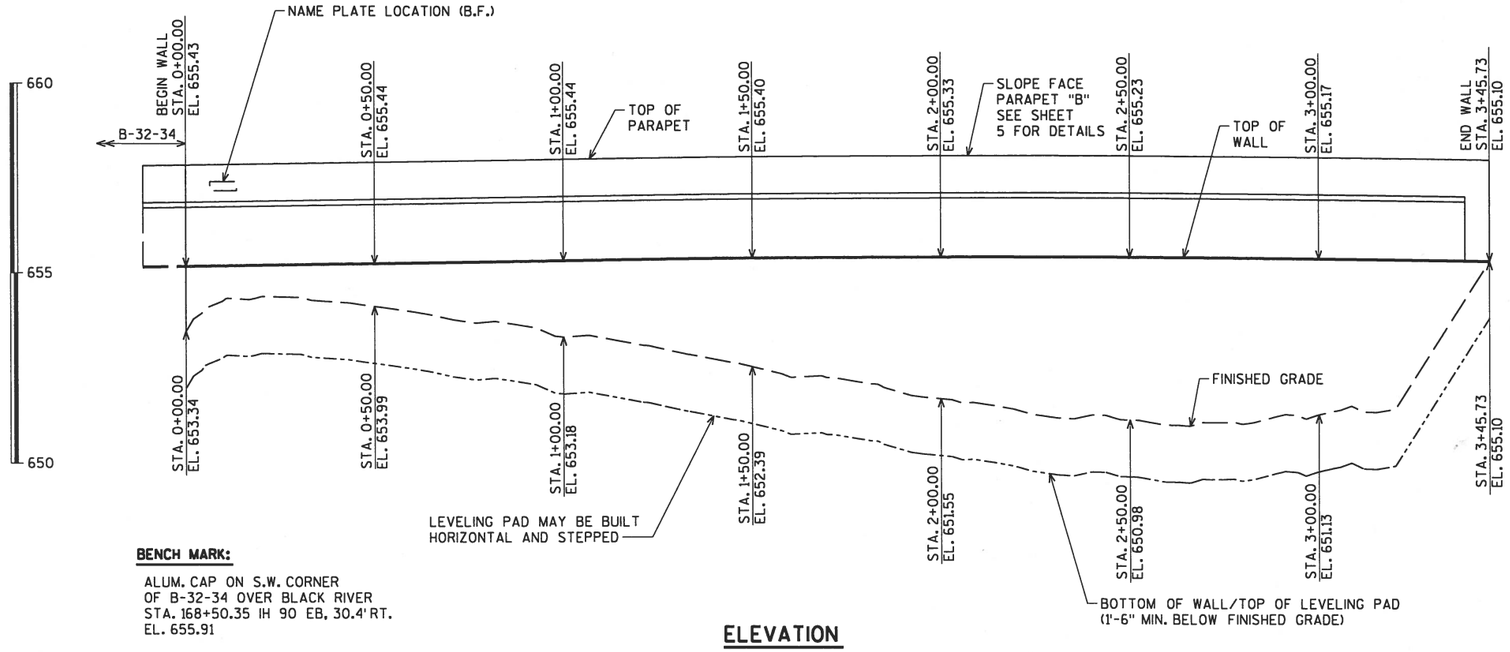


PLAN

MSE RETAINING WALL

GEOMETRY TABLE

WALL STATION	ROADWAY STATION (IH 90 EB)	OFFSET TO F.F. WALL	FINISHED GRADE ELEV.	TOP OF WALL ELEV.
0+00.00	174+29.66	30.58	653.34	655.43
0+25.00	174+54.60	32.21	654.24	655.43
0+50.00	174+79.53	33.83	653.99	655.44
0+75.00	175+04.47	35.46	653.58	655.44
0+92.34	175+21.76	36.58	653.43	655.45
1+00.00	175+29.41	36.95	653.18	655.44
1+25.00	175+54.39	38.15	652.90	655.43
1+50.00	175+79.35	39.35	652.39	655.40
1+75.00	176+04.34	40.55	652.04	655.37
2+00.00	176+29.31	41.75	651.55	655.33
2+25.00	176+54.28	42.94	651.12	655.28
2+50.00	176+79.26	44.14	650.98	655.23
2+59.20	176+88.45	44.58	650.85	655.20
2+75.00	177+04.25	44.58	650.92	655.19
3+00.00	177+29.25	44.58	651.13	655.17
3+25.00	177+54.27	44.58	652.13	655.14
3+45.73	177+75.00	44.58	655.10	655.10



BENCH MARK:

ALUM. CAP ON S.W. CORNER OF B-32-34 OVER BLACK RIVER STA. 168+50.35 IH 90 EB, 30.4'RT. EL. 655.91

ELEVATION

(LOOKING AT FRONT FACE OF WALL)

WISCONSIN
DANIEL N. SYDOW
E-38363
WI
PROFESSIONAL ENGINEER
7/31/2015

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
DAN SYDOW
(715)-834-3161

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 09/02/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-32-64

RETAINING WALL ALONG IH 90 EB

COUNTY: LA CROSSE
TOWN/~~CITY/VILLAGE~~: CAMPBELL

DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	JCK	DESIGN CK'D.	CJM	DRAWN BY	CJM	PLANS CK'D.	DNS

GENERAL PLAN

SHEET 1 OF 6
630

8

8

7/31/2015 — PENTABLE:BRegu_shd_util.tbl — I.D. — DATE:

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABLIZED EARTH LRFD R-32-64".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THESE PLANS.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

DESIGN RETAINING WALL TO PROVIDE A FINISHED GRADE SLOPE BEHIND THE WALL AS SHOWN.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

APPLY PIGMENTED SURFACE SEALER TO THE EXPOSED SURFACE OF THE ANCHOR SLAB AND THE TOP AND INSIDE FACES OF THE PARAPET.

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE ANCHOR SLAB AND PARAPET IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY RETAINING WALLS".

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE SHALL BE EPOXY COATED.

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
⊗	203.0200	REMOVING OLD STRUCTURE STA. 174+29.66 EB	LS	1
	502.3210	PIGMENTED SURFACE SEALER	SY	165
	502.5002	MASONRY ANCHORS TYPE L NO. 4 BARS	EACH	3
*	504.0500	CONCRETE MASONRY RETAINING WALLS	CY	142
*	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	17,060
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	75
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	355
	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1
	SPV.0165	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/OMP	SF	1,475
		NON-BID ITEMS		
		CORK FILLER	SIZE	½", 1"
		EXPANDED POLYSTYRENE	SIZE	1"

⊗ ITEM INCLUDED FOR REMOVAL OF PARAPET AT SOUTHEAST WINGWALL OF STRUCTURE B-32-34

* QUANTITY INCLUDES ANCHOR SLAB, COPING, AND PARAPET.

MATERIAL PROPERTIES:

CONCRETE MASONRY ____ f'_c = 3,500 p.s.i.
PRECAST CONCRETE WALL PANEL ____ f'_c = 4,000 p.s.i.
BAR STEEL REINFORCEMENT ____ f_y = 60,000 p.s.i.

TRAFFIC DATA

IH 90

A.D.T. (2016) = 43,700
A.D.T. (2036) = 56,700
DESIGN SPEED 70 MPH

SOIL PARAMETERS

	ELEVATION (FEET) FROM	TO	MATERIAL TYPE	DENSITY (PCF)	ANGLE OF INTERNAL FRICTION (DEGREES)	COHESION (PSF)
	BORING B-1					
	653.7	652.2	SAND, BROWN, FINE TO MEDIUM, LITTLE GRAVEL	125	33	0
	652.2	645.7	SAND, BROWN, FINE TO MEDIUM	120	32	0
	645.7	628.7	SAND, BROWN, FINE TO MEDIUM, TRACE GRAVEL	125	33	0
	628.7	627.7	SILT, DARK BROWN, SOME SAND, TRACE ORGANICS	110	0	1,000
	OTHER MATERIAL USED DURING CONSTRUCTION					
⊗	----	----	RETAINED SOIL	120	30	0

⊗ DESIGN WALL FOR THESE VALUES

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	
WALL HEIGHT (FEET)	5.9
EXPOSED WALL HEIGHT (FEET)	4.4
MINIMUM LENGTH OF REINFORCEMENT (FEET)	8.0
WALL STATION	2+59.2
BORING USED	B-1
CAPACITY TO DEMAND RATIO	
SLIDING (CDR > 1.0)	2.0
ECCENTRICITY (CDR > 1.0)	5.2
OVERALL STABILITY (CDR > 1.0)	1.0
BEARING RESISTANCE (CDR > 1.0)	1.7
BEARING CAPACITY	
REQUIRED BEARING RESISTANCE (PSF)	2,200

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STRUCTURE R-32-64

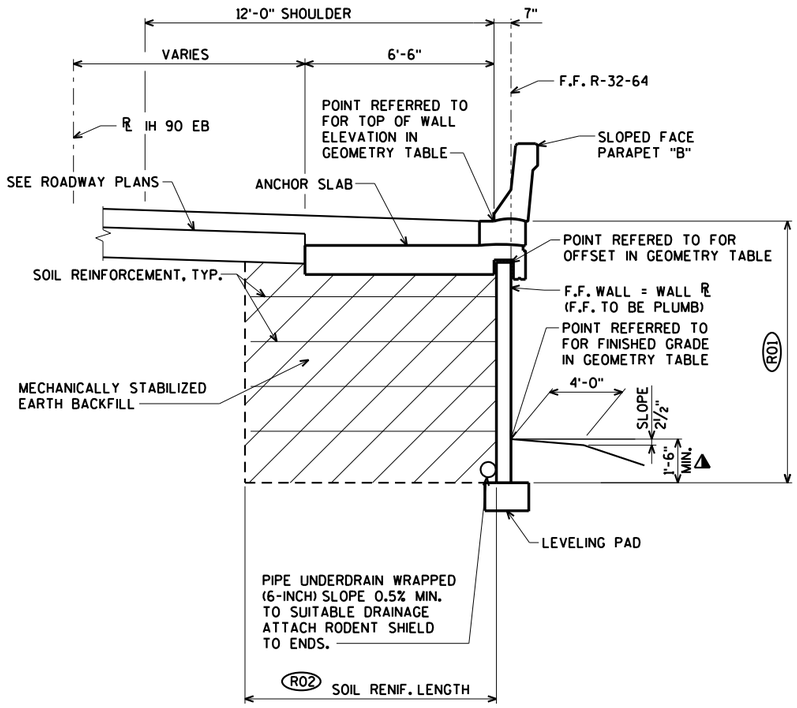
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QUANTITIES, NOTES, AND DESIGN DATA

SHEET 2 OF 6
631

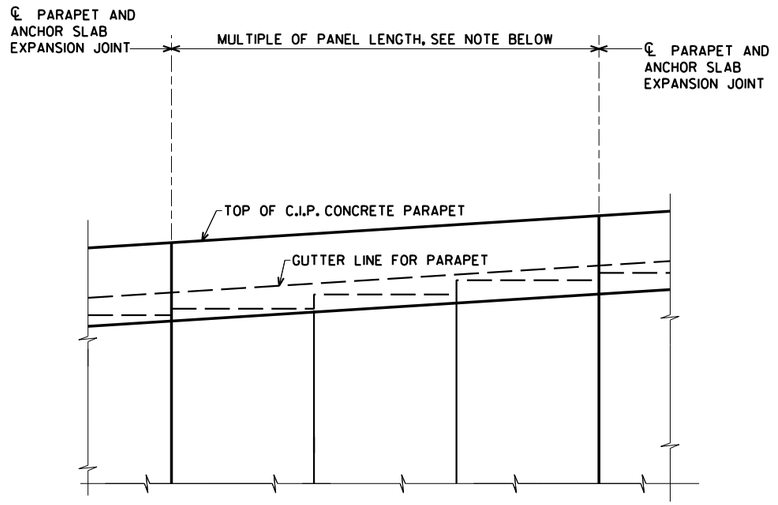
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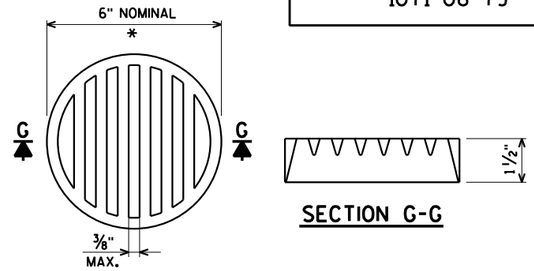
TYPICAL SECTION THRU MSE RETAINING WALL

⚠ FIELD MEASUREMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.



CONCRETE PARAPET PARTIAL ELEVATION

NOTE:
ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.



SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

RODENT SHIELD DETAIL

LEGEND

R01 PAY LIMITS FOR BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD".

R02 MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS MUST BE 70% THE TOTAL WALL HEIGHT (EXPOSED HEIGHT PLUS EMBEDMENT DEPTH) OR 8.0 FEET, WHICHEVER IS GREATER. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

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STRUCTURE R-32-64

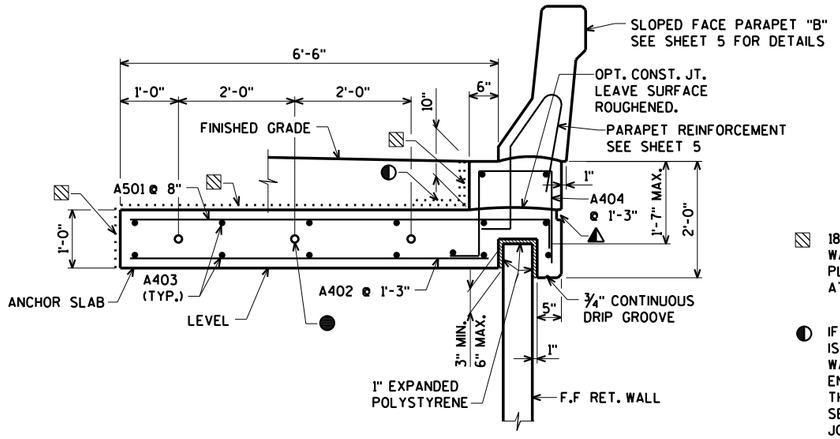
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WALL DETAILS

SHEET 3 OF 6
632

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CAST-IN-PLACE CONCRETE TRAFFIC BARRIER DETAIL

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPET AND ANCHOR SLAB BETWEEN EXPANSION JOINTS MAY BE USED. RUN BAR REINFORCEMENT THRU THE JOINT. DEFINE CONSTRUCTION JOINT WITH A ¾" "V" GROOVE.

LAP LONGITUDINAL #4 BARS A MINIMUM OF 1'-0", UNLESS SHOWN OR NOTED OTHERWISE.

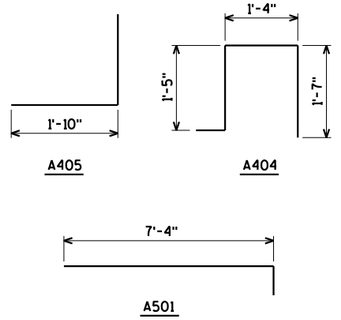
ALL BAR STEEL IN CAST-IN-PLACE CONCRETE SHALL BE EPOXY COATED.

CONCRETE QUANTITY BASED ON 3" PANEL EMBEDMENT AND 6" PANEL THICKNESS.

▨ 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.

◐ IF THE OPT. CONST. JOINT IS USED, PLACE 18" MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT. THE MEMBRANE WATERPROOFING SEALING THE OPTIONAL CONST. JOINT IS INCIDENTAL TO THE "CONCRETE MASONRY RETAINING WALLS" BID ITEM.

● (3) -¾" DIA. SMOOTH DOWEL BARS, 1'-6" LONG, AT EXPANSION JOINT. EMBED 9". USE APPROVED DEBONDER ON ½ OF BAR LENGTH. COST INCLUDED IN "CONCRETE MASONRY RETAINING WALLS".

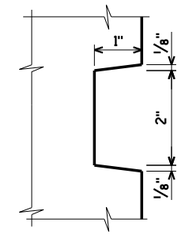


BILL OF BARS

	BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	9,800# COATED LOCATION
	A501	X	520	7-11	X			ANCHOR SLAB - TRANS. - HORIZ.
	A402	X	278	6-2				ANCHOR SLAB - TRANS. - HORIZ.
	A403	X	15	345-4				ANCHOR SLAB - LONGIT. - HORIZ.
	A404	X	278	4-9	X			ANCHOR SLAB - TRANS. - VERT.
▲	A405	X	3	3-3	X			CLOSURE WALL - HORIZ. - ANCHOR
	A406	X	3	1-8				CLOSURE WALL - HORIZ.
	A407	X	6	1-5				CLOSURE WALL - VERT.

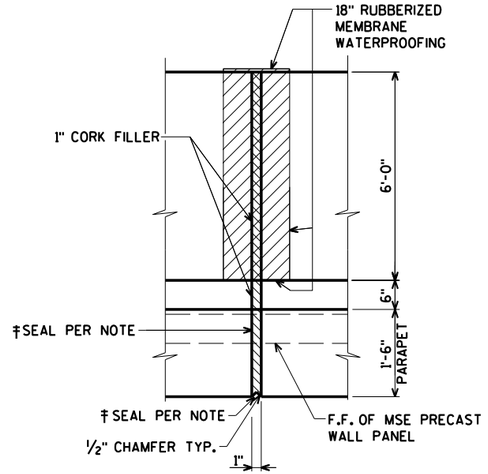
▲ CONCRETE MASONRY ANCHORS TYPE L NO. 4 BARS

NUMBER REQUIRED AND LENGTH SHOWN FOR QUANTITY PURPOSES ONLY. CONTRACTOR TO DETERMINE ACTUAL LENGTHS AND NUMBER OF A403 BARS AFTER M.S.E. PANELS HAVE BEEN LAID OUT BY THE WALL SUPPLIER. THE PARAPET AND ANCHOR SLAB EXPANSION JOINTS MUST COINCIDE WITH PANEL ON THE FRONT FACE. PROVIDE 2" CLEAR COVER AT EXPANSION JOINTS.



RUSTICATION DETAIL

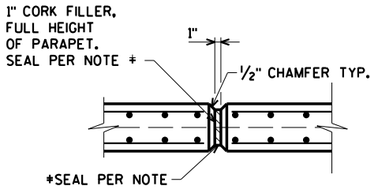
▲ PROVIDE RUSTICATION IF OPT. CONST. JOINT IS USED.



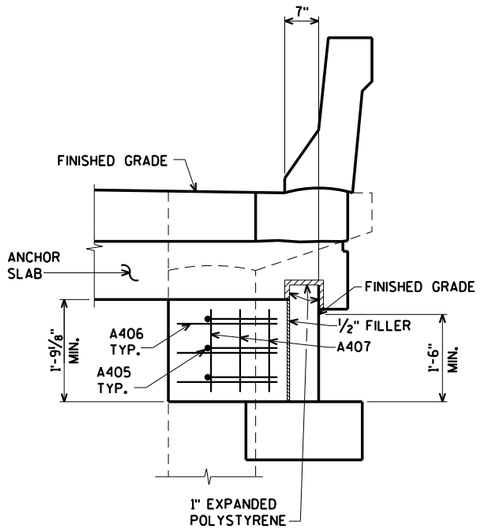
▲ANCHOR SLAB EXPANSION JOINT DETAIL

‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

▲ EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20' AND A MAXIMUM OF 30'. LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT, EXCEPT FOR DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.

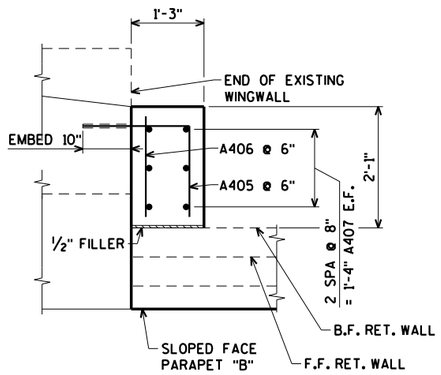


▲PARAPET EXPANSION JOINT DETAIL



CLOSURE WALL DETAIL

(WALL STATION 0+00.00)
LOOKING EAST



CLOSURE WALL PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-32-64

DRAWN BY CJM | PLANS CK'D. JCK

ANCHOR SLAB & CLOSURE WALL DETAILS

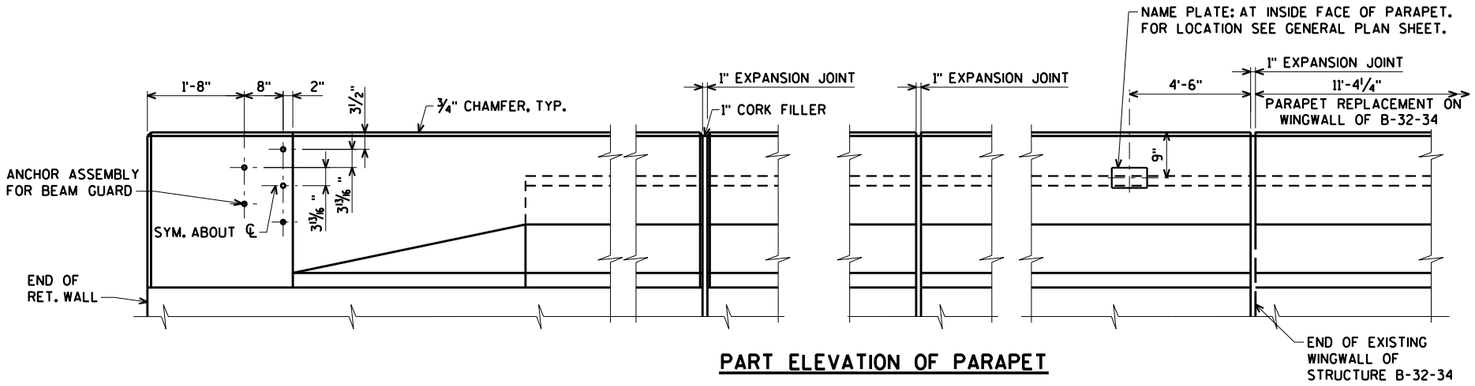
SHEET 4 OF 6
633

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

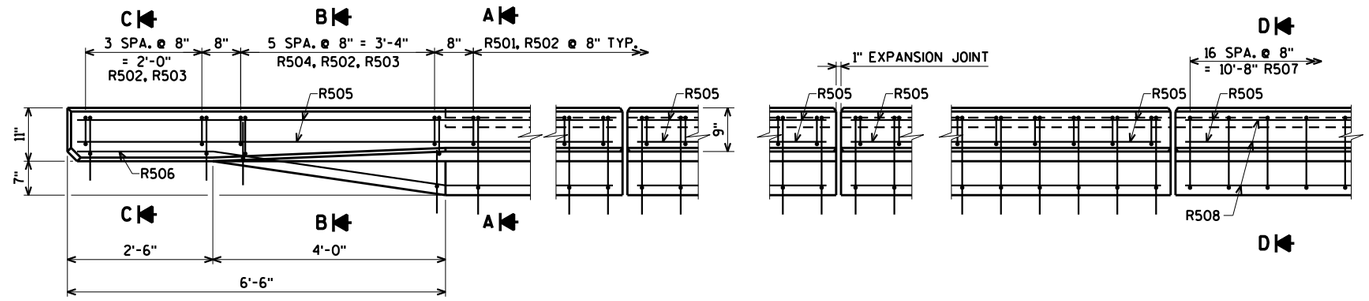
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6/12/2015
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STATE PROJECT NUMBER

1071-06-79



PART ELEVATION OF PARAPET

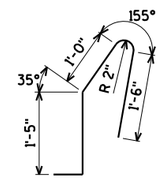


PART PLAN OF PARAPET

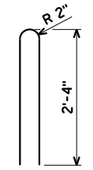
BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	7,260# COATED LOCATION
R501	X	520	4-10	X		PARAPET VERT.
R502	X	520	4-10	X		PARAPET VERT.
R503	X	10	5-0	X		PARAPET VERT.
R504	X	6	4-0	X		PARAPET VERT.
R505	X	4	345-4			PARAPET HORIZ.
R506	X	1	345-4	X		PARAPET HORIZ.
R507	X	17	4-4	X		PARAPET ON WING VERT.
R508	X	5	11-0			PARAPET ON WING HORIZ.

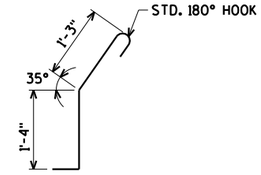
NUMBER REQUIRED AND LENGTH SHOWN FOR QUANTITY PURPOSES ONLY. CONTRACTOR TO DETERMINE ACTUAL LENGTHS AND NUMBER OF R505 AND R506 BARS AFTER M.S.E. PANELS HAVE BEEN LAID OUT BY THE WALL SUPPLIER. THE PARAPET AND ANCHOR SLAB EXPANSION JOINTS MUST COINCIDE WITH PANEL ON THE FRONT FACE. PROVIDE 2" CLEAR COVER AT EXPANSION JOINTS.



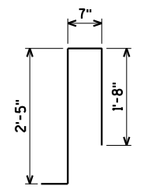
R501



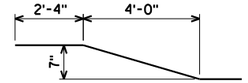
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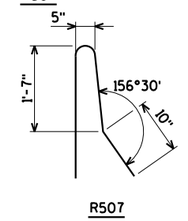
R504



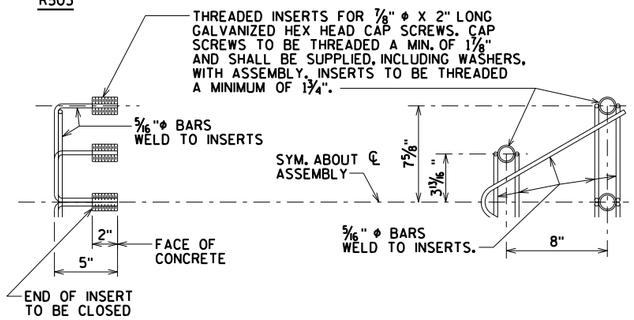
R503



R506



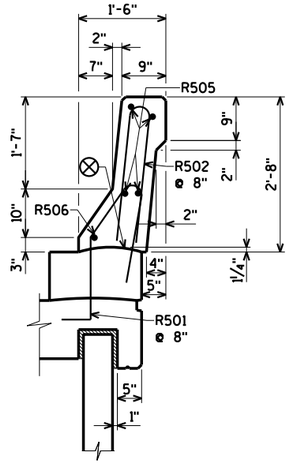
R507



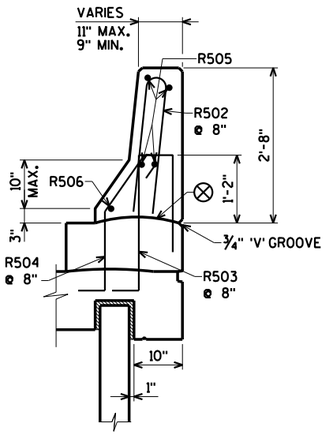
DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

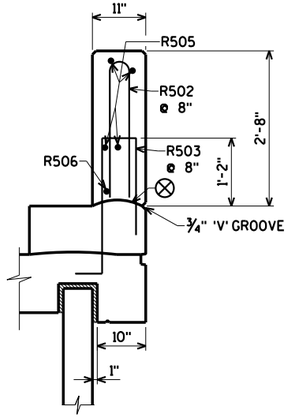
ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



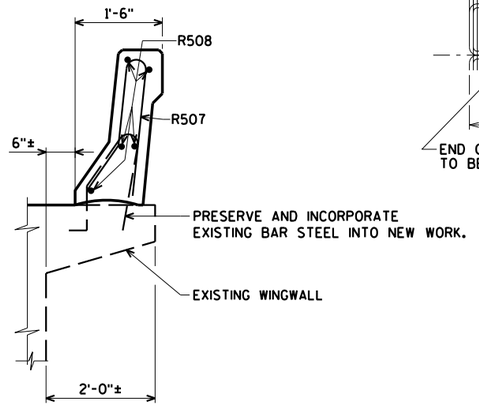
SECTION A



SECTION B



SECTION C



SECTION D

⊗ CONST. JOINT - STRIKE OFF AS SHOWN & FINISH WITH A WOODEN TROWEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-32-64

DRAWN BY CJM | PLANS CK'D. JCK

PARAPET DETAILS

SHEET 5 OF 6
634

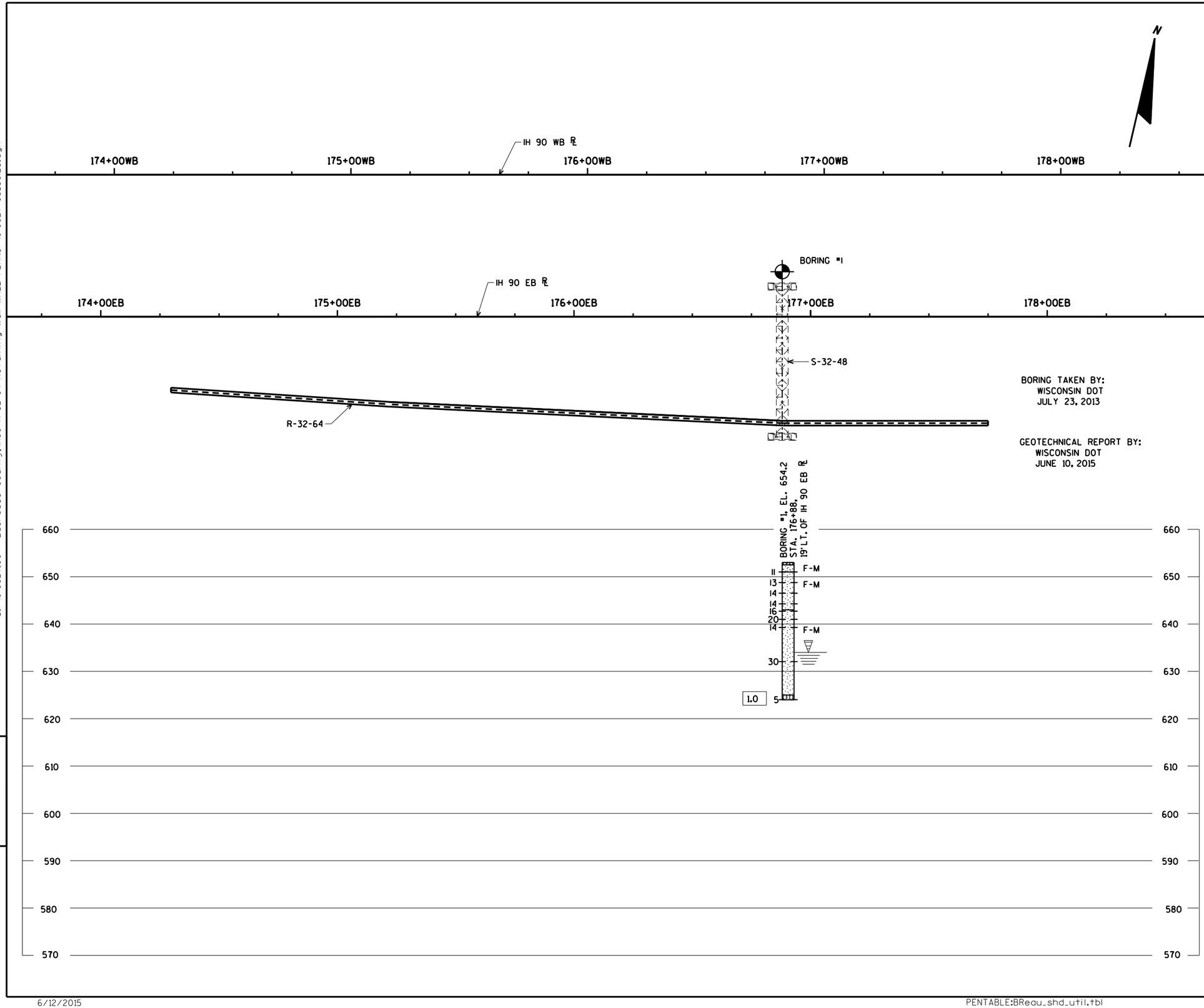
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

$PRFNAME$
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8

$PRFNAME$
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BORING TAKEN BY:
WISCONSIN DOT
JULY 23, 2013

GEOTECHNICAL REPORT BY:
WISCONSIN DOT
JUNE 10, 2015

STATE PROJECT NUMBER

1071-06-79

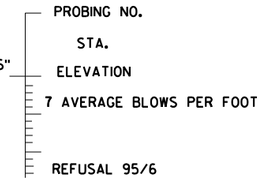
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

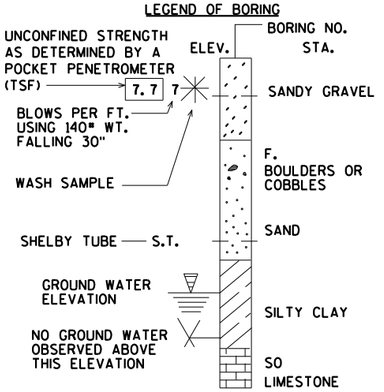
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-32-64

DRAWN BY CJM | PLANS CK'D. JCK

SUBSURFACE EXPLORATION

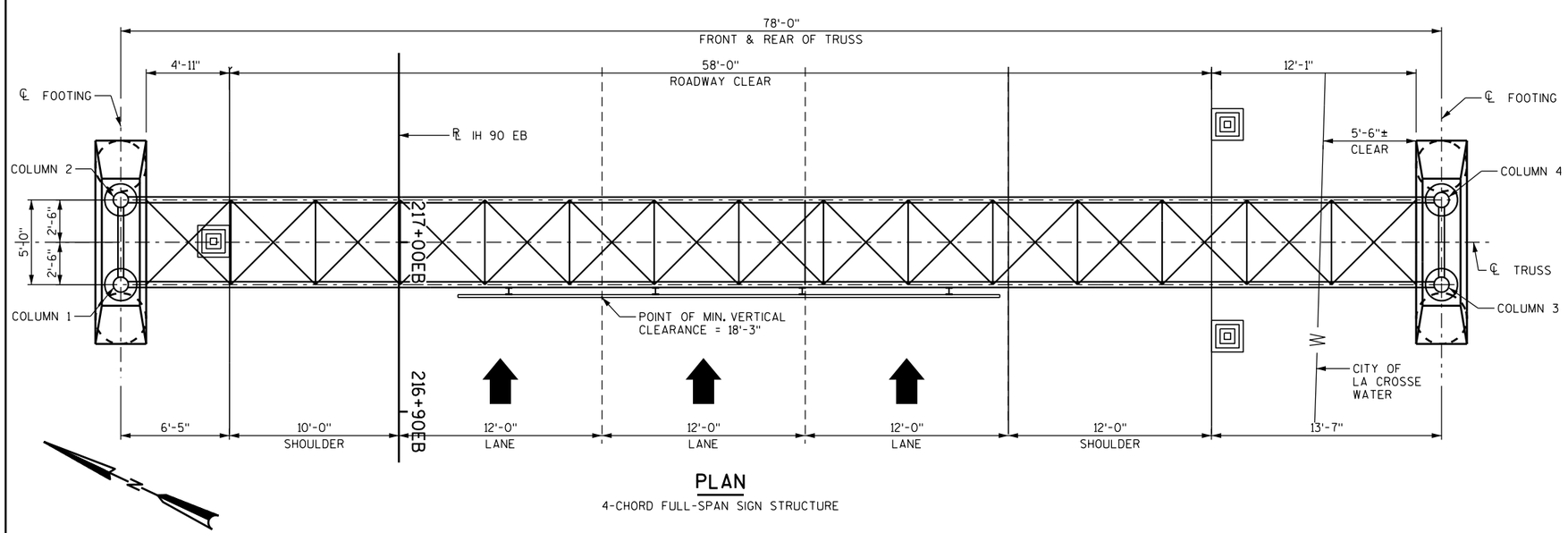
SHEET 6 OF 6
635

8

8

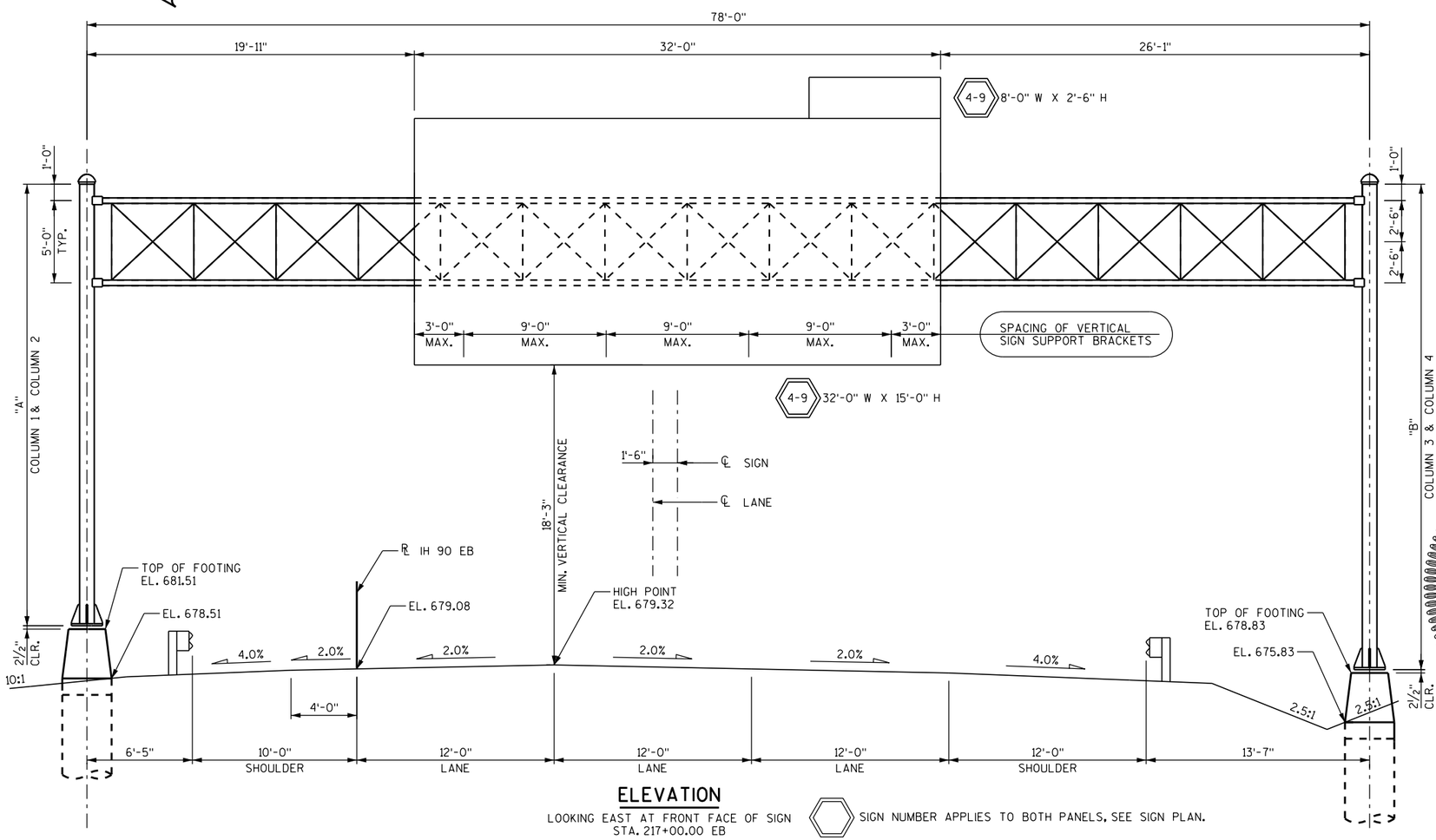
6/12/2015

PENTABLE:BReau_shd_util.tbl



PLAN

4-CHORD FULL-SPAN SIGN STRUCTURE



ELEVATION

LOOKING EAST AT FRONT FACE OF SIGN
STA. 217+00.00 EB

SIGN NUMBER APPLIES TO BOTH PANELS. SEE SIGN PLAN.

STATE PROJECT NUMBER

1071-06-79

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

CENTER SIGNS VERTICALLY ON TRUSS.

ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

HANDHOLES ARE NOT REQUIRED.

ALL SIGNS ARE TYPE I.

DESIGN DATA

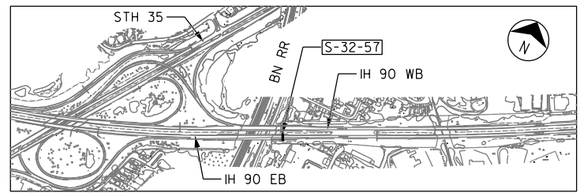
DESIGN SIGN AREA = 720 SF
MAX. SIGN DEPTH = 15'-0"

DEAD LOAD - WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD - 3 PSF TO 1 FACE OF SIGN AND AROUND SURFACE OF MEMBERS
WIND VELOCITY - 90 MPH (3-SECOND GUST SPEED) TO SIGN AREA
AND EXPOSED MEMBERS.

WIND COMPONENTS	NORMAL	TRANSVERSE
COMBINATION 1	1.0	0.2
COMBINATION 2	0.6	0.3

GROUP LOADS	% OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD + WIND	133
3. DEAD + ICE + ½ (WIND*)	133

* MIN. VALUE OF 25 PSF FOR GROUP 3.



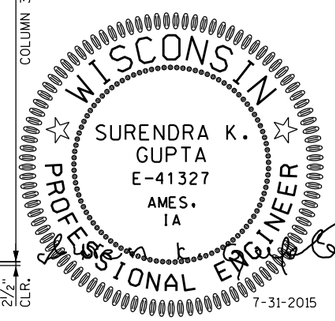
LOCATION MAP

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. 4-CHORD GALVANIZED STEEL SIGN BRIDGE
3. 4-CHORD SIGN BRIDGE DETAILS
4. SIGN BRIDGE TRUSS FOOTING
5. SUBSURFACE EXPLORATION

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	28
636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	3470
641.6600	SIGN BRIDGE S-32-57	LS	1



STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
SUREN GUPTA, P.E. (262) 821-1171

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 09/04/15
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE S-32-57

SIGN BRIDGE OVER IH 90 EB

COUNTY	CITY
LA CROSSE	ONALASKA

DESIGN SPEC.	LOAD 90 MPH 3 SEC. SPEED
AASHTO STANDARD SPECIFICATIONS	

DESIGNED BY NLD	DESIGN CK'D. VJD	DRAWN BY VJD	PLANS CK'D. SG

GENERAL PLAN AND ELEVATION

SHEET 1 OF 5
636

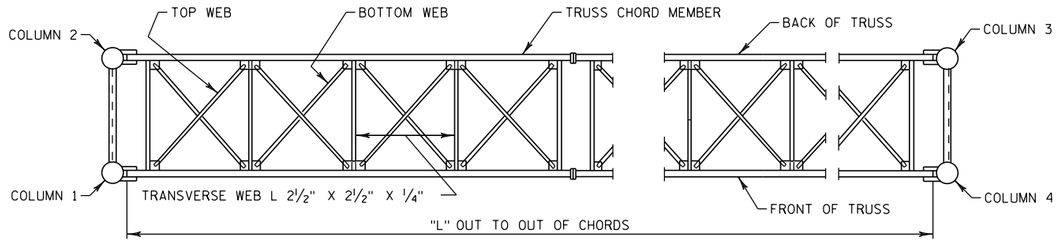
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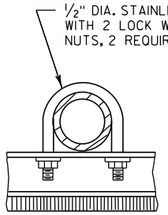
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STATE PROJECT NUMBER

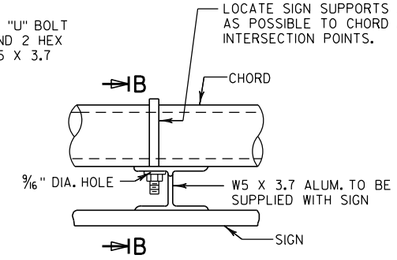
1071-06-79



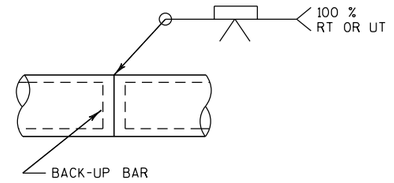
PLAN



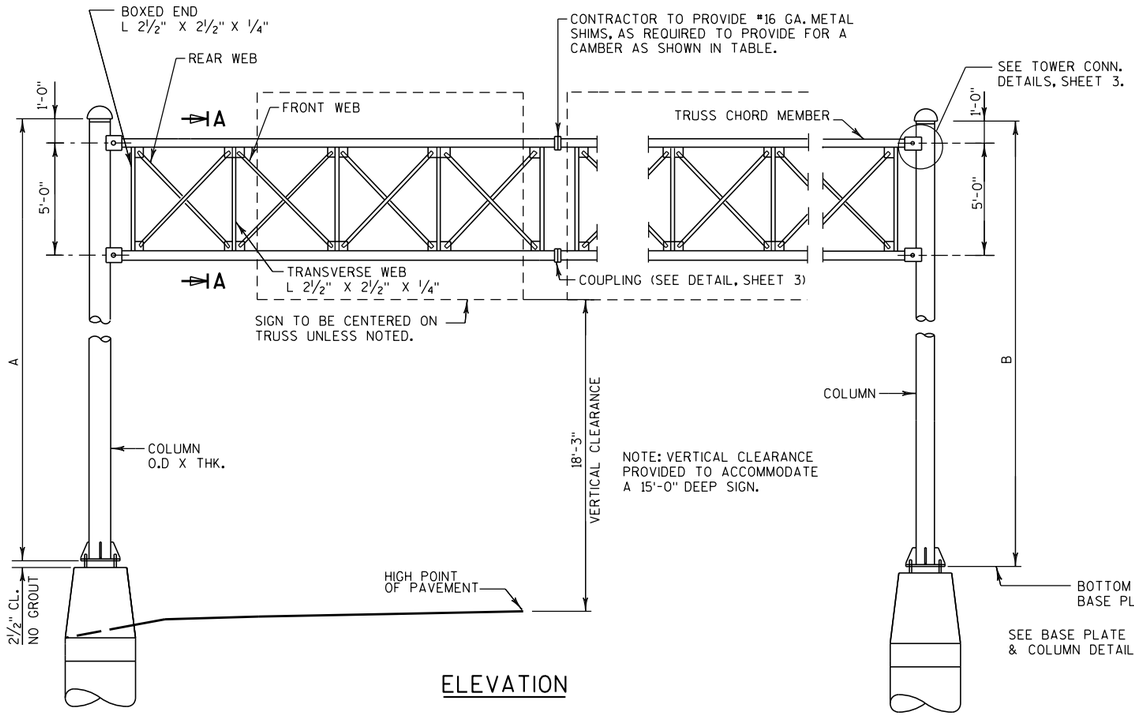
SECTION B



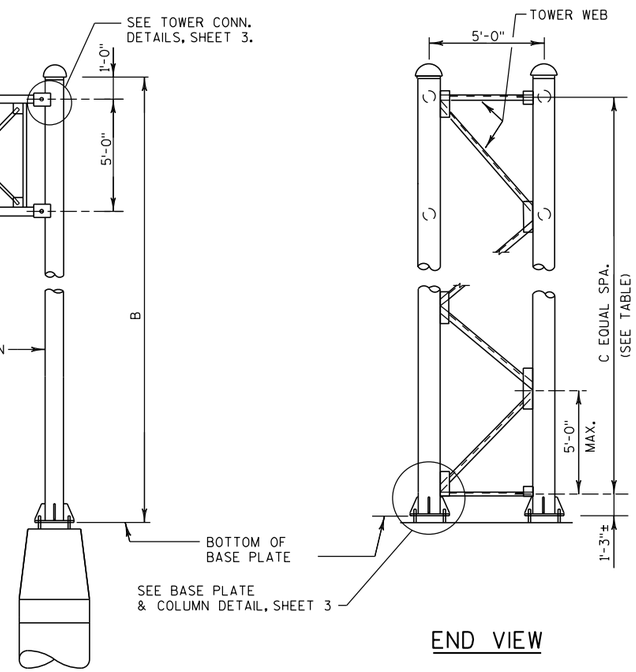
TYPICAL SIGN CONNECTION



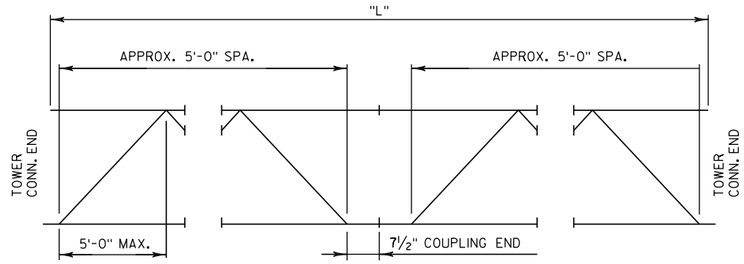
CHORD SPLICE



ELEVATION

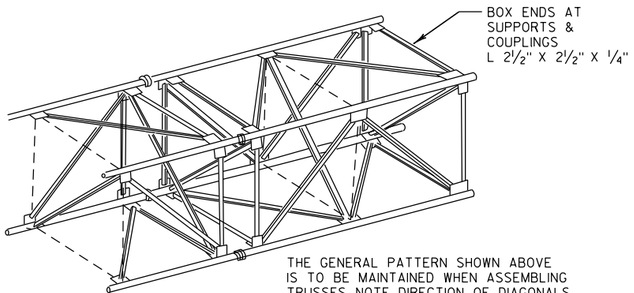


END VIEW



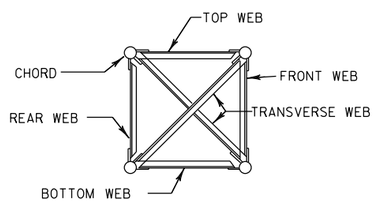
TRUSS ARRANGEMENT

FABRICATOR MAY MAKE TRUSSES ANY LENGTH KEEPING A SECTION A MINIMUM OF 20'-0" & A MULTPLE OF 5'-0". CHORD FIELD SPLICES SHALL BE MADE WITH COUPLINGS. CHORD SHOP SPLICE SHALL BE THE WELDED SPLICE SHOWN ABOVE.



THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES. NOTE DIRECTION OF DIAGONALS AT JOINTS.

TYPICAL TRUSS SECTION



SECTION A

NOTES

DRAWINGS SHALL NOT BE SCALED.

STEEL COLUMN PIPE SHALL BE API SPEC. 5L GRADE X42 Fy = 42,000 PSI.
ALL STEEL PIPE MEMBERS OF TRUSS SHALL BE API SPEC. 5L GRADE X42 Fy = 42,000 PSI.
PLATES, BARS, STRUCTURAL ANGLES SHALL BE ASTM A709 GRADE 36 Fy = 36,000 PSI.
ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED.
ALL BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA. A325 BOLTS, GALVANIZED ASTM A153, CLASS C.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF UNIT CAN BE GALVANIZED IN ONE PIECE.

STEEL ANCHOR BOLTS SHALL BE AASHTO M314-90 GRADE 55. Fy = 55,000 PSI.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERRECTION. BLANKS SHALL BE ¼ THE LENGTH OF THE BRIDGE. 2'-0" DEEPER THAN C TO C OF CHORDS & SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED IN PLANS.

THE UPPER 12" ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE AASHTO SPECIFICATION AS STATED IN SECTION 641. OF THE WISDOT STANDARD SPECIFICATIONS.

WELD TEST AS PER AWS D1.1.

STRUCTURE	A	B	C	CHORD O.D. X THK.	TOP & BOTTOM WEB	FRONT & REAR WEB	COUPLING PLATE "D1" & "T"	BOLT CIRCLE DIA. "D2"	NO. OF BOLTS IN COUPLING	CAMBER	COLUMN O.D. X THK.	TOWER WEB	"L"
S-32-57	26'-11"	27'-7"	5 NORTH TOWER 5 SOUTH TOWER	4.5"X0.237"	3"X3"X¼"	3"X3"X¼"	10" & 1"	7½"	6	1⅜"	10.75"X0.250"	4"X4"X⅜"	76'-10¼"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-57

DRAWN BY NLD | PLANS CK'D. SG

4-CHORD GALVANIZED STEEL SIGN BRIDGE

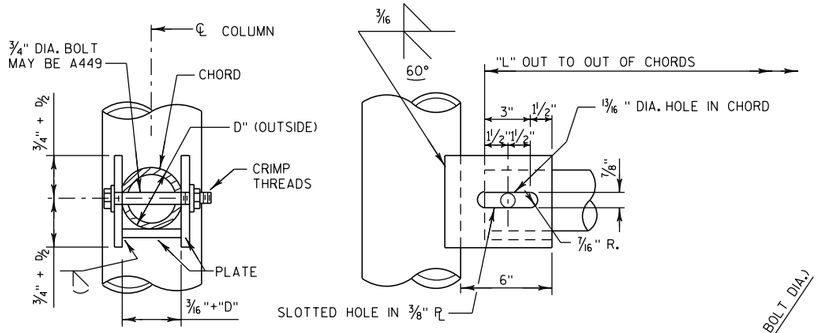
SHEET 2 OF 5
637

8

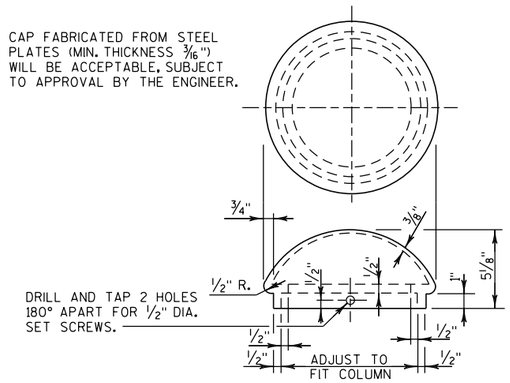
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STATE PROJECT NUMBER

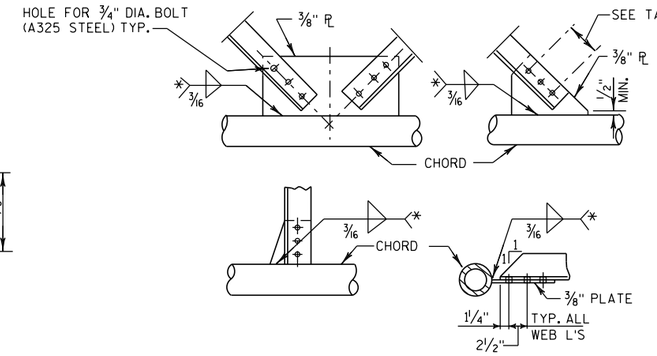
1071-06-79



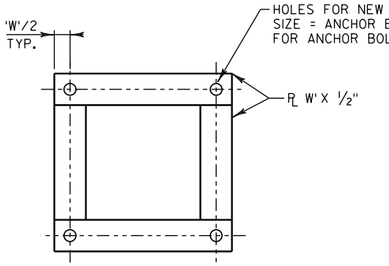
TOWER CONNECTION DETAIL



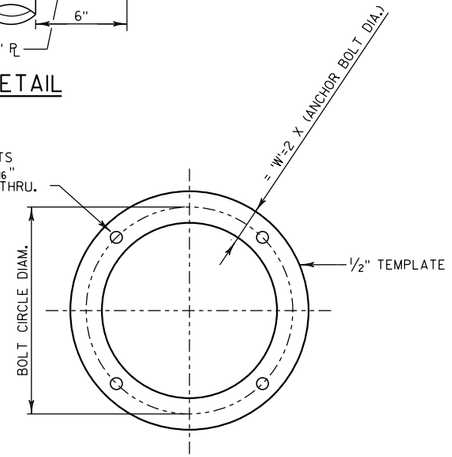
TOWER CAP DETAIL



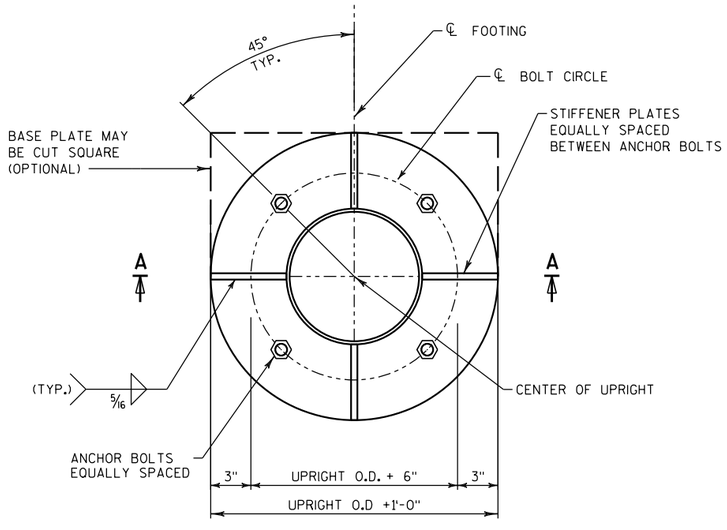
TYPICAL TRUSS CONNECTION DETAILS



ALTERNATE TEMPLATE PLAN

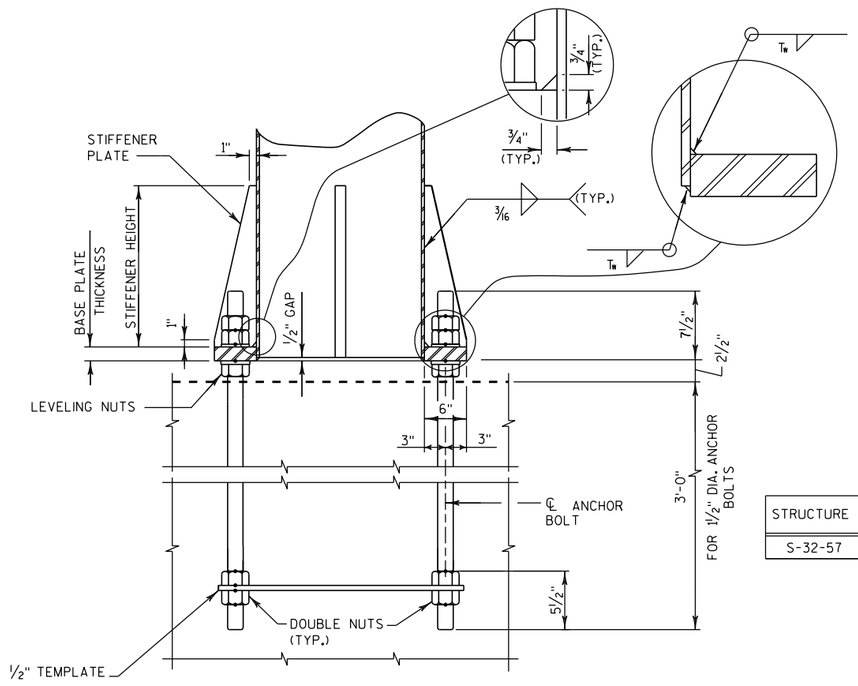


TEMPLATE PLAN



PLAN VIEW

(BASE PLATE)

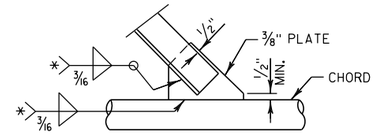


SECTION A-A

STRUCTURE	COLUMN O.D. X THK.	ANCHOR BOLTS DIAMETER	BASE PLATE THICKNESS (IN.)	STIFFENER PLATE THICKNESS (IN.)	STIFFENER PLATE HEIGHT (IN.)	T_w (IN.)
S-32-57	10.75"X0.250"	1½"	1½"	½"	12"	¼"

NOTE:

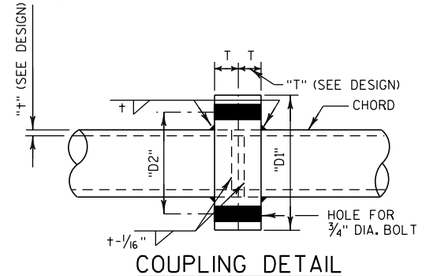
PRIOR TO INSTALLATION, ANCHOR BOLTS SHALL BE RIGIDLY HELD IN POSITION DURING CONCRETE PLACEMENT USING STEEL ANCHOR PLATE AND TOP TEMPLATE. REMOVE TOP TEMPLATE (NOT SHOWN AFTER CONCRETE SETS.



TYPICAL WELDED ALTERNATE

*ANGLE	WELD LENGTH	NO. OF BOLTS
● 2½"x2½"x¼"	11"	3
3"x3"x3/16"	10"	3
3"x3"x¼"	13"	4
3"x3"x5/16"	16½"	5
3"x3"x⅜"	19½"	6
4"x4"x¼"	18"	5
4"x4"x5/16"	22"	6
4"x4"x⅜"	26"	8
4"x4"x7/16"	30"	9
4"x4"x½"	34"	10

● ONLY USED FOR BOXED END AND TRANSVERSE BRACING.



COUPLING DETAIL

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STRUCTURE S-32-57

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4-CHORD SIGN BRIDGE DETAILS

SHEET 3 OF 5

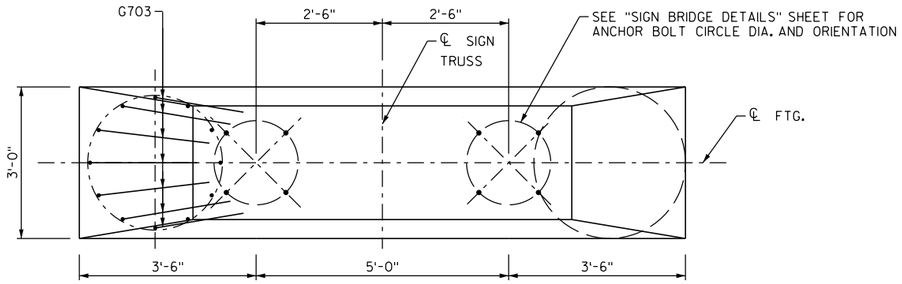
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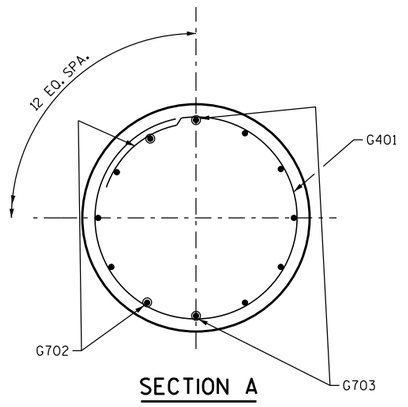
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STATE PROJECT NUMBER

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PLAN



SECTION A

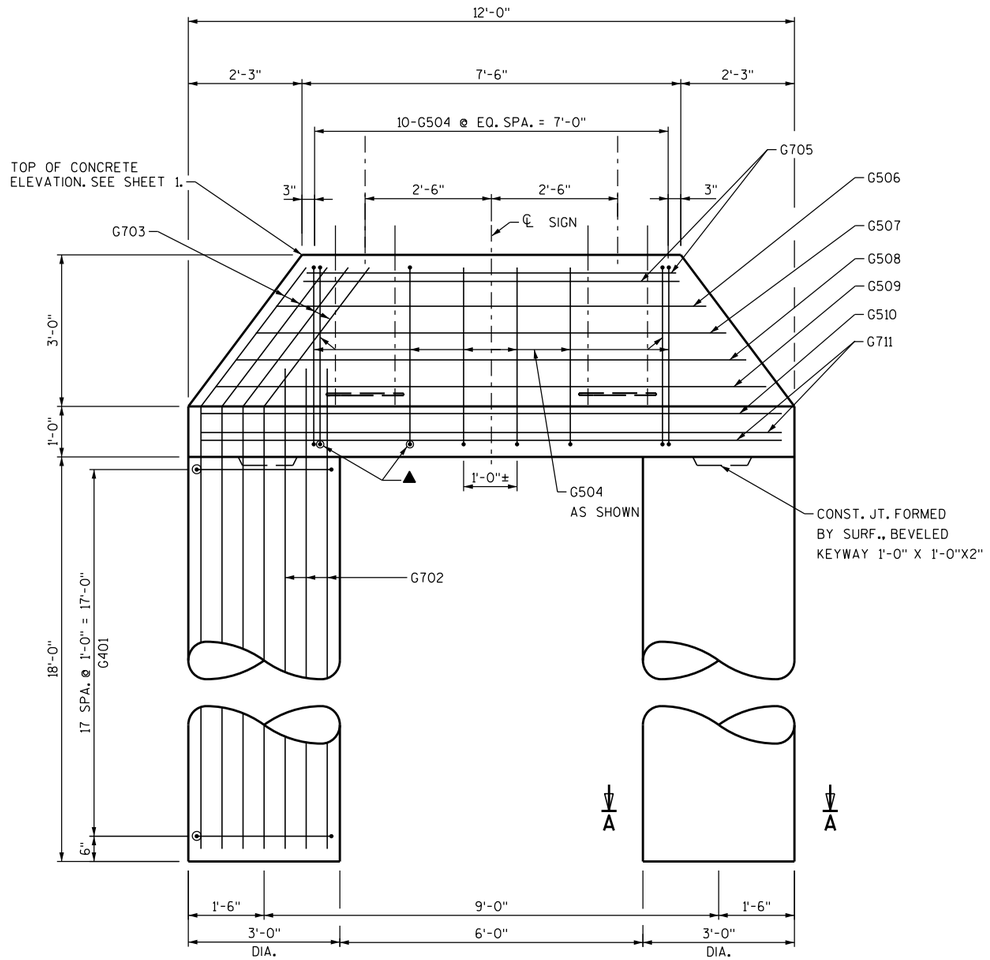
BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

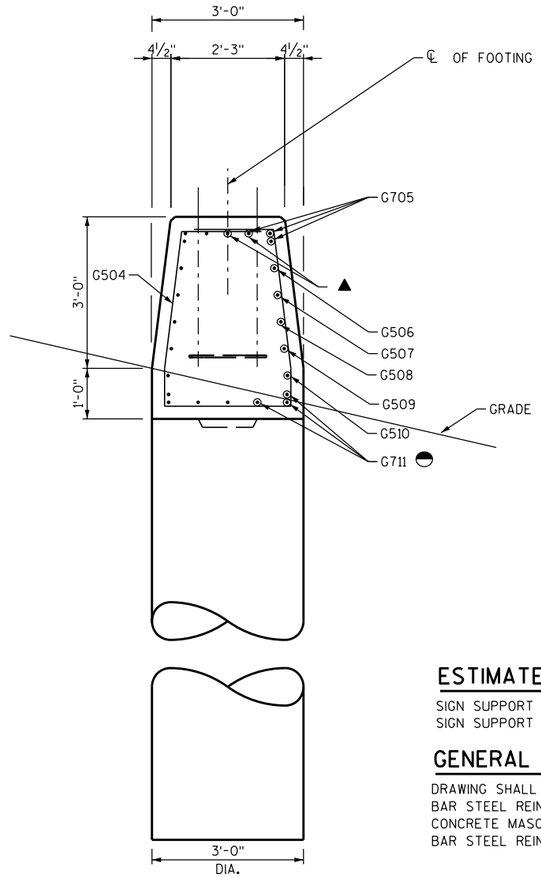
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
G401		36	8'-11"	X		FOOTING-HOOPS
G702		10	20'-0"			FOOTING-VERTICAL
G703		14	22'-2"	X		FOOTING-VERTICAL
G504		8	12'-5"	X		FOOTING-STIRRUPS
G705		7	7'-4"			FOOTING-HORIZONTAL
G506		2	8'-4"			FOOTING-HORIZONTAL
G507		2	9'-2"			FOOTING-HORIZONTAL
G508		2	9'-11"			FOOTING-HORIZONTAL
G509		2	10'-9"			FOOTING-HORIZONTAL
G510		2	11'-6"			FOOTING-HORIZONTAL
G711		7	11'-6"			FOOTING-HORIZONTAL

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

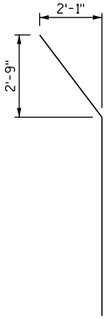
QUANTITY OF BARS IN TABLE IS FOR ONE FOOTING.



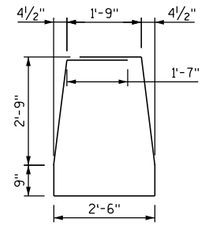
ELEVATION
(ONE FTG.)



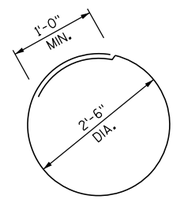
END VIEW



G703



G504



G401

SOIL DESIGN PARAMETERS

FRICTION ANGLE = 31 DEGREES
SOIL UNIT WEIGHT = 115 PCF

ESTIMATED QUANTITIES (ONE FOOTING)

SIGN SUPPORT CONCRETE MASONRY---------- 14 CY
SIGN SUPPORT STEEL REINFORCEMENT HS ---------- 1,735 LB

GENERAL NOTES

DRAWING SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CL.
CONCRETE MASONRY---------- fc'= 3,500 PSI
BAR STEEL REINF. -----GRADE 60 fy = 60,000 PSI

◓ SPACE TO MISS VERT. SHAFT REINF.
▲ SPACE TO MISS ANCHOR BOLTS. TIE IN PLACE AFTER ANCHOR BOLT ASSEMBLY LOCATED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-57

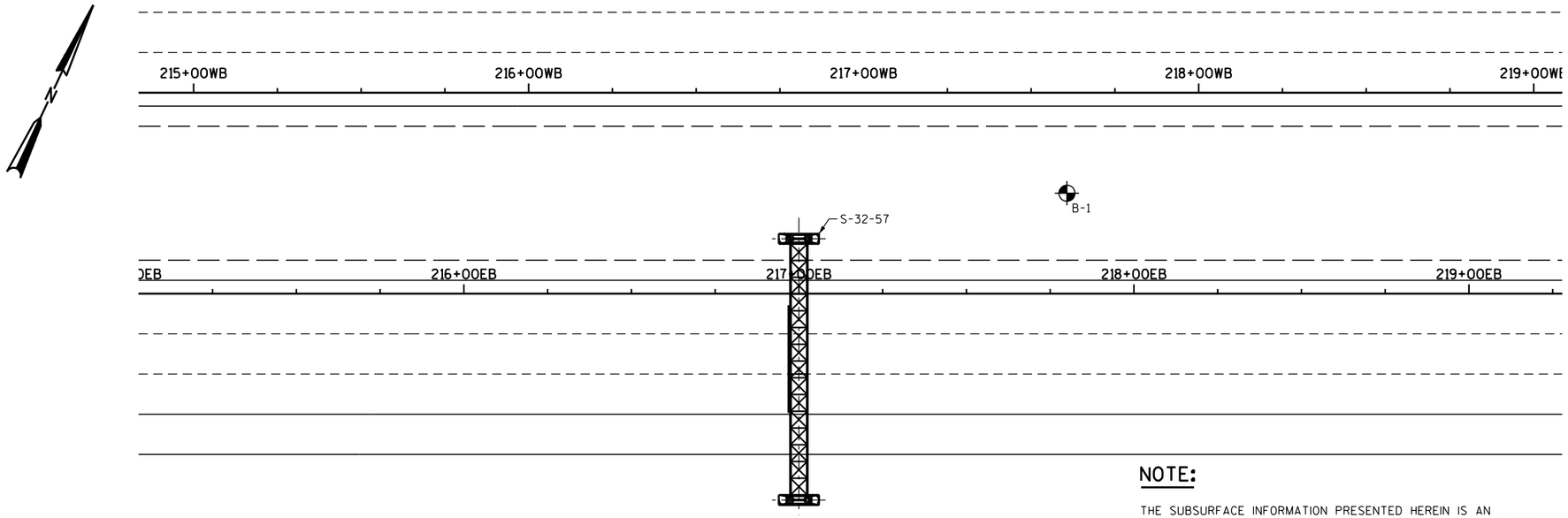
DRAWN BY NLD | PLANS CK'D. SG

SIGN BRIDGE TRUSS FOOTING

SHEET 4 OF 5
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8

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NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

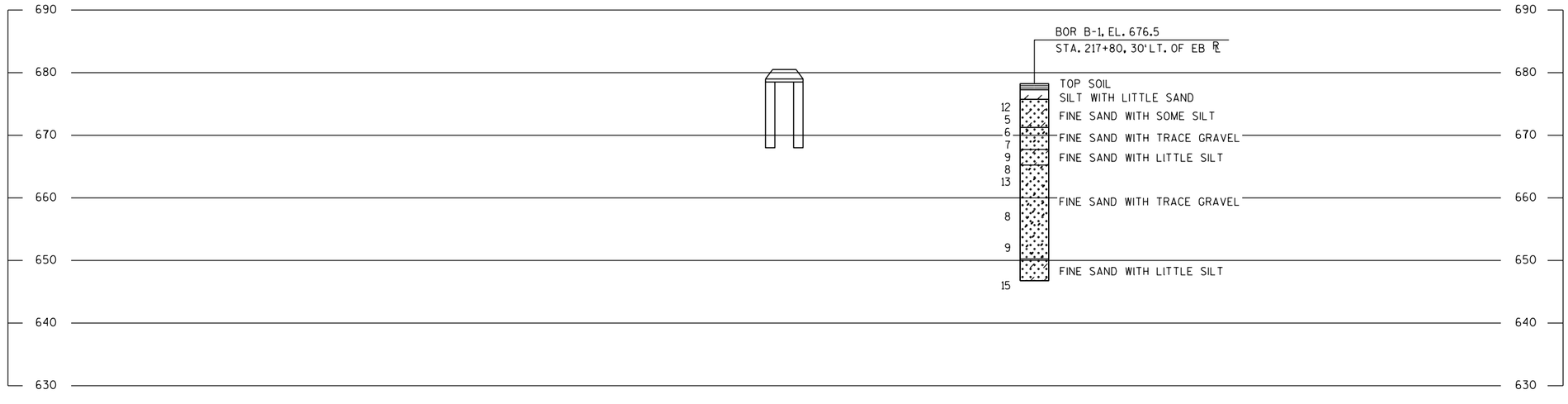
BORING STATIONS AND OFFSETS ARE BASED ON IH 90 EB ℄.

DENOTES SOIL BORING LOCATION

SOIL BORING COMPLETED BY:
WISDOT

SOIL BORING TAKEN:
MARCH 2014 - BORING B-1

PLAN



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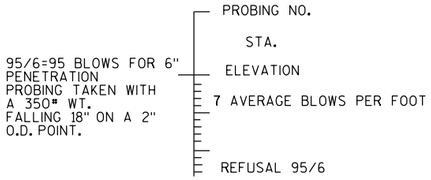
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

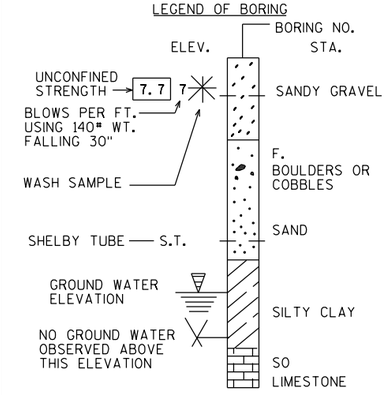
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-57

DRAWN BY NLD | PLANS CK'D. VJD

SUBSURFACE EXPLORATION

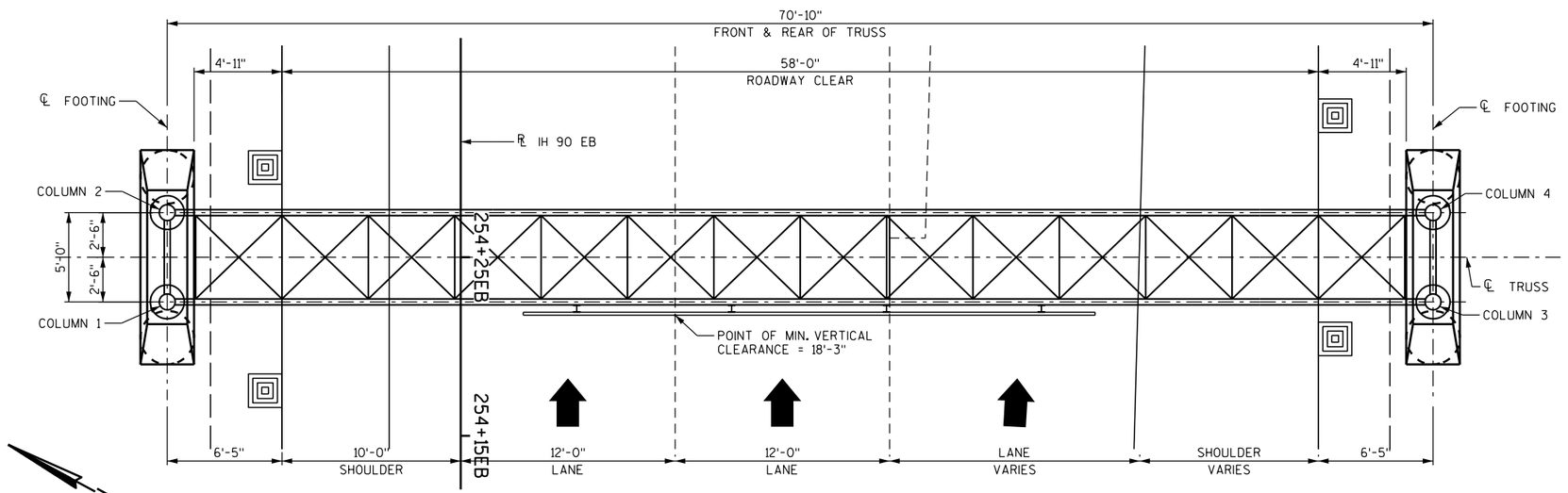
SHEET 5 OF 5

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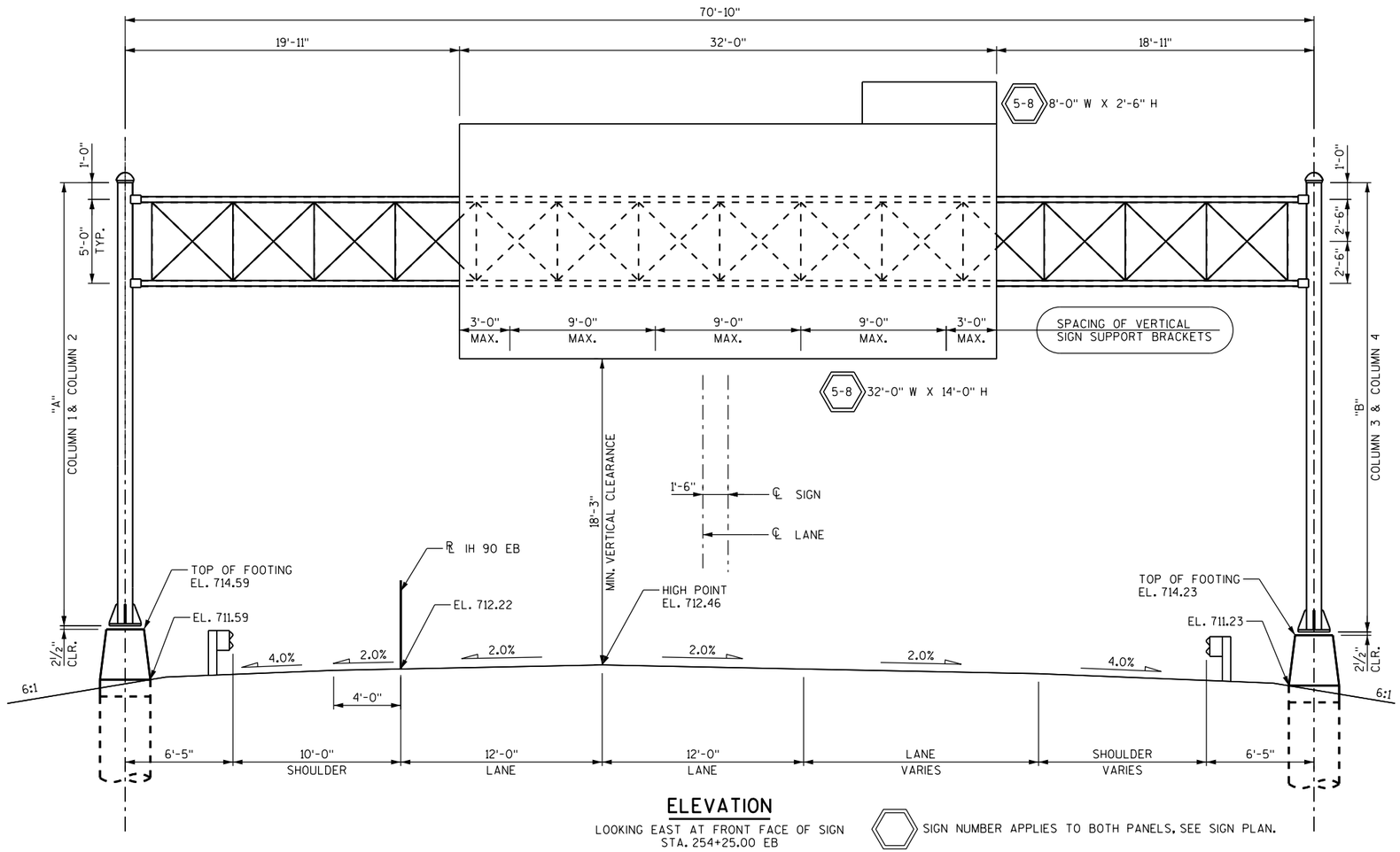
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PLAN

4-CHORD FULL-SPAN SIGN STRUCTURE



ELEVATION

LOOKING EAST AT FRONT FACE OF SIGN
STA. 254+25.00 EB

⬡ SIGN NUMBER APPLIES TO BOTH PANELS, SEE SIGN PLAN.

STATE PROJECT NUMBER

1071-06-79

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

CENTER SIGNS VERTICALLY ON TRUSS.

ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

HANDHOLES ARE NOT REQUIRED.

ALL SIGNS ARE TYPE I.

DESIGN DATA

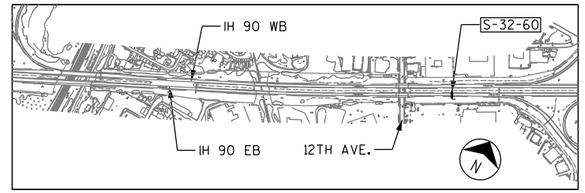
DESIGN SIGN AREA = 680 SF
MAX. SIGN DEPTH = 14'-0"

DEAD LOAD - WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD - 3 PSF TO 1 FACE OF SIGN AND AROUND SURFACE OF MEMBERS
WIND VELOCITY - 90 MPH (3-SECOND GUST SPEED) TO SIGN AREA
AND EXPOSED MEMBERS.

WIND COMPONENTS	NORMAL	TRANSVERSE
COMBINATION 1	1.0	0.2
COMBINATION 2	0.6	0.3

GROUP LOADS	% OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD + WIND	133
3. DEAD + ICE + ½ (WIND*)	133

* MIN. VALUE OF 25 PSF FOR GROUP 3.



LOCATION MAP

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. 4-CHORD GALVANIZED STEEL SIGN BRIDGE
3. 4-CHORD SIGN BRIDGE DETAILS
4. SIGN BRIDGE TRUSS FOOTING
5. SUBSURFACE EXPLORATION

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	28
636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	3470
641.6600	SIGN BRIDGE S-32-60	LS	1

WISCONSIN
SURENDRA K. GUPTA
E-41327
AMES, IA
PROFESSIONAL ENGINEER
7-31-2015

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
SUREN GUPTA, P.E. (262) 821-1171

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 09/04/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE S-32-60

SIGN BRIDGE OVER IH 90 EB

COUNTY	CITY
LA CROSSE	ONALASKA

DESIGN SPEC.	LOAD
AASHTO STANDARD SPECIFICATIONS	90 MPH 3 SEC. SPEED

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
NLD	VJD	VJD	SG

GENERAL PLAN AND ELEVATION

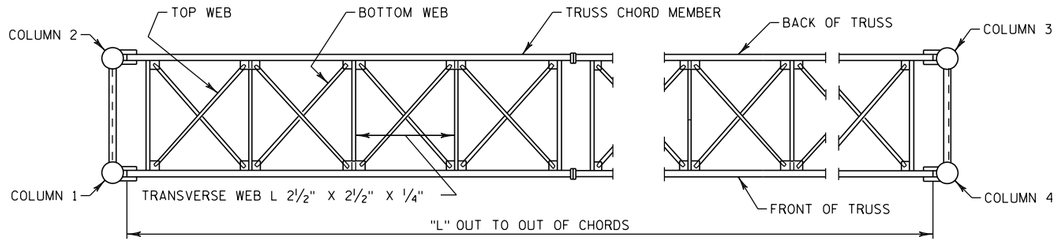
SHEET 1 OF 5
641

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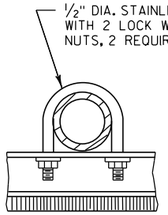
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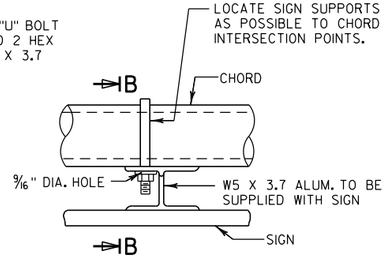
1071-06-79



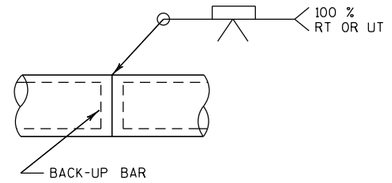
PLAN



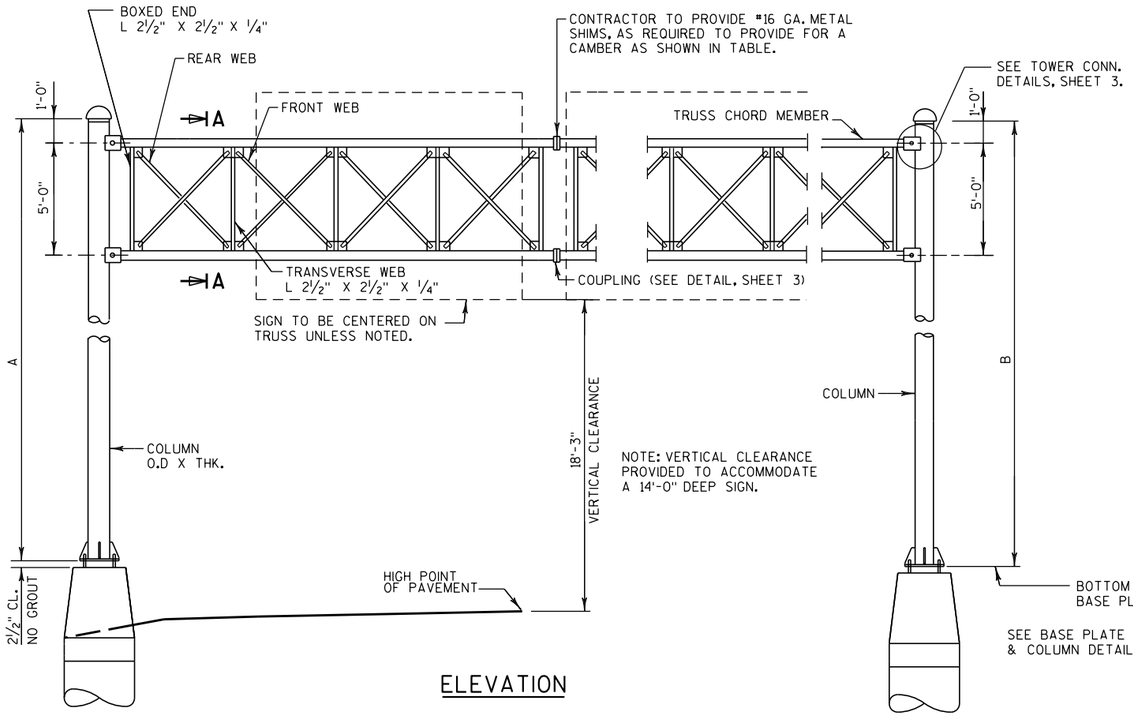
SECTION B



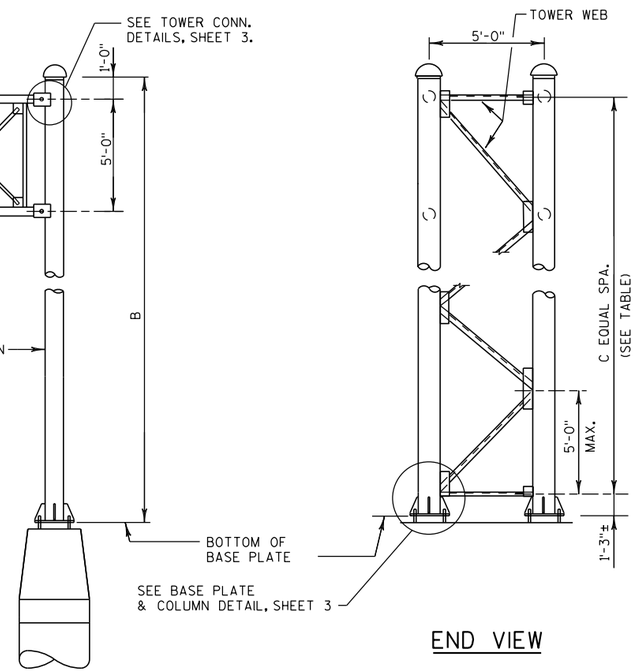
TYPICAL SIGN CONNECTION



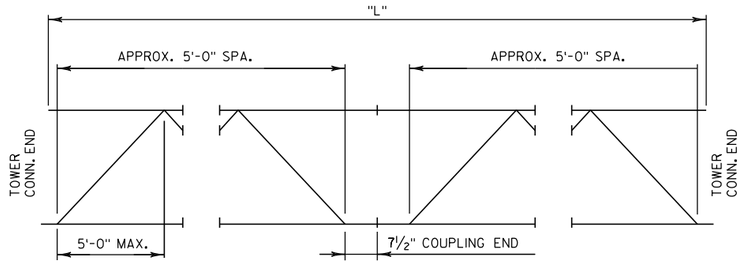
CHORD SPLICE



ELEVATION

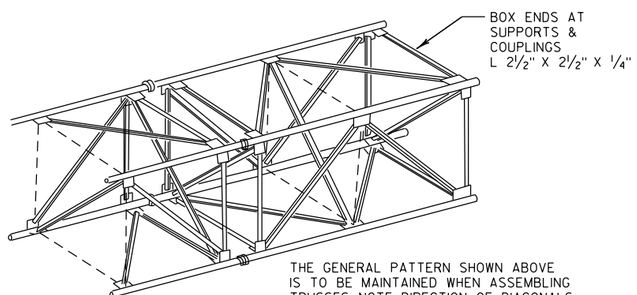


END VIEW



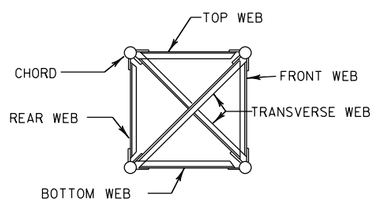
TRUSS ARRANGEMENT

FABRICATOR MAY MAKE TRUSSES ANY LENGTH KEEPING A SECTION A MINIMUM OF 20'-0" & A MULTPLE OF 5'-0". CHORD FIELD SPLICES SHALL BE MADE WITH COUPLINGS. CHORD SHOP SPLICE SHALL BE THE WELDED SPLICE SHOWN ABOVE.



THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES. NOTE DIRECTION OF DIAGONALS AT JOINTS.

TYPICAL TRUSS SECTION



SECTION A

NOTES

DRAWINGS SHALL NOT BE SCALED.

STEEL COLUMN PIPE SHALL BE API SPEC. 5L GRADE X42 Fy = 42,000 PSI.
ALL STEEL PIPE MEMBERS OF TRUSS SHALL BE API SPEC. 5L GRADE X42 Fy = 42,000 PSI.
PLATES, BARS, STRUCTURAL ANGLES SHALL BE ASTM A709 GRADE 36 Fy = 36,000 PSI.
ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED.
ALL BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA. A325 BOLTS, GALVANIZED ASTM A153, CLASS C.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF UNIT CAN BE GALVANIZED IN ONE PIECE.

STEEL ANCHOR BOLTS SHALL BE AASHTO M314-90 GRADE 55. Fy = 55,000 PSI.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERRECTION. BLANKS SHALL BE ¼ THE LENGTH OF THE BRIDGE. 2'-0" DEEPER THAN C TO C OF CHORDS & SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED IN PLANS.

THE UPPER 12" ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE AASHTO SPECIFICATION AS STATED IN SECTION 641. OF THE WISDOT STANDARD SPECIFICATIONS.

WELD TEST AS PER AWS D1.1.

STRUCTURE	A	B	C	CHORD O.D. X THK.	TOP & BOTTOM WEB	FRONT & REAR WEB	COUPLING PLATE "D1" & "T"	BOLT CIRCLE DIA. "D2"	NO. OF BOLTS IN COUPLING	CAMBER	COLUMN O.D. X THK.	TOWER WEB	"L"
S-32-60	26'-5"	26'-10"	5 NORTH TOWER 5 SOUTH TOWER	4.5"X0.237"	3"X3"X¼"	3"X3"X¼"	10" & 1"	7½"	6	1⅛"	10.75"X0.250"	4"X4"X⅜"	69'-8¼"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-60

DRAWN BY NLD | PLANS CK'D. SG

4-CHORD GALVANIZED STEEL SIGN BRIDGE

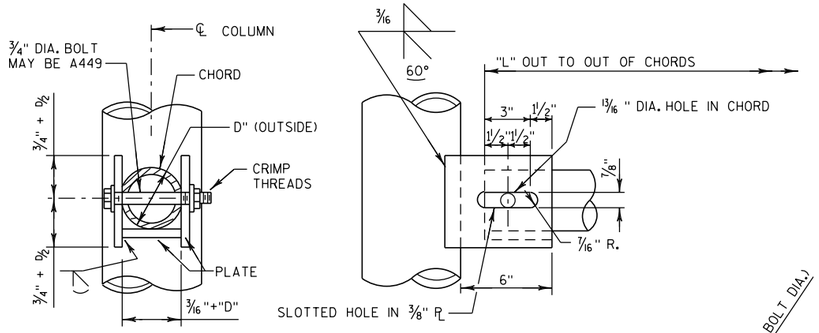
SHEET 2 OF 5
642

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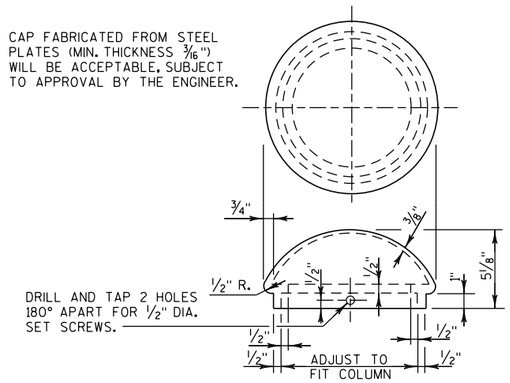
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STATE PROJECT NUMBER

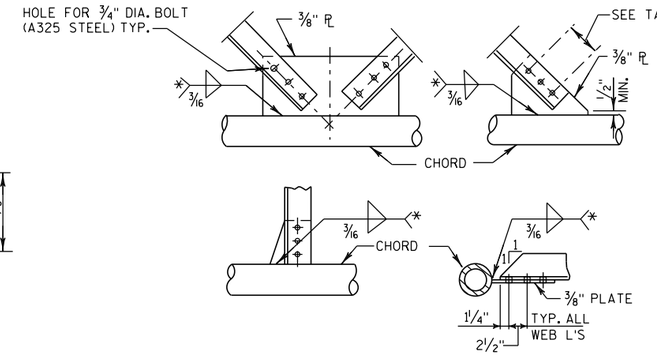
1071-06-79



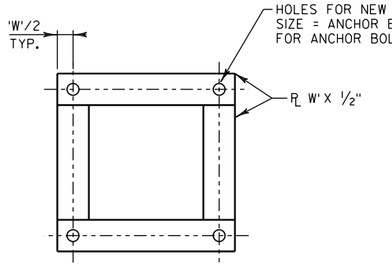
TOWER CONNECTION DETAIL



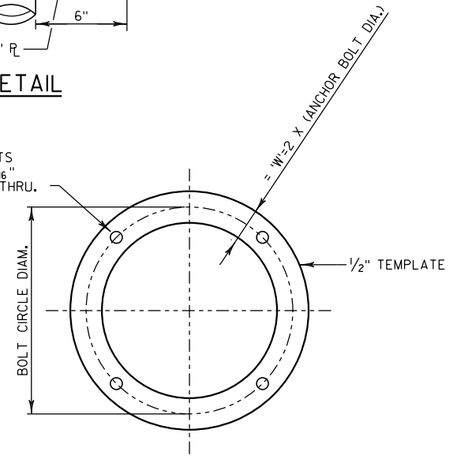
TOWER CAP DETAIL



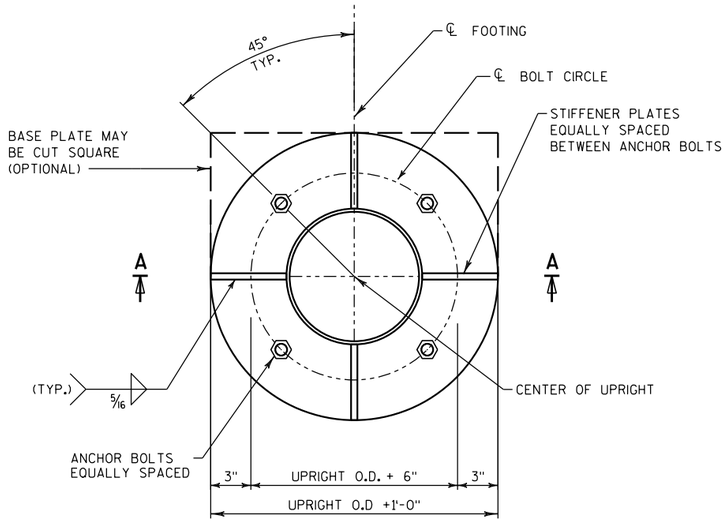
TYPICAL TRUSS CONNECTION DETAILS



ALTERNATE TEMPLATE PLAN

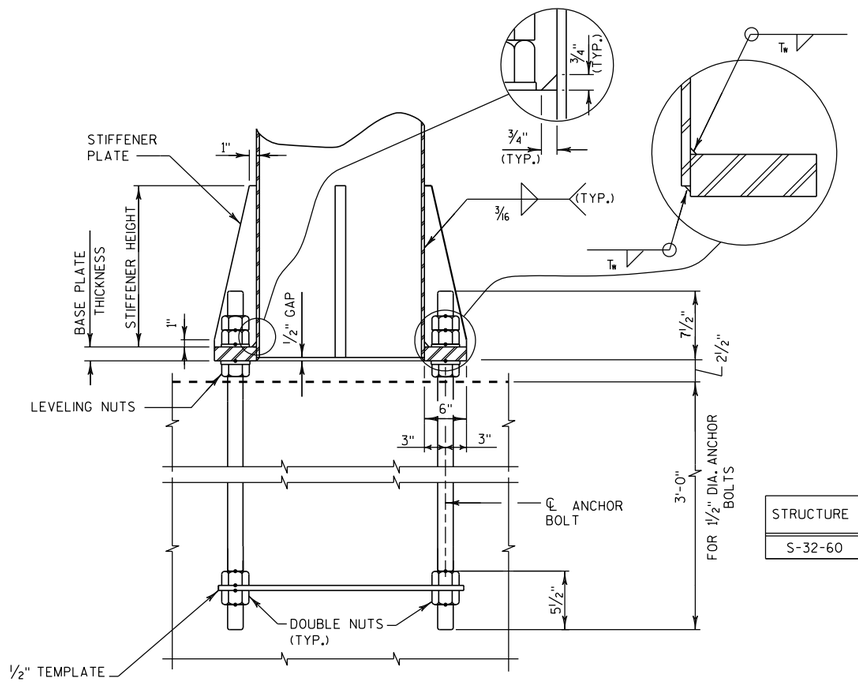


TEMPLATE PLAN



PLAN VIEW

(BASE PLATE)

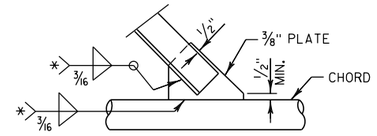


SECTION A-A

STRUCTURE	COLUMN O.D. X THK.	ANCHOR BOLTS DIAMETER	BASE PLATE THICKNESS (IN.)	STIFFENER PLATE THICKNESS (IN.)	STIFFENER PLATE HEIGHT (IN.)	Tw (IN.)
S-32-60	10.75"X0.250"	1½"	1½"	½"	12"	¼"

NOTE:

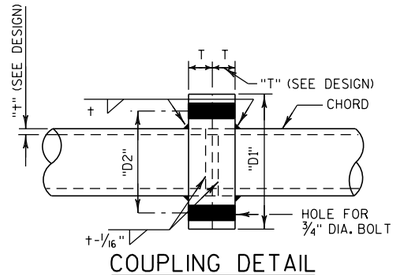
PRIOR TO INSTALLATION, ANCHOR BOLTS SHALL BE RIGIDLY HELD IN POSITION DURING CONCRETE PLACEMENT USING STEEL ANCHOR PLATE AND TOP TEMPLATE. REMOVE TOP TEMPLATE (NOT SHOWN AFTER CONCRETE SETS.



TYPICAL WELDED ALTERNATE

*ANGLE	WELD LENGTH	NO. OF BOLTS
● 2½"x2½"x¼"	11"	3
3"x3"x3/16"	10"	3
3"x3"x¼"	13"	4
3"x3"x5/16"	16½"	5
3"x3"x⅜"	19½"	6
4"x4"x¼"	18"	5
4"x4"x5/16"	22"	6
4"x4"x⅜"	26"	8
4"x4"x7/16"	30"	9
4"x4"x½"	34"	10

● ONLY USED FOR BOXED END AND TRANSVERSE BRACING.



COUPLING DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE S-32-60

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4-CHORD SIGN BRIDGE DETAILS

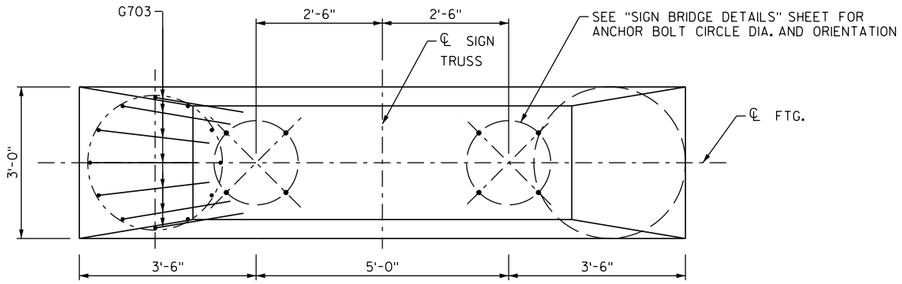
SHEET 3 OF 5
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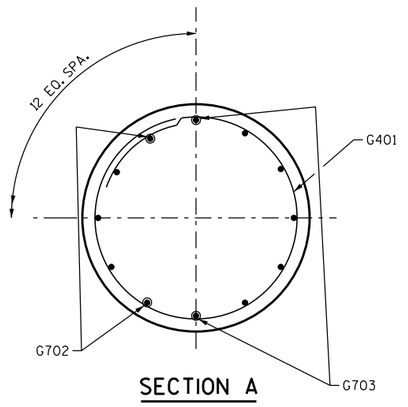
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PLAN



SECTION A

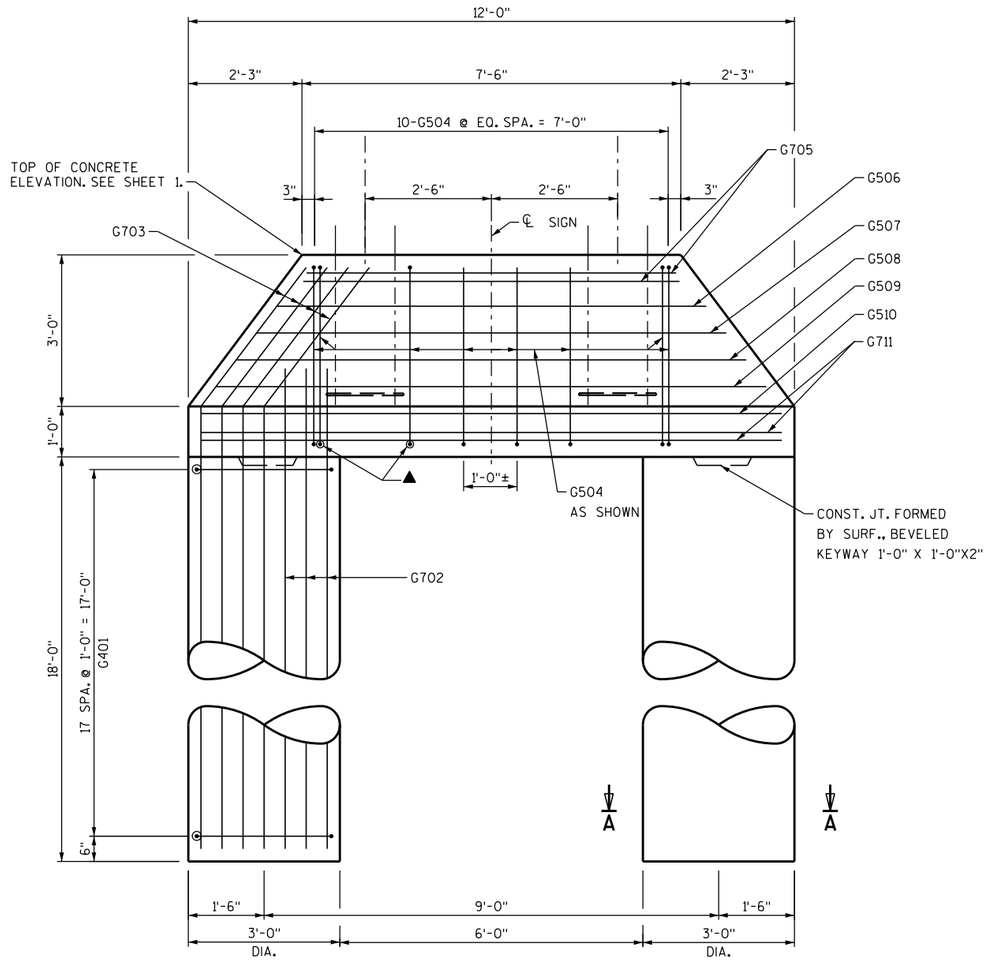
BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

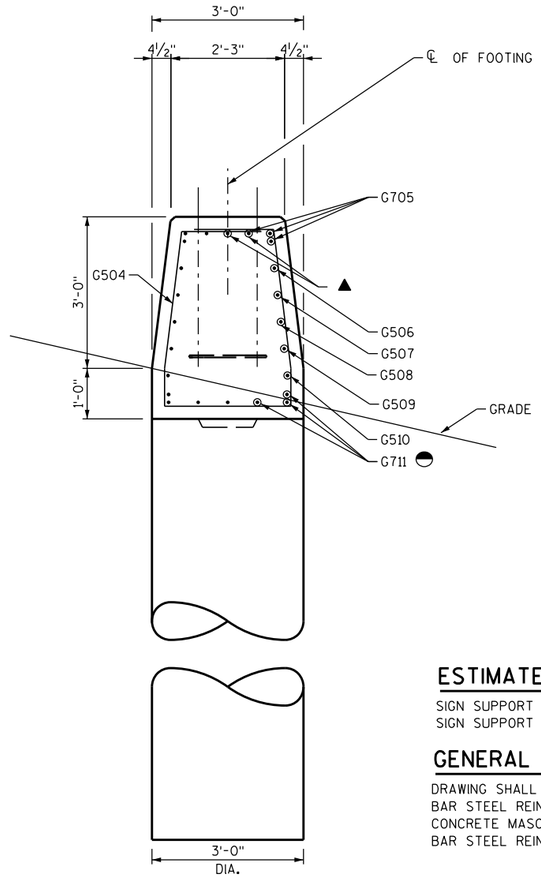
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
G401		36	8'-11"	X		FOOTING-HOOPS
G702		10	20'-0"			FOOTING-VERTICAL
G703		14	22'-2"	X		FOOTING-VERTICAL
G504		8	12'-5"	X		FOOTING-STIRRUPS
G705		7	7'-4"			FOOTING-HORIZONTAL
G506		2	8'-4"			FOOTING-HORIZONTAL
G507		2	9'-2"			FOOTING-HORIZONTAL
G508		2	9'-11"			FOOTING-HORIZONTAL
G509		2	10'-9"			FOOTING-HORIZONTAL
G510		2	11'-6"			FOOTING-HORIZONTAL
G711		7	11'-6"			FOOTING-HORIZONTAL

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

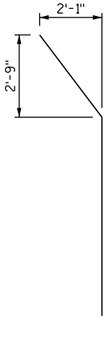
QUANTITY OF BARS IN TABLE IS FOR ONE FOOTING.



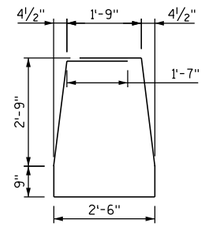
ELEVATION
(ONE FTG.)



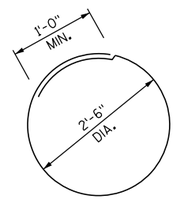
END VIEW



G703



G504



G401

SOIL DESIGN PARAMETERS

FRICTION ANGLE = 31 DEGREES
SOIL UNIT WEIGHT = 115 PCF

ESTIMATED QUANTITIES (ONE FOOTING)

SIGN SUPPORT CONCRETE MASONRY---------- 14 CY
SIGN SUPPORT STEEL REINFORCEMENT HS ---------- 1,735 LB

GENERAL NOTES

DRAWING SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CL.
CONCRETE MASONRY---------- fc'= 3,500 PSI
BAR STEEL REINF. -----GRADE 60 fy = 60,000 PSI

◓ SPACE TO MISS VERT. SHAFT REINF.
▲ SPACE TO MISS ANCHOR BOLTS. TIE IN PLACE AFTER ANCHOR BOLT ASSEMBLY LOCATED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-60

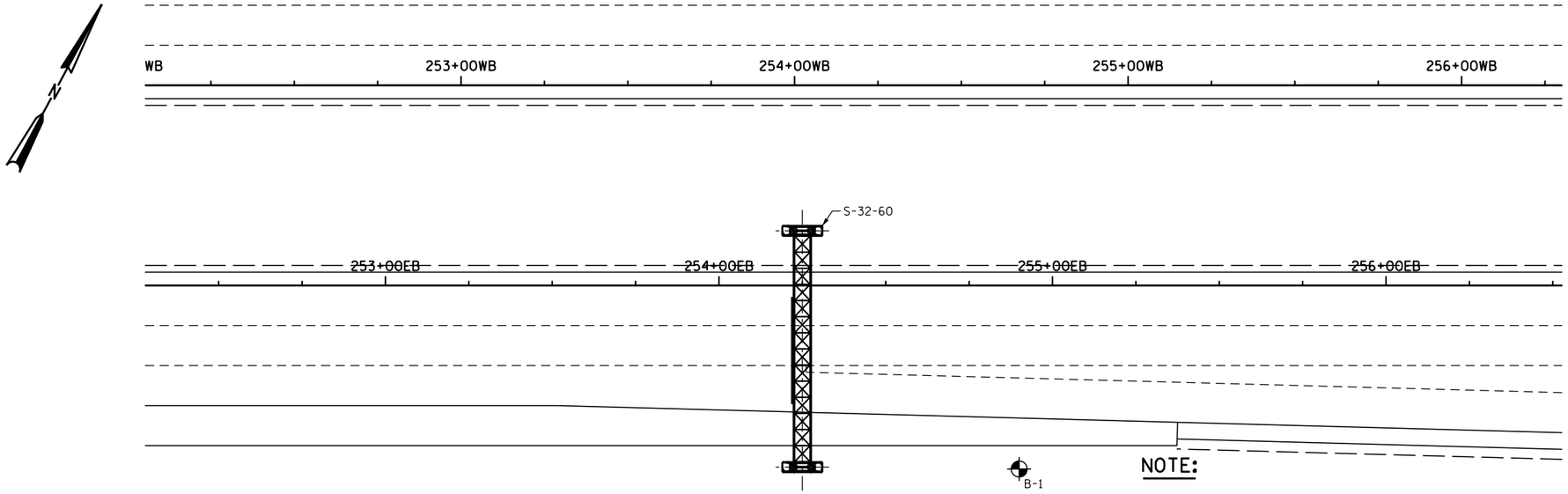
DRAWN BY NLD | PLANS CK'D. SG

SIGN BRIDGE TRUSS FOOTING

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NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

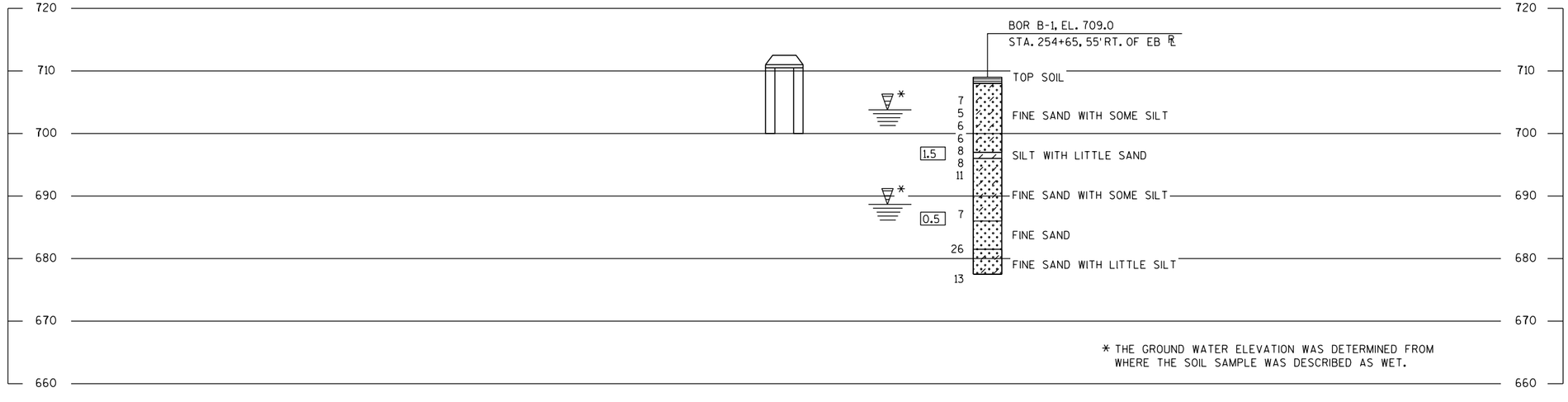
BORING STATIONS AND OFFSETS ARE BASED ON IH 90 EB ℄.

⊕ DENOTES SOIL BORING LOCATION

SOIL BORING COMPLETED BY:
WISDOT

SOIL BORING TAKEN:
MARCH 2014 - BORING B-1

PLAN



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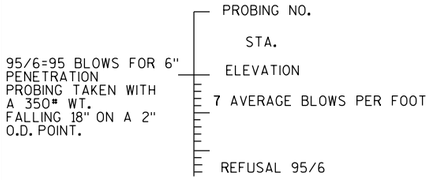
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

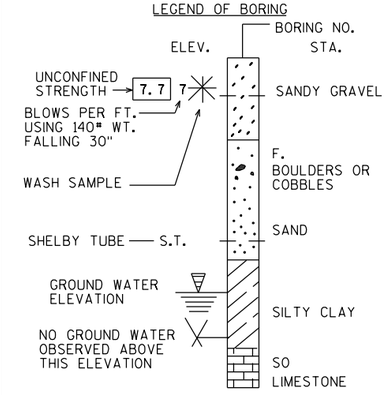
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-60

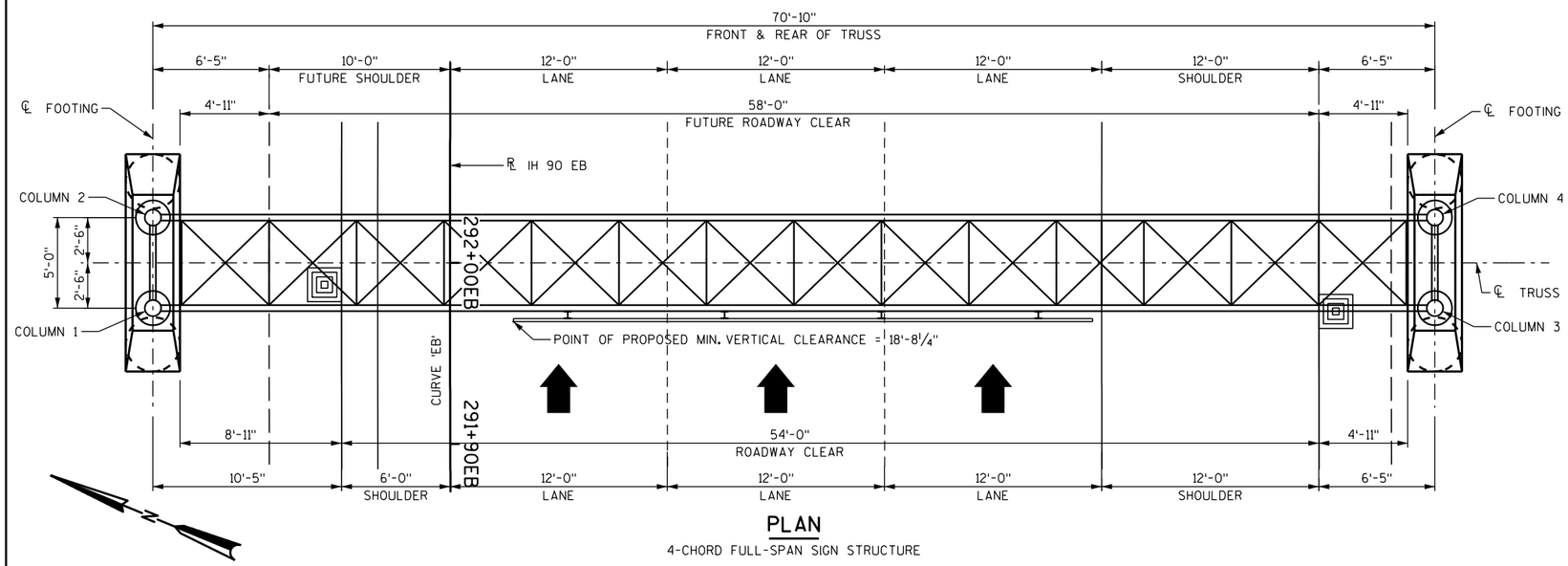
DRAWN BY NLD | PLANS CK'D. VJD

SUBSURFACE EXPLORATION

SHEET 5 OF 5
645

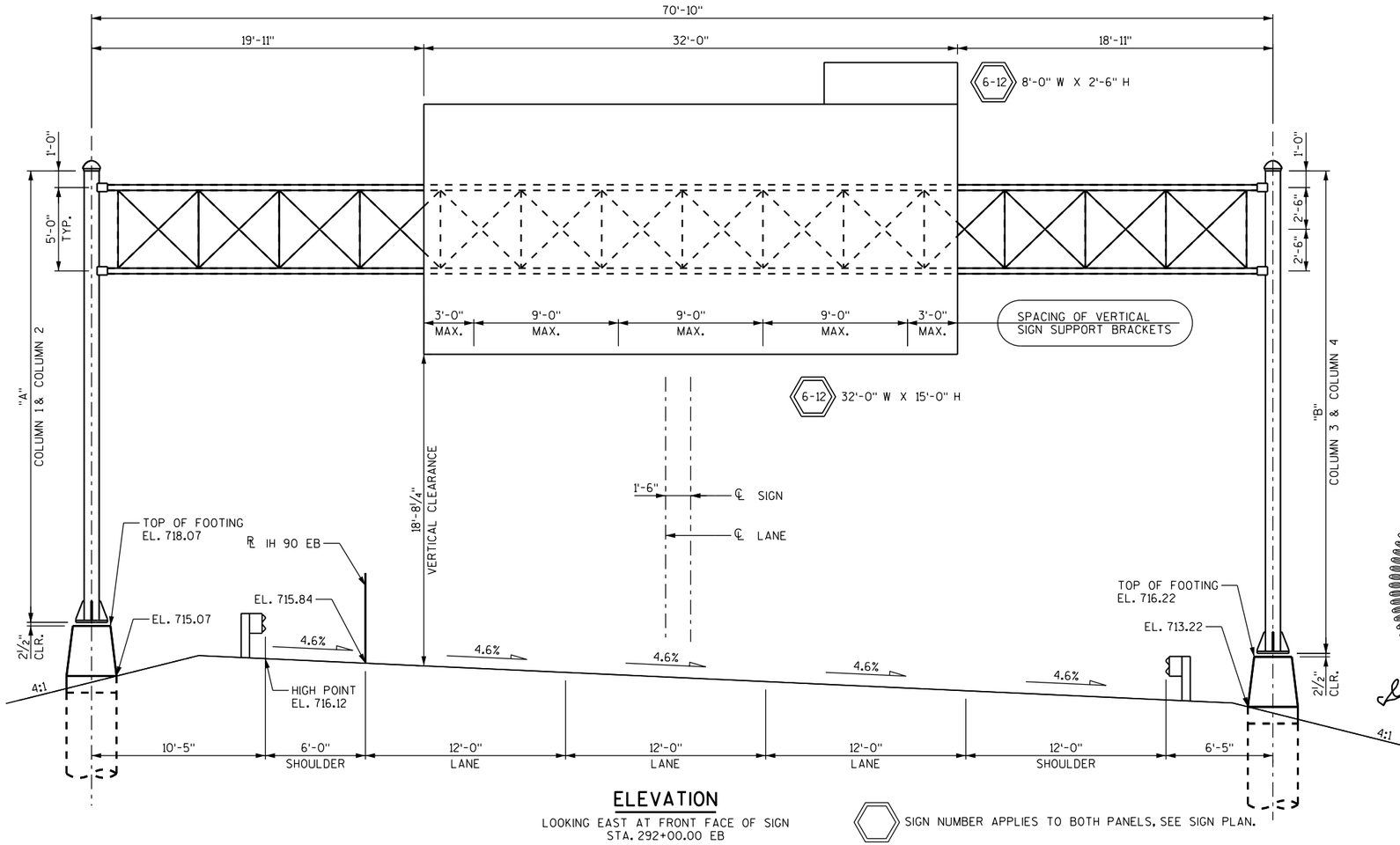
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PLAN

4-CHORD FULL-SPAN SIGN STRUCTURE



ELEVATION

LOOKING EAST AT FRONT FACE OF SIGN
STA. 292+00.00 EB

6-12 SIGN NUMBER APPLIES TO BOTH PANELS, SEE SIGN PLAN.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

CENTER SIGNS VERTICALLY ON TRUSS.

ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

HANDHOLES ARE NOT REQUIRED.

ALL SIGNS ARE TYPE I.

ALL DIMENSIONS SHOWN ARE TAKEN NORMAL TO LINE TANGENT TO STA. 292+00.00 EB.

DESIGN DATA

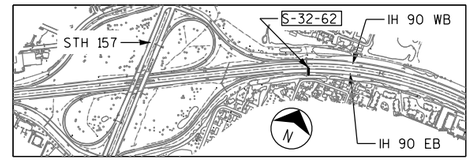
DESIGN SIGN AREA = 720 SF
MAX. SIGN DEPTH = 15'-0"

DEAD LOAD - WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD - 3 PSF TO 1 FACE OF SIGN AND AROUND SURFACE OF MEMBERS
WIND VELOCITY - 90 MPH (3-SECOND GUST SPEED) TO SIGN AREA AND EXPOSED MEMBERS.

WIND COMPONENTS	NORMAL	TRANSVERSE
COMBINATION 1	1.0	0.2
COMBINATION 2	0.6	0.3

GROUP LOADS	% OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD + WIND	133
3. DEAD + ICE + ½ (WIND*)	133

* MIN. VALUE OF 25 PSF FOR GROUP 3.



LOCATION MAP

CURVE DATA - 'EB'

P.I. STA.= 298+42.71 EB
Y = 155292.168
X = 458371.855
Δ = 30°28'52"
D = 1°30'00"
T = 1040.70'
L = 2032.07'
R = 3819.73'
P.C. STA.= 288+02.01 EB
Y = 154798.103
X = 457455.911
P.T. STA.= 308+34.08 EB
Y = 155253.337
X = 459411.828

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. 4-CHORD GALVANIZED STEEL SIGN BRIDGE
3. 4-CHORD SIGN BRIDGE DETAILS
4. SIGN BRIDGE TRUSS FOOTING
5. SUBSURFACE EXPLORATION

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	28
636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	3470
641.6600	SIGN BRIDGE S-32-62	LS	1

WISCONSIN
SURENDRA K. GUPTA
E-41327
AMES, IA
PROFESSIONAL ENGINEER
7-31-2015

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
SUREN GUPTA, P.E. (262) 821-1171

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 09/04/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE S-32-62

SIGN BRIDGE OVER IH 90 EB

COUNTY	CITY
LA CROSSE	ONALASKA

DESIGN SPEC. AASHTO STANDARD SPECIFICATIONS — LOAD 90 MPH 3 SEC. SPEED

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
NLD	VJD	VJD	SG

GENERAL PLAN AND ELEVATION

SHEET 1 OF 5
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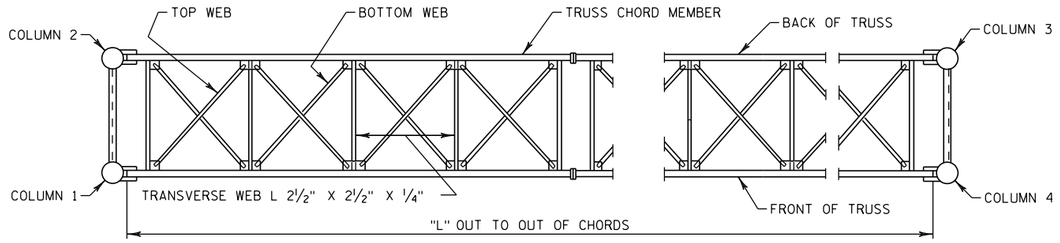
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8

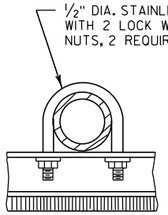
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STATE PROJECT NUMBER

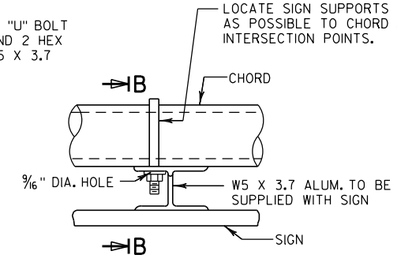
1071-06-79



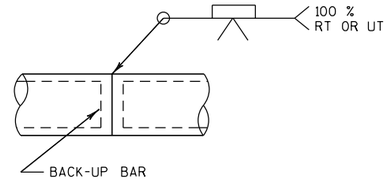
PLAN



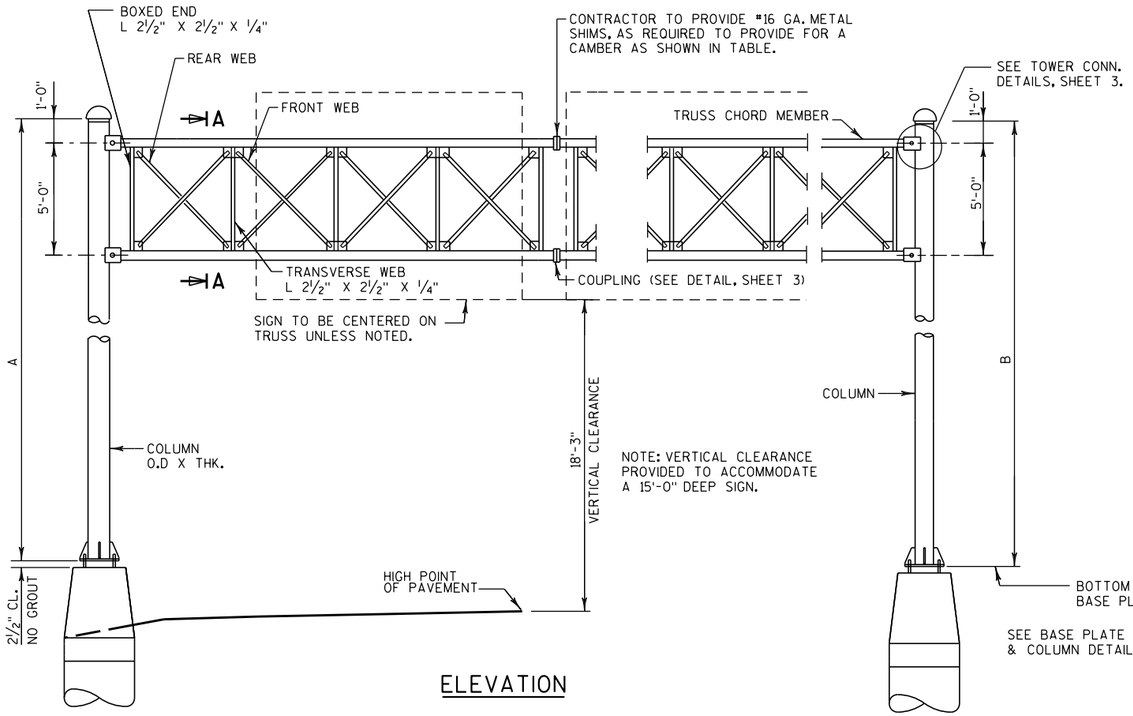
SECTION B



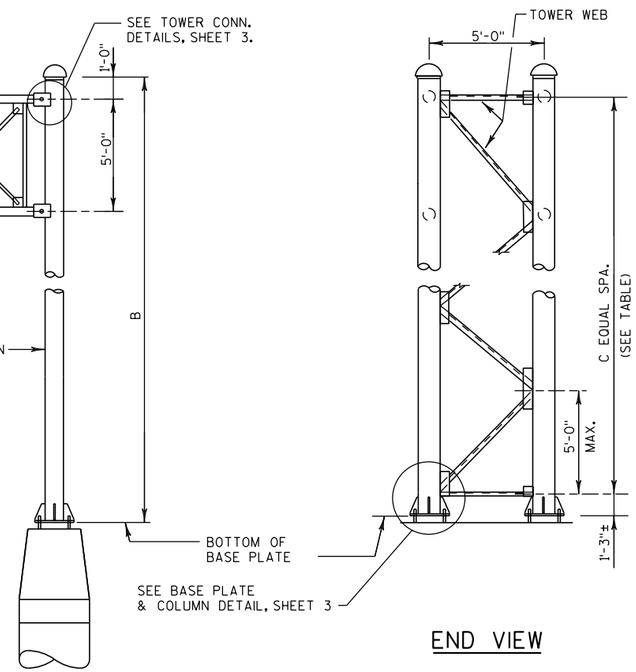
TYPICAL SIGN CONNECTION



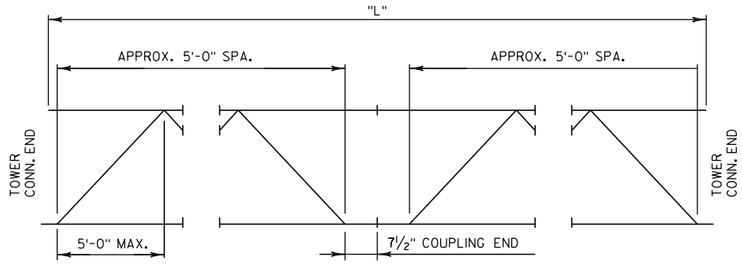
CHORD SPLICE



ELEVATION



END VIEW



TRUSS ARRANGEMENT

FABRICATOR MAY MAKE TRUSSES ANY LENGTH KEEPING A SECTION A MINIMUM OF 20'-0" & A MULTPLE OF 5'-0". CHORD FIELD SPLICES SHALL BE MADE WITH COUPLINGS. CHORD SHOP SPLICE SHALL BE THE WELDED SPLICE SHOWN ABOVE.

NOTES

DRAWINGS SHALL NOT BE SCALED.

STEEL COLUMN PIPE SHALL BE API SPEC. 5L GRADE X42 Fy = 42,000 PSI.
ALL STEEL PIPE MEMBERS OF TRUSS SHALL BE API SPEC. 5L GRADE X42 Fy = 42,000 PSI.
PLATES, BARS, STRUCTURAL ANGLES SHALL BE ASTM A709 GRADE 36 Fy = 36,000 PSI.
ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED.
ALL BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA. A325 BOLTS, GALVANIZED ASTM A153, CLASS C.

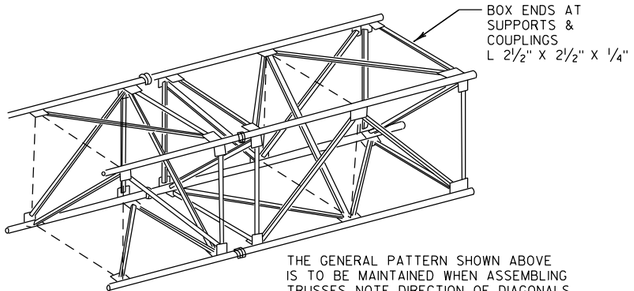
WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF UNIT CAN BE GALVANIZED IN ONE PIECE.

STEEL ANCHOR BOLTS SHALL BE AASHTO M314-90 GRADE 55. Fy = 55,000 PSI.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERRECTION. BLANKS SHALL BE ¼ THE LENGTH OF THE BRIDGE. 2'-0" DEEPER THAN C TO C OF CHORDS & SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED IN PLANS.

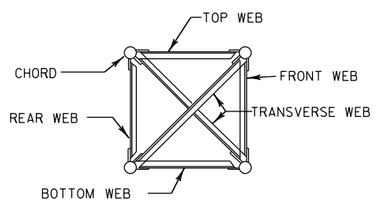
THE UPPER 12" ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE AASHTO SPECIFICATION AS STATED IN SECTION 641. OF THE WISDOT STANDARD SPECIFICATIONS.

WELD TEST AS PER AWS D1.1.



THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES. NOTE DIRECTION OF DIAGONALS AT JOINTS.

TYPICAL TRUSS SECTION



SECTION A

STRUCTURE	A	B	C	CHORD O.D. X THK.	TOP & BOTTOM WEB	FRONT & REAR WEB	COUPLING PLATE "D1" & "T"	BOLT CIRCLE DIA. "D2"	NO. OF BOLTS IN COUPLING	CAMBER	COLUMN O.D. X THK.	TOWER WEB	"L"
S-32-62	27'-2"	29'-0"	5 NORTH TOWER 6 SOUTH TOWER	4.5"X0.237"	3"X3"X¼"	3"X3"X¼"	10" & 1"	7½"	6	1⅛"	10.75"X0.250"	4"X4"X⅜"	69'-8¼"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-62

DRAWN BY NLD | PLANS CK'D. SG

4-CHORD GALVANIZED STEEL SIGN BRIDGE

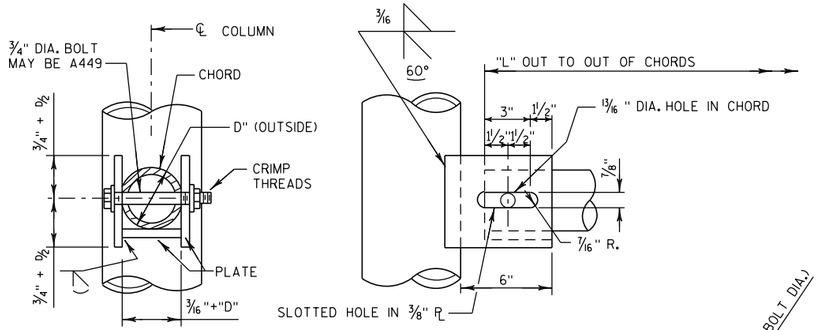
SHEET 2 OF 5
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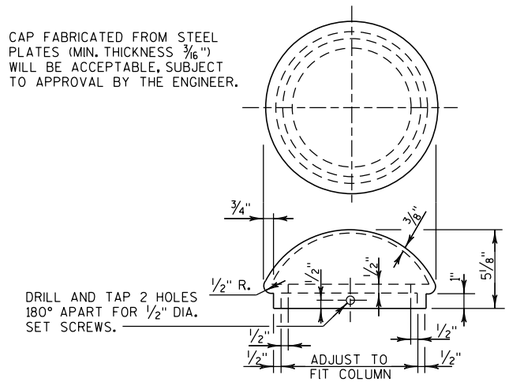
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STATE PROJECT NUMBER

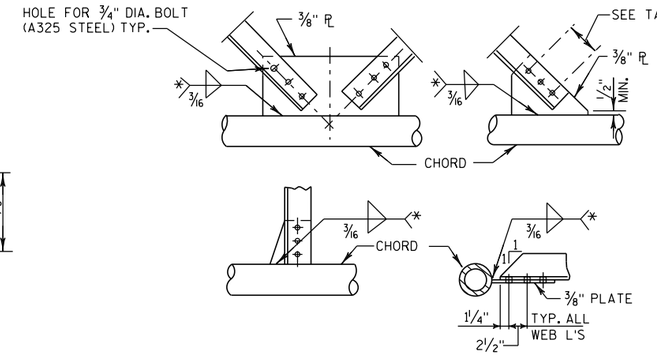
1071-06-79



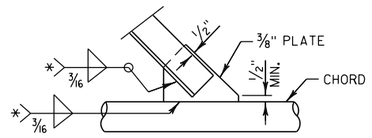
TOWER CONNECTION DETAIL



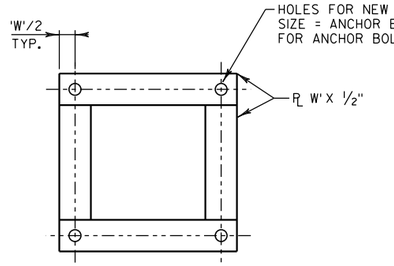
TOWER CAP DETAIL



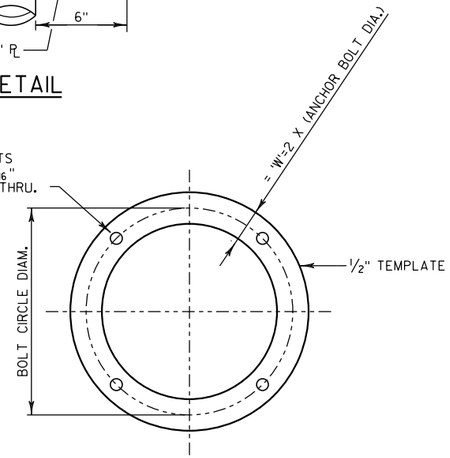
TYPICAL TRUSS CONNECTION DETAILS



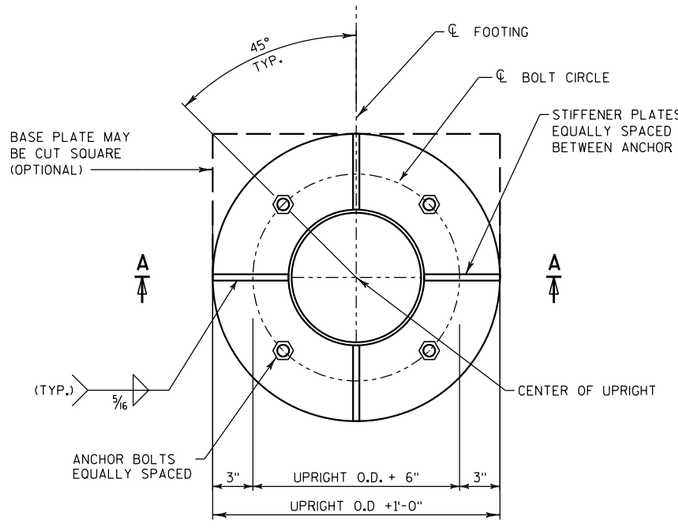
TYPICAL WELDED ALTERNATE



ALTERNATE TEMPLATE PLAN



TEMPLATE PLAN

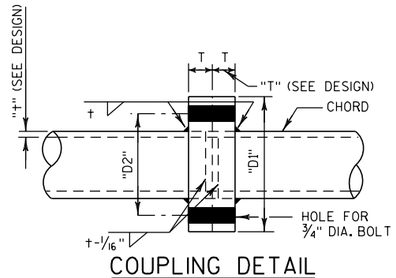


PLAN VIEW

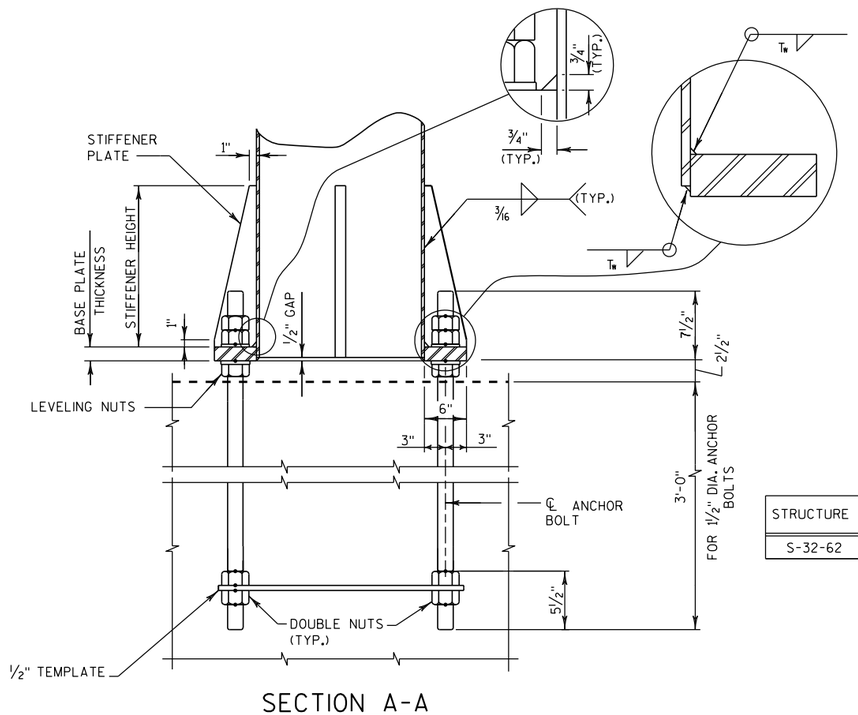
(BASE PLATE)

*ANGLE	WELD LENGTH	NO. OF BOLTS
● 2½"×2½"×¼"	11"	3
3"×3"×3/16"	10"	3
3"×3"×¼"	13"	4
3"×3"×5/16"	16½"	5
3"×3"×⅜"	19½"	6
4"×4"×¼"	18"	5
4"×4"×5/16"	22"	6
4"×4"×⅜"	26"	8
4"×4"×7/16"	30"	9
4"×4"×½"	34"	10

● ONLY USED FOR BOXED END AND TRANSVERSE BRACING.



COUPLING DETAIL



SECTION A-A

STRUCTURE	COLUMN O.D. X THK.	ANCHOR BOLTS DIAMETER	BASE PLATE THICKNESS (IN.)	STIFFENER PLATE THICKNESS (IN.)	STIFFENER PLATE HEIGHT (IN.)	Tw (IN.)
S-32-62	10.75"X0.250"	1½"	1½"	½"	12"	¼"

NOTE:

PRIOR TO INSTALLATION, ANCHOR BOLTS SHALL BE RIGIDLY HELD IN POSITION DURING CONCRETE PLACEMENT USING STEEL ANCHOR PLATE AND TOP TEMPLATE. REMOVE TOP TEMPLATE (NOT SHOWN AFTER CONCRETE SETS.

NO.	DATE	REVISION	BY

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STRUCTURE S-32-62

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4-CHORD SIGN BRIDGE DETAILS

SHEET 3 OF 5

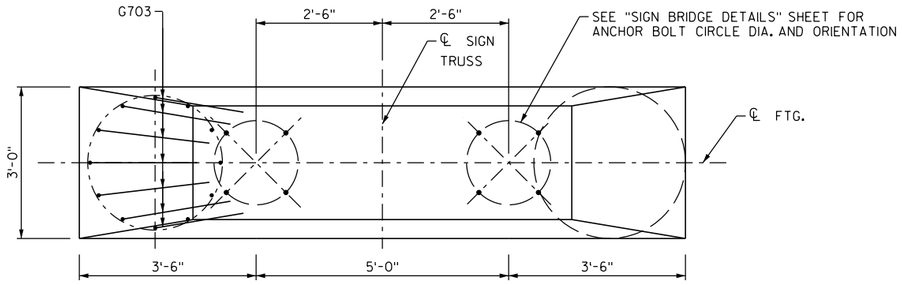
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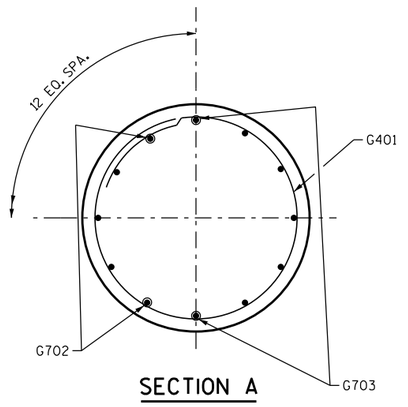
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PLAN



SECTION A

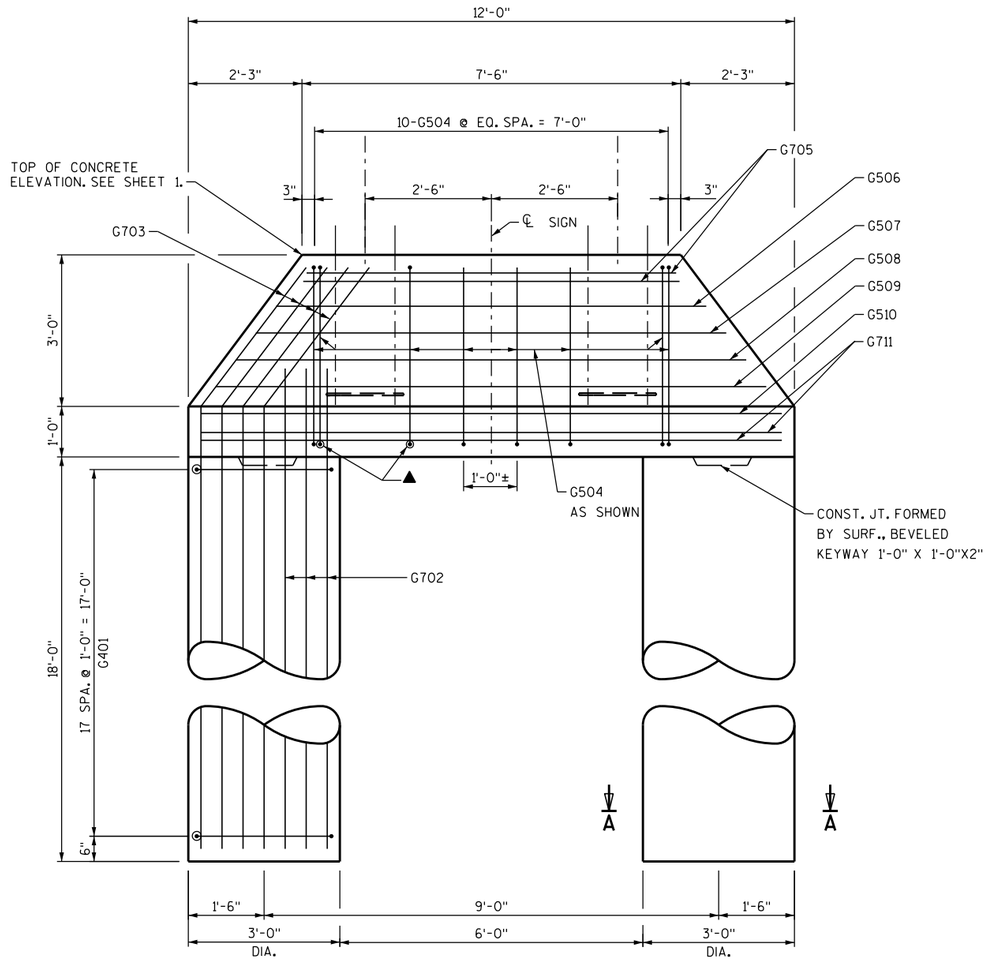
BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

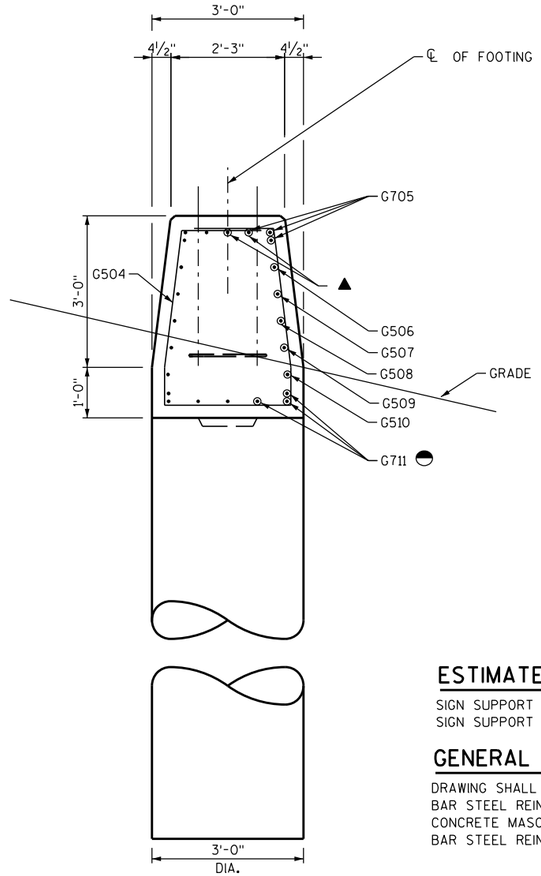
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
G401		36	8'-11"	X		FOOTING-HOOPS
G702		10	20'-0"			FOOTING-VERTICAL
G703		14	22'-2"	X		FOOTING-VERTICAL
G504		8	12'-5"	X		FOOTING-STIRRUPS
G705		7	7'-4"			FOOTING-HORIZONTAL
G506		2	8'-4"			FOOTING-HORIZONTAL
G507		2	9'-2"			FOOTING-HORIZONTAL
G508		2	9'-11"			FOOTING-HORIZONTAL
G509		2	10'-9"			FOOTING-HORIZONTAL
G510		2	11'-6"			FOOTING-HORIZONTAL
G711		7	11'-6"			FOOTING-HORIZONTAL

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

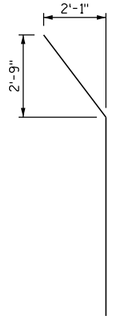
QUANTITY OF BARS IN TABLE IS FOR ONE FOOTING.



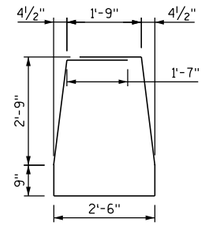
ELEVATION
(ONE FTG.)



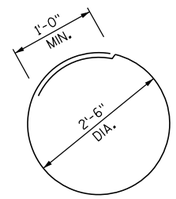
END VIEW



G703



G504



G401

SOIL DESIGN PARAMETERS

FRICTION ANGLE = 31 DEGREES
SOIL UNIT WEIGHT = 115 PCF

ESTIMATED QUANTITIES (ONE FOOTING)

SIGN SUPPORT CONCRETE MASONRY---------- 14 CY
SIGN SUPPORT STEEL REINFORCEMENT HS ---------- 1,735 LB

GENERAL NOTES

DRAWING SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CL.
CONCRETE MASONRY---------- fc'= 3,500 PSI
BAR STEEL REINF. -----GRADE 60 fy = 60,000 PSI

◓ SPACE TO MISS VERT. SHAFT REINF.
▲ SPACE TO MISS ANCHOR BOLTS. TIE IN PLACE AFTER ANCHOR BOLT ASSEMBLY LOCATED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-62

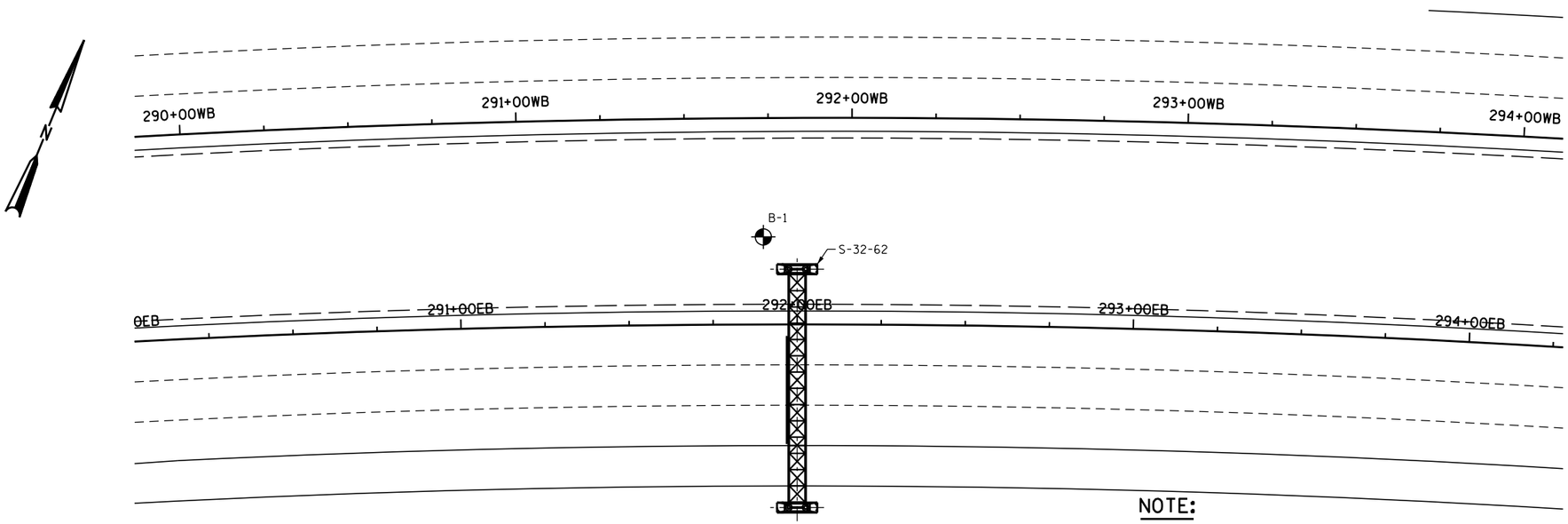
DRAWN BY NLD | PLANS CK'D. SG

SIGN BRIDGE TRUSS FOOTING

SHEET 4 OF 5
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8

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NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

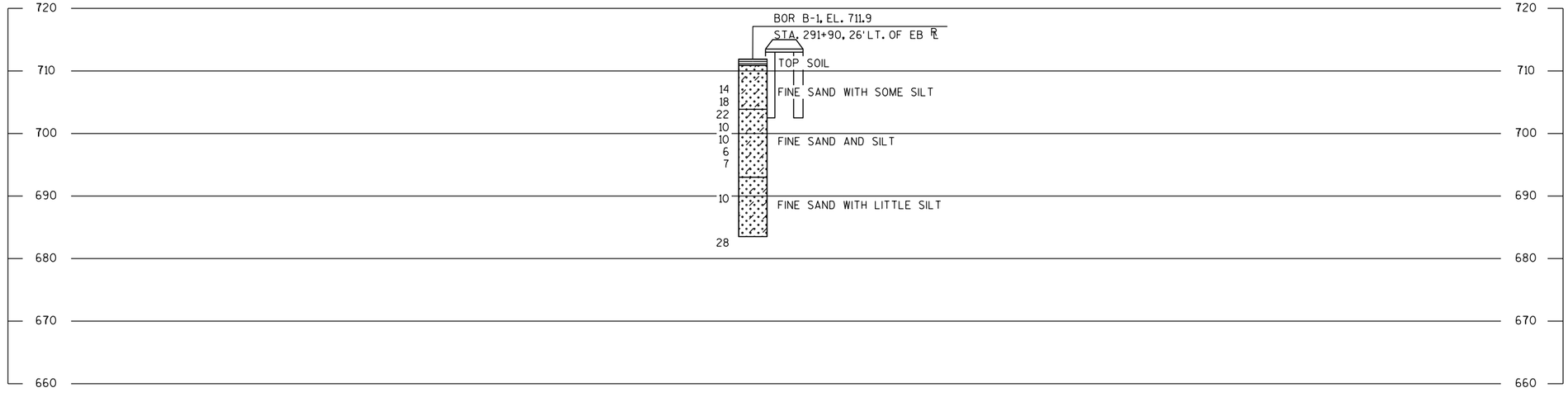
BORING STATIONS AND OFFSETS ARE BASED ON IH 90 EB ℄.

⊕ DENOTES SOIL BORING LOCATION

SOIL BORING COMPLETED BY:
WISDOT

SOIL BORING TAKEN:
MARCH 2014 - BORING B-1

PLAN



STATE PROJECT NUMBER

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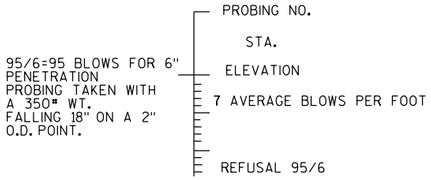
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

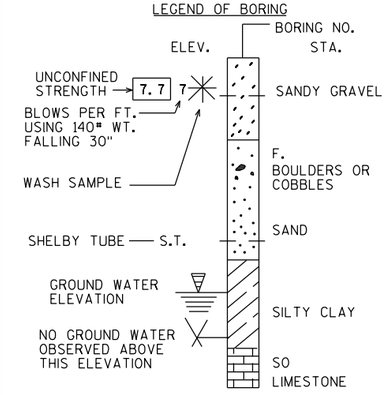
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-62

DRAWN BY NLD | PLANS CK'D. VJD

SUBSURFACE EXPLORATION

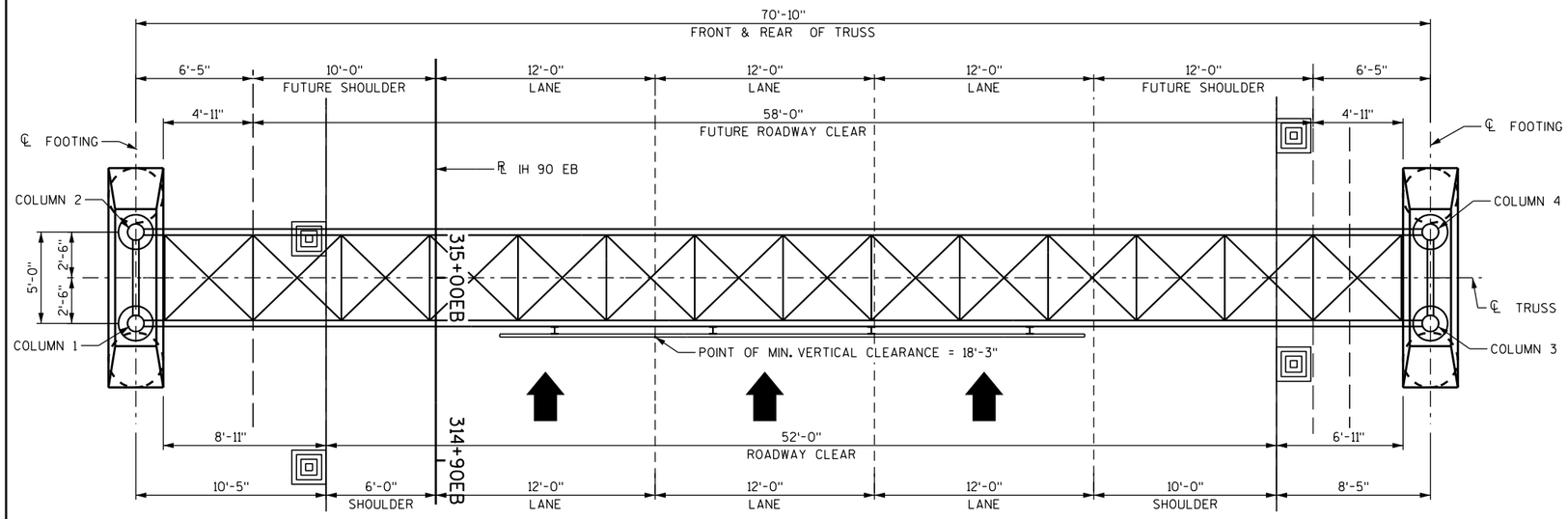
SHEET 5 OF 5
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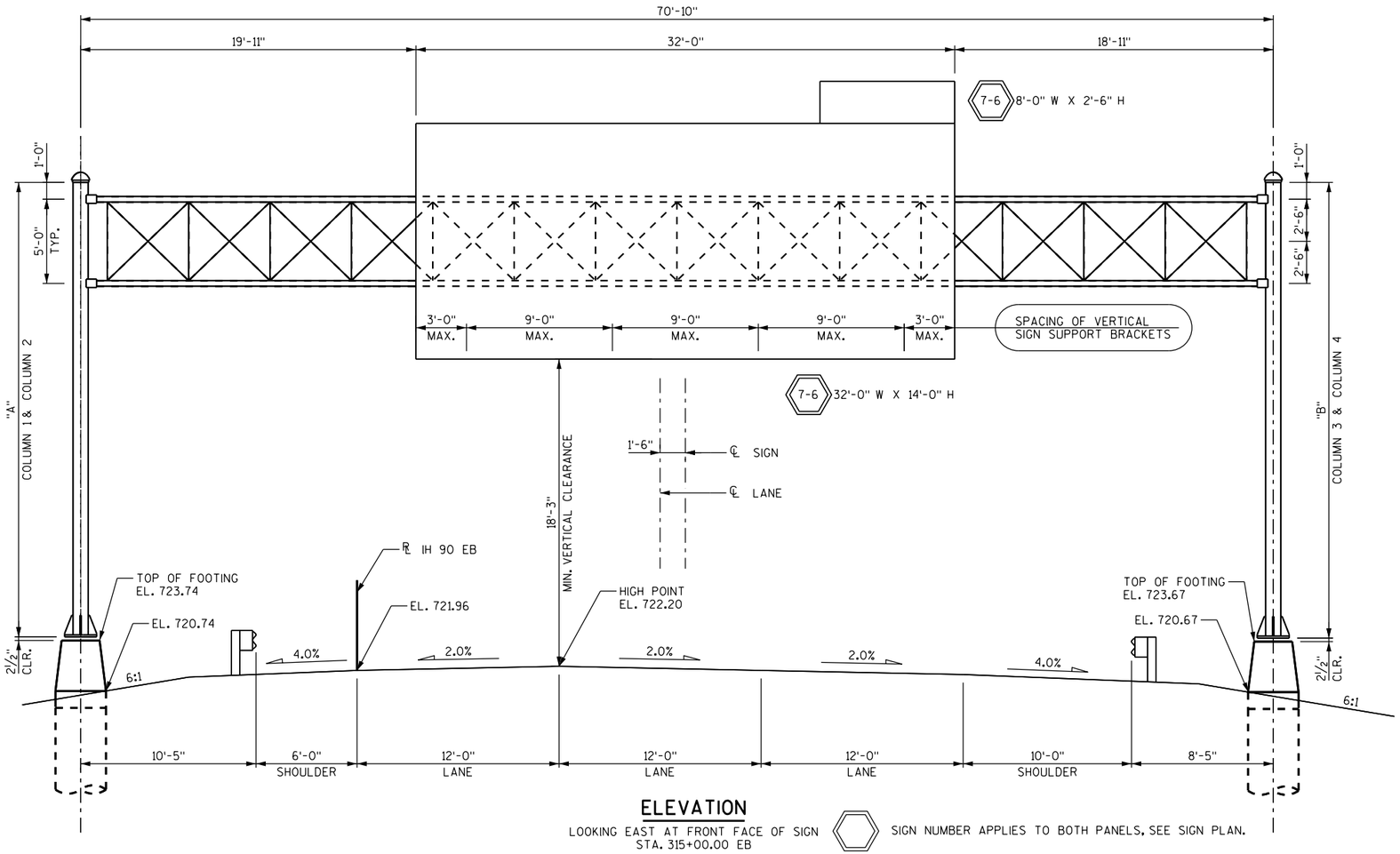
STATE PROJECT NUMBER

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PLAN

4-CHORD FULL-SPAN SIGN STRUCTURE



ELEVATION

LOOKING EAST AT FRONT FACE OF SIGN
STA. 315+00.00 EB

7-6 SIGN NUMBER APPLIES TO BOTH PANELS. SEE SIGN PLAN.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

CENTER SIGNS VERTICALLY ON TRUSS.

ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

HANDHOLES ARE NOT REQUIRED.

ALL SIGNS ARE TYPE I.

DESIGN DATA

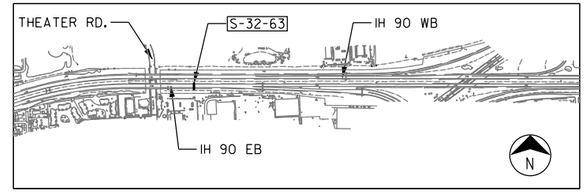
DESIGN SIGN AREA = 680 SF
MAX. SIGN DEPTH = 14'-0"

DEAD LOAD - WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD - 3 PSF TO 1 FACE OF SIGN AND AROUND SURFACE OF MEMBERS
WIND VELOCITY - 90 MPH (3-SECOND GUST SPEED) TO SIGN AREA AND EXPOSED MEMBERS.

WIND COMPONENTS	NORMAL	TRANSVERSE
COMBINATION 1	1.0	0.2
COMBINATION 2	0.6	0.3

GROUP LOADS	% OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD + WIND	133
3. DEAD + ICE + ½ (WIND*)	133

* MIN. VALUE OF 25 PSF FOR GROUP 3.



LOCATION MAP

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. 4-CHORD GALVANIZED STEEL SIGN BRIDGE
3. 4-CHORD SIGN BRIDGE DETAILS
4. SIGN BRIDGE TRUSS FOOTING
5. SUBSURFACE EXPLORATION

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	28
636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	3470
641.6600	SIGN BRIDGE S-32-63	LS	1

WISCONSIN
SURENDRA K. GUPTA
E-41327
AMES, IA
PROFESSIONAL ENGINEER
7-31-2015

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
SUREN GUPTA, P.E. (262) 821-1171

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 09/08/15
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE S-32-63

SIGN BRIDGE OVER IH 90 EB

COUNTY	CITY	
LA CROSSE	ONALASKA	
DESIGN SPEC. AASHTO STANDARD SPECIFICATIONS		LOAD 90 MPH 3 SEC. SPEED
DESIGNED BY NLD	DESIGN CK'D. VJD	DRAWN BY VJD	PLANS CK'D. SG

GENERAL PLAN AND ELEVATION

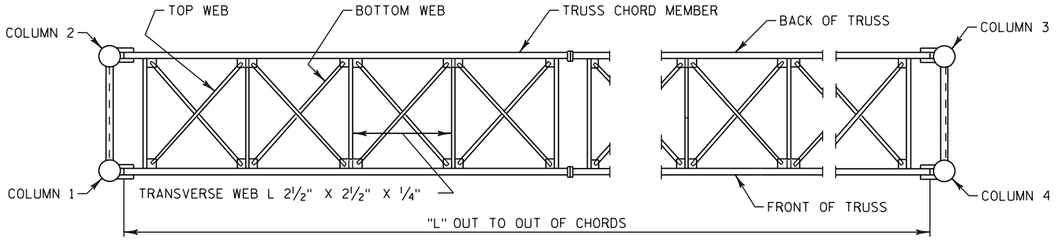
SHEET 1 OF 5
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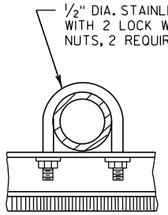
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STATE PROJECT NUMBER

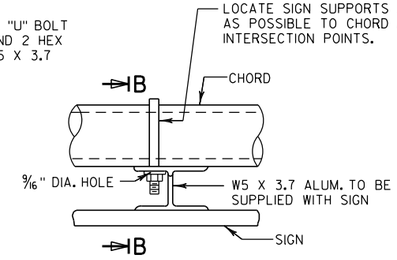
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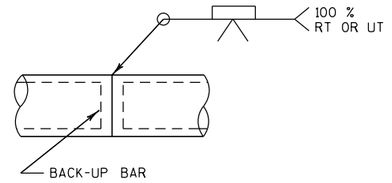
PLAN



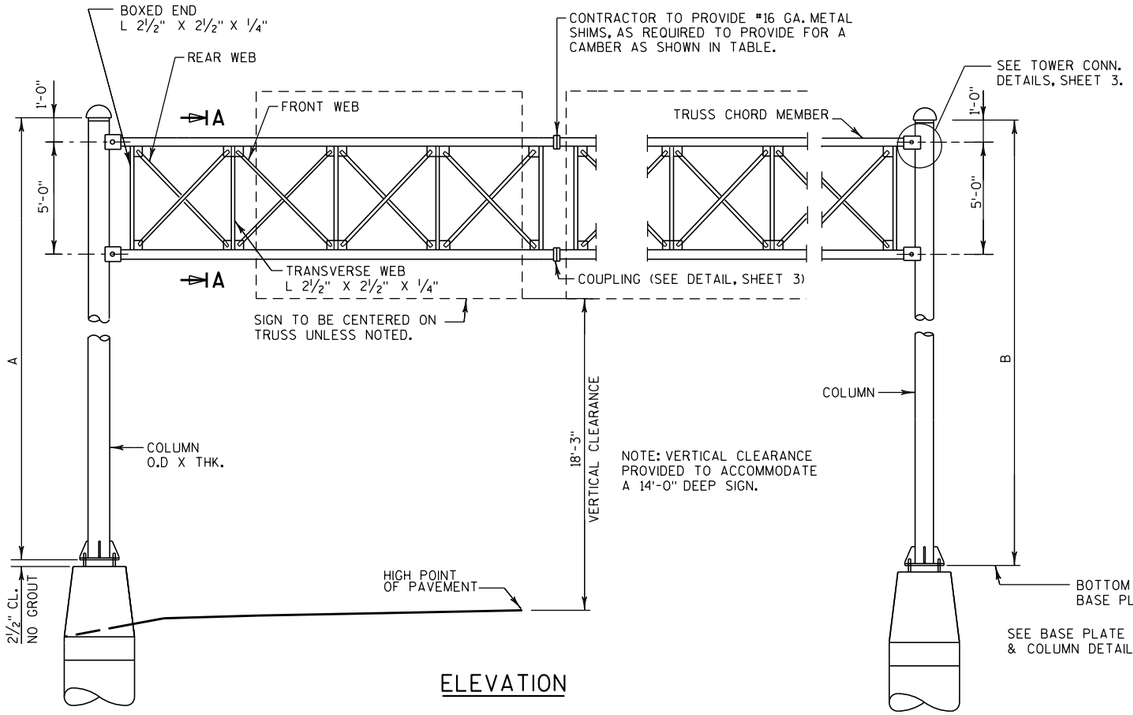
SECTION B



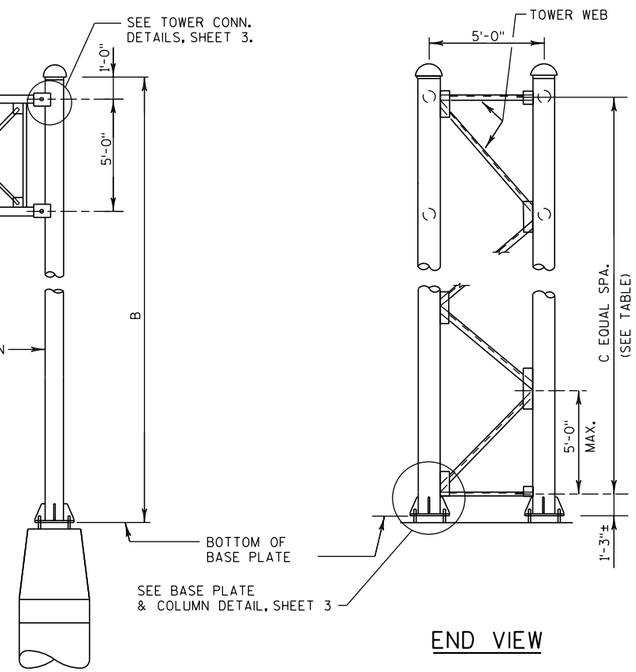
TYPICAL SIGN CONNECTION



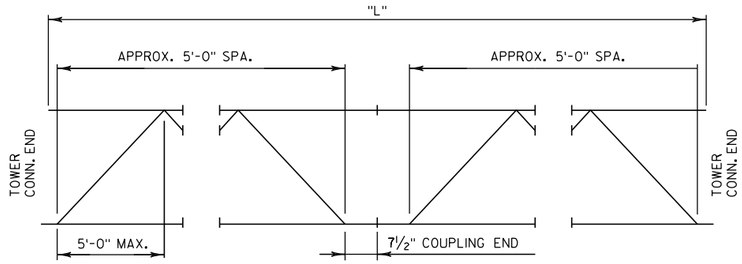
CHORD SPLICE



ELEVATION



END VIEW



TRUSS ARRANGEMENT

FABRICATOR MAY MAKE TRUSSES ANY LENGTH KEEPING A SECTION A MINIMUM OF 20'-0" & A MULTPLE OF 5'-0". CHORD FIELD SPLICES SHALL BE MADE WITH COUPLINGS. CHORD SHOP SPLICE SHALL BE THE WELDED SPLICE SHOWN ABOVE.

NOTES

DRAWINGS SHALL NOT BE SCALED.

STEEL COLUMN PIPE SHALL BE API SPEC. 5L GRADE X42 Fy = 42,000 PSI.
ALL STEEL PIPE MEMBERS OF TRUSS SHALL BE API SPEC. 5L GRADE X42 Fy = 42,000 PSI.
PLATES, BARS, STRUCTURAL ANGLES SHALL BE ASTM A709 GRADE 36 Fy = 36,000 PSI.
ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED.
ALL BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA. A325 BOLTS, GALVANIZED ASTM A153, CLASS C.

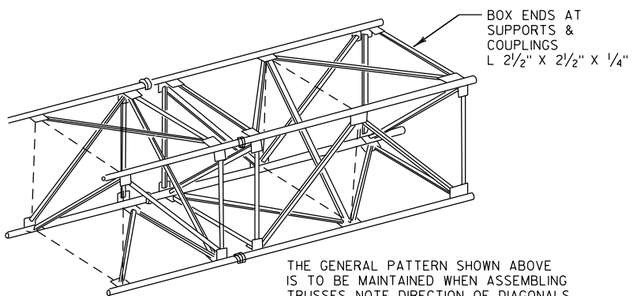
WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF UNIT CAN BE GALVANIZED IN ONE PIECE.

STEEL ANCHOR BOLTS SHALL BE AASHTO M314-90 GRADE 55. Fy = 55,000 PSI.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERRECTION. BLANKS SHALL BE ¼ THE LENGTH OF THE BRIDGE. 2'-0" DEEPER THAN C TO C OF CHORDS & SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED IN PLANS.

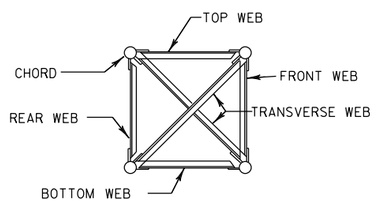
THE UPPER 12" ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE AASHTO SPECIFICATION AS STATED IN SECTION 641. OF THE WISDOT STANDARD SPECIFICATIONS.

WELD TEST AS PER AWS D1.1.



THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES. NOTE DIRECTION OF DIAGONALS AT JOINTS.

TYPICAL TRUSS SECTION



SECTION A

STRUCTURE	A	B	C	CHORD O.D. X THK.	TOP & BOTTOM WEB	FRONT & REAR WEB	COUPLING PLATE "D1" & "T"	BOLT CIRCLE DIA. "D2"	NO. OF BOLTS IN COUPLING	CAMBER	COLUMN O.D. X THK.	TOWER WEB	"L"
S-32-63	27'-0"	27'-1"	5 NORTH TOWER 5 SOUTH TOWER	4.5"X0.237"	3"X3"X¼"	3"X3"X¼"	10" & 1"	7½"	6	1⅛"	10.75"X0.250"	4"X4"X⅜"	69'-8¼"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-63

DRAWN BY NLD | PLANS CK'D. SG

4-CHORD GALVANIZED STEEL SIGN BRIDGE

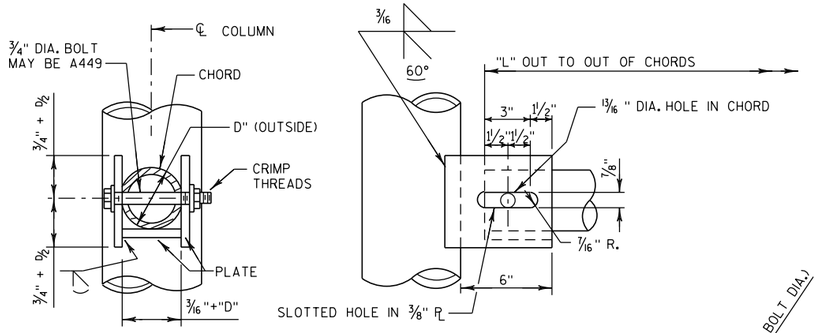
SHEET 2 OF 5
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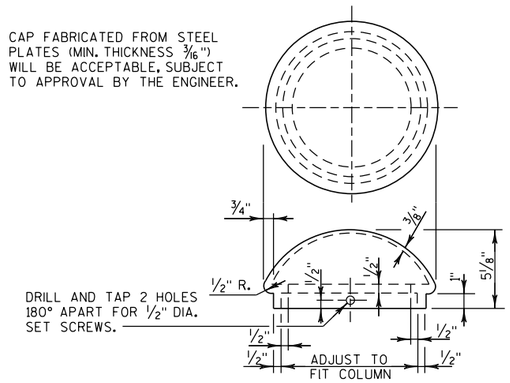
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STATE PROJECT NUMBER

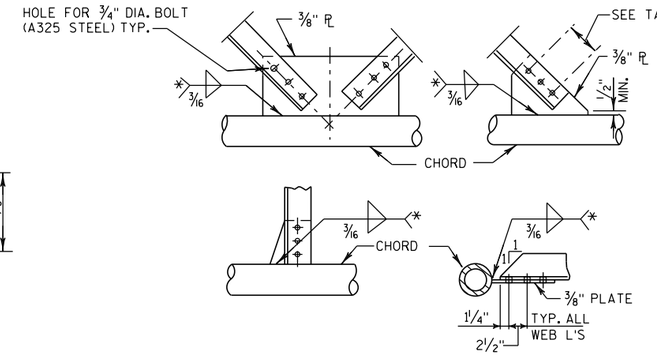
1071-06-79



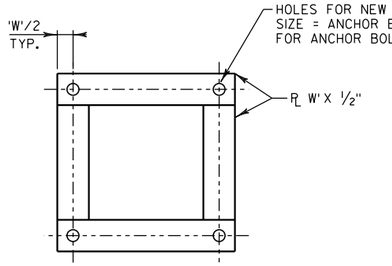
TOWER CONNECTION DETAIL



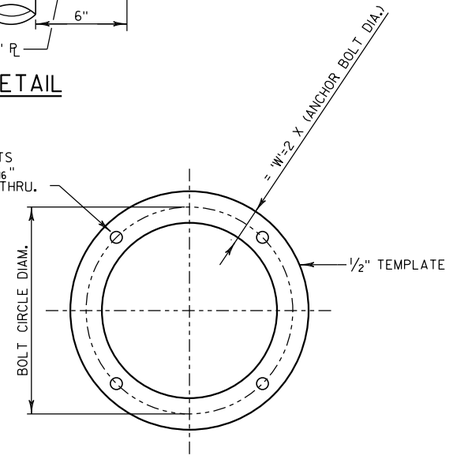
TOWER CAP DETAIL



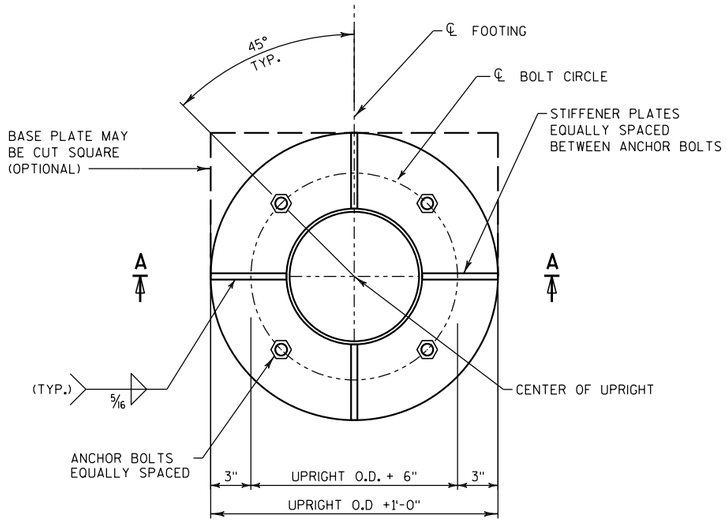
TYPICAL TRUSS CONNECTION DETAILS



ALTERNATE TEMPLATE PLAN

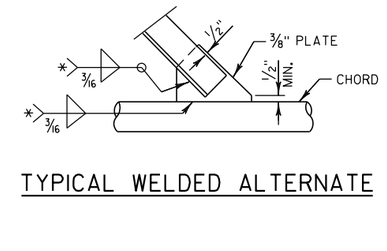


TEMPLATE PLAN



PLAN VIEW

(BASE PLATE)

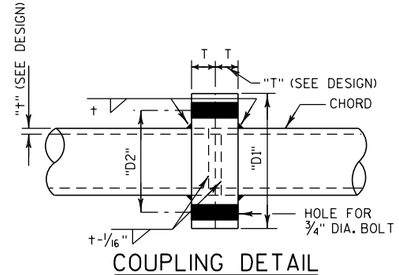


TYPICAL WELDED ALTERNATE

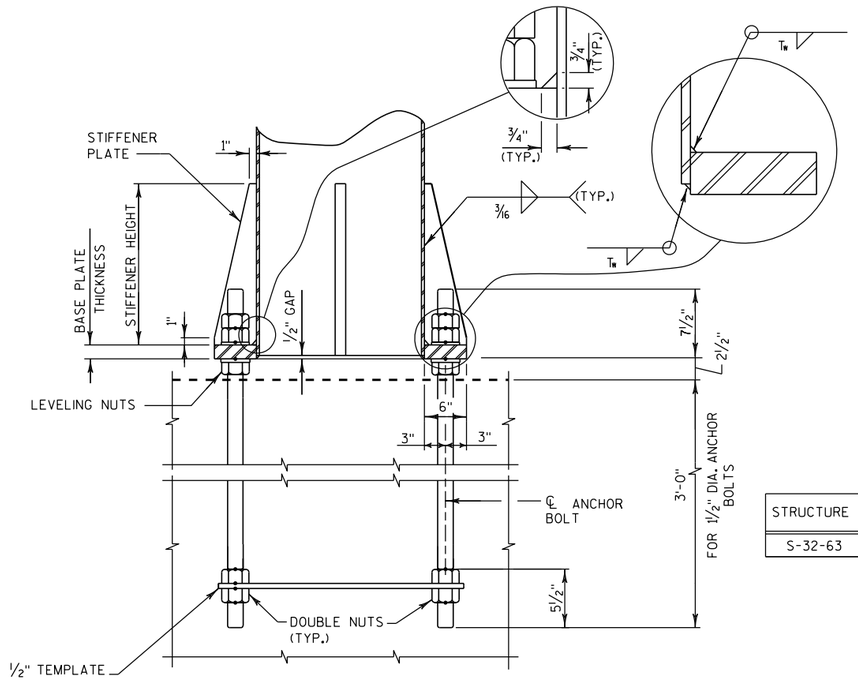
STRUCTURE	COLUMN O.D. X THK.	ANCHOR BOLTS DIAMETER	BASE PLATE THICKNESS (IN.)	STIFFENER PLATE THICKNESS (IN.)	STIFFENER PLATE HEIGHT (IN.)	T_w (IN.)
S-32-63	10.75"X0.250"	1½"	1½"	½"	12"	¼"

*ANGLE	WELD LENGTH	NO. OF BOLTS
● 2½"x2½"x¼"	11"	3
3"x3"x3/16"	10"	3
3"x3"x¼"	13"	4
3"x3"x5/16"	16½"	5
3"x3"x⅜"	19½"	6
4"x4"x¼"	18"	5
4"x4"x5/16"	22"	6
4"x4"x⅜"	26"	8
4"x4"x7/16"	30"	9
4"x4"x½"	34"	10

● ONLY USED FOR BOXED END AND TRANSVERSE BRACING.



COUPLING DETAIL



SECTION A-A

NOTE:

PRIOR TO INSTALLATION, ANCHOR BOLTS SHALL BE RIGIDLY HELD IN POSITION DURING CONCRETE PLACEMENT USING STEEL ANCHOR PLATE AND TOP TEMPLATE. REMOVE TOP TEMPLATE (NOT SHOWN AFTER CONCRETE SETS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-63

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4-CHORD SIGN BRIDGE DETAILS

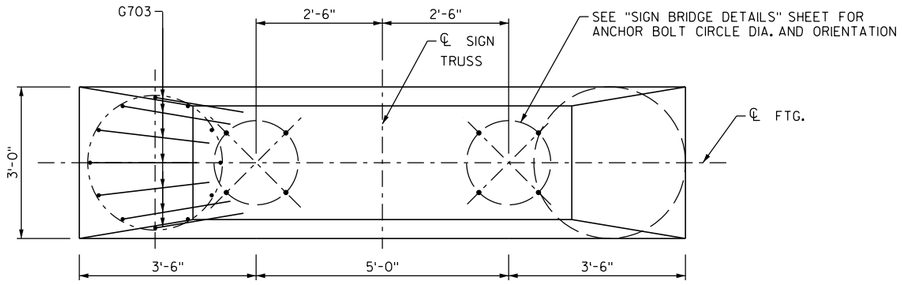
SHEET 3 OF 5
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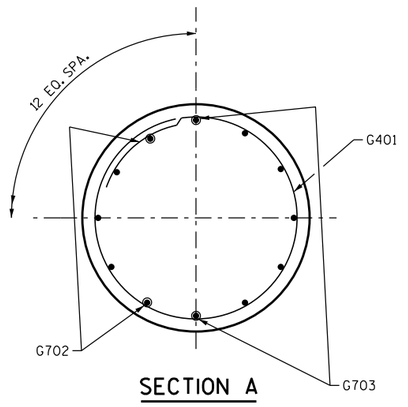
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PLAN



SECTION A

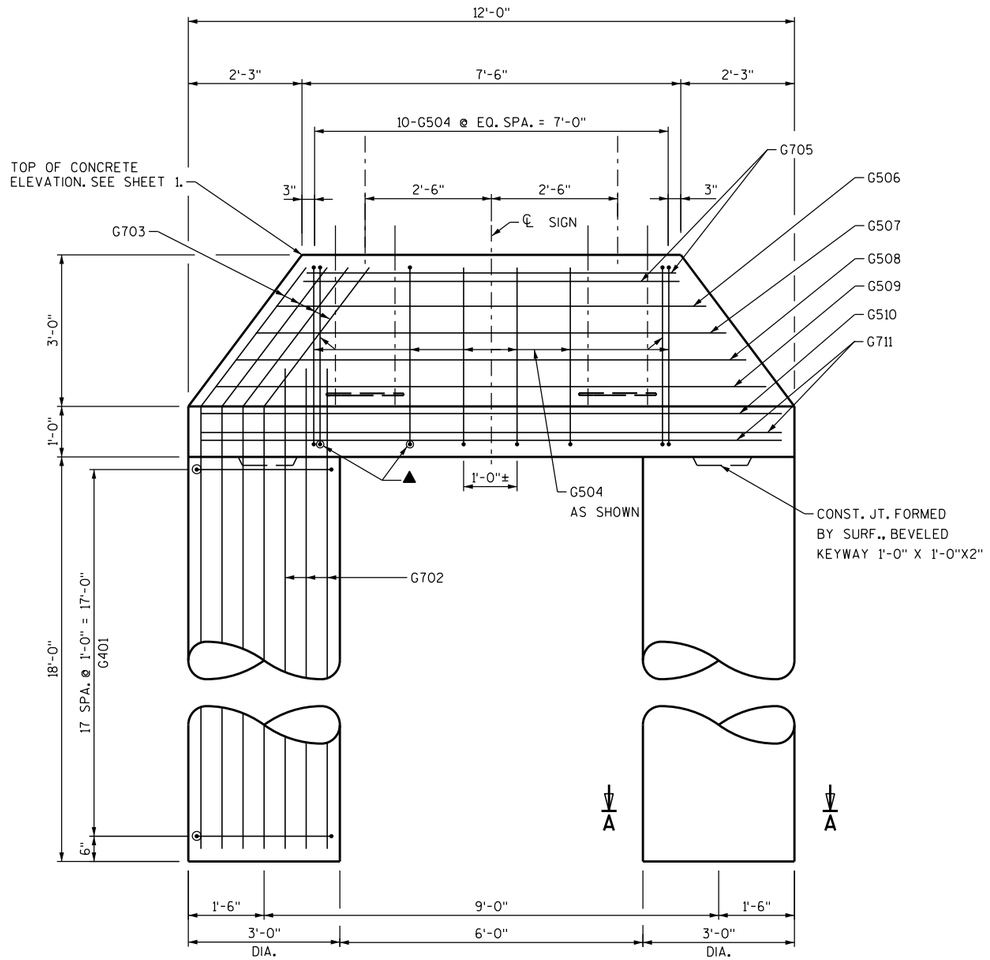
BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

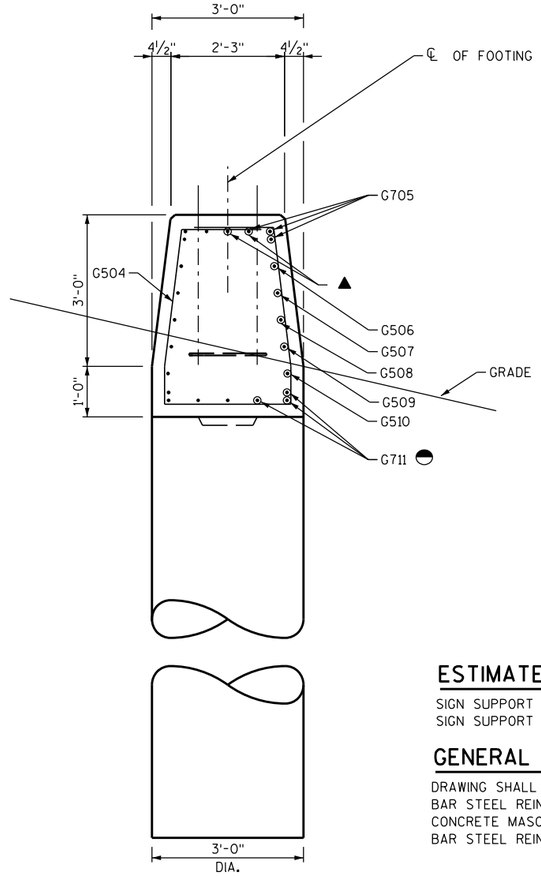
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
G401		36	8'-11"	X		FOOTING-HOOPS
G702		10	20'-0"			FOOTING-VERTICAL
G703		14	22'-2"	X		FOOTING-VERTICAL
G504		8	12'-5"	X		FOOTING-STIRRUPS
G705		7	7'-4"			FOOTING-HORIZONTAL
G506		2	8'-4"			FOOTING-HORIZONTAL
G507		2	9'-2"			FOOTING-HORIZONTAL
G508		2	9'-11"			FOOTING-HORIZONTAL
G509		2	10'-9"			FOOTING-HORIZONTAL
G510		2	11'-6"			FOOTING-HORIZONTAL
G711		7	11'-6"			FOOTING-HORIZONTAL

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

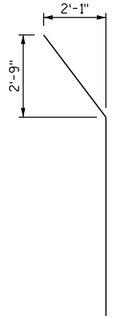
QUANTITY OF BARS IN TABLE IS FOR ONE FOOTING.



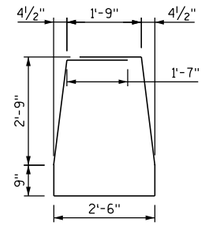
ELEVATION
(ONE FTG.)



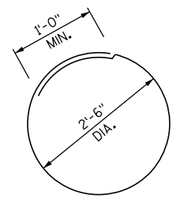
END VIEW



G703



G504



G401

SOIL DESIGN PARAMETERS

FRICTION ANGLE = 31 DEGREES
SOIL UNIT WEIGHT = 115 PCF

ESTIMATED QUANTITIES (ONE FOOTING)

SIGN SUPPORT CONCRETE MASONRY---------- 14 CY
SIGN SUPPORT STEEL REINFORCEMENT HS ---------- 1,735 LB

GENERAL NOTES

DRAWING SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CL.
CONCRETE MASONRY---------- fc'= 3,500 PSI
BAR STEEL REINF. -----GRADE 60 fy = 60,000 PSI

◓ SPACE TO MISS VERT. SHAFT REINF.
▲ SPACE TO MISS ANCHOR BOLTS. TIE IN PLACE AFTER ANCHOR BOLT ASSEMBLY LOCATED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-63

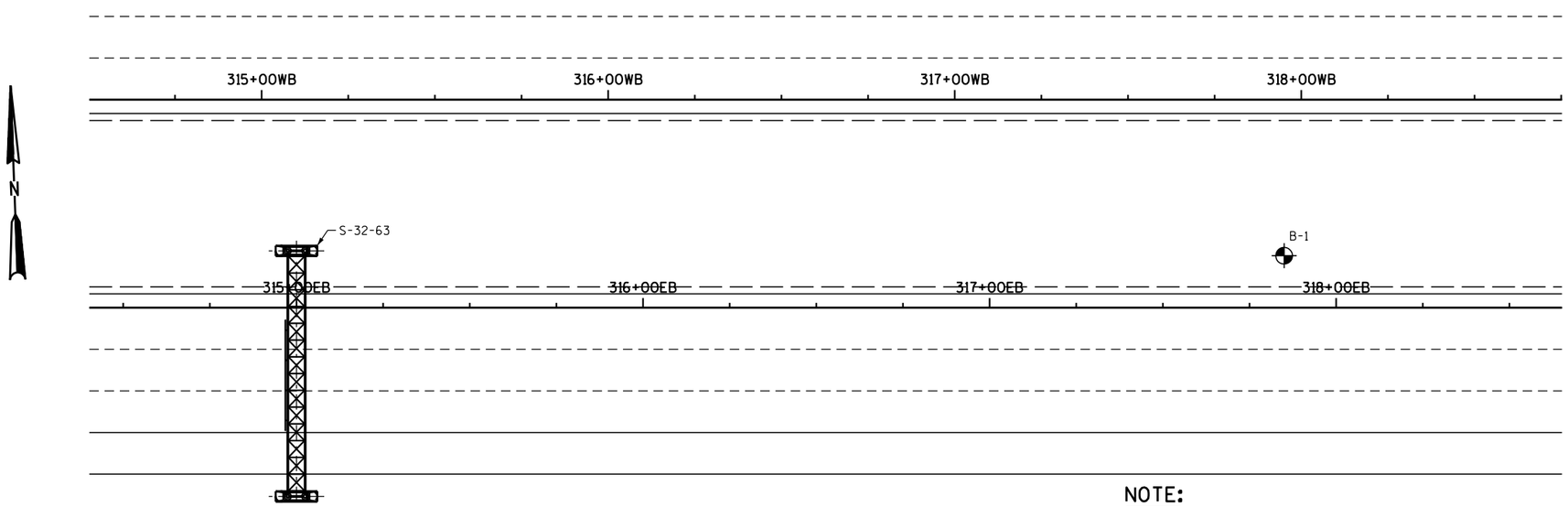
DRAWN BY NLD | PLANS CK'D. SG

SIGN BRIDGE TRUSS FOOTING

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NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

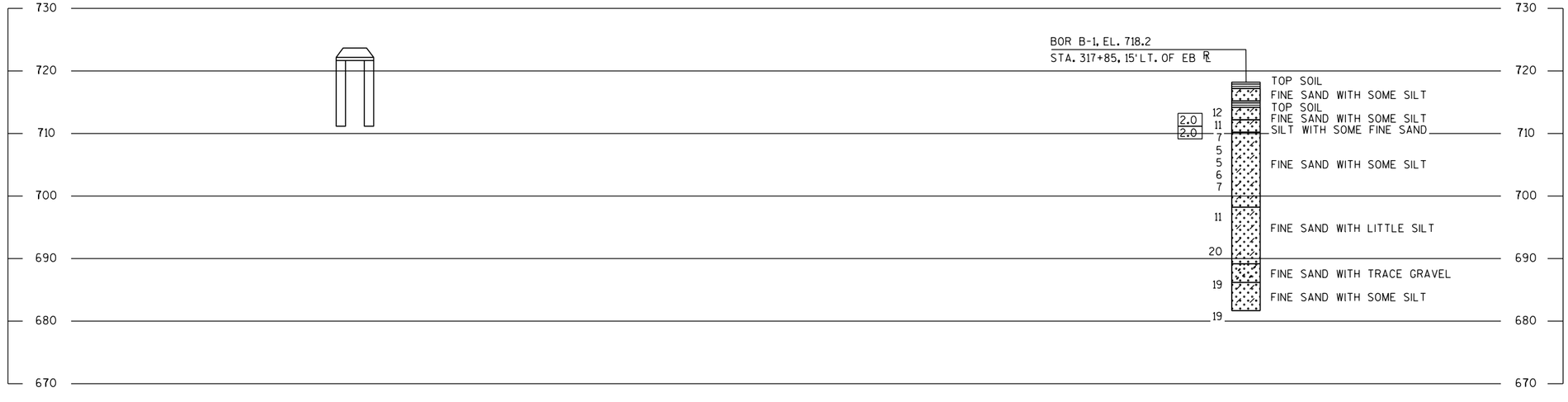
BORING STATIONS AND OFFSETS ARE BASED ON IH 90 EB ℄.

⊕ DENOTES SOIL BORING LOCATION

SOIL BORING COMPLETED BY:
WISDOT

SOIL BORING TAKEN:
MARCH 2014 - BORING B-1

PLAN



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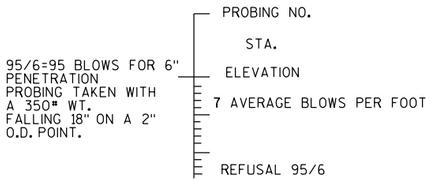
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

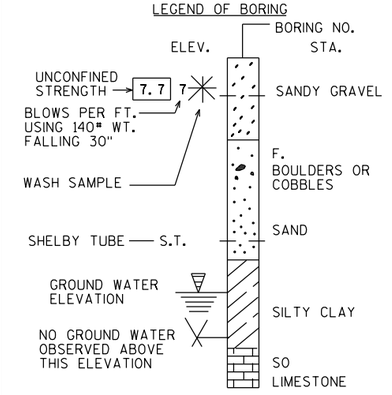
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-32-63

DRAWN BY NLD | PLANS CK'D. VJD

SUBSURFACE EXPLORATION

SHEET 5 OF 5
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EARTHWORK DATA - IH 90 EB (BLACK RIVER TO RAILROAD)

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
174+50.00	53.37	18.87	0.00	0.00	0.00	0.00	0.00
174+96.00	68.57	36.50	103.88	47.17	103.88	54.24	49.63
175+00.00	69.02	34.53	10.19	5.26	114.07	60.29	53.77
175+50.00	66.23	21.00	125.24	51.42	239.30	119.43	119.87
176+00.00	65.43	16.05	121.91	34.31	361.21	158.89	202.32
176+50.00	70.92	12.49	126.25	26.43	487.47	189.28	298.18
176+88.34	79.67	11.37	106.93	16.94	594.39	208.76	385.63
177+00.00	83.37	11.18	35.20	4.87	629.59	214.36	415.23
177+50.00	98.11	7.23	168.04	17.05	797.63	233.97	563.66
177+75.00	113.79	67.09	98.10	34.41	895.74	273.54	622.19
178+00.00	117.46	50.81	107.06	54.58	1,002.80	336.31	666.48
178+10.65	119.37	50.36	46.72	19.96	1,049.52	359.26	690.25
178+23.15	123.63	46.43	56.25	22.41	1,105.77	385.03	720.74
178+50.00	136.19	30.32	129.17	38.16	1,234.94	428.91	806.03
178+86.49	178.75	21.95	212.80	35.31	1,447.74	469.52	978.22
179+00.00	167.41	20.99	86.63	10.74	1,534.37	481.88	1,052.49
180+00.00	223.20	2.37	723.35	43.26	2,257.72	531.62	1,726.10
180+36.49	228.61	9.75	305.27	8.19	2,562.99	541.04	2,021.95
181+00.00	270.51	214.02	587.05	263.20	3,150.04	843.72	2,306.32
182+00.00	172.45	0.00	820.30	396.33	3,970.34	1,299.50	2,670.84
183+00.00	184.59	0.00	661.20	0.00	4,631.54	1,299.50	3,332.04
183+96.00	169.32	0.00	629.18	0.00	5,260.71	1,299.50	3,961.21
184+00.00	166.69	0.00	24.89	0.00	5,285.60	1,299.50	3,986.10
184+36.47	138.00	0.00	205.78	0.00	5,491.38	1,299.50	4,191.88
185+00.00	142.62	9.08	330.14	10.68	5,821.52	1,311.78	4,509.74
185+56.47	93.80	68.39	247.24	81.01	6,068.77	1,404.95	4,663.82
185+81.63	82.08	97.41	81.95	77.25	6,150.72	1,493.79	4,656.93
186+00.00	76.58	119.72	53.96	73.85	6,204.68	1,578.71	4,625.97
186+06.80	74.54	321.90	19.02	55.57	6,223.69	1,642.62	4,581.07
187+00.00	1.84	479.85	131.83	1,383.84	6,355.53	3,234.03	3,121.49
187+28.96	0.00	549.05	0.98	551.79	6,356.51	3,868.59	2,487.92
188+00.00	0.00	727.67	0.00	1,679.60	6,356.51	5,800.14	556.37
188+48.96	0.00	782.60	0.00	1,369.29	6,356.51	7,374.82	-1,018.31
188+73.96	0.00	663.76	0.00	669.55	6,356.51	8,144.80	-1,788.29
188+98.96	0.00	598.87	0.00	584.60	6,356.51	8,817.09	-2,460.58
189+00.00	0.00	600.41	0.00	23.13	6,356.51	8,843.69	-2,487.18
190+00.00	0.01	266.47	0.03	1,605.34	6,356.54	10,689.83	-4,333.29
191+00.00	11.93	247.94	22.12	952.61	6,378.66	11,785.33	-5,406.67
191+77.65	0.00	0.00	17.16	356.52	6,378.66	11,785.33	-5,799.52
			STRUCTURE B-32-218				
195+19.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
196+00.00	0.00	104.08	0.00	155.64	0.00	178.98	-178.98
197+00.00	0.34	143.04	0.63	457.63	0.63	705.25	-704.62
198+00.00	0.00	207.22	0.63	648.62	1.25	1,451.17	-1,449.91
199+00.00	5.40	156.68	10.00	673.87	11.25	2,226.12	-2,214.87
199+20.00	6.24	146.45	4.31	112.27	15.56	2,355.23	-2,339.67
200+00.00	25.29	86.92	46.70	345.73	62.26	2,752.82	-2,690.56

- CONTINUED -

EARTHWORK DATA - IH 90 EB (BLACK RIVER TO RAILROAD)

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
201+00.00	47.42	8.10	134.64	175.96	196.90	2,955.17	-2,758.27
202+00.00	84.08	0.45	243.52	15.82	440.43	2,973.37	-2,532.94
202+08.89	86.89	0.44	28.15	0.14	468.57	2,973.54	-2,504.96
203+00.00	115.43	0.00	341.37	0.73	809.94	2,974.38	-2,164.44
204+00.00	141.11	281.22	475.08	520.78	1,285.02	3,573.28	-2,288.27
204+25.19	133.94	281.81	128.31	262.65	1,413.33	3,875.34	-2,462.01
204+50.02	147.94	123.20	129.62	186.25	1,542.95	4,089.52	-2,546.57
205+00.00	136.56	18.62	263.31	131.26	1,806.27	4,240.47	-2,434.20
206+00.00	125.83	57.60	485.92	141.15	2,292.19	4,402.79	-2,110.60
206+07.00	125.48	58.08	32.58	15.00	2,324.76	4,420.03	-2,095.27
207+00.00	125.34	95.95	431.97	265.28	2,756.74	4,725.11	-1,968.37
208+00.00	97.56	34.31	412.77	241.22	3,169.51	5,002.51	-1,833.01
209+00.00	110.10	134.20	384.54	312.04	3,554.05	5,361.36	-1,807.32
210+00.00	94.31	98.97	378.52	431.79	3,932.57	5,857.92	-1,925.36
211+00.00	95.08	1.37	350.71	185.81	4,283.28	6,071.61	-1,788.33
212+00.00	88.93	213.74	340.75	398.34	4,624.03	6,529.70	-1,905.67

EARTHWORK DATA - IH 90 EB (RAILROAD TO 12 AVENUE)

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
216+00.00	106.08	1.92	0.00	0.00	0.00	0.00	0.00
216+89.00	122.48	3.44	376.70	8.84	376.70	10.17	366.53
217+00.00	120.40	8.89	49.48	2.51	426.17	13.05	413.12
218+00.00	145.10	1.14	491.66	18.57	917.84	34.41	883.43
219+00.00	100.97	17.91	455.69	35.27	1,373.53	74.97	1,298.56
220+00.00	109.17	54.11	389.14	133.38	1,762.67	228.36	1,534.31
220+27.10	129.35	53.73	119.69	54.12	1,882.37	290.60	1,591.77
221+00.00	134.88	58.66	356.71	151.73	2,239.08	465.09	1,773.99
221+55.02	134.42	63.73	274.37	124.69	2,513.45	608.48	1,904.97
221+80.02	141.07	59.64	127.54	57.11	2,640.99	674.16	1,966.83
222+00.00	143.76	55.55	105.40	42.63	2,746.39	723.18	2,023.21
222+05.02	141.42	56.25	26.49	10.39	2,772.88	735.12	2,037.76
223+00.00	99.84	37.61	424.36	165.09	3,197.24	924.98	2,272.26
224+00.00	95.97	57.40	362.61	175.95	3,559.85	1,127.32	2,432.53
225+00.00	97.54	85.52	358.36	264.67	3,918.21	1,431.69	2,486.52
226+00.00	93.66	127.64	354.08	394.73	4,272.29	1,885.63	2,386.66
227+00.00	97.80	187.36	354.57	583.34	4,626.86	2,556.47	2,070.39
227+37.00	76.17	214.78	119.20	275.54	4,746.06	2,873.35	1,872.72
228+00.00	65.77	262.85	165.60	557.23	4,911.66	3,514.16	1,397.49
229+00.00	70.05	333.14	251.52	1,103.68	5,163.18	4,783.40	379.78
230+00.00	95.76	338.80	307.06	1,244.33	5,470.24	6,214.38	-744.14
231+00.00	112.33	379.31	385.37	1,329.84	5,855.61	7,743.70	-1,888.09
232+00.00	102.19	509.69	397.27	1,646.29	6,252.88	9,636.93	-3,384.05

- CONTINUED -

EARTHWORK DATA - IH 90 EB (RAILROAD TO 12 AVENUE)

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
232+25.00	104.46	480.28	95.67	458.32	6,348.55	10,164.00	-3,815.44
232+50.00	102.81	426.98	95.96	420.03	6,444.51	10,647.03	-4,202.52
233+00.00	86.91	225.69	175.67	604.32	6,620.18	11,342.00	-4,721.82
234+00.00	1.57	2530.37	163.86	5,103.83	6,784.04	17,211.41	-10,427.37
235+00.00	83.91	283.81	158.30	5,211.46	6,942.33	23,204.58	-16,262.25
236+00.00	95.50	345.94	332.26	1,166.21	7,274.59	24,545.73	-17,271.14
237+00.00	89.53	535.43	342.65	1,632.17	7,617.24	26,422.73	-18,805.49
238+00.00	85.53	272.77	324.18	1,496.67	7,941.42	28,143.90	-20,202.48
239+00.00	196.29	44.67	521.90	587.86	8,463.32	28,819.94	-20,356.63
240+00.00	199.02	0.00	732.05	82.73	9,195.37	28,915.08	-19,719.72
241+00.00	198.70	1.38	736.52	2.56	9,931.88	28,918.03	-18,986.14
242+00.00	130.48	19.40	609.59	38.48	10,541.48	28,962.28	-18,420.80
243+00.00	120.65	29.66	465.06	90.84	11,006.54	29,066.74	-18,060.20
243+90.00	120.43	39.11	401.81	114.61	11,408.35	29,198.54	-17,790.19
244+00.00	125.10	28.75	45.47	12.57	11,453.82	29,212.99	-17,759.17
244+16.50	127.18	24.64	77.09	16.31	11,530.91	29,231.76	-17,700.85
245+00.00	176.64	10.75	469.79	54.74	12,000.70	29,294.70	-17,294.00
245+10.00	174.06	8.76	64.95	3.61	12,065.65	29,298.86	-17,233.21
245+35.00	158.19	4.59	153.82	6.18	12,219.47	29,305.97	-17,086.50
245+36.50	157.74	4.62	8.78	0.26	12,228.24	29,306.26	-17,078.02
245+60.00	148.23	3.50	133.15	3.54	12,361.40	29,310.33	-16,948.94
245+61.50	147.90	3.84	8.23	0.20	12,369.62	29,310.57	-16,940.94
245+86.50	139.60	11.58	133.10	7.14	12,502.72	29,318.78	-16,816.05
246+00.00	139.24	13.32	69.71	6.23	12,572.44	29,325.94	-16,753.50
247+00.00	131.25	0.00	500.91	24.68	13,073.35	29,354.32	-16,280.97

EARTHWORK DATA - IH 90 EB (12 AVENUE TO THEATER ROAD)

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
250+00.00	91.42	4.46	0.00	0.00	0.00	0.00	0.00
251+00.00	90.17	5.38	336.27	18.22	336.27	20.96	315.32
252+00.00	91.02	2.06	335.54	13.78	671.82	36.80	635.01
253+00.00	118.18	0.00	387.41	3.81	1,059.22	41.18	1,018.04
254+00.00	133.13	0.44	465.38	0.82	1,524.60	42.13	1,482.47
254+25.00	143.16	0.59	127.91	0.48	1,652.51	42.68	1,609.83
254+75.00	147.39	0.11	269.03	0.64	1,921.54	43.41	1,878.13
255+00.00	107.23	3.92	117.88	1.86	2,039.42	45.56	1,993.86
255+55.00	129.00	20.67	240.60	25.05	2,280.02	74.36	2,205.66
256+00.00	94.52	53.02	186.26	61.41	2,466.28	144.99	2,321.30
257+00.00	76.46	156.38	316.64	387.78	2,782.92	590.93	2,191.99
258+00.00	78.63	175.56	287.20	614.71	3,070.12	1,297.85	1,772.27
258+89.00	109.14	184.84	309.46	594.00	3,379.59	1,980.96	1,398.63
259+00.00	113.14	155.57	45.28	69.34	3,424.87	2,060.70	1,364.16
260+00.00	56.89	0.00	314.86	288.10	3,739.73	2,392.02	1,347.71

- CONTINUED -

EARTHWORK DATA - IH 90 EB (12 AVENUE TO THEATER ROAD)

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
261+00.00	58.63	0.00	213.92	0.00	3,953.65	2,392.02	1,561.64
262+00.00	67.85	20.47	234.22	37.91	4,187.87	2,435.62	1,752.25
263+00.00	74.35	54.31	263.33	138.49	4,451.20	2,594.89	1,856.32
264+00.00	71.30	49.10	269.73	191.50	4,720.94	2,815.11	1,905.82
264+86.00	52.42	55.55	197.04	166.66	4,917.98	3,006.77	1,911.21
264+91.00	51.83	56.75	9.65	10.40	4,927.63	3,018.73	1,908.90
266+00.00	43.19	30.14	191.79	175.39	5,119.43	3,220.43	1,899.00
267+00.00	55.47	6.50	182.70	67.85	5,302.12	3,298.46	2,003.67
268+00.00	79.45	0.00	249.84	12.03	5,551.97	3,312.29	2,239.67
269+00.00	64.05	0.00	265.73	0.00	5,817.70	3,312.29	2,505.41
269+31.81	61.34	0.00	73.87	0.00	5,891.57	3,312.29	2,579.28
269+87.89	57.82	0.00	123.75	0.00	6,015.32	3,312.29	2,703.03
270+00.00	57.89	0.00	25.95	0.00	6,041.27	3,312.29	2,728.98
270+52.64	123.16	10.72	176.50	10.45	6,217.77	3,324.32	2,893.46
271+00.00	131.15	2.47	223.02	11.57	6,440.79	3,337.62	3,103.18
271+32.74	146.18	0.10	168.16	1.56	6,608.95	3,339.41	3,269.54
271+59.26	150.03	0.00	145.42	0.05	6,754.38	3,339.47	3,414.91
271+85.79	146.51	0.00	145.71	0.00	6,900.09	3,339.47	3,560.62
272+00.00	143.04	0.51	76.19	0.13	6,976.28	3,339.62	3,636.66
272+02.64	141.08	0.56	13.90	0.05	6,990.19	3,339.68	3,650.50
273+00.00	130.36	0.01	489.37	1.03	7,479.56	3,340.86	4,138.70
274+00.00	140.61	1.00	501.80	1.86	7,981.35	3,343.00	4,638.36
275+00.00	116.00	11.16	475.22	22.51	8,456.57	3,368.88	5,087.69
275+82.56	105.77	2.37	339.05	20.69	8,795.63	3,392.68	5,402.95
276+00.00	101.99	60.29	67.12	20.24	8,862.75	3,415.95	5,446.79
276+18.26	109.40	7.07	71.49	22.78	8,934.24	3,442.15	5,492.08
277+00.00	128.01	0.35	359.36	11.23	9,293.59	3,455.07	5,838.53
277+68.26	138.31	2.17	336.65	3.18	9,630.24	3,458.73	6,171.52
278+00.00	154.22	1.09	171.94	1.91	9,802.18	3,460.93	6,341.26
279+00.00	218.70	0.00	690.61	2.01	10,492.79	3,463.24	7,029.55
280+00.00	177.53	0.00	733.76	0.00	11,226.56	3,463.24	7,763.32
281+00.00	105.43	0.00	523.99	0.00	11,750.55	3,463.24	8,287.31
282+00.00	99.37	5.83	379.26	10.79	12,129.80	3,475.65	8,654.16
282+73.08	107.77	5.49	280.34	15.31	12,410.14	3,493.26	8,916.88
283+00.00	128.62	5.69	117.85	5.57	12,527.99	3,499.67	9,028.32
283+26.21	138.61	5.26	129.69	5.32	12,657.68	3,505.78	9,151.90
284+00.00	177.33	0.00	431.75	7.19	13,089.44	3,514.05	9,575.38
285+00.00	78.65	0.00	474.04	0.00	13,563.48	3,514.05	10,049.43
286+00.00	70.21	0.09	275.67	0.16	13,839.15	3,514.24	10,324.91
287+00.00	79.15	6.38	276.60	11.98	14,115.75	3,528.02	10,587.73
287+34.40	122.15	9.28	128.24	9.98	14,243.98	3,539.49	10,704.49
288+00.00	155.00	19.81	336.68	35.34	14,580.66	3,580.13	11,000.53
288+26.90	157.81	21.44	155.82	20.55	14,736.49	3,603.76	11,132.73
288+54.40	180.81	23.49	172.44	22.88	14,908.93	3,630.07	11,278.86
288+79.39	191.14	18.22	172.11	19.30	15,081.04	3,652.27	11,428.77
289+00.00	276.53	6.44	178.52	9.42	15,259.56	3,663.10	11,596.46
289+04.40	274.82	7.20	44.92	1.11	15,304.49	3,664.38	11,640.11

- CONTINUED -

EARTHWORK DATA - IH 90 EB (12 AVENUE TO THEATER ROAD)

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
289+46.90	270.55	15.98	429.22	18.24	15,733.71	3,685.36	12,048.35
289+71.91	280.09	20.74	255.06	17.01	15,988.77	3,704.92	12,283.85
289+96.90	228.79	23.12	235.47	20.30	16,224.23	3,728.26	12,495.97
290+00.00	227.88	23.38	26.22	2.67	16,250.45	3,731.33	12,519.12
291+00.00	172.54	25.29	741.51	90.14	16,991.96	3,834.99	13,156.97
292+00.00	106.60	5.50	516.93	57.02	17,508.88	3,900.56	13,608.32
293+00.00	186.20	12.21	542.22	32.79	18,051.10	3,938.28	14,112.82
294+00.00	144.25	12.06	611.94	44.95	18,663.04	3,989.97	14,673.08
295+00.00	105.57	17.17	462.64	54.13	19,125.68	4,052.22	15,073.47
296+00.00	104.20	26.60	388.48	81.07	19,514.16	4,145.44	15,368.72
297+00.00	108.56	17.80	394.00	82.22	19,908.16	4,240.00	15,668.16
298+00.00	106.79	44.08	398.79	114.57	20,306.95	4,371.76	15,935.19
299+00.00	115.07	18.06	410.86	115.06	20,717.81	4,504.08	16,213.73
299+70.80	131.54	13.75	323.32	41.71	21,041.13	4,552.04	16,489.09
300+00.00	134.44	7.40	143.83	11.44	21,184.96	4,565.19	16,619.77
301+00.00	126.41	8.51	483.05	29.45	21,668.02	4,599.06	17,068.95
302+00.00	116.67	12.30	450.15	38.54	22,118.16	4,643.38	17,474.78
303+00.00	125.30	8.96	448.10	39.38	22,566.26	4,688.67	17,877.60
304+00.00	162.26	9.01	532.54	33.28	23,098.80	4,726.94	18,371.86
305+00.00	178.86	8.71	631.70	32.82	23,730.50	4,764.68	18,965.82
306+00.00	109.14	14.21	533.32	42.44	24,263.82	4,813.49	19,450.33
306+62.09	100.28	25.11	240.80	45.21	24,504.63	4,865.49	19,639.14
307+00.00	101.59	10.91	141.72	25.29	24,646.34	4,894.57	19,751.78
307+82.08	123.63	22.76	342.34	51.17	24,988.68	4,953.42	20,035.26
308+00.00	122.26	22.11	81.60	14.89	25,070.28	4,970.54	20,099.74
308+07.40	120.37	21.45	33.27	5.97	25,103.55	4,977.41	20,126.14
308+21.48	118.58	22.66	62.26	11.49	25,165.82	4,990.63	20,175.19
308+32.81	114.39	25.14	48.90	10.04	25,214.72	5,002.17	20,212.55
308+46.46	110.05	25.78	56.71	12.87	25,271.43	5,016.97	20,254.46
308+71.46	107.25	25.74	100.60	23.85	25,372.03	5,044.40	20,327.63
309+00.00	108.57	21.63	114.08	25.04	25,486.11	5,073.20	20,412.91
309+09.40	113.10	19.85	38.61	7.23	25,524.72	5,081.51	20,443.21
309+39.40	124.53	13.60	132.02	18.58	25,656.74	5,102.88	20,553.86
310+00.00	121.15	8.34	275.68	24.62	25,932.42	5,131.19	20,801.23
310+01.62	0.00	0.00	0.00	0.25	25,932.42	5,131.48	20,800.94
			STRUCTURE B-32-189				
311+59.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00
312+00.00	108.19	1.60	80.48	1.19	80.48	1.36	79.12
313+00.00	38.23	4.27	271.16	10.86	351.64	13.85	337.79
314+00.00	49.79	0.69	163.01	9.18	514.65	24.41	490.25
315+00.00	53.75	3.37	191.75	7.51	706.41	33.04	673.36
315+50.00	79.95	2.09	123.80	5.06	830.20	38.86	791.34
316+00.00	84.17	0.37	151.96	2.28	982.16	41.49	940.68
317+00.00	110.95	0.00	361.34	0.69	1,343.51	42.28	1,301.23
318+00.00	87.72	0.00	367.92	0.00	1,711.43	42.28	1,669.14
319+00.00	71.35	0.00	294.58	0.00	2,006.01	42.28	1,963.72
320+00.00	46.88	0.00	218.94	0.00	2,224.95	42.28	2,182.66
321+00.00	39.65	0.00	160.24	0.00	2,385.19	42.28	2,342.90

EARTHWORK DATA - E RAMP

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
182+00.00	75.83	129.47	0.00	0.00	0.00	0.00	0.00
182+50.00	44.01	0.00	110.96	119.88	110.96	137.86	-26.90
183+00.00	47.22	0.00	84.48	0.00	195.44	137.86	57.58
183+50.00	59.04	0.00	98.39	0.00	293.84	137.86	155.98
184+00.00	62.73	0.00	112.75	0.00	406.58	137.86	268.72
184+50.00	75.33	0.00	127.83	0.00	534.41	137.86	396.55
185+00.00	85.94	0.00	149.32	0.00	683.74	137.86	545.88
185+50.00	0.00	174.11	79.58	161.21	763.31	323.26	440.06
186+00.00	0.00	478.95	0.00	604.69	763.31	1,018.65	-255.34
188+06.09	0.00	0.00	0.00	1,827.92	763.31	3,120.76	-2,357.44

EARTHWORK DATA - F RAMP

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
198+80.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200+00.00	0.00	163.04	0.00	362.24	0.00	416.58	-416.58
200+50.00	98.89	21.97	91.56	171.30	91.56	613.57	-522.01
201+00.00	32.71	4.50	121.85	24.51	213.41	641.76	-428.35
201+50.00	13.98	0.00	43.23	4.17	256.65	646.56	-389.91
202+00.00	25.24	0.00	36.32	0.00	292.96	646.56	-353.59
202+50.00	22.82	0.00	44.51	0.00	337.47	646.56	-309.09
203+00.00	19.48	0.00	39.17	0.00	376.64	646.56	-269.92
203+50.00	20.68	0.00	37.18	0.00	413.82	646.56	-232.74

EARTHWORK DATA - J RAMP

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
259+50.00	29.19	109.29	0.00	0.00	0.00	0.00	0.00
260+00.00	45.64	59.91	69.29	156.67	69.29	180.17	-110.88
260+50.00	66.08	32.21	103.44	85.30	172.74	278.26	-105.53
261+00.00	67.54	16.75	123.71	45.33	296.45	330.39	-33.94
261+50.00	44.01	13.25	103.28	27.78	399.73	362.34	37.39
262+00.00	58.01	16.79	94.46	27.82	494.19	394.33	99.86
262+50.00	55.57	38.13	105.17	50.85	599.36	452.81	146.55
263+00.00	60.90	61.77	107.84	92.50	707.20	559.18	148.02
263+50.00	67.23	93.41	118.64	143.69	825.84	724.42	101.42
263+84.40	69.27	123.65	86.95	138.28	912.80	883.44	29.35
264+00.00	71.04	115.10	40.53	68.97	953.33	962.76	-9.43
264+09.36	73.43	105.74	25.05	38.29	978.38	1,006.80	-28.42
264+34.40	75.36	76.75	68.98	84.61	1,047.36	1,104.09	-56.73
264+50.00	71.65	61.29	42.47	39.88	1,089.83	1,149.95	-60.12
265+00.00	76.38	2.34	137.07	58.91	1,226.90	1,217.71	9.19
265+50.00	39.15	0.00	106.98	2.17	1,333.87	1,220.20	113.68
266+00.00	27.42	19.71	61.64	18.25	1,395.52	1,241.19	154.33
266+50.00	9.23	0.00	33.93	18.25	1,429.45	1,262.18	167.27
267+00.00	6.75	0.00	14.80	0.00	1,444.24	1,262.18	182.07

EARTHWORK DATA - K RAMP

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
285+50.00	70.91	13.40	0.00	0.00	0.00	0.00	0.00
286+00.00	68.98	14.55	129.53	25.88	129.53	29.76	99.77
286+50.00	70.92	3.27	129.53	16.50	259.06	48.73	210.33
287+00.00	63.98	3.97	124.91	6.70	383.97	56.43	327.54

EARTHWORK DATA - N RAMP

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
268+50.00	69.92	0.00	0.00	0.00	0.00	0.00	0.00
269+00.00	66.80	0.00	126.59	0.00	126.59	0.00	126.59
269+50.00	59.37	0.00	116.83	0.00	243.43	0.00	243.43
270+00.00	50.35	0.00	101.59	0.00	345.02	0.00	345.02

EARTHWORK DATA - EU TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
181+50.00	0.51	46.75	0.00	0.00	0.00	0.00	0.00
182+00.00	8.21	21.61	8.07	63.29	8.07	72.79	-64.72
182+50.00	9.04	0.45	15.97	20.42	24.04	96.27	-72.23

EARTHWORK DATA - EV TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
182+50.00	33.61	110.39	0.00	0.00	0.00	0.00	0.00
183+00.00	32.16	94.88	60.90	190.07	60.90	218.58	-157.68
183+50.00	43.74	0.33	70.28	88.16	131.18	319.96	-188.78
184+00.00	55.66	0.75	92.04	1.01	223.22	321.12	-97.90
184+50.00	51.85	0.23	99.54	0.91	322.76	322.16	0.60
185+00.00	116.34	0.29	155.73	0.48	478.49	322.72	155.78

EARTHWORK DATA - EW TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
185+50.00	58.09	0.00	0.00	0.00	0.00	0.00	0.00
186+00.00	15.65	124.80	68.28	115.56	68.28	132.89	-64.61

EARTHWORK DATA - EX TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
195+50.00	0.00	50.45	0.00	0.00	0.00	0.00	0.00
196+00.00	0.00	125.30	0.00	162.73	0.00	187.14	-187.14
196+50.00	0.00	191.28	0.00	293.13	0.00	524.24	-524.24
197+00.00	0.00	227.59	0.00	387.85	0.00	970.26	-970.26
197+50.00	0.00	242.71	0.00	435.46	0.00	1,471.04	-1,471.04
198+00.00	0.00	136.60	0.00	351.21	0.00	1,874.93	-1,874.93
198+50.00	19.08	15.44	17.66	140.78	17.66	2,036.83	-2,019.17
199+00.00	42.55	4.27	57.06	18.25	74.73	2,057.82	-1,983.09

EARTHWORK DATA - FQ TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
201+00.00	49.10	168.84	0.00	0.00	0.00	0.00	0.00
201+50.00	22.14	238.36	65.97	377.04	65.97	433.59	-367.62
202+00.00	5.69	231.66	25.77	435.21	91.74	934.08	-842.34
202+50.00	2.59	220.40	7.66	418.57	99.40	1415.44	-1316.04
203+00.00	3.21	171.07	5.37	362.47	104.77	1832.28	-1727.51
203+50.00	2.99	221.85	5.74	363.82	110.51	2250.67	-2140.17

EARTHWORK DATA - JV1 TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
260+00.00	2.78	22.76	0.00	0.00	0.00	0.00	0.00
260+50.00	9.06	2.14	10.96	23.06	10.96	26.52	-15.56

EARTHWORK DATA - JV2 TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
262+00.00	0.00	70.21	0.00	0.00	0.00	0.00	0.00
262+50.00	0.06	150.08	0.05	203.97	0.05	234.57	-234.52
263+00.00	6.34	168.08	5.92	294.59	5.97	573.35	-567.37
263+50.00	6.82	145.42	12.18	290.28	18.16	907.16	-889.01
264+00.00	9.90	127.54	15.48	252.74	33.64	1,197.81	-1,164.18
264+50.00	13.15	104.91	21.34	215.23	54.97	1,445.33	-1,390.36
265+00.00	15.43	53.17	26.46	146.37	81.43	1,613.65	-1,532.22
265+17.87	17.45	41.50	10.88	31.32	92.32	1,649.67	-1,557.36
265+50.00	19.85	13.32	22.20	32.62	114.52	1,687.19	-1,572.67
266+00.00	19.33	0.05	36.28	12.38	150.80	1,701.43	-1,550.63
266+50.00	13.11	0.00	30.04	0.04	180.84	1,701.48	-1,520.64
267+00.00	13.13	0.00	24.29	0.00	205.13	1,701.48	-1,496.34

EARTHWORK DATA - KU TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
287+50.00	5.96	5.11	0.00	0.00	0.00	0.00	0.00
288+00.00	4.15	28.07	9.35	30.72	9.35	35.33	-25.98
288+50.00	12.03	16.40	14.98	41.17	24.33	82.68	-58.35

EARTHWORK DATA - IH 90 EB (ROUND LAKE TO BLACK RIVER)

STATION	AREA (SF)			INCR. VOL (CY)			CUMULATIVE VOL (CY)				MASS ORDINATE
	CUT	FILL	EBS	CUT	FILL	EBS	CUT 1.00	EXP. FILL 1.15	EXP. EBS BACKFILL 1.30	RED. EBS IN FILL 0.80	
72+69.56	71.85	18.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73+00.00	66.62	27.04	0.00	78.06	25.57	0.00	78.06	29.41	0.00	0.00	48.65
73+56.57	58.68	19.50	0.00	131.26	48.76	0.00	209.32	85.48	0.00	0.00	123.85
73+69.07	53.95	18.56	0.00	26.07	8.81	0.00	235.39	95.61	0.00	0.00	139.79
73+89.56	57.04	19.02	0.00	42.11	14.26	0.00	277.51	112.01	0.00	0.00	165.50
74+00.00	57.46	18.25	0.00	22.14	7.21	0.00	299.65	120.30	0.00	0.00	179.35
74+32.40	55.97	19.25	0.00	68.06	22.50	0.00	367.71	146.18	0.00	0.00	221.53
74+49.93	55.21	18.09	0.00	36.10	12.12	0.00	403.81	160.12	0.00	0.00	243.69
75+00.00	50.83	18.65	0.00	98.32	34.06	0.00	502.13	199.29	0.00	0.00	302.84
75+82.40	55.69	23.08	0.00	162.56	63.68	0.00	664.69	272.52	0.00	0.00	392.17
76+00.00	58.01	22.37	0.00	37.05	14.81	0.00	701.74	289.55	0.00	0.00	412.20
77+00.00	56.57	22.07	0.00	212.18	82.30	0.00	913.93	384.19	0.00	0.00	529.73
78+00.00	46.19	13.46	0.00	190.29	65.81	0.00	1104.22	459.87	0.00	0.00	644.34
79+00.00	35.94	12.67	0.00	152.09	48.38	0.00	1256.31	515.51	0.00	0.00	740.80
80+00.00	36.31	24.67	0.00	133.81	69.14	0.00	1390.12	595.02	0.00	0.00	795.09
81+00.00	59.83	7.14	0.00	178.05	58.90	0.00	1568.17	662.76	0.00	0.00	905.41
82+00.00	60.47	4.63	0.00	222.79	21.79	0.00	1790.96	687.83	0.00	0.00	1,103.14
82+81.76	40.80	7.58	0.00	153.35	18.49	0.00	1944.31	709.09	0.00	0.00	1,235.22
83+00.00	46.46	15.25	0.00	29.47	7.71	0.00	1973.78	717.95	0.00	0.00	1,255.83
83+30.00	49.66	37.75	0.00	53.40	29.44	0.00	2027.18	751.81	0.00	0.00	1,275.37
84+00.00	43.42	80.82	0.00	120.66	153.71	0.00	2147.83	928.57	0.00	0.00	1,219.26
84+90.29	54.69	111.33	0.00	164.04	321.28	0.00	2311.88	1298.05	0.00	0.00	1,013.83
85+00.00	56.02	122.47	0.00	19.91	42.05	0.00	2331.79	1346.40	0.00	0.00	985.39
86+00.00	58.92	116.79	0.00	212.87	443.07	0.00	2544.66	1855.93	0.00	0.00	688.72
87+00.00	60.25	110.97	0.00	220.70	421.77	0.00	2765.35	2340.97	0.00	0.00	424.39
88+00.00	81.82	5.75	0.00	263.10	216.16	0.00	3028.46	2589.55	0.00	0.00	438.91
88+40.13	83.49	4.26	0.00	122.84	7.44	0.00	3151.30	2598.10	0.00	0.00	553.20
89+00.00	87.25	2.34	0.00	189.31	7.31	0.00	3340.61	2606.51	0.00	0.00	734.10
90+00.00	52.04	3.83	0.00	257.94	11.42	0.00	3598.55	2619.64	0.00	0.00	978.91
91+00.00	55.56	11.18	0.00	199.25	27.80	0.00	3797.81	2651.61	0.00	0.00	1,146.20
92+00.00	57.98	5.89	0.00	210.25	31.61	0.00	4008.06	2687.96	0.00	0.00	1,320.10
93+00.00	61.25	0.10	0.00	220.78	11.09	0.00	4228.84	2700.72	0.00	0.00	1,528.12
93+65.84	96.42	0.00	0.00	192.22	0.13	0.00	4421.06	2700.87	0.00	0.00	1,720.19
94+00.00	89.56	1.86	0.00	117.66	1.18	0.00	4538.71	2702.22	0.00	0.00	1,836.49
94+23.42	87.47	3.94	0.00	76.78	2.52	0.00	4615.49	2705.12	0.00	0.00	1,910.37
95+00.00	76.93	17.47	0.00	233.15	30.36	0.00	4848.64	2740.04	0.00	0.00	2,108.61
95+04.17	76.60	18.15	0.00	11.86	2.75	0.00	4860.50	2743.20	0.00	0.00	2,117.30
95+15.84	78.38	19.03	0.00	33.48	8.03	0.00	4893.98	2752.44	0.00	0.00	2,141.55
95+16.67	77.99	19.02	0.00	2.41	0.59	0.00	4896.40	2753.11	0.00	0.00	2,143.28
95+73.42	79.57	17.32	0.00	165.59	38.19	0.00	5061.98	2797.03	0.00	0.00	2,264.96
95+79.17	76.67	16.82	0.00	16.64	3.64	0.00	5078.62	2801.21	0.00	0.00	2,277.41
95+91.66	76.40	14.06	0.00	35.41	7.15	0.00	5114.04	2809.42	0.00	0.00	2,304.61
96+00.00	77.28	13.13	0.00	23.72	4.20	0.00	5137.76	2814.25	0.00	0.00	2,323.51
96+36.75	76.58	11.88	0.00	104.72	17.02	0.00	5242.47	2833.82	0.00	0.00	2,408.65
96+49.25	76.45	12.36	0.00	35.42	5.61	0.00	5277.90	2840.28	0.00	0.00	2,437.62
97+00.00	73.11	14.11	0.00	140.56	24.88	0.00	5418.46	2868.89	0.00	0.00	2,549.58

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EARTHWORK DATA - IH 90 EB (ROUND LAKE TO BLACK RIVER)

STATION	AREA (SF)			INCR. VOL (CY)			CUMULATIVE VOL (CY)				MASS ORDINATE
	CUT	FILL	EBS	CUT	FILL	EBS	CUT 1.00	EXP. FILL 1.15	EXP. EBS BACKFILL 1.30	RED. EBS IN FILL 0.80	
97+60.11	0.00	0.00	0.00	81.39	15.70	0.00	5499.85	2886.95	0.00	0.00	2,612.90
					STRUCTURE B-32-48						
98+97.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100+00.00	68.64	5.06	0.00	130.68	9.64	0.00	130.68	11.08	0.00	0.00	119.60
100+17.00	66.28	10.88	0.00	42.48	5.02	0.00	173.16	16.85	0.00	0.00	156.31
101+00.00	84.29	3.45	0.00	231.44	22.01	0.00	404.60	42.17	0.00	0.00	362.43
102+00.00	91.87	3.08	0.00	326.22	12.08	0.00	730.81	56.06	0.00	0.00	674.75
103+00.00	92.91	2.49	0.00	342.17	10.32	0.00	1072.99	67.93	0.00	0.00	1,005.06
104+00.00	96.18	0.22	0.00	350.16	5.03	0.00	1423.15	73.72	0.00	0.00	1,349.43
105+00.00	101.58	0.00	0.00	366.23	0.42	0.00	1789.38	74.19	0.00	0.00	1,715.18
106+00.00	116.95	0.00	0.00	404.69	0.00	0.00	2194.06	74.19	0.00	0.00	2,119.87
107+00.00	72.17	0.00	0.00	350.22	0.00	0.00	2544.29	74.19	0.00	0.00	2,470.09
108+00.00	62.61	2.59	0.00	249.59	4.79	0.00	2793.88	79.70	0.00	0.00	2,714.18
109+00.00	70.56	0.00	0.00	246.60	4.79	0.00	3040.48	85.21	0.00	0.00	2,955.27
110+00.00	74.12	0.00	0.00	267.93	0.00	0.00	3308.41	85.21	0.00	0.00	3,223.20
111+00.00	156.07	0.00	0.00	426.29	0.00	0.00	3734.69	85.21	0.00	0.00	3,649.49
112+00.00	146.35	0.00	0.00	560.04	0.00	0.00	4294.73	85.21	0.00	0.00	4,209.53
113+00.00	143.90	0.00	0.00	537.49	0.00	0.00	4832.22	85.21	0.00	0.00	4,747.02
114+00.00	132.49	0.00	0.00	511.83	0.00	0.00	5344.05	85.21	0.00	0.00	5,258.85
115+00.00	138.71	0.00	0.00	502.22	0.00	0.00	5846.27	85.21	0.00	0.00	5,761.07
116+00.00	132.41	0.00	0.00	502.07	0.00	0.00	6348.34	85.21	0.00	0.00	6,263.14
117+00.00	131.99	0.01	0.00	489.62	0.02	0.00	6837.96	85.22	0.00	0.00	6,752.74
118+00.00	123.91	0.76	0.00	473.87	1.42	0.00	7311.84	86.86	0.00	0.00	7,224.98
119+00.00	123.29	5.55	0.00	457.77	11.67	0.00	7769.61	100.28	0.00	0.00	7,669.32
119+10.00	129.83	1.48	0.00	46.87	1.30	0.00	7816.48	101.78	0.00	0.00	7,714.70
120+00.00	131.79	3.80	0.00	436.04	8.80	0.00	8252.52	111.90	0.00	0.00	8,140.63
121+00.00	123.10	4.18	0.00	472.03	14.77	0.00	8724.56	128.88	0.00	0.00	8,595.68
122+00.00	125.24	0.60	191.31	459.90	8.84	354.27	9184.45	139.05	460.56	283.42	8,761.99
123+00.00	117.14	0.01	191.31	448.86	1.13	708.55	9633.32	140.35	1381.67	850.26	8,642.71
124+00.00	150.41	0.00	191.31	495.47	0.02	708.55	10128.79	140.38	2302.79	1417.10	8,571.31
125+00.00	174.19	0.00	191.31	601.10	0.00	708.55	10729.89	140.38	3223.90	1983.94	8,605.58
126+00.00	211.87	0.00	0.00	714.92	0.00	354.27	11444.81	140.38	3684.46	2267.36	9,037.08
127+00.00	257.99	0.00	0.00	870.11	0.00	0.00	12314.93	140.38	3684.46	2267.36	9,907.19
128+00.00	244.84	0.02	0.00	931.17	0.04	0.00	13246.10	140.42	3684.46	2267.36	10,838.32
129+00.00	160.45	3.19	0.00	750.54	5.94	0.00	13996.64	147.24	3684.46	2267.36	11,582.04
129+26.23	158.41	2.73	0.00	154.88	2.88	0.00	14151.52	150.55	3684.46	2267.36	11,733.61
130+00.00	173.06	0.43	0.00	452.83	4.32	0.00	14604.35	155.52	3684.46	2267.36	12,181.47
130+76.23	207.38	0.00	0.00	537.06	0.60	0.00	15141.41	156.22	3684.46	2267.36	12,717.84
131+00.00	205.93	0.00	0.00	181.94	0.00	0.00	15323.34	156.22	3684.46	2267.36	12,899.77
131+39.56	213.98	0.00	0.00	307.65	0.00	0.00	15630.99	156.22	3684.46	2267.36	13,207.42
131+52.06	224.68	0.00	0.00	101.54	0.00	0.00	15732.53	156.22	3684.46	2267.36	13,308.96
132+00.00	194.15	0.00	0.00	371.80	0.00	0.00	16104.34	156.22	3684.46	2267.36	13,680.76
132+62.80	123.46	0.00	0.00	369.37	0.00	0.00	16473.71	156.22	3684.46	2267.36	14,050.14
132+75.30	117.16	0.00	0.00	55.70	0.00	0.00	16529.41	156.22	3684.46	2267.36	14,105.83
133+00.00	102.25	1.23	0.00	100.36	0.56	0.00	16629.76	156.86	3684.46	2267.36	14,205.54
133+38.63	120.41	0.00	0.00	159.30	0.88	0.00	16789.06	157.87	3684.46	2267.36	14,363.83
134+00.00	148.22	0.00	0.00	305.26	0.00	0.00	17094.33	157.87	3684.46	2267.36	14,669.10

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EARTHWORK DATA - IH 90 EB (ROUND LAKE TO BLACK RIVER)

STATION	AREA (SF)			INCR. VOL (CY)			CUMULATIVE VOL (CY)				MASS ORDINATE
	CUT	FILL	EBS	CUT	FILL	EBS	CUT 1.00	EXP. FILL 1.15	EXP. EBS BACKFILL 1.30	RED. EBS IN FILL 0.80	
134+88.63	154.29	0.00	0.00	496.51	0.00	0.00	17590.83	157.87	3684.46	2267.36	15,165.61
135+00.00	155.13	0.00	0.00	65.15	0.00	0.00	17655.98	157.87	3684.46	2267.36	15,230.76
136+00.00	141.54	0.00	0.00	549.40	0.00	0.00	18205.38	157.87	3684.46	2267.36	15,780.15
137+00.00	134.11	0.00	0.00	510.47	0.00	0.00	18715.85	157.87	3684.46	2267.36	16,290.62
138+00.00	125.89	0.00	0.00	481.48	0.00	0.00	19197.32	157.87	3684.46	2267.36	16,772.09
139+00.00	117.58	0.00	0.00	450.88	0.00	0.00	19648.20	157.87	3684.46	2267.36	17,222.97
140+00.00	117.02	18.53	0.00	434.46	34.31	0.00	20082.66	197.33	3684.46	2267.36	17,617.98
140+94.67	166.18	0.00	0.00	496.50	32.48	0.00	20579.16	234.68	3684.46	2267.36	18,077.12
141+00.00	165.77	0.00	0.00	32.76	0.00	0.00	20611.92	234.68	3684.46	2267.36	18,109.88
142+00.00	84.14	0.00	0.00	462.80	0.00	0.00	21074.72	234.68	3684.46	2267.36	18,572.68
142+58.00	92.12	0.18	0.00	189.32	0.20	0.00	21264.04	234.91	3684.46	2267.36	18,761.77
143+00.00	91.61	0.00	0.00	142.90	0.14	0.00	21406.94	235.07	3684.46	2267.36	18,904.51
143+08.00	93.83	0.00	0.00	27.47	0.00	0.00	21434.41	235.07	3684.46	2267.36	18,931.98
143+20.50	96.88	0.00	0.00	44.14	0.00	0.00	21478.56	235.07	3684.46	2267.36	18,976.12
144+00.00	124.67	12.30	0.00	326.16	18.11	0.00	21804.72	255.90	3684.46	2267.36	19,281.46
144+87.02	148.23	2.17	0.00	439.77	23.32	0.00	22244.49	282.72	3684.46	2267.36	19,694.41
145+00.00	148.07	3.04	0.00	71.22	1.25	0.00	22315.71	284.16	3684.46	2267.36	19,764.19
145+63.16	137.68	2.96	0.00	334.20	7.01	0.00	22649.91	292.22	3684.46	2267.36	20,090.33
146+00.00	139.91	0.00	0.00	189.39	2.02	0.00	22839.31	294.55	3684.46	2267.36	20,277.40
147+00.00	205.89	10.47	0.00	640.38	19.39	0.00	23479.69	316.85	3684.46	2267.36	20,895.49
147+13.16	209.78	1.76	0.00	101.30	2.98	0.00	23580.99	320.27	3684.46	2267.36	20,993.36
148+00.00	163.19	3.70	0.00	599.80	8.77	0.00	24180.79	330.35	3684.46	2267.36	21,583.08
149+00.00	138.53	19.78	0.00	558.74	43.47	0.00	24739.53	380.34	3684.46	2267.36	22,091.83
150+00.00	106.43	42.39	0.00	453.62	115.13	0.00	25193.16	512.75	3684.46	2267.36	22,413.05
151+00.00	78.06	157.39	0.00	341.64	369.97	0.00	25534.80	938.21	3684.46	2267.36	22,329.23
151+04.22	76.77	160.22	0.00	12.10	24.82	0.00	25546.90	966.76	3684.46	2267.36	22,312.79
152+00.00	61.59	219.38	0.00	245.43	673.31	0.00	25792.33	1741.06	3684.46	2267.36	21,783.91
153+00.00	60.39	206.16	0.00	225.89	788.03	0.00	26018.22	2647.30	3684.46	2267.36	21,103.57
154+00.00	63.13	197.65	0.00	228.73	747.79	0.00	26246.95	3507.26	3684.46	2267.36	20,472.34
155+00.00	79.99	146.33	0.00	265.02	637.01	0.00	26511.97	4239.82	3684.46	2267.36	20,004.80
155+44.31	78.93	125.15	0.00	130.40	222.77	0.00	26642.38	4496.00	3684.46	2267.36	19,879.02
156+00.00	103.31	93.28	0.00	187.94	225.26	0.00	26830.32	4755.06	3684.46	2267.36	19,807.90
157+00.00	88.58	65.63	0.00	355.34	294.28	0.00	27185.65	5093.48	3684.46	2267.36	19,824.82
157+05.28	88.89	64.08	0.00	17.35	12.68	0.00	27203.01	5108.07	3684.46	2267.36	19,827.58
157+84.36	114.00	37.68	0.00	297.12	149.02	0.00	27500.13	5279.44	3684.46	2267.36	19,953.33
158+00.00	122.50	34.27	0.00	68.49	20.84	0.00	27568.62	5303.40	3684.46	2267.36	19,997.86
159+00.00	132.04	26.87	0.00	471.37	113.23	0.00	28039.99	5433.61	3684.46	2267.36	20,339.02
160+00.00	126.53	22.83	0.00	478.83	92.03	0.00	28518.81	5539.45	3684.46	2267.36	20,712.01
161+00.00	124.52	28.82	0.00	464.90	95.65	0.00	28983.72	5649.44	3684.46	2267.36	21,066.92
162+00.00	120.38	12.22	0.00	453.52	76.01	0.00	29437.23	5736.85	3684.46	2267.36	21,433.03
163+00.00	96.85	37.76	0.00	402.27	92.55	0.00	29839.51	5843.29	3684.46	2267.36	21,728.86
164+00.00	72.47	38.05	0.00	313.56	140.38	0.00	30153.06	6004.72	3684.46	2267.36	21,880.98
164+93.38	84.68	39.81	0.00	271.76	134.64	0.00	30424.83	6159.55	3684.46	2267.36	21,997.91
165+00.00	83.15	40.46	0.00	20.57	9.84	0.00	30445.39	6170.87	3684.46	2267.36	22,007.17
166+00.00	72.77	42.61	0.00	288.74	153.84	0.00	30734.13	6347.78	3684.46	2267.36	22,118.99
166+03.12	73.20	44.16	0.00	8.43	5.01	0.00	30742.56	6353.55	3684.46	2267.36	22,121.66
166+43.38	62.78	21.26	0.00	101.39	48.77	0.00	30843.95	6409.63	3684.46	2267.36	22,166.96
167+00.00	62.54	18.37	0.00	131.39	41.55	0.00	30975.35	6457.42	3684.46	2267.36	22,250.58

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EARTHWORK DATA - IH 90 EB (ROUND LAKE TO BLACK RIVER)

STATION	AREA (SF) CUT	AREA (SF) FILL	AREA (SF) EBS	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	INCR. VOL (CY) EBS	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	CUMULATIVE VOL (CY) EXP. EBS BACKFILL 1.30	CUMULATIVE VOL (CY) RED. EBS IN FILL 0.80	MASS ORDINATE
167+06.72	63.01	19.07	0.00	15.61	4.66	0.00	30990.96	6462.77	3684.46	2267.36	22,260.83
167+19.21	64.70	17.65	0.00	29.55	8.50	0.00	31020.51	6472.54	3684.46	2267.36	22,280.61
167+83.12	74.27	16.21	0.00	164.47	40.07	0.00	31184.99	6518.63	3684.46	2267.36	22,399.00
168+00.00	73.19	17.55	0.00	46.09	10.55	0.00	31231.08	6530.77	3684.46	2267.36	22,432.96

EARTHWORK DATA - CTH B

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
29+00.00	11.81	0.00	0.00	0.00	0.00	0.00	0.00
29+50.00	8.64	0.04	18.94	0.03	18.94	0.04	18.90
30+00.00	68.13	0.00	71.09	0.03	90.02	0.08	89.94
30+50.00	75.93	0.51	133.39	0.48	223.42	0.63	222.79
31+00.00	94.77	0.23	158.06	0.69	381.48	1.43	380.05
31+50.00	88.37	0.05	169.58	0.26	551.06	1.73	549.33
32+00.00	80.60	3.48	156.46	3.27	707.51	5.49	702.03
32+50.00	66.54	9.20	136.24	11.74	843.76	18.98	824.77
33+00.00	71.10	5.66	127.45	13.76	971.20	34.80	936.40
33+50.00	101.02	9.06	159.37	13.63	1130.58	50.47	1,080.10
34+00.00	95.85	12.35	182.29	19.82	1312.87	73.26	1,239.60
34+50.00	108.49	5.38	189.20	16.42	1502.07	92.14	1,409.93
35+00.00	105.63	0.00	198.26	4.98	1700.34	97.87	1,602.47
35+50.00	100.28	0.00	190.66	0.00	1890.99	97.87	1,793.12
36+00.00	105.98	0.11	190.97	0.10	2081.97	97.98	1,983.98
36+50.00	98.13	0.00	188.98	0.10	2270.95	98.10	2,172.85
37+00.00	75.92	0.00	161.15	0.00	2432.10	98.10	2,334.00
37+50.00	92.61	0.00	156.04	0.00	2588.14	98.10	2,490.04
38+00.00	105.41	0.00	183.35	0.00	2771.49	98.10	2,673.39
38+50.00	91.50	0.00	182.33	0.00	2953.82	98.10	2,855.72
39+00.00	78.21	1.49	157.14	1.38	3110.96	99.69	3,011.27
39+17.32	75.70	1.42	49.37	0.93	3160.34	100.76	3,059.57
39+50.00	71.43	2.98	89.03	2.66	3249.37	103.82	3,145.54
39+85.26	66.58	75.95	90.12	51.54	3339.49	163.09	3,176.39
40+00.00	64.32	107.69	35.73	50.13	3375.22	220.74	3,154.48
40+37.62	66.70	218.64	91.27	227.33	3466.49	482.17	2,984.32
40+62.50	68.62	201.37	62.35	193.54	3528.84	704.73	2,824.11
40+87.50	71.25	116.37	64.76	147.10	3593.60	873.90	2,719.70
41+00.00	72.04	141.81	33.17	59.76	3626.77	942.63	2,684.14
41+02.40	72.13	145.71	6.40	12.76	3633.17	957.31	2,675.86
41+27.40	75.51	13.64	68.35	73.77	3701.52	1042.14	2,659.37
41+48.49	82.89	7.38	61.86	8.21	3763.37	1051.58	2,711.79
41+50.00	83.46	6.96	4.67	0.40	3768.04	1052.05	2,715.99
41+52.40	84.32	6.31	7.45	0.59	3775.49	1052.72	2,722.76
41+79.58	79.24	3.60	82.32	4.99	3857.81	1058.46	2,799.35
42+00.00	69.06	3.62	56.09	2.73	3913.90	1061.60	2,852.30
42+29.89	0.00	0.00	38.23	2.00	3952.13	1063.91	2,888.22

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EARTHWORK DATA - CTH B

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
			STRUCTURE B-32-52				
44+52.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45+00.00	79.29	0.24	69.07	0.21	69.07	0.24	68.84
45+16.80	79.74	0.50	49.47	0.23	118.54	0.50	118.04
45+41.80	77.44	134.12	72.77	62.32	191.31	72.17	119.14
45+50.00	77.27	153.00	23.50	43.62	214.82	122.33	92.48
45+66.80	77.98	185.36	48.29	105.25	263.11	243.37	19.74
46+00.00	77.69	81.89	95.72	164.33	358.83	432.34	-73.52
46+50.00	77.46	1.05	143.66	76.80	502.48	520.66	-18.18
46+86.22	74.97	9.45	102.25	7.04	604.73	528.76	75.97
47+00.00	75.58	4.93	38.41	3.67	643.14	532.98	110.16
47+01.90	75.92	4.25	5.33	0.32	648.47	533.35	115.12
47+26.90	81.75	8.99	73.00	6.13	721.47	540.40	181.07
47+50.00	87.81	21.48	72.53	13.04	794.00	555.39	238.61
47+51.90	88.78	23.53	6.21	1.58	800.21	557.21	243.00
48+00.00	73.73	4.95	144.75	25.37	944.97	586.38	358.59
48+50.00	80.08	0.07	142.42	4.64	1087.38	591.72	495.66
48+71.90	86.54	0.00	67.58	0.03	1154.96	591.75	563.21
49+00.00	82.42	0.00	87.92	0.00	1242.88	591.75	651.13
49+50.00	82.94	0.00	153.12	0.00	1396.00	591.75	804.25
50+00.00	84.76	0.00	155.28	0.00	1551.27	591.75	959.52
50+50.00	112.48	0.00	182.63	0.00	1733.90	591.75	1,142.15
51+00.00	109.10	0.00	205.17	0.00	1939.07	591.75	1,347.32
51+50.00	114.18	0.00	206.74	0.00	2145.81	591.75	1,554.06
52+00.00	97.82	0.00	196.30	0.00	2342.11	591.75	1,750.36
52+50.00	89.41	0.00	173.36	0.00	2515.47	591.75	1,923.72
53+00.00	89.50	0.00	165.66	0.00	2681.13	591.75	2,089.38
53+50.00	78.91	0.00	155.94	0.00	2837.07	591.75	2,245.32
54+00.00	10.53	9.30	82.82	8.61	2919.89	601.65	2,318.24
54+50.00	10.81	3.71	19.77	12.05	2939.66	615.51	2,324.15
55+00.00	10.23	5.95	19.49	8.94	2959.14	625.79	2,333.35
55+50.00	11.24	0.01	19.88	5.52	2979.02	632.13	2,346.89
56+00.00	15.17	0.00	24.45	0.01	3003.47	632.14	2,371.33

EARTHWORK DATA - A RAMP

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
132+50.00	70.79	0.00	0.00	0.00	0.00	0.00	0.00
133+00.00	79.54	0.00	139.20	0.00	139.20	0.00	139.20
133+50.00	82.37	0.00	149.92	0.00	289.12	0.00	289.12
134+00.00	91.72	0.00	161.20	0.00	450.32	0.00	450.31
134+50.00	60.52	1.42	140.96	1.32	591.28	1.53	589.76
135+00.00	111.89	0.83	159.64	2.09	750.93	3.92	747.00
135+50.00	143.67	1.02	236.63	1.72	987.56	5.90	981.66
136+00.00	128.53	0.26	252.04	1.19	1239.60	7.26	1232.33
136+50.00	114.62	0.52	225.14	0.72	1464.74	8.09	1456.65
137+00.00	117.18	0.95	214.63	1.36	1679.37	9.65	1669.72
137+50.00	128.13	0.00	227.14	0.88	1906.51	10.66	1895.85
138+00.00	113.29	11.35	223.54	10.51	2130.05	22.74	2107.31
138+50.00	88.65	27.59	186.99	36.05	2317.04	64.20	2252.84
139+00.00	79.49	39.41	155.69	62.03	2472.73	135.54	2337.19
139+50.00	36.75	71.37	107.63	102.57	2580.36	253.49	2326.87
140+00.00	46.55	91.12	77.13	150.45	2657.50	426.50	2230.99
140+50.00	22.96	87.00	64.37	164.93	2721.86	616.17	2105.69
141+00.00	28.46	73.20	47.61	148.34	2769.47	786.75	1982.72
141+50.00	48.81	39.14	71.55	104.02	2841.02	906.38	1934.65
142+00.00	57.59	46.62	98.51	79.41	2939.54	997.70	1941.84
142+50.00	44.70	105.99	94.71	141.30	3034.25	1160.19	1874.06
143+00.00	42.41	149.14	80.66	236.23	3114.91	1431.86	1683.05
143+44.69	38.21	194.77	66.73	284.64	3181.64	1759.20	1422.44
143+50.00	38.36	177.32	7.52	36.56	3189.16	1801.25	1387.91
144+00.00	90.92	0.00	119.71	164.19	3308.87	1990.06	1318.80

EARTHWORK DATA - B RAMP

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
132+50.00	55.10	0.09	0.00	0.00	0.00	0.00	0.00
133+00.00	58.14	4.71	104.84	4.44	104.84	5.11	99.74
133+19.97	68.52	0.00	46.83	1.74	151.67	7.11	144.56
133+33.43	87.63	0.00	38.93	0.00	190.60	7.11	183.49
133+50.00	81.45	0.00	51.89	0.00	242.49	7.11	235.38
134+00.00	62.78	0.00	133.54	0.00	376.03	7.11	368.92
134+50.00	53.97	0.70	108.10	0.65	484.13	7.86	476.27
135+00.00	51.61	0.90	97.76	1.49	581.89	9.57	572.33
135+50.00	49.14	1.06	93.29	1.82	675.19	11.67	663.52
136+00.00	48.39	2.59	90.30	3.39	765.49	15.56	749.93
136+46.17	45.49	3.49	80.27	5.20	845.76	21.53	824.22
136+50.00	44.50	4.36	6.38	0.56	852.14	22.17	829.96
137+00.00	50.20	7.33	87.68	10.82	939.82	34.62	905.20
137+50.00	41.38	11.10	84.79	17.06	1024.61	54.23	970.38
138+00.00	27.26	15.24	63.55	24.39	1088.16	82.28	1,005.89

- CONTINUED -

EARTHWORK DATA - B RAMP

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
138+50.00	23.67	19.40	47.15	32.08	1135.31	119.17	1,016.15
139+00.00	36.98	7.38	56.16	24.80	1191.47	147.68	1,043.79
139+50.00	90.33	0.00	117.89	6.83	1309.36	155.54	1,153.82
139+95.44	79.08	0.00	142.56	0.00	1451.91	155.54	1,296.37
140+00.00	86.77	0.00	14.01	0.00	1465.92	155.54	1,310.38
140+10.00	103.91	0.00	35.31	0.00	1501.23	155.54	1,345.69
140+14.40	108.26	0.00	17.28	0.00	1518.52	155.54	1,362.97
140+50.00	116.68	0.00	148.30	0.00	1666.81	155.54	1,511.27
141+00.00	112.87	0.00	212.55	0.00	1879.36	155.54	1,723.82
141+34.40	120.73	0.00	148.80	0.00	2028.16	155.54	1,872.62
141+50.00	186.62	0.00	88.80	0.00	2116.96	155.54	1,961.42
141+59.59	196.13	0.00	68.00	0.00	2184.96	155.54	2,029.42
141+84.40	229.19	0.00	195.37	0.00	2380.33	155.54	2,224.79
142+00.00	249.39	0.00	138.27	0.00	2518.60	155.54	2,363.06
142+46.88	561.89	0.00	704.31	0.00	3222.91	155.54	3,067.37
142+50.00	536.74	0.00	63.48	0.00	3286.39	155.54	3,130.84
142+51.60	522.92	0.00	31.40	0.00	3317.78	155.54	3,162.24
143+00.00	87.92	0.00	547.50	0.00	3865.28	155.54	3,709.74

EARTHWORK DATA - C RAMP

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
133+50.00	86.88	0.00	0.00	0.00	0.00	0.00	0.00
134+00.00	197.03	0.19	262.88	0.18	262.88	0.21	261.75
134+50.00	189.31	3.75	357.72	3.65	620.60	4.41	612.49
135+00.00	173.66	1.86	336.08	5.20	956.68	10.39	937.96
135+50.00	125.73	1.29	277.22	2.92	1233.90	13.74	1,205.34
136+00.00	101.98	1.25	210.85	2.35	1444.75	16.45	1,405.15
136+25.00	110.91	0.19	98.56	0.67	1543.30	17.21	1,497.85
136+50.00	101.61	1.53	98.38	0.79	1641.69	18.13	1,589.30
137+00.00	85.43	1.21	173.18	2.53	1814.87	21.04	1,745.68
137+50.00	85.15	2.32	157.94	3.26	1972.81	24.79	1,884.13
138+00.00	76.34	2.22	149.53	4.20	2122.34	29.63	2,011.23
138+50.00	99.26	2.60	162.60	4.47	2284.94	34.76	2,149.25
139+00.00	96.86	4.08	181.60	6.19	2466.54	41.88	2,302.44
139+50.00	126.10	1.73	206.45	5.38	2672.98	48.06	2,479.55
140+00.00	94.33	2.01	204.11	3.47	2877.09	52.05	2,654.66
140+50.00	69.68	8.66	151.87	9.88	3028.96	63.41	2,768.32
140+78.00	64.78	9.03	69.72	9.17	3098.68	73.96	2,811.43
141+00.00	64.16	7.93	52.53	6.91	3151.21	81.90	2,842.57
141+50.00	87.33	2.32	140.27	9.49	3291.49	92.82	2,939.52
142+00.00	116.12	0.00	188.38	2.15	3479.87	95.30	3,091.17
142+50.00	40.12	0.00	144.67	0.00	3624.54	95.30	3,199.73
143+00.00	18.45	6.28	54.23	5.81	3678.77	101.98	3,209.31

EARTHWORK DATA - D RAMP

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
136+50.00	28.86	0.00	0.00	0.00	0.00	0.00	0.00
137+00.00	53.12	0.00	75.91	0.00	75.91	0.00	75.91
137+50.00	100.12	0.00	141.88	0.00	217.79	0.00	217.79
138+00.00	212.49	0.95	289.45	0.88	507.24	1.01	506.24
138+50.00	204.33	4.93	385.95	5.44	893.19	7.27	885.92
139+00.00	167.35	8.43	344.15	12.38	1,237.34	21.50	1,215.84
139+50.00	135.43	6.89	280.35	14.19	1,517.69	37.82	1,479.88
140+00.00	127.38	4.15	243.35	10.22	1,761.04	49.57	1,711.47
140+50.00	99.23	0.29	209.83	4.11	1,970.87	54.29	1,916.58
141+00.00	42.69	0.00	131.41	0.27	2,102.28	54.60	2,047.68
141+50.00	45.28	0.10	81.45	0.09	2,183.73	54.70	2,129.03
142+00.00	34.67	24.89	74.02	23.14	2,257.75	81.31	2,176.44
142+50.00	31.16	36.91	60.95	57.22	2,318.70	147.12	2,171.58
143+00.00	24.59	130.76	51.62	155.25	2,370.32	325.65	2,044.67
143+21.48	21.23	193.64	18.23	129.04	2,388.55	474.04	1,914.50
143+50.00	26.80	249.37	25.37	233.97	2,413.92	743.11	1,670.80
144+00.00	24.81	278.32	47.79	488.60	2,461.71	1,305.01	1,156.70
144+50.00	32.65	164.60	53.20	410.11	2,514.91	1,776.63	738.28
145+00.00	34.83	79.55	62.48	226.06	2,577.39	2,036.60	540.79
145+50.00	41.52	115.33	70.70	180.45	2,648.09	2,244.12	403.97
146+00.00	65.04	105.03	98.67	204.03	2,746.76	2,478.75	268.01
146+50.00	92.91	0.00	146.25	97.25	2,893.01	2,590.59	302.43

EARTHWORK DATA - AT TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
135+00.00	24.47	0.00	0.00	0.00	0.00	0.00	0.00
135+50.00	3.95	18.30	26.31	16.95	26.31	19.49	6.82
136+00.00	10.77	27.63	13.63	42.53	39.94	68.40	-28.45
136+11.54	12.10	24.55	4.89	11.15	44.83	81.22	-36.39
136+50.00	13.84	12.59	18.47	26.45	63.30	111.64	-48.34
137+00.00	17.18	11.75	28.72	22.54	92.03	137.56	-45.53
137+50.00	15.85	14.15	30.59	23.99	122.62	165.14	-42.53
138+00.00	12.64	18.32	26.38	30.06	149.00	199.72	-50.72
138+50.00	9.62	12.51	20.61	28.54	169.61	232.55	-62.94
139+00.00	9.88	13.05	18.05	23.67	187.66	259.77	-72.11
139+50.00	9.51	9.56	17.95	20.94	205.61	283.85	-78.23
140+00.00	37.91	0.00	43.91	8.86	249.52	294.03	-44.51
140+50.00	34.43	0.00	66.98	0.00	316.50	294.03	22.47
141+00.00	16.29	0.00	46.96	0.00	363.46	294.03	69.43

EARTHWORK DATA - REST AREA

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
90+00.00	36.77	0.03	0.00	0.00	0.00	0.00	0.00
90+50.00	42.74	0.00	73.62	0.02	73.62	0.03	73.59
91+00.00	47.91	0.05	83.94	0.05	157.56	0.08	157.48
91+50.00	59.85	0.01	99.78	0.05	257.34	0.14	257.20
92+00.00	72.38	0.00	122.44	0.01	379.79	0.15	379.64
92+50.00	80.13	0.00	141.22	0.00	521.01	0.15	520.86
93+00.00	90.92	0.00	158.38	0.00	679.38	0.15	679.24
93+50.00	62.02	0.00	141.61	0.00	820.99	0.15	820.84
94+00.00	60.02	0.20	113.00	0.18	933.99	0.36	933.63
94+50.00	63.35	0.02	114.23	0.20	1048.22	0.59	1047.63
95+00.00	63.36	0.09	117.32	0.10	1165.54	0.71	1164.83
95+04.29	63.61	0.22	10.09	0.02	1175.63	0.74	1174.89
95+16.79	80.56	0.61	33.37	0.19	1209.00	0.96	1208.04
95+50.00	86.32	1.87	102.64	1.53	1311.64	2.72	1308.92
96+00.00	68.50	0.63	143.35	2.32	1454.99	5.39	1449.61
96+50.00	60.70	0.64	119.63	1.18	1574.62	6.75	1567.87
97+00.00	50.10	0.59	102.60	1.14	1677.22	8.06	1669.16
97+50.00	35.63	0.44	79.38	0.95	1756.60	9.16	1747.45
			STRUCTURE B-32-75				
105+50.00	58.51	0.00	0.00	0.00	0.00	0.00	0.00
106+00.00	70.80	0.00	119.73	0.00	119.73	0.00	119.73
106+50.00	53.32	0.00	114.93	0.00	234.66	0.00	234.66
107+00.00	84.09	0.00	127.24	0.00	361.90	0.00	361.90
107+50.00	76.96	0.14	149.13	0.13	511.02	0.15	510.87
108+00.00	82.85	0.00	147.98	0.13	659.01	0.31	658.70
108+50.00	88.62	0.00	158.77	0.00	817.77	0.31	817.47
109+00.00	96.37	0.00	171.28	0.00	989.06	0.31	988.75
109+50.00	98.94	0.00	180.84	0.00	1169.90	0.31	1169.59
110+00.00	87.31	0.00	172.45	0.00	1342.34	0.31	1342.04

EARTHWORK DATA - AU TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
131+00.00	24.16	10.86	0.00	0.00	0.00	0.00	0.00
131+50.00	26.13	0.14	46.57	10.18	46.57	11.71	34.86
132+00.00	38.12	0.00	59.49	0.13	106.06	11.86	94.21

EARTHWORK DATA - CTH B NB WIDENING

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
29+00.00	12.73	0.00	0.00	0.00	0.00	0.00	0.00
29+50.00	12.27	0.03	23.14	0.03	23.14	0.03	23.11
30+00.00	10.53	1.32	21.11	1.25	44.25	1.47	42.78
30+50.00	10.10	1.39	19.10	2.51	63.35	4.36	59.00
31+00.00	15.02	0.00	23.26	1.28	86.61	5.83	80.78
31+50.00	12.61	0.00	25.58	0.00	112.19	5.83	106.36
32+00.00	12.87	0.00	23.59	0.00	135.79	5.83	129.95
32+50.00	10.50	1.33	21.64	1.24	157.43	7.25	150.17
33+00.00	16.59	4.01	25.09	4.95	182.51	12.94	169.57
33+50.00	20.74	4.36	34.56	7.75	217.08	21.85	195.23
34+00.00	16.81	7.71	34.77	11.17	251.85	34.70	217.14
34+50.00	16.16	7.66	30.53	14.23	282.38	51.07	231.31
35+00.00	14.55	7.10	28.43	13.67	310.81	66.79	244.03
35+50.00	32.20	8.97	43.28	14.88	354.10	83.90	270.19
36+00.00	31.58	14.40	59.05	21.64	413.15	108.79	304.36
36+50.00	26.51	17.51	53.78	29.54	466.93	142.76	324.17
37+50.00	23.83	0.00	93.22	32.42	560.15	180.05	380.10
48+00.00	16.82	0.00	0.00	0.00	0.00	0.00	0.00
48+50.00	16.67	0.00	31.01	0.00	31.01	0.00	31.01
49+50.00	12.95	0.00	54.85	0.00	85.86	0.00	85.86
50+00.00	25.08	0.00	35.21	0.00	121.07	0.00	121.07
50+50.00	43.84	0.00	63.81	0.00	184.88	0.00	184.88
51+00.00	37.41	0.00	75.23	0.00	260.11	0.00	260.11
51+50.00	34.04	7.05	66.16	6.53	326.27	7.51	318.76
52+00.00	10.62	3.44	41.36	9.71	367.63	18.68	348.95
52+50.00	11.65	3.73	20.62	6.63	388.25	26.31	361.94
53+00.00	12.37	0.38	22.24	3.81	410.48	30.68	379.80
53+50.00	14.33	0.00	24.72	0.35	435.21	31.09	404.12
54+00.00	13.94	0.00	26.18	0.00	461.39	31.09	430.30
54+50.00	13.26	0.11	25.19	0.11	486.58	31.21	455.37
55+00.00	12.50	0.05	23.86	0.16	510.44	31.40	479.05
55+50.00	13.00	0.10	23.61	0.15	534.06	31.57	502.49
56+00.00	17.21	0.15	27.97	0.24	562.03	31.84	530.19

EARTHWORK DATA - CTH B SB REMOVAL

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
39+00.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00
39+50.00	4.17	0.00	4.33	0.00	4.33	0.00	4.33
40+00.00	16.78	0.00	19.40	0.00	23.72	0.00	23.72
40+50.00	7.34	0.00	22.33	0.00	46.05	0.00	46.05
46+50.00	4.97	0.00	0.00	0.00	0.00	0.00	0.00
47+00.00	23.95	0.00	26.78	0.00	26.78	0.00	26.78
47+50.00	1.10	0.00	23.19	0.00	49.97	0.00	49.97
52+00.00	7.67	0.00	0.00	0.00	0.00	0.00	0.00
52+50.00	23.99	0.00	29.31	0.00	29.31	0.00	29.31
53+00.00	27.78	0.00	47.93	0.00	77.25	0.00	77.25
53+50.00	25.52	0.00	49.36	0.00	126.61	0.00	126.61
54+00.00	23.79	0.00	45.66	0.00	172.27	0.00	172.27
54+50.00	23.87	0.00	44.13	0.00	216.40	0.00	216.40
55+00.00	23.87	0.00	44.20	0.00	260.60	0.00	260.60
55+50.00	12.99	0.00	34.13	0.00	294.73	0.00	294.73
56+00.00	8.94	0.00	20.30	0.00	315.03	0.00	315.03

EARTHWORK DATA - BT TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
133+00.00	58.66	0.00	0.00	0.00	0.00	0.00	0.00
133+50.00	60.94	0.00	110.74	0.00	110.74	0.00	110.74
134+00.00	39.39	74.24	92.90	68.74	203.64	79.05	124.59
134+02.00	38.32	63.93	2.88	5.12	206.52	84.94	121.59
134+50.00	10.59	23.42	43.47	77.64	249.99	174.22	75.77
135+00.00	11.50	15.89	20.45	36.39	270.44	216.07	54.37
135+50.00	14.75	13.18	24.30	26.91	294.74	247.02	47.72
136+00.00	20.05	6.65	32.22	18.37	326.96	268.15	58.82
136+50.00	15.92	10.14	33.30	15.55	360.27	286.03	74.24
137+00.00	11.57	19.03	25.45	27.00	385.72	317.08	68.64
137+50.00	16.37	9.76	25.87	26.65	411.59	347.73	63.86
138+00.00	17.87	10.35	31.70	18.62	443.30	369.14	74.16
138+50.00	29.89	0.05	44.23	9.62	487.52	380.21	107.31
139+00.00	20.00	3.12	46.20	2.93	533.72	383.58	150.14
139+50.00	12.12	8.05	29.74	10.35	563.46	395.48	167.98
140+00.00	12.58	24.99	22.87	30.59	586.34	430.67	155.67
140+15.94	13.80	15.59	7.79	11.98	594.12	444.44	149.68
140+50.00	18.67	1.65	20.48	10.87	614.60	456.94	157.66
141+00.00	35.06	0.00	49.75	1.52	664.35	458.69	205.66
141+50.00	28.69	0.00	59.04	0.00	723.39	458.69	264.69
142+00.00	20.38	0.00	45.44	0.00	768.83	458.69	310.14
142+50.00	23.35	0.00	40.49	0.00	809.32	458.69	350.63

EARTHWORK DATA - BU1 TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
139+00.00	12.11	0.02	0.00	0.00	0.00	0.00	0.00
139+50.00	13.77	0.63	23.96	0.60	23.96	0.69	23.27
140+00.00	13.87	14.08	25.59	13.62	49.55	16.35	33.20
140+50.00	19.73	2.76	31.10	15.59	80.66	34.28	46.38
141+00.00	28.31	0.00	44.47	2.55	125.13	37.21	87.92

EARTHWORK DATA - BU2 TEMPORARY

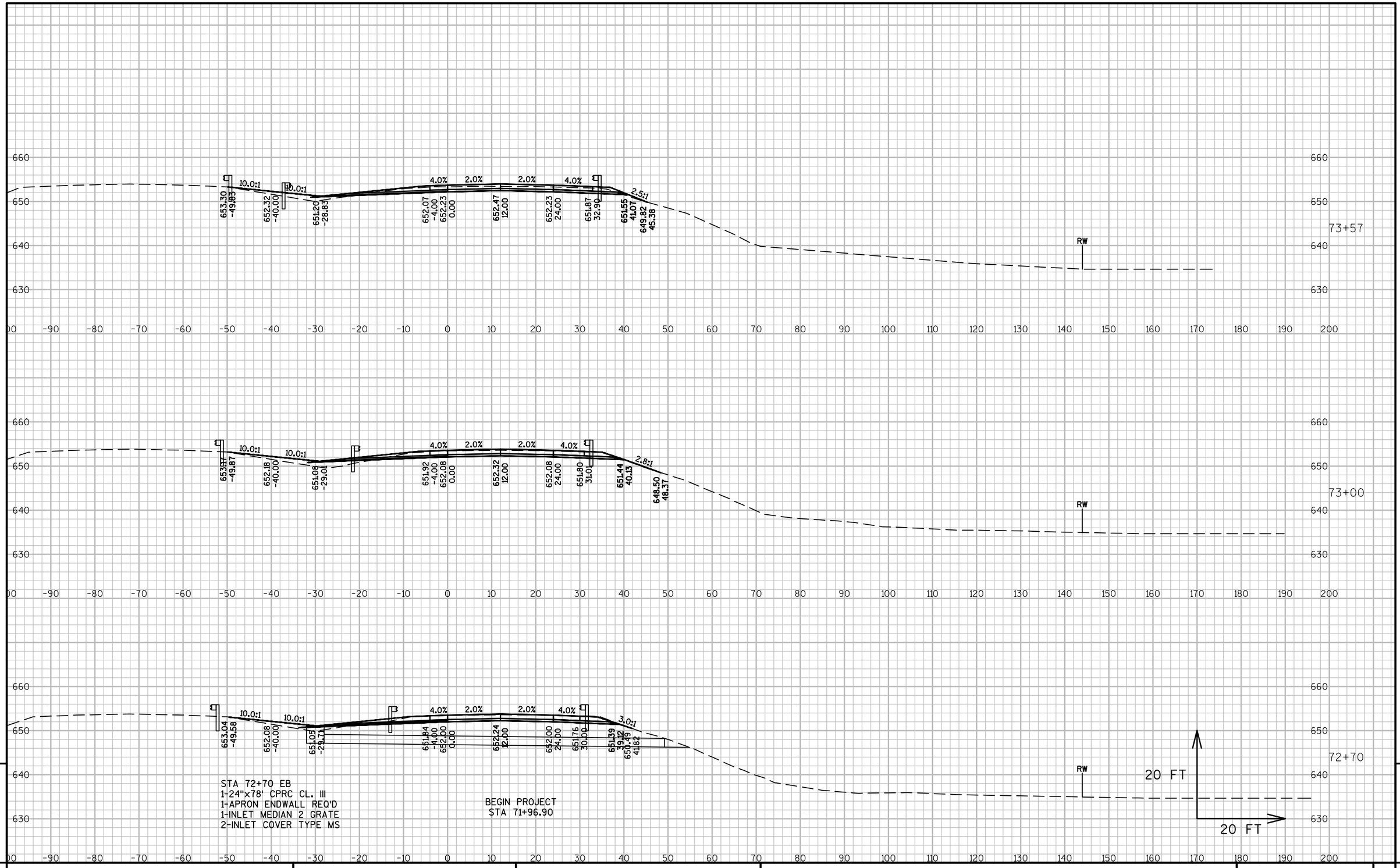
STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
145+00.00	24.83	0.00	0.00	0.00	0.00	0.00	0.00
145+50.00	30.43	0.00	51.16	0.00	51.16	0.00	51.16
146+00.00	15.23	3.53	42.28	3.27	93.44	3.76	89.68
146+50.00	1.67	26.34	15.65	27.66	109.08	35.57	73.52

EARTHWORK DATA - CV TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
134+00.00	24.45	0.35	0.00	0.00	0.00	0.00	0.00
134+50.00	62.64	0.03	80.64	0.35	80.64	0.41	80.23
135+00.00	45.76	118.37	100.37	109.63	181.01	126.48	54.53
135+50.00	28.42	320.63	68.69	406.48	249.70	593.93	-344.23
136+00.00	25.33	134.09	49.77	421.03	299.47	1,078.12	-778.65
136+50.00	27.79	55.49	49.19	175.54	348.66	1,279.99	-931.33
136+72.00	26.60	43.11	22.16	40.17	370.82	1,326.19	-955.36
137+00.00	28.22	40.73	28.42	43.48	399.24	1,376.18	-976.94
137+50.00	22.97	43.56	47.40	78.05	446.64	1,465.94	-1,019.30
138+00.00	16.67	66.96	36.70	102.33	483.35	1,583.62	-1,100.28
138+50.00	18.28	60.27	32.36	117.81	515.70	1,719.10	-1,203.40
139+00.00	13.91	81.80	29.81	131.55	545.51	1,870.38	-1,324.87
139+50.00	12.32	90.45	24.29	159.49	569.79	2,053.80	-1,484.00
140+00.00	17.43	51.45	27.54	131.39	597.33	2,204.89	-1,607.56
140+50.00	10.97	44.49	26.29	88.83	623.63	2,307.05	-1,683.42

EARTHWORK DATA - DV TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
138+50.00	4.20	105.50	0.00	0.00	0.00	0.00	0.00
139+00.00	0.02	107.93	3.90	197.62	3.90	227.26	-223.36
139+50.00	0.00	84.56	0.02	178.23	3.92	432.23	-428.31
140+00.00	0.01	70.76	0.01	143.82	3.93	597.62	-593.69
140+50.00	0.63	22.43	0.59	86.29	4.52	696.85	-692.33
141+00.00	20.42	0.00	19.49	20.77	24.01	720.74	-696.73
141+50.00	9.98	0.00	28.15	0.00	52.16	720.74	-668.58



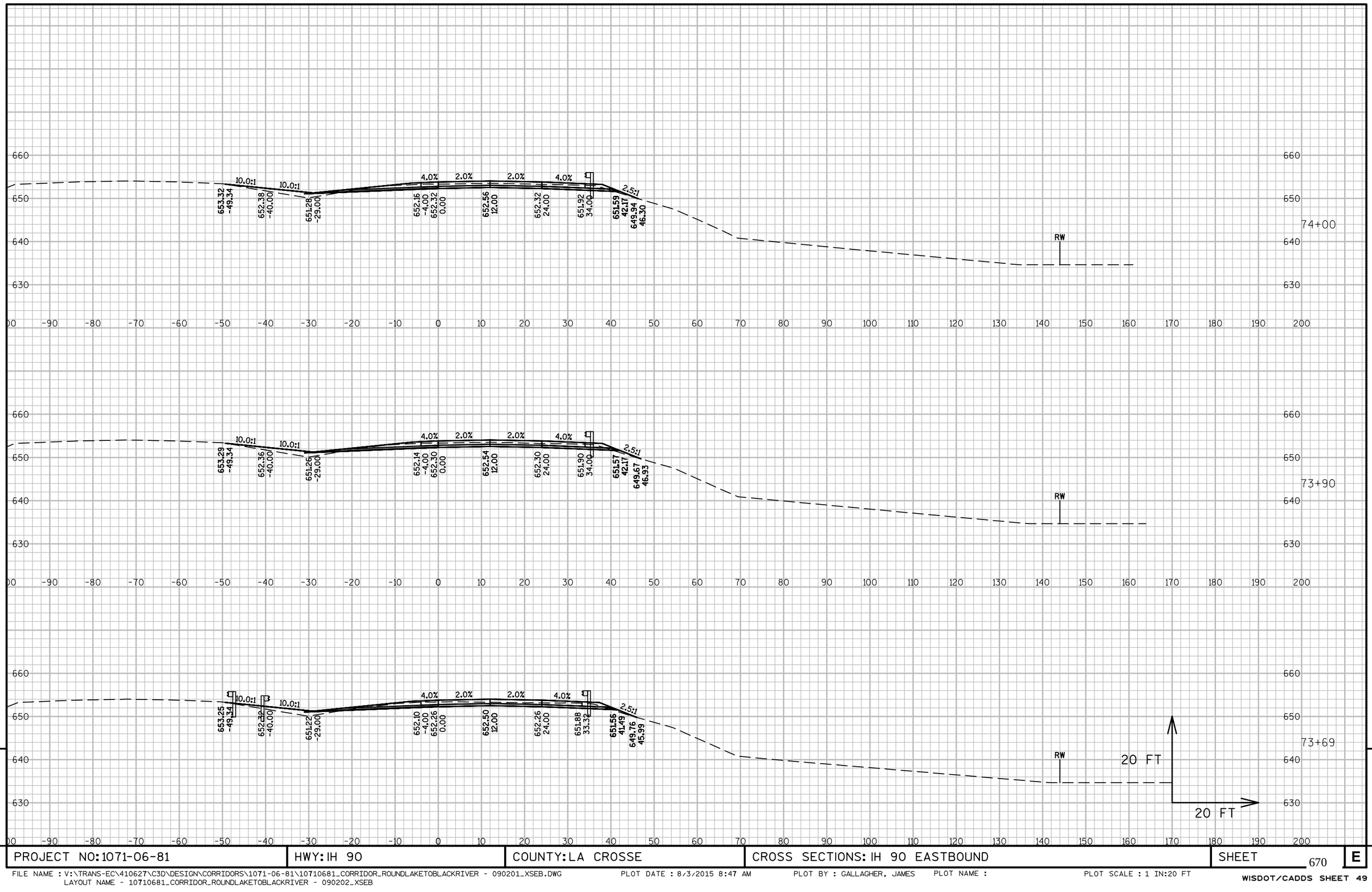
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 669	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB

PLOT DATE : 8/3/2015 8:46 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

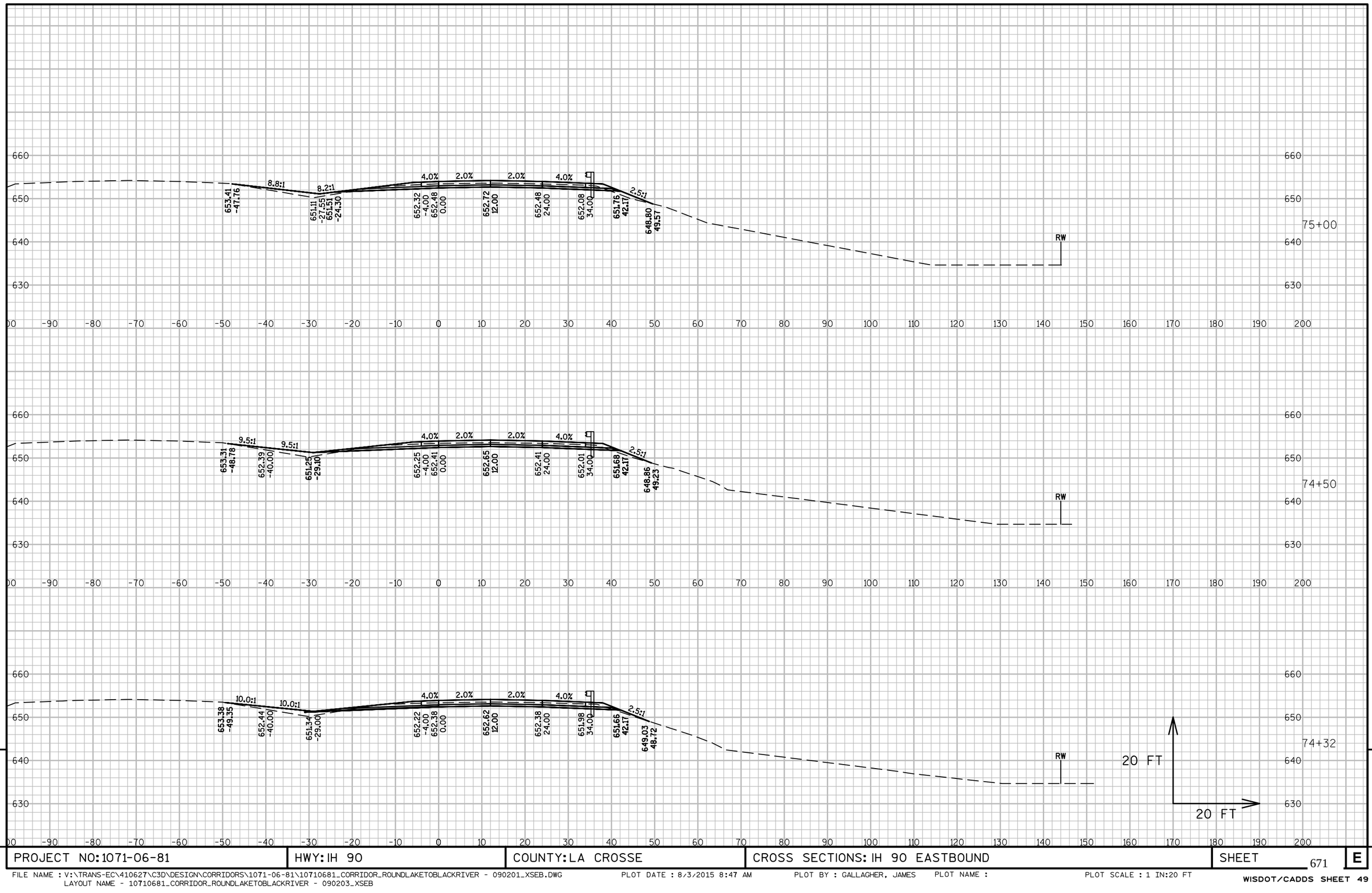


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 670	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090202_XSEB

PLOT DATE : 8/3/2015 8:47 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



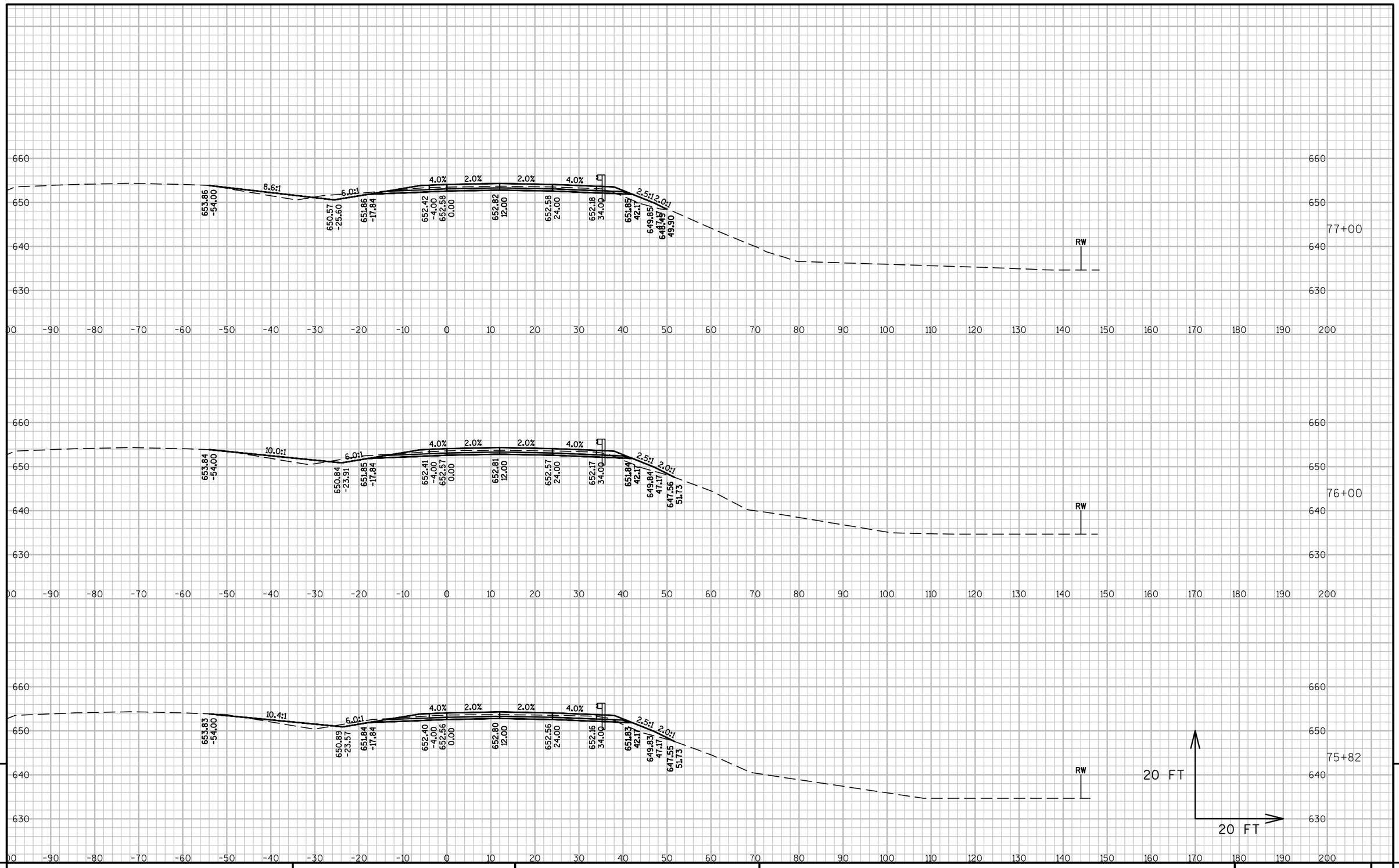
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 671	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090203_XSEB

PLOT DATE : 8/3/2015 8:47 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



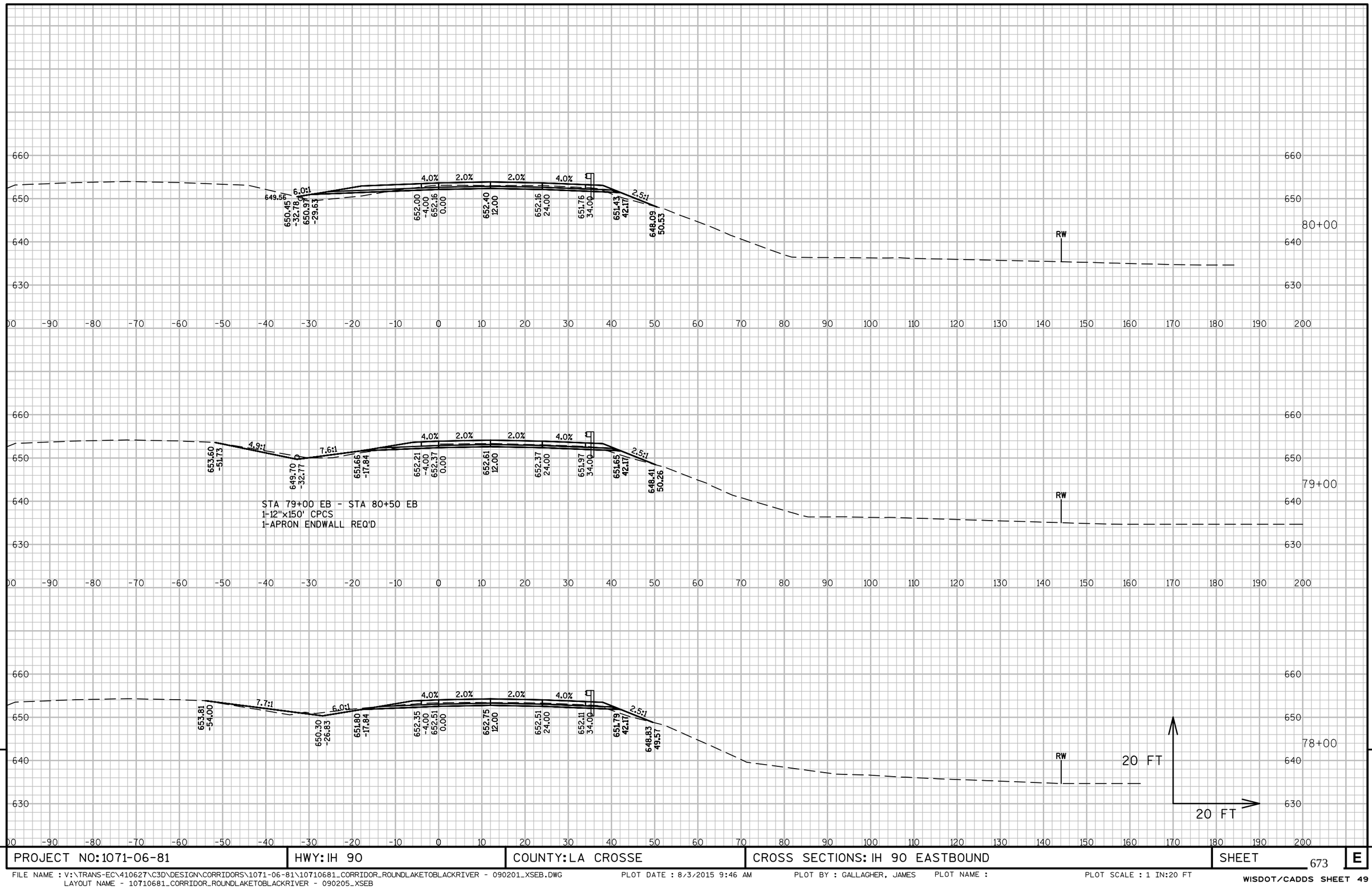
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 672	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090204_XSEB

PLOT DATE : 8/3/2015 8:47 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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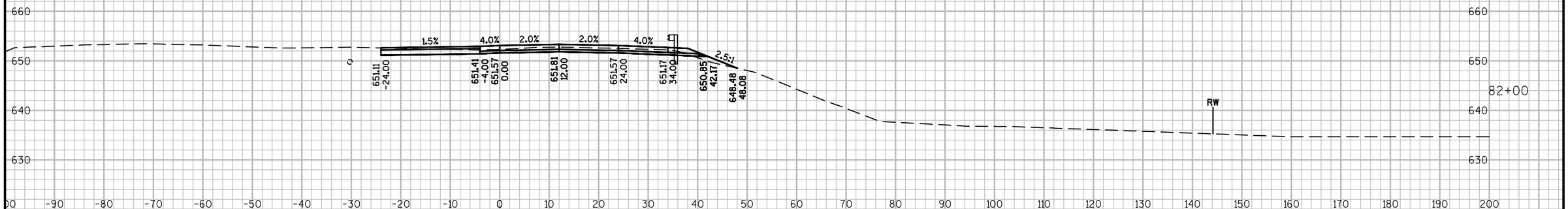
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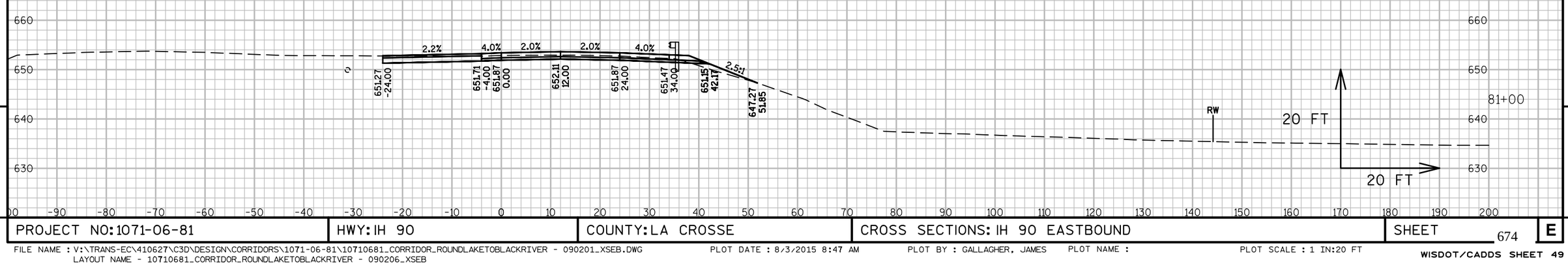
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LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090205_XSEB

PLOT DATE : 8/3/2015 9:46 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





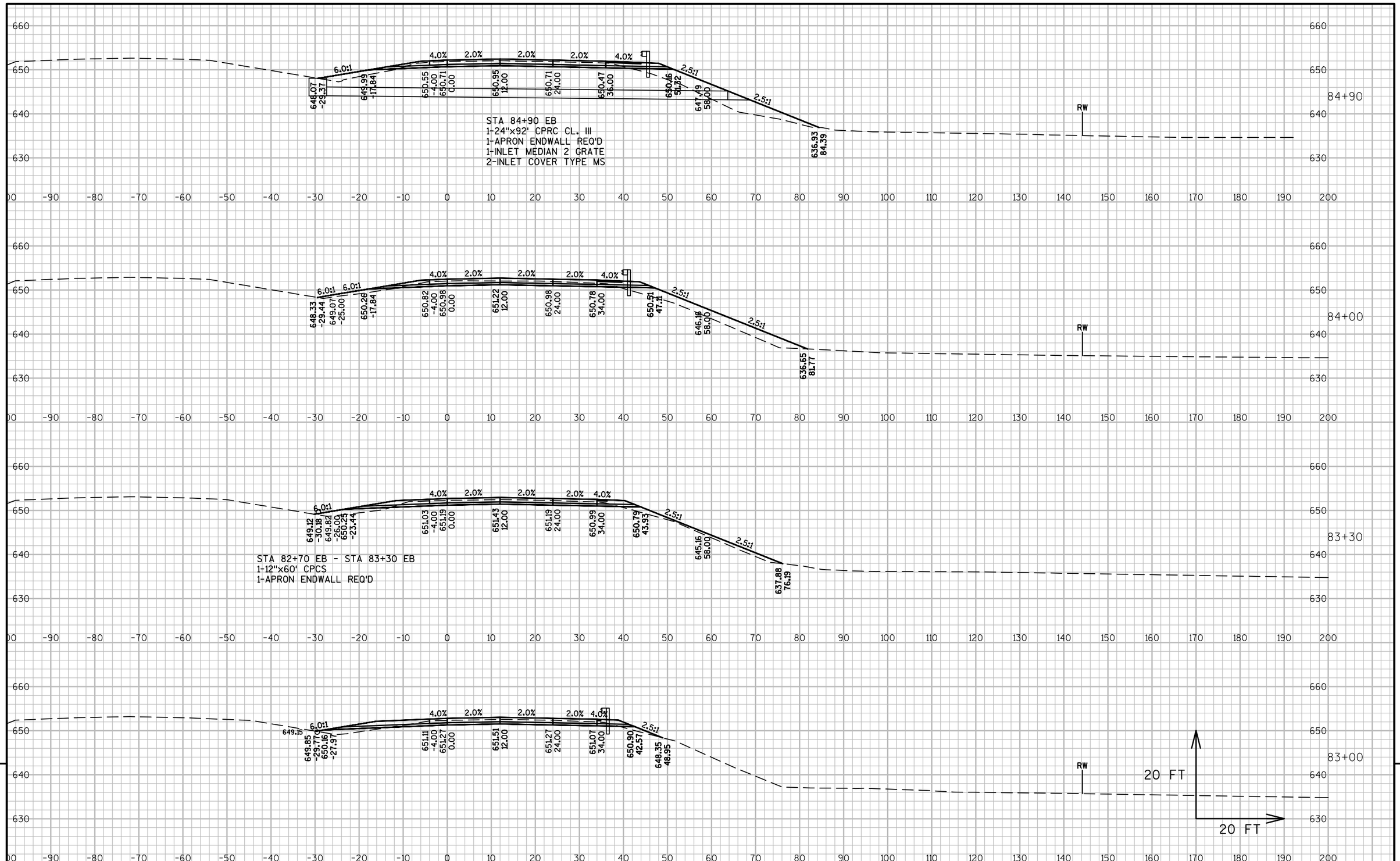


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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 674 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090206_XSEB
PLOT DATE : 8/3/2015 8:47 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



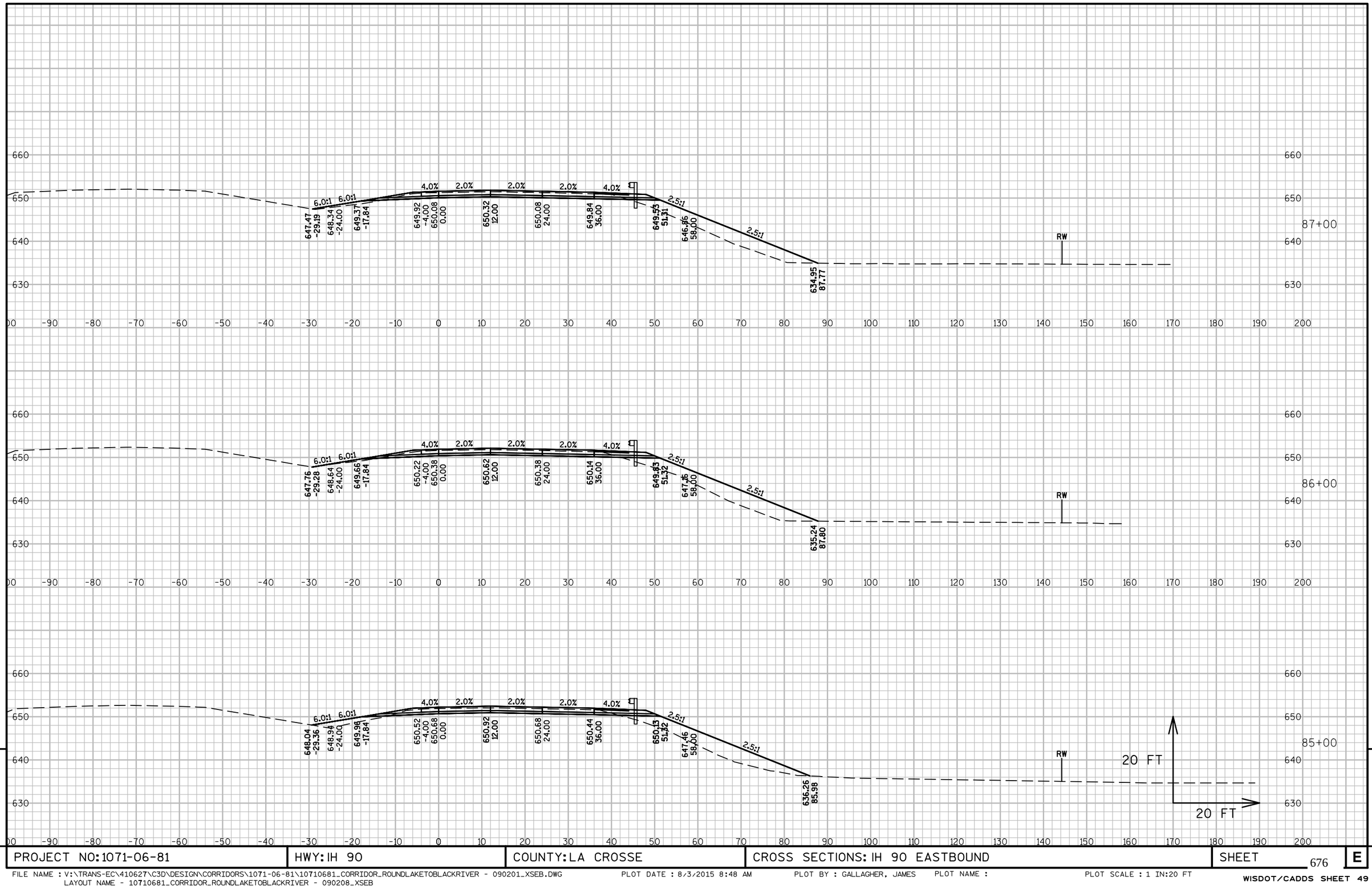
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 675	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090207_XSEB

PLOT DATE : 8/3/2015 9:46 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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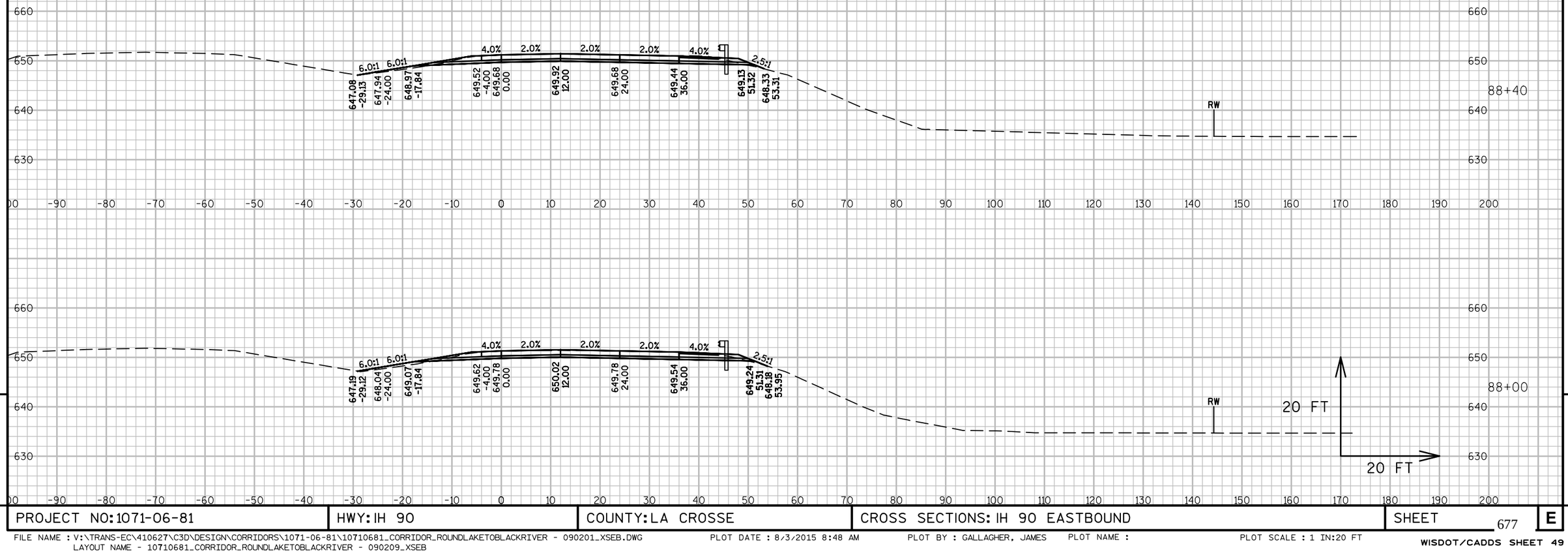
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 676 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090208_XSEB

PLOT DATE : 8/3/2015 8:48 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT





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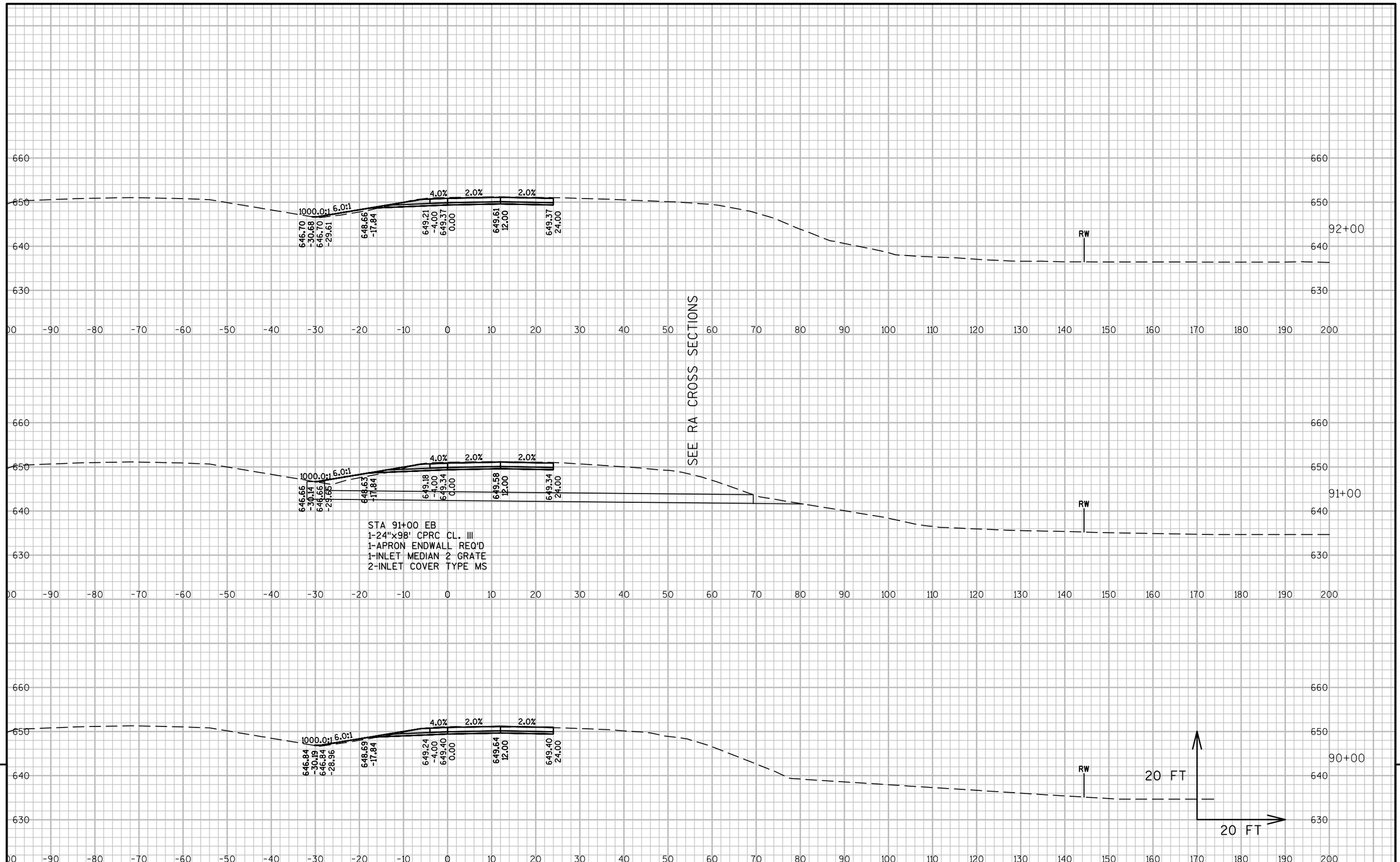
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 677	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090209_XSEB

PLOT DATE : 8/3/2015 8:48 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

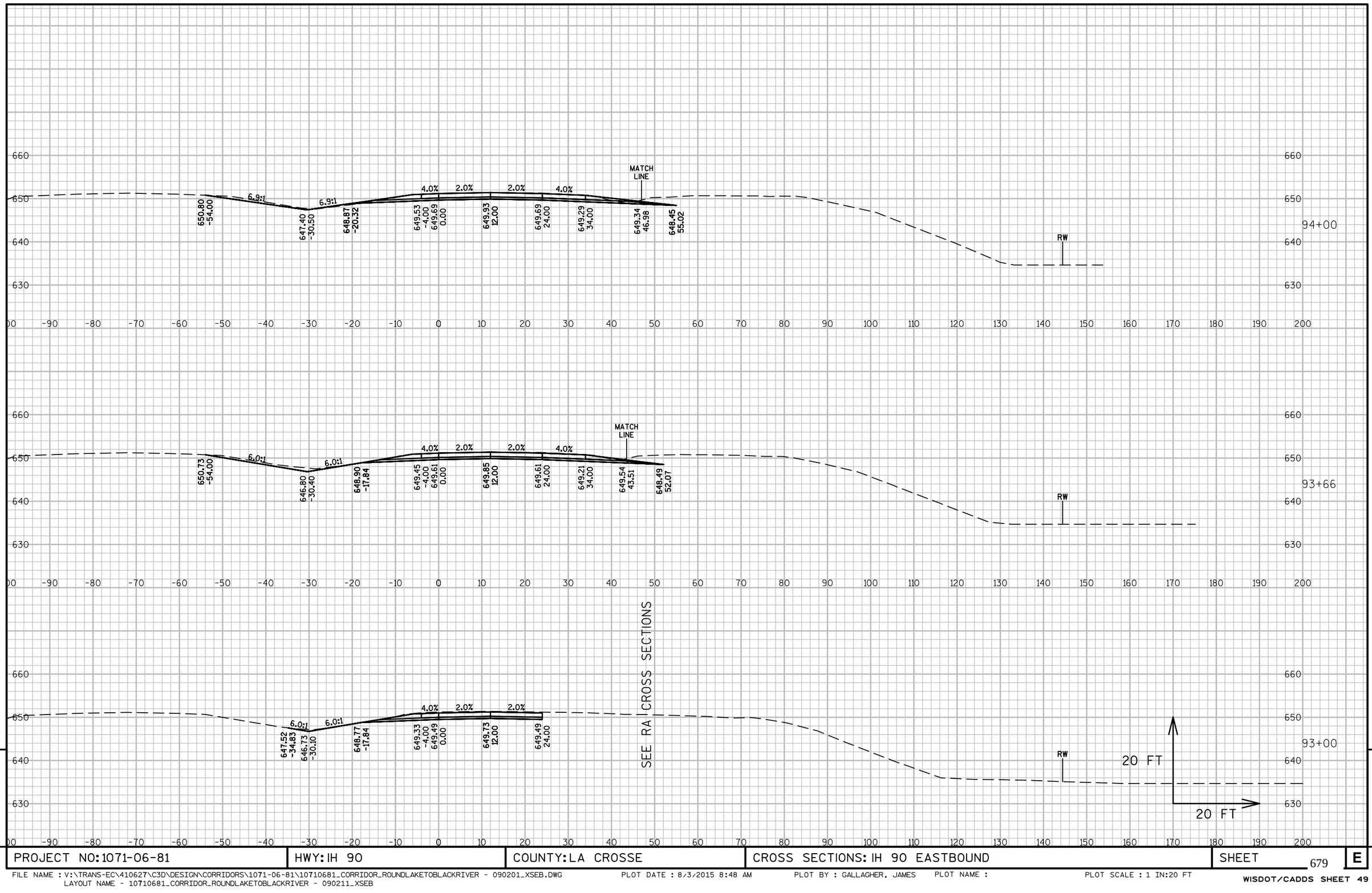
WISDOT/CADDS SHEET 49



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 678 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090210_XSEB

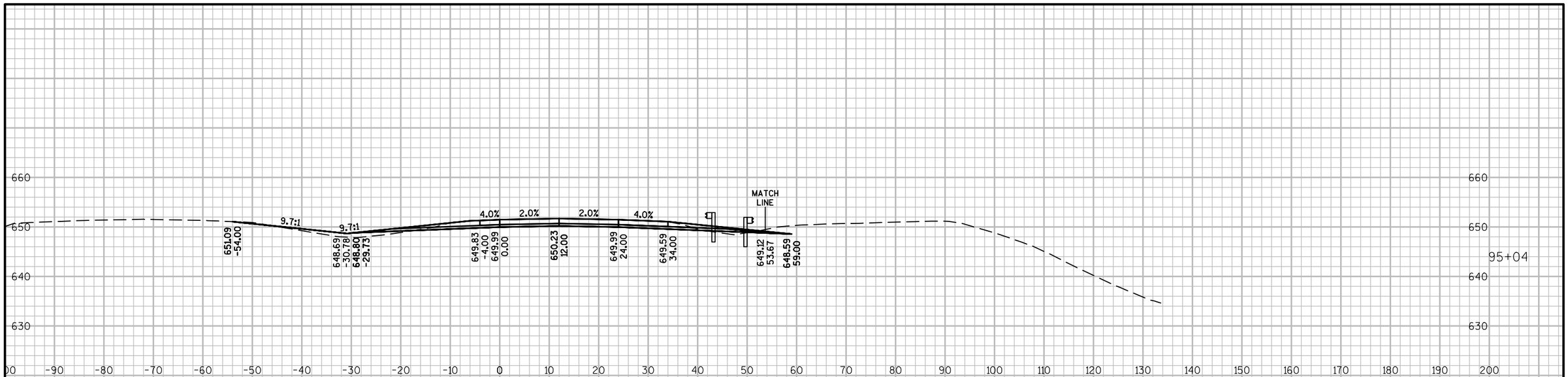
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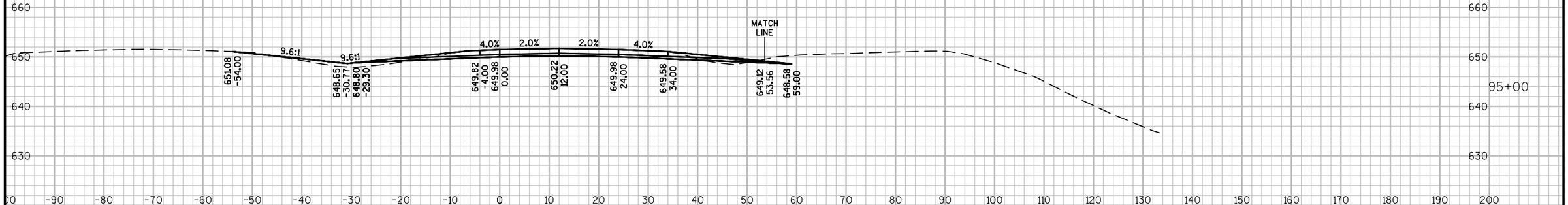


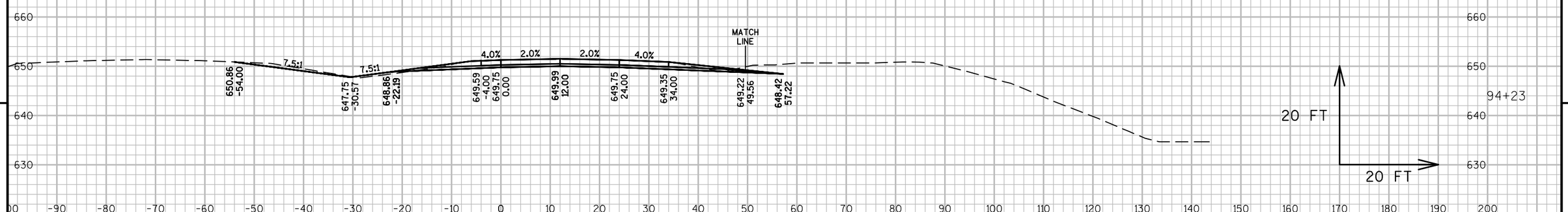
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FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090211_XSEB

PLOT DATE : 8/3/2015 8:48 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT







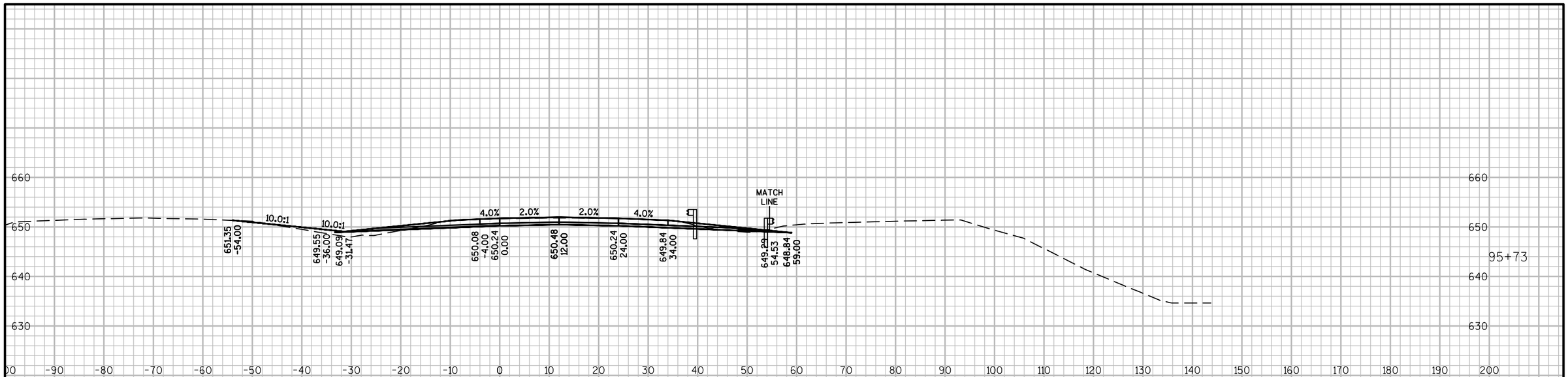
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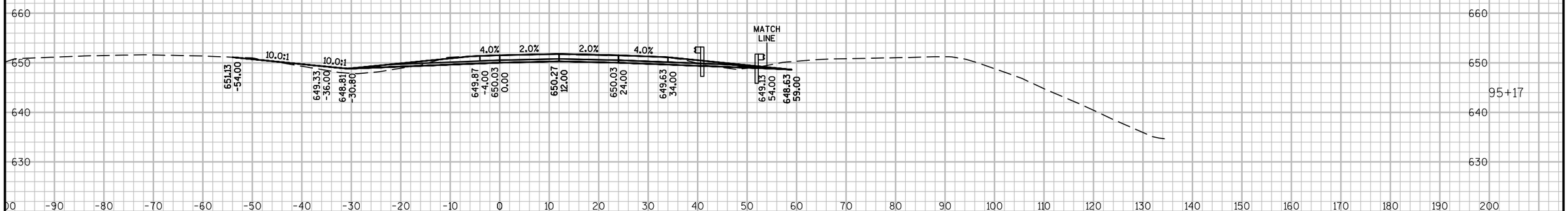
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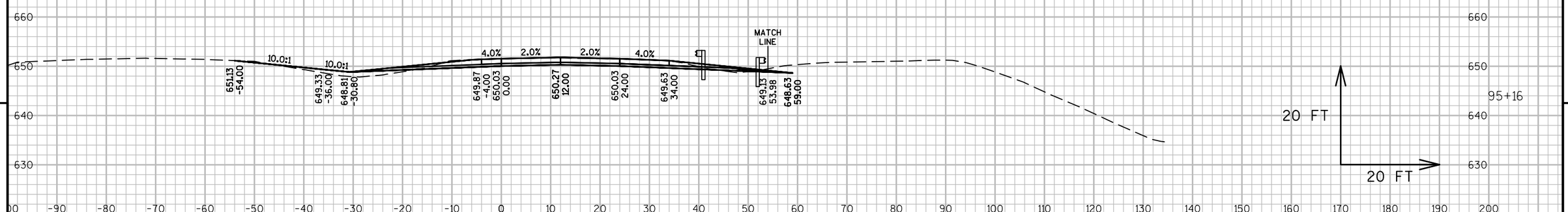
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 680	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090212_XSEB

PLOT DATE : 8/3/2015 8:49 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT







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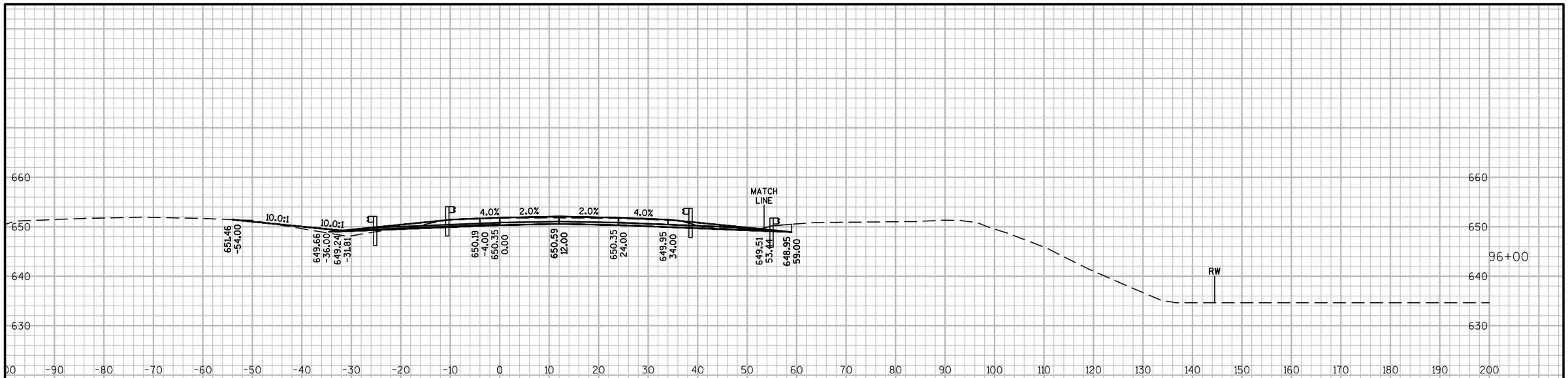
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 681	E

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LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090213_XSEB

PLOT DATE : 8/3/2015 8:49 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

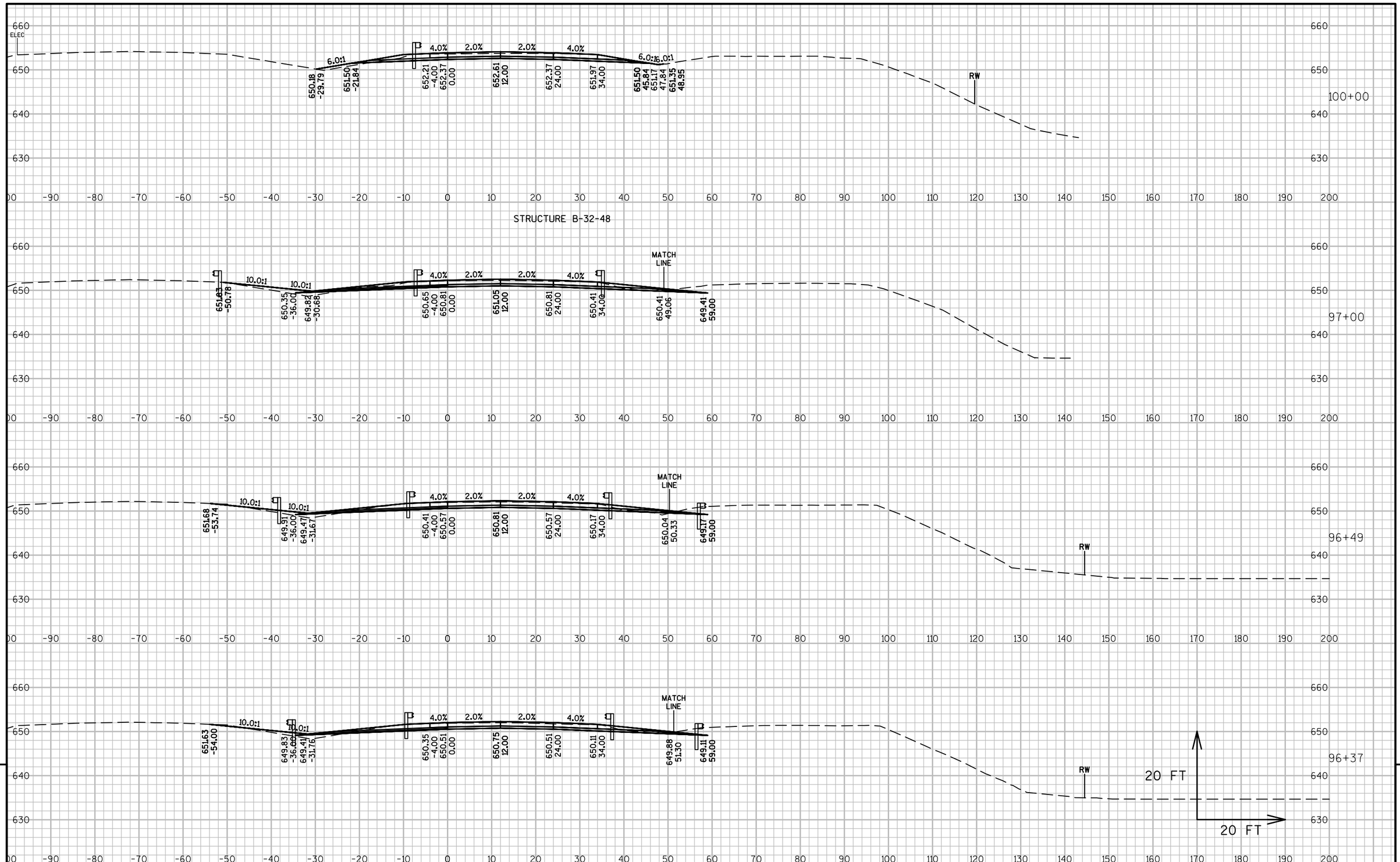


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 682	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090214_XSEB

PLOT DATE : 8/3/2015 8:49 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

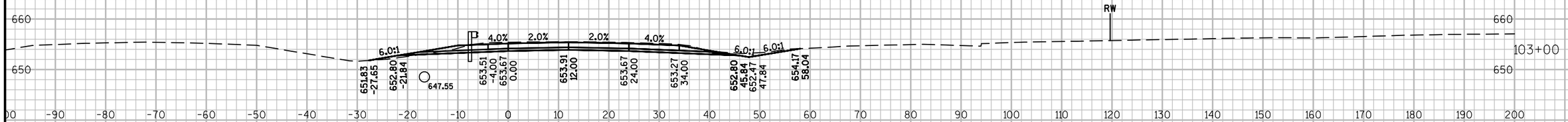


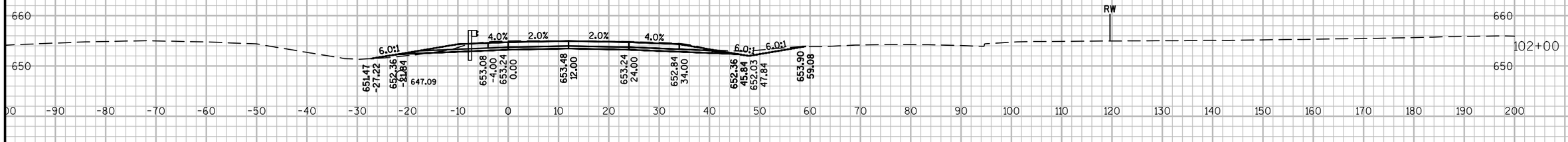
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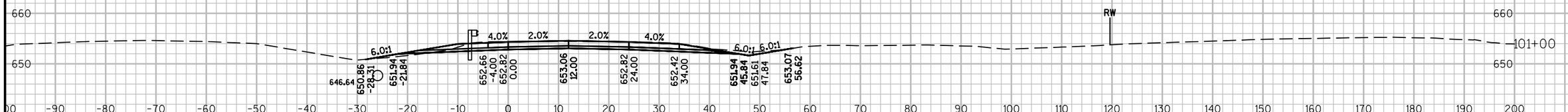
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LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090215_XSEB

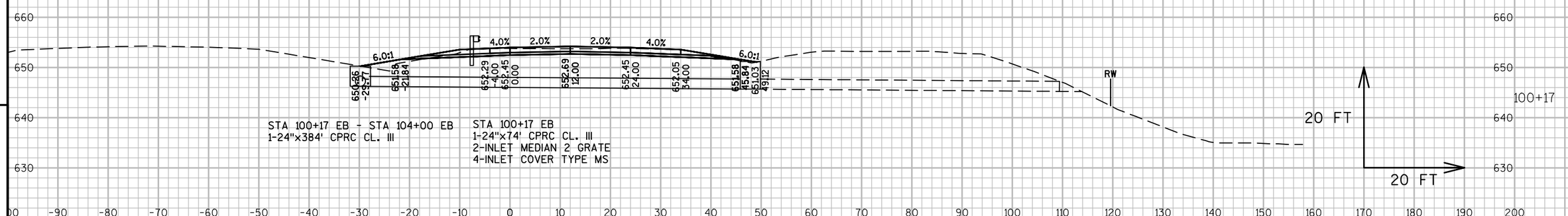
PLOT DATE : 8/3/2015 8:49 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49









STA 100+17 EB - STA 104+00 EB
1-24"x384' CPRC CL. III

STA 100+17 EB
1-24"x74' CPRC CL. III
2-INLET MEDIAN 2 GRATE
4-INLET COVER TYPE MS

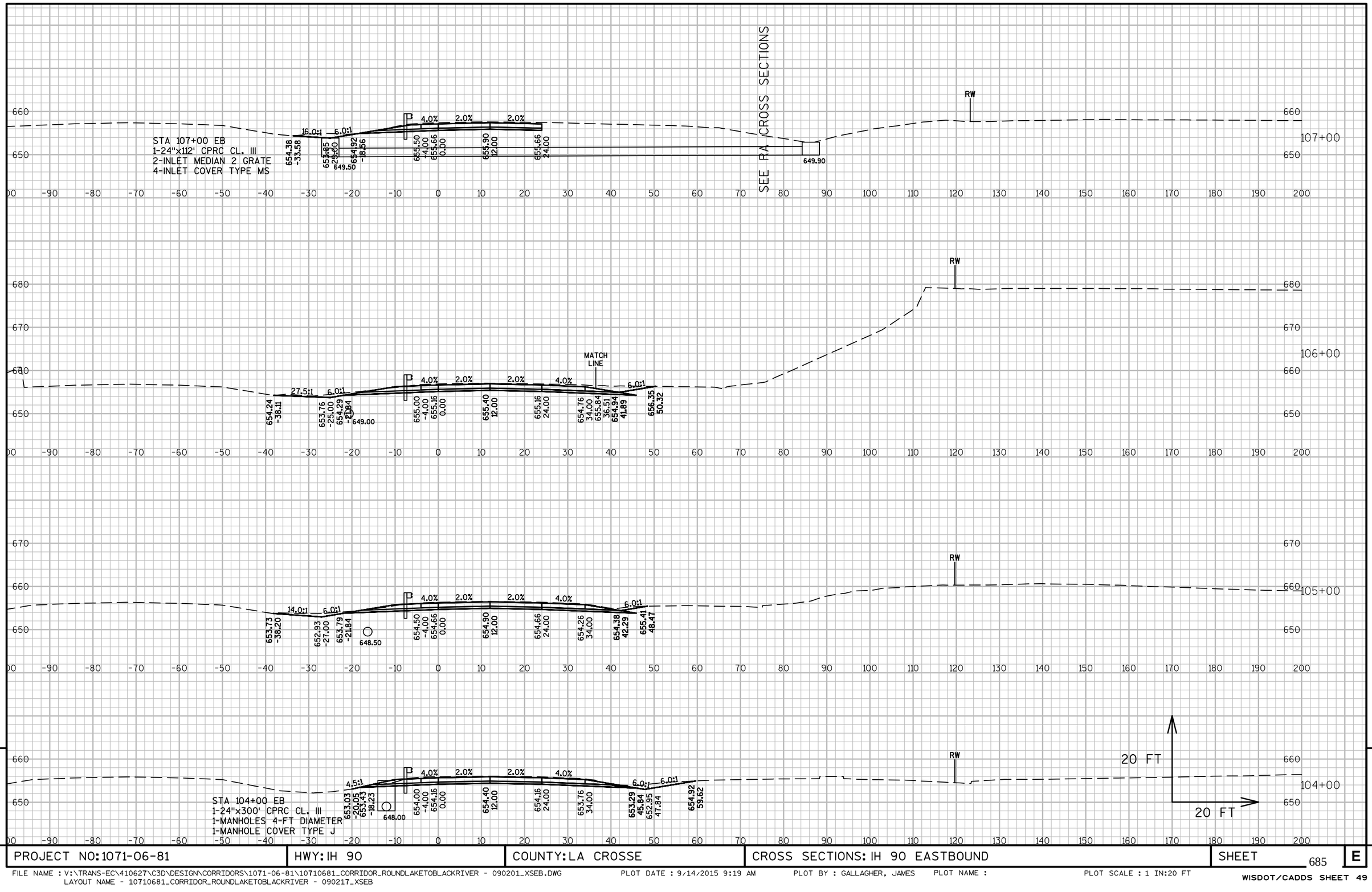
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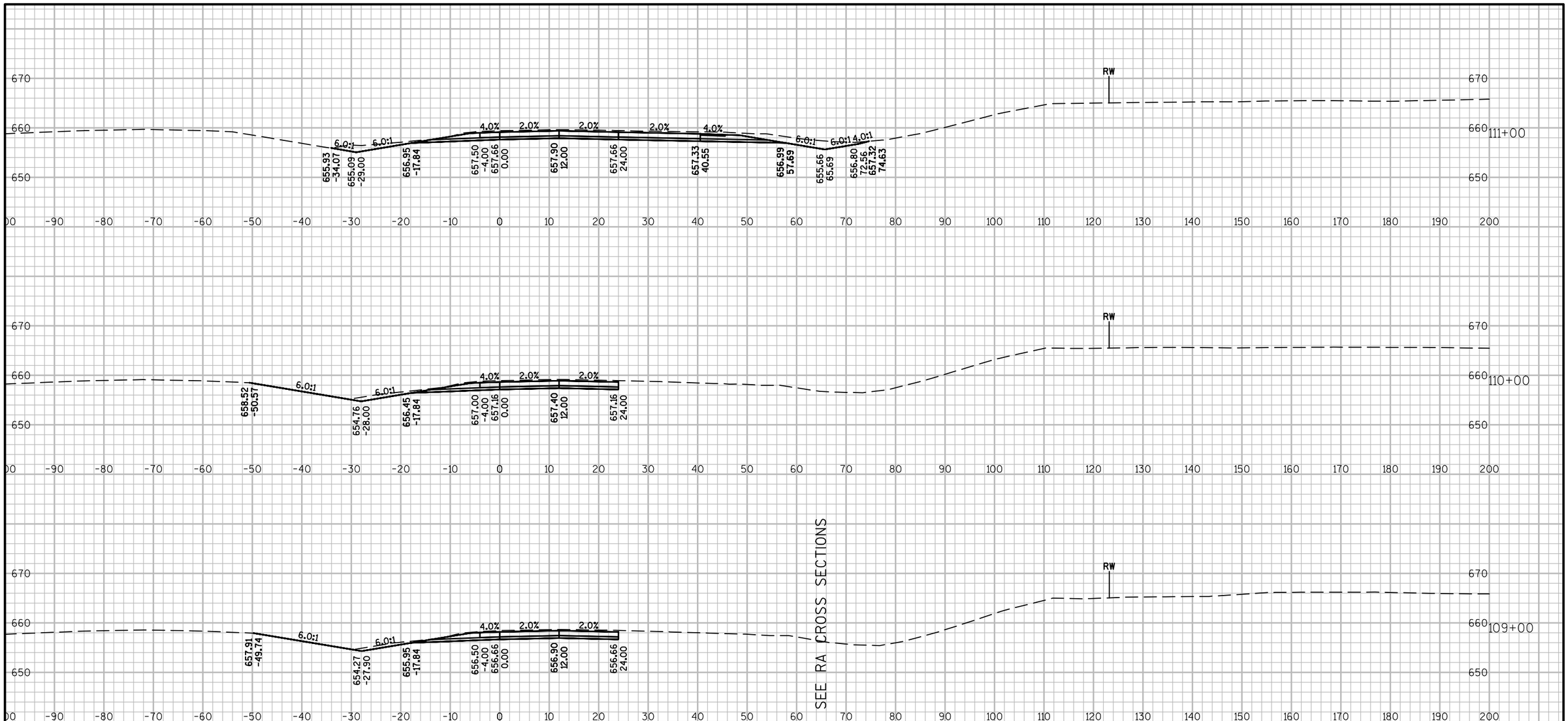
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 684	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090216_XSEB

PLOT DATE : 8/3/2015 8:50 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 685 E



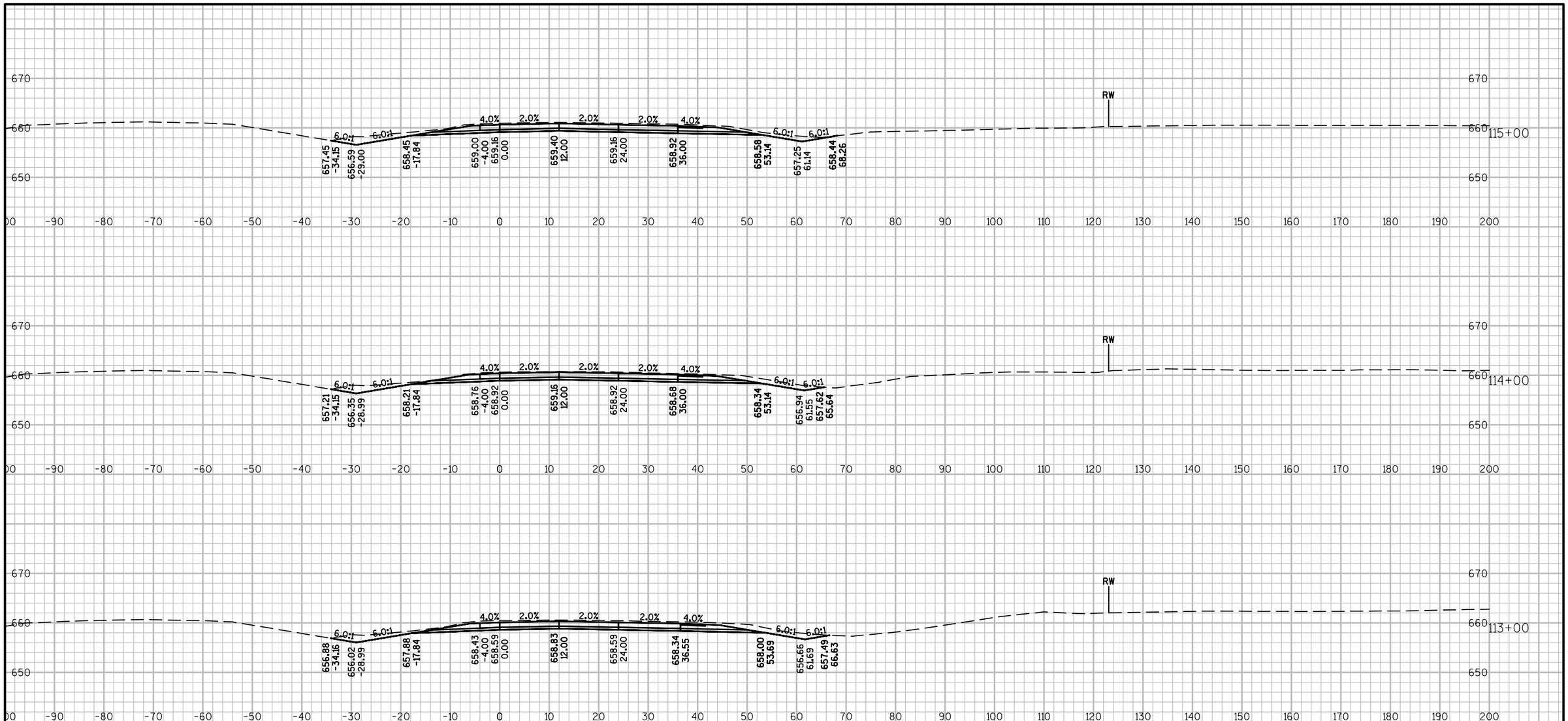
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 686 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090218_XSEB

PLOT DATE : 8/3/2015 8:50 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



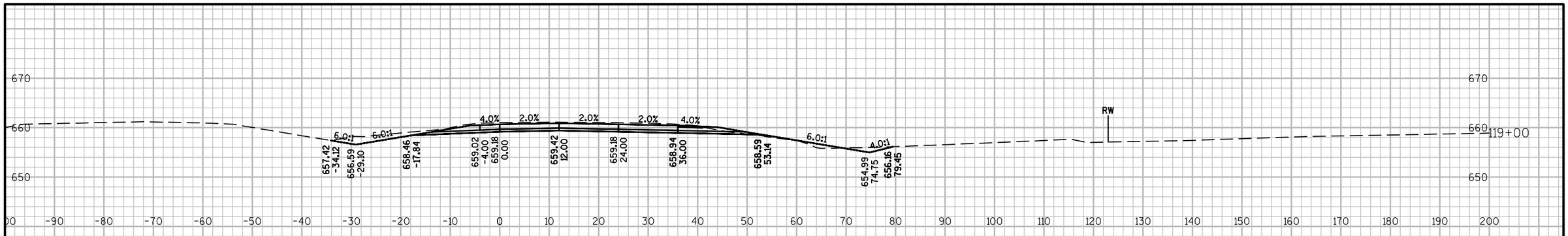
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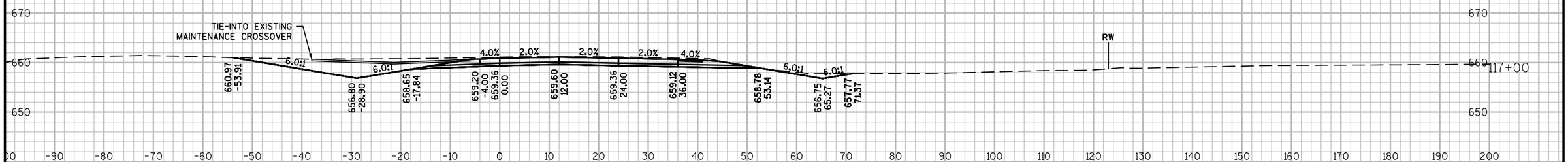
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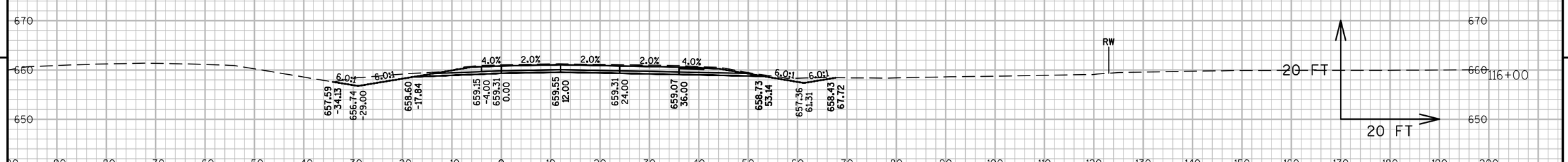
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 687	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090219_XSEB

PLOT DATE : 8/3/2015 8:50 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT





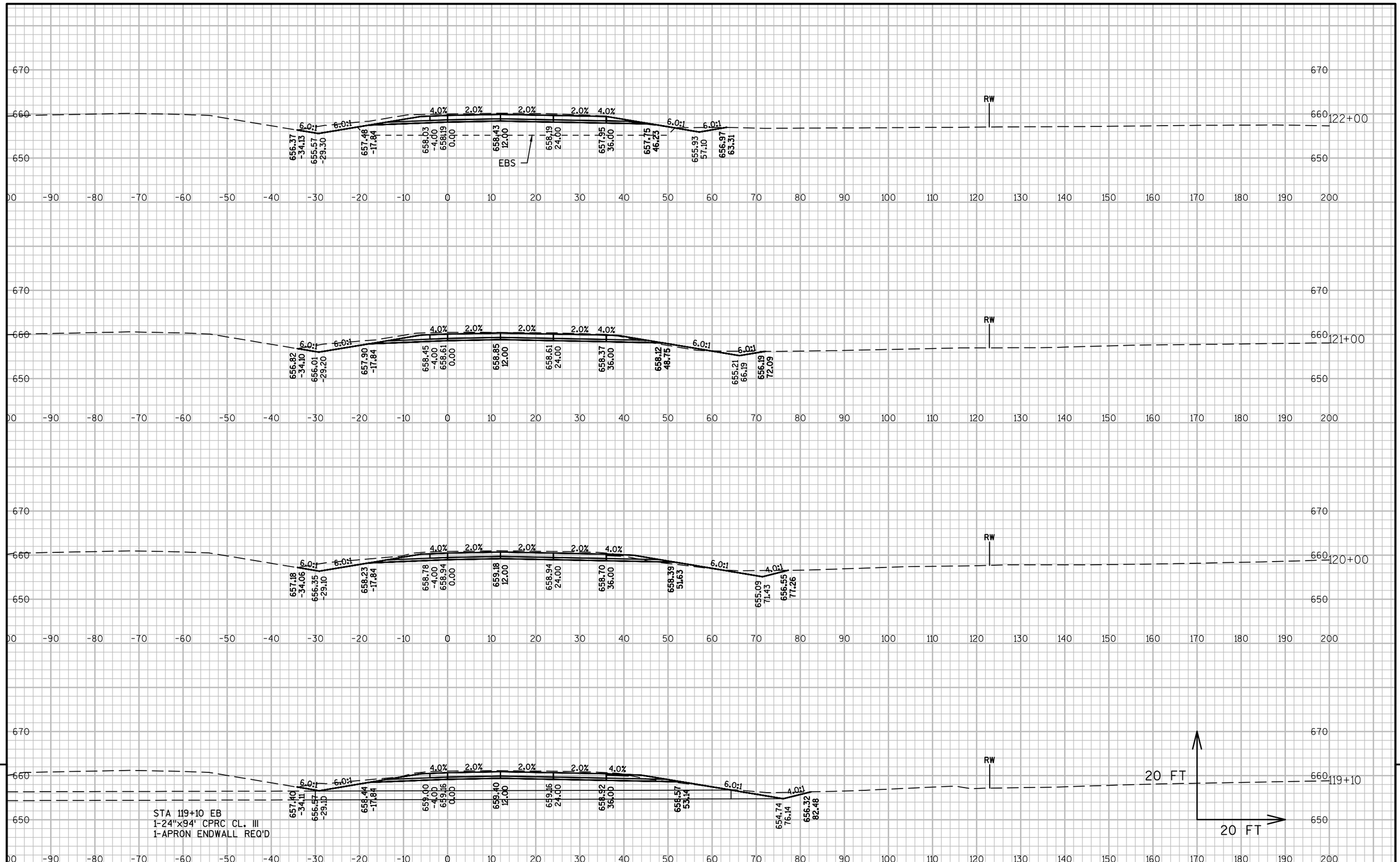


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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 688	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090220_XSEB
PLOT DATE : 8/3/2015 8:50 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

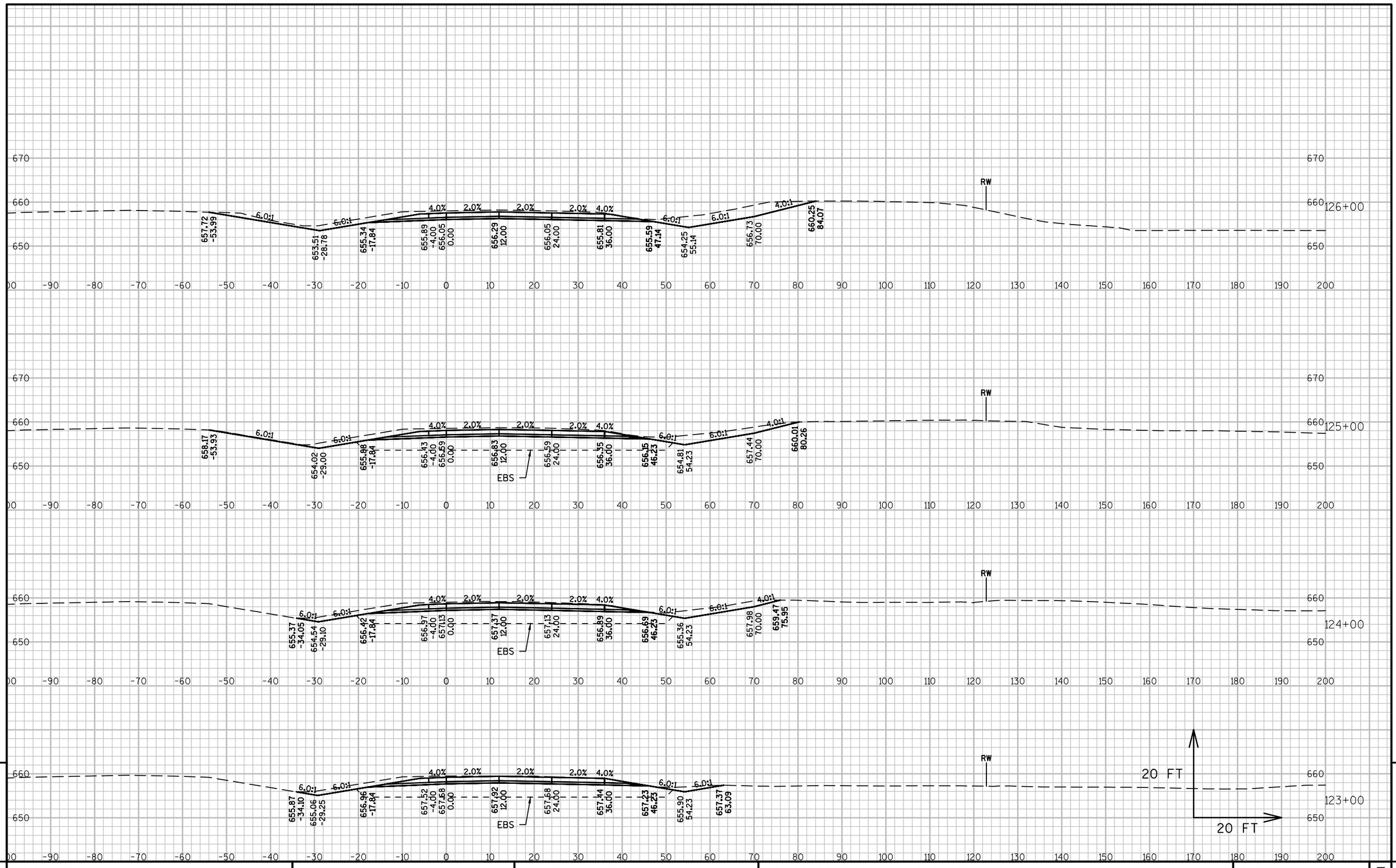


STA 119+10 EB
1-24"x94' CPRC CL. III
1-APRON ENDWALL REQ'D

9 9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 689	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090221_XSEB
PLOT DATE : 9/14/2015 9:19 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



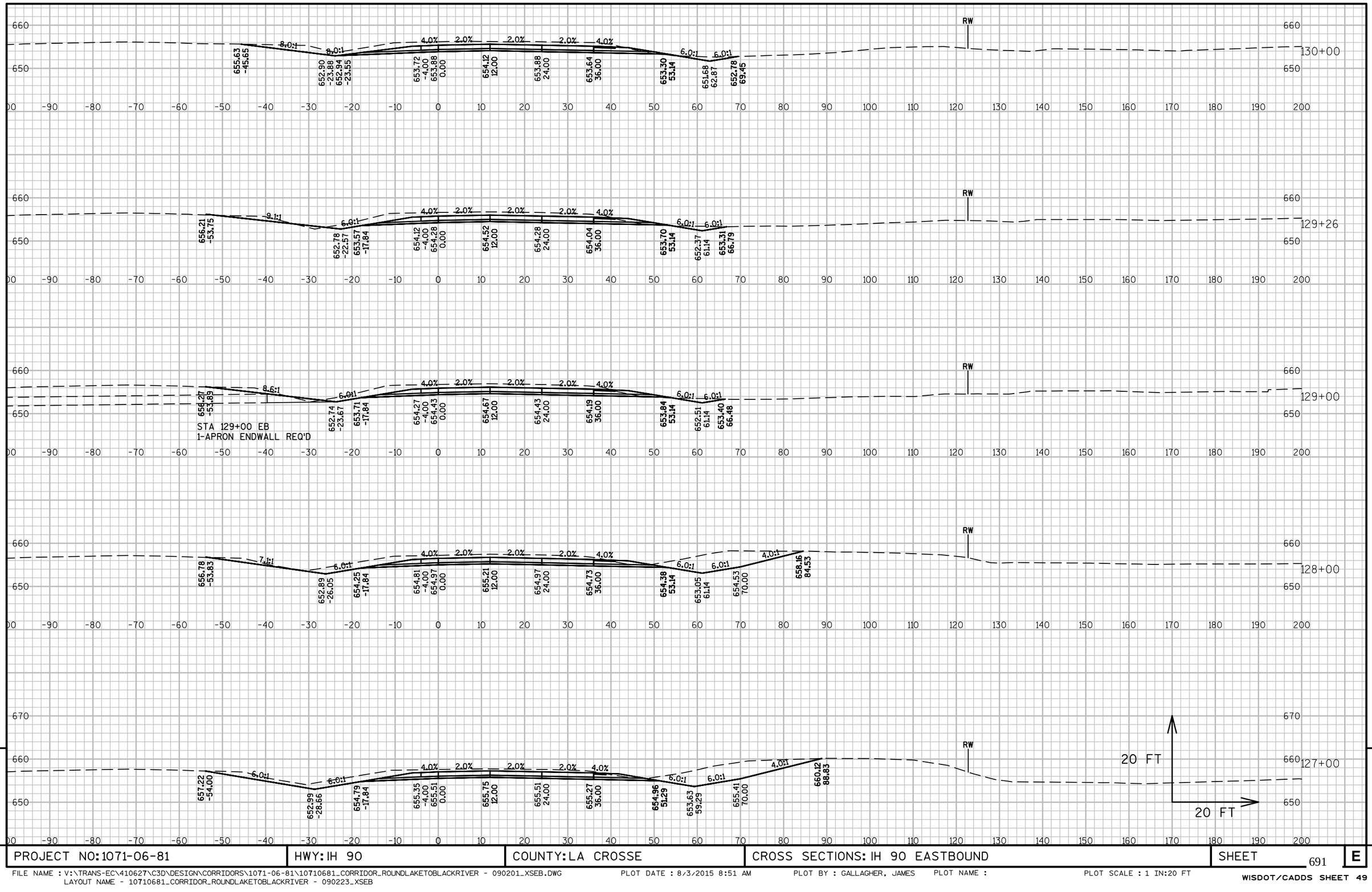
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 690	E

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LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090222_XSEB

PLOT DATE : 8/3/2015 8:51 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



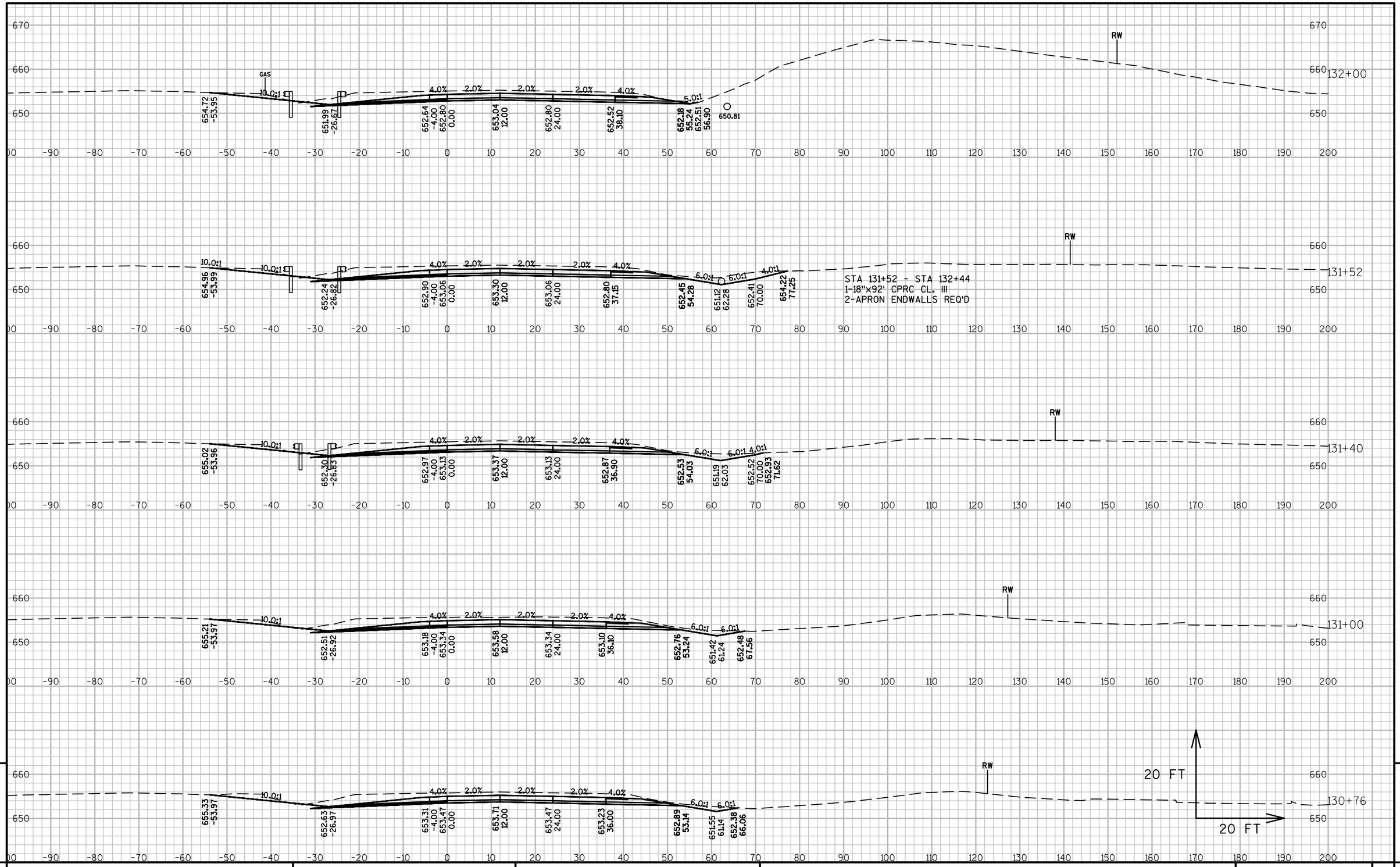
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 691	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090223_XSEB

PLOT DATE : 8/3/2015 8:51 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

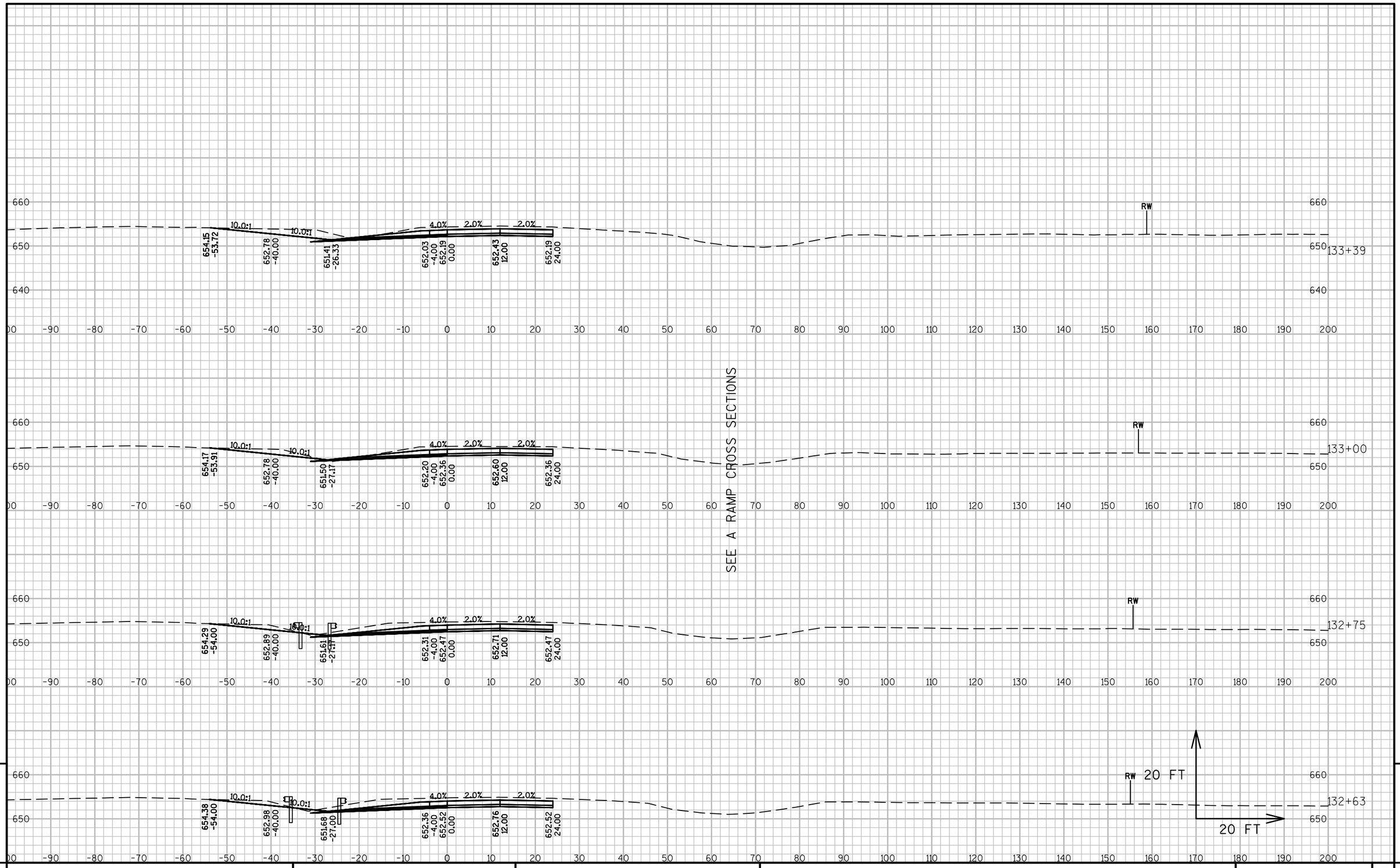


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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 692	E

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FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090224_XSEB
PLOT DATE : 8/3/2015 8:51 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



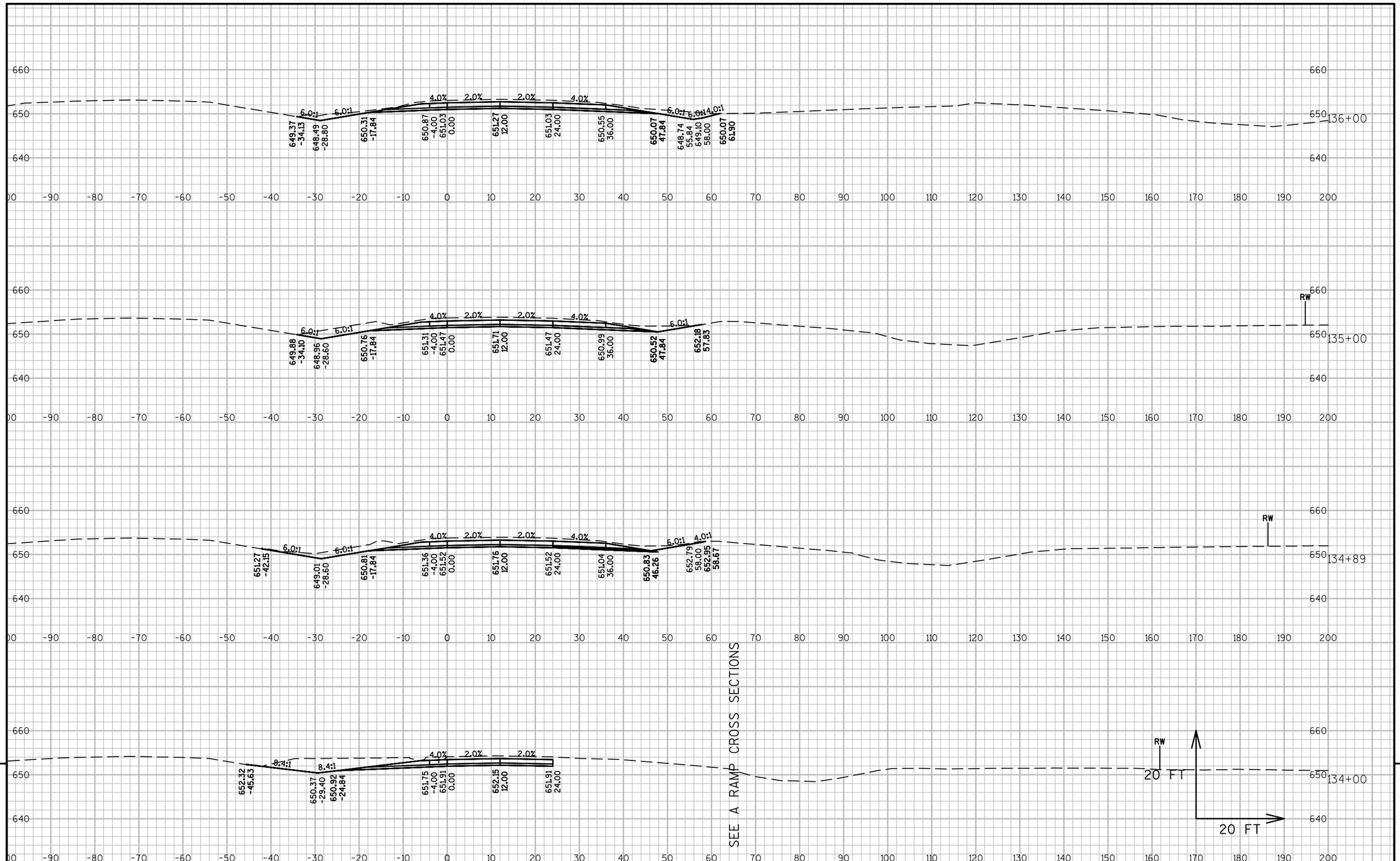
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 693	E

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FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090225_XSEB

PLOT DATE : 8/3/2015 8:52 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

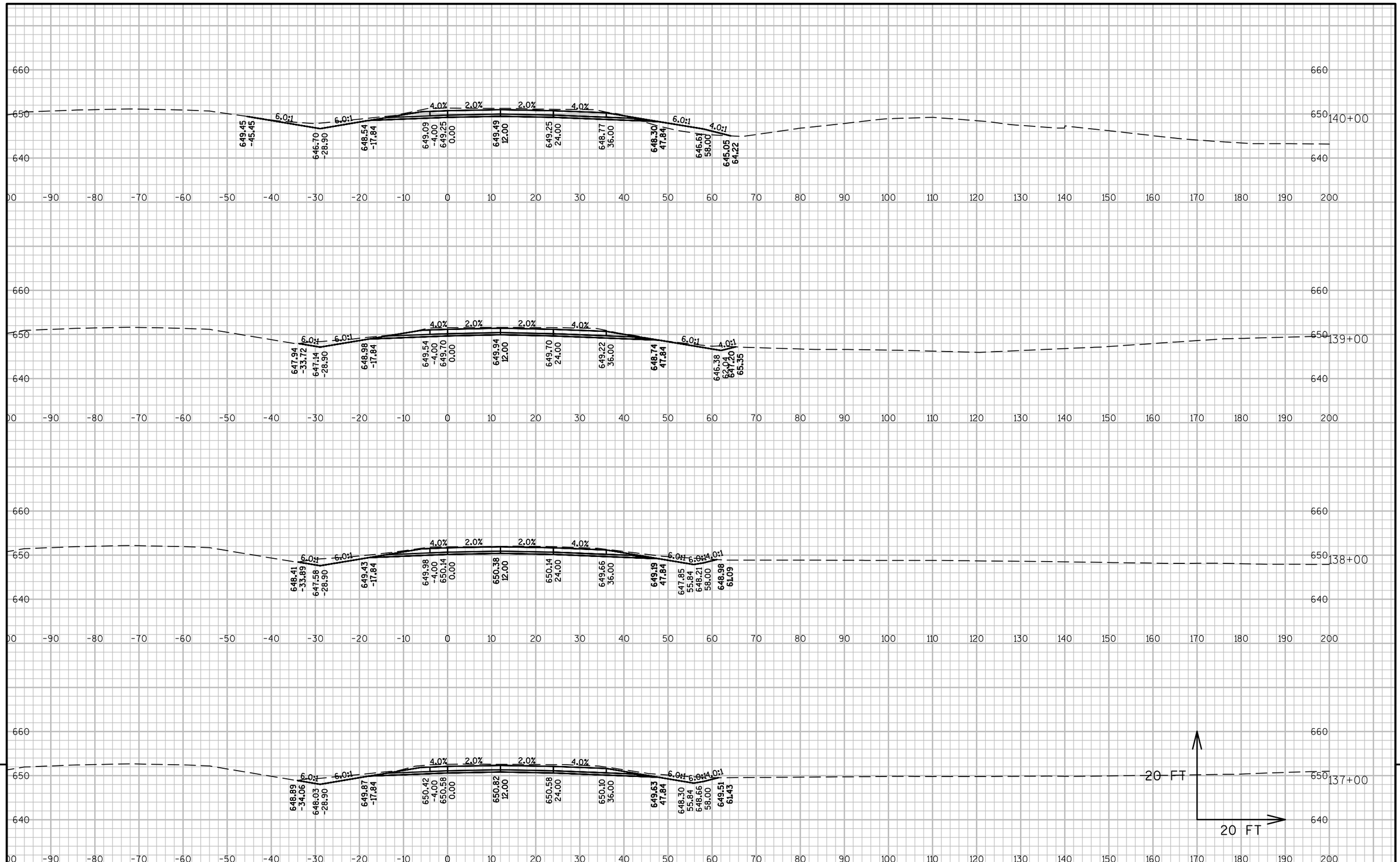


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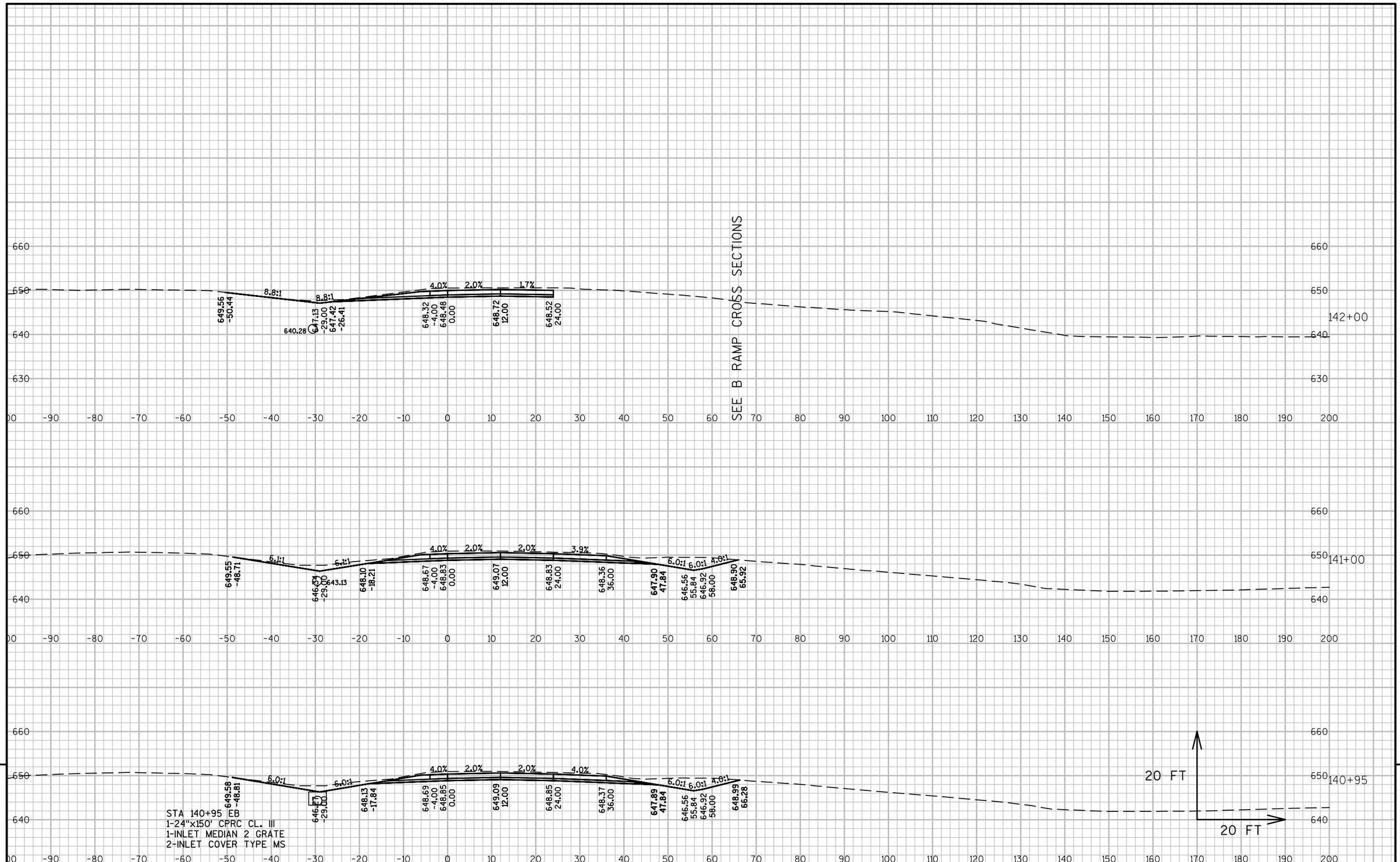
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FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090226_XSEB
PLOT DATE : 8/3/2015 8:52 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 695	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090227_XSEB
PLOT DATE : 8/3/2015 8:52 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

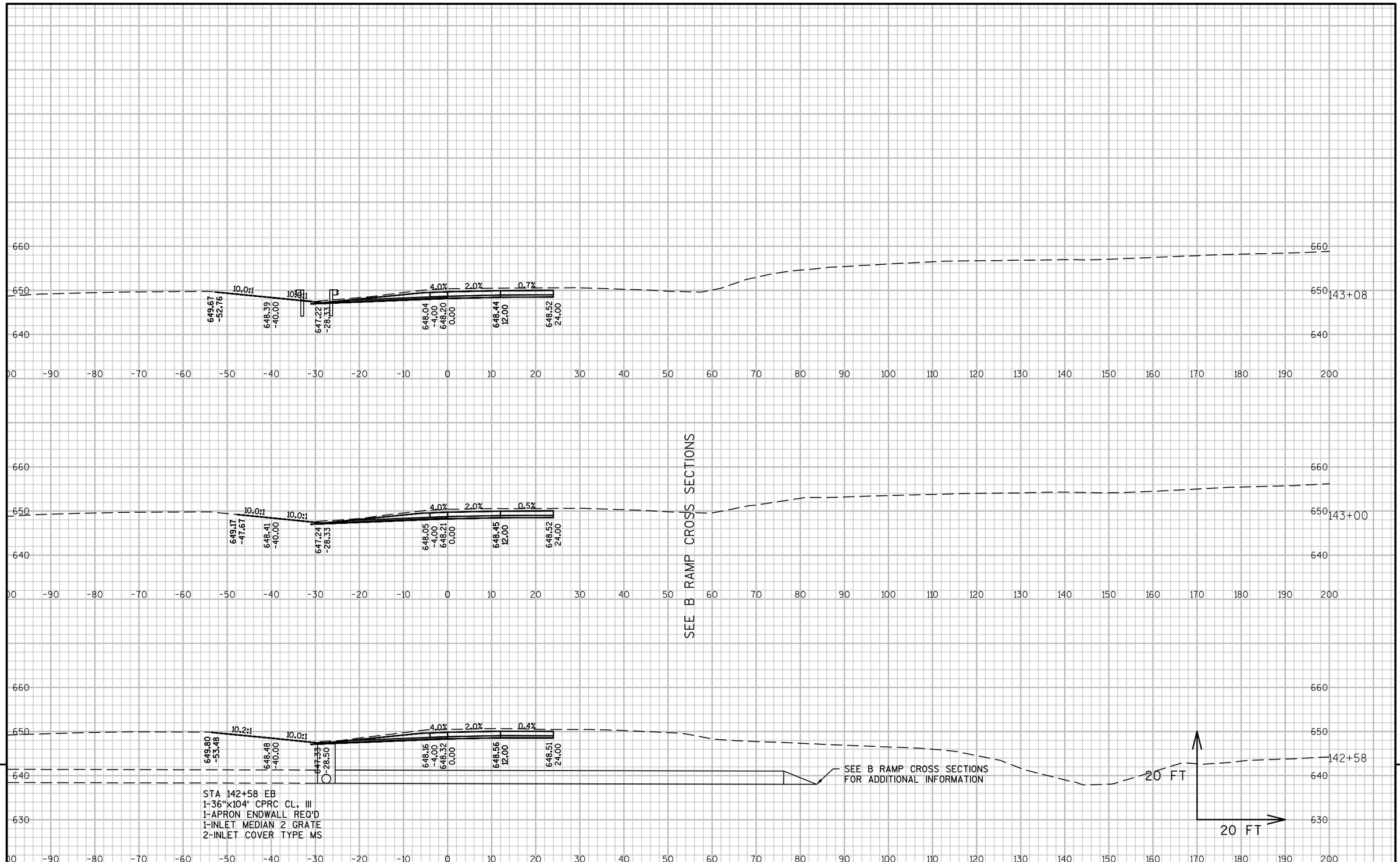


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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 696 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090228_XSEB

PLOT DATE : 8/3/2015 8:52 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

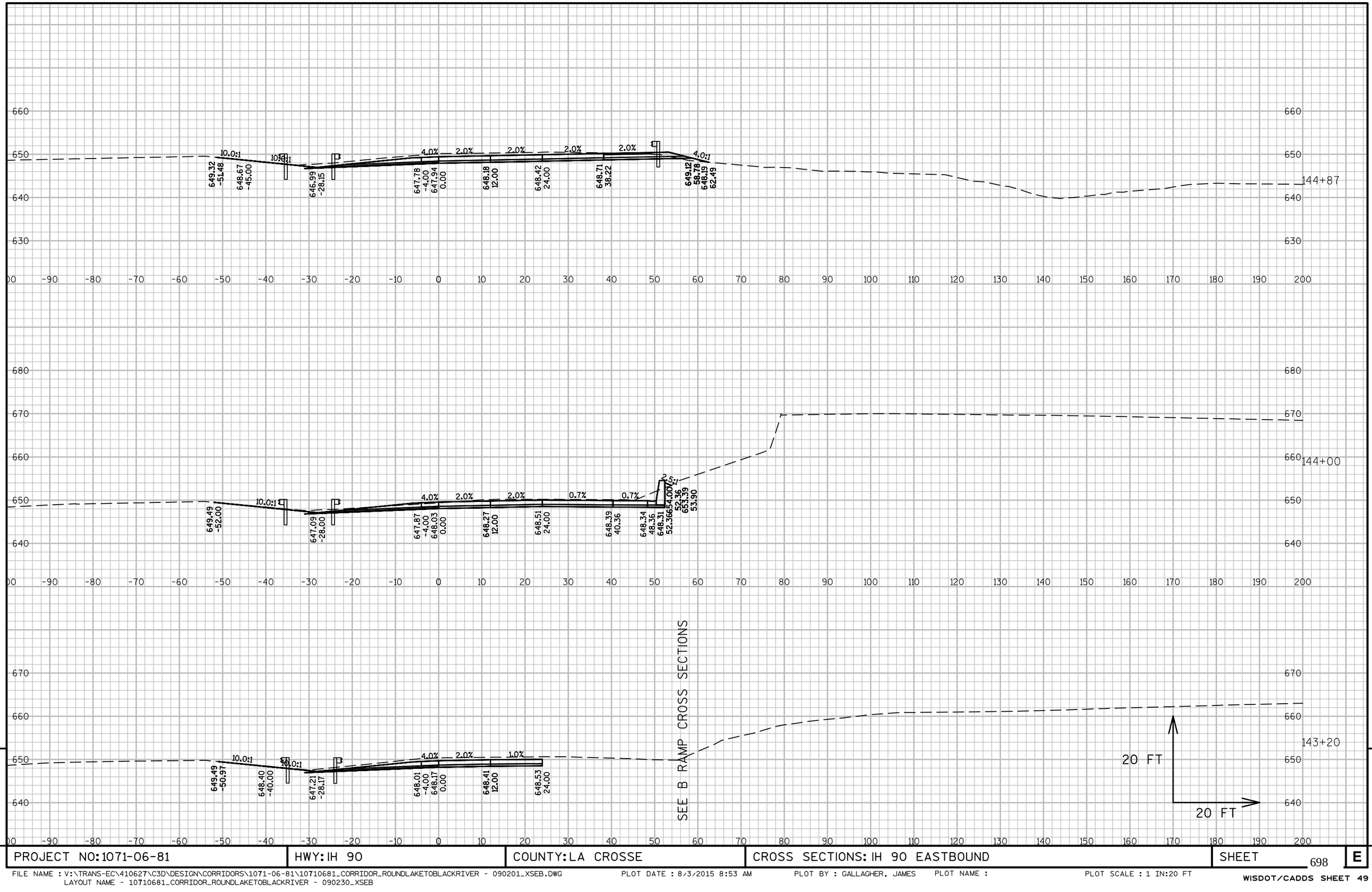


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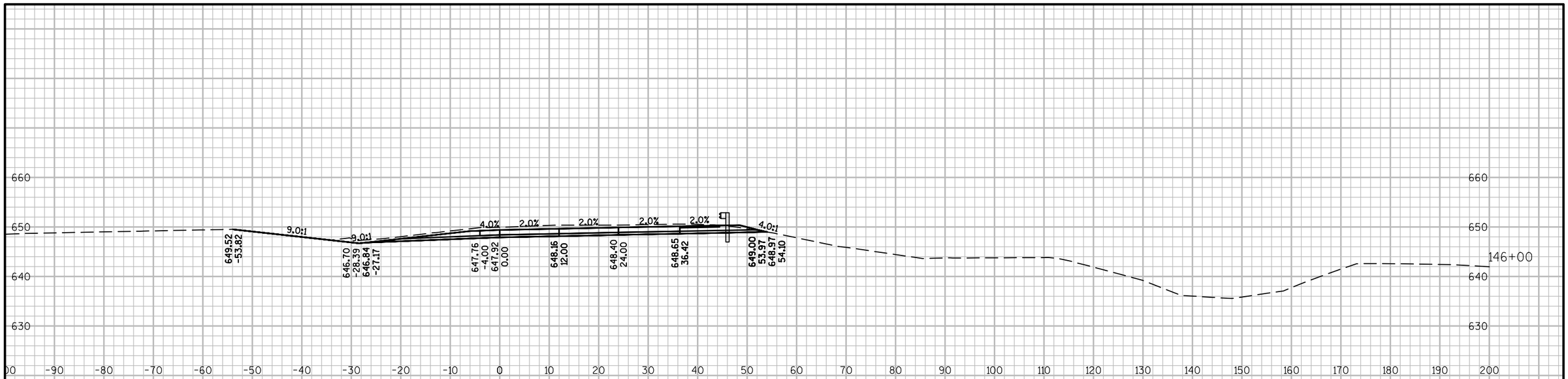
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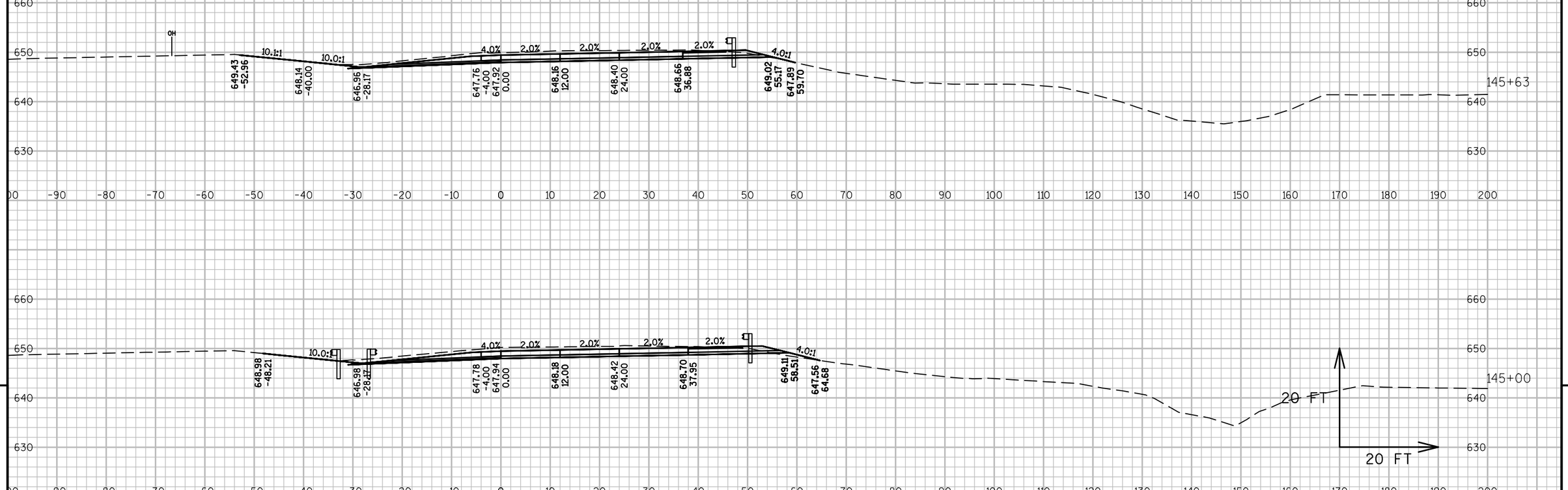
FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090229_XSEB
PLOT DATE : 9/14/2015 9:19 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 698 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090230_XSEB
PLOT DATE : 8/3/2015 8:53 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT





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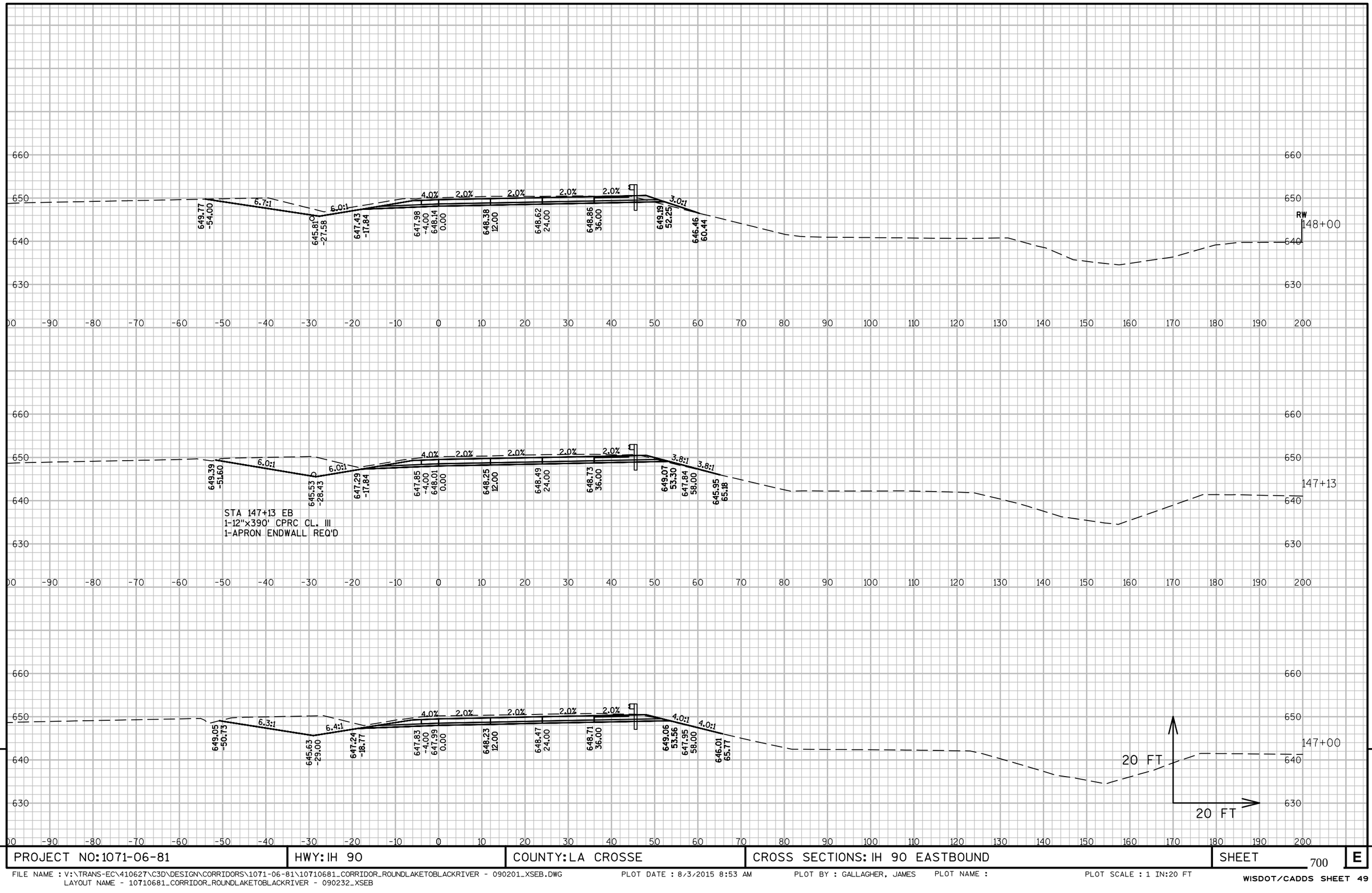
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 699	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090231_XSEB

PLOT DATE : 8/3/2015 8:53 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



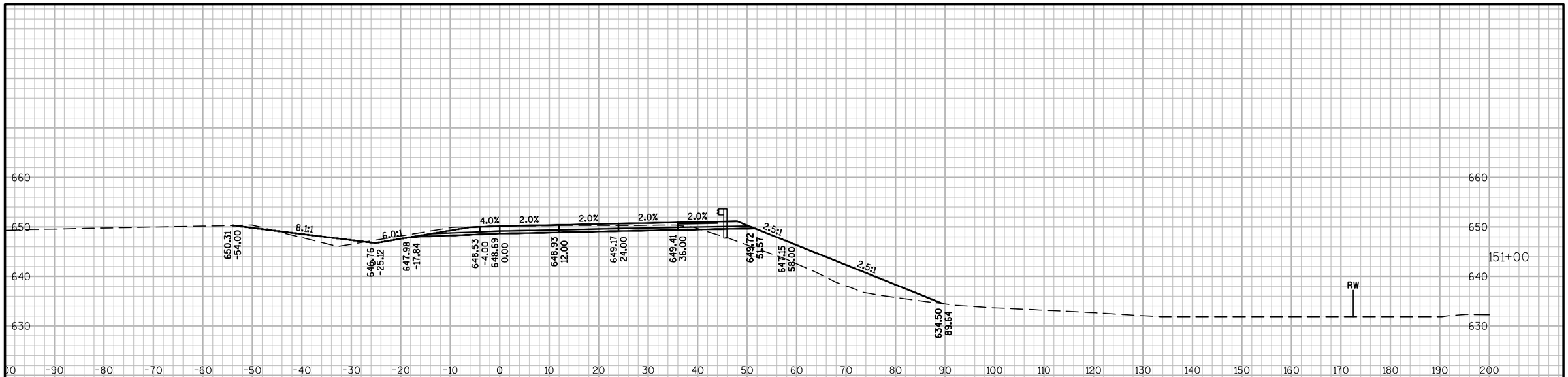
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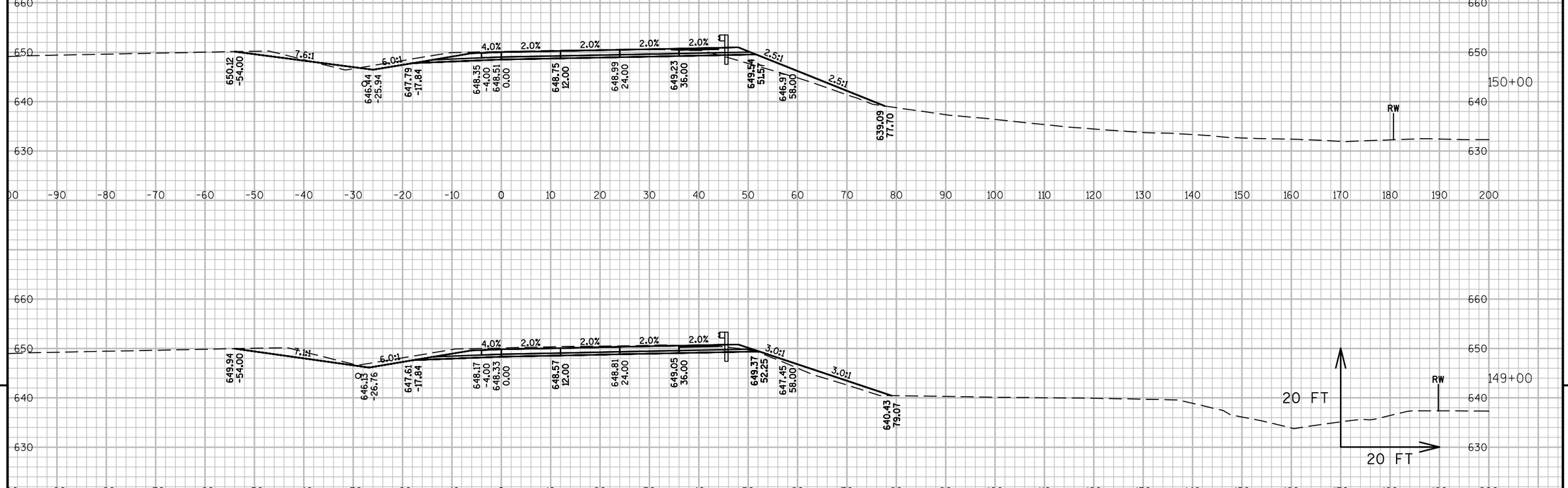
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 700	E

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LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090232_XSEB

PLOT DATE : 8/3/2015 8:53 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT





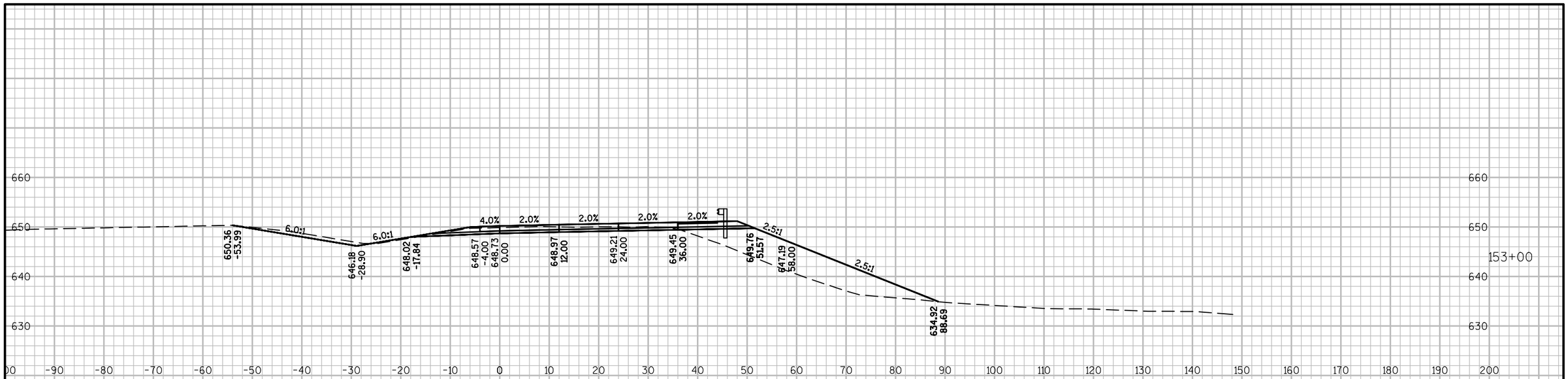
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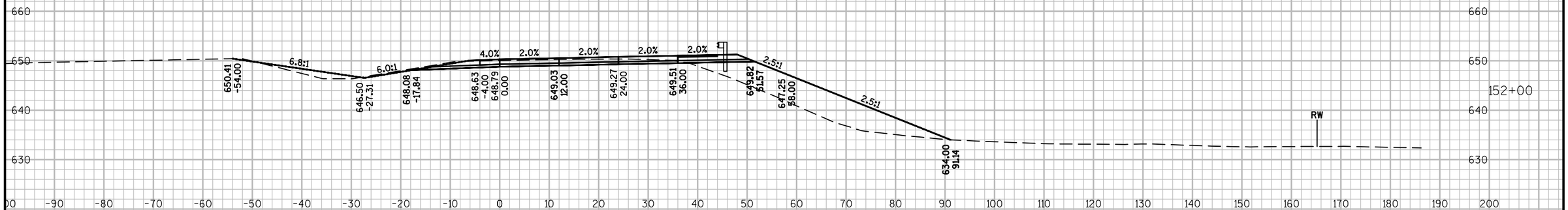
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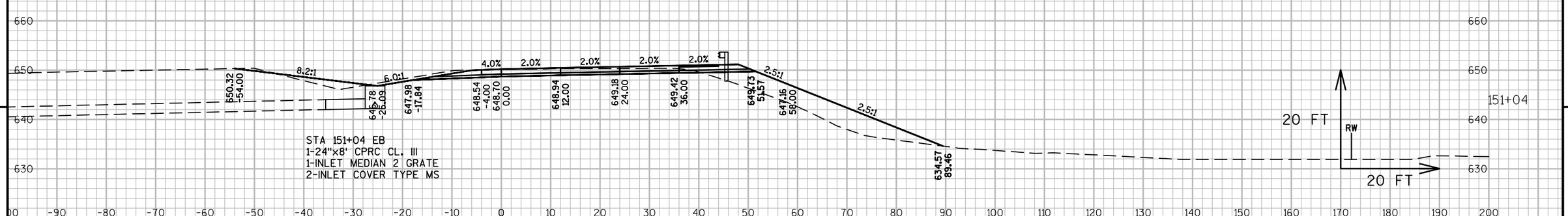
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 701	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090233_XSEB

PLOT DATE : 8/3/2015 8:53 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



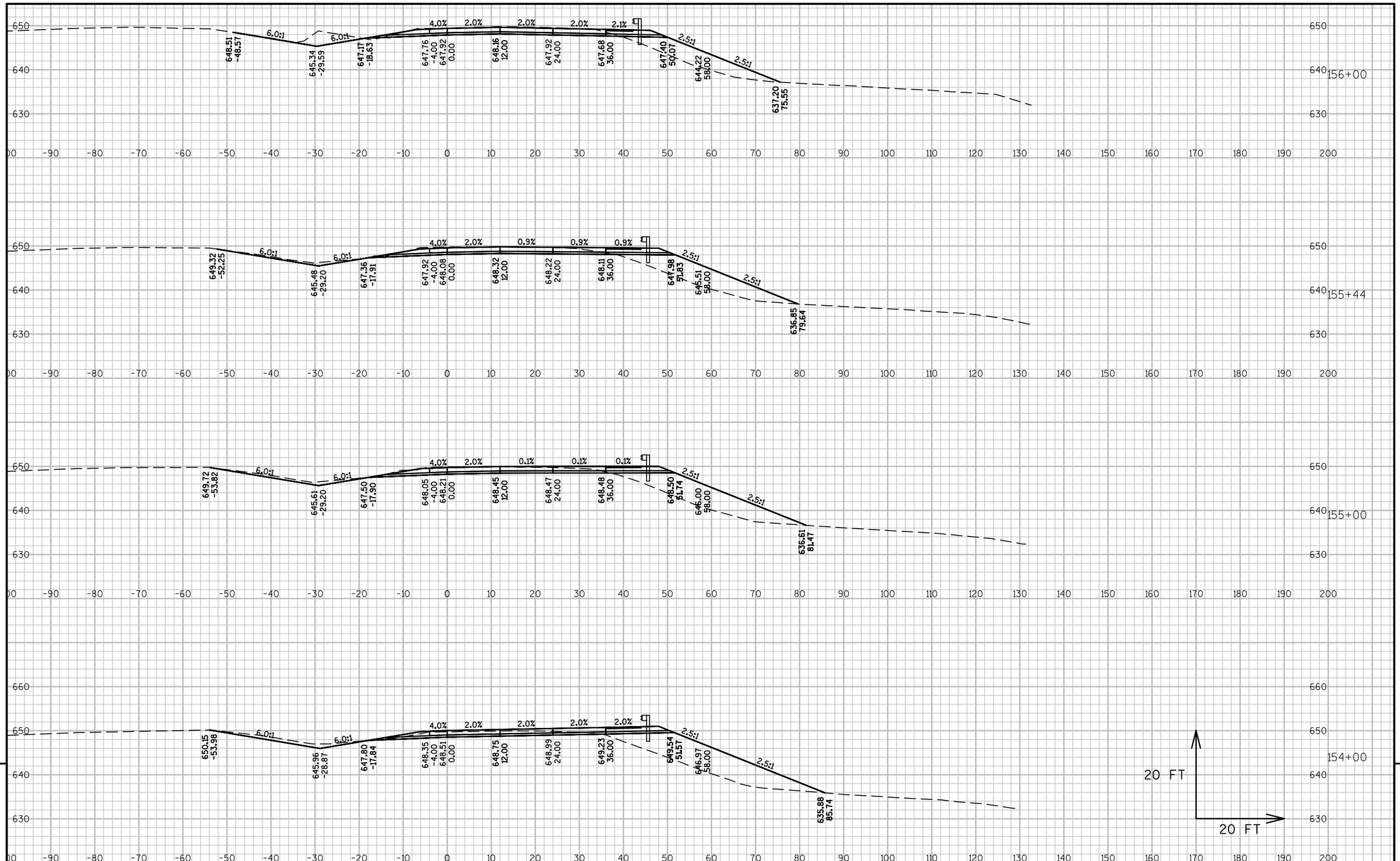




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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 702 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090234_XSEB
PLOT DATE : 8/3/2015 8:53 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

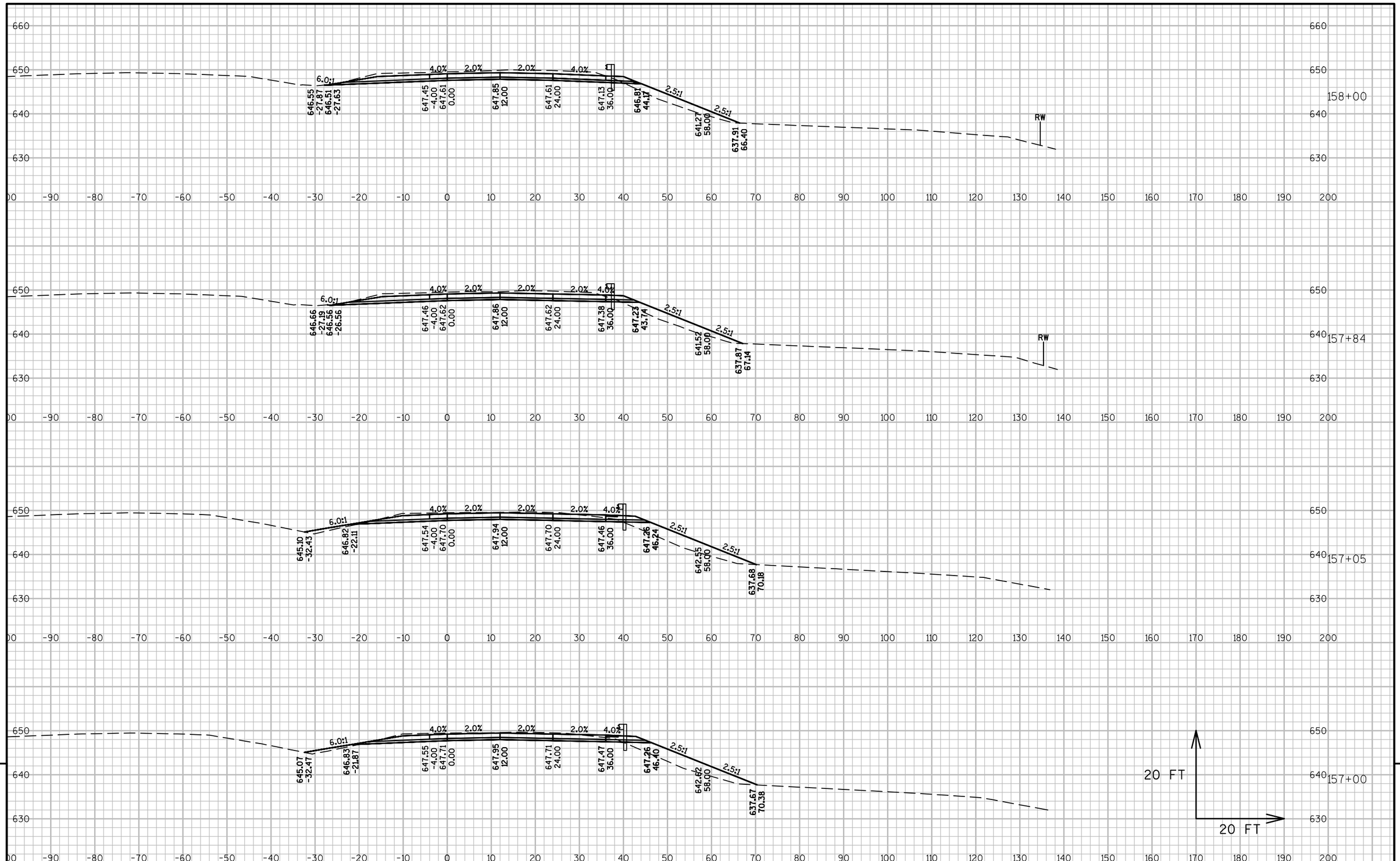


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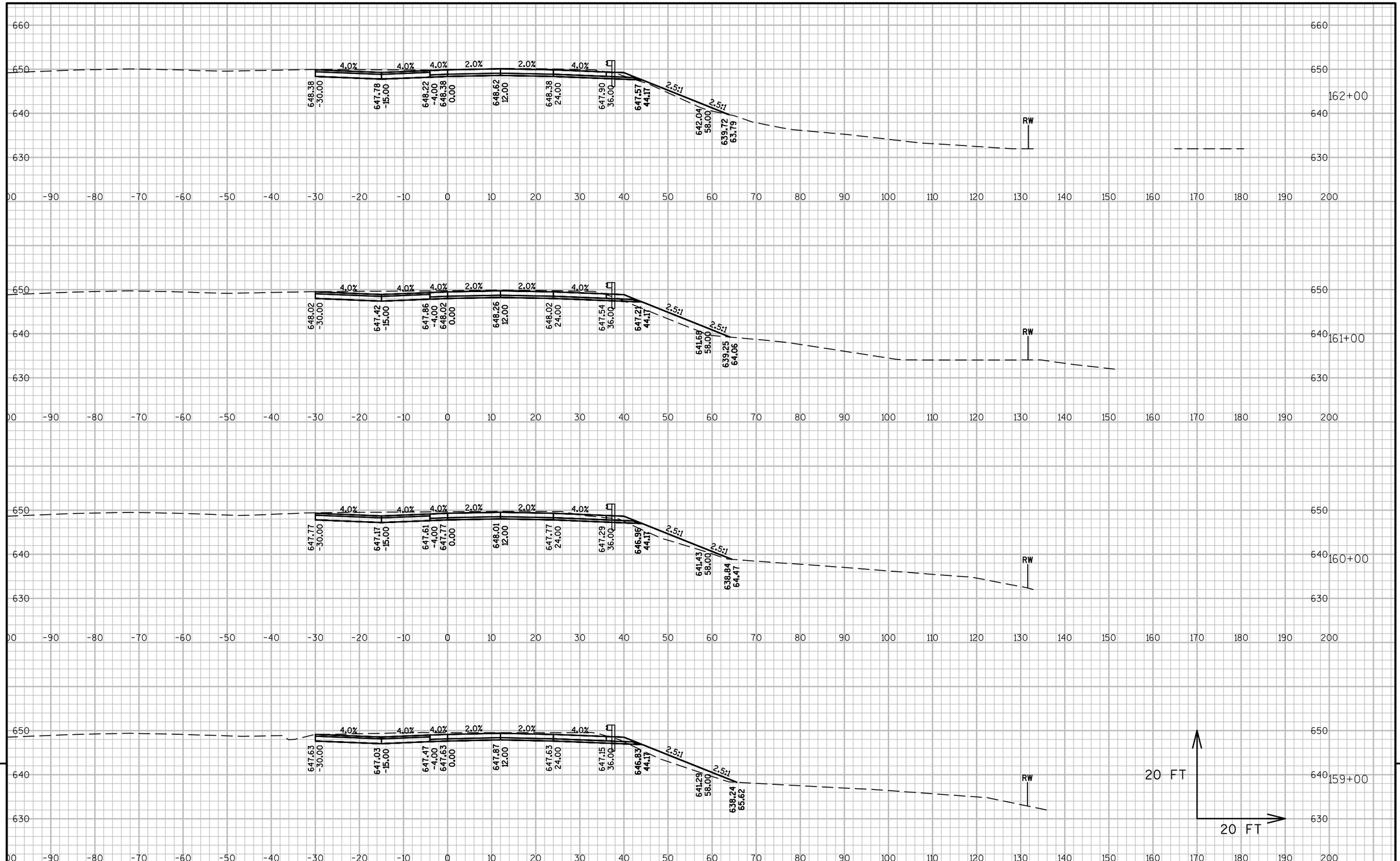
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FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090235_XSEB
PLOT DATE : 8/3/2015 8:54 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 704 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090236_XSEB
PLOT DATE : 8/3/2015 8:54 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



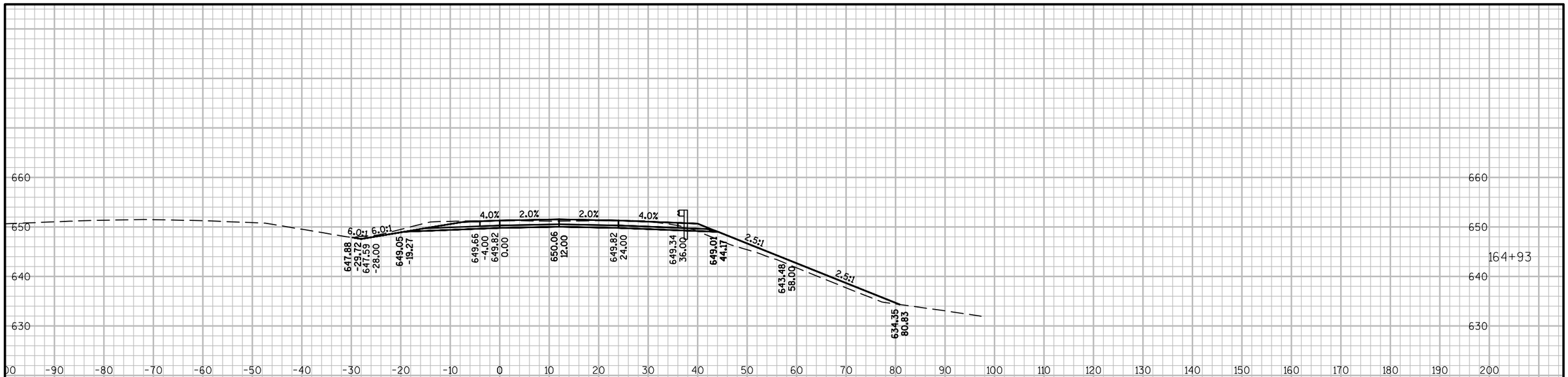
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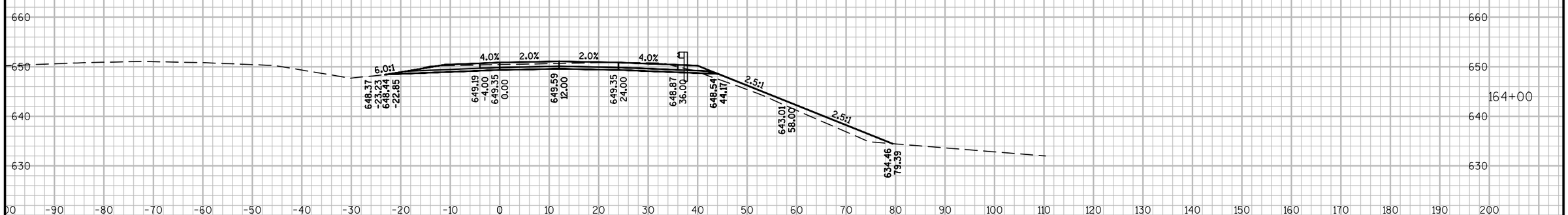
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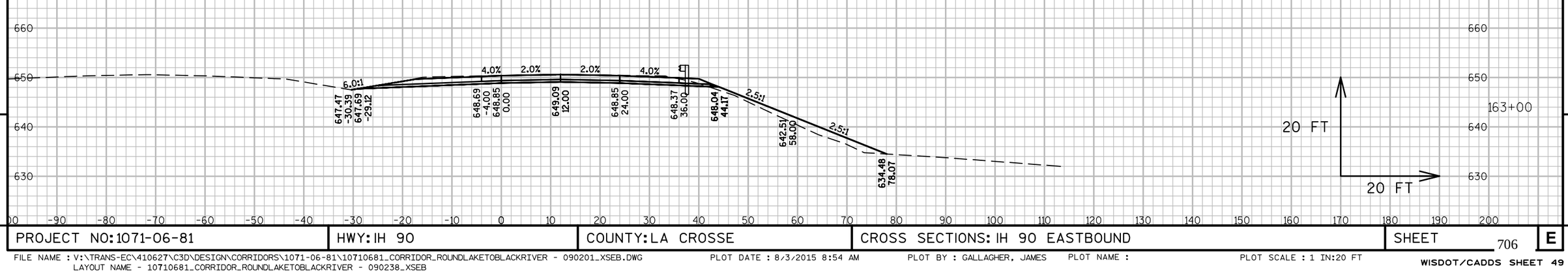
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 705	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090237_XSEB

PLOT DATE : 8/3/2015 8:54 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT







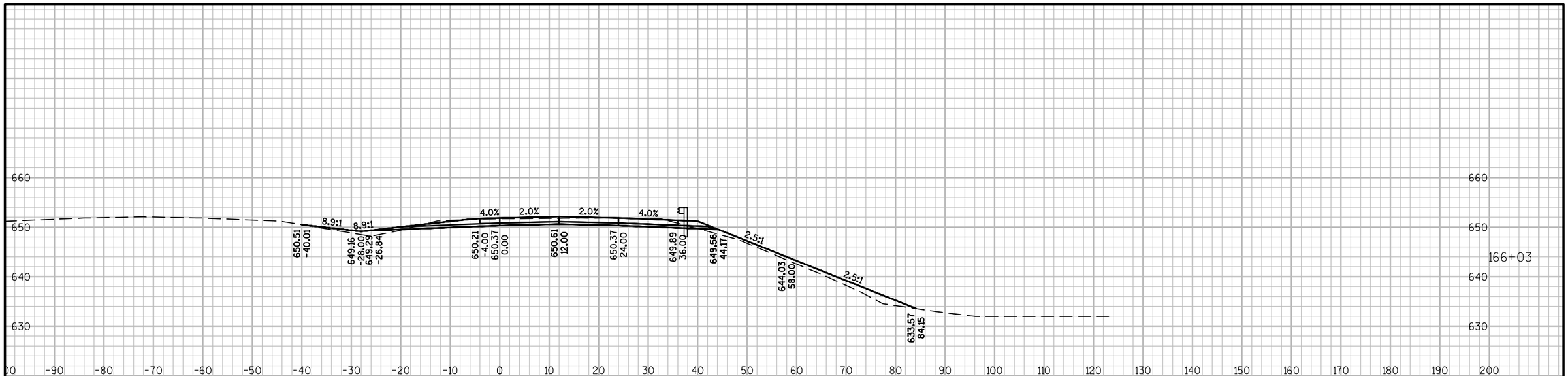
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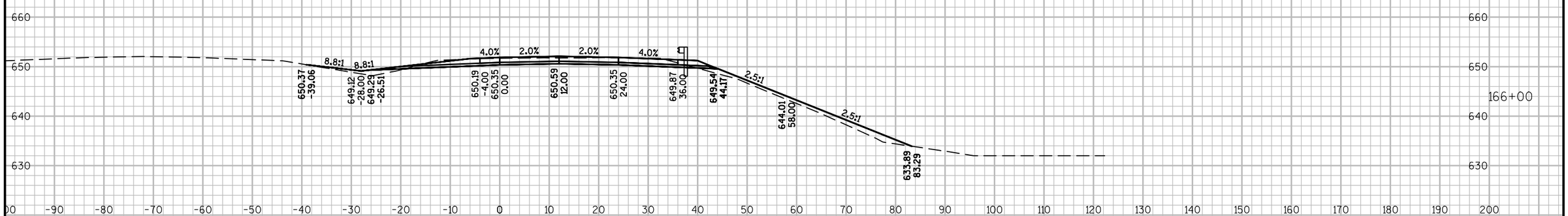
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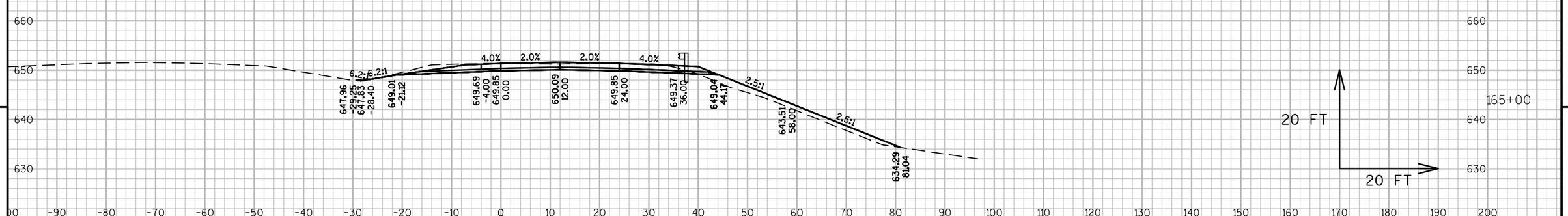
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 706 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090238_XSEB

PLOT DATE : 8/3/2015 8:54 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT







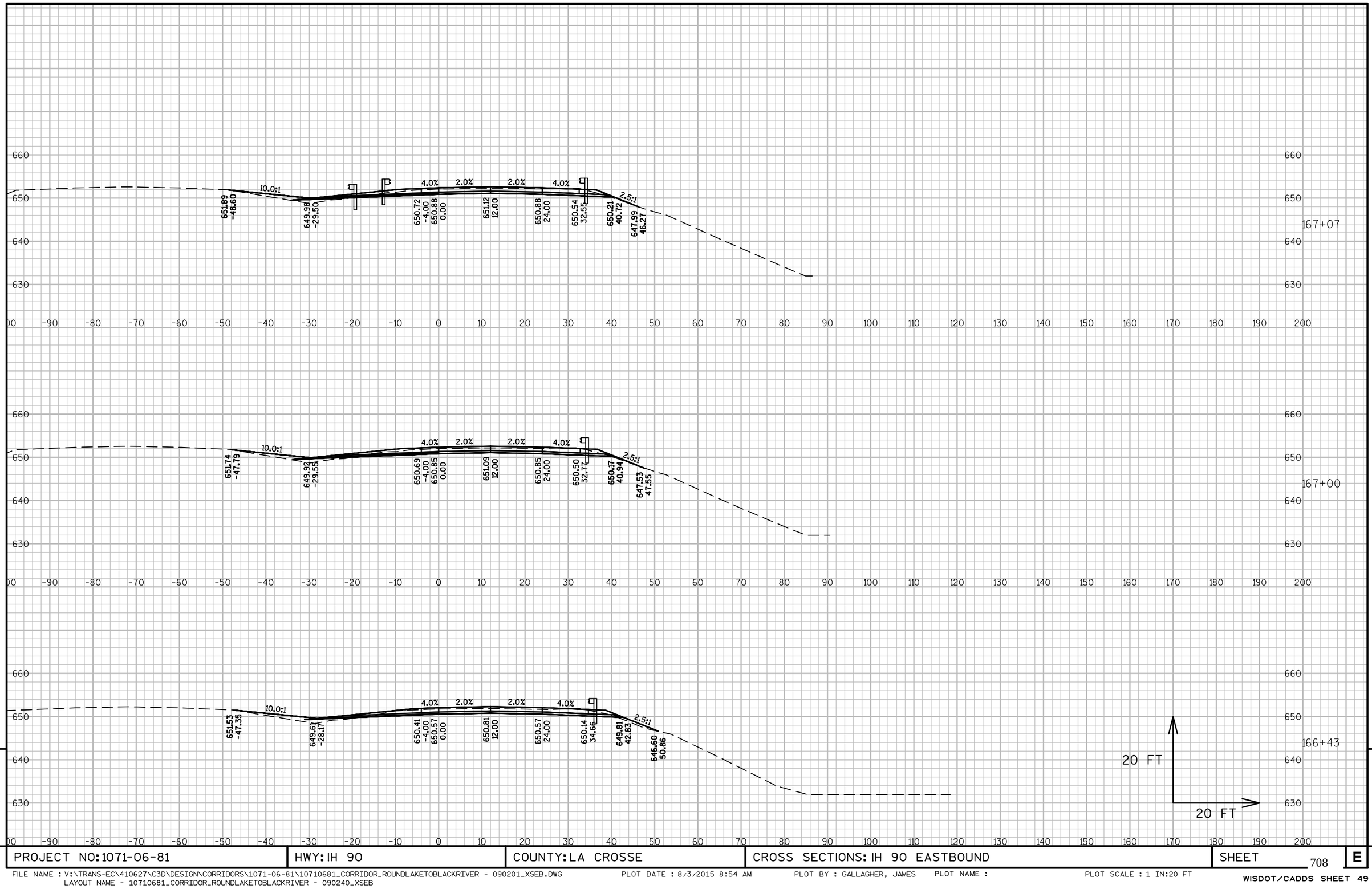
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 707	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090239_XSEB

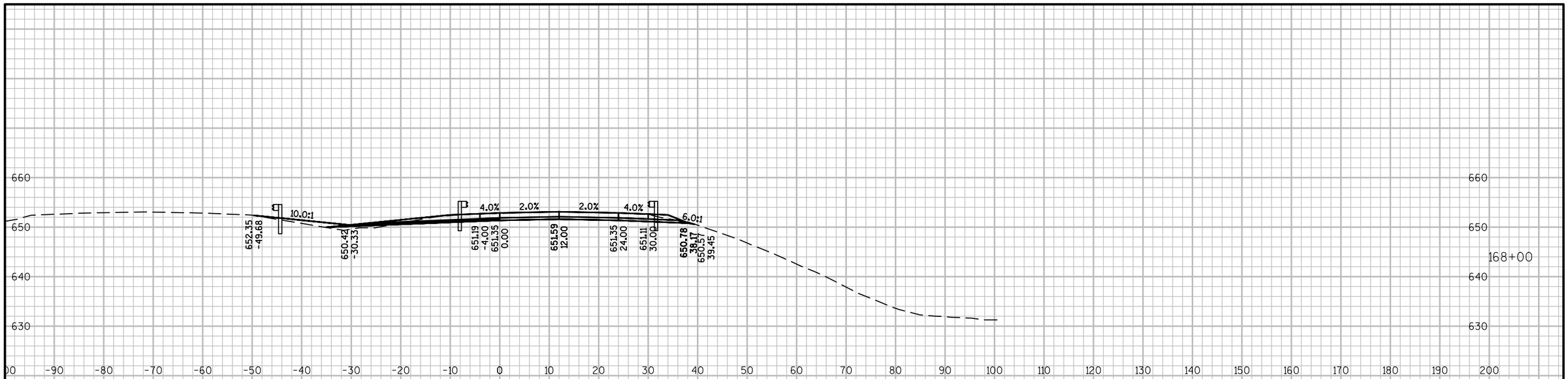
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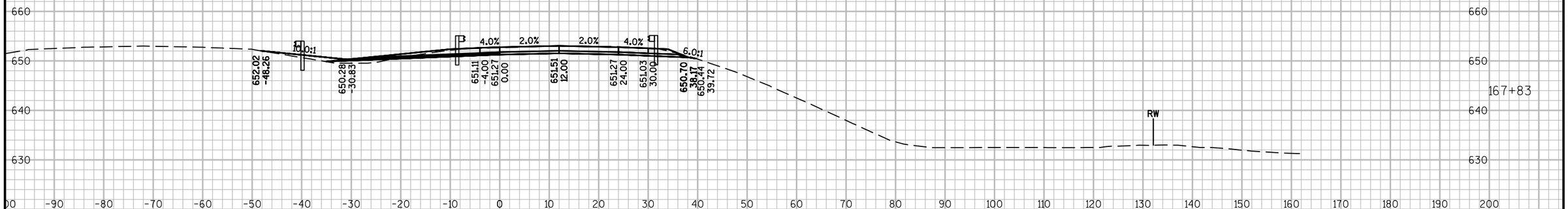


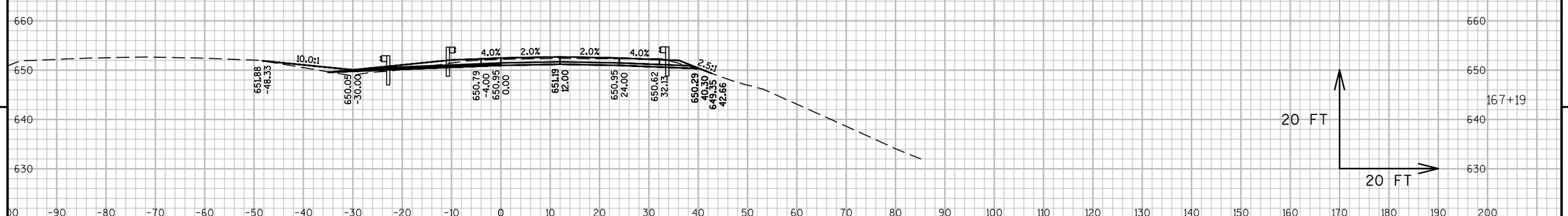
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FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090240_XSEB

PLOT DATE : 8/3/2015 8:54 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT







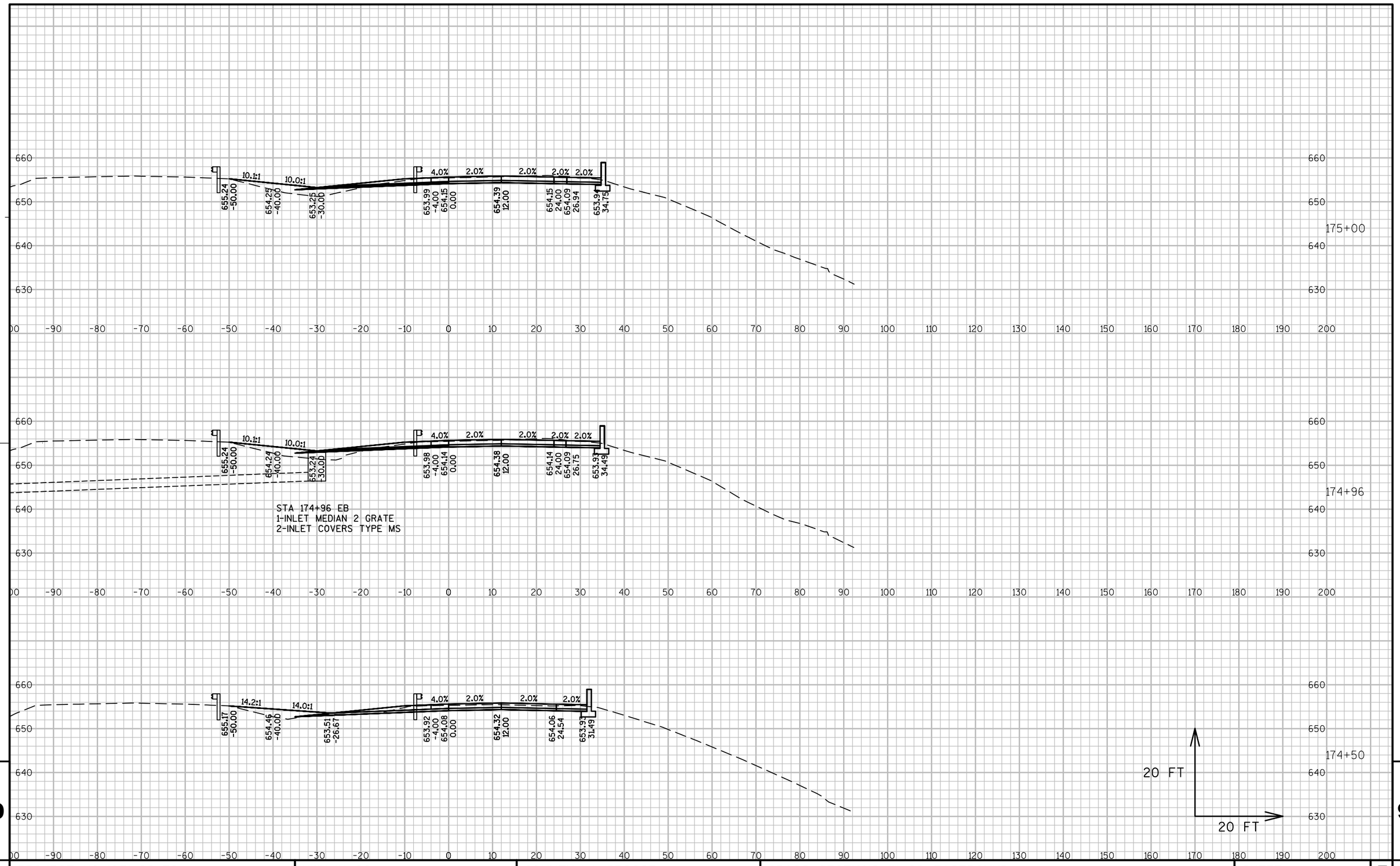
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 709	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090201_XSEB.DWG
LAYOUT NAME - 10710681_CORRIDOR_ROUNDLAKETOBLACKRIVER - 090241_XSEB

PLOT DATE : 8/3/2015 8:55 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



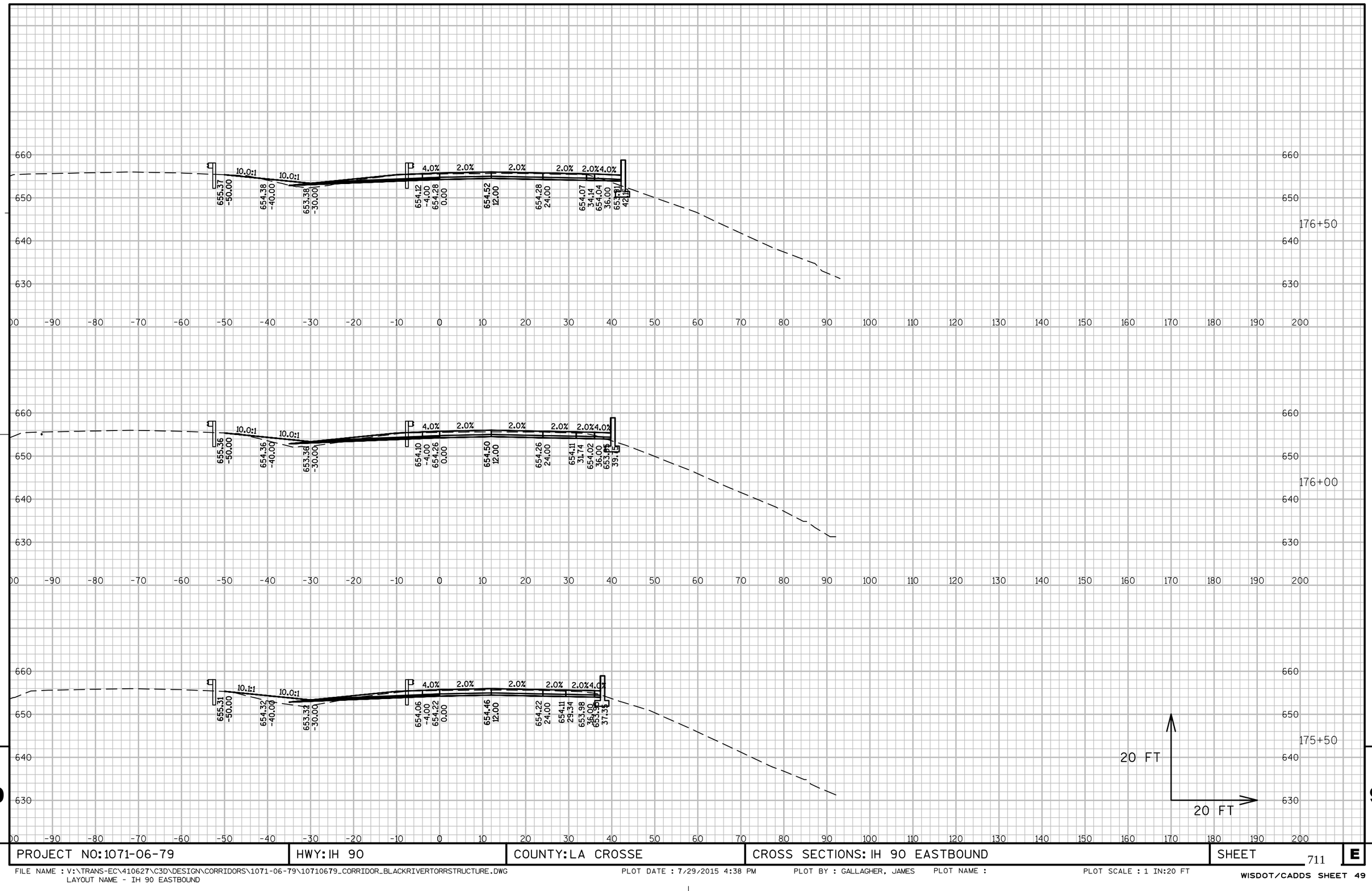
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY:LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 710	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:38 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

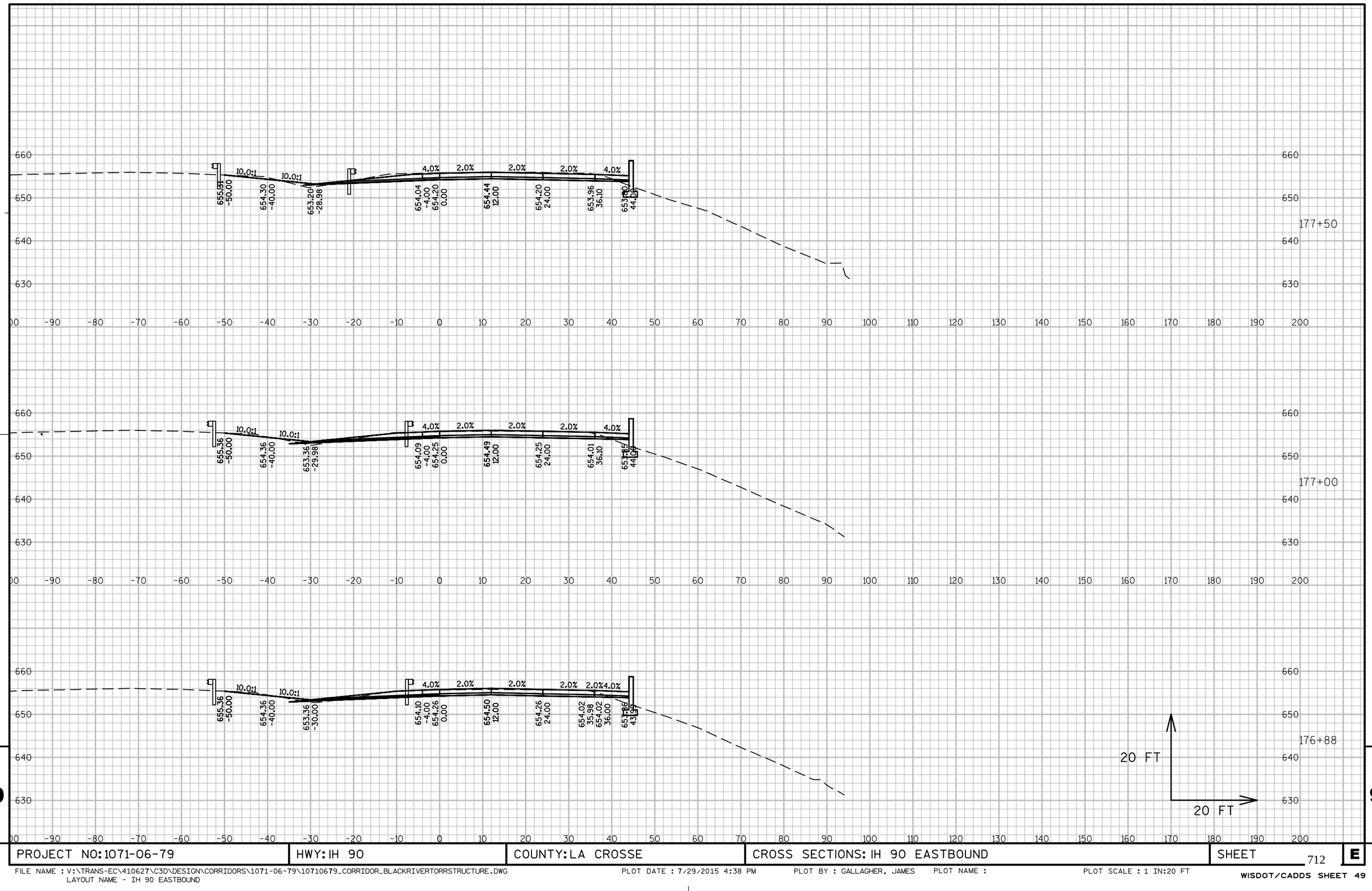


PROJECT NO:1071-06-79	HWY: IH 90	COUNTY:LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 711 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:38 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



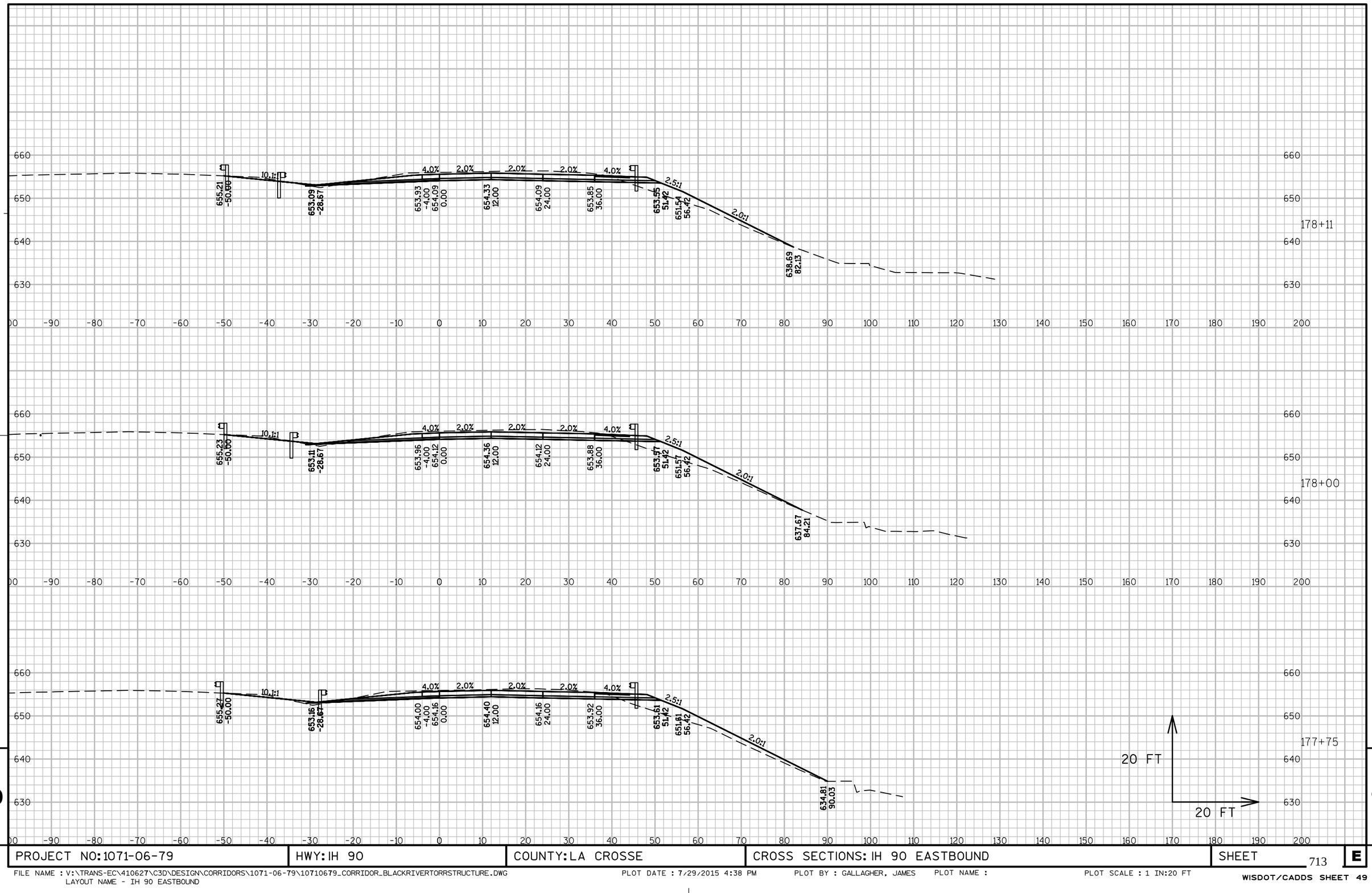
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY:LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 712	E

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LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:38 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



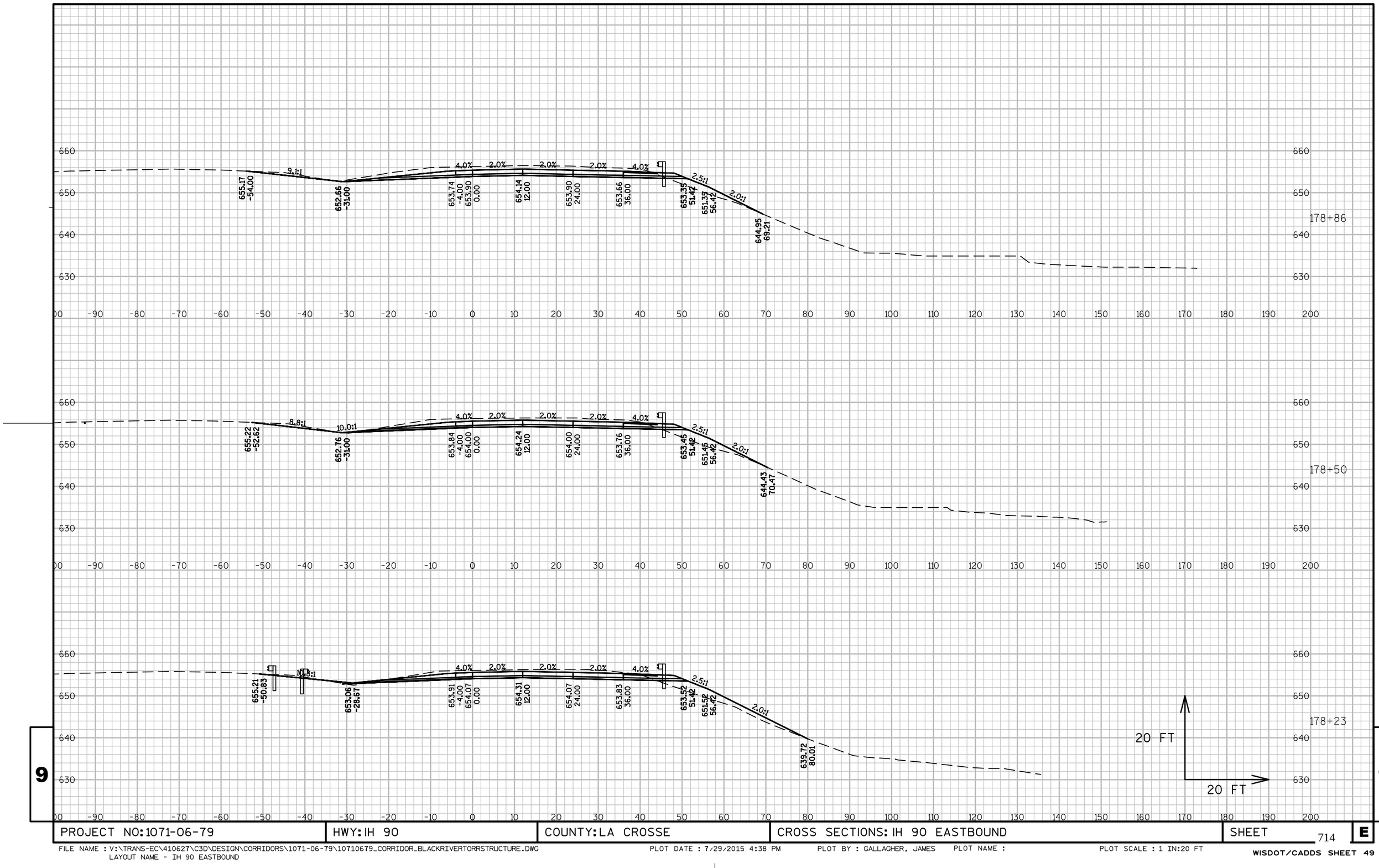
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 713	E

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LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:38 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



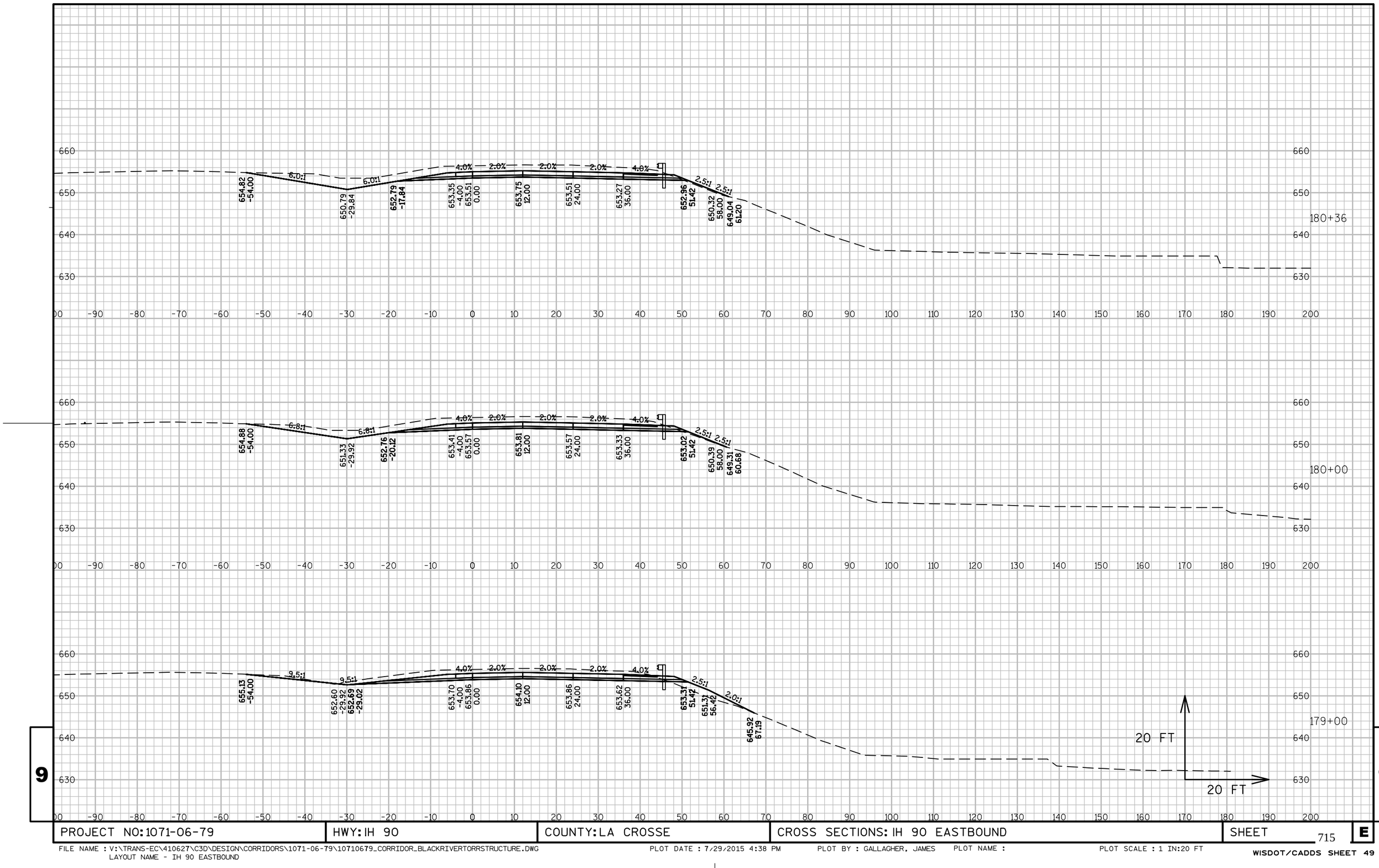
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 714	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:38 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



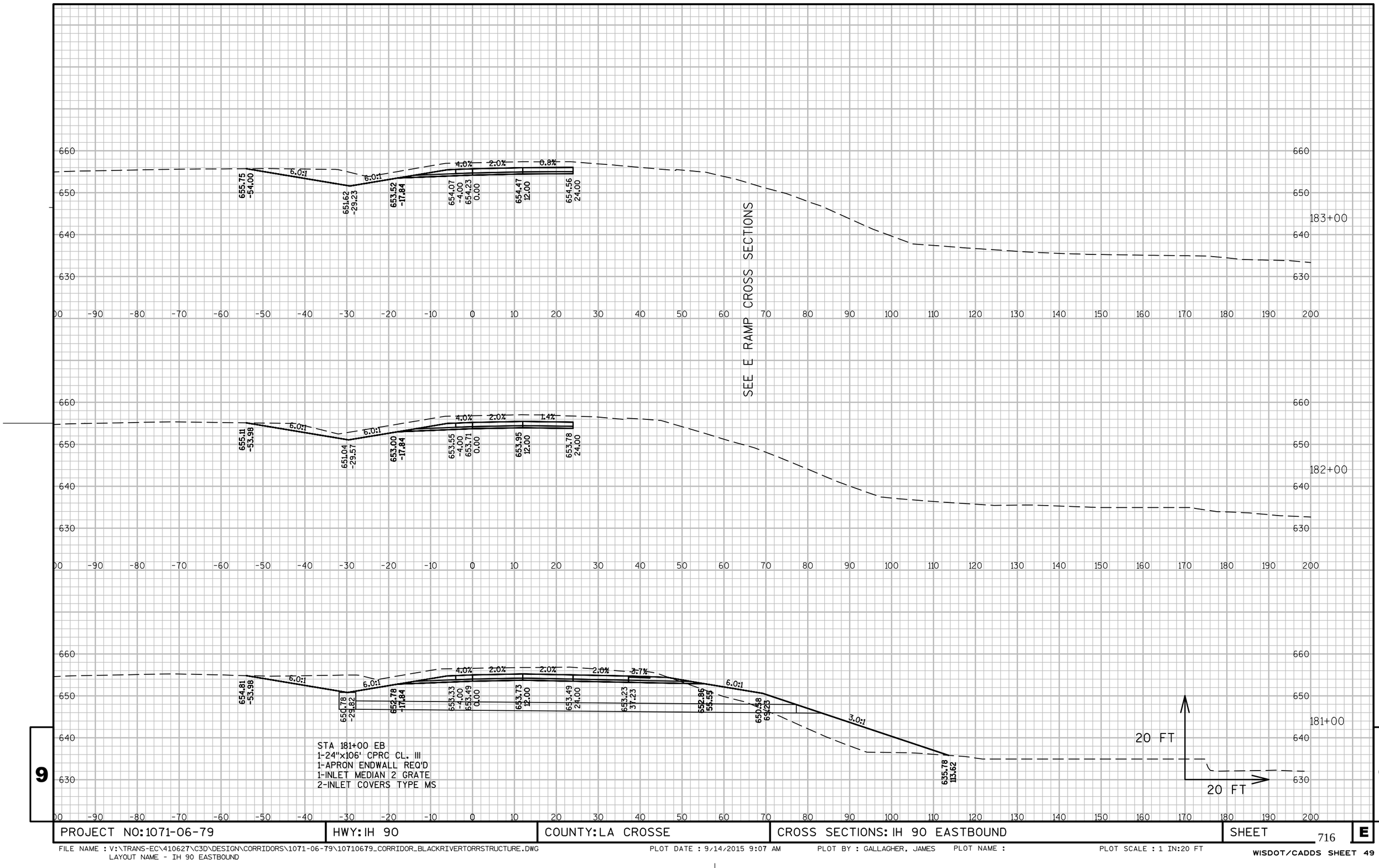
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 715	E

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LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:38 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



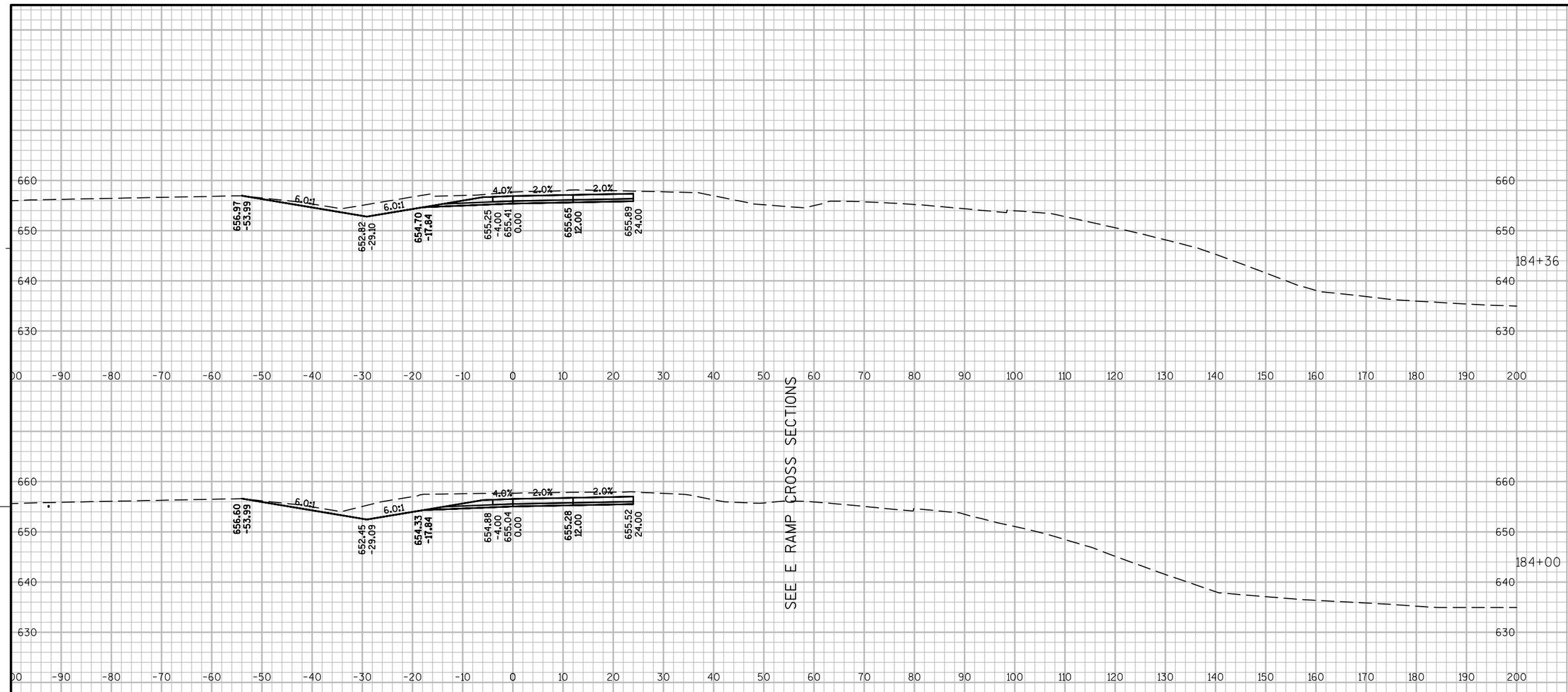
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FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 9/14/2015 9:07 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

SEE E RAMP CROSS SECTIONS



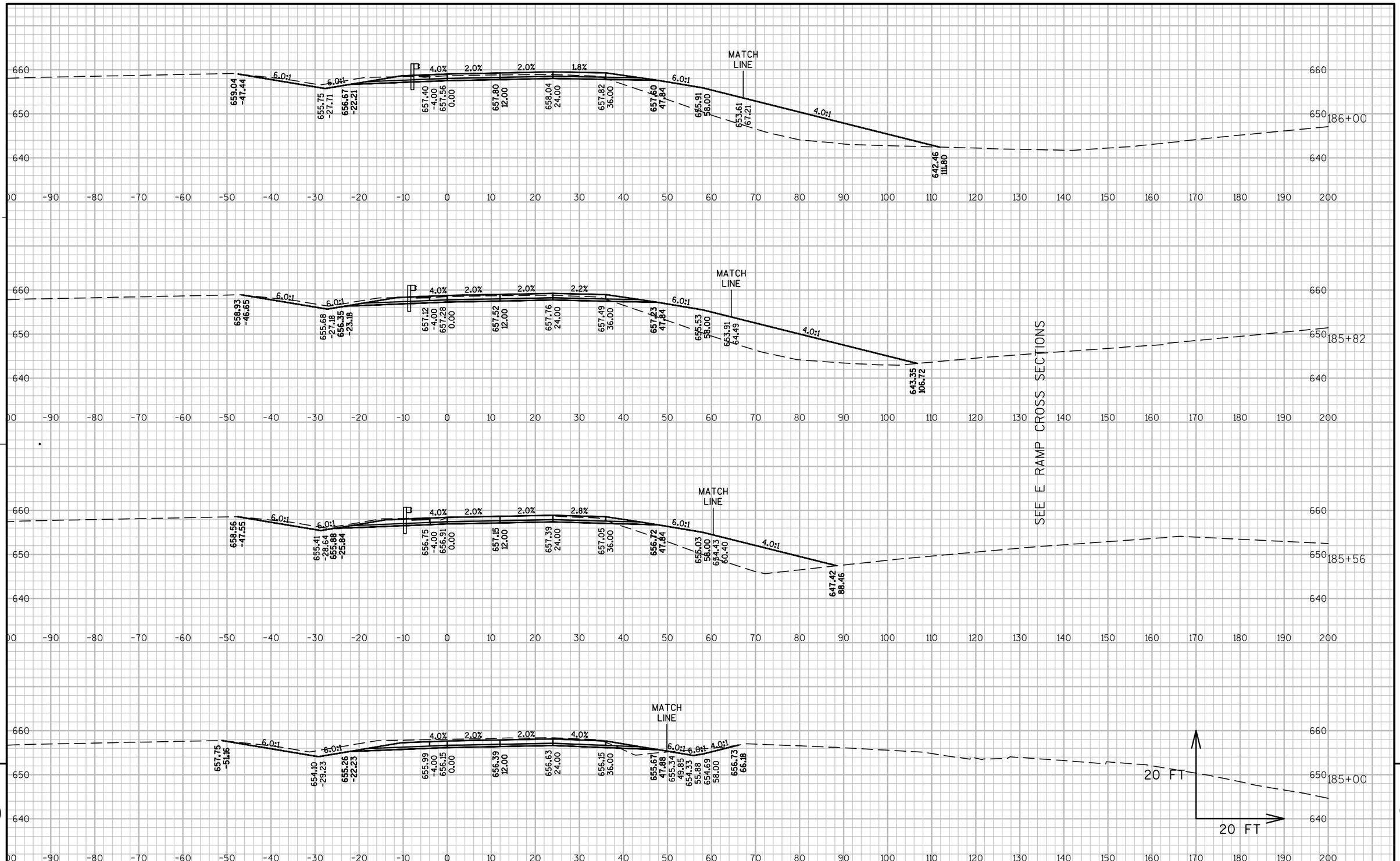
STA 183+96 EB
1-24"x12' CPRC CL. III
1-INLET MEDIAN 2 GRATE
2-INLET COVERS TYPE MS

20 FT
20 FT

9 9

PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 717 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND
PLOT DATE : 7/29/2015 4:39 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

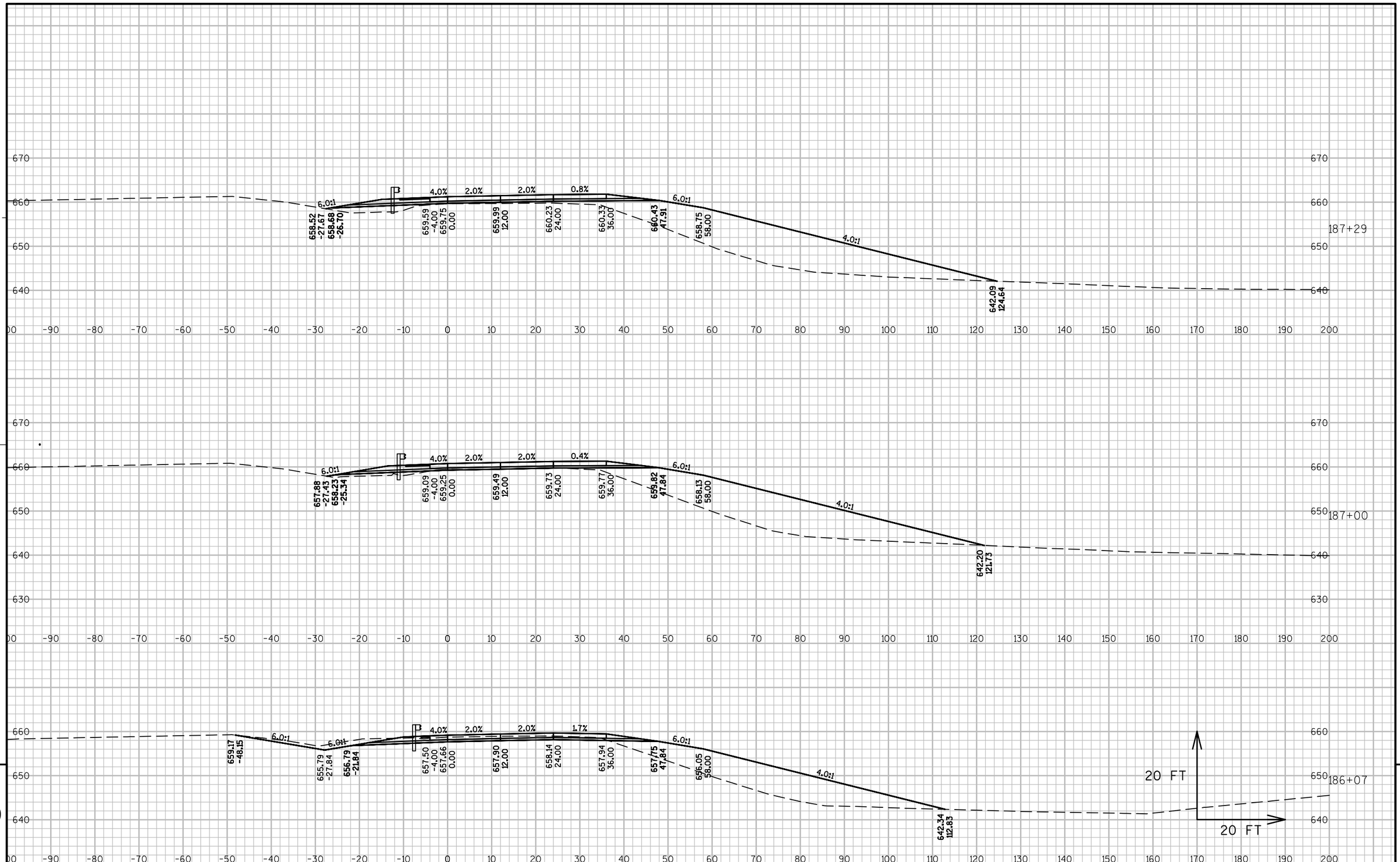


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 718 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:39 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



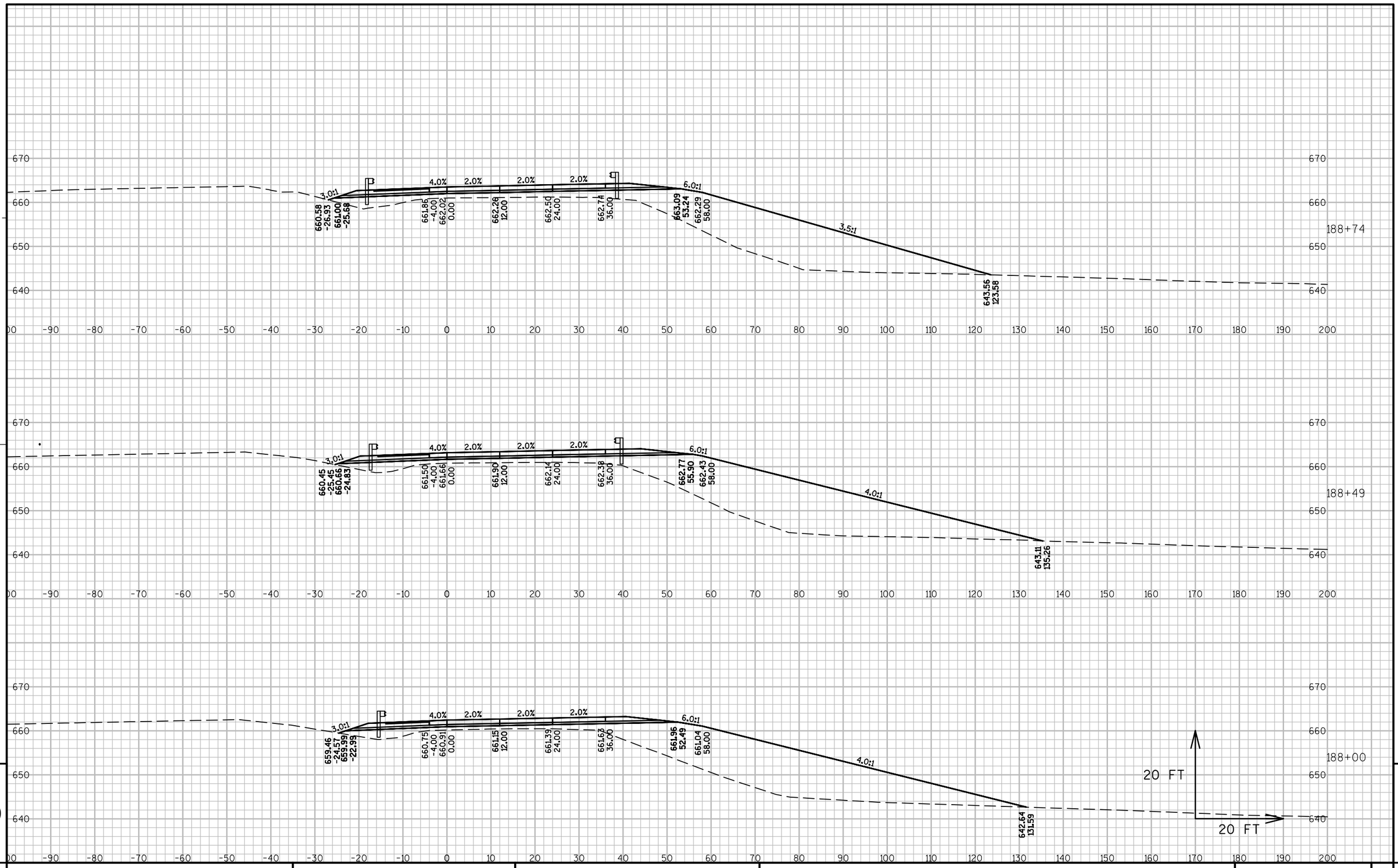
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 719 E

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LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:39 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

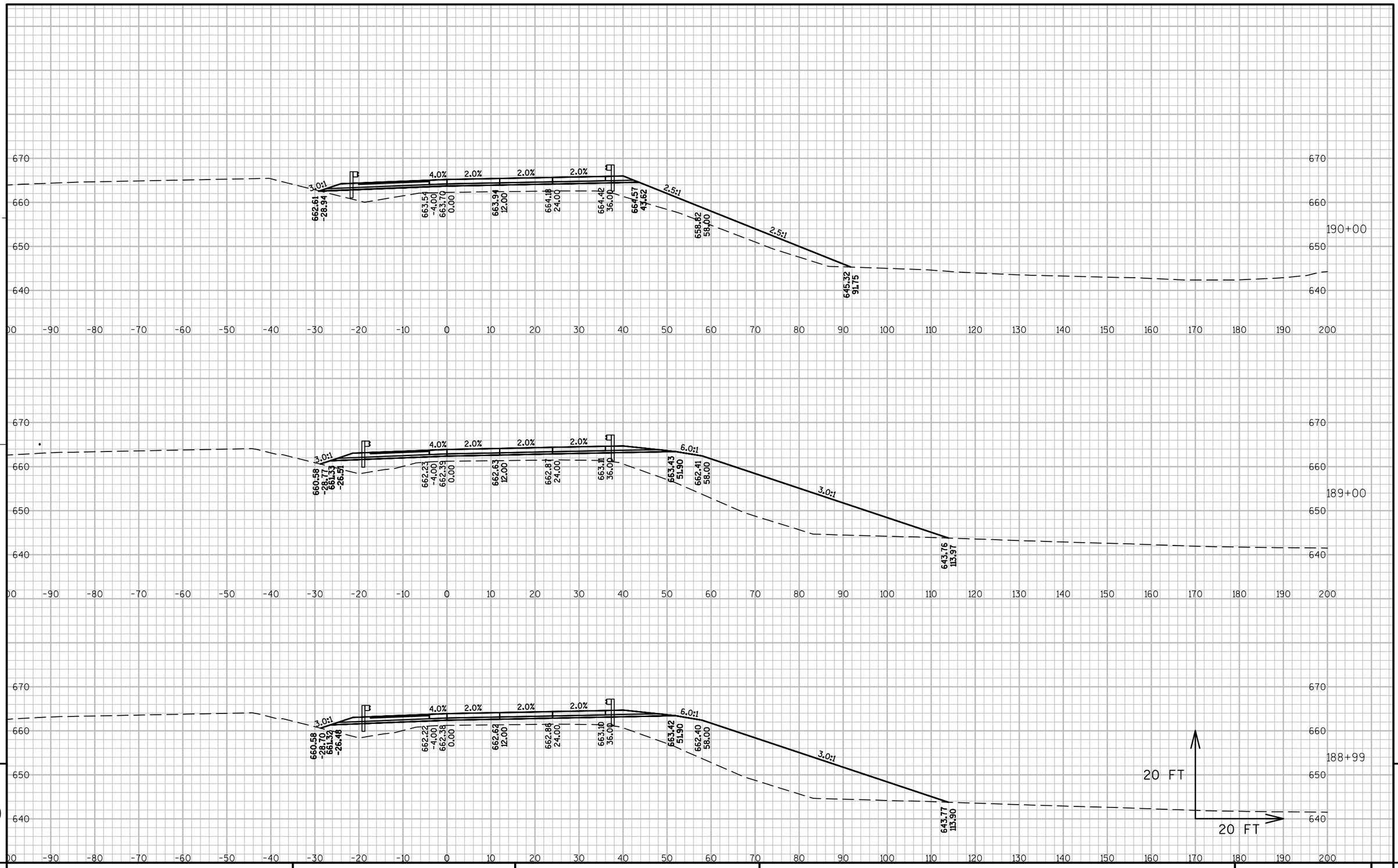


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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 720	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:39 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



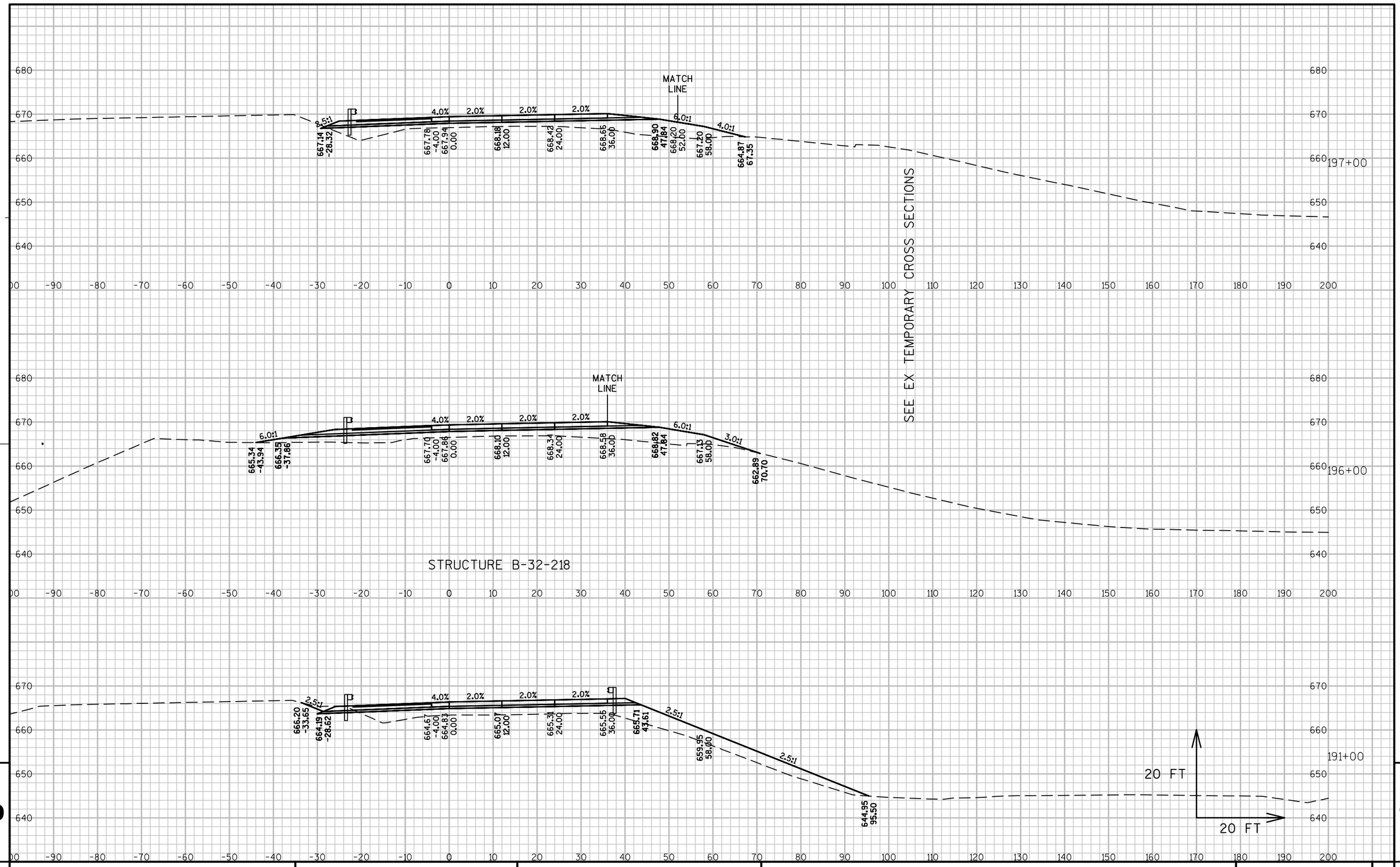
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 721	E

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LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:39 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



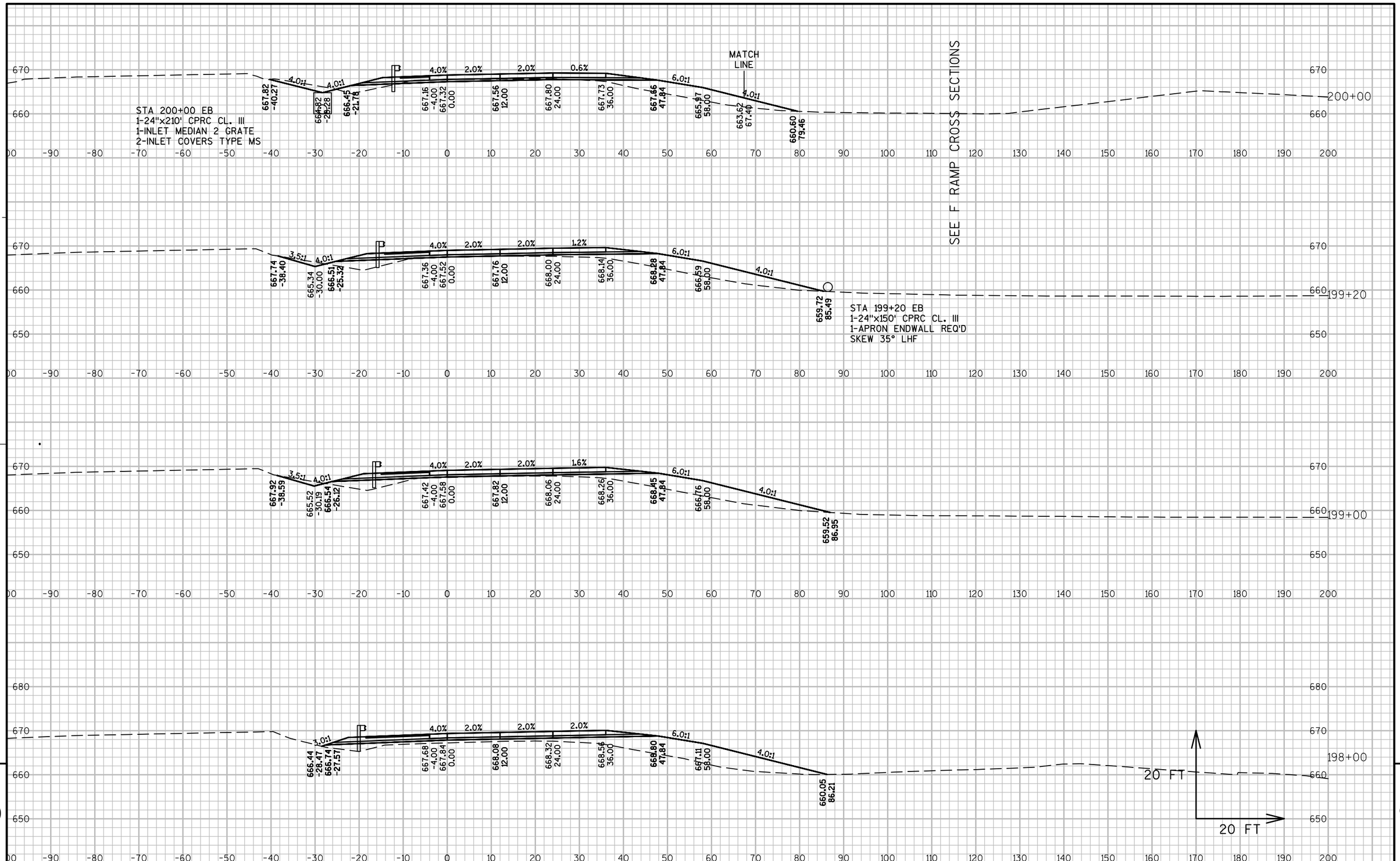
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 722	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:39 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 723 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:39 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

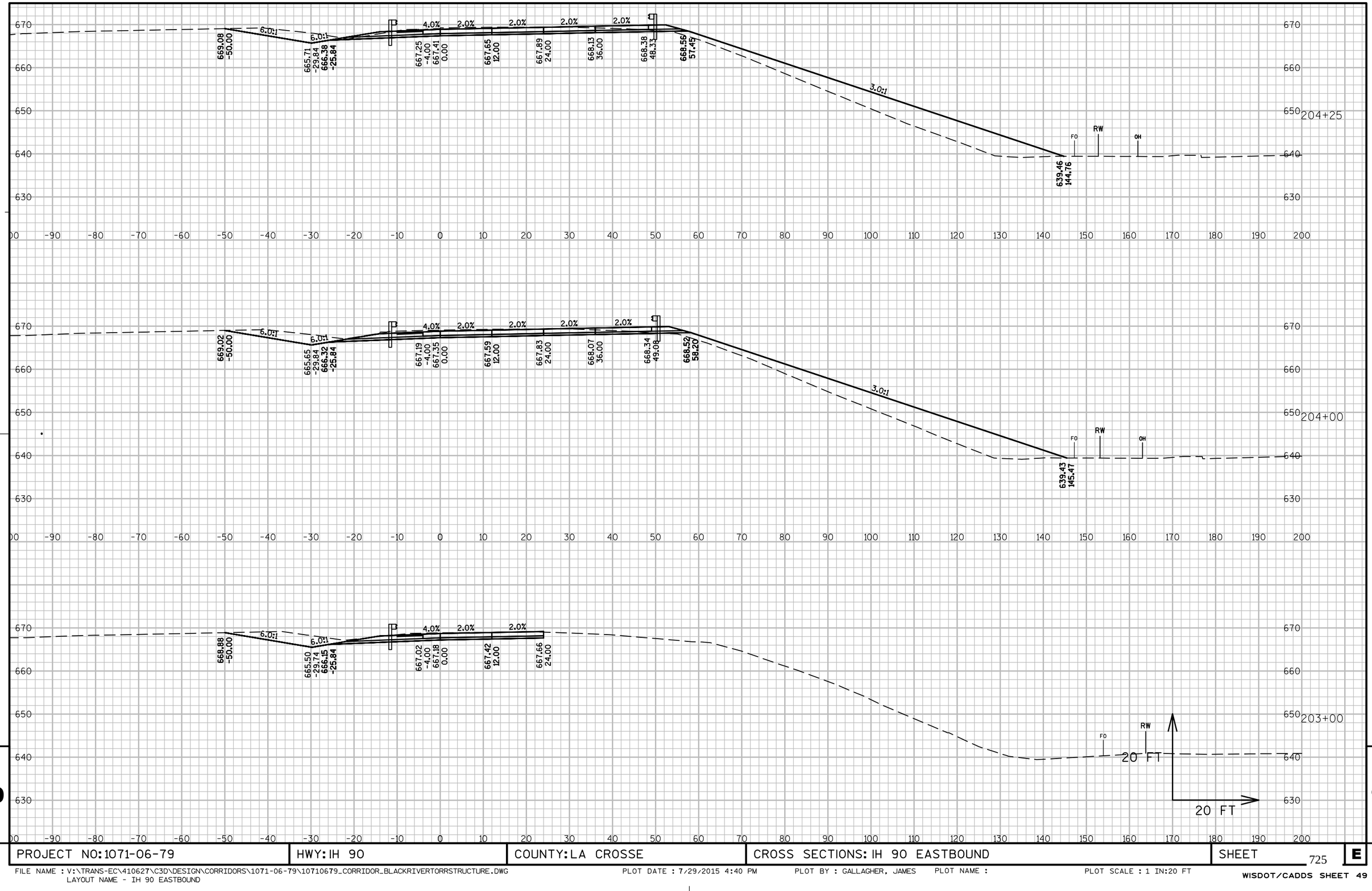
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 724	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:39 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



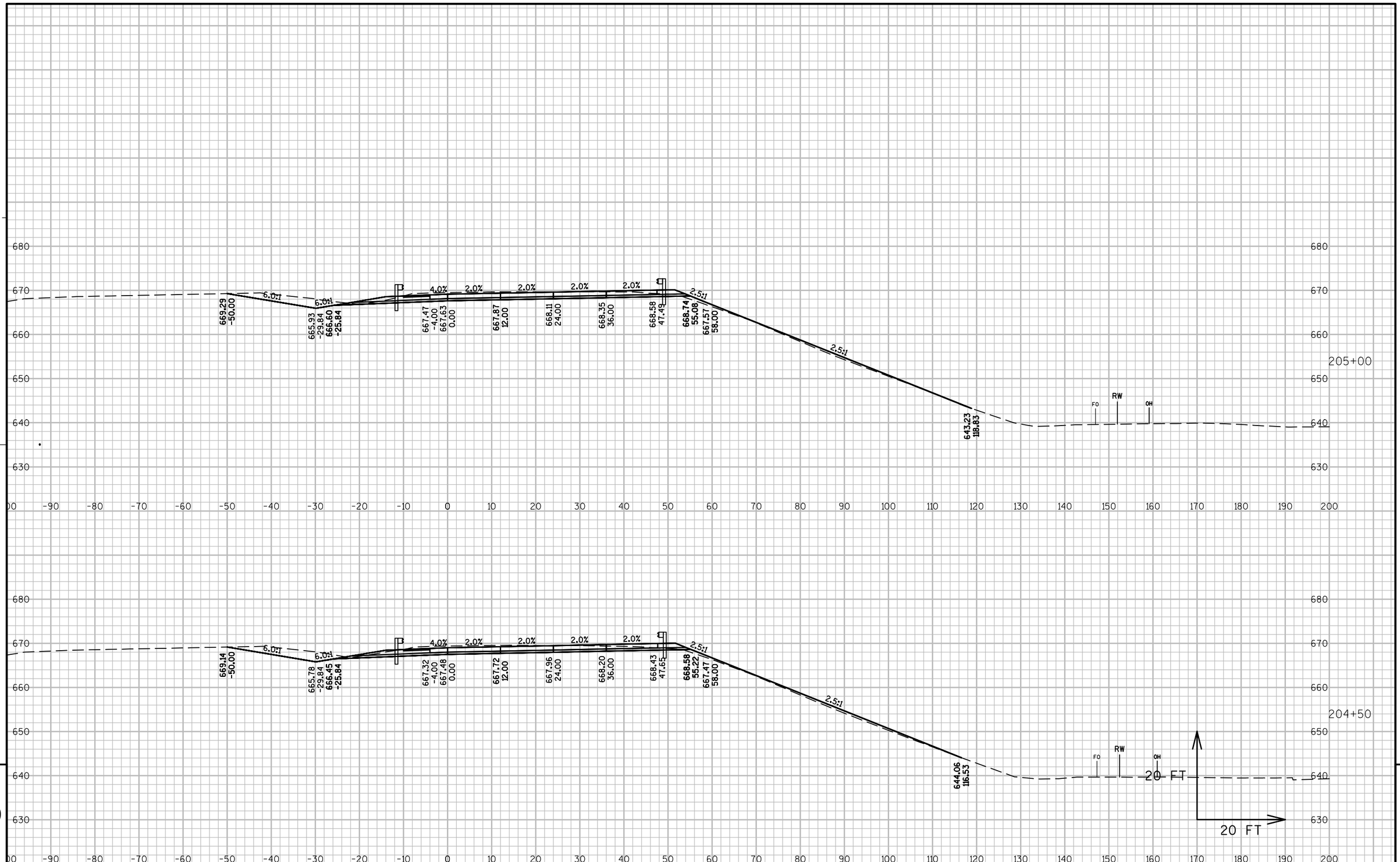
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 725	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:40 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

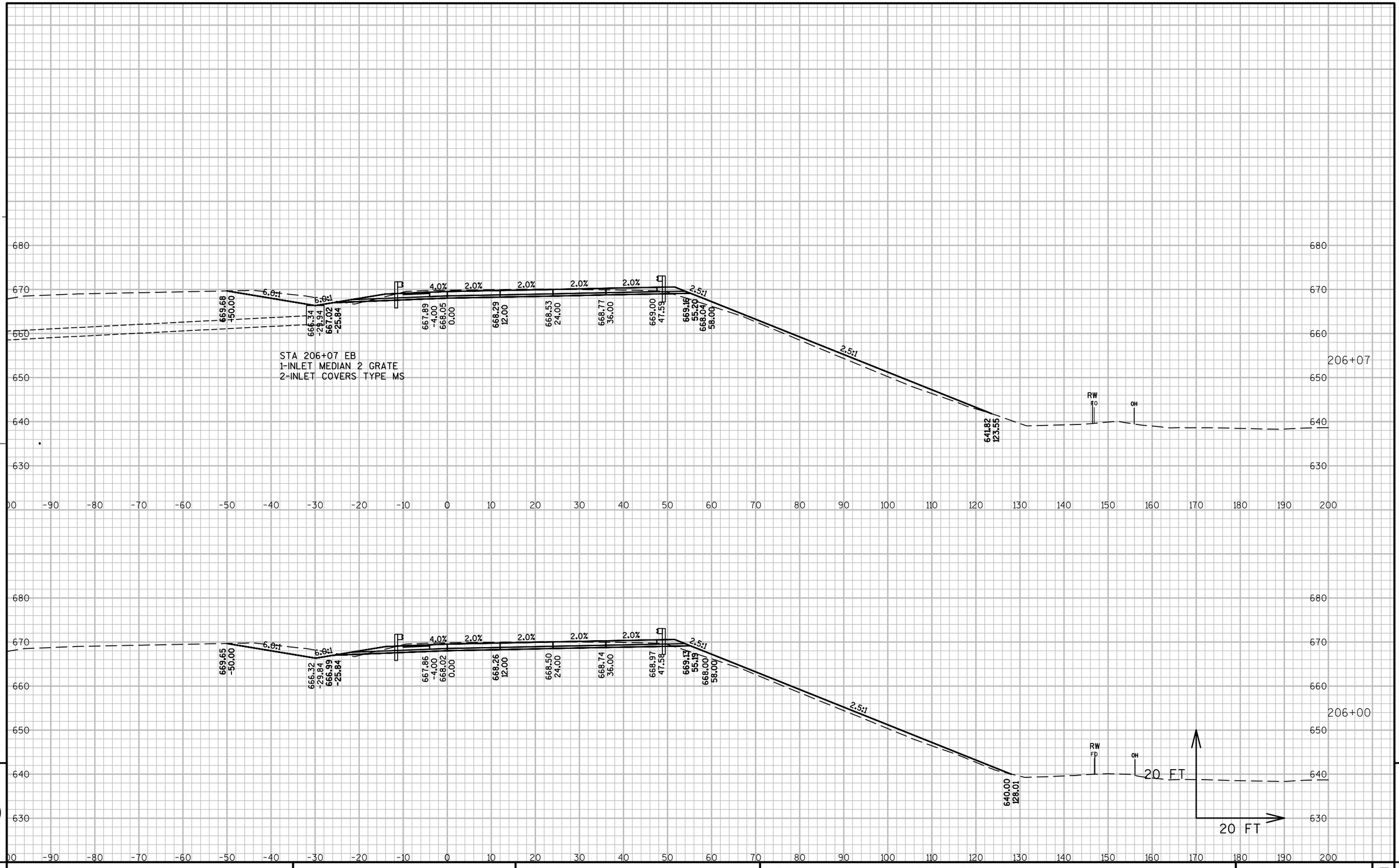


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 726 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:40 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

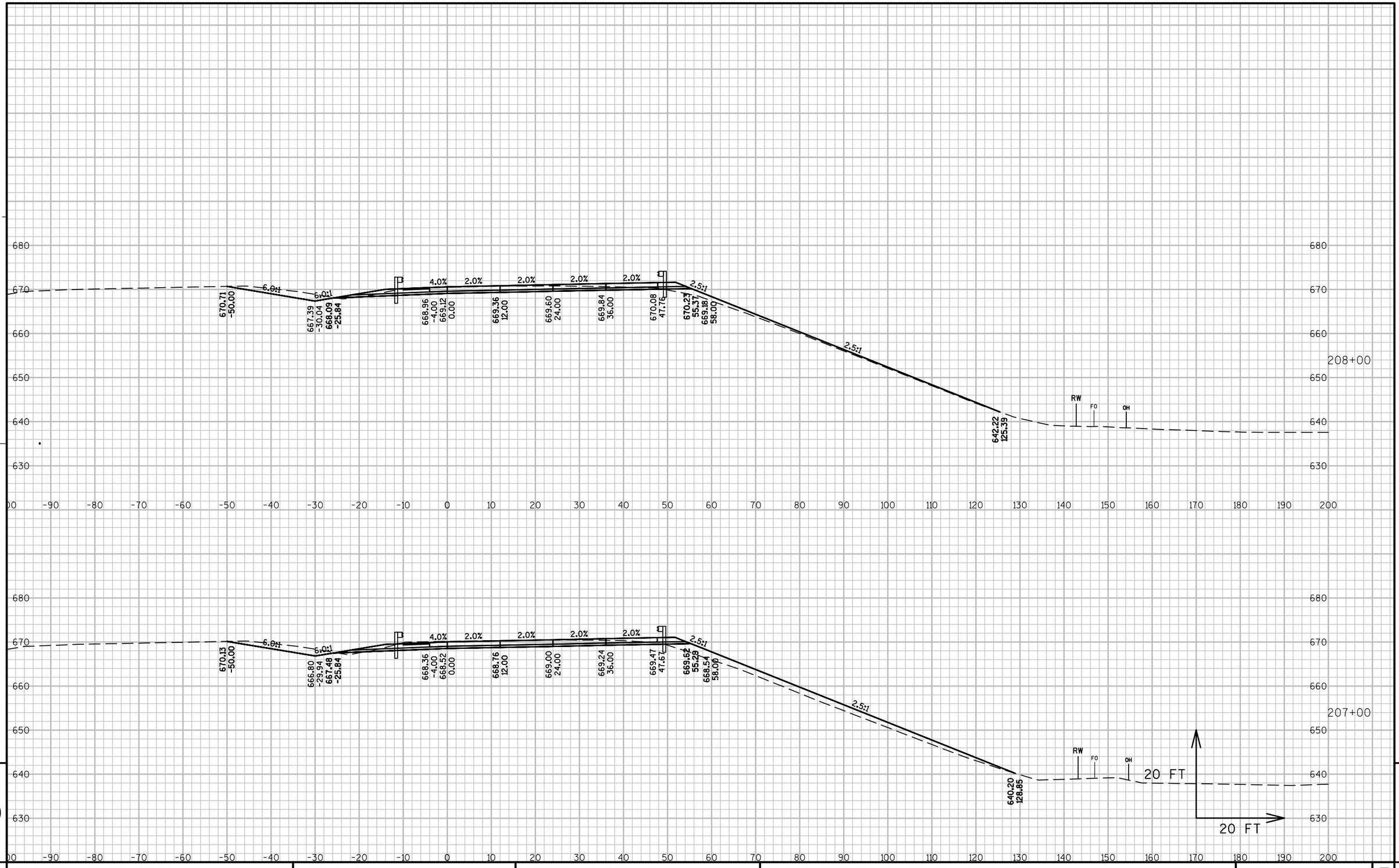
WISDOT/CADDS SHEET 49



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 727	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

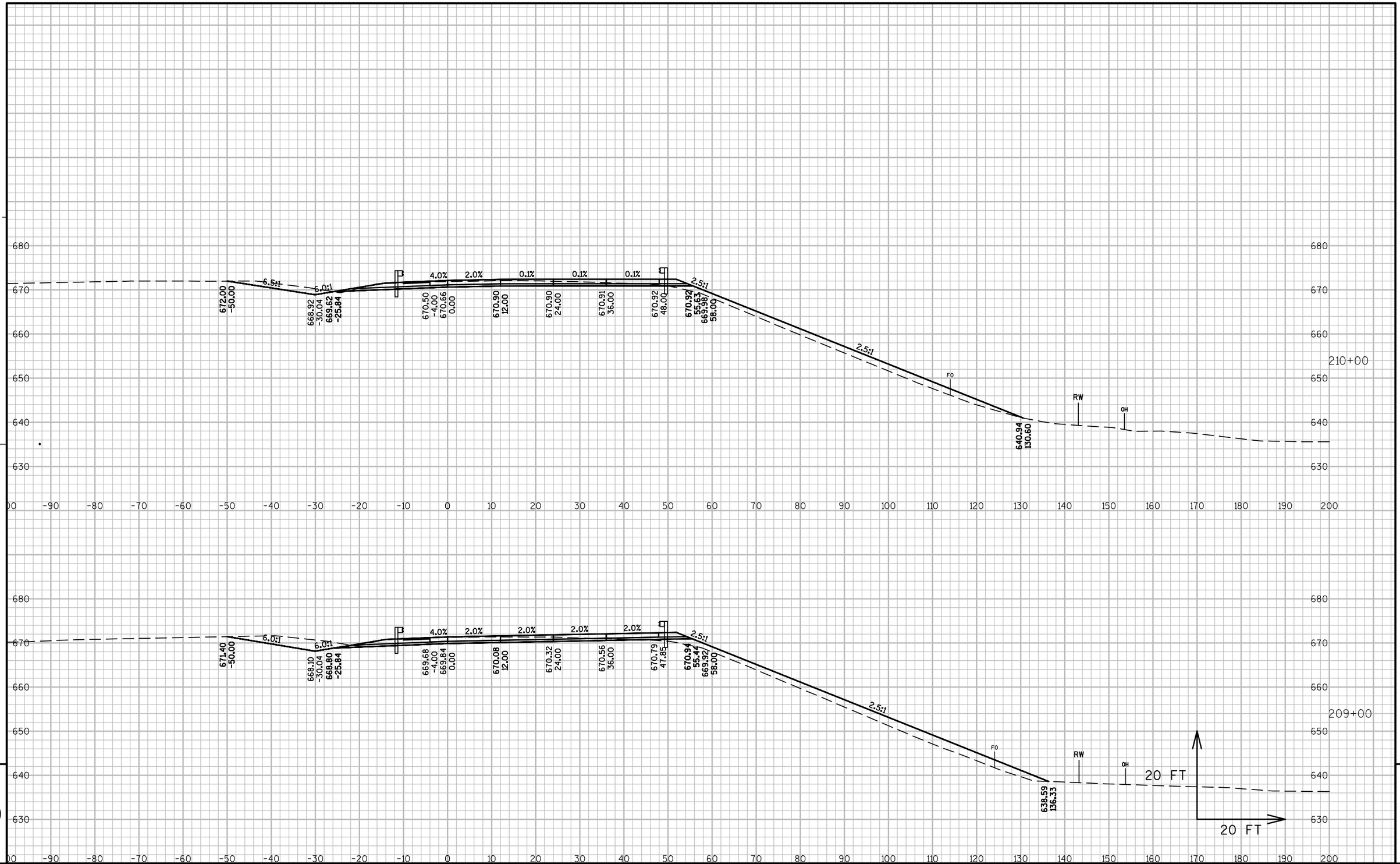
PLOT DATE : 7/29/2015 4:40 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 728 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:40 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

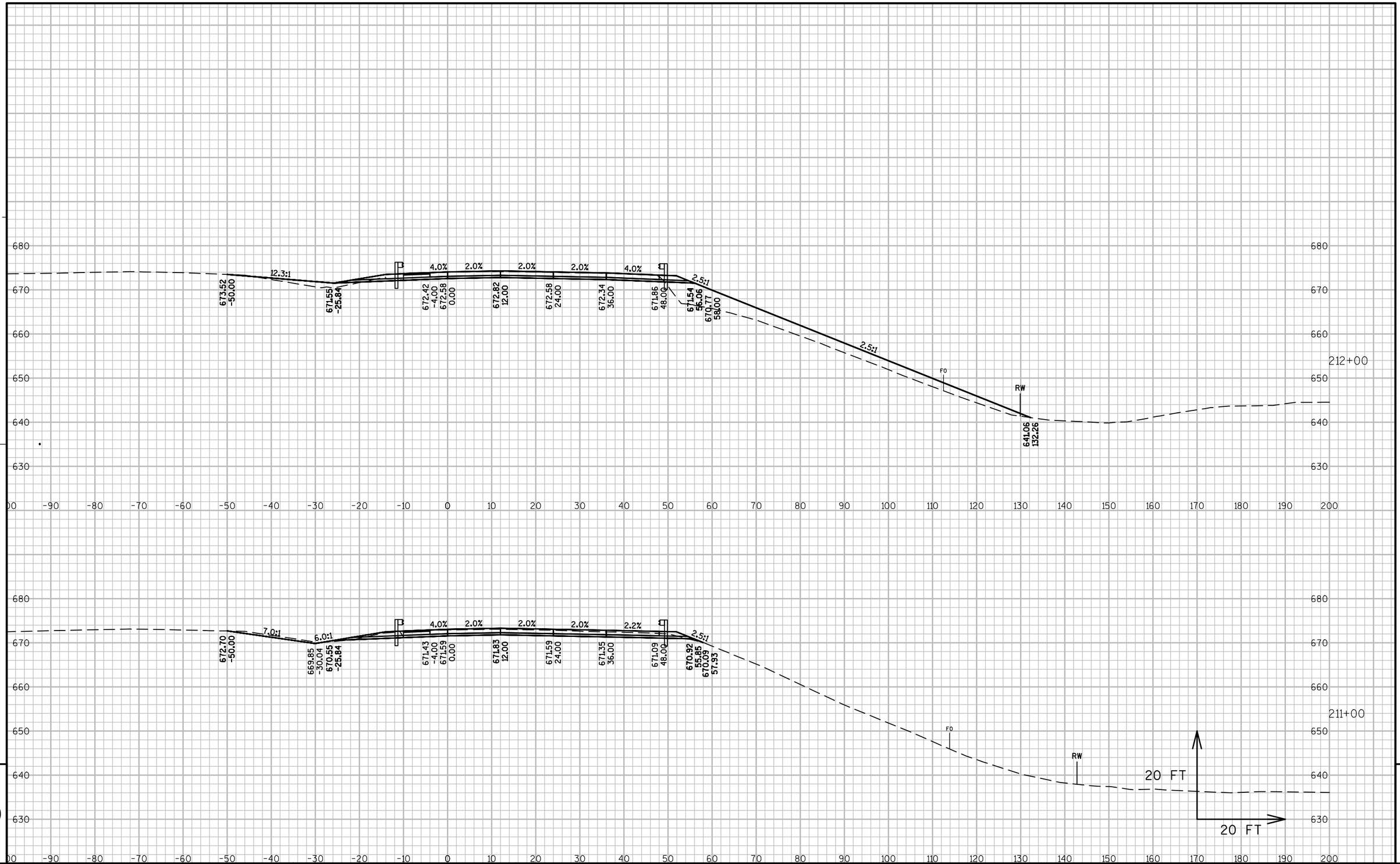


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 729	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:40 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 730	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_BLACKRIVERTORRSTRUCTURE.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:40 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

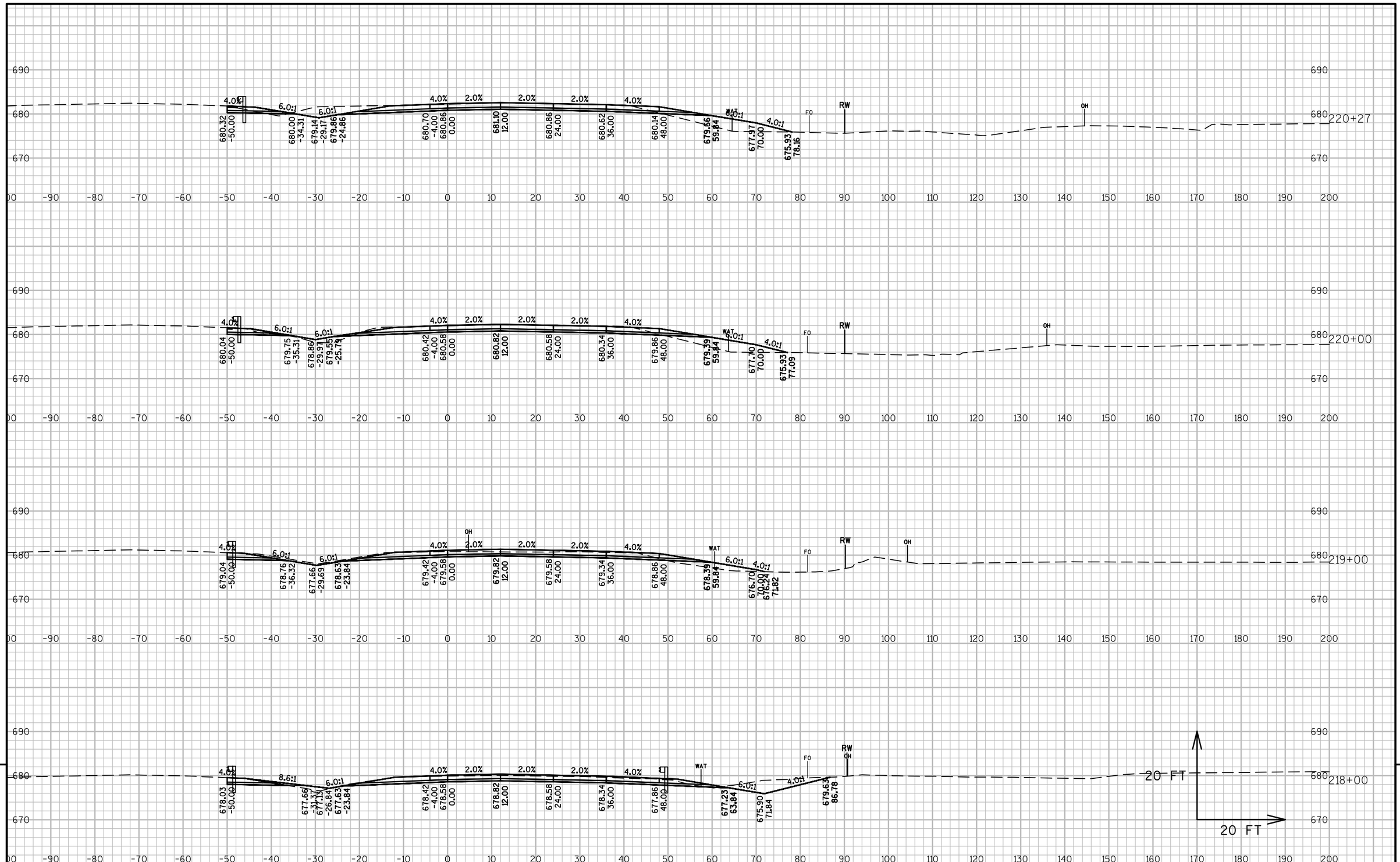
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 731	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:41 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

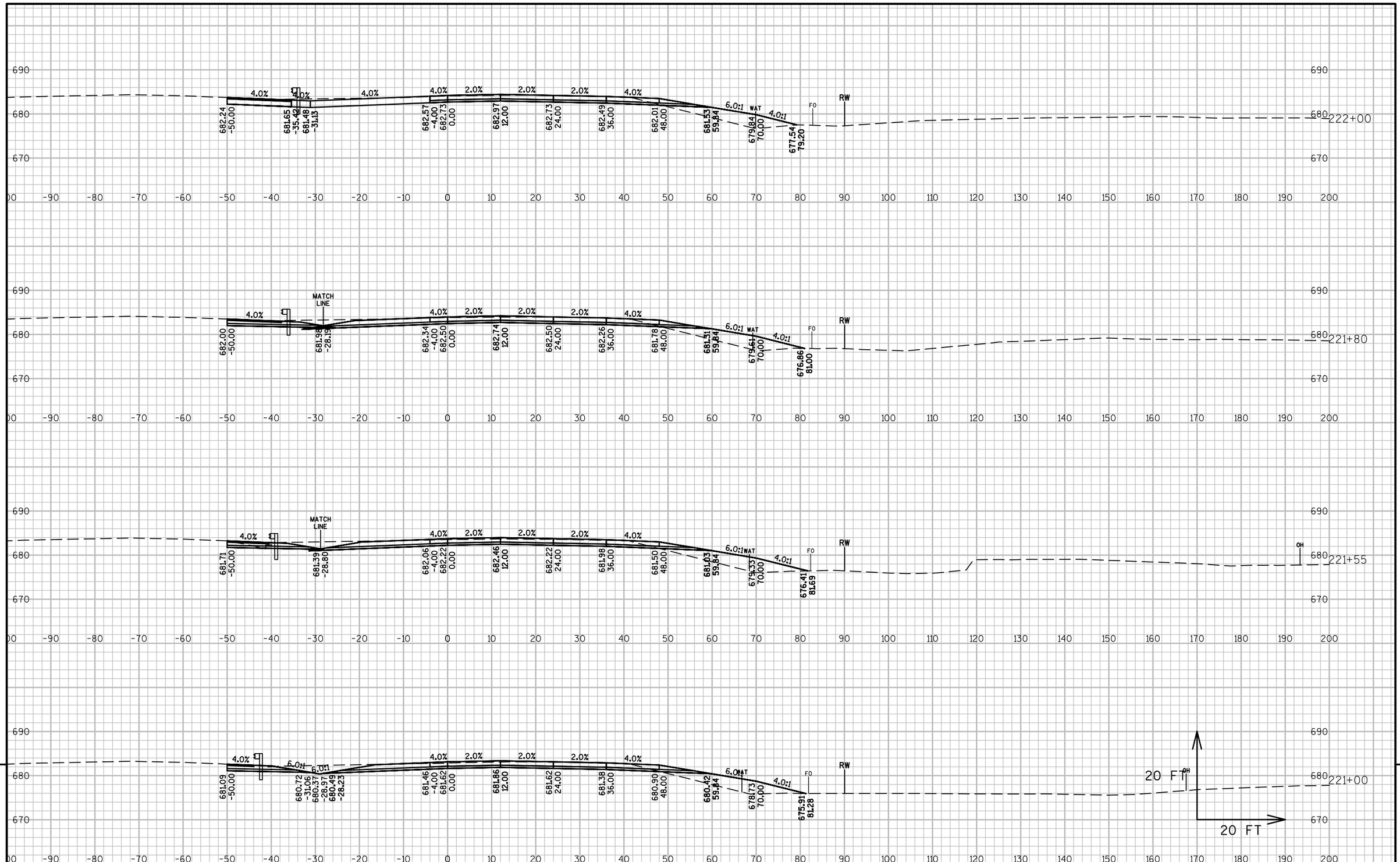


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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 732 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:41 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



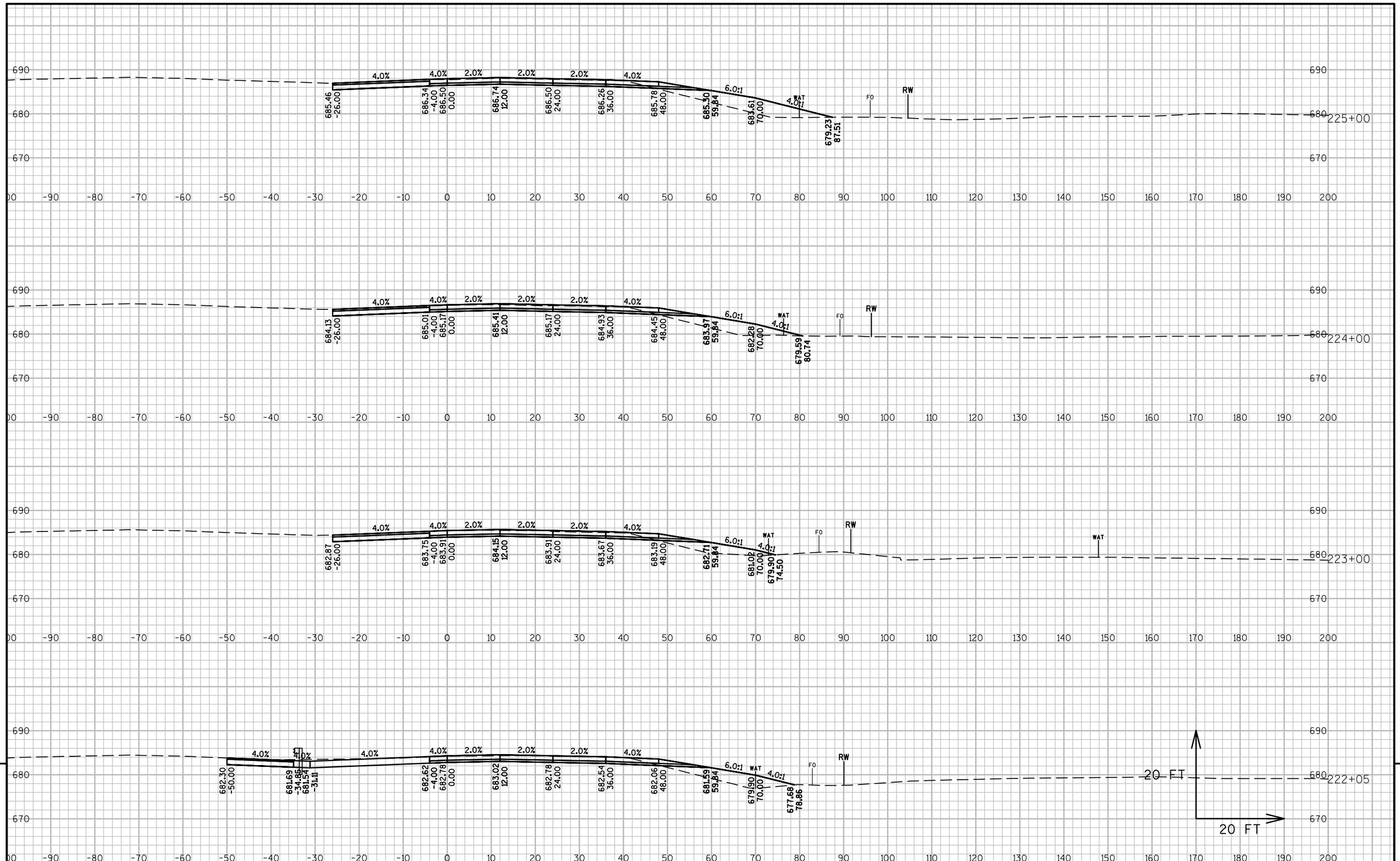
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 733	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:41 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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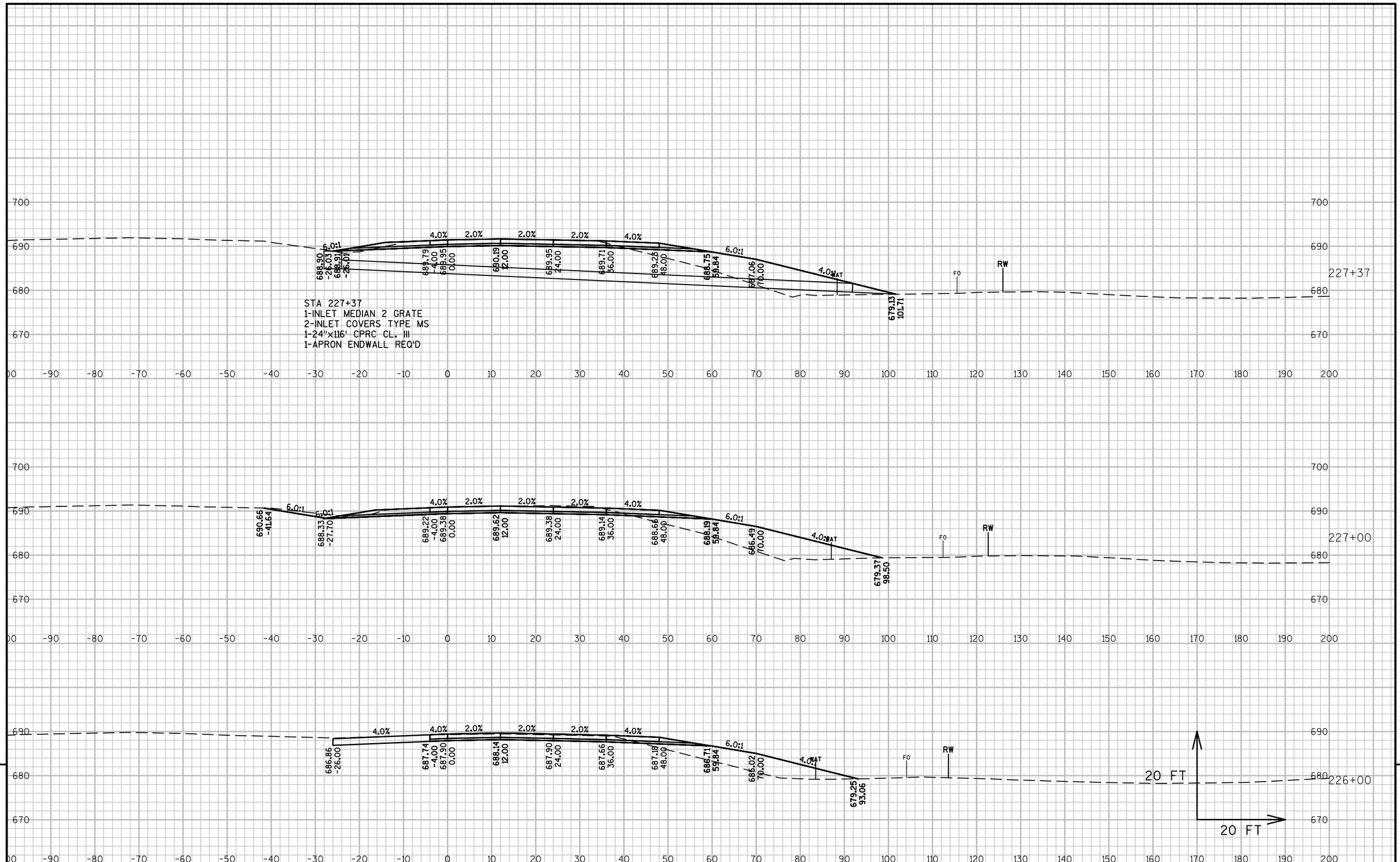
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 734	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:42 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



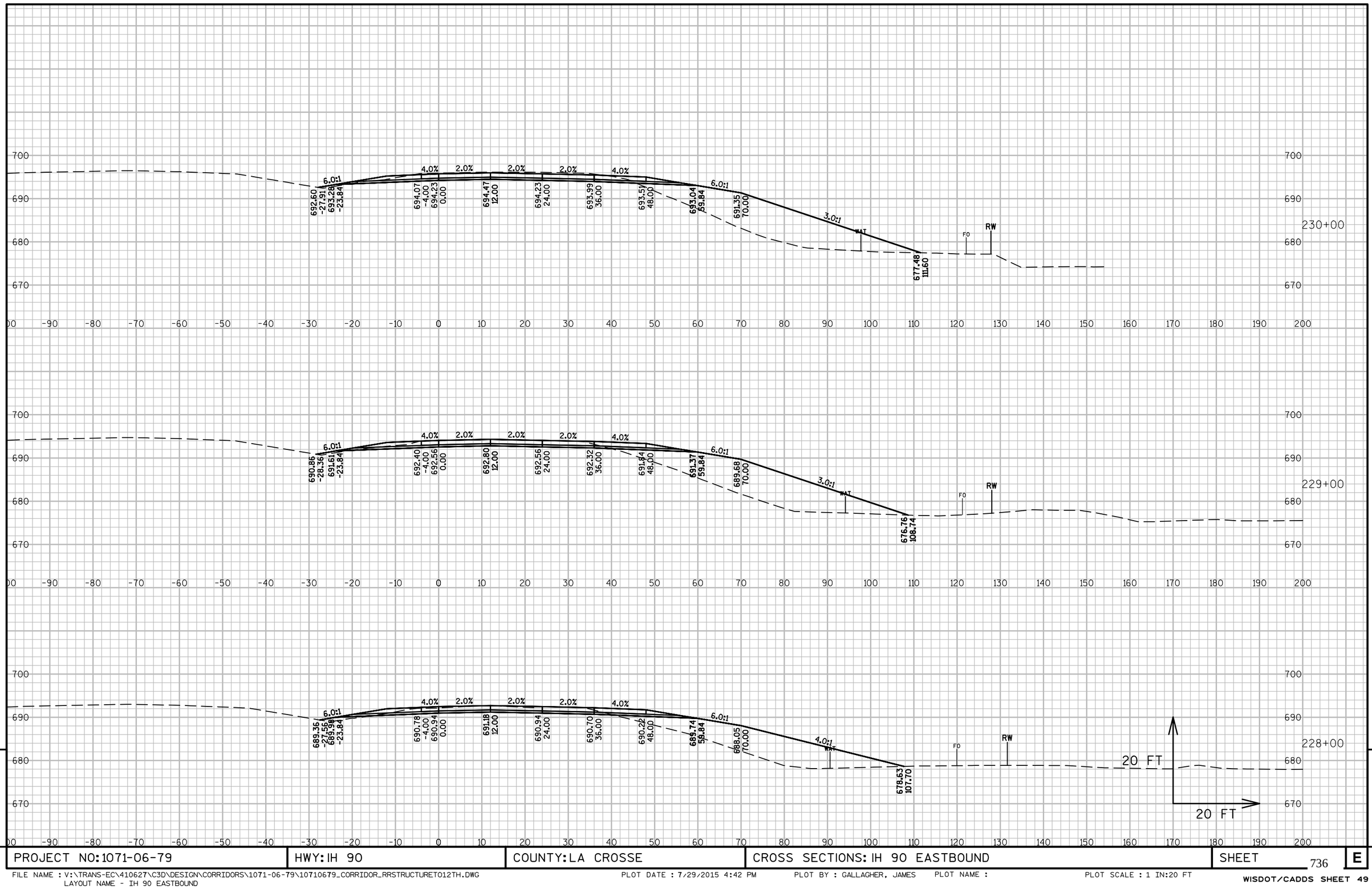
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 735 E

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FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:42 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



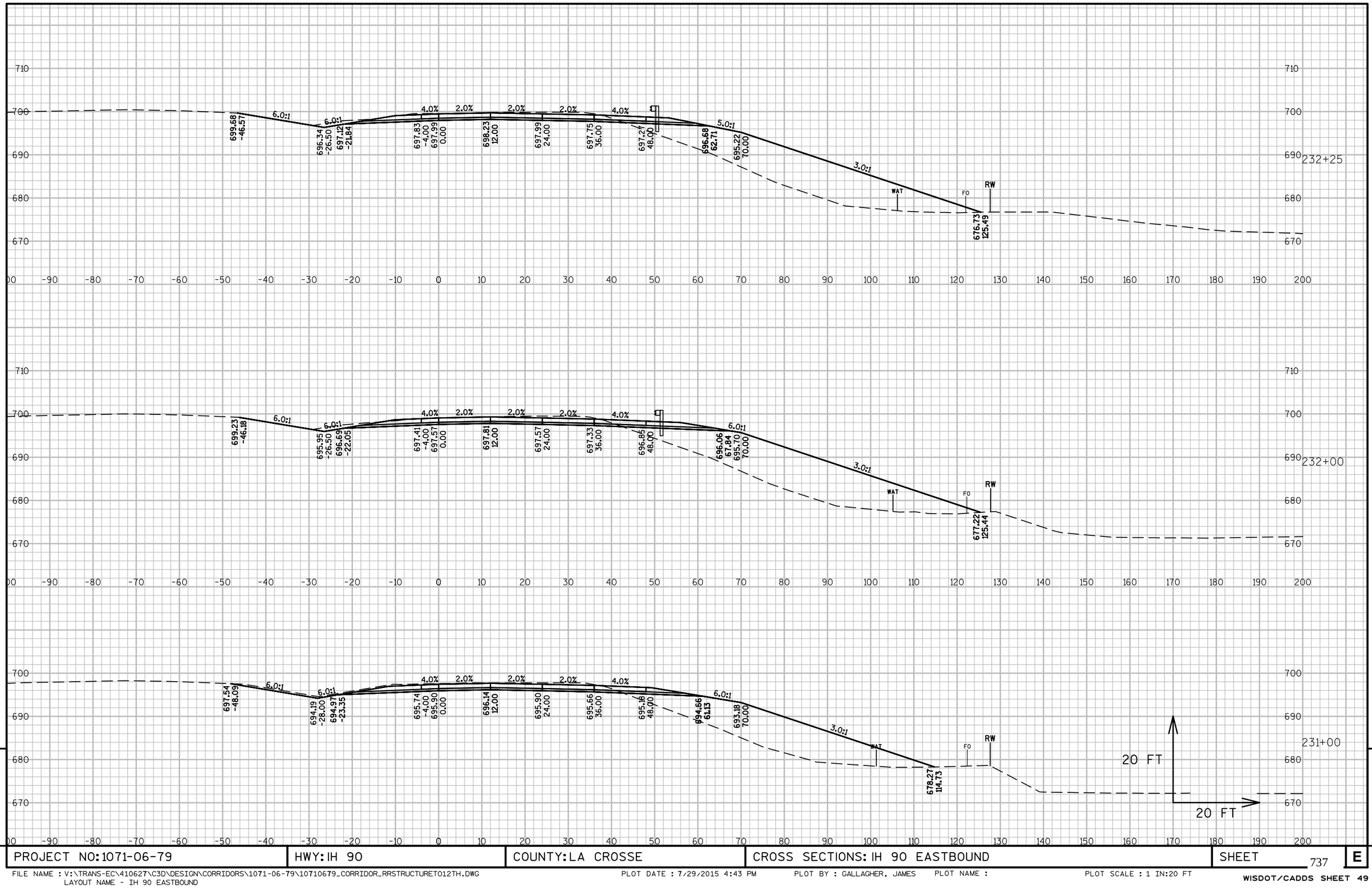
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 736	E

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FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:42 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



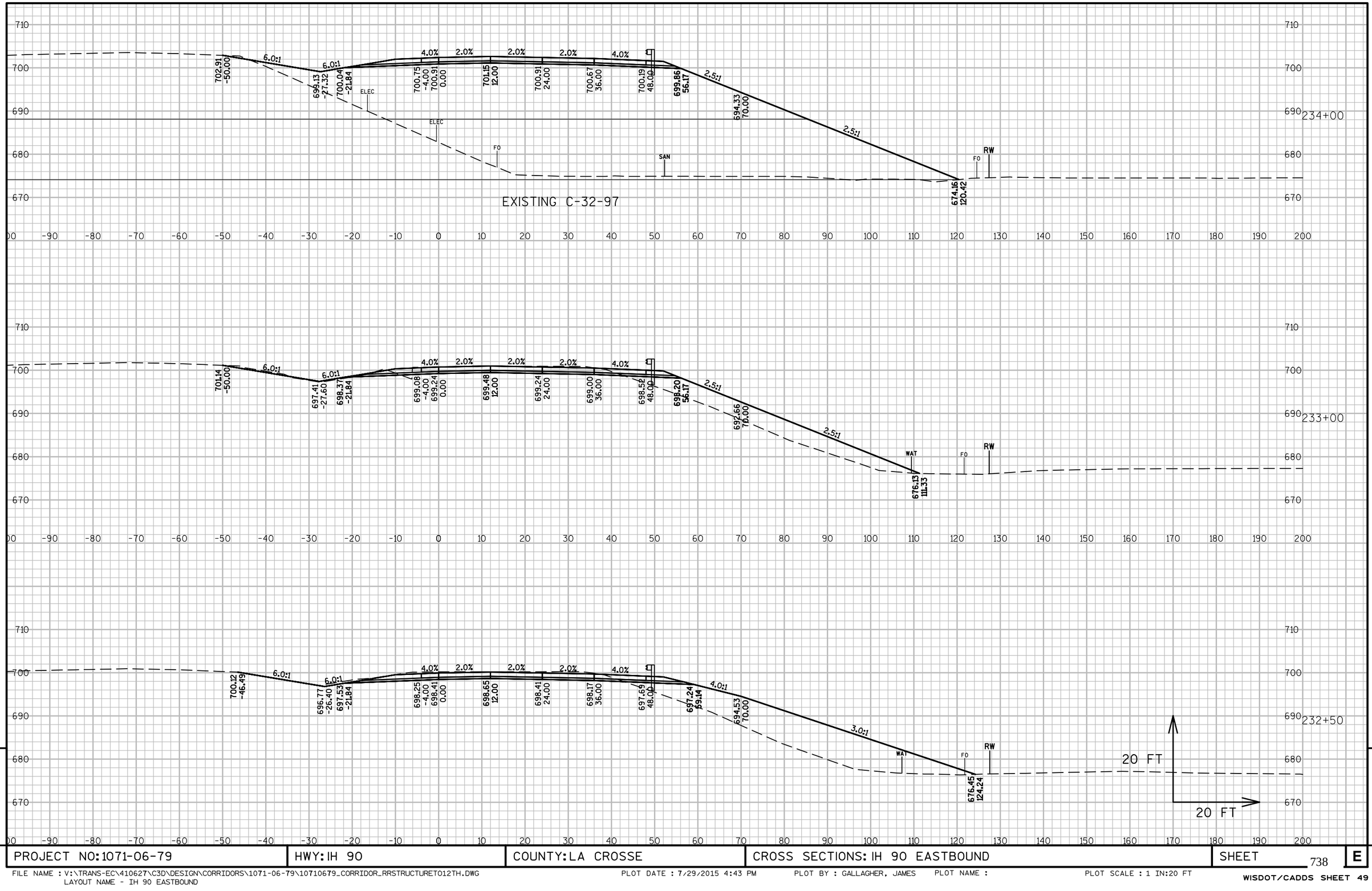
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 737	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:43 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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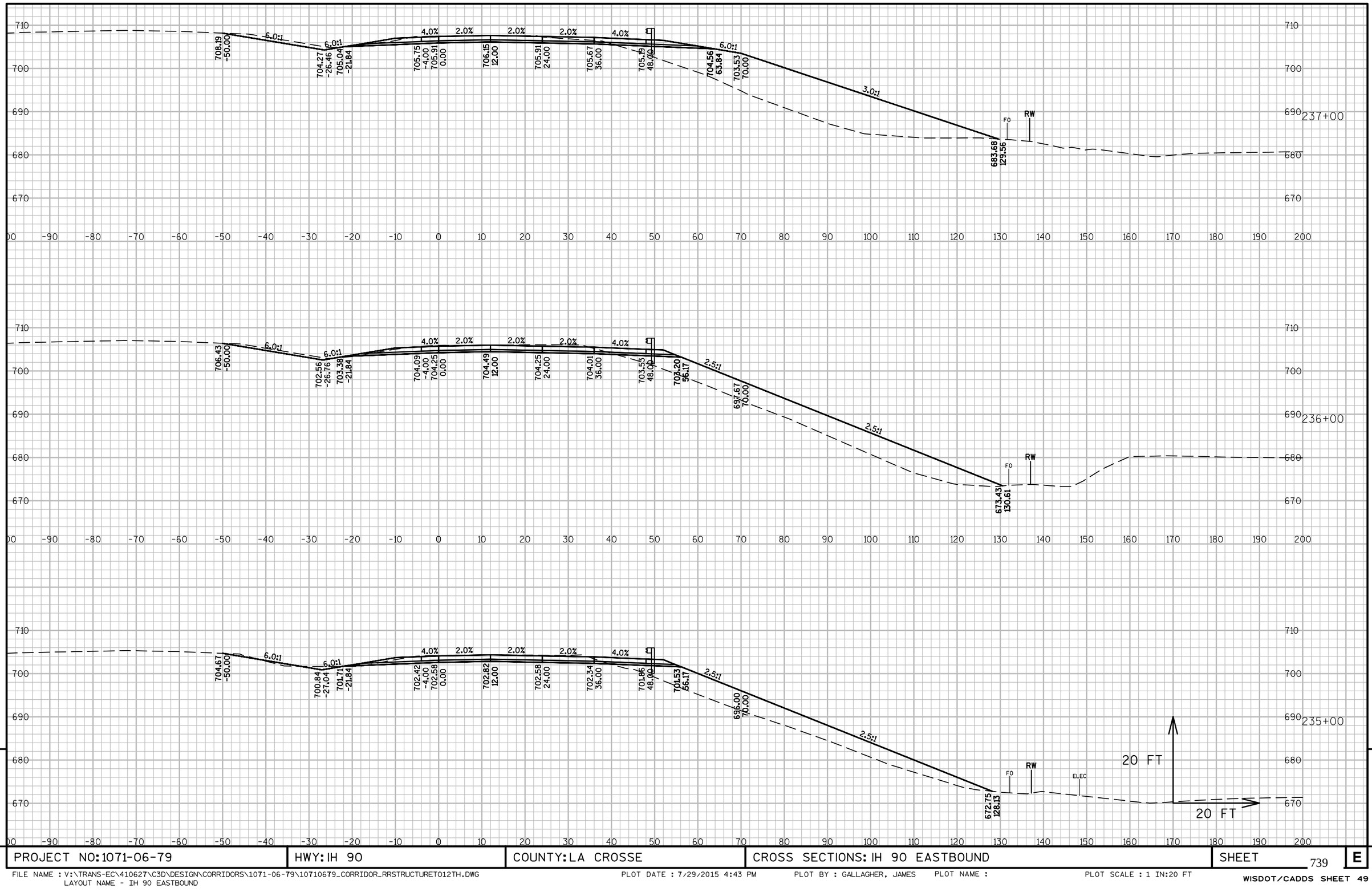
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 738	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:43 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

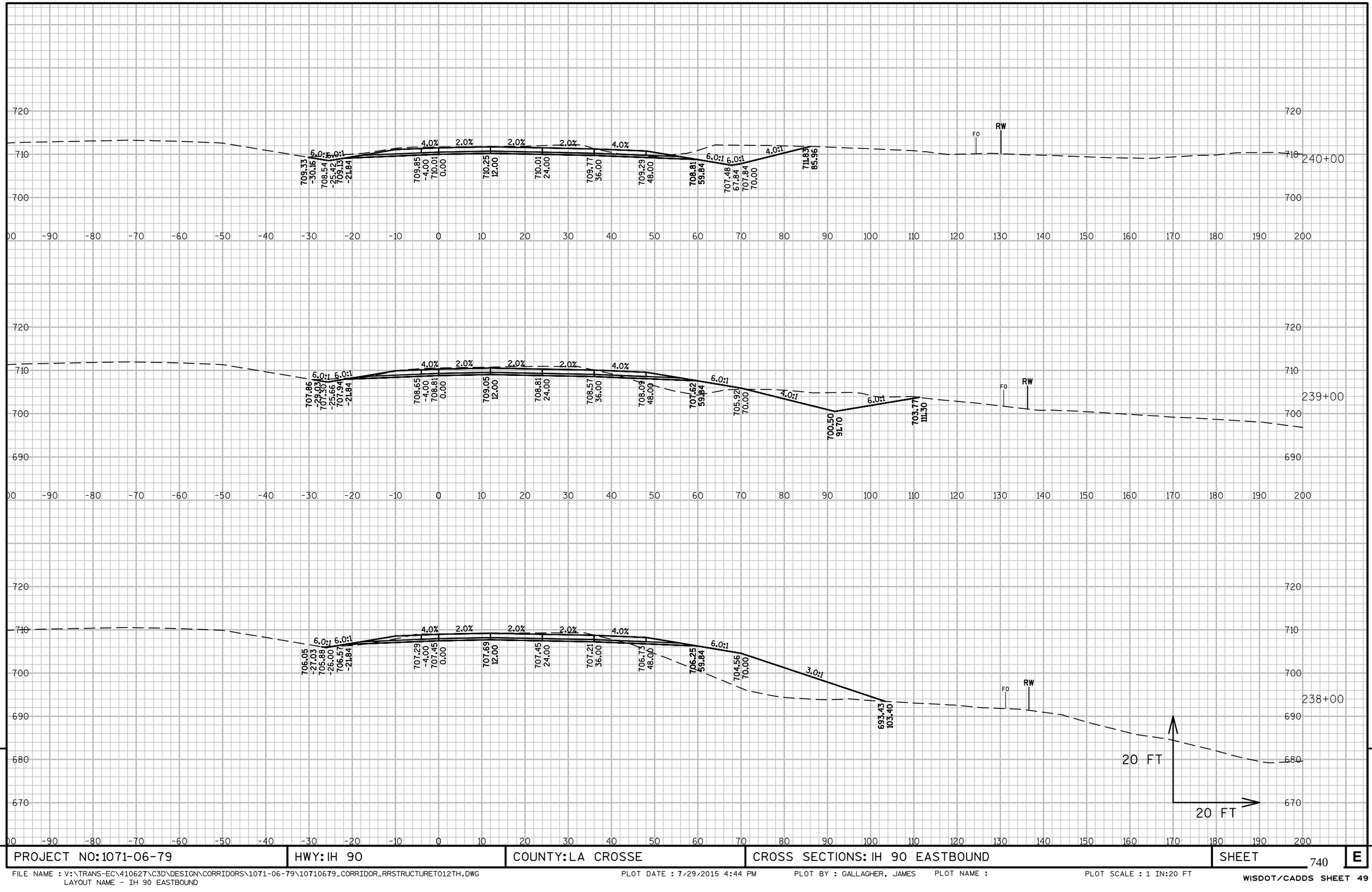


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 739	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:43 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

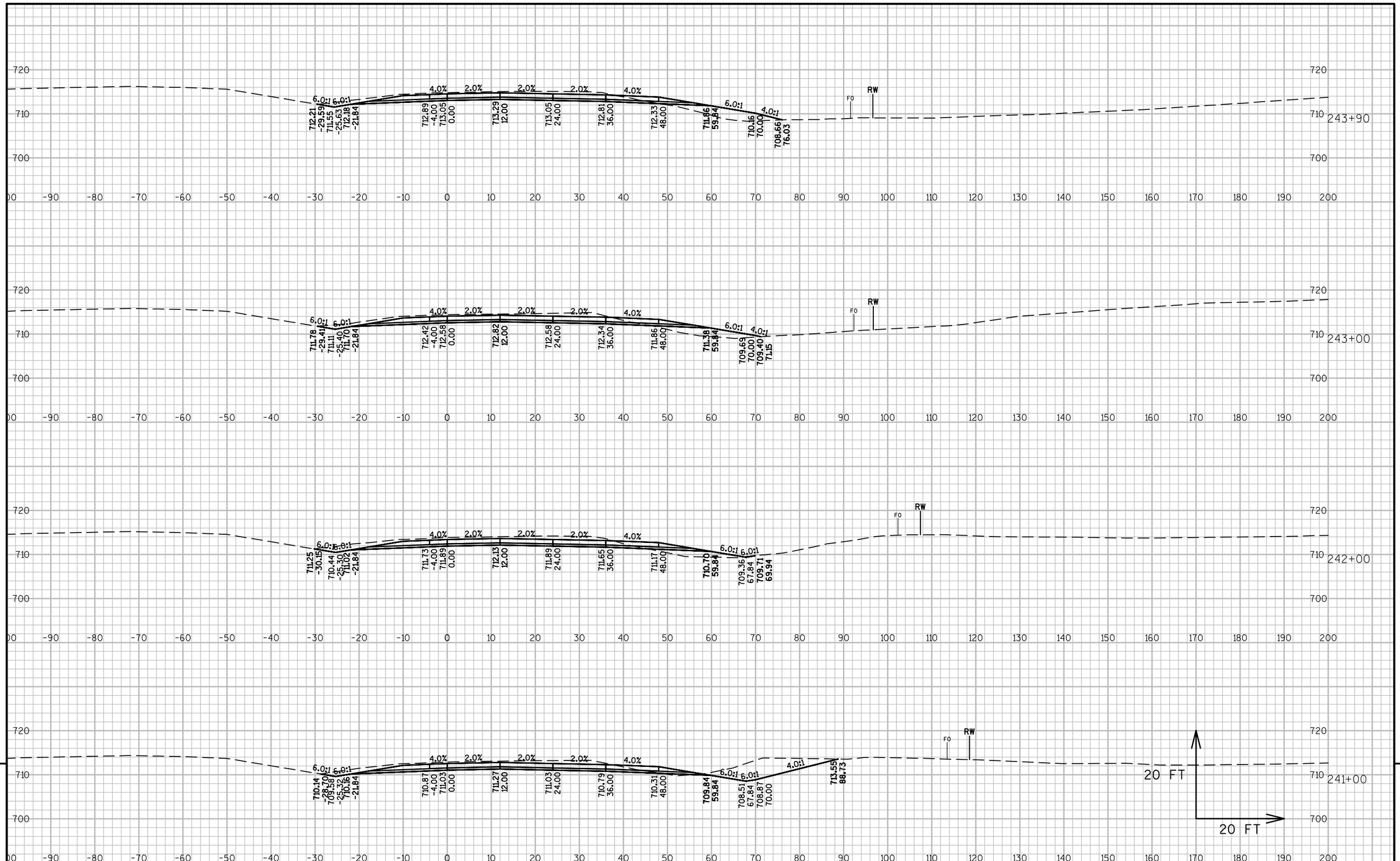


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 740	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:44 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



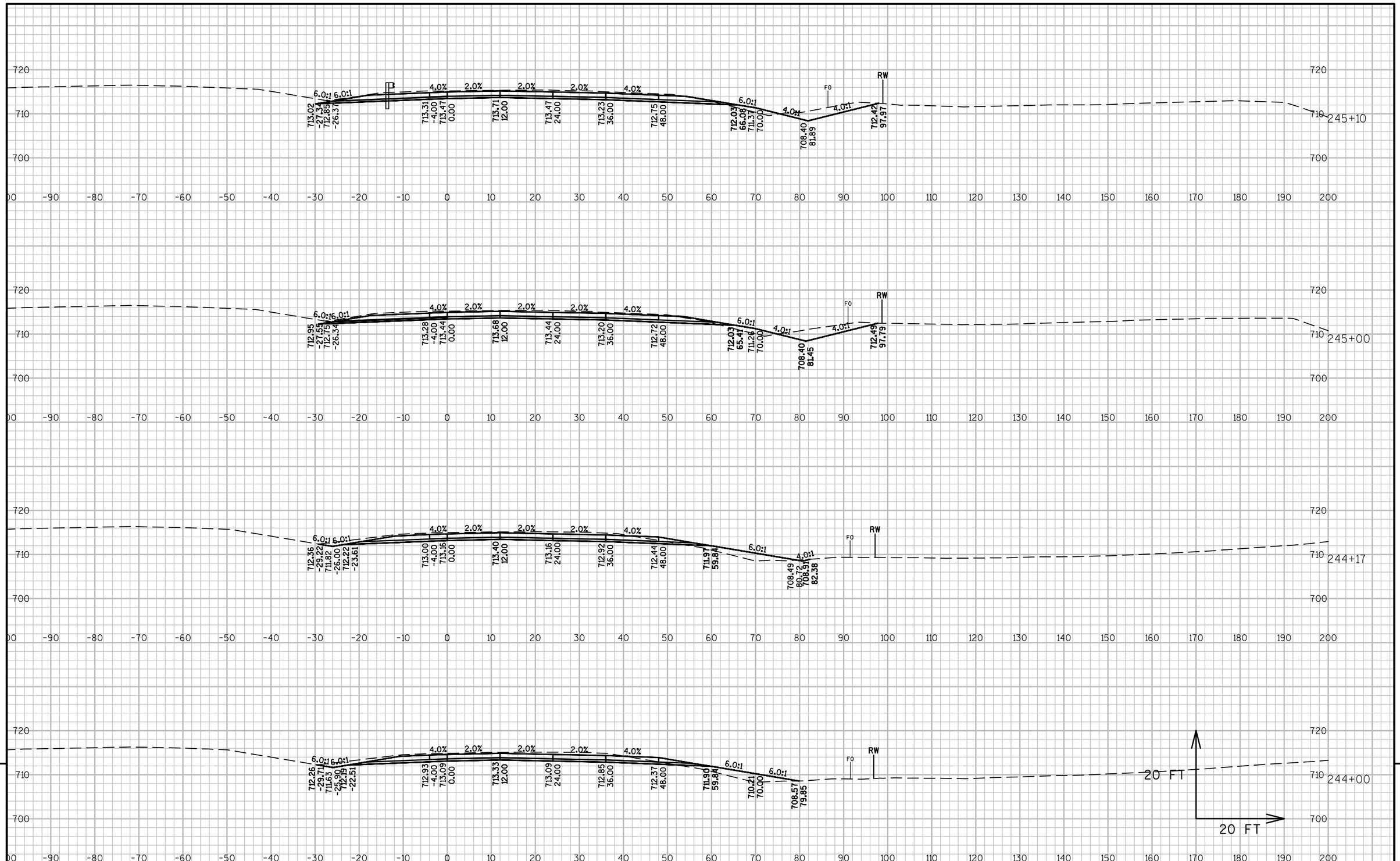
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 741	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:44 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



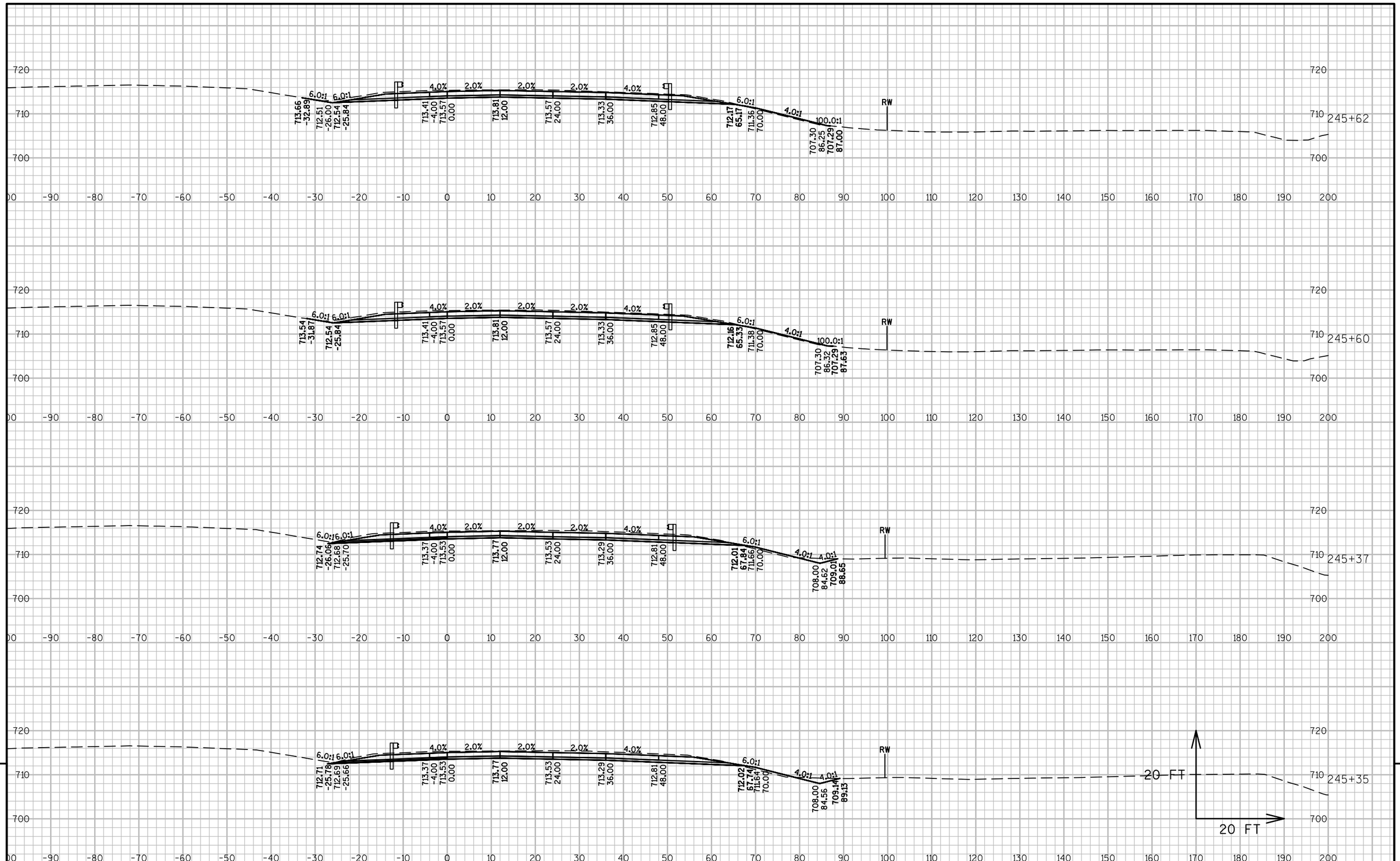
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 742	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:44 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



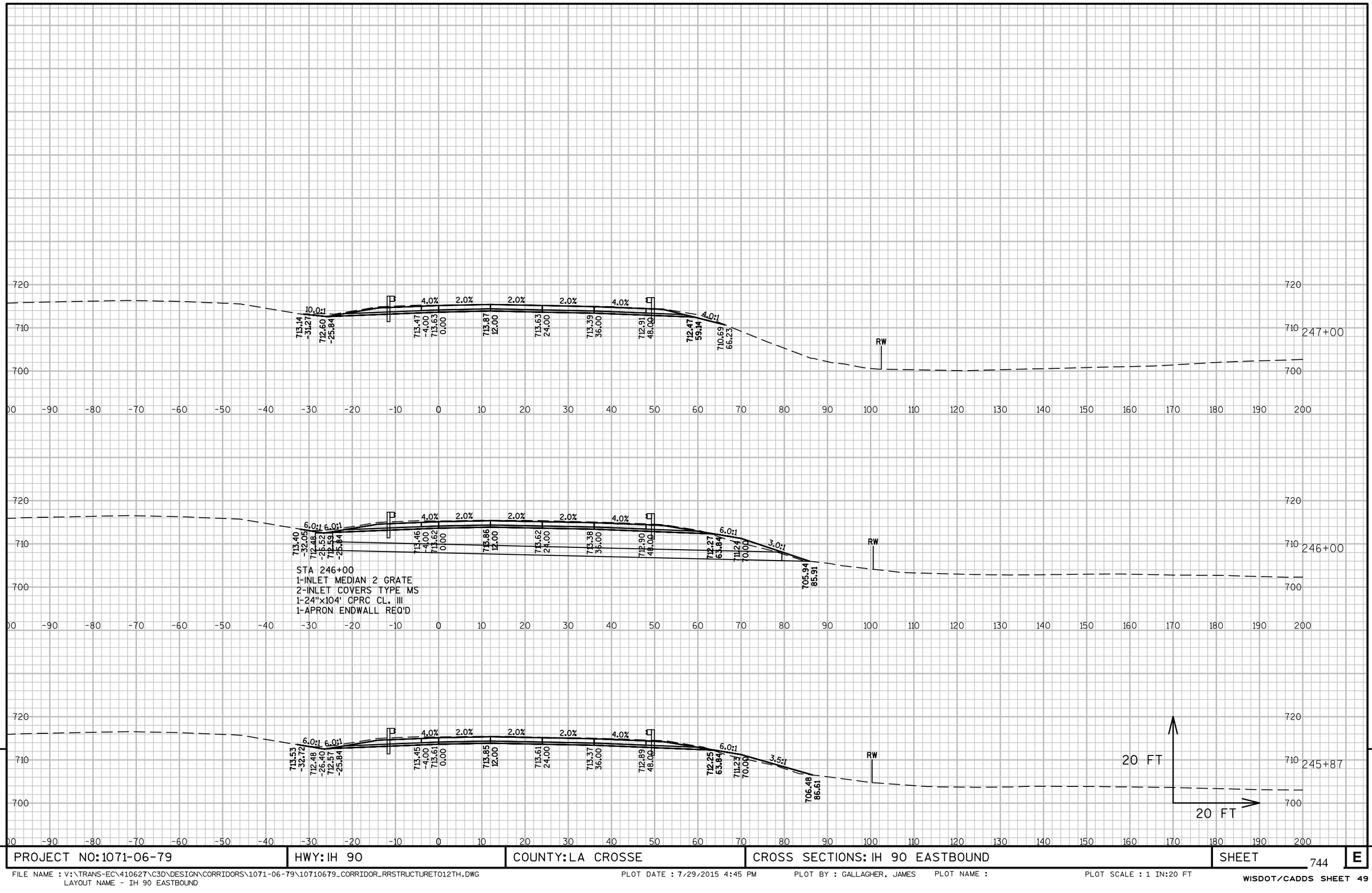
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 743	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:45 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



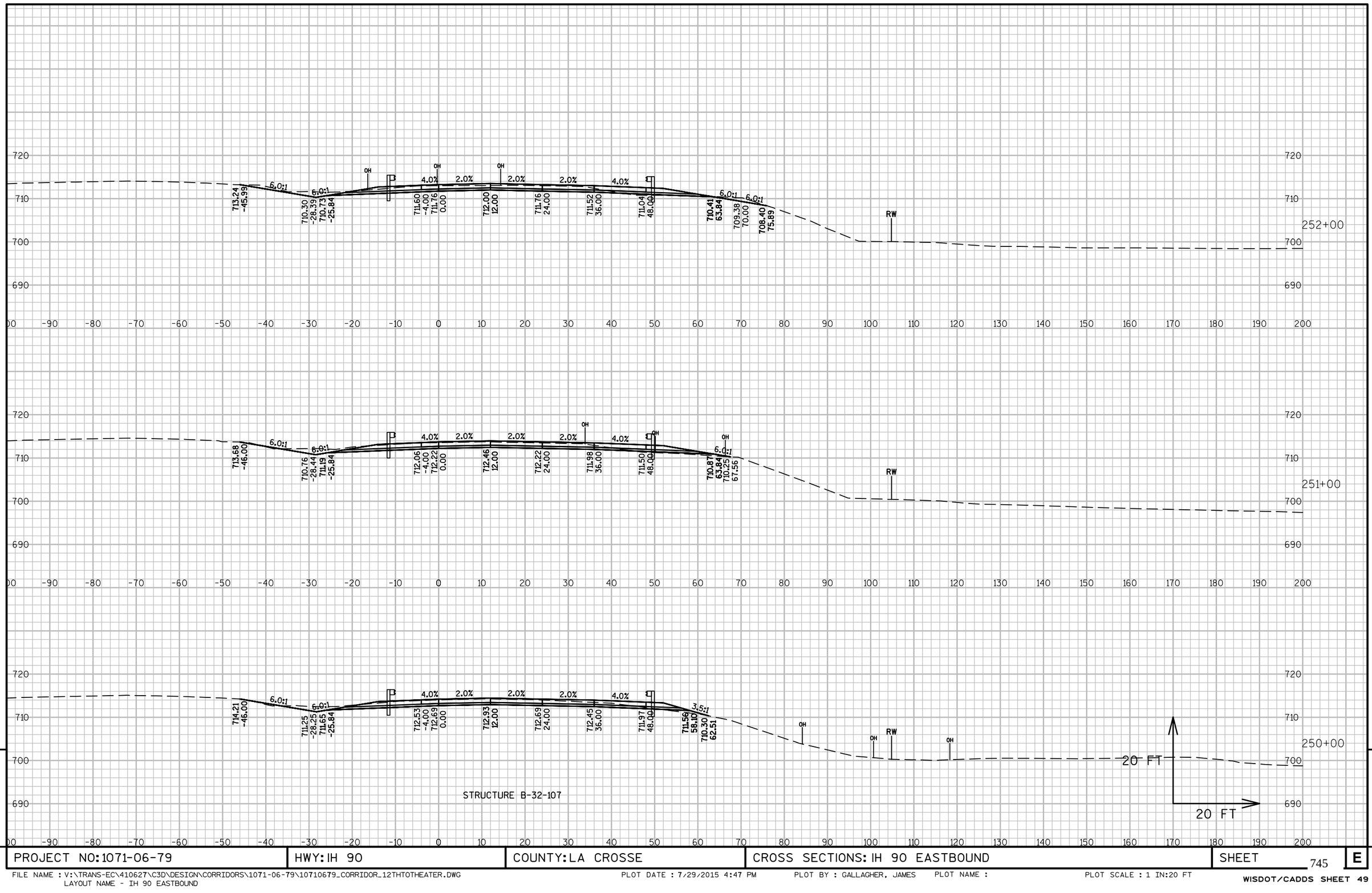
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 744	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_RRSTRUCTURETO12TH.DWG
LAYOUT NAME - IH 90 EASTBOUND

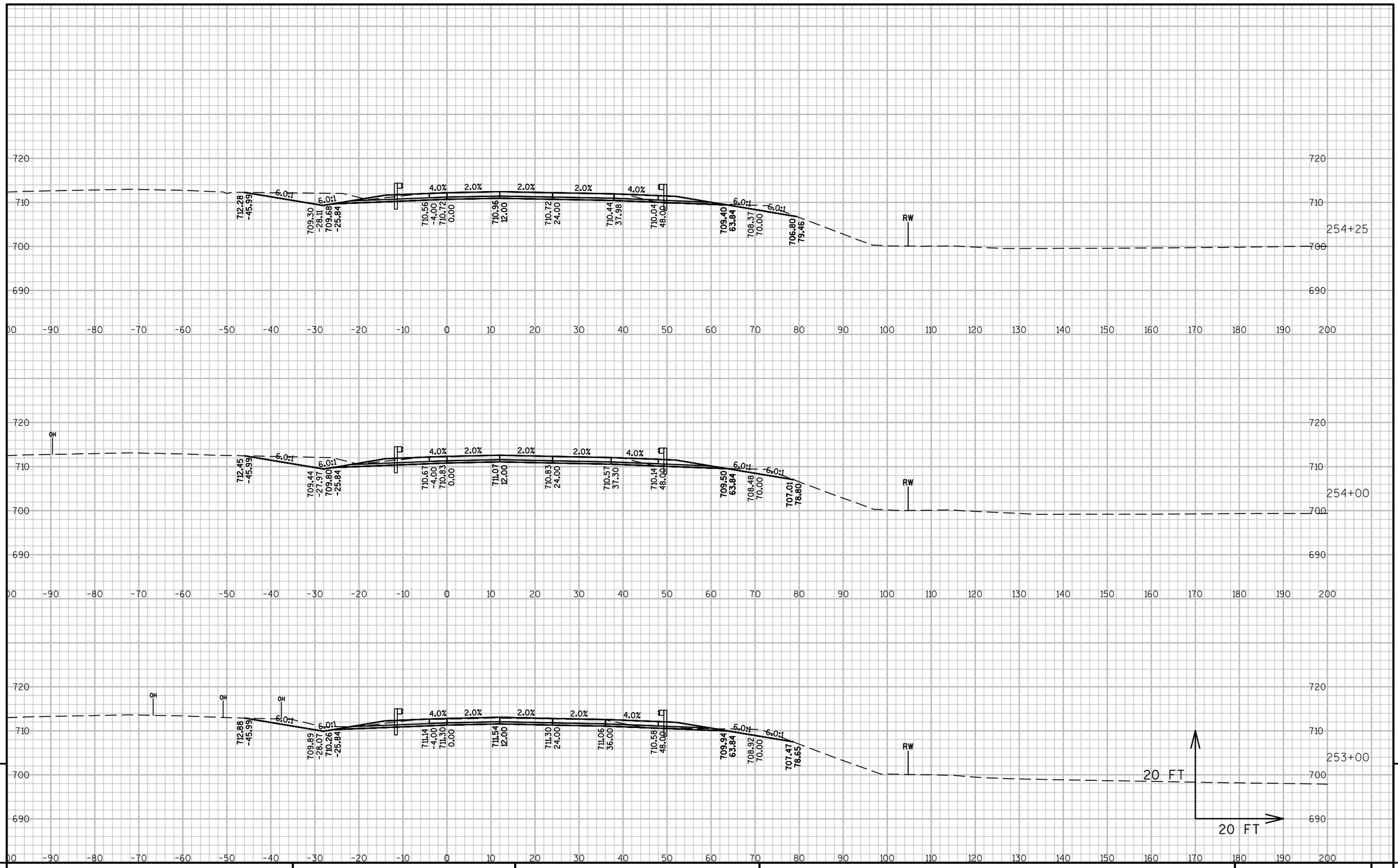
PLOT DATE : 7/29/2015 4:45 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 745	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:47 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

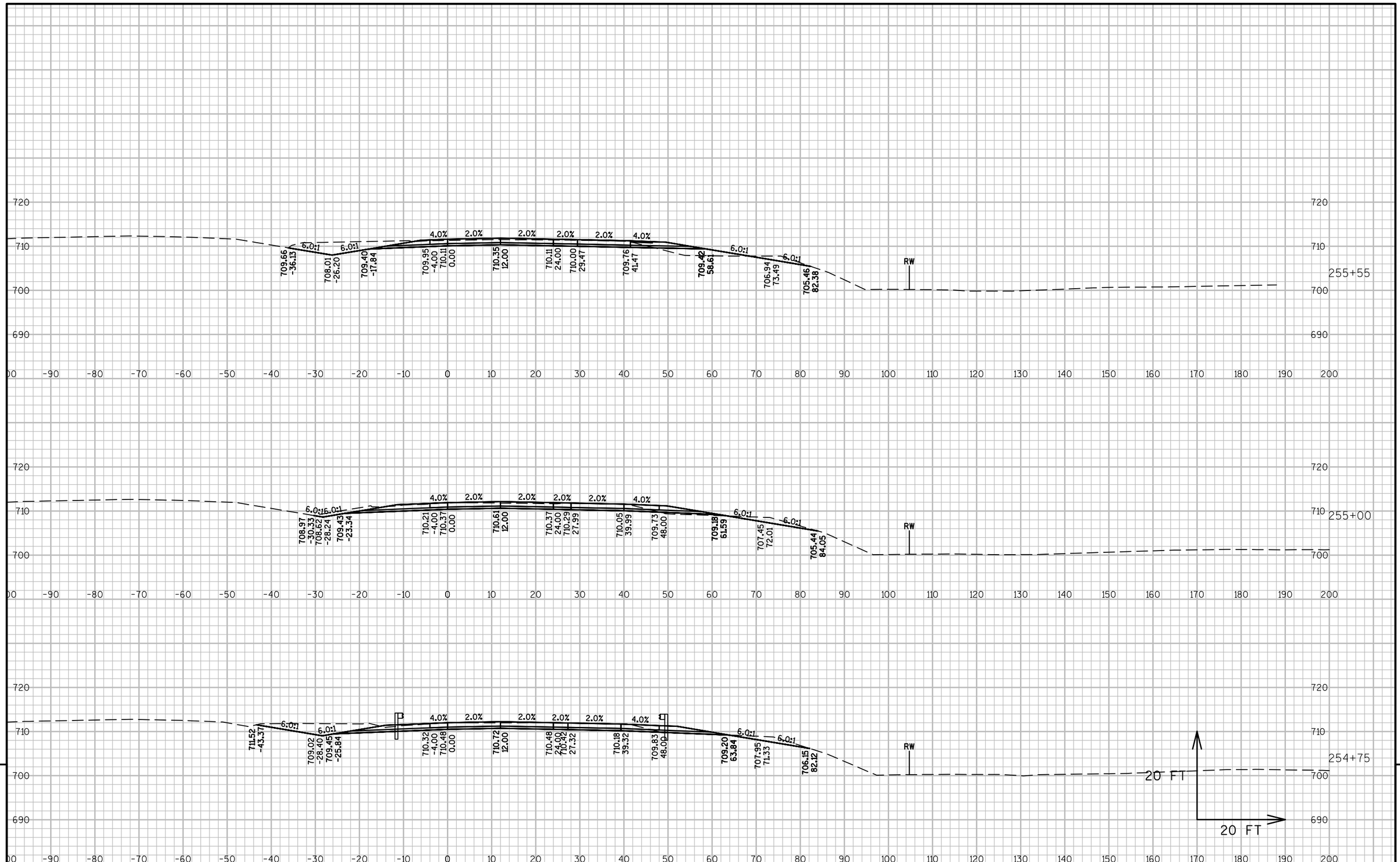


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 746	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:47 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

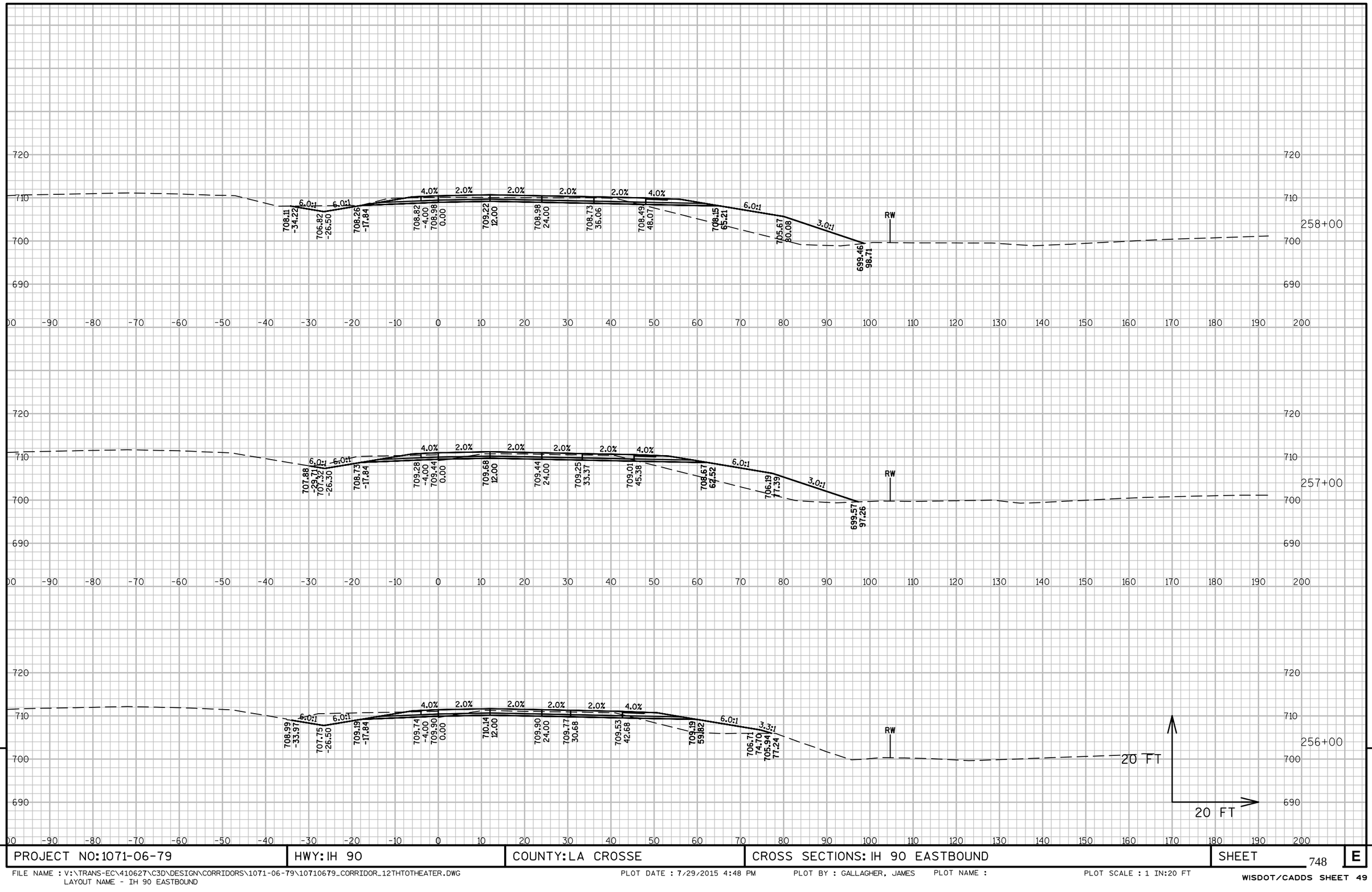
WISDOT/CADDS SHEET 49



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 747 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:48 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



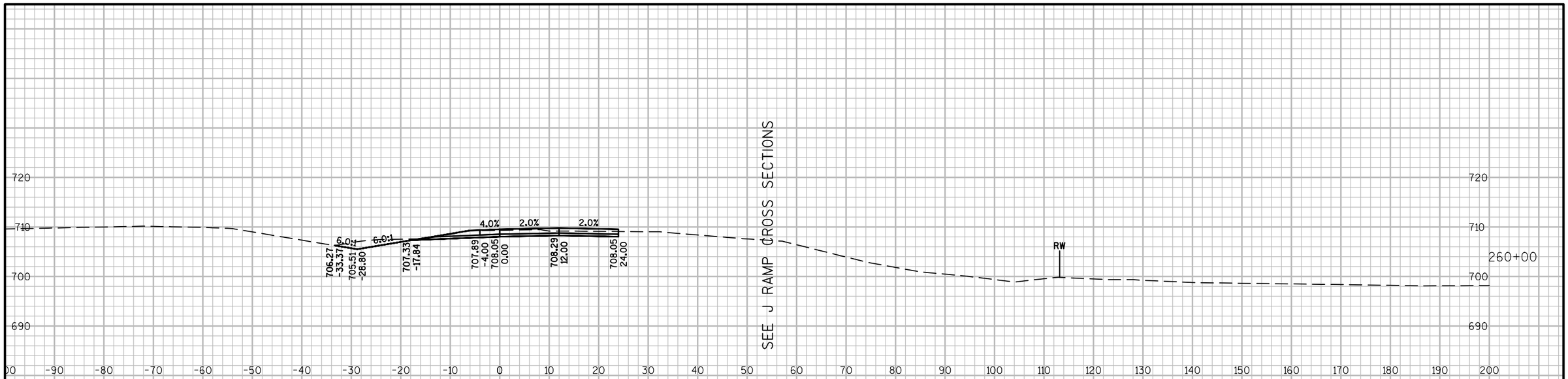
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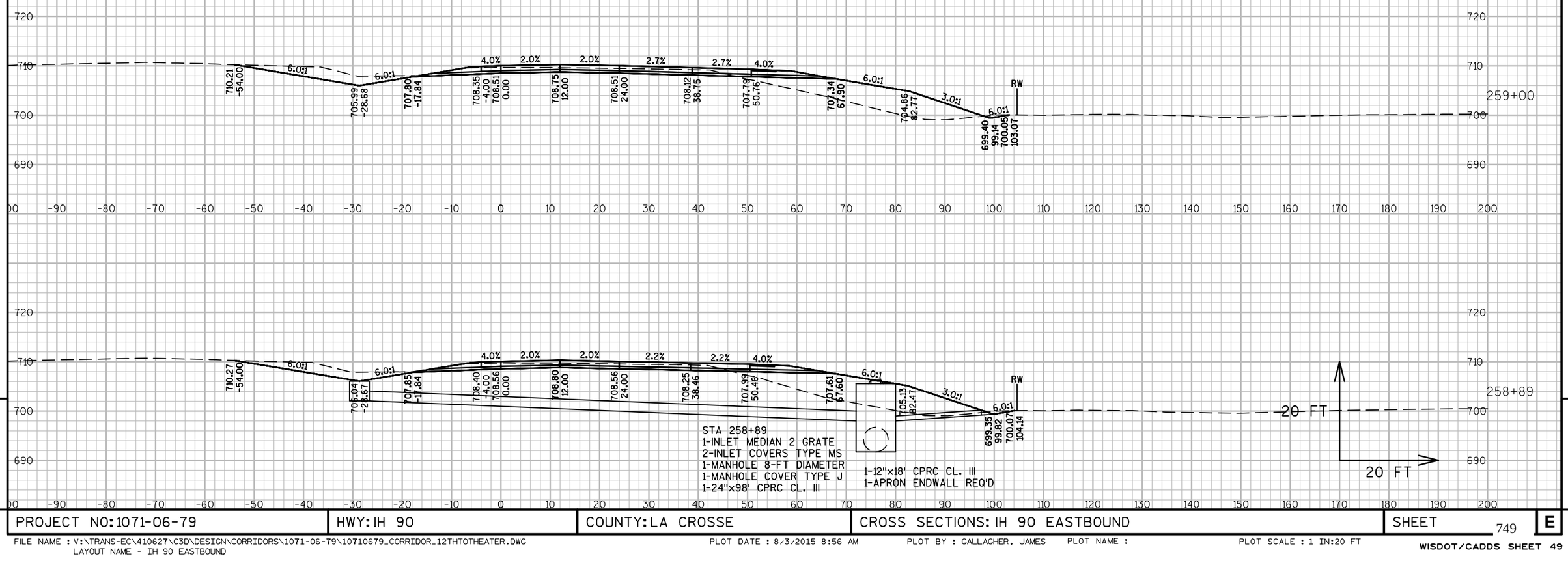
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 748 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:48 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

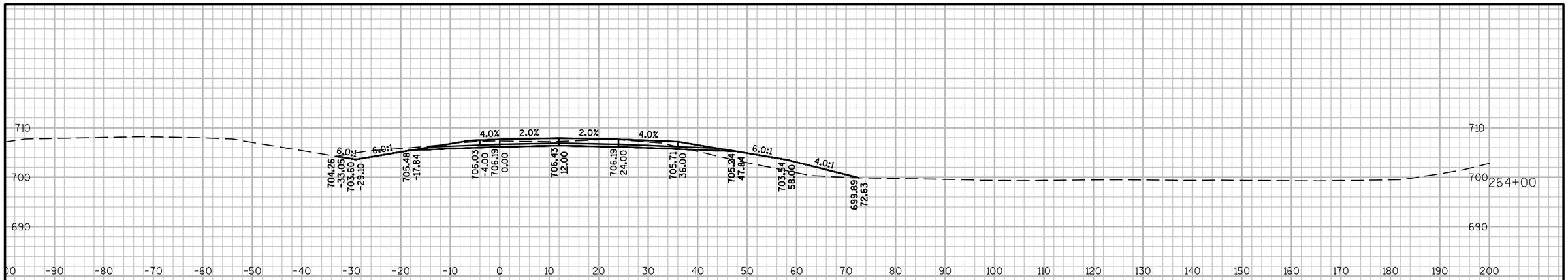


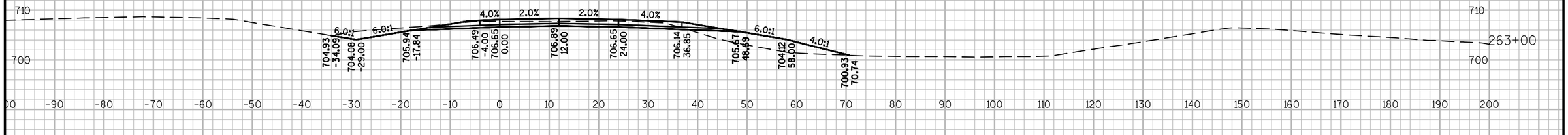


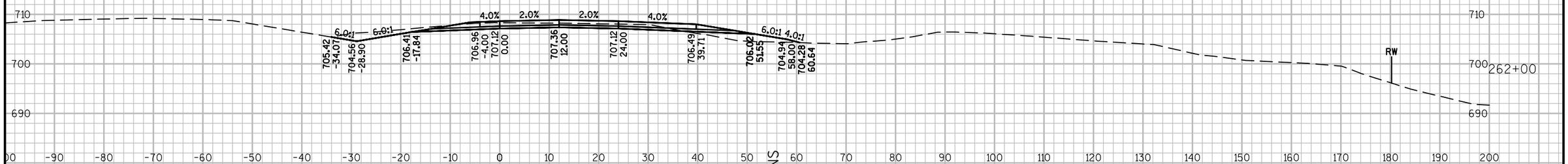
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 749 E

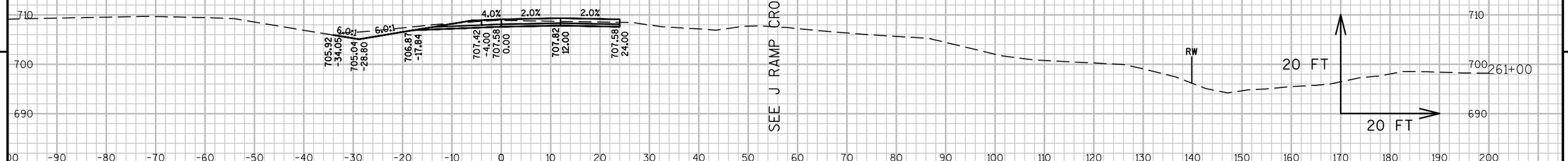
FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 8/3/2015 8:56 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT









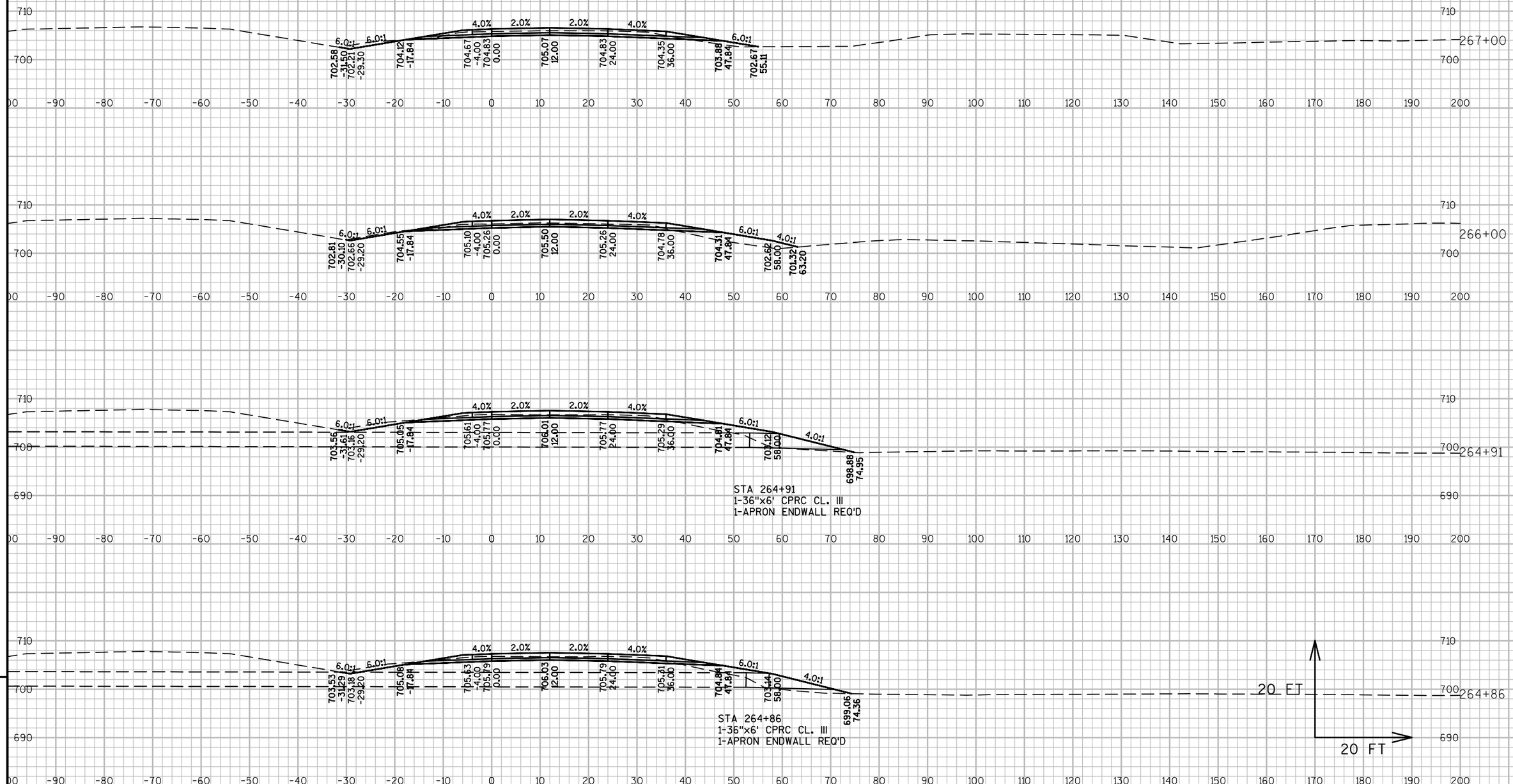
SEE J RAMP CROSS SECTIONS

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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 750 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:49 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



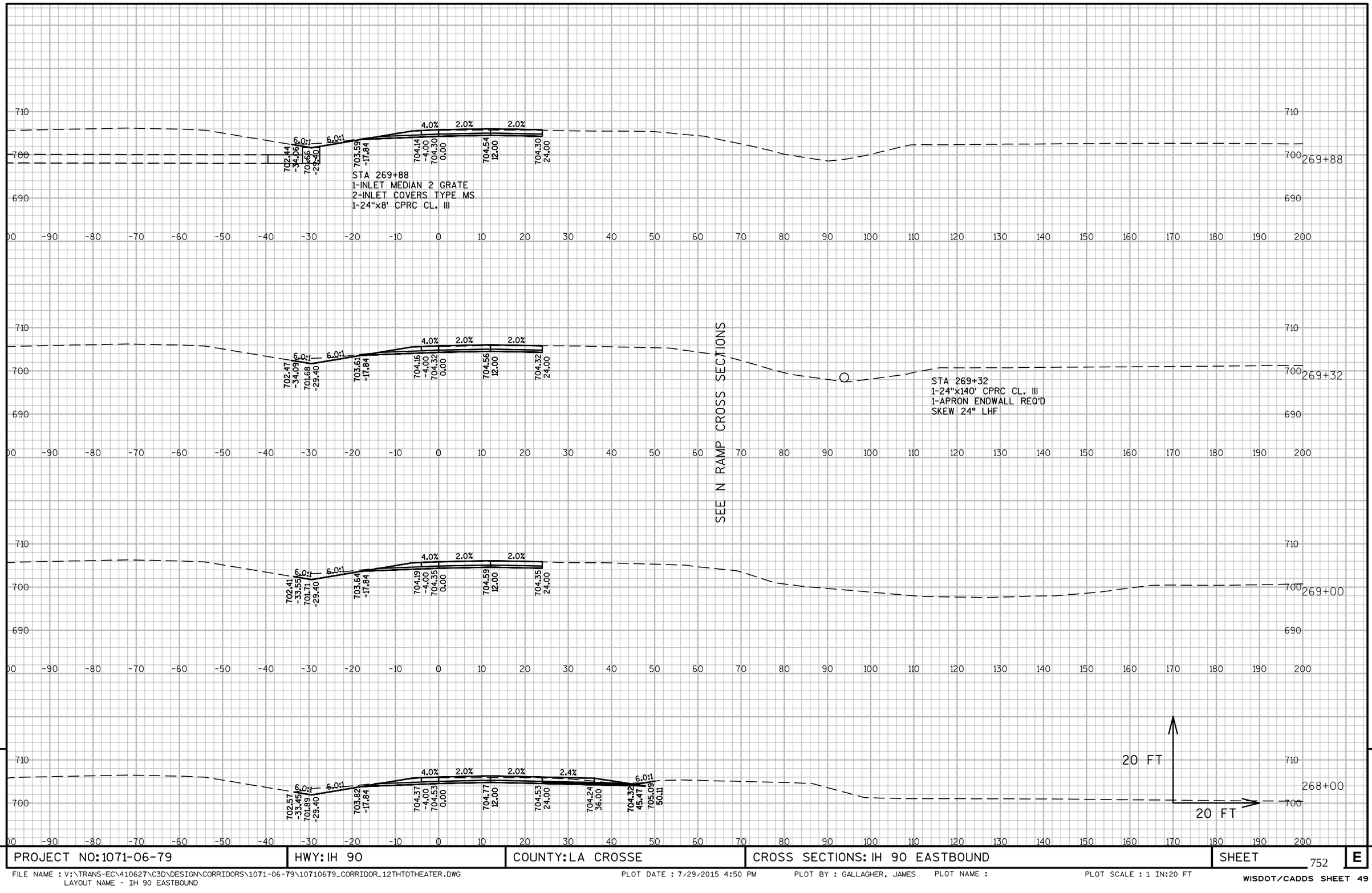
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 751	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:50 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



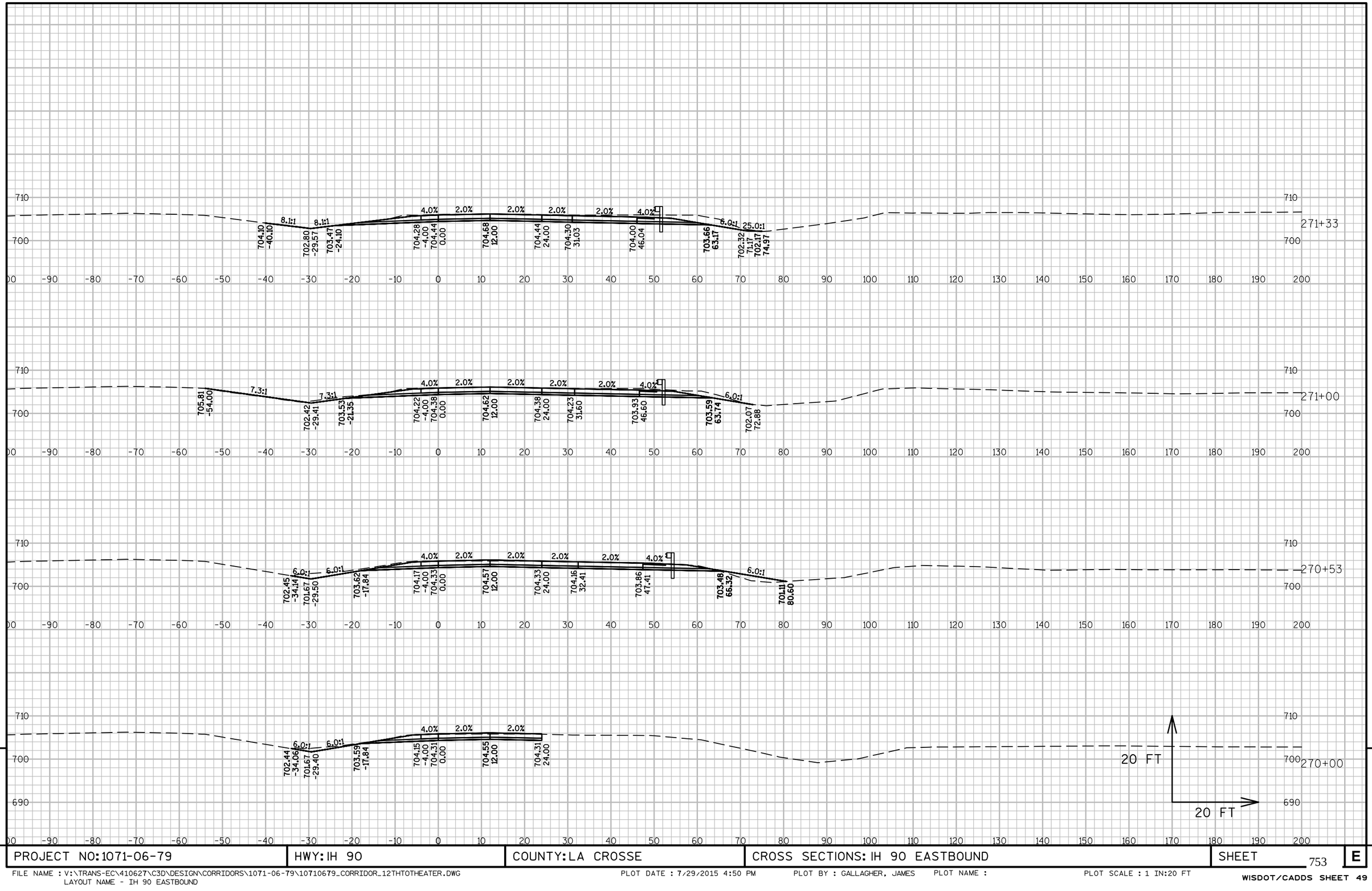
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 752	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:50 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

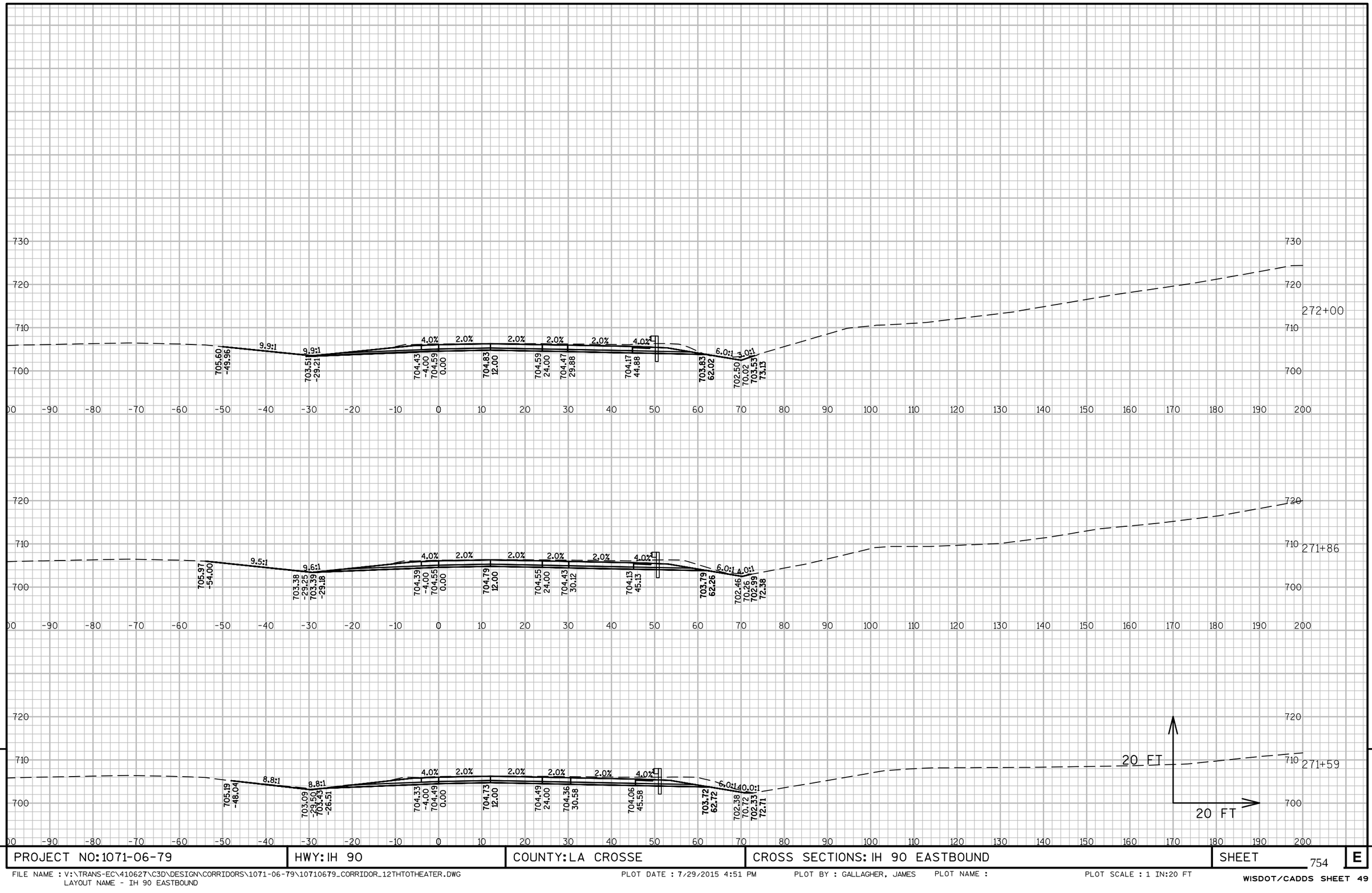


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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 753	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:50 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



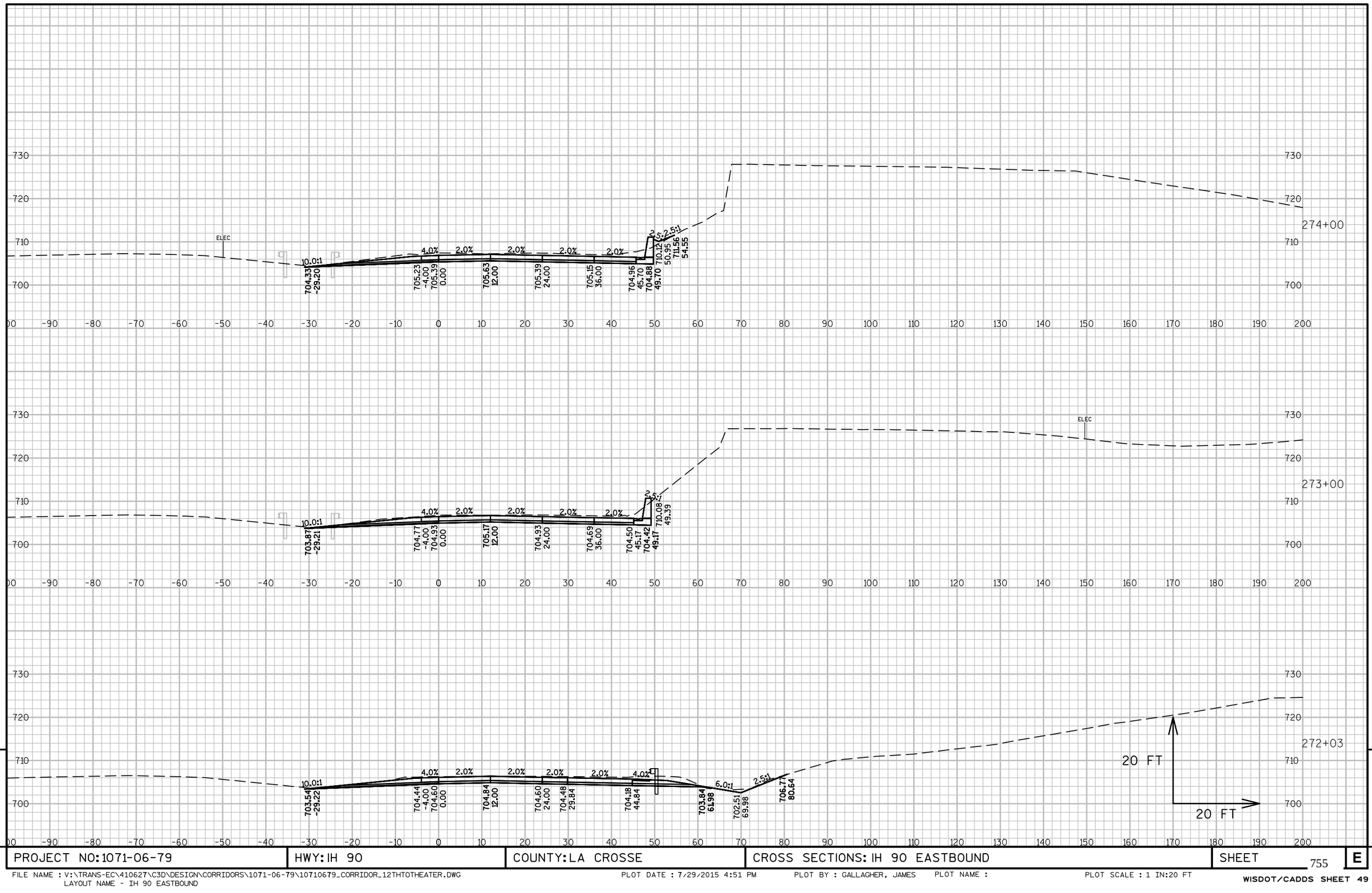
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 754 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:51 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



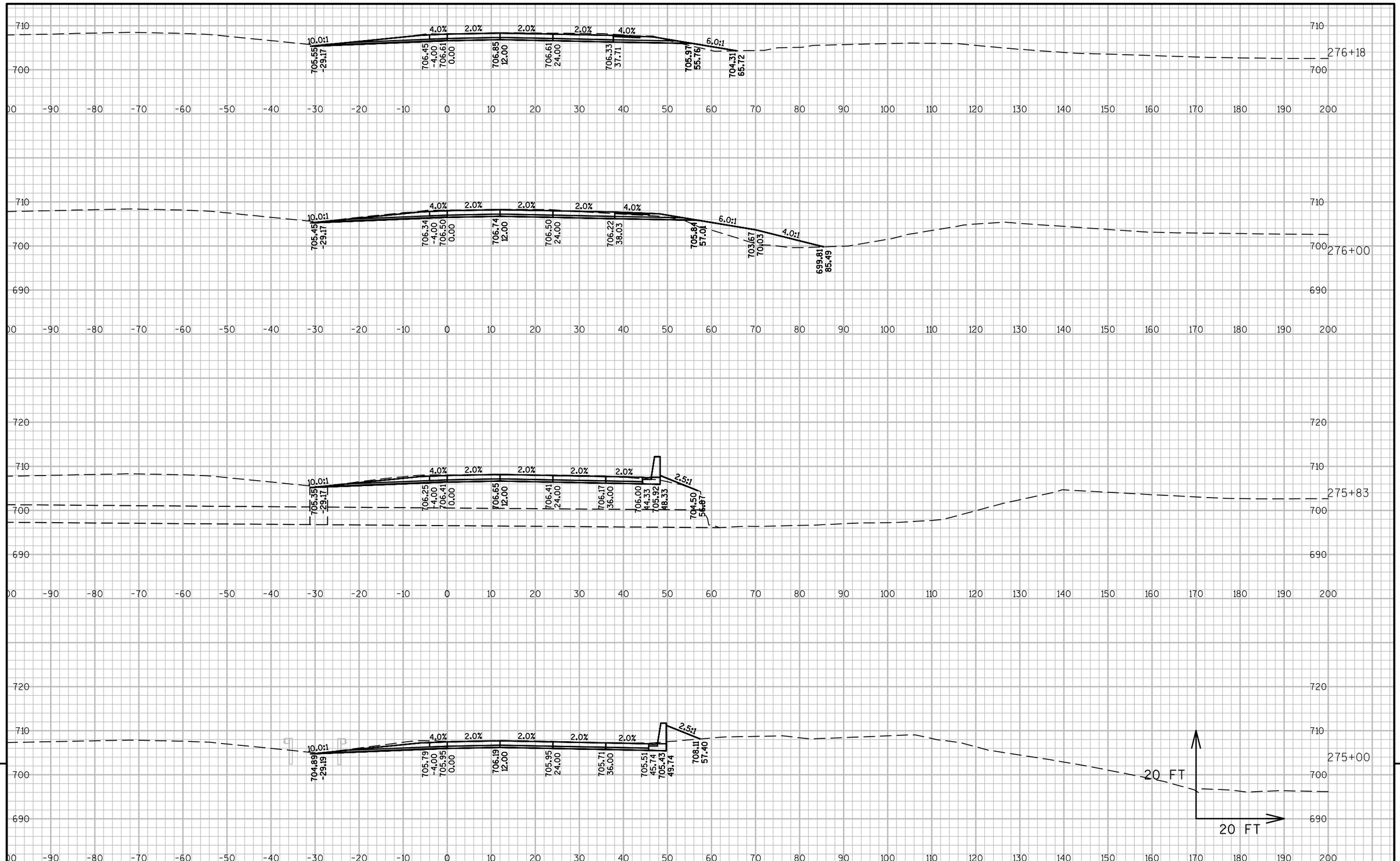
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 755	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:51 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

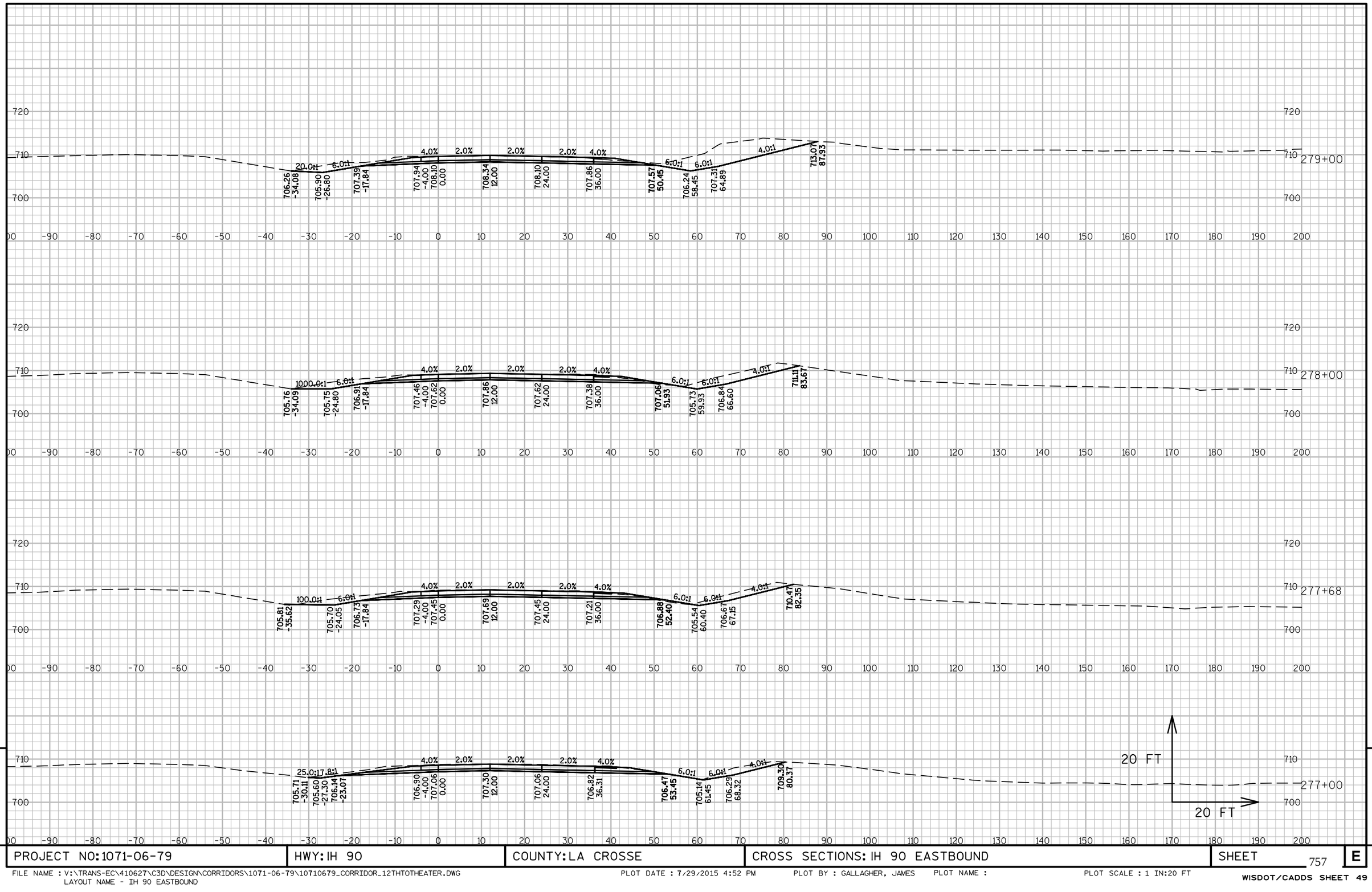


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 756 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:52 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

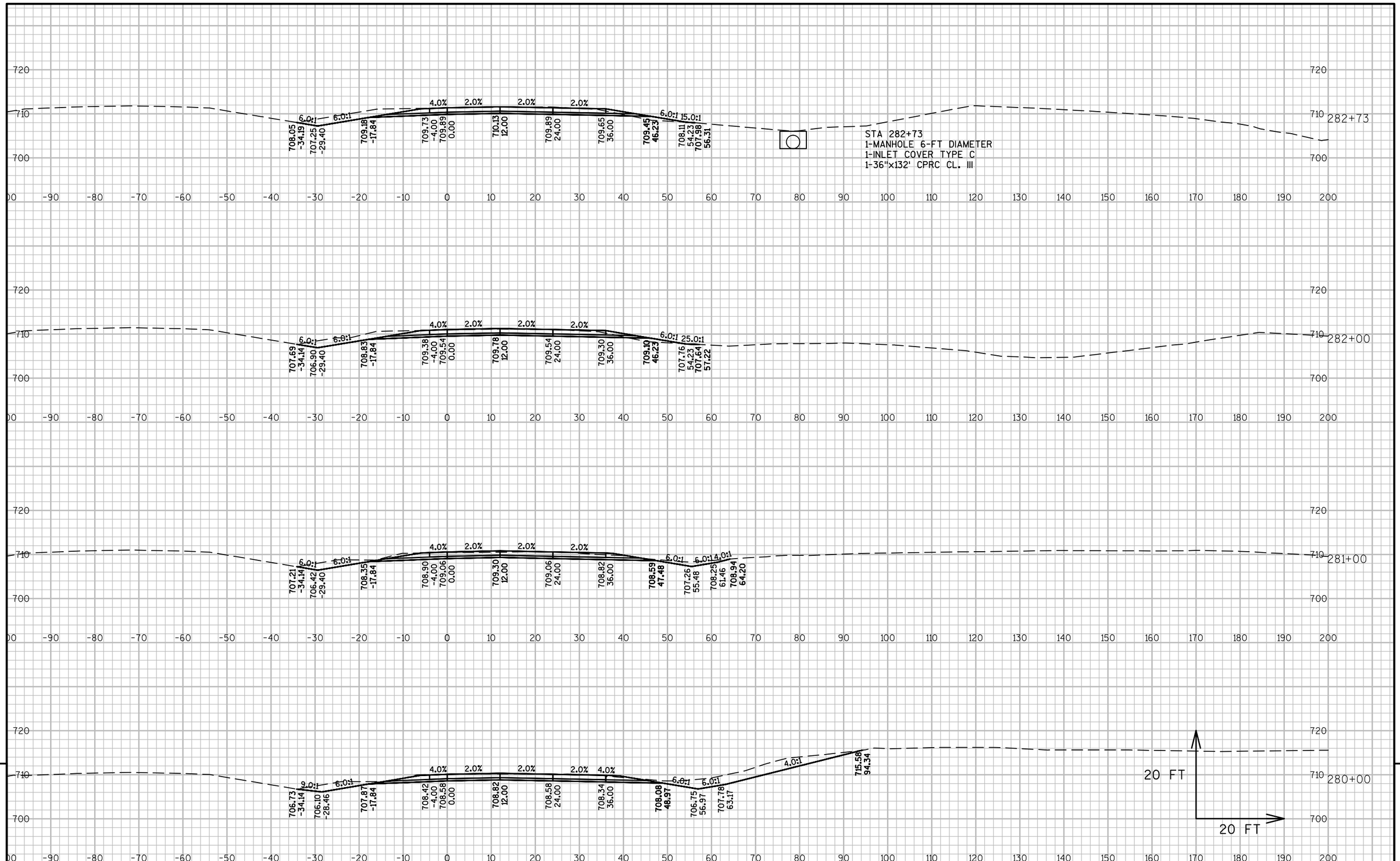


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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 757	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:52 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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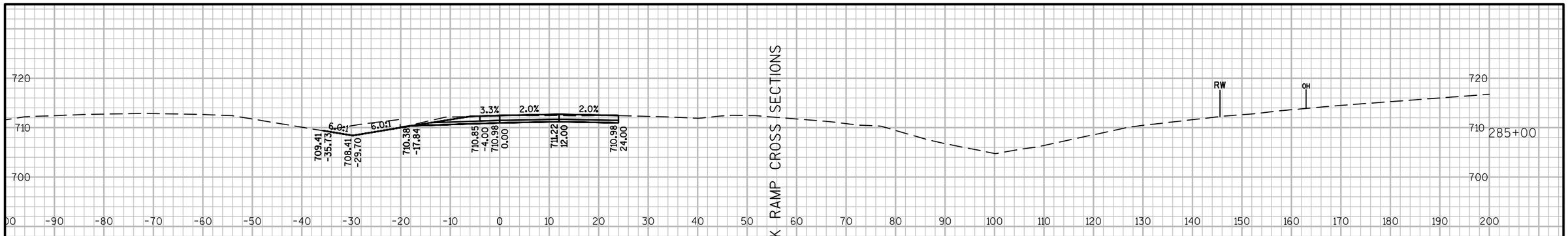
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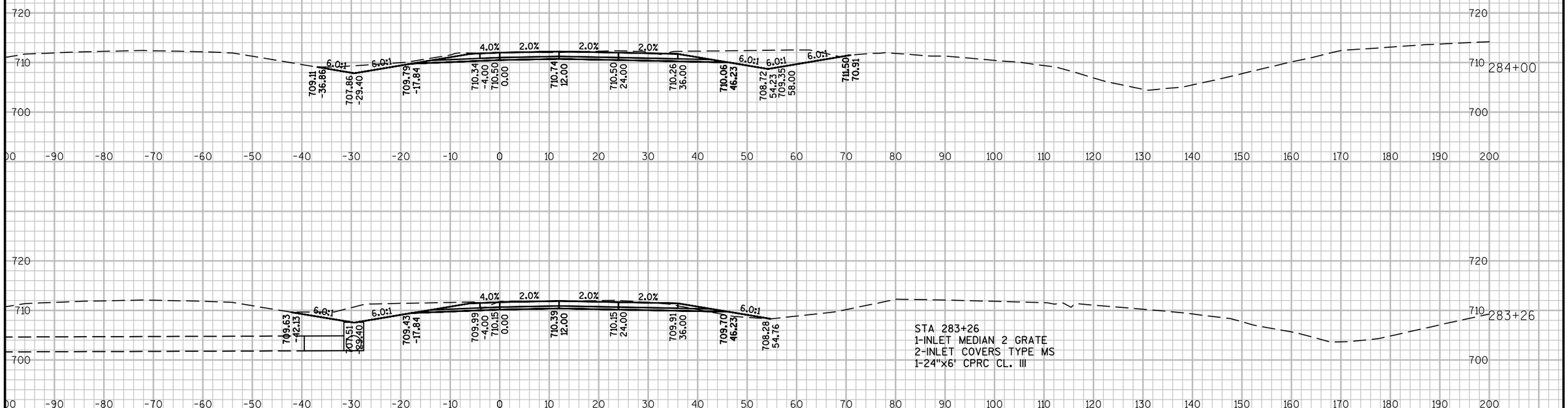
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 758	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

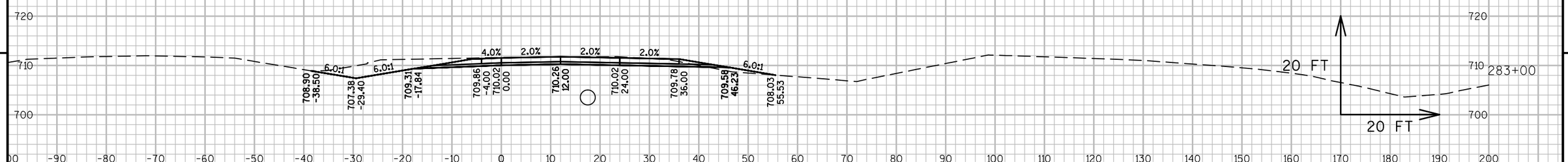
PLOT DATE : 7/29/2015 4:53 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

SEE K RAMP CROSS SECTIONS





STA 283+26
1-INLET MEDIAN 2 GRATE
2-INLET COVERS TYPE MS
1-24"x6' CPRC CL. III

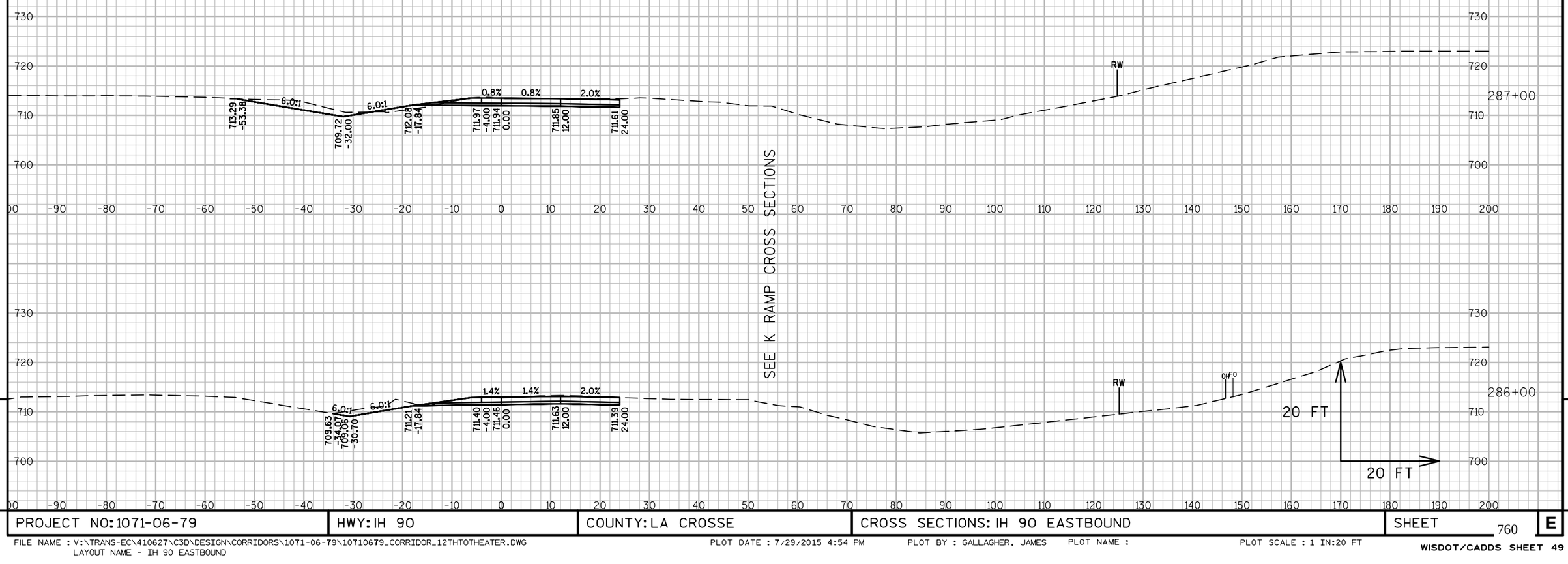


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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 759 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND
PLOT DATE : 8/3/2015 8:57 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT





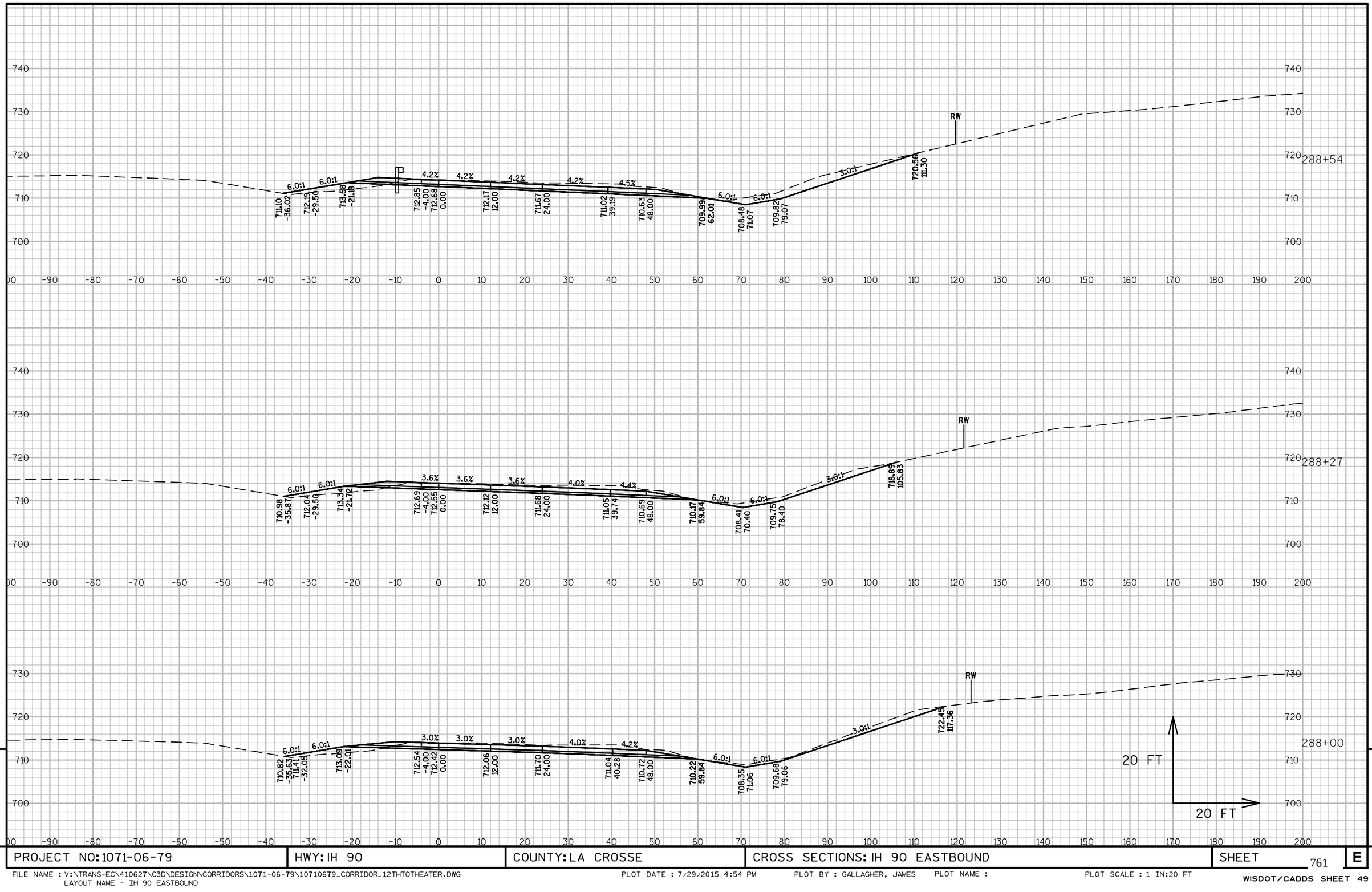
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 760	E

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FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

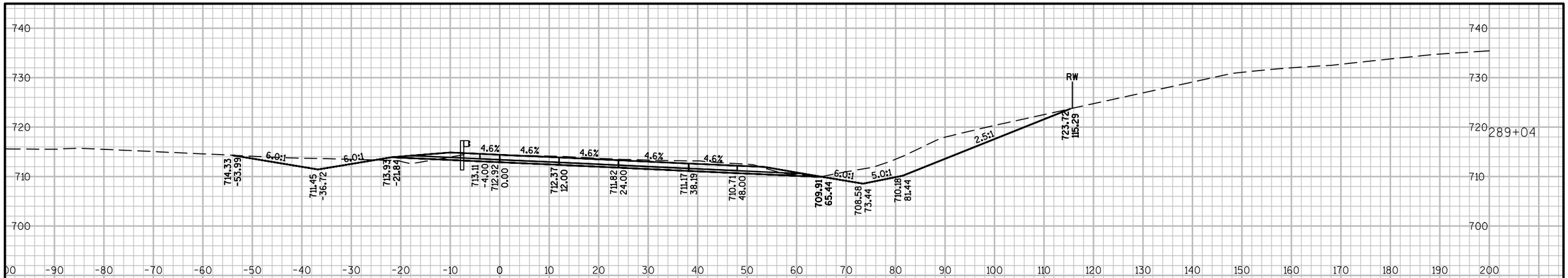
PLOT DATE : 7/29/2015 4:54 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

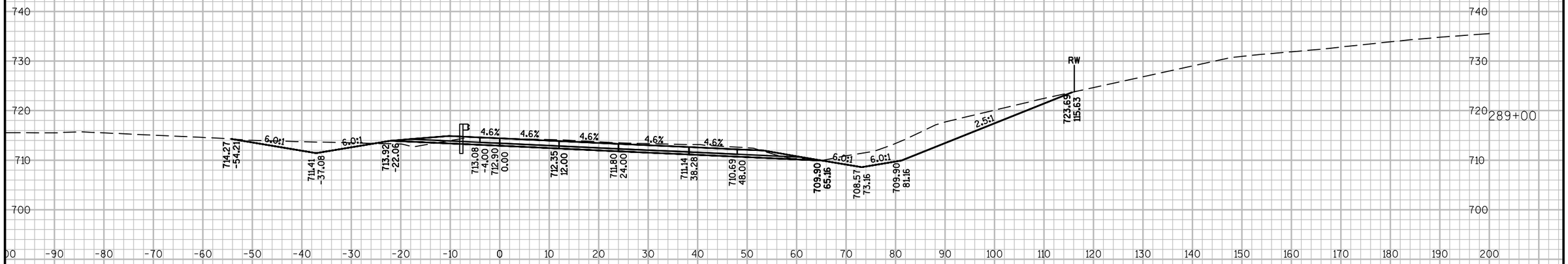


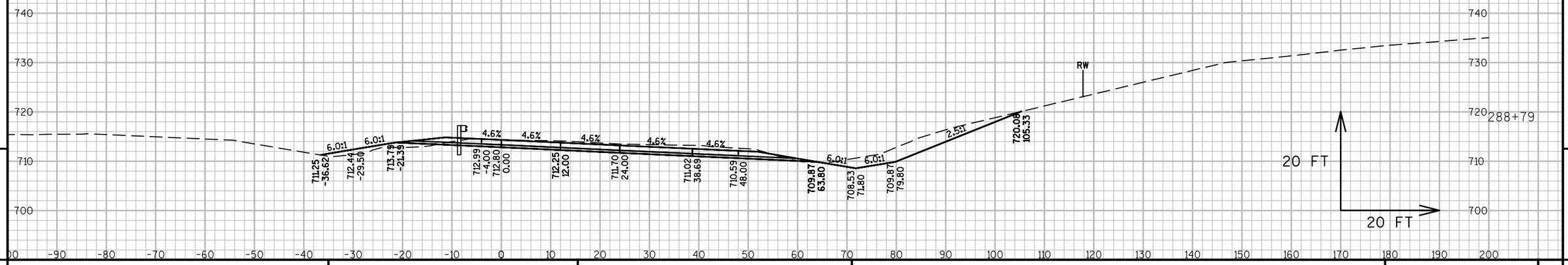
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 761	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:54 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT







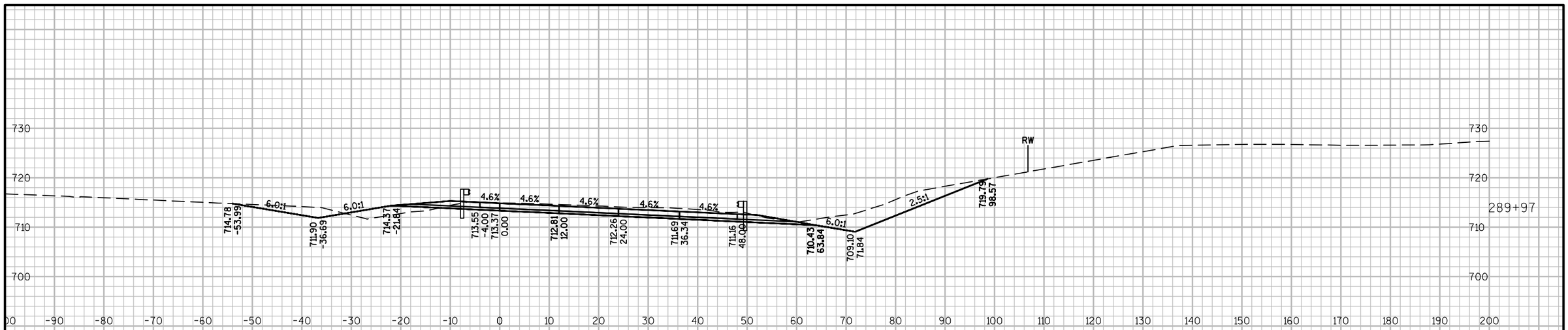
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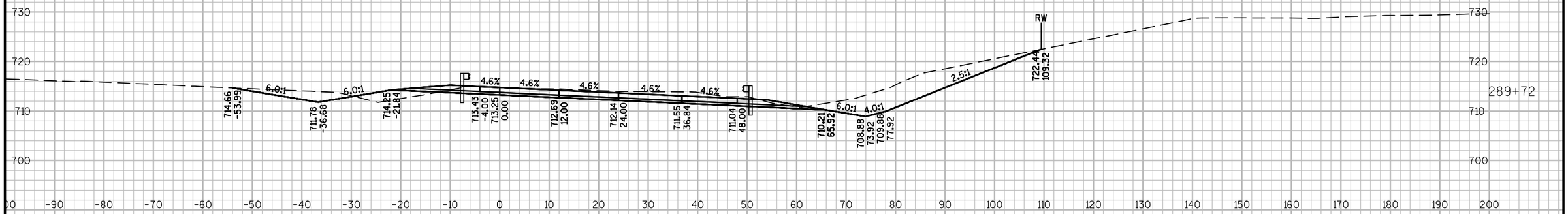
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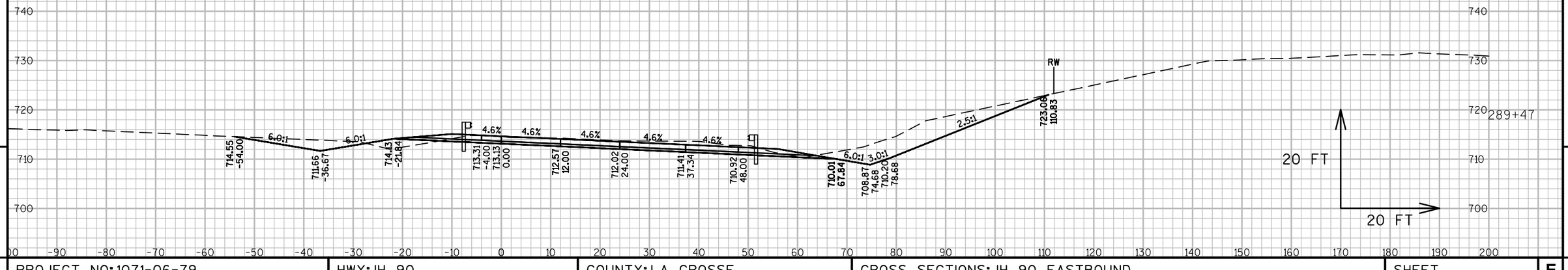
PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 762	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:54 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT







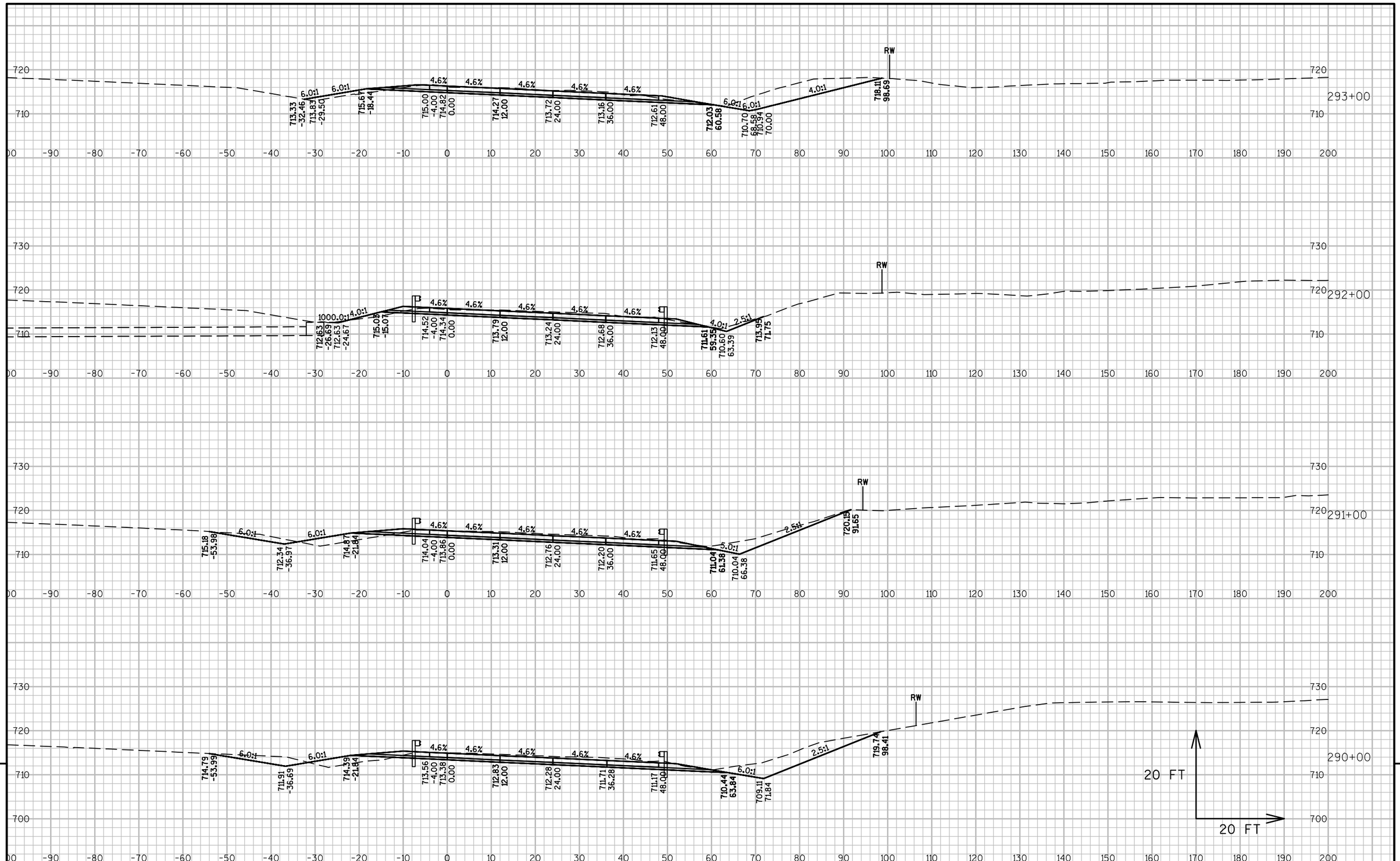
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 763	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

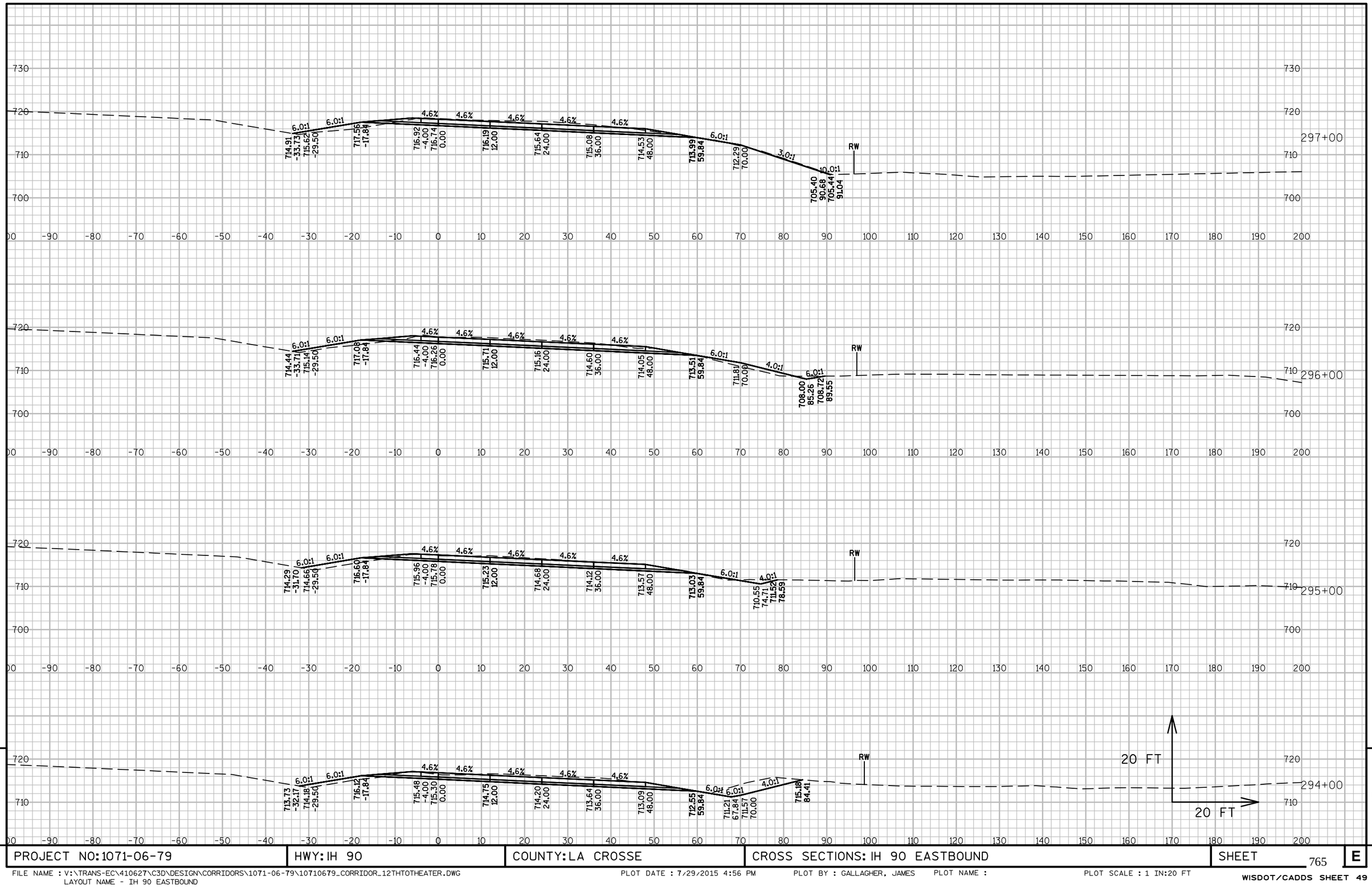
PLOT DATE : 7/29/2015 4:55 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 764 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

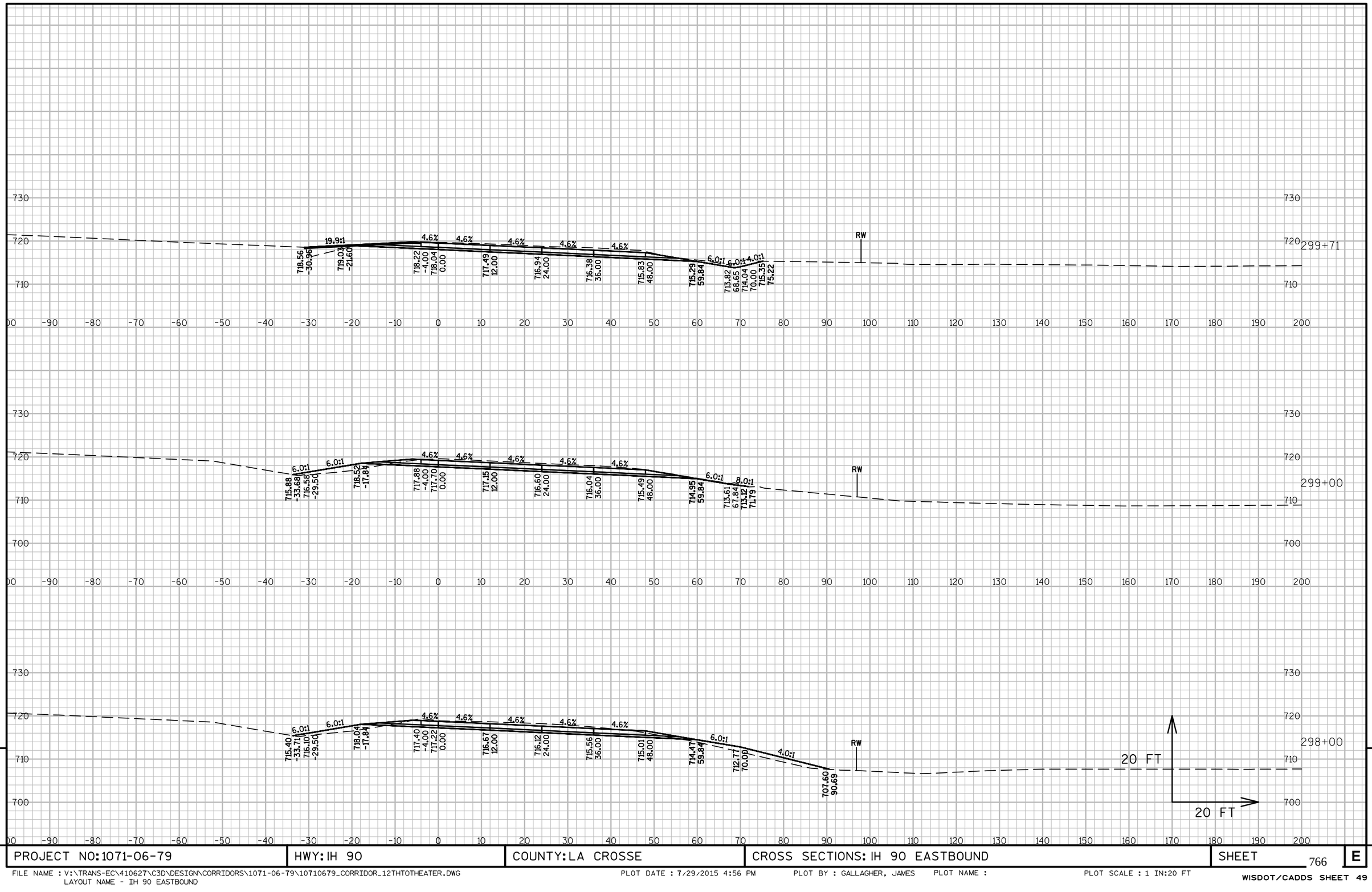
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 765 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

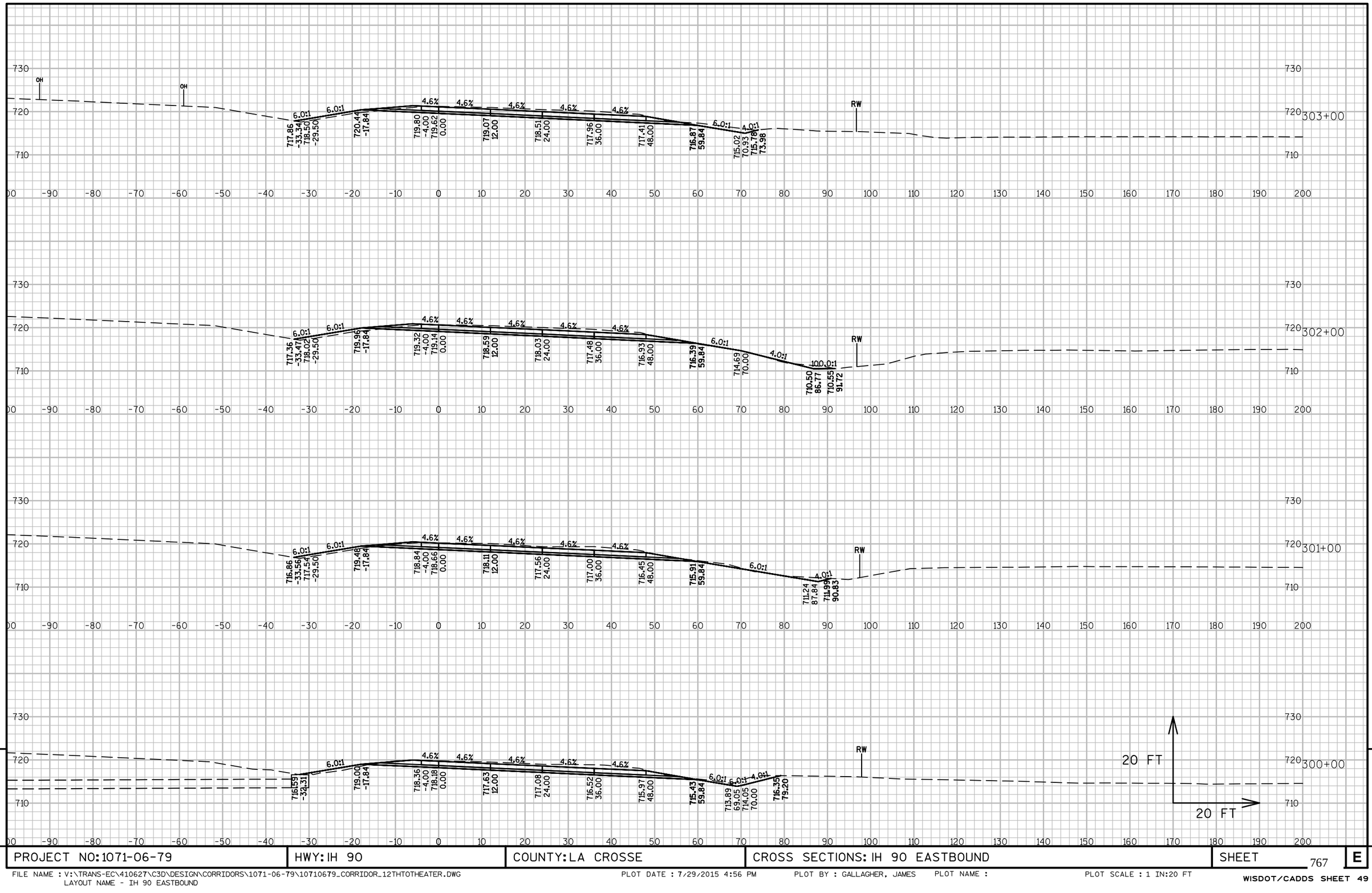
PLOT DATE : 7/29/2015 4:56 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 766 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:56 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



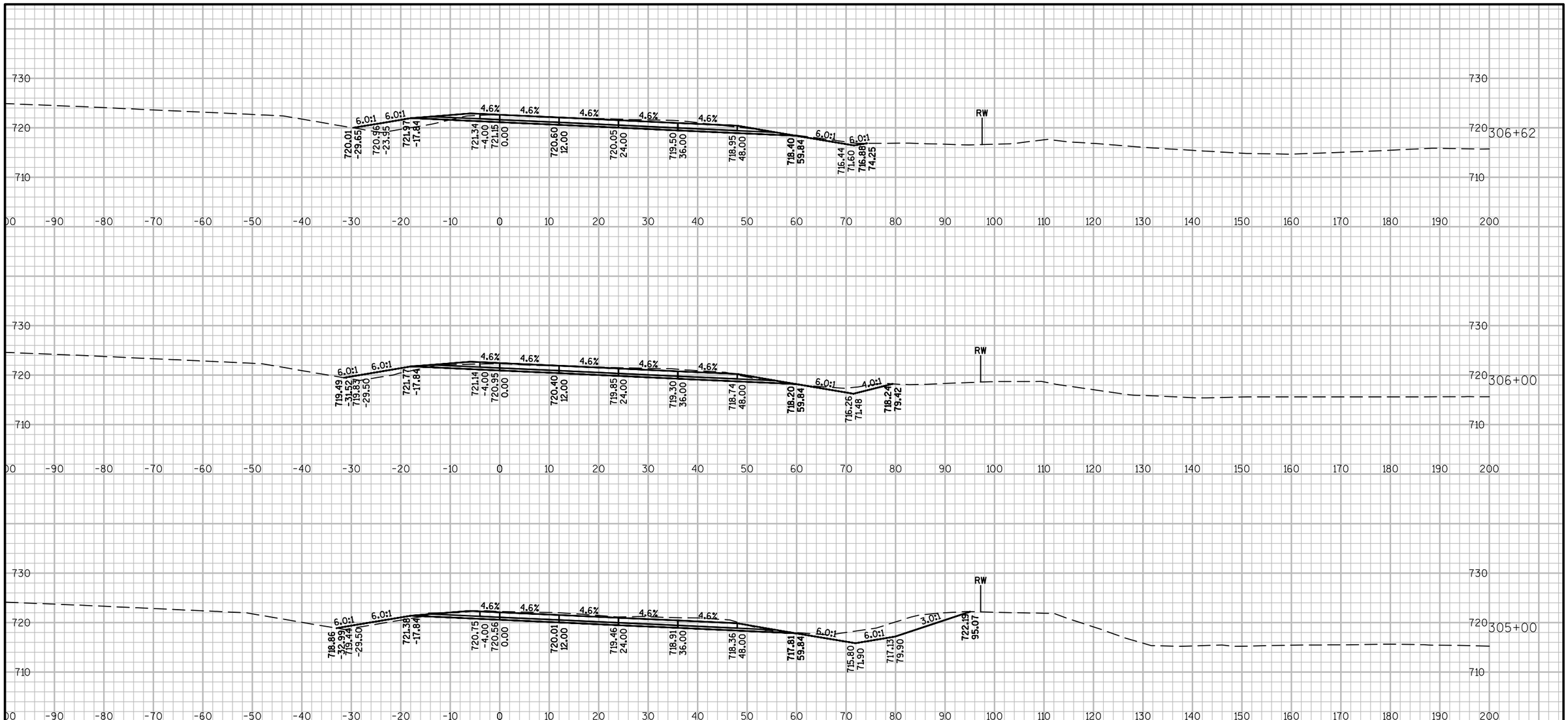
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 767	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:56 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



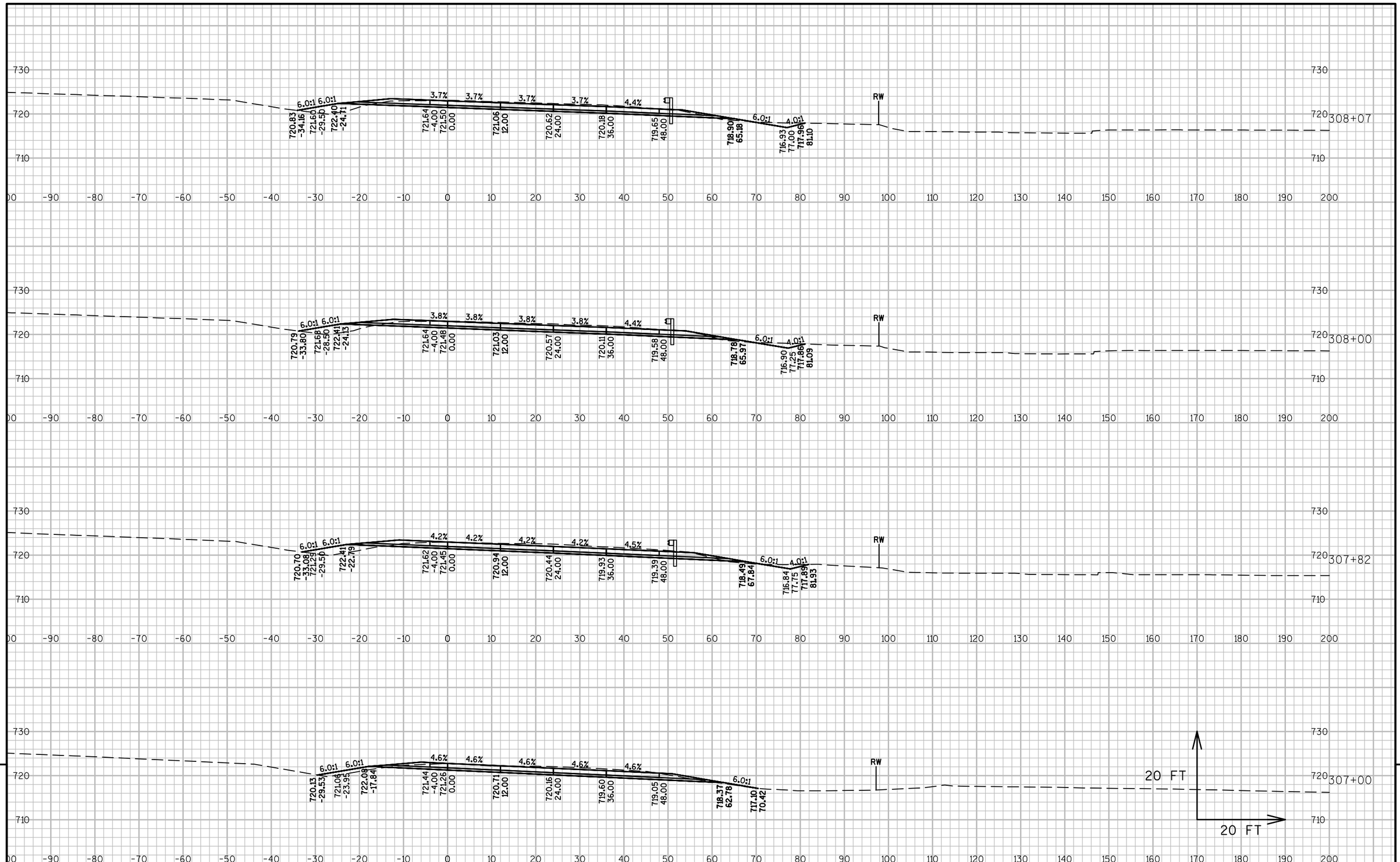
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 768 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:57 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



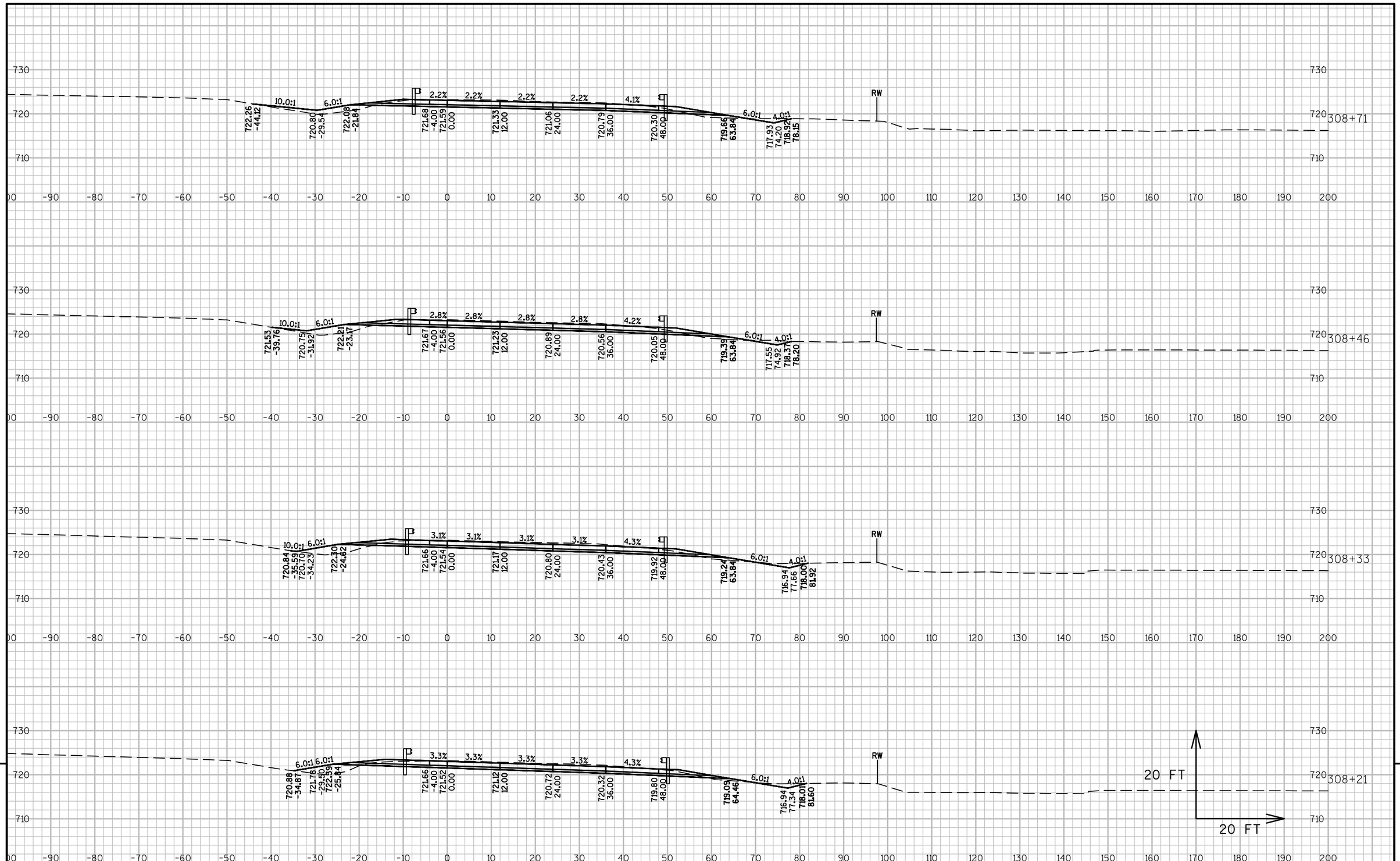
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 769	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:57 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 770 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:58 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



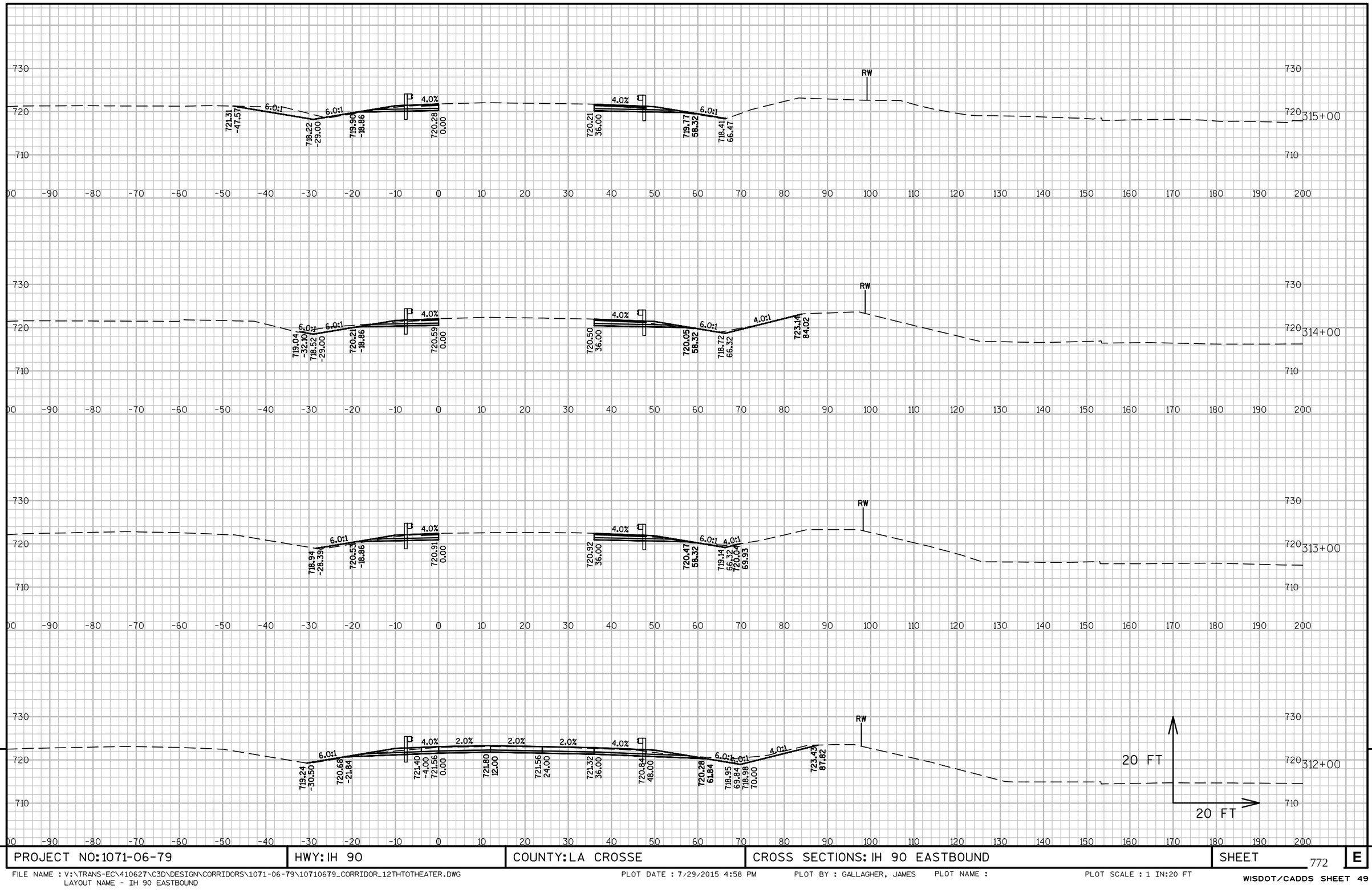
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 771	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

PLOT DATE : 7/29/2015 4:58 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



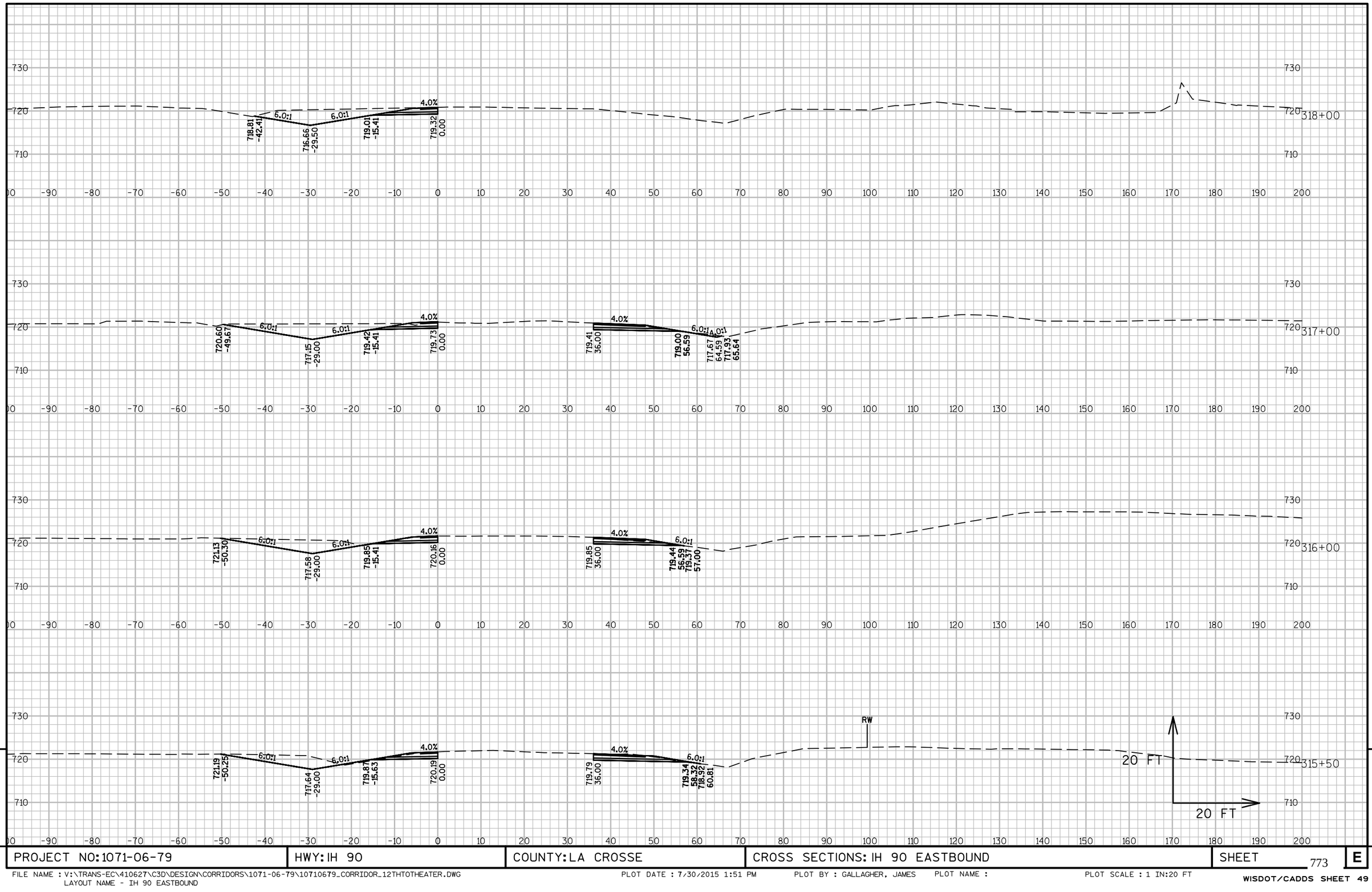
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 772	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

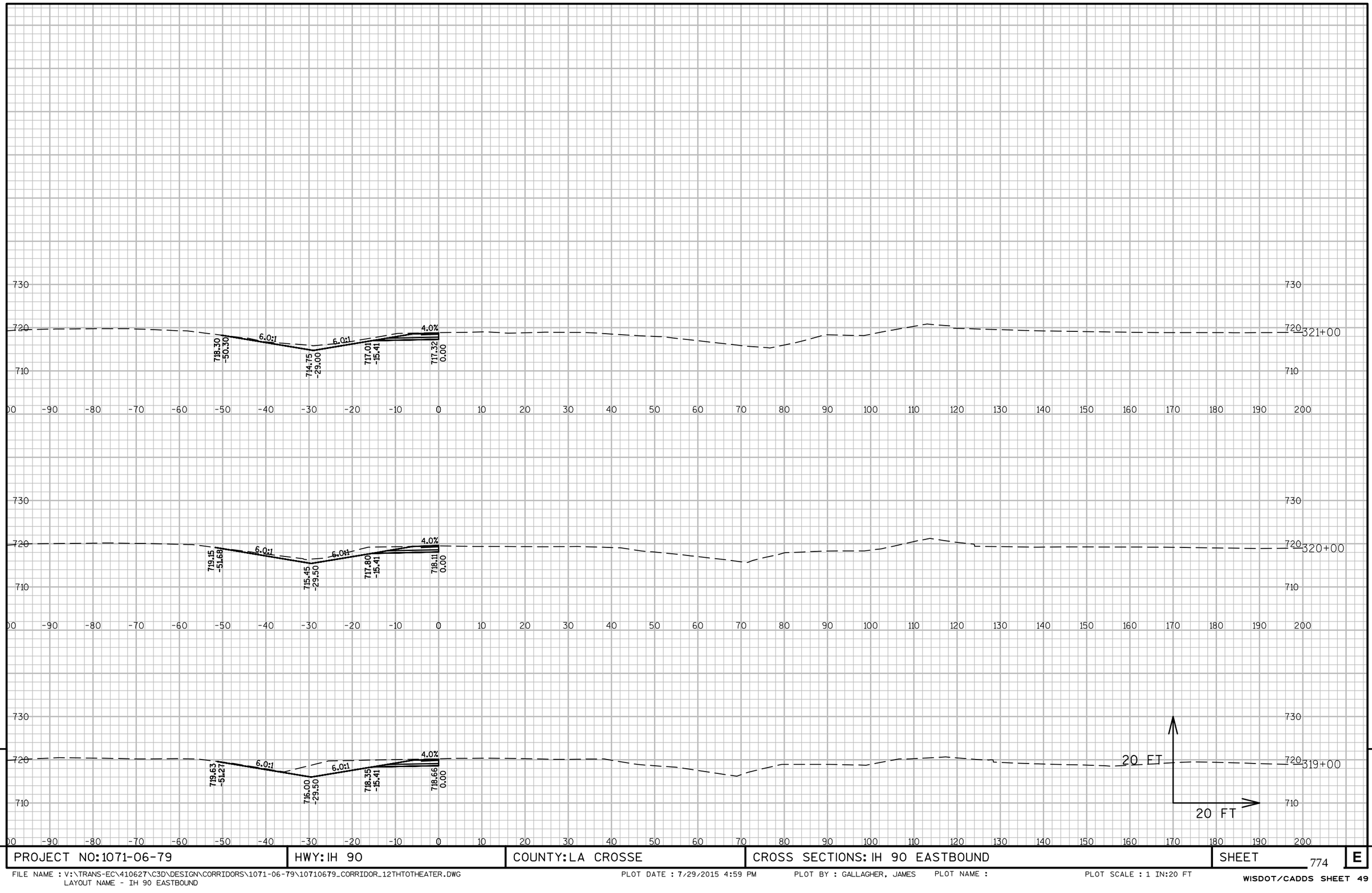
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 773	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND
PLOT DATE : 7/30/2015 1:51 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



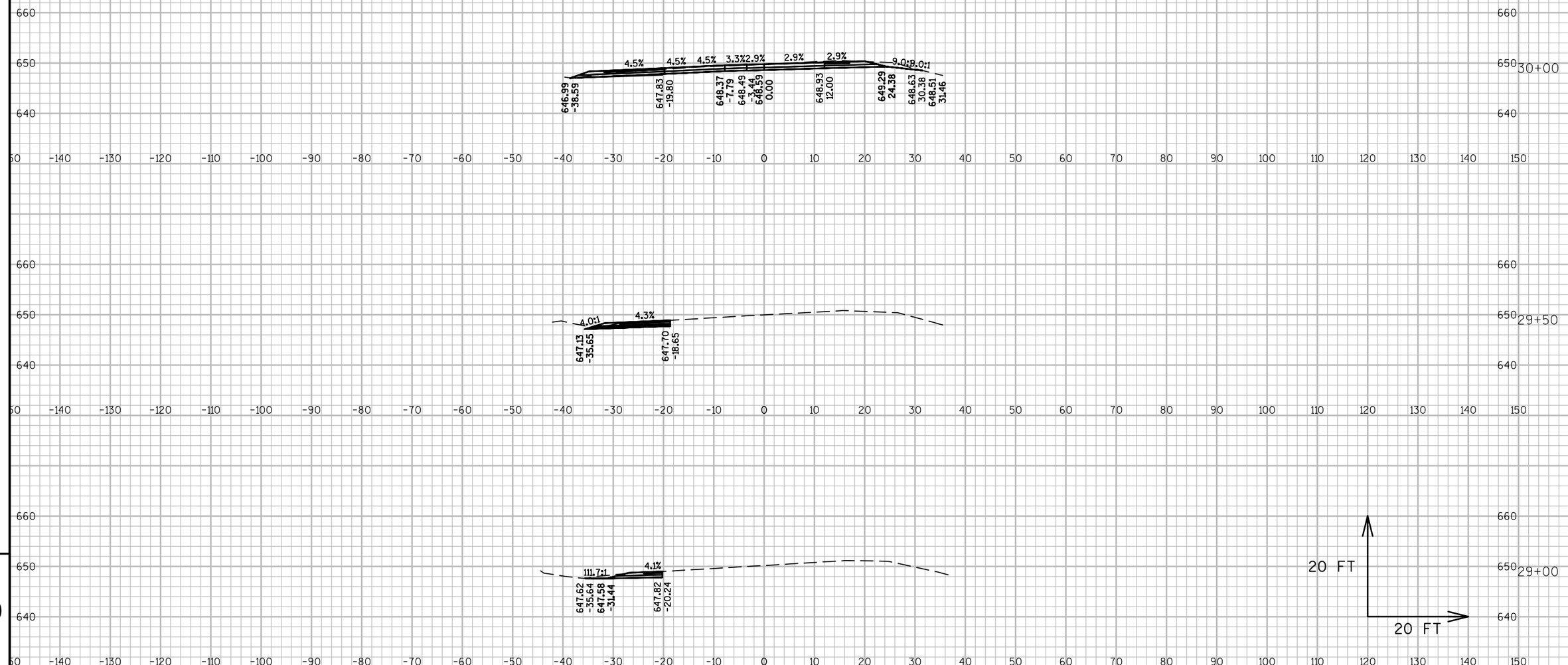
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: IH 90 EASTBOUND	SHEET 774	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_12THTOTHEATER.DWG
LAYOUT NAME - IH 90 EASTBOUND

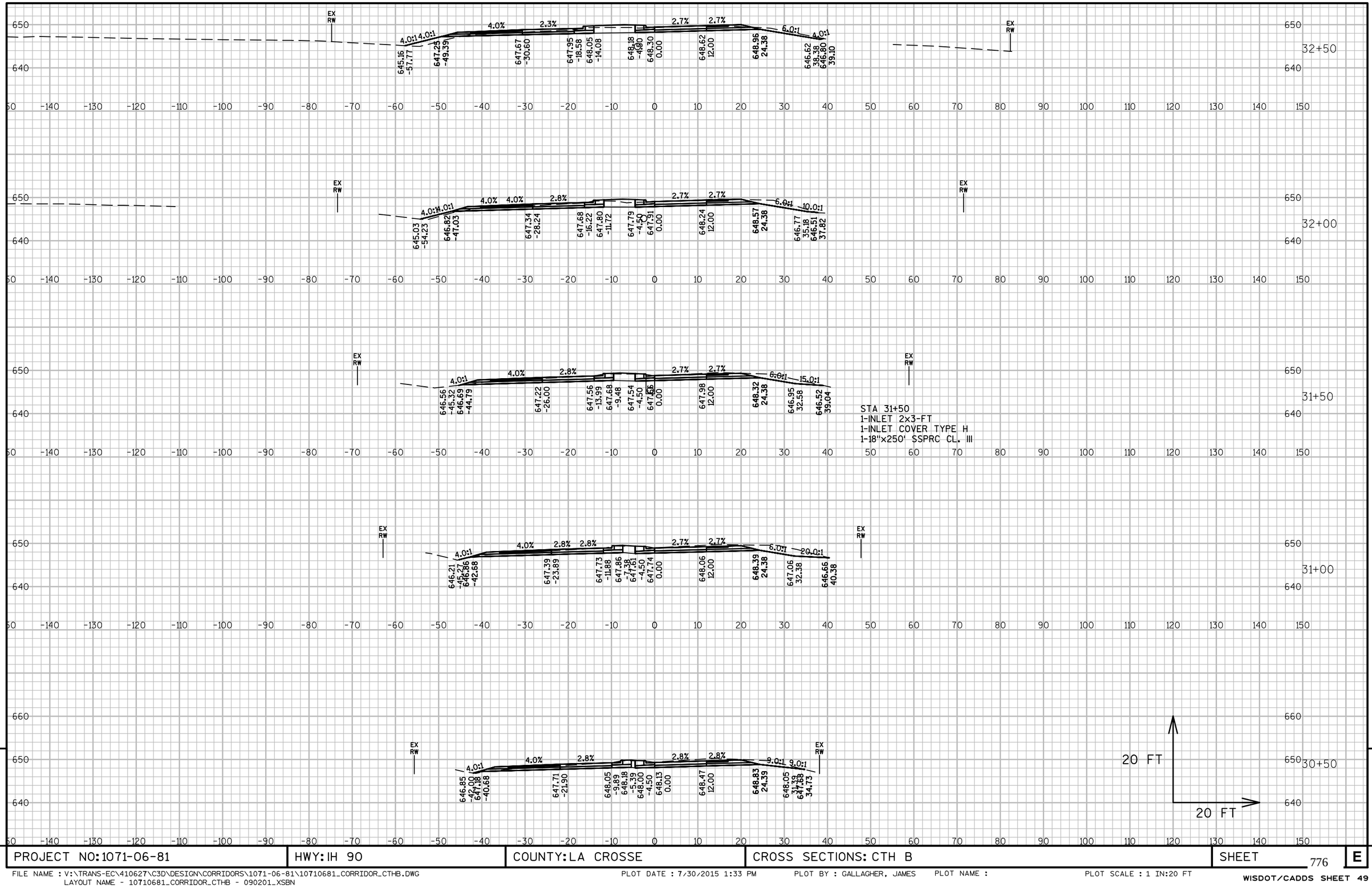
PLOT DATE : 7/29/2015 4:59 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 775	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 090200_XSBN

PLOT DATE : 7/30/2015 1:32 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

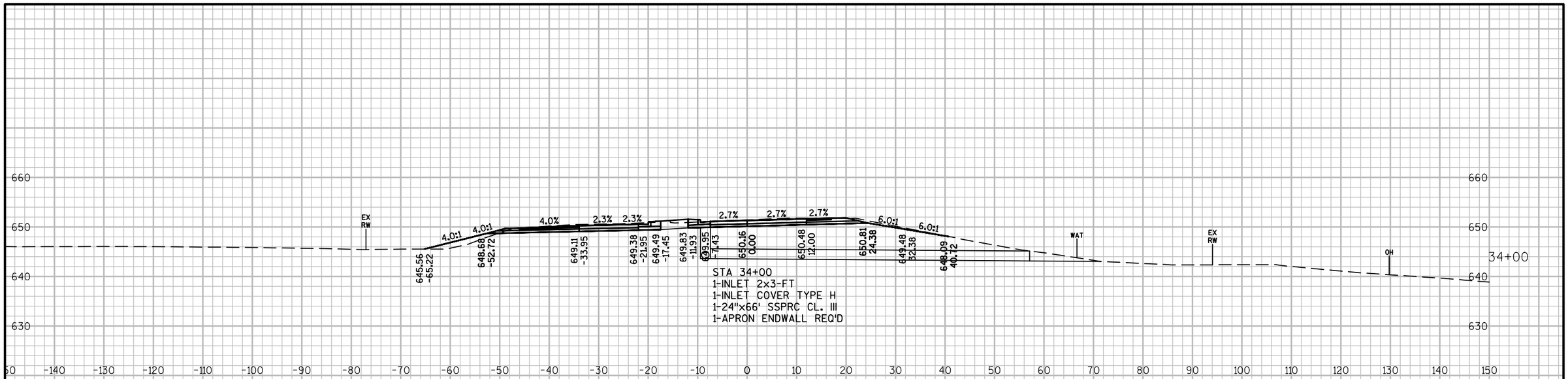


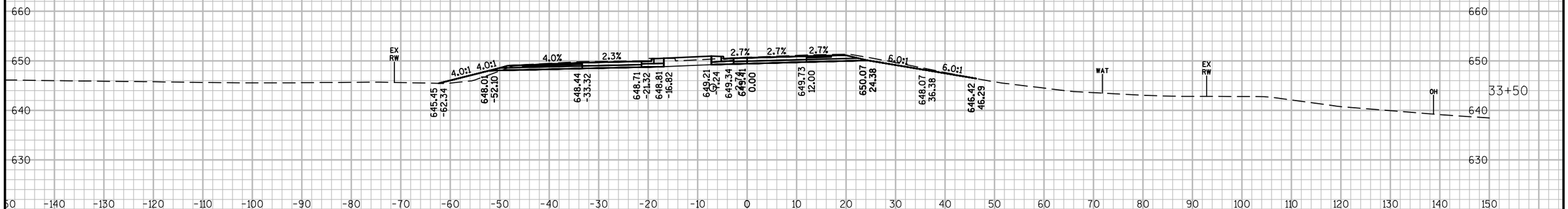
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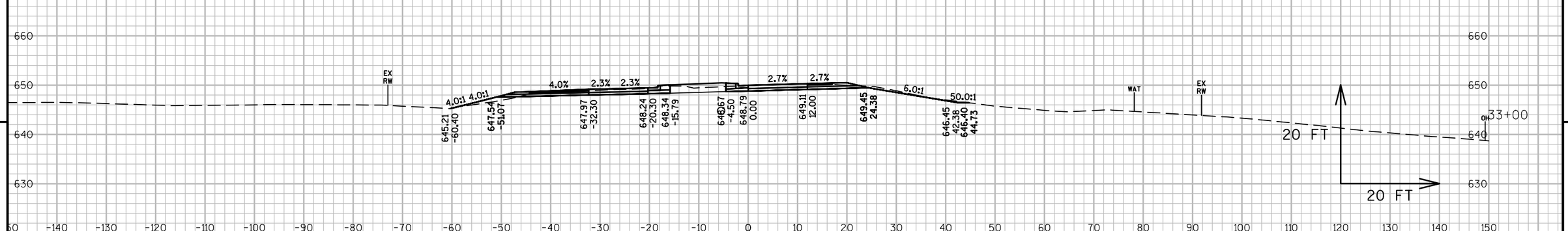
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PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 776	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090201_XSBN
PLOT DATE : 7/30/2015 1:33 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49





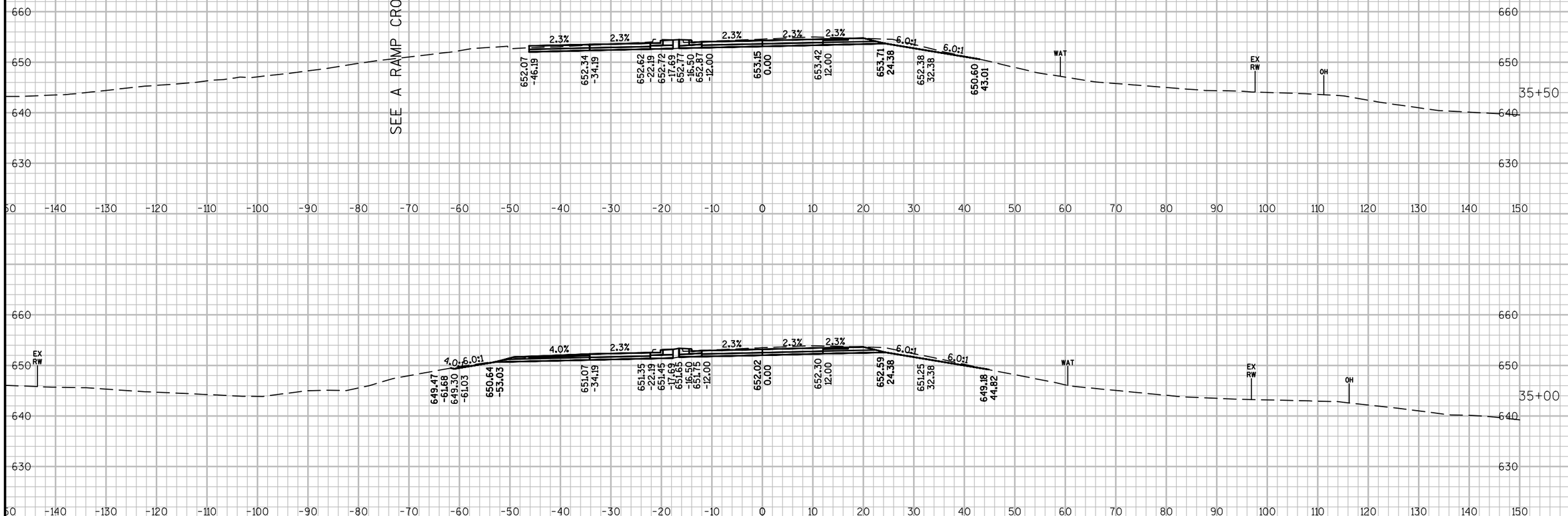


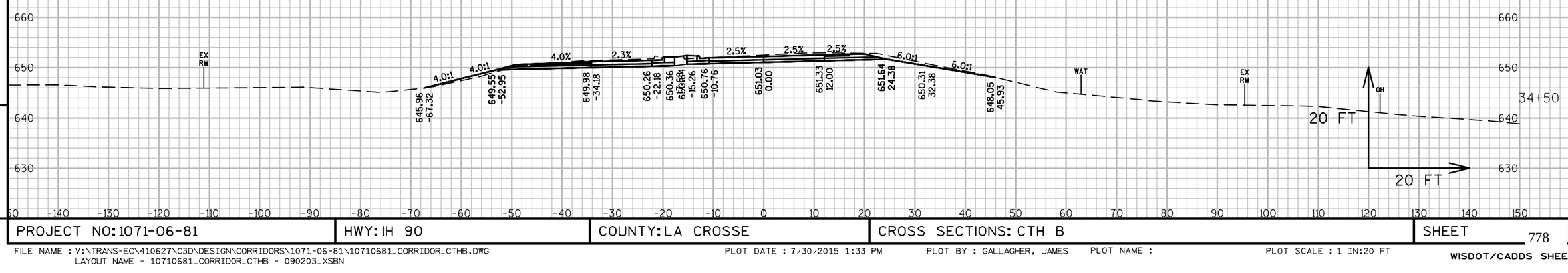
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 777	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090202_XSBN
PLOT DATE : 7/30/2015 1:33 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

SEE A RAMP CROSS SECTIONS

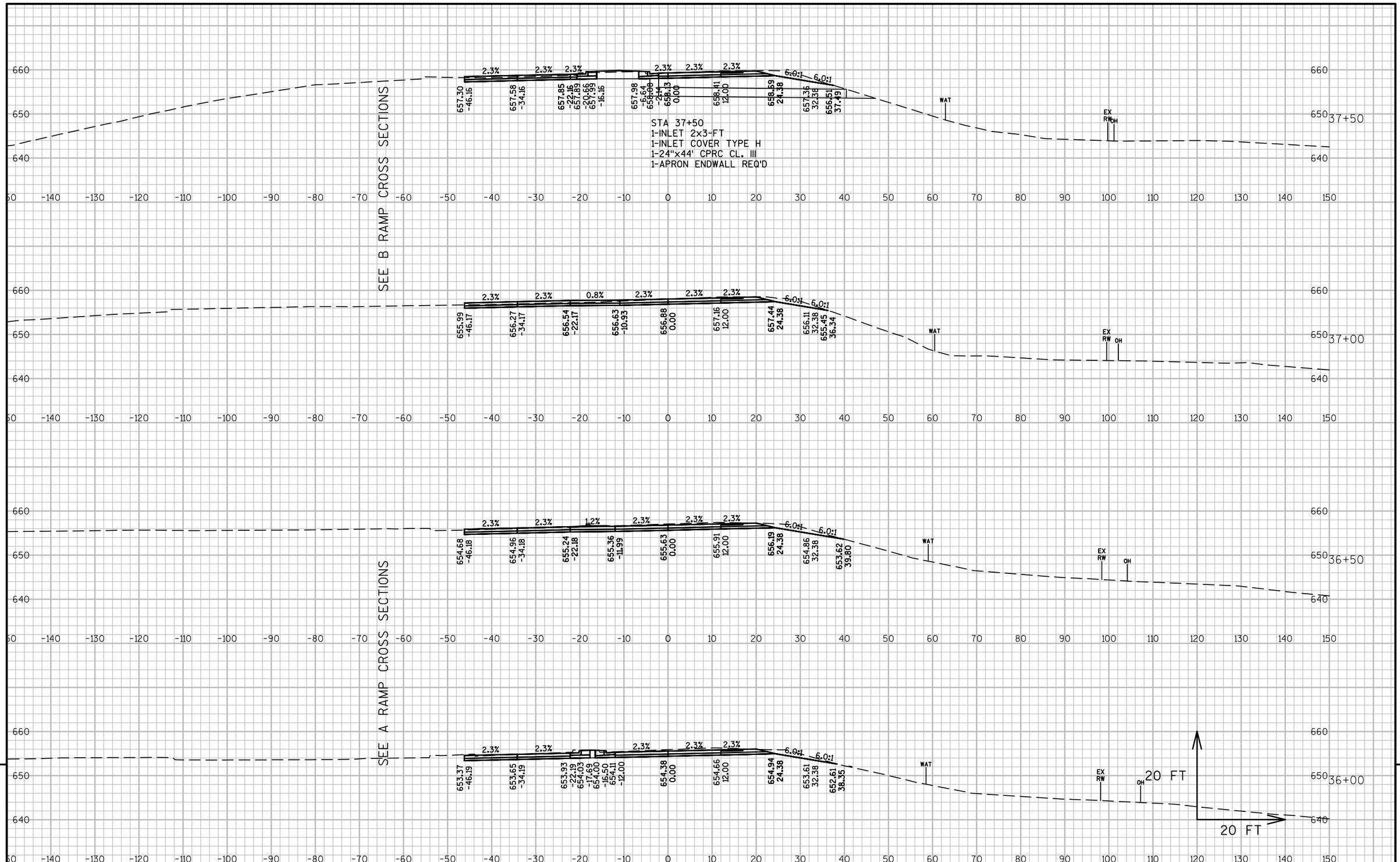




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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 778	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090203_XSBN
PLOT DATE : 7/30/2015 1:33 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

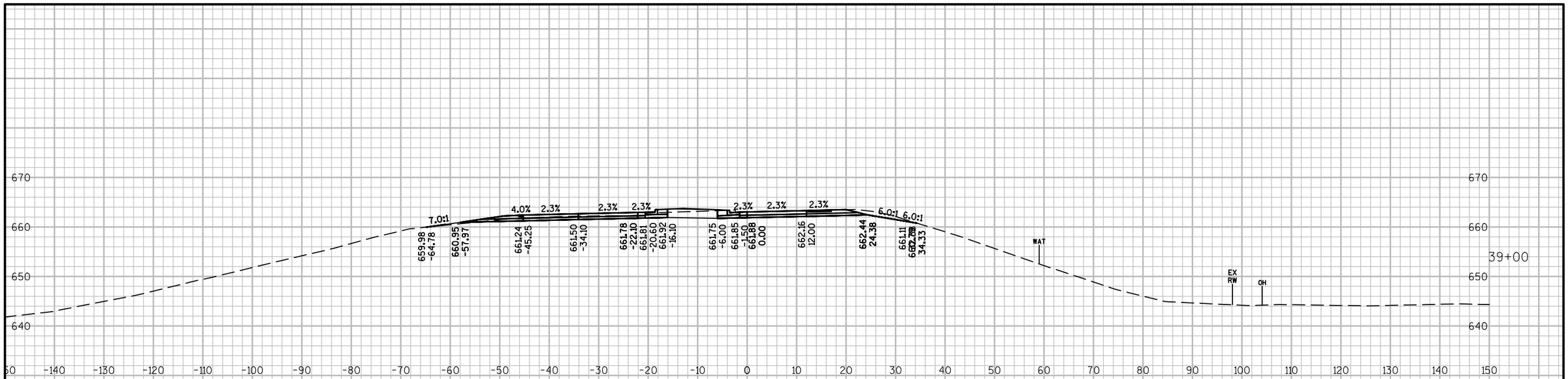


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 779	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090204_XSBN

PLOT DATE : 7/30/2015 1:34 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



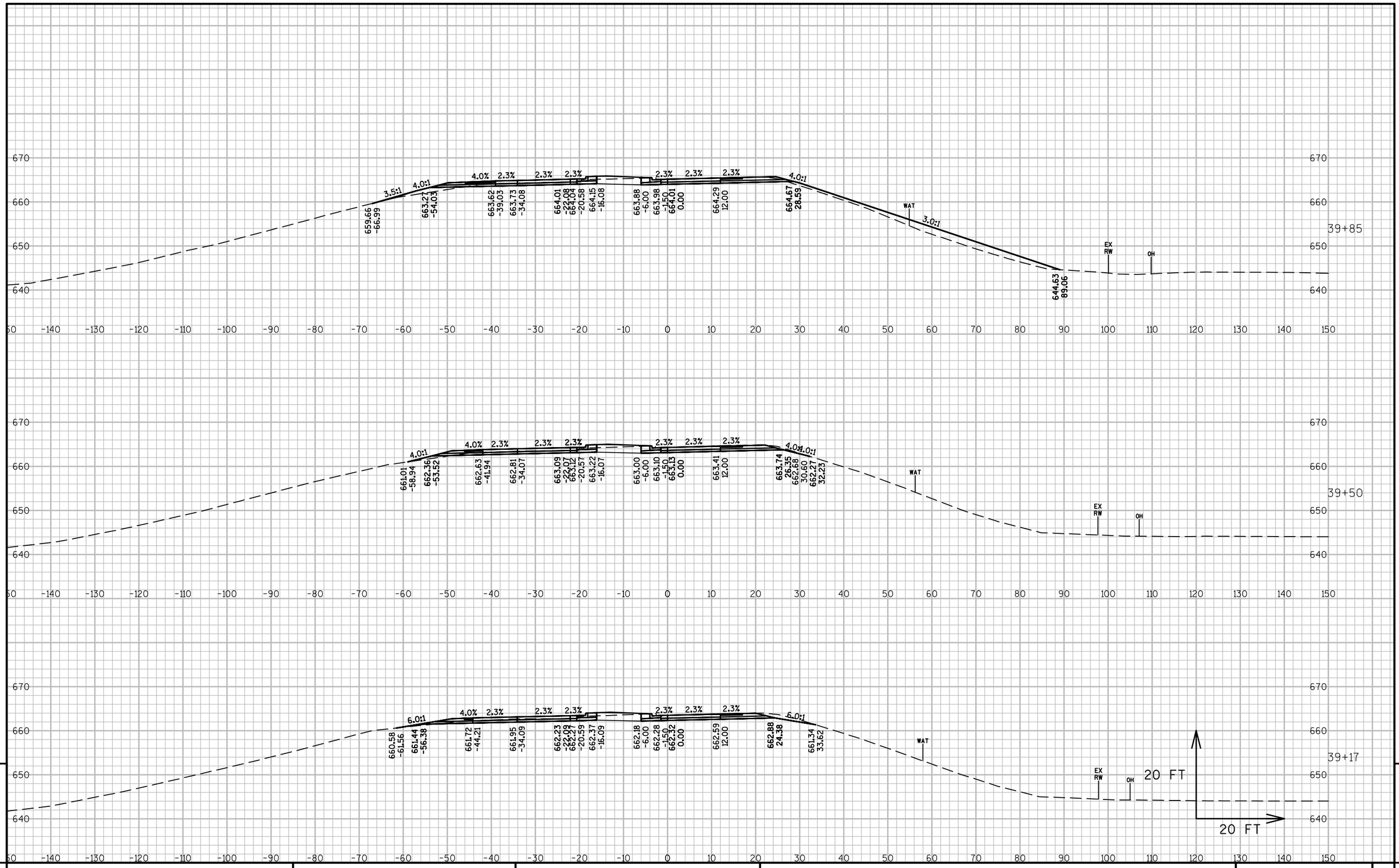
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 780	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090205_XSBN

PLOT DATE : 7/30/2015 1:34 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

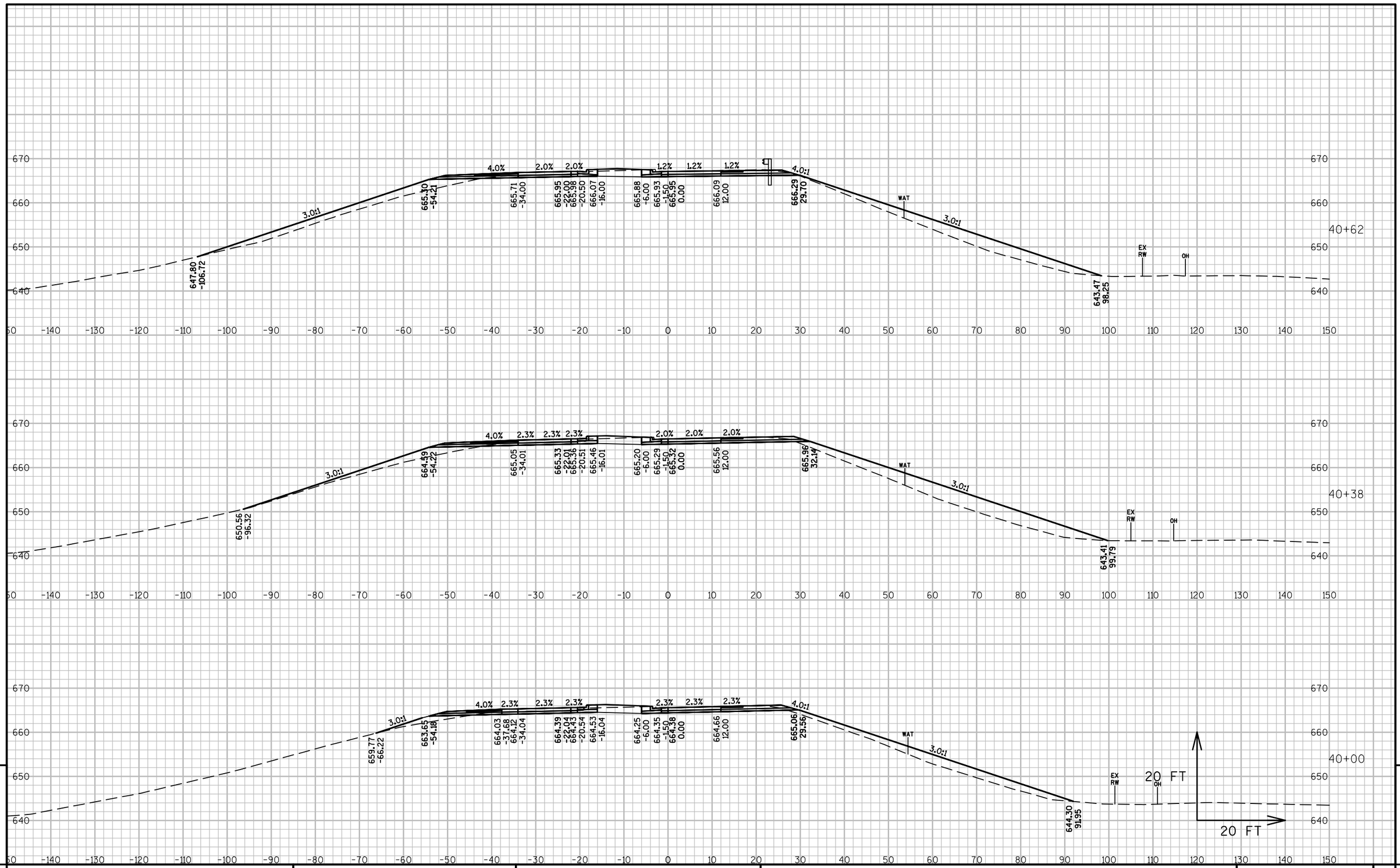


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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 781	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090206_XSBN

PLOT DATE : 7/30/2015 1:34 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

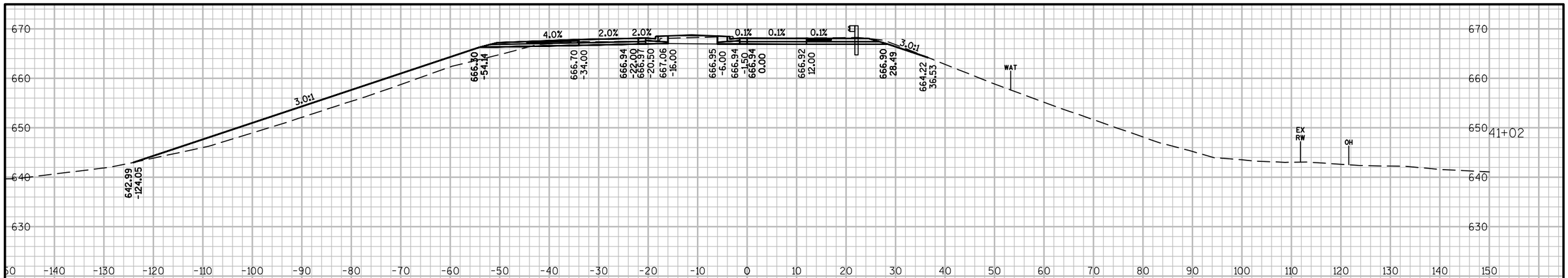


PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 782	E

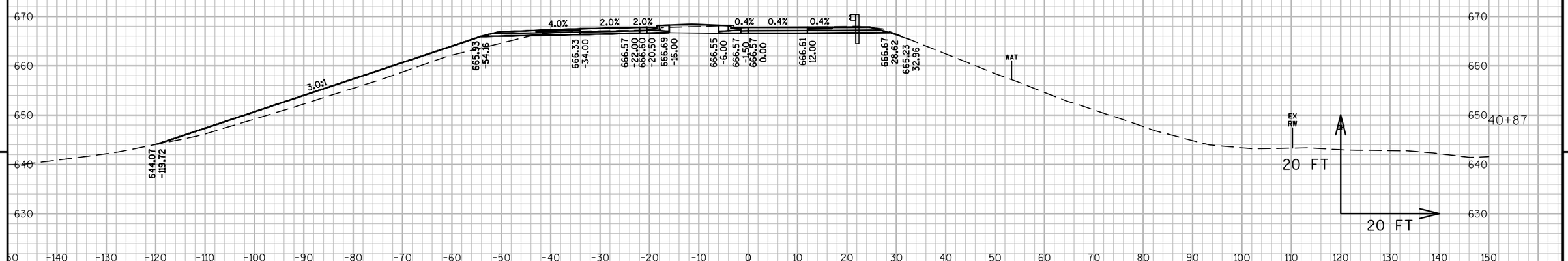
FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090207_XSBN

PLOT DATE : 7/30/2015 1:35 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49







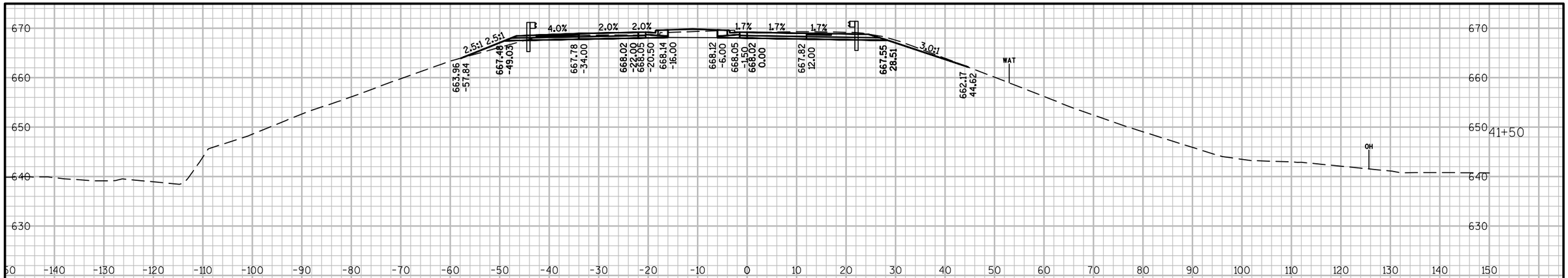
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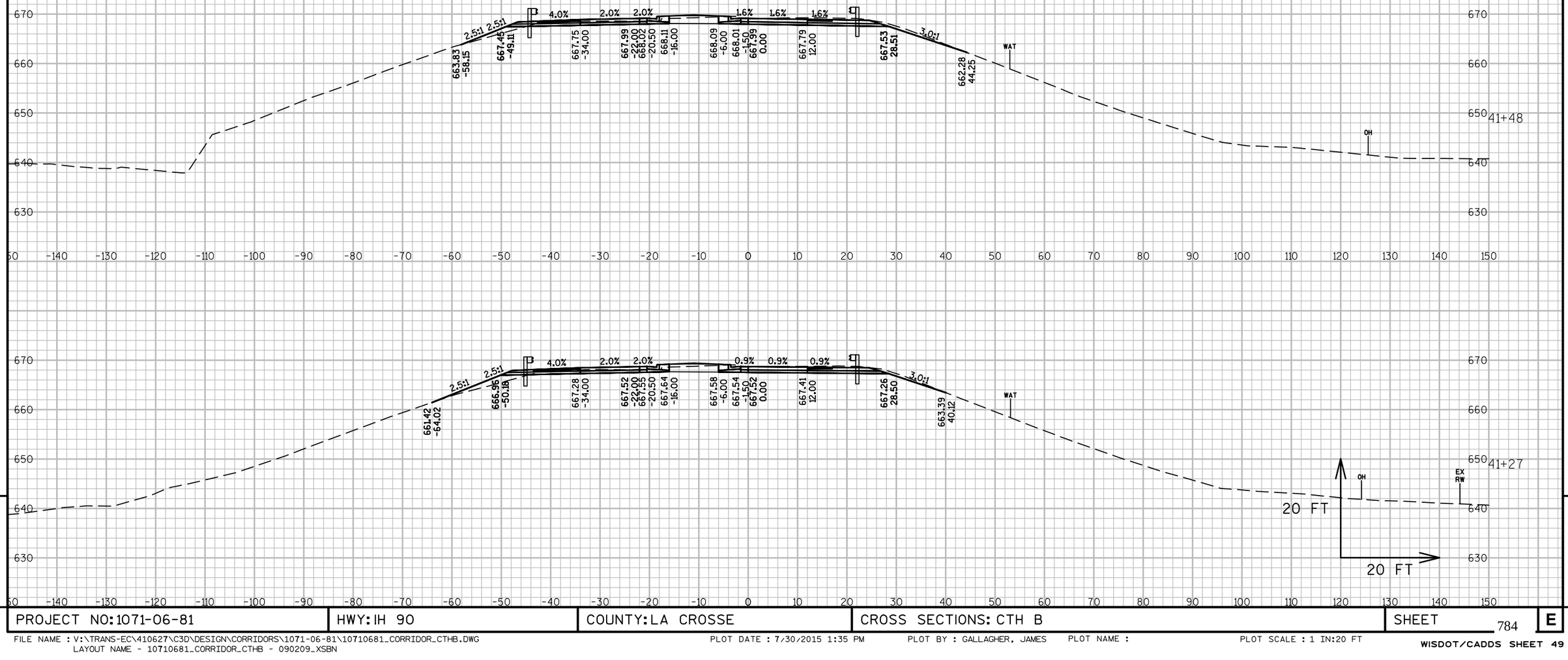
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 783	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090208_XSBN

PLOT DATE : 7/30/2015 1:35 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT





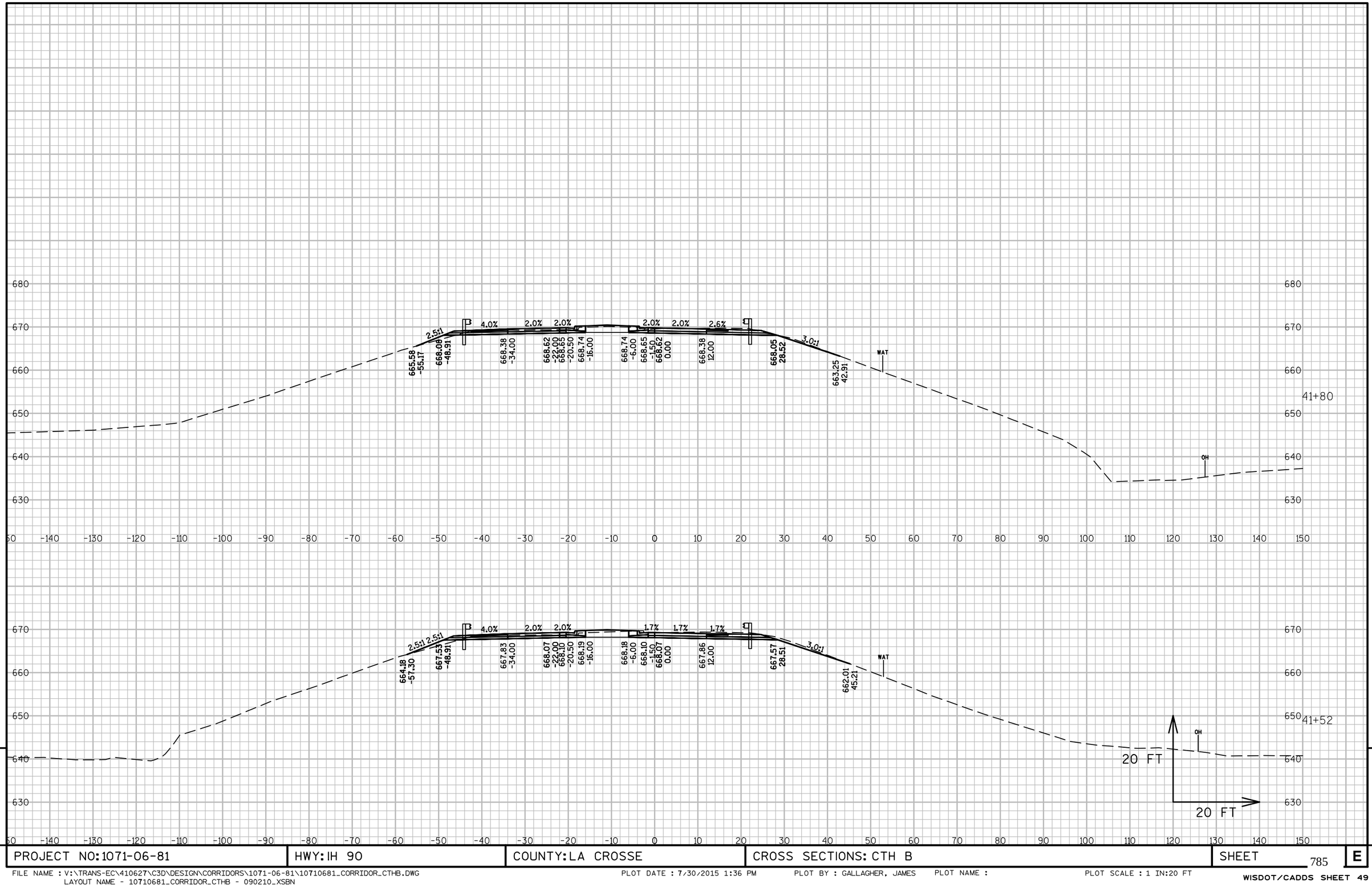
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 784	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090209_XSBN

PLOT DATE : 7/30/2015 1:35 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

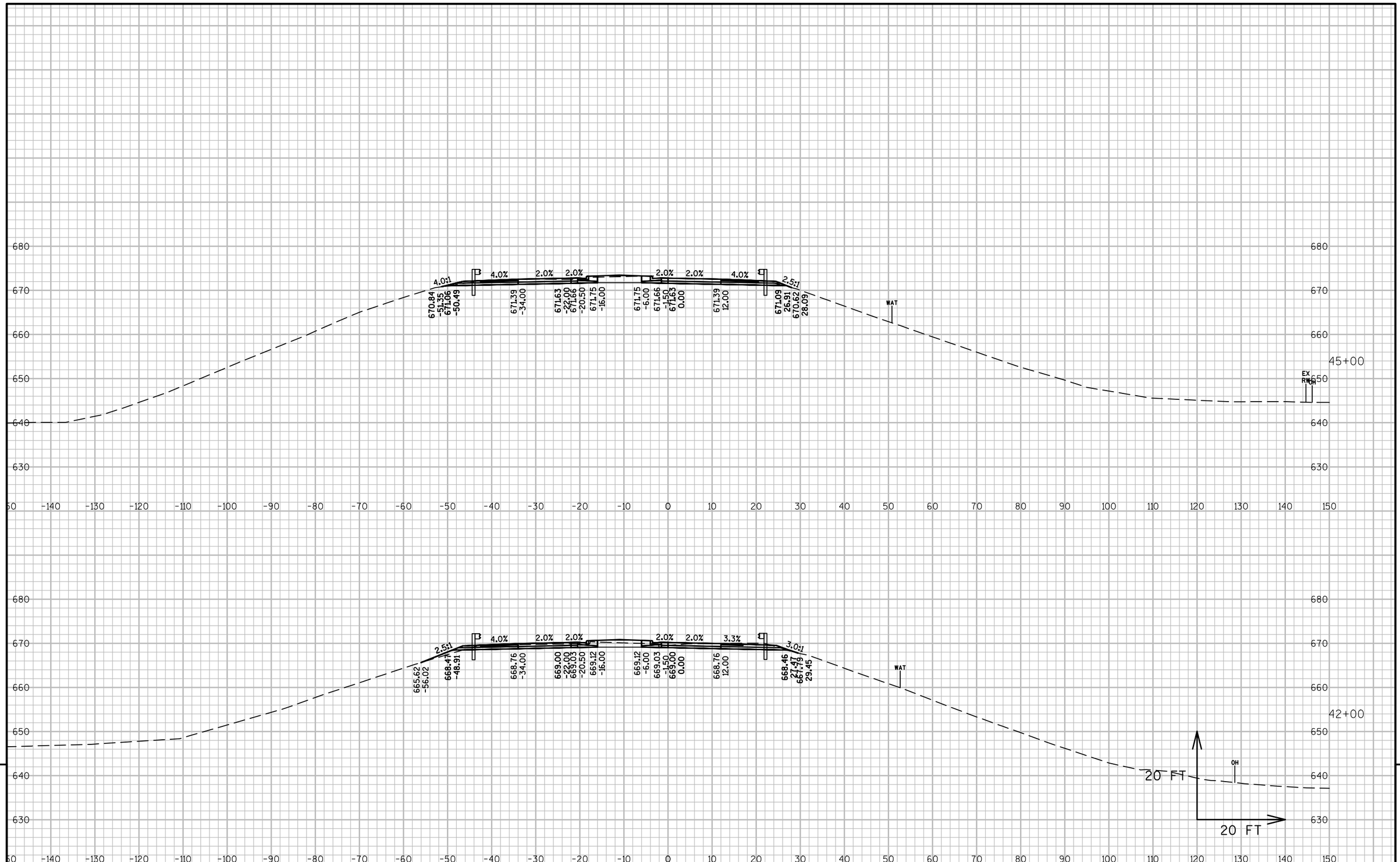


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 785	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090210_XSBN

PLOT DATE : 7/30/2015 1:36 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

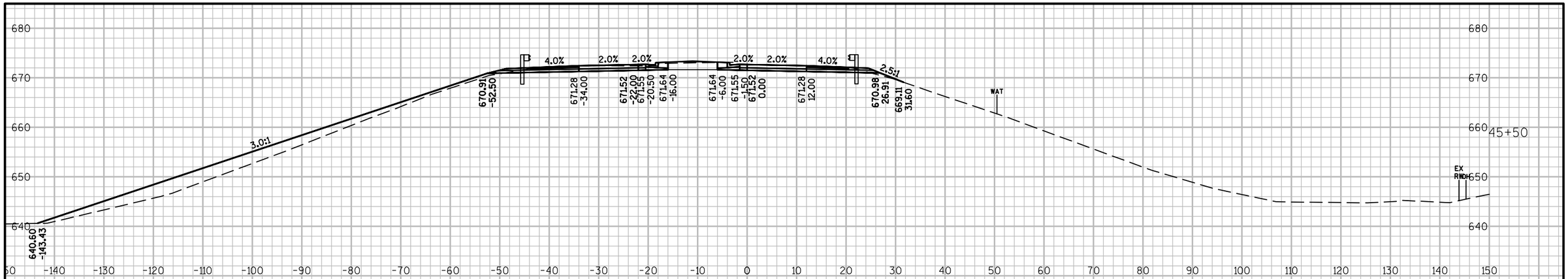


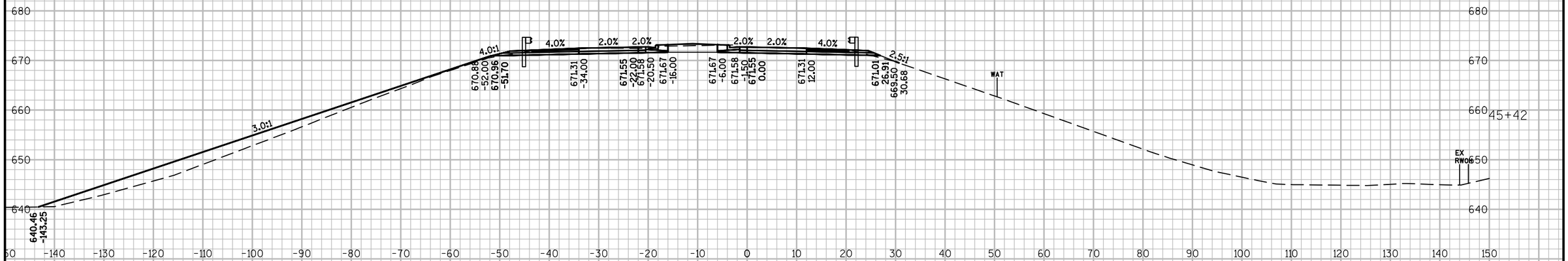
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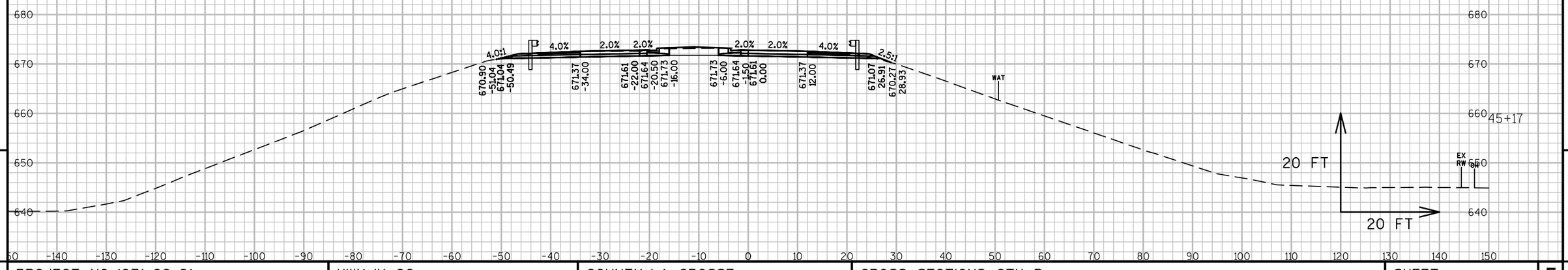
FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090211_XSBN

PLOT DATE : 7/30/2015 1:36 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49







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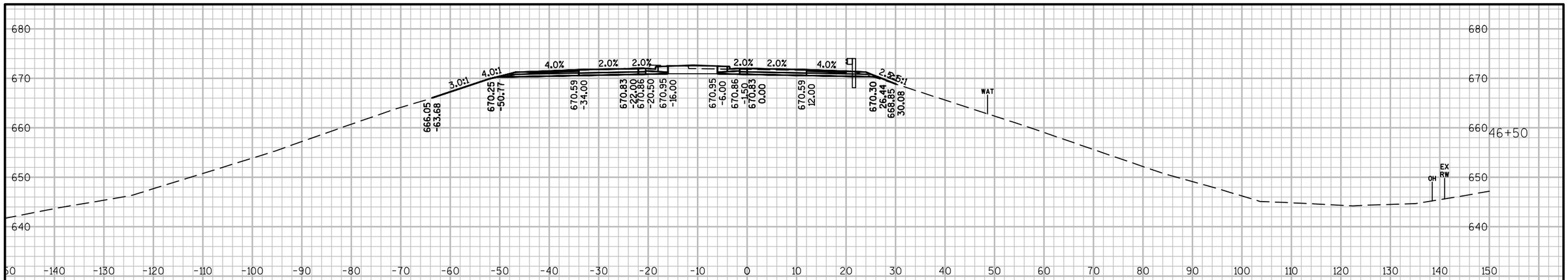
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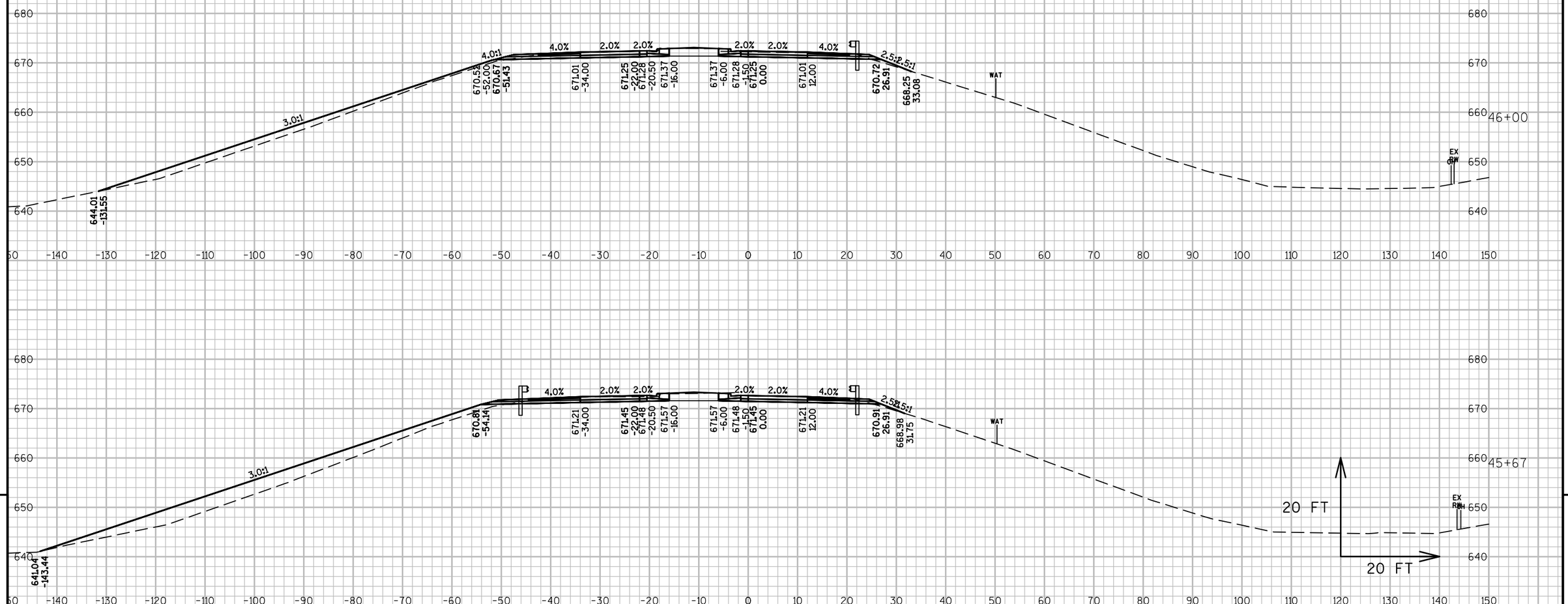
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 787	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090212_XSBN

PLOT DATE : 7/30/2015 1:36 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





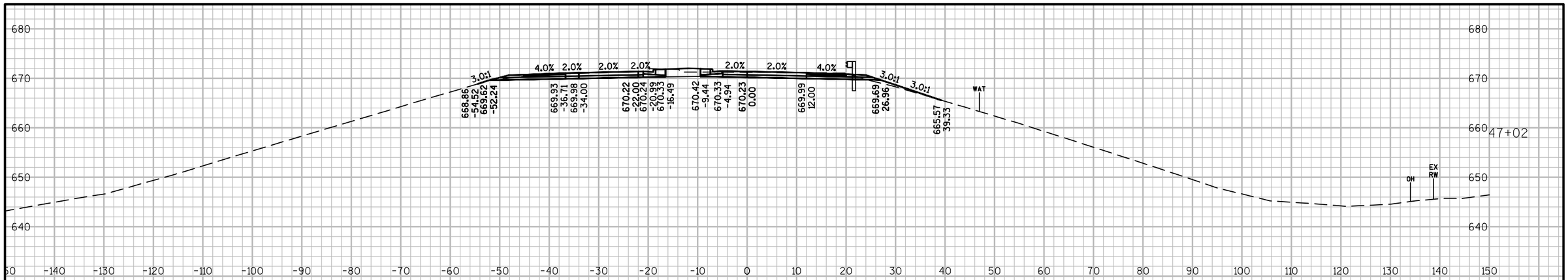
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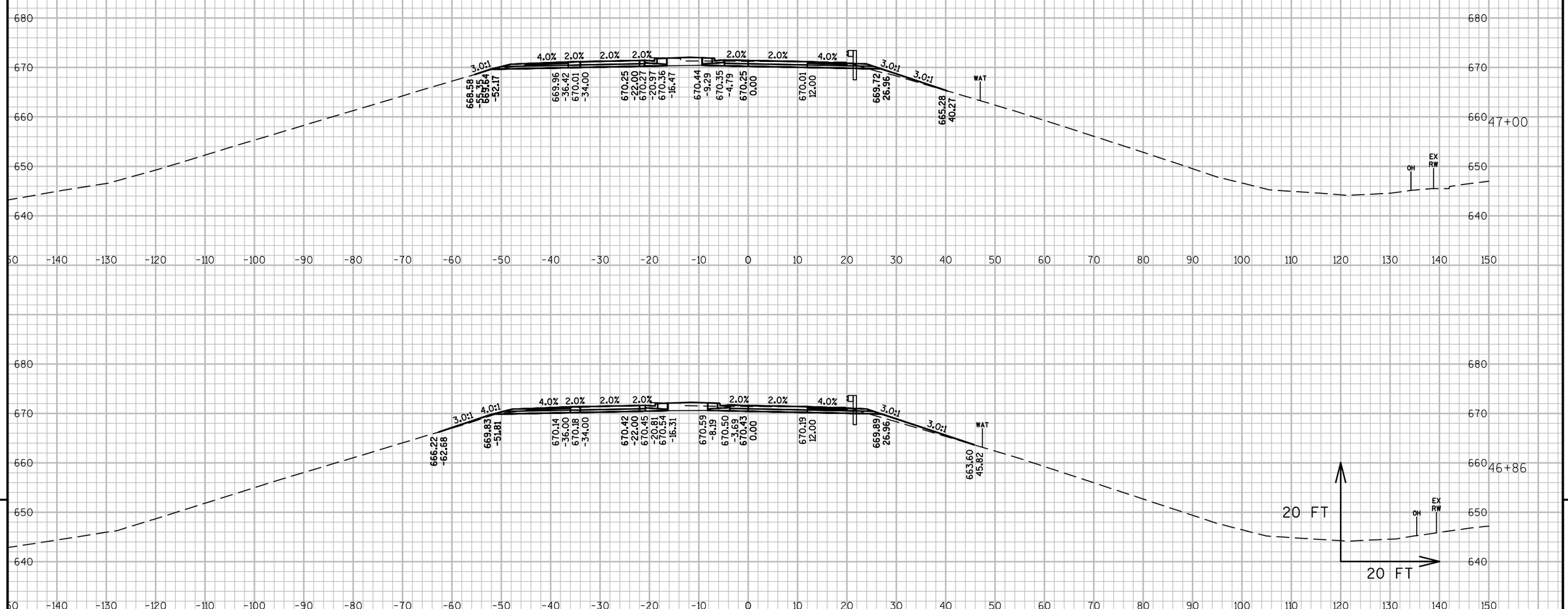
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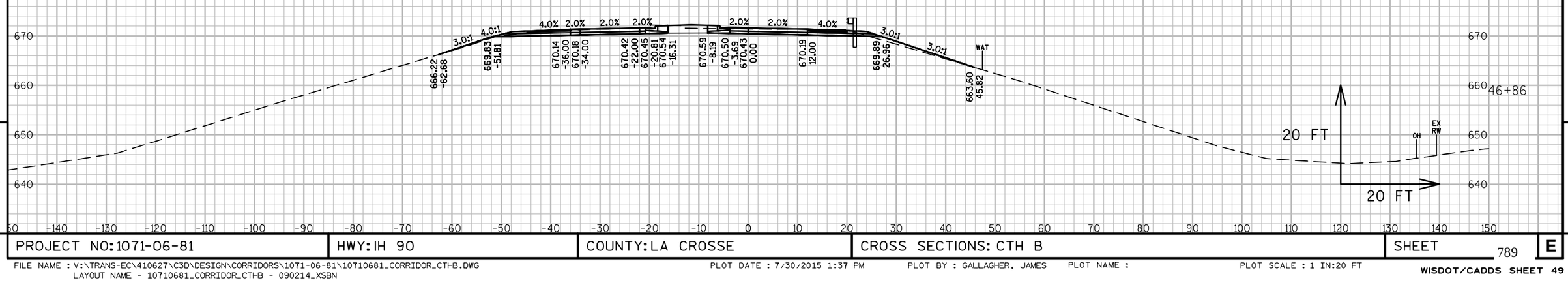
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 788	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090213_XSBN

PLOT DATE : 7/30/2015 1:37 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT







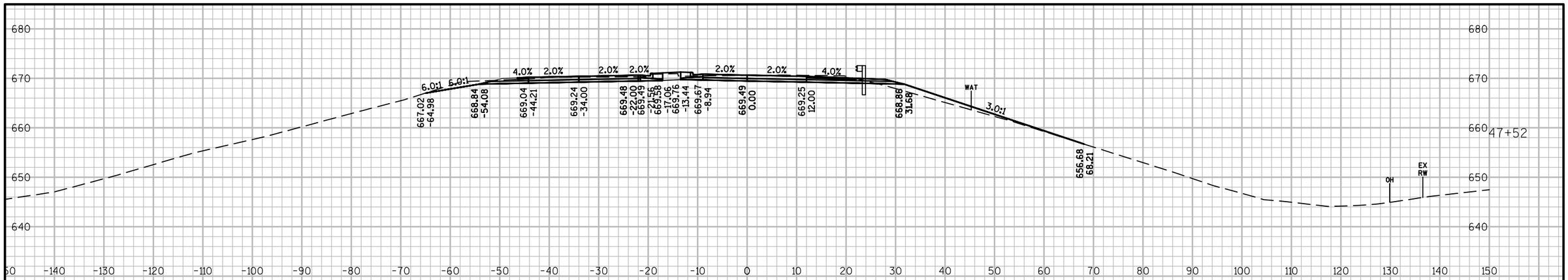
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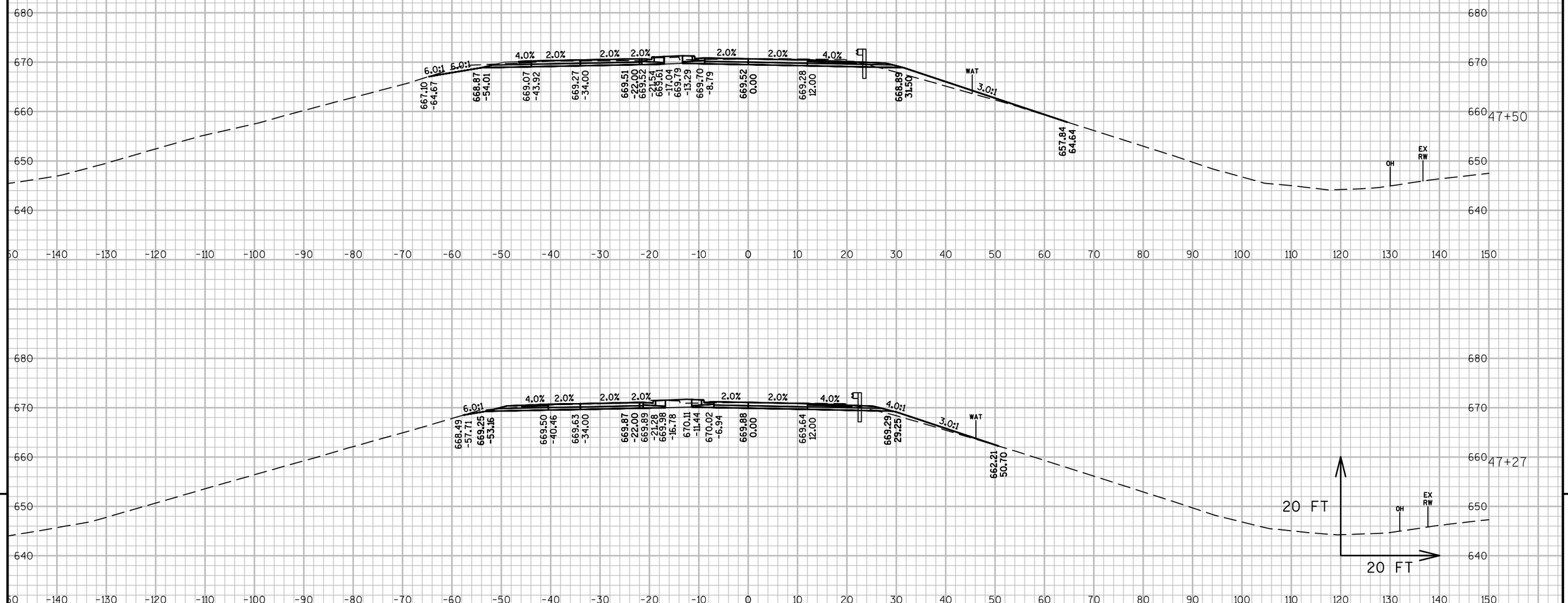
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 789	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090214_XSBN

PLOT DATE : 7/30/2015 1:37 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT





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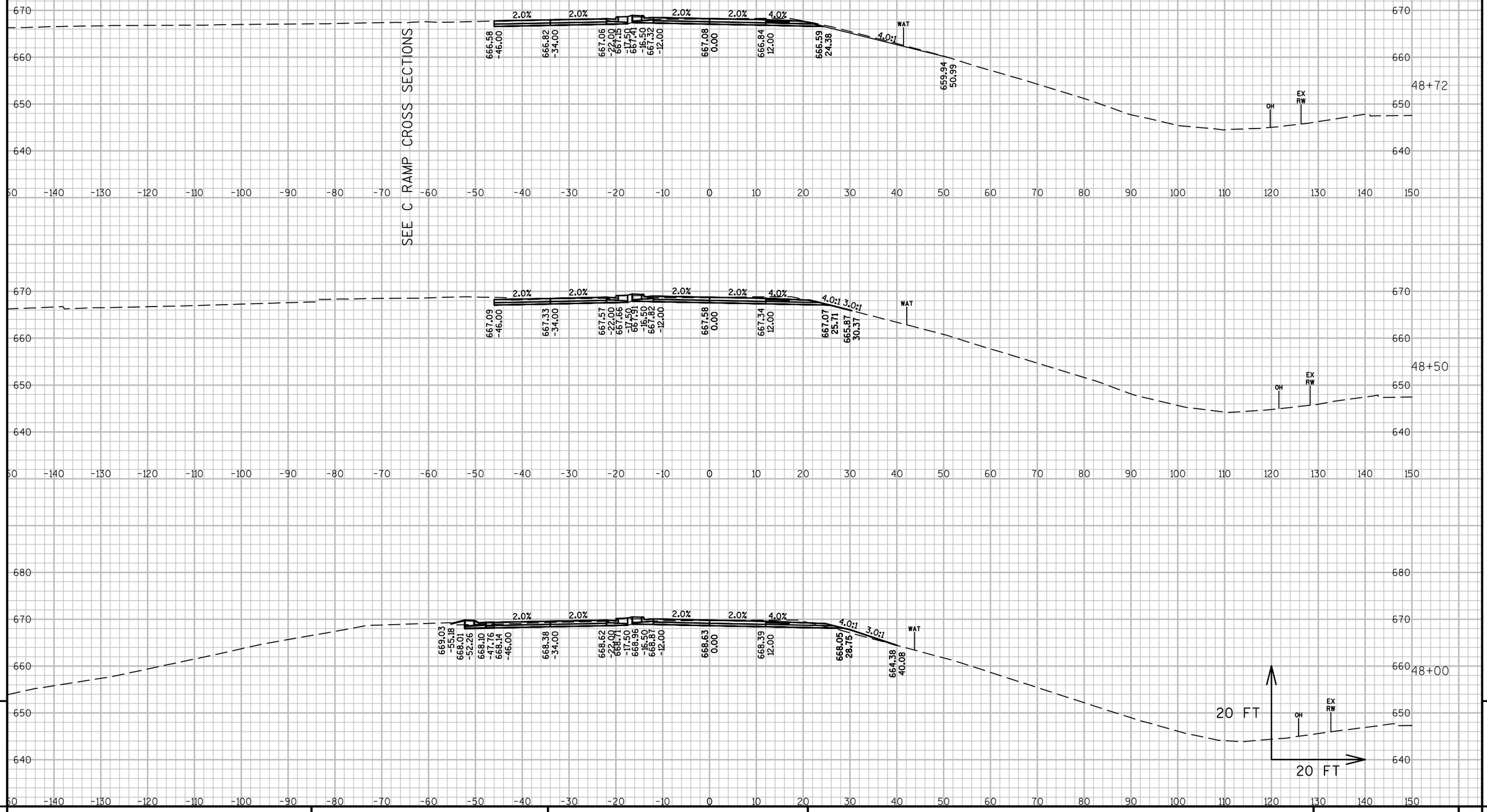
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 790	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090215_XSBN

PLOT DATE : 7/30/2015 1:37 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

SEE C RAMP CROSS SECTIONS

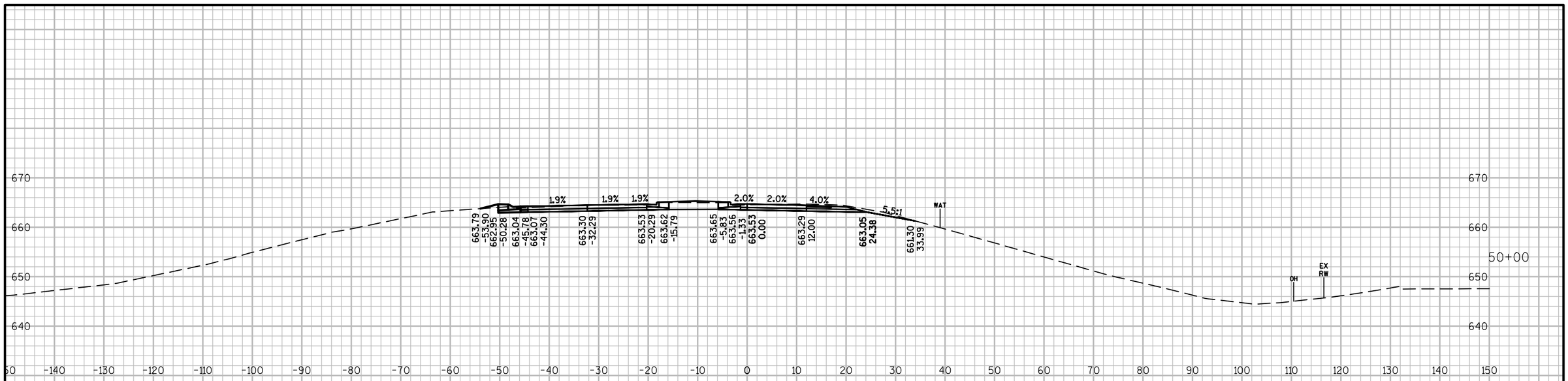


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 791	E

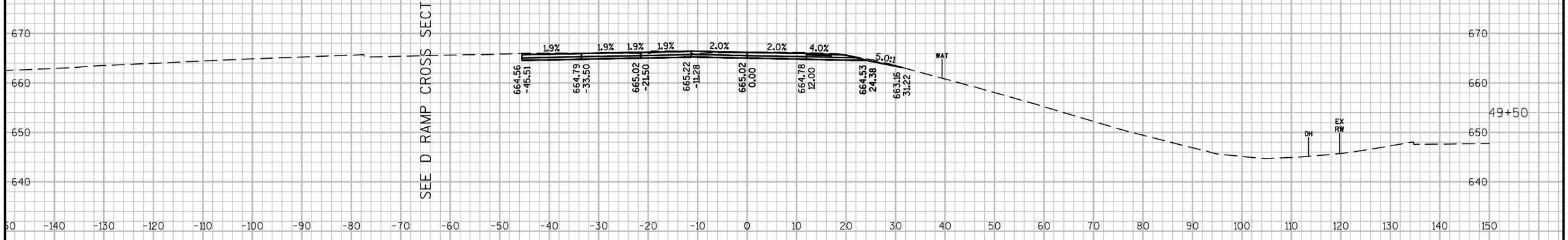
FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090216_XSBN

PLOT DATE : 7/30/2015 1:38 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

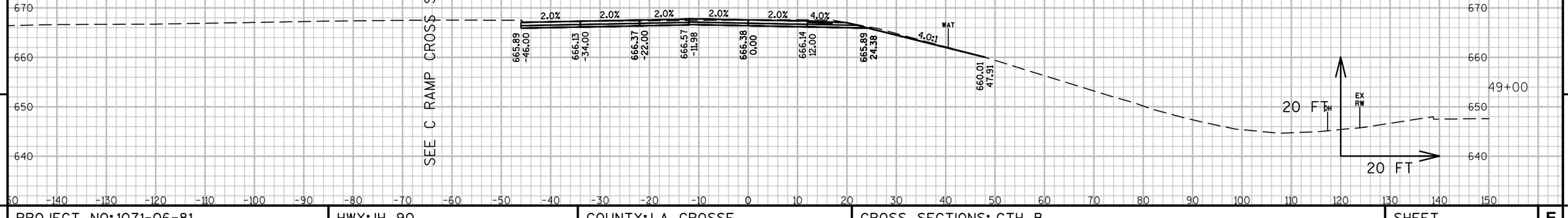
WISDOT/CADDS SHEET 49



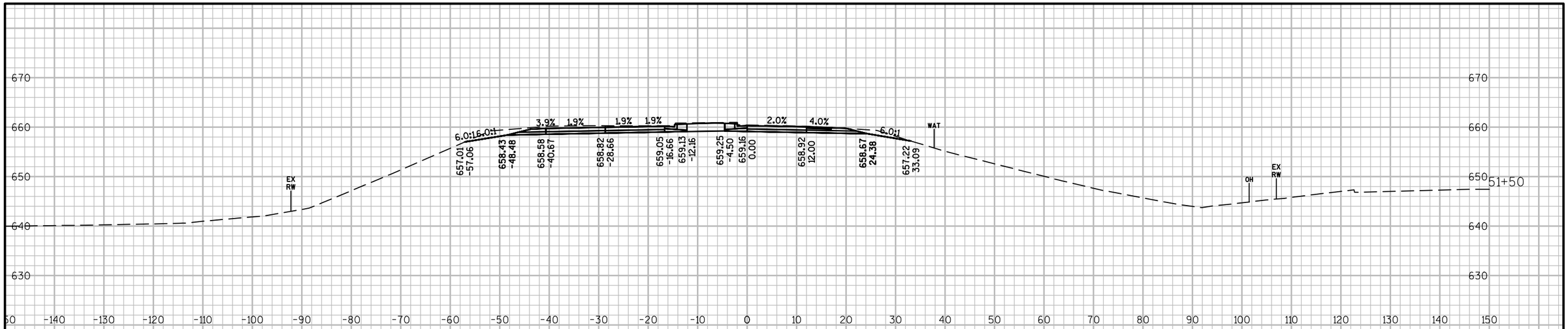
SEE D RAMP CROSS SECTIONS

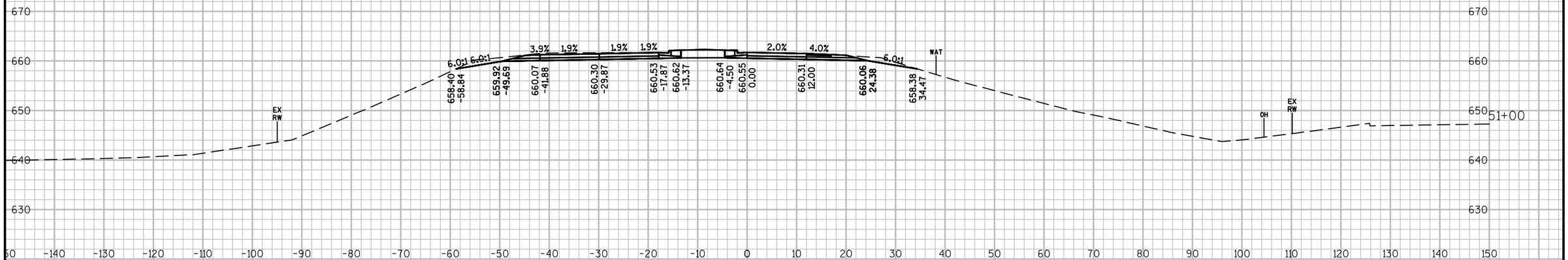


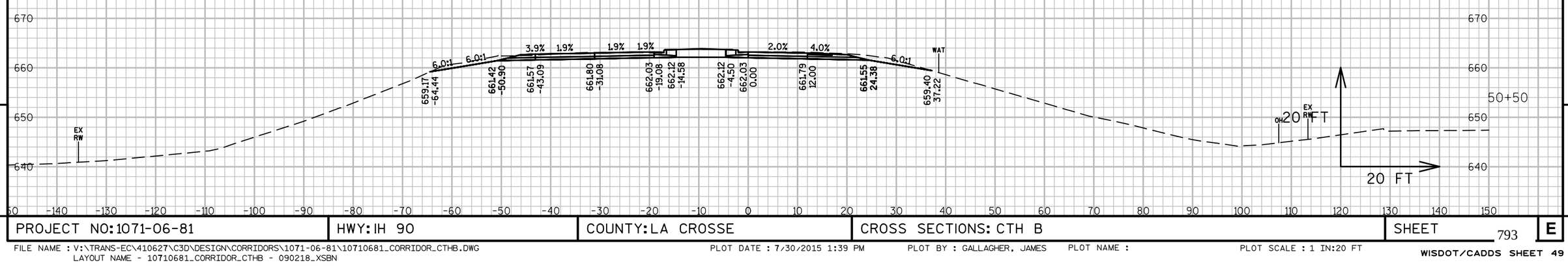
SEE C RAMP CROSS SECTIONS



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 792	E







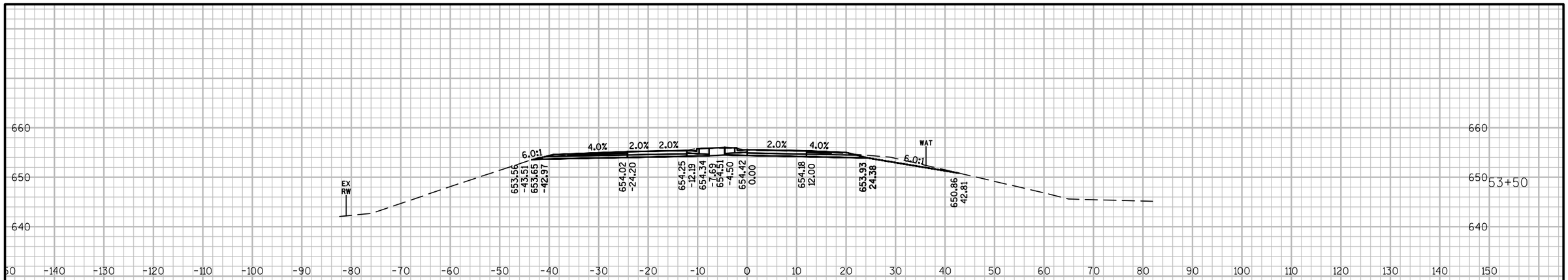
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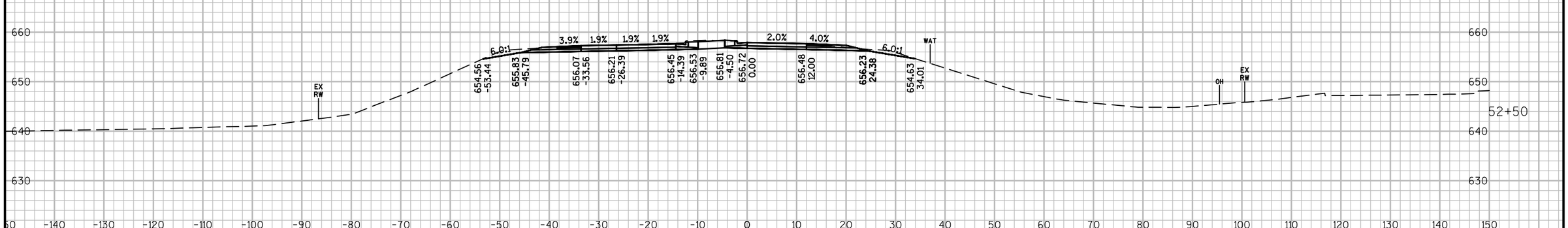
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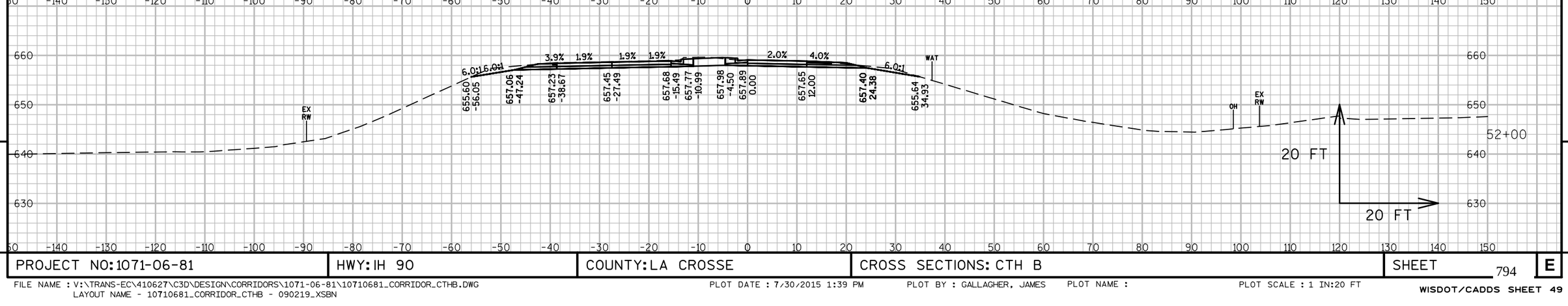
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 793	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090218_XSBN

PLOT DATE : 7/30/2015 1:39 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT







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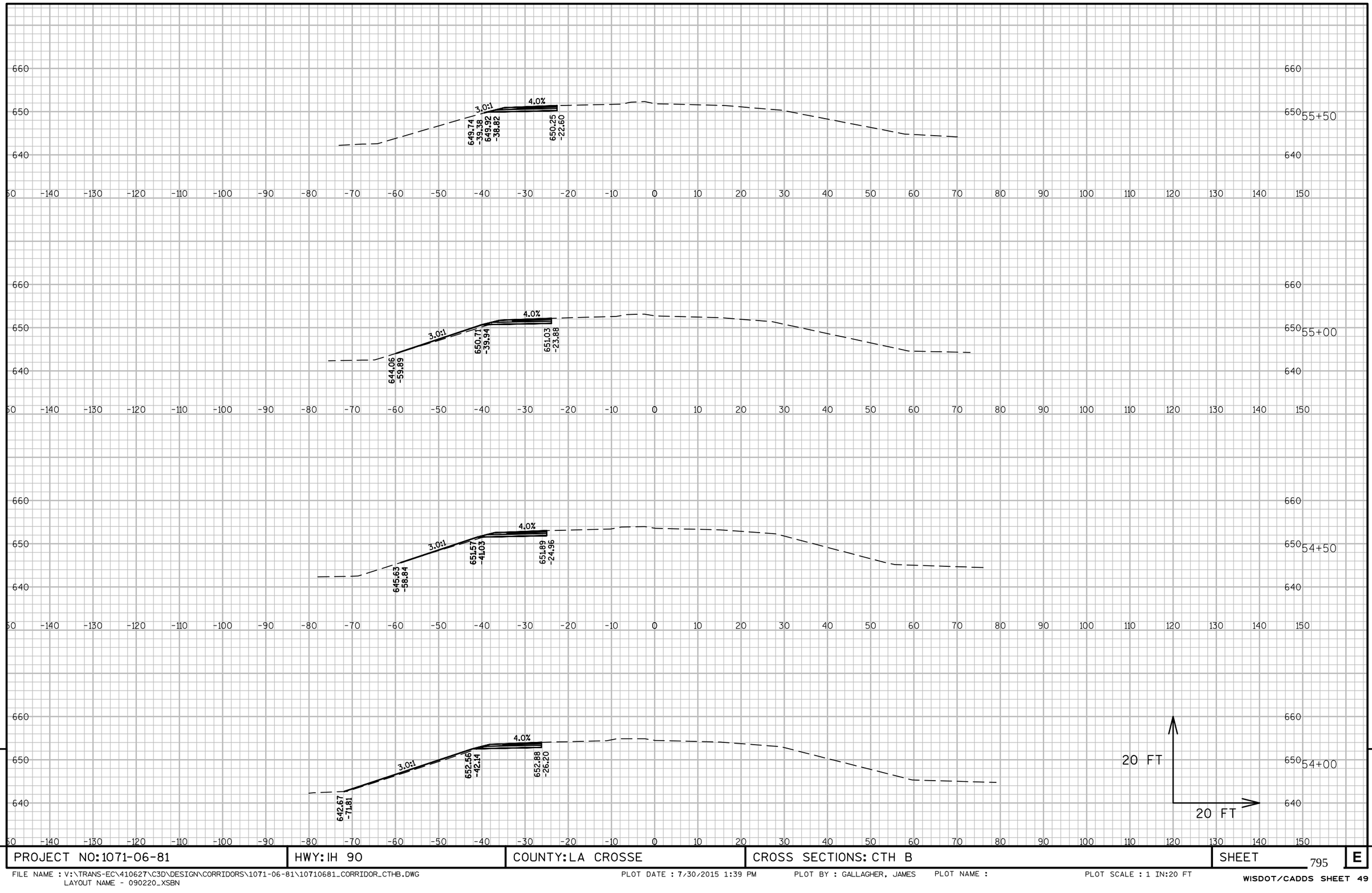
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 794	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 10710681_CORRIDOR_CTHB - 090219_XSBN

PLOT DATE : 7/30/2015 1:39 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



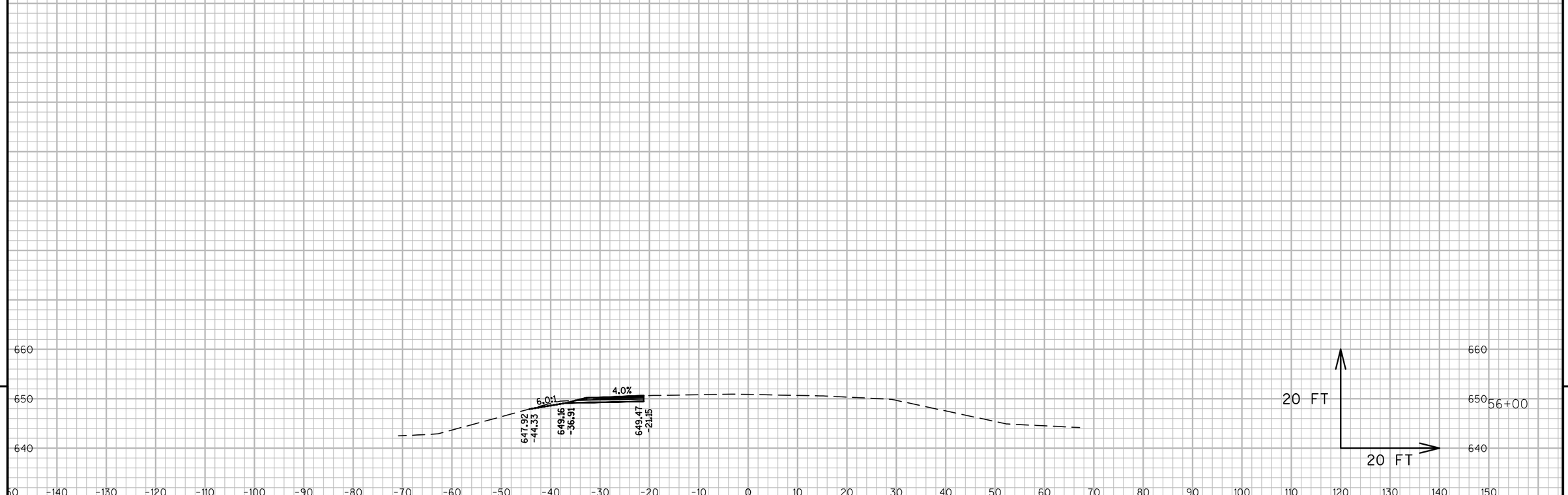
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 795	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 090220_XSBN

PLOT DATE : 7/30/2015 1:39 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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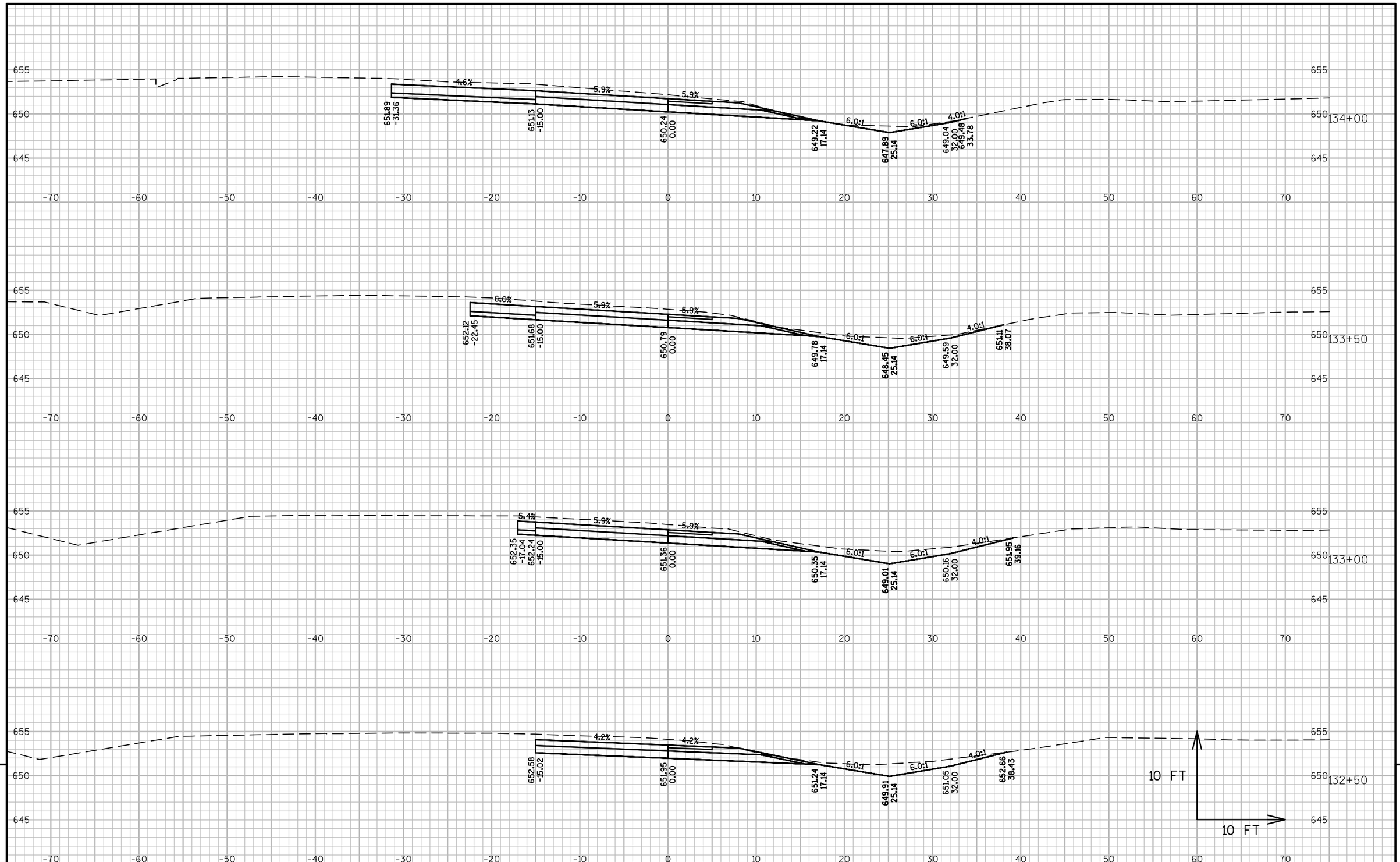
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B	SHEET 796	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CTHB.DWG
LAYOUT NAME - 090221_XSBN

PLOT DATE : 7/30/2015 1:40 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

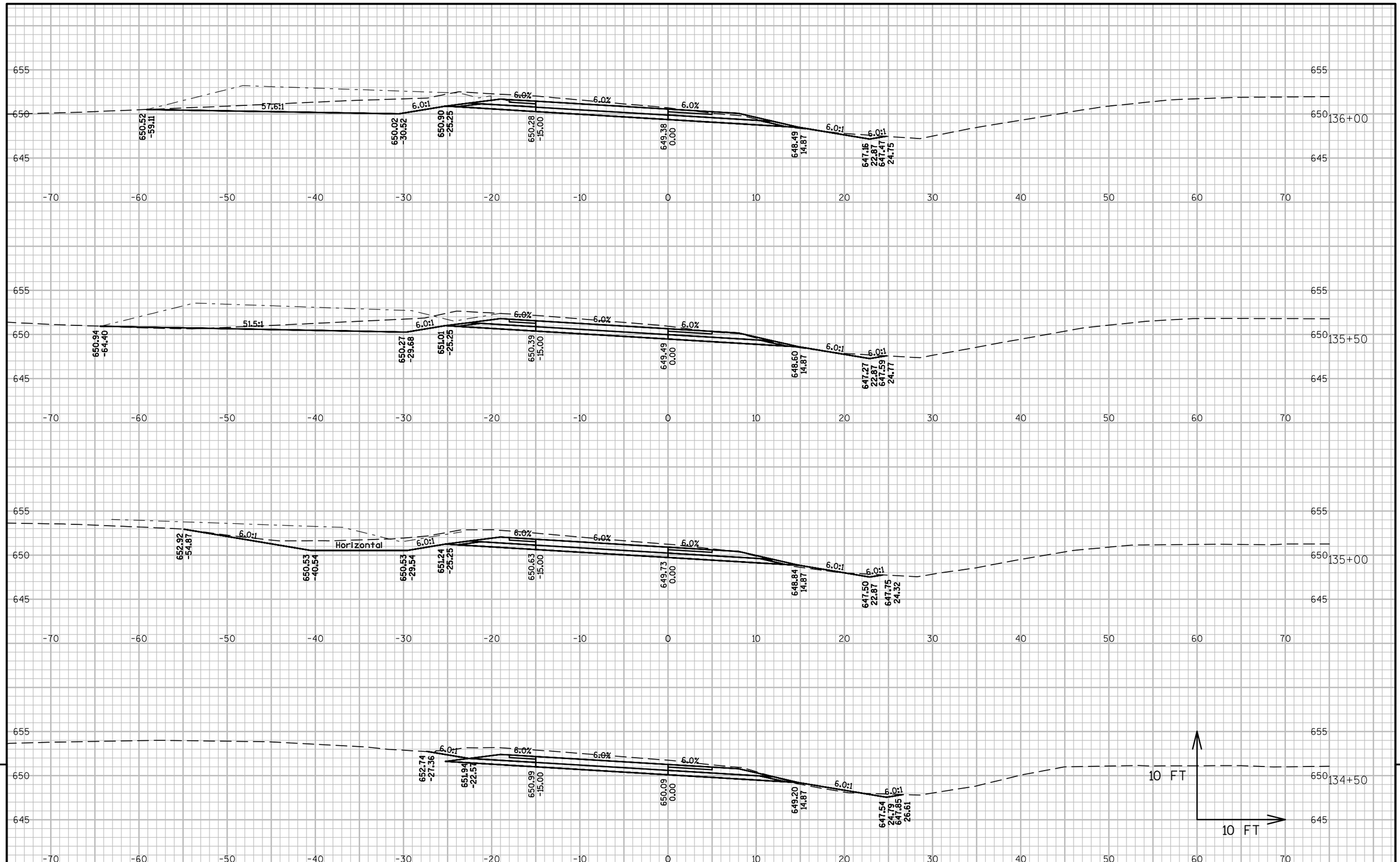
WISDOT/CADDS SHEET 49



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: A RAMP	SHEET 797	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ARAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_ARAMP - 090201_XSA

PLOT DATE : 7/30/2015 10:21 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



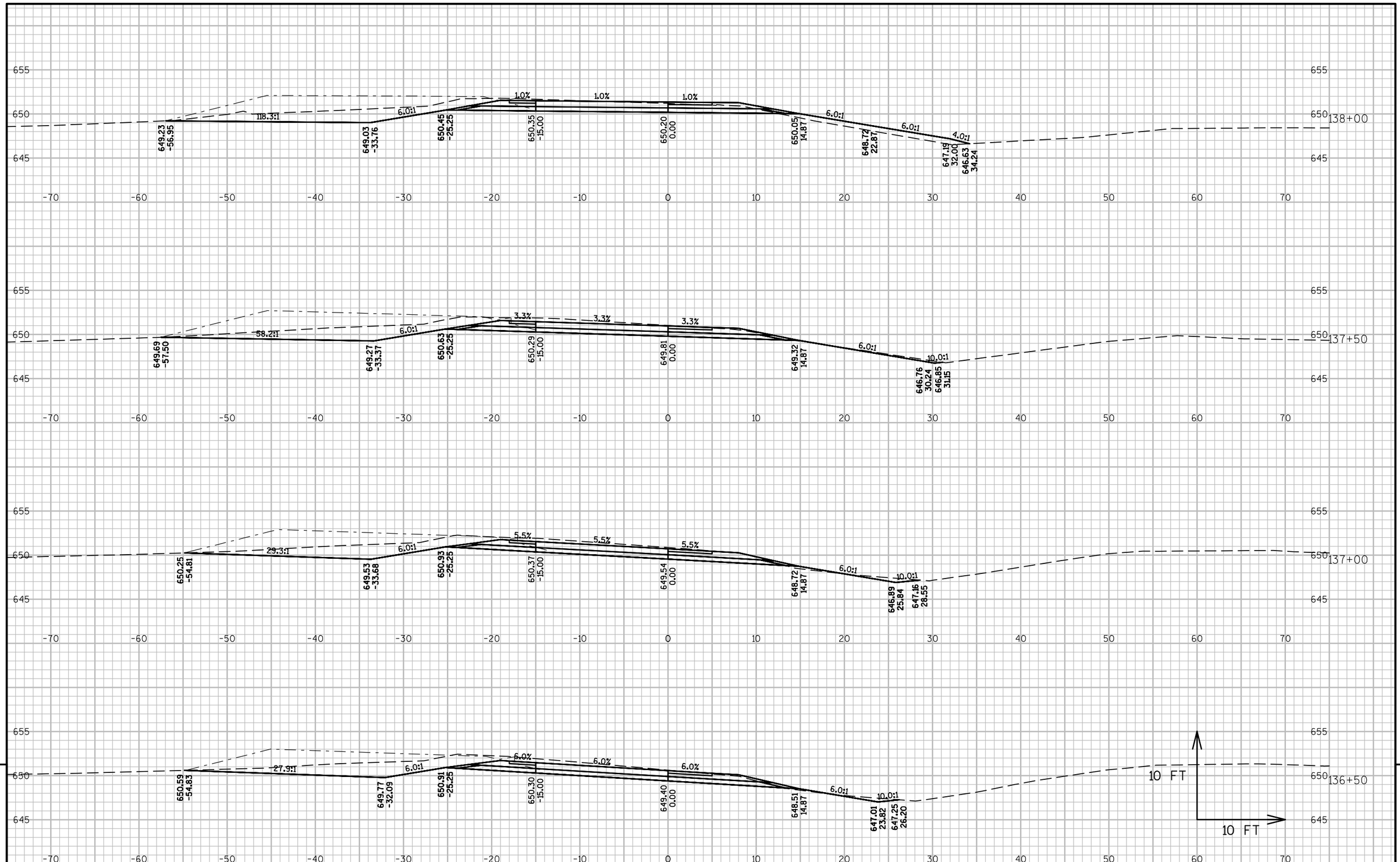
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: A RAMP	SHEET 798	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ARAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_ARAMP - 090202_XSA

PLOT DATE : 7/30/2015 10:21 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

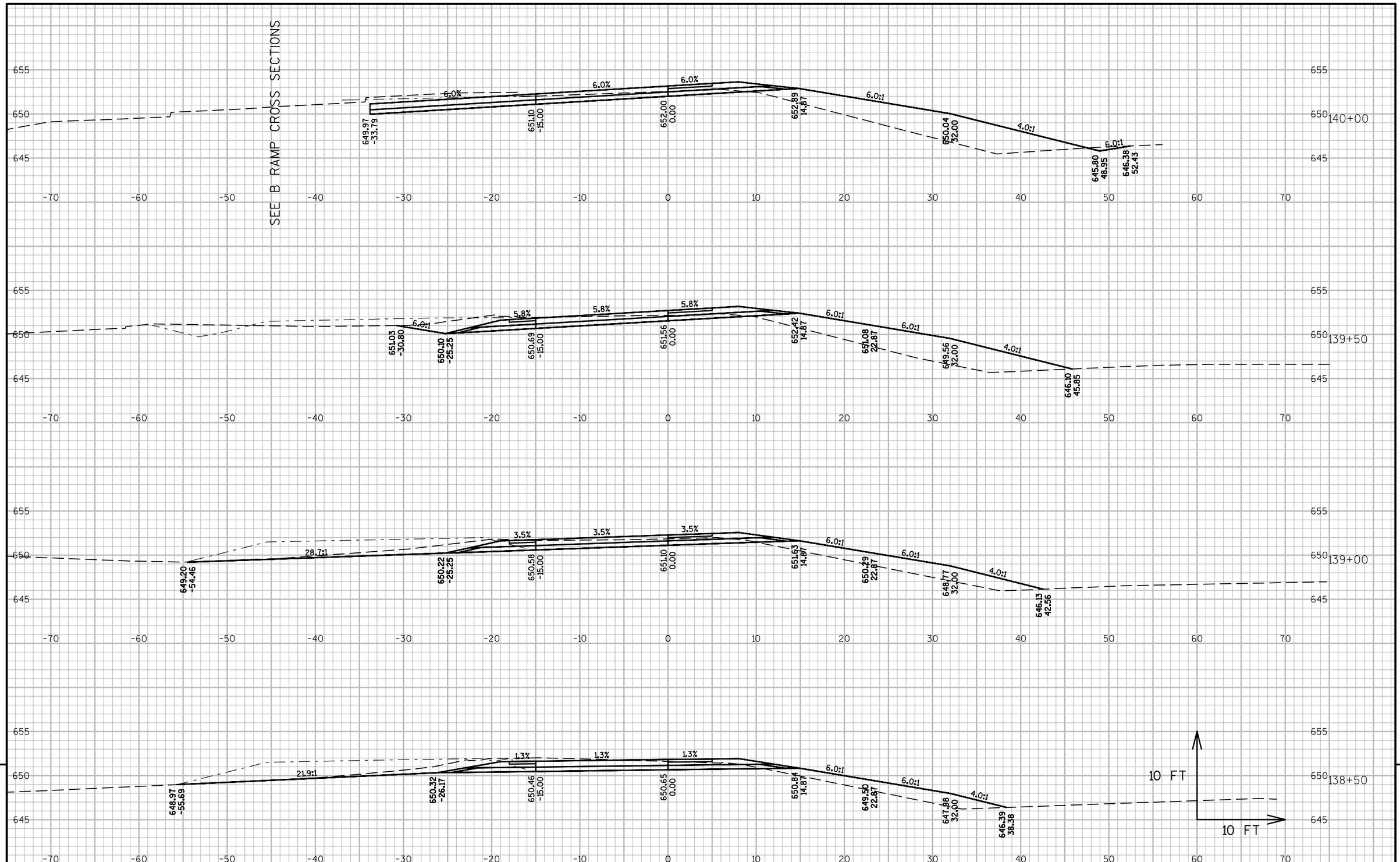


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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: A RAMP	SHEET 799	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ARAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_ARAMP - 090203_XSA
PLOT DATE : 7/30/2015 10:21 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

SEE B RAMP CROSS SECTIONS



9

9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: A RAMP	SHEET 800	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ARAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_ARAMP - 090204_XSA

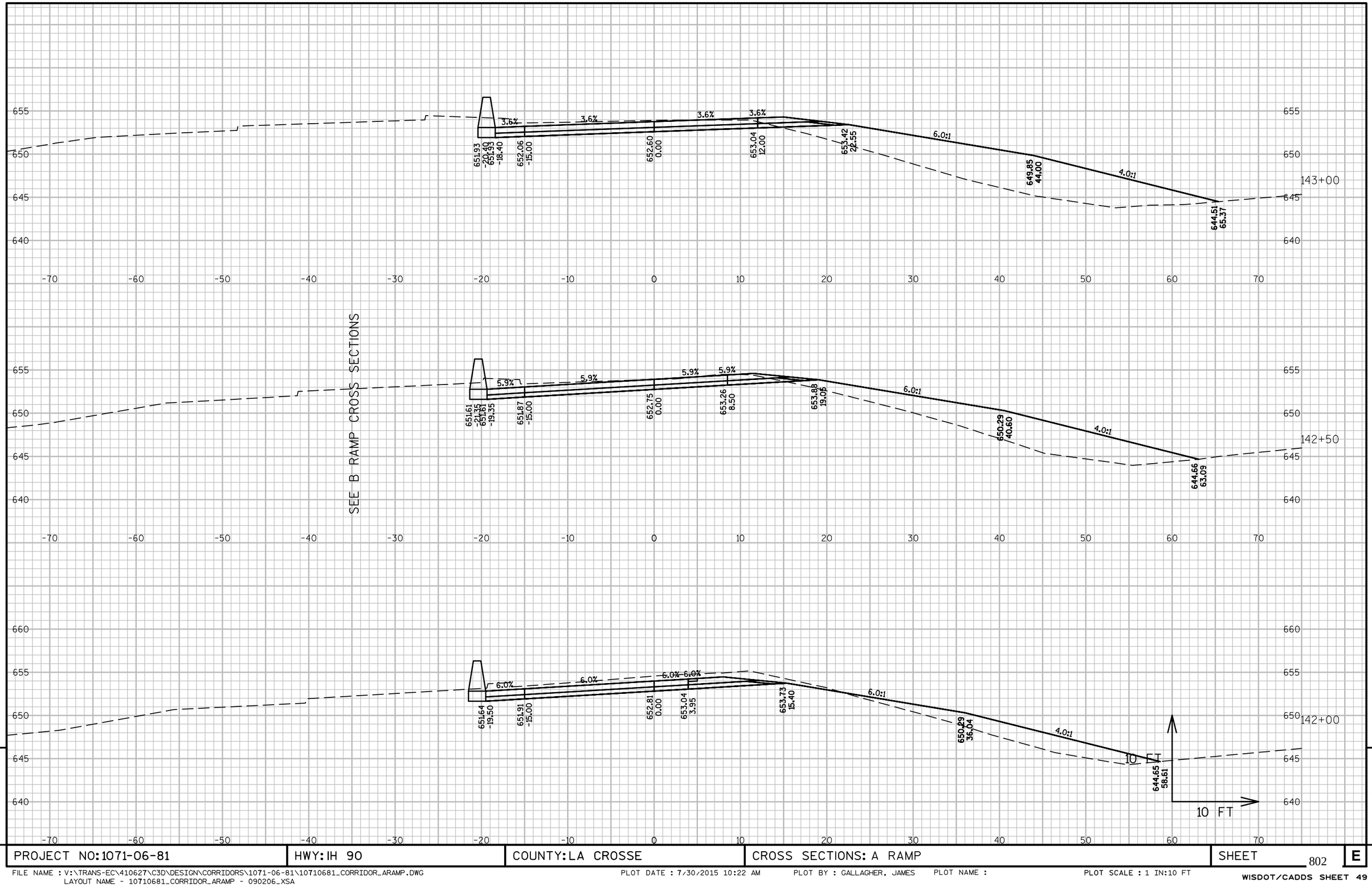
PLOT DATE : 7/30/2015 10:21 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

9

9

PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: A RAMP	SHEET 801	E

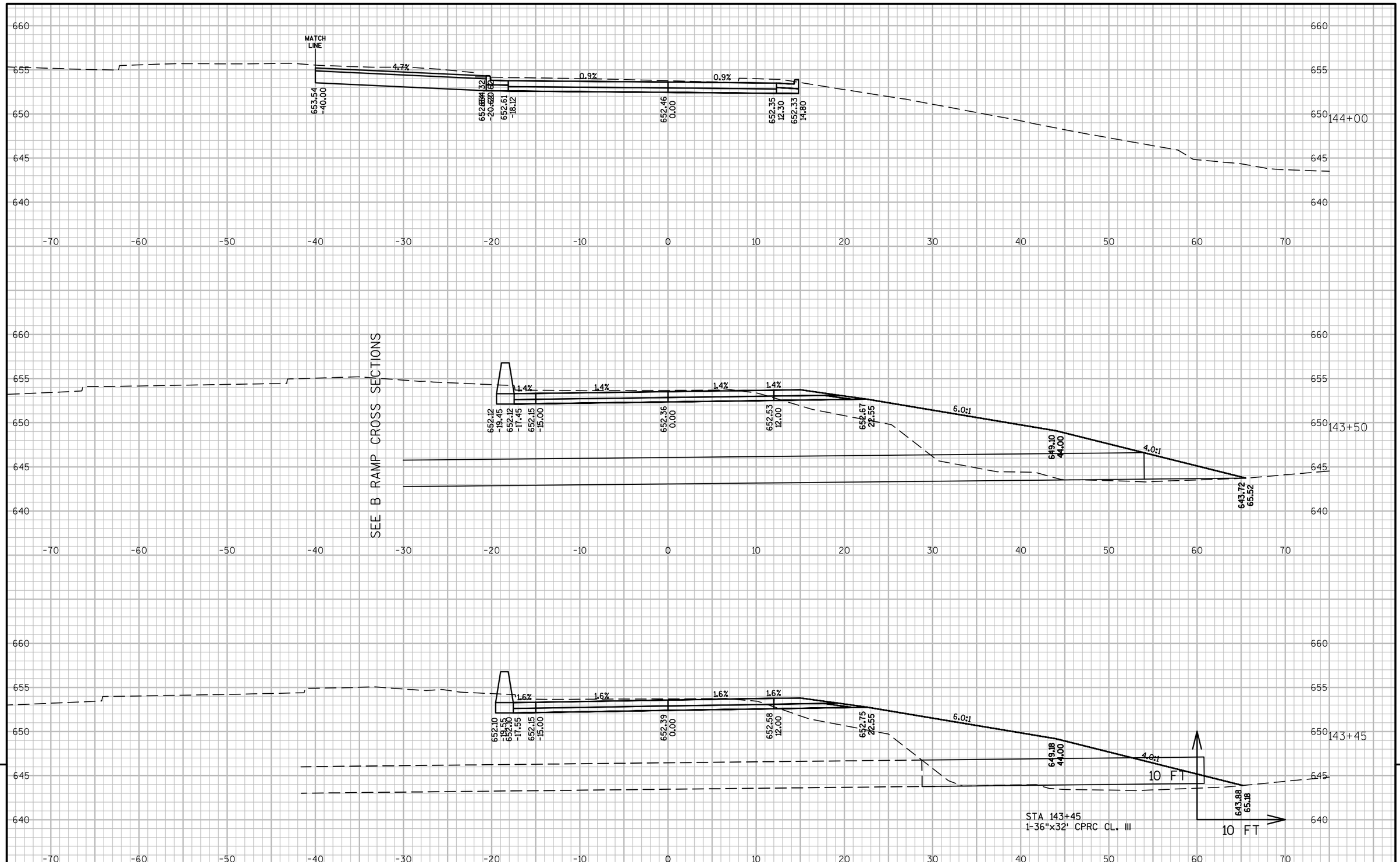
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LAYOUT NAME - 10710681_CORRIDOR_ARAMP - 090205_XSA
PLOT DATE : 7/30/2015 10:22 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



9

9

PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: A RAMP	SHEET 802	E



PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: A RAMP	SHEET 803	E

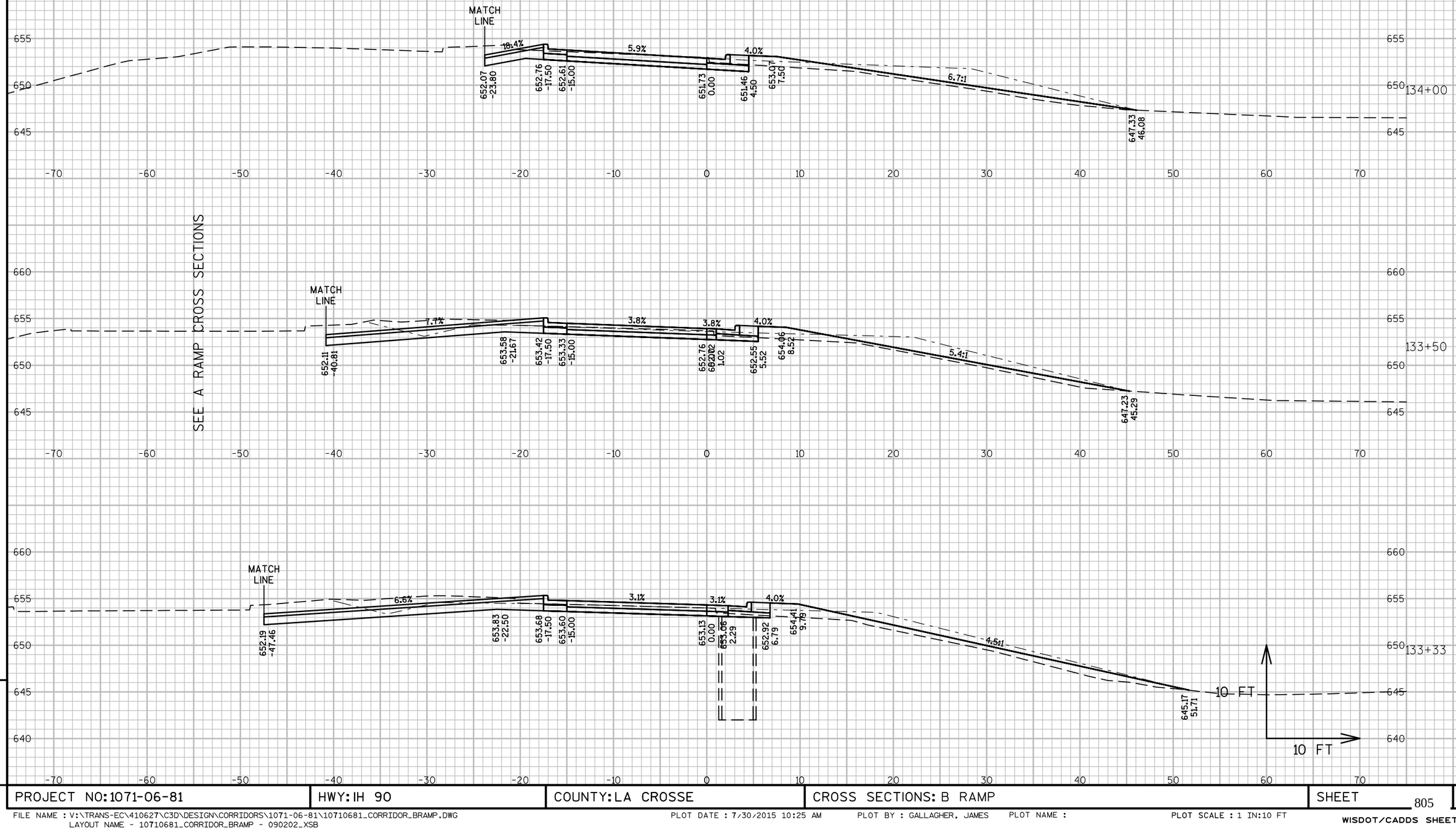
FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_ARAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_ARAMP - 090207_XSA
PLOT DATE : 9/14/2015 9:23 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: B RAMP	SHEET 804	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_BRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_BRAMP - 090201_XSB

PLOT DATE : 9/14/2015 9:29 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

SEE A RAMP CROSS SECTIONS



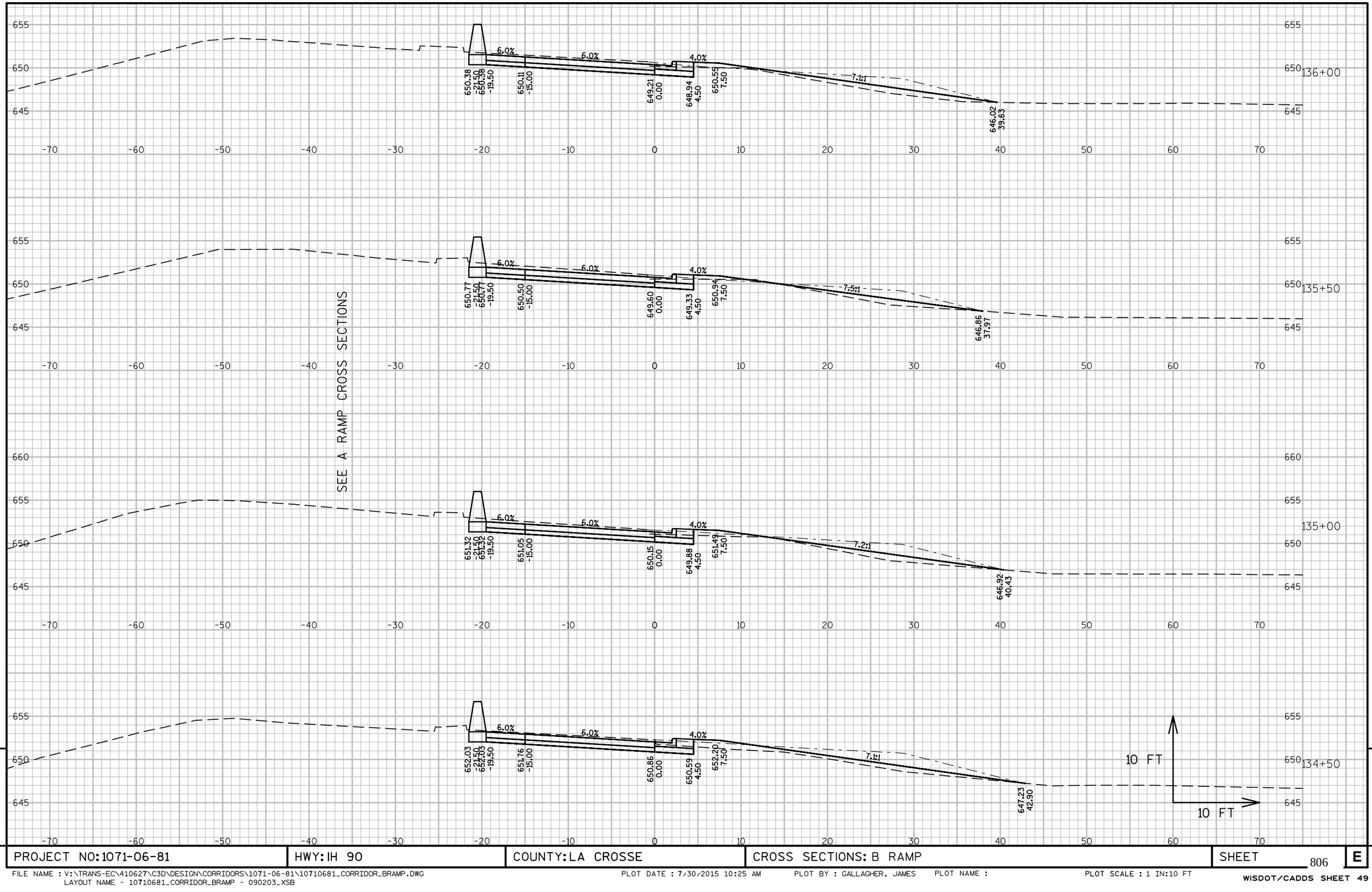
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PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: B RAMP	SHEET 805	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_BRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_BRAMP - 090202_XSB

PLOT DATE : 7/30/2015 10:25 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

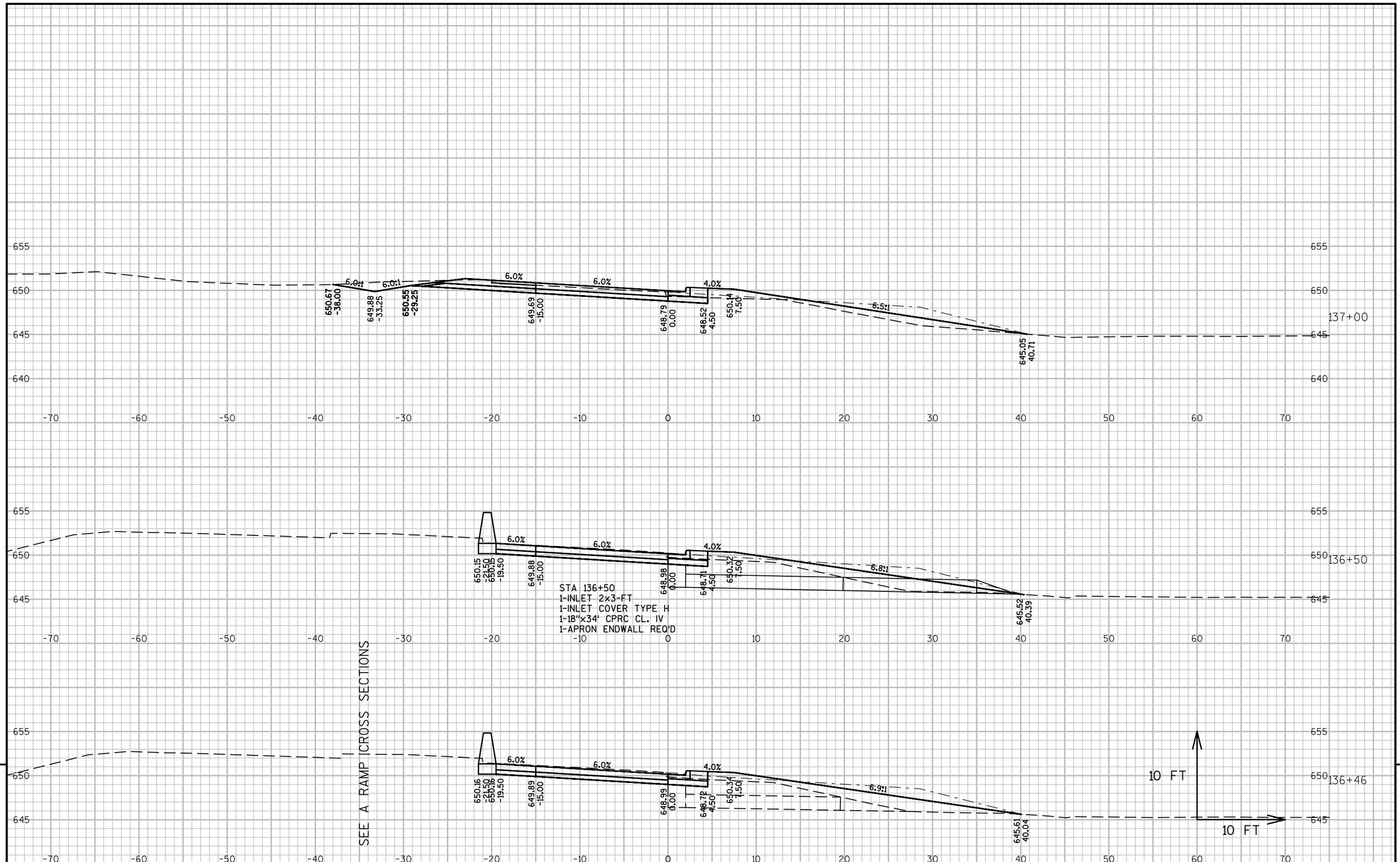


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: B RAMP	SHEET 806	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_BRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_BRAMP - 090203_XSB

PLOT DATE : 7/30/2015 10:25 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



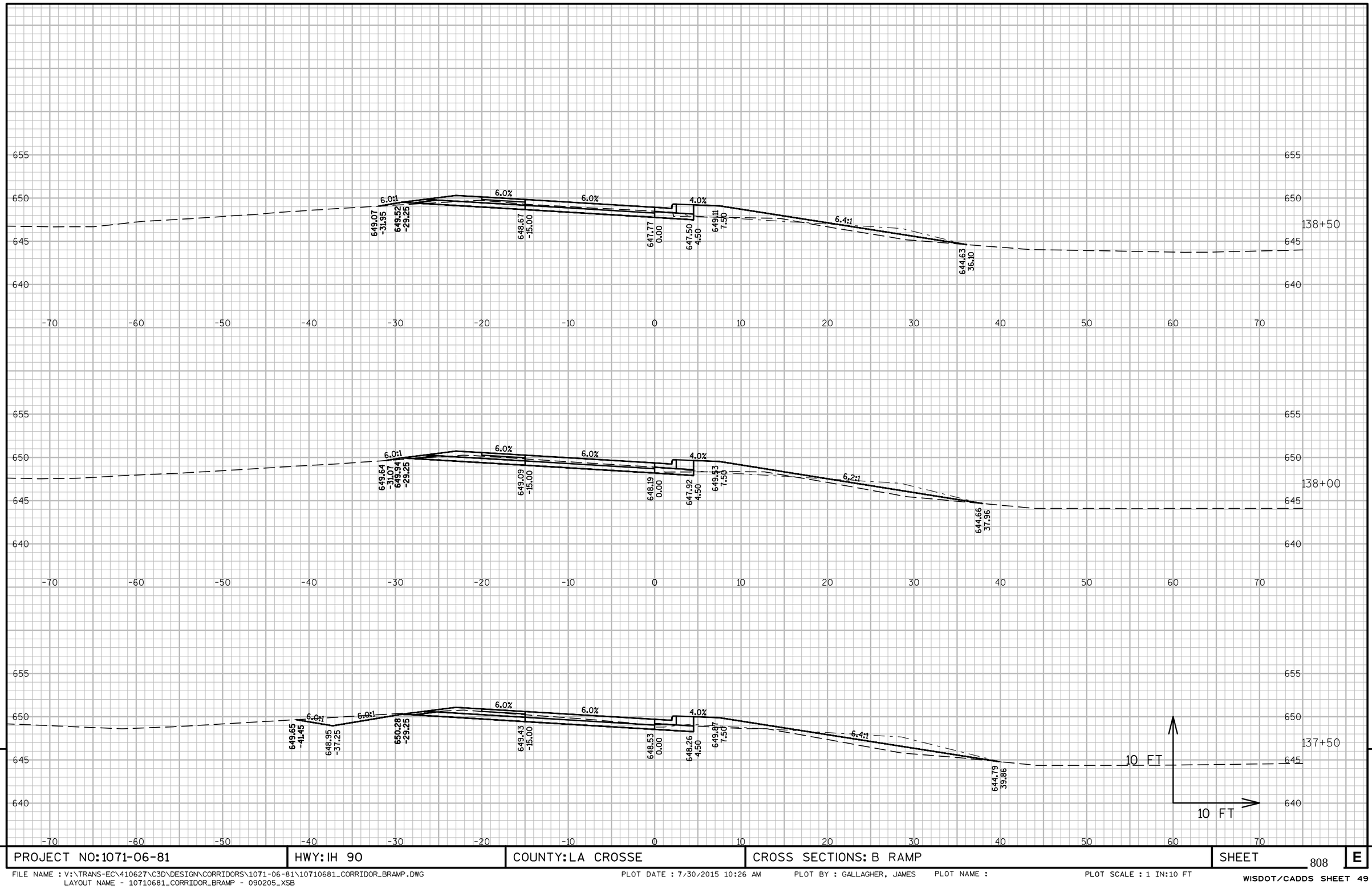
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: B RAMP	SHEET 807	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_BRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_BRAMP - 090204_XSB

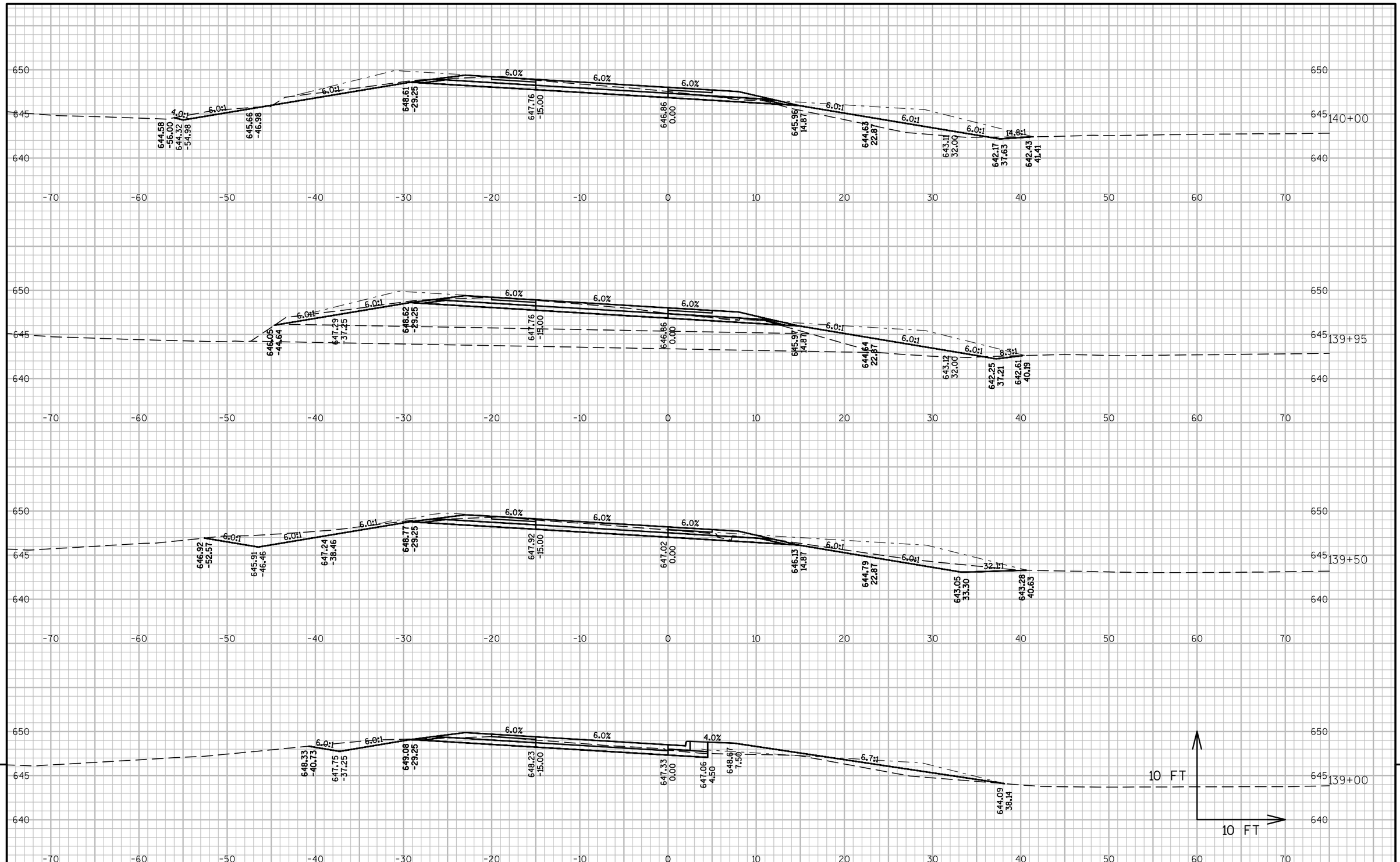
PLOT DATE : 7/30/2015 10:25 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: B RAMP	SHEET 808	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_BRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_BRAMP - 090205_XSB

PLOT DATE : 7/30/2015 10:26 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

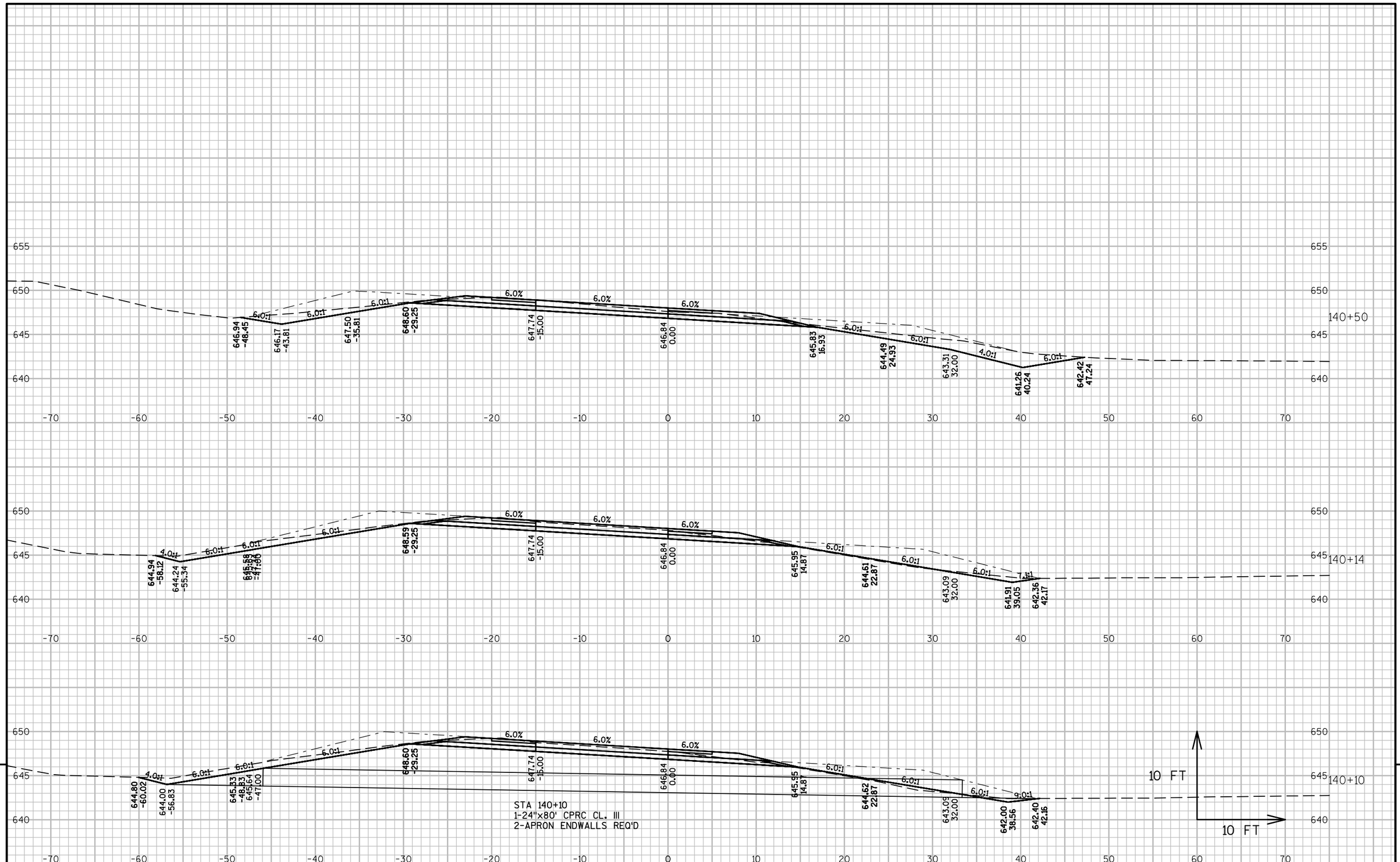


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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: B RAMP	SHEET 809	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_BRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_BRAMP - 090206_XSB
PLOT DATE : 7/30/2015 10:26 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



9

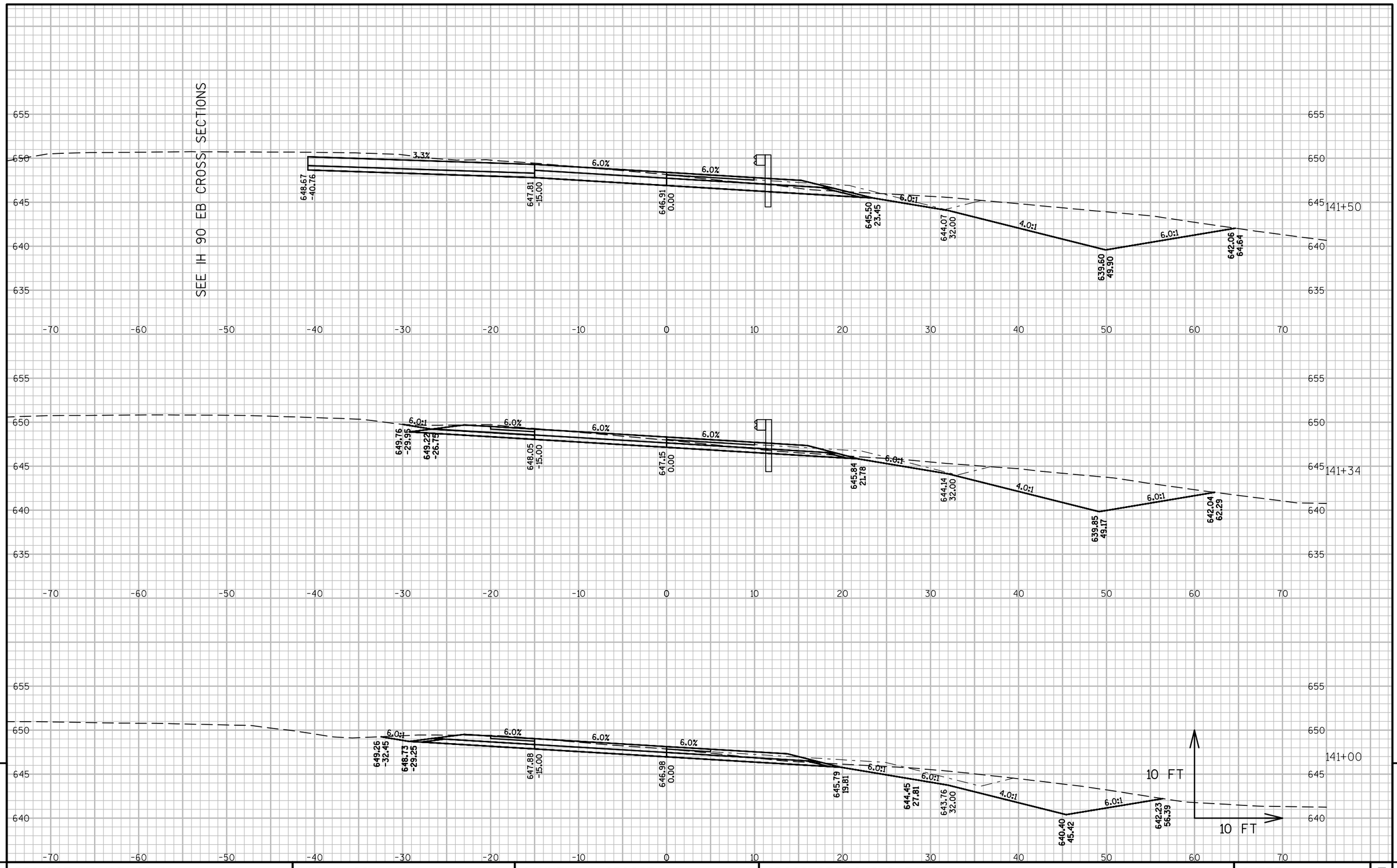
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: B RAMP	SHEET 810	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_BRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_BRAMP - 090207_XSB

PLOT DATE : 9/14/2015 9:30 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

SEE IH 90 EB CROSS SECTIONS



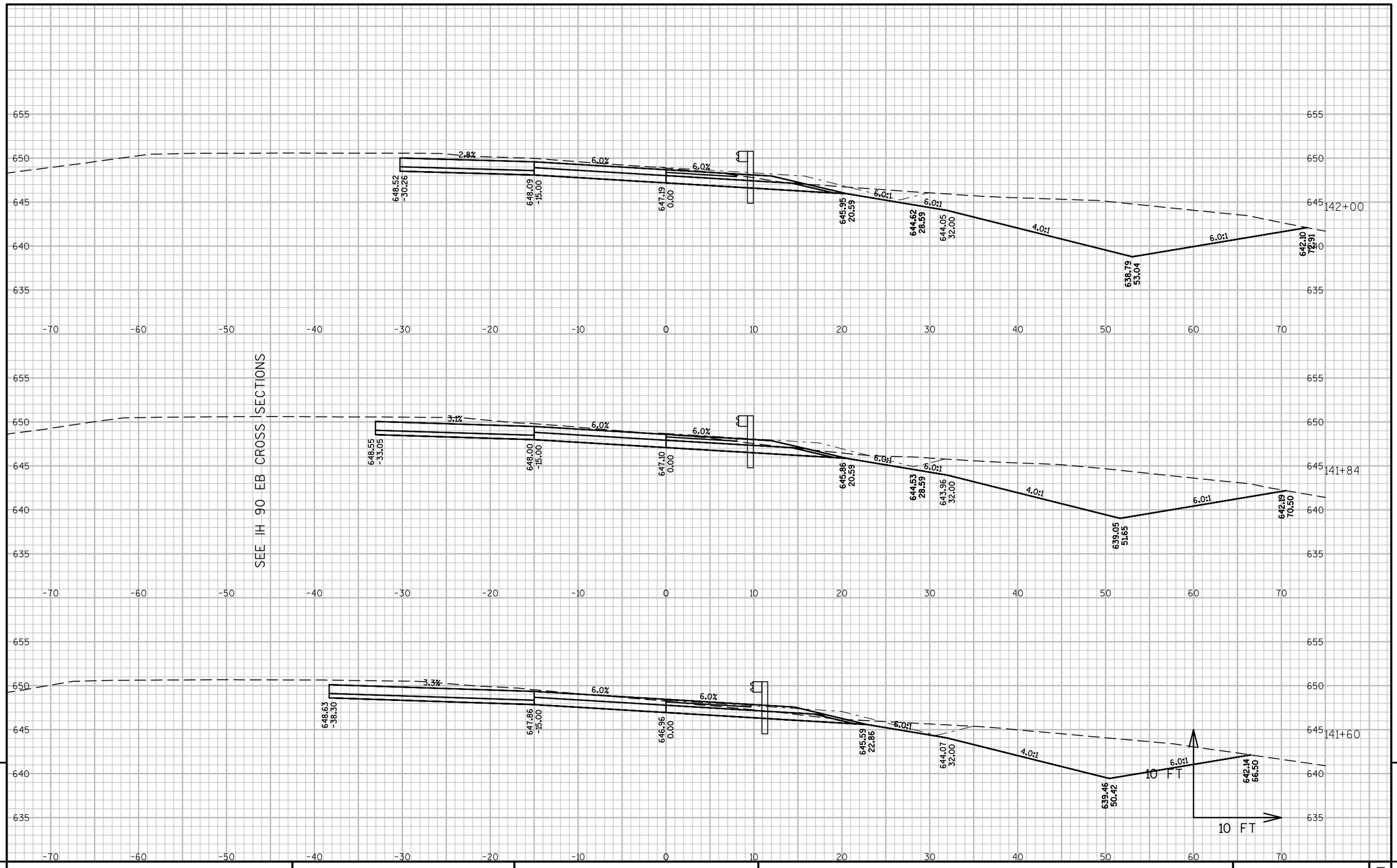
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PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: B RAMP	SHEET 811	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_BRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_BRAMP - 090208_XSB

PLOT DATE : 7/30/2015 10:26 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

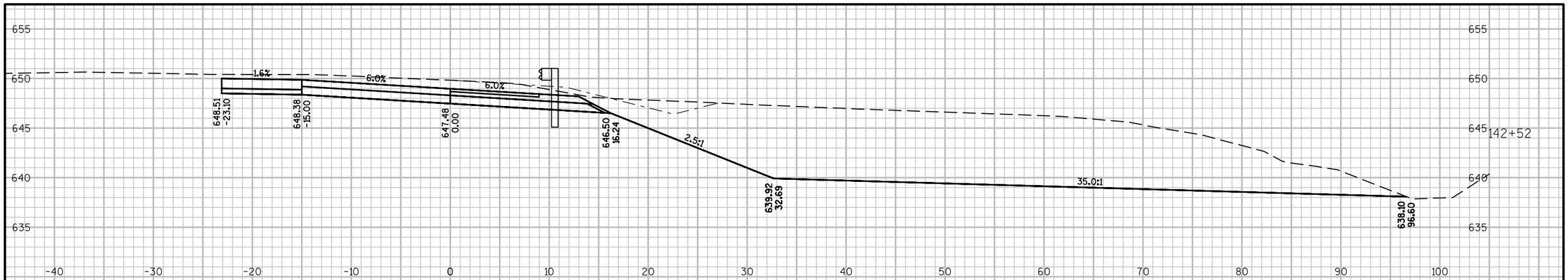


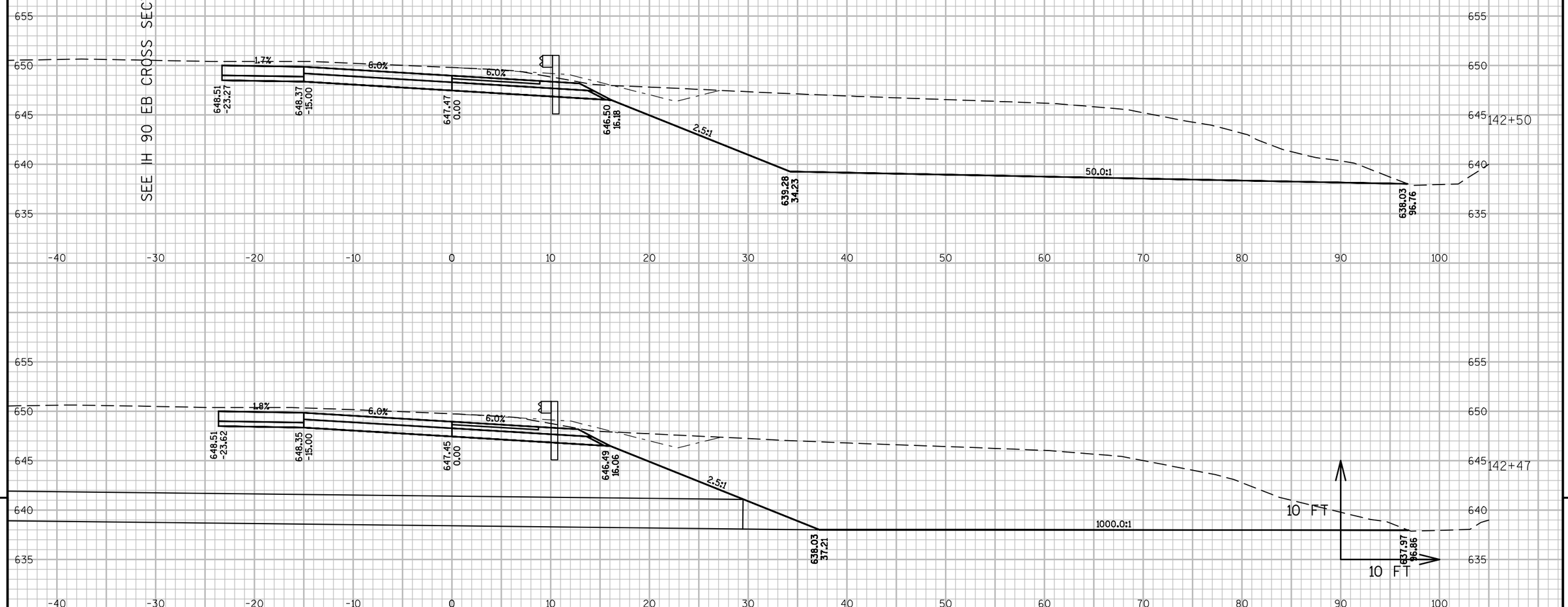
PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: B RAMP	SHEET 812	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_BRAMP.DWG
LAYOUT NAME - 090209_XSB

PLOT DATE : 7/30/2015 10:27 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



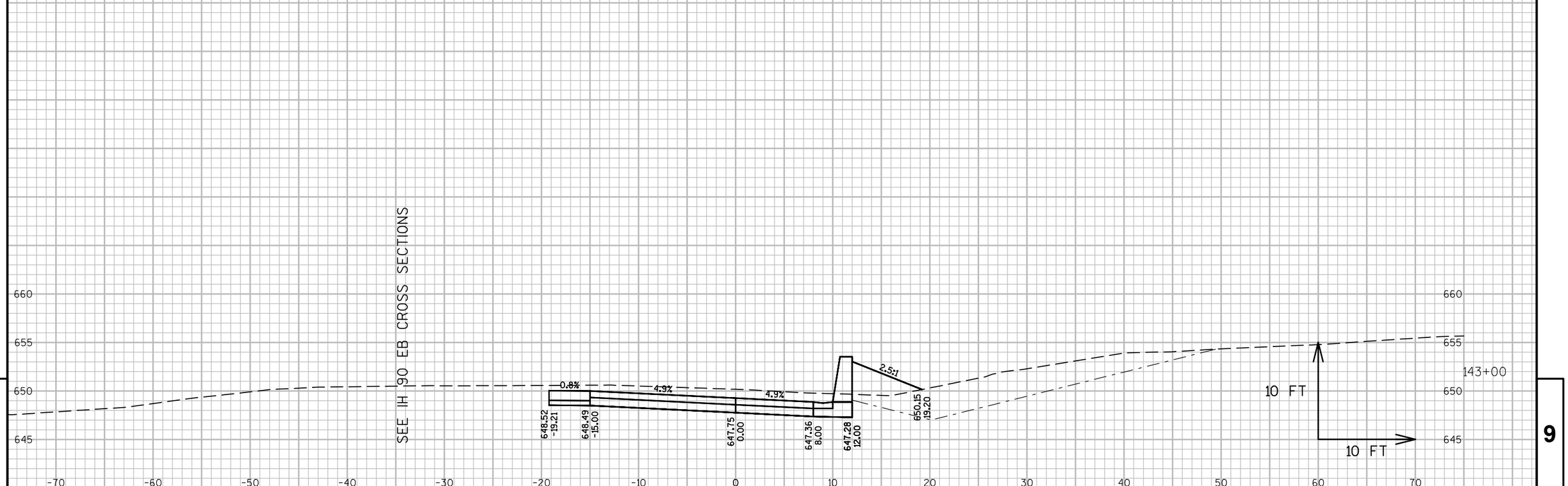


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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: B RAMP	SHEET 813	E

SEE IH 90 EB CROSS SECTIONS



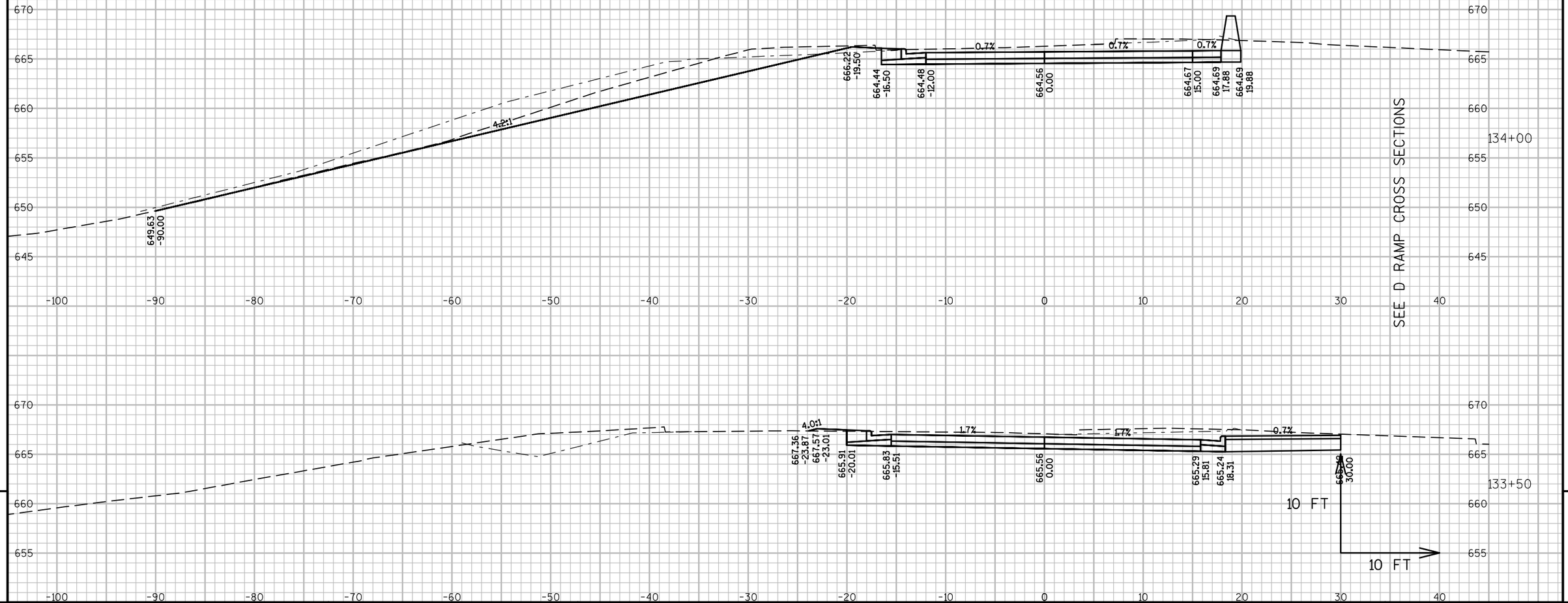
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: B RAMP	SHEET 814	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_BRAMP.DWG
LAYOUT NAME - 090211_XSB

PLOT DATE : 7/30/2015 10:27 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



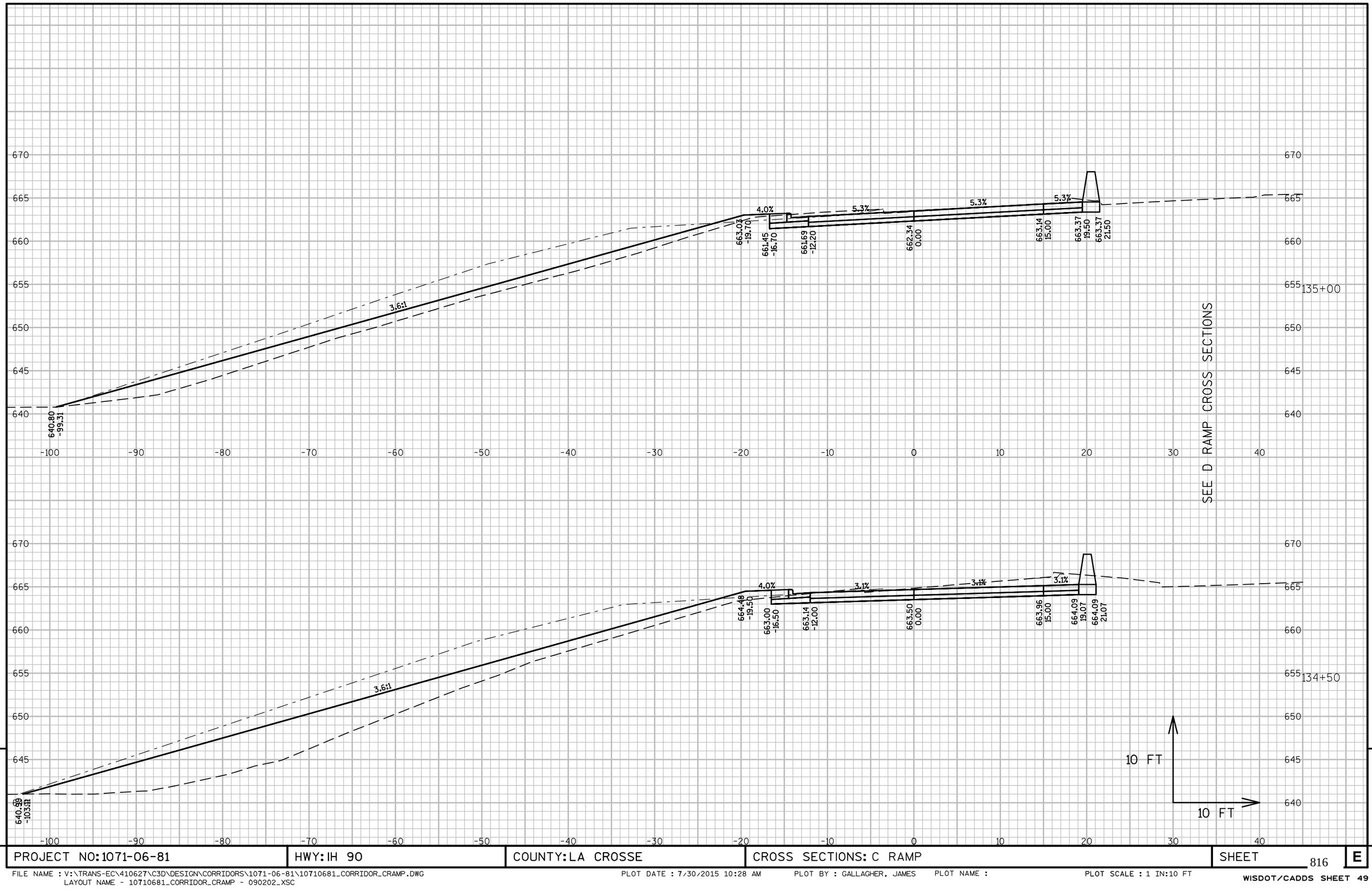
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: C RAMP	SHEET 815	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_CRAMP - 090201_XSC

PLOT DATE : 7/30/2015 1:41 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

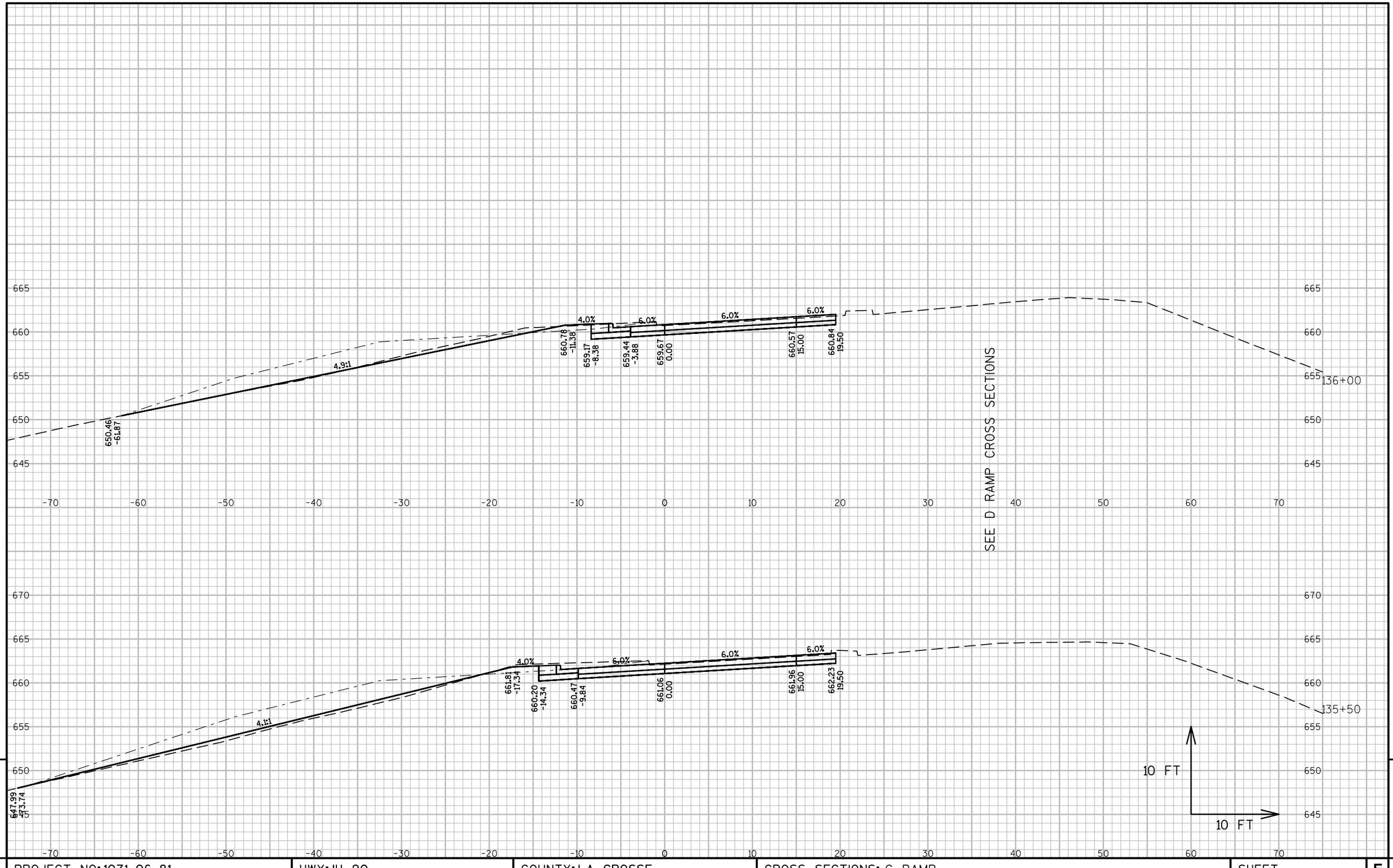
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PROJECT NO:1071-06-81	HWY:IH 90	COUNTY:LA CROSSE	CROSS SECTIONS: C RAMP	SHEET 816	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_CRAMP - 090202_XSC

PLOT DATE : 7/30/2015 10:28 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

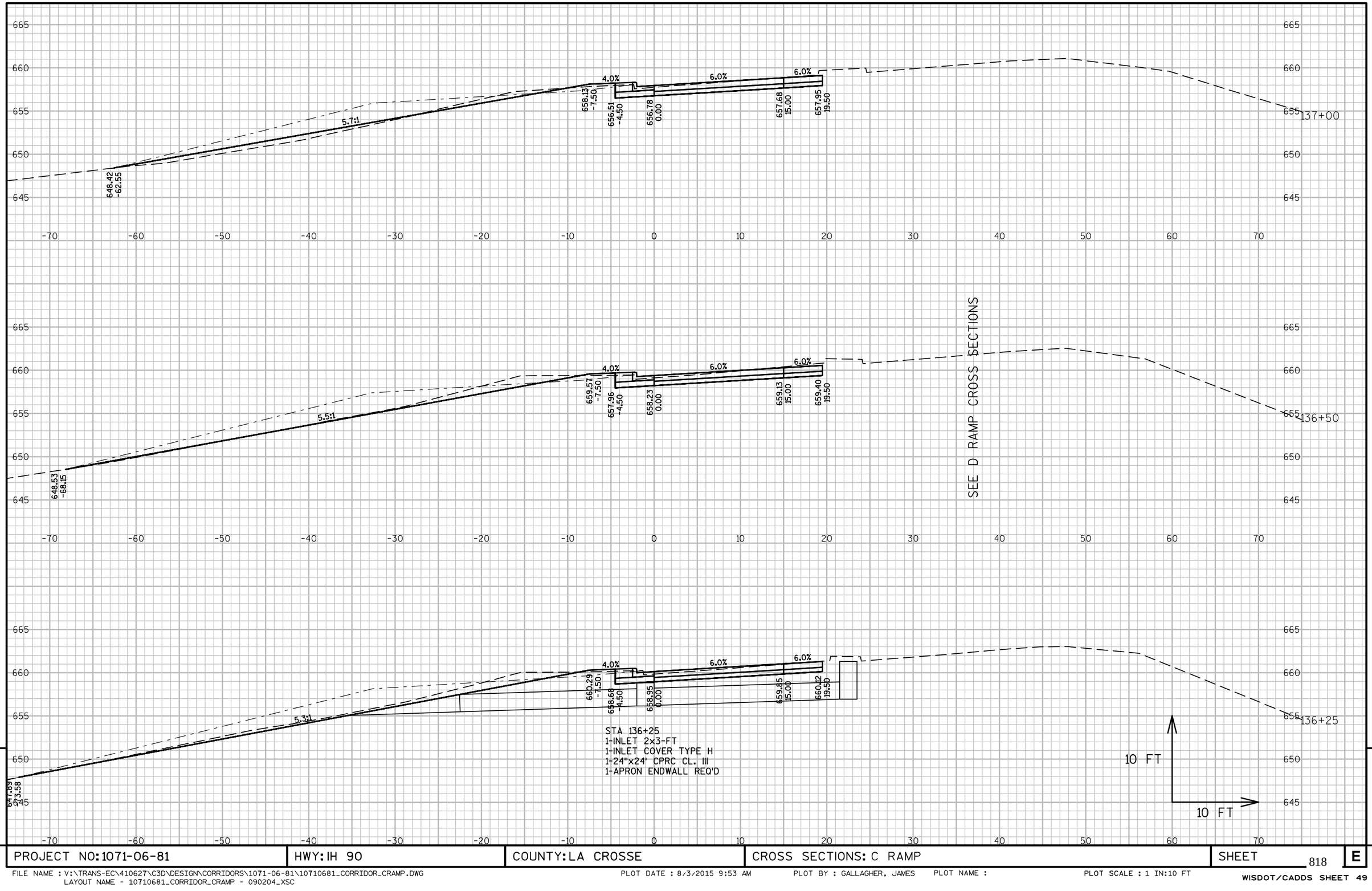
WISDOT/CADDS SHEET 49



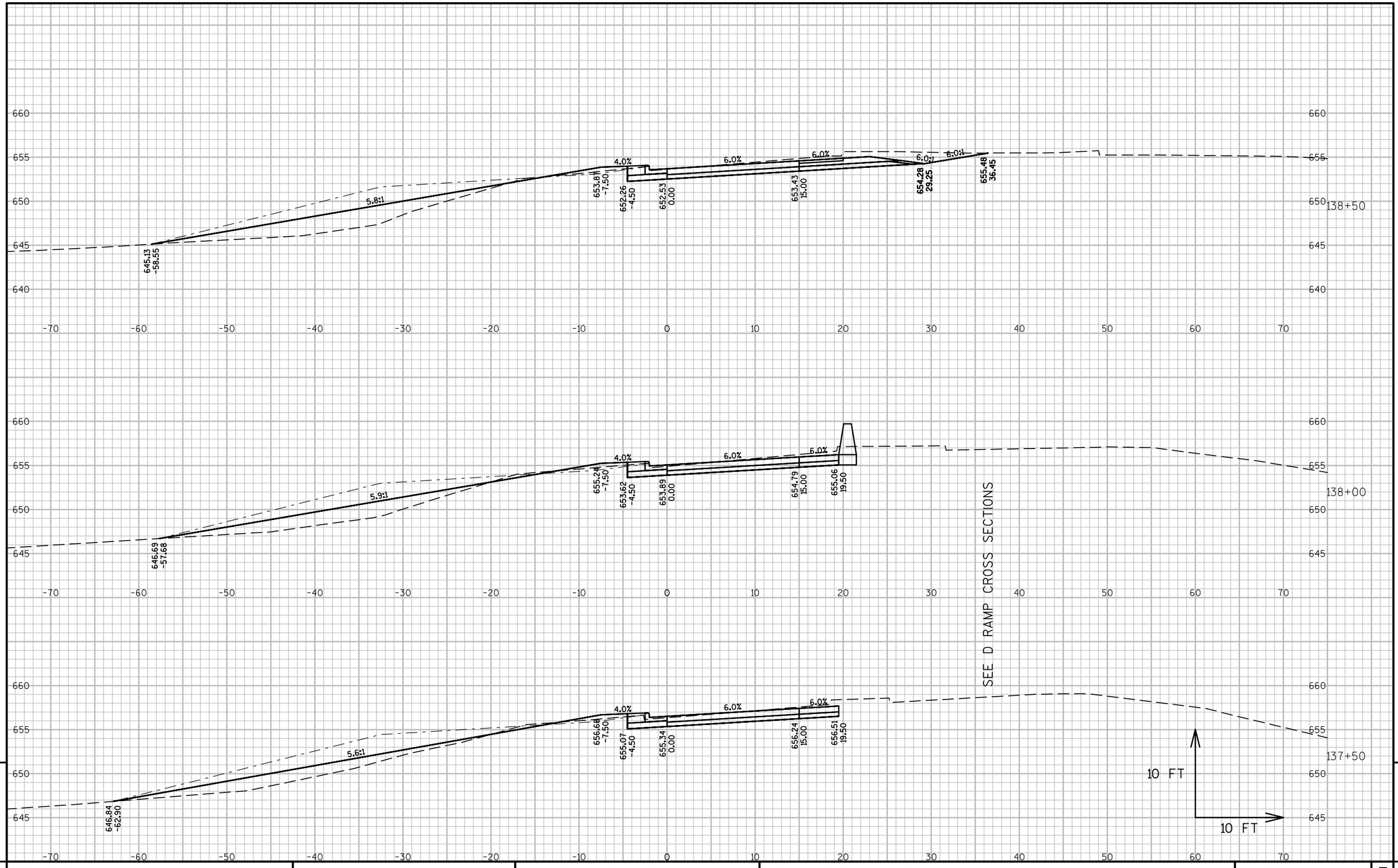
PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: C RAMP	SHEET 817	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_CRAMP - 090203_XSC

PLOT DATE : 7/30/2015 10:28 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: C RAMP	SHEET 818	E



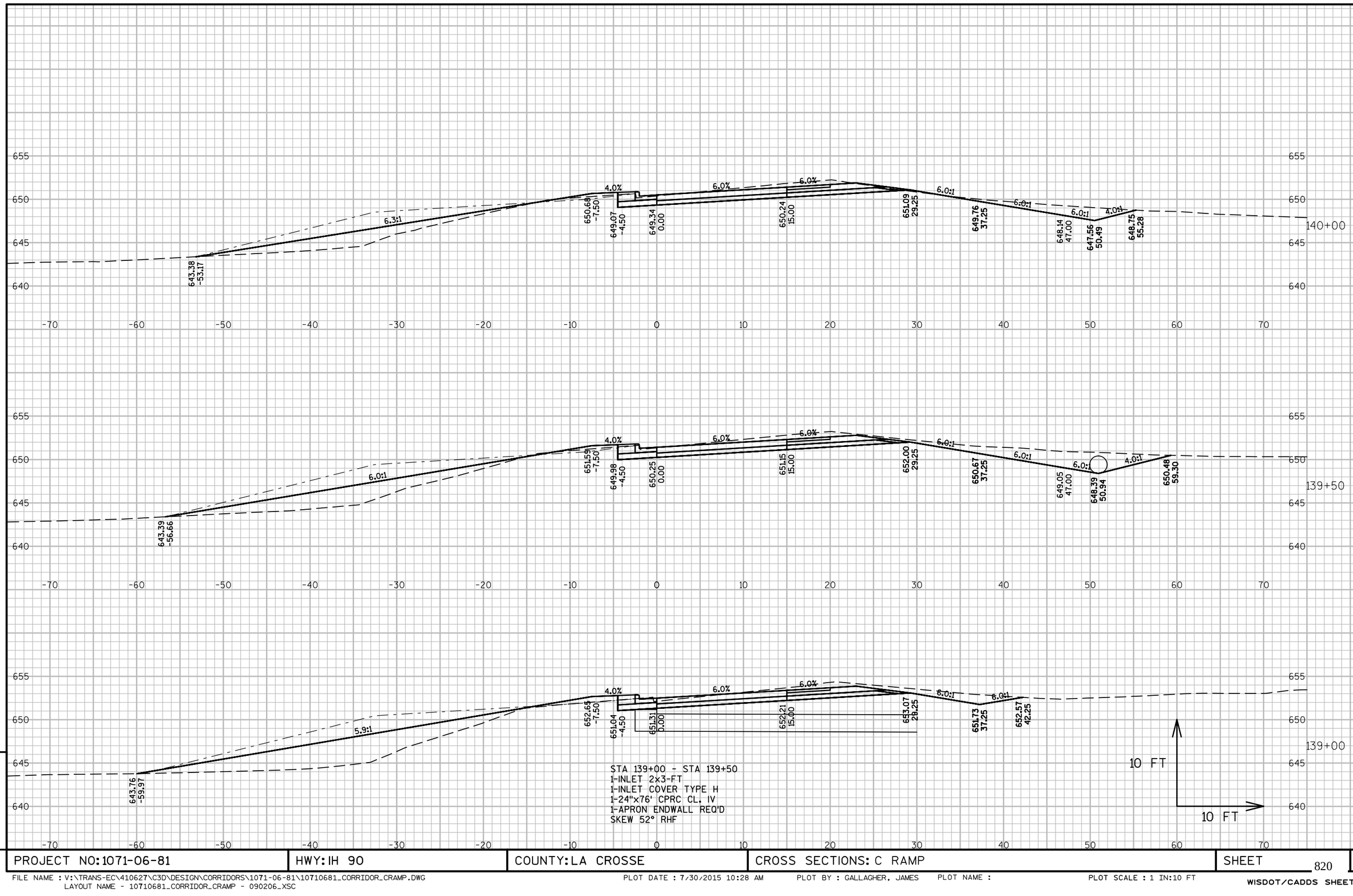
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PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: C RAMP	SHEET 819	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_CRAMP - 090205_XSC

PLOT DATE : 7/30/2015 10:28 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



STA 139+00 - STA 139+50
1-INLET 2x3-FT
1-INLET COVER TYPE H
1-24"x76' CPRC CL. IV
1-APRON ENDWALL REQ'D
SKEW 52° RHF

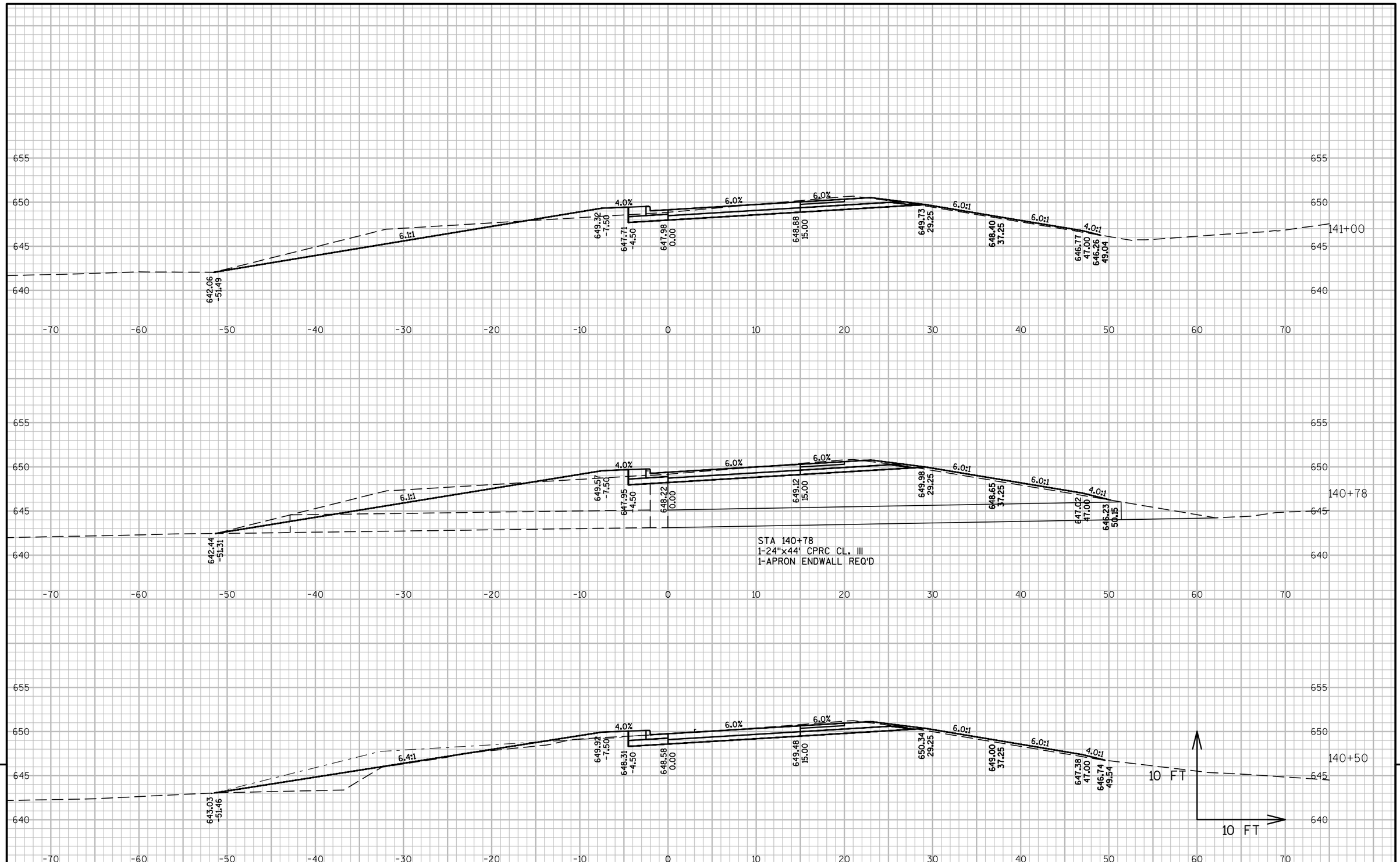
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: C RAMP	SHEET 820	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_CRAMP - 090206_XSC

PLOT DATE : 7/30/2015 10:28 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

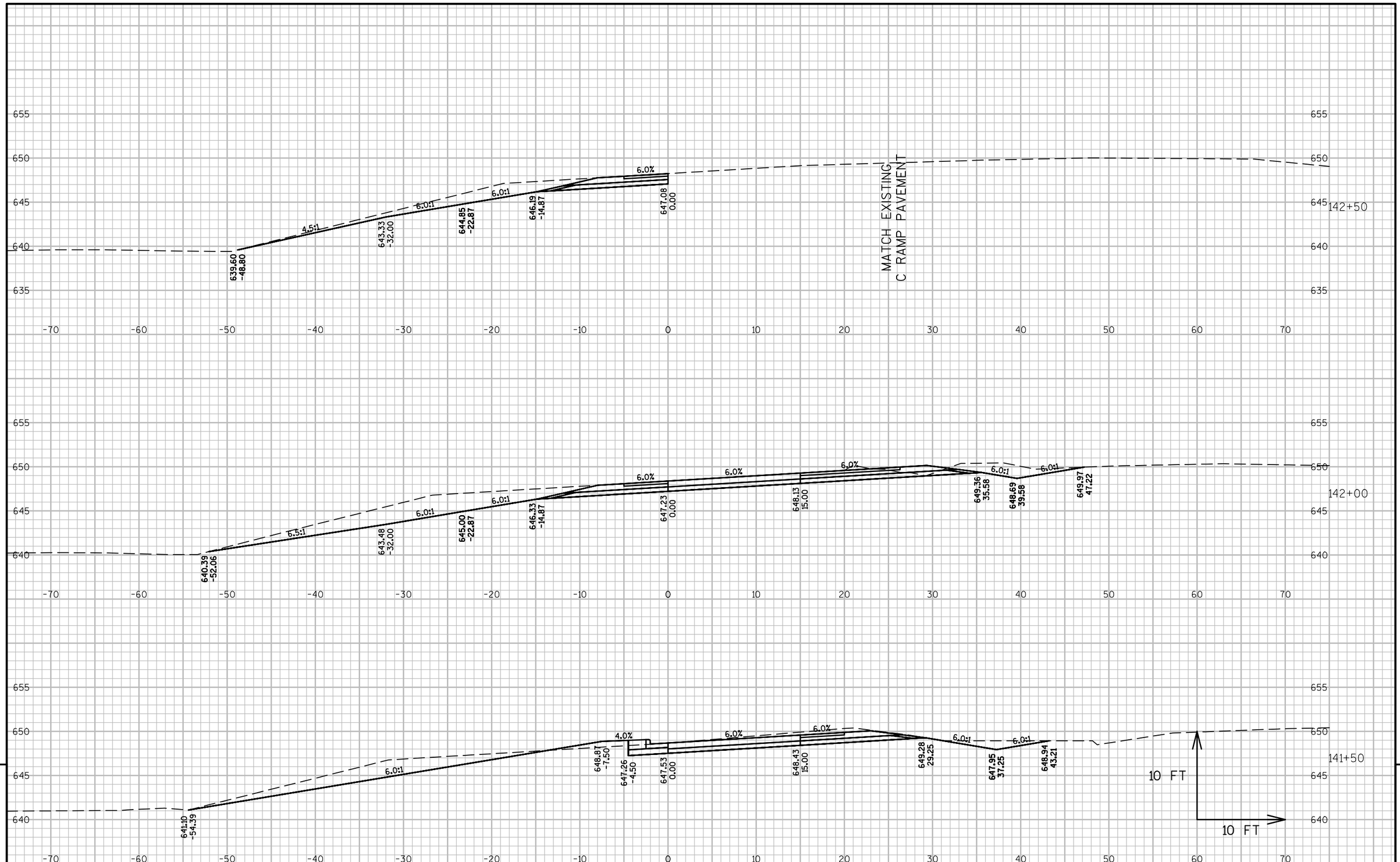


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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: C RAMP	SHEET 821	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_CRAMP - 090207_XSC
PLOT DATE : 8/3/2015 9:02 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: C RAMP	SHEET 822	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CRAMP.DWG
LAYOUT NAME - 090208_XSC

PLOT DATE : 7/30/2015 10:29 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



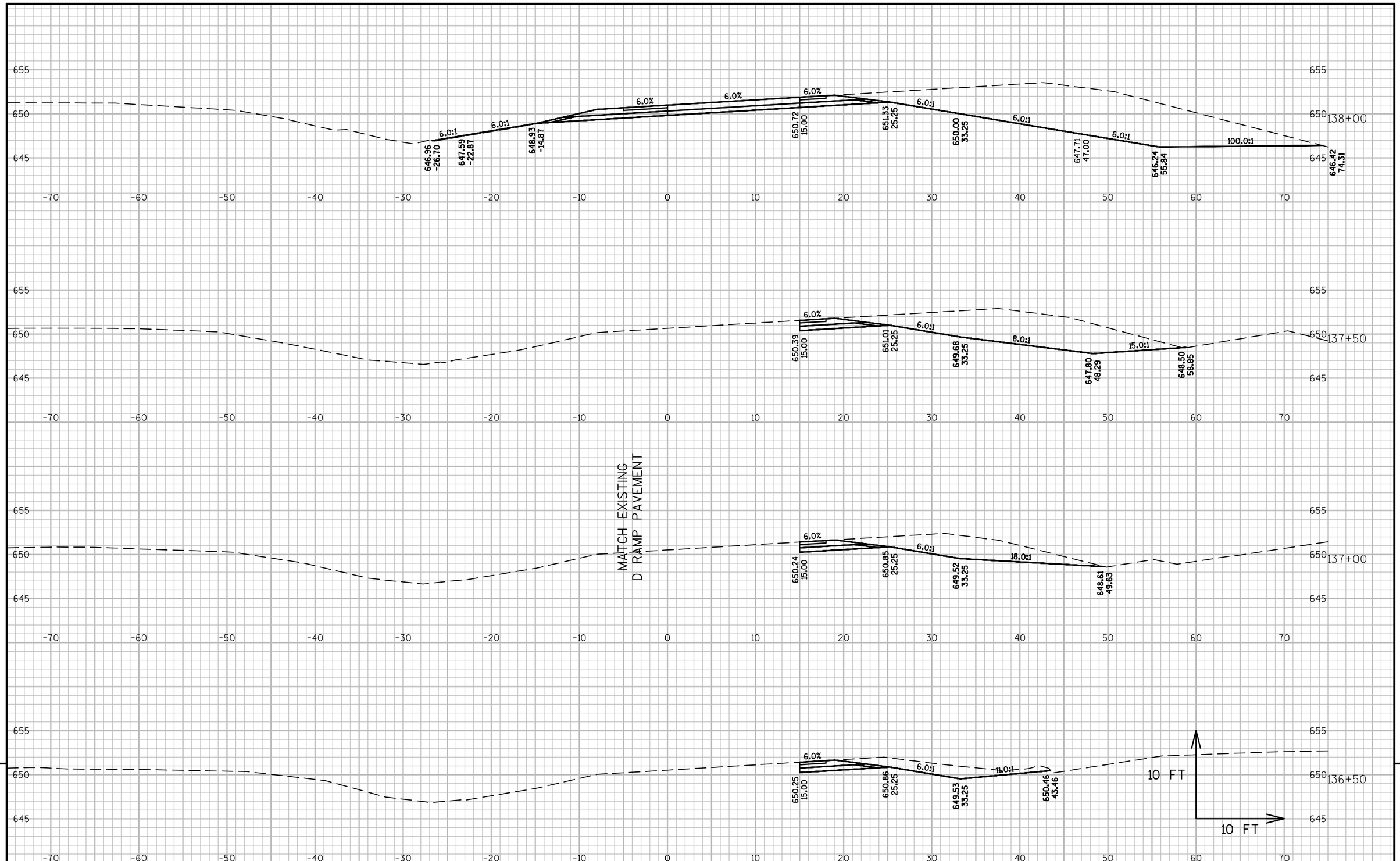
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: C RAMP	SHEET 823	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_CRAMP.DWG
LAYOUT NAME - 090209_XSC

PLOT DATE : 7/30/2015 10:29 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



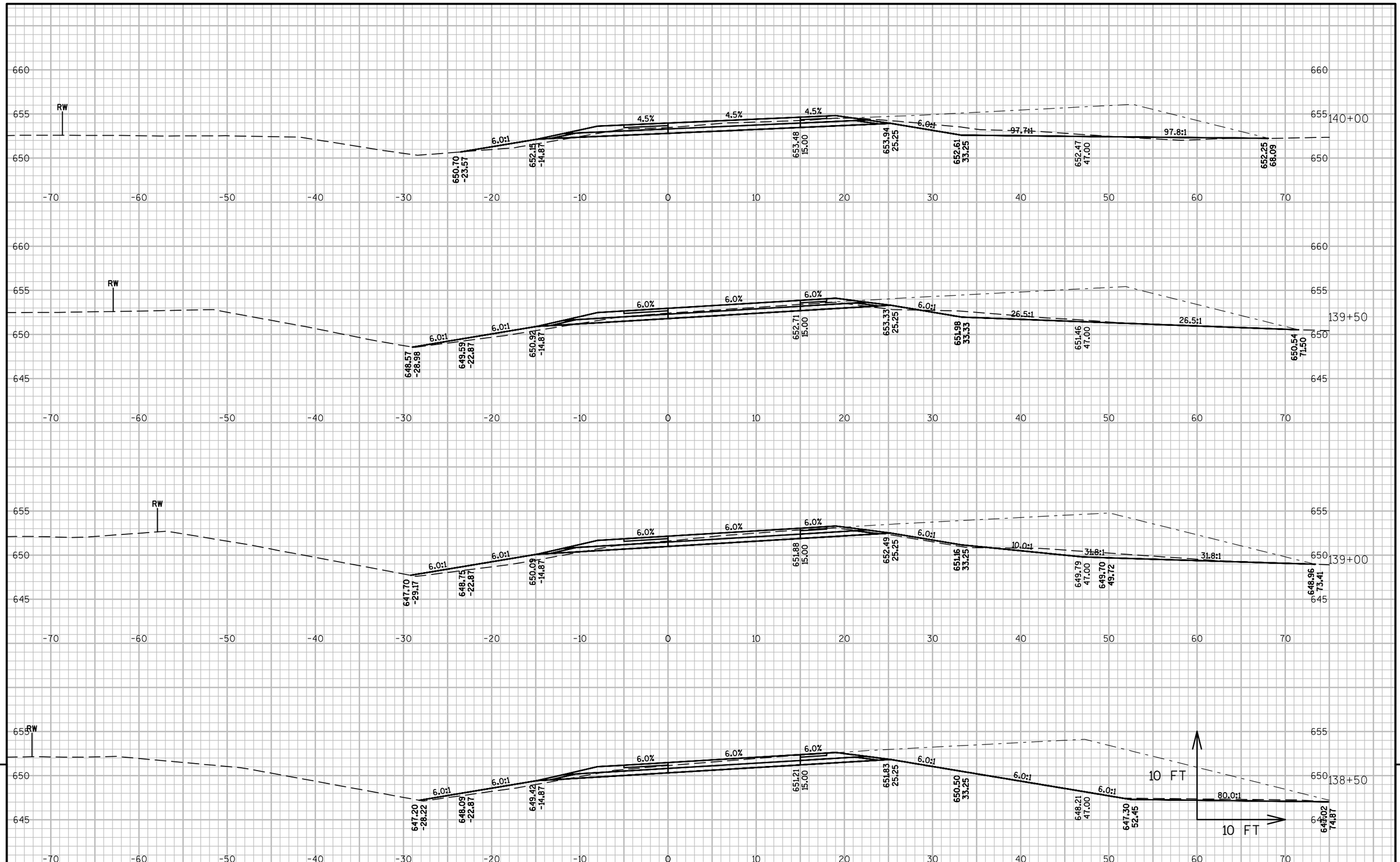
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: D RAMP	SHEET 824	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_DRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_DRAMP - 090201_XSD

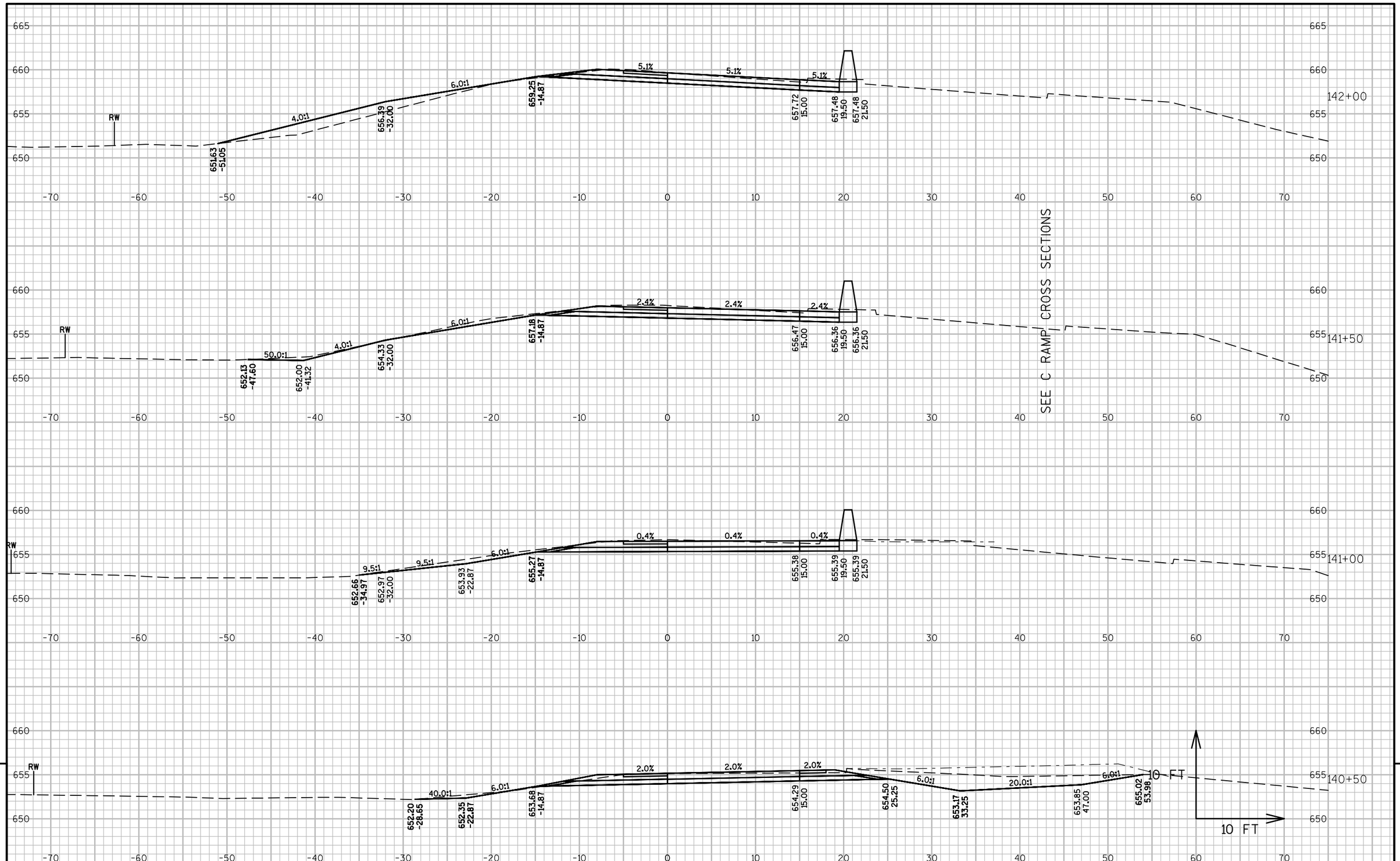
PLOT DATE : 7/30/2015 10:30 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: D RAMP	SHEET 825	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_DRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_DRAMP - 090202_XSD
PLOT DATE : 7/30/2015 10:30 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



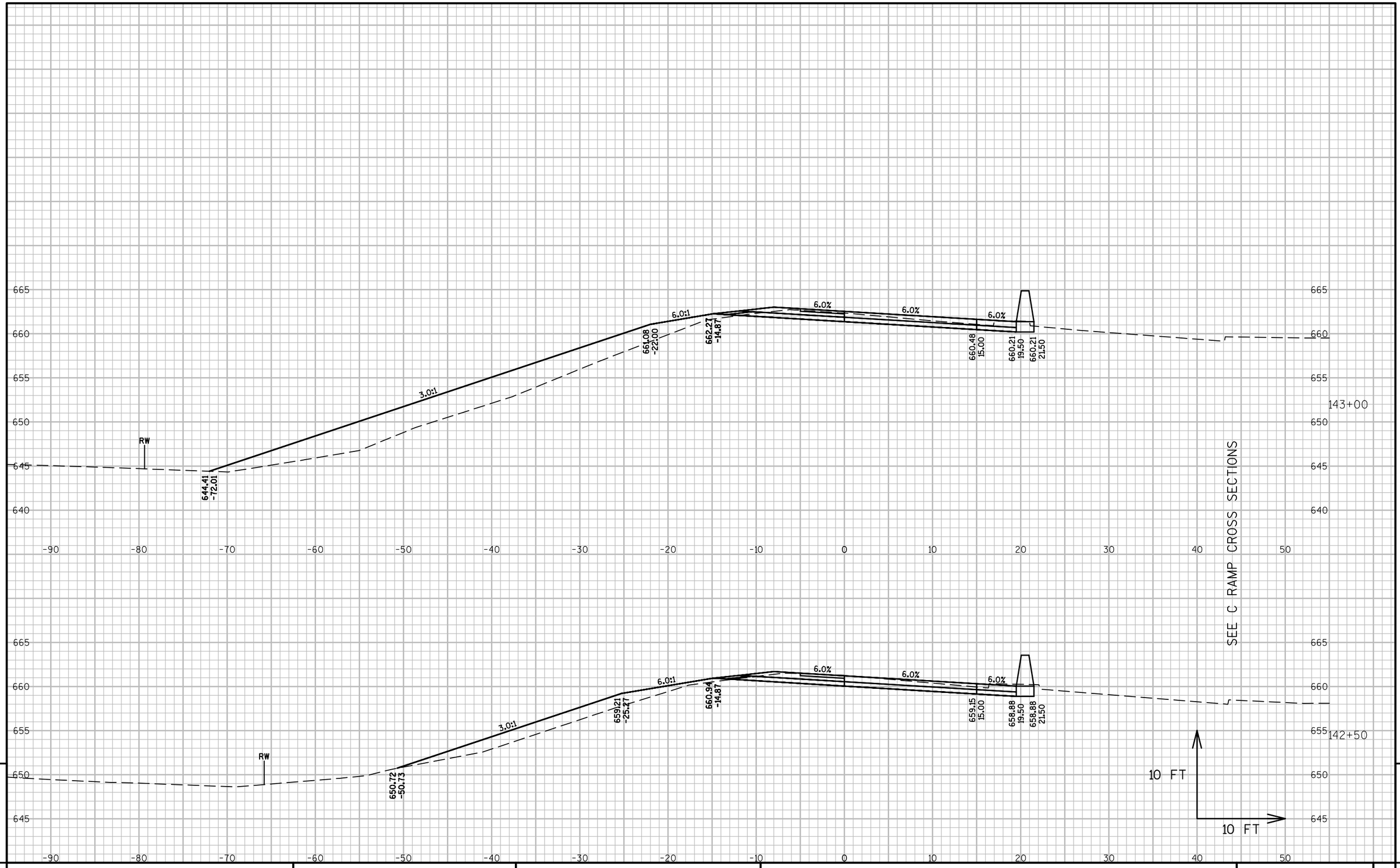
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: D RAMP	SHEET 826	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_DRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_DRAMP - 090203_XSD

PLOT DATE : 7/30/2015 10:30 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

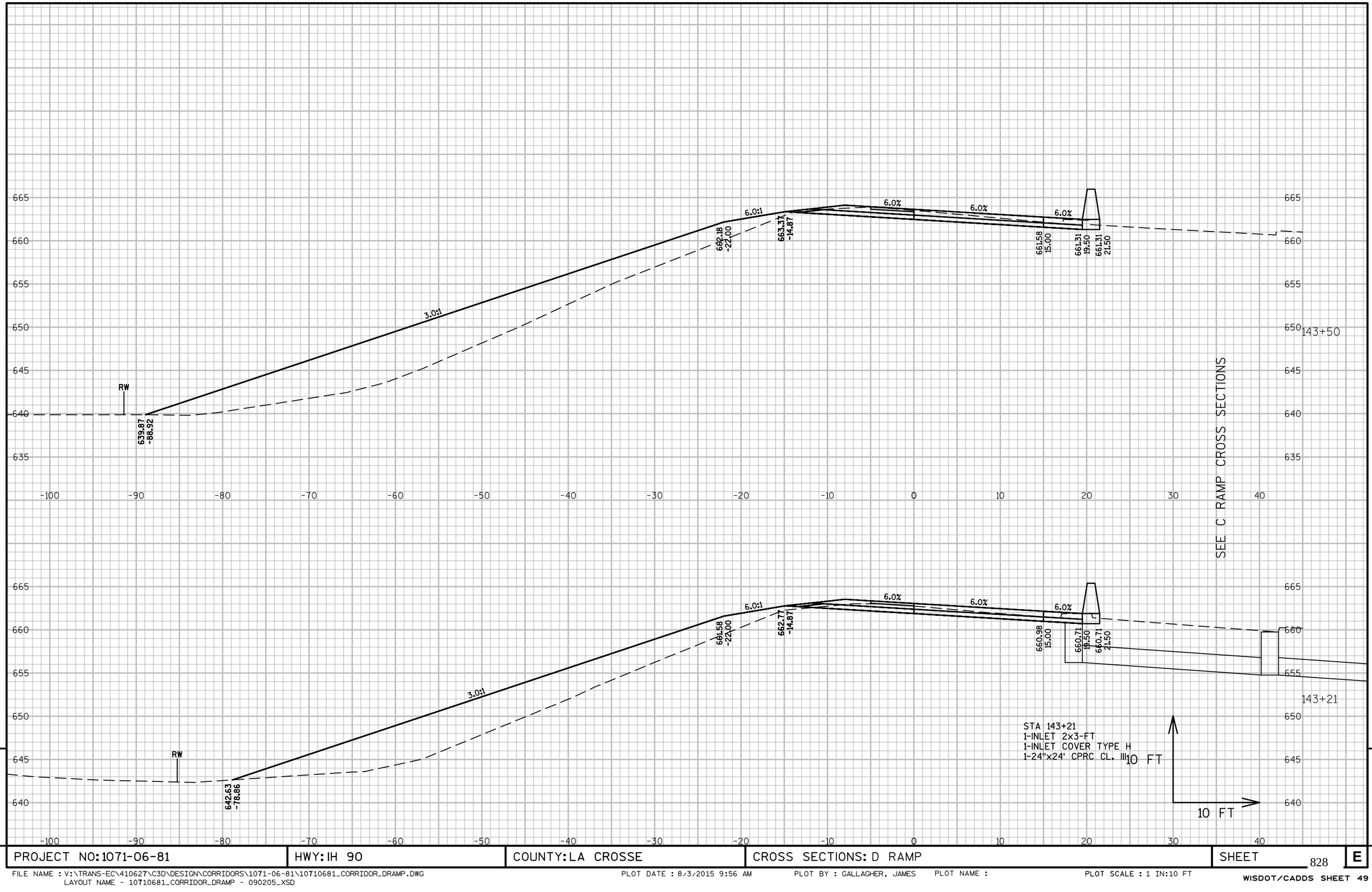


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: D RAMP	SHEET 827	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_DRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_DRAMP - 090204_XSD

PLOT DATE : 7/30/2015 10:31 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

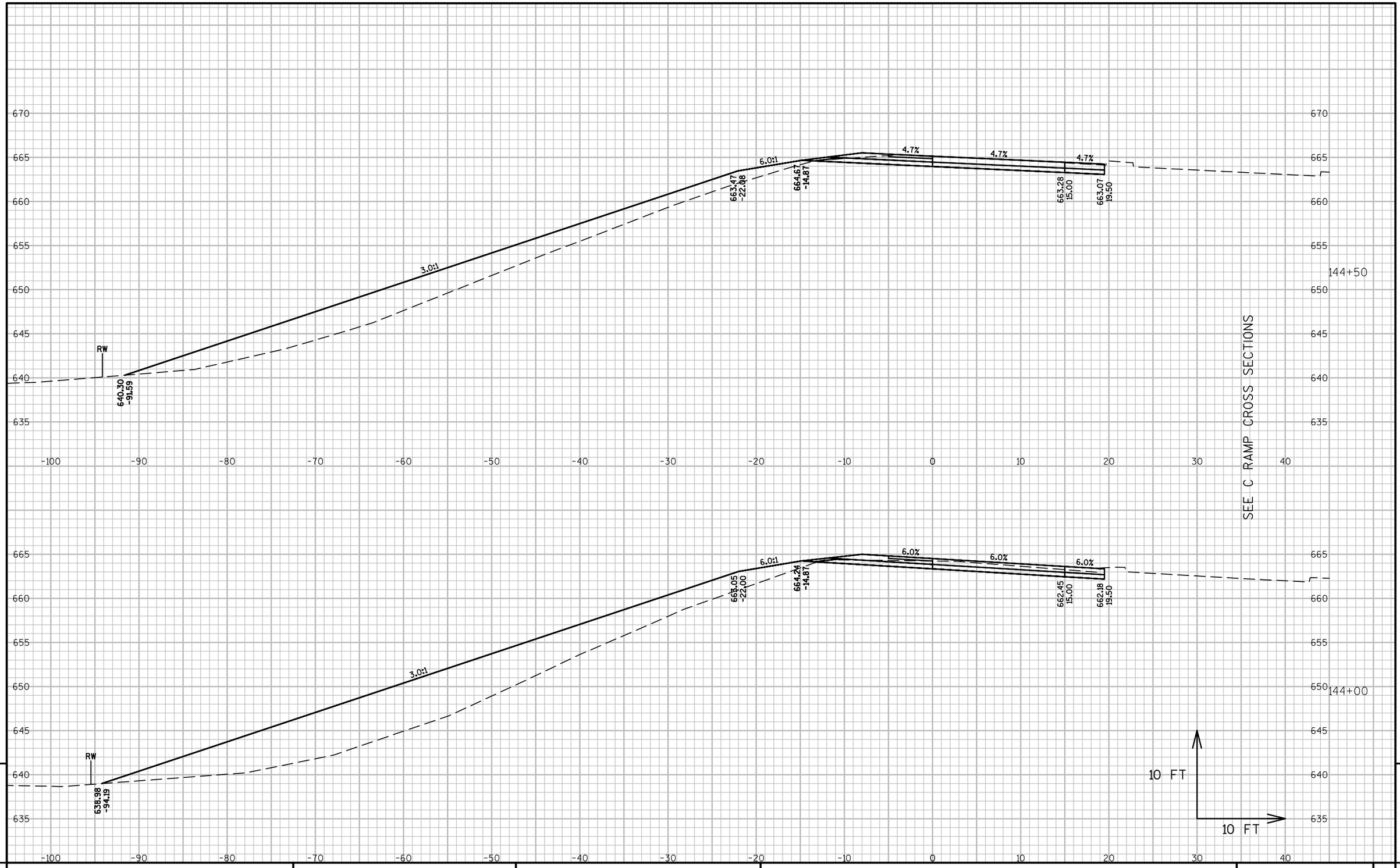
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PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: D RAMP	SHEET 828	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_DRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_DRAMP - 090205_XSD

PLOT DATE : 8/3/2015 9:56 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

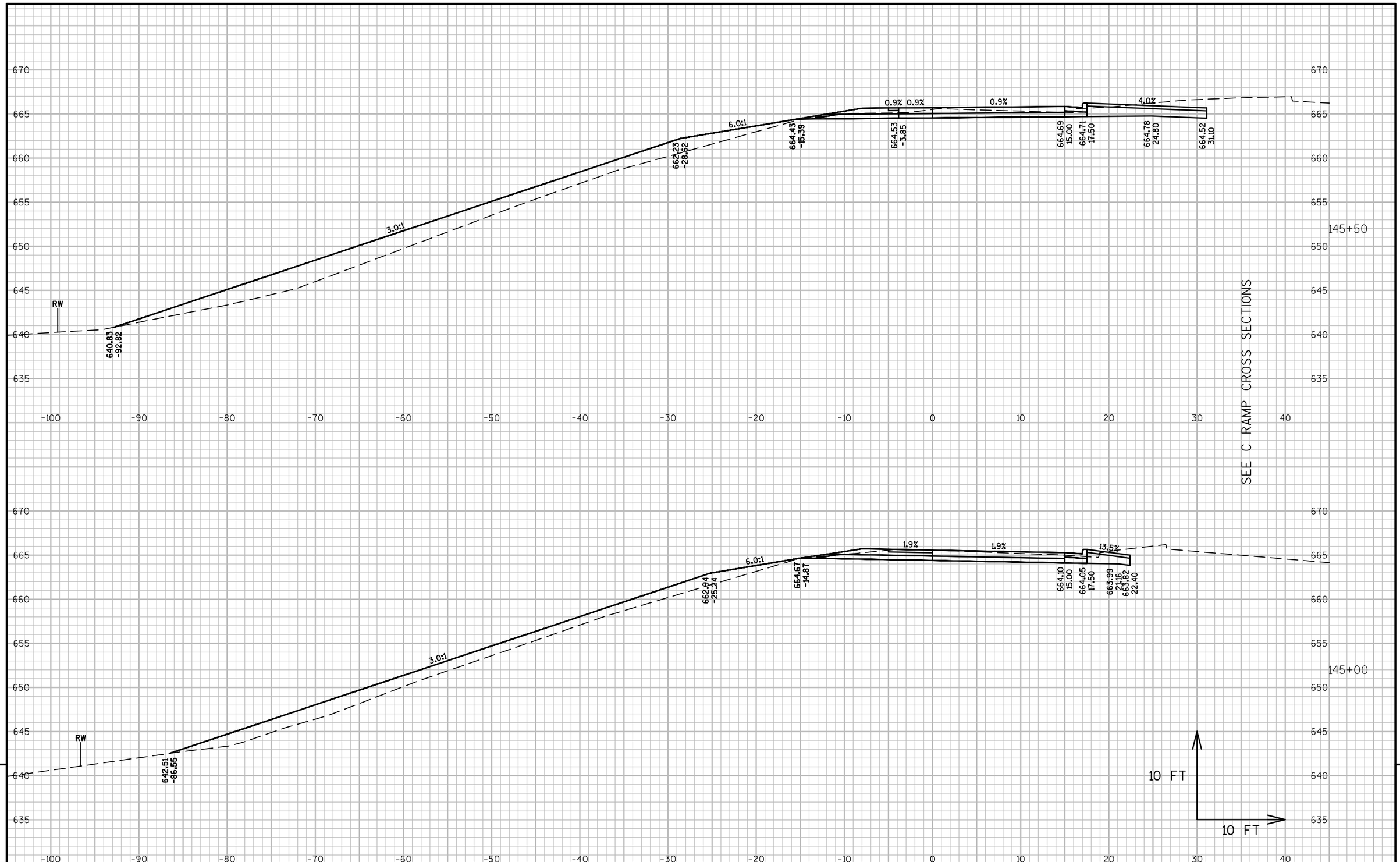
WISDOT/CADDS SHEET 49



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: D RAMP	SHEET 829	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_DRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_DRAMP - 090206_XSD

PLOT DATE : 7/30/2015 10:31 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



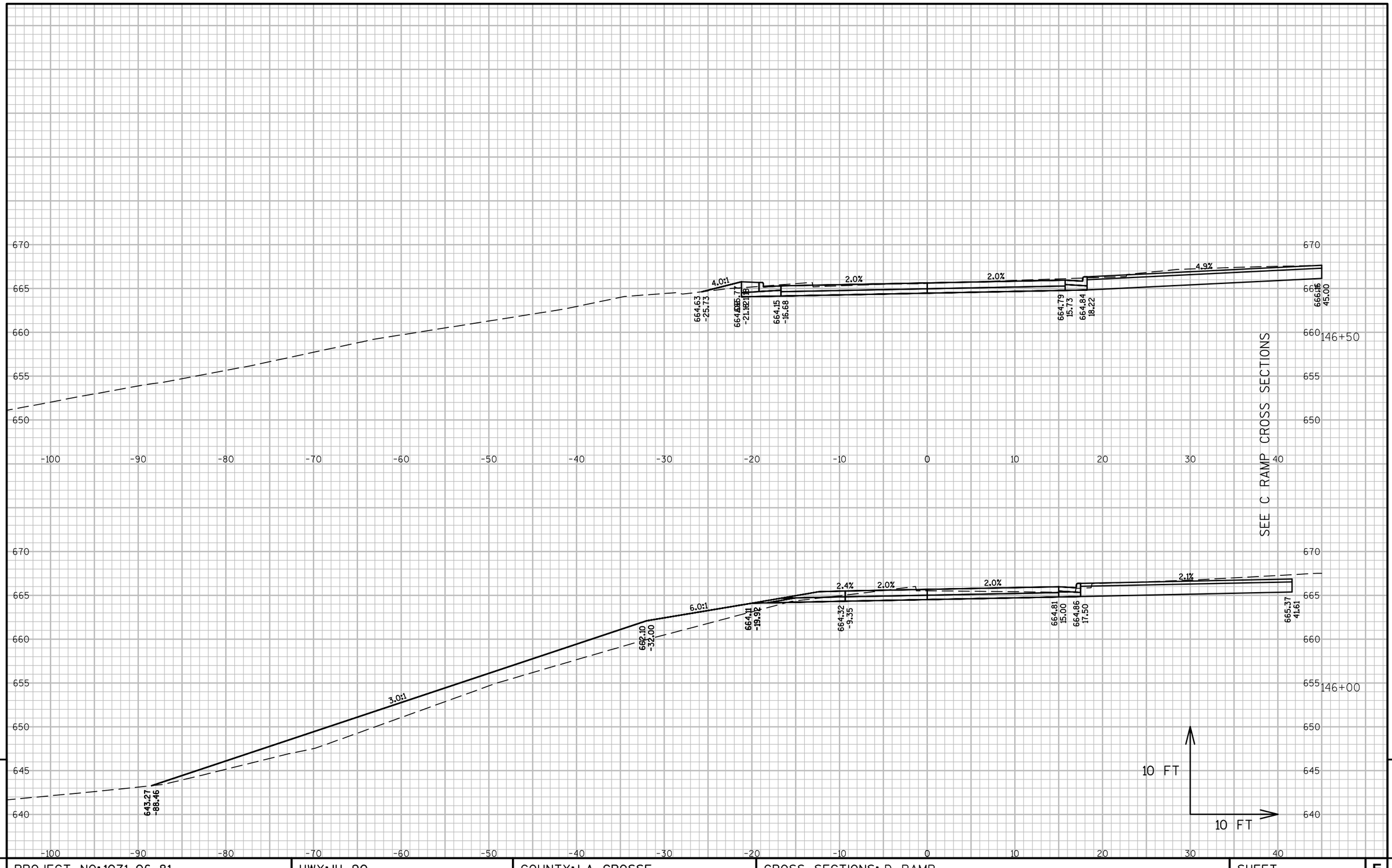
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: D RAMP	SHEET 830	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_DRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_DRAMP - 090207_XSD

PLOT DATE : 7/30/2015 10:32 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



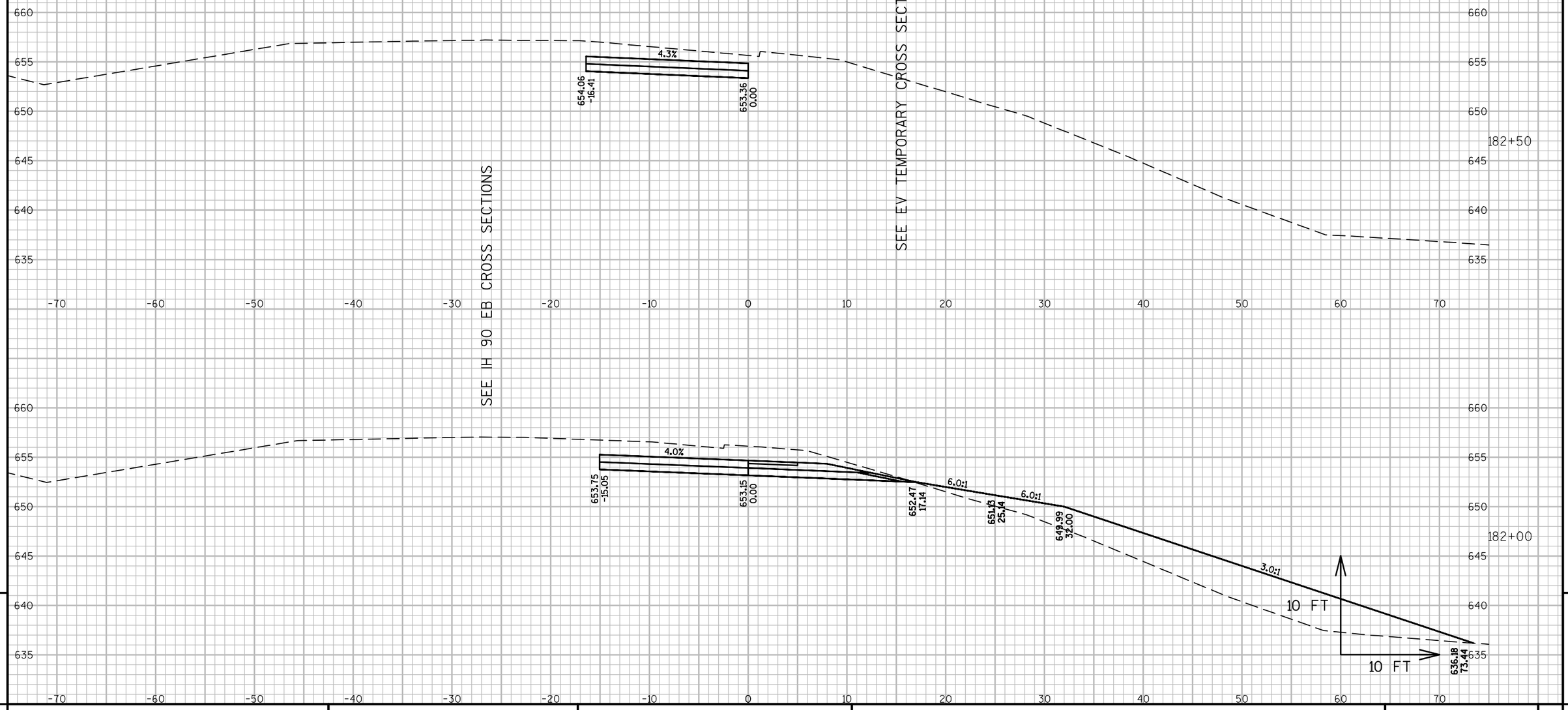
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: D RAMP	SHEET 831	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_DRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_DRAMP - 090208_XSD

PLOT DATE : 7/30/2015 10:32 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

SEE IH 90 EB CROSS SECTIONS

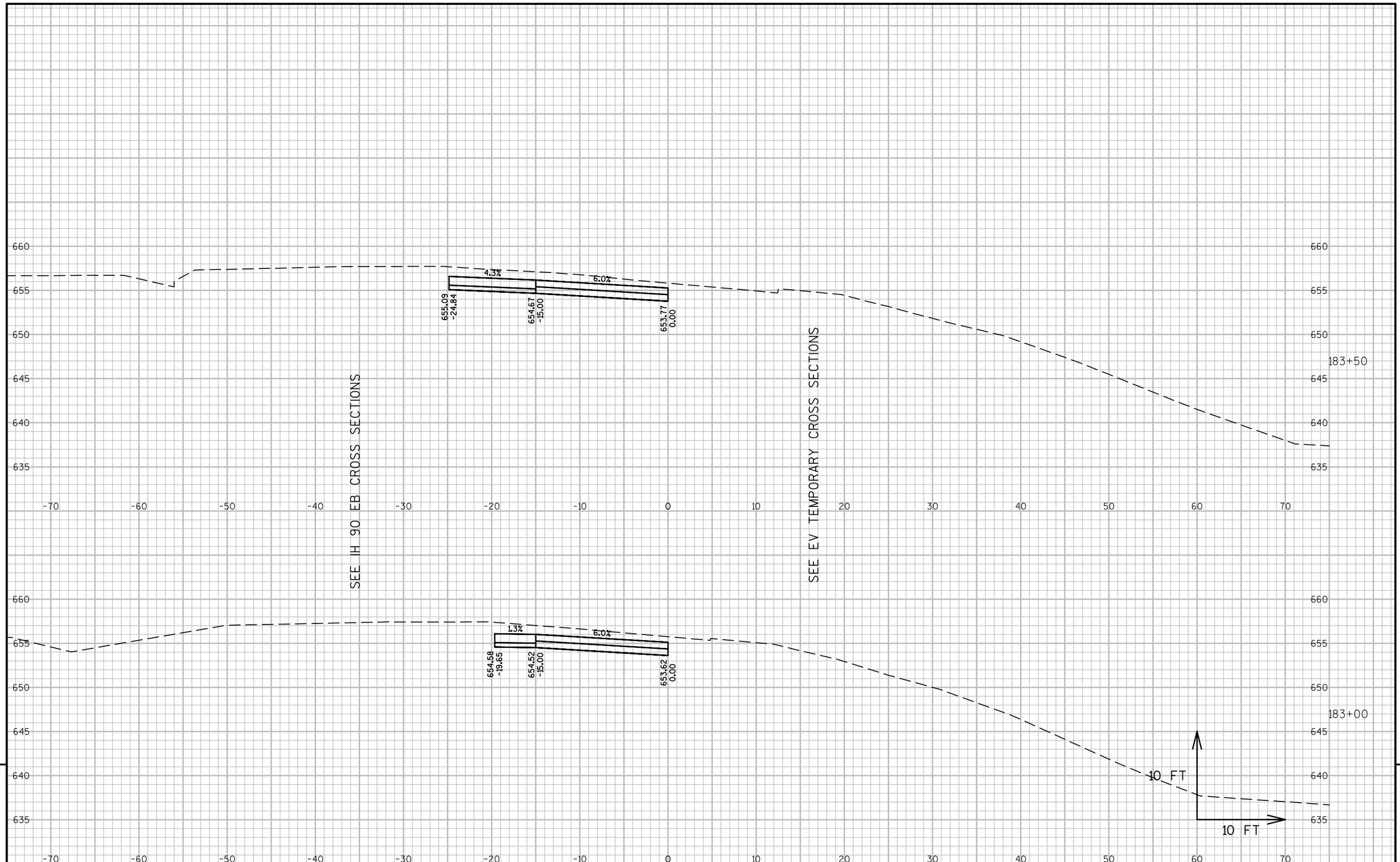
SEE EV TEMPORARY CROSS SECTIONS



9

9

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: E RAMP	SHEET 832	E



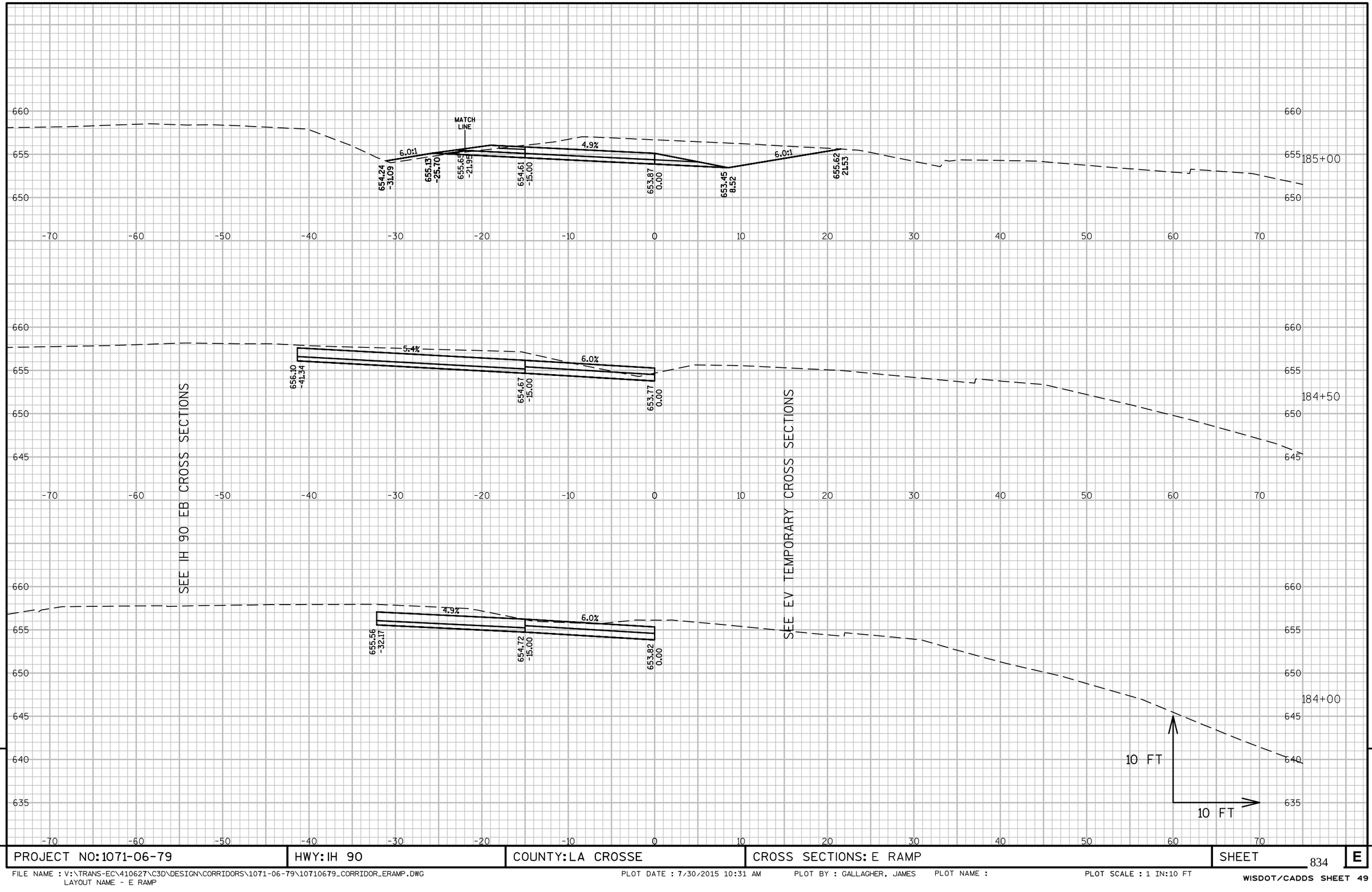
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: E RAMP	SHEET 833	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_ERAMP.DWG
LAYOUT NAME - E RAMP

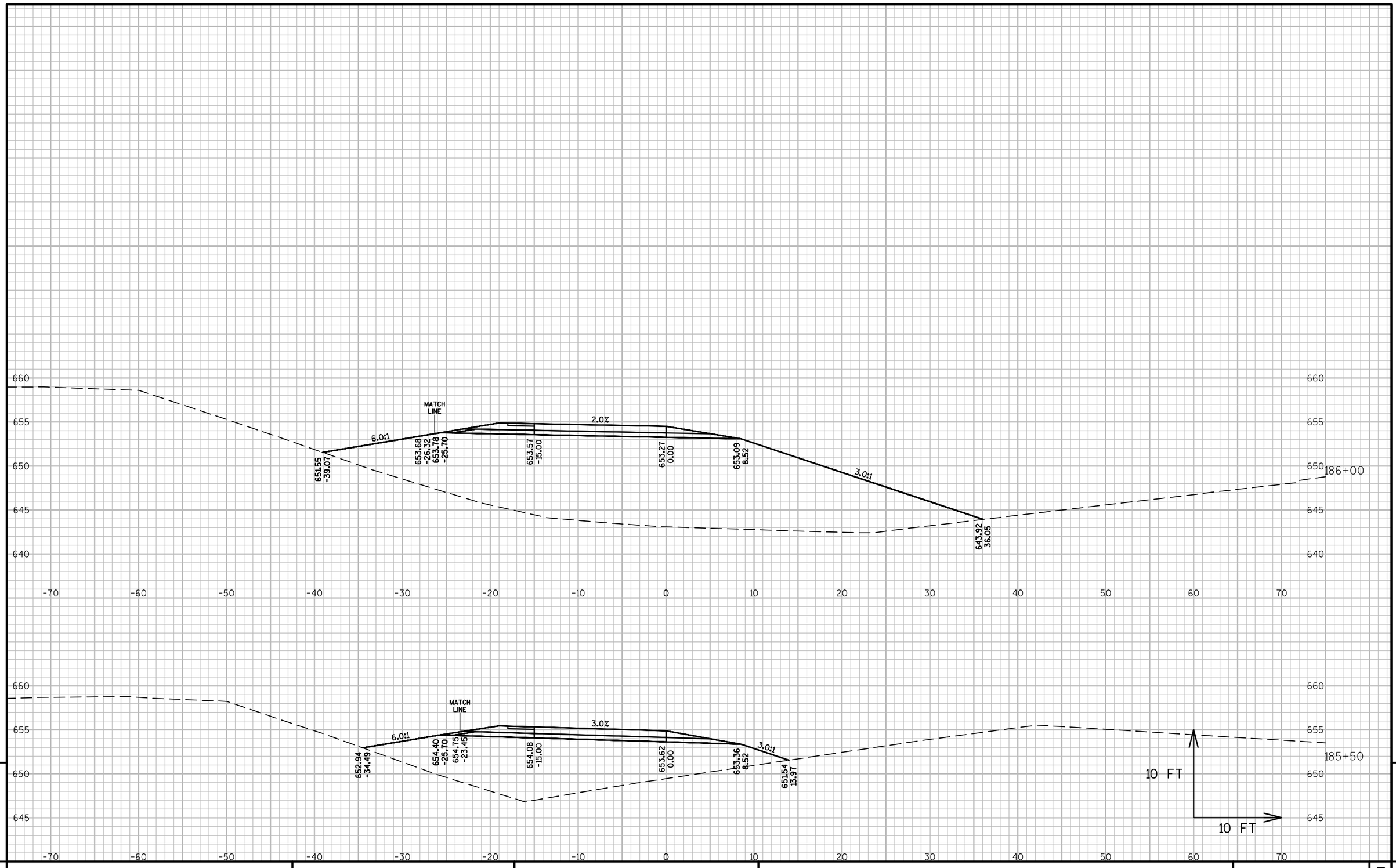
PLOT DATE : 7/30/2015 10:31 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	CROSS SECTIONS: E RAMP	SHEET 834	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_ERAMP.DWG
LAYOUT NAME - E RAMP

PLOT DATE : 7/30/2015 10:31 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



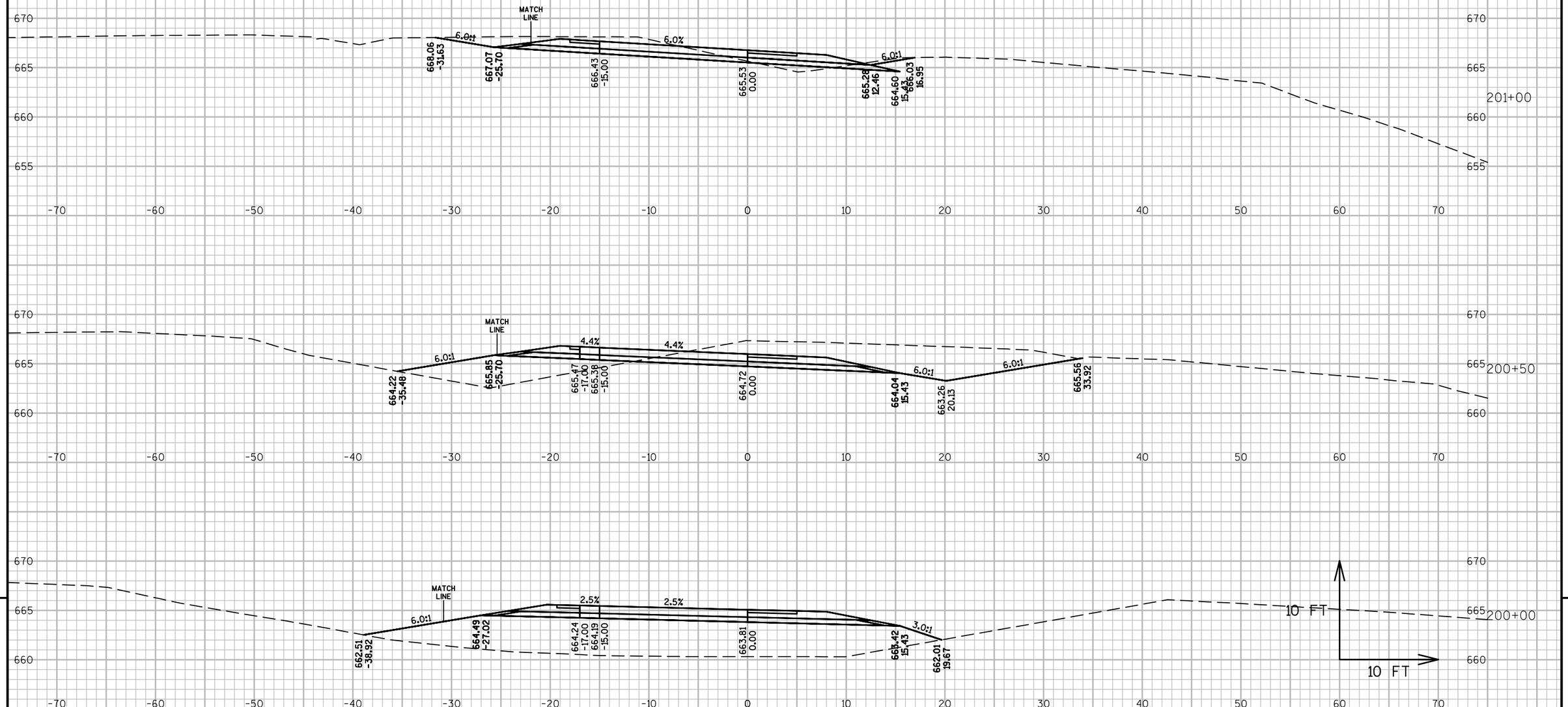
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: E RAMP	SHEET 835	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_ERAMP.DWG
LAYOUT NAME - E RAMP

PLOT DATE : 7/30/2015 10:31 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

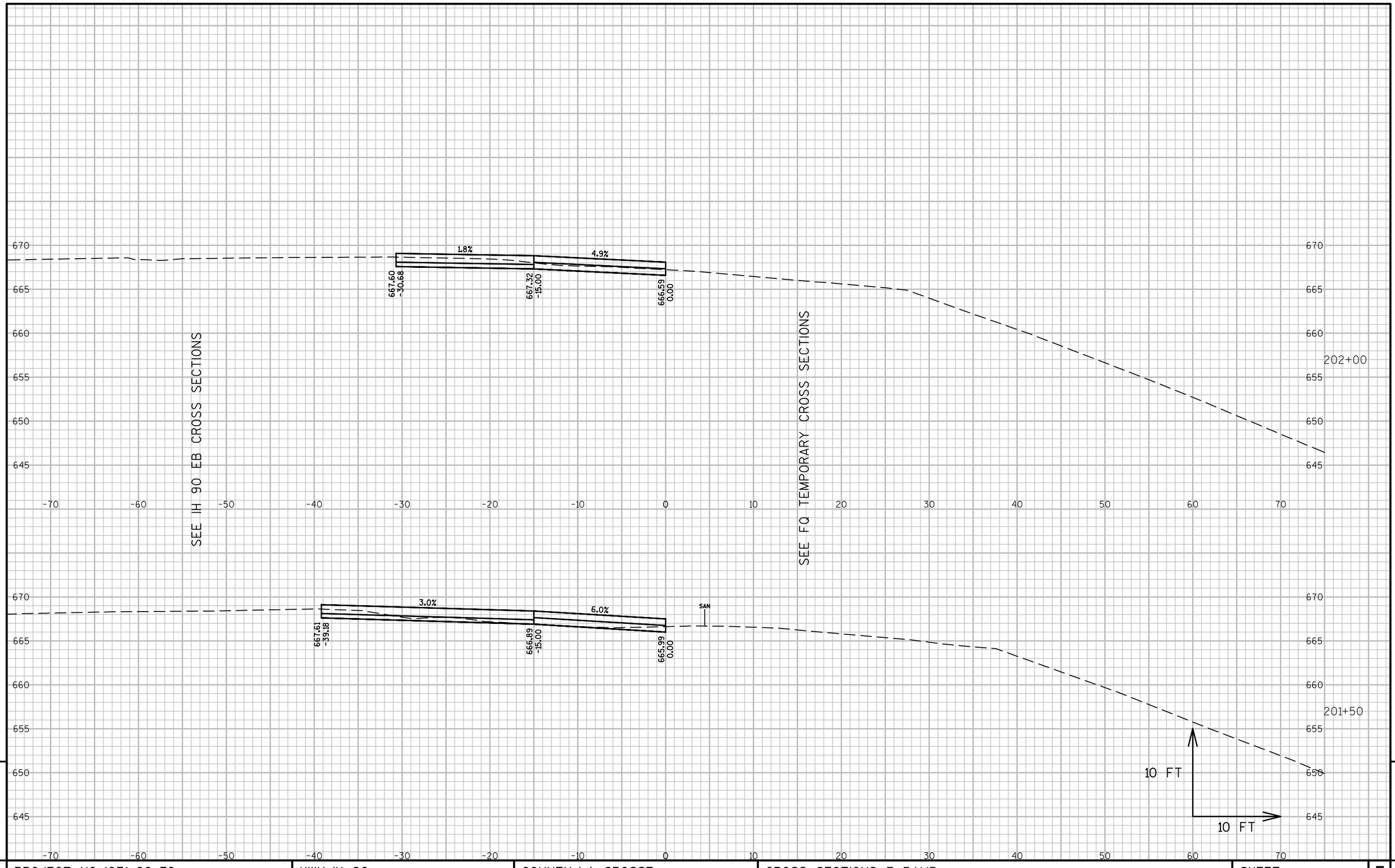


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: F RAMP	SHEET 836	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_FRAMP.DWG
LAYOUT NAME - F RAMP

PLOT DATE : 7/30/2015 10:33 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

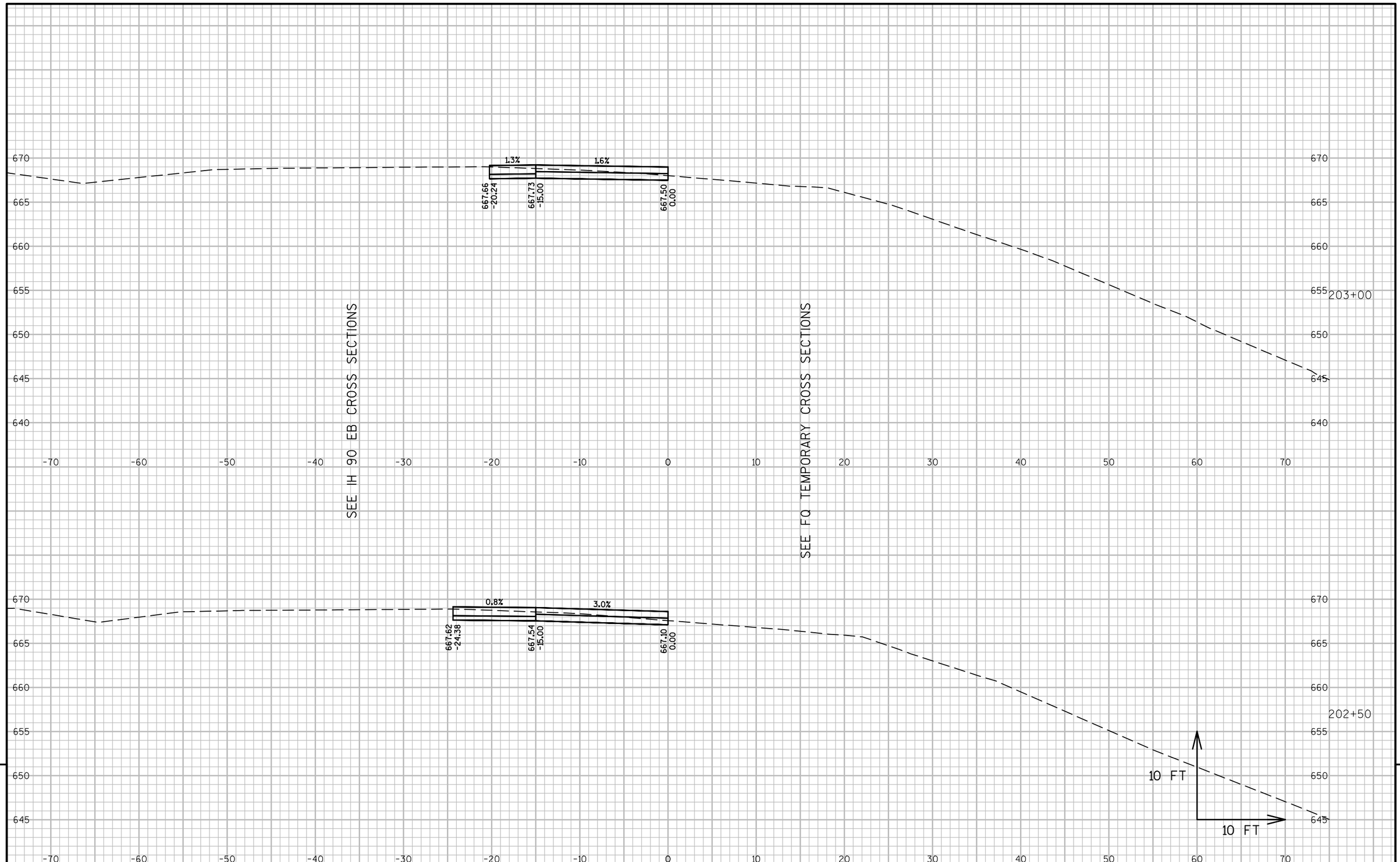


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: F RAMP	SHEET 837	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_FRAMP.DWG
LAYOUT NAME - F RAMP

PLOT DATE : 7/30/2015 10:33 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: F RAMP	SHEET 838	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_FRAMP.DWG
LAYOUT NAME - F RAMP

PLOT DATE : 7/30/2015 10:33 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

SEE IH 90 EB CROSS SECTIONS

SEE FQ TEMPORARY CROSS SECTIONS

4.9%

0.6%

667.74
-18.22

667.89
-15.00

667.80
0.00

670
665
660
655
650
645
640

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

203+50

10 FT

10 FT

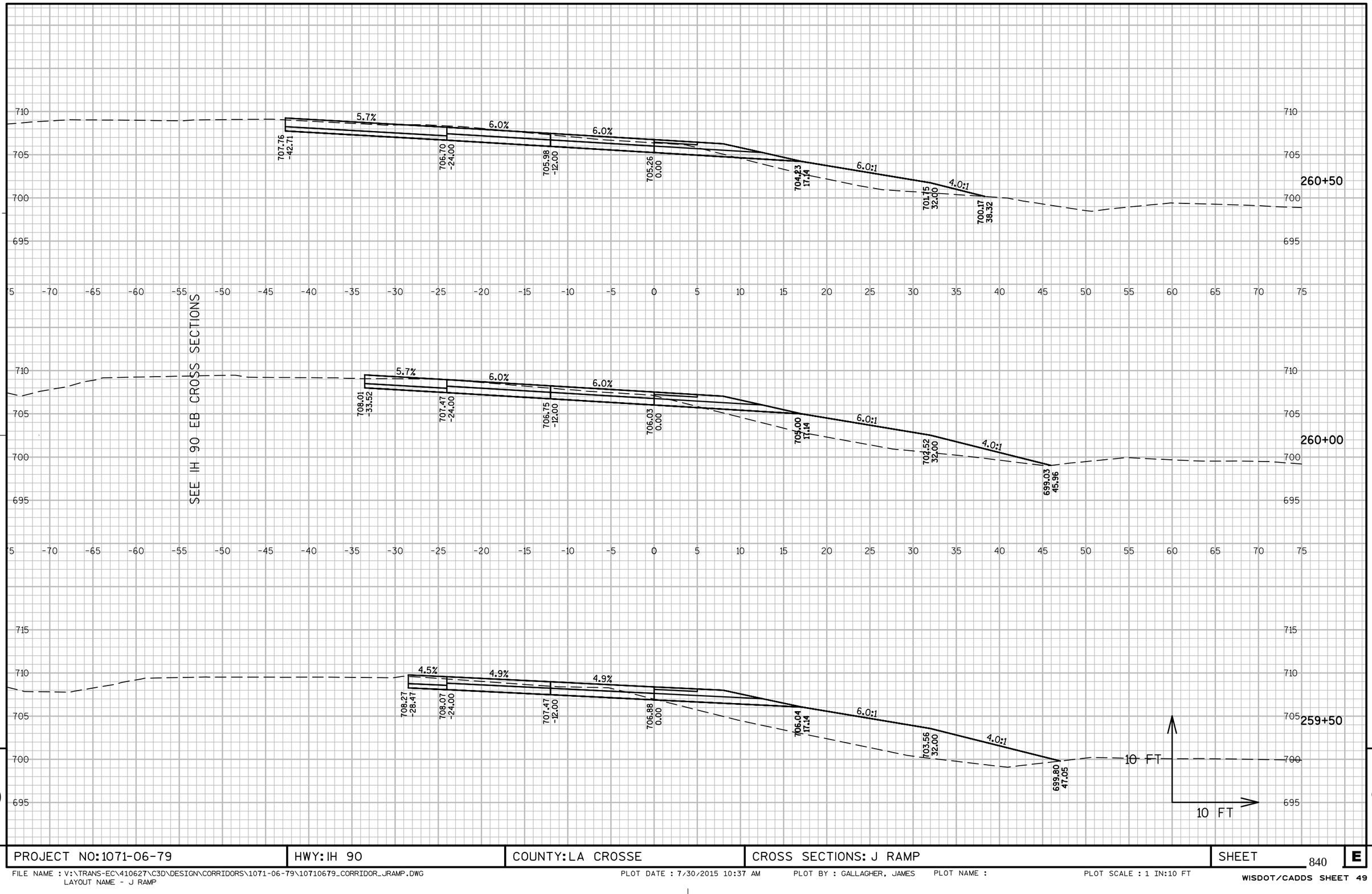
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: F RAMP	SHEET 839	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_FRAMP.DWG
LAYOUT NAME - F RAMP

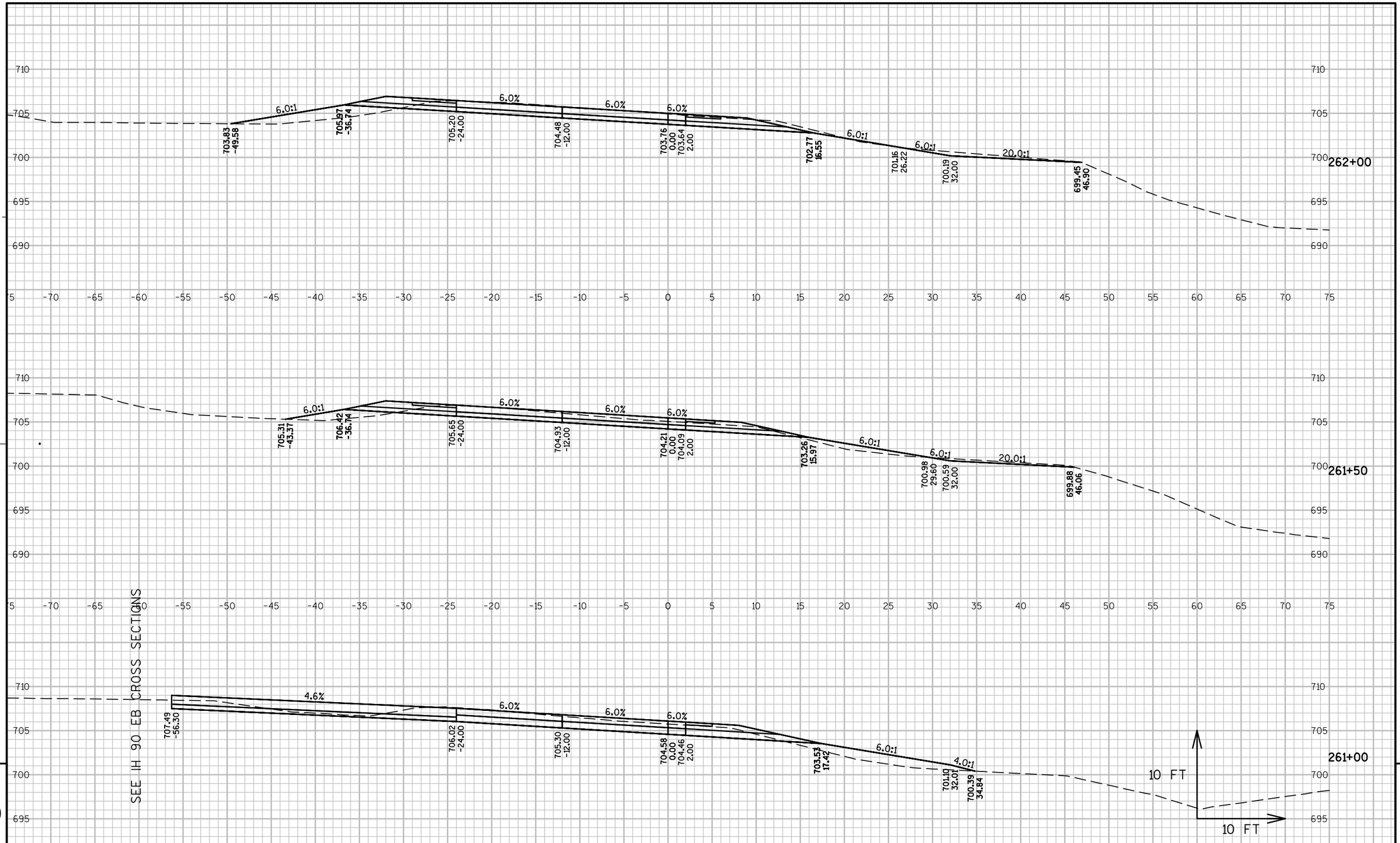
PLOT DATE : 7/30/2015 10:33 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: J RAMP	SHEET 840	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_JRAMP.DWG
LAYOUT NAME - J RAMP

PLOT DATE : 7/30/2015 10:37 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

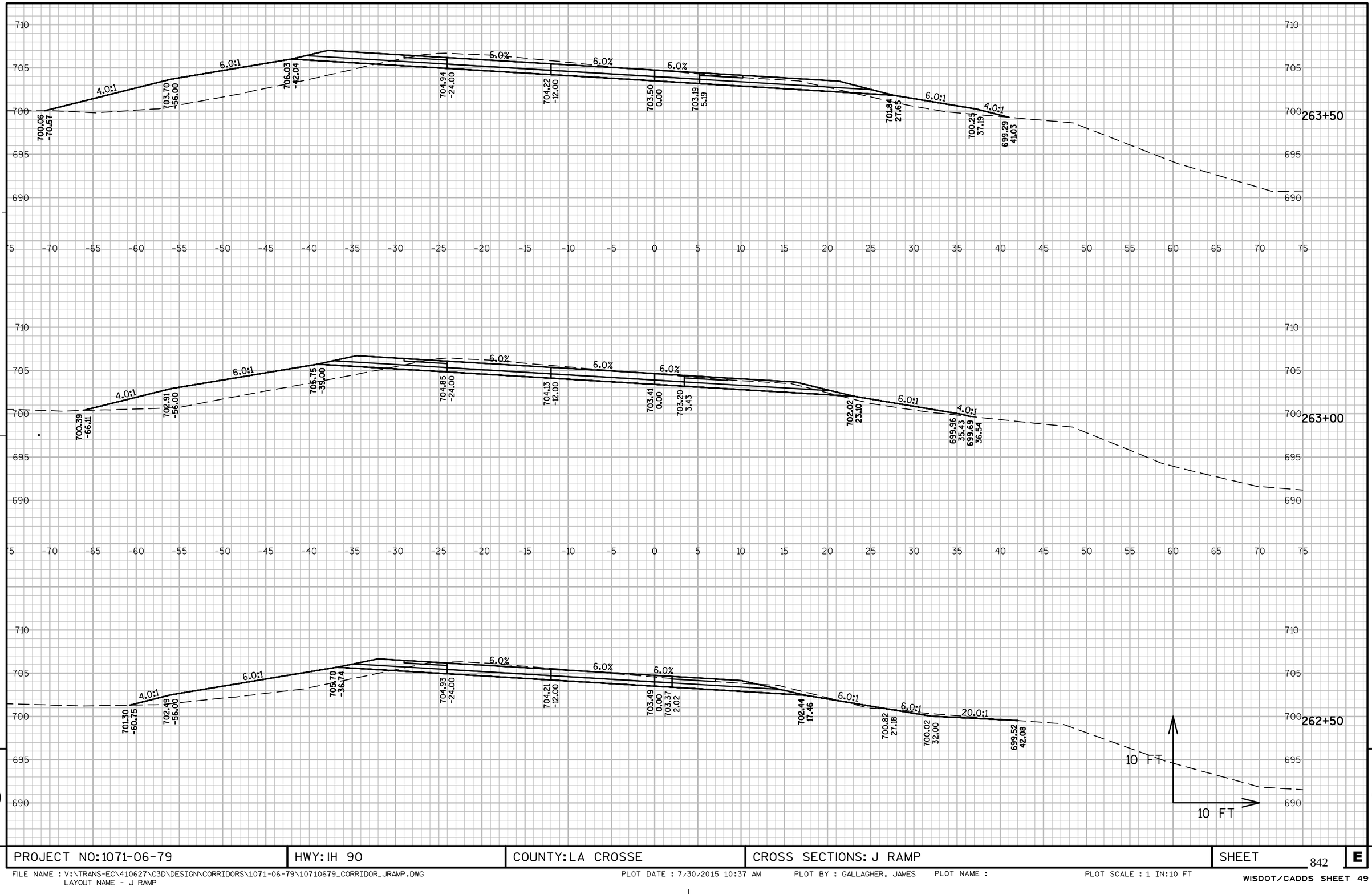


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: J RAMP	SHEET 841 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_JRAMP.DWG
LAYOUT NAME - J RAMP

PLOT DATE : 7/30/2015 10:37 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

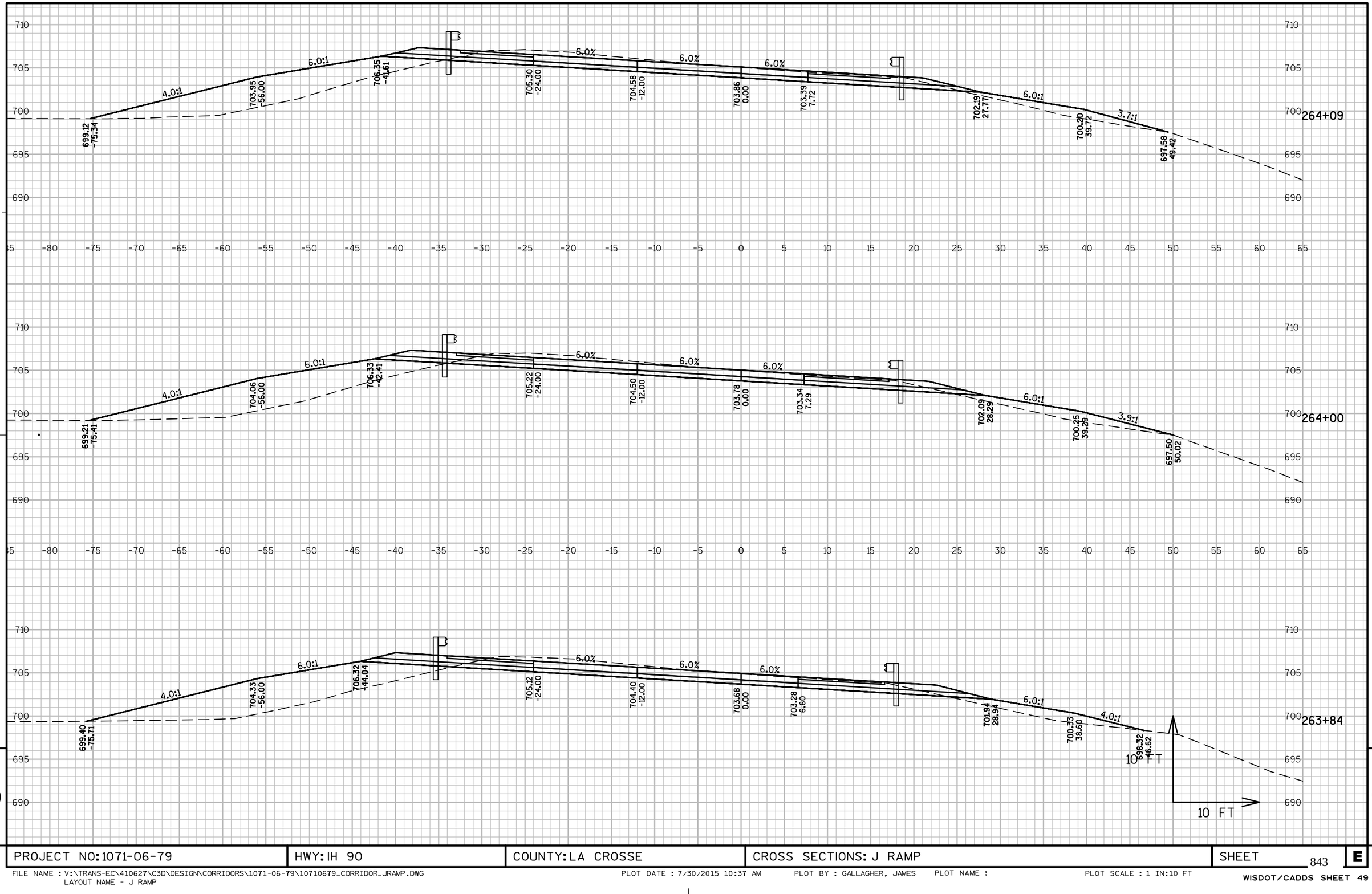
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: J RAMP	SHEET 842	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_JRAMP.DWG
LAYOUT NAME - J RAMP

PLOT DATE : 7/30/2015 10:37 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

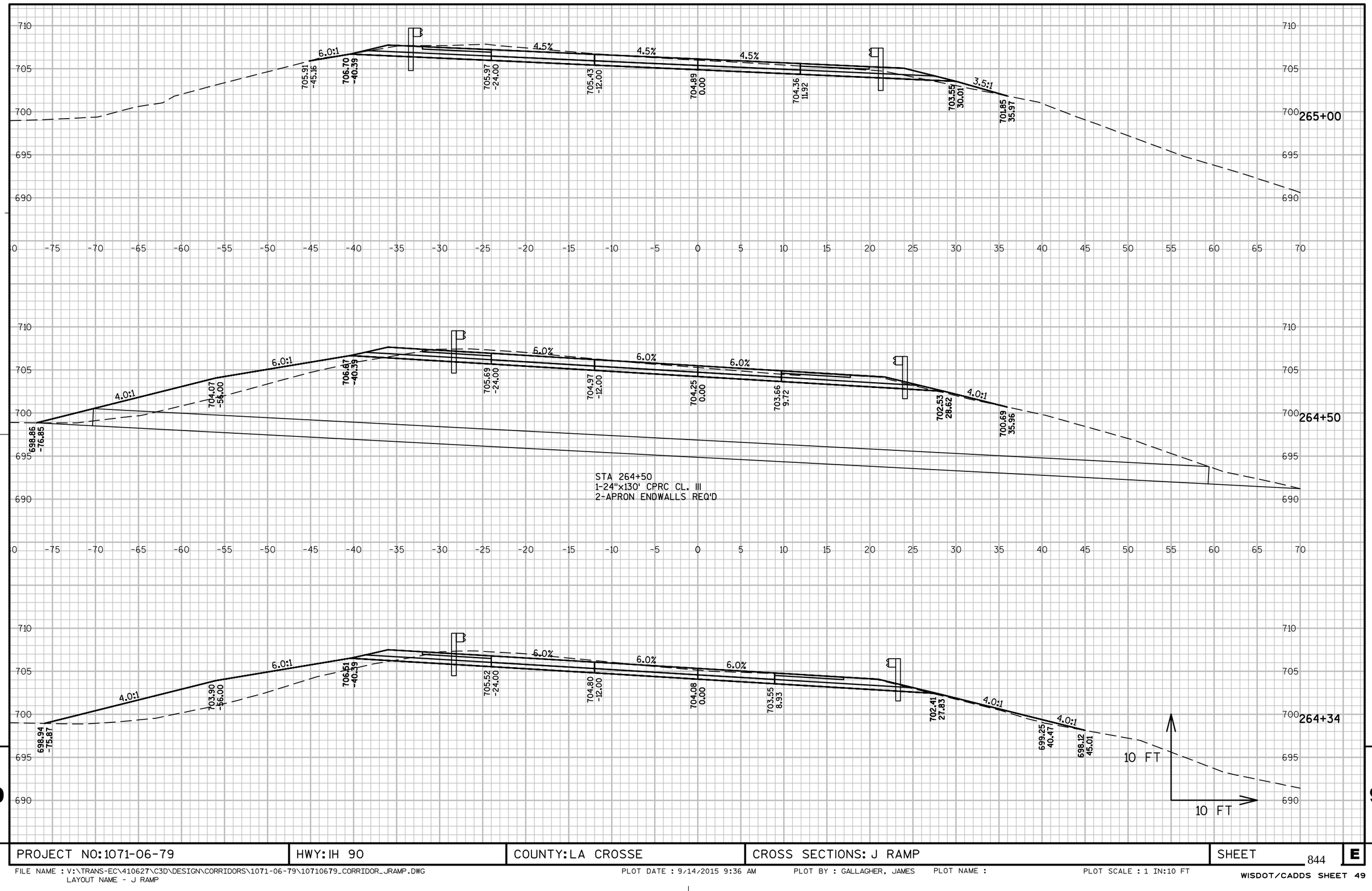


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: J RAMP	SHEET 843	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_JRAMP.DWG
LAYOUT NAME - J RAMP

PLOT DATE : 7/30/2015 10:37 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



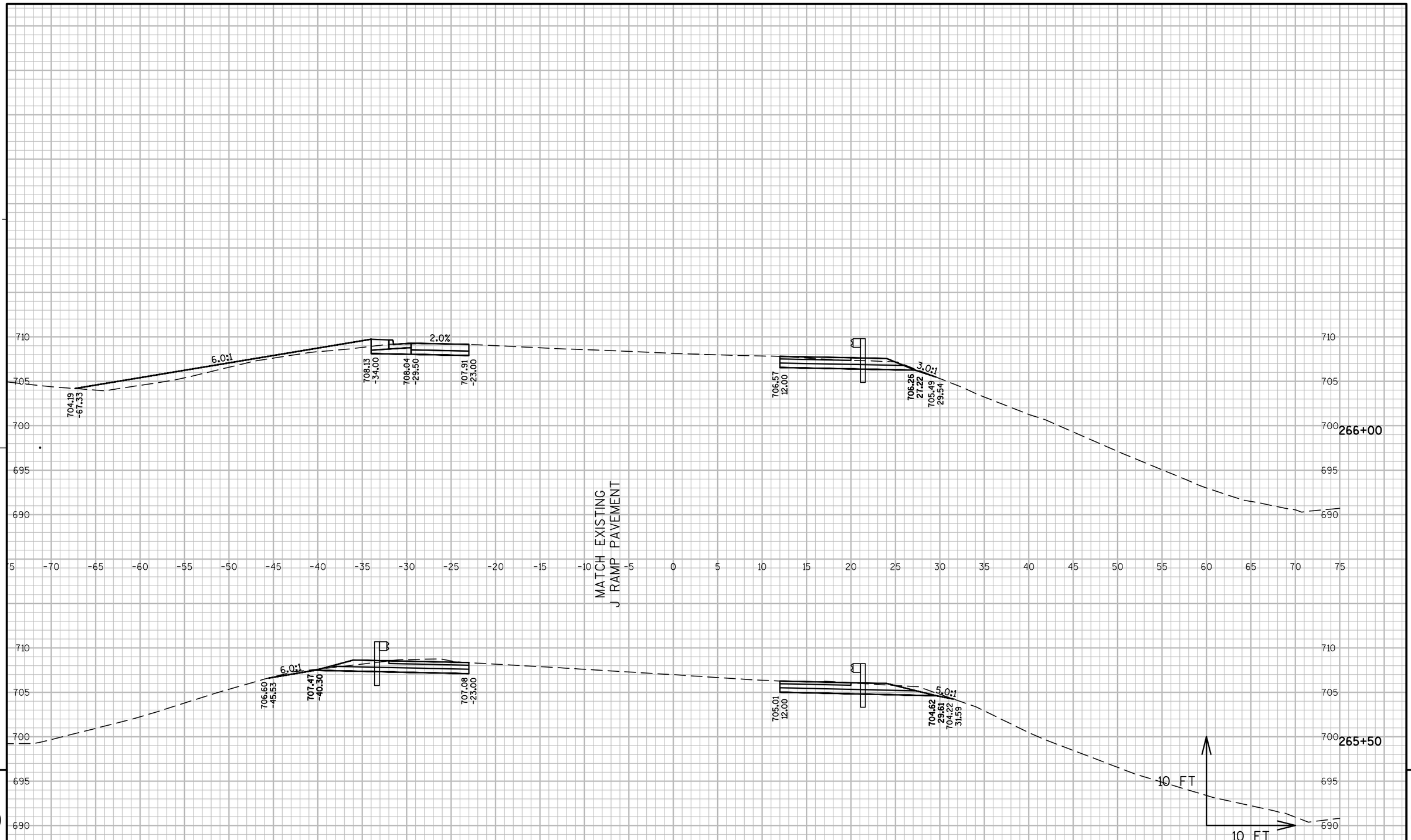
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: J RAMP	SHEET 844	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_JRAMP.DWG
LAYOUT NAME - J RAMP

PLOT DATE : 9/14/2015 9:36 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

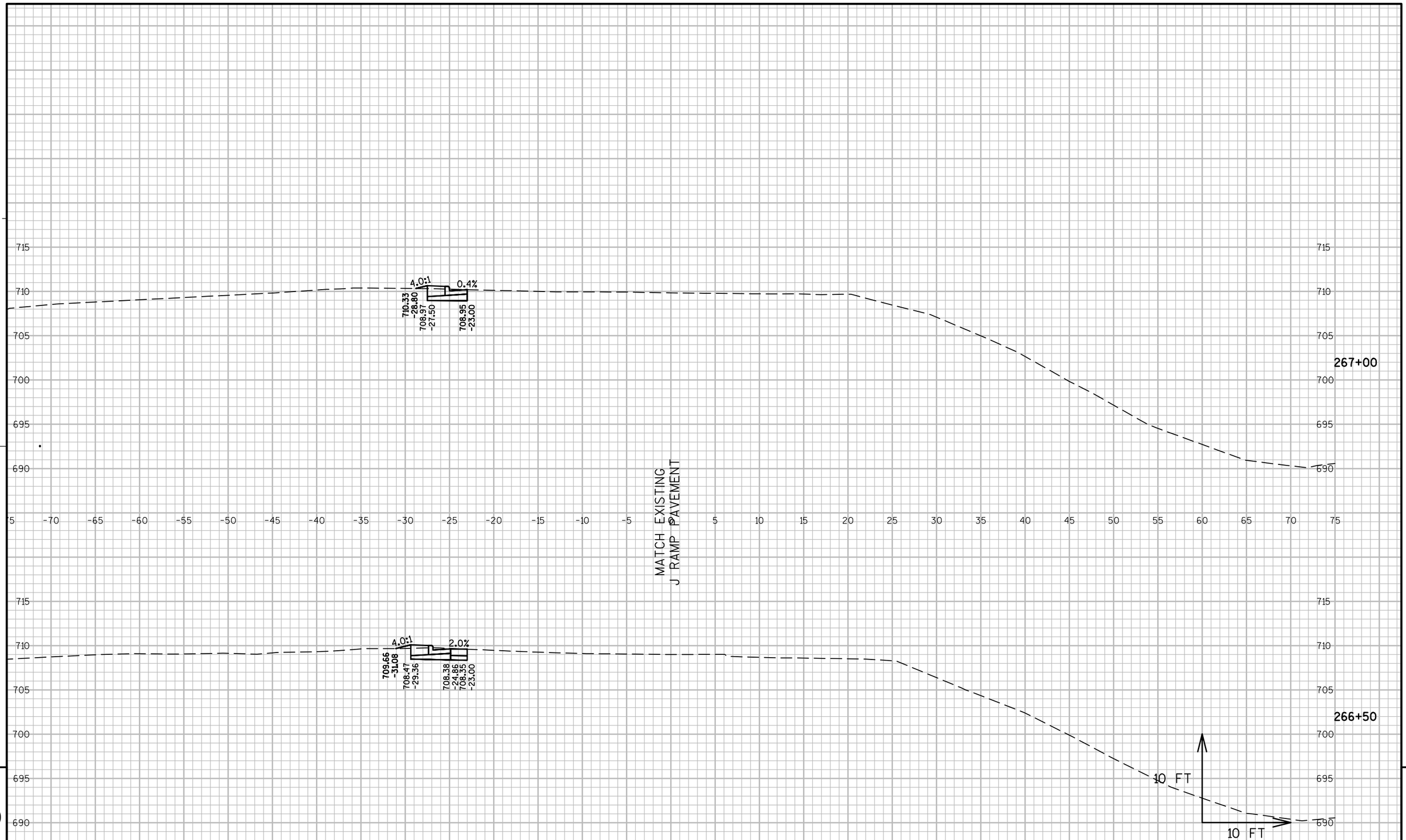


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: J RAMP	SHEET 845	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_JRAMP.DWG
LAYOUT NAME - 090206_XSJ

PLOT DATE : 7/30/2015 10:37 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



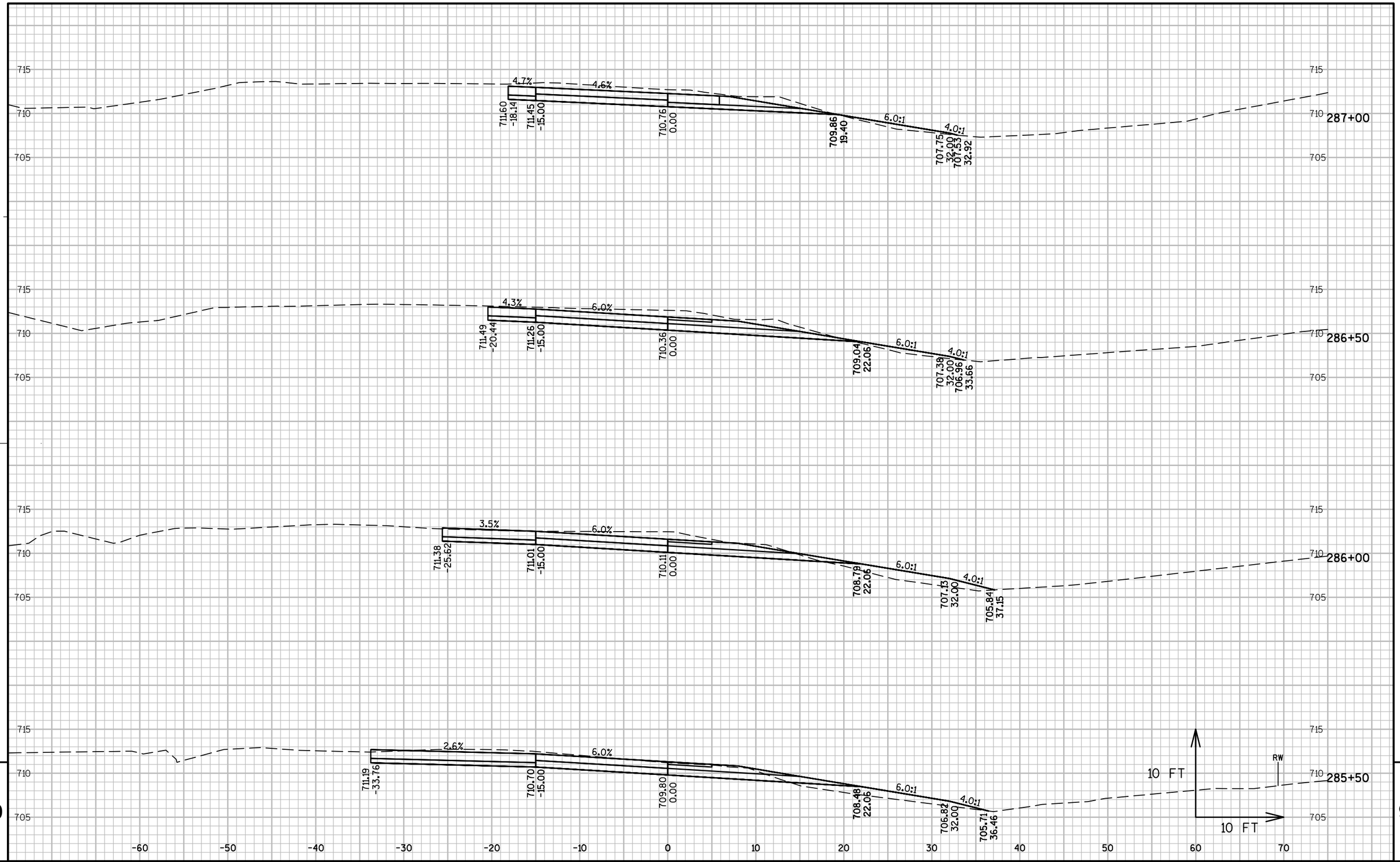
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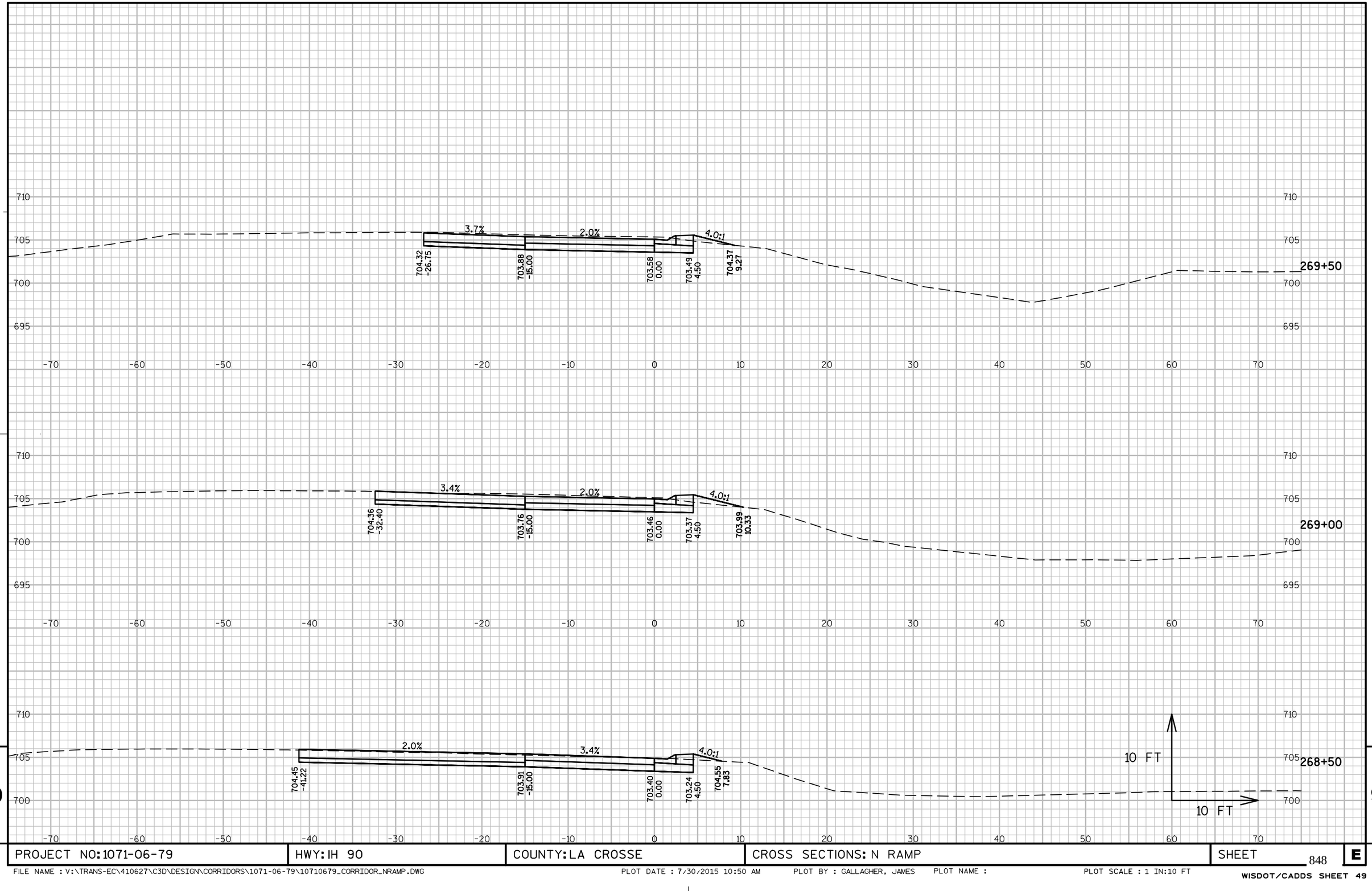
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: J RAMP	SHEET 846	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_JRAMP.DWG
LAYOUT NAME - 090207_XSJ

PLOT DATE : 7/30/2015 10:37 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



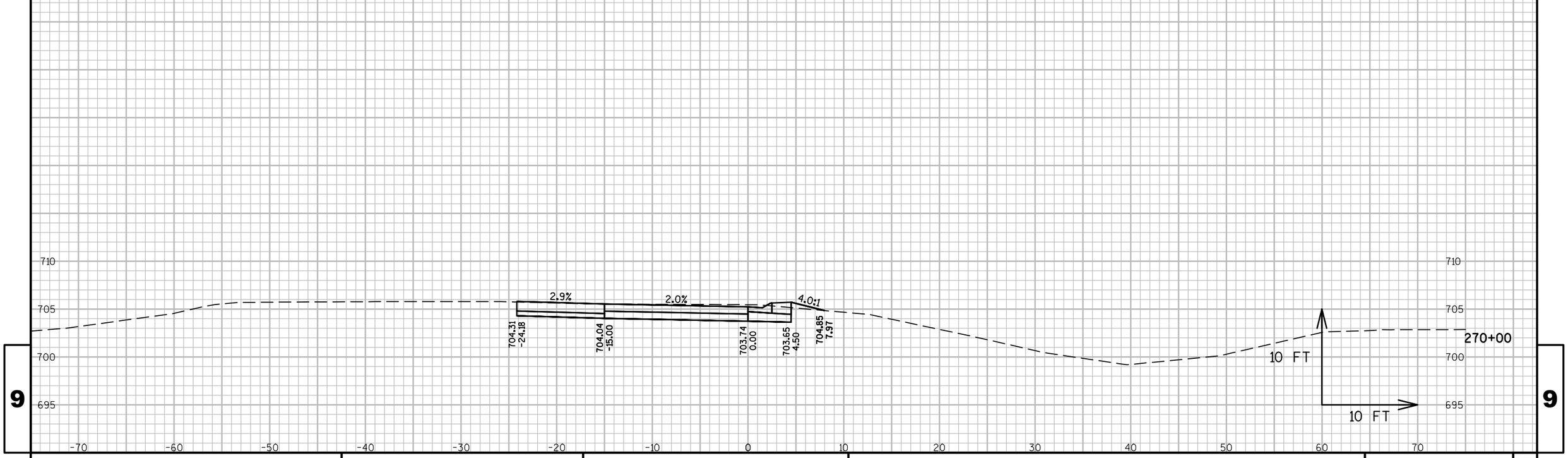
PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: K RAMP	SHEET 847	E



9

PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: N RAMP	SHEET 848	E

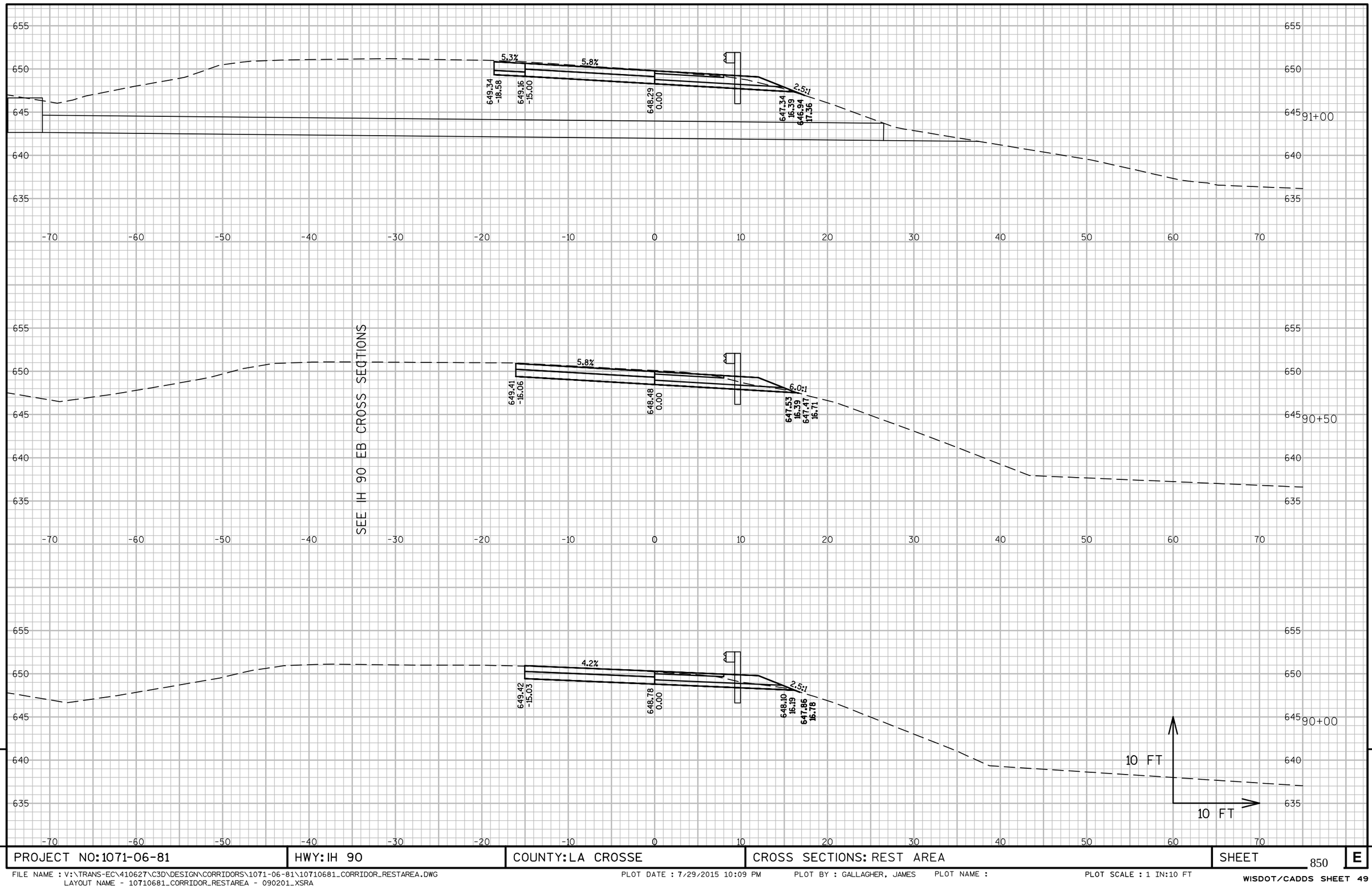
FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_NRAMP.DWG PLOT DATE : 7/30/2015 10:50 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



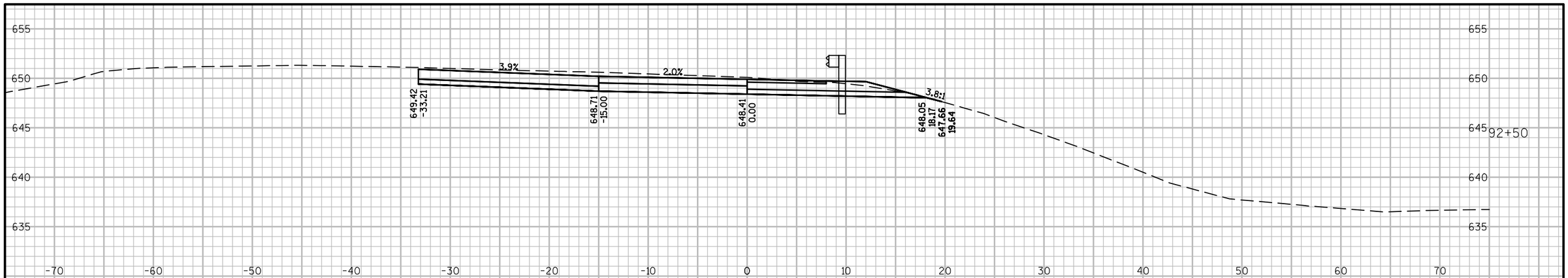
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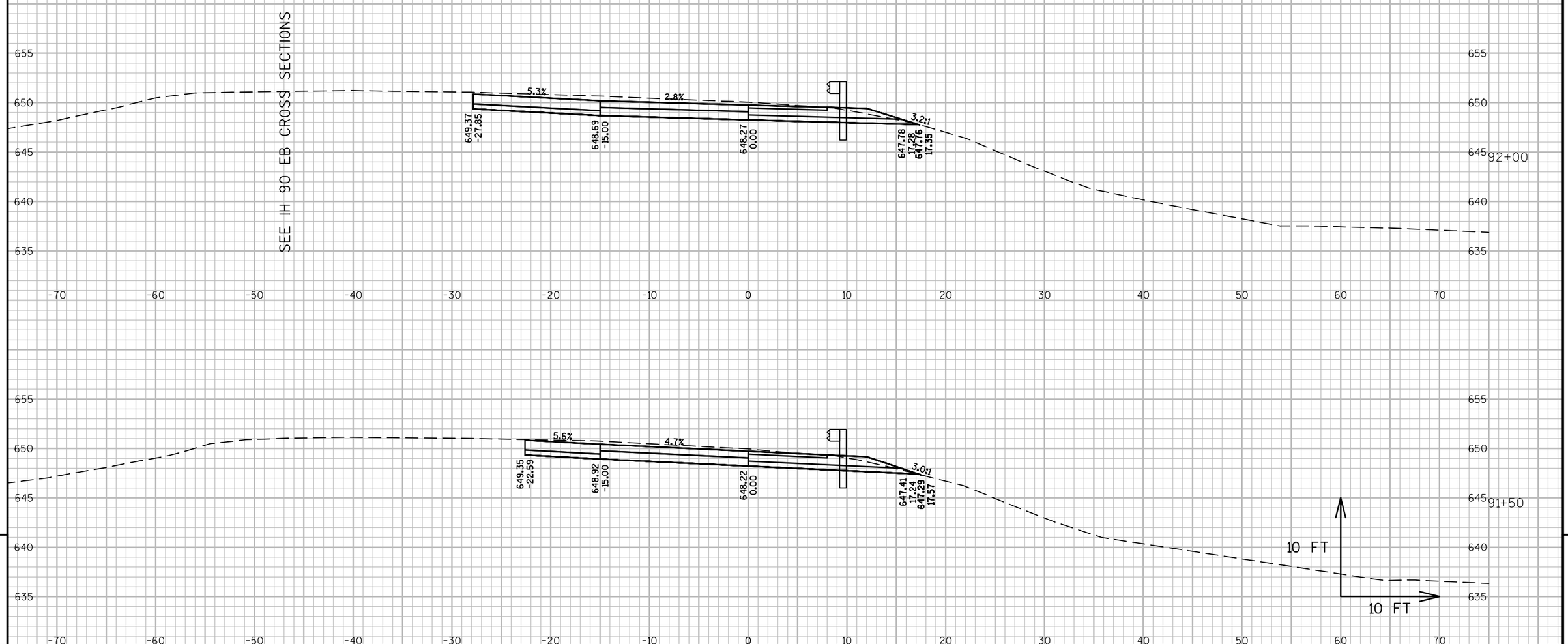
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: N RAMP	SHEET 849	E



PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: REST AREA	SHEET 850	E





9

9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: REST AREA	SHEET 851	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_RESTAREA.DWG
LAYOUT NAME - 10710681_CORRIDOR_RESTAREA - 090202_XSRA

PLOT DATE : 7/29/2015 10:10 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

SEE IH 90 EB CROSS SECTIONS

MATCH LINE

0.8%

4.3:1

648.77 -32.41

649.64 -25.84

648.92 -15.00

649.04 0.00

649.18 16.85

648.85 18.26

93+50

3.1%

1.3%

4.5:1

649.49 -38.58

648.75 -15.00

648.56 0.00

648.31 19.16

648.10 20.11

93+00

10 FT

10 FT

655 650 645 640 635 630

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

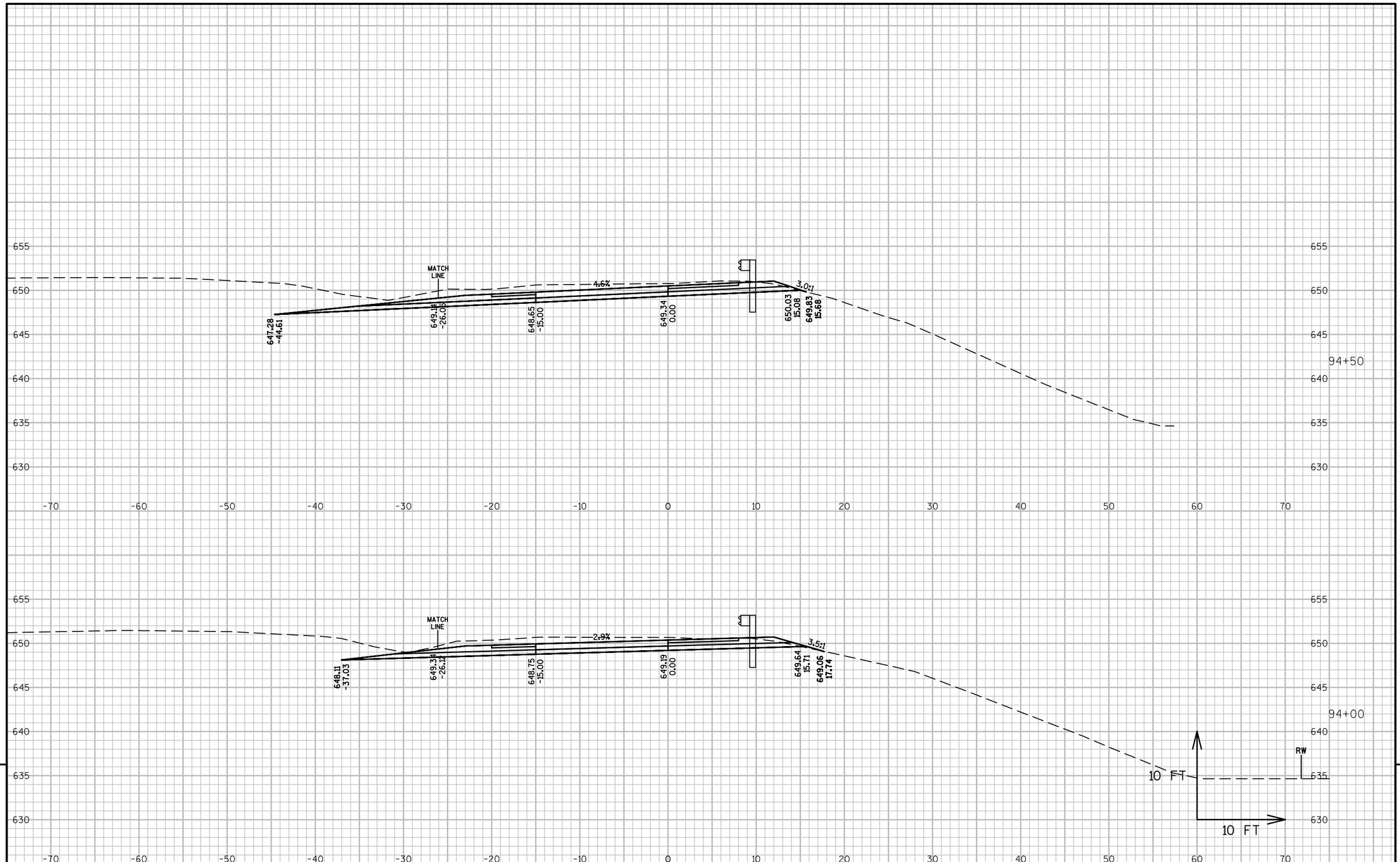
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9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: REST AREA	SHEET 852	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_RESTAREA.DWG
LAYOUT NAME - 10710681_CORRIDOR_RESTAREA - 090203_XSRA

PLOT DATE : 7/29/2015 10:10 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



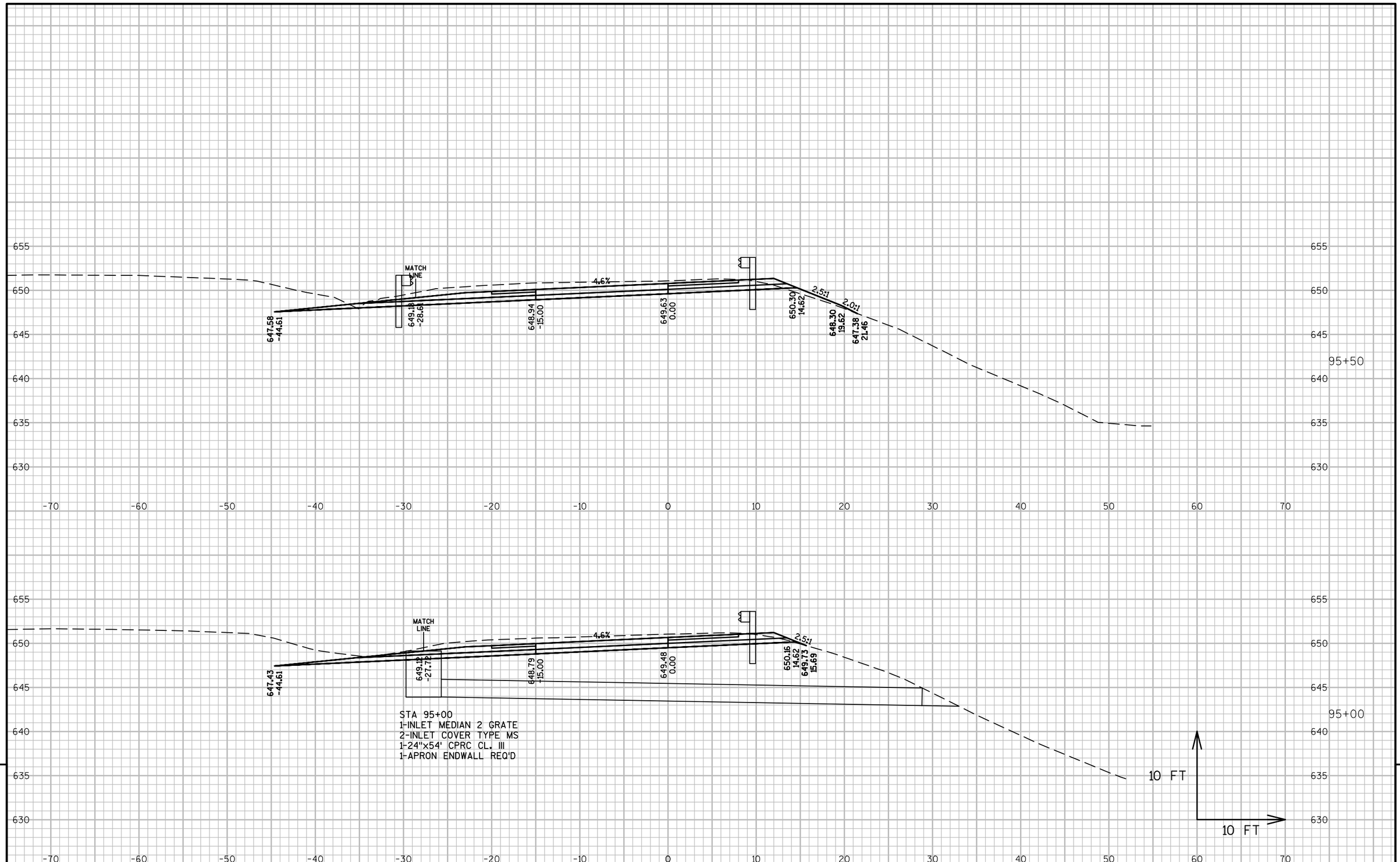
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9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: REST AREA	SHEET 853	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_RESTAREA.DWG
LAYOUT NAME - 10710681_CORRIDOR_RESTAREA - 090204_XSRA

PLOT DATE : 7/29/2015 10:10 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



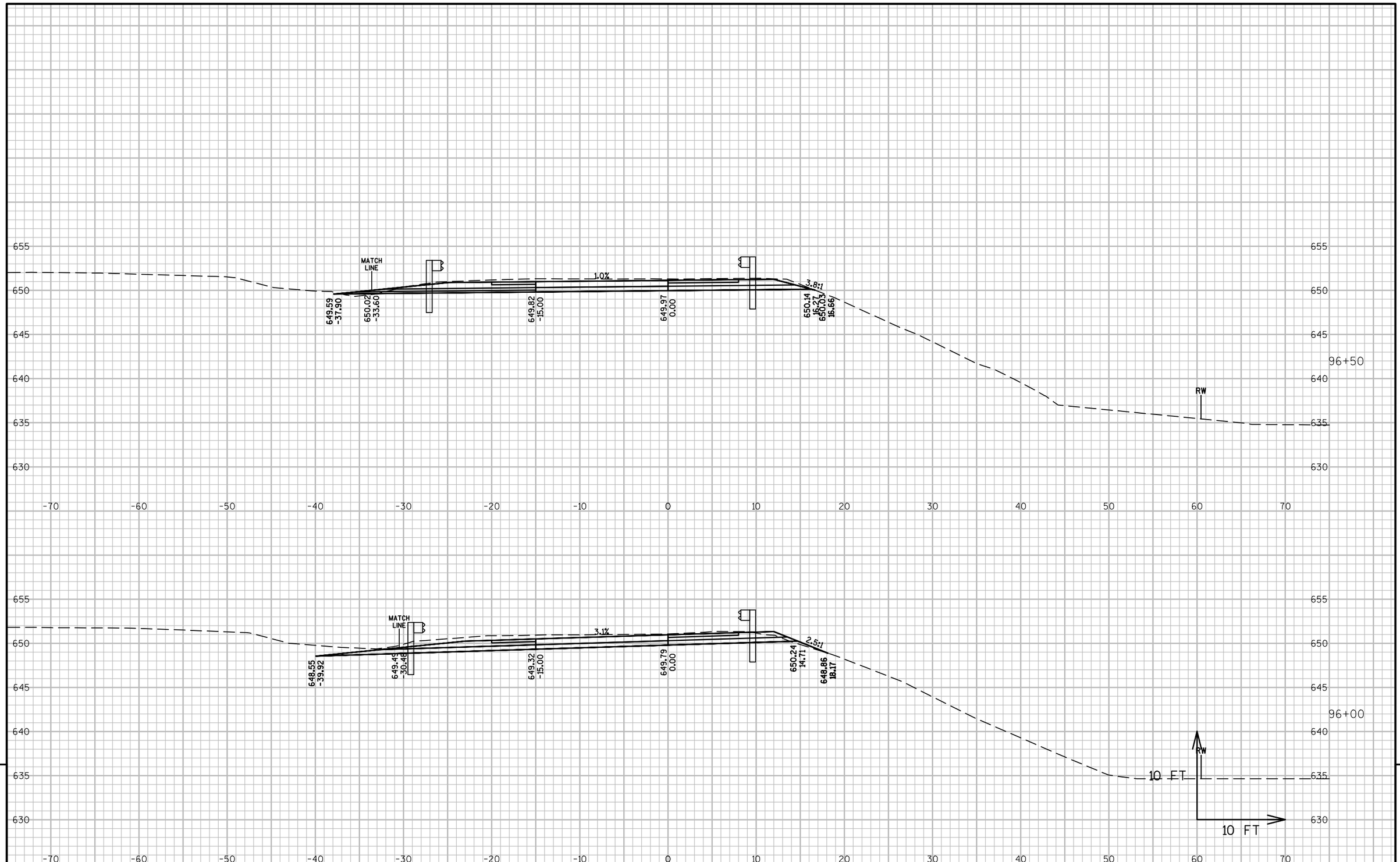
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9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: REST AREA	SHEET 854	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_RESTAREA.DWG
LAYOUT NAME - 10710681_CORRIDOR_RESTAREA - 090205_XSRA

PLOT DATE : 8/3/2015 9:08 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

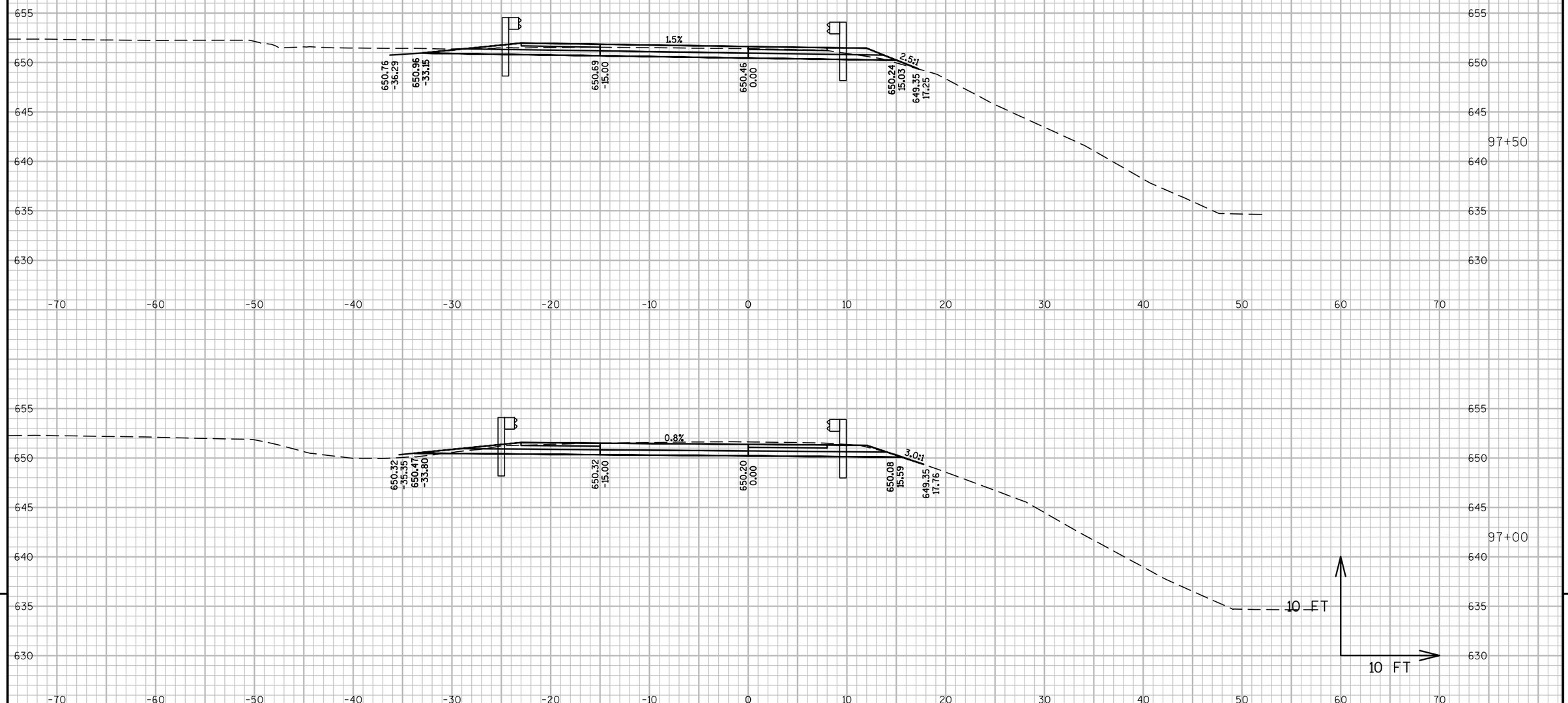
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: REST AREA	SHEET 855	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_RESTAREA.DWG
LAYOUT NAME - 10710681_CORRIDOR_RESTAREA - 090206_XSRA

PLOT DATE : 7/29/2015 10:10 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

STRUCTURE B-32-75



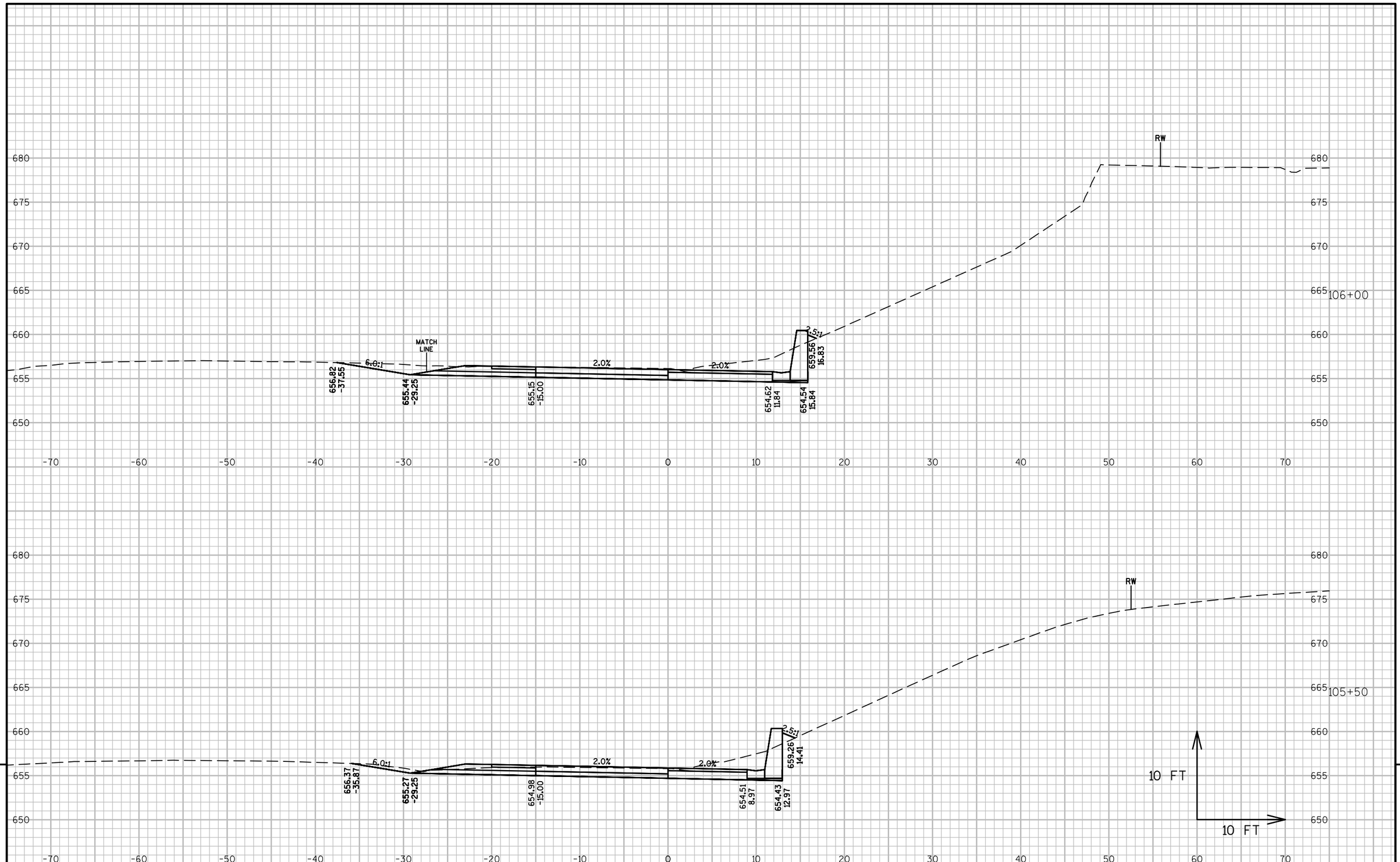
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9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: REST AREA	SHEET 856	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_RESTAREA.DWG
LAYOUT NAME - 10710681_CORRIDOR_RESTAREA - 090207_XSRA

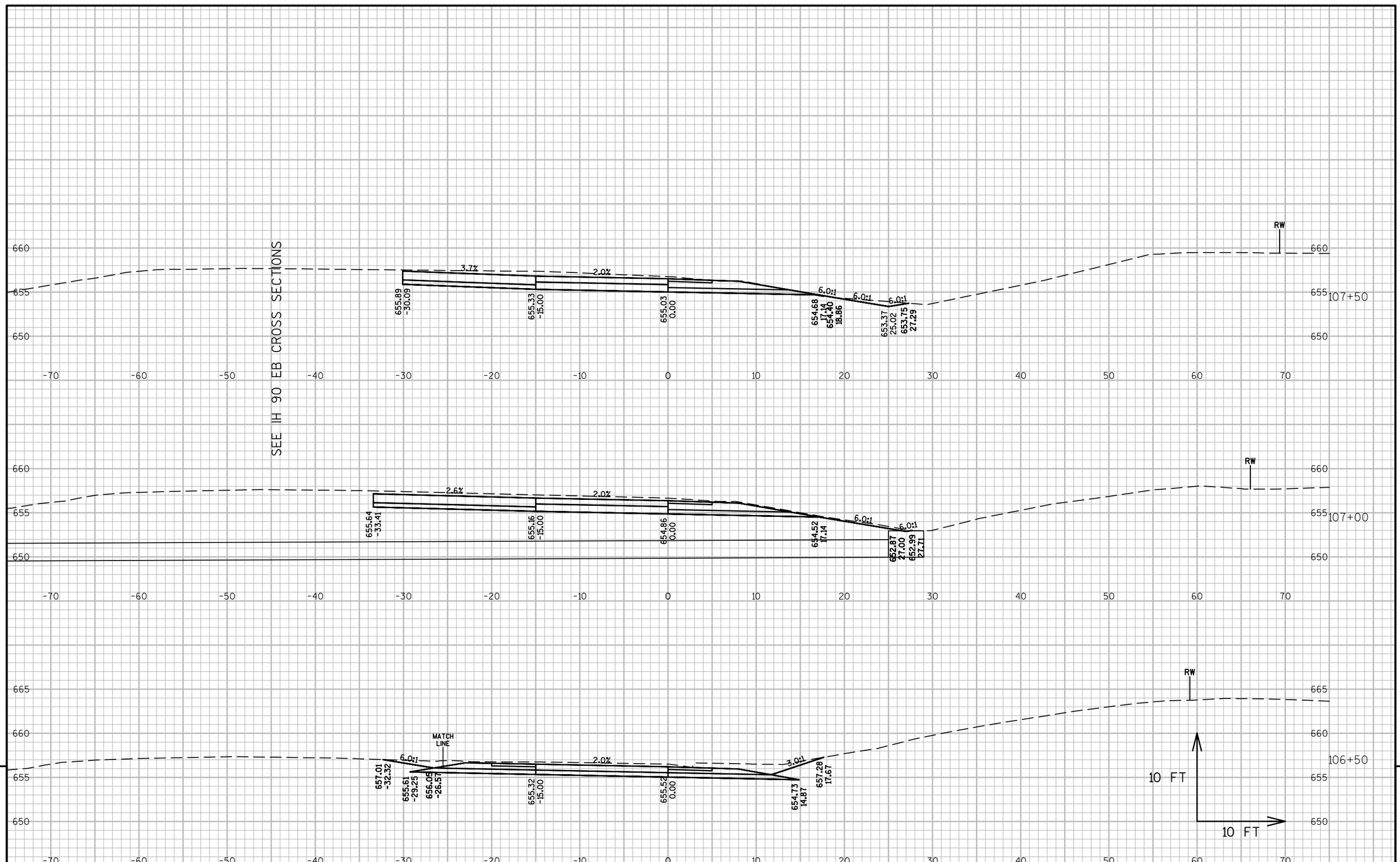
PLOT DATE : 7/29/2015 10:10 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: REST AREA	SHEET 857	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_RESTAREA.DWG
LAYOUT NAME - 10710681_CORRIDOR_RESTAREA - 090210_XSRA

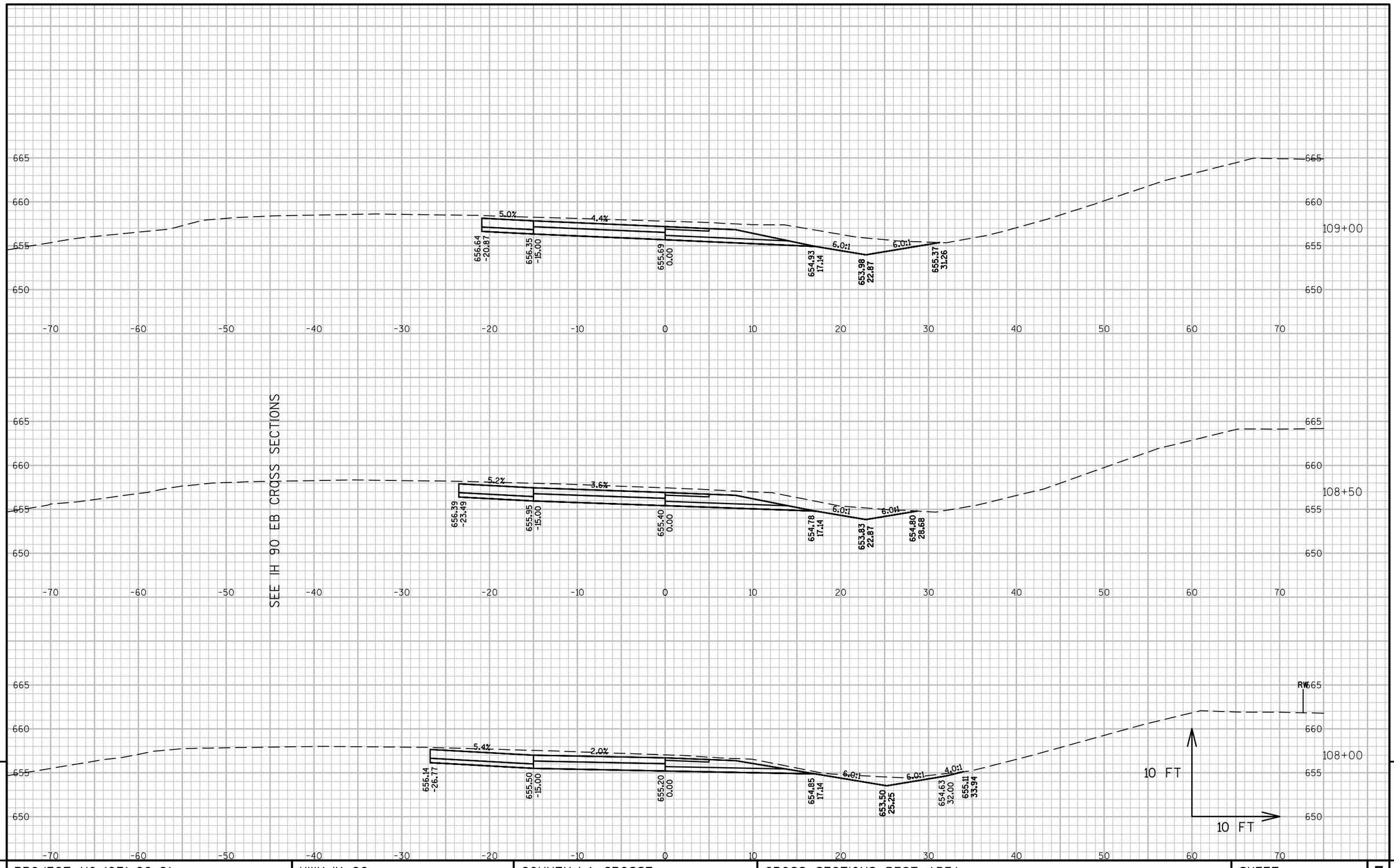
PLOT DATE : 7/29/2015 10:10 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: REST AREA	SHEET 858	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_RESTAREA.DWG
LAYOUT NAME - 10710681_CORRIDOR_RESTAREA - 090211_XSRA

PLOT DATE : 7/29/2015 10:10 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

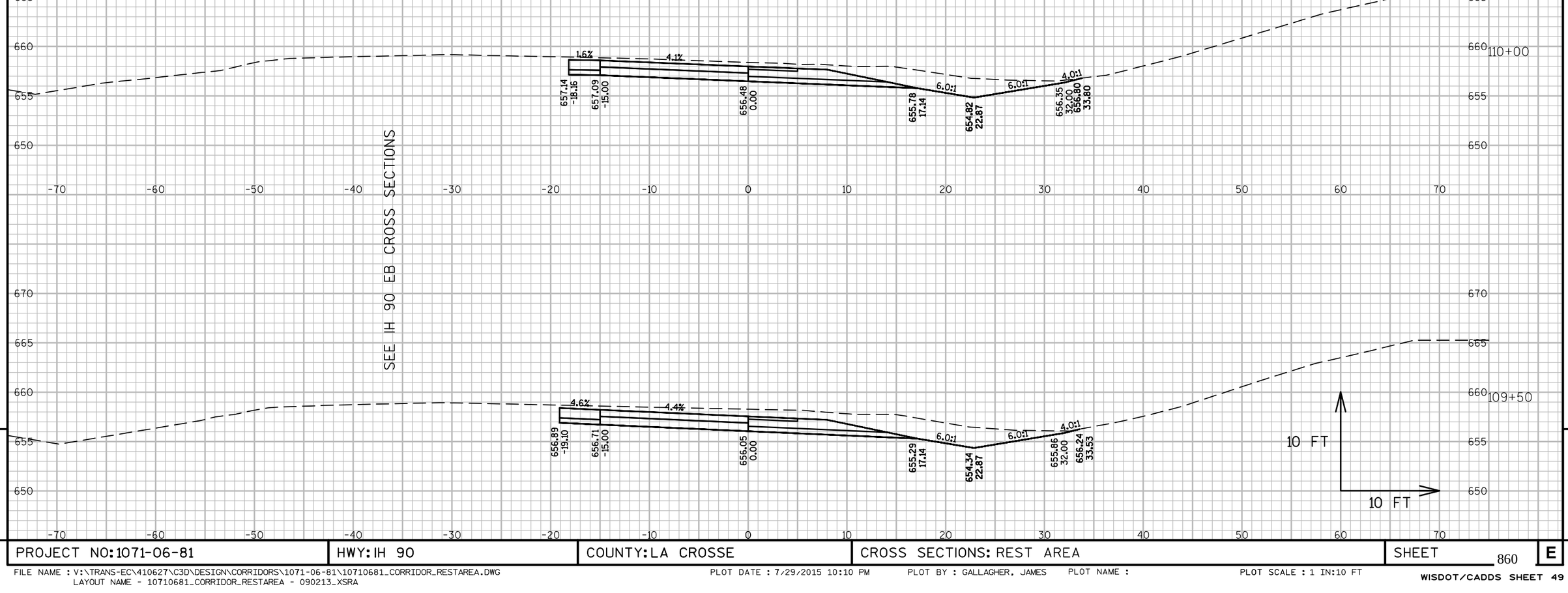
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PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: REST AREA	SHEET 859	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_RESTAREA.DWG
LAYOUT NAME - 10710681_CORRIDOR_RESTAREA - 090212_XSRA

PLOT DATE : 7/29/2015 10:10 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

SEE IH 90 EB CROSS SECTIONS



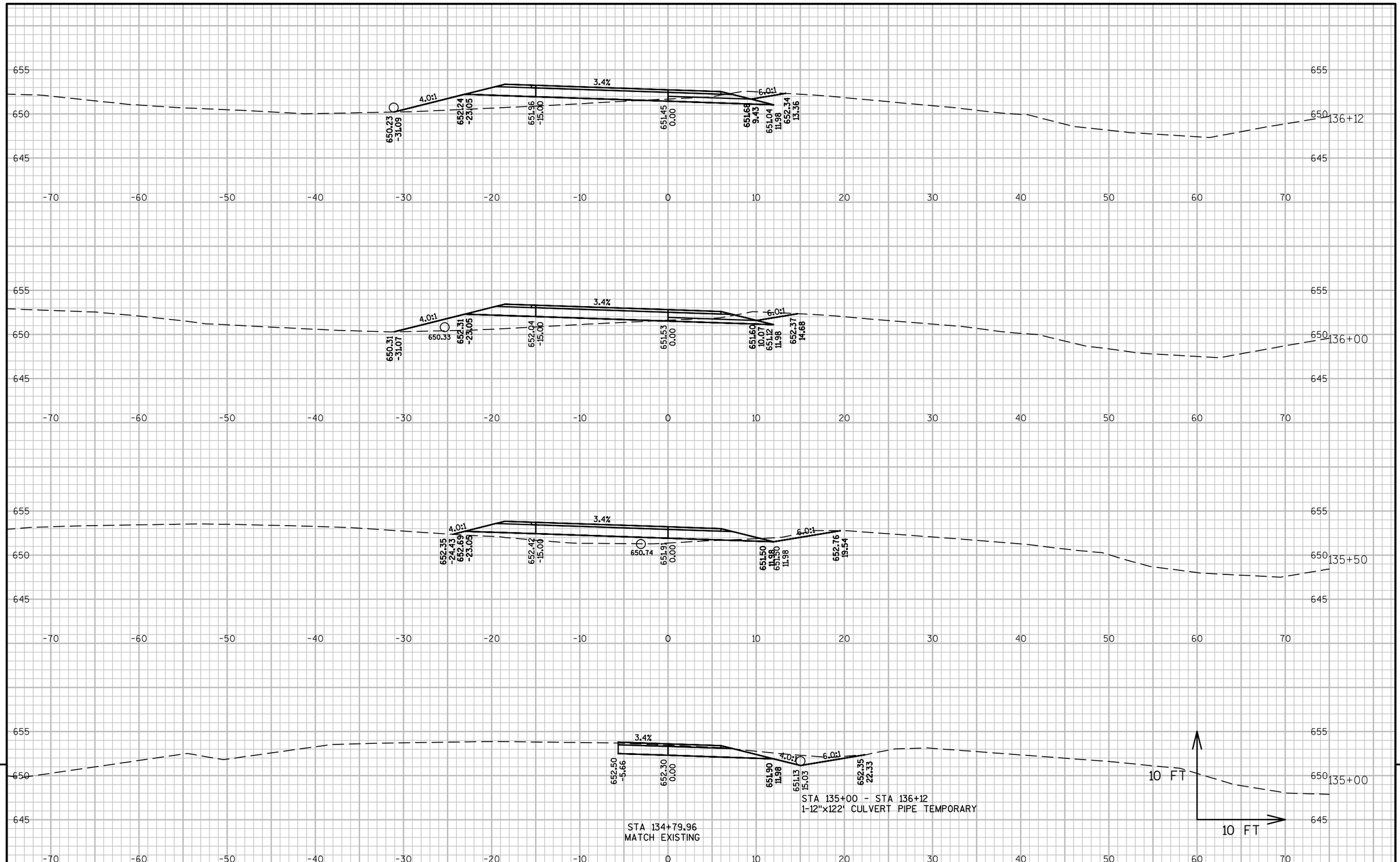
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PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: REST AREA	SHEET 860	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_RESTAREA.DWG
LAYOUT NAME - 10710681_CORRIDOR_RESTAREA - 090213_XSRA

PLOT DATE : 7/29/2015 10:10 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

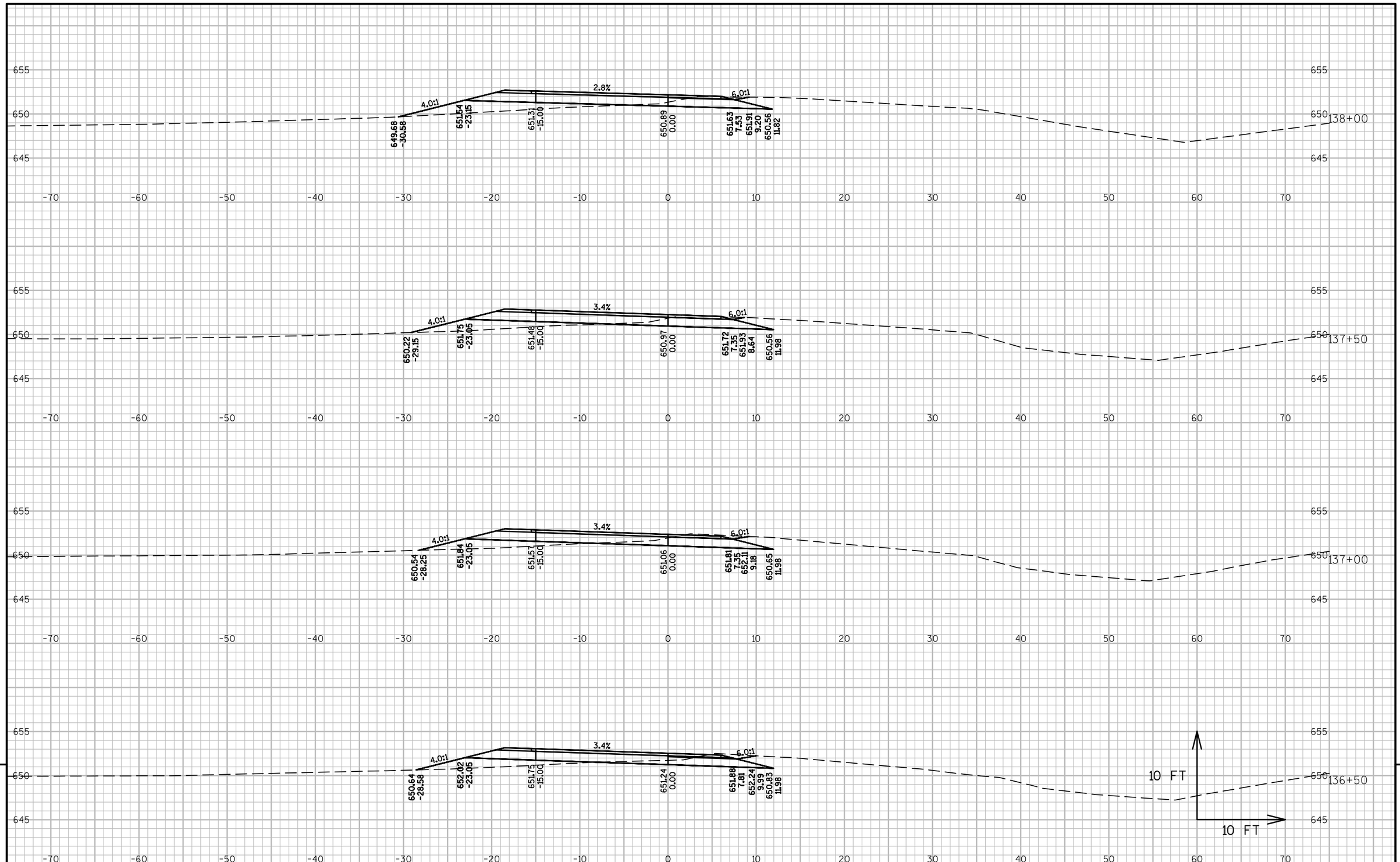


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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: AT TEMPORARY	SHEET 861	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPATRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPATRAMP - 090201_XSAT
PLOT DATE : 7/30/2015 10:34 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



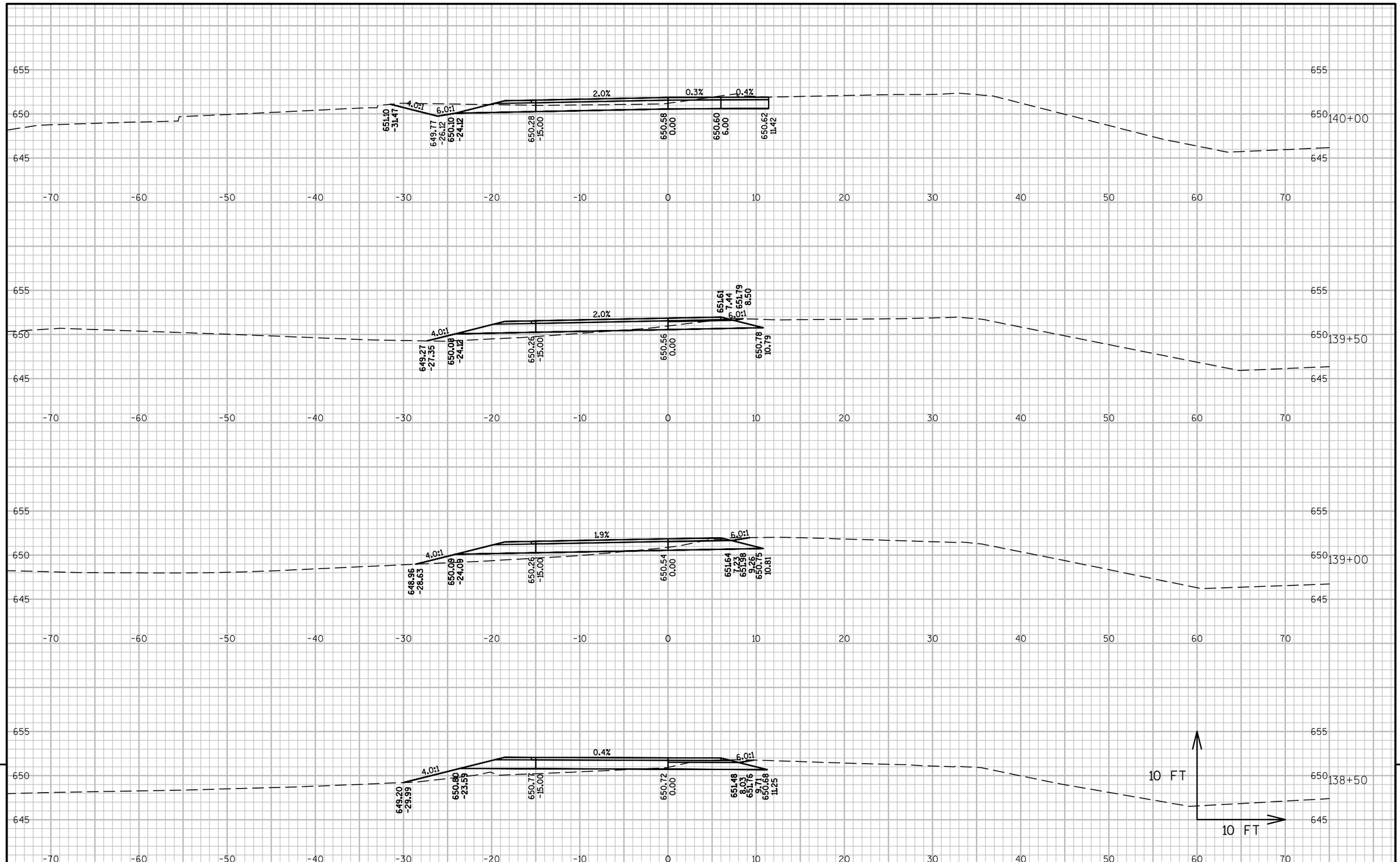
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: AT TEMPORARY	SHEET 862	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPATRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPATRAMP - 090202_XSAT

PLOT DATE : 7/30/2015 10:35 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



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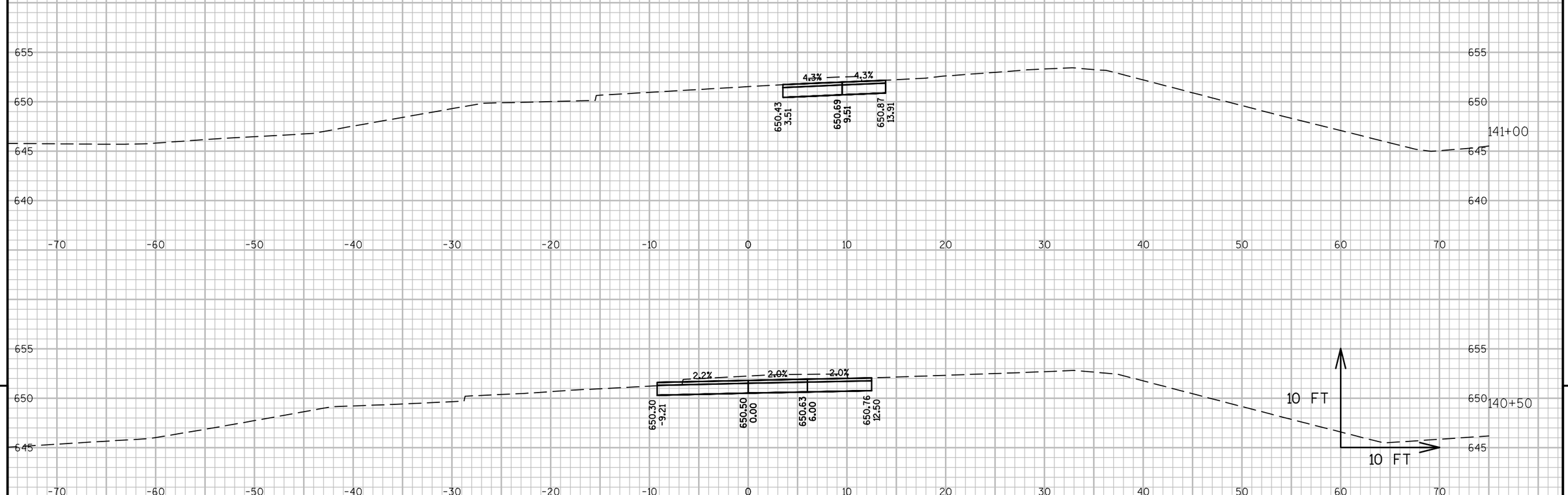
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: AT TEMPORARY	SHEET 863	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPATRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPATRAMP - 090203_XSAT

PLOT DATE : 7/30/2015 10:35 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

STA 141+31.47
MATCH EXISTING

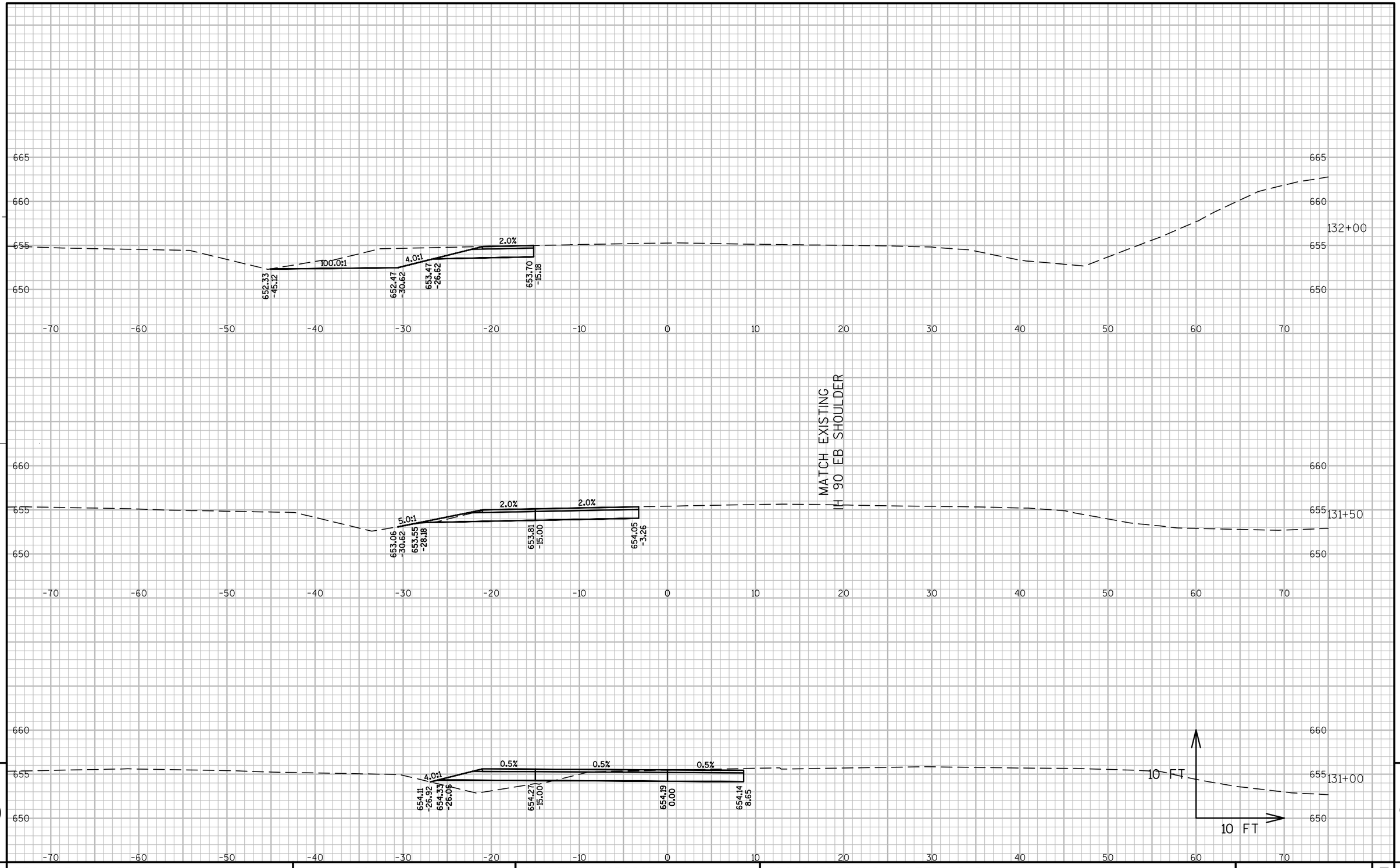


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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: AT TEMPORARY	SHEET 864	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPATRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPATRAMP - 090204_XSAT
PLOT DATE : 7/30/2015 10:35 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

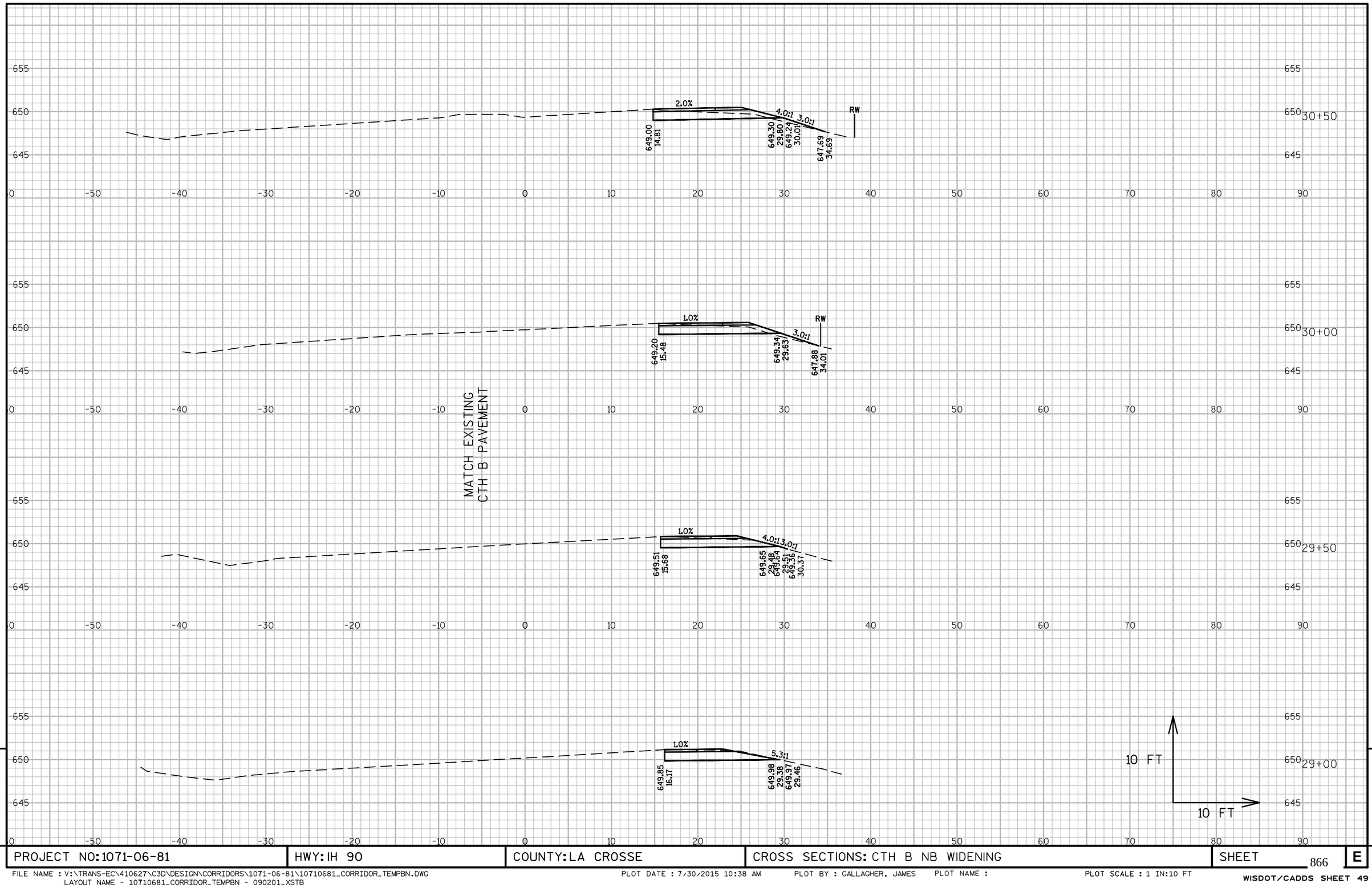


PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: AU TEMPORARY	SHEET 865	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPAURAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPAURAMP - 090201_XSAU

PLOT DATE : 7/30/2015 10:37 AM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090201_xsau PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

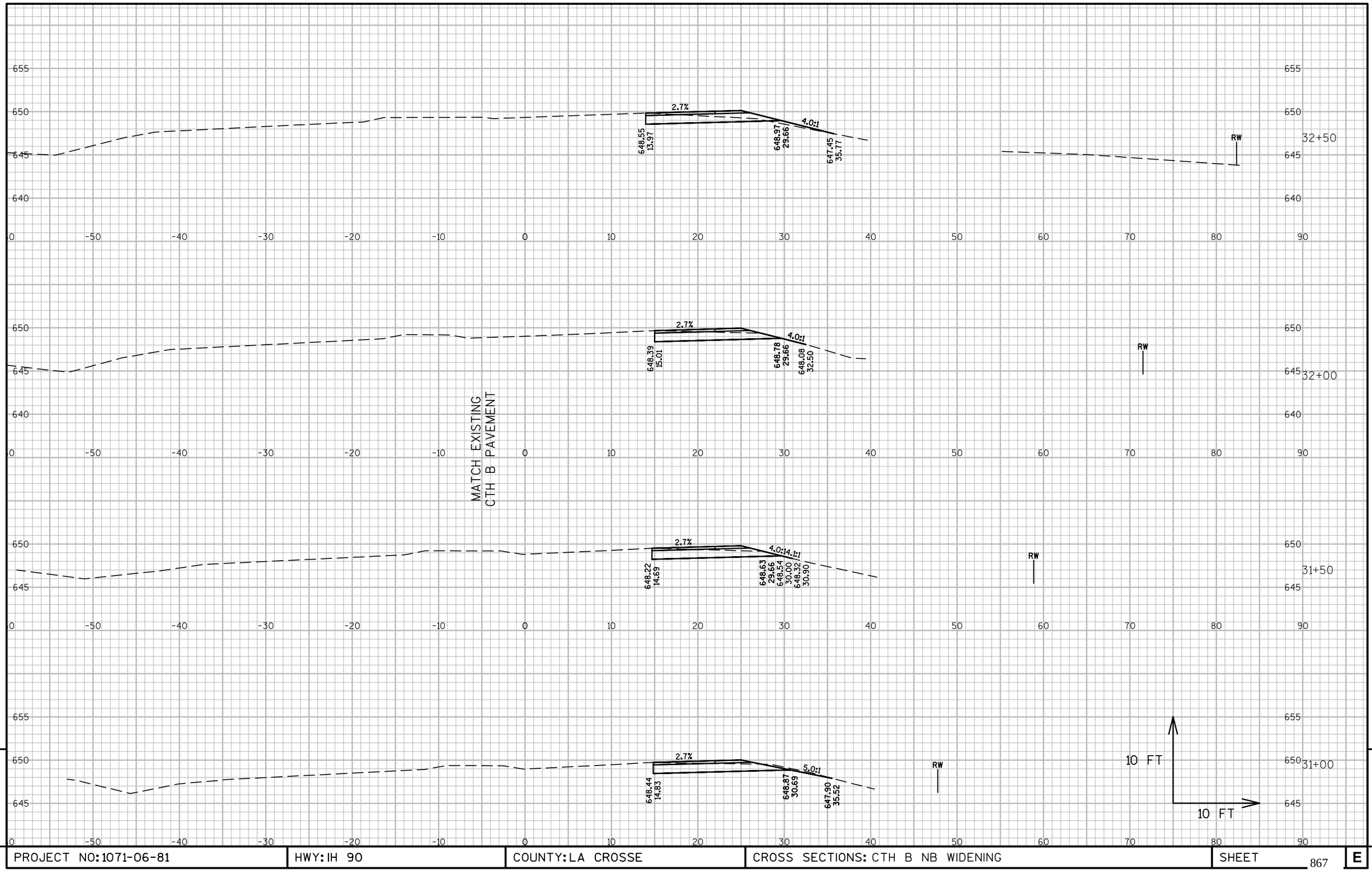


PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B NB WIDENING	SHEET 866	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBN.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBN - 090201_XSTB

PLOT DATE : 7/30/2015 10:38 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



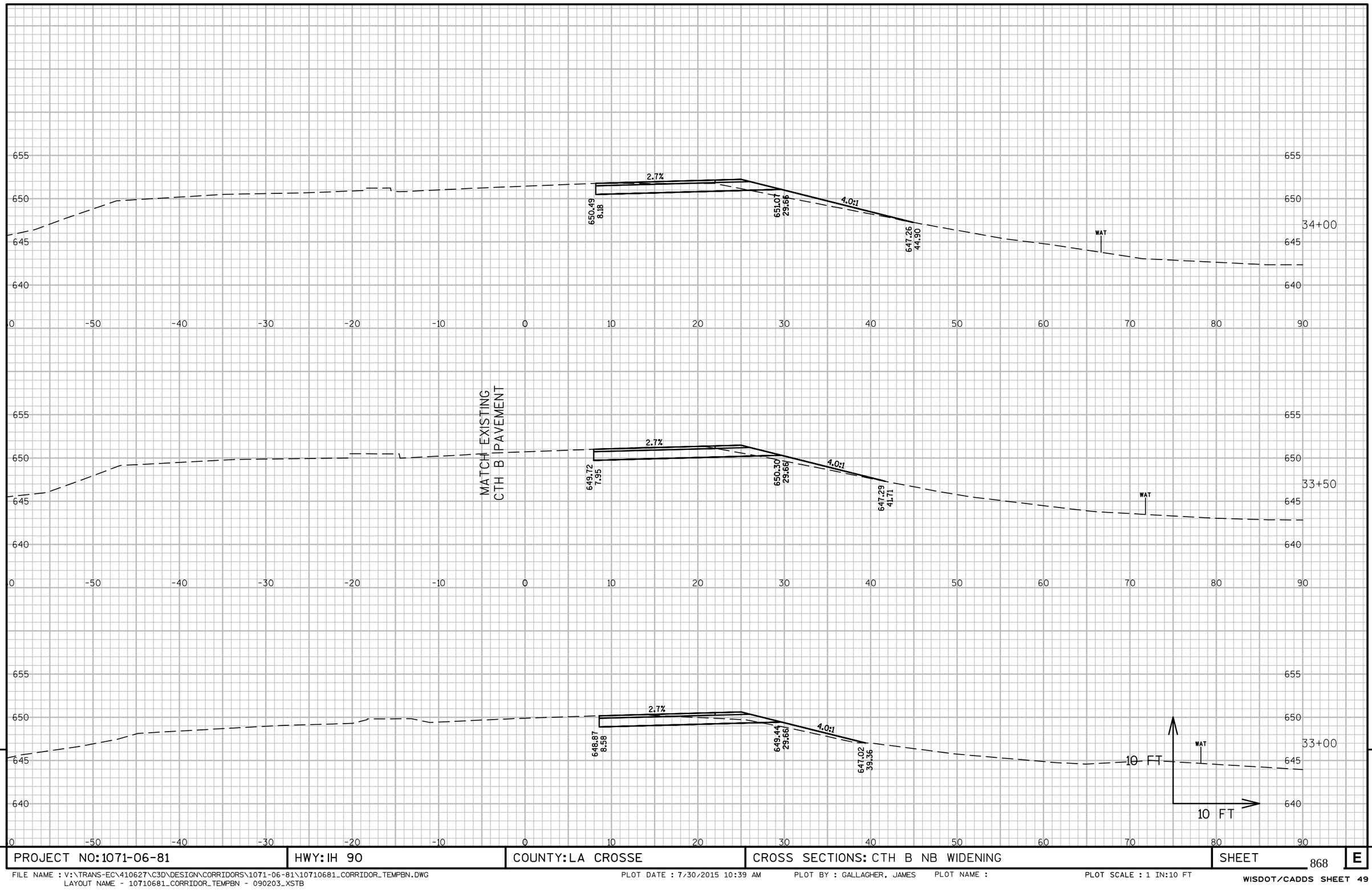
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B NB WIDENING	SHEET 867	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBN.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBN - 090202_XSTB

PLOT DATE : 7/30/2015 10:38 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B NB WIDENING	SHEET 868	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBN.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBN - 090203_XSTB

PLOT DATE : 7/30/2015 10:39 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

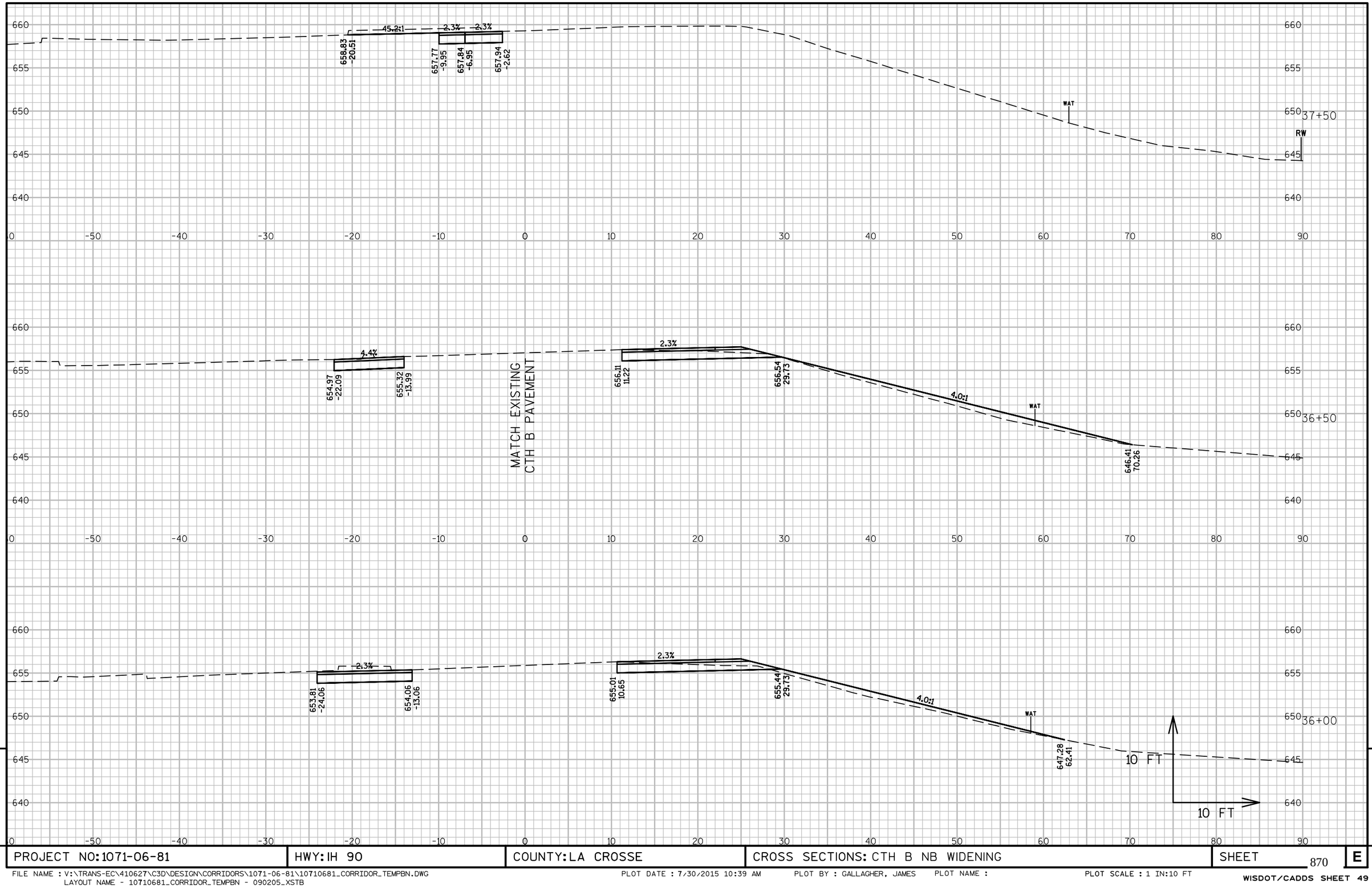
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PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B NB WIDENING	SHEET 869	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBN.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBN - 090204_XSTB

PLOT DATE : 7/30/2015 10:39 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



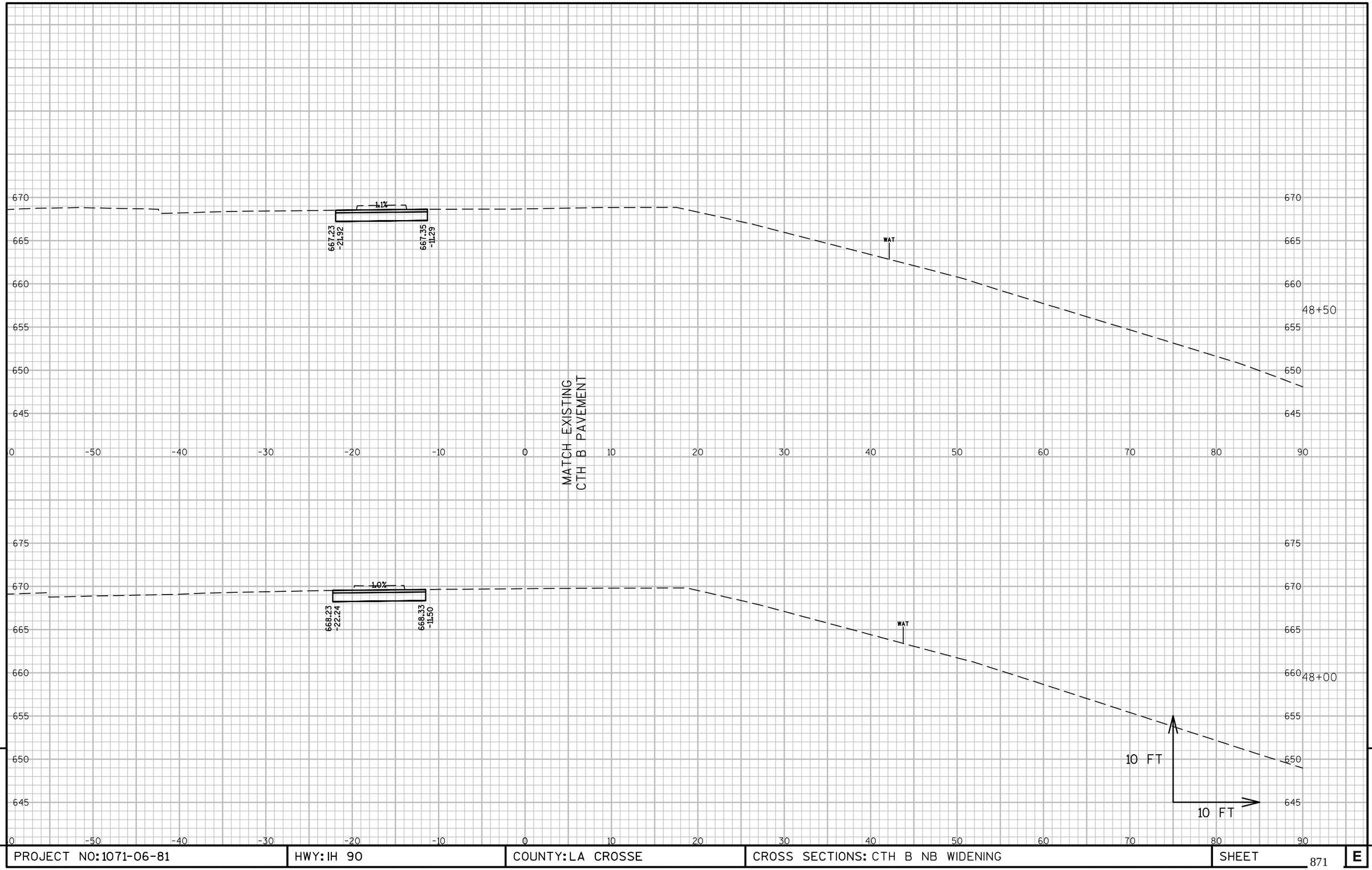
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PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B NB WIDENING	SHEET 870	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBN.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBN - 090205_XSTB

PLOT DATE : 7/30/2015 10:39 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



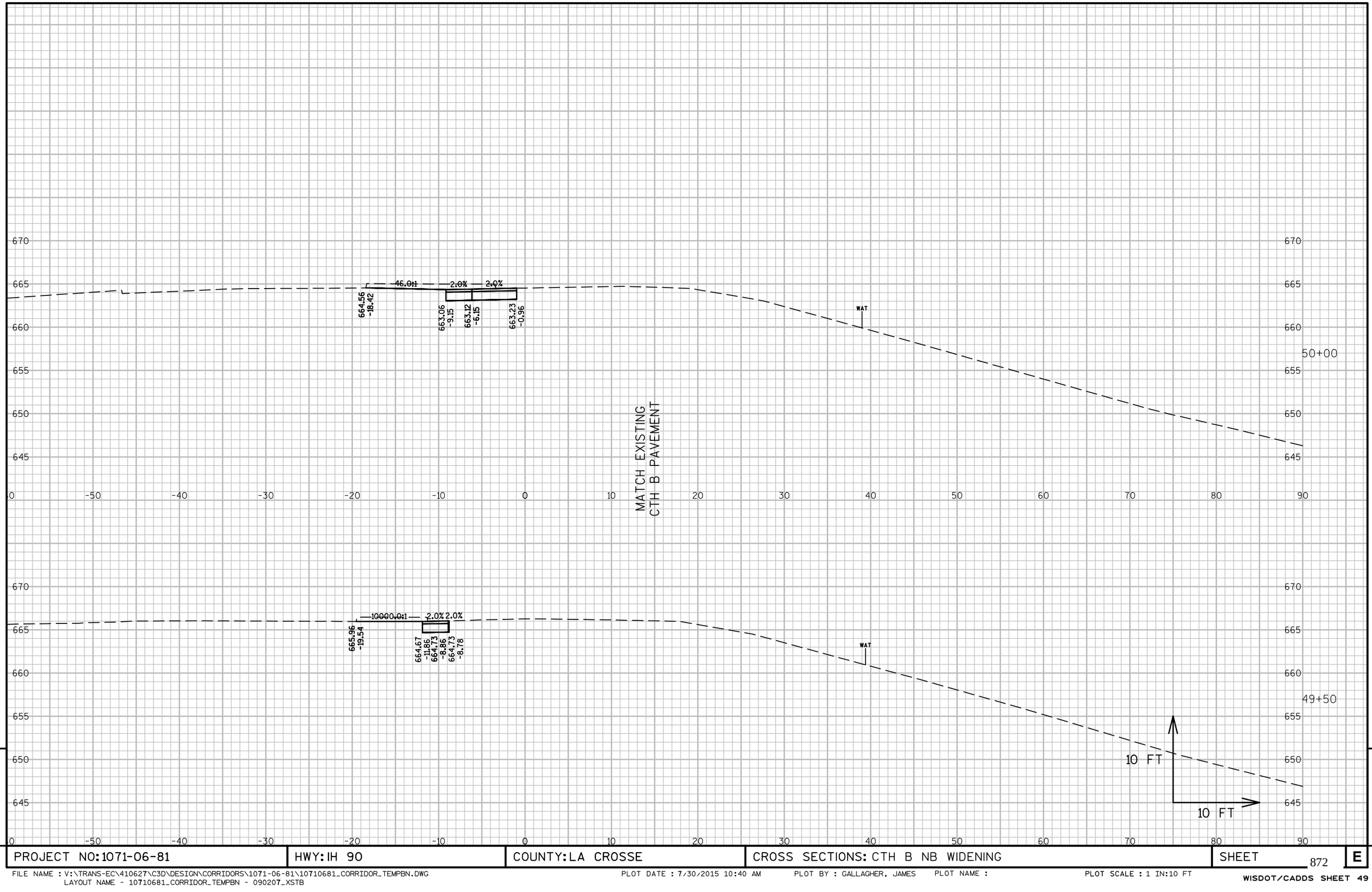
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B NB WIDENING	SHEET 871	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBN.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBN - 090206_XSTB

PLOT DATE : 7/30/2015 10:40 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



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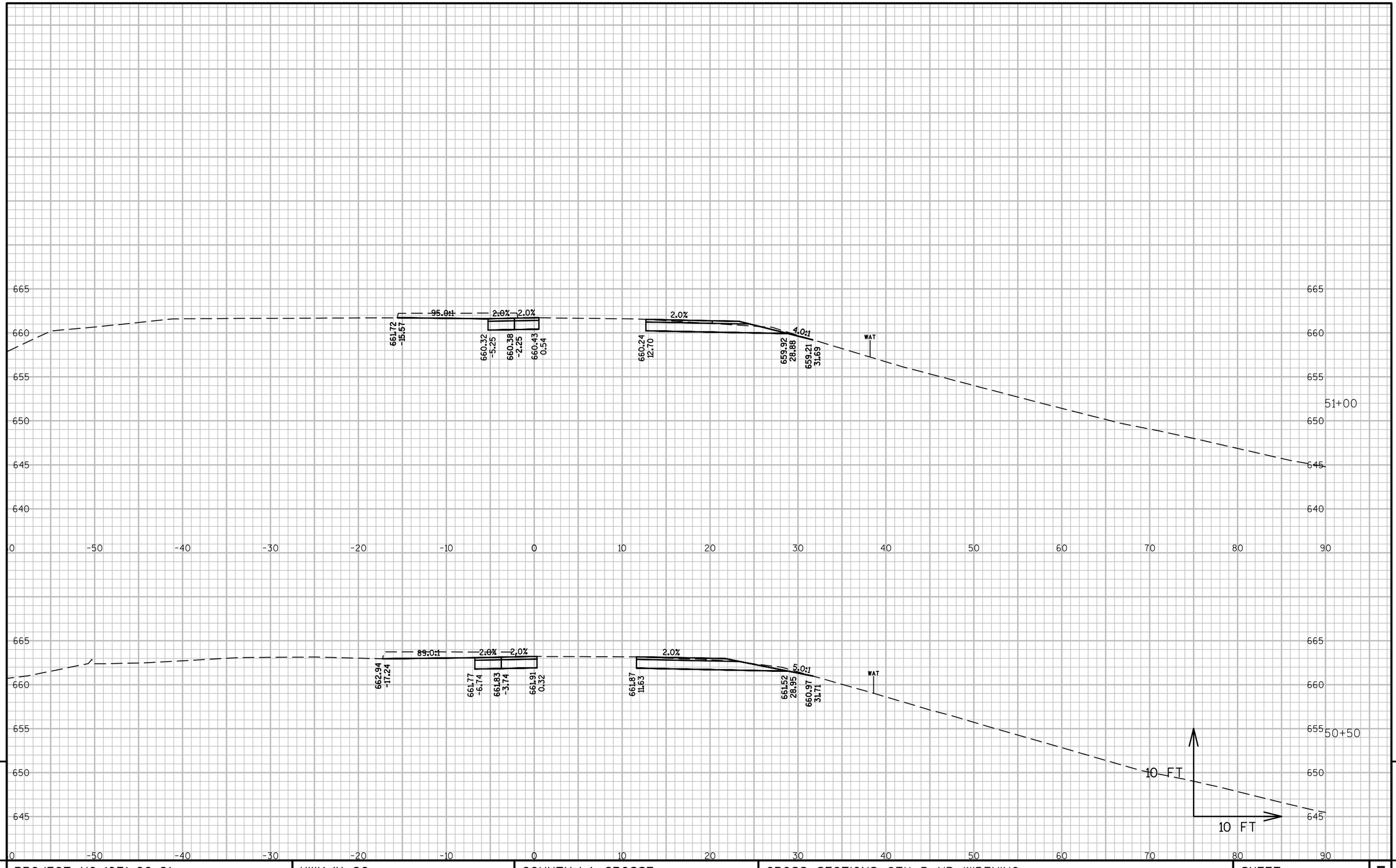
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B NB WIDENING	SHEET 872	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBN.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBN - 090207_XSTB

PLOT DATE : 7/30/2015 10:40 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

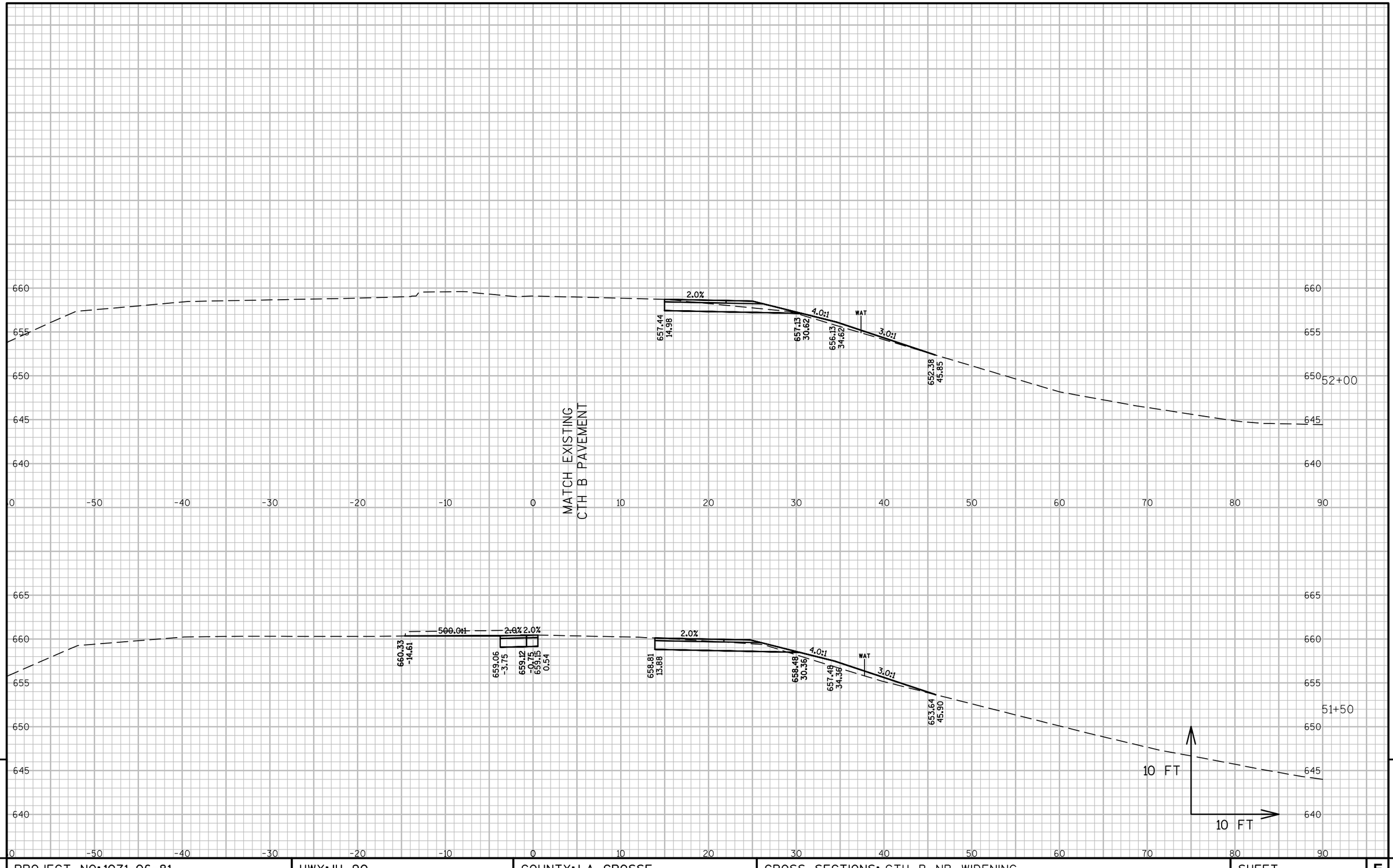
WISDOT/CADDS SHEET 49



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B NB WIDENING	SHEET 873	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBN.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBN - 090208_XSTB

PLOT DATE : 7/30/2015 10:40 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

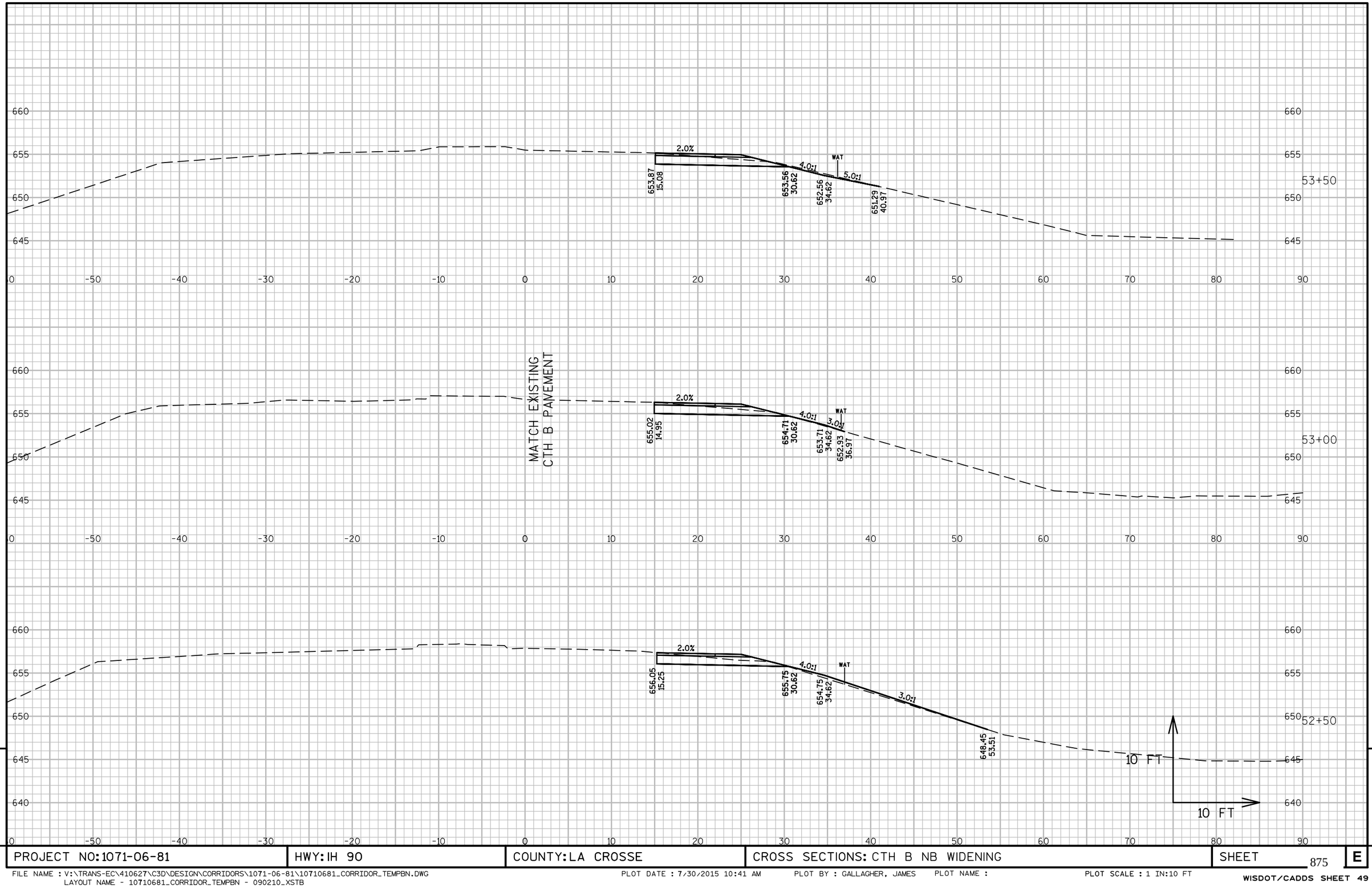


PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B NB WIDENING	SHEET 874	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBN.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBN - 090209_XSTB

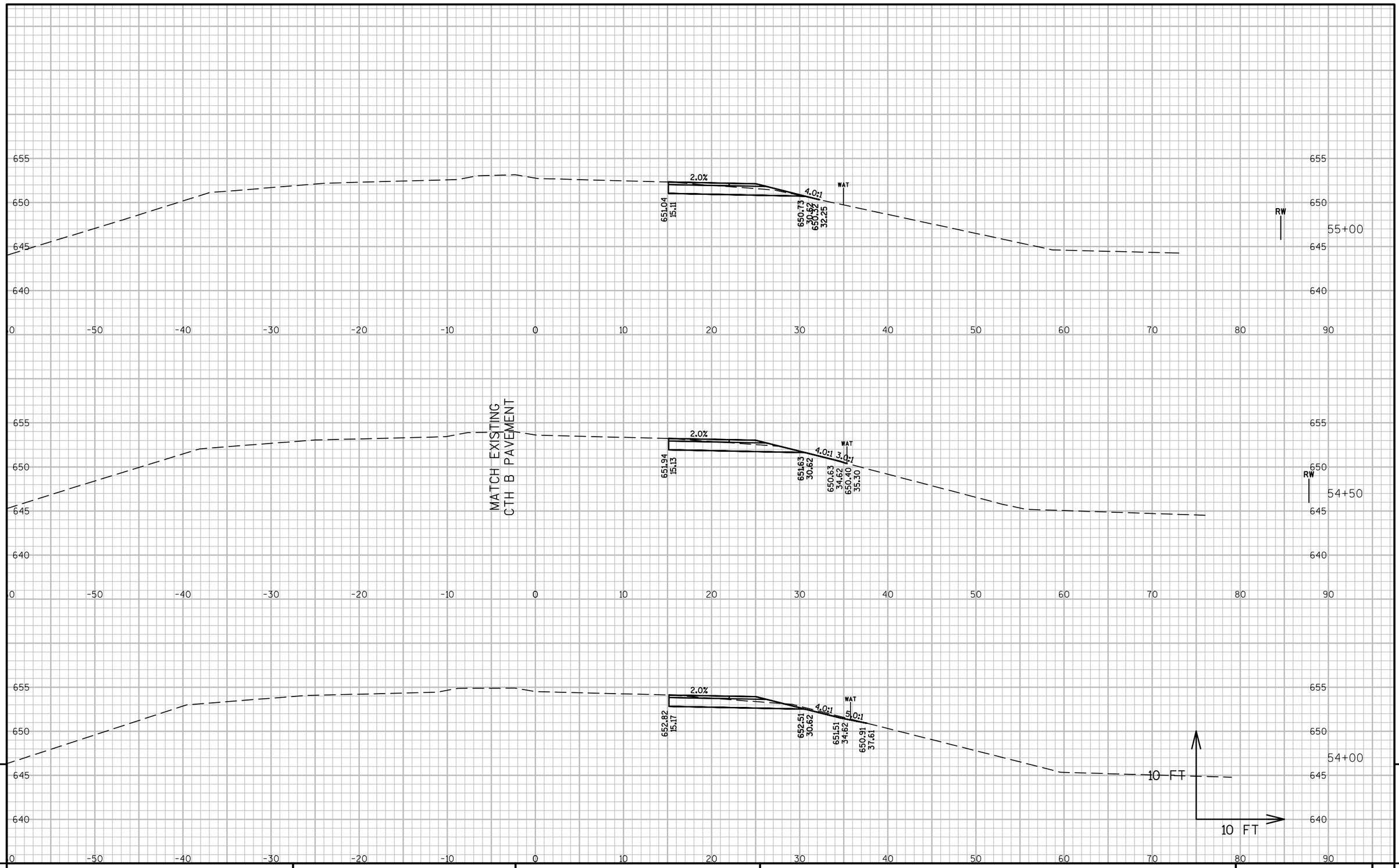
PLOT DATE : 7/30/2015 10:40 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9	PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B NB WIDENING	SHEET 875 E

9



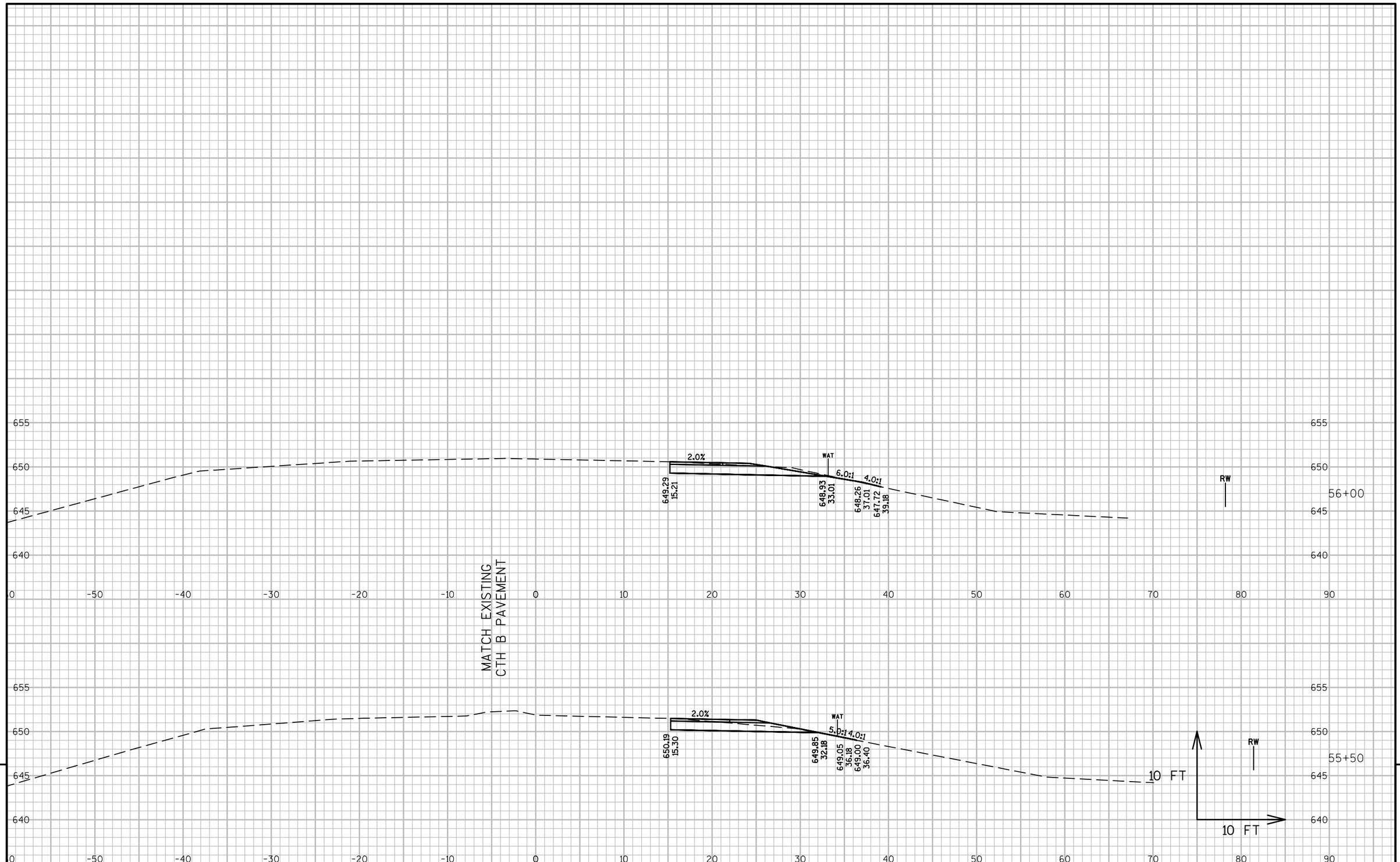
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PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B NB WIDENING	SHEET 876	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBN.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBN - 090211_XSTB

PLOT DATE : 7/30/2015 10:41 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



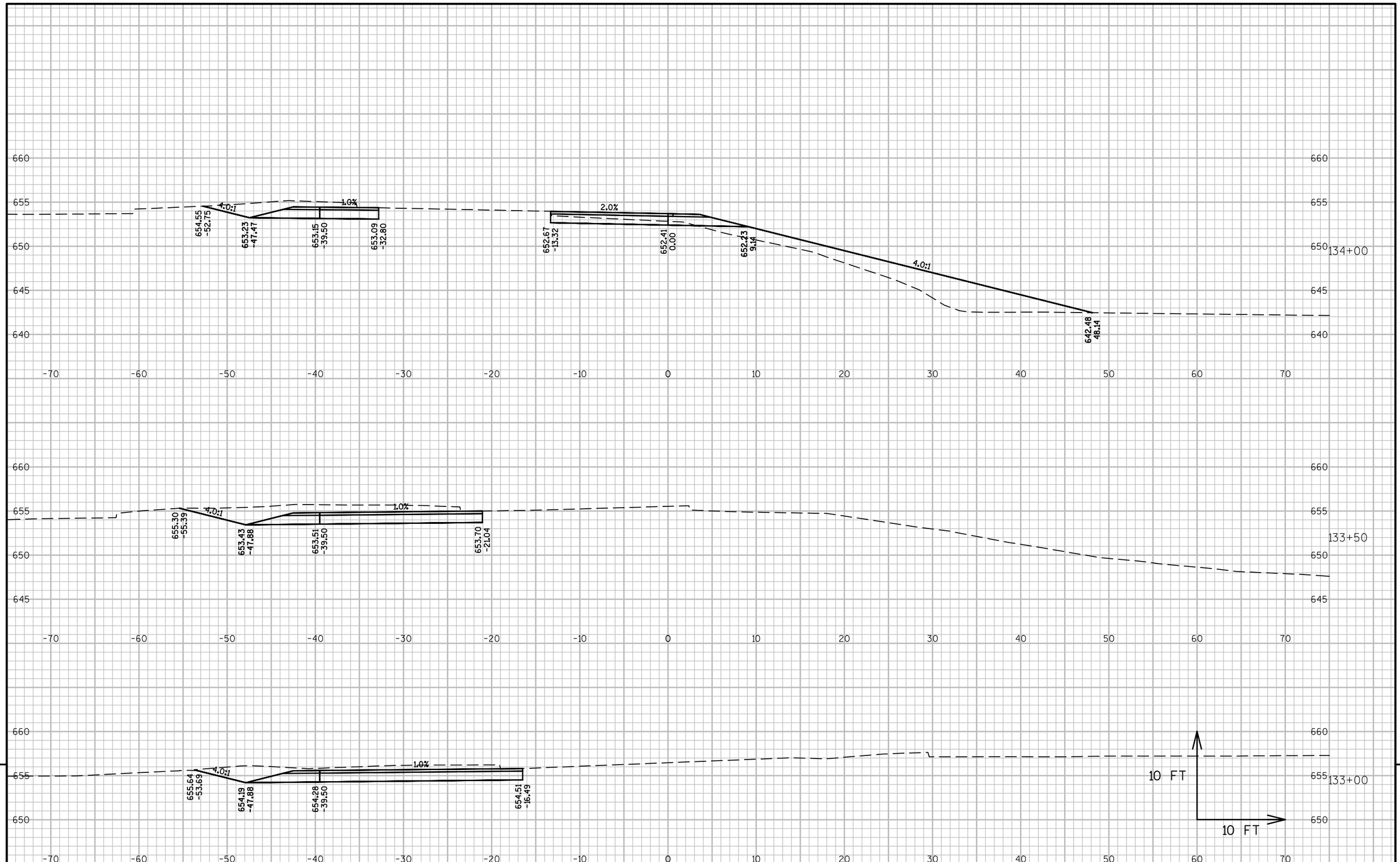
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CTH B NB WIDENING	SHEET 877	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBN.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBN - 090212_XSTB

PLOT DATE : 7/30/2015 10:41 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



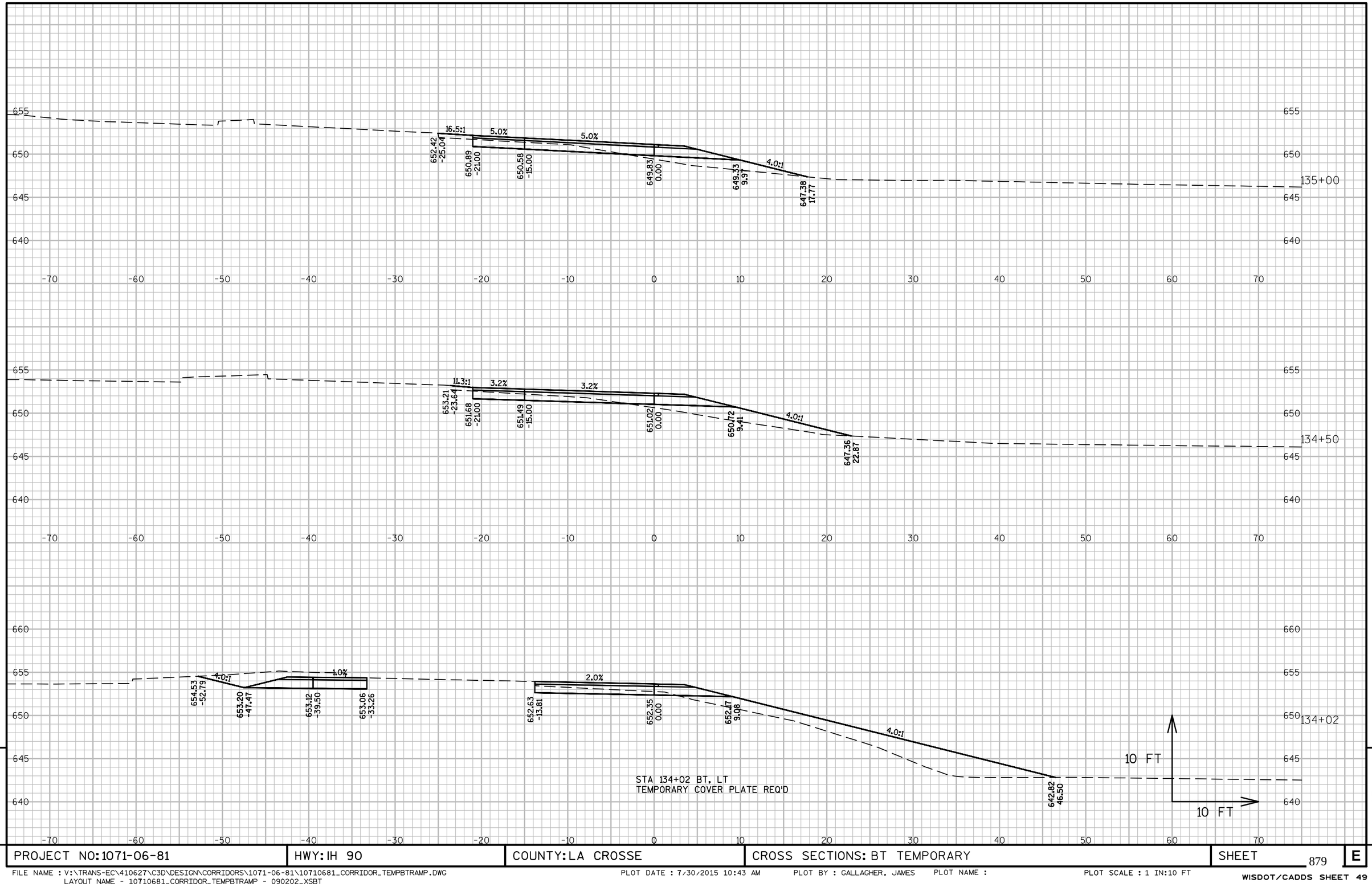
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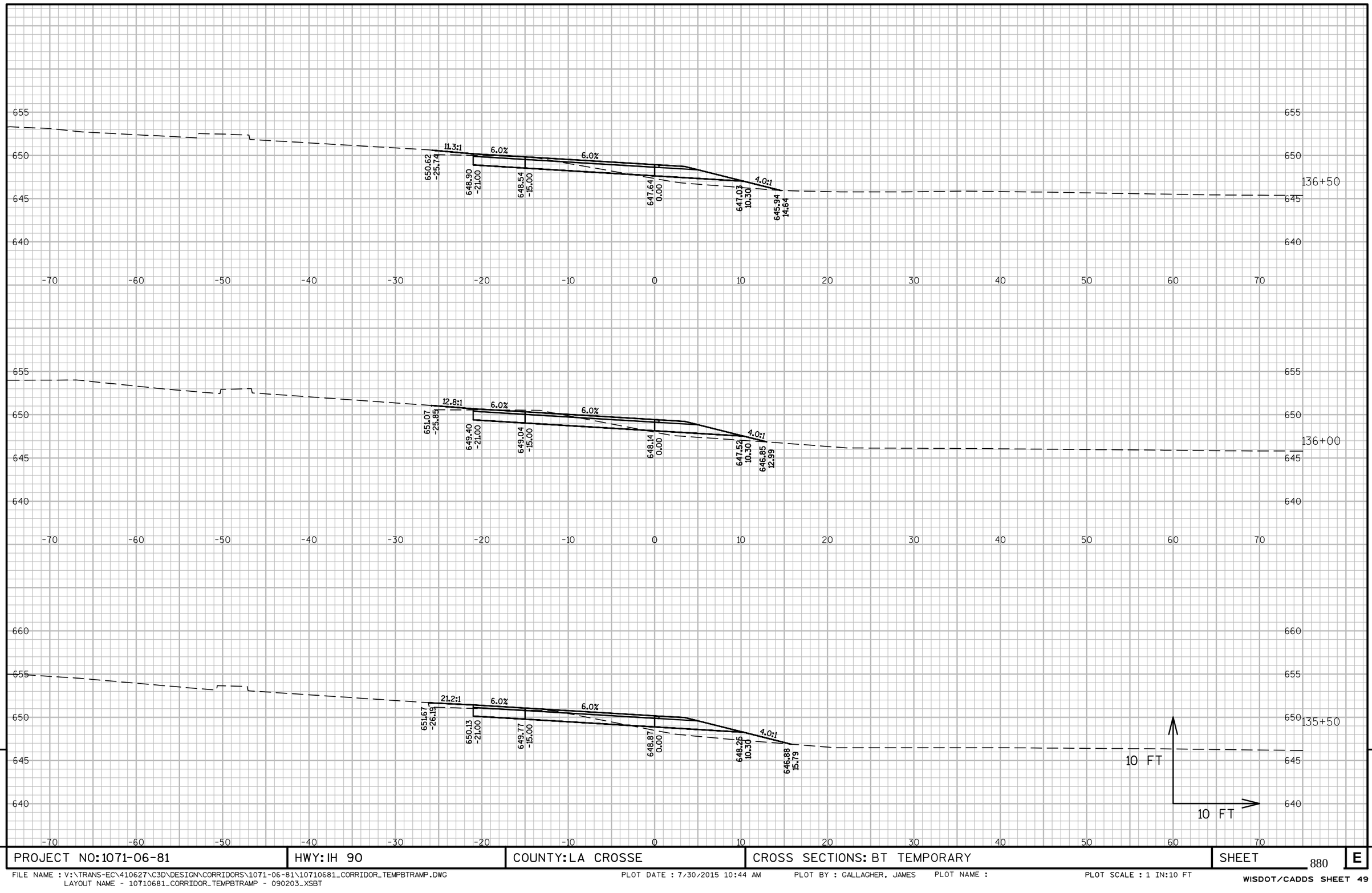
PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: BT TEMPORARY	SHEET 878	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBTRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBTRAMP - 090201_XSBT

PLOT DATE : 7/30/2015 10:43 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO:1071-06-81	HWY:IH 90	COUNTY:LA CROSSE	CROSS SECTIONS:BT TEMPORARY	SHEET 879	E



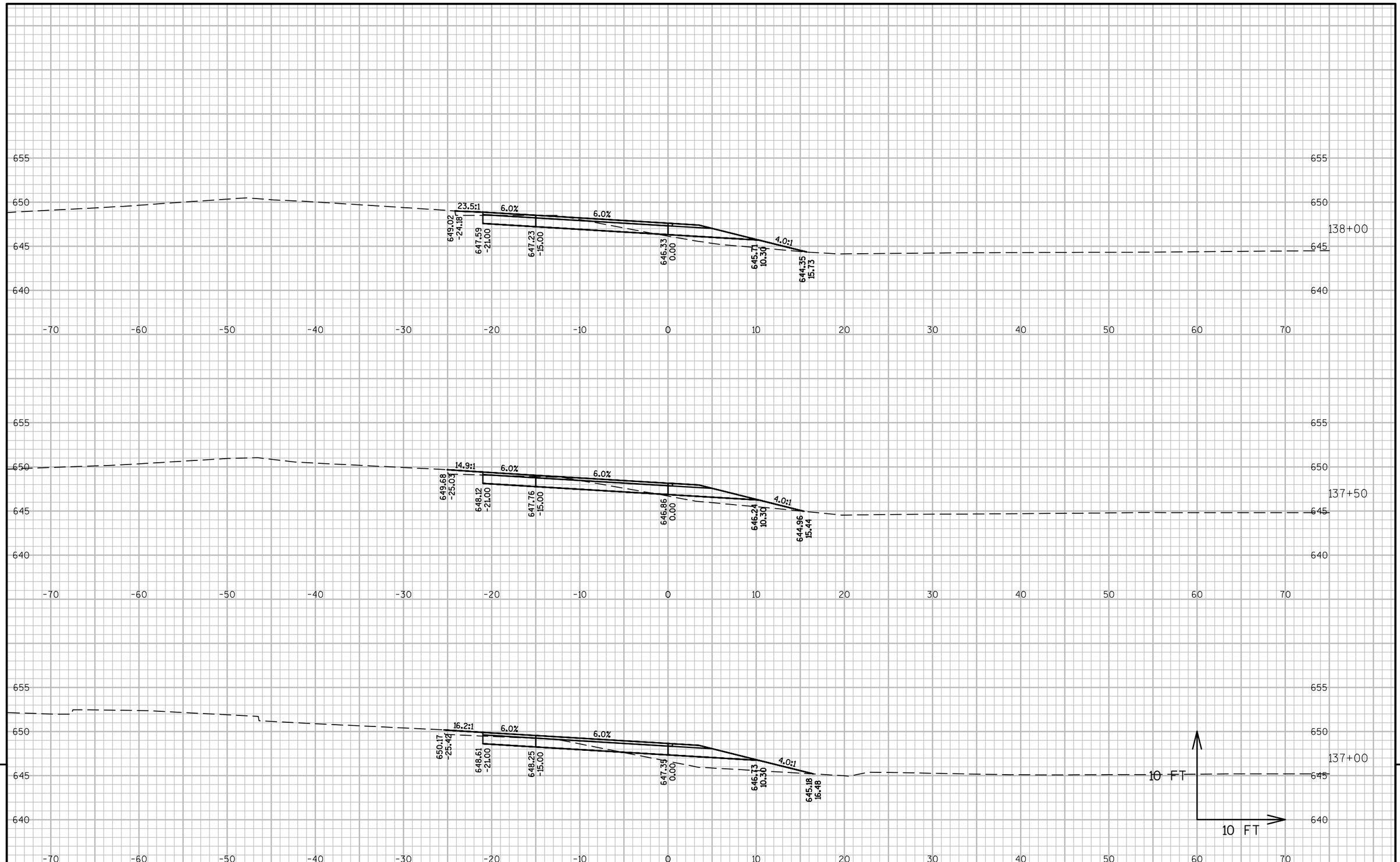
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PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: BT TEMPORARY	SHEET 880	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBTRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBTRAMP - 090203_XSBT

PLOT DATE : 7/30/2015 10:44 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

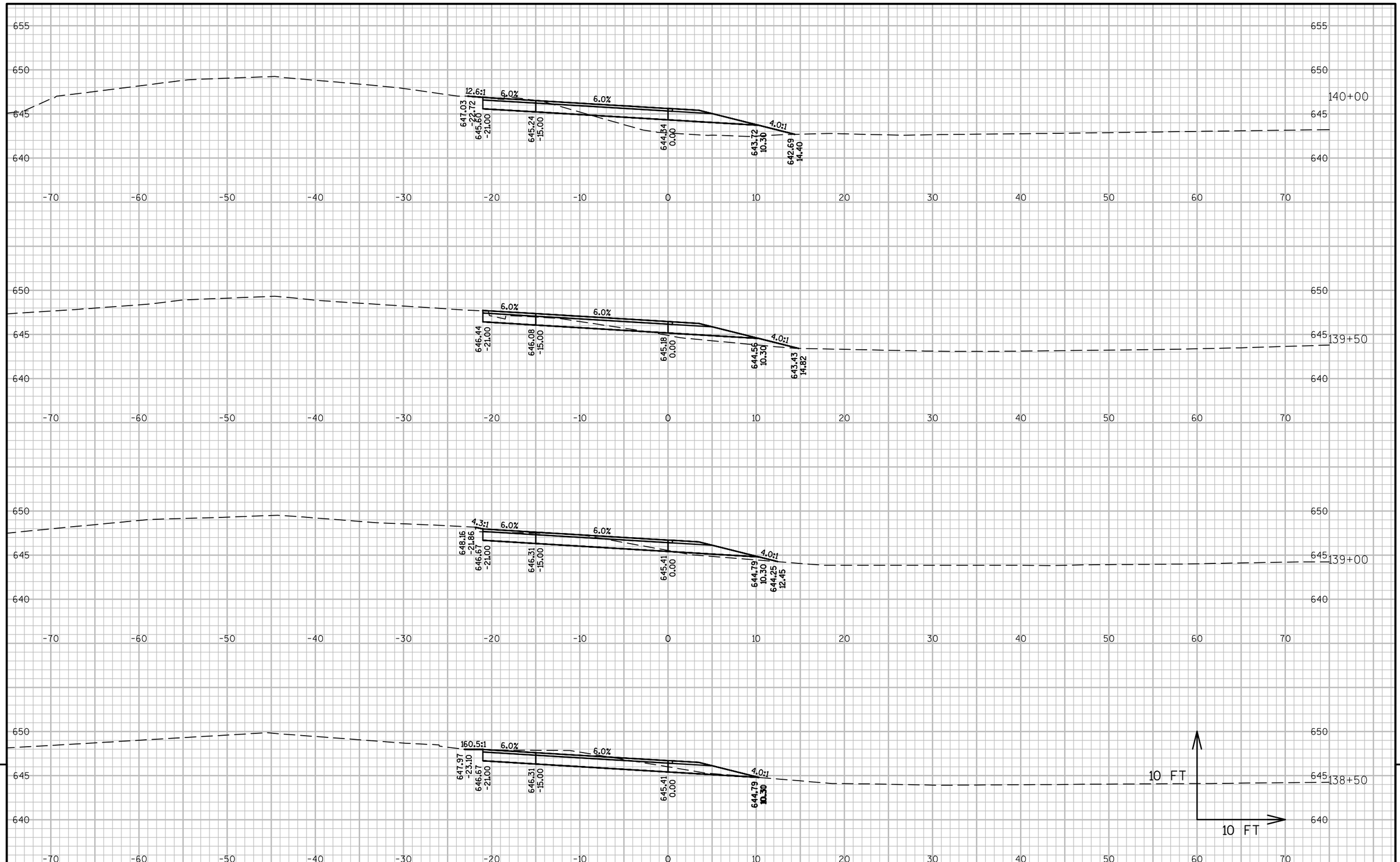


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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: BT TEMPORARY	SHEET 881	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBTRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBTRAMP - 090204_XSBT
PLOT DATE : 7/30/2015 10:44 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



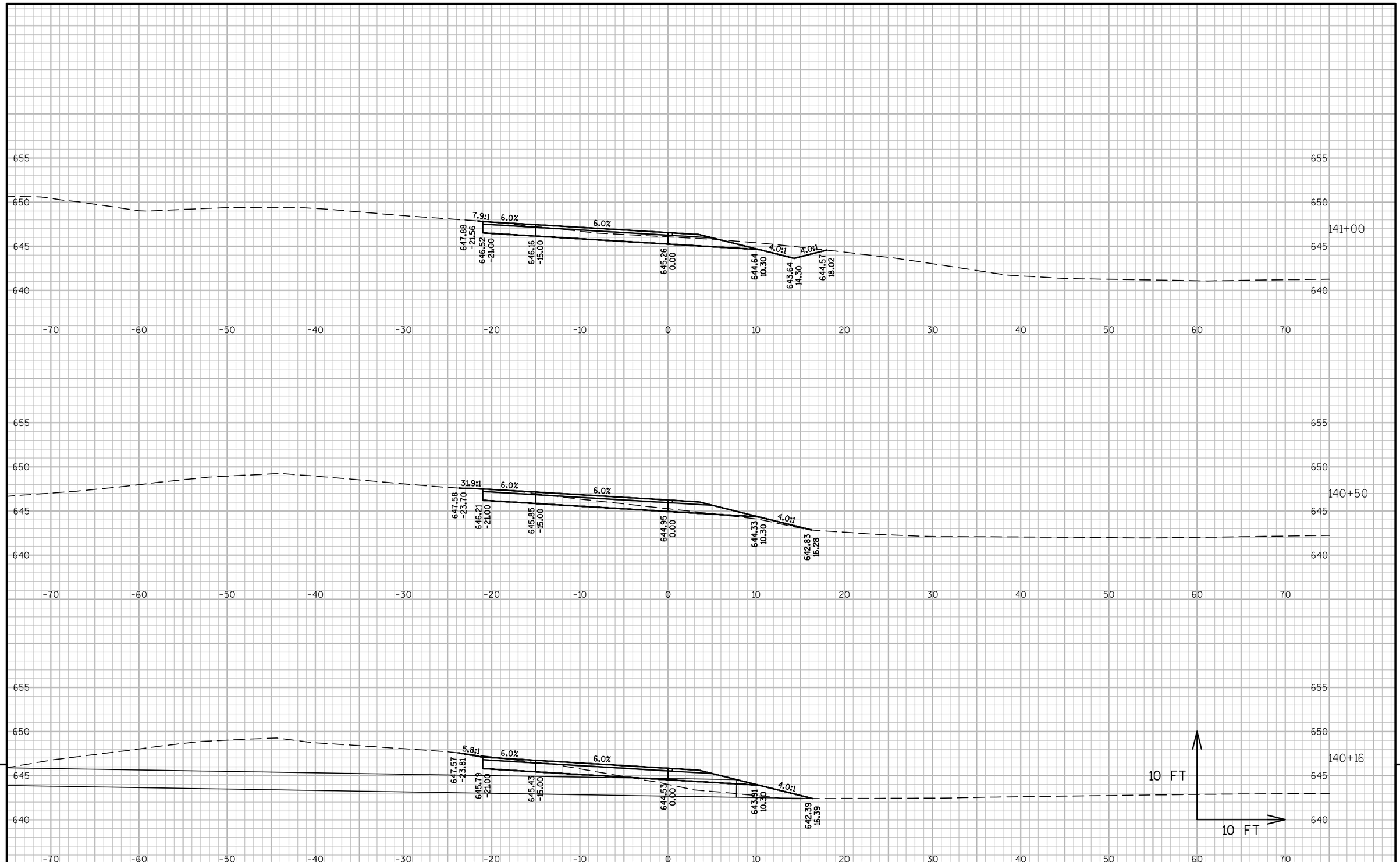
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: BT TEMPORARY	SHEET 882	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBTRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBTRAMP - 090205_XSBT

PLOT DATE : 7/30/2015 10:44 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



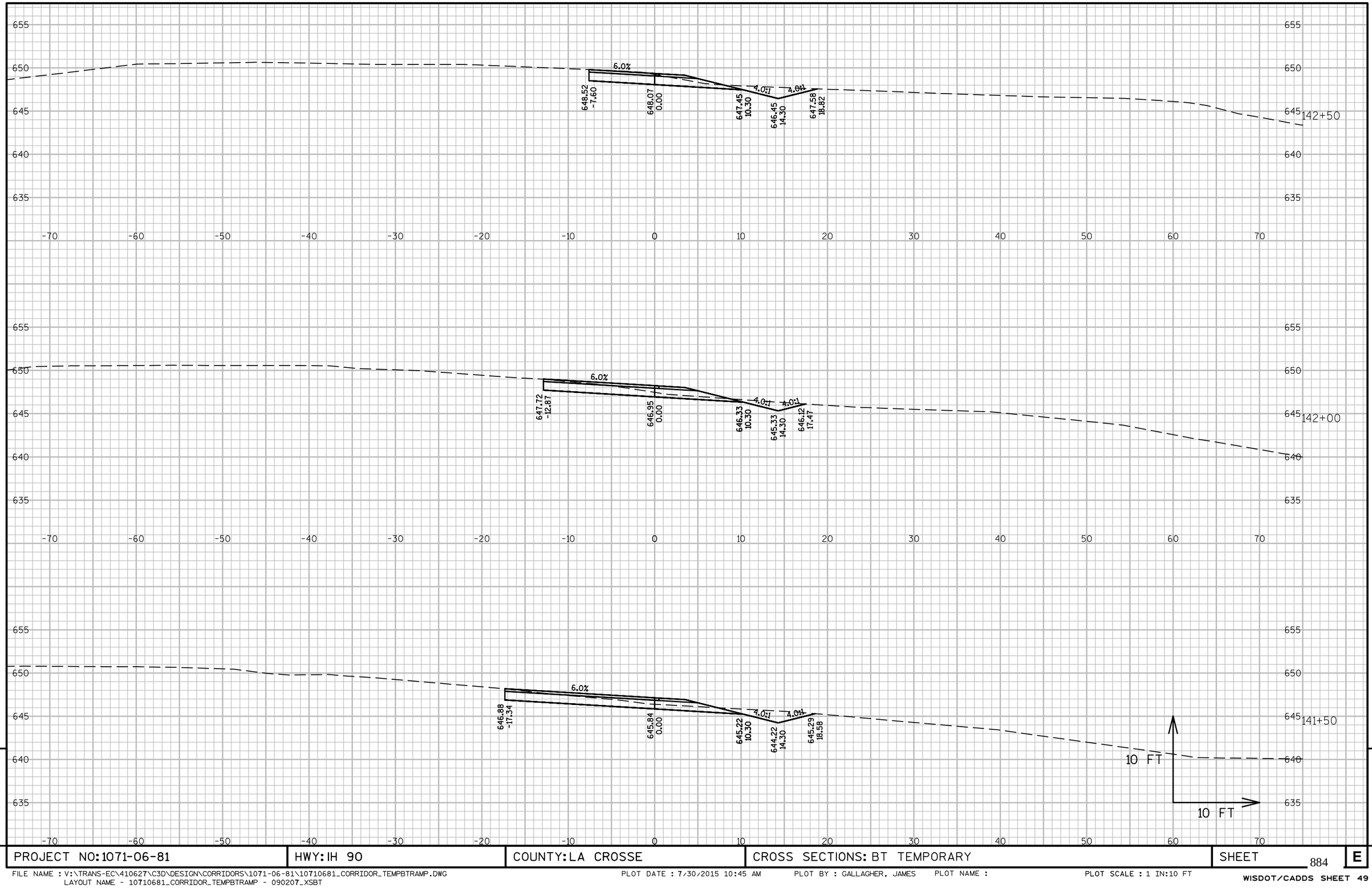
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: BT TEMPORARY	SHEET 883	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBTRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBTRAMP - 090206_XSBT

PLOT DATE : 7/30/2015 10:45 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

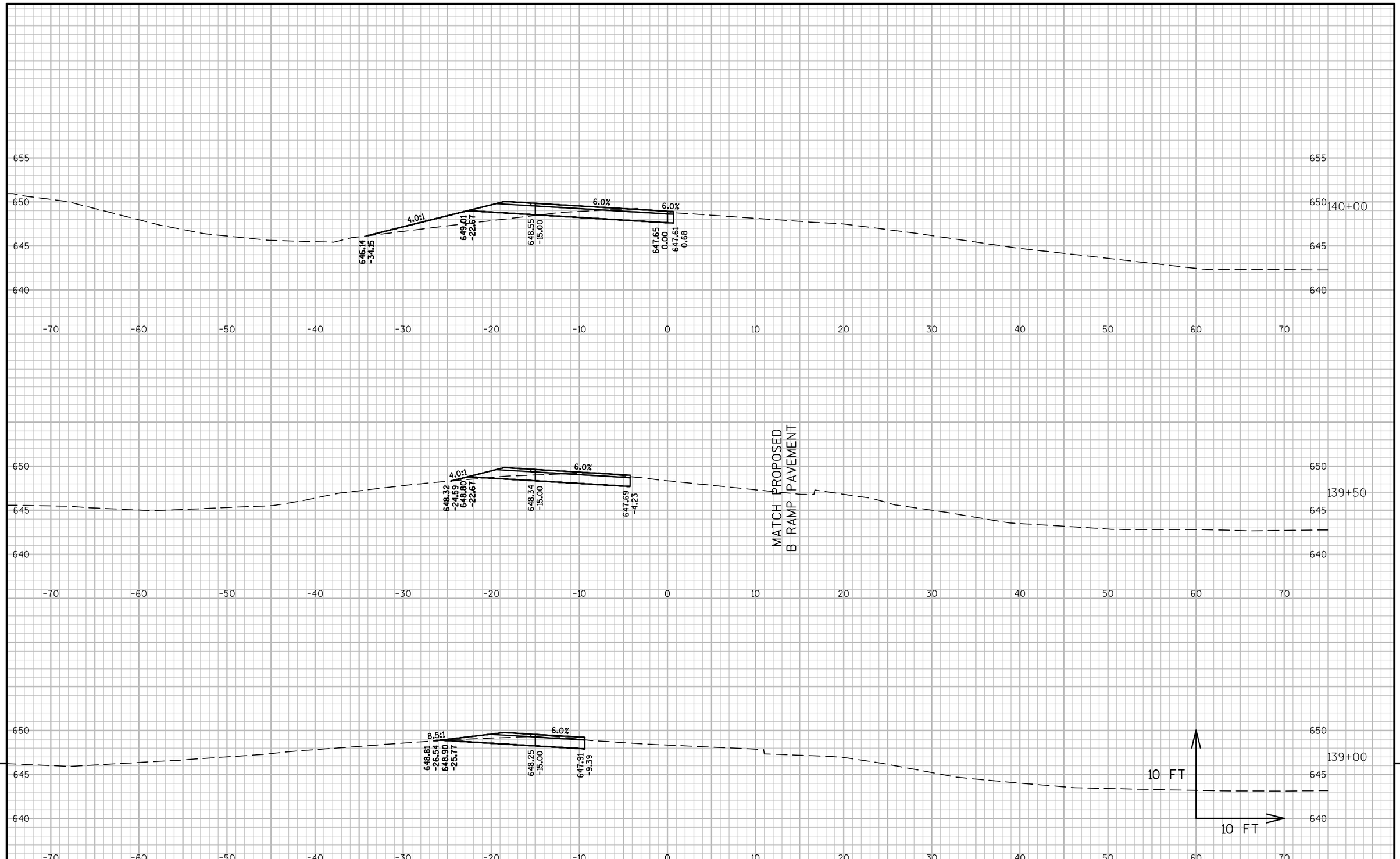


9

9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: BT TEMPORARY	SHEET 884	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBTRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBTRAMP - 090207_XSBT
PLOT DATE : 7/30/2015 10:45 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



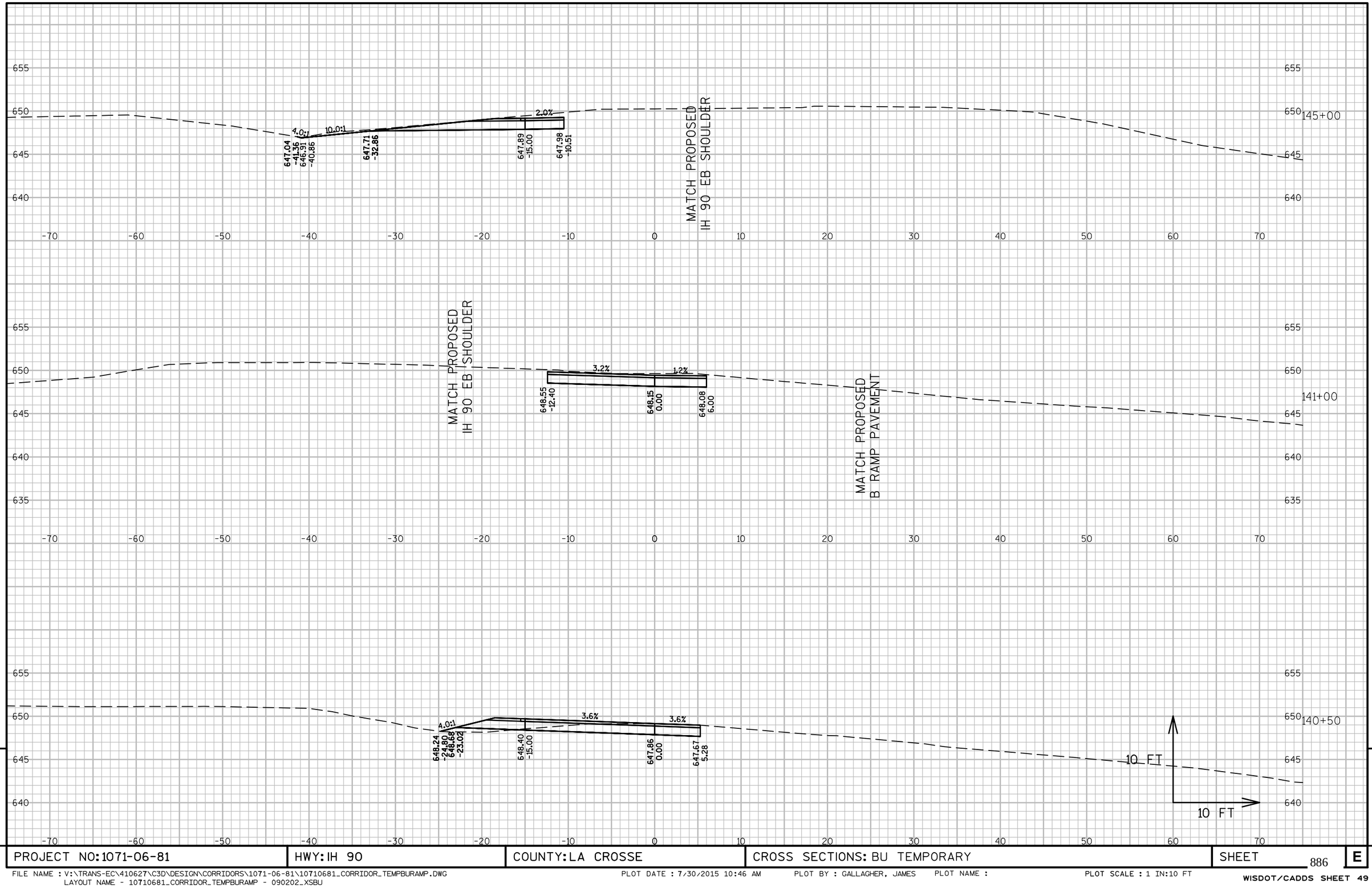
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9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: BU TEMPORARY	SHEET 885	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBURAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBURAMP - 090201_XSBU

PLOT DATE : 7/30/2015 10:46 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



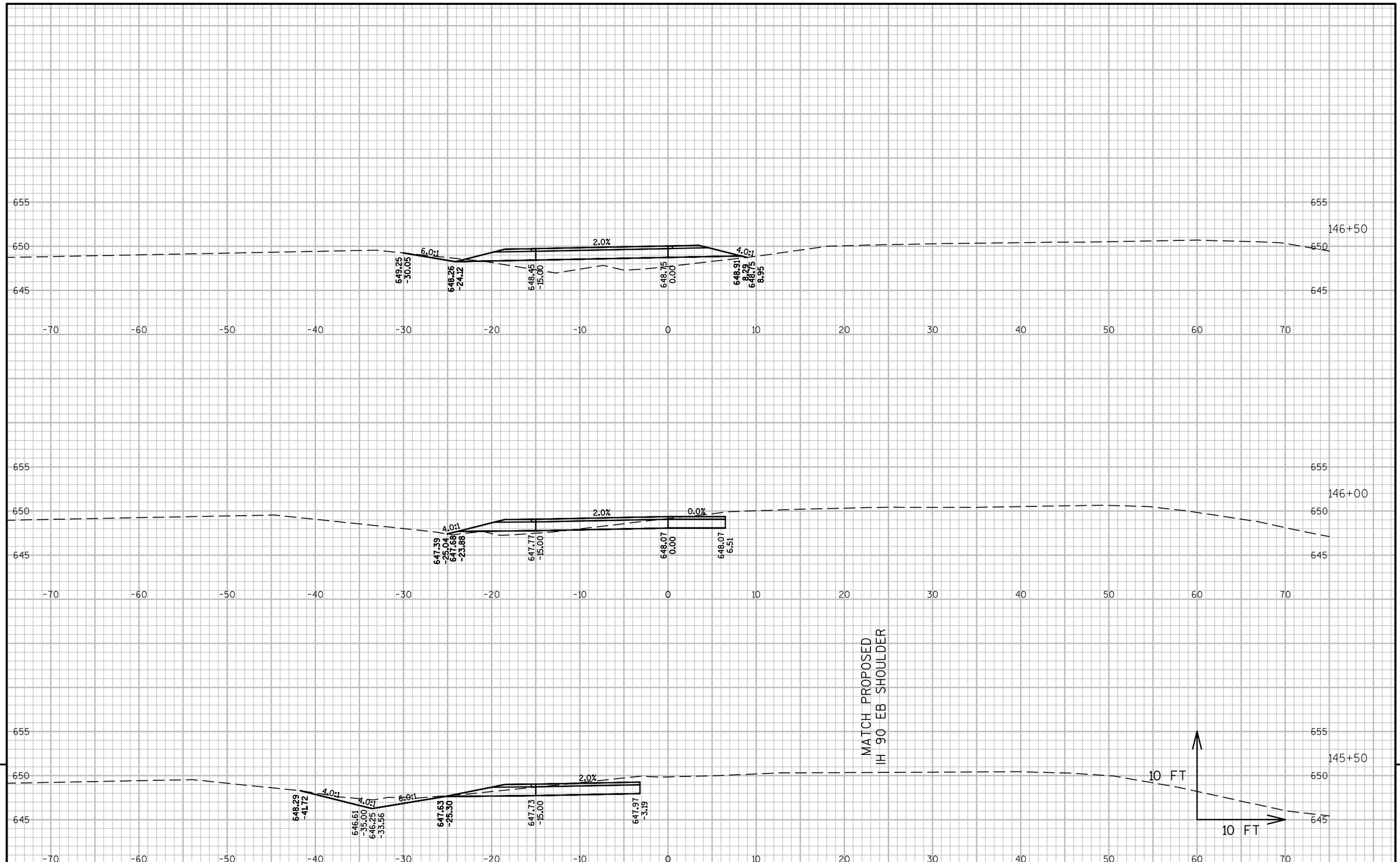
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9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: BU TEMPORARY	SHEET 886	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBURAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBURAMP - 090202_XSBU

PLOT DATE : 7/30/2015 10:46 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

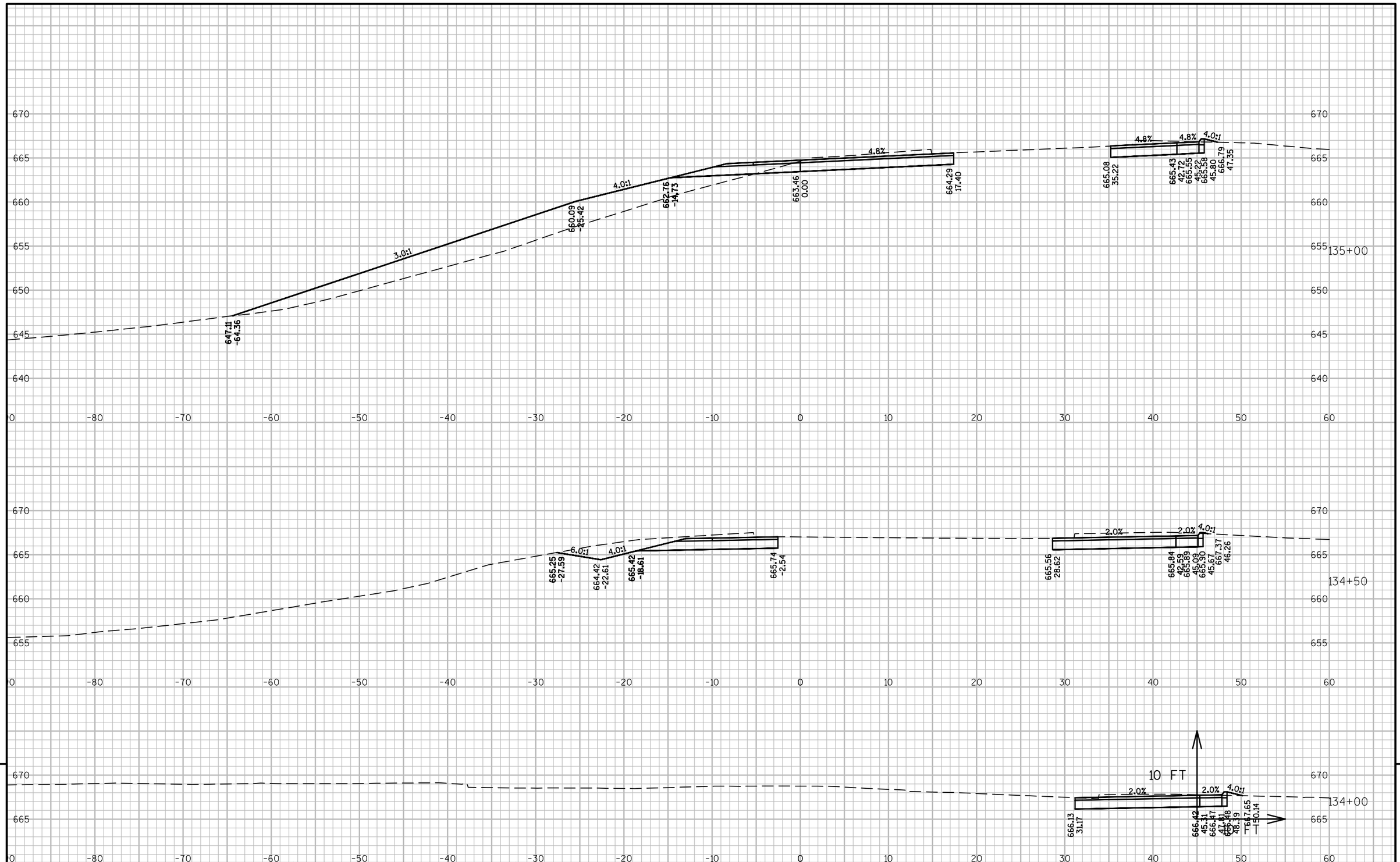


9 9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: BU TEMPORARY	SHEET 887	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPBURAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPBURAMP - 090203_XSBU

PLOT DATE : 7/30/2015 10:46 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



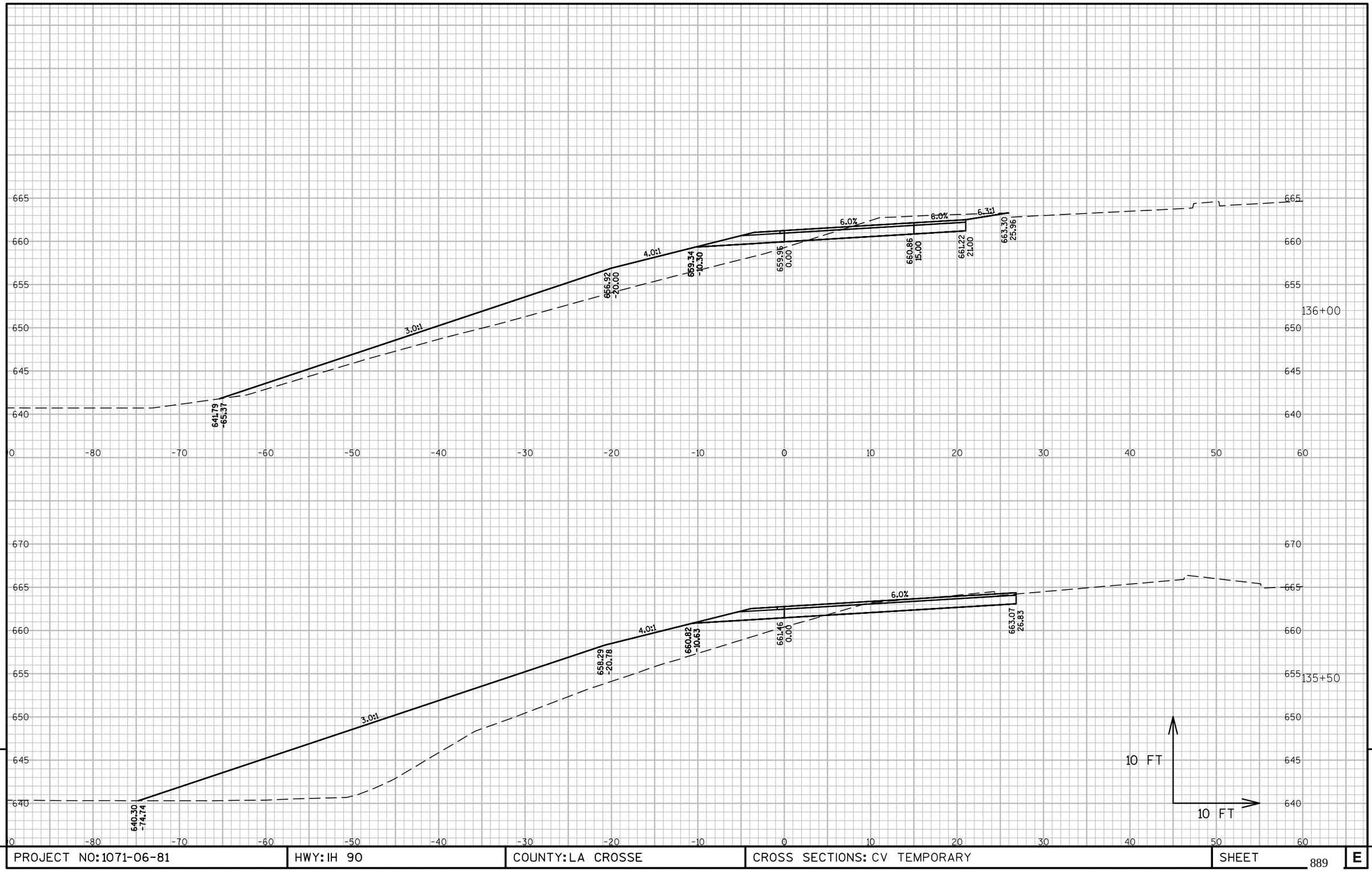
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9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CV TEMPORARY	SHEET 888	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPCVRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPCVRAMP - 090201_XSCV

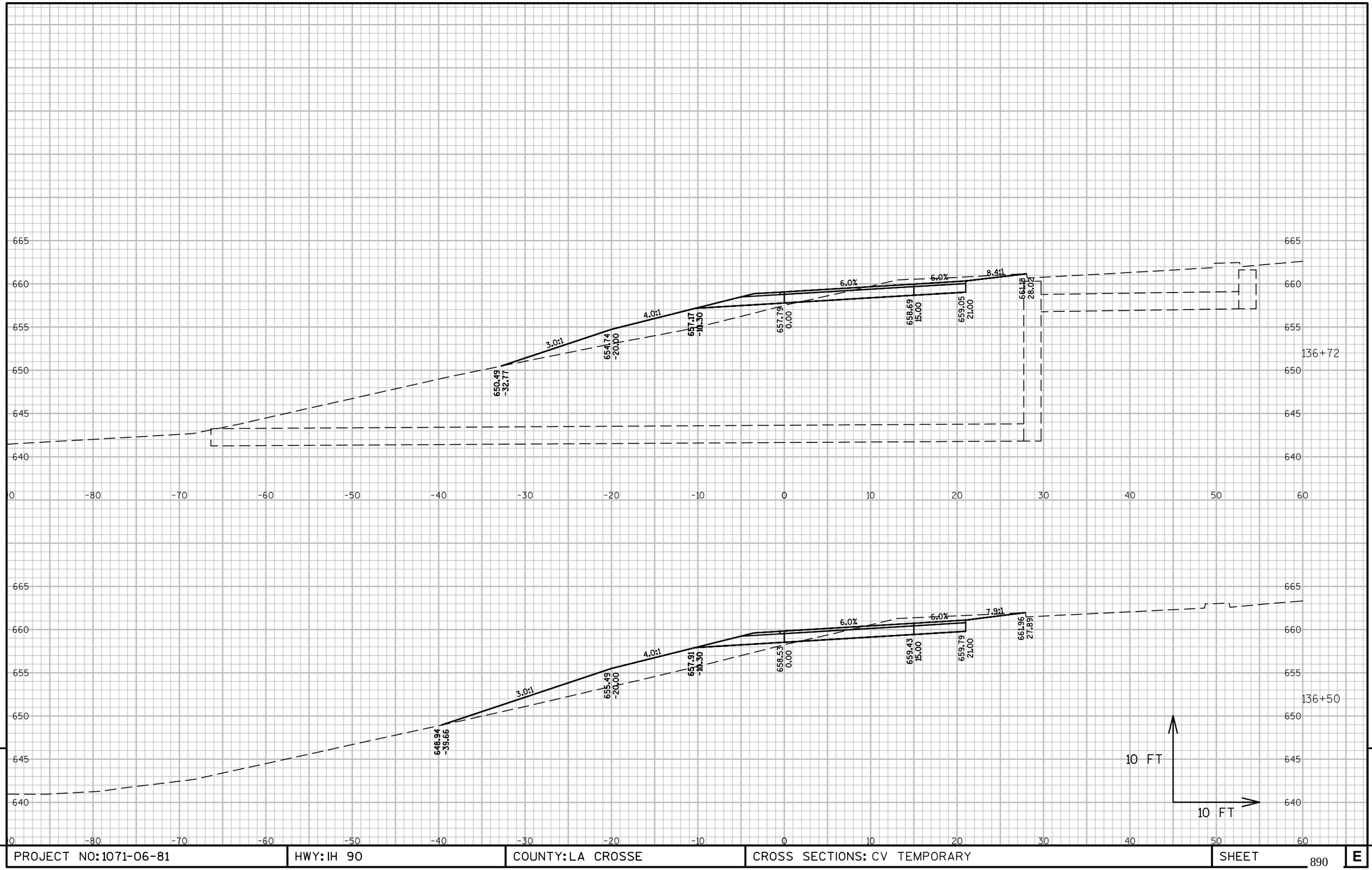
PLOT DATE : 7/30/2015 10:47 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CV TEMPORARY	SHEET 889 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPCVRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPCVRAMP - 090202_XSCV

PLOT DATE : 7/30/2015 10:48 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



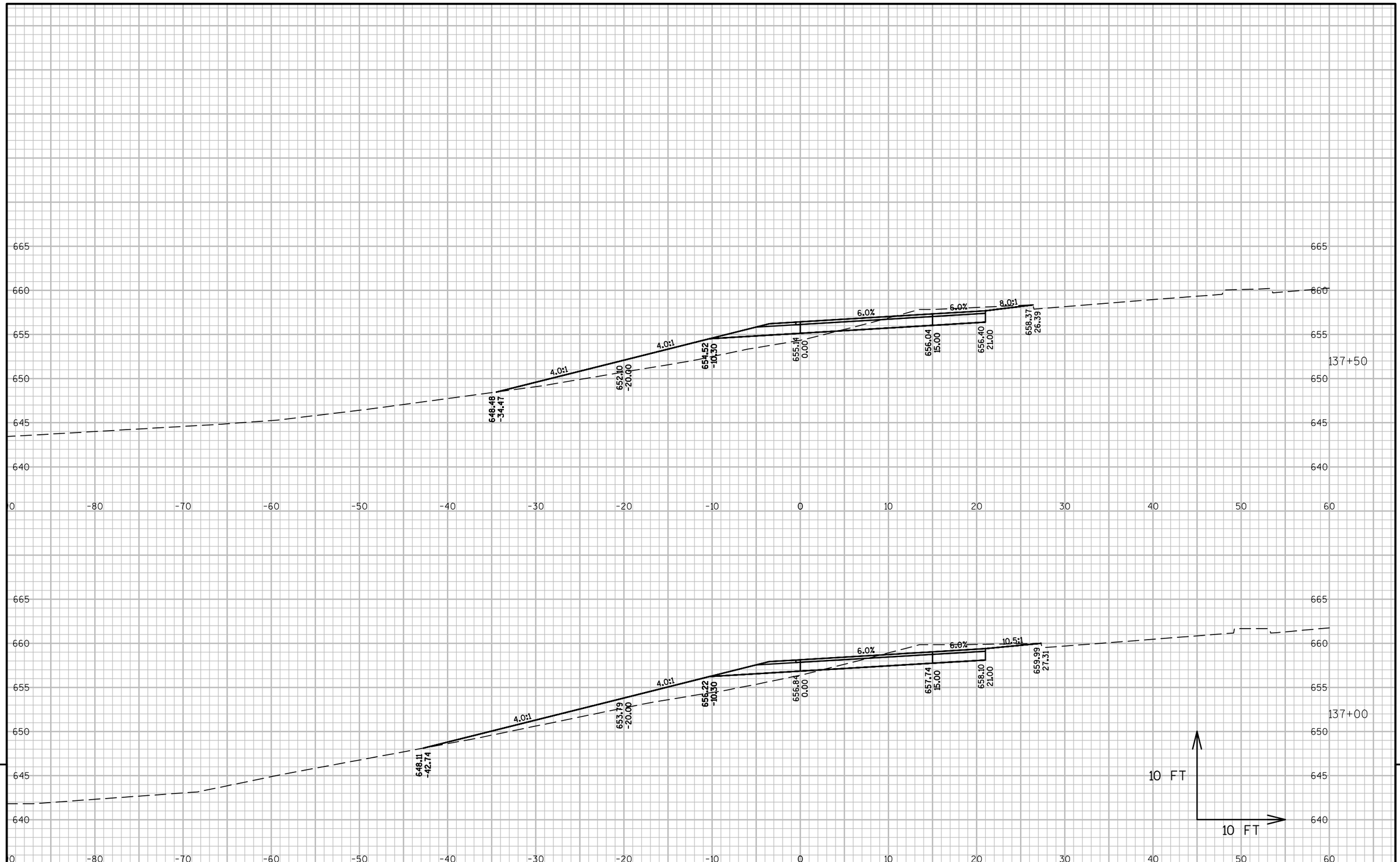
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PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CV TEMPORARY	SHEET 890	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPCVRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPCVRAMP - 090203_XSCV

PLOT DATE : 7/30/2015 10:48 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

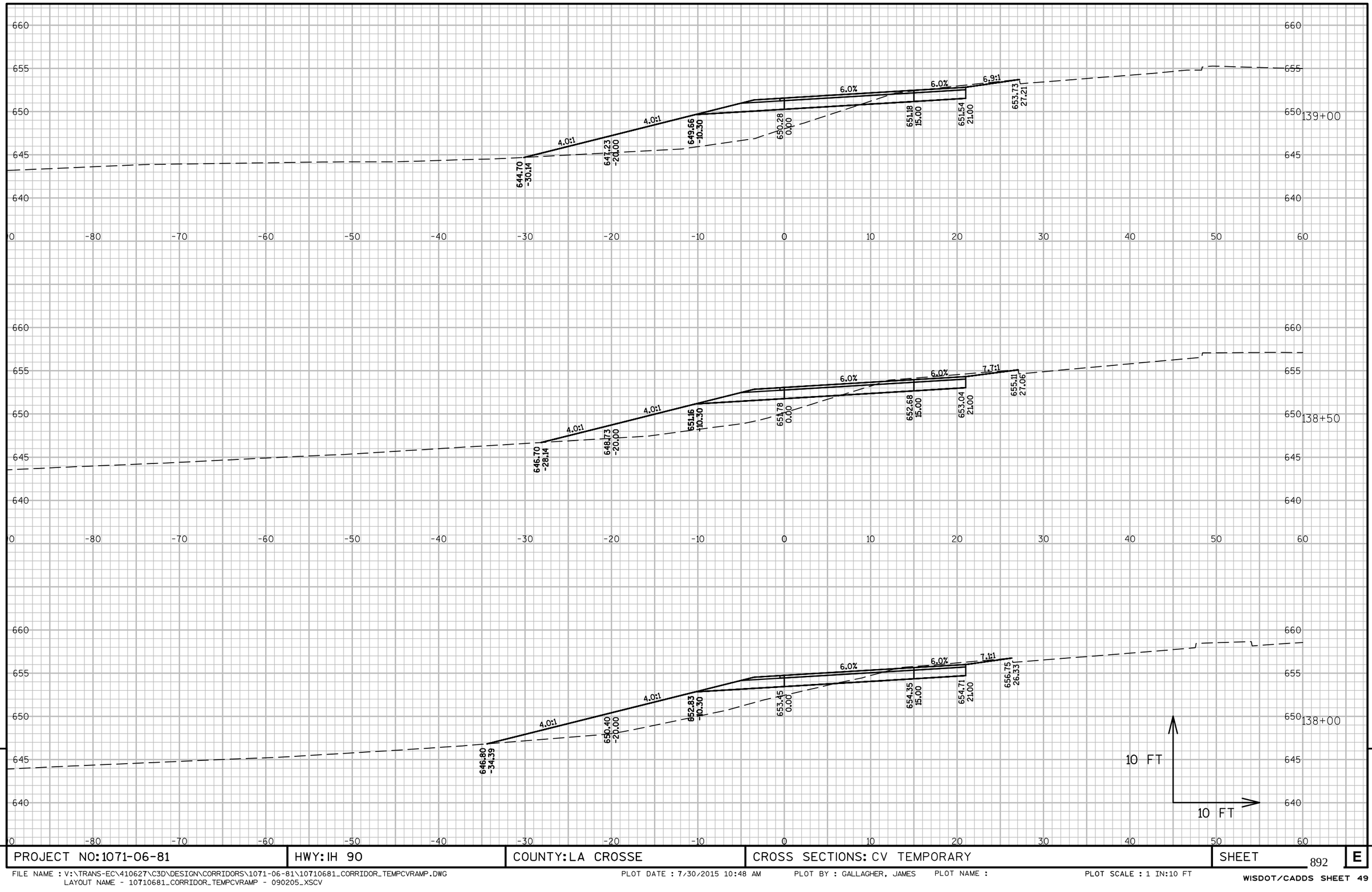


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9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CV TEMPORARY	SHEET 891	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPCVRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPCVRAMP - 090204_XSCV
PLOT DATE : 7/30/2015 10:48 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

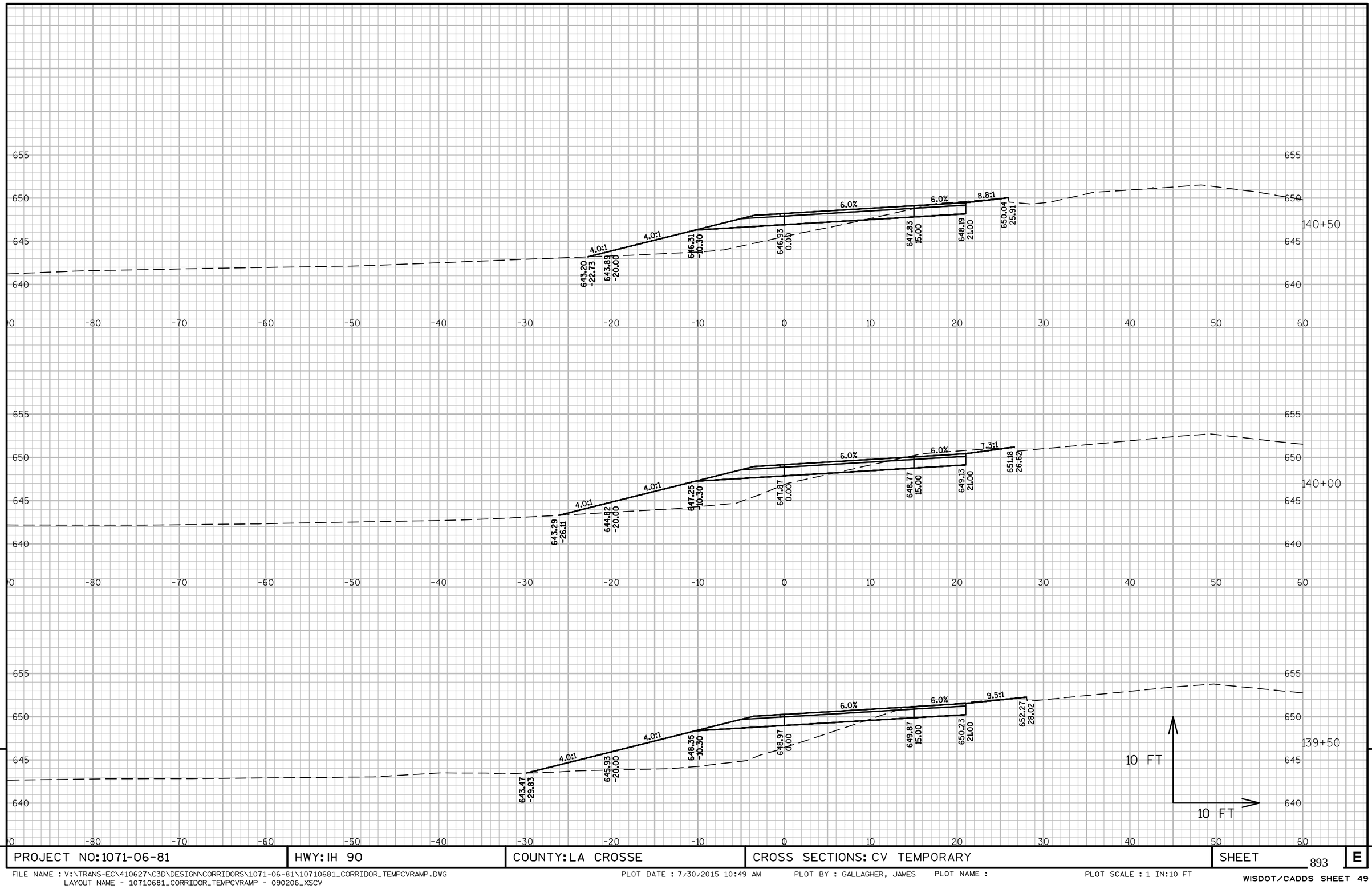
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PROJECT NO:1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CV TEMPORARY	SHEET 892	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPCVRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPCVRAMP - 090205_XSCV

PLOT DATE : 7/30/2015 10:48 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



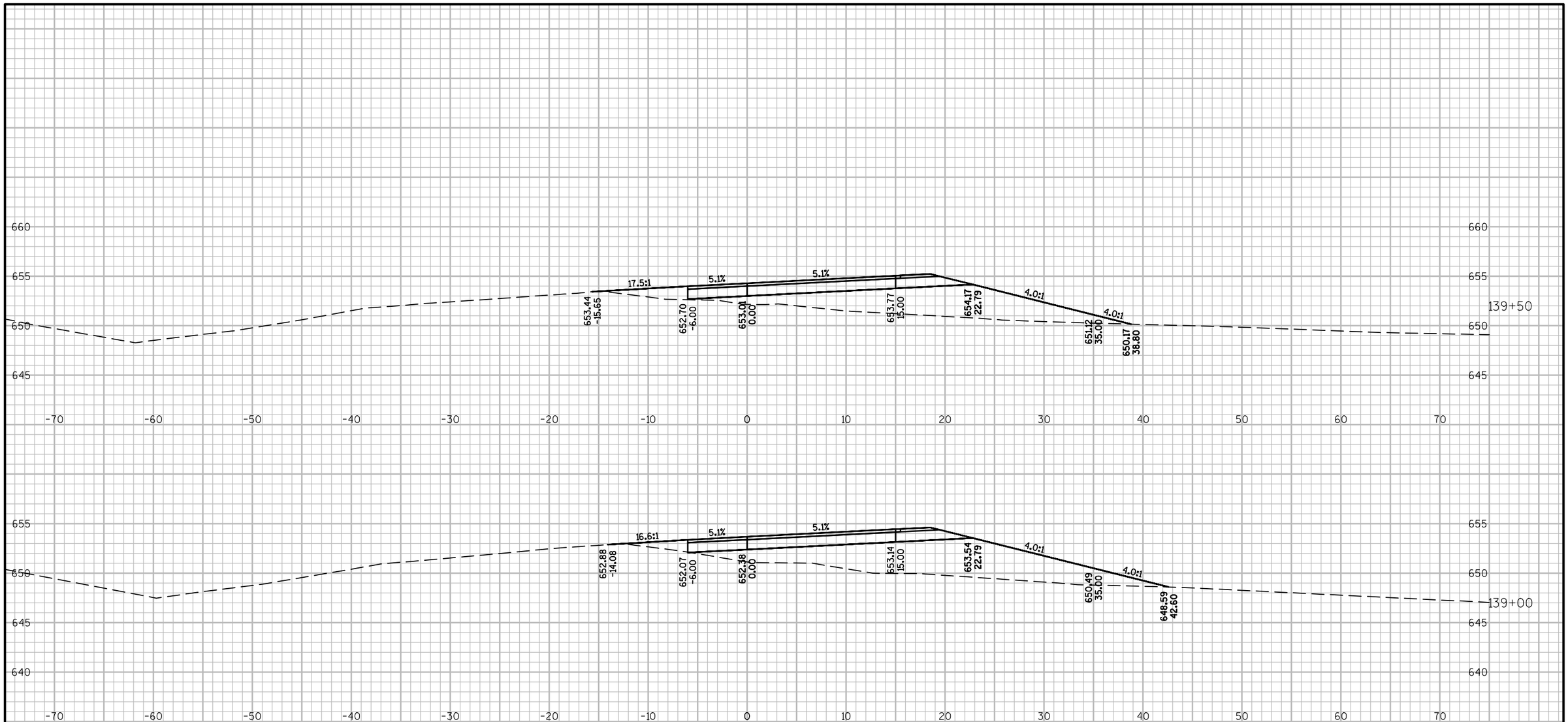
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9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: CV TEMPORARY	SHEET 893	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPCVRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPCVRAMP - 090206_XSCV

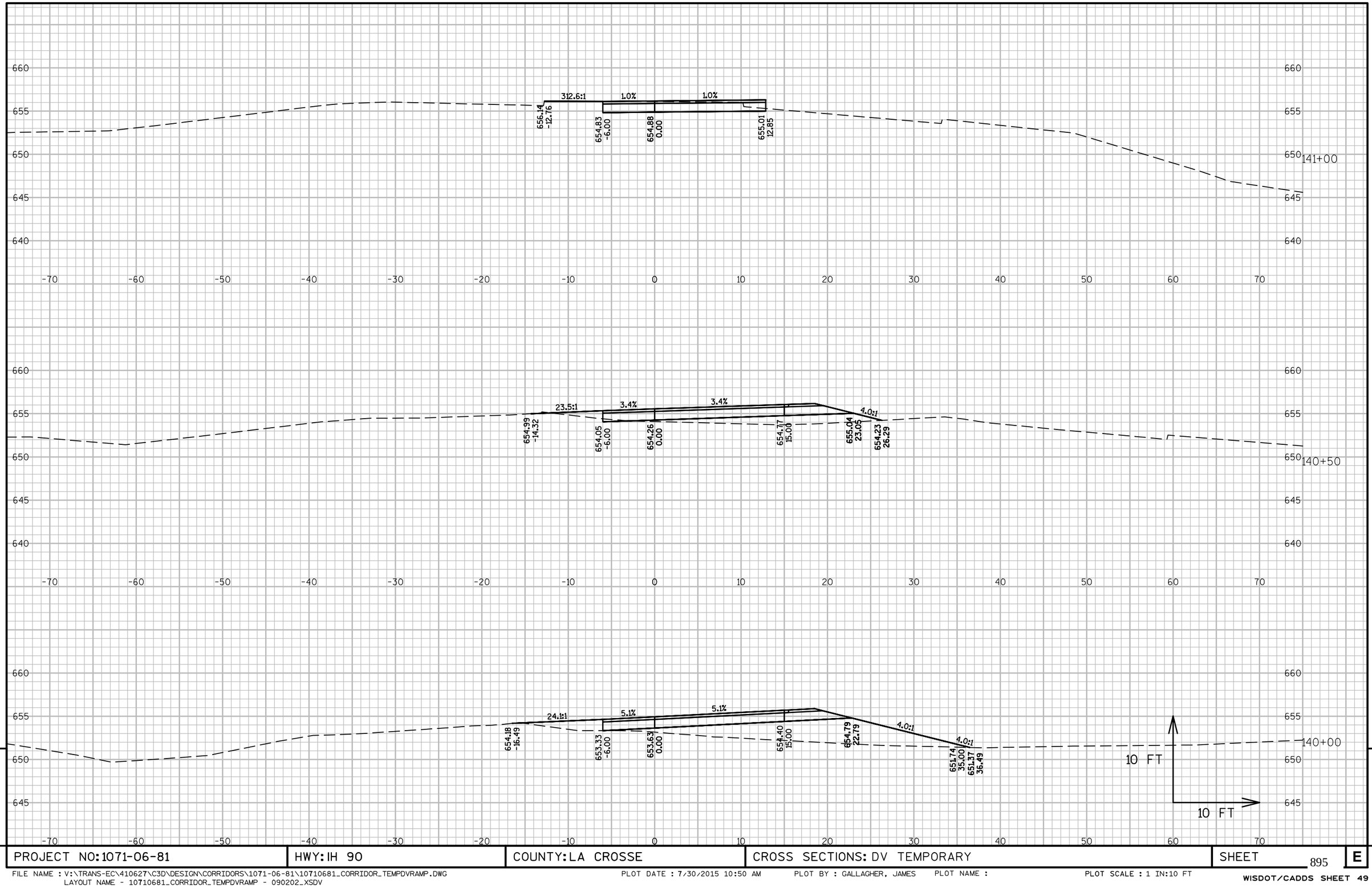
PLOT DATE : 7/30/2015 10:49 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: DV TEMPORARY	SHEET 894	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPDVRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPDVRAMP - 090201_XSDV

PLOT DATE : 7/30/2015 10:50 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



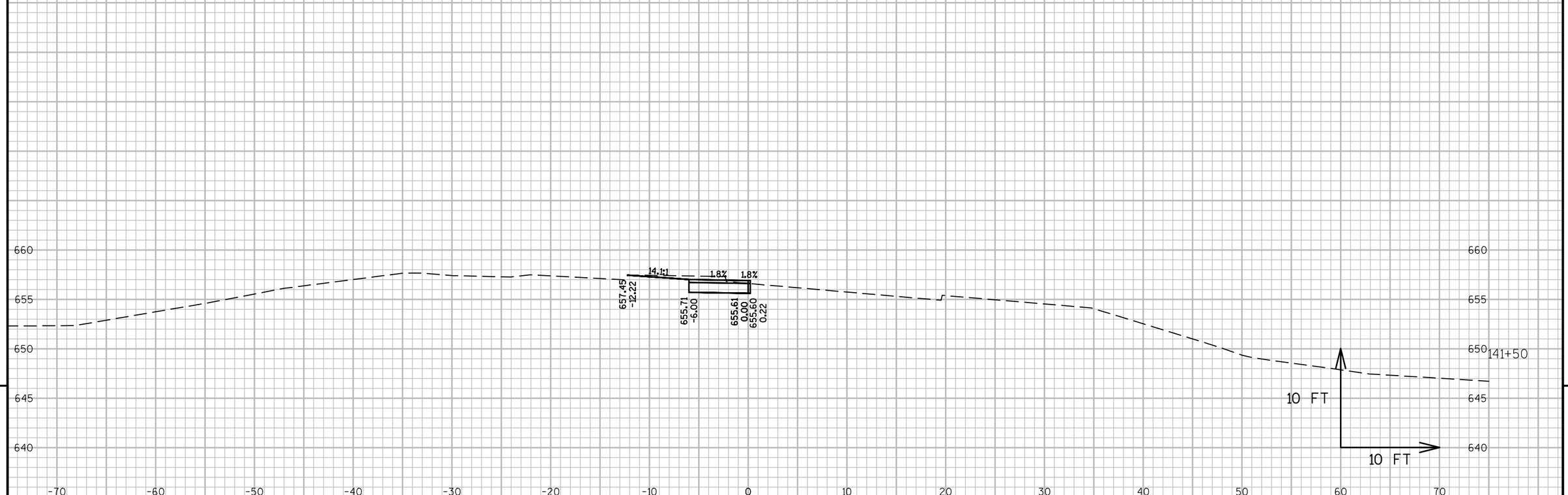
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9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: DV TEMPORARY	SHEET 895	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPDVRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPDVRAMP - 090202_XSDV

PLOT DATE : 7/30/2015 10:50 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



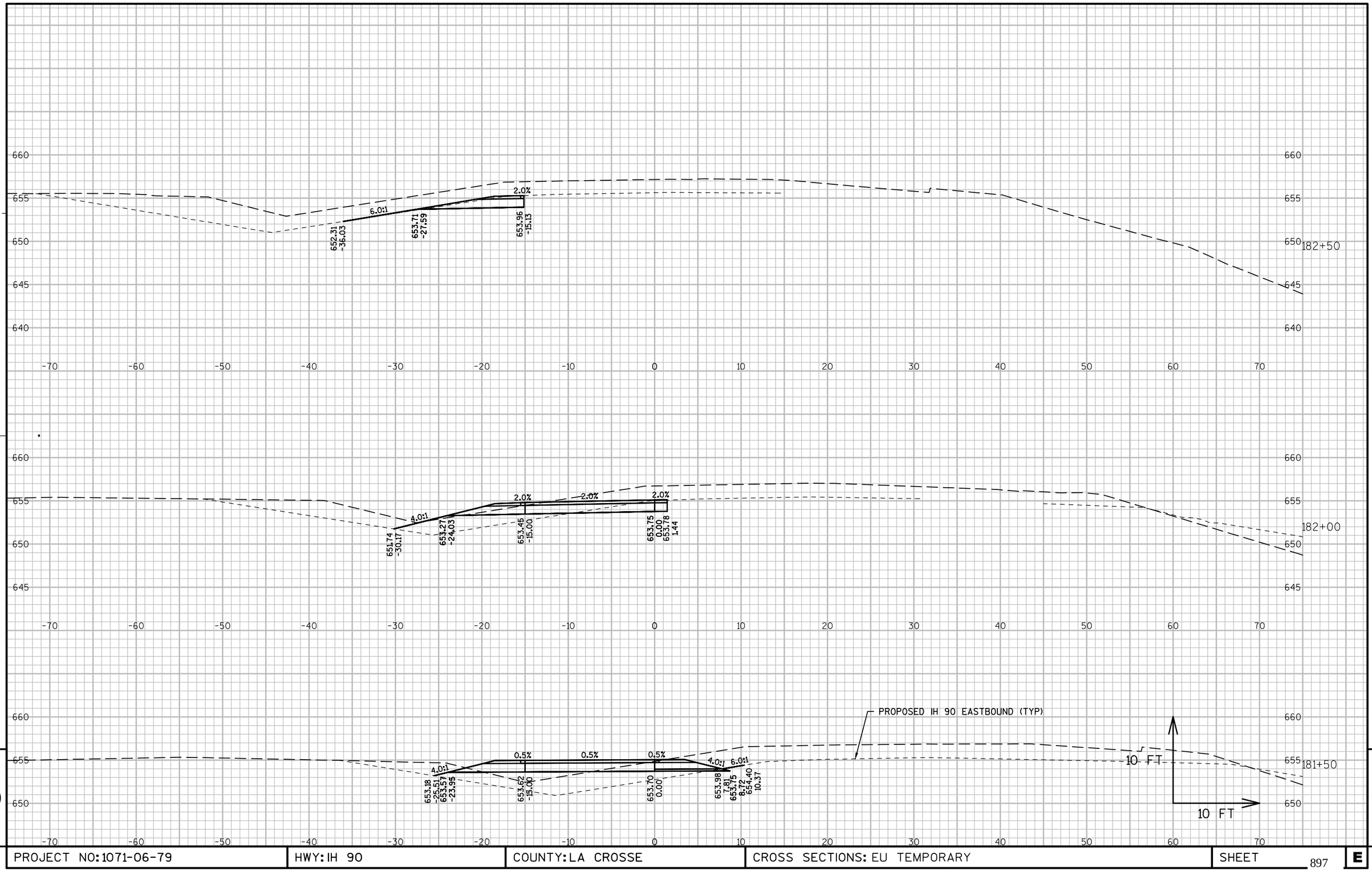
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9

PROJECT NO: 1071-06-81	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: DV TEMPORARY	SHEET 896	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-81\10710681_CORRIDOR_TEMPDVRAMP.DWG
LAYOUT NAME - 10710681_CORRIDOR_TEMPDVRAMP - 090203_XSDV

PLOT DATE : 7/30/2015 10:50 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



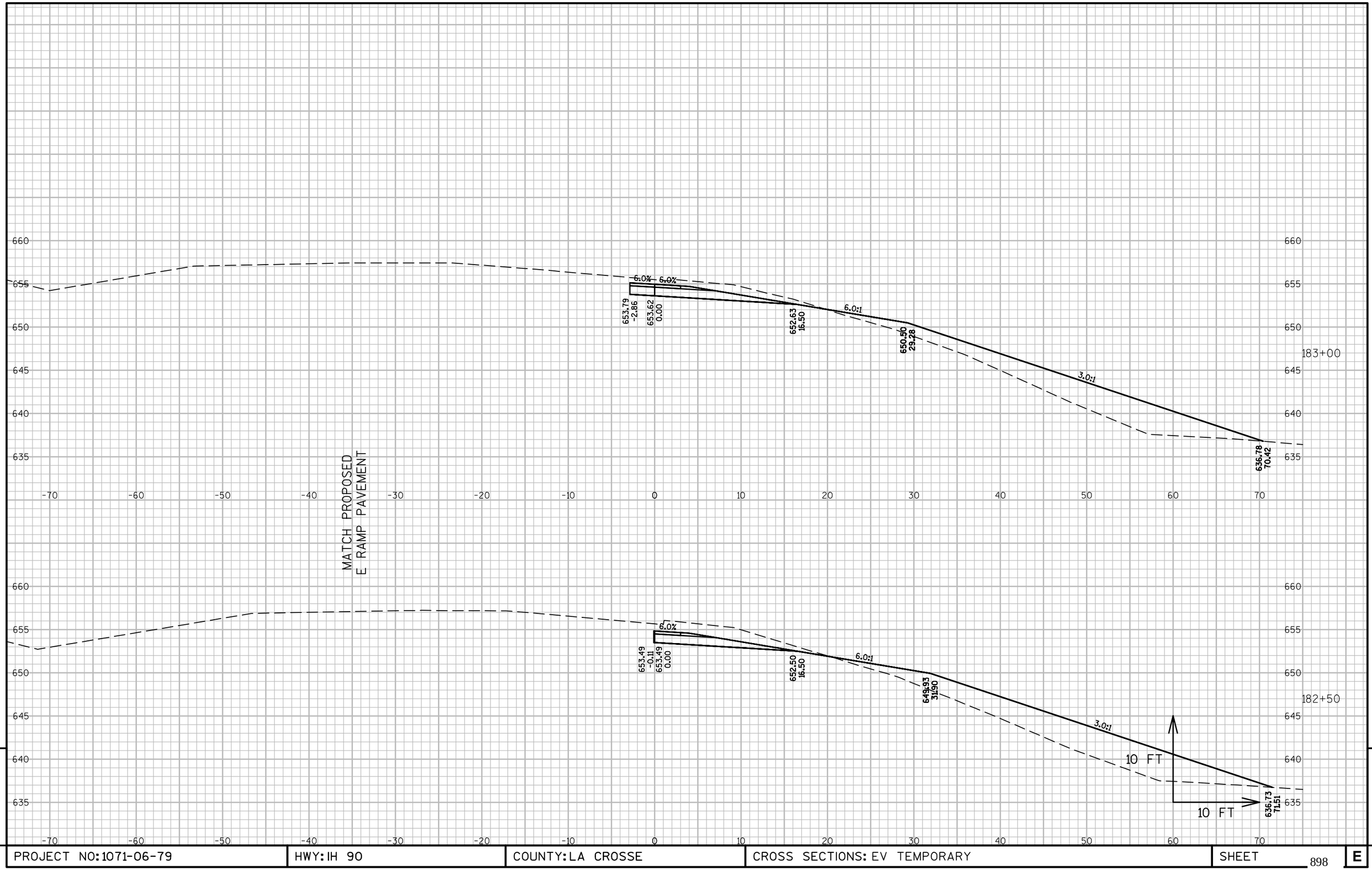
9

9

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: EU TEMPORARY	SHEET 897	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPEURAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPEURAMP - 090201_XSEU

PLOT DATE : 7/29/2015 5:01 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090201_xseu PLOT SCALE : 1 IN:10 FT



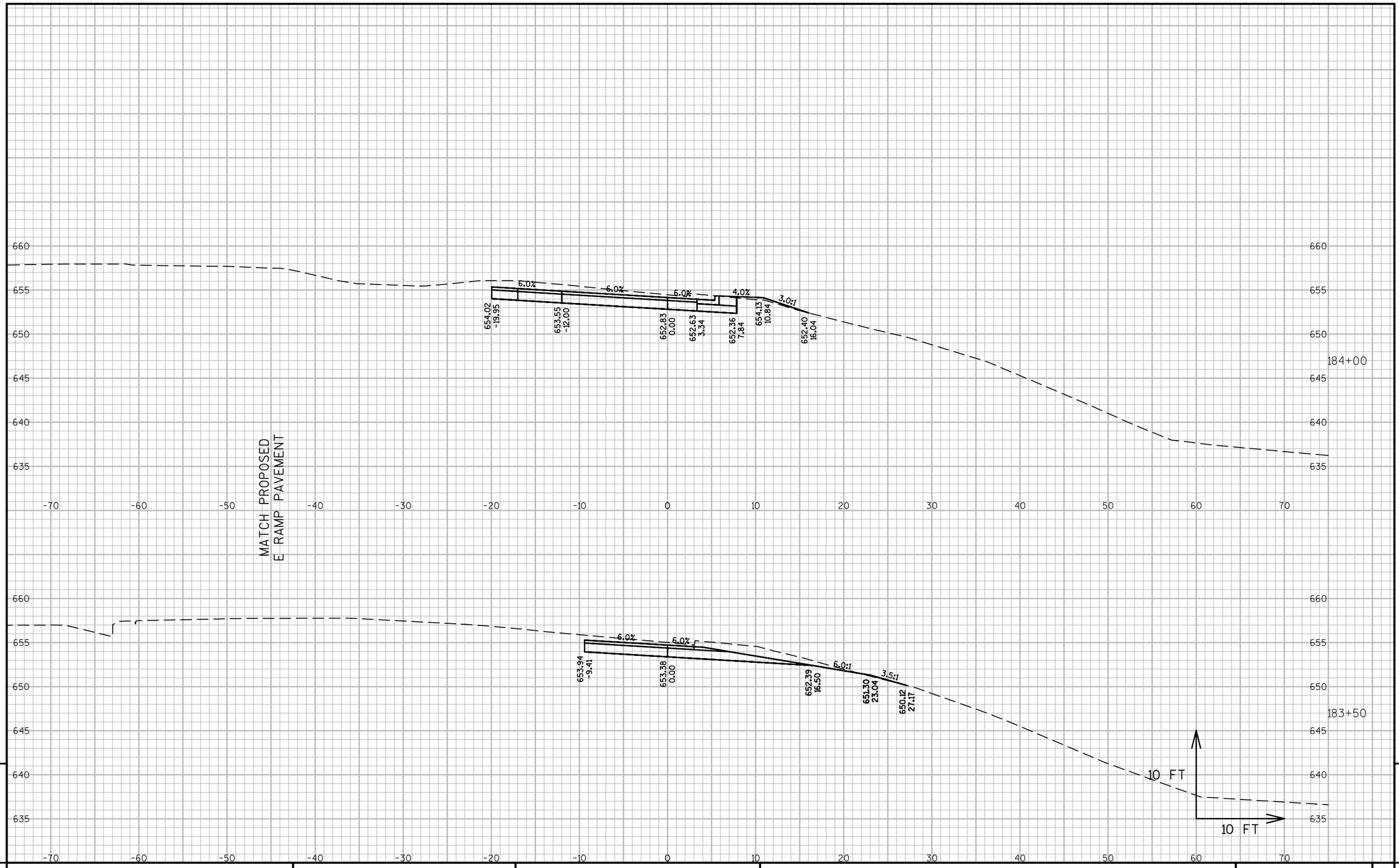
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9

PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: EV TEMPORARY	SHEET 898	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPEVRAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPEVRAMP - 090201_XSEV

PLOT DATE : 7/29/2015 5:03 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



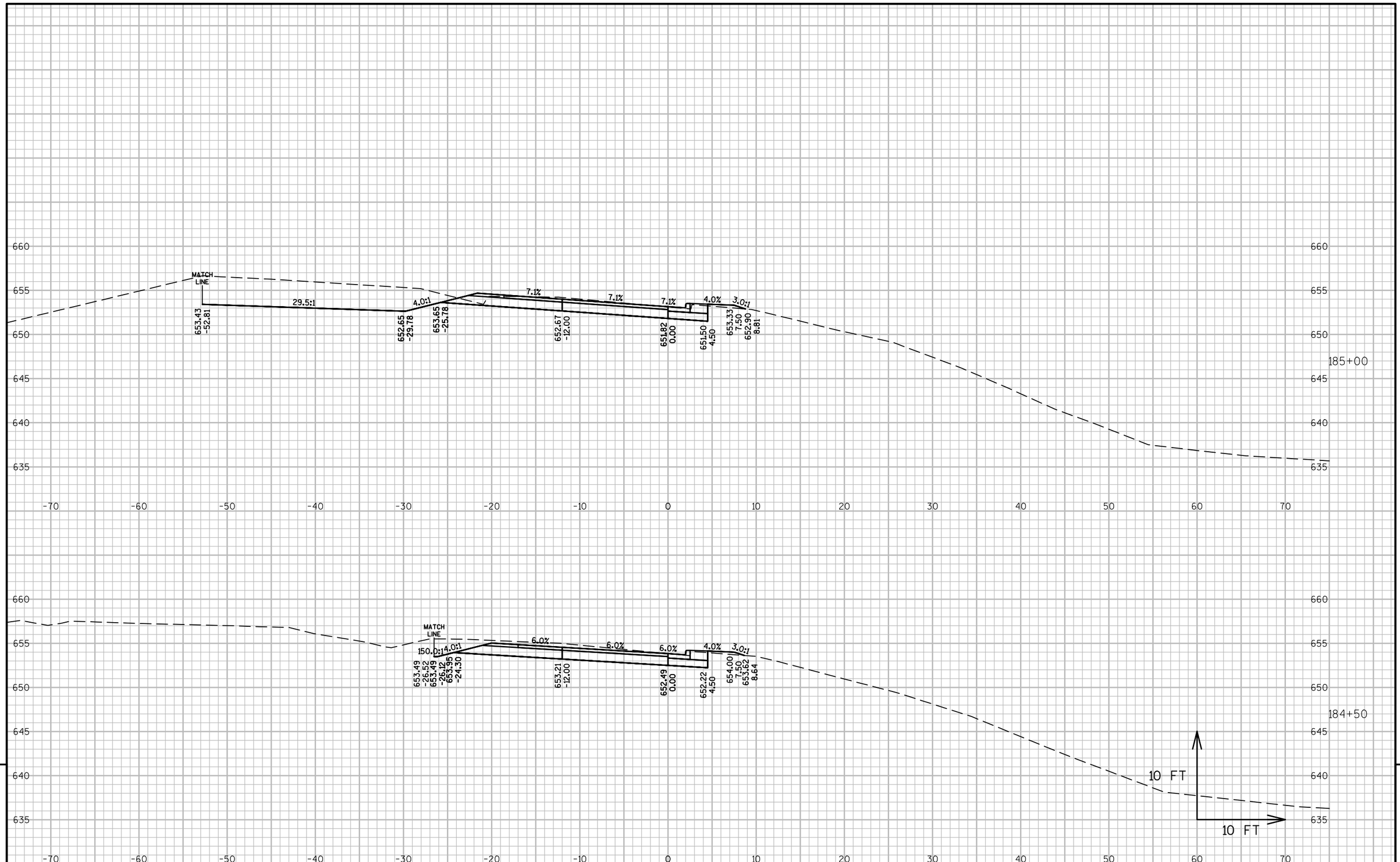
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9

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: EV TEMPORARY	SHEET 899	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPEVRAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPEVRAMP - 090202_XSEV

PLOT DATE : 7/29/2015 5:03 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



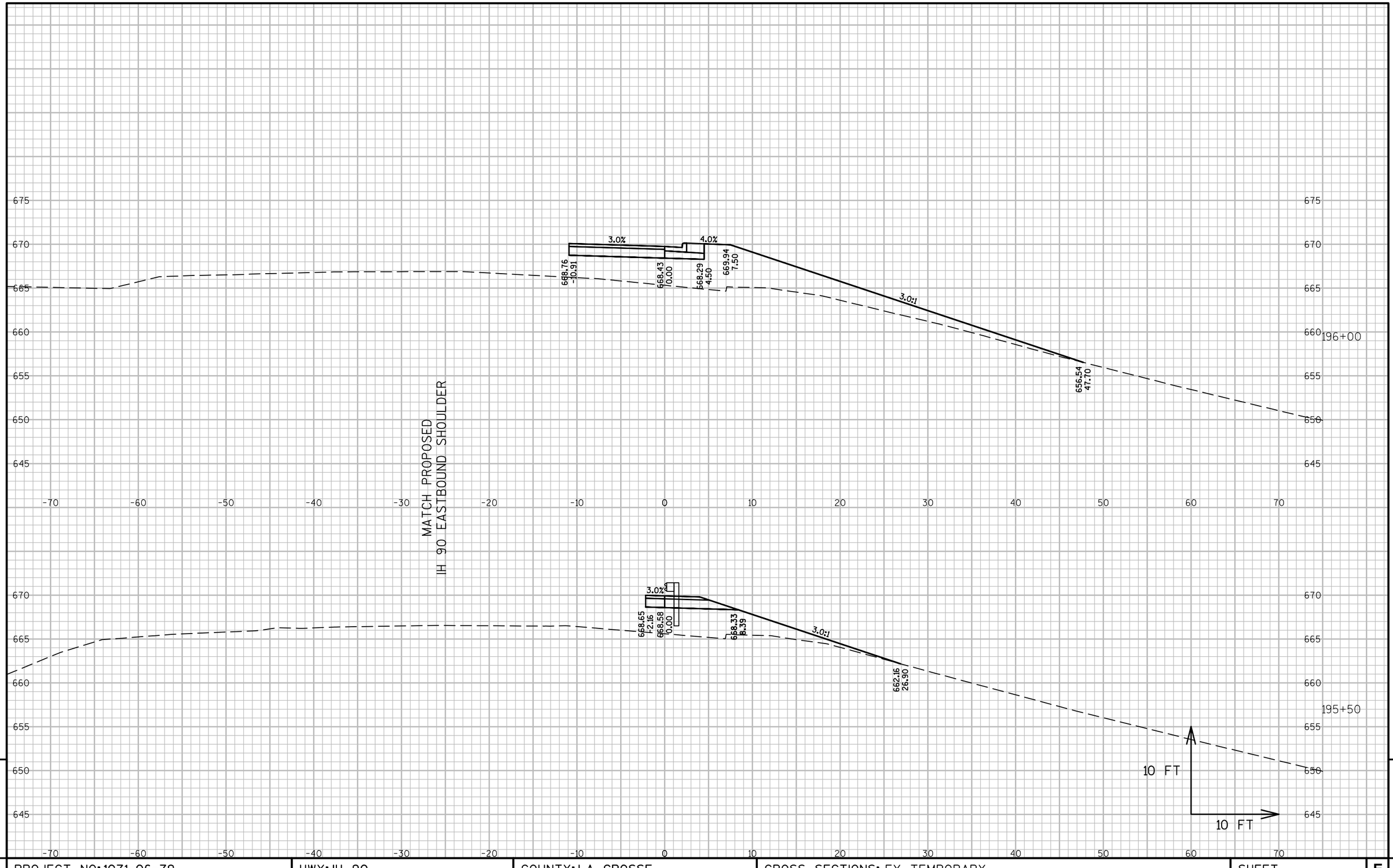
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9

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: EV TEMPORARY	SHEET 900	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPEVRAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPEVRAMP - 090203_XSEV

PLOT DATE : 7/29/2015 5:03 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



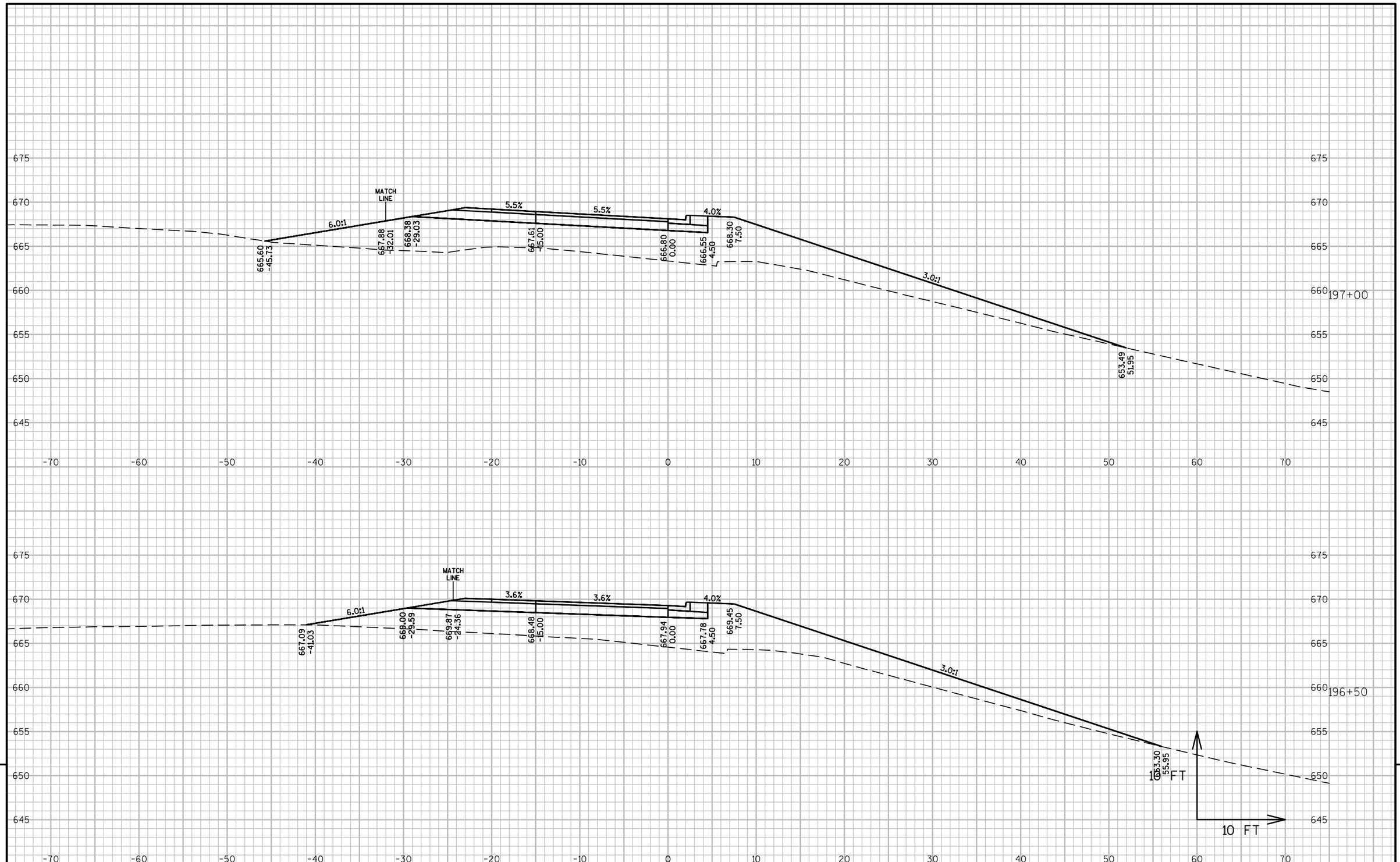
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9

PROJECT NO:1071-06-79	HWY:IH 90	COUNTY:LA CROSSE	CROSS SECTIONS:EX TEMPORARY	SHEET 901	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPEXRAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPEXRAMP - 090201_XSEX

PLOT DATE : 7/29/2015 5:04 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



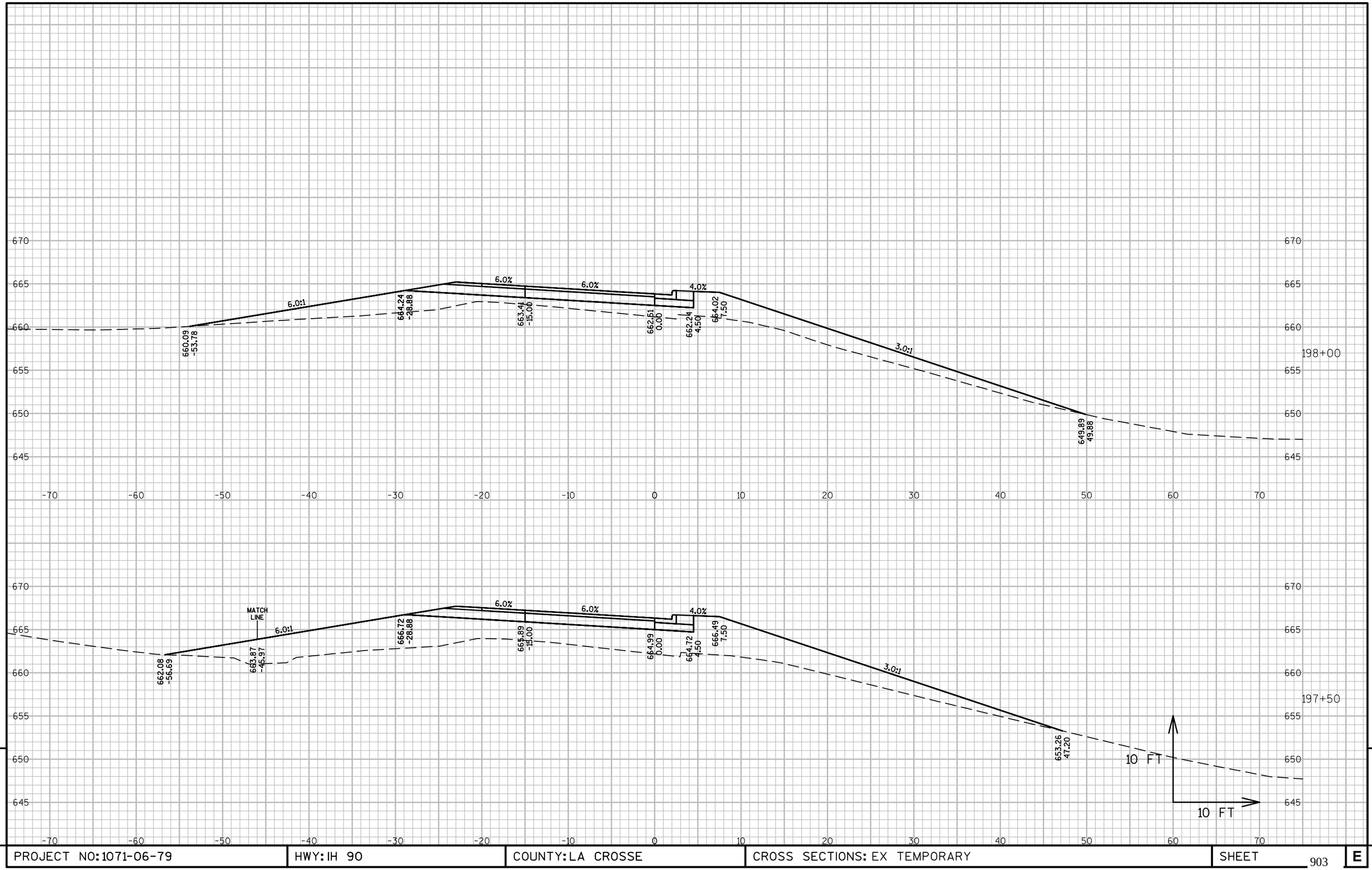
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9

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: EX TEMPORARY	SHEET 902	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPEXRAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPEXRAMP - 090202_XSEX

PLOT DATE : 7/29/2015 5:04 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

9

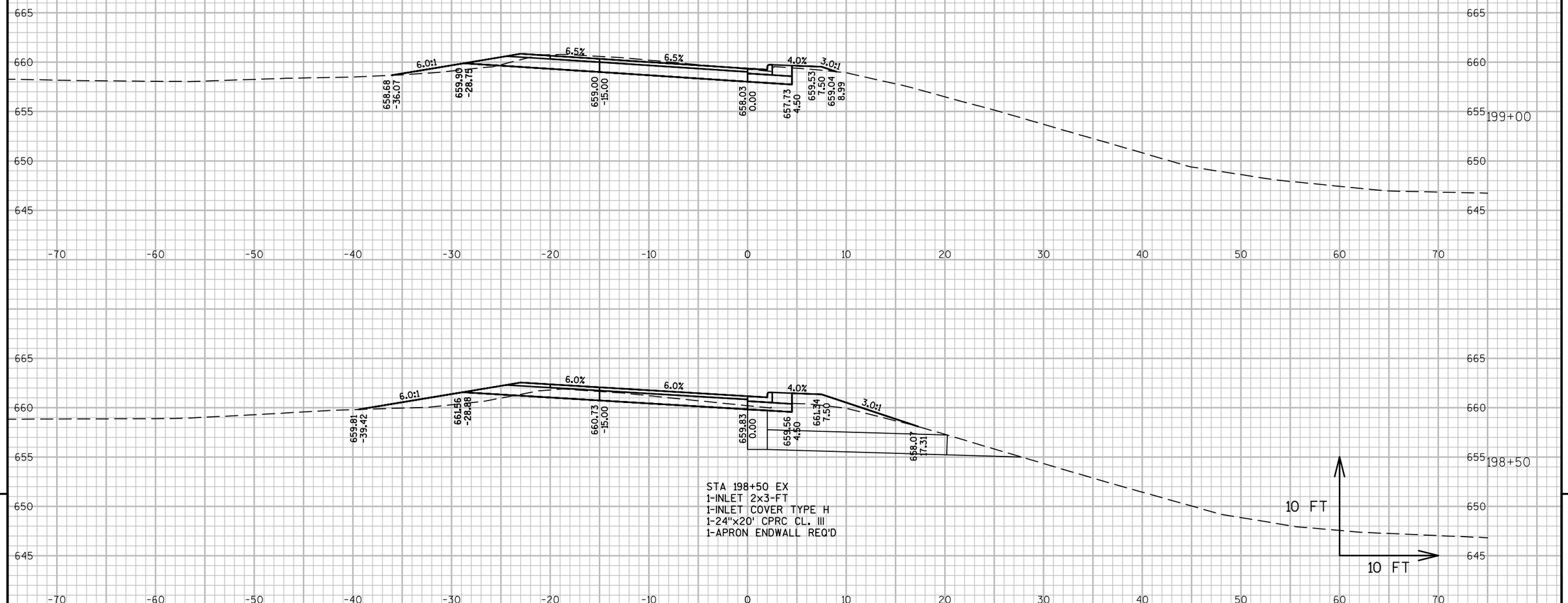
PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: EX TEMPORARY	SHEET 903	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPEXRAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPEXRAMP - 090203_XSEX

PLOT DATE : 7/29/2015 5:04 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

STA 199+25 EX
MATCH EXISTING



STA 198+50 EX
1-INLET 2x3-FT
1-INLET COVER TYPE H
1-24"x20' CPRC CL. III
1-APRON ENDWALL REQ'D

9 9

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: EX TEMPORARY	SHEET 904	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPEXRAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPEXRAMP - 090204_XSEX
PLOT DATE : 9/14/2015 9:42 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

MATCH PROPOSED
F RAMP PAVEMENT

202+00

6.0%
4.0:1
3.0:1
666.67 -15.00
665.77 0.00
664.87 15.02
663.62 20.00
640.27 90.06

201+50

6.0:1
4.0:1
6.0%
4.0:1
3.0:1
667.43 -28.31
666.81 -24.61
665.40 -15.00
664.50 0.00
663.60 15.02
662.35 20.00
640.60 85.25

201+00

4.0:1
6.0%
4.0:1
3.0:1
664.84 -27.87
664.99 -27.30
664.25 -15.00
663.35 0.00
662.45 15.02
661.17 20.12
640.26 82.85

20 FT
20 FT

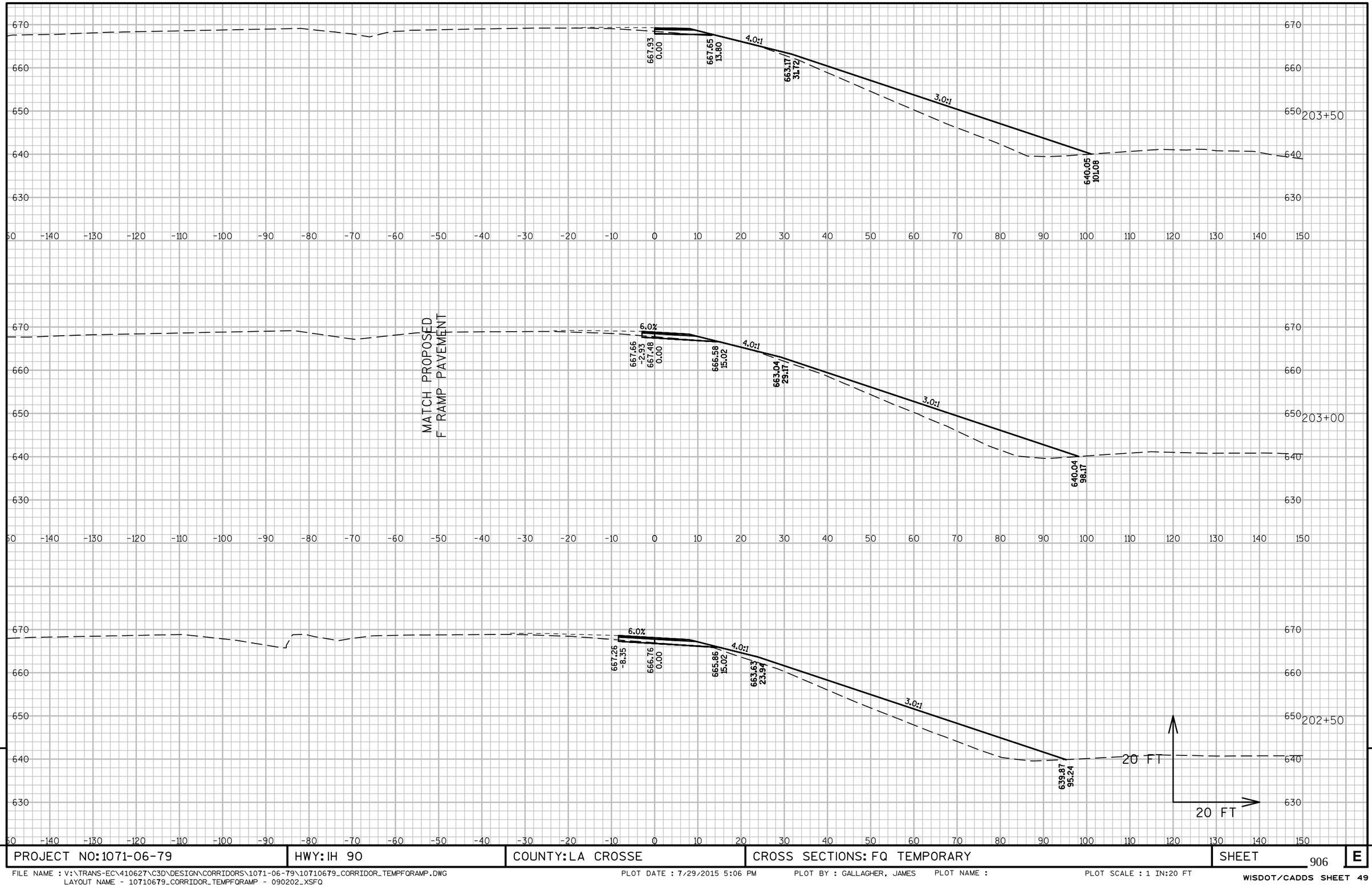
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9

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: FQ TEMPORARY	SHEET 905	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPFQRAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPFQRAMP - 090201_XSFQ

PLOT DATE : 7/29/2015 5:06 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

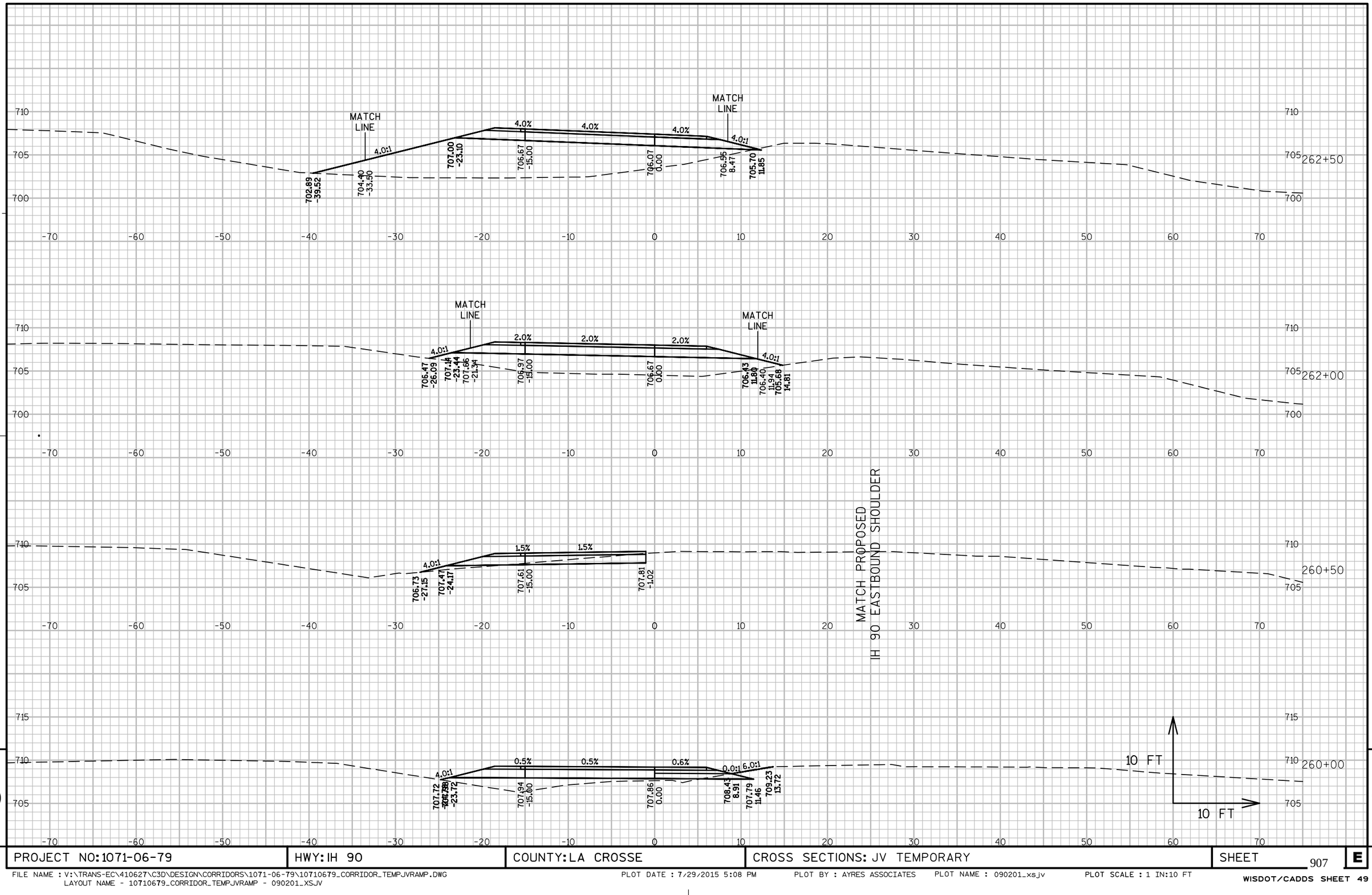
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PROJECT NO:1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: FQ TEMPORARY	SHEET 906	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPFQRAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPFQRAMP - 090202_XSFQ

PLOT DATE : 7/29/2015 5:06 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

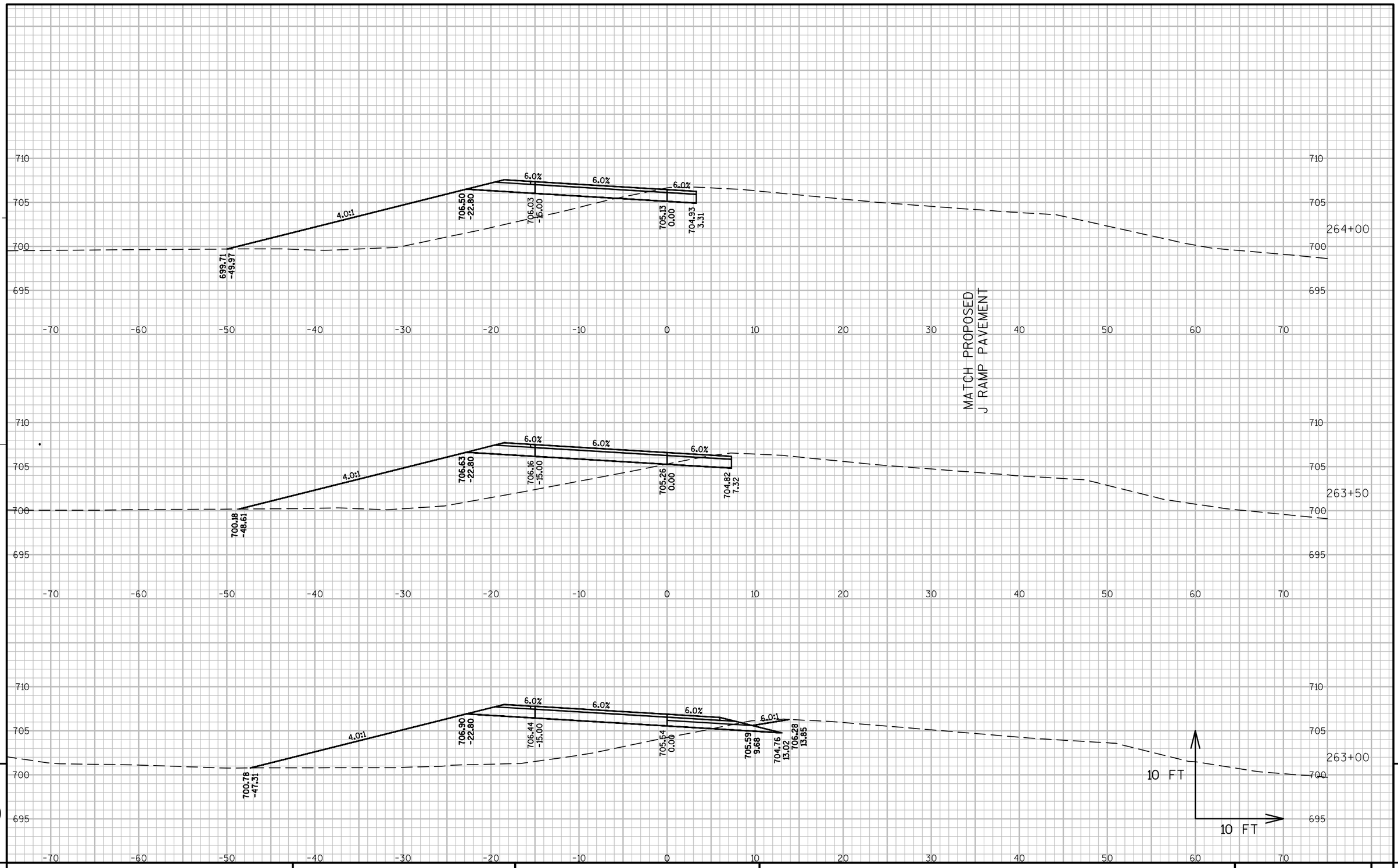


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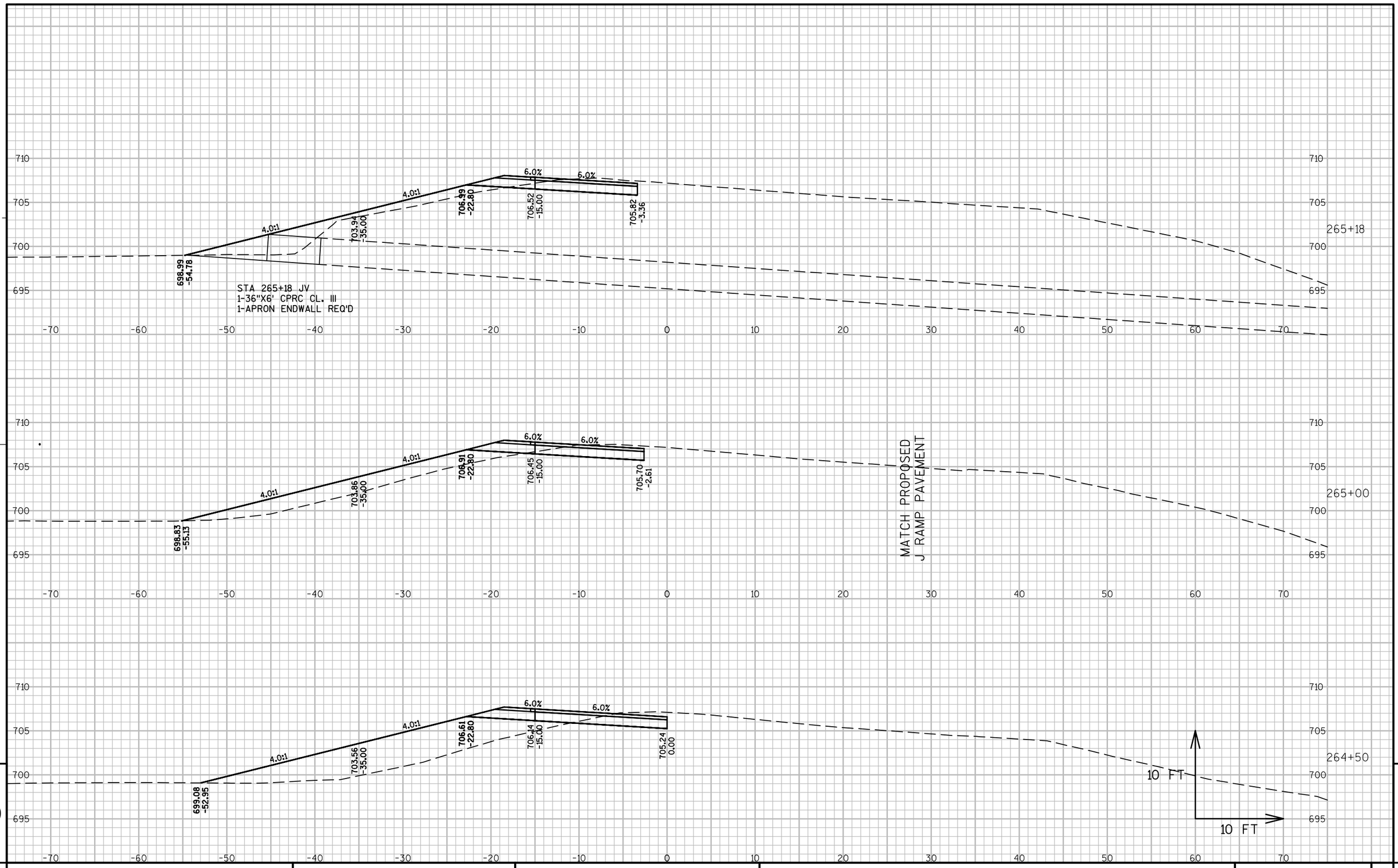
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PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: JV TEMPORARY	SHEET 907	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPJVRAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPJVRAMP - 090201_XSJV
PLOT DATE : 7/29/2015 5:08 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090201_xsjv PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

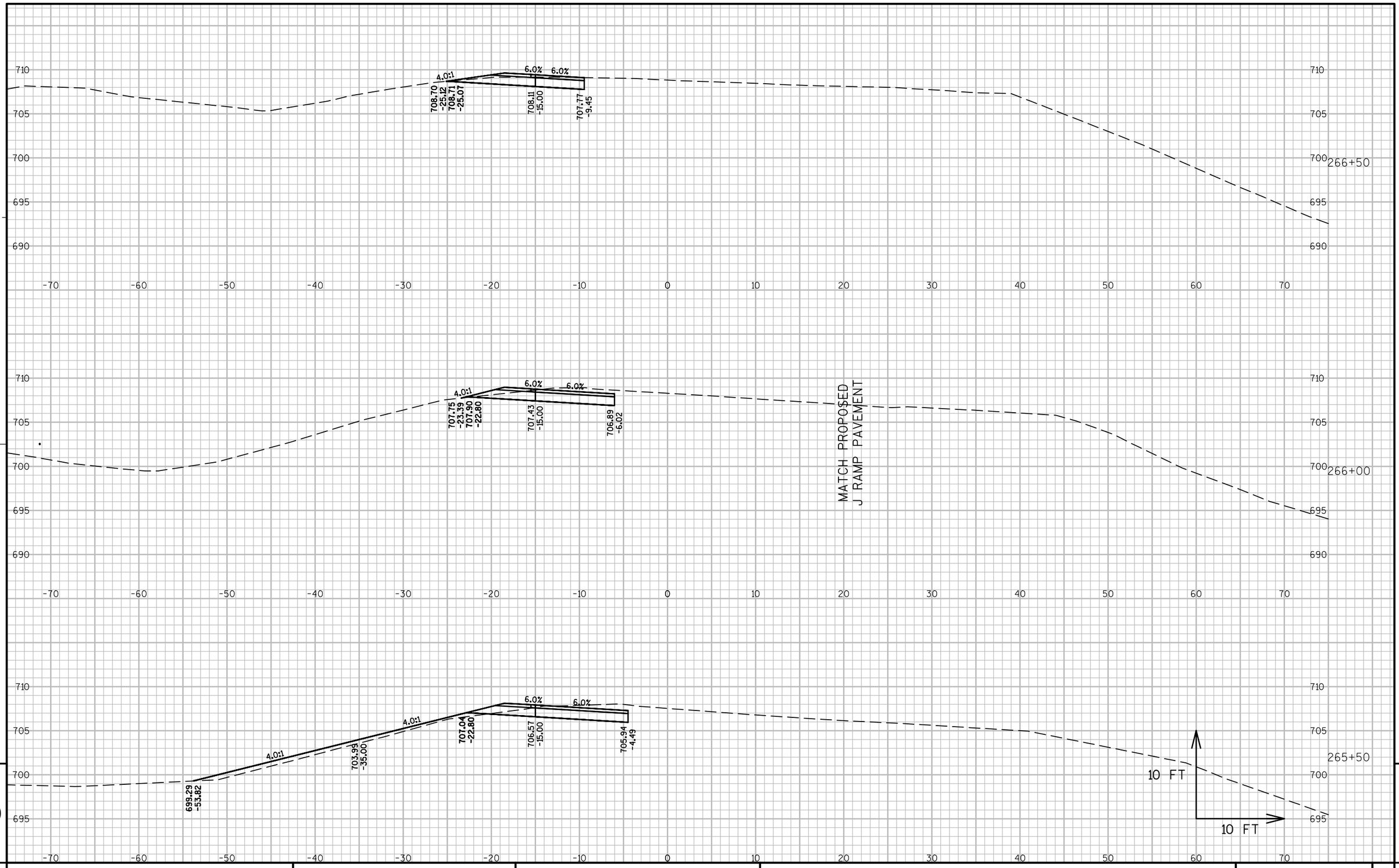


PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: JV TEMPORARY	SHEET 908	E



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: JV TEMPORARY	SHEET 909	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPJVRAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPJVRAMP - 090203_XSJV
PLOT DATE : 7/29/2015 5:09 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090203_xsjv PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

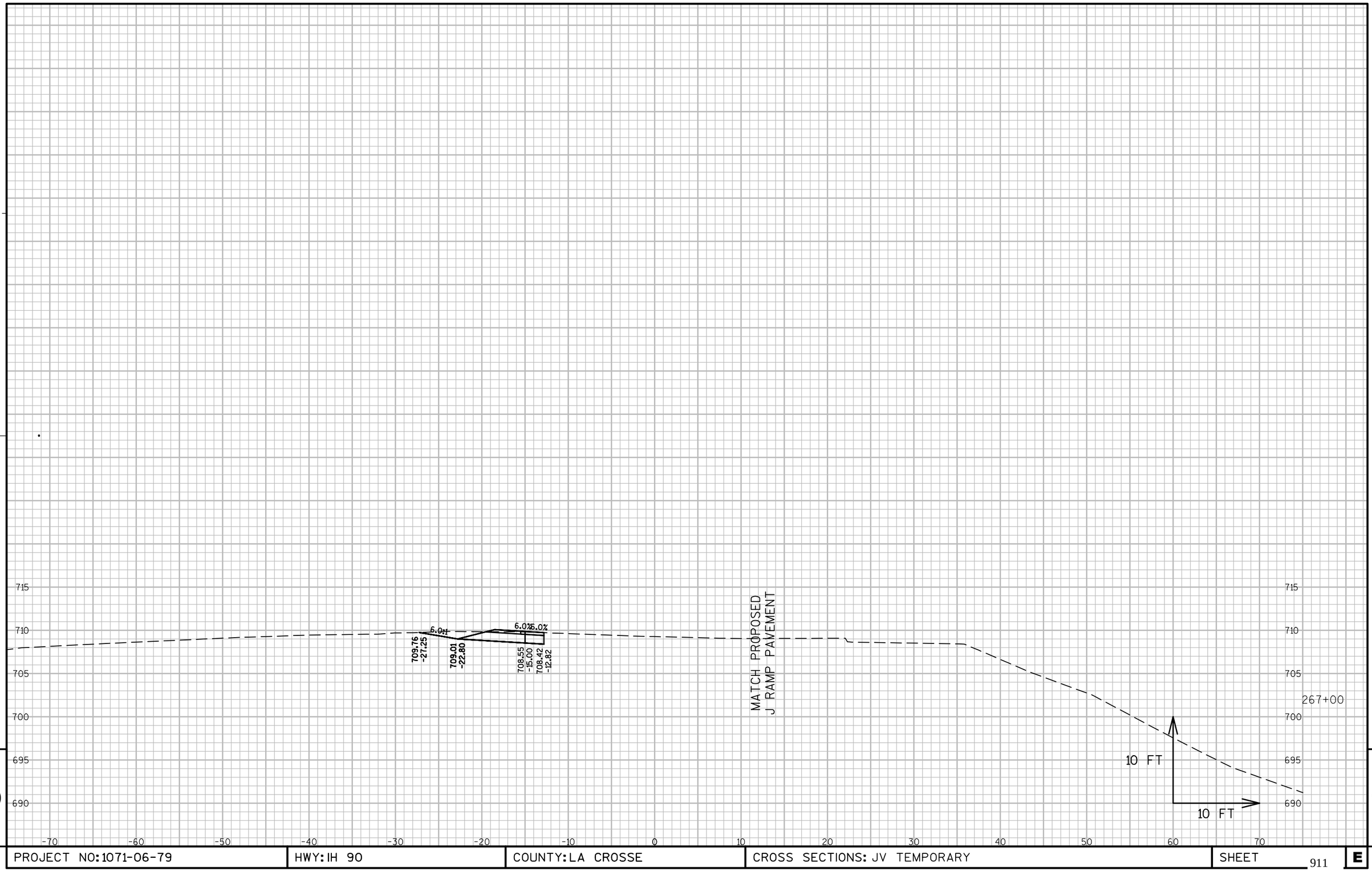


9

9

PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: JV TEMPORARY	SHEET 910	E

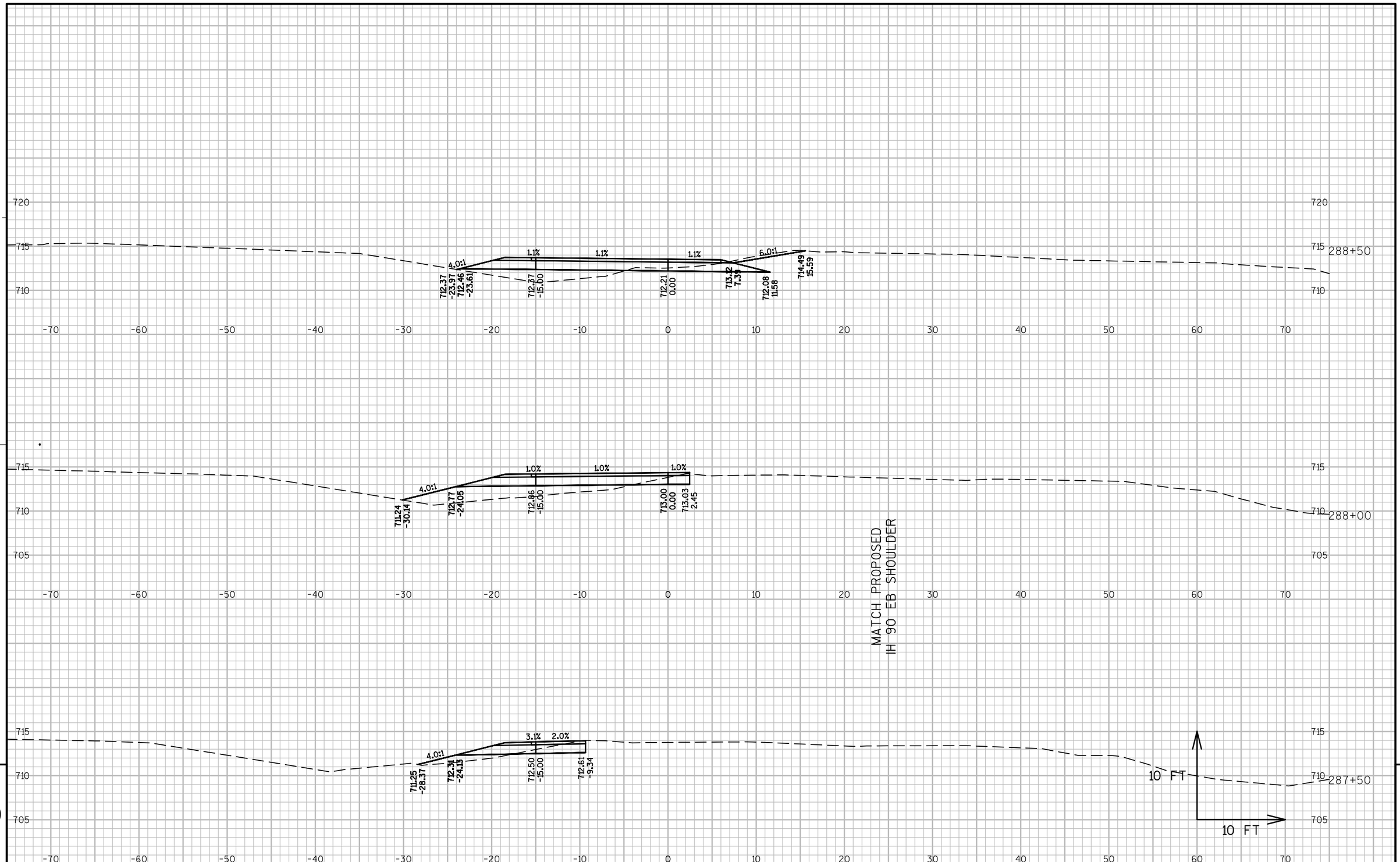
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LAYOUT NAME - 10710679_CORRIDOR_TEMPJVRAMP - 090204_XSJV
PLOT DATE : 7/29/2015 5:09 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090204_xsjv PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: JV TEMPORARY	SHEET 911	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPJVRAMP.DWG
LAYOUT NAME - 090205_XSJV

PLOT DATE : 7/29/2015 5:10 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090205_xsjv PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1071-06-79	HWY: IH 90	COUNTY: LA CROSSE	CROSS SECTIONS: KU TEMPORARY	SHEET 912	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\1071-06-79\10710679_CORRIDOR_TEMPKURAMP.DWG
LAYOUT NAME - 10710679_CORRIDOR_TEMPKURAMP - 090201_XSKU

PLOT DATE : 7/29/2015 5:12 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090201_xsku PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

LAX DECEMBER 2015

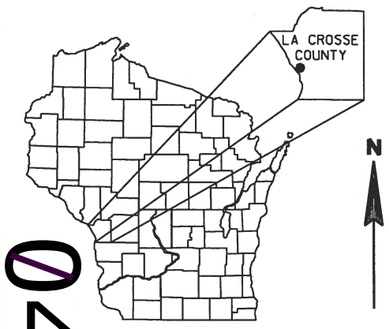
PROJECT ID: 7190-03-71
WITH: 1071-06-79/81

COUNTY: LA CROSSE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 412



04

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7190-03-71	WISC 2015638	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

LA CROSSE - TREMPEALEAU

(BN RR BRIDGE TO 2ND AVE SW/SB RDWY)

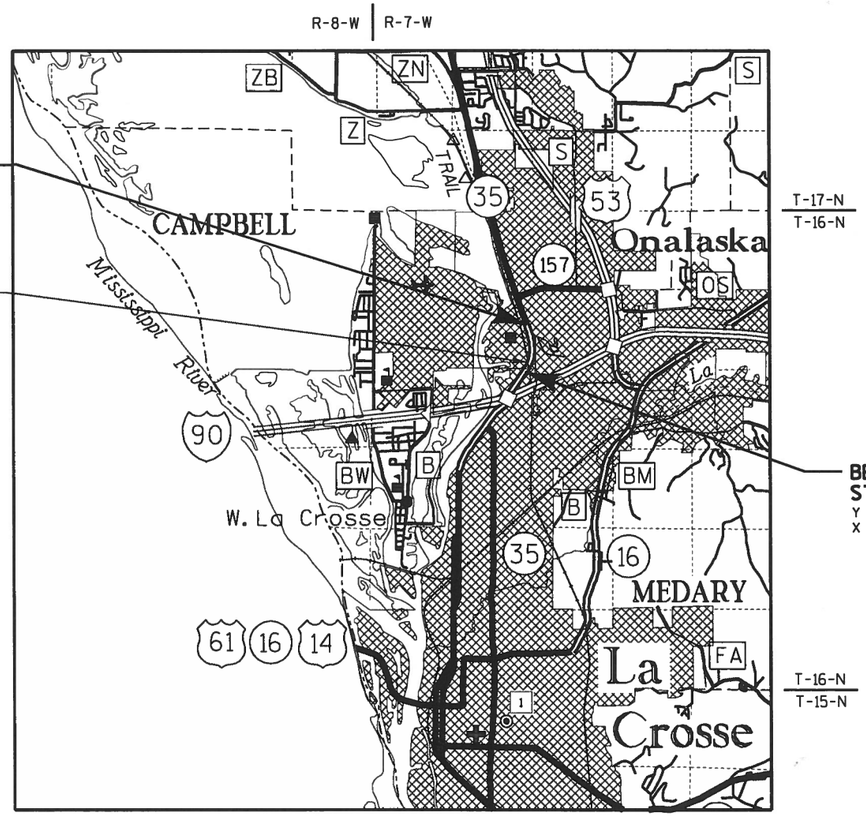
STH 35

LA CROSSE COUNTY

STATE PROJECT NUMBER
7190-03-71

END PROJECT 7190-03-71
STA 162+37.41 RN

STRUCTURE B-32-224
(STH 35 SB OVER BNRR)



BEGIN PROJECT 7190-03-71
STA 133+35.75 RN
Y 152598.88
X 450418.94

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.550 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), LACROSSE COUNTY.

DESIGN DESIGNATION — STH 35/ROSE ST

A.A.D.T. (2016)	=	22,500
A.A.D.T. (2036)	=	27,600
D.H.V.	=	---
D.D.	=	50/50
T.	=	6.0%
DESIGN SPEED	=	30/45 MPH
ESALS	=	5,175,700

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES

WISCONSIN
MARK R. PETERSEN
E-36785
EAU CLAIRE
WI
PROFESSIONAL ENGINEER

DATE: 7/28/15

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT / K SINGH
Designer	AYRES ASSOCIATES
Project Manager	ANTHONY VANDER WIELEN
Regional Examiner	ANTHONY VANDER WIELEN
Regional Supervisor	JOE GREGAS

APPROVED FOR THE DEPARTMENT
DATE: 7-29-2015 (Signature)

E

2

UTILITIES

XCEL ENERGY - ELECTRIC DISTRIBUTION
3215 COMMERCE STREET
LA CROSSE, WI 54603
ATTN: SCOTT ROBERTS
OFFICE: (608) 789-3625
CELL: (608) 518-0806
scott.w.roberts@xcelenergy.com

XCEL ENERGY - NATURAL GAS
3215 COMMERCE STREET
LA CROSSE, WI 54603
ATTN: ED PRZYTARSKI
OFFICE: (608) 789-3631
CELL: (608) 780-0151
edward.r.przytarski@xcelenergy.com

XCEL ENERGY - ELECTRICAL TRANSMISSION
414 NICOLLET MALL
MINNEAPOLIS, MN 55401
ATTN: BRUCE ZEMKE
OFFICE: (612) 330-7815
CELL: (651) 214-2620
bruce.m.zemke@xcelenergy.com

CENTURYLINK - COMMUNICATION LINE
333 NORTH FRONT STREET
LA CROSSE, WI 54601
ATTN: TOM MURRAY
OFFICE: (608) 796-7869
CELL: (608) 780-0865
tom.l.murray@centurylink.com

CHARTER COMMUNICATIONS - COMMUNICATION LINE
1228 12TH AVENUE SOUTH
ONALASKA, WI 54650
ATTN: PERRY MCCLELLAN
(715) 370-7140
perry.mcclellan@charter.com

CITY OF ONALASKA - WATER, SANITARY & STORM SEWER
415 MAIN STREET
ONALASKA, WI 54650
ATTN: STEVE JACKSON
OFFICE: (608) 781-9545
CELL: (608) 780-1024
sjackson@cityofonalaska.com

* NOT A MEMBER OF DIGGERS HOTLINE

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

ENVIRONMENTAL COORDINATOR

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
LA CROSSE SERVICE CENTER
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
ATTN: KAREN KALVELAGE
(608) 785-9115
karen.kalvelage@wisconsin.gov

RAILROAD COORDINATOR

BNSF RAILWAY COMPANY
80-44TH AVENUE NE
MINNEAPOLIS, MN 55421
ATTN: CALVIN NUTT
(763) 782-3495
calvin.nutt@bnsf.com

AIRPORT COORDINATOR

4802 SHEBOYGAN AVENUE 701
MADISON, WI 53705
ATTN: WENDY A HOTTENSTEIN
(608) 261-6278
wendy.hottenstein@dot.wi.gov

WDOT SIGNAL COORDINATOR

SOUTHWEST REGION - LA CROSSE OFFICE
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
ATTN: ANDREW WINGA
(608) 785-9061
andrew.winga@dot.wi.gov

DOT CONTACT

SOUTHWEST REGION - LA CROSSE OFFICE
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
ATTN: ANTHONY VANDER WIELEN, PE - PROJECT MANAGER
(608) 789-7878
anthony.vanderwielen@dot.wi.gov

DESIGN CONTACT

AYRES ASSOCIATES
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: MARK PETERSEN, PE
(715) 831-3161
petersenm@ayresassociates.com

GENERAL NOTES

REMOVALS
NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

DRAINAGE
PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

GRADING/EROSION CONTROL
EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION. THE LOCATION FOR EBS WILL BE DETERMINED BY THE ENGINEER.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS.

BROKEN CONCRETE CONTAINING REBAR SHALL NOT BE USED AS RIPRAP OR RIPRAP HEAVY.

SEED, INSTALL EROSION MAT, AND FERTILIZE ALL SALVAGED TOPSOILED AREAS WITHIN 7 WORKING DAYS AFTER GRADING WORK IS COMPLETED.

DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A WATER BODY OR WETLAND.

MISCELLANEOUS
A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT THAT ARE NOT SHOWN.

STATIONING, DISTANCES, AND OFFSETS FOR SIGNS SHOWN IN THE PLANS ARE APPROXIMATE AND THE FINAL LOCATION OF SIGNS ARE TO BE DETERMINED BY THE ENGINEER.

SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER ITEMS TRAFFIC CONTROL COVERING SIGNS TYPE I OR TRAFFIC CONTROL COVERING SIGNS TYPE II.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

EXISTING ELEVATIONS SHALL BE VERIFIED IN THE FIELD.

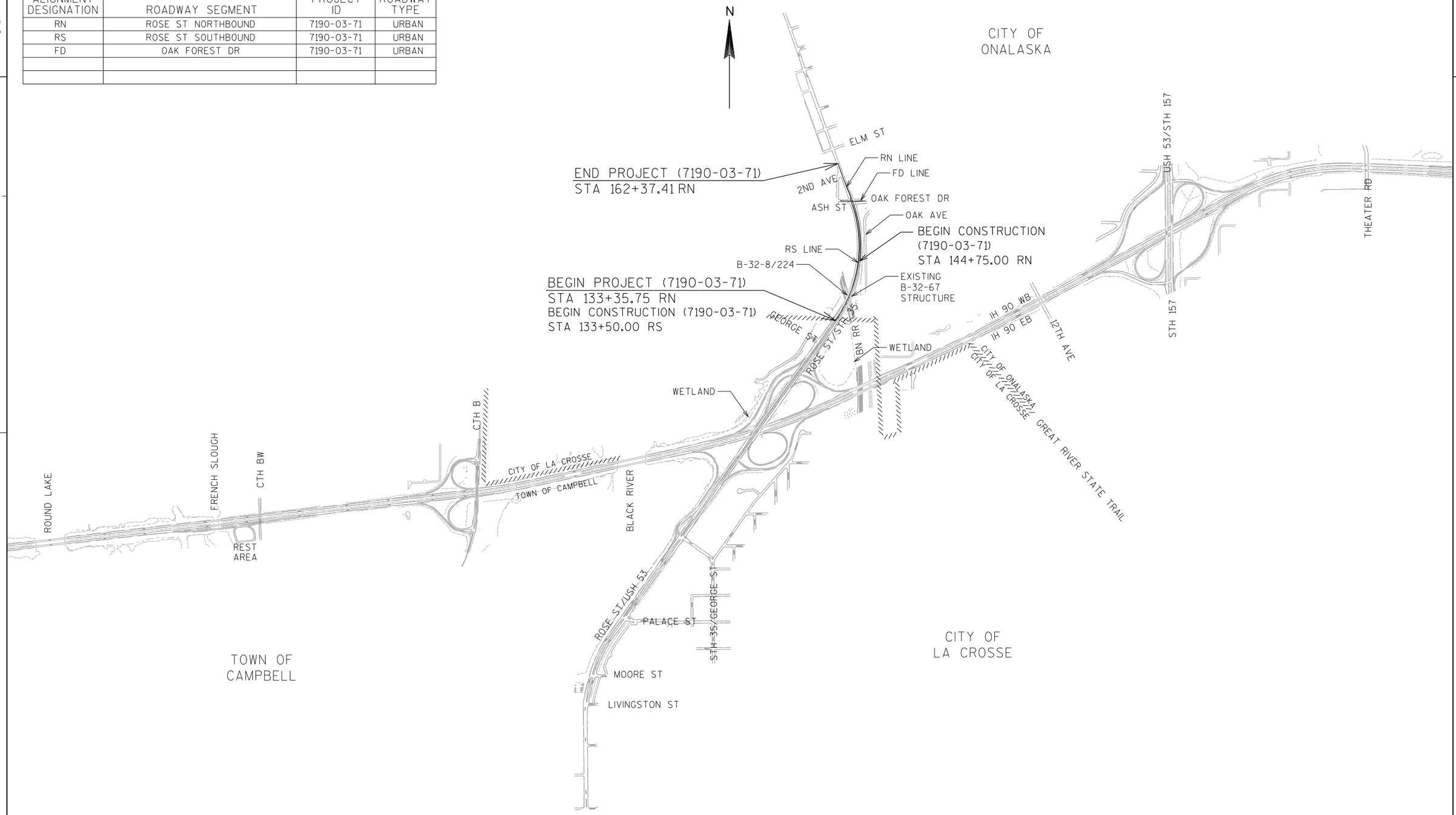
ASPHALTIC SURFACE TEMPORARY SHALL BE CONSTRUCTED IN A SINGLE LAYER.

ORDER OF SECTION 2 DETAIL SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAIL
EROSION CONTROL
STORM SEWER PLAN
PERMANENT SIGNING
TRAFFIC SIGNAL PLAN
PAVEMENT MARKING
TRAFFIC CONTROL
DETOUR ROUTE
SUPERELEVATION TABLES
ALIGNMENT DIAGRAM

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\oa_0371_020101_gn.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:200
WISDOT/CADDS SHEET 42

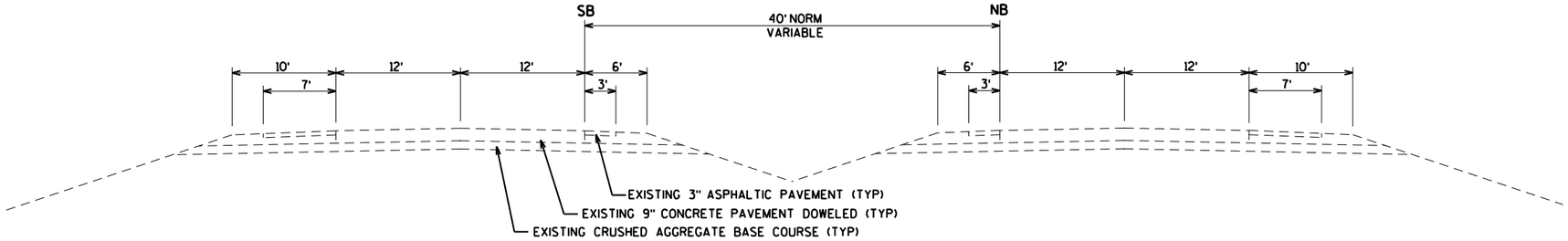
ALIGNMENT DESIGNATION	ROADWAY SEGMENT	PROJECT ID	ROADWAY TYPE
RN	ROSE ST NORTHBOUND	7190-03-71	URBAN
RS	ROSE ST SOUTHBOUND	7190-03-71	URBAN
FD	OAK FOREST DR	7190-03-71	URBAN



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PROJECT OVERVIEW	SHEET 3	E

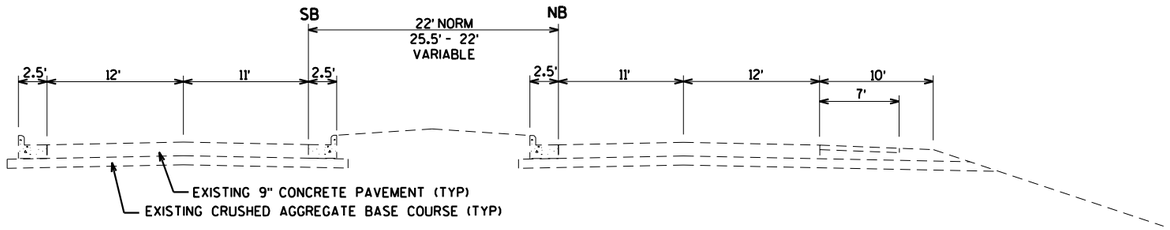
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WISDOT/CADDS SHEET 42



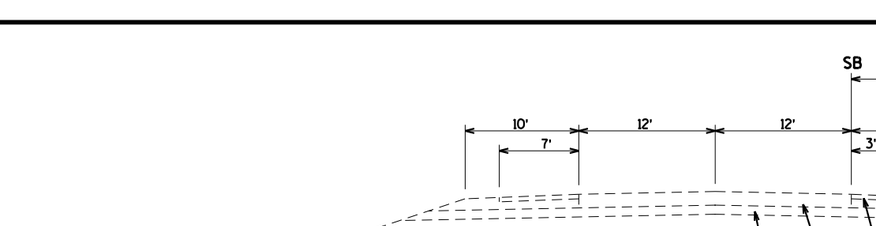
TYPICAL EXISTING SECTION - ROSE ST/STH 35

STA 133+50.00 RS - STA 137+00.00 RN



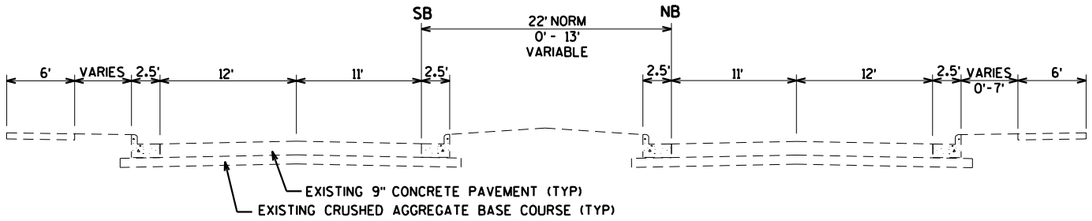
TYPICAL EXISTING SECTION - ROSE ST/STH 35

STA 137+00.00 RN - STA 143+33.00 RN



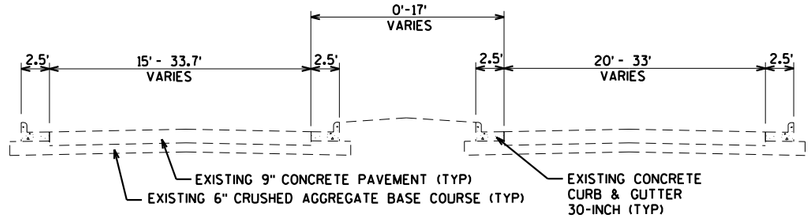
TYPICAL EXISTING SECTION - ROSE ST/STH 35

STA 143+33.00 RN - STA 156+00.00 RN

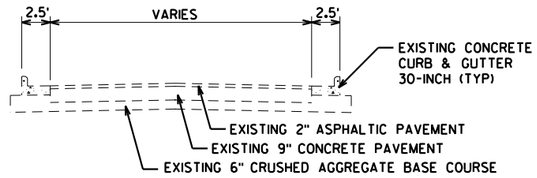


TYPICAL EXISTING SECTION - ROSE ST/STH 35

STA 156+00.00 RN - STA 162+37.41 RN

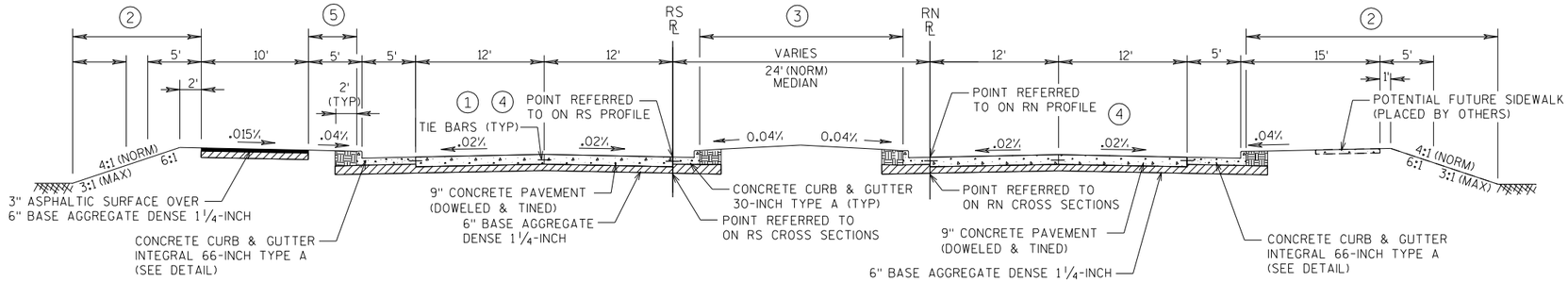


TYPICAL EXISTING SECTION - OAK FOREST DR/ASH ST



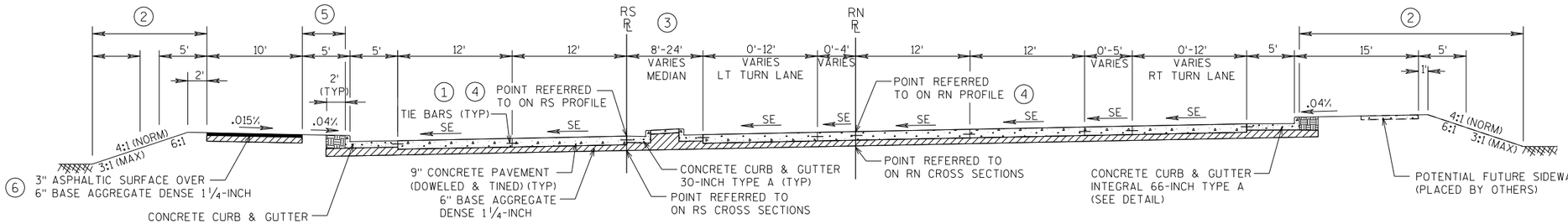
TYPICAL EXISTING SECTION - 2ND AVE SW

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LACROSSE	TYPICAL SECTIONS - EXISTING	SHEET 4	E



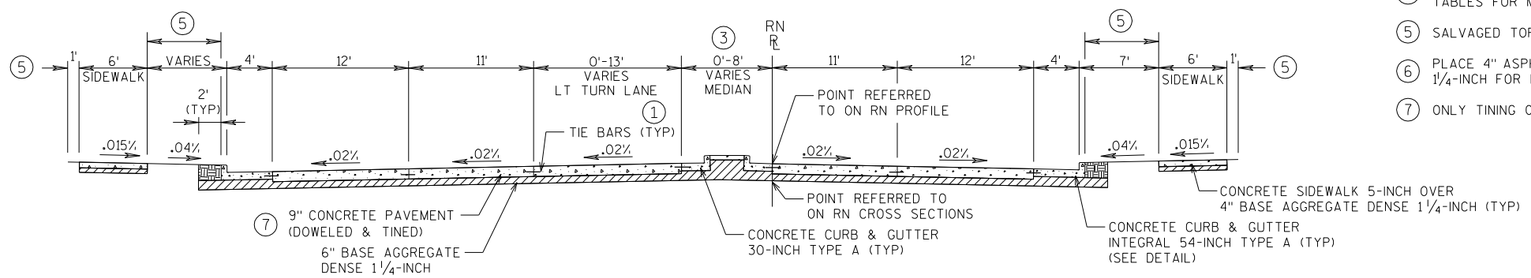
TYPICAL FINISHED SECTION - ROSE STREET

STA 133+50.00 RS - STA 149+38.57 RN (SB LANES)
STA 144+75.00 RN - STA 149+38.57 RN (NB LANES)



TYPICAL FINISHED SECTION - ROSE STREET

STA 149+38.57 RN - STA 155+00.00 RN



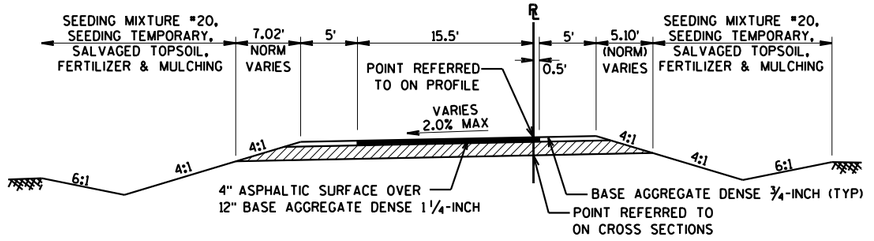
TYPICAL FINISHED SECTION - ROSE STREET

STA 155+00.00 RN - STA 162+37.41 RN

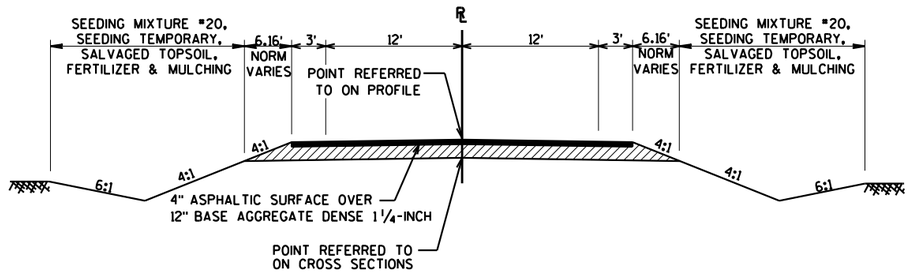
1. TIE BARS ARE INCIDENTAL TO CONCRETE PAVEMENT (UNLESS DRILLED INTO EXISTING PAVEMENT)
2. SALVAGED TOPSOIL, SEED, TEMPORARY SEED & MULCH
3. SALVAGED TOPSOIL & LAWN SOD IN AREAS WHERE MEDIAN WIDTH IS GREATER THAN 10', 4-INCH CONCRETE SIDEWALK IN AREAS WHERE MEDIAN IS LESS THAN 10'
4. SUPERELEVATED IN HORIZONTAL CURVE (SEE SUPERELEVATION TABLES FOR MORE INFORMATION)
5. SALVAGED TOPSOIL & LAWN SOD
6. PLACE 4" ASPHALTIC SURFACE OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH FOR DRIVEWAY OPENINGS
7. ONLY TINING OF CONCRETE SOUTH OF 2ND AVENUE SW

NOTE:
USE ROSE STREET PAVEMENT STRUCTURE ON OAK FOREST DRIVE, ASH STREET, AND 2ND AVENUE SW. SEE INTERSECTION DETAIL FOR LAYOUTS.

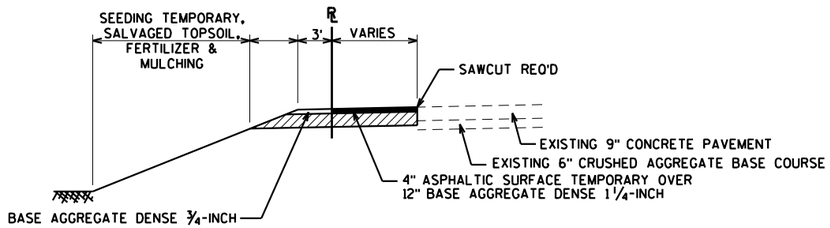
PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TYPICAL SECTIONS	SHEET 5	E



TYPICAL FINISHED SECTION
NEW SB X-OVER TO NEW NB

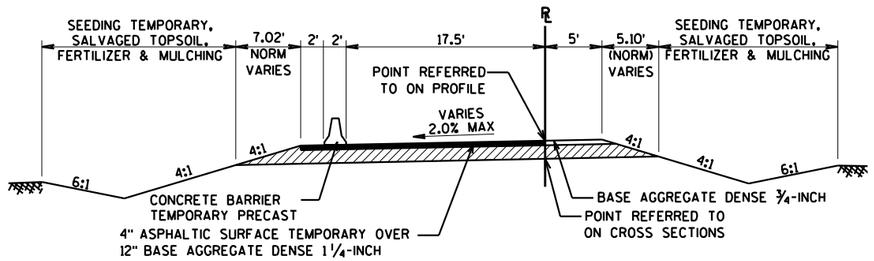


TYPICAL FINISHED SECTION - 'RX' LINE
TEMPORARY SB CONNECTION

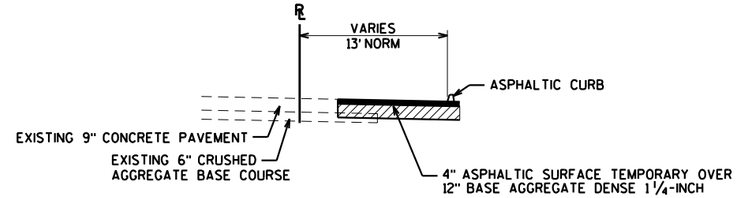


TYPICAL FINISHED SECTION - 'TO' TEMPORARY WIDENING

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TYPICAL SECTIONS - TEMPORARY	SHEET 6	E

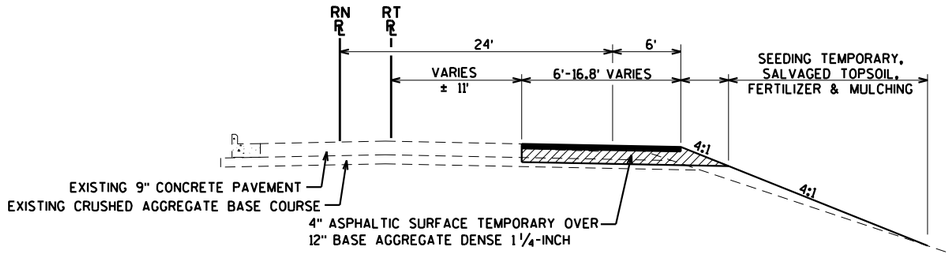


TYPICAL FINISHED SECTION - 'RT' CROSSOVER



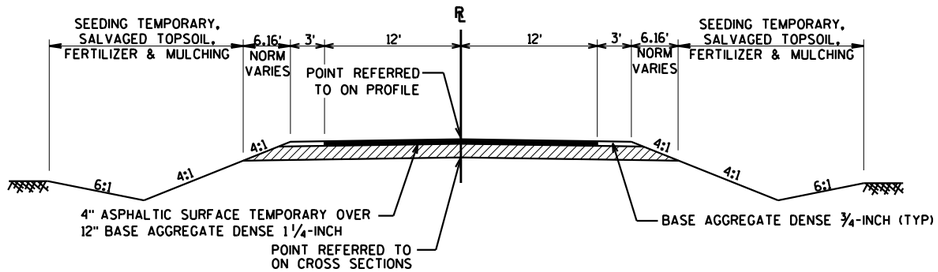
TYPICAL FINISHED SECTION - 'RT' TEMPORARY WIDENING

STA 155+50.00 RT - STA 163+95.00 RT



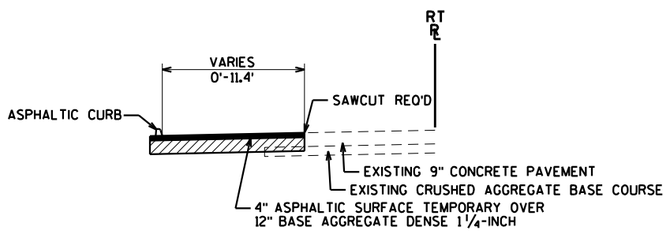
TYPICAL FINISHED SECTION - 'RT' TEMPORARY WIDENING

STA 140+40.00 RT - STA 143+56.00 RT



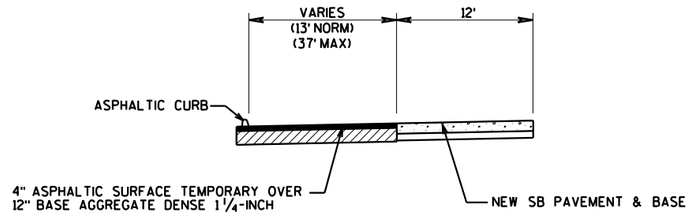
TYPICAL FINISHED SECTION - 'RU' CROSSOVER

(PARTIALLY BUILD OFF THE 'RT' ALIGNMENT IN STAGE 1)



TYPICAL FINISHED SECTION - 'RT' TEMPORARY WIDENING

STA 148+76.00 RT - STA 154+87.00 RT



TYPICAL FINISHED SECTION - 'RU' TEMPORARY WIDENING

STA 157+00.00 RU - STA 164+18.00 RU

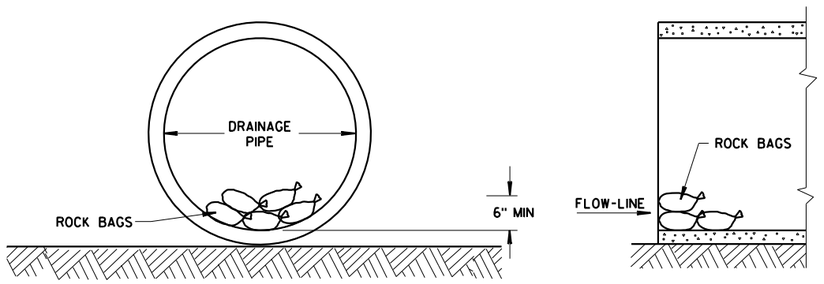
(BUILD IN THE SB X-SECTIONS)

2

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

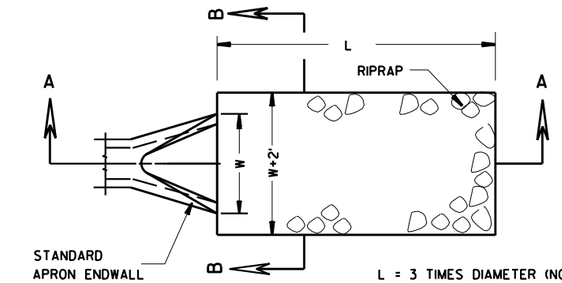
TOTAL PROJECT AREA = 16.42 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 7.99 ACRES



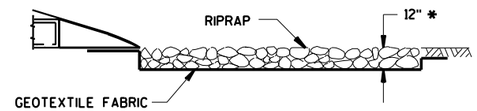
FRONT VIEW

SECTION VIEW

CULVERT PIPE CHECKS
(PLACE AT ALL INLET ENDS OF ALL PIPES)

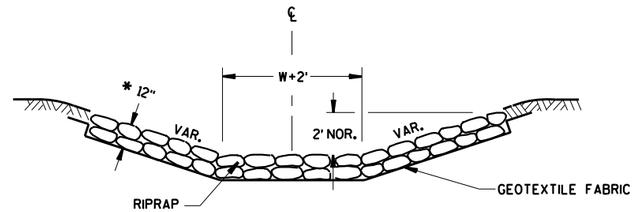


L = 3 TIMES DIAMETER (NOR.) OR 10' MIN. OR AS DIRECTED BY THE ENGINEER



SECTION A-A

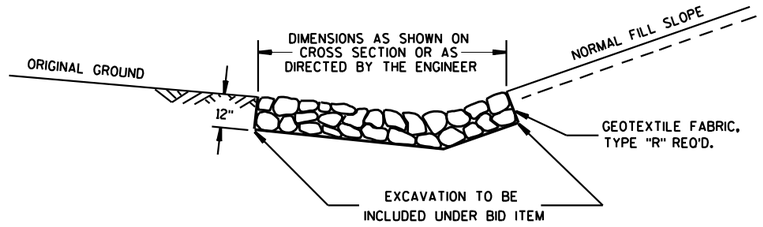
* USE 1' MIN DEPTH FOR RIPRAP LIGHT
USE 2' MIN DEPTH FOR RIPRAP HEAVY



SECTION B-B

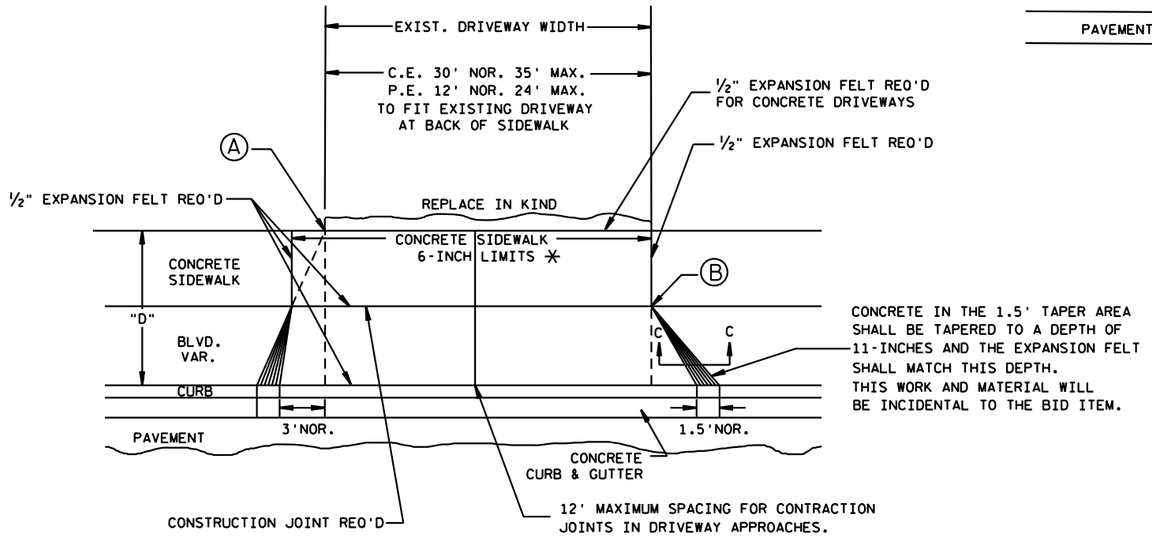
RIPRAP AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS

NOTE: SEE MISCELLANEOUS QUANTITIES FOR TYPE OF RIPRAP AND GEOTEXTILE FABRIC TO BE USED.



DETAIL FOR RIPRAP IN DITCHES

2



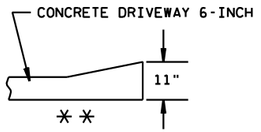
CONCRETE IN THE 1.5' TAPER AREA SHALL BE TAPERED TO A DEPTH OF 11-INCHES AND THE EXPANSION FELT SHALL MATCH THIS DEPTH. THIS WORK AND MATERIAL WILL BE INCIDENTAL TO THE BID ITEM.

PLAN VIEW

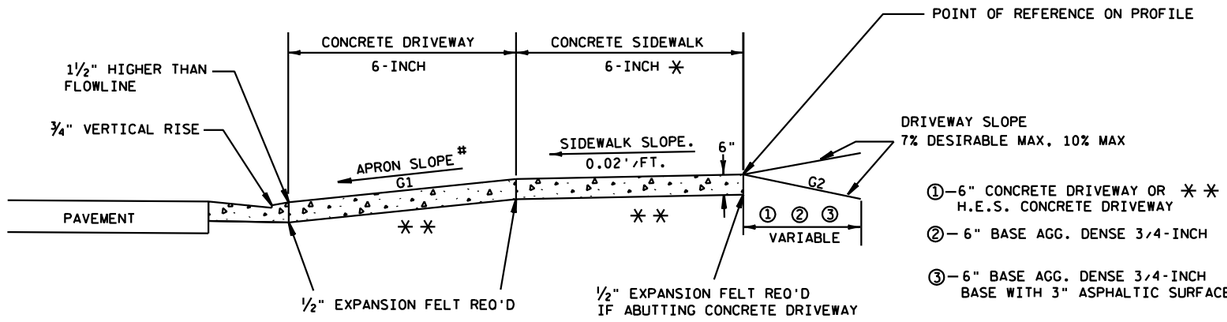
Ⓐ WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK

Ⓑ WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK

✳ = PAID FOR AS CONCRETE DRIVEWAY 6-INCH



SECTION C-C



TYPICAL SIDEWALK SECTION

✳ = PAID FOR AS CONCRETE DRIVEWAY 6-INCH

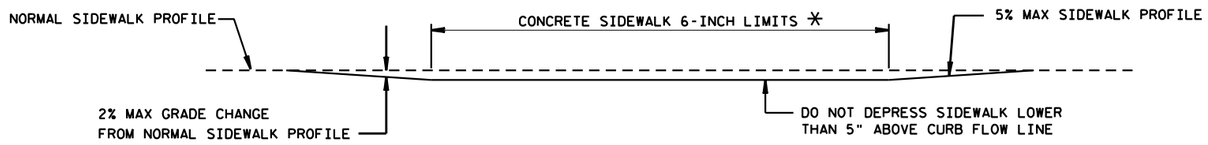
✳✳ = 6" BASE AGG. DENSE 3/4-INCH REQ'D UNDER CONCRETE DRIVEWAY

\#

TERRACE WIDTH	APRON SLOPE (G1) MIN %	DESIRABLE %	MAX %
3 FT	7.0	8.5	9.0
4 FT	5.0	7.0	9.0
5 FT	4.0	7.0	9.0
6 FT	4.0	7.0	9.0
7 FT	3.5	7.0	9.0
8 FT	3.0	7.0	9.0

NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%

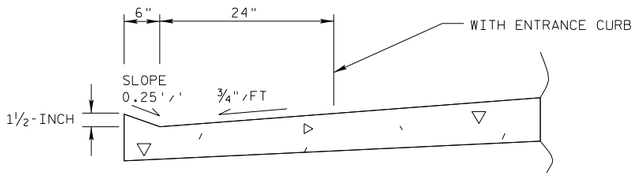
DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE

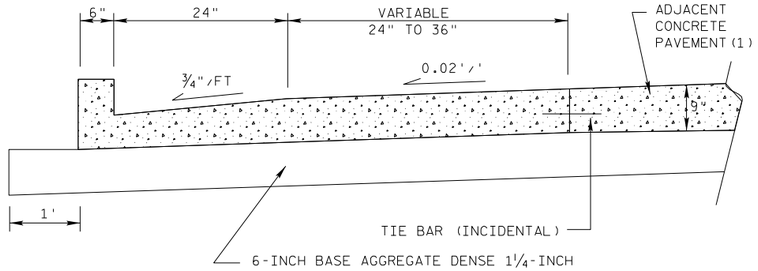


DEPRESSED SIDEWALK PROFILE DETAIL

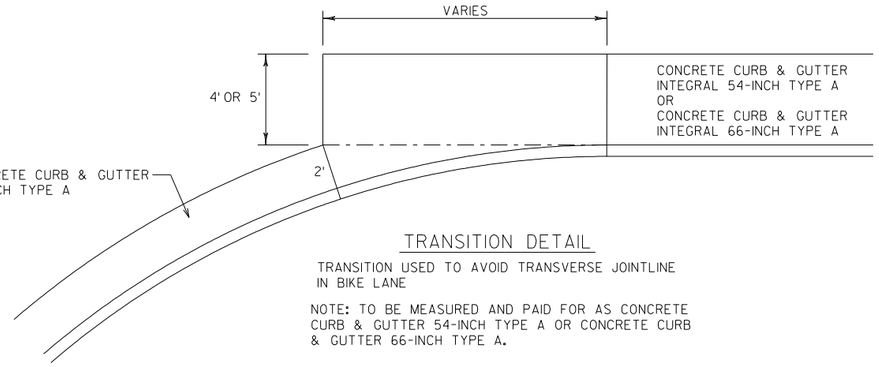
✳ = PAID FOR AS CONCRETE DRIVEWAY 6-INCH

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER





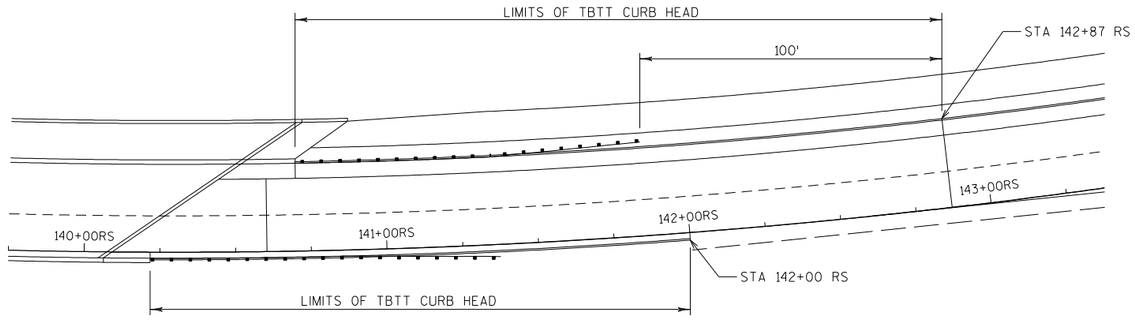
NOTES:
(1) CONCRETE CURB AND GUTTER IS TO BE CONSTRUCTED WITH A UNIFORM THICKNESS OF 9-INCHES OR EQUIVALENT ADJACENT PAVEMENT THICKNESS.
(2) NO LONGITUDINAL JOINT LINE WITHIN GUTTER SECTION
(3) SEE SDD "CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES" FOR MORE DETAIL ON CURB HEAD LAYOUT.



TRANSITION DETAIL

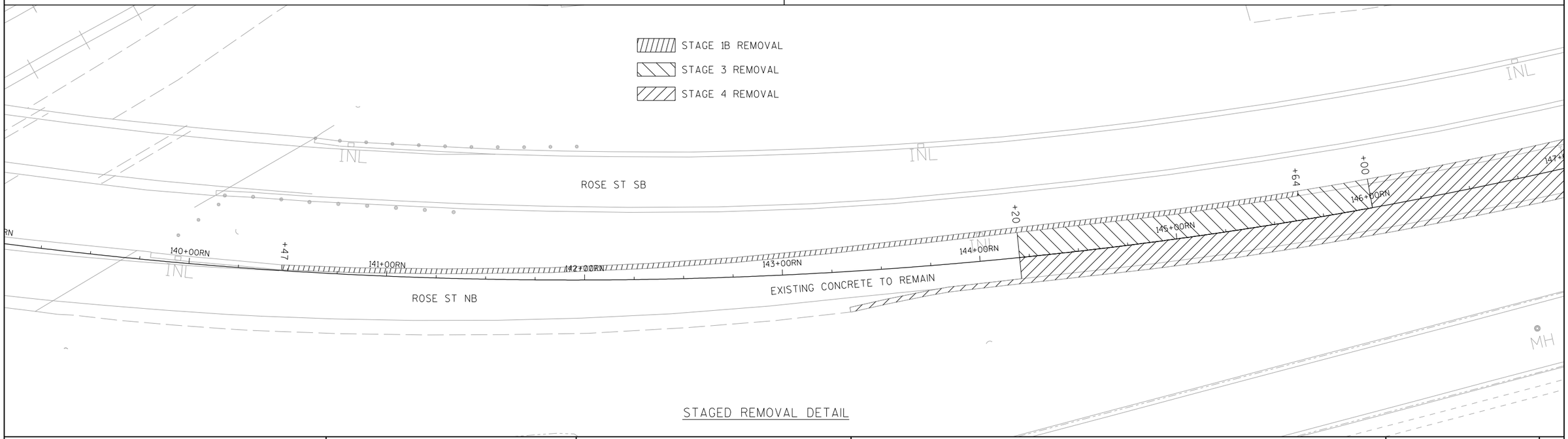
TRANSITION USED TO AVOID TRANSVERSE JOINTLINE IN BIKE LANE

NOTE: TO BE MEASURED AND PAID FOR AS CONCRETE CURB & GUTTER 54-INCH TYPE A OR CONCRETE CURB & GUTTER 66-INCH TYPE A.



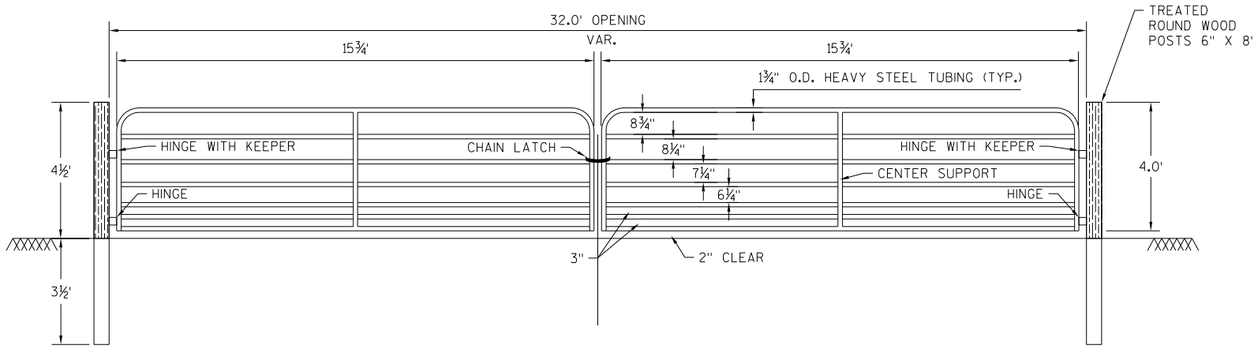
LIMITS OF TBTT CURB DETAIL

PAID FOR AS CONCRETE CURB AND GUTTER INTEGRAL 66-INCH TYPE A

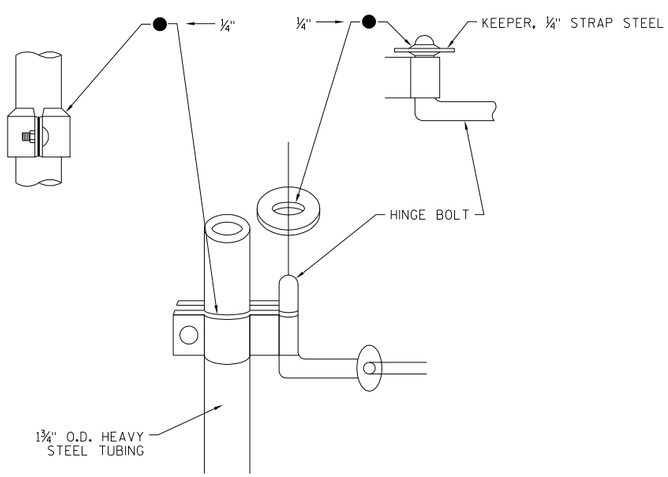


STAGED REMOVAL DETAIL

2



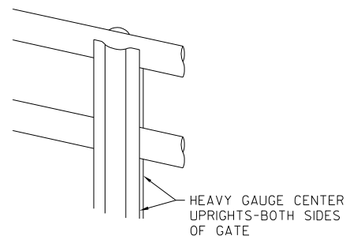
DETAIL FOR
TEMPORARY ACCESS GATES



DETAIL FOR
WRAP-AROUND HINGE

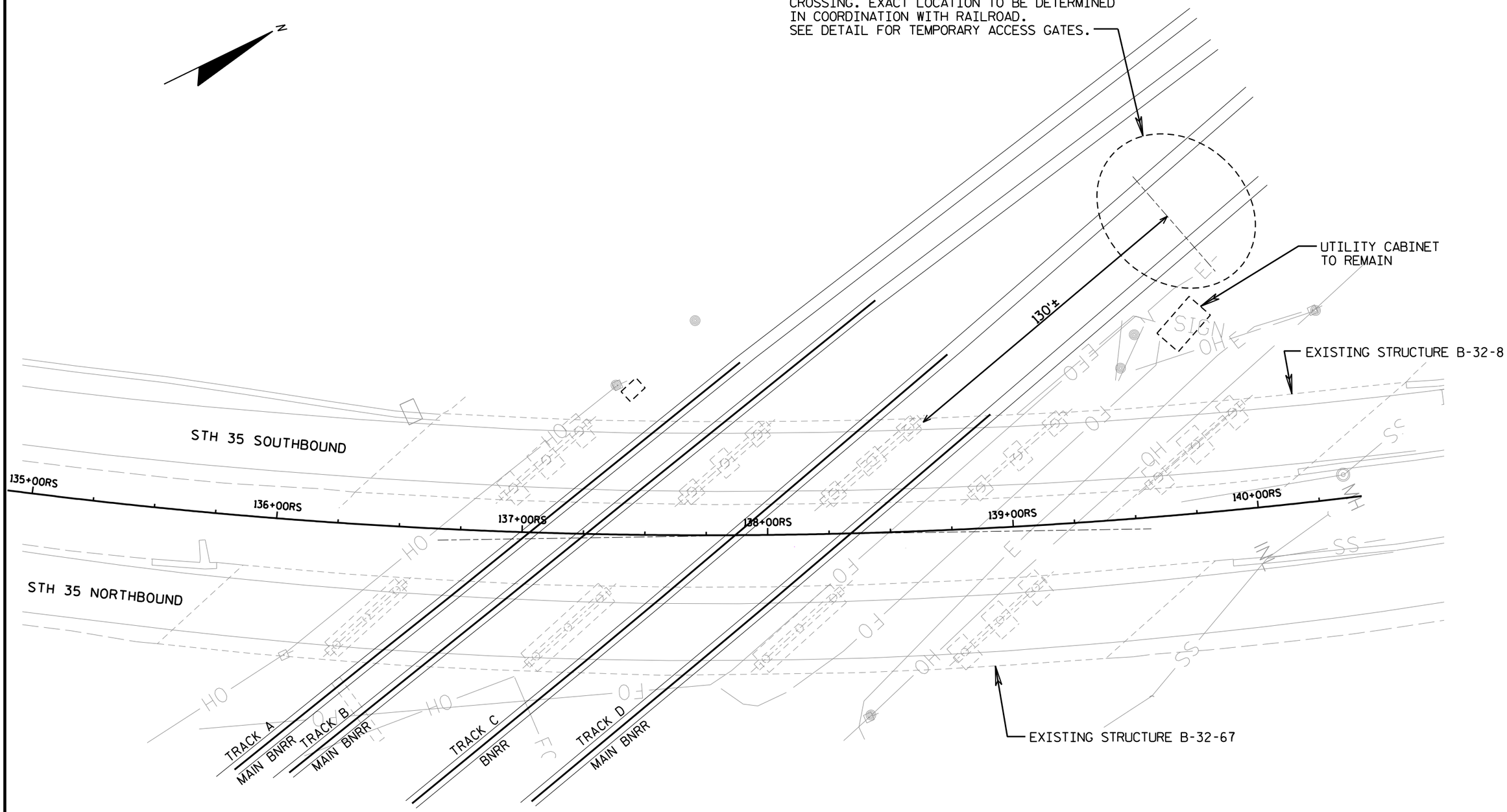
GENERAL NOTES:

1. KEEPER TO BE ATTACHED TO TOP HINGE OF EACH GATE ONLY.
2. KEEPER SHALL BE FITTED AFTER THE GATE IS HUNG IN PLACE.
3. KEEPER TO BE OF SUCH DIMENSIONS TO PROVIDE CLEARANCE FOR LATERAL SWING.
4. DRILL HOLE IN KEEPER OF SUFFICIENT DIAMETER TO PROVIDE SNUG FIT OVER HINGE BOLT.
5. EXACT LOCATION OF GATE TO LINE UP WITH TEMPORARY RAILROAD CROSSING.
6. A 1"X4' LONG STEEL REINFORCEMENT ROD SHALL BE EMBEDDED 3' INTO THE GROUND AT EACH GATE TO PREVENT THE GATES FROM SWINGING TOWARDS THE TRACKS.
7. CHAIN OR CABLE TO BE PROVIDED.
8. LOCKS TO BE PROVIDED BY RAILROAD.



DETAIL FOR
CENTER SUPPORTS

2

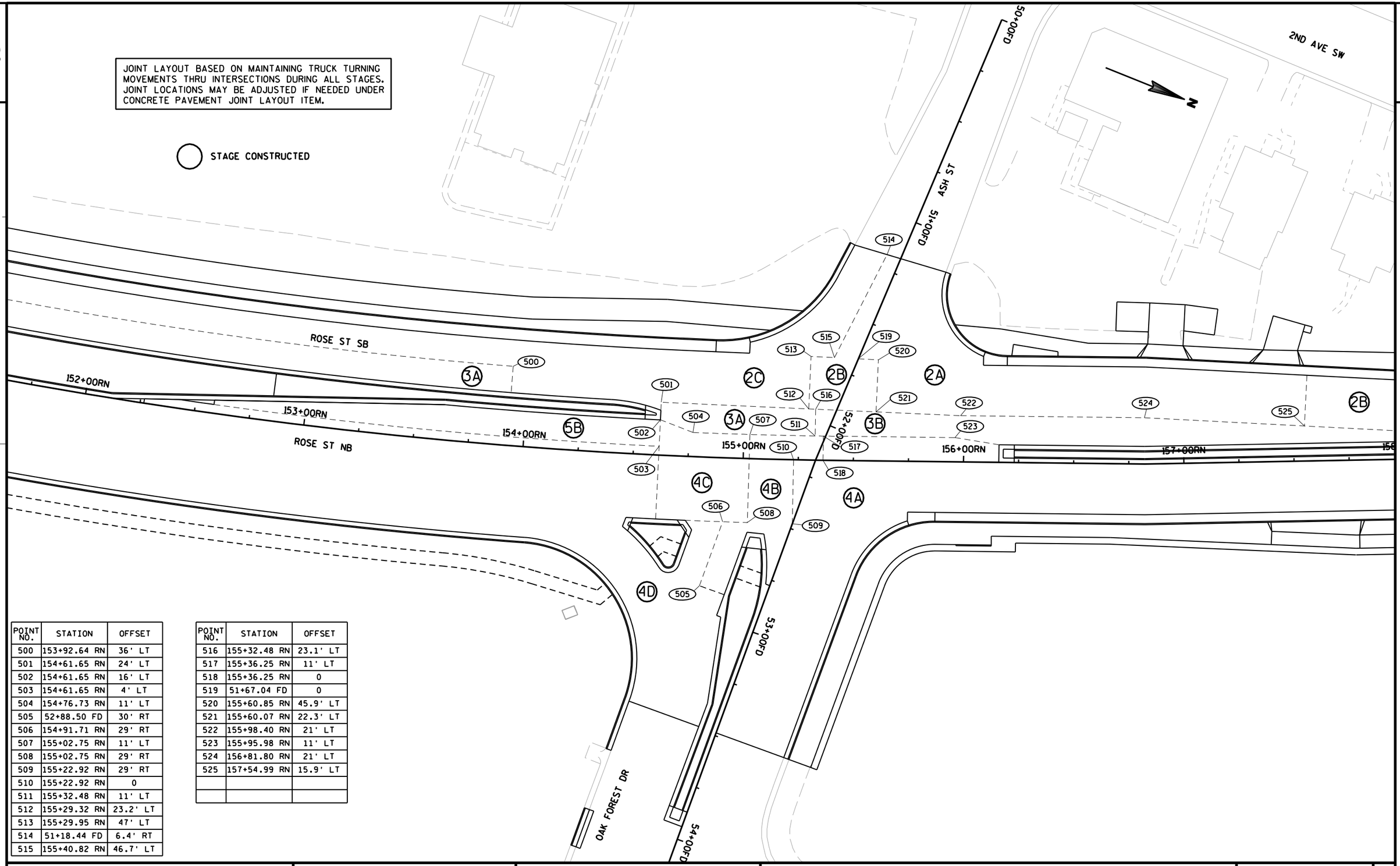


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY RAILROAD CROSSING	SHEET	E

V:\Structures-EC\41-0627.00 - LaCrosse County, IH90\B-32-67 STH 35 NB over BN RR\BRIDGE\B-32-67 aerial small 2.dgn PENTABLE:BReau_shd_util.tbl carrie 1:39.9981

JOINT LAYOUT BASED ON MAINTAINING TRUCK TURNING MOVEMENTS THRU INTERSECTIONS DURING ALL STAGES. JOINT LOCATIONS MAY BE ADJUSTED IF NEEDED UNDER CONCRETE PAVEMENT JOINT LAYOUT ITEM.

STAGE CONSTRUCTED



POINT NO.	STATION	OFFSET
500	153+92.64 RN	36' LT
501	154+61.65 RN	24' LT
502	154+61.65 RN	16' LT
503	154+61.65 RN	4' LT
504	154+76.73 RN	11' LT
505	52+88.50 FD	30' RT
506	154+91.71 RN	29' RT
507	155+02.75 RN	11' LT
508	155+02.75 RN	29' RT
509	155+22.92 RN	29' RT
510	155+22.92 RN	0
511	155+32.48 RN	11' LT
512	155+29.32 RN	23.2' LT
513	155+29.95 RN	47' LT
514	51+18.44 FD	6.4' RT
515	155+40.82 RN	46.7' LT

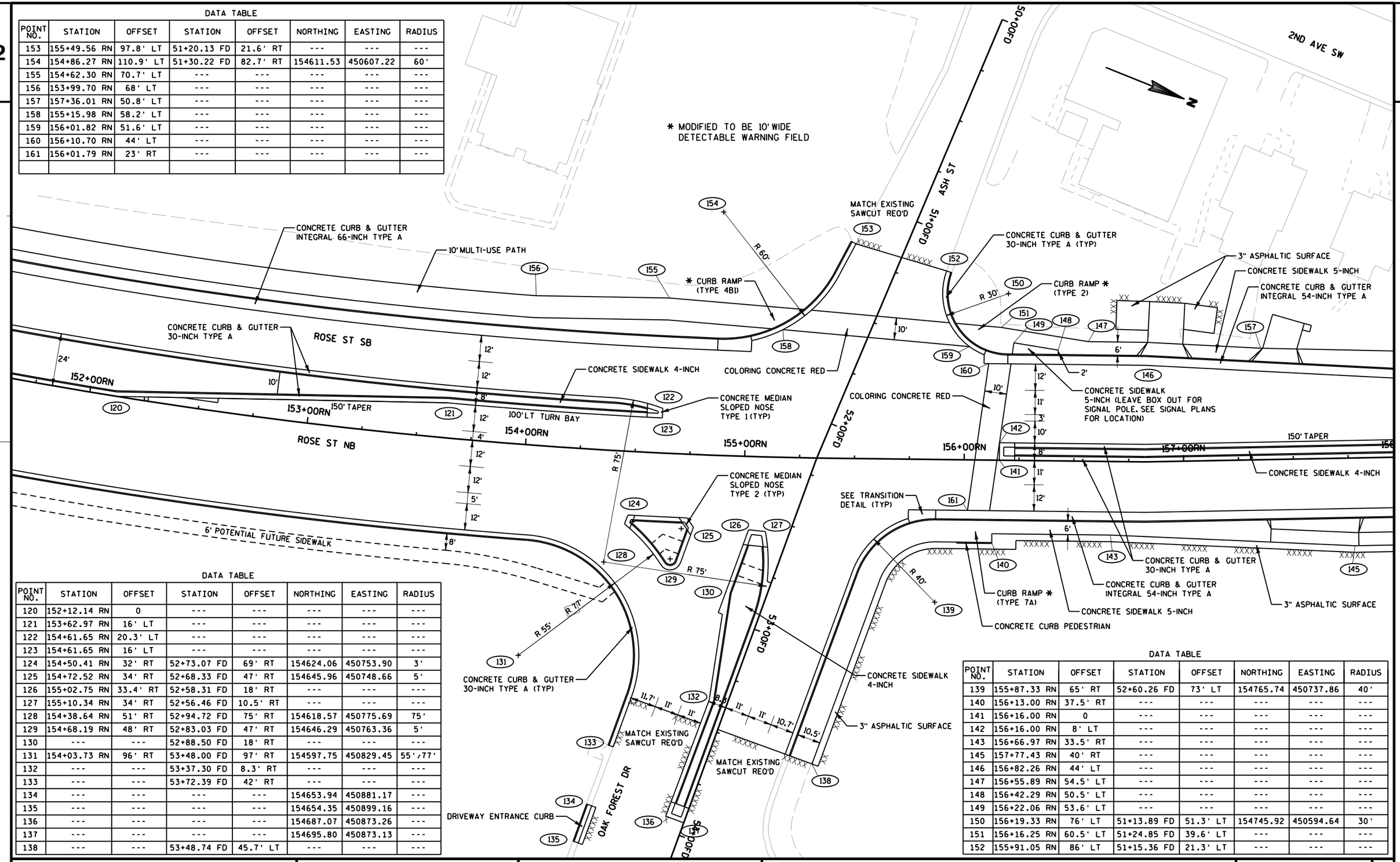
POINT NO.	STATION	OFFSET
516	155+32.48 RN	23.1' LT
517	155+36.25 RN	11' LT
518	155+36.25 RN	0
519	51+67.04 FD	0
520	155+60.85 RN	45.9' LT
521	155+60.07 RN	22.3' LT
522	155+98.40 RN	21' LT
523	155+95.98 RN	11' LT
524	156+81.80 RN	21' LT
525	157+54.99 RN	15.9' LT

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CONSTRUCTION DETAIL - STAGING JOINTS	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_021002_cd.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

DATA TABLE

POINT NO.	STATION	OFFSET	STATION	OFFSET	NORTHING	EASTING	RADIUS
153	155+49.56 RN	97.8' LT	51+20.13 FD	21.6' RT	---	---	---
154	154+86.27 RN	110.9' LT	51+30.22 FD	82.7' RT	154611.53	450607.22	60'
155	154+62.30 RN	70.7' LT	---	---	---	---	---
156	153+99.70 RN	68' LT	---	---	---	---	---
157	157+36.01 RN	50.8' LT	---	---	---	---	---
158	155+15.98 RN	58.2' LT	---	---	---	---	---
159	156+01.82 RN	51.6' LT	---	---	---	---	---
160	156+10.70 RN	44' LT	---	---	---	---	---
161	156+01.79 RN	23' RT	---	---	---	---	---



DATA TABLE

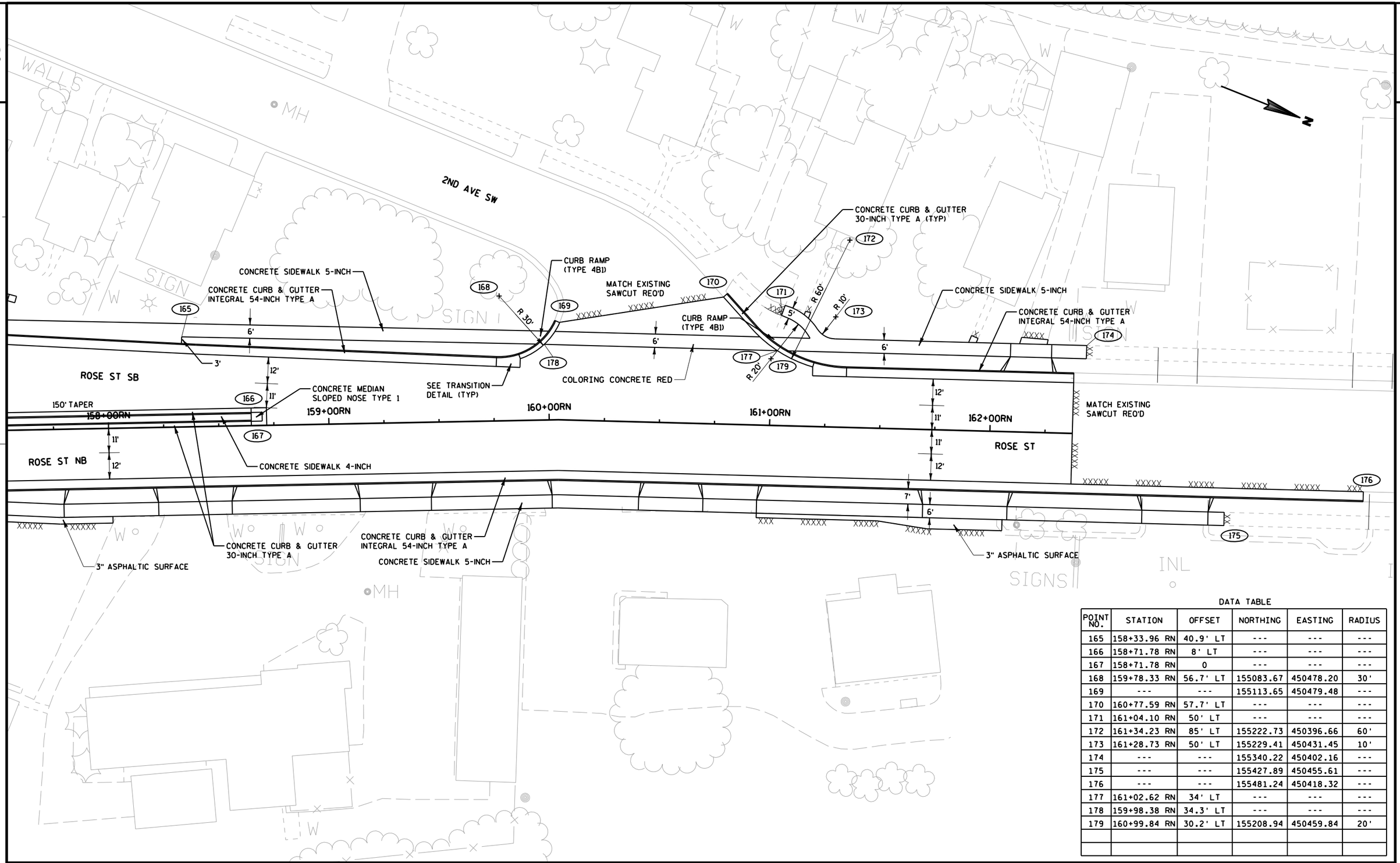
POINT NO.	STATION	OFFSET	STATION	OFFSET	NORTHING	EASTING	RADIUS
120	152+12.14 RN	0	---	---	---	---	---
121	153+62.97 RN	16' LT	---	---	---	---	---
122	154+61.65 RN	20.3' LT	---	---	---	---	---
123	154+61.65 RN	16' LT	---	---	---	---	---
124	154+50.41 RN	32' RT	52+73.07 FD	69' RT	154624.06	450753.90	3'
125	154+72.52 RN	34' RT	52+68.33 FD	47' RT	154645.96	450748.66	5'
126	155+02.75 RN	33.4' RT	52+58.31 FD	18' RT	---	---	---
127	155+10.34 RN	34' RT	52+56.46 FD	10.5' RT	---	---	---
128	154+38.64 RN	51' RT	52+94.72 FD	75' RT	154618.57	450775.69	75'
129	154+68.19 RN	48' RT	52+83.03 FD	47' RT	154646.29	450763.36	5'
130	---	---	52+88.50 FD	18' RT	---	---	---
131	154+03.73 RN	96' RT	53+48.00 FD	97' RT	154597.75	450829.45	55'/77'
132	---	---	53+37.30 FD	8.3' RT	---	---	---
133	---	---	53+72.39 FD	42' RT	---	---	---
134	---	---	---	---	154653.94	450881.17	---
135	---	---	---	---	154654.35	450899.16	---
136	---	---	---	---	154687.07	450873.26	---
137	---	---	---	---	154695.80	450873.13	---
138	---	---	53+48.74 FD	45.7' LT	---	---	---

DATA TABLE

POINT NO.	STATION	OFFSET	STATION	OFFSET	NORTHING	EASTING	RADIUS
139	155+87.33 RN	65' RT	52+60.26 FD	73' LT	154765.74	450737.86	40'
140	156+13.00 RN	37.5' RT	---	---	---	---	---
141	156+16.00 RN	0	---	---	---	---	---
142	156+16.00 RN	8' LT	---	---	---	---	---
143	156+66.97 RN	33.5' RT	---	---	---	---	---
145	157+77.43 RN	40' RT	---	---	---	---	---
146	156+82.26 RN	44' LT	---	---	---	---	---
147	156+55.89 RN	54.5' LT	---	---	---	---	---
148	156+42.29 RN	50.5' LT	---	---	---	---	---
149	156+22.06 RN	53.6' LT	---	---	---	---	---
150	156+19.33 RN	76' LT	51+13.89 FD	51.3' LT	154745.92	450594.64	30'
151	156+16.25 RN	60.5' LT	51+24.85 FD	39.6' LT	---	---	---
152	155+91.05 RN	86' LT	51+15.36 FD	21.3' LT	---	---	---

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	INTERSECTION DETAIL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_021101_id.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

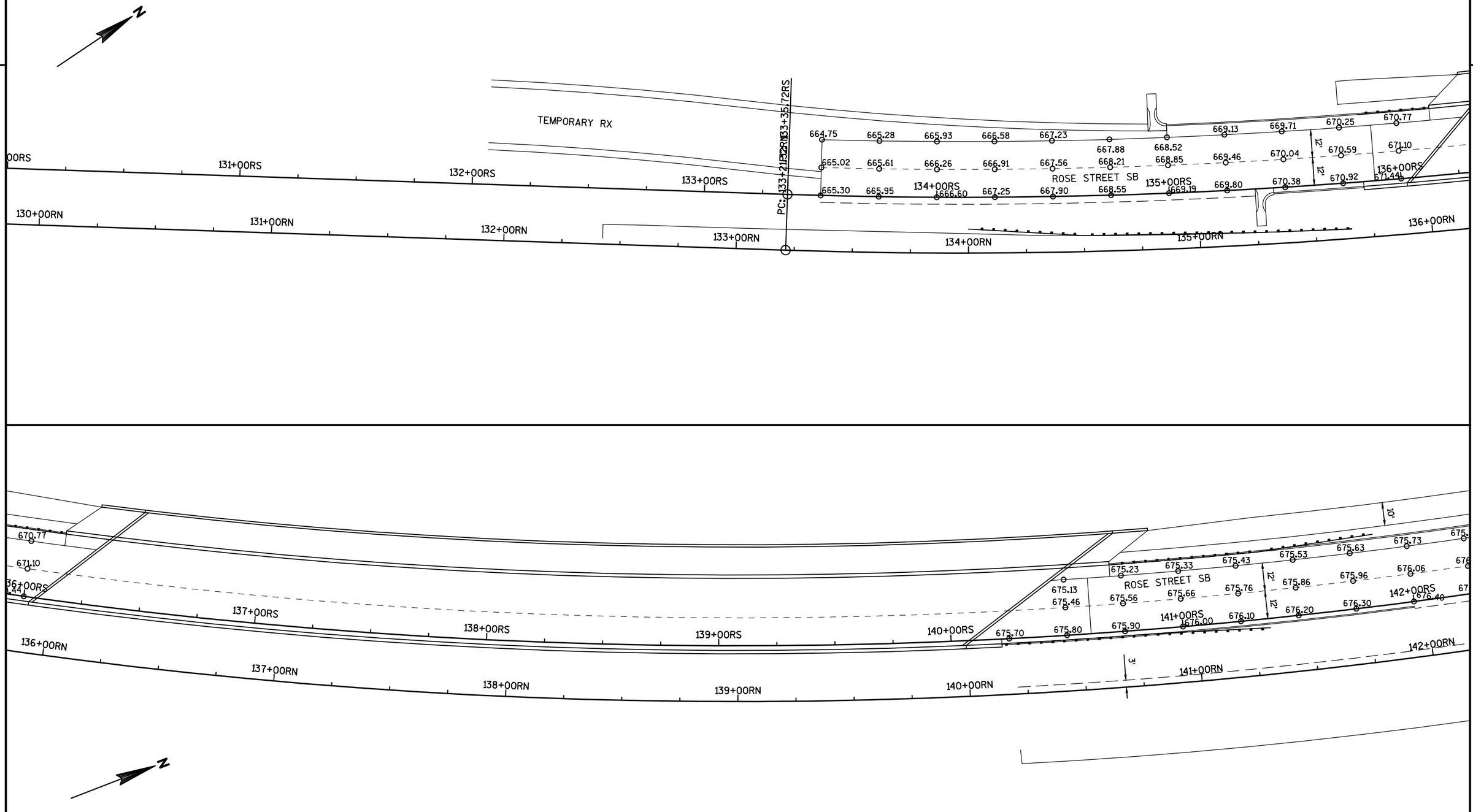


DATA TABLE

POINT NO.	STATION	OFFSET	NORTHING	EASTING	RADIUS
165	158+33.96 RN	40.9' LT	---	---	---
166	158+71.78 RN	8' LT	---	---	---
167	158+71.78 RN	0	---	---	---
168	159+78.33 RN	56.7' LT	155083.67	450478.20	30'
169	---	---	155113.65	450479.48	---
170	160+77.59 RN	57.7' LT	---	---	---
171	161+04.10 RN	50' LT	---	---	---
172	161+34.23 RN	85' LT	155222.73	450396.66	60'
173	161+28.73 RN	50' LT	155229.41	450431.45	10'
174	---	---	155340.22	450402.16	---
175	---	---	155427.89	450455.61	---
176	---	---	155481.24	450418.32	---
177	161+02.62 RN	34' LT	---	---	---
178	159+98.38 RN	34.3' LT	---	---	---
179	160+99.84 RN	30.2' LT	155208.94	450459.84	20'

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	INTERSECTION DETAIL	SHEET 15	E

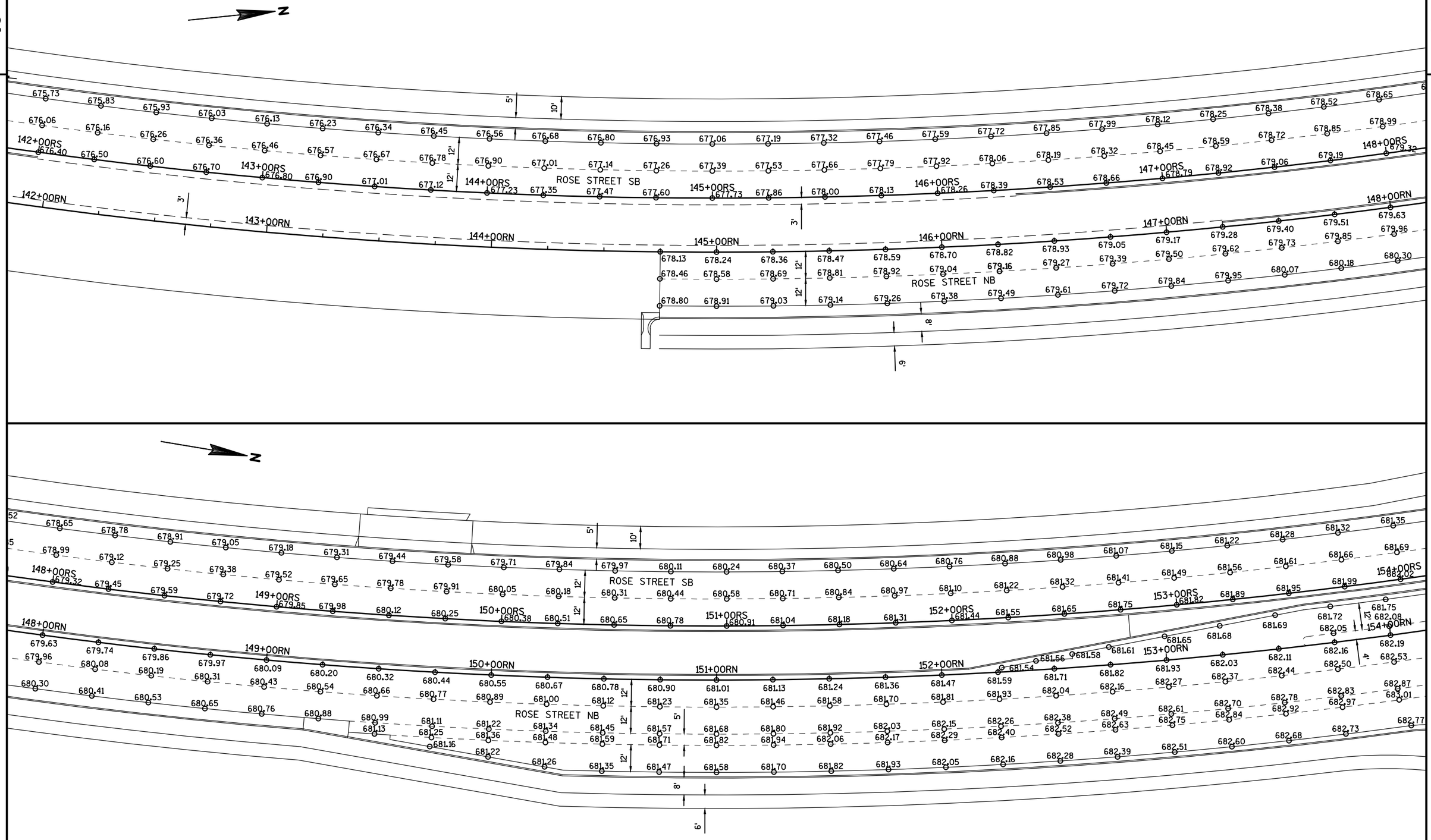
2



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 16	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\0371_021200_PD.DWG
LAYOUT NAME - SHEET - (1)

PLOT DATE : 7/31/2015 9:11 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:40 FT

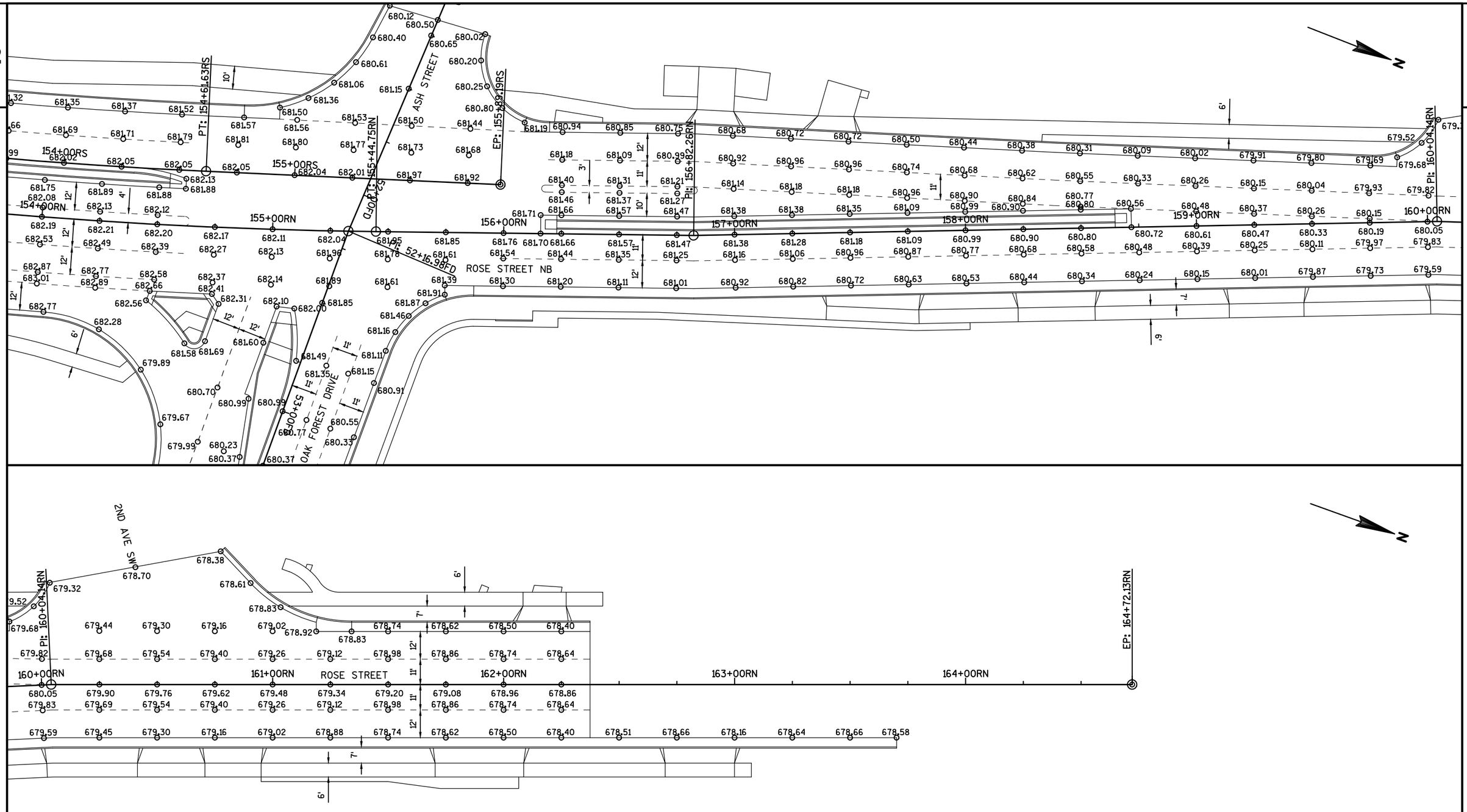


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PAVING DETAILS	SHEET 17	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\0371_021200_PD.DWG
LAYOUT NAME - SHEET - (3)

PLOT DATE : 7/31/2015 9:11 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PAVING GRADES	SHEET 18	E

2

N

STAGE 4A
STAGE 2A
STAGE 4A
TYPE A ONLY
STAGE 1B
ROSE ST SB
ROSE ST NB
BNSF RR
BURLINGTON NORTHERN & SANTA FE
124RN
126RN
128RN
130RN
132RN
134RN
136RN
138RN
BLEACHERS
SIGN
MH
INL

LEGEND

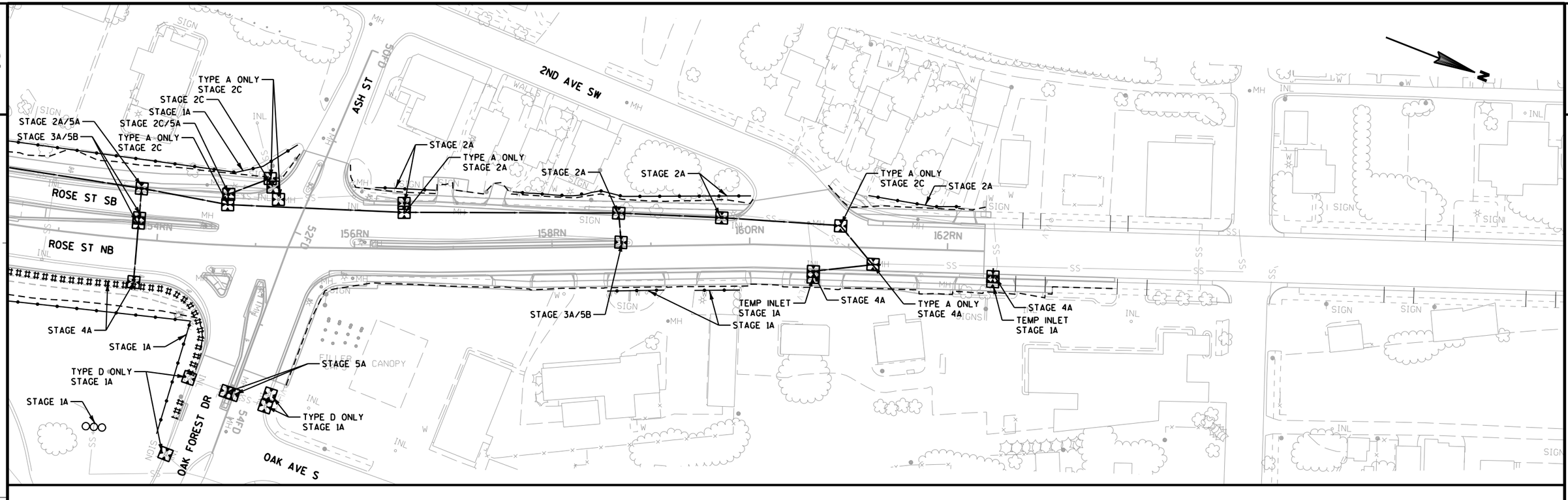
- EROSION MAT URBAN CLASS I TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SILT FENCE
- INLET PROTECTION TYPE A & D (UNLESS OTHERWISE NOTED)
- RIPRAP LIGHT
- SURFACE WATER FLOW

N

STAGE 1B
STAGE 2A
TYPE D ONLY
STAGE 1B
TYPE A ONLY
STAGE 2A
STAGE 1A
TYPE A ONLY
STAGE 2A
STAGE 2A
STAGE 2A
STAGE 2A
STAGE 2A
STAGE 2A/5A
STAGE 3A
STAGE 4A
STAGE 4A
TYPE A ONLY
STAGE 4A
STAGE 4A
STAGE 4A
STAGE 4A
STAGE 4A
STAGE 1A
ROSE ST SB
ROSE ST NB
OAK AVE S
VACUUM
140RN
142RN
144RN
146RN
148RN
150RN
152RN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_022001_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100



LEGEND

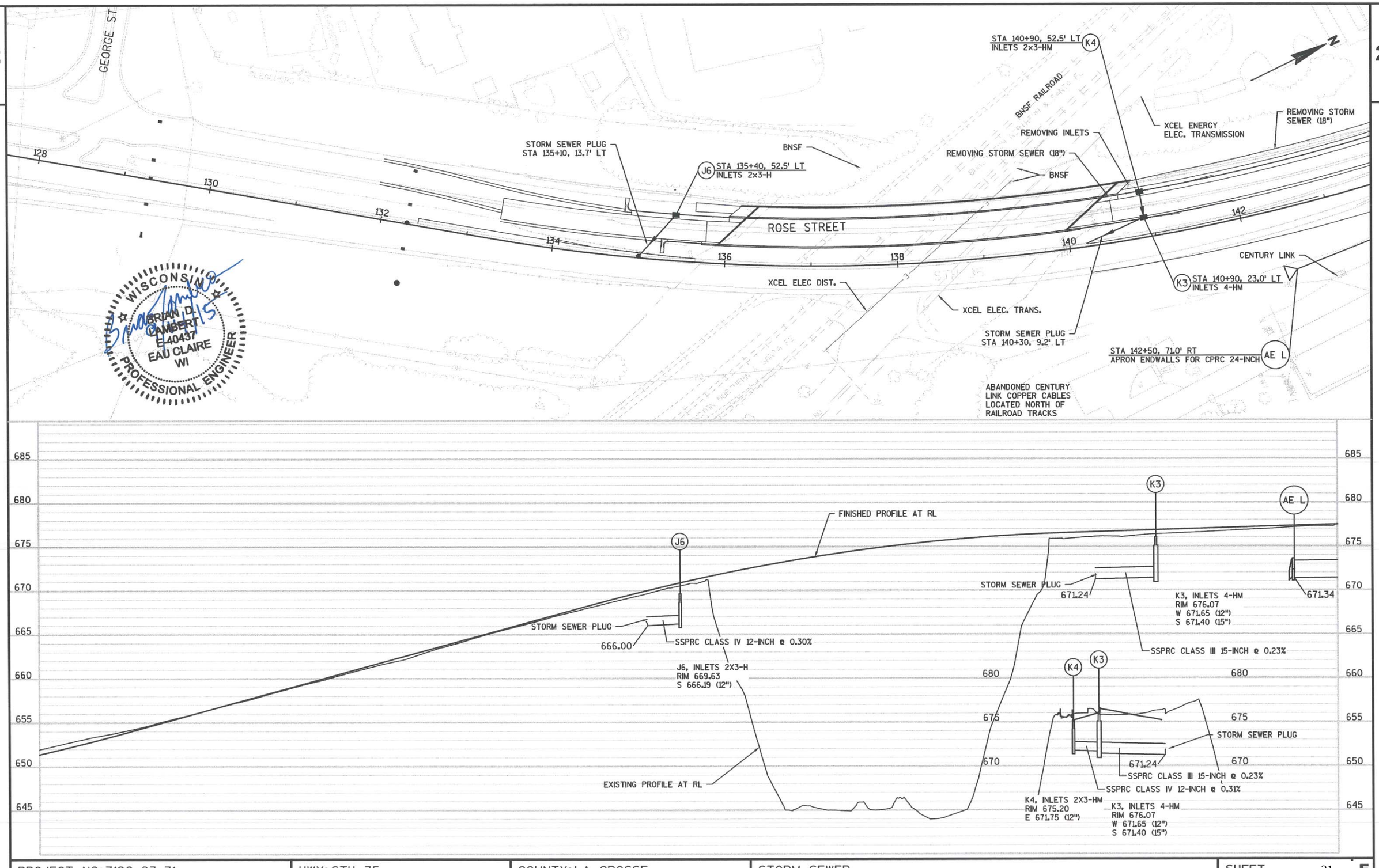
########	EROSION MAT URBAN CLASS I TYPE A
△△△	TEMPORARY DITCH CHECK
○○○	CULVERT PIPE CHECK
●—●—●	SILT FENCE
⊠	INLET PROTECTION TYPE A & D (UNLESS OTHERWISE NOTED)
⊂○	RIPRAP LIGHT
~~►	SURFACE WATER FLOW

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 20	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\oa_0371_022002_ec.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



WISCONSIN
BRIAN D.
LAMBERT
E-40437
EAU CLAIRE
WI
PROFESSIONAL ENGINEER
9/15

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	STORM SEWER	SHEET 21 E

2

REMOVING STORM SEWER

REMOVING INLETS

L4.1 STA 145+00, 52.5' LT INLETS 2x3-H

L4 STA 145+10, 52.5' LT INLETS 4-H

CITY OF ONALASKA SANITARY SEWER

L6 STA 147+80, 52.5' LT INLETS 4-H

L6.5 STA 147+90, 52.5' LT INLETS 2x3-H

CITY OF ONALASKA - STORM SEWER

REMOVING STORM SEWER

M8.1 STA 150+60, 52.5' LT INLETS 2x3-H

M8 STA 150+70, 52.5' LT INLETS 4-H

ABANDONING CULVERT PIPES BACKFILLED CONTROLLED LOW STRENGTH

STAGE 2 - MAINTAIN TRAFFIC

BORE AND JACK SSPRC 24-INCH (M6 TO M5)

ABANDONING MANHOLES

STA 155+13, 70.2' LT MANHOLES 3-J

M6.2

STA 154+70, 52.5' LT INLETS 2x3-H

M6.1

STA 154+70, 42.0' LT MANHOLES 4-J

M6

STA 153+80, 52.5' LT INLETS 5-H

M7

STA 153+80, 22.5' LT INLETS 2x3-H

M7.1

XCEL ENERGY/ CENTURYLINK/ CHARTER

M5.1 STA 156+50, 47.5' LT INLETS 2x3-H

M5 STA 156+50, 38.0' LT MANHOLES 5-J

CENTURYLINK POLE

XCEL POLE

XCEL POLE

ASH ST

2nd AVE S

STH 35

ROSE STREET

144

146

148

150

152

154

156

158

REMOVING INLETS

REMOVING STORM SEWER (15")

CENTURY LINK PED/UG TEL & FO

L6.1 STA 147+80, 22.5' LT INLETS 2x3-H

L6.2 STA 147+80, 1.5' LT INLETS 2x3-H

L6.4 STA 148+04, 55.8' RT MANHOLES 4-J

L6.3 STA 147+80, 28.5' RT INLETS 2x3-H

REMOVING INLETS

REMOVING INLETS

REMOVING STORM SEWER

CENTURY LINK (TEL) & CHARTER (FO)

WISDOT

XCEL & CENTURY LINK ON POLES, POLES ARE LABELED FOR OWNERSHIP

REMOVING INLETS

REMOVING INLET COVERS COVER PLATES TEMPORARY INLET COVERS TYPE H

M8.2 STA 150+70, 22.5' LT INLETS 2x3-H

M8.3 STA 150+70, 1.5' LT INLETS 2x3-H

M8.4 STA 150+70, 42.5' RT INLETS 2x3-H

STA 153+80, 17.5' LT INLETS 2x3-H

M7.2

STA 153+80, 42.5' RT INLETS 2x3-H

M7.3

CHARTER COMMUNICATIONS

OAK FOREST DR

HILLTOPPER

FILLER CAP

CANOPY

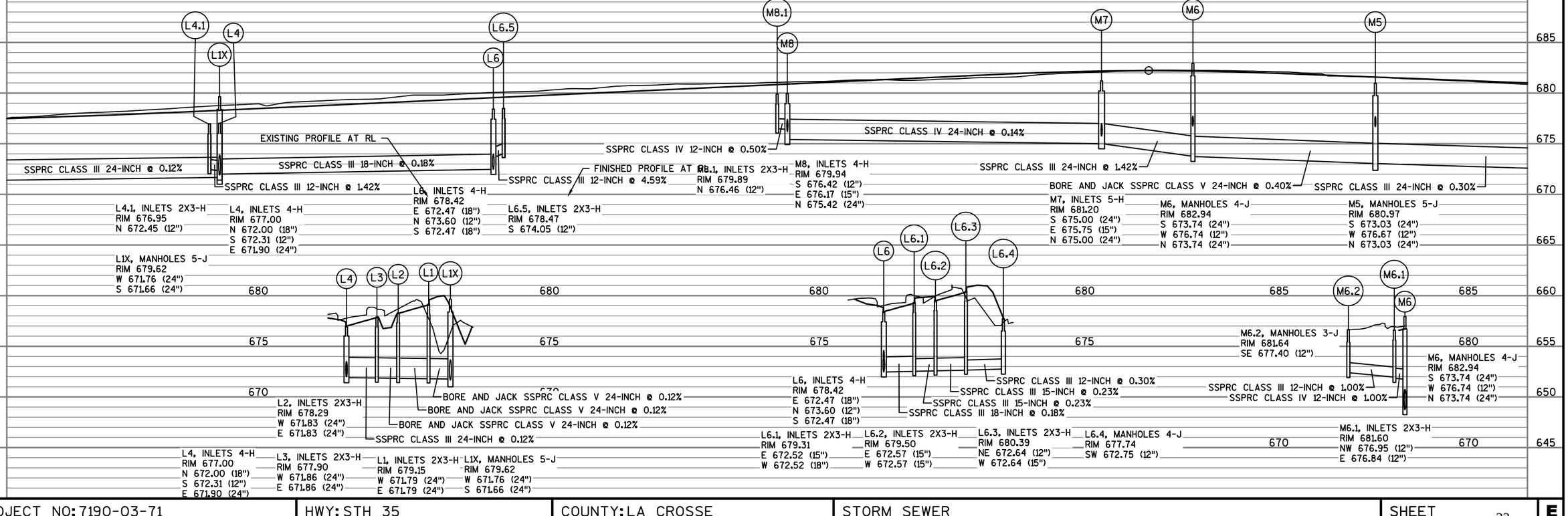
STA 145+10, 50.0' RT MANHOLES 5-J

L1X

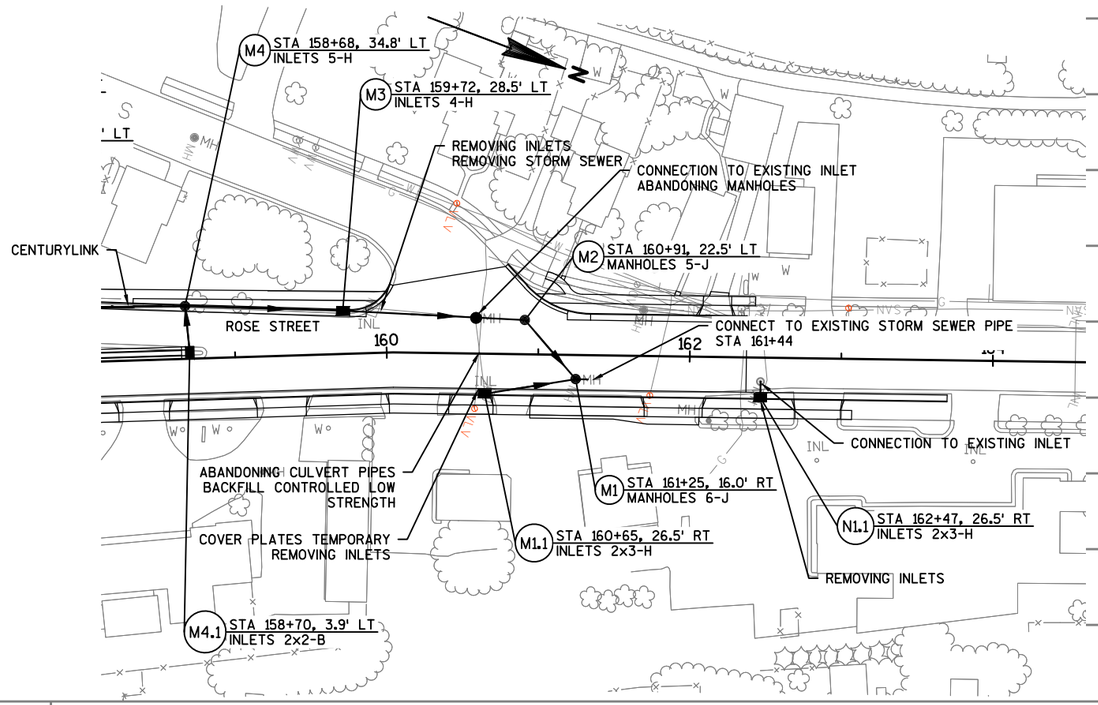
L2 STA 145+10, 1.5' LT INLETS 2x3-H

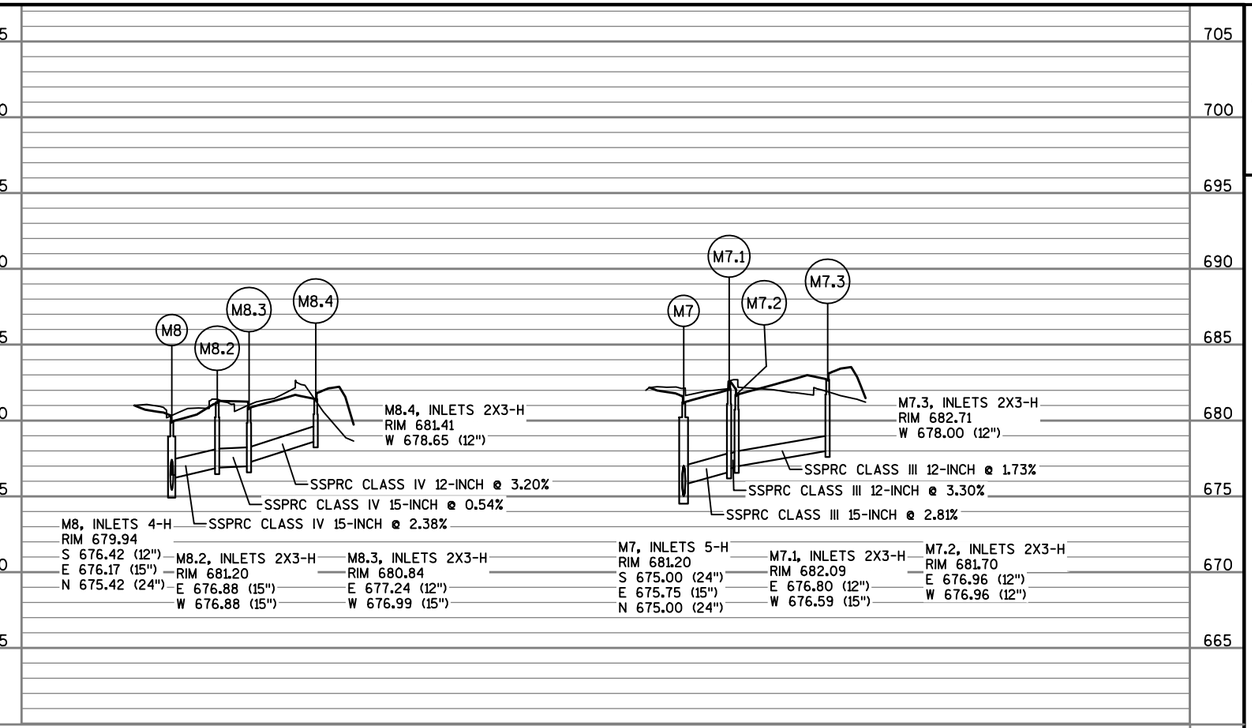
L3 STA 145+10, 22.5' LT INLETS 2x3-H

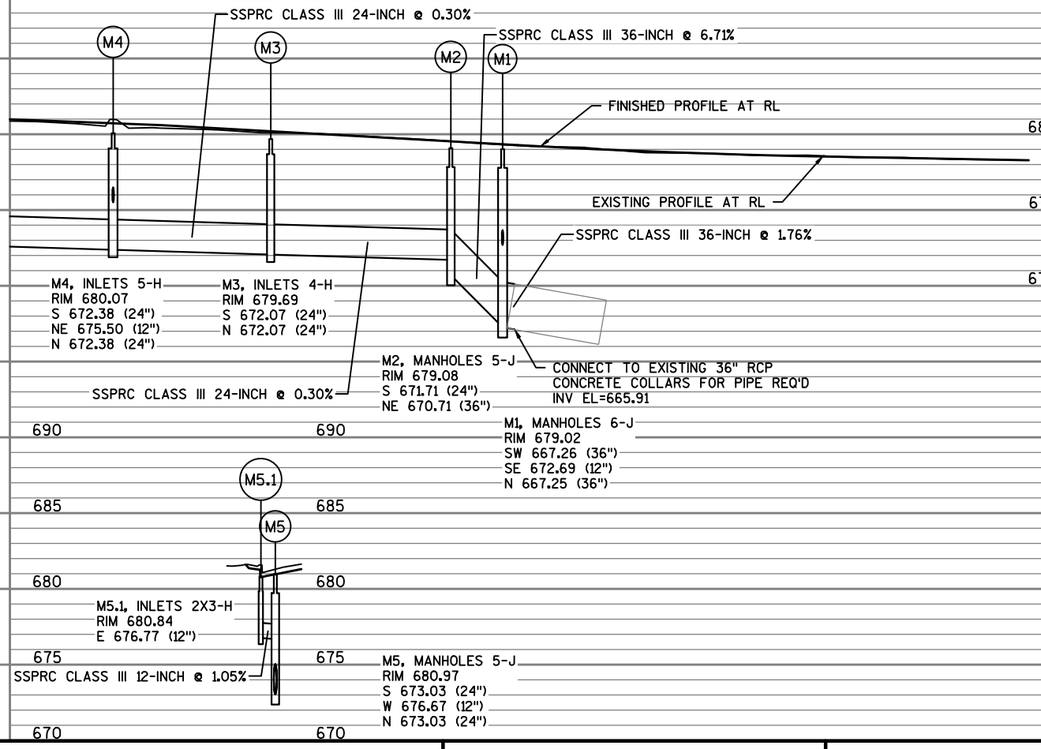
L1 STA 145+10, 28.5' RT INLETS 2x3-H

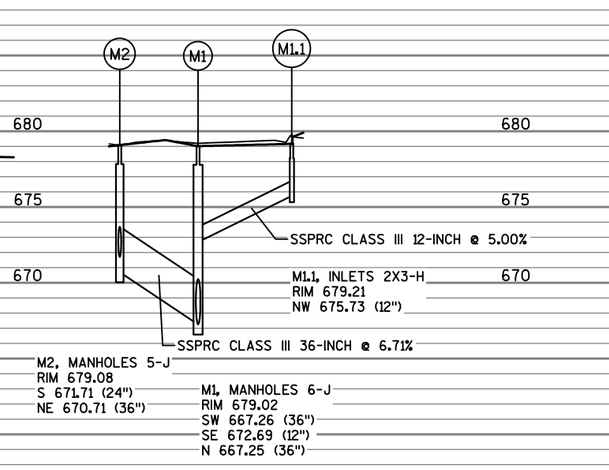


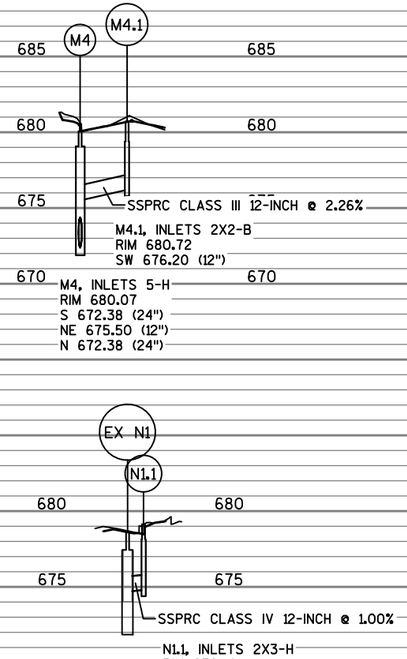
PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	STORM SEWER	SHEET 22	E











PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	STORM SEWER	SHEET 23	E

2

50' - PIPE UNDERDRAIN UNPERFORATED 12-INCH
CONNECT TO STORM SEWER J6
INV: 666.19
DISCHARGE 662.0

STA 133+50, 17.5' LT
INLETS MEDIAN 1G-MS
T6

J6

BNSF

CONNECT TO EXISTING INLET
RECONSTRUCTING MANHOLES
FIELD VERIFY INVERT ELEVATION

BNSF RAILROAD
BURLINGTON NORTHERN & SANTA FE

BNSF

K4

K3

XCEL ENERGY
ELEC. TRANSMISSION

128 'RN'
129 'RN'
130 'RN'
131 'RN'
132 'RN'
133 'RN'
134 'RN'
135 'RN'
136 'RN'
137 'RN'
138 'RN'
139 'RN'
140 'RN'
141 'RN'
142 'RN'
143 'RN'

131+19.37, -16.76' LT

STH 35

XCEL ELEC DIST.

XCEL ELEC. TRANS.

CENTURY LINK

T5
STA 140+55, 13.8' LT
INLETS MEDIAN 2G-MS
CONNECT TO PROPOSED PIPE
FROM K3

ABANDONED CENTURY
LINK COPPER CABLES
LOCATED NORTH OF
RAILROAD TRACKS

BURLINGTON NORTHERN SANTA FE

GEORGE ST

BLEACHERS

2nd AVE S

HILLTOPPER DR

STA 150+70, 58.5' LT
INLETS 2x3-H
T2

STA 150+60, 58.5' LT
INLETS 2x3-H
CONNECT TO M8.1
T3

REMOVING INLETS
REMOVING STORM SEWER (12")

STA 153+80, 63.5' LT
INLETS 2x3-H
T1

CONNECT TO M7
REMOVING INLETS
REMOVING STORM SEWER (12")

COVER PLATES TEMPORARY

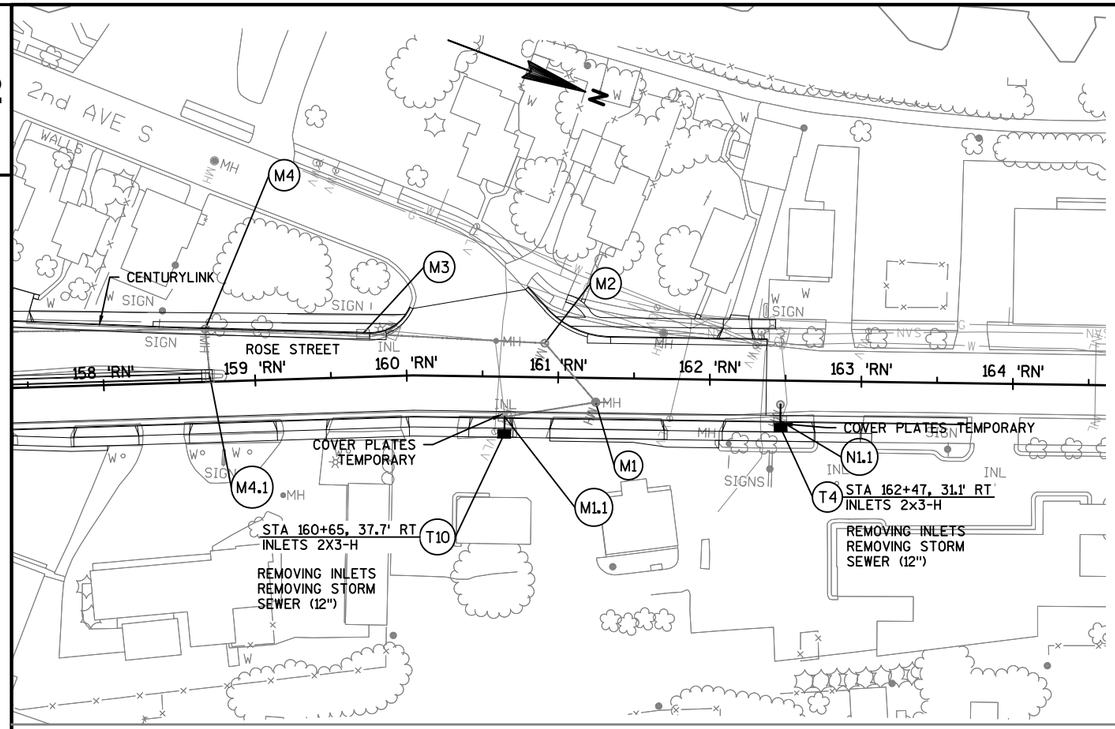
COVER PLATES TEMPORARY

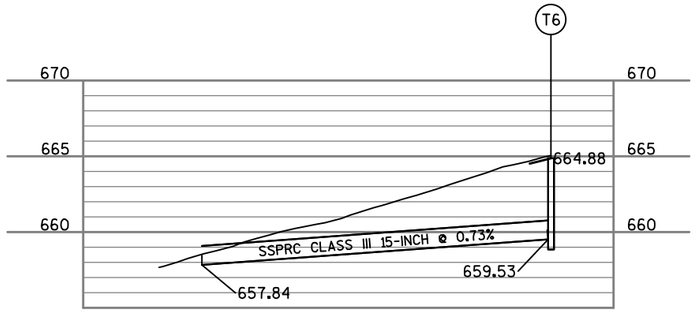
143 'RN'
144 'RN'
145 'RN'
146 'RN'
147 'RN'
148 'RN'
149 'RN'
150 'RN'
151 'RN'
152 'RN'
153 'RN'
154 'RN'
155 'RN'
156 'RN'
157 'RN'
158 'RN'

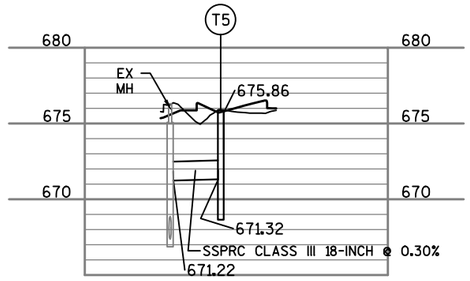
L4.1
L4
L6
L6.5
L1X
L3
L2
L1
L6.1
L6.2
L6.3
M8.1
M8
M8.2
M8.3
M8.4
M7
M7.1
M7.2
M7.3
M6
M5
M5.1

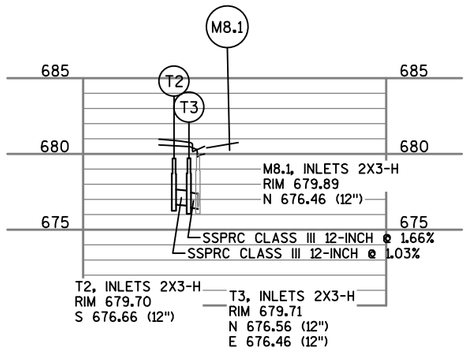
FILLER CAPS
CANOPY
VACUUM

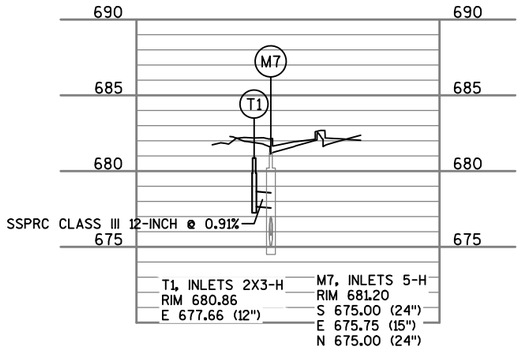
PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	STORM SEWER TEMPORARY	SHEET 24	E

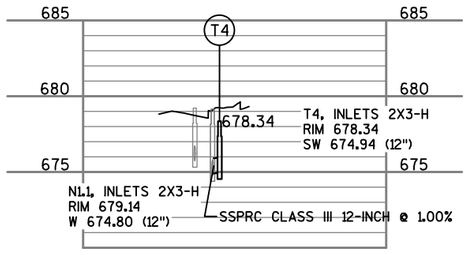


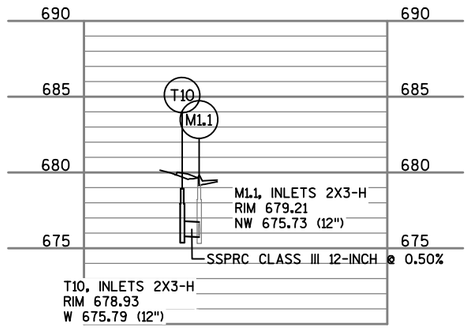












PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	STORM SEWER TEMPORARY	SHEET 25	E

2

N

128RS
128RN
130RS
130RN
STH 35
132RS
132RN
134RS
134RN
136RS
136RN
138RS
138RN
140
14

19-1
SIDEWALK CLOSED
R9-9
30" X 18"

La Crosse
POPULATION 51,320
ESTR

19-2 19-3
W1-4B
36" X 36"

BEGIN PROJECT
STA 133+35.60 RN

MATCHLINE STA 140+00

BURLINGTON NORTHERN & SANTA FE

LEGEND

ESTR	EXISTING SIGN TO REMAIN		WOOD POST
X-XX	SIGN - MOVE		EXISTING GROUND MOUNTED SIGN
X-XX	SIGN - REMOVE AND REPLACE		PROPOSED GROUND MOUNTED SIGN
X-XX	SIGN - REMOVE EXISTING		EXISTING OVERHEAD SIGN STRUCTURE
X-XX	SIGN - PLACE NEW		PROPOSED OVERHEAD SIGN STRUCTURE

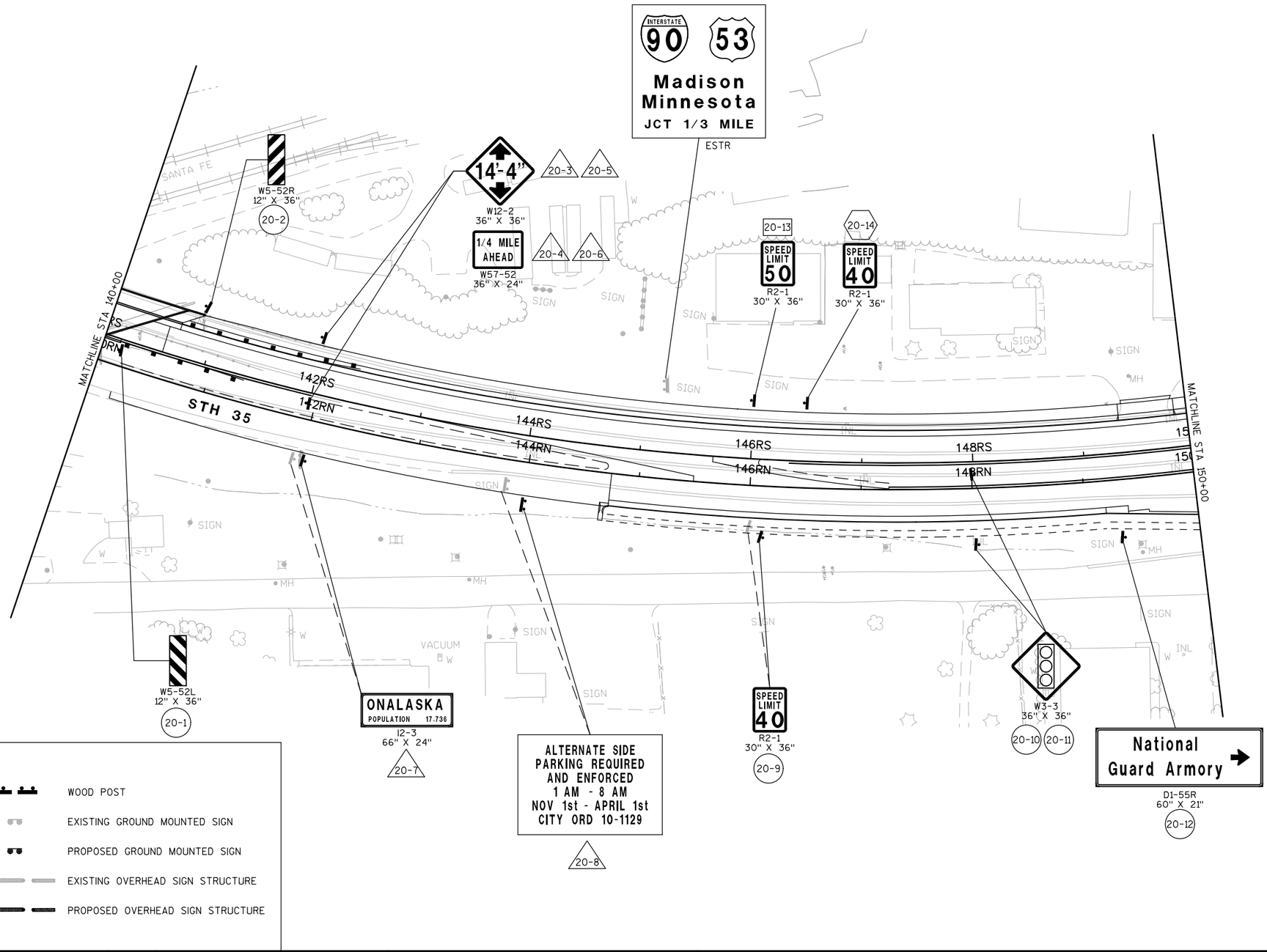
WISCONSIN
JOEL D. JURSS
E-32642
WAUKESHA, WI
PROFESSIONAL ENGINEER
7/31/15

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PERMANENT SIGNING PLAN	SHEET	E

FILE NAME : ch_EB_023210_ps.dgn PLOT DATE : 31-JUL-2015 PLOT BY : jpieroni PLOT NAME : PLOT SCALE : 100:1 WISDOT/CADD

2

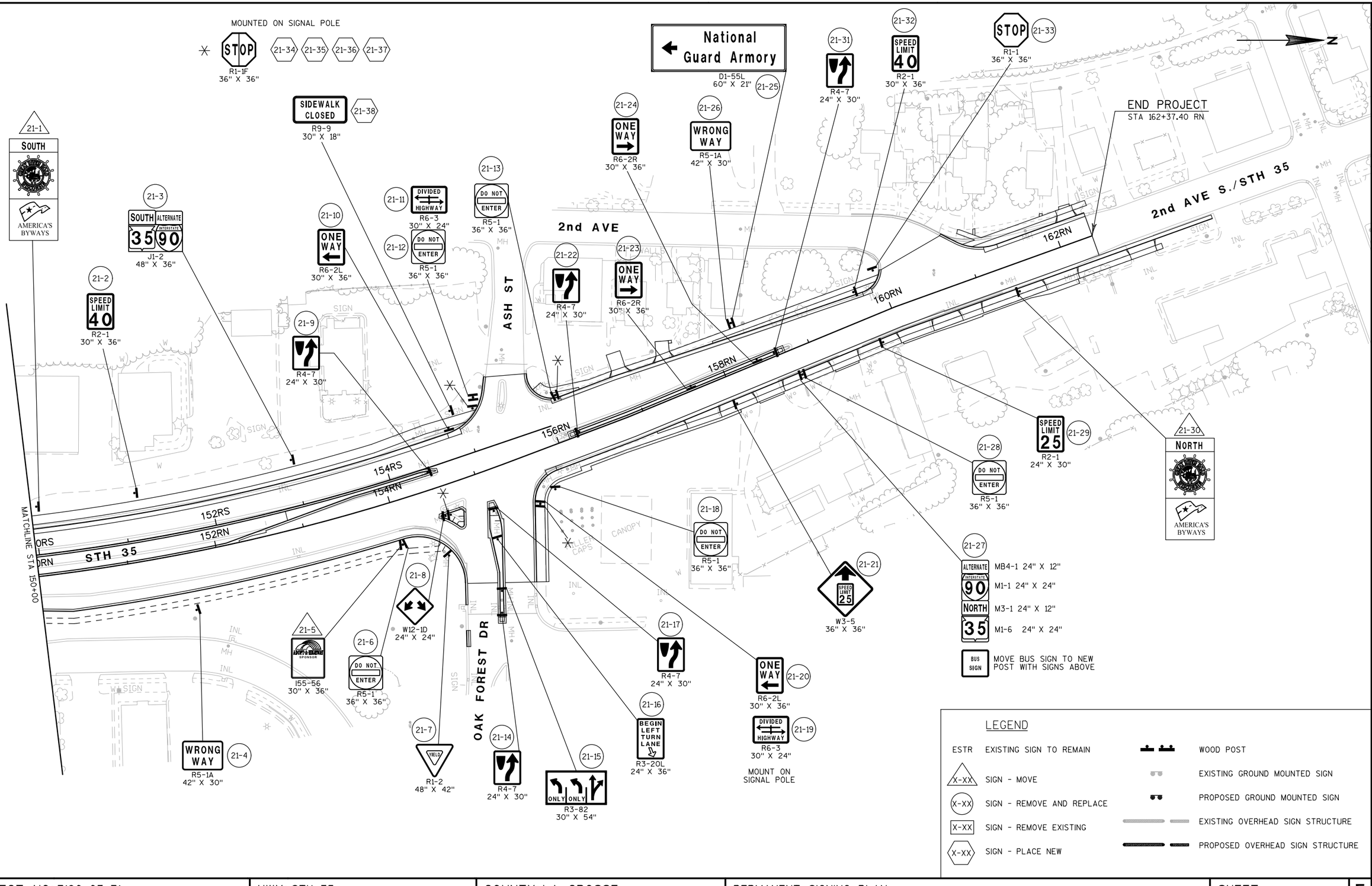
N



LEGEND

ESTR	EXISTING SIGN TO REMAIN		WOOD POST
X-XX	SIGN - MOVE		EXISTING GROUND MOUNTED SIGN
X-XX	SIGN - REMOVE AND REPLACE		PROPOSED GROUND MOUNTED SIGN
X-XX	SIGN - REMOVE EXISTING		EXISTING OVERHEAD SIGN STRUCTURE
X-XX	SIGN - PLACE NEW		PROPOSED OVERHEAD SIGN STRUCTURE

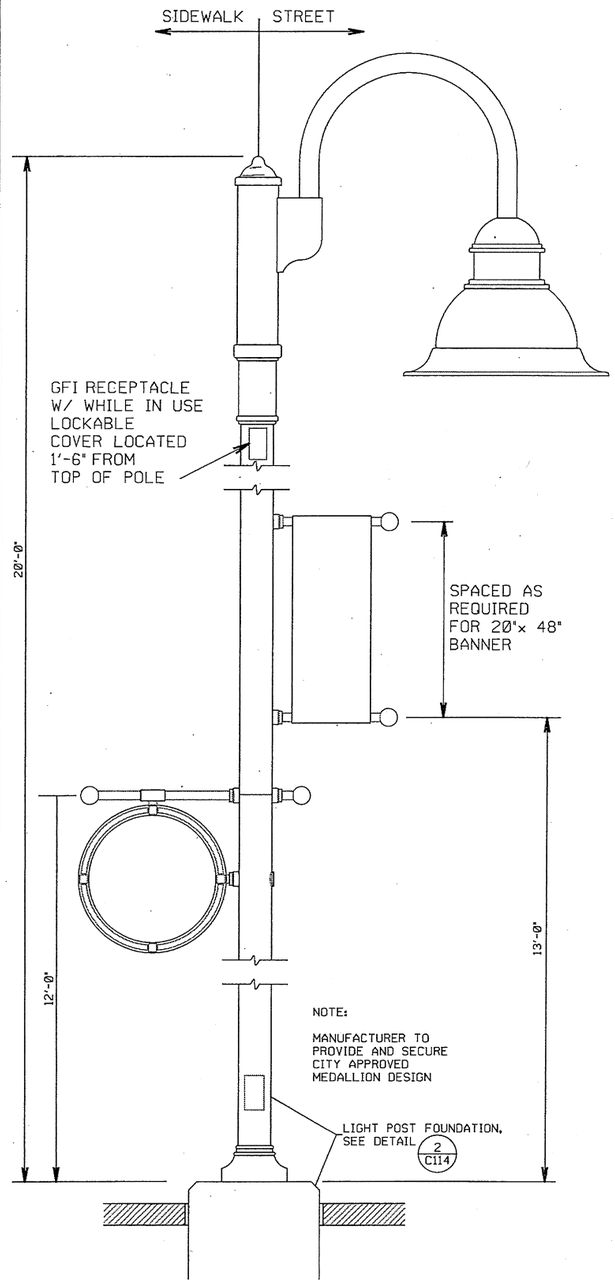
PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PERMANENT SIGNING PLAN	SHEET 27	E



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PERMANENT SIGNING PLAN	SHEET 28	E

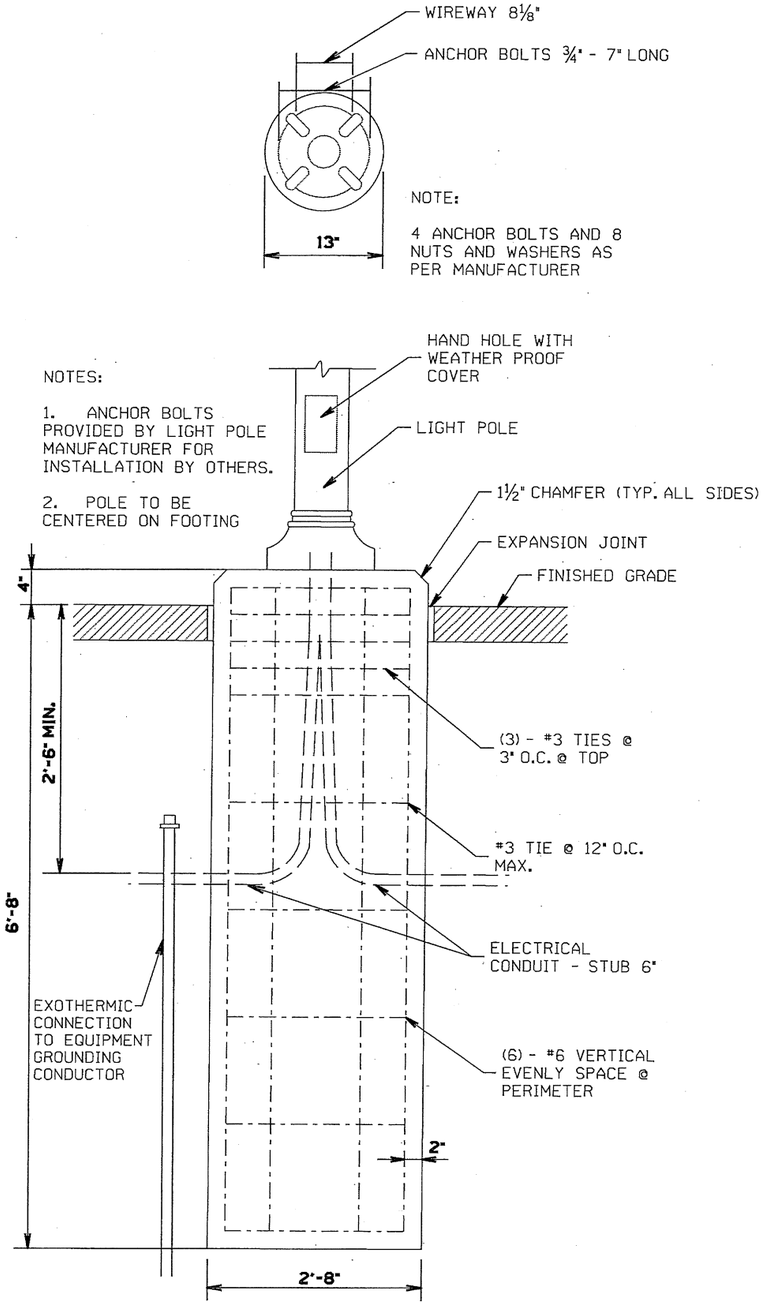
FILE NAME : ch_EB_023212_ps.dgn PLOT DATE : 31-JUL-2015 PLOT BY : jpieroni PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42



DECORATIVE ROADWAY, FULL CUT-OFF, TYPE III OR IV LED LUMINAIRE WITH MEDALLION AND BANNER ARMS DETAIL

① NOT TO SCALE



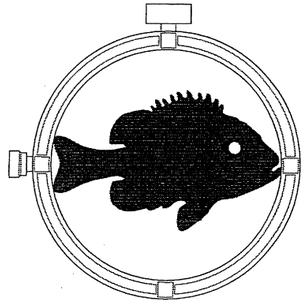
② LIGHT POST FOUNDATION DETAIL

NOT TO SCALE



③ MEDALLION A

NOT TO SCALE



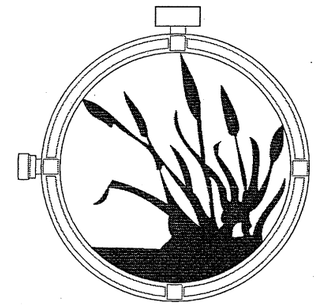
⑥ MEDALLION D

NOT TO SCALE



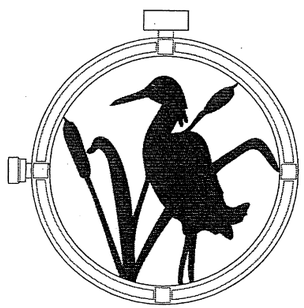
④ MEDALLION B

NOT TO SCALE



⑦ MEDALLION E

NOT TO SCALE



⑤ MEDALLION C

NOT TO SCALE

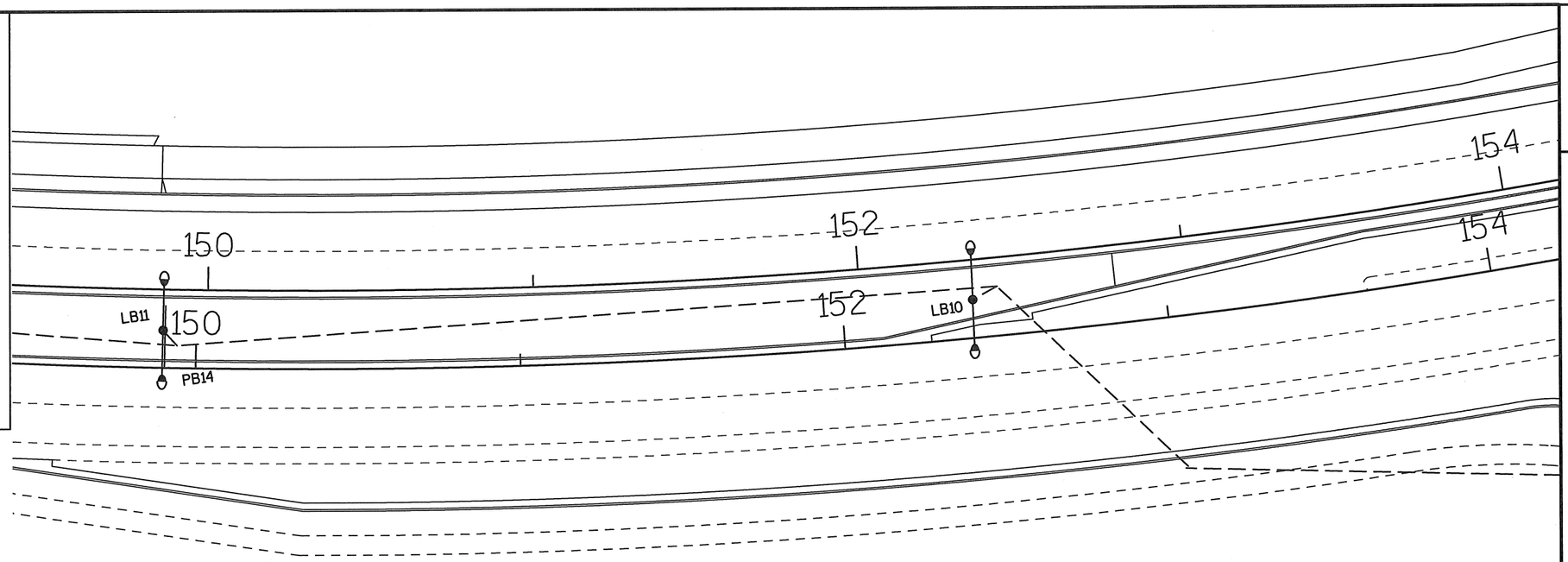
PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	LIGHTING PLAN	SHEET 29

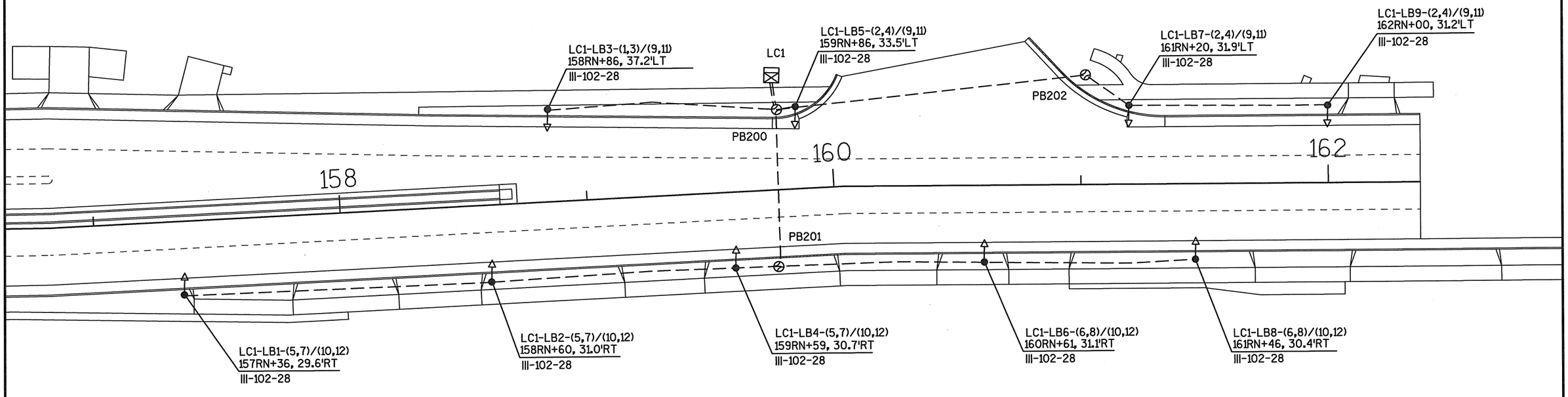
LEGEND

- CONTROL CABINET
- NON-METALLIC CONDUIT, 2"
- PULLBOX, 24"X36"
- PULLBOX, 24"X42"
- LUMINAIRE, DECORATIVE POLE

LC1-LB7-(2,4)/(9,11)
161N+20, 31.9'LT
III-102-56

- CABINET
- POLE NUMBER
- LIGHT CIRCUIT/FESTOON CIRCUIT
- LOCATION (TO CENTER OF POLE)
- BASE TYPE(SPV0060-56)
- LAMP WATTAGE
- DISTRIBUTION TYPE





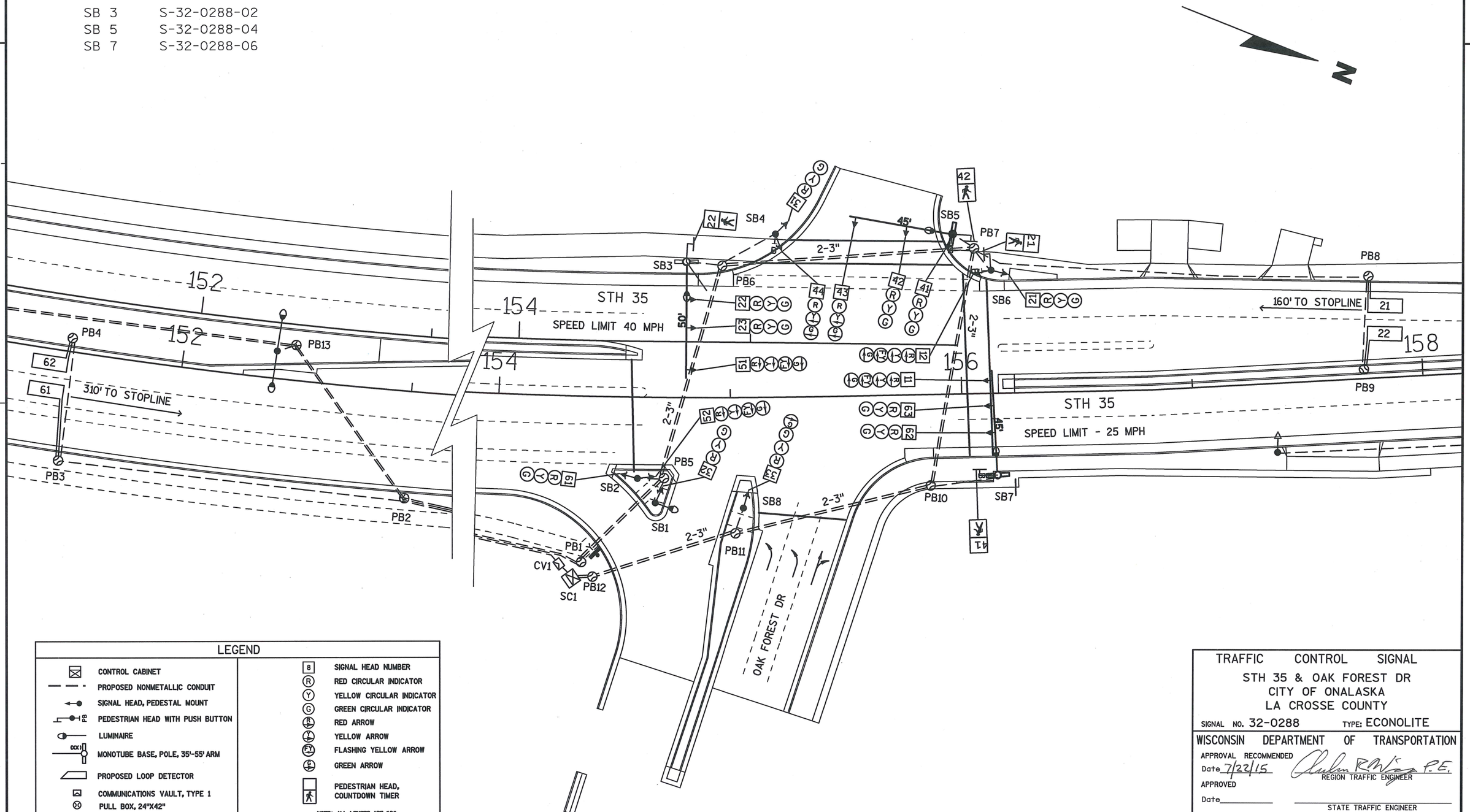
PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	LIGHTING PLAN	SHEET 30 E

2

2

Structure numbers

SB 3	S-32-0288-02
SB 5	S-32-0288-04
SB 7	S-32-0288-06



LEGEND

CONTROL CABINET	SIGNAL HEAD NUMBER
PROPOSED NONMETALLIC CONDUIT	RED CIRCULAR INDICATOR
SIGNAL HEAD, PEDESTAL MOUNT	YELLOW CIRCULAR INDICATOR
PEDESTRIAN HEAD WITH PUSH BUTTON	GREEN CIRCULAR INDICATOR
LUMINAIRE	RED ARROW
MONOTUBE BASE, POLE, 35'-55' ARM	YELLOW ARROW
PROPOSED LOOP DETECTOR	FLASHING YELLOW ARROW
COMMUNICATIONS VAULT, TYPE 1	GREEN ARROW
PULL BOX, 24"X42"	PEDESTRIAN HEAD, COUNTDOWN TIMER

NOTE: ALL LENSES ARE 12"

TRAFFIC CONTROL SIGNAL

STH 35 & OAK FOREST DR
CITY OF ONALASKA
LA CROSSE COUNTY

SIGNAL NO. 32-0288 TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 7/22/15 Collin R Webb P.E.
REGION TRAFFIC ENGINEER

APPROVED
Date _____
STATE TRAFFIC ENGINEER

REGION CONTACT:
DESIGNED BY: COLLIN WEBB
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC SIGNAL PLAN	SHEET 31 E

FILE NAME : P:\State\190\10710608\Traffic\7190-01-71\024201-sp.dgn PLOT DATE : 23-JUL-2015 14:58 PLOT BY : dotc5w PLOT NAME : PLOT SCALE : 40.000000:1.000000

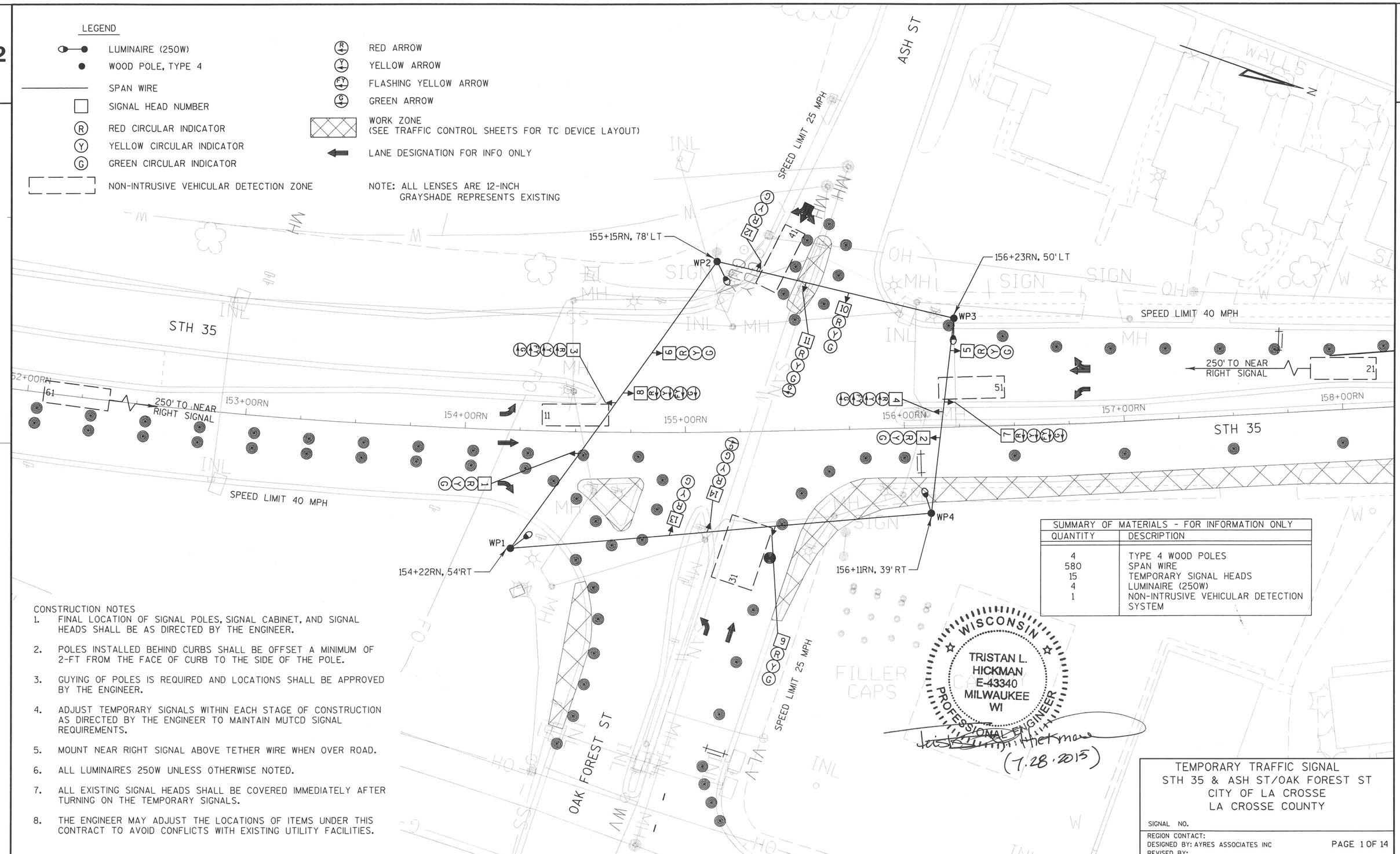
WISDOT/CADDS SHEET 42

2

LEGEND

- LUMINAIRE (250W)
- WOOD POLE, TYPE 4
- SPAN WIRE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- NON-INTRUSIVE VEHICULAR DETECTION ZONE
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE (SEE TRAFFIC CONTROL SHEETS FOR TC DEVICE LAYOUT)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINET, AND SIGNAL HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. POLES INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2-FT FROM THE FACE OF CURB TO THE SIDE OF THE POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH STAGE OF CONSTRUCTION AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
6. ALL LUMINAIRES 250W UNLESS OTHERWISE NOTED.
7. ALL EXISTING SIGNAL HEADS SHALL BE COVERED IMMEDIATELY AFTER TURNING ON THE TEMPORARY SIGNALS.
8. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICTS WITH EXISTING UTILITY FACILITIES.

SUMMARY OF MATERIALS - FOR INFORMATION ONLY

QUANTITY	DESCRIPTION
4	TYPE 4 WOOD POLES
580	SPAN WIRE
15	TEMPORARY SIGNAL HEADS
4	LUMINAIRE (250W)
1	NON-INTRUSIVE VEHICULAR DETECTION SYSTEM

WISCONSIN
TRISTAN L. HICKMAN
E-43340
MILWAUKEE
WI
PROFESSIONAL ENGINEER

(7.28.2015)

TEMPORARY TRAFFIC SIGNAL
STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO.

REGION CONTACT:
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PAGE 1 OF 14

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY TRAFFIC SIGNAL - STAGE 1A	SHEET 32 E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\plrf\aa_0371_TEMP SIGNALS_STAGE 1A_sp.dgn PLOT DATE : 7/28/2015 PLOT BY : hickmant PLOT NAME : PLOT SCALE : 1:40

LEGEND

- LUMINAIRE (250W)
- WOOD POLE, TYPE 4
- SPAN WIRE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- NON-INTRUSIVE VEHICULAR DETECTION ZONE
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE (SEE TRAFFIC CONTROL SHEETS FOR TC DEVICE LAYOUT)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

STH 35
ASH ST
OAK FOREST ST
SAN HO
SPEED LIMIT 25 MPH
SPEED LIMIT 40 MPH
WP1
WP2
WP3
WP4
154+22RN, 54'RT
155+15RN, 78' LT
156+23RN, 50' LT
156+11RN, 39' RT
152+00RN
153+00RN
154+00RN
155+00RN
156+00RN
157+00RN
158+00RN
250' TO NEAR RIGHT SIGNAL
FILLER CAPS
CANOPY
WALLS

TEMPORARY TRAFFIC SIGNAL
STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO.

REGION CONTACT:
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PAGE 2 OF 14

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY TRAFFIC SIGNAL - STAGE 1B	SHEET 33	E

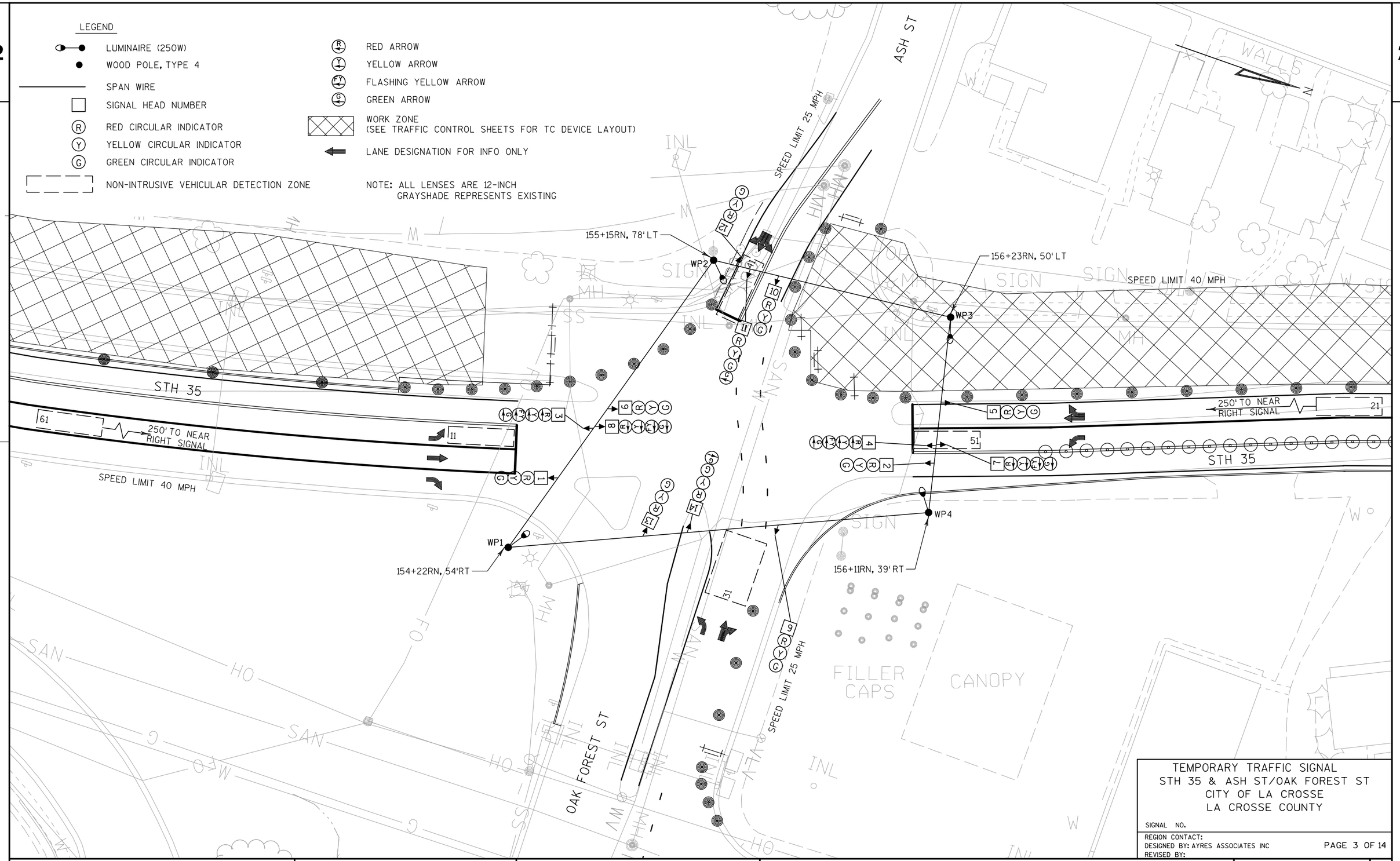
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PLOT DATE : 7/28/2015 PLOT BY : hickmant PLOT NAME : PLOT SCALE : 1:40

2

LEGEND

- LUMINAIRE (250W)
- WOOD POLE, TYPE 4
- SPAN WIRE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- NON-INTRUSIVE VEHICULAR DETECTION ZONE
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE (SEE TRAFFIC CONTROL SHEETS FOR TC DEVICE LAYOUT)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TEMPORARY TRAFFIC SIGNAL
STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO.

REGION CONTACT:
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY TRAFFIC SIGNAL - STAGE 2A	SHEET 34	E

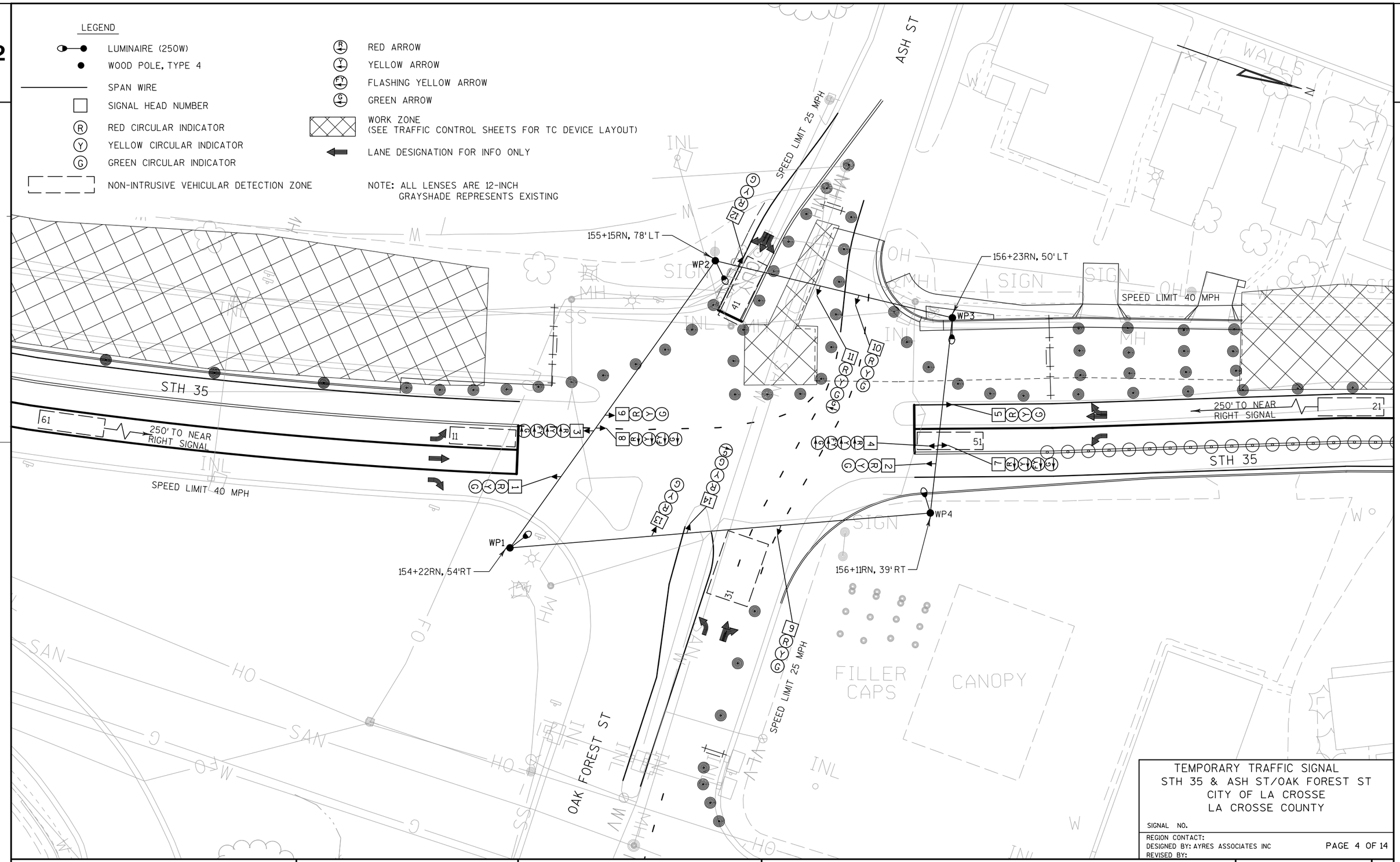
FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\plrf\aa_0371_TEMP SIGNALS_STAGE 2A_sp.dgn PLOT DATE : 7/28/2015 PLOT BY : hickmant PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

LEGEND

- LUMINAIRE (250W)
- WOOD POLE, TYPE 4
- SPAN WIRE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- NON-INTRUSIVE VEHICULAR DETECTION ZONE
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE (SEE TRAFFIC CONTROL SHEETS FOR TC DEVICE LAYOUT)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TEMPORARY TRAFFIC SIGNAL
STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO.

REGION CONTACT:
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PAGE 4 OF 14

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY TRAFFIC SIGNAL - STAGE 2B	SHEET 35	E

LEGEND

- LUMINAIRE (250W)
- WOOD POLE, TYPE 4
- SPAN WIRE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- NON-INTRUSIVE VEHICULAR DETECTION ZONE
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE (SEE TRAFFIC CONTROL SHEETS FOR TC DEVICE LAYOUT)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

ASH ST
STH 35
SPEED LIMIT 25 MPH
SPEED LIMIT 40 MPH
155+15RN, 78' LT
156+23RN, 50' LT
154+22RN, 54'RT
156+11RN, 39' RT
WP1
WP2
WP3
WP4
250' TO NEAR RIGHT SIGNAL
OAK FOREST ST
FILLER CAPS
CANOPY

TEMPORARY TRAFFIC SIGNAL
STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO.

REGION CONTACT:
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY TRAFFIC SIGNAL - STAGE 2C	SHEET 36	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\plrf\aa_0371_TEMP SIGNALS_STAGE 2C_sp.dgn
PLOT DATE : 7/28/2015
PLOT BY : hickmant
PLOT NAME :
PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

LEGEND

- LUMINAIRE (250W)
- WOOD POLE, TYPE 4
- SPAN WIRE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- NON-INTRUSIVE VEHICULAR DETECTION ZONE
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE (SEE TRAFFIC CONTROL SHEETS FOR TC DEVICE LAYOUT)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

STH 35
ASH ST
OAK FOREST ST
SPEED LIMIT 40 MPH
SPEED LIMIT 25 MPH
SPEED LIMIT 40 MPH
SPEED LIMIT 25 MPH
250' TO NEAR RIGHT SIGNAL
250' TO NEAR RIGHT SIGNAL
152+00RN
153+00RN
154+00RN
155+00RN
156+00RN
157+00RN
158+00RN
155+15RN, 78' LT
156+23RN, 50' LT
154+22RN, 54'RT
156+11RN, 39' RT
WP1
WP2
WP3
WP4
FILLER CAPS
CANOPY
WALLS

TEMPORARY TRAFFIC SIGNAL
STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO.

REGION CONTACT:
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PAGE 6 OF 14

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY TRAFFIC SIGNAL - STAGE 3A	SHEET 37	E

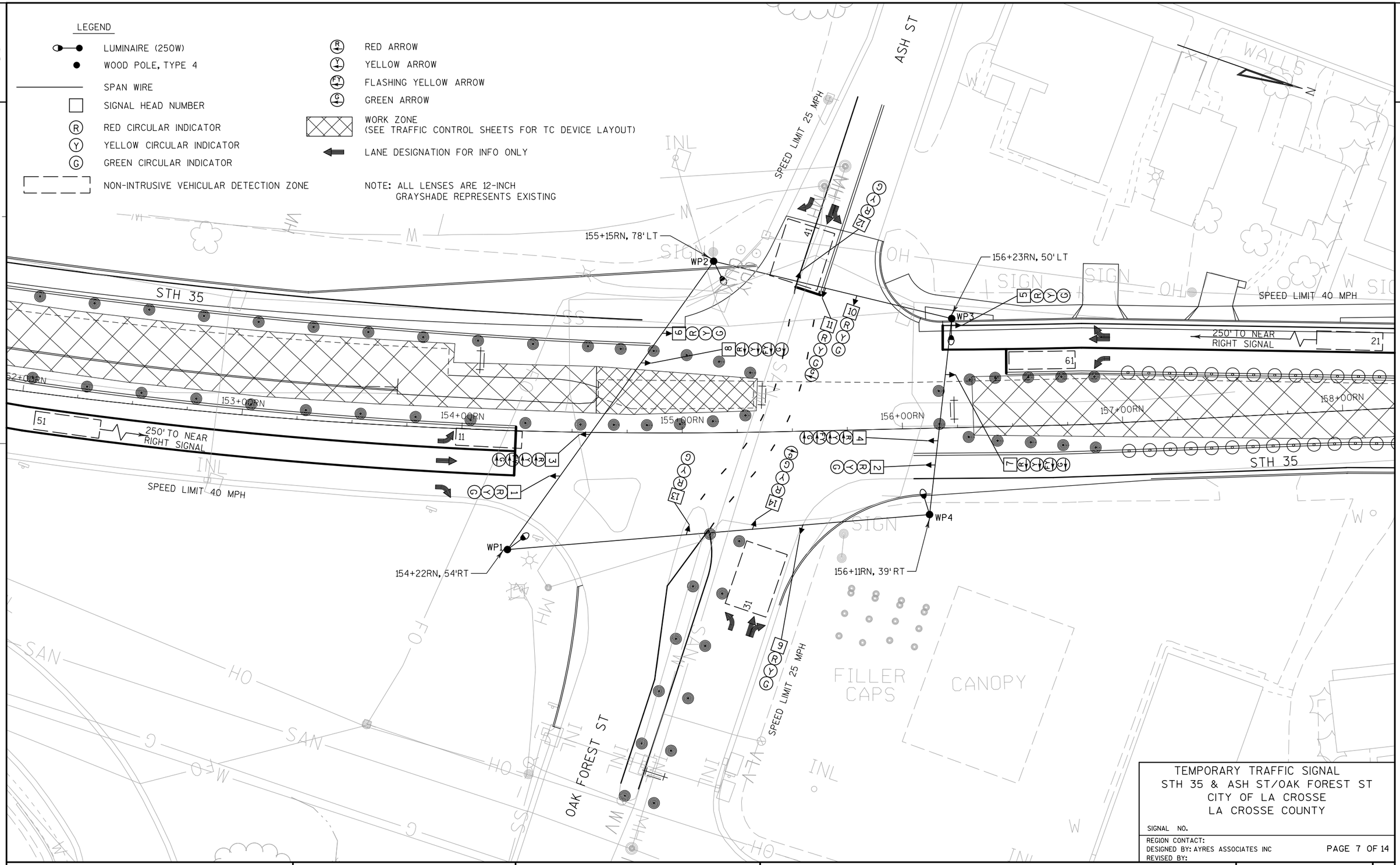
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PLOT DATE : 7/28/2015
PLOT BY : hickmant
PLOT NAME :
PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

LEGEND

- LUMINAIRE (250W)
- WOOD POLE, TYPE 4
- SPAN WIRE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- NON-INTRUSIVE VEHICULAR DETECTION ZONE
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE (SEE TRAFFIC CONTROL SHEETS FOR TC DEVICE LAYOUT)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TEMPORARY TRAFFIC SIGNAL
STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO.

REGION CONTACT:
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

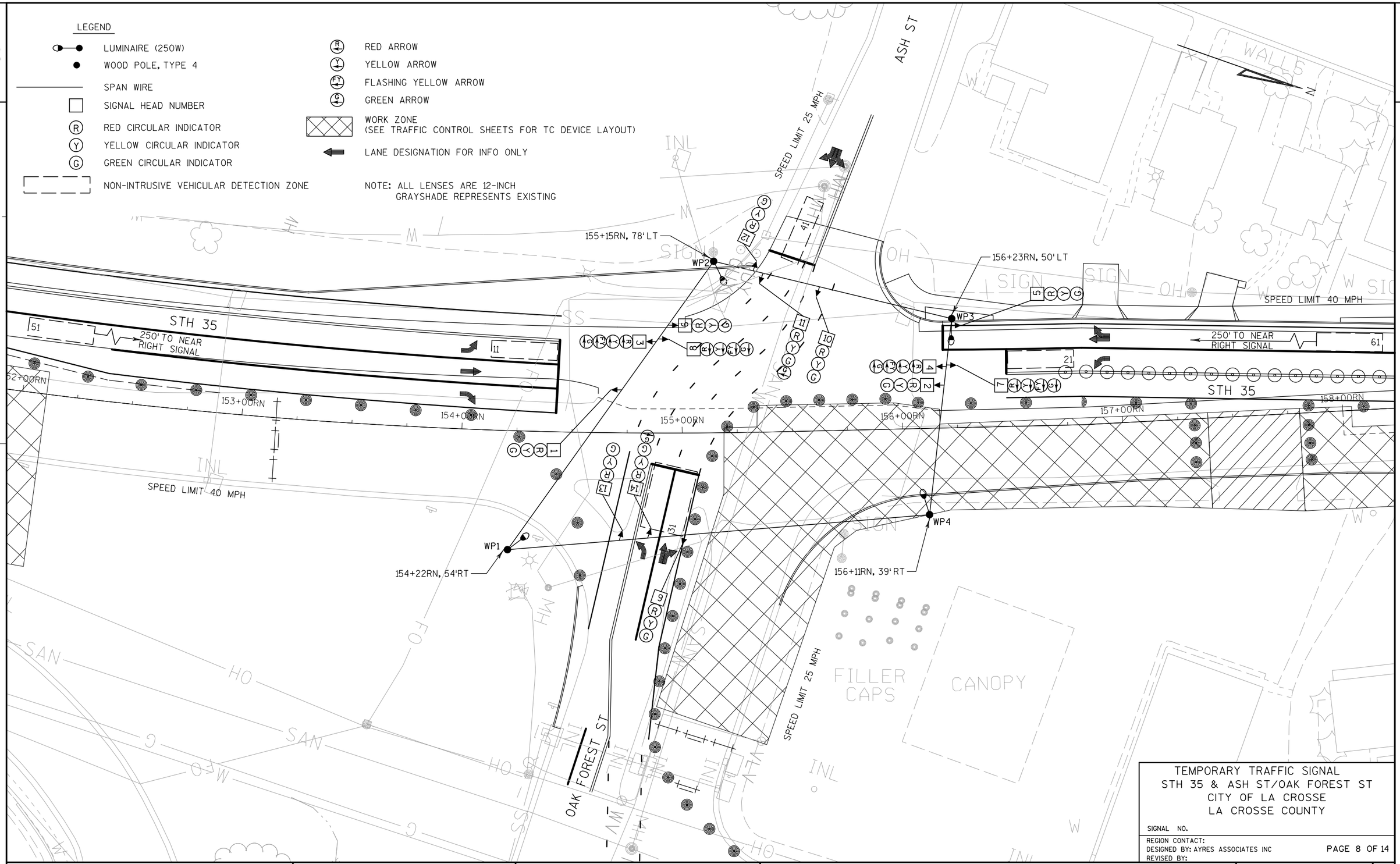
PAGE 7 OF 14

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY TRAFFIC SIGNAL - STAGE 3B	SHEET 38	E

LEGEND

- LUMINAIRE (250W)
- WOOD POLE, TYPE 4
- SPAN WIRE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- NON-INTRUSIVE VEHICULAR DETECTION ZONE
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE (SEE TRAFFIC CONTROL SHEETS FOR TC DEVICE LAYOUT)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TEMPORARY TRAFFIC SIGNAL
STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO.

REGION CONTACT:
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PAGE 8 OF 14

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY TRAFFIC SIGNAL - STAGE 4A	SHEET 39	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\plrf\aa_0371_TEMP SIGNALS_STAGE 4A_sp.dgn
PLOT DATE : 7/28/2015
PLOT BY : hickmant
PLOT NAME :
PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

LEGEND

- LUMINAIRE (250W)
- WOOD POLE, TYPE 4
- SPAN WIRE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- NON-INTRUSIVE VEHICULAR DETECTION ZONE
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE (SEE TRAFFIC CONTROL SHEETS FOR TC DEVICE LAYOUT)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

STH 35
ASH ST
OAK FOREST ST
SPEED LIMIT 25 MPH
SPEED LIMIT 40 MPH
250' TO NEAR RIGHT SIGNAL
155+15RN, 78' LT
156+23RN, 50' LT
154+22RN, 54'RT
156+11RN, 39' RT
WP1
WP2
WP3
WP4
152+00RN
153+00RN
154+00RN
155+00RN
156+00RN
157+00RN
158+00RN
FILLER CAPS
CANOPY

TEMPORARY TRAFFIC SIGNAL
STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO.

REGION CONTACT:
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY TRAFFIC SIGNAL - STAGE 4B	SHEET 40	E

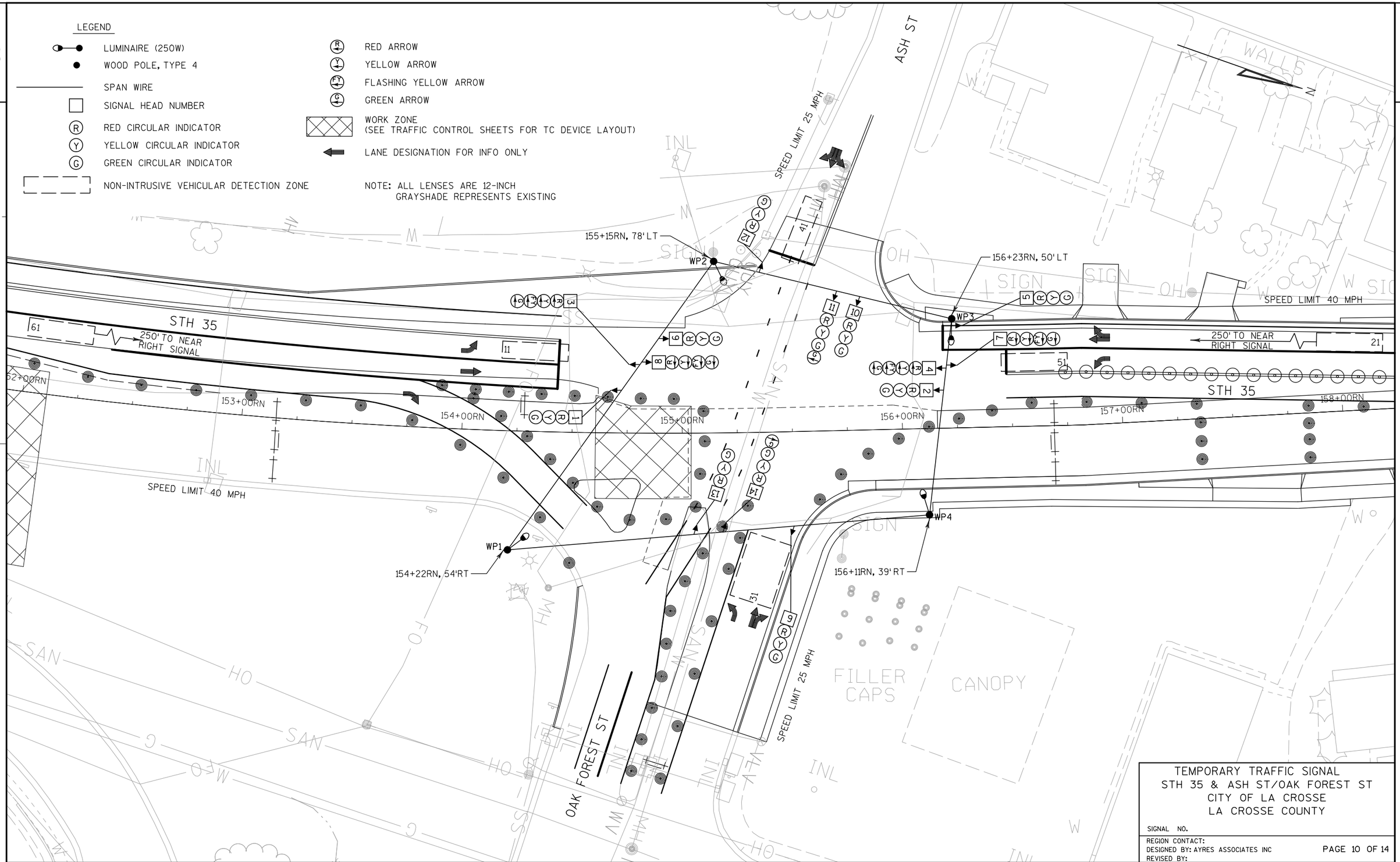
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WISDOT/CADDS SHEET 42

LEGEND

- LUMINAIRE (250W)
- WOOD POLE, TYPE 4
- SPAN WIRE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- NON-INTRUSIVE VEHICULAR DETECTION ZONE
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE (SEE TRAFFIC CONTROL SHEETS FOR TC DEVICE LAYOUT)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TEMPORARY TRAFFIC SIGNAL
STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO.

REGION CONTACT:
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PAGE 10 OF 14

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY TRAFFIC SIGNAL - STAGE 4C	SHEET 41	E

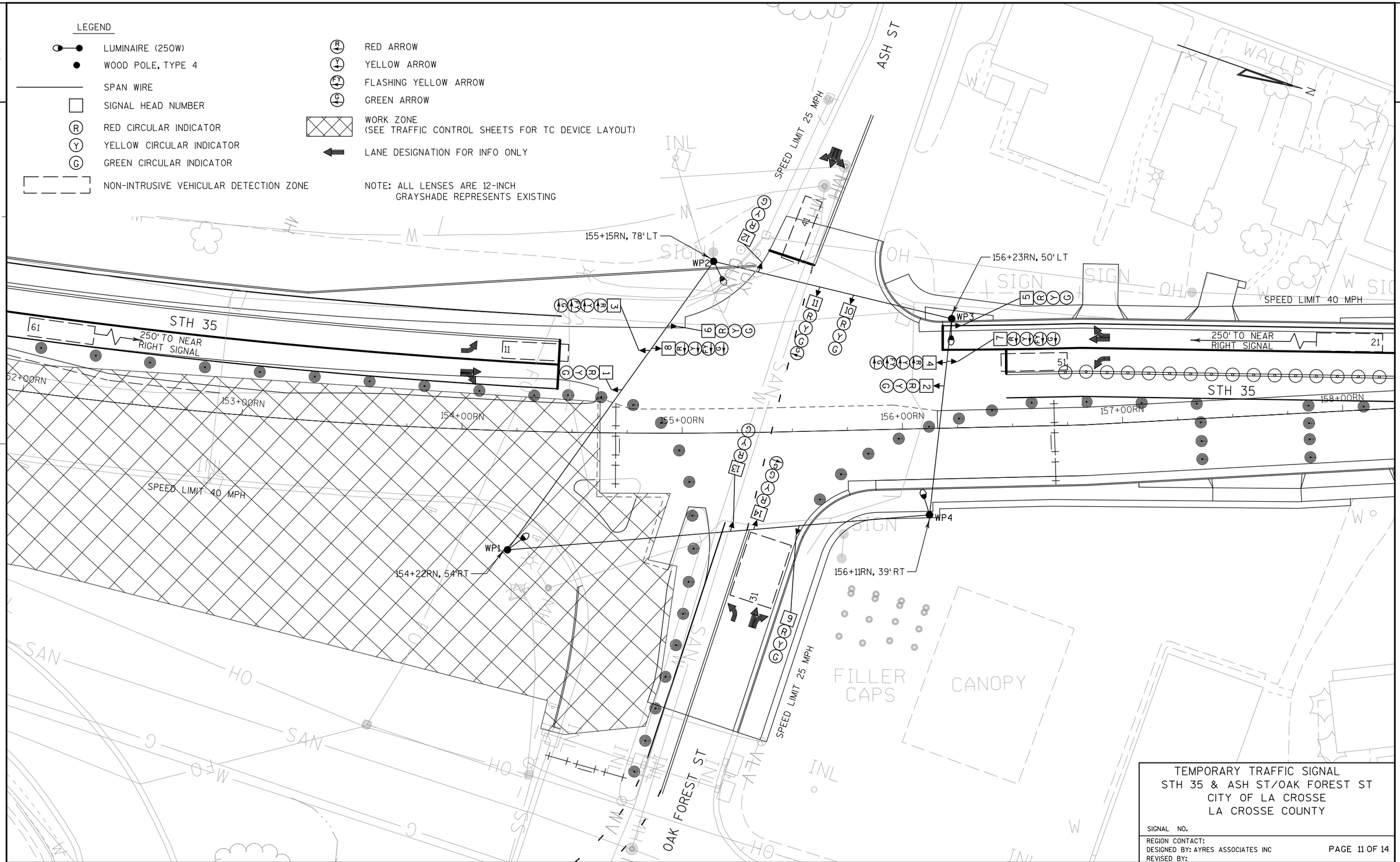
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WISDOT/CADDS SHEET 42

LEGEND

- LUMINAIRE (250W)
- WOOD POLE, TYPE 4
- SPAN WIRE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- NON-INTRUSIVE VEHICULAR DETECTION ZONE
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE (SEE TRAFFIC CONTROL SHEETS FOR TC DEVICE LAYOUT)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TEMPORARY TRAFFIC SIGNAL
STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO.

REGION CONTACT:
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY TRAFFIC SIGNAL - STAGE 4D	SHEET 42	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\plrf\aa_0371_TEMP SIGNALS_STAGE 4D_sp.dgn PLOT DATE : 7/28/2015 PLOT BY : hickmant PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

LEGEND

- LUMINAIRE (250W)
- WOOD POLE, TYPE 4
- SPAN WIRE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- NON-INTRUSIVE VEHICULAR DETECTION ZONE
- (R) RED ARROW
- (Y) YELLOW ARROW
- (FY) FLASHING YELLOW ARROW
- (G) GREEN ARROW
- WORK ZONE (SEE TRAFFIC CONTROL SHEETS FOR TC DEVICE LAYOUT)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

STH 35
ASH ST
SPEED LIMIT 25 MPH
SPEED LIMIT 40 MPH
OAK FOREST ST
WP1
WP2
WP3
WP4
154+22RN, 54'RT
155+15RN, 78' LT
156+23RN, 50' LT
156+11RN, 39' RT
152+00RN
153+00RN
154+00RN
155+00RN
156+00RN
157+00RN
158+00RN
250' TO NEAR RIGHT SIGNAL
61
11
51
21
31
41
FILLER CAPS
CANOPY
WALLS

TEMPORARY TRAFFIC SIGNAL
STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO.

REGION CONTACT:
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

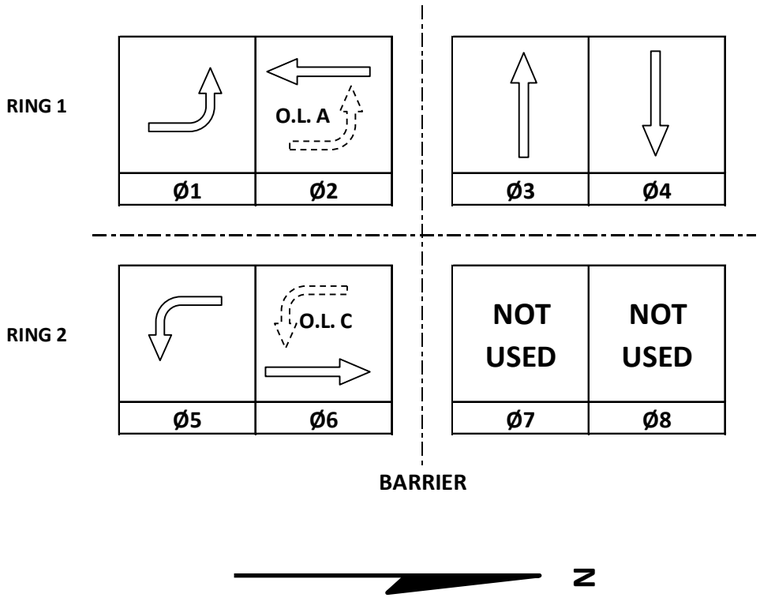
PAGE 12 OF 14

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TEMPORARY TRAFFIC SIGNAL - STAGE 5A	SHEET 43	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\plrf\aa_0371_TEMP SIGNALS_STAGE 5A_sp.dgn
PLOT DATE : 7/28/2015
PLOT BY : hickmant
PLOT NAME :
PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	3,4	-
Ø2	5,6	R
Ø3	9,10,11	-
Ø4	12,13,14	R
Ø5	7,8	-
Ø6	1,2	R
Ø7		
Ø8		
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA	5,6	R ←
OLB		
OLC	1,2	R ←
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				X
4				X
5				X
6	X	2	MIN	X
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	21	61	31	41				
ASSIGNED PHASE	2	6	3	4				
OPERATION MODE	VEH	VEH	VEH	VEH				
SWITCH								
EXTEND	X	X	X	X				
DELAY								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								ASSIGNED PHASE
								OPERATION MODE
								SWITCH
								EXTEND
								DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	51	11						
ASSIGNED PHASE	5	1						
OPERATION MODE	VEH	VEH						
SWITCH								
EXTEND	X	X						
DELAY								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								ASSIGNED PHASE
								OPERATION MODE
								SWITCH
								EXTEND
								DELAY

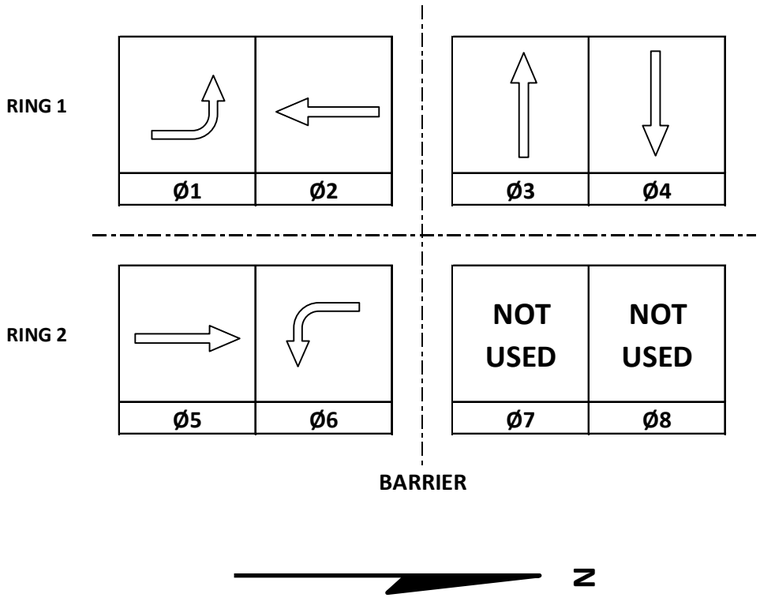
GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. INTERSECTION UTILIZES GRIDSMART VIDEO DETECTION CAMERAS FOR ACTUATED CONTROL.
3. TEMPORARY TRAFFIC SIGNAL SETUP FOR STAGES 1A, 2A, 2B, 2C, 4B, 4C, 4D AND 5A.

STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO: S CABINET TYPE: TEMP
CONTROLLER TYPE: EPAC
DATE: 8/15 PAGE NO. 13 OF 14

	HEAD NUMBERS	FLASH
Ø1	3,4	-
Ø2	5,6	R
Ø3	9,10,11	R
Ø4	12,13,14	R
Ø5	1,2	R
Ø6	7,8	
Ø7		
Ø8		
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA		
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	5	MIN	X
3				X
4				X
5	X	2	MIN	X
6				X
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	21	61	31	41				
ASSIGNED PHASE	2	6	3	4				
OPERATION MODE	VEH	VEH	VEH	VEH				
SWITCH								
EXTEND	X	X	X	X				
DELAY								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								ASSIGNED PHASE
								OPERATION MODE
								SWITCH
								EXTEND
								DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	51	11						
ASSIGNED PHASE	5	1						
OPERATION MODE	VEH	VEH						
SWITCH								
EXTEND	X	X						
DELAY								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								ASSIGNED PHASE
								OPERATION MODE
								SWITCH
								EXTEND
								DELAY

GENERAL NOTES:

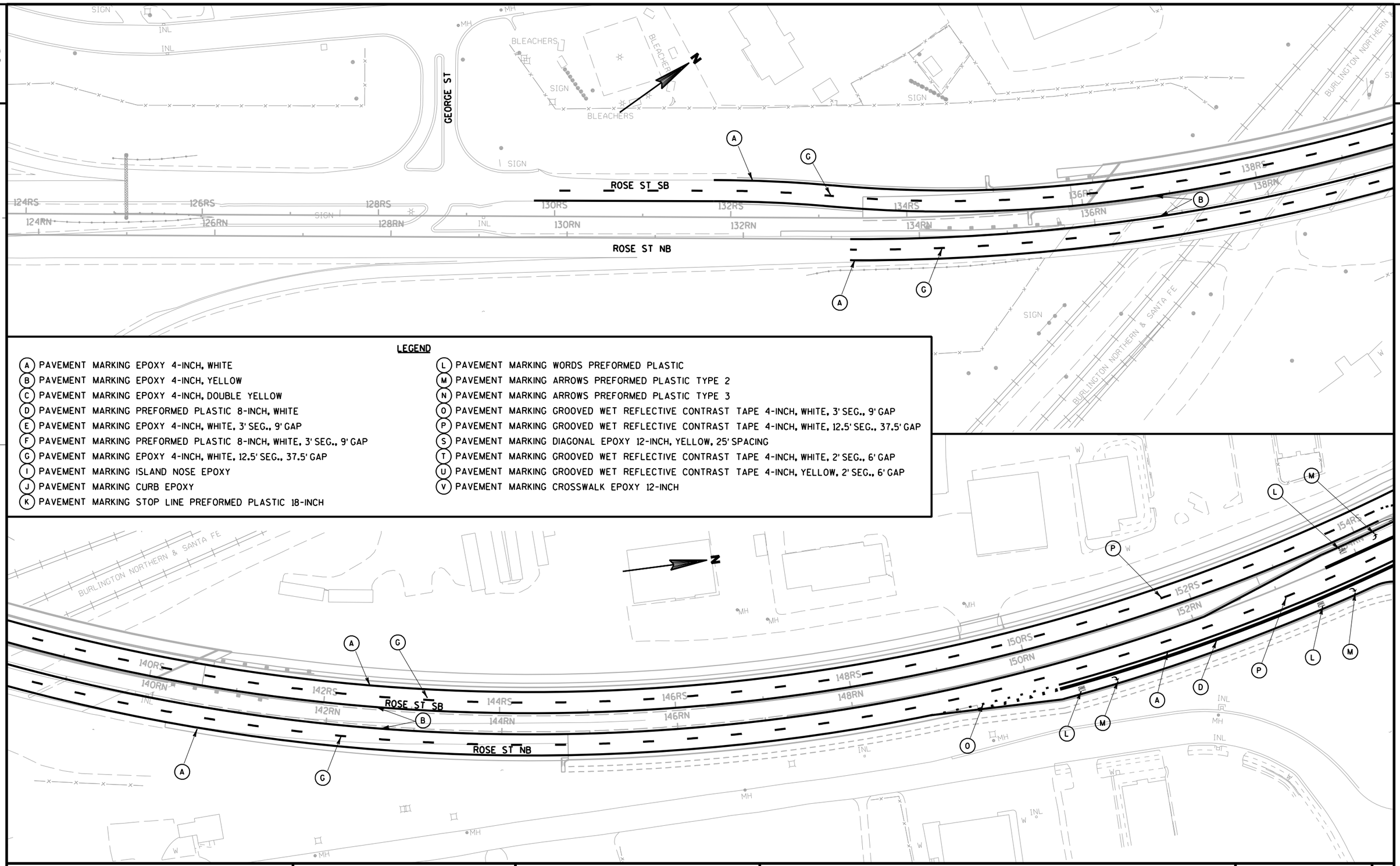
1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. INTERSECTION UTILIZES GRIDSMART VIDEO DETECTION CAMERAS FOR ACTUATED CONTROL.
3. SPLIT PHASED SETUP FOR TEMPORARY CONTROL IS FOR STAGES 1B, 3A, 3B, 3C, AND 4A.
4. PHASES 1 AND 6 TO OPERATE AS 'PROTECTED ONLY' LEFT-TURNS.

STH 35 & ASH ST/OAK FOREST ST
CITY OF LA CROSSE
LA CROSSE COUNTY

SIGNAL NO: S CABINET TYPE: TEMP
CONTROLLER TYPE: EPAC
DATE: 8/15 PAGE NO. 14 OF 14

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	SEQUENCE OF OPERATIONS	SHEET NO: 45	E

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1



LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 4-INCH, DOUBLE YELLOW
- (D) PAVEMENT MARKING PREFORMED PLASTIC 8-INCH, WHITE
- (E) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING PREFORMED PLASTIC 8-INCH, WHITE, 3' SEG., 9' GAP
- (G) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (I) PAVEMENT MARKING ISLAND NOSE EPOXY
- (J) PAVEMENT MARKING CURB EPOXY
- (K) PAVEMENT MARKING STOP LINE PREFORMED PLASTIC 18-INCH
- (L) PAVEMENT MARKING WORDS PREFORMED PLASTIC
- (M) PAVEMENT MARKING ARROWS PREFORMED PLASTIC TYPE 2
- (N) PAVEMENT MARKING ARROWS PREFORMED PLASTIC TYPE 3
- (O) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (P) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (S) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, YELLOW, 25' SPACING
- (T) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 2' SEG., 6' GAP
- (U) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, YELLOW, 2' SEG., 6' GAP
- (V) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET 46	E

2

LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH, WHITE
- (B) PAVEMENT MARKING EPOXY 4-INCH, YELLOW
- (C) PAVEMENT MARKING EPOXY 4-INCH, DOUBLE YELLOW
- (D) PAVEMENT MARKING PREFORMED PLASTIC 8-INCH, WHITE
- (E) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 3' SEG., 9' GAP
- (F) PAVEMENT MARKING PREFORMED PLASTIC 8-INCH, WHITE, 3' SEG., 9' GAP
- (G) PAVEMENT MARKING EPOXY 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (I) PAVEMENT MARKING ISLAND NOSE EPOXY
- (J) PAVEMENT MARKING CURB EPOXY
- (K) PAVEMENT MARKING STOP LINE PREFORMED PLASTIC 12-INCH
- (L) PAVEMENT MARKING WORDS PREFORMED PLASTIC
- (M) PAVEMENT MARKING ARROWS PREFORMED PLASTIC TYPE 2
- (N) PAVEMENT MARKING ARROWS PREFORMED PLASTIC TYPE 3
- (O) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 3' SEG., 9' GAP
- (P) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 12.5' SEG., 37.5' GAP
- (S) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH, YELLOW, 25' SPACING
- (T) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, WHITE, 2' SEG., 6' GAP
- (U) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH, YELLOW, 2' SEG., 6' GAP
- (V) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PAVEMENT MARKING	SHEET 47	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\da_0371_024502_pm.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

GENERAL NOTES FOR TRAFFIC CONTROL

DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON CONTRACTOR METHODS OR SEQUENCE OF OPERATION.

ADJUST SIGN SPACING TO AVOID CONFLICT WITH AND TO PROVIDE A MINIMUM SPACING OF 200 FEET (500 FEET DESIRABLE) TO EXISTING SIGNS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

REMOVE OR COVER ANY TEMPORARY OR EXISTING SIGNS THAT CONFLICT WITH "IN USE" TRAFFIC CONTROL.

ALL TRAFFIC CONTROL SIGNING WILL CONFORM TO PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION, & THE WISCONSIN SUPPLEMENT, DATED MAY 25, 2011.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF DRUMS.

IF LANE CLOSURES ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

INSTALL THE LANE CLOSURE SERIES AS A COMPLETE UNIT THAT INCLUDES ALL ADVANCE WARNING SIGNING, DRUMS, AND ARROW BOARDS.

WARNING LIGHTS SHALL NOT BE WORKING ON "COVERED" OR "DOWNED" SIGNS OR BARRICADES.

DURING HOURS OF DARKNESS, ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH TYPE "A" LIGHTS.

ALL TYPE III BARRICADES SHALL HAVE AN EQUIVALENT WIDTH OF 8 FEET.

REMOVE ALL EXISTING PAVEMENT MARKINGS CONFLICTING WITH THE TRAFFIC CONTROL OR NOT APPROPRIATE TO THE TRAVEL PATH FOR OPERATIONS IN PLACE FOR MORE THAN 4 CONTINUOUS DAYS.

SEE SIGNING PLAN FOR STAGES/LOCATIONS PERMANENT SIGNS ARE PLACED.

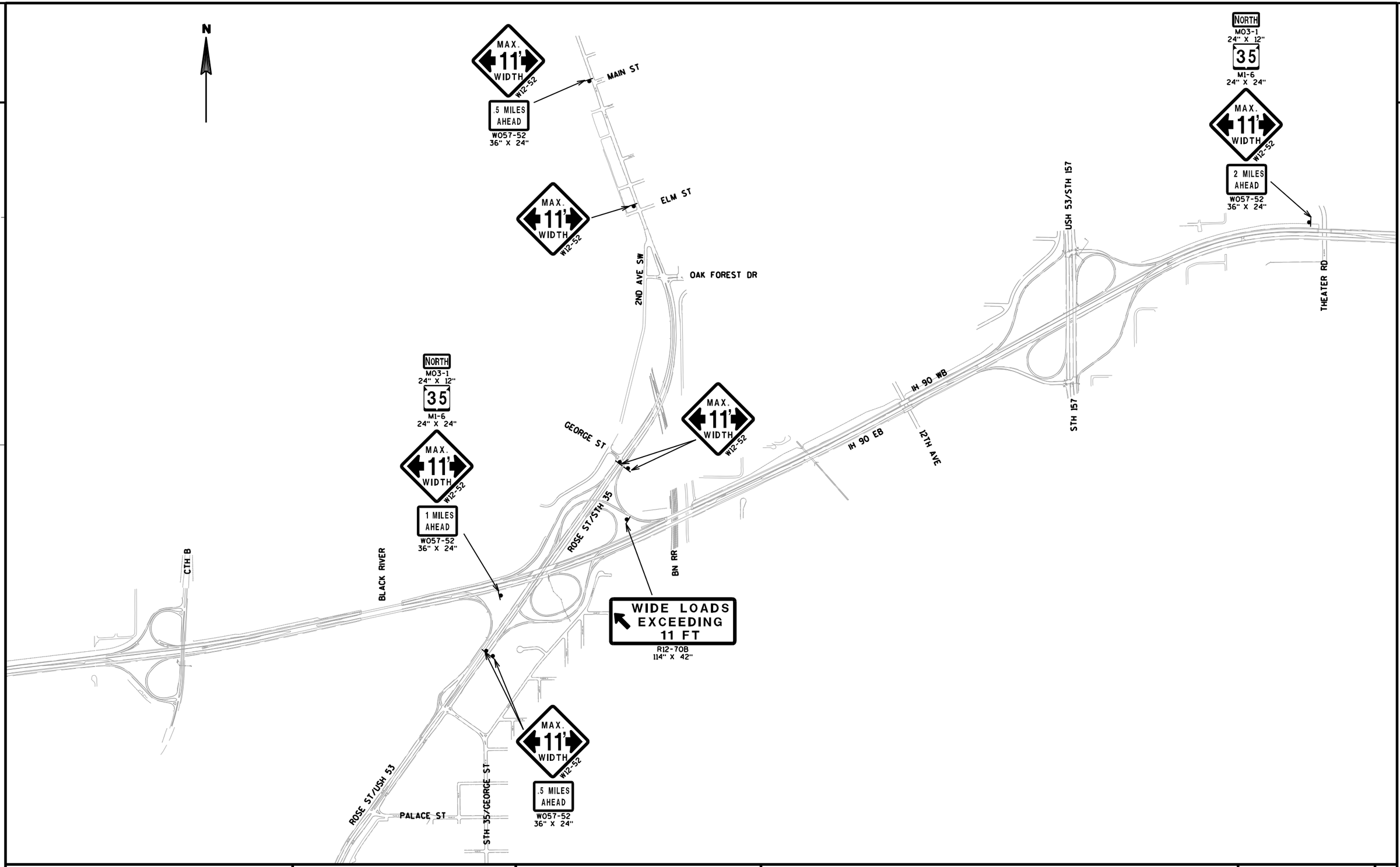
PROVIDE 2' SHY DISTANCE FROM LANE LINE TO FACE OF CONCRETE BARRIER UNLESS CALLED OUT OTHERWISE.

FOR TEMPORARY PAVEMENT MARKINGS CALLED OUT AS REFLECTIVE PAINT/REMOVABLE TAPE, THE INTENT IS TO USE REMOVABLE TAPE IN AREAS DIAGONAL TO FINAL LANES OF CONCRETE AND REFLECTIVE PAINT ELSEWHERE. THE ENGINEER MAY MODIFY THE LOCATIONS OF REFLECTIVE PAINT/REMOVABLE TAPE TO FIT FIELD CONDITIONS AND SAFETY CONCERNS.

FLAGS PLACED ON TRAFFIC CONTROL SIGNS ARE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL SIGN.

TEMPORARY ALIGNMENT DESIGNATION	ROADWAY SEGMENT	PROJECT	STAGE(S) CONSTRUCTED	STAGE(S) IN USE
RT	TEMP ROSE ST ALIGNMENT & X-OVER	7190-03-71	1	2/3
RU	TEMP ROSE ST ALIGNMENT & X-OVER	7190-03-71	2	3/4
TO	TEMP WIDENING ASH ST	7190-03-71	2A	2B
RW	TEMP ROSE ST X-OVER	7190-03-71	5B	**
RX	TEMP ROSE ST SB CONNECTION	7190-03-71	4B	5A

** FOR USE IN FUTURE



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL ADVANCED WARNING	SHEET 49	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\ga_0371_025001_tc.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:1200

WORK:
WIDENING ALONG OUTSIDE LANES OF NB.
TEMPORARY PAVEMENT IN ISLANDS ON OAK FOREST DRIVE/ASH STREET.

TRAFFIC:
SINGLE LANE NB AND SB ON ROSE STREET.
OUTSIDE LANE CLOSED. 2ND AVENUE SW OPEN TO RT IN/RT OUT.
CLOSE THE SIDEWALK AND BIKE ROUTE ALONG ROSE STREET.
CLOSE OUTSIDE LANES ON OAK FOREST DRIVE.

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" FOR ADDITIONAL INFORMATION.

IH 90 WB TO ROSE ST SB

ROSE ST SB TO IH 90 WB

ROSE ST SB

ROSE ST NB

ROSE ST NB TO IH 90 WB

IH 90 EB

IH 90 EB

ROAD WORK AHEAD W20-1A

W3-5 36" X 36"

LEFT LANE CLOSED AHEAD W20-5SA

SPEED LIMIT 40 R2-1 24" X 30" COVERING SIGNS TYPE II

W04-2L

14'-10" MOVING SIGN TYPE II

MERGING TRAFFIC BE PREPARED TO STOP

150

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

50' (TYP)

STA 121+00 RN - STA 125+00 RN
REMOVING PAVEMENT MARKING
(LANE LINE SKIPS)

108RN 110RN 112RN 114RN 116RN 118RN 120RN 122RN

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

GEORGE ST

BLEACHERS

BEGIN LEFT TURN LANE R3-20L 24" X 36"

END ROAD WORK G20-2A 48" X 24"

ROSE ST SB TO IH 90 WB

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

ROSE ST SB

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

25' SPACING (TYP)

25' SPACING (TYP)

50' (TYP)

100' (TYP)

ROSE ST NB

IH 90 WB TO ROSE ST NB

LANE CLOSED R11-2L 48" X 30"

LANE CLOSED R11-2L 48" X 30"

MERGE AHEAD BE PREPARED TO STOP

151

W3-2 36" X 36"

ROAD WORK AHEAD W20-1A

R1-2 36" X 31"

W01-4L

STA 126+20 RN - STA 128+50 RN
REMOVING PAVEMENT MARKING
(LANE LINE SKIPS)

STA 126+70 RN - STA 128+50 RN
REMOVING PAVEMENT MARKING
(CHANNELIZING)

STA 134+70 RN - STA 140+70 RN
REMOVING PAVEMENT MARKING
(LANE LINE SKIPS)

124RN 126RN 128RN 130RN 132RN 134RN 136RN 138RN

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

50' (TYP)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

16' CLEAR ROADWAY

W01-6 48" X 24"

SPEED LIMIT 40 R2-1 24" X 30" COVERING SIGNS TYPE II

BNSF RR

BURLINGTON NORTHERN SANTA FE

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1A	SHEET 50	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026001_s1a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

N

BNSF RR BURLINGTON NORTHERN & SANTA FE

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

ROSE ST SB

ROSE ST NB

100' (TYP)

25' SPACING (TYP)

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

400
Onalaska
POPULATION 17,736
I2-3
MOVING SIGN TYPE II

401
W3-3
MOVING SIGN TYPE II

402
National Guard Armory
D1-55R
MOVING SIGN TYPE II

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

SPEED LIMIT 40

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026002_s1a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

N

TO
M4-5
24" X 12"
35
M1-6
24" X 24"
M06-1
21" X 21"

TO
M4-5
24" X 12"
35
M1-6
24" X 24"
M05-1R
21" X 21"

2ND AVE SW

ROAD WORK AHEAD
W20-1A

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

SEE SDD "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE" FOR ADDITIONAL INFORMATION.

ROAD WORK AHEAD
W20-1A

ASH ST

END ROAD WORK
G20-2A
48" X 24"

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

15' SPACING (TYP)

25' SPACING (TYP)

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
W01-6
48" X 24"

R3-2
24" X 24"

W04-2R

15' SPACING (TYP)

END ROAD WORK
G20-2A
48" X 24"

ROSE ST SB

ROSE ST NB

152RT
154RT
156RT
158RT
160RT
162RT
164RT

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

25' SPACING (TYP)

15' SPACING (TYP)

OAK AVE S

LANE CLOSED
R11-2L
48" X 30"

15' SPACING (TYP)

25' SPACING (TYP)

CONSTRUCT ACCESS HALF AT A TIME

403
SPEED LIMIT 25
MOVING SIGNS TYPE II

404
DO NOT ENTER
MOVING SIGNS TYPE II

405
SPEED LIMIT 25
MOVING SIGNS TYPE II

50' (TYP)

LANE CLOSED
R11-2L
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

ELM ST

FOR THE ROSE ST NB RT TURN TO OAK FOREST DR, DO NOT WORK IN ISLAND AND OUTSIDE SHOULDER AT THE SAME TIME.

REMOVING SIGNS TYPE II SEE PERMANENT SIGNING PLAN

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE) (DOTTED, 2' LINE, 6' GAP)

COVERING SIGNS TYPE II

END ROAD WORK
G20-2A
48" X 24"

OAK FOREST DR

OAK AVE S

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

ROAD WORK AHEAD
W20-1A

SEE SIDEWALK/BIKE ROUTE DETOUR FOR ADDTIONAL SIGNS

NOTE: GAP WORK TO KEEP A MINIMUM OF ONE ACCESS OPEN TO EACH BUSINESS AT ALL TIMES.

STA 52+85 FD
STA 53+75 FD
REMOVING PAVEMENT MARKING ARROWS (LT TURN)

STA 53+30 FD
REMOVING PAVEMENT MARKING WORDS (ONLY)

STA 151+00 RN - STA 152+00 RN
REMOVING PAVEMENT MARKING (CHANNELIZING)

STA 158+00 RN - STA 159+35 RN
REMOVING PAVEMENT MARKING (LANE LINE SKIPS, SB LANES)

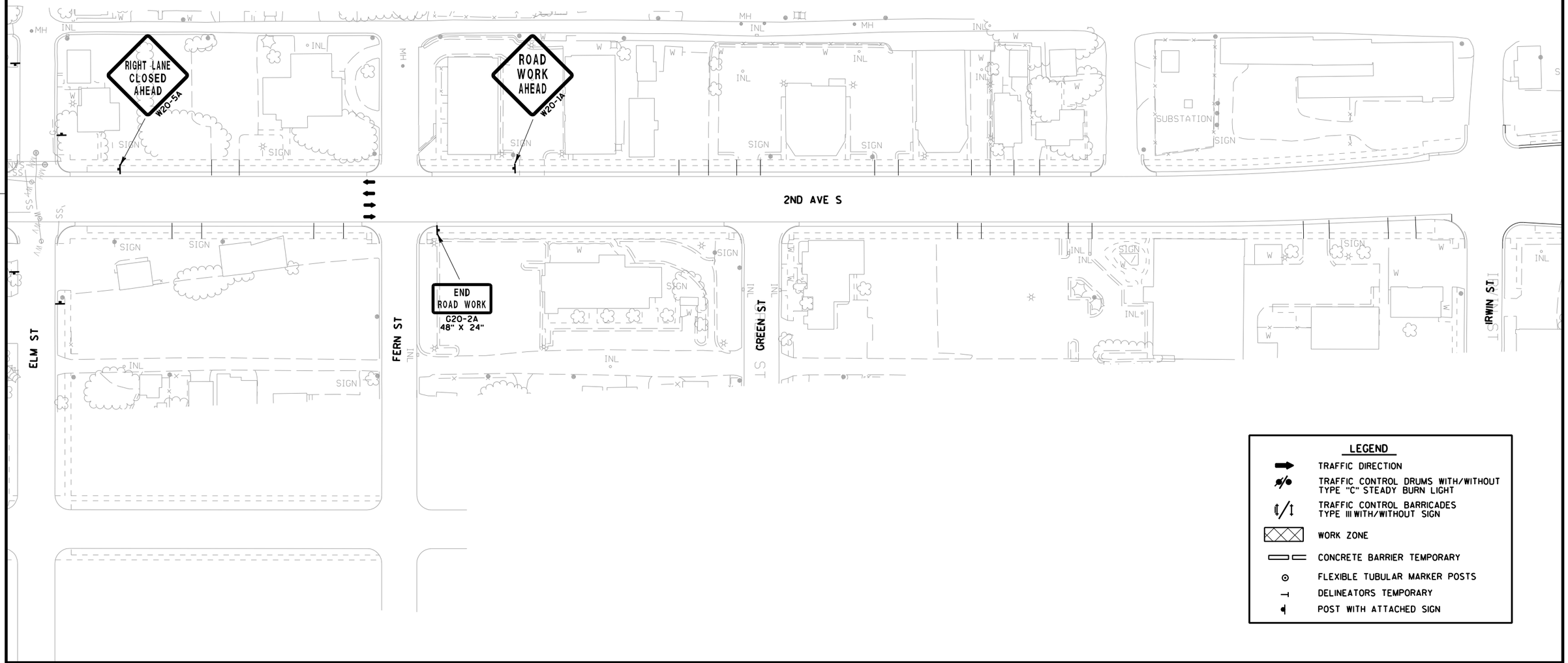
STA 52+85 FD
STA 53+75 FD
TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE TYPE 3

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1A	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\da_0371_026003_s1a.dgn
PLOT DATE : 7/30/2015
PLOT BY : AYRES-EC
PLOT NAME :
PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1A	SHEET 53	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\ga_0371_026004_s1a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

WORK:
MEDIAN WIDENING ALONG NB AND SB LANES.
TEMPORARY PAVEMENT ON ISLAND AT OAK FOREST DRIVE.
CONSTRUCT 'RT' TEMPORARY CROSSOVER.
CONSTRUCT 'TO' WIDENING ALONG ASH STREET.

TRAFFIC:
SINGLE LANE NB AND SB ON ROSE STREET.
MEDIAN LANE CLOSED. 2ND AVENUE SOUTH OPEN TO RT IN/RT OUT

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" FOR ADDITIONAL INFORMATION.

IH 90 WB TO ROSE ST SB

ROSE ST SB TO IH 90 WB

ROSE ST SB

ROSE ST NB

ROSE ST NB TO IH 90 WB

IH 90 EB

IH 90 EB

ROAD WORK AHEAD
W20-1A

SPEED LIMIT 40
W3-5
36" X 36"

LEFT LANE CLOSED AHEAD
W20-5SA

SPEED LIMIT 40
R2-1
24" X 30"

W04-2L

MERGING TRAFFIC BE PREPARED TO STOP

50' (TYP)

108RN 110RN 112RN 114RN 116RN 118RN 120RN 122RN

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

GEORGE ST

BLEACHERS

SPEED LIMIT 40
R2-1
24" X 30"
COVERING SIGNS TYPE II

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

END ROAD WORK
G20-2A
48" X 24"

ROSE ST SB TO IH 90 WB

ROSE ST SB

ROSE ST NB

25' SPACING (TYP)

25' SPACING (TYP)

50' (TYP)

124RN 126RN 128RN 130RN 132RN 134RN 136RN 138RN

LANE CLOSED
R11-2L
48" X 30"

IH 90 WB TO ROSE ST NB

MERGE AHEAD BE PREPARED TO STOP

W3-2
36" X 36"

ROAD WORK AHEAD
W20-1A

LANE CLOSED
R11-2L
48" X 30"

YIELD
R1-2
36" X 31"

LANE CLOSED
R11-2L
48" X 30"

SPEED LIMIT 40
R2-1
24" X 30"

100' (TYP)

100' (TYP)

BNSF RR

BURLINGTON NORTHERN SANTA FE

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1B	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026011_s1b.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

N

BNSF RR BURLINGTON NORTHERN & SANTA FE

SPEED LIMIT 40
R2-1
24" X 30"
COVERING SIGNS
TYPE II

LANE CLOSED
R11-2L
48" X 30"

RT IN/
RT OUT

ROSE ST SB

ROSE ST NB

100'
(TYP)

TEMPORARY PAVEMENT
MARKING REMOVABLE
TAPE 4-INCH (WHITE)

LANE CLOSED
R11-2L
48" X 30"

SPEED LIMIT 40

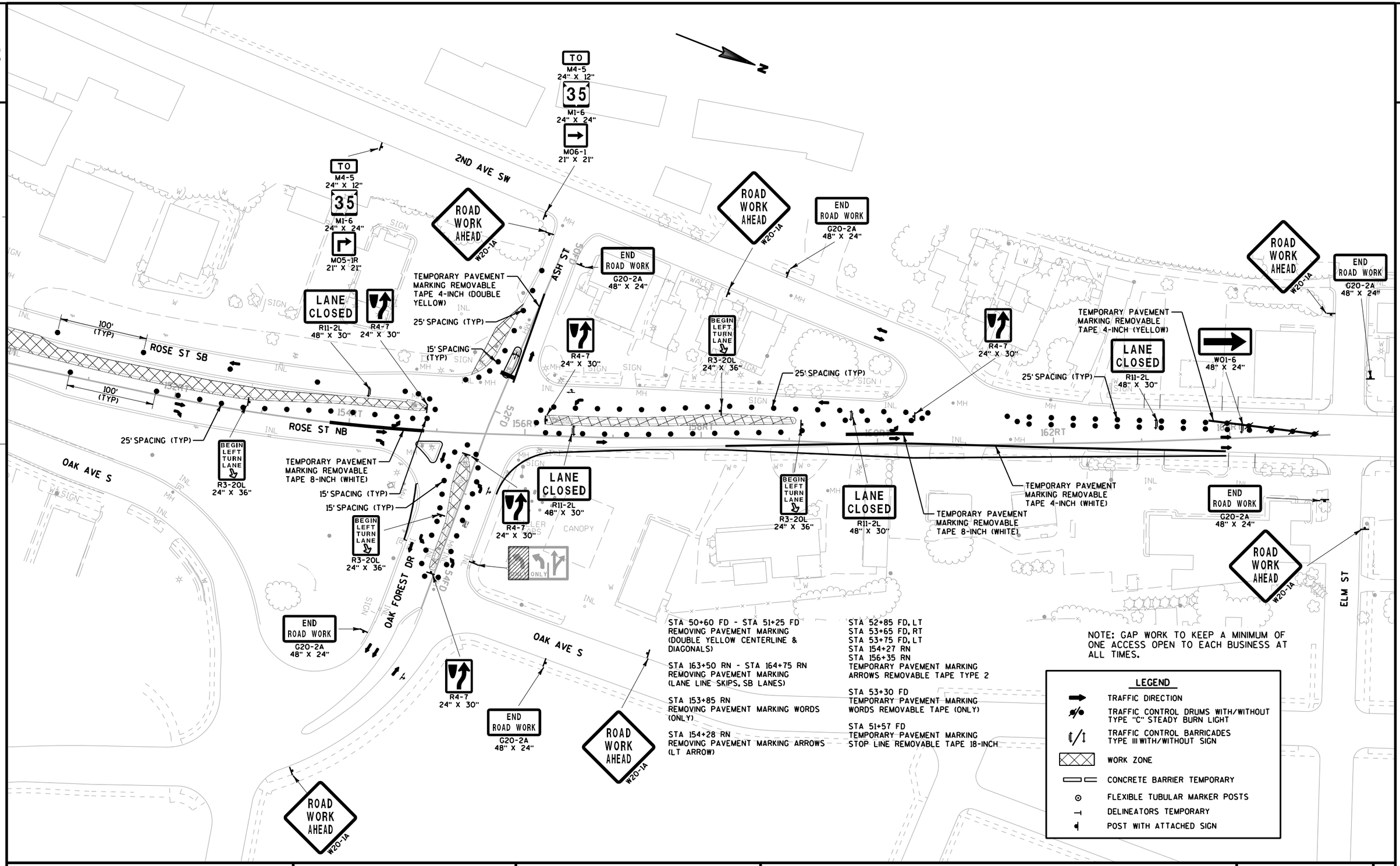
LANE CLOSED
R11-2L
48" X 30"

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1B	SHEET	E

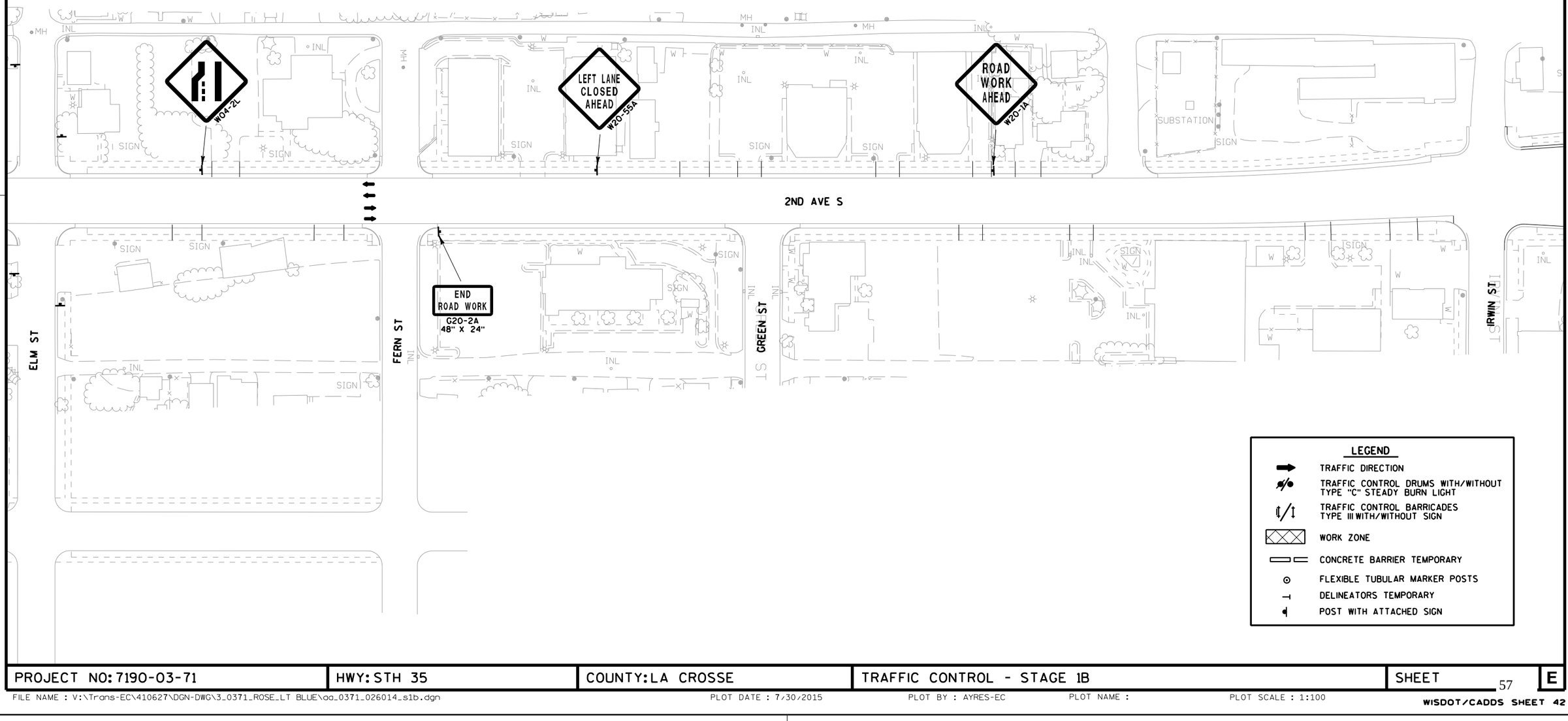
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1B	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026013_s1b.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

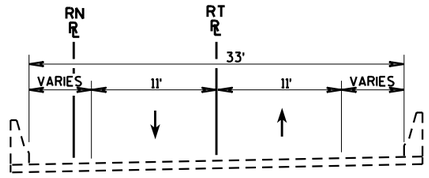
2



LEGEND

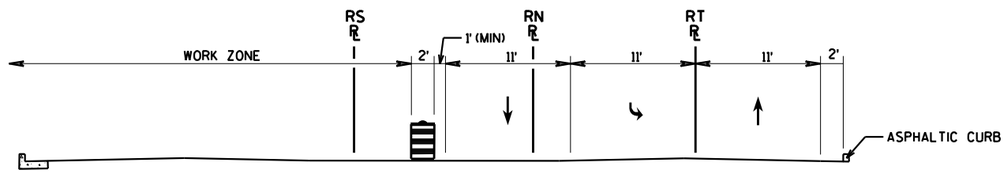
- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 1B	SHEET 57	E



ROSE ST/STH 35 NB STRUCTURE OVER BNRR 1

STRUCTURE B-32-67



ROSE ST/STH 35 TRAFFIC LAYOUT 2

2

WORK:
BEGIN CONSTRUCTION OF SB LANES OF ROSE STREET. GAP AT ASH STREET AND 2ND AVENUE SW. BEGIN CONSTRUCTION OF B-32-224. COMPLETE SB LANES IN AREA OF ASH STREET WB LANES.

TRAFFIC:
SINGLE LANE BI-DIRECTIONAL ON EXISTING NB ROSE STREET USING WIDENING. 2ND AVENUE SW OPEN TO RT IN/RT OUT. SHIFT ASH STREET ONTO EB LANES AND TEMPORARY WIDENING.

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" FOR ADDITIONAL INFORMATION.

IH 90 WB TO ROSE ST SB

ROSE ST SB TO IH 90 WB

ROSE ST SB

ROSE ST NB

ROSE ST NB TO IH 90 WB

IH 90 EB

IH 90 EB

108RN 110RN 112RN 114RN 116RN 118RN 120RN 122RN

50' (TYP)

ROAD WORK AHEAD W20-1A

SPEED LIMIT 40 W3-5 36" X 36"

LEFT LANE CLOSED AHEAD W20-5SA

SPEED LIMIT 40 R2-1 24" X 30"

W04-2L

MERGING TRAFFIC BE PREPARED TO STOP

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

GEORGE ST

BLEACHERS

STA 129+25 RS - STA 132+00 RS
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINE)

SPEED LIMIT 40 R2-1 24" X 30"

SEE SDD "CONCRETE BARRIER TEMPORARY PRECAST 12'-6"" FOR TIED-DOWN SYSTEM LAYOUT.

BEGIN LEFT TURN LANE R3-20L 24" X 36"

END ROAD WORK G20-2A 48" X 24"

ROSE ST SB TO IH 90 WB

ROSE ST SB

ROSE ST NB

25' SPACING (TYP)

25' SPACING (TYP)

50' (TYP)

130RT 132RT

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

15' SPACING (TYP)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH (DOUBLE-YELLOW)

1

LANE CLOSED R11-2L 48" X 30"

IH 90 WB TO ROSE ST NB

MERGE AHEAD BE PREPARED TO STOP

LANE CLOSED R11-2L 48" X 30"

YIELD R1-2 36" X 31"

W01-6 48" X 24"

R4-7 24" X 30"

SPEED LIMIT 50

SPEED LIMIT 40 R2-1 24" X 30"

W06-1

W3-2 36" X 36"

ROAD WORK AHEAD W20-1A

STA 132+00 RN - STA 134+70 RN
REMOVING PAVEMENT MARKING
(LANE LINE SKIPS)

STA 132+00 RN - STA 154+50 RN
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINE)

BNSF RR

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 2A	SHEET 59	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026021_s2a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

N

BNSF RR

W01-4R

14'-10"

1/4 MILE AHEAD

MOVING SIGNS TYPE II

406

STA 149+00 RS - STA 150+00 RS
REMOVING PAVEMENT MARKING
(LANE LINE SKIPS & MEDIAN EDGELINE)

NOTE:
CLOSE RT IN/RT OUT ENTRANCE DURING STAGE 2 FOR UP TO 2 WEEKS TO AVOID PAVING GAP DURING STAGE 2C.

SPEED LIMIT 40

R2-1
24" X 30"

15' SPACING (TYP)

RT IN/
RT OUT

25' SPACING (TYP)

ROSE ST SB

ROSE ST NB

50' (TYP)

50' (TYP)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE-YELLOW)

10' SPACING (TYP)

TEMPORARY PAVEMENT MARKING PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING PAINT 4-INCH (DOUBLE-YELLOW)

ONLY ONLY ONLY

R3-8W
54" X 30"

TEMPORARY PAVEMENT MARKING PAINT 8-INCH (WHITE)

TEMPORARY PAVEMENT MARKING PAINT 4-INCH (WHITE)

STA 139+88 RN - STA 141+54 RN, LT
MGS GUARDRAIL TEMPORARY

STA 140+70 RN - STA 154+50 RN
REMOVING PAVEMENT MARKING
(LANE LINE SKIPS)

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 2A	SHEET 60	E

2

TO
M4-5
24" X 12"
35
M1-6
24" X 24"
M06-1
21" X 21"

TO
M4-5
24" X 12"
35
M1-6
24" X 24"
M05-1R
21" X 21"

2ND AVE SW

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

TEMPORARY PAVEMENT MARKING PAINT 4-INCH (WHITE)

SPEED LIMIT
40
R2-1
24" X 30"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

ROAD CLOSED
R11-2
48" X 30"

FULL ACCESS

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE-YELLOW)

ROAD CLOSED
R11-2
48" X 30"

ASH ST

15' SPACING (TYP)

ROSE ST SB

50' (TYP)

ROSE ST NB

15' SPACING (TYP)

ACCESS CLOSED

ACCESS CLOSED

25' SPACING (TYP)

ONLY
R3-8A
36" X 30"

R3-2
24" X 24"

15' SPACING (TYP)

LANE CLOSED
R11-2L
48" X 30"

FULL ACCESS

FULL ACCESS

FULL ACCESS

TEMPORARY PAVEMENT MARKING PAINT 8-INCH (WHITE)

TEMPORARY PAVEMENT MARKING PAINT 4-INCH (DOUBLE-YELLOW)

OAK AVE S

COVERING SIGNS TYPE II

COVERING SIGNS TYPE II

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE/YELLOW) (DOTTED, 2' LINE, 6' GAP)

TEMPORARY PAVEMENT MARKING PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE) (DOTTED, 2' LINE, 6' GAP)

END ROAD WORK
G20-2A
48" X 24"

OAK FOREST DR

25' SPACING (TYP)

LANE CLOSED
R11-2L
48" X 30"

ONLY

OAK AVE S

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

SEE SIDEWALK/BIKE ROUTE DETOUR FOR ADDTIONAL SIGNS

ROAD WORK AHEAD
W20-1A

RT IN/ RT OUT

RT IN/ RT OUT

RT IN/ RT OUT

RT IN/ RT OUT

RT IN/ RT OUT

10' SPACING (TYP)

TEMPORARY PAVEMENT MARKING PAINT 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)

TEMPORARY PAVEMENT MARKING PAINT 4-INCH (DOUBLE-YELLOW)

FULL ACCESS

FULL ACCESS

FULL ACCESS

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE-YELLOW)

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

ELM ST

STA 156+00 RN - STA 164+90 RN
REMOVING PAVEMENT MARKING
(LANE LINE SKIPS)

STA 154+50 RN - STA 155+50 RN
REMOVING PAVEMENT MARKING
(DOTTED LANE LINE)

STA 153+60 RN - STA 154+60 RN
REMOVING PAVEMENT MARKING
(CHANNELIZING)

STA 52+65 FD
STA 154+53 RN
STA 154+60 RN
REMOVING PAVEMENT MARKING
(STOP BAR)

STA 159+60 RN - STA 164+90 RN
REMOVING PAVEMENT MARKING
(DOUBLE YELLOW)

STA 156+00 RN - STA 158+80 RN
REMOVING PAVEMENT MARKING
(MEDIAN EDGELINES)

STA 158+80 RN - STA 159+60 RN
REMOVING PAVEMENT MARKING
(DOUBLE YELLOW & DIAGONAL)

STA 52+85 FD
STA 53+75 FD
TEMPORARY PAVEMENT MARKING
ARROWS REMOVABLE TAPE TYPE 3

STA 150+30 RN
STA 154+00 RN
STA 156+28 RN
STA 159+92 RN
TEMPORARY PAVEMENT MARKING
ARROWS REMOVABLE TAPE TYPE 2

STA 152+16 RN
STA 158+10 RN
TEMPORARY PAVEMENT MARKING
WORDS REMOVABLE TAPE (ONLY)

STA 154+25 RN
STA 156+05 RN
STA 51+72 FD
TEMPORARY PAVEMENT MARKING
STOP LINE REMOVABLE TAPE 18-INCH

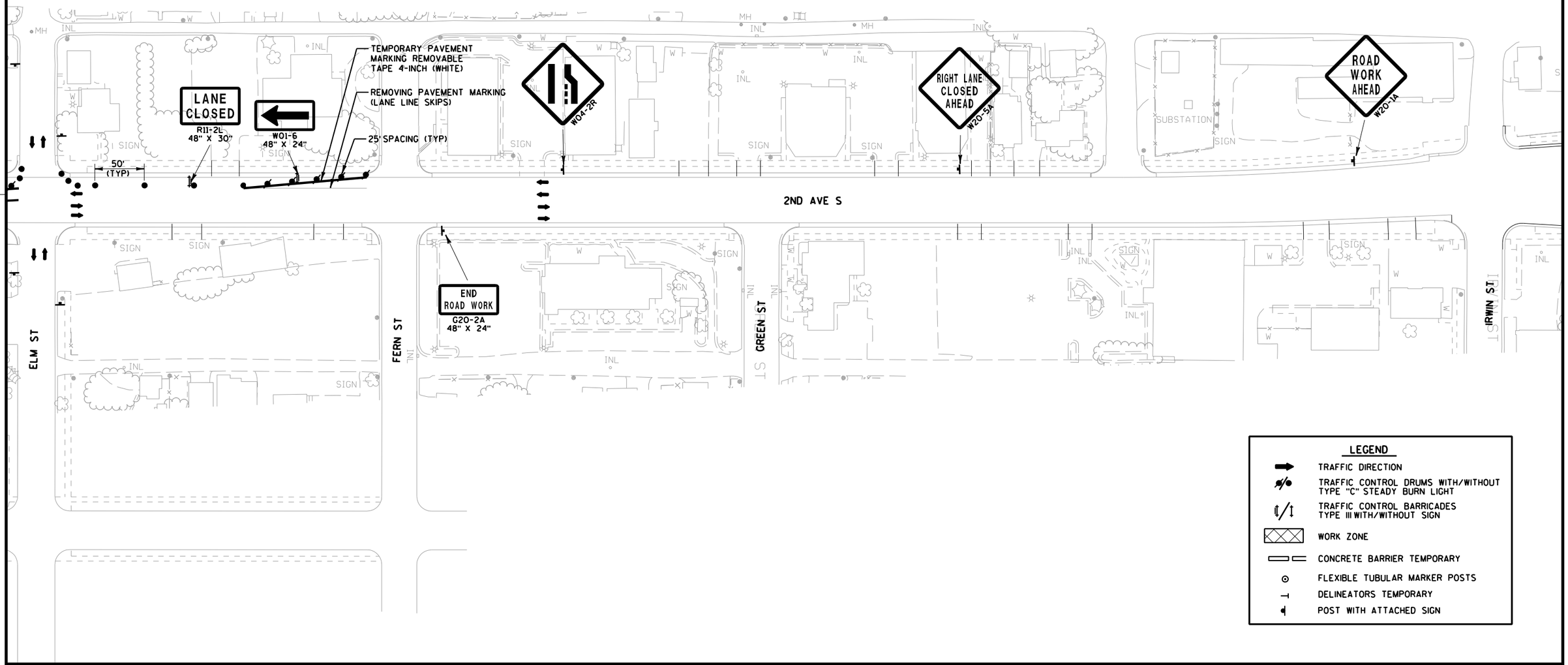
LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 2A	SHEET E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026023_s2a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2



LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 2A	SHEET 62	E

2

SEE STAGE 2A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM BEGINNING OF PROJECT TO RAILROAD.

WORK:
CONTINUE CONSTRUCTING SB LANES OF ROSE STREET AND B-32-224. COMPLETE SB LANES IN AREA OF MEDIAN OF ASH STREET AND 2ND AVENUE SW.

TRAFFIC:
KEEP ROSE STREET NB AND SB TRAFFIC BI-DIRECTIONAL ON EXISTING NB LANES AND WIDENING. CLOSE 2ND AVENUE SW TO TRAFFIC. KEEP OUTSIDE LANE OF WB OAK FOREST DRIVE CLOSED. SHIFT WB ASH STREET ONTO NEWLY CONSTRUCTED LANES.

SEE STAGE 2A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM ELM ST TO END OF PROJECT.

CONCRETE PAVING GAP (SEE DETAIL)

ROAD CLOSED AHEAD W20-3A

TO M4-5 24" X 12" / 35 M1-6 24" X 24" / M05-1R 21" X 21"

2ND AVE SW

ROAD WORK AHEAD W20-1A

TO M4-5 24" X 12" / 35 M1-6 24" X 24" / M06-1 21" X 21"

ROAD CLOSED TO THRU TRAFFIC R11-4 60" X 30"

ASH ST

SPEED LIMIT 40 R2-1 24" X 30"

ROSE ST SB

ROSE ST NB

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

FULL ACCESS

15' SPACING (TYP)

50' (TYP)

END ROAD WORK G20-2A 48" X 24"

ROAD CLOSED R11-2 48" X 30"

RT IN/ RT OUT

25' SPACING (TYP)

ONLY R3-8A 36" X 30"

ROAD CLOSED R11-2 48" X 30"

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

WO1-6 48" X 24"

OAK AVE S

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE/YELLOW) (DOTTED, 2' LINE, 6' GAP)

LANE CLOSED R11-2L 48" X 30"

ONLY

END ROAD WORK G20-2A 48" X 24"

OAK FOREST DR

OAK AVE S

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

SEE SIDEWALK/BIKE ROUTE DETOUR FOR ADDTIONAL SIGNS

ROAD WORK AHEAD W20-1A

ELM ST

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 2B	SHEET 63	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\oa_0371_026033_s2b.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

WORK:
COMPLETE SB LANES OF ROSE STREET EXCEPT FOR MEDIAN LANE FROM STA 150+50 RS - STA 153+85 RS. CONTINUE CONSTRUCTION OF B-32-224.

TRAFFIC:
KEEP ROSE STREET NB AND SB TRAFFIC BI-DIRECTIONAL ON EXISTING NB LANES AND WIDENING. OPEN 2ND AVENUE SW TO RT IN/RT OUT MOVEMENTS ONLY. KEEP OUTSIDE LANE OF WB OAK FOREST DRIVE CLOSED. SHIFT EB ASH STREET ONTO NEWLY CONSTRUCTED LANES.

SEE STAGE 2A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM BEGINNING OF PROJECT TO RAILROAD.

SEE STAGE 2A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM ELM ST TO END OF PROJECT.

TO
M4-5
24" X 12"
35
M1-6
24" X 24"
M06-1
21" X 21"

TO
M4-5
24" X 12"
35
M1-6
24" X 24"
M05-1R
21" X 21"

2ND AVE SW

ROAD WORK AHEAD
W20-1A

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

SPEED LIMIT
40
R2-1
24" X 30"

ROAD CLOSED
R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE - YELLOW)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

FULL ACCESS

ASH ST

ROAD CLOSED
R11-2
48" X 30"

RT IN/ RT OUT

RT IN/ RT OUT

ONLY
R3-8A
36" X 30"

R3-2
24" X 24"

25' SPACING (TYP)

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

FULL ACCESS

FULL ACCESS

FULL ACCESS

ROSE ST SB

ROSE ST NB

50' (TYP)

15' SPACING (TYP)

RT IN/ RT OUT

RT IN/ RT OUT

RT IN/ RT OUT

RT IN/ RT OUT

RT IN/ RT OUT

FULL ACCESS

FULL ACCESS

FULL ACCESS

END ROAD WORK
G20-2A
48" X 24"

OAK AVE S

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE/YELLOW) (DOTTED, 2' LINE, 6' GAP)

25' SPACING (TYP)

LANE CLOSED
R11-2L
48" X 30"

ONLY

ROAD WORK AHEAD
W20-1A

ELM ST

END ROAD WORK
G20-2A
48" X 24"

OAK FOREST DR

OAK AVE S

STA 51+56 FD
TEMPORARY PAVEMENT MARKING
STOP LINE REMOVABLE TAPE 18-INCH

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

ROAD WORK AHEAD
W20-1A

SEE SIDEWALK/BIKE ROUTE DETOUR FOR ADDTIONAL SIGNS

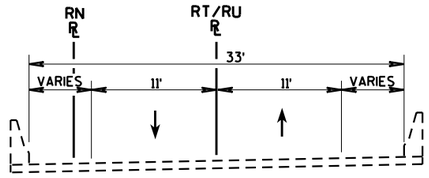
LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 2C	SHEET	E

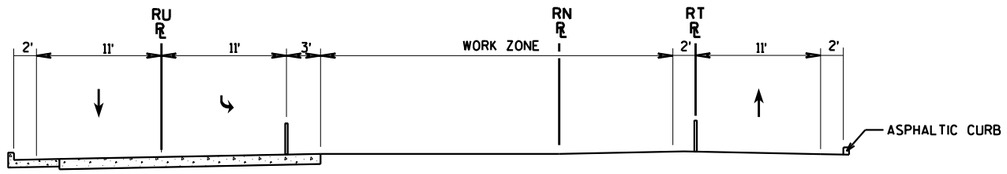
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WISDOT/CADDS SHEET 42

2



ROSE ST/STH 35 NB STRUCTURE OVER BNRR (1)

STRUCTURE B-32-67



ROSE ST/STH 35 TRAFFIC LAYOUT (2)

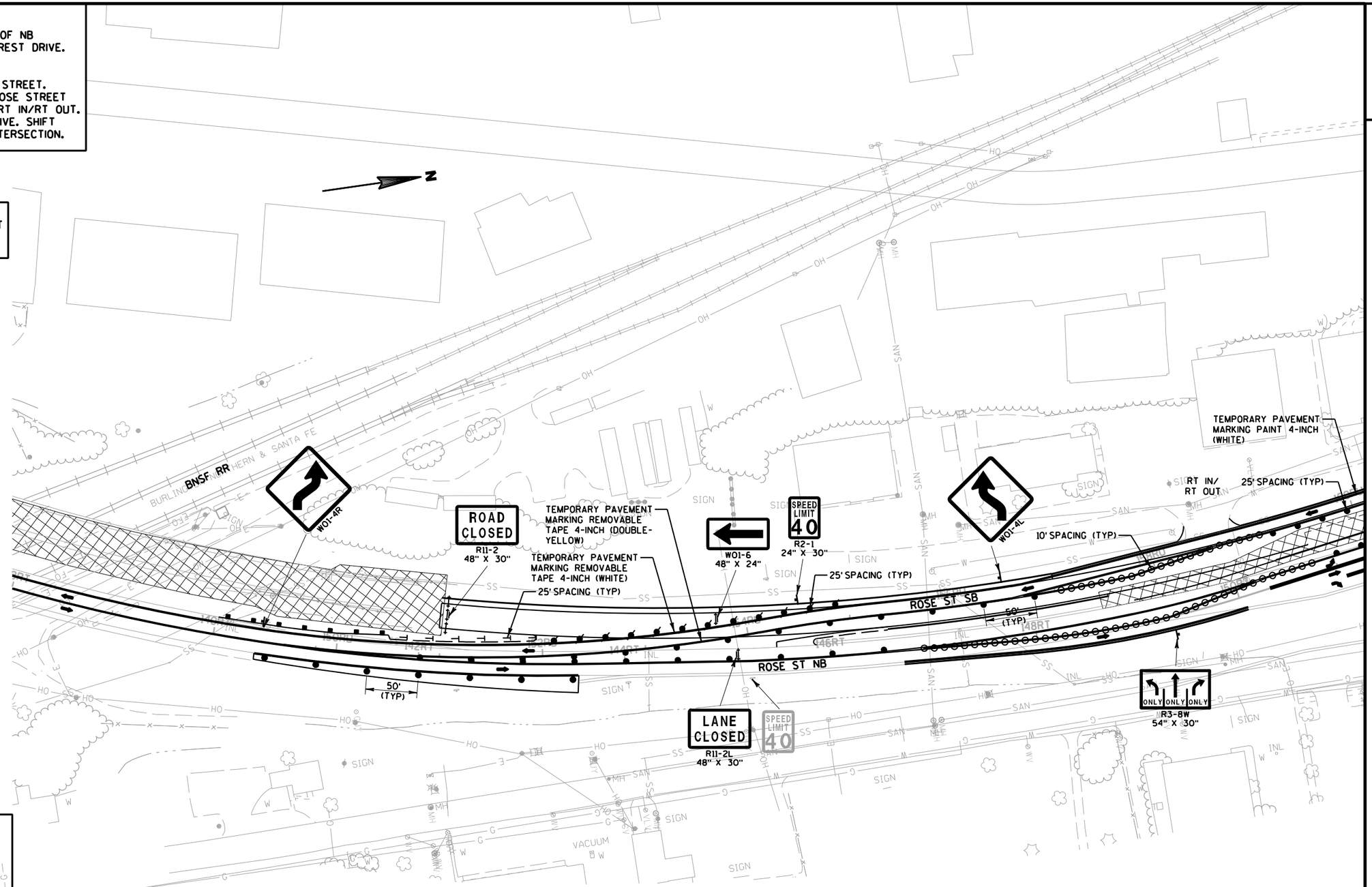
PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	T.C. TYPICAL LAYOUT ROSE ST/STH 35 - STAGES 3A/3B	SHEET 65	E

2

WORK:
COMPLETE SB LANES. BEGIN CONSTRUCTION OF NB MEDIAN LANE. GAP AT ASH STREET/OAK FOREST DRIVE.

TRAFFIC:
SINGLE LANE SB TRAFFIC ON NEW SB ROSE STREET.
SINGLE LANE NB TRAFFIC ON EXISTING NB ROSE STREET USING WIDENING. 2ND AVENUE SW OPEN TO RT IN/RT OUT.
CLOSE MEDIAN LANE OF WB OAK FOREST DRIVE. SHIFT ASH STREET TRAFFIC TO NORTH SIDE OF INTERSECTION.

SEE STAGE 2A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM BEGINNING OF PROJECT TO RAILROAD.



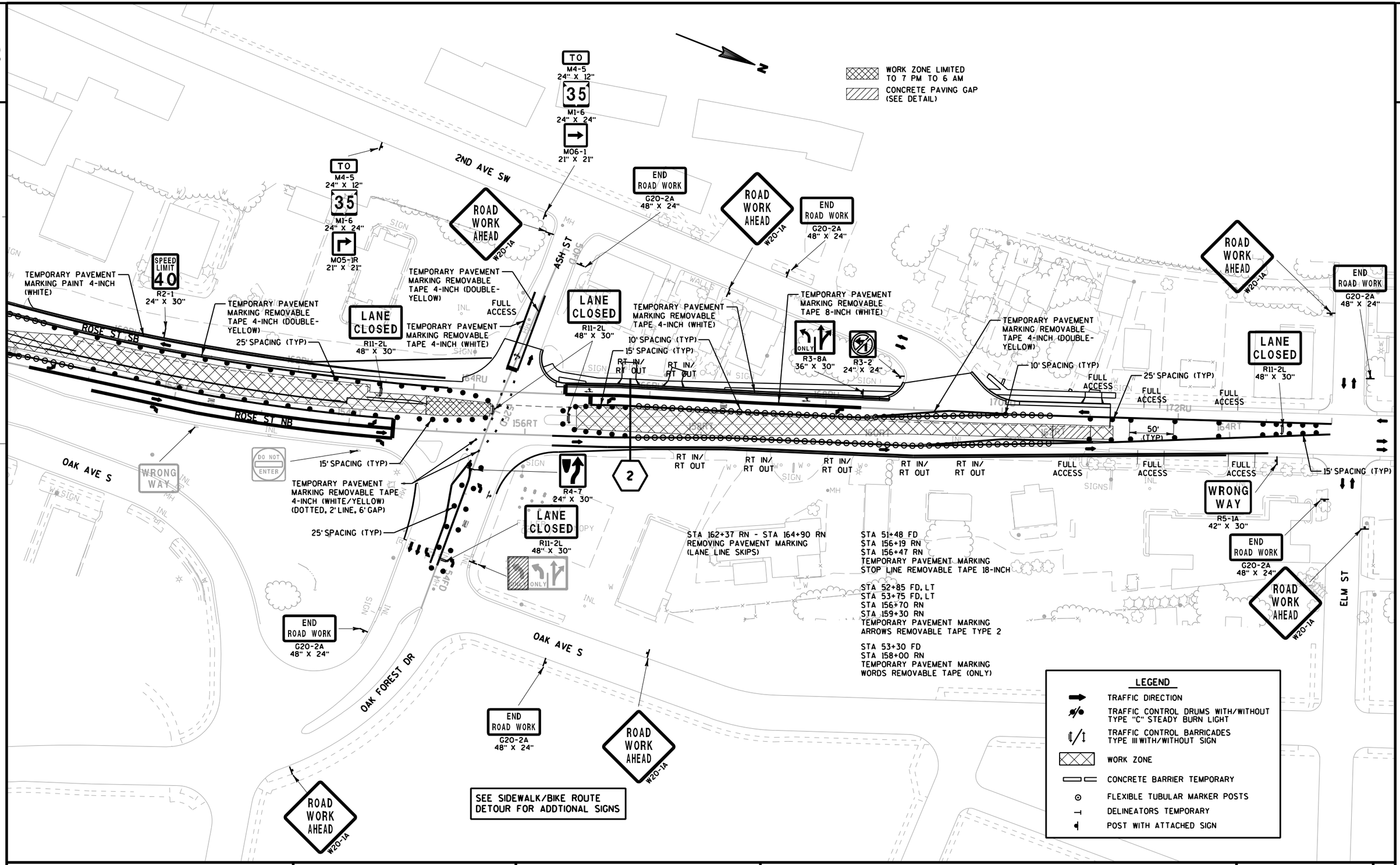
LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3A	SHEET E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026052_s3a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

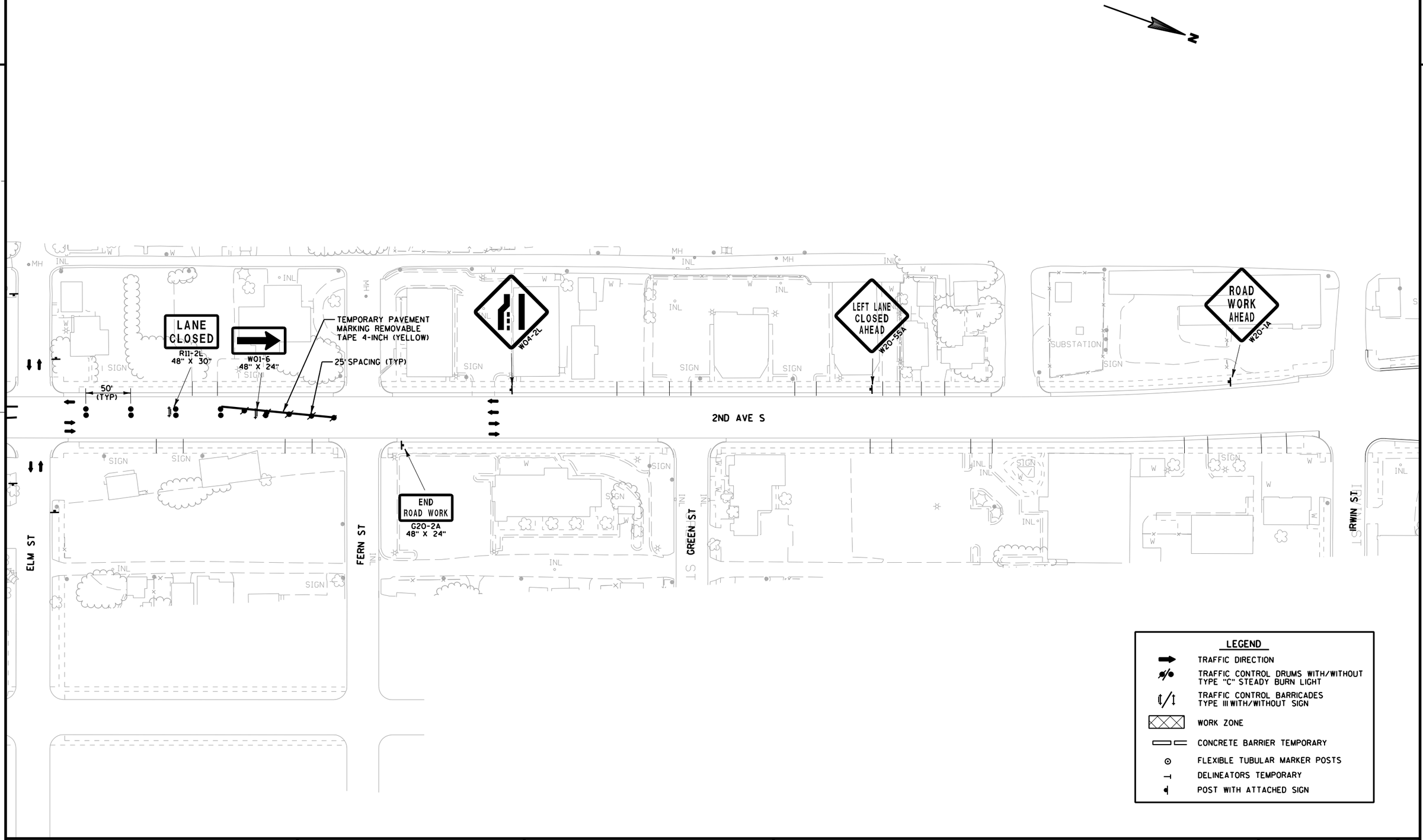
WISDOT/CADDS SHEET 42



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3A	SHEET 67	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\da_0371_026053_s3a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3A	SHEET 68	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026054_s3a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

SEE STAGE 3A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM BEGINNING OF PROJECT TO RAILROAD.

WORK:
COMPLETE NB MEDIAN LANE FROM STA 158+00 RN TO END OF PROJECT. COMPLETE MEDIAN LANE THRU ASH STREET/OAK FOREST DRIVE INTERSECTION.

TRAFFIC:
KEEP SINGLE LANE SB TRAFFIC ON NEW SB ROSE STREET AND SINGLE LANE NB TRAFFIC ON EXISTING NB ROSE STREET USING WIDENING. KEEP 2ND AVENUE SW OPEN TO RT IN/RT OUT. CLOSE OUTSIDE LANE OF WB OAK FOREST DRIVE. SHIFT ASH STREET TRAFFIC TO SOUTH SIDE OF INTERSECTION.

WORK ZONE LIMITED TO 7 PM TO 6 AM

CONCRETE PAVING GAP (SEE DETAIL)

SEE STAGE 3A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM ELM ST TO END OF PROJECT.

TO
M4-5
24" X 12"
35
M1-6
24" X 24"
M06-1
21" X 21"

TO
M4-5
24" X 12"
35
M1-6
24" X 24"
M05-1R
21" X 21"

SPEED LIMIT
40
R2-1
24" X 30"

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE-YELLOW)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

FULL ACCESS

15' SPACING (TYP)

RT IN/ RT OUT

ONLY
R3-8A
36" X 30"

R3-2
24" X 24"

50' (TYP)

WRONG WAY
R5-1A
42" X 30"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE/YELLOW) (DOTTED, 2' LINE, 6' GAP)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE) (DOTTED, 2' LINE, 6' GAP)

25' SPACING (TYP)

COVERING SIGNS TYPE II

R3-8
36" X 30"

STA 52+85 FD
STA 53+75 FD
REMOVING PAVEMENT MARKING ARROWS (LT TURN ARROWS)

STA 53+30 FD
REMOVING PAVEMENT MARKING WORDS (ONLY)

STA 52+64 FD - STA 53+87 FD
REMOVING PAVEMENT MARKING (EDGELINE & CHANNELIZING)

STA 52+85 FD
STA 53+64 FD
TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE TYPE 3

STA 52+85 FD
STA 53+64 FD
TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE TYPE 2

STA 53+30 FD
TEMPORARY PAVEMENT MARKING WORDS REMOVABLE TAPE (ONLY)

STA 51+50 FD
STA 52+65 FD
TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 18-INCH

SEE SIDEWALK/BIKE ROUTE DETOUR FOR ADDTIONAL SIGNS

2ND AVE SW
ASH ST
ROSE ST SB
ROSE ST NB
OAK AVE S
OAK FOREST DR
ELM ST

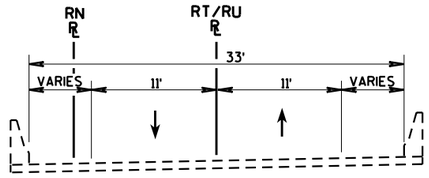
LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 3B	SHEET E

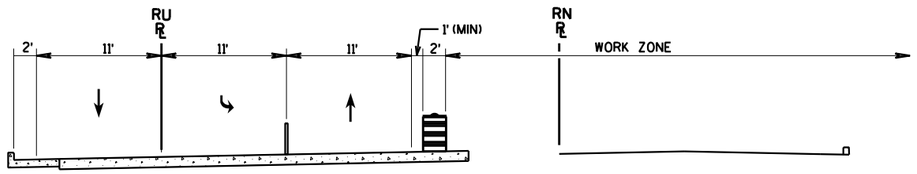
FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026063_s3b.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2



ROSE ST/STH 35 NB STRUCTURE OVER BNRR (1)

STRUCTURE B-32-67



ROSE ST/STH 35 TRAFFIC LAYOUT (2)

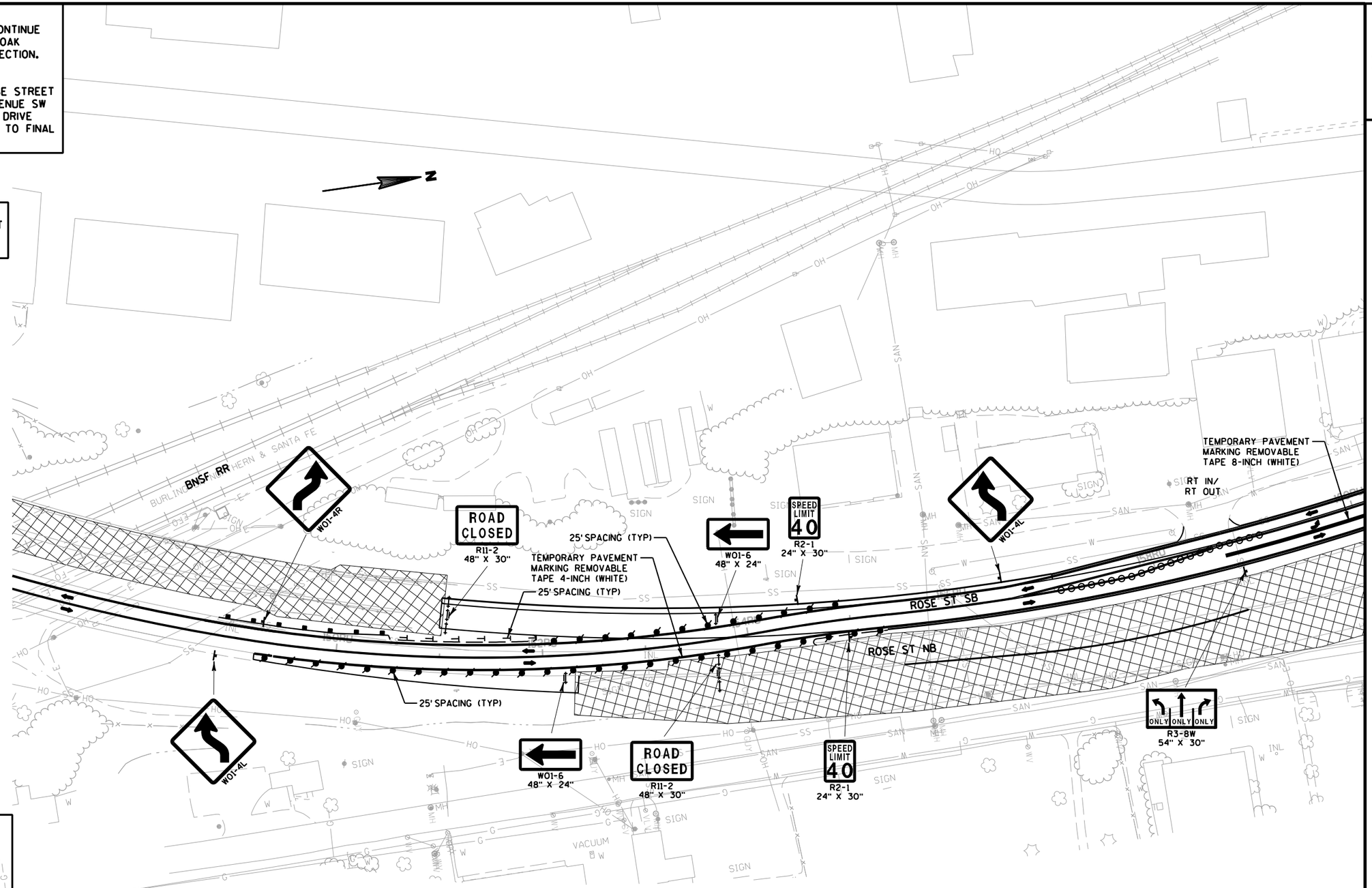
PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	T.C. TYPICAL LAYOUT ROSE ST/STH 35 - STAGES 4A/4B/4C/4D	SHEET 70	E

2

WORK:
COMPLETE NB LANES AT WB OAK FOREST. CONTINUE CONSTRUCTION OF NB LANES. COMPLETE WB OAK FOREST LANES. GAP AT OAK FOREST INTERSECTION.

TRAFFIC:
SINGLE LANE BI-DIRECTIONAL ON NEW SB ROSE STREET USING WIDENING AND 'RU' CROSSOVER. 2ND AVENUE SW OPEN TO RT IN/RT OUT. SHIFT OAK FOREST DRIVE ONTO EB LANES. OPEN ASH STREET TRAFFIC TO FINAL LOCATION.

SEE STAGE 2A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM BEGINNING OF PROJECT TO RAILROAD.

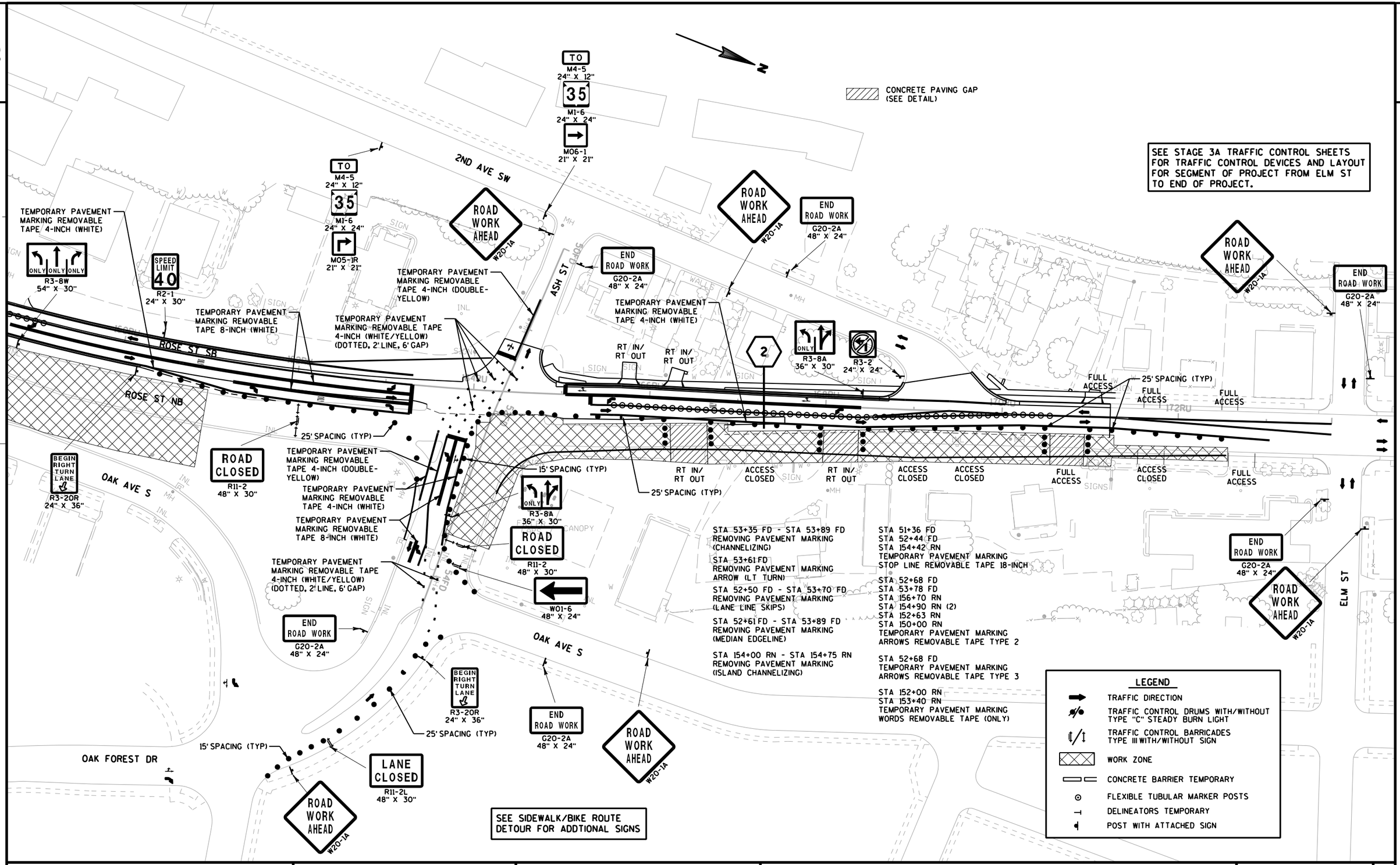


LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 4A	SHEET 71	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026072_s4a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 4A	SHEET E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026073_s4a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

SEE STAGE 4A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM BEGINNING OF PROJECT TO RAILROAD.

WORK:
COMPLETE NB LANES IN AREA OF WB OAK FOREST DRIVE MEDIAN.

TRAFFIC:
KEEP SINGLE LANE BI-DIRECTIONAL ON NEW SB ROSE STREET USING WIDENING. KEEP 2ND AVENUE SW OPEN TO RT IN/RT OUT. SHIFT WB OAK FOREST DRIVE ONTO NEW WB LANES.

SEE STAGE 3A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM ELM ST TO END OF PROJECT.

N

TO M4-5 24" X 12" / 35 M1-6 24" X 24" / M06-1 21" X 21"

TO M4-5 24" X 12" / 35 M1-6 24" X 24" / M05-1R 21" X 21"

2ND AVE SW

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

ONLY ONLY ONLY R3-8W 54" X 30"

SPEED LIMIT 40 R2-1 24" X 30"

ROSE ST SB

ROSE ST NB

ASH ST

RT IN/ RT OUT

RT IN/ RT OUT

ONLY R3-8A 36" X 30"

R3-2 24" X 24"

FULL ACCESS

FULL ACCESS

FULL ACCESS

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

OAK AVE S

ROAD CLOSED R11-2 48" X 30"

BEGIN LEFT TURN LANE R3-20L 24" X 36"

15' SPACING (TYP)

RT IN/ RT OUT

ACCESS CLOSED

RT IN/ RT OUT

ACCESS CLOSED

ACCESS CLOSED

FULL ACCESS

ACCESS CLOSED

FULL ACCESS

ROAD CLOSED R11-2 48" X 30"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

25' SPACING (TYP)

LANE CLOSED R11-2L 48" X 30"

ONLY ONLY COVERING SIGNS TYPE II

STA 52+78 FD
STA 53+78 FD
TEMPORARY PAVEMENT MARKING
ARROWS REMOVABLE TAPE TYPE 2

STA 53+30 FD
TEMPORARY PAVEMENT MARKING
WORDS REMOVABLE TAPE (ONLY)

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

ELM ST

END ROAD WORK G20-2A 48" X 24"

OAK AVE S

ROAD WORK AHEAD W20-1A

OAK FOREST DR

ROAD WORK AHEAD W20-1A

SEE SIDEWALK/BIKE ROUTE DETOUR FOR ADDTIONAL SIGNS

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 4B	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026083_s4b.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

SEE STAGE 4A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM BEGINNING OF PROJECT TO RAILROAD.

WORK:
COMPLETE NB LANES IN AREA OF WB OAK FOREST DRIVE EB LANES.

TRAFFIC:
KEEP SINGLE LANE BI-DIRECTIONAL ON NEW SB ROSE STREET USING WIDENING. KEEP 2ND AVENUE SW OPEN TO RT IN/RT OUT. SHIFT WB OAK FOREST DRIVE ONTO NEW WB LANES. OPEN YIELD CONDITION RIGHT TURN LANE FROM NB ROSE STREET ONTO OAK FOREST DRIVE EB.

SEE STAGE 3A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM ELM ST TO END OF PROJECT.

2

N

TO
M4-5
24" X 12"
35
M1-6
24" X 24"
M06-1
21" X 21"

TO
M4-5
24" X 12"
35
M1-6
24" X 24"
M05-1R
21" X 21"

2ND AVE SW

ROAD WORK AHEAD
W20-1A

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

ONLY ONLY ONLY
R3-8W
54" X 30"

SPEED LIMIT 40
R2-1
24" X 30"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE/YELLOW) (DOTTED, 2' LINE, 6' GAP)

LANE CLOSED
R11-2L
48" X 30"

R3-2
24" X 24"

15' SPACING (TYP)

ROSE ST SB

ROSE ST NB

ASH ST

RT IN/ RT OUT

RT IN/ RT OUT

ONLY
R3-8A
36" X 30"

R3-2
24" X 24"

FULL ACCESS

FULL ACCESS

FULL ACCESS

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

25' SPACING (TYP)

ROAD CLOSED
R11-2
48" X 30"

YIELD
R1-2
36" X 31"

15' SPACING (TYP)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

RT IN/ RT OUT

ACCESS CLOSED

RT IN/ RT OUT

ACCESS CLOSED

ACCESS CLOSED

FULL ACCESS

ACCESS CLOSED

FULL ACCESS

ROAD CLOSED
R11-2
48" X 30"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

ONLY

END ROAD WORK
G20-2A
48" X 24"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)

STA 53+73 FD
STA 153+60 RN
TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE TYPE 2

ROAD WORK AHEAD
W20-1A

ELM ST

END ROAD WORK
G20-2A
48" X 24"

OAK AVE S

LANE CLOSED
R11-2L
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

OAK FOREST DR

ROAD WORK AHEAD
W20-1A

SEE SIDEWALK/BIKE ROUTE DETOUR FOR ADDTIONAL SIGNS

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 4C	SHEET 74	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026093_s4c.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

SEE STAGE 4A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM BEGINNING OF PROJECT TO RAILROAD.

WORK;
COMPLETE NB LANES. COMPLETE B-32-224.

TRAFFIC;
KEEP SINGLE LANE BI-DIRECTIONAL ON NEW SB ROSE STREET USING WIDENING. KEEP 2ND AVENUE SW OPEN TO RT IN/RT OUT. KEEP WB OAK FOREST DRIVE SHIFTED ONTO NEW WB LANES. CLOSE YIELD CONDITION RIGHT TURN LANE FROM NB ROSE STREET ONTO OAK FOREST DRIVE EB.

SEE STAGE 3A TRAFFIC CONTROL SHEETS FOR TRAFFIC CONTROL DEVICES AND LAYOUT FOR SEGMENT OF PROJECT FROM ELM ST TO END OF PROJECT.

2

TO M4-5 24" X 12"
35 M1-6 24" X 24"
M06-1 21" X 21"

TO M4-5 24" X 12"
35 M1-6 24" X 24"
M05-1R 21" X 21"

2ND AVE SW

ROAD WORK AHEAD W20-1A

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

ONLY R3-8A 36" X 30"

SPEED LIMIT 40 R2-1 24" X 30"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW) (DOTTED, 2' LINE, 6' GAP)

25' SPACING (TYP)

15' SPACING (TYP)

ROSE ST SB

ROSE ST NB

ASH ST

RT IN/ RT OUT

RT IN/ RT OUT

ONLY R3-8A 36" X 30"

R3-2 24" X 24"

FULL ACCESS

FULL ACCESS

FULL ACCESS

RT IN/ RT OUT

ACCESS CLOSED

RT IN/ RT OUT

ACCESS CLOSED

ACCESS CLOSED

FULL ACCESS

ACCESS CLOSED

FULL ACCESS

ROAD CLOSED R11-2 48" X 30"

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)

ROAD CLOSED R11-2 48" X 30"

END ROAD WORK G20-2A 48" X 24"

OAK AVE S

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE/YELLOW) (DOTTED, 2' LINE, 6' GAP)

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

OAK FOREST DR

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1A

ELM ST

SEE SIDEWALK/BIKE ROUTE DETOUR FOR ADDTIONAL SIGNS

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 4D	SHEET 75	E

2

WORK:
REMOVE TEMPORARY WIDENING. COMPLETE CURB & GUTTER AND SHARED-USE PATH ON THE OUTSIDE OF SB LANES. COMPLETE THE MEDIAN CURB & GUTTER ON OAK FOREST DRIVE.

TRAFFIC:
TRAFFIC ON NEW NB AND SB ROSE STREET. OUTSIDE LANE CLOSURES ON NB AND SB LANES.

2

N

IH 90 WB TO ROSE ST SB

ROSE ST SB TO IH 90 WB

ROSE ST SB

ROSE ST NB

ROSE ST NB TO IH 90 WB

IH 90 EB

IH 90 EB

108RN 110RN 112RN 114RN 116RN 118RN 120RN 122RN

50' (TYP)

ROAD WORK AHEAD W20-1A

W3-5 36" X 36"

LEFT LANE CLOSED AHEAD W20-5SA

SPEED LIMIT 40 R2-1 24" X 30"

W04-2L

MERGING TRAFFIC BE PREPARED TO STOP

LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

GEORGE ST

BLEACHERS

BEGIN LEFT TURN LANE R3-20L 24" X 36"

END ROAD WORK G20-2A 48" X 24"

SPEED LIMIT 40 R2-1 24" X 30"

25' SPACING (TYP)

132RX 134RX 136RX 138RS 138RN

134RS 136RS

124RN 126RN 128RN 130RN 132RN 134RN 136RN

50' (TYP)

100' (TYP)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

W01-6 48" X 24"

LANE CLOSED R11-2L 48" X 30"

MERGE AHEAD BE PREPARED TO STOP

YIELD R1-2 36" X 31"

W01-4L

W3-2 36" X 36"

ROAD WORK AHEAD W20-1A

BNSF RR

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET 76	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026111_s5a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

2

N

NOTE:
CLOSE RT IN/RT OUT ENTRANCE DURING STAGE 5A FOR UP TO 1 WEEK TO COMPLETE.

BNSF RR

BURLINGTON NORTHERN & SANTA FE

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

50' (TYP)

25' SPACING (TYP)

100' (TYP)

50' (TYP)

15' SPACING (TYP)

ROSE ST NB

ROSE ST SB

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

BEGIN RIGHT TURN LANE
R3-2OR
24" X 36"

RT IN/
RT OUT

138RS
138RN
140RS
140RN
142RS
142RN
144RS
144RN
146RS
146RN
148RS
148RN
150RS
150RN

OH
SAN
SIGN
MH
HH
HO
INL
VACUUM

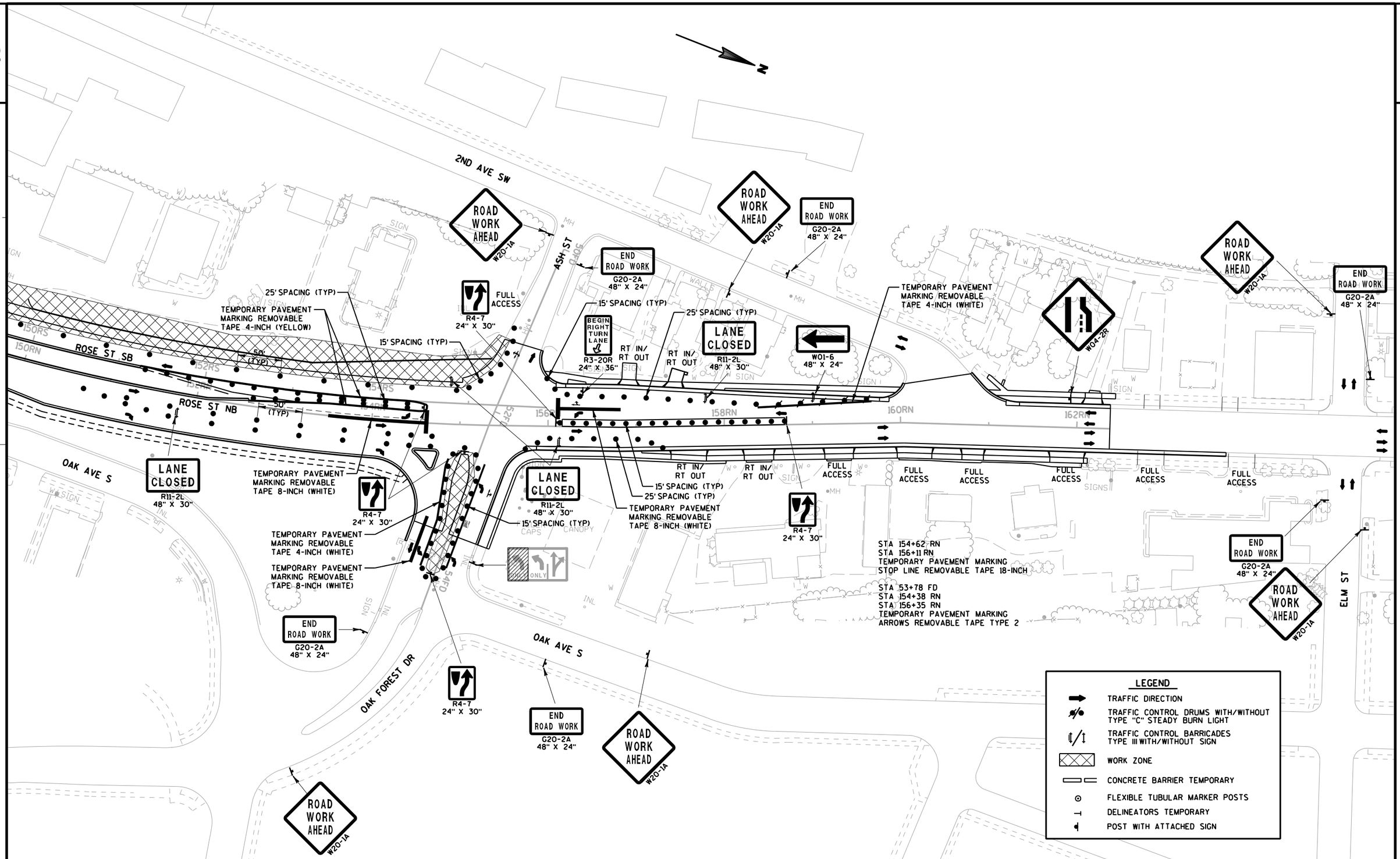
LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET 77	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026112_s5a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

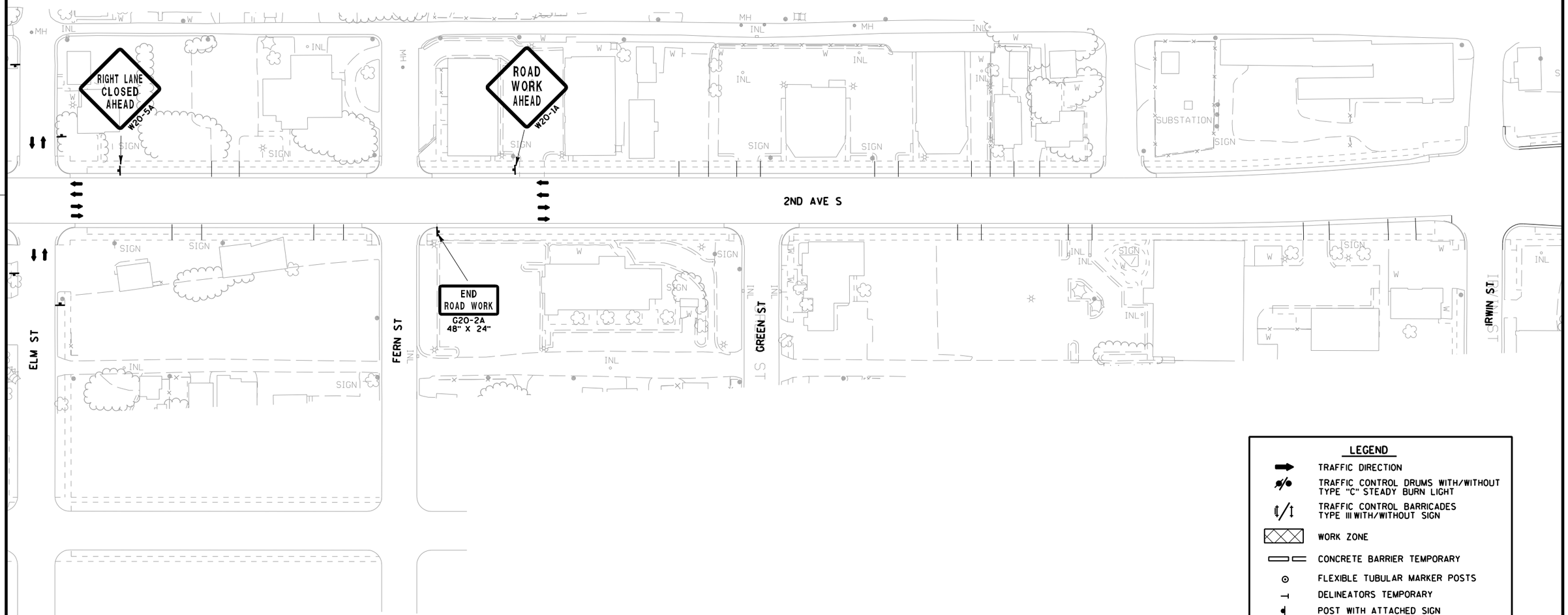


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET 78	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026113_s5a.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



LEGEND

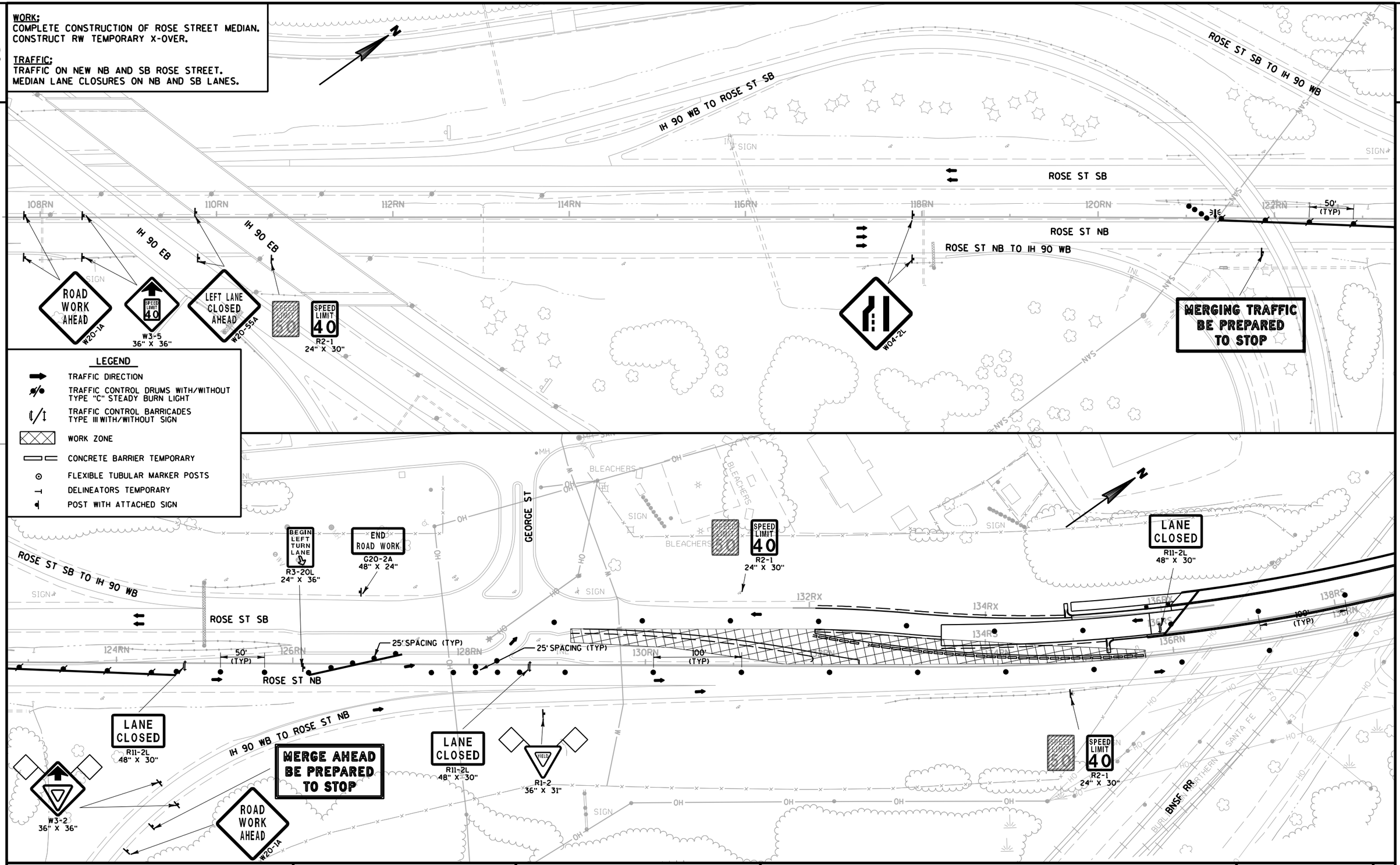
- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5A	SHEET 79	E

2

WORK:
COMPLETE CONSTRUCTION OF ROSE STREET MEDIAN.
CONSTRUCT RW TEMPORARY X-OVER.

TRAFFIC:
TRAFFIC ON NEW NB AND SB ROSE STREET.
MEDIAN LANE CLOSURES ON NB AND SB LANES.



LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5B	SHEET 80	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026121_s5b.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

N

BNSF RR

BURLINGTON NORTHERN & SANTA FE

ROSE ST SB

ROSE ST NB

100'
(TYP)

LANE
CLOSED
R11-2L
48" X 30"

LANE
CLOSED
R11-2L
48" X 30"

RT IN/
RT OUT

138RS
138RN
140RS
140RN
142RS
142RN
144RS
144RN
146RS
146RN
148RS
148RN
150RS
150RN

OH
SAN
SIGN
VACUUM

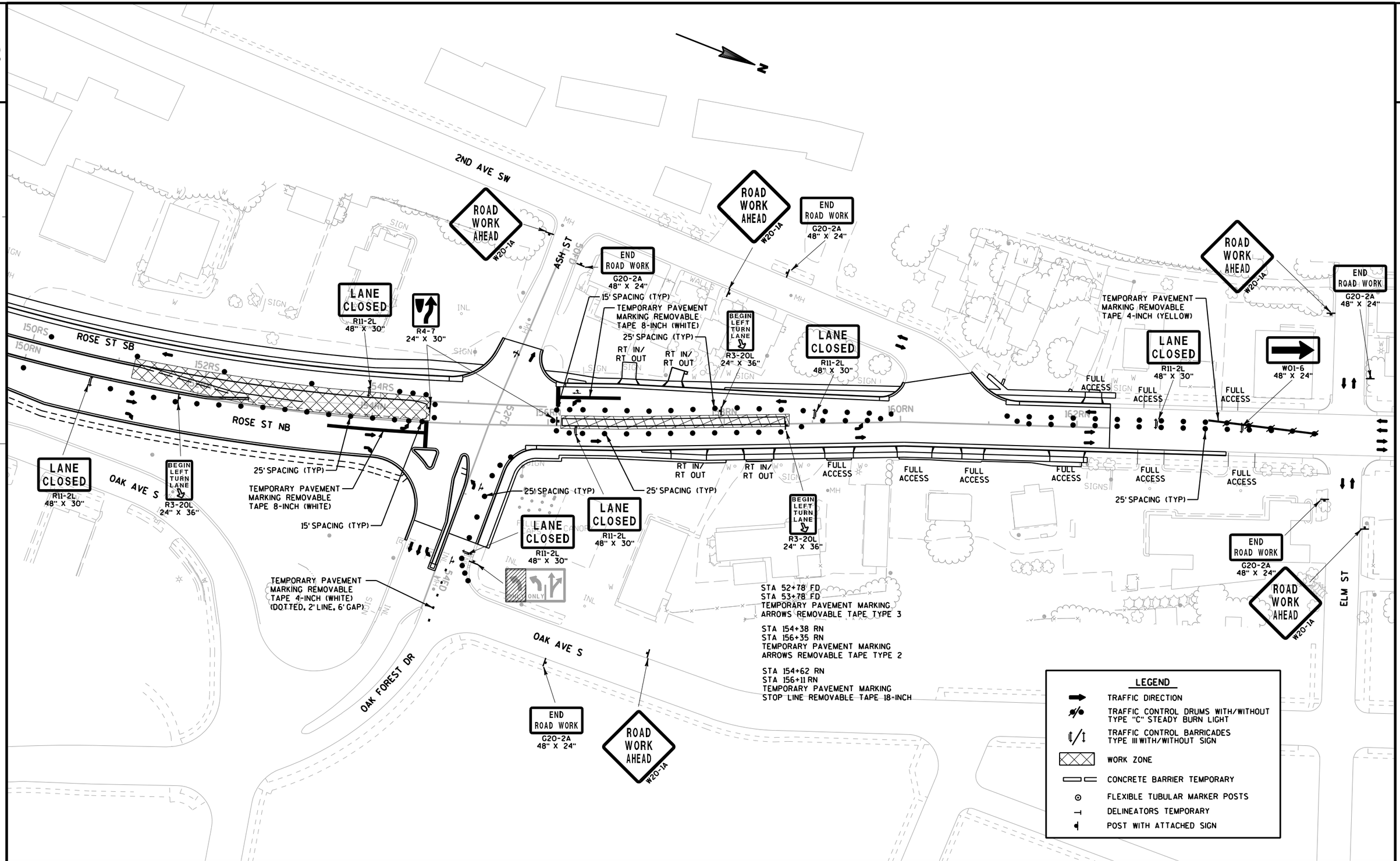
LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5B	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_026122_s5b.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

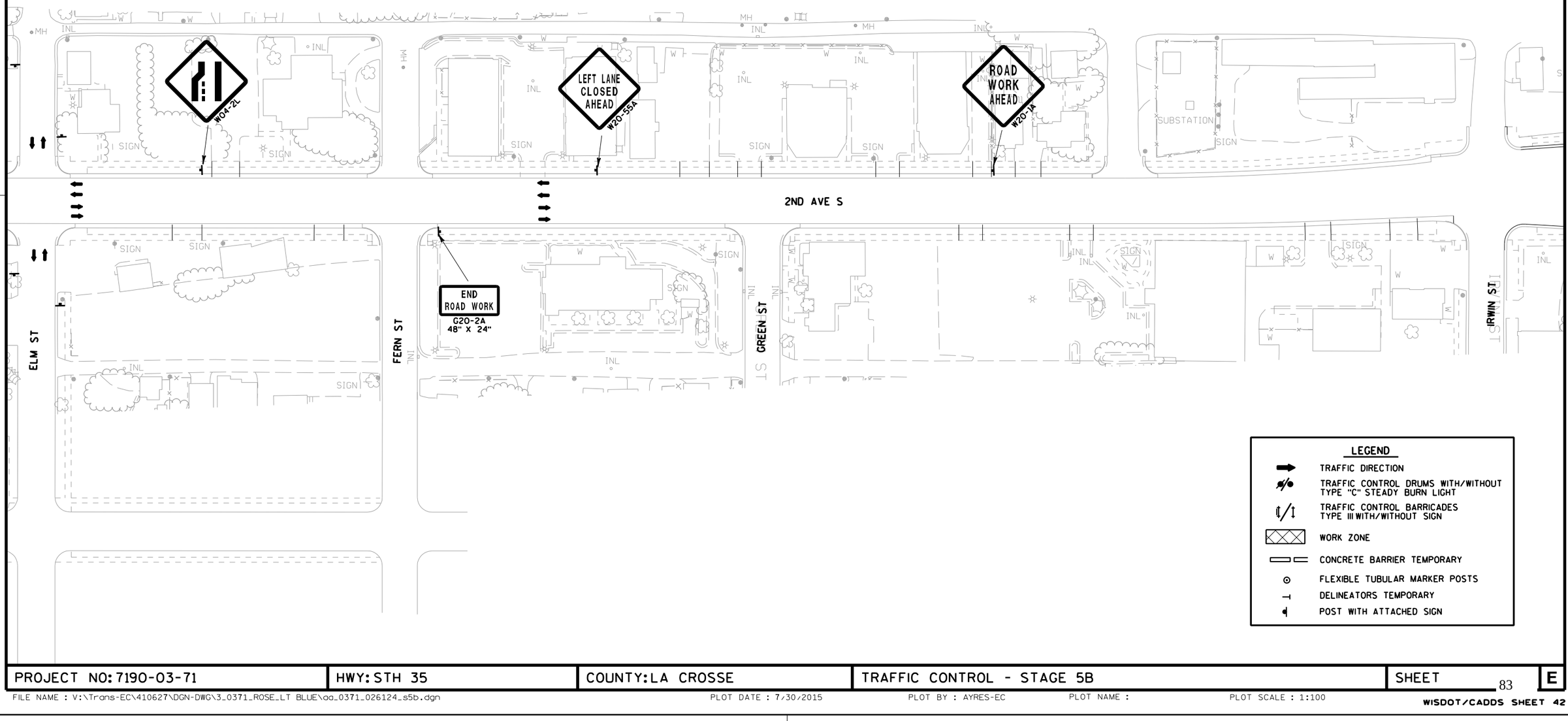
WISDOT/CADDS SHEET 42



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5B	SHEET 82	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\da_0371_026123_s5b.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

2

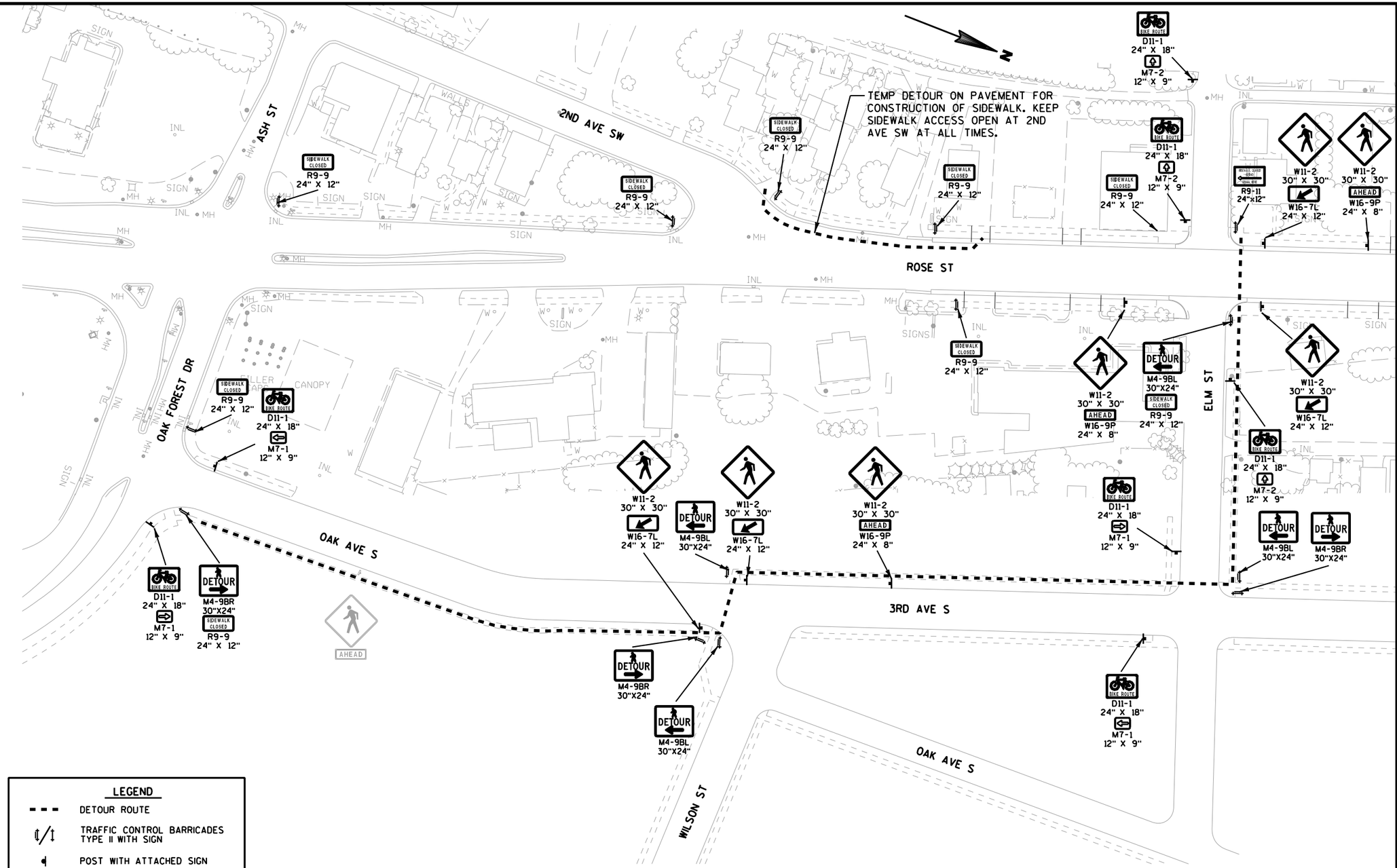


LEGEND

- TRAFFIC DIRECTION
- TRAFFIC CONTROL DRUMS WITH/WITHOUT TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- WORK ZONE
- CONCRETE BARRIER TEMPORARY
- FLEXIBLE TUBULAR MARKER POSTS
- DELINEATORS TEMPORARY
- POST WITH ATTACHED SIGN

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	TRAFFIC CONTROL - STAGE 5B	SHEET 83	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\ga_0371_026124_s5b.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	SIDEWALK/BIKE ROUTE DETOUR	SHEET 84	E

2

'RS' ALIGNMENT DATA

P.I. DATA

P.I. 99+14.27 RS
Y 149820.59
X 448397.48

P.I. DATA

P.I. 119+17.13 RS
Y 151451.02
X 449560.73
△ = 0°19'12"

CURVE DATA

P.I. 144+87.15 RS
Y 153534.77
X 451065.04
△ = 54°35'48"
D = 2°34'05"
T = 1151.42'
L = 2125.90'
E = 279.61'
R = 2231.00'
P.C. 133+35.72
P.T. 154+61.63
S.E. 2.8%
L.R. 93.00'

P.I. DATA

P.I. 155+89.19 RS
Y 154745.74
X 450653.49

N

CONTROL POINTS & BENCH MARKS

POINT NO.	NORTH (Y)	EAST (X)	ELEVATION	DESCRIPTION
106	153100.86	450742.66	672.60	60D SPIKE
107	153192.78	450705.55	675.60	60D SPIKE
108	153285.69	450678.61	675.50	CHISELED 'T'
109	152795.04	450536.67	670.98	LARGE SPIKE
110	152724.52	450584.43	655.16	LARGE SPIKE
111	152929.56	450648.16	675.16	CHISELED 'T'
112	153090.75	450732.51	671.24	LARGE SPIKE
113	153060.31	450671.55	674.93	CHISELED 'T'
BM504	149752.61	448506.44	645.87	REBAR W/CAP
BM505	150342.44	448860.17	645.78	REBAR W/CAP
BM506	151299.07	449393.98	644.67	REBAR W/CAP
BM507	152241.55	450130.37	654.27	REBAR W/CAP
BM508	152839.03	450531.25	672.13	REBAR W/CAP
BM509	153372.06	450804.43	678.15	REBAR W/CAP
BM1029	153262.85	450672.64	678.31	CHISELED 'X'
BM8558	152752.06	450555.05	674.26	CHISELED 'X'

'FD' ALIGNMENT DATA

P.I. DATA

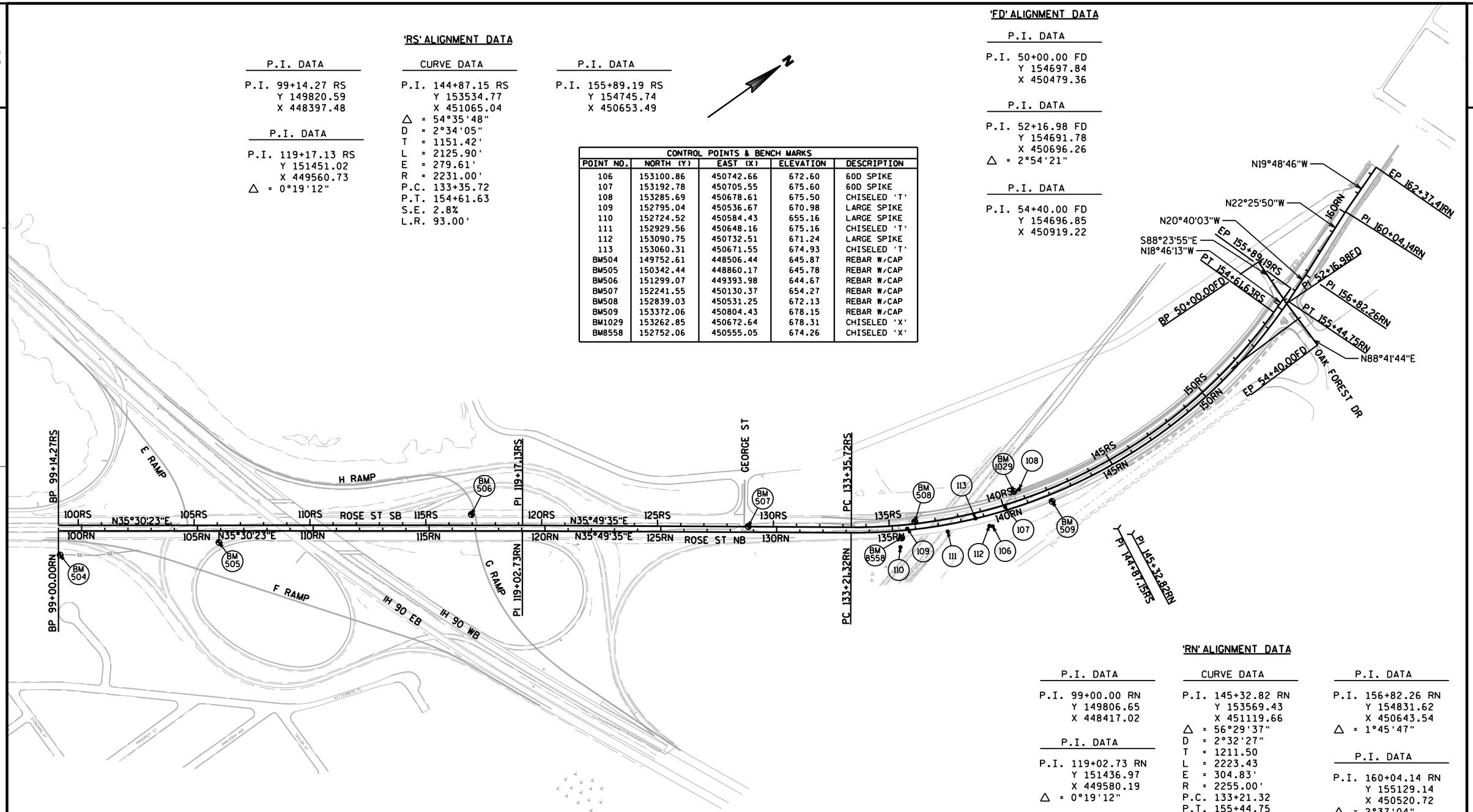
P.I. 50+00.00 FD
Y 154697.84
X 450479.36

P.I. DATA

P.I. 52+16.98 FD
Y 154691.78
X 450696.26
△ = 2°54'21"

P.I. DATA

P.I. 54+40.00 FD
Y 154696.85
X 450919.22



'RN' ALIGNMENT DATA

P.I. DATA

P.I. 99+00.00 RN
Y 149806.65
X 448417.02

P.I. DATA

P.I. 119+02.73 RN
Y 151436.97
X 449580.19
△ = 0°19'12"

CURVE DATA

P.I. 145+32.82 RN
Y 153569.43
X 451119.66
△ = 56°29'37"
D = 2°32'27"
T = 1211.50
L = 2223.43
E = 304.83'
R = 2255.00'
P.C. 133+21.32
P.T. 155+44.75
S.E. 2.8% - 5%
L.R. 93'

NOTE: MAX SUPERELEVATION MODIFIED TO MATCH STRUCTURE

P.I. DATA

P.I. 156+82.26 RN
Y 154831.62
X 450643.54
△ = 1°45'47"

P.I. DATA

P.I. 160+04.14 RN
Y 155129.14
X 450520.72
△ = 2°37'04"

P.I. DATA

P.I. 162+37.41 RN
Y 155348.61
X 450441.66

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM	SHEET 85	E

2

ROSE ST NORTHBOUND (RN)

Station	Description	LEFT	RIGHT
99+00.00	Begin Alignment	-2.00%	-2.00%
132+35.70	End Normal Crown	-2.00%	-2.00%
132+79.99	Level Crown	-2.00%	0.00%
133+24.27	Reverse Crown	-2.00%	2.00%
133+41.99	Begin Full Super	-2.80%	2.80%
155+24.09	End Full Super	-2.80%	2.80%
155+41.80	Reverse Crown	-2.00%	2.00%
155+86.09	Level Crown	-2.00%	0.00%
156+30.38	Begin Normal Crown	-2.00%	-2.00%
164+72.13	End Alignment	-2.00%	-2.00%

ROSE ST SOUTHBOUND (RS)

Station	Description	LEFT	RIGHT
99+14.27	Begin Alignment	-2.00%	-2.00%
132+07.29	End Normal Crown	-2.00%	-2.00%
132+73.72	Level Crown	-2.00%	0.00%
133+40.15	Reverse Crown	-2.00%	2.00%
133+66.72	Begin Full Super	-2.80%	2.80%
154+10.09	End Full Super	-2.80%	2.80%
154+36.09	Reverse Crown	-2.00%	2.00%
155+03.10	Level Crown	-2.00%	0.00%
155+70.09	Begin Normal Crown	-2.00%	-2.00%
164+72.13	End Alignment	-2.00%	-2.00%

2



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM - TEMPORARY	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_027202_ad.dgn | PLOT DATE : 7/30/2015 | PLOT BY : AYRES-EC | PLOT NAME : | PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

2

CURVE DATA

P.I. 130+73.21 RT
Y 152397.68
X 450224.50
△ = 9°52'57"
D = 3°49'11"
T = 129.68'
L = 258.72'
E = 5.60'
R = 1500.00'
P.C. 129+43.53 RT
Y 152293.14
X 450147.76
P.R.C 132+02.25 RT
S.E.
L.R.

CURVE DATA

P.I. 133+41.37 RT
Y 152583.85
X 450418.39
△ = 10°29'11"
D = 3°46'46"
T = 139.12'
L = 277.46'
E = 6.37'
R = 1516.00'
P.R.C 132+02.25 RT
P.T. 134+79.71 RT
S.E.
L.R.

CURVE DATA

P.I. 136+60.36 RT
Y 152850.70
X 450594.23
△ = 6°03'02"
D = 3°49'11"
T = 79.28'
L = 158.40'
E = 2.09'
R = 1500.00'
P.C. 135+81.08 RT
P.C.C 137+39.49 RT
S.E.
L.R.

CURVE DATA

P.I. 139+62.48 RT
Y 153123.37
X 450724.68
△ = 12°43'27"
D = 2°51'53"
T = 223.00'
L = 444.16'
E = 12.39'
R = 2000.00'
P.C.C 137+39.49 RT
P.C.C 141+83.65 RT
S.E.
L.R.

CURVE DATA

P.I. 142+64.41 RT
Y 153419.53
X 450792.19
△ = 5°21'40"
D = 3°19'17"
T = 80.76'
L = 161.40'
E = 1.89'
R = 1725.00'
P.C.C 141+83.65 RT
P.T. 143+45.05 RT
S.E.
L.R.

CURVE DATA

P.I. 145+46.17 RT
Y 153699.01
X 450828.89
△ = 4°08'37"
D = 1°54'35"
T = 108.53'
L = 216.96'
E = 1.96'
R = 3000.00'
P.C. 144+37.64 RT
P.T. 146+54.60 RT
S.E.
L.R.

CURVE DATA

P.I. 148+96.01 RT
Y 154048.35
X 450849.26
△ = 12°46'10"
D = 5°47'36"
T = 110.67'
L = 220.42'
E = 6.17'
R = 989.00'
P.C. 147+85.34 RT
P.T. 150+05.76 RT
S.E.
L.R.

CURVE DATA

P.I. 153+61.30 RT
Y 154508.26
X 450772.86
△ = 10°14'28"
D = 2°35'29"
T = 198.13'
L = 395.20'
E = 8.86'
R = 2211.00'
P.C. 151+63.17 RT
P.T. 155+58.37 RT
S.E.
L.R.

P.I. DATA

P.I. 156+94.13 RT
Y 154822.65
X 450660.45
△ = 1°37'14"

P.I. DATA

P.I. 158+27.92 RT
Y 154947.31
X 450611.87
△ = 2°12'56"

P.I. DATA

P.I. 160+41.17 RT
Y 155148.85
X 450542.16
△ = 3°27'18"

P.I. DATA

P.I. 162+67.22 RT
Y 155357.64
X 450455.53
△ = 1°01'39"

P.I. DATA

P.I. 165+14.15 RT
Y 155583.98
X 450356.83

CURVE DATA

P.I. 151+60.46 RU
Y 153431.91
X 450808.48
△ = 19°21'16"
D = 3°47'22"
T = 257.83'
L = 510.75'
E = 21.83'
R = 1512.00'
P.C. 149+02.63 RU
Y 153185.61
X 450732.24
P.R.C 154+13.38 RU
S.E.
L.R.

CURVE DATA

P.I. 154+74.40 RU
Y 153750.53
X 450796.50
△ = 4°37'19"
D = 3°47'22"
T = 61.02'
L = 121.97'
E = 1.23'
R = 1512.00'
P.R.C 154+13.38 RU
P.R.C 155+35.35 RU
S.E.
L.R.

CURVE DATA

P.I. 156+55.86 RU
Y 153931.89
X 450804.32
△ = 6°13'02"
D = 2°34'55"
T = 120.51'
L = 240.78'
E = 3.27'
R = 2219.00'
P.R.C 155+35.35 RU
P.T. 157+76.13 RU
S.E.
L.R.

CURVE DATA

P.I. 159+62.24 RU
Y 154235.97
X 450768.55
△ = 4°49'11"
D = 2°35'37"
T = 92.97'
L = 185.82'
E = 1.96'
R = 2209.00'
P.C. 158+69.27 RU
P.C.C 160+55.09 RU
S.E.
L.R.

CURVE DATA

P.I. 163+11.62 RU
Y 154579.08
X 450702.07
△ = 9°50'48"
D = 1°55'26"
T = 256.53'
L = 511.80'
E = 11.03'
R = 2978.00'
P.C.C 160+55.09 RU
P.T. 165+66.89 RU
S.E.
L.R.

P.I. DATA

P.I. 167+23.89 RU
Y 154967.85
X 450561.37
△ = 0°34'11"

P.I. DATA

P.I. 168+89.63 RU
Y 155124.59
X 450507.49
△ = 0°50'43"

P.I. DATA

P.I. 169+39.84 RU
Y 155171.83
X 450490.46
△ = 1°26'01"

P.I. DATA

P.I. 170+20.03 RU
Y 155247.92
X 450465.17
△ = 1°25'47"

P.I. DATA

P.I. 173+74.17 RU
Y 155581.10
X 450345.14

CURVE DATA

P.I. 50+45.76 TO
Y 154688.10
X 450520.23
△ = 18°53'36"
D = 20°50'05"
T = 45.76'
L = 90.68'
E = 3.78'
R = 275.00'
P.C. 50+00.00 TO
Y 154687.07
X 450474.49
P.T. 50+90.68 TO
S.E.
L.R.

CURVE DATA

P.I. 51+28.66 TO
Y 154662.78
X 450600.04
△ = 11°15'47"
D = 45°50'12"
T = 12.33'
L = 24.57'
E = 0.61'
R = 125.00'
P.C. 51+16.33 TO
P.T. 51+40.90 TO
S.E.
L.R.

P.I. DATA

P.I. 52+04.93 TO
Y 154654.34
X 450675.93

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	ALIGNMENT DIAGRAM - TEMPORARY	SHEET 88	E

DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7190-03-71 QUANTITY
0010	201.0105	Clearing	STA	3.000	3.000
0020	201.0205	Grubbing	STA	3.000	3.000
0030	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0060	203.0200	Removing Old Structure (station) 03. STA 138+09 RS	LS	1.000	1.000
0190	203.0225.S	Debris Containment (structure) 06. B-32-8	LS	1.000	1.000
0200	204.0100	Removing Pavement	SY	16,045.000	16,045.000
0210	204.0150	Removing Curb & Gutter	LF	3,385.000	3,385.000
0220	204.0155	Removing Concrete Sidewalk	SY	1,065.000	1,065.000
0230	204.0165	Removing Guardrail	LF	727.000	727.000
0260	204.0180	Removing Delineators and Markers	EACH	3.000	3.000
0270	204.0190	Removing Surface Drains	EACH	1.000	1.000
0280	204.0195	Removing Concrete Bases	EACH	12.000	12.000
0290	204.0210	Removing Manholes	EACH	4.000	4.000
0300	204.0220	Removing Inlets	EACH	21.000	21.000
0310	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	370.000	370.000
0320	204.0245	Removing Storm Sewer (size) 02. 15-Inch	LF	170.000	170.000
0330	204.0245	Removing Storm Sewer (size) 03. 18-Inch	LF	1,491.000	1,491.000
0340	204.0250	Abandoning Manholes	EACH	2.000	2.000
0350	204.0270	Abandoning Culvert Pipes	EACH	2.000	2.000
0390	204.9060.S	Removing (item description) 04. Inlet Covers	EACH	2.000	2.000
0420	204.9090.S	Removing (item description) 03. Timber Retaining Wall	LF	20.000	20.000
0430	205.0100	Excavation Common	CY	16,583.000	16,583.000
0440	206.1000	Excavation for Structures Bridges (structure) 01. B-32-224	LS	1.000	1.000
0490	208.1100	Select Borrow	CY	1,300.000	1,300.000
0500	209.0200.S	Backfill Controlled Low Strength	CY	3.780	3.780
0510	210.0100	Backfill Structure	CY	530.000	530.000
0540	213.0100	Finishing Roadway (project) 03. 7190-03-71	EACH	1.000	1.000
0550	305.0110	Base Aggregate Dense 3/4-Inch	TON	320.000	320.000
0560	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	12,655.000	12,655.000
0570	312.0110	Select Crushed Material	TON	100.000	100.000
0580	405.0100	Coloring Concrete Red	CY	56.000	56.000
0600	415.0090	Concrete Pavement 9-Inch	SY	12,880.000	12,880.000
0620	415.0410	Concrete Pavement Approach Slab	SY	163.000	163.000
0640	416.0160	Concrete Driveway 6-Inch	SY	530.000	530.000
0650	416.0610	Drilled Tie Bars	EACH	420.000	420.000
0660	416.0620	Drilled Dowel Bars	EACH	391.000	391.000
0690	440.4410	Incentive IRI Ride	DOL	3,160.000	3,160.000
0740	460.4000	HMA Cold Weather Paving	TON	160.000	160.000
0750	465.0105	Asphaltic Surface	TON	747.000	747.000
0760	465.0125	Asphaltic Surface Temporary	TON	981.000	981.000
0770	465.0310	Asphaltic Curb	LF	2,319.000	2,319.000
0780	465.0315	Asphaltic Flumes	SY	33.000	33.000
0790	502.0100	Concrete Masonry Bridges	CY	1,983.000	1,983.000
0820	502.3100	Expansion Device (structure) 01. B-32-224	LS	1.000	1.000
0870	502.3210	Pigmented Surface Sealer	SY	710.000	710.000
0910	503.0137	Prestressed Girder Type I 36W-Inch	LF	3,210.000	3,210.000
0940	505.0400	Bar Steel Reinforcement HS Structures	LB	24,050.000	24,050.000

3

DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7190-03-71 QUANTITY
0950	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	396,040.000	396,040.000
0970	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	32.000	32.000
0980	506.2610	Bearing Pads Elastomeric Laminated	EACH	48.000	48.000
1000	506.4000	Steel Diaphragms (structure) 02. B-32-224	EACH	49.000	49.000
1090	509.5100.S	Polymer Overlay	SY	2,310.000	2,310.000
1140	513.4091	Railing Tubular Screening (structure) 01. B-32-224	LF	452.000	452.000
1150	516.0500	Rubberized Membrane Waterproofing	SY	34.000	34.000
1190	517.1010.S	Concrete Staining (structure) 03. B-32-224	SF	7,770.000	7,770.000
1230	517.1015.S	Concrete Staining Multi-Color (structure) 03. B-32-224	SF	2,300.000	2,300.000
1260	517.1050.S	Architectural Surface Treatment (structure) 03. B-32-224	SF	2,300.000	2,300.000
1300	520.8000	Concrete Collars for Pipe	EACH	5.000	5.000
1410	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
1440	550.2104	Piling CIP Concrete 10 3/4 X 0.25-Inch	LF	23,580.000	23,580.000
1460	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	3,482.000	3,482.000
1490	601.0600	Concrete Curb Pedestrian	LF	21.000	21.000
1500	602.0405	Concrete Sidewalk 4-Inch	SF	2,561.000	2,561.000
1510	602.0410	Concrete Sidewalk 5-Inch	SF	7,829.000	7,829.000
1520	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	164.000	164.000
1580	603.8000	Concrete Barrier Temporary Precast Delivered	LF	384.000	384.000
1590	603.8125	Concrete Barrier Temporary Precast Installed	LF	384.000	384.000
1600	604.0400	Slope Paving Concrete	SY	750.000	750.000
1620	606.0100	Riprap Light	CY	10.000	10.000
1650	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	311.000	311.000
1660	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	356.000	356.000
1670	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	326.000	326.000
1680	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	828.000	828.000
1690	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	59.000	59.000
1700	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	151.000	151.000
1710	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	51.000	51.000
1720	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	303.000	303.000
1730	611.0420	Reconstructing Manholes	EACH	1.000	1.000
1740	611.0530	Manhole Covers Type J	EACH	7.000	7.000
1750	611.0606	Inlet Covers Type B	EACH	1.000	1.000
1770	611.0624	Inlet Covers Type H	EACH	31.000	31.000
1780	611.0627	Inlet Covers Type HM	EACH	2.000	2.000
1790	611.0642	Inlet Covers Type MS	EACH	3.000	3.000
1810	611.2003	Manholes 3-FT Diameter	EACH	1.000	1.000
1820	611.2004	Manholes 4-FT Diameter	EACH	2.000	2.000

3

DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7190-03-71 QUANTITY
1830	611.2005	Manholes 5-FT Diameter	EACH	3.000	3.000
1840	611.2006	Manholes 6-FT Diameter	EACH	2.000	2.000
1860	611.3004	Inlets 4-FT Diameter	EACH	5.000	5.000
1870	611.3220	Inlets 2x2-FT	EACH	1.000	1.000
1890	611.3230	Inlets 2x3-FT	EACH	26.000	26.000
1900	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
1910	611.3902	Inlets Median 2 Grate	EACH	1.000	1.000
1920	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000
1930	611.8120.S	Cover Plates Temporary	EACH	14.000	14.000
1940	612.0212	Pipe Underdrain Unperforated 12-Inch	LF	50.000	50.000
1950	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	660.000	660.000
1980	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
2060	614.1000	MGS Guardrail Temporary	LF	75.000	75.000
2070	614.1100	MGS Guardrail Temporary Thrie Beam Transition	LF	39.000	39.000
2080	614.1200	MGS Guardrail Temporary Terminal EAT	EACH	1.000	1.000
2090	614.2300	MGS Guardrail 3	LF	150.000	150.000
2100	614.2500	MGS Thrie Beam Transition	LF	126.000	126.000
2110	614.2610	MGS Guardrail Terminal EAT	EACH	3.000	3.000
2120	614.2620	MGS Guardrail Terminal Type 2	EACH	1.000	1.000
2170	618.0100	Maintenance And Repair of Haul Roads (project) 03. 7190-03-71	EACH	1.000	1.000
2180	619.1000	Mobilization	EACH	0.300	0.300
2190	620.0300	Concrete Median Sloped Nose	SF	314.000	314.000
2200	624.0100	Water	MGAL	500.000	500.000
2210	625.0100	Topsoil	SY	5,000.000	5,000.000
2220	625.0500	Salvaged Topsoil	SY	14,208.000	14,208.000
2230	627.0200	Mulching	SY	17,800.000	17,800.000
2240	628.1504	Silt Fence	LF	3,833.000	3,833.000
2250	628.1520	Silt Fence Maintenance	LF	3,833.000	3,833.000
2260	628.1905	Mobilizations Erosion Control	EACH	10.000	10.000
2270	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
2290	628.2006	Erosion Mat Urban Class I Type A	SY	1,700.000	1,700.000
2320	628.7005	Inlet Protection Type A	EACH	40.000	40.000
2340	628.7020	Inlet Protection Type D	EACH	36.000	36.000
2350	628.7504	Temporary Ditch Checks	LF	20.000	20.000
2360	628.7555	Culvert Pipe Checks	EACH	15.000	15.000
2370	628.7560	Tracking Pads	EACH	2.000	2.000
2380	629.0210	Fertilizer Type B	CWT	15.000	15.000
2390	630.0120	Seeding Mixture No. 20	LB	435.000	435.000
2410	630.0140	Seeding Mixture No. 40	LB	50.000	50.000
2420	630.0200	Seeding Temporary	LB	245.000	245.000
2430	630.0300	Seeding Borrow Pit	LB	20.000	20.000
2440	631.1000	Sod Lawn	SY	3,000.000	3,000.000
2450	633.0100	Delineator Posts Steel	EACH	5.000	5.000
2460	633.0500	Delineator Reflectors	EACH	5.000	5.000
2480	633.1100	Delineators Temporary	EACH	20.000	20.000
2490	633.5200	Markers Culvert End	EACH	1.000	1.000
2500	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	2.000	2.000
2510	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	24.000	24.000
2520	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	9.000	9.000
2530	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	2.000	2.000
2540	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	4.000	4.000

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DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7190-03-71 QUANTITY
2620	637.2210	Signs Type II Reflective H	SF	261.250	261.250
2630	637.2215	Signs Type II Reflective H Folding	SF	36.000	36.000
2640	637.2230	Signs Type II Reflective F	SF	111.000	111.000
2670	638.2102	Moving Signs Type II	EACH	18.000	18.000
2690	638.2602	Removing Signs Type II	EACH	38.000	38.000
2700	638.3000	Removing Small Sign Supports	EACH	36.000	36.000
2730	638.4000	Moving Small Sign Supports	EACH	14.000	14.000
2790	642.5201	Field Office Type C	EACH	0.300	0.300
2820	643.0200	Traffic Control Surveillance and Maintenance (project) 03. 7190-03-71	DAY	218.000	218.000
2830	643.0300	Traffic Control Drums	DAY	35,500.000	35,500.000
2840	643.0410	Traffic Control Barricades Type II	DAY	3,500.000	3,500.000
2850	643.0420	Traffic Control Barricades Type III	DAY	3,000.000	3,000.000
2860	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	230.000	230.000
2870	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	230.000	230.000
2880	643.0705	Traffic Control Warning Lights Type A	DAY	6,000.000	6,000.000
2890	643.0715	Traffic Control Warning Lights Type C	DAY	5,400.000	5,400.000
2900	643.0800	Traffic Control Arrow Boards	DAY	200.000	200.000
2910	643.0900	Traffic Control Signs	DAY	15,700.000	15,700.000
2930	643.0920	Traffic Control Covering Signs Type II	EACH	9.000	9.000
2960	643.2000	Traffic Control Detour (project) 03. 7190-03-71	EACH	1.000	1.000
2970	643.3000	Traffic Control Detour Signs	DAY	10,200.000	10,200.000
2990	645.0130	Geotextile Fabric Type R	SY	30.000	30.000
3000	646.0106	Pavement Marking Epoxy 4-Inch	LF	13,794.000	13,794.000
3020	646.0129	Pavement Marking Preformed Plastic 8-Inch	LF	936.000	936.000
3030	646.0600	Removing Pavement Markings	LF	8,101.000	8,101.000
3040	646.0841.S	Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	LF	868.000	868.000
3080	647.0169	Pavement Marking Arrows Preformed Plastic Type 2	EACH	9.000	9.000
3090	647.0179	Pavement Marking Arrows Preformed Plastic Type 3	EACH	2.000	2.000
3120	647.0359	Pavement Marking Words Preformed Plastic	EACH	5.000	5.000
3130	647.0456	Pavement Marking Curb Epoxy	LF	109.000	109.000
3140	647.0569	Pavement Marking Stop Line Preformed Plastic 18-Inch	LF	155.000	155.000
3150	647.0606	Pavement Marking Island Nose Epoxy	EACH	6.000	6.000
3160	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	40.000	40.000
3170	647.0776	Pavement Marking Crosswalk Epoxy 12-Inch	LF	509.000	509.000
3180	647.0955	Removing Pavement Markings Arrows	EACH	6.000	6.000
3190	647.0965	Removing Pavement Markings Words	EACH	3.000	3.000
3200	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	27,081.000	27,081.000
3210	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	6,157.000	6,157.000
3220	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	1,651.000	1,651.000
3230	649.0802	Temporary Pavement Marking Paint 8-Inch	LF	1,175.000	1,175.000
3240	649.1200	Temporary Pavement Marking Stop Line Removable Tape 18-Inch	LF	326.000	326.000
3270	649.1800	Temporary Pavement Marking Arrows Removable Tape	EACH	40.000	40.000

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DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7190-03-71 QUANTITY
3280	649.2000	Temporary Pavement Marking Words Removable Tape	EACH	9.000	9.000
3290	650.4000	Construction Staking Storm Sewer	EACH	44.000	44.000
3300	650.4500	Construction Staking Subgrade	LF	8,409.000	8,409.000
3310	650.5000	Construction Staking Base	LF	3,803.000	3,803.000
3320	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	6,775.000	6,775.000
3390	650.6500	Construction Staking Structure Layout (structure) 06. B-32-224	LS	1.000	1.000
3430	650.7000	Construction Staking Concrete Pavement	LF	4,606.000	4,606.000
3470	650.8500	Construction Staking Electrical Installations (project) 03. 7190-03-71	LS	1.000	1.000
3500	650.9910	Construction Staking Supplemental Control (project) 03. 7190-03-71	LS	1.000	1.000
3510	650.9920	Construction Staking Slope Stakes	LF	8,409.000	8,409.000
3530	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	2,576.000	2,576.000
3540	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,057.000	1,057.000
3570	652.0800	Conduit Loop Detector	LF	280.000	280.000
3600	653.0905	Removing Pull Boxes	EACH	24.000	24.000
3610	654.0101	Concrete Bases Type 1	EACH	4.000	4.000
3620	654.0102	Concrete Bases Type 2	EACH	1.000	1.000
3630	654.0105	Concrete Bases Type 5	EACH	2.000	2.000
3640	654.0113	Concrete Bases Type 13	EACH	3.000	3.000
3650	654.0200	Concrete Control Cabinet Bases Type 6	EACH	1.000	1.000
3670	654.0224	Concrete Control Cabinet Bases Type L24	EACH	1.000	1.000
3680	655.0210	Cable Traffic Signal 3-14 AWG	LF	60.000	60.000
3690	655.0230	Cable Traffic Signal 5-14 AWG	LF	540.000	540.000
3700	655.0250	Cable Traffic Signal 9-14 AWG	LF	275.000	275.000
3710	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,699.000	1,699.000
3720	655.0305	Cable Type UF 2-12 AWG Grounded	LF	1,227.000	1,227.000
3750	655.0610	Electrical Wire Lighting 12 AWG	LF	1,986.000	1,986.000
3760	655.0615	Electrical Wire Lighting 10 AWG	LF	5,754.000	5,754.000
3770	655.0700	Loop Detector Lead In Cable	LF	2,033.000	2,033.000
3780	655.0800	Loop Detector Wire	LF	1,160.000	1,160.000
3790	656.0200	Electrical Service Meter Breaker Pedestal (location) Oak Forest Dr.	LS	1.000	1.000
3800	657.0100	Pedestal Bases	EACH	4.000	4.000
3810	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	1.000	1.000
3820	657.0310	Poles Type 3	EACH	1.000	1.000
3830	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	1.000	1.000
3840	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	3.000	3.000
3850	657.0714	Luminaire Arms Truss Type 4-Inch Clamp 15-FT	EACH	1.000	1.000
3860	657.1360	Install Poles Type 13	EACH	3.000	3.000
3870	657.1545	Install Monotube Arms 45-FT	EACH	2.000	2.000
3880	657.1550	Install Monotube Arms 50-FT	EACH	1.000	1.000
3890	657.1815	Install Luminaire Arms Steel 15-FT	EACH	4.000	4.000
3900	658.0110	Traffic Signal Face 3-12 Inch Vertical	EACH	12.000	12.000
3910	658.0115	Traffic Signal Face 4-12 Inch Vertical	EACH	5.000	5.000
3920	658.0215	Backplates Signal Face 3 Section 12-Inch	EACH	12.000	12.000
3930	658.0220	Backplates Signal Face 4 Section 12-Inch	EACH	5.000	5.000
3940	658.0500	Pedestrian Push Buttons	EACH	4.000	4.000

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DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7190-03-71 QUANTITY
3950	658.0635	Led Modules Pedestrian Countdown Timer 16-Inch	EACH	4.000	4.000
3960	658.5069	Signal Mounting Hardware (location) 01. 154+35.00	LS	1.000	1.000
3970	659.1125	Luminaires Utility LED C	EACH	4.000	4.000
3980	659.2124	Lighting Control Cabinets 120/240 24-Inch	EACH	1.000	1.000
3990	661.0200	Temporary Traffic Signals for Intersections (location) 01. STH 35 & Ash St/Oak Forest Drive	LS	1.000	1.000
4110	673.0105	Communication Vault Type 1	EACH	1.000	1.000
4250	690.0150	Sawing Asphalt	LF	628.000	628.000
4260	690.0250	Sawing Concrete	LF	5,248.000	5,248.000
4270	715.0415	Incentive Strength Concrete Pavement	DOL	4,344.000	4,344.000
4280	715.0502	Incentive Strength Concrete Structures	DOL	11,898.000	11,898.000
4290	999.1500.S	Crack and Damage Survey	LS	1.000	1.000
4300	ASP.1T0A	On-the-Job Training Apprentice at $5. 00/HR	HRS	700.000	700.000
4310	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	2,160.000	2,160.000
4340	SPV.0060	Special 04. Cover Plates Temporary Left in Place	EACH	3.000	3.000
4350	SPV.0060	Special 06. Connection To Existing Inlets	EACH	4.000	4.000
4360	SPV.0060	Special 08. Remove and Reset Light Pole	EACH	1.000	1.000
4370	SPV.0060	Special 09. Temporary Railroad Crossing Gate	EACH	2.000	2.000
4380	SPV.0060	Special 50. Decorative Roadway Full Cut-Off Type III Led Luminaire	EACH	9.000	9.000
4390	SPV.0060	Special 51. Decorative Roadway Medallion Type A	EACH	2.000	2.000
4400	SPV.0060	Special 52. Decorative Roadway Medallion Type B	EACH	1.000	1.000
4410	SPV.0060	Special 53. Decorative Roadway Medallion Type C	EACH	2.000	2.000
4420	SPV.0060	Special 54. Decorative Roadway Medallion Type D	EACH	2.000	2.000
4430	SPV.0060	Special 55. Decorative Roadway Medallion Type E	EACH	2.000	2.000
4440	SPV.0060	Special 56. Decorative Roadway Light Post Foundation	EACH	9.000	9.000
4450	SPV.0060	Special 57. Decorative Roadway Black Banner Arms Set	EACH	9.000	9.000
4460	SPV.0060	Special 58. Black Paint Pedestal Bases	EACH	4.000	4.000
4470	SPV.0060	Special 59. Black Paint Transformer Bases Breakaway 11 1/2 Inch Bolt Circle	EACH	1.000	1.000
4480	SPV.0060	Special 60. Black Paint Traffic Signal Standard Aluminum 13'	EACH	1.000	1.000
4490	SPV.0060	Special 61. Black Paint Traffic Signal Standard Aluminum 15'	EACH	3.000	3.000
4500	SPV.0060	Special 62. Black Paint Poles Type 4	EACH	1.000	1.000
4510	SPV.0060	Special 63. Black Paint Luminaire Arms Truss Member 4-Inch Clamp 15-Ft	EACH	1.000	1.000
4520	SPV.0060	Special 64. Black Paint Luminaire Utility Led Category C	EACH	4.000	4.000
4530	SPV.0060	Special 66. Pull Boxes Non-Conductive 24 x 42- Inch	EACH	17.000	17.000
4550	SPV.0060	Special 90. Inlets 5-Ft Diameter	EACH	2.000	2.000

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DATE 12OCT15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7190-03-71 QUANTITY
4560	SPV.0060	Special 91. Storm Sewer Plug	EACH	2.000	2.000
4570	SPV.0090	Special 02. Concrete Curb and Gutter Integral 54-Inch Type A	LF	1,292.000	1,292.000
4580	SPV.0090	Special 03. Concrete Curb and Gutter Integral 66-Inch Type A	LF	2,001.000	2,001.000
4610	SPV.0090	Special 90. Bore and Jack Storm Sewer Pipe Reinforced Concrete Class V 24-Inch	LF	252.000	252.000
4640	SPV.0105	Special 03. Adjusting Construction Staking Project 7190-03-71	LS	1.000	1.000
4670	SPV.0105	Special 06. Concrete Pavement Joint Layout Project 7190-03-71	LS	1.000	1.000
4790	SPV.0165	Special 01. Concrete Sidewalk Cure and Seal Treatment	SF	10,390.000	10,390.000
4820	SPV.0165	Special 04. Temporary Shoring Railroad	SF	3,120.000	3,120.000
4830	SPV.0180	Special 01. Concrete Pavement SHES 9-Inch	SY	1,600.000	1,600.000

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CLEARING AND GRUBBING

STATION TO STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
154+00 RN - 155+00 RN	1	1
158+00 RN - 160+00 RN	2	2
PROJECT TOTALS	**3**	**3**

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	TYPE	DIAMETER INCHES	LENGTH LF	STAGE	203.0100 EACH
133+70 RS	LT	CMCP	12	10	2A	1
131+70 RT	LT/RT	CMCP	12	202	5B	1
PROJECT TOTAL						**2**

REMOVING PAVEMENT

STATION TO STATION	LOCATION	204.0100 SY
132+07 RS - 136+48 RS	SB LANES	1150
140+41 RS - 162+37 RN	SB LANES	8030
144+75 RN - 162+37 RN	NB LANES	6865
PROJECT TOTAL		**16045**

REMOVING CURB & GUTTER

STATION TO STATION	LOCATION	STAGE	204.0150 LF
143+37 RN - 145+25 RN	LT	1A	193
146+50 RN - 149+82 RN	RT	1A	332
154+50 RN	RT	1A	80
155+50 RN - 163+70 RN	RT	1A	834
51+20 FD - 51+75 FD	RT	1A	65
51+30 FD - 51+60 FD	LT	1A	80
53+16 FD - 53+73 FD	RT	1A	61
139+80 RN - 145+25 RN	LT	1B	545
148+75 RN - 154+60 RN	LT	1B	610
52+57 FD - 53+94 FD	RT	1B	277
133+68 RS - 136+58 RS	LT	2A	290
54+00 FD - 54+18 FD	RT	4D	18
PROJECT TOTAL			**3385**

REMOVING CONCRETE SIDEWALK

STATION TO STATION	LOCATION	204.0155 SY
160+95 RN - 162+43 RN	LT	85
155+95 RN - 160+00 RN	LT	260
155+50 RN - 163+07 RN	RT	720
PROJECT TOTAL		**1065**

REMOVING GUARDRAIL

STATION TO STATION	LOCATION	204.0165 LF
132+95 RS - 136+64 RS	LT	363
136+07 RS	LT/RT	51
140+08 RS	LT/RT	38
140+21 RS - 141+52 RS	LT	130
140+64 RS - 142+13 RS	LT	145
PROJECT TOTAL		**727**

REMOVING DELINEATOR AND MARKERS

STATION TO STATION	204.0180 EACH
139+50 RN - 143+50 RN	3
PROJECT TOTAL	**3**

REMOVING SURFACE DRAINS

STATION	LOCATION	204.0190 EACH
136+47 RS	LT	1
PROJECT TOTAL		**1**

REMOVING MANHOLE

STATION	LOCATION	204.0210 EACH
140+50 RN	LT	1
155+12 RS	LT	1
157+05 RN	LT	1
161+25 RN	RT	1
PROJECT TOTAL		**4**

REMOVING INLETS

STATION	LOCATION	STAGE	204.0220 EACH
162+47 RN	RT	1A	1
136+49 RS	LT	2A	1
140+85 RS	LT	2A	1
143+88 RS	LT	2A	1
146+86 RS	LT	2A	1
149+83 RS	LT	2A	1
152+84 RS	LT	2A	1
155+89 RS	LT	2A	1
155+07 RS	LT	2C	1
159+90 RN	LT	2C	1
144+00 RN	LT	3A	1
147+03 RN	LT	3A	1
149+86 RN	LT	3A	1
152+87 RN	RT	4A	1
160+64 RN	RT	4A	1
160+65 RN	RT	4A	1
162.47 RN	RT	4A	1
133+00 RT	LT	5B	1
150+60 RN	LT	5B	1
150+70 RN	LT	5B	1
153+80 RN	LT	5B	1
PROJECT TOTAL			**21**

REMOVING INLET COVERS

STATION	LOCATION	STAGE	204.9060.S.04 EACH
53+75 FD	RT	1B	2
PROJECT TOTAL			**2**

REMOVING TIMBER RETAINING WALL

STATION	LOCATION	204.9090.S.03 LF
158+00 RT	LT	10
158+40 RT	LT	10
PROJECT TOTAL		**20**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

EARTHWORK SUMMARY

DIVISION	PROJECT	STATION TO STATION	LOCATION	205.0100 EXCAVATION COMMON CUT CY	205.0100 EXCAVATION COMMON EBS (8) CY	SALVAGED/ UNUSABLE PAVEMENT MATERIAL CY	(6) AVAILABLE MATERIAL CY	(9) EXPANDED EBS BACKFILL CY	(1) REDUCED EBS IN FILL CY	UNEXPANDED FILL CY	(2) (4) EXPANDED FILL CY	(5) MASS ORDINATE +/- CY	(3) 208.1100 SELECT BORROW CY
	7190-03-71	133+50 RN - 136+03 RN	SB ROSE ST	1126	200	2295	-1169	260	160	17	96	-1264	---
	7190-03-71	140+00 RN - 163+70 RN	NB ROSE ST	10912	200	1716	9196	260	160	2695	3175	6021	---
	7190-03-71	51+18 FD - 54+19 FD	OAK FOREST DR	326	---	---	326	---	---	---	---	326	---
	7190-03-72	148+00 RS - 155+24 RS	TEMP	768	---	---	768	---	---	---	---	768	---
	7190-03-71	129+43 RT - 135+00 RT	TEMP	531	---	---	531	---	---	9	11	521	---
	7190-03-71	140+42 RT - 145+48 RT	TEMP	653	---	---	653	---	---	72	83	570	---
	7190-03-71	146+70 RT - 154+65 RT	TEMP	434	---	---	434	---	---	3	3	431	---
	7190-03-71	156+21 RT - 163+95 RT	TEMP	737	---	---	737	---	---	---	---	737	---
	7190-03-71	149+02 RU - 154+74 RU	TEMP	201	---	---	201	---	---	---	---	201	---
	7190-03-71	132+07 RX - 133+51 RX	TEMP	462	---	---	462	---	---	---	---	462	---
	7190-03-71	50+00 TO - 52+00 TO	TEMP	32	---	---	32	---	---	---	---	32	---
DIVISION 1 SUBTOTAL				16183	400	4011	12172	520	320	2796	3367	8804	---
		UNDISTRIBUTED(7)											1300
PROJECT TOTAL				**16583**									**1300**

(1) REDUCED EBS IN FILL IS EXCAVATED EBS MATERIAL THAT IS USUABLE OUTSIDE THE 1:1 SLOPES. EBS IN FILL REDUCTION FACTOR = 0.8
(2) EXPANSION FACTOR = 1.15
(3) SELECT BORROW = EXPANDED FILL - EXCAVATION COMMON
(4) EXPANDED FILL = (UNEXPANDED FILL - REDUCED EBS)* EXPANSION FACTOR + EXPANDED EBS BACKFILL
(5) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(6) AVAILABLE MATERIAL = COMMON EXCAVATION - SALVAGED/UNUSABLE MATERIAL
(7) UNDISTRIBUTED SELECT BORROW IS INCLUDED TO ACCOUNT FOR LACK OF AVAILABILITY OF MATERIALS DURING STAGING AND POTENTIAL UNUSABLE MATERIALS WITHIN THE PROJECT DURING THE EARLY STAGES OF CONSTRUCTION.
(8) EBS QUANTITY IS BASED ON OBSERVED TOPSOIL IN EXCESS OF 1' IN SOME AREAS. QUANTITIES SHOWN ARE UNDISTRIBUTED. VOLUMES LOCATED ALONG TEMPORARY ALIGNMENTS ARE INCLUDED WITHIN THE VOLUMES FOR PERMANENT ALIGNMENTS. EBS IS NOT INCLUDED IN THE EARTHWORK DATA TABLE.
(9) EXPANDED EBS BACKFILL 1.3

FINISHING ROADWAY

LOCATION	213.0100 EACH
03. 7190-03-71	1
PROJECT TOTAL	**1**

BASE AGGREGATE DENSE

STATION TO STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON
132+07 RS - 134+92 RS	SB TEMPORARY	50	460
140+21 RN - 144+75 RN	NB TEMPORARY	90	1270
133+50 RS - 135+89 RS	SB	---	270
140+60 RS - 162+37 RN	SB	---	4050
144+75 RN - 162+37 RN	NB	---	2950
128+44 RT - 135+52 RT	TEMPORARY CROSSOVER	50	700
140+42 RT - 143+55 RT	TEMPORARY WIDENING RT	---	240
140+68 RT - 145+48 RT	TEMPORARY WIDENING LT	20	200
146+70 RT - 150+05 RT	TEMPORARY WIDENING RT	---	160
148+76 RT - 154+86 RT	TEMPORARY WIDENING LT	---	260
155+68 RT - 163+95 RT	TEMPORARY WIDENING RT	---	280
50+75 TO - 51+73 TO	TEMPORARY WIDENING	---	40
53+07 FD - 53+72 FD	TEMPORARY WIDENING	---	20
52+57 FD - 53+94 FD	ISLAND REPLACEMENT	---	110
52+29 FD - 52+79 FD	ISLAND REPLACEMENT	---	30
51+22 FD - 51+60 FD	ISLAND REPLACEMENT	---	20
149+55 RU - 155+38 RU	TEMPORARY CROSSOVER	110	450
157+00 RU - 164+18 RU	TEMPORARY WIDENING LT	---	660
160+23 RU - 163+49 RU	TEMPORARY WIDENING RT	---	220
STRUCTURE B-32-224	TEMPORARY RAILROAD X-ING	---	25
ENTIRE PROJECT	DRIVEWAYS	---	240
PROJECT TOTALS		**320**	**12655**

SELECT CRUSHED MATERIAL

LOCATION	312.0110 TONS
UNDISTRIBUTED	100
PROJECT TOTAL	**100**

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

COLORING CONCRETE RED

CATEGORY	STATION TO STATION	LOCATION	405.0100 CY
0040	156+10 RN	CROSSWALK	19
0040	155+10 RN - 156+00 RN	CROSSWALK	20
0040	160+00 RN - 161+05 RN	CROSSWALK	17
PROJECT TOTAL			**56**

CONCRETE PAVEMENT 9-INCH

STATION TO STATION	LOCATION	415.0090 SY	SPV.0180.01 SHES SY
133+50 RS - 135+89 RS	SB	635	---
140+60 RS - 162+37 RN	SB	5510	1600
144+75 RN - 162+37 RN	NB	6735	---
PROJECT TOTALS		**12880**	**1600**

CONCRETE PAVEMENT APPROACH SLAB

STATION	LOCATION	415.0410 SY
135+89	SB	73
140+45	SB	89
PROJECT TOTAL		**163**

CONCRETE DRIVEWAY 6-INCH

STATION	LOCATION	416.0160 SY
149+60 RS	LT	81
156+93 RN	LT	45
157+47 RN	LT	39
157+59 RN	RT	52
158+38 RN	RT	48
159+30 RN	RT	47
160+17 RN	RT	56
160+83 RN	RT	36
161+90 RN	RT	55
162+17 RN	LT	28
162+85 RN	RT	43
PROJECT TOTAL		**530**

CONCRETE COLLARS FOR PIPE

STATION	LOCATION	520.8000 EACH
161+44 RN	RT	1
UNDISTRIBUTED	PROJECT	4
PROJECT TOTAL		**5**

DRILLED TIE BARS

STATION TO STATION	LOCATION	416.0610 EACH
51+18 FD - 51+74 FD	CL	25
51+18 FD - 51+67 FD	RT	24
52+59 FD - 53+93 FD	RT	118
154+61 RN - 156+82 RN	LT	88
154+61 RN - 156+13 RN	LT	60
154+61 RN - 155+03 RN	RT	21
155+29 RN - 155+40 RN	LT	6
155+51 RN - 155+61 RN	LT	5
155+23 RN - 155+36 RN	CL	7
162+37 RN - 163+70 RN	RT	66
PROJECT TOTAL		**420**

DRILLED DOWEL BARS

STATION TO STATION	LOCATION	416.0620 EACH
154+61 RN	RT/LT	53
155+02 RN	RT/LT	40
155+23 RN	RT	29
155+30 RN	LT	24
155+32 RN	LT	12
155+36 RN	LT	11
155+61 RN	LT	24
160+05 RN - 160+80 RN	LT	75
162+37 RN	RT/LT	46
52+88 FD	RT	12
53+48 FD	RT/LT	65
PROJECT TOTAL		**391**

ASPHALTIC CURB

STATION TO STATION	LOCATION	465.0310 LF
146+70 RT - 150+05 RT	RT	338
150+45 RT - 153+95 RT	LT	350
155+59 RT - 163+95 RT	RT	848
157+00 RU - 164+18 RU	LT	718
53+07 FD - 53+72 FD	RT	65
PROJECT TOTAL		**2319**

ASPHALTIC FLUMES

STATION	LOCATION	465.0315 SY
135+00 RS	LT	13
135+40 RS	RT	9
144+75 RN	RT	11
PROJECT TOTAL		**33**

ASPHALTIC SURFACE ITEMS

STATION TO STATION	LOCATION	465.0105 ASPHALTIC SURFACE TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON
132+07 RS - 134+92 RS	SB TIE IN	110	---
140+21 RN - 144+75 RN	NB TIE IN	345	---
135+00 RS - 136+23 RS	MULTI USE PATH LT	8	---
140+80 RS - 155+10 RS	MULTI USE PATH LT	252	---
128+44 RT - 135+52 RT	TEMPORARY CROSSOVER	---	187
140+42 RT - 143+55 RT	TEMPORARY WIDENING RT	---	81
146+70 RT - 150+05 RT	TEMPORARY WIDENING RT	---	54
140+68 RT - 145+48 RT	TEMPORARY WIDENING LT	---	51
148+76 RT - 154+86 RT	TEMPORARY WIDENING LT	---	86
155+68 RT - 163+95 RT	TEMPORARY WIDENING RT	---	94
50+75 TO - 51+73 TO	TEMPORARY WIDENING	---	15
53+07 FD - 53+72 FD	TEMPORARY WIDENING	---	7
52+57 FD - 53+94 FD	ISLAND REPLACEMENT	---	37
52+29 FD - 52+79 FD	ISLAND REPLACEMENT	---	11
51+22 FD - 51+60 FD	ISLAND REPLACEMENT	---	8
149+55 RU - 155+38 RU	TEMPORARY CROSSOVER	---	39
157+00 RU - 164+18 RU	TEMPORARY WIDENING LT	---	220
160+23 RU - 163+49 RU	TEMPORARY WIDENING RT	---	91
ENTIRE PROJECT	DRIVEWAYS	32	---
PROJECT TOTALS		**747**	**981**

CONCRETE CURB AND GUTTER

STATION TO STATION	LOCATION	601.0409 30-INCH TYPE A LF	SPV.0090.02 INTEGRAL 54-INCH TYPE A LF	SPV.0090.03 INTEGRAL 66-INCH TYPE A LF
135+00 RS - 136+14 RS	LT	---	---	114
135+45 RS - 135+84 RS	RT	39	---	---
140+22 RS - 142+00 RS	RT	178	---	---
140+69 RS - 154+92 RS	LT	---	---	1423
144+75 RN - 149+39 RN	RT	---	---	464
146+35 RS - 154+46 RS	RT	811	---	---
147+25 RN - 154+55 RN	LT	730	---	---
149+39 RN - 154+55 RN	RT	617	---	---
154+65 RN	ISLAND	70	---	---
155+75 RN - 163+70 RN	RT	---	795	---
156+08 RN - 159+87 RN	LT	---	379	---
156+23 RN - 158+64 RN	LT	482	---	---
159+87 RN - 160+05 RN	LT	23	---	---
160+80 RN - 161+19 RN	LT	52	---	---
161+19 RN - 162+37 RN	LT	---	118	---
51+15 FD - 51+43 FD	LT	43	---	---
51+20 FD - 51+79 FD	RT	66	---	---
52+57 FD - 53+87 FD	ISLAND	248	---	---
52+29 FD - 53+49 FD	LT	123	---	---
PROJECT TOTALS		**3482**	**1292**	**2001**

HMA COLD WEATHER PAVING

LOCATION	460.4000 TON
ENTIRE PROJECT	160
PROJECT TOTAL	**160**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

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CONCRETE CURB PEDESTRIAN

STATION TO STATION	LOCATION	601.0600 LF
155+98 RN - 156-14 RN	RT	16
162+06 RN	RT	5
PROJECT TOTAL		**21**

CONCRETE SIDEWALK

STATION TO STATION	LOCATION	602.0405 4-INCH SF	602.0410 5-INCH SF
152+85 RN - 154+54 RN	MEDIAN	749	---
154+65 RN	MEDIAN	264	---
155+00 RN	MEDIAN	815	---
155+25 RN - 163+07 RN	SIDEWALK RT	---	4461
155+92 RN - 160+00 RN	SIDEWALK LT	---	3368
156+20 RN - 158+65 RN	MEDIAN	733	---
PROJECT TOTALS		**2561**	**7829**

CURB RAMP DETECTABLE WARNING FIELD YELLOW

STATION	LOCATION	602.0505 SF
155+06 RS	LT	42
155+91 RS	LT	42
156+07 RN	RT	20
156+15 RN	LT	20
159+95 RN	LT	20
161+07 RN	LT	20
PROJECT TOTAL		**164**

CONCRETE BARRIER TEMPORARY PRECAST

STATION TO STATION	LOCATION	STAGE	603.8000 DELIVERED LF	603.8125 INSTALLED LF
132+00 RT - 135+84 RT	LT	2A	384	384
PROJECT TOTALS			**384**	**384**

RIPRAP AND GEOTEXTILE FABRIC

STATION	LOCATION	606.0100 LIGHT CY	645.0130 TYPE R SY
135+50 RS	LT	2	7
142+50 RN	RT	2	7
144+70 RN	RT	2	7
UNDISTRIBUTED		4	9
PROJECT TOTALS		**10**	**30**

ADJUSTING MANHOLE COVERS

STATION	LOCATION	611.8110 EACH
161+69 RN	LT	1
PROJECT TOTAL		**1**

MAINTENANCE AND REPAIR OF HAUL ROADS

PROJECT	618.0100 EACH
03. 7190-03-71	1
PROJECT TOTAL	**1**

MOBILIZATION

PROJECT	619.1000 EACH
7190-03-71	0.3
PROJECT TOTAL	**0.3**

CONCRETE MEDIAN SLOPED NOSE

STATION	LOCATION	620.0300 SF
154+50 RN	RT	16
154+60 RN	LT	37
154+75 RN	RT	22
155+10 RN	RT	66
156+15 RN	LT	56
158+70 RN	LT	56
53+90 FD	LT	61
PROJECT TOTAL		**314**

WATER

LOCATION	624.0100 MGAL
BASE COMPACTION	300
DUST CONTROL	200
PROJECT TOTAL	**500**

MGS GUARDRAIL

STATION TO STATION	LOCATION	614.1000 TEMPORARY LF	614.1100 TEMPORARY THRIE BEAM TRANSITION LF	614.1200 TEMPORARY TERMINAL EAT EACH	614.2300 GUARDRAIL 3 LF	614.2610 TERMINAL EAT EACH	614.2500 THRIE BEAM TRANSITION LF	614.2620 TERMINAL TYPE 2 EACH
134+00 RN - 135+66 RN	LT	---	---	---	75	1	39	---
135+83 RS - 136+15 RS	LT	---	---	---	25	---	9	1
139+81 RN - 141+46 RN	LT	75	39	1	---	---	---	---
140+22 RS - 141+37 RS	RT	---	---	---	25	1	39	---
140+70 RS - 141+86 RS	LT	---	---	---	25	1	39	---
PROJECT TOTALS		**75**	**39**	**1**	**150**	**3**	**126**	**1**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

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STORM SEWER PIPES

FROM	-	TO	LOCATION	608.0312 STORM SEWER PIPE 12-INCH LF	608.0315 STORM SEWER PIPE 15-INCH LF	608.0318 REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 REINFORCED CONCRETE CLASS III 24-INCH LF	608.0336 REINFORCED CONCRETE CLASS III 36-INCH LF	608.0412 STORM SEWER PIPE 12-INCH LF	608.0415 REINFORCED CONCRETE CLASS IV 15-INCH LF	608.0424 REINFORCED CONCRETE CLASS IV 24-INCH LF	SPV.0090.90 BORE AND JACK STORM SEWER PIPE REINFORCED CONCRETE CLASS V 24-INCH LF	** JOINT TIES EACH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
J6	-	PLUG	RN1	---	---	---	---	---	46	---	---	---	6			
M1	-	EX	RN1	---	---	---	---	8	---	---	---	---	---	667.25	667.11	0.0175
L2	-	L1	RN1	---	---	---	---	---	---	---	---	30	---	671.83	671.79	0.0013
L3	-	L2	RN1	---	---	---	---	---	---	---	---	22	---	671.86	671.83	0.0014
K3	-	PLUG	RN1	---	72	---	---	---	---	---	---	---	6	671.40	671.24	0.0022
L4	-	L3	RN1	---	---	---	30	---	---	---	---	---	---	671.90	671.86	0.0013
K4	-	K3	RN1	---	---	---	---	---	30	---	---	---	---	671.75	671.65	0.0033
L4	-	L4.1	RN1	10	---	---	---	---	---	---	---	---	---	672.45	672.31	0.0140
L6	-	L4	RN1	---	---	264	---	---	---	---	---	---	---	672.47	672.00	0.0018
L6.5	-	L6	RN1	10	---	---	---	---	---	---	---	---	---	674.05	673.60	0.0450
L6.1	-	L6	RN1	---	---	30	---	---	---	---	---	---	---	672.52	672.47	0.0017
L6.2	-	L6.1	RN1	---	21	---	---	---	---	---	---	---	---	672.57	672.52	0.0024
L6.3	-	L6.2	RN1	---	30	---	---	---	---	---	---	---	---	672.64	672.57	0.0023
M7.1	-	M7	RN1	---	30	---	---	---	---	---	---	---	---	676.59	675.75	0.0280
M7.2	-	M7.1	RN1	5	---	---	---	---	---	---	---	---	---	676.96	676.80	0.0320
M7.3	-	M7.2	RN1	60	---	---	---	---	---	---	---	---	---	678.00	676.96	0.0173
M8.2	-	M8	RN1	---	---	---	---	---	---	30	---	---	---	676.88	676.17	0.0237
M8.3	-	M8.2	RN1	---	---	---	---	---	---	21	---	---	---	676.99	676.88	0.0052
M8.4	-	M8.3	RN1	---	---	---	---	---	44	---	---	---	---	678.65	677.24	0.0320
M2	-	M1	RN1	---	---	---	---	51	---	---	---	---	---	670.71	667.26	0.0676
M3	-	M2	RN1	---	---	---	120	---	---	---	---	---	---	672.07	671.71	0.0030
M4	-	M3	RN1	---	---	---	104	---	---	---	---	---	---	672.38	672.07	0.0030
M5	-	M4	RN1	---	---	---	217	---	---	---	---	---	---	673.03	672.38	0.0030
M7	-	M6	RN1	---	---	---	89	---	---	---	---	---	---	675.00	673.74	0.0142
M8	-	M7	RN1	---	---	---	---	---	---	---	303	---	---	675.42	675.00	0.0014
M8.1	-	M8	RN1	---	---	---	---	---	10	---	---	---	---	676.46	676.42	0.0040
M1.1	-	M1	RN1	61	---	---	---	---	---	---	---	---	---	675.73	672.69	0.0498
M4.1	-	M4	RN1	31	---	---	---	---	---	---	---	---	---	676.20	675.50	0.0226
N1.1	-	EX	RN1	---	---	---	---	---	11	---	---	---	---	674.80	674.69	0.0100
L6.4	-	L6.3	RN1	37	---	---	---	---	---	---	---	---	---	672.75	672.64	0.0030
M6.2	-	M6.1	RN1	45	---	---	---	---	---	---	---	---	---	677.40	676.95	0.0100
M5.1	-	M5	RN1	10	---	---	---	---	---	---	---	---	---	676.77	676.67	0.0100
M6	-	M6.1	RN1	---	---	---	---	---	10	---	---	---	---	676.84	676.74	0.0100
L1	-	L1X	RN1	---	---	---	---	---	---	---	---	22	---	671.79	671.76	0.0014
L1X	-	AE L	RN1	---	---	---	268	---	---	---	---	---	6	671.66	671.34	0.0012
M6	-	M5	RN1	---	---	---	---	---	---	---	---	178	---	673.74	673.03	0.0040
TOTALS				**311 ***	**356 ***	**326 ***	**828**	**59**	**151**	**51**	**303**	**252**				

*** ADDITIONAL QUANTITIES LOCATED ELSEWHERE**

**** NON-BID ITEM: FOR INFORMATION ONLY**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

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STORM SEWER STRUCTURES

STRUCT	STATION	** OFFSET	LOCATION	STAGE	522.1024 A.E. FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0606 INLET COVERS TYPE B EACH	611.0624 INLET COVERS TYPE H EACH	611.0627 MANHOLES TYPE HM EACH	611.2003 MANHOLES 3-FT DIA EACH	611.2004 MANHOLES 4-FT DIA EACH	611.2005 MANHOLES 5-FT DIA EACH	611.2006 MANHOLES 6-FT DIA EACH	611.3004 MANHOLES 4-FT DIA EACH	611.3220 INLETS 2X2-FT EACH	611.3230 INLETS 2X3-FT EACH	SPV.0060.90 INLETS 5-FT EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	RIM ELEVATION	*** INVERT ELEVATION	**** DEPTH FT
K3	140+90	23' LT	RN1	2	---	---	---	---	1	---	---	---	---	1	---	---	---	1	676.07	671.40	3.86
K4	140+90	52.5' LT	RN1	2	---	---	---	---	1	---	---	---	---	---	---	1	---	1	675.20	671.75	2.62
AE L	142+50	71' RT	RN1	1	1	---	---	---	---	---	---	---	---	---	---	---	---	1		671.34	
L1X	145+10	50' RT	RN1	1	---	1	---	---	---	---	---	1	---	---	---	---	---	1	679.62	671.66	6.97
L1	145+10	28.5' RT	RN1	4	---	---	---	1	---	---	---	---	---	---	---	1	---	1	679.15	671.79	6.61
L2	145+10	1.5' LT	RN1	4	---	---	---	1	---	---	---	---	---	---	---	1	---	1	678.29	671.83	5.71
L3	145+10	22.5' LT	RN1	2	---	---	---	1	---	---	---	---	---	---	---	1	---	1	677.90	671.86	5.29
L4	145+10	52.5' LT	RN1	2	---	---	---	1	---	---	---	---	---	1	---	---	---	1	677.00	671.90	4.35
L4.1	145+00	52.5' LT	RN1	2	---	---	---	1	---	---	---	---	---	---	---	1	---	1	676.95	672.45	3.67
L6	147+80	52.5' LT	RN1	2	---	---	---	1	---	---	---	---	---	1	---	---	---	1	678.42	672.47	5.16
L6.1	147+80	22.5' LT	RN1	2	---	---	---	1	---	---	---	---	---	---	---	1	---	1	679.31	672.52	6.00
L6.2	147+80	1.5' LT	RN1	4	---	---	---	1	---	---	---	---	---	---	---	1	---	1	679.50	672.57	6.12
L6.3	147+80	28.5' RT	RN1	4	---	---	---	1	---	---	---	---	---	---	---	1	---	1	680.39	672.64	6.92
L6.4	148+04	55.8' RT	RN1	4	---	1	---	---	---	---	1	---	---	---	---	---	---	1	677.74	672.75	3.91
L6.5	147+90	52.5' LT	RN1	2	---	---	---	1	---	---	---	---	---	---	---	---	1	1	678.47	674.05	3.59
M1	161+25	16' RT	RN1	4	---	1	---	---	---	---	---	---	1	---	---	---	---	1	679.02	667.25	10.86
M1.1	160+65	26.5' RT	RN1	4	---	---	---	1	---	---	---	---	---	---	---	1	---	1	679.21	675.73	2.64
M2	160+91	22.5' LT	RN1	2	---	1	---	---	---	---	---	1	---	---	---	---	---	1	679.08	670.71	7.47
M3	159+72	28.5' LT	RN1	2	---	---	---	1	---	---	---	---	---	1	---	---	---	1	679.69	672.07	6.88
M4	158+68	34.8' LT	RN1	2	---	---	---	---	---	---	---	---	---	---	---	---	1	1	680.07	672.38	6.94
M4.1	158+70	3.9' LT	RN1	3	---	---	1	---	---	---	---	---	---	---	1	---	---	1	680.72	676.20	3.69
M5	156+50	38' LT	RN1	2	---	1	---	---	---	---	---	1	---	---	---	---	---	1	680.97	673.03	6.95
M5.1	156+50	47.5' LT	RN1	2	---	---	---	1	---	---	---	---	---	---	---	1	---	1	680.84	676.77	3.23
M6	154+70	42' LT	RN1	2	---	1	---	---	---	---	1	---	---	---	---	---	---	1	682.94	673.74	8.20
M6.1	154+70	52.5' LT	RN1	2	---	---	---	1	---	---	---	---	---	---	---	1	---	1	681.60	676.84	3.92
M6.2	155+13	70.2' LT	RN1	2	---	1	---	---	---	1	---	---	---	---	---	---	---	1	681.64	677.40	3.17
M7	153+80	52.5' LT	RN1	2	---	---	---	---	---	---	---	---	---	---	---	---	1	1	681.20	675.00	5.45
M7.1	153+80	22.5' LT	RN1	3	---	---	---	1	---	---	---	---	---	---	---	1	---	1	682.09	676.59	4.68
M7.2	153+80	17.5' LT	RN1	3	---	---	---	1	---	---	---	---	---	---	---	1	---	1	681.70	676.96	3.90
M7.3	153+80	42.5' RT	RN1	4	---	---	---	1	---	---	---	---	---	---	---	1	---	1	682.71	678.00	3.88
M8	150+70	52.5' LT	RN1	2	---	---	---	1	---	---	---	---	---	1	---	---	---	1	679.94	675.42	3.78
M8.1	150+60	52.5' LT	RN1	2	---	---	---	1	---	---	---	---	---	---	---	1	---	1	679.89	676.46	2.59
M8.2	150+70	22.5' LT	RN1	3	---	---	---	1	---	---	---	---	---	---	---	1	---	1	681.20	676.88	3.51
M8.3	150+70	1.5' LT	RN1	4	---	---	---	1	---	---	---	---	---	---	---	1	---	1	680.84	676.99	3.04
M8.4	150+70	42.5' RT	RN1	4	---	---	---	1	---	---	---	---	---	---	---	1	---	1	681.41	678.65	1.93
N1.1	162+47	26.5' RT	RN1	4	---	---	---	1	---	---	---	---	---	---	---	1	---	1	679.14	674.80	3.50
J6	135+40	52.5' LT	RN1	2	---	---	---	1	---	---	---	---	1	---	---	1	---	1	669.63	666.19	2.61
EX INL	53+75		FD	5	---	---	---	2	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTALS					**1**	**7**	**1**	**31 ***	**2**	**1**	**2**	**3**	**2**	**5**	**1**	**26 ***	**2**	**44 ***			

*** ADDITIONAL QUANTITIES LOCATED ELSEWHERE**

NOTES:
** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
*** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE
**** DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

REMOVING STORM SEWER

STATION TO STATION	LOCATION	DESCRIPTION	204.0245.01 12-INCH LF	204.0245.02 15-INCH LF	204.0245.03 18-INCH LF
140+10 - 140+85	SB CROSSING	18" SS	---	---	76
140+85 - 155+00	SB LEFT	18" SS	---	---	1415
143+75 - 144+05	MEDIAN AND NB RT	12" SS	110	---	---
146+90 - 148+05	SB TO MEDIAN TO NB RT	15" SS	---	170	---
149+90	ROSE ST LATERAL	12" SS	48	---	---
152+90	ROSE ST LATERAL	12" SS	85	---	---
155+00 - 155+05	SB LT	12" SS	15	---	---
159+85 - 160+65 RN	LT	12" SS	70	---	---
153+80	TEMP T1	12" SS	11	---	---
150+70	TEMP T2	12" SS	10	---	---
150+60	TEMP T3	12" SS	6	---	---
162+47	TEMP T4	12" SS	4	---	---
160+65	TEMP T10	12" SS	11	---	---
PROJECT TOTALS			**370**	**170**	**1491**

ABANDONING MANHOLES

STATION	LOCATION	204.0250 EACH
155+21	46' LT	1
160+57	25' LT	1
PROJECT TOTAL		**2**

ABANDONING CULVERT PIPES AND BACKFILL CONTROLLED LOW STRENGTH

STATION TO STATION	LOCATION	DESCRIPTION	204.0270 ABANDONING CULVERT PIPES EACH	209.0200.S BACKFILL CONTROLLED LOW STRENGTH CY
154+70 RN - 156+10 RN	LT	12" SS	1	2.33
160+65 RN	CROSSING	12" SS	1	1.45
PROJECT TOTALS			**2**	**3.78**

RECONSTRUCTING MANHOLES

STATION	LOCATION	611.0420 EACH	COMMENTS
140+60 RN	LT	1	PLACE NEW PRECAST REINCORCED CONCRETE FLAT SLAB TOP OVER REMAINING MANHOLE
PROJECT TOTAL		**1**	

COVER PLATES TEMPORARY

STATION	LOCATION	STAGE	611.8120.S EACH
149+85 RN	EX INL LT	1	1
150+60 RN	M8.1	2	1
150+70 RN	M8.2	3	1
150+70 RN	M8	2	1
153+80 RN	M7	2	1
153+80 RN	M7.1	3	1
153+80 RN	M7.2	3	1
154+70 RN	M6.1	2	1
156+50 RN	M5.1	2	1
158+68 RN	M4	2	1
160+65 RN	M1.1	1	1
162+45 RN	30' RT	1	1
53+75 FD	EX MEDIAN INLETS	1	2
PROJECT TOTAL			**14**

PIPE UNDERDRAIN UNPERFORATED 12-INCH

STATION	LOCATION	STRUCTURE	612.0212 LF
135+40	52.5' LT	J6	50
PROJECT TOTAL			**50**

CONNECTION TO EXISTING INLETS

STATION	LOCATION	SPV 0060.06 EACH
140+35	27' LT	1
155+21	46' LT	1
160+57	25' LT	1
162+47	25' RT	1
PROJECT TOTAL		**4**

STORM SEWER PLUG

STATION	LOCATION	SPV 0060.91 EACH
135+10 RN	13.7' LT	1
140+30 RN	9.2' LT	1
PROJECT TOTAL		**2**

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

STORM SEWER PIPE REINFORCED CONCRETE CLASS III

FROM	-	TO	LOCATION	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	** JOINT TIES EACH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
T6	-	END	RT	---	202	---	9	659.53	657.84	0.0084
T5	-	EX MH	RN	---	---	32	---	671.32	671.22	0.0031
T10	-	M1.1	RN	11	---	---	---	675.79	675.73	0.0055
T2	-	T3	RN	10	---	---	---	676.66	676.56	0.0100
T3	-	M8.1	RN	6	---	---	---	676.46	676.40	0.0100
T1	-	M7	RN	11	---	---	---	677.66	677.56	0.0091
T4	-	N1.1	RN	4	---	---	---	674.94	674.90	0.0100
TOTALS				**311 ***	**356 ***	**326 ***				

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE**
**** NON-BID ITEM: FOR INFORMATION ONLY**

STORM SEWER STRUCTURES

STRUCTURE	STATION	** OFFSET	LOCATION	611.0624 INLET COVERS TYPE H EACH	611.0642 INLET COVERS TYPE MS EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	RIM ELEVATION	*** INVERT ELEVATION	**** DEPTH FT
T1	153+80	63.5' LT	RN1	1	---	1	---	---	1	680.86	677.66	2.36
T2	150+70	58.5' LT	RN1	1	---	1	---	---	1	679.70	676.66	2.21
T3	150+60	58.5' LT	RN1	1	---	1	---	---	1	679.71	676.46	2.42
T4	162+47	31.1' RT	RN1	1	---	1	---	---	1	678.34	674.94	2.57
T5	140+55	13.8' LT	RN1	---	2	---	---	1	1	675.86	669.32	6.54
T6	133+00 RT	24.8' LT	RN1	---	1	---	1	---	1	664.88	659.53	5.53
T10	160+65	37.7' RT	RN1	1	---	1	---	---	1	678.93	675.79	2.31
TOTALS				**31 ***	**3**	**26 ***	**1**	**1**	**44 ***			

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE**

NOTES:
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**** DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

TOPSOIL, SALVAGED TOPSOIL, MULCHING, FERTILIZER, & SEEDING

STATION TO STATION	LOCATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING NO. 20 LB	630.0140 MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB
133+50 RS - 136+16 RS	SB ROSE ST	---	1253	1253	1	34	---	17	---
140+26 RS - 155+10 RS	SB ROSE ST	---	4575	4575	3	104	20	62	---
140+20 RN - 154+60 RN	NB ROSE ST	---	4921	4921	4	113	20	67	---
129+43 RT - 135+00 RT	TEMP	---	896	896	1	25	---	13	---
140+42 RT - 145+48 RT	TEMP	---	1404	1404	1	38	---	19	---
146+70 RT - 154+65 RT	TEMP	---	527	527	1	15	---	8	---
156+21 RT - 163+95 RT	TEMP	---	329	329	1	9	---	5	---
50+00 TO - 52+00 TO	TEMP	---	303	303	1	9	---	5	---
UNDISTRIBUTED		5000	---	3592	2	88	10	49	20
PROJECT TOTALS		**5000**	**14208**	**17800**	**15**	**435**	**50**	**245**	**20**

SILT FENCE

STATION TO STATION	LOCATION	STAGE	628.1504 LF	628.1520 MAINTENANCE LF
141+75 RN - 154+15 RN	RT	1A	1080	1080
158+55 RN - 159+10 RN	RT	1A	55	55
159+44 RN - 159+88 RN	RT	1A	44	44
132+84 RN - 136+32 RN	LT	2A	348	348
140+72 RN - 149+34 RN	LT	2A	840	840
144+75 RN - 155+40 RN	LT	2A	540	540
156+20 RN - 156+81 RN	LT	2A	61	61
157+63 RN - 160+00 RN	LT	2A	242	242
161+22 RN - 162+13 RN	LT	2A	93	93
UNDISTRIBUTED			530	530
PROJECT TOTALS			**3833**	**3833**

EROSION MAT CLASS I URBAN TYPE A

STATION TO STATION	LOCATION	STAGE	628.2006 SY
140+25 RN - 144+25 RN	RT	4A	350
144+25 RN - 154+60 RN	RT	4A	1000
UNDISTRIBUTED			350
PROJECT TOTAL			**1700**

TEMPORARY DITCH CHECKS

STATION	LOCATION	STAGE	628.7504 LF
140+00 RN	RT	1A	12
UNDISTRIBUTED			8
PROJECT TOTAL			**20**

MOBILIZATIONS EROSION CONTROL AND EMERGENCY EROSION CONTROL

PROJECT	628.1905 EACH	628.1910 EMERGENCY EACH
7190-03-71	10	5
PROJECT TOTALS	**10**	**5**

CULVERT PIPE CHECKS

STATION	LOCATION	STAGE	628.7555 EACH
54+60 FD	RT	1A	7
140+20 RN	LT	1B	5
UNDISTRIBUTED			3
PROJECT TOTAL			**15**

TRACKING PADS

LOCATION	628.7560 EACH
UNDISTRIBUTED	2
PROJECT TOTAL	**2**

INLET PROTECTION

STATION	LOCATION	STAGE	628.7005 TYPE A EACH	628.7020 TYPE D EACH
53+63 FD	LT	1A	---	1
53+76 FD	LT	1A	---	1
53+76 FD	LT	1A	---	1
54+56 FD	RT	1A	---	1
160+65 RN	RT	1A	1	1
162+47 RN	RT	1A	1	1
129+00 RN	LT	1B	1	---
139+95 RN	LT	1B	---	1
140+55 RN	LT	2A	1	---
140+90 RN	LT	2A	1	1
140+90 RN	LT	2A	1	1
145+10 RN	LT	2A	1	---
145+10 RN	LT	2A	1	1
145+00 RN	LT	2A	1	1
147+80 RN	LT	2A	1	1
147+80 RN	LT	2A	1	1
147+90 RN	LT	2A	1	1
150+70 RN	LT	2A/5A	1	1
150+60 RN	LT	2A/5A	1	1
153+80 RN	LT	2A/5A	1	1
156+50 RN	LT	2A	1	1
156+50 RN	LT	2A	1	---
158+68 RN	LT	2A	1	1
159+72 RN	LT	2A	1	1
155+13 RN	LT	2C/5A	1	1
154+70 RN	LT	2C	1	---
154+70 RN	LT	2C	1	1
160+91 RN	LT	2C	1	---
150+70 RN	LT	3A	1	1
153+80 RN	LT	3A/5B	1	1
153+80 RN	LT	3A/5B	1	1
158+70 RN	LT	3A/5B	1	1
135+40 RN	LT	4A	1	1
145+10 RN	RT	4A	1	---
145+10 RN	LT	4A	1	---
147+80 RN	RT	4A	1	1
147+80 RN	LT	4A	1	1
150+70 RN	RT	4A	1	1
150+70 RN	LT	4A	1	1
153+80 RN	RT	4A	1	1
160+65 RN	RT	4A	1	1
161+25 RN	RT	4A	1	---
162+47 RN	RT	4A	1	1
53+76 FD	RT	5A	1	1
53+76 FD	RT	5A	1	1
PROJECT TOTALS			**40**	**36**

3

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

SOD LAWN

STATION TO STATION	LOCATION	631.1000 SY	COMMENTS
134+00 RS - 136+16 RS	SB ROSE ST LT	110	BETWEEN BACK OF CURB AND MUP
140+26 RS - 155+00 RS	SB ROSE ST	740	BETWEEN BACK OF CURB AND MUP
148+25 RN - 152+85 RN	MEDIAN	1140	
157+77 RN - 162+70 RN	NB ROSE ST RT	230	BETWEEN BACK OF CURB AND MUP
158+34 RN - 162+43 RN	NB ROSE ST LT	160	
UNDISTRIBUTED		620	
PROJECT TOTAL		**3000**	

DELINEATORS

STATION TO STATION	LOCATION	STAGE	633.1100 TEMPORARY EACH	633.0100 POST STEEL EACH	633.0500 REFLECTORS EACH
139+50 RN - 144+50 RN	RT	1A/4A	---	2	2
129+44 RT - 132+30 RT	RT	2A	12	---	---
150+60 RU - 152+00 RU	LT	3A	6	---	---
UNDISTRIBUTED			2	3	3
PROJECT TOTALS			**20**	**5**	**5**

SIGNS TYPE II

SIGN NUMBER	STATION	SIZE FEET	SIGN MESSAGE (ORDER LINES)	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0620 POSTS WOOD 4X6-INCH 20-FT EACH
150	121+90 RN	4 X 9.5	MERGING TRAFFIC BE PREPARED TO STOP	38	2
151	IH 90 RAMP	3 X 6	MERGING AHEAD BE PREPARED TO STOP	18	2
PROJECT TOTALS				**111.00 ***	**4**

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE**

FIELD OFFICE TYPE C

PROJECT	642.5201 EACH
7190-03-71	0.3
PROJECT TOTAL	**0.3**

MARKERS CULVERT END

STATION	LOCATION	633.5200 EACH
143+06 RN	RT	1
PROJECT TOTAL		**1**

MOVING SIGNS

SIGN NUMBER	STAGE	STATION FROM	STATION TO	638.2102 TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH
400	1A	142+25 RN	142+25 RN	1	1
401	1A	147+25 RN	147+25 RN	1	1
402	1A	148+90 RN	148+90 RN	1	1
403	1A	156+25 RN	156+25 RN	1	1
404	1A	158+75 RN	158+75 RN	1	1
405	1A	159+75 RN	159+75 RN	1	1
406	2A	142+50 RS	142+50 RT	2	1
PROJECT TOTALS				**18 ***	**14 ***

*** ADDITIONAL QUANTITIES SHOWN ELSE WHERE**

TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE

PROJECT	643.0200.03 DAYS
7190-03-71	218
PROJECT TOTAL	**218**

TRAFFIC CONTROL SIGNS, LIGHTS, AND BARRICADES

STAGE	643.0300 DRUMS EACH	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A EACH	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C EACH	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS EACH	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS EACH	643.0900 SIGNS DAYS
ADVANCED WARNING	---	---	---	---	---	---	---	---	---	---	18	3798
STAGE 1A	165	2475	10	150	18	270	7	105	1	15	53	795
STAGE 1B	195	2925	11	165	22	330	12	180	1	15	62	930
STAGE 2A	186	3348	14	252	28	504	23	414	1	18	59	1062
STAGE 2B	204	3672	22	396	44	792	23	414	1	18	60	1080
STAGE 2C	197	3546	17	306	34	612	23	414	1	18	60	1080
STAGE 3A	178	1424	13	104	26	208	25	200	1	8	65	520
STAGE 3B	172	1376	14	112	28	224	25	200	1	8	65	520
STAGE 4A	182	2730	19	285	38	570	50	750	1	15	70	1050
STAGE 4B	172	2580	19	285	38	570	50	750	1	15	67	1005
STAGE 4C	184	2760	17	255	34	510	50	750	1	15	71	1065
STAGE 4D	161	2415	21	315	42	630	50	750	1	15	65	975
STAGE 5A	261	2610	10	100	20	200	8	80	1	10	54	540
STAGE 5B	167	1670	12	120	24	240	13	130	1	10	47	470
UNDISTRIBUTED		1969		155		340		263		20		810
PROJECT TOTALS		**35500**		**3000**		**6000**		**5400**		**200**		**15700**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE				637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 H FOLDING SF	637.2230 F SF	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 4x6x14 EACH	634.0616 4x6x16 EACH	634.0618 4X6X18 EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	COMMENTS
19-1	STH 35	R9-9	30"	X	18"	3.75	--	--	1	--	--	--	--	--	--	--		
19-2	STH 35	W1-4B	36"	X	36"	--	--	9.00	--	1	--	--	--	--	--	--		LANE SHIFT RIGHT
19-3	STH 35	W1-4B	36"	X	36"	--	--	9.00	--	1	--	--	--	--	--	--		LANE SHIFT RIGHT
20-1	STH 35	W5-52L	12"	X	36"	--	--	3.00	--	--	--	1	--	1	1	--		
20-2	STH 35	W5-52R	12"	X	36"	--	--	3.00	--	--	--	1	--	1	1	--		
20-3	STH 35	W12-2	36"	X	36"	--	--	--	--	--	--	--	1	--	--	1		
20-4	STH 35	W57-52	36"	X	24"	--	--	--	--	--	--	--	1	--	--	--	20-3	
20-5	STH 35	W12-2	36"	X	36"	--	--	--	--	--	--	--	1	--	--	1		
20-6	STH 35	W57-52	36"	X	24"	--	--	--	--	--	--	--	1	--	--	--	20-5	
20-7	STH 35	I2-3	66"	X	24"	--	--	--	--	--	--	--	1	--	--	1		ONALASKA POPULATION 17,736
20-8	STH 35			X		--	--	--	--	--	--	--	1	--	--	1		ALTERNATE SIDE PARKING
20-9	STH 35	R2-1	30"	X	36"	7.50	--	--	--	--	1	--	--	1	1	--		40 MPH
20-10	STH 35	W3-3	36"	X	36"	--	--	9.00	--	1	--	--	--	1	1	--		
20-11	STH 35	W3-3	36"	X	36"	--	--	9.00	--	--	1	--	--	1	1	--		
20-12	STH 35	D1-55R	60"	X	21"	8.75	--	--	--	1	--	--	--	1	1	--		
20-13	STH 35	R2-1	30"	X	36"	7.50	--	--	--	--	1	--	--	1	1	--		50 MPH
20-14	STH 35	R2-1	30"	X	36"	7.50	--	--	--	--	1	--	--	1	1	--		40 MPH
21-1	STH 35			X		--	--	--	--	--	--	--	1	--	--	1		SOUTH GREAT RIVER ROAD WISCONSIN
21-2	STH 35	R2-1	30"	X	36"	7.50	--	--	--	--	1	--	--	1	1	--		40 MPH
21-3	STH 35	J1-2	48"	X	36"	--	--	--	--	--	1	--	--	1	1	--		ROUTE MARKER
		M3-3	24"	X	12"	2.00	--	--	--	--	--	--	--	--	--	--	21-3	SOUTH
		M1-6	24"	X	24"	4.00	--	--	--	--	--	--	--	--	--	--	21-3	STH 35
		MB4-1	24"	X	12"	2.00	--	--	--	--	--	--	--	--	--	--	21-3	ALTERNATE
		M1-1	24"	X	24"	4.00	--	--	--	--	--	--	--	--	--	--	21-3	INTERSTATE 90
21-4	STH 35	R5-1A	42"	X	30"	8.75	--	--	--	--	1	--	--	1	1	--		
21-5	STH 35	I55-56	30"	X	36"	--	--	--	--	1	--	--	1	--	--	1		
21-6	STH 35	R5-1	36"	X	36"	9.00	--	--	--	--	--	--	--	1	1	--	21-5	
21-7	STH 35	R1-2	48"	X	42"	14.00	--	--	--	1	--	--	--	1	1	--		
21-8	STH 35	W12-1D	24"	X	24"	--	--	4.00	--	1	--	--	--	1	1	--		
21-9	STH 35	R4-7	24"	X	30"	5.00	--	--	--	1	--	--	--	1	1	--		
21-10	STH 35	R6-2L	30"	X	36"	7.50	--	--	--	1	--	--	--	1	1	--		
21-11	STH 35	R6-3	30"	X	24"	5.00	--	--	--	1	--	--	--	1	1	--		
21-12	STH 35	R5-1	36"	X	36"	9.00	--	--	--	--	--	--	--	1	--	--	21-11	
21-13	STH 35	R5-1	36"	X	36"	9.00	--	--	--	1	--	--	--	1	1	--		
21-14	STH 35	R4-7	24"	X	30"	5.00	--	--	--	1	--	--	--	1	1	--		
21-15	STH 35	R3-82	30"	X	54"	11.25	--	--	--	--	1	--	--	1	1	--		
21-16	STH 35	R3-20L	24"	X	36"	6.00	--	--	--	1	--	--	--	1	1	--		
21-17	STH 35	R4-7	24"	X	30"	5.00	--	--	--	1	--	--	--	1	1	--		
21-18	STH 35	R5-1	36"	X	36"	9.00	--	--	--	1	--	--	--	1	1	--		
21-19	STH 35	R6-3	30"	X	24"	5.00	--	--	--	--	--	--	--	1	1	--	SIGNAL POLE	
21-20	STH 35	R6-2L	30"	X	36"	7.50	--	--	--	--	--	--	--	1	--	--	SIGNAL POLE	
21-21	STH 35	W3-5	36"	X	36"	--	--	9.00	--	1	--	--	--	1	1	--		25 MPH
21-22	STH 35	R4-7	24"	X	30"	5.00	--	--	--	1	--	--	--	1	1	--		
21-23	STH 35	R6-2R	30"	X	36"	7.50	--	--	--	1	--	--	--	1	1	--		
21-24	STH 35	R6-2R	30"	X	36"	7.50	--	--	--	1	--	--	--	1	1	--		
21-25	STH 35	D1-55L	60"	X	21"	8.75	--	--	--	1	--	--	--	1	1	--		
21-26	STH 35	R5-1A	42"	X	30"	8.75	--	--	--	--	--	--	--	1	1	--	21-25	
21-27	STH 35			X		--	--	--	--	--	1	--	--	1	1	--		ROUTE MARKER
	STH 35	MB4-1	24"	X	18"	3.00	--	--	--	--	--	--	--	--	--	--	21-27	ALTERNATE
	STH 35	M1-1	24"	X	24"	4.00	--	--	--	--	--	--	--	--	--	--	21-27	INTERSTATE 90
	STH 35	M3-1	24"	X	18"	3.00	--	--	--	--	--	--	--	--	--	--	21-27	NORTH
	STH 35	M1-6	24"	X	24"	4.00	--	--	--	--	--	--	--	--	--	--	21-27	STH 35
	STH 35			X		--	--	--	--	--	--	--	1	--	--	--	21-27	BUS
21-28	STH 35	R5-1	36"	X	36"	9.00	--	--	--	--	--	--	--	1	1	--	21-27	
21-29	STH 35	R2-1	24"	X	30"	5.00	--	--	--	1	--	--	--	1	1	--		

- CONTINUED -

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE				637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4X6X18 EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	COMMENTS
21-30	STH 35			X		--	--	--	--	--	--	--	1	--	--	1		NORTH GREAT RIVER ROAD WISCONSIN
21-31	STH 35	R4-7	24"	X	30"	5.00	--	--	--	1	--	--	--	1	1	--		
21-32	STH 35	R2-1	30"	X	36"	7.50	--	--	--	1	--	--	--	1	1	--		40 MPH
21-33	STH 35	R1-1	36"	X	36"	--	9.00	--	--	1	--	--	--	1	1	--		
21-34	STH 35	R1-1F	36"	X	36"	--	9.00	--	--	--	--	--	--	--	--	--		MOUNT ON SIGNAL POLE
21-35	STH 35	R1-1F	36"	X	36"	--	9.00	--	--	--	--	--	--	--	--	--		MOUNT ON SIGNAL POLE
21-36	STH 35	R1-1F	36"	X	36"	--	9.00	--	--	--	--	--	--	--	--	--		MOUNT ON SIGNAL POLE
21-37	STH 35	R1-1F	36"	X	36"	9.00	--	--	--	--	--	--	--	--	--	--		MOUNT ON SIGNAL POLE
21-38	STH 35	R9-9	30"	X	18"	3.75	--	--	1	--	--	--	--	--	--	--		
PROJECT ID 7190-03-71 SUMMARY						**261.25**	**36.00**	**111.00 ***	**2**	**24**	**9**	**2**	**18 ***	**38**	**36**	**14 ***		

*** ADDITIONAL QUANTITIES SHOWN ELSEWHERE**

TRAFFIC CONTROL BARRICADES TYPE II

STAGE	643.0410 EACH	643.0410 DAYS
SIDEWALK/BIKE DETOUR	14	2954
UNDISTRIBUTED		546
PROJECT TOTAL		**3500**

TRAFFIC CONTROL COVERING SIGNS TYPE II

STATION	STAGE	CYCLES	643.0920 EACH
110+62 RN	1A	1	1
134+80 RN	1A	1	1
53+69 FD	1A	1	1
131+07 RN	1B	1	1
144+94 RN	1B	1	1
152+30 RT	2A	1	1
154+14 RT	2A	1	1
53+69 FD	3B	1	1
53+69 FD	3B	1	1
PROJECT TOTAL			**9**

TRAFFIC CONTROL DETOUR

PROJECT	643.2000 EACH
03. 7190-03-71	1

TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER

STATION TO STATION	LOCATION	STAGE	643.0500 POSTS EACH	643.0600 BASES EACH
159+45 RN - 161+50 RN		1A	14	14
132+60 RT - 134+90 RT	CL CROSSOVER	2A	16	16
146+85 RT - 150+80 RT		2A	40	40
156+90 RT - 162+00 RT		2A	52	52
157+00 RU - 159+10 RU		3A	21	21
165+85 RU - 168+00 RU		3A	23	23
168+55 RU - 170+55 RU		3A	21	21
165+55 RU - 165+85 RU		4A	3	3
UNDISTRIBUTED			40	40
PROJECT TOTALS			**230**	**230**

TRAFFIC CONTROL DETOUR SIGNS

STAGE	643.3000 EACH	643.3000 DAYS
SIDEWALK/BIKE DETOUR	46	9706
UNDISTRIBUTED		494
PROJECT TOTAL		**10200**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

PAVEMENT MARKING EPOXY 4-INCH

STATION TO STATION	DESCRIPTION	646.0106 WHITE LF	646.0106 YELLOW LF
129+60 RS - 154+30 RS	SB LT EDGELINE	---	2470
129+60 RS - 136+00 RS	SB LT CENTERLINE	160	---
131+85 RS - 154+76 RS	SB RT EDGELINE	2291	---
133+21 RN - 144+75 RN	NB LT CENTERLINE	214	---
133+21 RN - 154+40 RN	NB RT EDGELINE	2150	---
133+21 RN - 154+54 RN	NB LT EDGELINE	---	2135
150+33 RN - 154+58 RN	EDGELINE	425	---
156+00 RN - 164+50 RN	NB RT EDGELINE	850	---
156+00 RN - 164+50 RN	NB LT EDGELINE	---	850
156+00 RN - 164+50 RN	CENTERLINE	213	---
156+15 RN - 159+75 RN	SB RT EDGELINE	360	---
156+15 RN - 164+50 RN	SB LT EDGELINE	---	835
156+15 RN - 164+50 RN	SB CENTERLINE	209	---
161+35 RN - 164+50 RN	SB RT EDGELINE	315	---
50+00 FD - 51+43 RD	ASH ST CENTERLINE	286	---
52+62 FD - 53+87 FD	CENTERLINE	31	---
SUBTOTALS		**7504**	**6290**
PROJECT TOTAL		**13794**	

PAVEMENT MARKING PREFORMED PLASTIC 8-INCH

STATION TO STATION	DESCRIPTION	646.0129 WHITE LF
150+33 RN - 154+58 RN	NB RT TURN LANE	450
152+00 RN - 154+57 RN	NB LT TURN LANE	94
52+62 FD - 53+87 FD	OAK FOREST DR	330
156+00 RN - 156+82 RN	SB LT TURN LANE	62
PROJECT TOTAL		**936**

REMOVING PAVEMENT MARKINGS

STATION TO STATION	DESCRIPTION	STAGE	646.0600 LF	647.0955 ARROWS EACH	647.0965 WORDS EACH
121+00 RN - 125+00 RN	LANE LINE SKIPS	1A	100	--	--
126+20 RN - 128+50 RN	LANE LINE SKIPS	1A	58	--	--
126+70 RN - 128+50 RN	CHANNELIZING	1A	360	--	--
134+70 RN - 140+70 RN	LANE LINE SKIPS	1A	150	--	--
151+00 RN - 152+00 RN	CHANNELIZING	1A	200	--	--
158+00 RN - 159+35 RN	LANE LINE SKIPS	1A	34	--	--
52+85 FD	LT TURN	1A	--	1	--
53+30 FD	ONLY	1A	--	--	1
53+75 FD	LT TURN	1A	--	1	--
50+60 FD - 51+25 FD	DOUBLE YELLOW	1B	260	--	--
50+60 FD - 51+25 FD	DIAGONAL	1B	75	--	--
153+85 RN	ONLY (NB LANES)	1B	--	--	1
154+28 RN	LT TURN (NB LANES)	1B	--	1	--
163+50 RN - 164+75 RN	LANE LINE SKIPS	1B	32	--	--
129+25 RS - 132+00 RS	MEDIAN EDGELINE	2A	275	--	--
132+00 RN - 134+70 RN	LANE LINE SKIPS	2A	68	--	--
132+00 RN - 154+50 RN	MEDIAN EDGELINE	2A	2250	--	--
140+70 RN - 154+50 RN	LANE LINE SKIPS	2A	345	--	--
149+00 RS - 150+00 RS	MEDIAN EDGELINE	2A	100	--	--
149+00 RS - 150+00 RS	LANE LINE SKIPS	2A	25	--	--
154+53 RN	STOP BAR	2A	60	--	--
154+60 RN	STOP BAR	2A	120	--	--
153+60 RN - 154+60 RN	CHANNELIZING	2A	200	--	--
154+50 RN - 155+50 RN	DOTTED LANE LINES	2A	95	--	--
156+00 RN - 164+90 RN	LANE LINE SKIPS	2A	223	--	--
156+00 RN - 158+80 RN	MEDIAN EDGELINES	2A	560	--	--
158+80 RN - 159+60 RN	DOUBLE YELLOW	2A	320	--	--
158+80 RN - 159+60 RN	DIAGONAL	2A	105	--	--
159+60 RN - 164+90 RN	DOUBLE YELLOW	2A	1060	--	--
52+65 FD	STOP BAR	2A	110	--	--
SOUTH OF FERN STREET	LANE LINE SKIPS	2A	25	--	--
162+37 RN - 164+90 RN	LANE LINE SKIPS	3A	64	--	--
52+85 FD	LT TURN	3B	--	1	--
53+30 FD	ONLY	3B	--	--	1
53+75 FD	LT TURN	3B	--	1	--
52+64 FD - 53+87 FD	MEDIAN EDGELINE	3B	123	--	--
52+64 FD - 53+87 FD	CHANNELIZING	3B	246	--	--
154+00 RN - 154+75 RN	ISLAND CHANNELIZING	4A	190	--	--
52+50 FD - 53+70 FD	LANE LINE SKIPS	4A	30	--	--
52+61 FD - 53+89 FD	MEDIAN EDGELINE	4A	128	--	--
53+35 FD - 53+89 FD	CHANNELIZING	4A	110	--	--
53+61 FD	LT TURN	4A	--	1	--
PROJECT TOTALS			**8101**	**6**	**3**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH

STATION TO STATION	DESCRIPTION	646.0841.S WHITE LF	646.0841.S YELLOW LF
136+00 RS - 154+31 RS	SB CENTERLINE	458	---
148+83 RN - 150+33 RN	DOTTED LANE LINE	38	---
141+75 RN - 154+54 RN	NB CENTERLINE	320	---
154+35 RS - 52+67 FD	DOTTED LANE LINE	32	20
SUBTOTALS		**848**	**20**
PROJECT TOTAL		**868**	

PAVEMENT MARKINGS EPOXY

STATION TO STATION	647.0456 CURB LF	647.0606 ISLAND NOSE EACH	647.0726 DIAGONAL 12-INCH LF	647.0776 CROSSWALK 12-INCH LF
154+25 RS - 154+52 RS	26	1	---	---
156+07 RN	---	---	---	146
156+15 RN - 156+25 RN	10	1	---	---
158+60 RN - 158+70 RN	10	1	---	---
158+70 RN - 159+50 RN	---	---	40	---
159+95 RN - 161+07 RN	---	---	---	212
51+50 FD	---	---	---	151
52+56 FD - 53+00 FD	43	1	---	---
52+60 FD - 52+70 FD	10	1	---	---
53+82 FD - 53+92 FD	10	1	---	---
PROJECT TOTALS	**109**	**6**	40	509

PAVEMENT MARKING PREFORMED PLASTIC

STATION TO STATION	DESCRIPTION	647.0569 STOP LINE 18-INCH LF	647.0359 WORDS EACH	647.0169 ARROWS TYPE 2 EACH	647.0179 ARROWS TYPE 3 EACH
150+33 RN - 154+58 RN	NB RT TURN LANE	---	2	2	---
152+00 RN - 154+57 RN	NB LT TURN LANE	---	1	1	---
154+57 RN	NB STOPLINE	45	---	---	---
156+00 RN - 156+82 RN	SB LT TURN LANE	---	---	1	---
156+16 RN	SB STOPLINE	40	---	---	---
51+50 FD	ASH ST STOPLINE	28	---	---	---
52+62 FD	OAK FOREST DR	42	---	---	---
52+62 FD - 53+87 FD	OAK FOREST DR	---	2	5	2
PROJECT TOTALS		**155**	**5**	**9**	**2**

TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE

STATION	LOCATION	STAGE	649.1200 18-INCH LF
51+57 FD	ASH ST	1B	17
154+25 RN	STH 35	2A	22
156+05 RN	STH 35	2A	22
51+72 FD	ASH ST	2A	12
51+56 FD	ASH ST	2C	12
51+48 FD	ASH ST	3A	12
156+19 RN	STH 35	3A	11
156+47 RN	STH 35	3A	11
51+50 FD	ASH ST	3B	15
52+65 FD	OAK FOREST DR	3B	11
51+36 FD	ASH ST	4A	21
52+44 FD	OAK FOREST DR	4A	22
154+42 RN	STH 35	4A	33
154+62 RN	STH 35	5A	27
156+11 RN	STH 35	5A	24
154+62 RN	STH 35	5B	31
156+11 RN	STH 35	5B	23
PROJECT TOTAL			**326**

TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

STATION	LOCATION	STAGE	649.1800 TYPE 2 EACH	649.1800 TYPE 3 EACH
52+85 FD	OAK FOREST DR	1A	---	1
58+75 FD	OAK FOREST DR	1A	---	1
52+85 FD	OAK FOREST DR	1B	1	---
53+65 FD	OAK FOREST DR	1B	1	---
53+75 FD	OAK FOREST DR	1B	1	---
154+27 RN	OAK FOREST DR	1B	1	---
156+35 RN	OAK FOREST DR	1B	1	---
150+30 RN	STH 35	2A	1	---
154+00 RN	STH 35	2A	1	---
156+28 RN	STH 35	2A	1	---
159+92 RN	STH 35	2A	1	---
52+85 FD	OAK FOREST DR	2A	---	1
53+75 FD	OAK FOREST DR	2A	---	1
52+85 FD	OAK FOREST DR	3A	1	---
53+75 FD	OAK FOREST DR	3A	1	---
156+70 RN	STH 35	3A	1	---
159+30 RN	STH 35	3A	1	---
52+85 FD	OAK FOREST DR	3B	1	1
53+64 FD	OAK FOREST DR	3B	1	1
52+68 FD	OAK FOREST DR	4A	1	1
53+78 FD	OAK FOREST DR	4A	1	---
156+70 RN	STH 35	4A	1	---
154+90 RN	STH 35	4A	2	---
152+63 RN	STH 35	4A	1	---
150+00 RN	STH 35	4A	1	---
52+78 FD	OAK FOREST DR	4B	1	---
53+78 FD	OAK FOREST DR	4B	1	---
53+73 FD	OAK FOREST DR	4C	1	---
153+60 RN	STH 35	4C	1	---
53+78 FD	OAK FOREST DR	5A	1	---
154+38 RN	STH 35	5A	1	---
156+35 RN	STH 35	5A	1	---
154+38 RN	STH 35	5B	1	---
156+35 RN	STH 35	5B	1	---
52+78 FD	OAK FOREST DR	5B	---	1
53+78 FD	OAK FOREST DR	5B	---	1
SUBTOTALS			**31**	**9**
PROJECT TOTAL			**40**	

TEMPORARY PAVEMENT MARKING WORDS REMOVABLE TAPE

STATION	LOCATION	STAGE	649.2000 EACH
53+30 FD	OAK FOREST DR	1B	1
152+16 RN	STH 35	2A	1
158+10 RN	STH 35	2A	1
53+30 FD	OAK FOREST DR	3A	1
158+00 RN	STH 35	3A	1
53+30 FD	OAK FOREST DR	3B	1
152+00 RN	STH 35	4A	1
153+40 RN	STH 35	4A	1
53+30 FD	OAK FOREST DR	4B	1
PROJECT TOTAL			**9**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

TEMPORARY PAVEMENT MARKING

STATION TO STATION	DESCRIPTION	STAGE	649.0402 PAINT 4-INCH WHITE LF	649.0402 PAINT 4-INCH YELLOW LF	649.0400 REMOVABLE TAPE 4-INCH WHITE LF	649.0400 REMOVABLE TAPE 4-INCH YELLOW LF	649.0801 8-INCH WHITE LF	649.0802 PAINT 8-INCH WHITE LF
121+37 RN - 124+68 RN	NB EDGELINE	1A	---	---	---	330	---	---
126+18 RN - 127+24 RN	NB EDGELINE	1A	---	---	---	109	---	---
134+58 RN - 140+61 RN	NB EDGELINE	1A	---	---	605	605	---	---
149+48 RN - 150+78 RN	NB EDGELINE	1A	---	---	132	---	---	---
157+95 RN - 159+24 RN	SB EDGELINE	1A	---	---	129	---	---	---
140+36 RN - 143+32 RN	NB EDGELINE	1B	---	---	296	---	---	---
153+75 RT - 154+75 RT	CHANNELIZING	1B	---	---	---	---	100	---
158+00 RN - 163+70 RN	NB EDGELINE	1B	---	---	568	---	---	---
159+70 RT - 160+40 RT	CHANNELIZING	1B	---	---	---	---	70	---
163+49 RN - 164+74 RN	SB EDGELINE	1B	---	---	---	126	---	---
50+55 FD - 51+63 FD	CENTERLINE	1B	---	---	---	214	---	---
129+43 RT - 145+00 RT	CENTERLINE	2A	---	---	---	2857	---	---
130+26 RT - 145+00 RT	EDGELINE	2A	---	---	2325	---	---	---
145+00 RT - 154+50 RT	CENTERLINE	2A	---	1900	---	---	---	---
145+00 RT - 154+50 RT	EDGELINE	2A	950	---	---	---	---	---
150+31 RT - 154+50 RT	CHANNELIZING	2A	---	---	---	---	---	765
156+30 RT - 165+15 RT	EDGELINE	2A	1200	---	600	---	---	---
156+30 RT - 165+15 RT	CENTERLINE	2A	---	1200	---	600	---	---
156+30 RT - 160+40 RT	CHANNELIZING	2A	---	---	---	---	---	410
52+67 FD - 53+87 FD	EDGELINE	2A	240	---	25	---	---	---
50+55 FD - 51+71 FD	ASH ST	2A	---	---	240	240	---	---
SOUTH OF FERN ST	EDGELINE	2A	---	---	130	---	---	---
51+00 FD - 51+66 FD	EDGELINE	2B	---	---	---	60	---	---
154+50 RT - 155+90 RT	LANE LINES	2B	---	---	---	34	---	---
51+00 FD - 51+66 FD	LANE LINES	2B	---	---	34	34	---	---
50+55 FD - 51+57 FD	ASH ST	2C	---	---	135	202	---	---
140+00 RU - 163+67 RU	EDGELINE	3A	667	---	1700	4740	---	---
165+00 RU - 173+74 RU	EDGELINE	3A	---	---	360	1750	336	---
50+00 FD - 54+00 FD	EDGELINE	3A	---	---	100	200	---	---
SOUTH OF FERN ST	EDGELINE	3A	---	---	---	130	---	---
50+00 FD - 53+90 FD	EDGELINE	3B	---	---	250	445	110	---
149+20 RU - 163+30 RU	EDGELINE	4A	---	---	1410	---	450	---
165+00 RU - 173+74 RU	EDGELINE	4A	---	---	874	250	---	---
50+00 FD - 54+00 FD	ALL	4A	---	---	261	488	105	---
52+60 FD - 53+86 FD	EDGELINE	4B	---	---	126	---	---	---
162+00 RU - 163+50 RU	EDGELINE	4C	---	---	215	---	---	---
50+00 FD - 54+00 FD	ALL	4C	---	---	120	150	50	---
160+00 RU - 163+50 RU	EDGELINE	4D	---	---	350	---	---	---
52+00 FD - 54+00 FD	EDGELINE	4D	---	---	127	284	---	---
134+50 RN - 140+50 RN	EDGELINE	5A	---	---	600	---	---	---
134+50 RN - 140+50 RN	EDGELINE	5A	---	---	---	600	---	---
151+25 RS - 154+54 RS	EDGELINE	5A	---	---	---	536	115	---
156+00 RN - 160+00 RN	EDGELINE	5A	---	---	130	---	70	---
52+00 FD - 54+00 FD	EDGELINE	5A	---	---	125	---	60	---
153+47 RN - 154+62 RN	CHANNELIZING	5B	---	---	---	---	115	---
156+00 RN - 163+67 RN	EDGELINE	5B	---	---	---	130	70	---
SUBTOTALS			**3057**	**3100**	**11967**	**15114**	**1651**	**1175**
PROJECT TOTALS			**6157**		**27081**		**1651**	**1175**

CONSTRUCTION STAKING

STATION TO STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.9920 SLOPE STAKES LF	650.7000 CONCRETE PAVEMENT LF
132+07 RS - 136+04 RS	SB ROSE ST	397	---	397	397
140+21 RN - 162+37 RN	NB ROSE ST	2216	---	2216	2216
144+75 RS - 162+37 RN	SB ROSE ST	1762	---	1762	1762
51+18 FD - 53+49 FD	OAK FOREST DR	231	---	231	231
129+43 RT - 136+16 RT	TEMP	673	673	673	---
140+42 RT - 143+55 RT	TEMP	313	313	313	---
146+70 RT - 150+05 RT	WIDENING	335	335	335	---
155+69 RT - 163+95 RT	WIDENING	826	826	826	---
143+33 RN - 144+75 RN	WIDENING	142	142	142	---
149+02 RU - 155+35 RU	TEMP	633	633	633	---
157+00 RU - 164+18 RU	WIDENING	718	718	718	---
50+75 TO - 51+73 TO	WIDENING	98	98	98	---
53+07 FD - 53+72 FD	WIDENING	65	65	65	---
PROJECT TOTALS		**8409**	**3803**	**8409**	**4606**

CONSTRUCTION STAKING
CURB GUTTER AND CURB & GUTTER

STATION TO STATION	LOCATION	650.5500 LF
135+00 RS - 136+14 RS	LT	114
135+45 RS - 135+84 RS	RT	39
140+22 RS - 142+00 RS	RT	178
140+69 RS - 154+92 RS	LT	1423
144+75 RN - 149+39 RN	RT	464
146+35 RS - 154+46 RS	RT	811
147+25 RN - 154+55 RN	LT	730
149+39 RN - 154+55 RN	RT	617
154+65 RN	ISLAND	70
155+75 RN - 163+70 RN	RT	795
156+08 RN - 159+87 RN	LT	379
156+23 RN - 158+64 RN	LT	482
159+87 RN - 160+05 RN	LT	23
160+80 RN - 161+19 RN	LT	52
161+19 RN - 162+37 RN	LT	118
51+15 FD - 51+43 FD	LT	43
51+20 FD - 51+79 FD	RT	66
52+57 FD - 53+87 FD	ISLAND	248
52+29 FD - 53+49 FD	LT	123
PROJECT TOTAL		**6775**

CONSTRUCTION STAKING
SUPPLEMENTAL CONTROL

PROJECT	650.9910 LS
03. 7190-03-71	1

ADJUSTING CONSTRUCTION STAKING

PROJECT	SPV.0105.03 LS
7190-03-71	1

CONCRETE PAVEMENT JOINT LAYOUT

PROJECT	SPV.0105.06 LS
7190-03-71	1

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTION

INTERSECTION	661.0200 LS
STH 35 & ASH ST/OAK FOREST DR	1

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

SAWING

STATION TO STATION	LOCATION	STAGE	690.0150 ASPHALT LF	690.0250 CONCRETE LF
140+42 RT	RT SHLDR	1A	8	---
146+70 RT - 150+05 RT	RT SHLDR	1A	---	335
155+69 RT - 163+95 RT	RT SHLDR	1A	---	826
51+22 FD - 51+60 FD	MEDIAN	1A	---	85
53+06 FD - 53+72 FD	RT SHLDR	1A	---	66
129+47 RT	RT SHLDR	1B	3	---
132+04 RT	RT SHLDR	1B	3	---
132+50 RT	LT SHLDR	1B	3	---
140+68 RT - 145+48 RT	LT SHLDR	1B	---	480
148+77 RT - 154+86 RT	LT SHLDR	1B	---	635
156+21 RT - 159+07 RT	MEDIAN	1B	---	286
50+75 TO - 51+73 TO	RT SHLDR	1B	---	98
52+57 FD - 53+94 FD	MEDIAN	1B	---	277
132+07 RS	STH 35	2A	10	24
156+93 RN	DRIVEWAY	2A	55	16
51+18 FD - 51+67 FD	PAVEMENT	2A	35	5
51+67 FD - 157+55 RN	PAVEMENT	2A	---	236
155+29 RN - 155+96 RN	PAVEMENT	2B	---	30
157+55 RN - 162+37 RN	PAVEMENT	2B	---	482
160+03 RN - 160+82 RN	2ND AVE SW	2B	---	80
162+17 RN	DRIVEWAY	2B	12	---
162+37 RN	STH 35	2B/3A/4A	---	52
51+18 FD - 155+29 RN	PAVEMENT	2B	---	87
149+50 RS	DRIVEWAY LT	2C	45	---
154+62 RN - 155+29 RN	PAVEMENT	2C	---	67
154+62 RN - 155+32 RN	PAVEMENT	3A	---	83
158+00 RN - 162+37 RN	PAVEMENT	3A	---	437
155+32 RN - 155+96 RN	PAVEMENT	3B	---	65
PARCEL 7 PARKING LOT	PAVEMENT	4A	340	---
143+37 RN - 144+75 RN	PAVEMENT	4A	---	143
155+23 RN - 155+36 RN	PAVEMENT	4A	---	25
155+23 RN - 52+80 FD	PAVEMENT	4A	---	59
160+95 RN - 162+06 RN	PAVEMENT	4A	114	---
53+48 FD	PAVEMENT	4A	---	46
155+02 RN - 52+84 FD	PAVEMENT	4B	---	94
154+62 RN - 154+92 RN	PAVEMENT	4C	---	75
53+48 FD	PAVEMENT	4D	---	36
54+00 FD - 54+18 FD	RT SHLDR	4D	---	18
PROJECT TOTALS			**628**	**5248**

REMOVE AND RESET LIGHT POLE

STATION	LOCATION	SPV.0060.08 EACH
162+66 RN	RT	1
PROJECT TOTAL		**1**

CONCRETE SIDEWALK CURE AND SEAL TREATMENT

STATION TO STATION	LOCATION	SPV.0165.01 SF
152+85 RN - 154+54 RN	MEDIAN	749
154+65 RN	MEDIAN	264
155+00 RN	MEDIAN	815
155+25 RN - 163+07 RN	SIDEWALK RT	4461
155+92 RN - 160+00 RN	SIDEWALK LT	3368
156+20 RN - 158+65 RN	MEDIAN	733
PROJECT TOTAL		**10390**

COVER PLATES TEMPORARY LEFT IN PLACE

STATION	LOCATION	SPV.0060.04 EACH
135+40 RN	J6	1
140+90 RN	K3	1
140+90 RN	K4	1
PROJECT TOTAL		**3**

CRACK AND DAMAGE SURVEY

LOCATION	999.1500.S LS
PARCELS 1,3,8,9, AND 10	1

TEMPORARY RAILROAD CROSSING GATES

STATION	LOCATION	SPV.0060.09 EACH
B-32-224	TEMPORARY RAILROAD X-ING	2
PROJECT TOTAL		**2**

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

3

Electrical Conduit

Category	Station		to	Station	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch LF	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch LF	652.0800 Conduit Loop Detector LF	Description
0010	151 RN	+ 53					95	LOOP 61 - PB3
0010	157 RN	+ 79					60	LOOP 21 - PB8
0010	151 RN	+ 51					60	LOOP 62 - PB4
0010	157 RN	+ 75					65	LOOP 22 - PB9
0010	154 RN	+ 35	to	154 RN + 37		21		SC1 to PB1
0010	154 RN	+ 37	to	154 RN + 72		101		PB1 to PB5
0010	154 RN	+ 72	to	154 RN + 96		190		PB5 to PB6
0010	154 RN	+ 96	to	156 RN + 07		223		PB6 to PB7
0010	156 RN	+ 07	to	155 RN + 86		208		PB7 to PB10
0010	155 RN	+ 86	to	155 RN + 03		171		PB10 to PB11
0010	155 RN	+ 03	to	154 RN + 41		130		PB11 to PB12
0010	154 RN	+ 41	to	154 RN + 35		13		PB12 to SC1
0010	154 RN	+ 72	to	154 RN + 68	12			PB5 to SB1
0010	154 RN	+ 72	to	154 RN + 61	12			PB5 to SB2
0010	154 RN	+ 96	to	154 RN + 81	16			PB6 to SB3
0010	154 RN	+ 96	to	155 RN + 20	28			PB6 to SB4
0010	156 RN	+ 07	to	155 RN + 98	11			PB7 to SB5
0010	156 RN	+ 07	to	156 RN + 13	12			PB7 to SB6
0010	155 RN	+ 86	to	156 RN + 15	30			PB10 to SB7
0010	155 RN	+ 03	to	155 RN + 05	11			PB11 to SB8
0010	154 RN	+ 37	to	153 RN + 02	275			PB1 to PB2
0010	153 RN	+ 02	to	151 RN + 53	150			PB2 to PB3
0010	151 RN	+ 53	to	151 RN + 51	54			PB3 to PB4
0010	156 RN	+ 07	to	157 RN + 79	173			PB7 to PB8
0010	157 RN	+ 79	to	157 RN + 75	41			PB8 to PB9
0030	159 RN	+ 77	to	159 RN + 78	52			LC1 to PB200
0030	159 RN	+ 78	to	159 RN + 76	127			PB200 to PB201
0030	159 RN	+ 78	to	161 RN + 02	125			PB200 to PB202
0030	159 RN	+ 78	to	158 RN + 86	93			PB200 to LB3
0030	159 RN	+ 78	to	159 RN + 86	9			PB200 to LB5
0030	159 RN	+ 76	to	159 RN + 59	18			PB201 to LB4
0030	159 RN	+ 59	to	158 RN + 60	100			LB4 to LB2
0030	158 RN	+ 60	to	157 RN + 36	125			LB2 to LB1
0030	159 RN	+ 76	to	160 RN + 61	85			PB201 to LB6
0030	160 RN	+ 61	to	161 RN + 46	86			LB6 to LB8
0030	161 RN	+ 02	to	161 RN + 20	22			PB202 to LB7
0030	161 RN	+ 20	to	162 RN + 00	81			LB7 to LB9
0010	153 RN	+ 02	to	152 RN + 49	162			PB2 to PB13
0010	152 RN	+ 49	to	152 RN + 40	10			PB13 to LB10
0010	152 RN	+ 49	to	149 RN + 94	511			PB13 to PB14
0010	149 RN	+ 94	to	149 RN + 90	7			PB14 to LB11
0010	154 RN	+ 35	to	154 RN + 28	9			SC1 to CV1
0010	154 RN	+ 28	to	153 RN + 02	129			CV1 to PB2
	Category 0010 Total				**1653**	**1057**	**280**	
	Category 0030 Total				**923**			
	Project Total				**2576**	**1057**	**280**	

Pull Boxes

Category	Station	Dir	Location	SPV.0060.66 Pull Boxes Non-Conductive 24"x42" EACH	Description
0010	154 RN + 37	RIGHT	71	1	PB1
0010	153 RN + 02	RIGHT	46	1	PB2
0010	151 RN + 53	RIGHT	47	1	PB3
0010	151 RN + 51	LEFT	6	1	PB4
0010	154 RN + 72	RIGHT	35	1	PB5
0010	154 RN + 96	LEFT	57	1	PB6
0010	156 RN + 07	LEFT	63	1	PB7
0010	157 RN + 79	LEFT	44	1	PB8
0010	157 RN + 75	LEFT	4	1	PB9
0010	155 RN + 86	RIGHT	39	1	PB10
0010	155 RN + 03	RIGHT	58	1	PB11
0010	154 RN + 41	RIGHT	78	1	PB12
0010	152 RN + 49	LEFT	16	1	PB13
0010	149 RN + 94	LEFT	7	1	PB14
0030	159 RN + 78	LEFT	32	1	PB200
0030	159 RN + 76	RIGHT	31	1	PB201
0030	161 RN + 02	LEFT	44	1	PB202
	Category 0010 Total			**14**	
	Category 0030 Total			**3**	
	Project Total			**17**	

Signal Bases

Category	Station	Dir	Location	654.0101 Concrete Bases Type 1 EACH	654.0102 Concrete Bases Type 2 EACH	654.0105 Concrete Bases Type 5 EACH	654.0113 Concrete Bases Type 13 EACH	Description
0010	154 RN + 68	RIGHT	45		1			SB1
0010	154 RN + 61	RIGHT	35	1				SB2
0010	154 RN + 81	LEFT	58				1	SB3
0010	155 RN + 20	LEFT	70	1				SB4
0010	155 RN + 98	LEFT	69				1	SB5
0010	156 RN + 13	LEFT	53	1				SB6
0010	156 RN + 15	RIGHT	35				1	SB7
0010	155 RN + 05	RIGHT	48	1				SB8
0010	152 RN + 40	LEFT	12			1		LB10
0010	149 RN + 90	LEFT	12			1		LB11
			Total	**4**	**1**	**2**	**3**	

Poles, Arms & Equipment

Category	Station	Dir	Location	657.1360 Install Poles Type 13 EACH	657.1545 Install Monotube Arms 45-FT EACH	657.1550 Install Monotube Arms 50-FT EACH	657.1815 Install Luminaire Arms Steel 15-FT EACH	657.0100 Pedestal Bases EACH	657.0255 Transformer Bases Breakaway 11 1/2 Inch Bolt Circle EACH	657.0420 Traffic Signal Standard Aluminum 13' EACH	657.0425 Traffic Signal Standard Aluminum 15' EACH	657.0310 Poles Type 3 EACH	657.0714 Luminaire Arms Truss Member 4-Inch Clamp 15-FT EACH	658.0110 Traffic Signal Face 3-12 Inch Vertical EACH	658.0115 Traffic Signal Face 4-12 Inch Vertical EACH	658.0215 Backplates Signal Face 3 section 12-inch EACH	658.0220 Backplates Signal Face 4 section 12-inch EACH	658.0500 Pedestrian Push Button EACH	658.0635 LED Modules Pedestrian Countdown Timer 16-inch EACH	659.1125 Luminaires Utility LED C EACH	Desc
0010	154 RN + 68	RIGHT	45						1			1	1	1		1				1	SB1
0010	154 RN + 61	RIGHT	35					1			1			1	1	1	1				SB2
0010	154 RN + 81	LEFT	58	1		1	2							2	1	2	1		1	1	SB3
0010	155 RN + 20	LEFT	70					1		1				2		2		1			SB4
0010	155 RN + 98	LEFT	69	1	1		1							3		3		1	1	1	SB5
0010	156 RN + 13	LEFT	53					1			1			1	1	1	1	1	1		SB6
0010	156 RN + 15	RIGHT	35	1	1		1							2	1	2	1	1	1	1	SB7
0010	155 RN + 05	RIGHT	48					1			1				1		1				SB8
		Total		**3**	**2**	**1**	**4**	**4**	**1**	**1**	**3**	**1**	**1**	**12**	**5**	**12**	**5**	**4**	**4**	**4**	

Fiber Optic Communication

Category	Station	to	Station	673.0105 Communication Vault Type 1 EACH	Description
0010	154 RN + 28			1	CV1
			Total	**1**	

Poles, Arms & Equipment, Black Paint

Category	Station	Dir	Location	SPV.0060.58 Black Paint Pedestal Bases EACH	SPV.0060.59 Black Paint Transformer Bases Breakaway 11 1/2 Inch Bolt Circle EACH	SPV.0060.60 Black Paint Traffic Signal Standard Aluminum 13' EACH	SPV.0060.61 Black Paint Traffic Signal Standard Aluminum 15' EACH	SPV.0060.62 Black Paint Poles Type 4 EACH	SPV.0060.63 Black Paint Luminaire Arms Truss Member 4-Inch Clamp 15-FT EACH	SPV.0060.64 Black Paint Luminaire Utility LED Category C EACH	Desc
0040	154 RN + 68	RIGHT	45		1			1	1	1	SB1
0040	154 RN + 61	RIGHT	35	1			1				SB2
0040	154 RN + 81	LEFT	58							1	SB3
0040	155 RN + 20	LEFT	70	1		1					SB4
0040	155 RN + 98	LEFT	69							1	SB5
0040	156 RN + 13	LEFT	53	1			1				SB6
0040	156 RN + 15	RIGHT	35							1	SB7
0040	155 RN + 05	RIGHT	48	1			1				SB8
			Total	**4**	**1**	**1**	**3**	**1**	**1**	**4**	

3

Electrical items

Category	Station	Dir	Location	656.0200 Electrical Service Meter Breaker Pedestal Oak Forest Dr LS	650.8500 Construction Staking Electrical Installations 7190-03-71 LS	658.5069 Signal Mounting Hardware LS	654.0200 Concrete Control Cabinet Bases Type 6 EACH	654.0224 Concrete Control Cabinet Bases Type L24 EACH	659.2124 Lighting Control Cabinets 120/240 24-inch EACH	Description
0010	154 RN + 35	RIGHT	78			1	1			SC1
0030	159 RN + 77	LEFT	45	1				1	1	LC1
0010	154 RN + 35	RIGHT	78		1					Project
Category 0010 Total					**1**	**1**	**1**			
Category 0030 Total				**1**				**1**	**1**	
Project Total				**1**	**1**	**1**	**1**	**1**	**1**	

Signal Wire

Category	Station	to Station	655.0210 Cable Traffic Signal 3-14 AWG LF	655.0230 Cable Traffic Signal 5-14 AWG LF	655.0250 Cable Traffic Signal 9-14 AWG LF	655.0260 Cable Traffic Signal 12-14 AWG LF	655.0305 Cable Type UF 2-12 AWG Grounded LF	655.0610 Elecrtrical Wire Traffic Lighting 12 AWG LF	655.0700 Loop Dectector Lead in Cable LF	655.0800 Loop Detector Wire LF	Description
0010	151 RN + 53									390	PB3 LOOP 61
0010	157 RN + 79									250	PB8 LOOP 21
0010	151 RN + 51									250	PB4 LOOP 62
0010	157 RN + 75									270	PB9 LOOP 22
0010	154 RN + 68			20				159			SB1 - Up Pole
0010	154 RN + 61			40							SB2 - Up Pole
0010	154 RN + 81		15	120				159			SB3 - Up Pole
0010	155 RN + 20			36							SB4 - Up Pole
0010	155 RN + 98		15	154				159			SB5 - Up Pole
0010	156 RN + 13		15	40							SB6 - Up Pole
0010	156 RN + 15		15	110				159			SB7 - Up Pole
0010	155 RN + 05			20							SB8 - Up Pole
0010	154 RN + 35	to 154 RN + 68			131						SC1 to SB1
0010	154 RN + 35	to 154 RN + 61				131					SC1 to SB2
0010	154 RN + 35	to 154 RN + 81				255					SC1 to SB3
0010	154 RN + 35	to 155 RN + 20				267					SC1 to SB4
0010	154 RN + 35	to 155 RN + 98				387					SC1 to SB5
0010	154 RN + 35	to 156 RN + 13				385					SC1 to SB6
0010	154 RN + 35	to 156 RN + 15				274					SC1 to SB7
0010	154 RN + 35	to 155 RN + 5			144						SC1 to SB8
0010	154 RN + 35	to 154 RN + 68					131				SC1 to SB1
0010	154 RN + 35	to 154 RN + 81					255				SC1 to SB3
0010	154 RN + 35	to 155 RN + 98					387				SC1 to SB5
0010	154 RN + 35	to 156 RN + 15					274				SC1 to SB7
0010	154 RN + 35	to 151 RN + 53							377		SC1 to PB3
0010	154 RN + 35	to 157 RN + 79							567		SC1 to PB8
0010	154 RN + 35	to 151 RN + 51							456		SC1 to PB4
0010	154 RN + 35	to 157 RN + 75							633		SC1 to PB9
Category 0010 Totals			**60**	**540**	**275**	**1699**	**1047**	**636**	**2033**	**1160**	
Project Totals			**60**	**540**	**275**	**1699**	**1277***	**1986***	**2033**	**1160**	

* - ADDITIONAL CONDITIONS SHOWN ELSEWHERE IN PLAN

Removals

Category	Station	Dir	Location	653.0905 Removing Pull Box EACH	204.0195 Removing Concrete Bases EACH	Description
0010	155 RN + 50	RIGHT	1	1		Existing PB1
0010	155 RN + 50	RIGHT	1	1		Existing PB2
0010	155 RN + 50	RIGHT	1	1		Existing PB3
0010	155 RN + 50	RIGHT	1	1		Existing PB4
0010	155 RN + 50	RIGHT	1	1		Existing PB5
0010	155 RN + 50	RIGHT	1	1		Existing PB6
0010	155 RN + 50	RIGHT	1	1		Existing PB7
0010	155 RN + 50	RIGHT	1	1		Existing PB8
0010	155 RN + 50	RIGHT	1	1		Existing PB9
0010	155 RN + 50	RIGHT	1	1		Existing PB10
0010	155 RN + 50	RIGHT	1	1		Existing PB11
0010	155 RN + 50	RIGHT	1	1		Existing PB12
0010	155 RN + 50	RIGHT	1	1		Existing PB13
0010	155 RN + 50	RIGHT	1	1		Existing PB14
0010	155 RN + 50	RIGHT	1	1		Existing PB15
0010	155 RN + 50	RIGHT	1	1		Existing PB16
0010	155 RN + 50	RIGHT	1	1		Existing PB17
0010	155 RN + 50	RIGHT	1	1		Existing PB18
0010	155 RN + 50	RIGHT	1	1		Existing PB19
0010	155 RN + 50	RIGHT	1	1		Existing PB20
0010	155 RN + 50	RIGHT	1	1		Existing PB21
0010	155 RN + 50	RIGHT	1	1		Existing PB22
0010	155 RN + 50	RIGHT	1	1		Existing PB23
0010	155 RN + 50	RIGHT	1	1		Existing PB24
0010	155 RN + 50	RIGHT	1		1	Existing SC1
0010	155 RN + 50	RIGHT	1		1	Existing SB1
0010	155 RN + 50	RIGHT	1		1	Existing SB2
0010	155 RN + 50	RIGHT	1		1	Existing SB3
0010	155 RN + 50	RIGHT	1		1	Existing SB4
0010	155 RN + 50	RIGHT	1		1	Existing SB5
0010	155 RN + 50	RIGHT	1		1	Existing SB6
0010	155 RN + 50	RIGHT	1		1	Existing SB7
0010	155 RN + 50	RIGHT	1		1	Existing SB8
0010	155 RN + 50	RIGHT	1		1	Existing SB9
0010	155 RN + 50	RIGHT	1		1	Existing SB10
0010	155 RN + 50	RIGHT	1		1	Existing SB11
			Total	**24**	**12**	

3

Lighting Poles, Arms & Equipment

Category	Station	Dir	Location	SPV.0060.50 Decorative Roadway Full Cut-off Type III LED Lum EACH	SPV.0060.56 Decorative Roadway Light Post Foundation EACH	SPV.0060.57 Decorative Roadway Black Banner Arms Set EACH	SPV.0060.51 Decorative Roadway Medallion Type A EACH	SPV.0060.52 Decorative Roadway Medallion Type B EACH	SPV.0060.53 Decorative Roadway Medallion Type C EACH	SPV.0060.54 Decorative Roadway Medallion Type D EACH	SPV.0060.55 Decorative Roadway Medallion Type E EACH	Desc
0030	157 RN + 36	RIGHT	30	1	1	1	1					LB1
0030	158 RN + 60	RIGHT	31	1	1	1				1		LB2
0030	158 RN + 86	LEFT	37	1	1	1					1	LB3
0030	159 RN + 59	RIGHT	31	1	1	1			1			LB4
0030	159 RN + 86	LEFT	34	1	1	1				1		LB5
0030	160 RN + 61	RIGHT	31	1	1	1	1					LB6
0030	161 RN + 20	LEFT	32	1	1	1					1	LB7
0030	161 RN + 46	RIGHT	30	1	1	1			1			LB8
0030	162 RN + 00	LEFT	31	1	1	1		1				LB9
			Total	**9**	**9**	**9**	**2**	**1**	**2**	**2**	**2**	

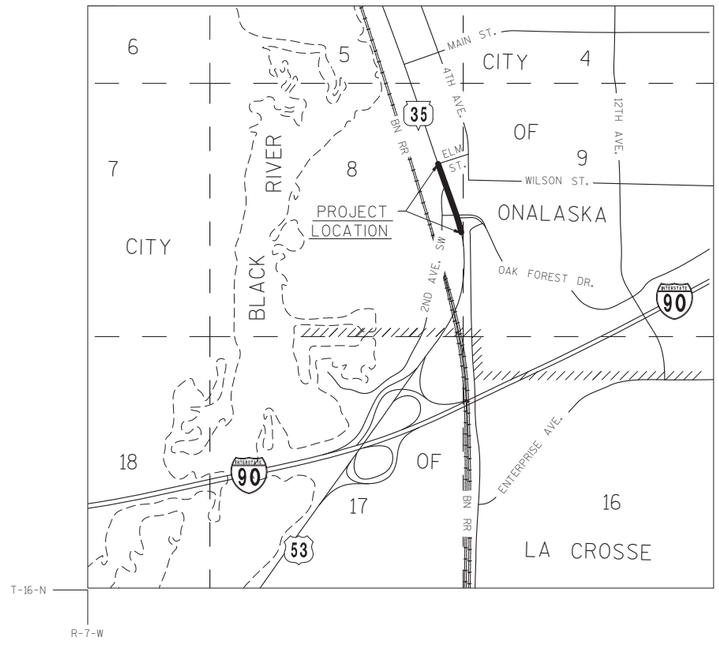
Street Light Wire

Category	Station	to	Station	655.0610 Electrical Wire Lighting 12 AWG LF	655.0615 Electrical Wire Lighting 10 AWG LF	655.0305 Cable Type UF 2-12 AWG Grounded LF	Description
0030	159 RN + 77	to	158 RN + 86		336		LC1 to LB3
0030	159 RN + 77	to	158 RN + 86		336		LC1 to LB3
0030	159 RN + 77	to	162 RN + 00		759		LC1 to LB9
0030	159 RN + 77	to	162 RN + 00		759		LC1 to LB9
0030	159 RN + 77	to	157 RN + 36		999		LC1 to LB1
0030	159 RN + 77	to	157 RN + 36		999		LC1 to LB1
0030	159 RN + 77	to	161 RN + 46		783		LC1 to LB8
0030	159 RN + 77	to	161 RN + 46		783		LC1 to LB8
0030	157 RN + 36			150		20	LB1
0030	158 RN + 60			150		20	LB2
0030	158 RN + 86			150		20	LB3
0030	159 RN + 59			150		20	LB4
0030	159 RN + 86			150		20	LB5
0030	160 RN + 61			150		20	LB6
0030	161 RN + 20			150		20	LB7
0030	161 RN + 46			150		20	LB8
0030	162 RN + 00			150		20	LB9
			Category 0030 Totals	**1350**	**5754**	**180**	
			Project Totals	**1986***	**5754**	**1277***	

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLAN



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
PROJECT NO. 7190-03-21
LA CROSSE - TREMPEALEAU
BN RR BRIDGE TO 2ND AVE SW
STH 35
LA CROSSE COUNTY



LAYOUT
SCALE 0 ½ MI.

THE NOTES, CONVENTIONAL SYMBOLS AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR 7190-03-21.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, LA CROSSE COUNTY, NAD 83 (1991) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY ¾" X 24" REBAR WITH A WISDOT CAP) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIREABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

EXISTING 2ND AVE. SO./STH 35 IS ESTABLISHED FROM EXISTING CENTERLINE AND PREVIOUS PROJECT 7190-05-21

EXISTING ROSE ST. (USH 53) IS ESTABLISHED FROM EXISTING CENTERLINE AND PREVIOUS PROJECT T08-3(10).

EXISTING OAK FOREST DR. IS ESTABLISHED FROM EXISTING CENTERLINE AND PREVIOUS PROJECTS 1633-01-21 AND 7190-04-21.

EXISTING ASH ST. IS ESTABLISHED FROM EXISTING CENTERLINE AND PREVIOUS PROJECT 7190-04-21.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RECORDED AS	(100')
ACCESS RIGHTS	AR	REFERENCE LINE	R/L
ACRES	AC.	RELEASE OF RIGHTS	ROR
AND OTHERS	ET. AL.	REMAINING	REM.
CENTERLINE	C/L	RIGHT-OF-WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC.
CORNER	COR.	STATION	STA.
DOCUMENT	DOC.	TEMPORARY LIMITED EASEMENT	TLE
EASEMENT	EASE.	VOLUME	V.
HIGHWAY EASEMENT	H.E.		
HUSBAND & WIFE	H&W		
LAND CONTRACT	LC		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	P.L.		
POINT OF BEGINNING	P.O.B.		
POINT OF END	P.O.E.		
POINT OF CURVATURE	P.C.		
POINT OF TANGENCY	P.T.		
POINT OF INTERSECTION	P.I.		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN I.P. (1" UNLESS NOTED)
R/W POINT TO BE MONUMENTED
R/W POINT NON-MONUMENTED
SIGN ISIGN
SECTION CORNER MONUMENT
SECTION CORNER SYMBOL
FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY RWB20
PARCEL NUMBER 102
UTILITY NUMBER 92
SIGN NUMBER (OFF PREMISE) 21-1
BUILDING

PROPOSED R/W LINE
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
NO ACCESS (BY ACQUISITION)
NO ACCRESS (BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
PROPOSED REFERENCE LINE
PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

		NON COMPENSABLE	COMPENSABLE
WATER	W		
GAS	G		
TELEPHONE	T		
OVERHEAD TRANSMISSION LINES	OH		
ELECTRIC	E		
CABLE TELEVISION	TV		
FIBER OPTIC	FO		
SANITARY SEWER	SAN		
STORM SEWER	SS		
POWER POLE			
TELEPHONE POLE			
TELEPHONE PEDESTAL			
ELECTRIC TOWER			

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 7190-03-21-4.01
SHEET 2 OF 2

TRANSPORTATION PROJECT PLAT NO.: 7190-03-21-4.01

PART OF LOT 7 IN BLOCK 8 AND PARTS OF LOTS 4, 5, 6, 7, 8, 9, AND 10 IN BLOCK 9 OF THE ORIGINAL PLAT OF THE VILLAGE OF ONALASKA, ALL IN THE SE ¼ OF THE NE ¼ OF SECTION 8, TOWNSHIP 16 NORTH, RANGE 7 WEST; IN THE CITY OF ONALASKA, LA CROSSE COUNTY, WISCONSIN

RELOCATION ORDER STH 35 - BN RR BRIDGE TO 2ND AVE SW, LA CROSSE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

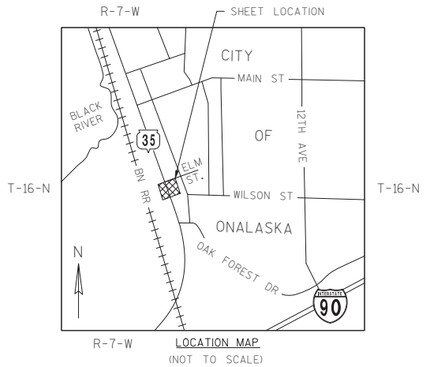
PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	R/W ACRES REQUIRED TOTAL	TLE
1	KEITH B WENBERG	TLE	----	----	0.01
2	SUCO INVESTMENTS LLC	TLE	----	----	0.04
4	MICHAEL W & SUSAN A KLAUKE, H&W	FEE, TLE	0.01	0.01	0.03

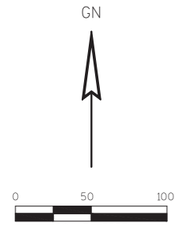
COURSE TABLE

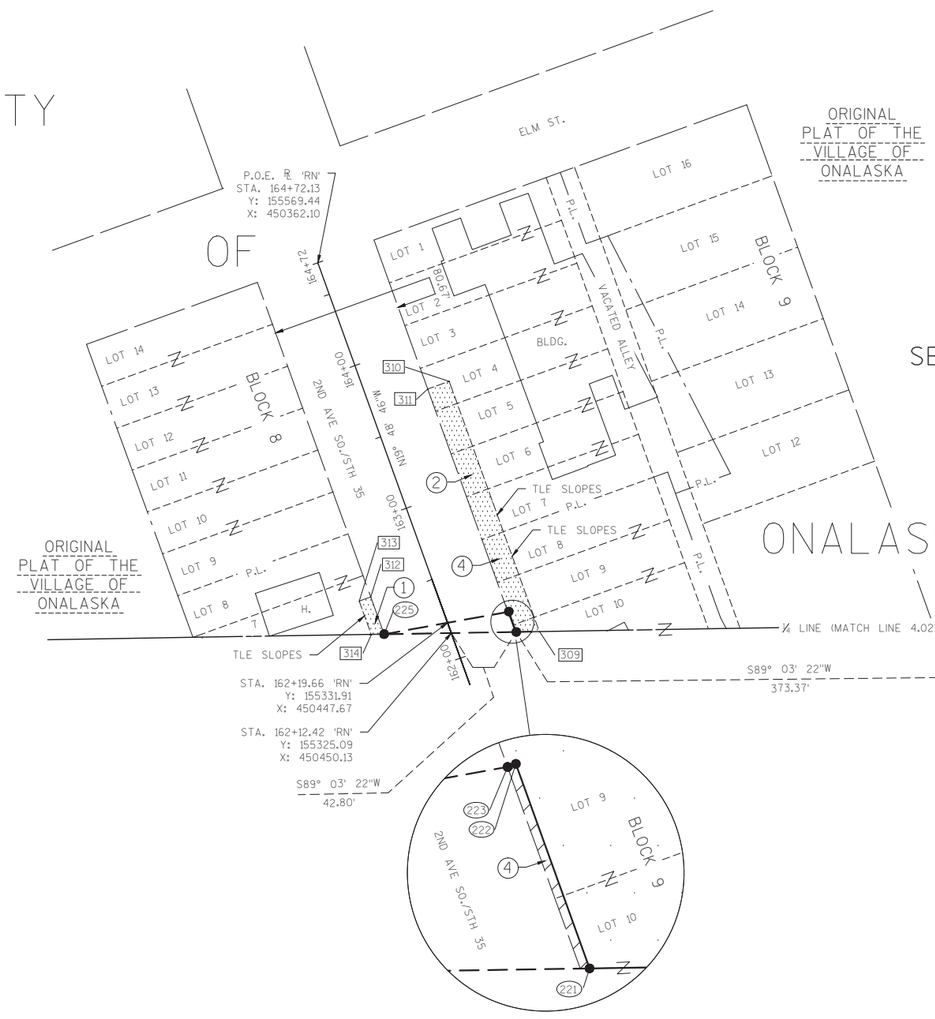
POINT	TO POINT	BEARING	DISTANCE
221	225	S89° 03' 22"W	87.12'
225	223	N79° 46' 45"E	83.01'
223	222	N70° 11' 14"E	0.58'
222	221	S19° 48' 46"E	14.34'

STATION AND OFFSET TABLE

POINT NUMBER	STATION	OFFSET
221	161+98.57 'RN'	40.50'
222	162+12.92 'RN'	40.50'
223	162+12.92 'RN'	39.92'
225	162+26.75 'RN'	-41.94'
309	161+93.62 'RN'	55.00'
310	163+69.17 'RN'	55.00'
311	163+69.17 'RN'	39.91'
312	162+52.91 'RN'	-41.94'
313	162+52.91 'RN'	-50.00'
314	162+29.50 'RN'	-50.00'







DOCUMENT 1652788

FILED IN TPP CAB., P. 60B

ACCEPTED IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY, WISCONSIN AT 2:09 P.M. ON MARCH 5TH, 2015

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 7190-03-21-4.01
SHEET 1 OF 2

K. Singh & Associates, Inc.
ENGINEERS, SCIENTISTS, & ENVIRONMENTAL CONSULTANTS
3636 N. 124th Street
Wauwatosa, WI 53222
Phone: (262) 821-1171 www.ksaconsultants.com

I, PAUL KUBICEK PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN
PAUL A. KUBICEK
S-2232
OAK CREEK, WI
LAND SURVEYOR

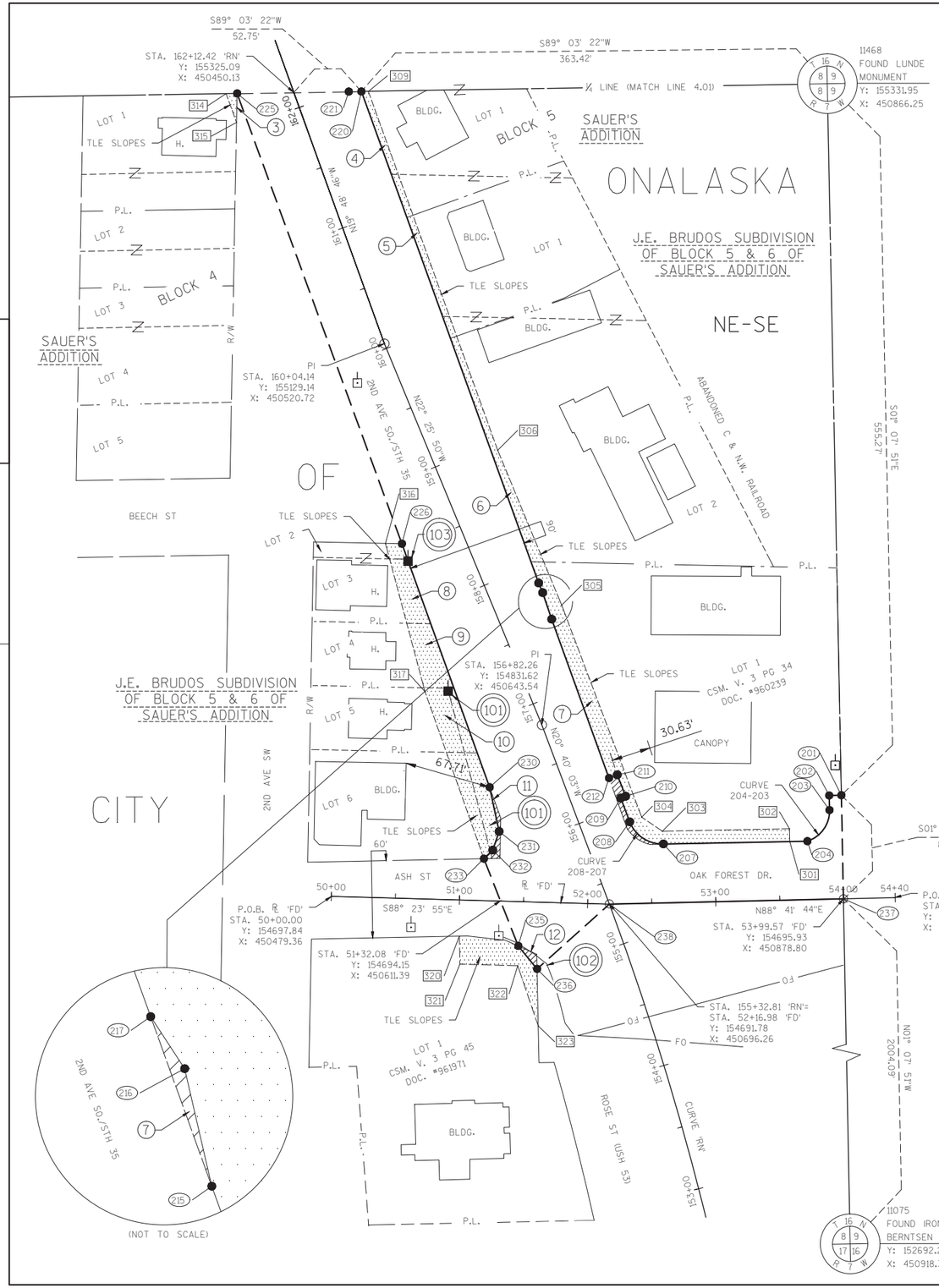
SIGNATURE: _____ DATE: 2/24/15

PRINT NAME: PAUL KUBICEK
REGISTRATION NUMBER: S-2232

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT

SIGNATURE: Corey Schlagel DATE: 2/24/15

PRINT NAME: COREY SCHLAGEL



TRANSPORTATION PROJECT PLAT NO.: 7190-03-21-4.02 AMENDMENT 1

THIS AMENDS UTILITY NUMBER 101 AND ADDS UTILITY NUMBERS 102 AND 103 TO TRANSPORTATION PROJECT PLAT 7190-03-21-4.02, RECORDED AS DOCUMENT #1653650 OF PAGE 61A AND FILED IN TRANSPORTATION PROJECT PLATS IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY.

PART OF LOT 1, CSM. V. 3, P. 45, DOC. 961971 AND PART OF LOT 1, CSM. V. 3, P. 34, DOC. 960239; PARTS OF LOTS 1, 2, 3, 4, 5, AND 6 IN THE J.E. BRUDOS SUBDIVISION OF BLOCK 5 AND 6 OF SAUER'S ADDITION; PART OF LOT 1 IN BLOCK 4 AND PART OF LOT 1 IN BLOCK 5 OF SAUER'S ADDITION, ALL IN THE NE 1/4 - SE 1/4 OF SECTION 8, TOWNSHIP 16 NORTH, RANGE 7 WEST, IN THE CITY OF ONALASKA, LA CROSSE COUNTY, WISCONSIN.

RELOCATION ORDER STH 35 - BN RR BRIDGE TO 2ND AVE SW, LA CROSSE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

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DOCUMENT #_____

FILED IN TPP CAB., P._____

ACCEPTED IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY,

WISCONSIN AT____: ____ .M.

ON _____, 2015

REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 7190-03-21-4.02
AMENDMENT 1

EASEMENT TABLE

OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL #
NORTHERN STATES POWER	DOC. #1450816	10
NORTHERN STATES POWER	DOC. #1450817	11
CHARTER COMMUNICATIONS	NO EASEMENT OF RECORD FOUND	12

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #1652788, IN TRANSPORTATION PROJECT PLATS, FOR ADDITIONAL INFORMATION.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	R/W ACRES REQUIRED TOTAL	TLE
3	RUBY S THOMPSON	TLE	----	----	0.01
4	MICHAEL W & SUSAN A KLAUKE, H&W	TLE	----	----	0.02
5	ANDREW P BEGEMAN	TLE	----	----	0.02
6	TMBK ENTERPRISES LLC	TLE	----	----	0.03
7	ZIETLOW FAMILY REAL ESTATE HOLDING, LLC, A DELAWARE CORPORATION	FEE, TLE	0.01	0.01	0.08
8	THOMAS J & PAULA M SPEROPULOS, H&W	TLE	----	----	0.03
9	DUANE A WELKE	TLE	----	----	0.03
10	DIANE M BEAN	TLE	----	----	0.03
11	RAYMOND J MILLER, SR. ETAL	FEE, TLE	0.01	0.01	0.04
12	NISSEN INC., A MINNESOTA CORPORATION	FEE, TLE	0.01	0.01	0.04

GN

0 50 100

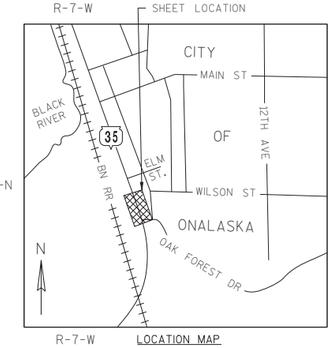
SCALE, FEET

STATION AND OFFSET TABLE

POINT NUMBER	STATION	OFFSET
201	53+99.82 'FD'	-80.87'
202	53+90.32 'FD'	-80.90'
203	53+90.28 'FD'	-69.46'
204	53+72.50 'FD'	-45.60'
207	52+60.16 'FD'	-46.00'
208	155+87.33 'RN'	37.50'
209	156+07.08 'RN'	37.50'
210	156+07.08 'RN'	41.57'
211	156+25.05 'RN'	41.36'
212	156+25.05 'RN'	34.50'
215	157+55.57 'RN'	38.63'
216	157+77.43 'RN'	40.00'
217	157+85.57 'RN'	40.00'
220	161+95.35 'RN'	49.92'
221	161+98.57 'RN'	40.50'
225	162+26.75 'RN'	-41.94'
226	158+54.60 'RN'	-46.94'
230	156+51.14 'RN'	-55.22'
231	156+16.25 'RN'	-60.53'
232	51+24.85 'FD'	-39.63'
233	51+18.13 'FD'	-32.75'
235	155+26.80 'RN'	-78.00'
236	155+04.17 'RN'	-70.30'
237	53+99.57 'FD'	0.00'
238	155+32.81 'RN'	0.00'
301	53+58.74 'FD'	-45.65'
302	53+58.77 'FD'	-55.65'
303	52+59.60 'FD'	-56.00'
304	155+87.46 'RN'	47.50'
305	157+62.74 'RN'	50.00'
306	158+93.52 'RN'	50.00'
309	161+93.62 'RN'	55.00'
314	162+29.50 'RN'	-50.00'
315	162+05.58 'RN'	-50.00'
316	158+59.72 'RN'	-58.67'
317	157+41.07 'RN'	-74.31'
320	51+00.70 'FD'	28.17'
321	51+01.74 'FD'	50.00'
322	51+46.87 'FD'	50.00'
323	154+60.42 'RN'	-83.98'

COURSE TABLE

POINT TO POINT	BEARING	DISTANCE
237 238	S88° 41' 44"W	182.59'
238 236	S48° 08' 47"W	75.74
236 235	N39° 19' 05"W	23.20'
235 233	N21° 28' 01"W	73.17'
233 232	N45° 58' 15"E	9.61'
232 231	N18° 44' 27"E	15.34'
231 230	N12° 01' 04"W	35.29'
230 226	N19° 48' 57"W	201.96'
226 225	N20° 05' 59"W	374.14'
225 221	N89° 03' 22"E	87.12'
221 220	N89° 03' 22"E	9.95'
220 217	S19° 48' 57"E	407.73'
217 216	S22° 25' 50"E	8.14'
216 215	S18° 50' 41"E	21.91'
215 212	S19° 48' 55"E	131.69'
212 211	N69° 19' 57"E	6.96'
211 210	S21° 19' 31"E	17.98'
210 209	S69° 19' 57"W	4.07'
209 208	S20° 40' 03"E	19.75'
CURVE 208-207	----	----
207 204	N88° 53' 53"E	112.34'
CURVE 204-203	----	----
203 202	N01° 07' 51"W	11.44'
202 201	N88° 52' 09"E	9.50'
201 237	S01° 07' 51"E	80.87'



CURVE 204-203
L= 31.87' R= 25.00'
LCH= 29.76'
LCB= N35° 23' 06"E

CURVE 208-207
L= 33.50'' R= 27.25'
LCH= 31.43'
LCB= S56° 37' 45"E

CURVE DATA - 'RN'
P.I. STA.= 145+32.82 RN
Y= 153569.43
X= 451119.66
D= 02°32'27"
L= 2223.43'
T= 1211.50'
R= 2255.00'
P.C. STA.= 133+21.32 RN
Y= 152587.16
X= 450410.54
P.T. STA.= 155+44.75 RN
Y= 154702.96
X= 450692.07

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
101	XCEL ENERGY (ELECTRIC)	RELEASE OF RIGHTS
102	CHARTER COMMUNICATIONS	RELEASE OF RIGHTS
103	CENTURY LINK	RELEASE OF RIGHTS

K. Singh & Associates, Inc.
ENGINEERS, SCIENTISTS, & ENVIRONMENTAL CONSULTANTS
3636 N. 124th Street
Wauwatosa, WI 53222
Phone: (262) 821-1171 www.ksaconsultants.com

I, PAUL KUBICEK PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN PAUL A. KUBICEK S-2232 OAK CREEK, WI LAND SURVEYOR

SIGNATURE: _____ DATE: 9/15/15

PRINT NAME: PAUL KUBICEK
REGISTRATION NUMBER: S-2232

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

SIGNATURE: _____ DATE: 9/15/15

PRINT NAME: CORY SCHLAGEL

TRANSPORTATION PROJECT PLAT NO.: 7190-03-21-4.03

PART OF THE SE 1/4 - SE 1/4 OF SECTION 8, TOWNSHIP 16 NORTH, RANGE 7 WEST, ALL IN THE SE 1/4 - SE 1/4 OF SECTION 8, TOWNSHIP 16 NORTH, RANGE 7 WEST, IN THE CITY OF ONALASKA, LA CROSSE COUNTY, WISCONSIN.

RELOCATION ORDER STH 35 - BN RR BRIDGE TO 2ND AVE SW, LA CROSSE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

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OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	R/W ACRES REQUIRED TOTAL	TLE
13	BNSF RAILWAY COMPANY	HE, TLE	1.65	1.65	0.32

COURSE TABLE

POINT TO POINT	BEARING	DISTANCE
CURVE 800-801	----	----
801 802	N15° 08' 12"W	296.20'
CURVE 802-803	----	----
803 804	S16° 45' 49"E	50.03'
804 805	N88° 28' 59"E	60.15'
805 806	S19° 51' 05"E	183.09'
CURVE 806-800	----	----

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #1652788, IN TRANSPORTATION PROJECT PLATS, FOR ADDITIONAL INFORMATION.

A HIGHWAY EASEMENT (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIREABLE.

GN

0 100 200

SCALE, FEET

DOCUMENT #_____

FILED IN TPP CAB., P. _____

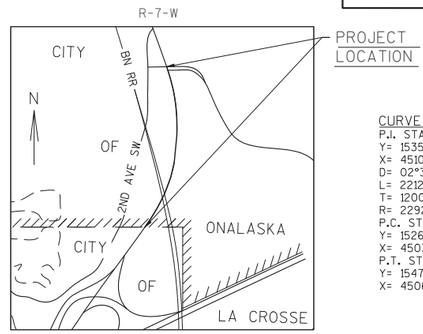
ACCEPTED IN THE OFFICE OF THE REGISTER OF DEEDS IN LA CROSSE COUNTY,

WISCONSIN AT____: _____ __.M.

ON _____, 2015

REGISTER OF DEEDS

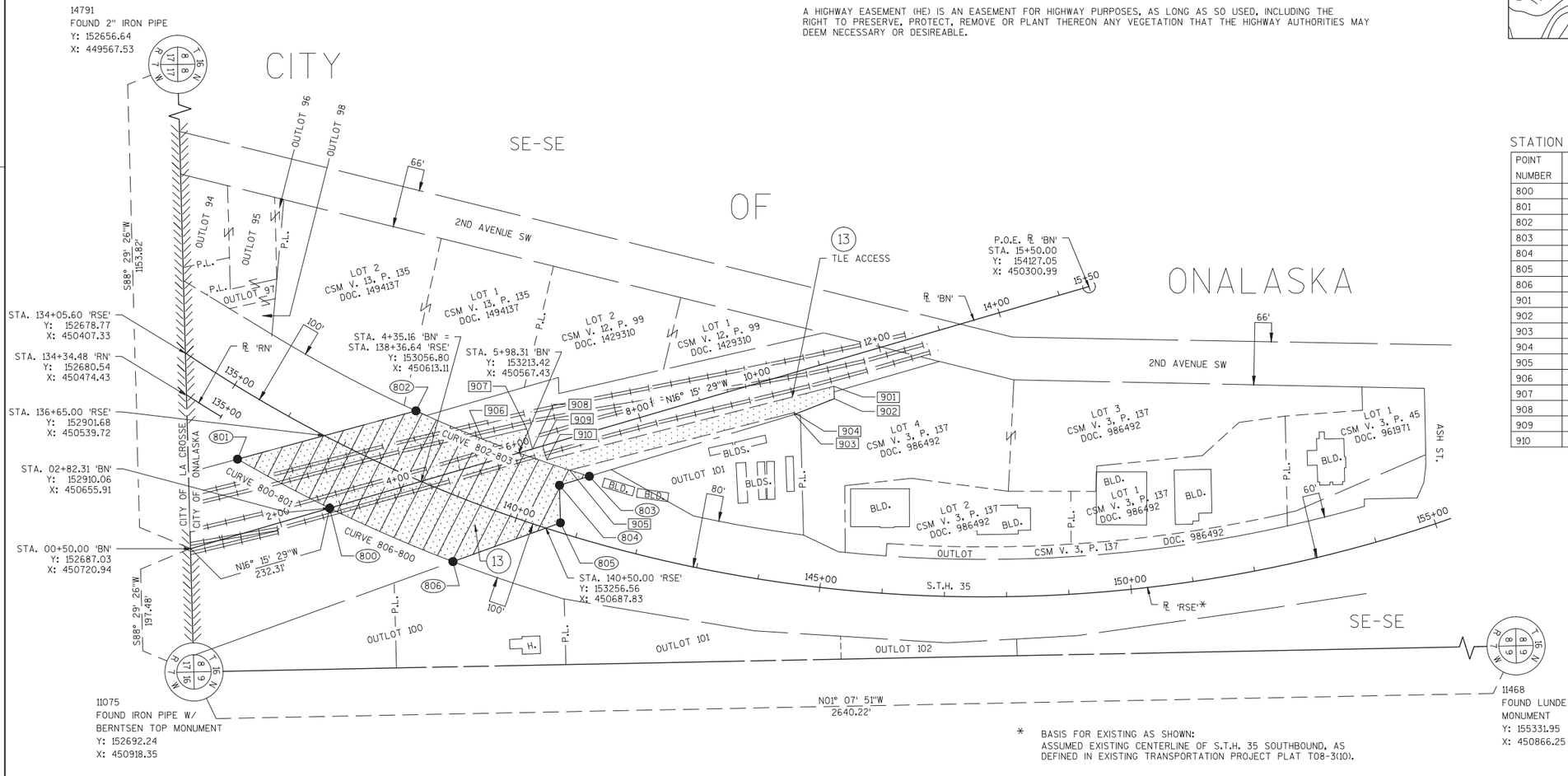
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 7190-03-21-4.03



LOCATION MAP
(NOT TO SCALE)

CURVE DATA - 'RSE'*
P.I. STA.= 145+31.48 RS
Y= 153590.97
X= 451067.27
D= 02°30'00"
L= 2212.16'
T= 1200.78'
R= 2292.00'
P.C. STA.= 133+30.70
Y= 152617.33
X= 450364.49
P.T. STA.= 155+42.86
Y= 154723.02
X= 450666.88

14791
FOUND 2" IRON PIPE
Y: 152656.64
X: 449567.53



STATION AND OFFSET TABLE

POINT NUMBER	STATION	OFFSET
800	2+82.31 BN	0.00'
801	1+62.57 BN	-116.71'
802	4+58.72 BN	-110.91'
803	6+96.20 BN	67.49'
804	6+46.17 BN	67.93'
805	6+30.86 BN	126.10'
806	4+48.14 BN	137.57'
901	11+12.87 BN	38.85'
902	11+07.80 BN	58.10'
903	10+39.32 BN	64.46'
904	10+39.64 BN	61.45'
905	6+68.58 BN	49.24'
906	5+47.98 BN	-37.98'
907	6+21.05 BN	-33.89'
908	6+21.05 BN	0.00'
909	6+38.11 BN	0.00'
910	6+38.13 BN	23.22'

CURVE 800-801
L= 167.24' R= 2391.91'
LCH= 167.21'
LCB= S28° 00' 24"W

CURVE 802-803
L= 297.25' R= 2192.00'
LCH= 297.03'
LCB= N20° 39' 20"E

CURVE 806-800
L= 215.53' R= 2391.91'
LCH= 215.46'
LCB= S23° 25' 20"W

* BASIS FOR EXISTING AS SHOWN:
ASSUMED EXISTING CENTERLINE OF S.T.H. 35 SOUTHBOUND, AS DEFINED IN EXISTING TRANSPORTATION PROJECT PLAT T08-3(10).

K. Singh & Associates, Inc.
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3636 N. 124th Street
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Phone: (262) 821-1171 www.ksaconsultants.com

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WISCONSIN PAUL A. KUBICEK S-2232 OAK CREEK, WI LAND SURVEYOR

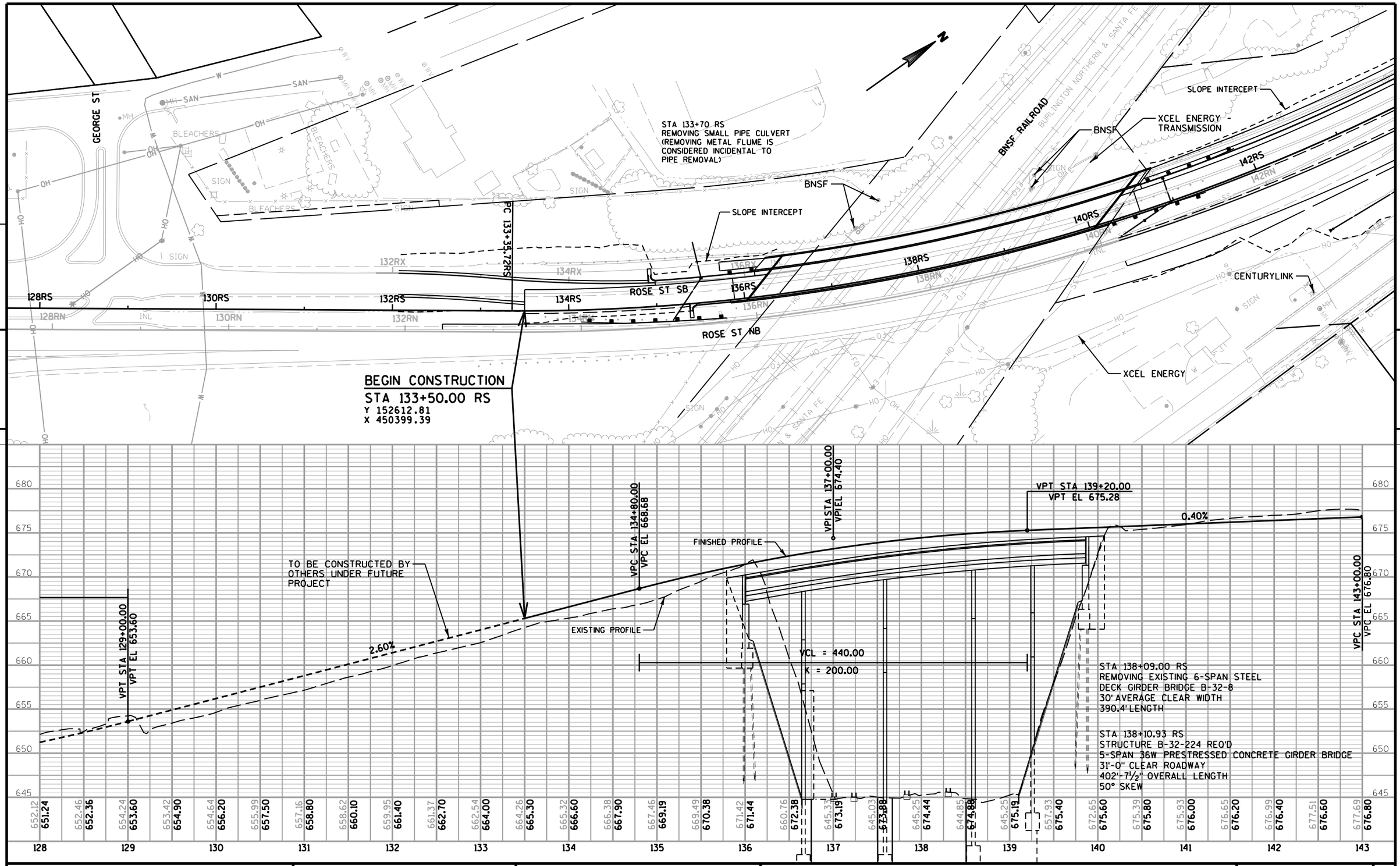
SIGNATURE:_____ DATE: 8/12/15

PRINT NAME: PAUL KUBICEK
REGISTRATION NUMBER: S-2232

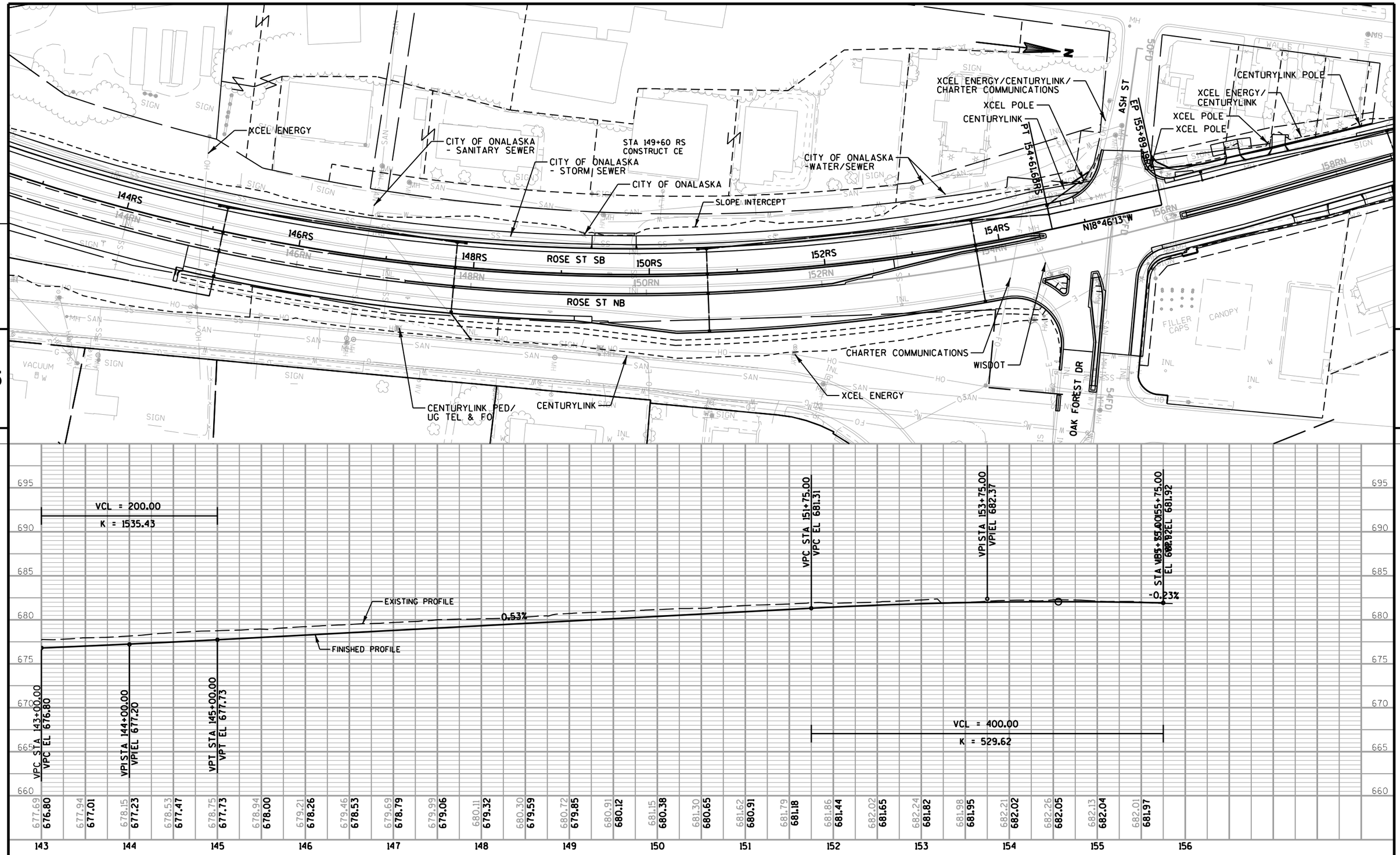
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

SIGNATURE:_____ DATE:

PRINT NAME: CORY SCHLAGEL



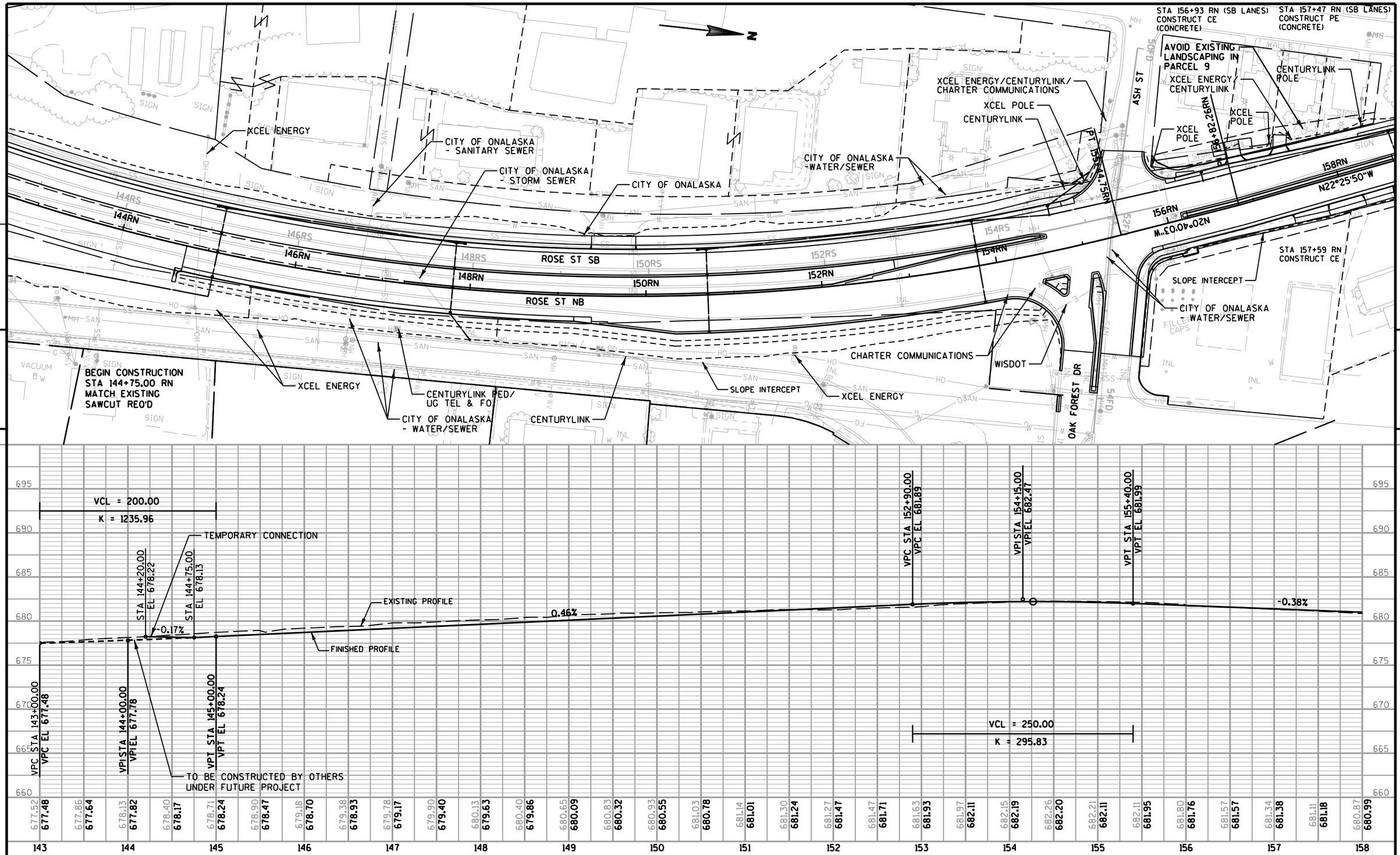
PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PLAN & PROFILE - ROSE ST SOUTHBOUND	SHEET 120 E



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PLAN & PROFILE - ROSE ST SOUTHBOUND	SHEET 121	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_050102_pprs.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PLAN & PROFILE - ROSE ST NORTHBOUND	SHEET 122	E

AVOID EXISTING LANDSCAPING IN PARCEL 9

STA 158+00 RN, LT
STA 158+40 RN, LT
REMOVING TIMBER RETAINING WALL

CITY OF ONALASKA - SANITARY SEWER

STA 162+17 RN
CONSTRUCT PE

SLOPE INTERCEPT

2ND AVE SW

PI 160+04.14RN

EP 162+37.41RN

XCEL ENERGY-NATURAL GAS

XCEL ENERGY/ CENTURYLINK

CENTURYLINK POLE

SLOPE INTERCEPT

XCEL ENERGY-NATURAL GAS

CAUTION

158RN

N22°25'50"W

160RN

162RN

N19°48'46"W

ROSE ST

SLOPE INTERCEPT

STA 158+38 RN
STA 159+30 RN
CONSTRUCT CE

CITY OF ONALASKA - WATER/SEWER/ STORM SEWER

STA 160+17 RN
STA 160+83 RN
CONSTRUCT CE

STA 161+90 RN
CONSTRUCT CE

STA 162+02 RN, RT
PEDESTRIAN CURB

STA 162+85 RN
CONSTRUCT CE

ELM ST

GREEN ST

END PROJECT 7190-03-72
STA 162+37.41 RN
MATCH EXISTING SAWCUT REO'D

5

5

VCL = 200.00
K = 530.48

STA 159+00.00
EL 680.61

FINISHED PROFILE

-0.56%

EXISTING PROFILE

-0.19%

STA 164+72.13
EL 678.28

VPC STA 161+35.00
VPC EL 679.29

VPI STA 162+35.00
VPI EL 678.72

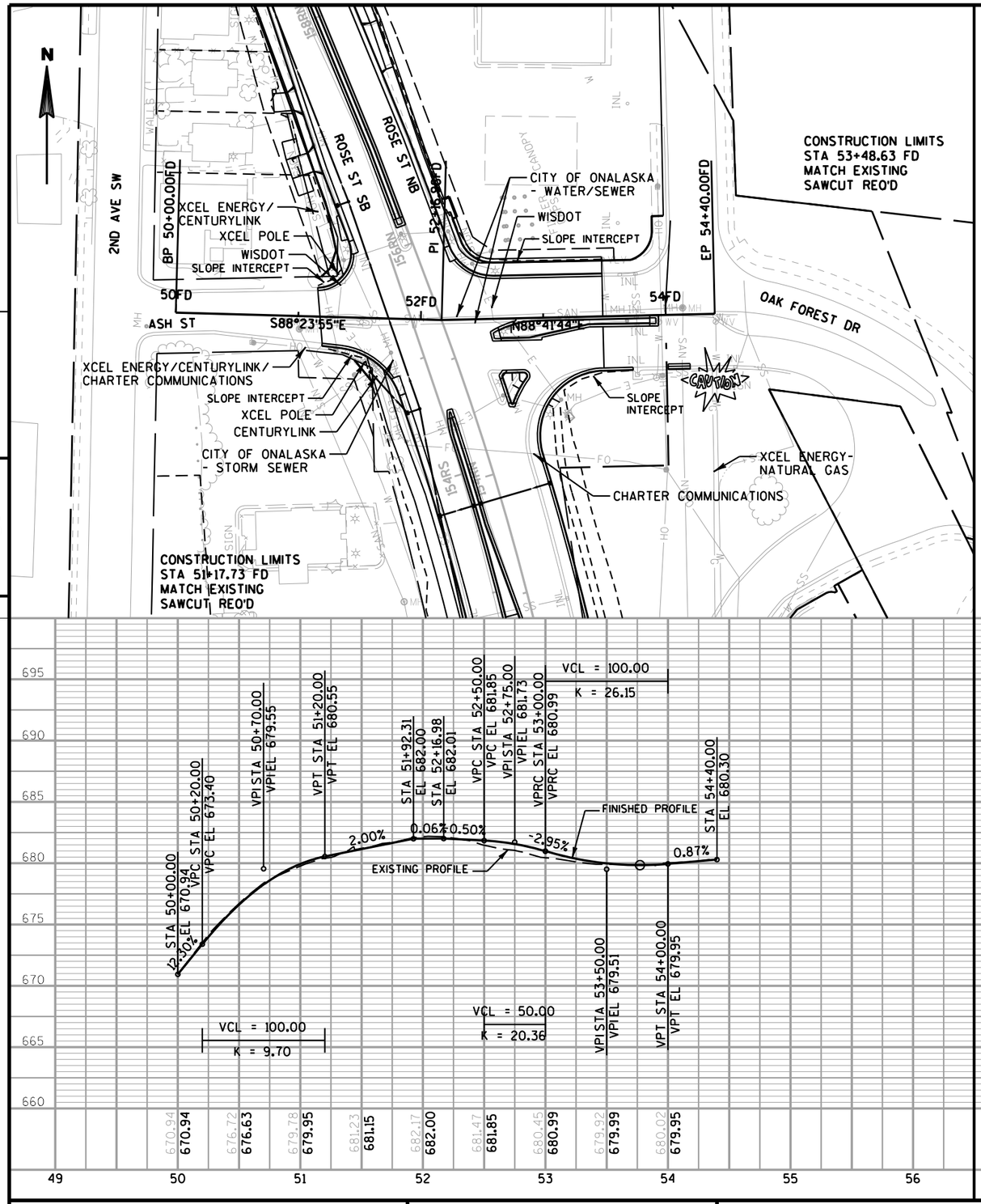
VPT STA 163+35.00
VPT EL 678.54

695	690	685	680	675	670	665	660

680.87	680.65	680.40	680.21	680.05	679.78	679.47	679.19	678.95	678.75	678.60	678.50	678.42	678.31
680.99	680.80	680.61	680.33	680.05	679.76	679.48	679.20	678.96	678.76	678.61	678.51	678.42	678.32

158	159	160	161	162	163	164

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PLAN & PROFILE - ROSE ST NORTHBOUND	SHEET 123	E



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PLAN & PROFILE - OAK FOREST DR/ASH ST	SHEET 124 E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\pp_0371_050105_ppfd.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

CURVE DATA

P.I. 132+48.18 RX
Y 152555.04
X 450305.47
△ = 5°01'44"
D = 3°45'34"
T = 66.92'
L = 133.76'
E = 1.47'
R = 1524.00'
P.C. 131+81.26 RX
Y 152500.59
X 450266.55
P.R.C133+15.02 RX
S.E.
L.R.

CURVE DATA

P.I. 134+88.53 RX
Y 152737.62
X 450461.91
△ = 13°11'48"
D = 3°49'11"
T = 173.51'
L = 345.49'
E = 10.00'
R = 1500.00'
P.R.C133+15.02 RX
P.T. 136+60.51 RX
Y 152891.68
X 450540.74
S.E.
L.R.

CURVE DATA

P.T. 143+79.66 RW
Y 153564.88
X 450774.65

CURVE DATA

P.I. 147+54.79 RW
Y 153931.69
X 450853.22
△ = 17°25'02"
D = 4°46'22"
T = 183.89'
L = 364.94'
E = 14.00'
R = 1200.50'
P.C. 145+70.90 RW
P.T. 149+35.84 RW
Y 154114.78
X 450836.14
S.E.
L.R.

BP 131+81.26RX
PI 132+48.18RX
PRC 133+15.02RX
EP 136+60.51RX
132RX
134RX
136RX
SLOPE INTERCEPT
SLOPE INTERCEPT
ROSE ST SB
ROSE ST NB
PI 134+88.53RX
BLEACHERS
SAN
SIGN
OH
HO
CANADIAN NATIONAL NORTHERN & SANTA FE

PT 143+79.66RW
PC 145+70.90RW
EP 149+35.84RW
142RW
144RW
146RW
148RW
N12°05'23"E
ROSE ST SB
ROSE ST NB
PI 147+54.79RW
VACUUM
SIGN
SAN
SS
HO

CROSSOVER BUILT BY OTHERS IN FUTURE PROJECT

STA 132+00.00
EL 661.45
STA 133+50.00
EL 664.54
STA 135+00.00
EL 668.49
EXISTING PROFILE
FINISHED PROFILE
2.06%
2.63%

680
675
670
665
660
655
650
645

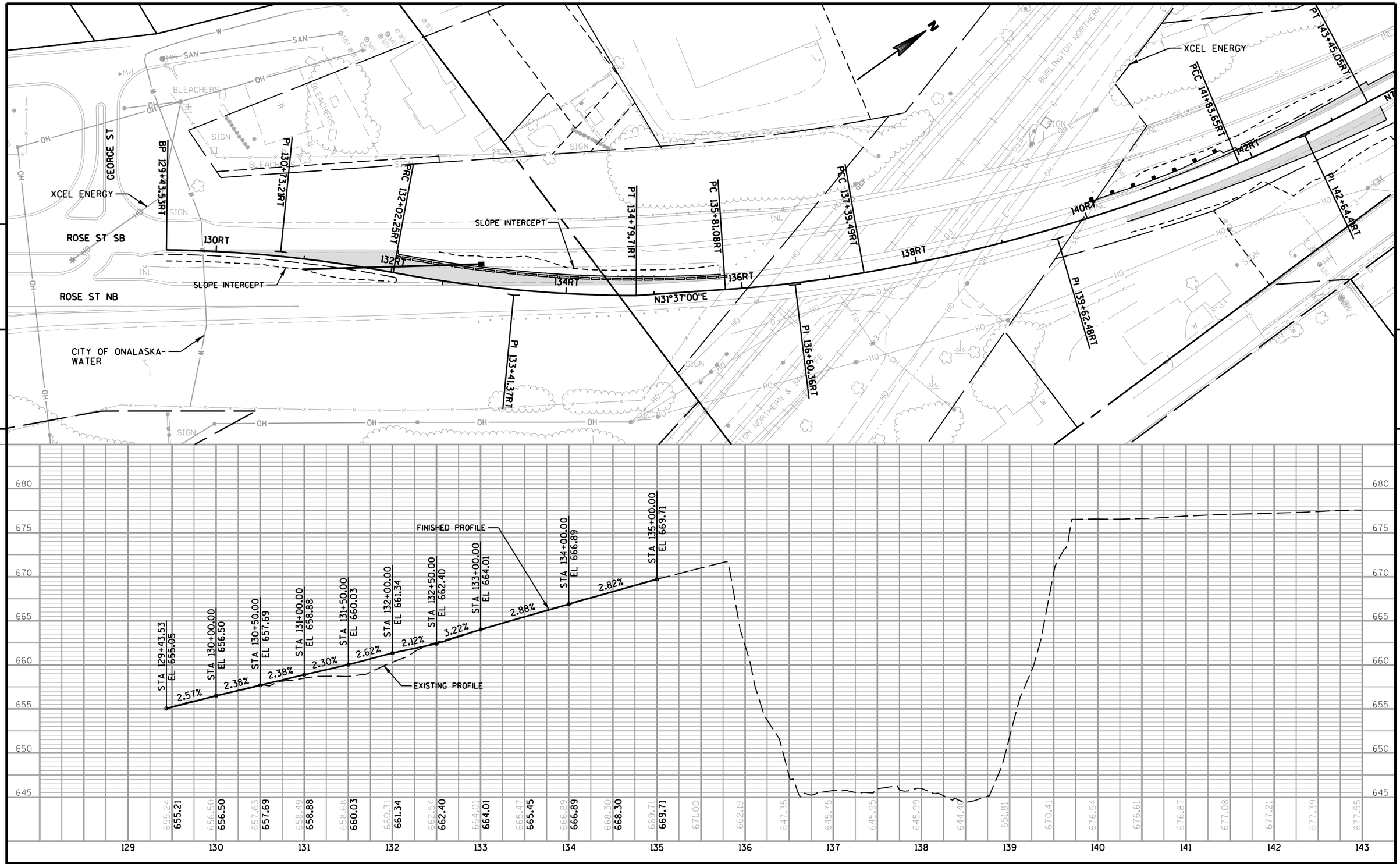
661.45 661.45
662.75 662.48
664.08 663.51
665.52 664.54
666.82 665.86
668.09 667.17
669.36 668.49
670.67
671.91
665.62

131 132 133 134 135 136 137 138

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PLAN & PROFILE - RX LINE/RW LINE	SHEET 125	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_050106_pprwrx.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

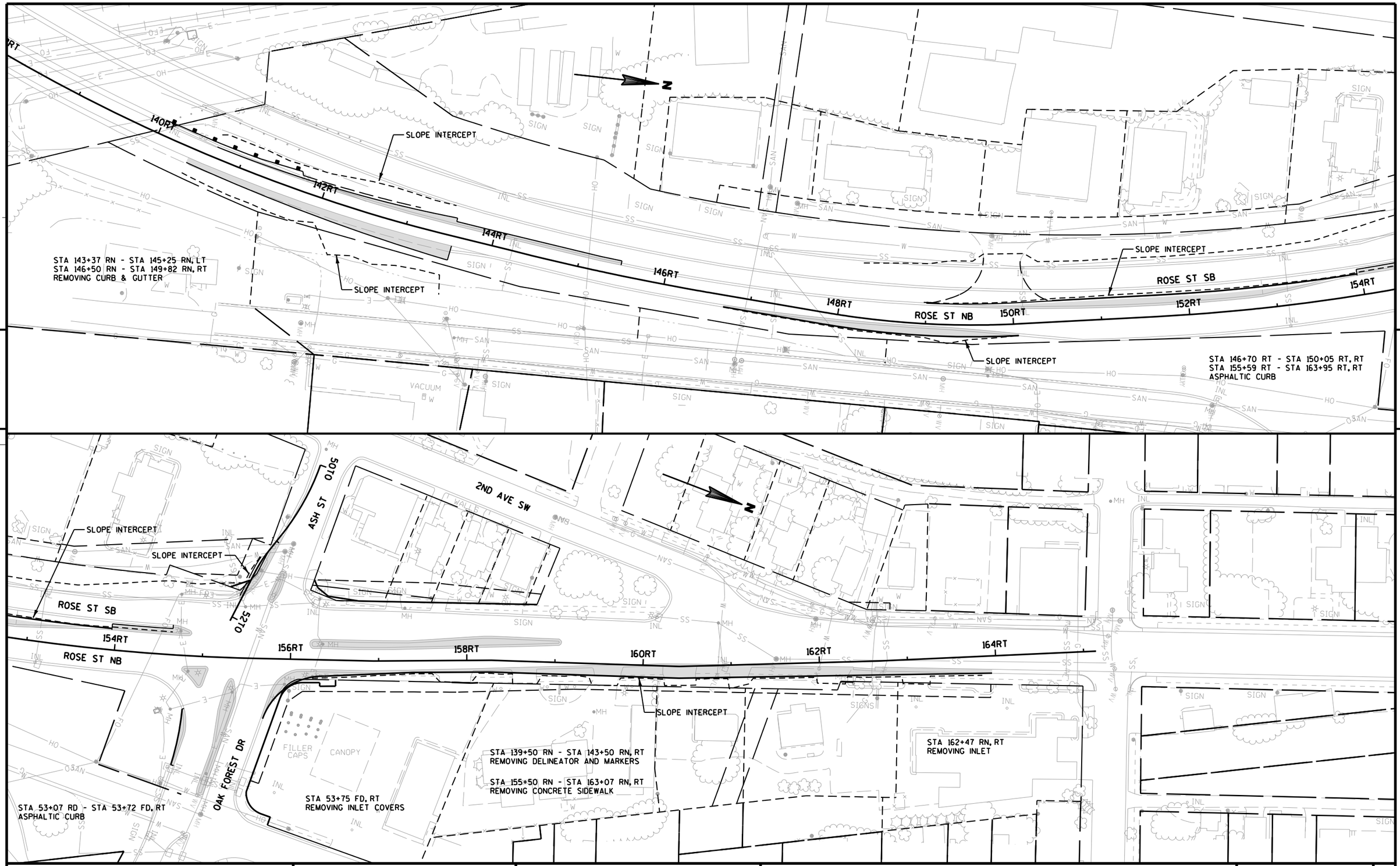
WISDOT/CADDS SHEET 40



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PLAN & PROFILE - RT LINE	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\aa_0371_050107_pptmprt.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

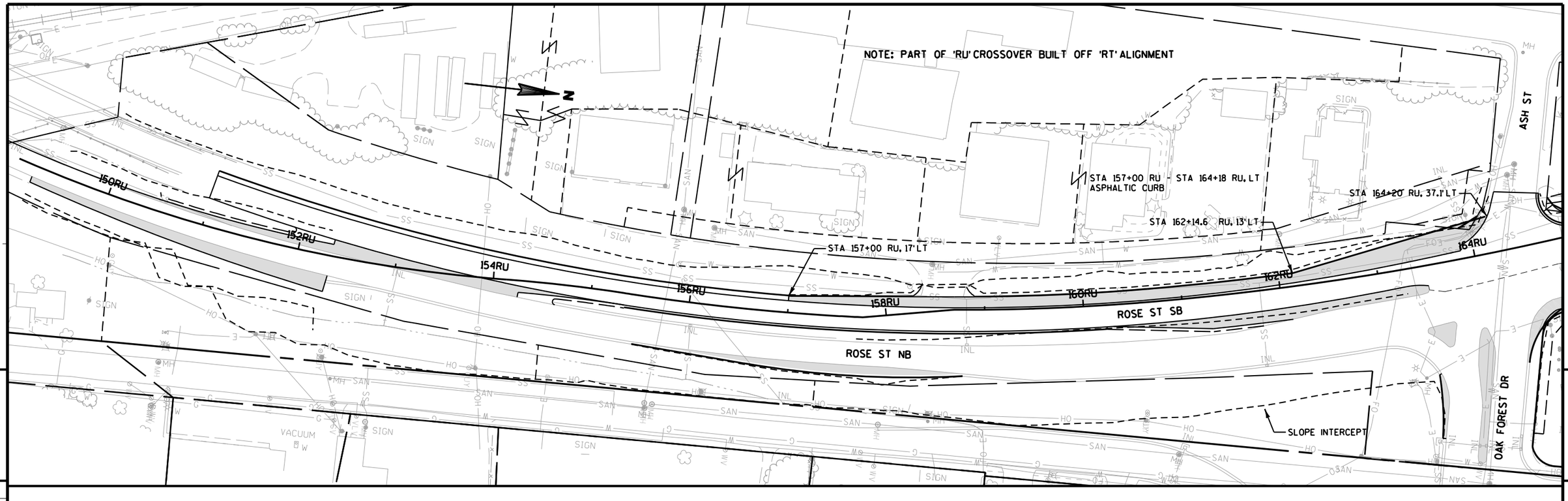
WISDOT/CADDS SHEET 40



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PLAN - RT & TO LINE	SHEET	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\da_0371_050201_pnrt.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 44



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	PLAN - RU LINE	SHEET 128	E

FILE NAME : V:\Trans-EC\410627\DGN-DWG\3_0371_ROSE_LT BLUE\ga_0371_050202_pnru.dgn PLOT DATE : 7/30/2015 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 44

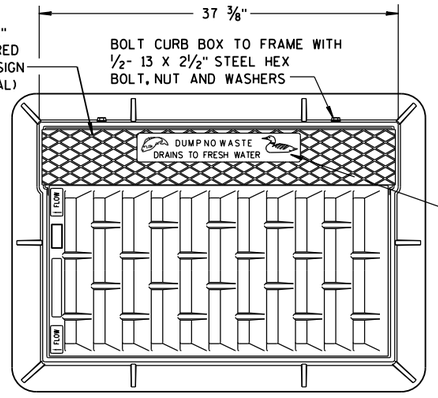
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C05-09	CONCRETE CONTROL CABINET BASES
09C12-06B	CONCRETE BASE TYPE 13
09C14-02	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-01	LIGHTING CONTROL CABINET
09E01-14B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E08-07D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-07E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09H09-01	COMMUNICATION VAULT
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C16-02A	DETAIL FOR RIGHT TURN LANE/TEE INTERSECTION BYPASS LANE ON A CONRETE ROADWAY
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

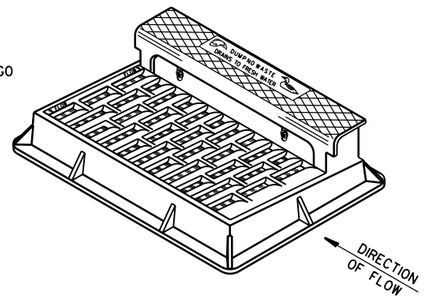
6

Standard Detail Drawing List

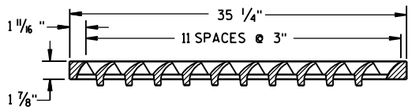
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A02-08	DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A06-02	DELINEATOR LAYOUT
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C11-6	FLEXIBLE TUBULAR MARKER POST
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-02C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-05B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-03	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-02C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

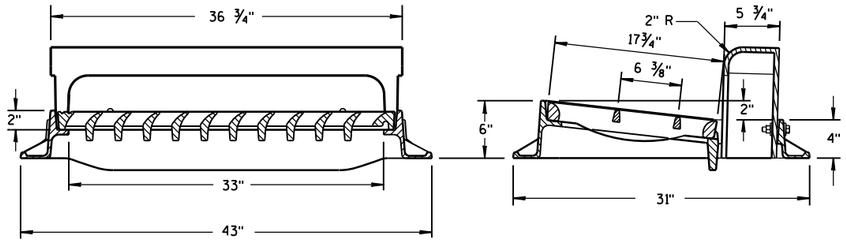


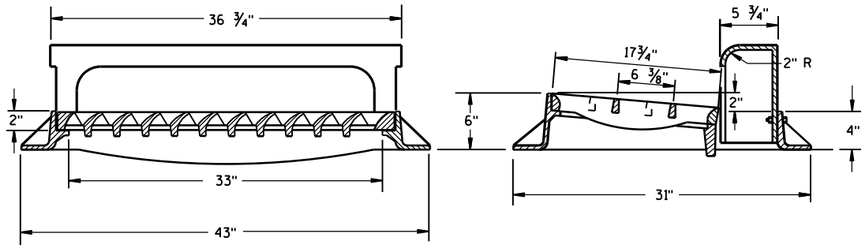
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

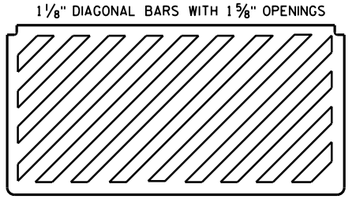






TYPE "H"

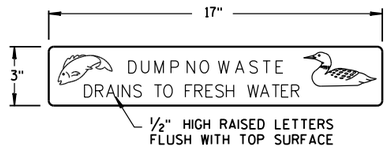
NOTE: EITHER CASTING IS ACCEPTABLE



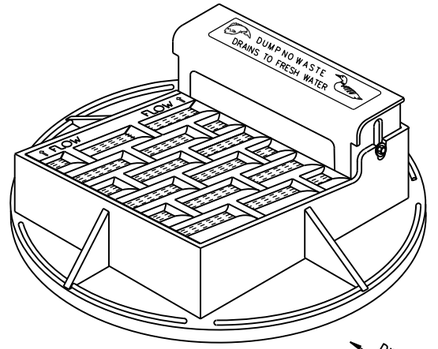
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

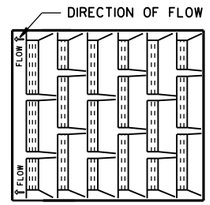
NOTE:
GRATE IS REVERSIBLE.

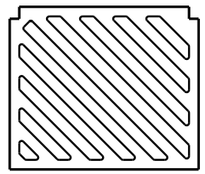
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

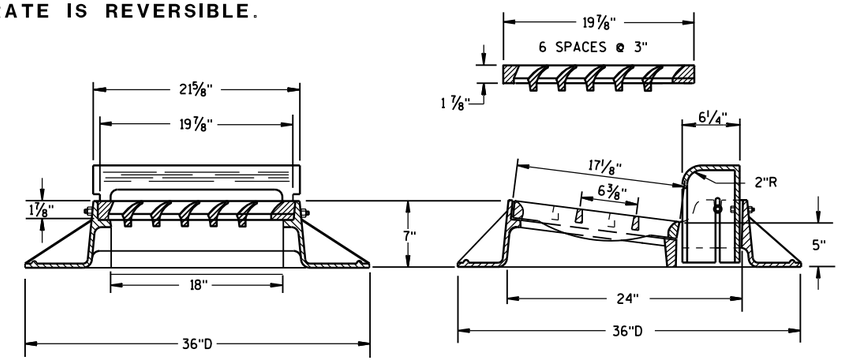




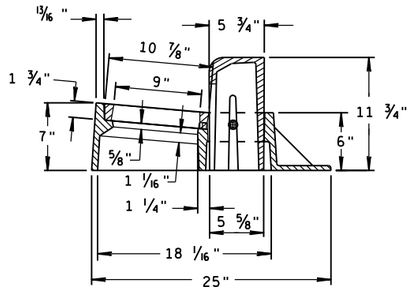
SPECIAL GRATE FOR TYPE "A" COVER

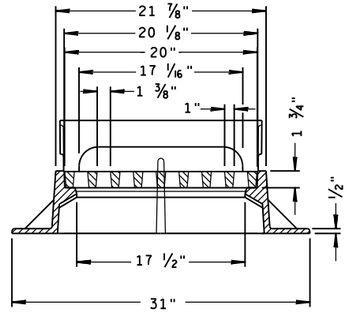
(MEASURES 19 3/4" X 17" X 1 7/8")

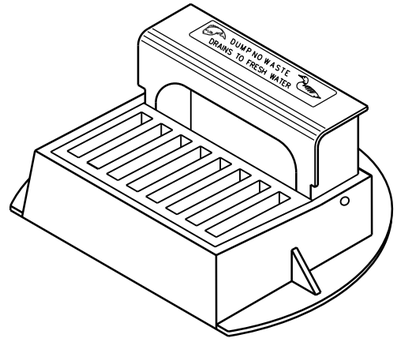
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"







TYPE "Z"

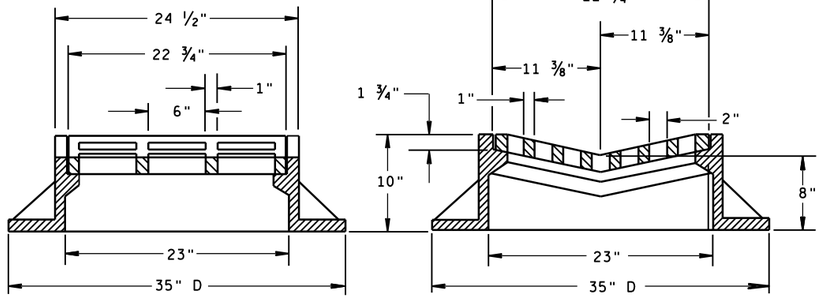
INLET COVERS
TYPE A, H, A-S, H-S & Z

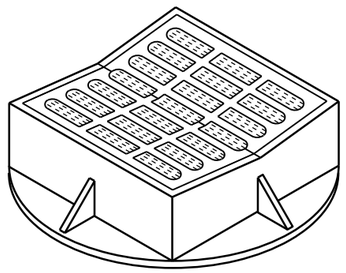
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

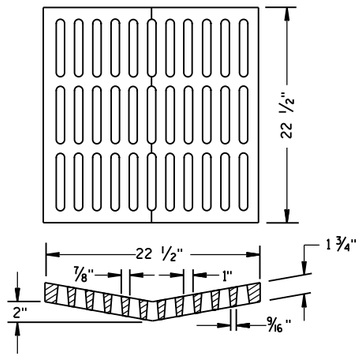
6

S.D.D. 8 A 5-19a



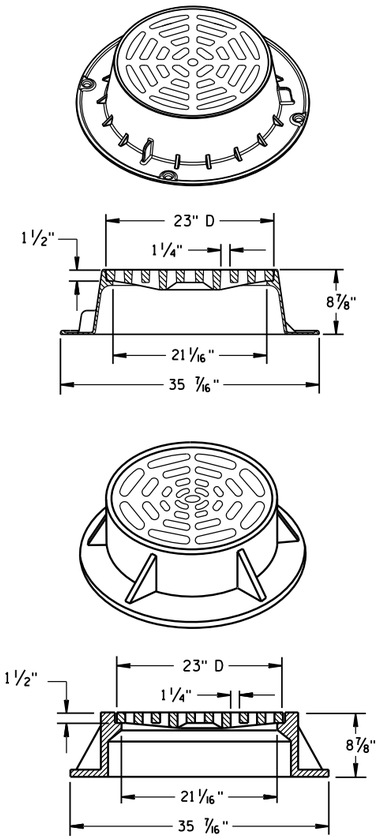


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

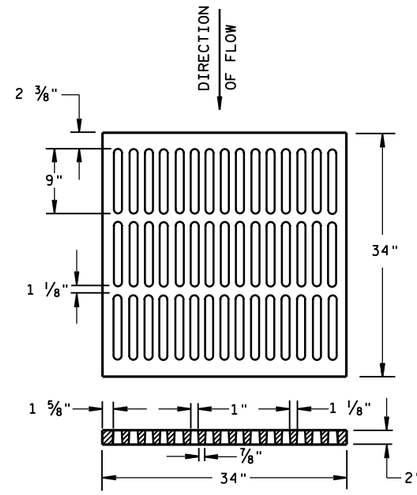
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

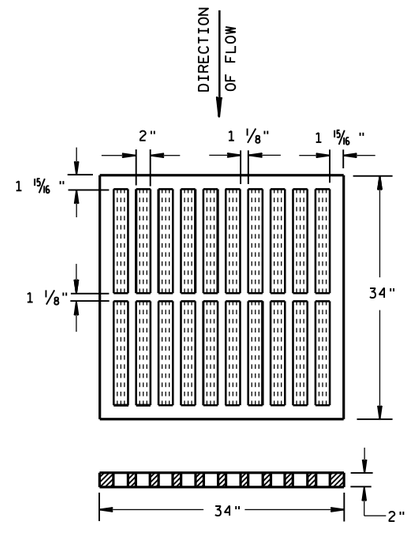
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



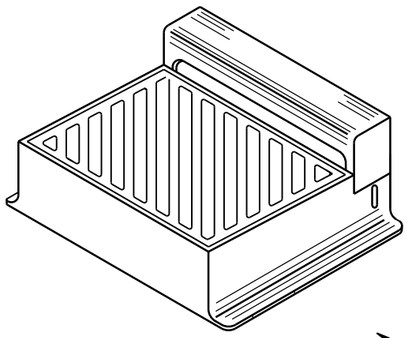
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

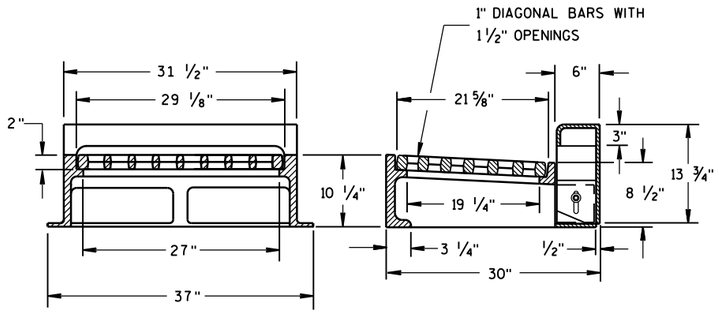


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

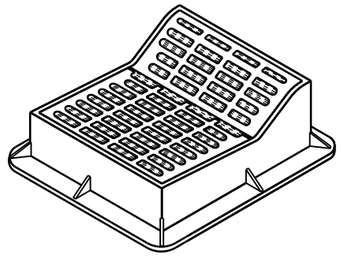
INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

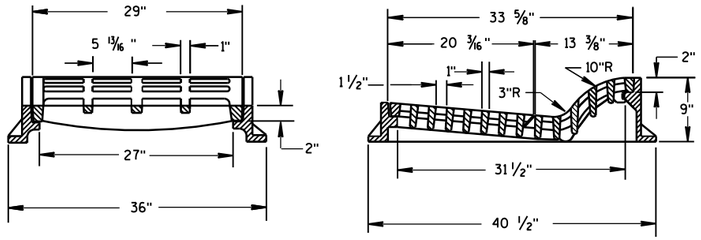
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

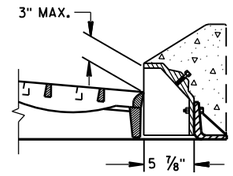
S.D.D. 8 A 5-19b





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

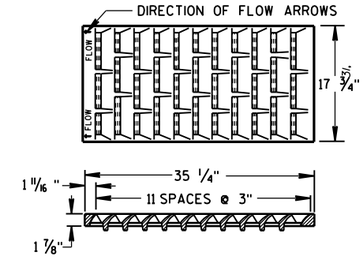
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

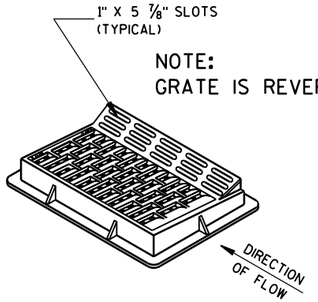
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

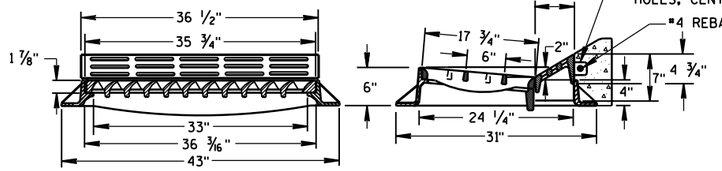
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



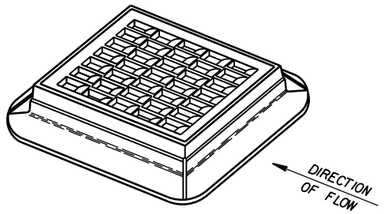


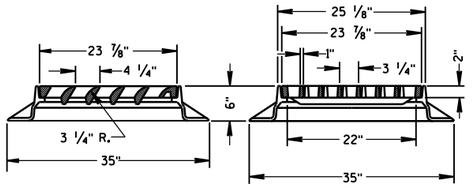


TYPE "HM"

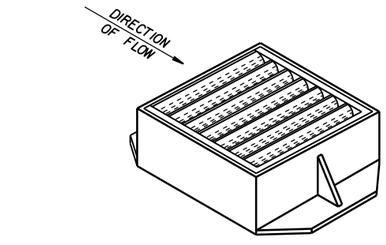
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

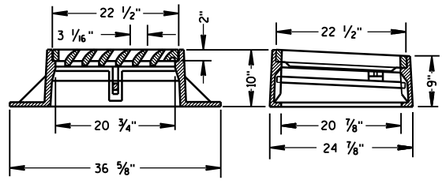
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



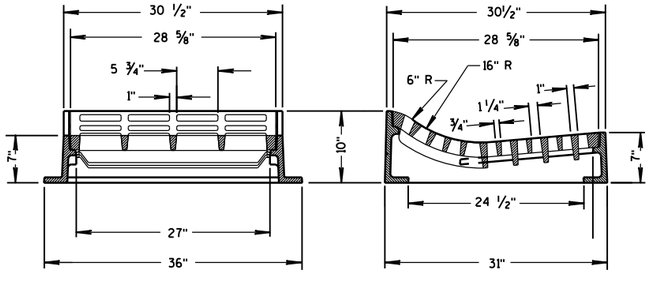


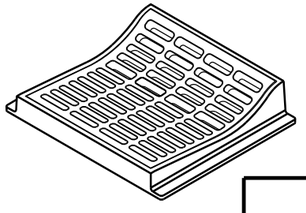
TYPE "S"





TYPE "V"





TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

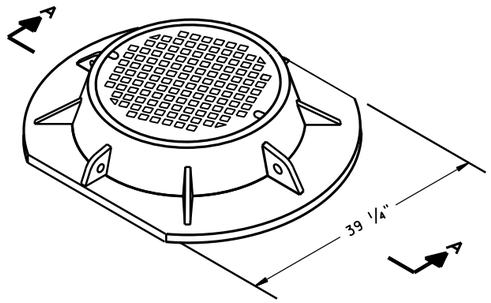
APPROVED
11/27/2013
DATE

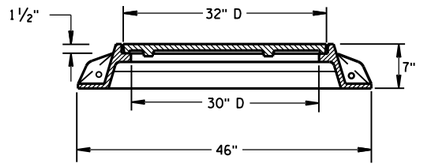
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

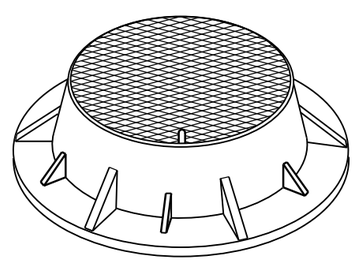
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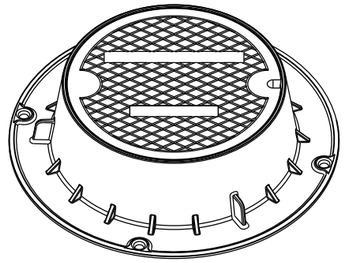
S.D.D. 8 A 5-19c

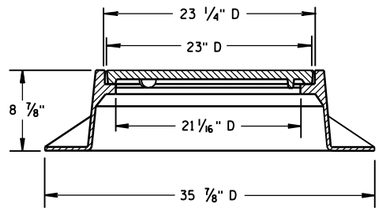


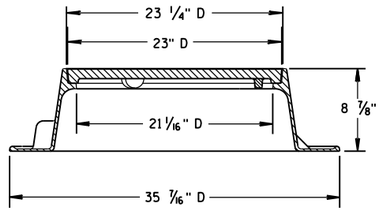


SECTION A-A
TYPE "K"









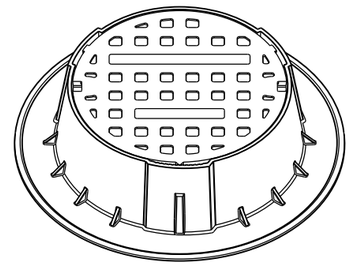
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

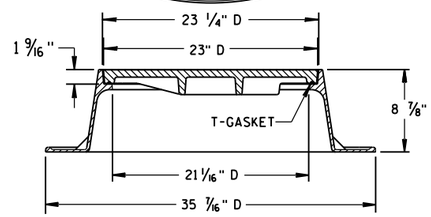
GENERAL NOTES

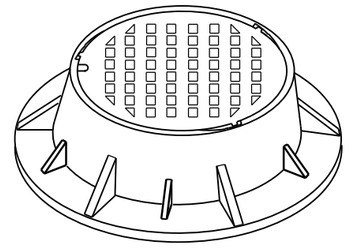
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

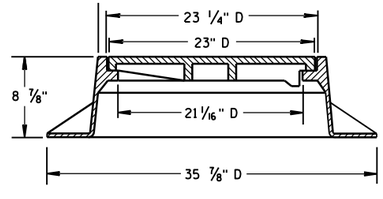
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

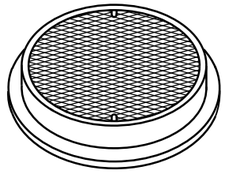


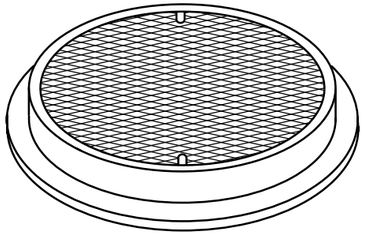


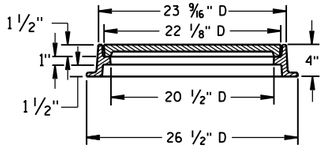




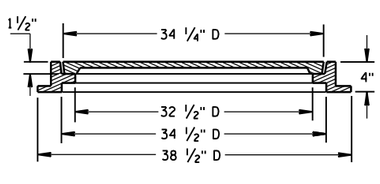
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



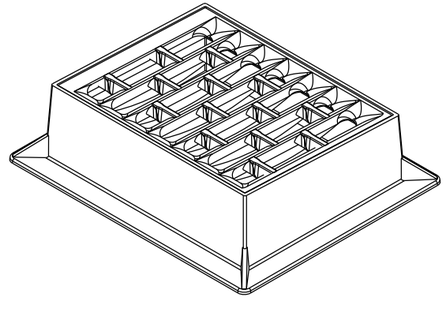


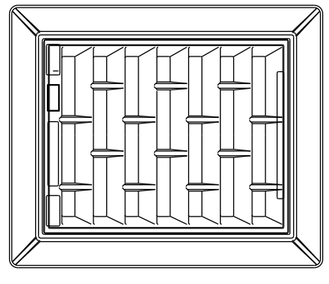


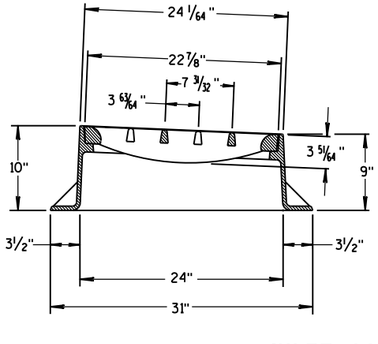
TYPE "L"

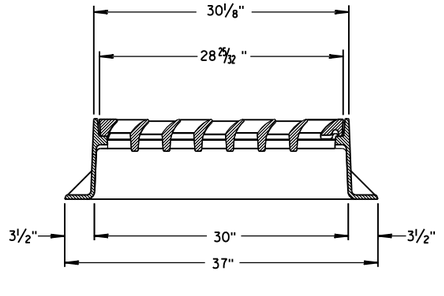


TYPE "M"









INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

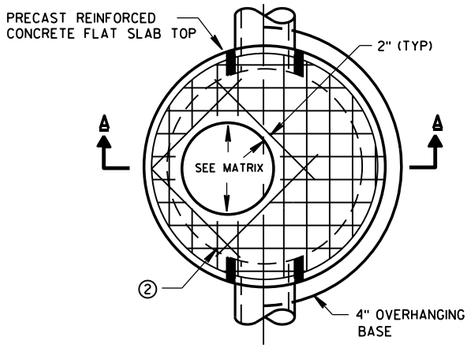
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

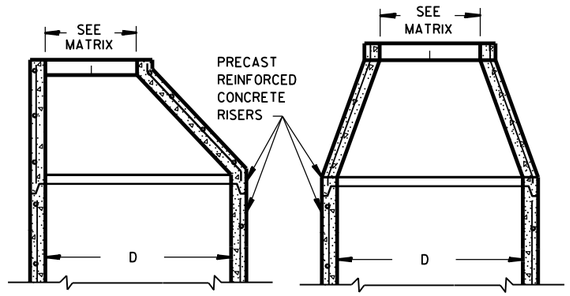
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

S.D.D. 8 A 5-19d

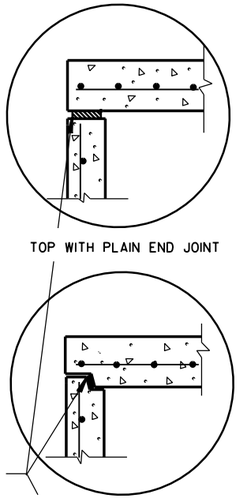


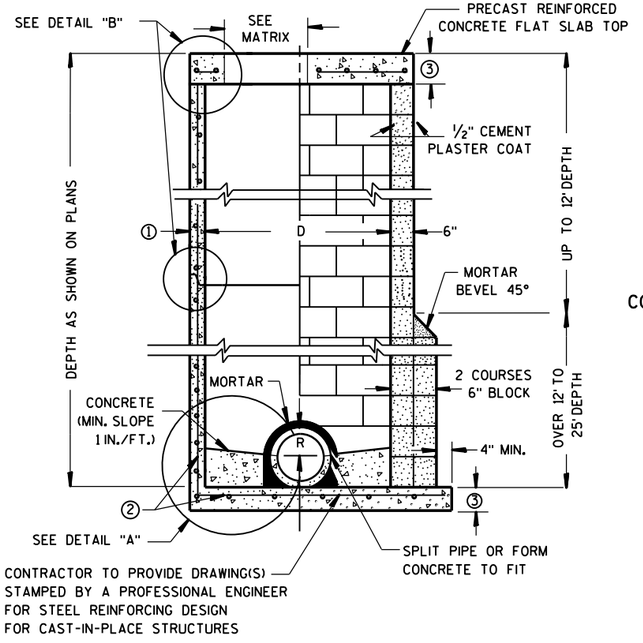
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

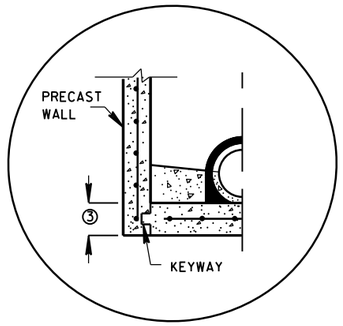
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



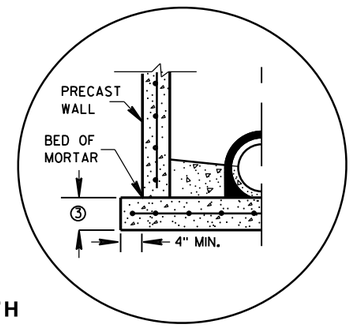


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

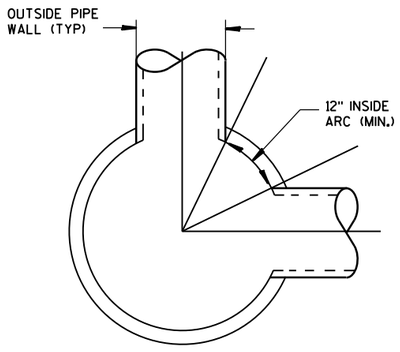


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

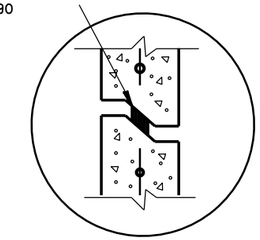


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



DETAIL "B"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

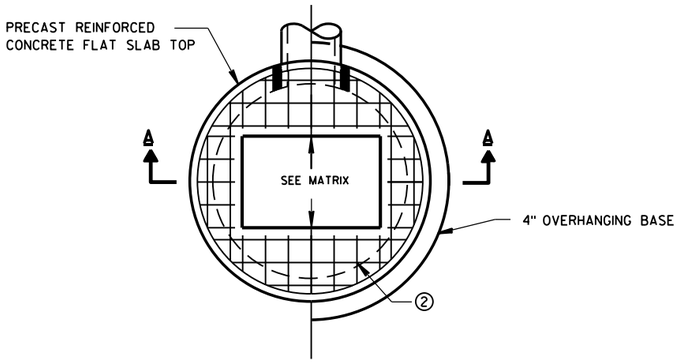
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

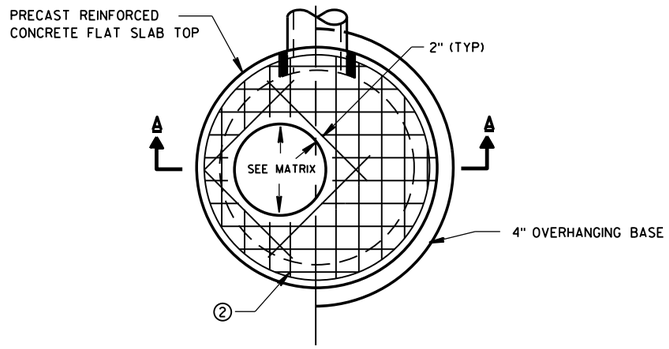
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6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

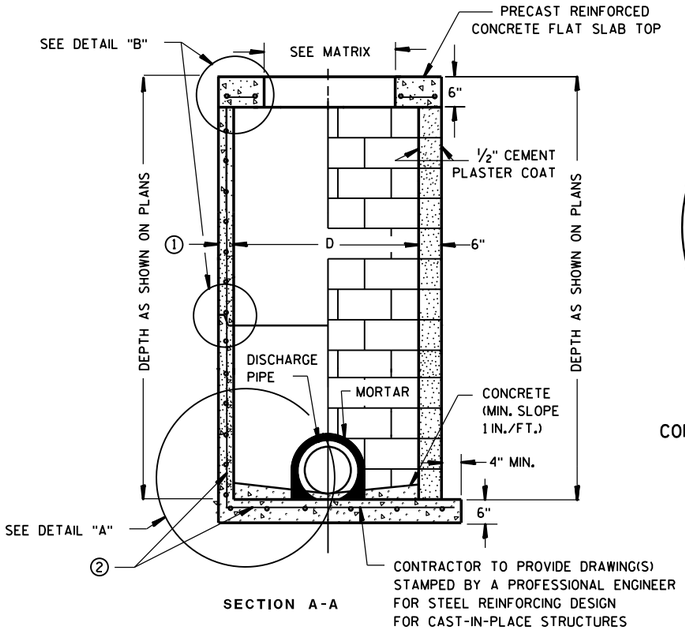
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PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

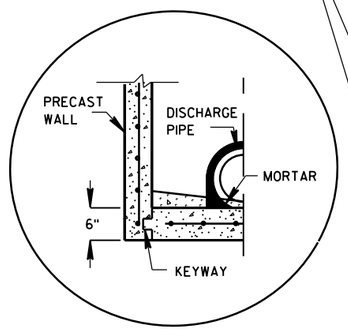


SECTION A-A

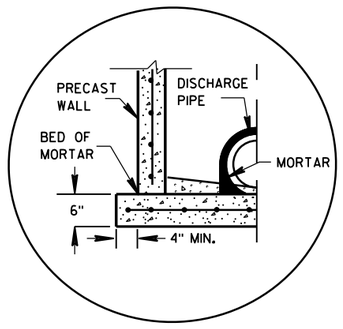
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

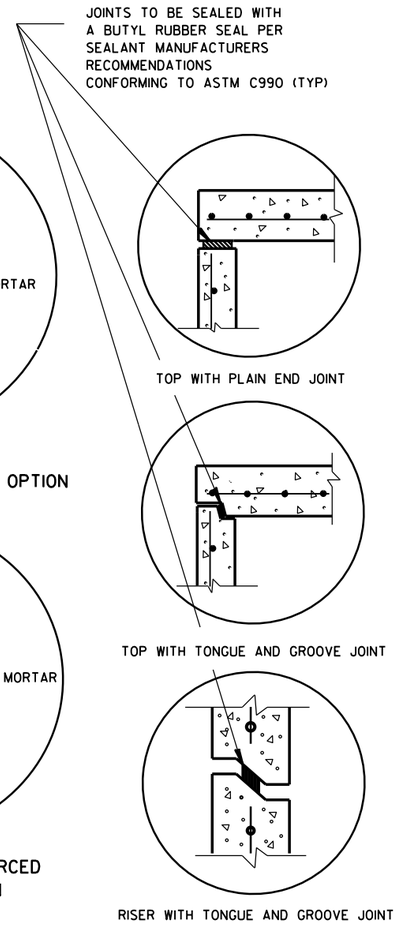


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

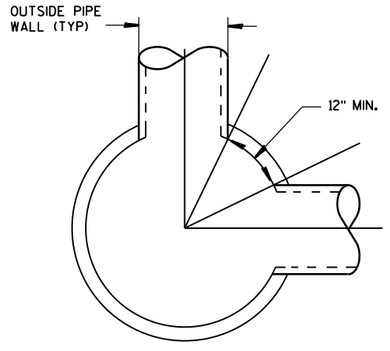
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

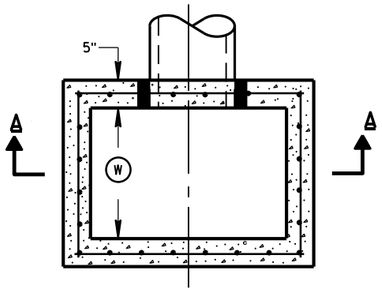
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

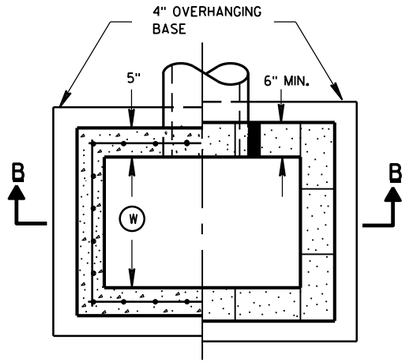
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

INLETS 3-FT AND 4-FT DIAMETER

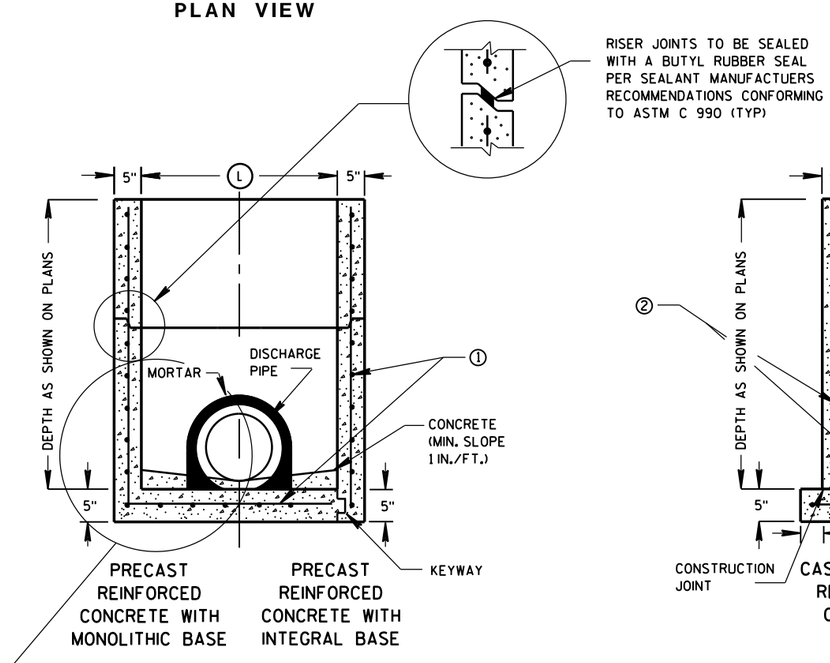
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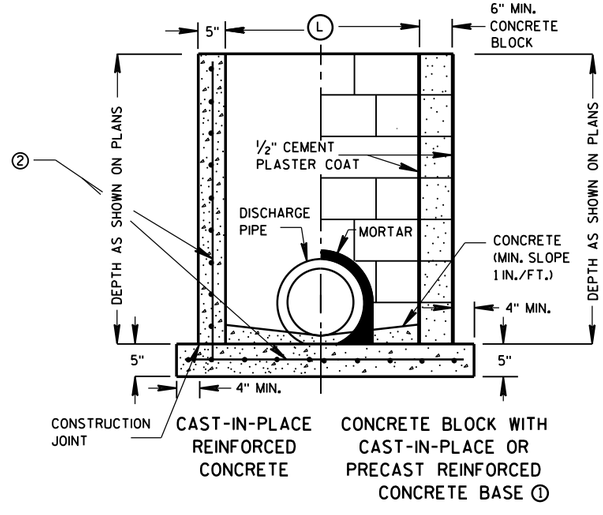
PLAN VIEW



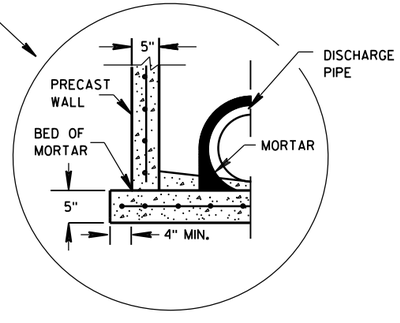
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

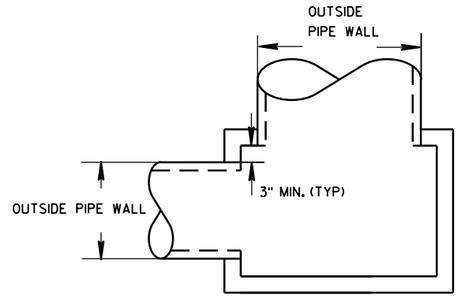
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

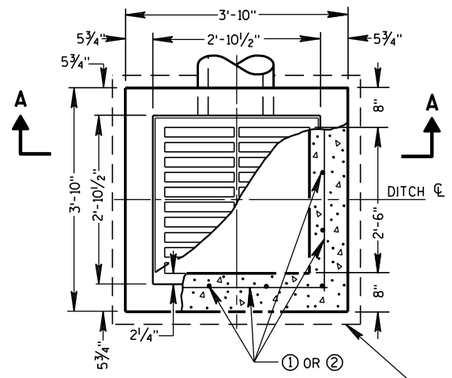
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

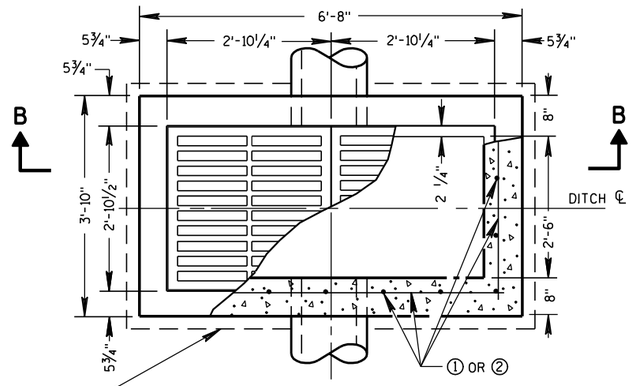
APPROVED
6/5/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER
FHWA

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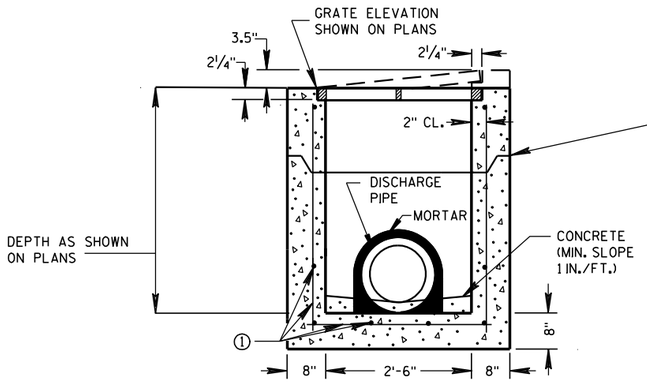


PLAN VIEW

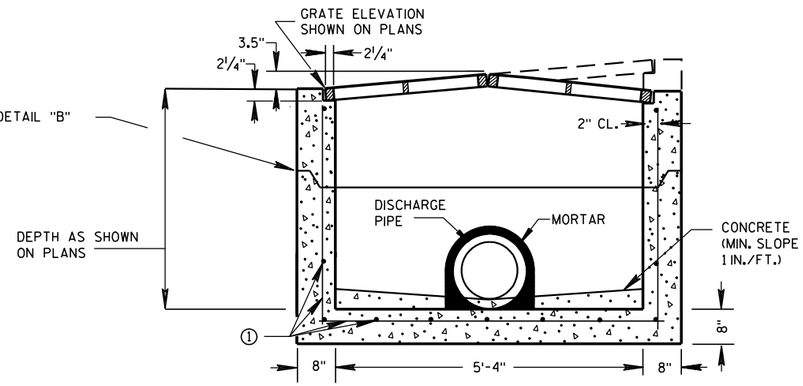


PLAN VIEW

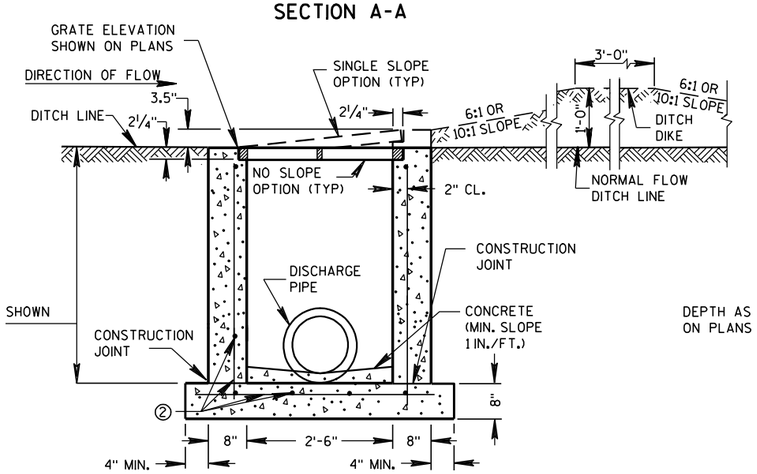
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



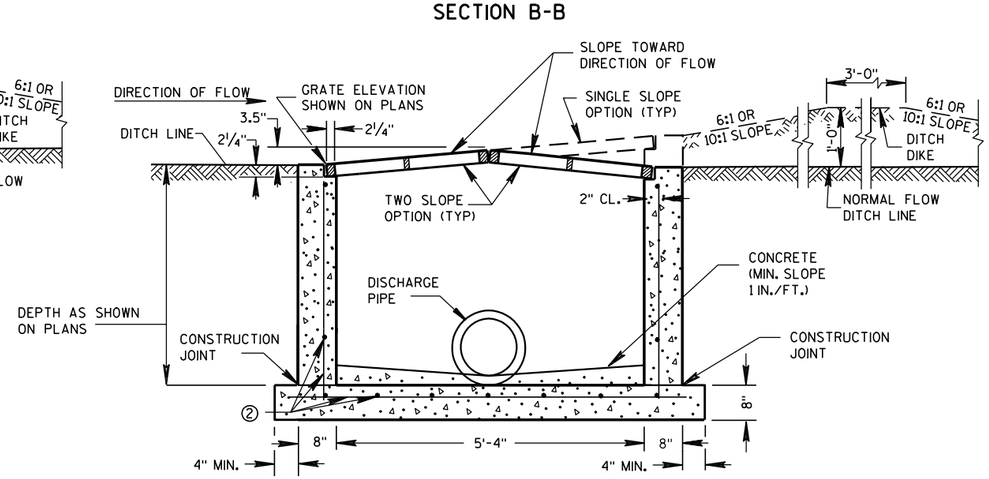
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

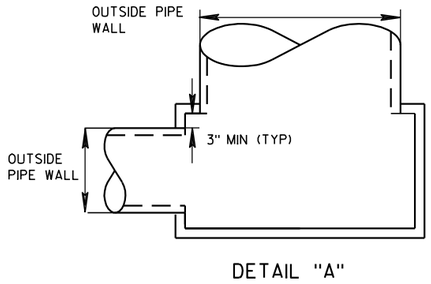
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

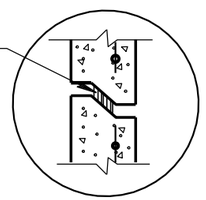
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

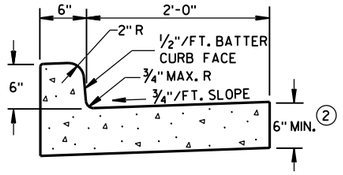
APPROVED

6/5/2012
DATE

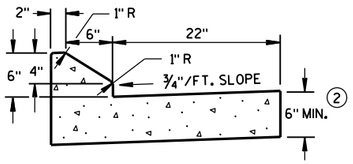
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

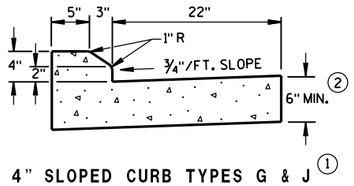
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S.D.D. 8 C 8-1



TYPES A & D ①

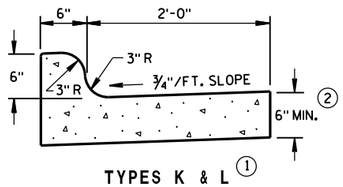


6" SLOPED CURB TYPES G & J ①

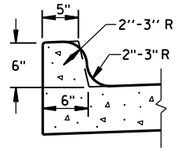


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

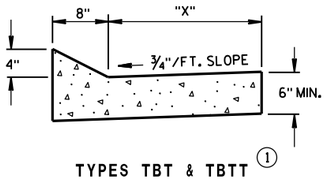


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

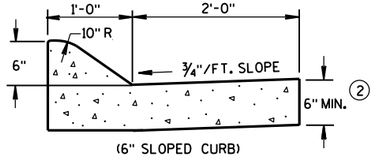
CONCRETE CURB & GUTTER 30"



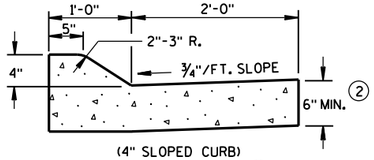
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

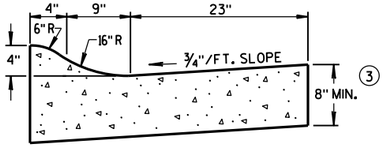


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

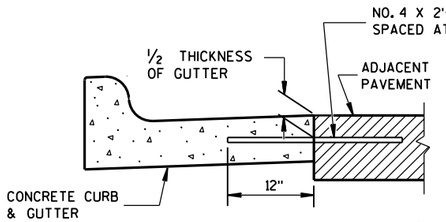
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

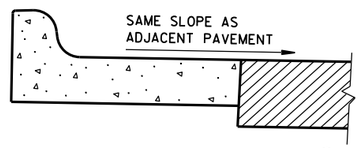
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

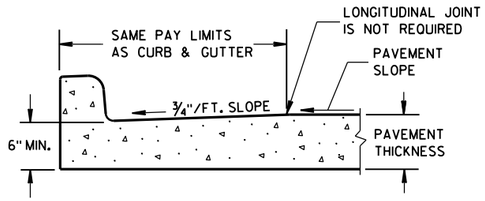
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



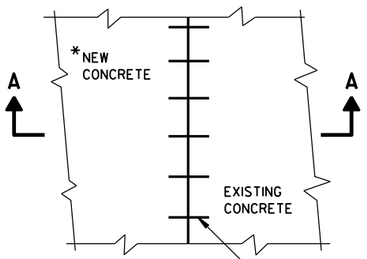
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

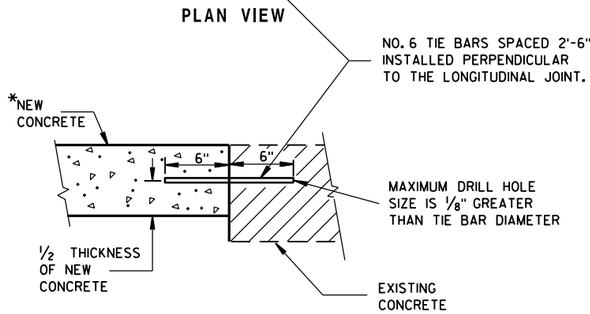


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



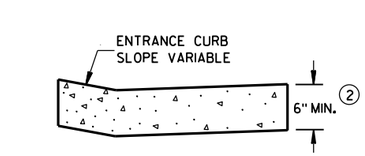
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW

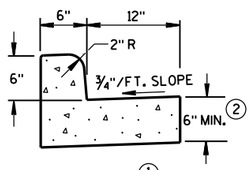


SECTION A-A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

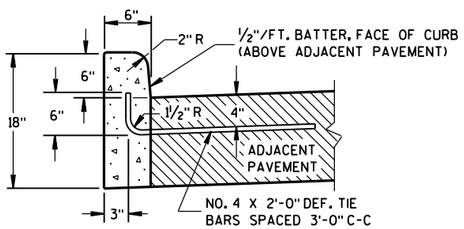


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

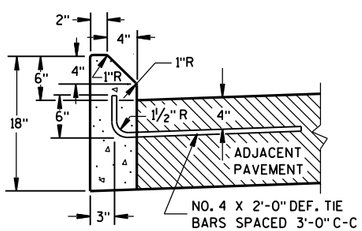


① TYPES A & D

CONCRETE CURB & GUTTER 18"

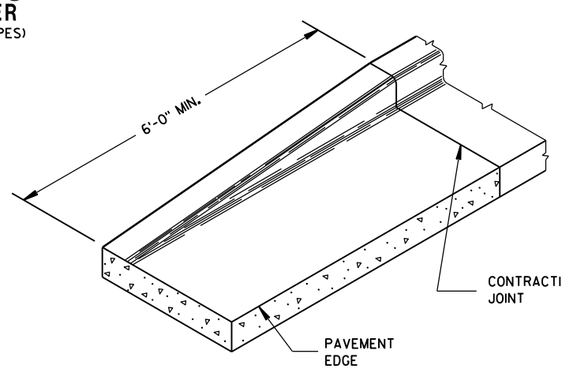


① TYPES A & D



① TYPES G & J

CONCRETE CURB



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

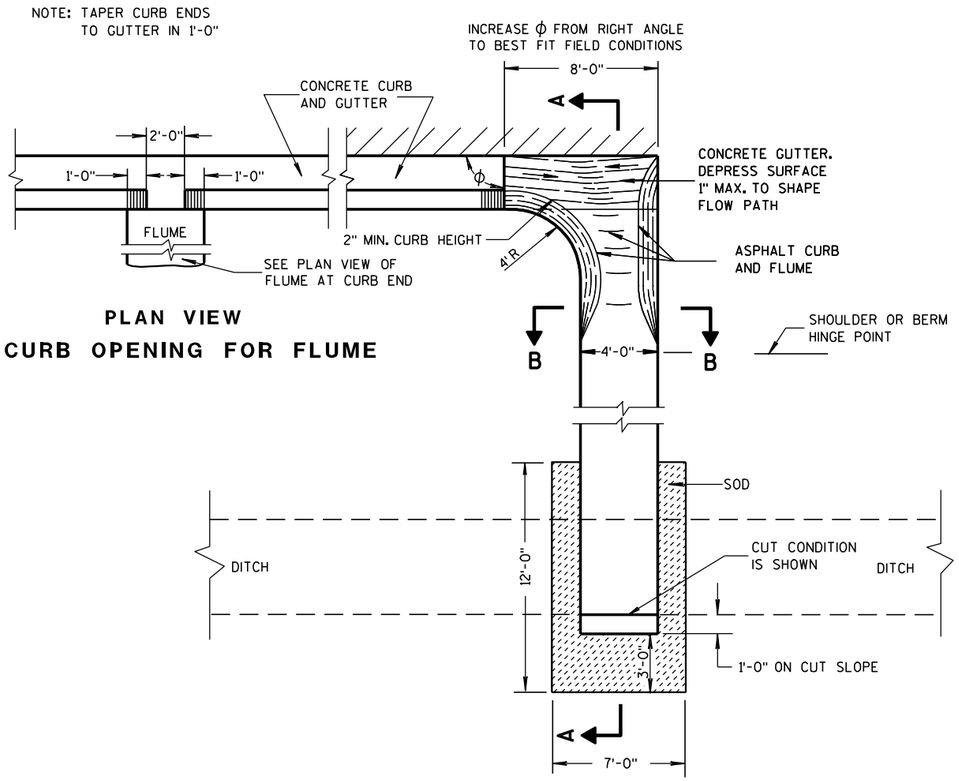
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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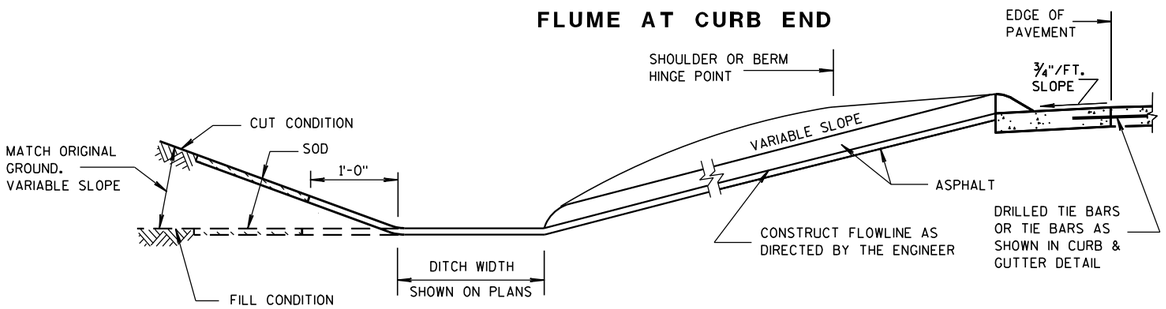
S.D.D. 8 D 1-18

ASPHALTIC FLUME

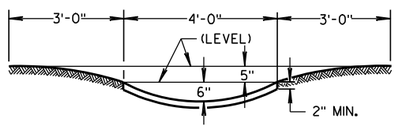


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

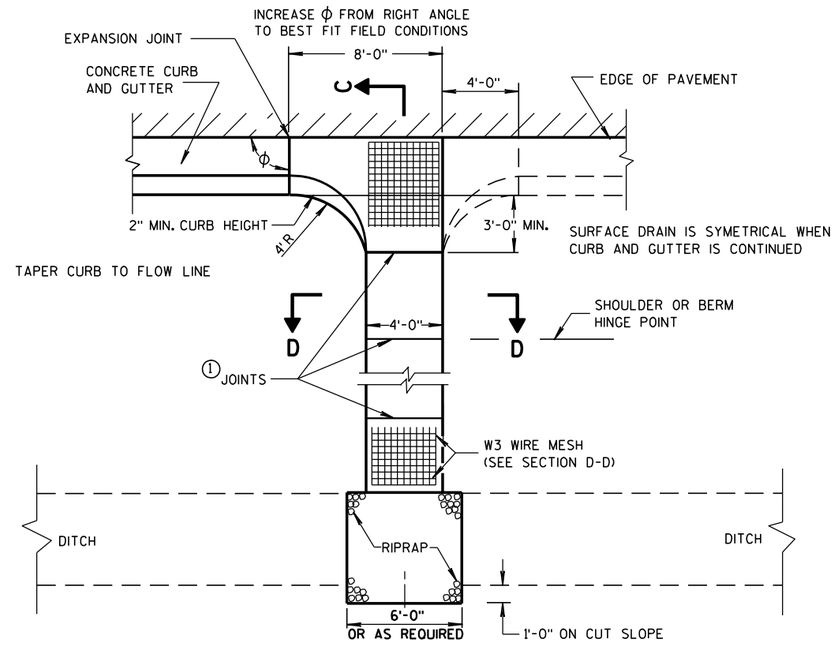
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

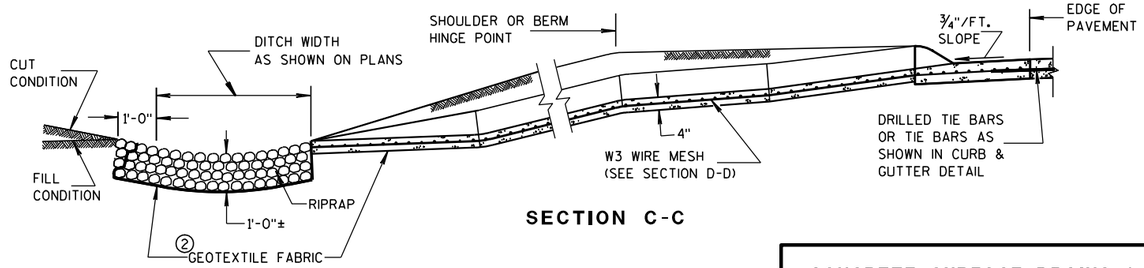
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

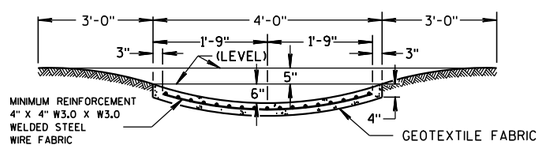
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

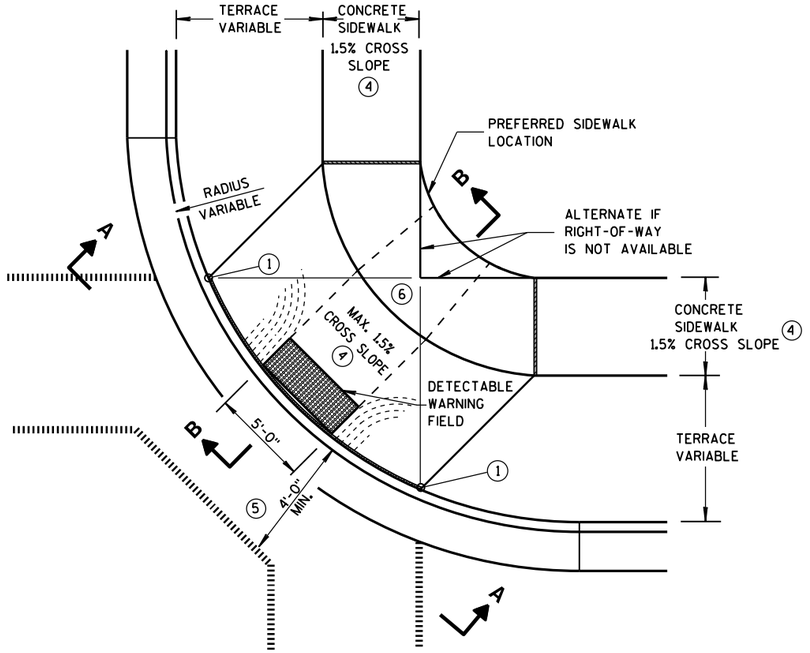
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

6

S.D.D. 8 D 4-5

6

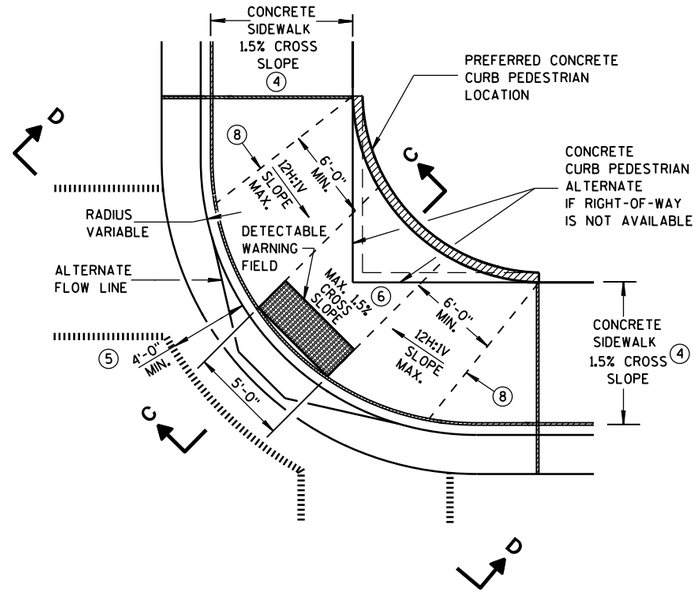
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN $\frac{1}{4}$-INCH ARE ALLOWED.

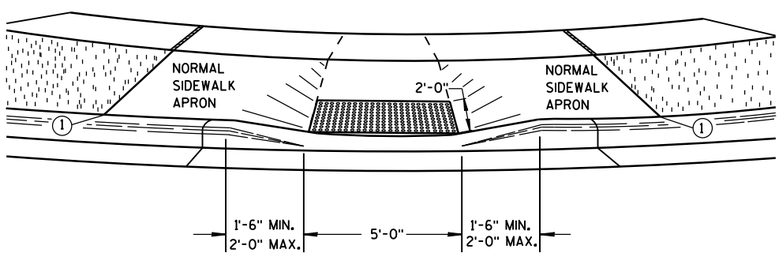
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

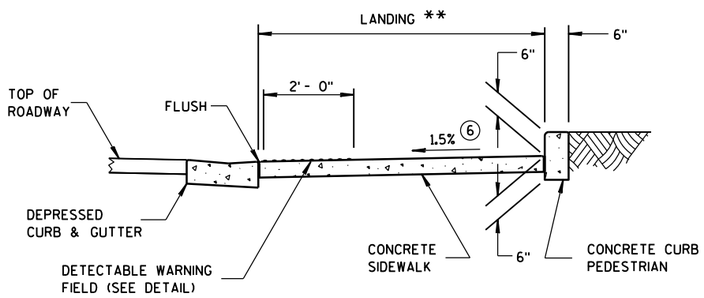
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A-A

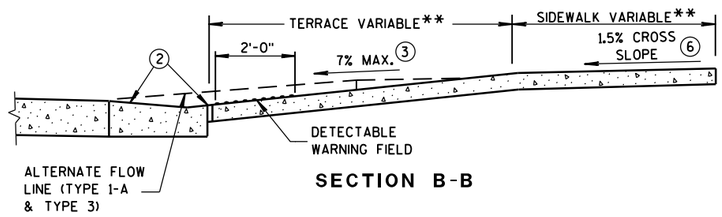
** WIDTH SHOWN ELSEWHERE IN THE PLANS



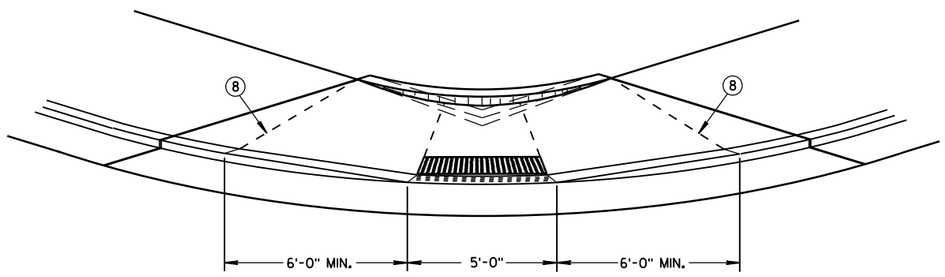
SECTION C-C

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



SECTION B-B



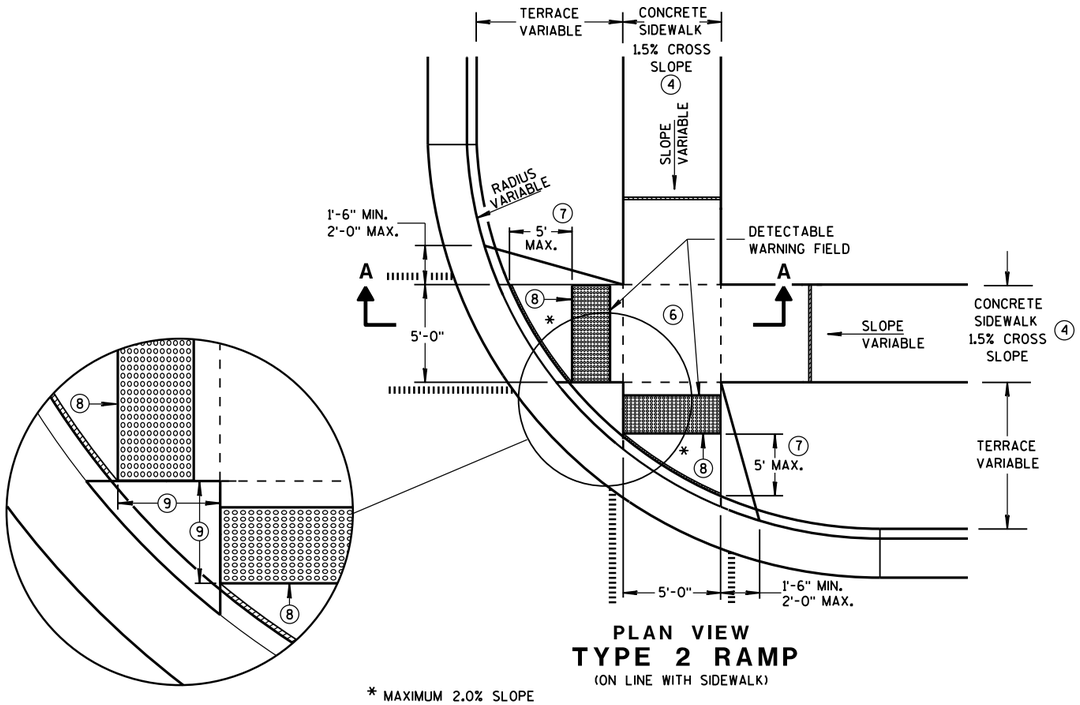
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-16a

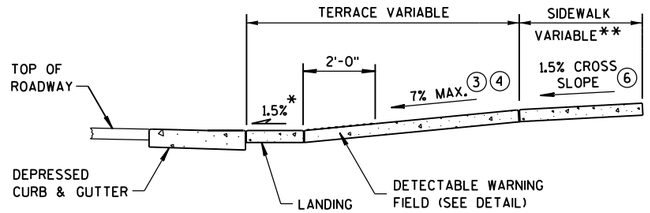


PLAN VIEW

TYPE 2 RAMP

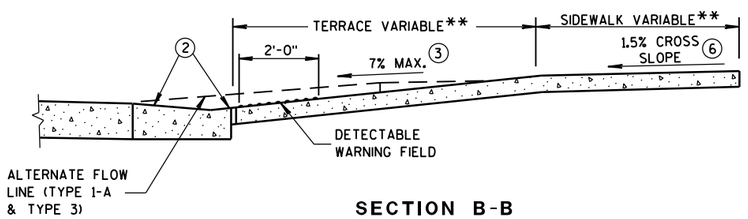
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

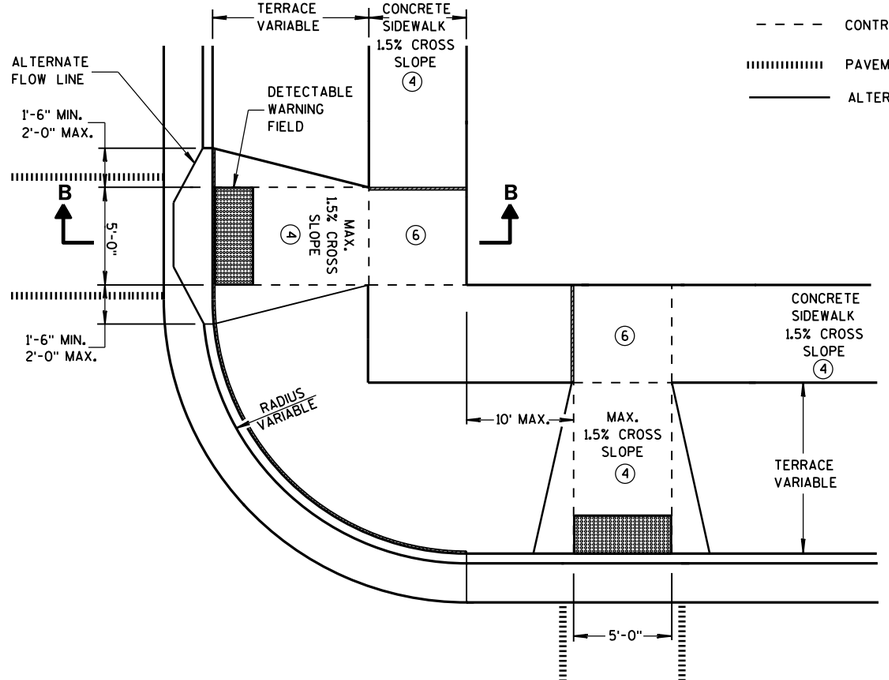
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. 2" MINIMUM CURB HEIGHT.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

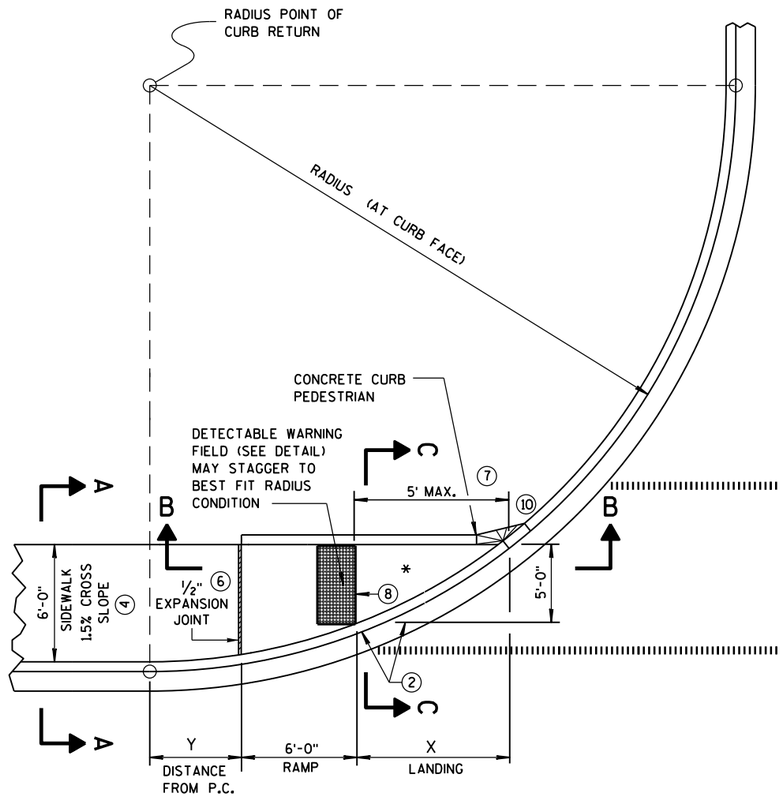
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

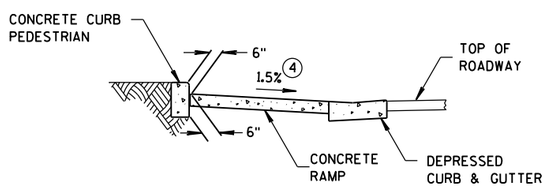
S.D.D. 8 D 5-16b



CURB RAMP TYPE 4A
PLAN VIEW

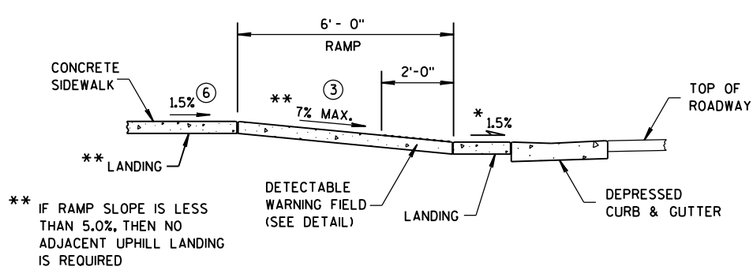
RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4A

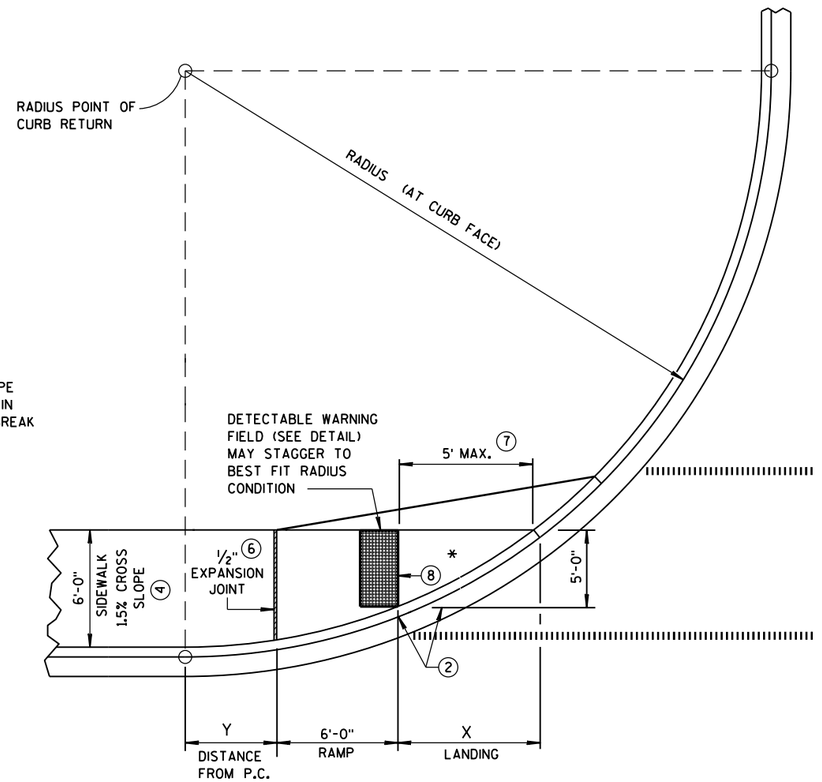
SECTION A-A FOR TYPE 4A



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

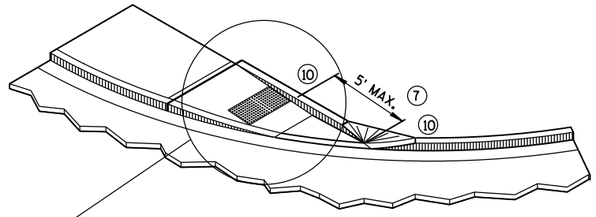
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

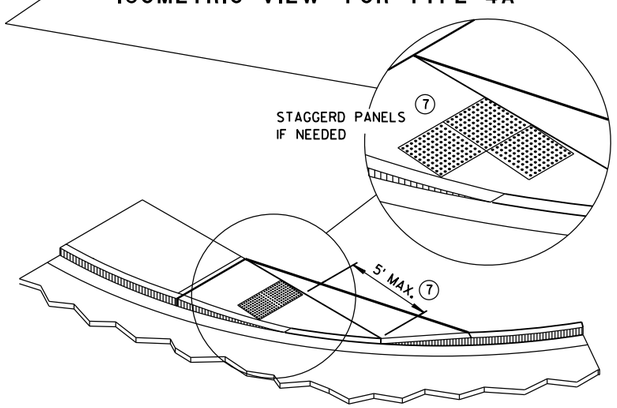
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

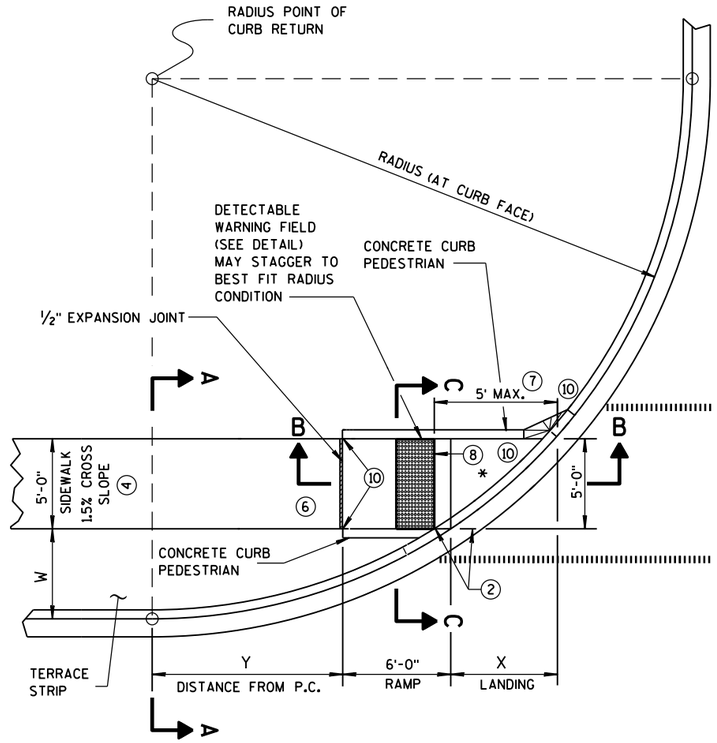
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

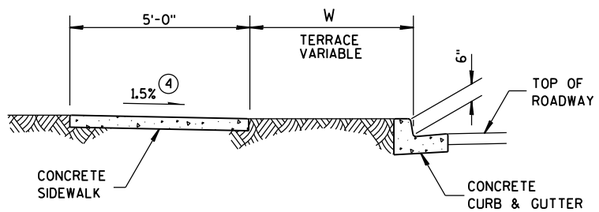
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

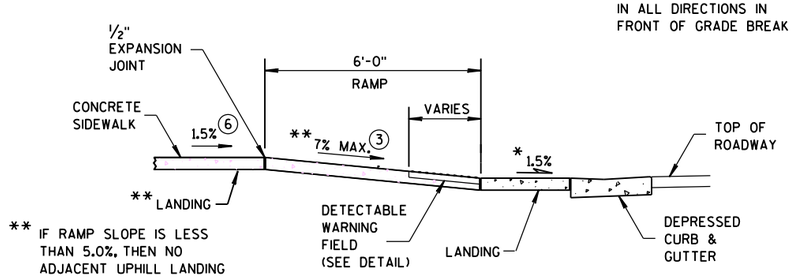
S.D.D. 8 D 5-16c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

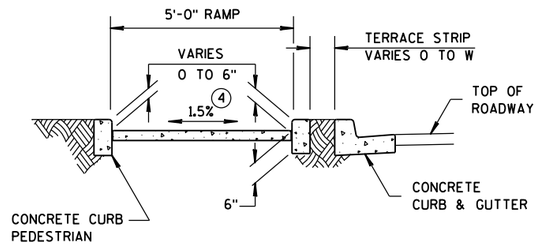
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

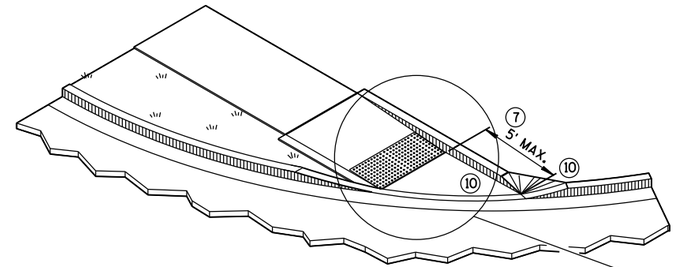
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

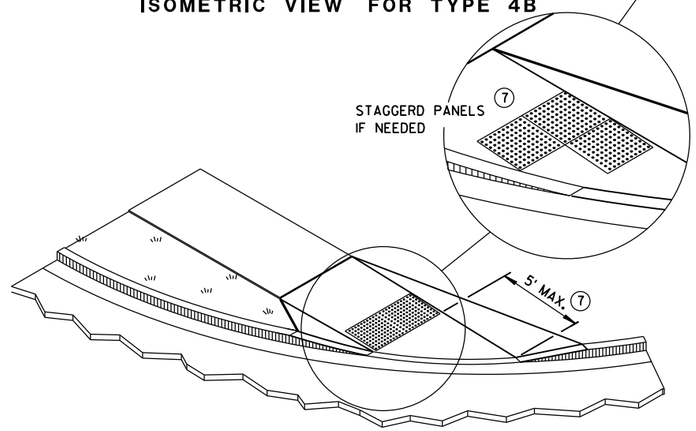
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

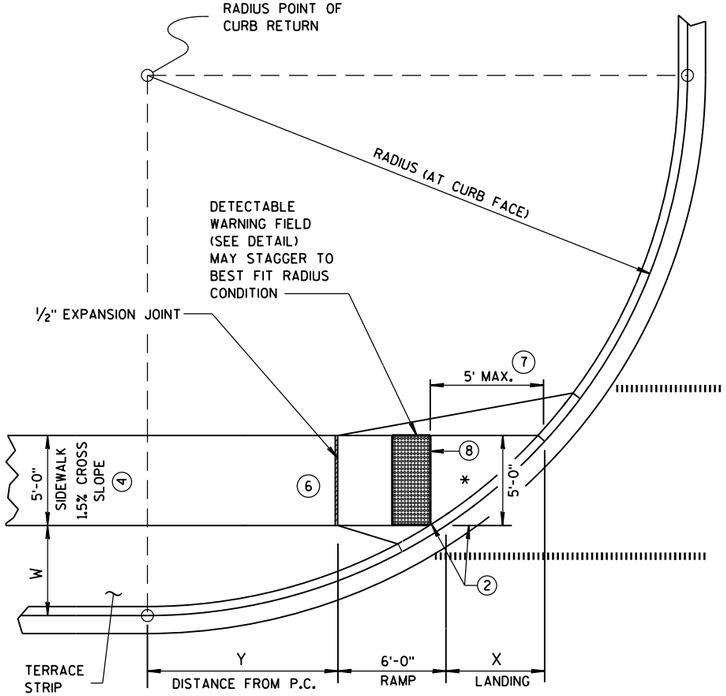
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



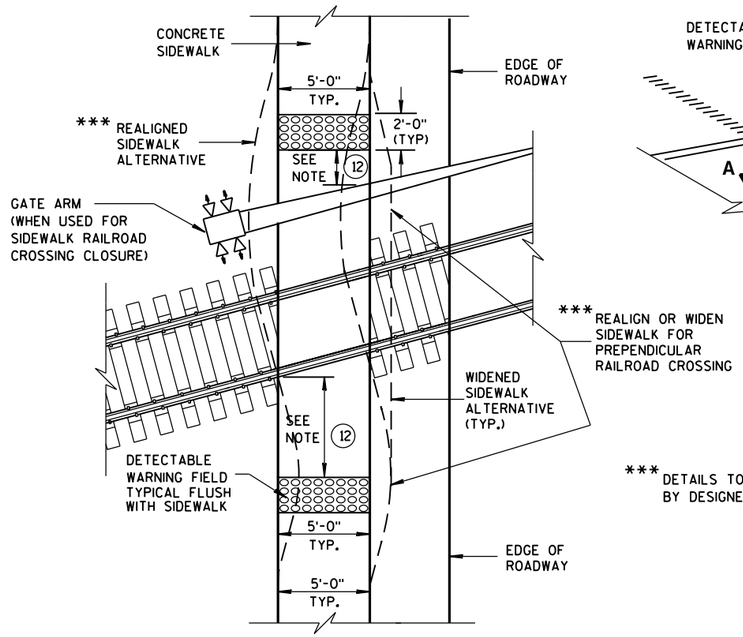
CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

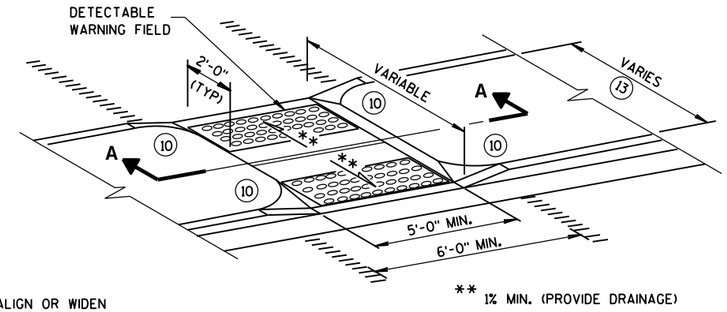
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S.D.D. 8 D 5-16d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

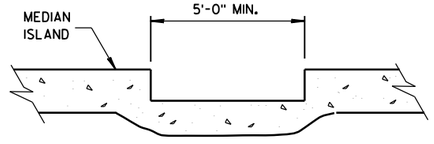
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

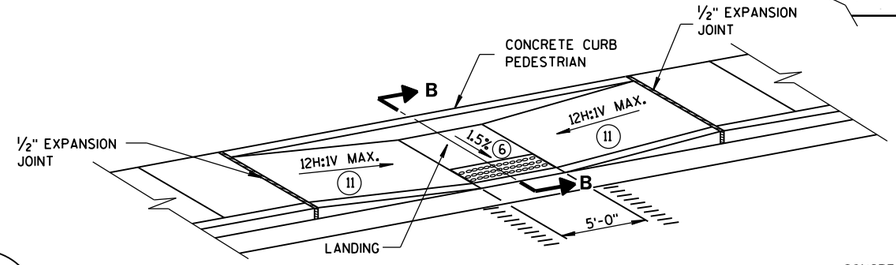
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



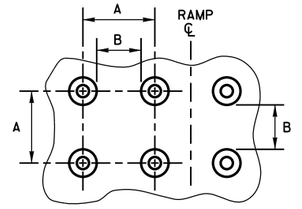
SECTION A-A



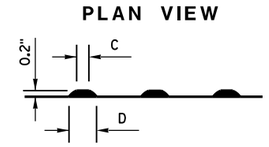
MID-BLOCK CROSSING
TYPE 7A

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

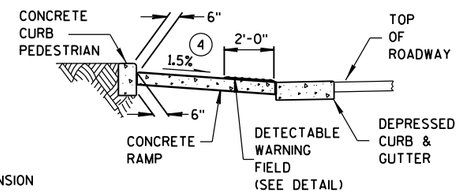


PLAN VIEW

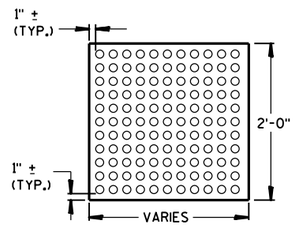


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



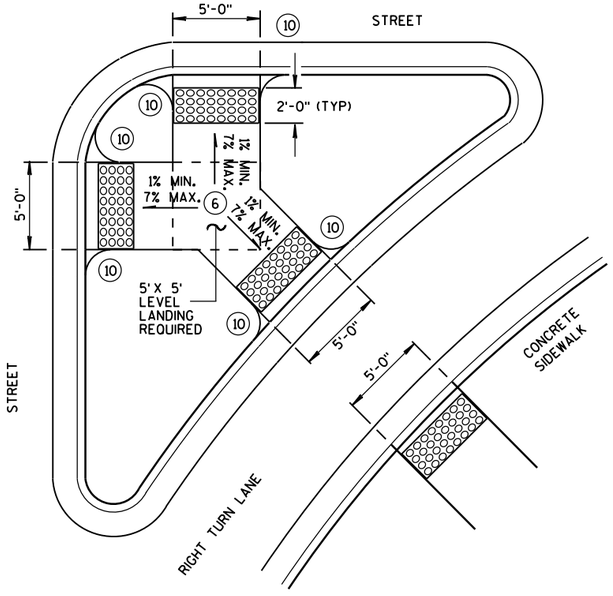
SECTION B-B



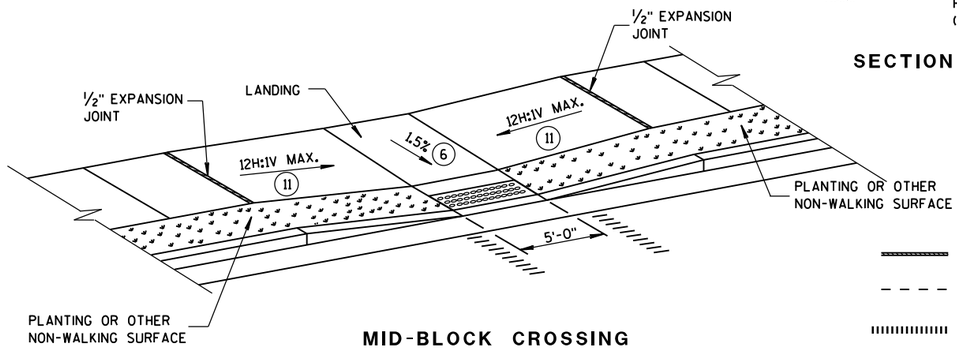
PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

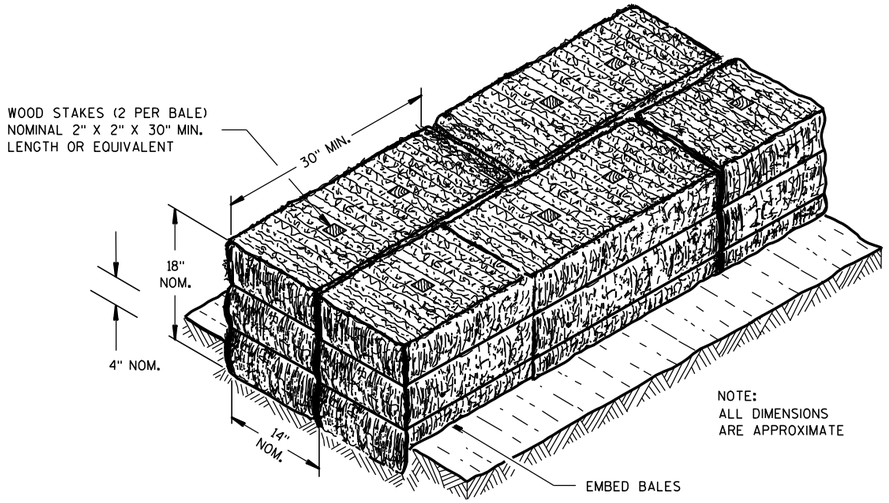
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

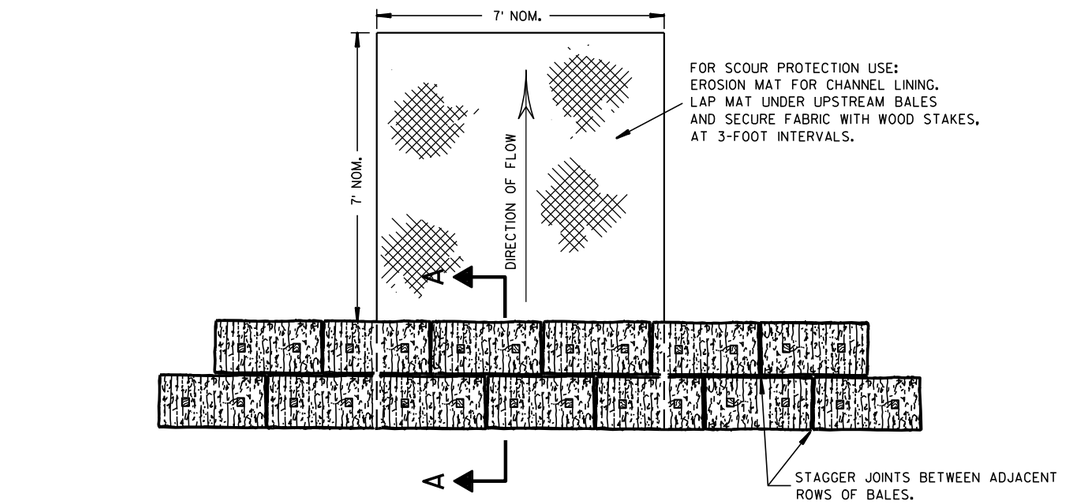
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS [illegible] ENGINEER
FHWA

6

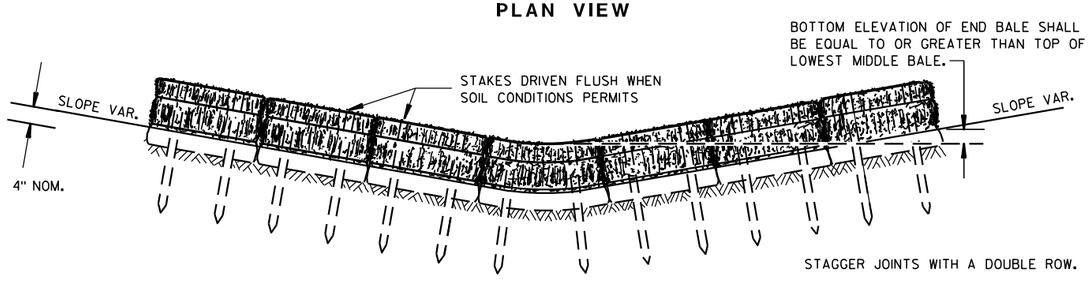
S.D.D. 8 D 5-16e



SECTION A-A



PLAN VIEW



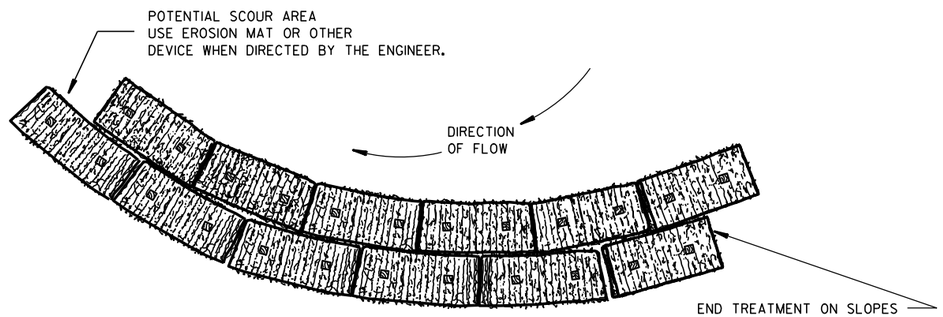
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

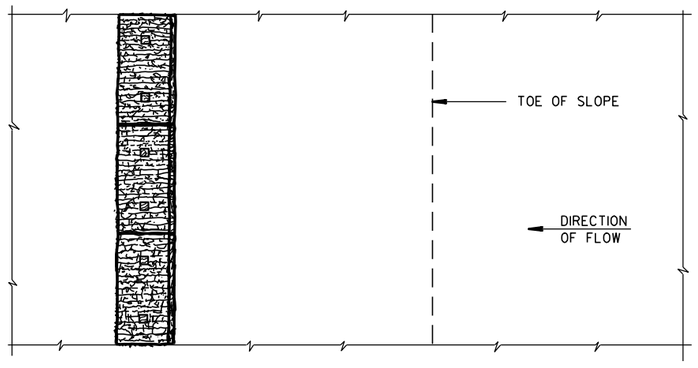
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

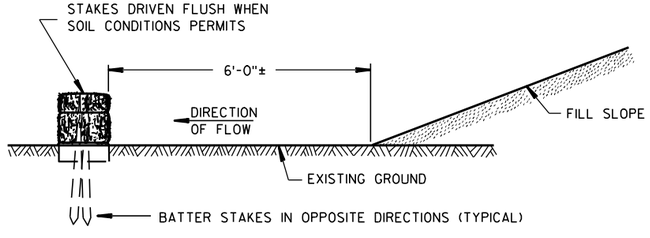


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

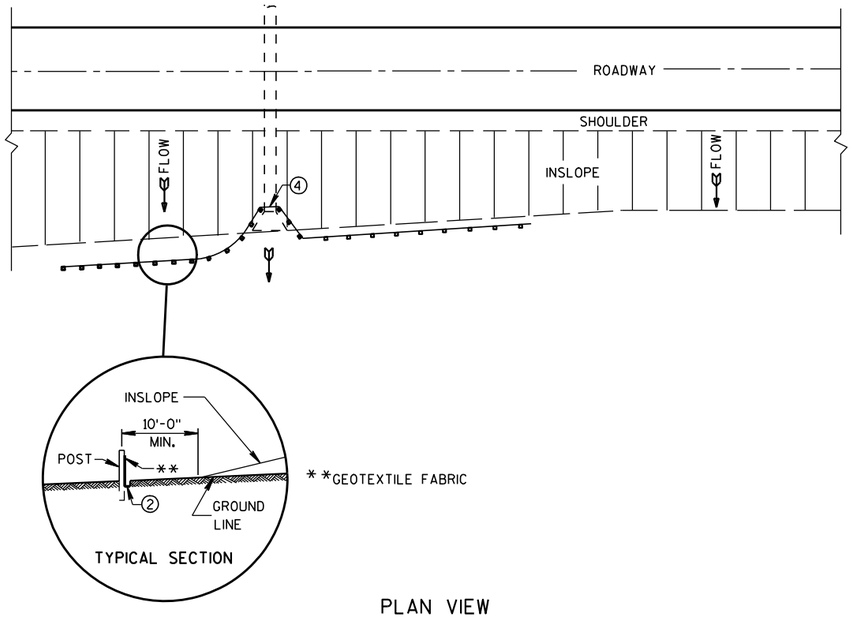
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

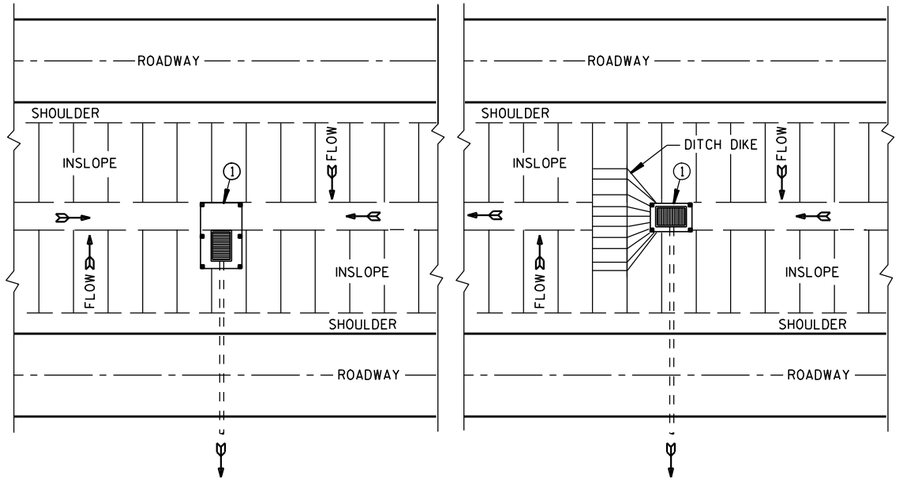
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

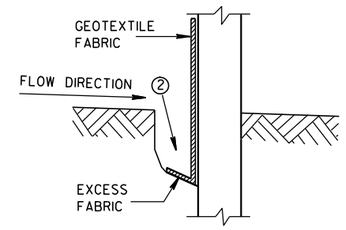
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

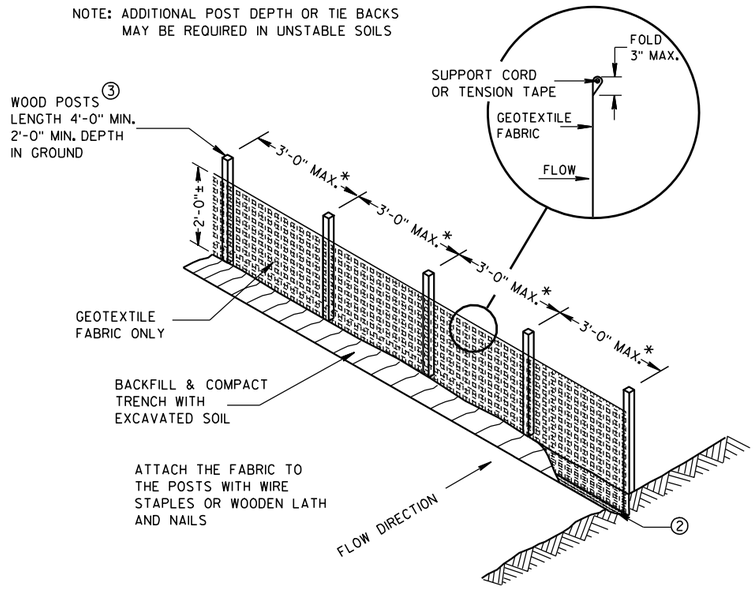
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

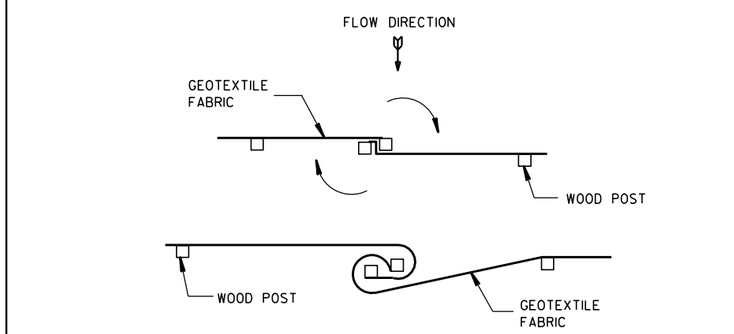
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



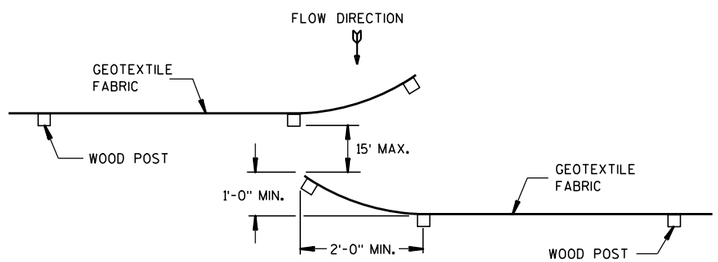
TRENCH DETAIL



SILT FENCE

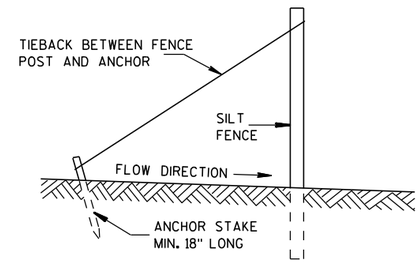


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

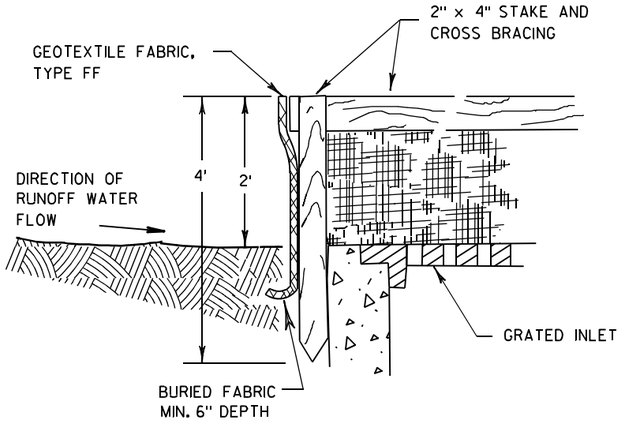
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

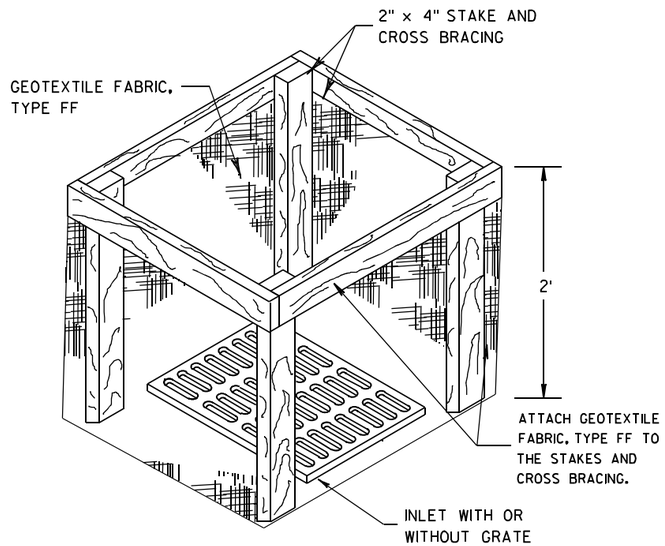
6

S.D.D. 8 E 9-6

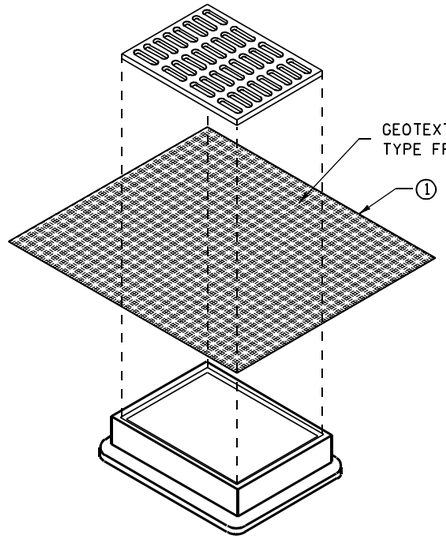
6

S.D.D. 8 E 9-6



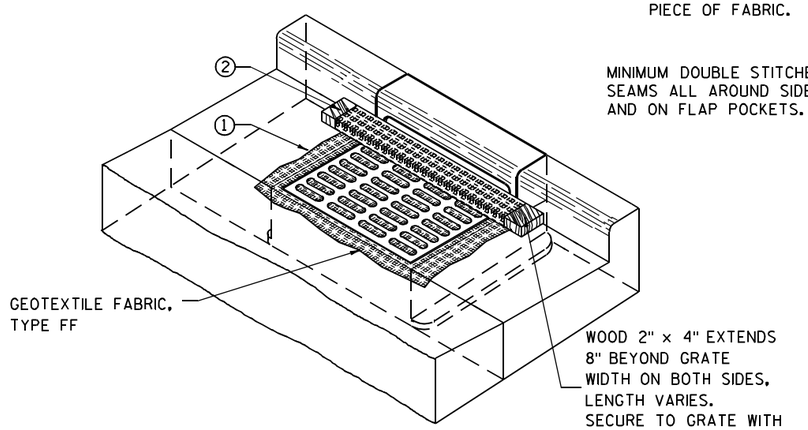


INLET PROTECTION, TYPE A

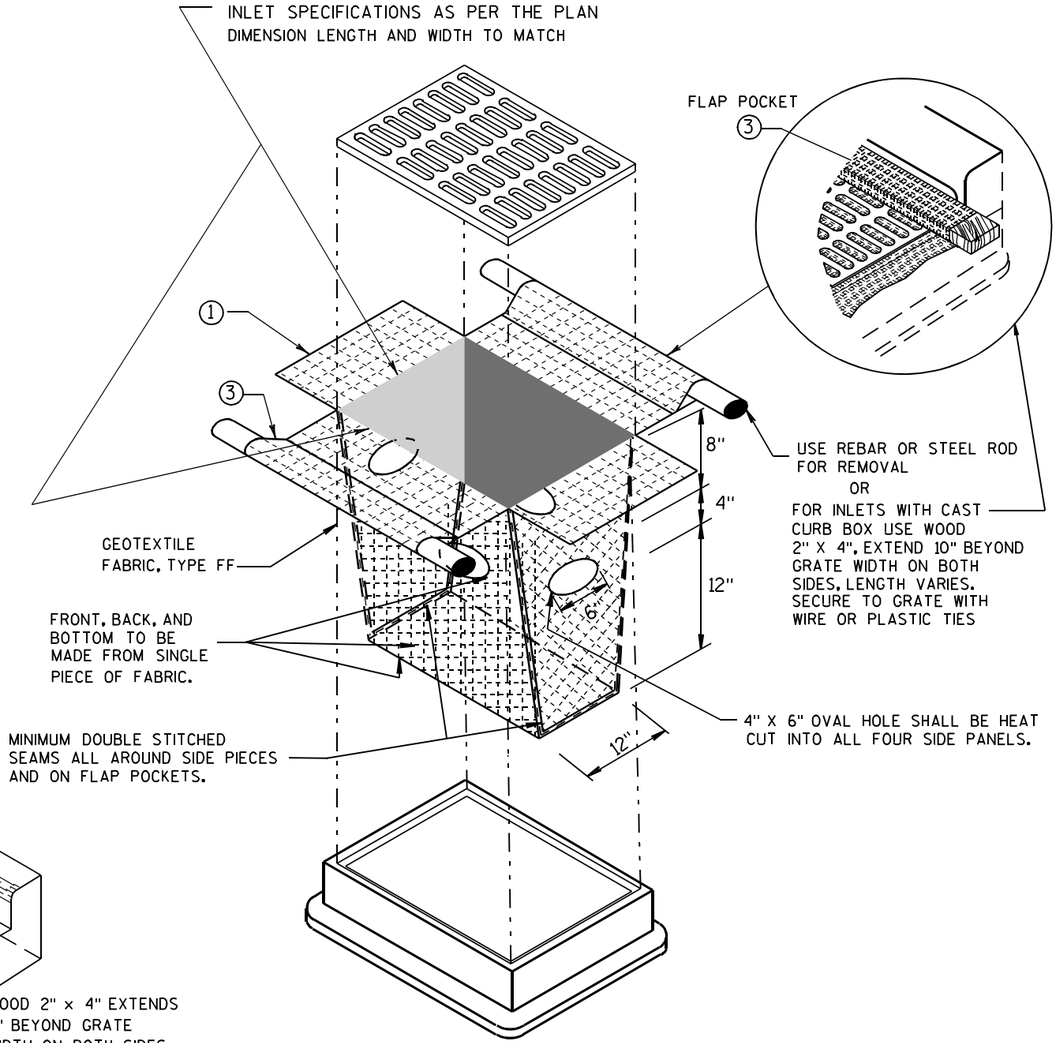


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

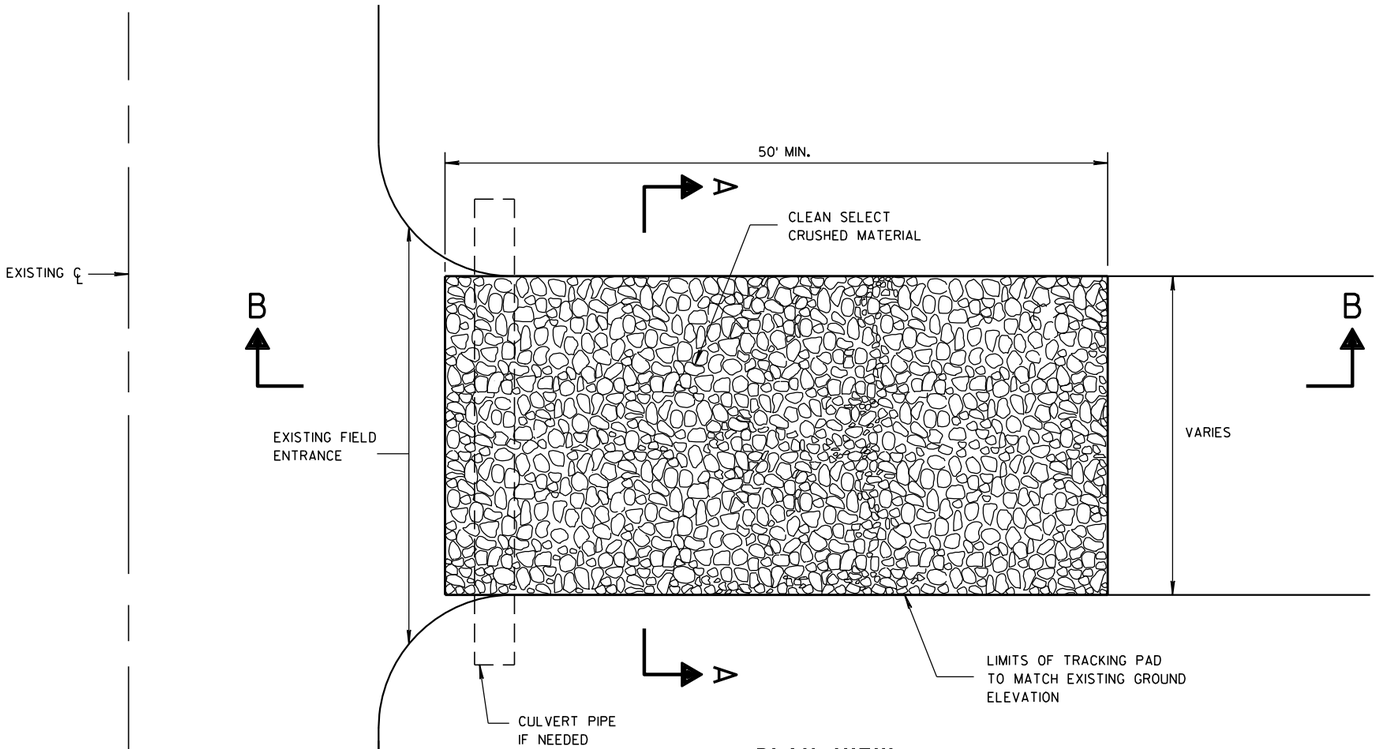
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

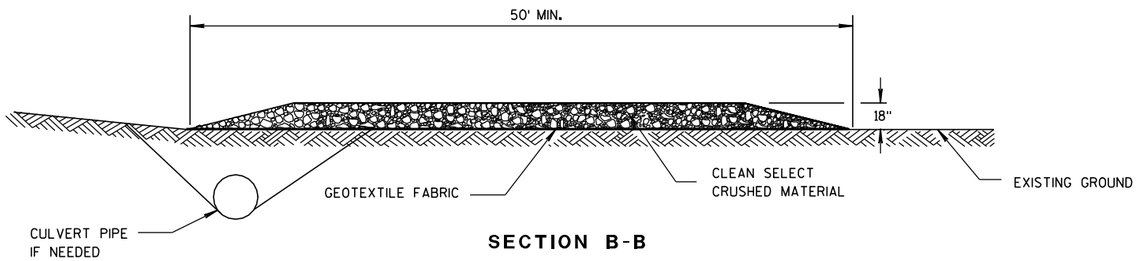
SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

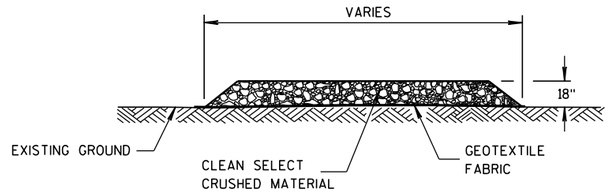
THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



PLAN VIEW



SECTION B-B



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
ENT
FHWA

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

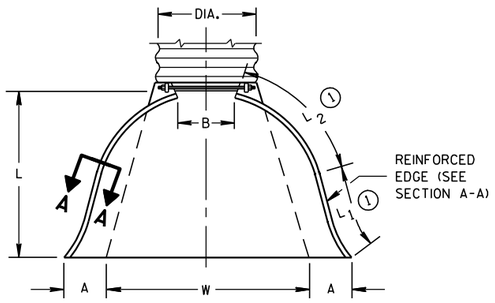
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

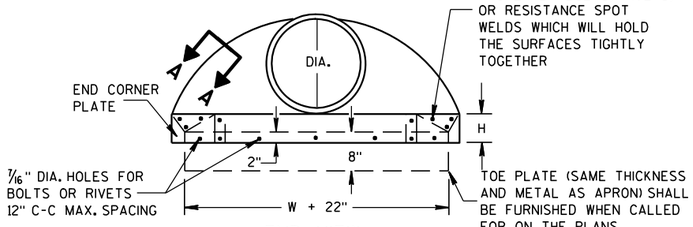
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

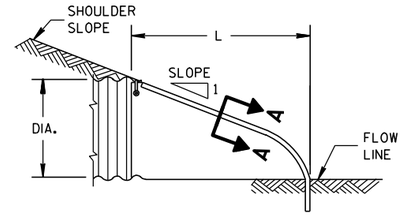
*MINIMUM
**MAXIMUM



PLAN VIEW

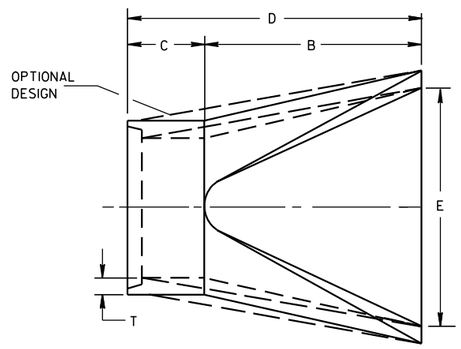


END VIEW

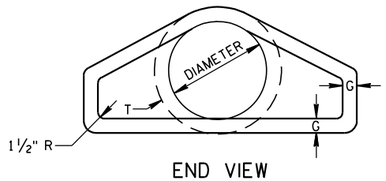


SIDE ELEVATION

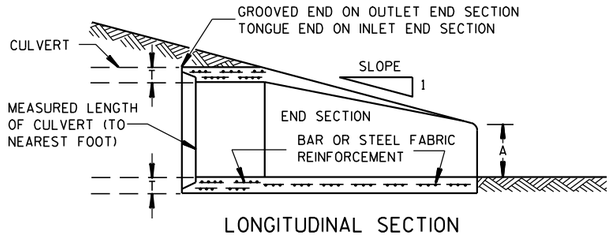
METAL ENDWALLS



PLAN

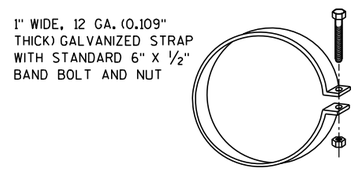


END VIEW



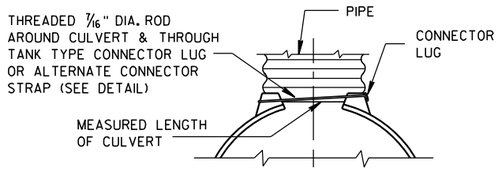
LONGITUDINAL SECTION

CONCRETE ENDWALLS

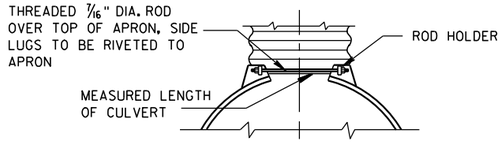


ALTERNATE FOR TYPE 1 CONNECTION

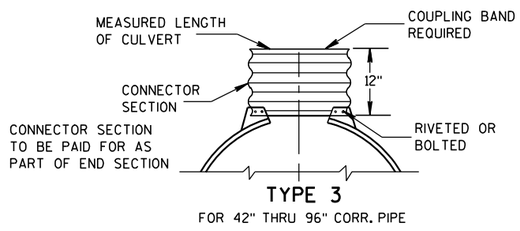
END SECTION CONNECTOR STRAP



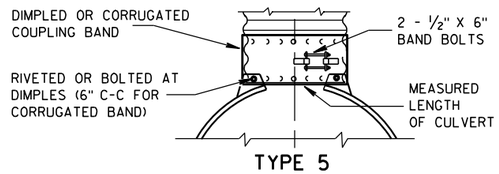
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

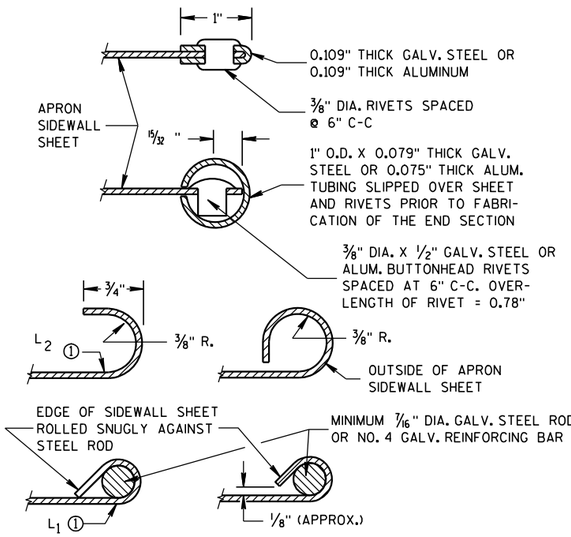
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

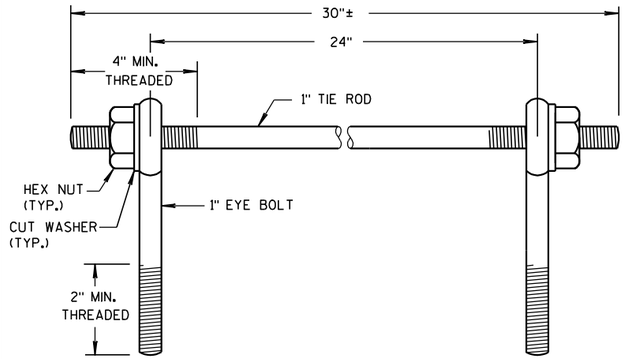
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

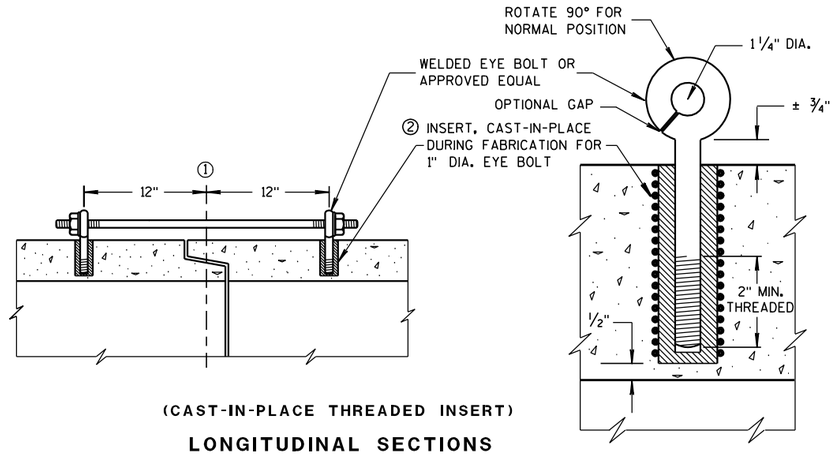
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

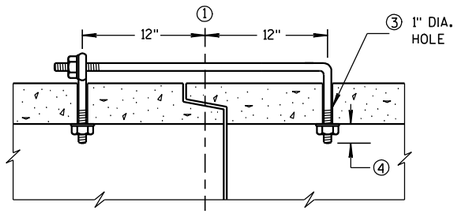
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

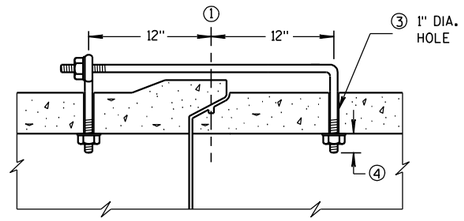
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

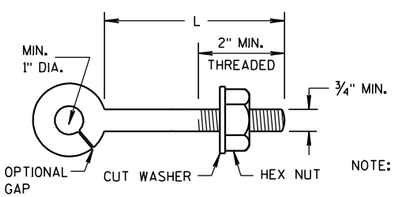


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

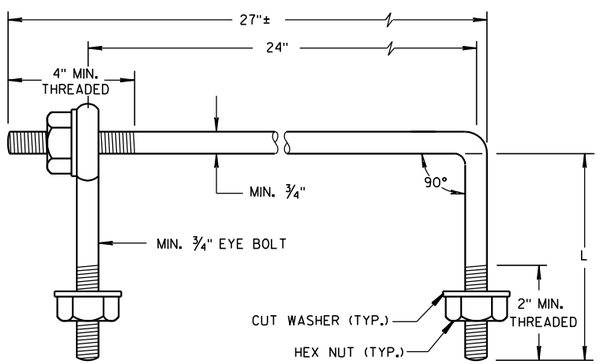
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

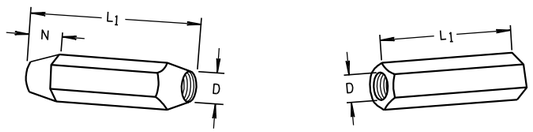
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

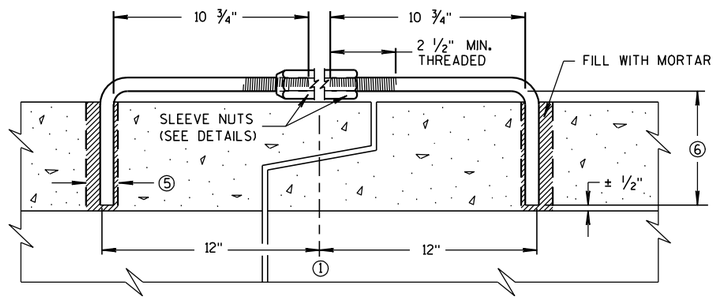
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

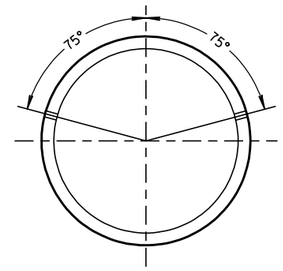
SLEEVE NUTS



LONGITUDINAL SECTION

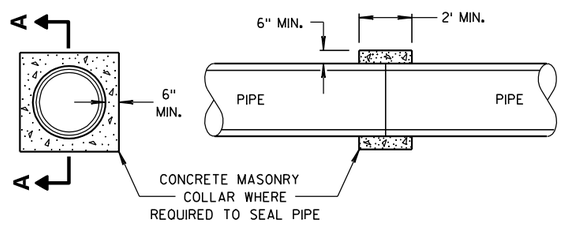
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

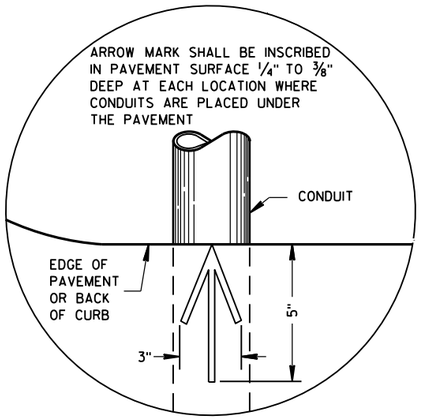
APPROVED
6/5/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
151
FHWA

6

S.D.D. 8 F 4-7

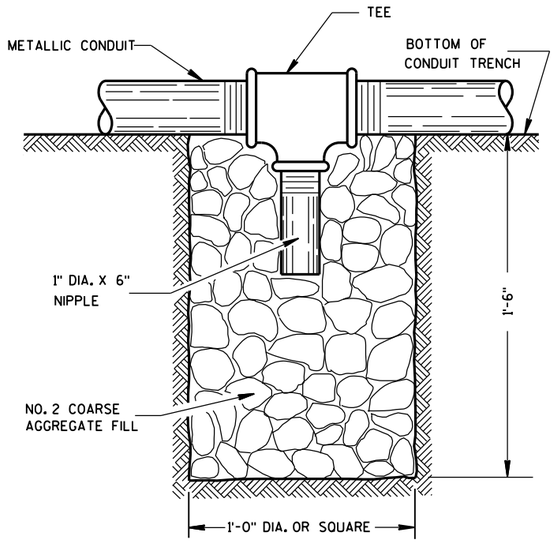
6

S.D.D. 8 F 4-7



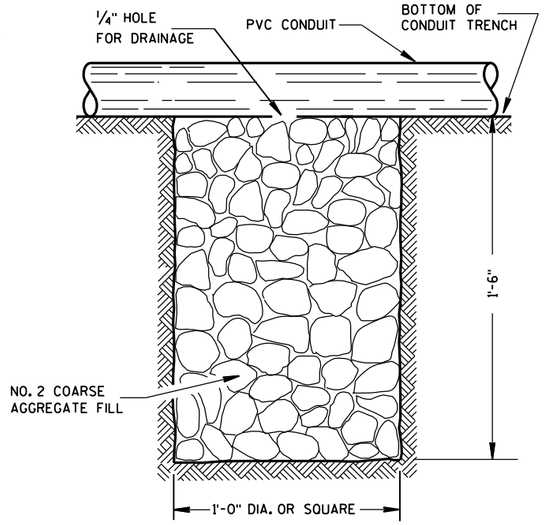
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

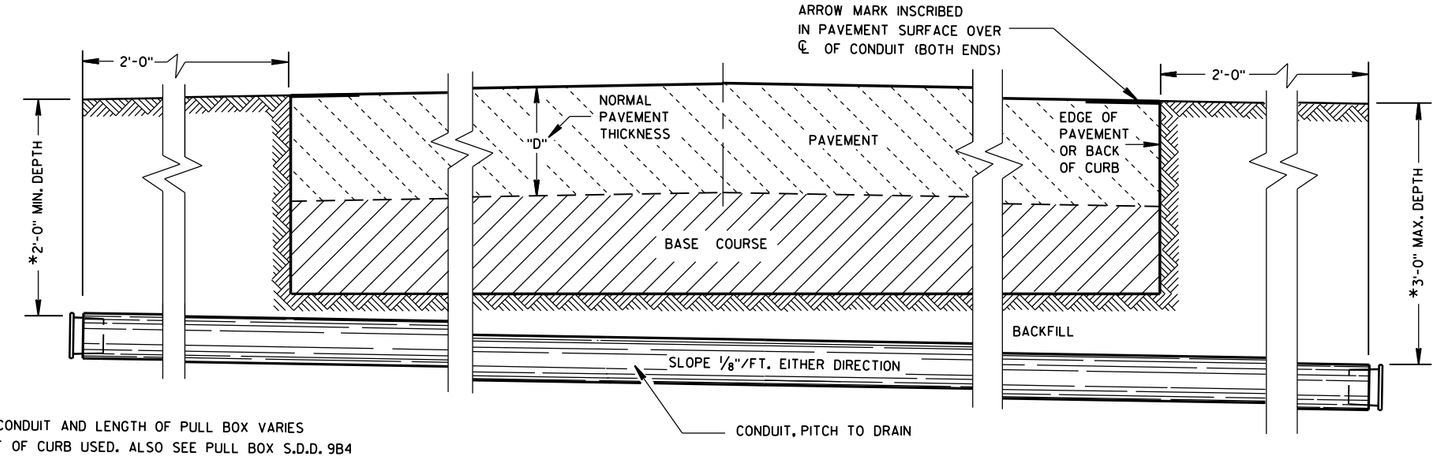
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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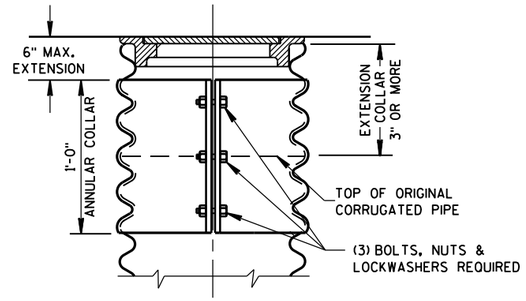
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

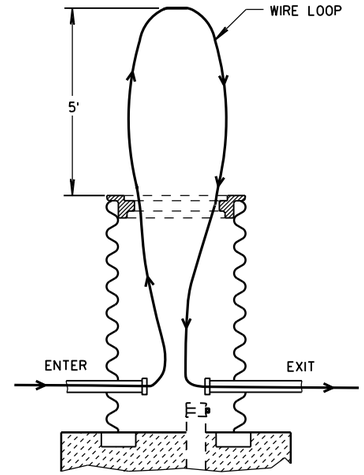
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

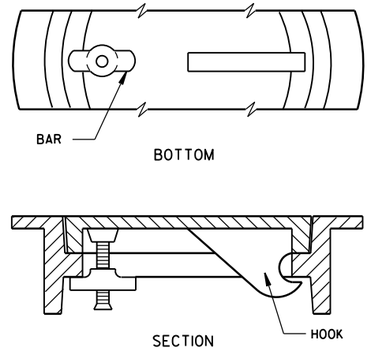
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

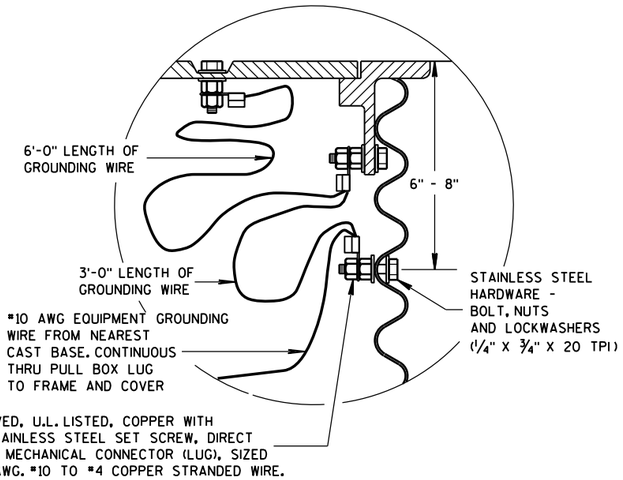


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

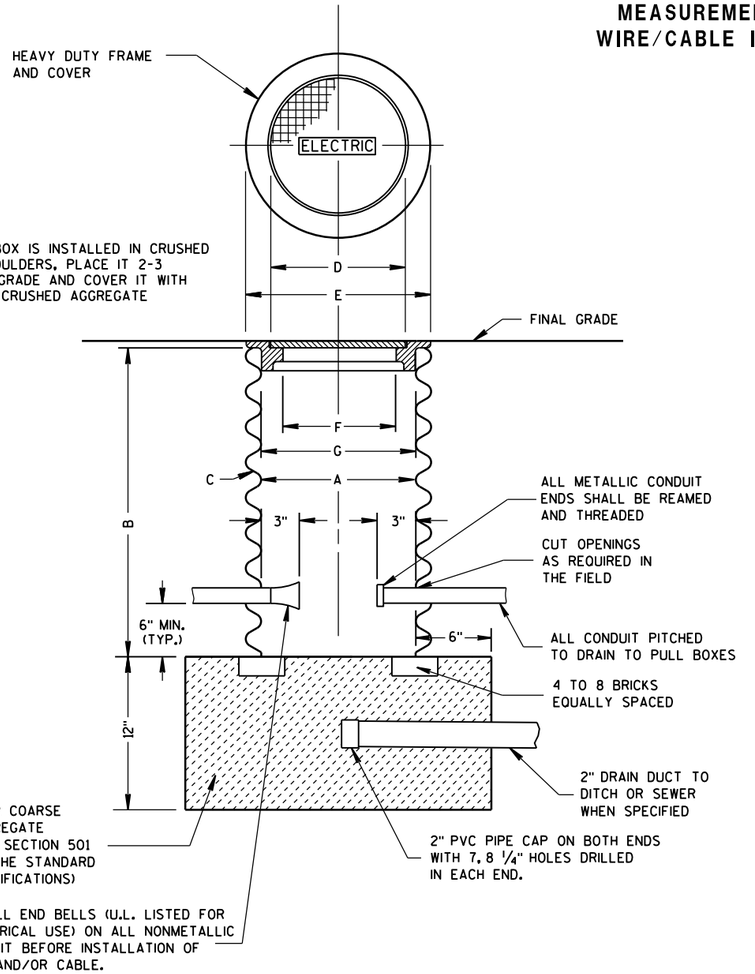


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

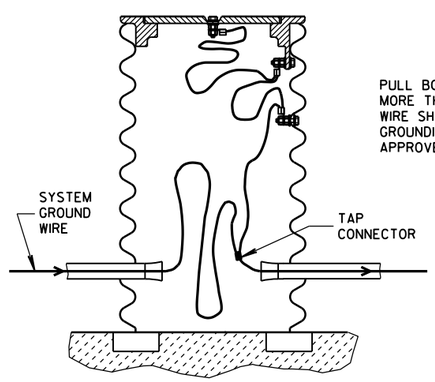
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

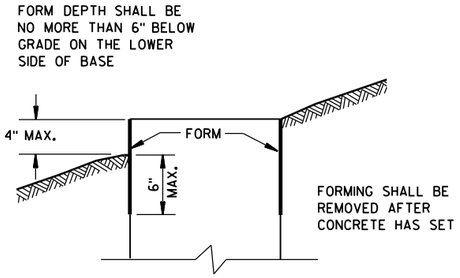
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 4-11



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

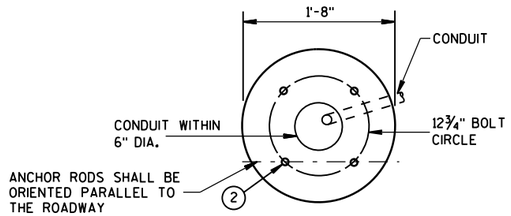
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

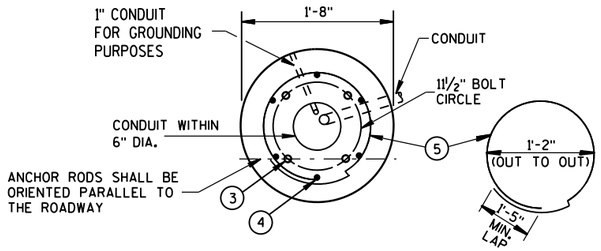
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

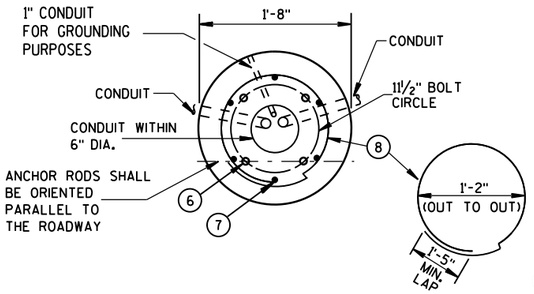
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

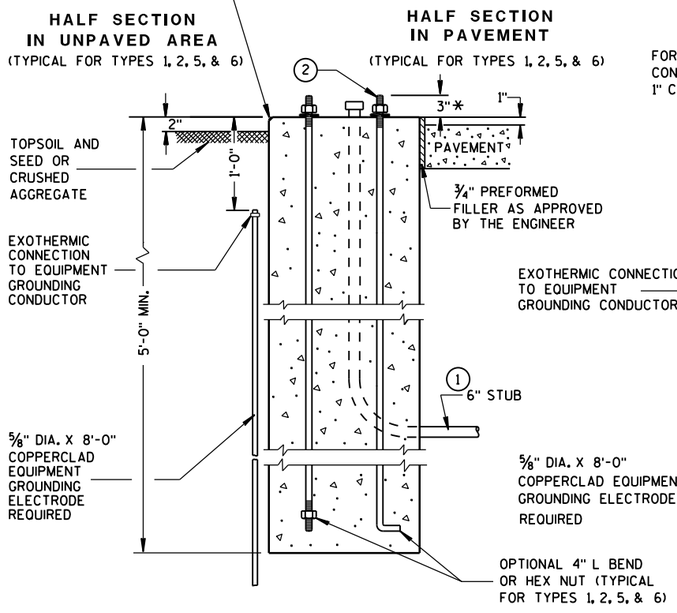


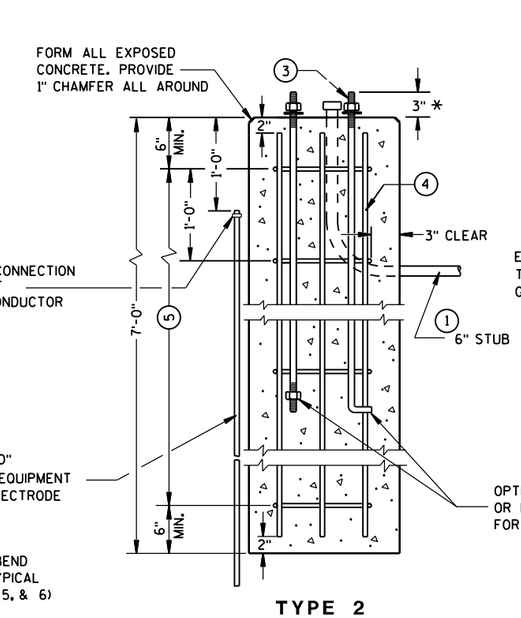




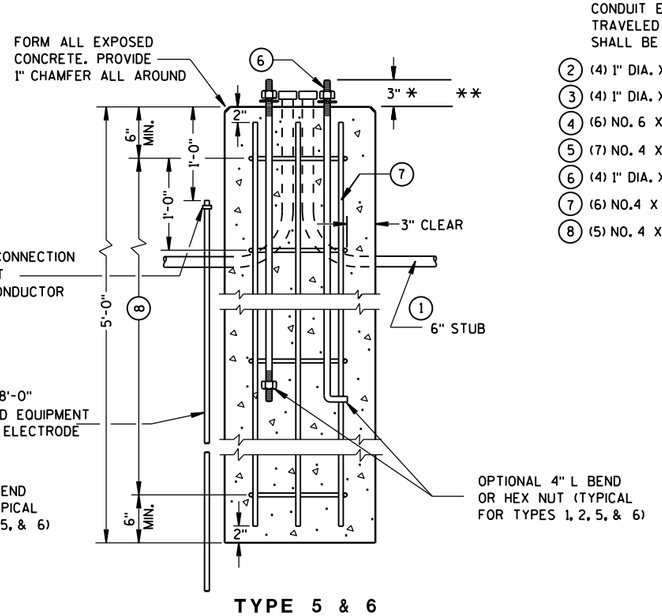
HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)





TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 2-7

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

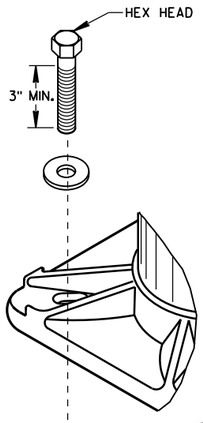
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

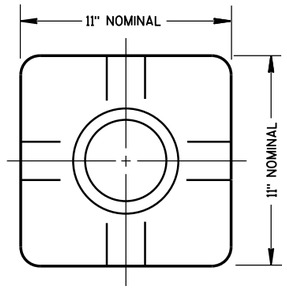
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

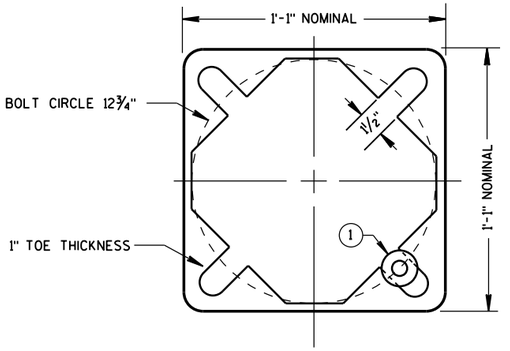
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

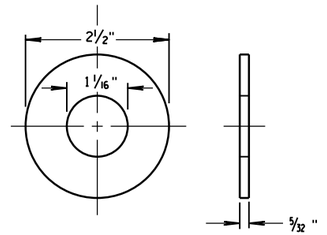




TOP VIEW
(PEDESTAL BASE)

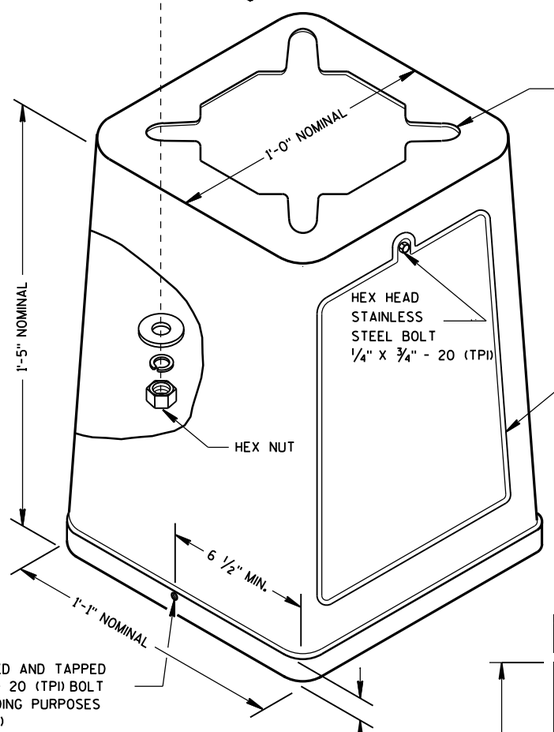


BOTTOM VIEW
(PEDESTAL BASE)

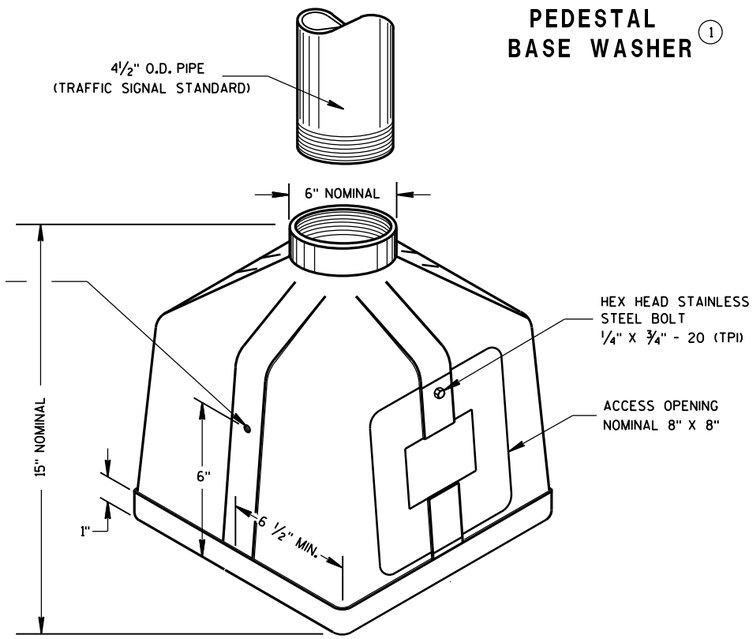


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

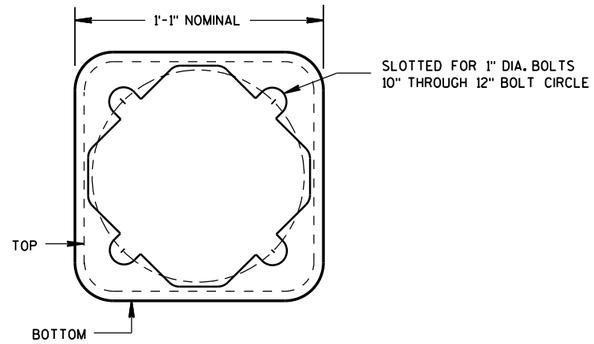


ISOMETRIC VIEW

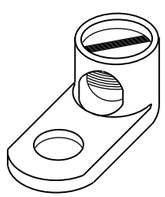


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

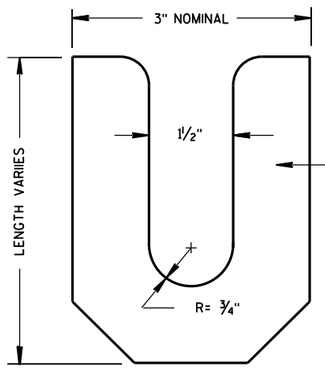


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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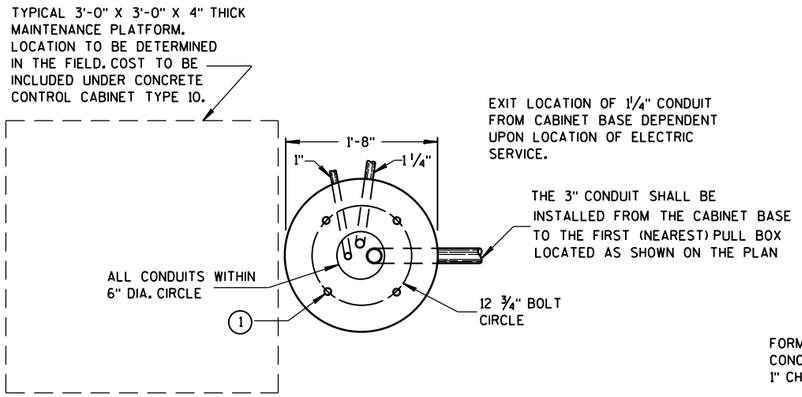
S.D.D. 9 C 3-4

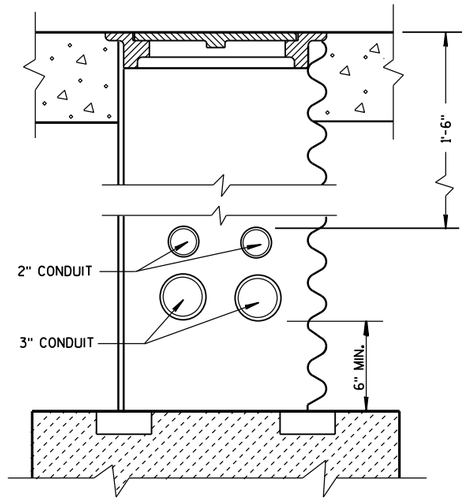
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S.D.D. 9 C 3-4

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65 *

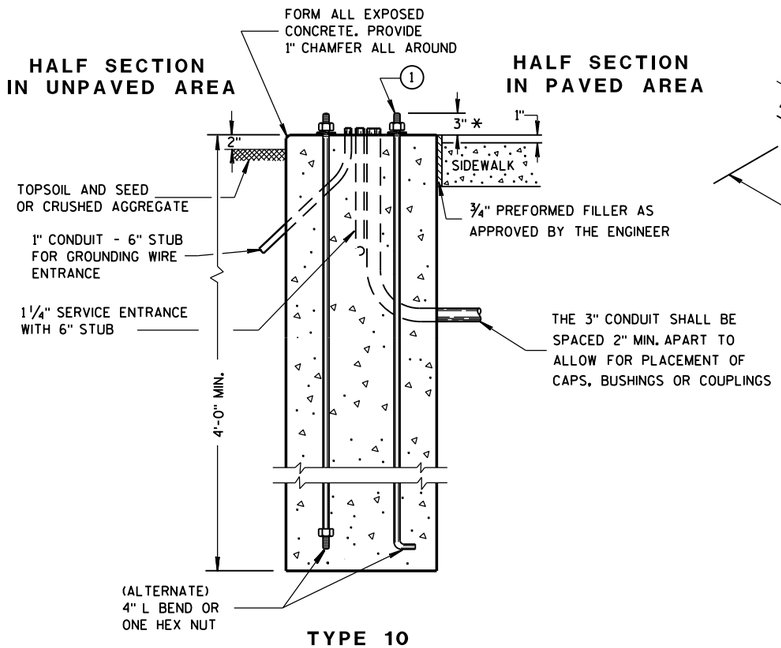
* INCLUDES MAINTENANCE PLATFORM.



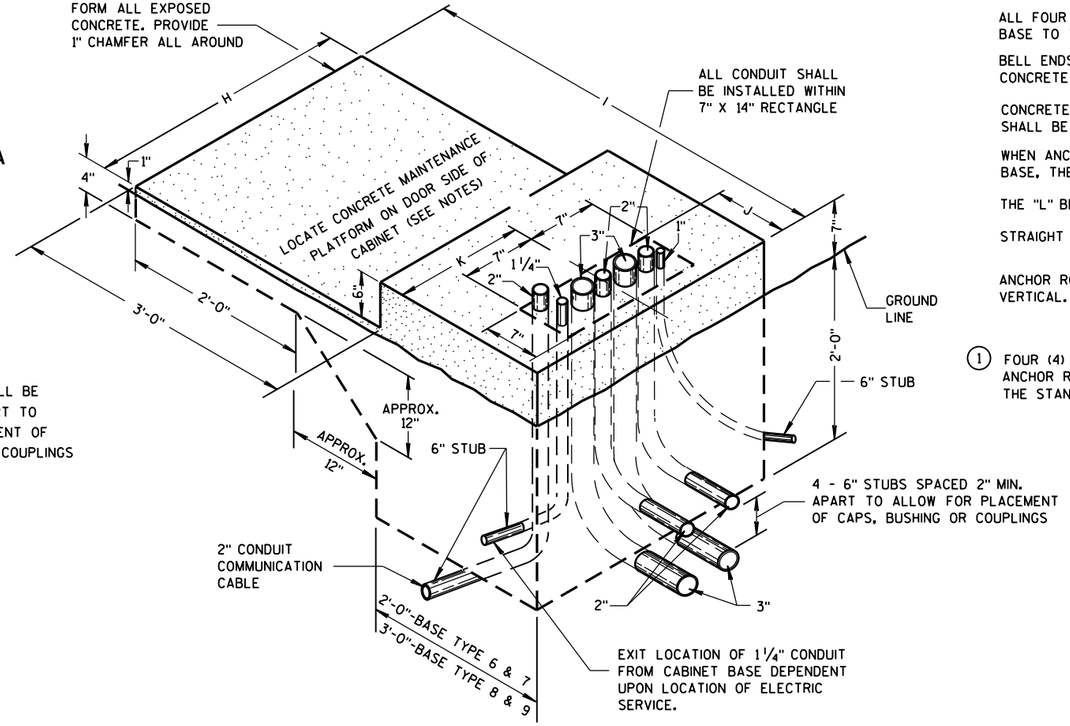


CONDUIT LOCATIONS IN 24" X 36" PULL BOX

(LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



TYPE 10



TYPE 6,7,8 AND 9
(ISOMETRIC VIEW)

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST PULL BOX LOCATED AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

(1) FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6".
ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

CONCRETE CONTROL CABINET BASES

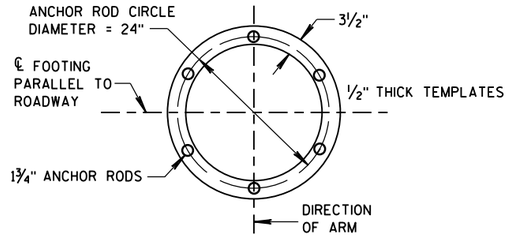
CONCRETE CONTROL CABINET BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

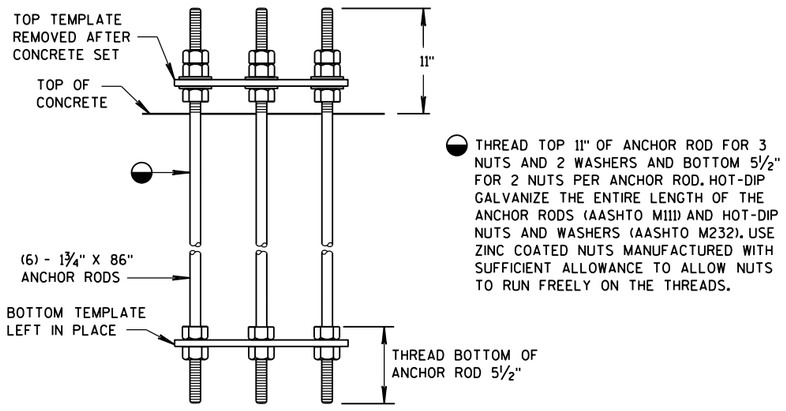
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 C 5-9

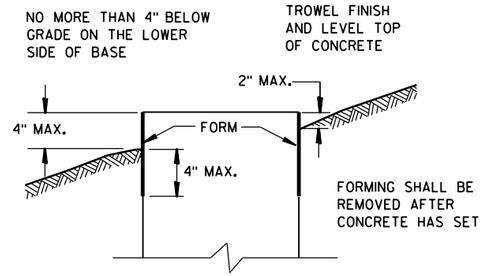


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

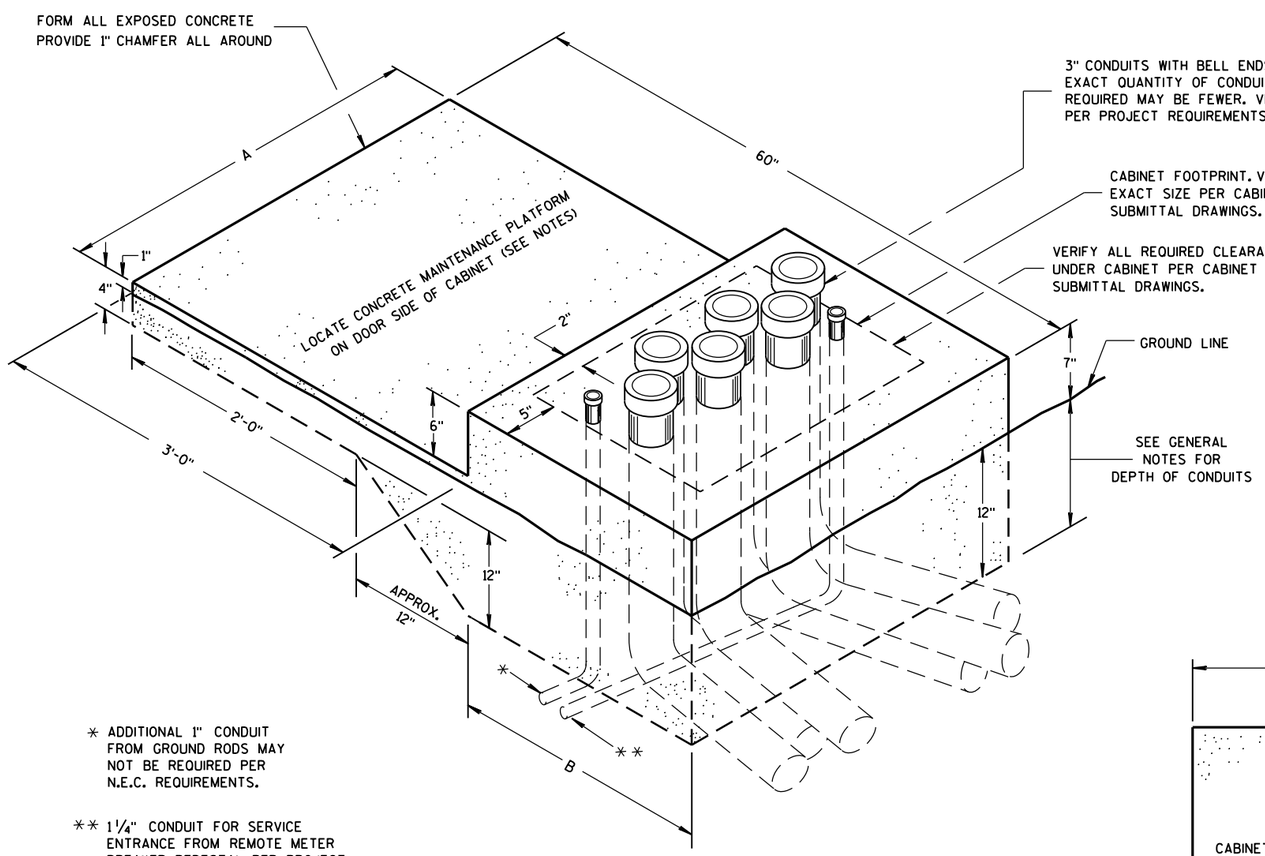
CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Feb. 2015 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

6

S.D.D. 9 C 12-6b

6

S.D.D. 9 C 12-6b



* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

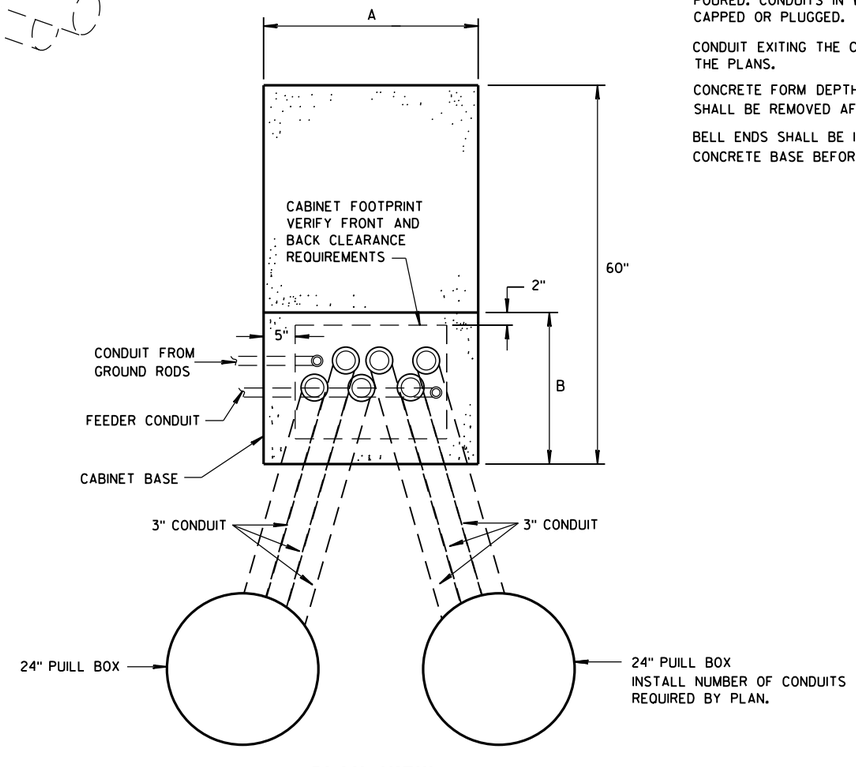
** 1¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

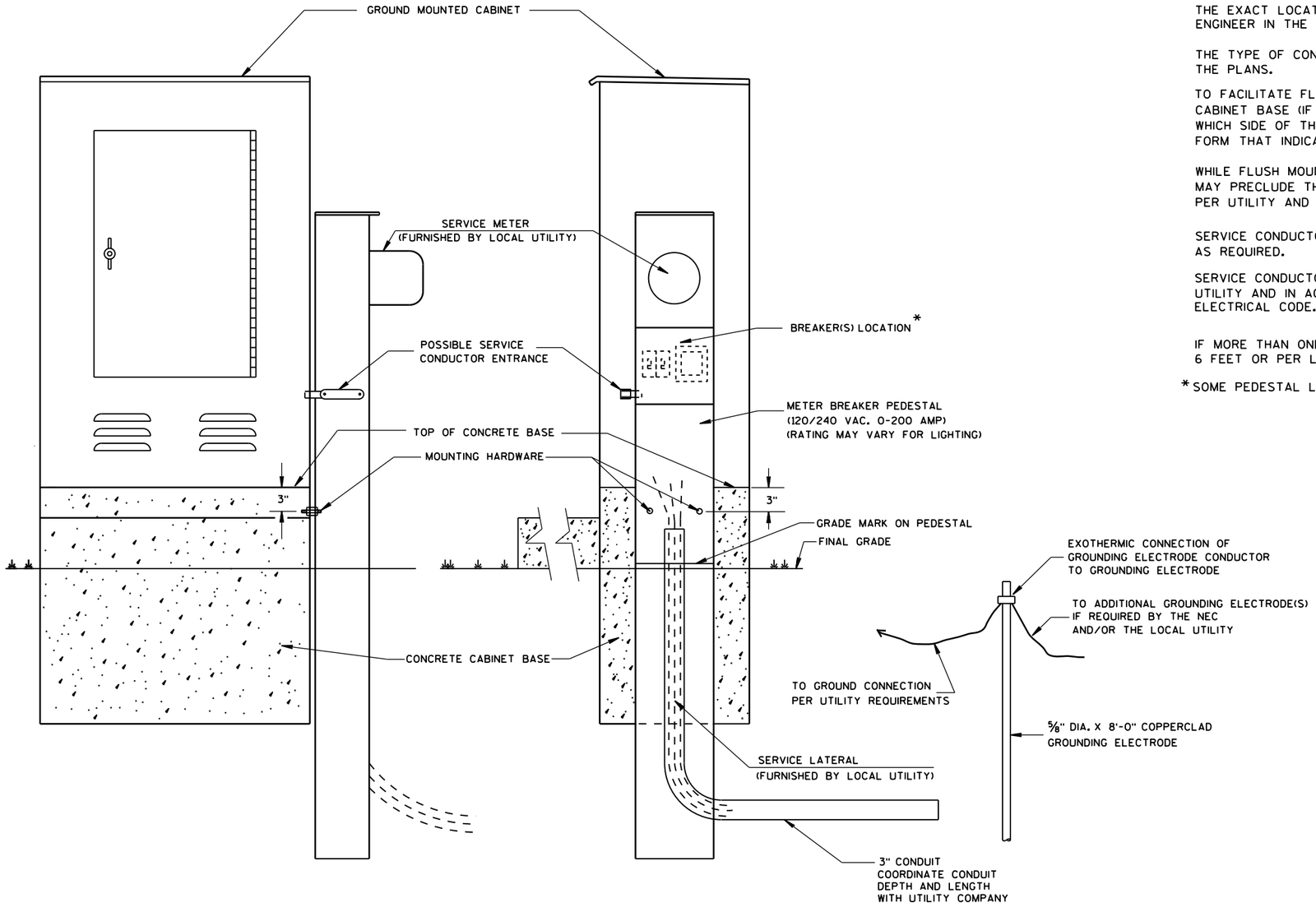
BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Thomas Gonring — STATE LIGHTING ENGINE
FHWA

6
S.D.D. 9 C 14-2



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

*SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

6

S.D.D. 9 D 1-5

6

S.D.D. 9 D 1-5

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

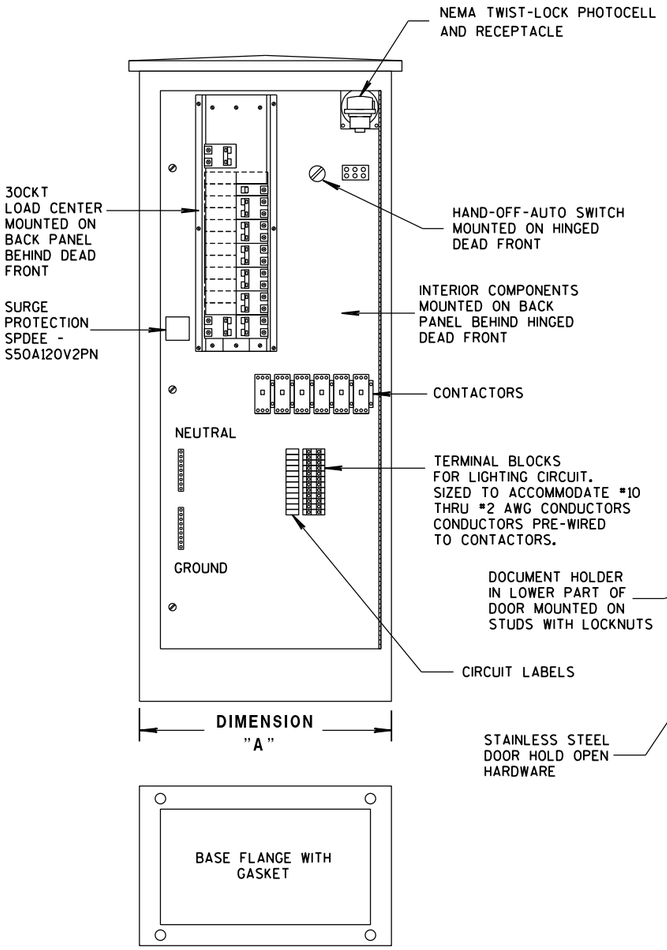
ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

FRONT INTERIOR ELEVATION



SIDE VIEW

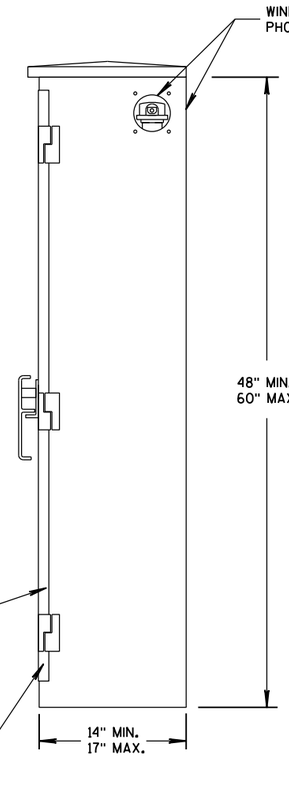
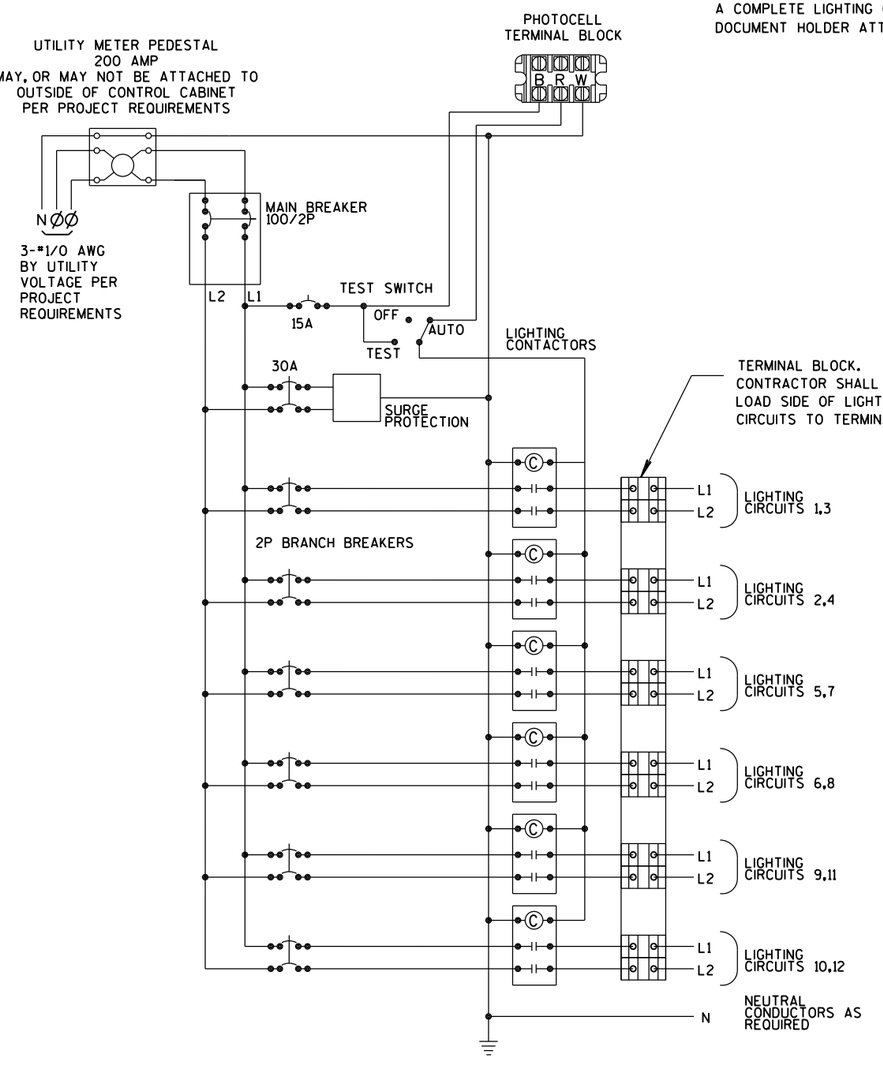


TABLE OF DIMENSIONS (INCHES)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"



CONTROL CABINET SCHEMATIC

LIGHTING CONTROL CABINET

LIGHTING CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

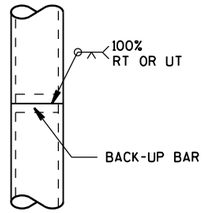
APPROVED
June 2014 — DATE
/S/ Thomas Gonring — STATE LIGHTING ENGINEER
WYS.
FHWA

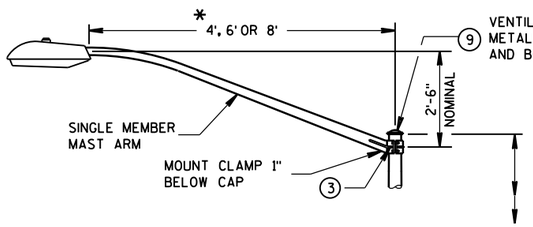
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S.D.D. 9 D 4-1

FOR MANUFACTURERS USE ONLY

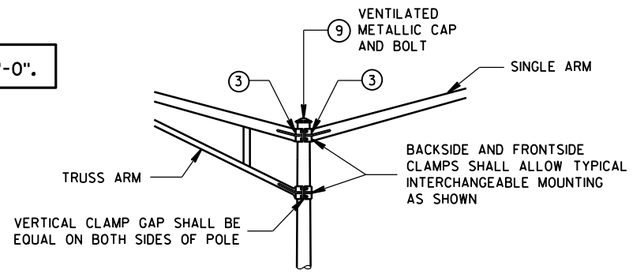
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.

*RISE FOR 4' ARM SHALL BE 2'-0".





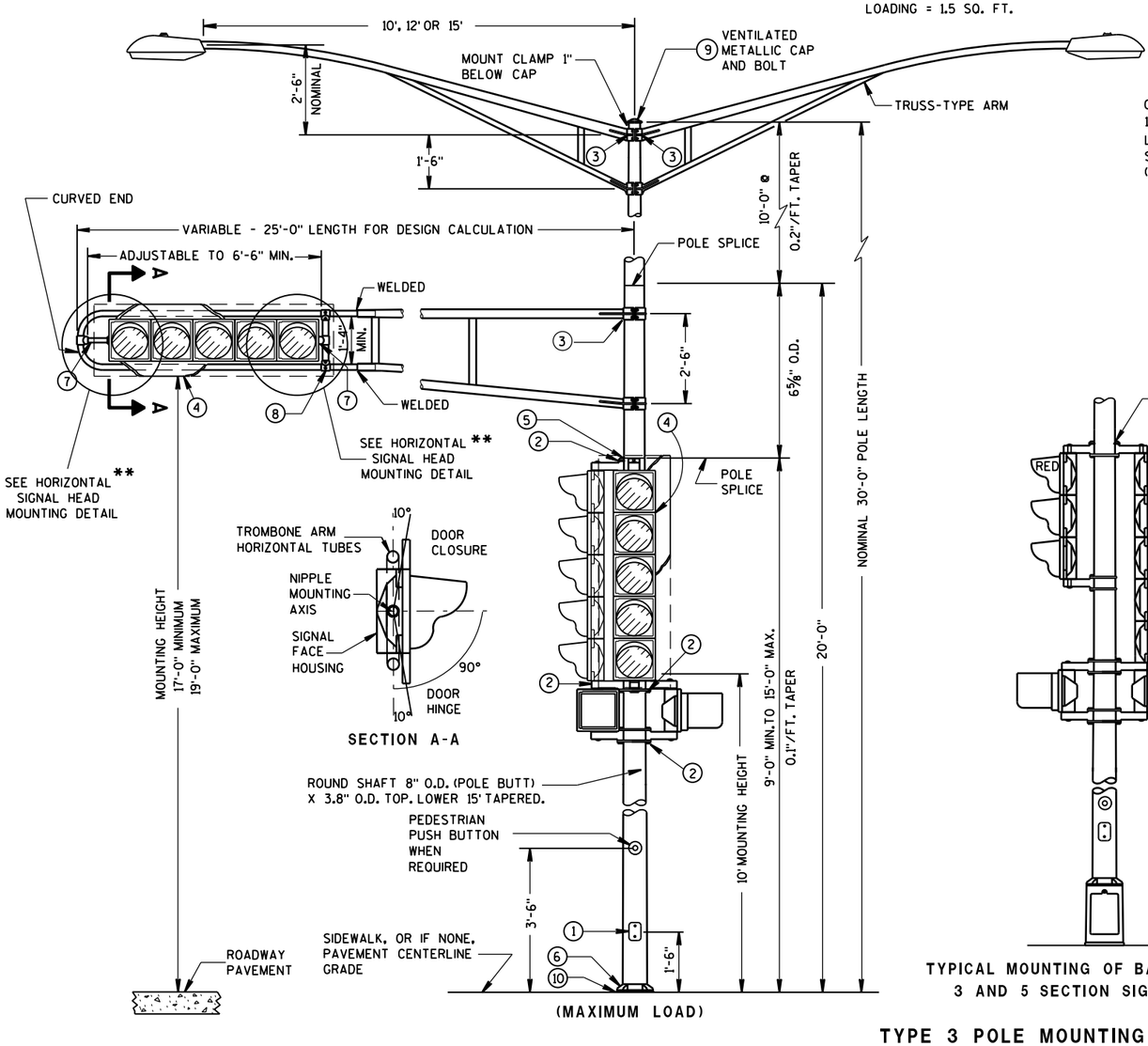
POLE SPLICE DETAIL

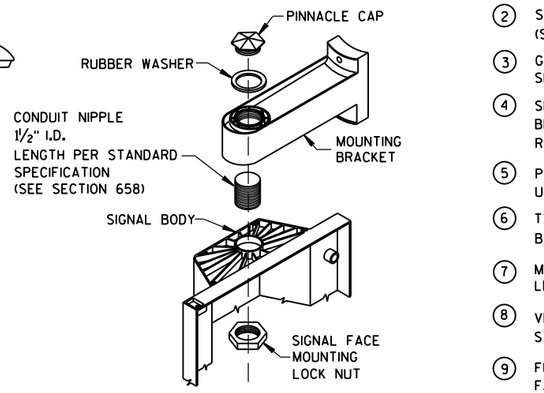


INTERCHANGEABLE MOUNTING DETAIL

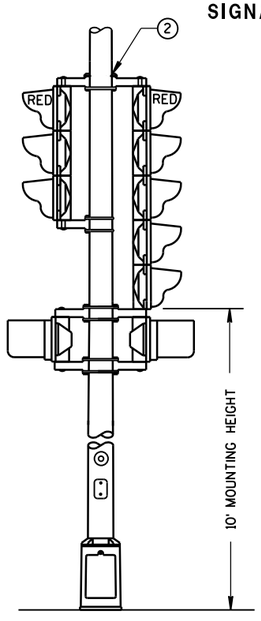
LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

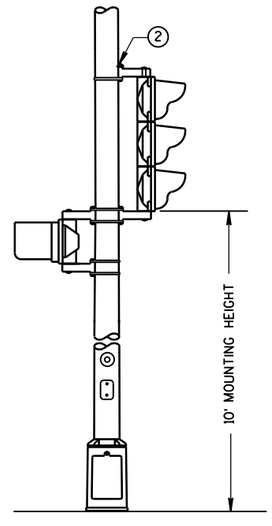




SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK
3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652, SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) TYPE 3 POLE CONFIGURATIONS SHALL BE MOUNTED DIRECTLY TO THEIR CONCRETE BASES.

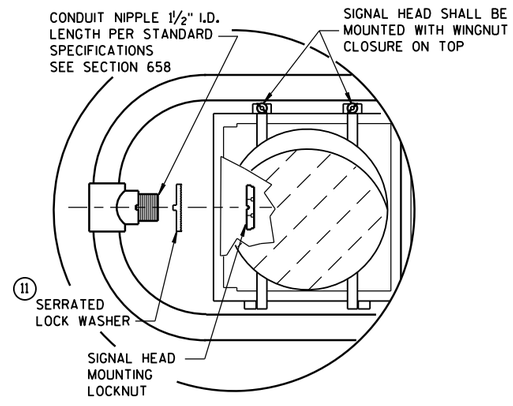
(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658)

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4 " X ¾" -20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

** SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR

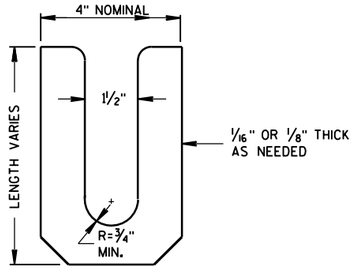
TYPE 3 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)

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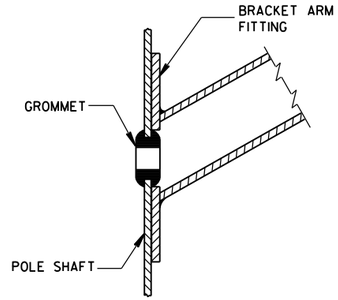
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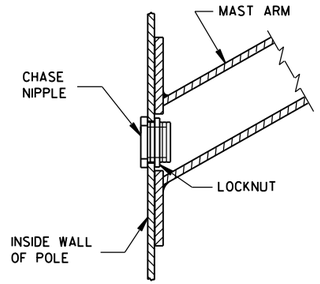


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

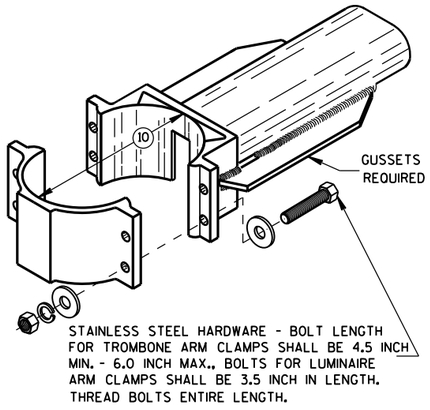
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

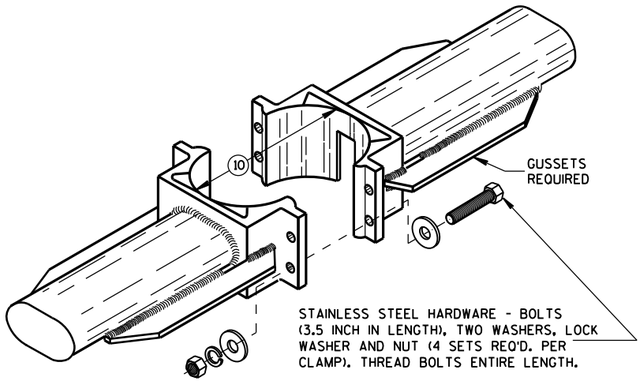
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

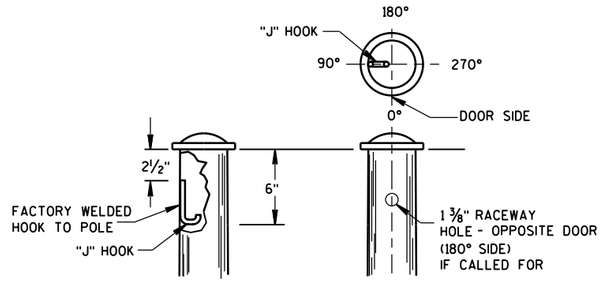
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



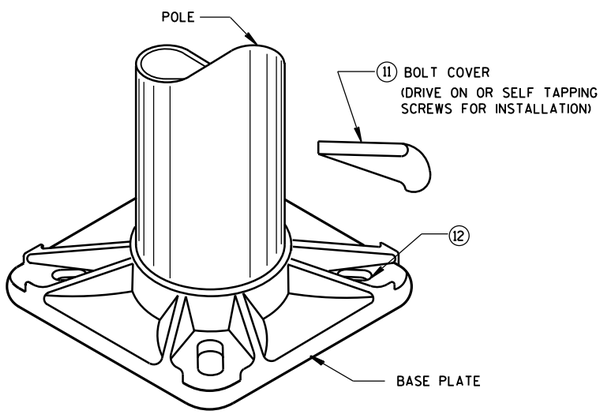
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



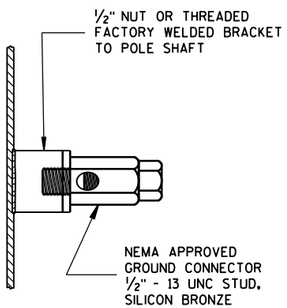
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

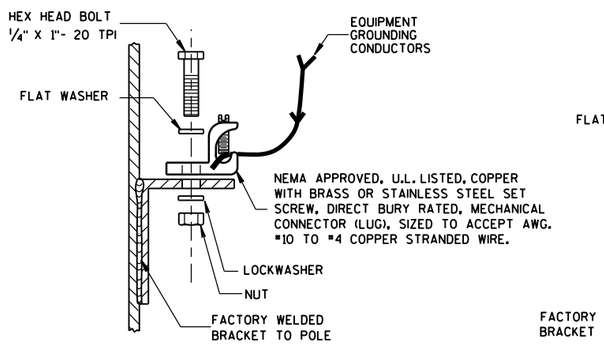


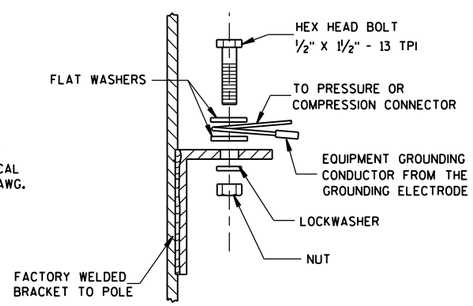
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

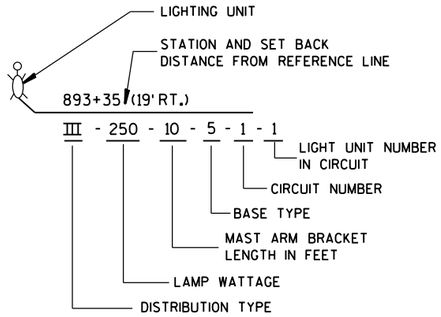
HARDWARE DETAILS FOR POLE MOUNTINGS

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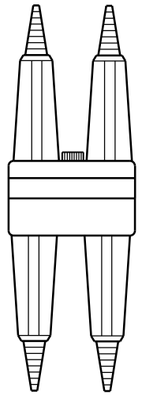
APPROVED
Feb. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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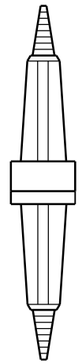
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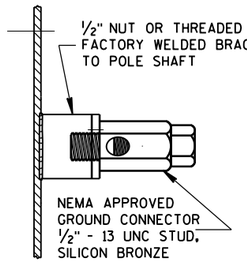
LIGHTING UNIT CODE
(TYPICAL)

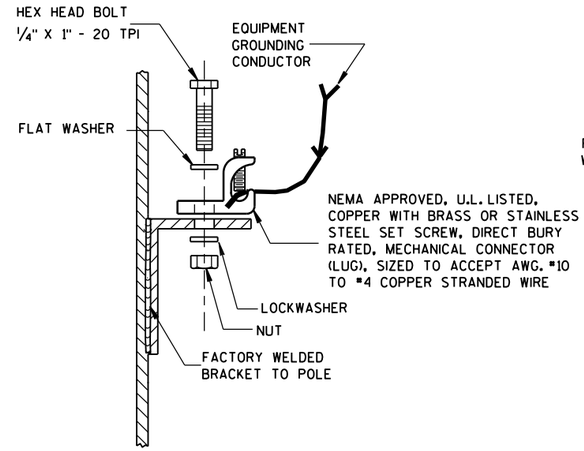


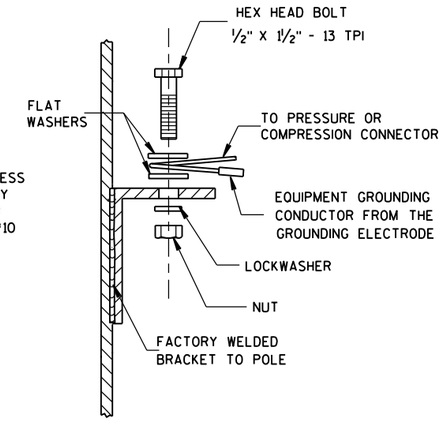
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



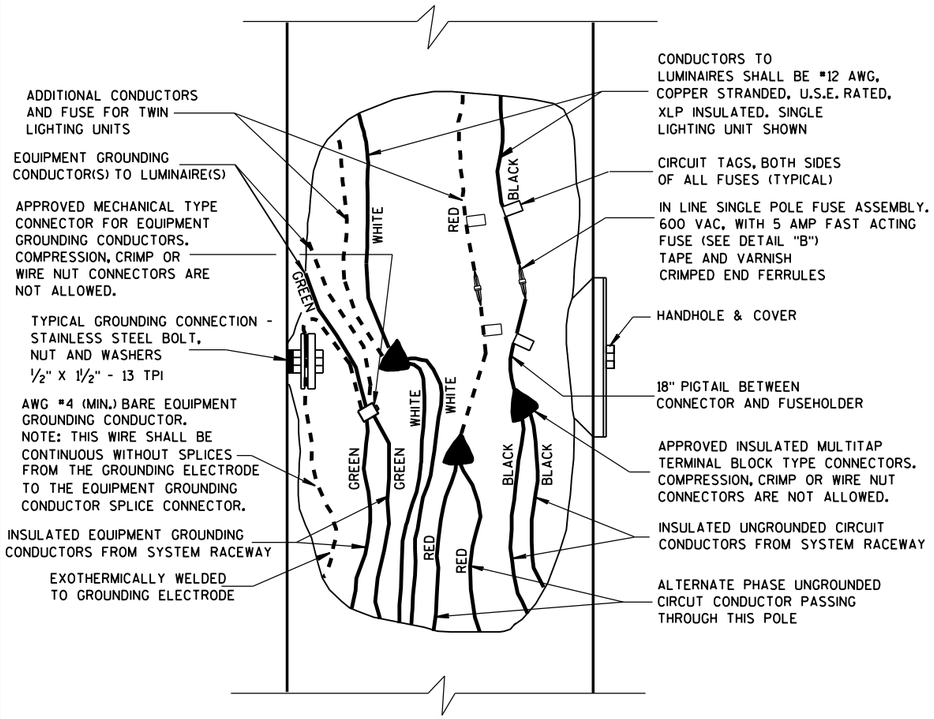
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



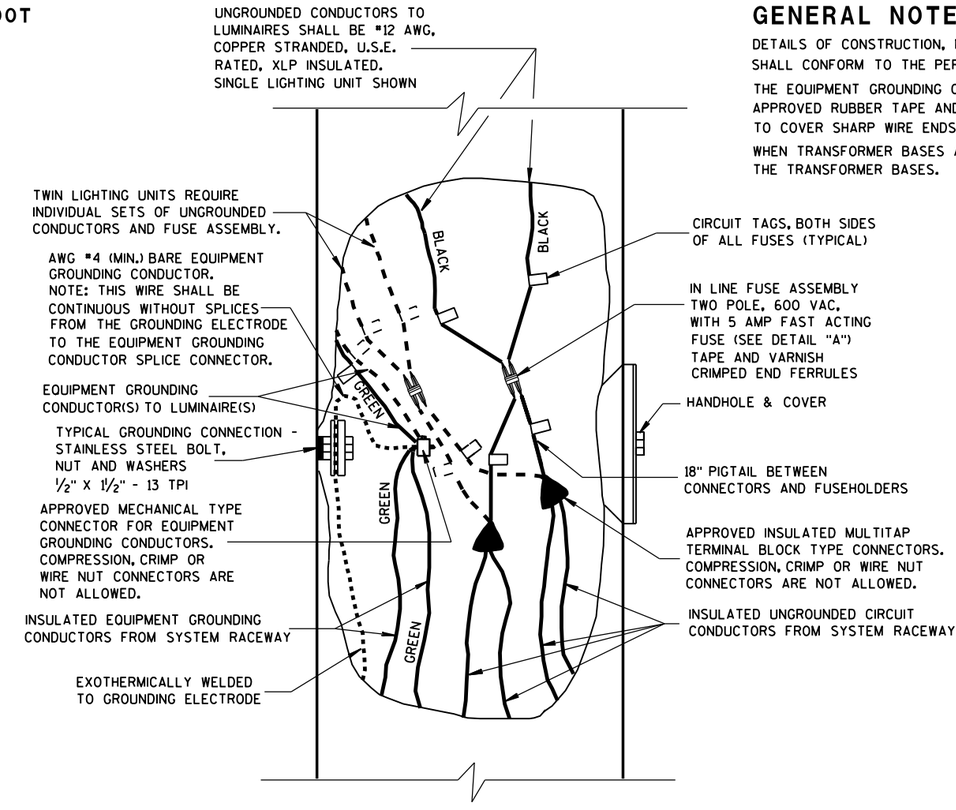




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

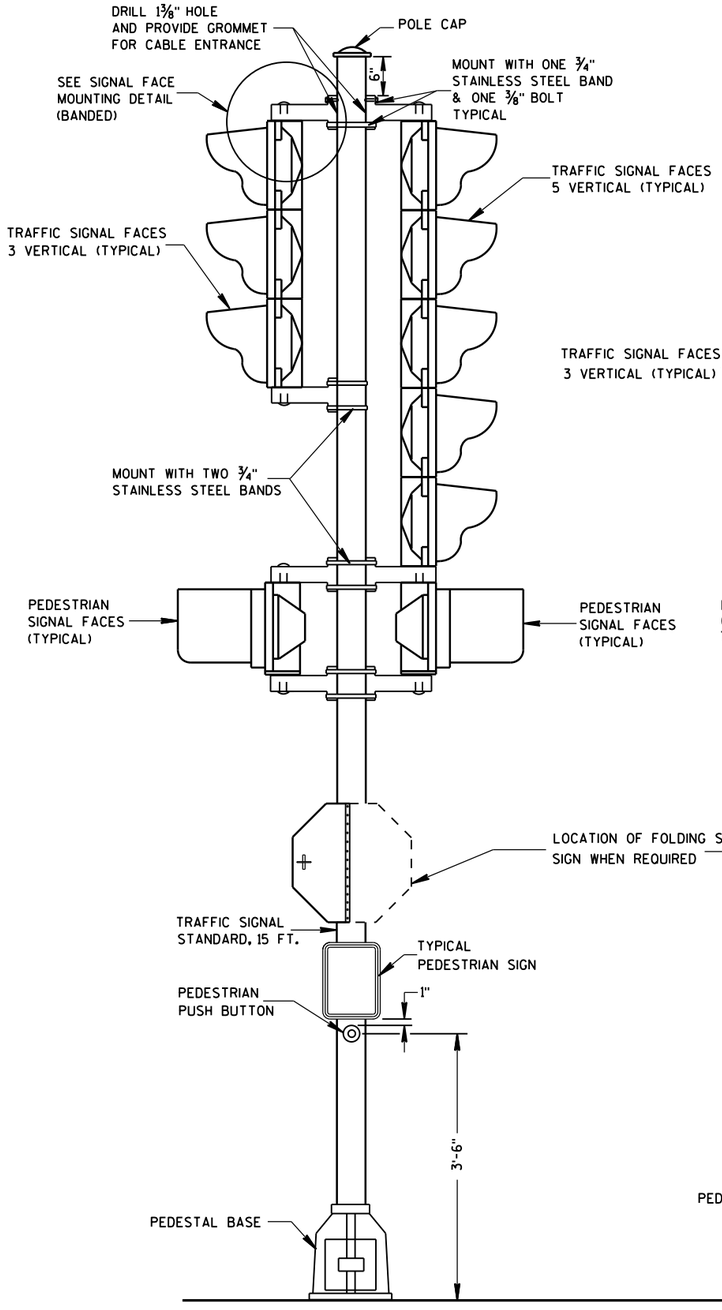
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

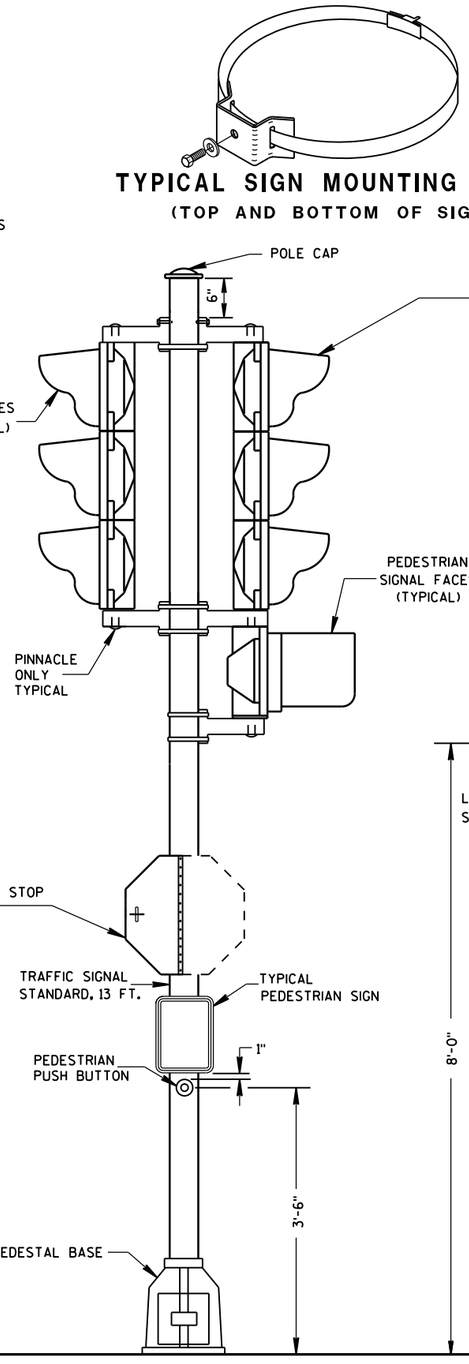
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Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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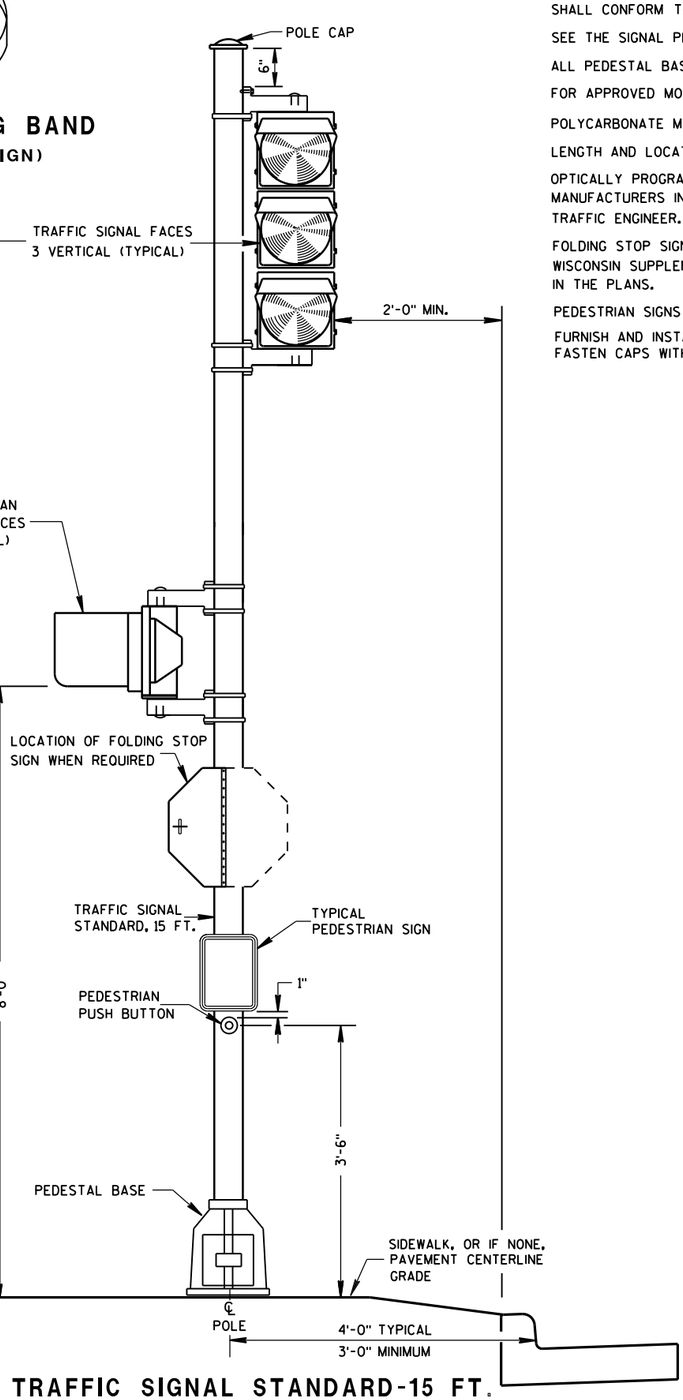


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

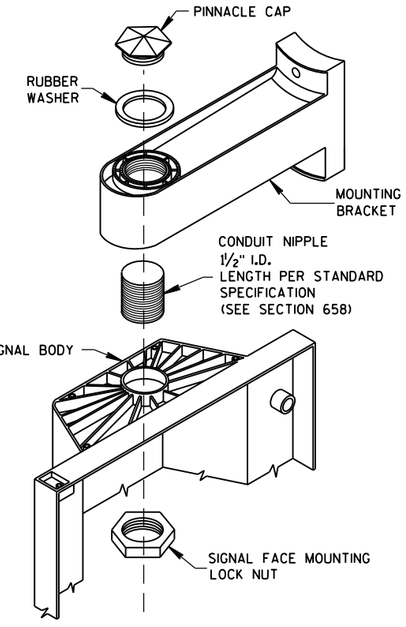
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

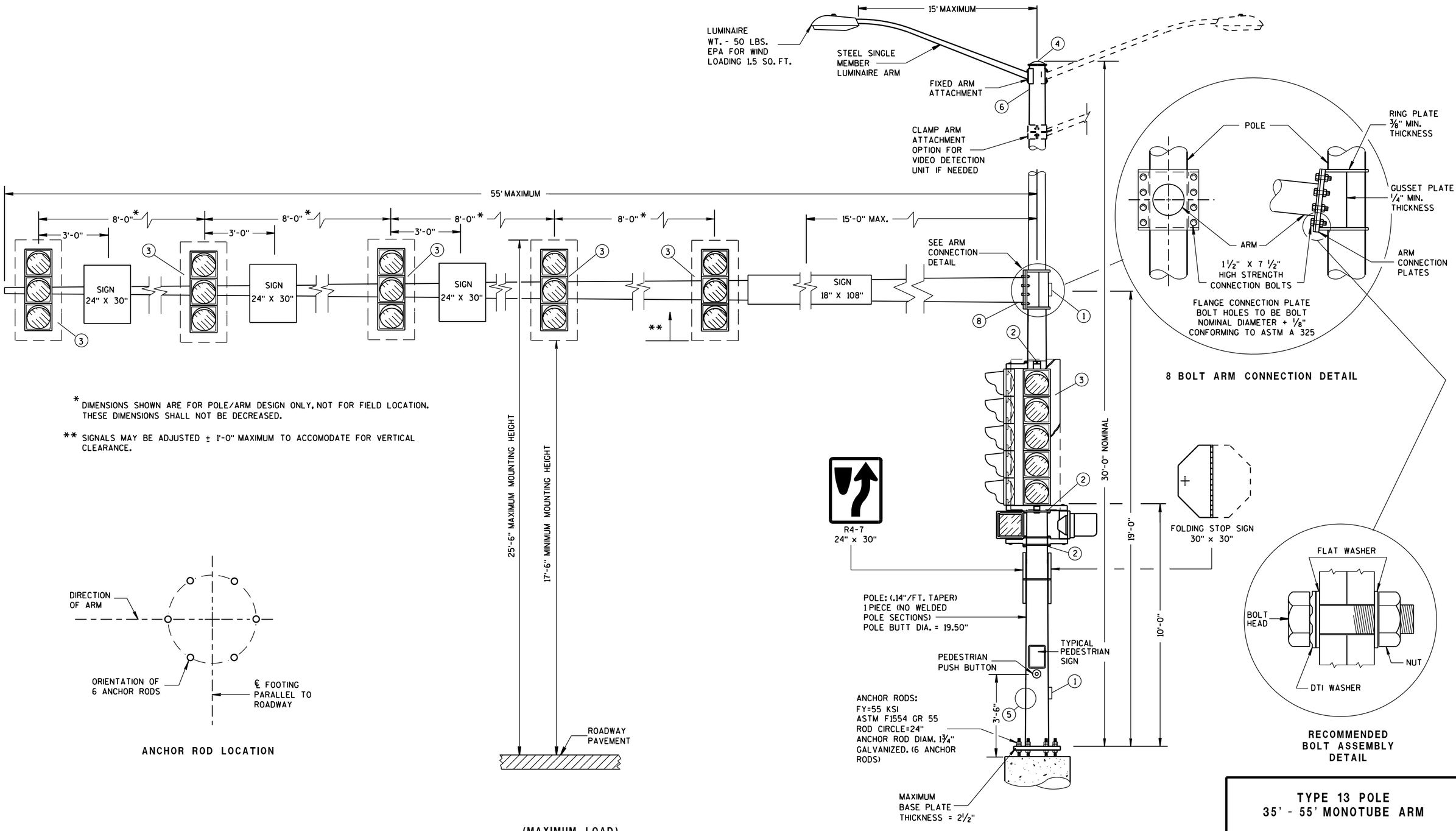
TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
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8 BOLT ARM CONNECTION DETAIL

RECOMMENDED
BOLT ASSEMBLY
DETAIL

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE 35' - 55' MONOTUBE ARM
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED June. 2015 — DATE /S/ Ahmet Demirbilek — STATE ELECTRICAL FHWA

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

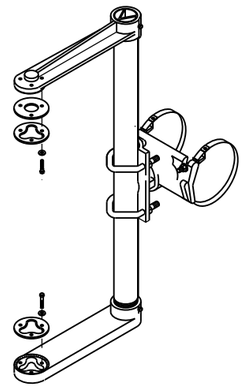
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

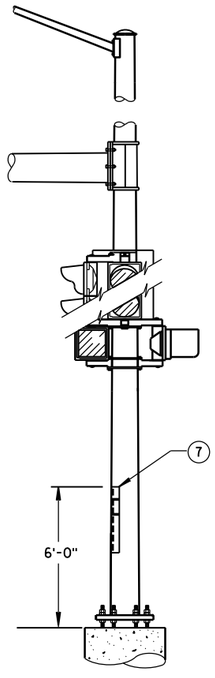
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

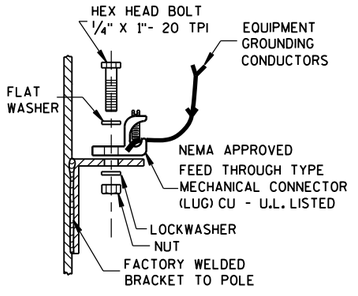


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

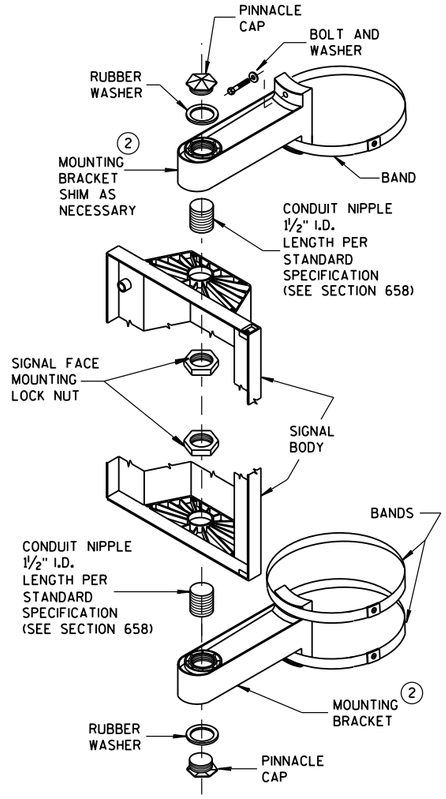


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT

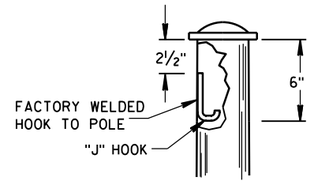


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

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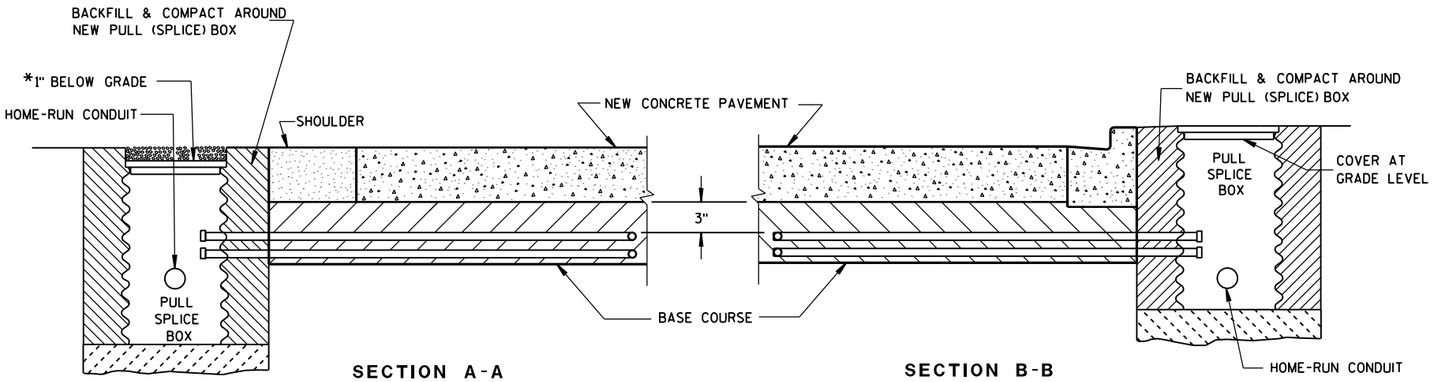
June, 2015 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

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SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

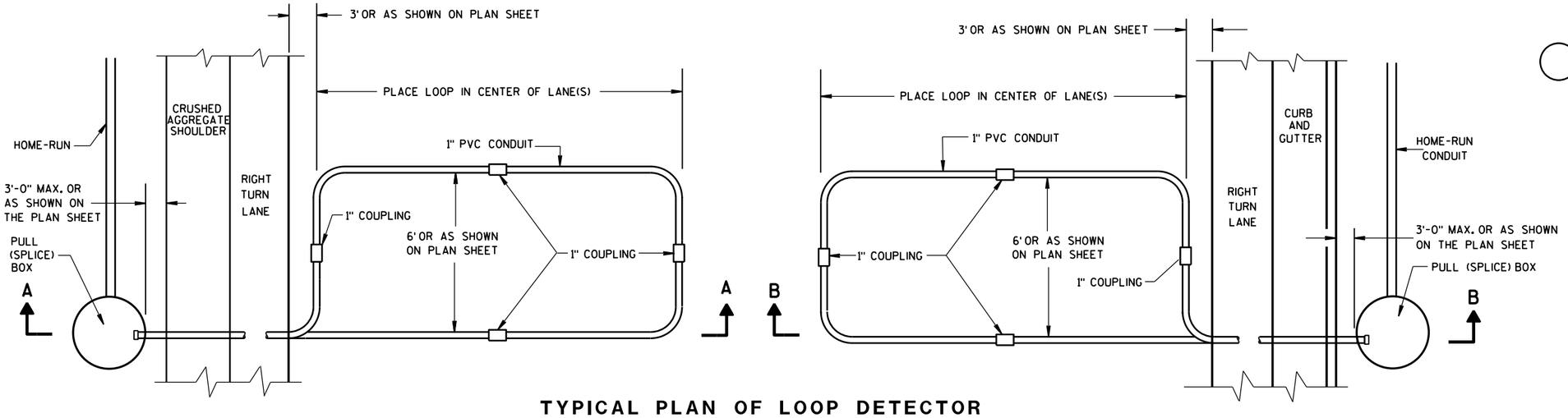
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

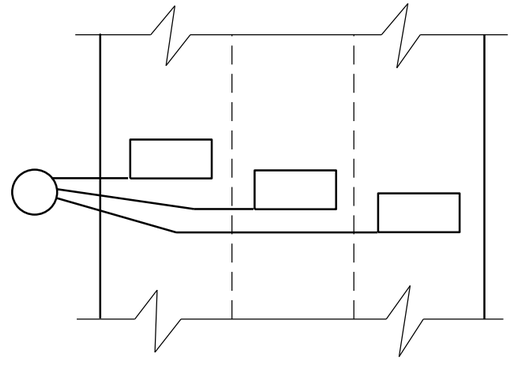
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.

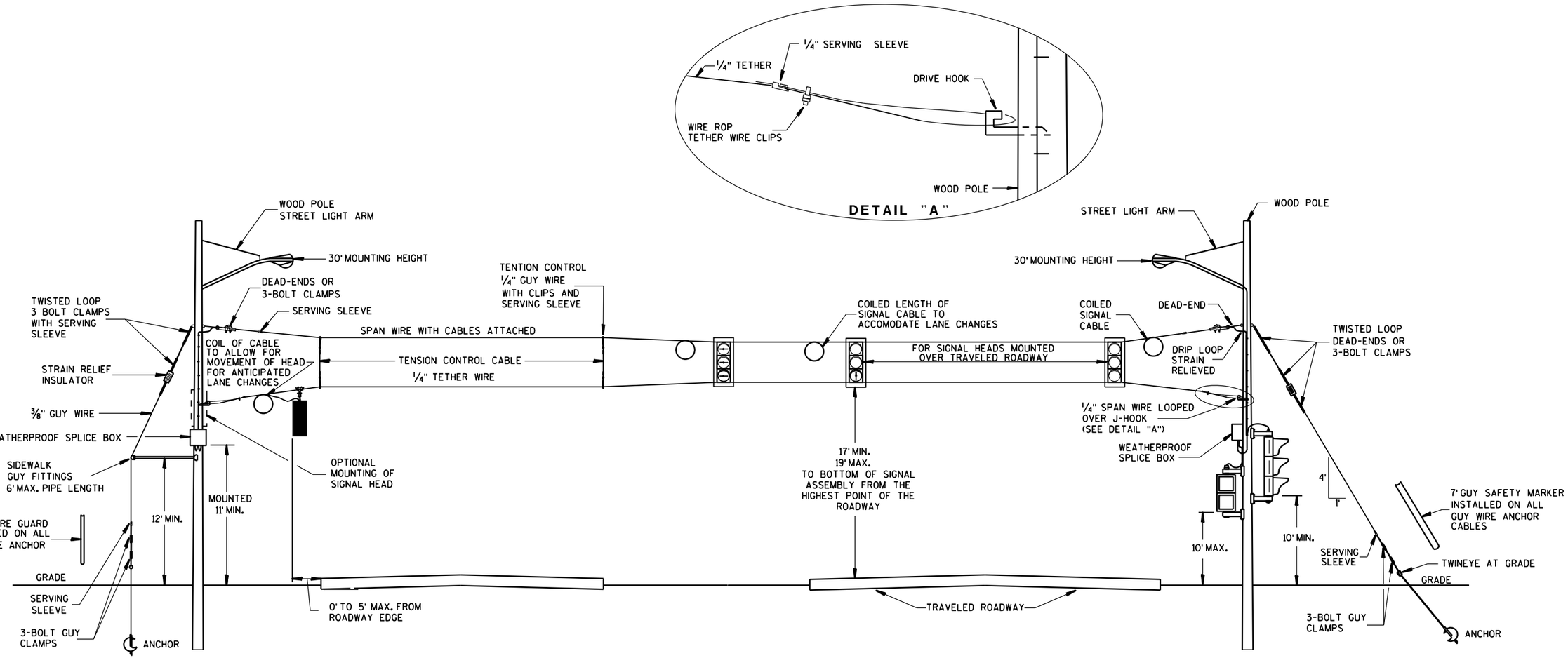


TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED Sept. 2014 DATE — /S/ Ahmet Demirbilek STATE ELECTRICAL FHWA



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

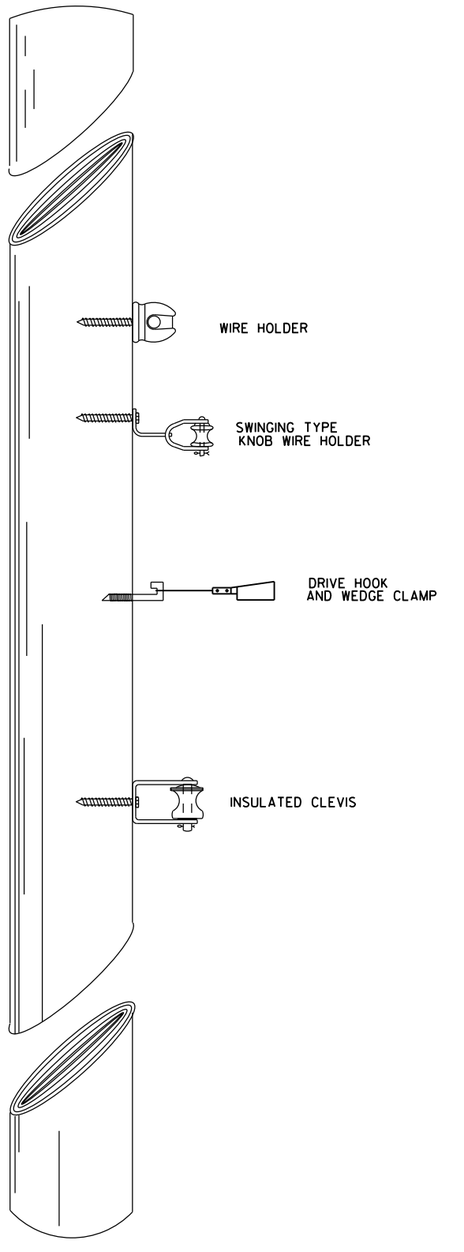
SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

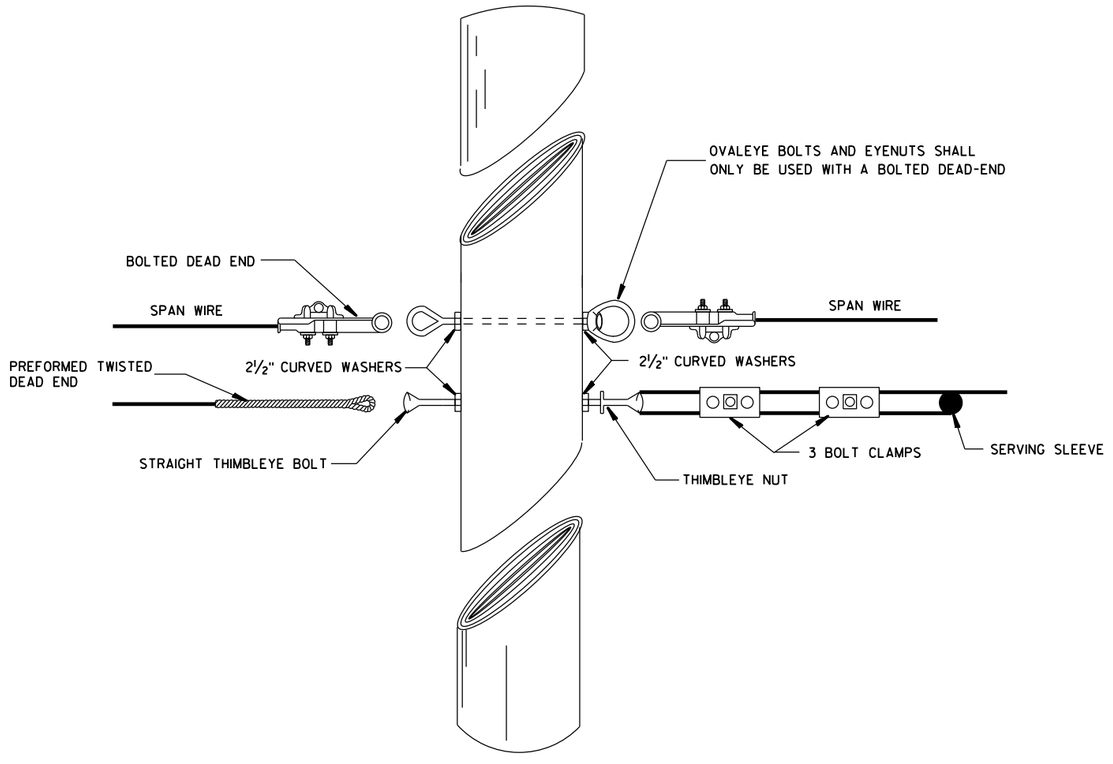
APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 G 1-4b



TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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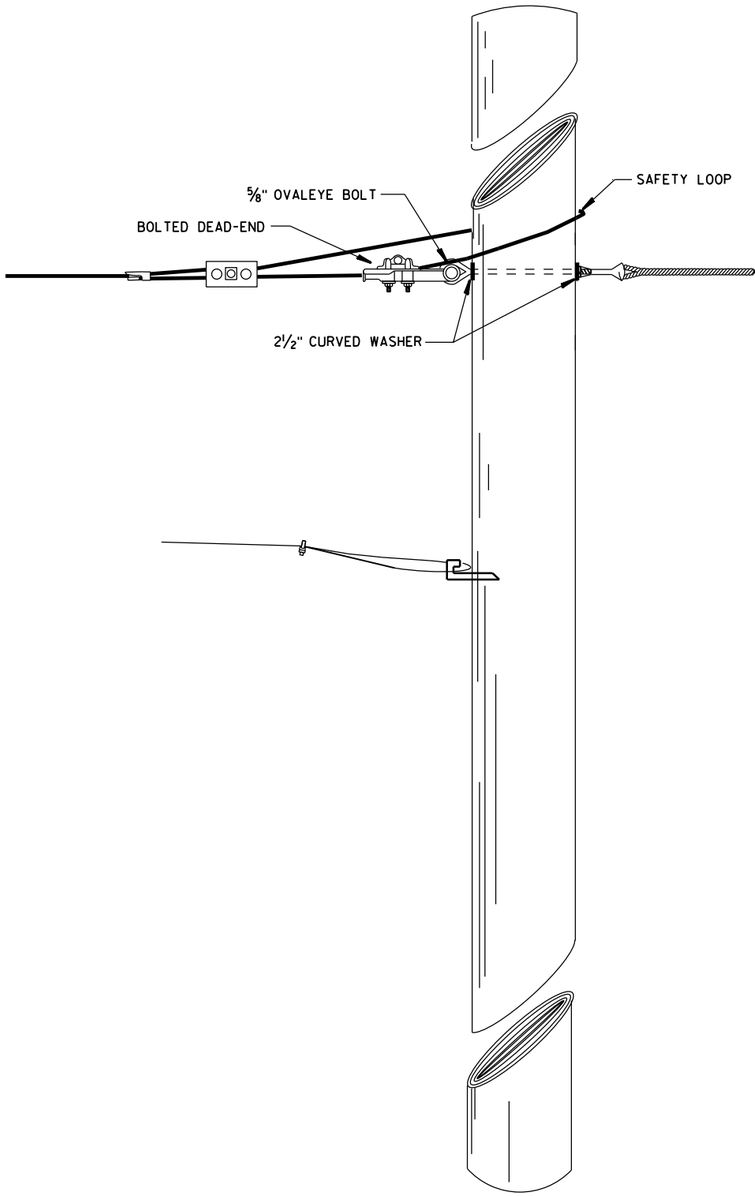
S.D.D. 9 G 1-4d

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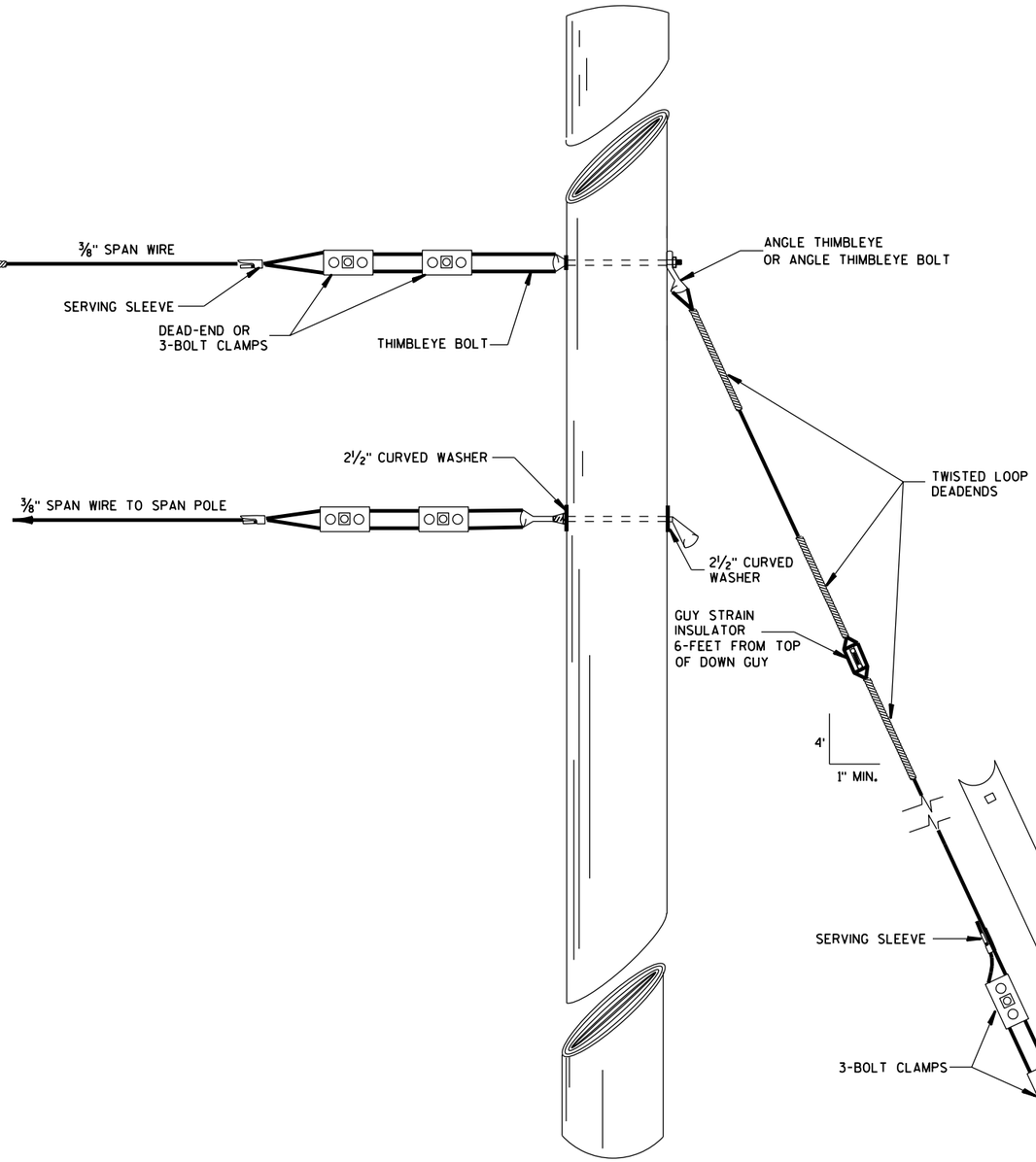
S.D.D. 9 G 1-4d

GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

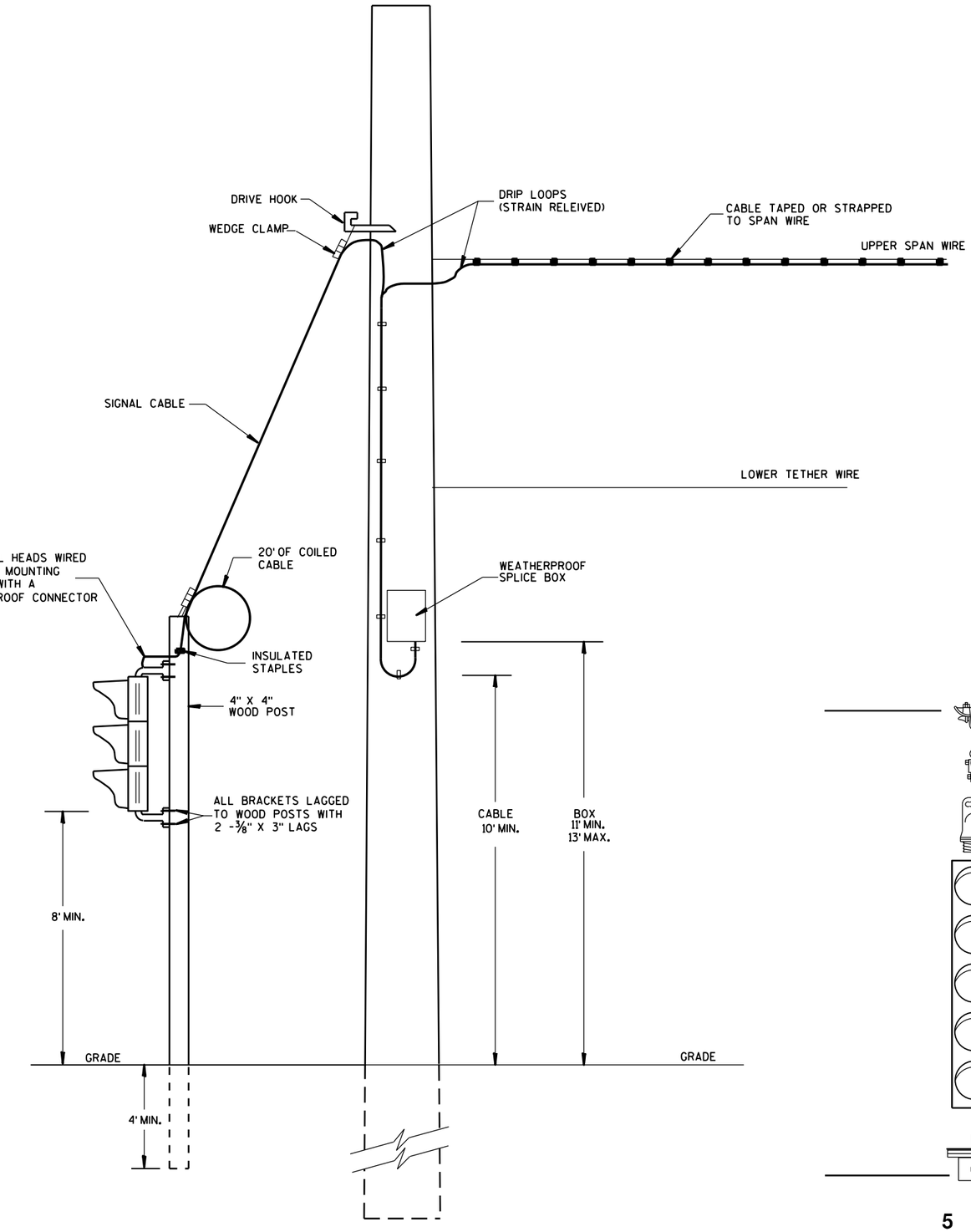
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

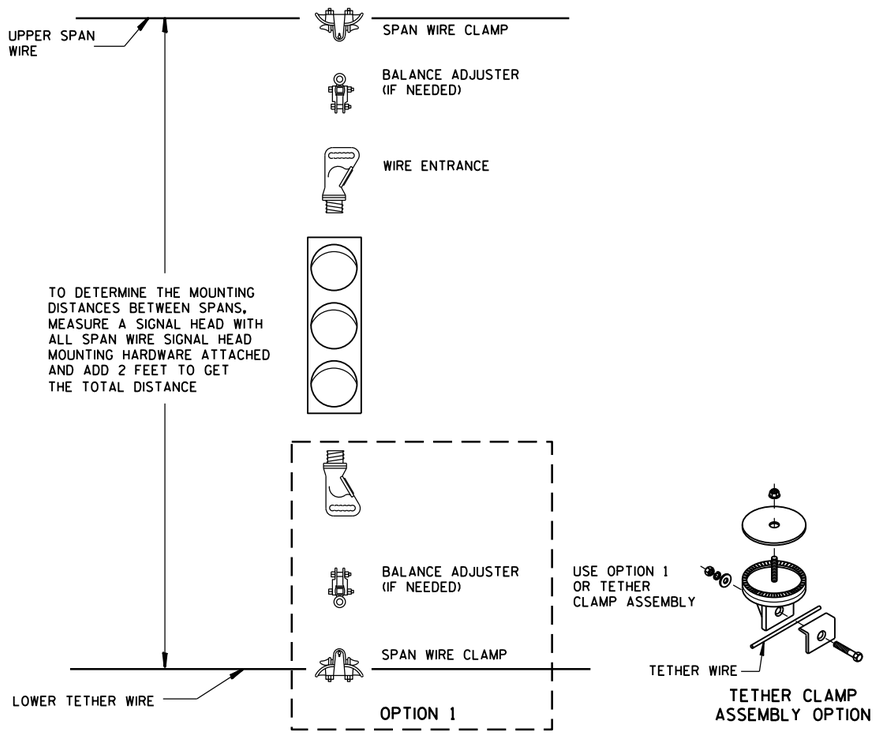
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S.D.D. 9 G 1-4e

S.D.D. 9 G 1-4e

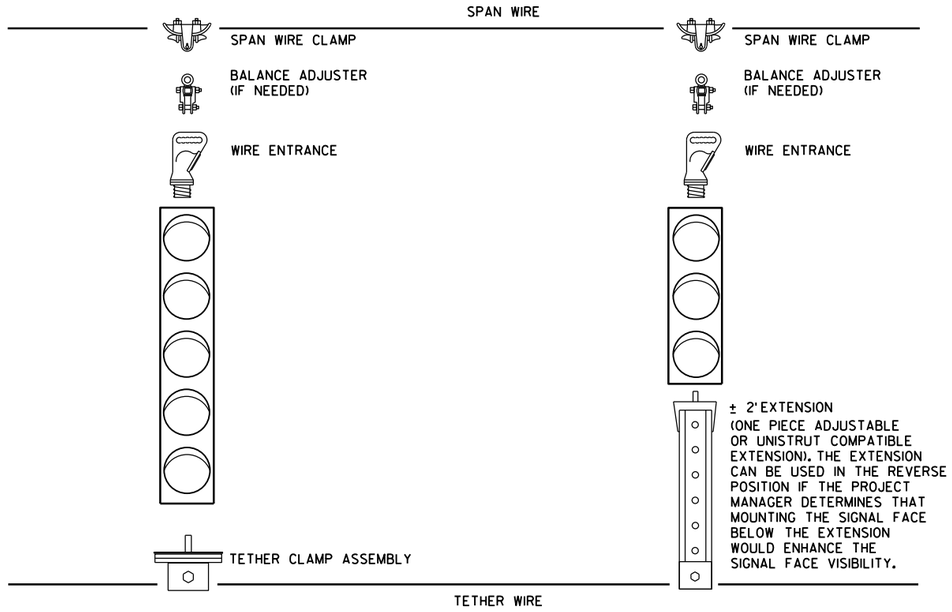


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June. 2015 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

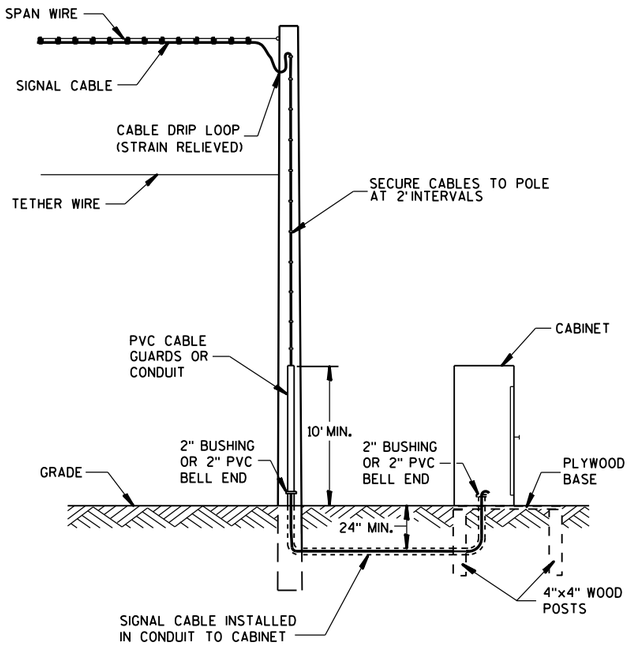
FHWA

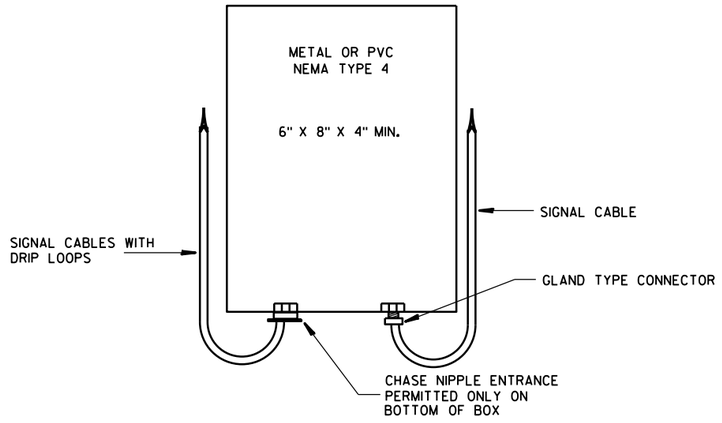
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S.D.D. 9 G 1-4f

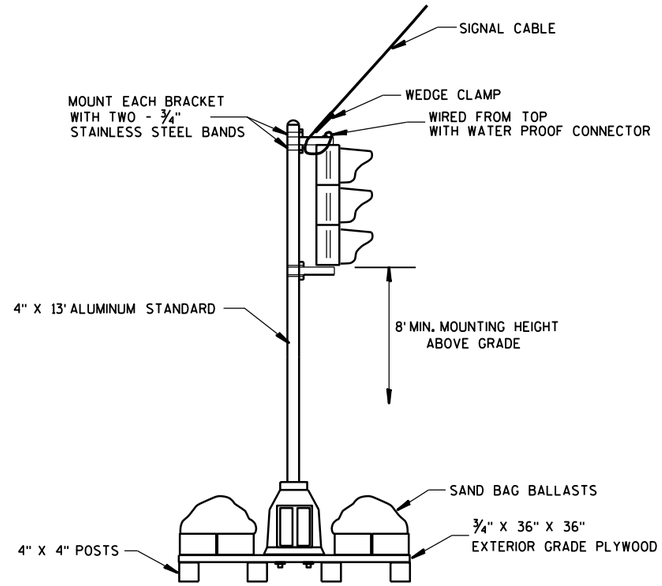
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S.D.D. 9 G 1-4f

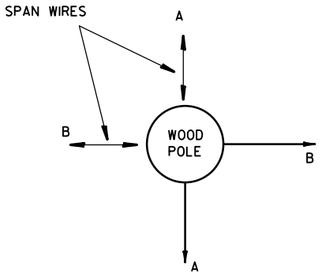




SPLICE BOX

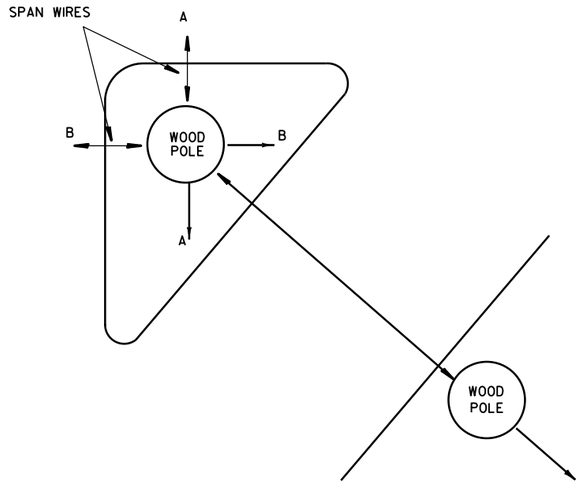


TYPICAL SKID TYPE TEMPORARY

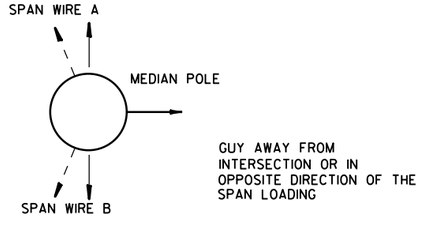


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF THE
SPAN LOADING

MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

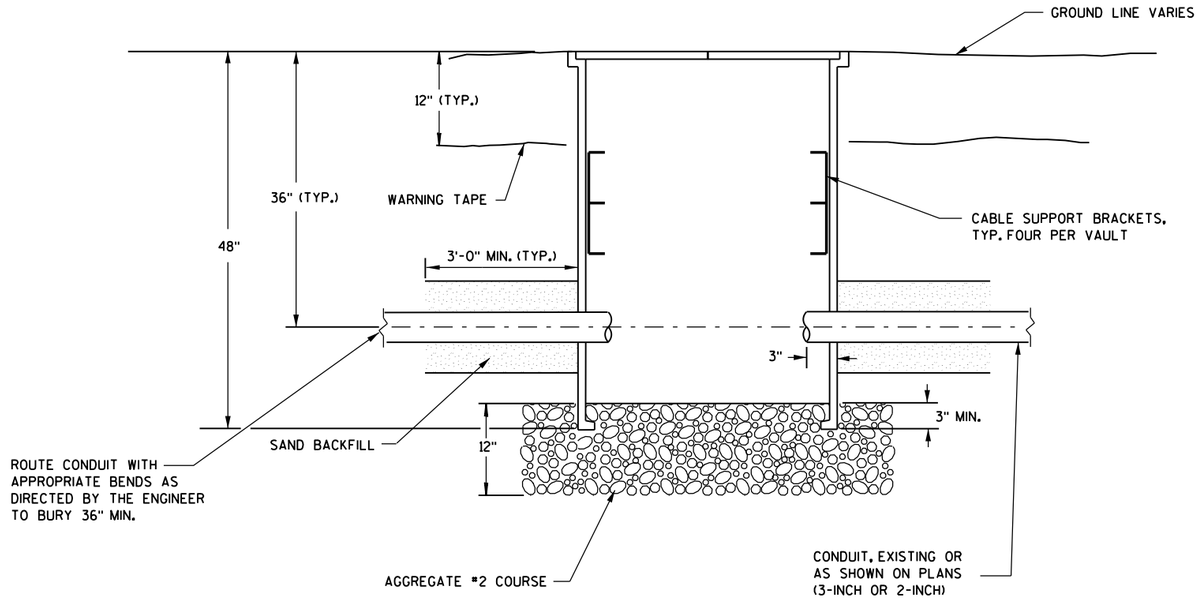
APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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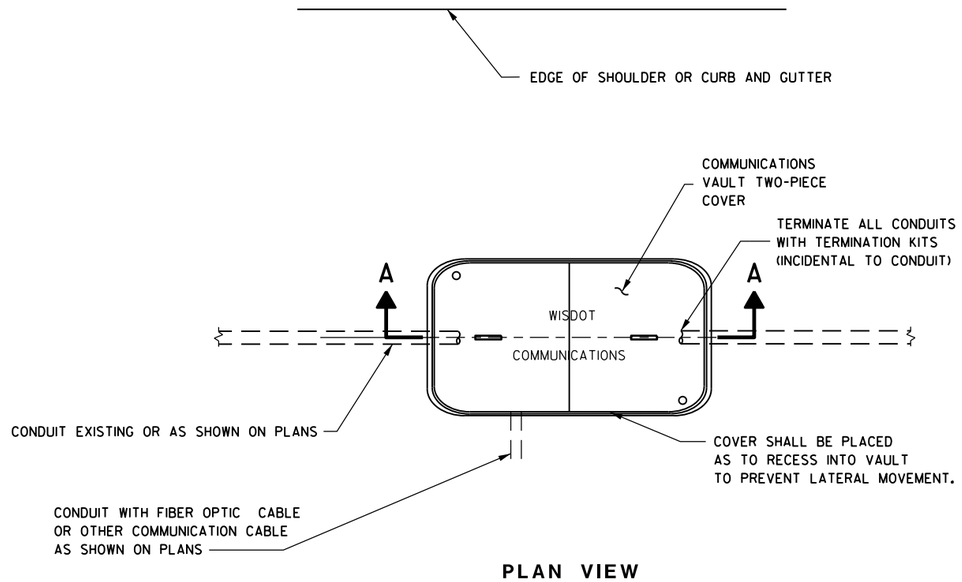
S.D.D. 9 G 1-4g

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S.D.D. 9 G 1-4g



SECTION A-A



PLAN VIEW

COMMUNICATIONS VAULT

GENERAL NOTES

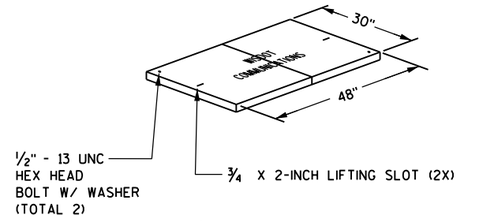
BOX SHALL HAVE AN OPEN BASE.

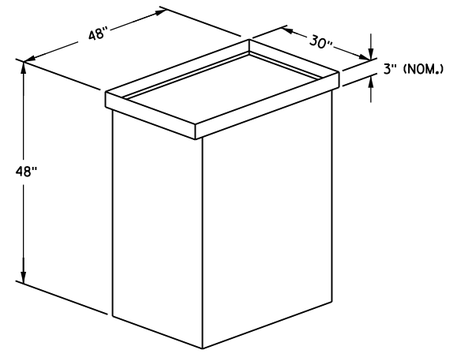
COVER SHALL BE DETECTABLE, AND HAVE A MINIMUM DESIGN LOAD OF 15,000 LBS AND SHALL LOCK.

ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION, OR PUNCH DRIVEN AT TIME OF PLACEMENT.

VAULTS SHALL BE OF ONE-PIECE CONSTRUCTION. TWO-PIECE/STACKABLE VAULTS WILL NOT BE PERMITTED.

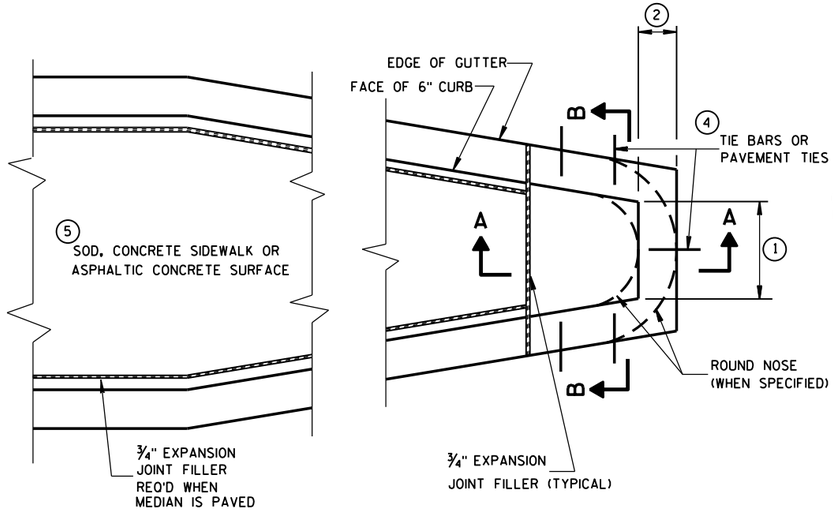
FIELD PLACEMENT OF COMMUNICATIONS VAULTS SHALL BE AS DIRECTED BY THE ENGINEER.

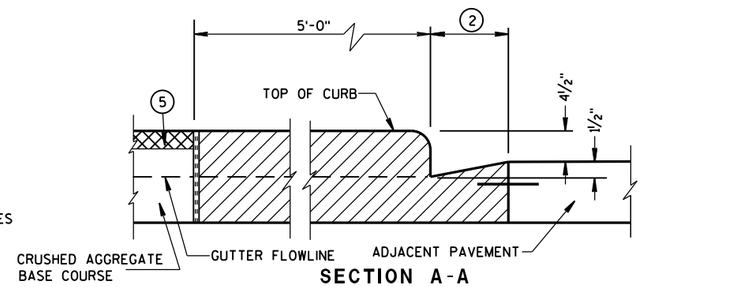




ISOMETRIC VIEW

COMMUNICATION VAULT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED Sept. 2014 — DATE /S/ Ahmet Demirbilek — STATE ELECTRICAL FHWA





CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

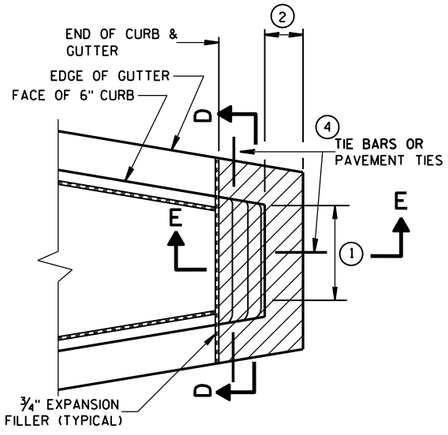
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

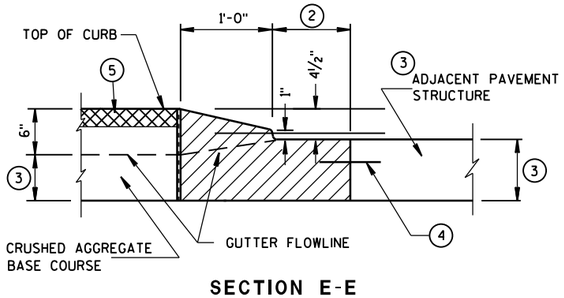
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

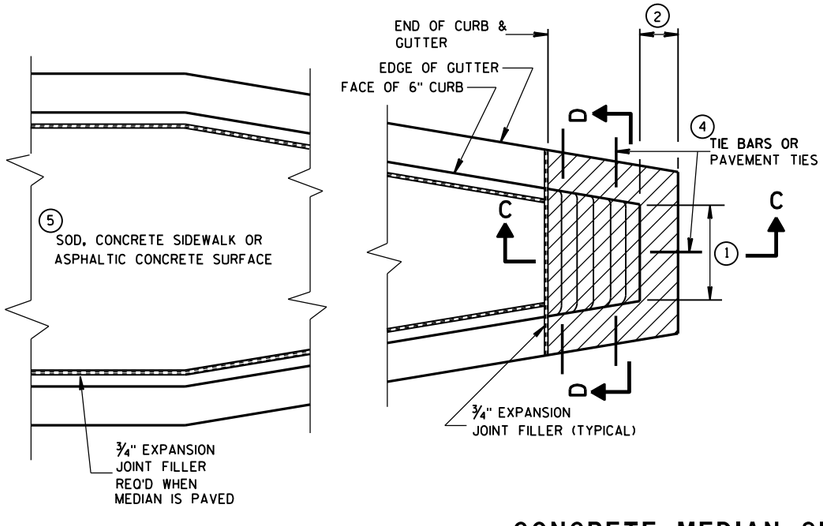
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

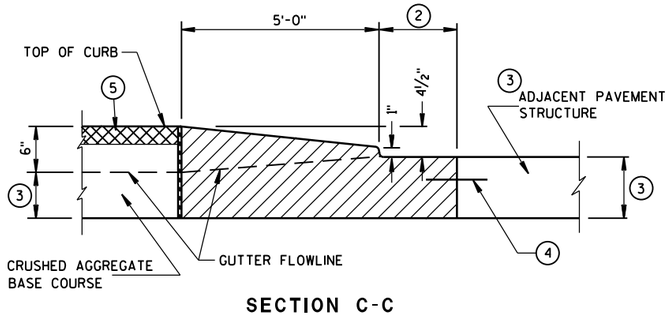




SECTION E-E

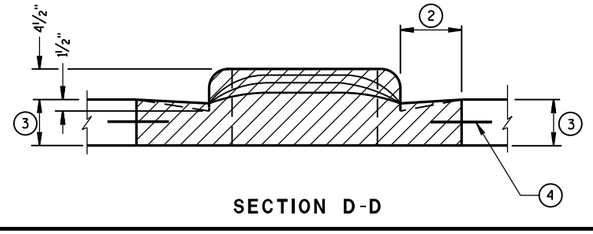
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

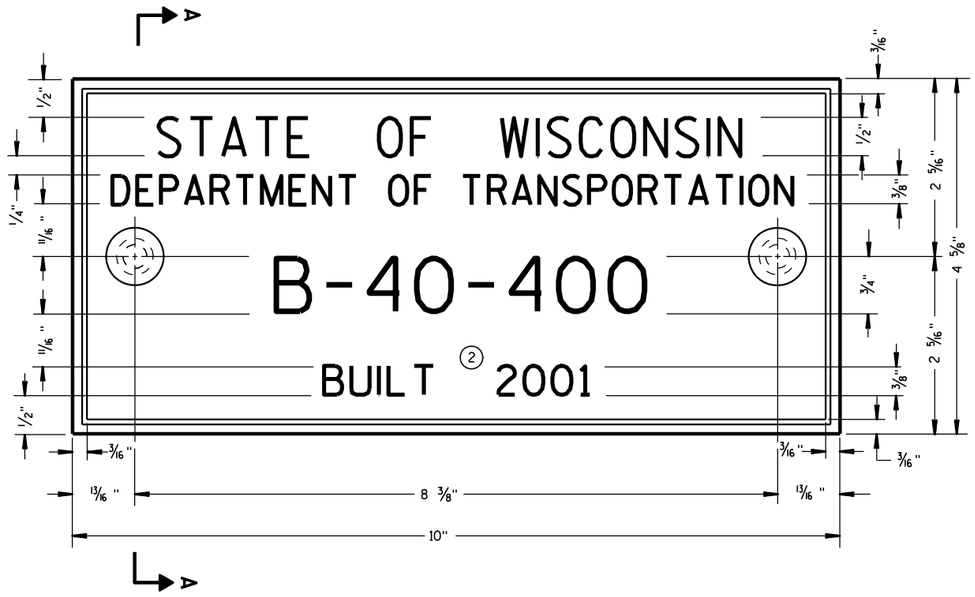
APPROVED
6/8/2006 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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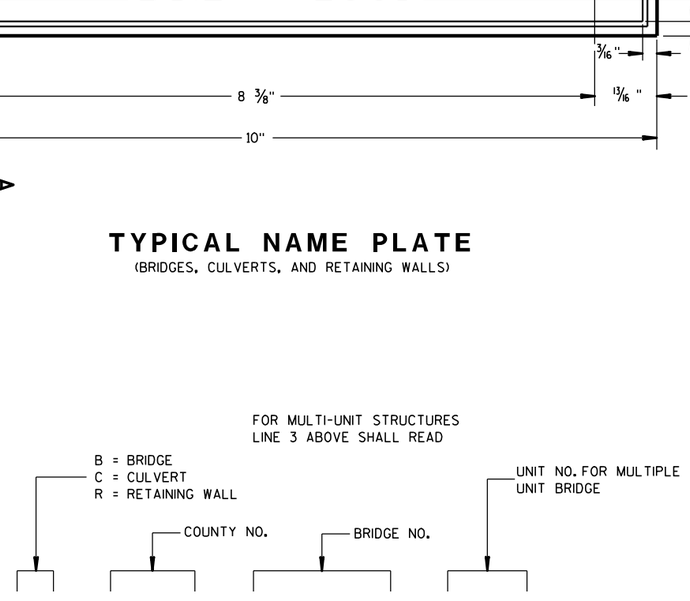
S.D.D. 11 B 2-2

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S.D.D. 11 B 2-2



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

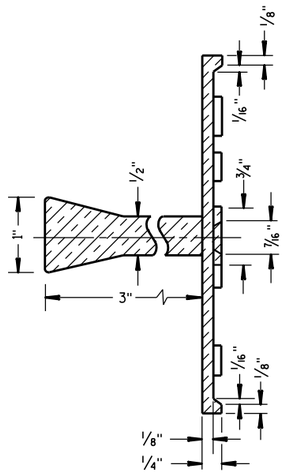
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

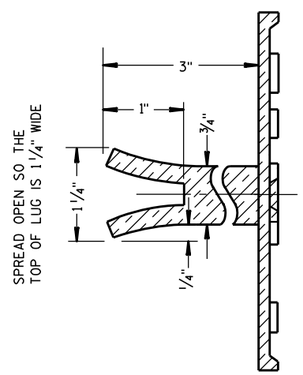
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

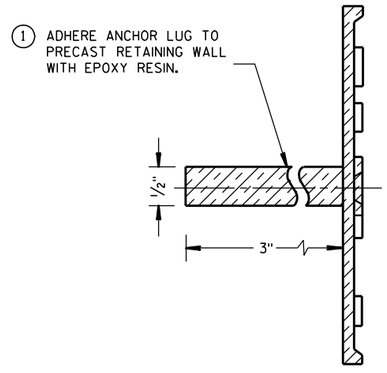
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

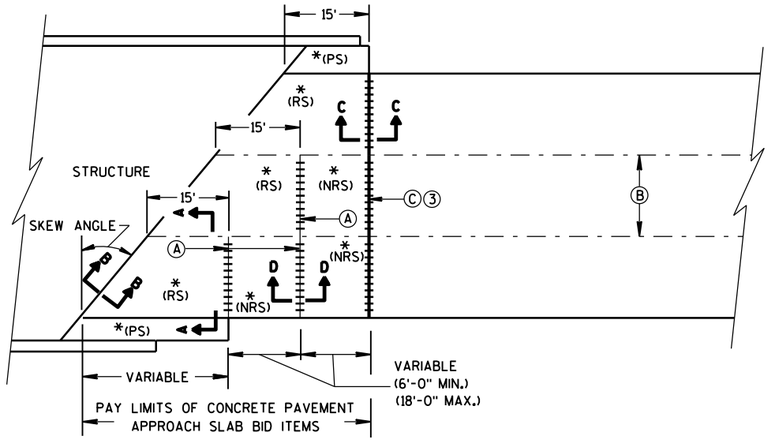
APPROVED

3/26/10 DATE — /S/ Scot Beck-- CHIEF STRUCTURAL DEVELOP ENGINEER

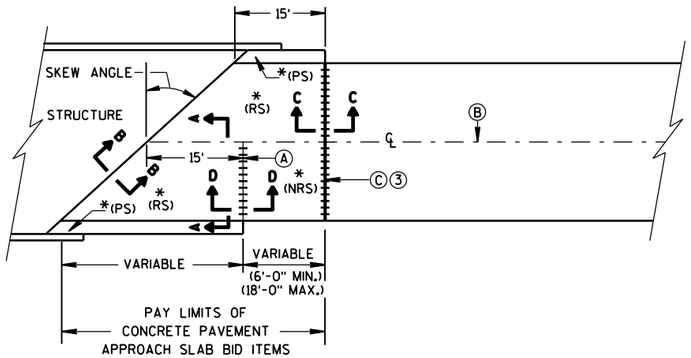
FHWA

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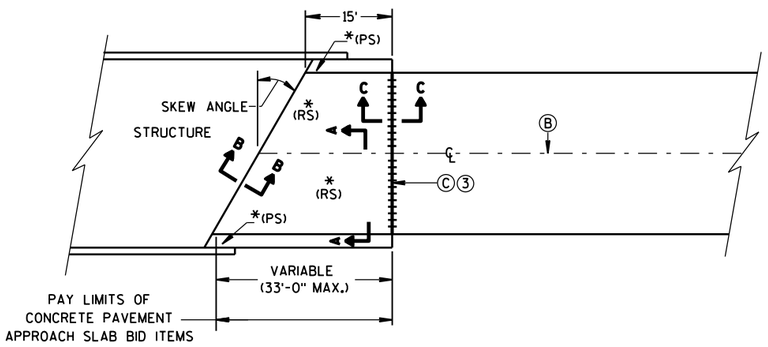
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



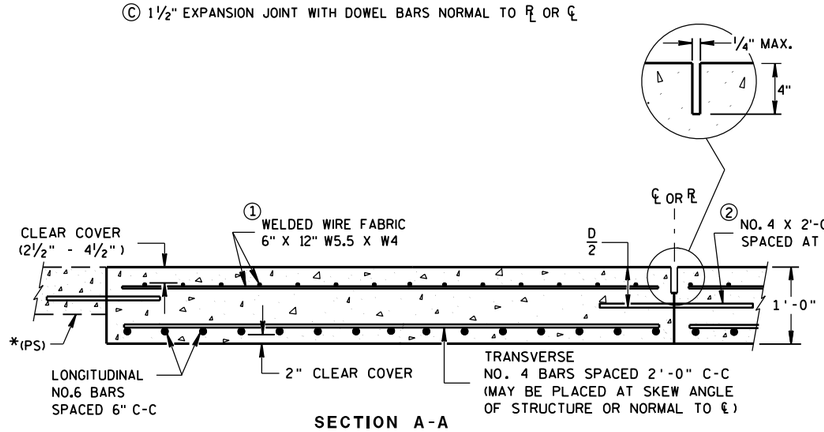
SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

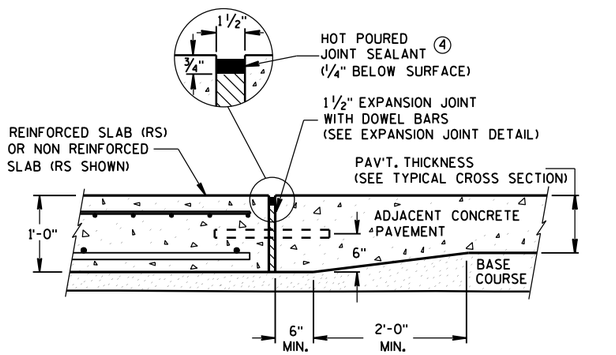
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

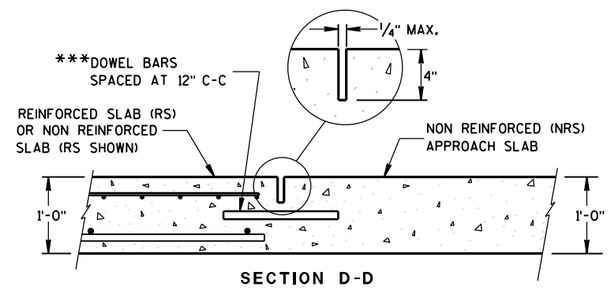
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

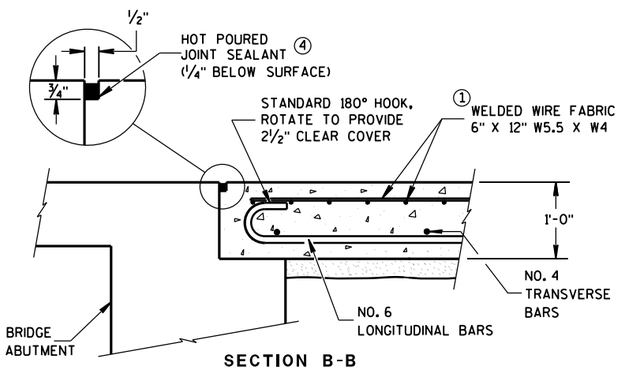
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

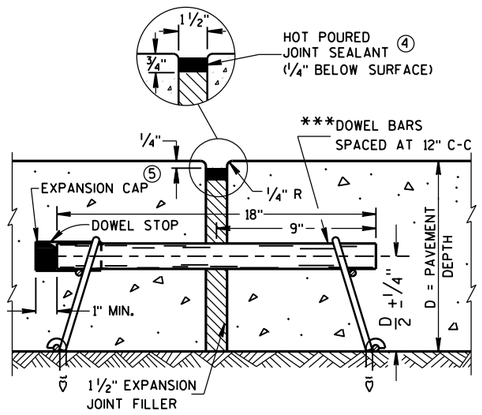
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



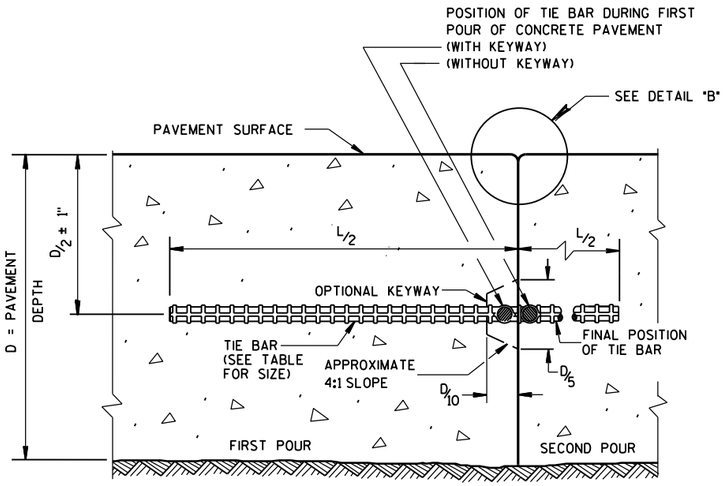
EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

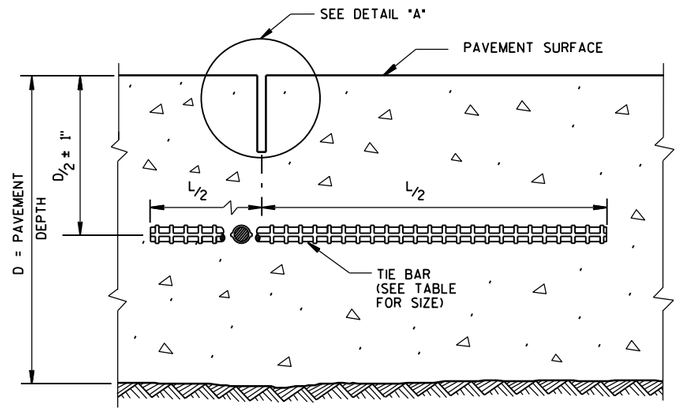
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPE
FHWA

6
S.D.D. 13 B 2-8a



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

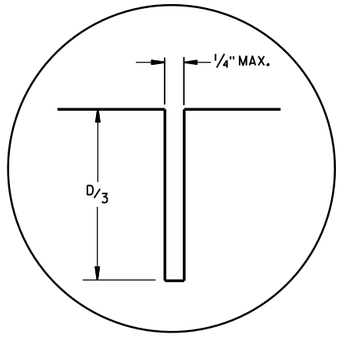
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

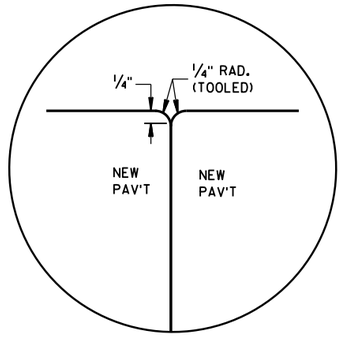
PLAN VIEW

SECTION A-A

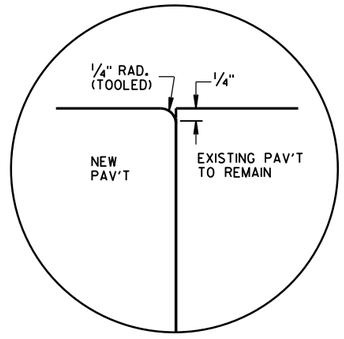
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



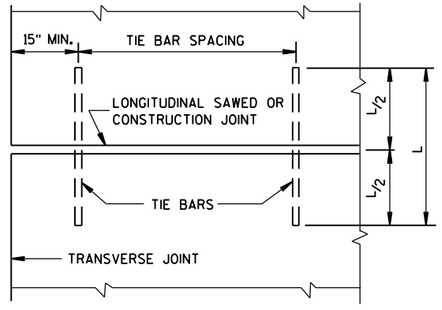
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

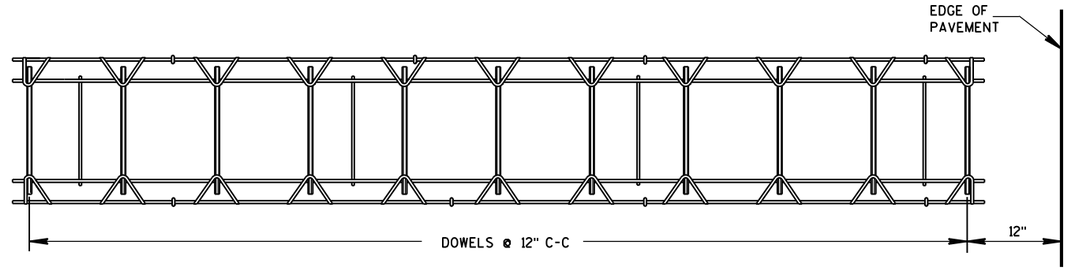
CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

6

S.D.D. 13 C 1-18

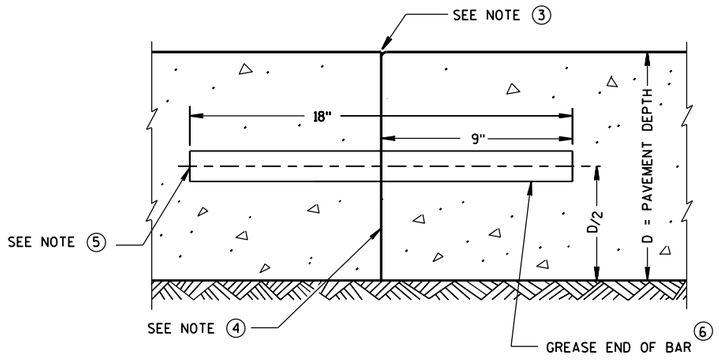


PLAN VIEW

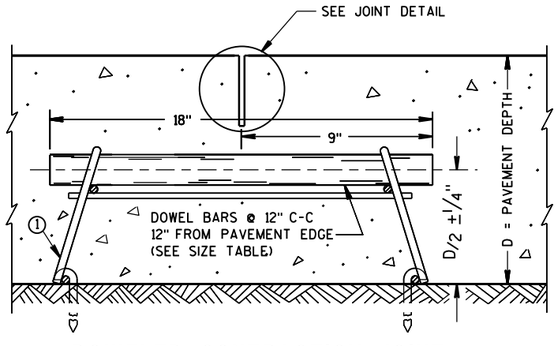


SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



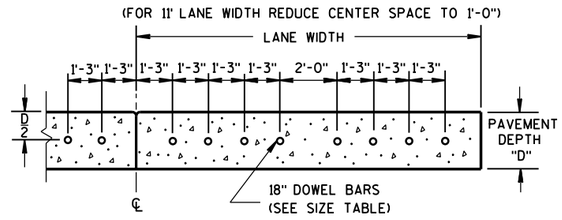
TRANSVERSE CONSTRUCTION JOINT



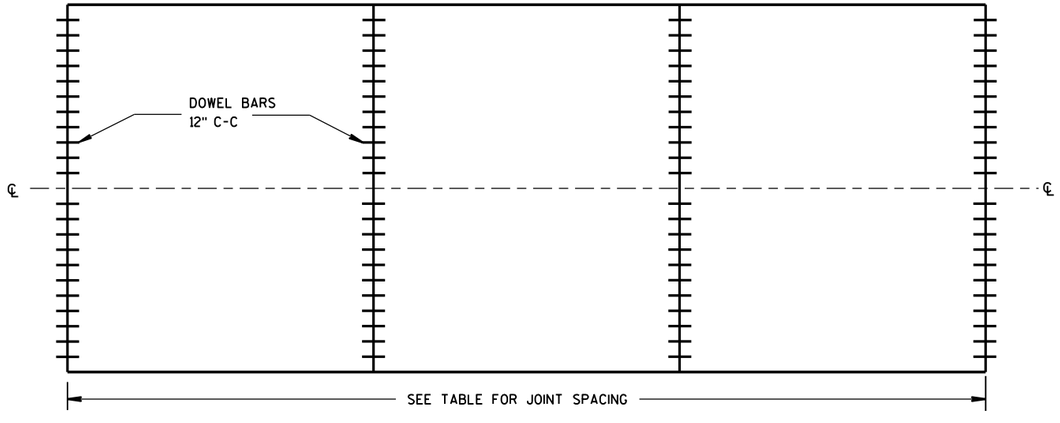
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

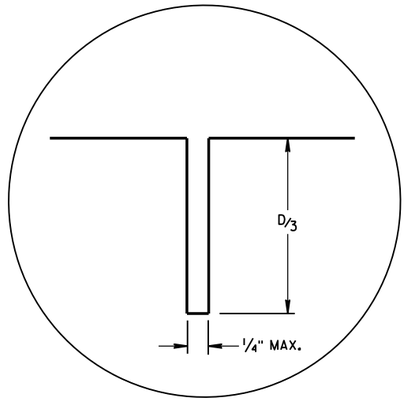
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER
FHWA

6
S.D.D. 13 C 13-8

GENERAL NOTES

PCCP = PORTLAND CEMENT CONCRETE PAVEMENT.

SHLDR = SHOULDER.

CONTINUE SAW CUT CONTRACTION JOINT ACROSS TURN LANE, EXIT TAPER AND PASSING LANE.

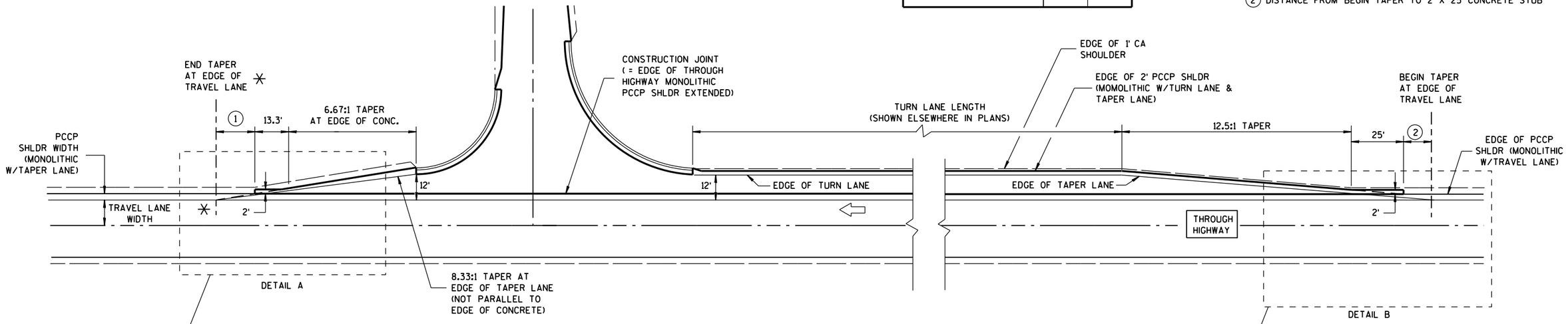
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

THROUGH HIGHWAY LANE WIDTH AND PCCP SHOULDER WIDTH ARE SHOWN ELSEWHERE IN PLANS

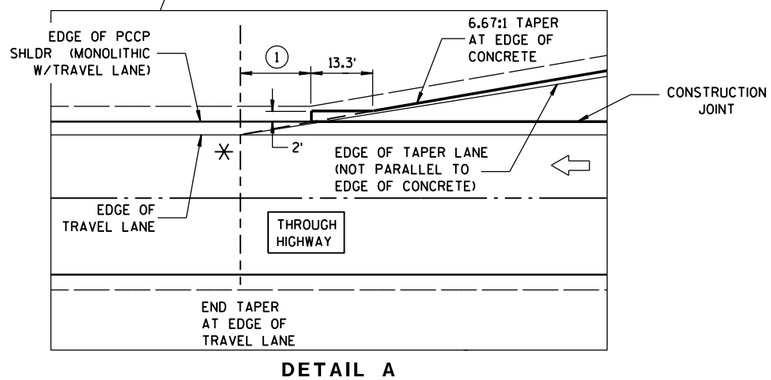
(1) DISTANCE FROM END TAPER TO 2' X 13.3' CONCRETE STUB

(2) DISTANCE FROM BEGIN TAPER TO 2' X 25' CONCRETE STUB

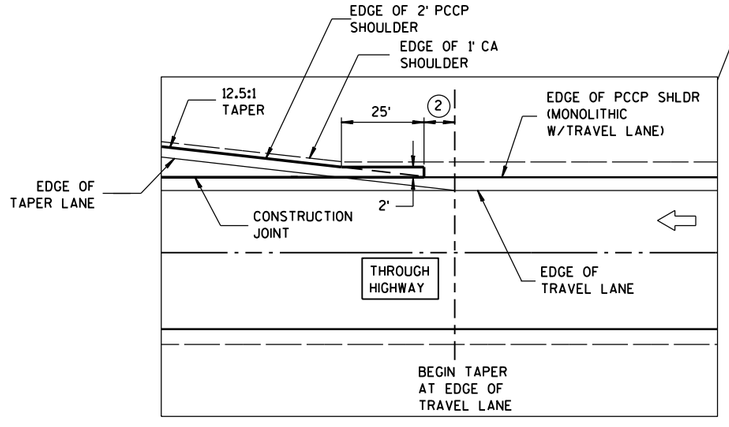
THROUGH HIGHWAY MONOLITHIC PCCP SHOULDER WIDTH (FEET)	DISTANCE (FEET) (1)	DISTANCE (FEET) (2)
2	13.3	0.0
3	20.0	12.5
TAPER RATE : 1	6.67	12.5



✳ NOTE: EDGE OF CONCRETE TAPER (EXTENDED) & EDGE OF TAPER LANE CONVERGE



DETAIL A



DETAIL B

RIGHT TURN LANE AND EXIT TAPER

DETAIL FOR RIGHT TURN LANE/ TEE INTERSECTION BYPASS LANE ON A CONCRETE ROADWAY

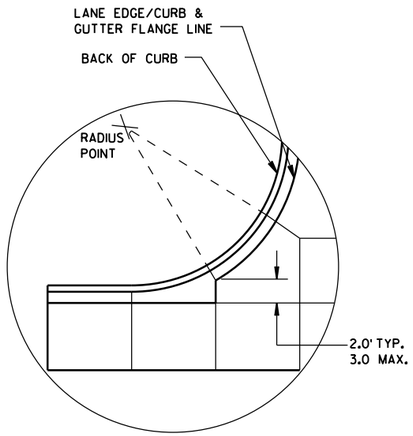
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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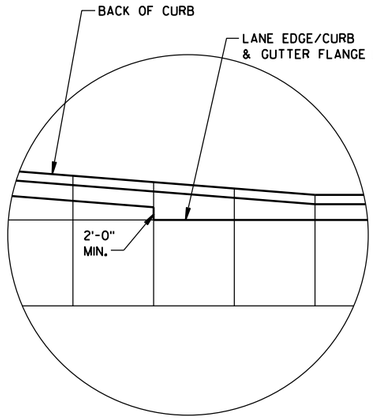
S.D.D. 13 C 16-2a

6

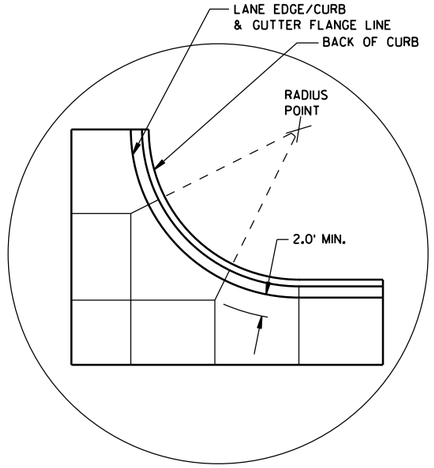
S.D.D. 13 C 16-2a



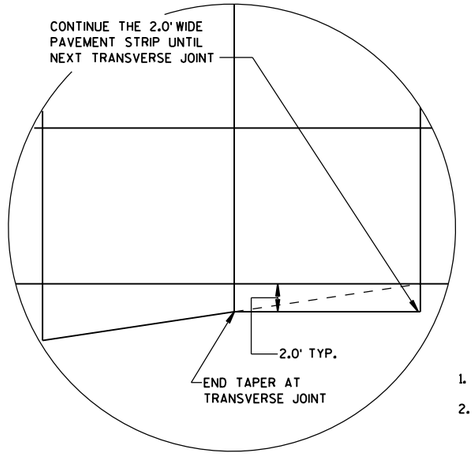
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

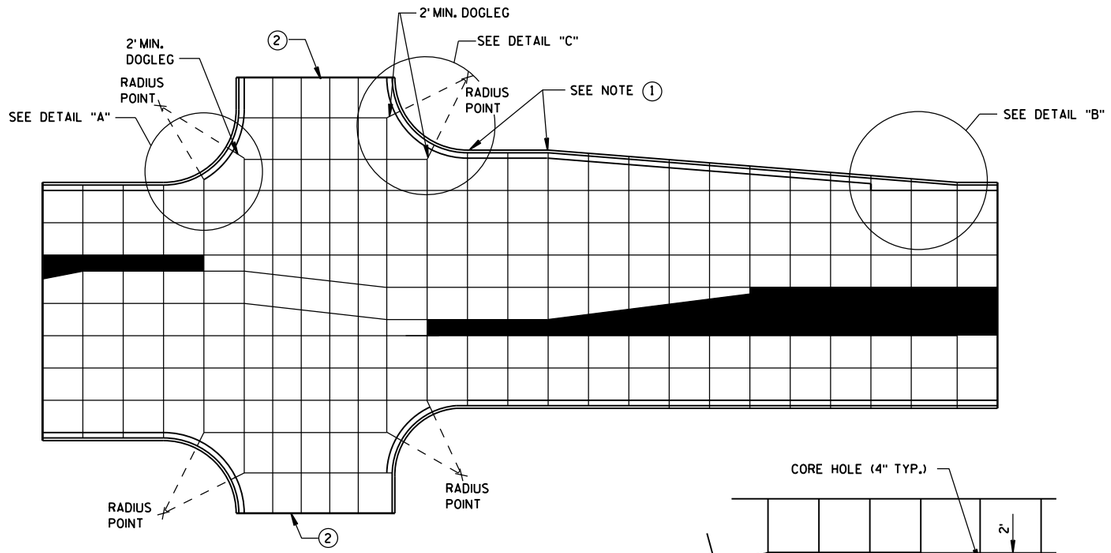
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

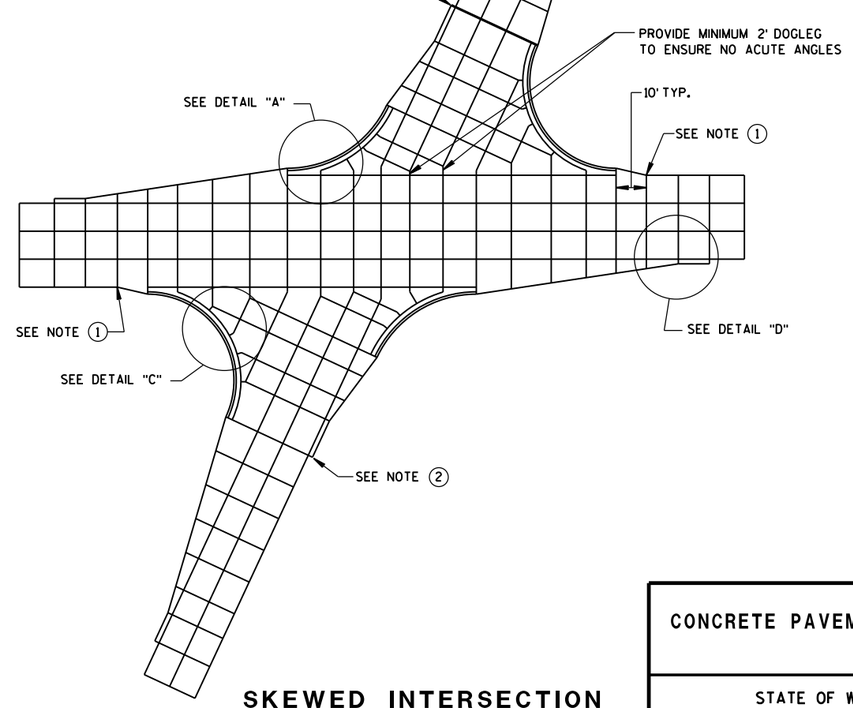
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



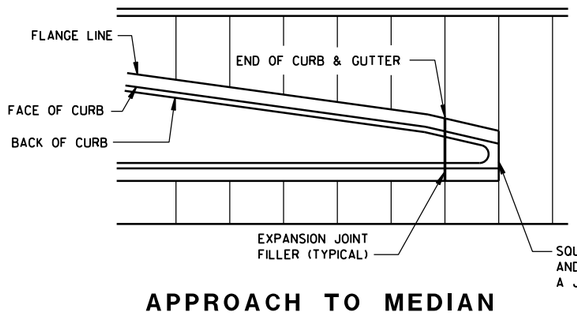
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

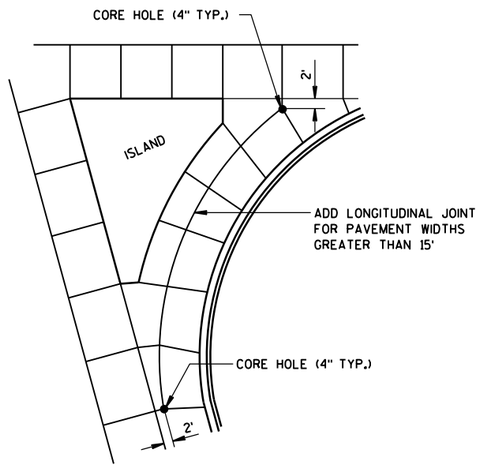
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

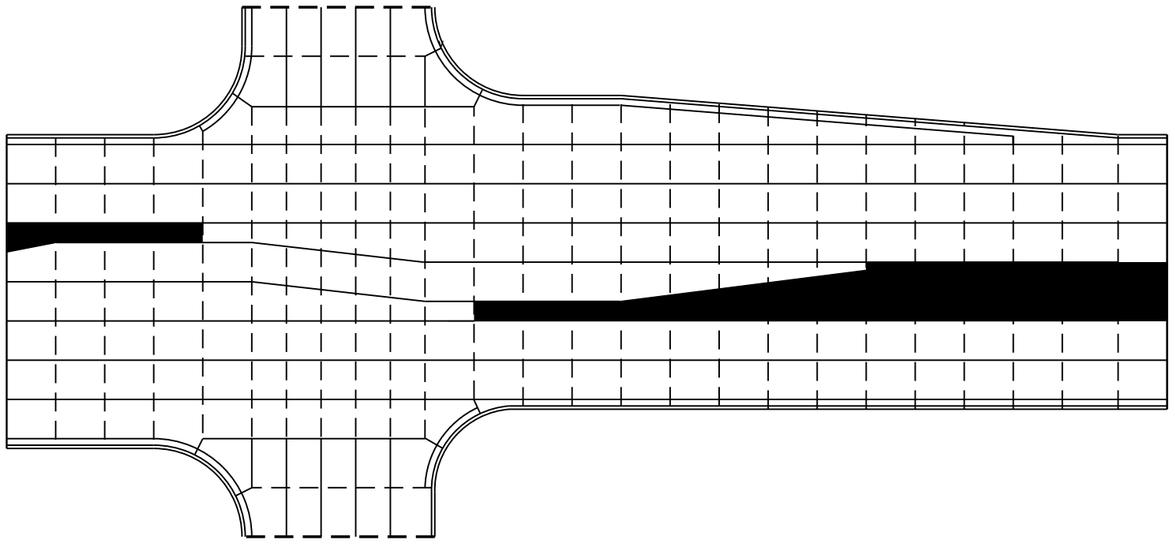
6
S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

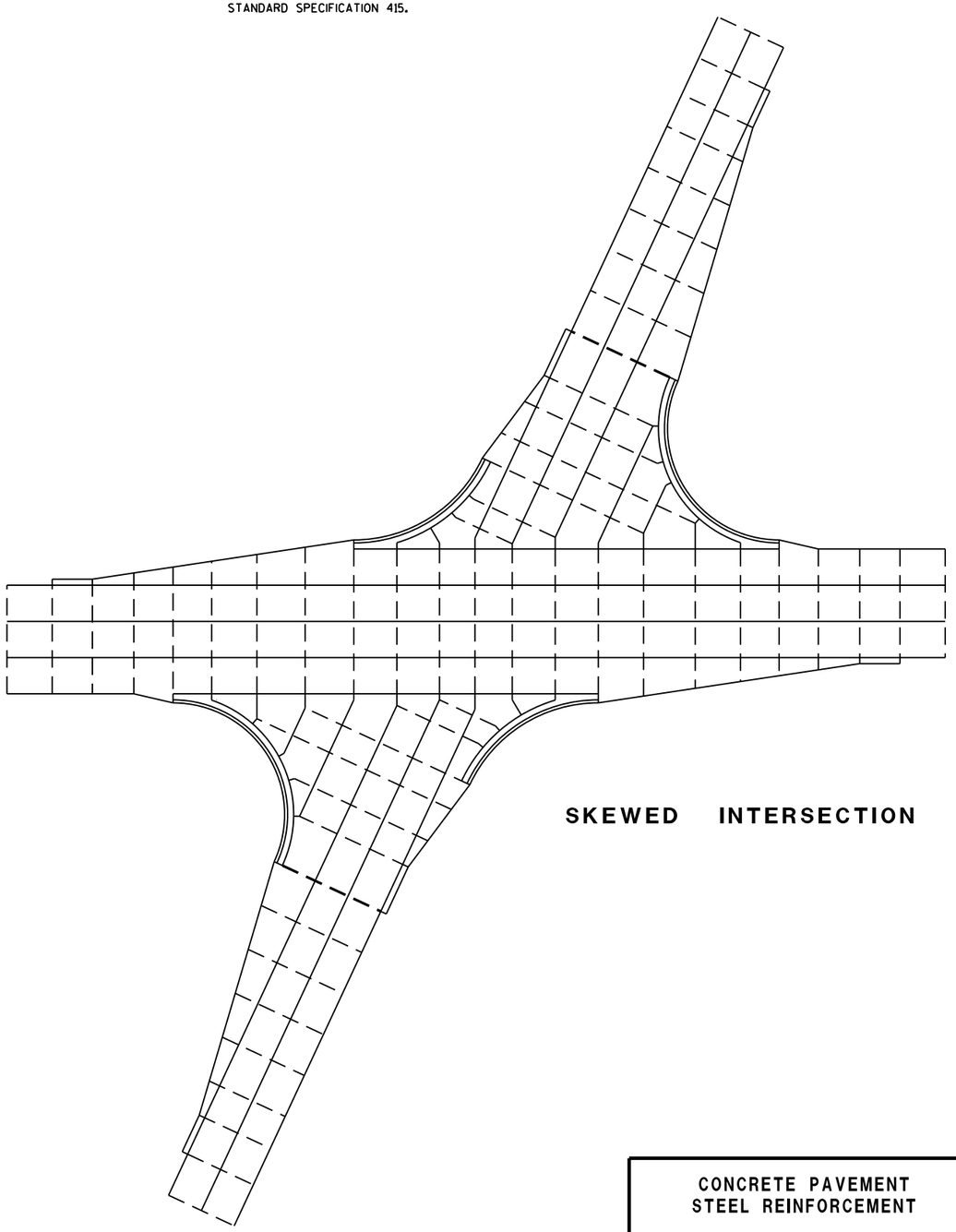
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

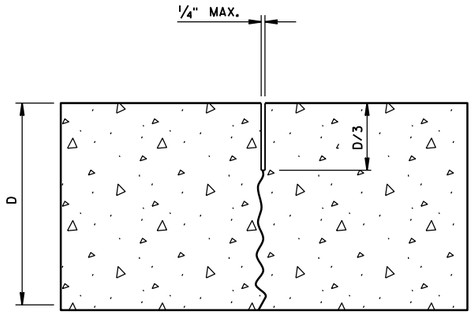
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

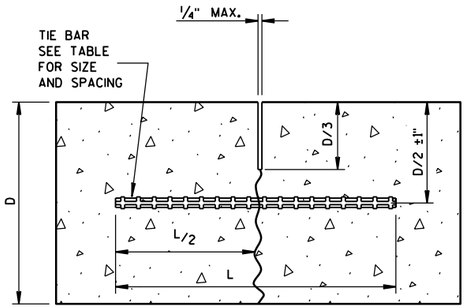
S.D.D. 13 C 18-3b

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S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

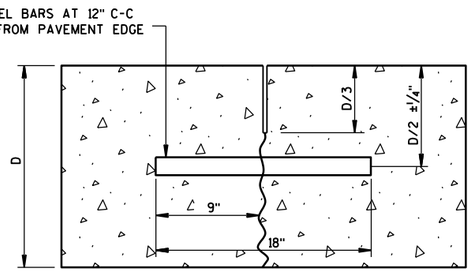
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

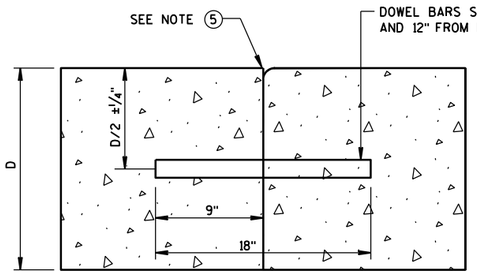
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



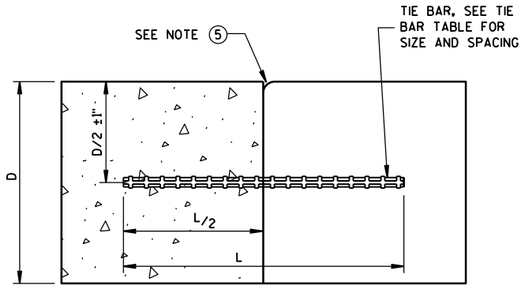
DOWELED-TRANSVERSE

CONTRACTION JOINTS

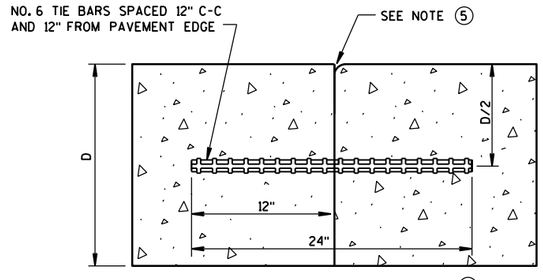
SEE NOTE (2)



DOWELED TRANSVERSE (3)

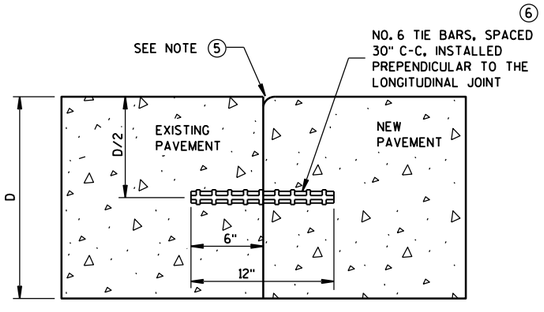


TIED LONGITUDINAL



TIED TRANSVERSE (3)

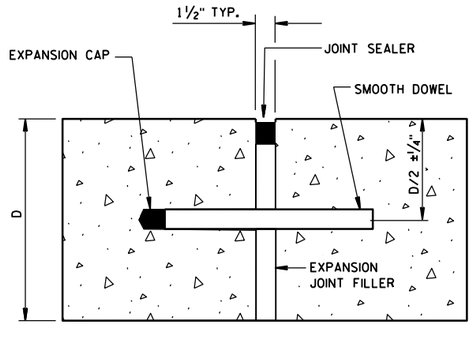
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

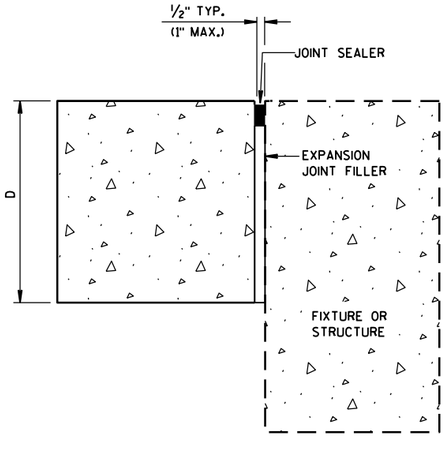
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

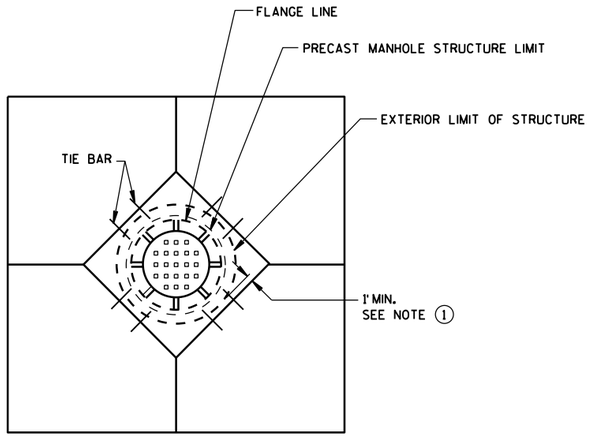
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

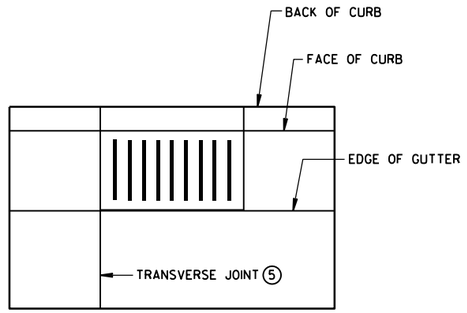
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

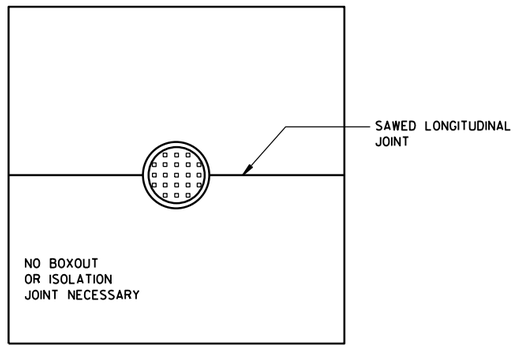
S.D.D. 13 C 18-3c



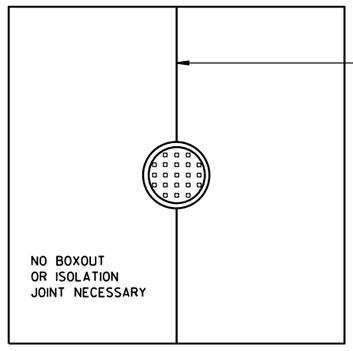
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



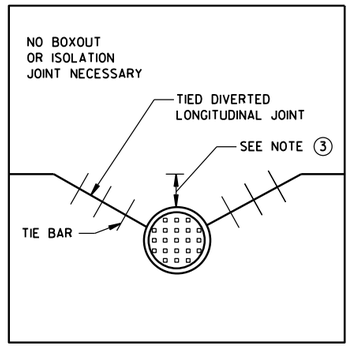
INLET WITH TRANSVERSE JOINT



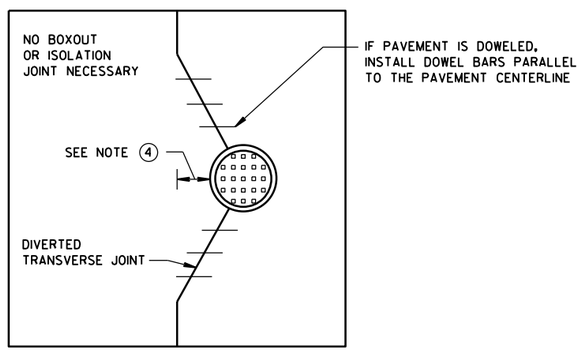
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

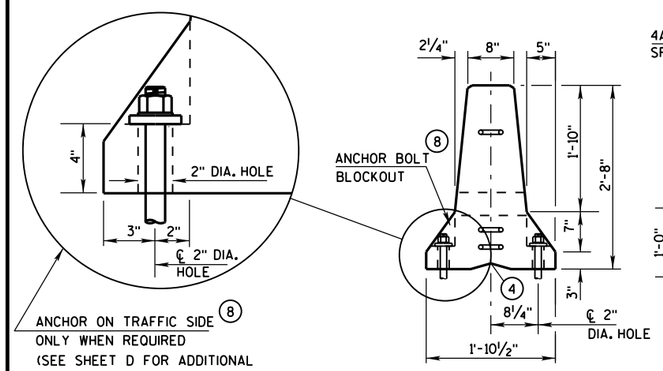
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

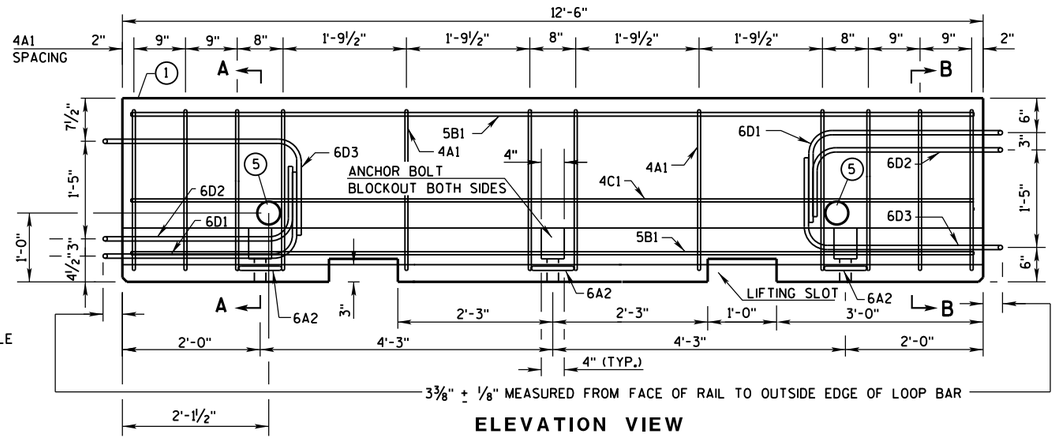
APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

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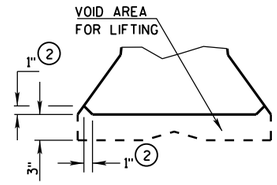
S.D.D. 13 C 18-3d



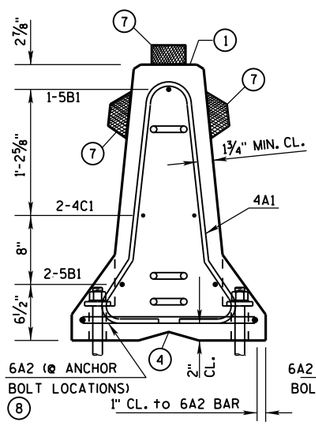
END VIEW



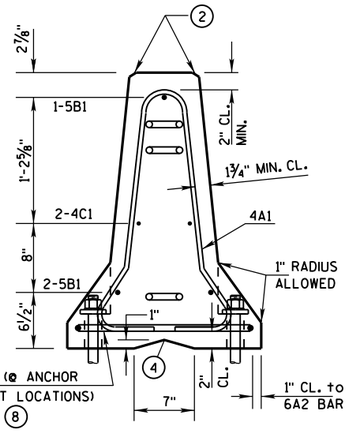
ELEVATION VIEW



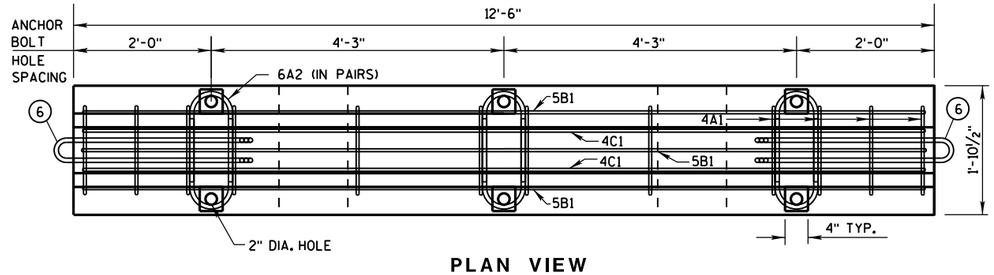
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

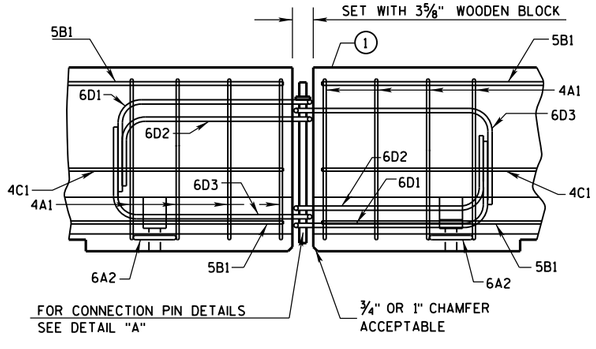


SECTION B-B
(STIRRUP PLACEMENT)

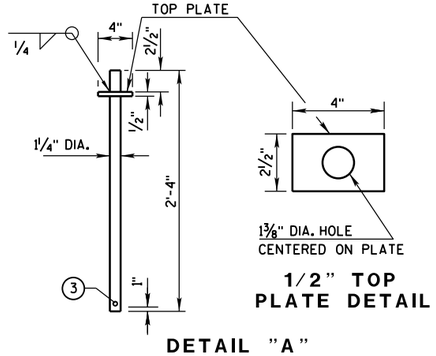


PLAN VIEW

DETAILS OF BARRIER SECTION

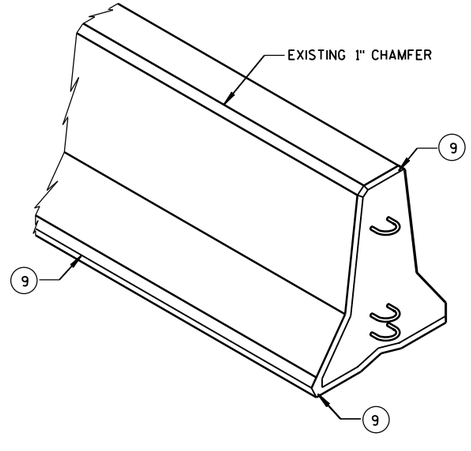


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

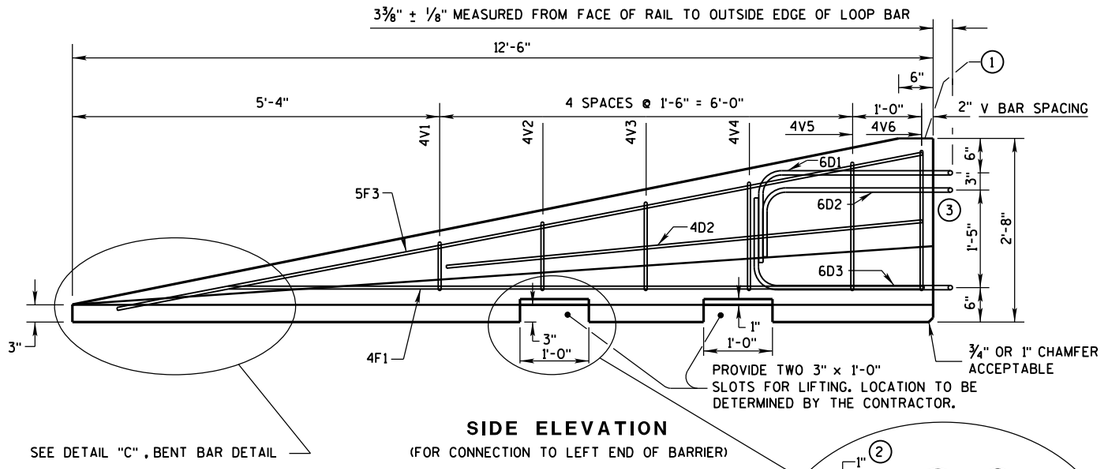
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

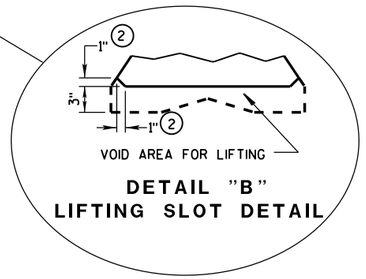
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

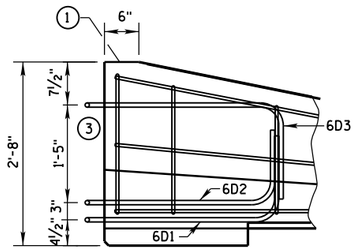
S.D.D. 14 B 7-14a



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



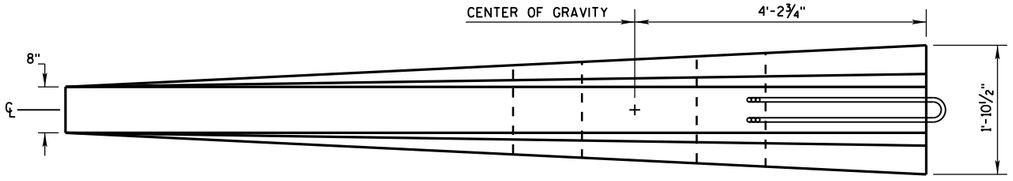
DETAIL "B"
LIFTING SLOT DETAIL



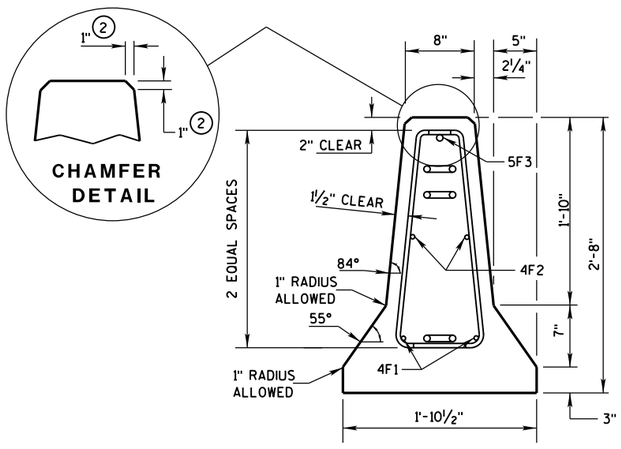
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

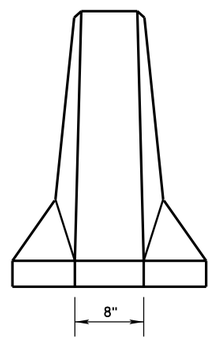
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



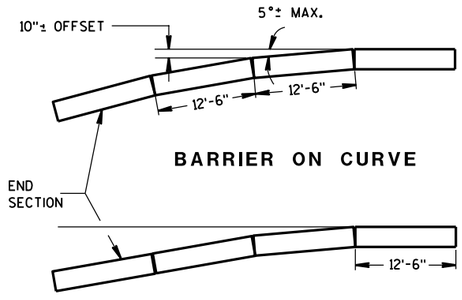
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

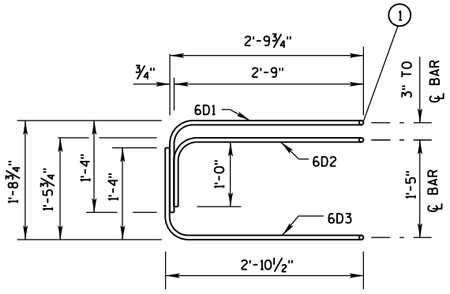
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 7-14b

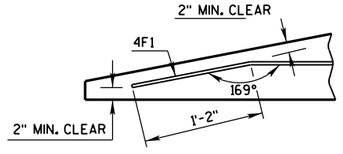
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

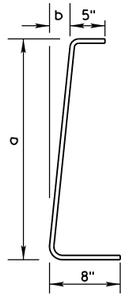
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

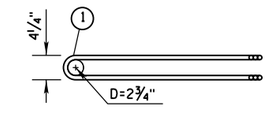
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

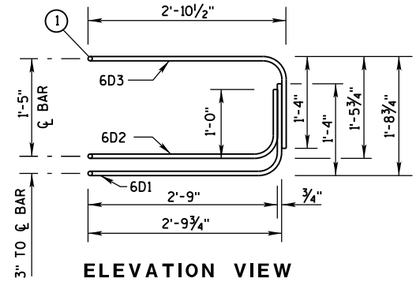
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

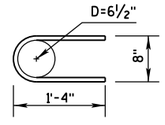
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



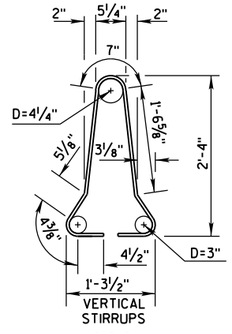
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

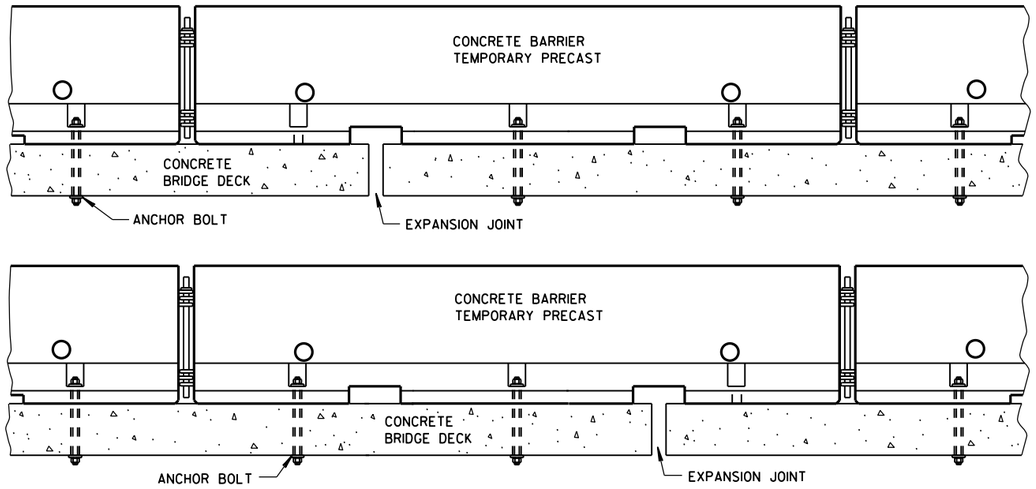
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

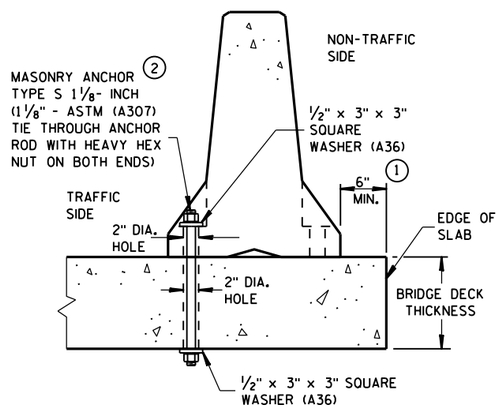
6

S.D.D. 14 B 7-14c



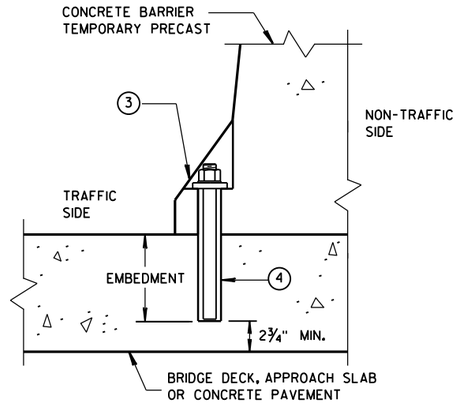
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT ②

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

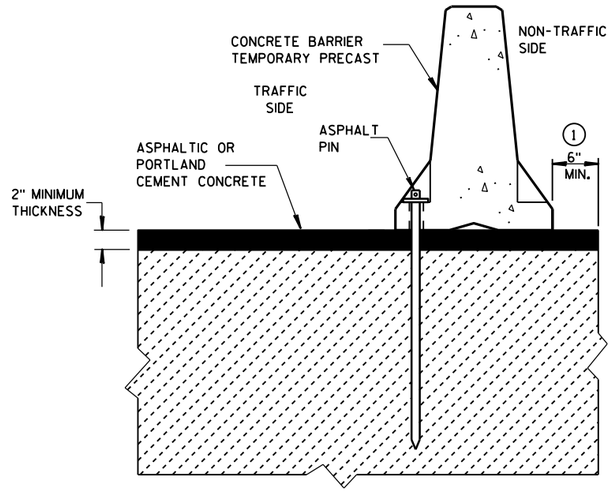
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

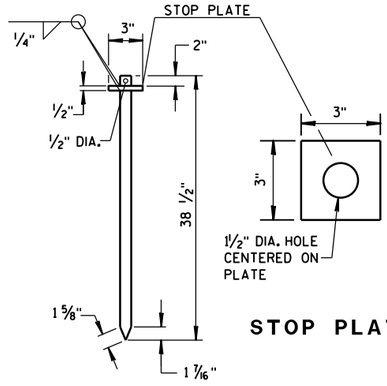
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

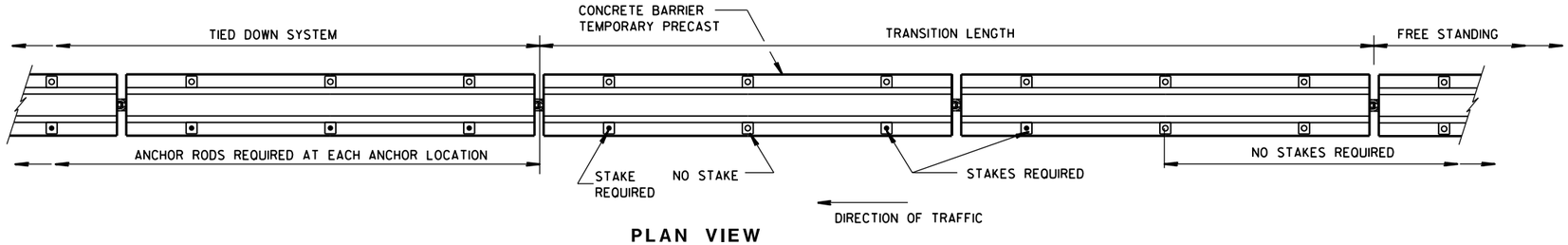
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

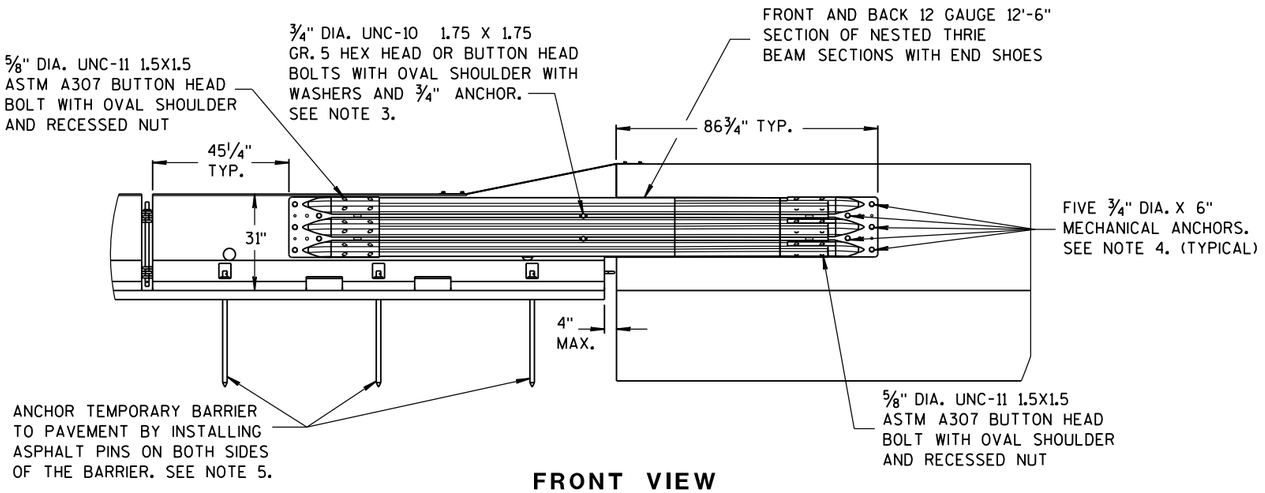
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

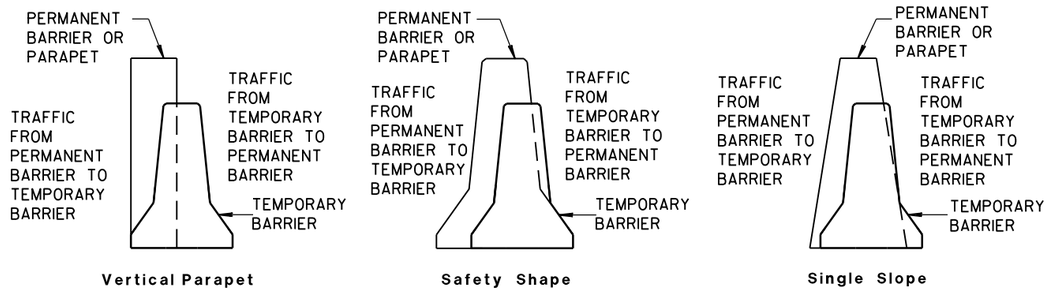
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 7-14d



FRONT VIEW

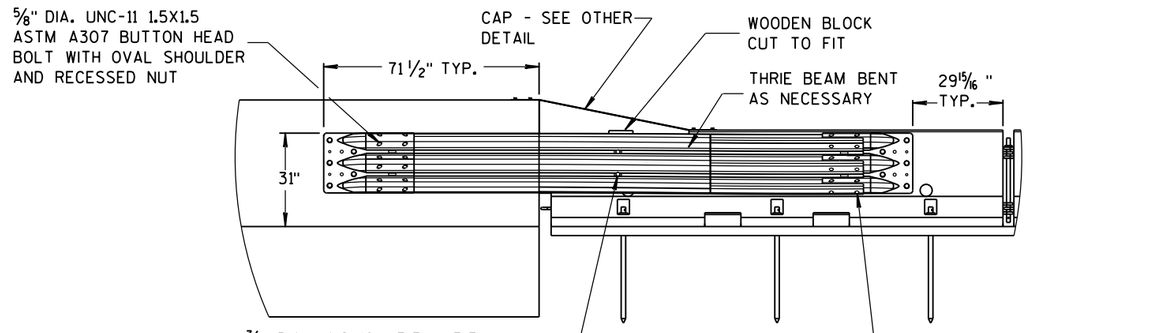


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

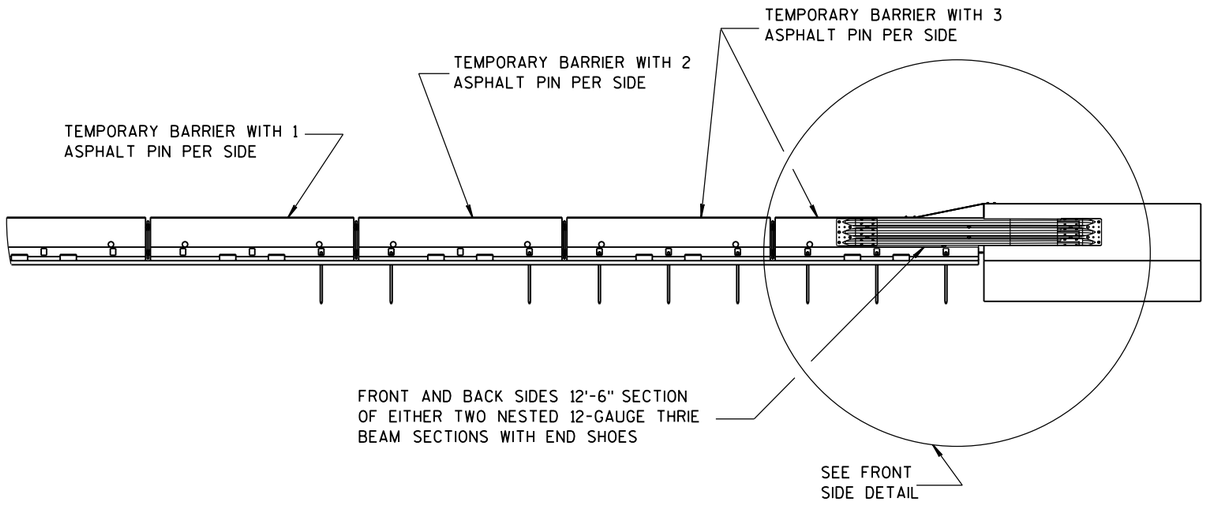
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

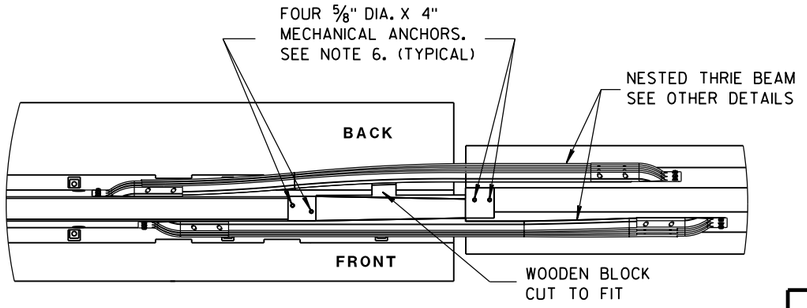
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

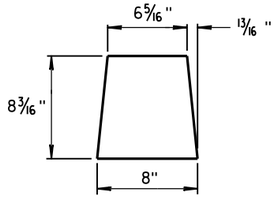
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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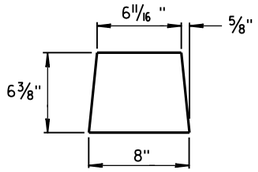
S.D.D. 14 B 7-14e

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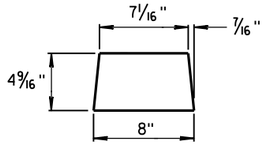
S.D.D. 14 B 7-14e



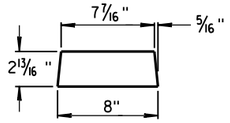
GUSSET 1



GUSSET 2

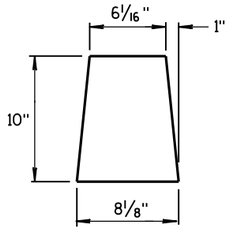


GUSSET 3

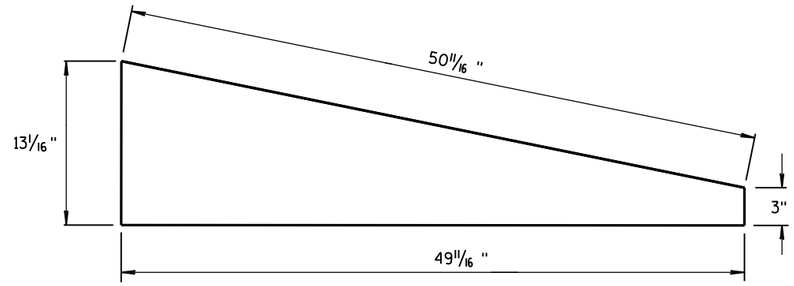


GUSSET 4

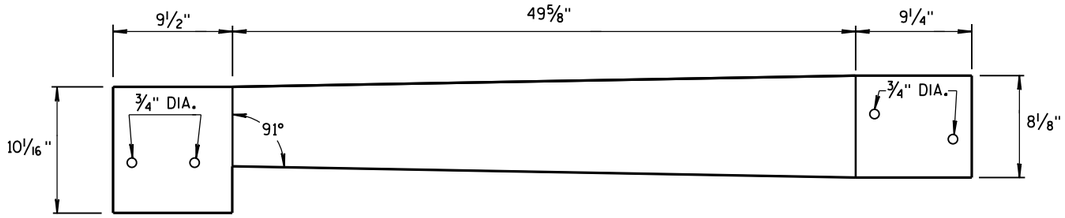
GUSSETS

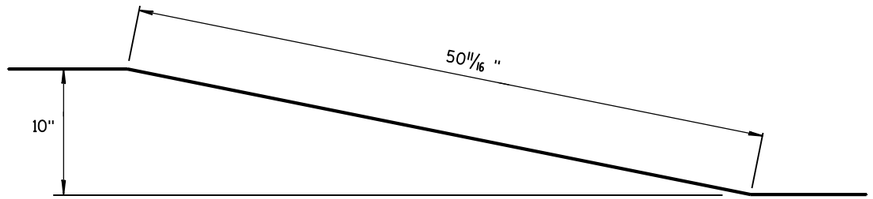


END PLATE



SIDE PLATE

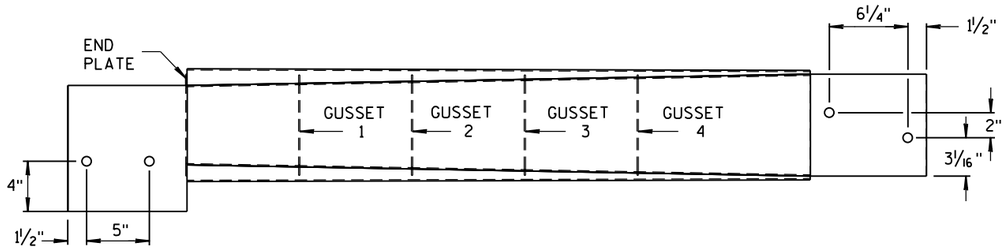


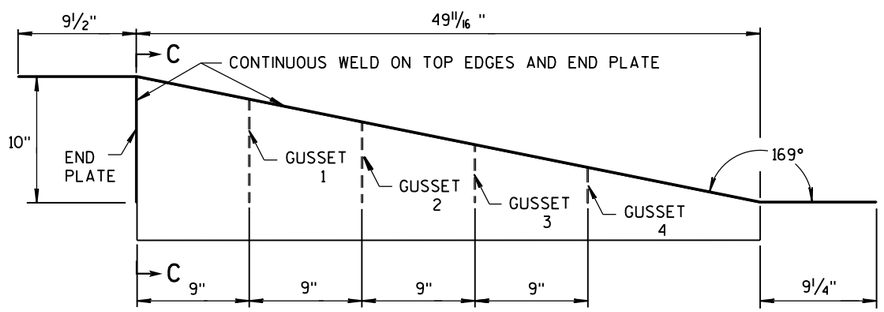


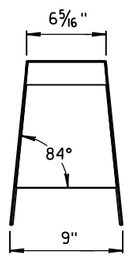
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

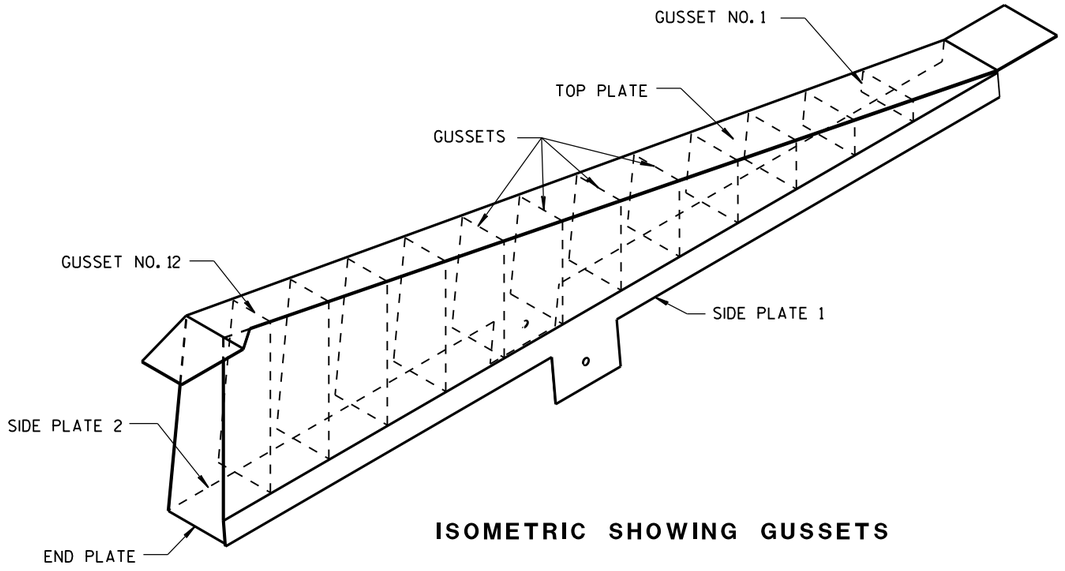
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

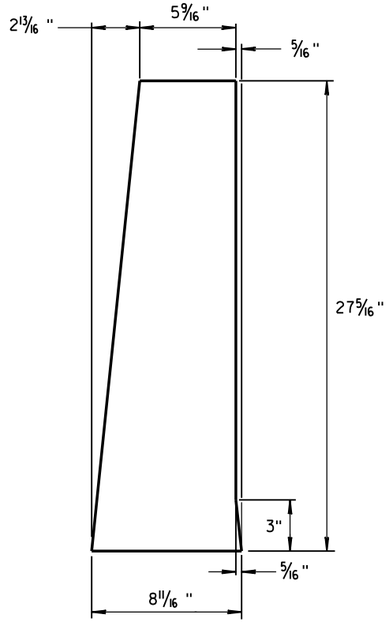
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 7-14f

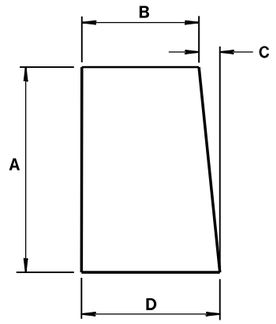


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



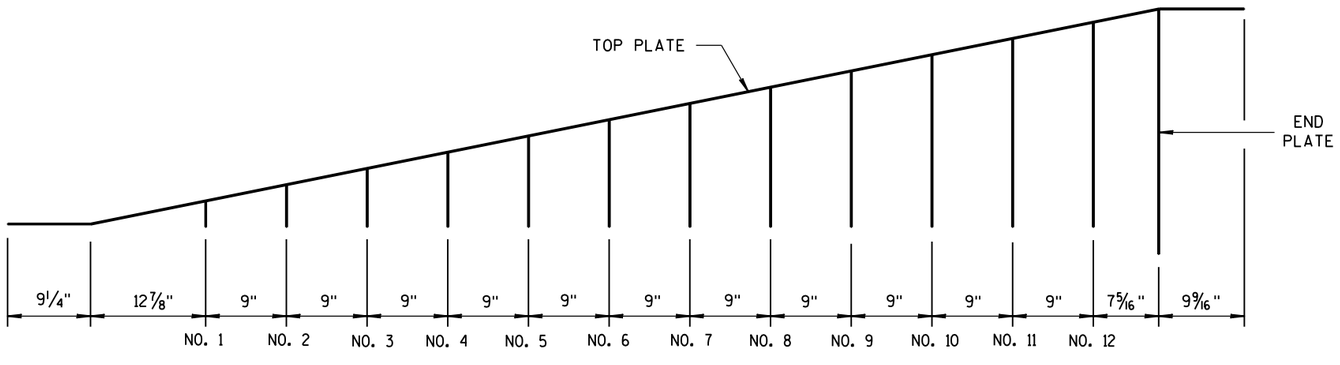
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

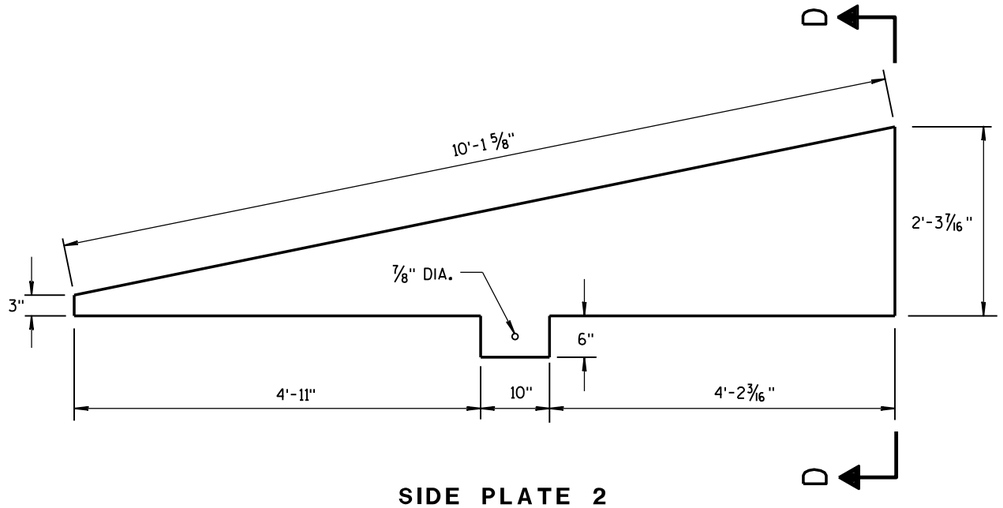
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

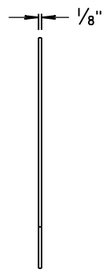
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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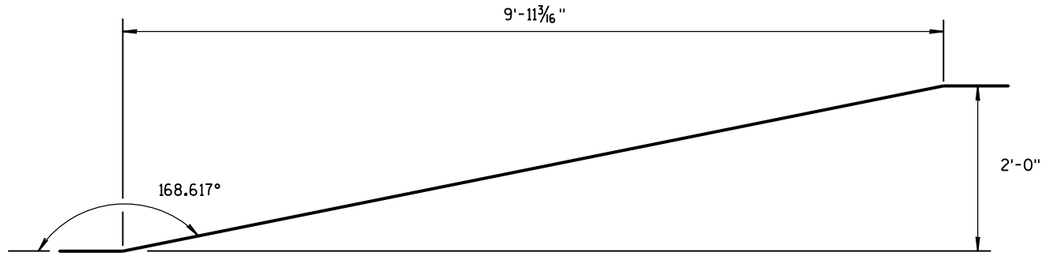
S.D.D. 14 B 7-14g



SIDE PLATE 2

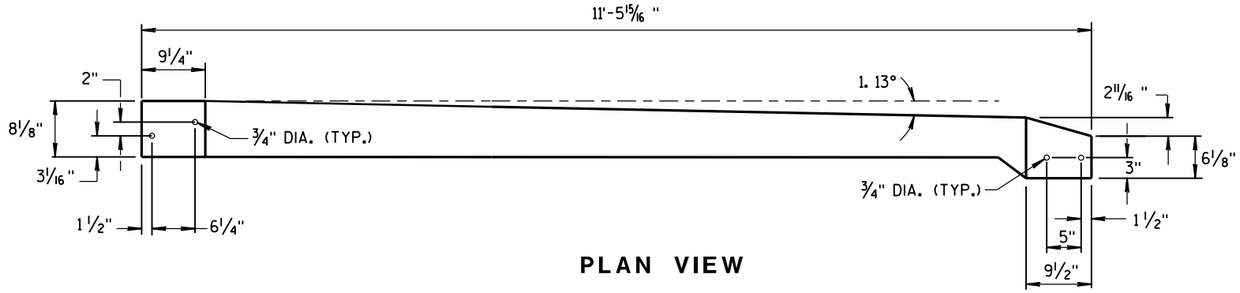


END VIEW



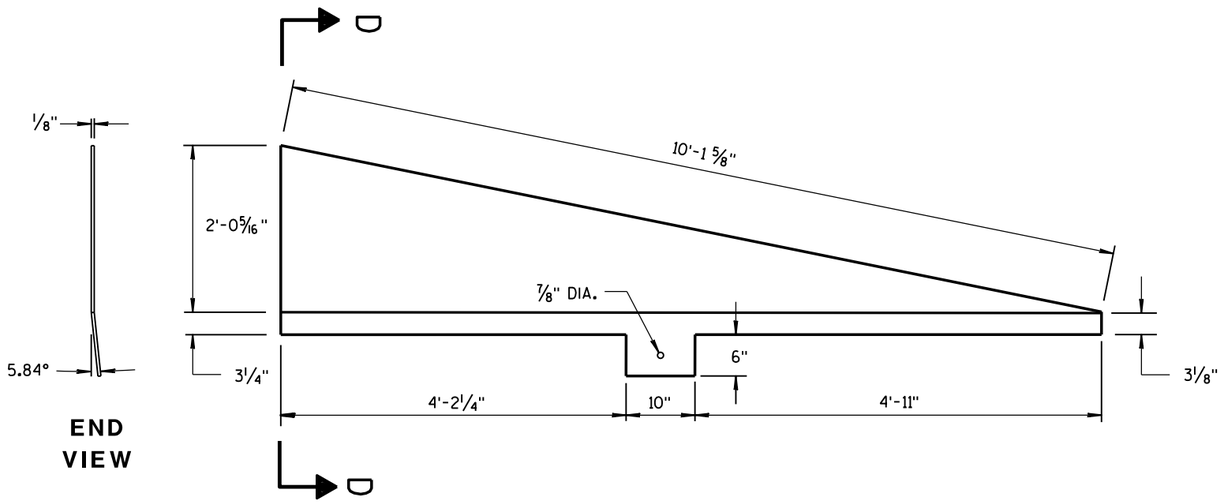
SIDE VIEW

TOP PLATE



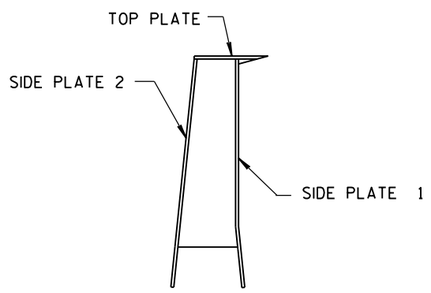
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 7-14h

6

S.D.D. 14 B 7-14h

GENERAL NOTES

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

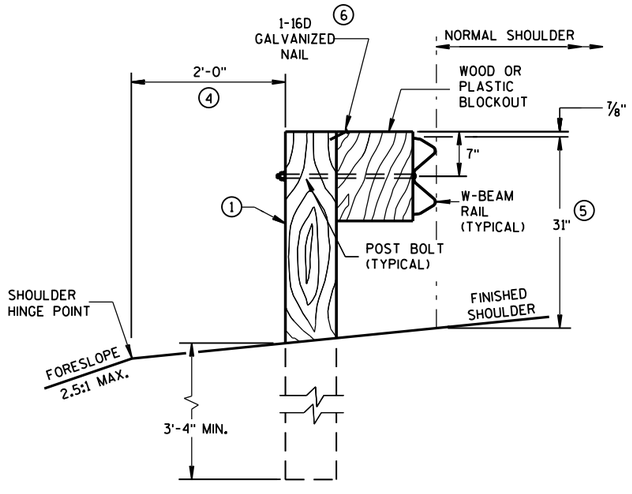
2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

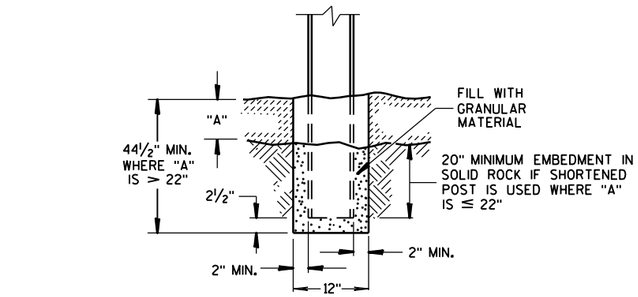
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

6. WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



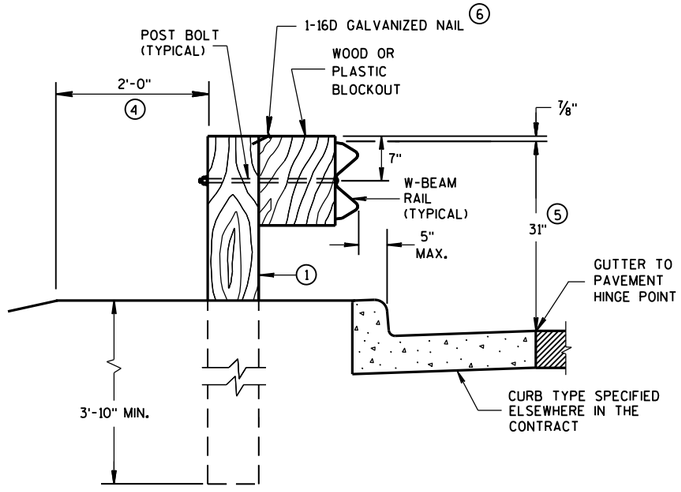
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



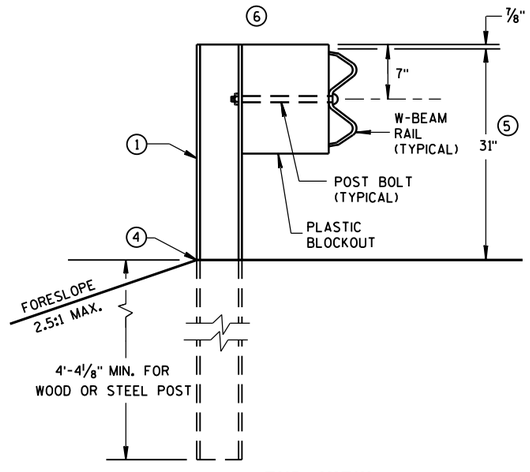
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



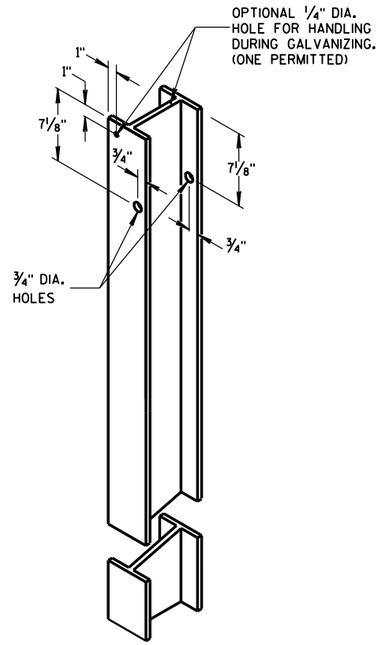
END VIEW

LOCATED ALONG A CURBED ROADWAY

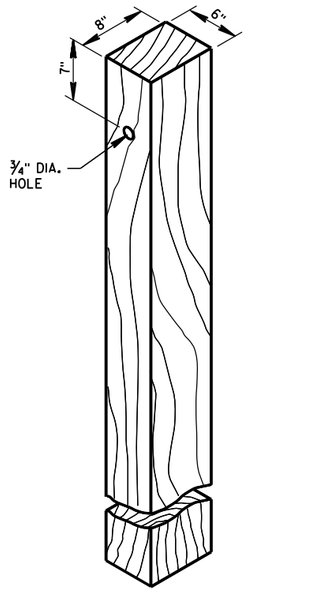


END VIEW

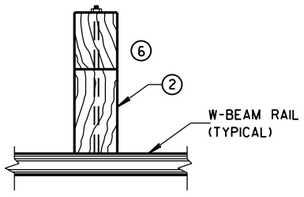
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



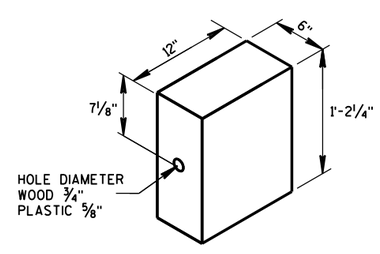
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



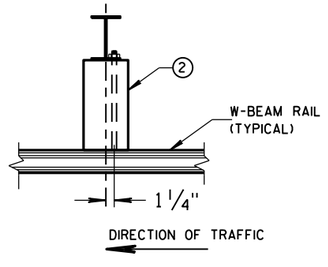
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

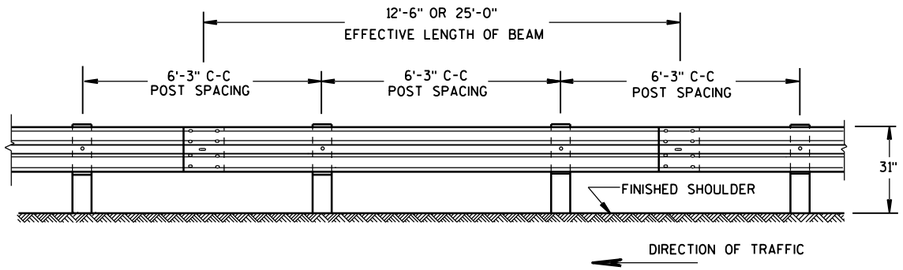


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

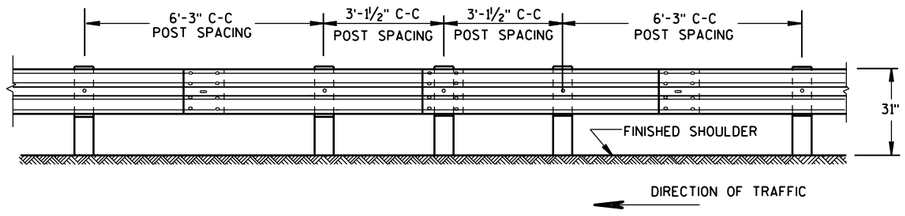
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 42-3a



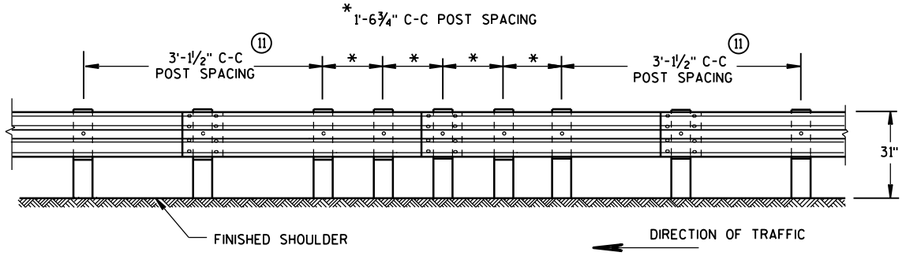
FRONT VIEW

POST SPACING STANDARD INSTALLATION



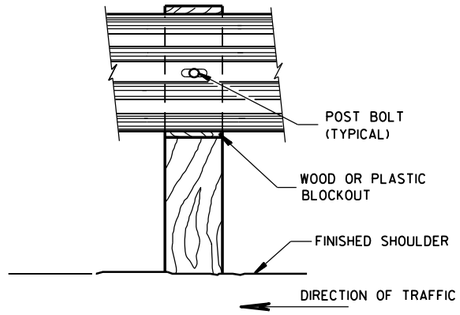
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

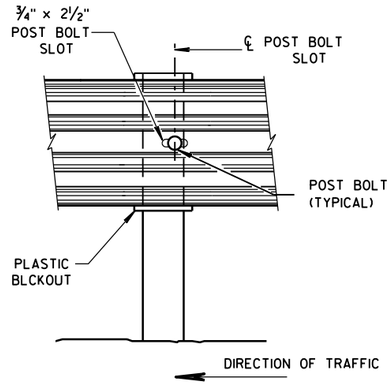


FRONT VIEW

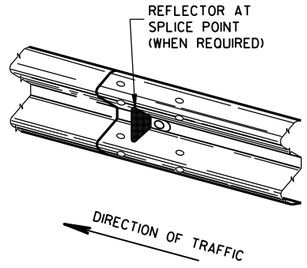
QUARTER POST SPACING (QS)

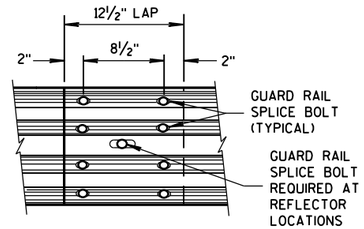


FRONT VIEW AT WOOD POST



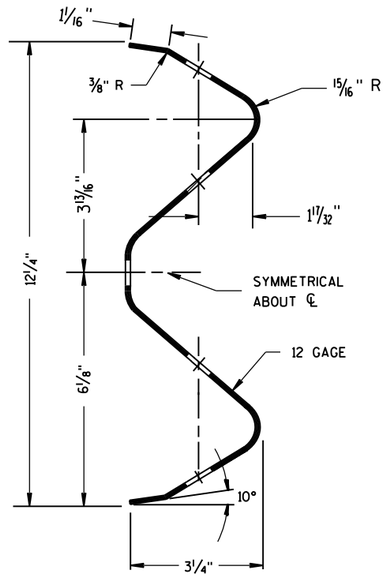
FRONT VIEW AT STEEL POST



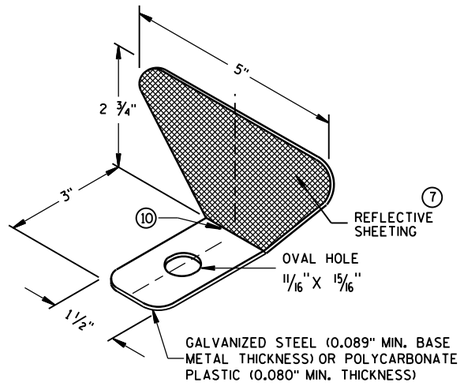


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 ⑩	

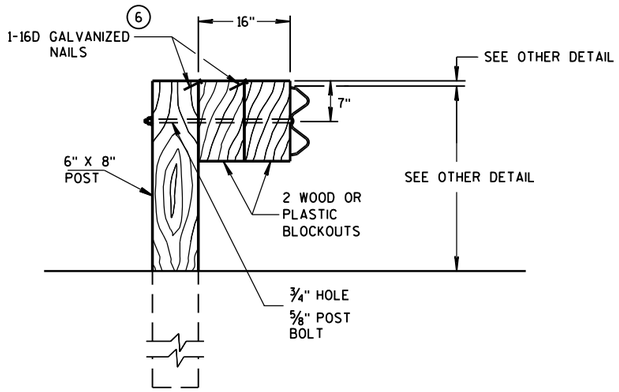
ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

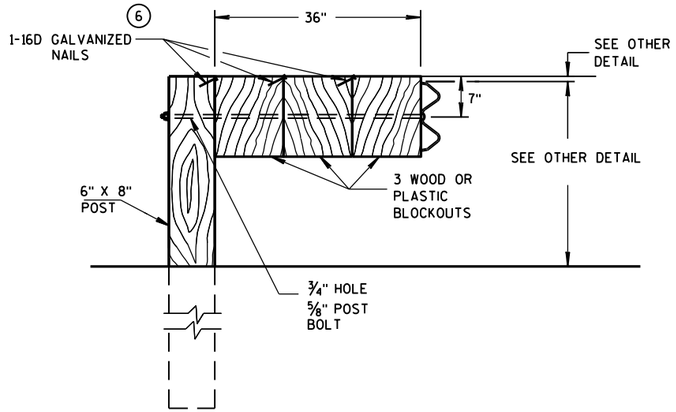
6

S.D.D. 14 B 42-3b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

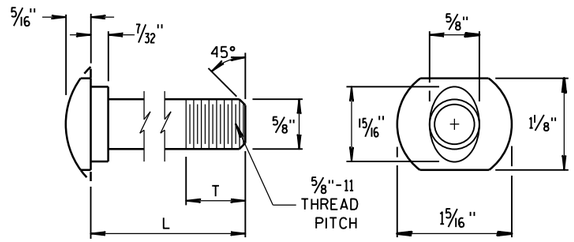


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

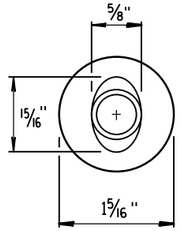
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

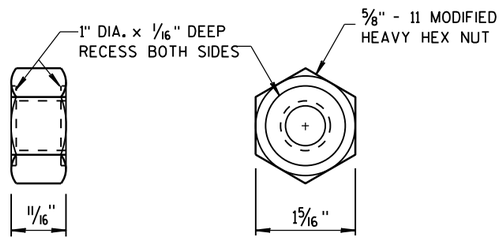


POST BOLT TABLE

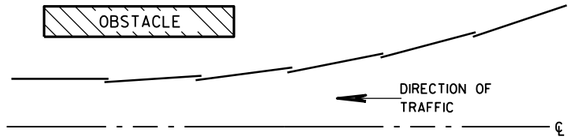
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

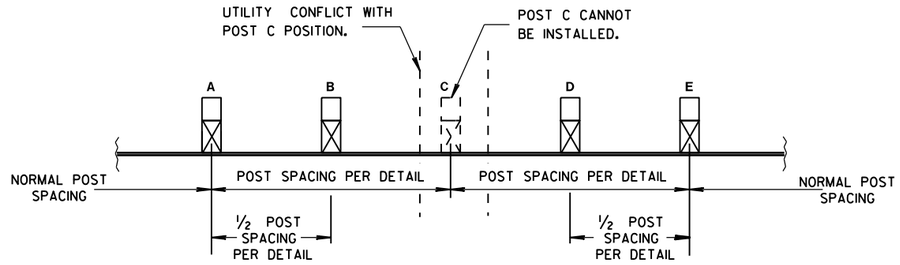


POST BOLT AND RECESS NUT

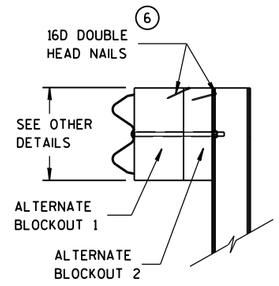


PLAN VIEW

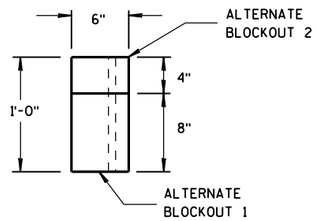
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 14 B 42-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

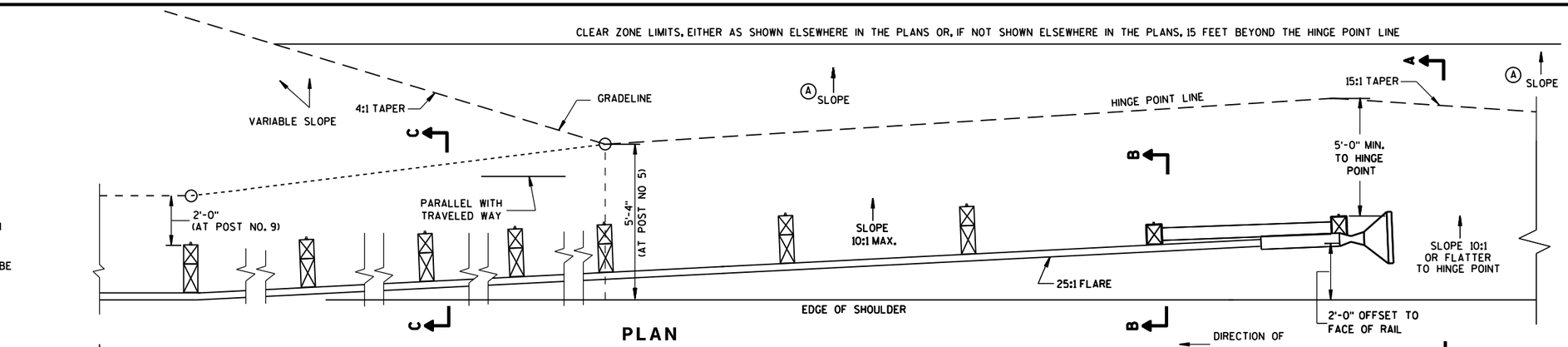
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

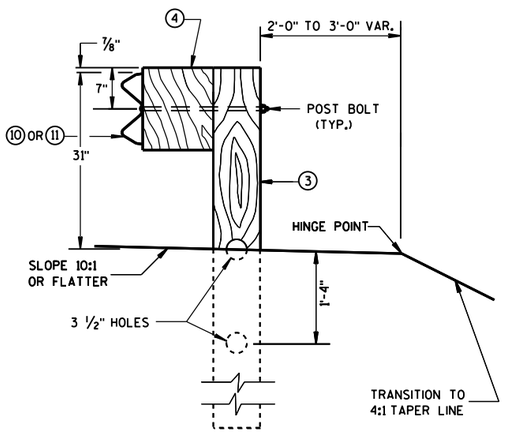
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

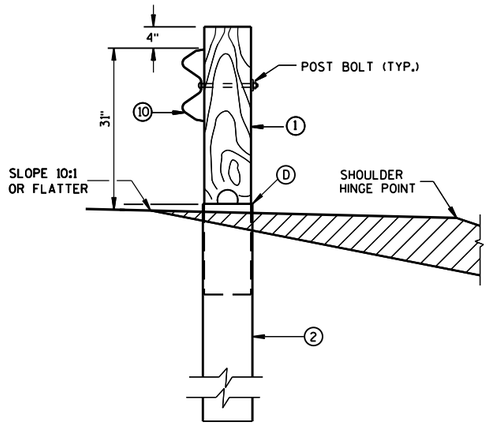
THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.



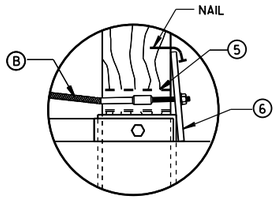
ELEVATION



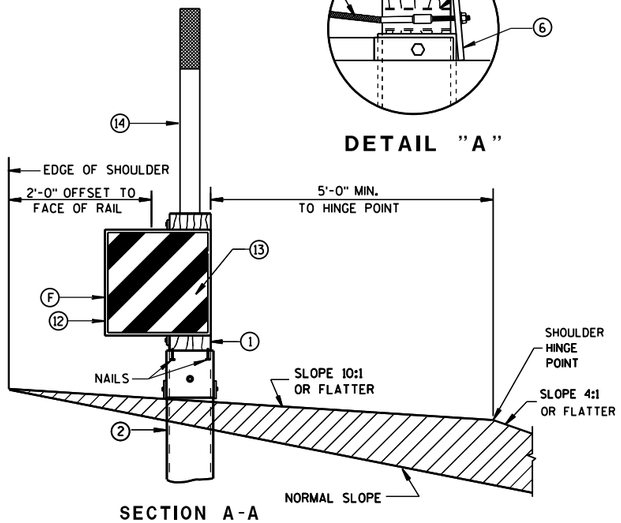
SECTION C-C
TYPICAL AT POST NOS. 3-9



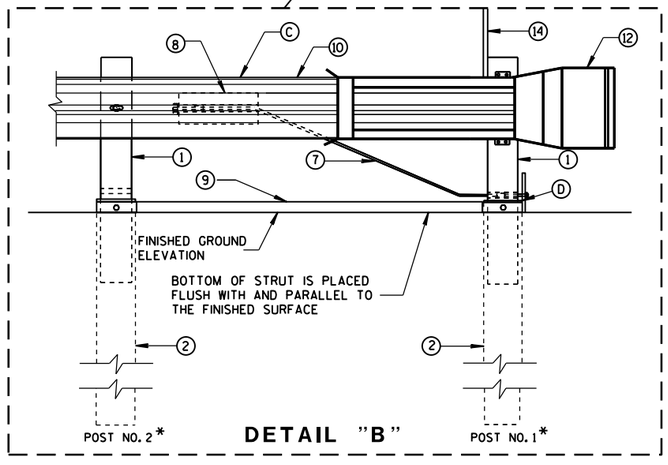
SECTION B-B
TYPICAL AT POST NO. 2*



DETAIL "A"



SECTION A-A
TYPICAL AT POST NO. 1*



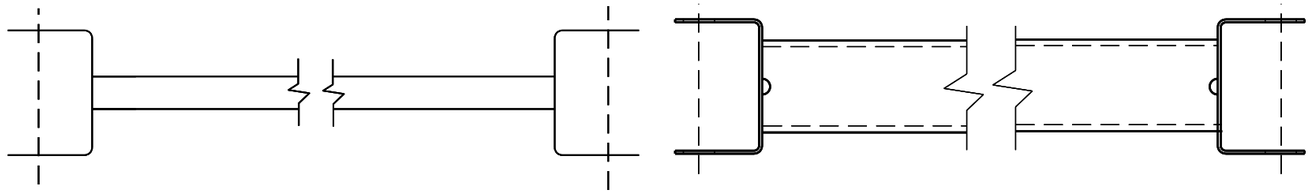
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 44-2a

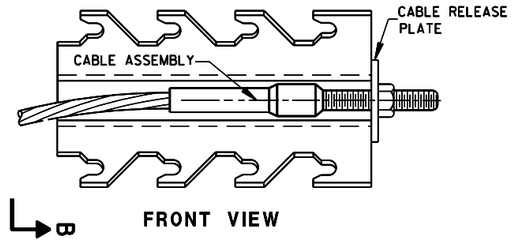
S.D.D. 14 B 44-2a



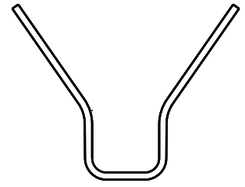
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

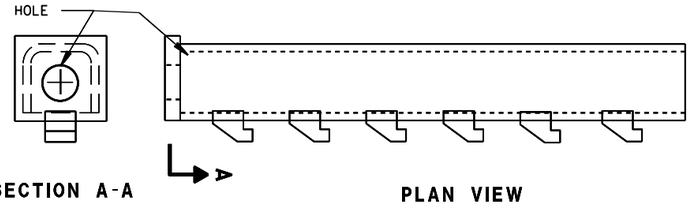
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



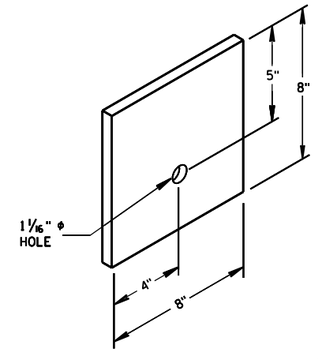
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)

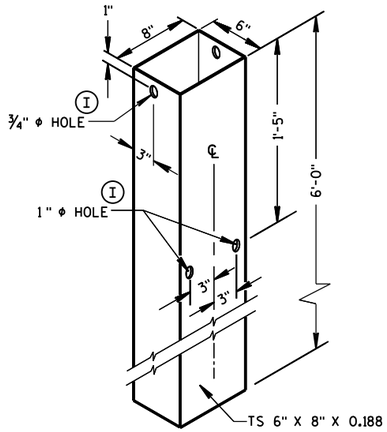


BEARING PLATE (6)

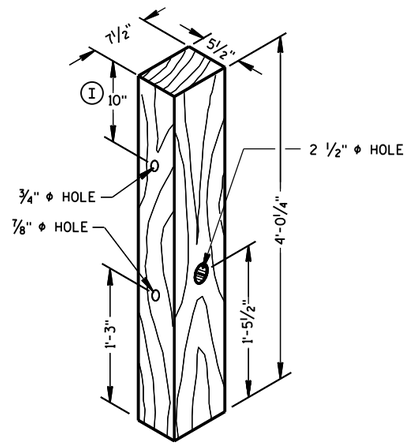
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 44-2b

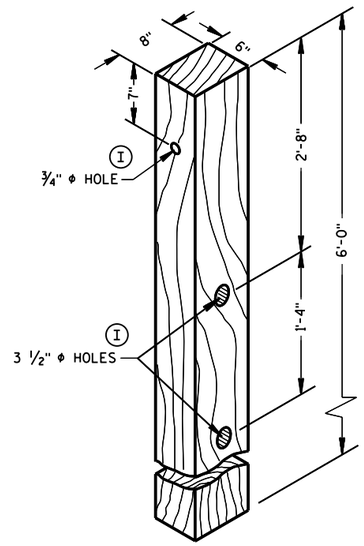


FOUNDATION TUBE (2)



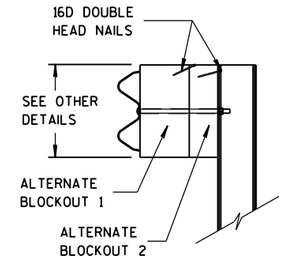
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

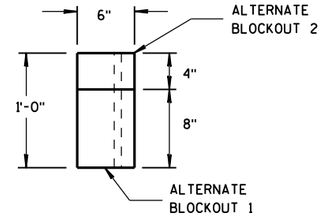


POSTS NUMBER 3-9

WOOD CRT POST (3)

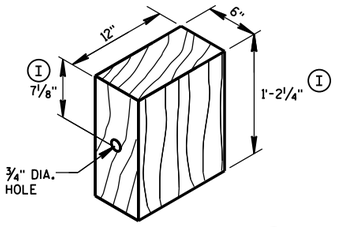


SIDE VIEW



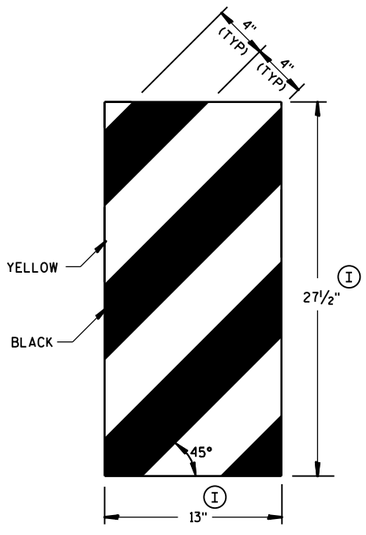
TOP VIEW

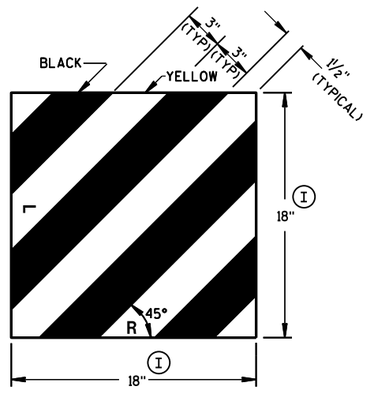
ALTERNATE WOOD BLOCKOUT DETAIL



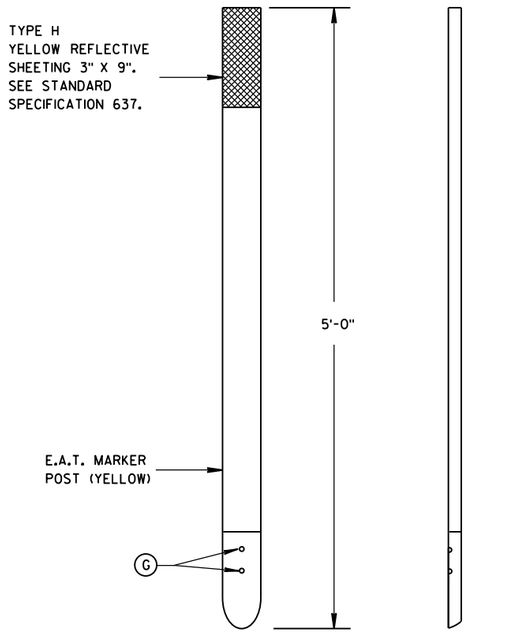
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





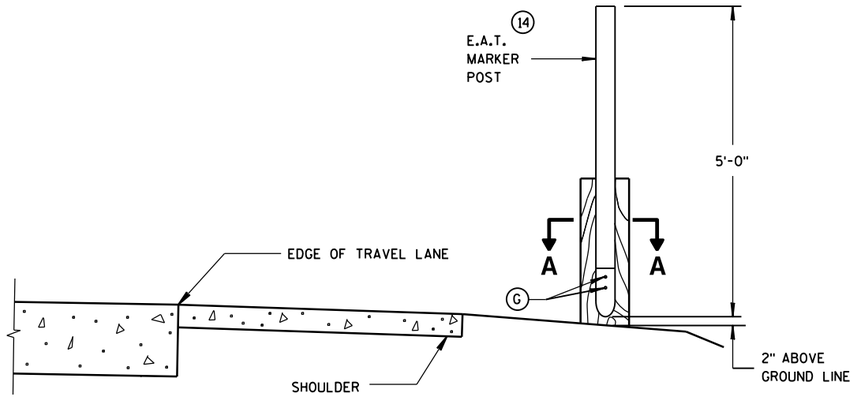
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

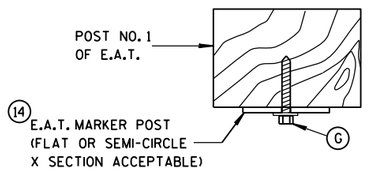
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

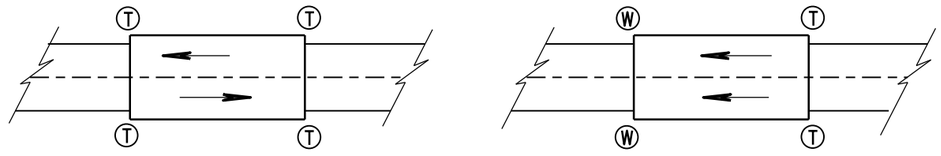
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

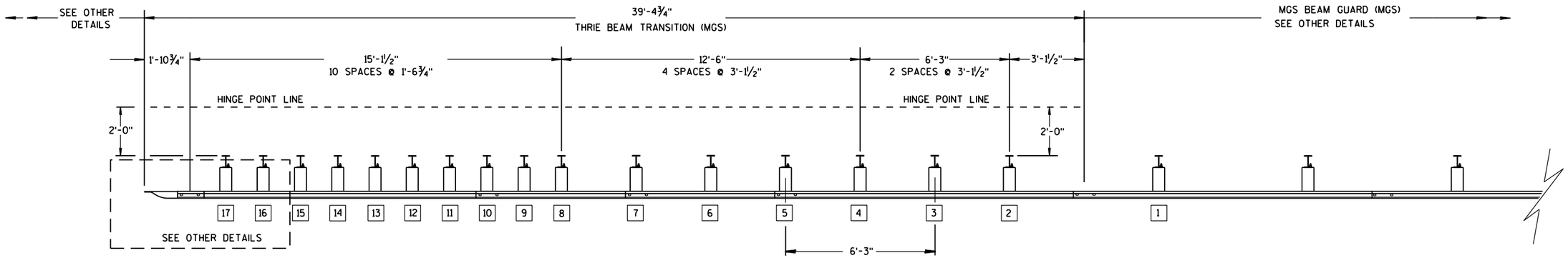
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

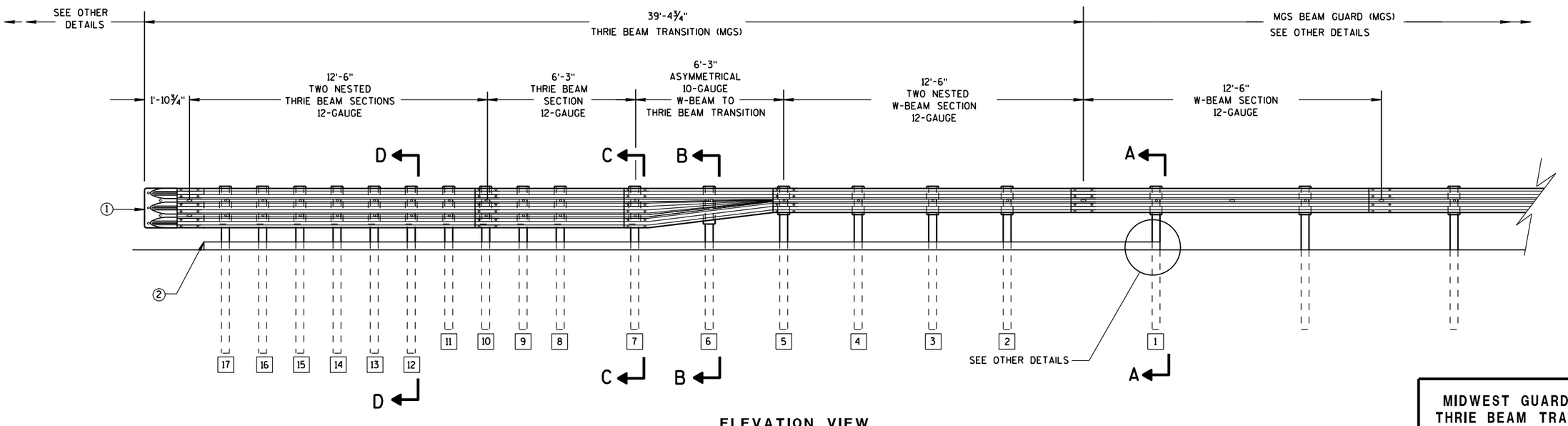
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-4a

6

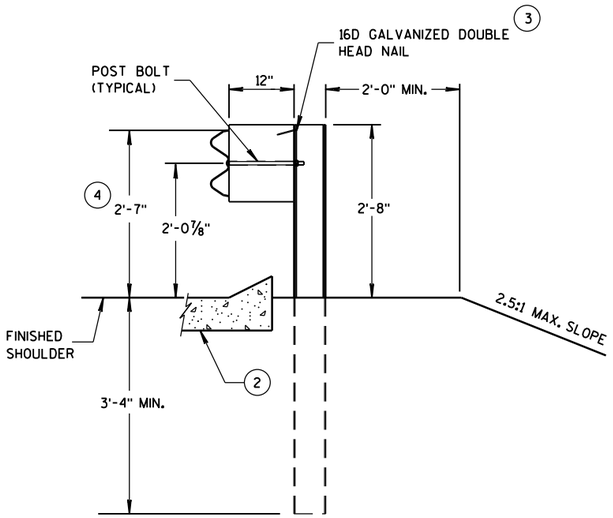
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

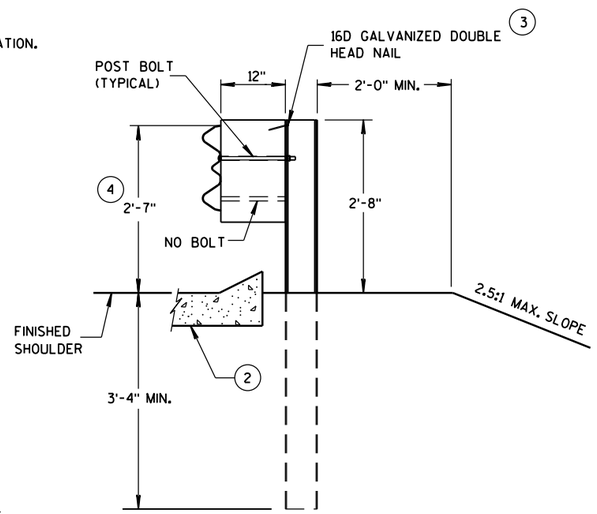
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



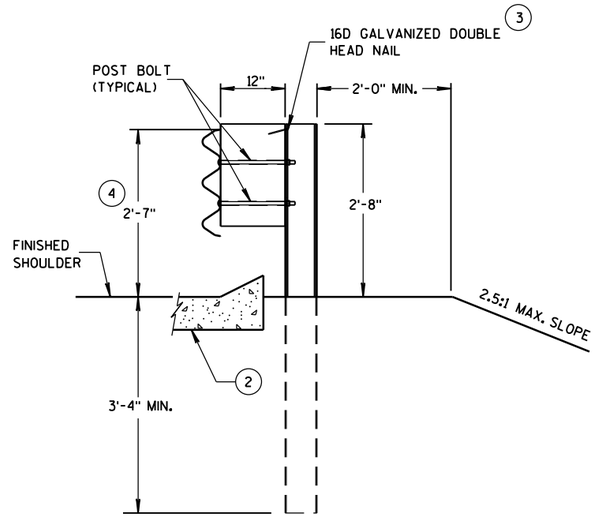
SECTION A-A

POSTS 1-5



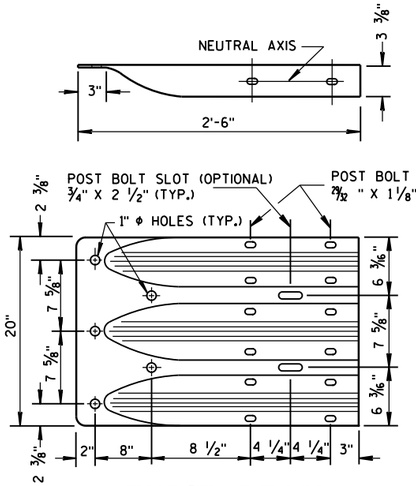
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

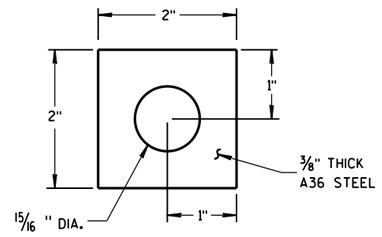
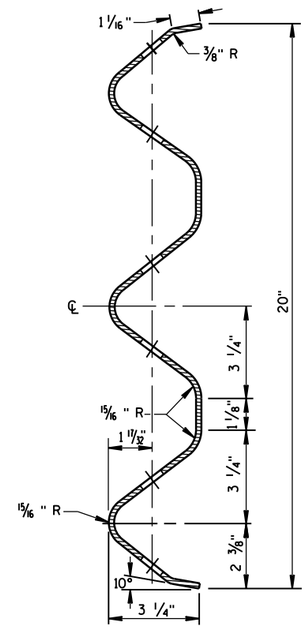
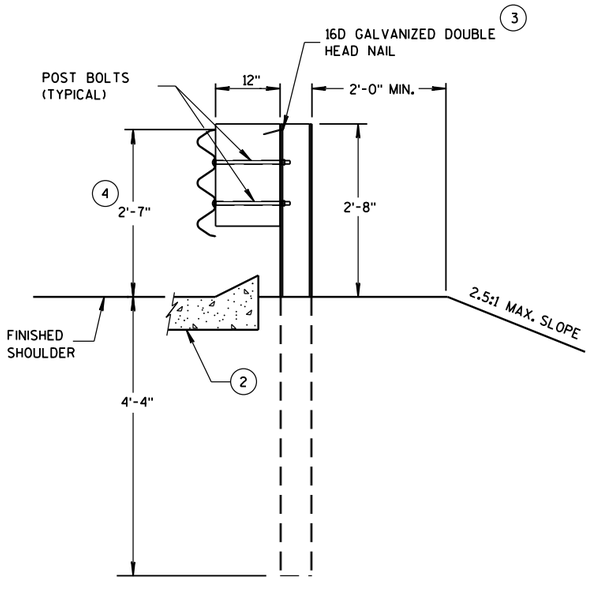


PLATE WASHER DETAIL

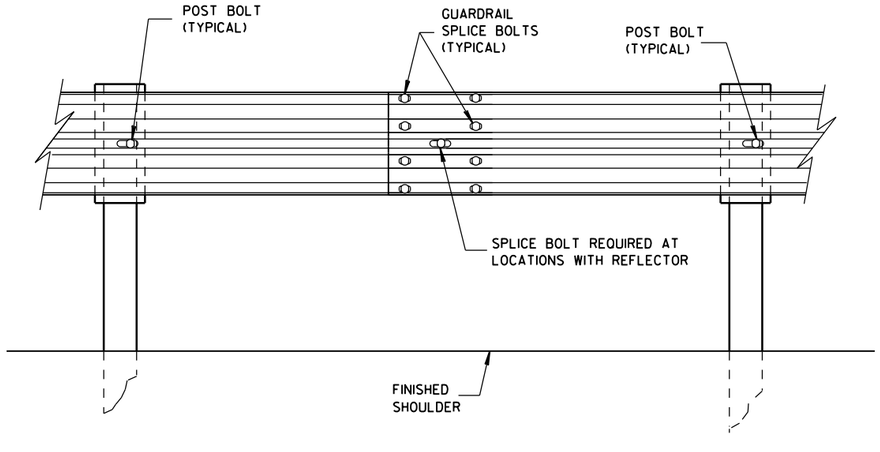


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



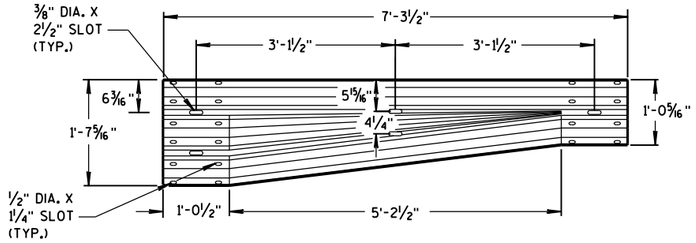
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

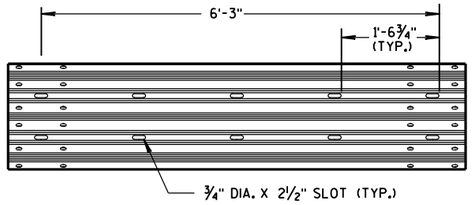
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

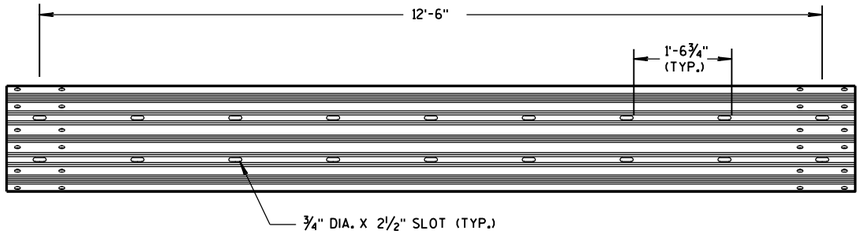
S.D.D. 14 B 45-4b



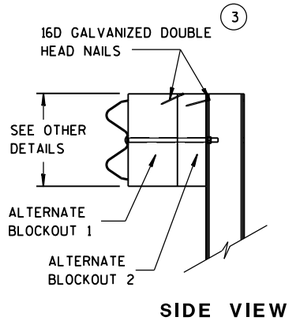
W-BEAM TO THRIE BEAM TRANSITION SECTION



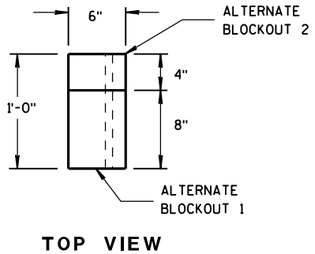
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

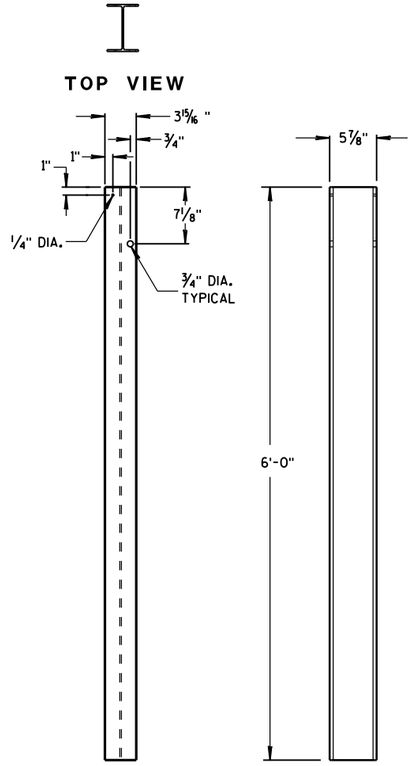


SIDE VIEW

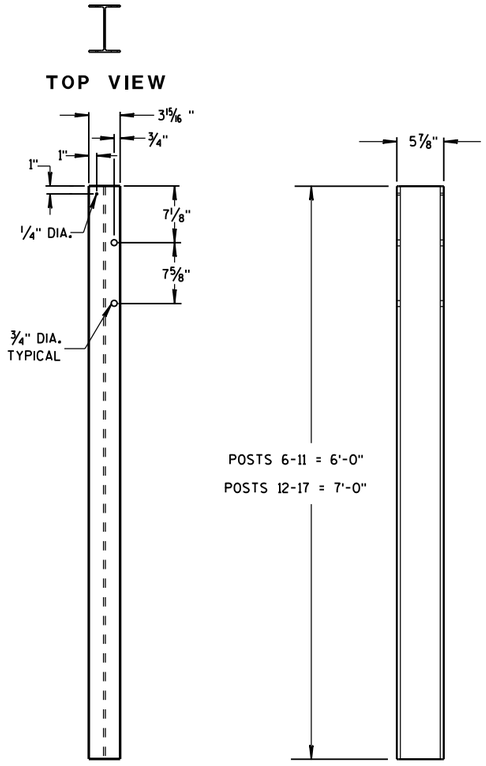


TOP VIEW

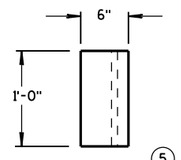
ALTERNATE WOOD BLOCKOUT DETAIL



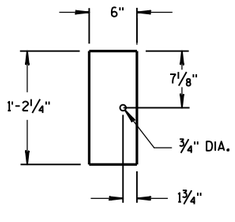
STEEL POSTS 1-5



STEEL POSTS 6-17

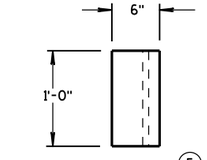


TOP VIEW

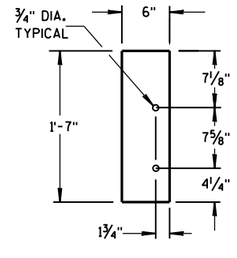


FRONT VIEW

BLOCKOUT POSTS 1-5



TOP VIEW



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

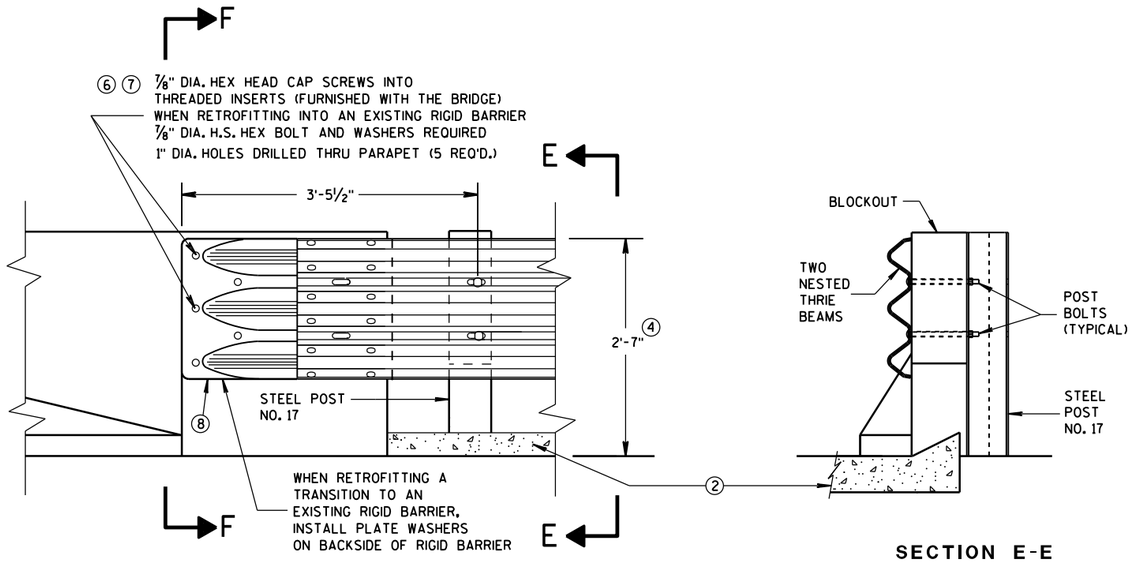
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

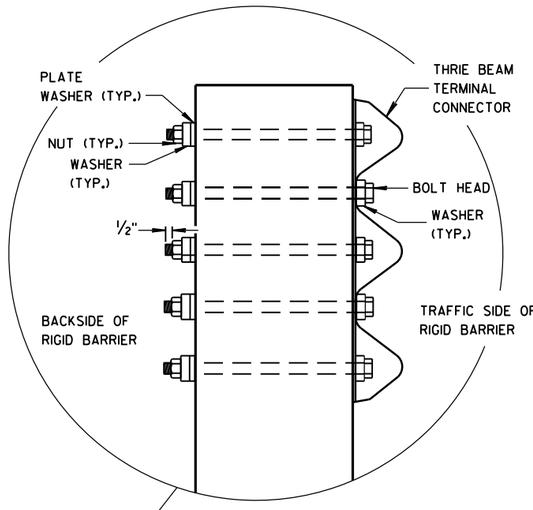
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

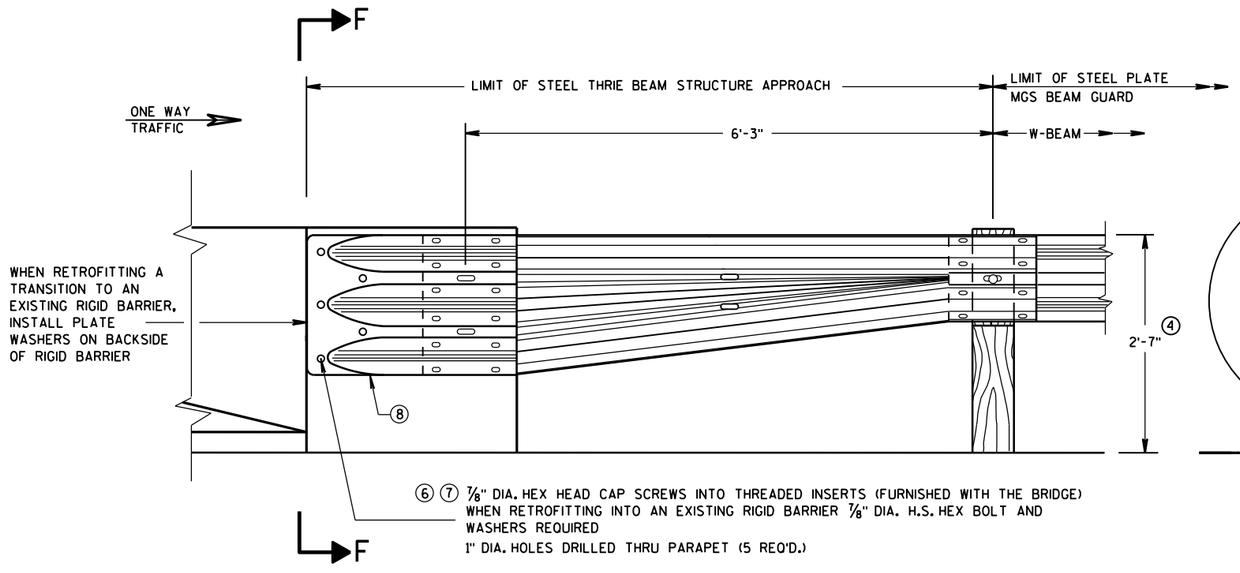
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

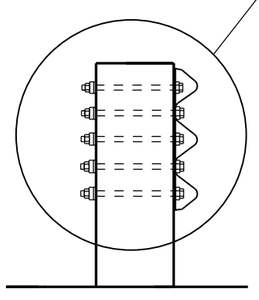
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

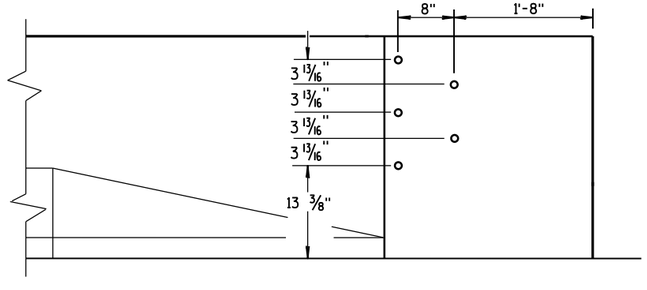




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 45-4d

6

S.D.D. 14 B 45-4d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

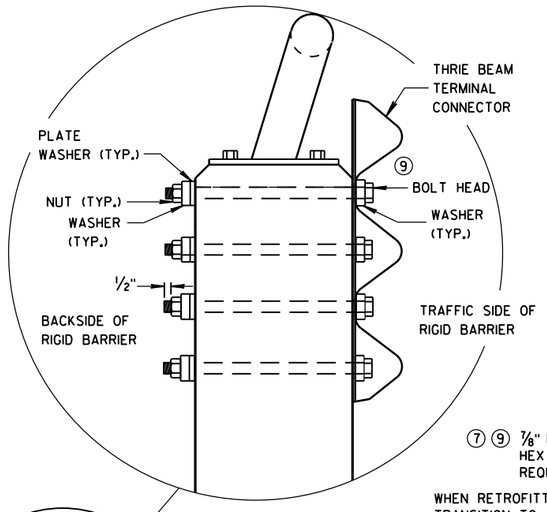
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

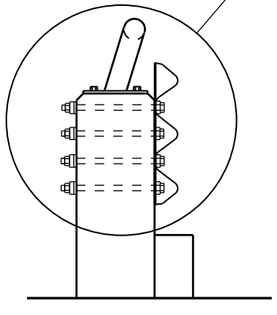
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

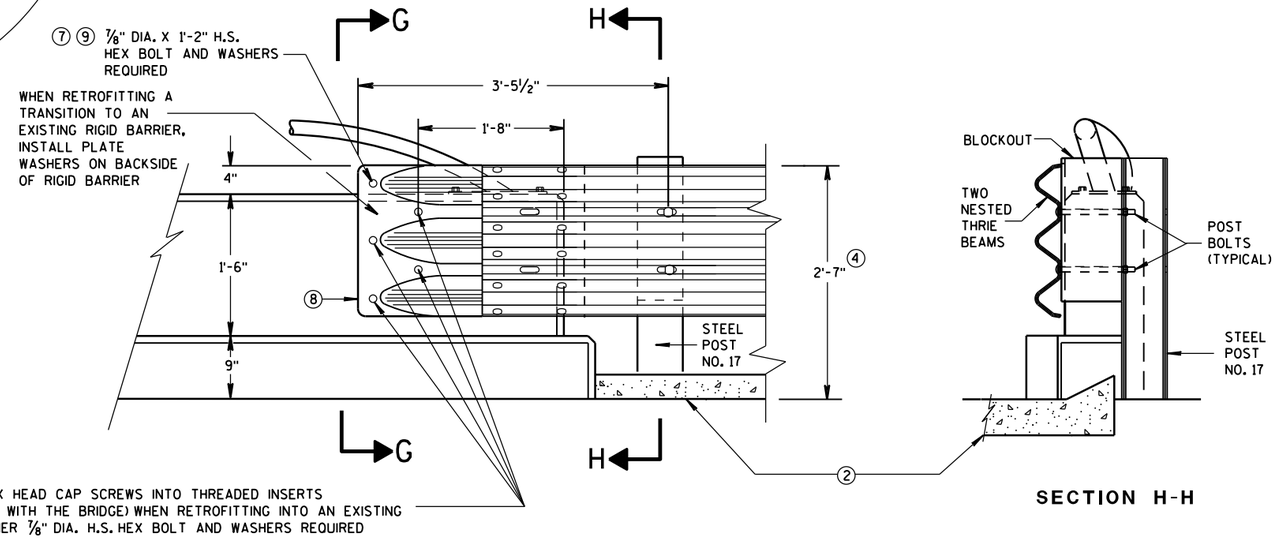
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





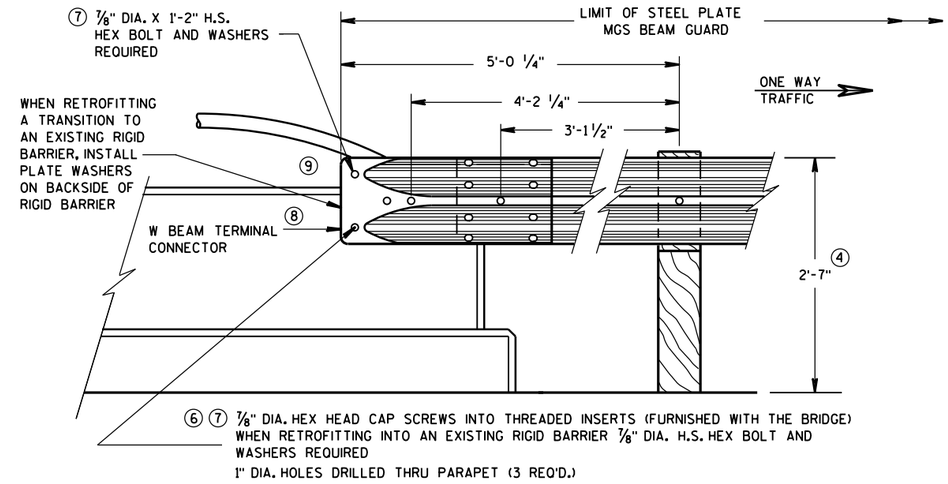
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

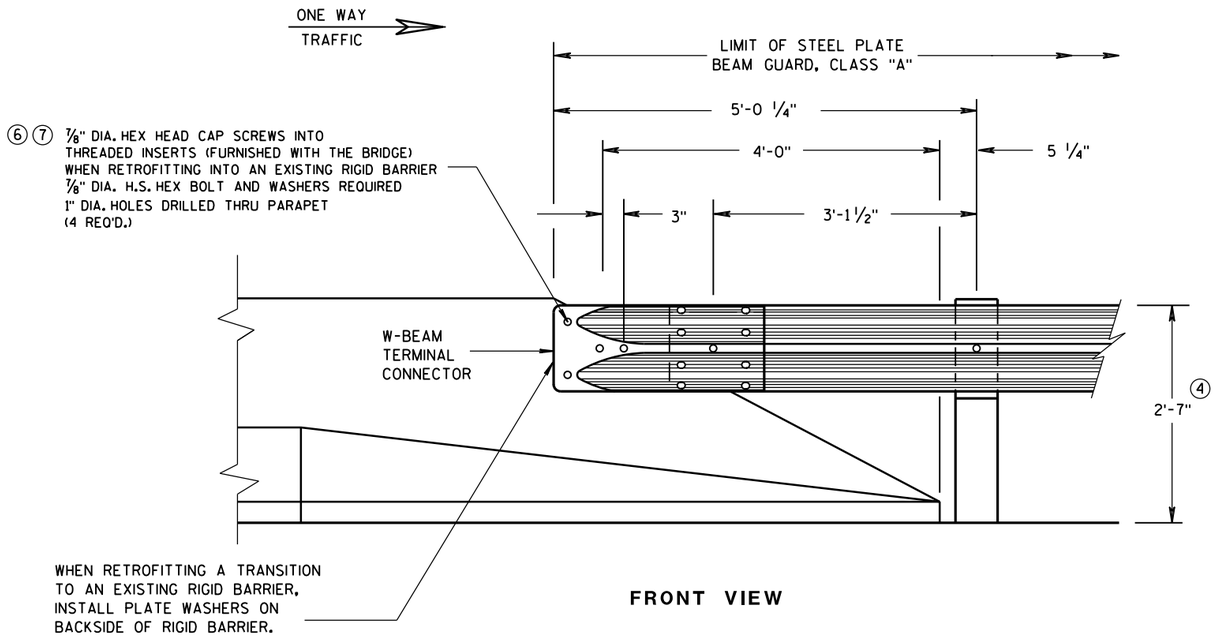
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 45-4e

6

S.D.D. 14 B 45-4e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

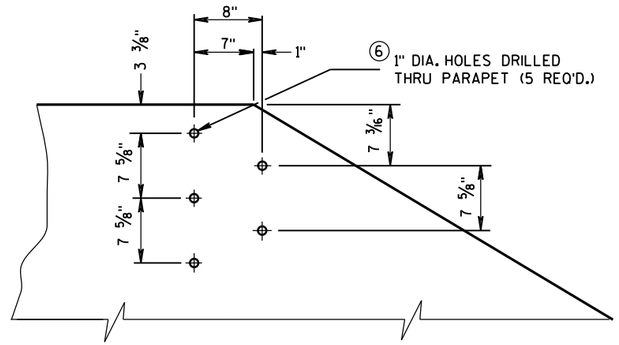
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

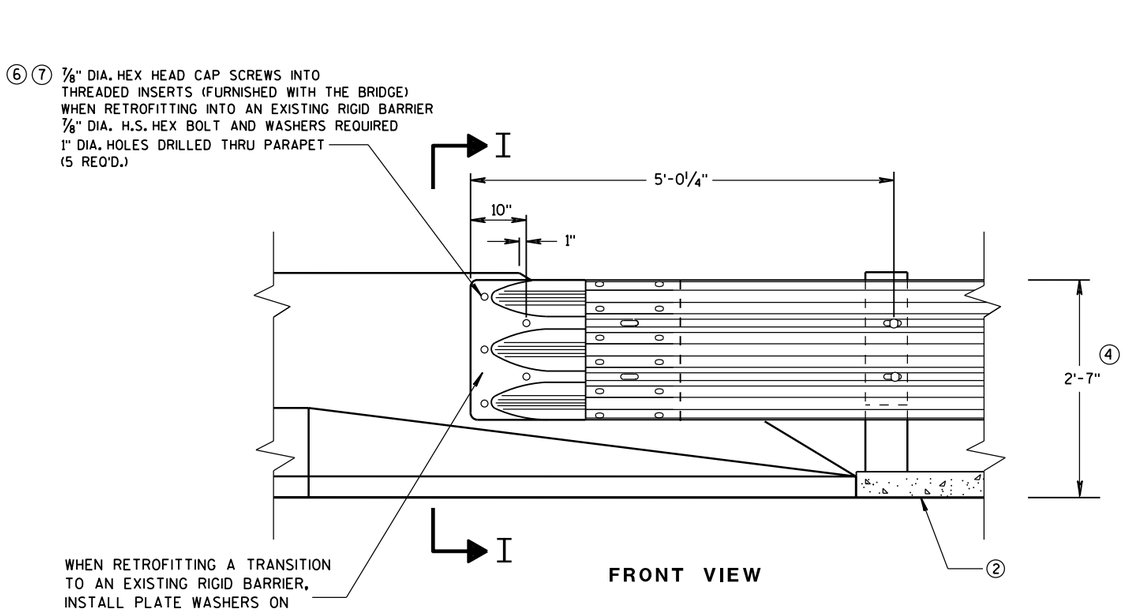
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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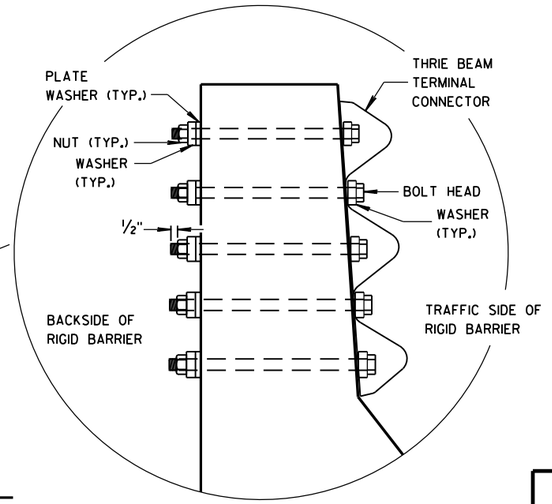


DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

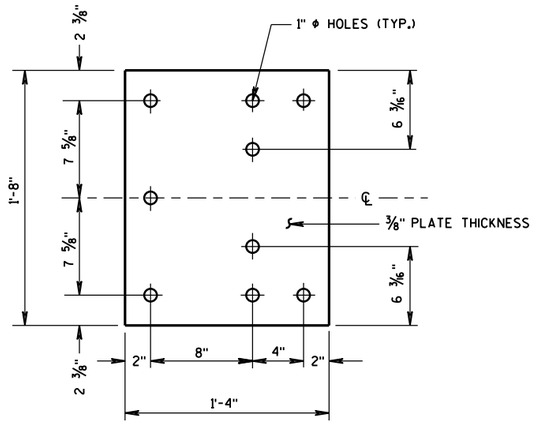
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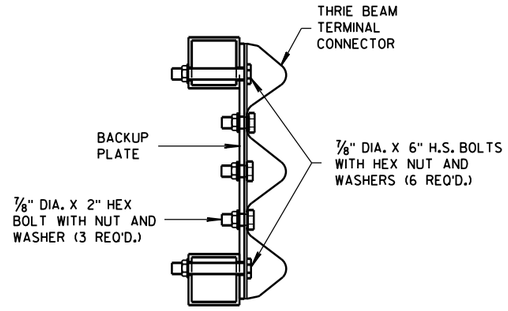
S.D.D. 14 B 45-4f

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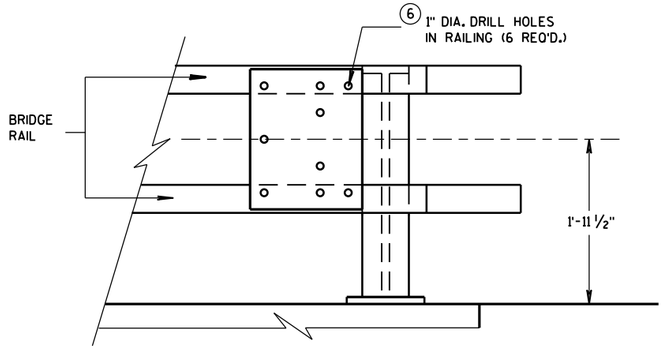
S.D.D. 14 B 45-4f



BACK-UP PLATE DETAIL



SECTION J-J

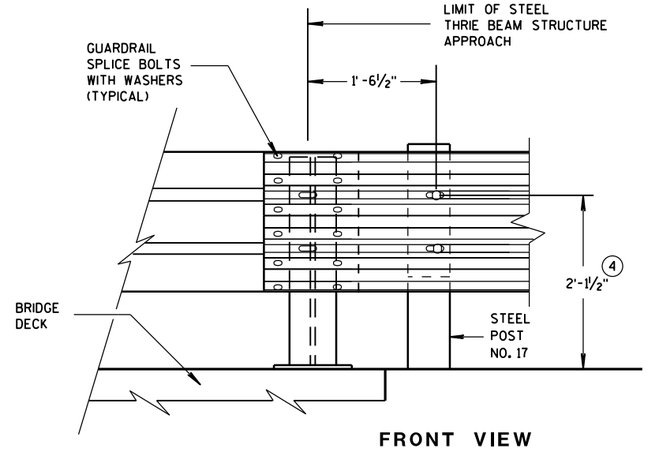


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

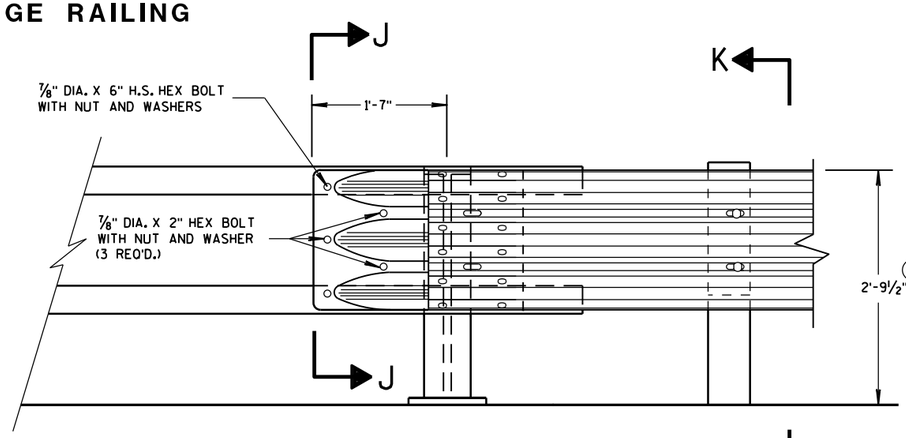
4 TOLERANCE FOR TOP OF BEAM IS ± 1".

6 DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

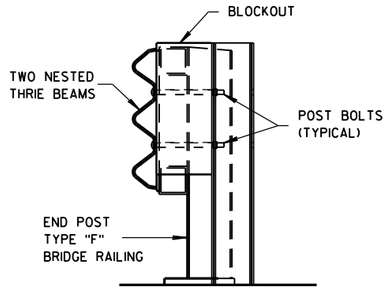


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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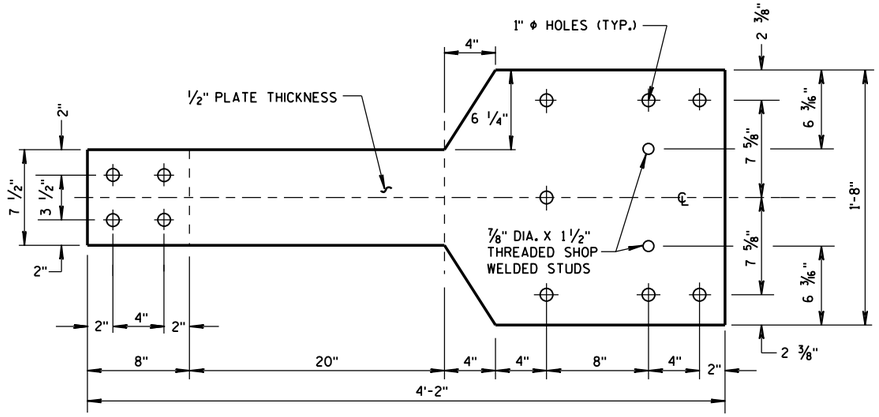
S.D.D. 14 B 45-4g

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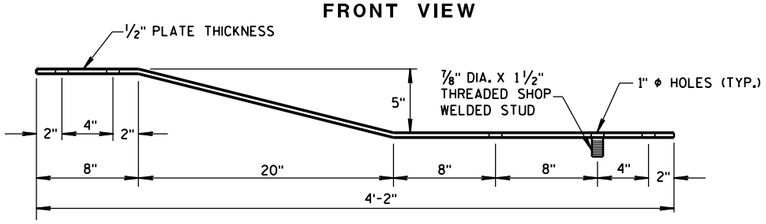
S.D.D. 14 B 45-4g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

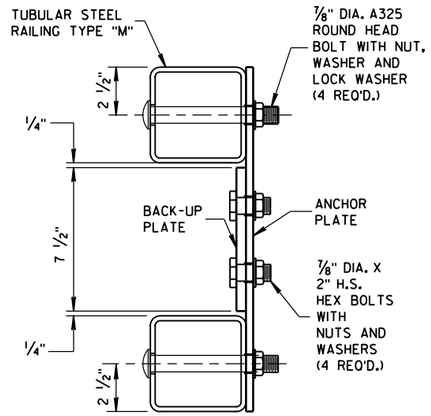


FRONT VIEW

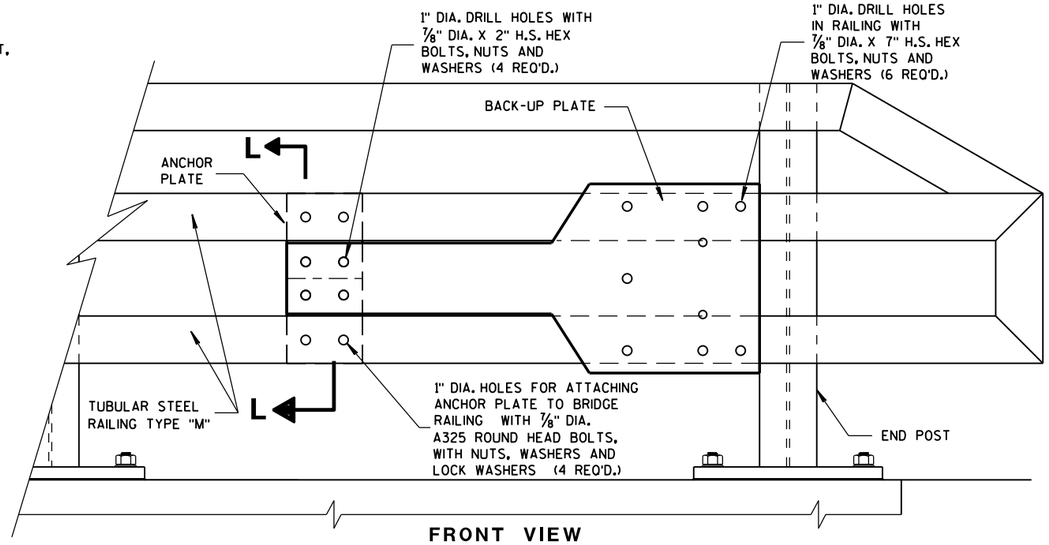


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

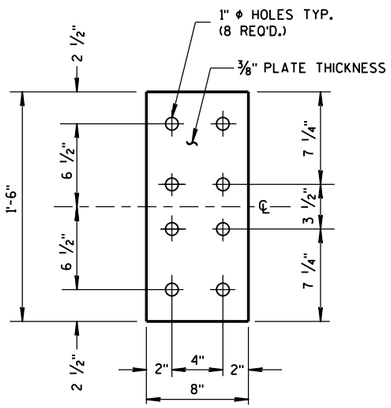


SECTION L-L



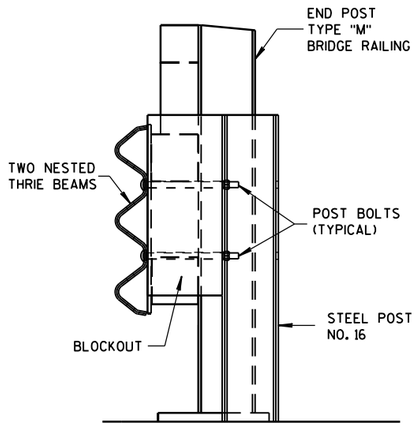
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

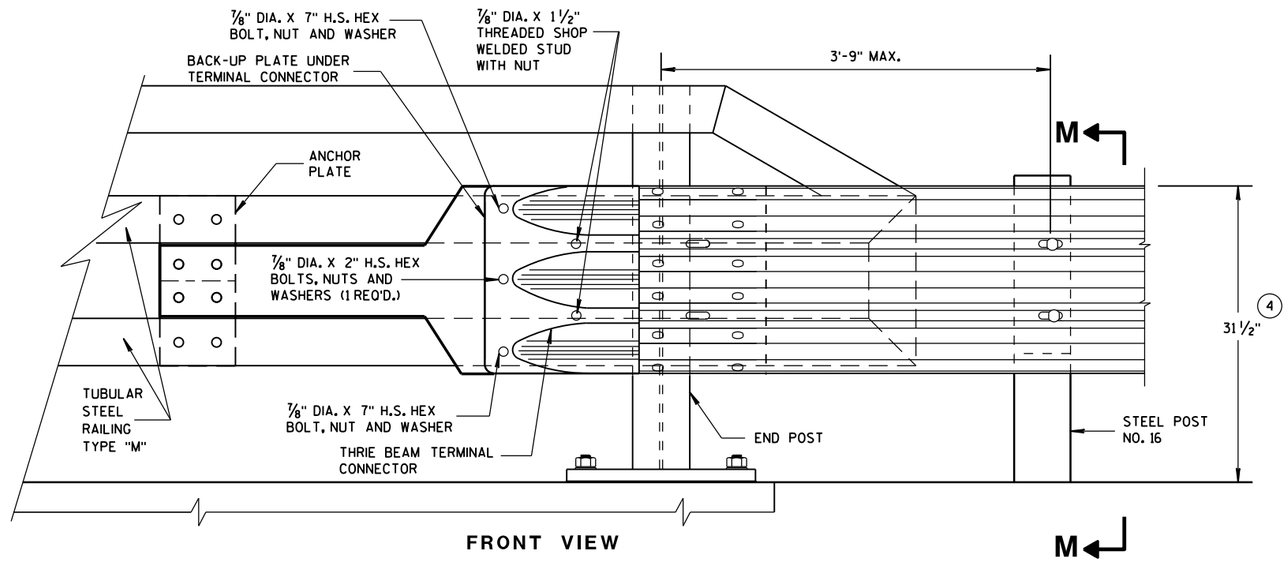


FRONT VIEW

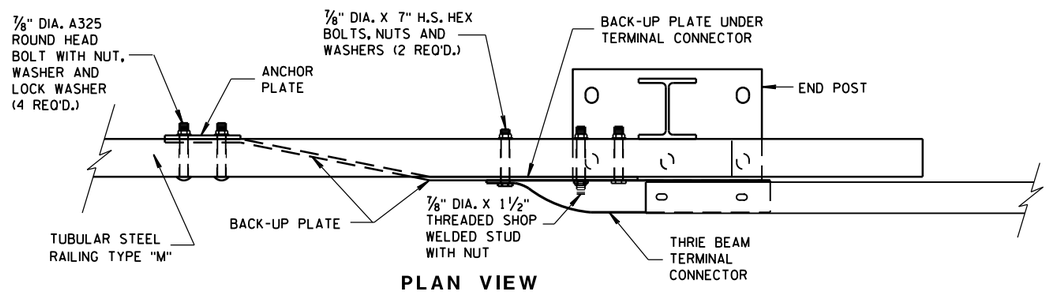
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

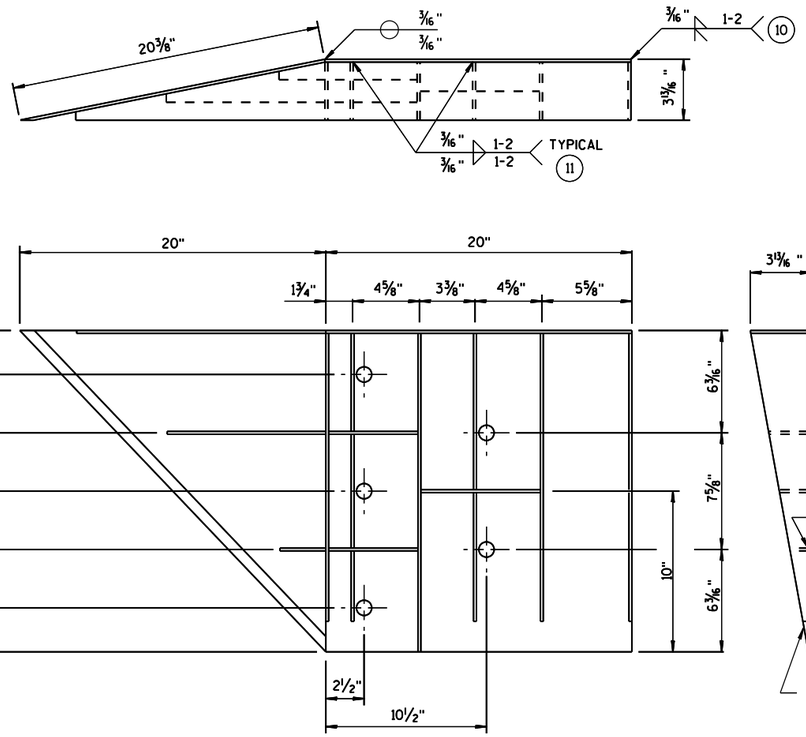
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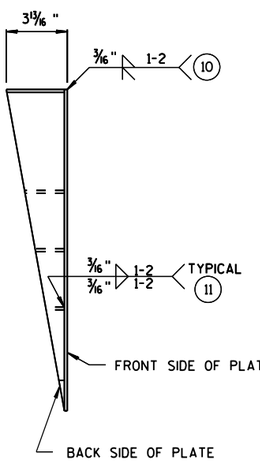
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WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

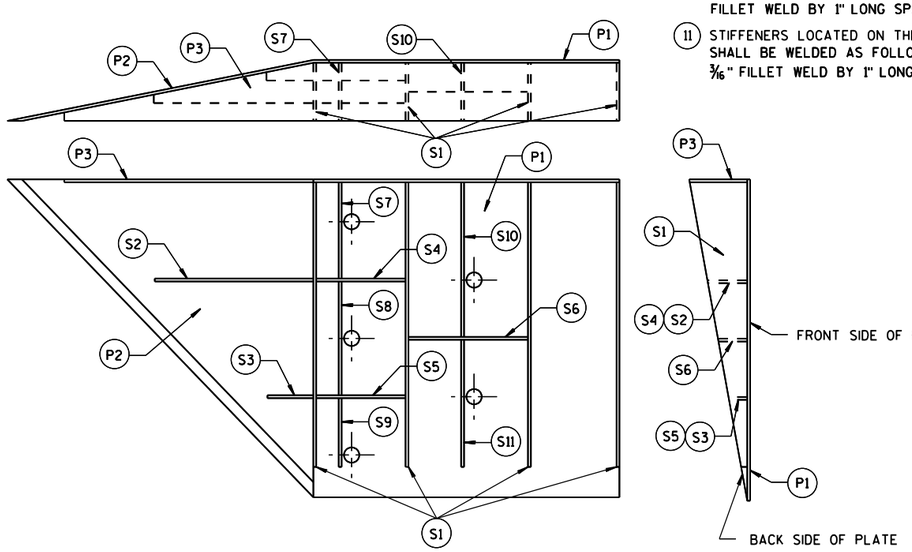


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE ⅜" THICK.

ALL STIFFENERS ARE ¼" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND ⅜" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
⅜" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	⅜"
P2	1		20" x 20" x 28⁹⁄₁₆"	⅜"
P3	1		39" x 3⅝" x 20" x 19⁵⁄₁₆"	⅜"
S1	4		18⁷⁄₁₆" x 3⅜" x 18¾"	¼"
S2	1		10¼" x 2⁷⁄₁₆" x 10⅜" x ½"	¼"
S3	1		3" x 1¹⁄₁₆" x 3⅛" x ½"	¼"
S4	1		6⅛" x 2⁷⁄₁₆"	¼"
S5	1		6⅛" x 1¹⁄₁₆"	¼"
S6	1		7¾" x 1¾"	¼"
S7	1		2⁹⁄₁₆" x 6" x 3⅝" x 5⅞"	¼"
S8	1		1³²⁄₃₂" x 7½" x 2½" x 7⅜"	¼"
S9	1		6¹⁄₁₆" x 6³⁄₁₆" x 1³²⁄₃₂"	¼"
S10	1		1⅛" x 9⅞" x 3⅝" x 9¹¹⁄₁₆"	¼"
S11	1		8½" x 8¾" x 1¹³⁄₁₆"	¼"

SINGLE SLOPE CONNECTION PLATE

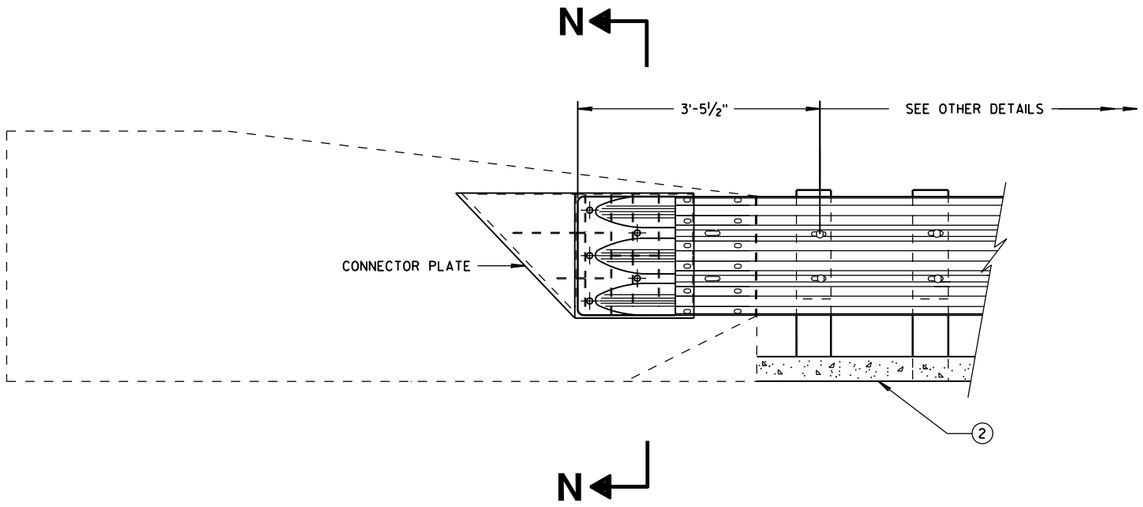
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

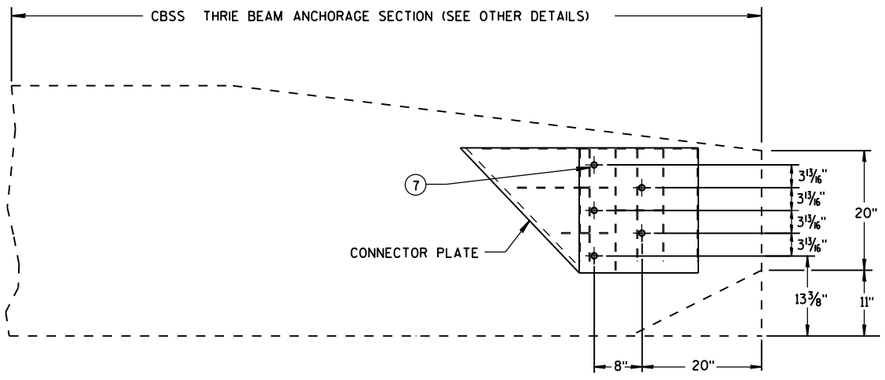
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THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



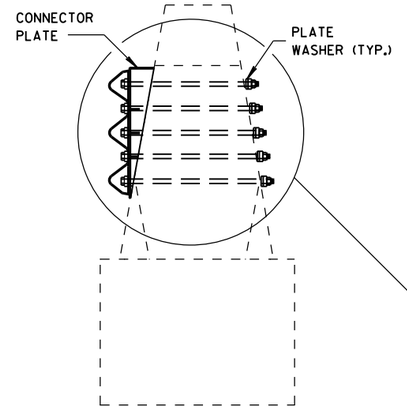
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

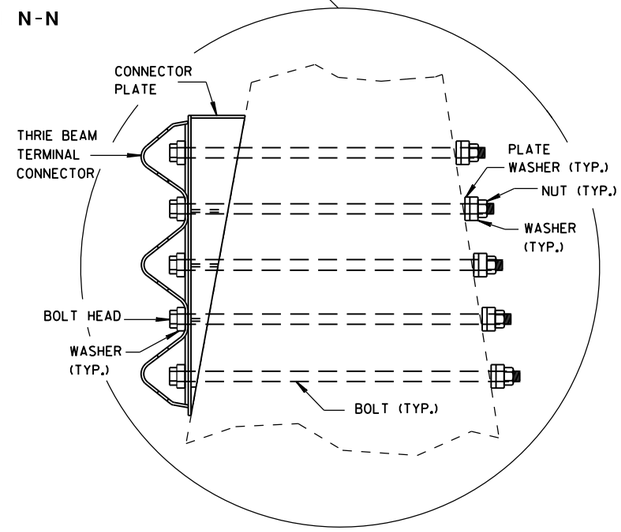
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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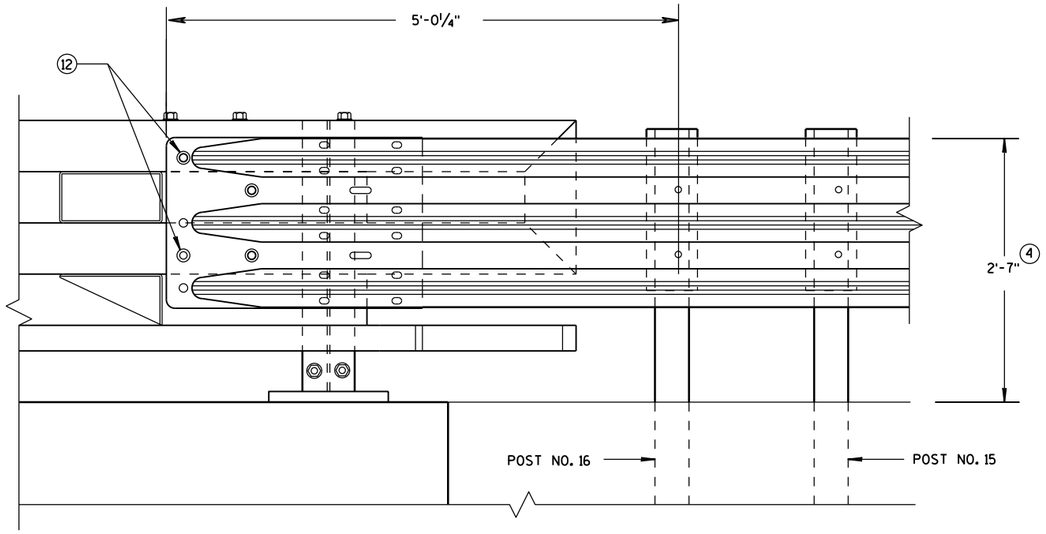
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S.D.D. 14 B 45-4j

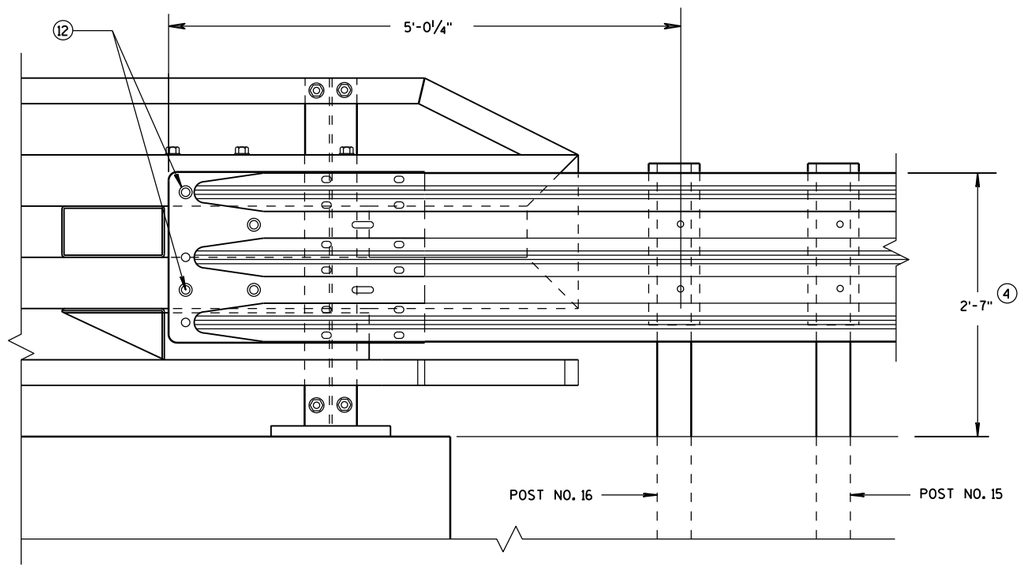
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S.D.D. 14 B 45-4j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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June, 2015
DATE

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ENGINEER

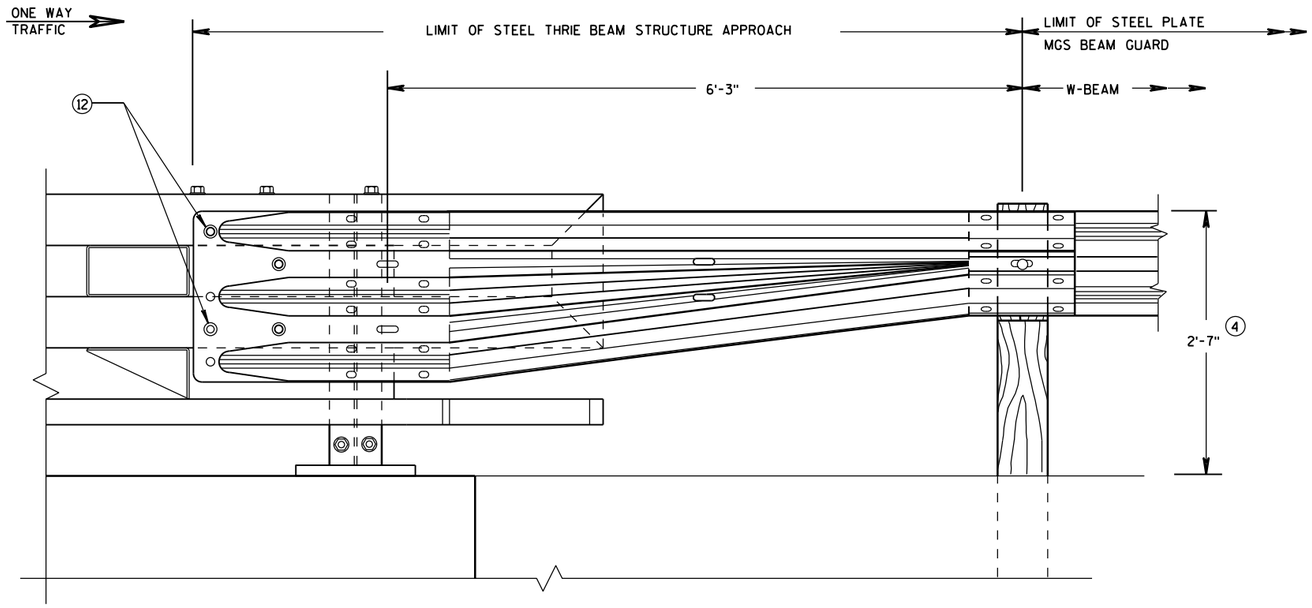
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S.D.D. 14 B 45-4k

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S.D.D. 14 B 45-4k



FRONT VIEW

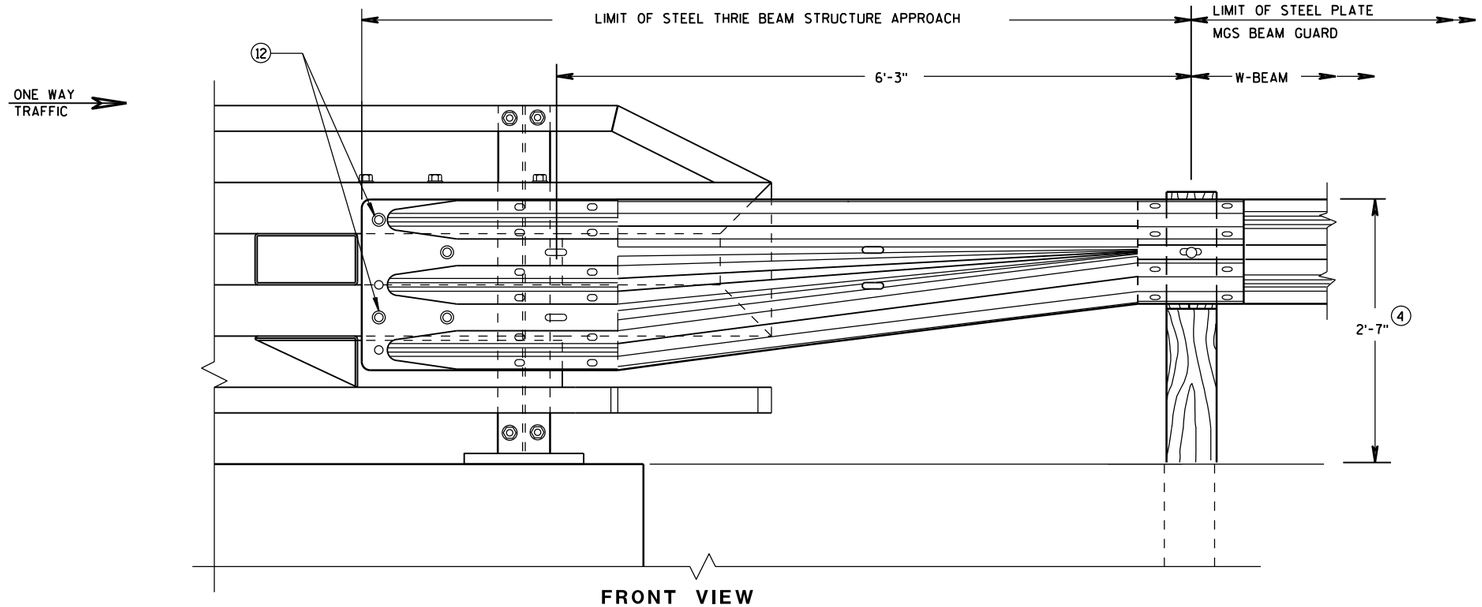
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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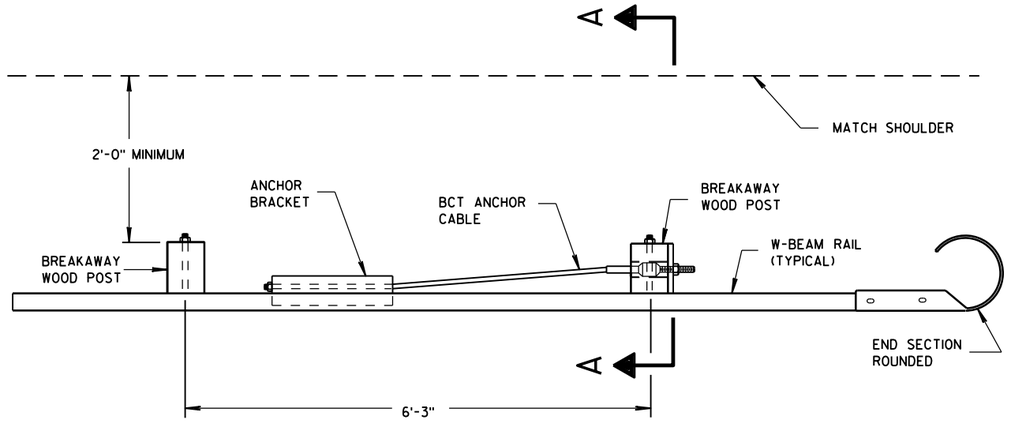
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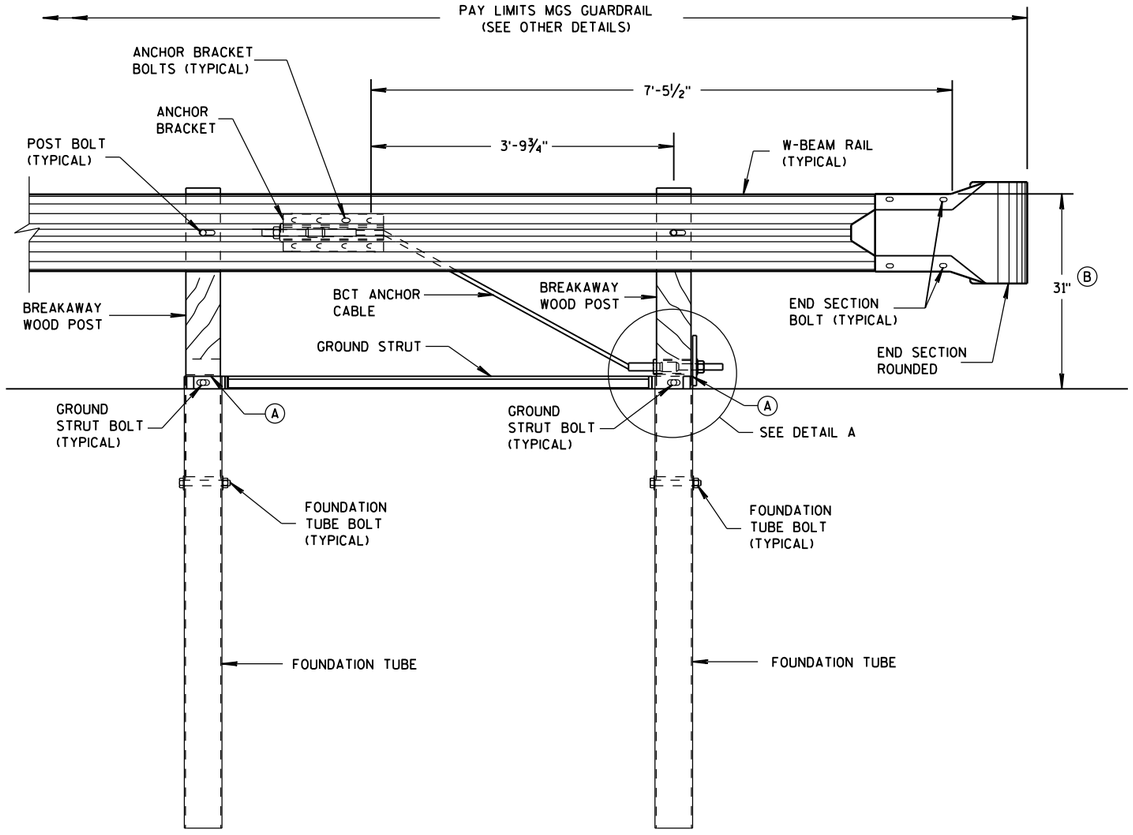
S.D.D. 14 B 45-4L

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S.D.D. 14 B 45-4L

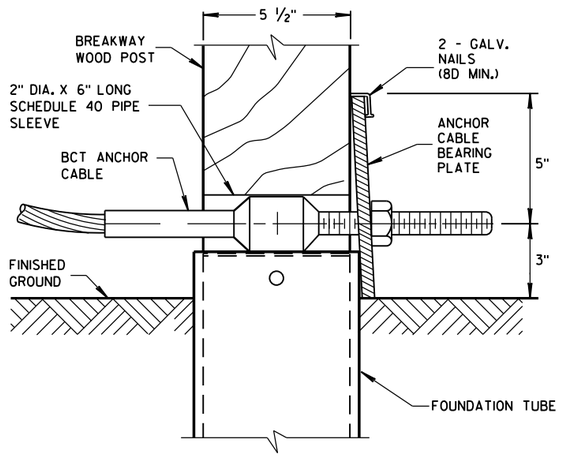


PLAN VIEW



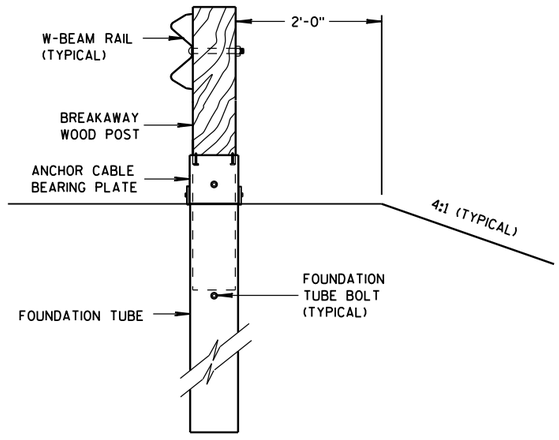
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

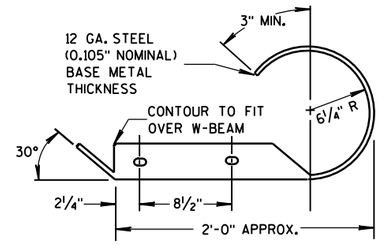
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

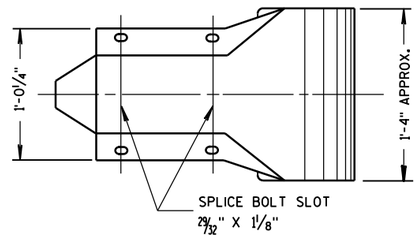
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



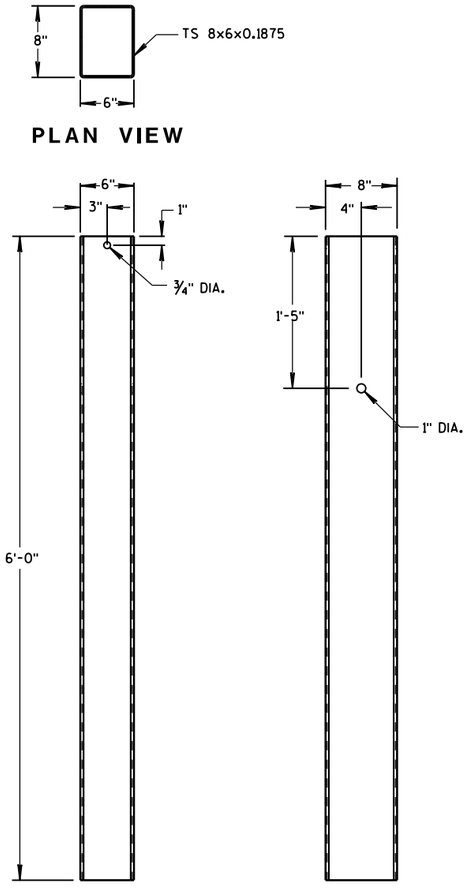
FRONT VIEW

W BEAM END SECTION ROUNDED

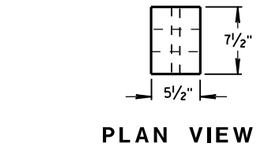
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

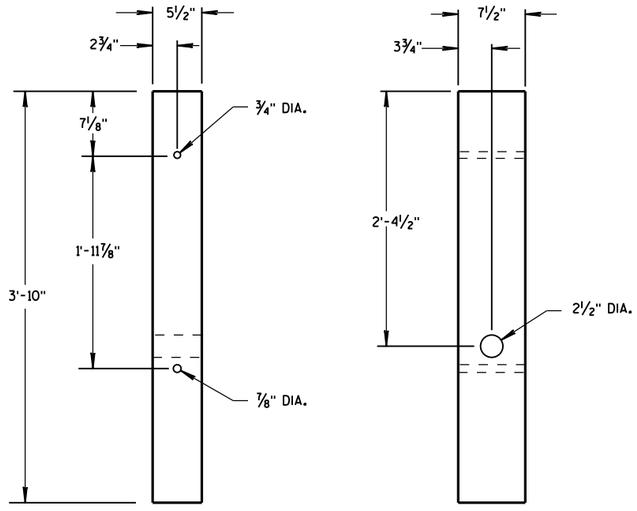
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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S.D.D. 14 B 47-2a



FOUNDATION TUBE

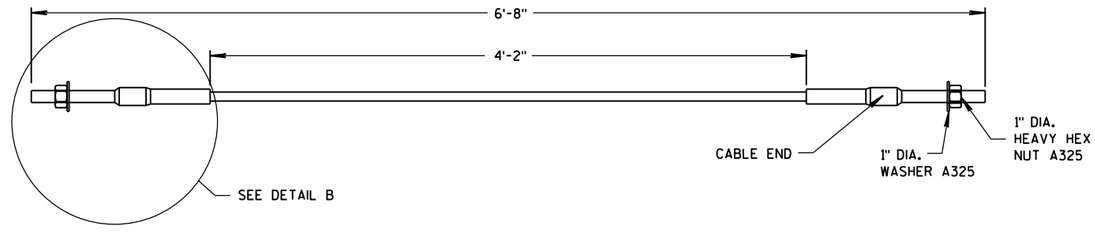




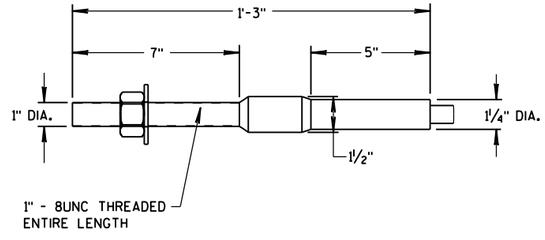
BREAKAWAY WOOD POST

GENERAL NOTES

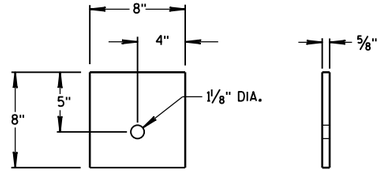
BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.



BCT ANCHOR CABLE



DETAIL B



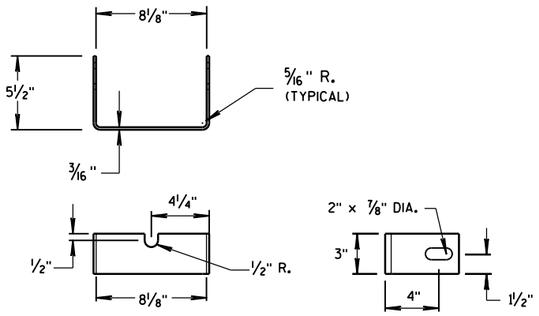
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

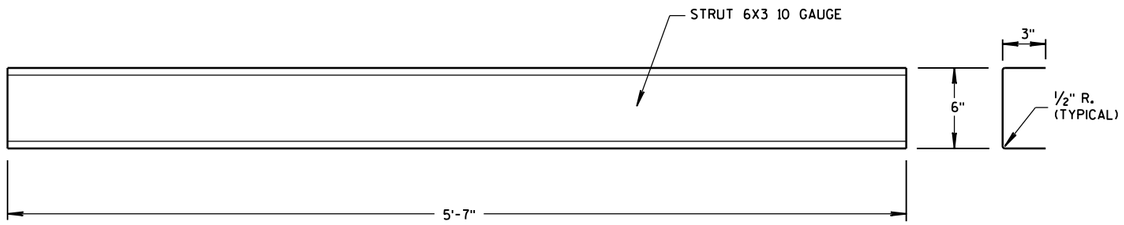
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

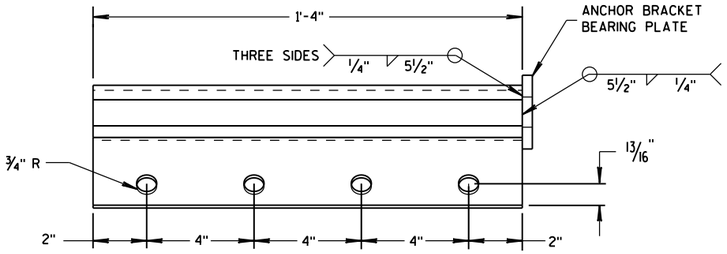
S.D.D. 14 B 47-2b

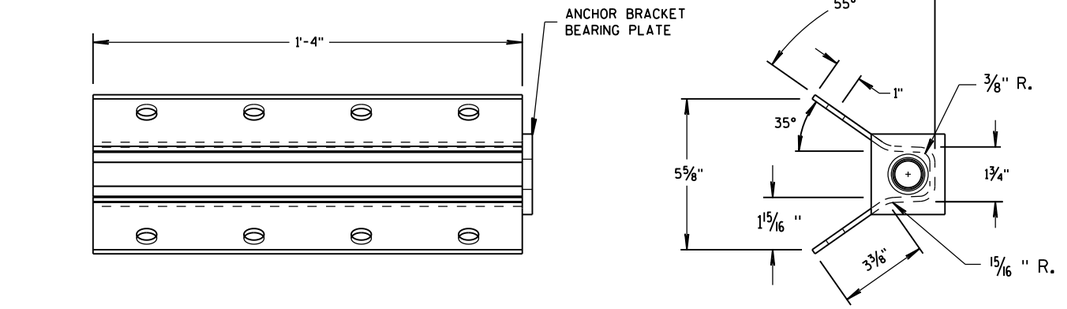


YOKE DETAIL

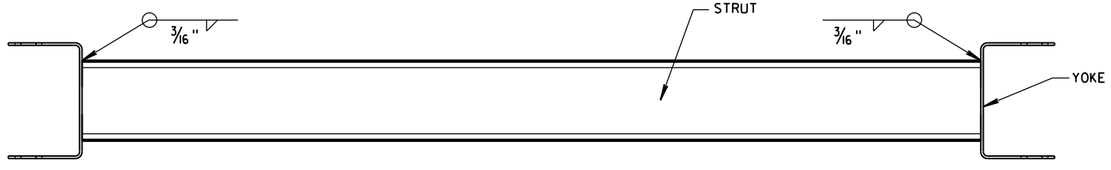


STRUT DETAIL

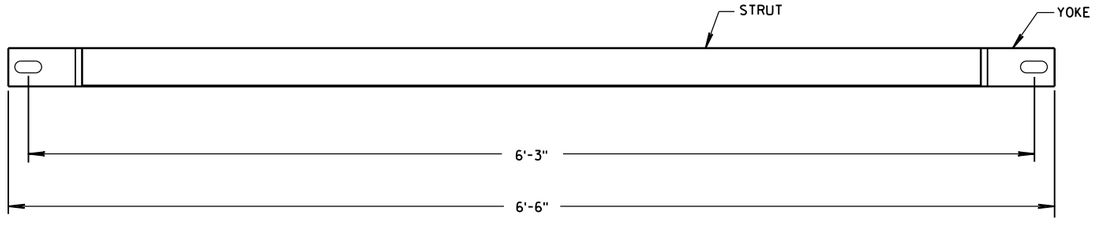




ANCHOR BRACKET

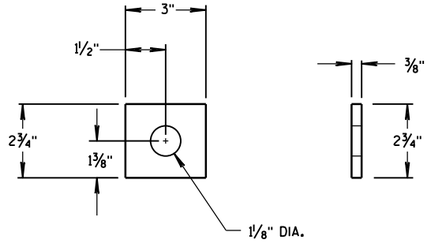


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

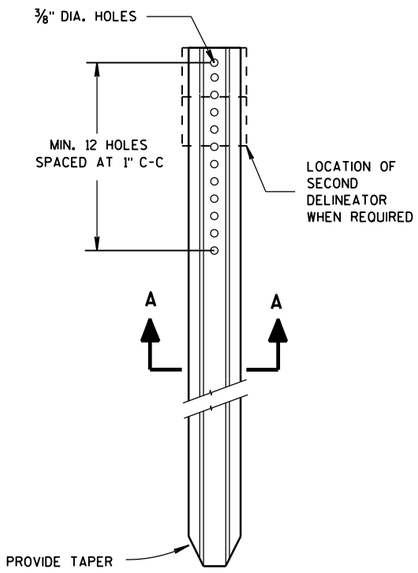
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

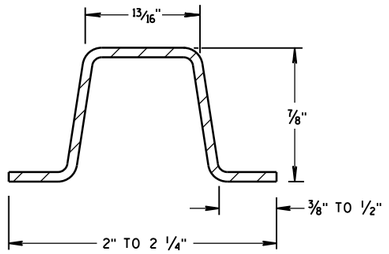
APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 47-2c

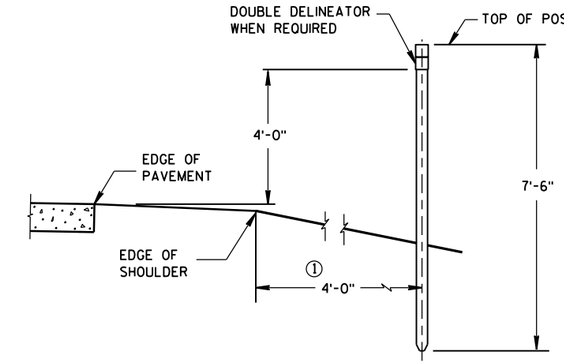


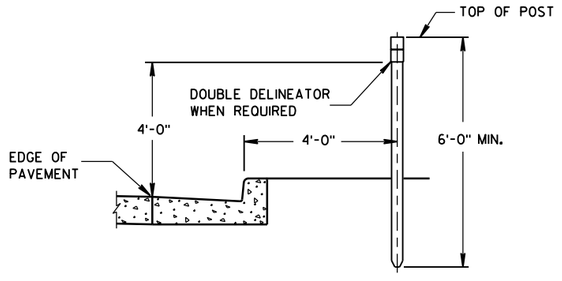
DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.



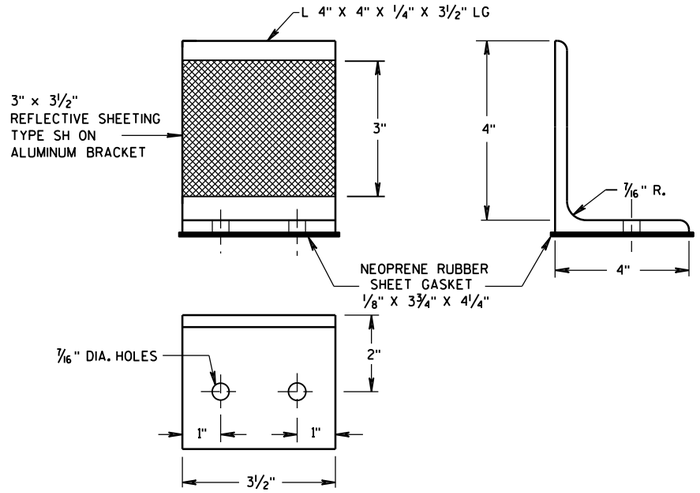


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

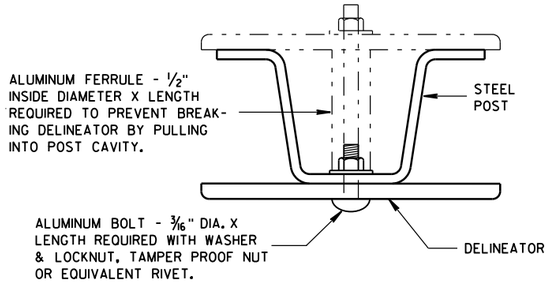
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

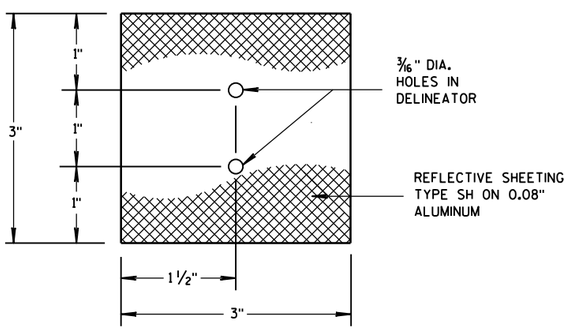
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



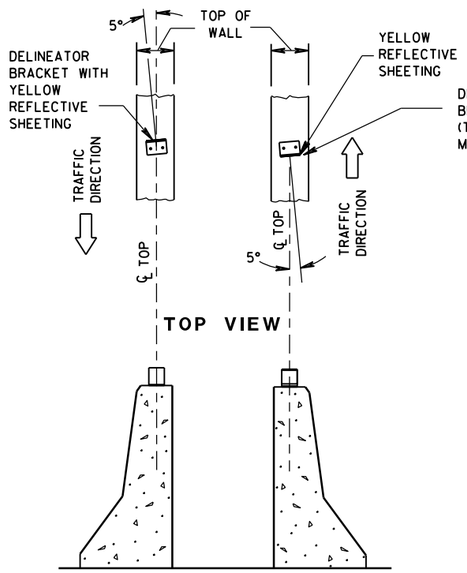
DELINEATOR BRACKET



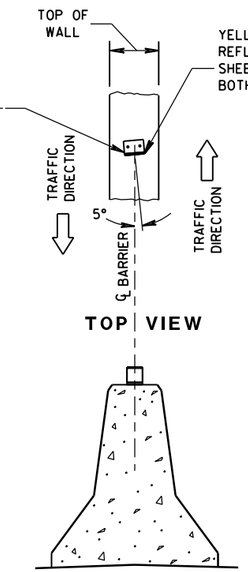
MOUNTING DETAIL FOR DELINEATOR



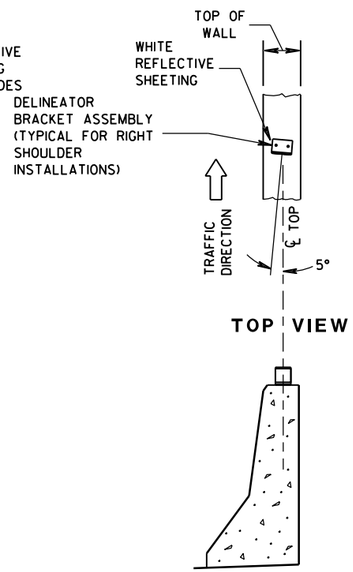
3"x 3" DELINEATOR



DOUBLE BARRIERS IN MEDIAN

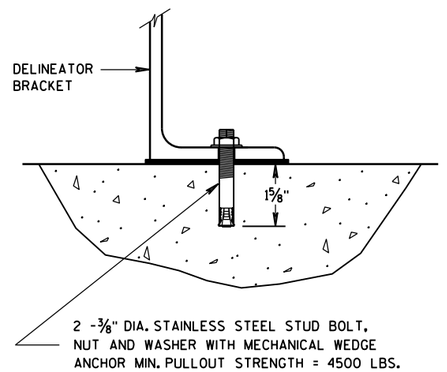


MEDIAN BARRIER



BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

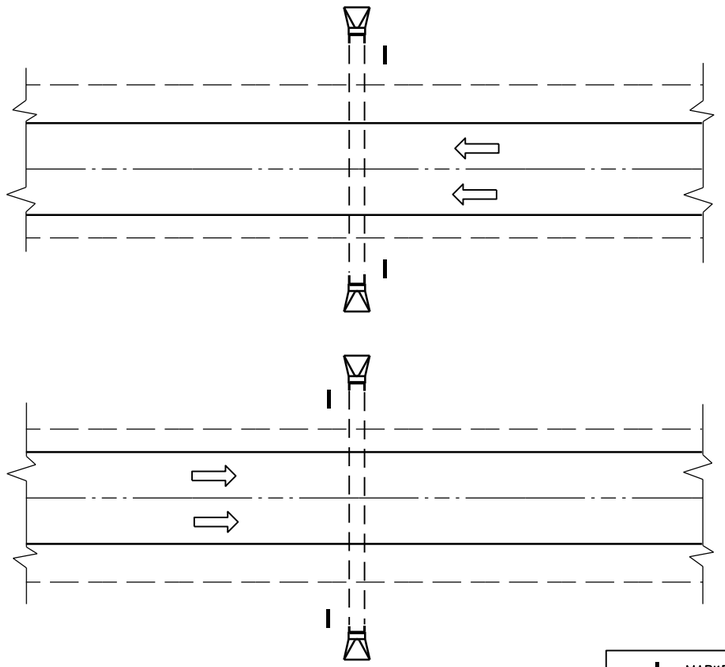
APPROVED
7/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA

6

S.D.D. 15 A 2-8

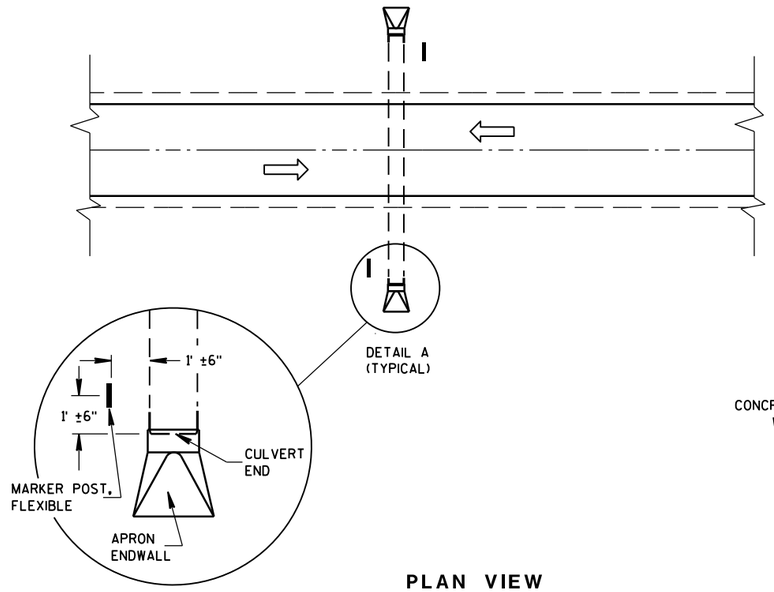
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S.D.D. 15 A 2-8



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

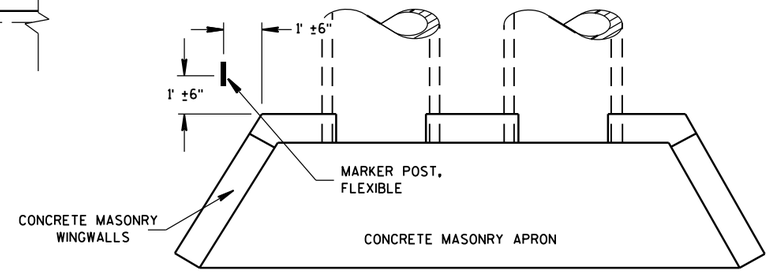
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

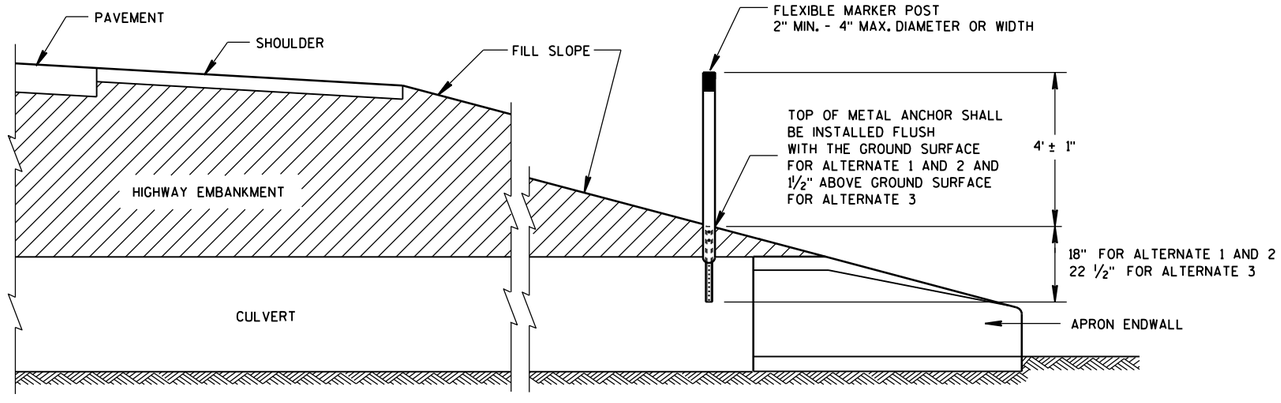
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

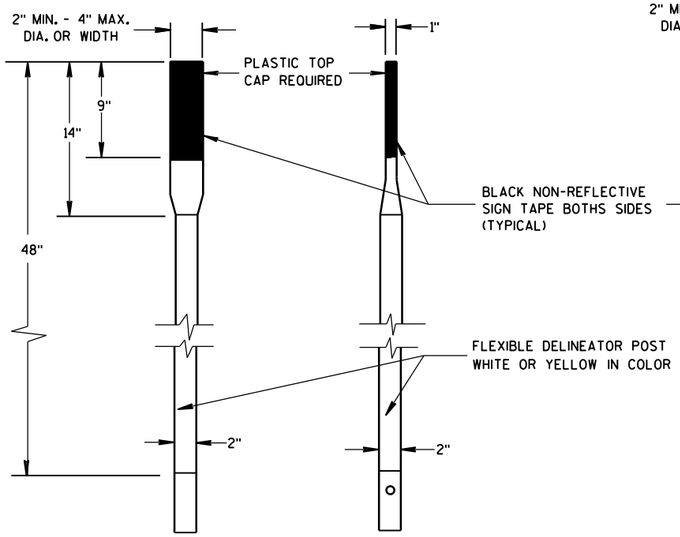
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

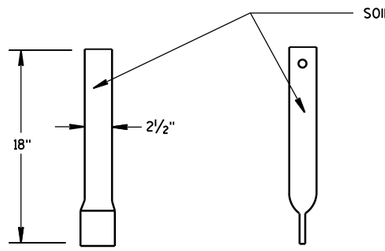
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S.D.D. 15 A 3-2a

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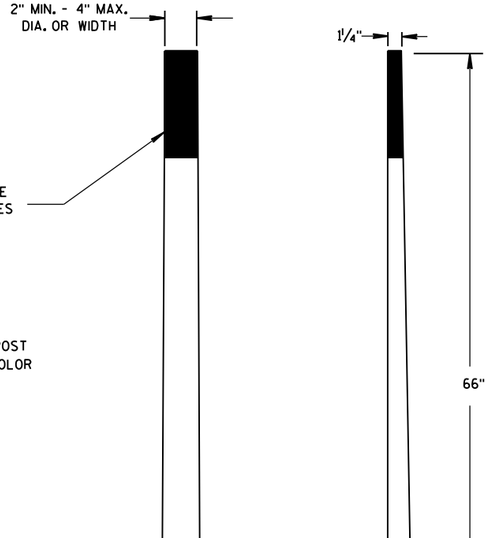
S.D.D. 15 A 3-2a





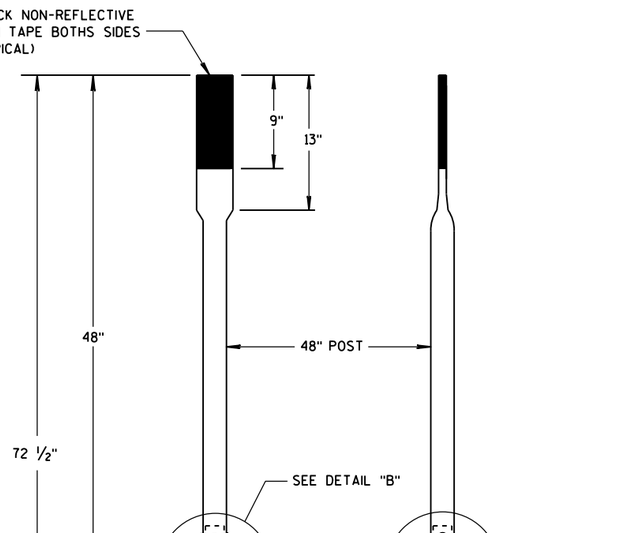
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

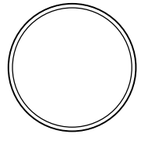
ALTERNATE 2



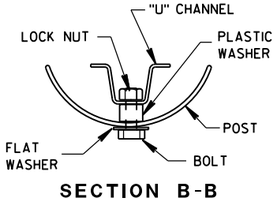
FRONT VIEW SIDE VIEW

ALTERNATE 3

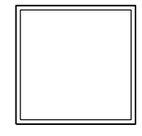
FLEXIBLE MARKER POSTS



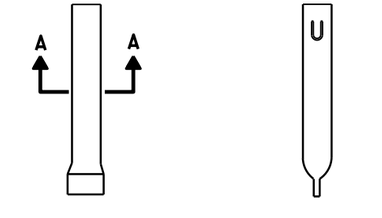
SECTION A-A



SECTION B-B

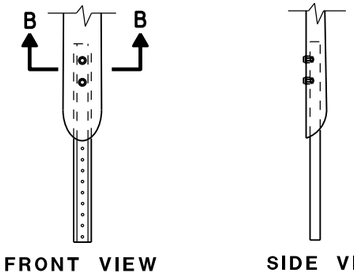


SECTION C-C



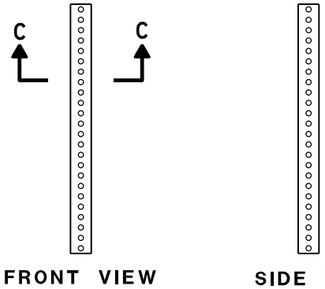
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

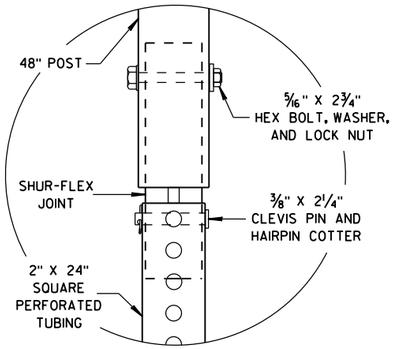
ALTERNATE 2



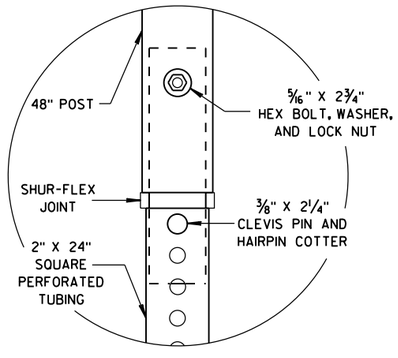
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

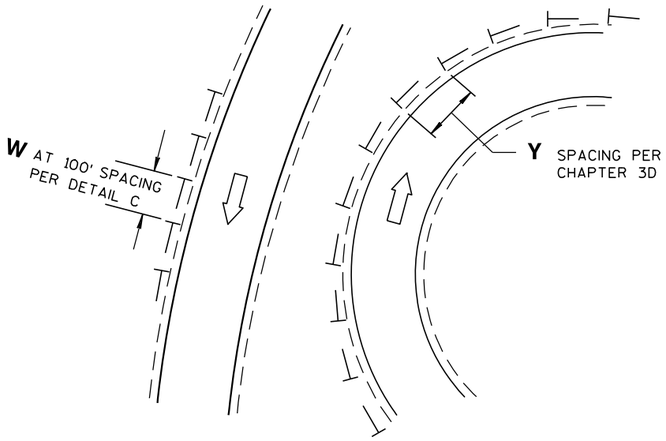
S.D.D. 15 A 3-2b

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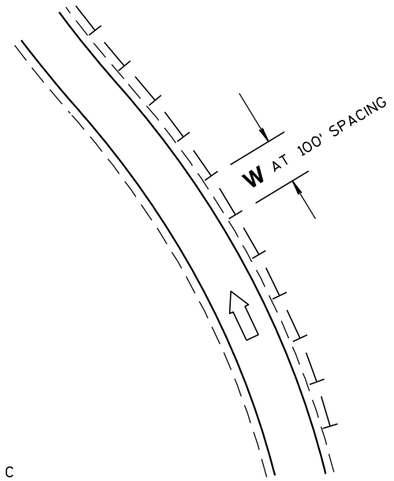
S.D.D. 15 A 3-2b

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



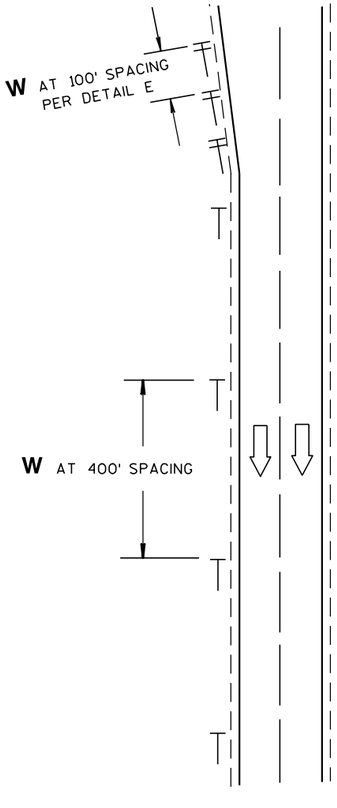
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



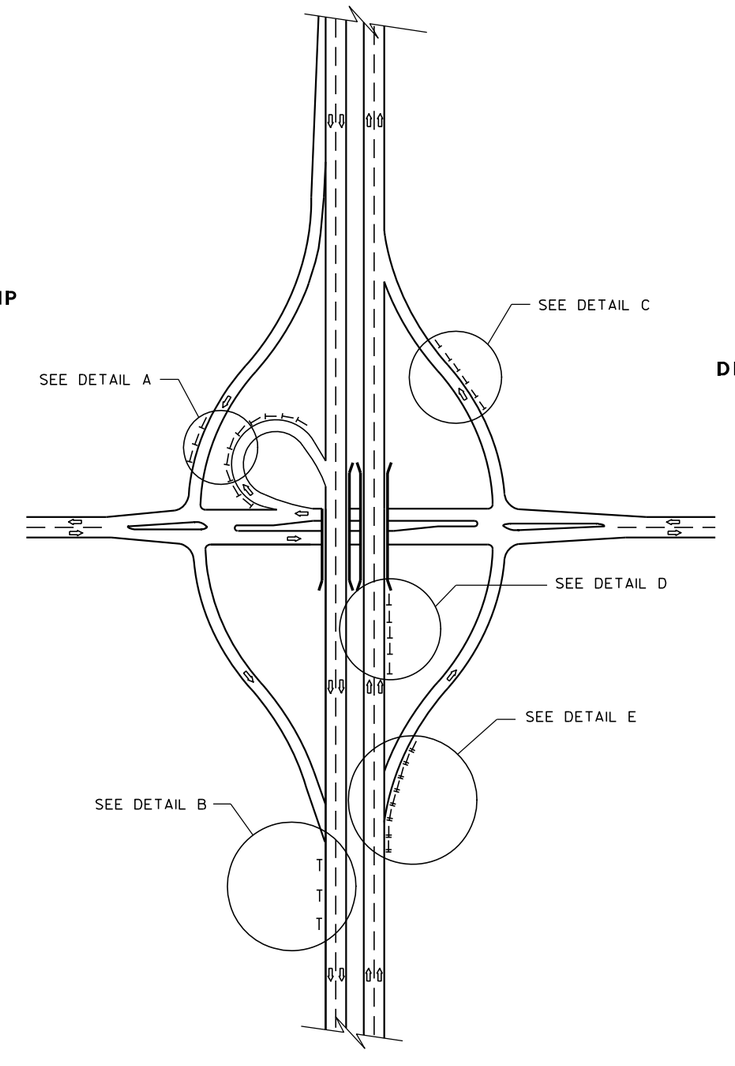
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

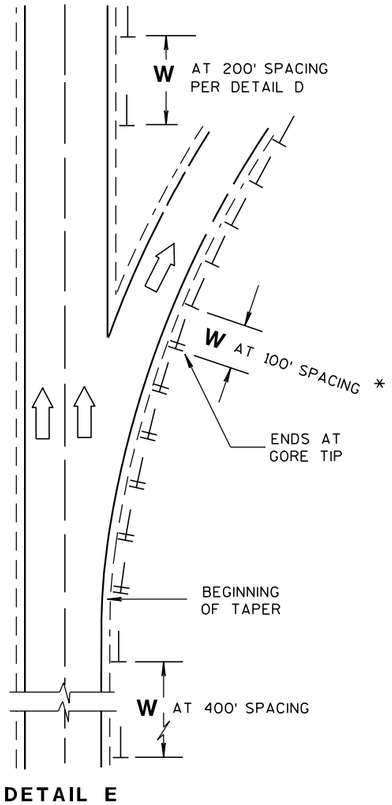
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



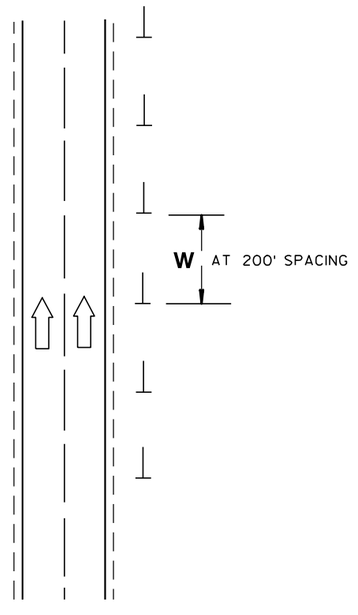
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



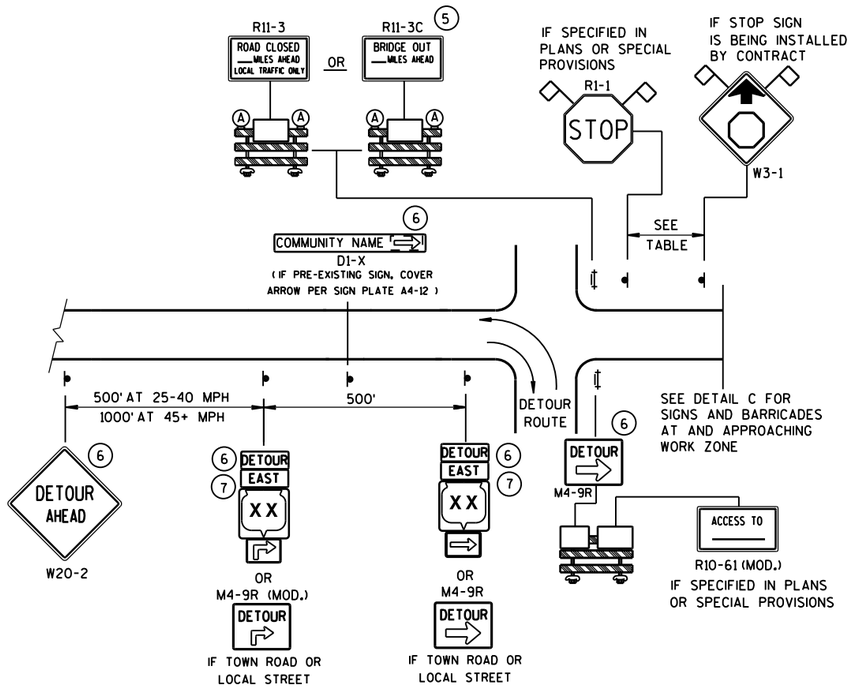
DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

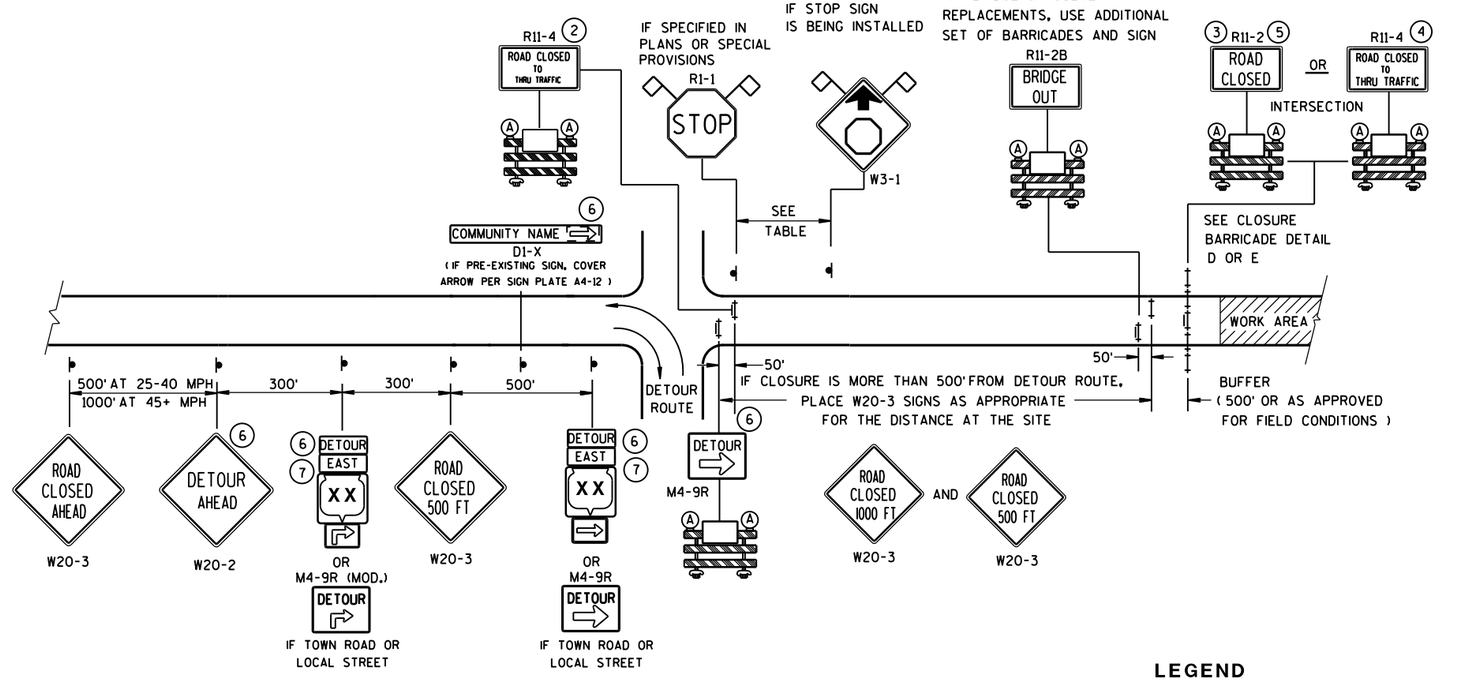
DELINEATOR LAYOUT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
2/5/09 DATE	/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA	

6
S.D.D. 15 A 6-2



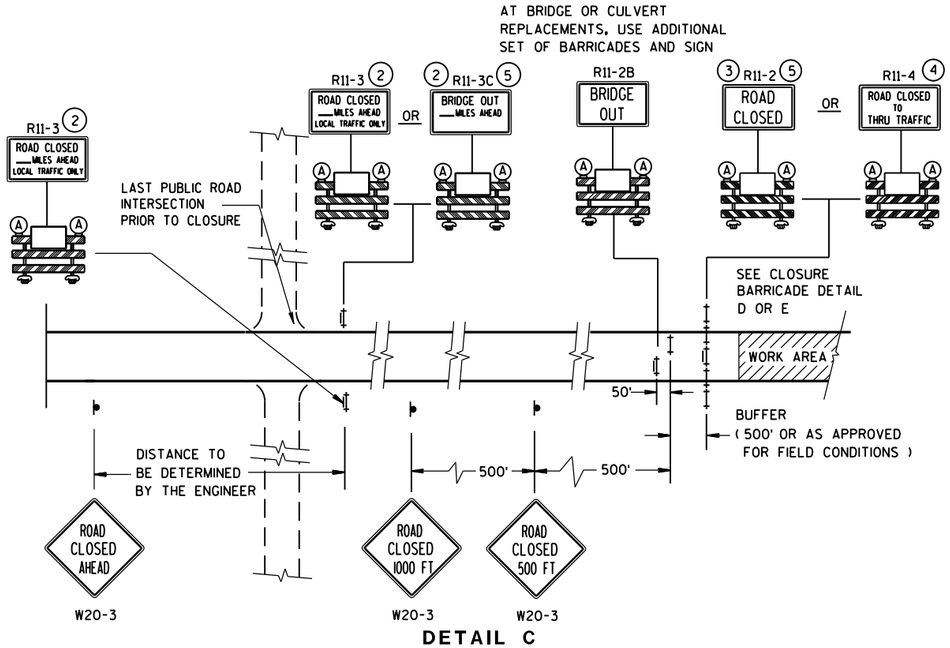
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

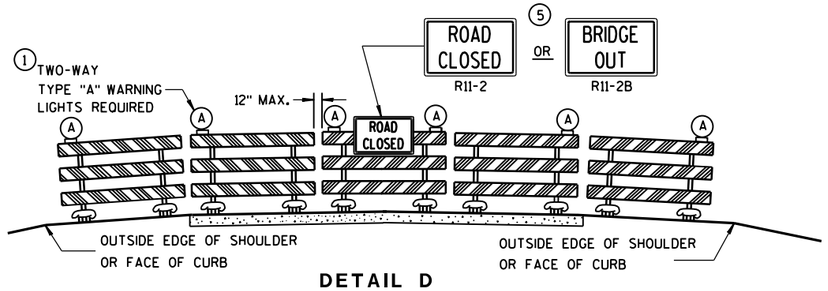
FHWA

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S.D.D. 15 C 2-5a

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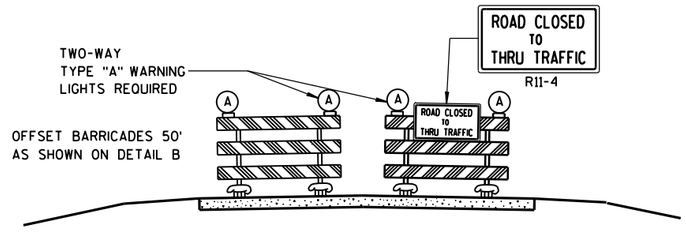
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

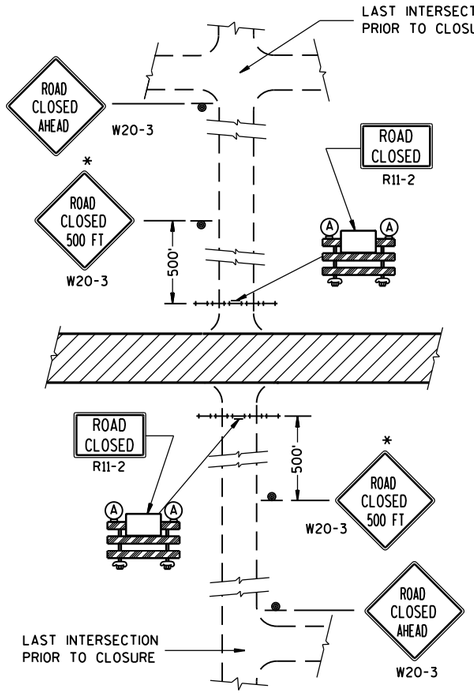
8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

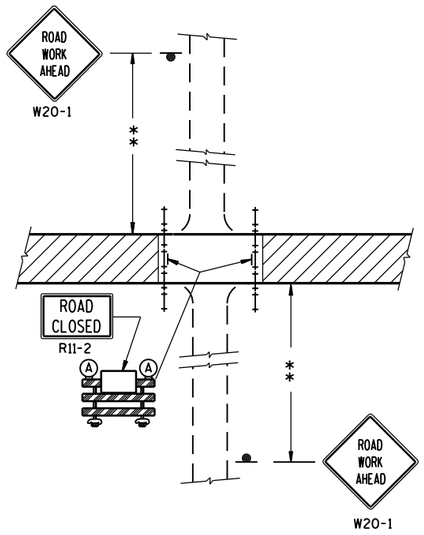
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S.D.D. 15 C 2-5b



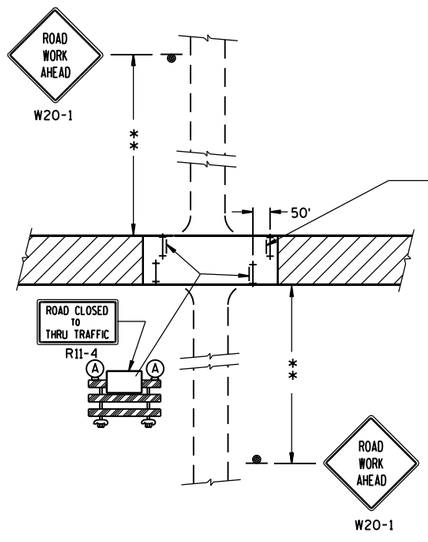
DETAIL 1

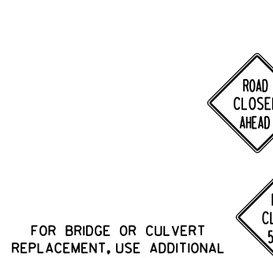
(NO ACCESS TO PROJECT)



DETAIL 2

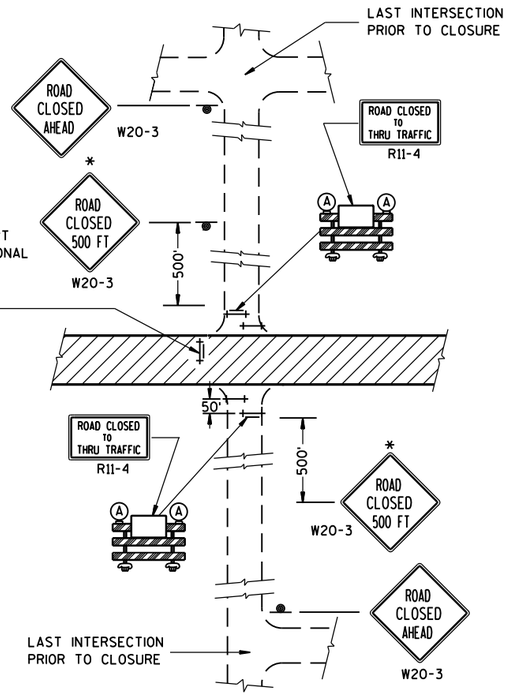
(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

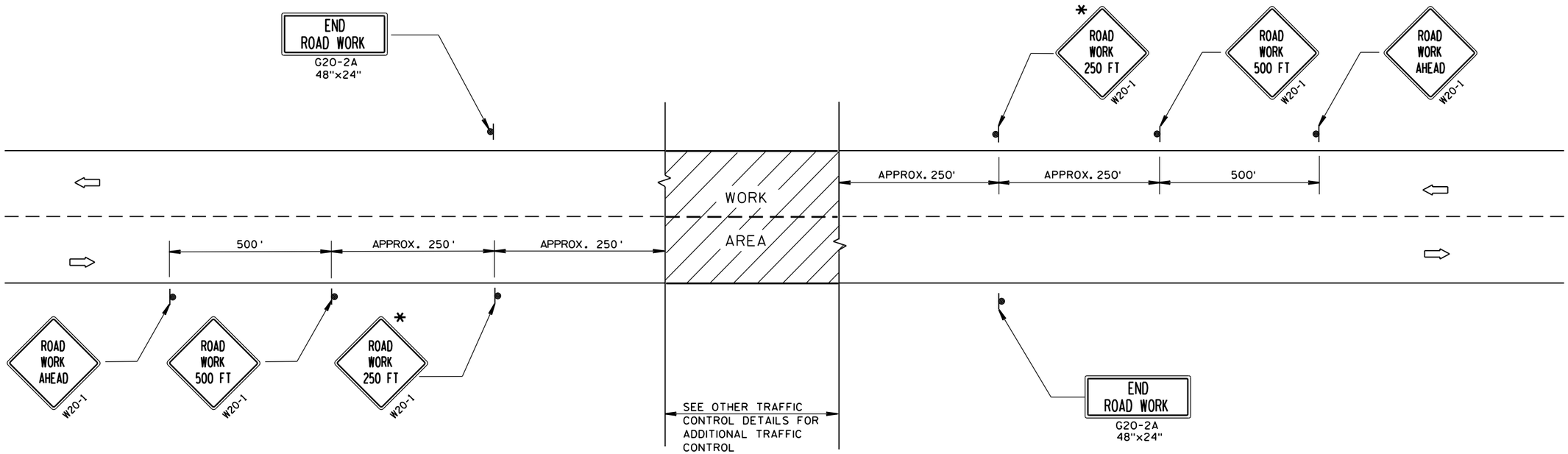
BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

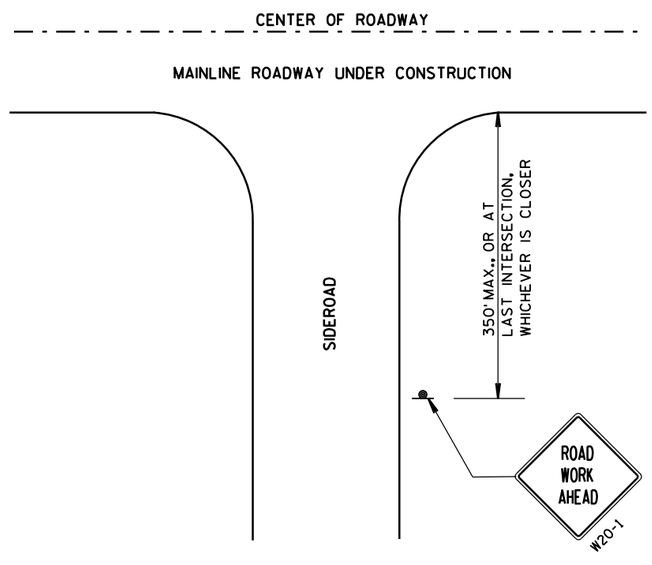
APPROVED
8/2013
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 C 3-2



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 (DATE) — /S/ Travis Feltes (STATE TRAFFIC ENGINEER) — (SIGN)

FHWA

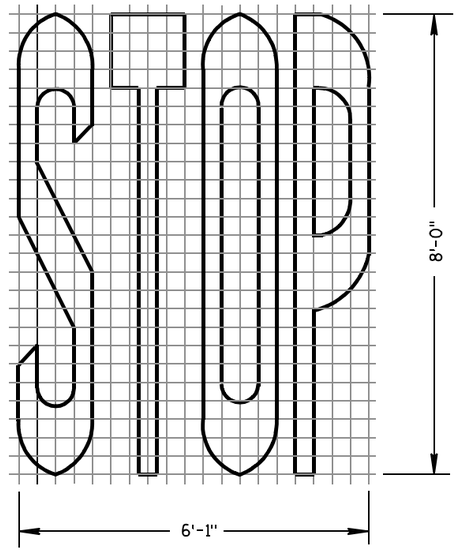
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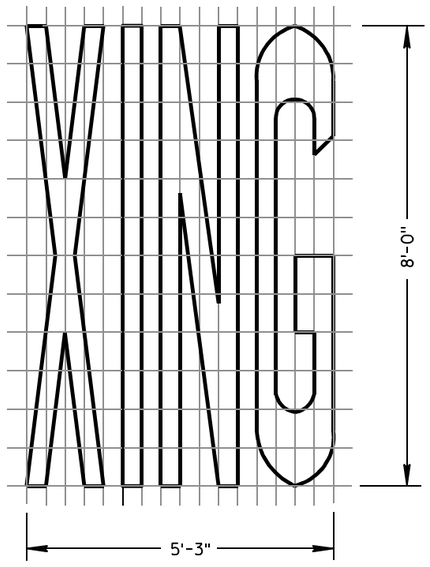
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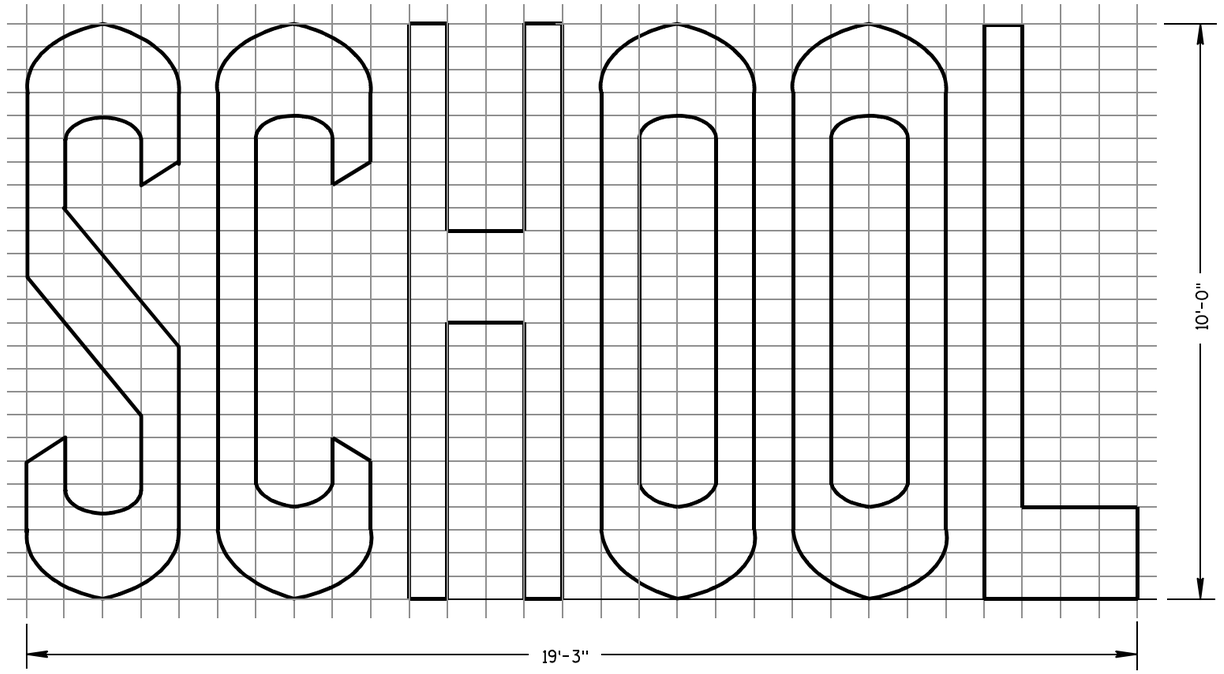
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

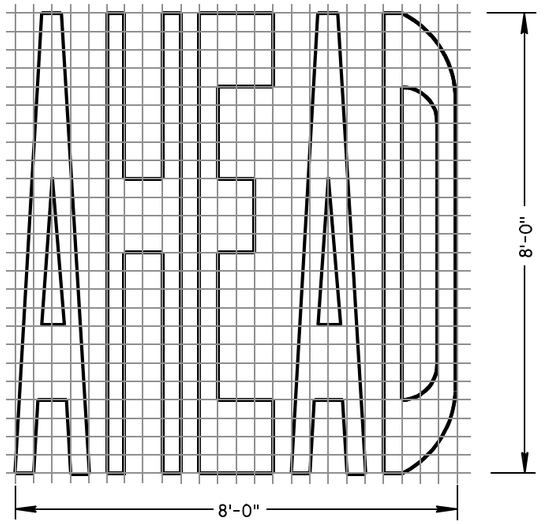
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

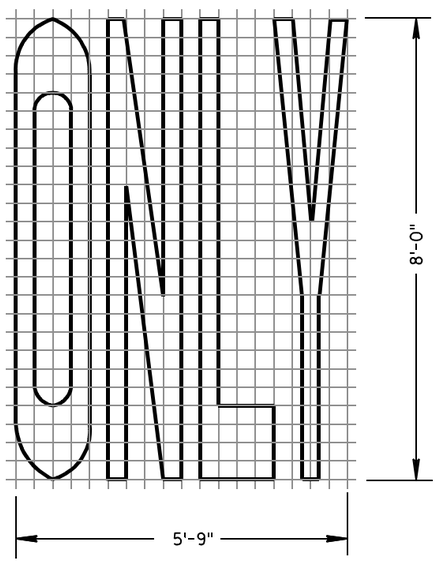


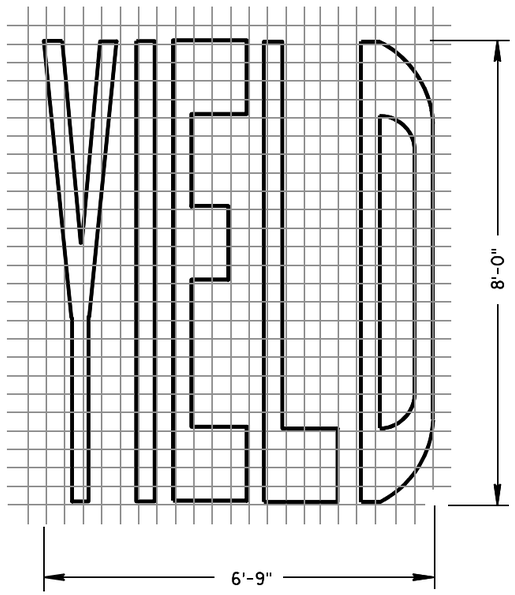


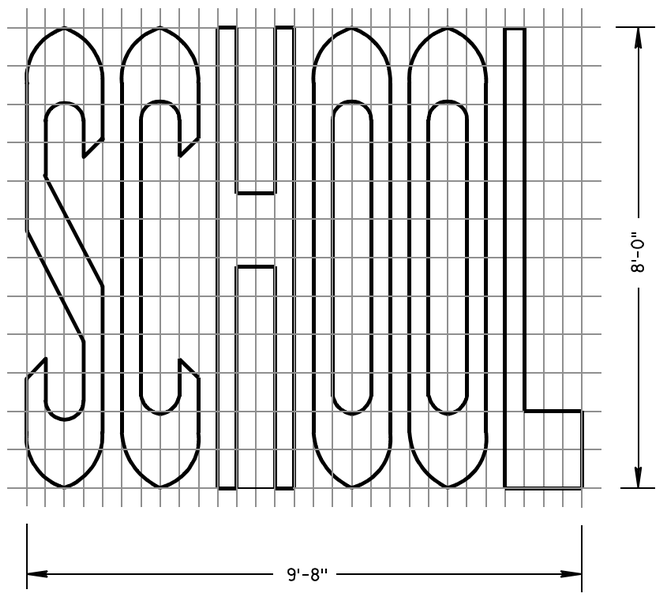


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 7-12b

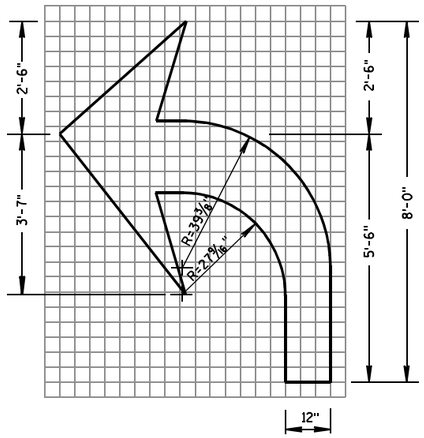
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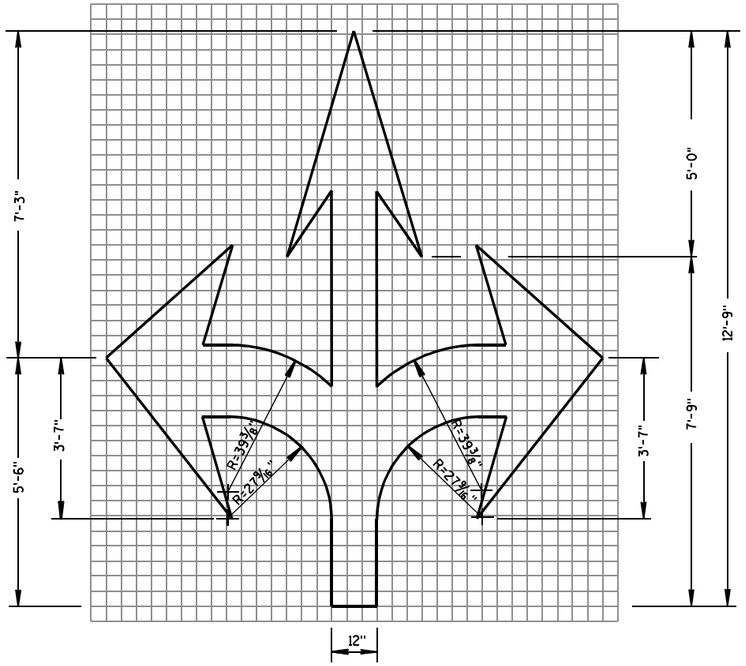
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

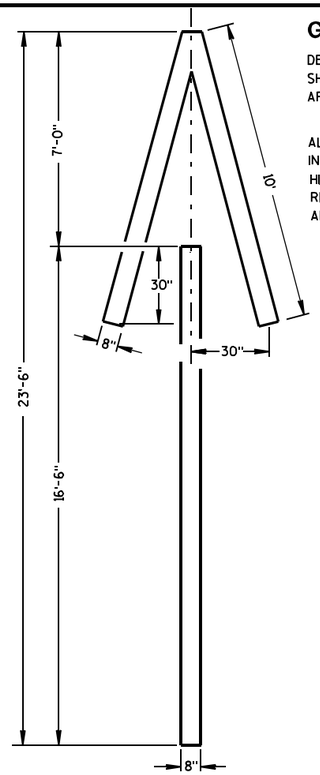
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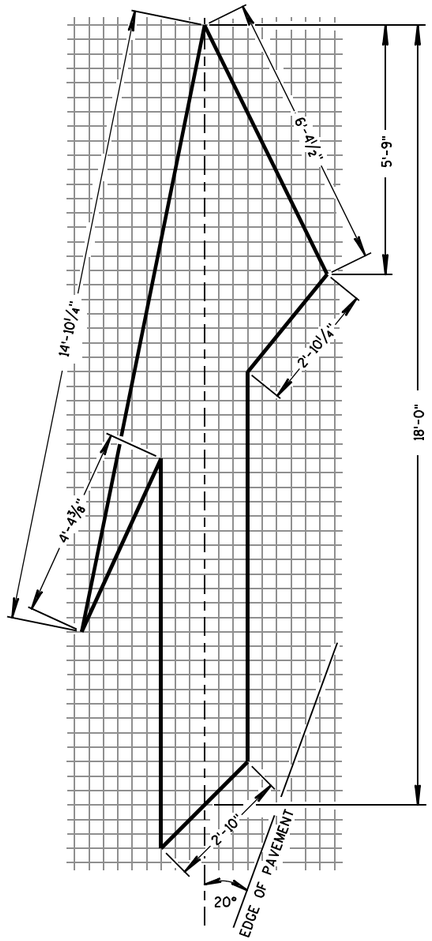
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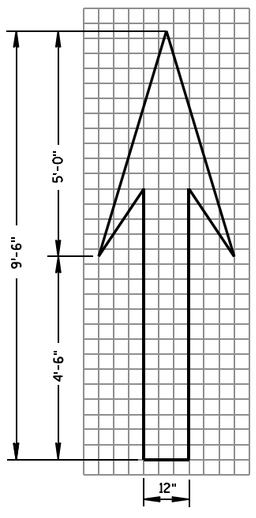
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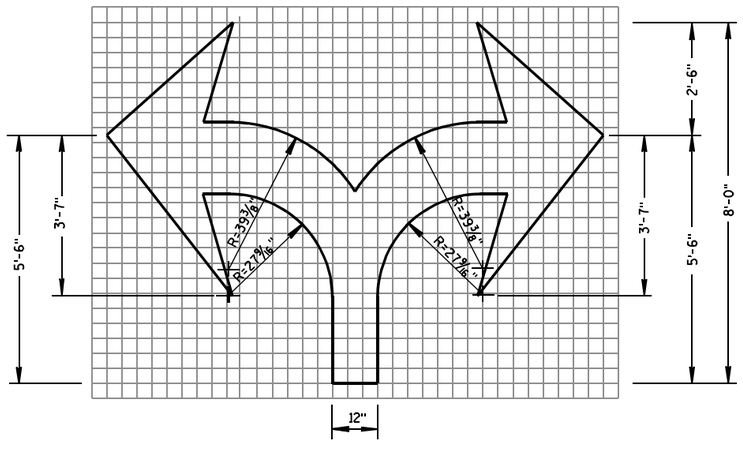
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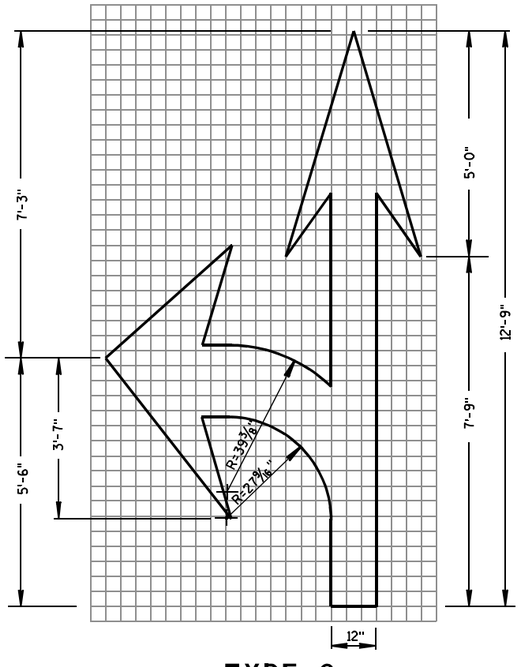
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

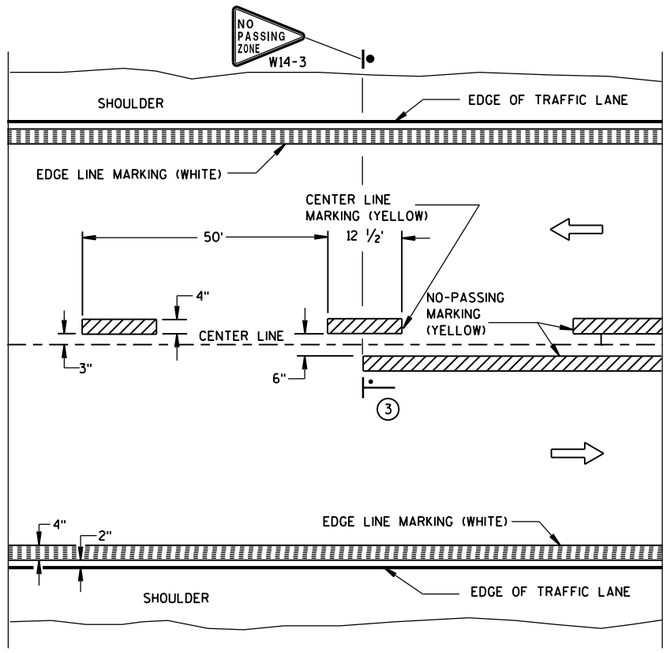
FHWA

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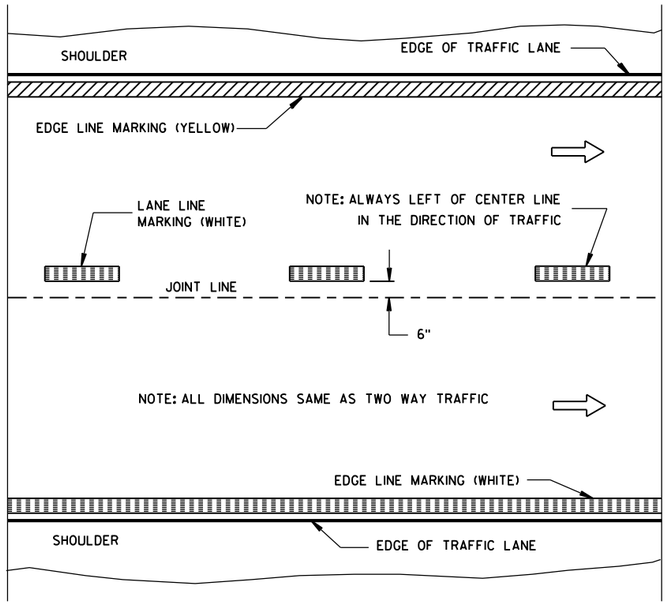
S.D.D. 15 C 7-12c

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S.D.D. 15 C 7-12c

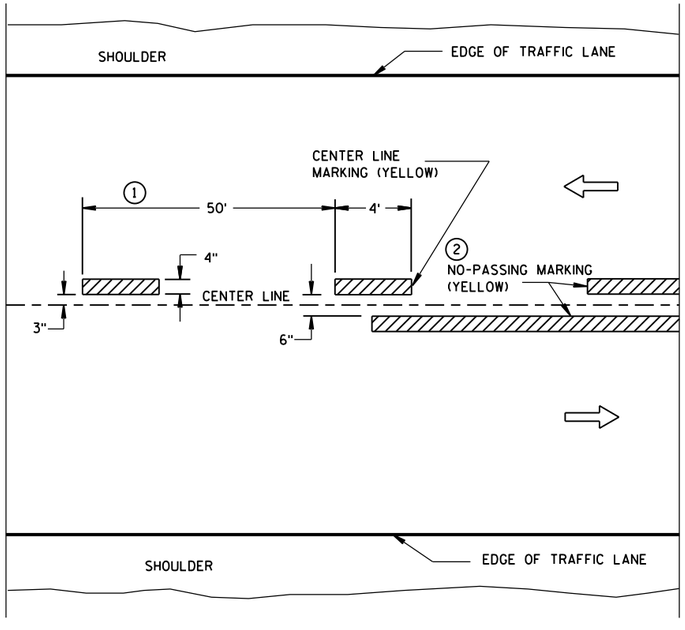


TWO WAY TRAFFIC

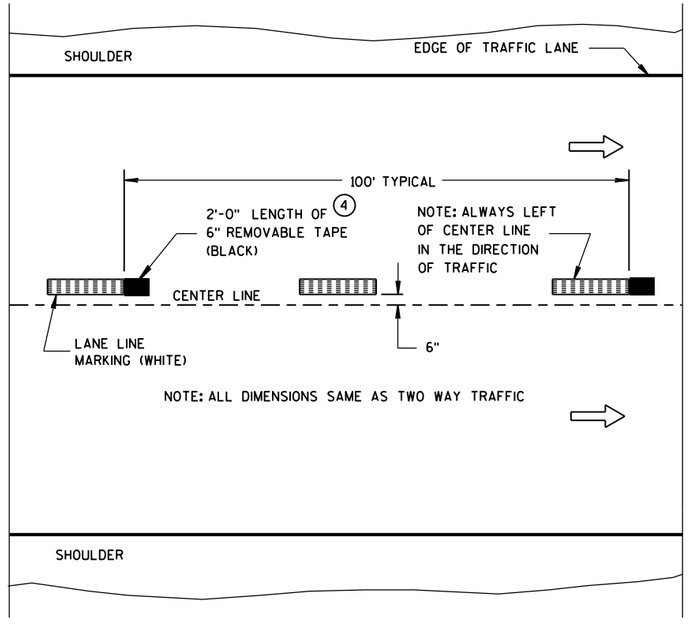


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

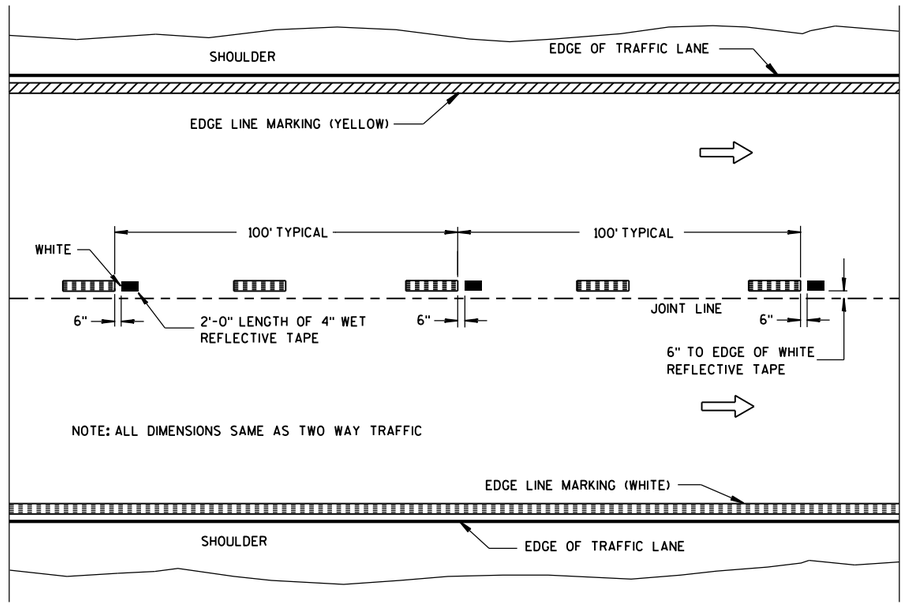
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

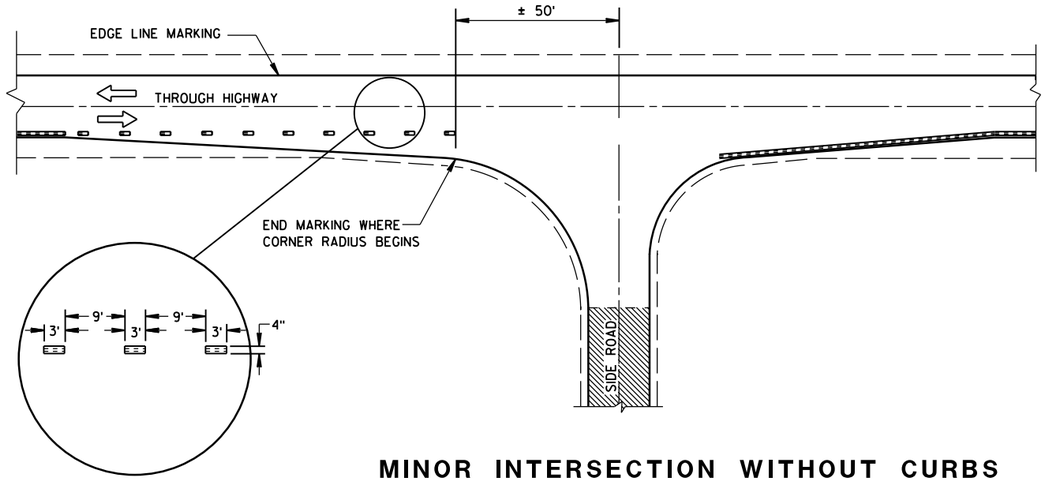
APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

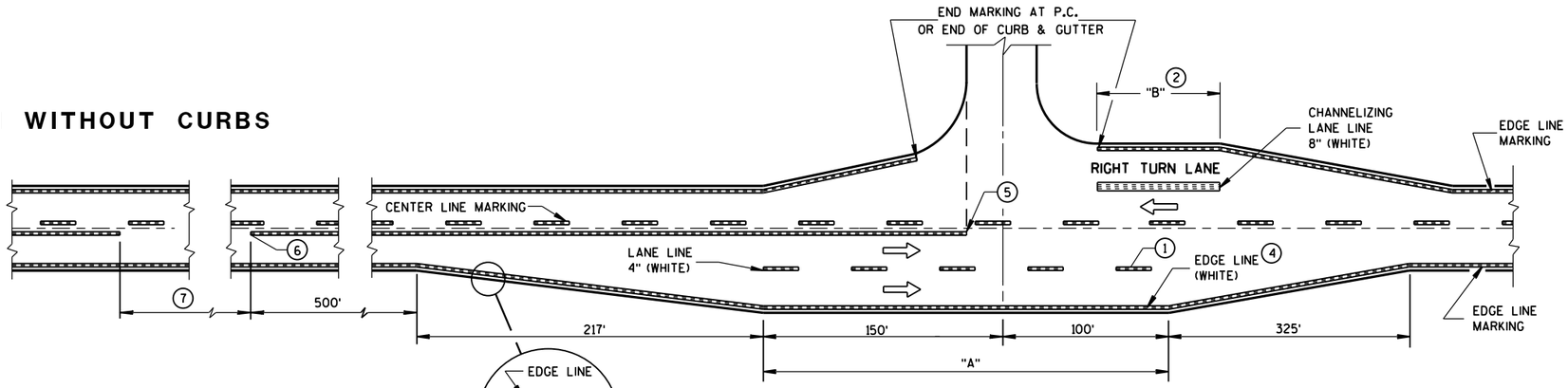
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

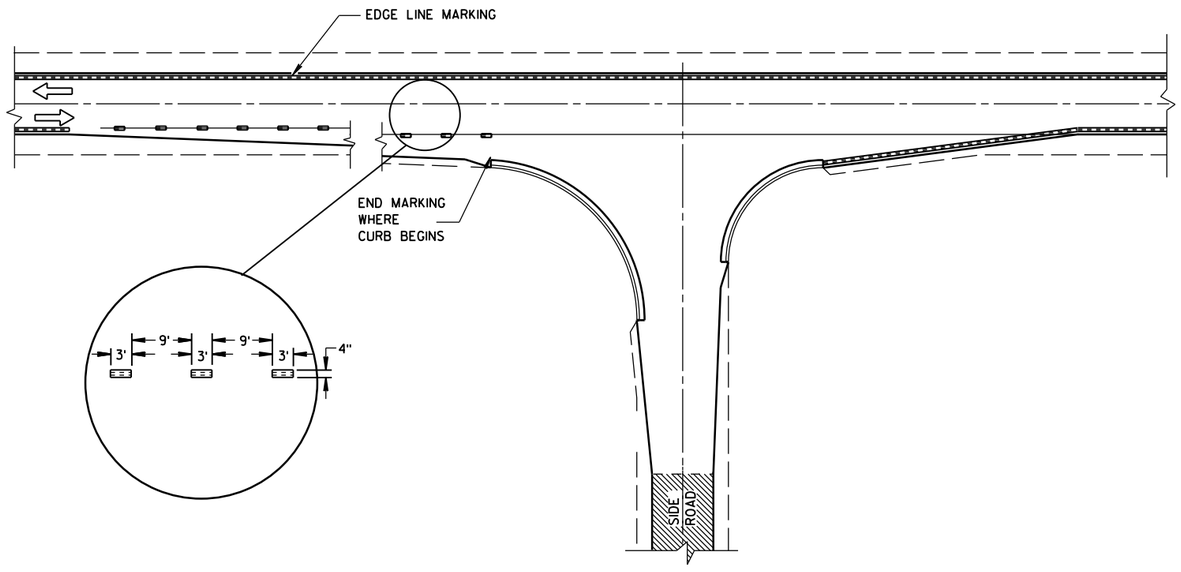
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



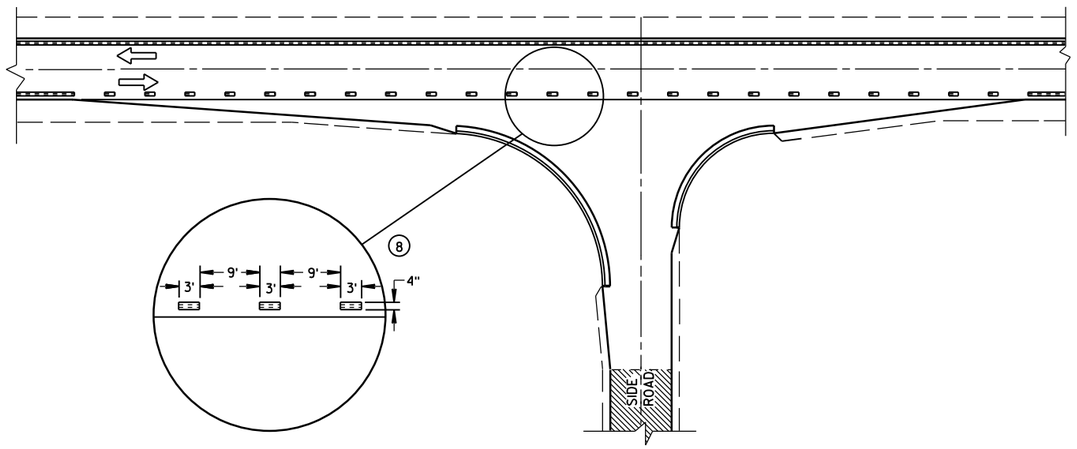
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

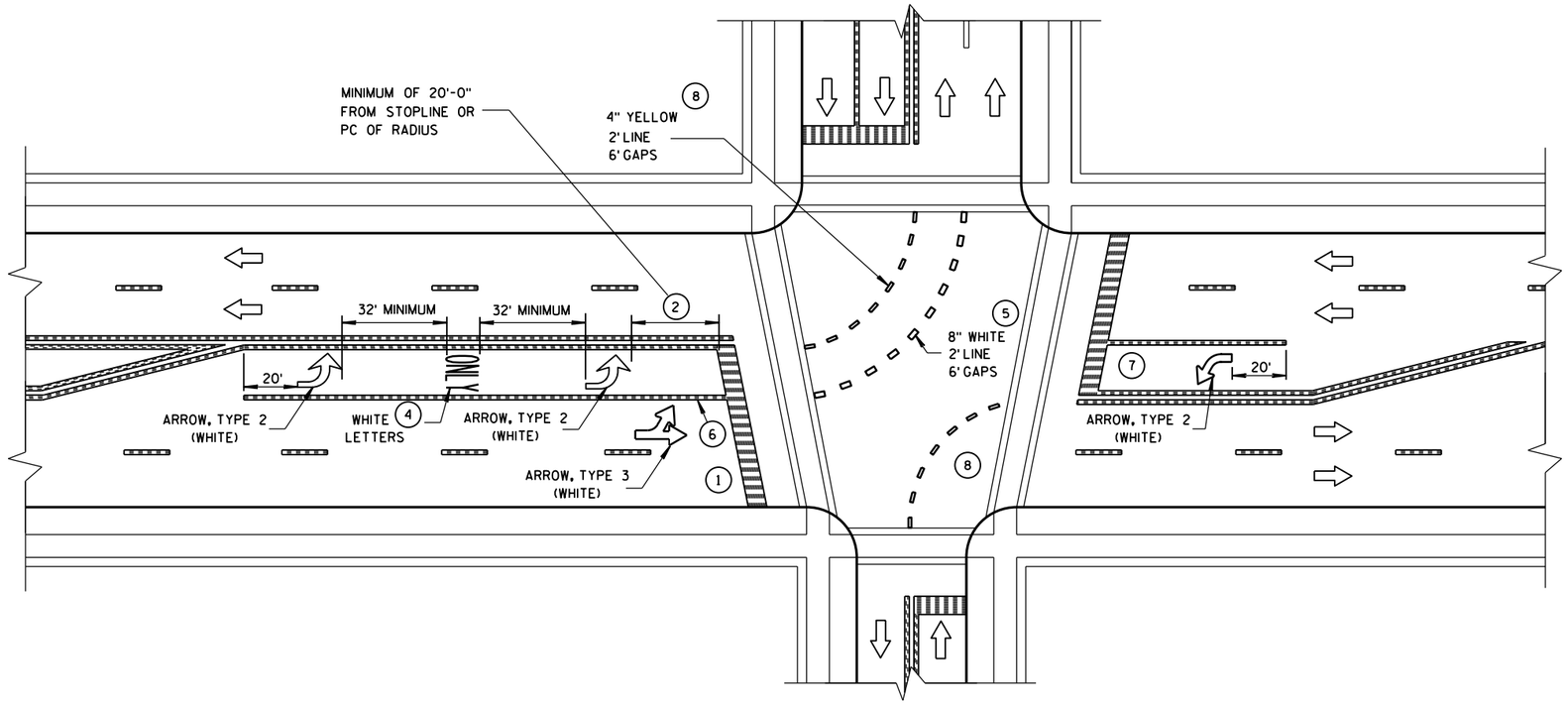
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 224

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S.D.D. 15 C 8-16b

6

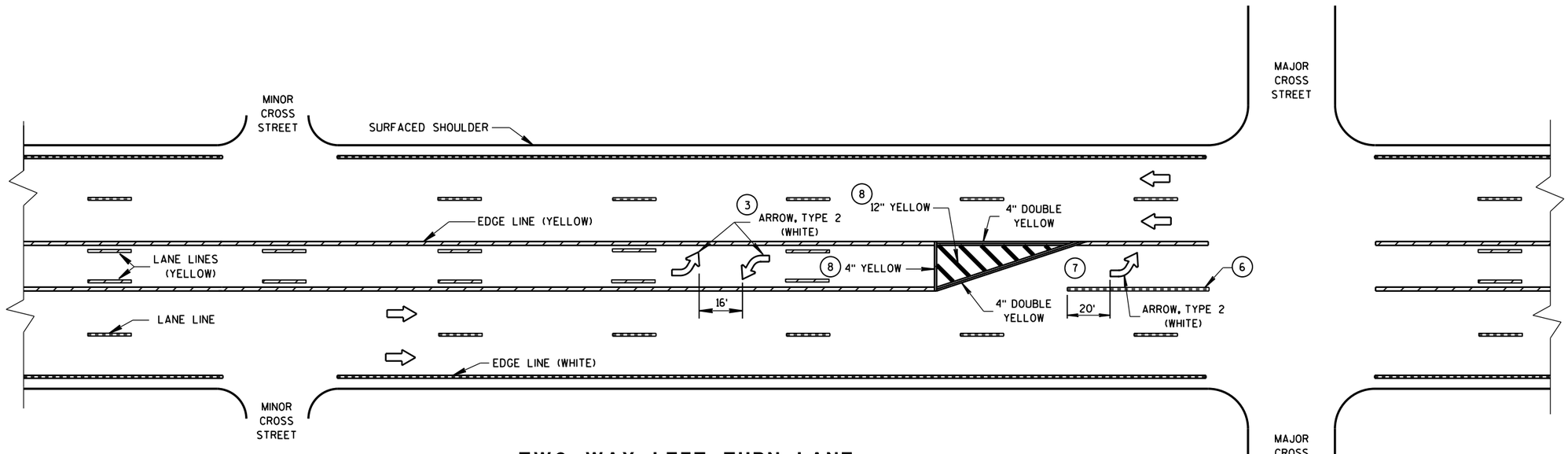
S.D.D. 15 C 8-16b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

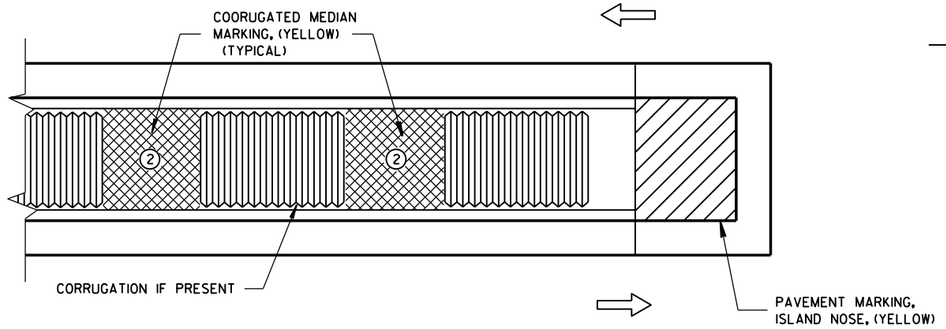
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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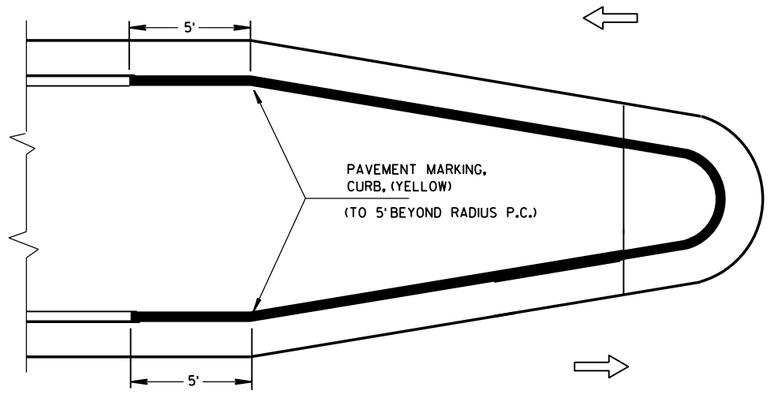
S.D.D. 15 C 8-16e

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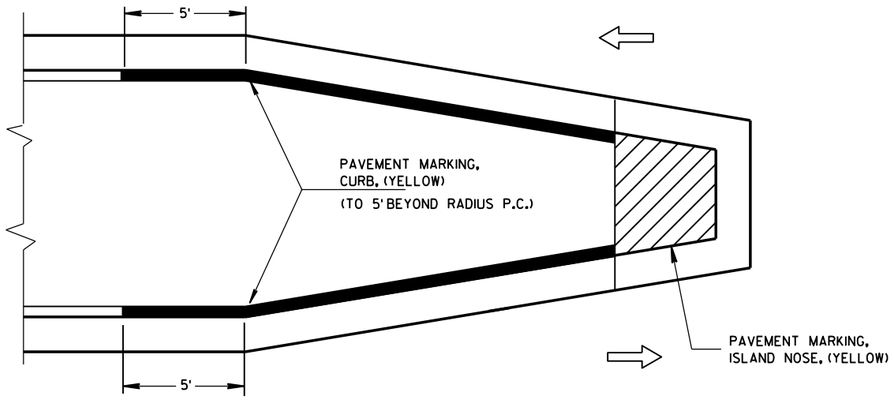
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

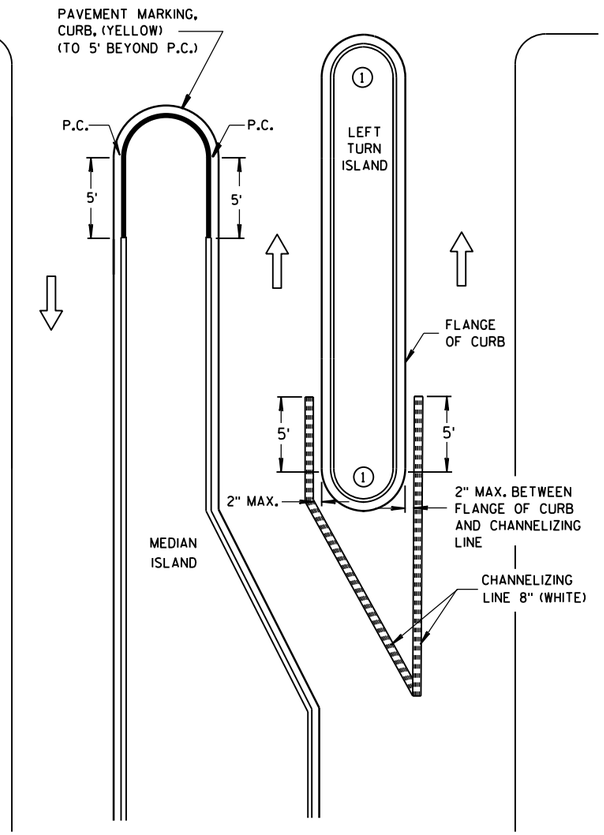


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

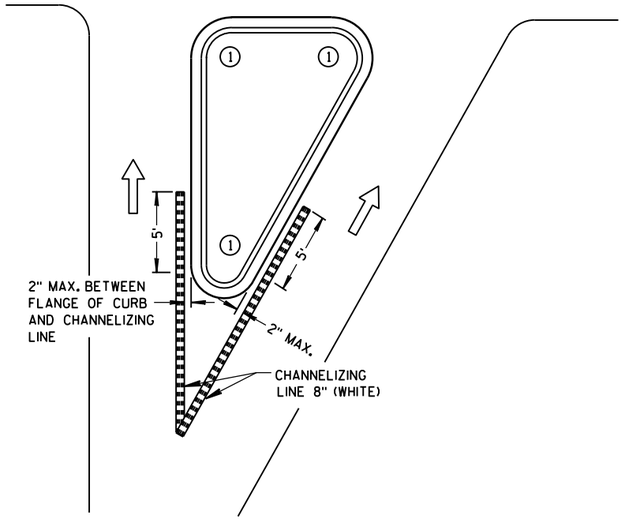


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

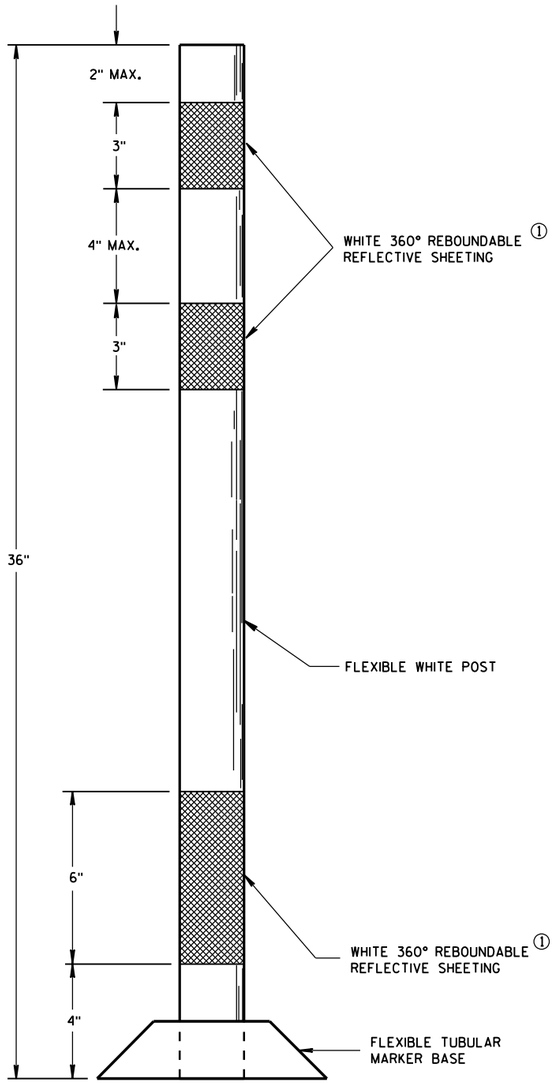
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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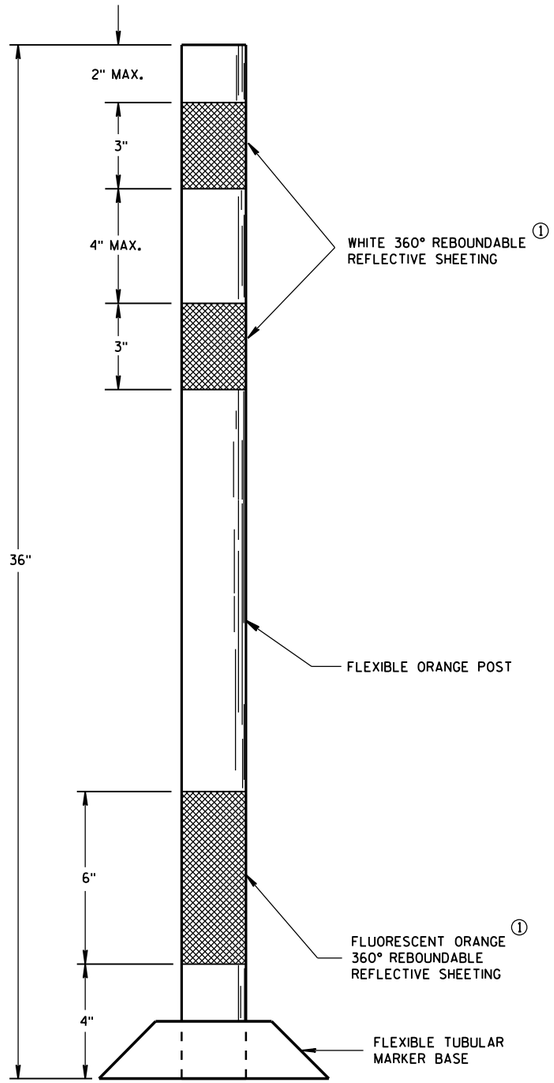
S.D.D. 15 C 8-16f

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S.D.D. 15 C 8-16f



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

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S.D.D. 15 C 11-6

S.D.D. 15 C 11-6

FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-16-2015
DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON
SAFETY ENGINE

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

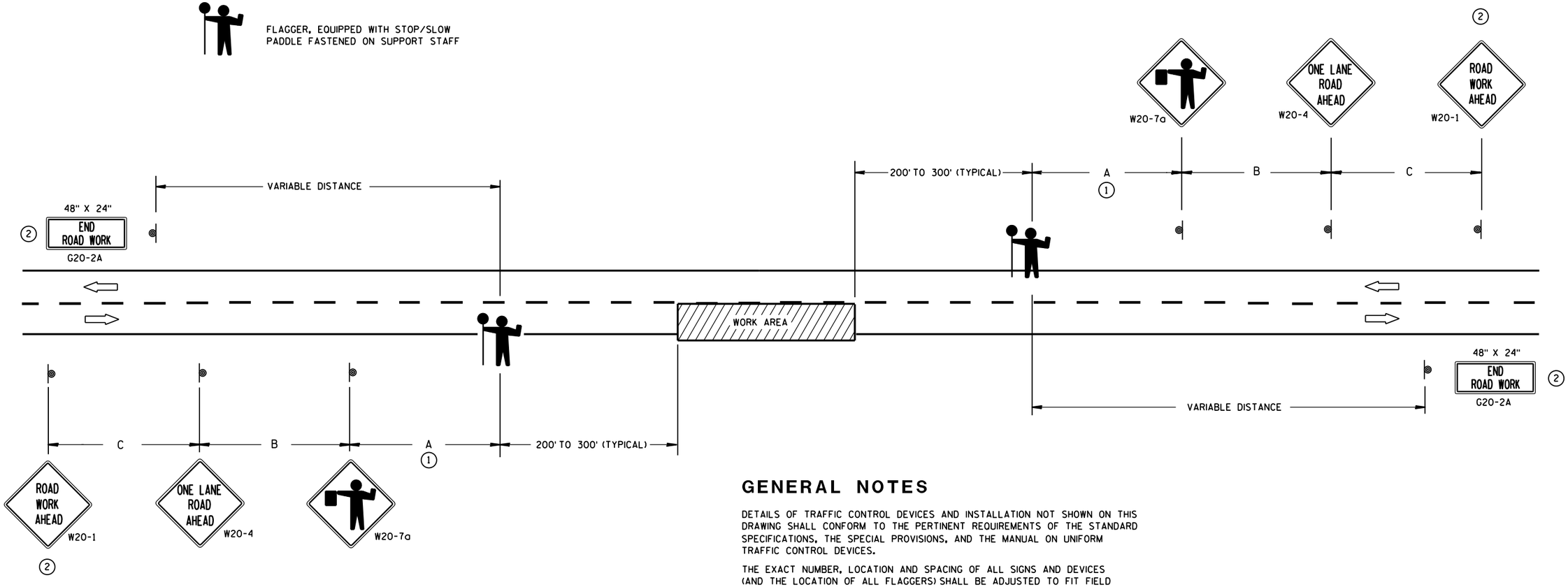
SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

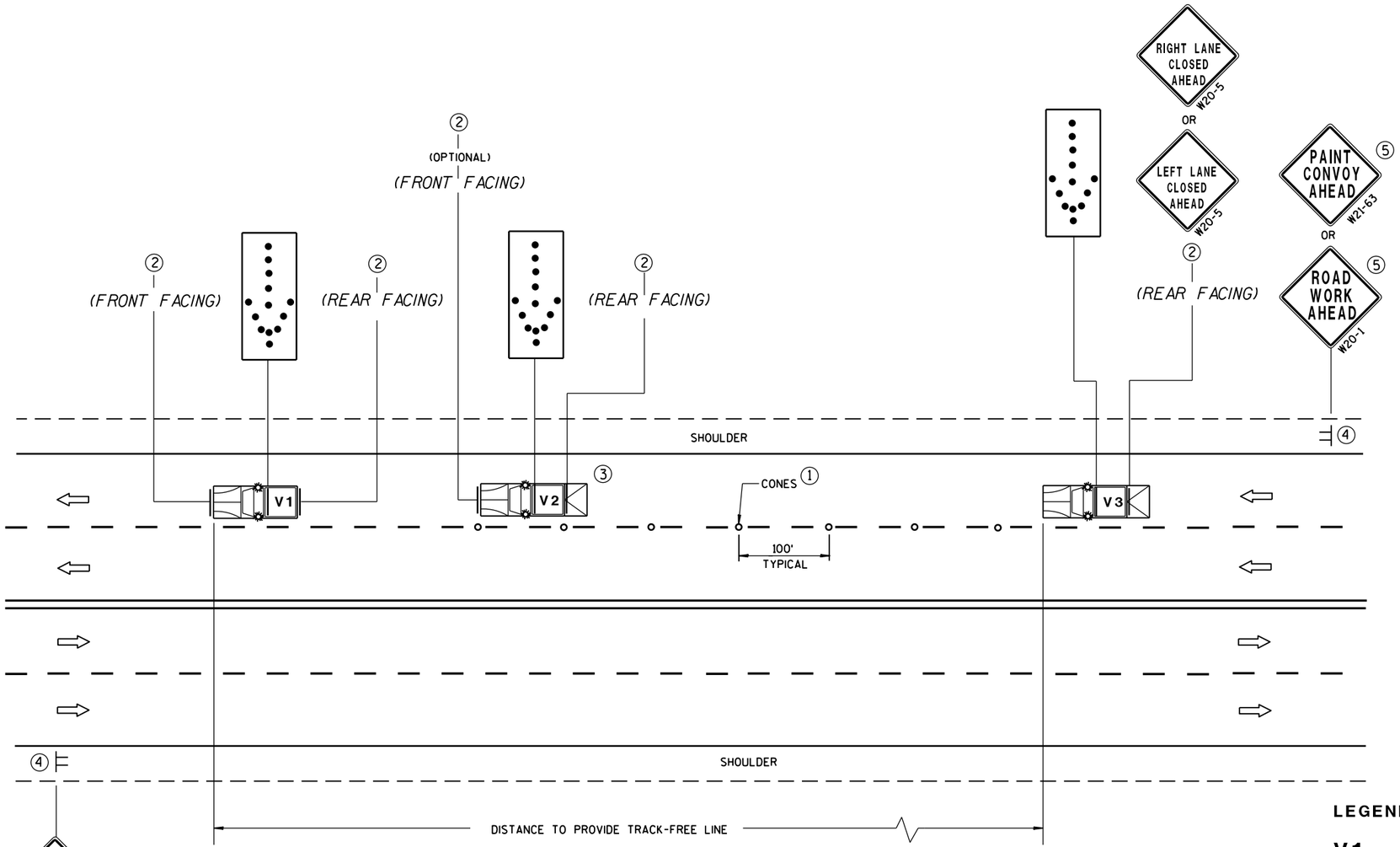
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 12-4

6

S.D.D. 15 C 12-4



GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE OR LANELINE MARKING FOR MULTILANE UNDIVIDED ROADWAYS.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

PAINT CONVOY AHEAD W21-63
OR
ROAD WORK AHEAD W20-1

MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE UNDIVIDED ROADWAY

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

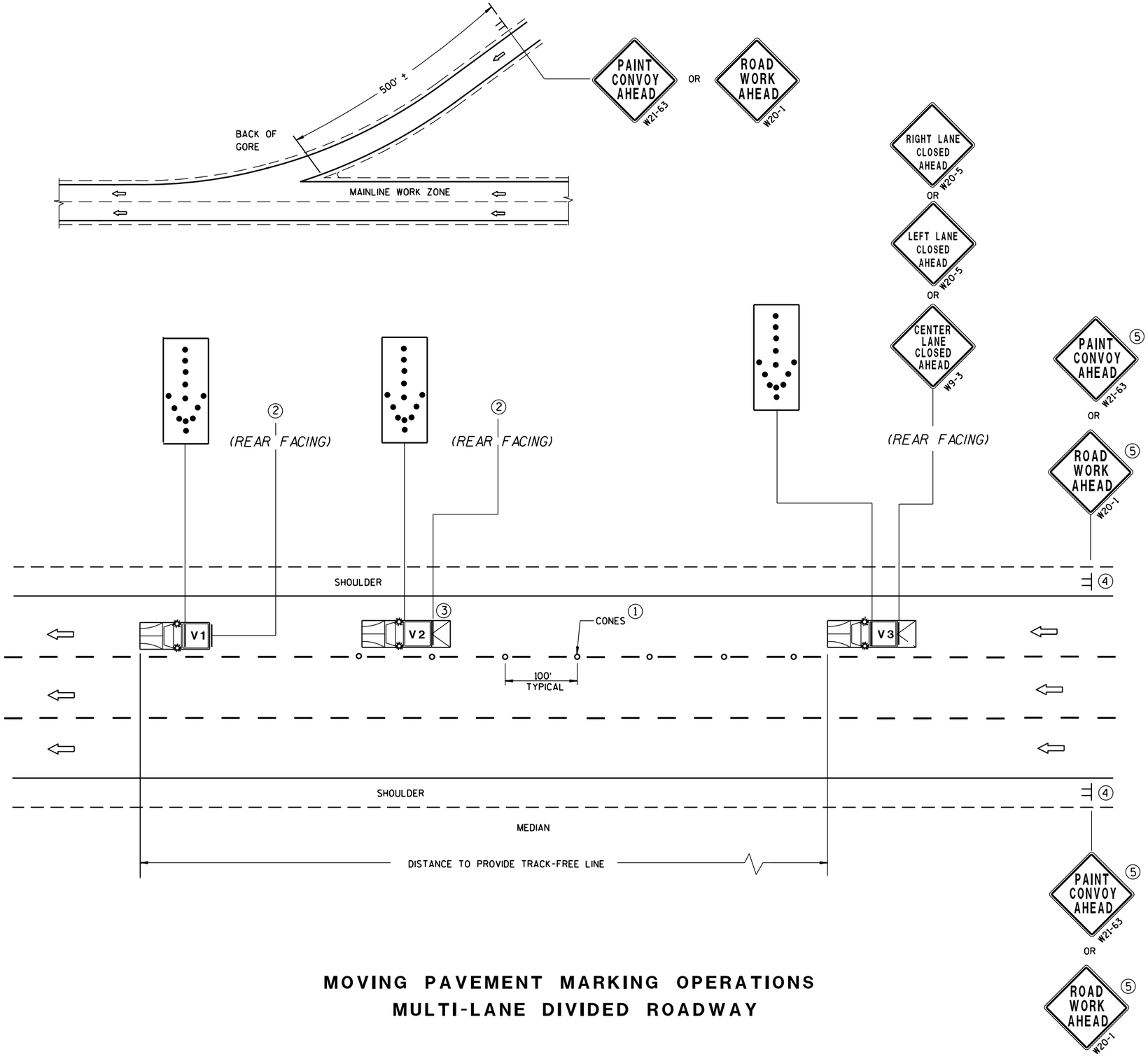
MOVING PAVEMENT MARKING OPERATION
MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/3/2013 DATE
/S/ Travis Feltes STATE TRAFFIC EN
FHWA

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S.D.D. 15 C 19-2b



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC EN

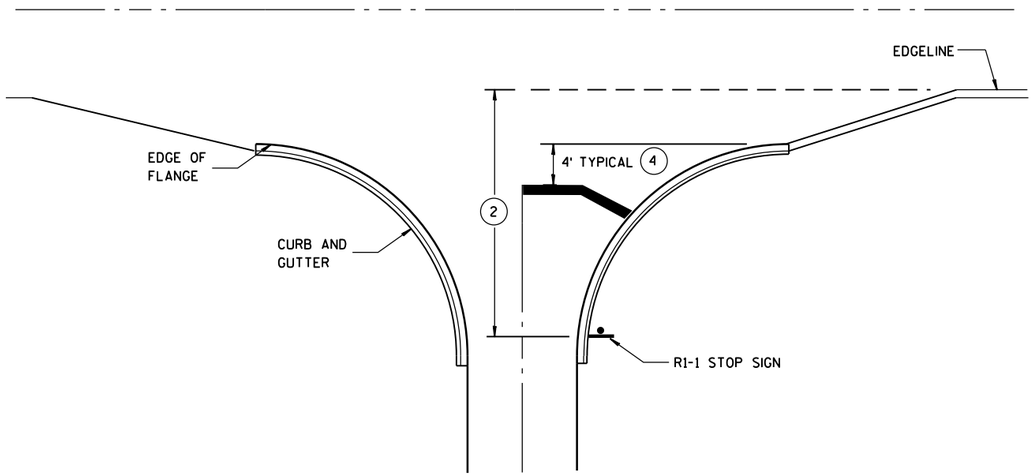
FHWA

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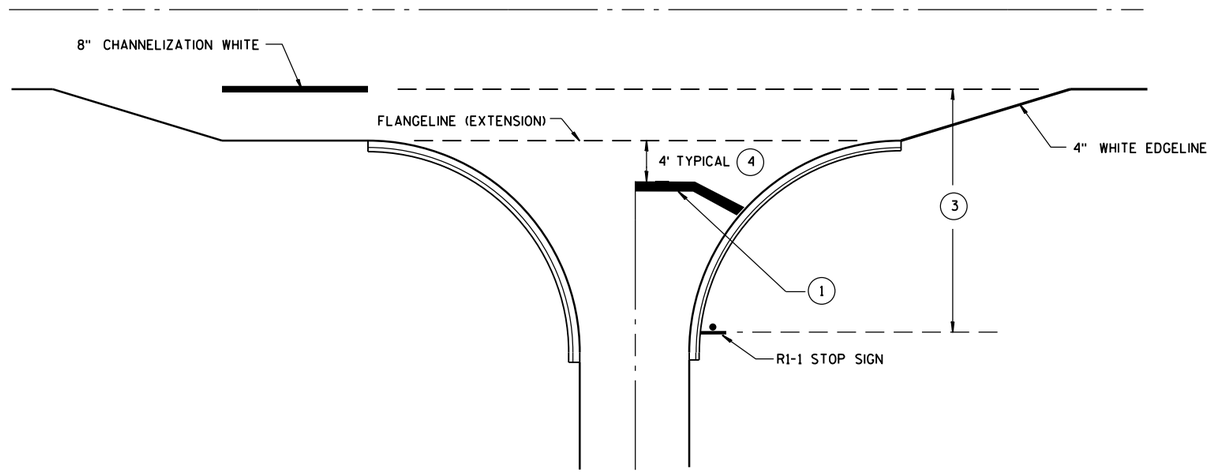
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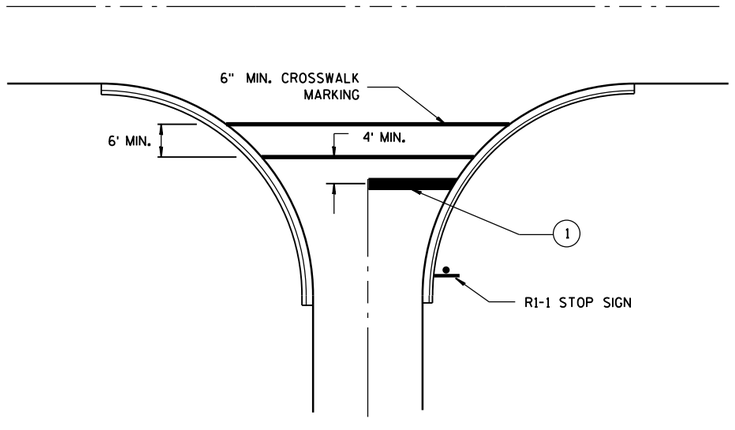
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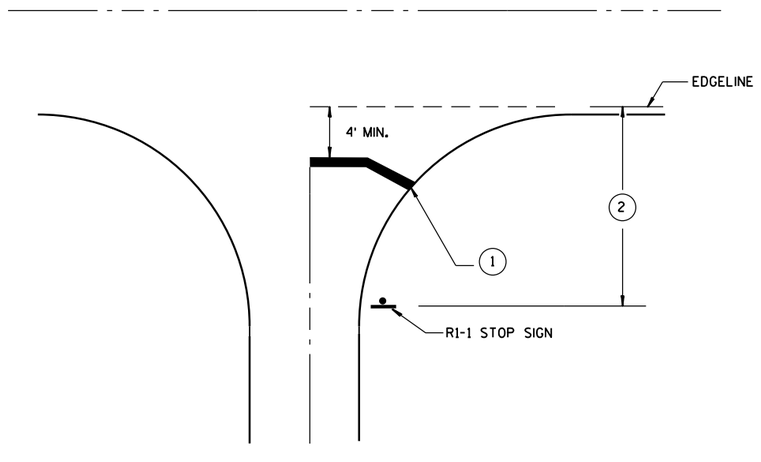
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 33-1

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

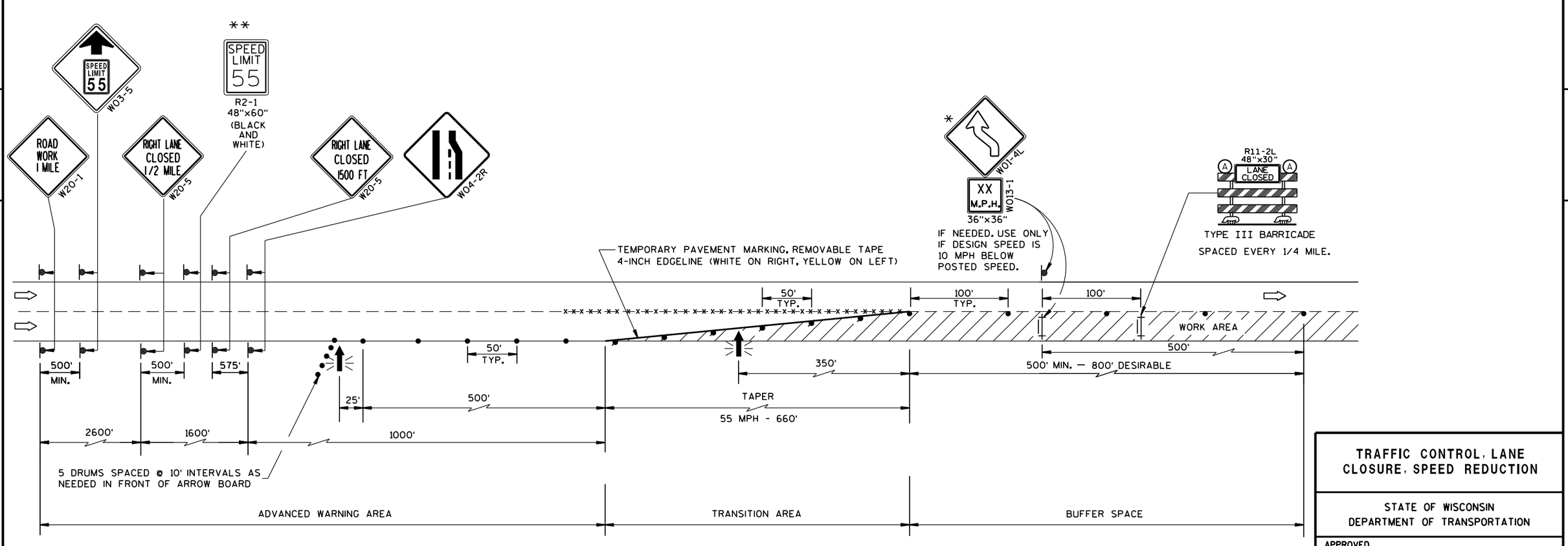
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Feb. 2015 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

232

SIGN

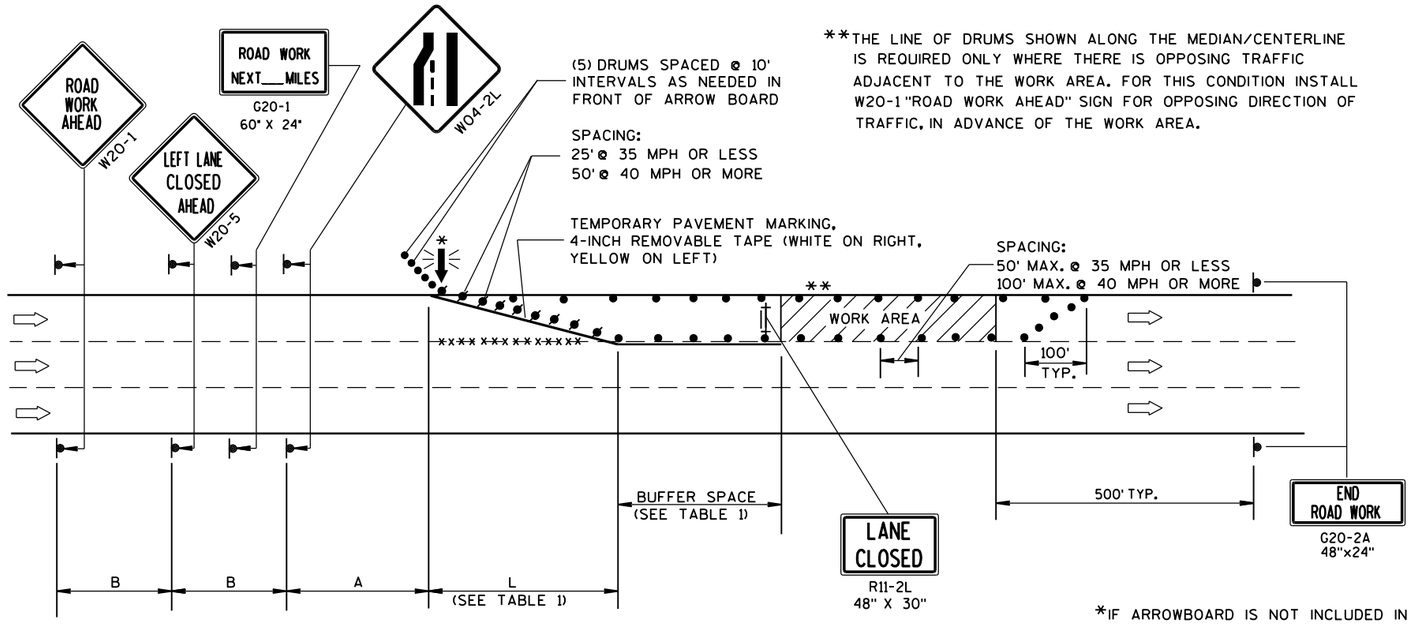
FHWA

6

S.D.D. 15 D 12-5b

6

S.D.D. 15 D 12-5b



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

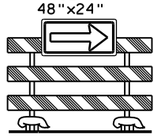


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

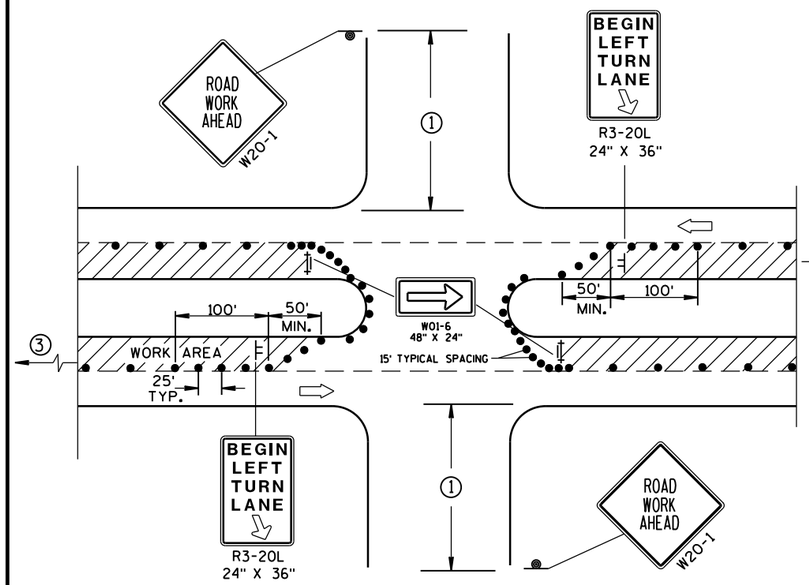
TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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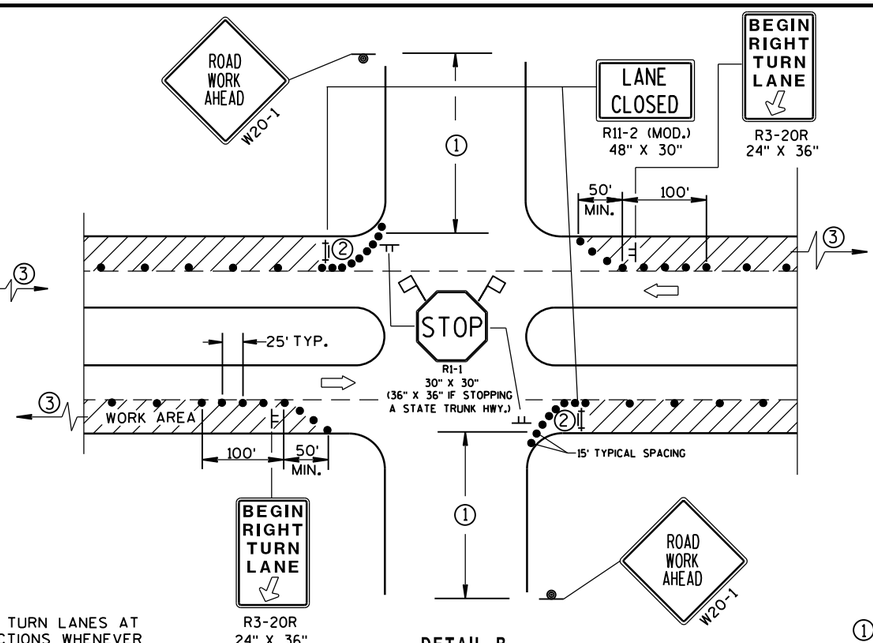
S.D.D. 15 D 20-3



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

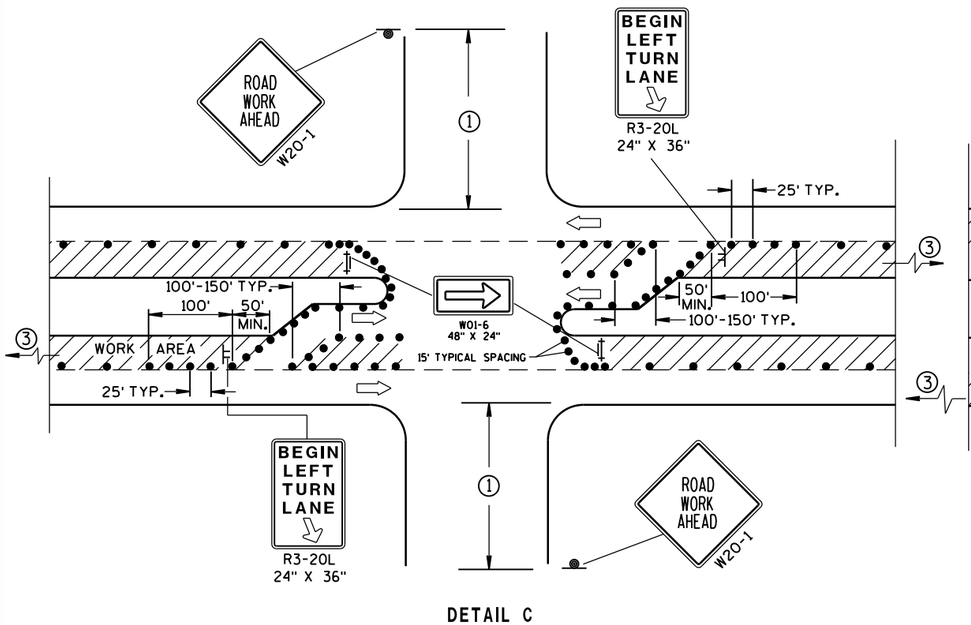
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

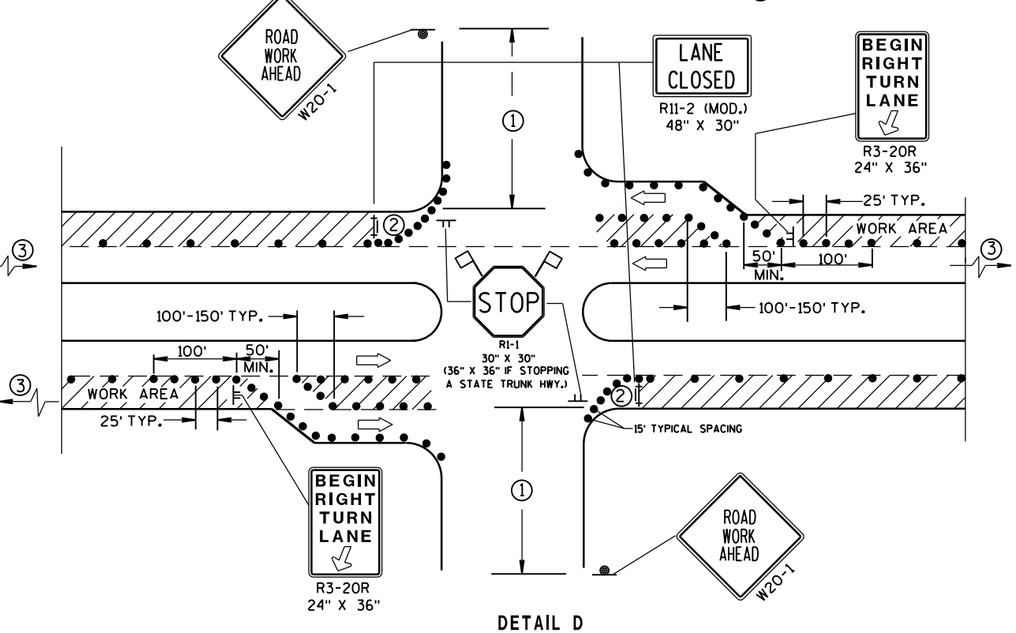
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 D 21-3

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

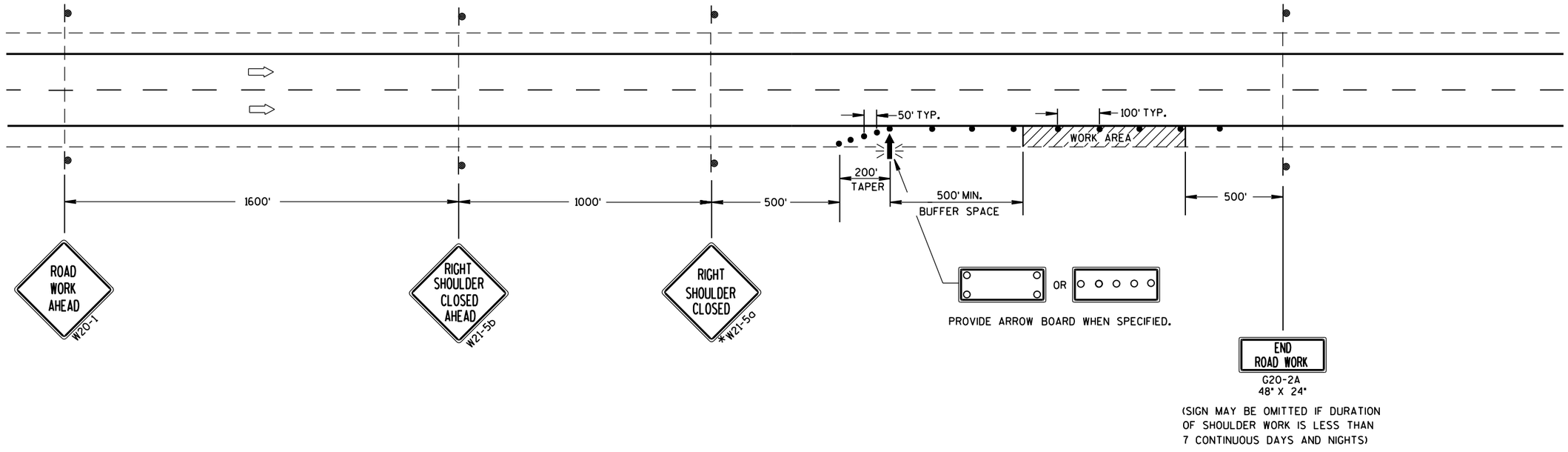
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 D 27-2

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

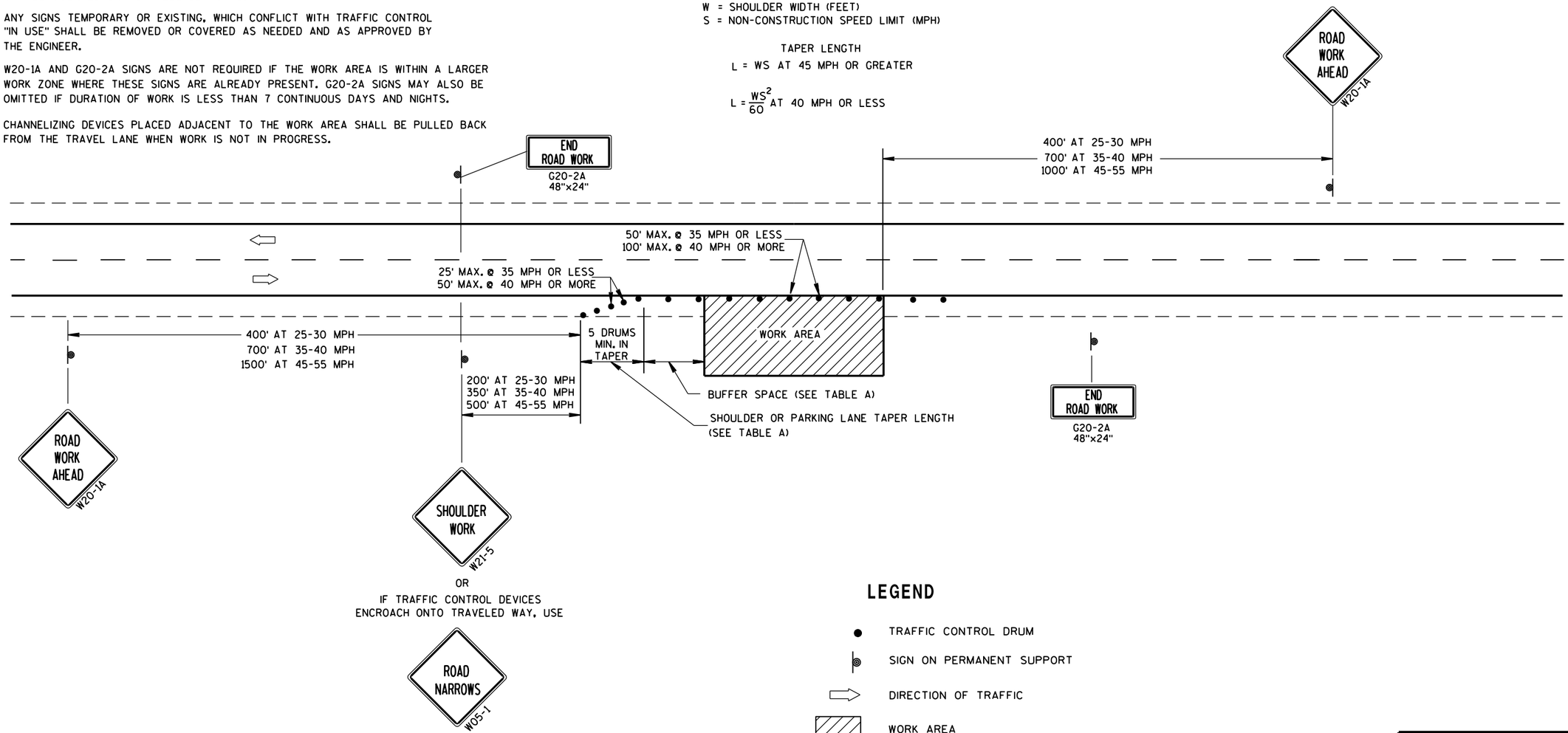
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

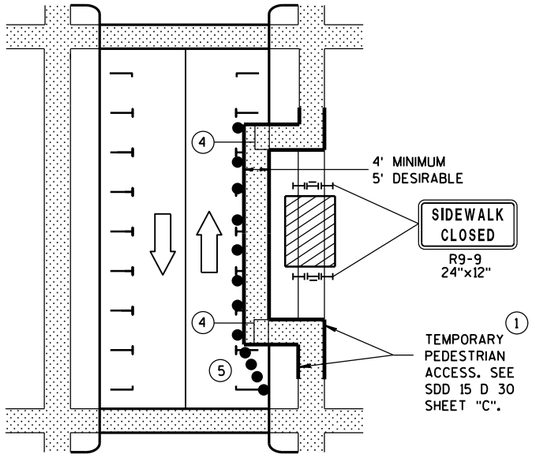
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI FIC

FHWA

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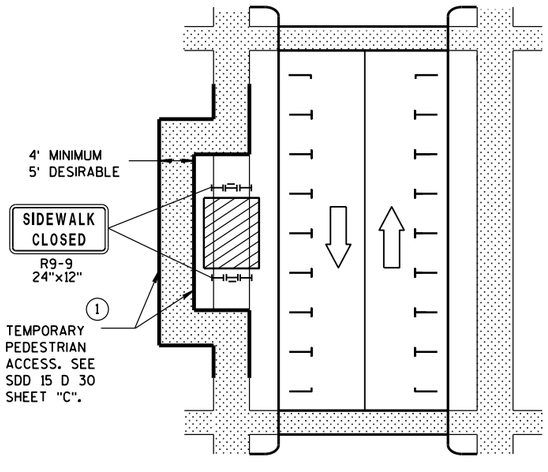
S.D.D. 15 D 28-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

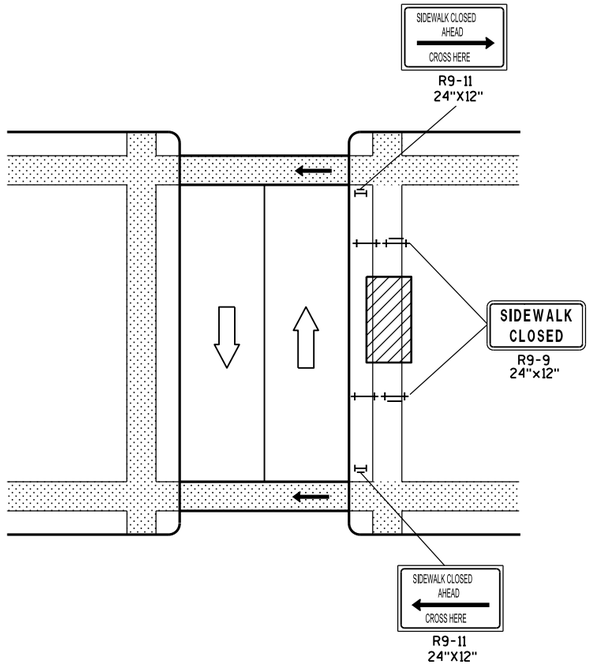


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

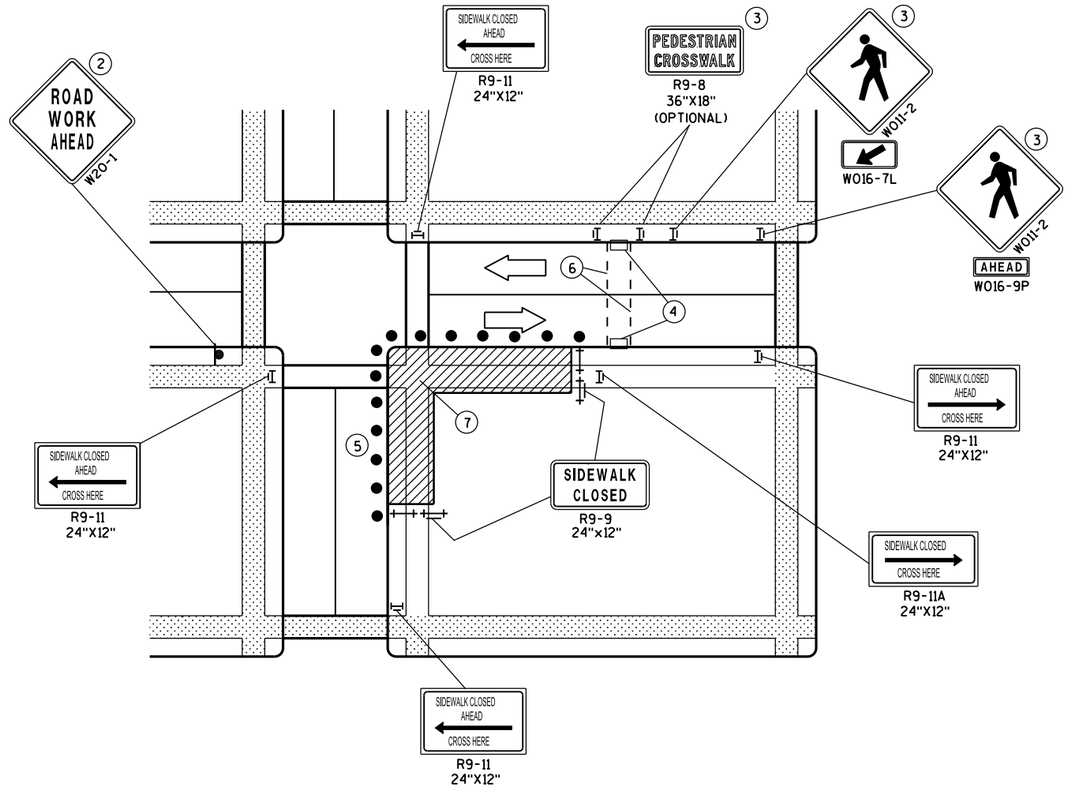
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

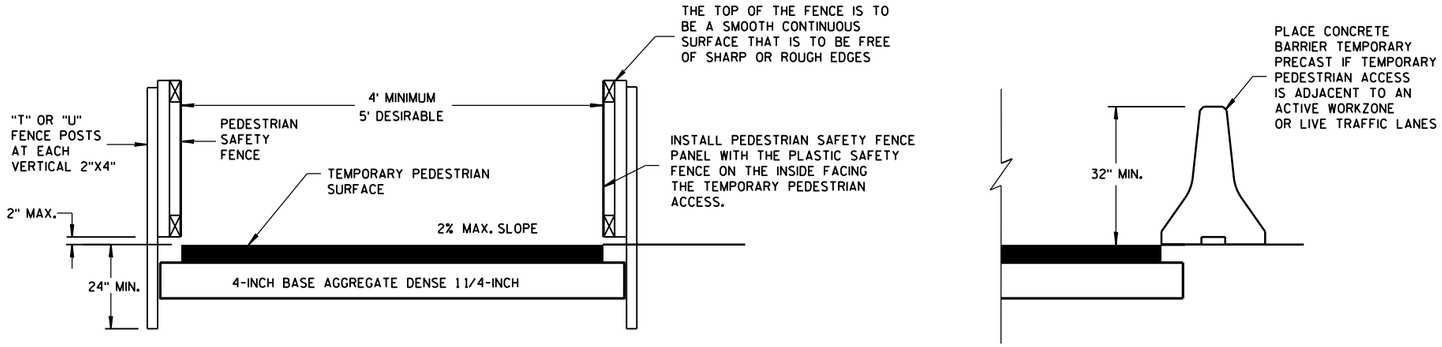
- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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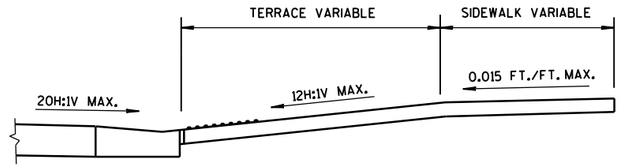
S.D.D. 15 D 30-2a



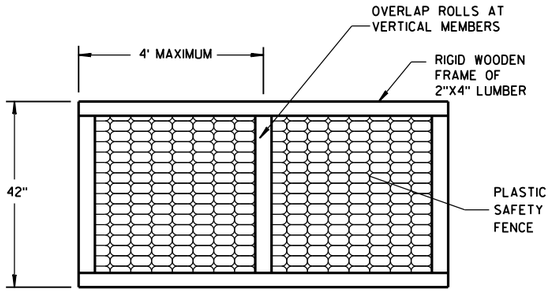
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

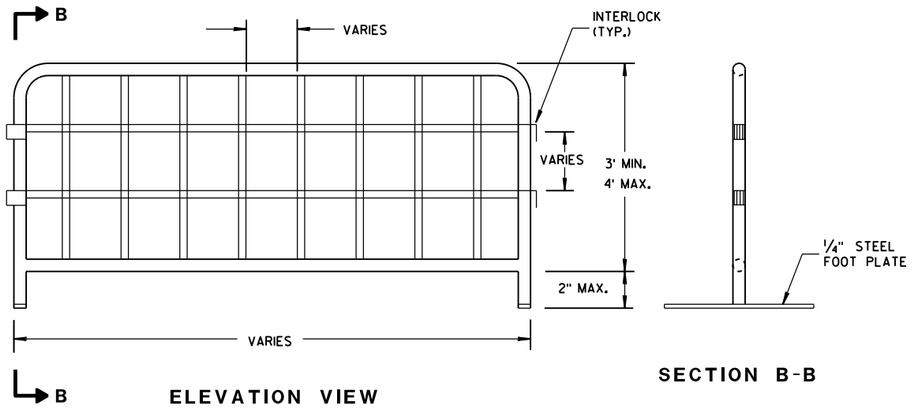
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



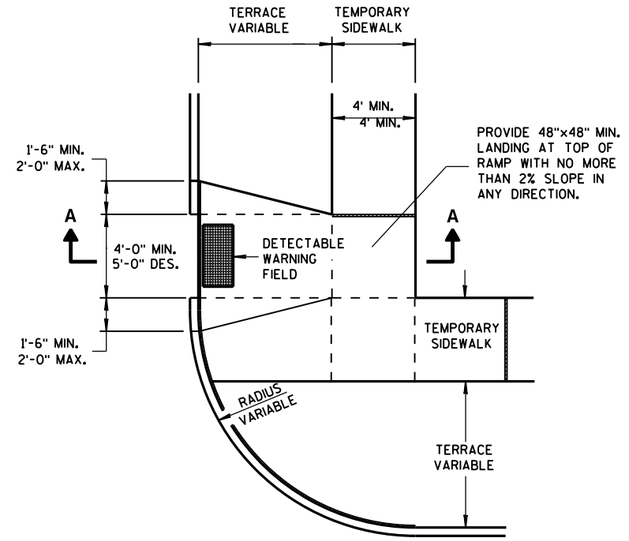
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

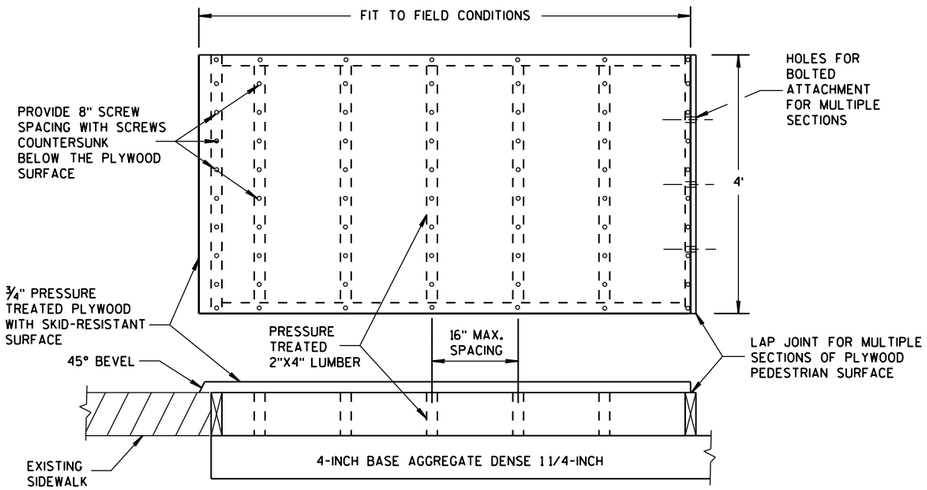
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



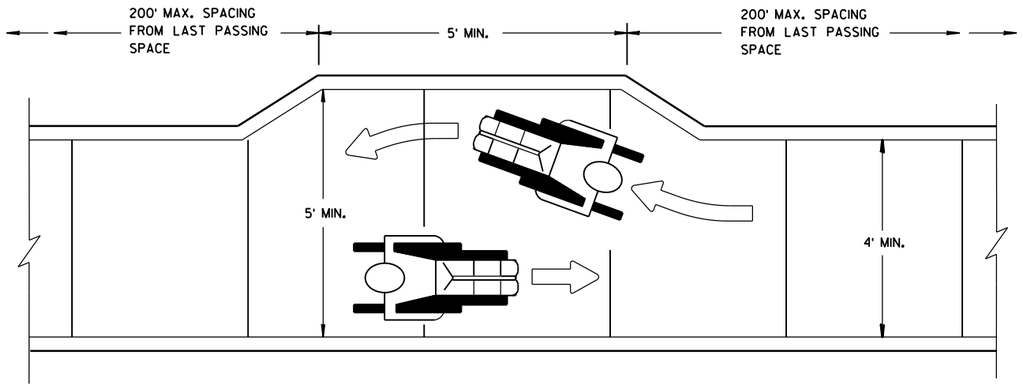
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
238
SIGN
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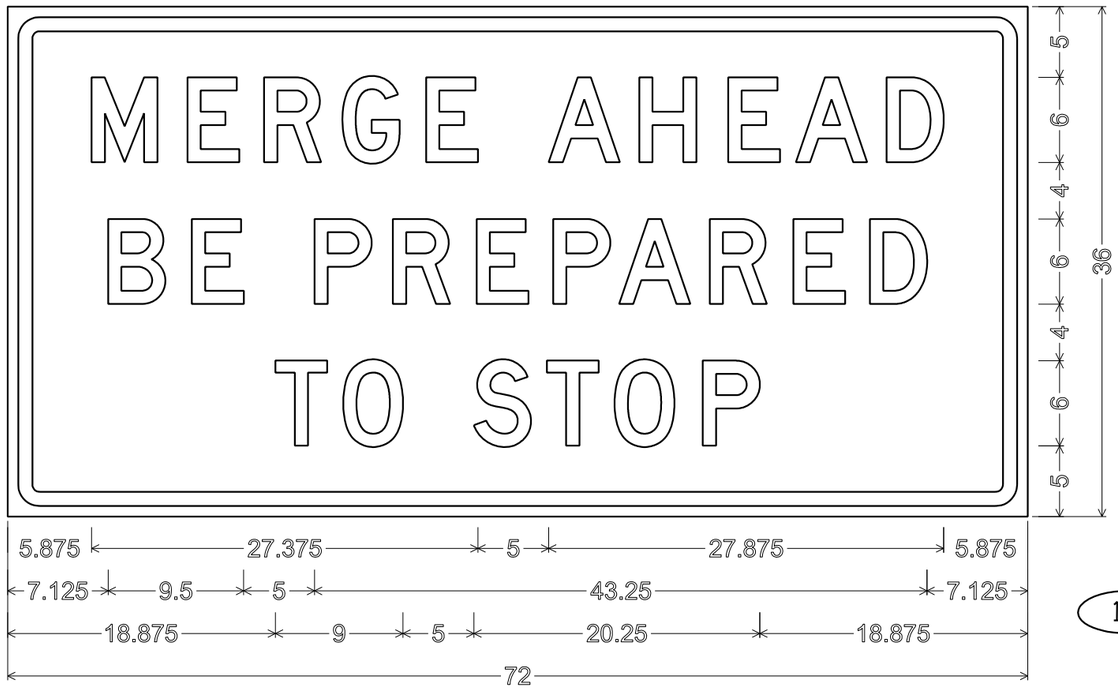
S.D.D. 15 D 30-2c

6

S.D.D. 15 D 30-2c

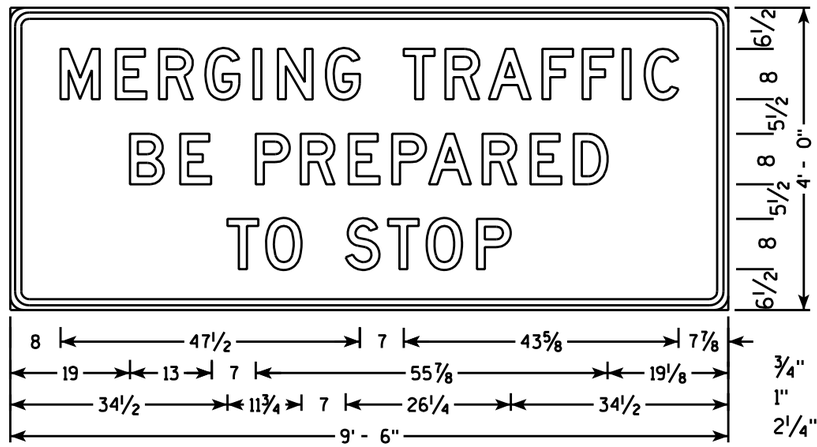
NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - ORANGE
   Message - BLACK
3. Message Series - D



2.250" Radius, 1.000" Border, 0.750" Indent

151



150

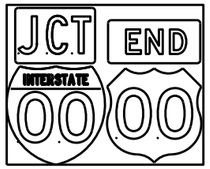
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7

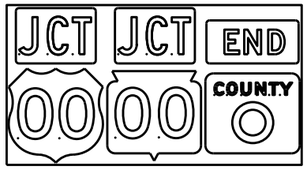
TYPICAL ASSEMBLIES



J1-1



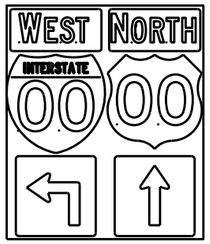
J1-2



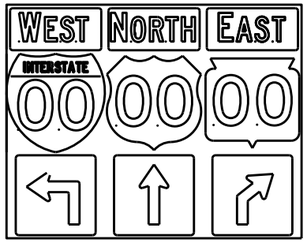
J1-3



J2-1



J2-2

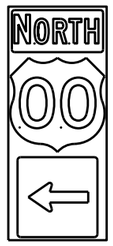


J2-3

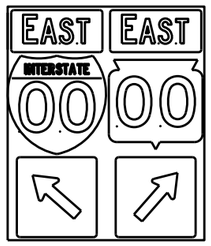


JV

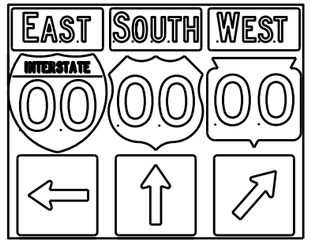
(Typical Vertical J-Assembly
See Note 10 and 11)



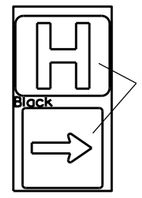
J3-1



J3-2



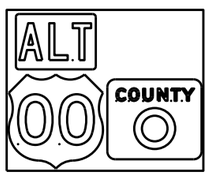
J3-3



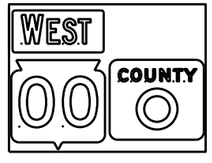
JH-1



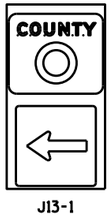
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

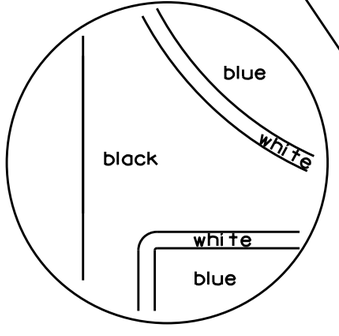


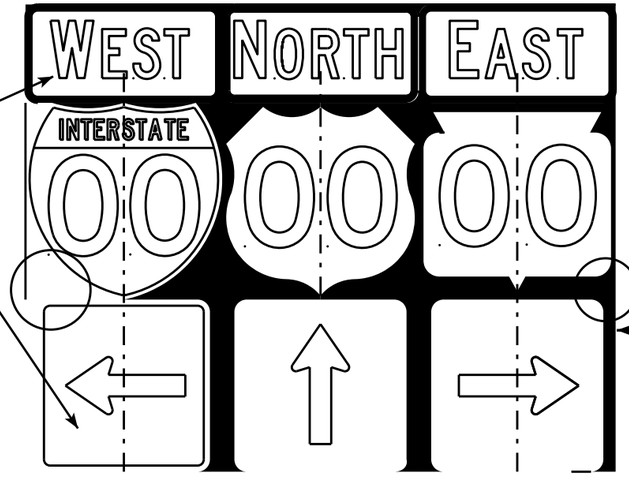
J23-1

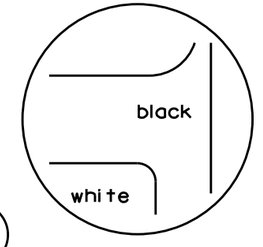


J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

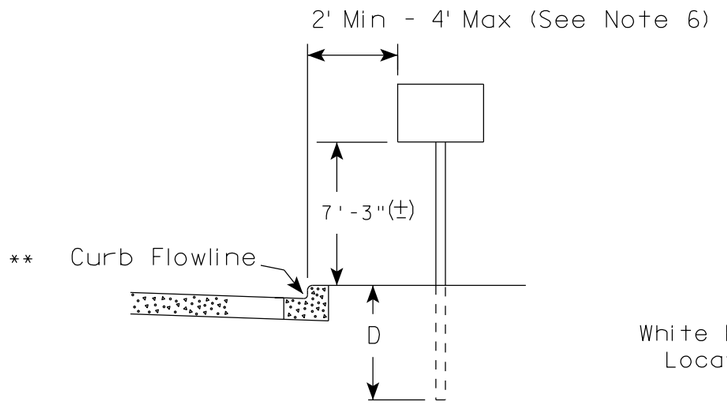
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

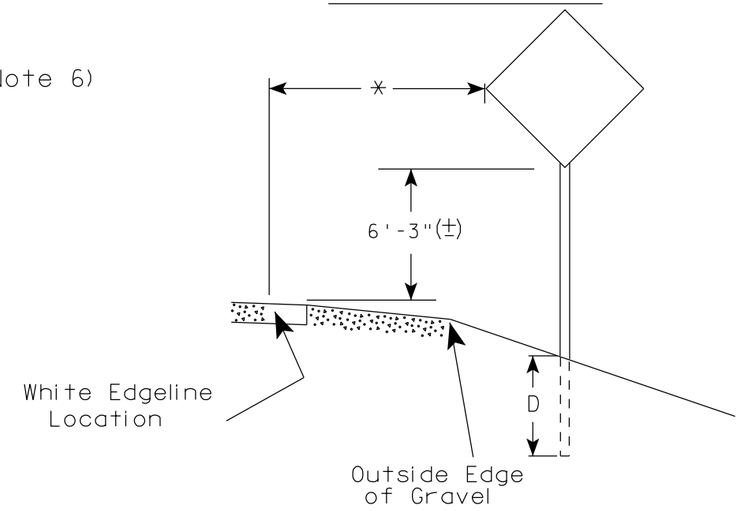
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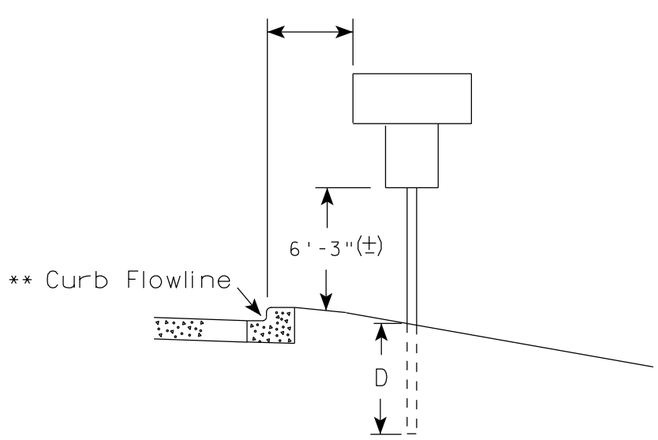
WISDOT/CADDS SHEET 42

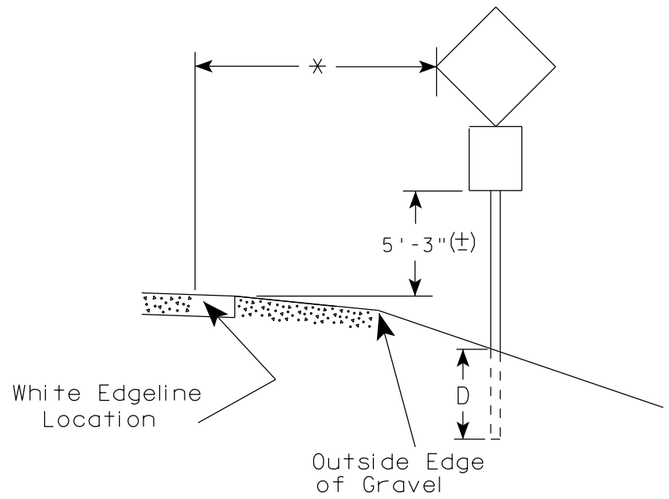
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

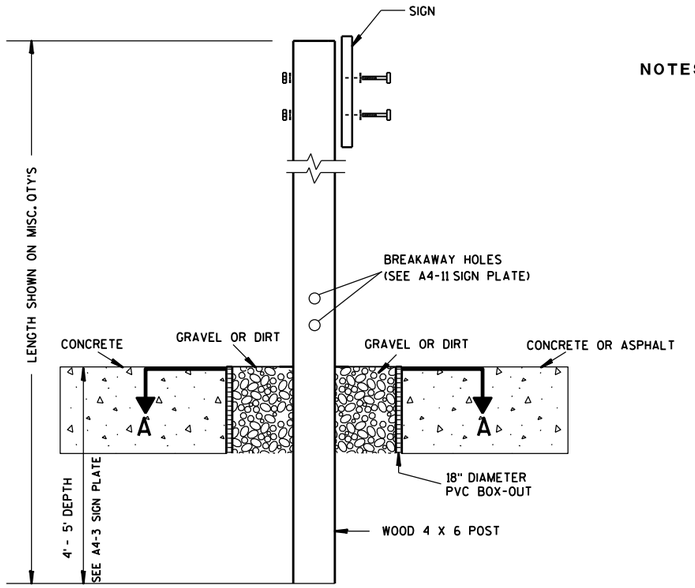
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

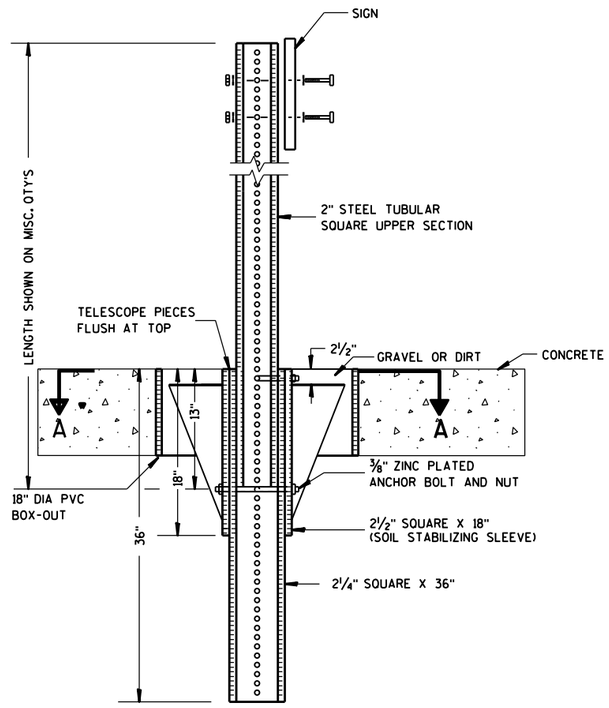
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

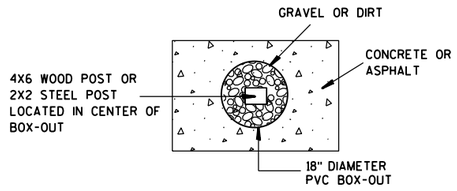
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

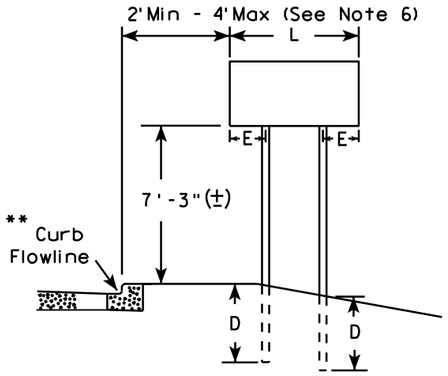
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

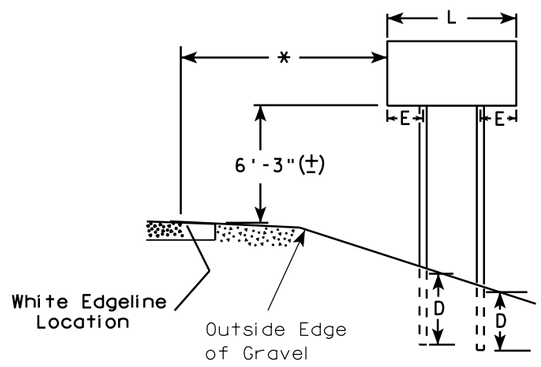
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

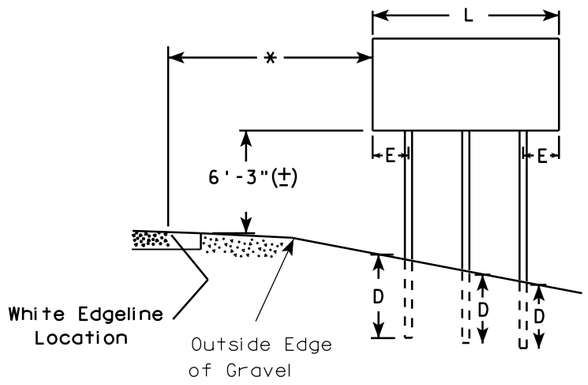
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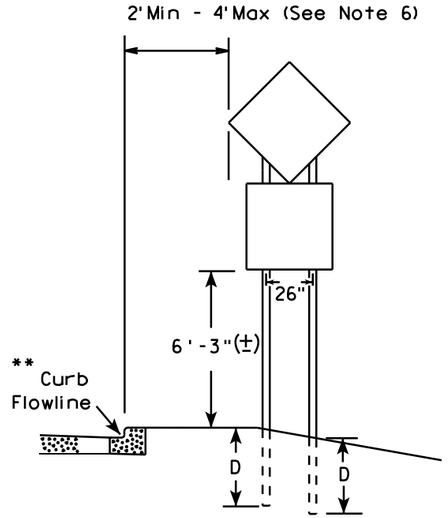
URBAN AREA



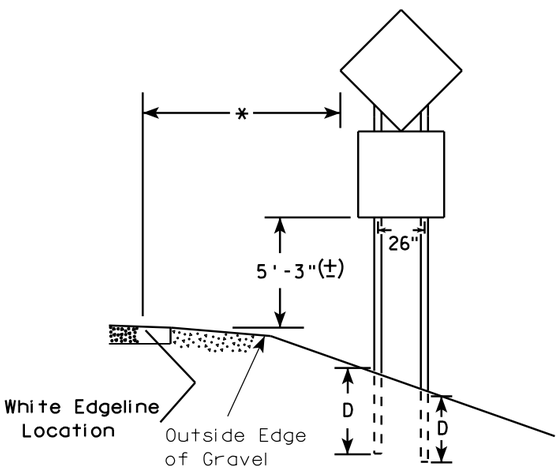
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

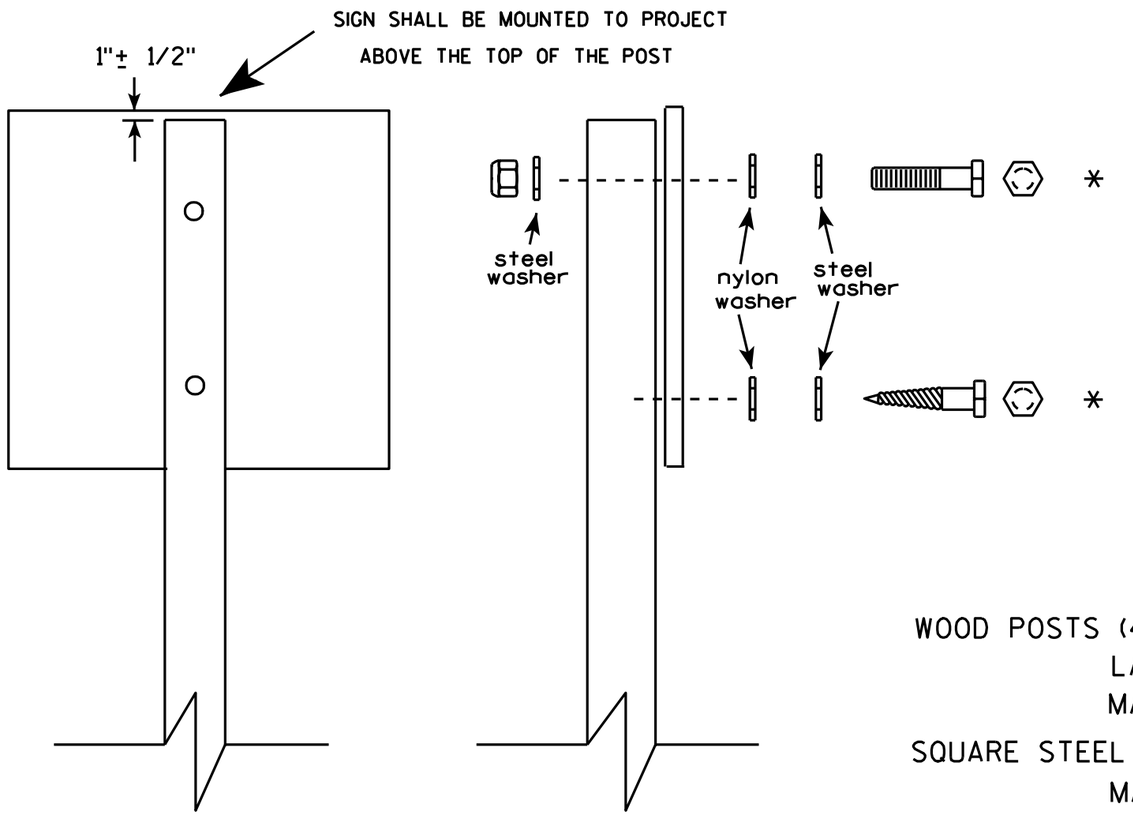
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14
243

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

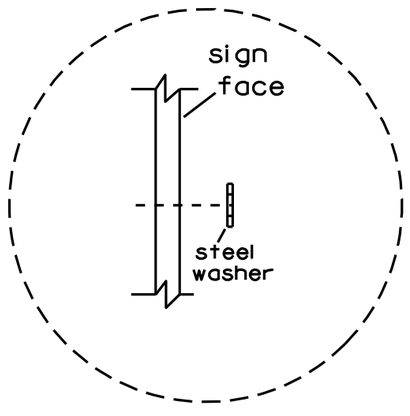
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

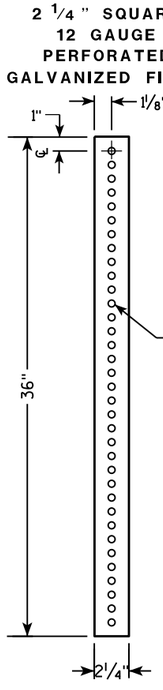
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PROJECT NO:

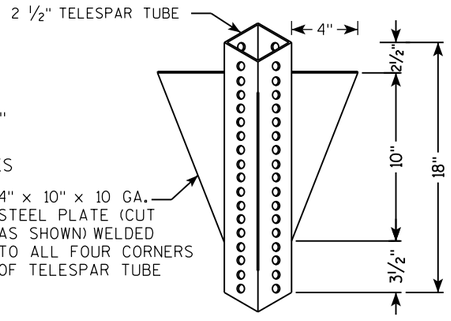
SHEET NO: 244 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

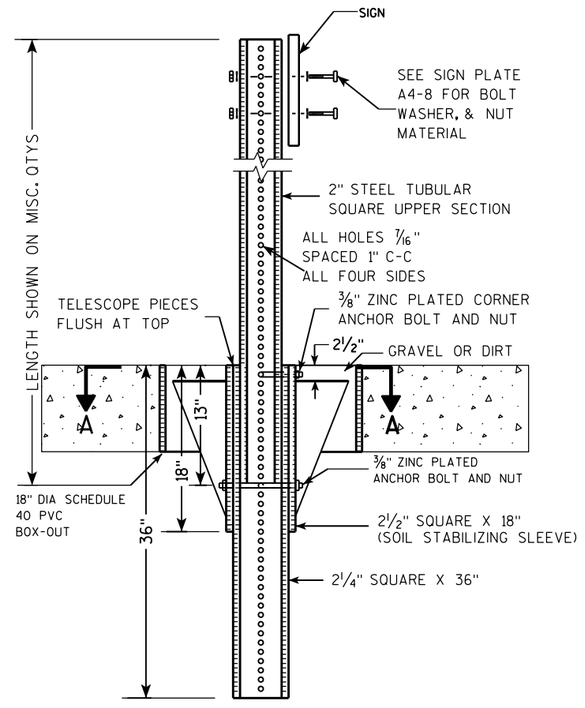
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



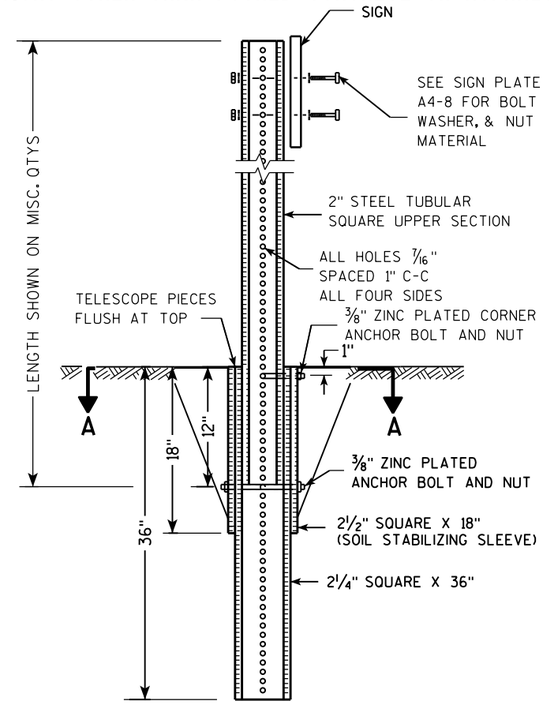
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

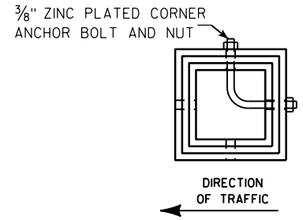


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

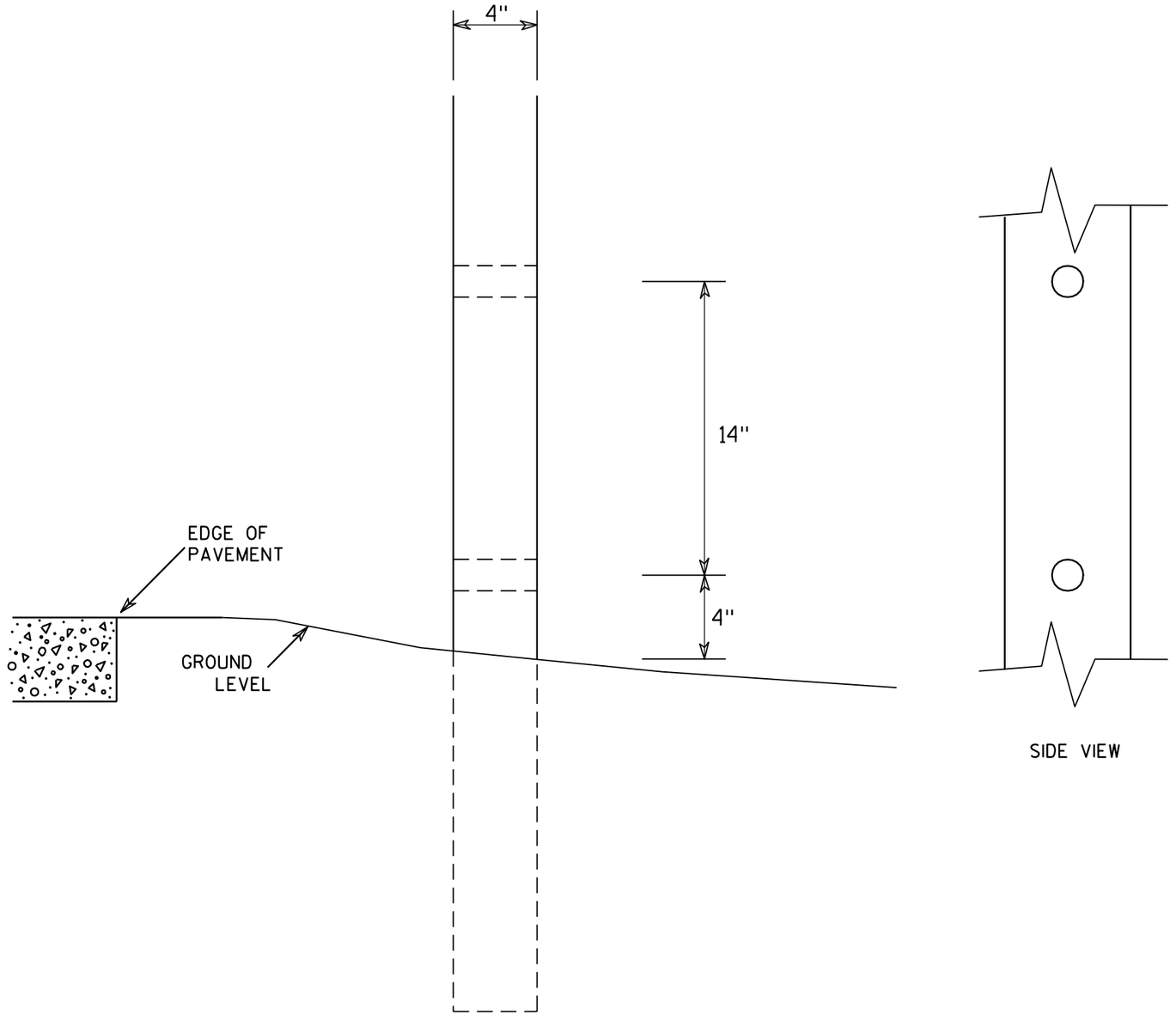
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 245 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

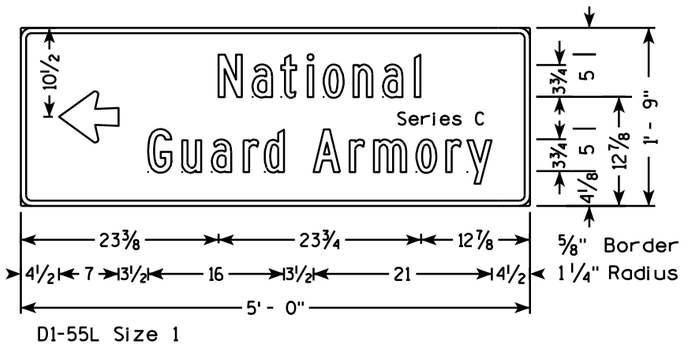
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

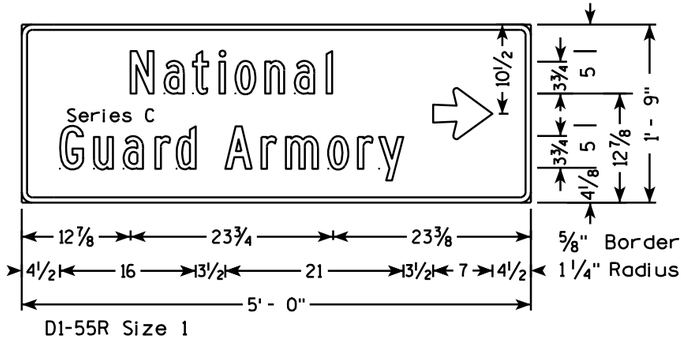
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 246	E



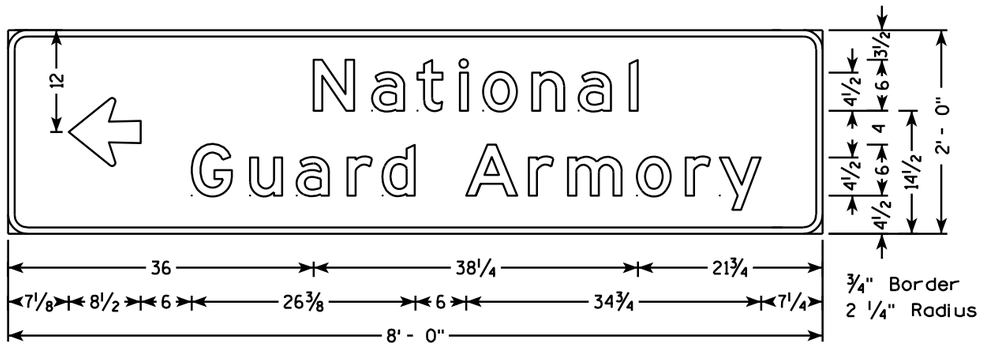
D1-55L Size 1



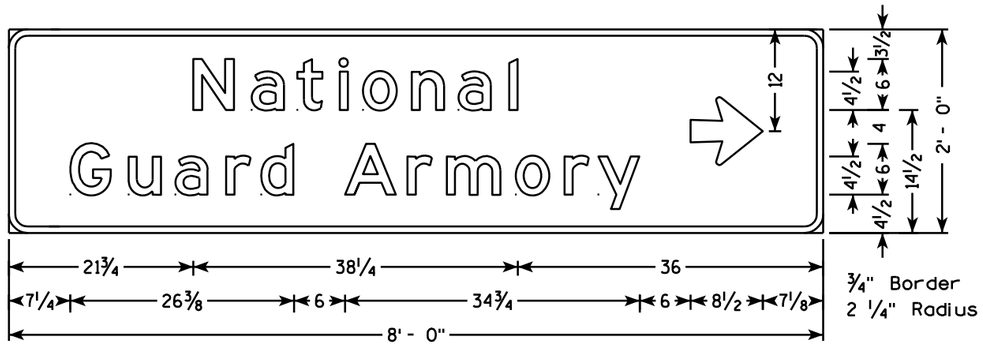
D1-55R Size 1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



D1-55L Size 2



D1-55R Size 2

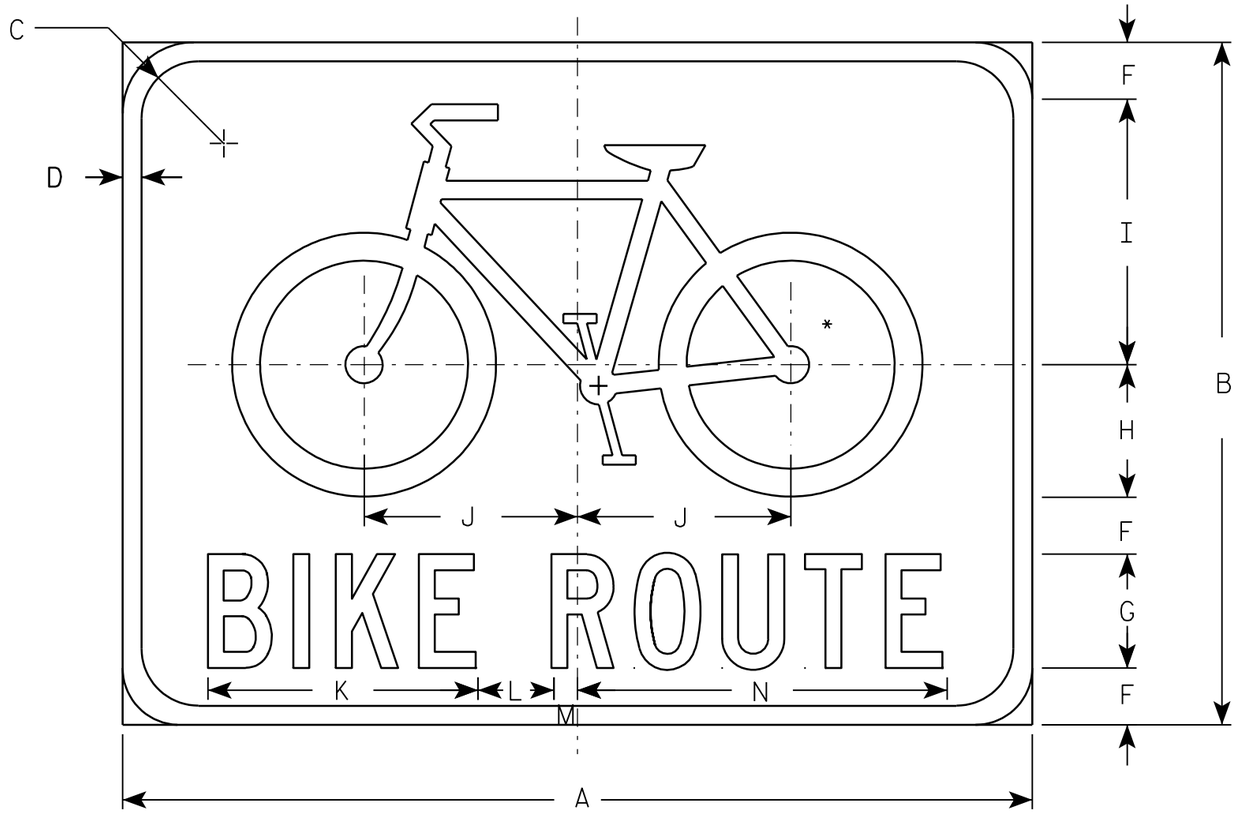
TYPICAL STANDARD
D1-55L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/21/13 PLATE NO. D1-55L.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 247	E



D11-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

* See W11-1 for symbol design

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 450 mm
3	750 mm X 600 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	18	1 1/2	1/2		1 1/2	3	3 1/2	7	5 5/8	7 1/8	2	5/8	9 3/4													3.0	0.27
3	30	24	1 1/4	5/8		2	4	4 3/4	9 1/4	7 1/2	9 1/2	2 5/8	7/8	13													5.0	0.45
4																												
5																												

STANDARD SIGN
D11-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/04 PLATE NO. D11-1.1

PROJECT NO:

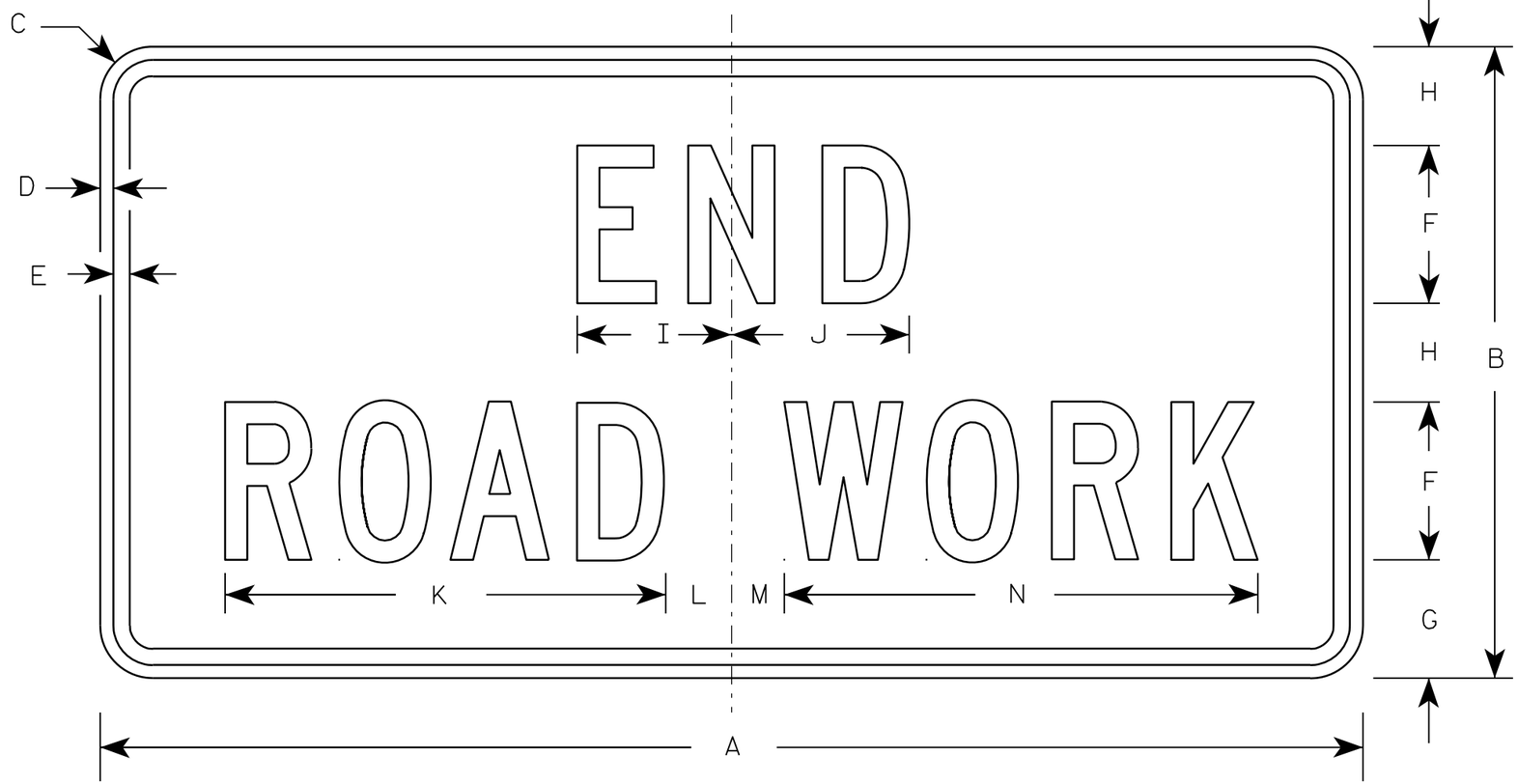
SHEET NO: 248 E

FILE NAME : C:\Users\Projects\tr_stdplate\D111.DGN PLOT DATE : 17-MAR-2005 10:38 PLOT BY : DOTDZK

WISDOT/CADDS SHEET 42

7

7



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

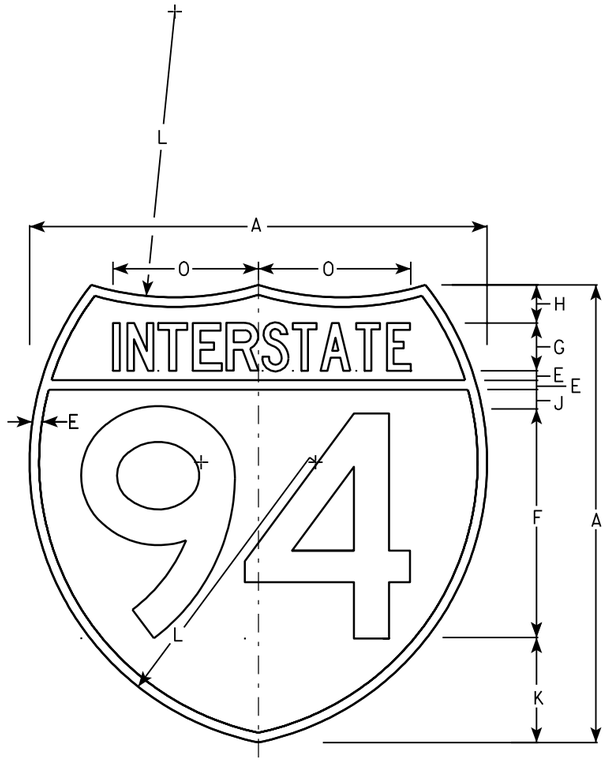
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

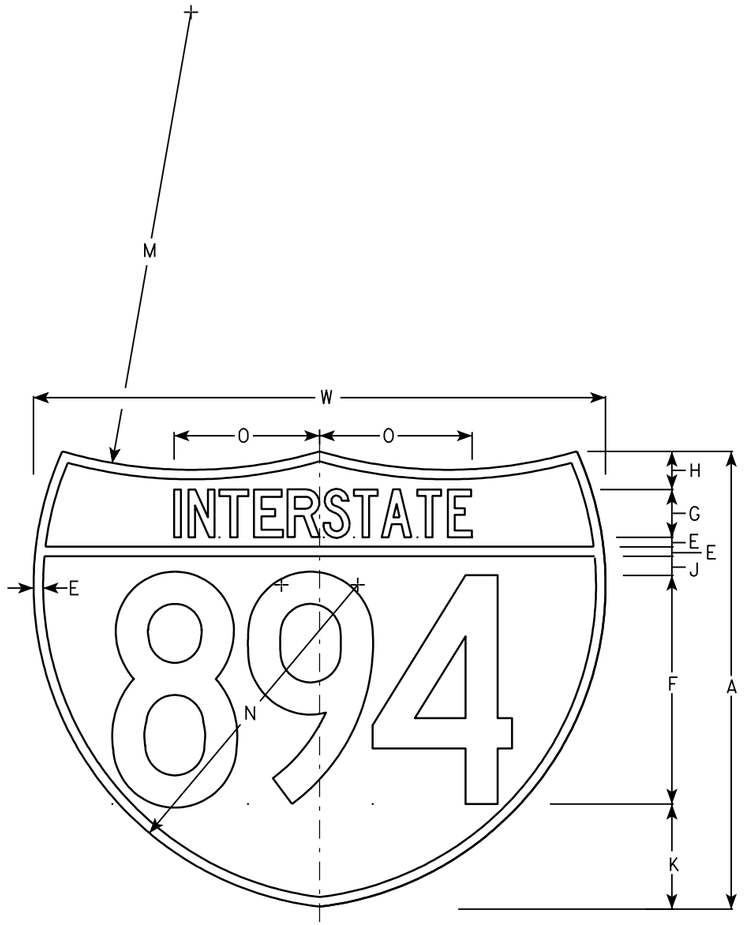
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 249	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

7

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Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

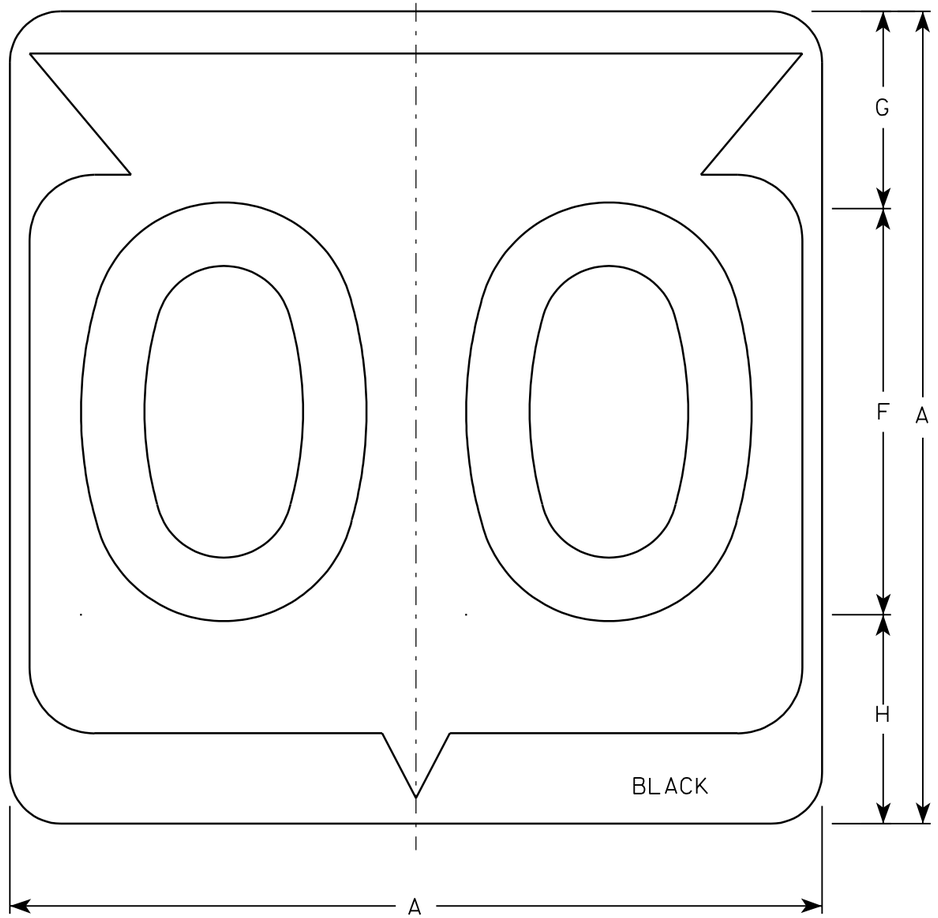
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

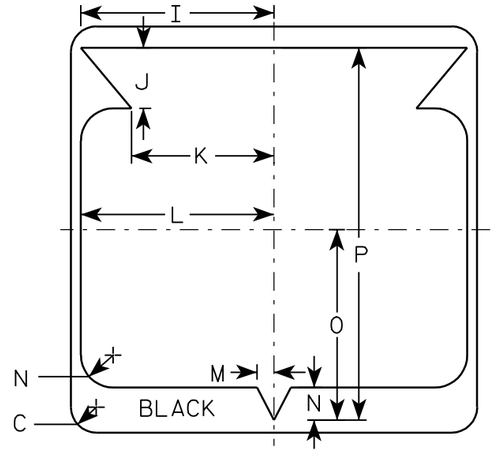
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 250	E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

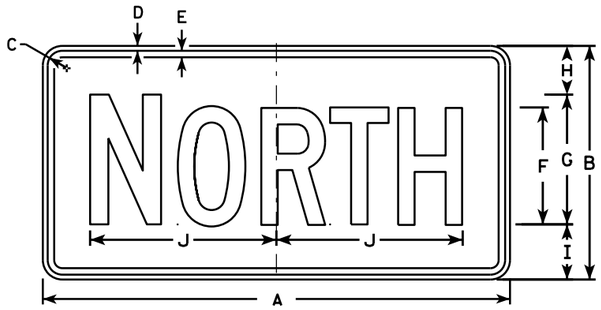
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

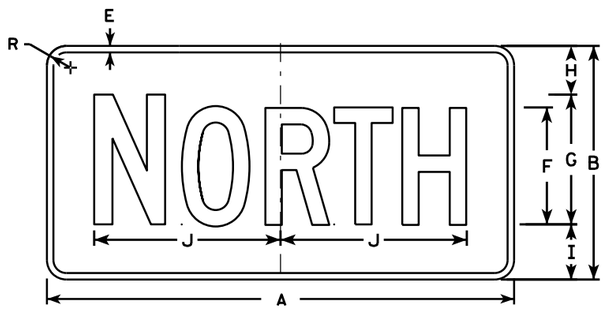
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 251	E



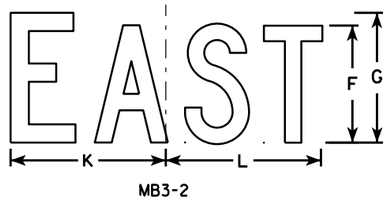
M3-1
MK3-1
MM3-1
MN3-1



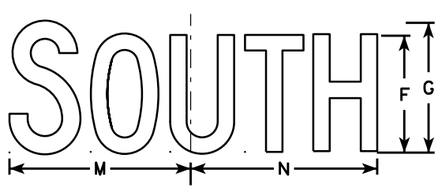
MB3-1



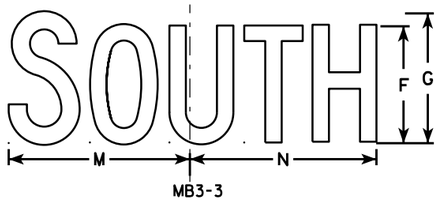
M3-2
MK3-2
MM3-2
MN3-2



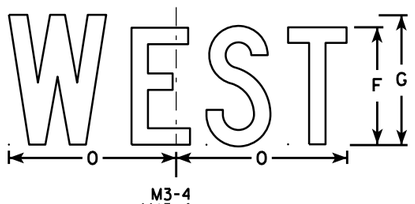
MB3-2



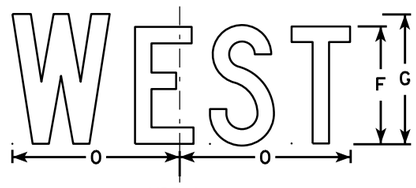
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



M3-4
MK3-4
MM3-4
MN3-4



MB3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

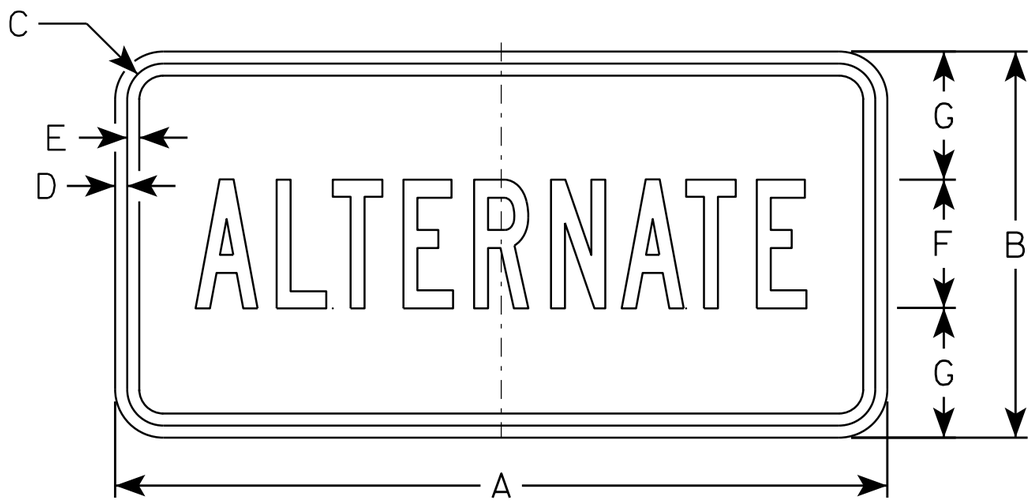
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

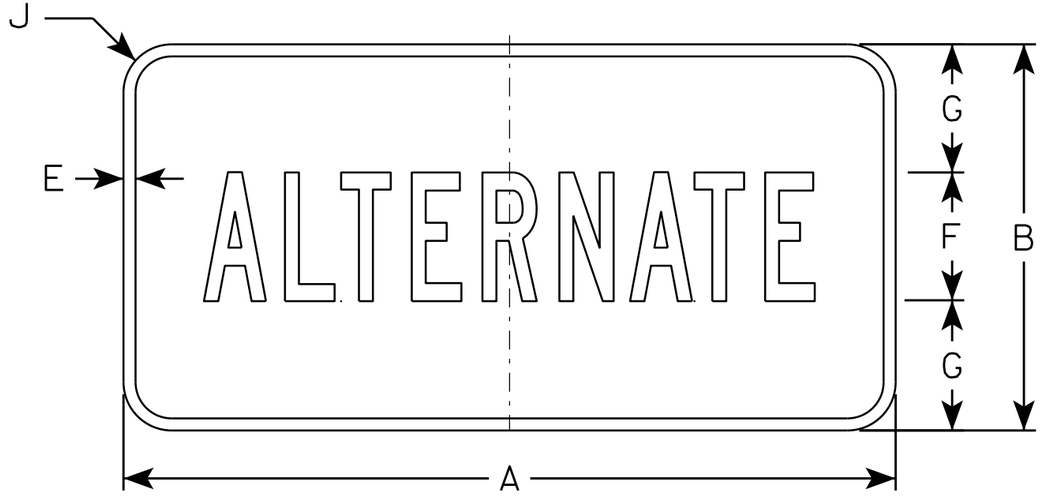
DATE 6/30/14 PLATE NO M3-1.13

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

7



M4-1
M04-1



MB4-1

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-1 Background - White
   Message - Black

   MB4-1 Background - Blue
   Message - White

   M04-1 Background - Orange - Type F
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	4	4	9 3/4	9 1/2	1 1/2																	2.00
3	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
4	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
5	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5

STANDARD SIGN
M4-1

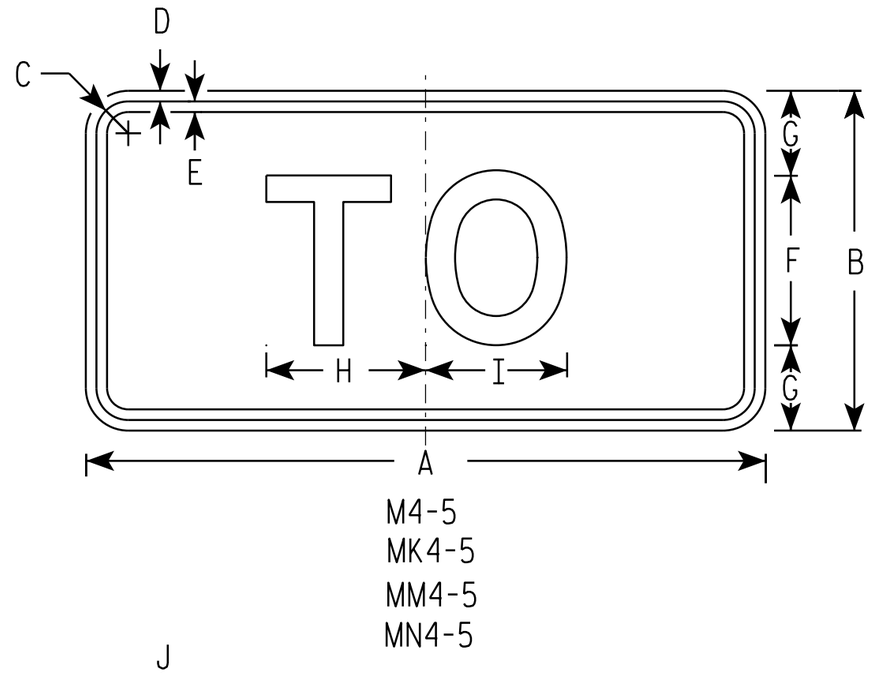
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

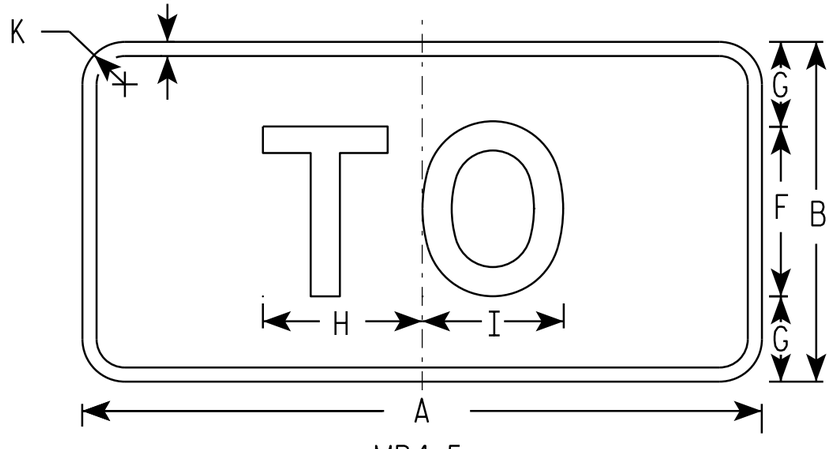
DATE 6/30/14 PLATE 14-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M41.DGN PLOT DATE : 30-JUN-2014 15:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.708937:1.000000 WISDOT/CADDS SHEET 42



M4-5
MK4-5
MM4-5
MN4-5



MB4-5

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

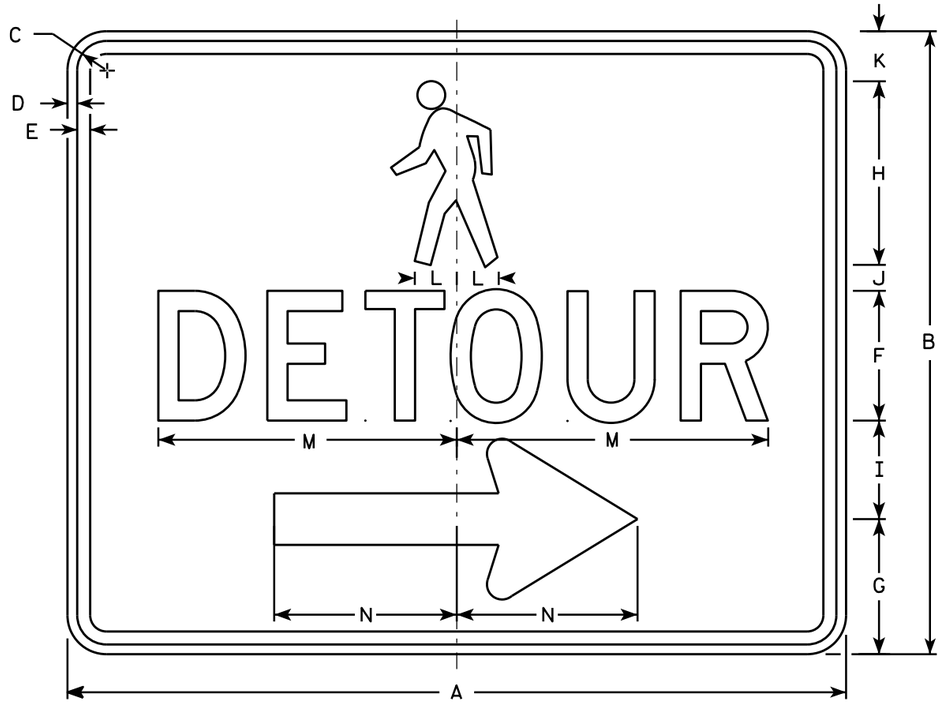
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/14 PLATE M4-5.7

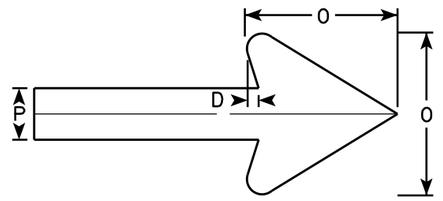
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



M4-9BR

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5																											

STANDARD SIGN
M4-9B L&R

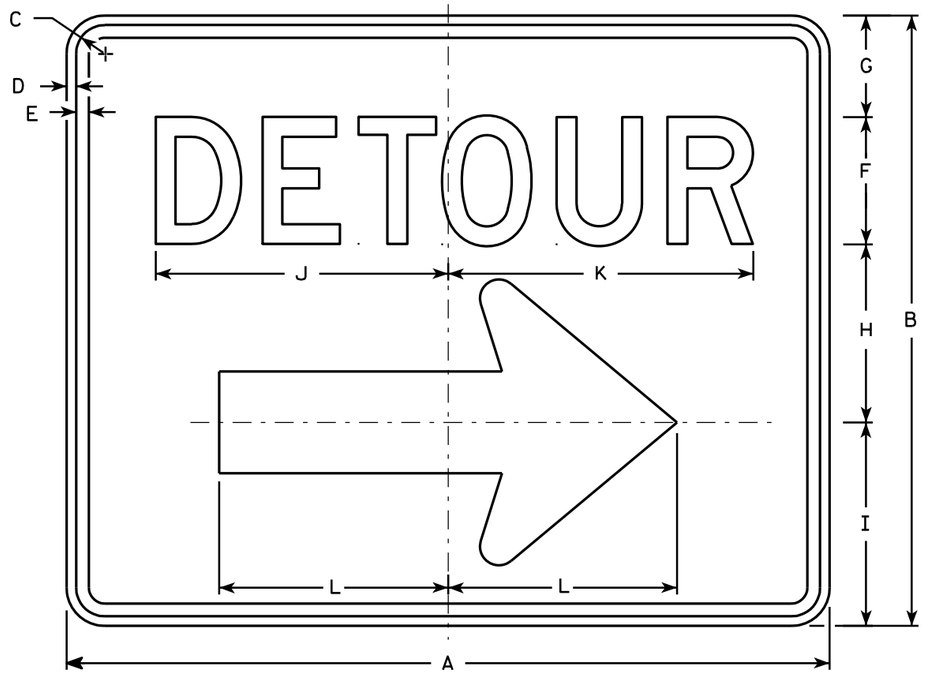
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. M4-9B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

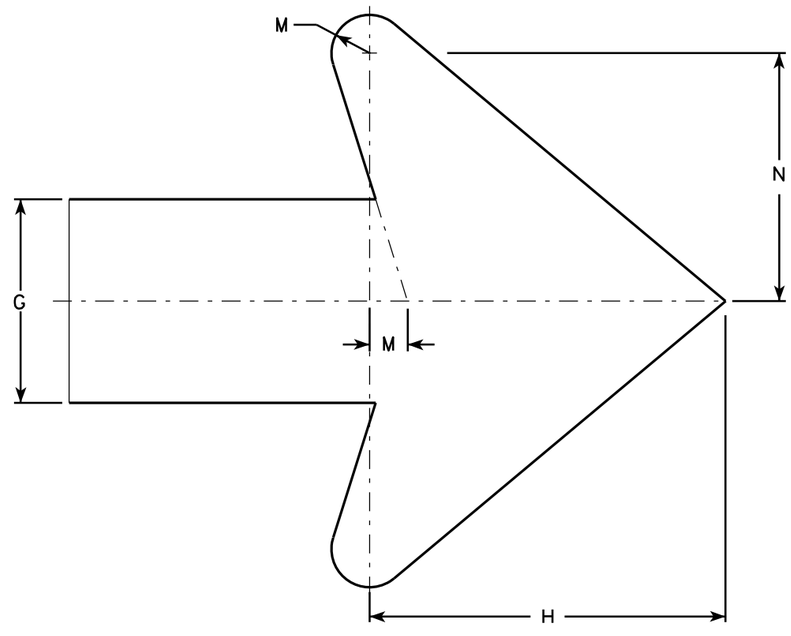
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M49B.DGN PLOT DATE : 01-OCT-2013 13:44 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



M4-9R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

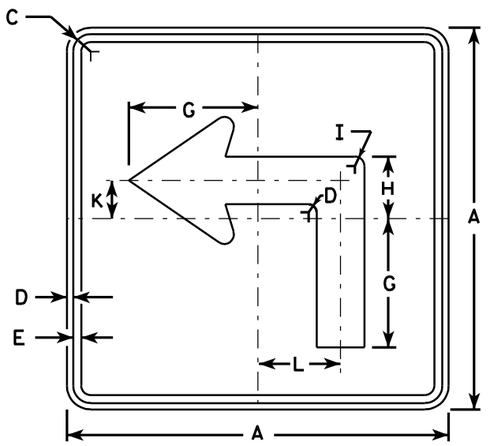
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

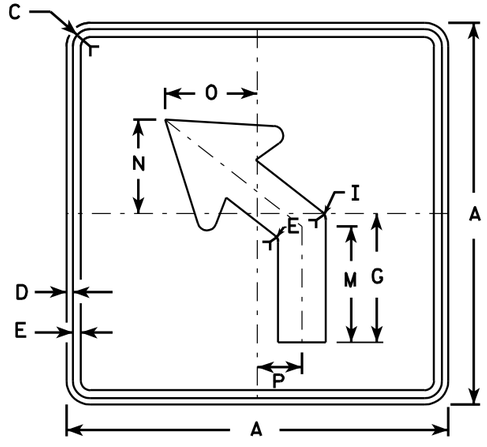
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

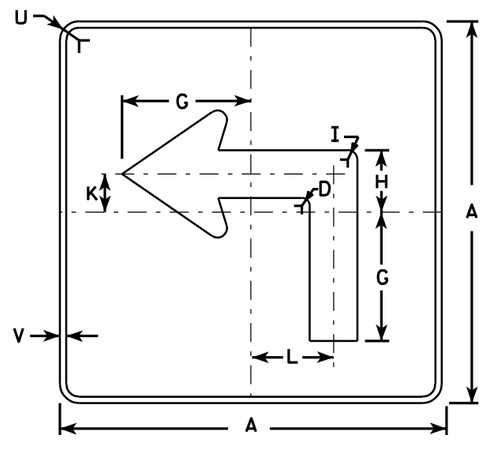
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 256 | E



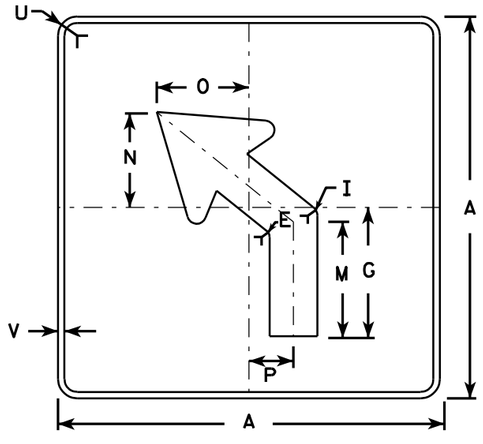
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



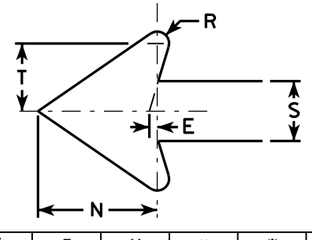
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H Reflective
   MG5-1 and MG5-2 Background - Green
   Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green
   Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

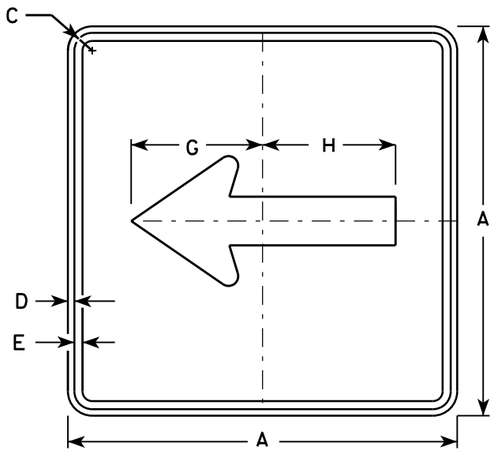
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

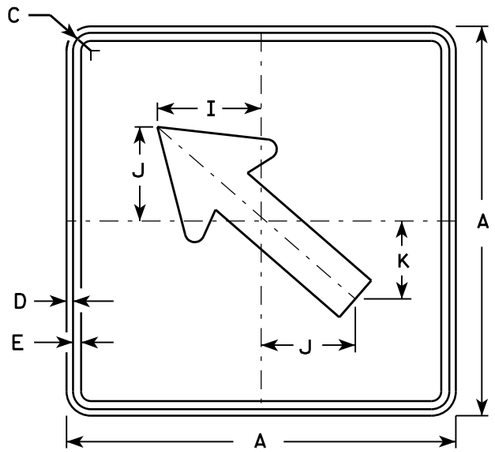
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 257 | E



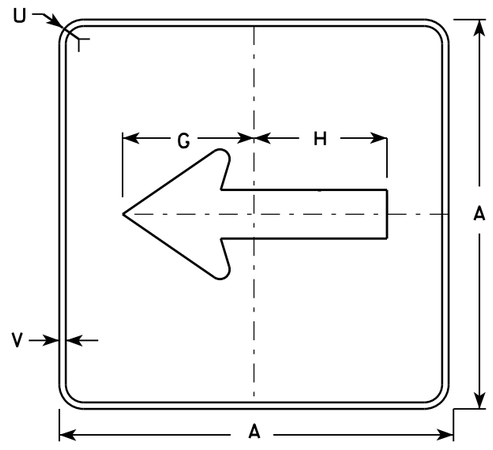
M6-1
MK6-1
MM6-1
MN6-1
MO6-1
MP6-1
MR6-1



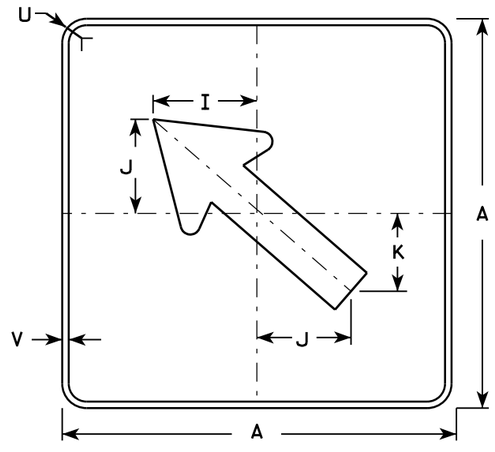
M6-2
MK6-2
MM6-2
MN6-2
MO6-2
MP6-2
MR6-2

NOTES

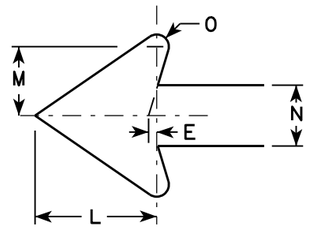
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MG6-1 and MG6-2 Background - Green
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1



MB6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN M6-1 & M6-2 SERIES

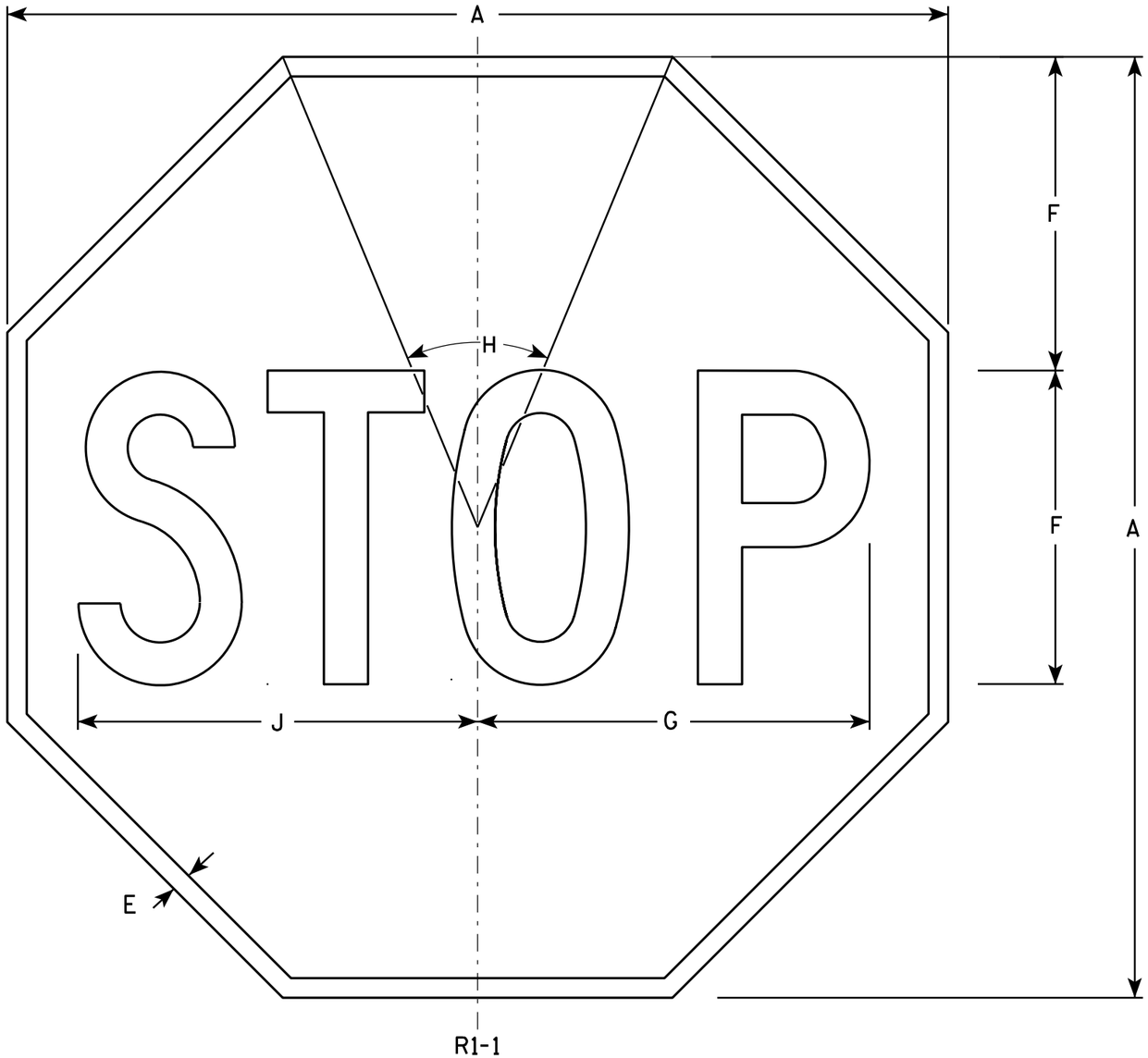
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/03/14 PLATE 258 M6-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 03-JUL-2014 14:28 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

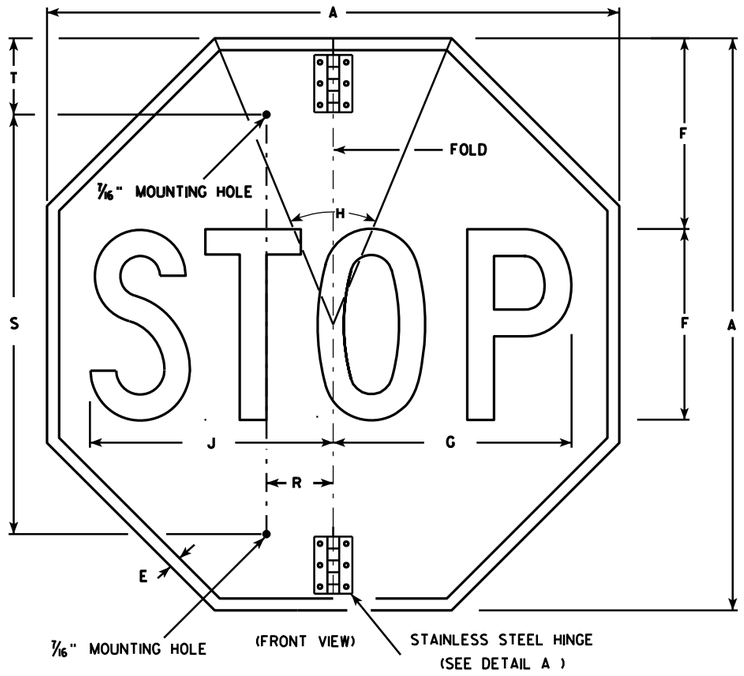
STANDARD SIGN
R1-1

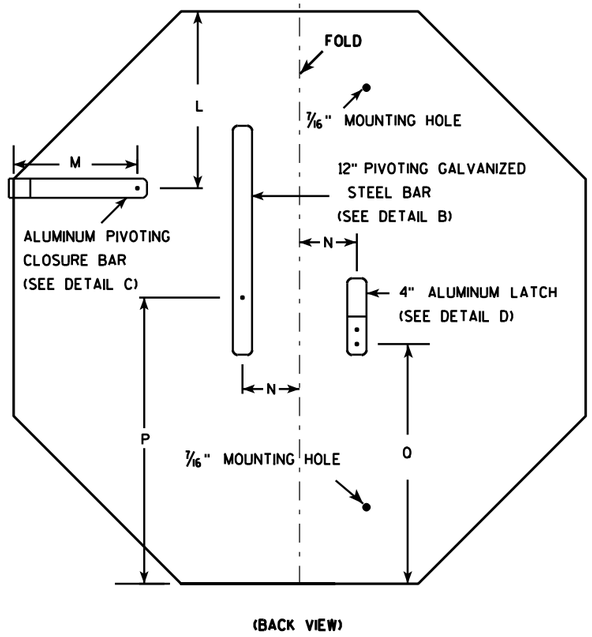
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew L Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

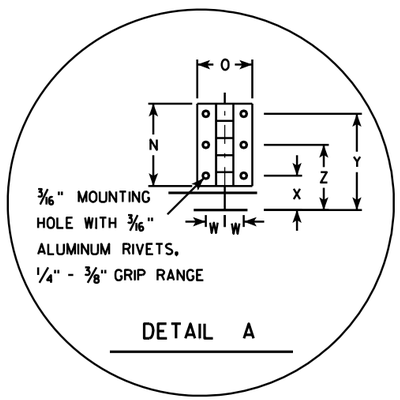
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 259	E



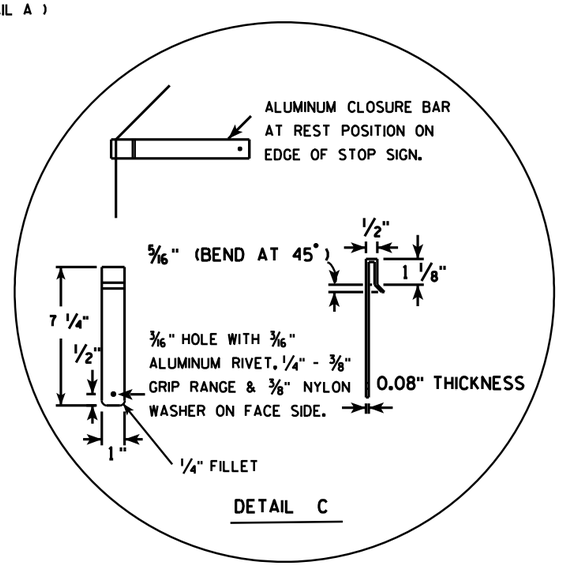


NOTES

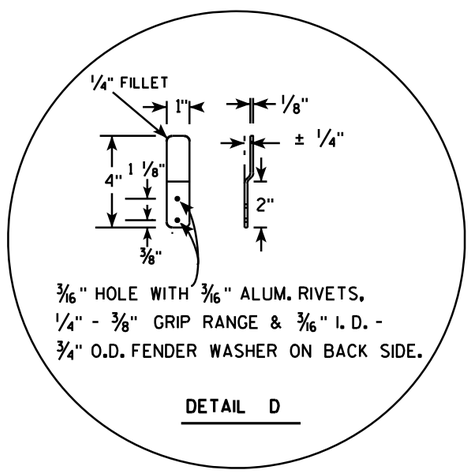
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



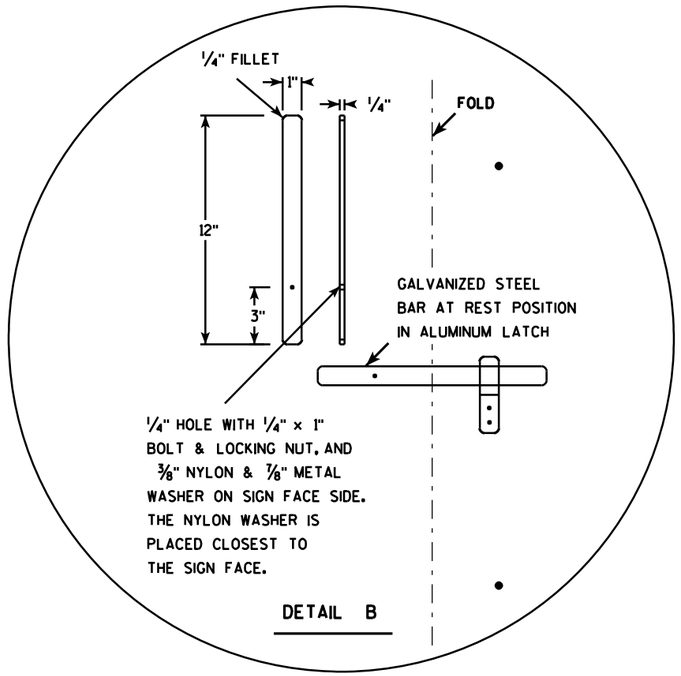
DETAIL A



DETAIL C



DETAIL D



DETAIL B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

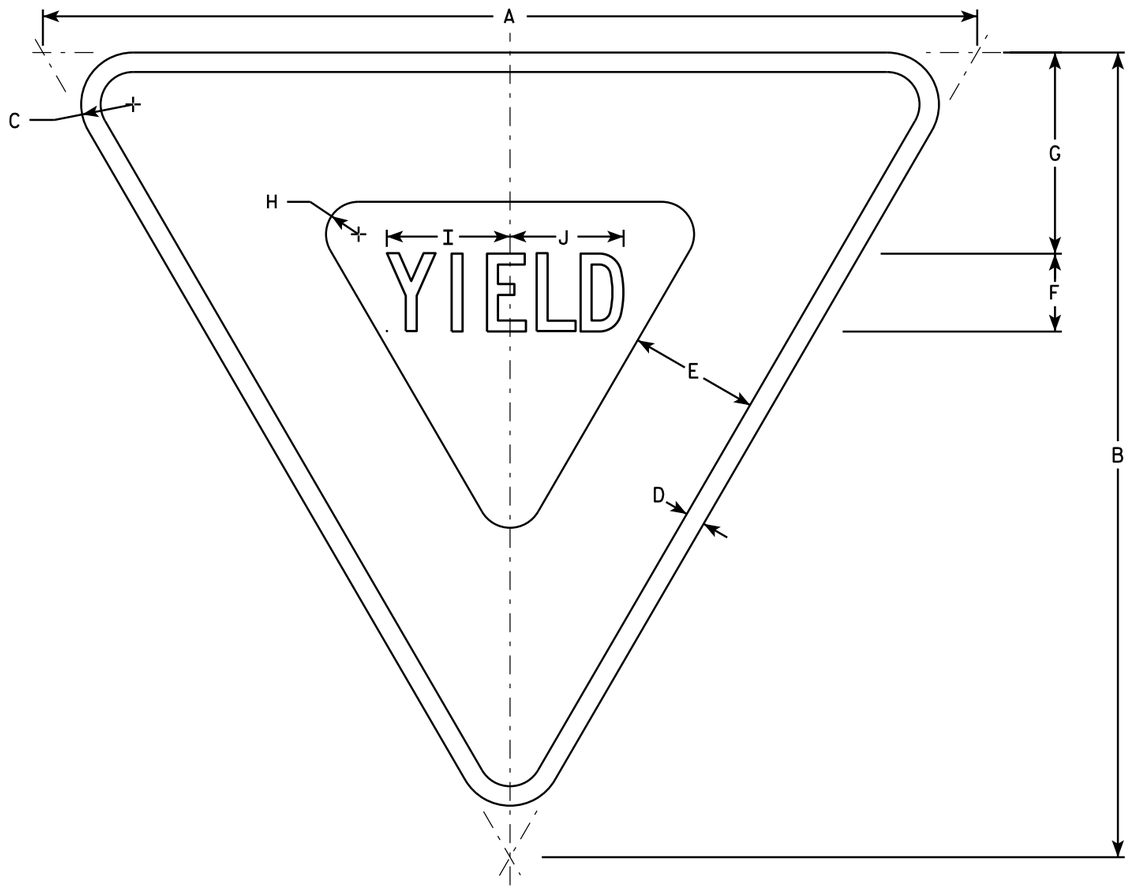
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 260	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

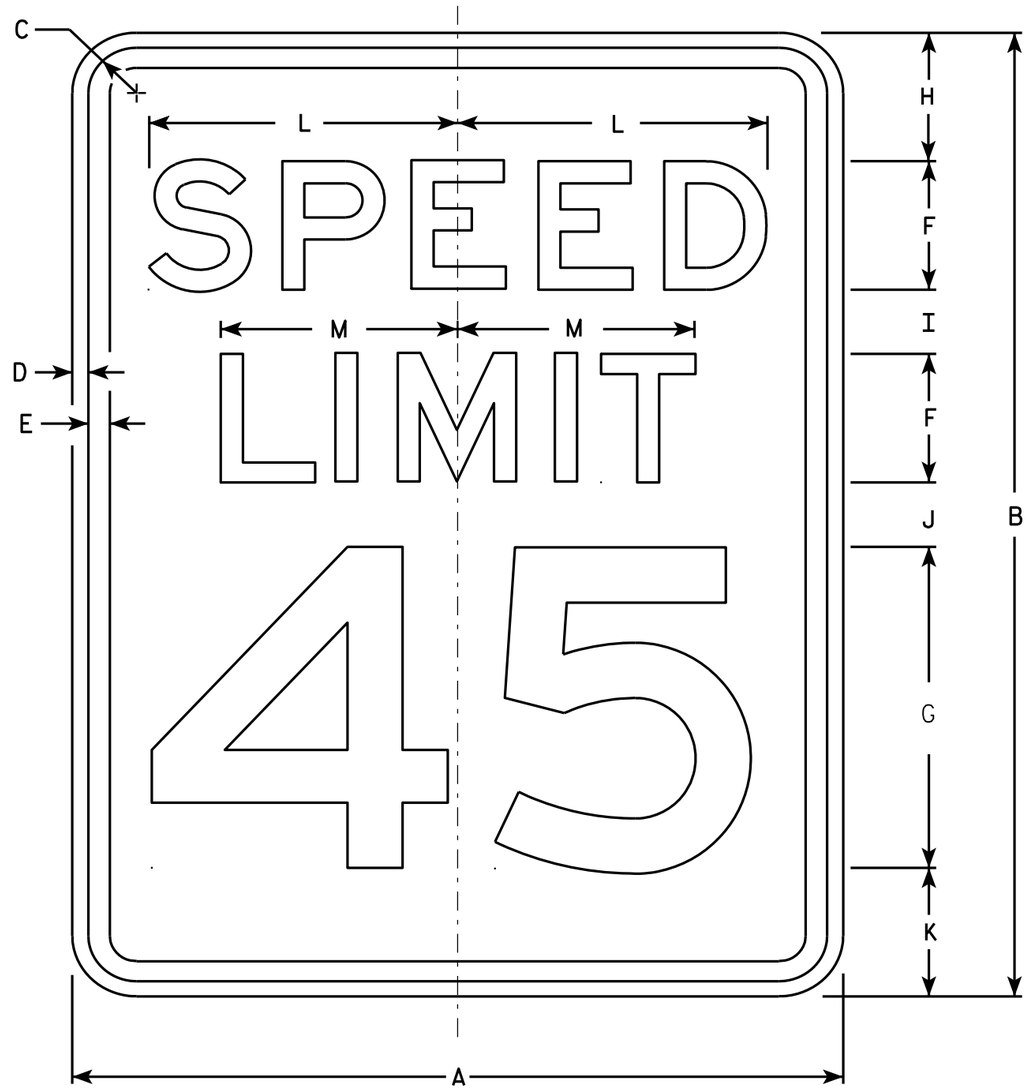
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE P1-2.12

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000

WISDOT/CADDS SHEET 42



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

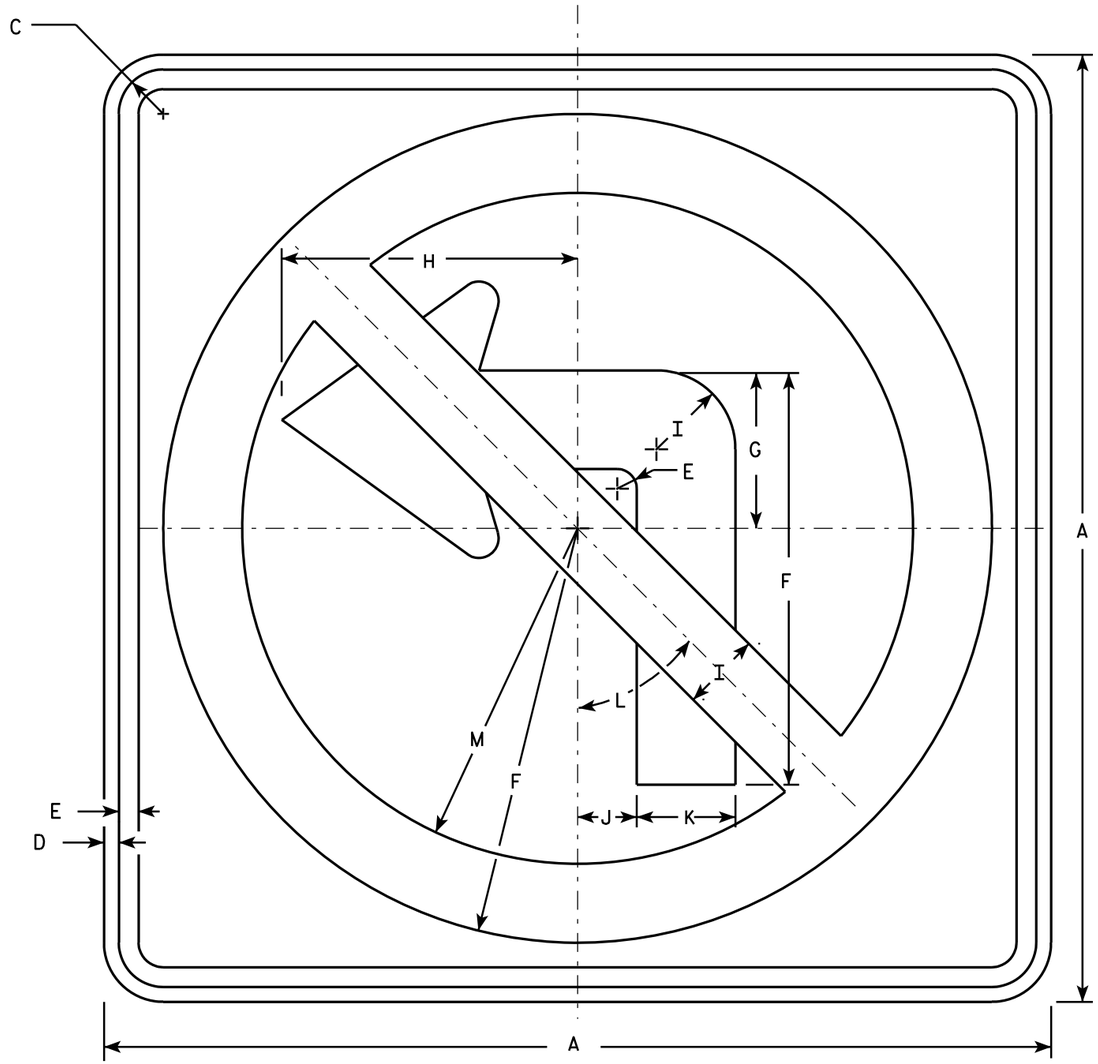
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

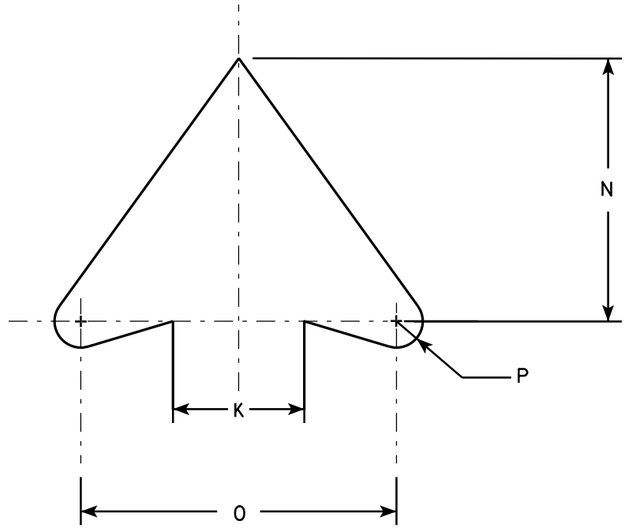
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 262 | E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

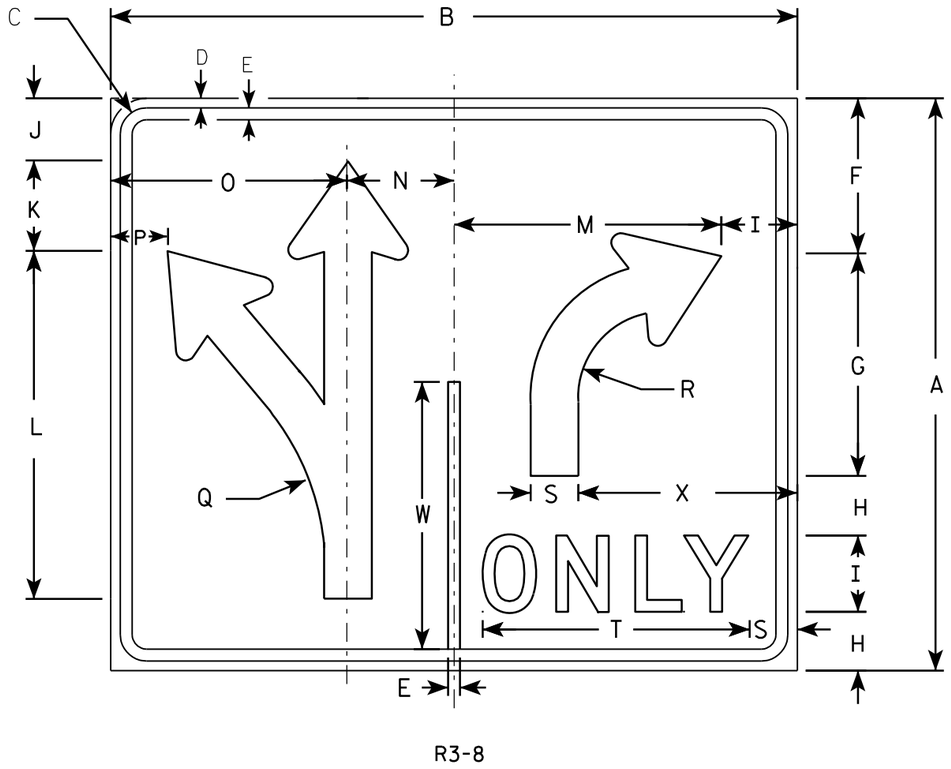
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

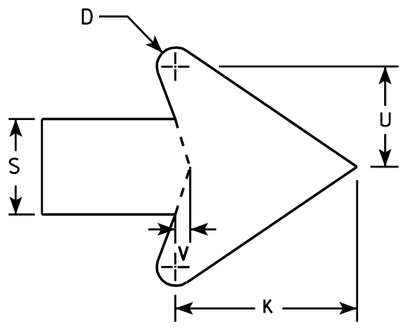
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 263 | E



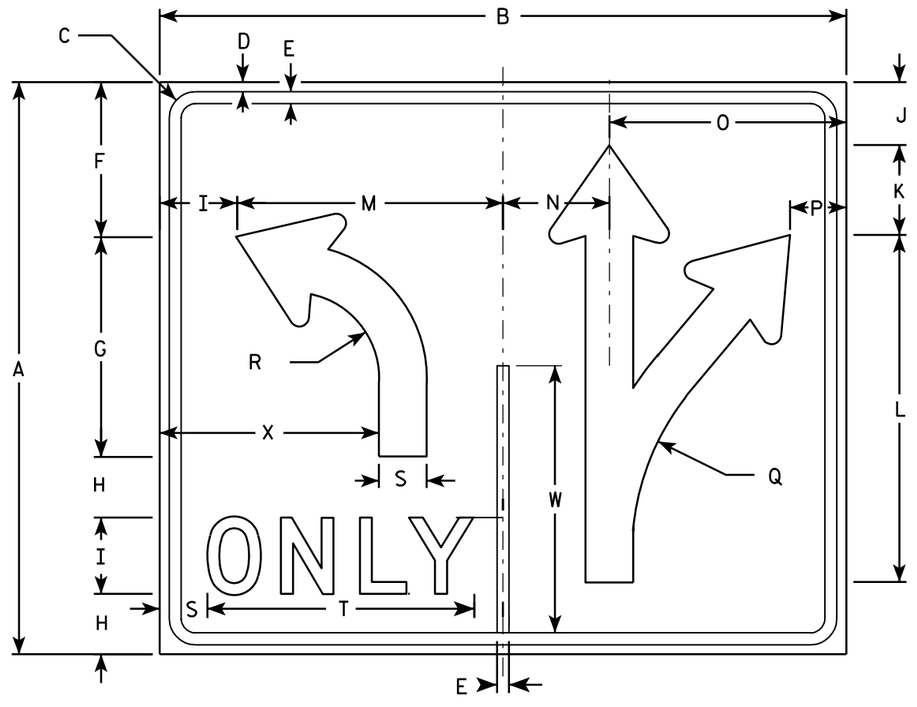
R3-8



ARROW DETAIL

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R3-8A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14	5 5/8	12 3/8	3	13 1/4	4 1/2	2 1/2	14	2 5/8	3/8	14	11 1/2			7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14	5 5/8	12 3/8	3	13 1/4	4 1/2	2 1/2	14	2 5/8	3/8	14	11 1/2			7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	21	8 3/8	18 5/8	4 3/8	21 7/8	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	17 1/4			18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	21	8 3/8	18 5/8	4 3/8	21 7/8	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	17 1/4			18.0

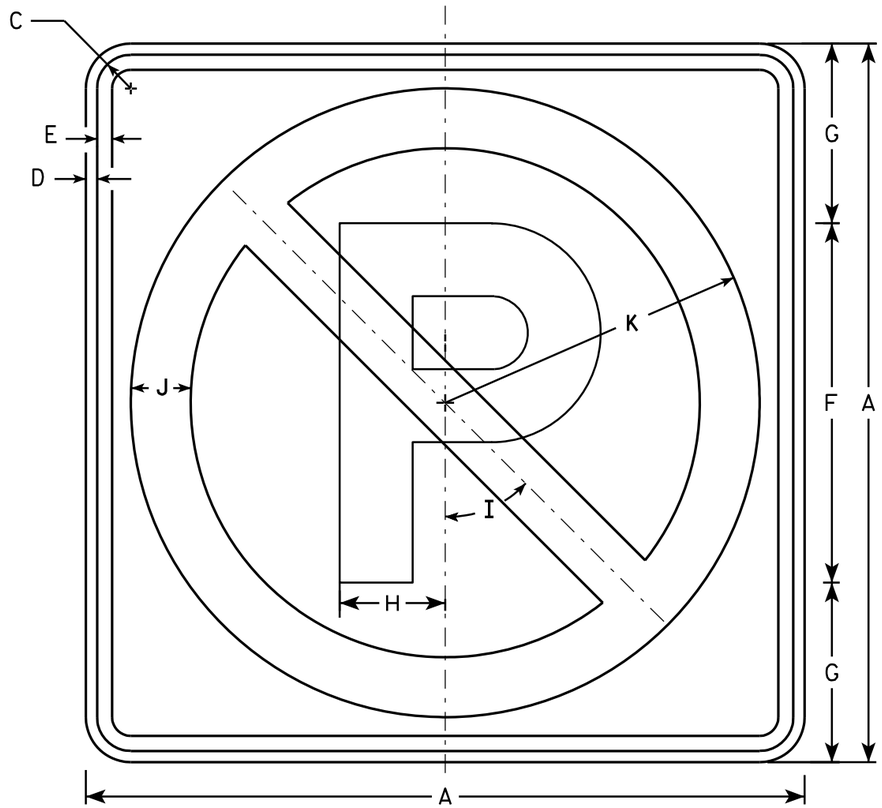
STANDARD SIGN
R3-8 & R3-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 264	E



R3-8A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Letter P are non reflective black, the circle with diagonal bar is reflective red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2	12	6	3 1/2	45°	2	10 1/2																4.0
2M	24		1 1/8	3/8	1/2	12	6	3 1/2	45°	2	10 1/2																4.0
3																											
4																											
5																											

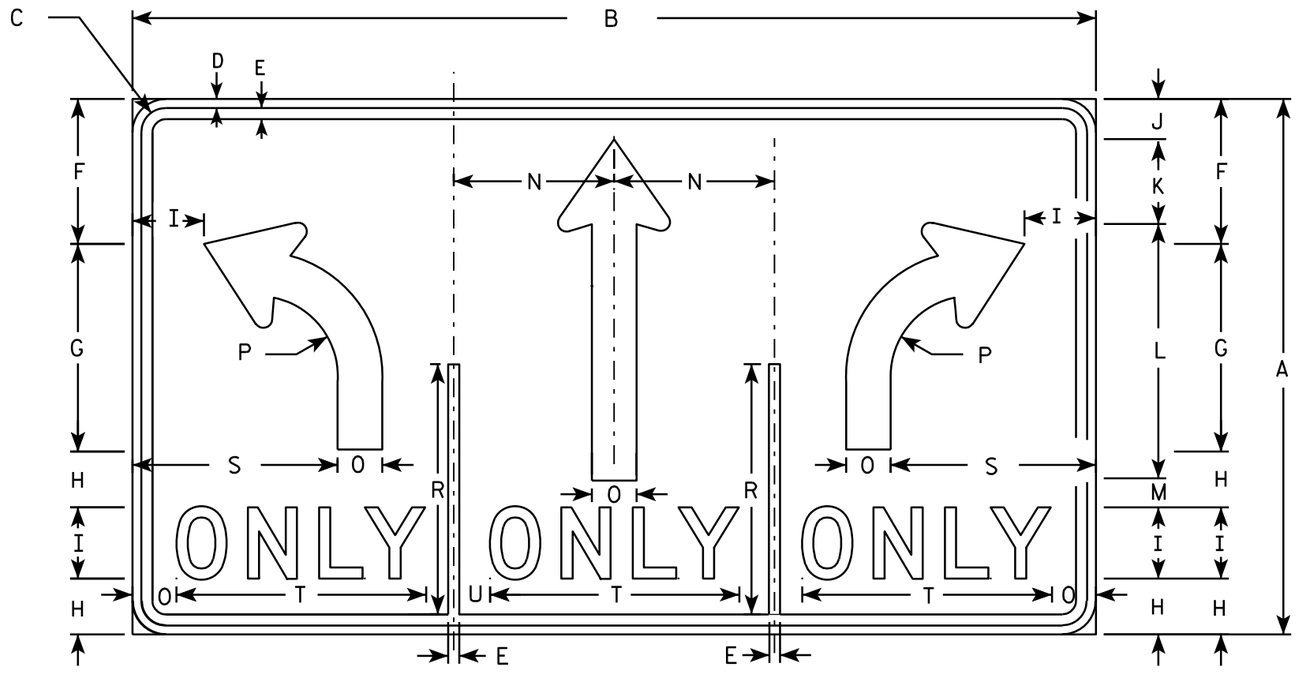
STANDARD SIGN
R3-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/01/12 PLATE NO. R3-8A.1

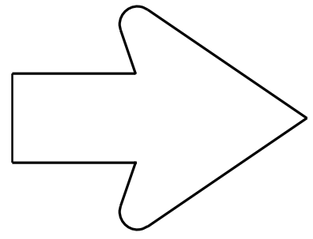
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 265 | E



R3-8W

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SEE R3-8 FOR ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
2M	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
3																											
4	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 3/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0
5	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 7/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0

STANDARD SIGN
R3-8W

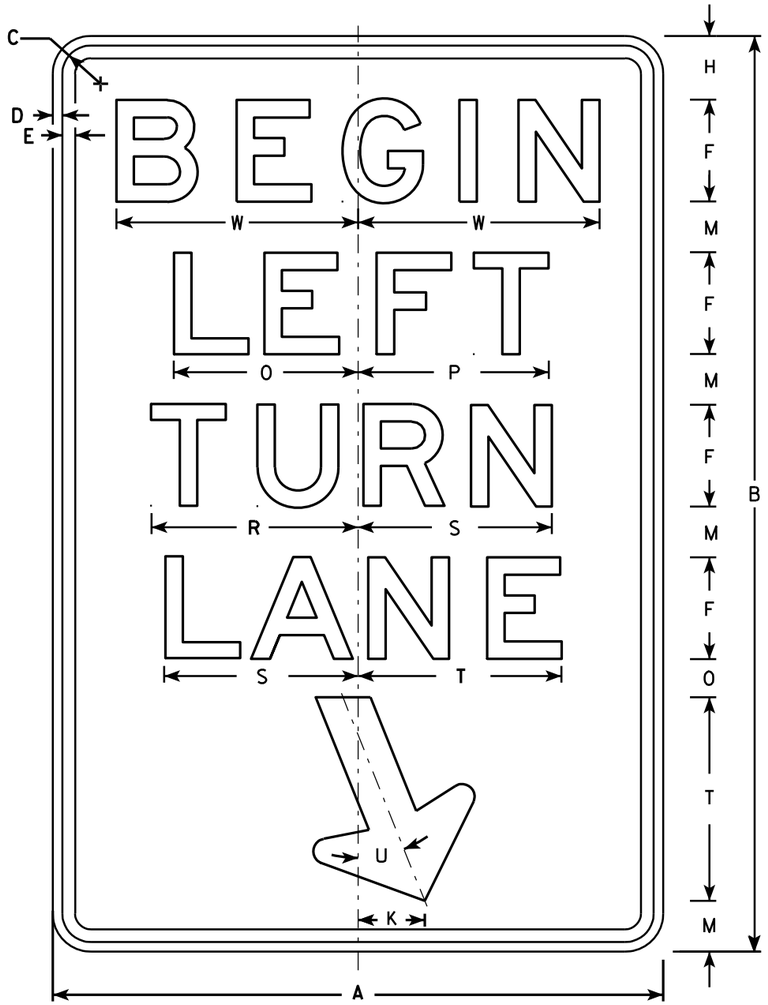
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-8W.4

PROJECT NO:

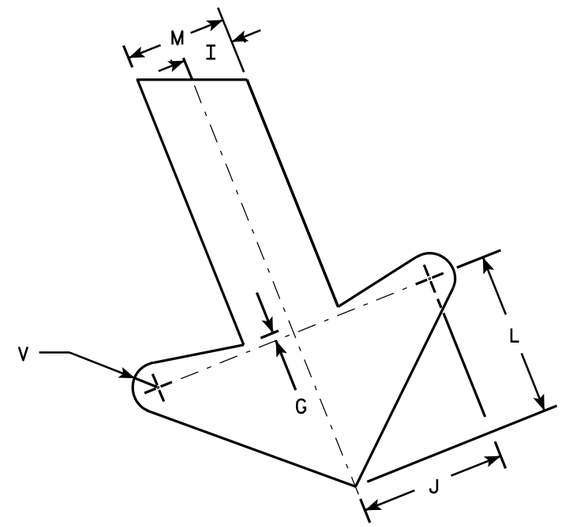
SHEET NO: 266 E



R3-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

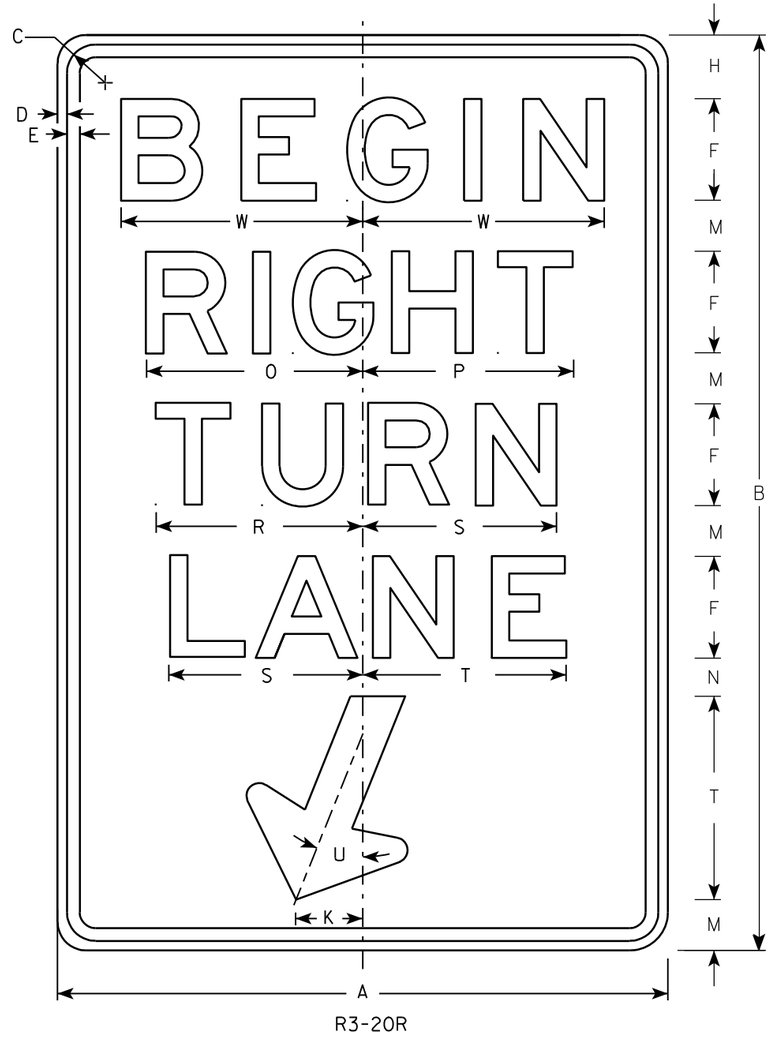
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

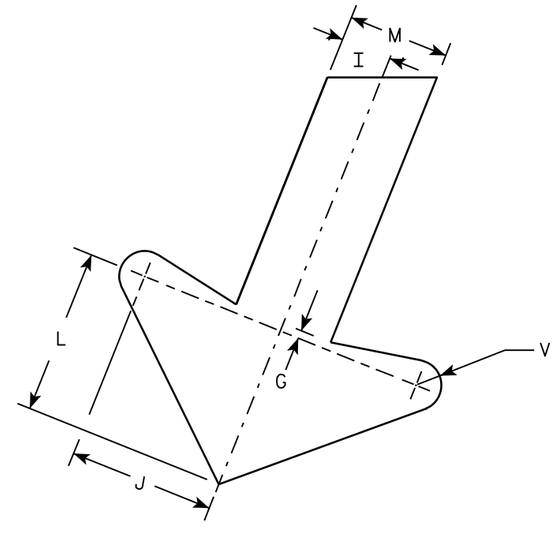
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 267 | E



R3-20R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

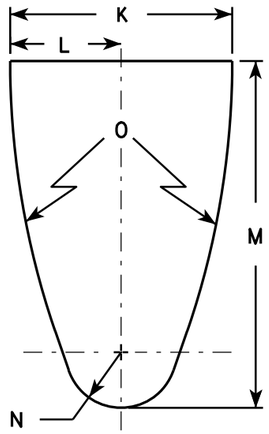
STANDARD SIGN
R3-20R

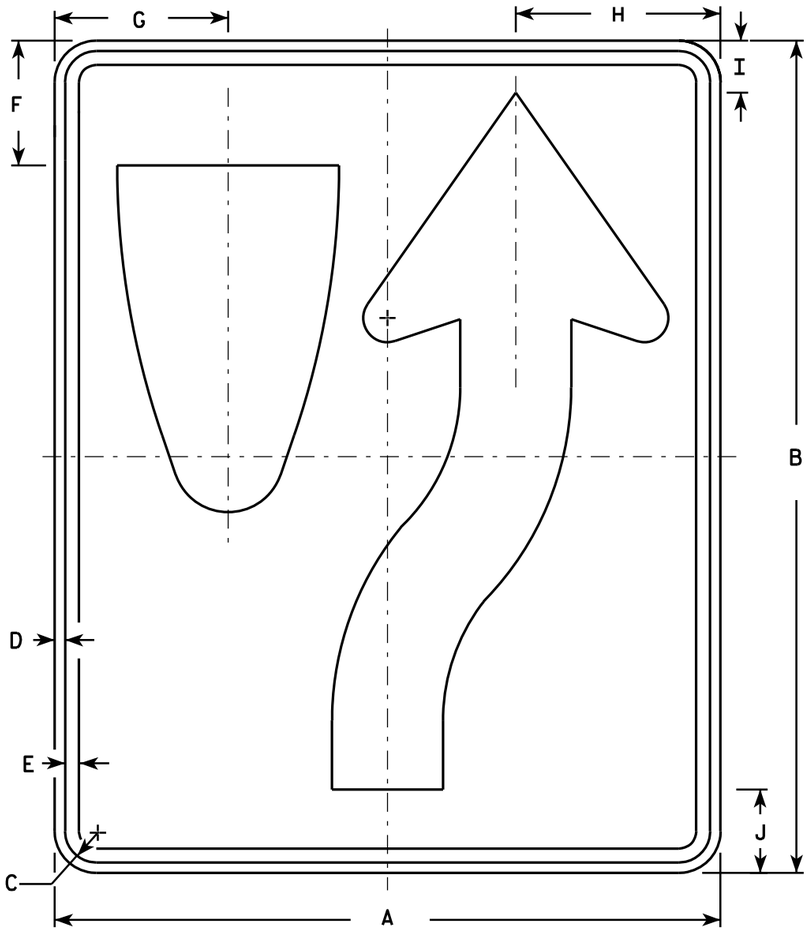
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 268 | E

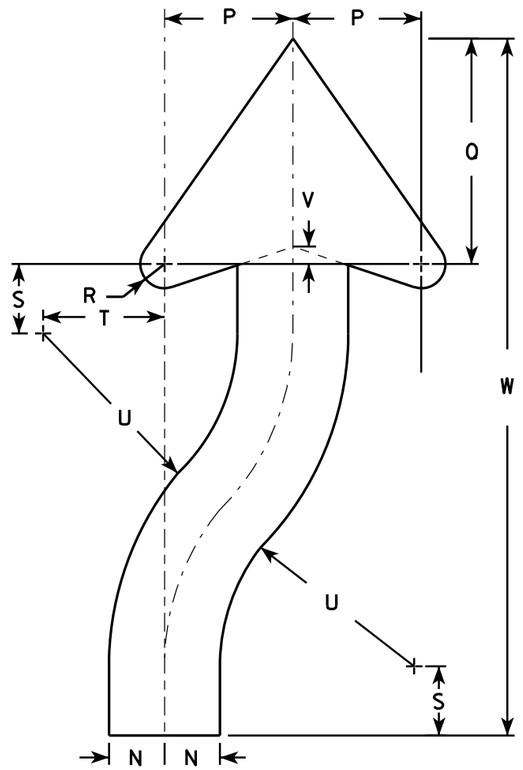




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

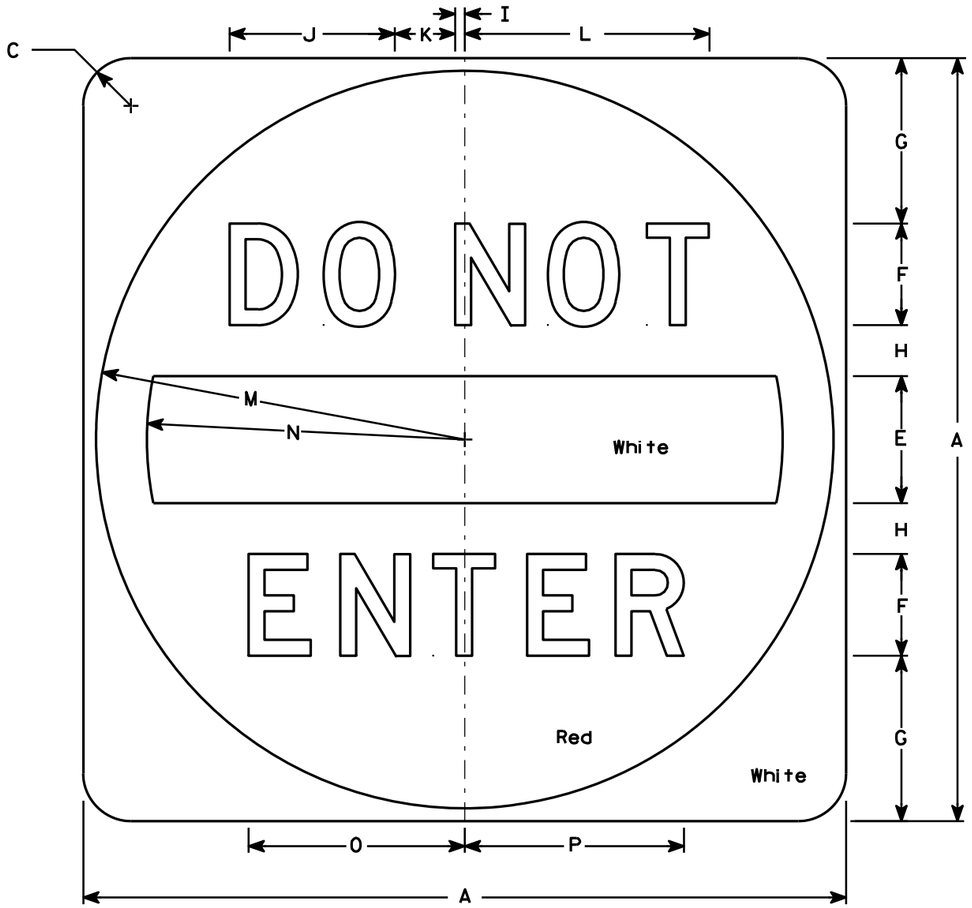
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 269	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

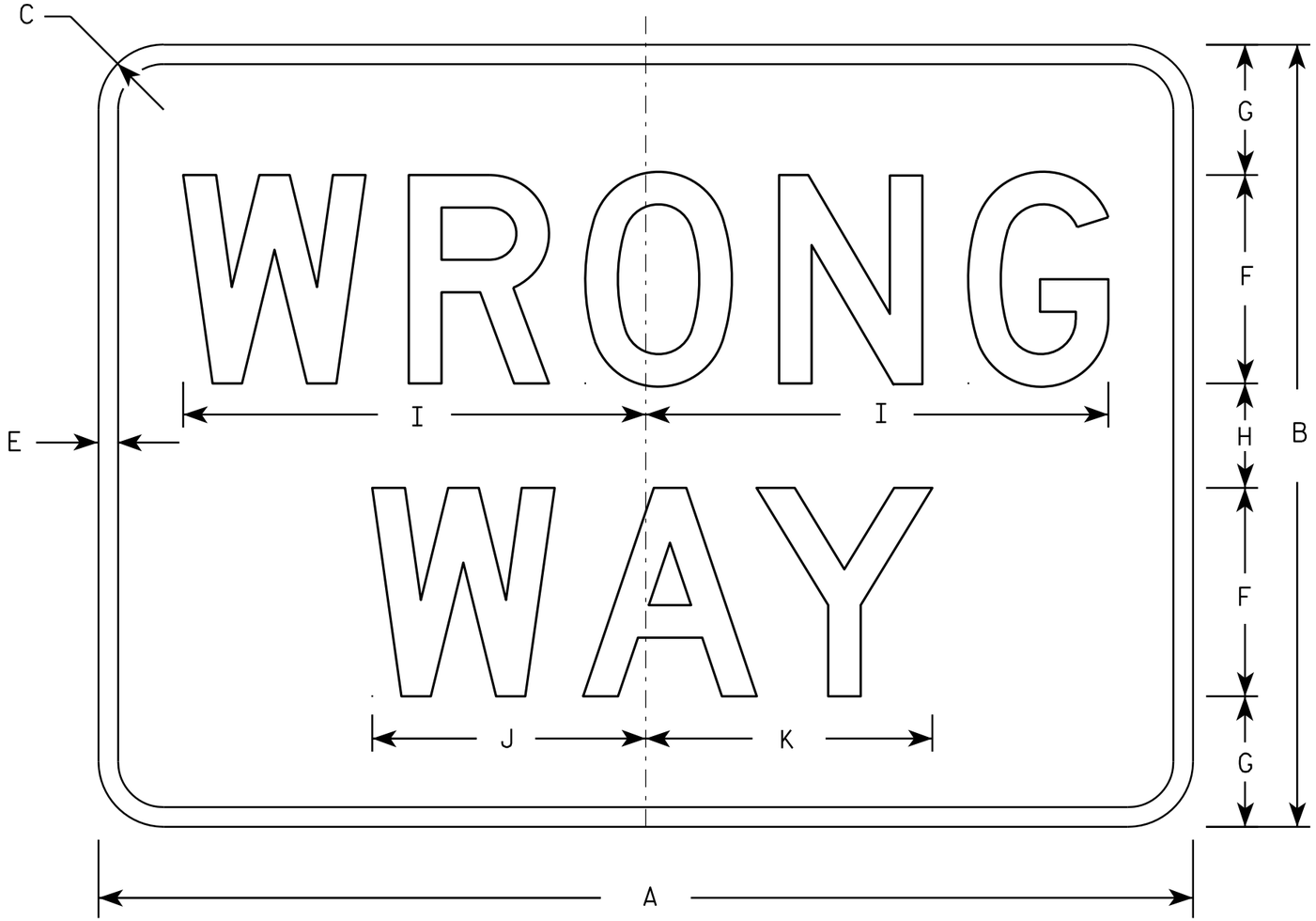
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 270 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

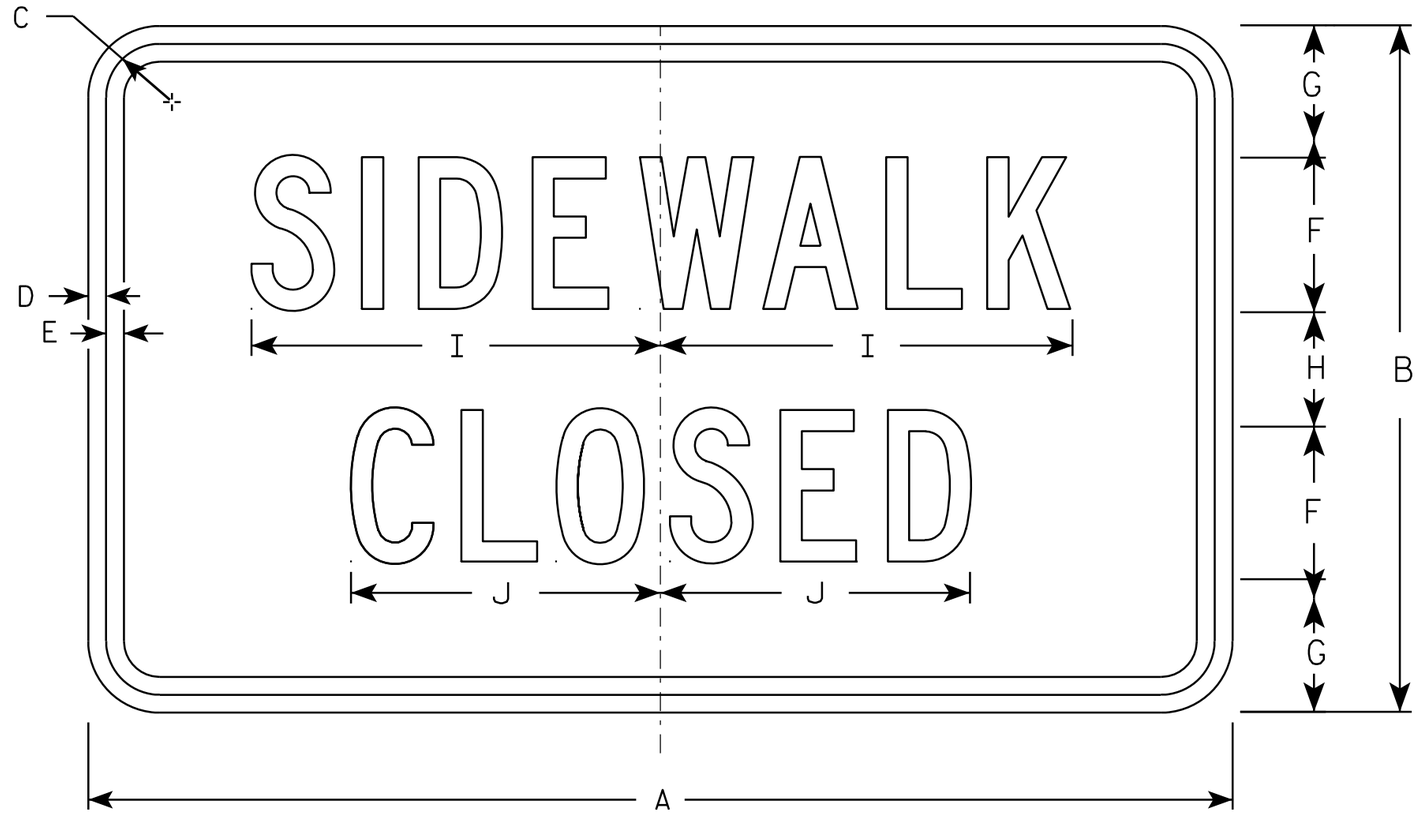
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 271 | E



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/4	1/2	1/2	4	3 1/2	3	10 3/4	8 1/8																	3.75
2M	30	18	1 3/4	1/2	1/2	4	3 1/2	3	10 3/4	8 1/8																	3.75
3																											
4																											
5																											

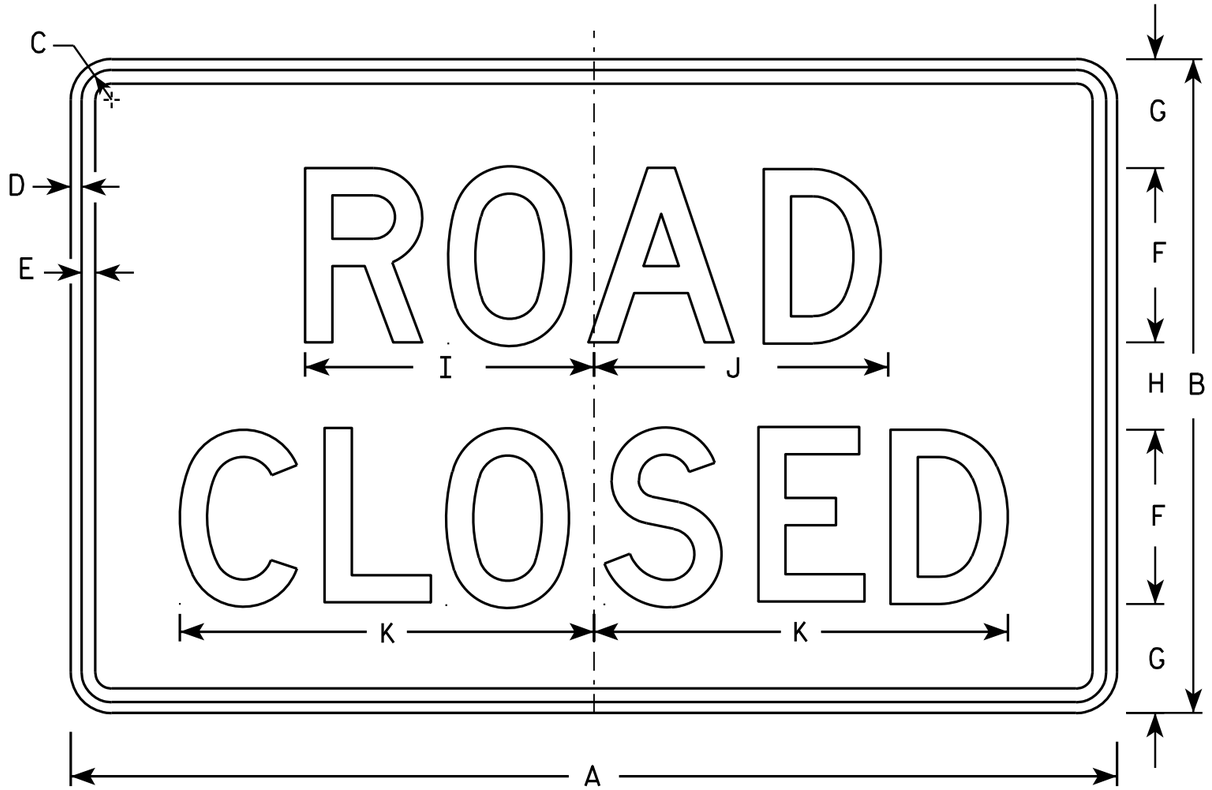
STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/2011 PLATE NO. R9-9.5

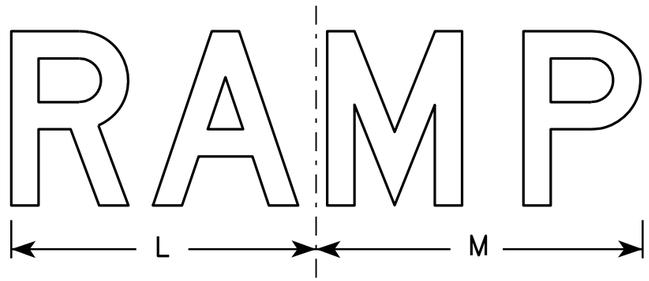
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 272	E



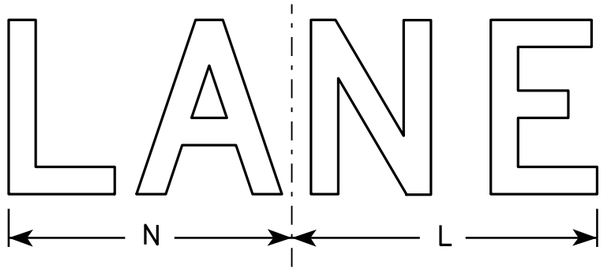
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

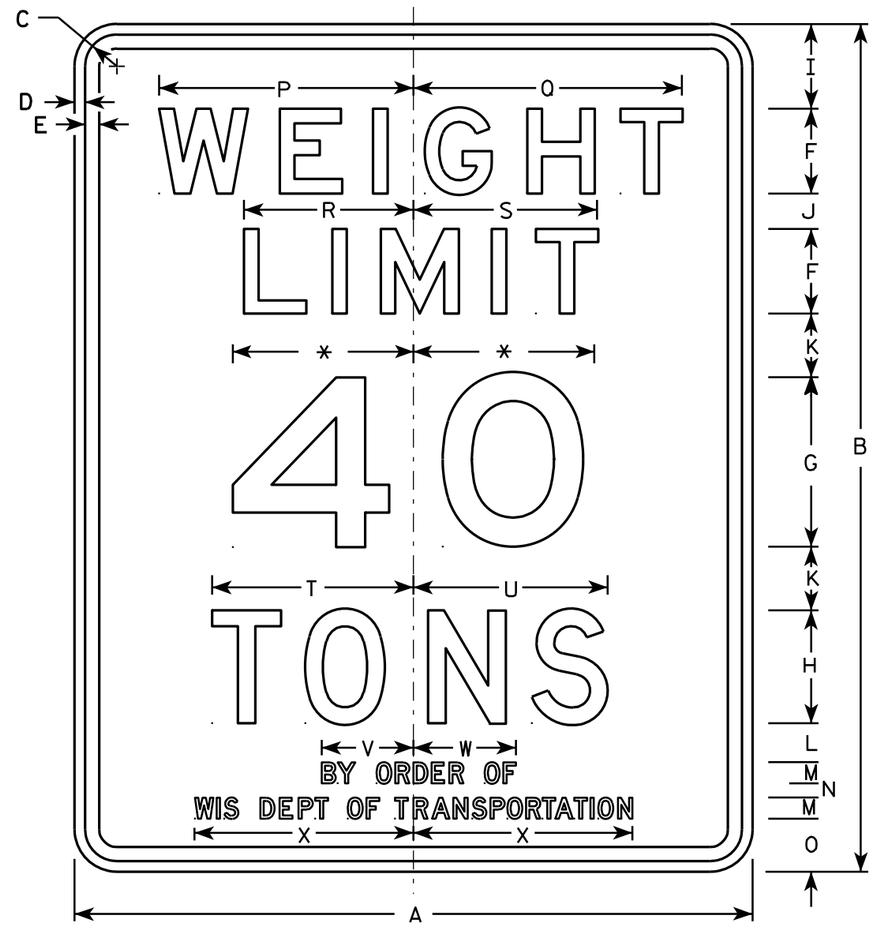
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 273	E



R12-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 2 & 3 are series E
   Lines 4, 5, & 6 are series D.
6. Substitute appropriate numeral and optically adjust spacing to achieve proper balance.
7. Substitute name of county or town on County Trunk and Town Highways respectively. Community name on City or Village Streets including Connecting Highways is optional.

* Varies (see note 6)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
2S	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
2M	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
3	36	48	1 3/8	1/2	5/8	6	10	8	4 1/2	2 1/2	2 1/4	1 1/2	3/4	1/2	3	13 1/2	14 1/4	9	9 3/4	10 5/8	10 1/4	3 1/4	3 5/8	7 3/4			12.0
4	48	60	2 1/4	3/4	1	6	12	8	6	2 1/2	4 1/2	2 3/4	1 1/2	1	3 3/4	18	19	12	13	14 1/4	13 3/4	6 1/2	7 1/4	15 1/2			20.0
5																											

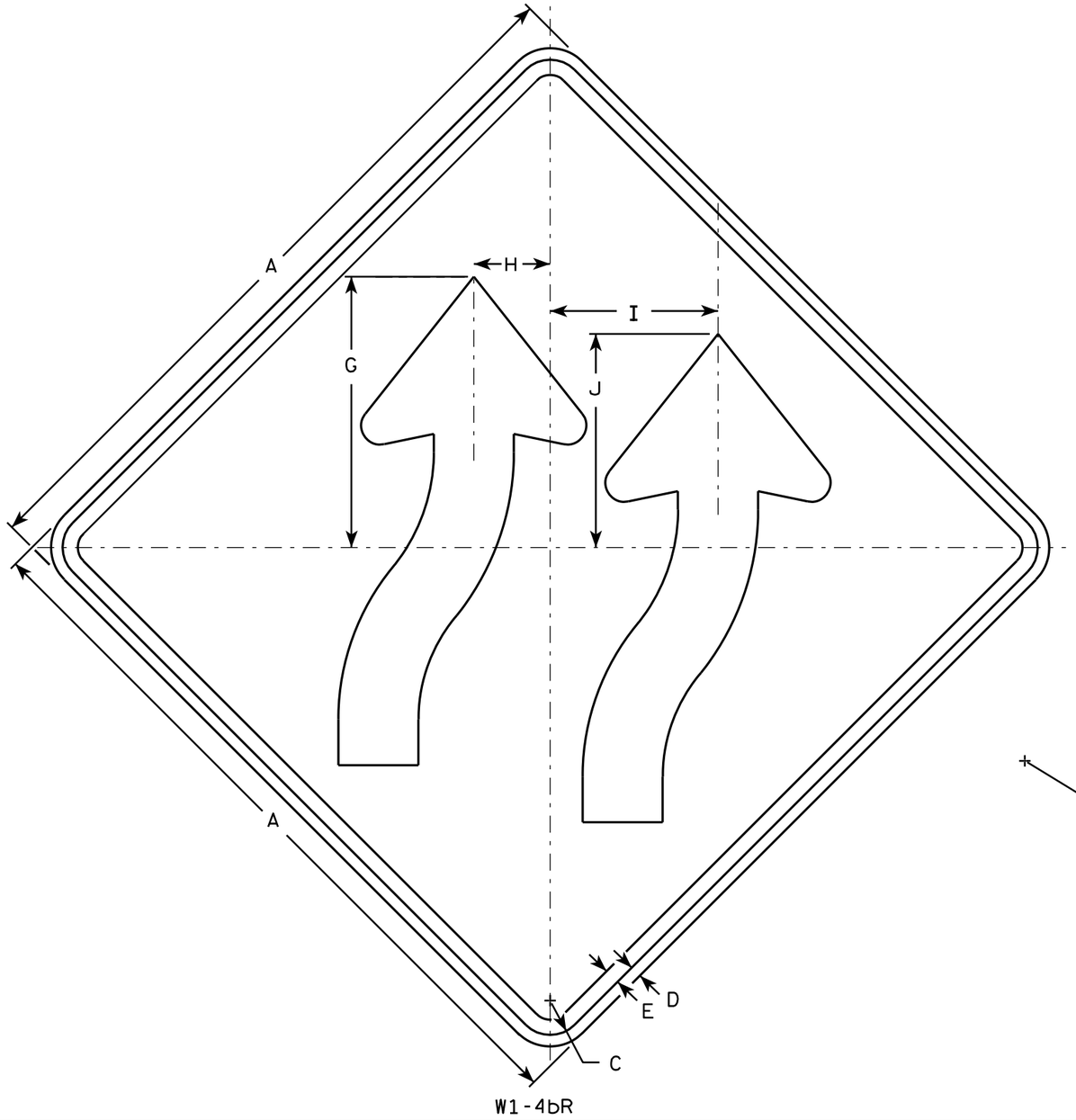
STANDARD SIGN
R12-1

WISCONSIN DEPT OF TRANSPORTATION

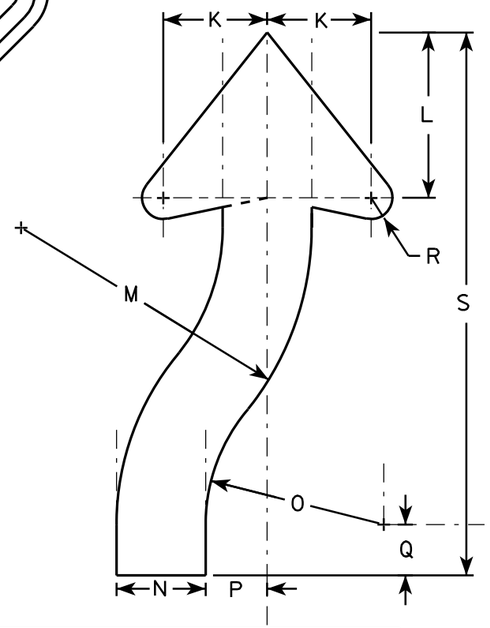
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R12-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 274 | E



W1-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-4bL is the same as W14-bR exept arrows are reversed along the vertical centerline

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2M	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

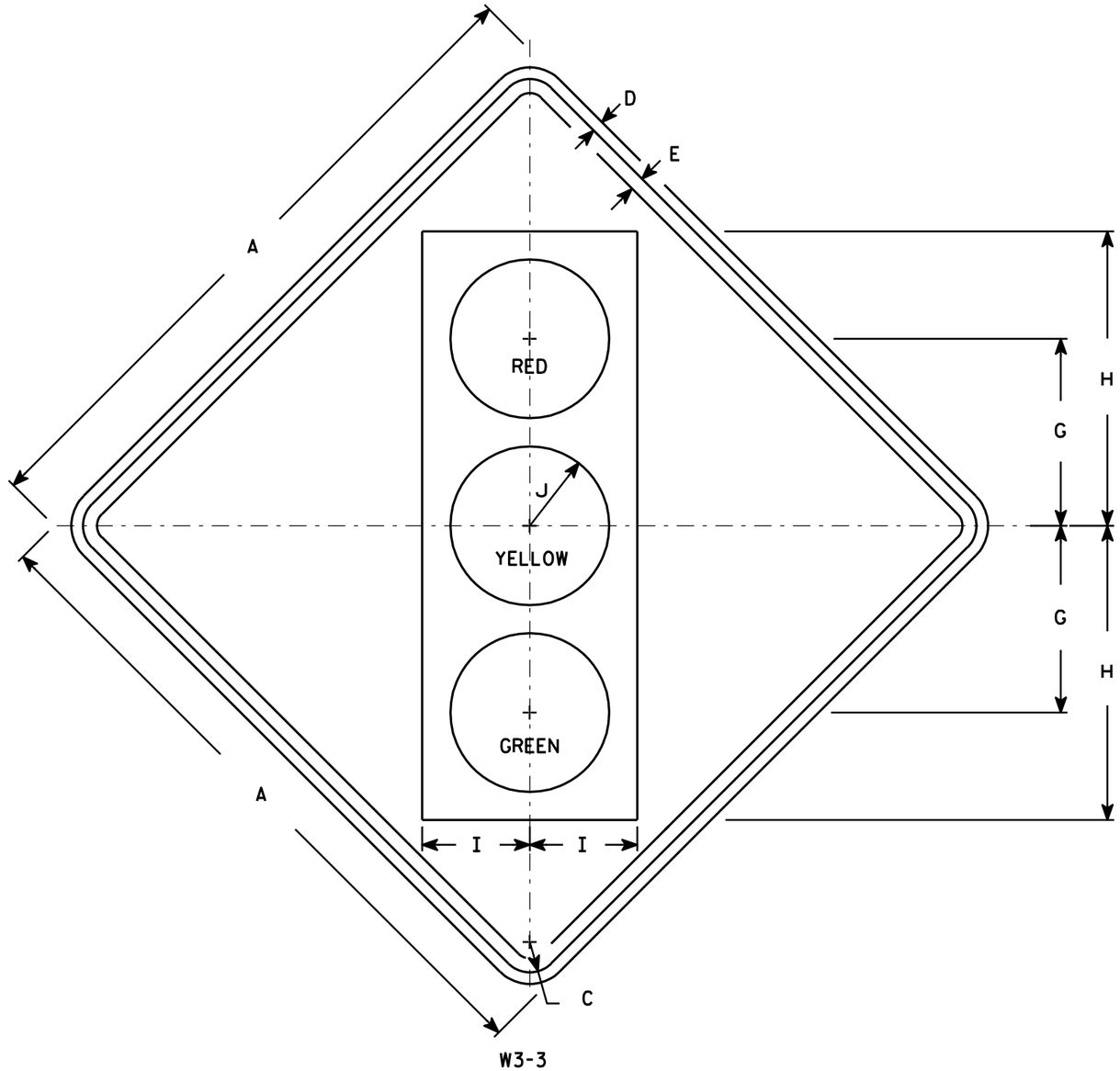
STANDARD SIGN
W1-4b

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/12 PLATE NO. W1-4B.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 275	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

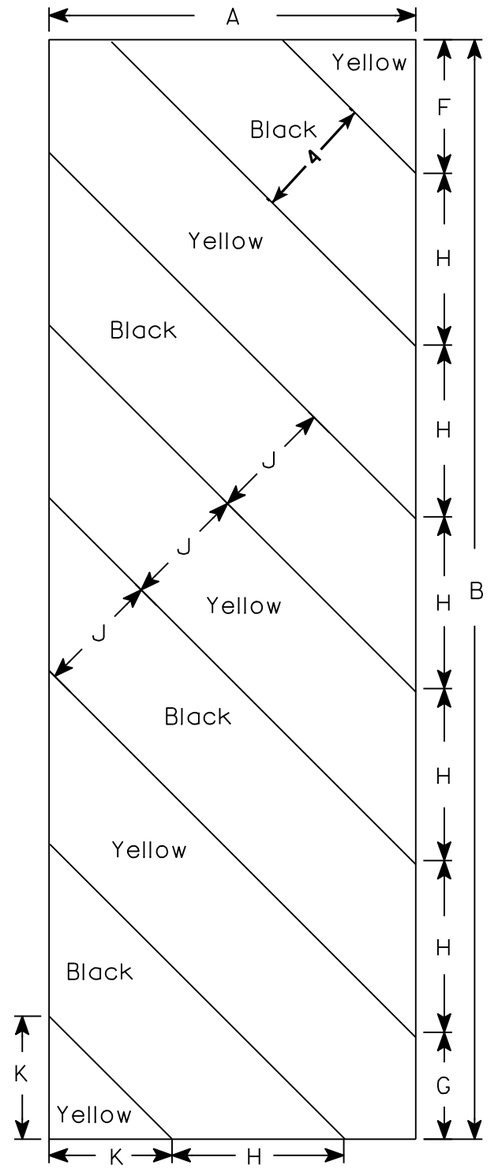
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

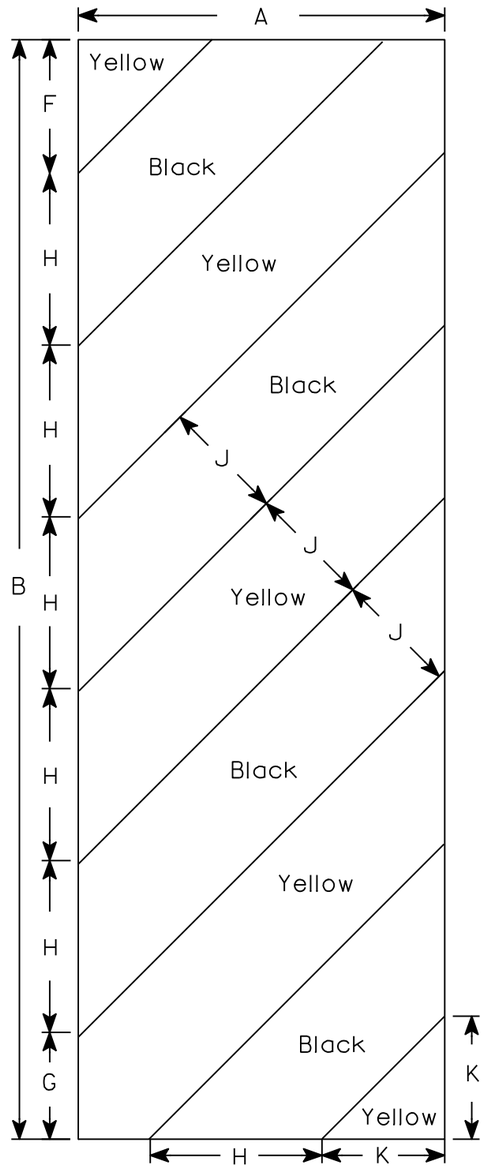
DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 276 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000
WISDOT/CADDS SHEET 42



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

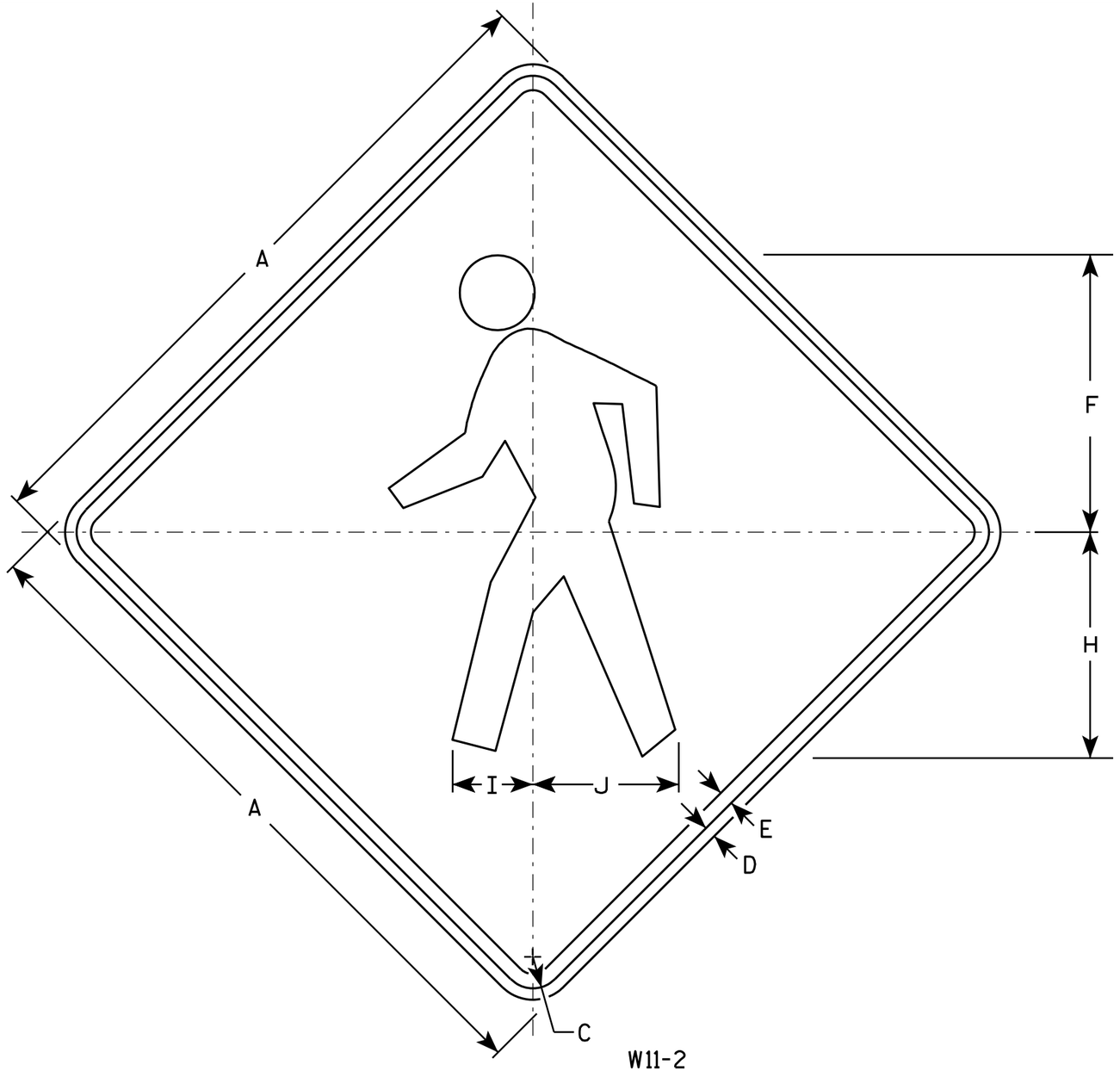
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 277	E



W11-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

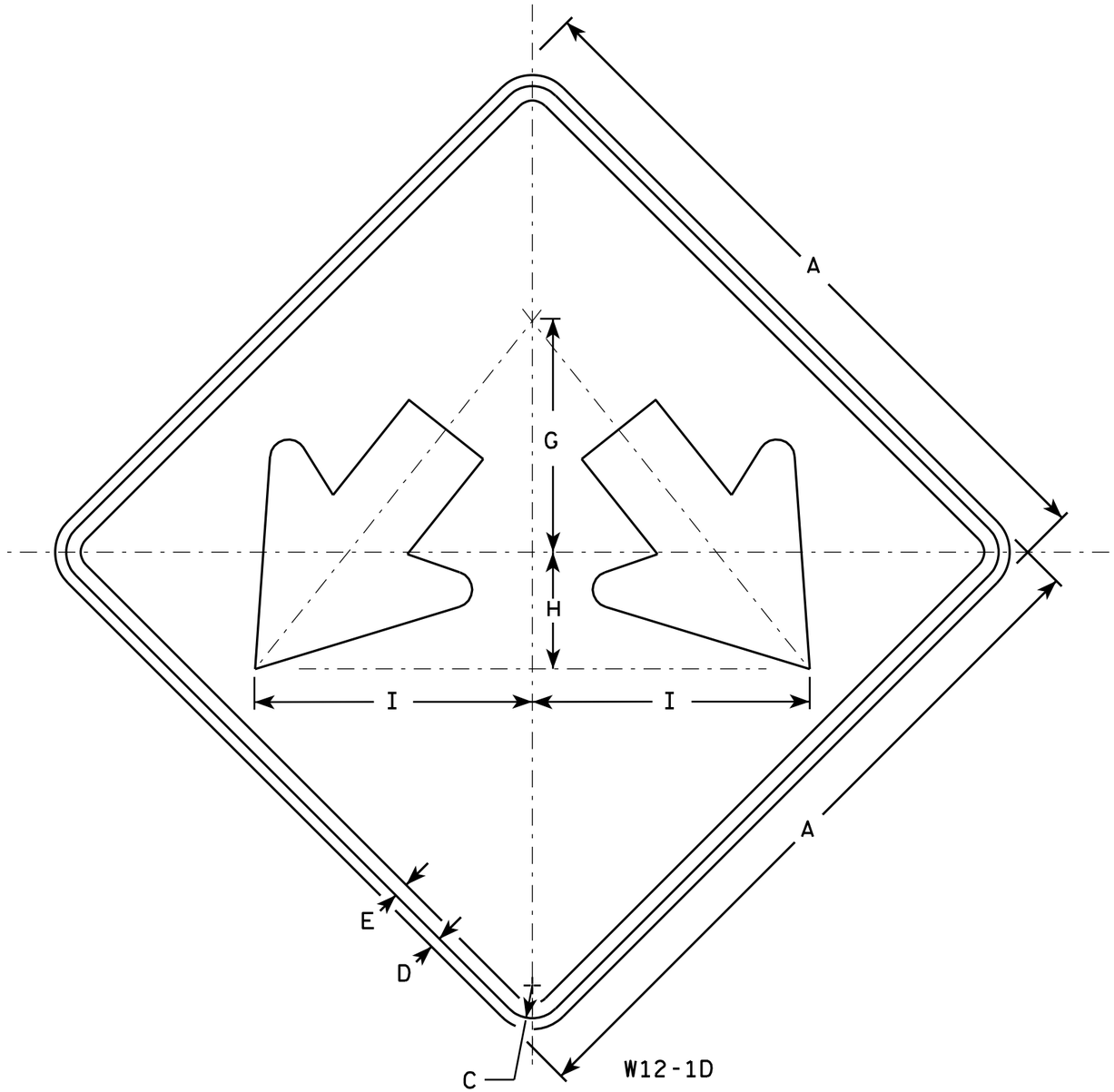
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

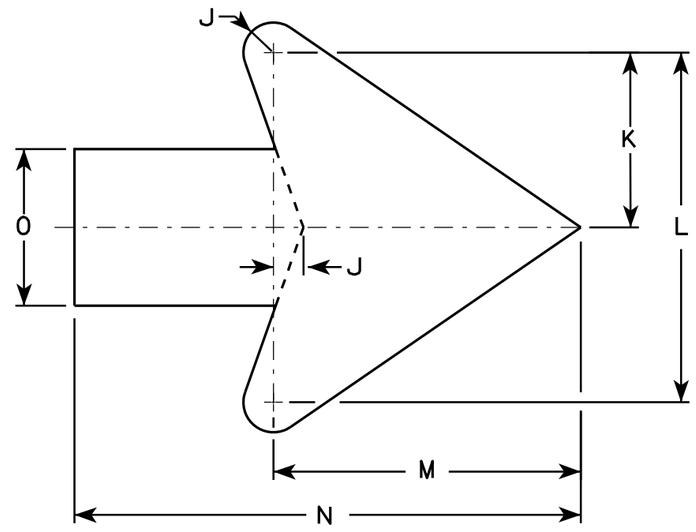
DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 278	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

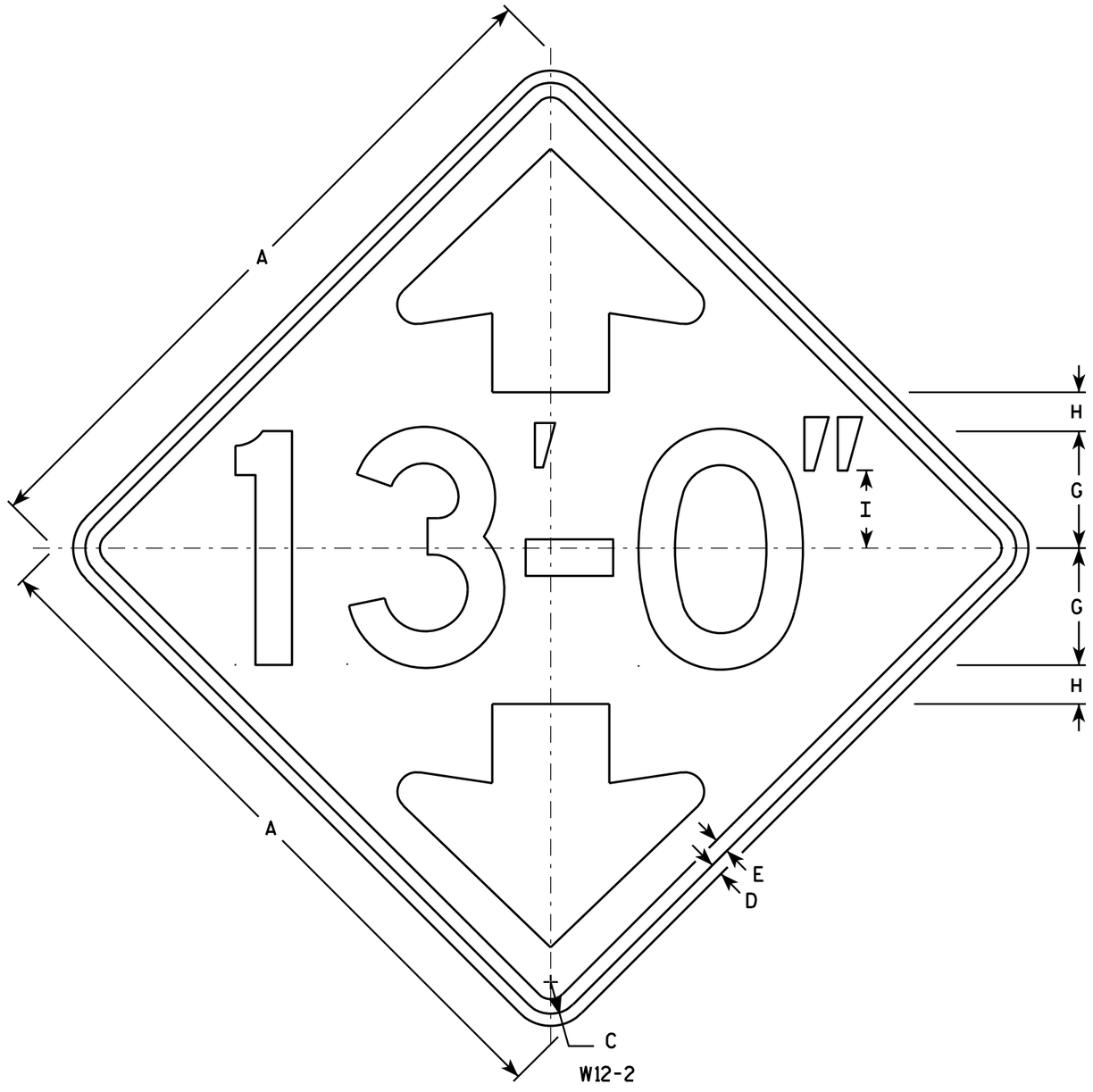
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 279	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W121D.DGN PLOT DATE : 13-MAR-2013 13:26 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.713802:1.000000

WISDOT/CADDS SHEET 42

7

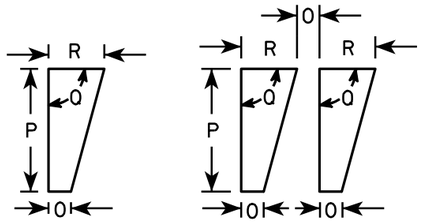
7



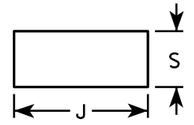
NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing of numerals, hyphen, foot & inch marks to achieve proper balance.

Arrow Detail



Foot Mark & Inch Mark Detail



Hyphen Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		5	1 5/8	3 3/8	3 3/4	6 5/8	5 3/4	3/4	2 1/2	1/2	2 1/4	90°	1	1 5/8								6.25
2S	36		1 5/8	5/8	3/4		6	2	4	4 1/2	8	6 7/8	1	3	1/2	2 3/4	90°	1 1/4	1 7/8								9.00
2M	36		1 5/8	5/8	3/4		6	2	4	4 1/2	8	6 7/8	1	3	1/2	2 3/4	90°	1 1/4	1 7/8								9.00
3	36		1 5/8	5/8	3/4		6	2	4	4 1/2	8	6 7/8	1	3	1/2	2 3/4	90°	1 1/4	1 7/8								9.00
4	36		1 5/8	5/8	3/4		6	2	4	4 1/2	8	6 7/8	1	3	1/2	2 3/4	90°	1 1/4	1 7/8								9.00
5	48		2 1/4	3/4	1		8	2 5/8	5 1/2	5 7/8	10 5/8	9 1/4	1 3/8	4	5/8	3 5/8	90°	1 5/8	2 1/2								16.00

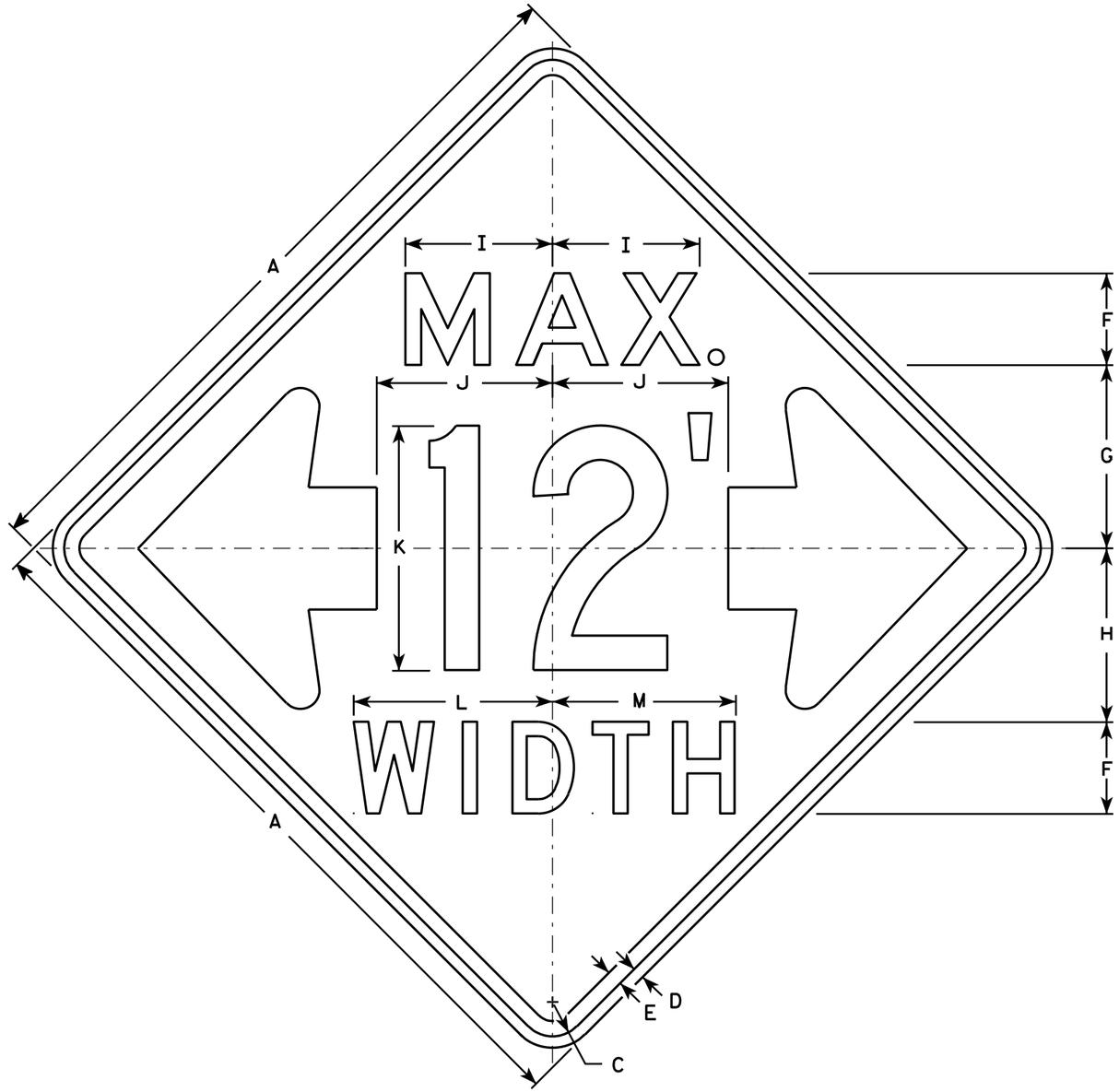
STANDARD SIGN
W12-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-2.9

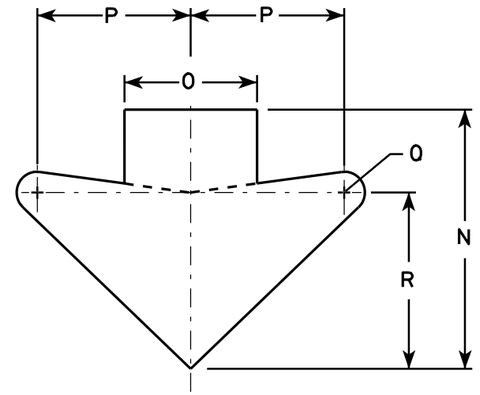
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 280	E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

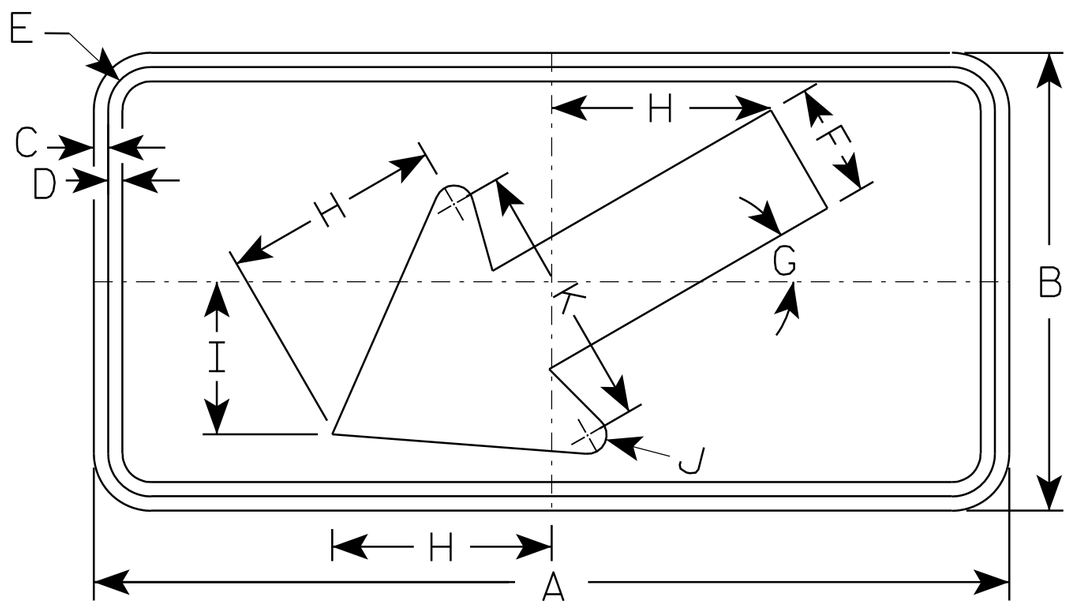
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 281 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000



W16-7L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W16-7R is the same as W16-L except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4																											8
5																											8

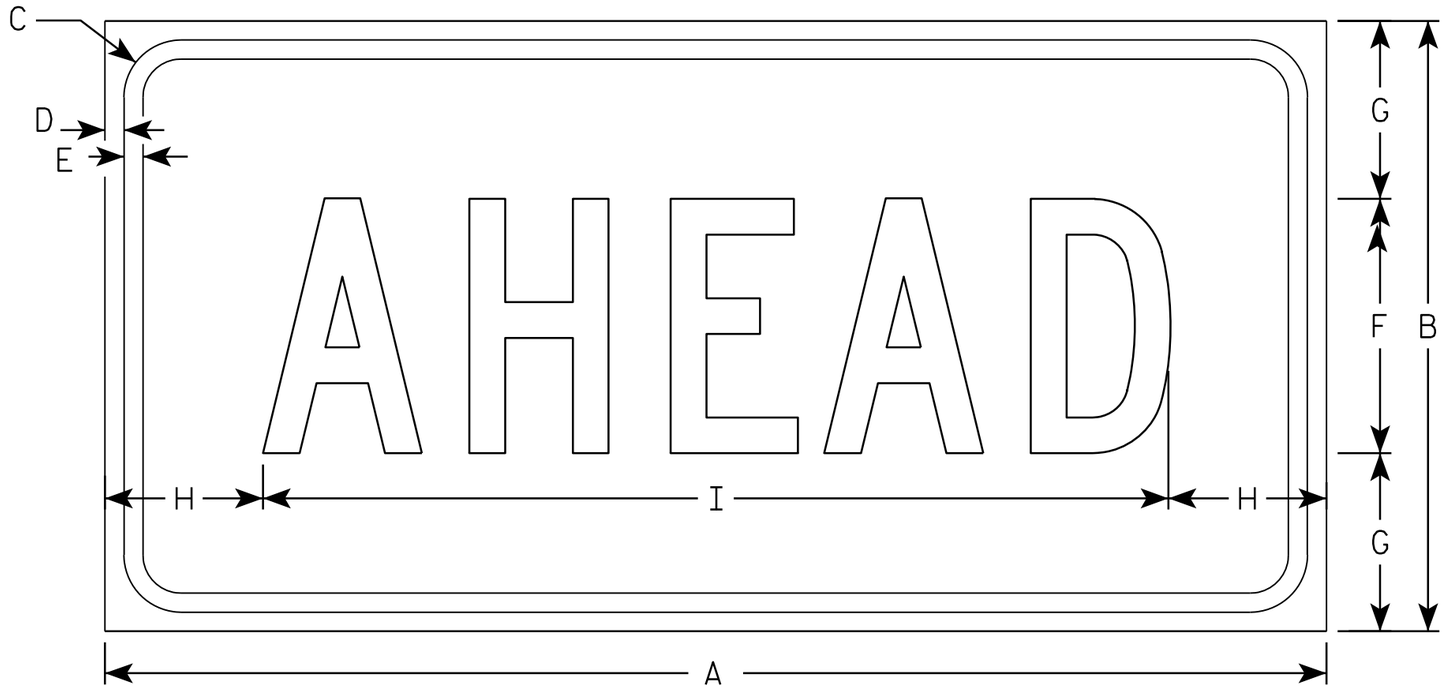
STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. W16-7.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 282	E



W16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

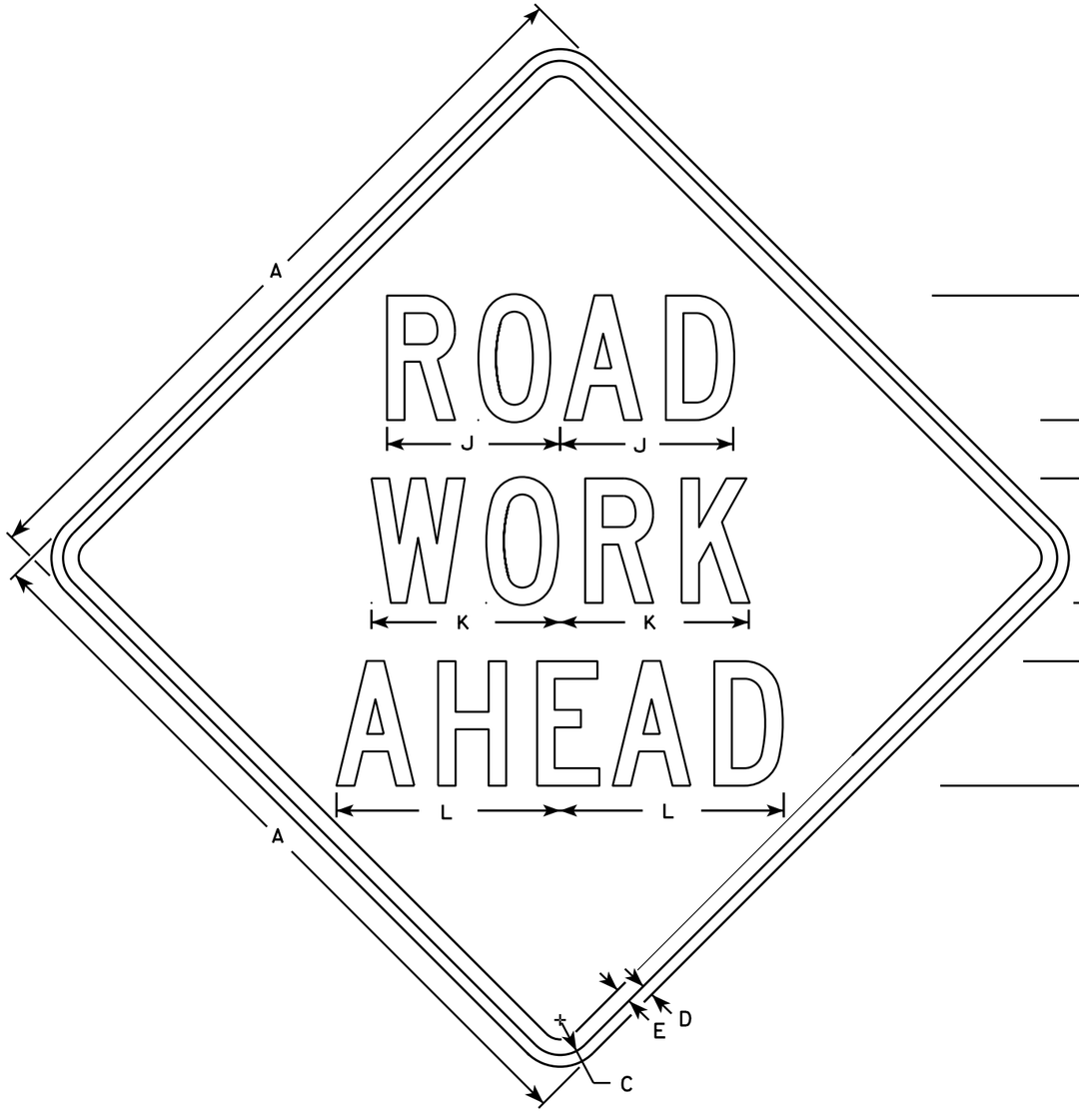
STANDARD SIGN
W16-9P

WISCONSIN DEPT OF TRANSPORTATION

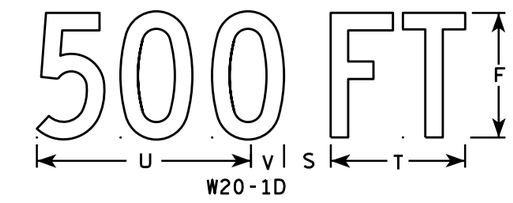
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.6

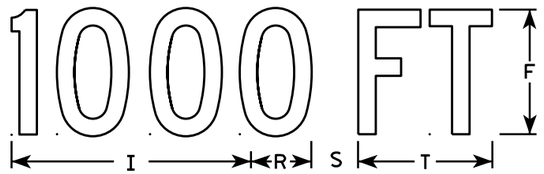
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 283 | E



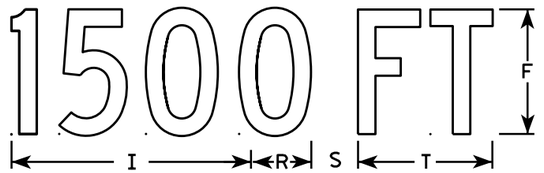
W20-1A



W20-1D



W20-1C



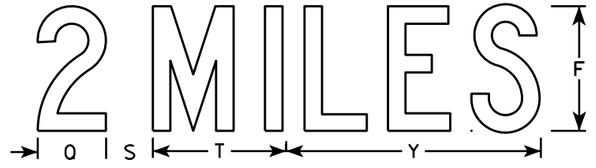
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

SHEET NO: E

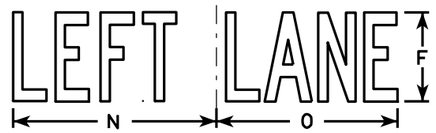
7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W201.dgn PLOT DATE : 27-MAY-2015 15:58 PLOT BY : mscsja

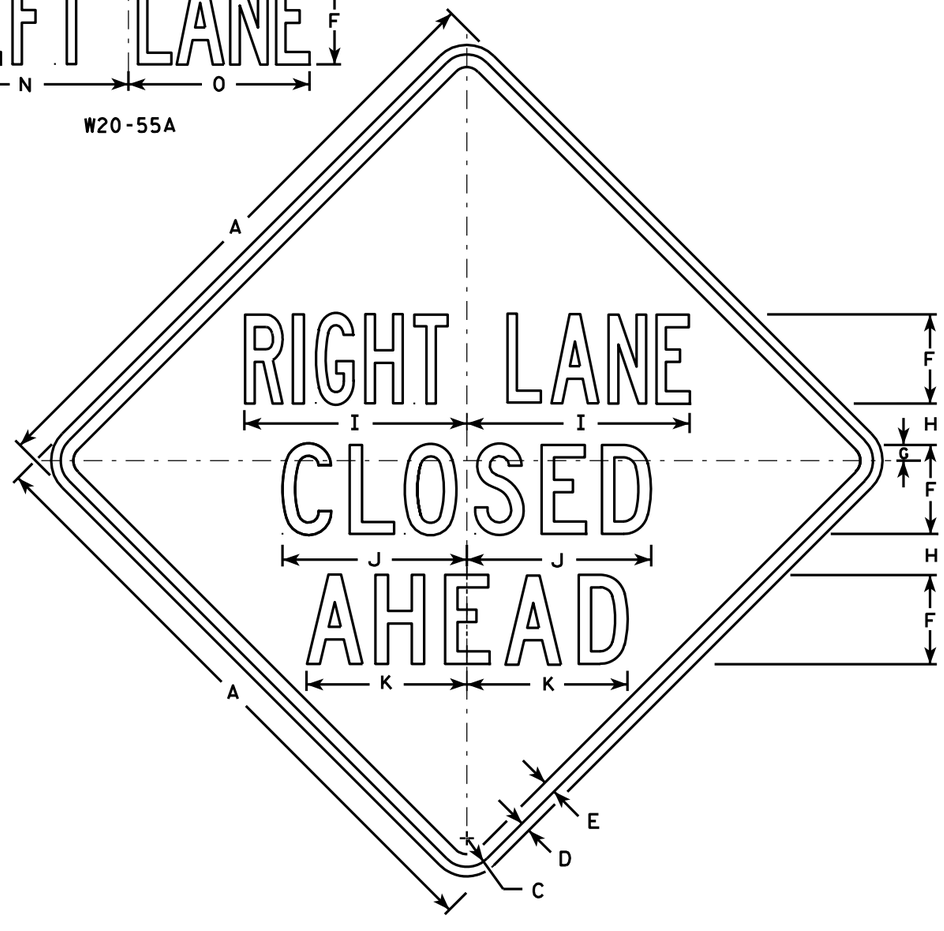
WISDOT/CADDS SHEET 42



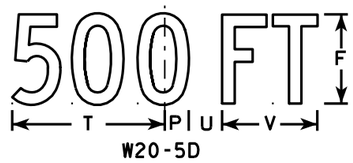
W20-56A



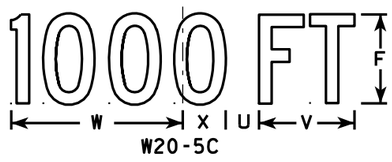
W20-55A



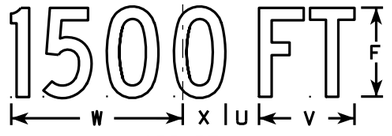
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

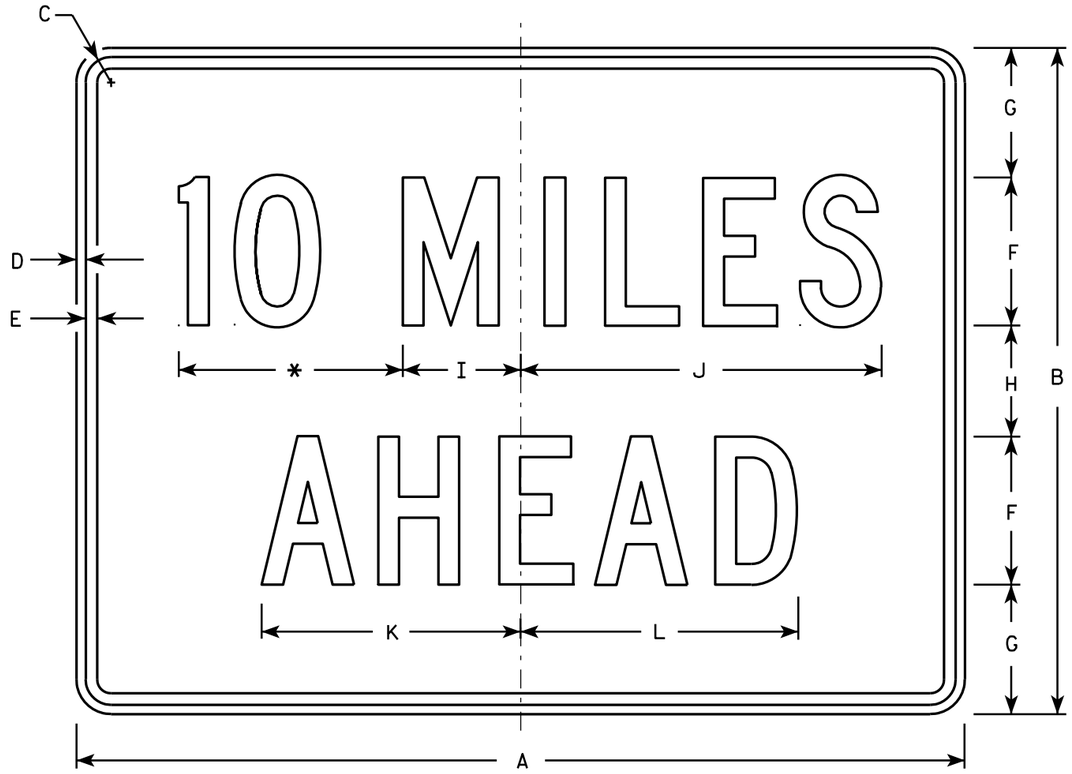
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

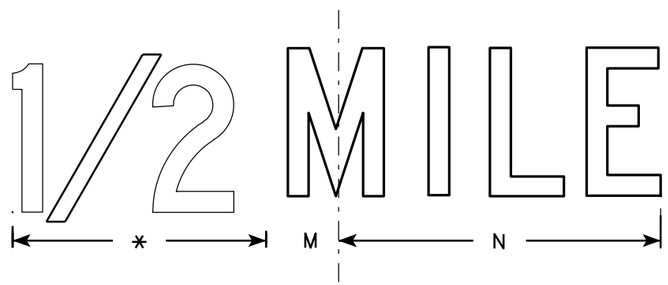
DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 285	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W57-52



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	1/2	4	3 1/2	3	3 1/8	9 3/4	7	7 1/2	1 3/8	8 3/4													3.0
2S	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
2M	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
3	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0

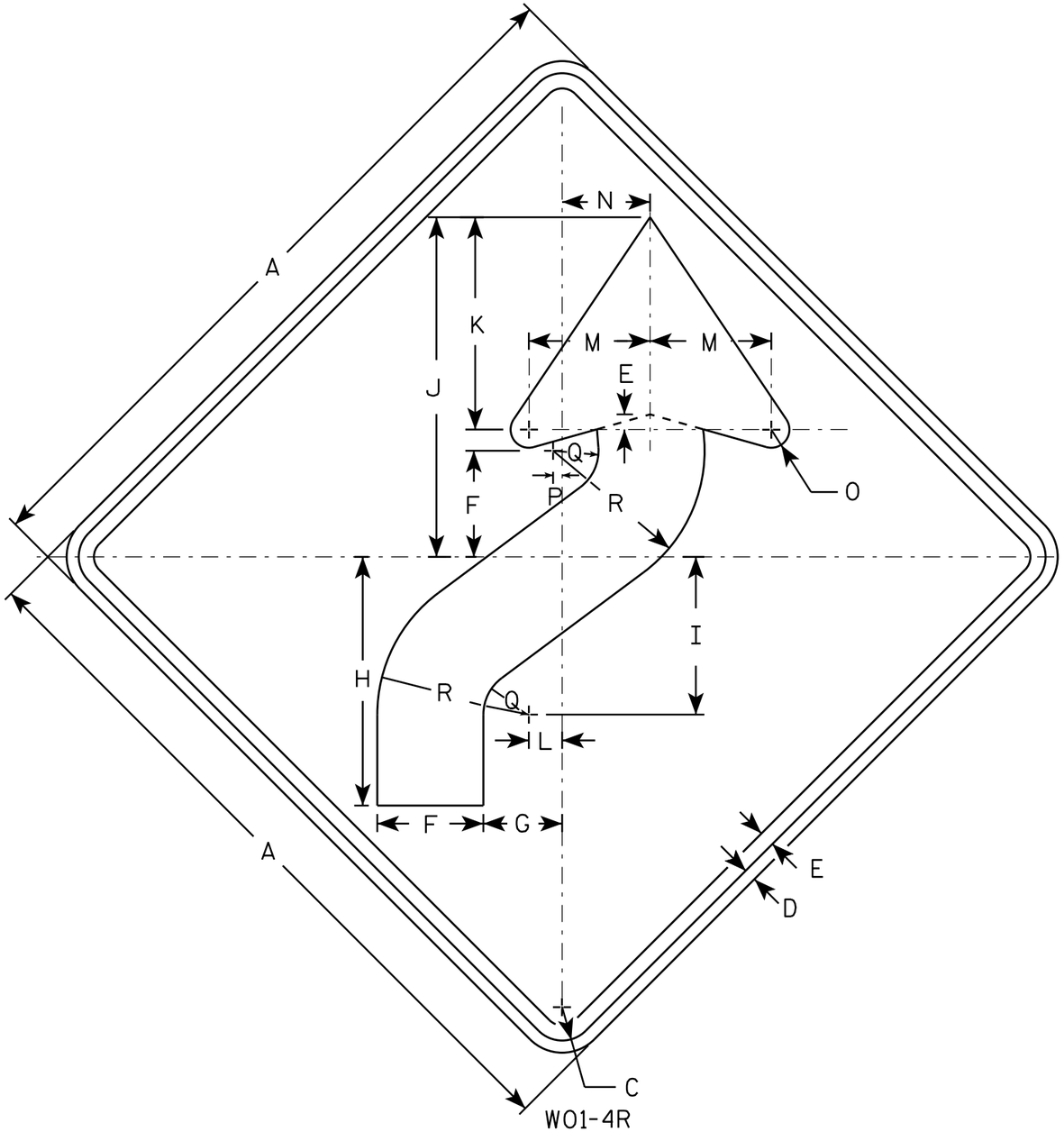
STANDARD SIGN
W57-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/13/13 PLATE NO. W57-52.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 286	E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

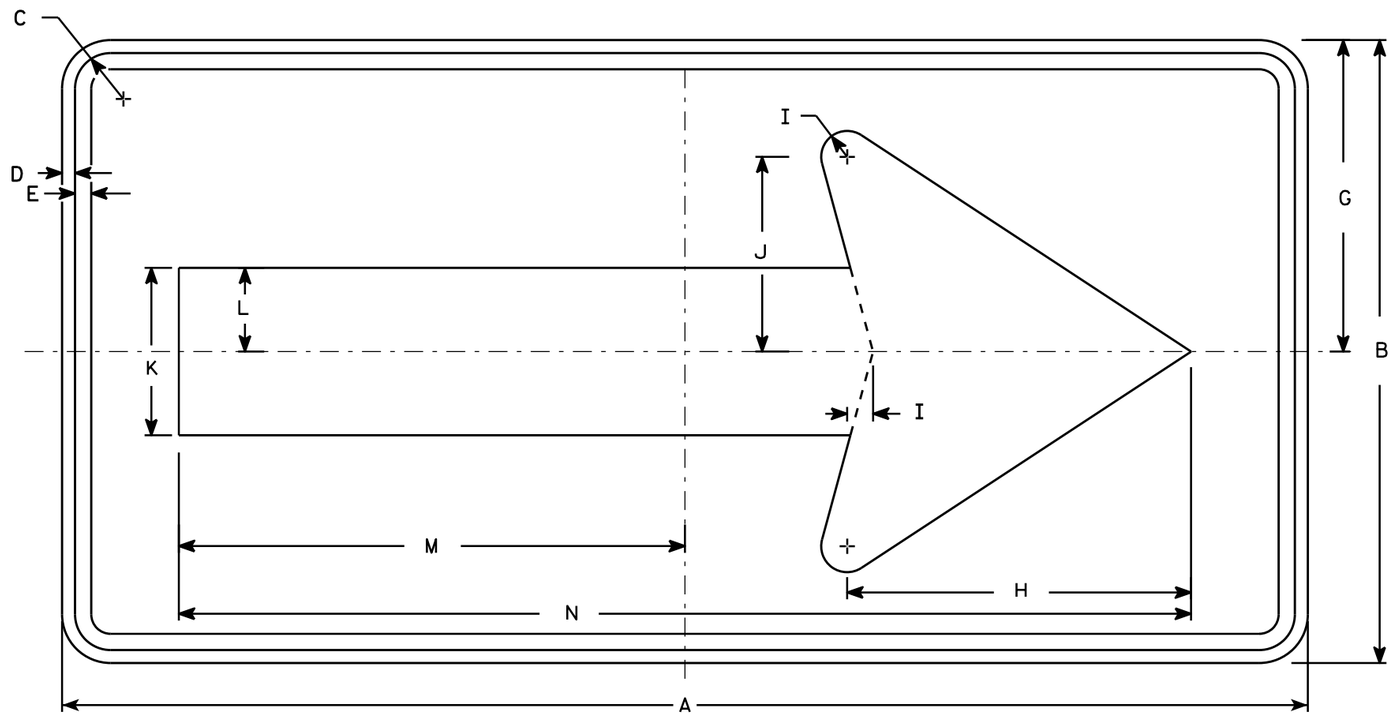
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

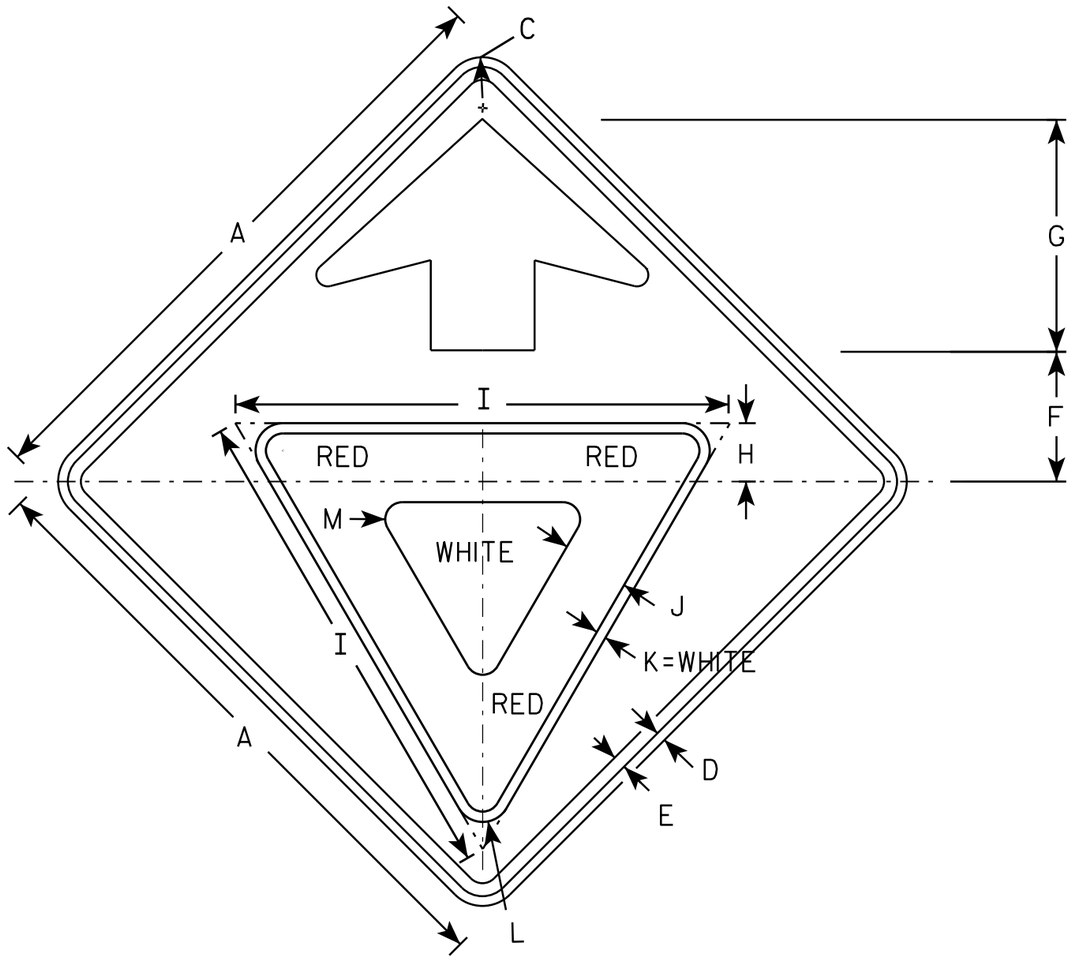
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

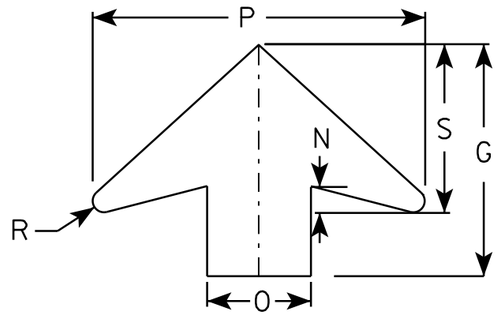
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W03-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

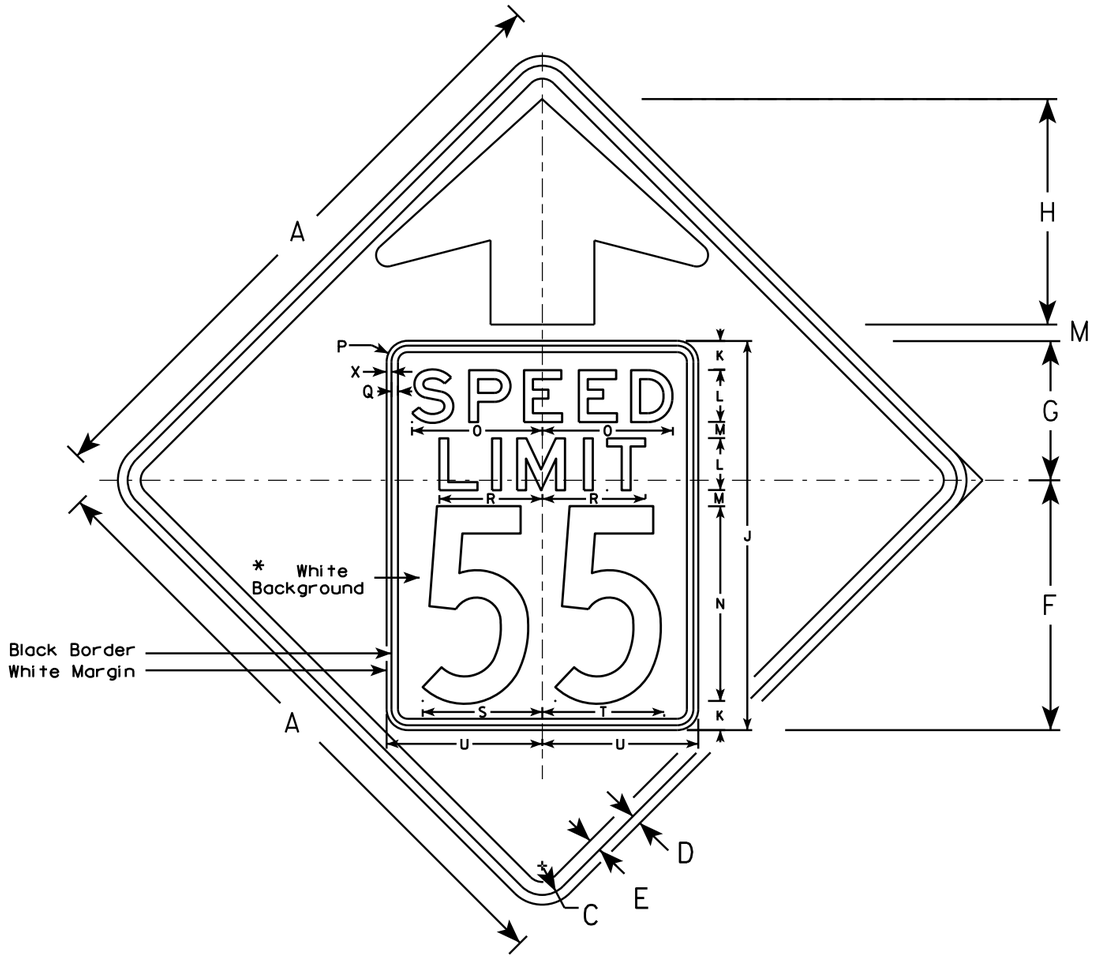
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-2.1

PROJECT NO:

SHEET NO: E

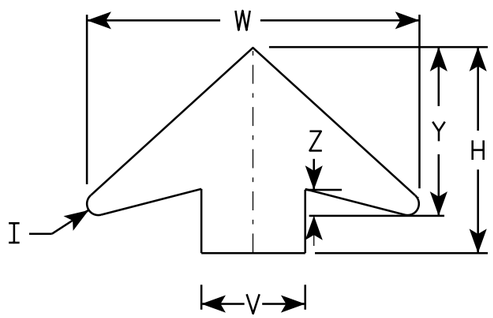


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

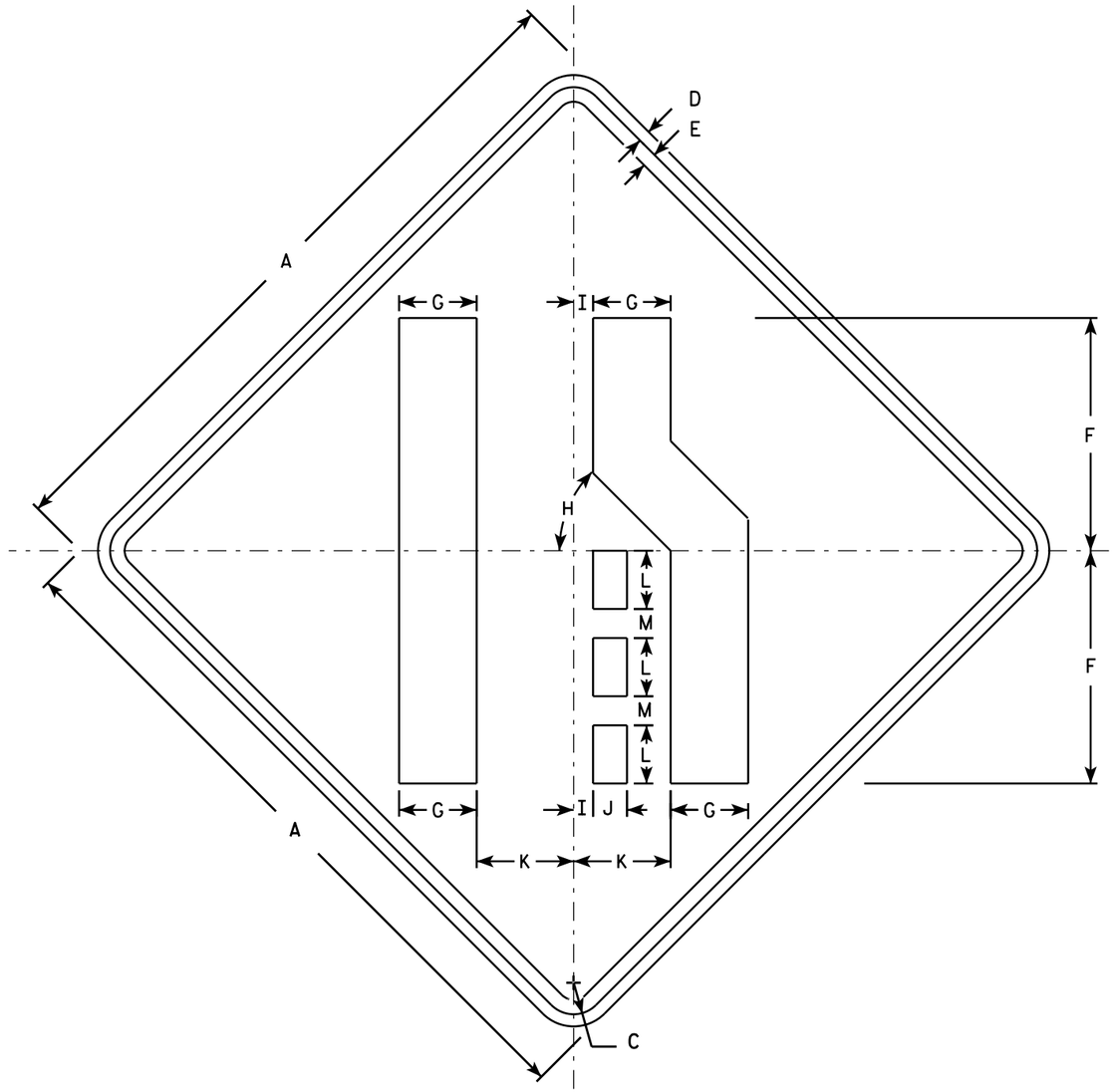
DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7 7



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

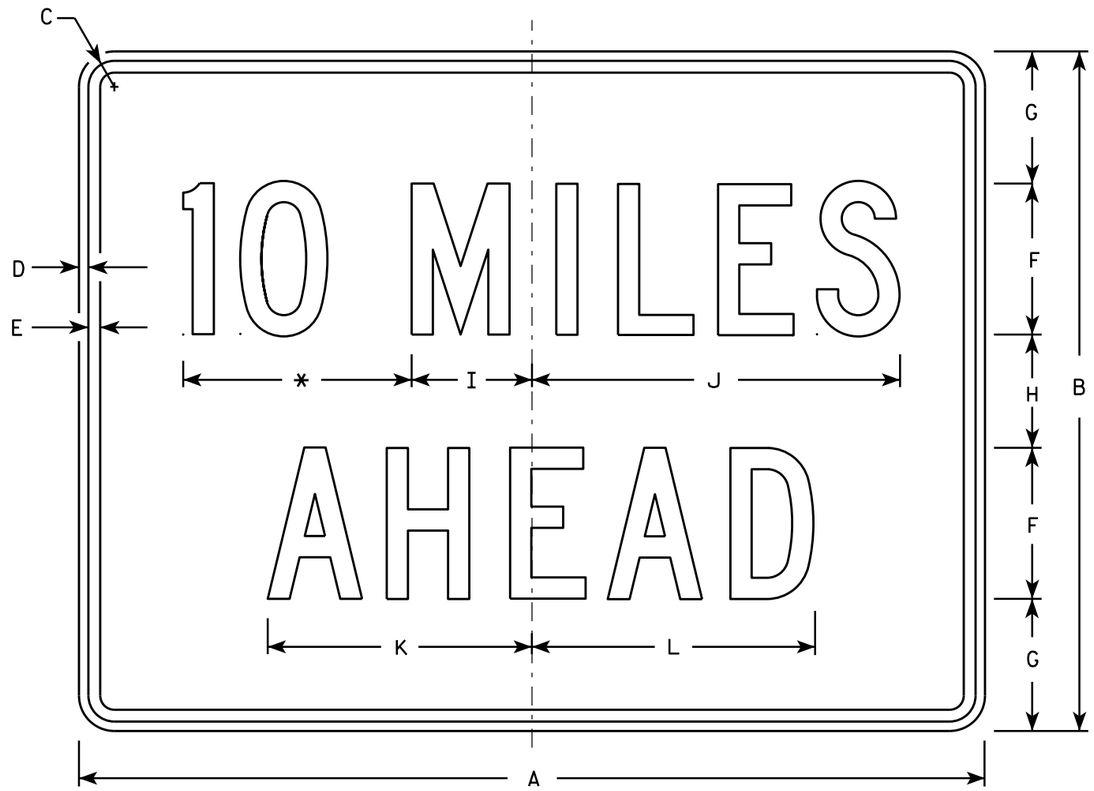
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

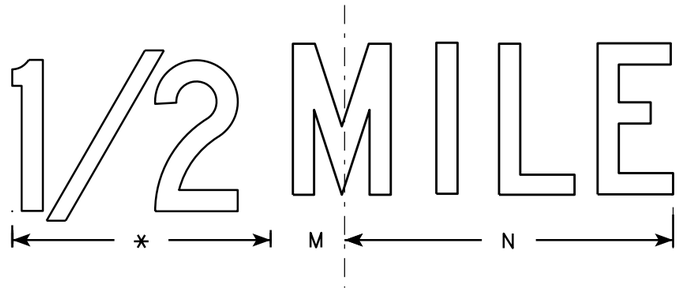
DATE 11/20/13 PLATE 291 W04-2.1

PROJECT NO:

SHEET NO: E



W057-52



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0

STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W057-52.1

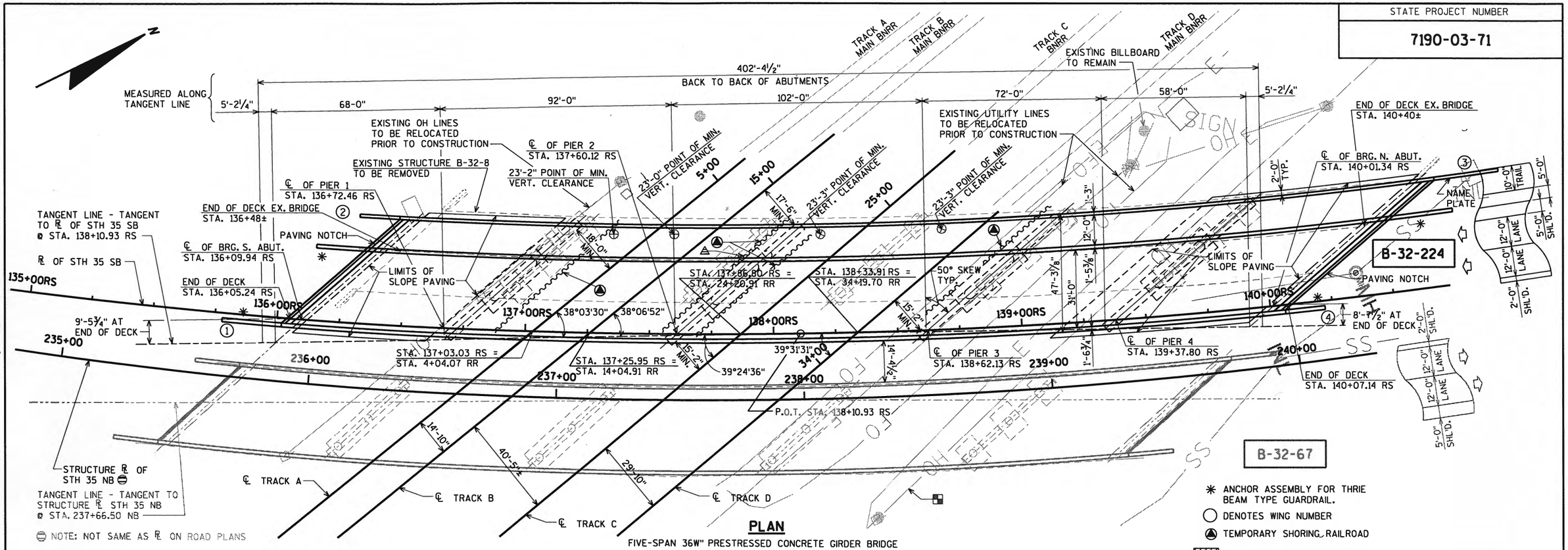
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W05752.DGN PLOT DATE : 28-FEB-2014 11:42 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 8.026599:1.000000 WISDOT/CADDS SHEET 42

$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-224 STH 35 SB over BN RR\BRIDGE\FINAL STRUCTURE\B-3

STATE PROJECT NUMBER

7190-03-71



PLAN

FIVE-SPAN 36W" PRESTRESSED CONCRETE GIRDER BRIDGE

✱ ANCHOR ASSEMBLY FOR THRIE BEAM TYPE GUARDRAIL.

◯ DENOTES WING NUMBER

△ TEMPORARY SHORING, RAILROAD

▨ COST OF EXCAVATION IN THE HATCHED AREAS AND SHAPING OF EMBANKMENT BETWEEN B-32-224 AND B-32-67 SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-32-224".

⊗ EXISTING 82' LONG x 8' TALL MECHANICALLY STABILIZED EARTH RETAINING WALL WITH PRECAST CONCRETE PANELS TO BE REMOVED. CONSIDERED INCIDENTAL TO "REMOVING OLD STRUCTURE".

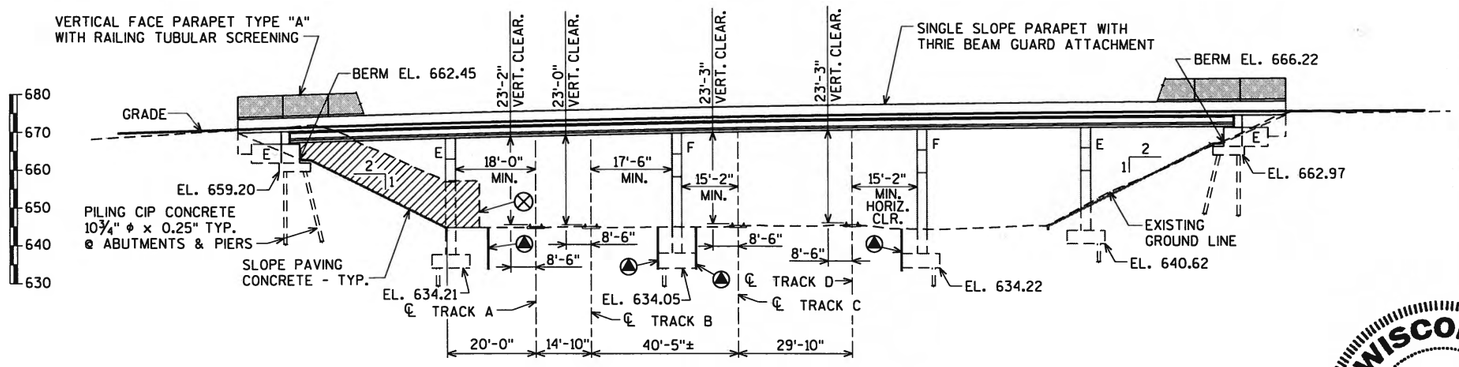
△ SPECIAL SHORING CONSIDERATIONS REQUIRED AT CONFLICT WITH EXISTING PIER FOOTINGS.

▩ EXISTING OVERHEAD ELECTRICAL LINES TO REMAIN. CONSTRUCTION MUST BE ACCOMPLISHED WITH LINES IN PLACE. SEE SPECIAL PROVISIONS FOR INFORMATION ON DE-ENERGIZING LINES. THE CONTRACTOR IS ADVISED THAT LOW OVERHEAD EQUIPMENT AND CONSTRUCTION METHODS WILL BE REQUIRED.

CURVE DATA

℞ OF STH 35 SB
P.I. STA. 144+87.15 RS
Y = 153534.77
X = 451065.04
△ = 54°35'48"
D = 2°34'05"
R = 2231.00'
T = 1151.42'
L = 2125.90'
S.E. = 0.028'/'
P.C. STA. 133+35.72
P.T. STA. 154+61.63

DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:



ELEVATION

(TAKEN NORMAL TO RAILROAD TRACKS)
(LOOKING NORTH)

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION AND NOTES
3. QUANTITIES AND PROFILE GRADE LINES
4. SUBSURFACE EXPLORATION
5. SOUTH ABUTMENT
6. SOUTH ABUTMENT FOOTING LAYOUT
7. SOUTH ABUTMENT WING 1 DETAILS
8. SOUTH ABUTMENT WING 2 DETAILS
9. SOUTH ABUTMENT DETAILS AND BILL OF BARS
10. NORTH ABUTMENT
11. NORTH ABUTMENT FOOTING LAYOUT
12. NORTH ABUTMENT WING 3 DETAILS
13. NORTH ABUTMENT WING 4 DETAILS
14. NORTH ABUTMENT DETAILS AND BILL OF BARS
15. PIER 1
16. PIER 1 DETAILS
17. PIER 2
18. PIER 2 DETAILS
19. PIER 3
20. PIER 3 DETAILS
21. PIER 4
22. PIER 4 DETAILS
23. ALTERNATE CONSTRUCTION JOINT
24. BEARING DETAILS
25. 36W" PRESTRESSED GIRDER DETAILS
26. 36W" PRESTRESSED GIRDER DETAILS
27. STEEL INTER. DIAPHRAGM DETAILS
28. SUPERSTRUCTURE GIRDER LAYOUT
29. SUPERSTRUCTURE GIRDER LAYOUT
30. TOP OF DECK ELEVATIONS
31. SUPERSTRUCTURE
32. LONGITUDINAL SLAB STEEL LAYOUT
33. TRANSVERSE SLAB STEEL LAYOUT
34. SUPERSTRUCTURE DETAILS
35. DIAPHRAGM DETAILS
36. DIAPHRAGM DETAILS
37. SUPERSTRUCTURE BILL OF BARS
38. EXPANSION DEVICE
39. EXPANSION DEVICE AT SOUTH ABUTMENT
40. EXPANSION DEVICE AT SOUTH ABUTMENT
41. EXPANSION DEVICE AT NORTH ABUTMENT
42. EXPANSION DEVICE AT NORTH ABUTMENT
43. EXPANSION DEVICE AT SIDEWALK
44. SINGLE SLOPE PARAPET 32SS
45. SINGLE SLOPE PARAPET 42SS
46. VERTICAL FACE PARAPET "A"
47. SLOPE PAVING
48. ARCHITECTURAL SURFACE TREATMENT
49. ORNAMENTAL PROTECTIVE SCREENING

WISCONSIN
DANIEL N. SYDOW
E-38363
WI
PROFESSIONAL ENGINEER
8/17/2015

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
DAN SYDOW
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/20/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-32-224

STH 35 SB OVER BN RR

COUNTY: LA CROSSE — ~~TOWN~~/CITY/~~VILLAGE~~: ONALASKA

DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JCK	AEB	CLS	DNS

GENERAL PLAN

SHEET 1 OF 49
293

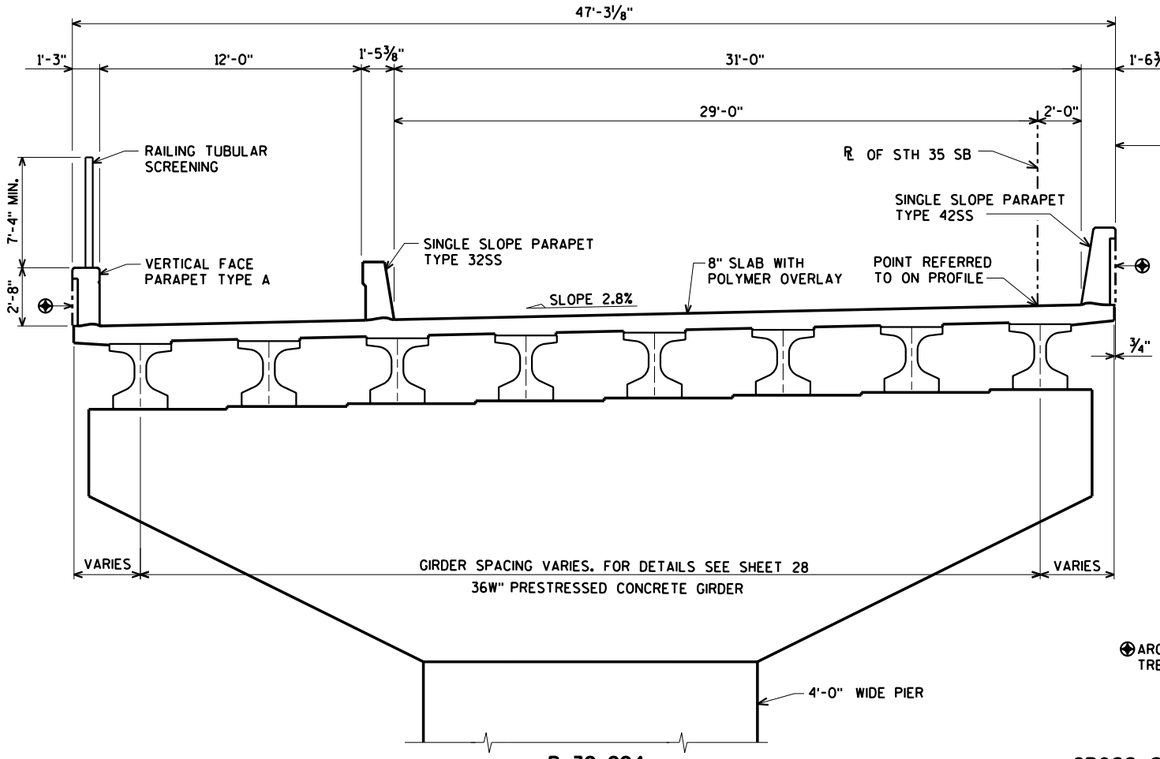
8

8

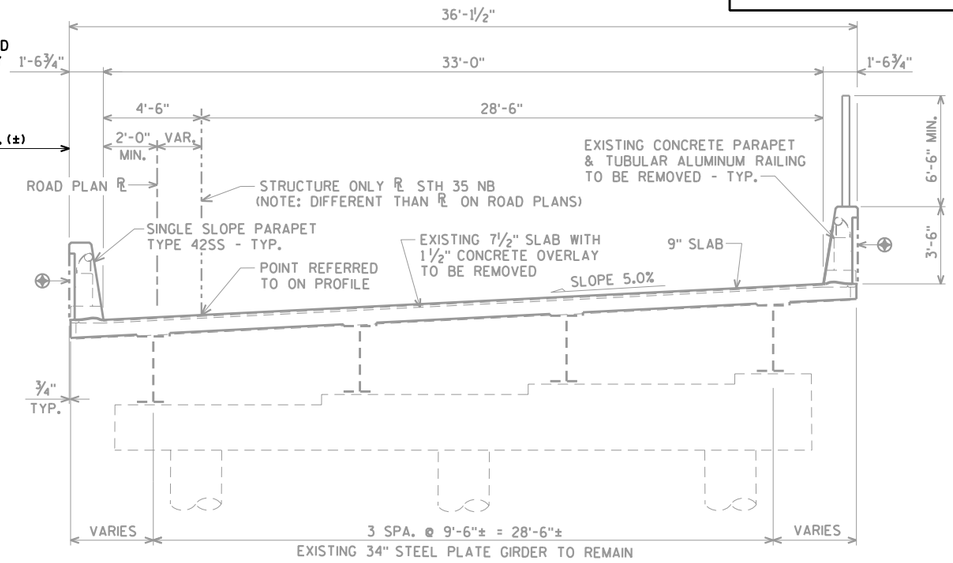
8/17/2015 PENTABLE:BReau_shd_util.tbl LD DATE:

STATE PROJECT NUMBER

7190-03-71



B-32-224



B-32-67

⊕ ARCHITECTURAL SURFACE TREATMENT

CROSS SECTION THRU BRIDGES

(LOOKING NORTH)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.02
OPERATING RATING FACTOR: 1.59
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY	SUPERSTRUCTURE f'_c	=	4,000 p.s.i.
	ALL OTHER f'_c	=	3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) f_y		=	60,000 p.s.i.

36W" PRESTRESSED GIRDER
CONCRETE MASONRY f'_c = 8,000 p.s.i.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH = 270,000 p.s.i.

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON 10¾" ϕ x 0.25" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 130 TONS ǂ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 90'-0".

PIERS TO BE SUPPORTED ON 10¾" ϕ x 0.25" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 130 TONS ǂ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 90'-0".

ǂ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

STH 35

A.D.T. = 21,200 (2016)
A.D.T. = 27,600 (2036)
R.D.S. = 45 M.P.H.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

PIGMENTED SURFACE SEALER IS TO BE APPLIED TO THE TOP AND INSIDE FACE OF EXTERIOR PARAPETS AND TO THE TOP AND BOTH FACES OF SINGLE SLOPE PARAPET TYPE 32SS.

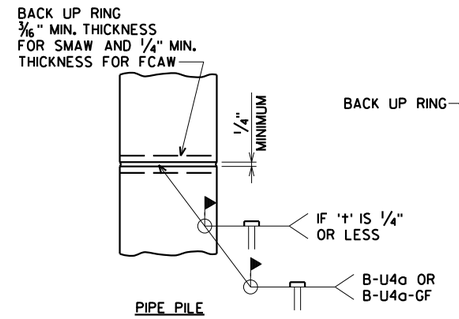
JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE EXISTING STRUCTURE, B-32-8, TO BE REMOVED IS A SIX-SPAN STEEL GIRDER BRIDGE, 390.4 FEET LONG WITH A 30 FOOT CLEAR ROADWAY WIDTH.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE HAUNCH DEPTH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEETS, WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.



PILE SPLICE DETAIL

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

CIP PILE WELD DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

DRAWN BY CLS | PLANS CK'D. JCK

TYPICAL SECTION AND NOTES

SHEET 2 OF 49
294

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

ecpdf.plt
B-32-224 ty ON.dgn

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8/14/2015

black.tbl

STATE PROJECT NUMBER

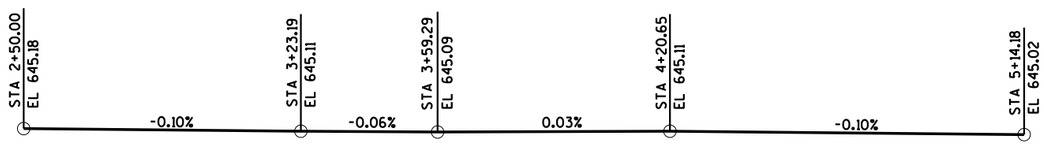
7190-03-71

TOTAL ESTIMATED QUANTITIES

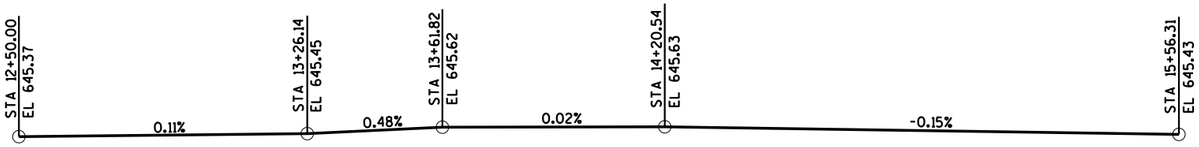
	BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	PIER 1	PIER 2	PIER 3	PIER 4	N. ABUT.	SUPER.	TOTAL
①	203.0200	REMOVING OLD STRUCTURE STATION 138+09 RS	LS	-----	-----	-----	-----	-----	-----	-----	1
	203.0225.S	DEBRIS CONTAINMENT B-32-8	LS	-----	-----	-----	-----	-----	-----	-----	1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-32-224	LS	-----	-----	-----	-----	-----	-----	-----	1
	210.0100	BACKFILL STRUCTURE	CY	230	-----	-----	-----	-----	300	-----	530
	502.0100	CONCRETE MASONRY BRIDGES	CY	158	200	215	224	191	195	800	1,983
	502.3100	EXPANSION DEVICE B-32-224	LS	-----	-----	-----	-----	-----	-----	-----	1
	502.3210	PIGMENTED SURFACE SEALER	SY	20	-----	-----	-----	-----	20	670	710
	503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	-----	-----	-----	-----	-----	-----	3,210	3,210
	505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	5,240	2,420	3,240	3,240	2,810	7,100	-----	24,050
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	6,680	44,020	49,570	51,020	48,640	7,900	188,210	396,040
	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-----	-----	16	16	-----	-----	-----	32
	506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	8	16	-----	-----	16	8	-----	48
	506.4000	STEEL DIAPHRAGMS B-32-224	EACH	-----	-----	-----	-----	-----	-----	49	49
	509.5100.S	POLYMER OVERLAY	SY	-----	-----	-----	-----	-----	-----	2,310	2,310
	513.4091	RAILING TUBULAR SCREENING B-32-224	LF	16	-----	-----	-----	-----	26	410	452
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	16	-----	-----	-----	-----	18	-----	34
	517.1010.S	CONCRETE STAINING B-32-224	SF	350	-----	-----	-----	-----	370	7,050	7,770
	517.1015.S	CONCRETE STAINING MULTICOLOR B-32-224	SF	110	-----	-----	-----	-----	110	2,080	2,300
	517.1050.S	ARCHITECTURAL SURFACE TREATMENT B-32-224	SF	110	-----	-----	-----	-----	110	2,080	2,300
	550.2104	PILING CIP CONCRETE 10¾ x 0.25-INCH	LF	2,520	4,320	4,680	4,680	4,680	2,700	-----	23,580
	604.0400	SLOPE PAVING CONCRETE	SY	340	-----	-----	-----	-----	410	-----	750
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	310	-----	-----	-----	-----	350	-----	660
	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-----	-----	-----	-----	2	-----	4
②	SPV.0165	TEMPORARY SHORING RAILROAD	SF	-----	700	1,570	850	-----	-----	-----	3,120
		NON-BID ITEMS									
		FILLER	SIZE	-----	-----	-----	-----	-----	-----	-----	½" & ¾"

① INCLUDES REMOVAL OF EXISTING PIER AND ABUTMENT FOOTINGS AS NEEDED FOR CONSTRUCTION OF NEW SUBSTRUCTURES.

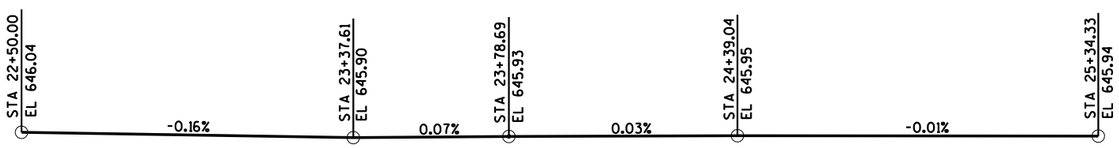
② FINAL LOCATION AND TYPE OF SHORING TO BE DETERMINED BY THE CONTRACTOR. SHORING TO BE DESIGNING FOR COOPER E-80 LIVE LOAD SURCHARGE (ZONE A).



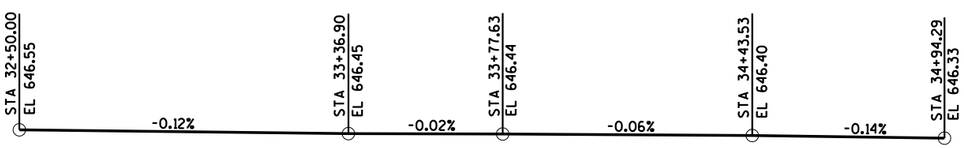
PROFILE GRADE LINE
(TRACK A)



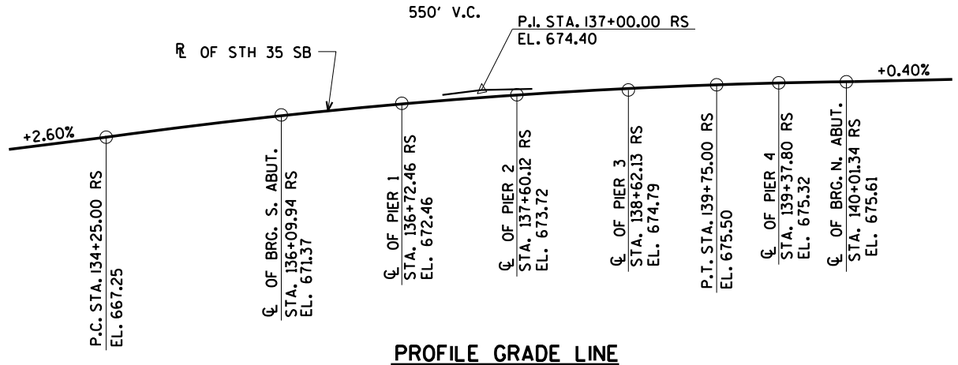
PROFILE GRADE LINE
(TRACK B)



PROFILE GRADE LINE
(TRACK C)



PROFILE GRADE LINE
(TRACK D)



PROFILE GRADE LINE
(STH 35 SB)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

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QUANTITIES AND PROFILE GRADE LINES

SHEET 3 OF 49
295

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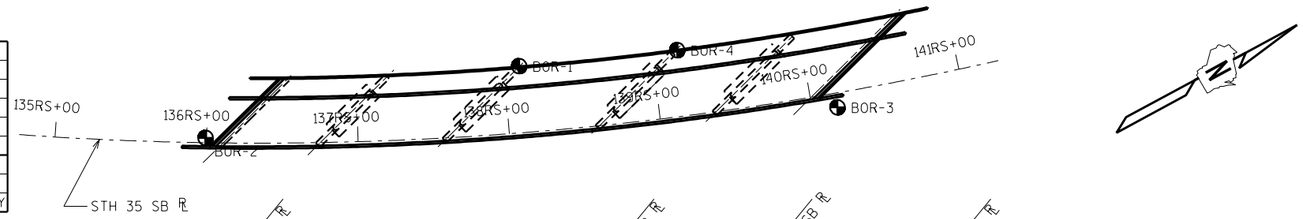
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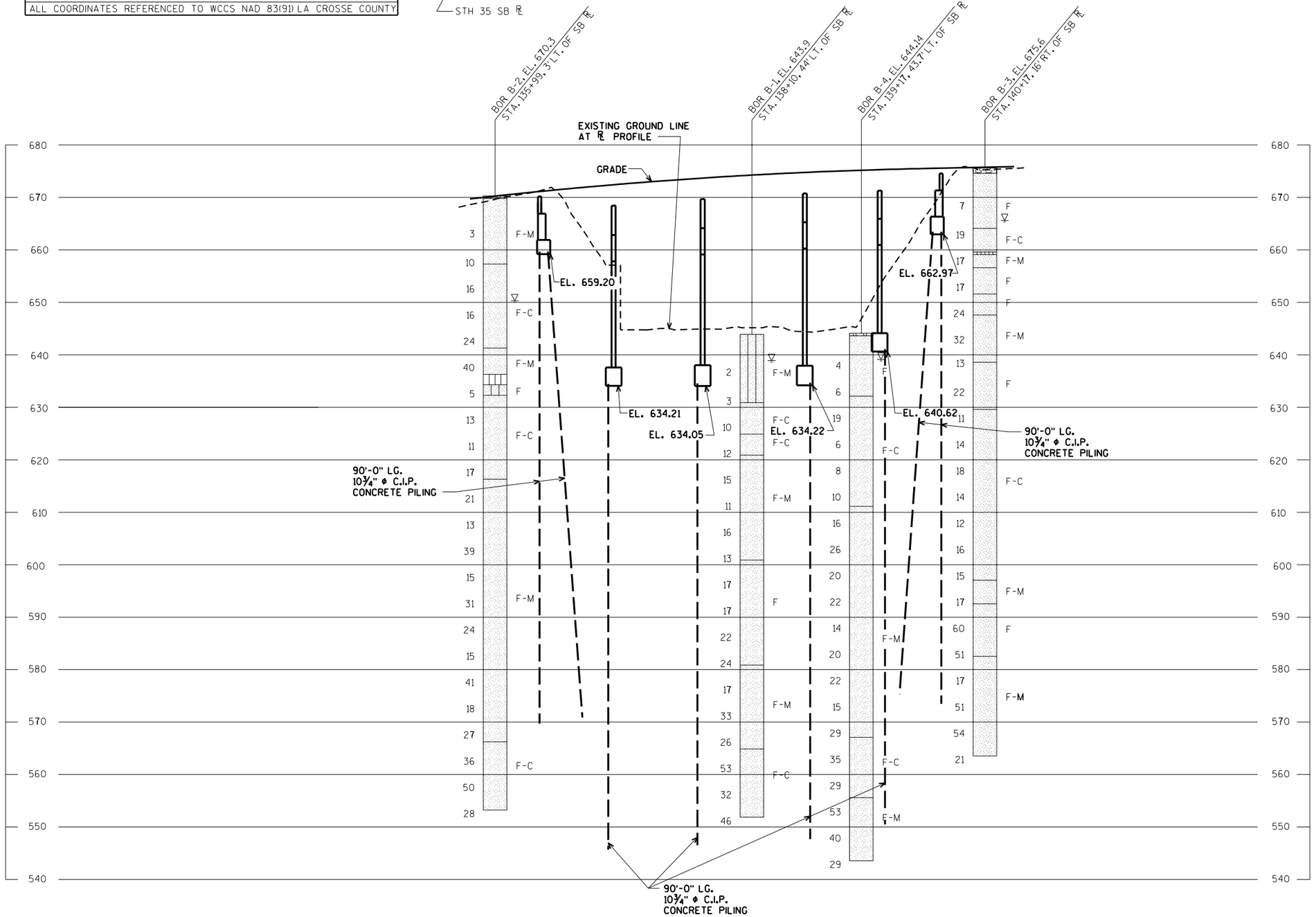
8/14/2015

black.tbl

LA CROSSE - TREMPEALEAU
BN RR BRIDGE TO 2ND AVE SW

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	8/7/2013		
2	8/8/2013	152824.644	450530.312
3	8/20/2013	153201.366	450710.431
4	8/21/2013		
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) LA CROSSE COUNTY			





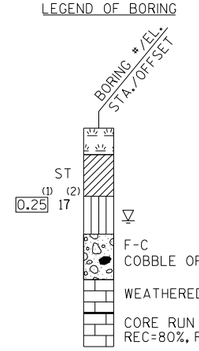
STATE PROJECT NUMBER

7190-03-71

MATERIAL SYMBOLS

ASPHALT · TOPSOIL · PEAT
CONCRETE · FILL · GRAVEL
SAND · CLAY · SILT
BOULDERS OR COBBLES · LIMESTONE · BEDROCK (UNKNOWN)
SHALE · SANDSTONE · IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING
▼ END OF DRILLING
▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-224

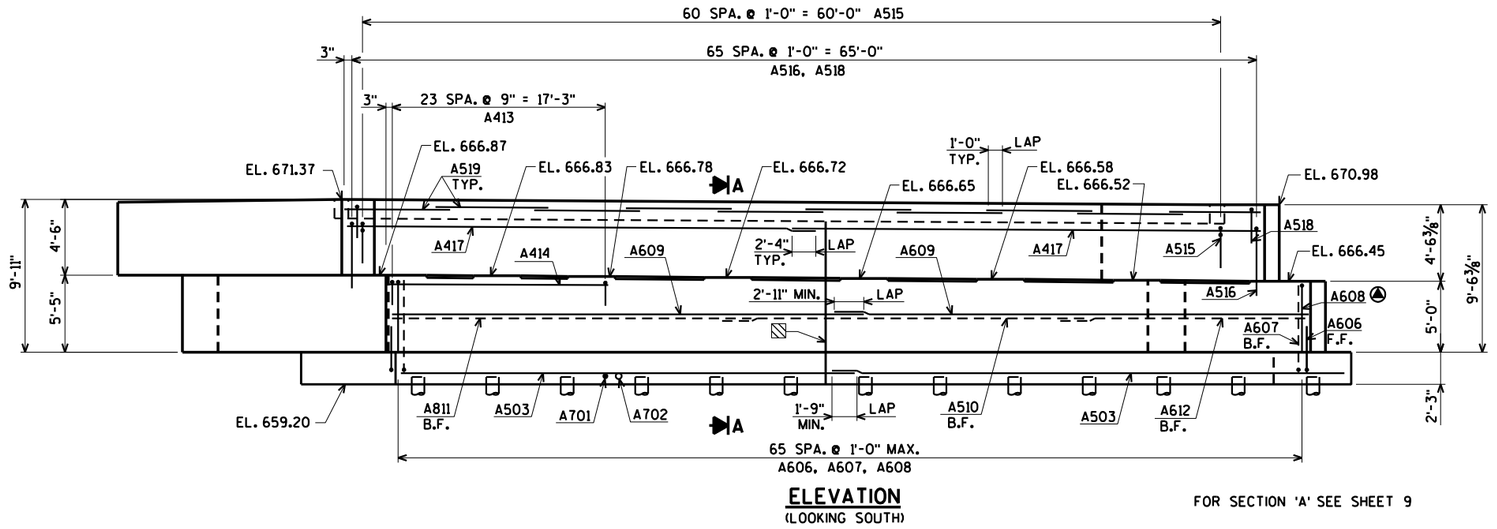
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SUBSURFACE EXPLORATION

SHEET 4 OF 49
296

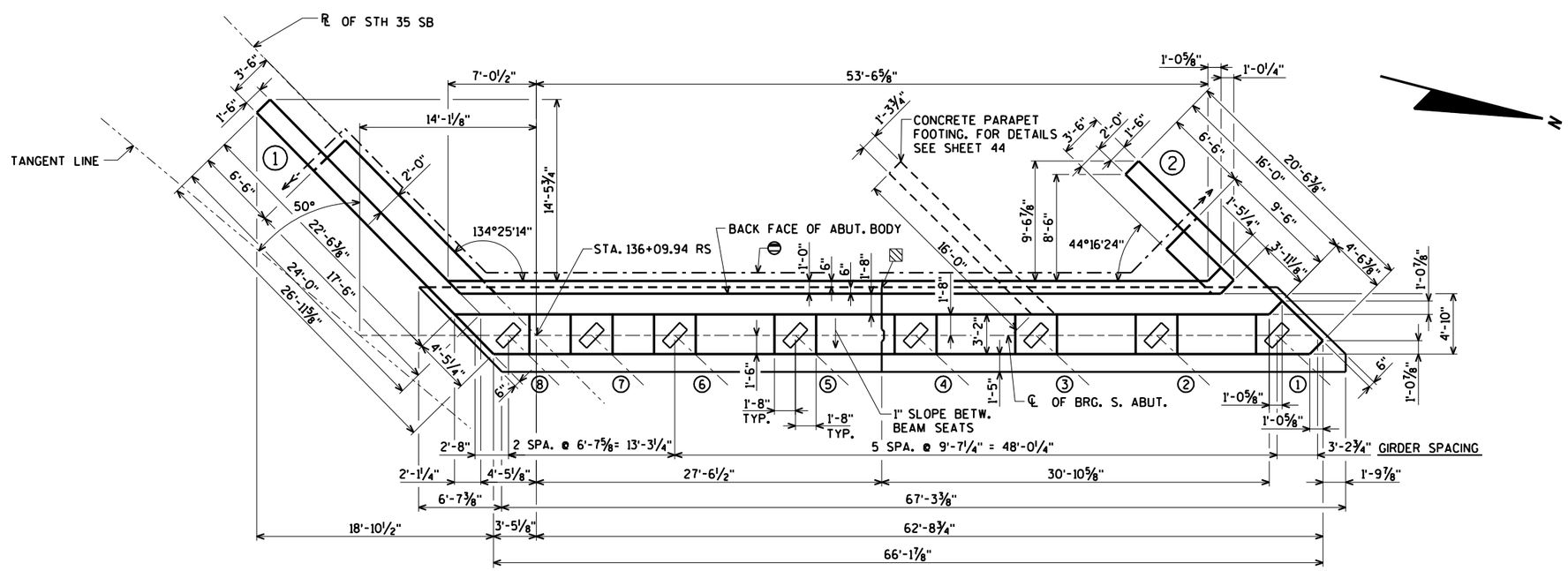
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8



ELEVATION
(LOOKING SOUTH)

FOR SECTION 'A' SEE SHEET 9



PLAN

TURN A608 BARS AS necessary TO FIT IN ABUTMENT BODY CORNER NEAR WING 2.

PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. FOR DETAILS SEE SHEET 9.

VERT. CONST. JT. - KEYWAY FORMED BY A BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 23. SEAL JOINT AT BACK FACE WITH 18" RUBBERIZED MEMBRANE WATERPROOFING

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR PILE SPLICE DETAIL SEE SHEET 2.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

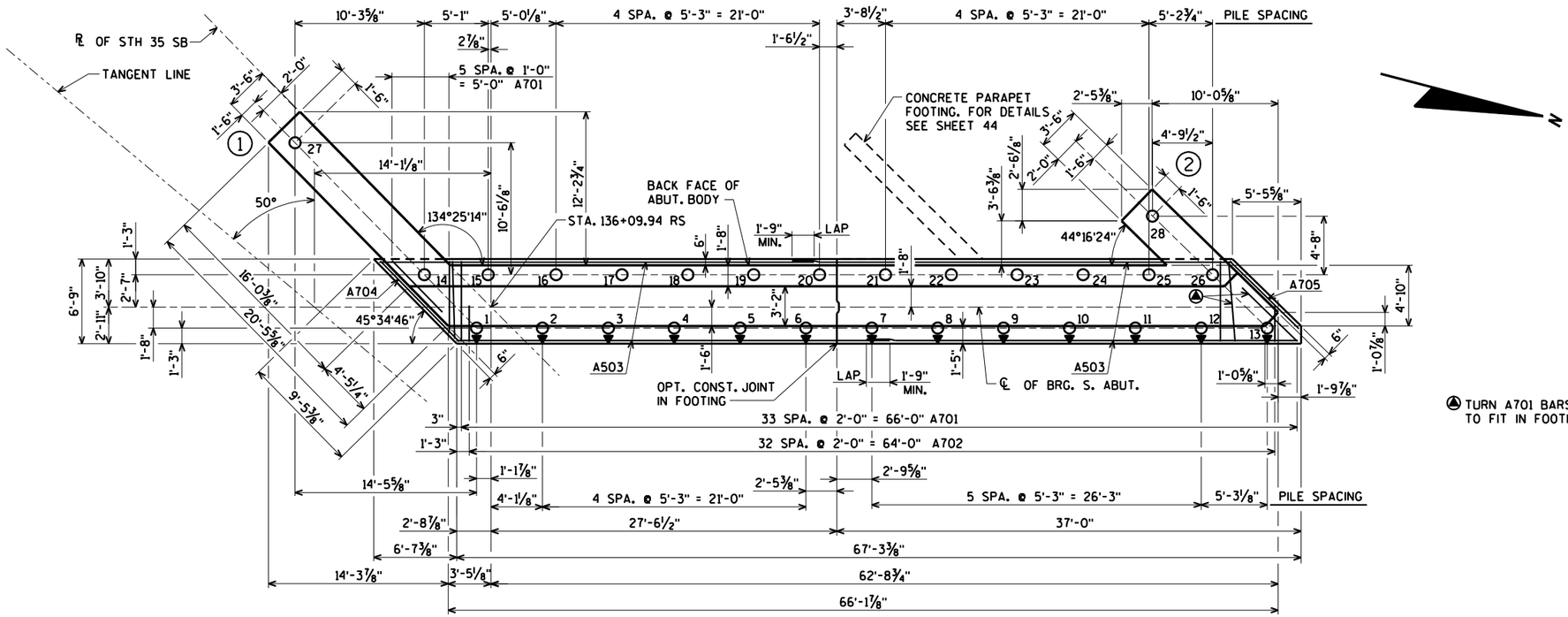
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SOUTH ABUTMENT

SHEET 5 OF 49
297

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TURN A701 BARS AS NECESSARY TO FIT IN FOOTING CORNER.

FOOTING LAYOUT

DENOTES BATTERED PILES. BATTER 3" PER FOOT IN DIRECTION SHOWN.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR PILE SPLICE DETAIL SEE SHEET 2.

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STATE OF WISCONSIN
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STRUCTURE B-32-224

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SOUTH ABUTMENT FOOTING LAYOUT

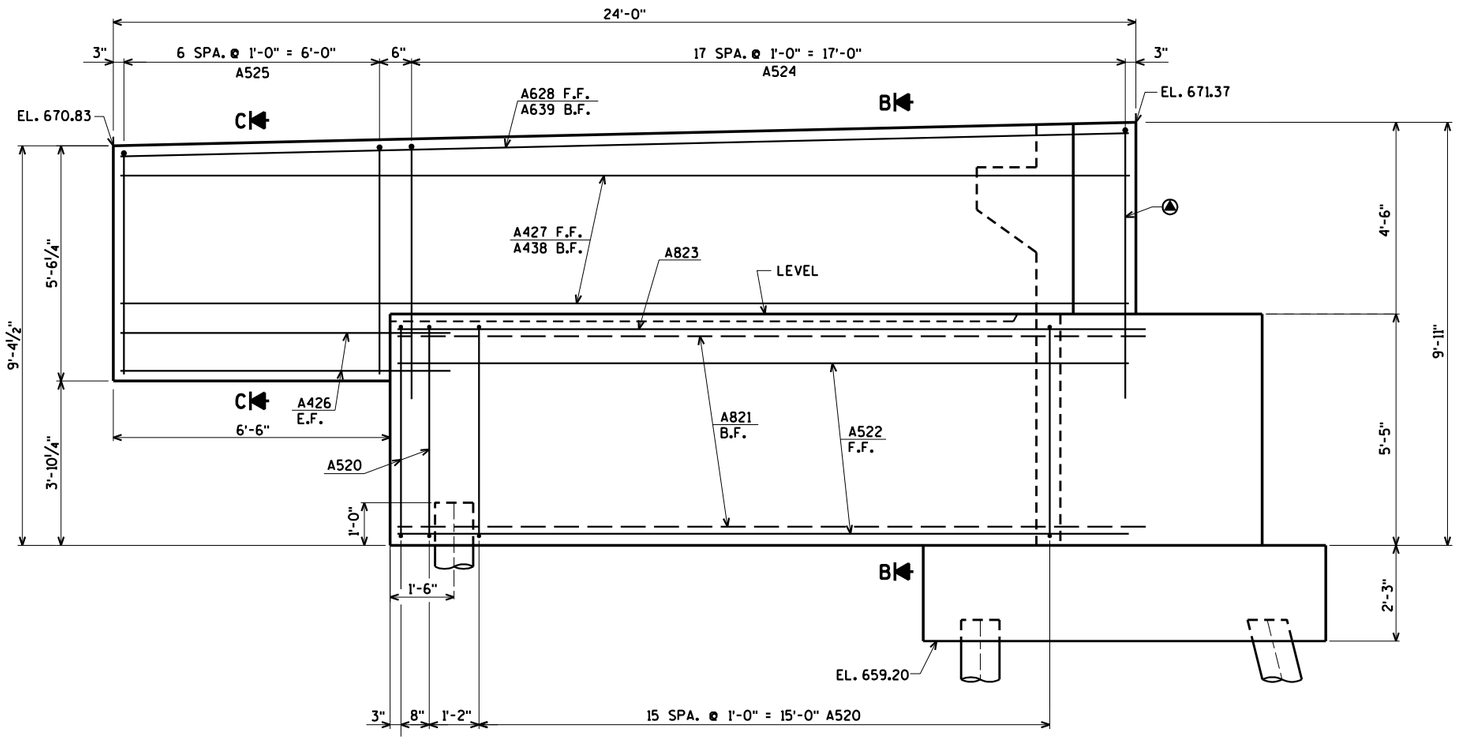
SHEET 6 OF 49
298

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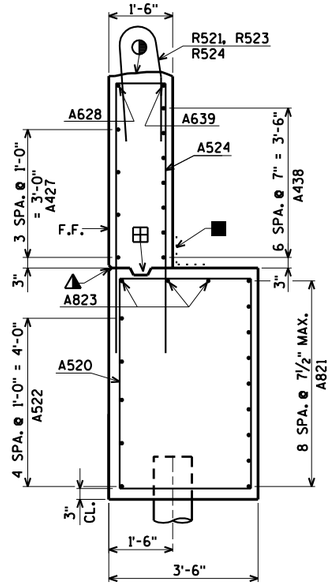
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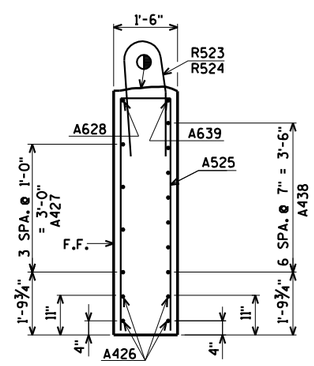
⚠ TURN A524 BAR AS NECESSARY TO FIT IN WING 1 NEAR FRONT FACE OF ABUTMENT BACKWALL.



ELEVATION WING 1



SECTION B



SECTION C

◑ CONST. JOINT - STRIKE OFF AS SHOWN.

■ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

⊞ OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

⚠ ¾" 'V' GROOVE ON F.F. OF WINGWALL. OMIT IF CONST. JOINT NOT USED.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

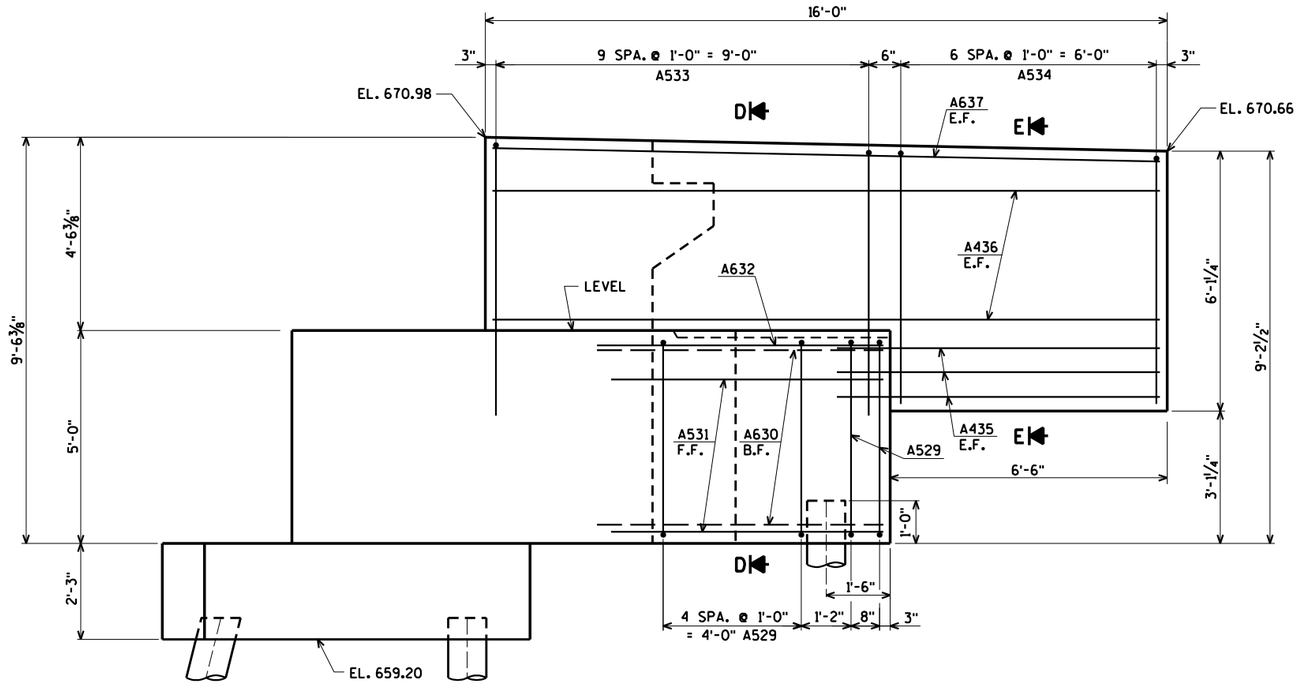
STRUCTURE B-32-224

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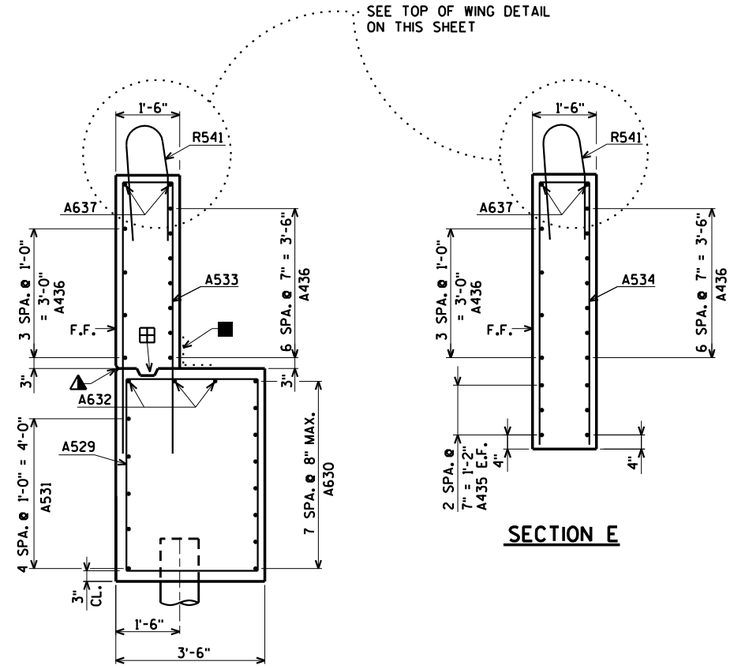
SOUTH ABUTMENT WING 1 DETAILS

SHEET 7 OF 49
299

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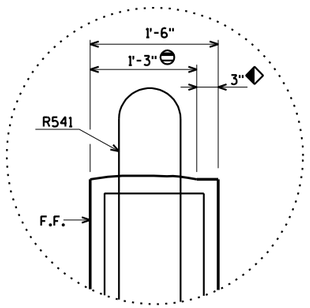


ELEVATION WING 2



SECTION D

SECTION E



TOP OF WING DETAIL

STRIKE OFF AS SHOWN AND LEAVE ROUGH.

FINISH SURFACE NOT COVERED BY PARAPET SAME AS ROADWAY.

■ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

⊞ OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

▲ ¾" 'V' GROOVE ON F.F. OF WINGWALL. OMIT IF CONST. JOINT NOT USED.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

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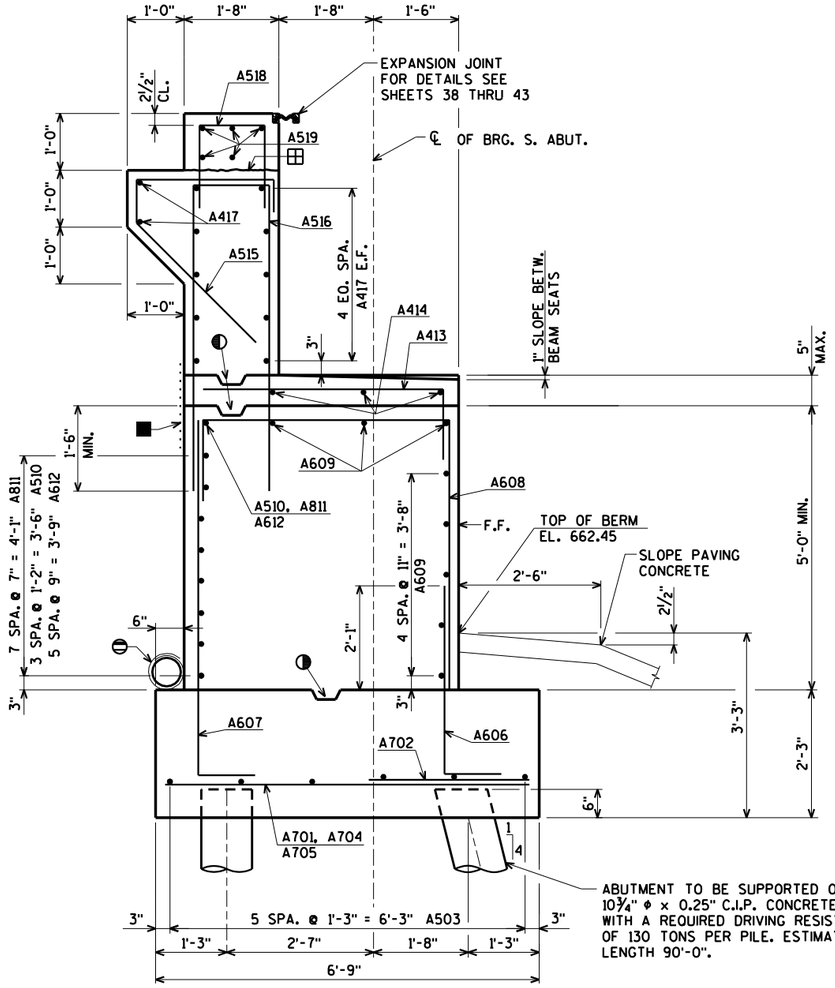
STRUCTURE B-32-224

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SOUTH ABUTMENT WING 2 DETAILS

SHEET 8 OF 49
300

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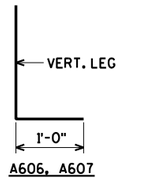


ABUTMENT TO BE SUPPORTED ON 10¾" Φ x 0.25" C.I.P. CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE. ESTIMATED LENGTH 90'-0".

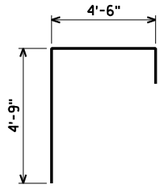
EXCAVATE OR FILL TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

TYPICAL SECTION THRU BODY SECTION A

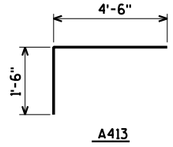
FOR LOCATION OF SECTION 'A' SEE SHEET 5



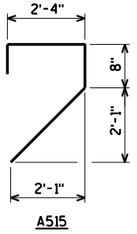
A606, A607



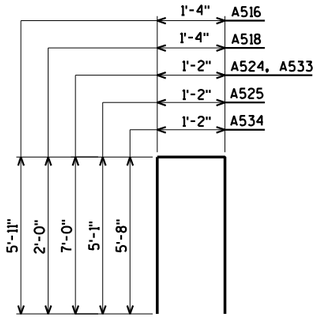
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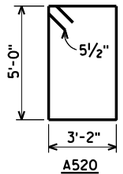


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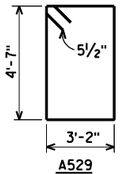


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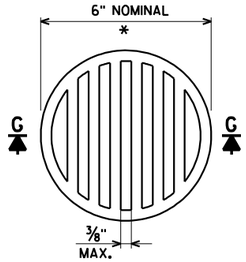


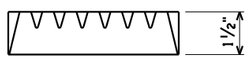
A529

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	6,880# COATED 5,240# UNCOATED LOCATION
A701		40	6-5				FOOTING
A702		33	2-9				FOOTING
A503		12	35-1				FOOTING
A704		1	8-11				FOOTING
A705		1	7-6				FOOTING
A606		66	4-6	X			FOOTING DOWELS F.F.
A607		66	7-3	X			FOOTING DOWELS B.F.
A608		66	10-6	X			BODY VERT.
A609		16	34-10				BODY HORIZ.
A510		5	27-0				BODY HORIZ. B.F.
A811		9	24-0				BODY HORIZ. B.F.
A612		7	16-0				BODY HORIZ. B.F.
A413		24	6-0	X			BODY VERT.
A414		3	17-5				BODY HORIZ.
A515	X	61	6-6	X			BACKWALL VERT.
A516	X	66	12-11	X			BACKWALL VERT.
A417	X	24	34-5				BACKWALL HORIZ.
A518	X	66	5-1	X			PAVING BLOCK VERT.
A519	X	50	8-0				PAVING BLOCK HORIZ.
A520	X	18	16-10	X			WING 1 VERT.
A821	X	9	21-0				WING 1 HORIZ. B.F.
A522	X	5	19-1				WING 1 HORIZ. F.F.
A823	X	3	21-0				WING 1 HORIZ. TOP
A524	X	18	15-1	X			WING 1 VERT.
A525	X	7	11-1	X			WING 1 VERT.
A426	X	4	7-9				WING 1 HORIZ. E.F.
A427	X	4	22-3				WING 1 HORIZ. F.F.
A628	X	1	22-3				WING 1 HORIZ. F.F.
A529	X	7	16-0	X			WING 2 VERT.
A630	X	8	7-0				WING 2 HORIZ. B.F.
A531	X	5	13-7				WING 2 HORIZ. F.F.
A632	X	3	7-0				WING 2 HORIZ. TOP
A533	X	10	15-1	X			WING 2 VERT.
A534	X	7	12-3	X			WING 2 VERT.
A435	X	6	7-9				WING 2 HORIZ. E.F.
A436	X	11	15-8				WING 2 HORIZ. E.F.
A637	X	2	15-8				WING 2 HORIZ. E.F.
A638	X	7	23-6				WING 1 HORIZ. B.F.
A639	X	1	23-6				WING 1 HORIZ. B.F.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.





SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

RODENT SHIELD DETAIL

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

■ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

◑ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6"

⊞ CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR PILE SPLICE DETAIL SEE SHEET 2.

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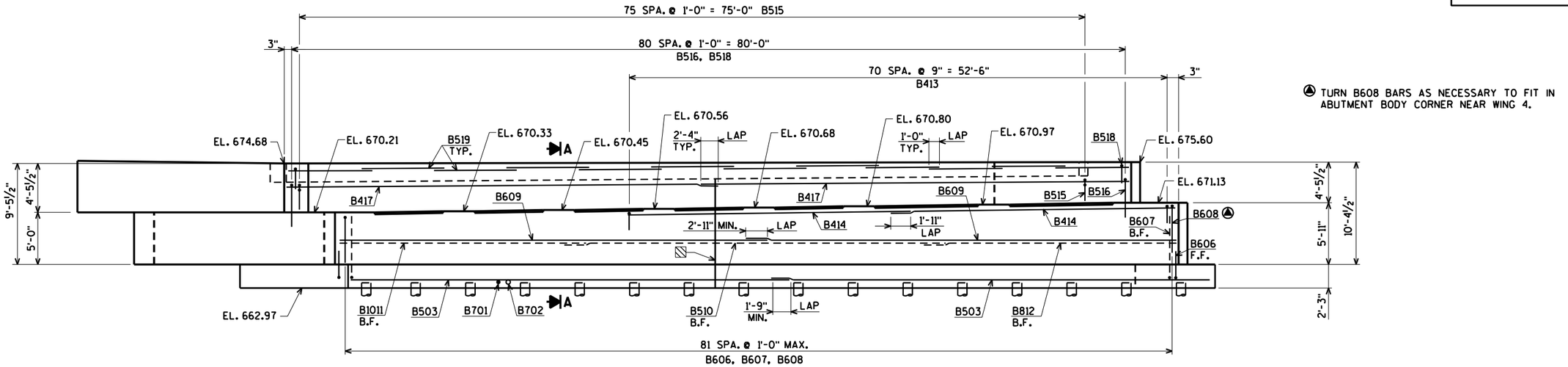
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STRUCTURE B-32-224

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SOUTH ABUTMENT DETAILS AND BILL OF BARS

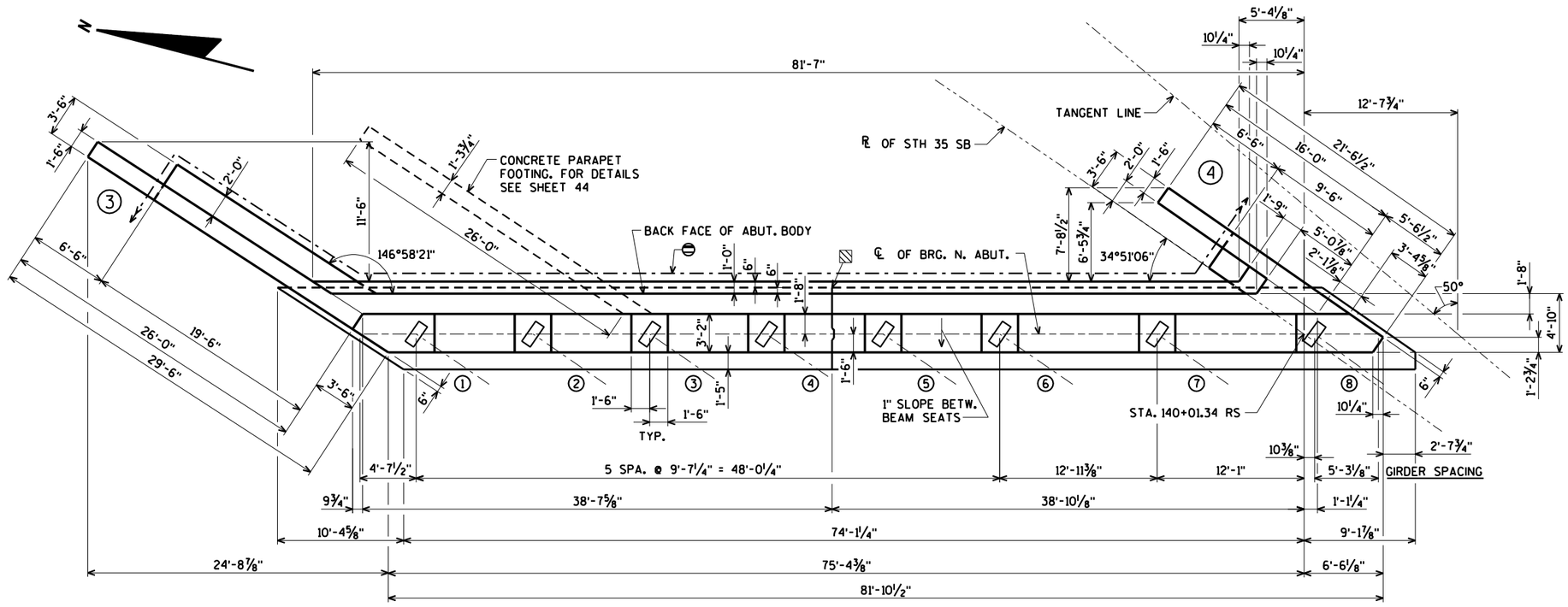
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ELEVATION
(LOOKING NORTH)

FOR SECTION 'A' SEE SHEET 14

TURN B608 BARS AS NECESSARY TO FIT IN ABUTMENT BODY CORNER NEAR WING 4.



PLAN

PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. FOR DETAILS SEE SHEET 14.

VERT. CONST. JT. - KEYWAY FORMED BY A BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 23. SEAL JOINT AT BACK FACE WITH 18" RUBBERIZED MEMBRANE WATERPROOFING

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR PILE SPLICE DETAIL SEE SHEET 2.

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STRUCTURE B-32-224

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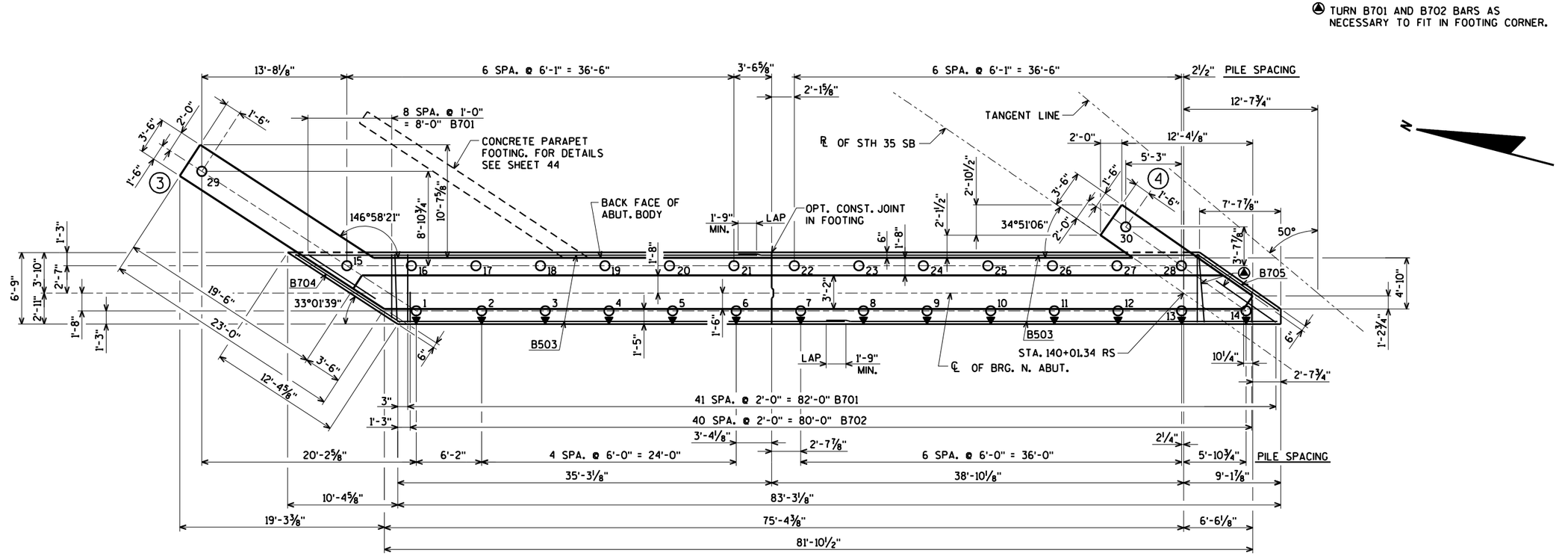
NORTH ABUTMENT

SHEET 10 OF 49
302

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$PRFNAME$
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FOOTING LAYOUT

DENOTES BATTERED PILES. BATTER 3" PER FOOT IN DIRECTION SHOWN.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR PILE SPLICE DETAIL SEE SHEET 2.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

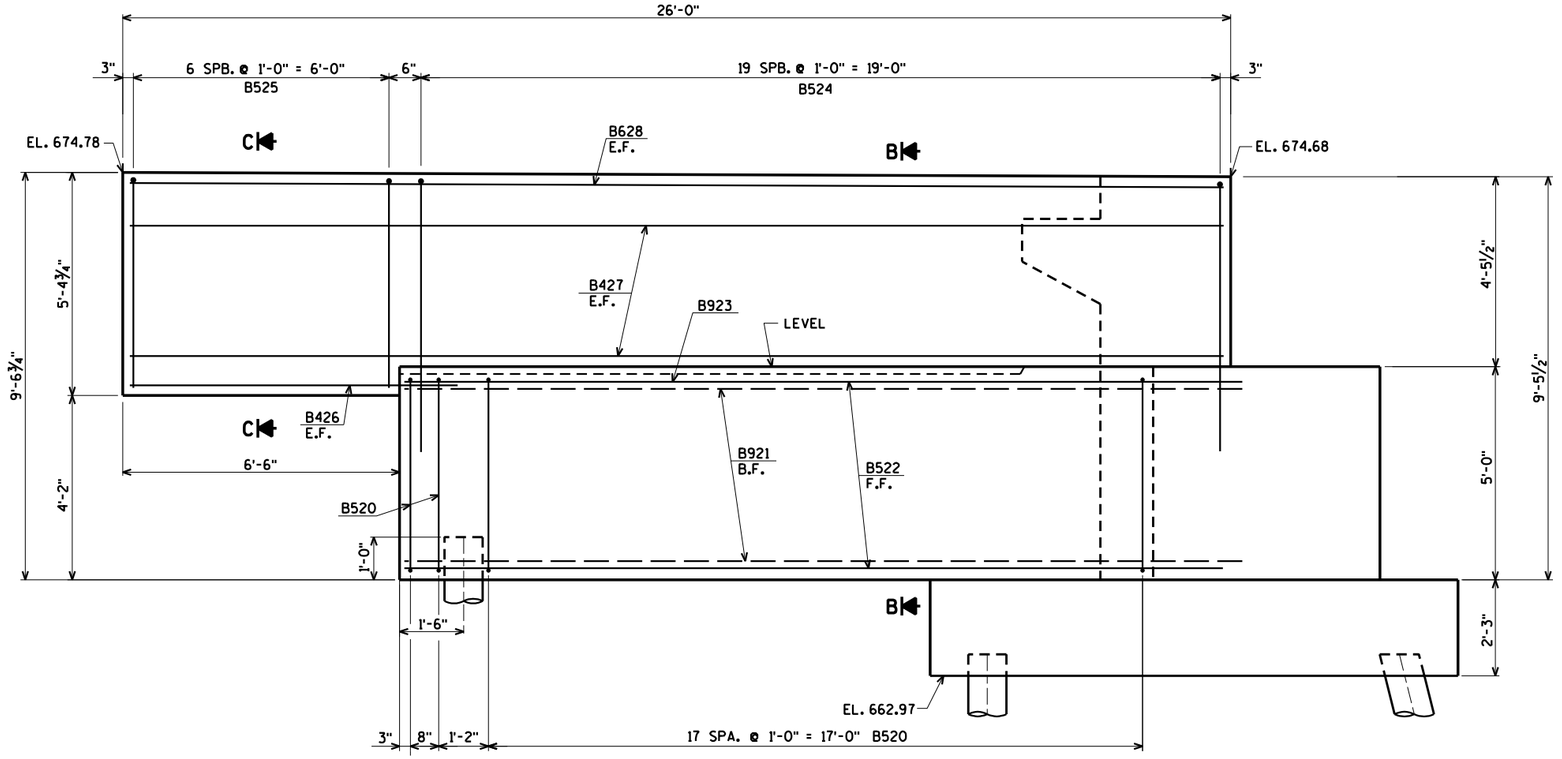
STRUCTURE B-32-224

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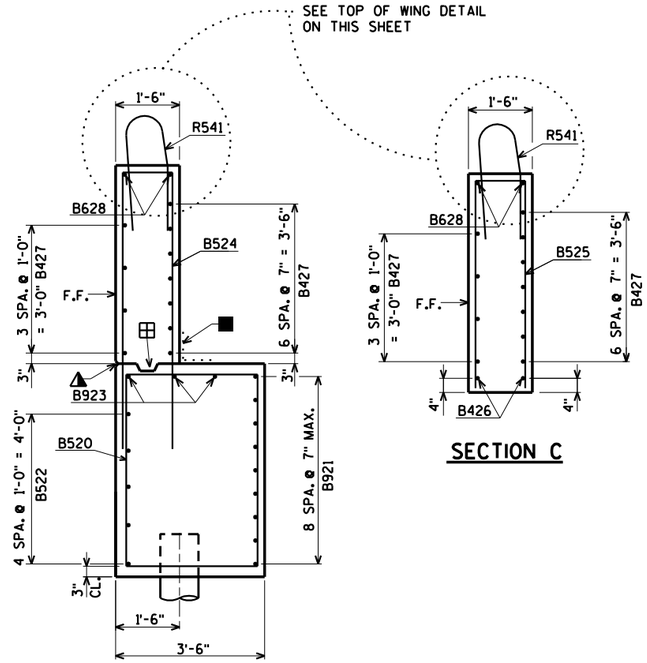
NORTH ABUTMENT FOOTING LAYOUT

SHEET 11 OF 49
303

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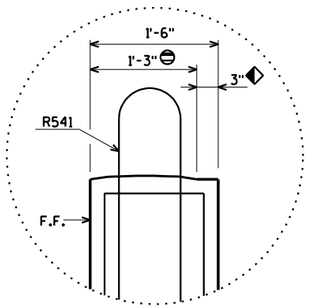


ELEVATION WING 3



SECTION C

SECTION B



TOP OF WING DETAIL

⊖ STRIKE OFF AS SHOWN AND LEAVE ROUGH.

◆ FINISH SURFACE NOT COVERED BY PARAPET SAME AS ROADWAY.

■ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

⊞ OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

▲ ¾" 'V' GROOVE ON F.F. OF WINGWALL. OMIT IF CONST. JOINT NOT USED.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

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STRUCTURE B-32-224

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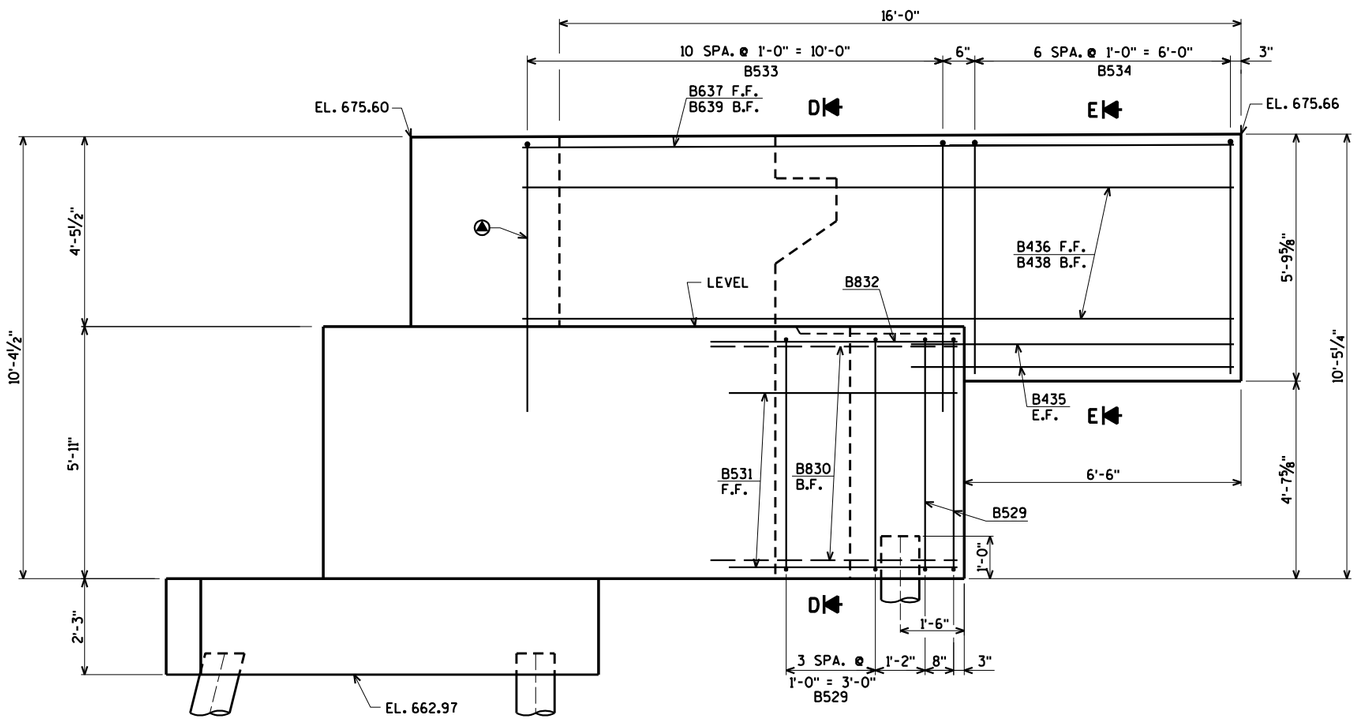
NORTH ABUTMENT WING 3 DETAILS

SHEET 12 OF 49
304

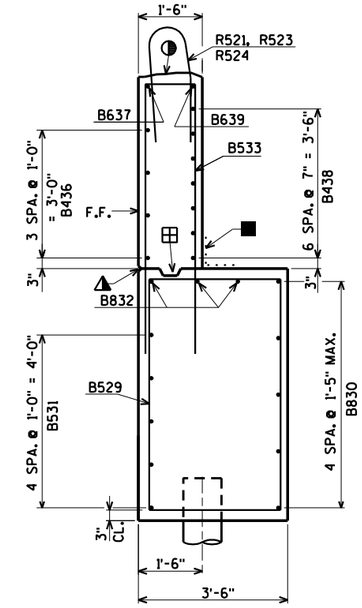
$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-224 STH 35 SB over BN RR\BRIDGE\FINAL STRUCTURE\B-32-224 na.dgn

$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-224 STH 35 SB over BN RR\BRIDGE\FINAL STRUCTURE\B-32-224 na.dgn

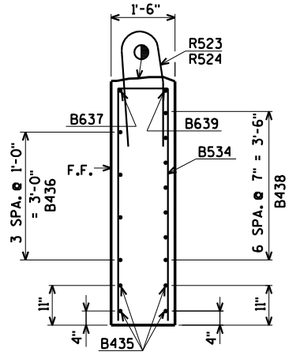
TURN B533 BAR AS NECESSARY TO FIT IN WING 4 NEAR FRONT FACE OF ABUTMENT BACKWALL.



ELEVATION WING 4



SECTION D



SECTION E

◑ CONST. JOINT - STRIKE OFF AS SHOWN.

■ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACK FACE OF ABUTMENT.

⊞ OPT. KEYED CONST. JOINT - FORMED
BY A BEVELED 2" x 6".

▲ ¾" 'V' GROOVE ON F.F. OF WINGWALL.
OMIT IF CONST. JOINT NOT USED.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

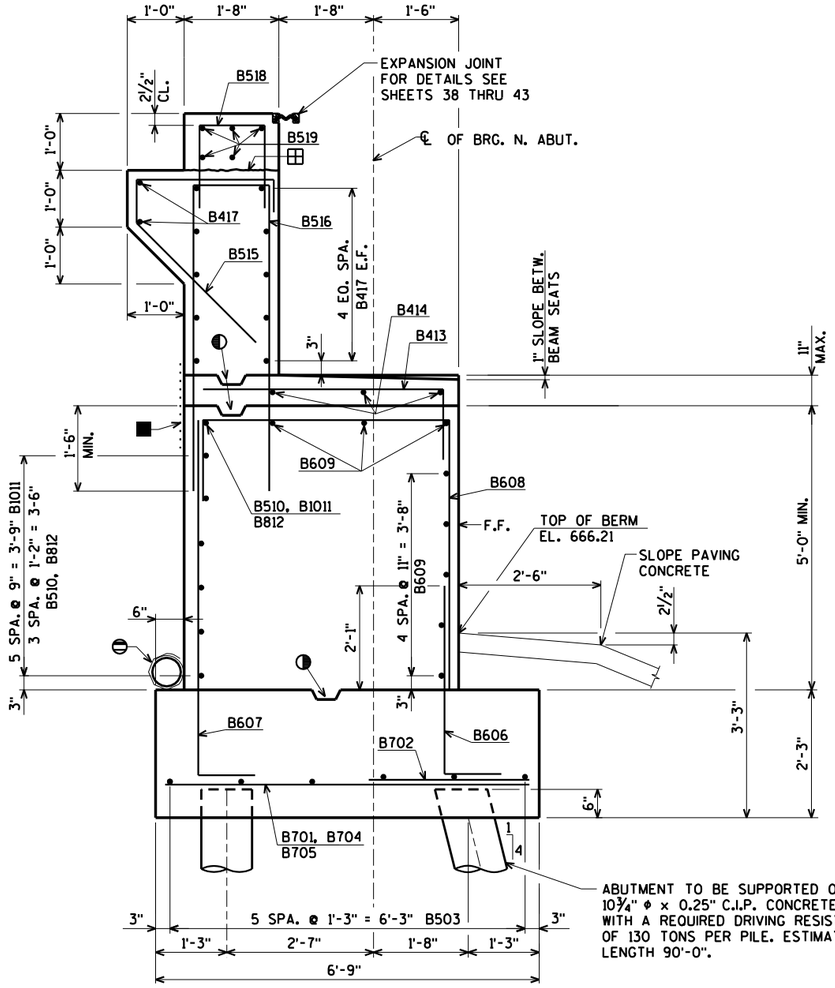
STRUCTURE B-32-224

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NORTH ABUTMENT
WING 4 DETAILS

SHEET 13 OF 49
305

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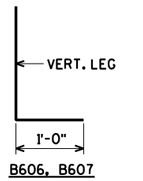


ABUTMENT TO BE SUPPORTED ON 10¾" Φ x 0.25" C.I.P. CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE. ESTIMATED LENGTH 90'-0".

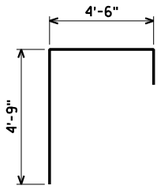
EXCAVATE OR FILL TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

TYPICAL SECTION THRU BODY SECTION A

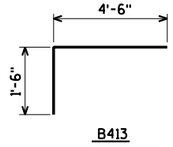
FOR LOCATION OF SECTION 'A' SEE SHEET 10



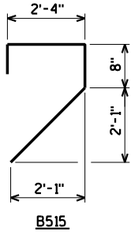
B606, B607



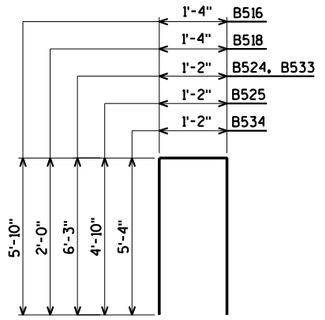
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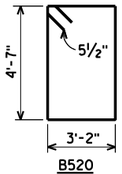


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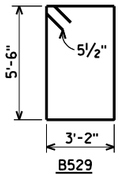


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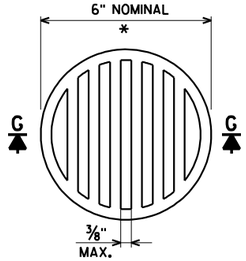


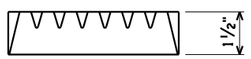


B520



B529





SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

RODENT SHIELD DETAIL

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	7,900# COATED 7,100# UNCOATED LOCATION
B701		51	6-5			FOOTING
B702		41	2-9			FOOTING
B503		12	43-7			FOOTING
B704		1	11-9			FOOTING
B705		1	9-2			FOOTING
B606		82	4-6	X		FOOTING DOWELS F.F.
B607		82	7-3	X		FOOTING DOWELS B.F.
B608		82	10-6	X		BODY VERT.
B609		16	43-3			BODY HORIZ.
B510		5	42-4			BODY HORIZ. B.F.
B1011		9	26-0			BODY HORIZ. B.F.
B812		5	16-0			BODY HORIZ. B.F.
B413		71	6-0	X		BODY VERT.
B414		6	27-3			BODY HORIZ.
B515	X	76	6-6	X		BACKWALL VERT.
B516	X	81	12-9	X		BACKWALL VERT.
B417	X	24	41-6			BACKWALL HORIZ.
B518	X	81	5-1	X		PAVING BLOCK VERT.
B519	X	60	8-0			PAVING BLOCK HORIZ.
B520	X	20	15-11	X		WING 3 VERT.
B921	X	9	24-0			WING 3 HORIZ. B.F.
B522	X	5	21-2			WING 3 HORIZ. F.F.
B923	X	3	24-0			WING 3 HORIZ. TOP
B524	X	20	13-5	X		WING 3 VERT.
B525	X	7	10-7	X		WING 3 VERT.
B426	X	2	7-9			WING 3 HORIZ. E.F.
B427	X	11	25-8			WING 3 HORIZ. E.F.
B628	X	2	25-8			WING 3 HORIZ. E.F.
B529	X	6	17-10	X		WING 4 VERT.
B830	X	5	7-3			WING 4 HORIZ. B.F.
B531	X	5	10-1			WING 4 HORIZ. F.F.
B632	X	3	7-3			WING 4 HORIZ. TOP
B533	X	11	13-5	X		WING 4 VERT.
B534	X	7	11-7	X		WING 4 VERT.
B435	X	4	7-9			WING 4 HORIZ. E.F.
B436	X	4	17-5			WING 4 HORIZ. F.F.
B637	X	1	17-5			WING 4 HORIZ. F.F.
B438	X	7	15-8			WING 4 HORIZ. B.F.
B639	X	1	15-8			WING 4 HORIZ. B.F.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

■ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE OF ABUTMENT.

◑ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

⊞ CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

FOR PILE SPLICE DETAIL SEE SHEET 2.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

DRAWN BY CLS | PLANS CK'D. JCK

NORTH ABUTMENT DETAILS AND BILL OF BARS

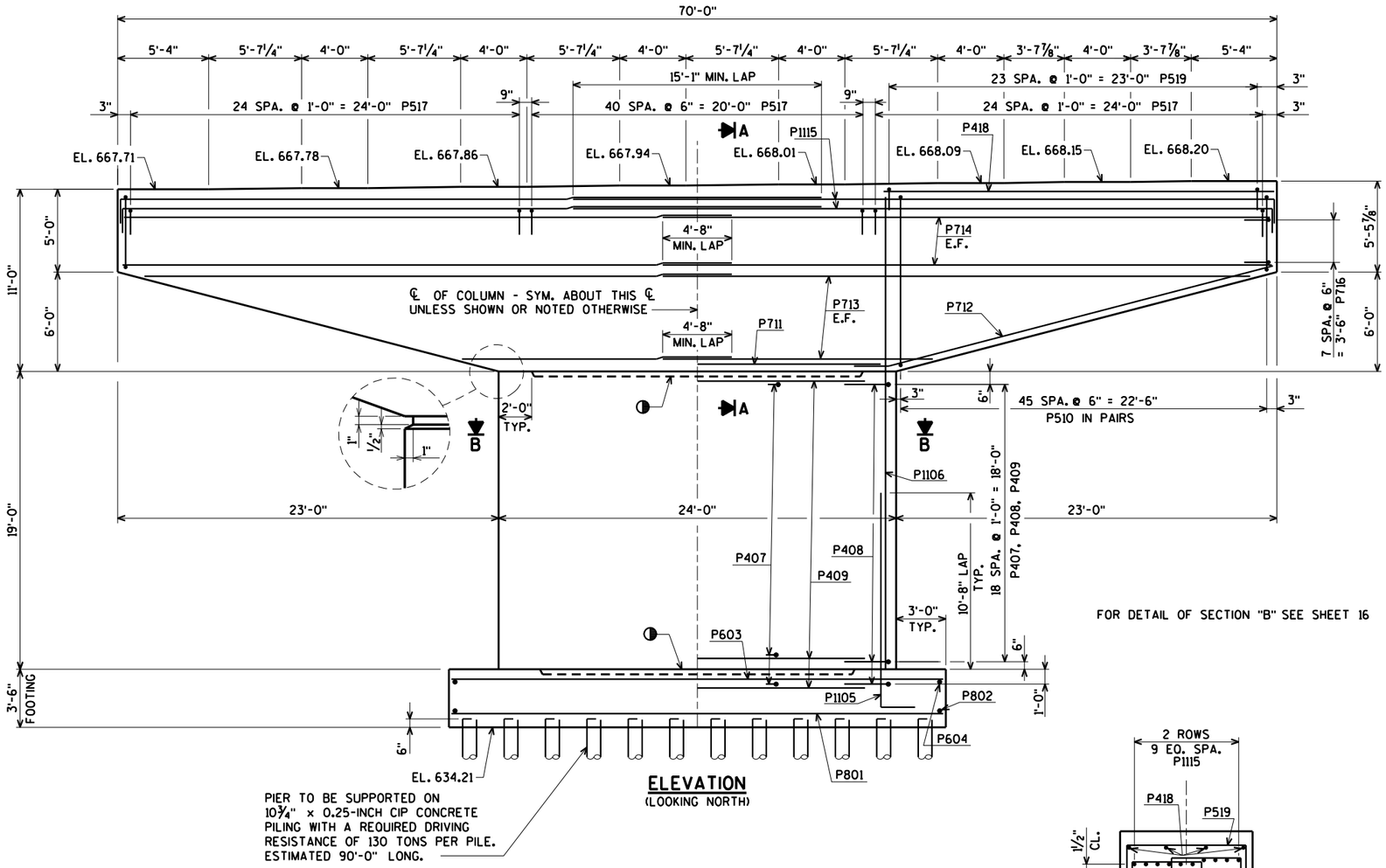
SHEET 14 OF 49
306

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$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-224 STH 35 SB over BN RR\BRIDGE\FINAL STRUCTURE\B-32-224 na.dgn

STATE PROJECT NUMBER

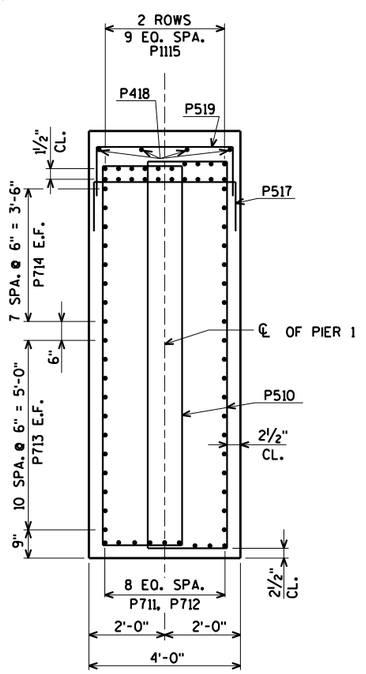
7190-03-71



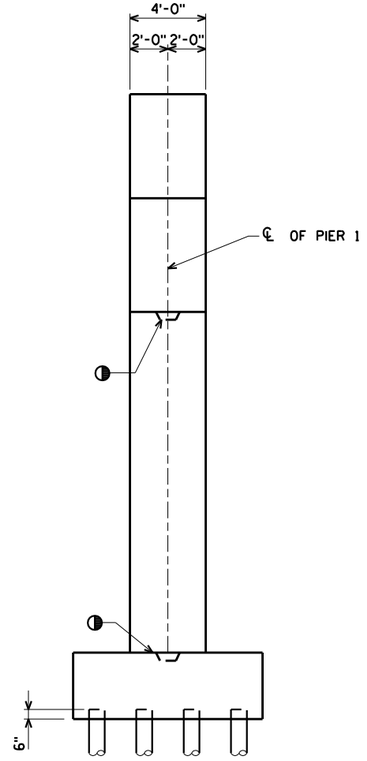
PIER TO BE SUPPORTED ON 10¾" x 0.25-INCH CIP CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE. ESTIMATED 90'-0" LONG.

ELEVATION
(LOOKING NORTH)

FOR DETAIL OF SECTION "B" SEE SHEET 16



SECTION A



END VIEW
(LOOKING WEST)

◑ KEYED CONST. JOINT FORMED BY A SURFACED BEVELED KEYWAY 4" DEEP x 10" WIDE x 20'-0" LONG

FOR PILE SPLICE DETAIL SEE SHEET 2

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

DRAWN BY JCK/CLS | PLANS CK'D. JCK

PIER 1

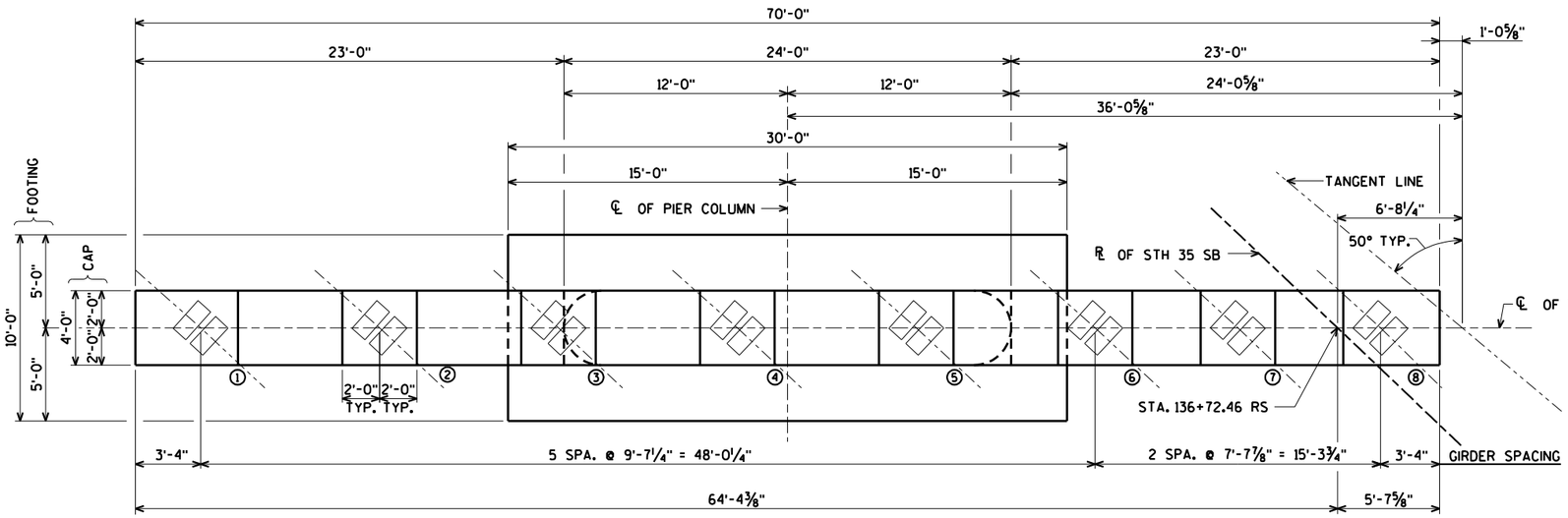
SHEET 15 OF 49
307

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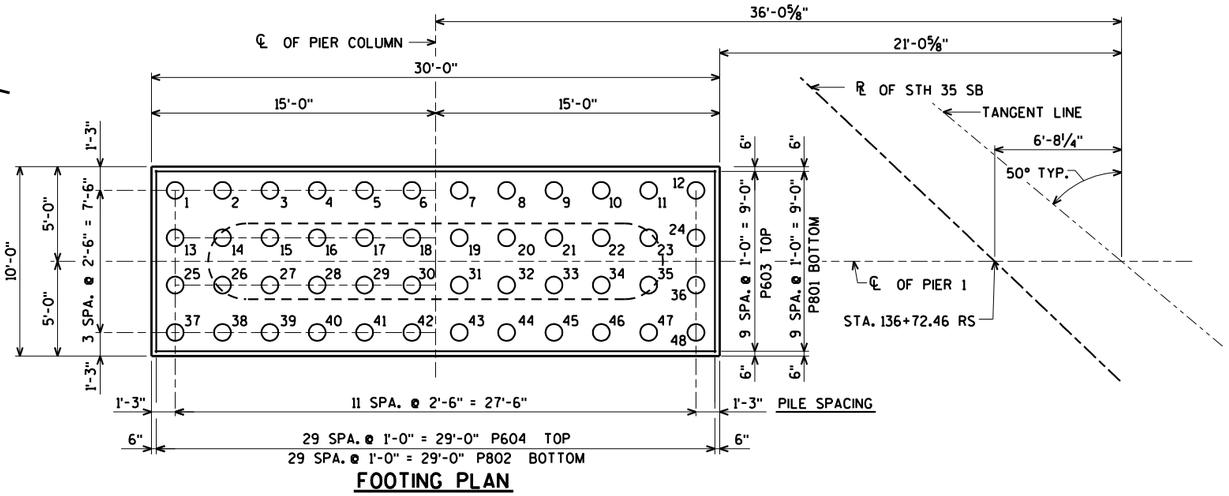
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8

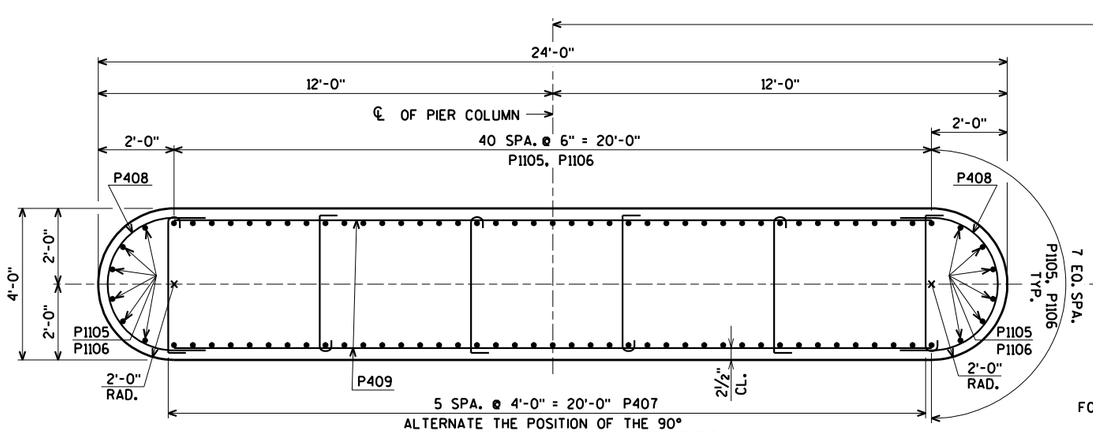
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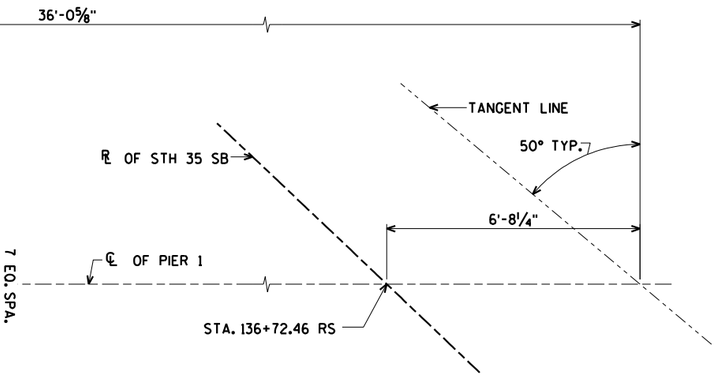
PLAN



FOOTING PLAN



SECTION B



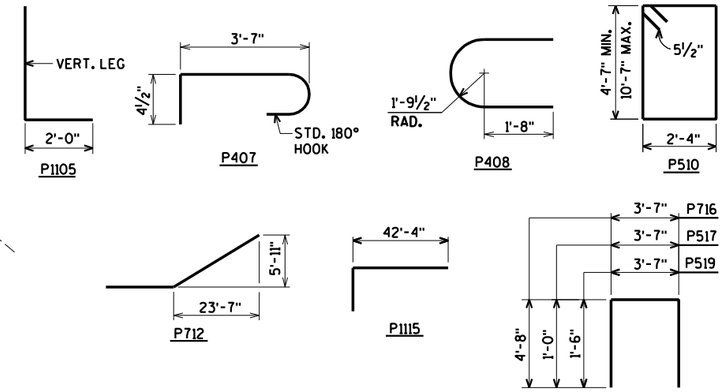
FOR LOCATION OF SECTION "B" SEE SHEET 15

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	44,020# COATED 2,420# UNCOATED LOCATION
P801		10	29-6			FOOTING BOT.
P802		30	9-6			FOOTING BOT.
P603		10	29-6			FOOTING TOP
P604		30	9-6			FOOTING TOP
P1105	X	94	15-2	X		FOOTING DOWELS
P1106	X	94	29-8			COLUMN VERT.
P407	X	120	4-6	X		COLUMN & FOOTING TIES
P408	X	40	9-0	X		COLUMN & FOOTING HORIZ.
P409	X	40	20-0			COLUMN & FOOTING HORIZ.
P510	X	184	20-3	X	⊗	CAP STIRRUPS VERT.
P711	X	9	23-11			CAP BOTTOM
P712	X	18	24-7	X		CAP BOTTOM
P713	X	44	26-0		⊗	CAP HORIZ.
P714	X	32	37-2			CAP HORIZ.
P1115	X	40	44-0	X		CAP TOP HORIZ.
P716	X	16	12-7	X		CAP ENDS
P517	X	91	5-4	X		CAP TOP VERT.
P418	X	4	23-7			CAP TOP HORIZ.
P519	X	24	6-4	X		CAP TOP VERT.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
P510	4 SERIES OF 46	14'-3" TO 26'-3"
P713	4 SERIES OF 11	16'-5" TO 35'-7"

BUNDLE AND TAG EACH SERIES SEPARATELY.

FOR PILE SPLICE DETAIL SEE SHEET 2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

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PIER 1 DETAILS

SHEET 16 OF 49
308

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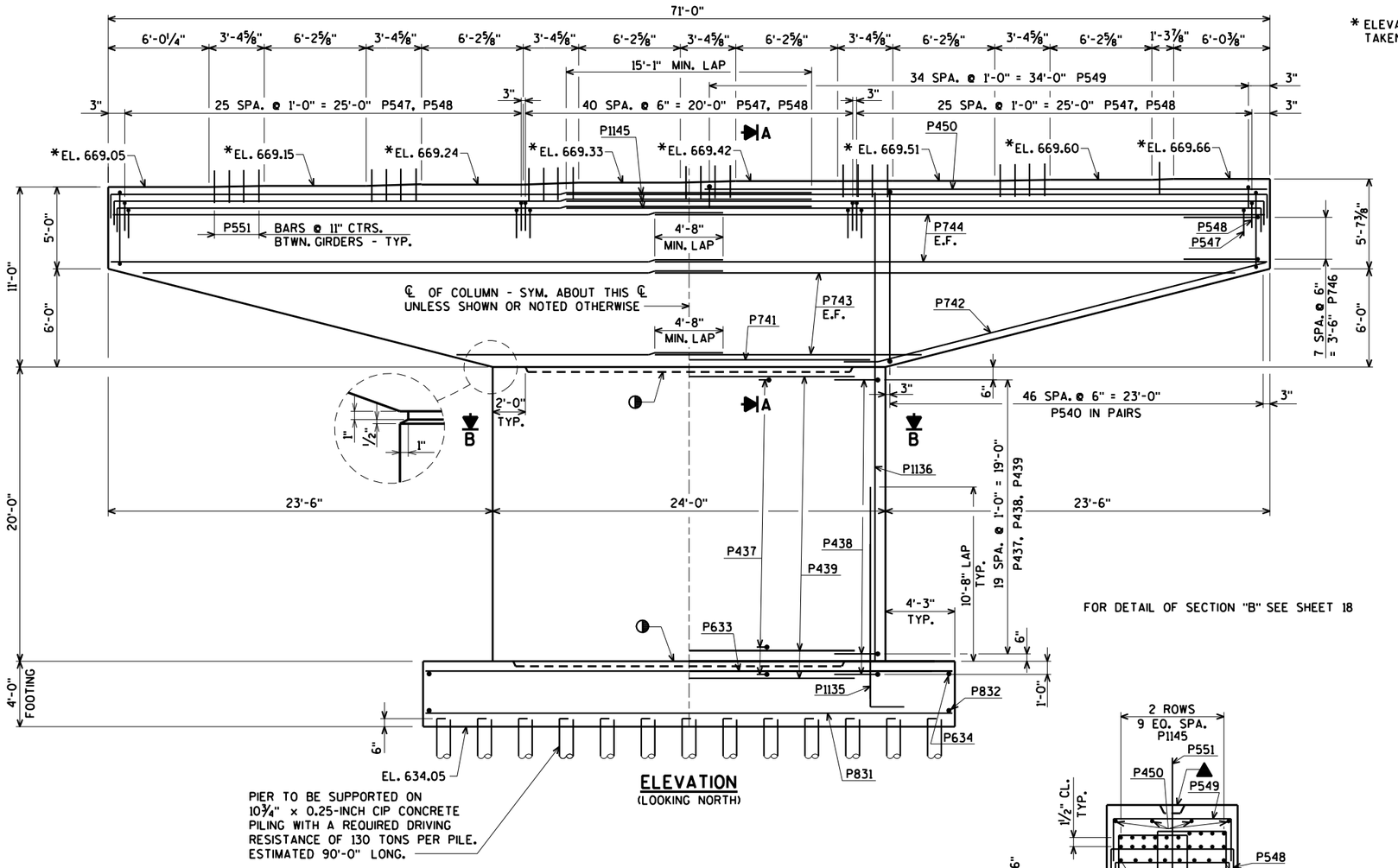
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U:\41-0627.00 - LaCrosse County, IH90±B-32-224 STH 35 SB over BN RR±BRIDGE±FINAL STRUCTURE±B-32-224 PIER 1.DGN

$PRFNAME$
U:±41-0627.00 - LaCrosse County, IH90±B-32-224 STH 35 SB over BN RR±BRIDGE±FINAL STRUCTURE±B-32-224 PIER 2.dgn

STATE PROJECT NUMBER

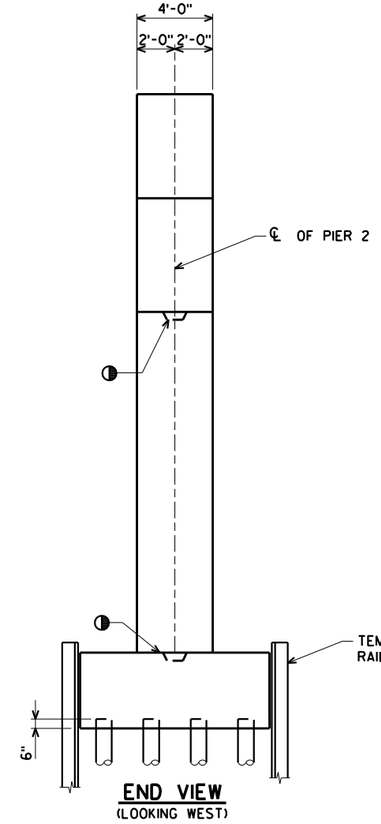
7190-03-71

* ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF PIER

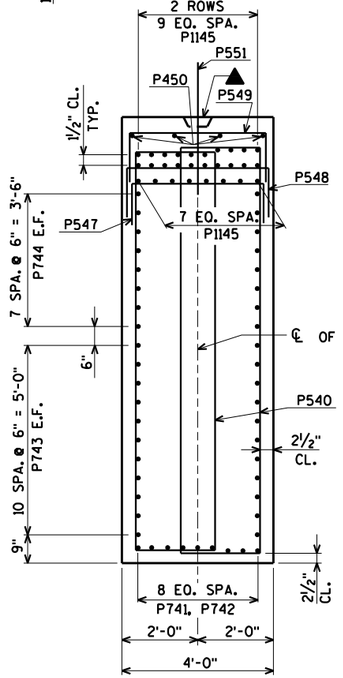


ELEVATION
(LOOKING NORTH)

FOR DETAIL OF SECTION "B" SEE SHEET 18



END VIEW
(LOOKING WEST)



SECTION A

P551 BARS MAY BE PLACED AFTER PIER CAP IS POURED BUT BEFORE CONCRETE HAS SET. IMBED BARS 1'-0".

▲ KEYED CONSTRUCTION JOINT FORMED BY A SURFACED BEVELED 2" x 6".

◑ KEYED CONST. JOINT FORMED BY A SURFACED BEVELED KEYWAY 4" DEEP x 10" WIDE x 20'-0" LONG

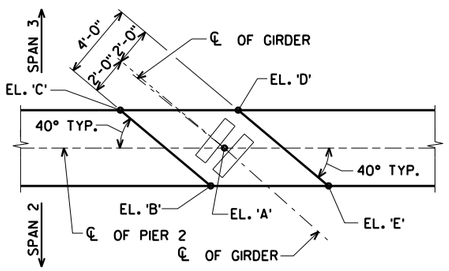
FOR PILE SPLICE DETAIL SEE SHEET 2

E.F. DENOTES EACH FACE.

BEAM SEAT ELEVATIONS FOR PIER 2

GIRDER	EL. 'A'	EL. 'B'	EL. 'C'	EL. 'D'	EL. 'E'
1	669.05	669.07⊖	669.11⊖	669.07	669.00
2	669.15	669.14	669.23	669.16	669.09
3	669.24	669.23	669.32	669.25	669.18
4	669.33	669.32	669.42	669.34	669.27
5	669.42	669.41	669.51	669.43	669.36
6	669.51	669.50	669.60	669.52	669.45
7	669.60	669.59	669.69	669.61	669.54
8	669.66	669.66	669.76	669.64⊖	669.62⊖

⊖ ELEVATIONS AT CORNER OF PIER



SLOPING BEAM SEAT DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

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PIER 2

SHEET 17 OF 49
309

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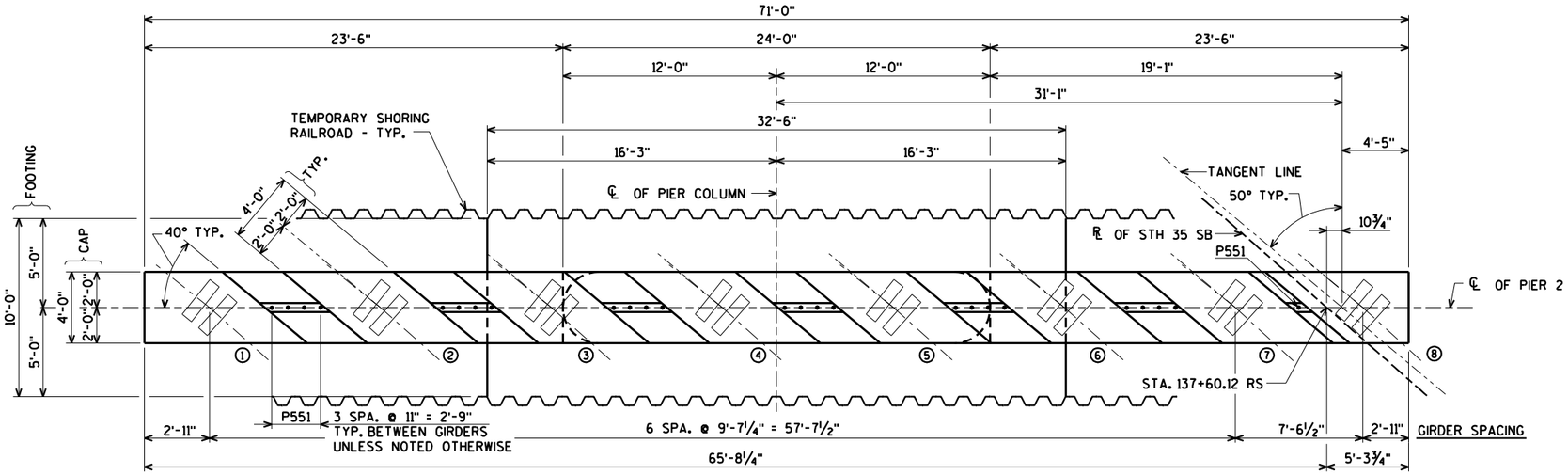
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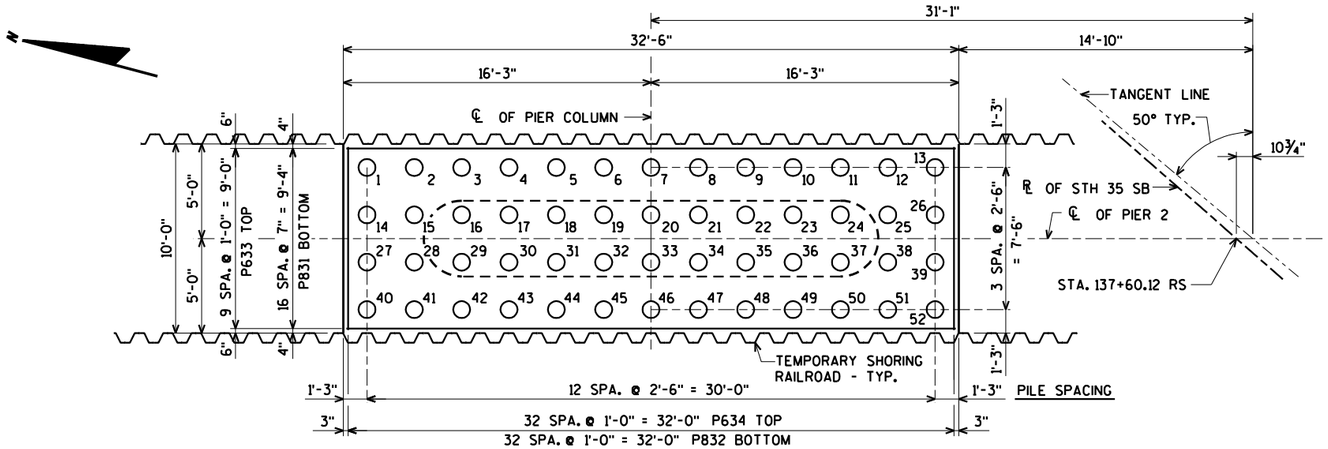
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STATE PROJECT NUMBER

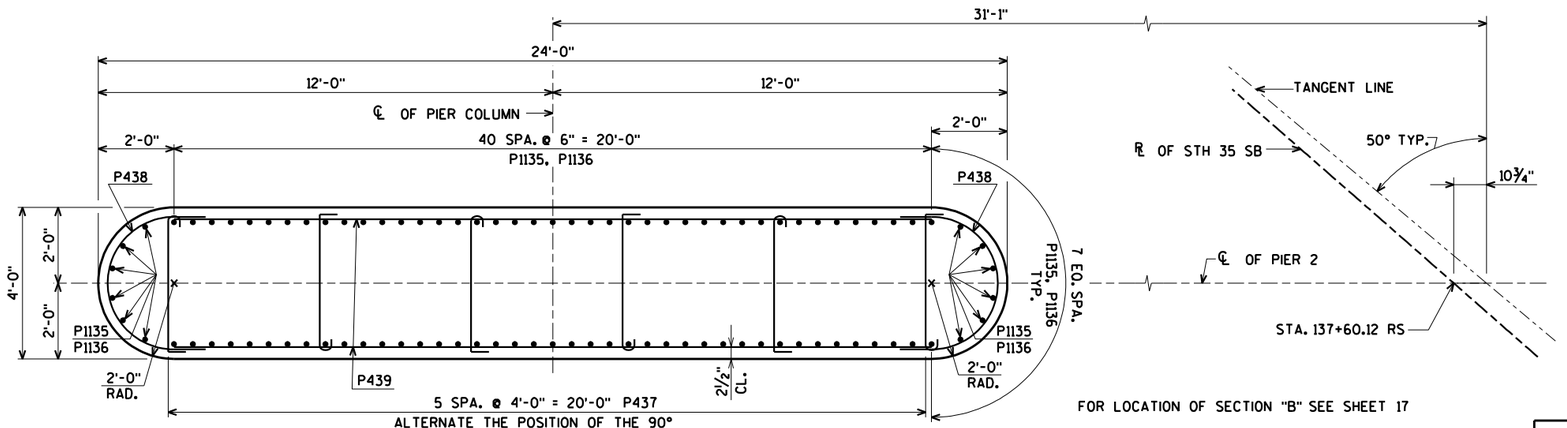
7190-03-71



PLAN



FOOTING PLAN



SECTION B

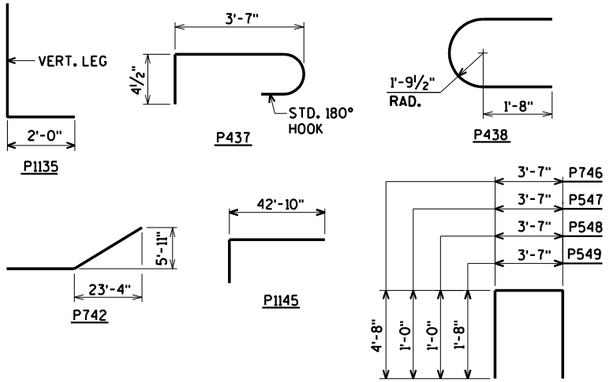
FOR LOCATION OF SECTION "B" SEE SHEET 17

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	49,580# COATED 3,240# UNCOATED LOCATION
P831		17	32-0			FOOTING BOT.
P832		33	9-6			FOOTING BOT.
P633		10	32-0			FOOTING TOP
P634		33	9-6			FOOTING TOP
P1135	X	94	15-8	X		FOOTING DOWELS
P1136	X	94	30-8			COLUMN VERT.
P437	X	126	4-6	X		COLUMN & FOOTING TIES
P438	X	42	9-0	X		COLUMN & FOOTING HORIZ.
P439	X	42	20-0			COLUMN & FOOTING HORIZ.
P540	X	188	20-3	X	⊗	CAP STIRRUPS VERT.
P741	X	9	23-11			CAP BOTTOM
P742	X	18	25-1	X		CAP BOTTOM
P743	X	44	26-4		⊗	CAP HORIZ.
P744	X	32	37-8			CAP HORIZ.
P1145	X	56	44-6	X		CAP TOP HORIZ.
P746	X	16	12-7	X		CAP ENDS
P547	X	93	5-4	X		CAP TOP VERT.
P548	X	93	5-4	X		CAP TOP VERT.
P549	X	35	6-8	X		CAP TOP VERT.
P450	X	4	35-4			CAP TOP HORIZ.
P551	X	25	2-0			CAP DOWELS

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
P540	4 SERIES OF 47	14'-3" TO 26'-3"
P743	4 SERIES OF 11	16'-6" TO 36'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

FOR PILE SPLICE DETAIL SEE SHEET 2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

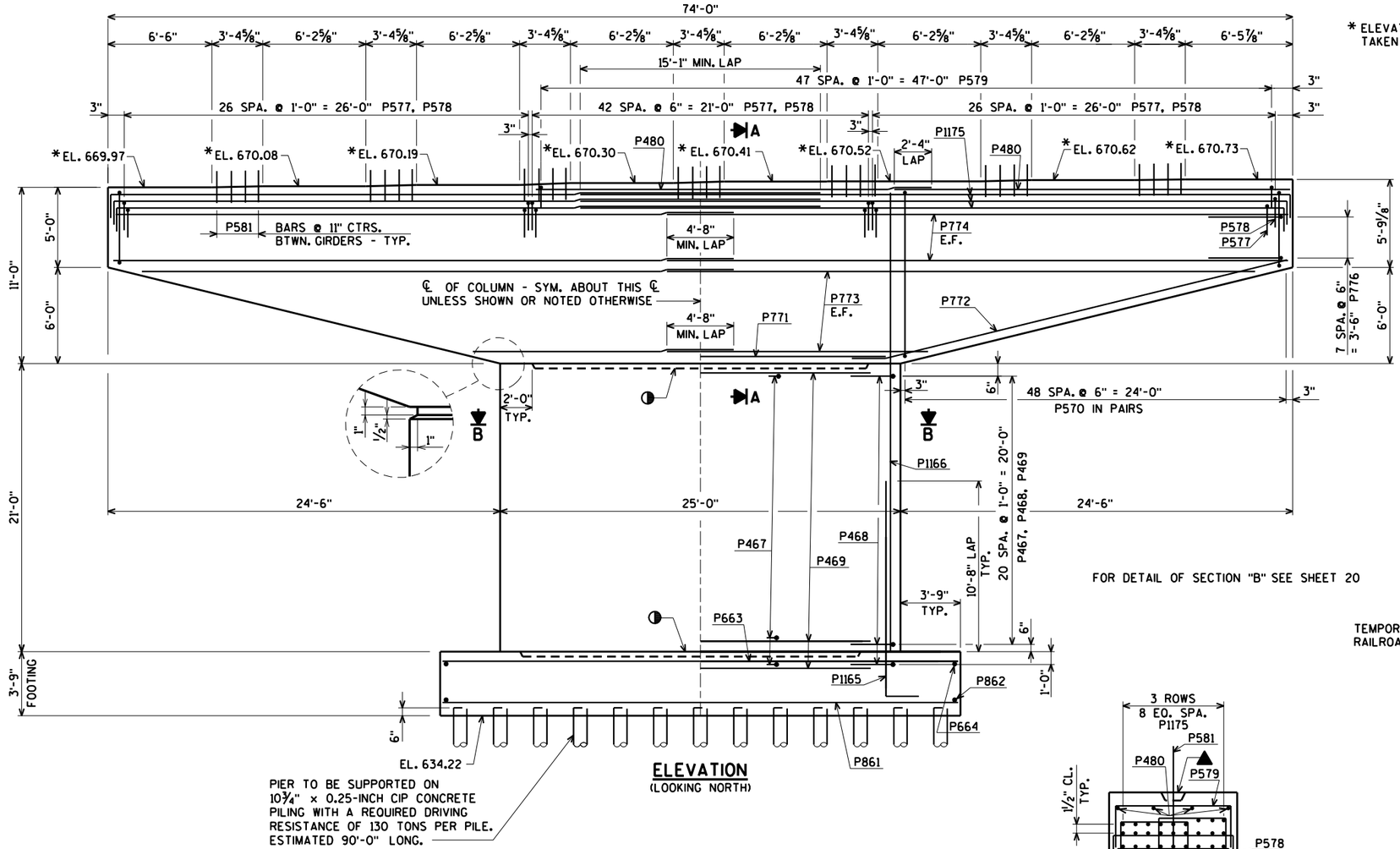
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PIER 2 DETAILS

SHEET 18 OF 49
310

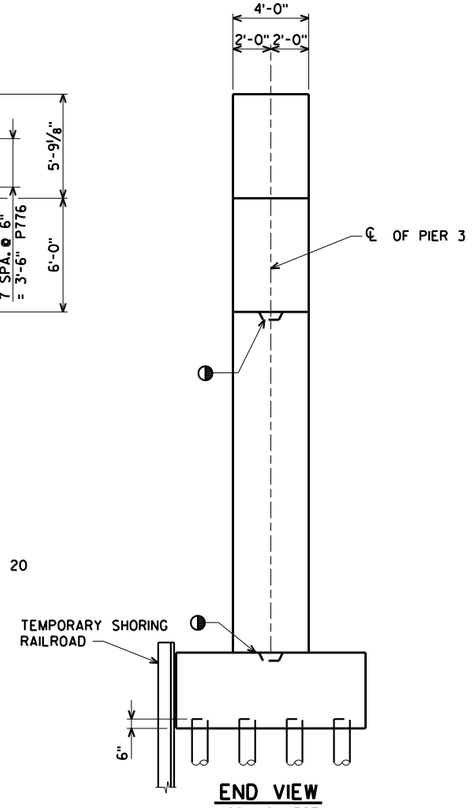
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* ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF PIER

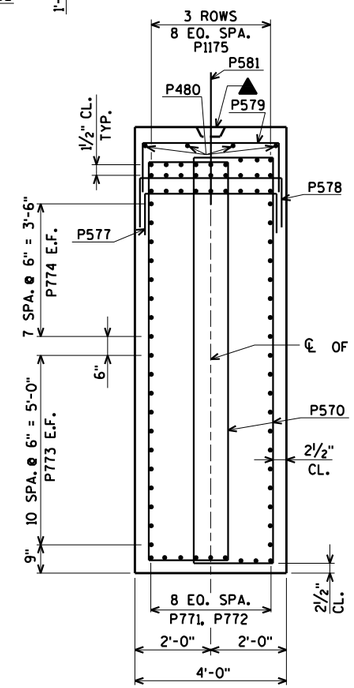


ELEVATION
(LOOKING NORTH)

FOR DETAIL OF SECTION "B" SEE SHEET 20



END VIEW
(LOOKING WEST)



SECTION A

P581 BARS MAY BE PLACED AFTER PIER CAP IS POURED BUT BEFORE CONCRETE HAS SET. IMBED BARS 1'-0".

▲ KEYED CONSTRUCTION JOINT FORMED BY A SURFACED BEVELED 2" x 6".

◑ KEYED CONST. JOINT FORMED BY A SURFACED BEVELED KEYWAY 4" DEEP x 10" WIDE x 21'-0" LONG

FOR PILE SPLICE DETAIL SEE SHEET 2

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

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PIER 3

SHEET 19 OF 49
311

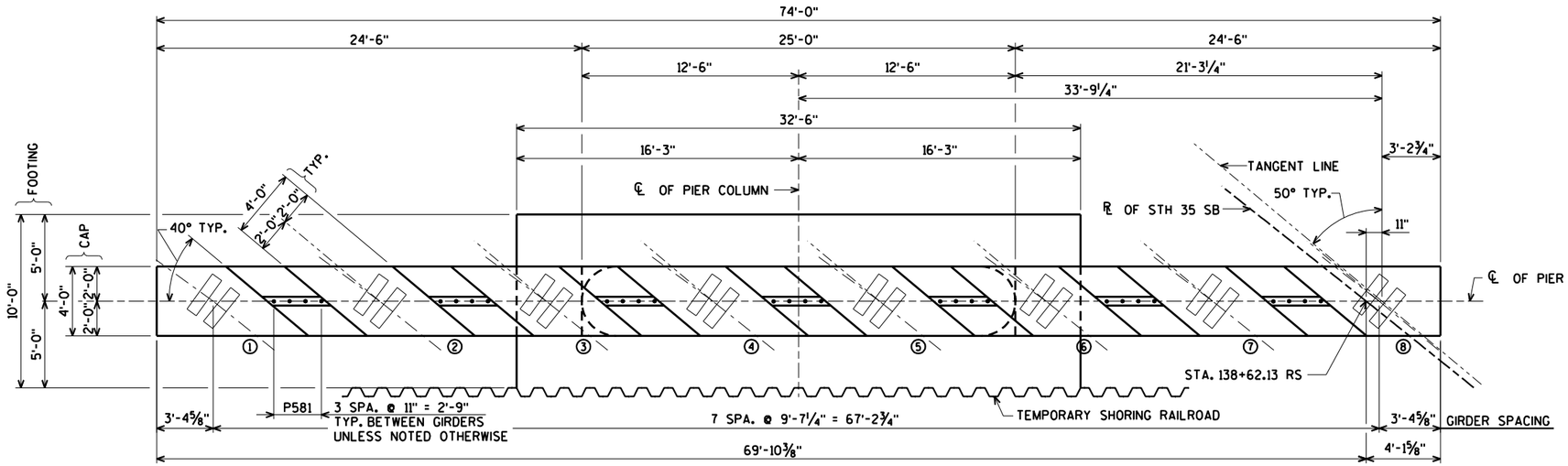
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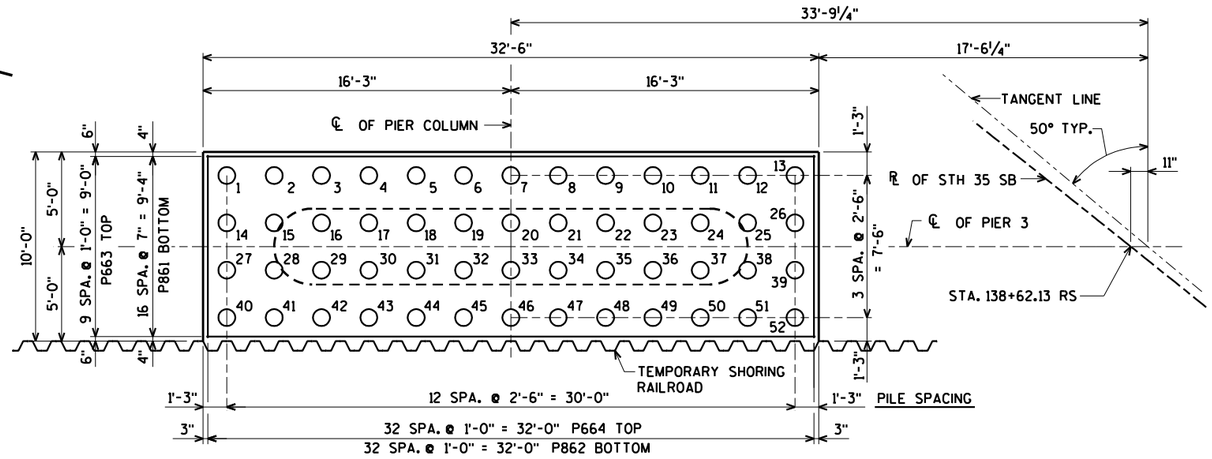
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STATE PROJECT NUMBER

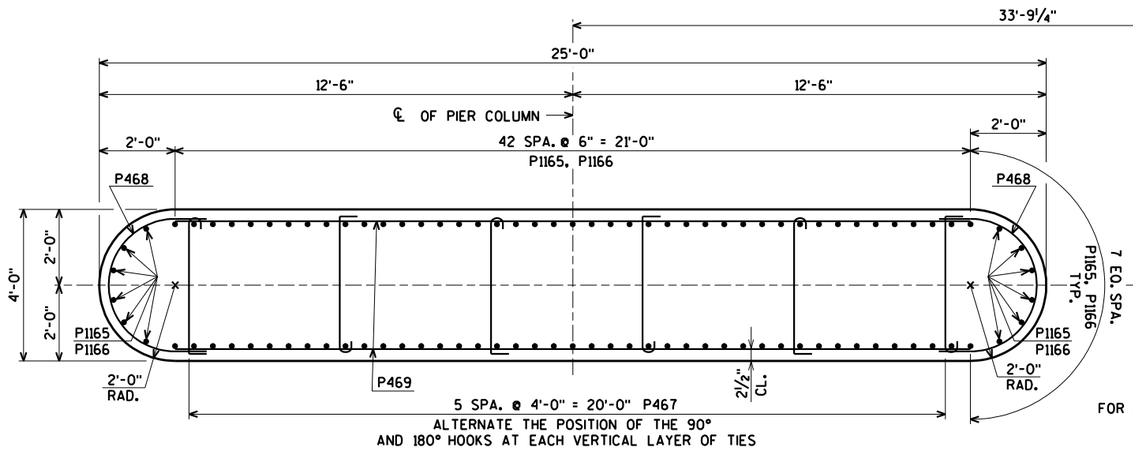
7190-03-71



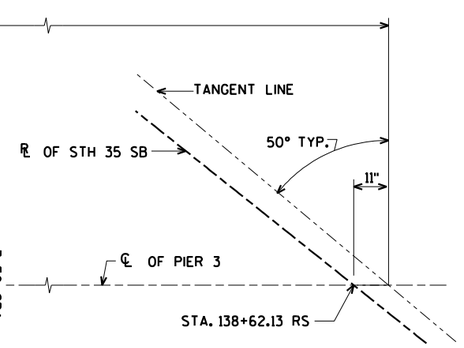
PLAN



FOOTING PLAN



SECTION B



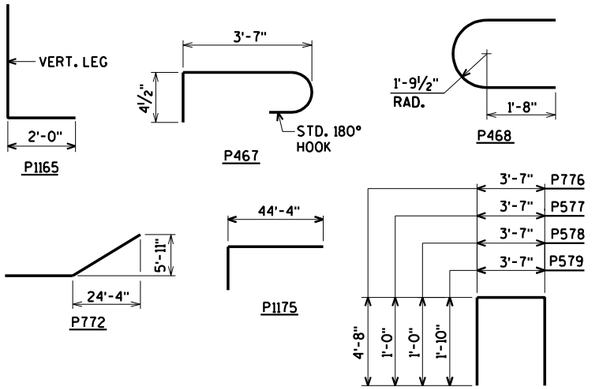
FOR LOCATION OF SECTION "B" SEE SHEET 19

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	51,020# COATED 3,240# UNCOATED LOCATION
P861		17	32-0			FOOTING BOT.
P862		33	9-6			FOOTING BOT.
P663		10	32-0			FOOTING TOP
P664		33	9-6			FOOTING TOP
P1165	X	98	15-5	X		FOOTING DOWELS
P1166	X	98	31-8			COLUMN VERT.
P467	X	132	4-6	X		COLUMN & FOOTING TIES
P468	X	44	9-0	X		COLUMN & FOOTING HORIZ.
P469	X	44	21-0			COLUMN & FOOTING HORIZ.
P570	X	196	20-3	X	⊗	CAP STIRRUPS VERT.
P771	X	9	24-11			CAP BOTTOM
P772	X	18	26-0	X		CAP BOTTOM
P773	X	44	27-3		⊗	CAP HORIZ.
P774	X	32	39-2			CAP HORIZ.
P1175	X	54	44-0	X		CAP TOP HORIZ.
P776	X	16	12-8	X		CAP ENDS
P577	X	97	5-4	X		CAP TOP VERT.
P578	X	97	5-4	X		CAP TOP VERT.
P579	X	48	7-0	X		CAP TOP VERT.
P480	X	8	24-11			CAP TOP HORIZ.
P581	X	28	2-0			CAP DOWELS

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
P570	4 SERIES OF 49	14'-3" TO 26'-3"
P773	4 SERIES OF 11	17'-0" TO 37'-6"

BUNDLE AND TAG EACH SERIES SEPARATELY.

FOR PILE SPLICE DETAIL SEE SHEET 2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

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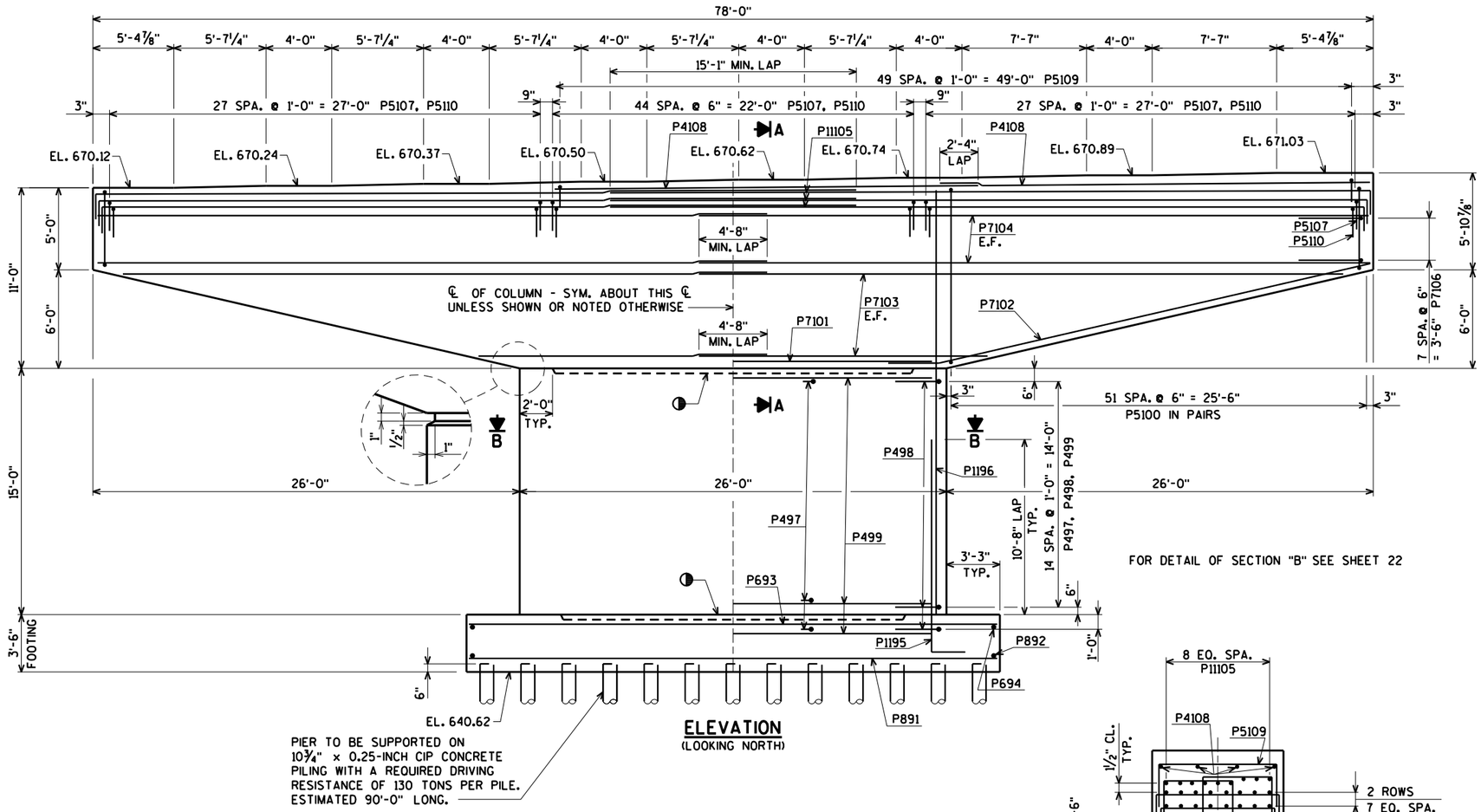
PIER 3 DETAILS

SHEET 20 OF 49
312

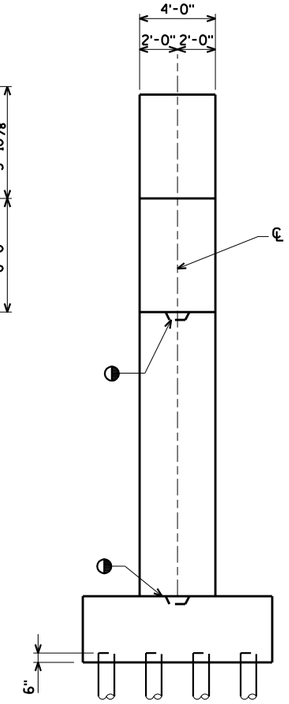
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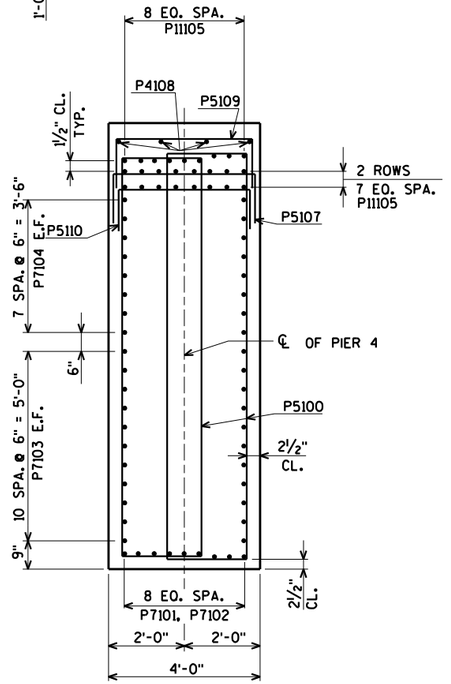
7190-03-71



ELEVATION
(LOOKING NORTH)



END VIEW
(LOOKING WEST)



SECTION A

◑ KEYED CONST. JOINT FORMED BY A SURFACED BEVELED KEYWAY 4" DEEP x 10" WIDE x 22'-0" LONG

FOR PILE SPLICE DETAIL SEE SHEET 2

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

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PIER 4

SHEET 21 OF 49
313

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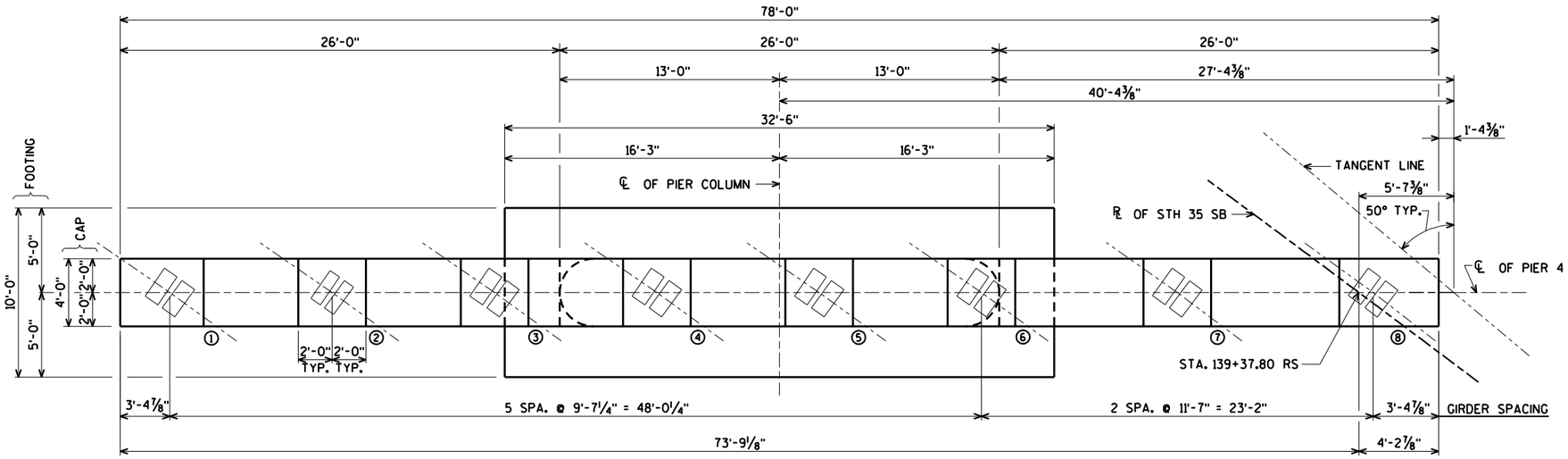
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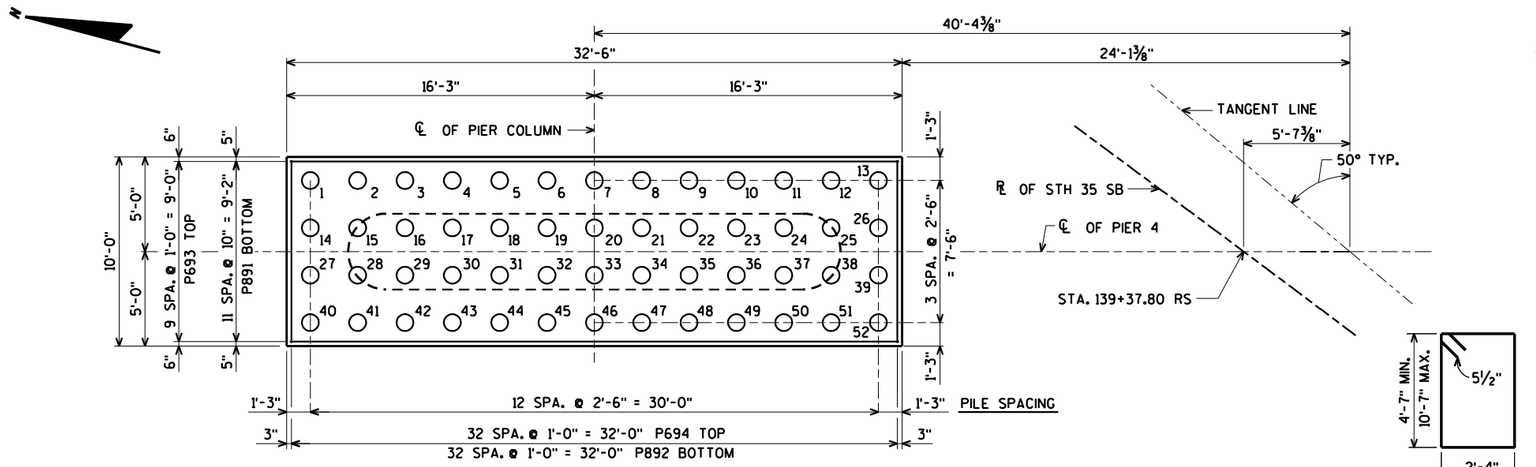
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STATE PROJECT NUMBER

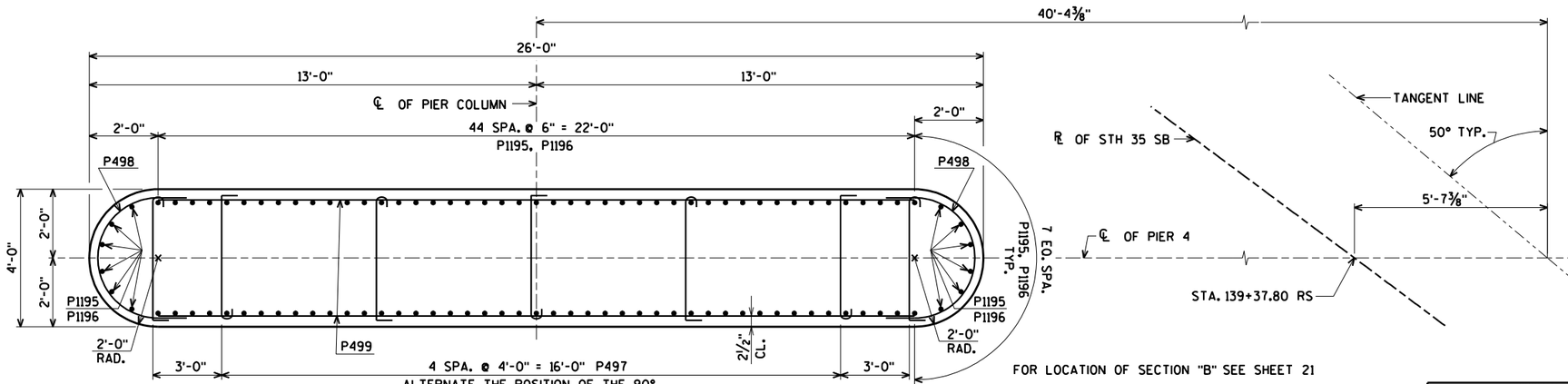
7190-03-71



PLAN



FOOTING PLAN



SECTION B

FOR LOCATION OF SECTION "B" SEE SHEET 21

BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	48.640# COATED 2.810# UNCOATED LOCATION
P891		12	32-0			FOOTING BOT.
P892		33	9-6			FOOTING BOT.
P693		10	32-0			FOOTING TOP
P694		33	9-6			FOOTING TOP
P1195	X	102	15-2	X		FOOTING DOWELS
P1196	X	102	25-8			COLUMN VERT.
P497	X	112	4-6	X		COLUMN & FOOTING TIES
P498	X	32	9-0	X		COLUMN & FOOTING HORIZ.
P499	X	32	22-0			COLUMN & FOOTING HORIZ.
P5100	X	208	20-3	X	⊗	CAP STIRRUPS VERT.
P7101	X	9	25-11			CAP BOTTOM
P7102	X	18	27-6	X		CAP BOTTOM
P7103	X	44	28-6		⊗	CAP HORIZ.
P7104	X	32	41-2			CAP HORIZ.
P11105	X	50	46-4	X		CAP TOP HORIZ.
P7106	X	16	12-8	X		CAP ENDS
P5107	X	101	5-4	X		CAP TOP VERT.
P4108	X	8	28-0			CAP TOP HORIZ.
P5109	X	50	7-2	X		CAP TOP VERT.
P5110	X	101	5-4	X		CAP TOP VERT.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
P5100	4 SERIES OF 52	14'-3" TO 26'-3"
P7103	4 SERIES OF 11	17'-8" TO 39'-4"

BUNDLE AND TAG EACH SERIES SEPARATELY.

FOR PILE SPLICE DETAIL SEE SHEET 2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

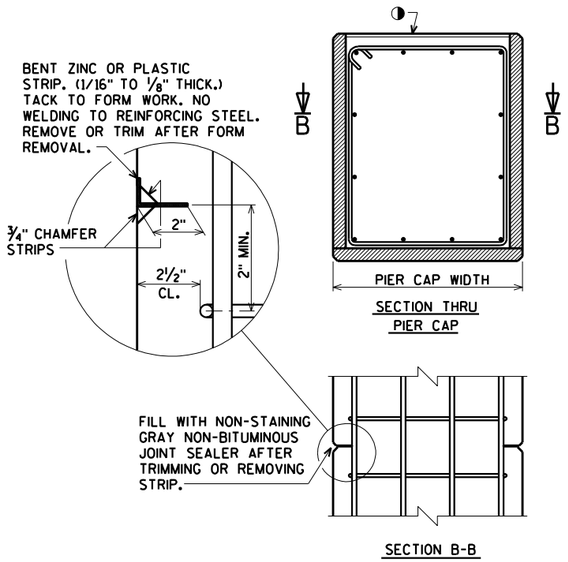
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PIER 4 DETAILS

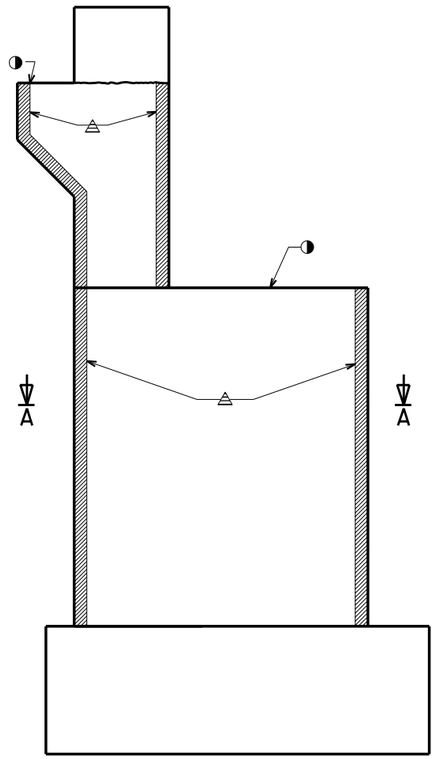
SHEET 22 OF 49
314

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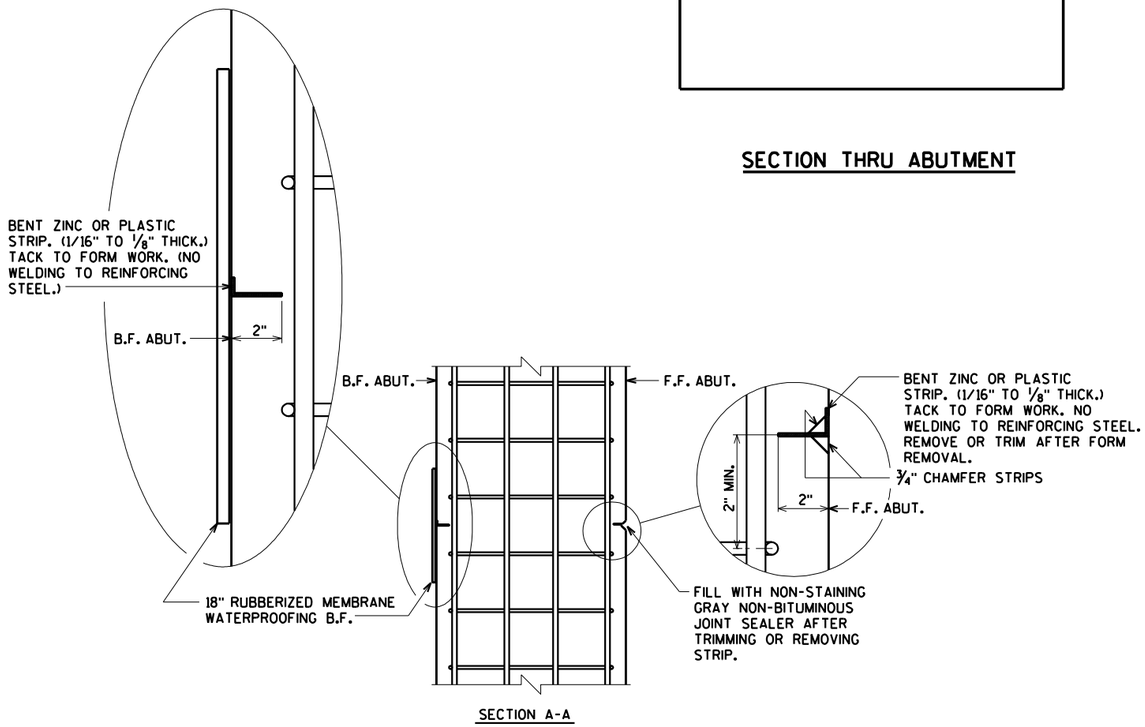
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ALTERNATE CONSTRUCTION JOINT AT PIER CAP



SECTION THRU ABUTMENT



ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

△ BENT ZINC OR PLASTIC STRIP.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

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ALTERNATE CONSTRUCTION JOINT

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315

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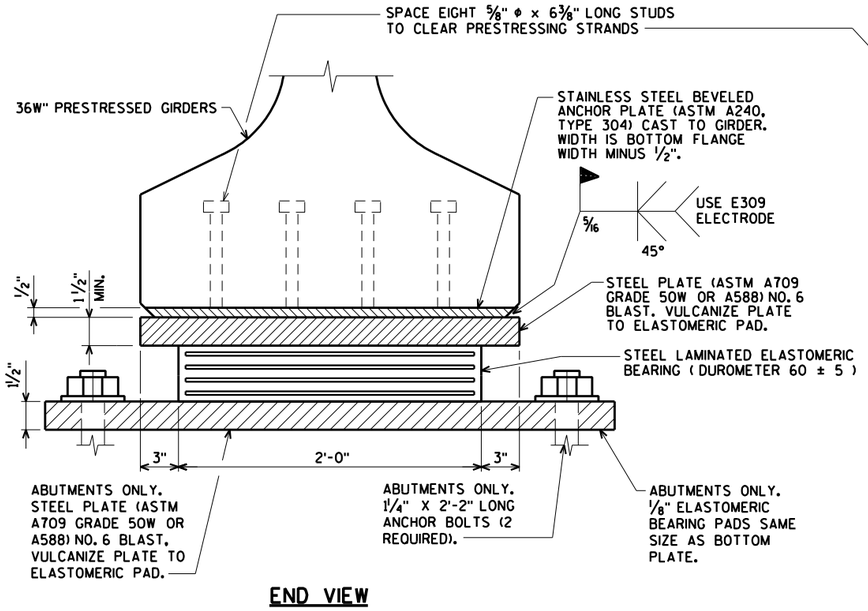
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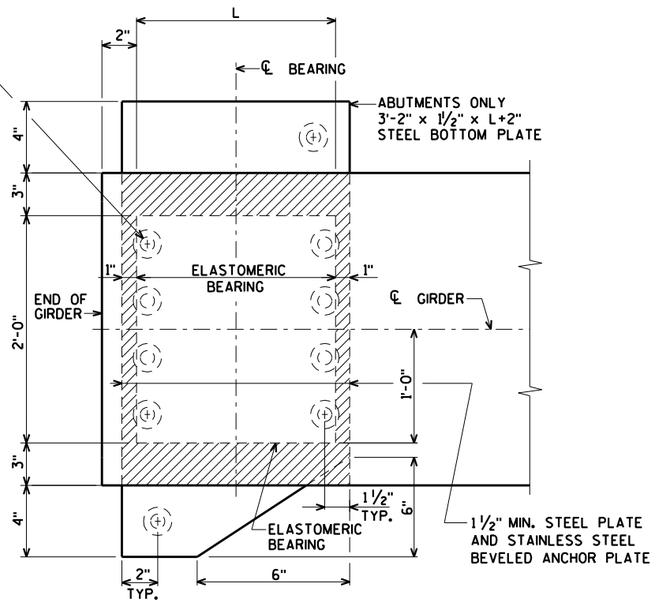
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STATE PROJECT NUMBER

7190-03-71

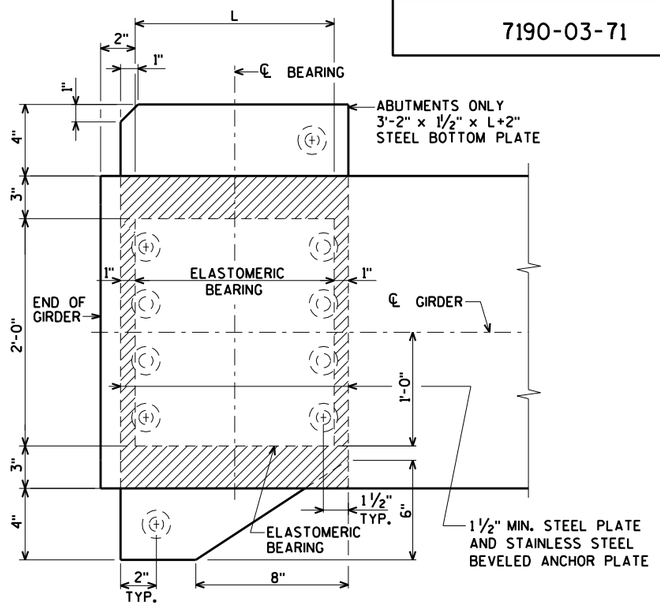


END VIEW



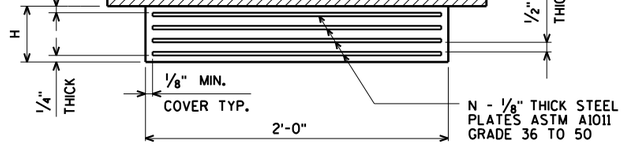
PLAN VIEW

SOUTH ABUTMENT



PLAN VIEW

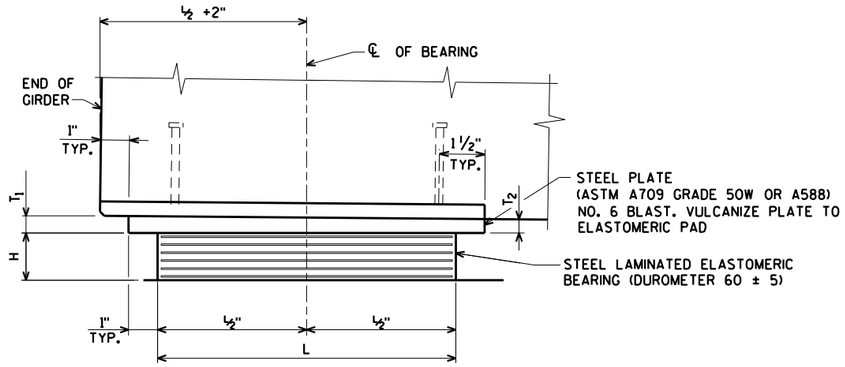
NORTH ABUTMENT



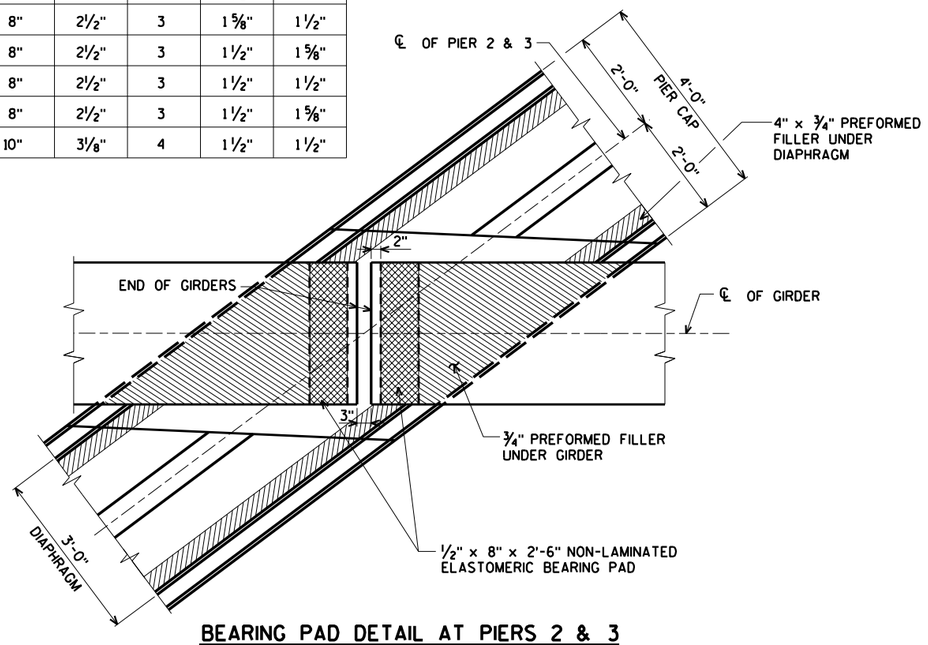
SECTION THRU ELASTOMERIC BEARING

ELASTOMERIC LAMINATED BEARING PAD TABLE

LOCATION	L	H	N	T_1	T_2
S. ABUT	1'-0"	3 3/4"	5	1 1/2"	1 3/4"
PIER 1 SPAN 1	8"	2 1/2"	3	1 5/8"	1 1/2"
PIER 1 SPAN 2	8"	2 1/2"	3	1 1/2"	1 5/8"
PIER 4 SPAN 4	8"	2 1/2"	3	1 1/2"	1 1/2"
PIER 4 SPAN 5	8"	2 1/2"	3	1 1/2"	1 5/8"
N. ABUT.	10"	3 1/8"	4	1 1/2"	1 1/2"



SIDE VIEW



BEARING PAD DETAIL AT PIERS 2 & 3

BEARING NOTES

BEARING PADS ELASTOMERIC LAMINATED SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85° F.

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. PROJECT ANCHOR BOLTS 2 1/4" ABOVE TOP OF ANCHOR PLATE.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQULIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C. ALL PLATES SHALL BE SHOP PAINTED AFTER BEARING FABRICATION.

‡ DRILLED HOLES FOR ANCHOR BOLTS IN BOTTOM PLATE SHALL HAVE A DIAMETER 3/8" LARGER THAN ANCHOR BOLT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

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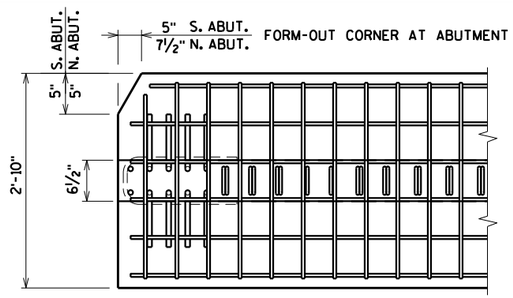
BEARING DETAILS

SHEET 24 OF 49
316

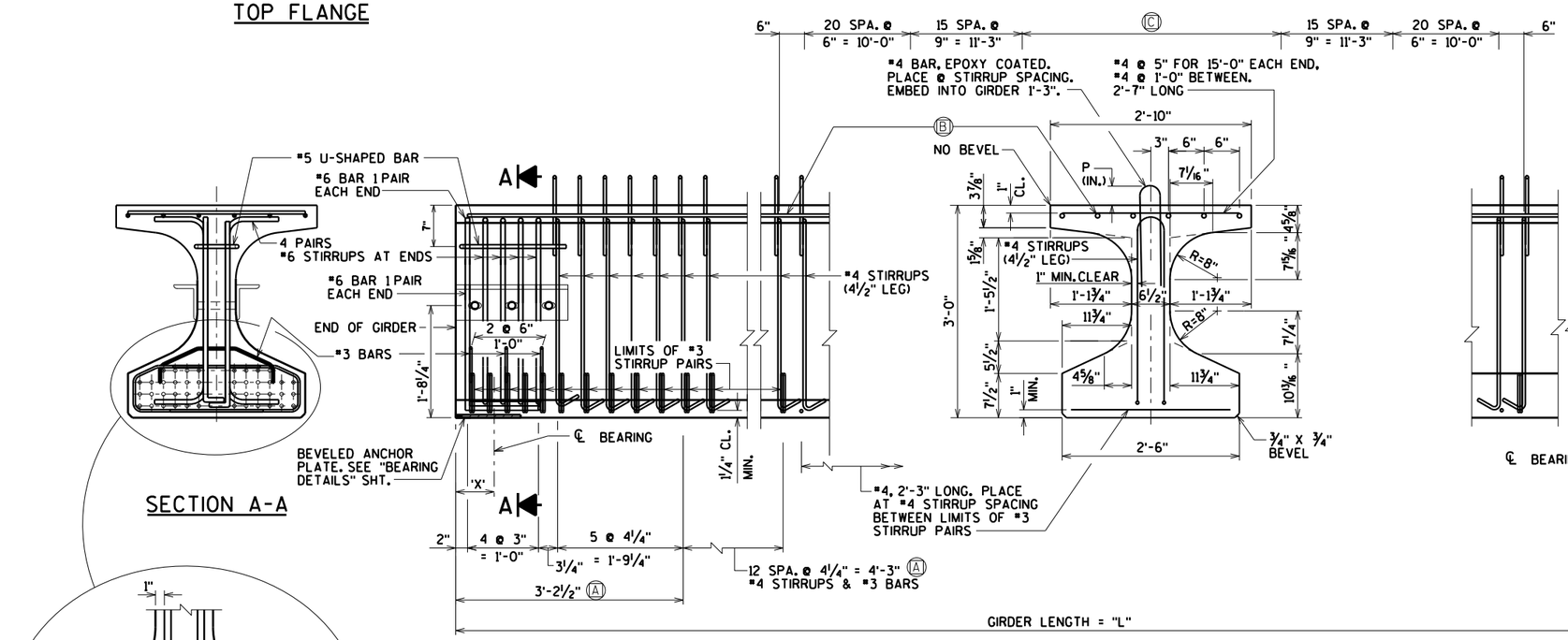
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7190-03-71



TOP FLANGE

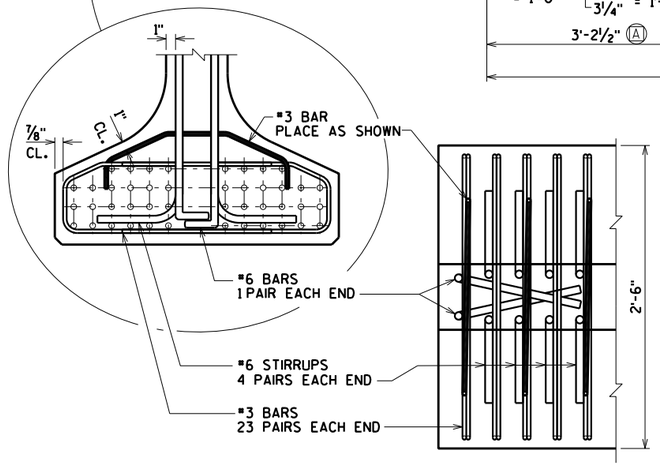


SECTION A-A

SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-4"



BOTTOM FLANGE

DETAIL A

DIMENSION 'X' TABLE	
LOCATION	'X' DIMENSION
S. ABUT.	8"
N. ABUT.	7"

STIRRUP SPACING Ⓒ TABLE		
SPAN	GIRDER	Ⓒ
1	1-6	5 SPA. @ 1'-3" MAX. = 6'-0⅞"
1	7	5 SPA. @ 1'-3" MAX. = 5'-4"
1	8	4 SPA. @ 1'-3" MAX. = 4'-7⅛"
2	1-6	25 SPA. @ 1'-3" MAX. = 30'-3¼"
2	7	24 SPA. @ 1'-3" MAX. = 28'-9⅞"
2	8	24 SPA. @ 1'-3" MAX. = 28'-10⅞"
3	1-7	37 SPA. @ 1'-3" MAX. = 46'-2½"
3	8	36 SPA. @ 1'-3" MAX. = 44'-7⅜"
4	1-6	17 SPA. @ 1'-3" MAX. = 20'-1⅛"
4	7	15 SPA. @ 1'-3" MAX. = 18'-6"
4	8	14 SPA. @ 1'-3" MAX. = 16'-11⅛"
5	1-6	7 SPA. @ 1'-3" MAX. = 7'-10½"
5	7	6 SPA. @ 1'-3" MAX. = 6'-9"
5	8	5 SPA. @ 1'-3" MAX. = 5'-7⅝"

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

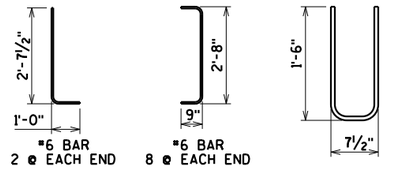
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

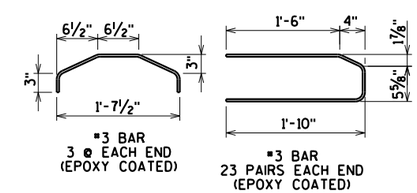
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE 0.6" DIA. -7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL INTER. DIAPHRAGM DETAILS" SHEET.





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STRUCTURE B-32-224

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36W" PRESTRESSED GIRDER DETAILS

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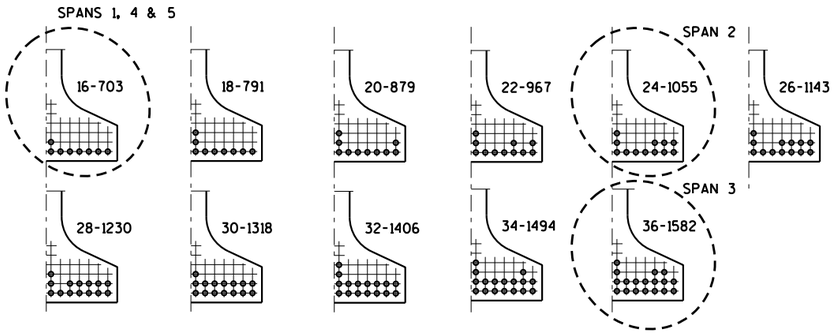
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7-13
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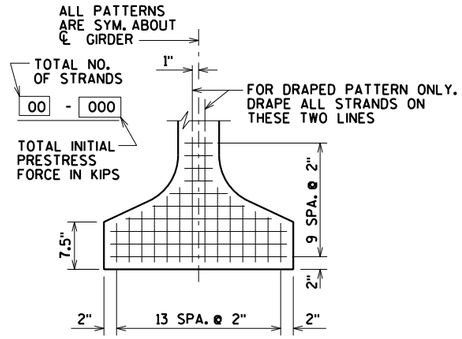
STATE PROJECT NUMBER

7190-03-71

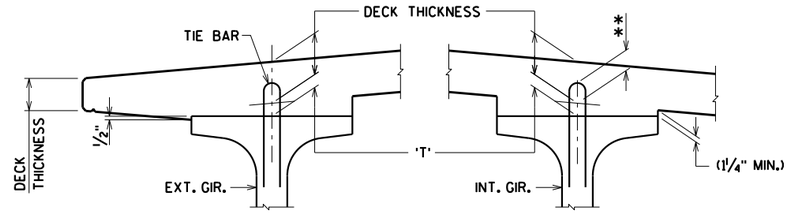


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"ø STRANDS



TYP. STRAND PATTERN



DECK HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

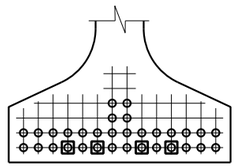
** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

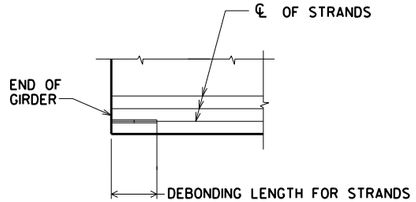
TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3½" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

SYM.	HEIGHT	NO. OF STRANDS	DEBOND LENGTH
□	2"	4	2'

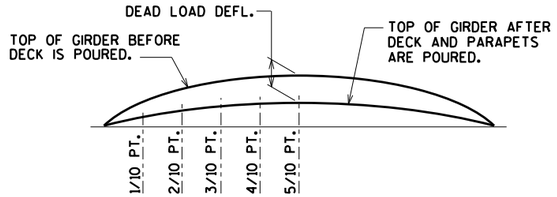


DEBONDING DETAIL - SPAN 3 ONLY



BOND BREAKER DETAIL

SHOWING LENGTHS OF DEBONDING FROM END OF GIRDER.

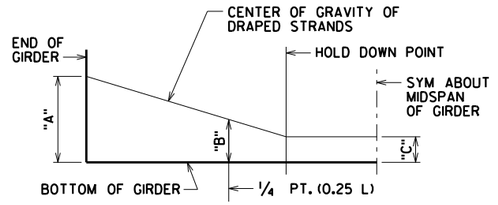


DEAD LOAD DEFLECTION DIAGRAM

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" IST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *
1	1	64'-5⅞"	0.1	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.1	8,000	7"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
1	2-5	64'-5⅞"	0.1	0.2	0.4	0.4	0.45	0.4	0.4	0.2	0.1	8,000	7"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
1	6	64'-5⅞"	0.1	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.1	8,000	7"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
1	7	63'-9"	0.1	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.1	8,000	7"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
1	8	63'-0⅛"	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.1	8,000	7"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
2	1	88'-8¼"	0.4	0.8	1.1	1.3	1.4	1.3	1.1	0.8	0.4	8,000	7"	7"	8"	0.6	24	6,400	32	11	14	4		
2	2-5	88'-8¼"	0.5	0.9	1.3	1.5	1.6	1.5	1.3	0.9	0.5	8,000	7"	7"	8"	0.6	24	6,400	32	11	14	4		
2	6	88'-8¼"	0.4	0.9	1.2	1.4	1.5	1.4	1.2	0.9	0.4	8,000	7"	7"	8"	0.6	24	6,400	32	11	14	4		
2	7	87'-2⅞"	0.4	0.8	1.1	1.2	1.3	1.2	1.1	0.8	0.4	8,000	7"	7"	8"	0.6	24	6,400	32	11	14	4		
2	8	87'-3⅞"	0.4	0.7	1.0	1.1	1.2	1.1	1.0	0.7	0.4	8,000	7"	7"	8"	0.6	24	6,400	32	11	14	4		
3	1	104'-7½"	0.8	1.6	2.2	2.6	2.7	2.6	2.2	1.6	0.8	8,000	7"	7"	8"	0.6	36	6,400	31	11.5	14.5	5		
3	2, 3	104'-7½"	0.9	1.9	2.6	3.0	3.2	3.0	2.6	1.9	0.9	8,000	8"	7"	8"	0.6	36	6,400	31	11.5	14.5	5		
3	4-6	104'-7½"	0.9	1.8	2.5	3.0	3.1	3.0	2.5	1.8	0.9	8,000	8"	7"	8"	0.6	36	6,400	31	11.5	14.5	5		
3	7	104'-7½"	0.9	1.7	2.4	2.8	3.0	2.8	2.4	1.7	0.9	8,000	8"	7"	8"	0.6	36	6,400	31	11.5	14.5	5		
3	8	103'-0⅜"	0.8	1.6	2.2	2.6	2.8	2.6	2.2	1.6	0.8	8,000	8"	7"	8"	0.6	36	6,400	31	11.5	14.5	5		
4	1	78'-6⅛"	0.2	0.5	0.7	0.8	0.8	0.8	0.7	0.5	0.2	8,000	8"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
4	2-5	78'-6⅛"	0.3	0.5	0.7	0.8	0.9	0.8	0.7	0.5	0.3	8,000	8"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
4	6	78'-6⅛"	0.3	0.5	0.7	0.9	0.9	0.9	0.7	0.5	0.3	8,000	8"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
4	7	76'-11"	0.3	0.5	0.7	0.8	0.9	0.8	0.7	0.5	0.3	8,000	8"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
4	8	75'-4⅛"	0.2	0.5	0.7	0.8	0.8	0.8	0.7	0.5	0.2	8,000	8"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
5	1	66'-3½"	0.1	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.1	8,000	7"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
5	2-5	66'-3½"	0.2	0.3	0.4	0.4	0.5	0.4	0.4	0.3	0.2	8,000	7"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
5	6	66'-3½"	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	8,000	7"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
5	7	65'-2"	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	8,000	7"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		
5	8	64'-0⅝"	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.1	8,000	7"	7"	7"	0.6	16	6,400	33	10.5	13.5	3		



DRAPED STRAND PROFILE

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	1.1
2	2.2
3	4.2
4	1.1
5	1.1

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

DRAWN BY CLS | PLANS CK'D. AEB

36W" PRESTRESSED GIRDER DETAILS

SHEET 26 OF 49
318

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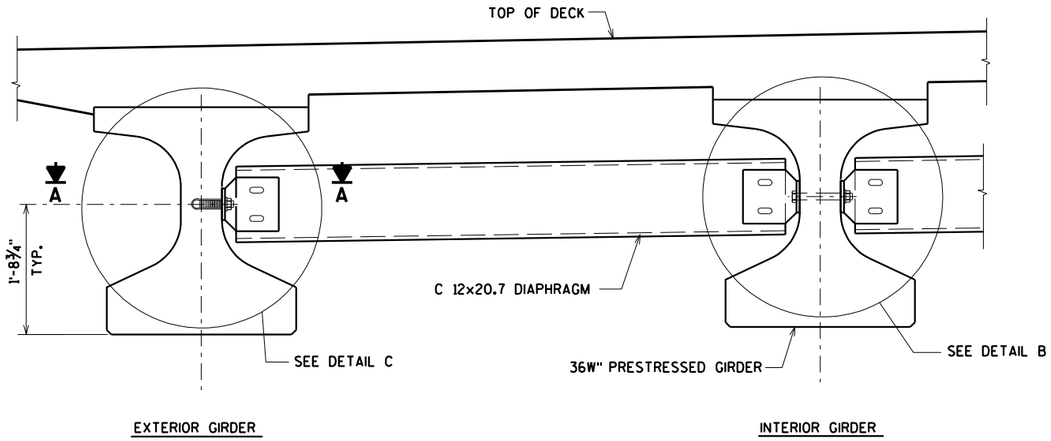
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PART TRANSVERSE SECTION AT DIAPHRAGM

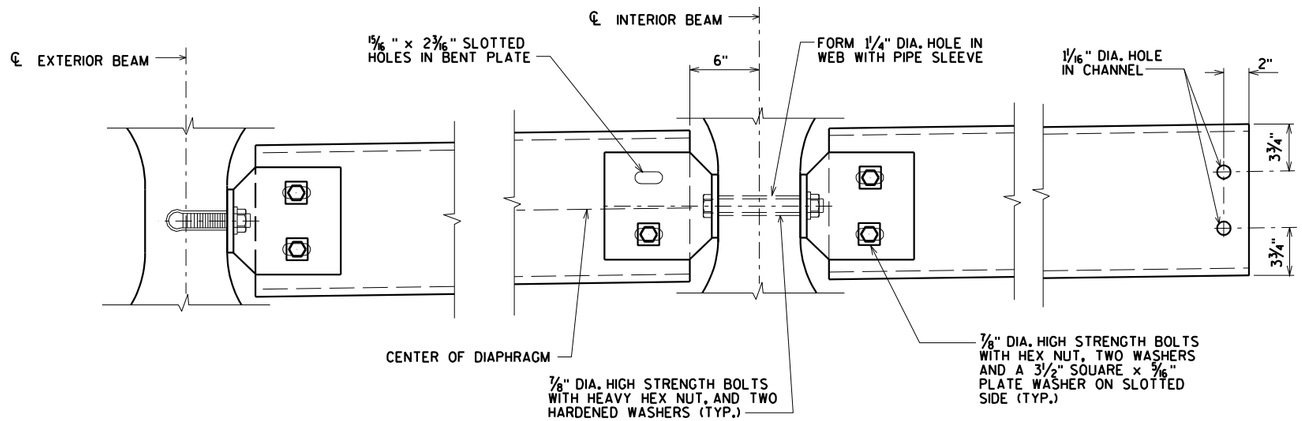
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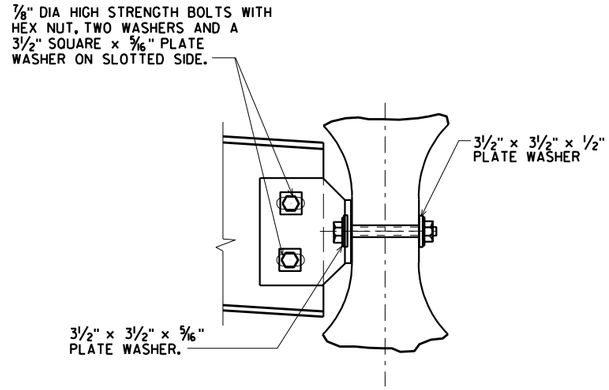
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-32-224", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

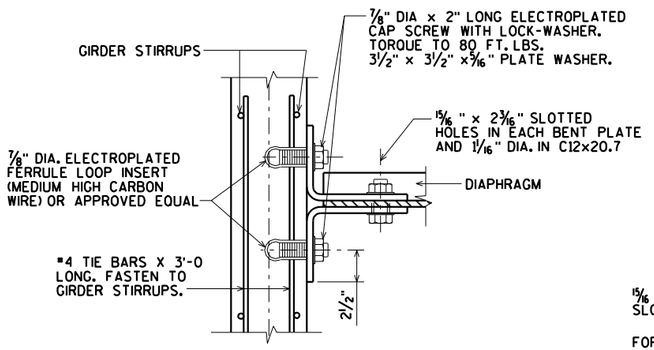
ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.





SECTION AT INTERIOR GIRDERS THRU DIAPHRAGM FOR SKEW ANGLES > 10°

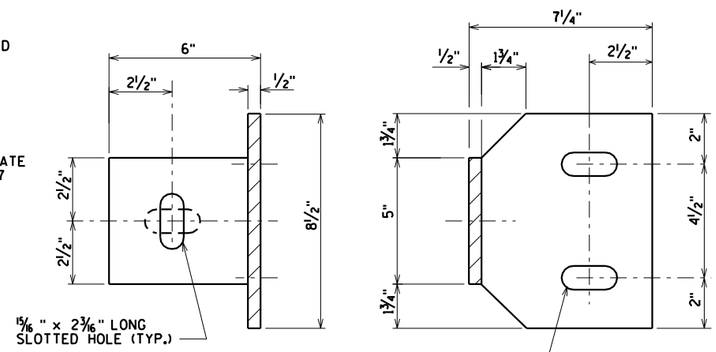
DETAIL C



SECTION A-A

(FOR EXTERIOR ATTACHMENT)

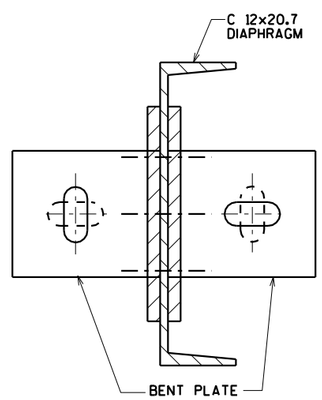
DETAIL B



FOR EACH PAIR OF ANGLES ON A GIVEN BEAM FACE, ONE SLOTTED HOLE TO BE VERTICAL AND ONE TO BE HORIZONTAL.

BEAM FACE

DIAPHRAGM FACE



ATTACHMENT TO CHANNEL

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

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STEEL INTER. DIAPHRAGM DETAILS

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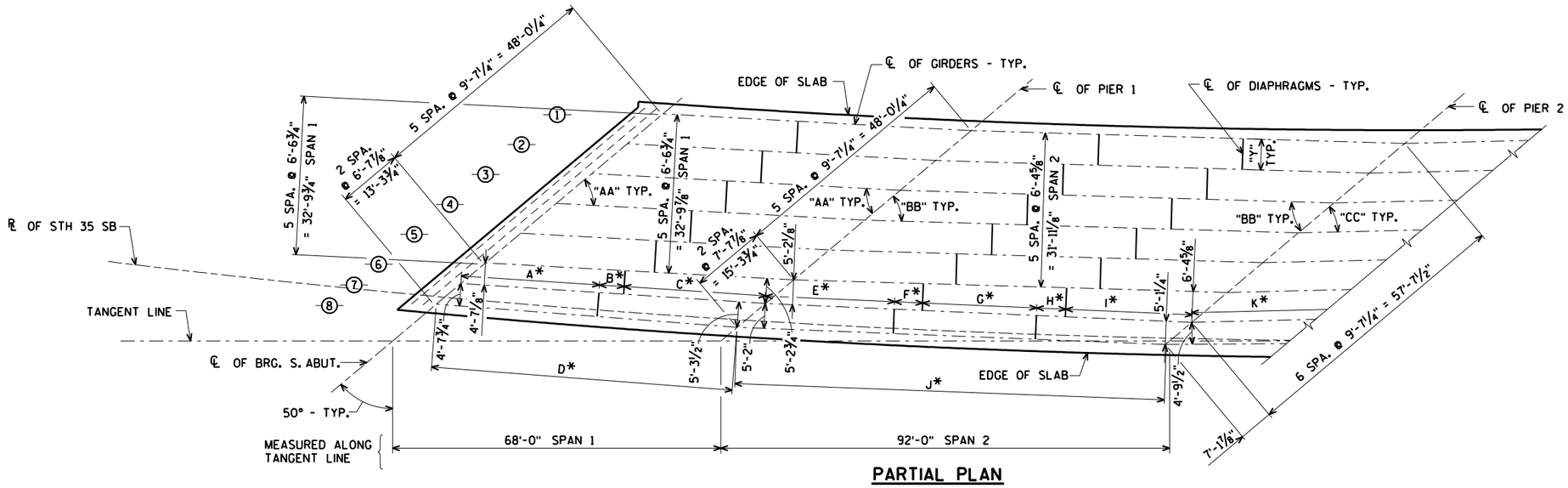
ORIGINAL PLANS PREPARED BY

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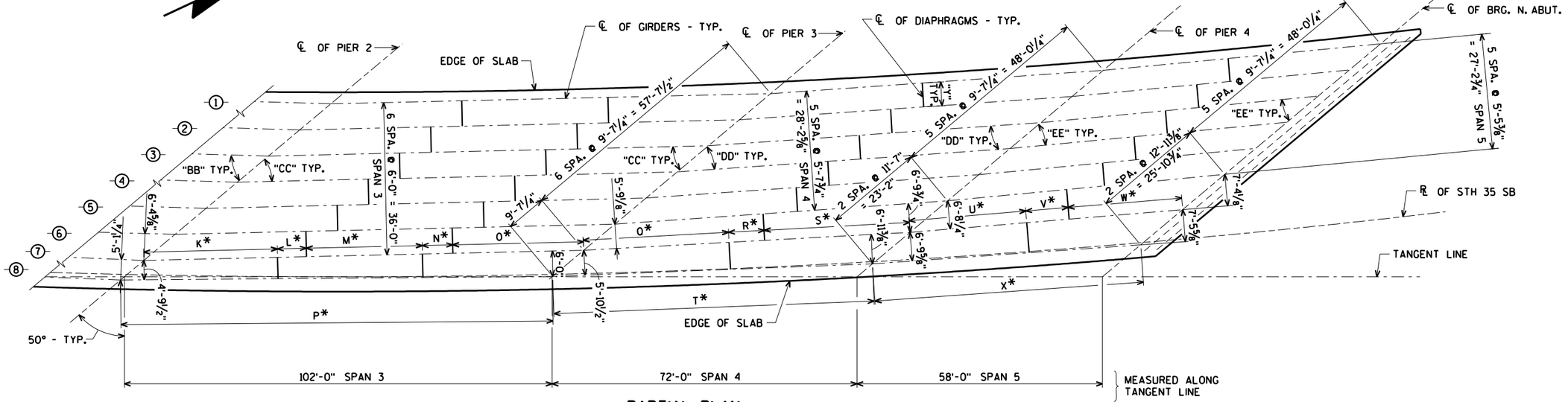
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8



PARTIAL PLAN

* DIMENSIONS MEASURED ALONG ℄ OF GIRDER



PARTIAL PLAN

GIRDER ANGLES

GIRDER	"AA"	"BB"	"CC"	"DD"	"EE"
1-6	43°07'21"	41°40'30"	38°41'39"	35°59'18"	34°32'42"
7	43°45'15"	42°31'24"	38°41'39"	35°51'09"	35°13'56"
8	44°24'02"	42°28'30"	39°24'27"	37°45'11"	35°56'37"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

DRAWN BY CLS | PLANS CK'D. AEB

SUPERSTRUCTURE GIRDER LAYOUT

SHEET 28 OF 49
320

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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U:\41-0627.00 - LaCrosse County, IH90\B-32-224 STH 35 SB over BN RR\BRIDGE\FINAL STRUCTURE\B-32-224 grd layout.dgn

DIAPHRAGM LENGTH "Y"

BETWEEN GIRDERS	SPAN 1	SPAN 2		SPAN 3		SPAN 4	SPAN 5
		SOUTH	NORTH	SOUTH	NORTH		
1 & 2	6'-6¾"	6'-4⅝"	6'-4⅝"	6'-0"	6'-0"	5'-7¾"	5'-5¼"
2 & 3	6'-6¾"	6'-4⅝"	6'-4⅝"	6'-0"	6'-0"	5'-7¾"	5'-5¼"
3 & 4	6'-6¾"	6'-4⅝"	6'-4⅝"	6'-0"	6'-0"	5'-7¾"	5'-5¼"
4 & 5	6'-6¾"	6'-4⅝"	6'-4⅝"	6'-0"	6'-0"	5'-7¾"	5'-5¼"
5 & 6	6'-6¾"	6'-4⅝"	6'-4⅝"	6'-0"	6'-0"	5'-7¾"	5'-5¼"
6 & 7	4'-10⅞"	5'-6⅞"	6'-0"	6'-0"	6'-0"	6'-3½"	7'-0⅛"
7 & 8	4'-11⅝"	5'-1¾"	5'-1½"	5'-2¼"	5'-7⅜"	6'-5"	7'-1⅝"

GIRDER AND DIAPHRAGM DIMENSIONS

	SPAN 1				SPAN 2						SPAN 3					
GIRDER	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"	DIM. "H"	DIM. "I"	DIM. "J"	DIM. "K"	DIM. "L"	DIM. "M"	DIM. "N"	DIM. "O"	DIM. "P"
1	28'-0⅞"	-----	35'-10⅜"	63'-11¼"	26'-1¼"	-----	29'-6¾"	-----	33'-3¼"	89'-11¼"	31'-3"	-----	34'-10½"	-----	38'-9"	104'-10½"
2	28'-0⅞"	7'-0⅛"	28'-10⅜"	63'-11¼"	26'-1¼"	7'-2⅛"	22'-4⅝"	7'-2⅛"	26'-1¼"	89'-11¼"	31'-3"	7'-6"	27'-4½"	7'-6"	31'-3"	104'-10½"
3	28'-0⅞"	7'-0⅛"	28'-10⅜"	63'-11¼"	26'-1¼"	7'-2⅛"	22'-4⅝"	7'-2⅛"	26'-1¼"	89'-11¼"	31'-3"	7'-6"	27'-4½"	7'-6"	31'-3"	104'-10½"
4	28'-0⅞"	7'-0⅛"	28'-10⅜"	63'-11¼"	26'-1¼"	7'-2⅛"	22'-4⅝"	7'-2⅛"	26'-1¼"	89'-11¼"	31'-3"	7'-6"	27'-4½"	7'-6"	31'-3"	104'-10½"
5	28'-0⅞"	7'-0⅛"	28'-10⅜"	63'-11¼"	26'-1¼"	7'-2⅛"	22'-4⅝"	7'-2⅛"	26'-1¼"	89'-11¼"	31'-3"	7'-6"	27'-4½"	7'-6"	31'-3"	104'-10½"
6	28'-11¾"	6'-1⅛"	28'-10⅜"	63'-11¼"	26'-7¼"	6'-8"	22'-7⅛"	6'-10⅞"	26'-1¼"	89'-11¼"	31'-3"	7'-6"	27'-4½"	7'-6"	31'-3"	104'-10½"
7	28'-7⅝"	5'-1⅞"	29'-4¾"	63'-2⅜"	26'-4¾"	5'-10⅛"	23'-2½"	6'-1⅜"	25'-10⅝"	87'-5⅞"	31'-9⅝"	6'-11⅜"	27'-8"	7'-2½"	31'-3"	104'-10½"
8	33'-4⅞"	-----	29'-0¾"	62'-5½"	32'-0½"	-----	29'-1⅛"	-----	26'-5¼"	88'-6⅞"	37'-8"	-----	34'-7¼"	-----	31'-0"	103'-3⅜"

	SPAN 4				SPAN 5			
GIRDER	DIM. "O"	DIM. "R"	DIM. "S"	DIM. "T"	DIM. "U"	DIM. "V"	DIM. "W"	DIM. "X"
1	35'-5⅞"	-----	43'-3¼"	78'-9⅛"	29'-3¾"	-----	36'-6¼"	65'-10"
2	35'-5⅞"	7'-9¼"	35'-5⅞"	78'-9⅛"	29'-3¾"	7'-11"	28'-7¼"	65'-10"
3	35'-5⅞"	7'-9¼"	35'-5⅞"	78'-9⅛"	29'-3¾"	7'-11"	28'-7¼"	65'-10"
4	35'-5⅞"	7'-9¼"	35'-5⅞"	78'-9⅛"	29'-3¾"	7'-11"	28'-7¼"	65'-10"
5	35'-5⅞"	7'-9¼"	35'-5⅞"	78'-9⅛"	29'-3¾"	7'-11"	28'-7¼"	65'-10"
6	35'-1⅜"	8'-1¾"	35'-5⅞"	78'-9⅛"	28'-2¾"	8'-11⅞"	28'-7¼"	65'-10"
7	34'-4½"	8'-5¾"	34'-3⅞"	77'-2"	27'-8⅝"	10'-0⅜"	26'-11⅝"	64'-8½"
8	42'-0⅛"	-----	33'-7"	75'-7⅛"	37'-1¾"	-----	26'-5⅜"	63'-7⅛"

$PRFNAME$
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

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SUPERSTRUCTURE GIRDER LAYOUT

SHEET 29 OF 49
321

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-224 STH 35 SB over BN RR\BRIDGE\FINAL STRUCTURE\B-32-224 deck elev.dgn

STATE PROJECT NUMBER

7190-03-71

TOP OF DECK ELEVATIONS

SPAN 1											
LOCATION	CL BRG. W. ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT	PIER 1
EDGE OF DECK	670.98	671.09	671.19	671.30	671.40	671.51	671.61	671.70	671.80	671.90	671.99
GUTTER LINE	670.96	671.07	671.17	671.28	671.38	671.48	671.58	671.68	671.78	671.88	671.97
GIRDER 1	670.97	671.07	671.18	671.28	671.39	671.49	671.59	671.69	671.79	671.88	671.98
GIRDER 2	671.03	671.14	671.25	671.35	671.46	671.56	671.66	671.76	671.86	671.96	672.06
GIRDER 3	671.10	671.21	671.32	671.42	671.53	671.63	671.73	671.84	671.94	672.04	672.13
GIRDER 4	671.17	671.28	671.39	671.49	671.60	671.70	671.81	671.91	672.01	672.11	672.21
GIRDER 5	671.23	671.34	671.45	671.56	671.67	671.77	671.88	671.98	672.08	672.18	672.28
GIRDER 6	671.30	671.41	671.52	671.63	671.74	671.84	671.95	672.05	672.16	672.26	672.36
GIRDER 7	671.34	671.46	671.57	671.68	671.79	671.90	672.00	672.11	672.21	672.32	672.42
RL	671.37	671.49	671.60	671.72	671.83	671.94	672.04	672.15	672.25	672.36	672.46
TANGENT LINE	671.47	671.58	671.69	671.79	671.90	672.00	672.11	672.21	672.31	672.41	672.51
GIRDER 8	671.39	671.50	671.62	671.73	671.84	671.95	672.05	672.16	672.27	672.37	672.48
GUTTER LINE	671.39	671.51	671.62	671.74	671.85	671.96	672.07	672.17	672.28	672.38	672.48
EDGE OF DECK	671.37	671.48	671.60	671.71	671.82	671.93	672.04	672.15	672.25	672.35	672.46

SPAN 2											
LOCATION	PIER 1	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT	PIER 2
EDGE OF DECK	671.99	672.12	672.24	672.36	672.48	672.60	672.71	672.82	672.92	673.02	673.12
GUTTER LINE	671.97	672.10	672.22	672.35	672.46	672.58	672.69	672.80	672.91	673.01	673.11
GIRDER 1	671.98	672.10	672.23	672.35	672.47	672.58	672.70	672.81	672.92	673.03	673.13
GIRDER 2	672.06	672.18	672.31	672.43	672.55	672.67	672.78	672.90	673.01	673.12	673.22
GIRDER 3	672.13	672.26	672.39	672.51	672.63	672.75	672.87	672.98	673.10	673.21	673.31
GIRDER 4	672.21	672.34	672.47	672.59	672.71	672.83	672.95	673.07	673.18	673.30	673.40
GIRDER 5	672.28	672.42	672.54	672.67	672.80	672.92	673.04	673.15	673.27	673.38	673.49
GIRDER 6	672.36	672.49	672.62	672.75	672.87	673.00	673.12	673.24	673.36	673.47	673.58
GIRDER 7	672.42	672.55	672.69	672.82	672.94	673.07	673.19	673.32	673.44	673.55	673.67
RL	672.46	672.60	672.74	672.87	673.00	673.13	673.25	673.37	673.49	673.61	673.72
TANGENT LINE	672.51	672.64	672.77	672.90	673.02	673.15	673.27	673.38	673.50	673.61	673.73
GIRDER 8	672.48	672.61	672.75	672.88	673.01	673.13	673.26	673.38	673.50	673.62	673.74
GUTTER LINE	672.48	672.62	672.76	672.89	673.02	673.15	673.28	673.40	673.52	673.63	673.74
EDGE OF DECK	672.46	672.60	672.73	672.87	673.00	673.13	673.25	673.37	673.49	673.61	673.72

SPAN 3											
LOCATION	PIER 2	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT	PIER 3
EDGE OF DECK	673.12	673.23	673.34	673.44	673.54	673.63	673.72	673.80	673.88	673.95	674.02
GUTTER LINE	673.11	673.22	673.32	673.43	673.52	673.62	673.71	673.79	673.87	673.94	674.01
GIRDER 1	673.13	673.24	673.34	673.44	673.53	673.63	673.72	673.80	673.88	673.96	674.04
GIRDER 2	673.22	673.33	673.43	673.54	673.63	673.73	673.82	673.91	673.99	674.08	674.15
GIRDER 3	673.31	673.42	673.53	673.63	673.73	673.83	673.92	674.01	674.10	674.18	674.27
GIRDER 4	673.40	673.52	673.62	673.73	673.83	673.93	674.02	674.12	674.21	674.29	674.38
GIRDER 5	673.49	673.61	673.72	673.82	673.93	674.03	674.12	674.22	674.31	674.40	674.48
GIRDER 6	673.58	673.70	673.81	673.92	674.02	674.12	674.22	674.32	674.41	674.50	674.59
GIRDER 7	673.67	673.79	673.90	674.01	674.12	674.22	674.32	674.42	674.52	674.61	674.70
RL	673.72	673.84	673.97	674.08	674.20	674.31	674.41	674.51	674.61	674.70	674.79
TANGENT LINE	673.73	673.85	673.96	674.08	674.19	674.30	674.41	674.51	674.61	674.71	674.80
GIRDER 8	673.74	673.86	673.97	674.09	674.20	674.31	674.41	674.51	674.61	674.71	674.80
GUTTER LINE	673.74	673.87	673.99	674.11	674.23	674.34	674.44	674.55	674.64	674.74	674.83
EDGE OF DECK	673.72	673.85	673.97	674.09	674.21	674.32	674.43	674.53	674.63	674.72	674.81

SPAN 4											
LOCATION	PIER 3	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT	PIER 4
EDGE OF DECK	674.02	674.07	674.12	674.16	674.20	674.24	674.28	674.31	674.34	674.37	674.41
GUTTER LINE	674.01	674.06	674.11	674.15	674.19	674.23	674.27	674.30	674.33	674.37	674.40
GIRDER 1	674.04	674.09	674.13	674.17	674.21	674.25	674.29	674.32	674.35	674.39	674.42
GIRDER 2	674.15	674.20	674.25	674.29	674.33	674.37	674.41	674.45	674.48	674.51	674.55
GIRDER 3	674.27	674.31	674.36	674.41	674.45	674.49	674.53	674.57	674.60	674.64	674.67
GIRDER 4	674.38	674.43	674.47	674.52	674.56	674.61	674.65	674.69	674.73	674.76	674.80
GIRDER 5	674.48	674.54	674.59	674.63	674.68	674.72	674.77	674.81	674.85	674.89	674.92
GIRDER 6	674.59	674.64	674.70	674.74	674.79	674.84	674.88	674.93	674.97	675.01	675.04
GIRDER 7	674.70	674.75	674.81	674.86	674.91	674.96	675.01	675.06	675.10	675.15	675.19
RL	674.79	674.86	674.92	674.98	675.03	675.09	675.14	675.19	675.24	675.28	675.32
TANGENT LINE	674.80	674.87	674.93	675.00	675.06	675.12	675.17	675.23	675.29	675.34	675.39
GIRDER 8	674.80	674.86	674.92	674.98	675.03	675.09	675.14	675.19	675.24	675.29	675.33
GUTTER LINE	674.83	674.89	674.95	675.01	675.07	675.12	675.18	675.23	675.28	675.32	675.36
EDGE OF DECK	674.81	674.88	674.94	675.00	675.06	675.11	675.16	675.21	675.26	675.31	675.35

SPAN 5											
LOCATION	PIER 4	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT	CL BRG. E. ABUT.
EDGE OF DECK	674.41	674.43	674.46	674.49	674.51	674.54	674.57	674.59	674.62	674.65	674.68
GUTTER LINE	674.40	674.43	674.45	674.48	674.51	674.53	674.56	674.59	674.61	674.64	674.67
GIRDER 1	674.42	674.45	674.47	674.50	674.52	674.55	674.58	674.61	674.64	674.66	674.69
GIRDER 2	674.55	674.57	674.60	674.62	674.65	674.67	674.70	674.73	674.75	674.78	674.81
GIRDER 3	674.67	674.69	674.72	674.74	674.77	674.79	674.82	674.85	674.87	674.90	674.93
GIRDER 4	674.80	674.82	674.84	674.87	674.89	674.91	674.94	674.97	674.99	675.02	675.05
GIRDER 5	674.92	674.94	674.97	674.99	675.01	675.04	675.06	675.09	675.11	675.14	675.17
GIRDER 6	675.04	675.07	675.09	675.12	675.14	675.16	675.19	675.21	675.23	675.26	675.29
GIRDER 7	675.19	675.22	675.25	675.27	675.30	675.32	675.35	675.37	675.40	675.42	675.45
RL	675.32	675.36	675.39	675.42	675.45	675.48	675.50	675.53	675.55	675.58	675.61
TANGENT LINE	675.39	675.43	675.47	675.51	675.55	675.59	675.63	675.66	675.70	675.73	675.77
GIRDER 8	675.33	675.37	675.40	675.43	675.45	675.48	675.51	675.53	675.56	675.59	675.62
GUTTER LINE	675.36	675.40	675.43	675.46	675.49	675.52	675.55	675.57	675.60	675.62	675.65
EDGE OF DECK	675.35	675.38	675.41	675.44	675.47	675.49	675.51	675.54	675.56	675.58	675.60

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

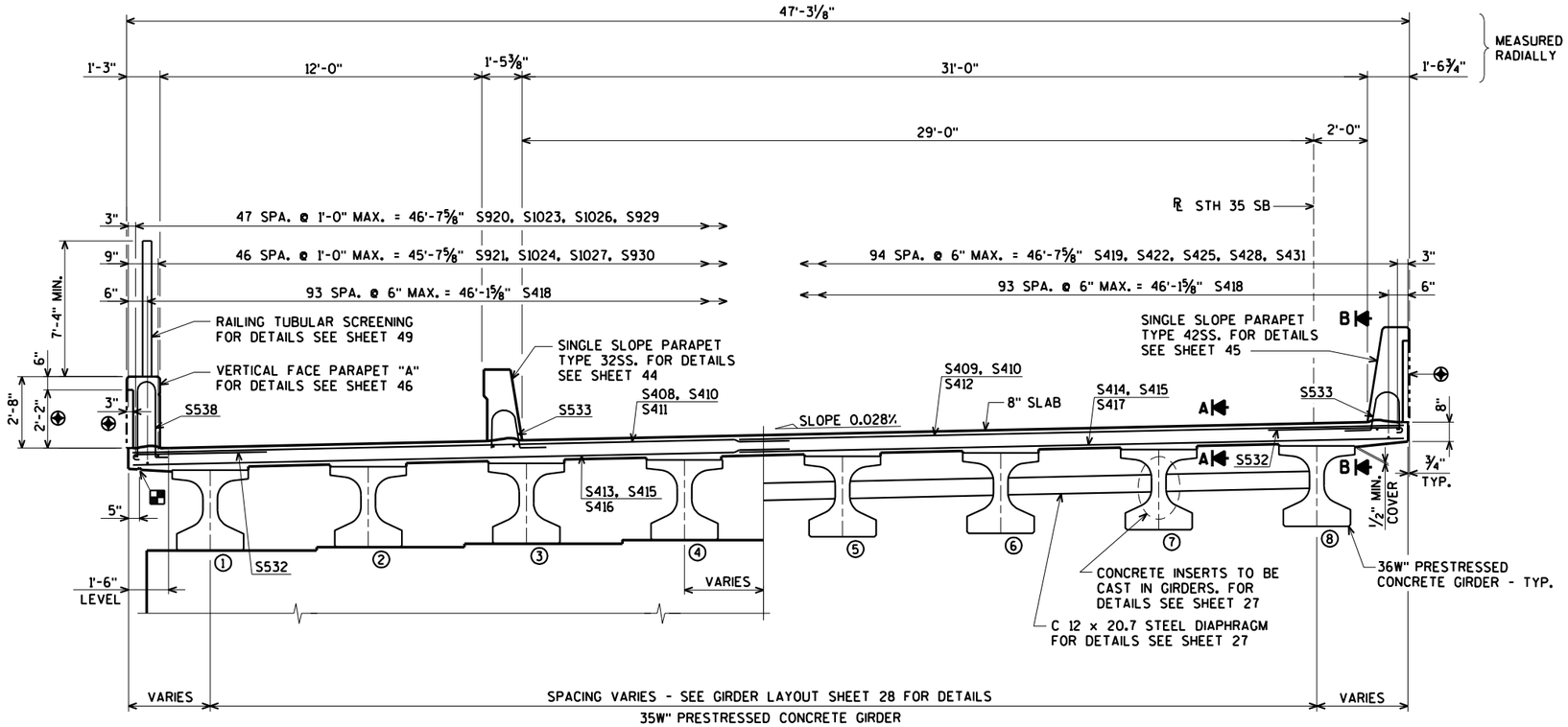
STRUCTURE B-32-224

DRAWN BY CLS | PLANS CK'D. AEB

TOP OF DECK ELEVATIONS

SHEET 30 OF 49
322

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com



TYPICAL CROSS SECTION THRU DECK
(LOOKING NORTH)

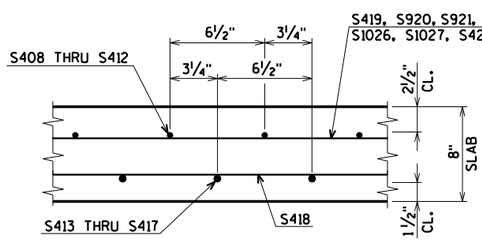
OVERHANGS

SPAN	LEFT		RIGHT	
	MIN.	MAX.	MIN.	MAX.
1	1'-11"	2'-2⅝"	1'-10⅞"	2'-1⅝"
2	1'-11"	2'-9⅝"	1'-10⅞"	2'-5⅞"
3	2'-2"	2'-9⅝"	2'-2"	3'-3⅛"
4	2'-2"	2'-9⅝"	3'-0"	3'-4"
5	2'-2"	2'-6"	3'-0"	3'-2⅝"

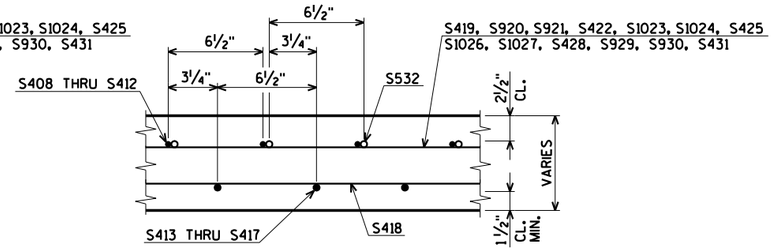
MAX. AND MINS. AS MEASURED ONLY AT 10th POINTS

¾" V - GROOVE TERMINATE 2'-0" FROM FRONT FACE OF ABUTMENTS - TYP.

ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 48



SECTION A



SECTION B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

DRAWN BY CLS | PLANS CK'D. AEB

SUPERSTRUCTURE

SHEET 31 OF 49
323

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8

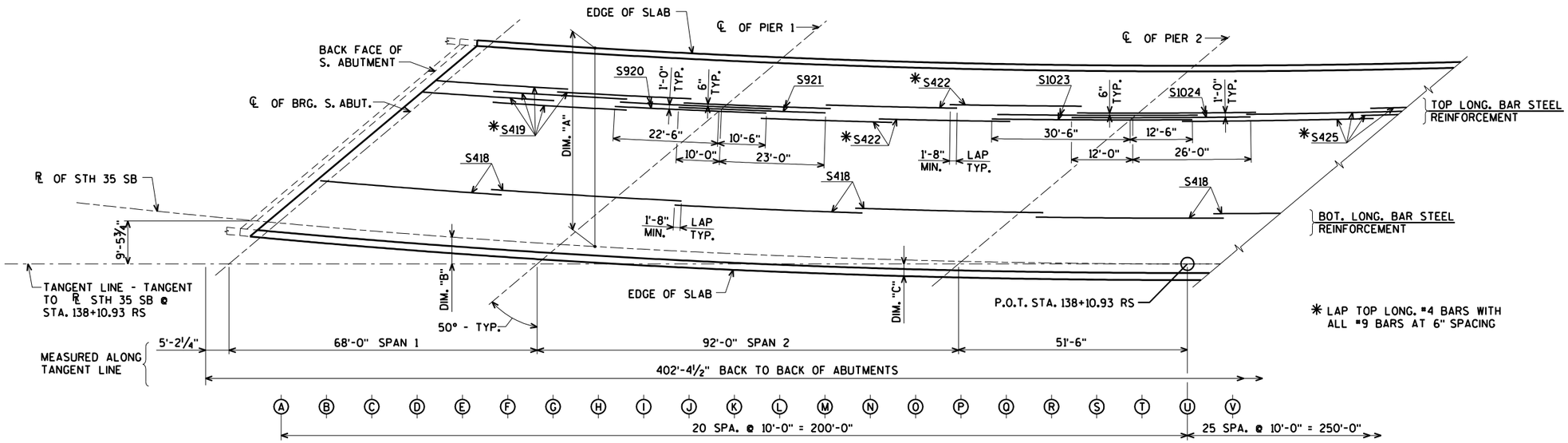
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$PRFNAME$
U:±41-0627.00 - LaCrosse County, IH90±B-32-224 STH 35 SB over BN RR±BRIDGE±FINAL STRUCTURE±B-32-224 super.dgn

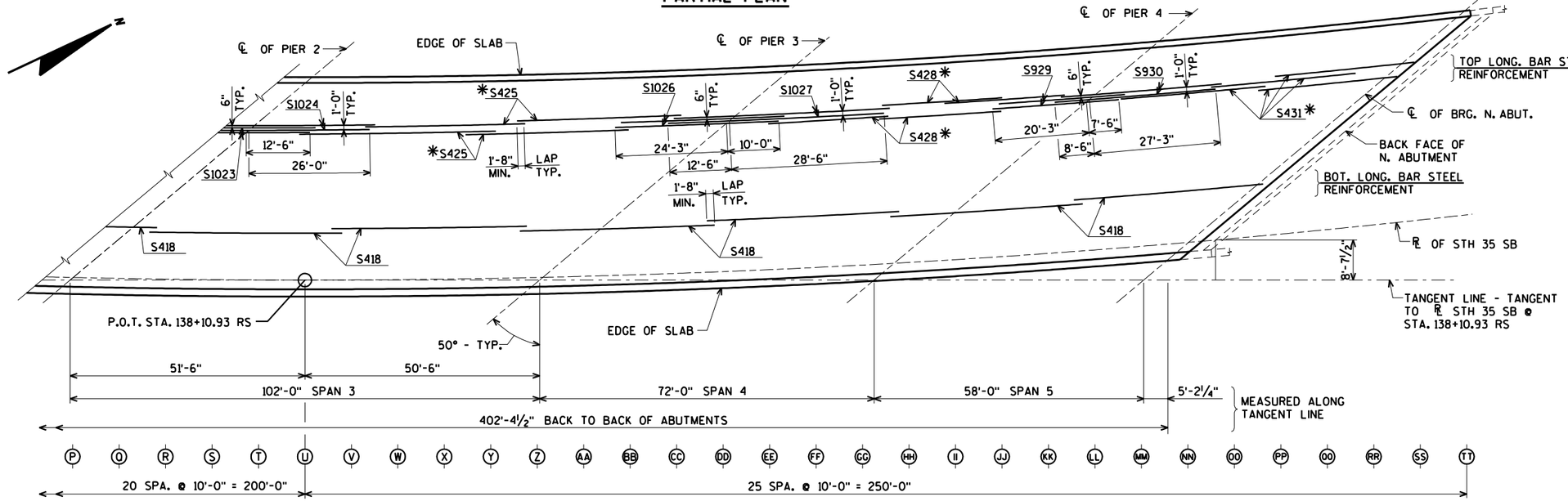
7/20/2015

PENTABLE:BReau_shd_util.tbl

STATE PROJECT NUMBER
7190-03-71



PARTIAL PLAN



PARTIAL PLAN

EDGE OF DECK OFFSETS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
DIM. "A"	------	------	------	------	------	48'-10⅛"	48'-2¼"	47'-6¾"	46'-11⅞"	44'-5⅝"	45'-11⅞"	45'-6⅝"	45'-1⅞"	44'-9⅞"	44'-6¼"	44'-3¼"	44'-0¾"	43'-10⅞"	43'-9½"
DIM. "B"	8'-11¾"	8'-1¼"	7'-3¼"	6'-5⅞"	5'-8⅞"	5'-0⅝"	4'-4¾"	3'-9½"	3'-2¾"	2'-8½"	2'-2⅞"	1'-9¾"	1'-5¼"	1'-1⅛"	0'-9⅝"	0'-6¾"	0'-4¼"	0'-2⅜"	0'-1⅛"
DIM. "C"	5'-5⅝"	4'-7⅛"	3'-9⅛"	2'-11¾"	2'-2⅞"	1'-6½"	0'-10⅝"	0'-3⅜"	0'-3¼"	0'-9½"	1'-3⅛"	1'-8¼"	2'-0¾"	2'-4⅞"	2'-8⅜"	2'-11¼"	3'-1¾"	3'-3⅝"	3'-4⅞"

	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL
DIM. "A"	43'-8⅝"	43'-8⅜"	43'-8⅝"	43'-9½"	43'-10⅞"	44'-0¾"	44'-3¼"	44'-6¼"	44'-9⅞"	45'-1⅛"	45'-6⅝"	45'11⅞"	46'-5⅝"	46'-11⅞"	47'-6¾"	48'-2¼"	48'-10⅛"	49'-6¾"	50'-3¾"
DIM. "B"	0'-0¼"	0'-0"	0'-0¼"	0'-1⅛"	0'-2⅜"	0'-4¼"	0'-6¾"	0'-9⅝"	1'-1⅛"	1'-5¼"	1'-9¾"	2'-2⅛"	2'-8½"	3'-2¾"	3'-9½"	4'-4¾"	5'-0⅝"	5'-8⅞"	6'-5⅞"
DIM. "C"	3'-5¾"	3'-6"	3'-5¾"	3'-4⅞"	3'-3⅝"	3'-1¾"	2'-11¼"	2'-8⅜"	2'-4⅞"	2'-0¾"	1'-8¼"	1'-3⅛"	0'-9½"	0'-3¼"	0'-3⅜"	0'-10⅝"	1'-6½"	2'-2⅞"	2'-11¾"

	MM	NN	OO	PP	QQ	RR	SS	TT
DIM. "A"	51'-1⅜"	51'-11⅝"	52'-10⅜"	53'-9⅝"	54'-9½"	55'-9⅞"	56'-10⅞"	58'-0⅜"
DIM. "B"	7'-3¼"	8'-1¼"	8'-11¾"	9'-10⅞"	10'-10½"	11'-10⅝"	12'-11⅜"	14'-0⅝"
DIM. "C"	3'-9⅛"	------	------	------	------	------	------	------

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STRUCTURE B-32-224

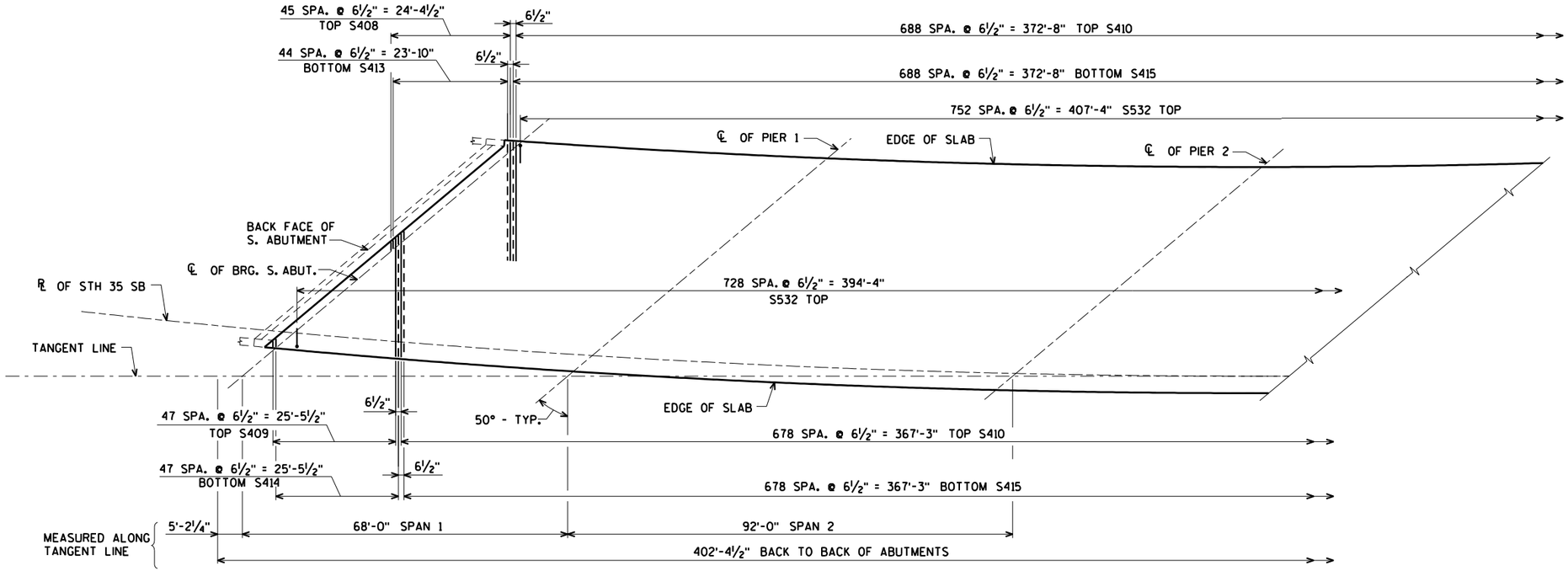
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LONGITUDINAL SLAB STEEL LAYOUT

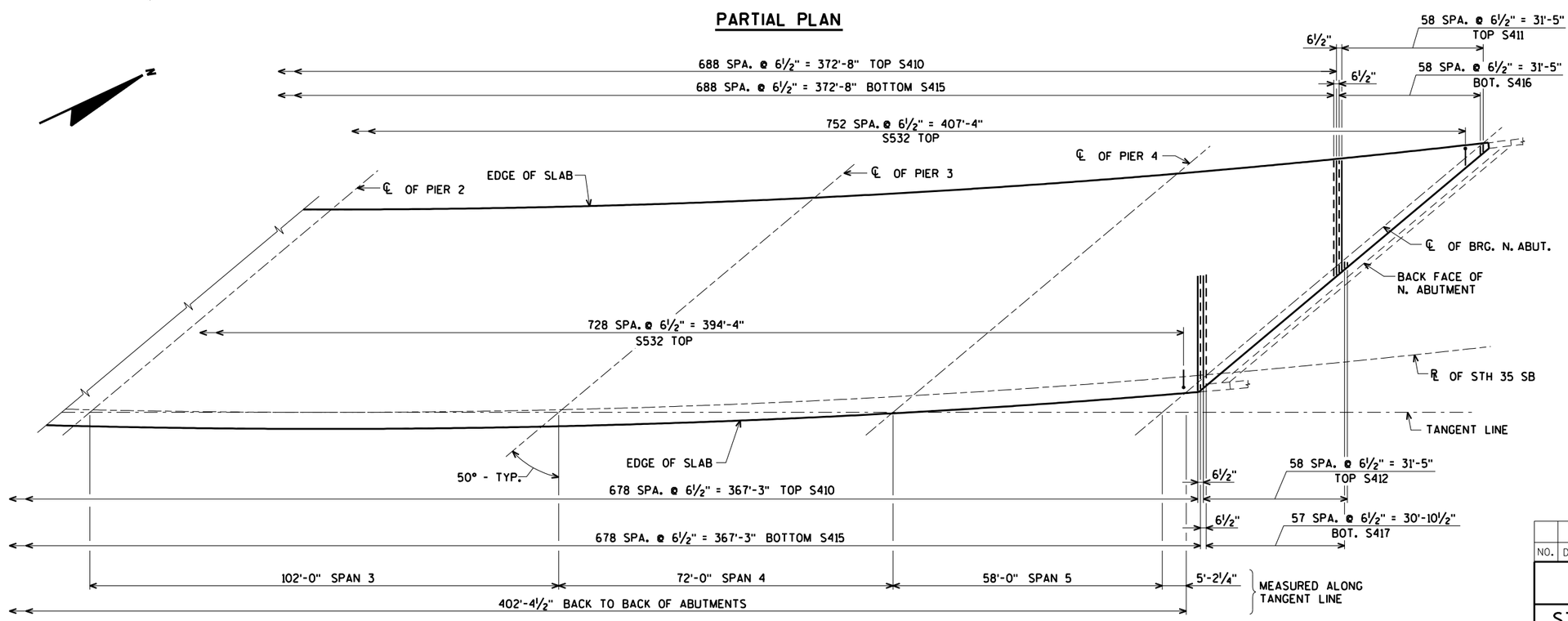
SHEET 32 OF 49
324

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PARTIAL PLAN



PARTIAL PLAN

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STRUCTURE B-32-224

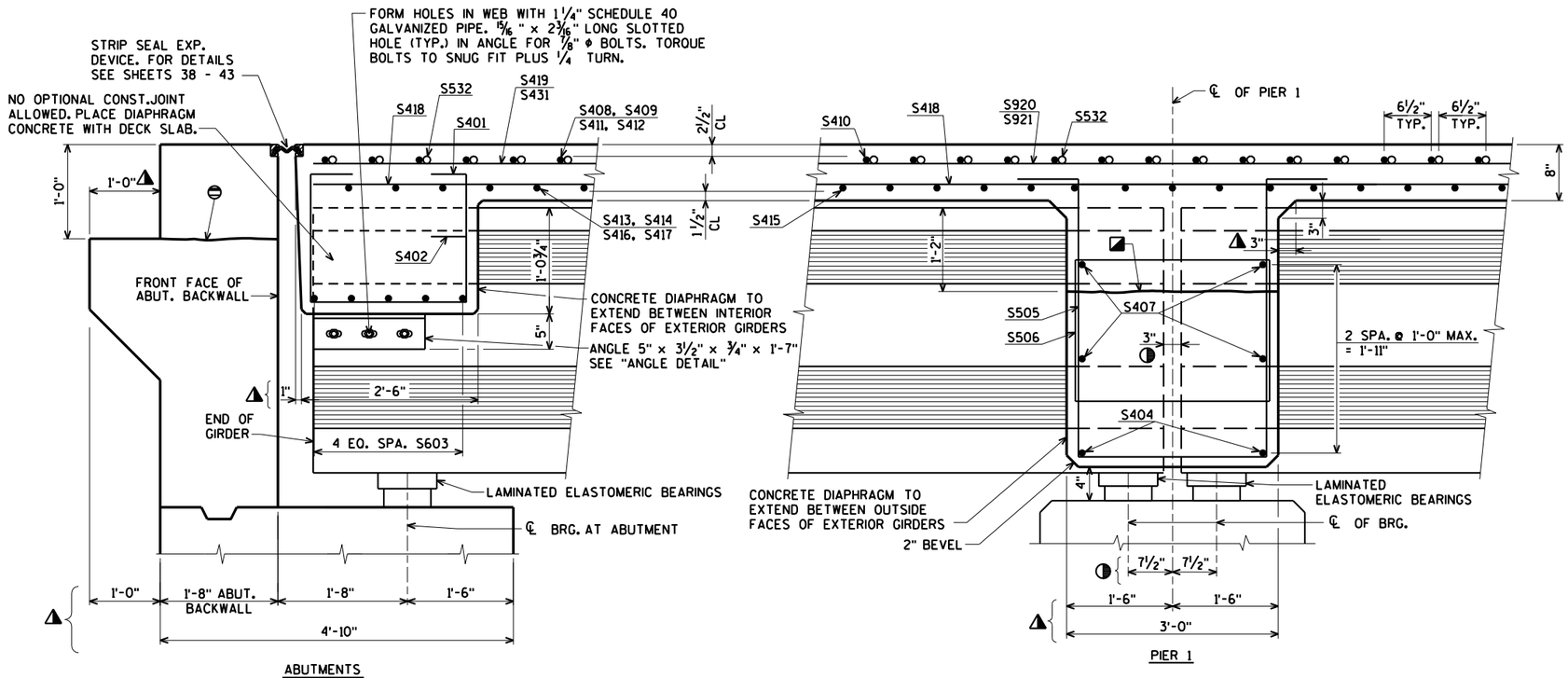
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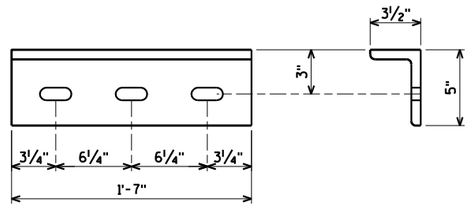
TRANSVERSE SLAB STEEL LAYOUT

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325

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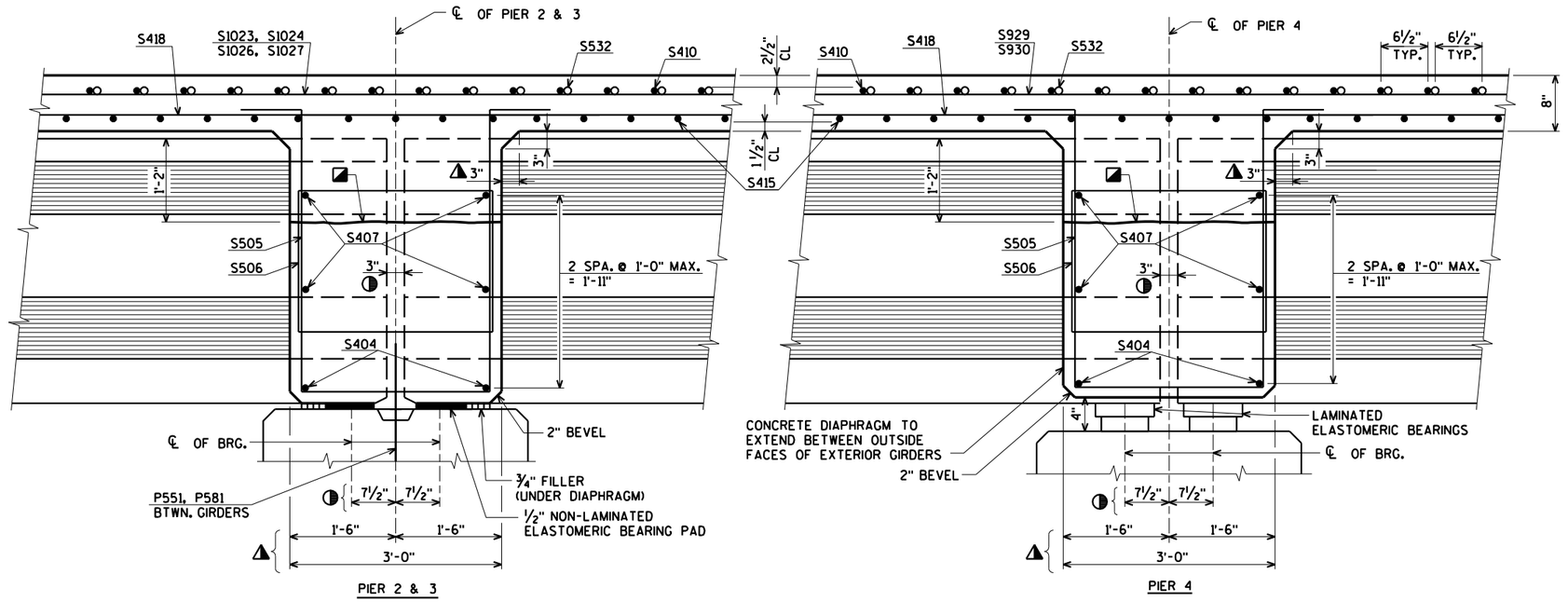


ANGLE DETAIL

DIAPHRAGM SUPPORT ANGLES SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL SUPPORT ANGELS SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM 153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563. LUBRICANT AND TEST FOR COATED NUTS.

ALL DIAPHRAM SUPPORT HARDWARE SHALL BE INCIDENTAL TO "CONCRETE MASONRY BRIDGES".



PART LONGITUDINAL SECTION

- ⊖ CONST. JOINT - STRIKE OFF AND LEAVE ROUGH.
- ◭ DIMENSIONS MEASURED NORMAL TO ℄ OF SUBSTRUCTURE UNIT.
- ◑ DIMENSIONS MEASURED ALONG ℄ OF GIRDER.
- ◪ OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

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STRUCTURE B-32-224

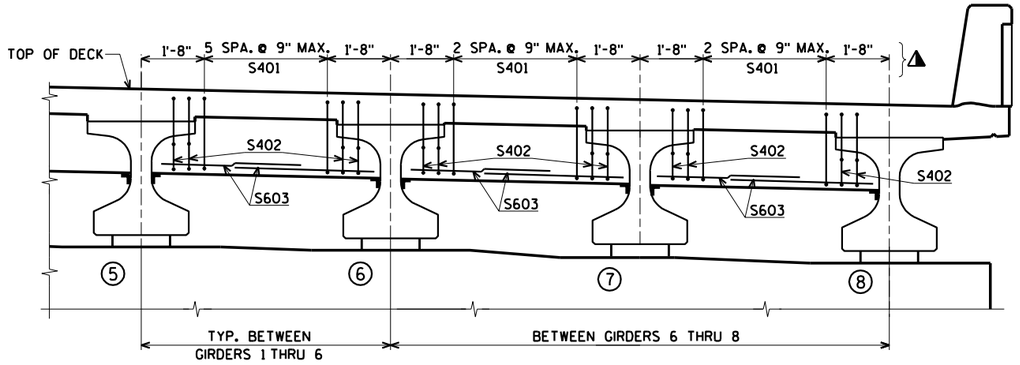
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SUPERSTRUCTURE DETAILS

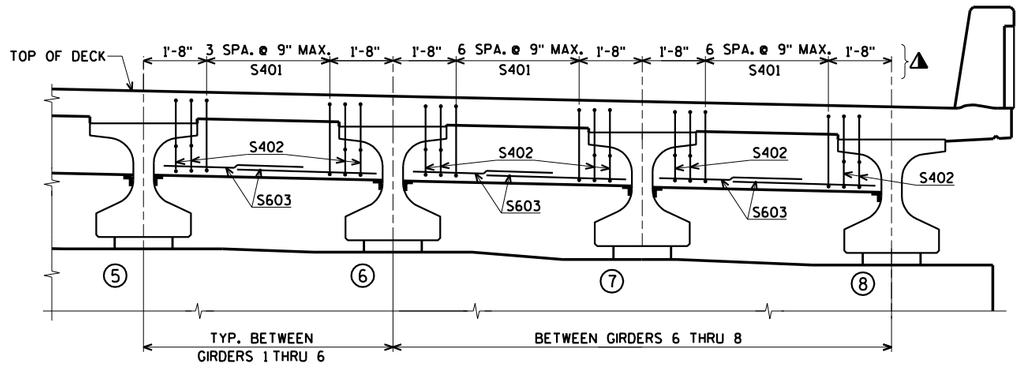
SHEET 34 OF 49
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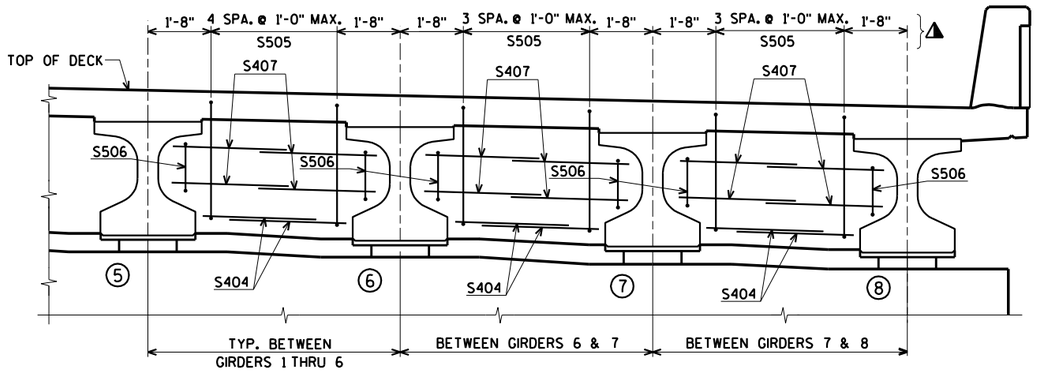
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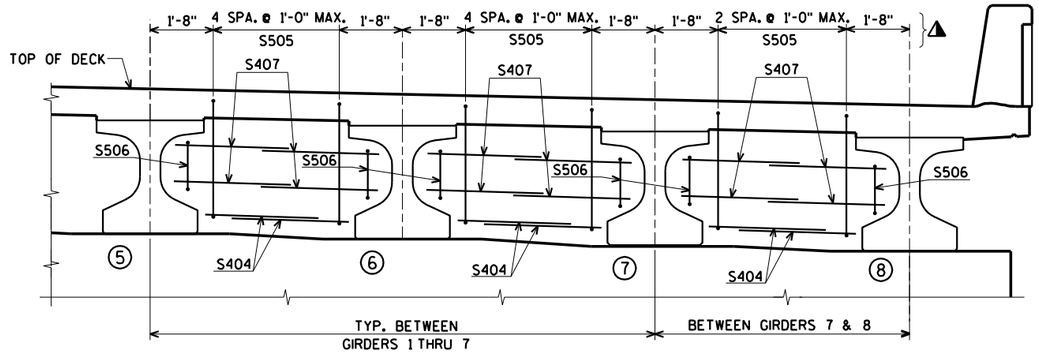
DIAPHRAGM DETAIL AT SOUTH ABUTMENT



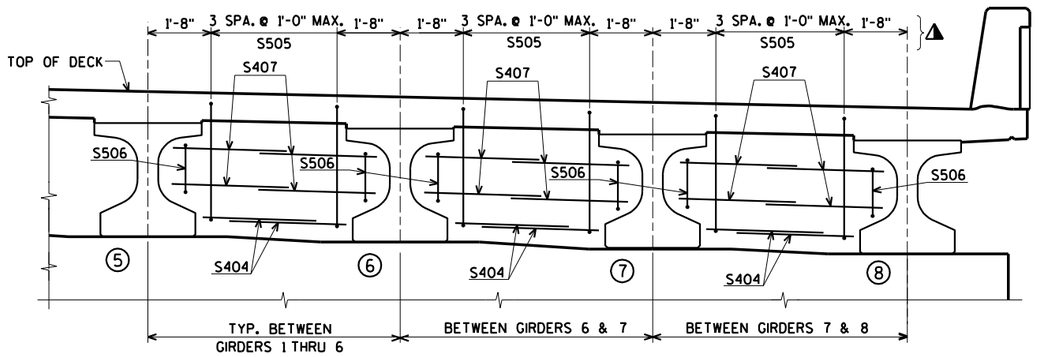
DIAPHRAGM DETAIL AT NORTH ABUTMENT



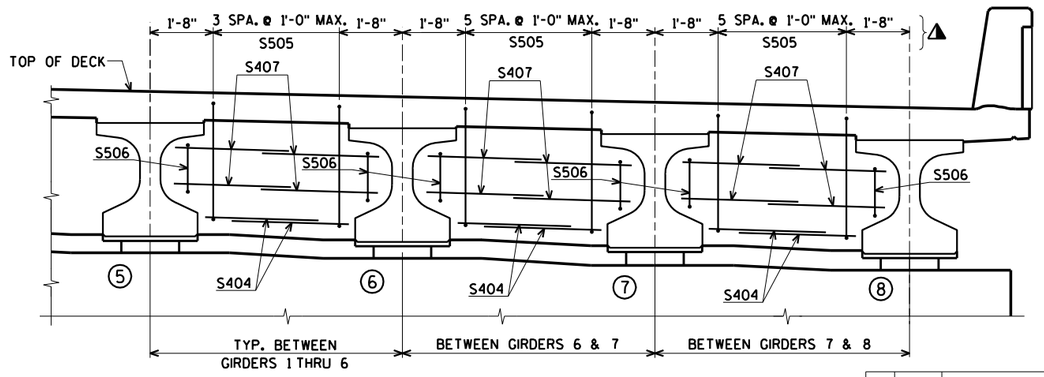
DIAPHRAGM DETAIL AT PIER 1



DIAPHRAGM DETAIL AT PIER 2



DIAPHRAGM DETAIL AT PIER 3



DIAPHRAGM DETAIL AT PIER 4

⚠ DIMENSIONS MEASURED NORMAL TO GIRDERS

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STRUCTURE B-32-224

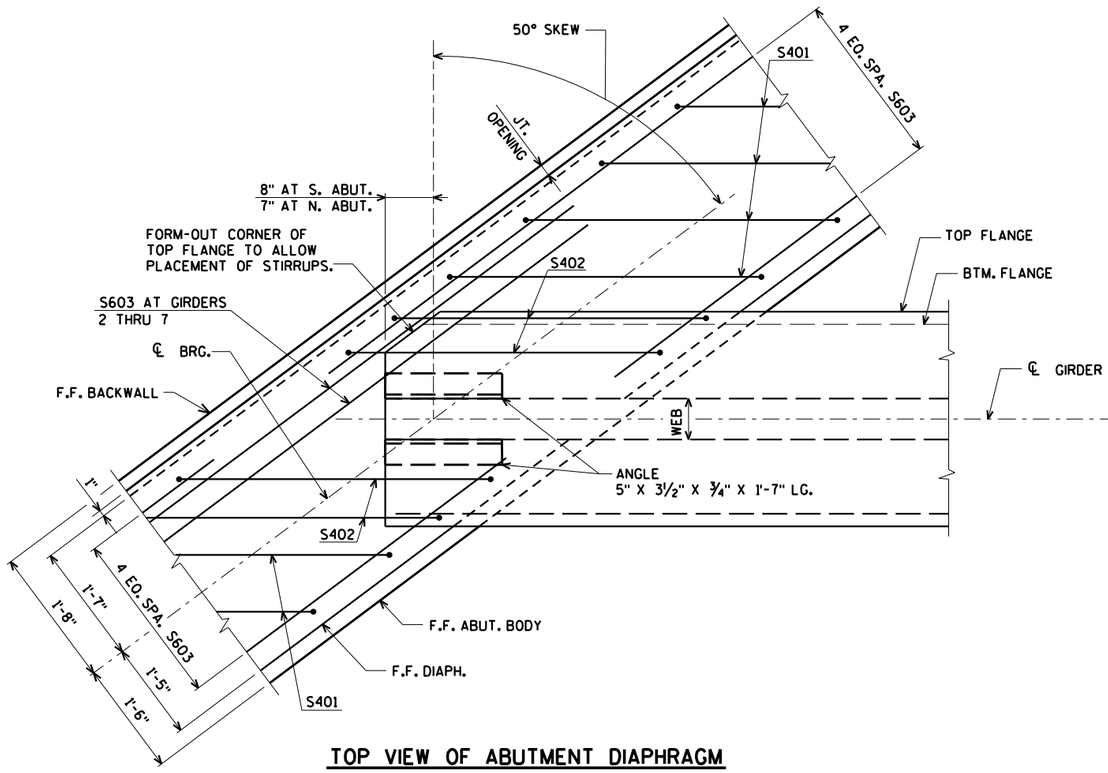
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DIAPHRAGM DETAILS

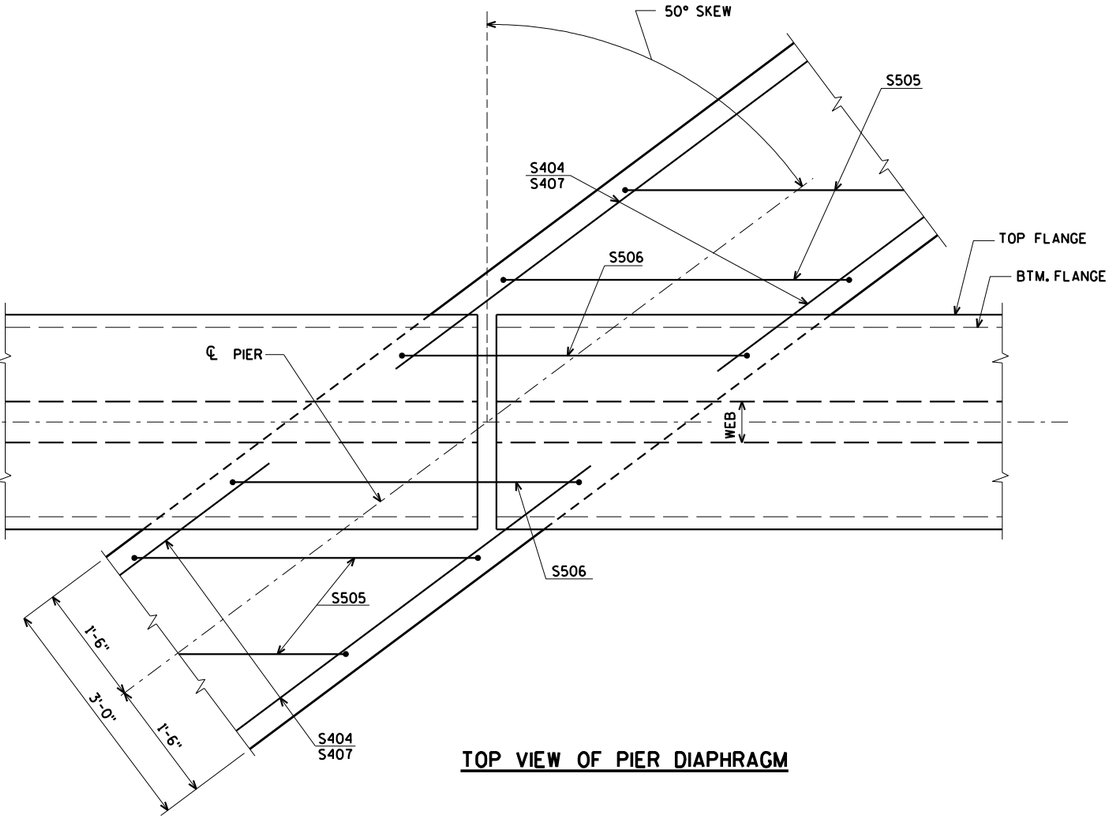
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TOP VIEW OF ABUTMENT DIAPHRAGM



TOP VIEW OF PIER DIAPHRAGM

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8

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DIAPHRAGM DETAILS

SHEET 36 OF 49
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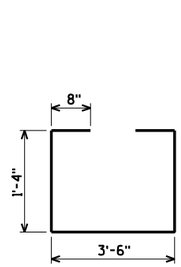
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BILL OF BARS

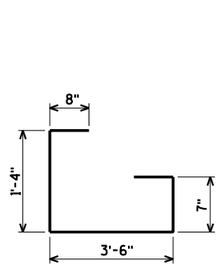
BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	188,210# COATED LOCATION
S401	X	74	7-3	X			DIAPH. @ ABUT. VERT.
S402	X	56	6-6	X			DIAPH. @ ABUT. VERT.
S603	X	140	5-11				DIAPH. @ ABUT. HORIZ.
S404	X	112	5-3				DIAPH. @ PIERS HORIZ.
S505	X	126	12-0	X			DIAPH. @ PIERS VERT.
S506	X	56	11-2	X			DIAPH. @ PIERS VERT.
S407	X	224	6-5				DIAPH. @ PIERS HORIZ.
S408	X	46	13-3			⊗	SLAB TRANS. TOP SPAN 1
S409	X	48	12-11			⊗	SLAB TRANS. TOP SPAN 1
S410	X	1378	24-10				SLAB TRANS. TOP
S411	X	59	13-6			⊗	SLAB TRANS. TOP SPAN 5
S412	X	59	12-10			⊗	SLAB TRANS. TOP SPAN 5
S413	X	45	13-2			⊗	SLAB TRANS. BOT. SPAN 1
S414	X	48	13-3			⊗	SLAB TRANS. BOT. SPAN 1
S415	X	1378	24-10				SLAB TRANS. BOT.
S416	X	59	13-3			⊗	SLAB TRANS. BOT. SPAN 5
S417	X	58	12-9			⊗	SLAB TRANS. BOT. SPAN 5
S418	X	940	42-4				SLAB LONG. BOT.
S419	X	190	30-2				SLAB LONG. TOP SPAN 1
S920	X	48	33-0				SLAB LONG. TOP PIER 1
S921	X	47	33-0				SLAB LONG. TOP PIER 1
S422	X	190	35-5				SLAB LONG. TOP SPAN 2
S1023	X	48	43-0				SLAB LONG. TOP PIER 2
S1024	X	47	38-0				SLAB LONG. TOP PIER 2
S425	X	190	41-7				SLAB LONG. TOP SPAN 3
S1026	X	48	34-0				SLAB LONG. TOP PIER 3
S1027	X	47	41-0				SLAB LONG. TOP PIER 3
S428	X	190	34-9				SLAB LONG. TOP SPAN 4
S929	X	48	27-9				SLAB LONG. TOP PIER 4
S930	X	47	35-9				SLAB LONG. TOP PIER 4
S431	X	190	32-0				SLAB LONG. TOP SPAN 5
S532	X	1481	5-5	X			SLAB TRANS. TOP @ PARAPET
S533	X	1202	4-5	X			PARAPET VERT.
S534	X	607	5-0	X			PARAPET VERT. SINGLE SLOPE 32SS
S535	X	60	42-9				PARAPET HORIZ. SINGLE SLOPE 32SS
S538	X	409	6-8	X			PARAPET VERT. VERTICAL FACE PARAPET 'A'
S439	X	60	42-4				PARAPET HORIZ. VERTICAL FACE PARAPET 'A'
S540	X	595	6-8	X			PARAPET VERT. SINGLE SLOPE 42SS
S541	X	80	42-0				PARAPET HORIZ. SINGLE SLOPE 42SS

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

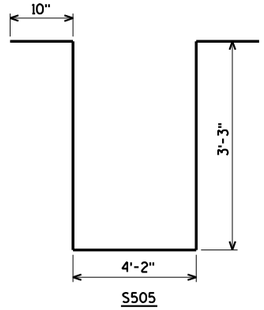
⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



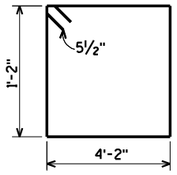
S401



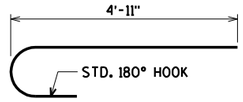
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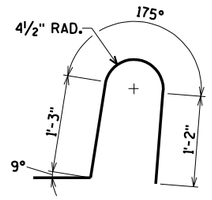
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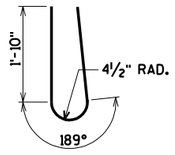
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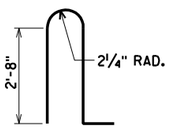
S532



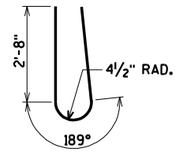
S533



S534



S538



S540

BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
S408	1 SERIES OF 46	2'-1" TO 24'-5"
S409	1 SERIES OF 48	1'-2" TO 24'-8"
S411	1 SERIES OF 59	2'-0" TO 25'-0"
S412	1 SERIES OF 59	1'-2" TO 24'-6"
S413	1 SERIES OF 45	2'-0" TO 24'-4"
S414	1 SERIES OF 48	1'-4" TO 25'-2"
S416	1 SERIES OF 59	1'-9" TO 24'-9"
S417	1 SERIES OF 58	1'-0" TO 24'-6"

BUNDLE AND TAG EACH SERIES SEPARATELY.

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STRUCTURE B-32-224

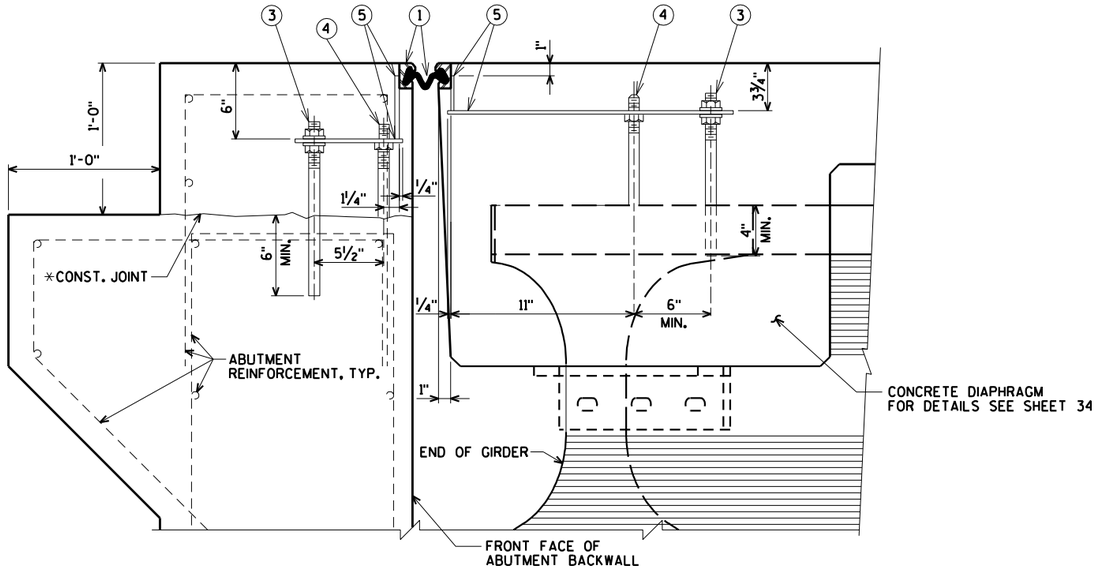
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SUPERSTRUCTURE
BILL OF BARS

SHEET 37 OF 49
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* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

SECTION THRU JOINT
(NORMAL TO ℄ ABUTMENT)

LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.
2. STUDS ⅝"Φ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER AND ABUTMENT BACKWALL AS SHOWN.
4. ¾"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" Φ HOLE FOR NO. 3 & 1" Φ HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" x 10" x 3'-0" LONG WITH HOLES FOR #7.
7. ¾" Φ x 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLES. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾" Φ x 4" GALV. HEX HEAD BOLT. BEND 45°.
9. ¾" Φ x 2¼" GALV. THREADED COUPLING.
10. SIDEWALK COVER PLATE ⅜" X 3'-0" X LIMITS SHOWN. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.
11. 1" x 5" SLOTTED CSK. HOLE FOR #7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

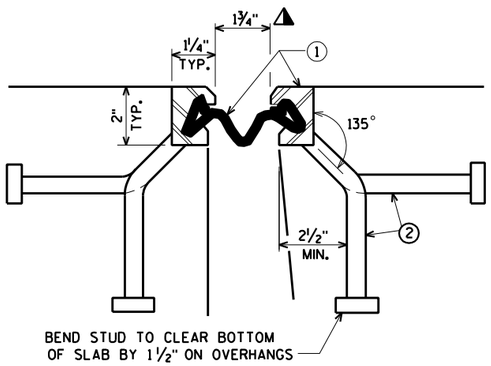
FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS, & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES, SUPPORTS, & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

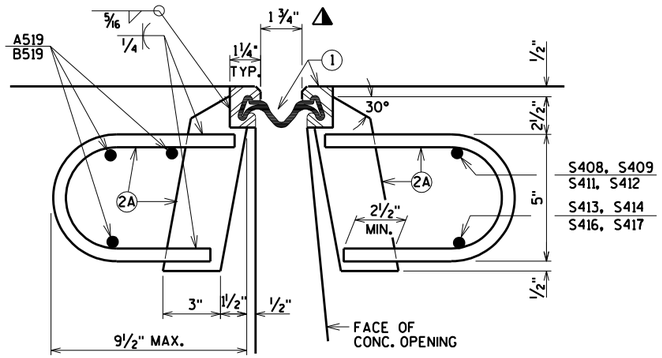
STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-37-224".

ANCHOR SYSTEM #8 & #9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

⚠ DIMENSION MEASURED NORMAL TO JOINT.



SECTION THRU JOINT
EXTERIOR GIRDER TO EDGE OF SLAB



SECTION THRU JOINT
ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

DRAWN BY CLS | PLANS CK'D. AEB

EXPANSION DEVICE

SHEET 38 OF 49
330

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8

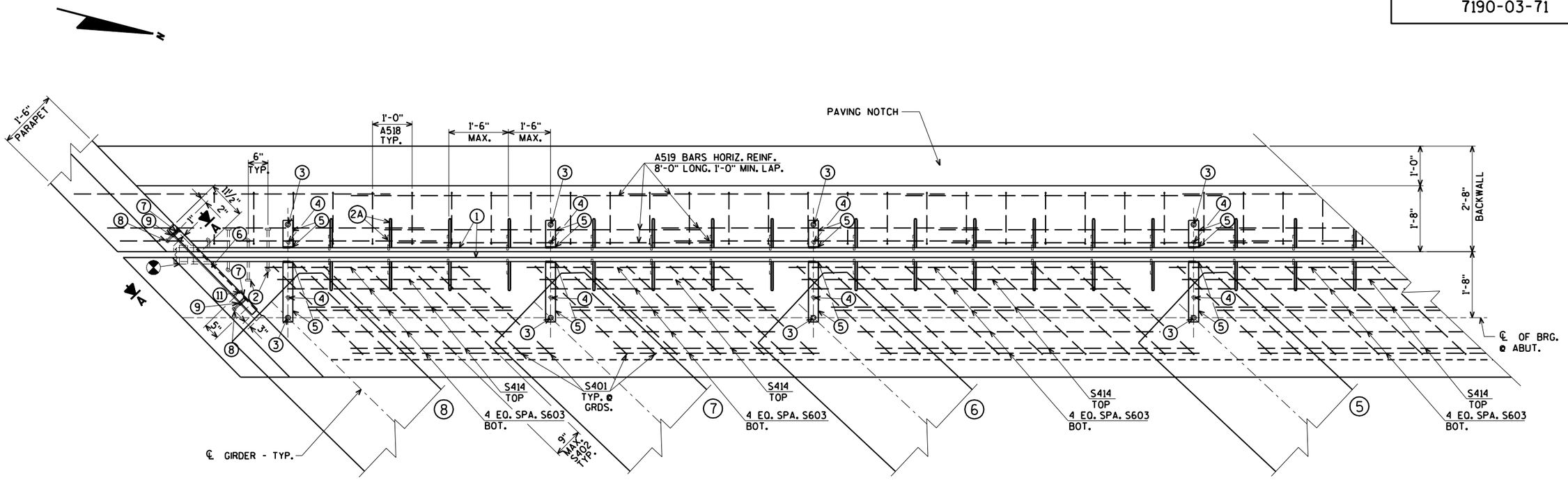
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$PRFNAME$
U:\41-0627.00 - LaCrosse County, IH90\B-32-224 STH 35 SB over BN RR\BRIDGE\FINAL STRUCTURE\B-32-224 exp jt.dgn

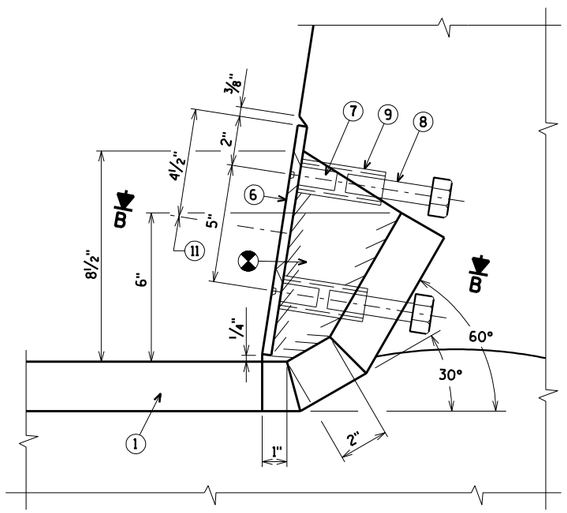
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STATE PROJECT NUMBER

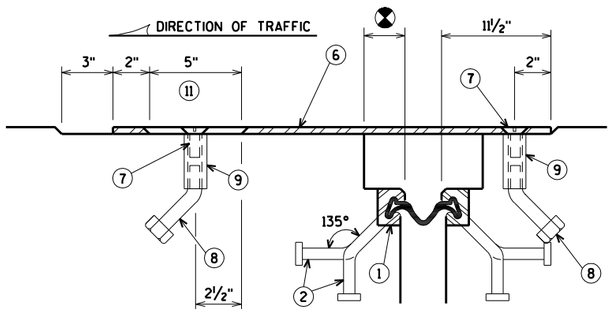
7190-03-71



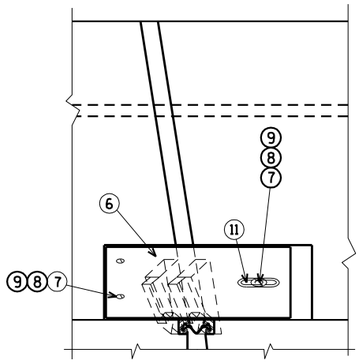
PART PLAN AT SOUTH ABUTMENT



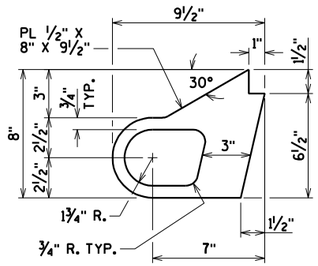
SECTION A



SECTION B



VIEW OF PARAPET PLATE FROM ROADWAY



ALTERNATE STRIP SEAL ANCHOR

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

DRAWN BY CLS | PLANS CK'D. AEB

EXPANSION DEVICE AT SOUTH ABUTMENT

SHEET 39 OF 49
331

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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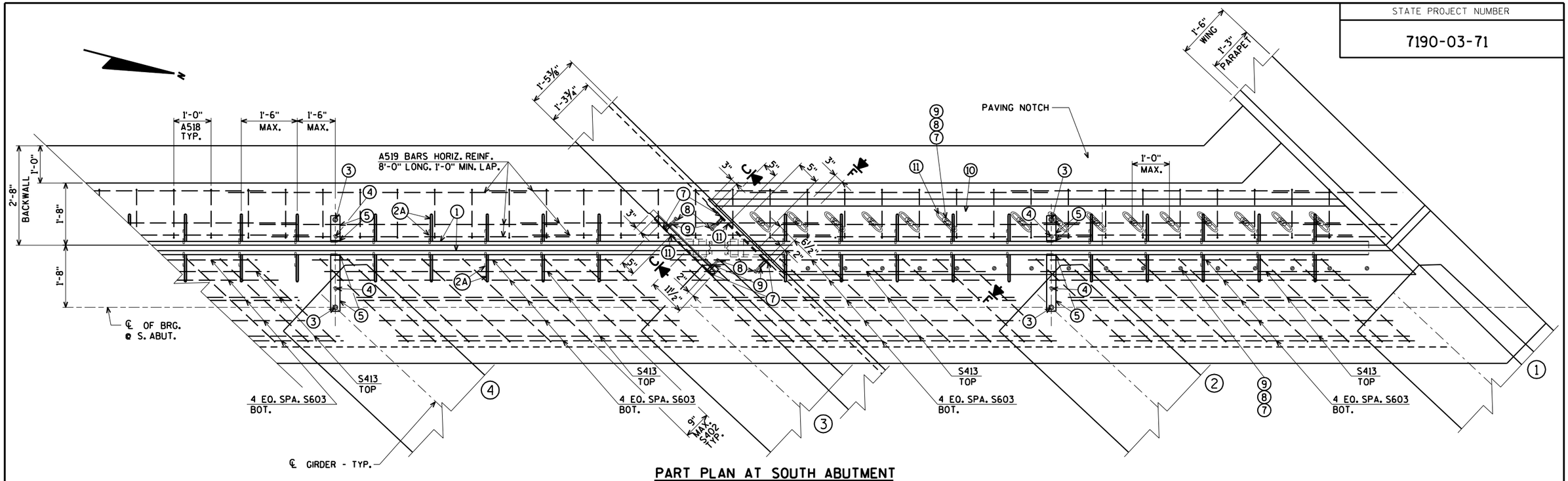
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7/16/2015

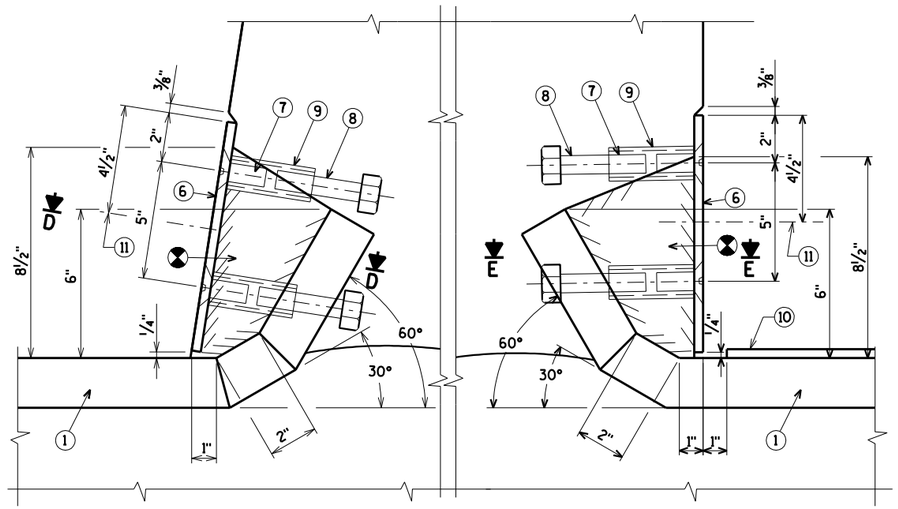
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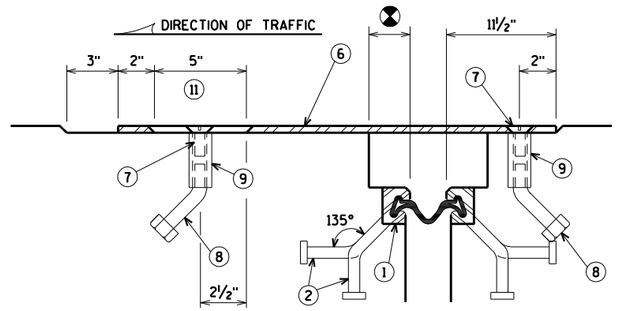
STATE PROJECT NUMBER
7190-03-71



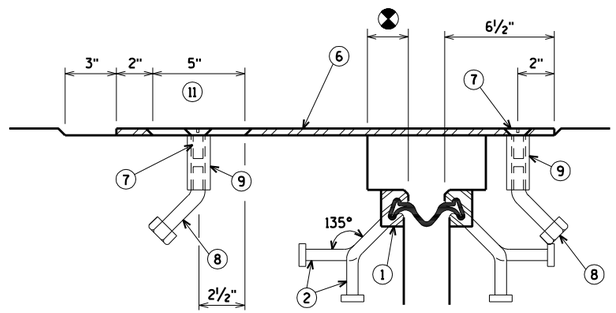
PART PLAN AT SOUTH ABUTMENT



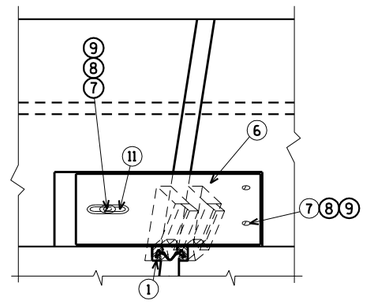
SECTION C



SECTION D



SECTION E



VIEW OF PARAPET PLATE FROM ROADWAY

FOR SECTION F SEE SHEET 43

⊠ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

DRAWN BY CLS | PLANS CK'D. AEB

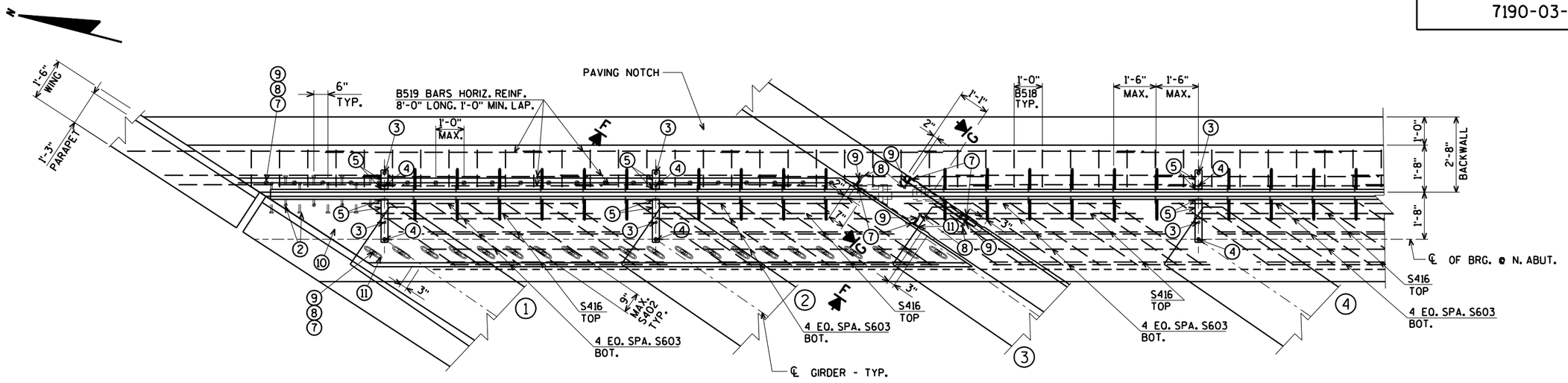
EXPANSION DEVICE AT SOUTH ABUTMENT

SHEET 40 OF 49
332

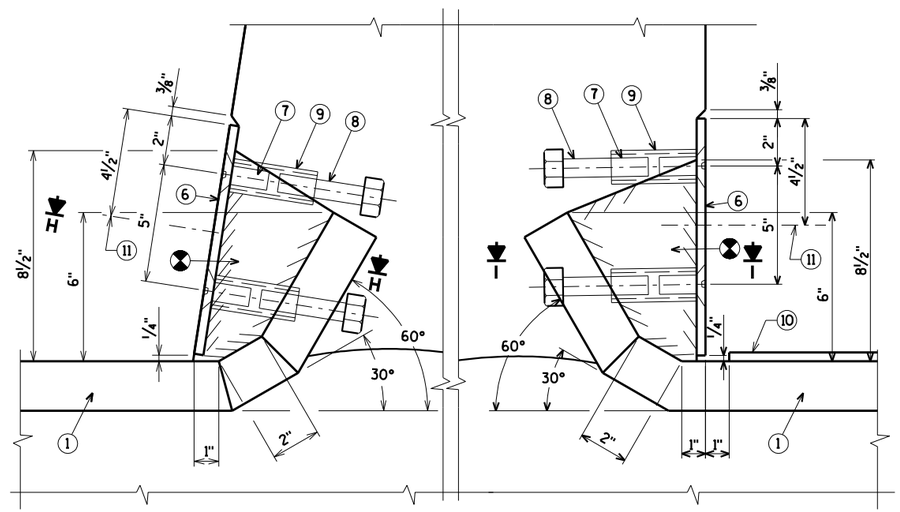
ORIGINAL PLANS PREPARED BY
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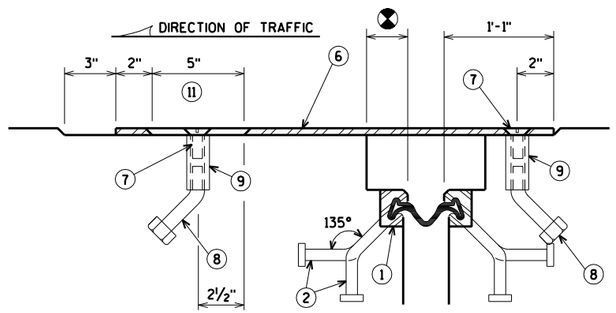
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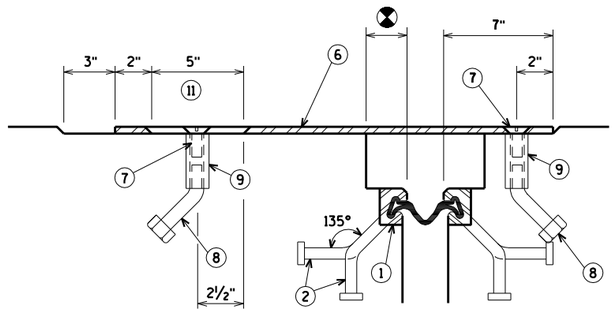
PART PLAN AT NORTH ABUTMENT



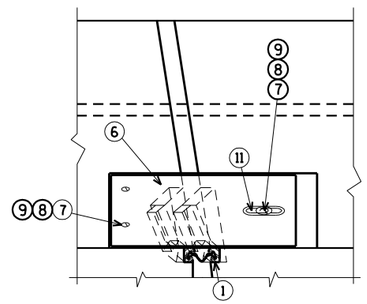
SECTION G



SECTION H



SECTION I



VIEW OF PARAPET PLATE FROM ROADWAY

FOR SECTION F SEE SHEET 43

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

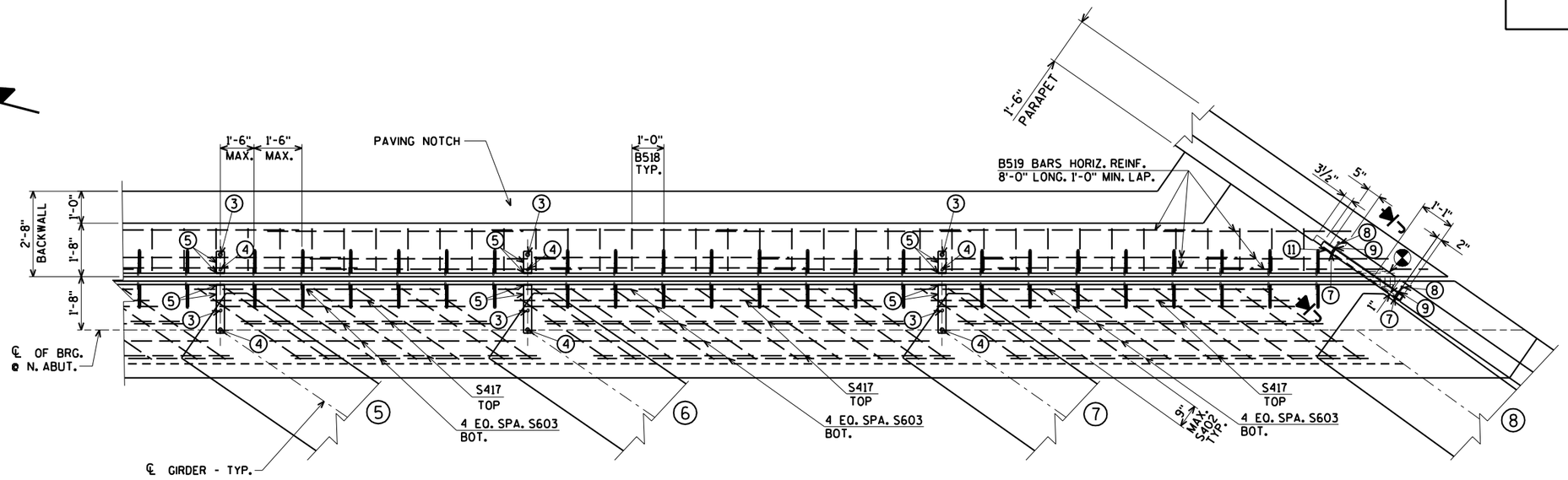
DRAWN BY CLS | PLANS CK'D. AEB

EXPANSION DEVICE AT NORTH ABUTMENT

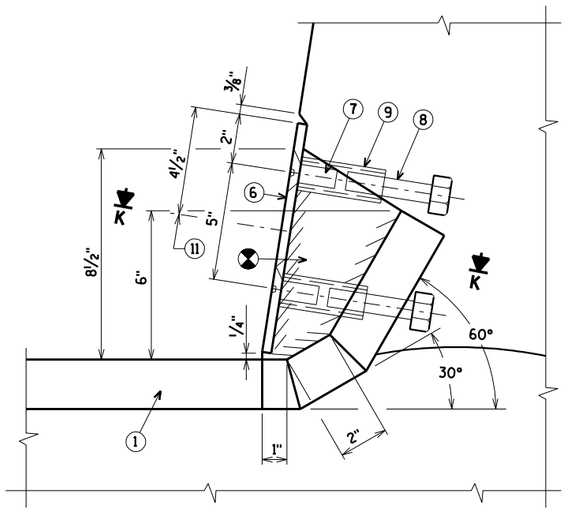
SHEET 41 OF 49
333

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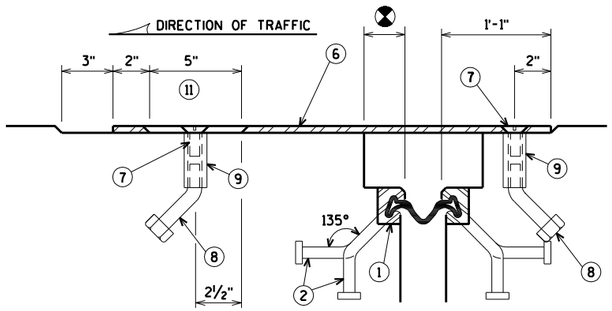
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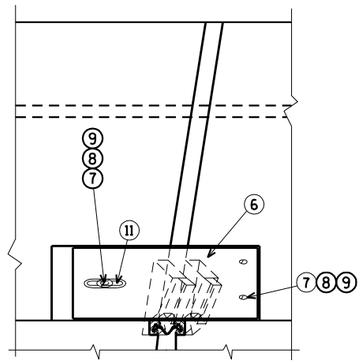
PART PLAN AT NORTH ABUTMENT



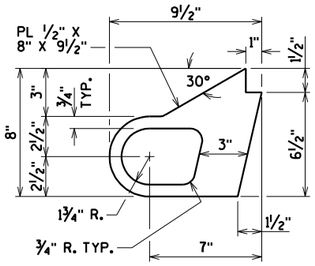
SECTION J



SECTION K



VIEW OF PARAPET PLATE FROM ROADWAY



ALTERNATE STRIP SEAL ANCHOR

⊠ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

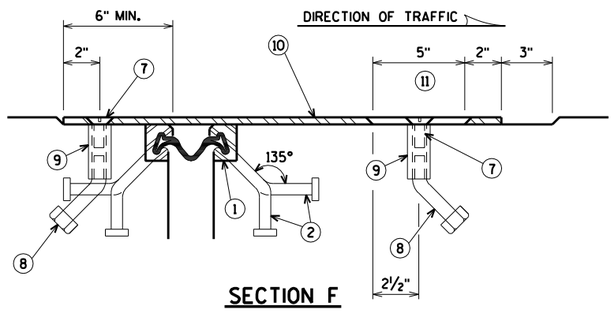
DRAWN BY CLS | PLANS CK'D. AEB

EXPANSION DEVICE AT NORTH ABUTMENT

SHEET 42 OF 49
334

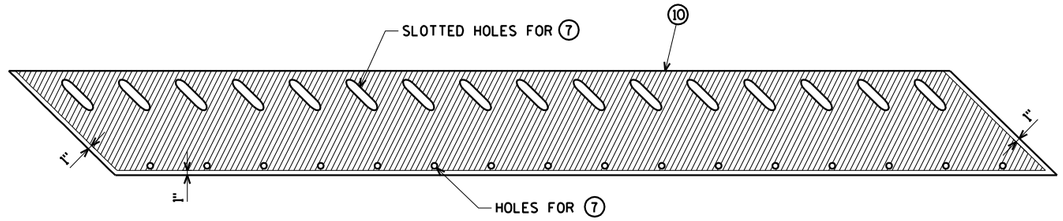
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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U:±41-0627.00 - LaCrosse County, IH90±B-32-224 STH 35 SB over BN RR±BRIDGE±FINAL STRUCTURE±B-32-224 exp jt.dgn



SECTION F

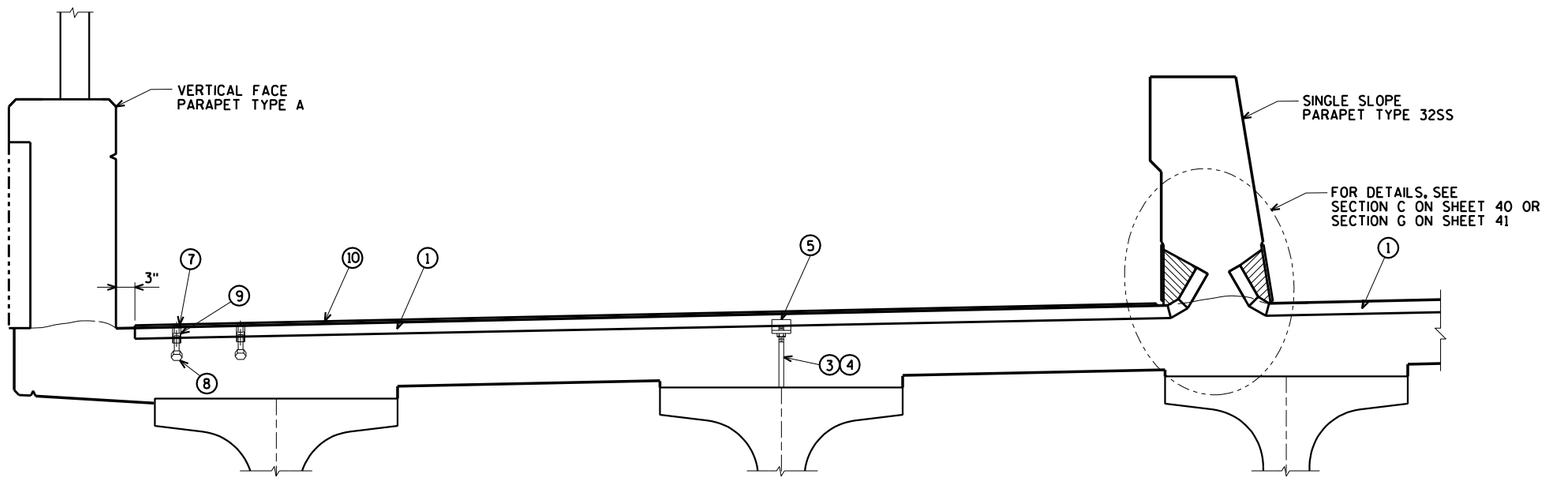
FOR LOCATION OF SECTION F
SEE SHEETS 40 & 41



PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

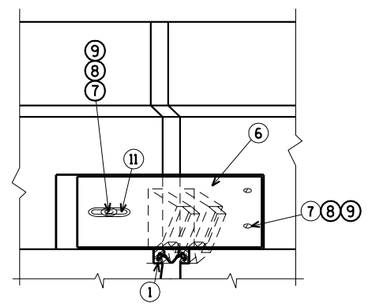
PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY.

COVER PLATE AT SOUTH ABUTMENT SHOWN. COVER PLATE AT NORTH ABUTMENT IS SIMILAR.



SECTION AT SIDEWALK

AT SOUTH ABUTMENT, LOOKING NORTH
NORTH ABUTMENT SIMILAR



VIEW OF PARAPET PLATE FROM SIDEWALK

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

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EXPANSION DEVICE AT SIDEWALK

SHEET 43 OF 49
335

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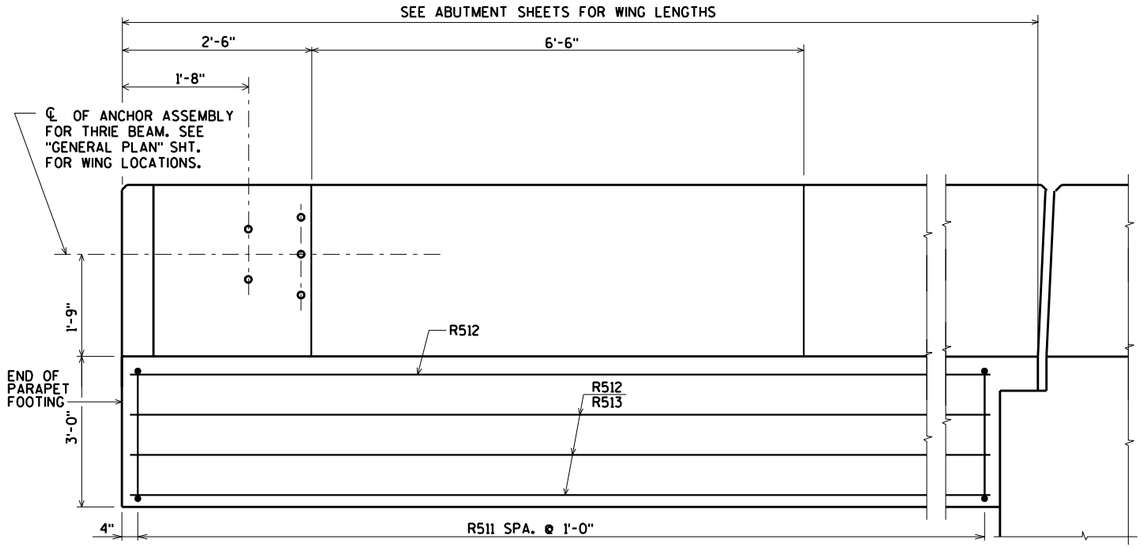
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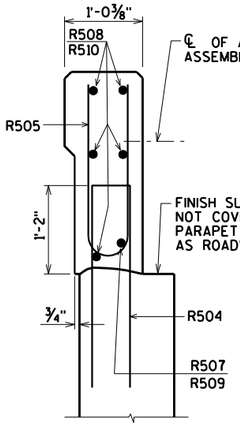
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U:\41-0627.00 - LaCrosse County, IH90\B-32-224 STH 35 SB over BN RR\BRIDGE\FINAL STRUCTURE\B-32-224 exp jt.dgn

STATE PROJECT NUMBER

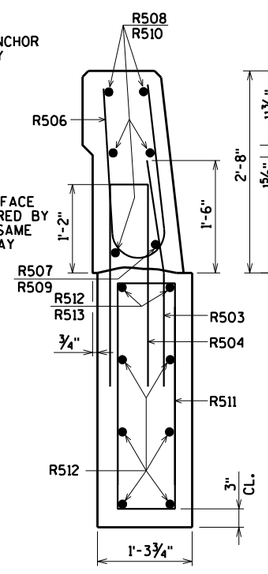
7190-03-71



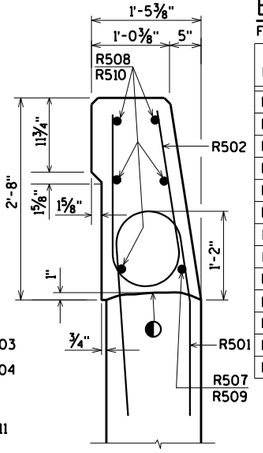
INSIDE ELEVATION



SECTION A



SECTION B

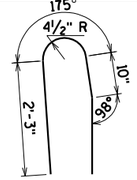


SECTION C

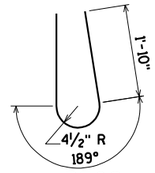
BILL OF BARS

FOR ABUTMENT PARAPETS WEIGHTS SHOWN ON SHEETS 9 & 14

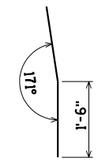
BAR MARK	COAT	SOUTH ABUT.	NORTH ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	11	26	5-10	X		PARAPET VERT.
R502	X	11	26	5-0	X		PARAPET VERT.
R503	X	12	12	3-0	X		PARAPET VERT.
R504	X	17	17	5-7	X		PARAPET VERT.
R505	X	11	11	4-9	X		PARAPET VERT.
R506	X	6	6	4-10	X		PARAPET VERT.
R507	X	1	---	15-7	X		PARAPET HORIZ.
R508	X	5	---	15-7			PARAPET HORIZ.
R509	X	---	1	25-7	X		PARAPET HORIZ
R510	X	---	5	25-7			PARAPET HORIZ
R511	X	17	27	7-8	X		PAR. FTG. VERT.
R512	X	8	---	15-7			PAR. FTG. HORIZ.
R513	X	---	8	25-7			PAR. FTG. HORIZ.



R501



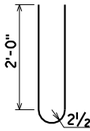
R502



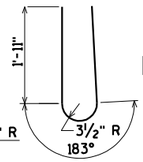
R503



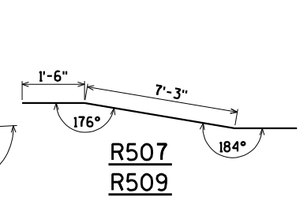
R504



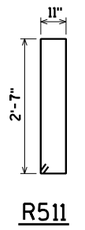
R505



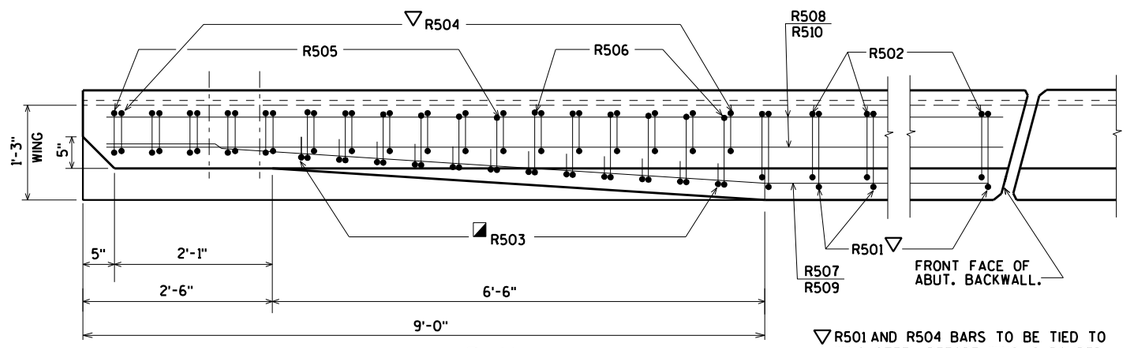
R506



R507
R509



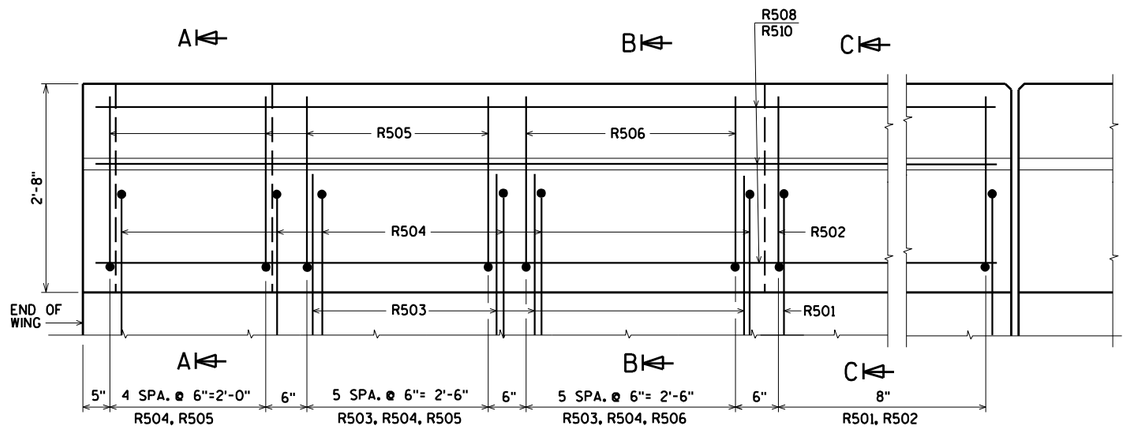
R511



PLAN

▽R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

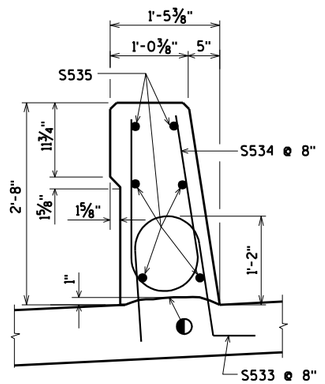
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



OUTSIDE ELEVATION

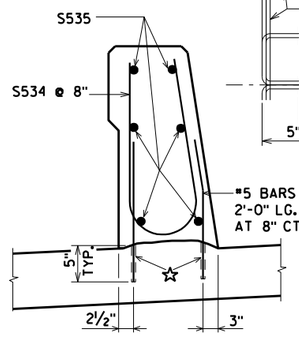
◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 OR S503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.



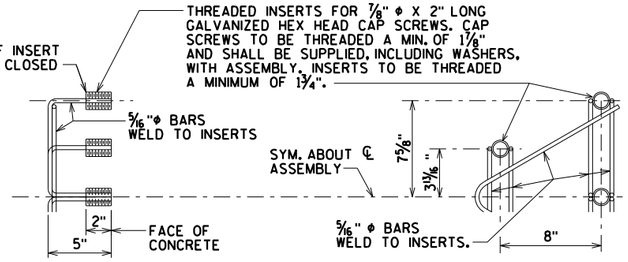
SECTION THRU PARAPET ON BRIDGE

☆ MASONRY ANCHORS, TYPE S 5/8-INCH MIN. PULLOUT LOAD = 14.6 kips.



ALTERNATE SECTION THRU PARAPET ON BRIDGE

NOTE: ANCHORS AS SHOWN MAY BE SUBSTITUTED FOR S533 BARS AT CONTRACTORS EXPENSE. PAY WEIGHT BASED ON AS DETAILED.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

DRAWN BY CLS | PLANS CK'D. AEB

SINGLE SLOPE PARAPET 32SS

SHEET 44 OF 49
336

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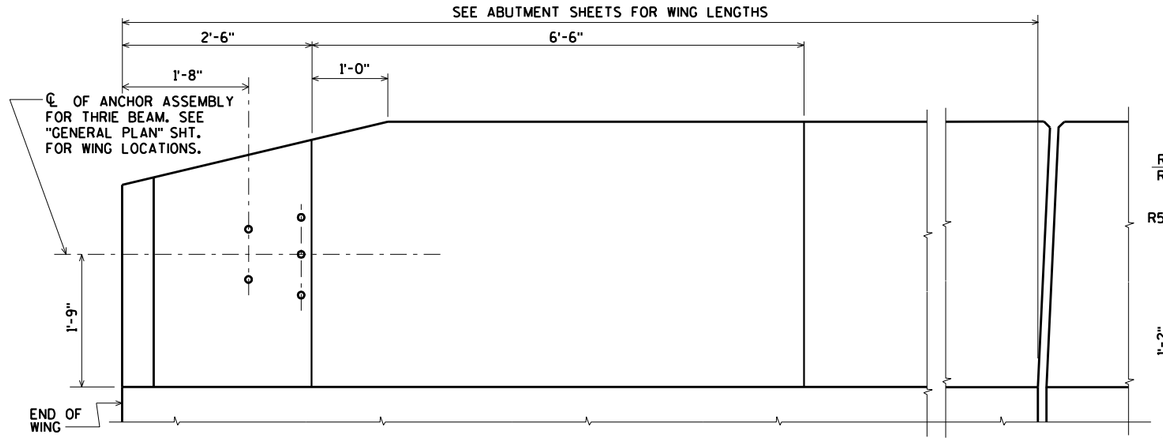
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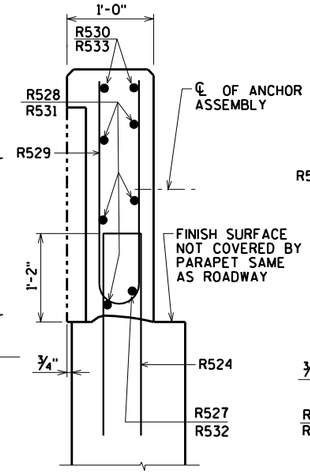
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U:\41-0627.00 - LaCrosse County, IH90\B-32-224 STH 35 SB over BN RR\BRIDGE\FINAL STRUCTURE\B-32-224 32SS.dgn

STATE PROJECT NUMBER

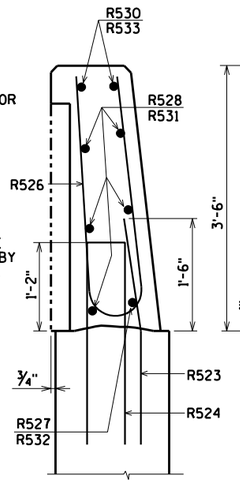
7190-03-71



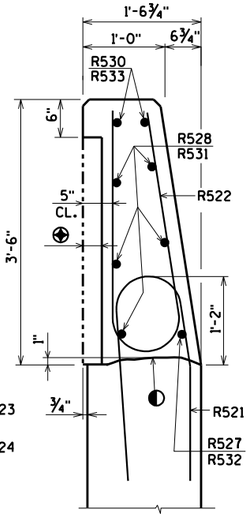
INSIDE ELEVATION



SECTION A



SECTION B



SECTION C

BILL OF BARS

FOR ABUTMENT PARAPETS WEIGHTS SHOWN ON SHEETS 9 & 14

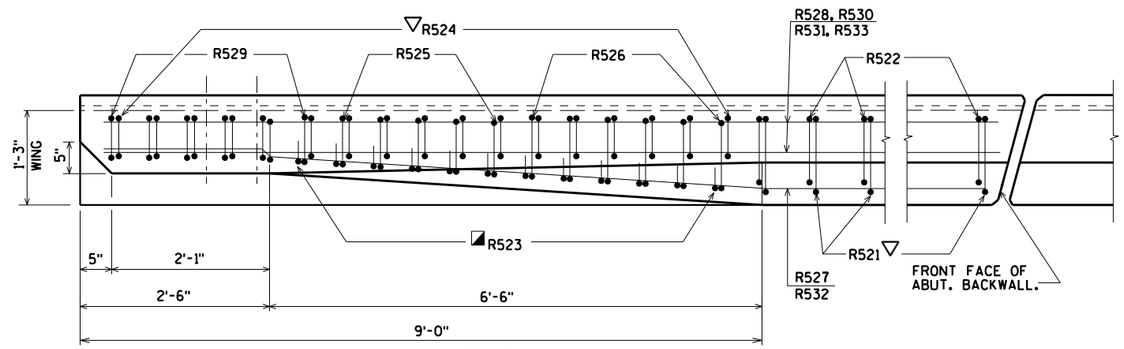
BAR MARK	COAT	SOUTH ABUT.	NORTH ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R521	X	23	11	5-10	X		PARAPET VERT.
R522	X	23	11	6-8	X		PARAPET VERT.
R523	X	11	11	3-0	X		PARAPET VERT.
R524	X	17	17	5-7	X		PARAPET VERT.
R525	X	5	5	6-5	X		PARAPET VERT.
R526	X	6	6	6-6	X		PARAPET VERT.
R527	X	1	---	23-7	X		PARAPET HORIZ.
R528	X	5	---	23-7			PARAPET HORIZ.
R529	X	6	6	5-5	X	◭	PARAPET VERT.
R530	X	2	---	23-7	X		PARAPET HORIZ.
R531	X	---	5	15-7			PARAPET HORIZ.
R532	X	---	1	15-7	X		PARAPET HORIZ.
R533	X	---	2	15-7	X		PARAPET HORIZ.

◭ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

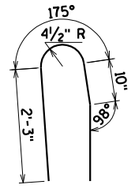
MARK	NO. REQD.	LENGTH
R529	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

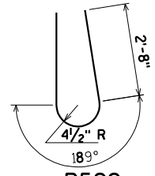


PLAN

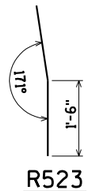
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



R521



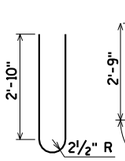
R522



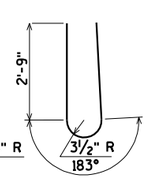
R523



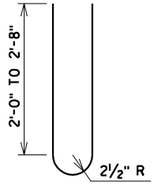
R524



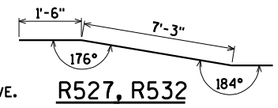
R525



R526



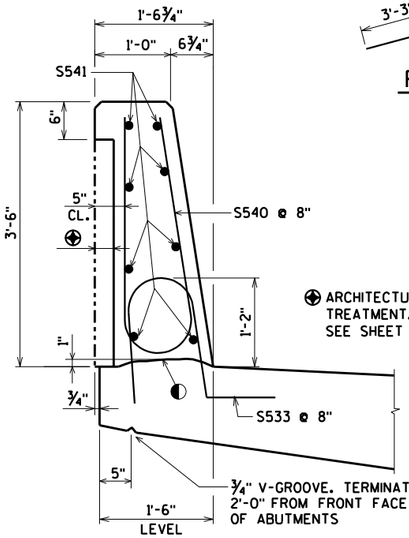
R529



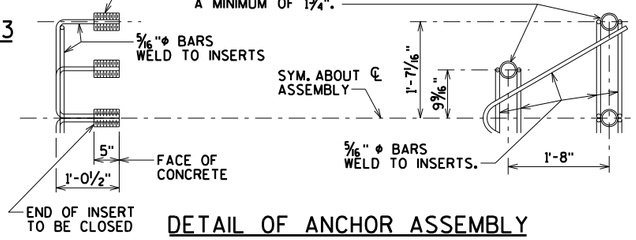
R527, R532



R530, R533



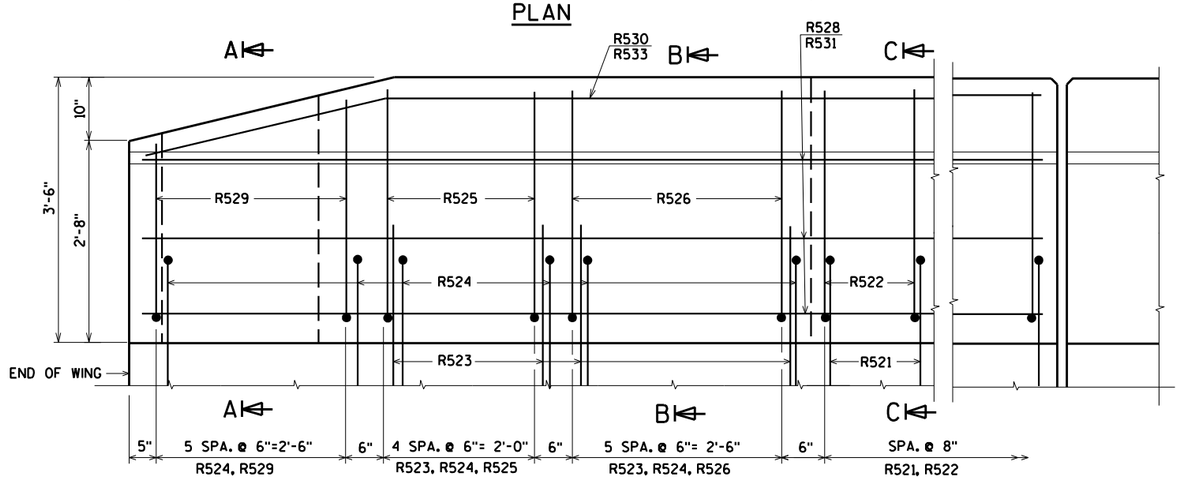
SECTION THRU PARAPET ON BRIDGE



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



OUTSIDE ELEVATION

◐ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 48

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R523 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R523 OR S503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

R521 AND R524 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

DRAWN BY CLS | PLANS CK'D. AEB

SINGLE SLOPE PARAPET 42SS

SHEET 45 OF 49
337

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Eau Claire, WI 54701
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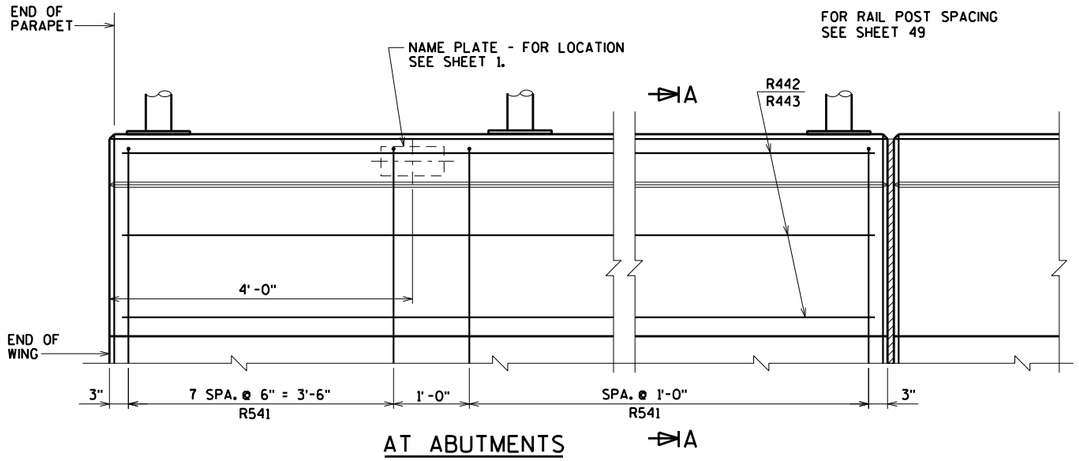
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8

$PRFNAME$
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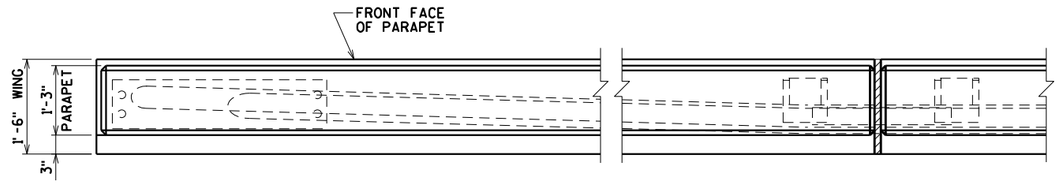
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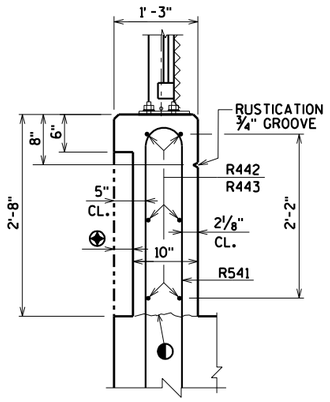
AT ABUTMENTS

ELEVATION OF PARAPET

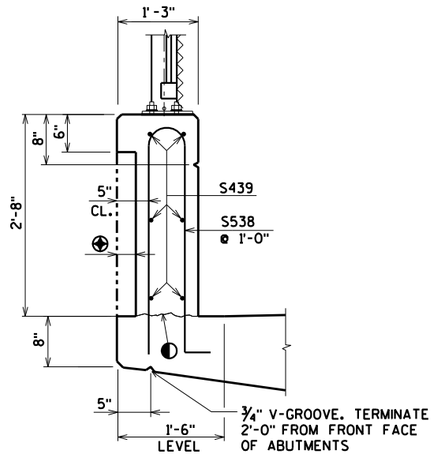


PLAN OF PARAPET

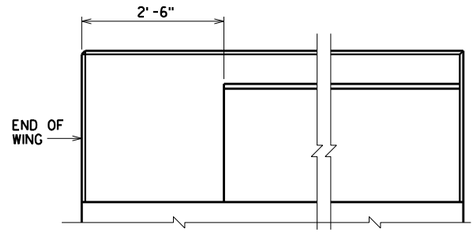
FOR ORNAMENTAL PROTECTIVE SCREENING SEE SHEET 49



SECTION A-A



SECTION THRU PARAPET ON BRIDGE



FRONT FACE OF PARAPET

BILL OF BARS

FOR ABUTMENT PARAPETS WEIGHTS SHOWN SEE SHEETS 9 & 14

BAR MARK	COAT	SOUTH ABUT.	NORTH ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R541	X	12	22	9-5	X		PARAPET VERT.
R442	X	6	---	15-7			PARAPET HORIZ.
R443	X	---	6	25-7			PARAPET HORIZ.



R541

◈ ARCHITECTURAL SURFACE TREATMENT. FOR DETAILS SEE SHEET 48

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-224

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VERTICAL FACE PARAPET "A"

SHEET 46 OF 49
338

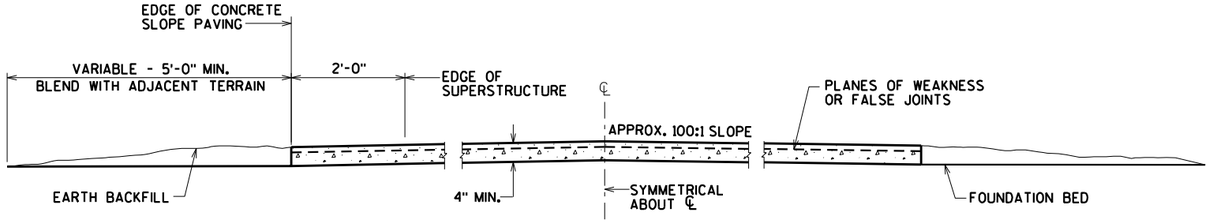
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$PRFNAME$
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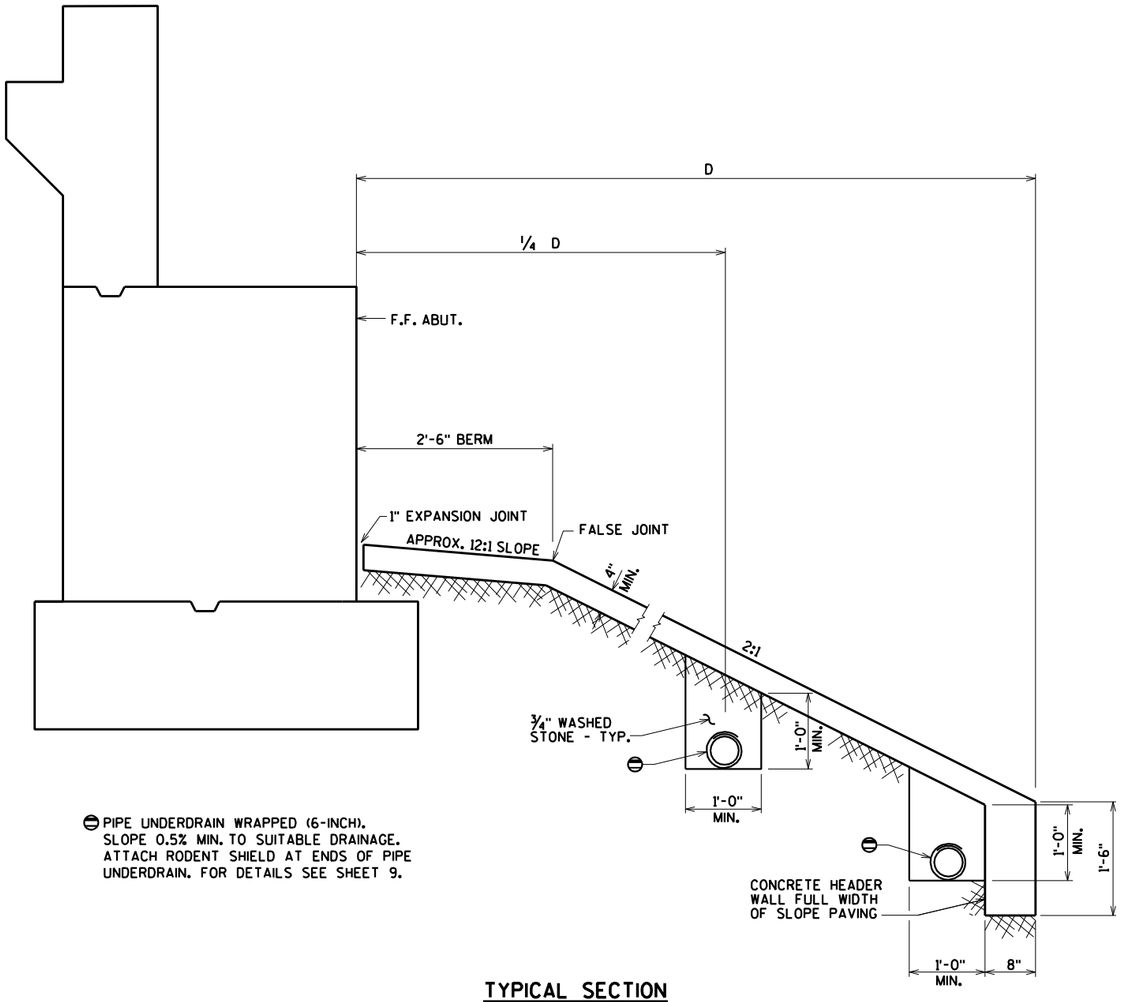
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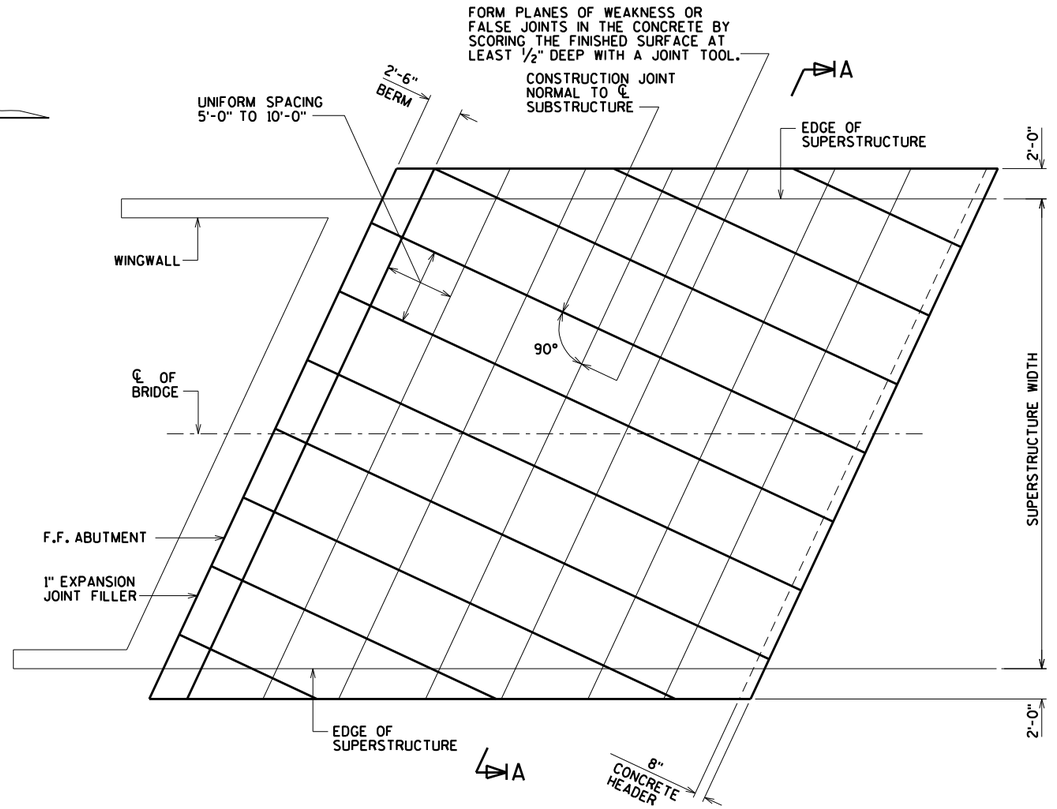


SECTION A-A

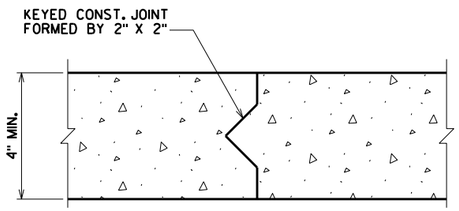


⊖ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. FOR DETAILS SEE SHEET 9.

TYPICAL SECTION



PLAN



CONSTRUCTION JOINT

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN HEREIN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

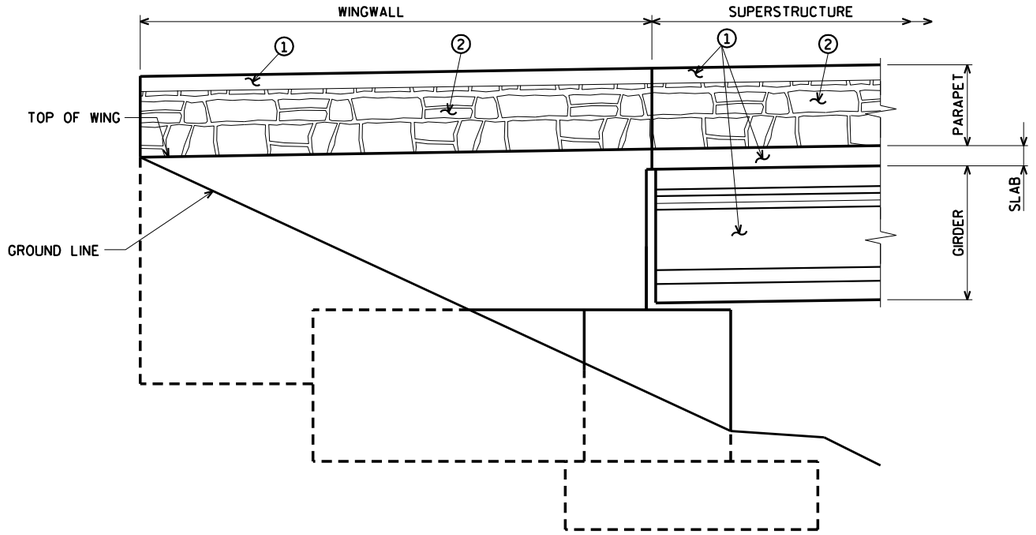
STRUCTURE B-32-224

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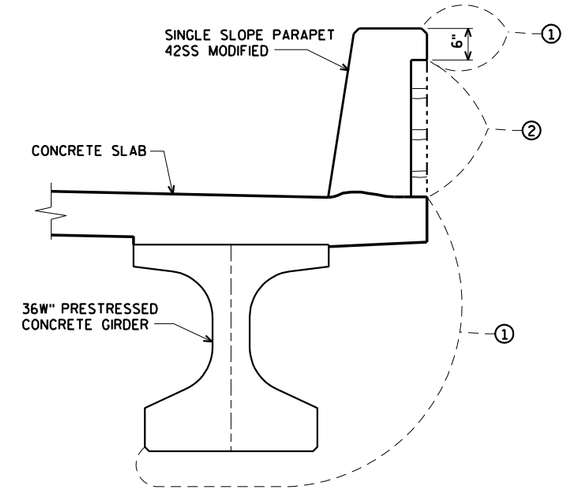
SLOPE PAVING

SHEET 47 OF 49
339

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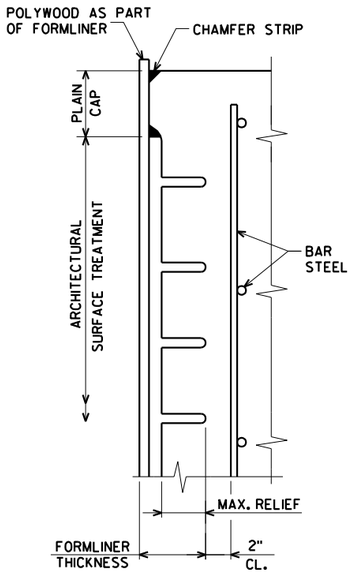
ARCHITECTURAL SURFACE TREATMENT AT ABUTMENT WINGWALLS



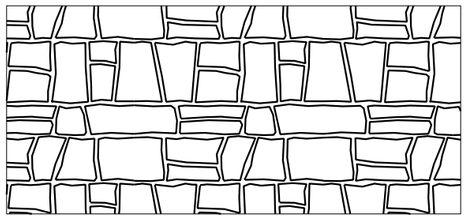
① LIMITS OF CONCRETE STAINING. FEDERAL STANDARD COLOR NUMBER 33446 (MEDIUM TAN).

② LIMITS OF CONCRETE STAINING MULTI-COLOR

ARCHITECTURAL SURFACE TREATMENT AT EAST PARAPET



SECTION THRU FORMLINER

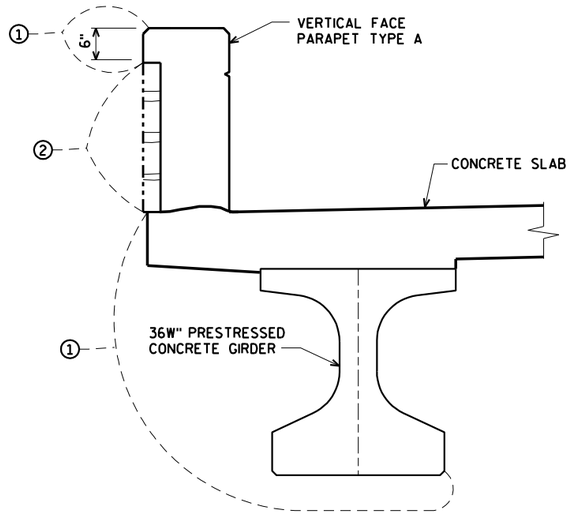


RUSTIC ASHLAR

FORMLINER THICKNESS = 3"
SIZE = 8" TO 32"
MAX. RELIEF = 2"

PARAPET NOTES

THE FORMLINER COURSING ON PARAPETS SHALL BE PARALLEL TO THE TOP OF PARAPET.



ARCHITECTURAL SURFACE TREATMENT AT WEST PARAPET

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-224

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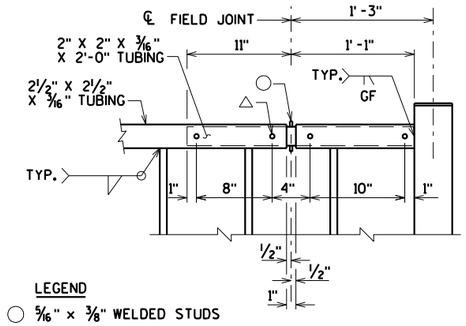
ARCHITECTURAL SURFACE TREATMENT

SHEET 48 OF 49
340

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$PRFNAME$
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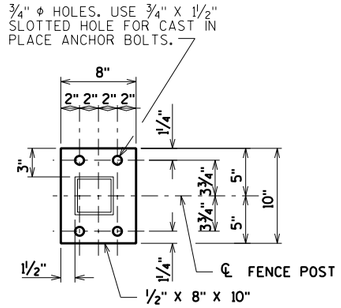


LEGEND

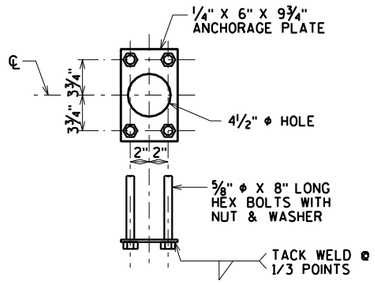
○ 5/16" × 3/8" WELDED STUDS

△ WELD BEAD ON EACH SIDE OF TUBE. GRIND BEADS SO THAT SLEEVE FITS FREELY INSIDE THE 2½" × 2½" TUBE.

RAILING EXPANSION JOINT DETAIL

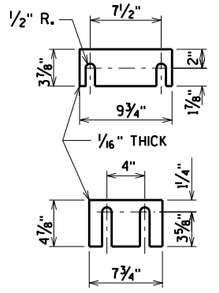


BASE PLATE



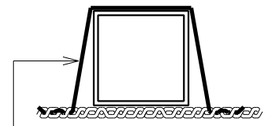
ANCHORAGE DETAIL

⅝" ϕ CONCRETE MASONRY ANCHOR, TYPE S EPOXY, 7" MINIMUM EMBEDMENT WITH A MINIMUM PULLOUT OF 20 KIPS MAY BE SUBSTITUTED FOR ⅝" CAST IN PLACE ANCHOR BOLTS. ANCHORAGE PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.



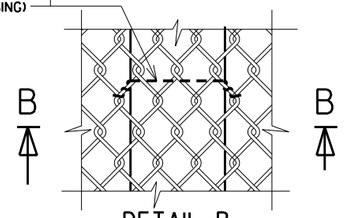
SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST

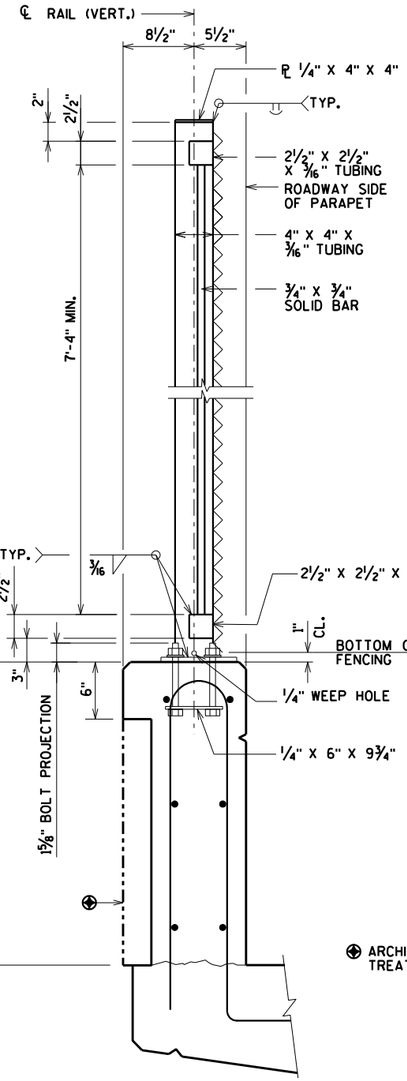


SECTION B-B

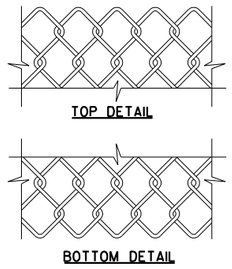
FABRIC TIE ⊗ 1'-0" MAX. SPA. (TYP. RAIL POSTS & HORIZ. TUBING)



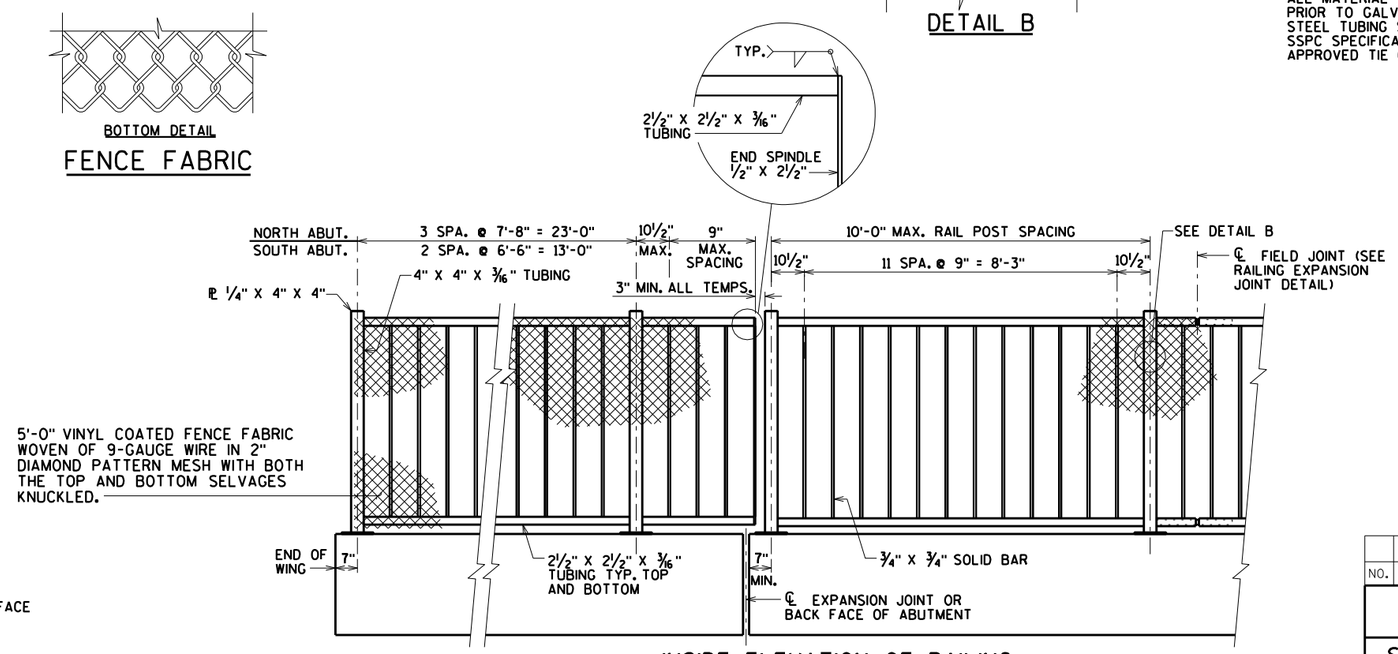
DETAIL B



SECTION THRU RAILING



FENCE FABRIC



INSIDE ELEVATION OF RAILING

STATE PROJECT NUMBER

7190-03-71

NOTES

BID ITEM SHALL BE "RAILING TUBULAR SCREENING B-32-224" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

RAILS AND POSTS TO BE ASTM A500, GRADE B. BASE PLATES AND SHIMS TO BE ASTM A709, GRADE 36. ALL GALVANIZED AFTER FABRICATION.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPA. ARE TAKEN HORIZ. ALONG CENTER LINE OF RAILING AT BASE OF POST.

SHIMS SHALL BE USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED.

RAILING TO BE PAINTED AND FENCE FABRIC AND TIES TO BE VINYL COATED. FEDERAL COLOR NO. 27038 (BLACK).

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE NOT MORE THAN 3 POSTS.

THE END OF THE FABRIC SHALL BE ATTACHED TO THE POST BY MEANS OF A TENSION BAR THREADED THROUGH THE END LOOPS OF THE FABRIC AND SECURED TO THE POST WITH CLAMPS & BOLT. THE FABRIC SHALL BE STRETCHED TO REMOVE ALL SLACK.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING.

ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A #6 BLAST CLEANING BY SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH APPROVED TIE COAT AND TOPCOAT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-32-224

DRAWN BY CLS | PLANS CK'D. AEB

ORNAMENTAL PROTECTIVE SCREENING

SHEET 49 OF 49
341

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

EARTHWORK DATA - ROSE STREET (NORTHBOUND)

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
133+50.00	173.51	0.00	0.00	0.00	0.00	0.00	0.00
134+00.00	175.09	1.30	322.78	1.20	322.78	1.38	321.40
134+50.00	177.81	3.99	326.76	4.89	649.54	7.00	642.54
135+00.00	52.27	3.53	213.04	6.96	862.58	15.00	847.57
135+50.00	71.30	0.33	114.41	3.57	976.98	19.11	957.88
136+00.00	81.44	0.05	141.42	0.35	1,118.41	19.51	1,098.89
136+05.13	0.00	0.00	7.74	0.00	1,126.14	19.52	1,106.62
			STRUCTURE B-32-224				
140+07.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140+50.00	123.10	21.36	80.91	16.90	80.91	19.43	61.47
141+00.00	118.02	1.77	223.26	21.42	304.16	44.06	260.10
141+50.00	116.99	0.58	217.60	2.18	521.77	46.57	475.20
142+00.00	125.64	33.29	224.65	31.36	746.42	82.63	663.79
142+50.00	133.64	45.79	240.07	73.22	986.49	166.83	819.66
143+00.00	146.50	50.85	259.38	89.47	1,245.87	269.72	976.15
143+50.00	144.85	59.90	269.77	102.54	1,515.64	387.64	1,127.99
144+00.00	154.62	68.19	277.29	118.60	1,792.93	524.03	1,268.89
144+50.00	215.09	28.06	342.32	89.13	2,135.25	626.53	1,508.72
145+00.00	186.75	89.81	372.07	109.14	2,507.32	752.05	1,755.27
145+50.00	174.70	88.14	334.68	164.77	2,841.99	941.53	1,900.46
146+00.00	164.78	83.56	314.34	158.99	3,156.33	1,124.37	2,031.96
146+50.00	142.66	92.44	284.67	162.96	3,441.00	1,311.77	2,129.22
147+00.00	163.19	94.31	283.19	172.92	3,724.19	1,510.63	2,213.56
147+50.00	165.55	71.53	304.39	153.55	4,028.57	1,687.21	2,341.36
148+00.00	167.70	61.35	308.56	123.04	4,337.13	1,828.71	2,508.43
148+50.00	166.38	53.66	309.32	106.49	4,646.46	1,951.18	2,695.28
149+00.00	163.50	57.21	305.44	102.66	4,951.90	2,069.23	2,882.67
149+50.00	165.80	48.92	304.91	98.27	5,256.81	2,182.24	3,074.57
150+00.00	176.62	47.32	317.06	89.11	5,573.87	2,284.72	3,289.15
150+50.00	176.25	51.69	326.74	91.68	5,900.61	2,390.15	3,510.46
151+00.00	168.70	51.67	319.40	95.70	6,220.01	2,500.20	3,719.80
151+50.00	148.86	51.33	294.03	95.36	6,514.04	2,609.87	3,904.17
152+00.00	129.88	50.25	258.09	94.06	6,772.14	2,718.04	4,054.10
152+50.00	116.90	35.36	228.50	79.27	7,000.64	2,809.20	4,191.44
153+00.00	116.14	35.29	215.78	65.42	7,216.41	2,884.43	4,331.98
153+50.00	121.80	30.05	220.32	60.50	7,436.73	2,954.01	4,482.73
154+00.00	135.33	38.74	238.09	63.69	7,674.82	3,027.25	4,647.57
154+50.00	93.92	0.00	212.27	35.87	7,887.09	3,068.51	4,818.59
155+00.00	89.92	0.00	170.22	0.00	8,057.32	3,068.51	4,988.81
155+50.00	89.32	0.00	165.96	0.00	8,223.28	3,068.51	5,154.77
156+00.00	102.65	0.00	177.75	0.00	8,401.03	3,068.51	5,332.52
156+50.00	125.10	0.07	210.88	0.06	8,611.91	3,068.58	5,543.33
156+92.64	126.40	0.05	198.61	0.10	8,810.51	3,068.69	5,741.82
157+00.00	120.72	0.05	33.66	0.01	8,844.18	3,068.71	5,775.47
157+47.29	110.27	0.15	202.31	0.17	9,046.49	3,068.90	5,977.58
157+50.00	112.64	0.15	11.17	0.01	9,057.66	3,068.92	5,988.74

- CONTINUED -

EARTHWORK DATA - ROSE STREET (NORTHBOUND)

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
157+59.48	111.08	0.06	39.26	0.04	9,096.91	3,068.96	6,027.95
158+00.00	103.01	4.35	160.66	3.31	9,257.58	3,072.77	6,184.81
158+38.24	99.11	0.03	143.14	3.10	9,400.71	3,076.34	6,324.38
158+50.00	100.63	0.08	43.50	0.02	9,444.21	3,076.36	6,367.85
159+00.00	93.58	1.37	179.83	1.35	9,624.04	3,077.91	6,546.12
159+29.65	92.85	0.38	102.38	0.96	9,726.41	3,079.02	6,647.39
159+50.00	86.02	3.00	67.40	1.27	9,793.81	3,080.48	6,713.33
160+00.00	98.66	0.00	171.00	2.78	9,964.81	3,083.68	6,881.14
160+16.85	107.43	0.00	64.30	0.00	10,029.12	3,083.68	6,945.44
160+50.00	108.98	1.81	132.86	1.11	10,161.98	3,084.96	7,077.01
160+82.83	123.39	0.00	141.30	1.10	10,303.27	3,086.23	7,217.04
161+00.00	97.32	1.25	70.16	0.40	10,373.43	3,086.69	7,286.75
161+50.00	89.72	4.26	173.19	5.11	10,546.62	3,092.56	7,454.07
161+89.53	100.24	1.83	139.05	4.46	10,685.67	3,097.69	7,587.99
162+00.00	100.18	0.80	38.87	0.51	10,724.54	3,098.27	7,626.27
162+16.83	100.12	0.00	62.44	0.25	10,786.98	3,098.56	7,688.43
162+50.00	16.92	0.00	71.88	0.00	10,858.87	3,098.56	7,760.31
162+84.91	16.50	0.16	21.61	0.10	10,880.47	3,098.67	7,781.80
163+00.00	15.45	0.01	8.93	0.05	10,889.40	3,098.72	7,790.67
163+50.00	9.28	0.38	22.90	0.36	10,912.30	3,099.14	7,813.16

EARTHWORK DATA - ASH STREET / OAK FOREST DRIVE

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
51+17.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51+25.00	56.90	0.00	7.66	0.00	7.66	0.00	7.66
51+61.72	0.00	0.00	38.69	0.00	46.35	0.00	46.35
52+47.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53+00.00	125.70	0.00	121.88	0.00	121.88	0.00	121.88
53+25.00	94.52	0.11	101.95	0.05	223.83	0.06	223.78
53+50.00	9.44	0.00	48.13	0.05	271.96	0.11	271.85
53+75.00	6.19	0.00	7.23	0.00	279.19	0.11	279.08

EARTHWORK DATA - TO TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
51+00.00	8.10	0.00	0.00	0.00	0.00	0.00	0.00
51+50.00	26.98	0.00	32.48	0.00	32.48	0.00	32.48

EARTHWORK DATA - ROSE STREET SB WIDENING

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
148+00.00	10.02	0.00	0.00	0.00	0.00	0.00	0.00
148+00.00	10.02	0.00	0.00	0.00	0.00	0.00	0.00
148+50.00	15.76	0.00	23.87	0.00	23.87	0.00	23.87
149+00.00	23.88	0.00	36.70	0.00	60.57	0.00	60.57
149+50.00	35.13	0.00	54.63	0.00	115.21	0.00	115.21
150+00.00	24.54	0.00	55.25	0.00	170.46	0.00	170.46
150+50.00	25.32	0.00	46.17	0.00	216.63	0.00	216.63
151+00.00	26.68	0.00	48.14	0.00	264.77	0.00	264.77
151+50.00	24.60	0.00	47.48	0.00	312.25	0.00	312.25
152+00.00	24.01	0.00	45.01	0.00	357.26	0.00	357.26
152+50.00	21.43	0.00	42.07	0.00	399.33	0.00	399.33
153+00.00	22.93	0.00	41.07	0.00	440.40	0.00	440.40
153+50.00	35.01	0.00	53.65	0.00	494.05	0.00	494.05
154+00.00	53.04	0.00	81.53	0.00	575.58	0.00	575.58
154+50.00	53.39	0.00	98.55	0.00	674.12	0.00	674.12
155+00.00	48.00	0.00	93.88	0.00	768.01	0.00	768.01

EARTHWORK DATA - RT TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
147+00.00	4.51	0.06	0.00	0.00	0.00	0.00	0.00
147+50.00	7.39	0.05	11.02	0.10	11.02	0.12	10.90
148+00.00	11.94	0.12	17.89	0.16	28.92	0.30	28.61
148+50.00	15.25	0.12	25.17	0.22	54.09	0.56	53.53
149+00.00	15.24	0.52	28.23	0.59	82.32	1.24	81.09
149+50.00	19.21	0.61	31.90	1.05	114.22	2.44	111.78
150+00.00	15.73	0.00	32.35	0.57	146.57	3.09	143.48
150+50.00	17.25	0.00	30.53	0.00	177.11	3.09	174.01
151+00.00	20.68	0.00	35.13	0.00	212.23	3.09	209.14
151+50.00	22.65	0.00	40.12	0.00	252.35	3.09	249.26
152+00.00	22.09	0.00	41.42	0.00	293.78	3.09	290.68
152+50.00	21.55	0.00	40.41	0.00	334.18	3.09	331.09
153+00.00	17.44	0.00	36.10	0.00	370.29	3.09	367.19
153+50.00	6.99	0.00	22.61	0.00	392.90	3.09	389.81
154+00.00	12.30	0.00	17.86	0.00	410.76	3.09	407.67
154+50.00	12.82	0.00	23.27	0.00	434.03	3.09	430.94

EARTHWORK DATA - RT TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
129+50.00	13.62	0.00	0.00	0.00	0.00	0.00	0.00
130+00.00	14.20	0.00	25.75	0.00	25.75	0.00	25.75
130+50.00	15.31	0.00	27.32	0.00	53.07	0.00	53.07
131+00.00	15.76	1.68	28.77	1.56	81.84	1.79	80.05
131+50.00	18.29	0.80	31.53	2.30	113.38	4.44	108.94
132+00.00	20.06	2.46	35.52	3.01	148.89	7.90	140.99
132+50.00	41.28	0.00	56.80	2.28	205.69	10.52	195.17
133+00.00	35.13	0.00	70.75	0.00	276.44	10.52	265.92
133+50.00	45.20	0.00	74.37	0.00	350.81	10.52	340.29
134+00.00	27.21	0.00	67.04	0.00	417.85	10.52	407.34
134+50.00	18.45	0.00	42.28	0.00	460.13	10.52	449.61
135+00.00	19.01	0.00	34.68	0.00	494.81	10.52	484.29
135+50.00	20.28	0.00	36.38	0.00	531.19	10.52	520.68
140+50.00	20.26	0.00	0.00	0.00	0.00	0.00	0.00
141+00.00	41.58	0.00	57.26	0.00	57.26	0.00	57.26
141+50.00	45.81	0.01	80.92	0.00	138.17	0.01	138.17
142+00.00	42.58	0.00	81.85	0.00	220.02	0.01	220.01
142+50.00	48.58	18.79	84.41	17.40	304.43	20.02	284.41
143+00.00	53.28	12.83	94.31	29.28	398.74	53.70	345.05
143+50.00	58.68	7.28	103.67	18.62	502.41	75.11	427.30
144+00.00	19.49	0.04	72.38	6.78	574.79	82.91	491.88
144+50.00	21.25	0.00	37.72	0.04	612.51	82.95	529.56
145+00.00	22.09	0.00	40.14	0.00	652.65	82.95	569.70

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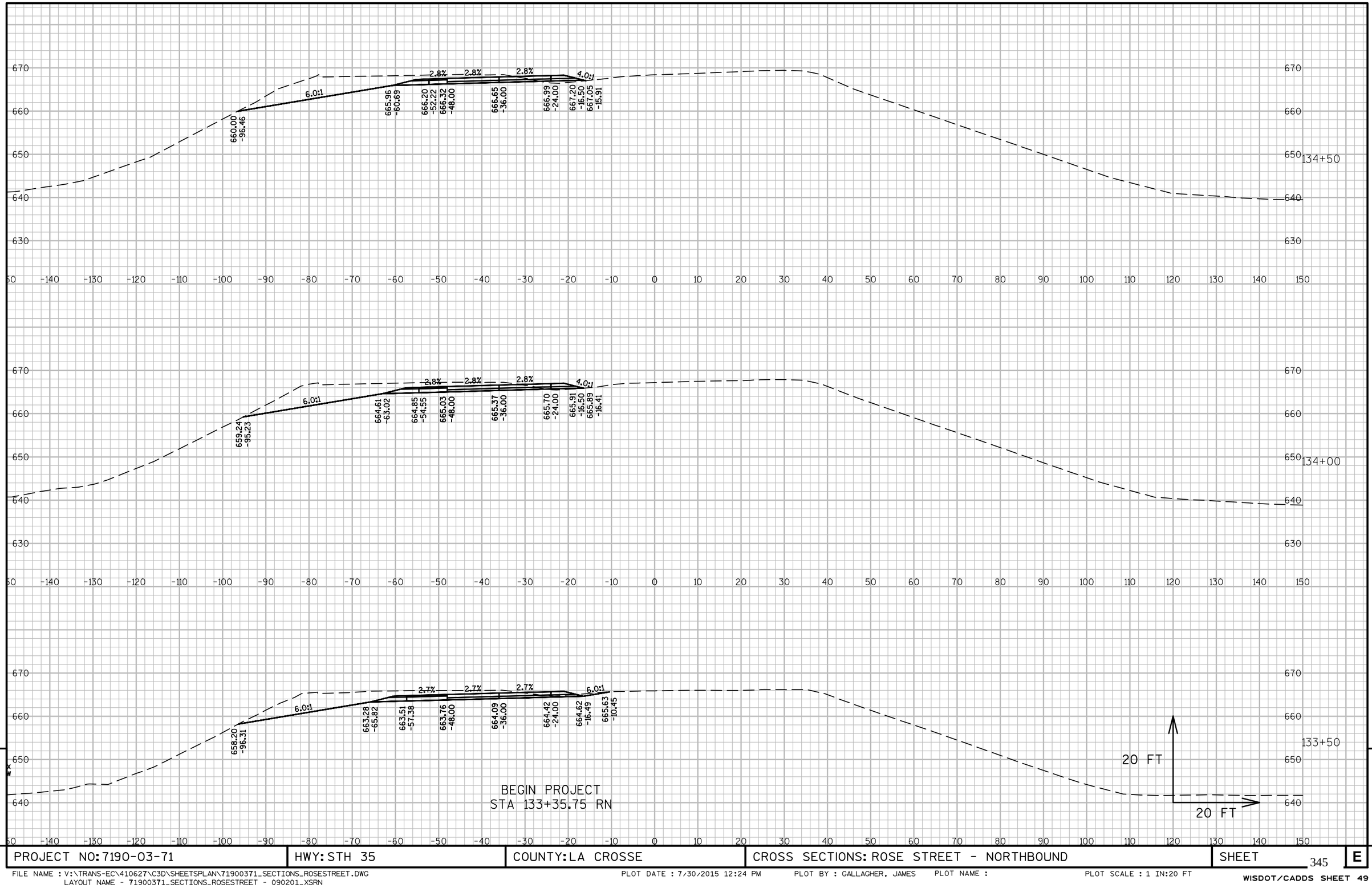
EARTHWORK DATA - RT TEMPORARY

STATION	AREA (SF) CUT	AREA (SF) FILL	INCR. VOL (CY) CUT	INCR. VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXP. FILL 1.15	MASS ORDINATE
156+50.00	29.56	0.00	0.00	0.00	0.00	0.00	0.00
157+00.00	23.31	0.00	48.96	0.00	48.96	0.00	48.96
157+50.00	21.62	0.00	41.60	0.00	90.56	0.00	90.56
157+75.00	33.00	0.00	25.29	0.00	115.85	0.00	115.85
157+86.87	34.62	0.00	14.87	0.00	130.72	0.00	130.72
158+00.00	36.82	0.00	17.36	0.00	148.08	0.00	148.08
158+50.00	28.04	0.00	60.05	0.00	208.13	0.00	208.13
158+66.90	38.74	0.00	20.90	0.00	229.03	0.00	229.03
159+00.00	27.44	0.00	40.57	0.00	269.60	0.00	269.60
159+50.00	33.39	0.00	56.33	0.00	325.93	0.00	325.93
159+57.62	34.21	0.00	9.54	0.00	335.48	0.00	335.48
160+00.00	24.22	0.00	45.86	0.00	381.33	0.00	381.33
160+41.18	33.51	0.00	44.03	0.00	425.37	0.00	425.37
160+50.00	33.13	0.00	10.88	0.00	436.25	0.00	436.25
161+00.00	34.72	0.00	62.83	0.00	499.07	0.00	499.07
161+08.25	32.78	0.00	10.31	0.00	509.39	0.00	509.39
161+50.00	23.01	0.00	43.13	0.00	552.52	0.00	552.52
162+00.00	27.19	0.00	46.48	0.00	599.00	0.00	599.00
162+13.10	27.31	0.00	13.22	0.00	612.23	0.00	612.23
162+50.00	19.81	0.00	32.19	0.00	644.42	0.00	644.42
163+00.00	30.64	0.00	46.72	0.00	691.14	0.00	691.14
163+09.18	29.54	0.00	10.23	0.00	701.36	0.00	701.36
163+50.00	17.77	0.00	35.76	0.00	737.13	0.00	737.13

EARTHWORK DATA - RX TEMPORARY

STATION	AREA (SF)		INCR. VOL (CY)		CUMULATIVE VOL (CY)		MASS ORDINATE
	CUT	FILL	CUT	FILL	CUT 1.00	EXP. FILL 1.15	
132+50.00	90.75	0.00	0.00	0.00	0.00	0.00	0.00
133+00.00	123.84	0.00	198.70	0.00	198.70	0.00	198.70
133+50.00	160.13	0.00	262.94	0.00	461.64	0.00	461.64

- CONTINUED -

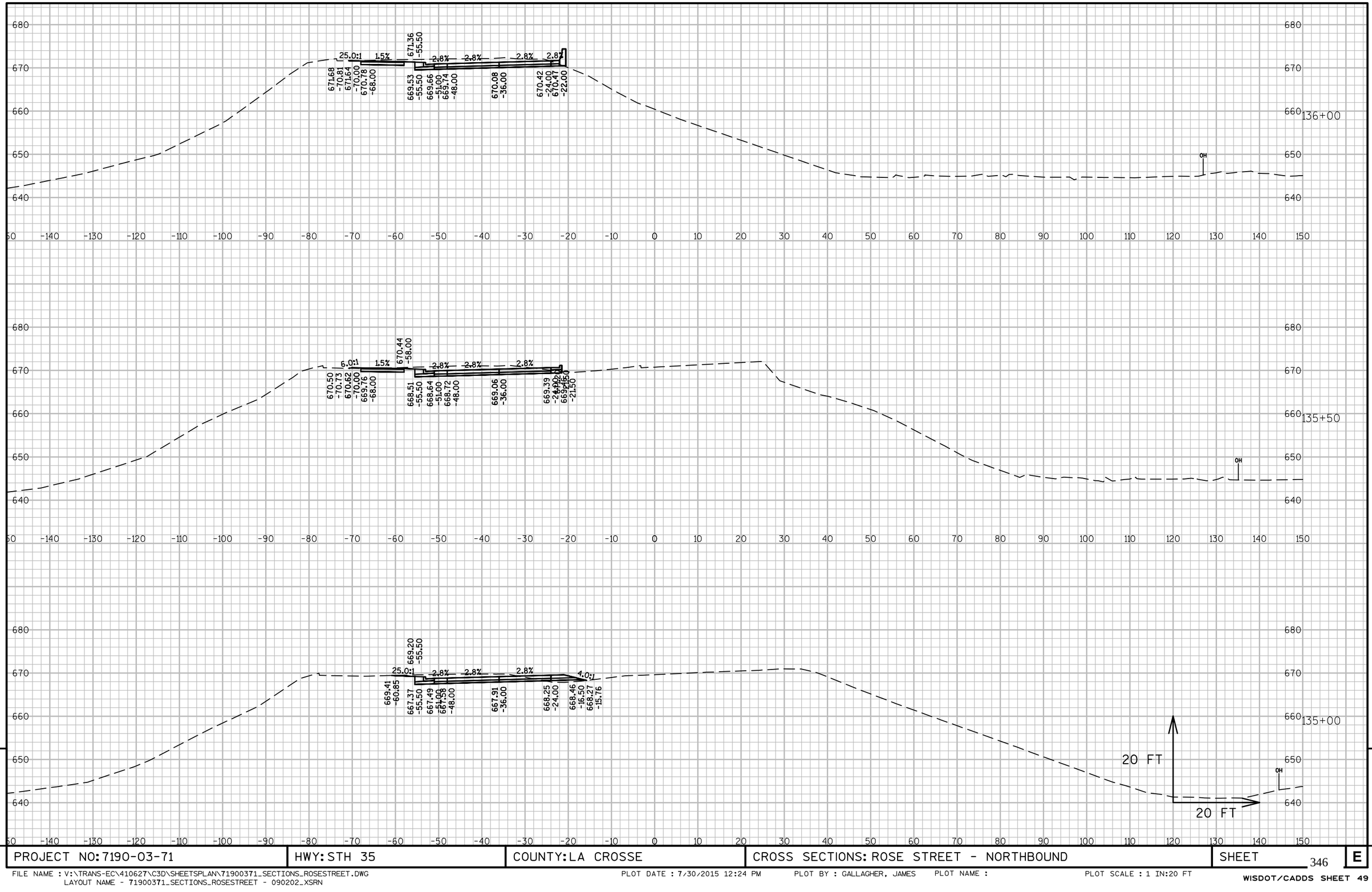


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 345	E

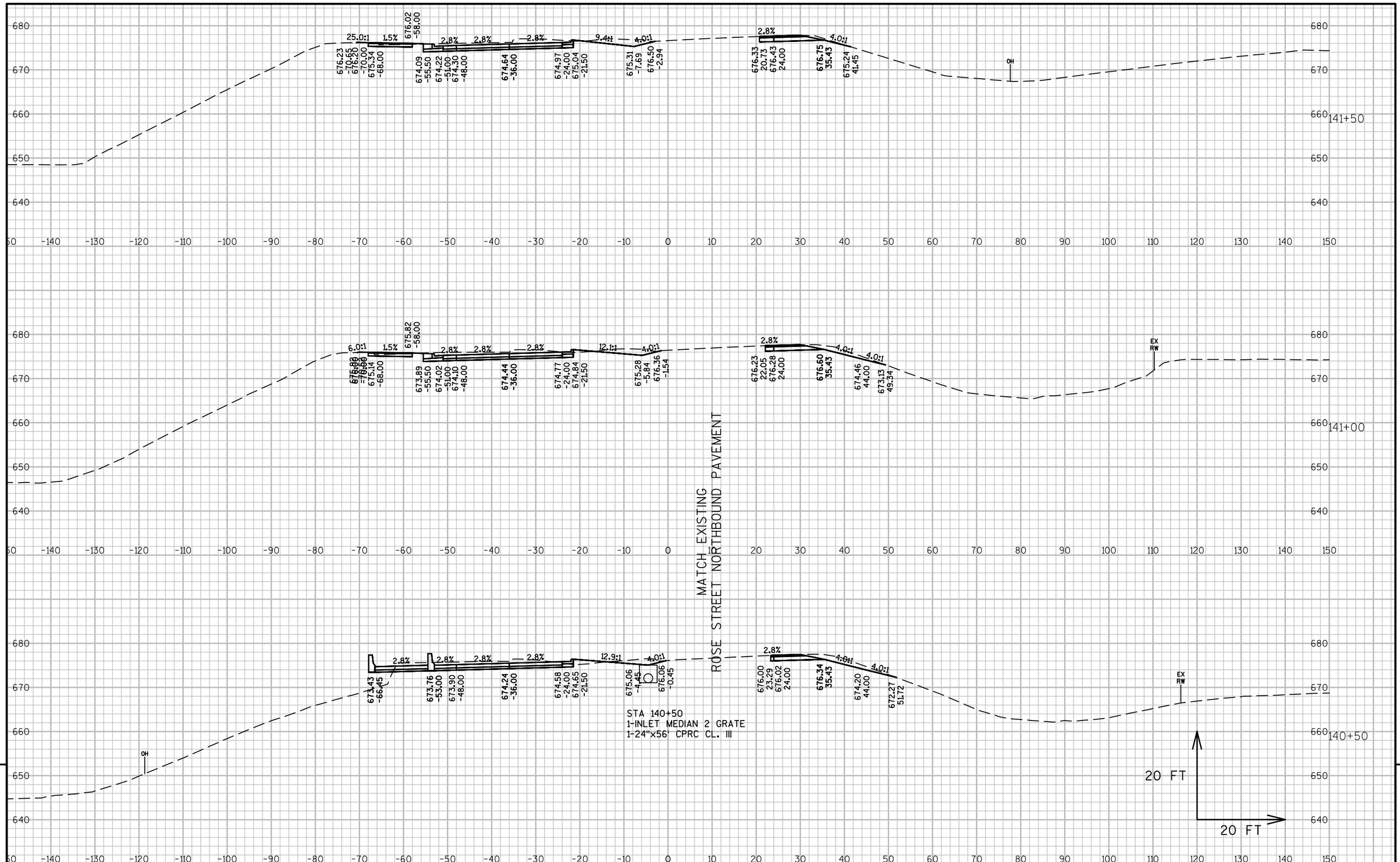
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LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090201_XSRN

PLOT DATE : 7/30/2015 12:24 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 346	E

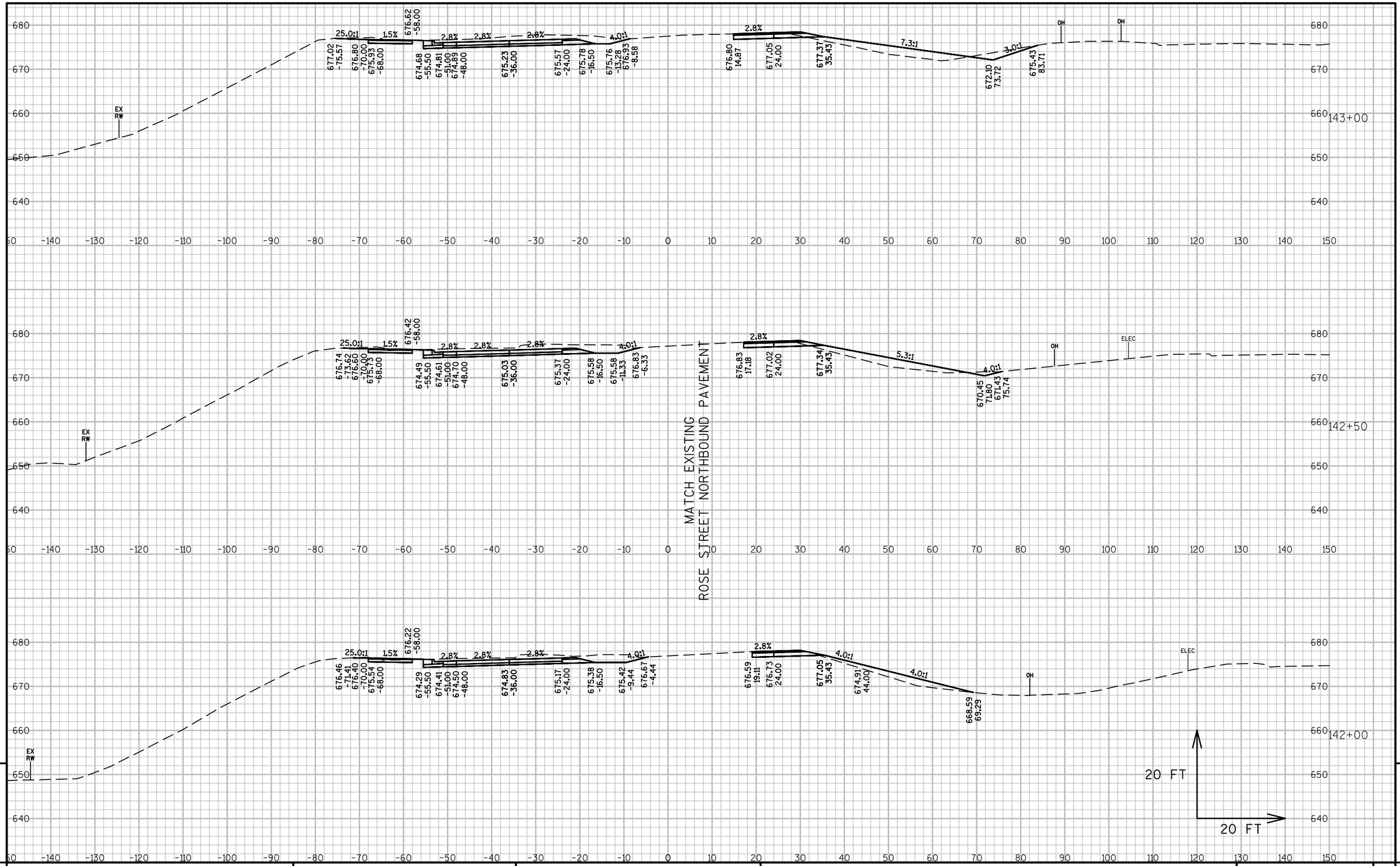


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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 347	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090203_XSRN
PLOT DATE : 7/30/2015 12:24 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



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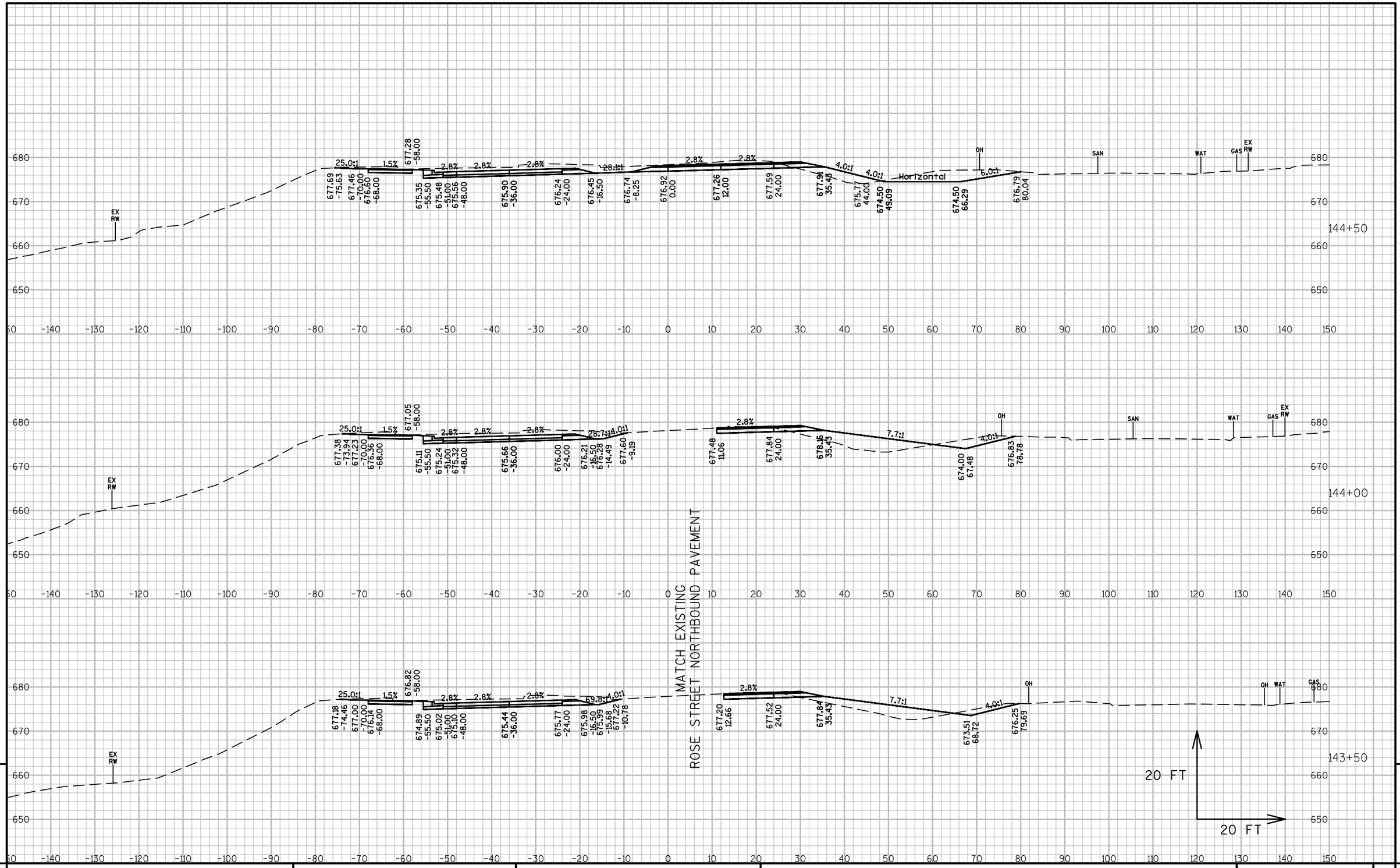
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 348	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090204_XSRN

PLOT DATE : 7/30/2015 12:24 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



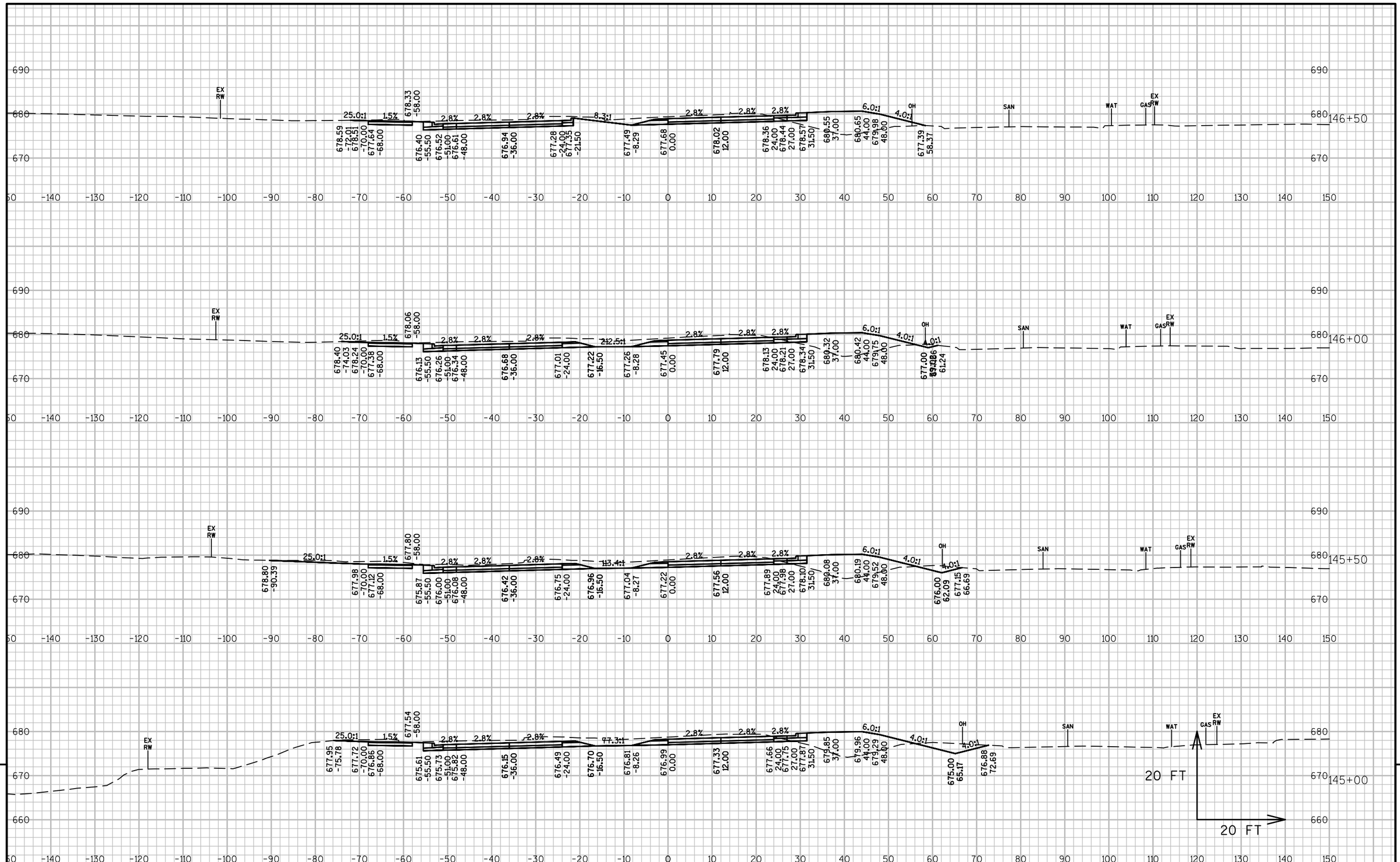
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 349	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090205_XSRN

PLOT DATE : 7/30/2015 12:24 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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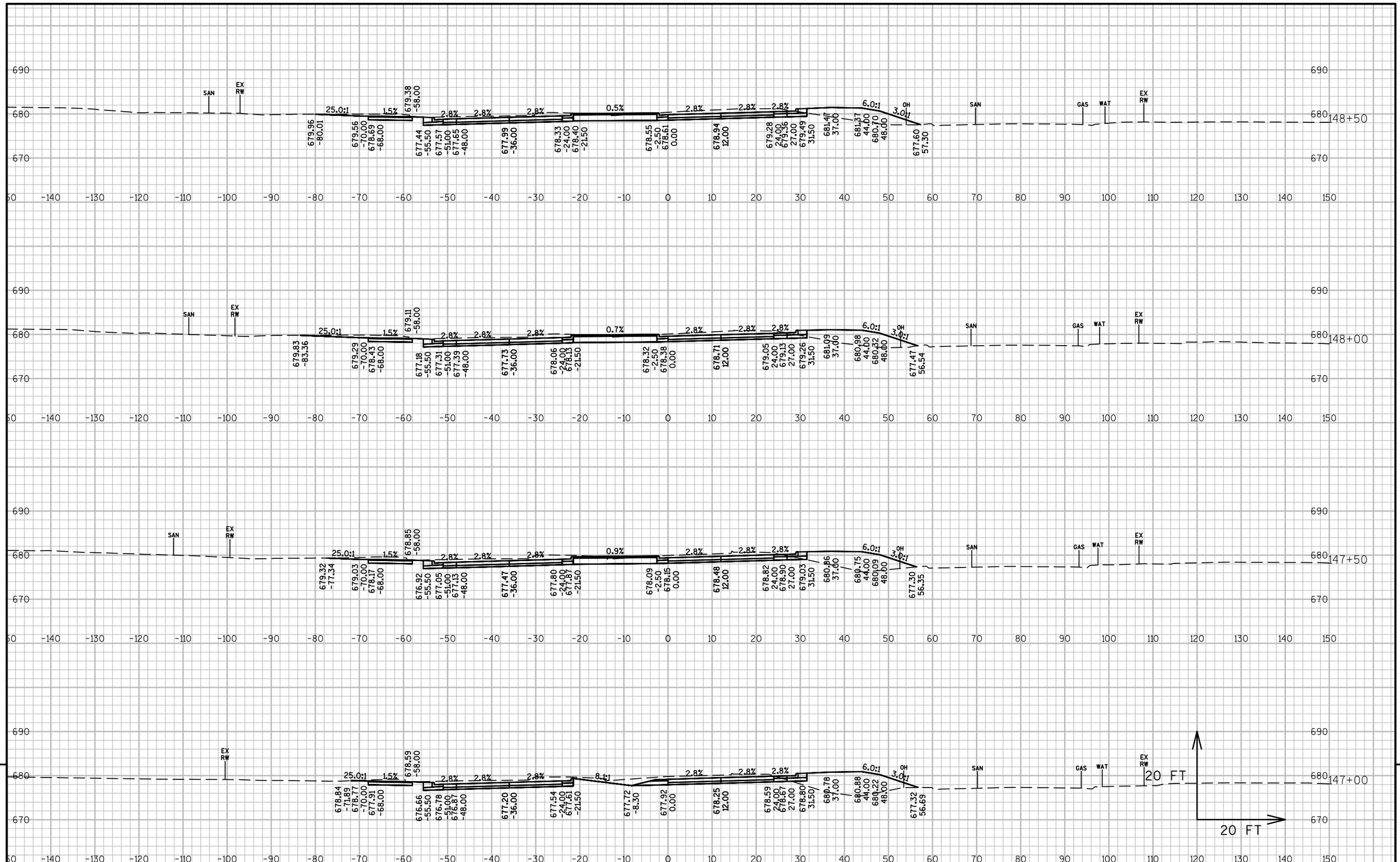
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 350	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090206_XSRN

PLOT DATE : 7/30/2015 12:24 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

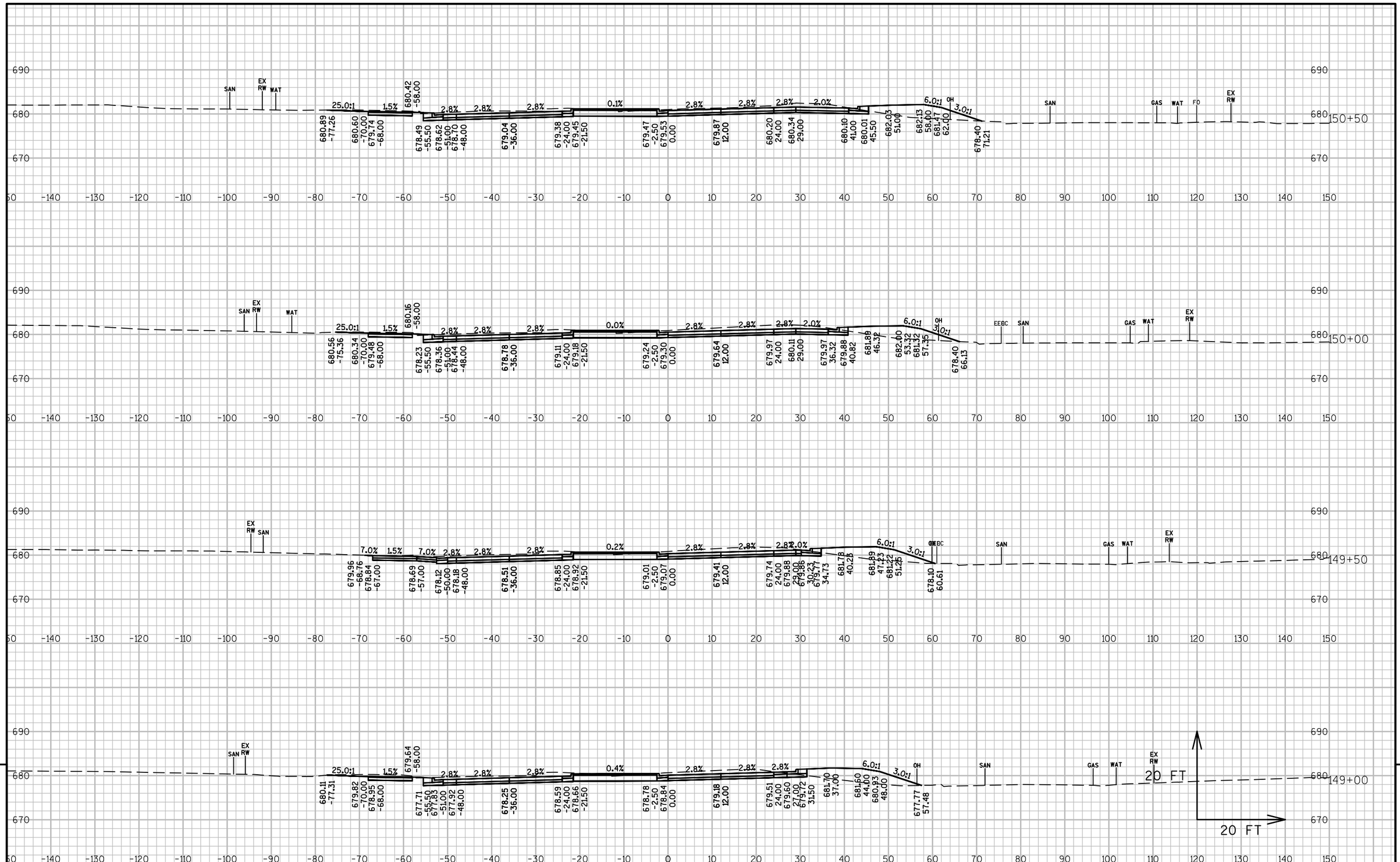
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 351	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090207_XSRN

PLOT DATE : 7/30/2015 12:24 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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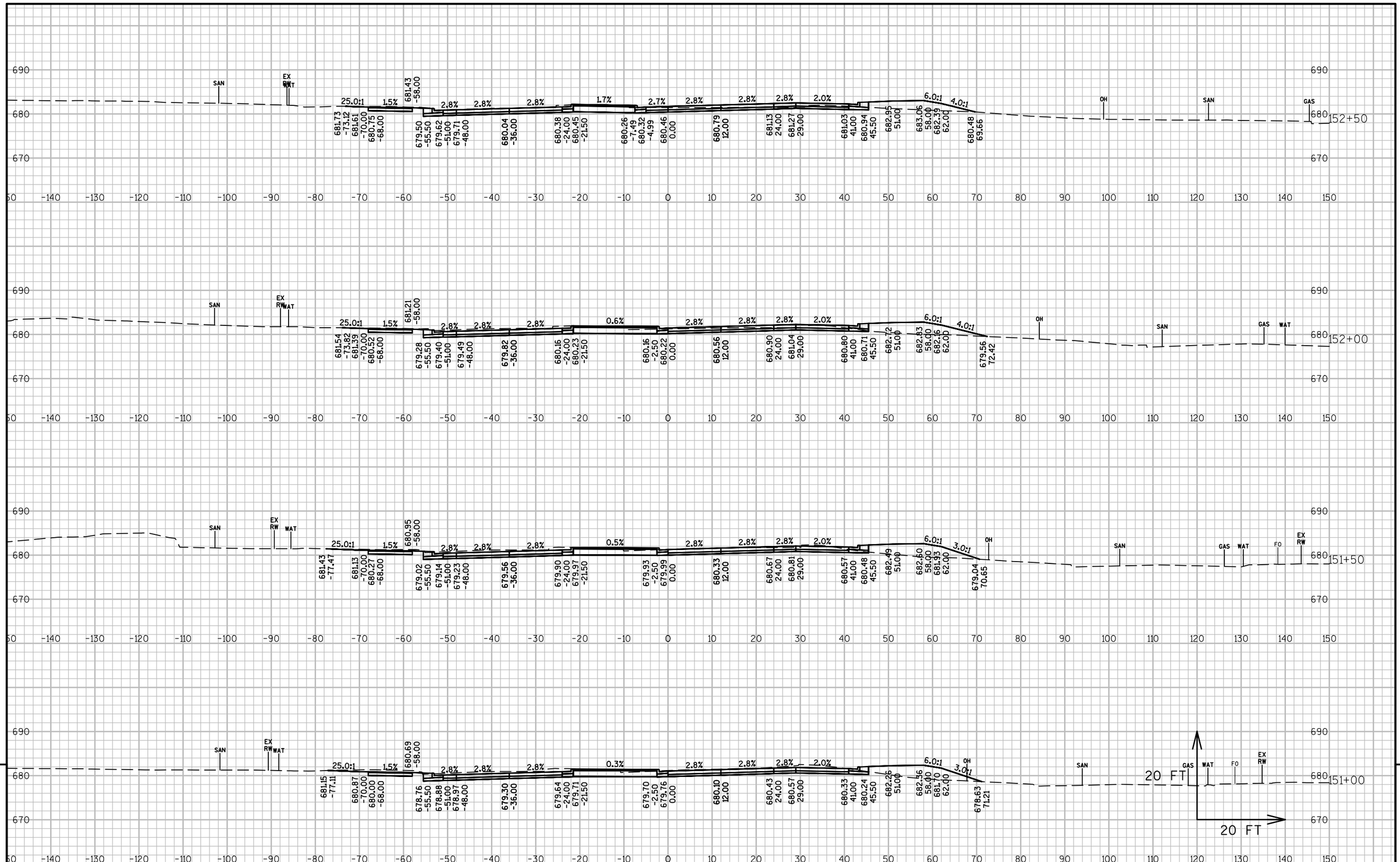
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 352	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090208_XSRN

PLOT DATE : 7/30/2015 12:25 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

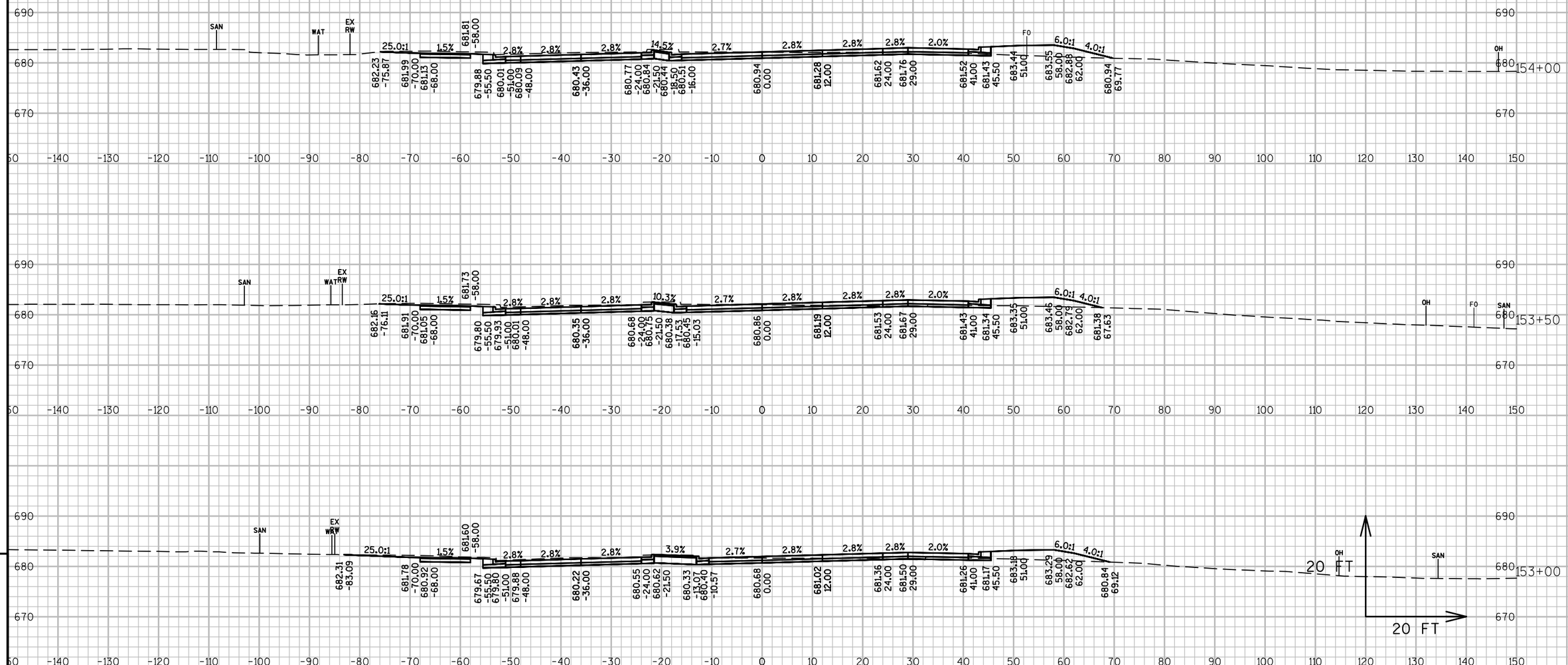
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 353	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090209_XSRN

PLOT DATE : 7/30/2015 12:25 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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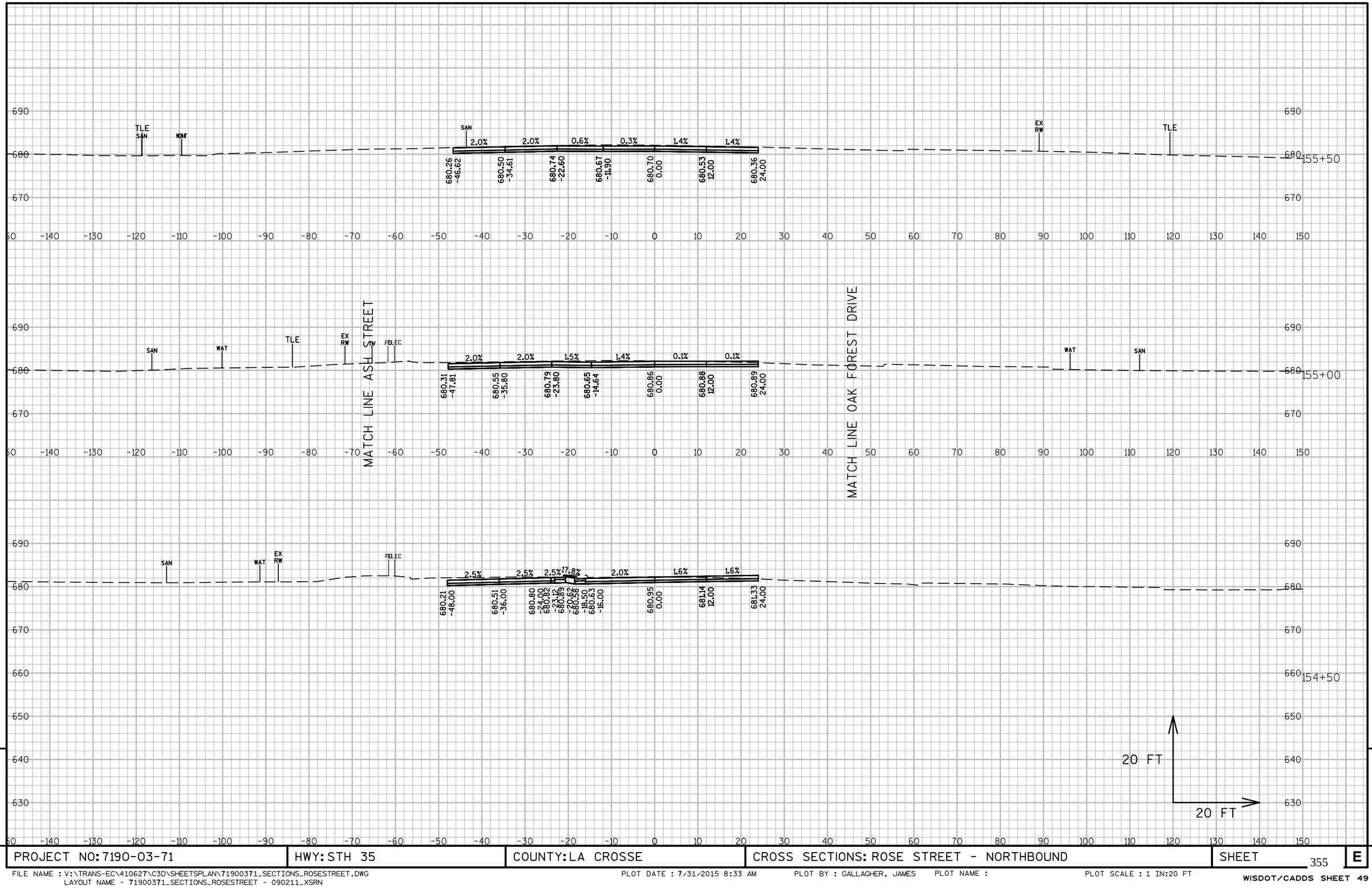
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 354	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090210_XSRN

PLOT DATE : 7/30/2015 12:25 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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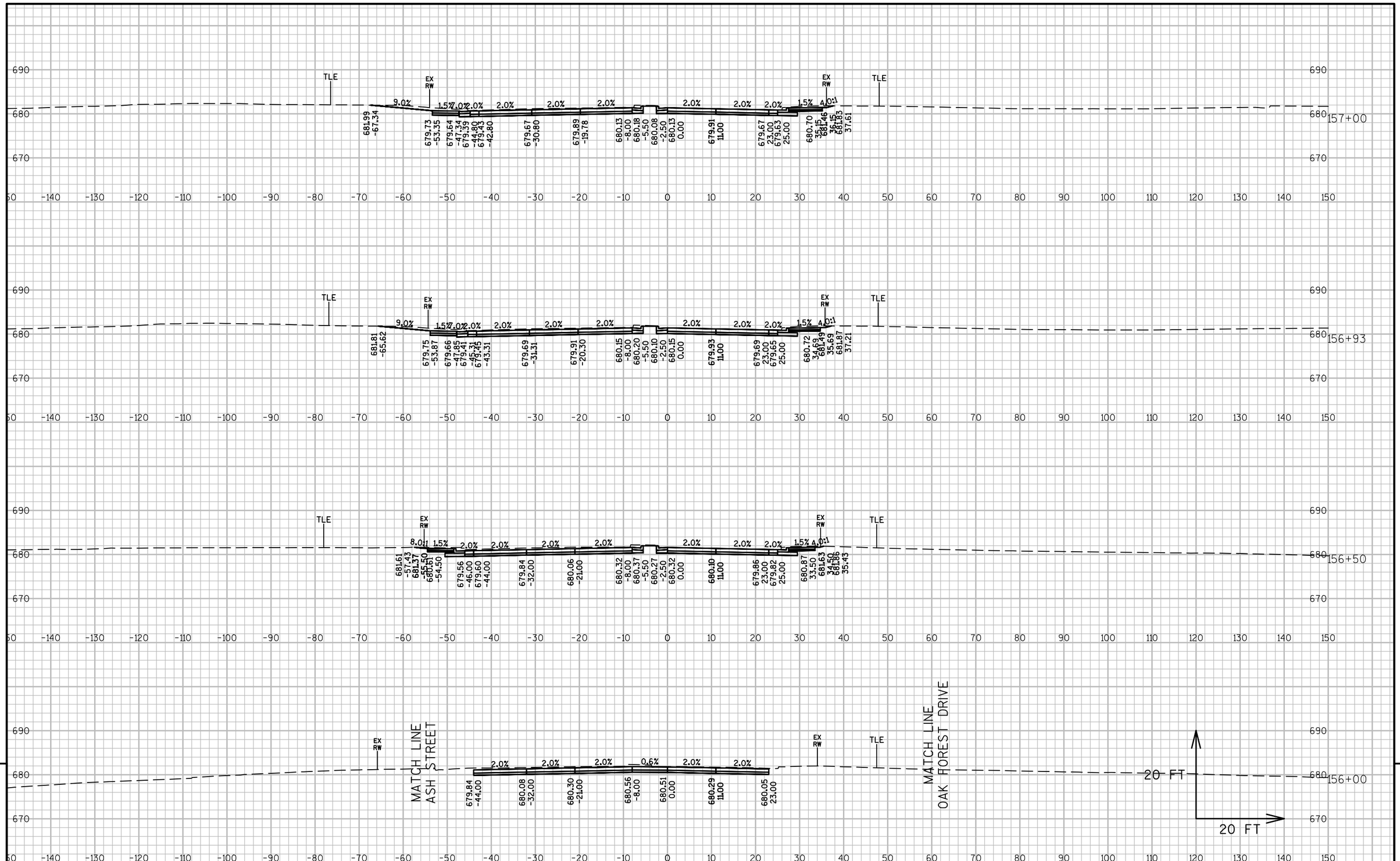
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 355	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090211_XSRN

PLOT DATE : 7/31/2015 8:33 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

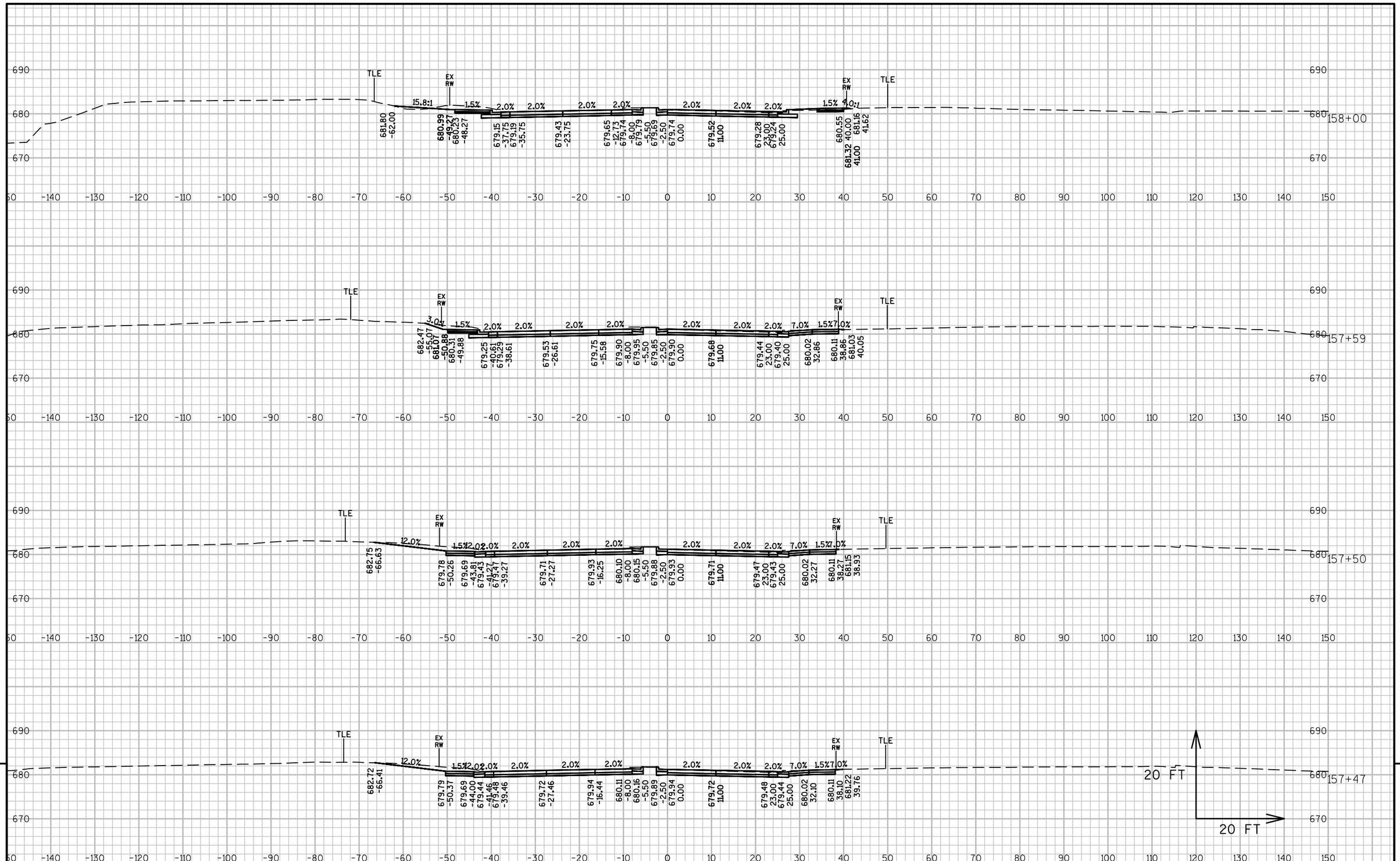
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 356	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090212_XSRN

PLOT DATE : 7/31/2015 8:33 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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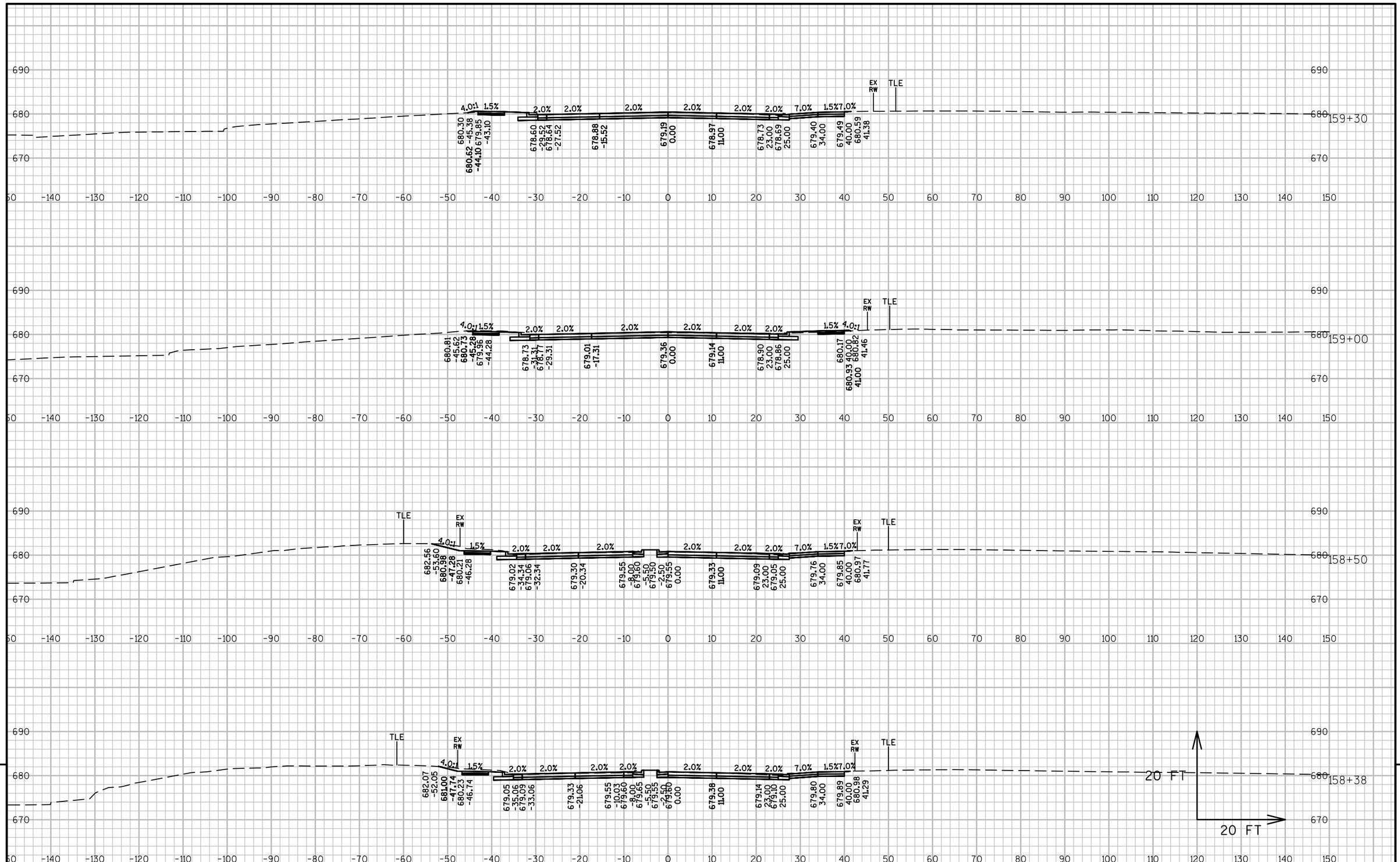
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 357	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090213_XSRN

PLOT DATE : 7/30/2015 12:25 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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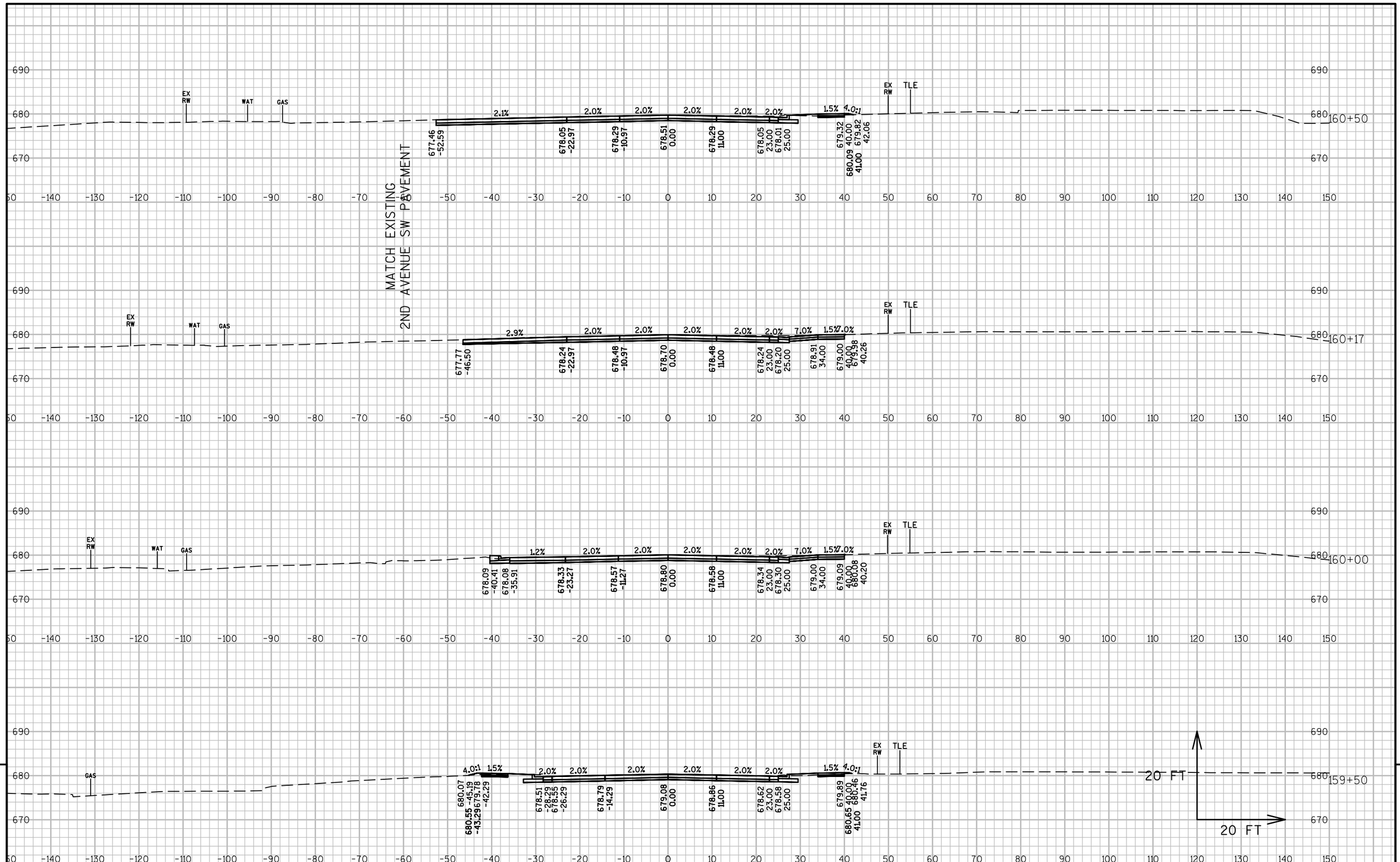
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 358	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090214_XSRN

PLOT DATE : 7/30/2015 12:26 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

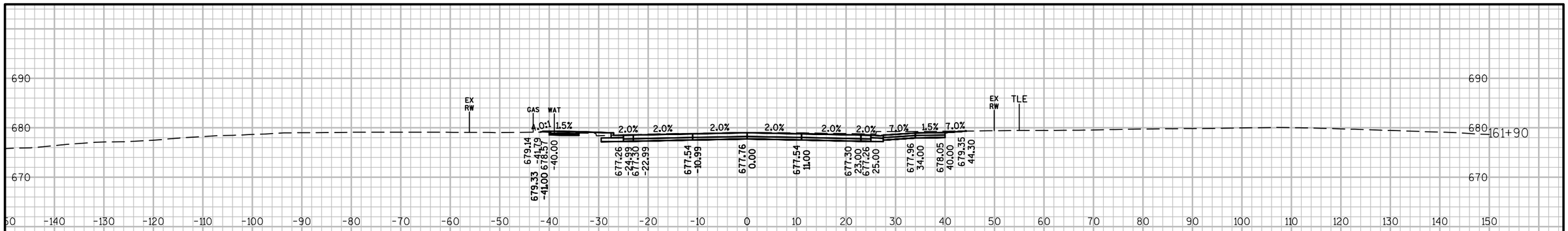


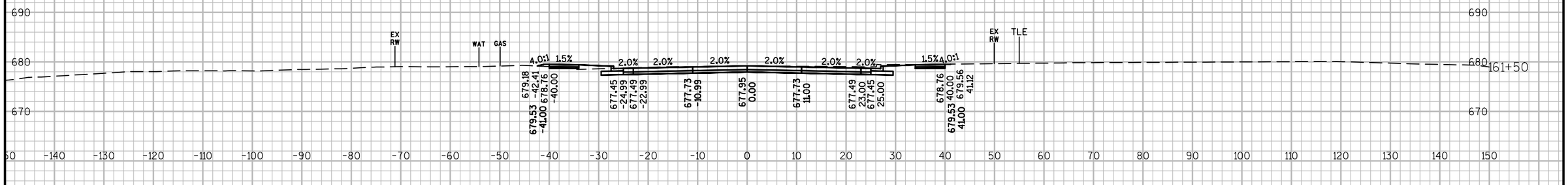
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 359	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090215_XSRN
PLOT DATE : 7/30/2015 12:26 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49









9

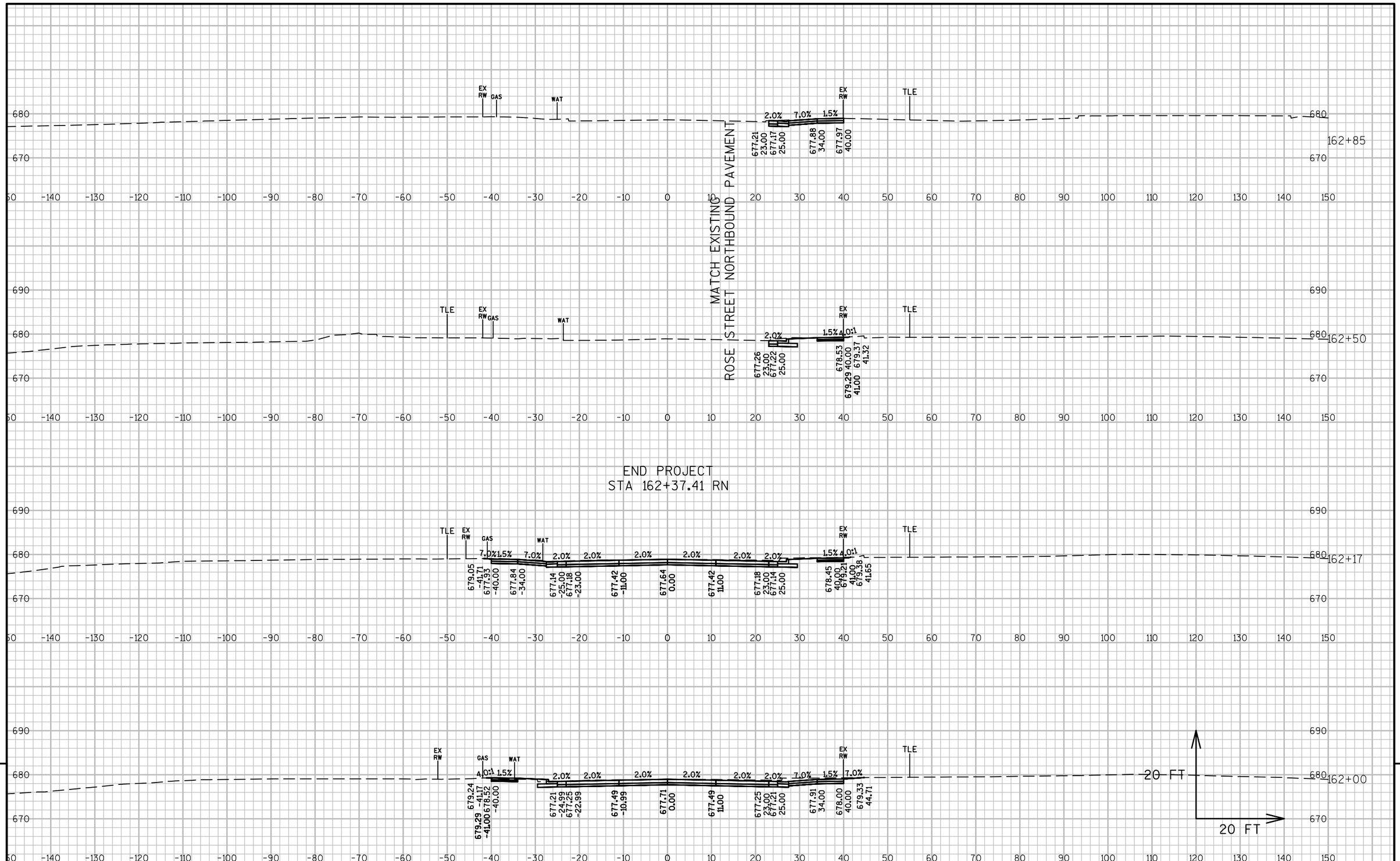
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 360	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090216_XSRN

PLOT DATE : 7/30/2015 12:26 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

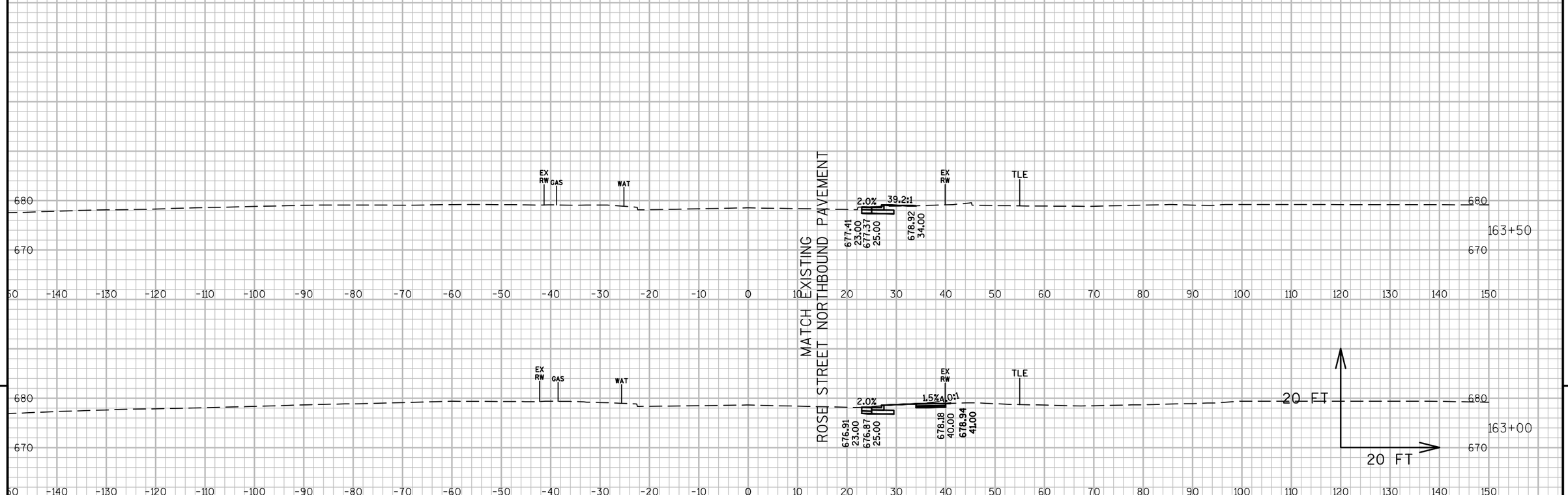
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 361	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090217_XSRN

PLOT DATE : 7/30/2015 12:26 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

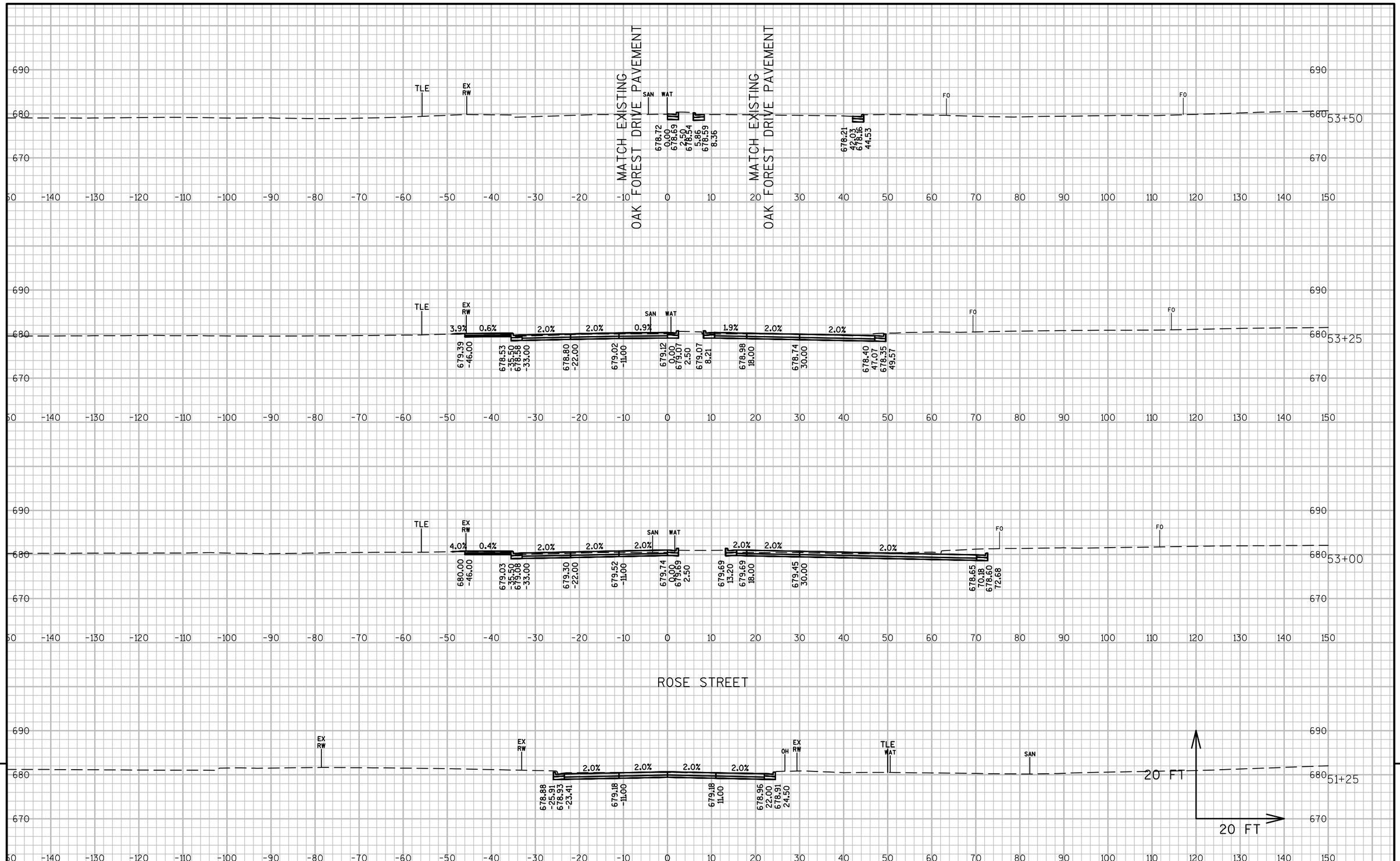
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET - NORTHBOUND	SHEET 362	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090218_XSRN

PLOT DATE : 7/30/2015 12:26 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ASH STREET / OAK FOREST DRIVE	SHEET 363 E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090201_XSOF

PLOT DATE : 7/31/2015 8:45 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

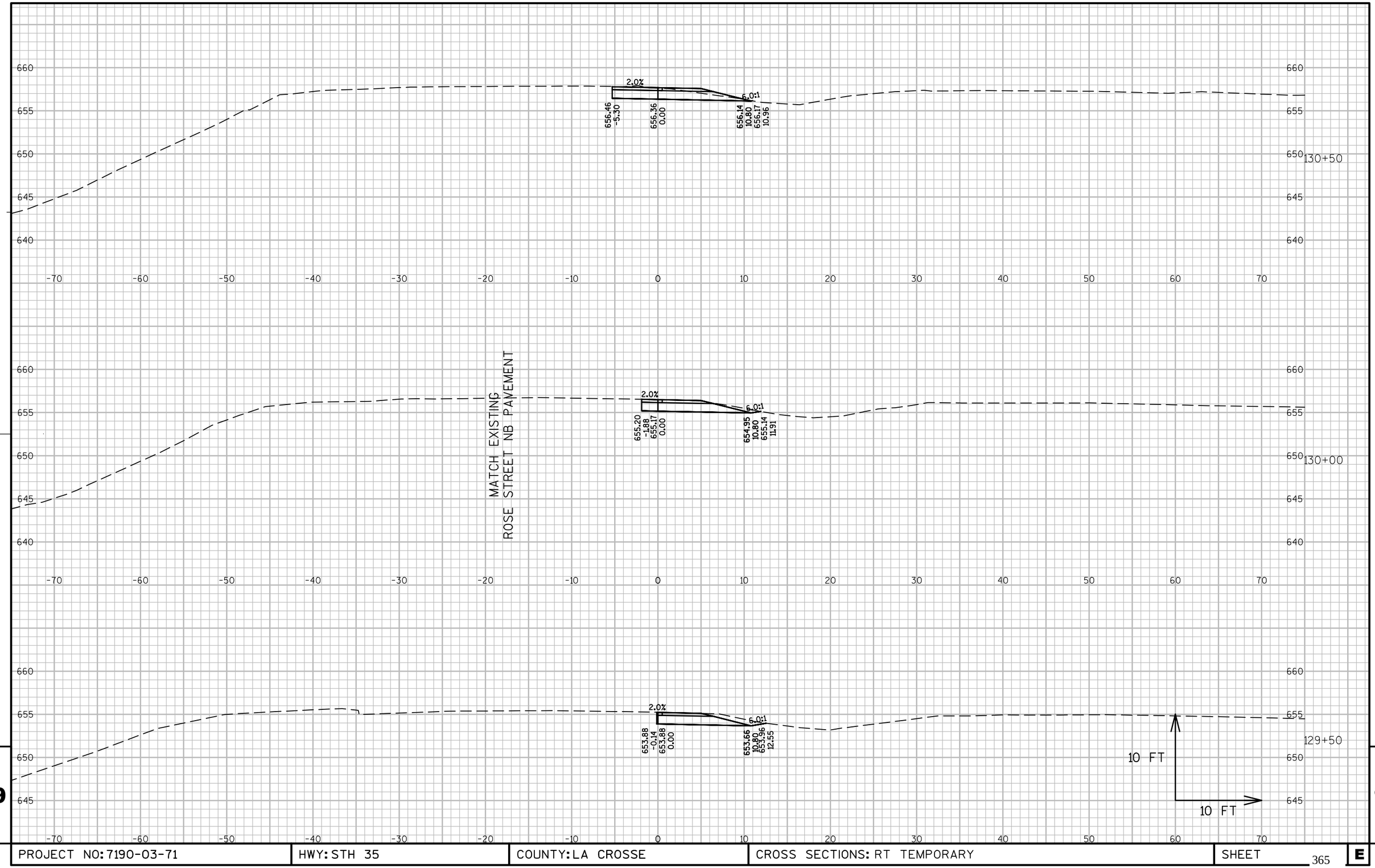
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ASH STREET / OAK FOREST DRIVE	SHEET 364	E

FILE NAME : V:\TRANS-EC\410627\C3D\SHEETSPLAN\71900371_SECTIONS_ROSESTREET.DWG
LAYOUT NAME - 71900371_SECTIONS_ROSESTREET - 090202_XSOF

PLOT DATE : 7/31/2015 8:34 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

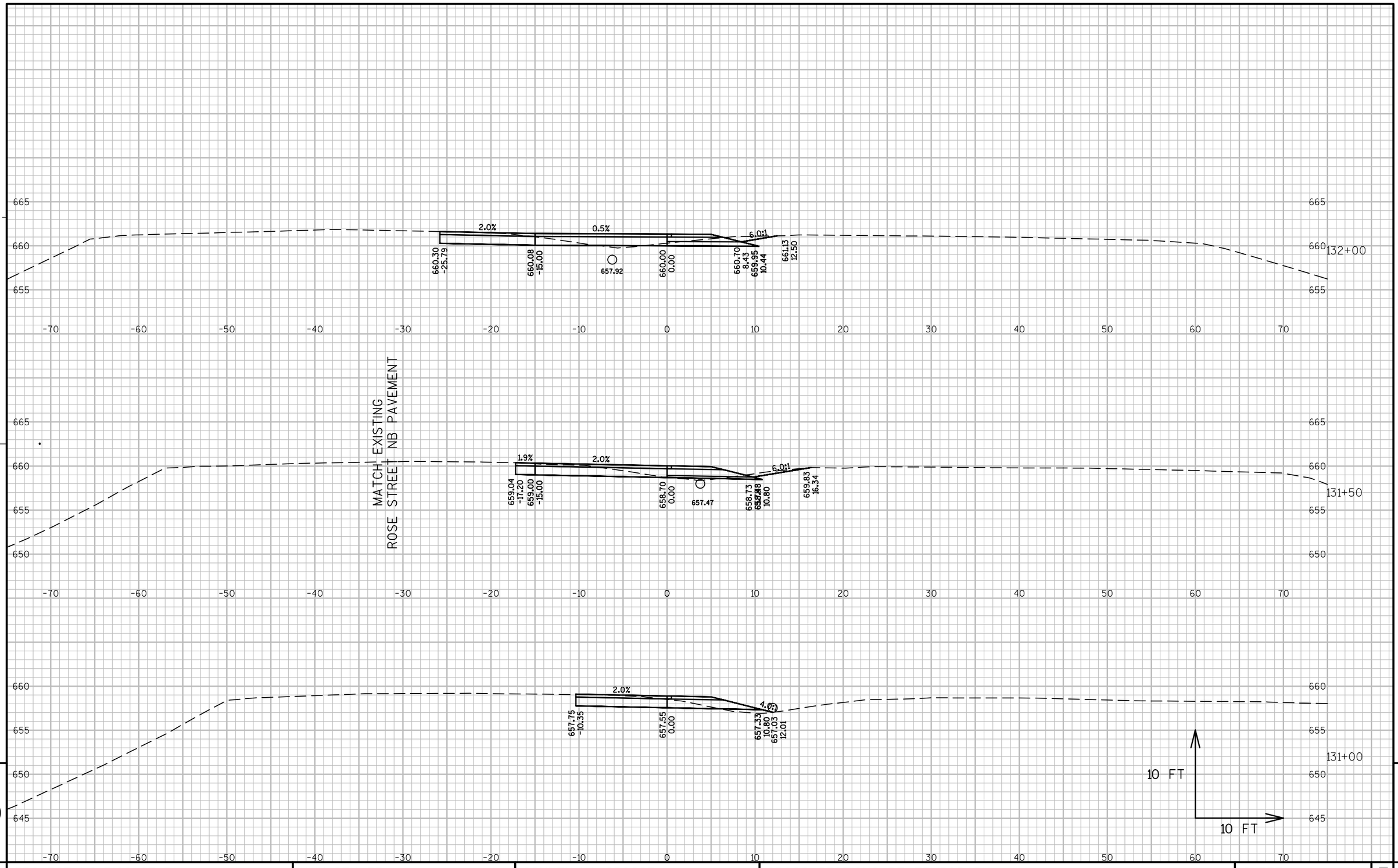
WISDOT/CADDS SHEET 49



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 365	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:30 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090201_xsrt PLOT SCALE : 1 IN:10 FT



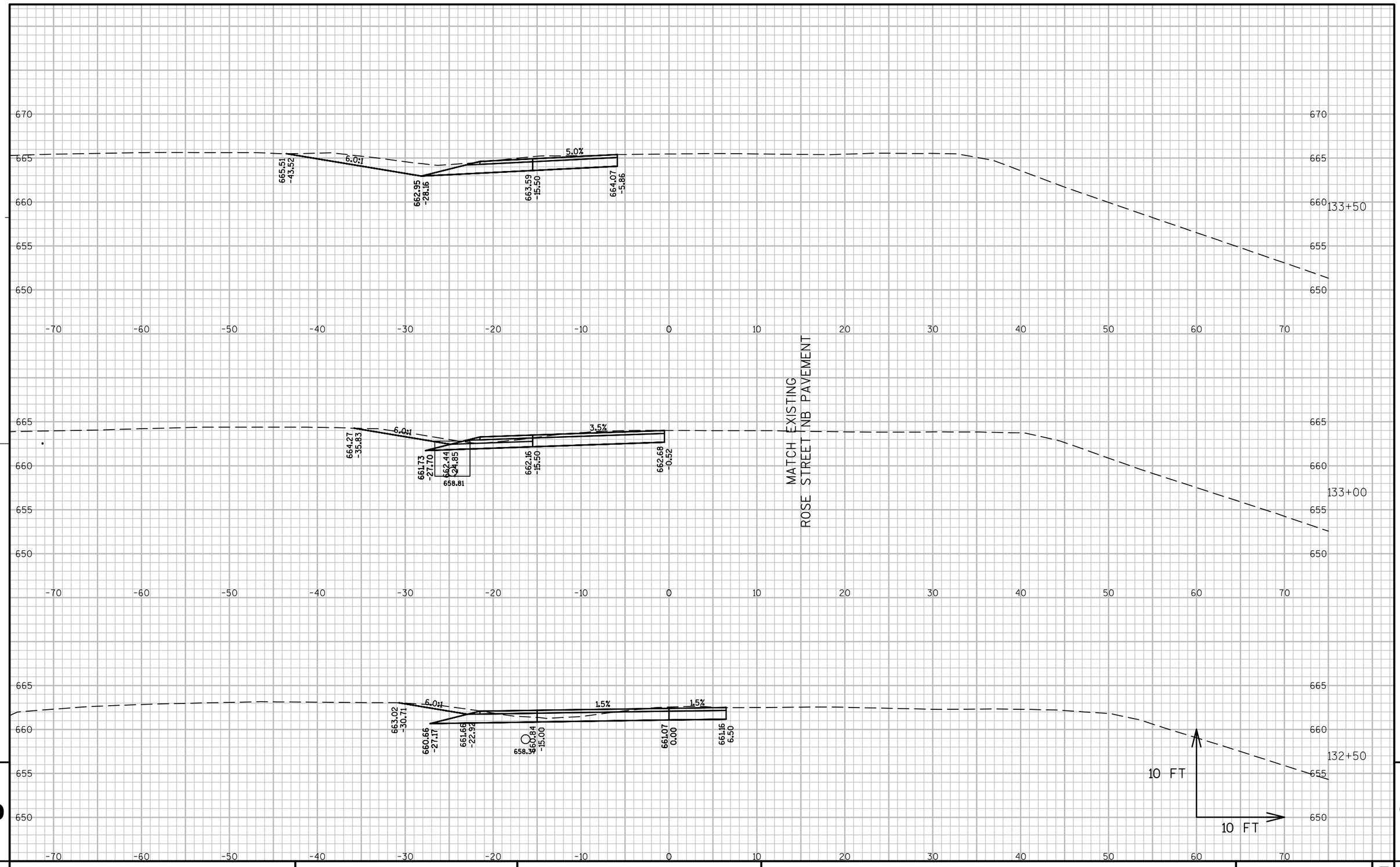
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 366	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:30 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090202_xsrt PLOT SCALE : 1 IN:10 FT



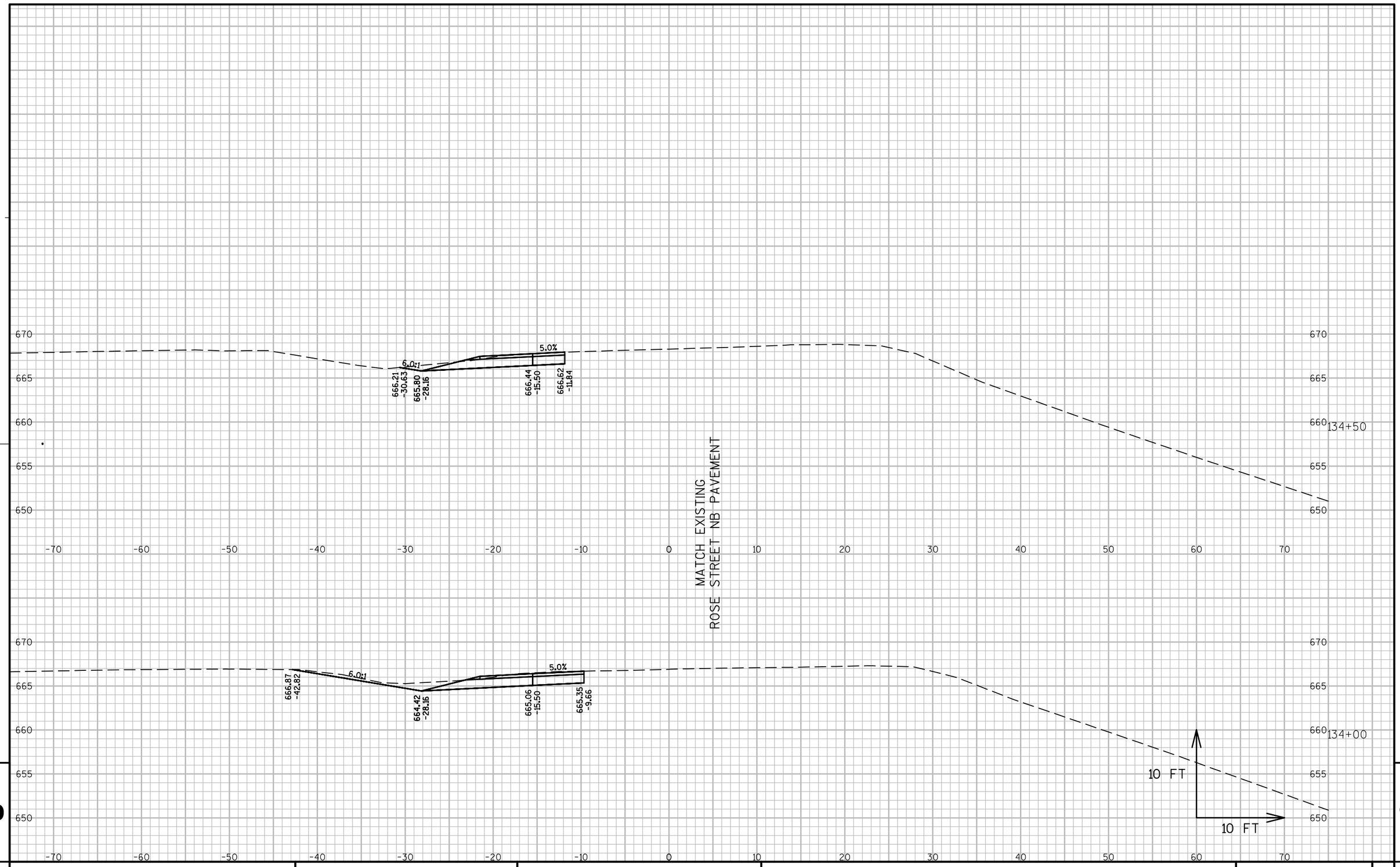
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 367	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:31 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090203_xsrt PLOT SCALE : 1 IN:10 FT



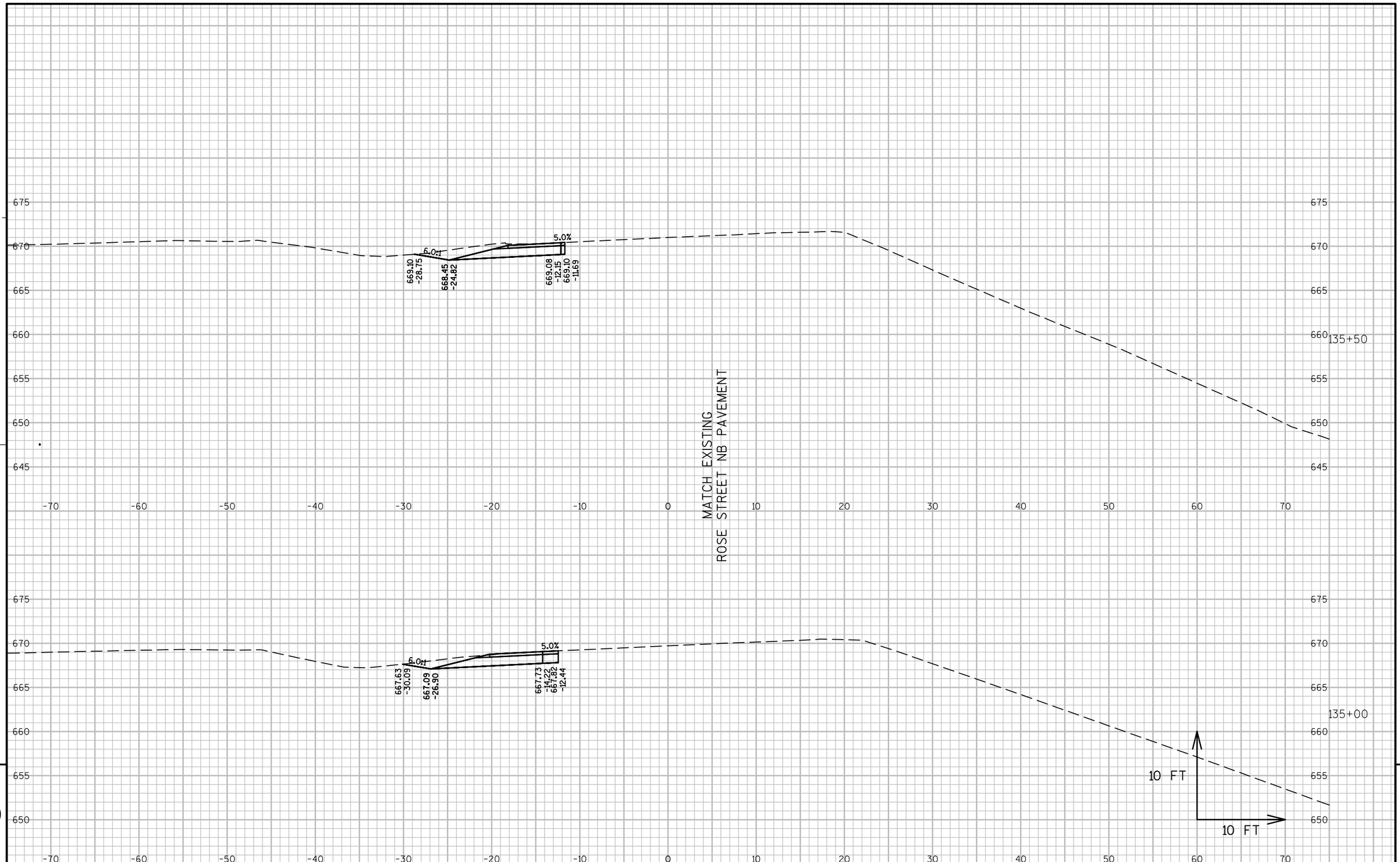
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 368	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:31 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090204_xsrt PLOT SCALE : 1 IN:10 FT



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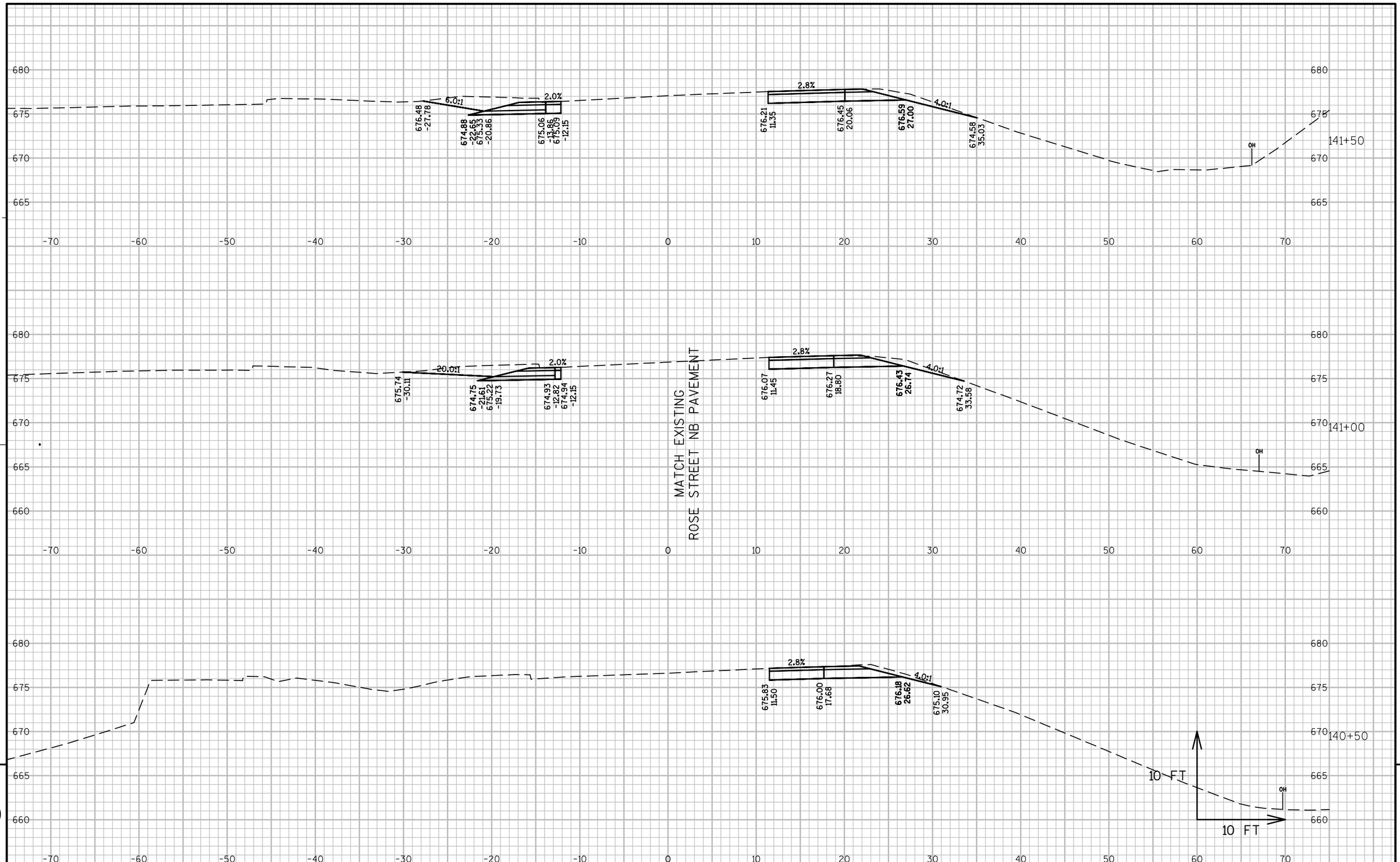
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 369	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:31 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090205_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

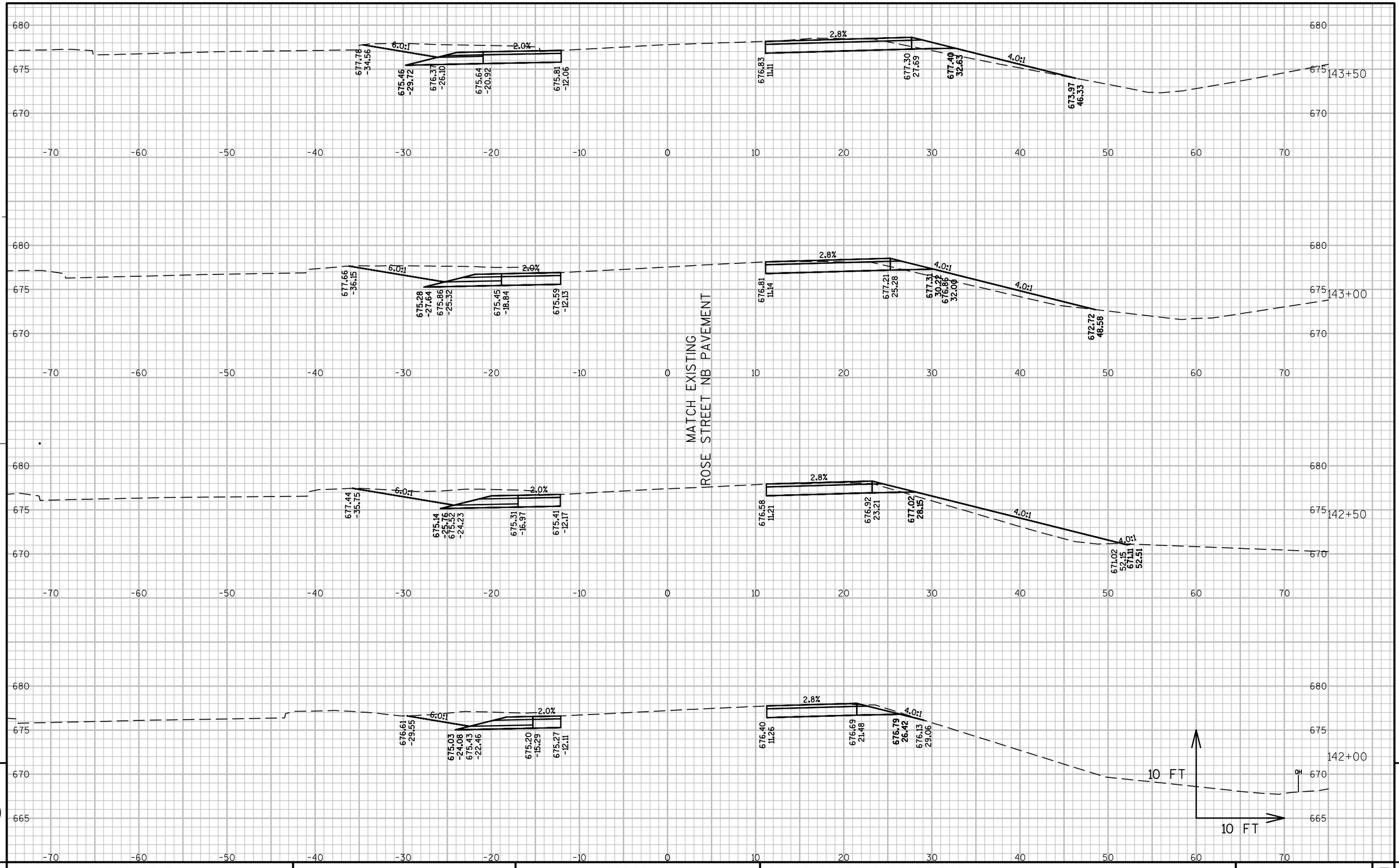
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 370	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:32 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090206_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

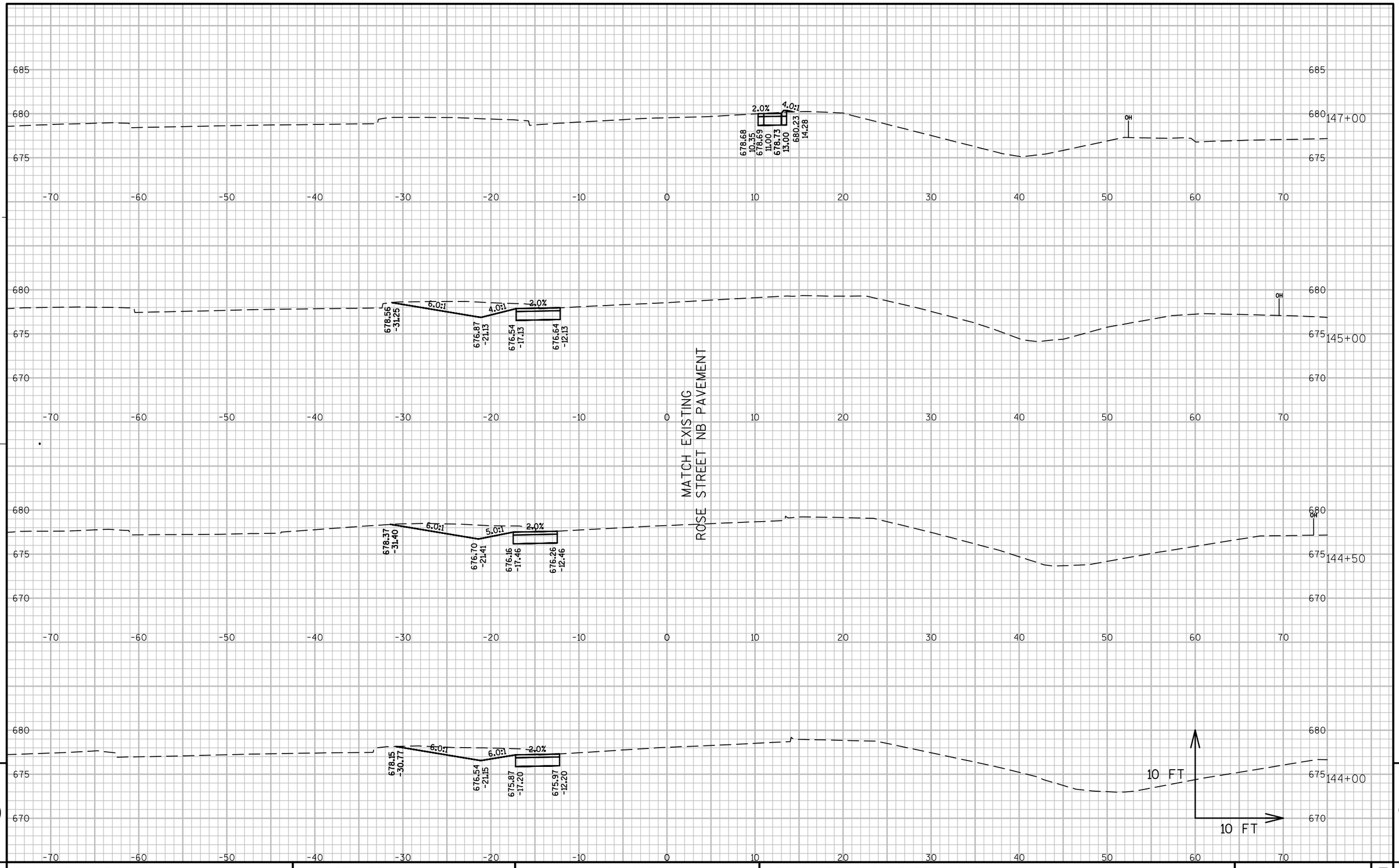


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 371	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:32 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090207_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 372	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:33 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090208_xsrt PLOT SCALE : 1 IN:10 FT

MATCH EXISTING
ROSE STREET NB PAVEMENT

149+00

2.0%
4.0:1
679.67
2.77
679.84
11.00
679.88
13.00
681.01
15.71
OH

148+50

2.0%
4.0:1
679.42
3.25
679.57
11.00
679.61
13.00
681.04
14.54
OH

148+00

2.0%
4.0:1
679.15
5.47
679.26
11.00
679.30
13.00
680.70
14.62
OH

147+50

2.0%
4.0:1
679.03
8.28
679.09
11.00
679.13
13.00
680.66
14.12
OH
10 FT
10 FT

685
680
675
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

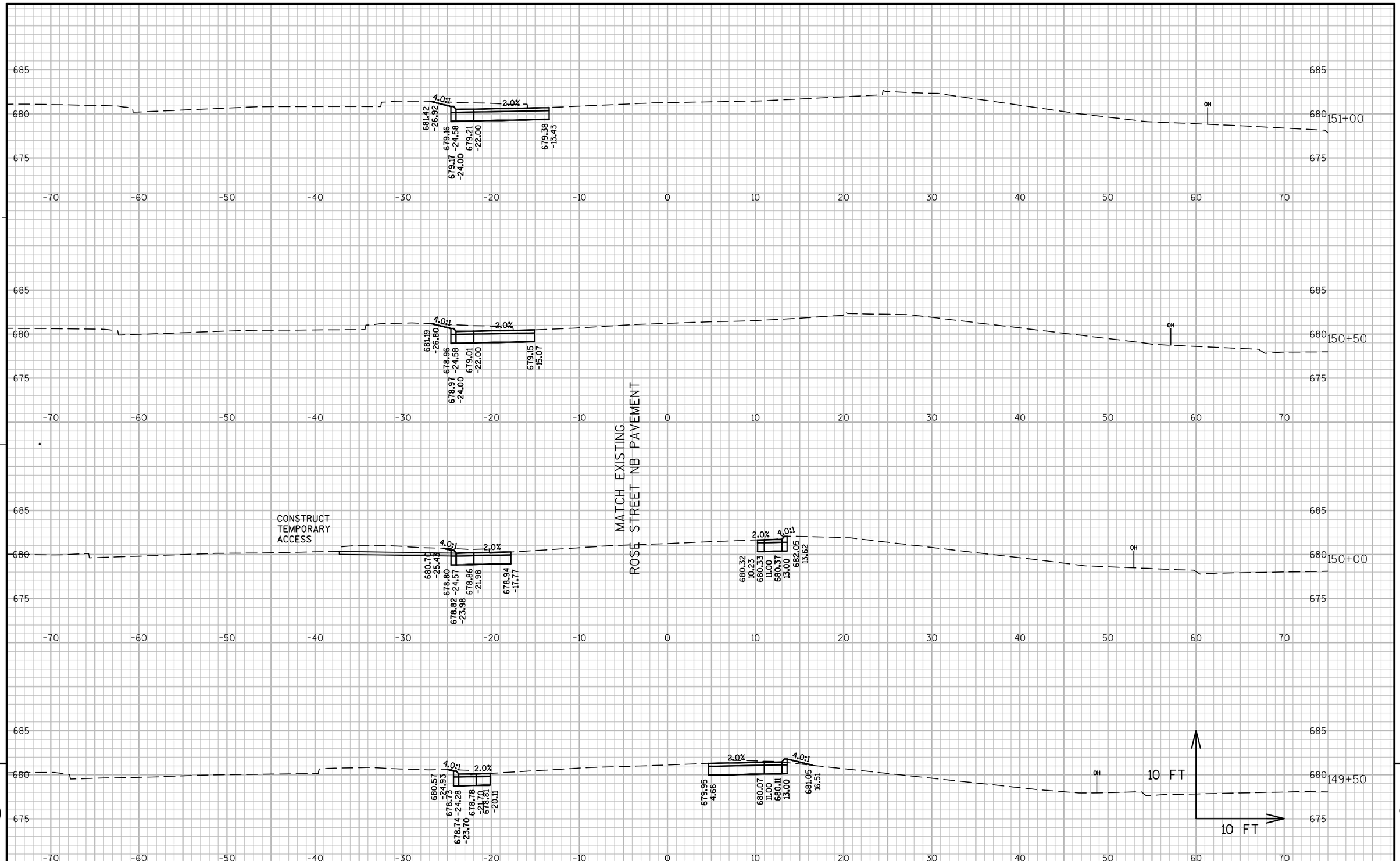
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9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 373	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:33 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090209_xsr+ PLOT SCALE : 1 IN:10 FT

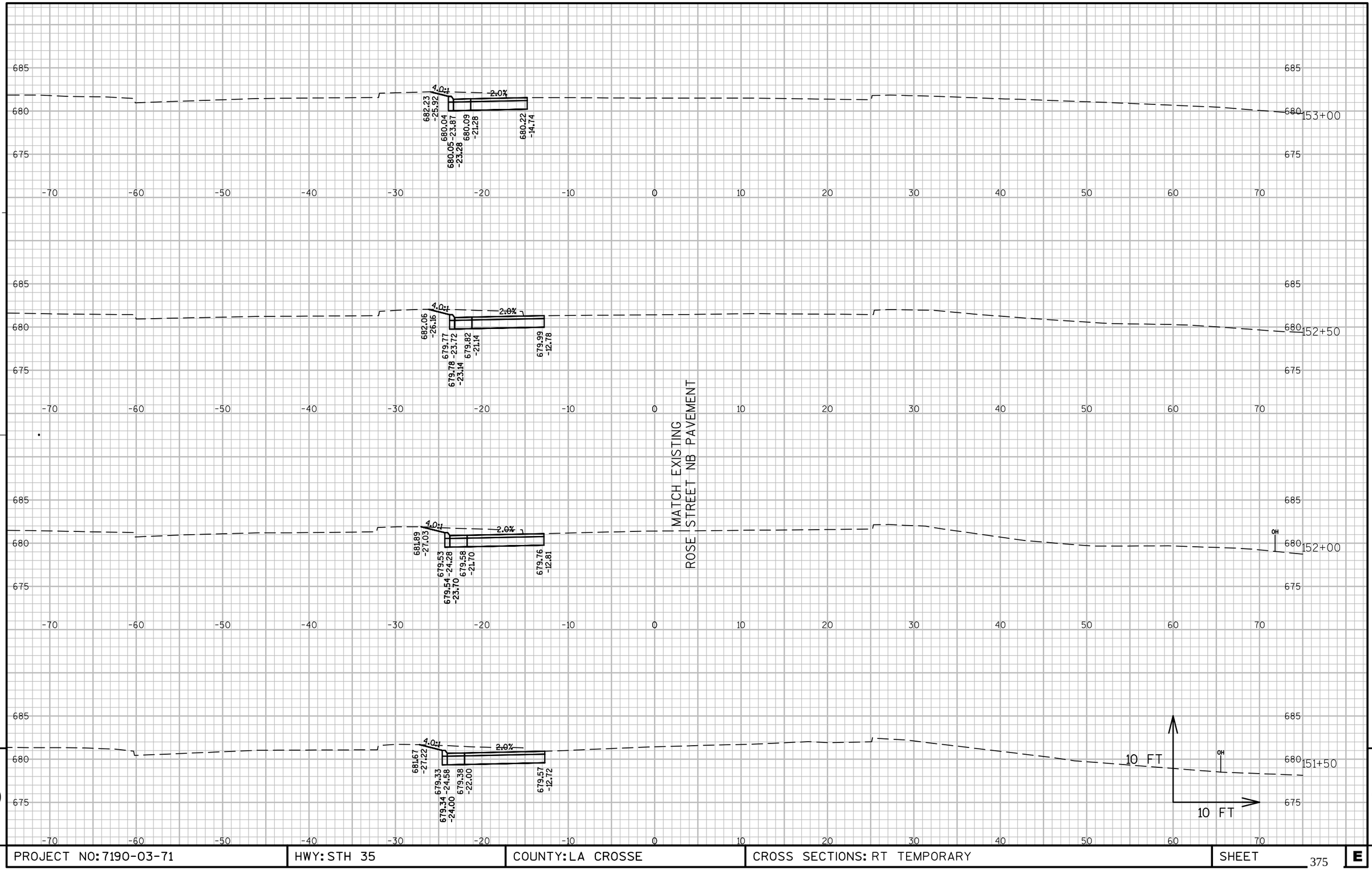


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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 374	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY
PLOT DATE : 7/30/2015 12:33 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090210_xsrt PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

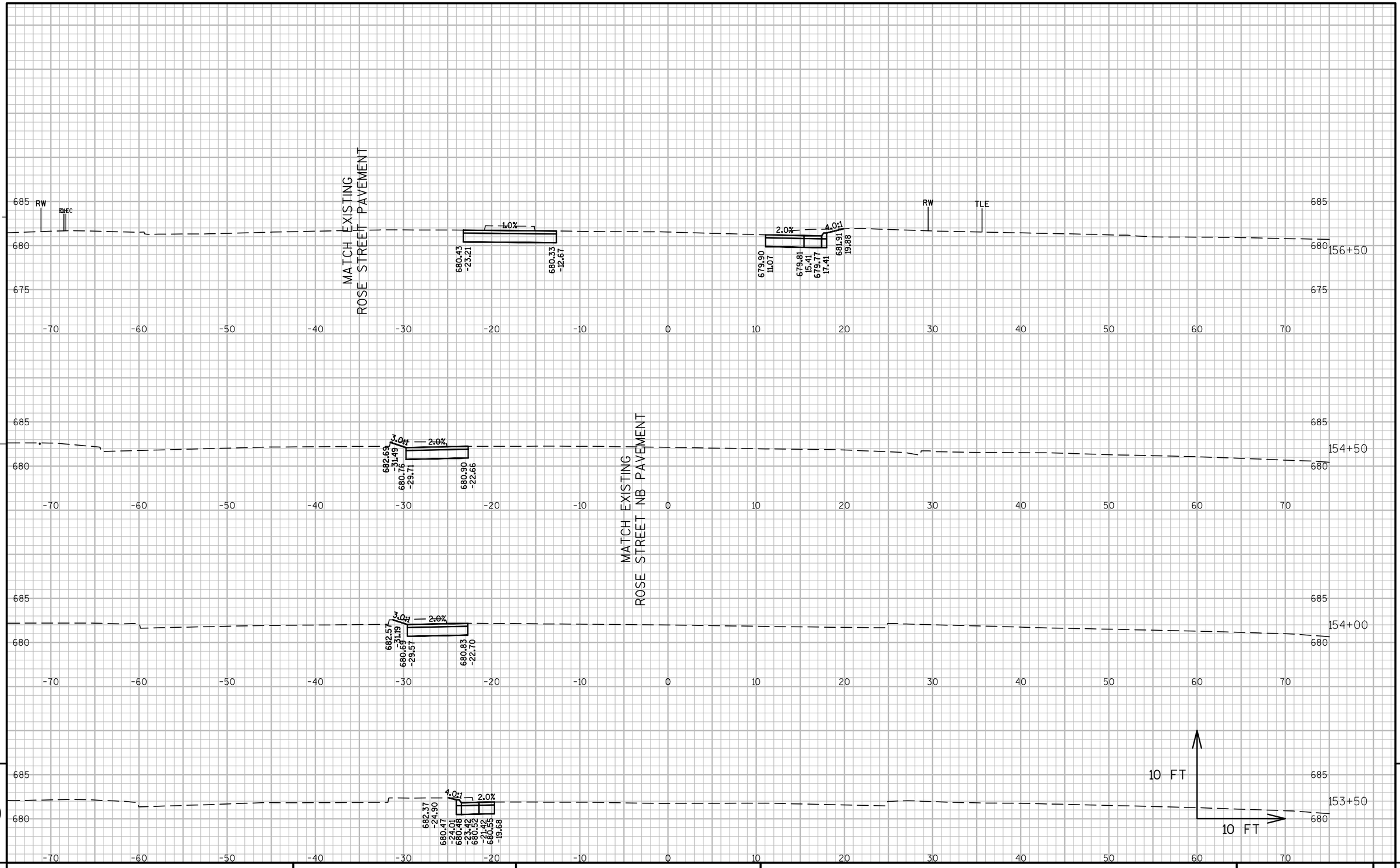


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 375	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:34 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090211_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



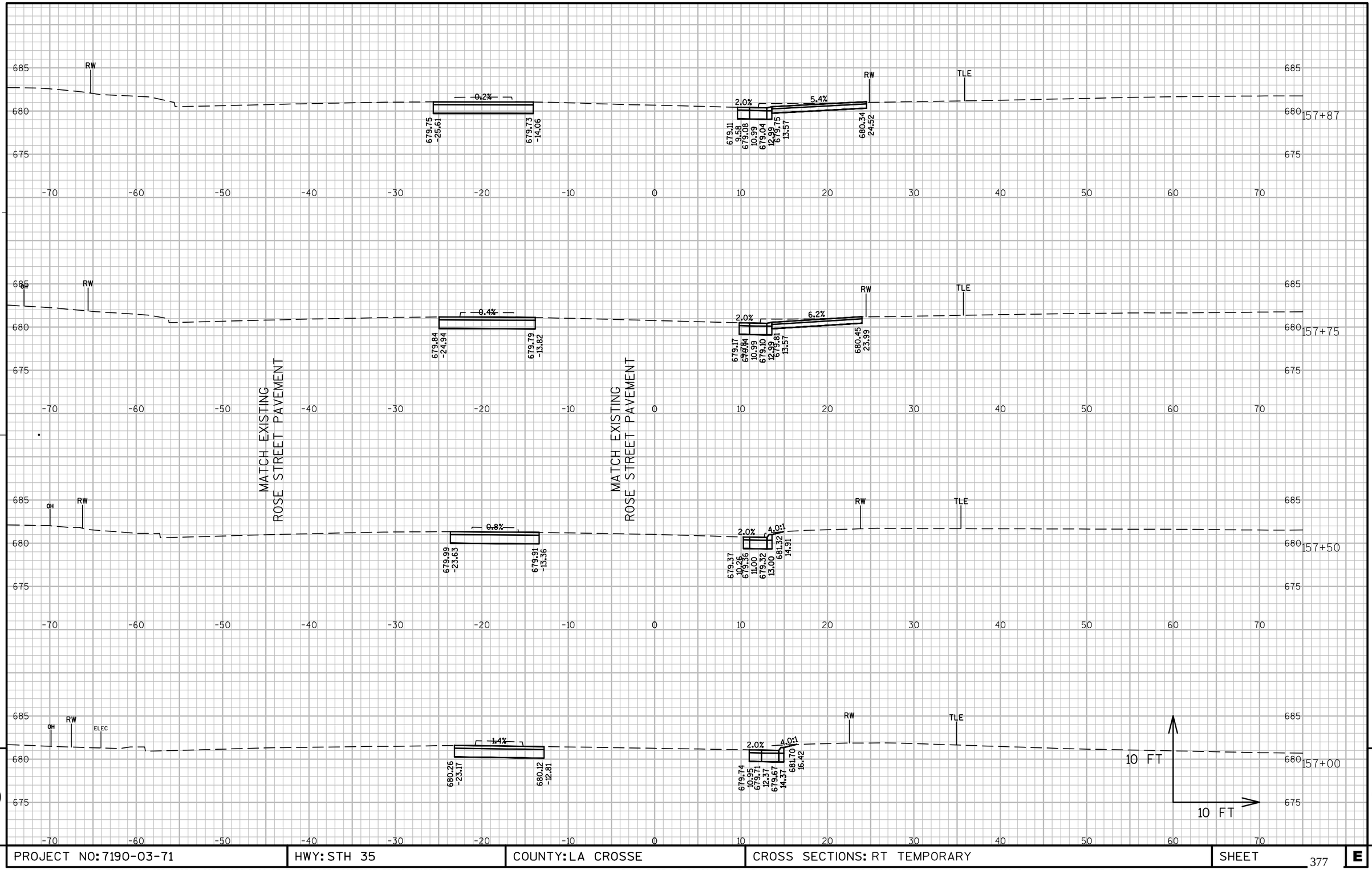
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9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 376	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:34 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090212_xsrt PLOT SCALE : 1 IN:10 FT

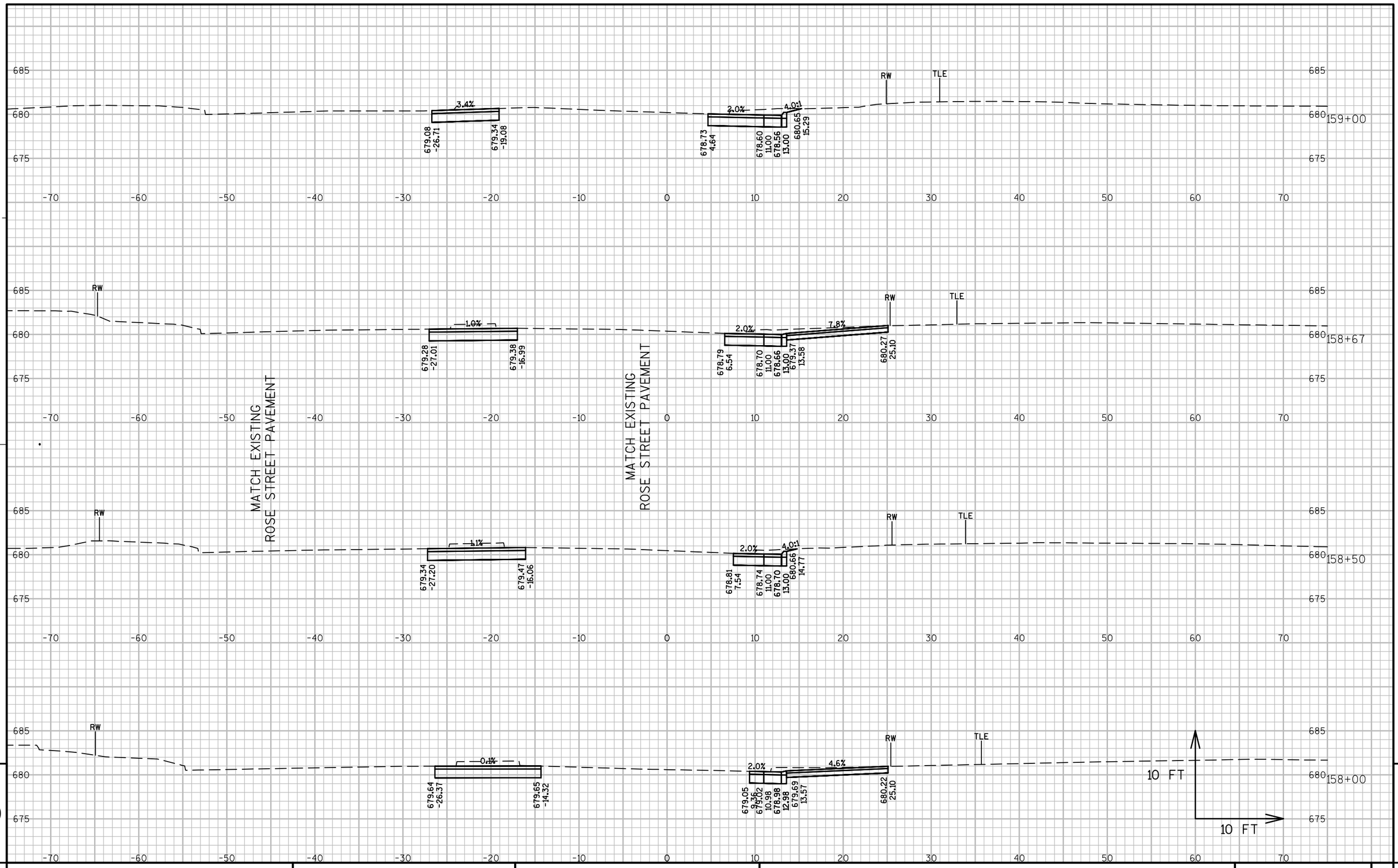


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 377	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:34 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090213_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

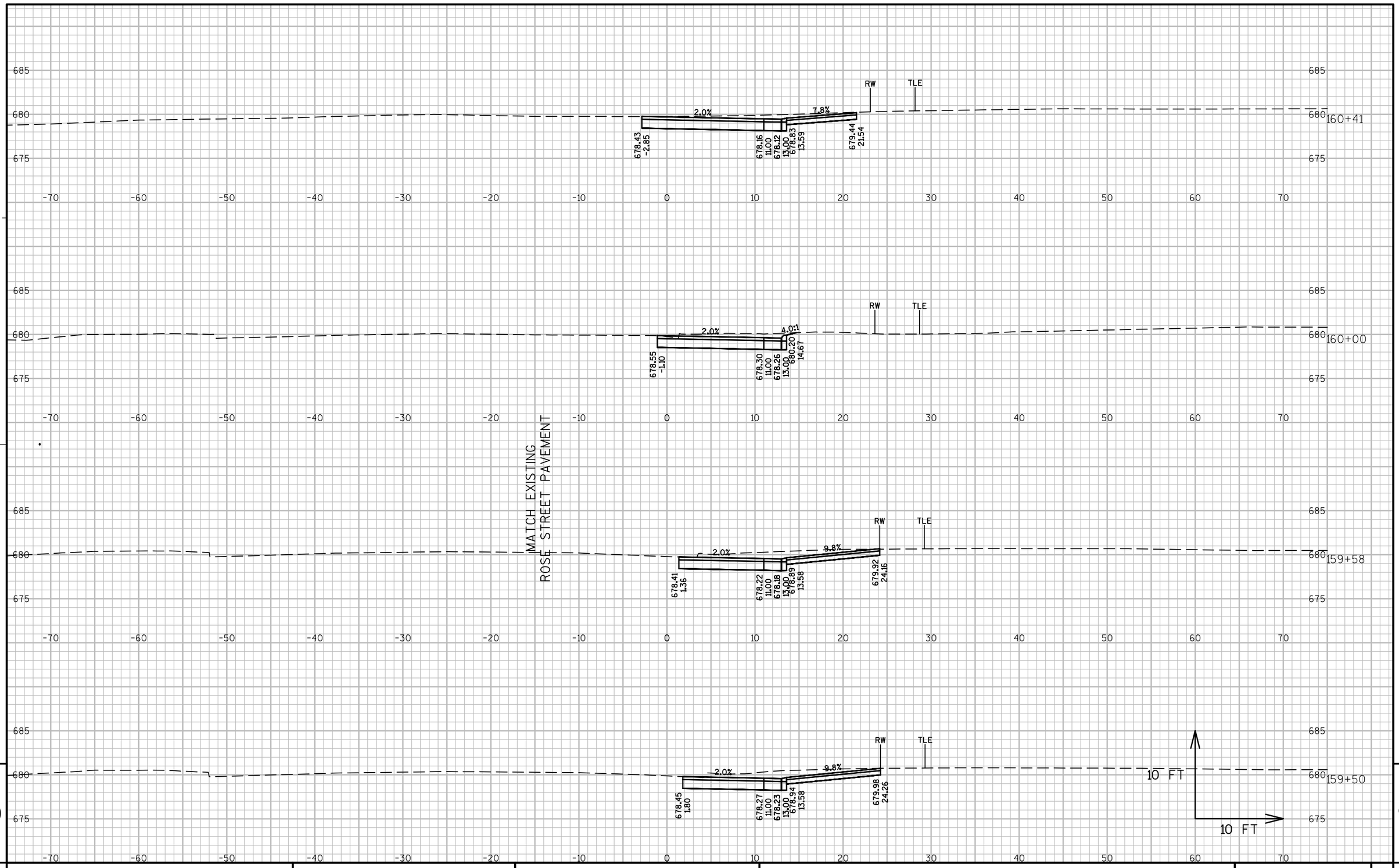


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 378	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:35 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090214_xsr+ PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

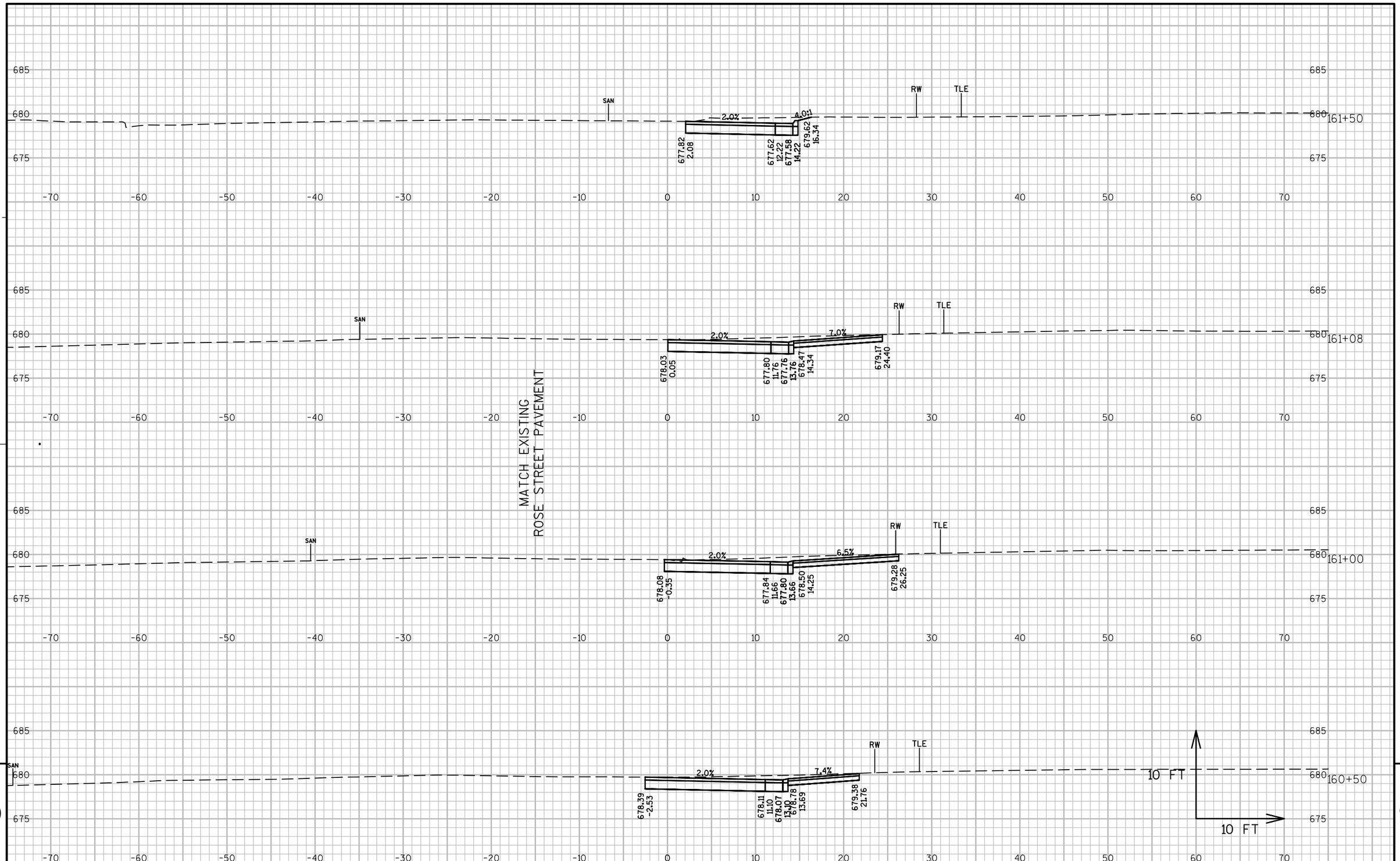
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 379	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:35 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090215_xsrt PLOT SCALE : 1 IN:10 FT

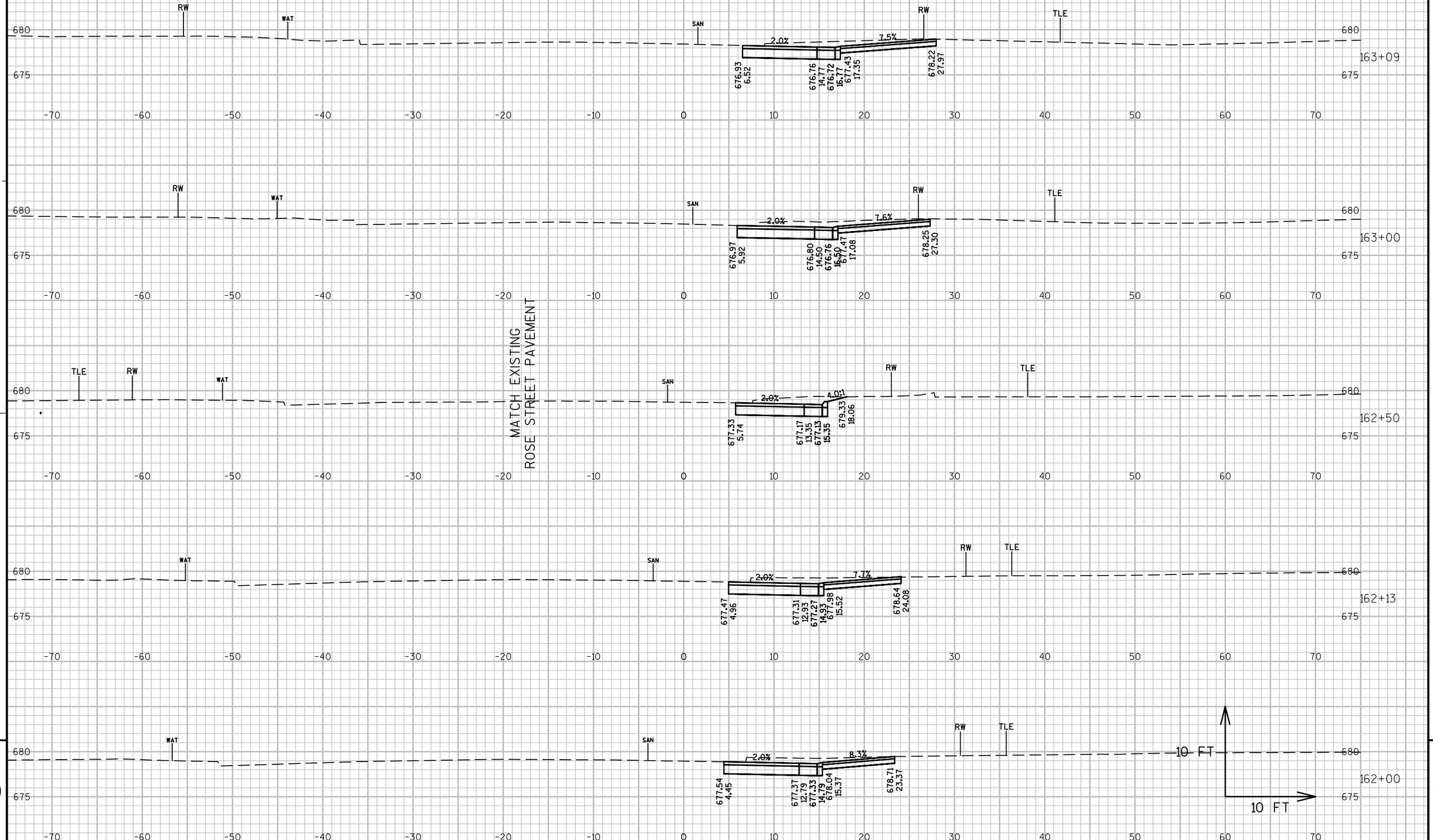
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 380	E



9

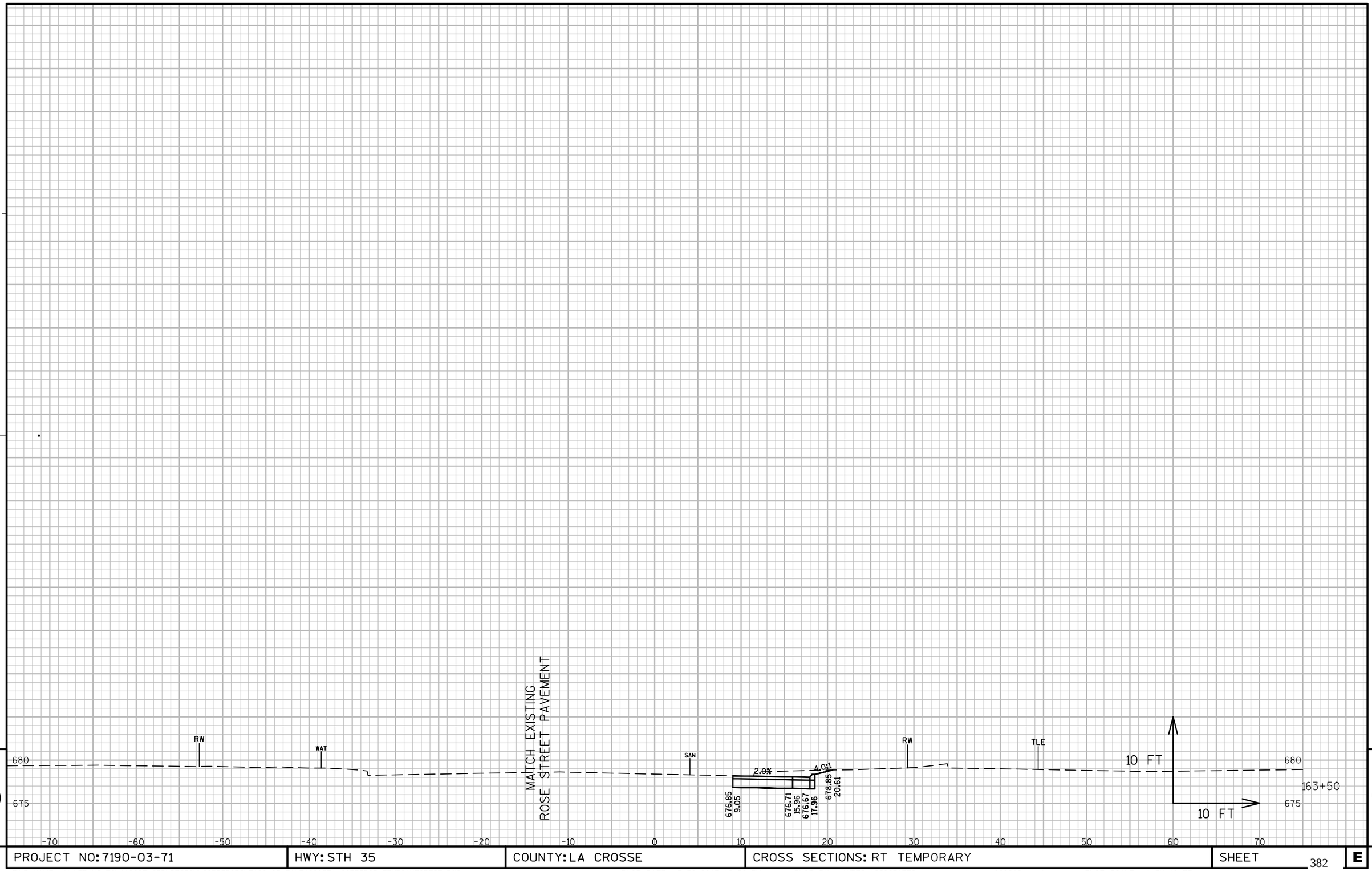
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 381	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:36 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090217_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

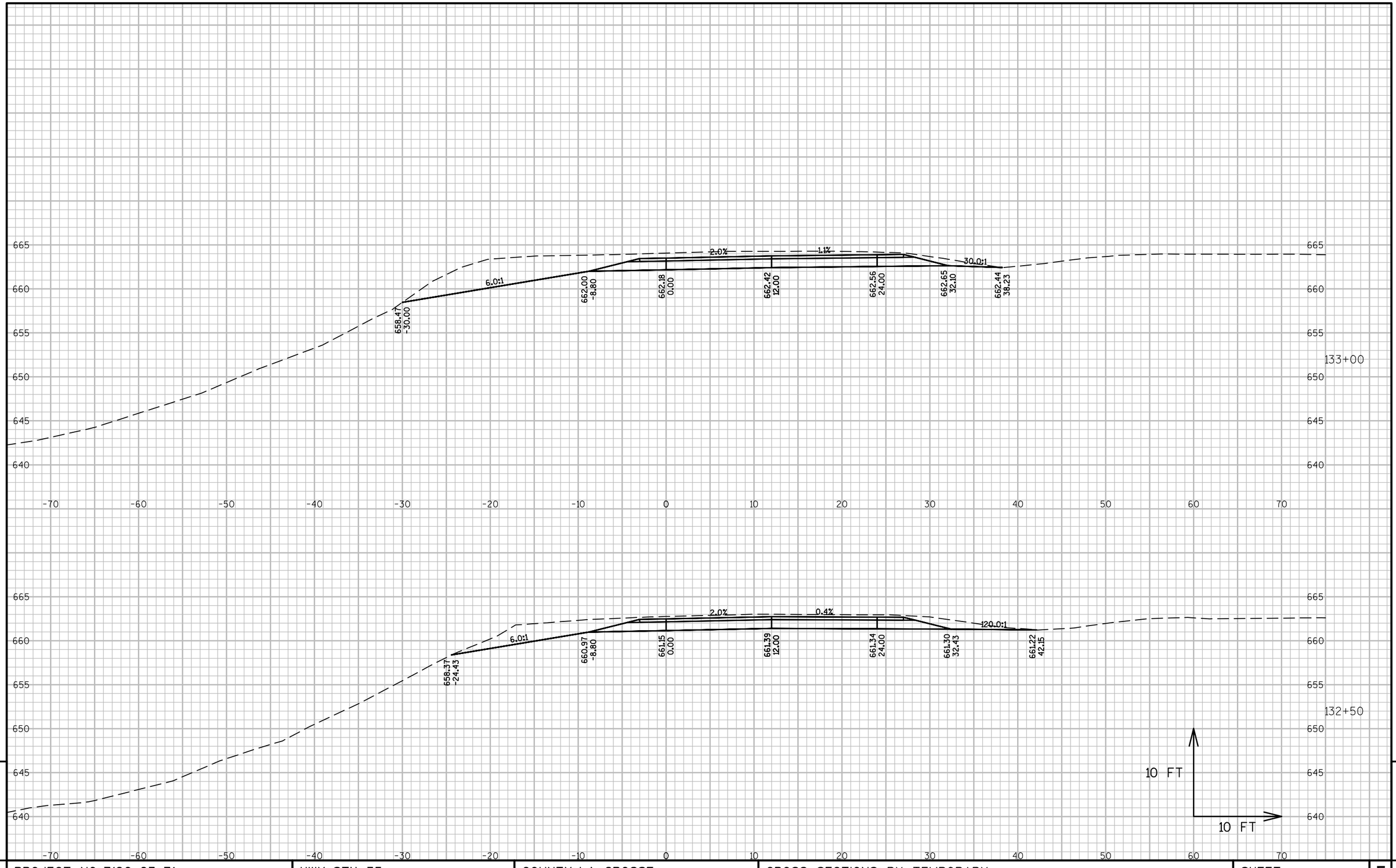


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 382 E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 12:36 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090218_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



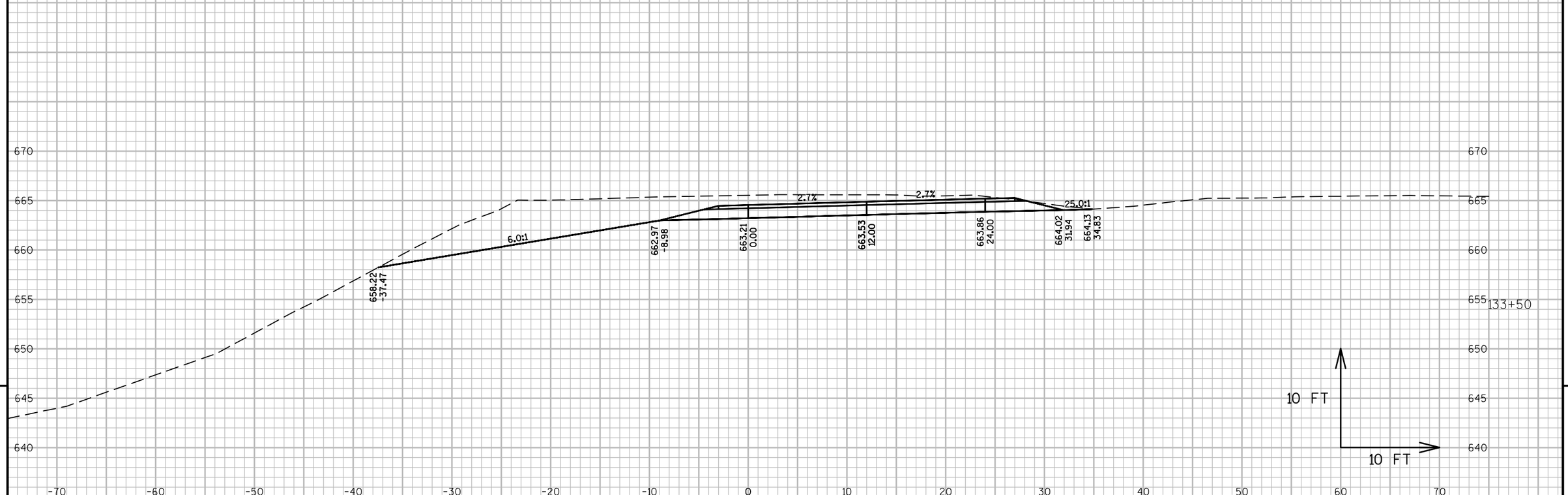
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RX TEMPORARY	SHEET 383	E

9

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\1 RX TEMPORARY.DWG
LAYOUT NAME - RX TEMPORARY

PLOT DATE : 7/30/2015 12:38 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

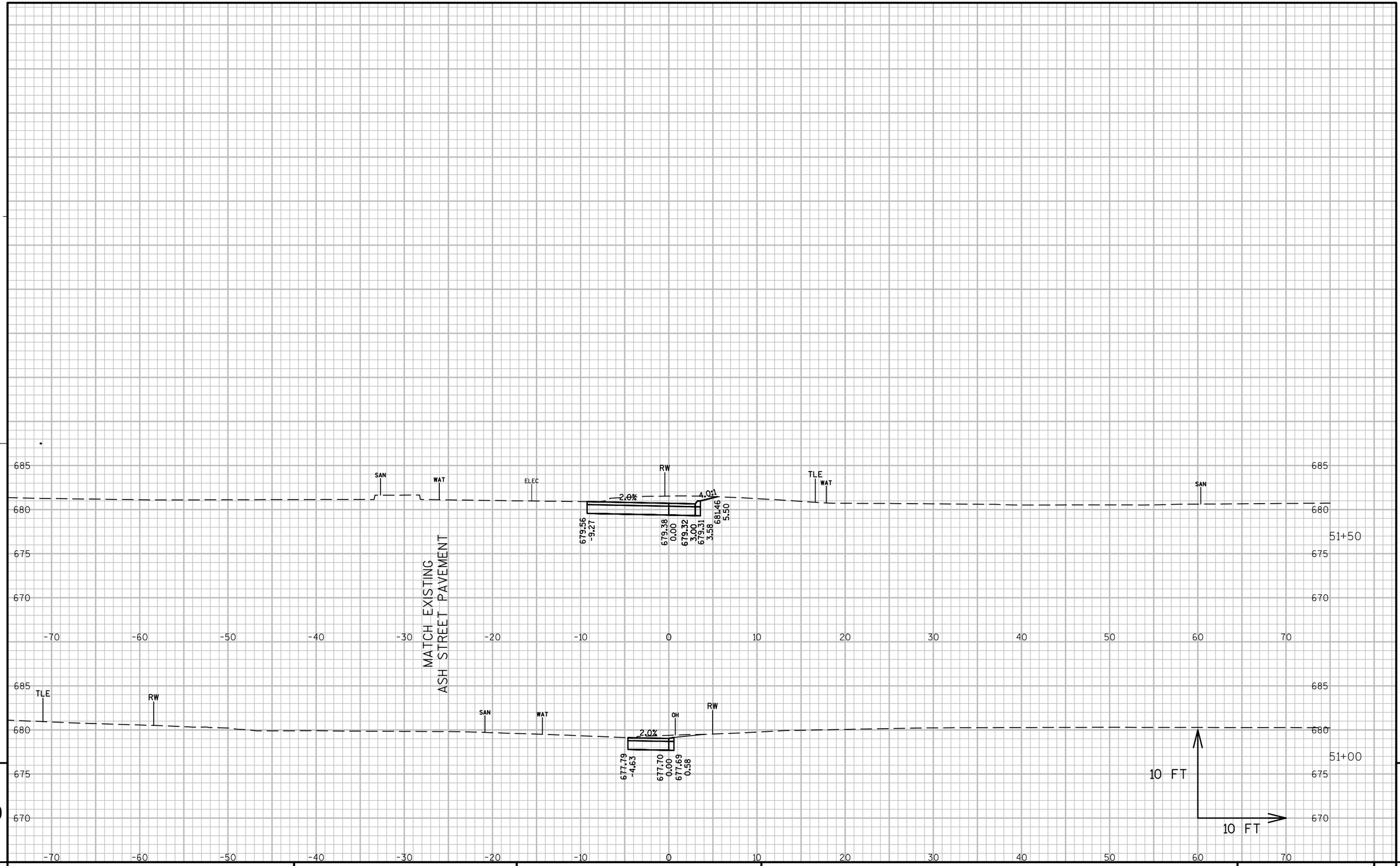
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RX TEMPORARY	SHEET 384	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\1 RX TEMPORARY.DWG
LAYOUT NAME - RX TEMPORARY

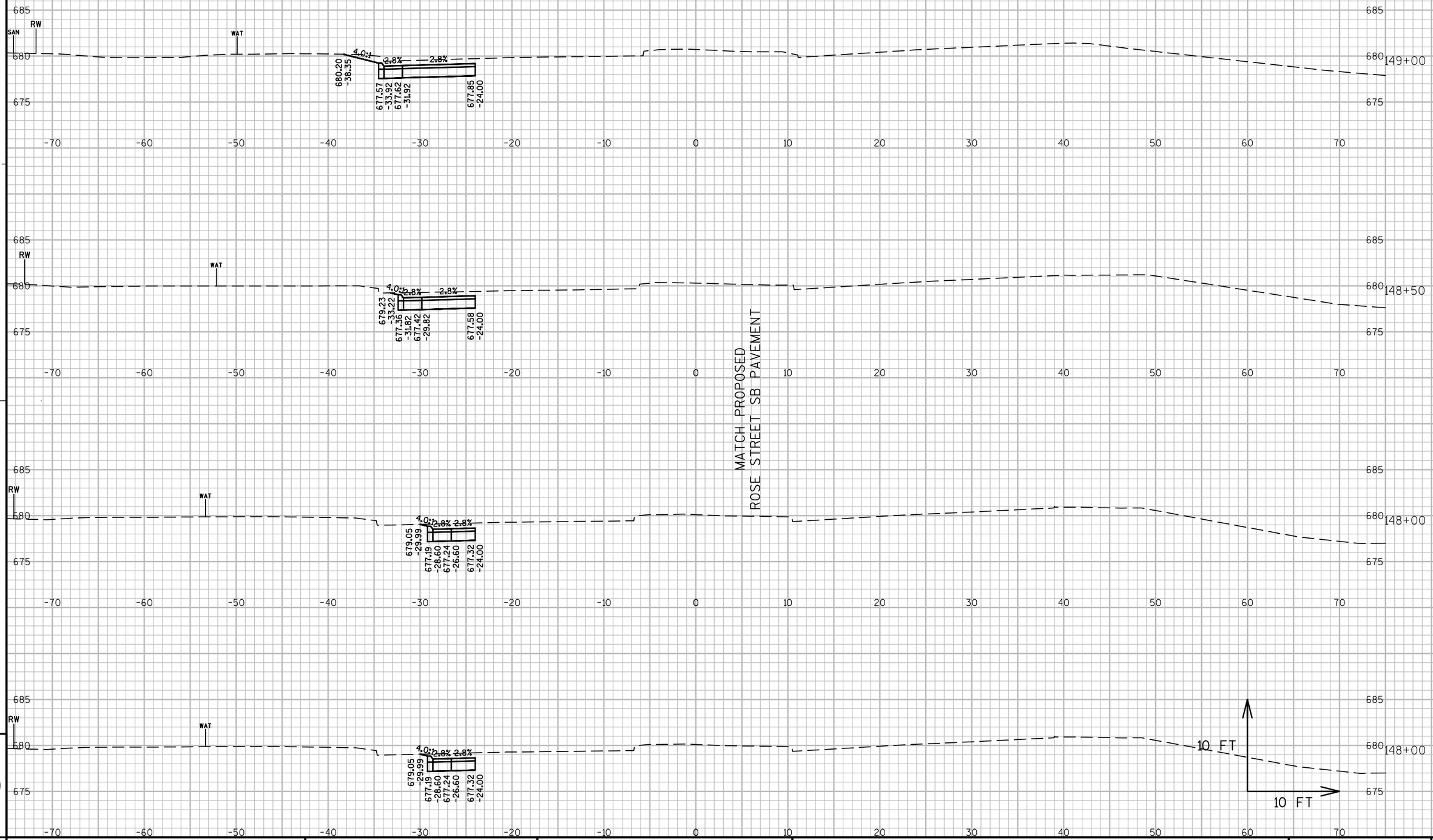
PLOT DATE : 7/30/2015 12:38 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: TO TEMPORARY	SHEET E

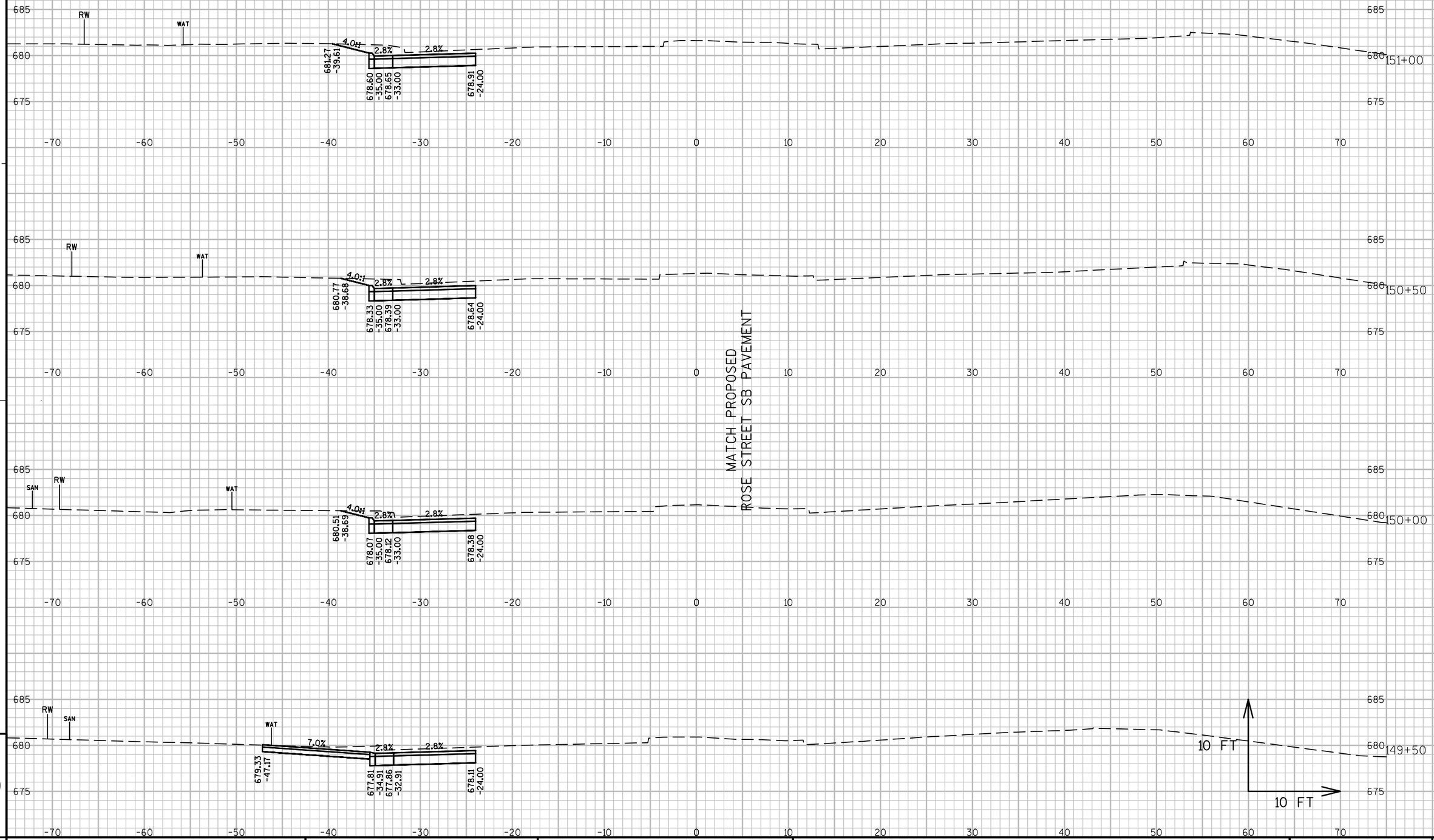
FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG PLOT DATE : 7/30/2015 12:40 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090201_xsto PLOT SCALE : 1" = 10'_XREF



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET SOUTHBOUND WIDENING (RS LINE)	SHEET 386	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\7190371_CORRIDOR_ROSESBTEMPWIDENING.DWG PLOT DATE : 7/30/2015 1:20 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090201_xs PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



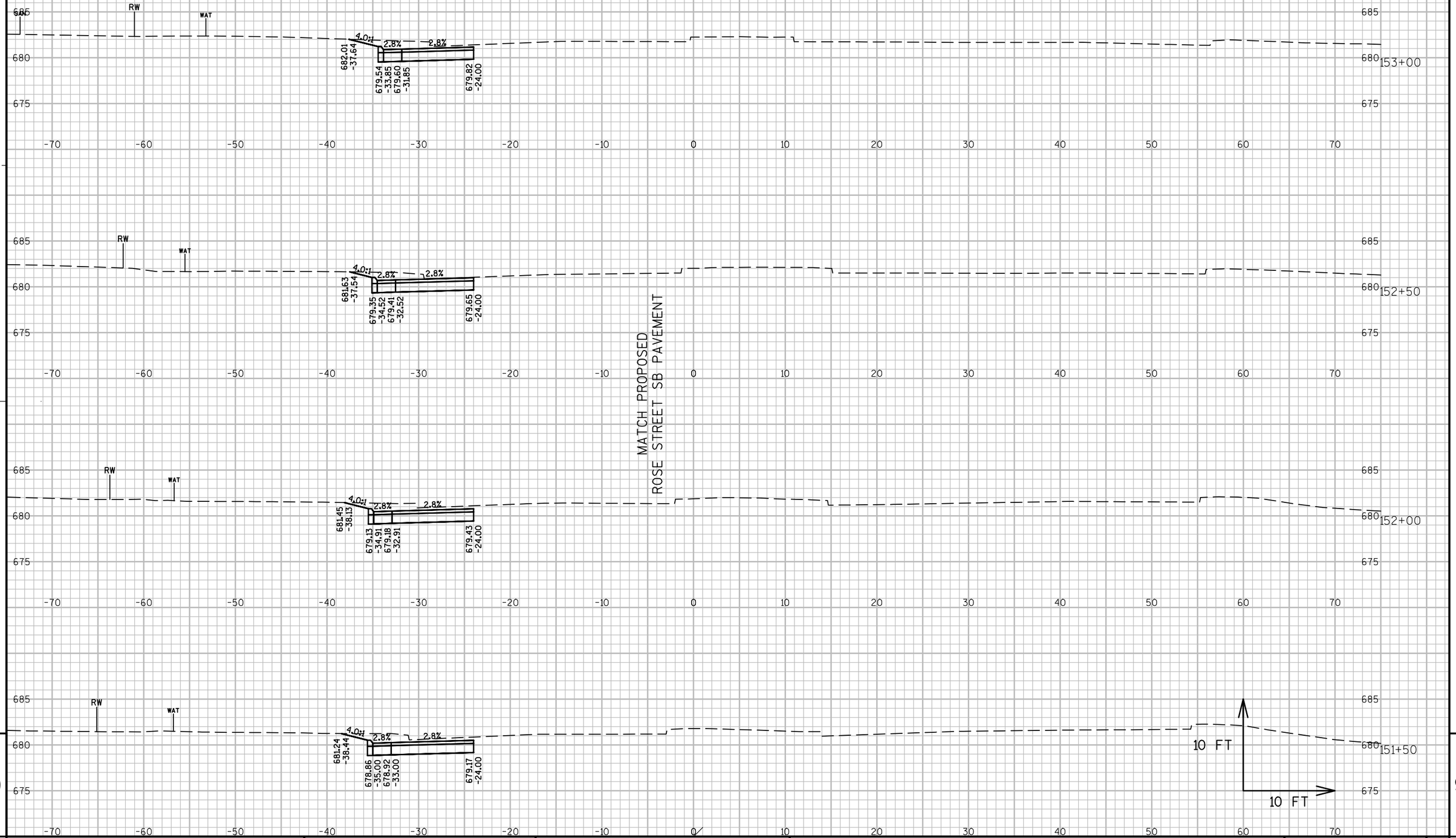
9

9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET SOUTHBOUND WIDENING (RS LINE)	SHEET 387	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_ROSESBTEMPWIDENING.DWG PLOT DATE : 7/30/2015 1:20 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090202_xs PLOT SCALE : 1:10_XREF

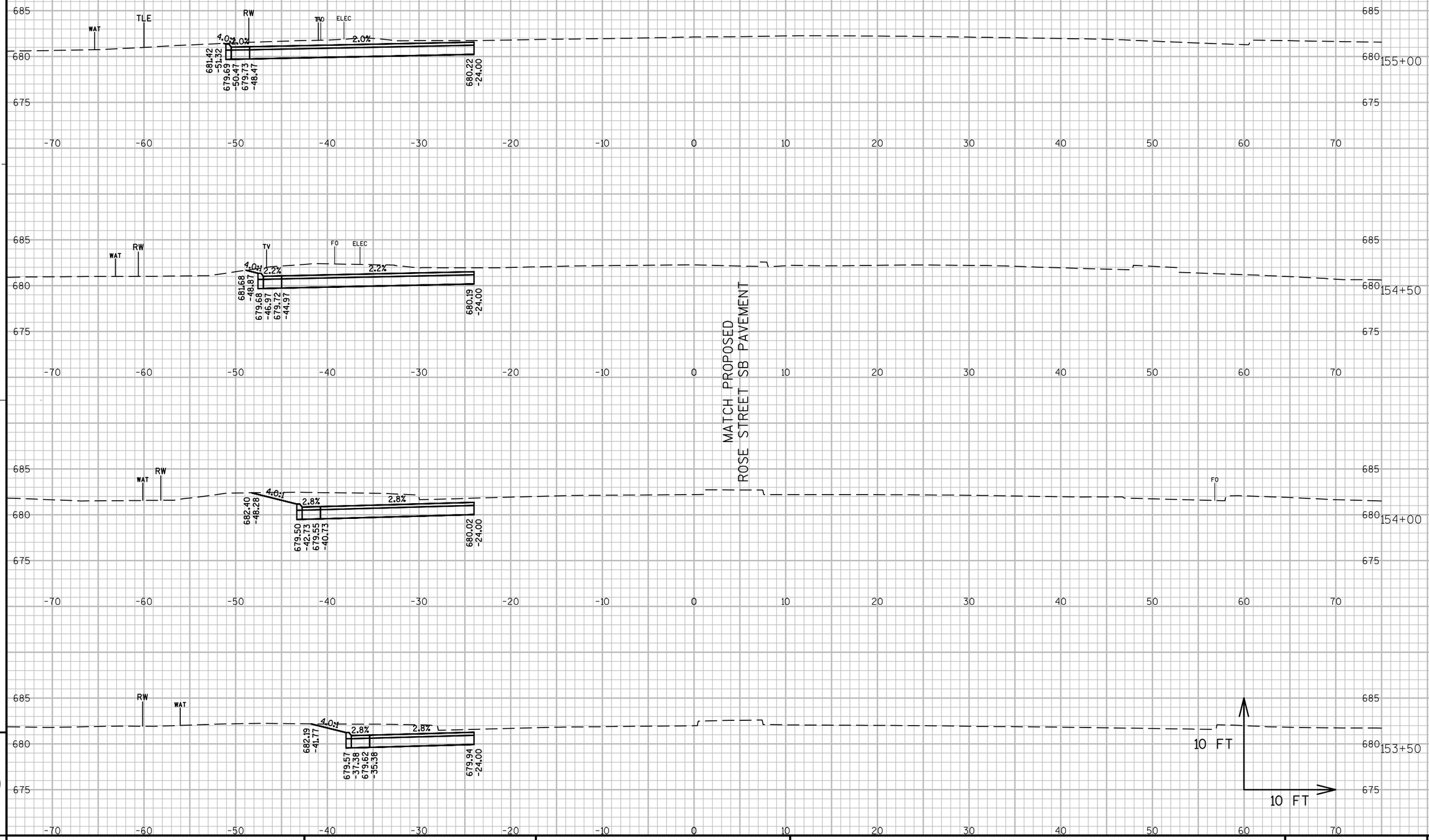
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET SOUTHBOUND WIDENING (RS LINE)	SHEET 388	E

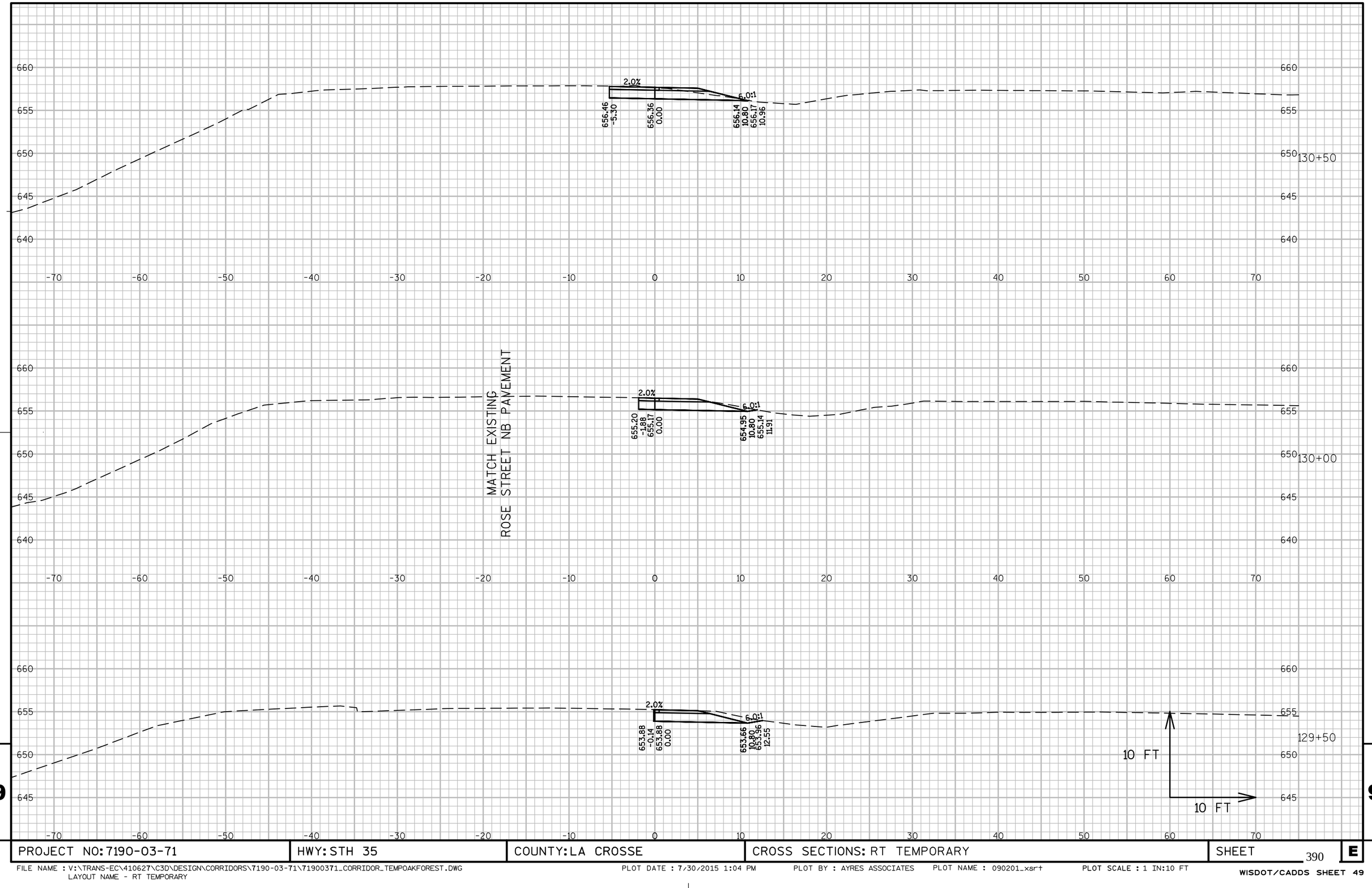


9

9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: ROSE STREET SOUTHBOUND WIDENING (RS LINE)	SHEET 389	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_ROSESBTEMPWIDENING.DWG PLOT DATE : 7/30/2015 1:20 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090204_xs PLOT SCALE : 1:10_XREF

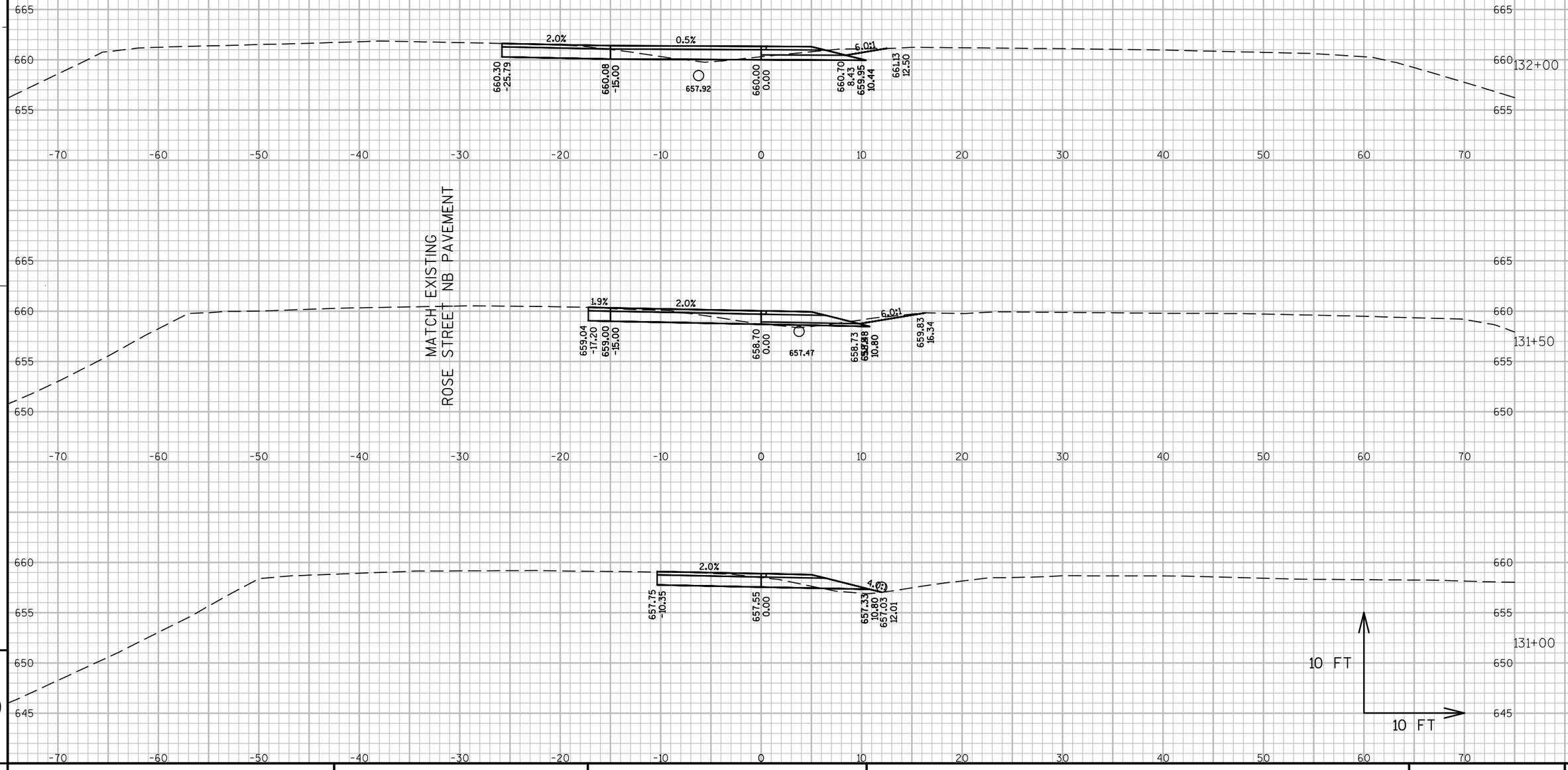


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 390	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:04 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090201_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



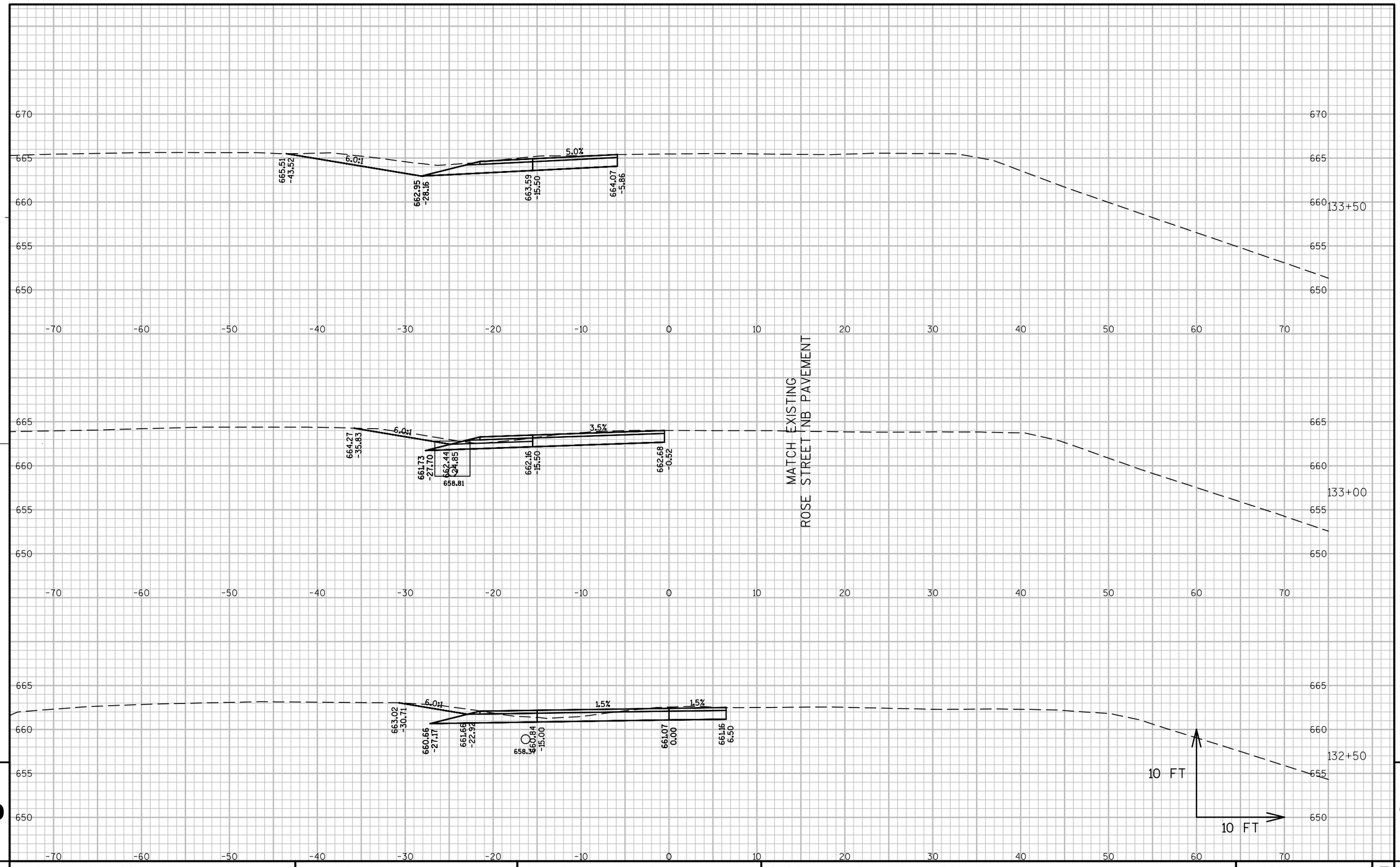
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 391	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:04 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090202_xsrt PLOT SCALE : 1 IN:10 FT



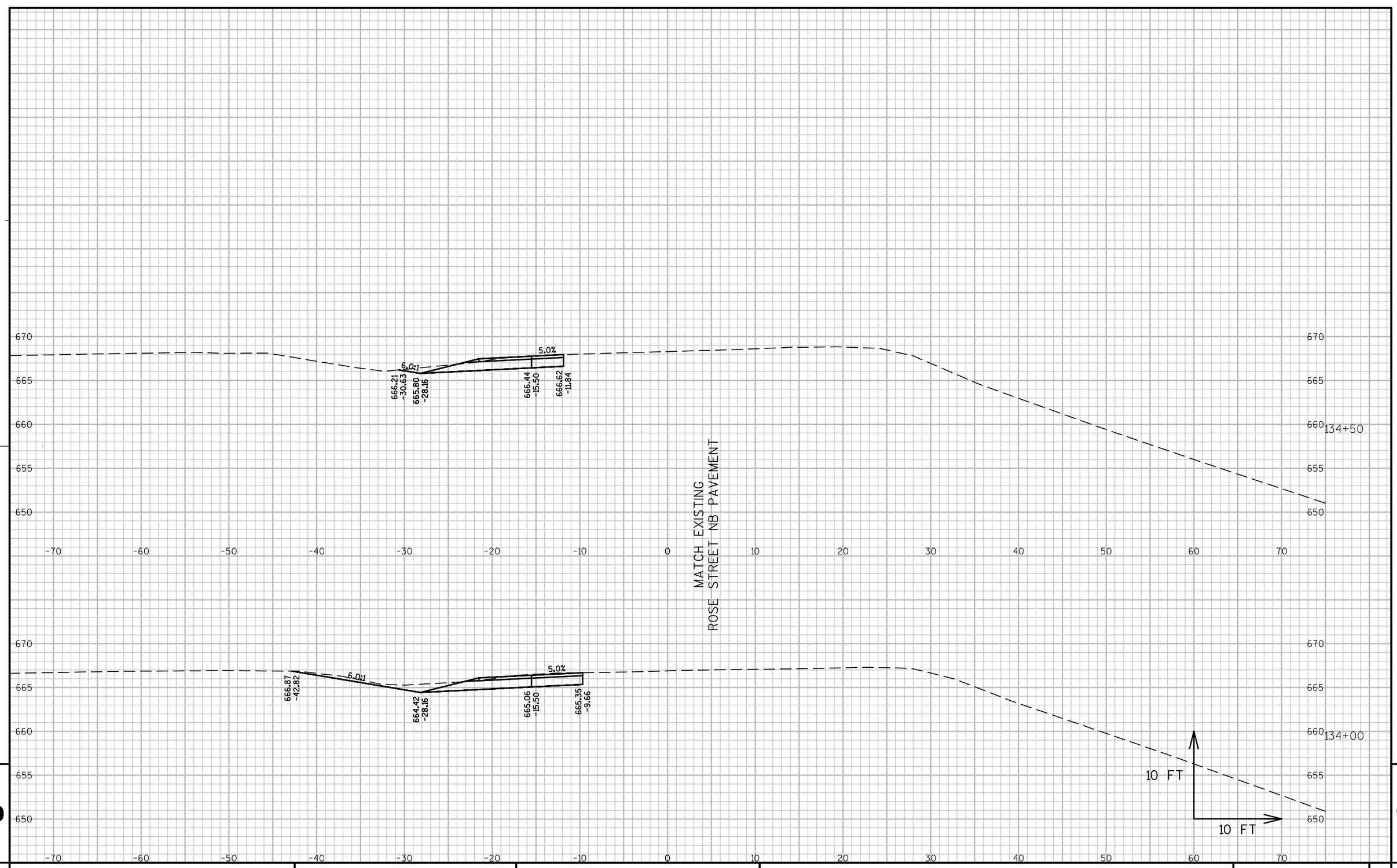
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9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 392	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:04 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090203_xsrt PLOT SCALE : 1 IN:10 FT



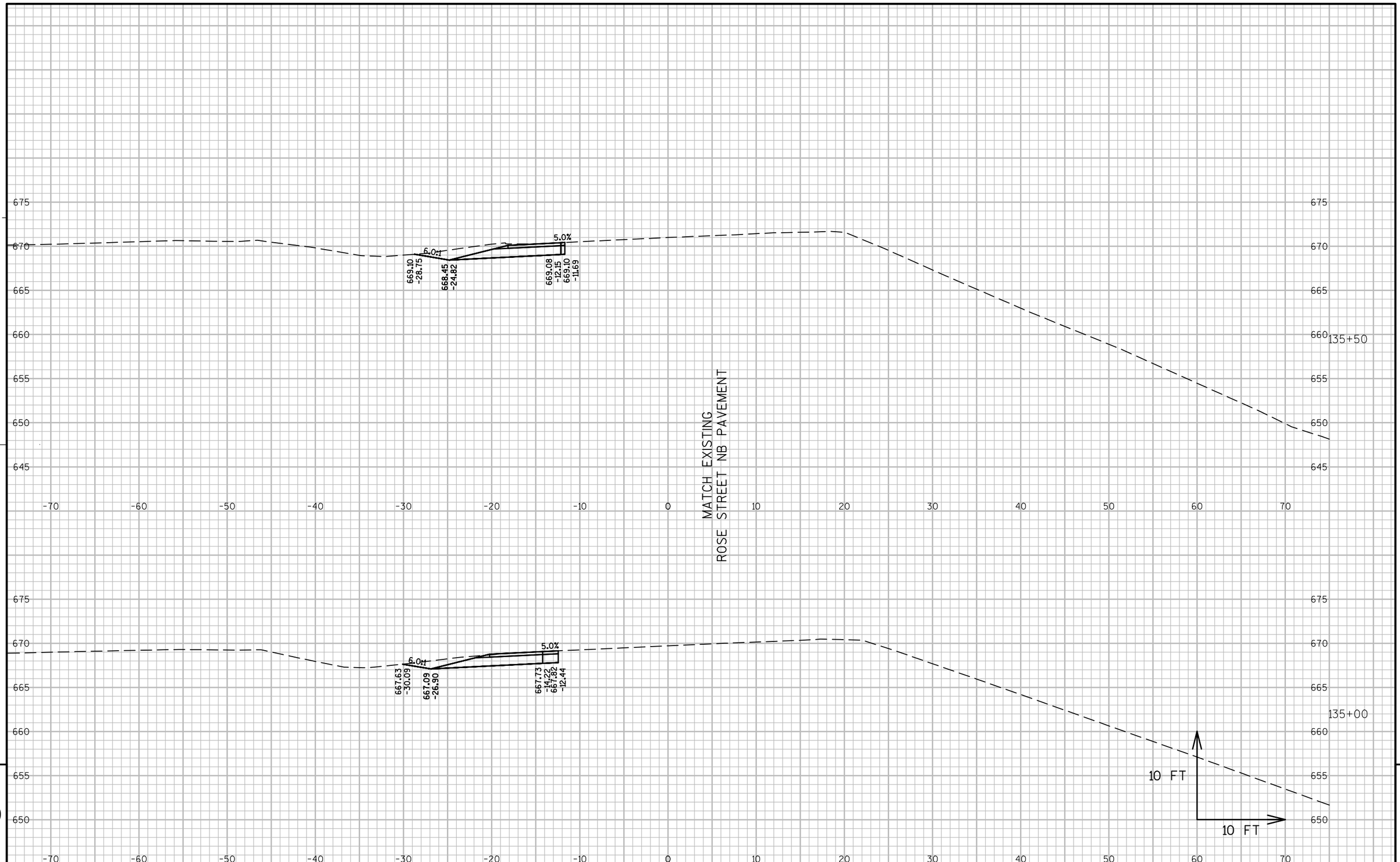
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9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 393	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:05 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090204_xsrt PLOT SCALE : 1 IN:10 FT



9

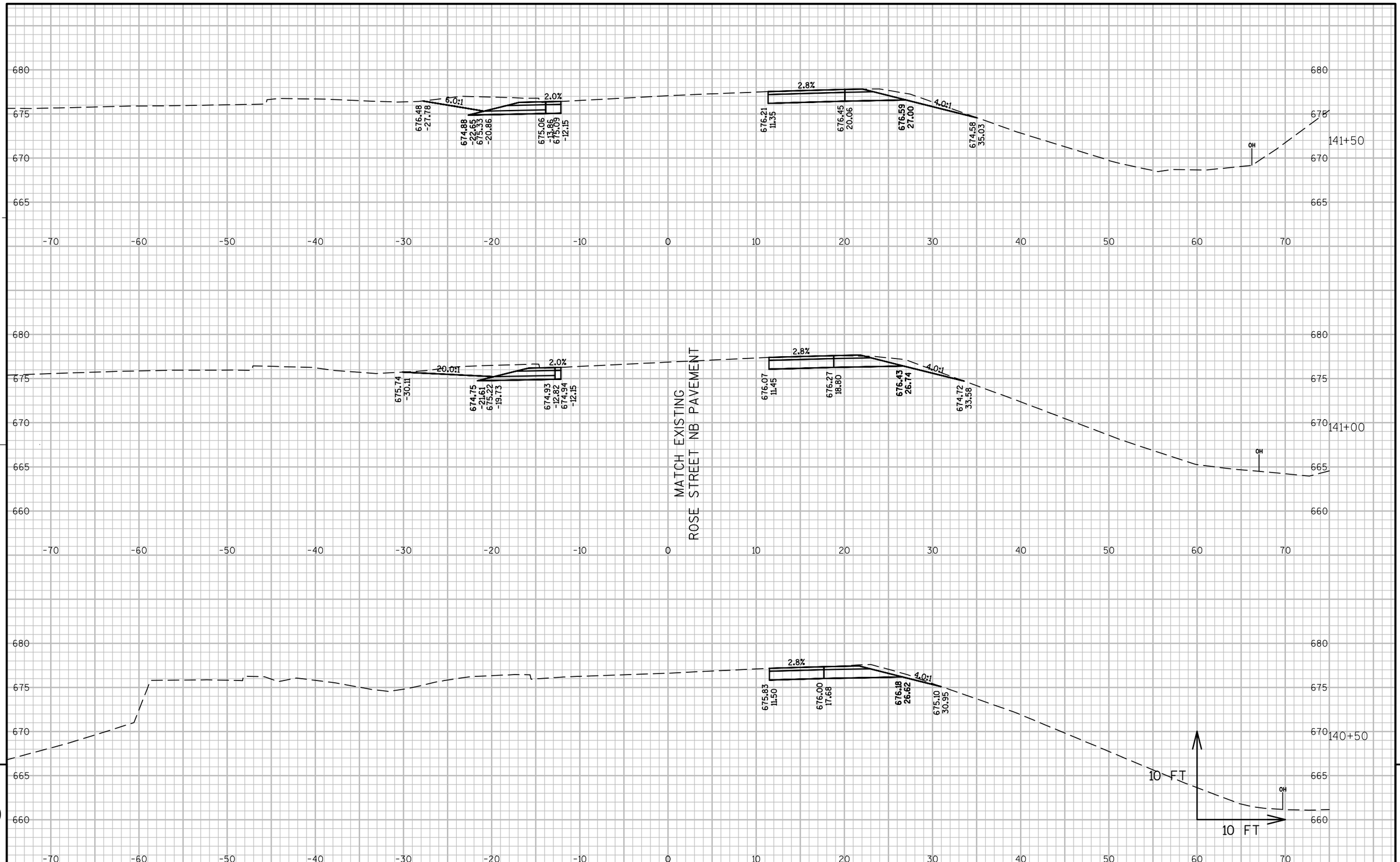
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 394	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:05 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090205_xsrt PLOT SCALE : 1 IN:10 FT

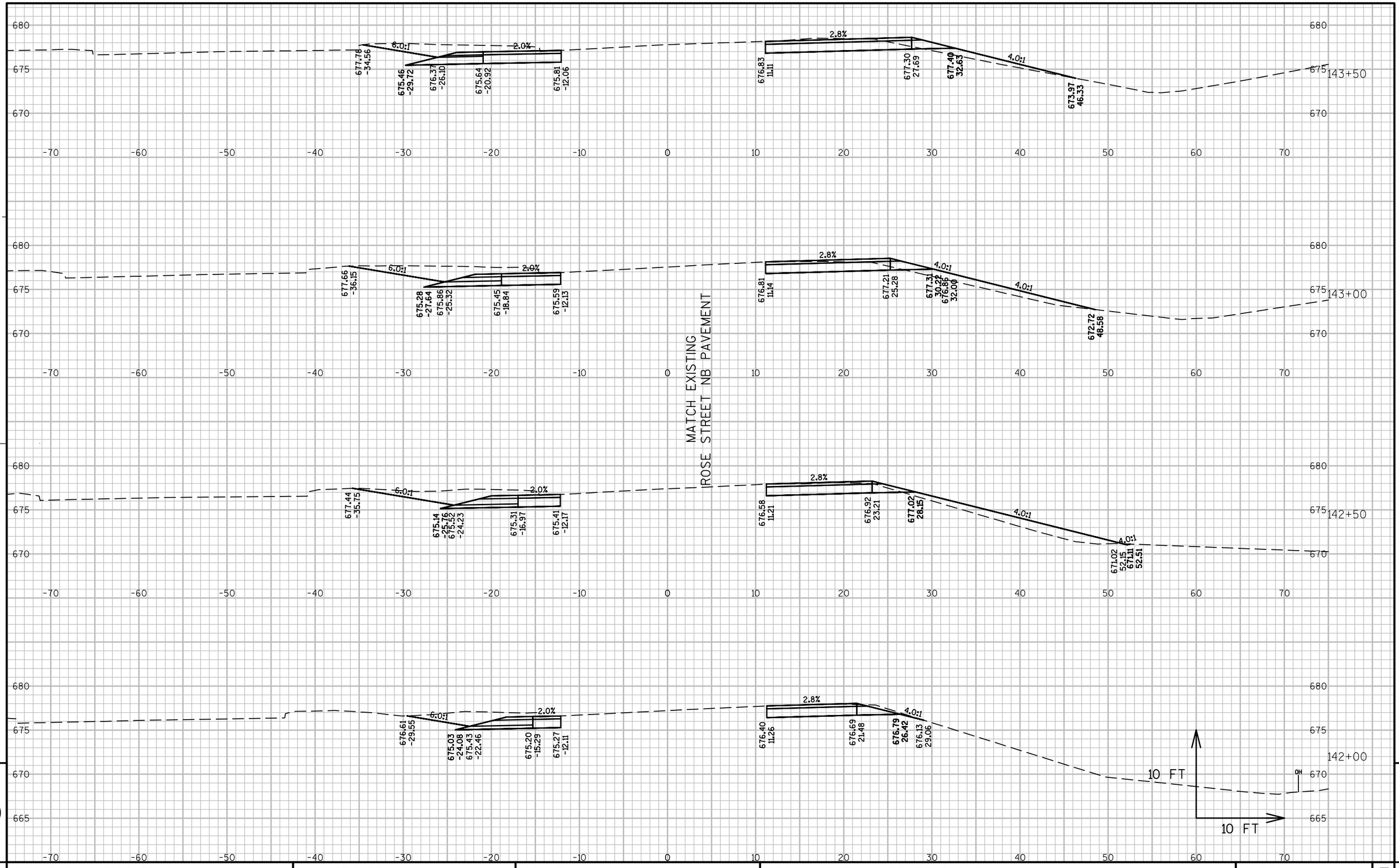
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 395	E



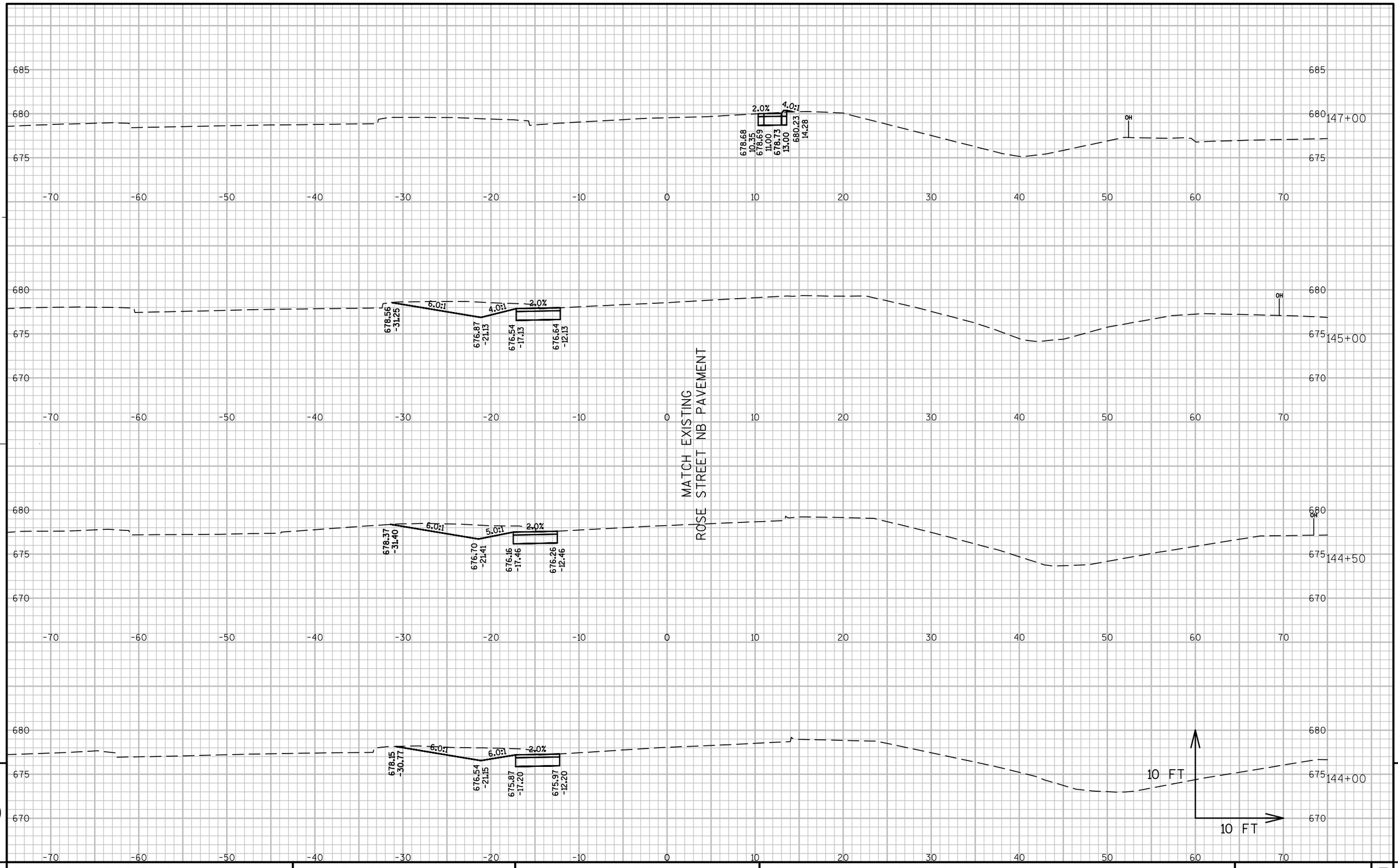
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 396	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:06 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090207_xsrt PLOT SCALE : 1 IN:10 FT



PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 397	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:06 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090208_xsrt PLOT SCALE : 1 IN:10 FT

MATCH EXISTING
ROSE STREET NB PAVEMENT

149+00

2.0%
4.0:1
679.67
2.77
679.84
11.00
679.88
13.00
681.01
15.71
OH

148+50

2.0%
4.0:1
679.42
3.25
679.57
11.00
679.61
13.00
681.04
14.54
OH

148+00

2.0%
4.0:1
679.15
5.47
679.26
11.00
679.30
13.00
680.70
14.62
OH

147+50

2.0%
4.0:1
679.03
8.28
679.09
11.00
679.13
13.00
680.66
14.12
OH
10 FT
10 FT

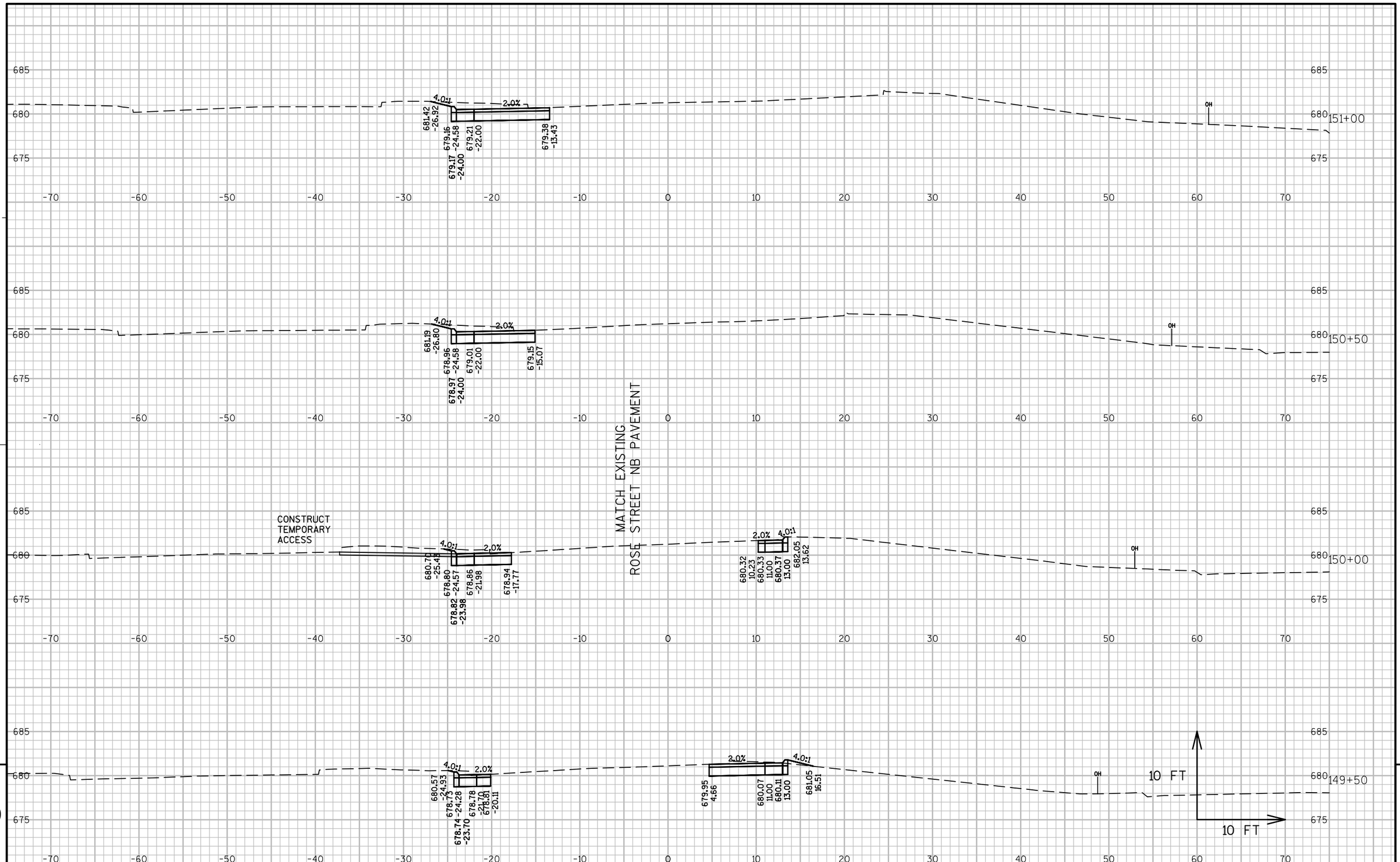
685
680
675
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

9

9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 398	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY
PLOT DATE : 7/30/2015 1:07 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090209_xsr+ PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



9

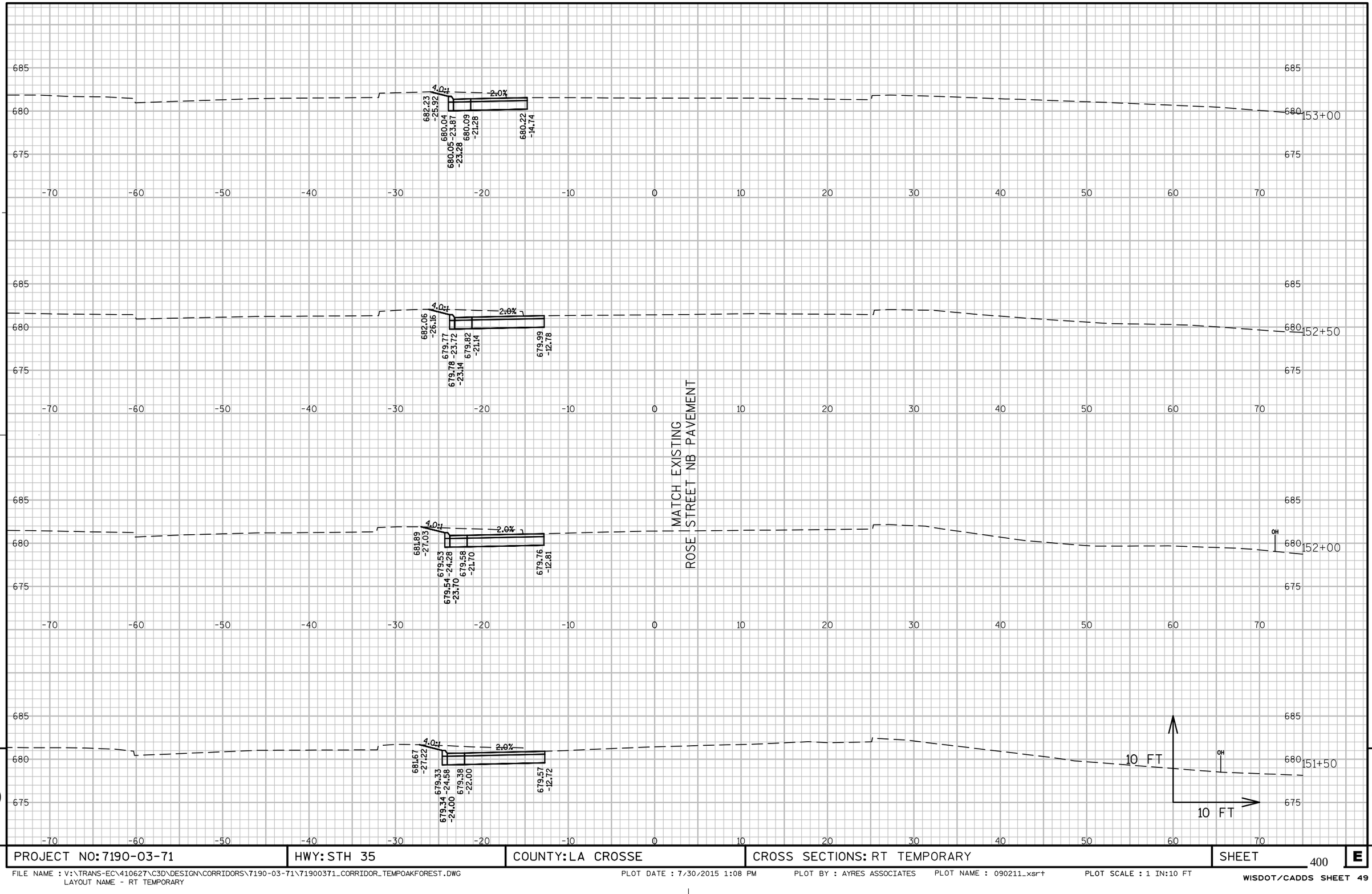
9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 399	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:07 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090210_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

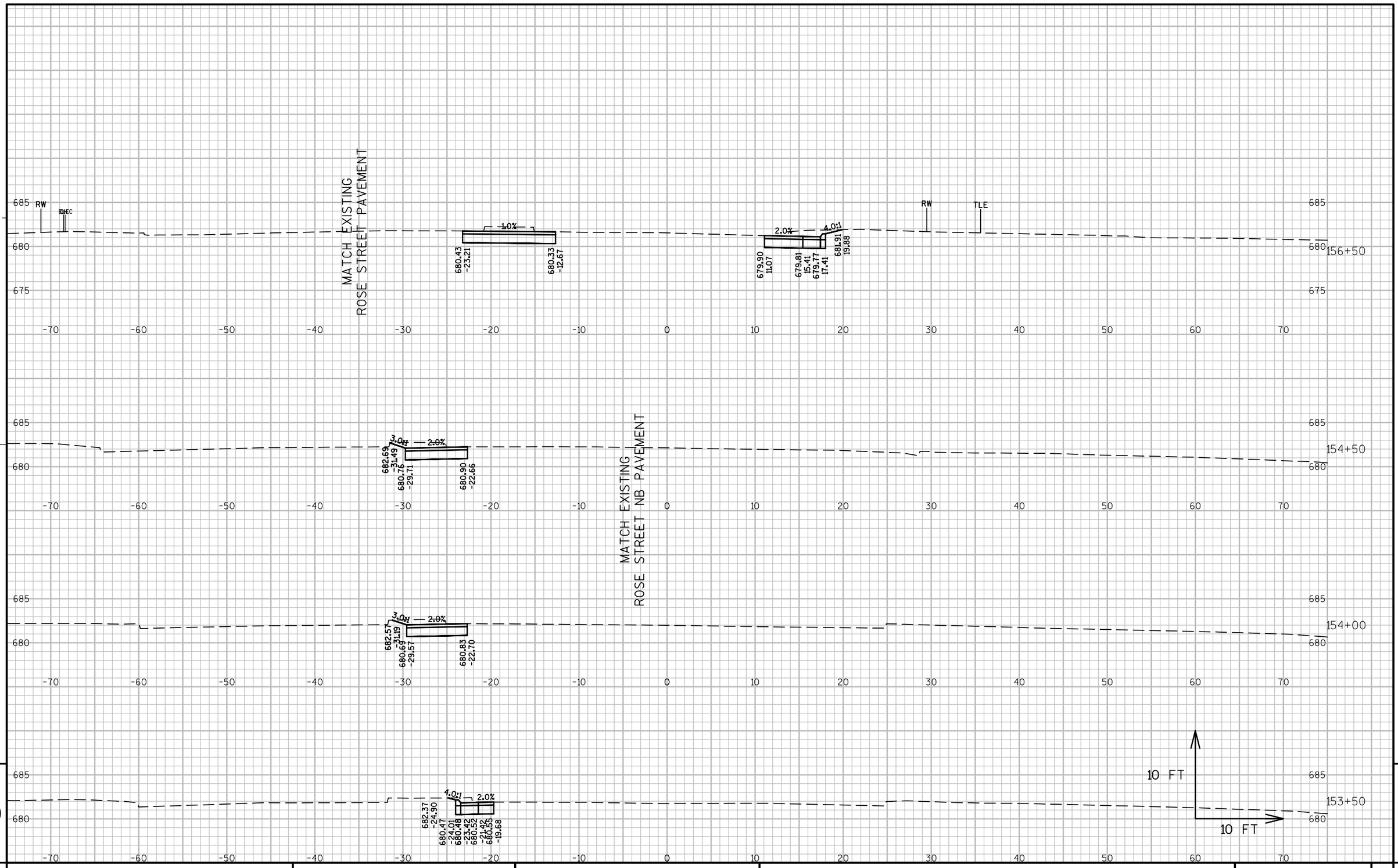


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 400	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:08 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090211_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

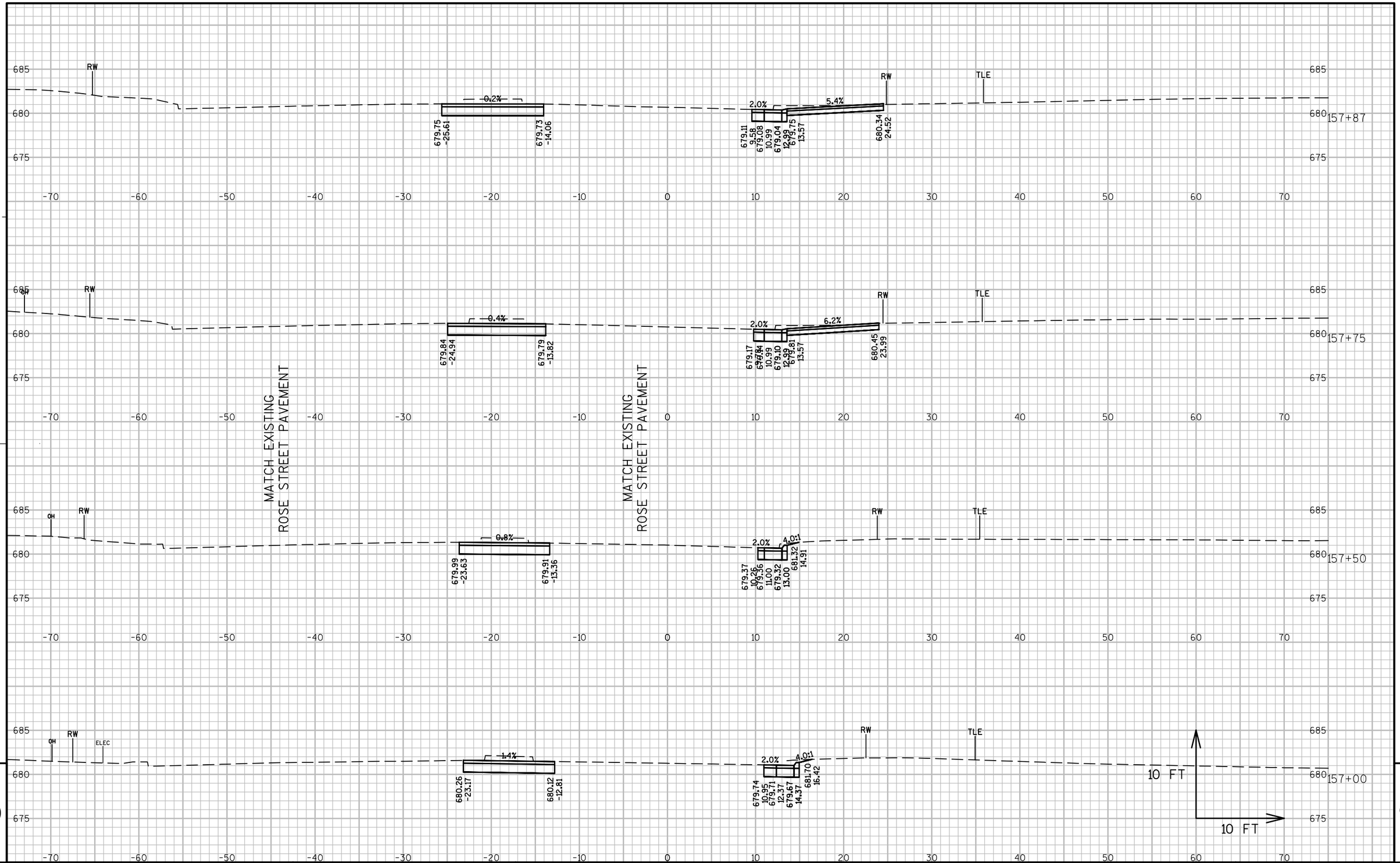


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 401	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:08 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090212_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

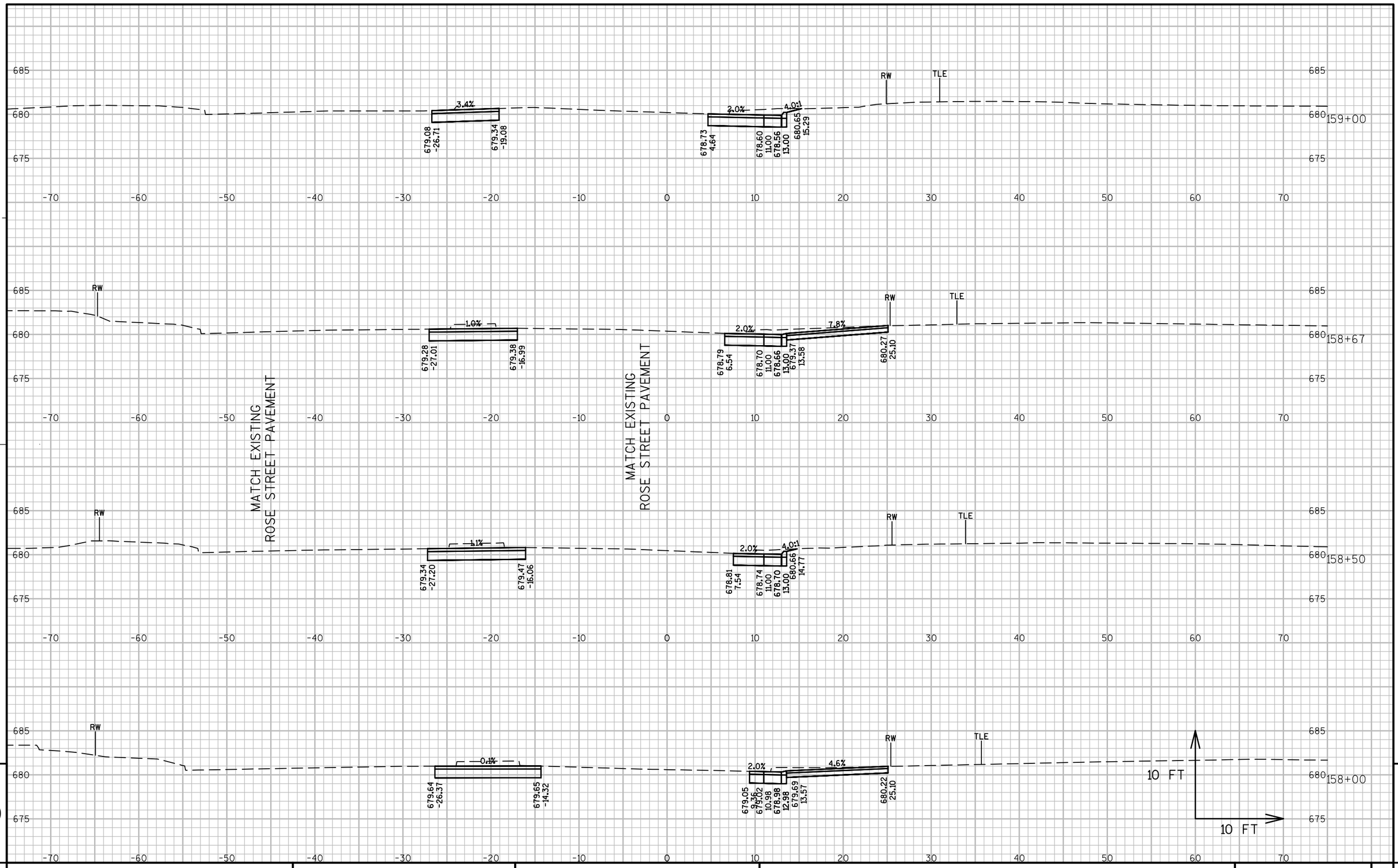


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 402	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:08 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090213_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

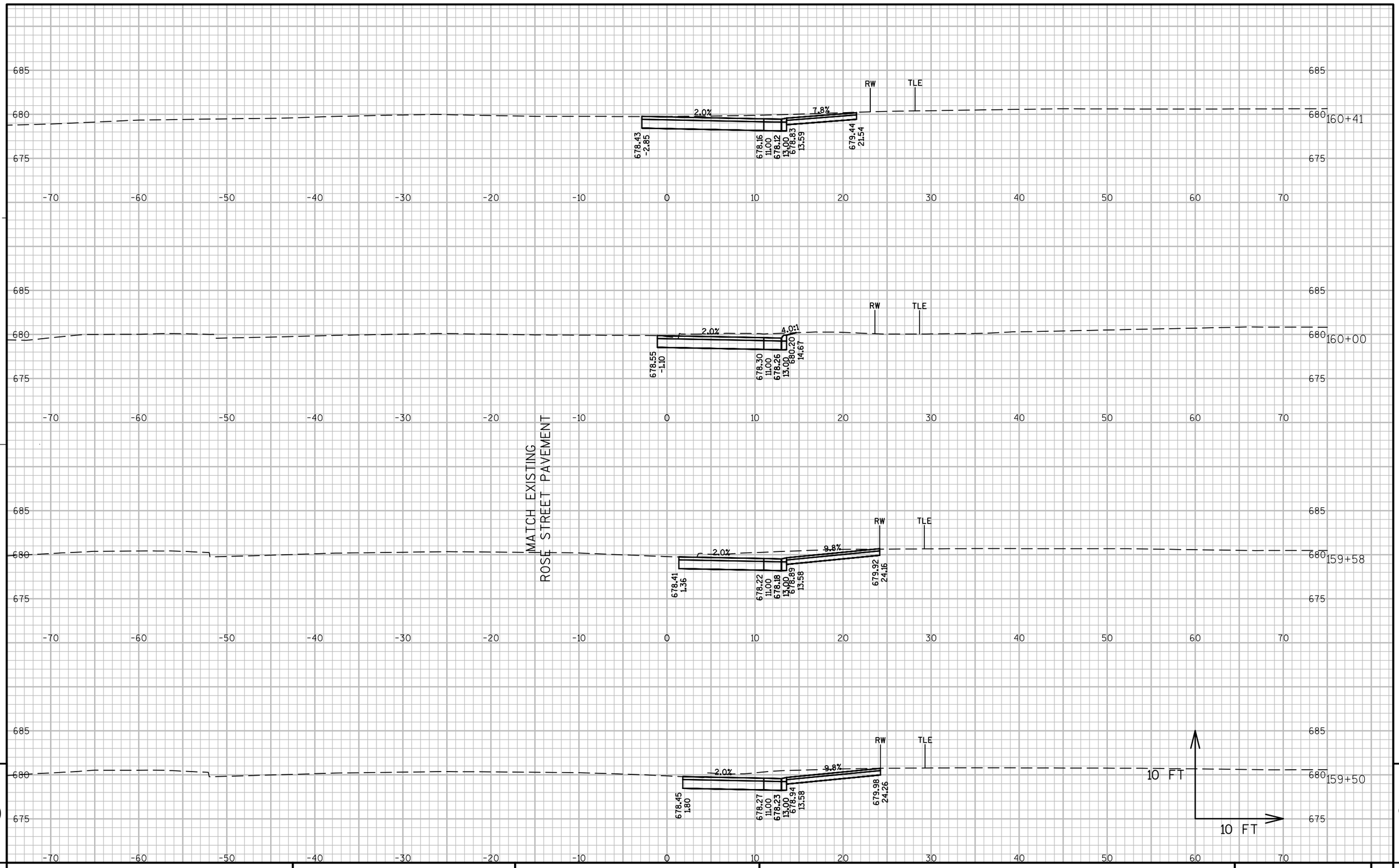


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 403	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:09 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090214_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

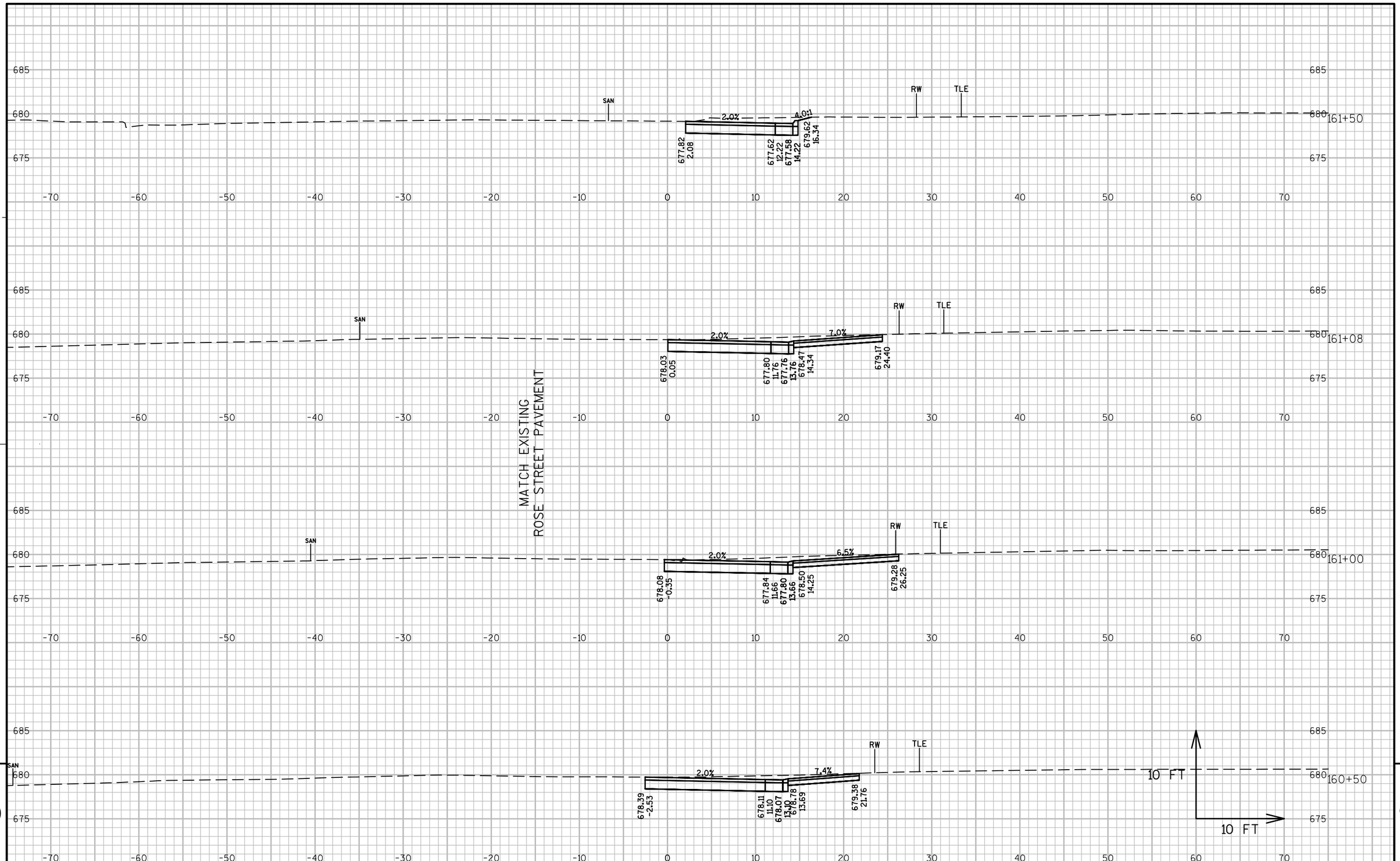
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 404	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:09 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090215_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

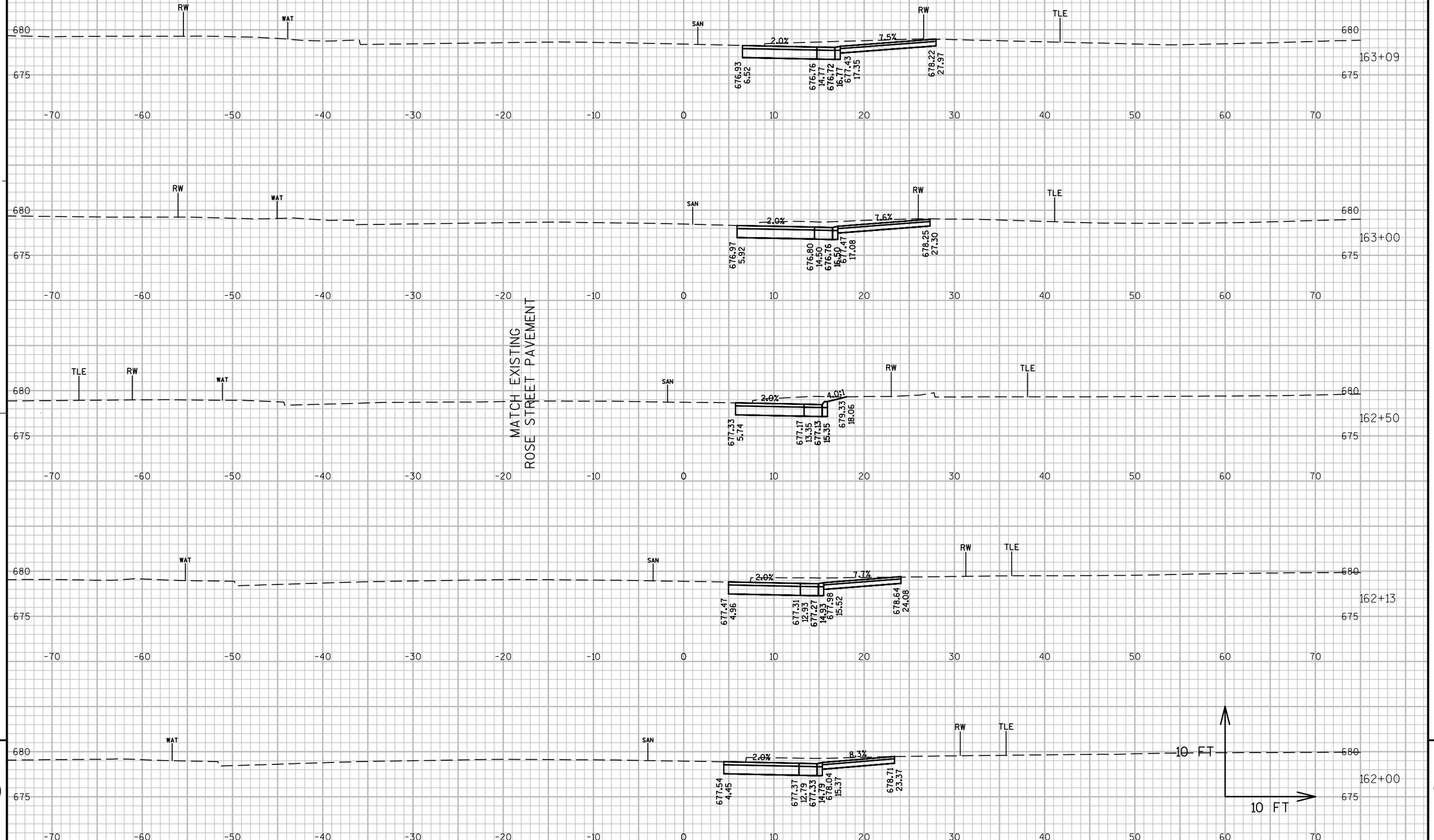
9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 405	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:10 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090216_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

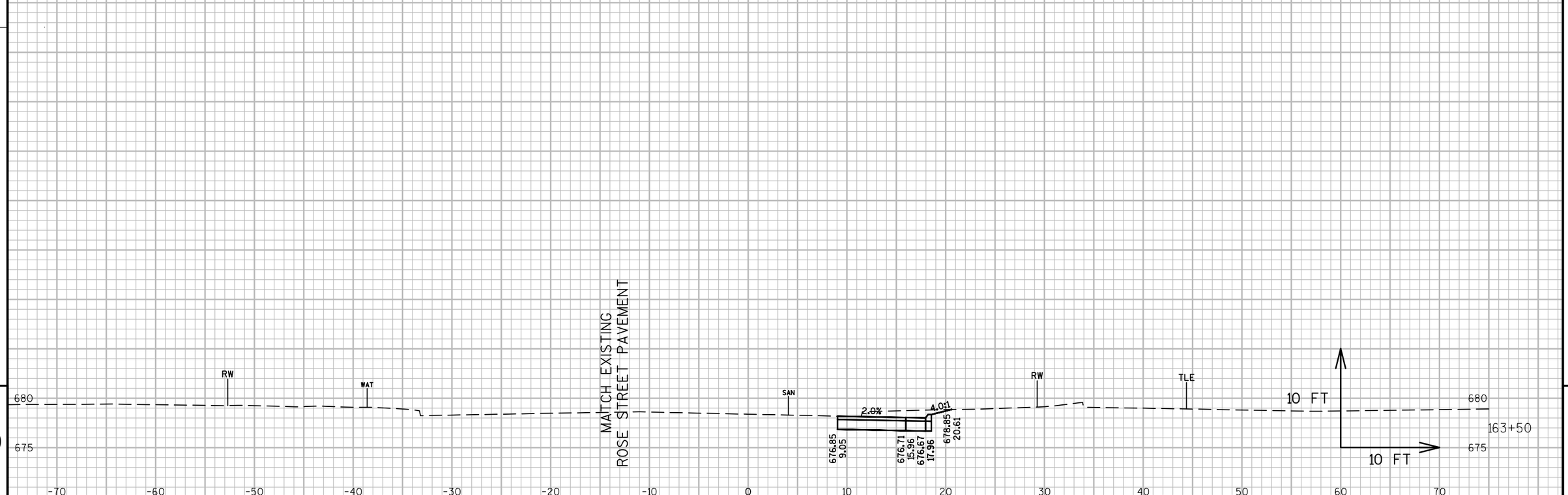
9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 406	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:10 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090217_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

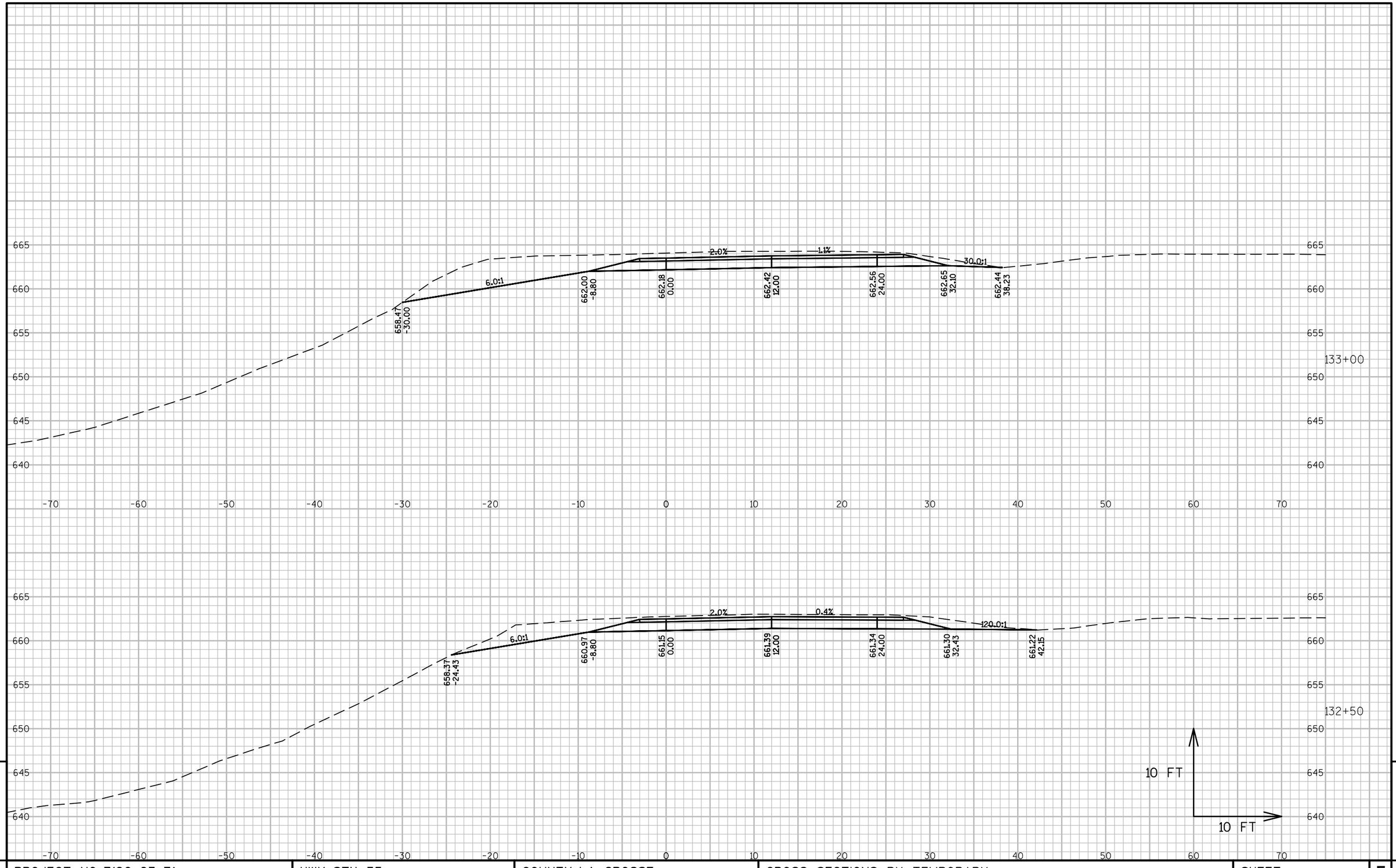
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PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RT TEMPORARY	SHEET 407	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG
LAYOUT NAME - RT TEMPORARY

PLOT DATE : 7/30/2015 1:10 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090218_xsrt PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

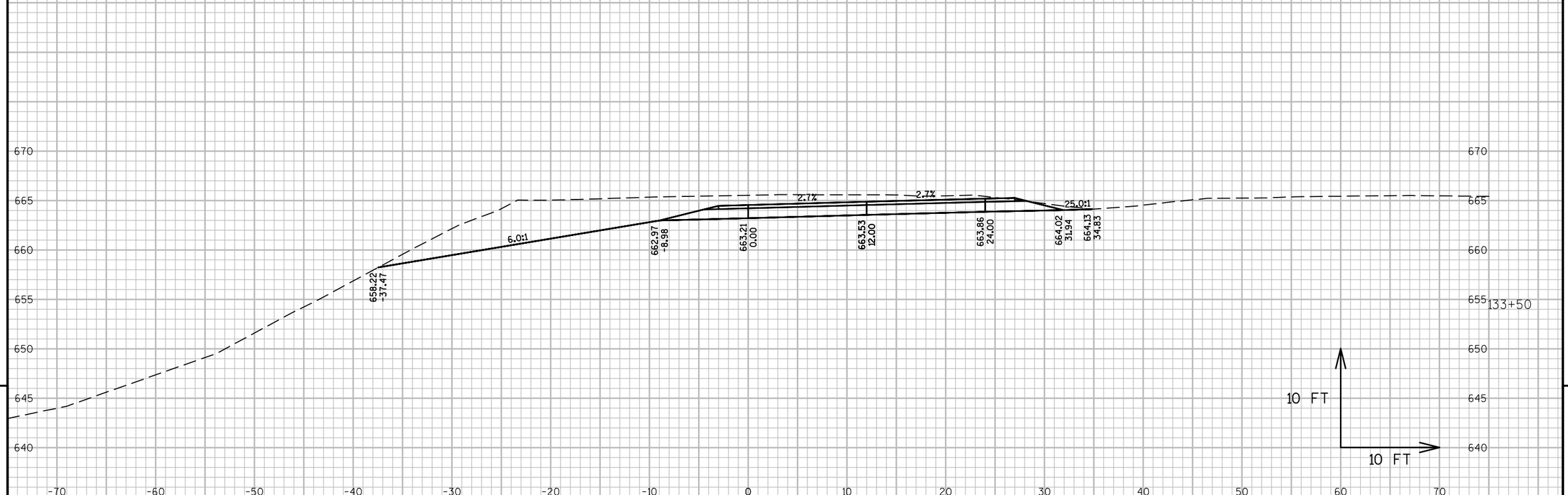


PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RX TEMPORARY	SHEET 408	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\1 RX TEMPORARY.DWG
LAYOUT NAME - RX TEMPORARY

PLOT DATE : 7/30/2015 1:33 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

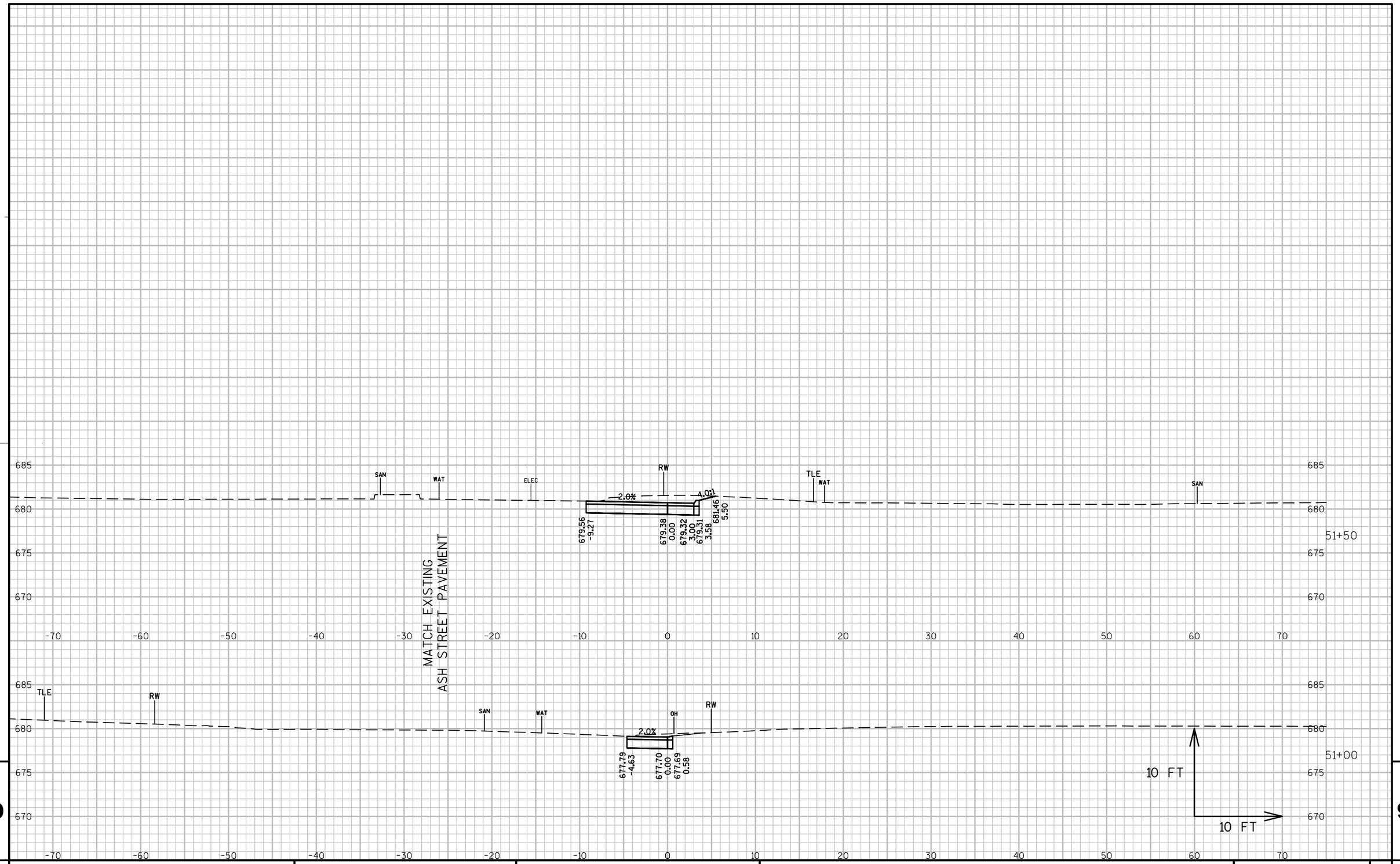
9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: RX TEMPORARY	SHEET 409	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\1 RX TEMPORARY.DWG
LAYOUT NAME - RX TEMPORARY

PLOT DATE : 7/30/2015 1:33 PM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 7190-03-71	HWY: STH 35	COUNTY: LA CROSSE	CROSS SECTIONS: TO TEMPORARY	SHEET 410	E

FILE NAME : V:\TRANS-EC\410627\C3D\DESIGN\CORRIDORS\7190-03-71\71900371_CORRIDOR_TEMPOAKFOREST.DWG PLOT DATE : 7/30/2015 1:11 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : 090201_xsto PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

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