SWL AUGUST 2014

PROJECT ID: WITH: N/A

5991-05-09,95

5991-07-19

COUNTY: LA CROSSE

07

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	2	Erosion Control Plan
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 = 178

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5991-05-09	WISC 2014297	1
5991-05-95	WISC 2014298	1
5991-07-19	WISC 2014299	1

CITY OF LA CROSSE, DAIRYLAND POWER TRAIL
(GILLETTE STREET TO NORTH STREET)
NON HIGHWAY
LA CROSSE COUNTY

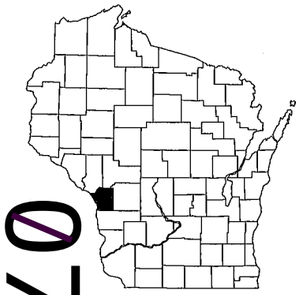
STATE PROJECT NUMBER
5991-05-09

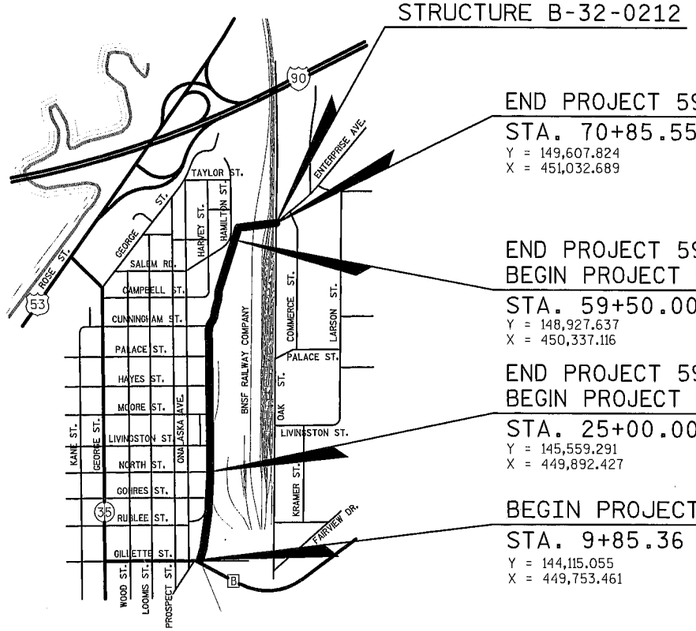
CITY OF LA CROSSE, NORTHSIDE CONNECTOR TRAIL
(NORTH STREET TO SALEM ROAD)
NON HIGHWAY
LA CROSSE COUNTY

STATE PROJECT NUMBER
5991-05-95

LA CROSSE - ONALASKA OAK STREET CONNECTION
(SALEM ROAD TO ENTERPRISE AVENUE)
NON HIGHWAY
LA CROSSE COUNTY

STATE PROJECT NUMBER
5991-07-19





END PROJECT 5991-07-19
STA. 70+85.55
Y = 149,607.824
X = 451,032.689

END PROJECT 5991-05-95
BEGIN PROJECT 5991-07-19
STA. 59+50.00
Y = 148,927.637
X = 450,337.116

END PROJECT 5991-05-09
BEGIN PROJECT 5991-05-95
STA. 25+00.00
Y = 145,559.291
X = 449,892.427

BEGIN PROJECT 5991-05-09
STA. 9+85.36
Y = 144,115.055
X = 449,753.461

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE	PL + 58.1	ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		**UTILITIES**	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

LAYOUT
SCALE 0 1.00 MI.

5991-05-09 TOTAL NET LENGTH OF CENTERLINE = 0.287 MI.
5991-05-95 TOTAL NET LENGTH OF CENTERLINE = 0.653 MI.
5991-07-19 TOTAL NET LENGTH OF CENTERLINE = 0.215 MI.

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

ACCEPTED FOR
CITY of LA CROSSE.
DATE: 4.17.14 (Rondy Turtenwald - City Engineer)

ORIGINAL PLANS PREPARED BY
Mead & Hunt

WISCONSIN
RUSSELL A. CHESMORE
E-26272
VERONA
WI
PROFESSIONAL ENGINEER
DATE: 4/24/14 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: MEAD & HUNT, INC.
Designer: MEAD & HUNT, INC.
Management Consultant: KJOHNSON ENGINEERS, INC.
C.O. Examiner:

APPROVED FOR THE DEPARTMENT
DATE: 4/30/14 (Management Consultant Signature)

E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\010101_TI.DWG PLOT DATE : 9/3/2008 9:10 AM PLOT BY : JEFF BREU PLOT NAME : ----------PLOT SCALE : $$.....plotscale.....$$

GENERAL NOTES

ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NGVD 88)

COORDINATES ON THIS PLANE ARE REFERENCED TO THE WCCS, LACROSSE CO. (NAD83(91)).

LOCATION OF THE UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE.
THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

RADII ARE MEASURED TO EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN OR NOTED ON THE PLAN.

PAVEMENT REMOVAL TO THE NEAREST JOINT OR A SAWED OR MILLED EDGE WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.

WHEN PORTION OF EXISTING ASPHALTIC SURFACES ARE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION, THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT JOINT THROUGH THE ASPHALTIC SURFACE SO THAT REMOVAL OF THE ASPHALT SHALL BE ACCOMPLISHED WITHOUT DAMAGE TO REMAINING PORTIONS. THE LOCATION OF SAW JOINTS AND THE AMOUNT REMOVED AT SIDE ROADS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP EXISTING DRAINAGE STRUCTURES FUNCTIONAL DURING EXCAVATION OPERATIONS TO PROVIDE TEMPORARY DRAINAGE.

NO TREES OR SHRUBS SHALL BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER.

SHRINKAGE VARIABLE, COMMON ESTIMATED AT 25%.

SIGNS THAT MUST BE REMOVED FOR GRADING SHALL BE REMOVED AND STORED AT A LOCATION DETERMINED BY THE ENGINEER. SIGNS WILL BE RE-INSTALLED BY THE MAINTAINING AUTHORITY (CITY OF LACROSSE).

SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION OPERATIONS REQUIRE THEIR REMOVAL OR UNLESS THE ENGINEER APPROVES THEIR REMOVAL.

ALL STORM SEWER SHALL HAVE RUBBER GASKET JOINTS.

ADJUSTMENT RINGS ON CATCH BASINS AND MANHOLES SHALL NOT BE LESS THAN 2 INCHES.

THE EROSION CONTROL FEATURES AS SHOWN ON THE PLAN DETAILS ARE AT SUGGESTED LOCATIONS, THEIR EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

AFTER PLACING CURB AND GUTTER, ANY EXCESS CONCRETE PROTRUDING BEYOND THE BACK OF CURB SHALL BE REMOVED BY THE CONTRACTOR PRIOR TO BACKFILLING.

EXPANSION JOINTS SHALL BE CONSTRUCTED AT ALL RADIUS POINTS IN THE CURB AND GUTTER OR AT LOCATIONS SHOWN ON THE PLAN DETAILS.

THE LOCATION OF DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

ALL NEW STORM SEWER MANHOLES WILL BE INSTALLED WITHOUT STEPS.

2-INCH ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH ONE LIFT.

UTILITIES

XCEL ENERGY - ELECTRIC
3215 COMMERCE ST
LA CROSSE, WI 54602-0727
ATTN: ALEX LUECK
PHONE: (608) 789-3625
EMAIL: ALEX.J.LUECK@XCELENERGY.COM

XCEL ENERGY - TRANSMISSION
414 NICOLLET MALL, MP8-C
MINNEAPOLIS, MN 55401
ATTN: STEVE ROLLIN
PHONE: (612) 330-2875
EMAIL: STEVEN.P.ROLLIN@XCELENERGY.COM

XCEL ENERGY - GAS
3215 COMMERCE ST
LA CROSSE, WI 54602-0727
ATTN: DAN MARTI
PHONE: (608) 789-3629
EMAIL: DANIEL.R.MARTI@XCELENERGY.COM

CHARTER COMMUNICATIONS
PO BOX 279
1228 12TH AVE S
ONALASKA, WI 54650
ATTN: PERRY MCCLELLAN
PHONE: (608) 783-8130
EMAIL: PMCCLELLAN@CHARTERCOM.COM

CENTURYLINK
333 N FRONT ST
LA CROSSE, WI 54601
ATTN: BRIAN STELPLUGH
PHONE: (608) 796-5543
EMAIL: BRIAN.STELPLUGH@CENTURYLINK.COM

* WINDSTREAM - COMMUNICATION
13935 BISHOPS DRIVE
BROOKFIELD, WI 53005
ATTN: JIM KOSTUCH
PHONE: (262) 792-7938
EMAIL: JAMES.KOSTUCH@WINDSTREAM.COM

LA CROSSE WATER AND SEWER UTILITIES
400 LA CROSSE ST
LA CROSSE, WI 54601
ATTN: MARK JOHNSON
PHONE: (608) 789-7588
EMAIL: JOHNSONM@CITYOFLACROSSE.ORG

LA CROSSE WASTE WATER UTILITY
905 HOUSKA PARK DRIVE
LA CROSSE, WI 54601
ATTN: JARED GREENO
PHONE: (608) 789-7322
EMAIL: GREENOJA@CITYOFLACROSSE.ORG

AREA CONTACTS

LA CROSSE STREET DEPARTMENT
400 LA CROSSE STREET
LA CROSSE, WI 54601
ATTN: RANDY HINZE
PHONE: (608) 789-7305
EMAIL: HINZER@CITYOFLACROSSE.ORG

LA CROSSE MUNICIPAL TRANSIT AUTHORITY
12000 MARCAO DR
LA CROSSE, WI 54601
ATTN: KEITH CARLSON
PHONE (608) 789-7350
EMAIL: CARLSONK@CITYOFLACROSSE.ORG

CITY OF LA CROSSE
400 LA CROSSE ST
LA CROSSE, WI 54601
ATTN: RANDY TURTENWALD
PHONE: (608) 789-7505
EMAIL: TURTENWALDR@CITYOFLACROSSE.ORG

LA CROSSE PUBLIC WORKS
400 LA CROSSE ST
LA CROSSE, WI 54601
ATTN: DALE HEXOM
PHONE: (608) 789-7571
EMAIL: HEXOMD@CITYOFLACROSSE.ORG

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
ATTN: KAREN KALVELAGE
PHONE: (608) 785-9115
EMAIL: KAREN.KALVELAGE@WISCONSIN.GOV

STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC
ASPH	ASPHALTIC
BM	BENCH MARK
℄	CENTERLINE
CWT	HUNDREDWEIGHT
CY	CUBIC YARD
DHV	DESIGN HOURLY VOLUME
DWY	DRIVEWAY
EL	ELEVATION
EXC	EXCAVATION
FT	FOOT
FTG	FOOTING
LB	POUND
LF	LINEAR FOOT
LHF	LEFT-HAND FORWARD
LS	LUMP SUM
LT	LEFT
NO	NUMBER
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
RHF	RIGHT-HAND FORWARD
RT	RIGHT
R/W	RIGHT-OF-WAY
SF	SQUARE FOOT
SHLDR	SHOULDER
STA	STATION
SY	SQUARE YARD
T	TRUCKS (PERCENT OF)
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
VAR	VARIABLE
VC	VERTICAL CURVE
VPC	VERTICAL POINT OF CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY

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

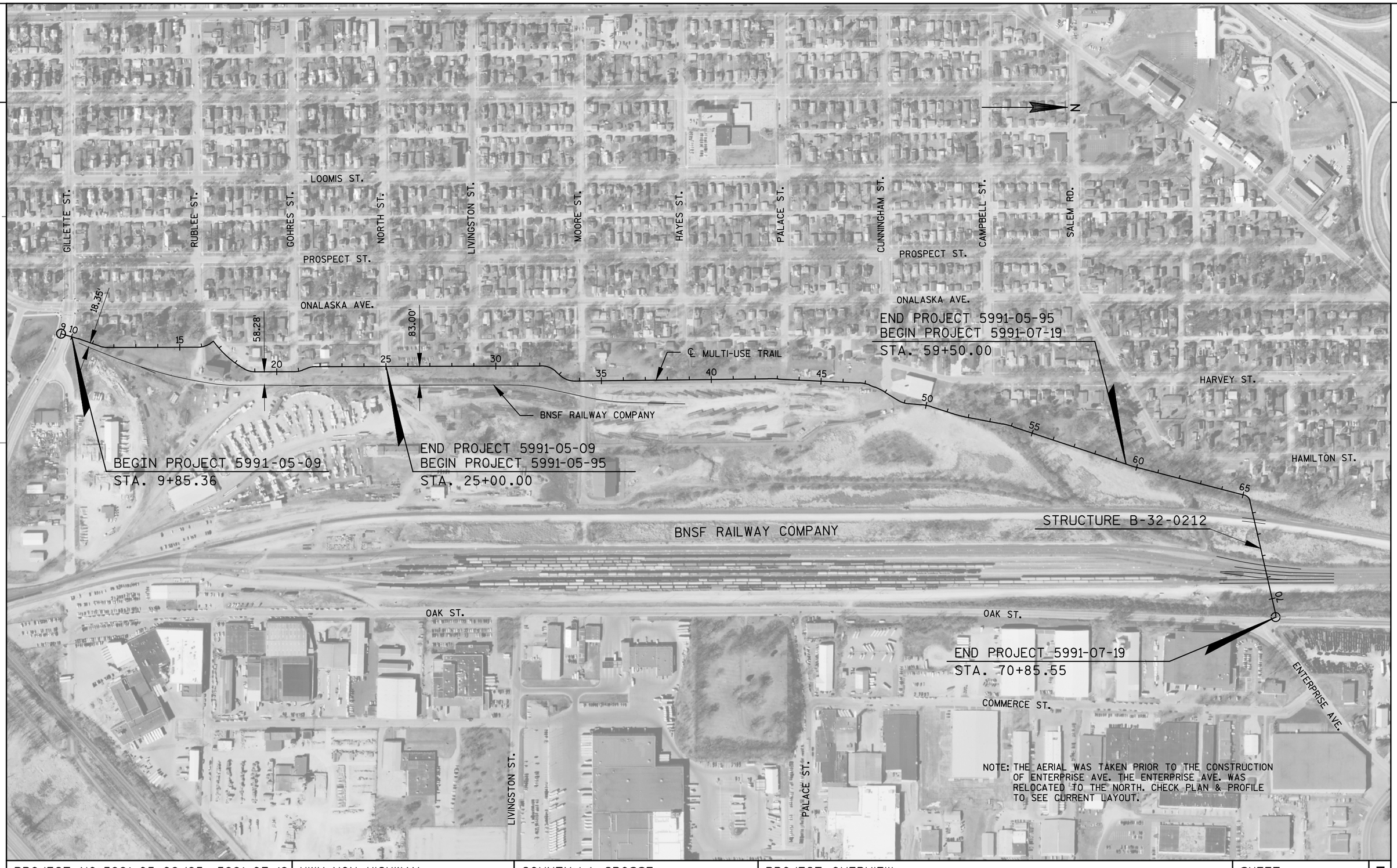
* Non-member

DESIGN CONSULTANT

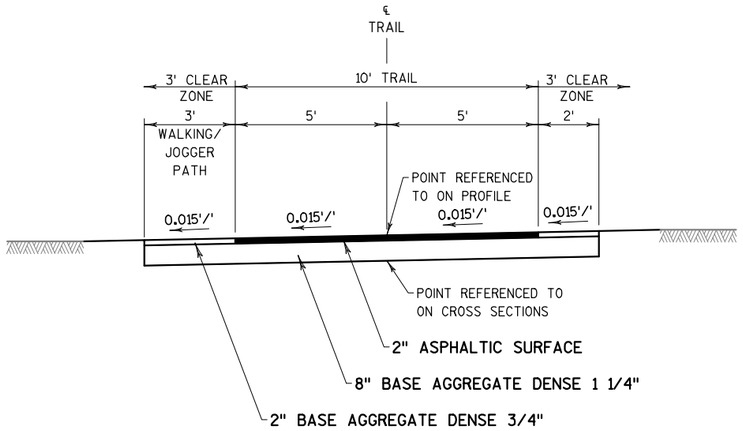
Mead & Hunt

MEAD & HUNT, INC.
750 NORTH THIRD STREET
LA CROSSE, WI 54601
ATTN: JAY WHEATON, P.E.
PHONE: (608) 784-6040
EMAIL: JAY.WHEATON@MEADHUNT.COM

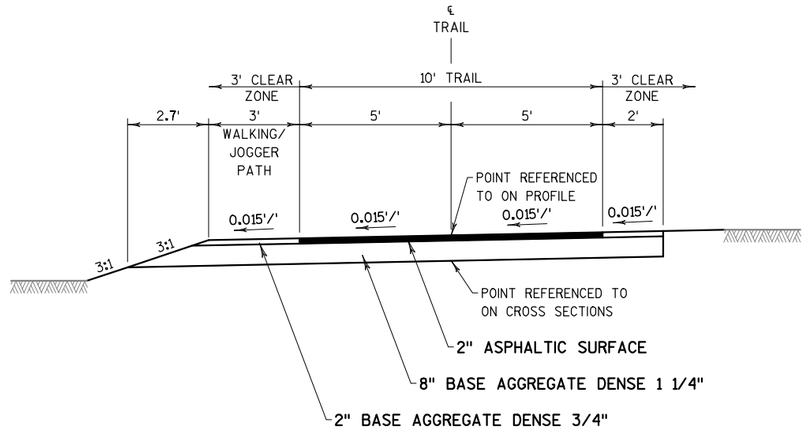
2



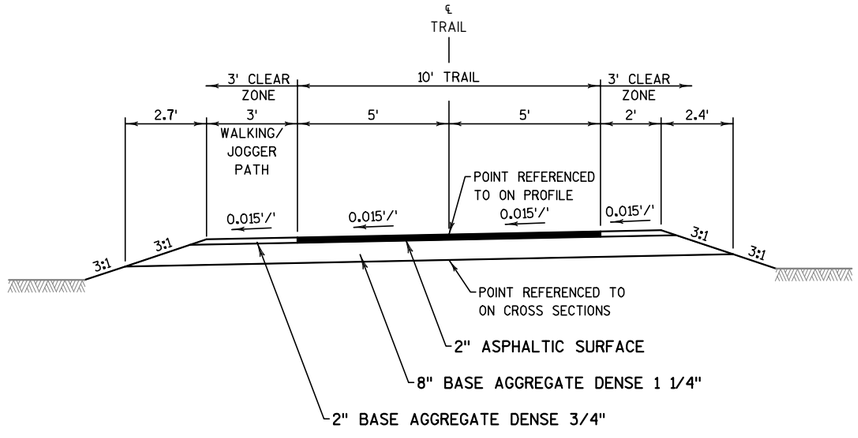
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	PROJECT OVERVIEW	SHEET 3	E



TYPICAL SECTION



TYPICAL SECTION



TYPICAL SECTION

TYPICAL AND DIRECTIONS VARIES
DEPENDING ON THE EXISTING TERRAIN.
SEE CROSS SECTIONS.

MAINLINE
(STA. 10+00.00 - 12+60.00)
(STA. 15+85.79 - 16+59.45)
(STA. 18+46.23 - 24+49.50)
(STA. 25+32.00 - 33+83.90)
(STA. 34+39.90 - 47+98.00)
(STA. 48+26.00 - 62+10.03)

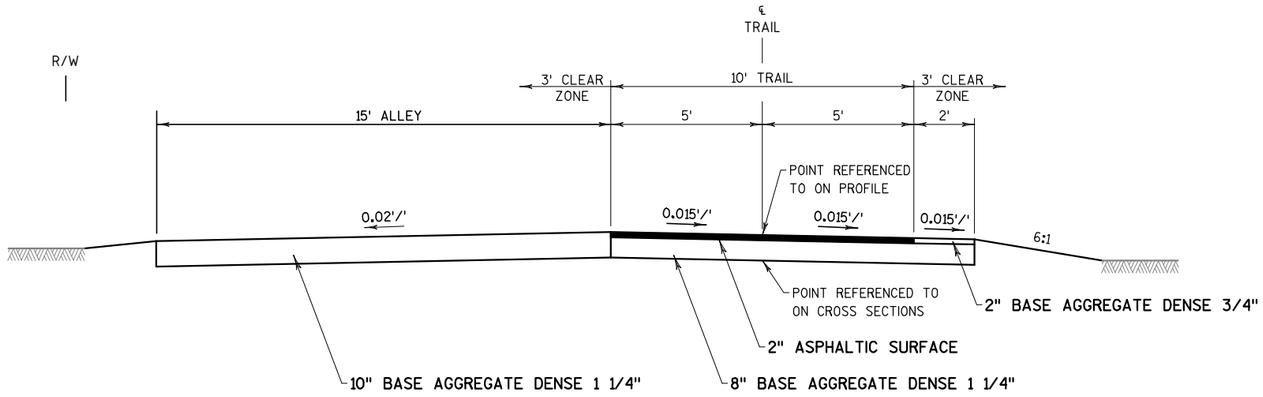
LIVINGSTON STREET
(STA. 100+35.75 - 100+45.00)

HAYES STREET
(STA. 100+57.50 - 100+45.00)

PALACE STREET
(STA. 100+19.10 - 100+95.00)

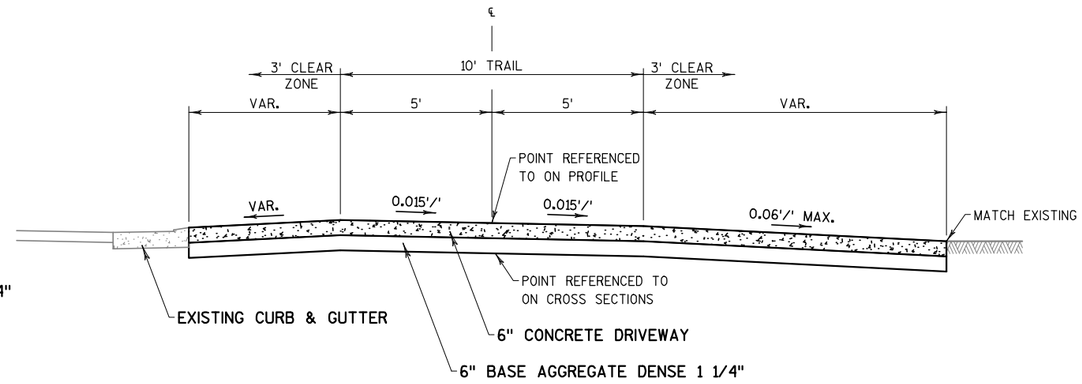
CAMPBELL STREET
(STA. 100+51.40 - 101+95.00)

PROJECT NO: 5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	TYPICAL SECTION	SHEET 4	E



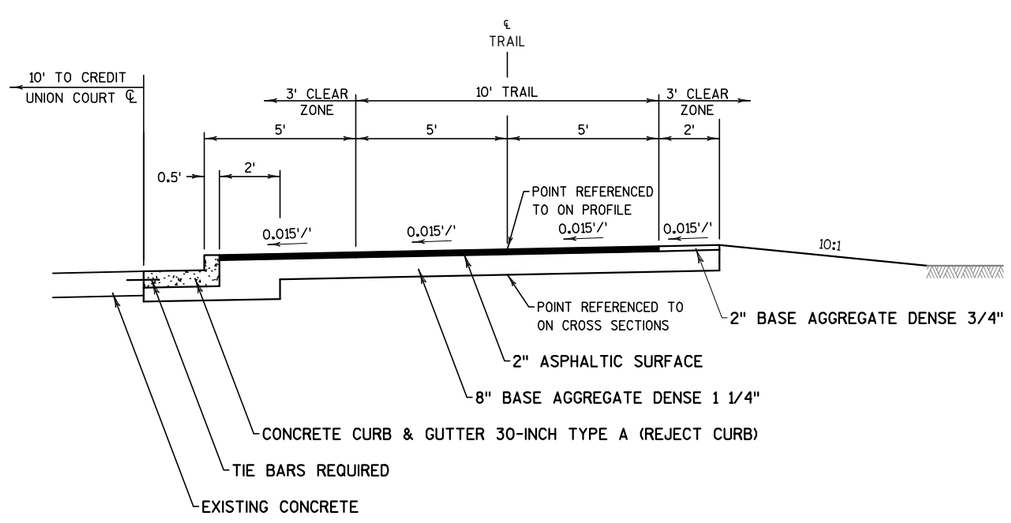
TYPICAL SECTION

(STA. 12+60.00 - 15+85.79)



TYPICAL SECTION

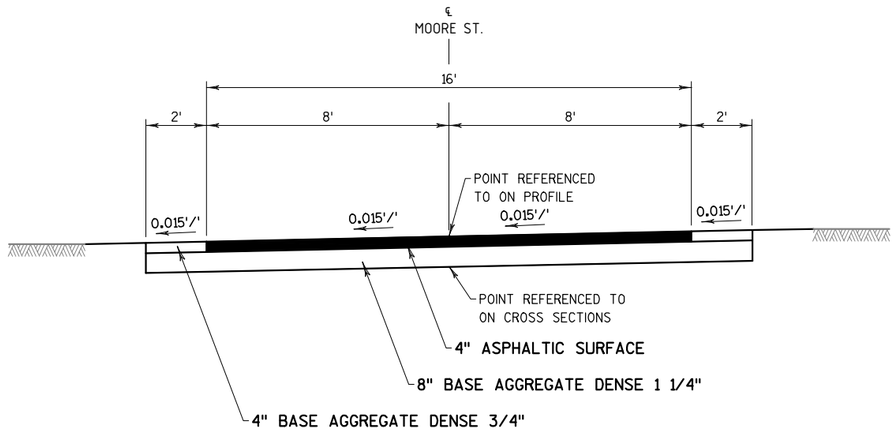
(STA. 47+98.00 - 48+26.00)



TYPICAL SECTION

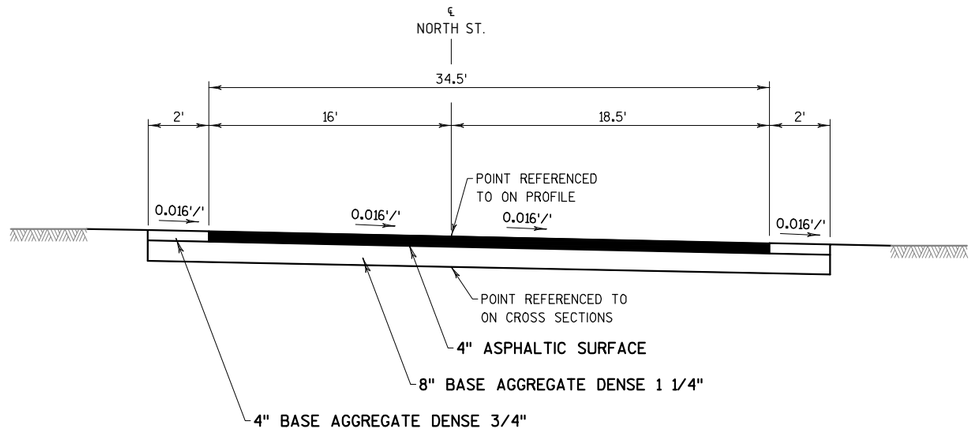
STA. 16+59.45 - 18+46.23

PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	TYPICAL SECTIONS	SHEET 5	E



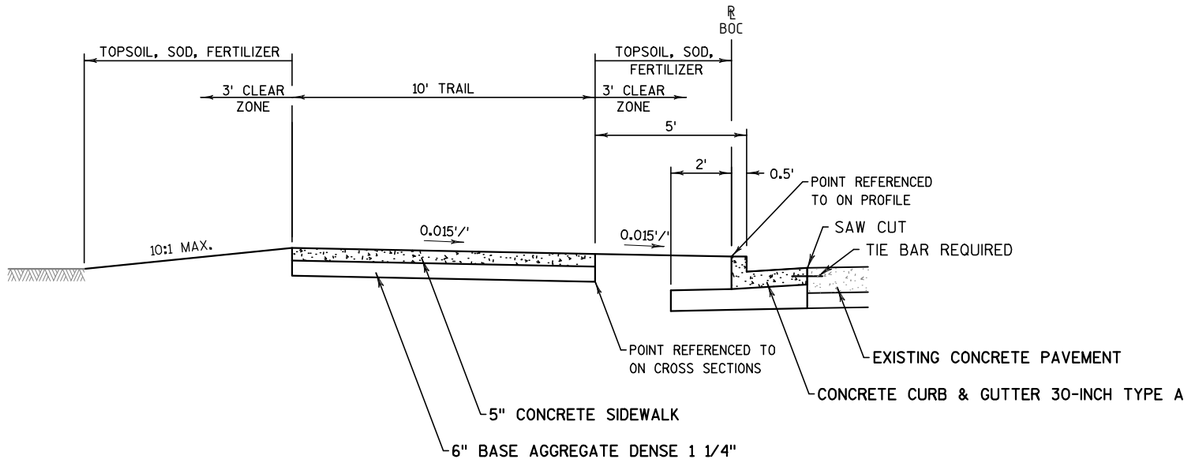
TYPICAL SECTION

(MOORE ST. STA. 200+30.00 - 200+61.00)



TYPICAL SECTION

(NORTH ST. STA. 300+35.00 - 300+65.00)



TYPICAL SECTION

(GILLETTE ST. STA. 500+00.00 - 502+79.74)

PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	TYPICAL SECTIONS	SHEET 6	E

2

ONALASKA AVENUE

EXISTING R/W

MARK HAVERSON

BNSF RAILWAY COMPANY

PL

SLOPE INTERCEPT

PE

ASPHALTIC MULTI-USE TRAIL

EXISTING R/W

STA. 10+00 - STA. 11+00
CLEARING AND GRUBBING REQUIRED

CROELL REDI-MIX INC

N

POINT	RADIUS	LOCATION
R100	35'	STA 10+34.26 LT 40.00' STA 502+10.05 LT 59.50'
R101	35'	STA 10+34.04 RT 40.00' STA 500+99.53 LT 50.00'

103

PEDESTRIANS BICYCLES
NON MOTORIZED TRAFFIC
MOTOR BICYCLES PROHIBITED

R5-57
36" X 36"

SAWING CONCRETE REQUIRED

R100

PAVEMENT MARKING CROSSWALK EPOXY 12-INCH

500+00

TLE

SAWING CONCRETE REQUIRED

R25'

EXISTING R/W

CONCRETE DRIVEWAY 6"

R55'

10'

12'

SOD

501+00

10+08

SAWING ASPHALT REQUIRED

INSTALL CURB RAMP DETECTABLE WARNING FIELDS

EXISTING SIGNAL TO REMAIN

INSTALL CONCRETE CURB & GUTTER 30" TYPE D

PAVEMENT MARKING CROSSWALK EPOXY 12-INCH

EXISTING ASPHALTIC SURFACE

1'

5'

12'

12'

101A

REMOVING SIGNS "BUS STOP"

PAVEMENT MARKING ARROW EPOXY

EXISTING CONCRETE SURFACE

PAVEMENT MARKING ARROW EPOXY

9+50

PAVEMENT MARKING CROSSWALK EPOXY 4-INCH (YELLOW)

INSTALL CONCRETE CURB & GUTTER 30" TYPE A

RANGER DRIVE

SPONSOR
JAY - WI
LOGAN HS

155-56MOD
30" X 36"

100A

(MOVING SIGNS)
MOVE NEXT TO PROPOSED CURB

1-1 STA. 501+50.00, RT. 1.50'
CATCH BASINS 4-FT DIA.
1 - INLET COVER, SPECIAL VANED
FLAG EL. = 643.88
TOP OF STRUCTURE EL. = 642.84
24" INV. W. & E. = 638.55
SUMP = 1.50'
FLOOR EL. = 637.05
DEPTH = 5.79'

SSPRC CLASS III 24-INCH

PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

102A

REMOVING SIGNS "NO TRESPASSING"

PEDESTRIANS BICYCLES
NON MOTORIZED TRAFFIC
MOTOR BICYCLES PROHIBITED

R5-57
36" X 36"

104

R101

EXISTING R/W

INSTALL CONCRETE CURB & GUTTER 30" TYPE D

CP#1

R35'

REMOVING CATCH BASIN

REMOVE 12" STORM SEWER TO FIRST JOINT OF EXISTING STORM MANHOLE

SEALING PIPE REQUIRED

SLOPE INTERCEPT

SAWING ASPHALT REQUIRED

SAWING CONCRETE REQUIRED

CONCRETE SIDEWALK 5" REQUIRED

502+00

10'

R60'

502+80

GILLETTE PLACE

EXISTING ASPHALTIC SURFACE

1'

SAWING CONCRETE REQUIRED

ADJUSTING INLET COVERS

INSTALL CURB RAMP DETECTABLE WARNING FIELDS

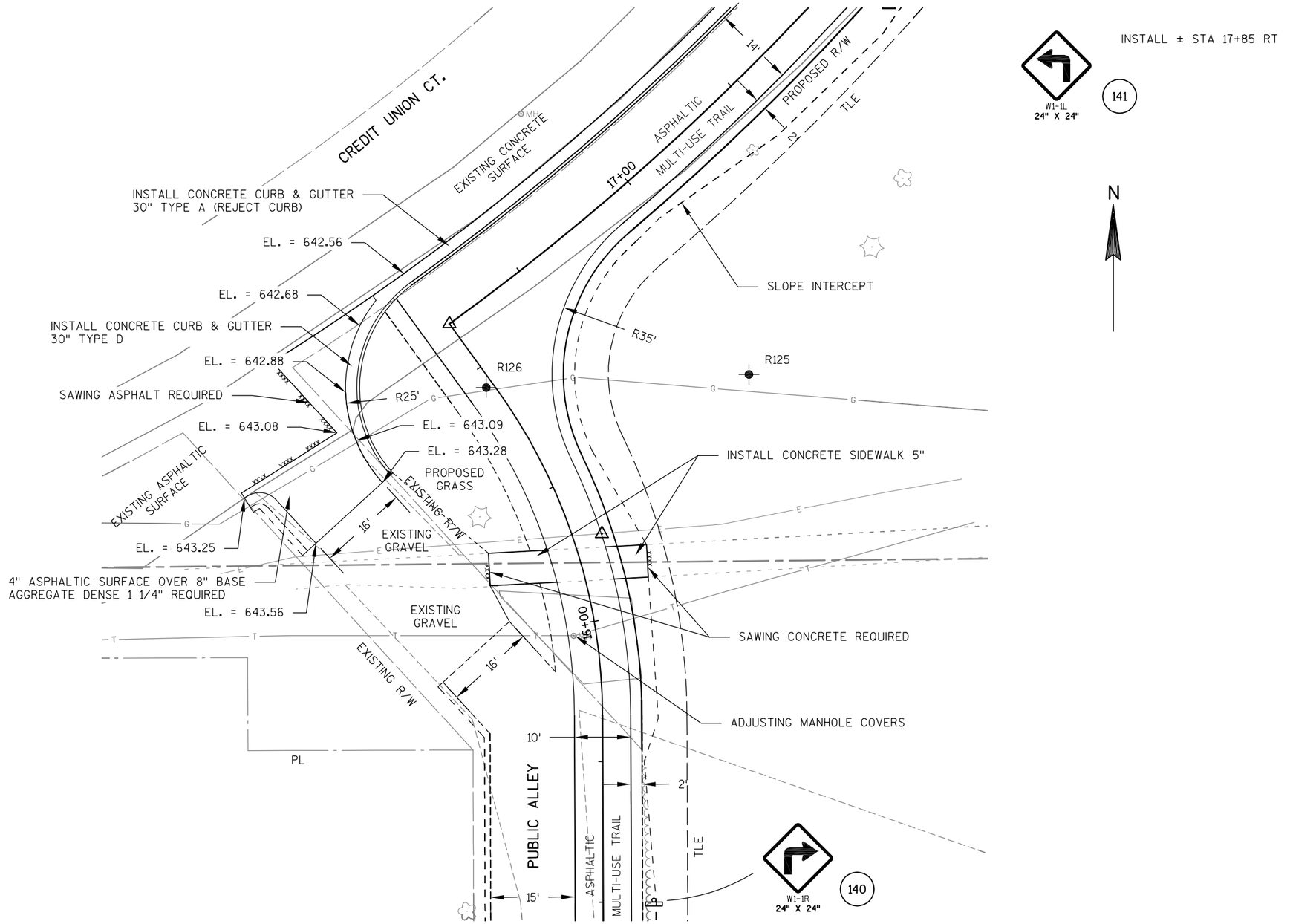
PAVEMENT MARKING CROSSWALK EPOXY 12-INCH

GILLETTE STREET

EXISTING CONCRETE SURFACE

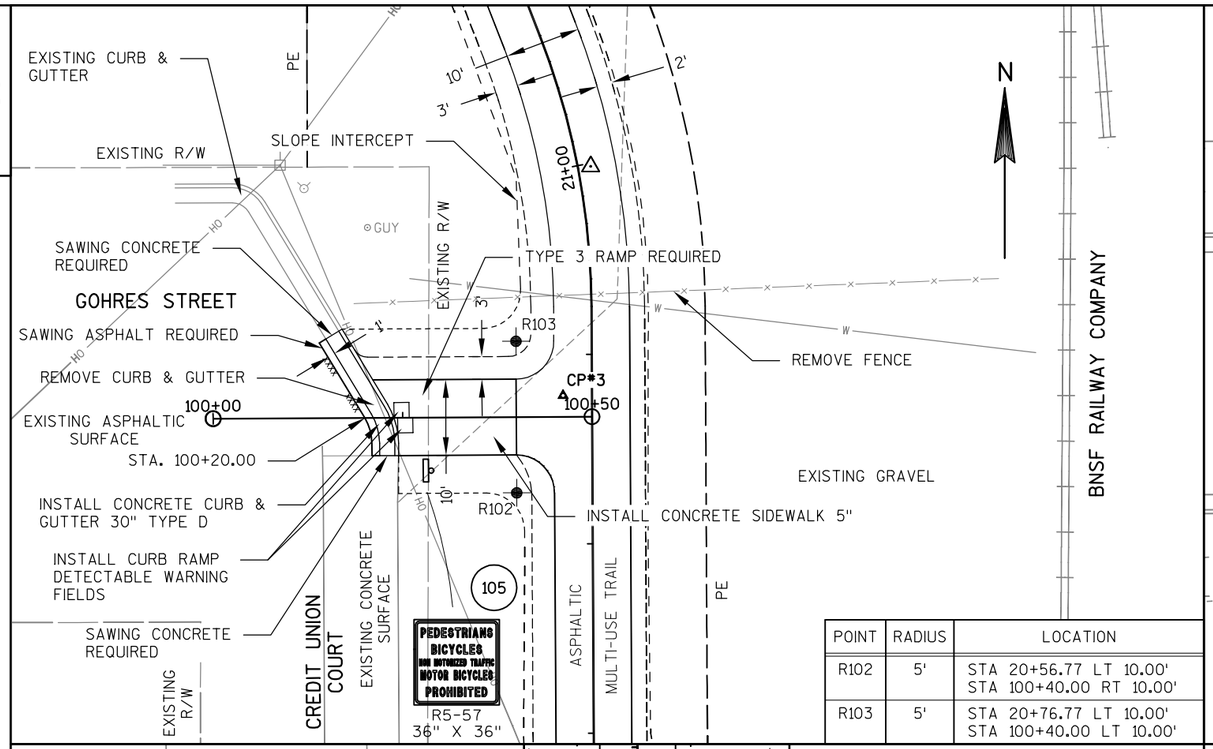
2

PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CONSTRUCTION DETAILS	SHEET 7	E

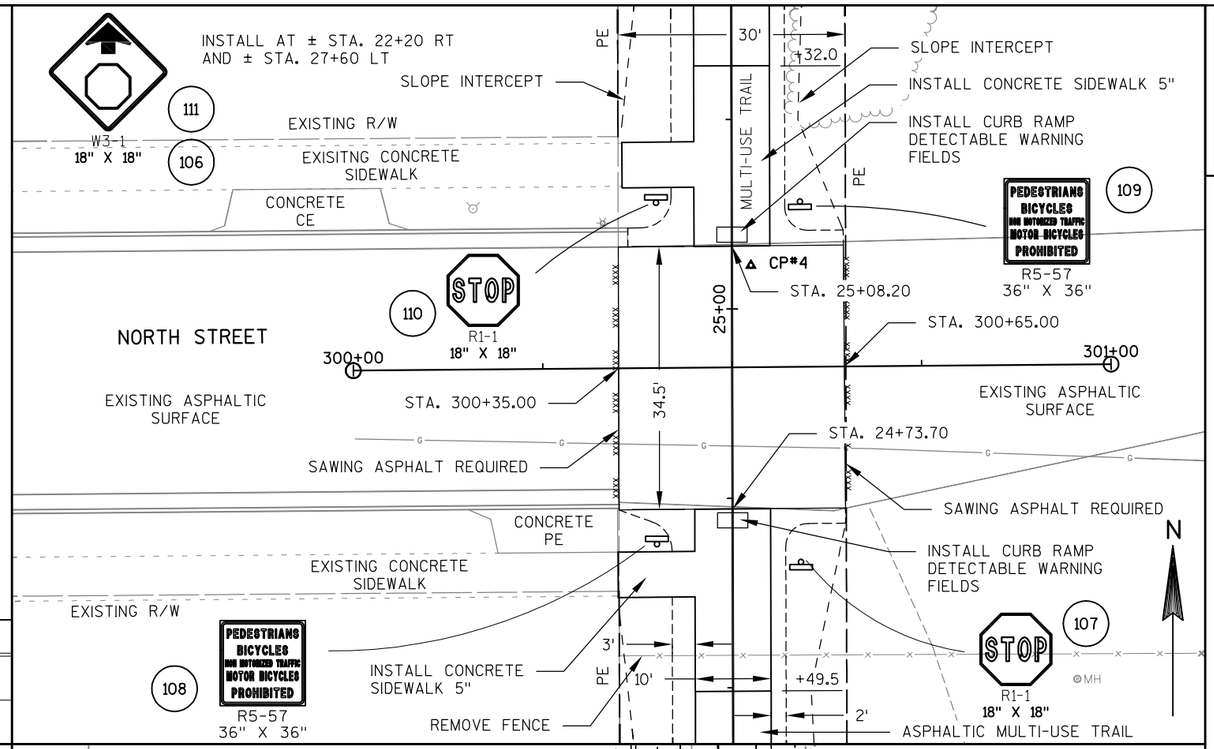


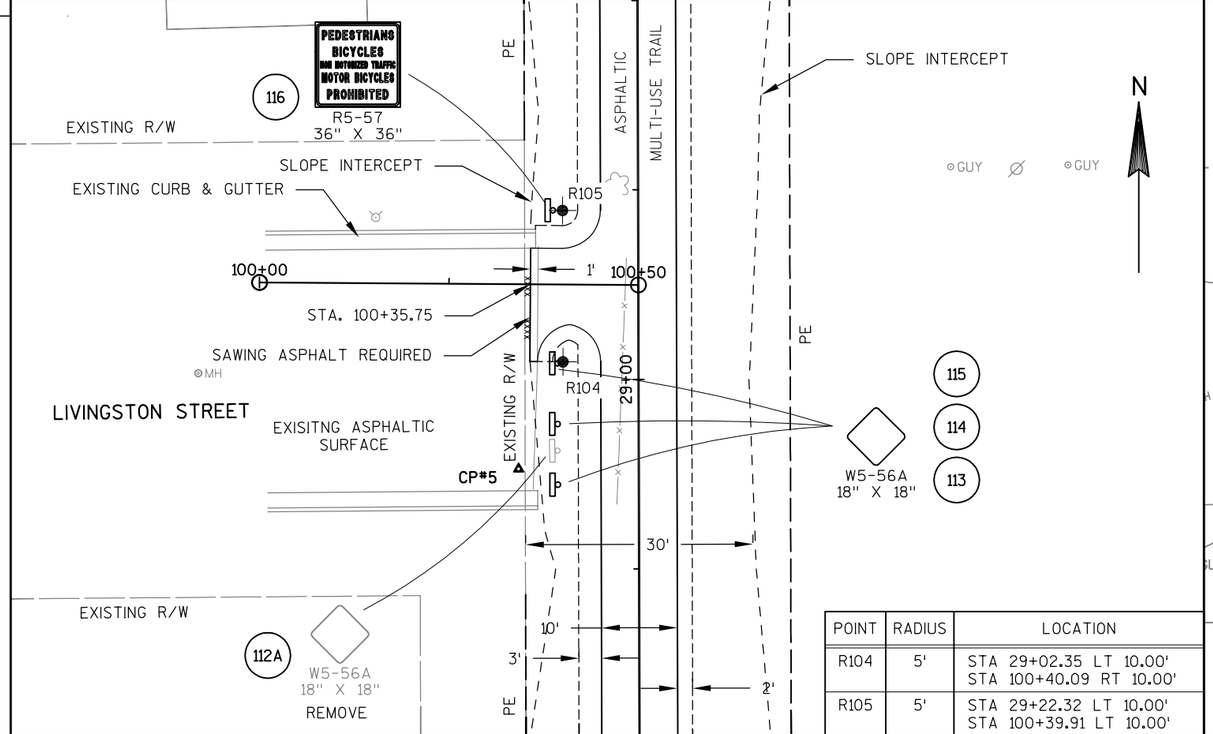
POINT	RADIUS	LOCATION
R125	35'	STA 16+94.21 RT 40.00'
R126	25'	STA 16+46.45 LT 1.35'

PROJECT NO:5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	CONSTRUCTION DETAILS	SHEET 8	E

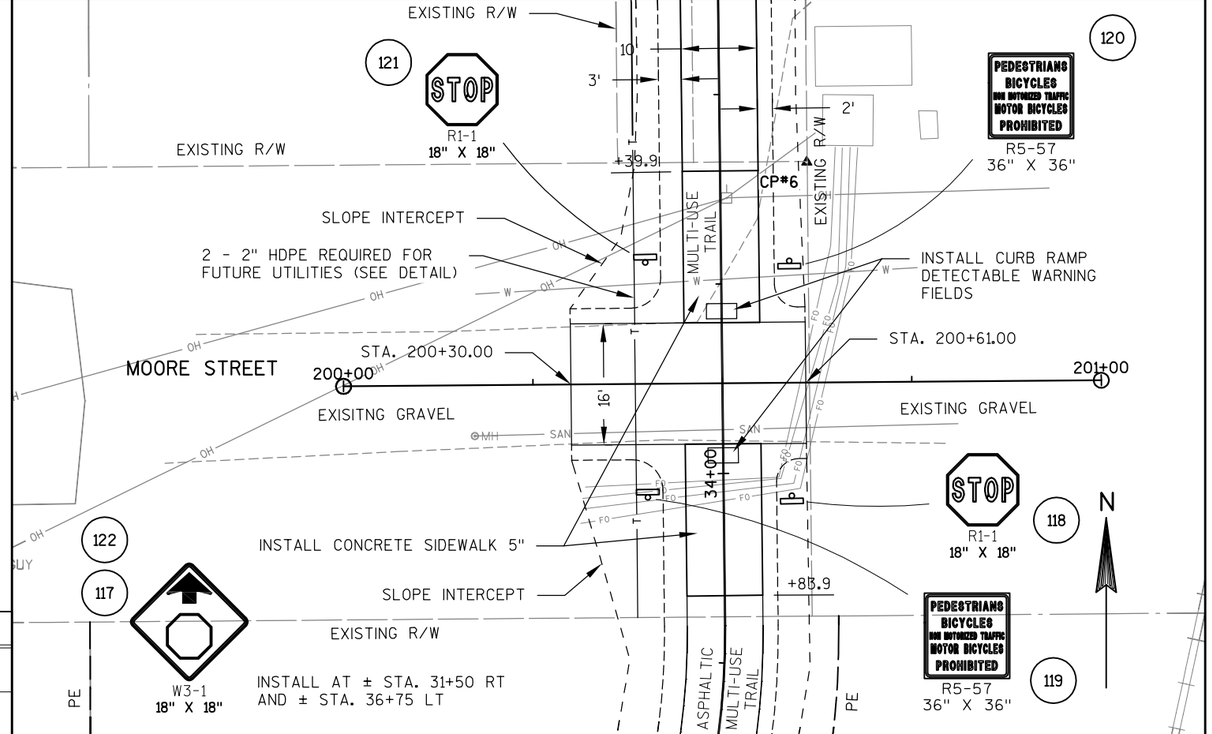


POINT	RADIUS	LOCATION
R102	5'	STA 20+56.77 LT 10.00' STA 100+40.00 RT 10.00'
R103	5'	STA 20+76.77 LT 10.00' STA 100+40.00 LT 10.00'





POINT	RADIUS	LOCATION
R104	5'	STA 29+02.35 LT 10.00' STA 100+40.09 RT 10.00'
R105	5'	STA 29+22.32 LT 10.00' STA 100+39.91 LT 10.00'



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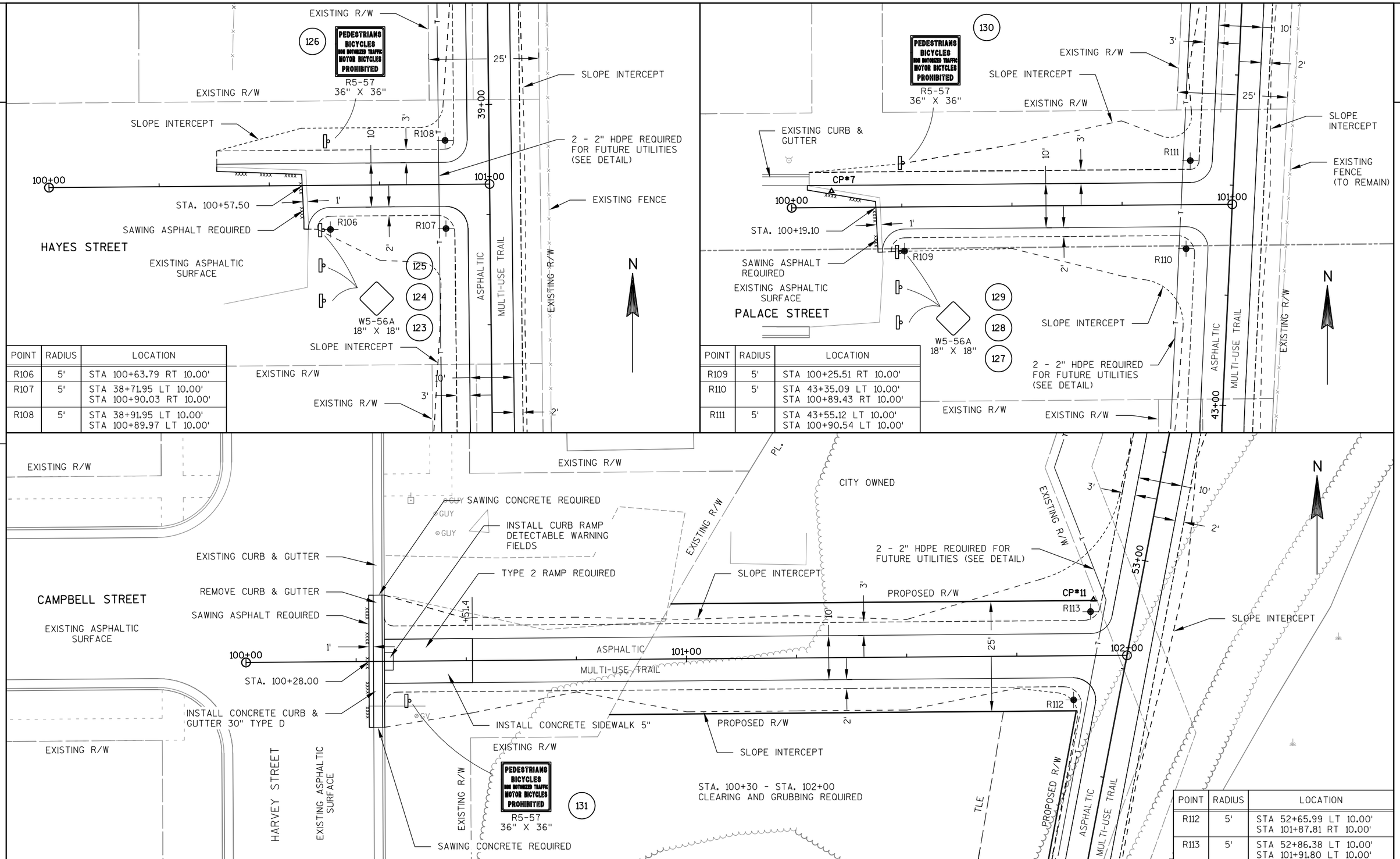
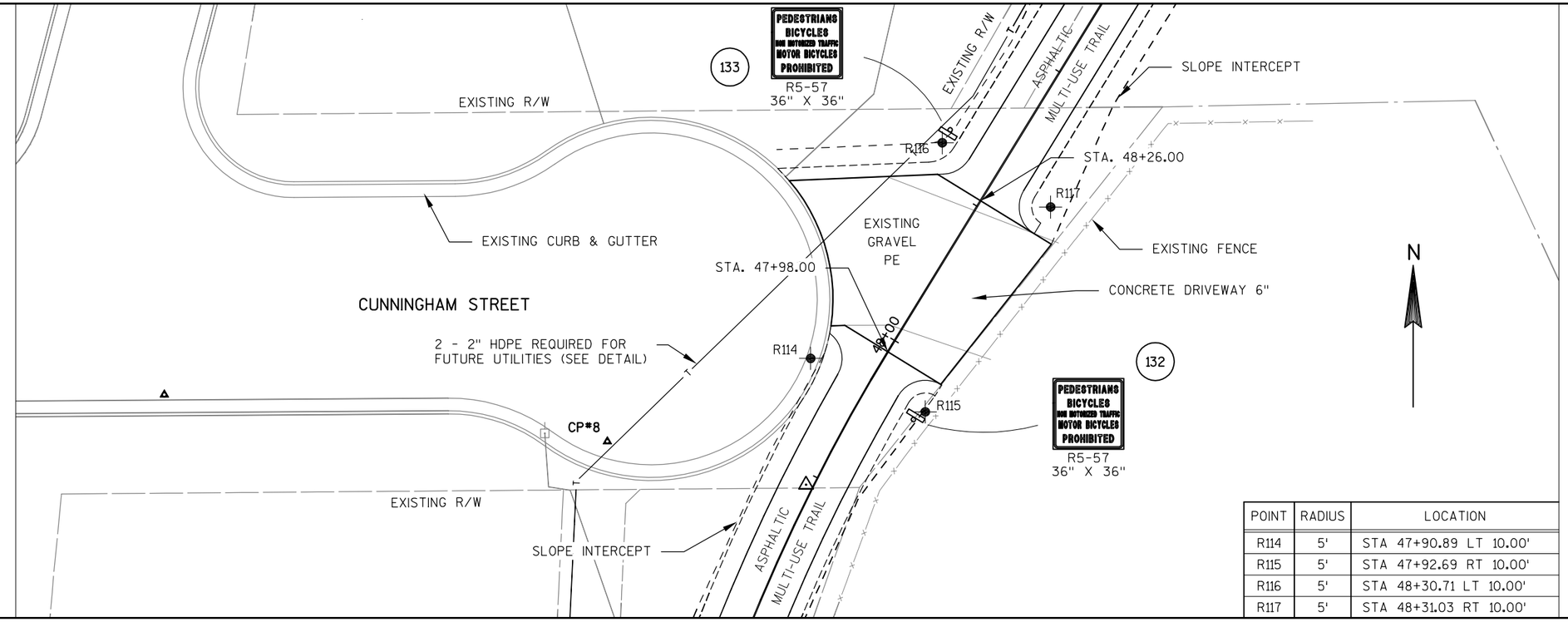


POINT	RADIUS	LOCATION
R106	5'	STA 100+63.79 RT 10.00'
R107	5'	STA 38+71.95 LT 10.00' STA 100+90.03 RT 10.00'
R108	5'	STA 38+91.95 LT 10.00' STA 100+89.97 LT 10.00'

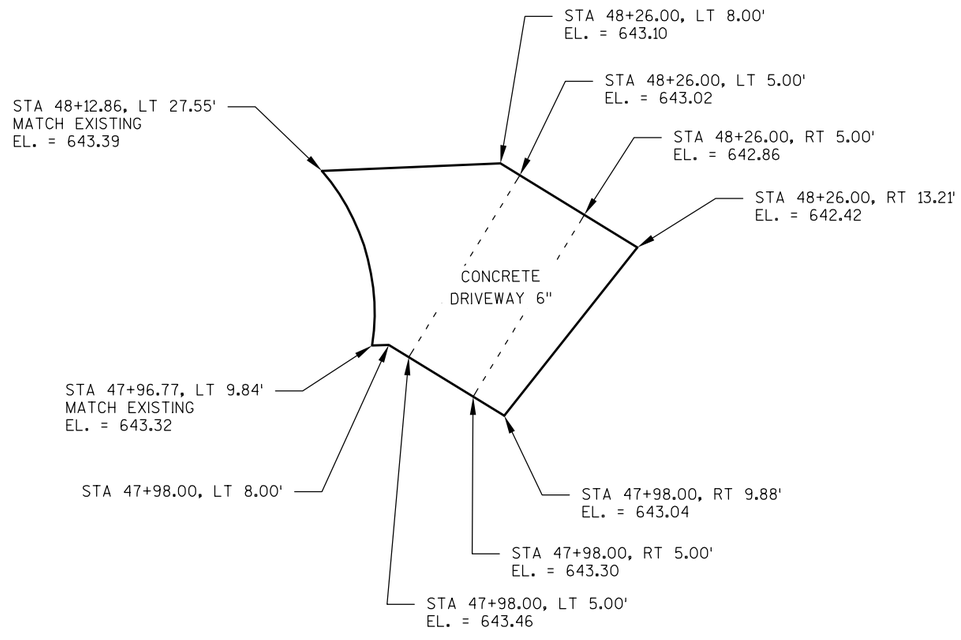
POINT	RADIUS	LOCATION
R109	5'	STA 100+25.51 RT 10.00'
R110	5'	STA 43+35.09 LT 10.00' STA 100+89.43 RT 10.00'
R111	5'	STA 43+55.12 LT 10.00' STA 100+90.54 LT 10.00'

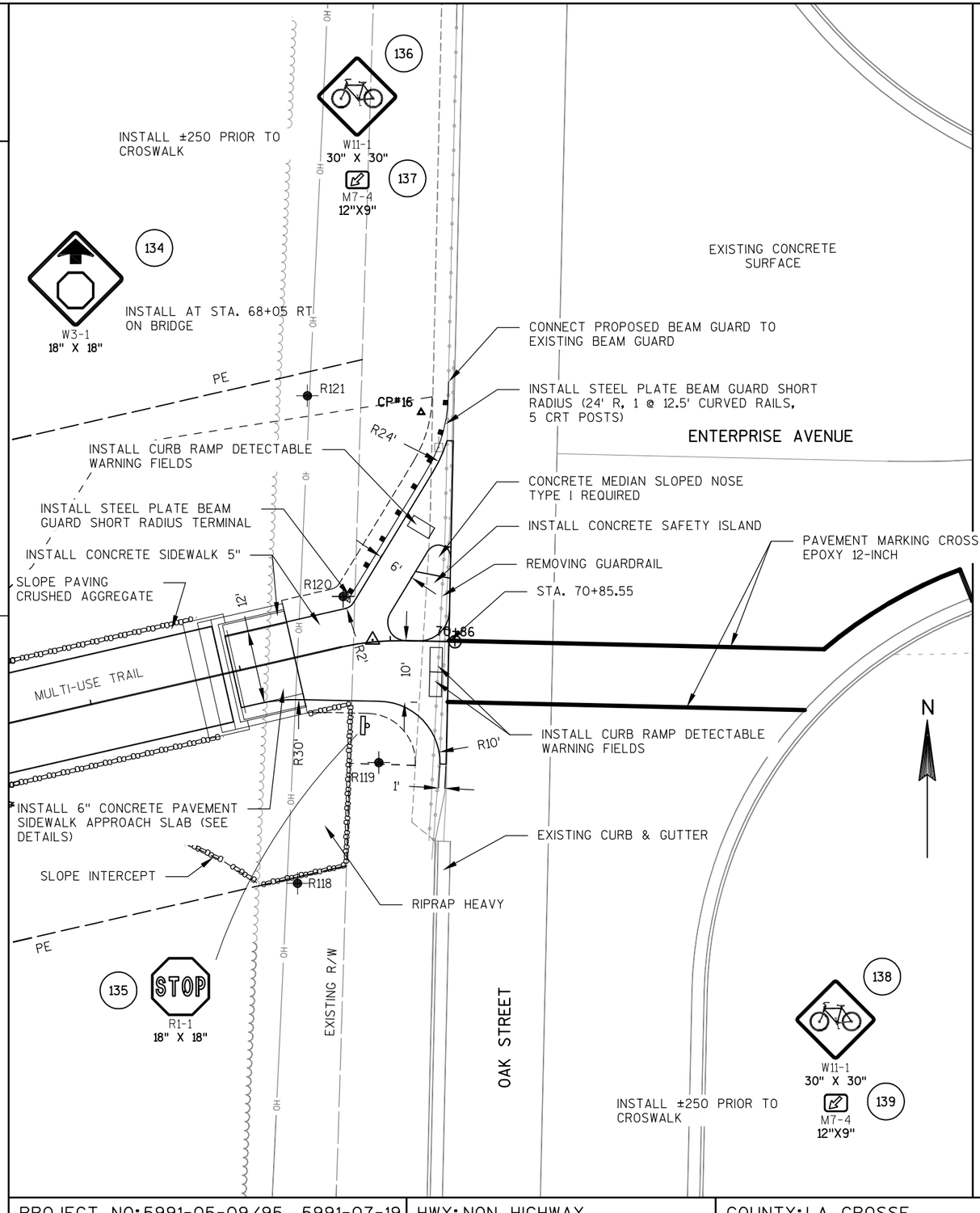
POINT	RADIUS	LOCATION
R112	5'	STA 52+65.99 LT 10.00' STA 101+87.81 RT 10.00'
R113	5'	STA 52+86.38 LT 10.00' STA 101+91.80 LT 10.00'

PROJECT NO:5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	CONSTRUCTION DETAILS	SHEET 10	E



POINT	RADIUS	LOCATION
R114	5'	STA 47+90.89 LT 10.00'
R115	5'	STA 47+92.69 RT 10.00'
R116	5'	STA 48+30.71 LT 10.00'
R117	5'	STA 48+31.03 RT 10.00'





STA 70+83.52, LT 32.79'
EL. = 669.62

STA 70+84.52, LT 32.79'
MATCH EXISTING
EL. = 669.64

STA 70+66.94, ℄
EL. = 670.30

STA 70+68.76, LT 6.05'
EL. = 670.14

STA 70+72.13, ℄
EL. = 670.11

STA 70+57.18, LT 6.00'
EL. = 670.67

STA 70+77.32, ℄
EL. = 669.92

STA 70+48.79, LT 6.00'
EL. = 671.06

STA 70+48.79, ℄
EL. = 670.96

STA 70+48.79, RT 6.00'
EL. = 670.86

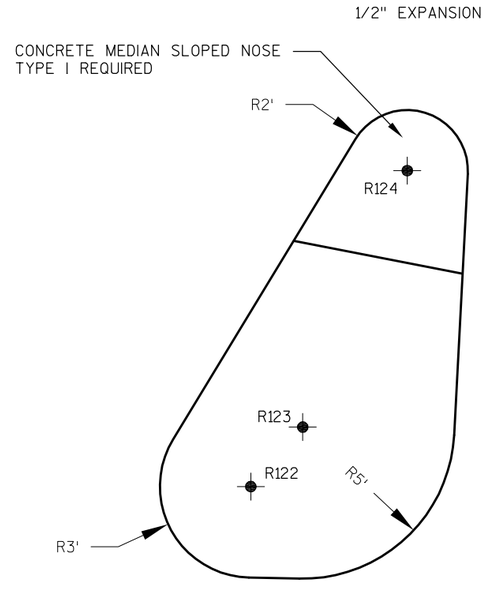
STA 70+58.67, RT 6.91'
EL. = 670.47

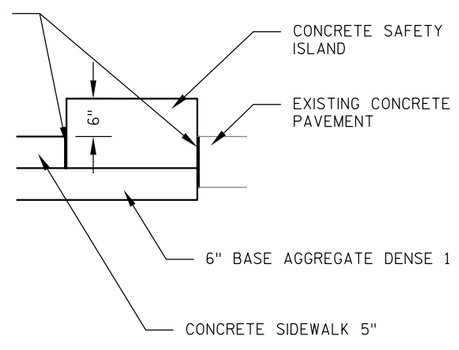
STA 70+72.40, RT 9.78'
EL. = 669.80

STA 70+80.62, RT 12.93'
EL. = 669.55

STA 70+84.55, RT 20.00'
MATCH EXISTING
EL. = 669.61

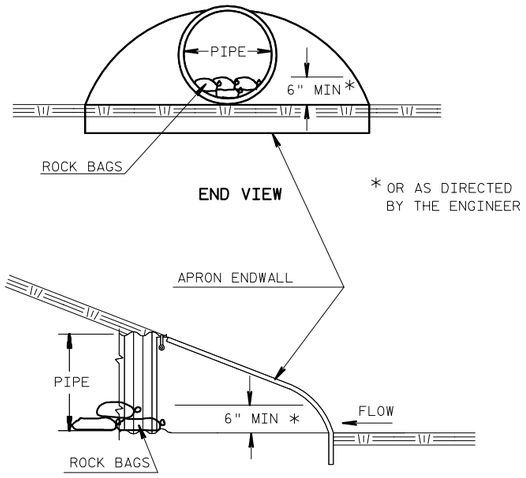
STA 70+83.55, RT 20.00'
EL. = 669.59



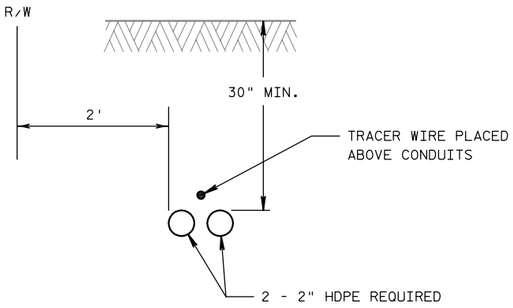


POINT	RADIUS	LOCATION
R118	30'	STA 70+51.33 RT 36.00'
R119	10'	STA 70+70.19 RT 19.68'
R120	2'	STA 70+68.69 LT 8.04'
R121	24'	STA 70+68.81 LT 41.34'
R122	3'	STA 70+77.50 LT 3.00'
R123	5'	STA 70+79.55 LT 5.00'
R124	2'	STA 70+82.55 LT 13.74'

PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CONSTRUCTION DETAILS	SHEET 12	E

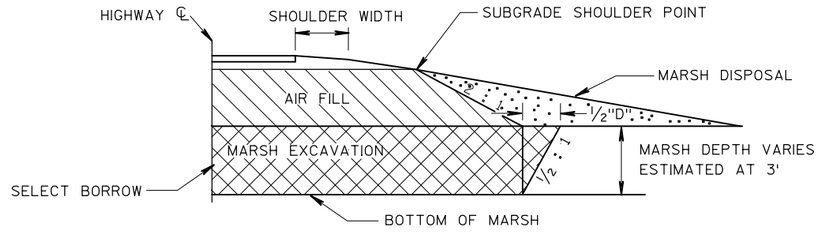


CULVERT PIPE CHECK



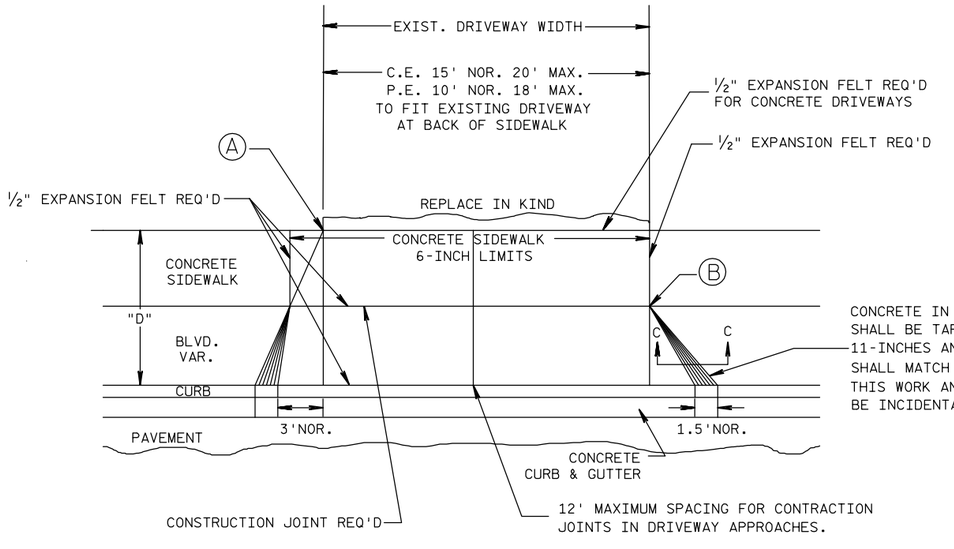
CONDUIT HDPE 2 DUCT 2-INCH WITH TRACER WIRE DETAIL

(FOR FUTURE UTILITIES)



TYPICAL MARSH EXCAVATION

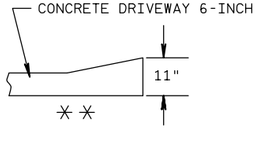
DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER

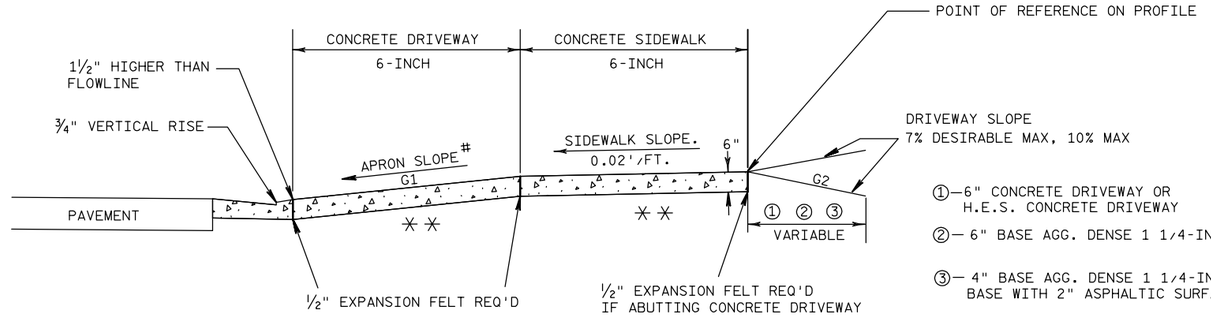


PLAN VIEW

Ⓐ WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK

Ⓑ WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK





TYPICAL SIDEWALK SECTION

① — 6" CONCRETE DRIVEWAY OR H.E.S. CONCRETE DRIVEWAY

② — 6" BASE AGG. DENSE 1 1/4-INCH

③ — 4" BASE AGG. DENSE 1 1/4-INCH BASE WITH 2" ASPHALTIC SURFACE

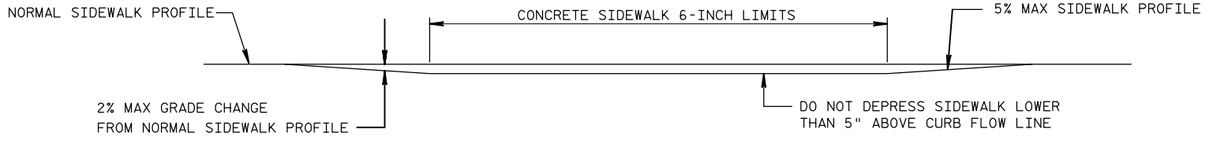
** = 6" BASE AGG. DENSE 1 1/4-INCH REQ'D UNDER CONCRETE DRWY

\#

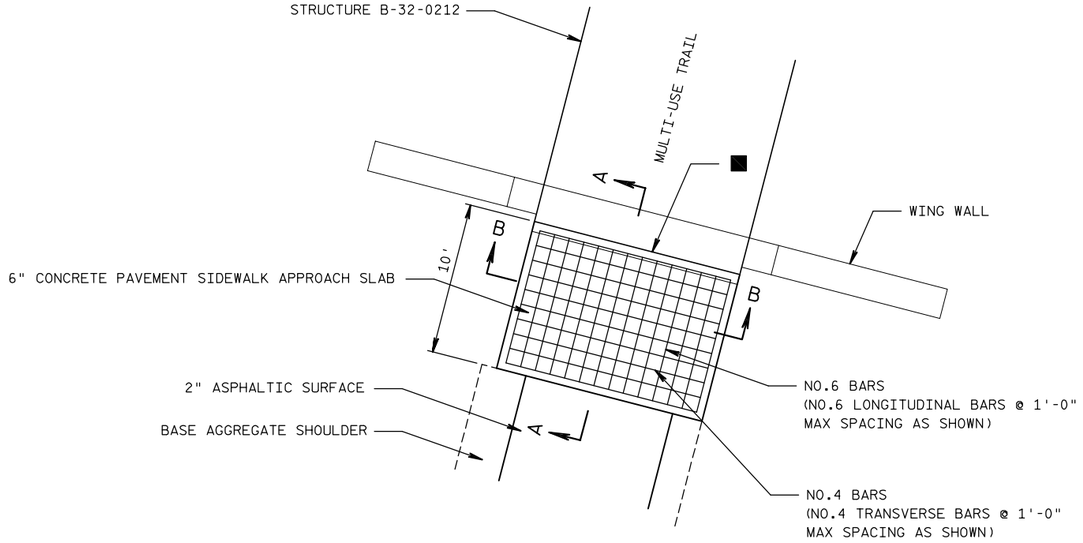
TERRACE WIDTH	APRON SLOPE (G1) MIN %	DESIRABLE %	MAX %
3 FT	7.0	8.5	9.0
4 FT	5.0	7.0	9.0
5 FT	4.0	7.0	9.0
6 FT	4.0	7.0	9.0
7 FT	3.5	7.0	9.0
8 FT	3.0	7.0	9.0

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

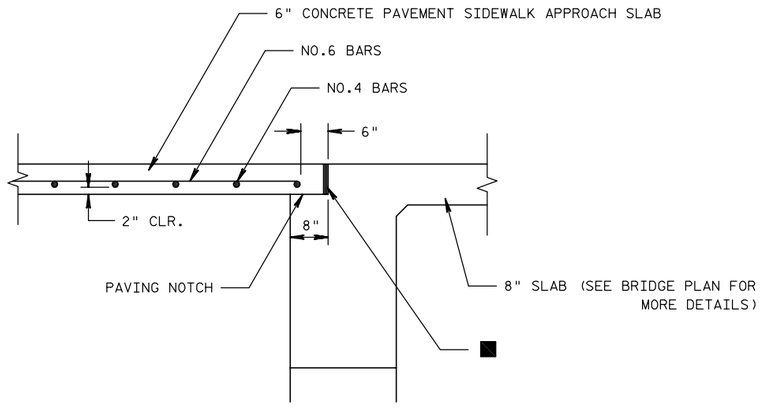


CONCRETE PAVEMENT SIDEWALK APPROACH SLAB DETAIL (SOUTH END)

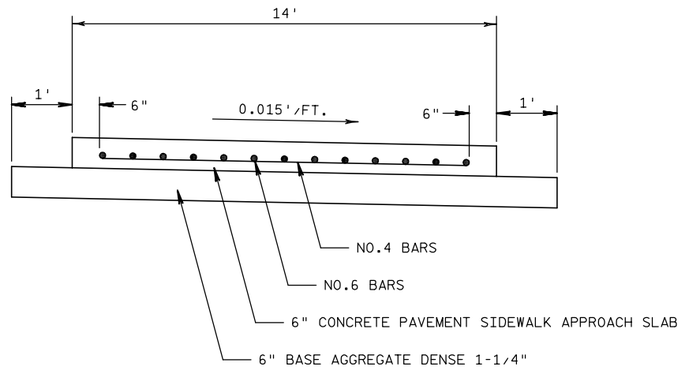
LENGEND

■ 1 1/2" FILLER. EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE)

NOTE: FILLER AND NON-BITUMINOUS JOINT SEALER TO BE INCIDENTAL TO THE CONSTRUCTION OF THE CONCRETE PAVEMENT SIDEWALK APPROACH SLAB.

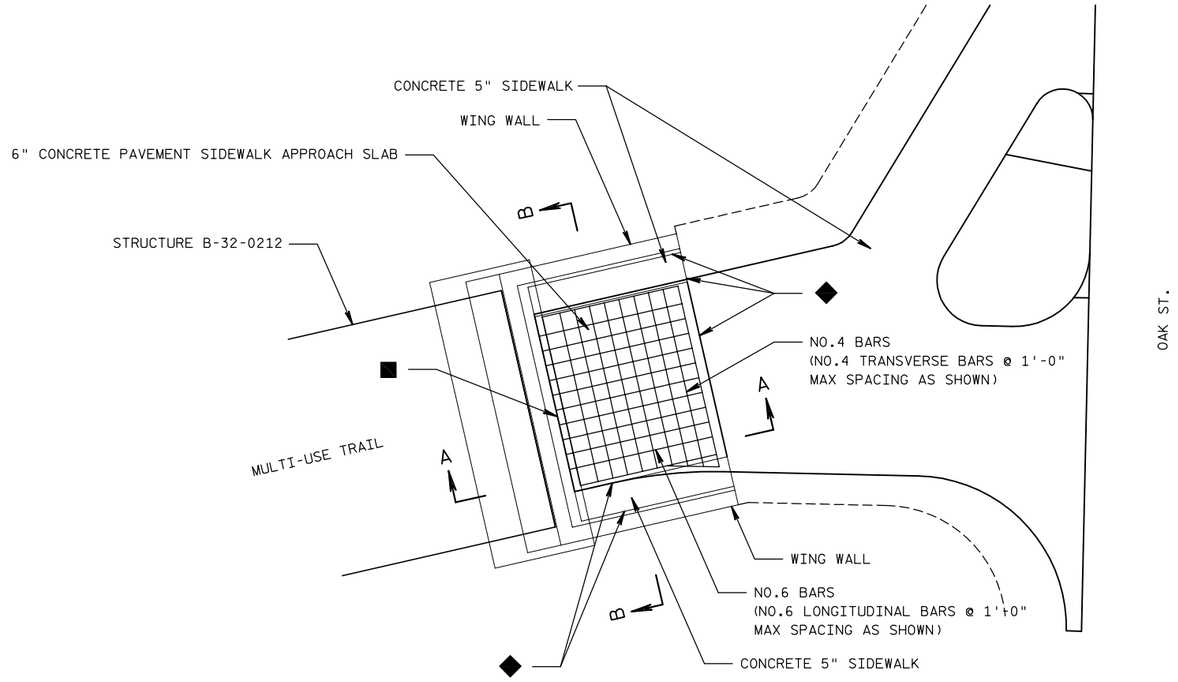


SECTION A-A



SECTION B-B

PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CONSTRUCTION DETAILS	SHEET 14	E



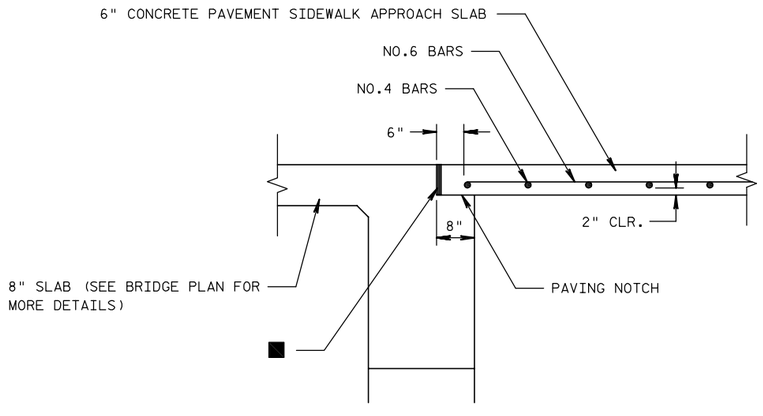
LENGEND

■ 1 1/2" FILLER. EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE)

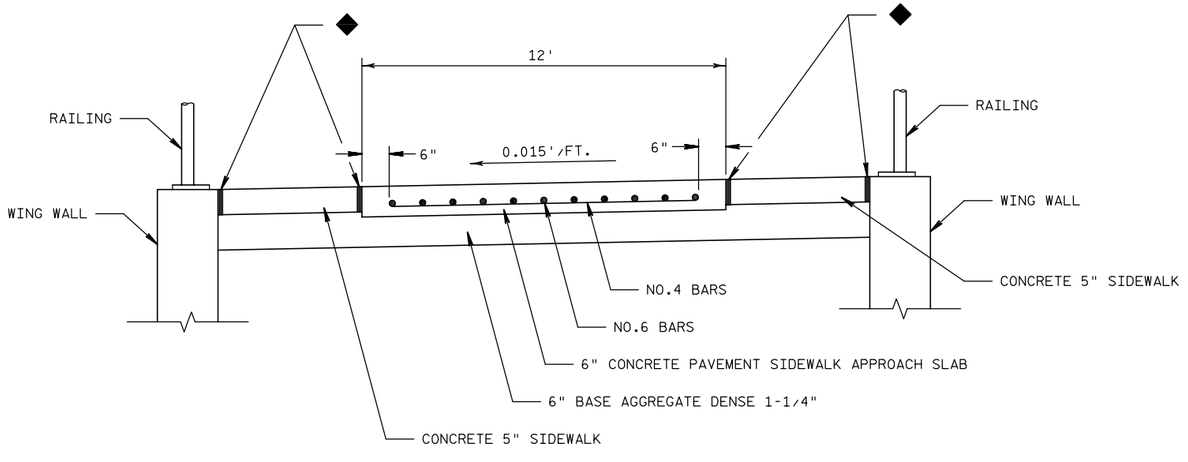
◆ 3/4" FILLER. EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE)

NOTE: FILLER AND NON-BITUMINOUS JOINT SEALER TO BE INCIDENTAL TO THE CONSTRUCTION OF THE CONCRETE PAVEMENT SIDEWALK APPROACH SLAB.

CONCRETE PAVEMENT SIDEWALK APPROACH SLAB DETAIL (NORTH END)



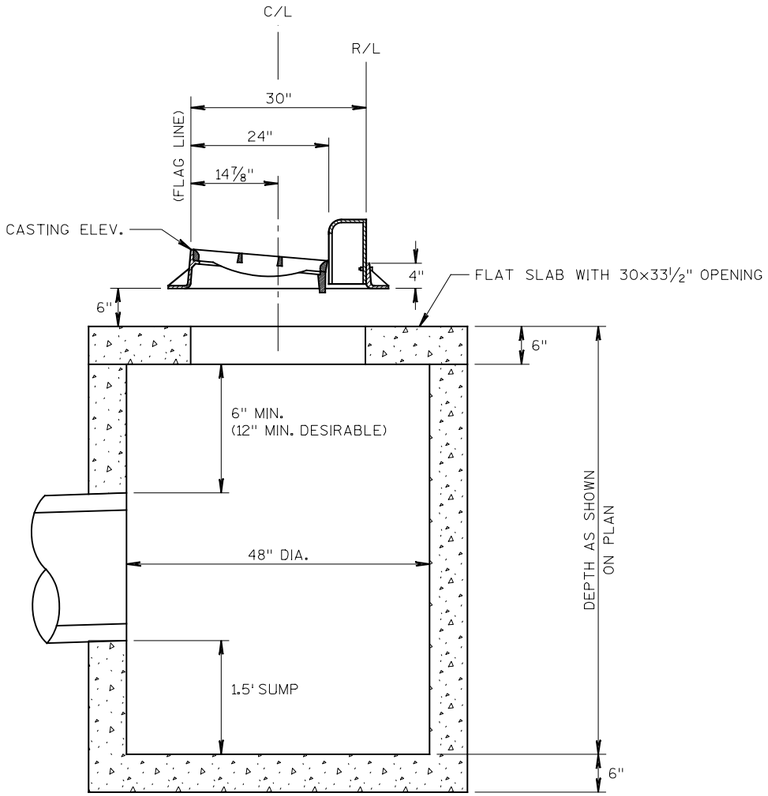
SECTION A-A



SECTION B-B

PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CONSTRUCTION DETAILS	SHEET 15	E

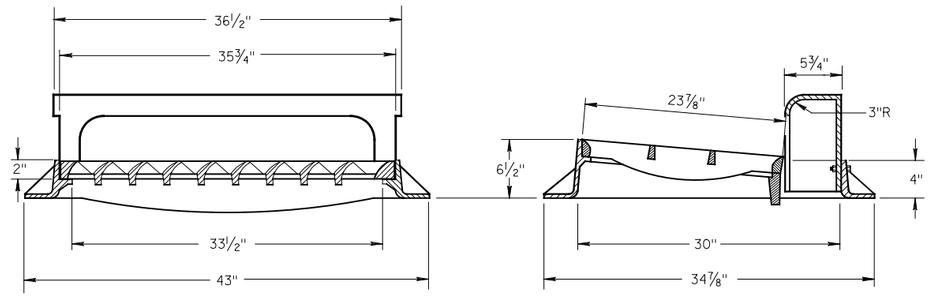
2



CATCH BASIN 4-FT DIA.

NOTES: SEE SDD CATCH BASINS 3-FT AND 4-FT AND 6-FT DIAMETER FOR ALL DETAILS NOT SHOWN.

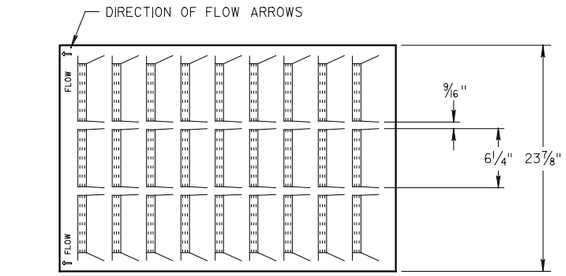
CATCH BASIN ELEVATIONS WERE COMPUTED USING DIMENSIONS SHOWN.

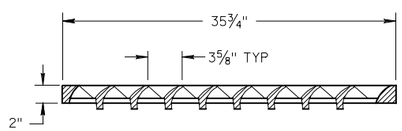


INLET COVERS, SPECIAL VANED

NOTES: "DUMP NO WASTE DRAINS TO RIVER" SHALL BE MOLDED IN ALL CASTINGS FACE

CURB BOX ADJUSTABLE TO 9".

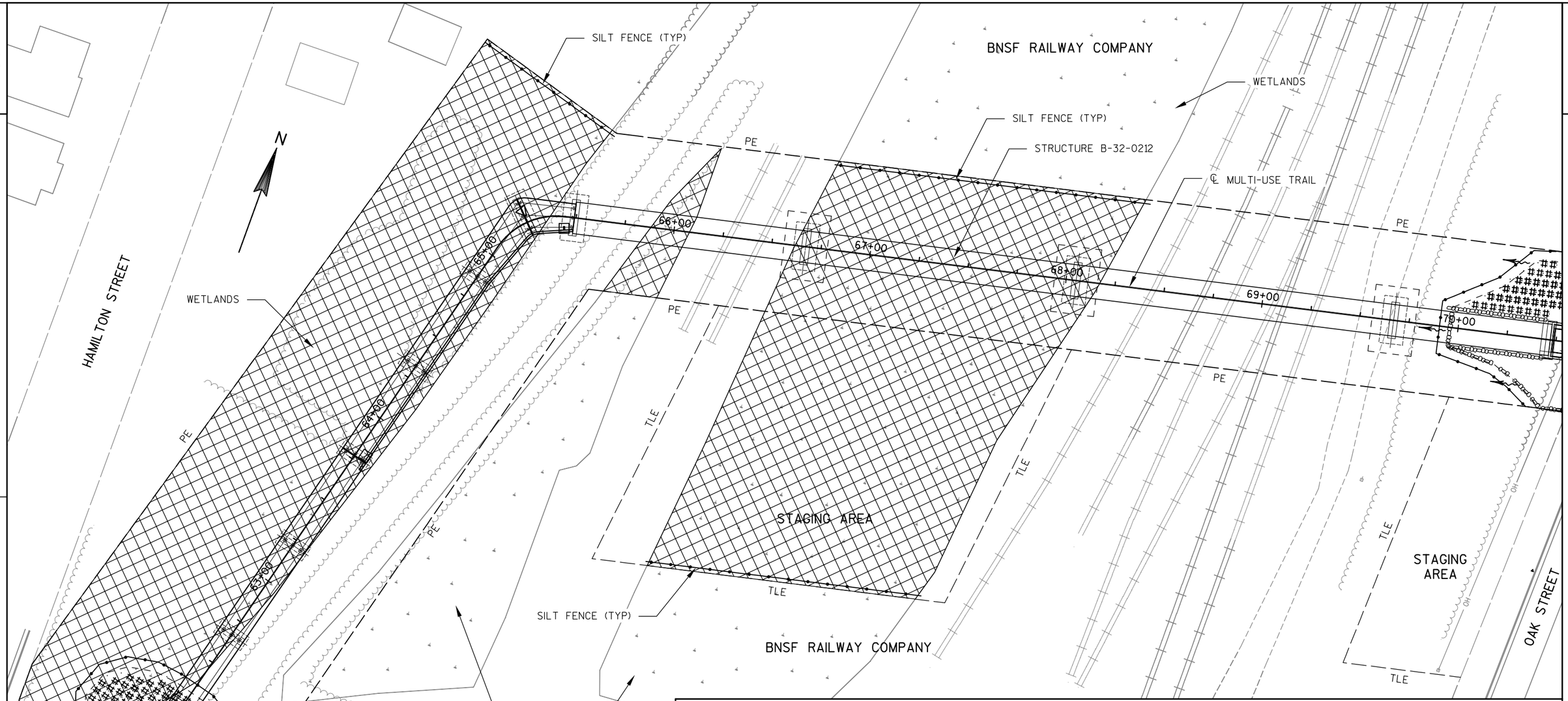




STANDARD GRATE FOR INLET COVERS, SPECIAL VANDED

(NOTED AS VANED ON DRAINAGE TABLE)

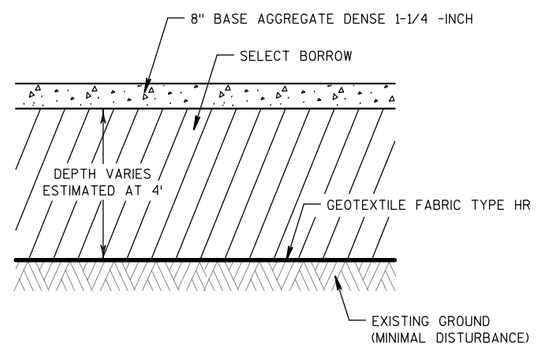
2



LEGEND

WETLANDS

STAGING AREA IN WETLANDS AS NEEDED. SEE TYPICAL SECTION.

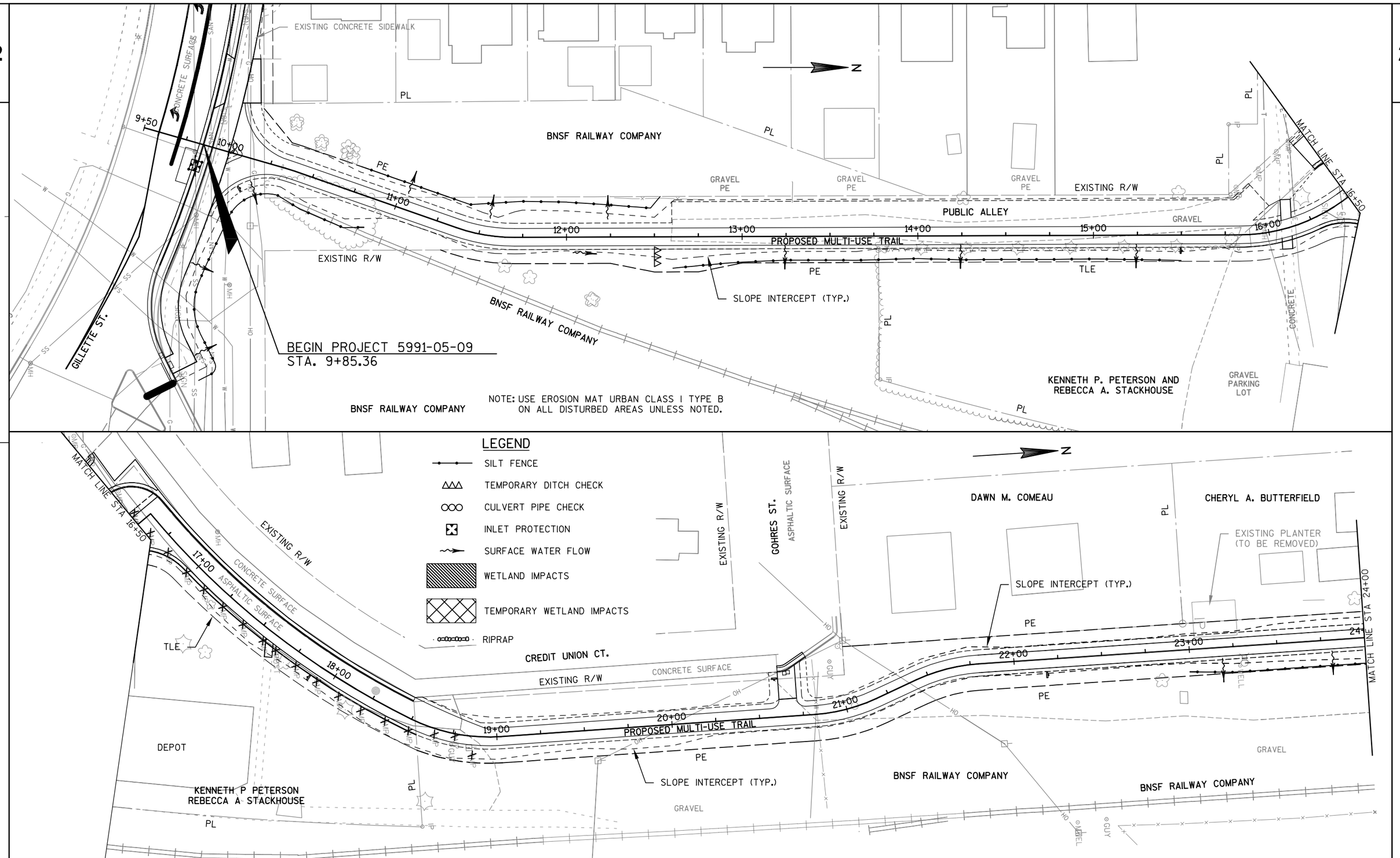


* BASE AGGREGATE, SELECT BORROW AND HR FABRIC TO BE REMOVED UPON PROJECT COMPLETION.

TYPICAL SECTION

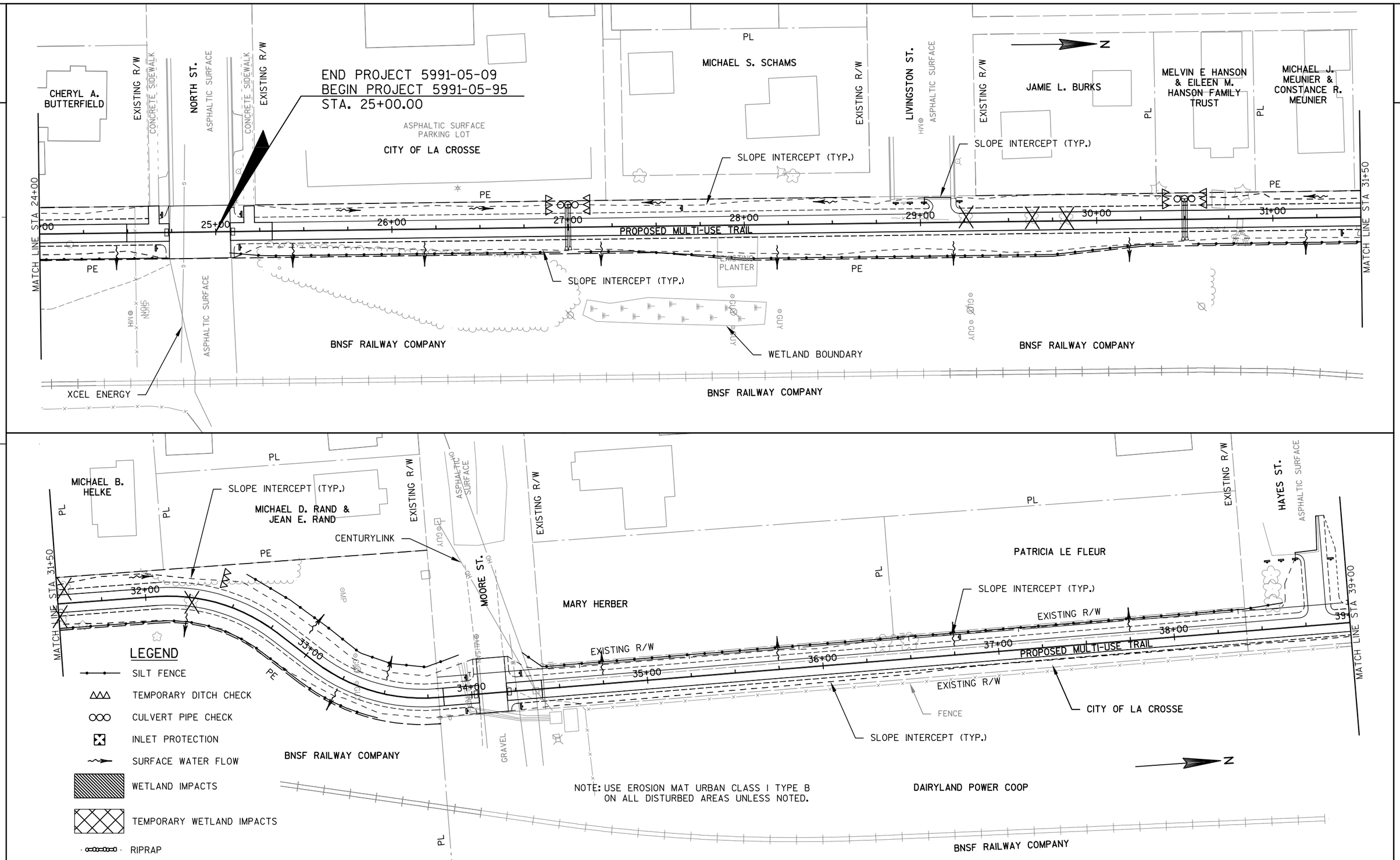
STAGING AREAS THRU WETLANDS

PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CONSTRUCTION DETAILS	SHEET 17	E

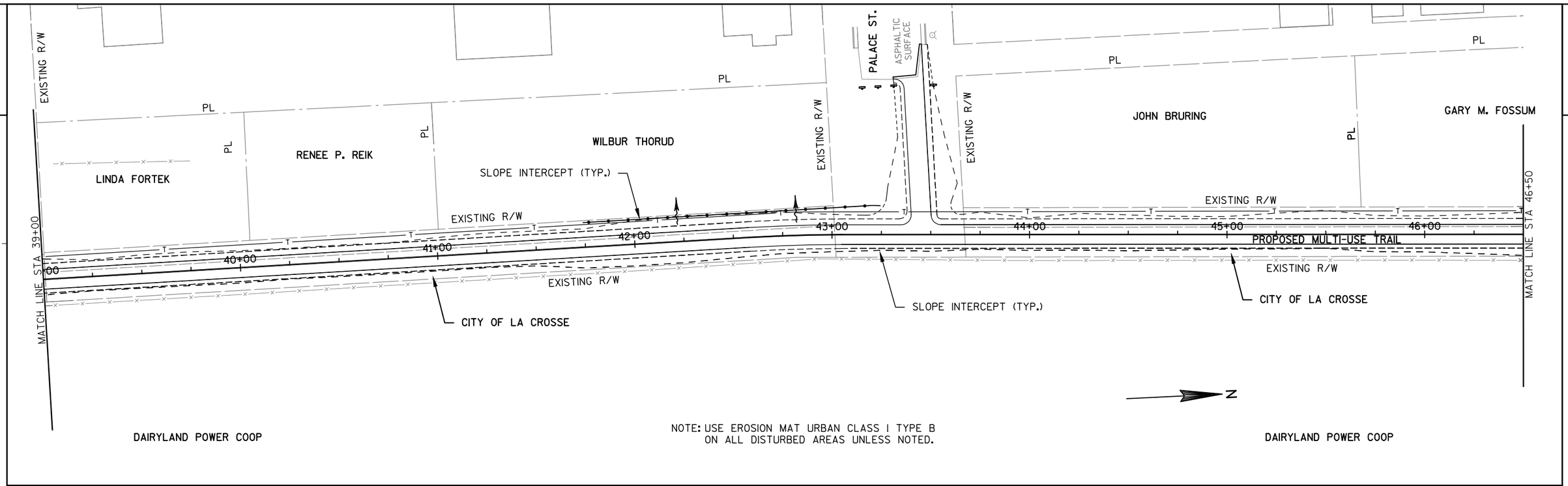


PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	EROSION CONTROL	SHEET	E

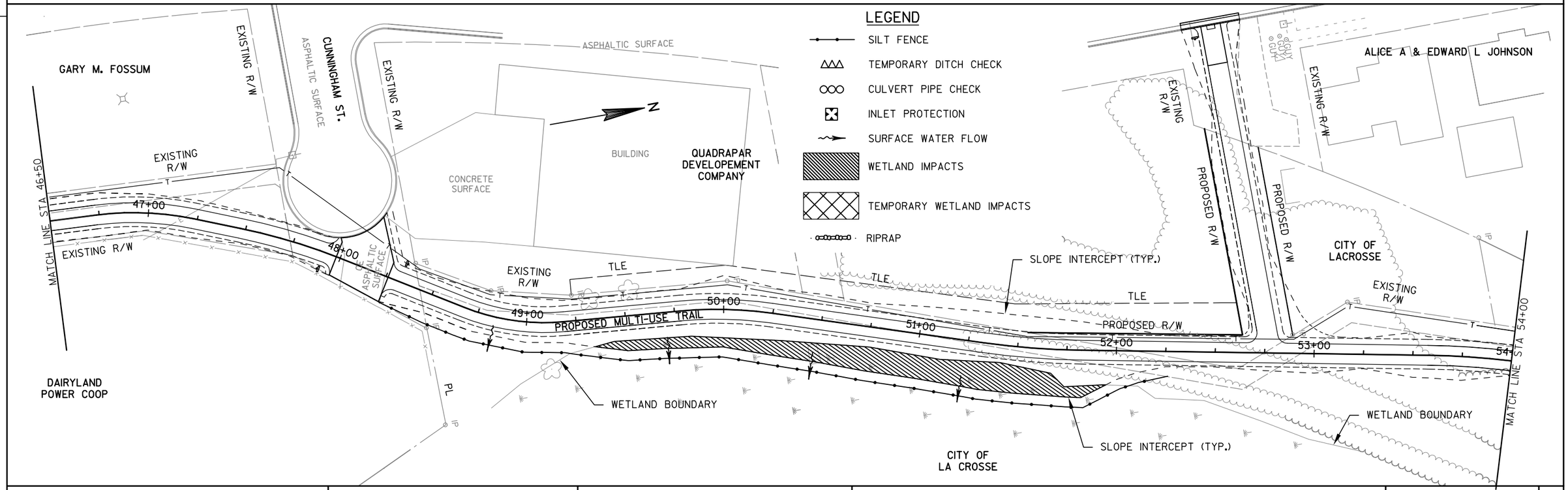
FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\022001_EC.DWG PLOT DATE : 9/3/2008 9:39 AM PLOT BY : JEFF BREU PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 44



PROJECT NO: 5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 19	E

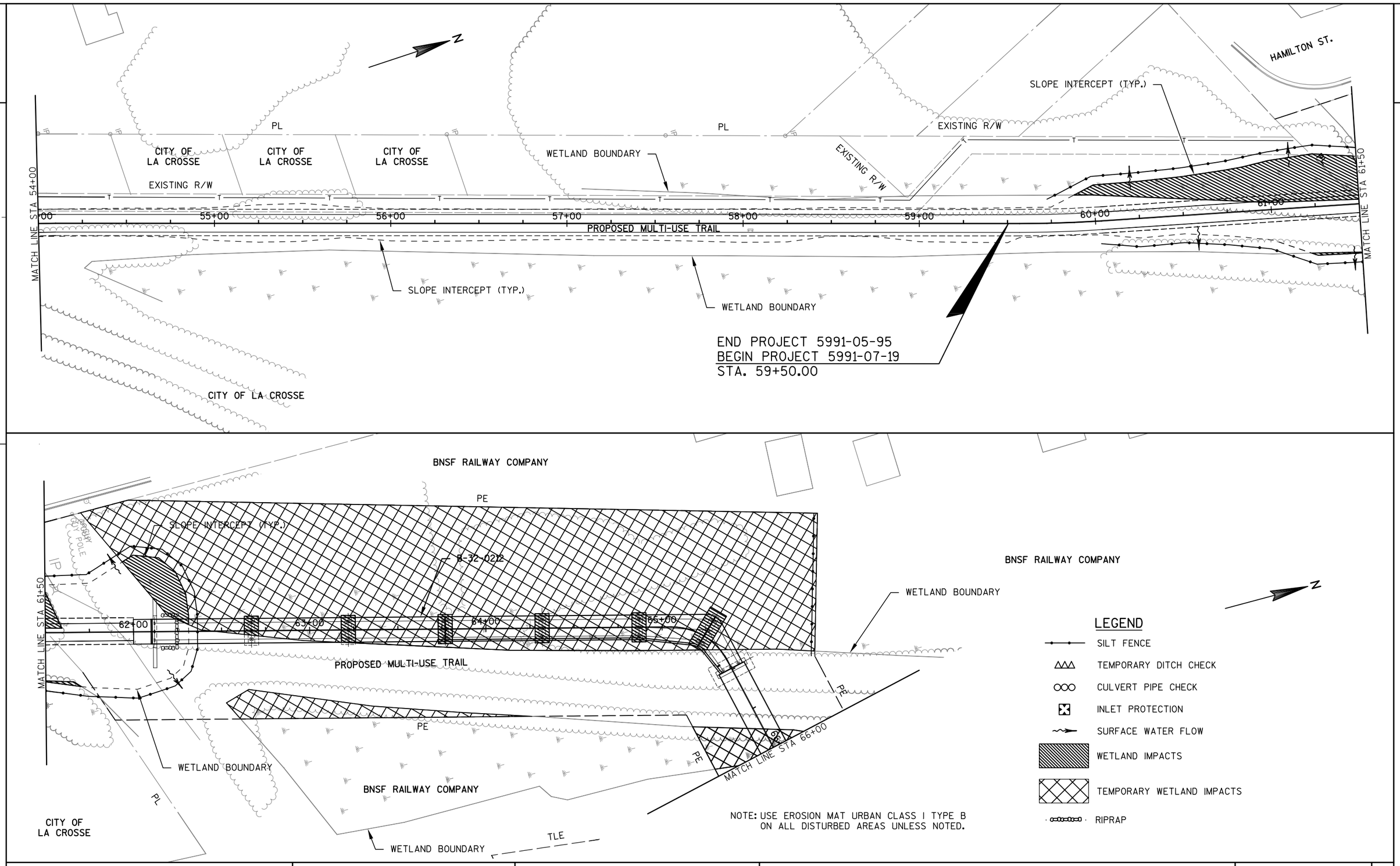


NOTE: USE EROSION MAT URBAN CLASS I TYPE B ON ALL DISTURBED AREAS UNLESS NOTED.

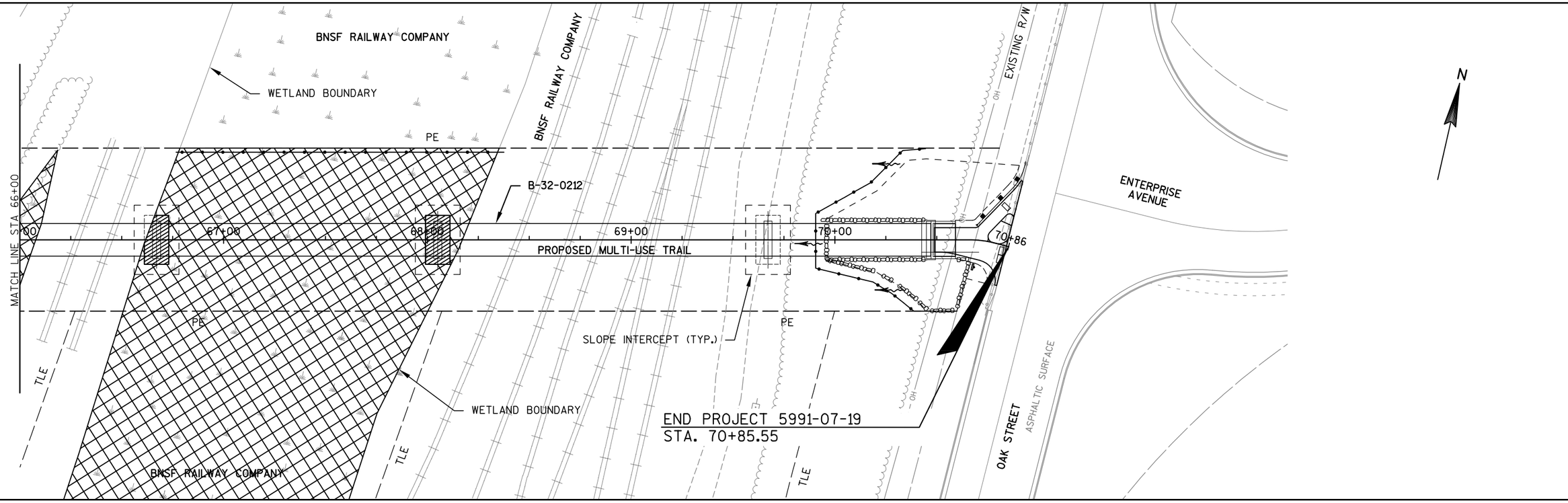


PROJECT NO:5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 20	E

2



PROJECT NO: 5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	EROSION CONTROL	SHEET 21	E



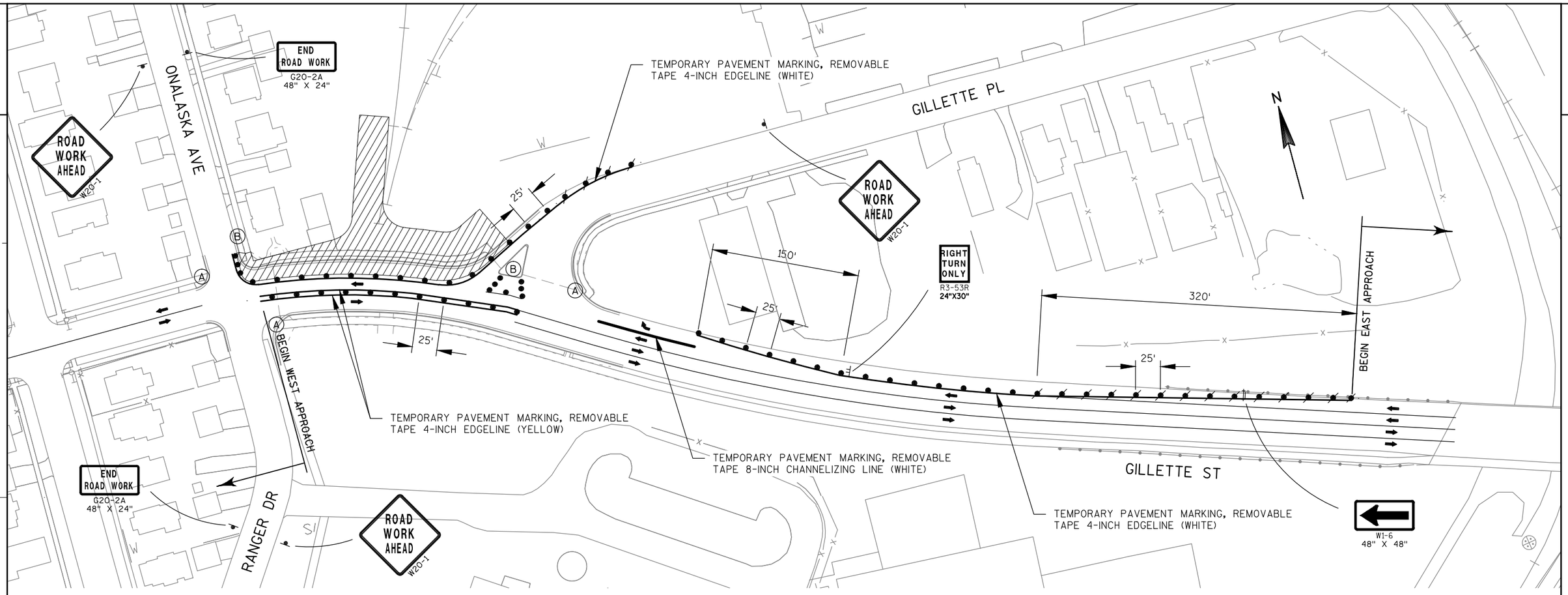
RUNOFF COEFFICIENT TABLE

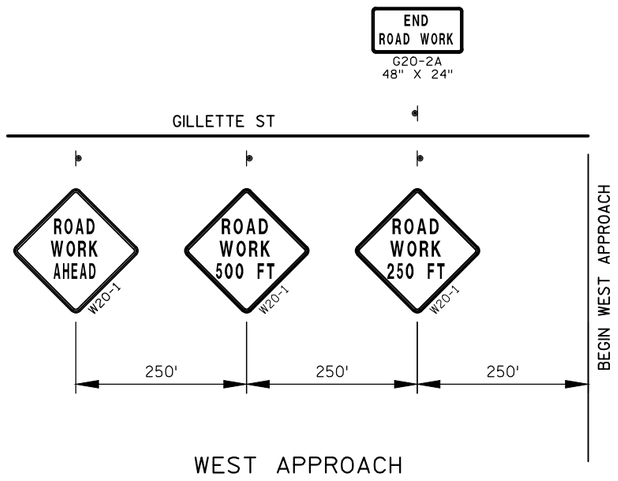
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .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											

LEGEND

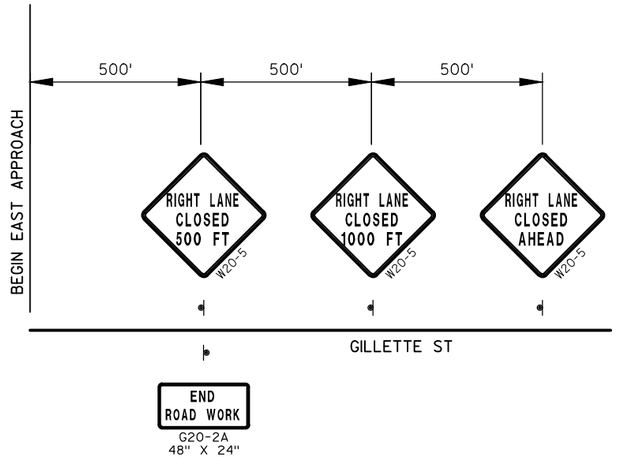
- SILT FENCE
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION
- SURFACE WATER FLOW
- WETLAND IMPACTS
- TEMPORARY WETLAND IMPACTS
- RIPRAP

NOTE: USE EROSION MAT URBAN CLASS I TYPE B ON ALL DISTURBED AREAS UNLESS NOTED.





WEST APPROACH



EAST APPROACH

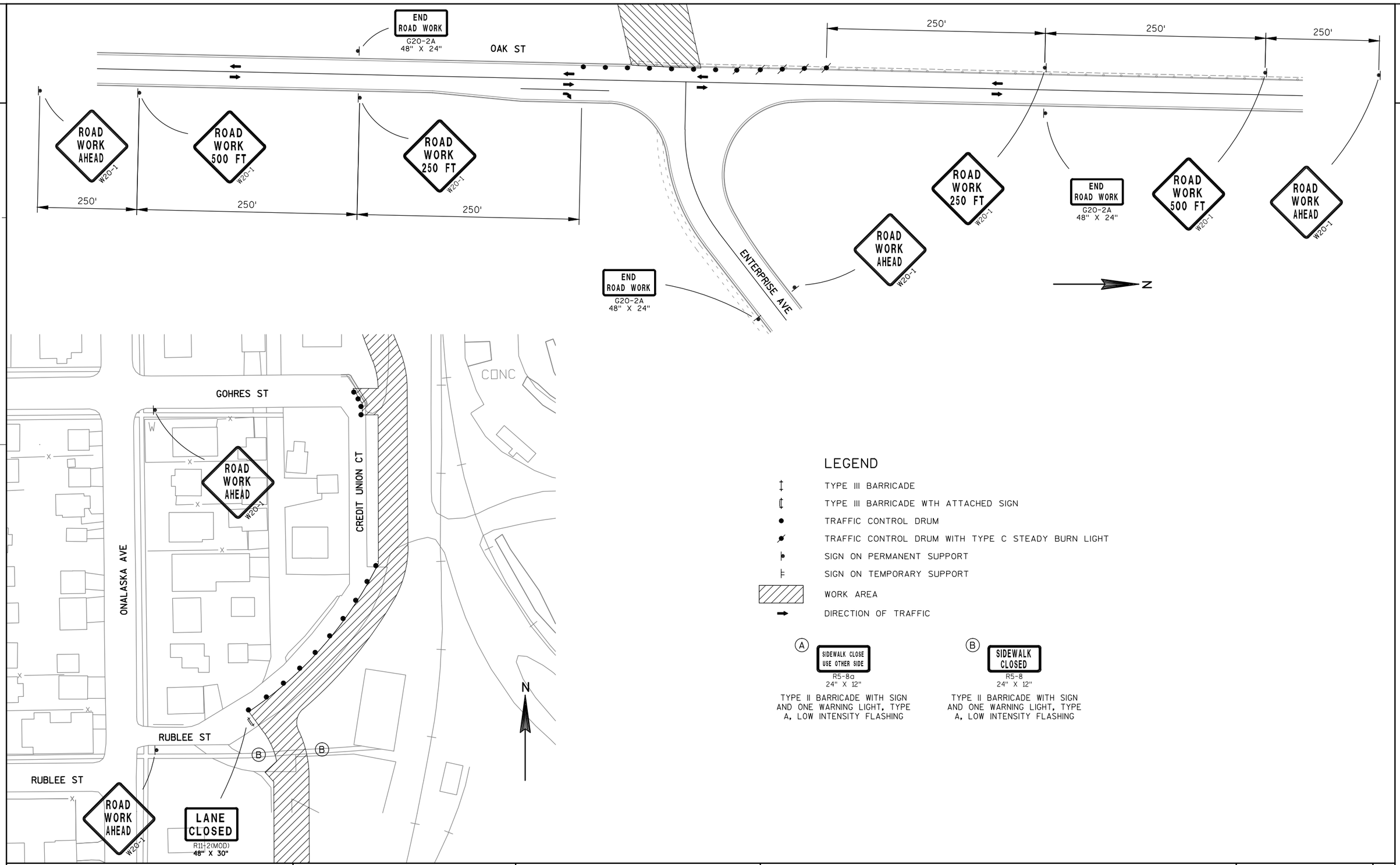
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC

(A) SIDEWALK CLOSE USE OTHER SIDE
R5-8a
24" X 12"
TYPE II BARRICADE WITH SIGN AND ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING

(B) SIDEWALK CLOSED
R5-8
24" X 12"
TYPE II BARRICADE WITH SIGN AND ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING

PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	TRAFFIC CONTROL	SHEET 23	E



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC

(A) SIDEWALK CLOSE USE OTHER SIDE
R5-8a
24" X 12"
TYPE II BARRICADE WITH SIGN AND ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING

(B) SIDEWALK CLOSED
R5-8
24" X 12"
TYPE II BARRICADE WITH SIGN AND ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING

PROJECT NO: 5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	TRAFFIC CONTROL	SHEET 24	E

2

2

ONALASKA AVE

ROAD WORK AHEAD W20-1

NORTH ST

LIVINGSTON ST

ROAD WORK AHEAD W20-1

MOORE ST

ONALASKA CT

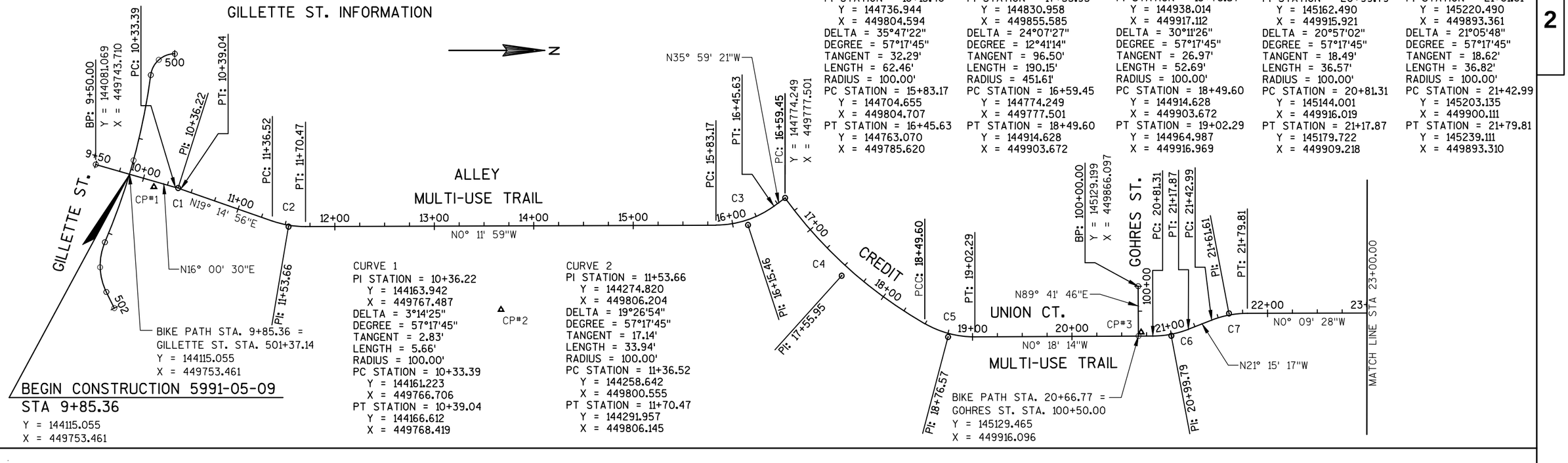
PROPOSRD MULTI-USE TRAIL

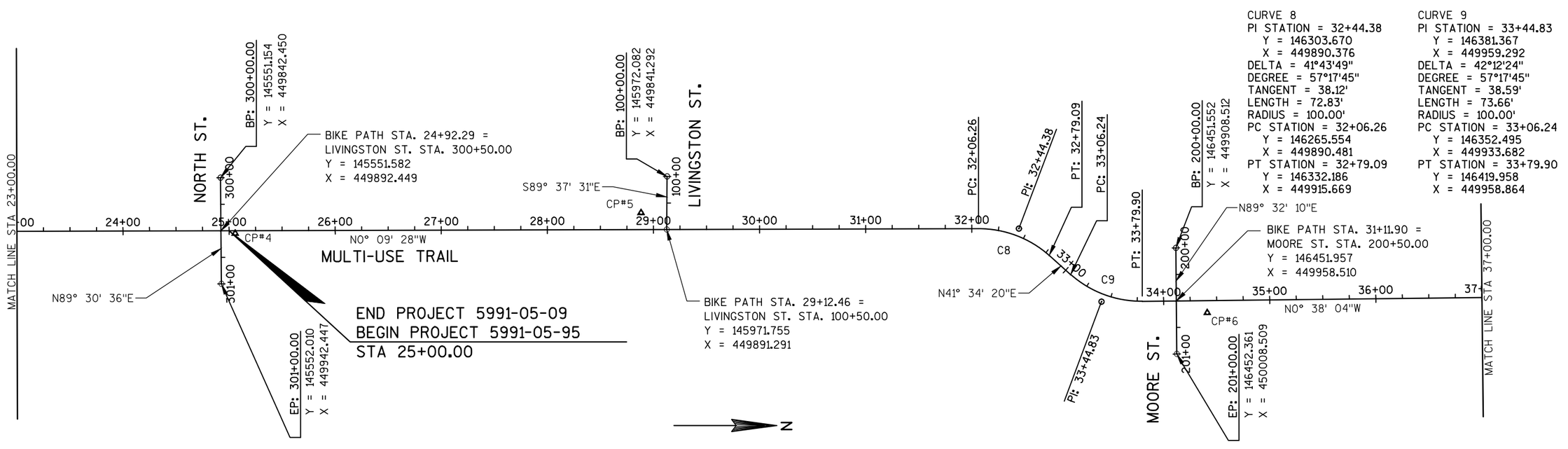
N

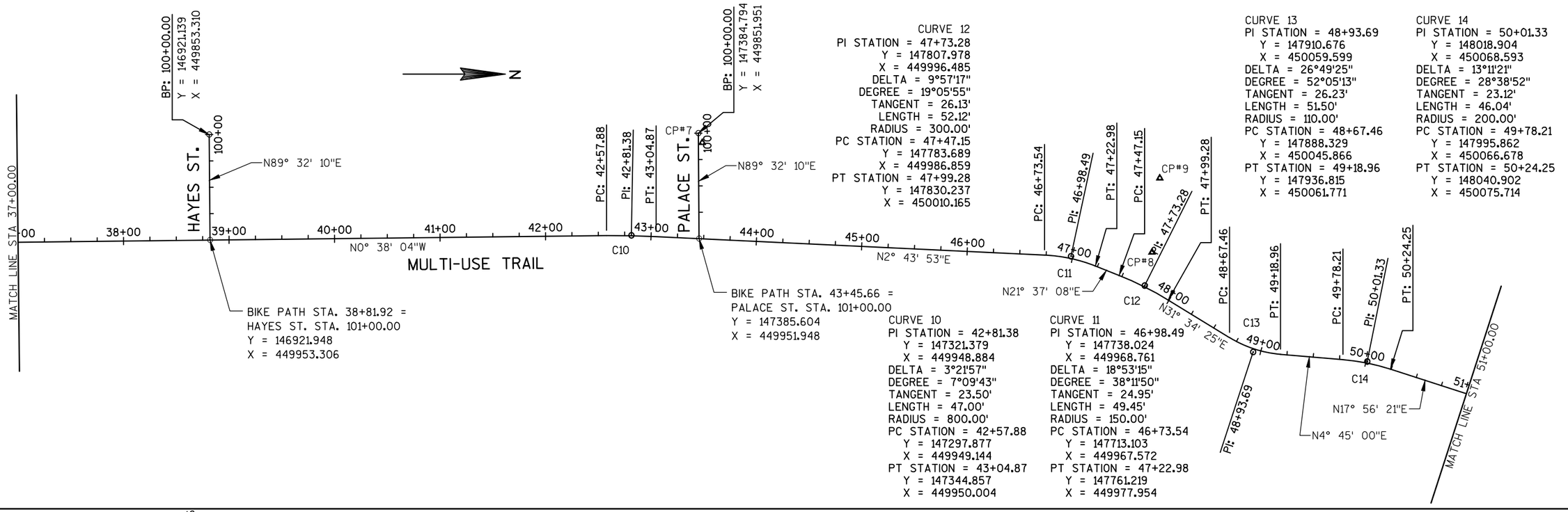
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	TRAFFIC CONTROL	SHEET 25	E

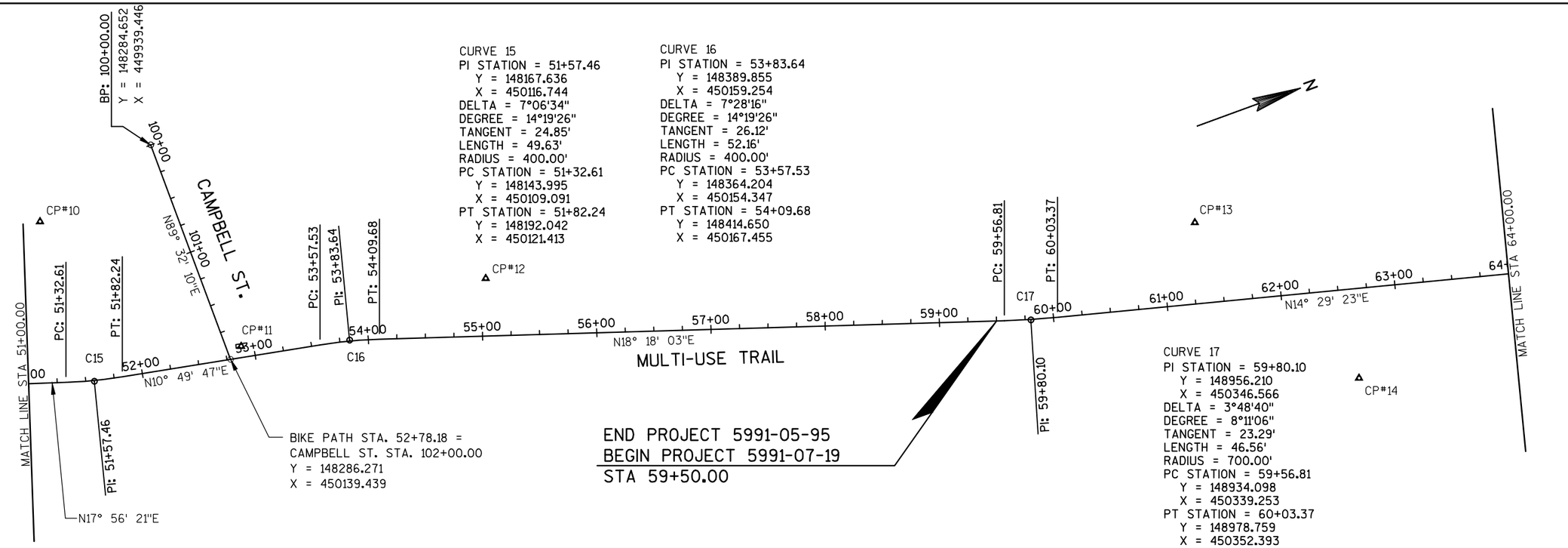
FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\025001_TC.DWG PLOT DATE : 4/15/2014 2:25 PM PLOT BY : JEFF BREU PLOT NAME : _____ PLOT SCALE : **********

SEE DIFFERENT SHEET FOR
GILLETTE ST. INFORMATION

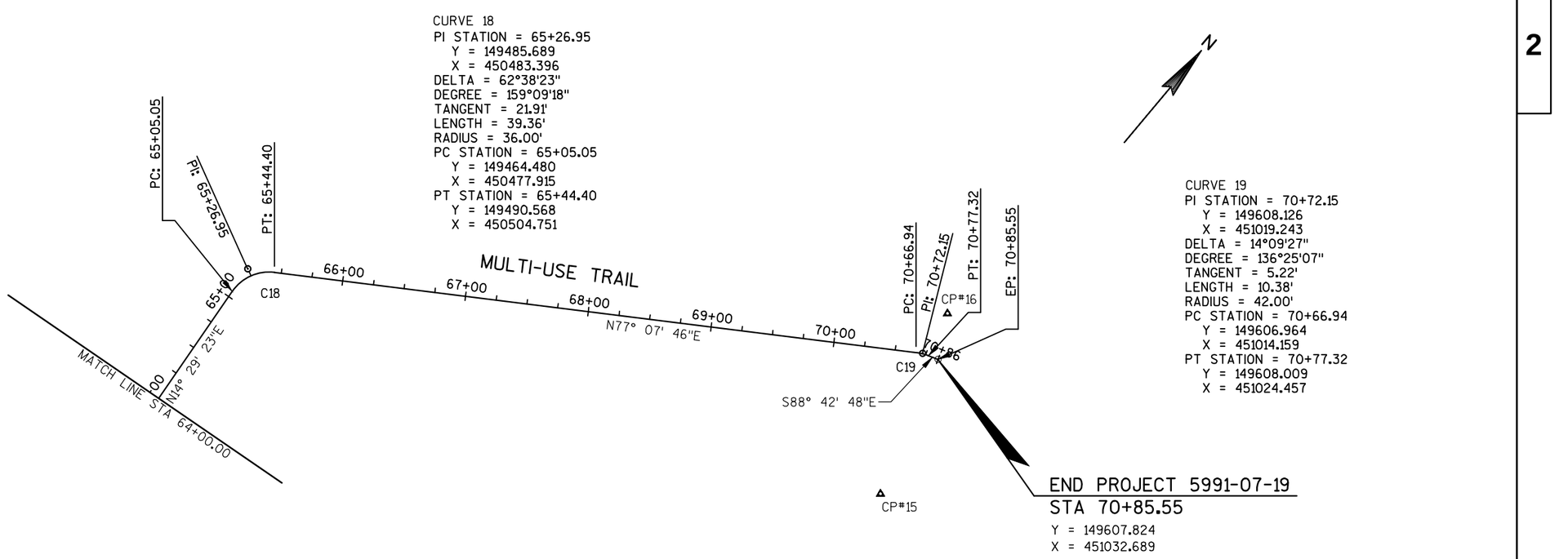






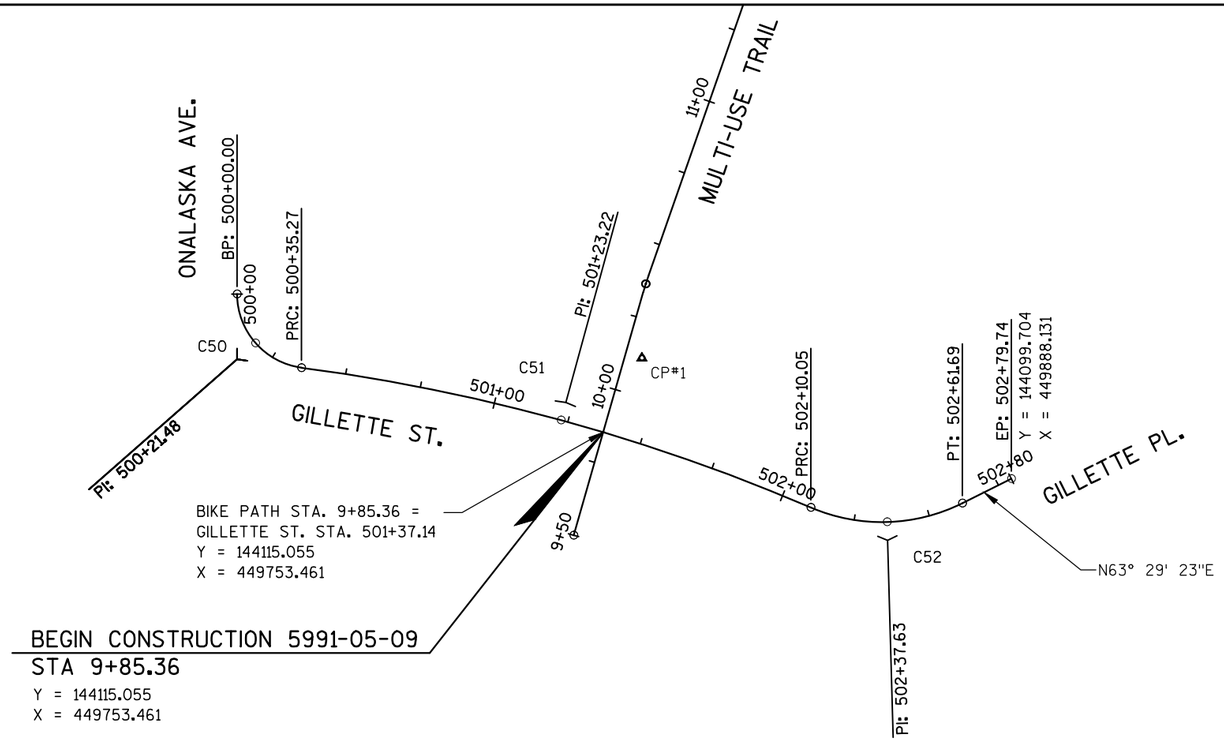


PROJECT NO: 5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	ALIGNMENTS	SHEET 27	E



CONTROL POINTS

NUMBER	Y (NORTHING)	X (EASTING)	ELEVATION	DESCRIPTION	NUMBER	Y (NORTHING)	X (EASTING)	ELEVATION	DESCRIPTION
1	144,139.48	449,766.24	644.42	3/4" REBAR	10	148,170.79	449,969.20	641.71	PK NAIL
2	144,488.59	449,889.65	646.19	3/4" REBAR	11	148,298.92	450,131.83	-	3/4" REBAR
3	145,132.25	449,912.28	644.42	3/4" REBAR	12	148,520.25	450,149.27	-	3/4" REBAR
4	145,565.04	449,894.91	643.57	PK NAIL	13	149,120.12	450,315.59	641.70	PK NAIL
5	145,947.49	449,875.48	643.71	PK NAIL	14	149,208.55	450,492.55	643.84	1/4" REBAR
6	146,481.14	449,969.64	642.81	3/4" REBAR	15	149,489.75	451,026.21	669.65	1/4" REBAR
7	147,388.58	449,860.98	641.26	PK NAIL	16	149,645.31	451,027.16	669.15	1/4" REBAR
8	147,814.85	449,964.94	643.74	PK NAIL	17	146,434.74	449,633.46	645.22	PK NAIL
9	147,822.27	449,894.61	643.78	PK NAIL					



CURVE 50
PI STATION = 500+21.48
Y = 144139.097
X = 449632.650
DELTA = 82°29'15"
DEGREE = 233°51'37"
TANGENT = 21.48'
LENGTH = 35.27'
RADIUS = 24.50'
PC STATION = 500+00.00
Y = 144160.579
X = 449632.631
PT STATION = 500+35.27
Y = 144136.307
X = 449653.949

CURVE 51
PI STATION = 501+23.22
Y = 144124.882
X = 449741.148
DELTA = 15°45'08"
DEGREE = 9°00'45"
TANGENT = 87.95'
LENGTH = 174.78'
RADIUS = 635.74'
PC STATION = 500+35.27
Y = 144136.307
X = 449653.949
PT STATION = 502+10.05
Y = 144090.213
X = 449821.972

CURVE 52
PI STATION = 502+37.63
Y = 144079.344
X = 449847.312
DELTA = 49°43'37"
DEGREE = 96°17'44"
TANGENT = 27.57'
LENGTH = 51.64'
RADIUS = 59.50'
PC STATION = 502+10.05
Y = 144090.213
X = 449821.972
PT STATION = 502+61.69
Y = 144091.651
X = 449871.986

N

2

PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	ALIGNMENTS	SHEET 29	E

2

CP#1
3/4" REBAR

33.8'

POWER POLE

11.5'

10+00

SIDEWALK

56.8'

MH

MH

LIGHT POLE

GILLETTE STREET

N

6" LOCUST

IP

IP

76.6'

CP#2
3/4" REBAR

14.7'

67.0'

10" CHINESE ELM

N

22+00

POWER POLE

121.5'

21+00

HYDRANT

GUY

43.4'

GOHRES ST.

CP#3
3/4" REBAR

UNION CT.

N

2

I BEAM

34.5'

HYDRANT

37.8'

CP#4
3/4" PK NAIL

25+00

NORTH ROAD

62.3'

NO TRESPASSING
SIGN

MH

N

HYDRANT

38.8'

MH

LIVINGSTON STREET

29+00

13.0'

CP#5
PK NAIL

87.7'

POWER POLE

FENCE CORNER

23.0'

IP

POWER POLE

12.2'

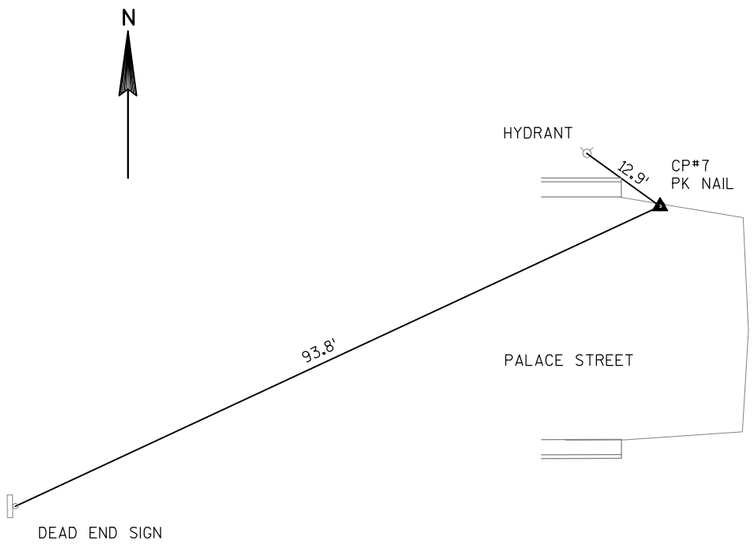
CP#6
3/4" REBAR

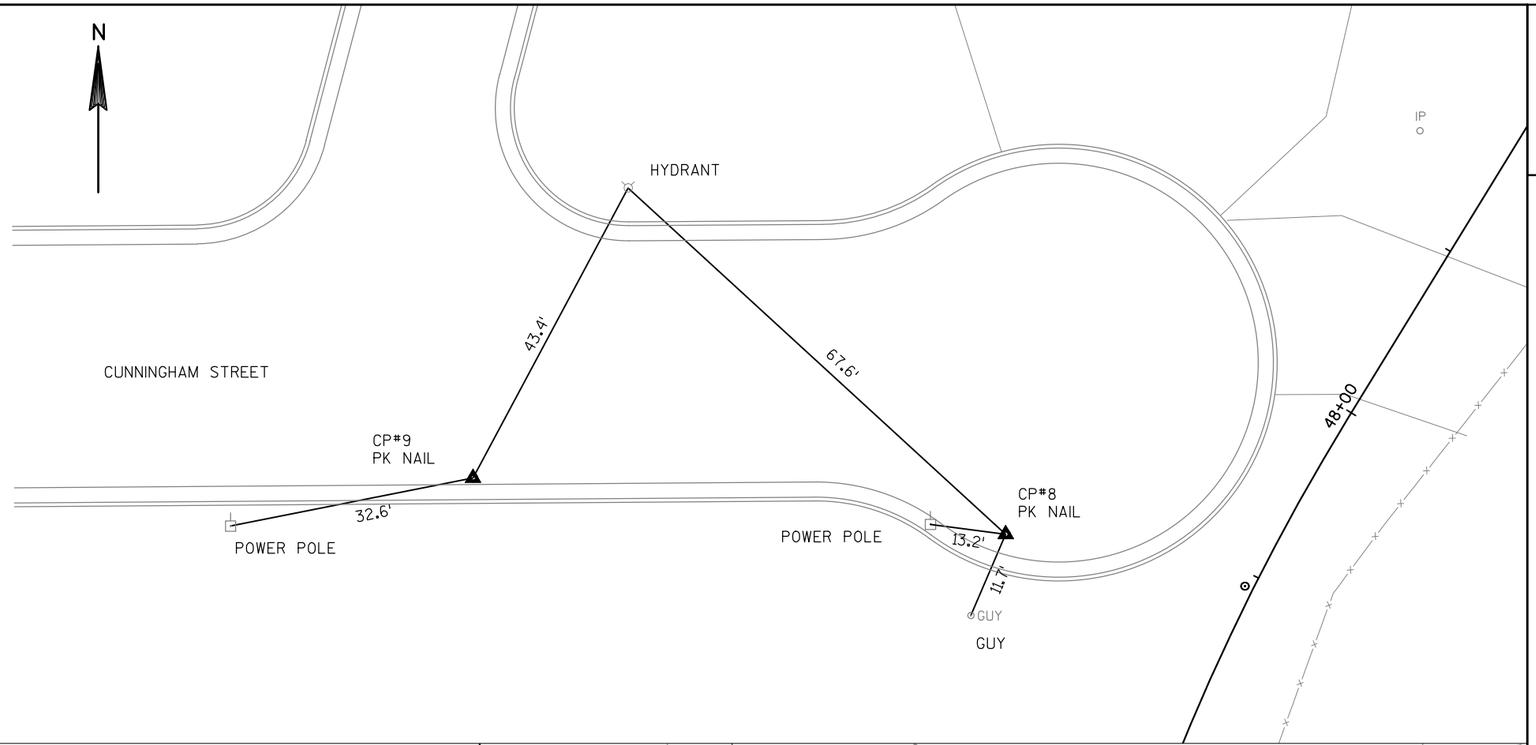
4+00

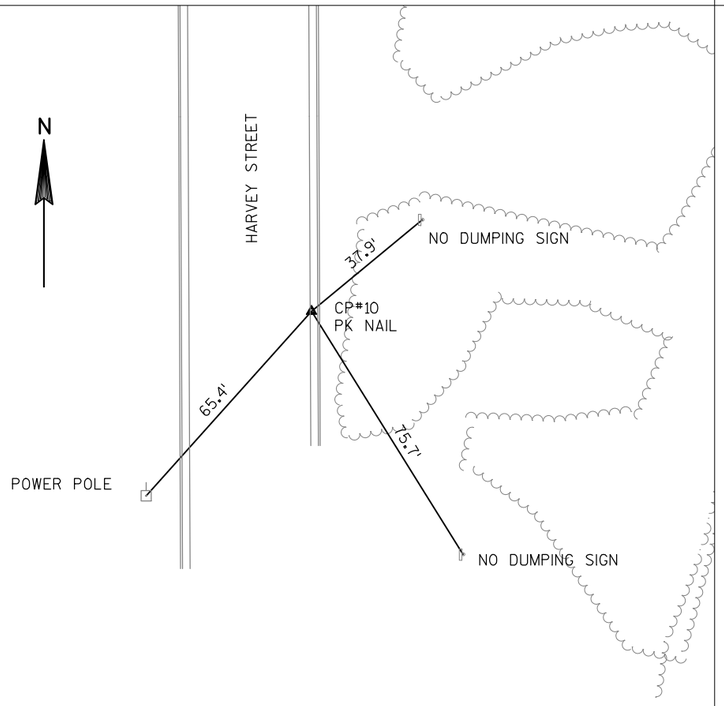
N

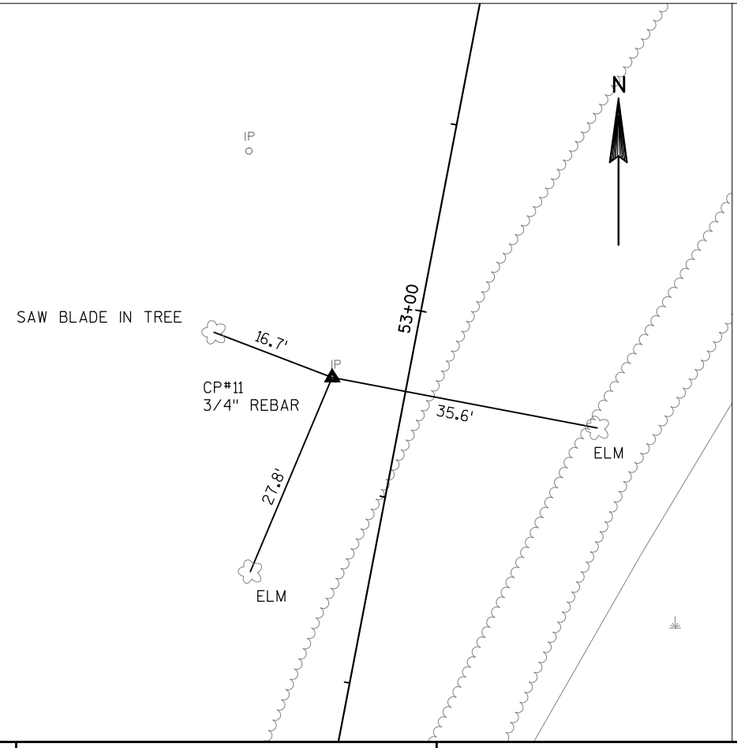
PROJECT NO:5991-05-09/95. 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CONTROL POINT TIES	SHEET 30	E

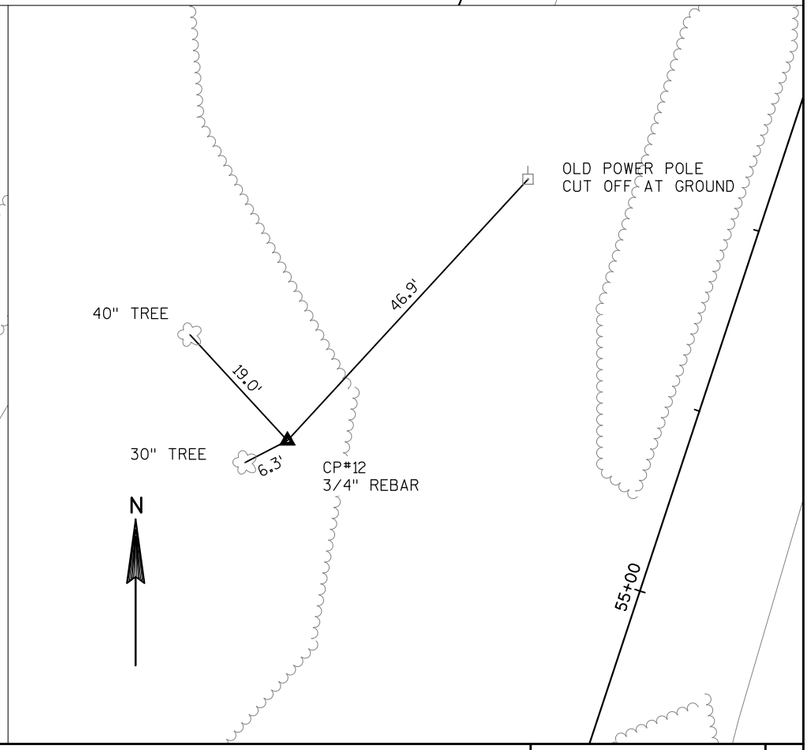
2











PROJECT NO:5991-05-09/95. 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CONTROL POINT TIES	SHEET 31	E

2

HAMILTON STREET

HYDRANT

GUY

GUY

GUY POLE

POWER POLE

43.6'

40.5'

CP#13
PK NAIL

N

6" CHINESE ELM

36.4'

CP#14
1/4" REBAR

14.2'

3" WALNUT

BIKE LANE END
SIGN

60.2'

CP#16
1/4" REBAR

5.3' TO BAC

6.0'

POWER POLE/LIGHT POLE

70+86

70+00

BEAM GUARD

OAK STREET

2

ONALASKA AVENUE

HYDRANT

MOORE STREET

82.6'

CP#15
1/4" REBAR

70.4'

CP#17
PK NAIL

POWER POLE

POWER POLE

PROJECT NO:5991-05-09/95. 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CONTROL POINT TIES	SHEET 32	E

DATE 10JUN14 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	5991-05-09 QUANTITY	5991-05-95 QUANTITY	5991-07-19 QUANTITY
0010	201.0105	CLEARING	STA	34.000	5.000	21.000	8.000
0020	201.0205	GRUBBING	STA	34.000	5.000	21.000	8.000
0030	204.0100	REMOVING PAVEMENT	SY	205.000	205.000		
0040	204.0150	REMOVING CURB & GUTTER	LF	108.000	78.000	30.000	
0050	204.0155	REMOVING CONCRETE SIDEWALK	SY	242.000	242.000		
0060	204.0165	REMOVING GUARDRAIL	LF	75.000			75.000
0070	204.0170	REMOVING FENCE	LF	109.000	76.000	33.000	
0080	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	28.000	19.000	9.000	
0090	204.0195	REMOVING CONCRETE BASES	EACH	3.000	3.000		
0100	204.0205	REMOVING UTILITY POLES	EACH	3.000	2.000	1.000	
0110	204.0215	REMOVING CATCH BASINS	EACH	1.000	1.000		
0120	204.0245	REMOVING STORM SEWER (SIZE) 01. 12-INCH	LF	8.000	8.000		
0130	204.0245	REMOVING STORM SEWER (SIZE) 02. 24-INCH	LF	15.000	15.000		
0140	204.0280	SEALING PIPES	EACH	1.000	1.000		
0150	205.0100	EXCAVATION COMMON	CY	14,380.000	845.000	1,345.000	12,190.000
0160	205.0400	EXCAVATION MARSH	CY	630.000		330.000	300.000
0170	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-32-212	LS	1.000			1.000
0180	208.0100	BORROW	CY	1,210.000			1,210.000
0190	208.1100	SELECT BORROW	CY	11,524.000		729.000	10,795.000
0200	210.0100	BACKFILL STRUCTURE	CY	175.000			175.000
0210	213.0100	FINISHING ROADWAY (PROJECT) 01. 5991-05-09	EACH	1.000	1.000		
0220	213.0100	FINISHING ROADWAY (PROJECT) 02. 5991-05-95	EACH	1.000		1.000	
0230	213.0100	FINISHING ROADWAY (PROJECT) 03. 5991-07-19	EACH	1.000			1.000
0240	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	445.000	110.000	305.000	30.000
0250	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	8,185.000	1,740.000	2,985.000	3,460.000
0260	415.0090	CONCRETE PAVEMENT 9-INCH	SY	18.000	18.000		
0270	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	127.000	32.000	95.000	
0280	416.0610	DRILLED TIE BARS	EACH	172.000	172.000		
0290	416.0620	DRILLED DOWEL BARS	EACH	14.000	14.000		
0300	465.0105	ASPHALTIC SURFACE	TON	790.000	250.000	500.000	40.000
0310	502.0100	CONCRETE MASONRY BRIDGES	CY	909.000			909.000
0320	502.3100	EXPANSION DEVICE (STRUCTURE) 01. B-32-212	LS	1.000			1.000
0330	502.3200	PROTECTIVE SURFACE TREATMENT	SY	723.000			723.000
0340	503.0128	PRESTRESSED GIRDER TYPE I 28-INCH	LF	1,011.000			1,011.000
0350	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	15,710.000			15,710.000
0360	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	124,540.000			124,540.000
0370	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	30.000			30.000
0380	506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	6.000			6.000
0390	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 01. B-32-212	EACH	14.000			14.000
0400	506.6000	BEARING ASSEMBLIES EXPANSION (STRUCTURE) 01. B-32-212	EACH	6.000			6.000
0410	506.8005.S	PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE LRFD (STRUCTURE) 01. B-32-212	LS	1.000			1.000
0420	514.0445	FLOOR DRAINS TYPE GC	EACH	2.000			2.000
0430	514.2625	DOWNSPOUT 6-INCH	LF	41.000			41.000
0440	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	11.000			11.000
0450	520.8000	CONCRETE COLLARS FOR PIPE	EACH	1.000	1.000		
0460	521.0112	CULVERT PIPE CORRUGATED STEEL 12-INCH	LF	84.000		84.000	

3

DATE 10JUN14 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	5991-05-09 QUANTITY	5991-05-95 QUANTITY	5991-07-19 QUANTITY
0470	521.1012	APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH	EACH	8.000		8.000	
0480	550.2102	PILING CIP CONCRETE 10 3/4 X 0.219-INCH	LF	12,440.000			12,440.000
0490	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A	LF	411.000	411.000		
0500	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	141.000	111.000	30.000	
0510	602.0410	CONCRETE SIDEWALK 5-INCH	SF	4,510.000	2,985.000	900.000	625.000
0520	602.0415	CONCRETE SIDEWALK 6-INCH	SF	275.000	275.000		
0530	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	180.000	76.000	80.000	24.000
0540	602.2400	CONCRETE SAFETY ISLANDS	SF	120.000			120.000
0550	604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	115.000			115.000
0560	606.0300	RIPRAP HEAVY	CY	70.000			70.000
0570	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	12.000	12.000		
0580	611.1004	CATCH BASINS 4-FT DIAMETER	EACH	1.000	1.000		
0590	611.8110	ADJUSTING MANHOLE COVERS	EACH	3.000	3.000		
0600	611.8115	ADJUSTING INLET COVERS	EACH	1.000	1.000		
0610	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	101.000			101.000
0620	614.0345	STEEL PLATE BEAM GUARD SHORT RADIUS	LF	25.000			25.000
0630	614.0390	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	EACH	1.000			1.000
0640	619.1000	MOBILIZATION	EACH	1.000	0.050	0.060	0.890
0650	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	24.000			24.000
0660	624.0100	WATER	MGAL	115.000	40.000	70.000	5.000
0670	625.0500	SALVAGED TOPSOIL	SY	8,525.000	1,850.000	3,850.000	2,825.000
0680	627.0200	MULCHING	SY	5,000.000			5,000.000
0690	628.1504	SILT FENCE	LF	5,250.000	1,000.000	2,250.000	2,000.000
0700	628.1520	SILT FENCE MAINTENANCE	LF	10,500.000	2,000.000	4,500.000	4,000.000
0710	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	9.000	2.000	2.000	5.000
0720	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	6.000	2.000	2.000	2.000
0730	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	8,250.000	1,575.000	3,850.000	2,825.000
0740	628.7015	INLET PROTECTION TYPE C	EACH	3.000	3.000		
0750	628.7504	TEMPORARY DITCH CHECKS	LF	90.000	20.000	70.000	
0760	628.7555	CULVERT PIPE CHECKS	EACH	4.000		4.000	
0770	629.0210	FERTILIZER TYPE B	CWT	8.700	1.200	2.500	5.000
0780	630.0120	SEEDING MIXTURE NO. 20	LB	175.000		50.000	125.000
0790	630.0140	SEEDING MIXTURE NO. 40	LB	100.000	30.000	70.000	
0800	630.0200	SEEDING TEMPORARY	LB	200.000	25.000	55.000	120.000
0810	631.0300	SOD WATER	MGAL	6.000	6.000		
0820	631.1000	SOD LAWN	SY	275.000	275.000		
0830	634.0410	POSTS WOOD 4X4-INCH X 10-FT	EACH	19.000	2.000	15.000	2.000
0840	634.0412	POSTS WOOD 4X4-INCH X 12-FT	EACH	13.000	4.000	9.000	
0850	634.0414	POSTS WOOD 4X4-INCH X 14-FT	EACH	2.000			2.000
0860	637.2210	SIGNS TYPE II REFLECTIVE H	SF	127.800	37.860	86.580	3.360
0870	637.2220	SIGNS TYPE II REFLECTIVE SH	SF	20.250		20.250	
0880	637.2230	SIGNS TYPE II REFLECTIVE F	SF	23.750	2.250	6.750	14.750
0890	638.2102	MOVING SIGNS TYPE II	EACH	2.000	1.000		1.000
0900	638.2602	REMOVING SIGNS TYPE II	EACH	4.000	2.000	1.000	1.000
0910	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	4.000	2.000	1.000	1.000
0920	638.4000	MOVING SMALL SIGN SUPPORTS	EACH	3.000	1.000		2.000
0930	642.5001	FIELD OFFICE TYPE B	EACH	1.000			1.000
0940	643.0100	TRAFFIC CONTROL (PROJECT) 01. 5991-05-09	EACH	1.000	1.000		
0950	643.0100	TRAFFIC CONTROL (PROJECT) 02. 5991-05-09	EACH	1.000		1.000	
0960	643.0100	TRAFFIC CONTROL (PROJECT) 03. 5991-05-09	EACH	1.000			1.000

3

DATE 10JUN14 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	5991-05-09 QUANTITY	5991-05-95 QUANTITY	5991-07-19 QUANTITY
0970	643.0300	TRAFFIC CONTROL DRUMS	DAY	3,280.000	1,580.000	100.000	1,600.000
0980	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	124.000	124.000		
0990	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	572.000	32.000	40.000	500.000
1000	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	768.000	188.000	80.000	500.000
1010	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	1,150.000	400.000		750.000
1020	643.0900	TRAFFIC CONTROL SIGNS	DAY	2,560.000	460.000	100.000	2,000.000
1030	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	8,100.000			8,100.000
1040	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	350.000	350.000		
1050	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	115.000	115.000		
1060	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	2.000	2.000		
1070	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	42.000	42.000		
1080	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	1.000			1.000
1090	647.0776	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH	LF	375.000	230.000		145.000
1100	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	1,760.000	1,760.000		
1110	649.0801	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH	LF	100.000	100.000		
1120	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	1.000	1.000		
1130	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	5,790.000	1,780.000	3,715.000	295.000
1140	650.5000	CONSTRUCTION STAKING BASE	LF	5,790.000	1,780.000	3,715.000	295.000
1150	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	315.000	315.000		
1160	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	4.000		4.000	
1170	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-32-212	LS	1.000			1.000
1180	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5991-05-09	LS	1.000	1.000		
1190	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 02. 5991-05-09	LS	1.000		1.000	
1200	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 03. 5991-05-09	LS	1.000			1.000
1210	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	5,510.000	1,500.000	3,715.000	295.000
1220	690.0150	SAWING ASPHALT	LF	306.000	196.000	110.000	
1230	690.0250	SAWING CONCRETE	LF	330.000	318.000	12.000	
1240	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	5,436.000			5,436.000
1250	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	600.000	600.000		
1260	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	1,200.000	1,200.000		
1270	SPV.0060	SPECIAL 01. INLET COVERS SPECIAL VANED	EACH	1.000	1.000		
1280	SPV.0090	SPECIAL 01. CONDUIT HDPE 2-DUCT 2-INCH WITH TRACER WIRE	LF	2,800.000		2,800.000	
1290	SPV.0105	SPECIAL 01. RAILING TUBULAR SCREENING B-32-212 (MODIFIED)	LS	1.000			1.000
1300	SPV.0105	SPECIAL 02. RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN B-32-212	LS	1.000			1.000
1310	SPV.0165	SPECIAL 01. TEMPORARY SHORING RAILROAD	SF	870.000			870.000
1320	SPV.0180	SPECIAL 01. CONCRETE PAVEMENT SIDEWALK APPROACH SLAB	SY	30.000			30.000

3

CLEARING AND GRUBBING

PROJECT NO.	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
5991-05-09	10+00	-	11+00	M/L	1	1
5991-05-09	13+00	-	17+00	M/L	4	4
			TOTAL 5991-05-09		**5**	**5**
5991-05-95	25+00	-	27+00	M/L	2	2
5991-05-95	29+00	-	33+00	M/L	4	4
5991-05-95	36+00	-	37+00	M/L	1	1
5991-05-95	48+00	-	59+50	M/L	12	12
5991.05-95	100+30	-	102+00	CAMPBELL ST	2	2
			TOTAL 5991-05-95		**21**	**21**
5991-07-19	59+50	-	66+00	M/L	6	6
5991-07-19	69+00	-	70+85	M/L	2	2
			TOTAL 5991-07-19		**8**	**8**
			PROJECT TOTAL		**34**	**34**

REMOVING CONCRETE SIDEWALK

PROJECT NO.	STATION	TO	STATION	LOCATION	204.0155 REMOVING CONCRETE SIDEWALK SY
5991-05-09	500+02	-	502+73	GILLETTE ST	220
5991-05-09	16+15			M/L	18
5991-05-09	17+59			M/L, RT	4
				TOTAL 5991-05-09	**242**

REMOVING CONCRETE BASES

PROJECT NO.	STATION	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
5991-05-09	21+05	LT	1
5991-05-09	23+30	RT	1
5991-05-09	24+15	RT	1
		TOTAL 5991-05-09	**3**

REMOVING PAVEMENT

PROJECT NO.	STATION	TO	STATION	LOCATION	204.0100 REMOVING PAVEMENT SY
5991-05-09	500+00	-	502+67	GILLETTE ST	205
				TOTAL 5991-05-09	**205**

REMOVING CURB & GUTTER

PROJECT NO.	STATION	TO	STATION	LOCATION	204.0150 REMOVING CURB & GUTTER LF
5991-05-09	500+00	-	500+47	GILLETTE ST	47
5991-05-09	502+67	-	502+80	GILLETTE ST	13
5991-05-09	100+22			GOHRES ST	18
				TOTAL 5991-05-09	**78**
5991-05-95	100+31			CAMPBELL ST	30
				TOTAL 5991-05-95	**30**
				PROJECT TOTAL	**108**

REMOVING FENCE

PROJECT NO.	STATION	TO	STATION	LOCATION	204.0170 REMOVING FENCE LF
5991-05-09	20+83			M/L	46
5991-05-09	24+55			M/L	30
				TOTAL 5991-05-09	**76**
5991-05-95	28+83	-	29+16	M/L, LT	33
				TOTAL 5991-05-95	**33**
				PROJECT TOTAL	**109**

REMOVING GUARDRAIL

PROJECT NO.	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
5991-07-19	70+85			M/L, LT & RT	75
				TOTAL 5991-07-19	**75**

EARTHWORK SUMMARY

Division	From/To Station	Location	205.0100 Excavation Common		Salvaged/ Unusable Pavement Material	Available Material (2)	205.04000 Excavation Marsh (3)	Reduced Marsh in Fill (4)	Reduced EBS in Fill (5)	Expanded Marsh Backfill (6)	Expanded EBS Backfill (7)	Unexpanded Fill	Expanded Fill	Mass Ordinate +/- (8)	Waste	208.0100 Borrow	208.1100 Select Borrow	Comment:
			Cut (1)	EBS Excavation				Factor 0.60	Factor 0.80	Factor 1.50	Factor 1.30		Factor 1.25					
1	500+00 - 502+80	GILLETTE ST	150	0	40	110	0	0	0	0	0	5	6	104				
	10+00 - 24+74	MAINLINE	650	0	25	625	0	0	0	0	0	110	138	488				
	300+35 - 300+65	NORTH ST	45	0	9	36	0	0	0	0	0	0	0	36				
Division 1 Subtotal (5991-05-09)			**845**	**0**	**74**	**771**	**0**	**0**	**0**	**0**	**0**	**115**	**144**	**627**	**627**	**0**	**0**	
		Total Common Ex.	**845**															
2	25+08 - 59+50	MAINLINE	975	0	0	975	150	90	0	225	0	1200	1388	-413			225	
	200+30 - 200+61	MOORE ST	25	0	5	20	0	0	0	0	0	0	0	20				
	100+57 - 100+95	HAYES ST	20	0	2	18	0	0	0	0	0	0	0	18				
	100+19 - 100+95	PALACE ST	65	0	2	63	0	0	0	0	0	0	0	63				
	100+28 - 101+95	CAMPBELL ST	80	0	2	78	0	0	0	0	0	5	6	72				
	UNDISTRIBUTED		0	180	0	0	180	108	0	270	234	0	0	0			504	
Division 2 Subtotal (5991-05-95)			**1,165**	**180**	**11**	**1,154**	**330**	**198**	**0**	**495**	**234**	**1,205**	**1,394**	**-240**	**0**	**0**	**729**	See Note 9
		Total Common Ex.	**1345**															
3	59+50 - 62+10	MAINLINE	30	0	0	30	150	90	0	225	0	1350	1575	-1545		1157	225	
	70+48 - 70+86	MAINLINE	10	0	0	10	0	0	0	0	0	50	63	-53		53		
	UNDISTRIBUTED		0	150	0	0	150	90	120	225	195	0	0	0			420	
	STAGING AREA		12000	0	0	0	0	0	0	0	0	0	0	0	12000		10150	See Note 11
Division 3 Subtotal (5991-07-19)			**12,040**	**150**	**0**	**40**	**300**	**180**	**120**	**450**	**195**	**1,400**	**1,638**	**-1,598**	**12,000**	**1,210**	**10,795**	See Note 10
		Total Common Ex.	**12190**															
		Project Totals	**14,380**				**630**									**1,210**	**11,524**	

NOTES:

1) Salvaged/Unusable Pavement Material is included in Cut
2) Available Material = Cut - Salvaged/Unusable Pavement Material
3) Approximate Excavation Marsh locations Sta. 49+00 - 52+00 and 60+50 - 61+75.
4) Reduced Marsh in Fill - Excavated Marsh material is usuable in Fills outside the 1:1 slope. Marsh in Fill Reduction factor = 0.6
5) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
6) Expanded Marsh Backfill - This is to be filled with Select Borrow material. Marsh Backfill Factor = 1.5. Item number 208.1100
7) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.1100
8) 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.
9) Use 240 CY of material from Division 1.
10) Use 387 CY of material from Division 1. Remainder of fill material required is considered Borrow, item number 208.0100
11) Staging Area Material - When bridge construction is complete, remove staging area material (Geotextile Fabric, Select Borrow and Base Aggregate Dense 1-1/4 Inch) using the Excavation Common bid item

REMOVING DELINEATORS AND MARKERS

PROJECT NO.	STATION	TO	STATION	LOCATION	204.0180 REMOVING DELINEATORS & MARKERS EACH
5991-05-09	16+50	-	19+00	M/L	19
				TOTAL 5991-05-09	**19**
5991-05-95			34+85	M/L	9
				TOTAL 5991-05-95	**9**
				PROJECT TOTAL	**28**

REMOVING UTILITY POLES

PROJECT NO.	STATION	LOCATION	204.0205 REMOVING UTILITY POLES EACH
5991-05-09	18+25	M/L, LT	1
5991-05-09	18+85	M/L, RT	1
		TOTAL 5991-05-09	**2**
5991-05-95	33+30	M/L, LT	1
		TOTAL 5991-05-95	**1**
		PROJECT TOTAL	**3**

REMOVING STORM SEWER (SIZE)

PROJECT NO.	STATION	LOCATION	204.0245 REMOVING STORM SEWER 01.12-INCH LF	204.0245 REMOVING STORM SEWER 02.24-INCH LF
5991-05-09	501+43	GILLETTE ST, LT	8	-
5991-05-09	501+50	GILLETTE ST, RT	-	15
		TOTAL 5991-05-09	**8**	**15**

REMOVING CATCH BASIN

PROJECT NO.	STATION	LOCATION	204.0215 REMOVING CATCH BASIN EACH
5991-05-09	501+43	LT	1
		TOTAL 5991-05-09	**1**

SEALING PIPES

PROJECT NO.	STATION	LOCATION	204.0280 SEALING PIPES EACH
5991-05-09	501+42	GILLETTE ST, LT	1
		TOTAL 5991-05-09	**1**

3

BASE AGGREGATE DENSE

PROJECT NO.	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4 INCH TON	305.0120 BASE AGGREGATE DENSE 1-1/4 INCH TON
5991-05-09	500+00	-	502+80	GILLETTE ST	-	160
5991-05-09	10+00	-	24+74	M/L	105	1,525
5991-05-09	300+35	-	300+65	NORTH ST	5	55
				TOTAL 5991-05-09	**110**	**1,740**
5991-05-95	25+08	-	59+50	M/L	275	2,765
5991-05-95	100+58	-	100+95	HAYES ST	5	30
5991-05-95	100+19	-	100+95	PALACE ST	10	60
5991-05-95	100+28	-	101+95	CAMPBELL ST	15	130
				TOTAL 5991-05-95	**305**	**2,985**
5991-07-19	59+50	-	62+10	M/L	25	225
5991-07-19	70+47		70+86	M/L	5	60
5991-07-19	STAGING AREAS				-	3,175
				TOTAL 5991-07-19	**30**	**3,460**
				PROJECT TOTAL	**445**	**8,185**

DRILLED TIE BARS

PROJECT NO.	STATION	TO	STATION	LOCATION	416.0610 DRILLED TIE BARS EACH
5991-05-09	500+43	-	501+41	GILLETTE ST, RT	40
5991-05-09	501+41	-	501+61	GILLETTE ST, RT	8
5991-05-09	501+61	-	502+67	GILLETTE ST, RT	44
5991-05-09	16+50	-	18+46	CREDUT UNION CT	80
				TOTAL 5991-05-09	**172**

DRILLED DOWEL BARS

PROJECT NO.	STATION	LOCATION	416.0620 DRILLED DOWEL BARS EACH
5991-05-09	501+41	GILLETTE ST, RT	7
5991-05-09	501+61	GILLETTE ST, RT	7
		TOTAL 5991-05-09	**14**

CONCRETE PAVEMENT 9-INCH

PROJECT NO.	STATION	TO	STATION	LOCATION	415.0090 CONCRETE PAVEMENT 9-INCH SY
5991-05-09	501+41	-	501+61	GILLETTE ST, RT	18
				TOTAL 5991-05-09	**18**

CONCRETE DRIVEWAY 6-INCH

PROJECT NO.	STATION	TO	STATION	LOCATION	416.0160 CONCRETE DRIVEWAY 6-INCH SY
5991-05-09	501+00			GILLETTE ST, LT	32
				TOTAL 5991-05-09	**32**
5991-05-95	47+98	-	48+26	M/L	95
				TOTAL 5991-05-95	**95**
				PROJECT TOTAL	**127**

ASPHALTIC SURFACE

PROJECT NO.	STATION	TO	STATION	LOCATION	465.0105 ASPHALTIC SURFACE TON
5991-05-09	500+00	-	500+43	GILLETTE ST, RT	5
5991-05-09	10+00	-	24+50	M/L	215
5991-05-09	16+50	-	16+59	ALLEY ENTRANCE	10
5991-05-09	300+35	-	300+65	NORTH ST	15
5991-05-09	VARIES LOCATIONS			C&G	5
				TOTAL 5991-05-09	**250**
5991-05-95	25+32	-	33+84	M/L	115
5991-05-95	34+40	-	47+98	M/L	185
5991-05-95	48+26	-	59+50	M/L	150
5991-05-95	200+30	-	200+61	MOORE ST	15
5991-05-95	100+57		100+95	HAYES ST	5
5991-05-95	100+19		100+95	PALACE ST	10
5991-05-95	100+51		101+95	CAMPBELL ST	20
				TOTAL 5991-05-95	**500**
5991-07-19	59+50	-	62+10	M/L	40
				TOTAL 5991-07-19	**40**
				PROJECT TOTAL	**790**

3

CONCRETE COLLARS FOR PIPE

PROJECT NO.	STATION	LOCATION	520.8000 CONCRETE COLLARS FOR PIPE EACH	REMARKS
5991-05-09	501+55	GILLETTE ST	1	CONNECTION TO EXISTING STORM SEWER PIPE
		TOTAL 5991-05-09	**1**	

CULVERT PIPES

PROJECT NO.	STATION	LOCATION	521.0112 CULVERT PIPE CORRUGATED STEEL 12-INCH LF	521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH EACH	REMARKS
5991-05-95	27+00	M/L	44	4	2 PIPES
5991-05-95	30+50	M/L	40	4	2 PIPES
		TOTAL 5991-05-95	**84**	**8**	

MINIMUM THICKNESS OF 12-INCH CULVERT PIPE CORRUGATED STEEL IS 0.064 INCHES.

CURB RAMP DETECTABLE WARNING FIELD YELLOW

PROJECT NO.	STATION	LOCATION	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
5991-05-09	500+13	GILLETTE ST, LT	8
5991-05-09	500+22	GILLETTE ST, LT	8
5991-05-09	502+70	GILLETTE ST, LT	20
5991-05-09	100+25	GOHRES ST	20
5991-05-09	24+72	M/L	20
		TOTAL 5991-05-09	**76**
5991-05-95	25+10	M/L	20
5991-05-95	34+02	M/L	20
5991-05-95	34+21	M/L	20
5991-05-95	100+32	CAMPBELL ST	20
		TOTAL 5991-05-95	**80**
5991-07-19	70+80	M/L, LT	8
5991-07-19	70+83	M/L, RT	16
		TOTAL 5991-07-19	**24**
		PROJECT TOTAL	**180**

CONCRETE CURB & GUTTER

PROJECT NO.	STATION	TO	STATION	LOCATION	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF
5991-05-09	500+00	-	500+43	GILLETTE ST	-	43
5991-05-09	500+43	-	502+67	GILLETTE ST	224	-
5991-05-09	502+67	-	502+80	GILLETTE ST	-	13
5991-05-09	16+50	-	16+59	CREDIT UNION CT	-	35
5991-05-09	16+59	-	18+46	CREDIT UNION CT	187	-
5991-05-09	100+30			GOHRES ST, LT & RT	-	20
				TOTAL 5991-05-09	**411**	**111**
5991-05-95	100+30			CAMPBELL ST, LR & RT	-	30
				TOTAL 5991-05-95	**-**	**30**
				PROJECT TOTAL	**411**	**141**

CONCRETE SIDEWALK

PROJECT NO.	STATION	TO	STATION	LOCATION	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF
5991-05-09	500+03	-	500+84	GILLETTE ST, LT	730	-
5991-05-09	500+84	-	501+11	GILLETTE ST, LT	-	275
5991-05-09	501+11	-	502+75	GILLETTE ST, LT	1625	-
5991-05-09	16+15			M/L, LT & RT	110	-
5991-05-09	17+60			M/L RT	45	-
5991-05-09	100+20	-	100+40	GOHRES ST	170	-
5991-05-09	24+50	-	24+74	M/L	305	-
				TOTAL 5991-05-09	**2,985**	**275**
5991-05-95	25+08	-	25+32	M/L	300	-
5991-05-95	33+84	-	34+04	M/L	200	-
5991-05-95	34+20	-	34+40	M/L	200	-
5991-05-95	100+31	-	100+51	CAMPBELL ST	200	-
				TOTAL 5991-05-95	**900**	**0**
5991-07-19	63+80, RT			M/L @ DOWNSPOUT	25	-
5991-07-19	65+45, RT			M/L @ DOWNSPOUT	25	
5991-07-19	70+49	-	70+85	M/L	575	-
				TOTAL 5991-07-19	**625**	**0**
				PROJECT TOTAL	**4,510**	**275**

3

CONCRETE SAFETY ISLANDS

PROJECT NO.	STATION	TO	STATION	LOCATION	602.2400 CONCRETE SAFETY ISLANDS SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
5991-07-19	70+75	-	70+85	M/L	120	24
				TOTAL 5991-07-19	**120**	**24**

STORM SEWER PIPE

PROJECT NO.	STATION	OFFSET	LOCATION	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF
5991-05-09	501+50	1.5' RT	GILLETTE ST	12
			TOTAL 5991-05-09	**12**

STORM SEWER STRUCTURE SUMMARY

PROJECT NO.	STRUCTURE	STATION	OFFSET FEET	LOCATION	611.1004 CATCH BASINS 4-FT DIAMETER EACH	SPV.0060.01 INLET COVERS SPECIAL VANED EACH	FLAG ELEV.	TOP STRUCTURE ELEV.	BOTTOM STRUCTURE ELEV.	DEPTH FT
5991-05-09	1-1	501+50	1.5' RT	GILLETTE ST	1	1	643.88	642.84	637.05	5.79
				TOTAL 5991-05-09	**1**	**1**				

MOBILIZATION

PROJECT NO.	STATION	TO	STATION	619.1000 EA
5991-05-09	9+85	-	25+00	0.05
5991-05-95	25+00	-	59+50	0.06
5991-07-19	59+50	-	70+86	0.89
			PROJECT TOTAL	**1**

ADJUSTING COVERS

PROJECT NO.	STATION	LOCATION	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	REMARKS
5991-05-09	501+42.4	GILLETTE ST, 3.7 RT	1	-	STORM SEWER MANHOLE
5991-05-09	501+76.1	GILLETTE ST, 8.4 LT	1	-	STORM SEWER MANHOLE
5991-05-09	502+62.6	GILLETTE ST, 0.0 LT	-	1	
5991-05-09	15+98.0	M/L 4.0' LT	1	-	TELEPHONE MANHOLE
		TOTAL 5991-05-09	**3**	**1**	

RIPRAP HEAVY

PROJECT NO.	LOCATION	606.0300 RIPAP HEAVY CY
5591-07-19	NORTH BRIDGE ABUTMENT, RT	70
	TOTAL 5991-07-19	**70**

BEAMGUARD

PROJECT NO.	STATION	TO	STATION	LOCATION	614.0345 STEEL PLATE BEAM GUARD SHORT RADIUS LF	614.0390 STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL EACH
5991-07-19	70+70			M/L, LT	-	1
5991-07-19	70+70	-	70+84	M/L, LT	25	-
				TOTAL 5991-07-19	**25**	**1**

WATER

PROJECT NO.	624.0100 WATER MGAL	REMARKS
5991-05-09	18.5	BASE AGGREGATE
5991-05-09	21.5	DUST CONTROL
TOTAL 5991-05-09	**40.0**	
5991-05-95	32.9	BASE AGGREGATE
5991-05-95	37.1	DUST CONTROL
TOTAL 5991-05-95	**70.0**	
5991-07-19	3.1	BASE AGGREGATE
5991-07-19	1.9	DUST CONTROL
TOTAL 5991-07-19	**5.0**	
PROJECT TOTAL	**115.0**	

LANDSCAPING ITEMS

PROJECT NO.	STATION TO STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB	** 630.0200 SEEDING TEMPORARY LB	631.1000 SOD LAWN SY	631.0300 SOD WATER MGAL
5991-05-09	500+00 - 502+80	GILLETTE ST	275	-	-	0.2	-	-	-	275	6
5991-05-09	10+00 - 24+74	M/L	1,575	1,575	-	1.0	-	30	25	-	-
		TOTAL 5991-05-09	**1,850**	**1,575**	**0**	**1.2**	**0**	**30**	**25**	**275**	**6**
5991-05-95	25+08 - 59+50	M/L	3,850	3,850	-	2.5	50	70	55	-	-
		TOTAL 5991-05-95	**3,850**	**3,850**	**0**	**2.5**	**50**	**70**	**55**	**0**	**0**
5991-07-19	59+50 - 70+85	M/L	1,325	1,325	-	0.8	40	-	20	-	-
5991-07-19	UNDISTRIBUTED FOR BRIDGE	-	1,500	1,500	-	1.0	40	-	20	-	-
5991-07-19	UNDISTRIBUTED BORROW SITE	-	-	-	5,000	3.2	45	-	80	-	-
		TOTAL 5991-07-19	**2,825**	**2,825**	**5,000**	**5.0**	**125**	**0**	**120**	**0**	**0**
		PROJECT TOTAL	**8,525**	**8,250**	**5,000**	**8.7**	**175**	**100**	**200**	**275**	**6**

SOD REQUIRED ALONG GILLETTE STREET (STA. 500+00 - 502+80)
SEEDING MIXTURE NO. 40 REQUIRED ALONG MULTI-USE TRAIL BETWEEN STA. 10+00 - 50+50
EEDING MIXTURE NO. 20 REQUIRED ALONG MULTI-USE TRAIL BETWEEN STA. 50+50 - 70+85 AND ON BORROW SIT
**SEEDING TEMPORARY REQUIRED ON ALL AREAS TO BE SEEDED (CALCULATED AT 1.5#/1000 SF)

SILT FENCE

PROJECT NO.	STATION TO STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
5991-05-09	10+00 - 11+00	M/L, RT	200	400
5991-05-09	10+75 - 12+50	M/L, LT	175	350
5991-05-09	12+50 - 15+50	M/L, RT	300	600
5991-05-09	23+00 - 24+75	M/L, RT	175	350
5991-05-09	UNDISTRIBUTED	-	150	300
		TOTAL 5991-05-09	**1000**	**2000**
5991-05-95	25+00 - 33+50	M/L, RT	850	1700
5991-05-95	32+50 - 34+00	M/L, LT	150	300
5991-05-95	34+25 - 38+75	M/L, LT	450	900
5991-05-95	41+75 - 43+25	M/L, LT	150	300
5991-05-95	48+25 - 52+25	M/L, RT	400	800
5991-05-95	UNDISTRIBUTED	-	250	500
		TOTAL 5991-05-95	**2250**	**4500**
5991-07-19	59+75 - 62+40	M/L, LT & RT	600	1200
5991-07-19	69+90 - 75+86	M/L, LT & RT	200	400
5991-07-19	STAGING AREA	VARIOUS	500	1000
5991-07-19	BORROW SITE	-	500	1000
5991-07-19	UNDISTRIBUTED	-	200	400
		TOTAL 5991-07-19	**2000**	**4000**
		PROJECT TOTAL	**5,250**	**10,500**

EROSION CONTROL ITEMS

PROJECT NO.	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
5991-05-09	2	2	3	20	-
5991-05-95	2	2	-	70	4
5991-07-19	5	2	-	-	-
PROJECT TOTAL	**9**	**6**	**3**	**90**	**4**

GEOTEXTILE FABRIC

PROJECT NO.	LOCATION	645.0120 GEOTEXTILE TYPE HR SY
5991-07-19	STAGING AREA & ACCESS RD	8000
5591-07-19	NORTH BRIDGE ABUTMENT, RT	100
	TOTAL 5991-07-19	**8,100**

SIGNING

PROJECT NO.	SIGN NO.	SIGN CODE	MESSAGE	SIZE	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2220 SIGNS TYPE II REFLECTIVE SH SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0410 POSTS WOOD 4x4 - INCH 10-FT EACH	634.0412 POSTS WOOD 4x4 - INCH 12-FT EACH	634.0414 POSTS WOOD 4x4 - INCH 14-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
5991-05-09	100A	I55-56MOD	ADOPT-A-HIGHWAY	-	-	-	-	-	-	-	1	1	-	-	
5991-05-09	101A	-	BUS STOP	-	-	-	-	-	-	-	-	-	1	1	
5991-05-09	102A	-	NO TRESSPASSING	-	-	-	-	-	-	-	-	-	1	1	
5991-05-09	103	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
5991-05-09	104	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
5991-05-09	105	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
5991-05-09	106	W3-1	STOP AHEAD SYMBOL MESSAGE	18 x 18	-	-	2.25	1	-	-	-	-	-	-	
5991-05-09	107	R1-1	STOP SIGN	18 x 18	1.86	-	-	1	-	-	-	-	-	-	
5991-05-09	108	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
				TOTAL 5991-05-09	**37.86**	**0.00**	**2.25**	**2**	**4**	**0**	**1**	**1**	**2**	**2**	
5991-05-95	109	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
5991-05-95	110	R1-1	STOP SIGN	18 x 18	1.86	-	-	1	-	-	-	-	-	-	
5991-05-95	111	W3-1	STOP AHEAD SYMBOL MESSAGE	18 x 18	-	-	2.25	1	-	-	-	-	-	-	
5991-05-95	112A	W5-56A	END OF ROAD MARKER W/RED DELINEATORS	-	-	-	-	-	-	-	-	-	1	1	
5991-05-95	113	W5-56A	END OF ROAD MARKER W/RED DELINEATORS	18 x 18	-	2.25	-	1	-	-	-	-	-	-	
5991-05-95	114	W5-56A	END OF ROAD MARKER W/RED DELINEATORS	18 x 18	-	2.25	-	1	-	-	-	-	-	-	
5991-05-95	115	W5-56A	END OF ROAD MARKER W/RED DELINEATORS	18 x 18	-	2.25	-	1	-	-	-	-	-	-	
5991-05-95	116	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
5991-05-95	117	W3-1	STOP AHEAD SYMBOL MESSAGE	18 x 18	-	-	2.25	1	-	-	-	-	-	-	
5991-05-95	118	R1-1	STOP SIGN	18 x 18	1.86	-	-	1	-	-	-	-	-	-	
5991-05-95	119	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
5991-05-95	120	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
5991-05-95	121	R1-1	STOP SIGN	18 x 18	1.86	-	-	1	-	-	-	-	-	-	
5991-05-95	122	W3-1	STOP AHEAD SYMBOL MESSAGE	18 x 18	-	-	2.25	1	-	-	-	-	-	-	
5991-05-95	123	W5-56A	END OF ROAD MARKER W/RED DELINEATORS	18 x 18	-	2.25	-	1	-	-	-	-	-	-	
5991-05-95	124	W5-56A	END OF ROAD MARKER W/RED DELINEATORS	18 x 18	-	2.25	-	1	-	-	-	-	-	-	
5991-05-95	125	W5-56A	END OF ROAD MARKER W/RED DELINEATORS	18 x 18	-	2.25	-	1	-	-	-	-	-	-	
5991-05-95	126	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
5991-05-95	127	W5-56A	END OF ROAD MARKER W/RED DELINEATORS	18 x 18	-	2.25	-	1	-	-	-	-	-	-	
5991-05-95	128	W5-56A	END OF ROAD MARKER W/RED DELINEATORS	18 x 18	-	2.25	-	1	-	-	-	-	-	-	
5991-05-95	129	W5-56A	END OF ROAD MARKER W/RED DELINEATORS	18 x 18	-	2.25	-	1	-	-	-	-	-	-	
5991-05-95	130	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
5991-05-95	131	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
5991-05-95	132	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
5991-05-95	133	R5-57	PEDESTRIANS/BICYCLES	36 x 36	9.00	-	-	-	1	-	-	-	-	-	
				TOTAL 5991-05-95	**86.58**	**20.25**	**6.75**	**15**	**9**	**0**	**0**	**0**	**1**	**1**	
5991-07-19	134	W3-1	STOP AHEAD SYMBOL MESSAGE	18 x 18	-	-	2.25	1	-	-	-	-	-	-	
5991-07-19	135	R1-1	STOP SIGN	18 x 18	1.86	-	-	1	-	-	-	-	-	-	
5991-07-19	136	W11-1	BICYCLE SYMBOL	30 x 30	-	-	6.25	-	-	1	-	-	-	-	
5991-07-19	137	M7-4	ARROW TILT LT	12 X 9	0.75	-	-	-	-	-	-	-	-	-	SAME POST AS 136
5991-07-19	138	W11-1	BICYCLE SYMBOL	30 x 30	-	-	6.25	-	-	1	-	-	-	-	
5991-07-19	139	M7-4	ARROW TILT LT	12 X 9	0.75	-	-	-	-	-	-	-	-	-	SAME POST AS 138
5991-07-19	140A	-	BUD HENDRICKSON NATURE TRAIL	-	-	-	-	-	-	-	1	2	-	-	
5991-07-19	141A	-	PRIVATE CROSSING	-	-	-	-	-	-	-	-	-	1	1	
				TOTAL 5991-07-19	**3.36**	**0.00**	**14.75**	**2**	**0**	**2**	**1**	**2**	**1**	**1**	
				PROJECT TOTAL	**127.80**	**20.25**	**23.75**	**19**	**13**	**2**	**2**	**3**	**4**	**4**	

TRAFFIC CONTROL ITEMS

PROJECT NO.	LOCATION	DAYS	643.0300 TRAFFIC CONROL DRUMS DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0900 TRAFFIC CONTROL SIGNS DAYS
5991-05-09	GILLETTE ST	20	1,400	100	20	140	400	400
5991-05-09	CREDIT UNION CT	12	180	24	12	48	-	60
	TOTAL 5991-05-09		**1580**	**124**	**32**	**188**	**400**	**460**
5991-05-95	UNDISTRIBUTED	10	100	-	40	80	-	100
	TOTAL 5991-05-95		**100**	**0**	**40**	**80**	**0**	**100**
5991-07-19	OAK ST.	50	600	-	-	-	250	500
5991-07-19	UNDISTRIBUTED BRIDGE	50	1,000	-	500	500	500	1,500
	TOTAL 5991-07-19		**1600**	**0**	**500**	**500**	**750**	**2000**
	PROJECT TOTAL		**3,280**	**124**	**572**	**768**	**1,150**	**2,560**

PAVEMENT MARKING

PROJECT NO.	STATION	TO STATION	LOCATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH LF	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 EACH	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH LF	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY EACH	647.0776 PAVEMENT MARKING CROSSWALK EPOXY 12-INCH LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH LF	649.0801 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH LF	REMARKS
5991-05-09	500+38	- 502+53	GILLETTE ST, RT	350	-	-	-	-	-	-	-	WHITE EDGE LINES
5991-05-09	500+37	- 501+56	GILLETTE ST, RT	-	115	-	-	-	-	-	-	WHITE CHANNELIZING LANE LINE
5991-05-09	500+37	- 501+56	GILLETTE ST, RT	-	-	2	-	-	-	-	-	GILLETTE ST/TURN LANE TO RANGER ST.
5991-05-09	500+34		GILLETTE ST	-	-	-	25	-	-	-	-	
5991-05-09	502+80		GILLETTE PL	-	-	-	17	-	-	-	-	
5991-05-09	GILLETTE ST INTER		ONALASKA AVE	-	-	-	-	-	74	-	-	
5991-05-09	ONALASKA AVE INTER		GILLETTE ST	-	-	-	-	-	121	-	-	
5991-05-09	GILLETTE ST INTER.		GILLETTE PL	-	-	-	-	-	35	-	-	
5991-05-09	TRAFFIC CONTROL		GILLETTE ST	-	-	-	-	-	-	470	-	WHITE EDGE LINE
5991-05-09	TRAFFIC CONTROL		GILLETTE ST	-	-	-	-	-	-	530	-	DOUBLE YELLOW MEDIAN AT INTERSECTION
5991-05-09	TRAFFIC CONTROL		GILLETTE ST	-	-	-	-	-	-	670	-	YELLOW TAPER/RIGHT TURN LANE
5991-05-09	TRAFFIC CONTROL		GILLETTE ST	-	-	-	-	-	-	90	-	BLACK SKIP REMOVAL
5991-05-09	TRAFFIC CONTROL		GILLETTE ST	-	-	-	-	-	-	-	100	WHITE CHANNELIZING LANE LINE
			TOTAL 5991-05-09	**350**	**115**	**2**	**42**	**0**	**230**	**1760**	**100**	
5991-07-19	ENTERPRISE AVE		OAK ST	-	-	-	-	1	145	-	-	
			TOTAL 5991-07-19	**0**	**0**	**0**	**0**	**1**	**145**	**0**	**0**	
			PROJECT TOTAL	**350**	**115**	**2**	**42**	**1**	**375**	**1760**	**100**	

3

CONSTRUCTION STAKING

PROJECT NO.	STATION	TO	STATION	LOCATION	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.6000 CONSTRUCTION STAKING CULVERT PIPES EACH	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
5991-05-09	500+00	-	502+80	GILLETTE ST	1	280	280	280	-	-	-
5991-05-09	10+00	-	25+00	M/L	-	1,500	1,500	-	-	-	1,500
5991-05-09	16+50		16+59	CREDIT UNION INTER.	-	-	-	35	-	-	-
				TOTAL 5991-05-09	**1**	**1,780**	**1,780**	**315**	**0**	**0**	**1,500**
5991-05-95	25+00	-	59+50	M/L	-	3,450	3,450	-	4	-	3,450
5991-05-95	100+60	-	100+95	HAYES ST	-	35	35	-	-	-	35
5991-05-95	100+30	-	100+95	PALACE ST	-	65	65	-	-	-	65
5991-05-95	100+30	-	101+95	CAMPBELL ST	-	165	165	-	-	-	165
				TOTAL 5991-05-95	**0**	**3,715**	**3,715**	**0**	**4**	**0**	**3,715**
5991-07-19	59+50	-	62+10	M/L	-	260	260	-	-	-	260
5991-07-19	62+10	-	70+49	B-32-212	-	-	-	-	-	1	-
5991-07-19	70+49	-	70+84	M/L	-	35	35	-	-	-	35
				TOTAL 5991-07-19	**0**	**295**	**295**	**0**	**0**	**1**	**295**
				PROJECT TOTAL	**1**	**5,790**	**5,790**	**315**	**4**	**1**	**5,510**

3

SAW CUTS

PROJECT NO.	STATION	-	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
5991-05-09	500+00	-	500+43	GILLETTE ST, RT	60	-
5991-05-09	500+43	-	502+66	GILLETTE ST	-	240
5991-05-09	502+66	-	502+80	GILLETTE ST	14	-
5991-05-09	500+00			ONALASKA AVE C & G, LT	-	3
5991-05-09	500+04			ONALASKA AVE SIDEWALK, LT	-	6
5991-05-09	500+39			GILLETTE ST SIDEWALK, LT	-	6
5991-05-09	500+59			GILLETTE ST SIDEWALK, LT	-	6
5991-05-09	500+94			GILLETTE ST PE, LT	-	25
5991-05-09	502+80			GILLETTE PL C & G	-	3
5991-05-09	16+45			M/L SIDEWALK, LT	-	6
5991-05-09	16+45			M/L SIDEWALK, RT	-	6
5991-05-09	16+50			CREDIT UNION CT, LT	38	-
5991-05-09	17+63			M/L SIDEWALK, RT	-	5
5991-05-09	24+64			M/L SIDEWALK, LT	-	6
5991-05-09	100+20			GOHRES ST	20	-
5991-05-09	100+17, LT			GOHRES ST C& G	-	3
5991-05-09	100+22, RT			GOHRES ST C& G	-	3
5991-05-09	300+35			NORTH ST	32	-
5991-05-09	300+65			NORTH ST	32	-
				TOTAL 5991-05-09	**196**	**318**
5991-05-95	25+19			M/L SIDEWALK, LT	-	6
5991-05-95	100+35			LIVINGSTON ST	15	-
5991-05-95	100+38	-	100+58	HAYES ST	35	-
5991-05-95	100+04	-	100+20	PALACE ST.	30	-
5991-05-95	100+28			CAMPBELL ST	30	-
5991-05-95	100+30			CAMPBELL ST, LT	-	3
5991-05-95	100+30			CAMPBELL ST, LT	-	3
				TOTAL 5991-05-95	**110**	**12**
				PROJECT TOTAL	**306**	**321**

CONDUIT HDPE 2-DUCT 2-INCH WITH TRACER WIRE (CATEGORY 0020)

PROJECT NO.	STATION	TO	STATION	LOCATION	SPV.0090.01 CONDUIT HDPE 2-DUCT 2-INCH WITH TRACER WIRE LF
5991-05-95	34+40	-	61+25	M/L LT.	2,800
				TOTAL 5991-05-95	**2,800**

CONCRETE PAVEMENT SIDEWALK APPROACH SLAB

PROJECT NO.	STATION	TO	STATION	LOCATION	SPV.0180.01 CONCRETE PAVEMENT SIDEWALK APPROACH SLAB SY
5991-07-19	62+00	-	62+10	M/L	16
5991-07-19	70+47	-	70+63	M/L	14
				TOTAL 5991-07-19	**30**

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
5991-05-08, 5991-05-93 AND 5991-07-17		
FEDERAL PROJECT NUMBER	4.01	7

PLAT OF RIGHT-OF-WAY REQUIRED FOR

CITY OF LA CROSSE, DAIRYLAND POWER TRAIL
CITY OF LA CROSSE, NORTHSIDE CONNECTOR TRAIL
LA CROSSE-ONALASKA, OAK STREET CONNECTION

NON HIGHWAY — LA CROSSE COUNTY

CONSTRUCTION PROJECT NUMBER
5991-05-09, 5991-05-95 AND 5991-07-19

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	MONUMENT POST	MP
HIGHWAY EASEMENT	H.E.	**CURVE DATA**	
LAND CONTRACT	LC	LONG CHORD	LCH
MONUMENT	MON.	LONG CHORD BEARING	LCB
PAGE	P.	RADIUS	R
PERMANENT LIMITED EASEMENT	PLE	DEGREE OF CURVE	D
PROPERTY LINE	PL	CENTRAL ANGLE OR DELTA	DELTA
RECORDED AS	(100')	LENGTH OF CURVE	L
		TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	IP	PROPOSED R/W LINE	
R/W MONUMENT	●(SET)	EXISTING H.E. LINE	
R/W STANDARD	▲(SET)	PROPERTY LINE	
SIGN	SIGN	LOT & TIE LINES	
SECTION CORNER MONUMENT		SLOPE INTERCEPTS	
SECTION CORNER SYMBOL		CORPORATE LIMITS	
FEE (HATCH VARIES)		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY ACQUISITION)	
PERMANENT LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
R/W POINT	43	SECTION LINE	
PARCEL NUMBER	102	QUARTER LINE	
UTILITY NUMBER	92	SIXTEENTH LINE	
SIGN NUMBER (OFF PREMISE)	21-1	EXISTING CENTERLINE	
BUILDING		PROPOSED REFERENCE LINE	
		PARALLEL OFFSET	

CONVENTIONAL UTILITY SYMBOLS

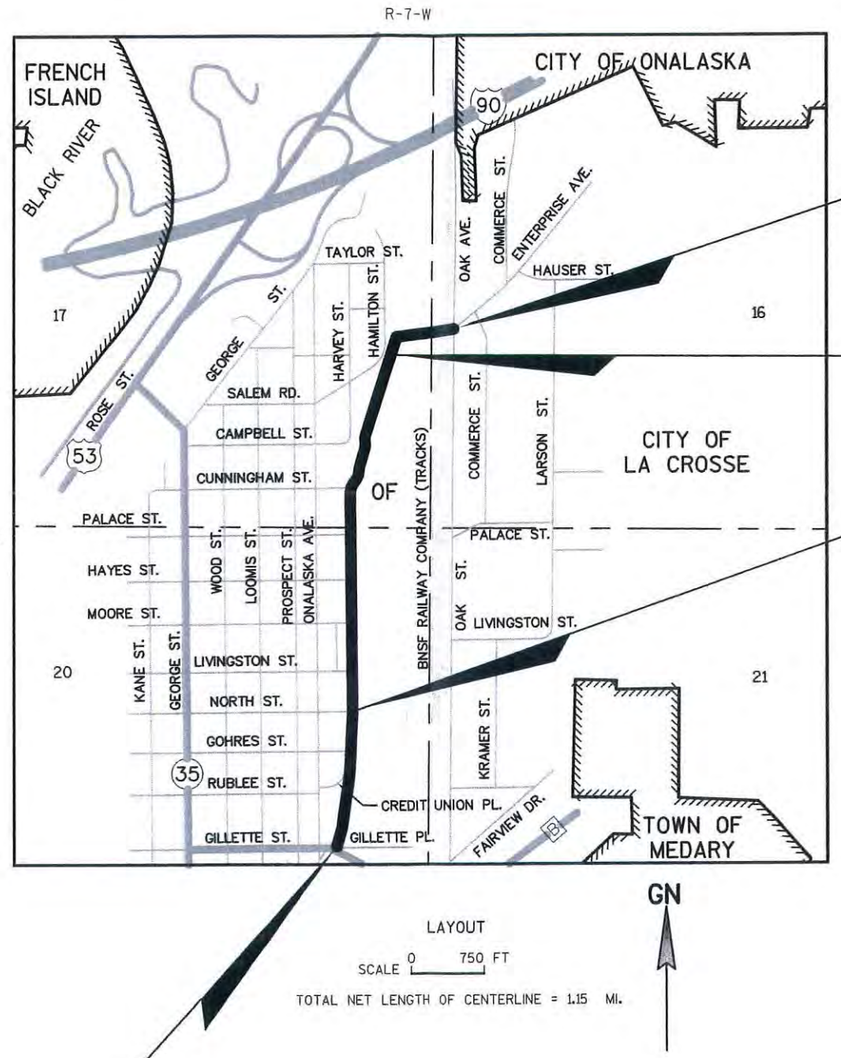
WATER	—W—	
GAS	—G—	
TELEPHONE	—T—	
OVERHEAD TRANSMISSION LINES ELECTRIC	—OH—	
CABLE TELEVISION	—E—	
FIBER OPTIC	—TV—	
SANITARY SEWER	—FO—	
STORM SEWER	—SAN—	
	—SS—	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

NOTES

COORDINATES AND BEARINGS ON THIS PLAT ARE ORIENTED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, LA CROSSE COUNTY ZONE, NAD 83 (1991) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE 3/4" X 24" REBAR 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.



LAYOUT

SCALE 0 750 FT

TOTAL NET LENGTH OF CENTERLINE = 1.15 MI.

BEGIN RELOCATION ORDER
PROJECT 5991-05-08
STA 9+85.36
Y = 144,115.055
X = 449,753.461
3,270.87' SOUTH AND 1,152.72' WEST FROM
NE COR SEC 20, T-16-N, R-7-W

END RELOCATION ORDER
PROJECT 5991-07-17
STA 70+85.55
Y = 149,607.824
X = 451,032.689
2,221.90' NORTH AND 126.51' EAST FROM
SE COR SEC 17, T-16-N, R-7-W

END RELOCATION ORDER PROJECT 5991-05-93
BEGIN RELOCATION ORDER PROJECT 5991-07-17
STA 59+50.00
Y = 148,927.637
X = 450,337.116
1,541.71' NORTH AND 569.06' WEST FROM
SE COR SEC 17, T-16-N, R-7-W

END RELOCATION ORDER PROJECT 5991-05-08
BEGIN RELOCATION ORDER PROJECT 5991-05-93
STA 25+00.00
Y = 145,559.291
X = 449,892.427
1,826.63' SOUTH AND 1,013.75' WEST FROM
NE COR SEC 20, T-16-N, R-7-W

MEAD HUNT

WISCONSIN
SEAN M. WALSH
S-2016
SAUK CITY, WI
LAND SURVEYOR

1/24/2014

SEAN M. WALSH
S-2016

REVISION DATE
4/16/2014 N.C.

STATE OF WISCONSIN
CITY OF LA CROSSE

APPROVED FOR THE CITY OF LA CROSSE
DATE: 2/3/2014 Timothy Kabat
(Signature)

E

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 CITY OF LA CROSSE.

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

PARCEL NUMBER	R/W PROJECT	OWNER(S)	INTEREST REQUIRED	EX R/W ACRES REQUIRED NEW	EXISTING	P.E.	T.L.E	SHEET
01	5991-05-08	MARK HALVERSON & NANCY J HALVERSON	TLE	0.00	-	-	0.01	4.03
03		BNSF RAILWAY COMPANY	PE/TLE	0.00	-	3.45	0.75	4.03, 4.04, 4.05, 4.07
	5991-05-08		PE	0.00	-	0.59	-	
	5991-05-93		PE	0.00	-	0.75	-	
	5991-07-17		PE/TLE	0.00	-	2.11	0.75	
04	5991-05-08	KENNETH P PETERSON & REBECCA A STACKHOUSE	FEE/TLE	0.12	-	-	0.09	4.03, 4.04
06	5991-05-93	QUADRAPAR DEVELOPMENT COMPANY	FEE/TLE	0.09	-	-	0.09	4.06

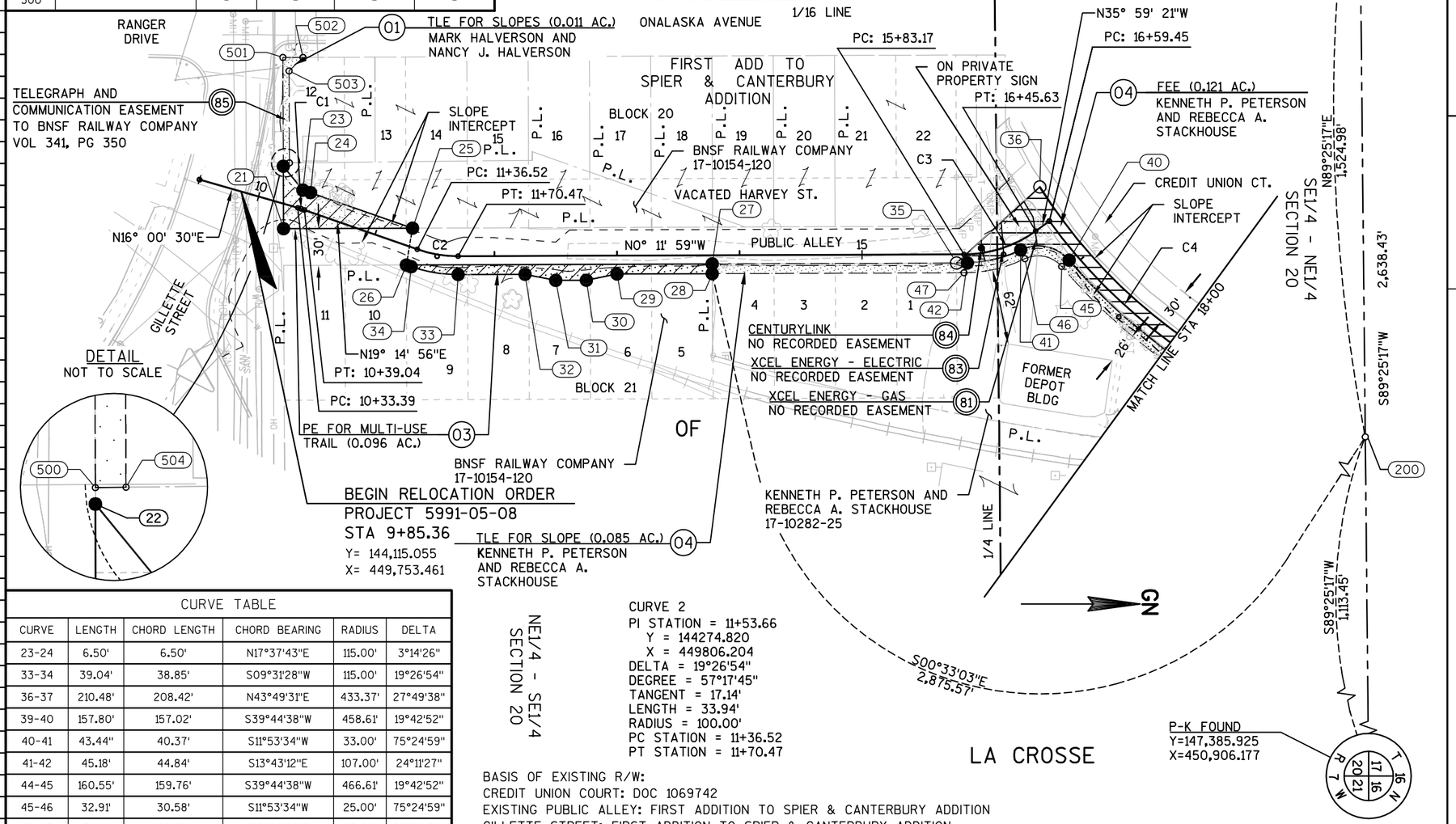
SCHEDULE OF UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED	SHEET
81	XCEL ENERGY - GAS	RELEASE OF RIGHTS	4.03, 4.04
83	XCEL ENERGY - ELECTRIC	RELEASE OF RIGHTS	4.03, 4.04, 4.05
84	CENTURYLINK	RELEASE OF RIGHTS	4.03, 4.04, 4.05, 4.06, 4.07
85	BNSF RAILWAY COMPANY	RELEASE OF RIGHTS	4.03

R/W POINT, COURSE AND COORDINATE TABLE					
POINT	COURSE	STATION	OUT	Y	X
21		10+26.86	19.45' RT.	144149.557	449783.694
	S89°47'19"W 50.91'				
22		10+12.64	29.34' LT.	144149.370	449732.782
	N50°39'22"E 25.22'				
23		10+33.39	15.00' LT.	144165.360	449752.288
24		10+39.04	15.00' LT.	144171.558	449754.258
	N19°14'56"E 88.13'				
25		11+27.17	15.00' LT.	144254.760	449783.311
	S00°12'30"E 105.20'				
21		-	-	-	-
25		-	-	-	-
	S80°28'47"E 30.44'				
26		11+32.32	15.00' RT.	144249.726	449813.330
	N00°12'30"W 249.49'				
27		13+77.70	7.00' RT.	144499.213	449812.423
	N89°49'04"E 8.00'				
28		13+77.70	15.00' RT.	144499.238	449820.422
	S00°11'59"E 77.70'				
29		13+00.00	15.00' RT.	144421.542	449820.693
	S11°30'34"E 25.50'				
30		12+75.00	20.00' RT.	144396.559	449825.780
	S00°11'59"E 25.00'				
31		12+50.00	20.00' RT.	144371.560	449825.867
	S11°06'37"W 25.50'				
32		12+25.00	15.00' RT.	144346.542	449820.955
	S00°11'59"E 54.53'				
33		11+70.47	15.00' RT.	144292.009	449821.145
34		11+36.52	15.00' RT.	144253.696	449814.716
	S19°14'56"W 4.21'				
26		-	-	-	-
27		-	-	-	-
	N00°12'31"W 199.39'				
35		15+77.09	6.97' RT.	144698.604	449811.696
	N42°25'35"W 91.97'				
36		NA	NA	144766.493	449749.647
42		15+85.65	7.00' RT.	144707.340	449811.664
	S00°12'31"E 8.74'				
35		-	-	-	-
47		15+83.17	15.00' RT.	144704.708	449819.707
	S00°11'59"E 205.47'				
28		-	-	-	-
27		-	-	-	-
	N00°12'31"W 208.13'				
42		-	-	-	-
29		-	-	-	-
	S00°11'59"E 283.17'				
47		-	-	-	-
40		16+94.21	7.00' RT.	144790.404	449809.348
41		16+27.88	7.00' RT.	144750.902	449801.029
45		16+94.21	15.00' RT.	144784.312	449814.533
46		16+27.88	15.00' RT.	144754.386	449808.231

R/W POINT, COURSE AND COORDINATE TABLE					
POINT	COURSE	STATION	OUT	Y	X
22		-	-	-	-
	S89°47'19"W 2.68'				
500		10+11.89	31.92' LT.	144149.360	449730.100
	S89°47'19"W 86.11'				
501		9+87.84	114.60' LT.	144149.042	449643.991
	N00°12'30"W 16.36'				
502		10+03.55	119.17' RT.	144165.403	449643.931
	S44°14'16"E 15.80'				
503		9+95.71	105.45' LT.	144154.082	449654.955
	N89°47'19"E 75.10'				
504		10+16.68	33.35' LT.	144154.359	449730.047
	S00°36'19"E 5.00'				
500		-	-	-	-

CURVE TABLE					
CURVE	LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS	DELTA
23-24	6.50'	6.50'	N17°37'43"E	115.00'	3°14'26"
33-34	39.04'	38.85'	S09°31'28"W	115.00'	19°26'54"
36-37	210.48'	208.42'	N43°49'31"E	433.37'	27°49'38"
39-40	157.80'	157.02'	S39°44'38"W	458.61'	19°42'52"
40-41	43.44"	40.37'	S11°53'34"W	33.00'	75°24'59"
41-42	45.18'	44.84'	S13°43'12"E	107.00'	24°11'27"
44-45	160.55'	159.76'	S39°44'38"W	466.61'	19°42'52"
45-46	32.91'	30.58'	S11°53'34"W	25.00'	75°24'59"
46-47	51.41'	50.99'	S13°00'27"E	115.00'	25°36'56"



REVISION DATE 4/16/2014	DATE 1/24/2014	HWY: NORTHSIDE CONNECTOR	STATE R/W PROJECT: 5991-05-08/93, 5991-07-17
	GRID FACTOR 1.0000	COUNTY: LA CROSSE	CONSTRUCTION PROJECT: 5991-05-09/95, 5991-07-19

SCALE, FEET 0 50 100

PLAT SHEET 4.03

PS&E SHEET 48

E

CURVE TABLE					
CURVE	LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS	DELTA
36-37	210.48'	208.42'	N43°49'31"E	433.37'	27°49'38"
38-39	6.54'	6.54'	S28°08'05"W	107.00'	3°30'13"
39-40	157.80'	157.02'	S39°44'38"W	458.61'	19°42'52"
43-44	10.99'	10.99'	S27°08'51"W	115.00'	5°28'40"
44-45	160.55'	159.76'	S39°44'38"W	466.61'	19°42'52"
61-62	31.30'	31.12'	S10°42'22"E	85.00'	21°05'48"
63-64	42.05'	41.82'	S10°46'45"E	115.00'	20°57'02"
65-43	49.60'	49.22'	S12°03'08"W	115.00'	24°42'46"

S00°33'03"E
2,458.72'

GN

P-K FOUND
Y=147,359.281
X=448,267.879

T 16 N R 7 W
17 20

CITY

FIRST ADD TO SPIER & CANTERBURY ADDITION

1/16 LINE

JOHNSTON'S ADDITION

CURVE 7
PI STATION = 21+61.61
Y = 145220.490
X = 449893.361
DELTA = 21°05'48"
DEGREE = 57°17'45"
TANGENT = 18.62'
LENGTH = 36.82'
RADIUS = 100.00'
PC STATION = 21+42.99
PT STATION = 21+79.81

ENCROACHMENT TABLE			
ENCROACHMENT NUMBER	ENCROACHMENT	STATION & OFFSET	DISPOSITION
E-1	PLANTER	23+15.52, 6.6'LT	TO BE REMOVED
E-2	PLANTER	27+96.16, 6.7'RT	TO BE REMOVED
E-3	SHED	30+69.27, 6.1'LT	TO BE REMOVED

SE1/4 - NE1/4 SECTION 20

N89°25'17"E
1,602.53'

DETAIL
NOT TO SCALE

37 38 39 44 43 P.L.

60' GOHRES STREET

60' NORTH STREET

60' LIVINGSTON STREET

04 FEE (0.121 AC.)
KENNETH P. PETERSON AND REBECCA A. STACKHOUSE

CENTURYLINK
NO RECORDED EASEMENT

PC: 18+49.60
PT: 18+49.60
N21° 15' 17"W

ABANDONED POLE
PT: 19+02.29

CREDIT UNION CT.

MATCH LINE STA 18+00

30' 30'

C4 C5

P.L.

65 49 48 83 64 61 62 63 84 81

NO° 18' 14"W

XCEL ENERGY - ELECTRIC
NO RECORDED EASEMENT

04 TLE FOR SLOPES (0.085 AC.)
KENNETH P. PETERSON AND REBECCA A. STACKHOUSE

BLOCK 9
8 9 10 11

PC: 21+42.99
C7
EXISTING PLANTER E-1
PT: 21+79.81
VACATED ALLEY

PT: 21+17.87

C6
PC: 20+81.31

ABANDONED MONITORING WELL

BNSF RAILWAY COMPANY
17-10269-10

XCEL ENERGY - GAS
NO RECORDED EASEMENT

OF

BLOCK 8
5 6

03 PE FOR MULTI-USE TRAIL (1.246 AC.)
BNSF RAILWAY COMPANY

EXISTING PLANTER E-2

P.L. VACATED ALLEY

BLOCK 7
10 11

EXISTING SHED E-3

NO° 09' 28"W

SLOPE INTERCEPT

CAUTION

59 60 57 58

BNSF RAILWAY COMPANY
17-10269-10

MATCH LINE STA 31+00

201

2,638.43'

S89°25'17"W

S89°25'17"W
1,035.90'

END RELOCATION ORDER PROJECT 5991-05-08
BEGIN RELOCATION ORDER PROJECT 5991-05-93
STA 25+00.00
Y= 145,559.291
X= 449,892.427

LA CROSSE

NE1/4 - NE1/4 SECTION 20

1/16 LINE

CURVE 4
PI STATION = 17+55.95
Y = 144830.958
X = 449855.585
DELTA = 24°07'27"
DEGREE = 12°41'14"
TANGENT = 96.50'
LENGTH = 190.15'
RADIUS = 451.61'
PC STATION = 16+59.45
PT STATION = 18+49.60

CURVE 5
PI STATION = 18+76.57
Y = 144938.014
X = 449917.112
DELTA = 30°11'26"
DEGREE = 57°17'45"
TANGENT = 26.97'
LENGTH = 52.69'
RADIUS = 100.00'
PC STATION = 18+49.60
PT STATION = 19+02.29

CURVE 6
PI STATION = 20+99.79
Y = 145162.490
X = 449915.921
DELTA = 20°57'02"
DEGREE = 57°17'45"
TANGENT = 18.49'
LENGTH = 36.57'
RADIUS = 100.00'
PC STATION = 20+81.31
PT STATION = 21+17.87

P-K FOUND
Y=147,385.925
X=450,906.177

T 16 N R 7 W
17 16 20 21

BASIS OF EXISTING R/W: JOHNSTON'S ADDITION

R/W POINT, COURSE AND COORDINATE TABLE					
POINT	COURSE	STATION	OUT	Y	X
43		18+59.16	15.00' RT.	144916.933	449921.692
	S89°50'30"W 27.73				
37		18+46.63	9.52' LT.	144916.857	449893.967
	N00°08'54"E 245.58'				
48		21+04.45	19.16' LT.	145162.433	449894.603
	S89°50'45"W 16.08'				
49		21+10.17	34.70' LT.	145162.390	449878.521
	N00°09'28"W 1258.08'				
50		33+81.33	83.80' LT.	146420.461	449875.054
56		32+06.26	15.00' RT.	146265.595	449905.481
	S00°09'28"E 181.26'				
57		30+25.00	15.00' RT.	146084.336	449905.981
	S05°52'07"E 50.25'				
58		29+75.00	20.00' RT.	146034.350	449911.118
	S00°09'28"E 175.00'				
59		28+00.00	20.00' RT.	145859.350	449911.601

R/W POINT, COURSE AND COORDINATE TABLE					
POINT	COURSE	STATION	OUT	Y	X
59		-	-	-	-
	S05°33'10"W 50.25'				
60		27+50.00	15.00' RT.	145809.337	449906.738
	S00°09'28"E 570.19'				
61		21+79.81	15.00' RT.	145239.152	449908.310
62		21+42.99	15.00' RT.	145208.573	449914.091
	S21°15'17"E 25.12'				
63		21+17.87	15.00' RT.	145185.160	449923.198
64		20+81.31	15.00' RT.	145144.081	449931.019
	S00°18'14"E 179.02'				
65		19+02.29	15.00' RT.	144965.066	449931.969
37		-	-	-	-
	N89°50'30"E 18.86'				
38		18+55.71	7.00' RT.	144916.909	449912.826
	N89°50'30"E 8.87'				
43		-	-	-	-

R/W POINT, COURSE AND COORDINATE TABLE					
POINT	COURSE	STATION	OUT	Y	X
39		18+49.60	7.00' RT.	144911.140	449909.741
44		18+49.60	15.00' RT.	144907.153	449916.677

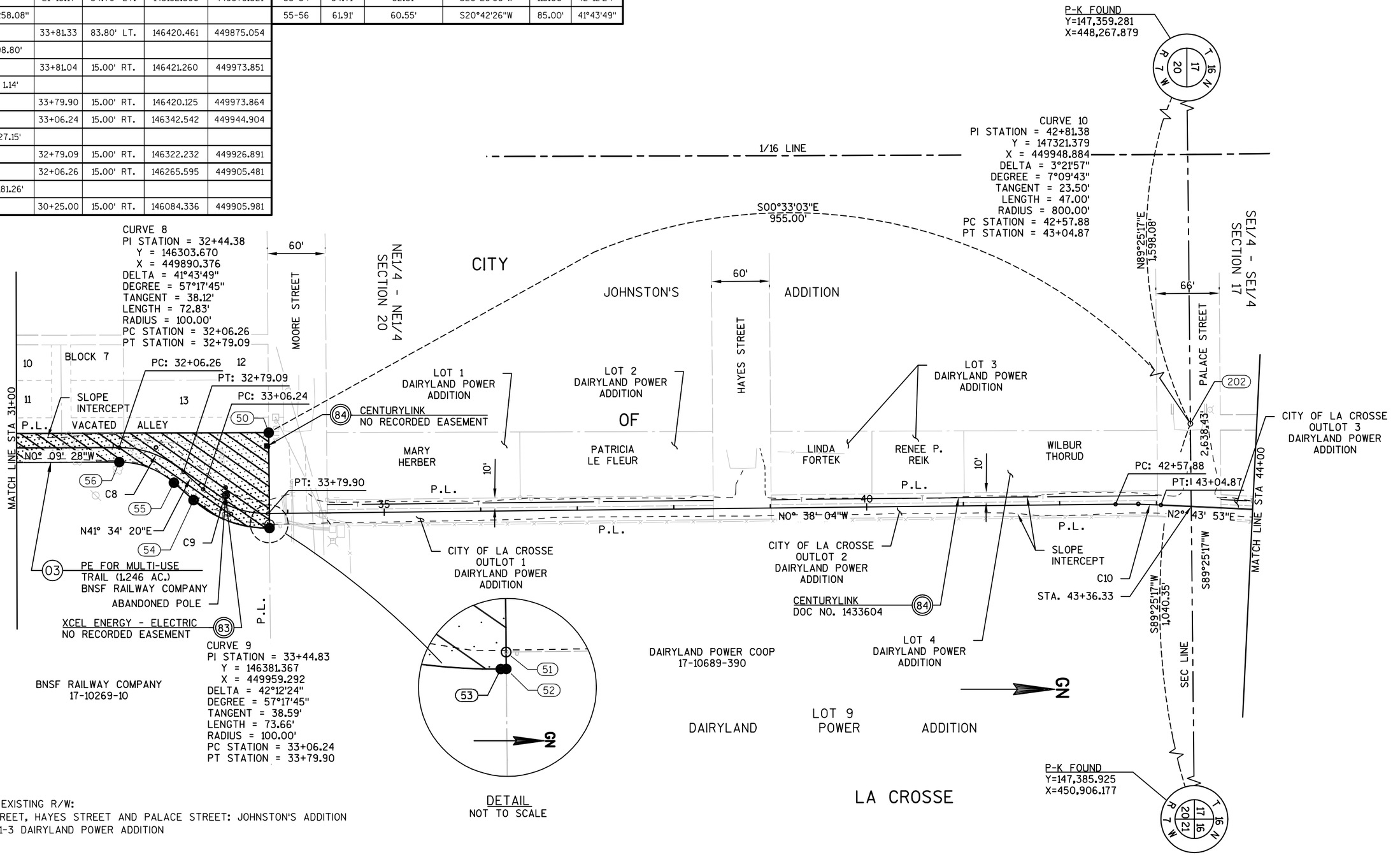
REVISION DATE 4/16/2014	DATE 1/24/2014	SCALE, FEET 0 50 100	HWY: NORTHSIDE CONNECTOR	STATE R/W PROJECT: 5991-05-08/93, 5991-07-17	PLAT SHEET 4.04
	GRID FACTOR 1.0000		COUNTY: LA CROSSE	CONSTRUCTION PROJECT: 5991-05-09/95, 5991-07-19	PS&E SHEET --49 E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\040102_RW.DWG PLOT DATE : 1/24/2014 8:32 AM PLOT BY : 794JGB PLOT NAME : _____PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

R/W POINT, COURSE AND COORDINATE TABLE					
POINT	COURSE	STATION	OUT	Y	X)
49		21+10.17	34.70' LT.	145162.390	449878.521
	N00°09'28"W 1258.08"				
50		33+81.33	83.80' LT.	146420.461	449875.054
	N89°32'10"E 98.80'				
52		33+81.04	15.00' RT.	146421.260	449973.851
	S00°38'04"E 1.14'				
53		33+79.90	15.00' RT.	146420.125	449973.864
54		33+06.24	15.00' RT.	146342.542	449944.904
	S41°34'20"W 27.15'				
55		32+79.09	15.00' RT.	146322.232	449926.891
56		32+06.26	15.00' RT.	146265.595	449905.481
	S00°09'28"E 181.26'				
57		30+25.00	15.00' RT.	146084.336	449905.981

CURVE TABLE					
CURVE	LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS	DELTA
53-54	84.71'	82.81'	S20°28'08"W	115.00'	42°12'24"
55-56	61.91'	60.55'	S20°42'26"W	85.00'	41°43'49"



BASIS OF EXISTING R/W:
MOORE STREET, HAYES STREET AND PALACE STREET: JOHNSTON'S ADDITION
OUTLOTS 1-3 DAIRYLAND POWER ADDITION

REVISION DATE	4/16/2014 N.C.		

DATE 1/24/2014	SCALE, FEET 0 50 100	HWY: NORTHSIDE CONNECTOR	STATE R/W PROJECT: 5991-05-08/93, 5991-07-17	PLAT SHEET 4.05	
GRID FACTOR 1.0000		COUNTY: LA CROSSE	CONSTRUCTION PROJECT: 5991-05-09/95, 5991-07-19	PS&E SHEET --50	E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\040102_RW.DWG PLOT DATE : 1/24/2014 8:33 AM PLOT BY : 794JGB PLOT NAME : _____ PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75

CURVE TABLE					
CURVE	LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS	DELTA
80-81	28.74'	28.73'	N29°04'20"E	1246.28'	1°19'16"

R/W POINT, COURSE AND COORDINATE TABLE					
POINT	COURSE	STATION	OUT	Y	X
78		51+54.60	7.58' LT.	148167.031	450107.961
	N10°36'34"E 108.50'				
79		52+63.65	8.93' LT.	148273.678	450127.938
	S89°32'10"W 105.98'				
80		52+42.90	112.86' LT.	148272.82	450021.958
81		52+70.18	103.87' LT.	148297.934	450035.920
	N89°32'10"E 96.69'				
82		52+89.12	9.05' LT.	148298.716	450132.610
	S21°20'22"E 32.41'				
83		52+61.69	8.21' RT.	148268.531	450144.403
	S19°44'58"W 107.84'				
78		-	-	-	-
87		52+60.41	25.15' LT	148273.544	450111.402
	S89°32'10"W 89.45'				
80		-	-	-	-

R/W POINT, COURSE AND COORDINATE TABLE					
POINT	COURSE	STATION	OUT	Y	X
76		49+23.85	13.00' LT.	147942.764	450049.221
	N85°15'00"W 8.00'				
84		49+23.85	21.00' LT.	147943.427	450041.249
	N04°45'00"E 79.19'				
85		50+00.59	22.39' LT.	148022.349	450047.807
	N17°38'36"E 147.51'				
86		51+46.24	21.38' LT.	148162.923	450092.516
	N09°41'18"E 112.22'				
87		-	-	-	-
	N89°32'10"E 16.54'				
79		-	-	-	-
78		-	-	-	-
	S19°44'58"W 154.43'				
77		50+01.42	14.44' LT.	148021.686	450055.779
	S04°45'00"W 79.19"				
76		49+23.85	13.00' LT.	147942.764	450049.221

P-K FOUND
Y=147,359.281
X=448,267.879

S89°25'17"E
1,794.18'

2,638.43'

S89°25'17"W

CITY

LOT 5 DAIRYLAND POWER ADDITION

LOT 6 DAIRYLAND POWER ADDITION

CUNNINGHAM STREET

60'

PC: 46+73.54

C11

PT: 47+22.98

PC: 47+47.15

PT: 47+99.28

PC: 48+67.46

LOT 7 DAIRYLAND POWER ADDITION

EXISTING BUILDING

20' STORM SEWER EASEMENT DOC NO 1421293

CAMPBELL STREET

JOHNSTON'S ADDITION

NE1/4 - SE1/4 SECTION 17

1/16 LINE

(84) CENTURYLINK DOC NO. 1433604

JOHN BRURING P.L.

P.L.

10'

GARY M FOSSUM P.L.

P.L.

45

N2° 43' 53"E

CITY OF LA CROSSE

SLOPE INTERCEPT

MATCH LINE STA 44+00

OUTLOT 3 DAIRYLAND POWER ADDITION

DAIRYLAND POWER COOP
17-10689-390

N21° 37' 08"E

C12

N31° 34' 25"E

C13

N4° 45' 00"E

PT: 49+18.96

C14

PC: 49+78.21

N17° 56' 21"E

PT: 50+24.25

C15

PC: 51+32.61

PT: 51+82.24

C16

PC: 53+57.53

N10° 49' 47"E

PT: 54+09.68

N18° 18' 03"E

SLOPE INTERCEPT

MATCH LINE STA 57+00

CITY OF LA CROSSE
17-10689-380

(84) CENTURYLINK DOC NO. 1433604

06 TLE FOR SLOPES (0.090 AC.) QUADRAPAR DEVELOPMENT COMPANY

06 FEE QUADRAPAR DEVELOPMENT COMPANY

QUADRAPAR DEVELOPMENT COMPANY 17-10265-122

VACATED CAMPBELL STREET

25' R/W

O.L. 4

O.L. 5

O.L. 6

O.L. 7

O.L. 8

O.L. 9

CITY OF LA CROSSE

CURVE 16
PI STATION = 53+83.64
Y = 148389.855
X = 450159.254
DELTA = 7°28'16"
DEGREE = 14°19'26"
TANGENT = 26.12'
LENGTH = 52.16'
RADIUS = 400.00'
PC STATION = 53+57.53
PT STATION = 54+09.68

CURVE 11
PI STATION = 46+98.49
Y = 147738.024
X = 449968.761
DELTA = 18°53'15"
DEGREE = 38°11'50"
TANGENT = 24.95'
LENGTH = 49.45'
RADIUS = 150.00'
PC STATION = 46+73.54
PT STATION = 47+22.98

CURVE 12
PI STATION = 47+73.28
Y = 147807.978
X = 449996.485
DELTA = 9°57'17"
DEGREE = 19°05'55"
TANGENT = 26.13'
LENGTH = 52.12'
RADIUS = 300.00'
PC STATION = 47+47.15
PT STATION = 47+99.28

CURVE 13
PI STATION = 48+93.69
Y = 147910.676
X = 450059.599
DELTA = 26°49'25"
DEGREE = 52°05'13"
TANGENT = 26.23'
LENGTH = 51.50'
RADIUS = 110.00'
PC STATION = 48+67.46
PT STATION = 49+18.96

CURVE 14
PI STATION = 50+01.33
Y = 148018.904
X = 450068.593
DELTA = 13°11'21"
DEGREE = 28°38'52"
TANGENT = 23.12'
LENGTH = 46.04'
RADIUS = 200.00'
PC STATION = 49+78.21
PT STATION = 50+24.25

CURVE 15
PI STATION = 51+57.46
Y = 148167.636
X = 450116.744
DELTA = 7°06'34"
DEGREE = 14°19'26"
TANGENT = 24.85'
LENGTH = 49.63'
RADIUS = 400.00'
PC STATION = 51+32.61
PT STATION = 51+82.24

S89°25'17"W
844.25'

N00°33'03"W
644.32'

SE1/4 - SE1/4 SECTION 17

GN

OF

P-K FOUND
Y=147,385.925
X=450,906.177

BASIS OF EXISTING R/W:
DAIRYLAND POWER ADDITION

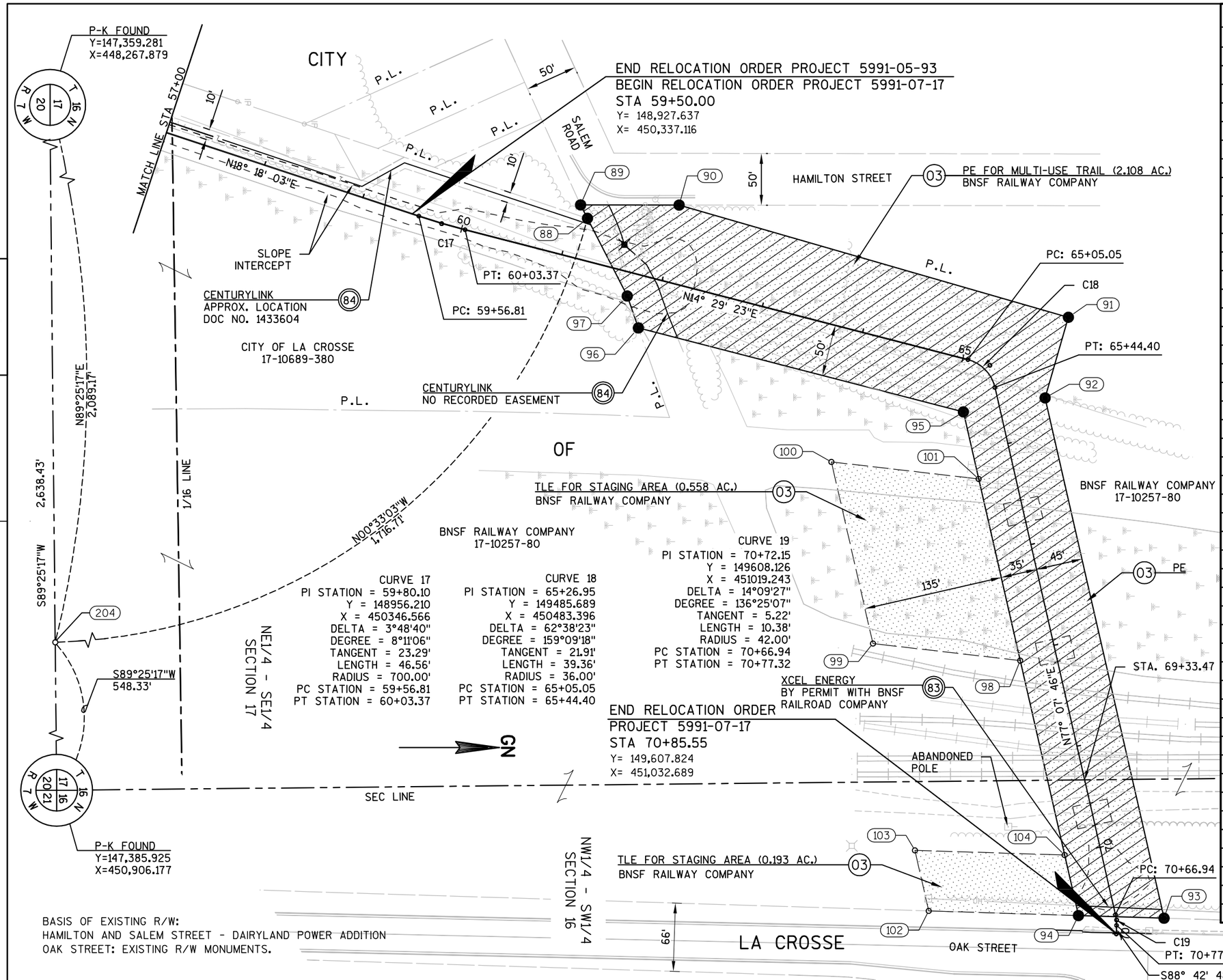
DAIRYLAND LOT 8 POWER ADDITION

LA CROSSE

REVISION DATE 4/16/2014 N.C.	DATE 1/24/2014	SCALE, FEET 0 50 100	HWY: NORTHSIDE CONNECTOR	STATE R/W PROJECT: 5991-05-08/93, 5991-07-17	PLAT SHEET 4.06
	GRID FACTOR 1.0000		COUNTY: LA CROSSE	CONSTRUCTION PROJECT: 5991-05-09/95, 5991-07-19	PS&E SHEET --51 E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\040102_RW.DWG PLOT DATE : 1/24/2014 8:35 AM PLOT BY : 794JGB PLOT NAME : _____ PLOT SCALE : 1:100

WISDOT/CADDS SHEET 75



R/W POINT, COURSE AND COORDINATE TABLE

POINT	COURSE	STATION	OUT	Y	X
88		61+15.11	40.23' LT.	149097.014	450341.398
	S62°53'19"W 14.55'				
89		61+05.45	51.12' LT.	149090.382	450328.445
	N00°05'33"E 95.16'				
90		61+97.62	74.78' LT	149185.546	450328.599
	N16°05'22"E 391.29"				
91		65+30.16	94.30' RT	149561.506	450437.039
	S73°54'38"E 81.04'				
92		65+65.10	45.00' LT.	149539.047	450514.902
	N77°07'46"E 515.60'				
93		70+73.53	46.08' LT.	149653.898	451017.549
	S01°46'43"W 82.69'				
94		70+59.79	35.00' RT.	149571.250	451014.983
	S77°07'46"W 499.10'				
95		65+60.68	35.00' RT.	149460.074	450528.419
	S14°29'23"W 324.22'				
96		61+89.19	50.00' RT.	149146.163	450447.297
	S70°49'50"W 32.66'				
97		61+71.09	22.82' RT.	149135.440	450416.452
	S62°53'19"W 84.32'				
88		-	-	-	-
95		-	-	-	-
	N77°07'46"E 66.43'				
101		66+27.11	35.00' RT.	149474.871	450593.180
	N77°07'46"E 180.00'				
98		68+07.11	35.00' RT.	149514.967	450768.657
	N77°07'46"E 192.67'				
104		69+99.79	35.00' RT.	149557.885	450956.490
	N77°07'46"E 60.00'				
94		-	-	-	-
98		-	-	-	-
	S06°35'47"W 143.19'				
99		67+59.39	170.00' RT.	149372.729	450752.209
	S77°07'46"W 180.00'				
100		65+79.39	170.00' RT.	149332.634	450576.731
	N06°35'47"E 143.19'				
101		66+27.11	35.00' RT.	-	-
94		-	-	-	-
	S01°46'43"W 144.70'				
102		70+23.19	175.00' RT.	149426.616	451010.492
	S77°07'46"W 60.00'				
103		69+63.19	175.00' RT.	149413.251	450951.999
	N01°46'43"E 144.70'				
104		-	-	-	-
95		-	-	-	-
	N77°07'46"E 439.10'				
104		-	-	-	-

REVISION DATE 4/16/2014 N.C.	DATE 1/24/2014	SCALE, FEET 0 50 100	HWY: NORTHSIDE CONNECTOR	STATE R/W PROJECT: 5991-05-08/93, 5991-07-17	PLAT SHEET 4.07
	GRID FACTOR 1.0000		COUNTY: LA CROSSE	CONSTRUCTION PROJECT: 5991-05-09/95, 5991-07-19	PS&E SHEET --52 E

BP: 9+50.00
9+50
10+00
10+05
10+20
INSTALL CONCRETE CURB & GUTTER 30" TYPE D
CONCRETE SIDEWALK 5"
5'
10'
GILLETTE ST.
EXISTING CONCRETE SIDEWALK
TLE
PC: 10+33.39
PT: 10+39.04
PL
CP#1
PE
11+00
PI: 10+36.22
EXISTING R/W
30'
XCEL ENERGY
XCEL ENERGY
CHARTER COMMUNICATIONS
BEGIN PROJECT 5991-05-09
STA. 9+85.36
Y = 144,115.055
X = 449,753.461
MATCH EXISTING SIDEWALK
BNSF RAILWAY COMPANY
BNSF RAILWAY COMPANY
STA. 10+00 - STA. 11+00, RT
CLEARING AND GRUBBING REQUIRED
PC: 11+36.52
PT: 11+70.47
PI: 11+53.66
GRAVEL PE
GRAVEL PE
GRAVEL PE
PUBLIC ALLEY
12+00
13+00
14+00
15+00
15'
GRAVEL
PROPOSED MULTI-USE TRAIL
PE
TLE
2'
10'
8'
SLOPE INTERCEPT (TYP.)
N
REMOVING SIGN
(BY OTHERS)
REMOVE TREE (TYP.)
EXISTING R/W
PC: 15+83.17
PT: 16+15.63
MATCH LINE STA 16+50
16+00
R35'
R125
49.57
PI: 16+16
PROPOSED R/W
CONCRETE
SEE CONSTRUCTION DETAIL
(STA. 15+50 TO STA. 17+25)
STA. 13+00 - STA. 17+00, RT
CLEARING AND GRUBBING REQUIRED
KENNETH P. PETERSON AND
REBECCA A. STACKHOUSE
CP#2
EXISTING
GRAVEL
PARKING
LOT
PL
5
5

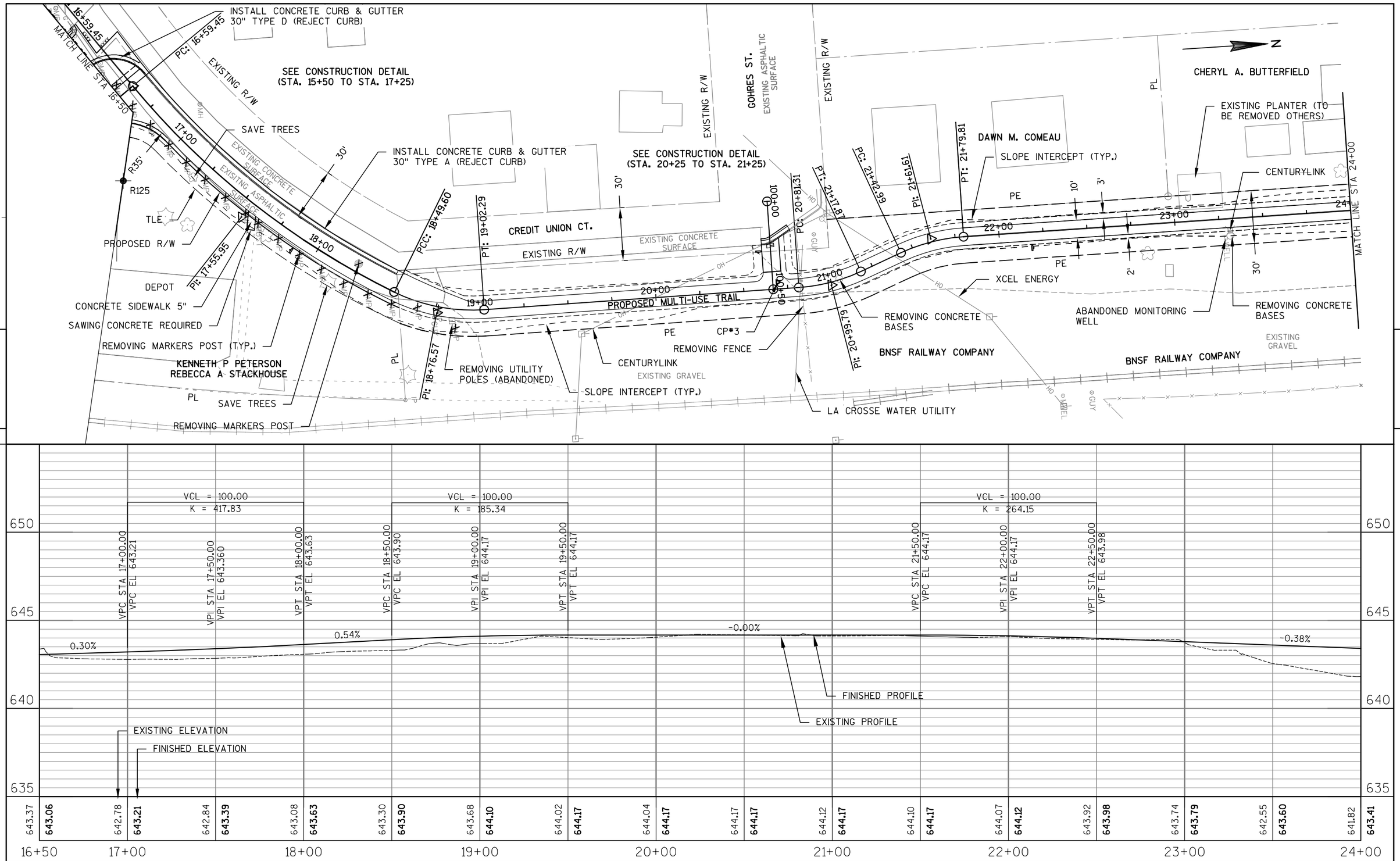
VCL = 150.00
K = 31.33
VPC STA 10+25.00
VPC EL 645.09
VPI STA 11+00.00
VPI EL 646.59
VPT STA 11+75.00
VPT EL 644.50
2.00%
VCL = 100.00
K = 37.05
VPC STA 12+25.00
VPC EL 643.10
VPI STA 12+75.00
VPI EL 641.707
VPT STA 13+25.00
VPT EL 641.66
-2.79%
-0.09%
VCL = 100.00
K = 67.05
VPC STA 14+50.00
VPC EL 641.55
VPI STA 15+00.00
VPI EL 641.507
VPT STA 15+50.00
VPT EL 642.21
VCL = 100.00
K = 90.69
VPC STA 15+50.00
VPC EL 642.21
VPI STA 16+00.00
VPI EL 642.91
VPT STA 16+50.00
VPT EL 643.06
1.40%
EXISTING ELEVATION
FINISHED ELEVATION
FINISHED PROFILE
EXISTING PROFILE

650
645
640
635

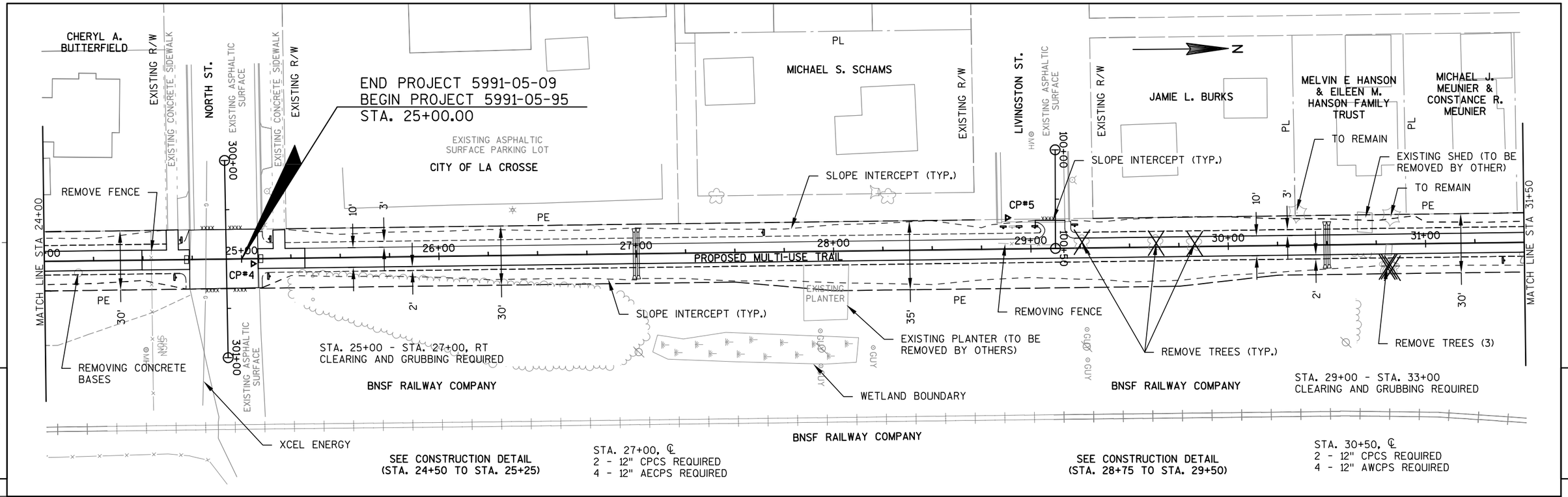
644.03	644.52	**644.59**	646.53	**645.49**	646.32	**645.69**	645.89	**645.09**	642.55	**643.80**	641.14	**642.49**	641.26	**641.77**	641.19	**641.64**	641.12	**641.60**	641.19	**641.55**	641.34	**641.69**	641.62	**642.21**	642.77	**642.77**	643.37	**643.06**

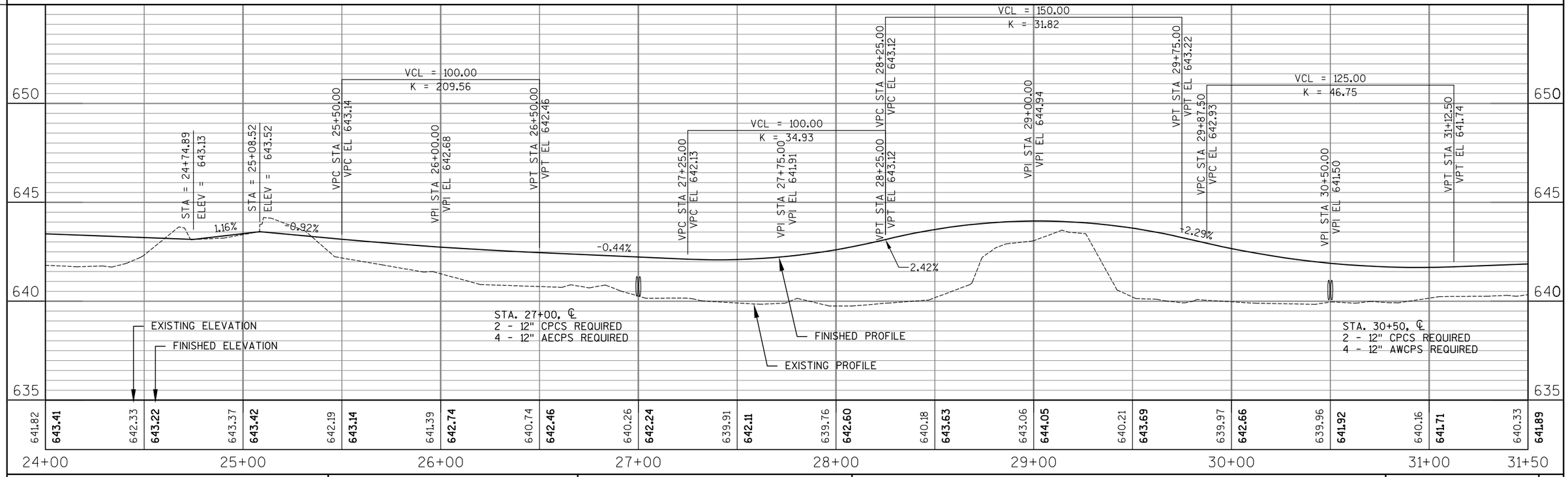
9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 16+50

PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	PLAN AND PROFILE	SHEET 53	E

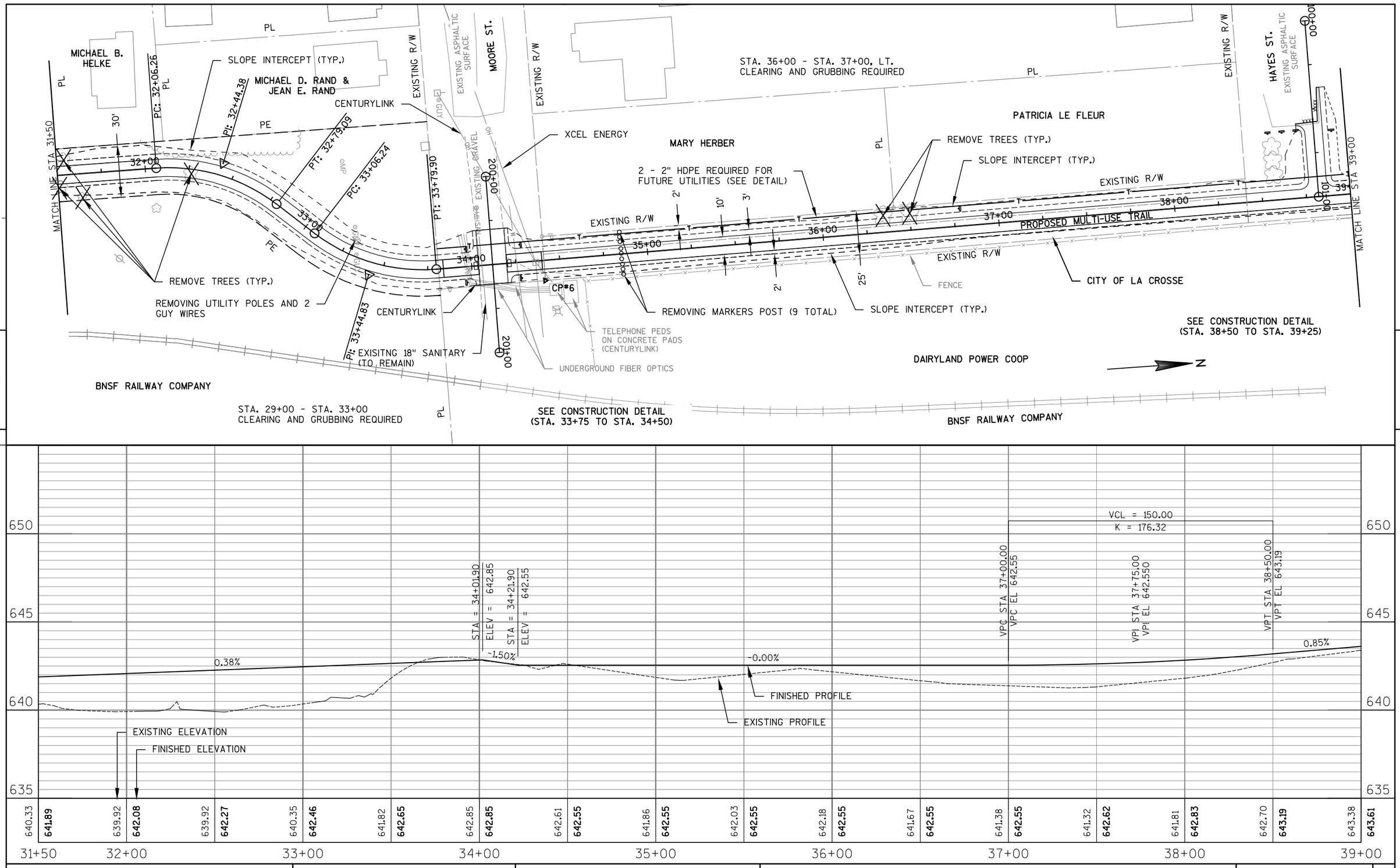


PROJECT NO:5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	PLAN AND PROFILE	SHEET 54	E

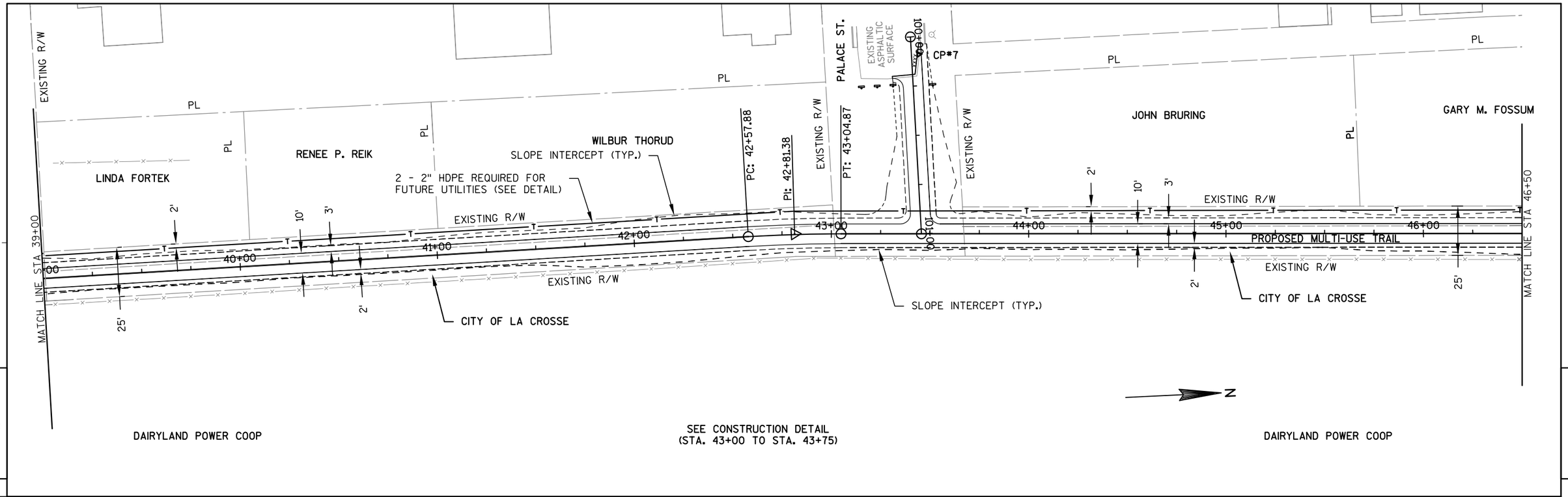


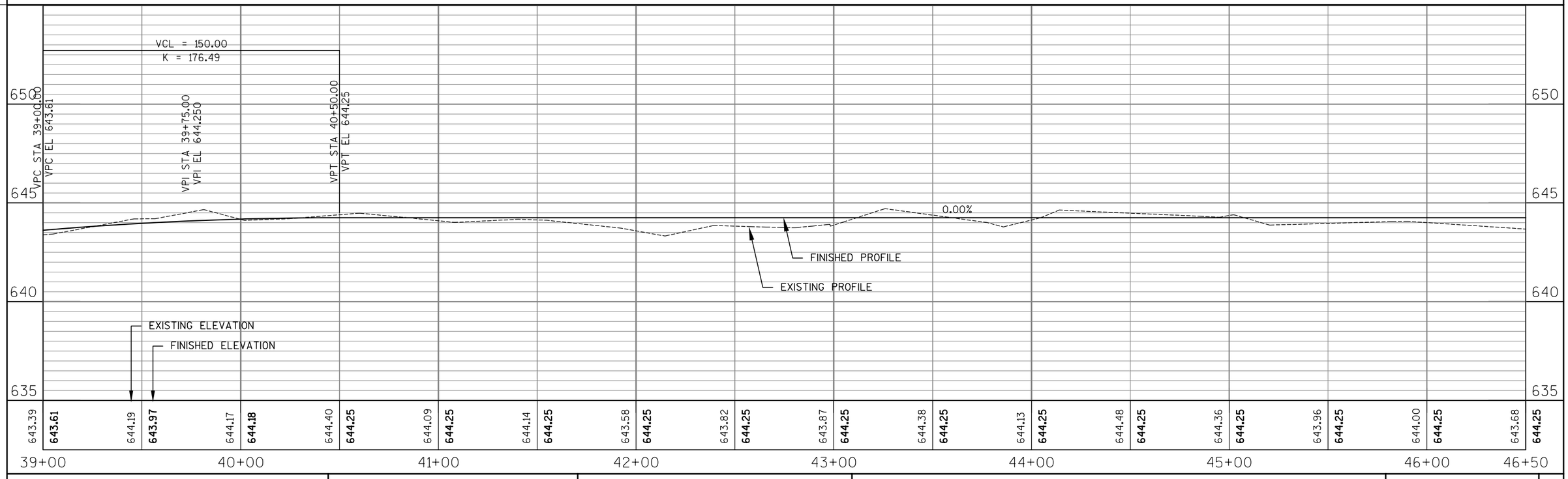


PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	PLAN AND PROFILE	SHEET 55	E

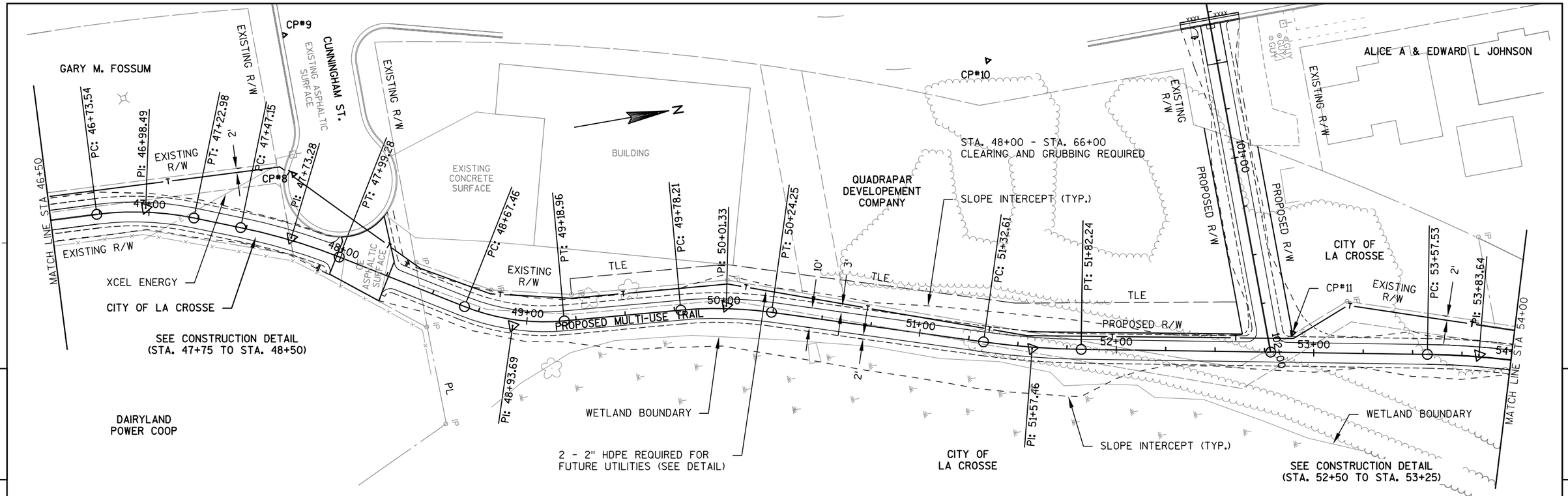


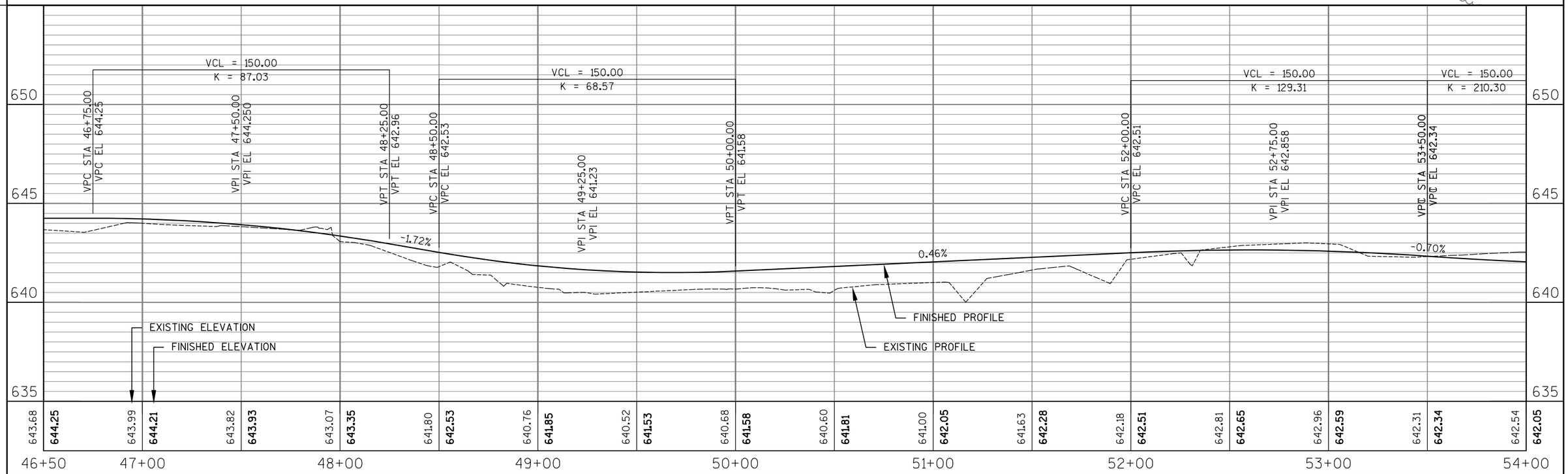
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	PLAN AND PROFILE	SHEET 56	E



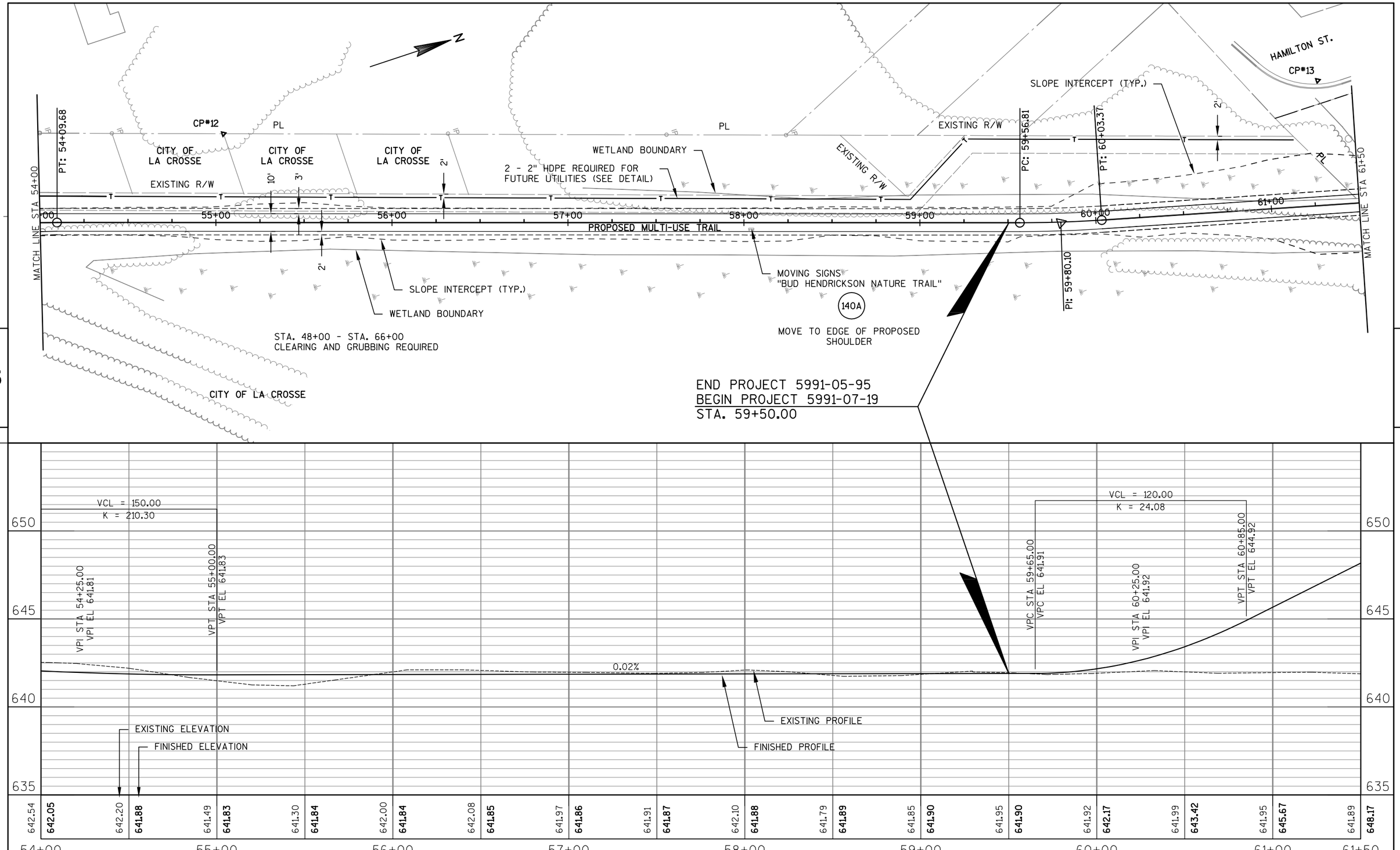


PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	PLAN AND PROFILE	SHEET 57	E

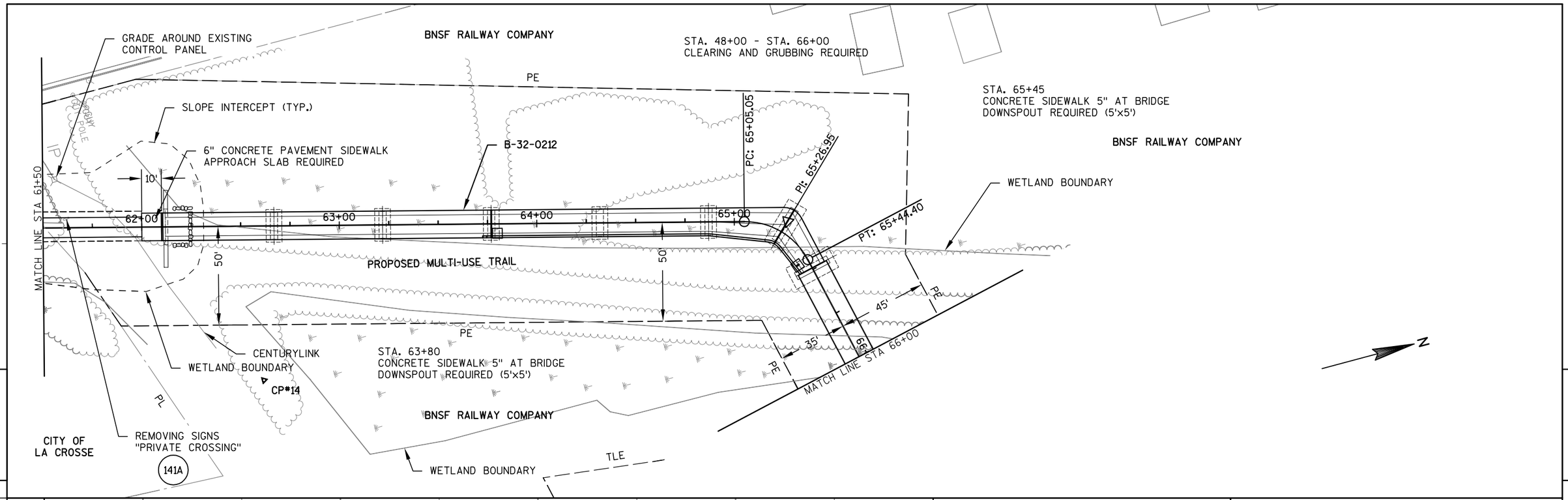




PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	PLAN AND PROFILE	SHEET 58	E



PROJECT NO:5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	PLAN AND PROFILE	SHEET 59	E



STA. 66+31.32
STRUCTURE B-32-0212 REQUIRED 838.75'
OVERALL LENGTH AND 12' CLEAR ROADWAY WIDTH
7 SPANS OF 28-INCH PRE-STRESSED GIRDERS
AND 4 SPANS OF PREFABRICATED STEEL TRUSS
STRUCURE

PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	PLAN AND PROFILE	SHEET 60	E

BNSF RAILWAY COMPANY

WETLAND BOUNDARY

BNSF RAILWAY COMPANY

XCEL ENERGY
CHARTER COMMUNICATIONS

EXISTING R/W

N

PT: 70+77.32

PC: 70+66.94

CP*16

XCEL ENERGY
(LIGHT POLE)

ENTERPRISE
AVENUE

EP: 70+85.55

70+86

PE

45'

B-32-0212

MATCH LINE STA 66+00

66+00

67+00

68+00

69+00

70+00

PROPOSED MULTI-USE TRAIL

35'

PE

PE

STA. 69+00 - STA. 70+85
CLEARING AND GRUBBING REQUIRED

SLOPE INTERCEPT (TYP.)

PROPOSED PAVEMENT MARKING CROSSWALK
EPOXY 12-INCH

TLE

180'

WETLAND BOUNDARY

END PROJECT 5991-07-19
STA. 70+85.55

OAK STREET

CONCRETE SURFACE

TLE

TLE

60'

CP*15

BNSF RAILWAY COMPANY

SEE CONSTRUCTION DETAIL
(STA. 70+25 TO STA. 70+85)

5

5

STA. 66+31.32
STRUCTURE B-32-0212 REQUIRED 838.75'
OVERALL LENGTH AND 12' CLEAR ROADWAY WIDTH
7 SPANS OF 28-INCH PRE-STRESSED GIRDERS
AND 4 SPANS OF PREFABRICATED STEEL TRUSS
STRUCURE

VCL = 162.00
K = 21.87

VPC STA 68+05.12
VPC EL 674.62

VPI STA 68+86.12
VPI EL 677.62

VPT STA 69+67.12
VPT EL 674.62

STA = 70+47.12
ELEV = 671.02

STA = 70+85.55
ELEV = 669.62

700

680

660

640

2.69%

-3.64%

FINISHED PROFILE

STA = 68+05.12
ELEV = 674.62

STA = 69+67.12
ELEV = 674.62

EXISTING ELEVATION

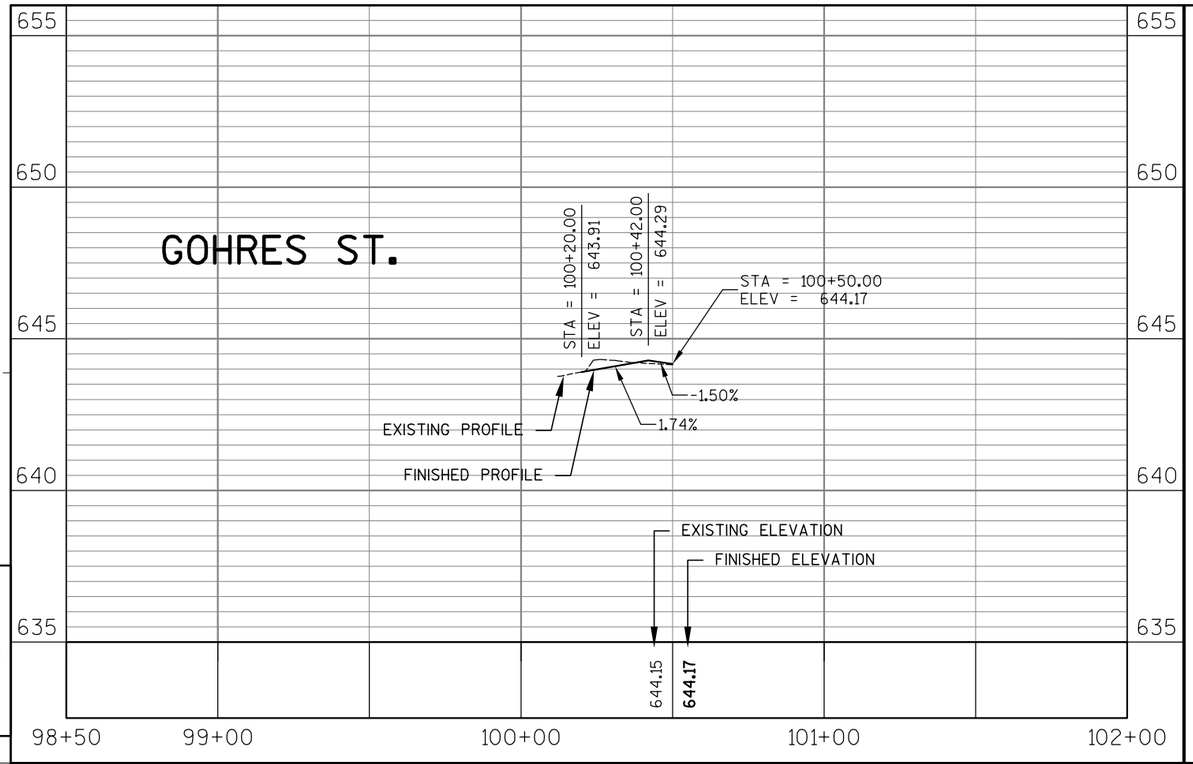
FINISHED ELEVATION

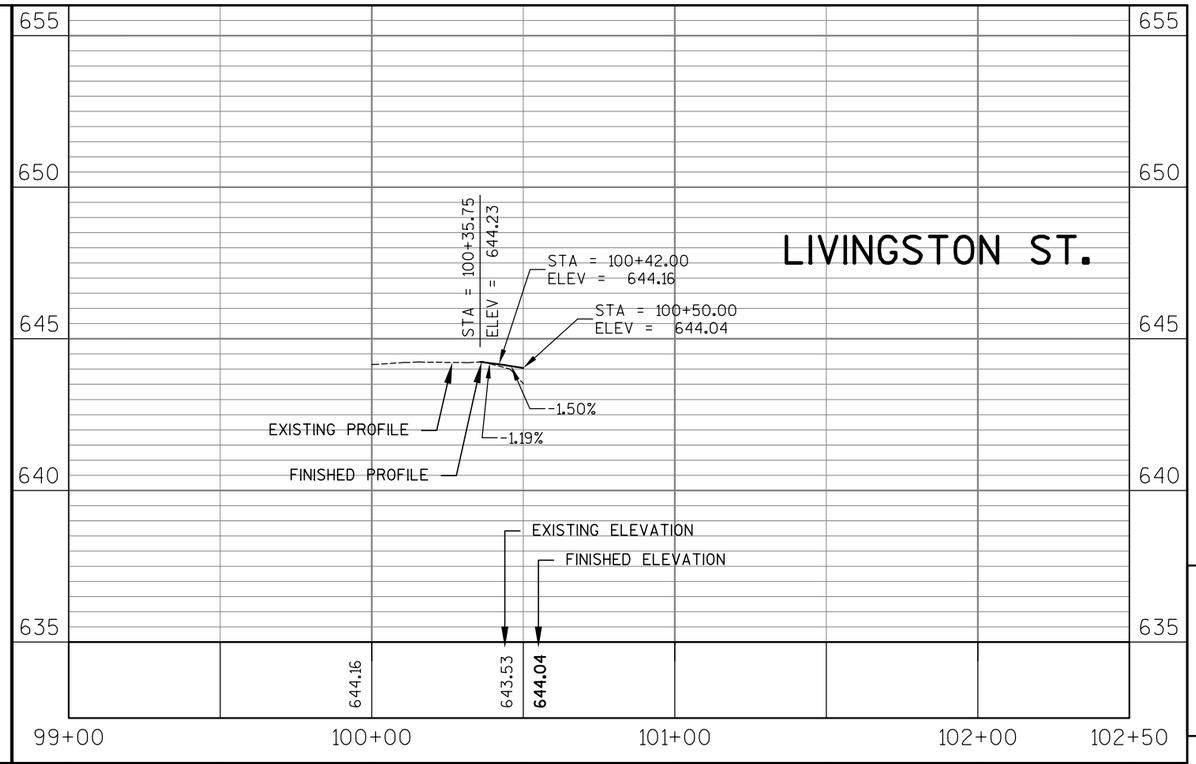
EXISTING PROFILE

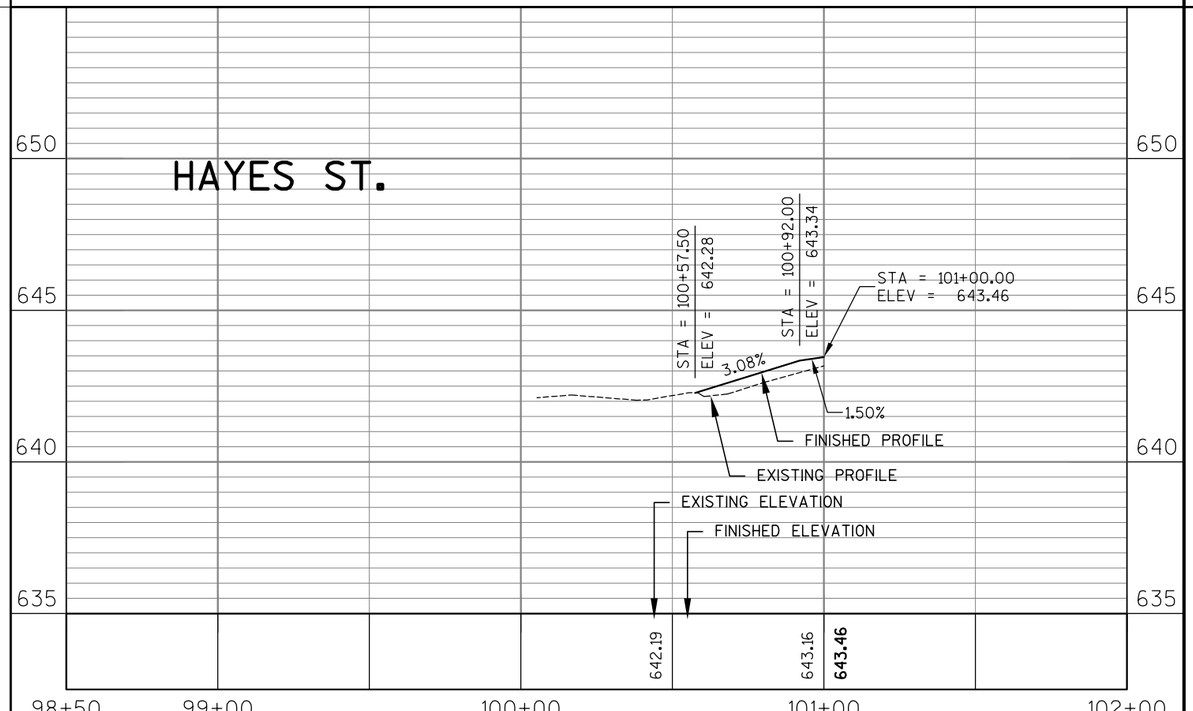
636.20	**669.10**	639.76	**670.45**	636.25	**671.79**	636.53	**673.14**	636.85	**674.48**	645.72	**675.82**	645.98	**676.08**	646.31	**675.19**	646.78	**673.14**	658.75	**670.92**

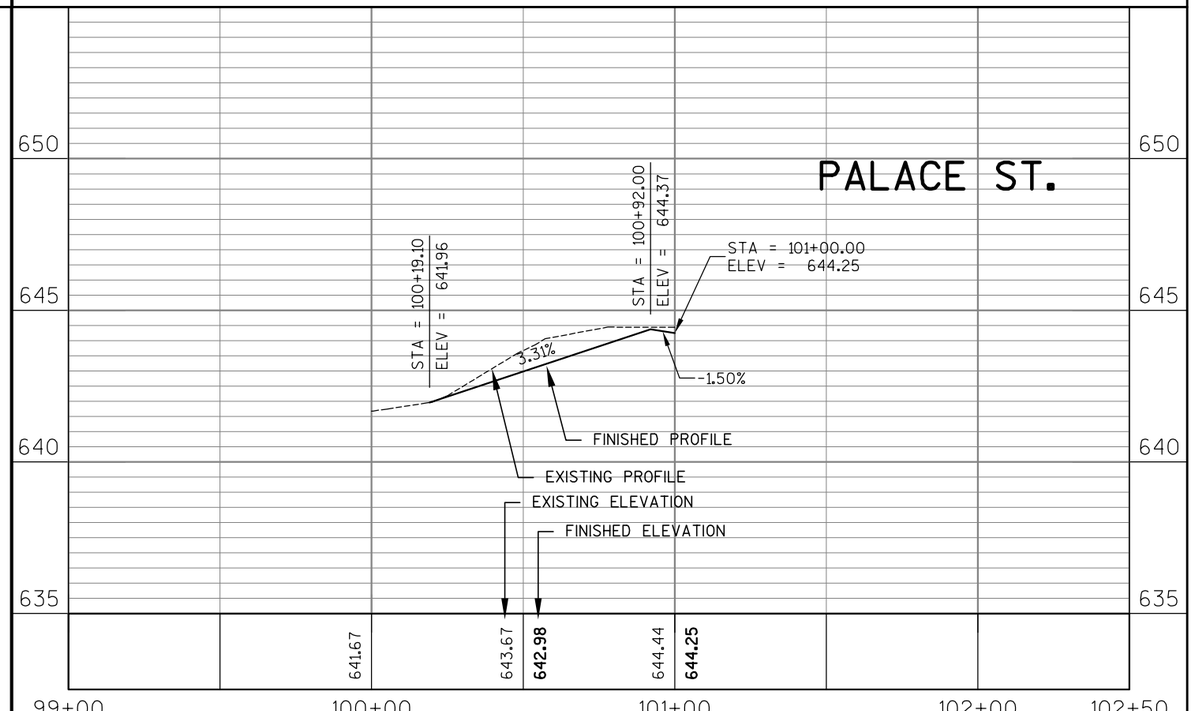
66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00 73+50

PROJECT NO:5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	PLAN AND PROFILE	SHEET 61	E

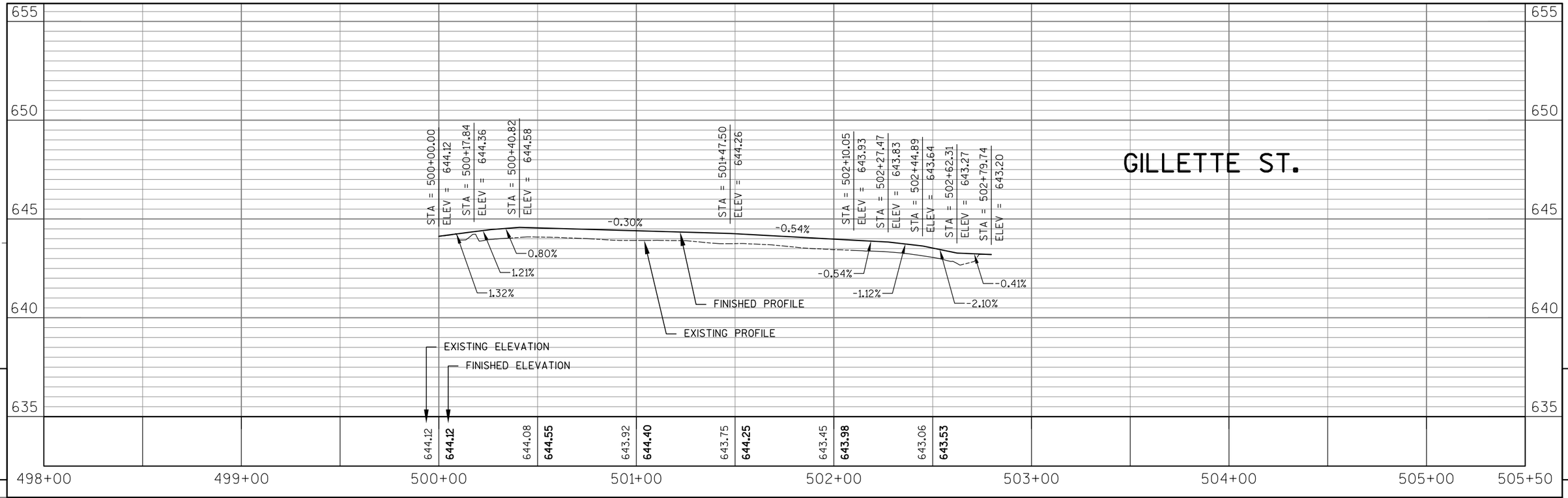


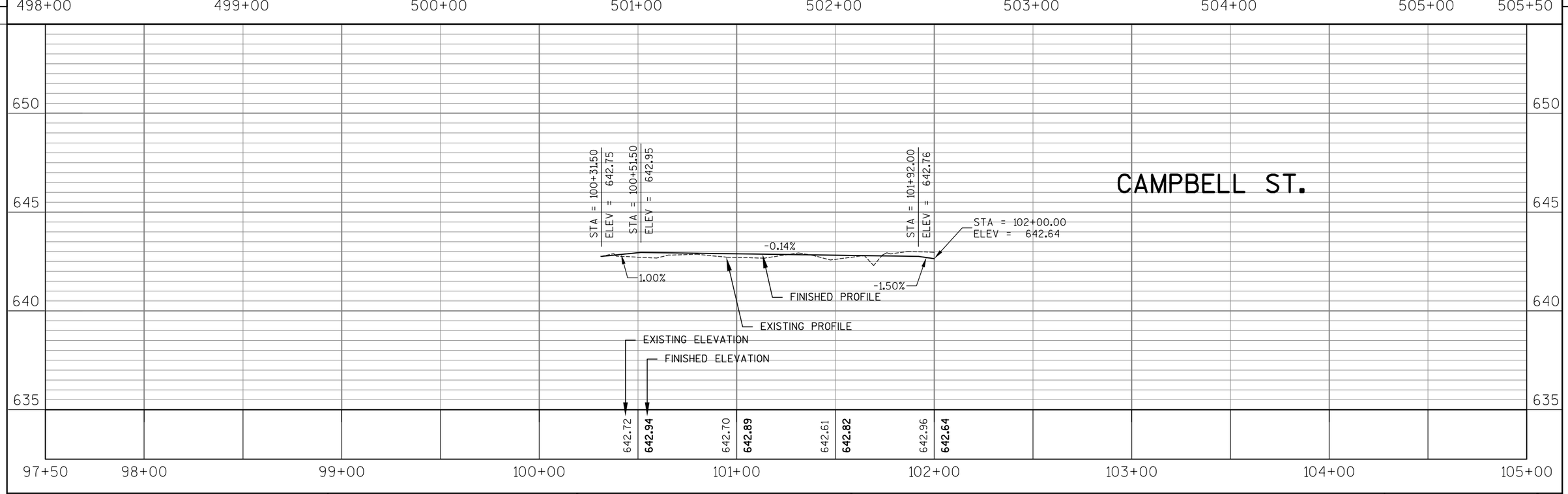






PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	PROFILES	SHEET 62	E

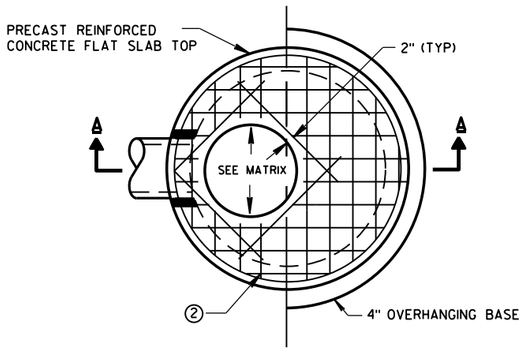




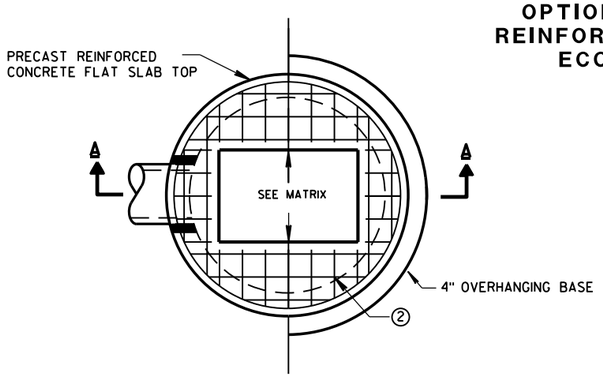
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	PROFILES	SHEET 63	E

Standard Detail Drawing List

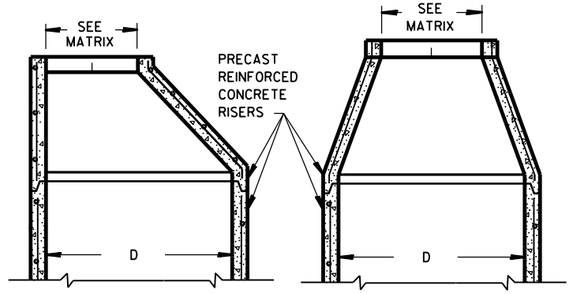
08A08-01	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 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
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
13C01-16	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
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)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE



PLAN VIEW CIRCULAR OPENING

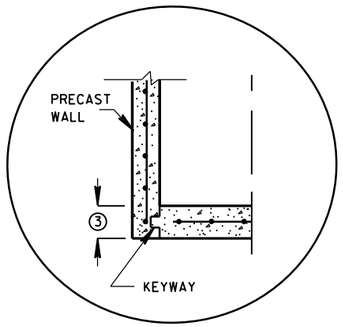


PLAN VIEW RECTANGULAR OPENING

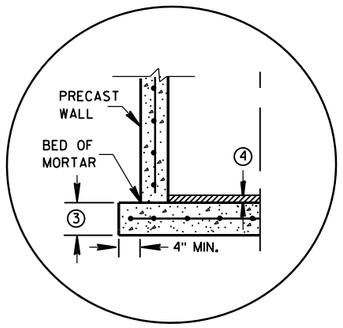


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

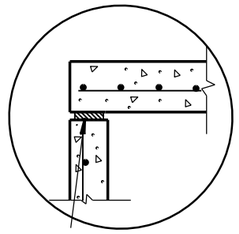


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

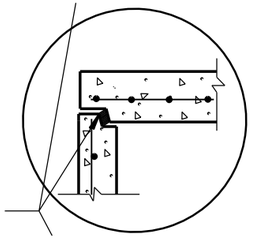


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

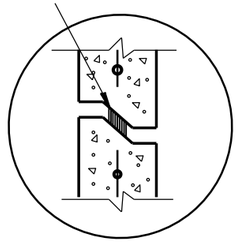


TOP WITH PLAIN END JOINT



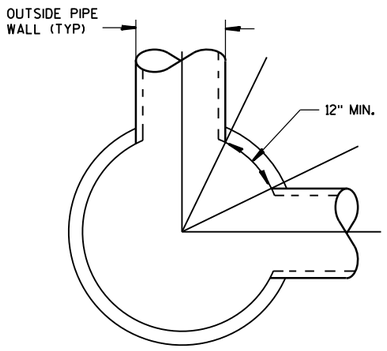
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT

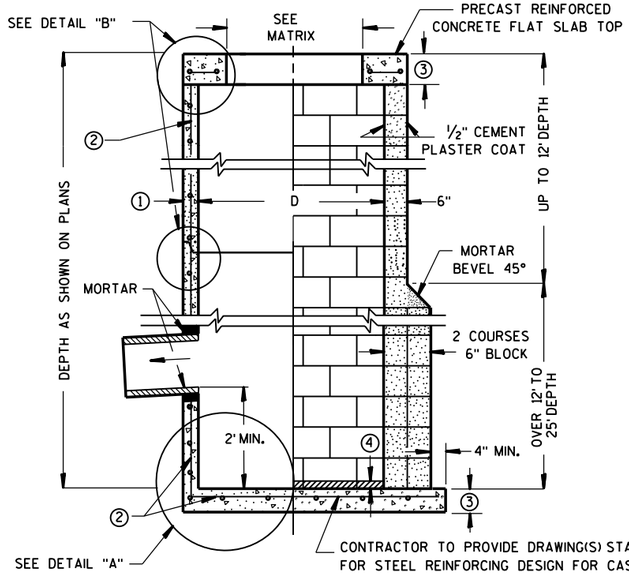


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE 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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN 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 CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE 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 1/2 INCH 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.

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.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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 AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS 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".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

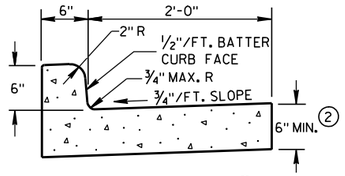
CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

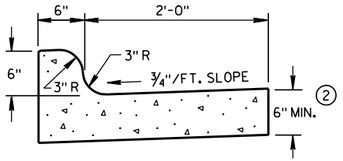
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

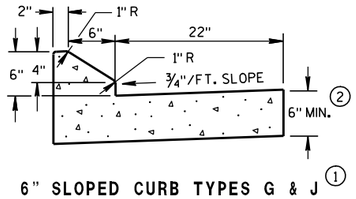
6
S.D.D. 8 A 8-1



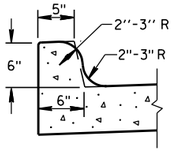
TYPES A & D (1)



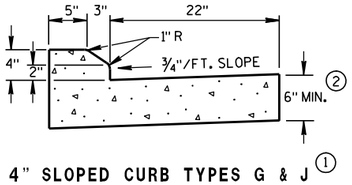
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

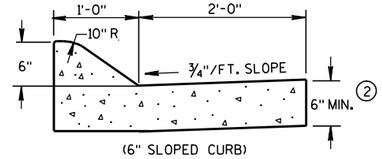


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

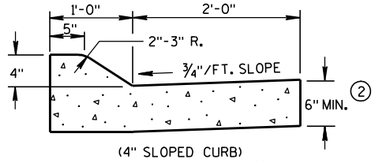


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

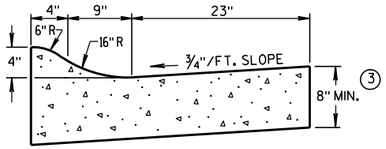


(6" SLOPED CURB)



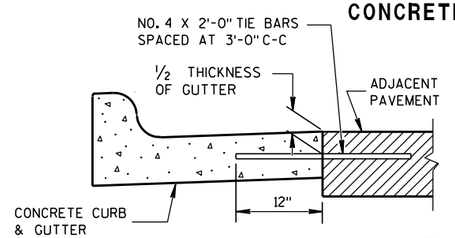
(4" SLOPED CURB)

TYPES A & D (1)

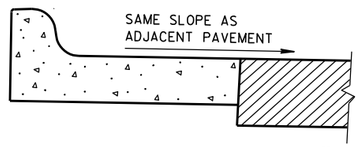


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

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.

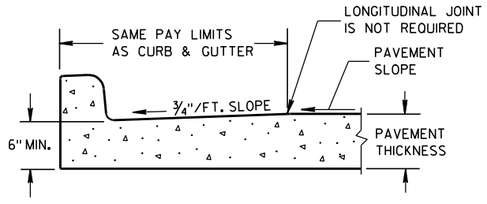
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

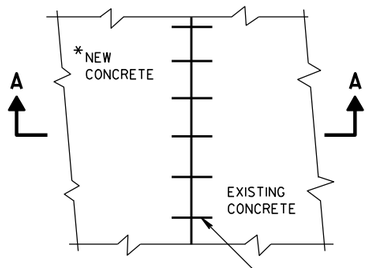
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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.

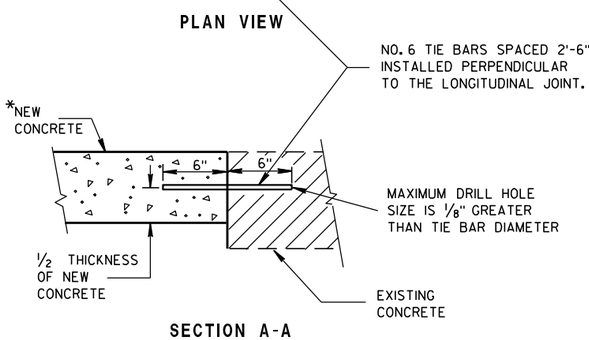


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



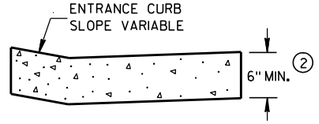
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

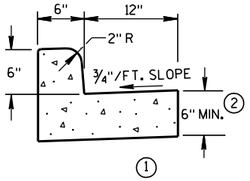


SECTION A-A

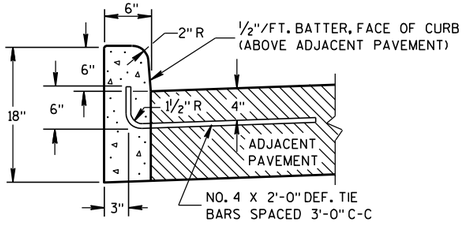
TIE BARS DRILLED INTO EXISTING PAVEMENT



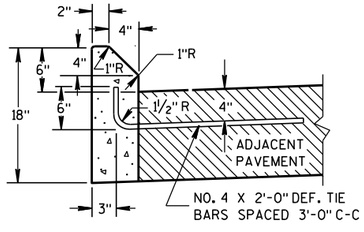
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



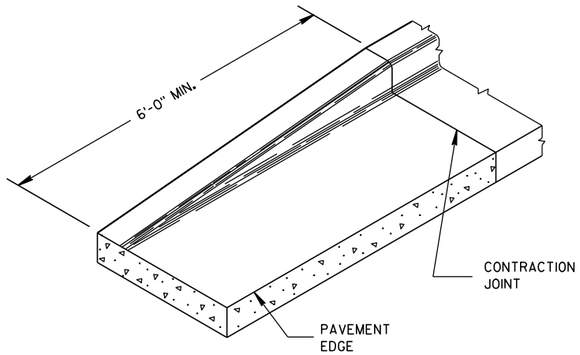
(1)
TYPES A & D
CONCRETE CURB & GUTTER 18"



(1)
TYPES A & D



(1)
TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

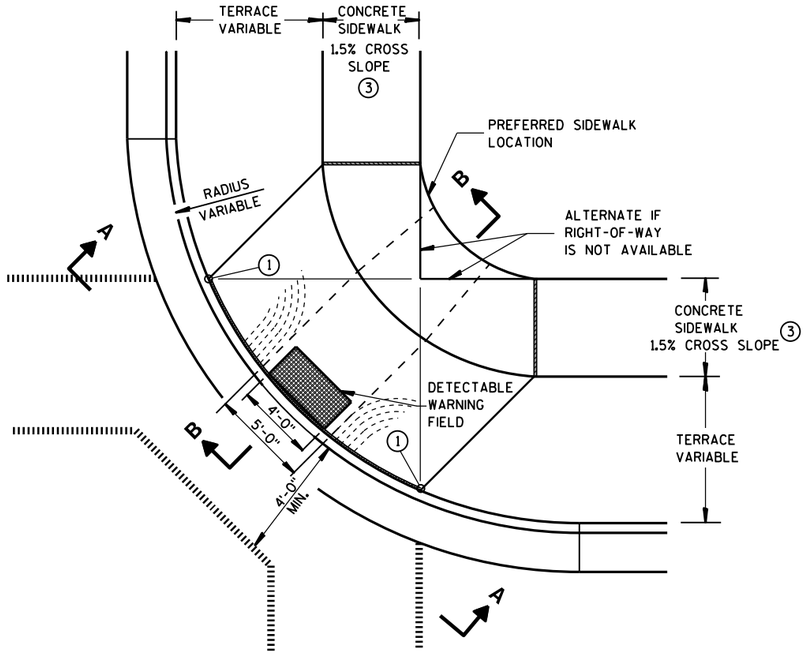
APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 D 1-17

6

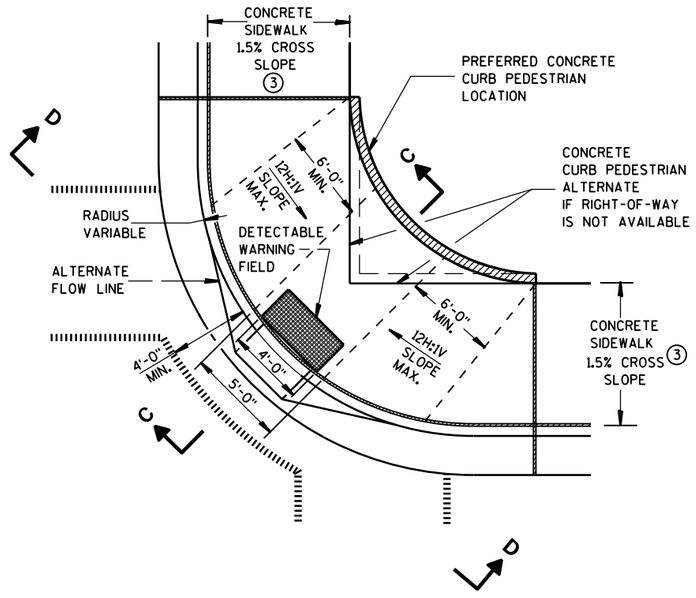
S.D.D. 8 D 1-17



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.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. 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.

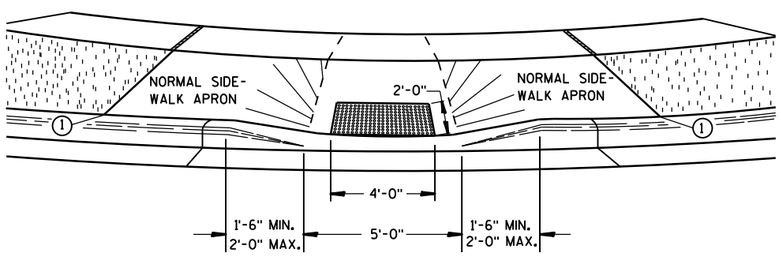
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

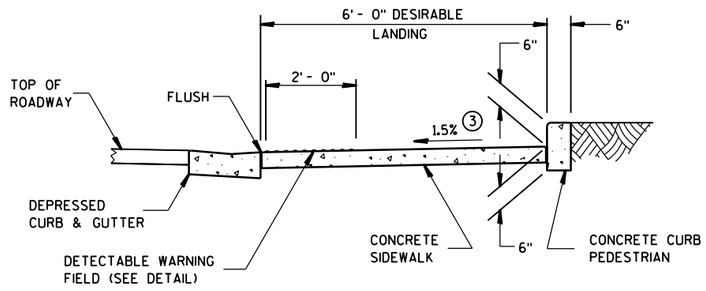
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

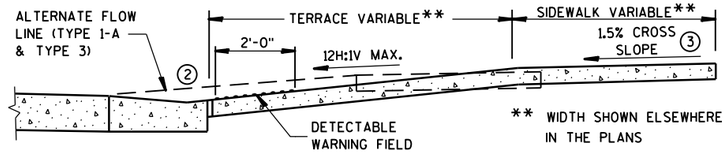
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



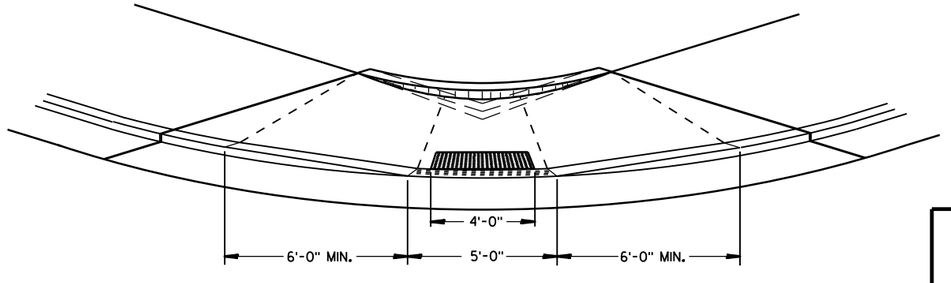
VIEW A-A



SECTION C-C



SECTION B-B



VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

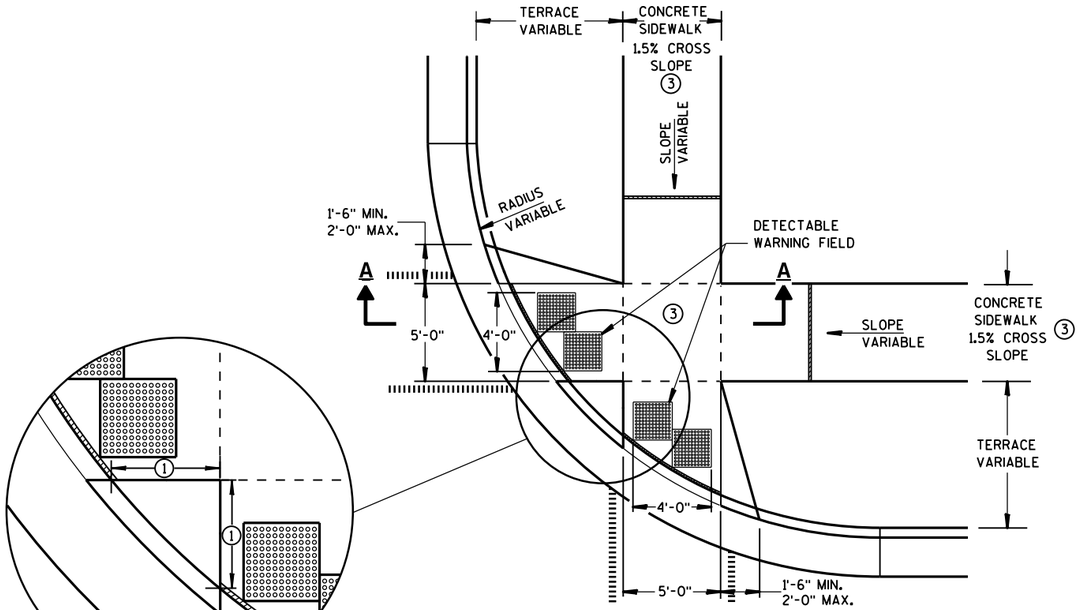
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 67

6

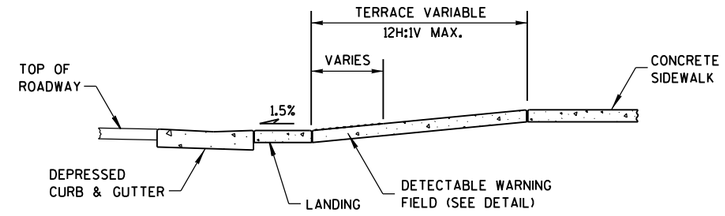
S.D.D. 8 D 5-15a

6

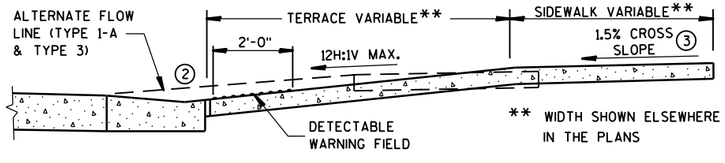
S.D.D. 8 D 5-15a



PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)



SECTION A-A



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.

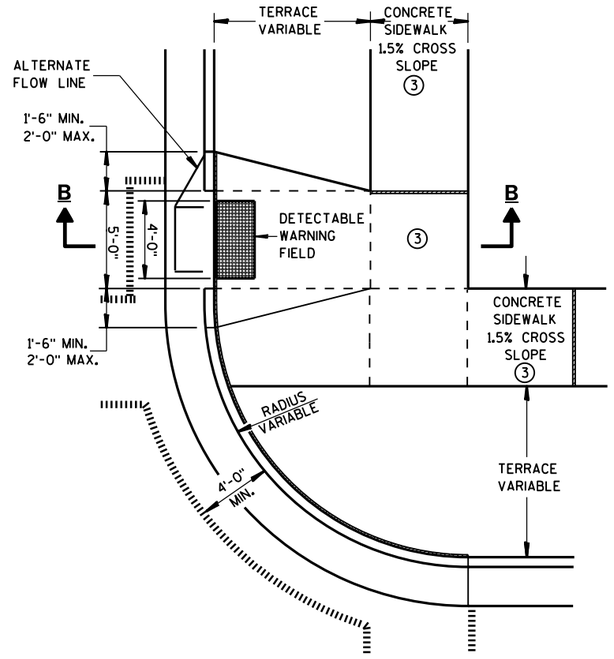
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



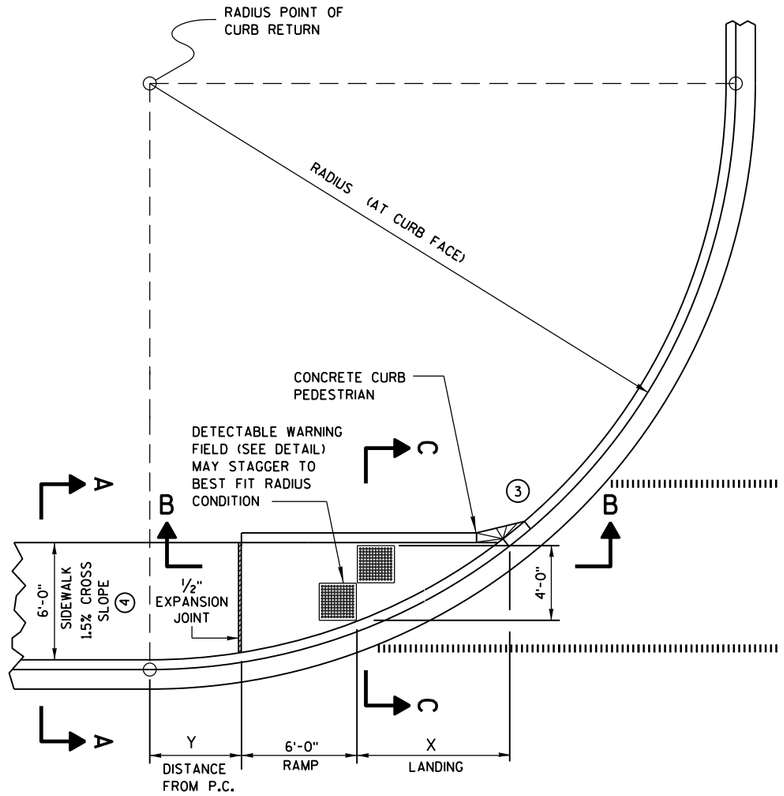
PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

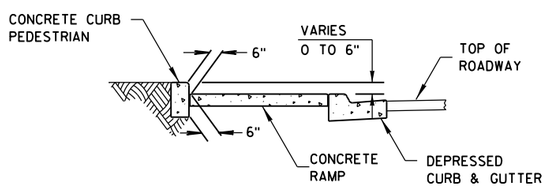
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

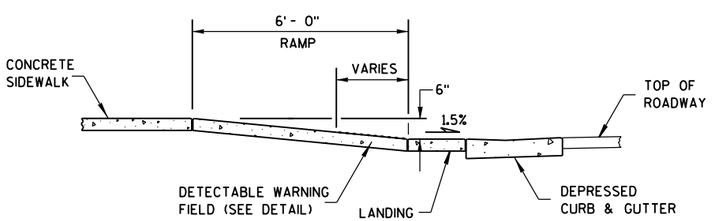
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



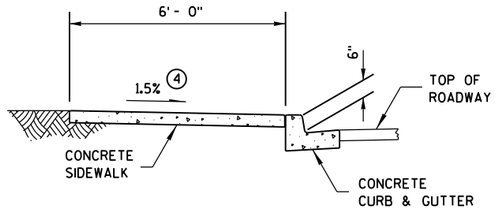
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

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 A-A FOR TYPE 4A

GENERAL NOTES

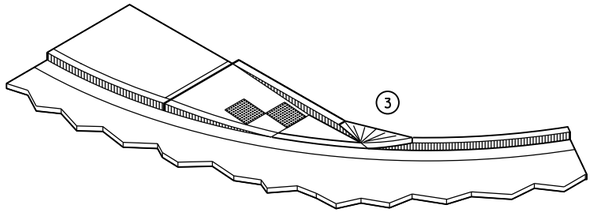
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

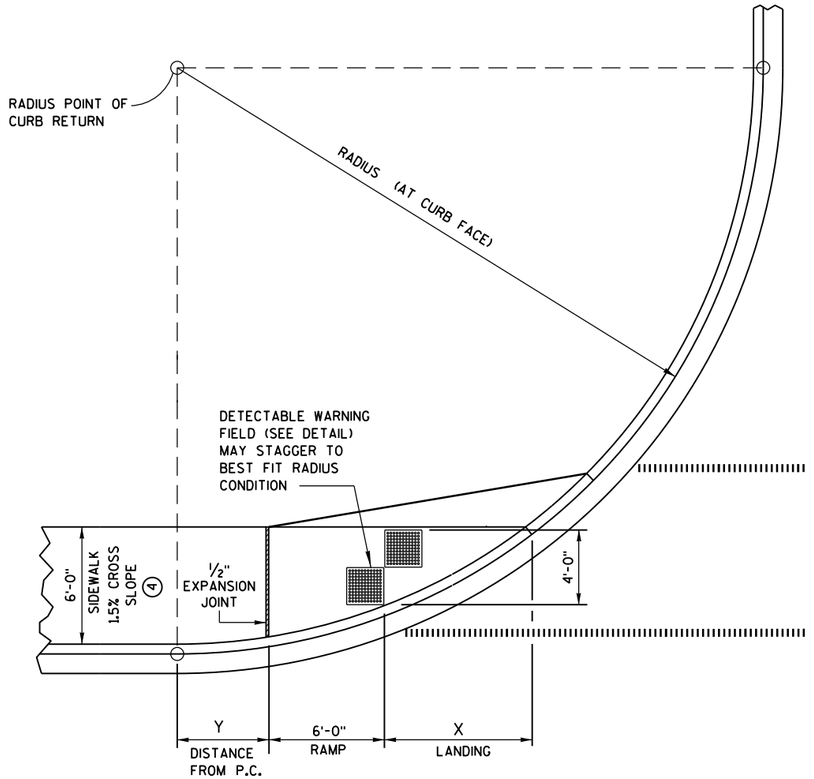
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

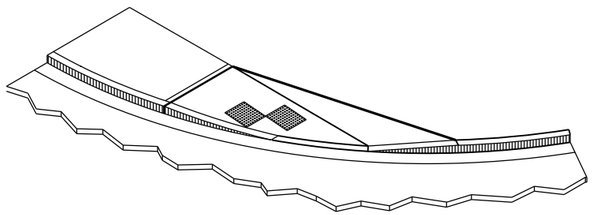
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

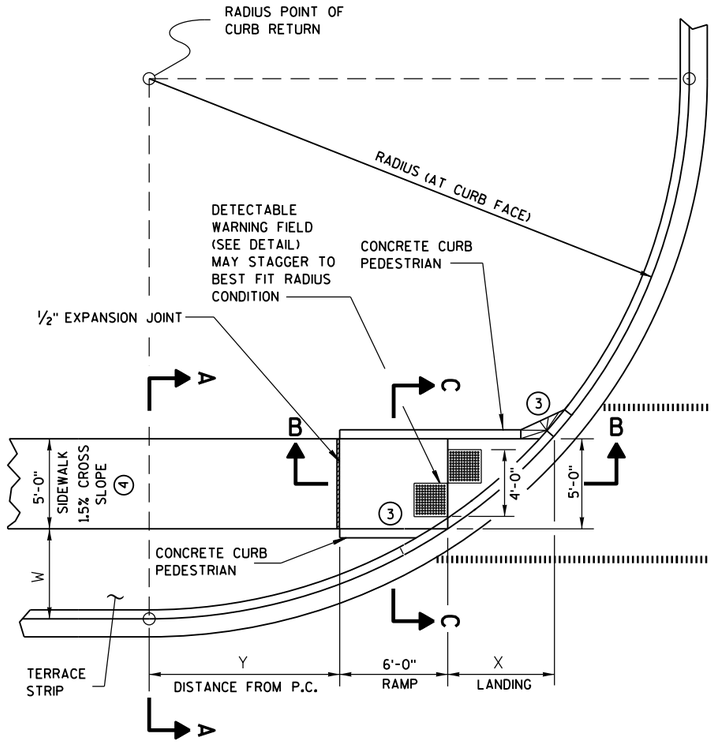
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

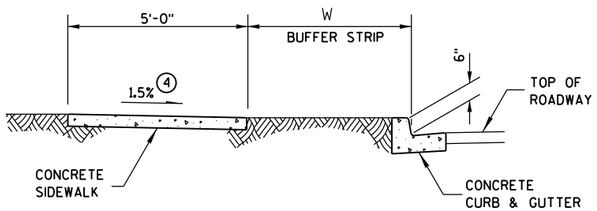
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

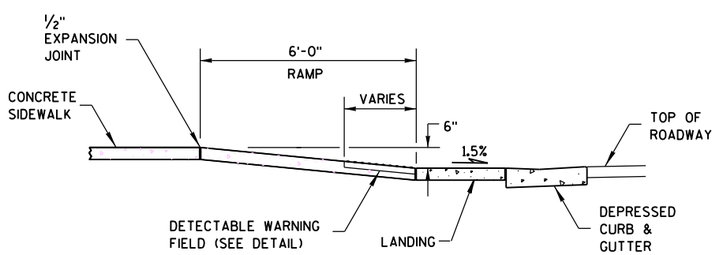
S.D.D. 8 D 5-15c



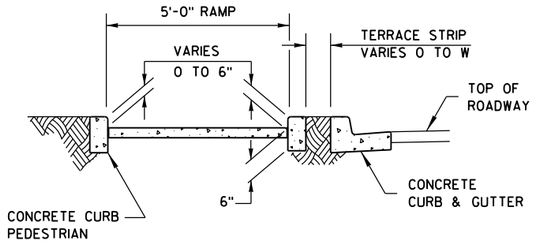
CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



SECTION B-B FOR TYPE 4B



SECTION C-C FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

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

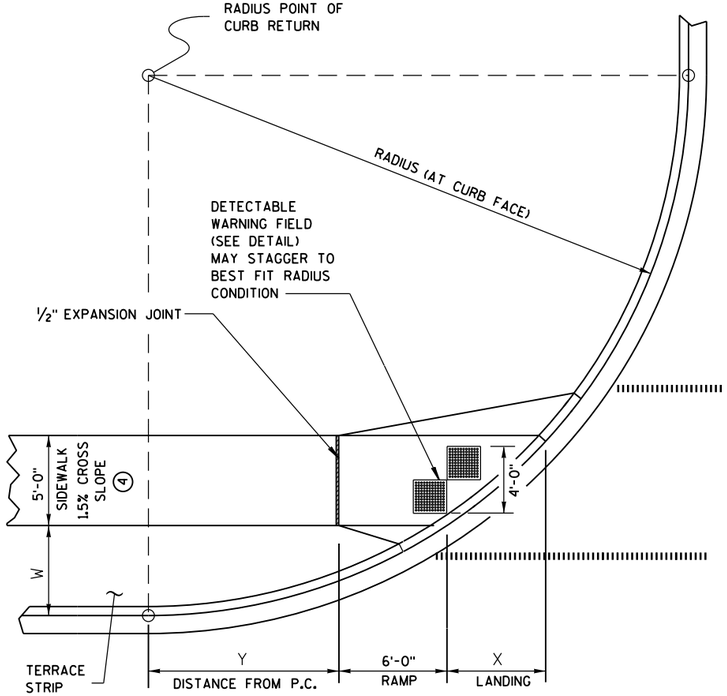
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

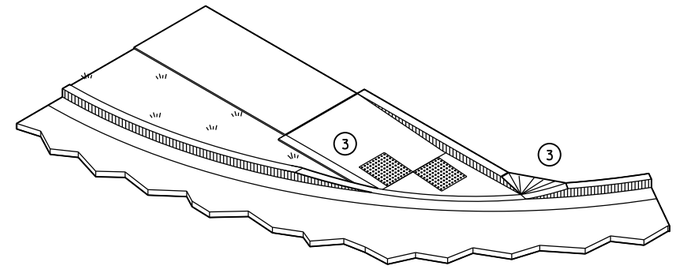
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

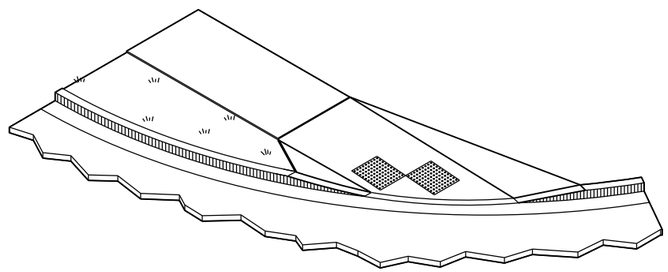
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



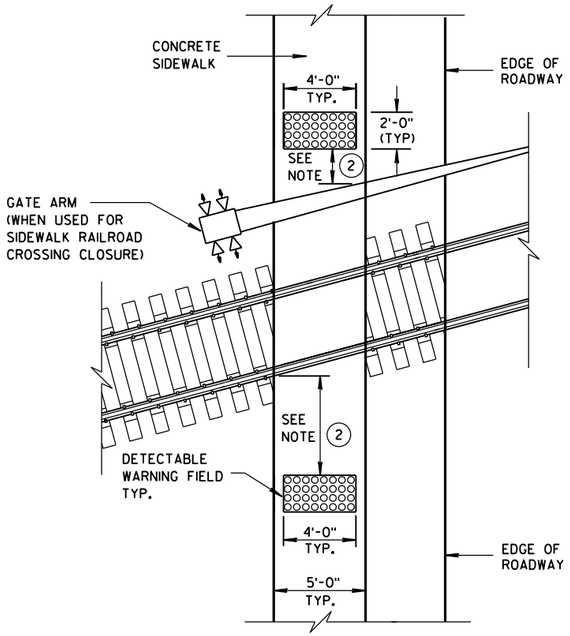
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

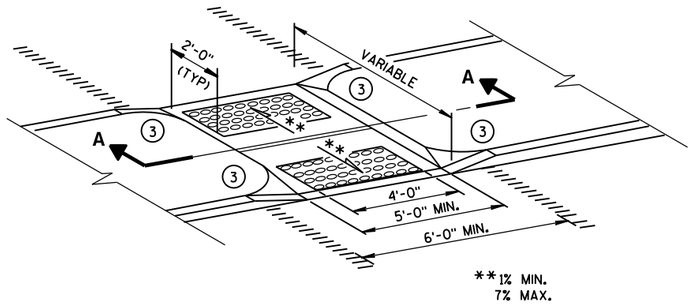
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

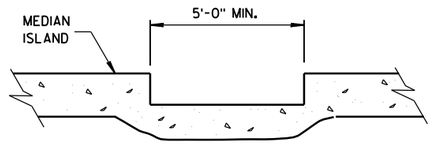
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

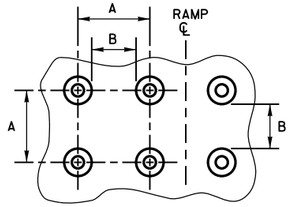
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



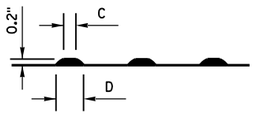
SECTION A-A



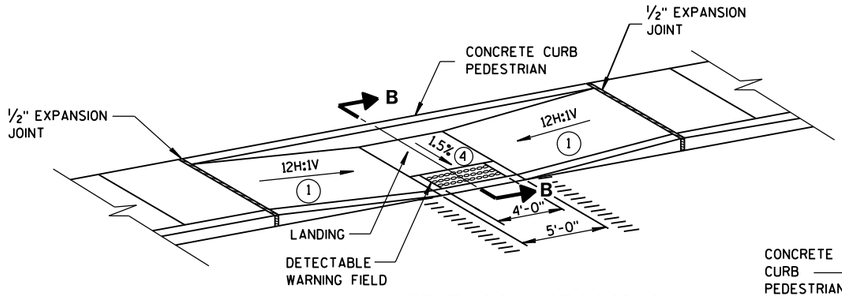
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

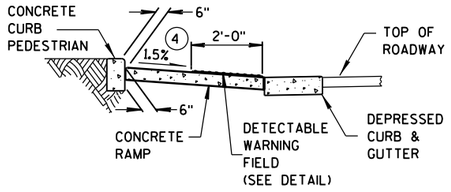
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

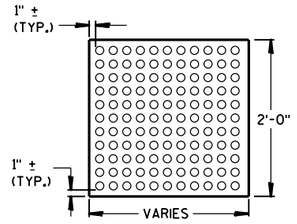


MID-BLOCK CROSSING
TYPE 7A



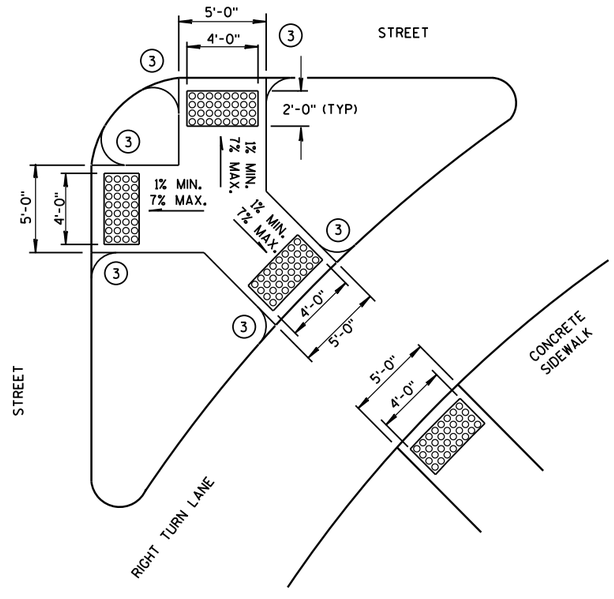
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

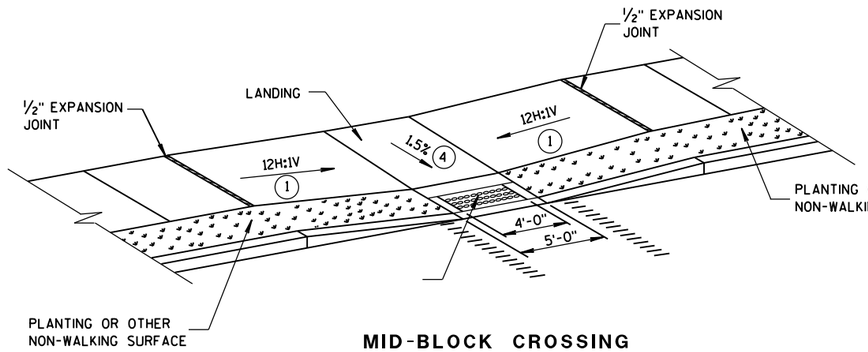


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



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

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

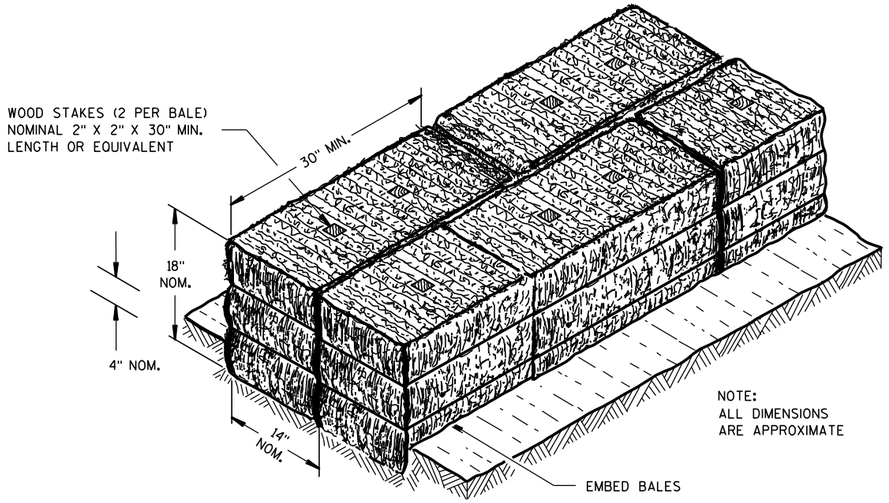
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

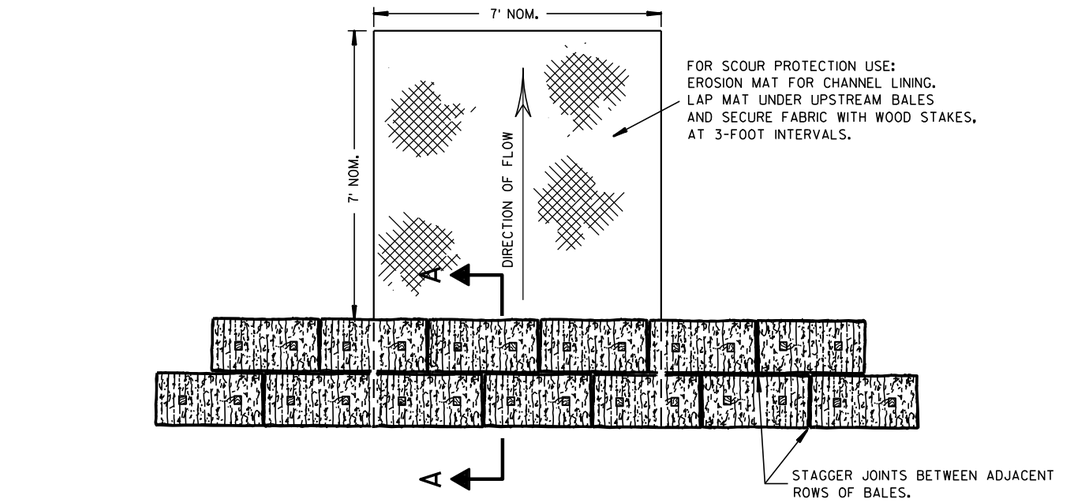
APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS [illegible]ENT ENGINEER
FHWA

6

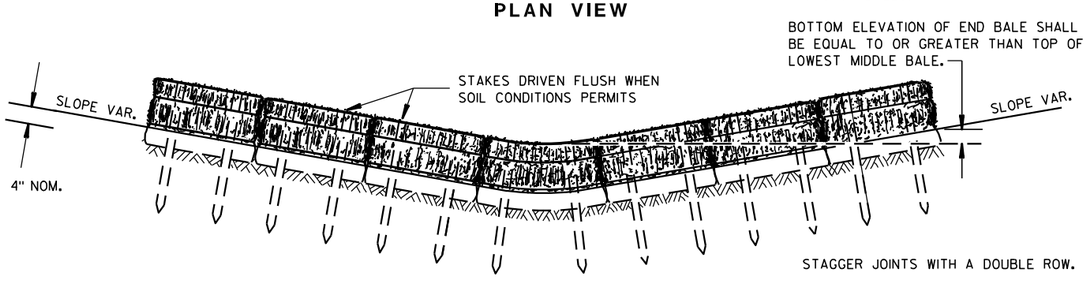
S.D.D. 8 D 5-15e



SECTION A-A



PLAN VIEW



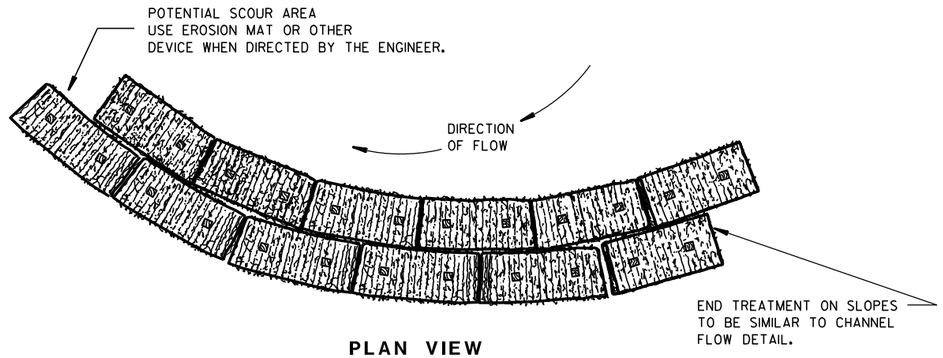
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

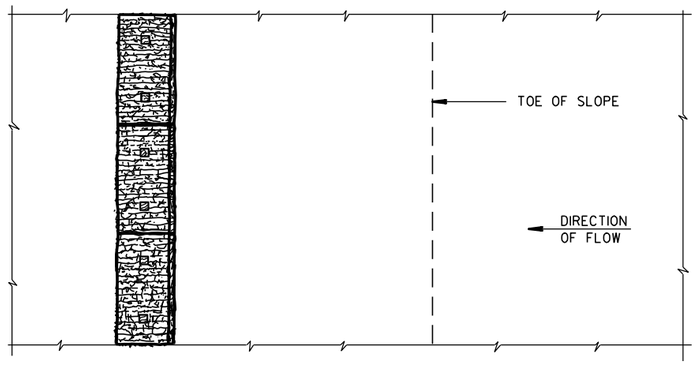
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

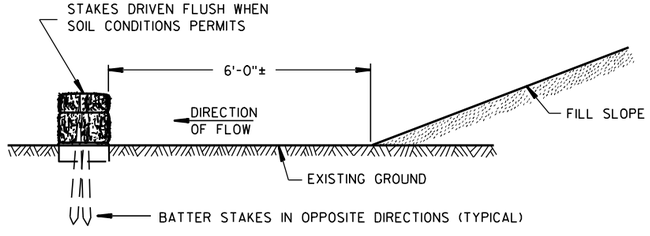


PLAN VIEW

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

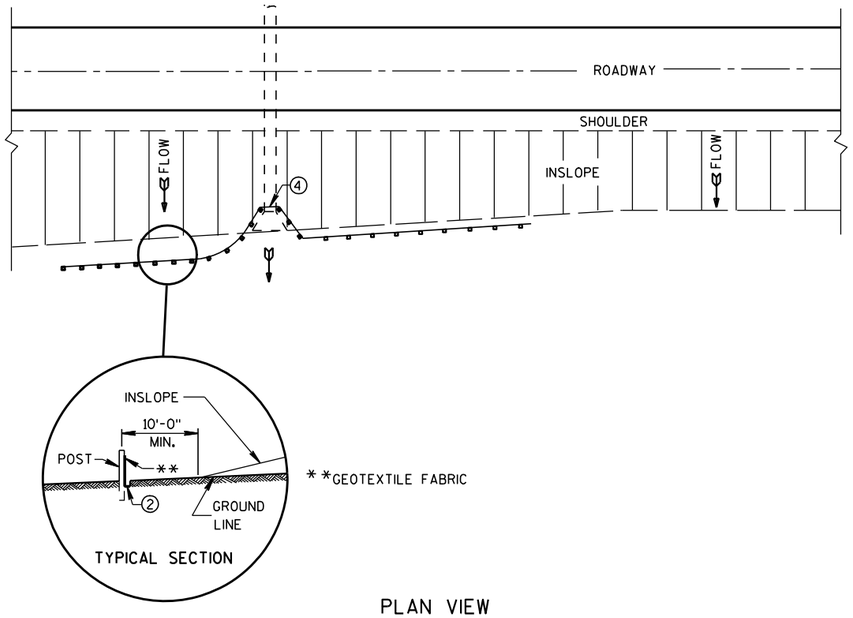
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

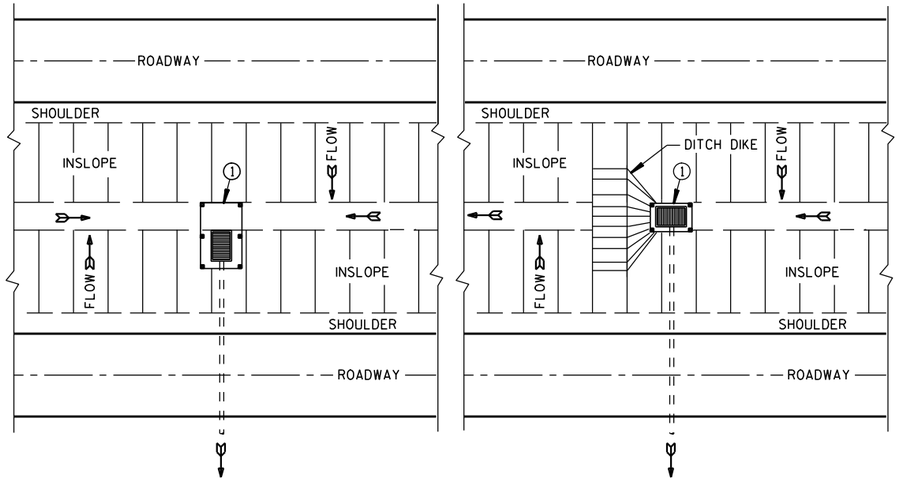
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



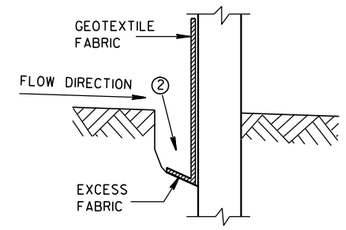
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

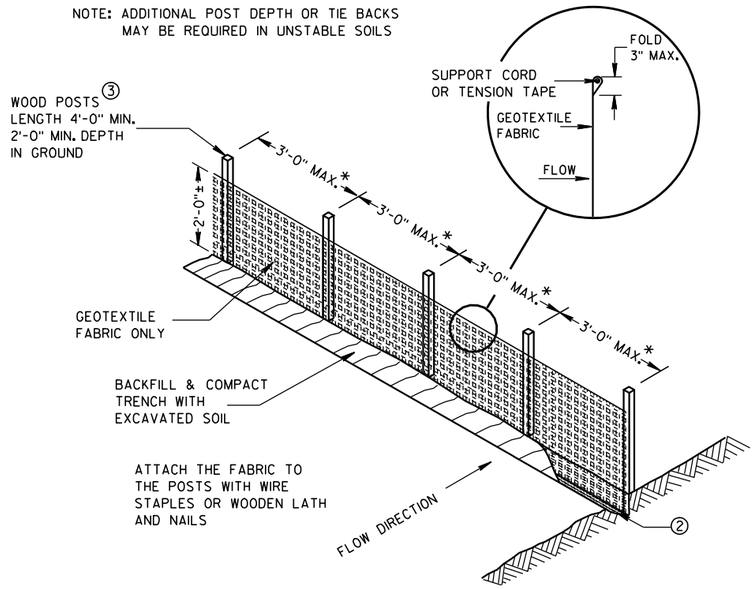
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

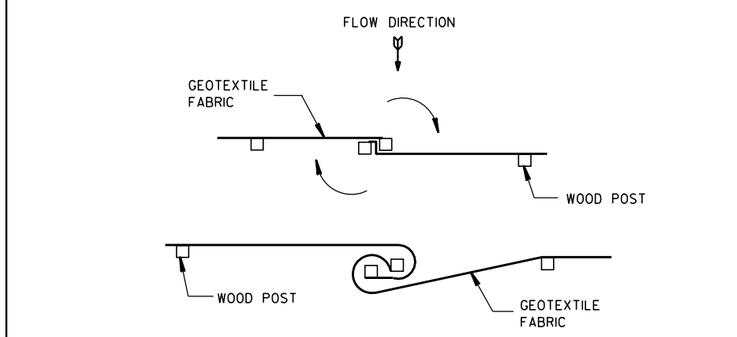
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



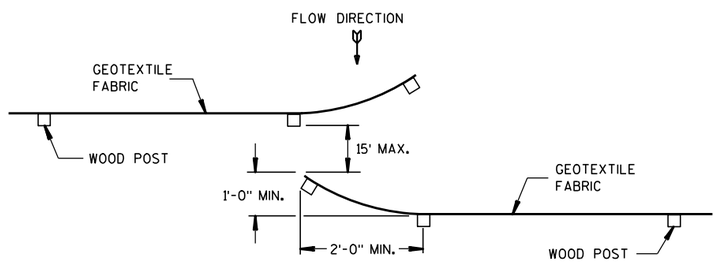
TRENCH DETAIL



SILT FENCE

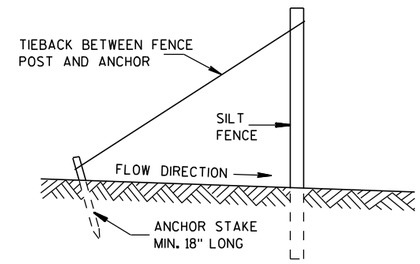


TWIST METHOD



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

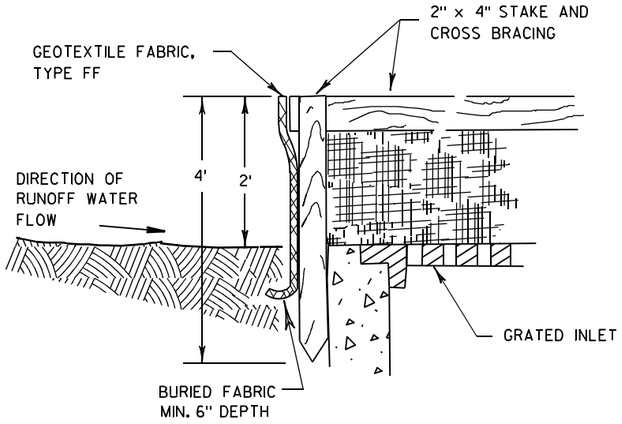
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

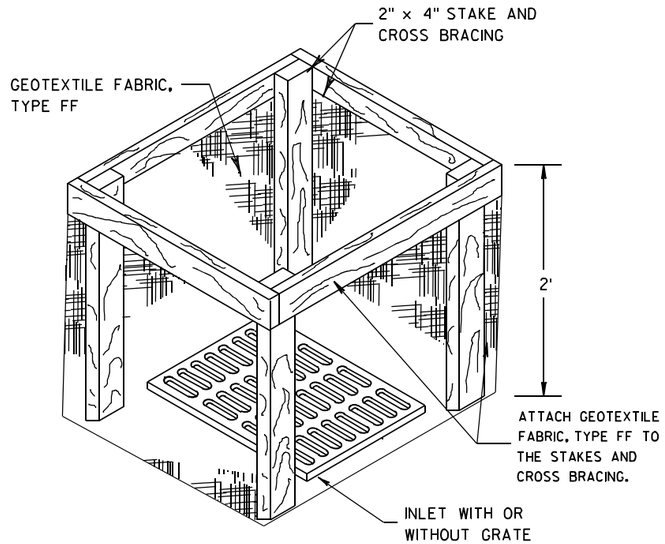
6

S.D.D. 8 E 9-6

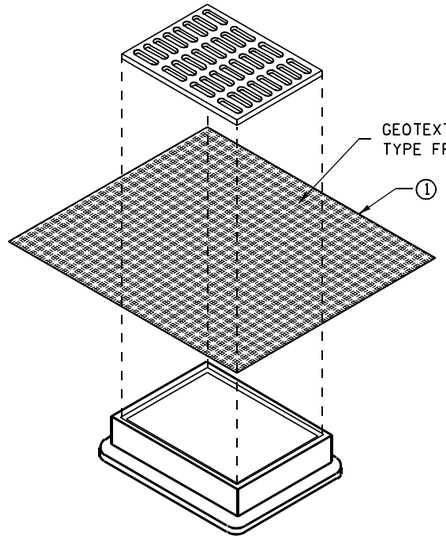
6

S.D.D. 8 E 9-6



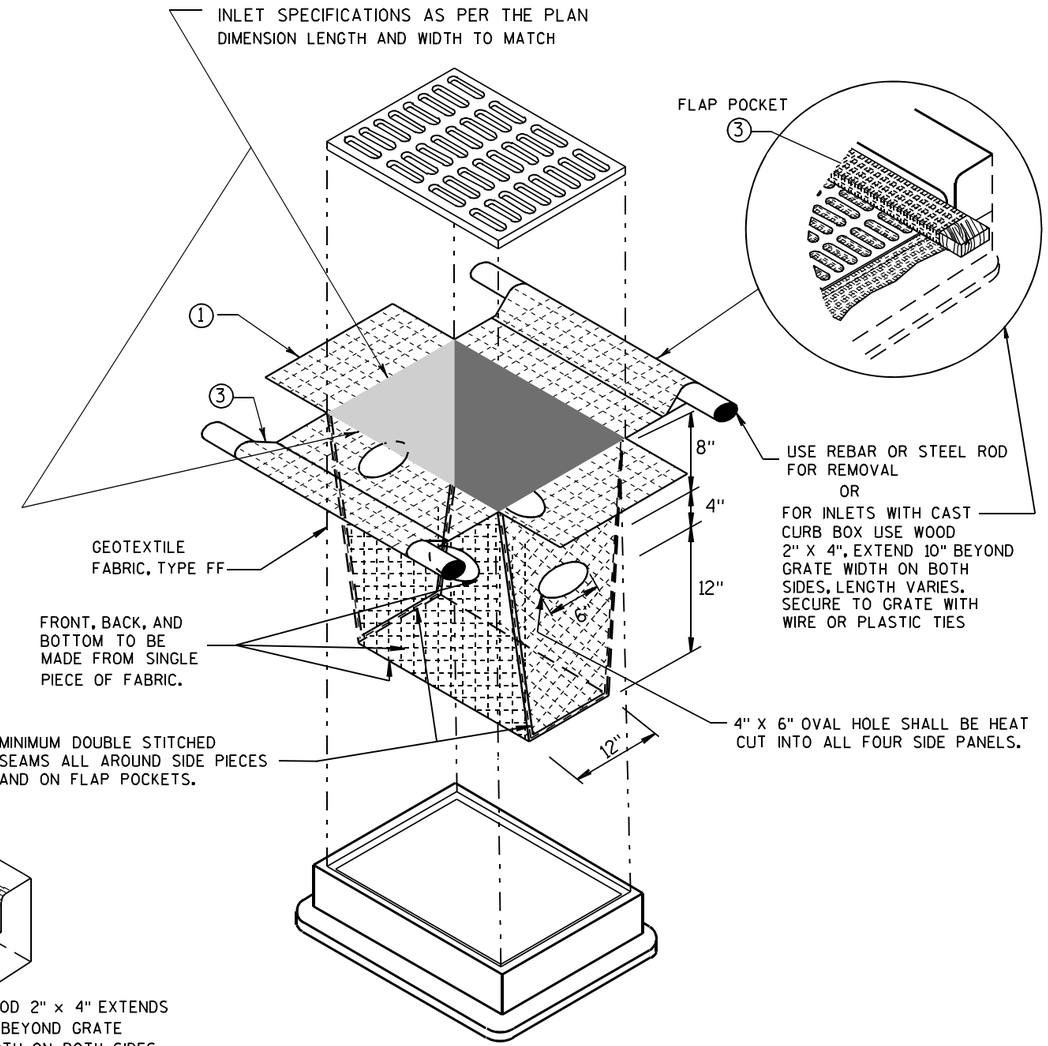


INLET PROTECTION, TYPE A



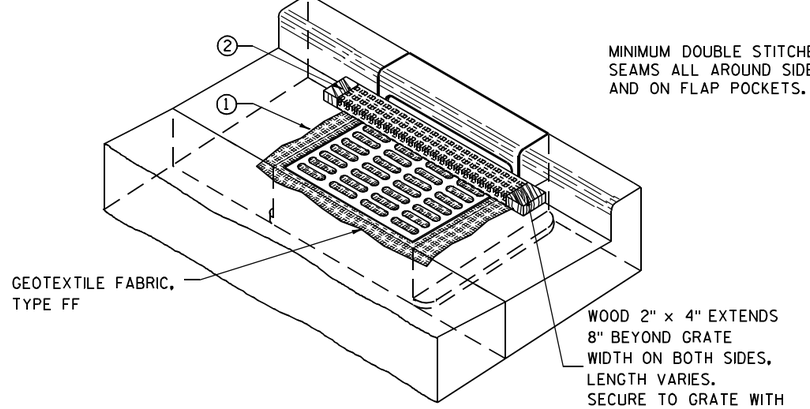
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)



INLET PROTECTION, TYPE C (WITH CURB BOX)

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

METAL APRON ENDWALLS

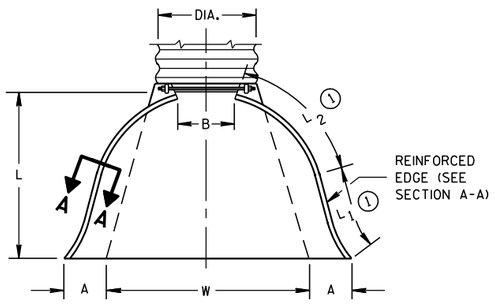
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 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

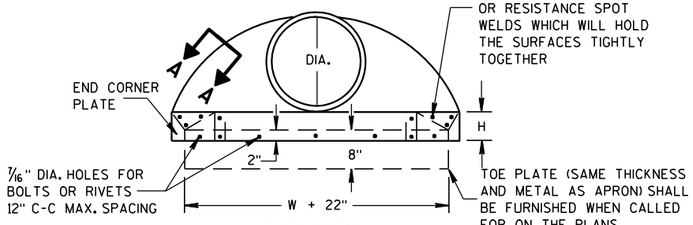
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
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

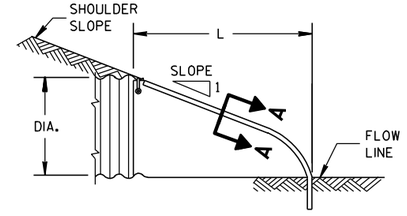
* MINIMUM
** MAXIMUM



PLAN VIEW

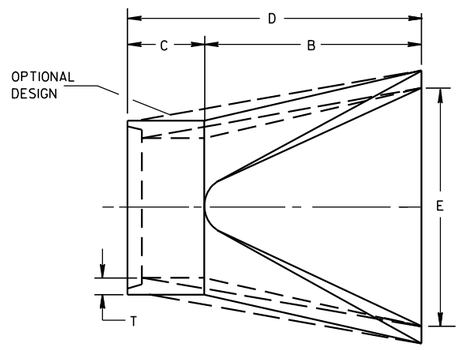


END VIEW

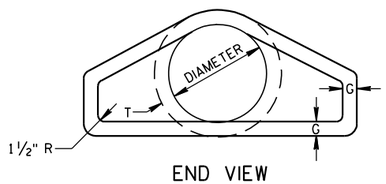


SIDE ELEVATION

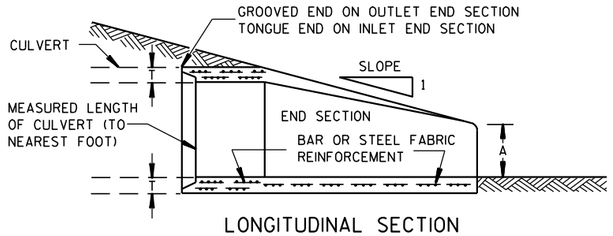
METAL ENDWALLS



PLAN

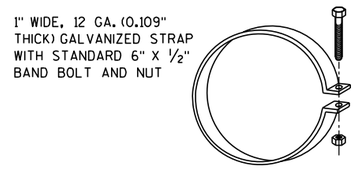


END VIEW



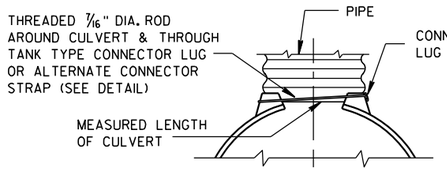
LONGITUDINAL SECTION

CONCRETE ENDWALLS

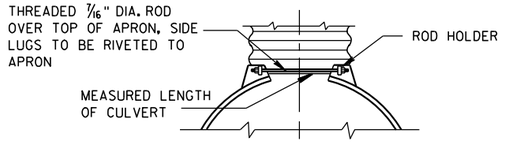


ALTERNATE FOR TYPE 1 CONNECTION

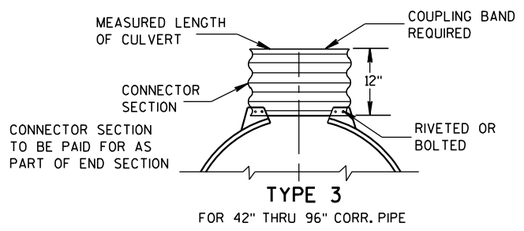
END SECTION CONNECTOR STRAP



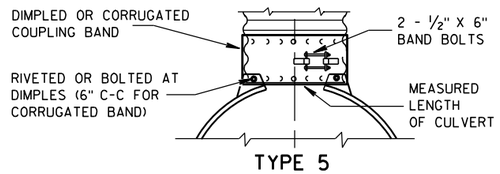
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

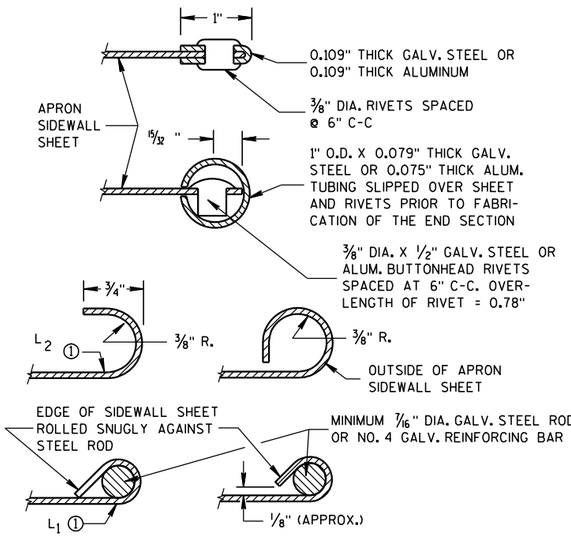
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

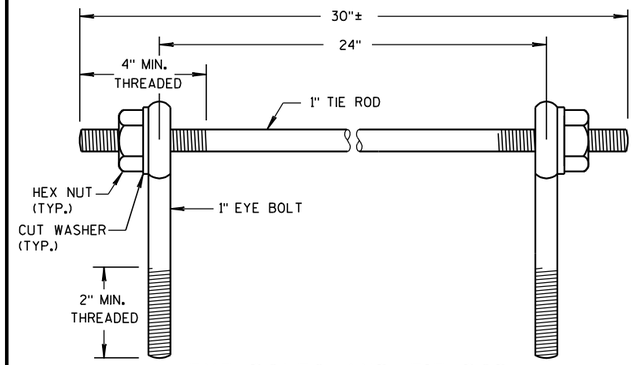
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

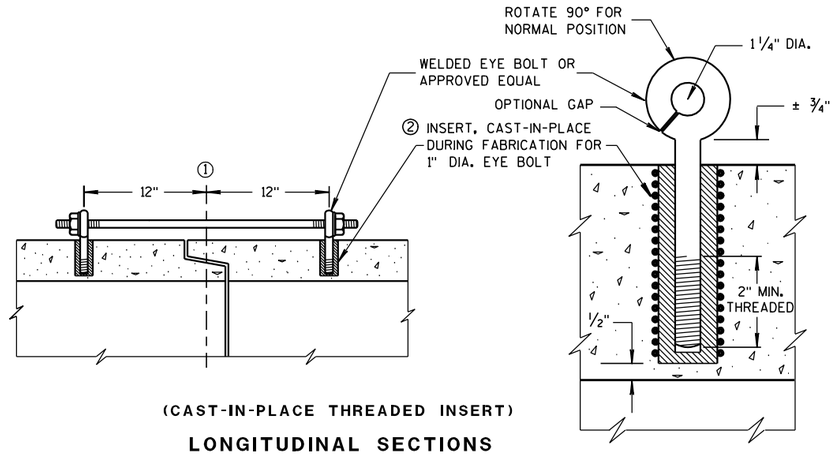
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOP 75 NEER
FHWA

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.

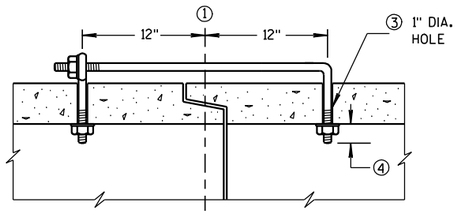
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

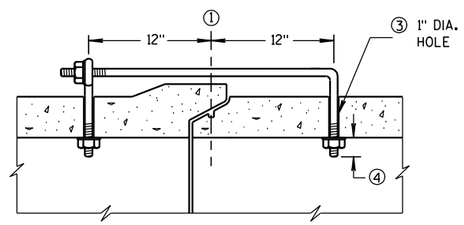
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

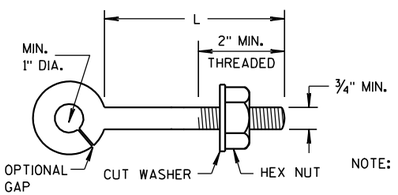


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

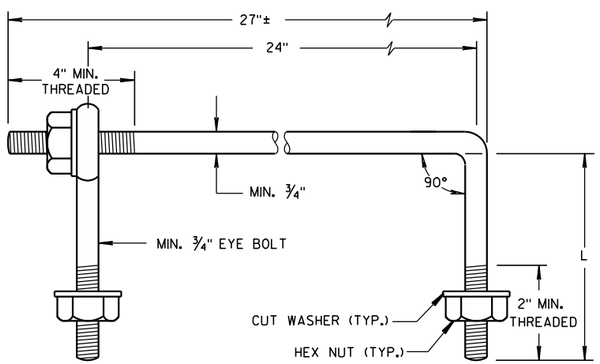
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

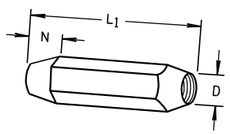
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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 7/16

DIMENSIONS SHOWN ARE IN INCHES



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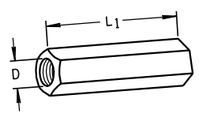
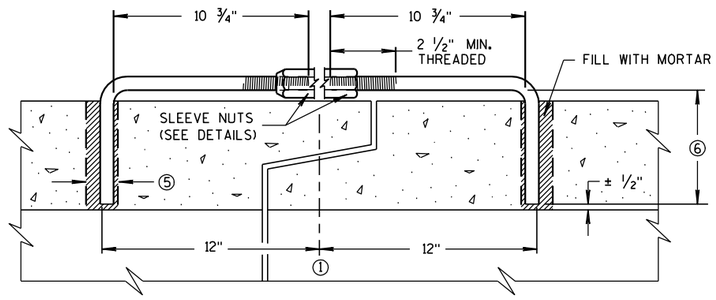


PLAIN

RIGHT AND LEFT THREADS

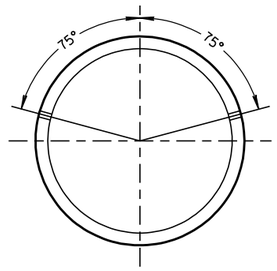
SLEEVE NUTS



LONGITUDINAL SECTION

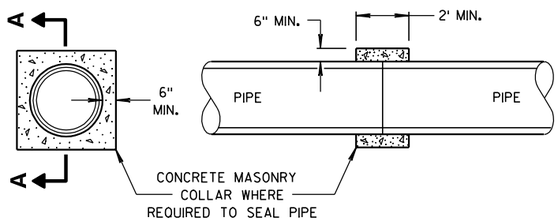
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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



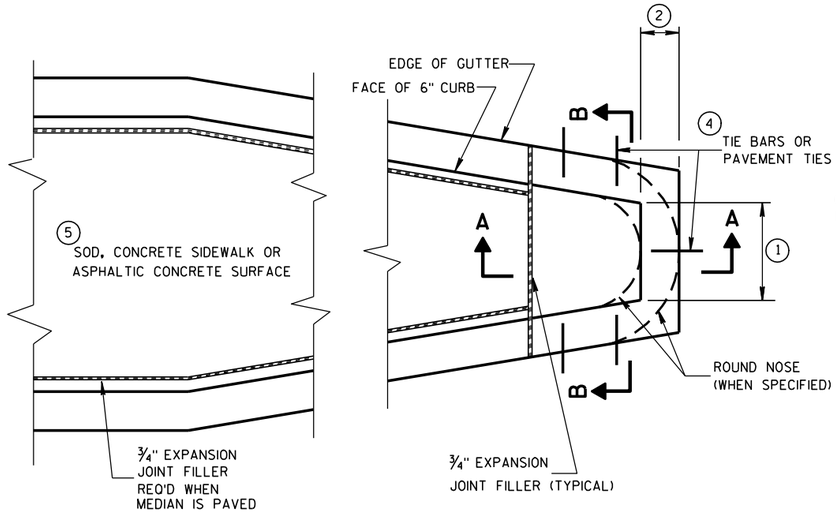
SECTION A-A

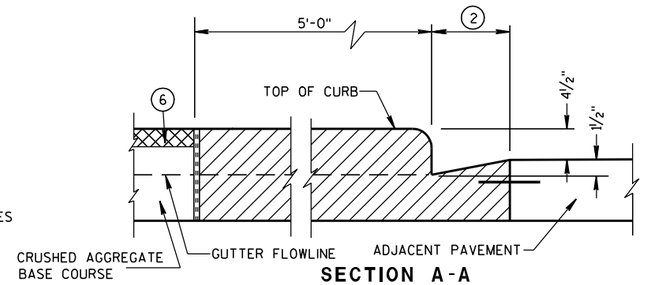
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

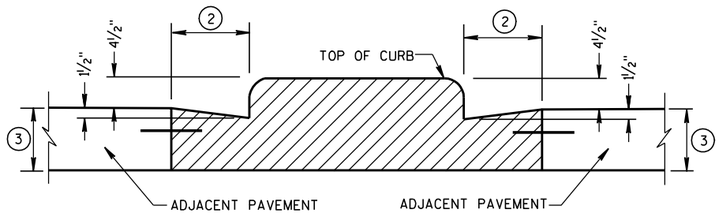
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA





SECTION A-A



SECTION B-B

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.

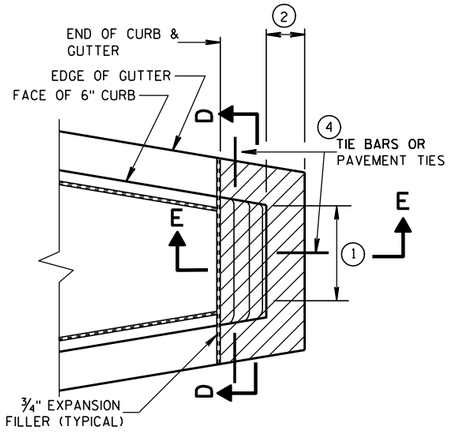
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

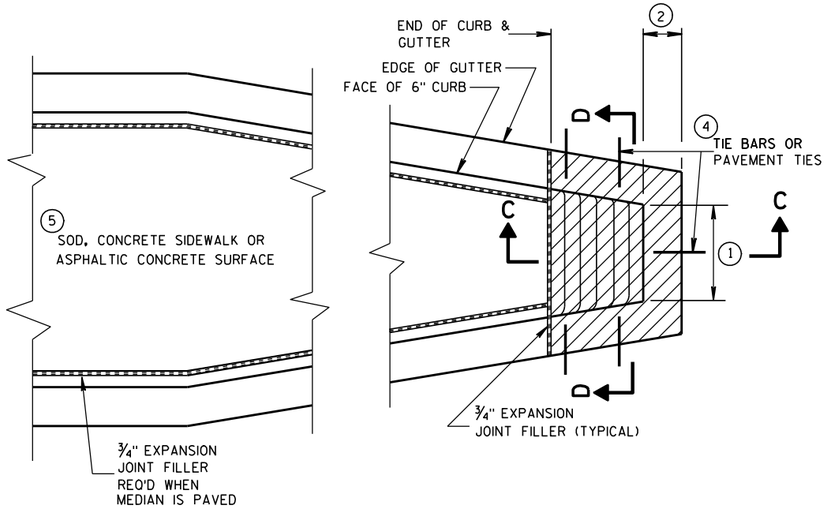
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

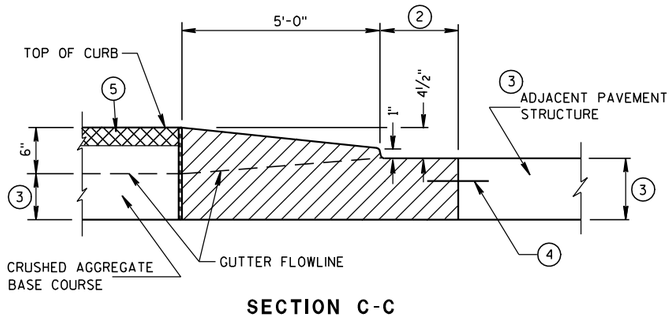
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

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.

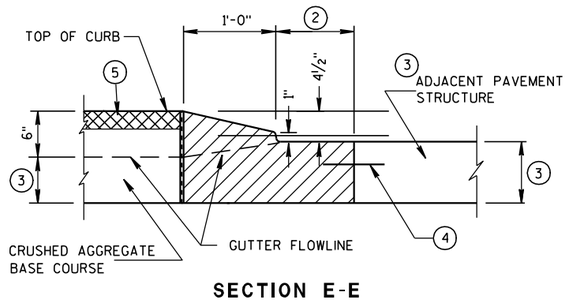
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.







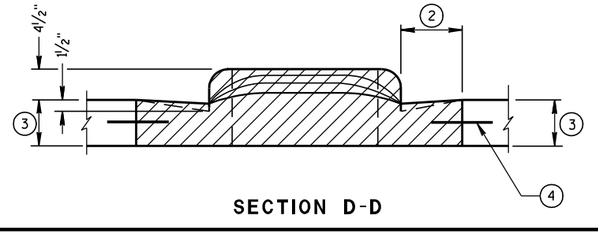
SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2

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. [illegible] ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	NT

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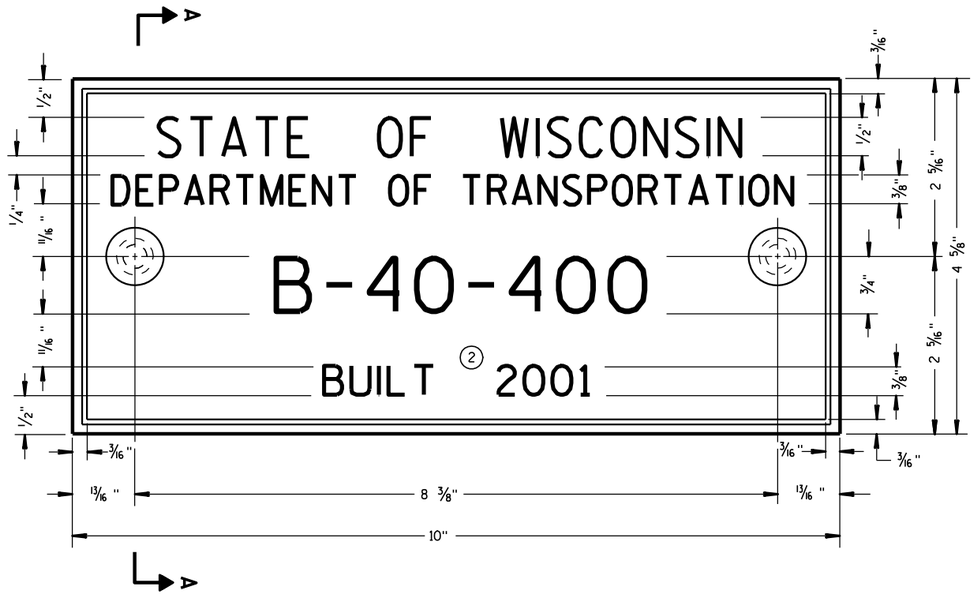
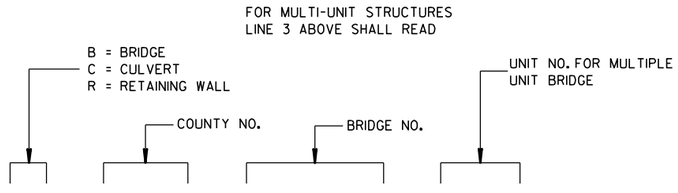
S.D.D. 11 B 2-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

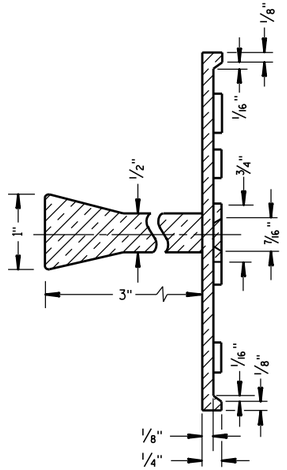
GENERAL NOTES

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.

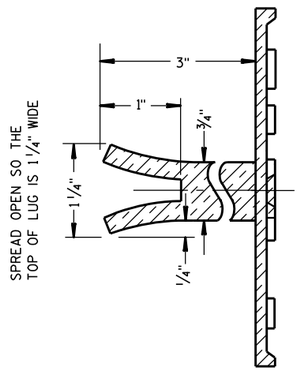
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

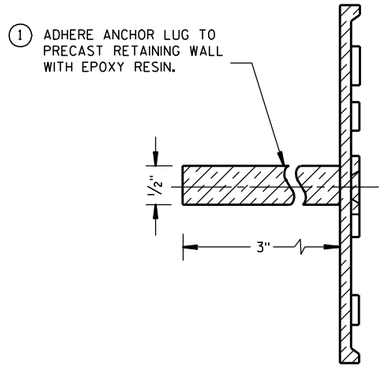
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



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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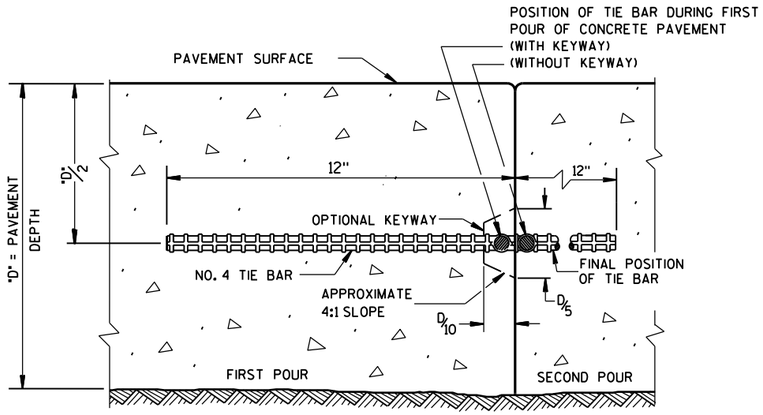
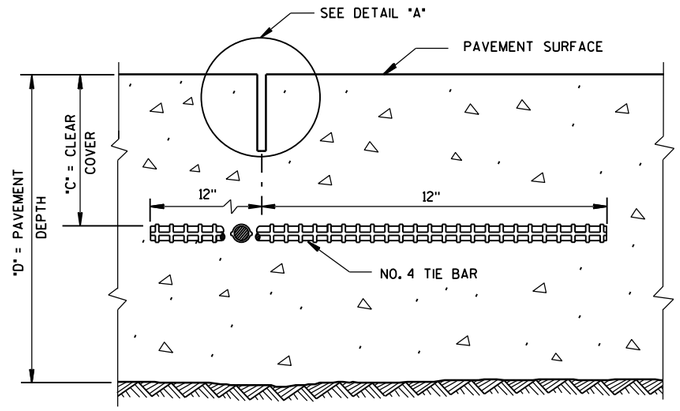
S.D.D. 12 A 3-10



CONSTRUCTION JOINT



SAWED JOINT

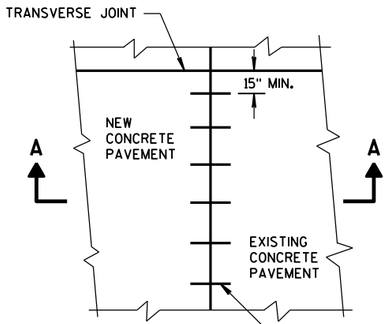
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

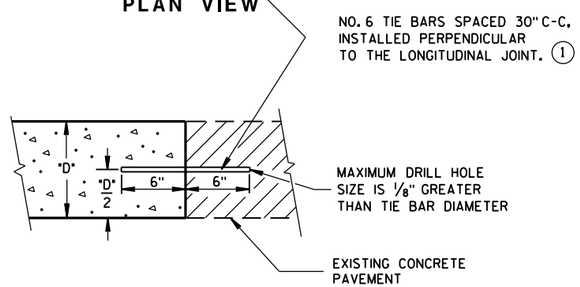
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

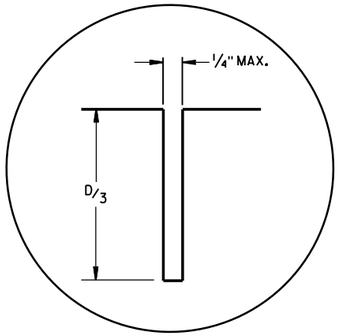


PLAN VIEW



SECTION A-A

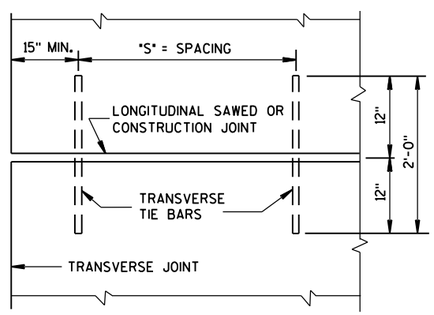
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-3-2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE

FHWA

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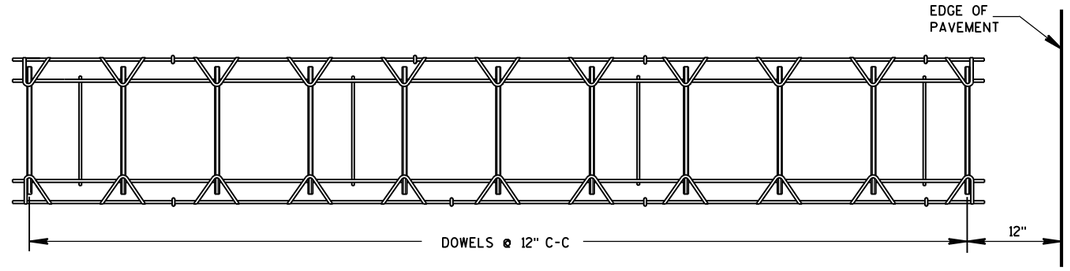
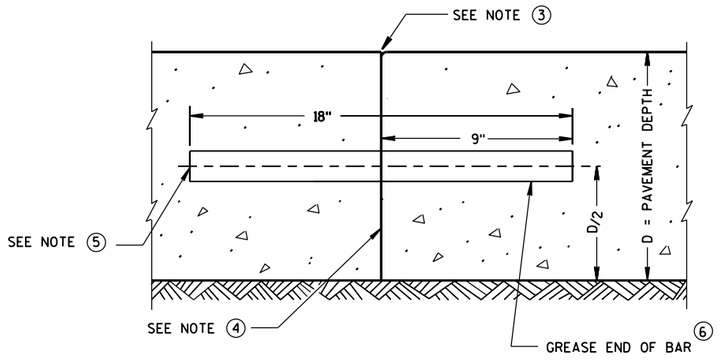
S.D.D. 13 C 1-16



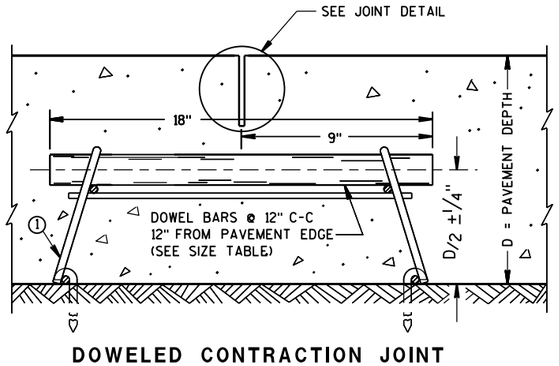
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



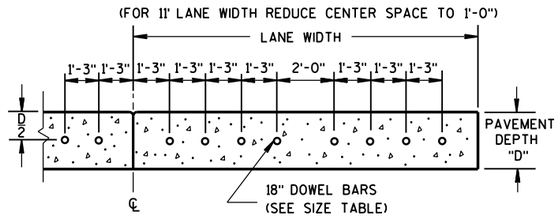
TRANSVERSE CONSTRUCTION JOINT



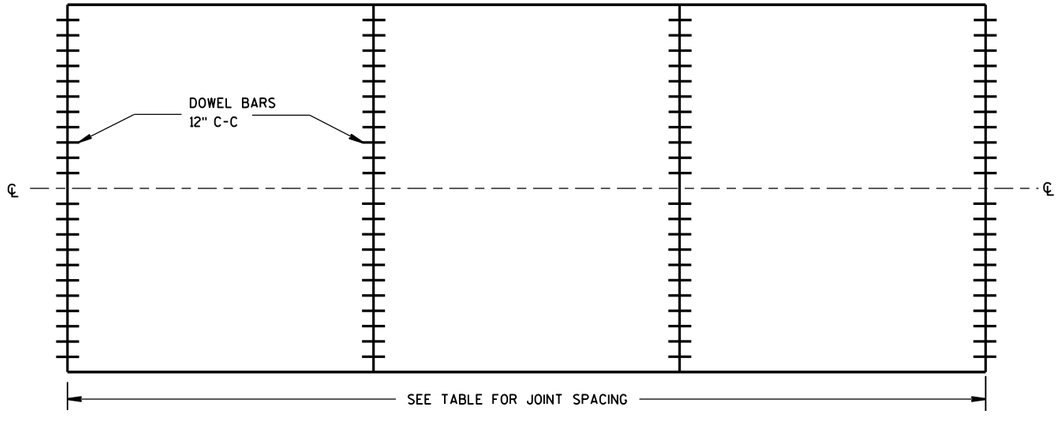
DOWELED CONTRACTION JOINT

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.

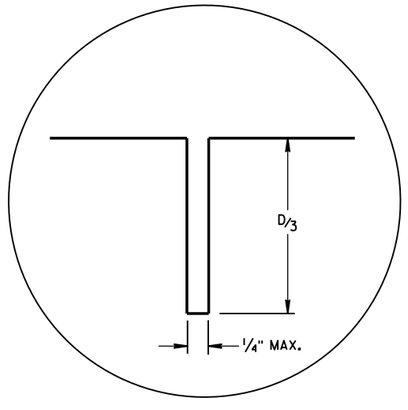
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

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

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S.D.D. 13 C 13-8

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S.D.D. 13 C 13-8

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) W6 X 9 OR W6 X 8.5 STEEL POSTS AND 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. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

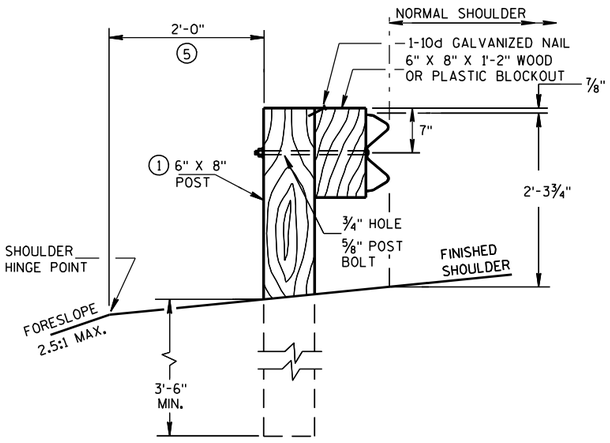
(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

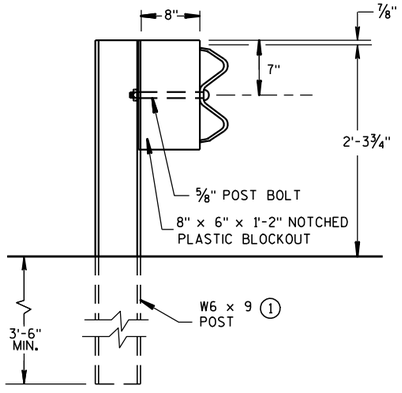
(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

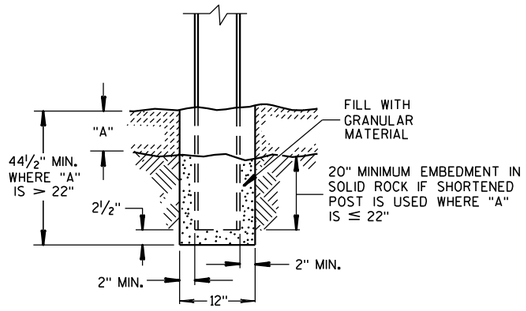
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



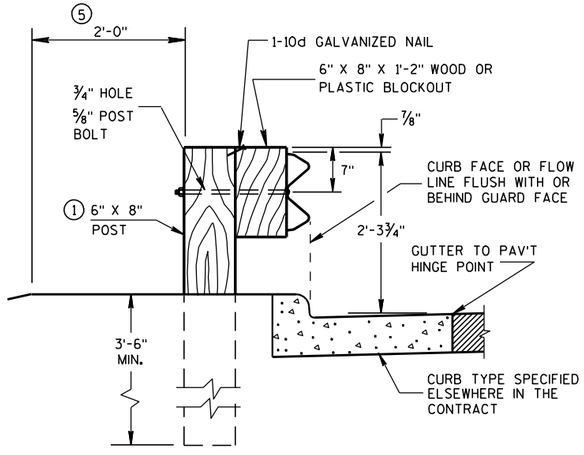
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



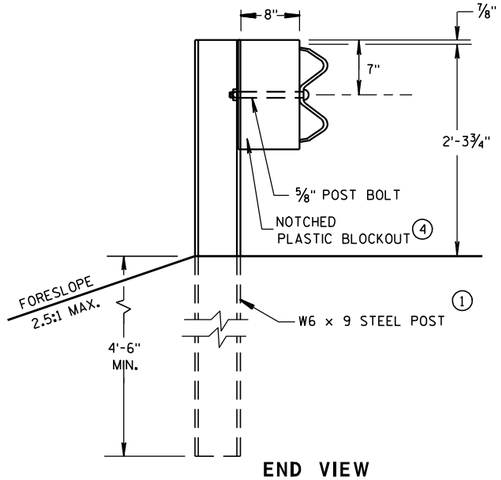
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



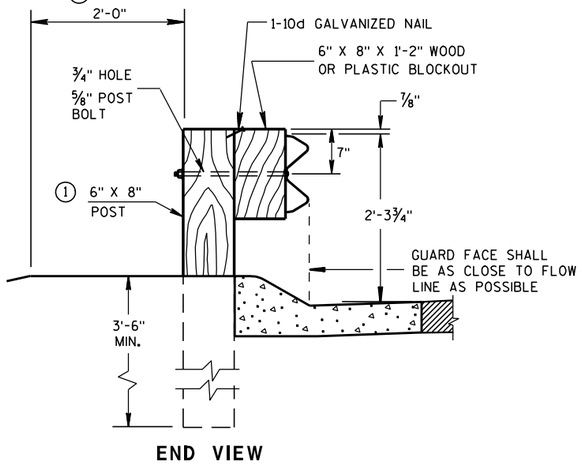
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



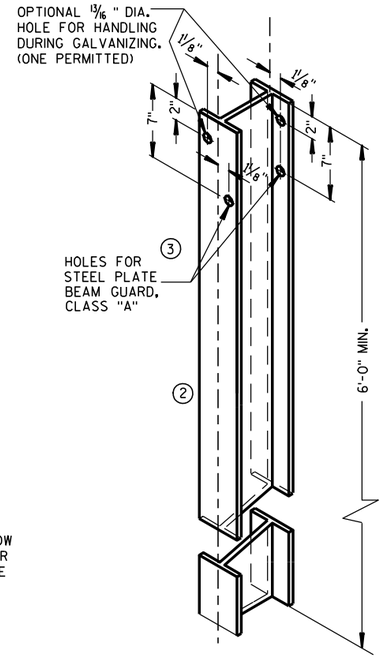
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

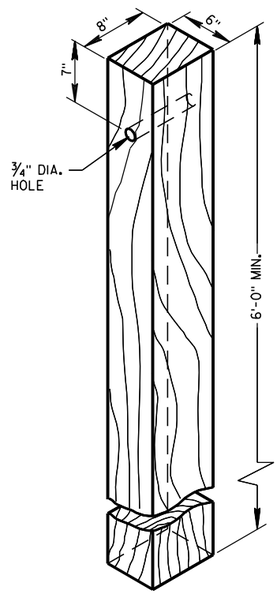


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

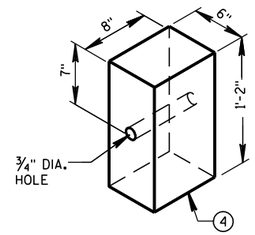


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

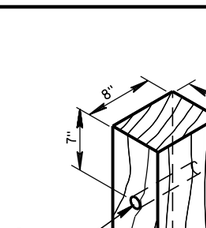
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



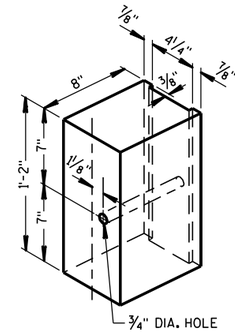
WOOD POST
(6"X8") NOMINAL



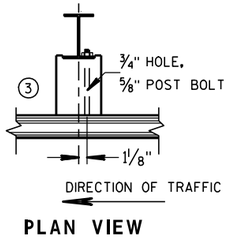
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



TYPICAL NOTCHED
PLASTIC BLOCKOUT (1)
FOR STEEL POSTS



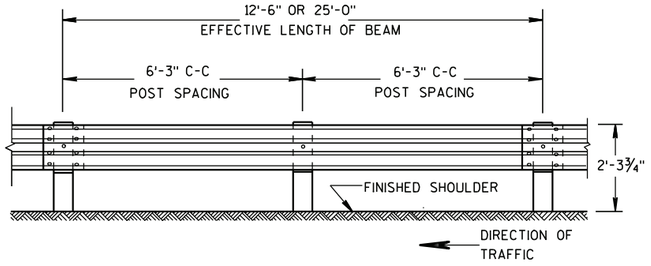
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

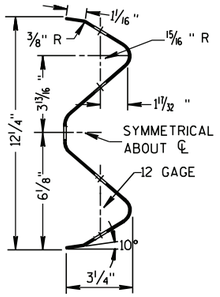
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

6
S.D.D. 14 B 15-7a

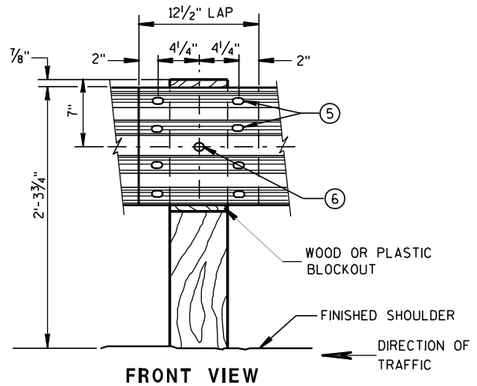


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM

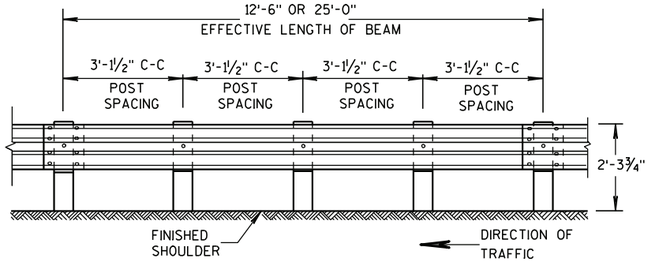


FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

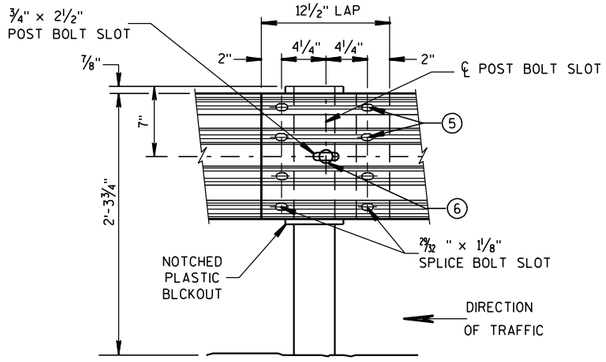
GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 8 - 5/8" Φ X 2 " BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
6. 5/8" Φ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.



FRONT VIEW

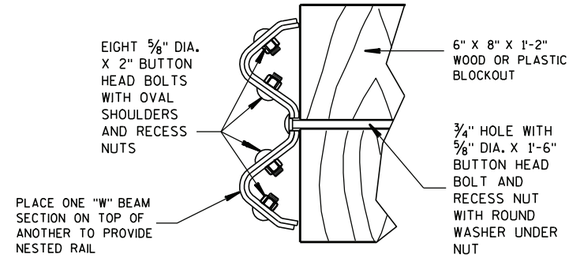
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

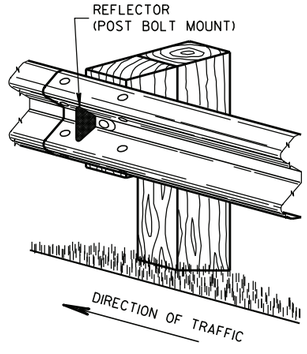


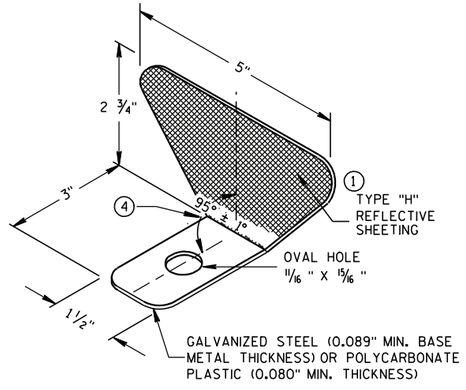
NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING (2)

	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 (3)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (4)	



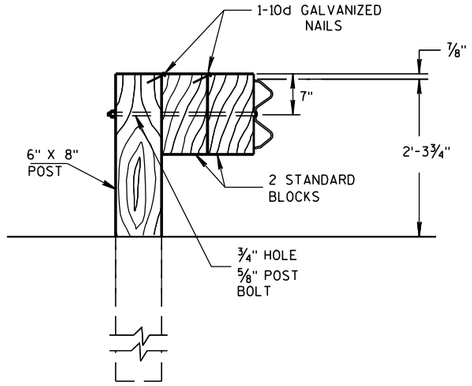


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (1)

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

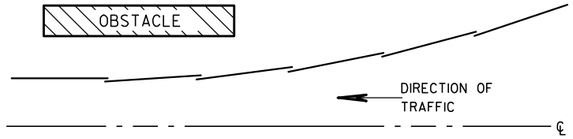
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6
S.D.D. 14 B 15-7b

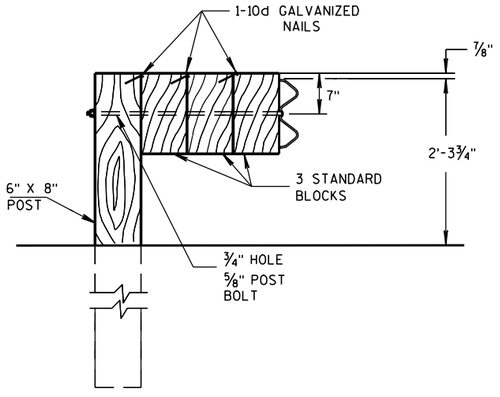


DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

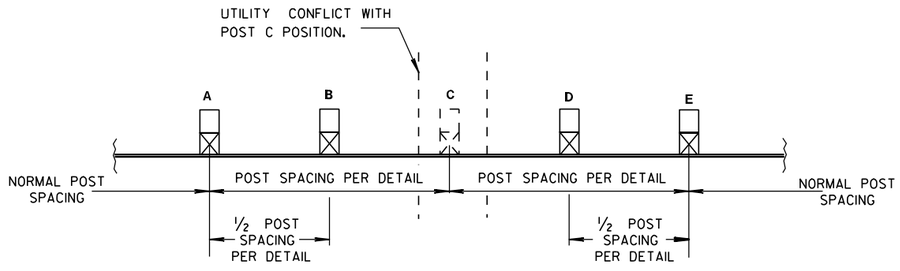


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

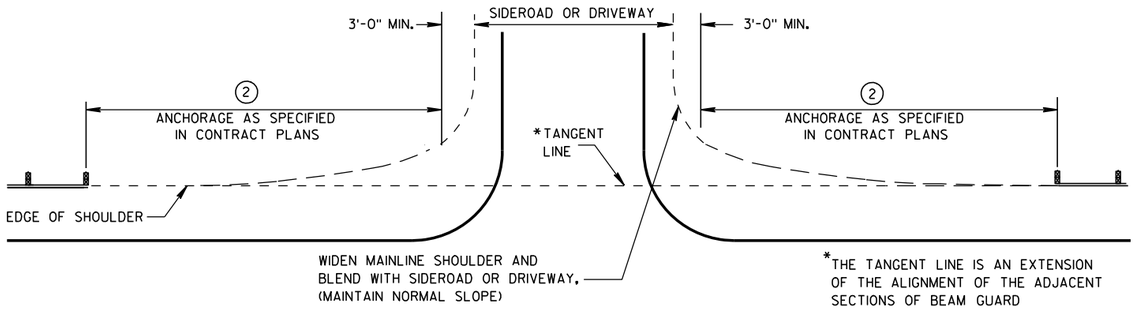
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

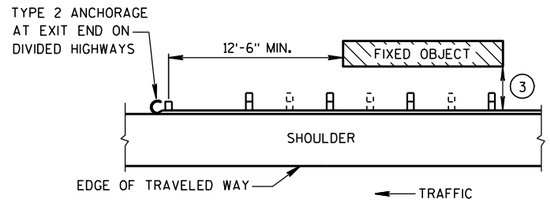
5/23/11	/S/ Jerry H. Zogg	
DATE	ROADWAY STANDARDS ENGINEER	ENT

FHWA

6
S.D.D. 14 B 15-7c



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

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.

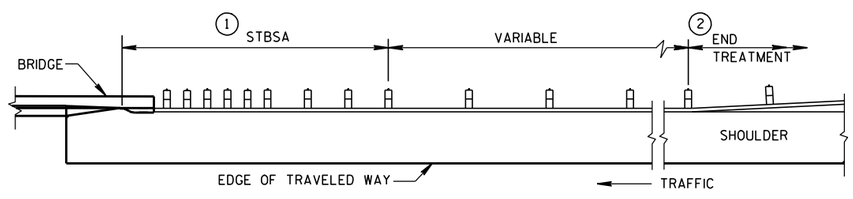
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

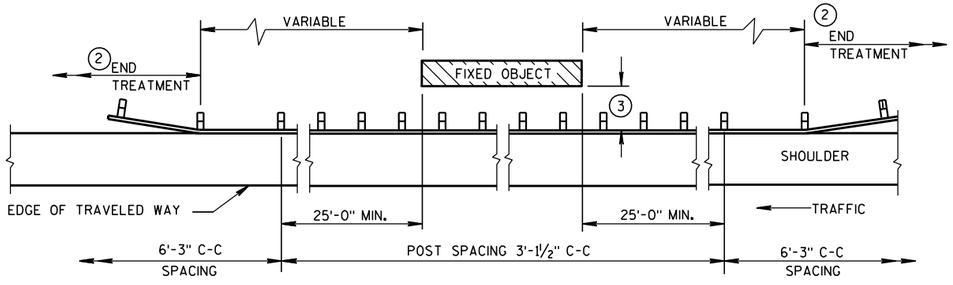
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

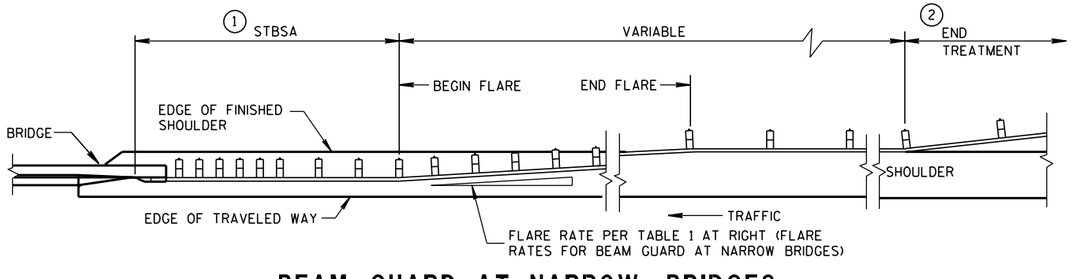


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")



BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

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

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

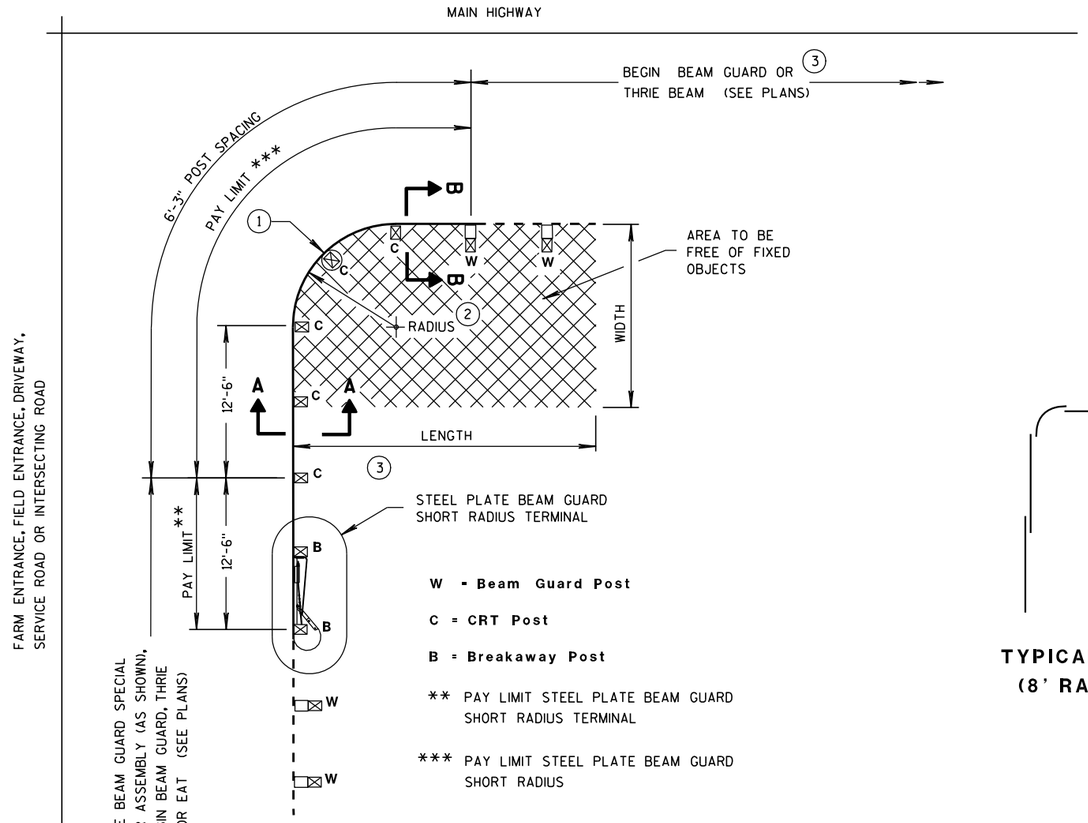
APPROVED
8-21-07 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

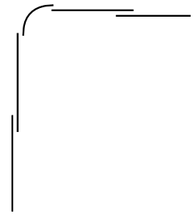
S.D.D. 14 B 18-6a

6

S.D.D. 14 B 18-6a



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

(1) ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.

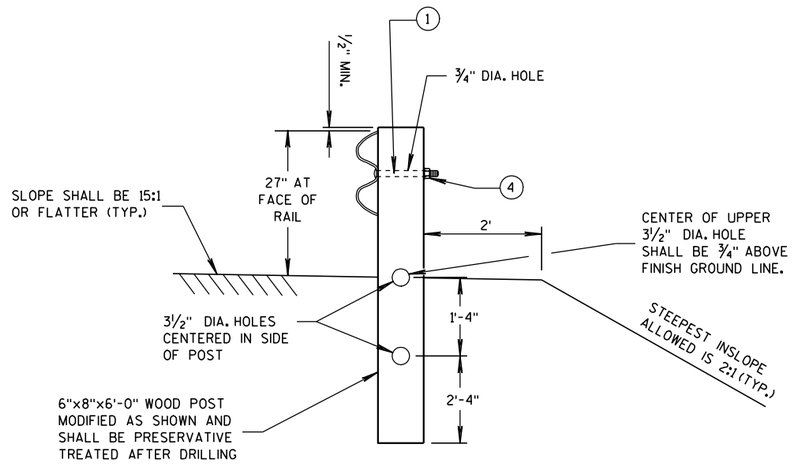
(2) RADIUS FROM 8' - 36'. SEE PLAN.

(3) HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.

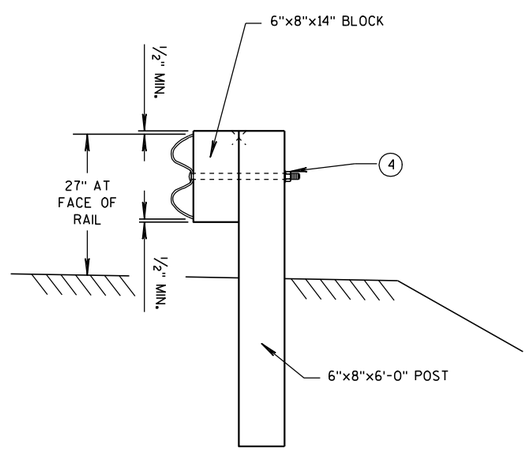
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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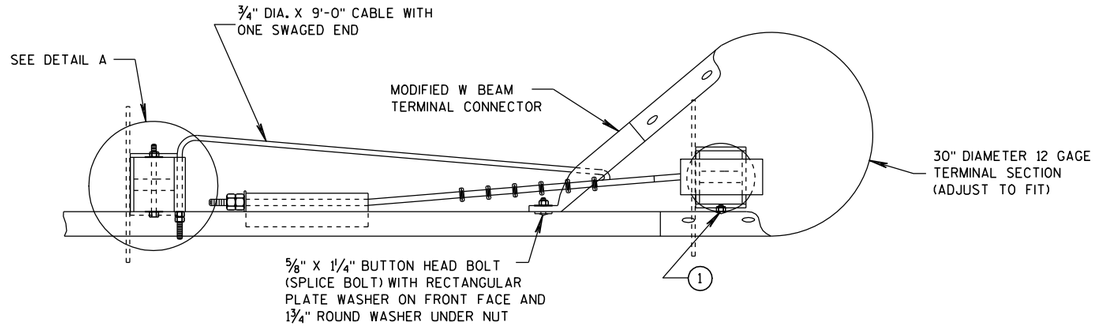
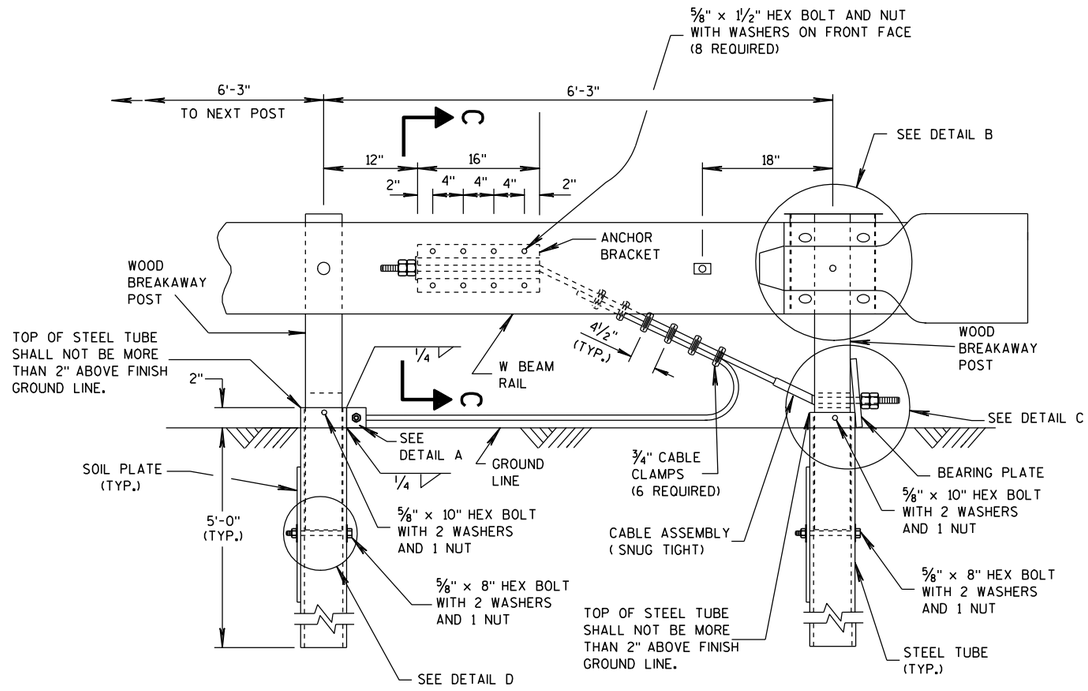
S.D.D. 14 B 27-1a

6

S.D.D. 14 B 27-1a



PLAN VIEW



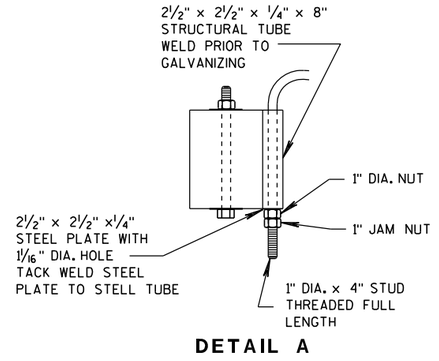
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

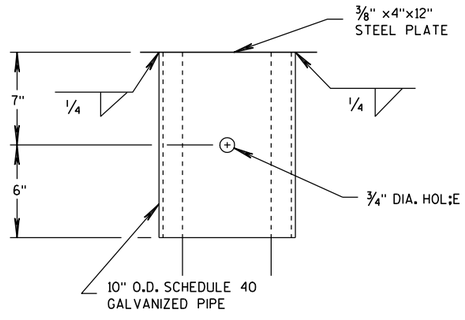
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A ⅝" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED ¾" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A



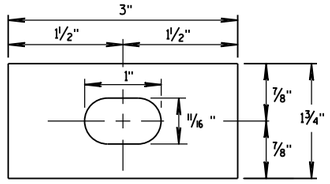
DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

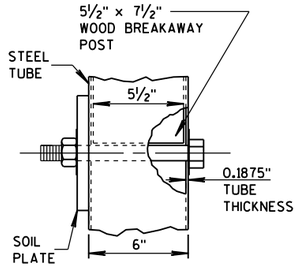
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

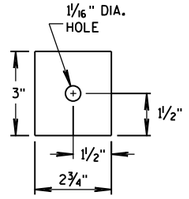
6
S.D.D. 14 B 27-1b



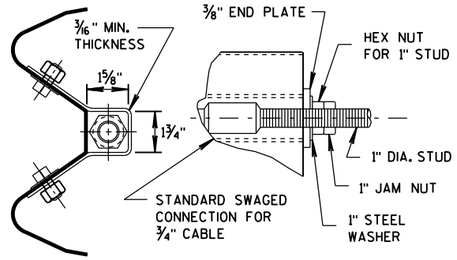
RECTANGULAR PLATE WASHER



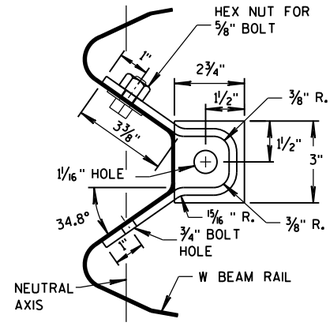
DETAIL D



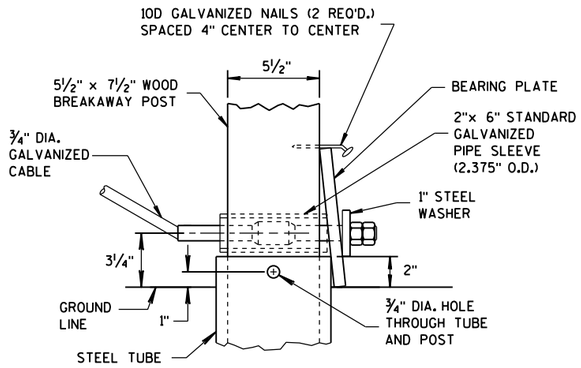
END PLATE



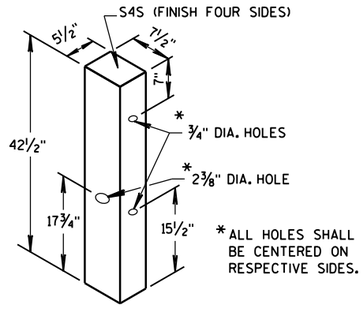
SECTION C-C
(END PLATE REMOVED)



ANCHOR BRACKET



DETAIL C



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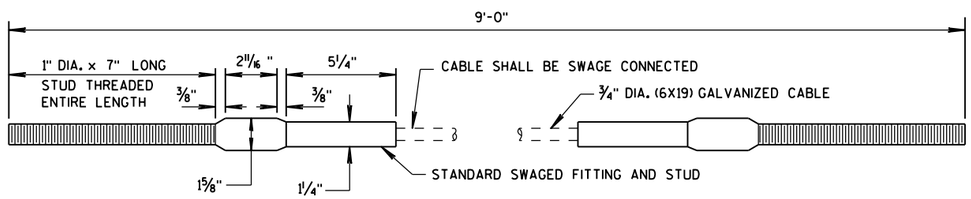
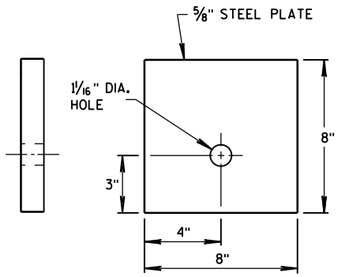
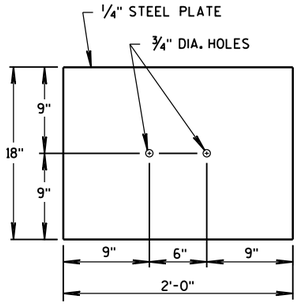


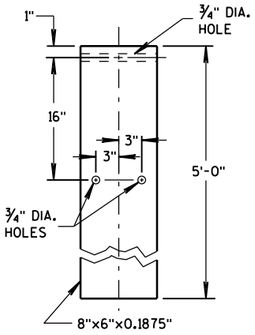
CABLE ASSEMBLY



BEARING PLATE



SOIL PLATE



STEEL TUBE

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

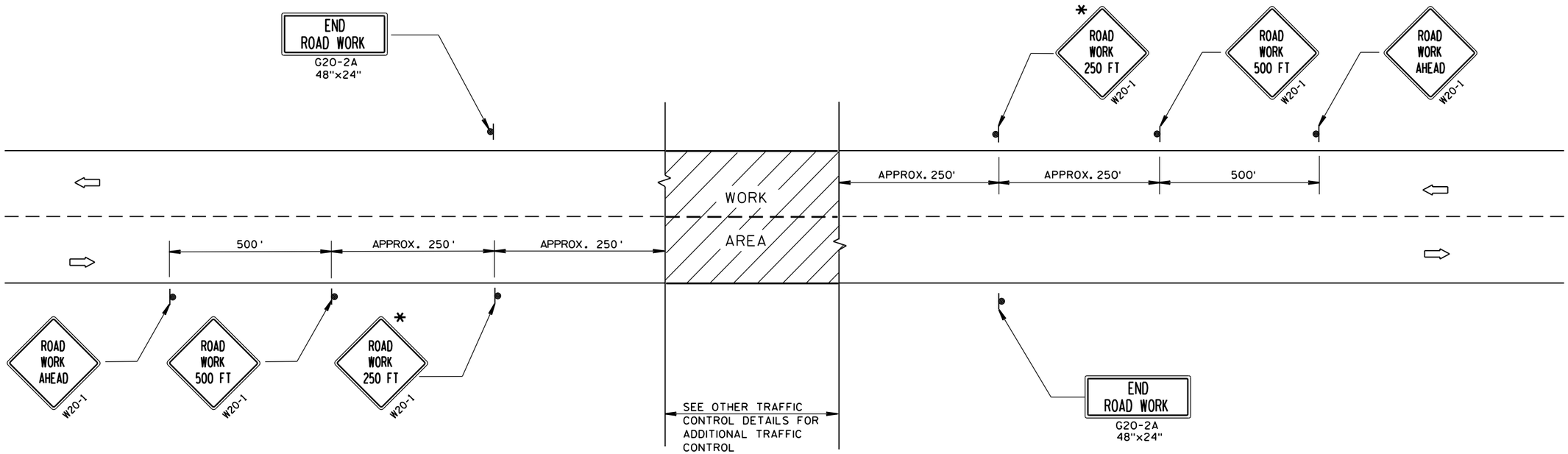
APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 27-1c

6

S.D.D. 14 B 27-1c



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.

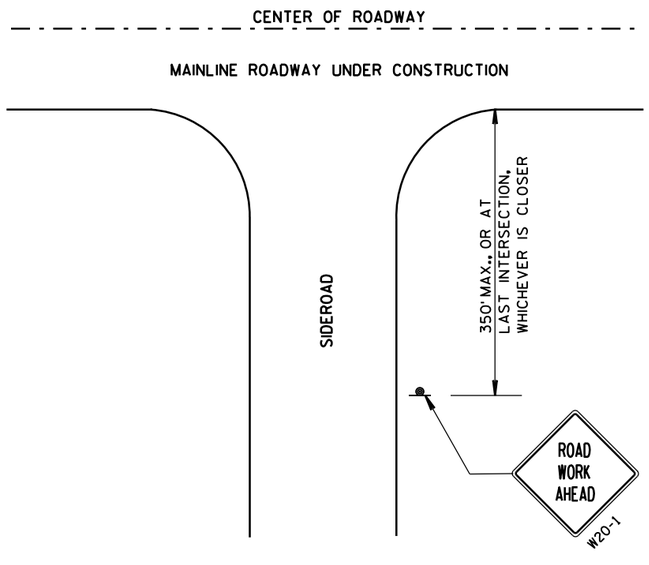
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

S.D.D. 15 C 5-2

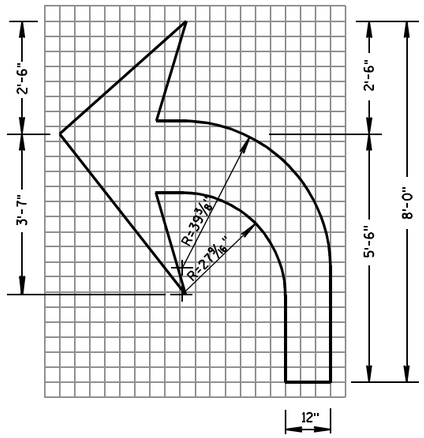
6

S.D.D. 15 C 5-2

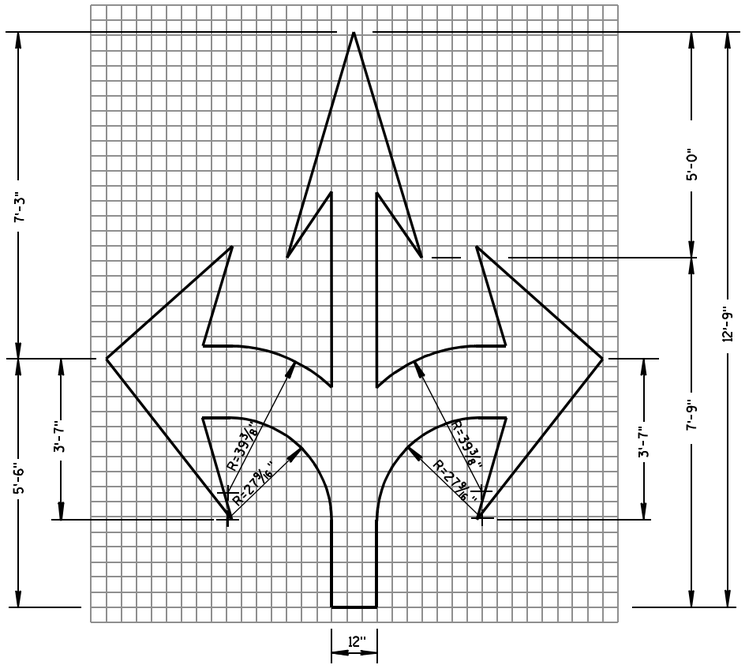
GENERAL NOTES

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.

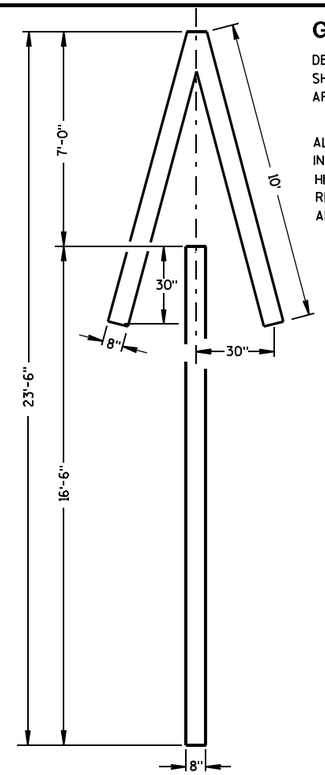
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



TYPE 2



TYPE 6



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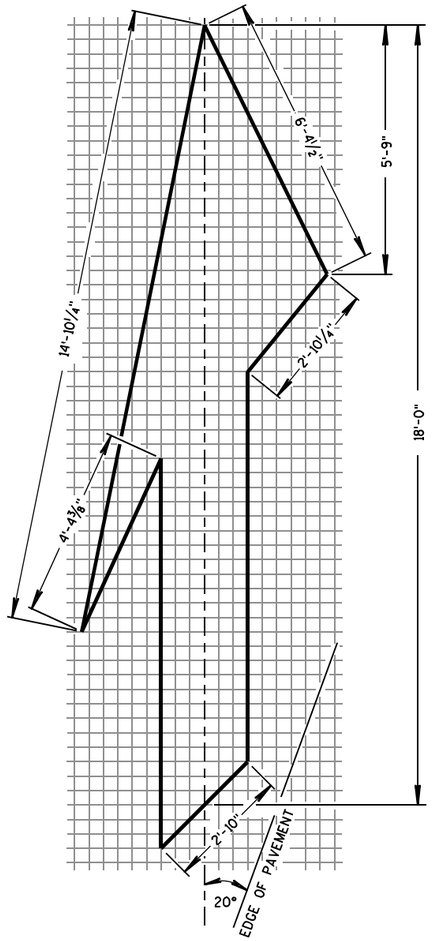
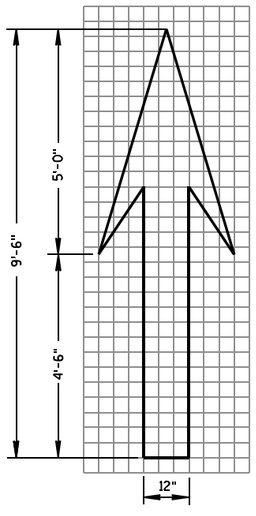
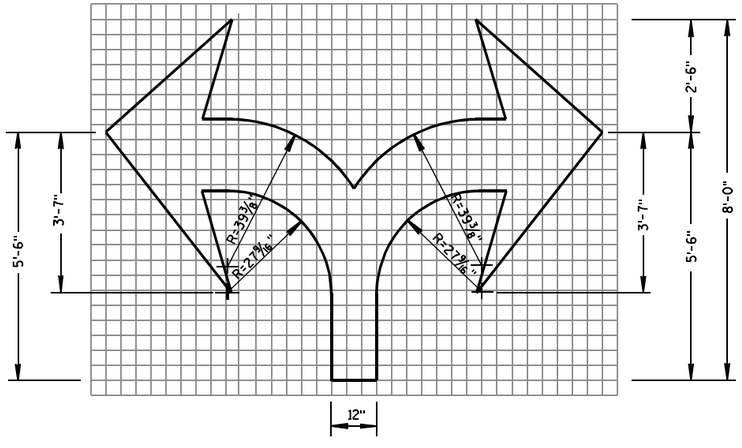


TYPE 5 LANE DROP ARROW



TYPE 1



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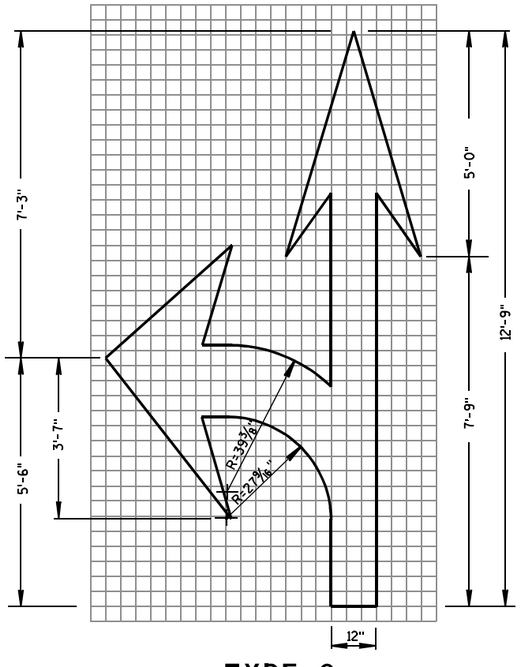


TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

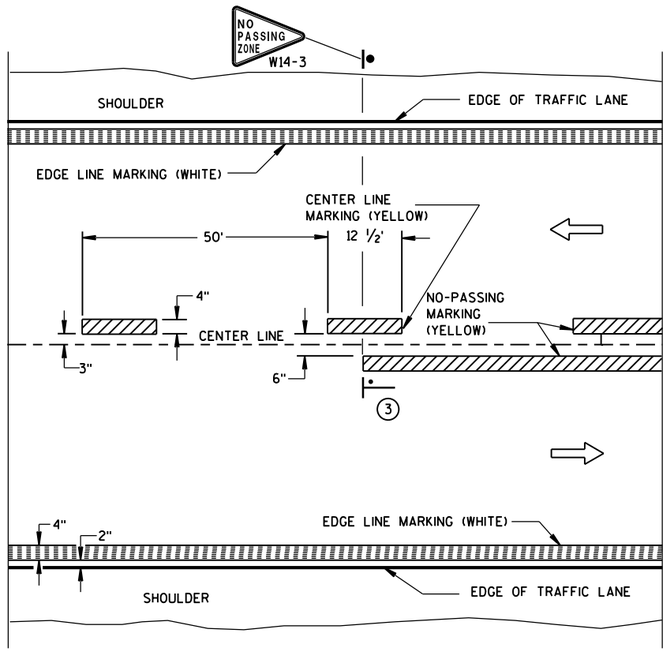
7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

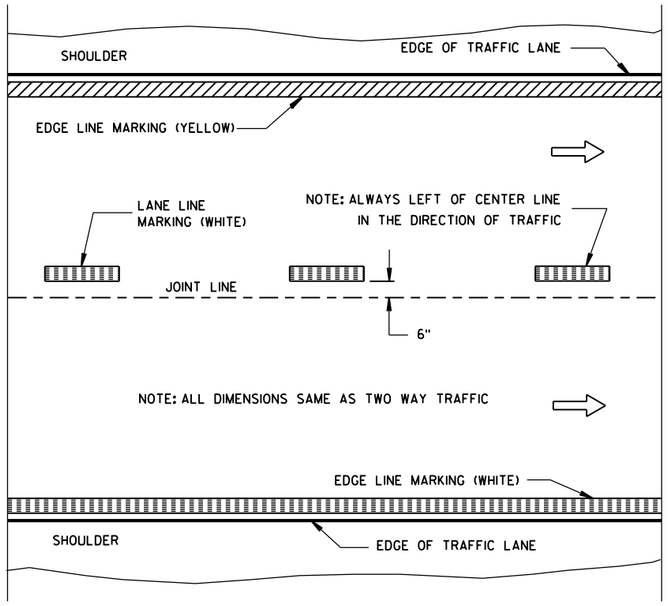
FHWA

6

S.D.D. 15 C 7-12c

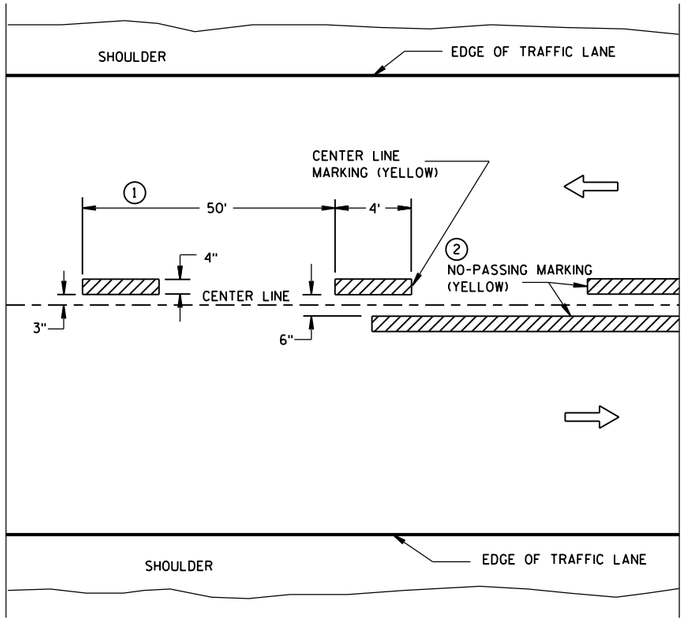


TWO WAY TRAFFIC

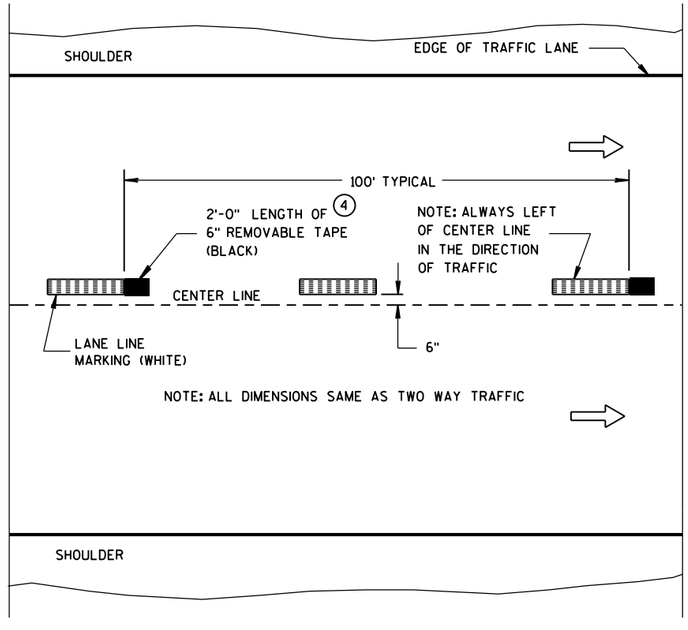


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

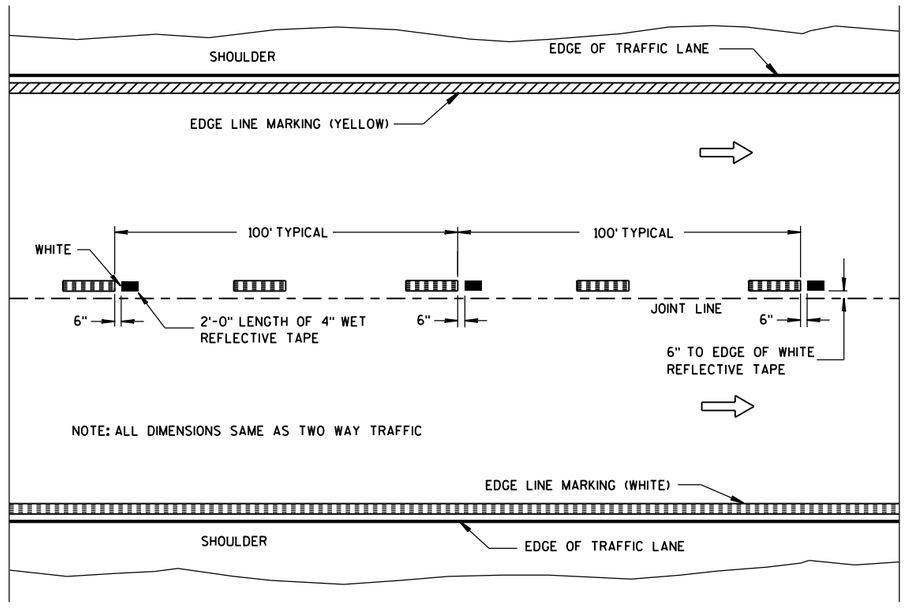
GENERAL NOTES

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

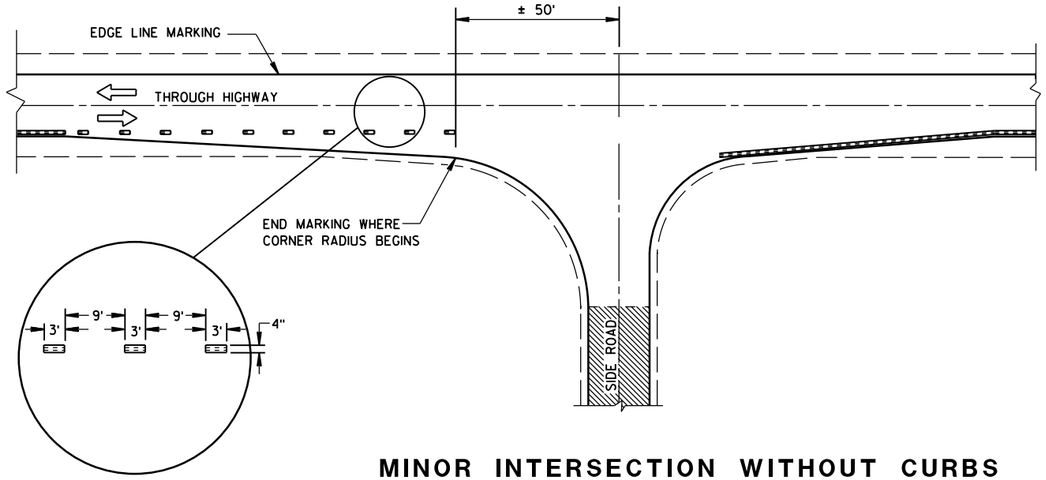
FHWA

6

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.

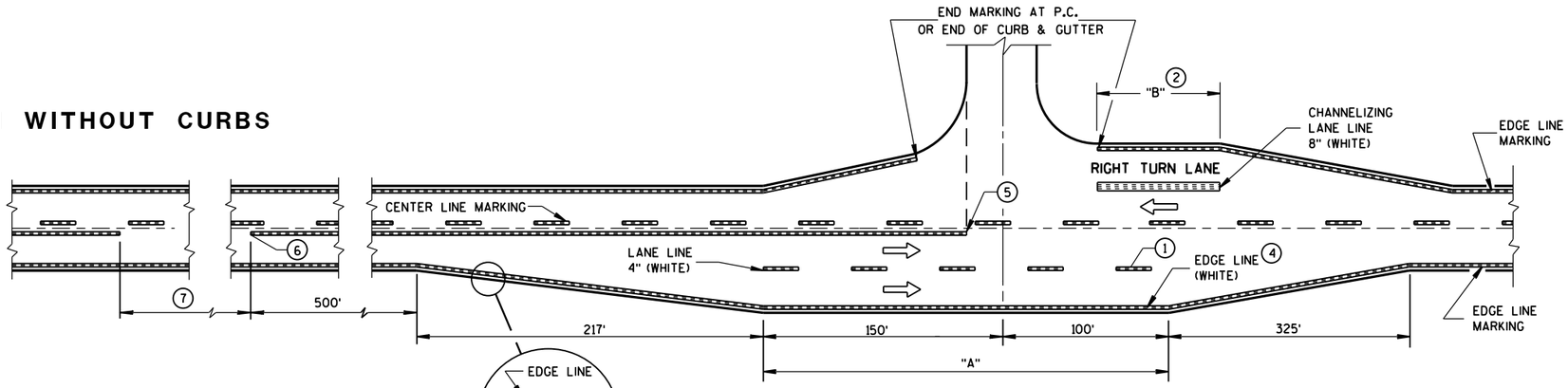
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

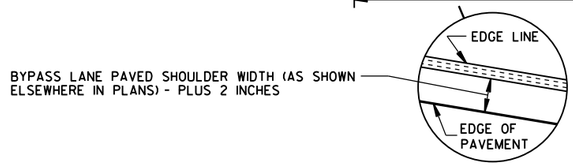
(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

(7)

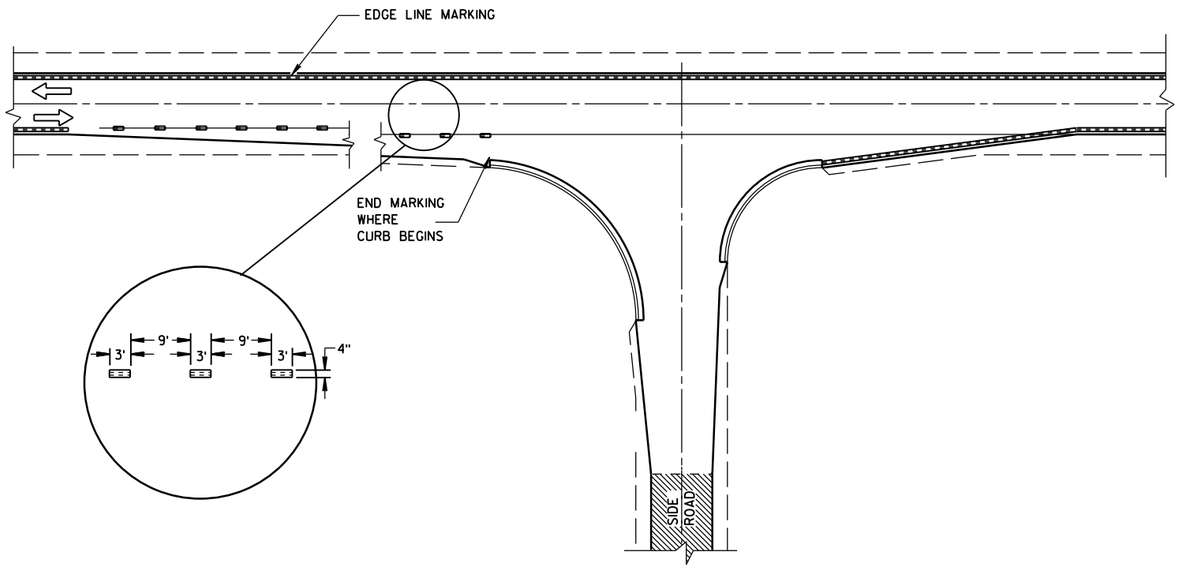
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792





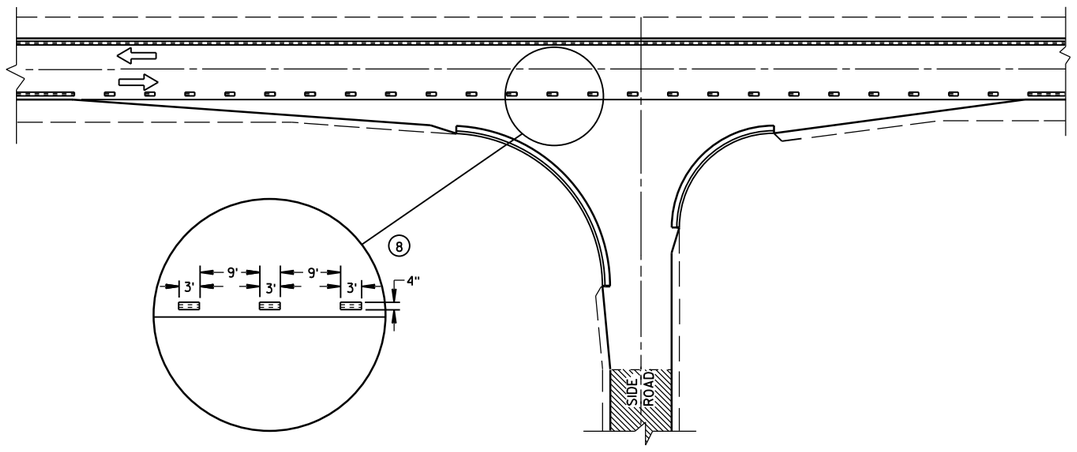
MAJOR INTERSECTIONS

(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)

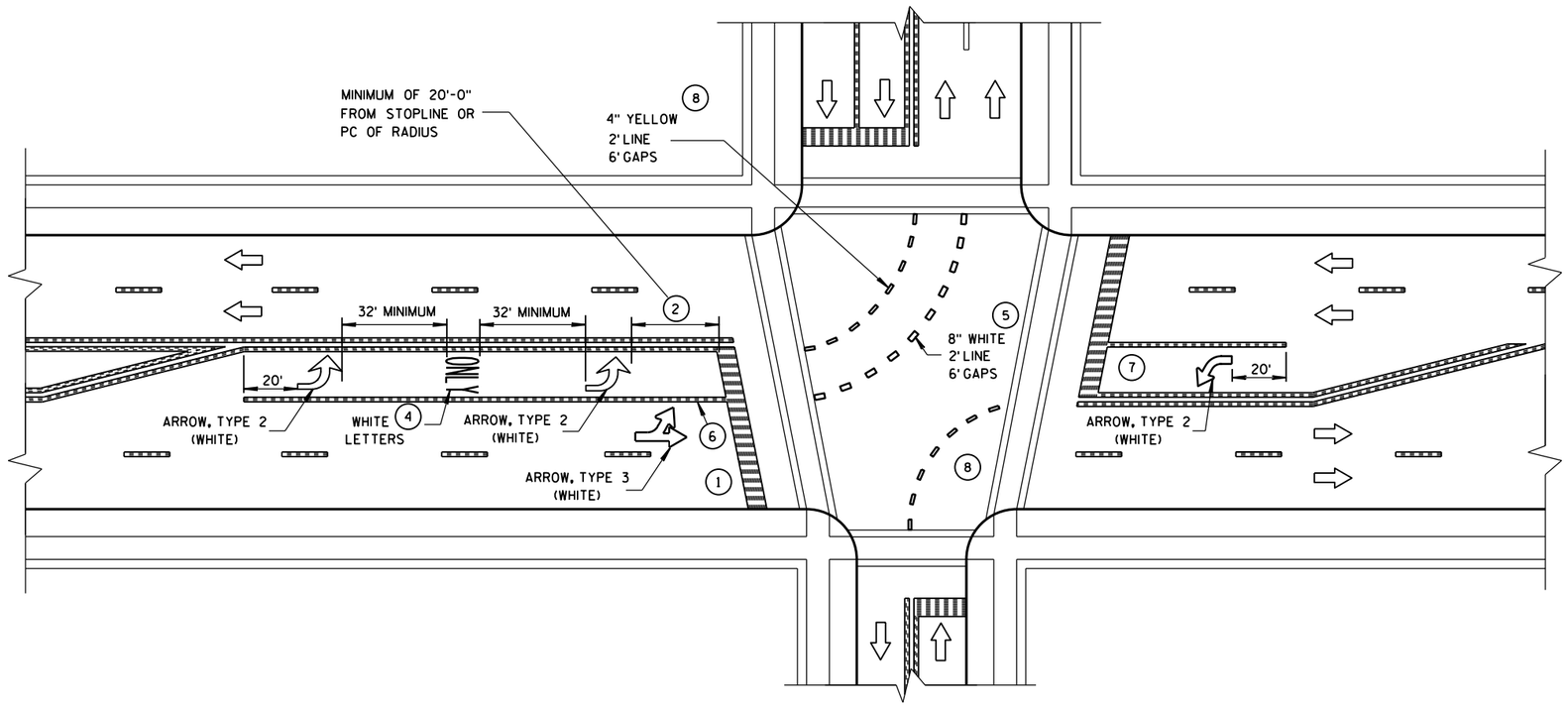
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

6

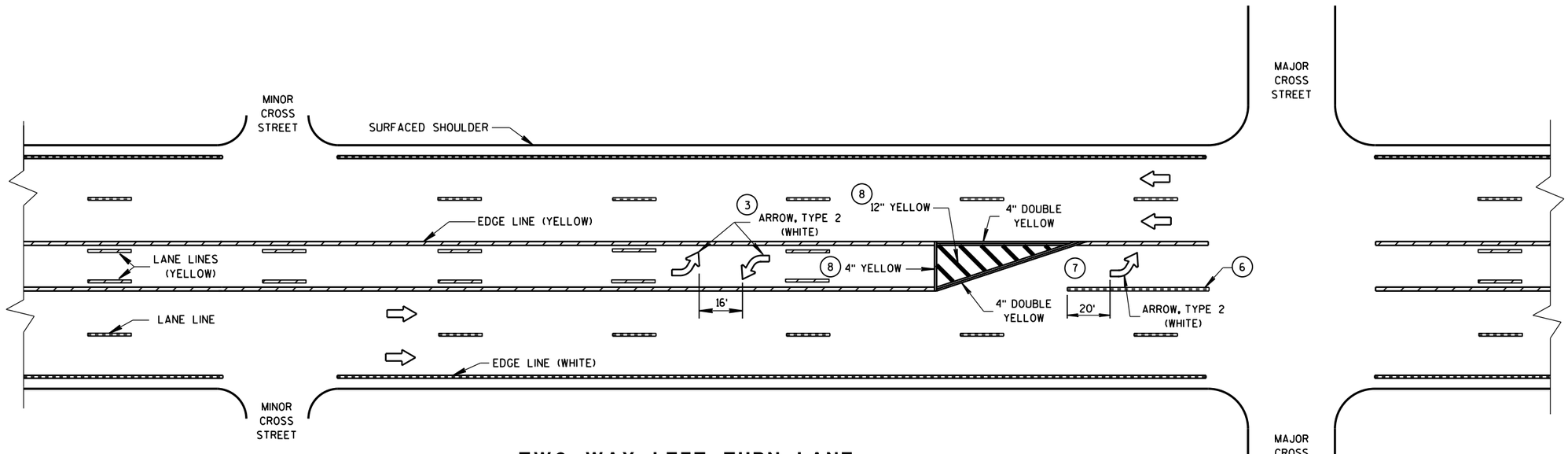
S.D.D. 15 C 8-16b



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)

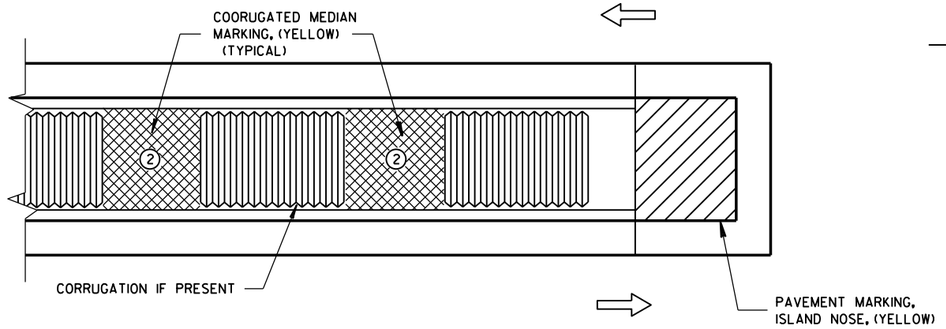
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

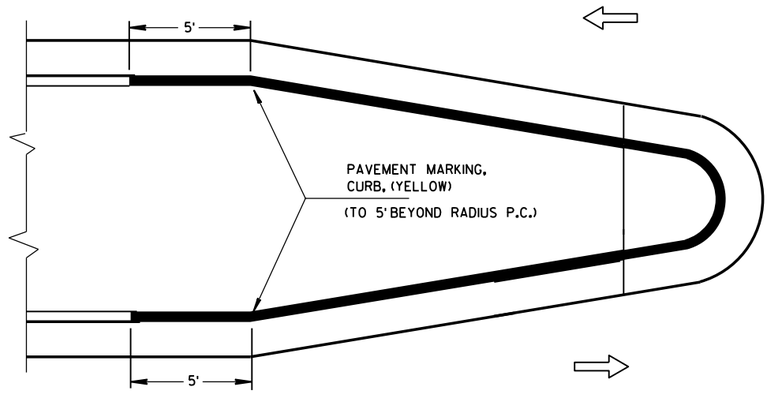
S.D.D. 15 C 8-16e

6

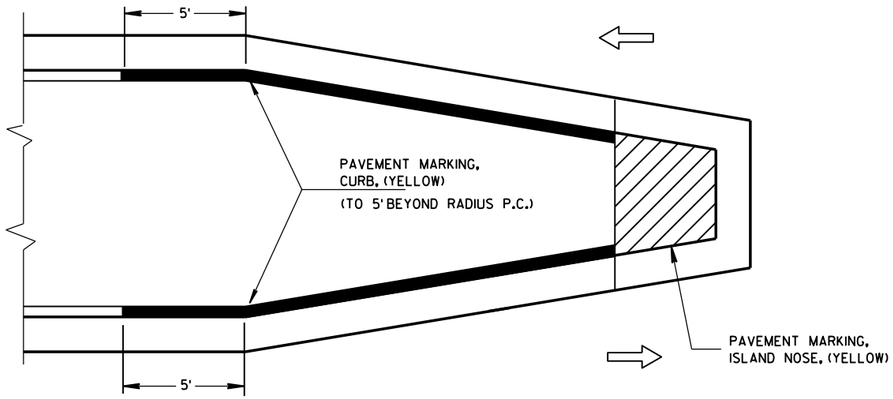
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

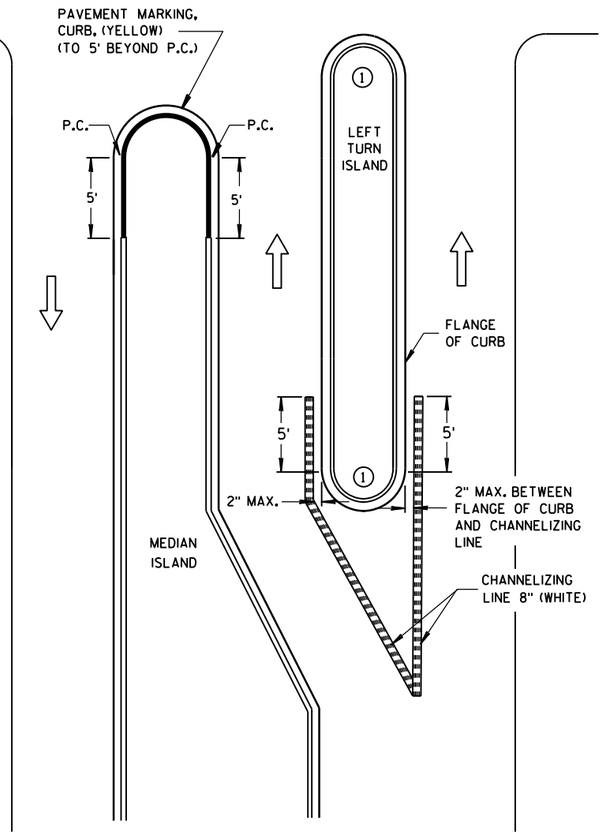


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

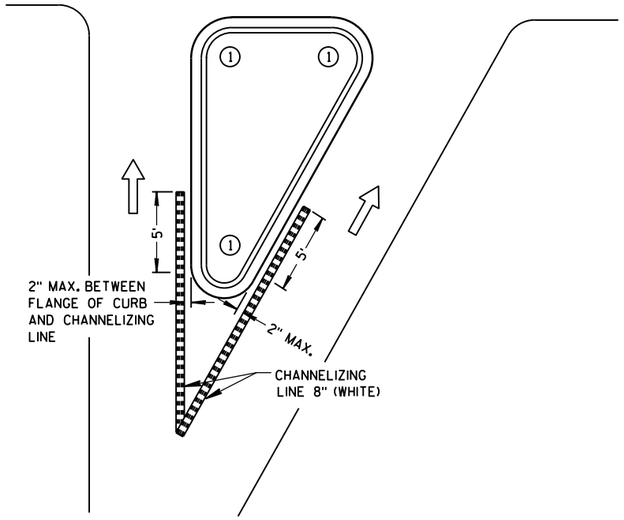


LEFT TURN & MEDIAN ISLAND

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)

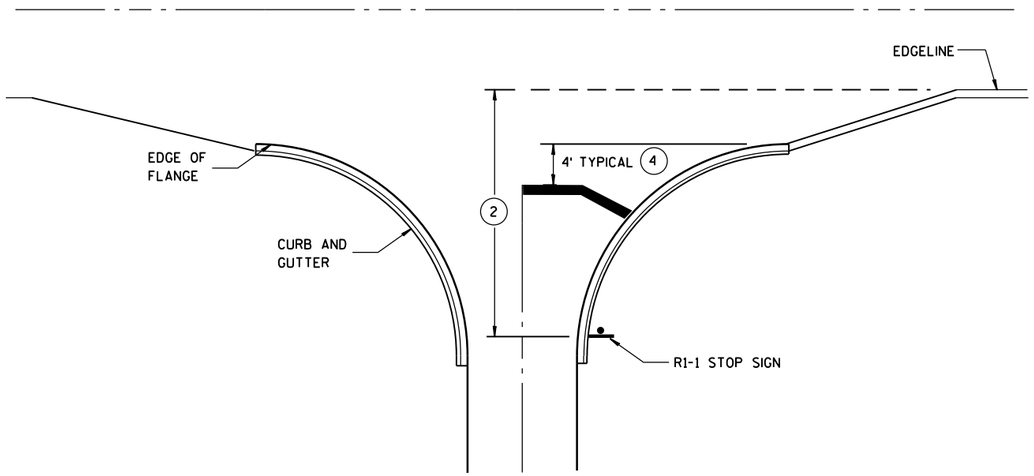
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

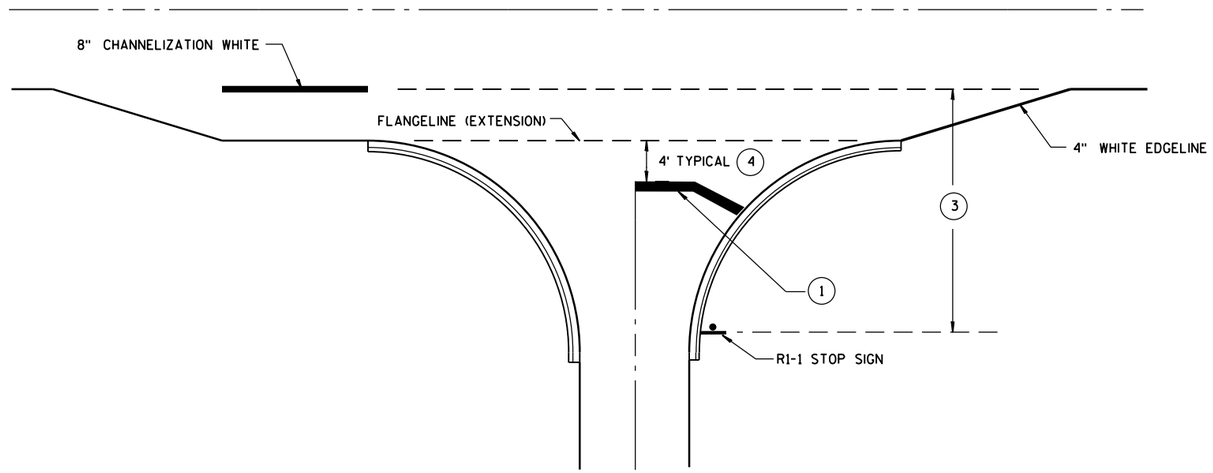
S.D.D. 15 C 8-16f

6

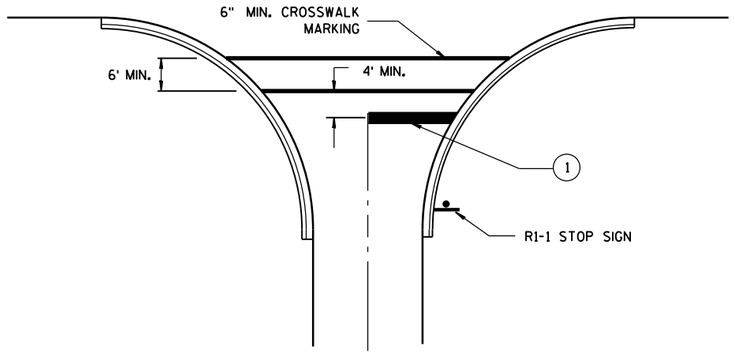
S.D.D. 15 C 8-16f



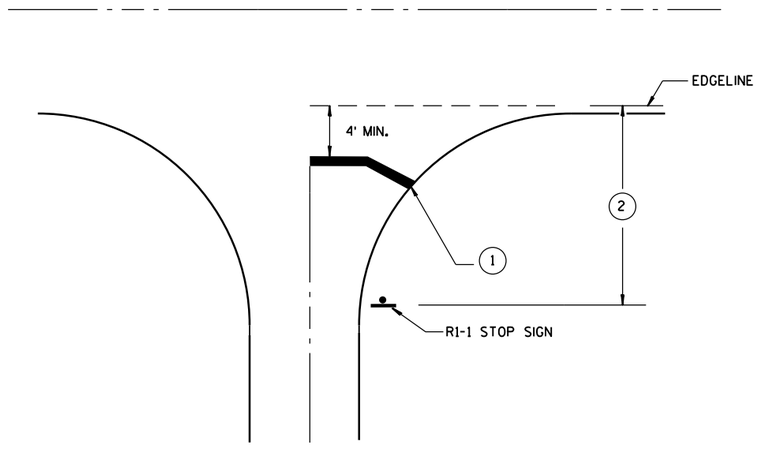
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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

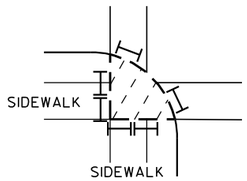
FHWA

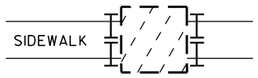
6

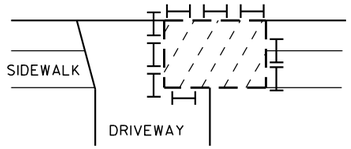
S.D.D. 15 C 33-1

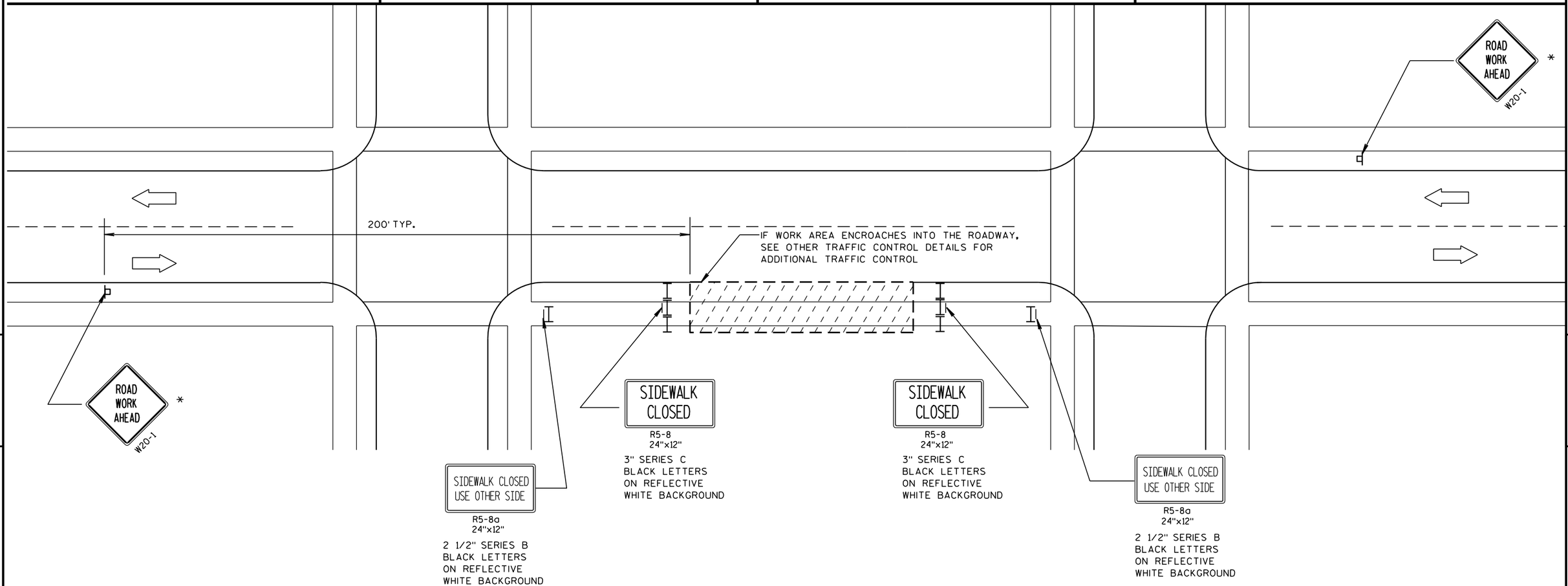
S.D.D. 15 C 33-1

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

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, IF APPROVED BY DISTRICT TRAFFIC UNIT.

THE EXACT LOCATION AND PLACEMENT OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

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

* "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.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible] CHIEF SIGNS AND MARK 95 [illegible]NEER
FHWA

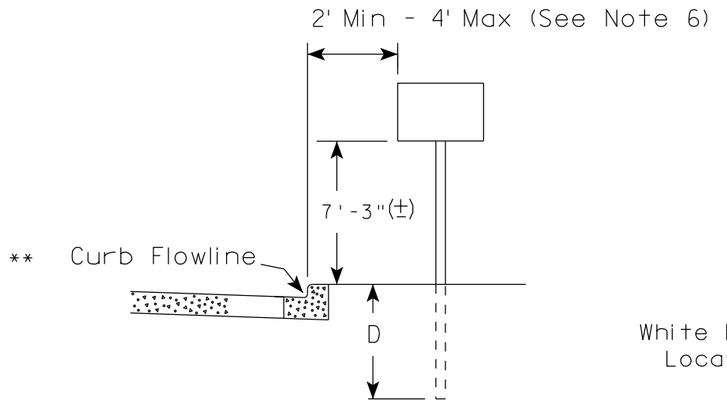
6

S.D.D. 15 D 30-1

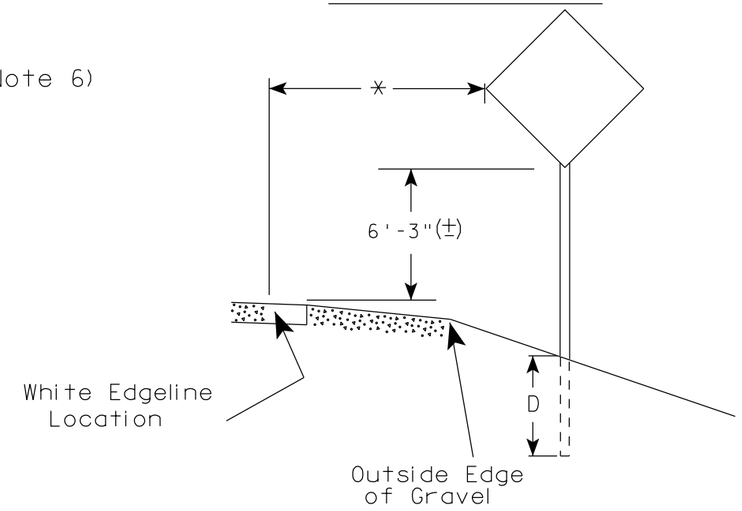
6

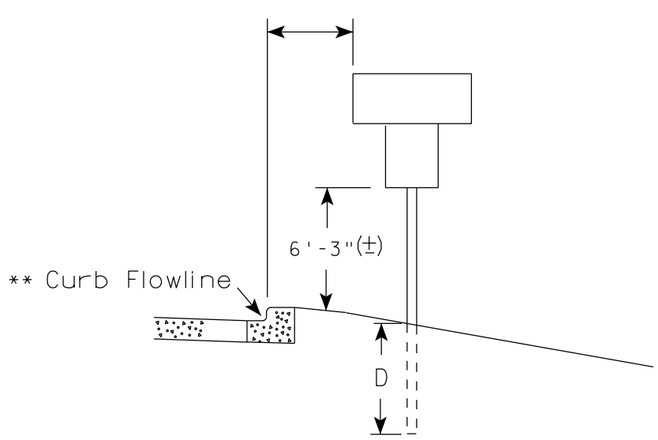
S.D.D. 15 D 30-1

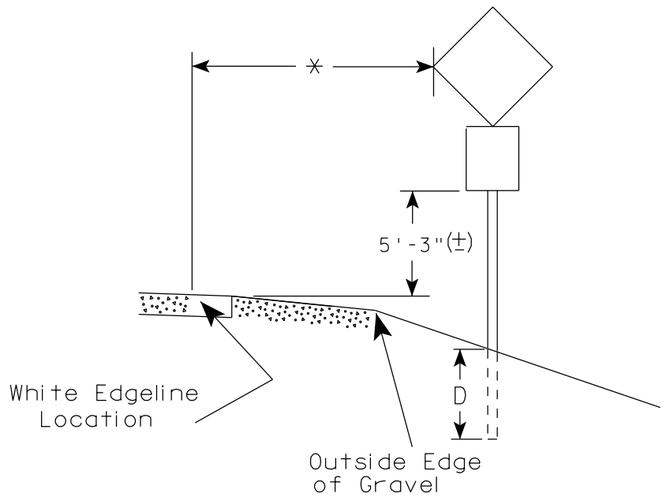
URBAN AREA



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.

GENERAL NOTES

1. Signs wider than 4 feet, 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 (A4-5) 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 stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed 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) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

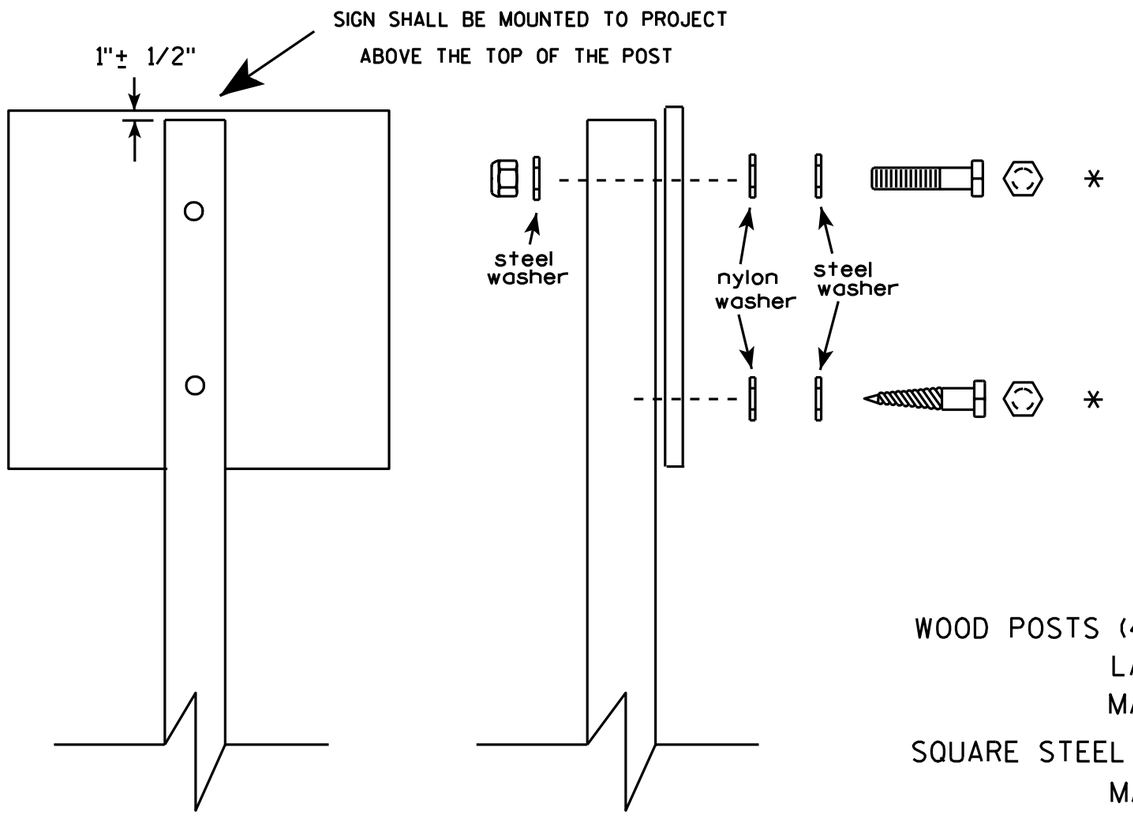
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A43.DGN PLOT DATE : 30-SEP-2013 13:25 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 99.237937:1.000000 WISDOT/CADDS SHEET 42



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

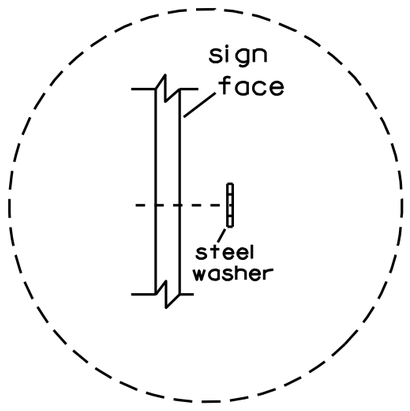
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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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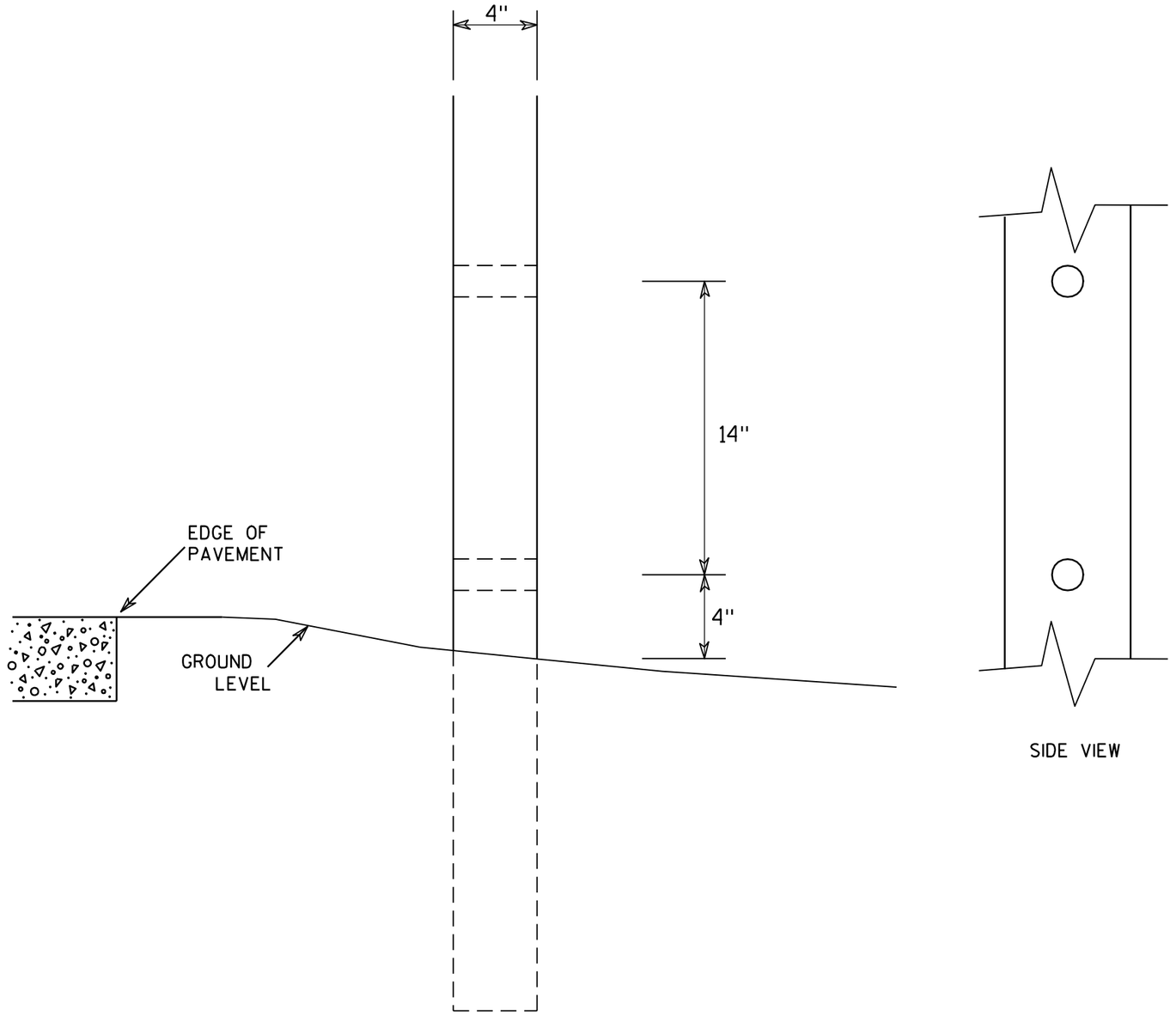
PROJECT NO:

SHEET NO: 97 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.

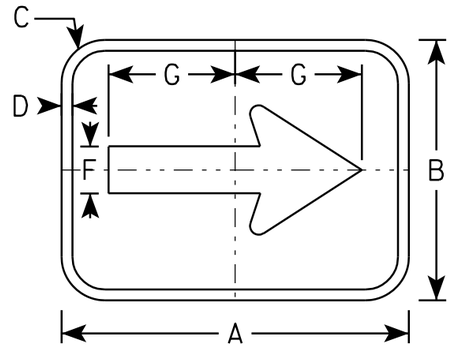
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

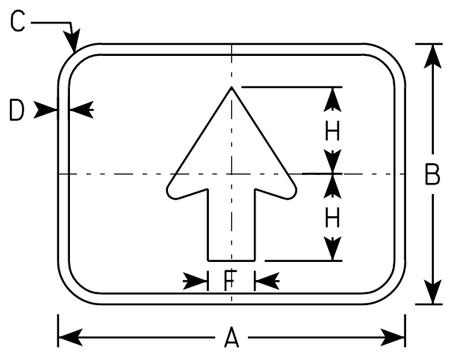
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

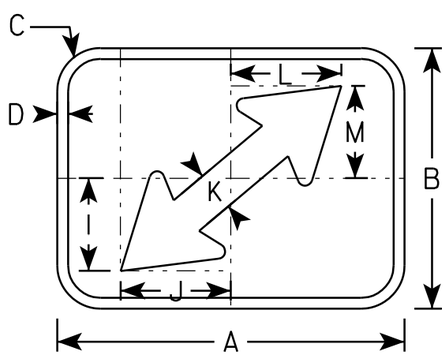
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 98	E



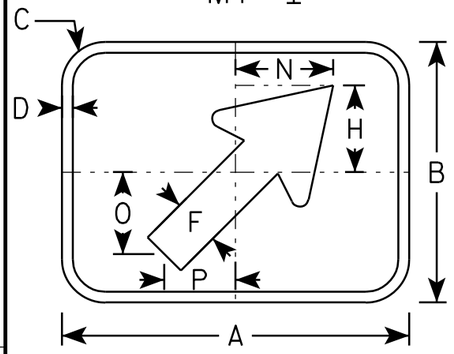
M7-1



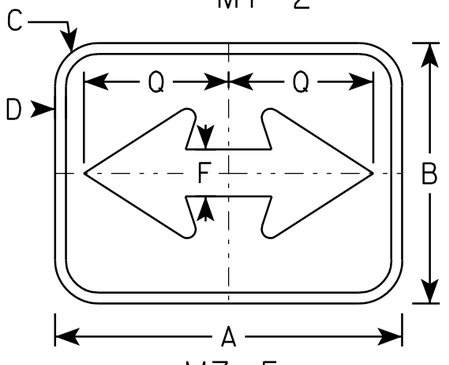
M7-2



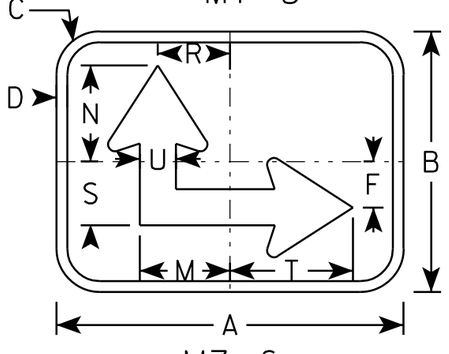
M7-3



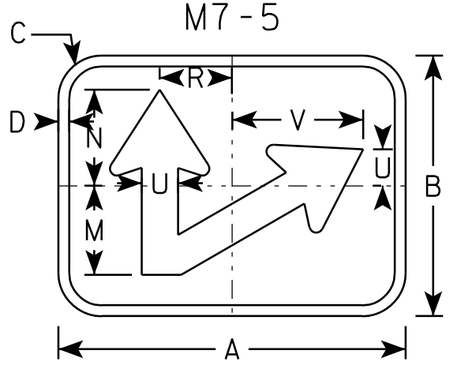
M7-4



M7-5



M7-6



M7-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message -White
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																											
2	12	9	1 1/2	3/8		1 5/8	4 3/8	3	3 1/4	3 3/4	1 3/8	3 7/8	3 1/8	3 3/8	2 7/8	2 1/2	5	2 1/2	2 1/4	4 1/4	1 1/4	4 1/2					.75
3																											
4																											
5																											

STANDARD SIGN
M7 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 05/04/10 PLATE NO. M7-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 99	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\M71.DGN PLOT DATE : 28-MAY-2010 08:14 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 5.237442:1.000000

WISDOT/CADDS SHEET 42

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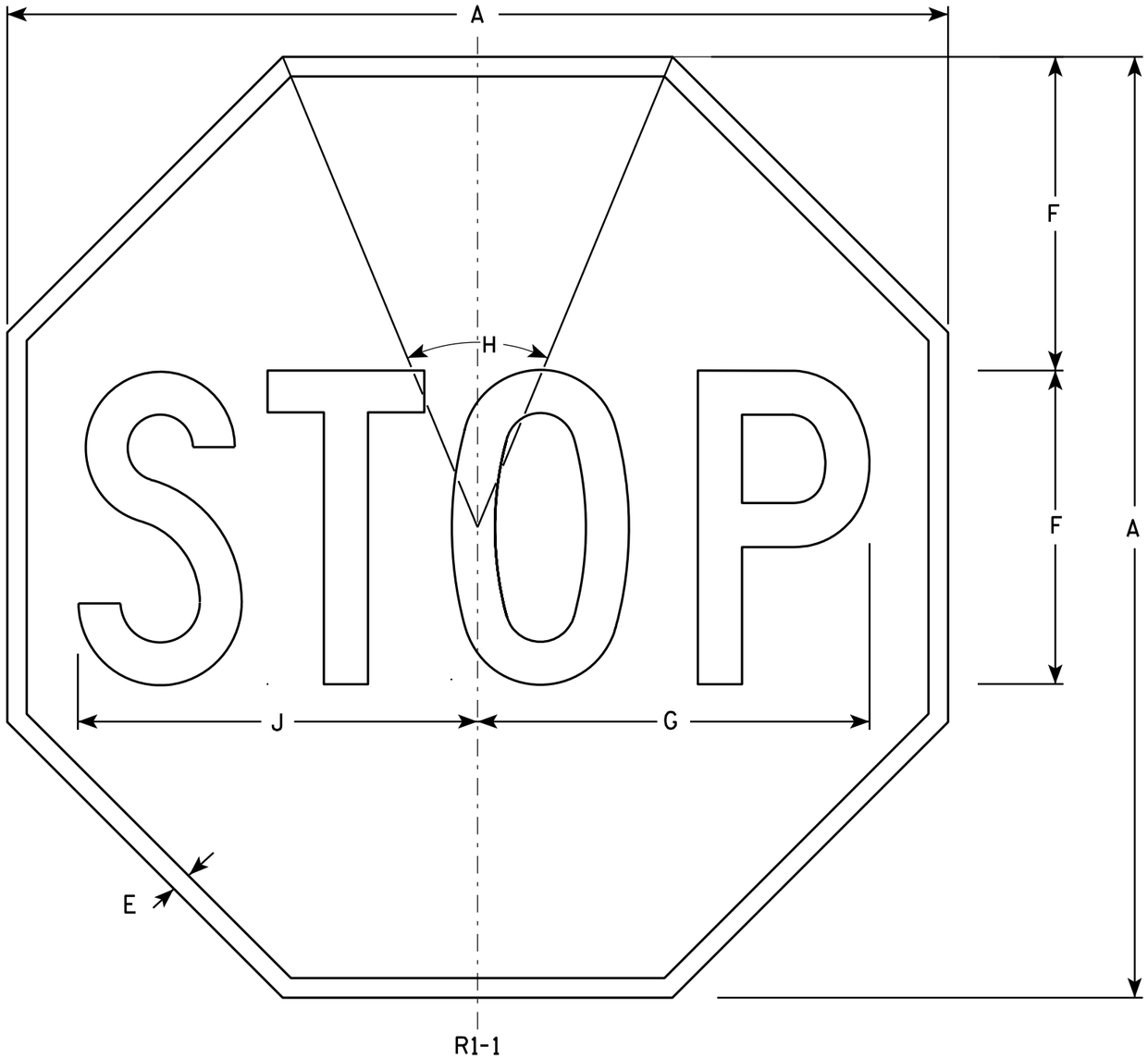


NOTES

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: 100	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

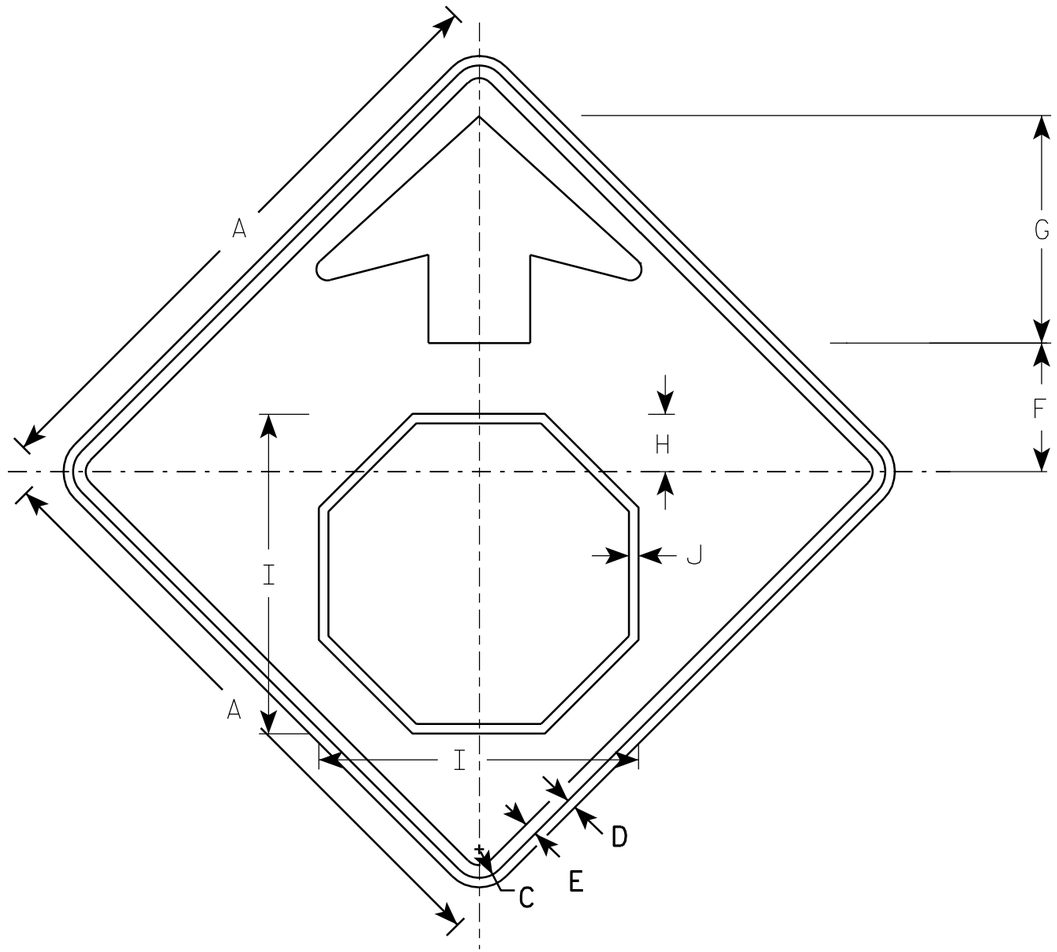
STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

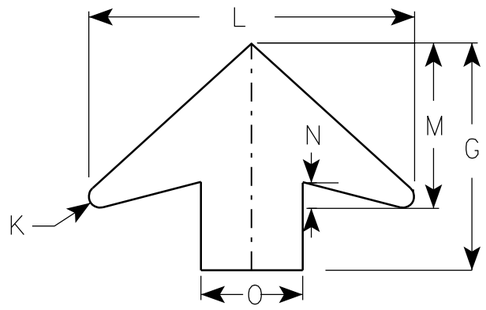
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 101	E



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: 102 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W31.DGN PLOT DATE : 07-JUN-2010 12:59 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

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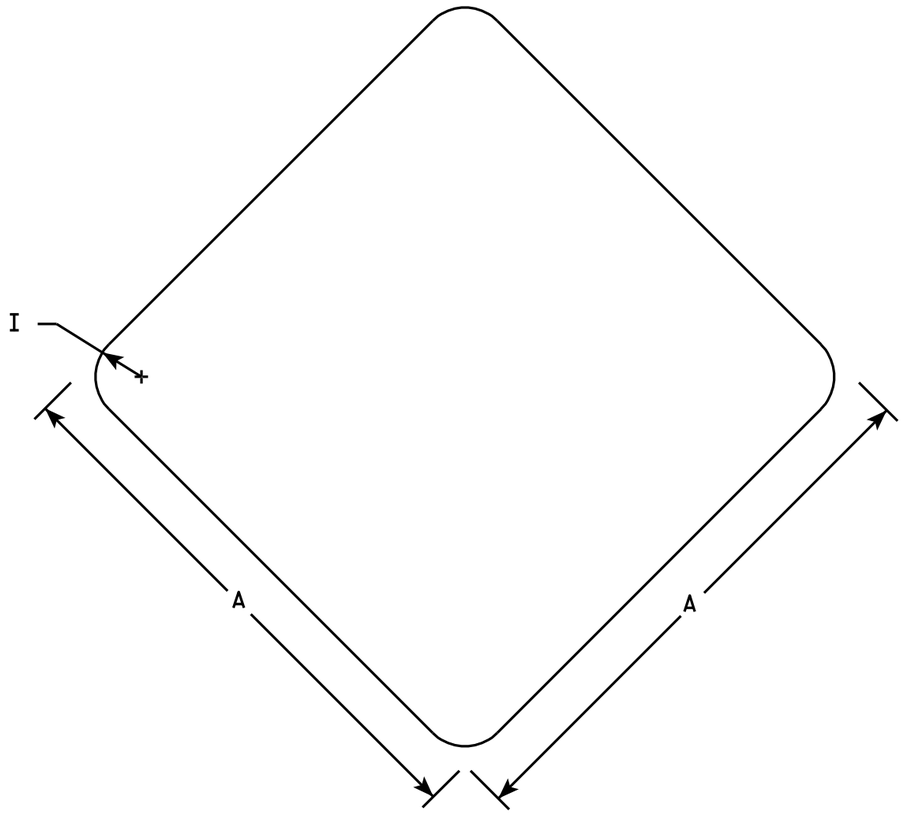


W5-56

NOTES

1. Sign is Type II - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners 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	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

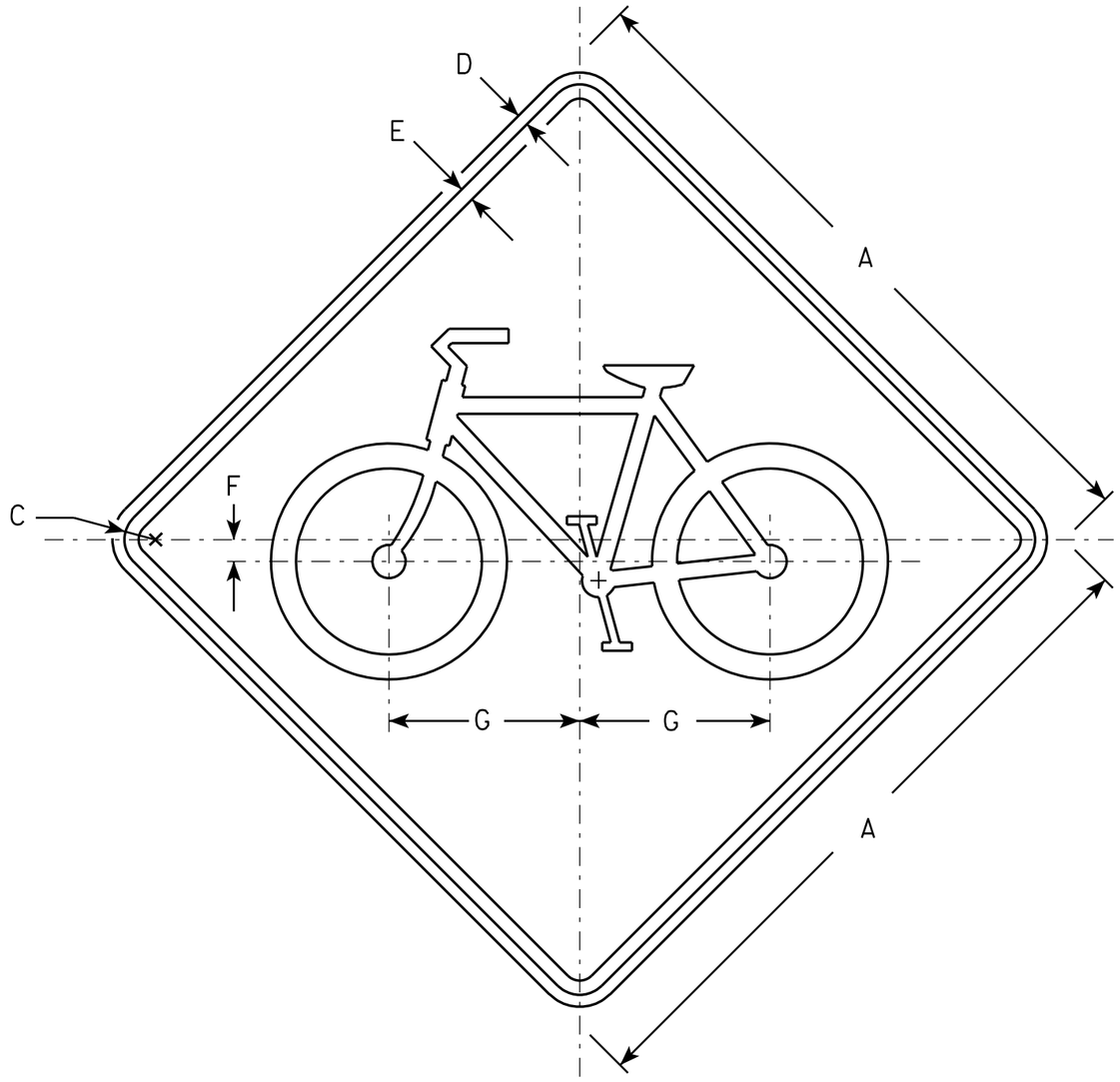
STANDARD SIGN
W5-56

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. W5-56.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 103	E



W11-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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	3/4	1/2	3/4	6 5/8																				4.0
2S	30		1 3/8	1/2	5/8	1	8 1/2																				6.25
2M	36		1 5/8	5/8	3/4	1 1/4	10																				9.0
3	36		1 5/8	5/8	3/4	1 1/4	10																				9.0
4	48		2 1/4	3/4	1	1 5/8	13 3/8																				16.0
5																											16.0

STANDARD SIGN
W11-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/21/10 PLATE NO. W11-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 104 | E

STATE PROJECT NUMBER

5991-07-19

DESIGN DATA

BRIDGE LOADS:

LIVE LOAD	90 psf
VEHICLE LOAD (H10 TRUCK)	20,000 lbs
WIND LOAD ON SUPERSTRUCTURE:	
TRANSVERSE	50 psf
LONGITUDINAL	12 psf
UPLIFT	20 psf
WIND LOAD ON SUBSTRUCTURE:	
TRANSVERSE AND LONGITUDINAL	40 psf

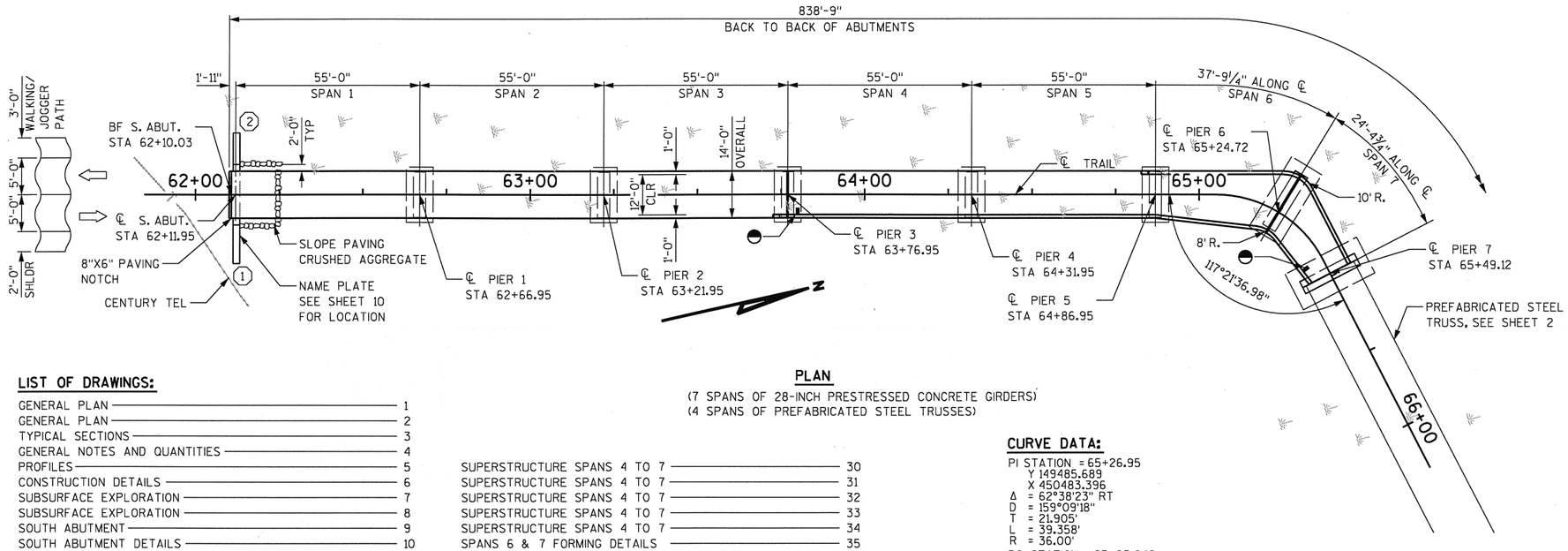
ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, DECK	f'c = 4,000 psi
ALL OTHER	f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 psi
HIGH STRENGTH STRUCTURAL STEEL ASTM A588 OR ASTM 847	fy = 50,000 psi
28" PRESTRESSED I-GIRDER CONCRETE MASONRY	f'c = 6000 psi
0.5" DIA. STRANDS WITH ULTIMATE STRENGTH OF	fu = 270,000 psi

FOUNDATION DATA:

ABUTMENTS AND PIERS SUPPORTED ON 10¾" DIA. CAST-IN-PLACE CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 110 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 80'LONG AT THE SOUTH ABUTMENT, 70'LONG AT PIERS 1 THROUGH 7, 80'LONG AT PIER 8, 75'LONG AT PIER 9, 70' LONG AT PIER 10 AND 50'LONG AT THE NORTH ABUTMENT.

* THE FACTORED AXIAL RESISTANCE OF THE 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.



PLAN

(7 SPANS OF 28-INCH PRESTRESSED CONCRETE GIRDERS)
(4 SPANS OF PREFABRICATED STEEL TRUSSES)

LIST OF DRAWINGS:

GENERAL PLAN	1
GENERAL PLAN	2
TYPICAL SECTIONS	3
GENERAL NOTES AND QUANTITIES	4
PROFILES	5
CONSTRUCTION DETAILS	6
SUBSURFACE EXPLORATION	7
SUBSURFACE EXPLORATION	8
SOUTH ABUTMENT	9
SOUTH ABUTMENT DETAILS	10
NORTH ABUTMENT	11
NORTH ABUTMENT DETAILS	12
PIERS 1 THRU 5	13
PIERS 1 THRU 5 FOOTINGS	14
PIER 6	15
PIER 6 FOOTINGS	16
PIER 7	17
PIER 7 FOOTINGS	18
PIERS 8 THRU 10	19
PIERS 8 THRU 10 FOOTINGS	20
FRAMING PLAN SPANS 6 & 7	21
ELASTOMERIC BEARINGS - PIER 3	22
ELASTOMERIC BEARINGS - PIER 6	23
28" PRESTRESSED GIRDER DETAILS SPANS 1 TO 5	24
28" PRESTRESSED GIRDER DETAILS SPANS 6 & 7	25
INTERMEDIATE STEEL DIAPHRAGMS	26
SUPERSTRUCTURE SPANS 1 TO 3	27
SUPERSTRUCTURE SPANS 1 TO 3	28
SUPERSTRUCTURE SPANS 1 TO 3	29
SUPERSTRUCTURE SPANS 4 TO 7	30
SUPERSTRUCTURE SPANS 4 TO 7	31
SUPERSTRUCTURE SPANS 4 TO 7	32
SUPERSTRUCTURE SPANS 4 TO 7	33
SUPERSTRUCTURE SPANS 4 TO 7	34
SPANS 6 & 7 FORMING DETAILS	35
SUPERSTRUCTURE SPANS 4 TO 7	36
STRIP SEAL EXPANSION JOINT DETAILS	37
STRIP SEAL COVER PLATE DETAILS	38
FLOOR DRAIN TYPE "GC"	39
RAILPOST SPACING SPANS 1 TO 5	40
RAILPOST SPACING SPANS 6 & 7	41
RAILING STEEL TYPE C2 GLAVANIZED PEDESTRIAN	42
RAILING TUBULAR SCREENING (MODIFIED)	43
PEDESTRIAN OVERPASS RAILING DETAILS	44

CURVE DATA:

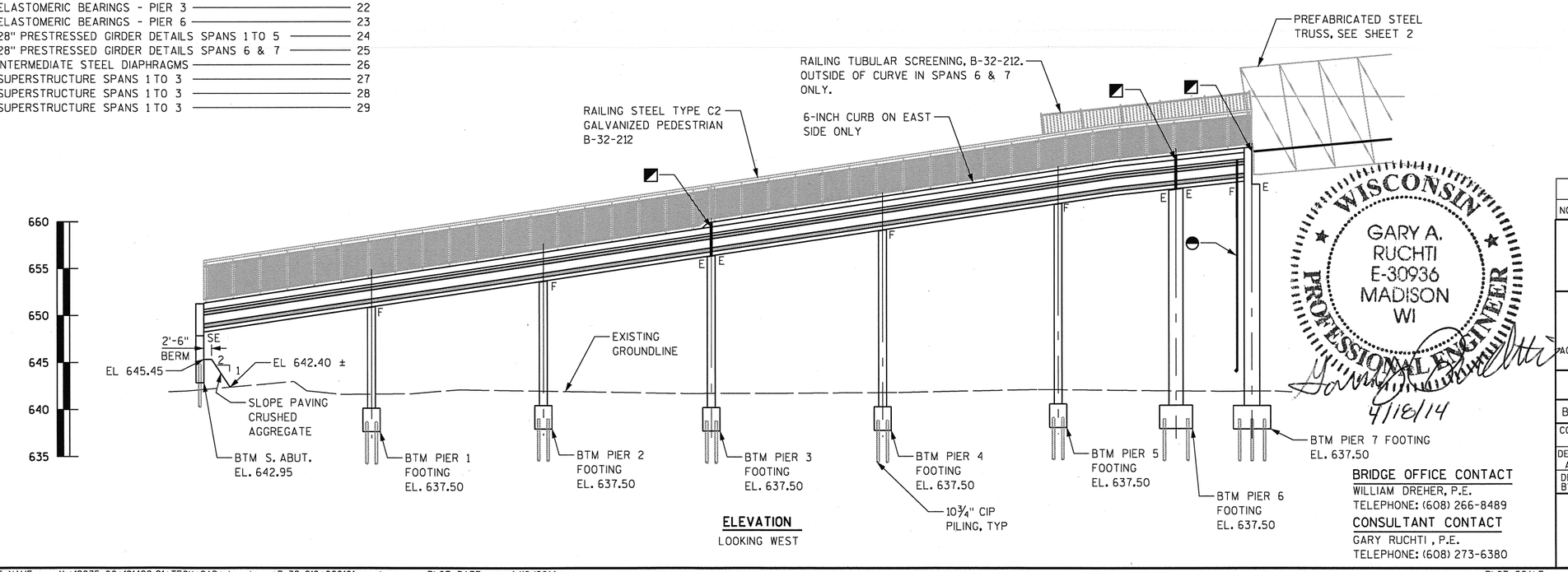
PI STATION = 65+26.95
Y 149485.689
X 450483.396
Δ = 62°38'23" RT
D = 159°09'18"
T = 21.905'
L = 39.358'
R = 36.00'
PC STATION = 65+05.046
Y 149464.480
X 450477.915
PT STATION = 65+44.403
Y 149490.568
X 450504.751

(X) INDICATES WING NUMBER

◓ FLOOR DRAIN TYPE "GC" WITH DOWNSPOUT

◩ NEOPRENE STRIP SEAL DECK JOINT

FF - FRONT FACE
BF - BACK FACE
R. - RADIUS



ELEVATION
LOOKING WEST

WISCONSIN
GARY A. RUCHTI
E-30936
MADISON
WI
PROFESSIONAL ENGINEER
4/18/14

NO.	DATE	REVISION	BY

Mead & Hunt, Inc.
6501 Watts Road
Madison, WI 53719
608.273.6380
fax: 608.273.6391
www.meadhunt.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Ducheck KAR 05/07/14
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-32-212

BRIDGE OVER BURLINGTON NORTHERN/ SANTA FE R.R.

COUNTY LA CROSSE	~~TOWN~~/CITY/~~VILLAGE~~ LA CROSSE
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS	
DESIGNED BY RCP/MJB; DESIGN CK'D. GAR	DRAWN BY TAV; PLANS CK'D. GAR/RCP

BRIDGE OFFICE CONTACT
WILLIAM DREHER, P.E.
TELEPHONE: (608) 266-8489

CONSULTANT CONTACT
GARY RUCHTI, P.E.
TELEPHONE: (608) 273-6380

GENERAL PLAN

SHEET 1 OF 44
105

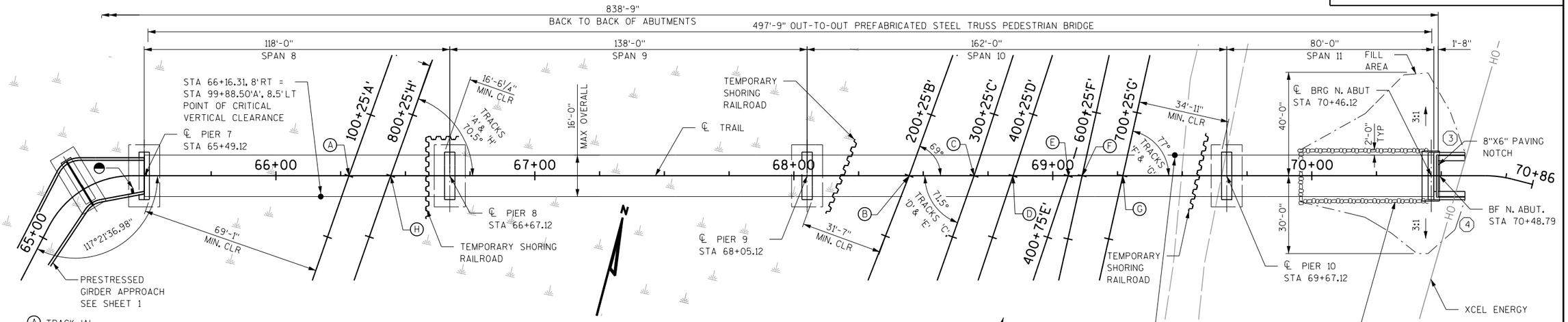
8

8

FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080101_gp.dgn PLOT DATE : 4/18/2014 PLOT SCALE : 40.0000 '/ in.

STATE PROJECT NUMBER

5991-07-19



Ⓐ TRACK 'A'
STA. 66+28.16 =
STA. 100+00.00'A'
EL. 643.08

Ⓑ TRACK 'B'
STA. 68+44.48 =
STA. 200+00.00'B'
EL. 647.48

Ⓒ TRACK 'C'
STA. 68+69.55 =
STA. 300+00.00'C'
EL. 648.25

Ⓓ TRACK 'D'
STA. 68+84.63 =
STA. 400+00.00'D'
EL. 648.53

Ⓔ TRACK 'E'
STA. 69+05.96 =
STA. 500+00.00'E'
EL. 648.64

Ⓕ TRACK 'F'
STA. 69+11.22 =
STA. 600+00.00'F'
EL. 648.71

Ⓖ TRACK 'G'
STA. 69+27.14 =
STA. 700+00.00'G'
EL. 649.27

Ⓗ TRACK 'H'
STA. 66+44.34 =
STA. 800+00.00'H'
EL. 643.48

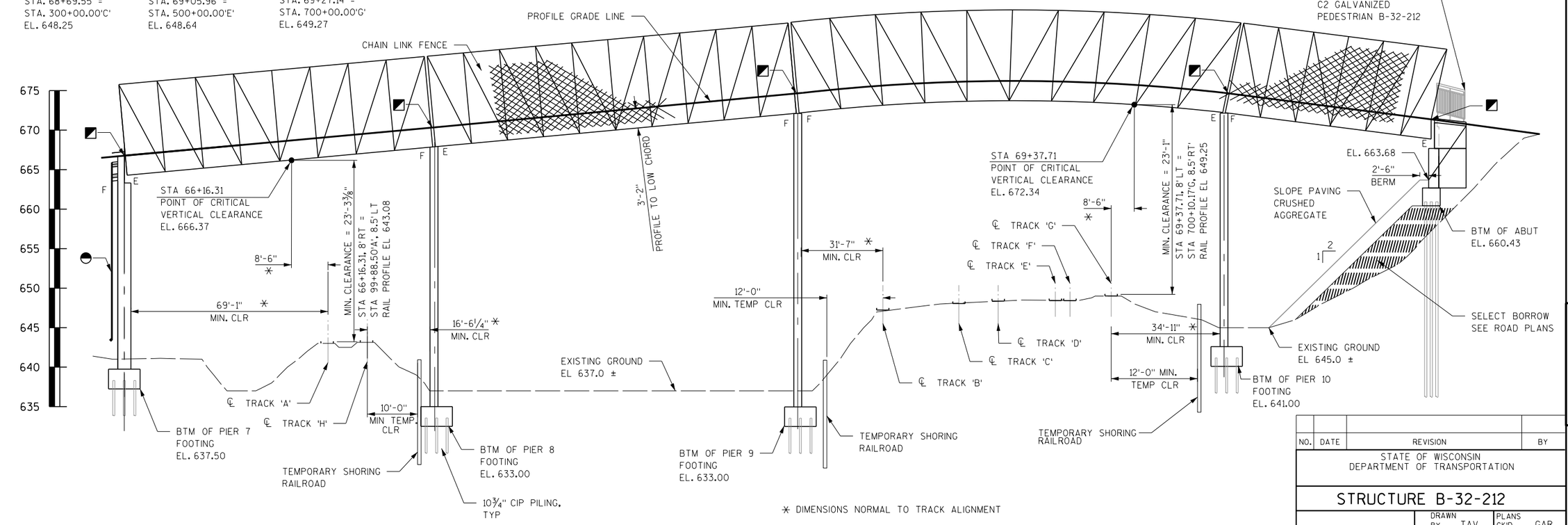
PLAN

(7 SPANS OF 28-INCH PRESTRESSED CONCRETE GIRDERS)
(4 SPANS OF PREFABRICATED STEEL TRUSSES)

Ⓧ INDICATES WING NUMBER

◓ FLOOR DRAIN TYPE "GC" WITH DOWNSPOUT

◪ NEOPRENE STRIP SEAL DECK JOINT



✳ DIMENSIONS NORMAL TO TRACK ALIGNMENT

ELEVATION

(LOOKING NORTH)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

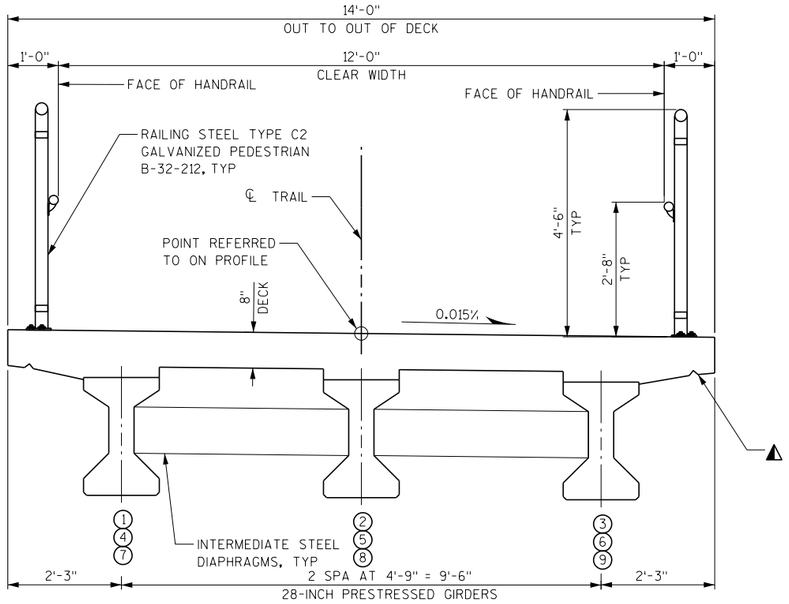
STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

GENERAL PLAN

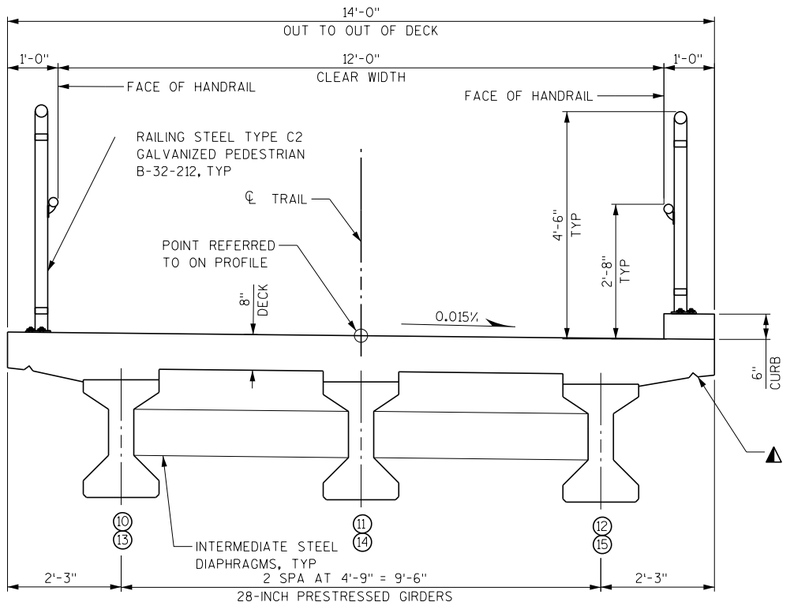
SHEET 2 OF 44
106

FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080102_gp.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 40.0000 '/ In.



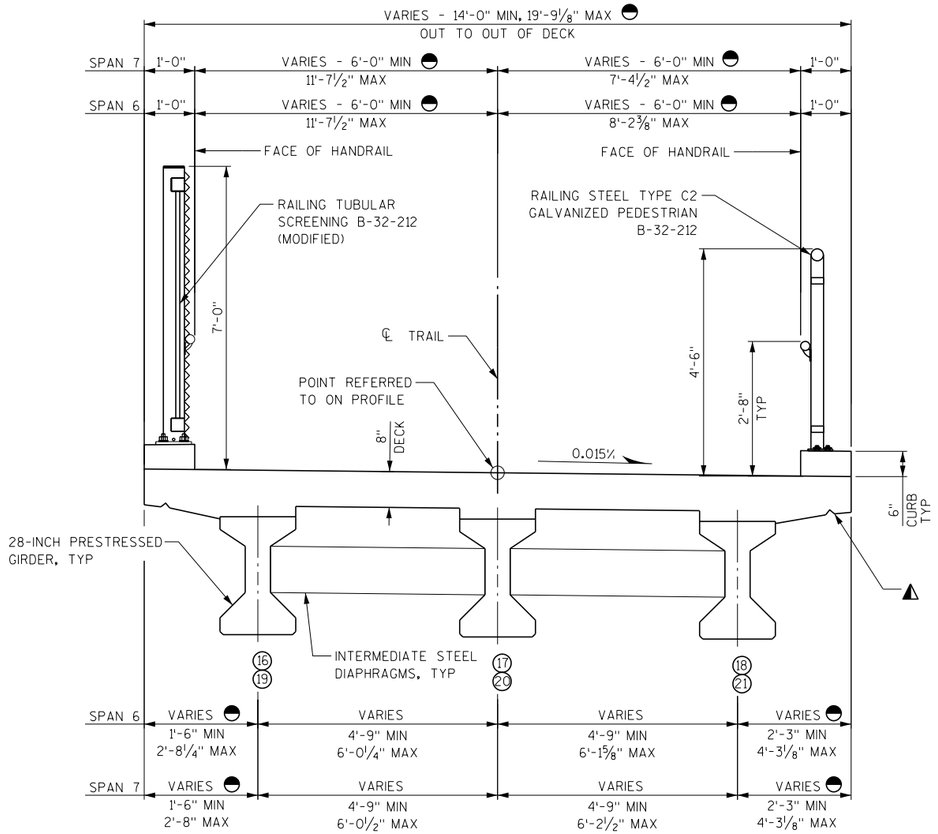
CROSS SECTION THRU BRIDGE

SPANS 1, 2 & 3



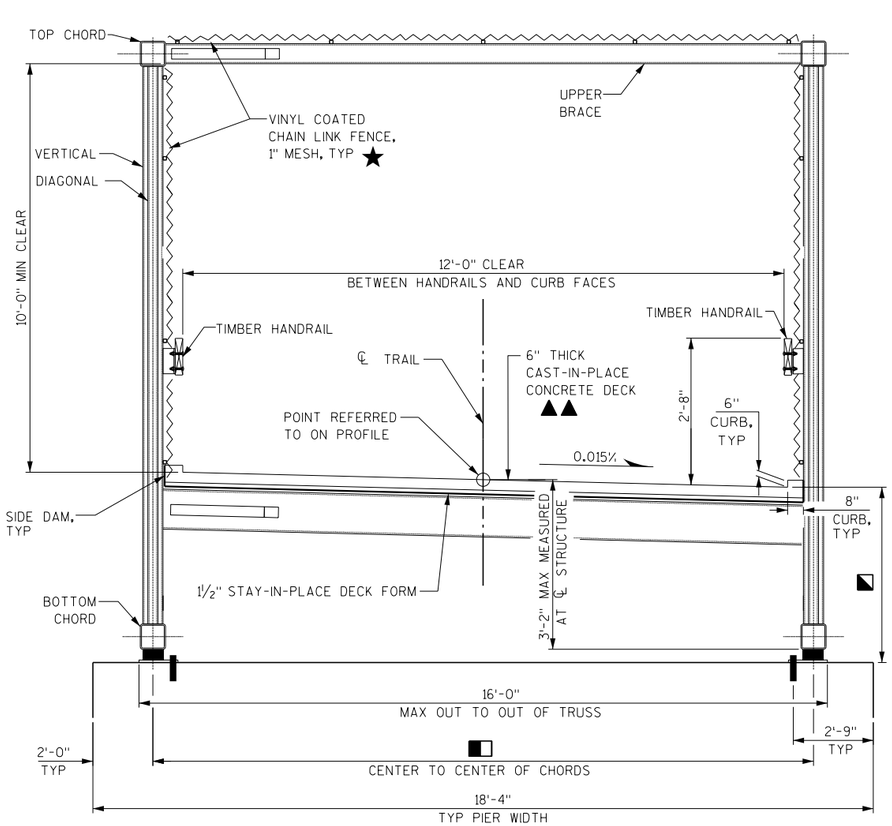
CROSS SECTION THRU BRIDGE

SPANS 4 & 5



CROSS SECTION THRU BRIDGE

SPANS 6 & 7



CROSS SECTION THRU BRIDGE

SPANS 8, 9, 10 & 11

NOTES

ALL CROSS SECTIONS ARE LOOKING UPSTATION

★ CHAIN LINK ATTACHED DIRECTLY TO SUPERSTRUCTURE PER MANUFACTURER'S RECOMMENDATION

▲ ¾" CONTINUOUS DRIP GROOVE. EXTEND TO 3" FROM FF OF S. ABUTMENT DIAPHRAGM. TERMINATE 2'-0" FROM EXPANSION JOINTS AT PIERS 3, 6 & 7, TYP

◓ DIMENSION MEASURED PERPENDICULAR TO EDGE OF DECK

◥ A DISTANCE OF 3'-3" AT LOW SIDE OF DECK TO BEARING SEAT WAS USED. COORDINATE WITH PEDESTRIAN TRUSS MANUFACTURER BEFORE CONSTRUCTING PIERS.

◧ A DISTANCE OF 14'-4" FOR CENTER TO CENTER OF BEARINGS WAS USED IN DESIGN OF THE PIERS.

▲▲ 6" THICK CAST-IN-PLACE DECK AND STEEL REINFORCEMENT ALONG SPANS 8 THRU 11 TO BE INCLUDED IN THE BID ITEM "PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE B-32-212 LRFD".

(#) INDICATES GIRDER NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

TYPICAL SECTIONS

SHEET 3 OF 44
107

STATE PROJECT NUMBER
5991-07-19

8

8

TOTAL ESTIMATED QUANTITIES

	BID ITEM NO.	BID ITEMS	UNIT	S ABUT	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7	PIER 8	PIER 9	PIER 10	N ABUT	SUPER	TOTALS
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-32-212	LS	---	---	---	---	---	---	---	---	---	---	---	---	---	1
	210.0100	BACKFILL STRUCTURE	CY	85	---	---	---	---	---	---	---	---	---	---	90	---	175
	502.0100	CONCRETE MASONRY BRIDGES	CY	19	31	36	41	46	51	90	83	104	113	94	45	156	909
3	502.3100	EXPANSION DEVICE B-32-212	LS	---	---	---	---	---	---	---	---	---	---	---	---	---	1
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	4	---	---	---	---	---	---	---	---	---	---	22	697	723
	503.0128	PRESTRESSED GIRDER TYPE I28-INCH	LF	---	---	---	---	---	---	---	---	---	---	---	---	1011	1011
	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	680	830	830	830	830	830	1040	1900	2090	2090	2090	1670	0	15710
	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	650	5040	5700	6260	6980	7650	14130	10780	13050	14150	11670	2280	26200	124540
	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	---	---	---	---	---	---	---	---	---	---	---	---	30	30
	506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	---	---	---	---	---	---	---	---	---	---	---	---	6	6
	506.4000	STEEL DIAPHRAGMS B-32-212	EACH	---	---	---	---	---	---	---	---	---	---	---	---	14	14
	506.6000	BEARING ASSEMBLIES EXPANSION B-32-212	EACH	---	---	---	---	---	---	---	---	---	---	---	---	6	6
1	506.8005.S	PREFABRICATED STREEL TRUSS PEDESTRIAN BRIDGE B-32-212 LRFD	LS	---	---	---	---	---	---	---	---	---	---	---	---	---	1
	514.0445	FLOOR DRAINS TYPE GC	EACH	---	---	---	---	---	---	---	---	---	---	---	---	2	2
	514.2625	DOWNSPOUT 6-INCH	LF	---	---	---	---	---	---	---	---	---	---	---	---	41	41
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	4	---	---	---	---	---	---	---	---	---	---	7	---	11
	550.2102	PILING CIP CONCRETE 10 3/4 X 0.219-INCH	LF	240	840	840	840	840	840	700	1050	1920	1800	1680	850	---	12440
	604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	20	---	---	---	---	---	---	---	---	---	---	95	---	115
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	41	---	---	---	---	---	---	---	---	---	---	60	---	101
	SPV.0105.01	RAILING TUBULAR SCREENING B-32-212 (MODIFIED)	LS	---	---	---	---	---	---	---	---	---	---	---	---	---	1
	SPV.0105.02	RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN B-32-212	LS	---	---	---	---	---	---	---	---	---	---	---	---	---	1
2	SPV.0165.01	TEMPORARY SHORING RAILROAD	SF	---	---	---	---	---	---	---	---	395	265	210	---	---	870
		NON BID ITEMS															
		FILLER	SIZE														1/2" & 3/4"

1 BID ITEM "PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE B-32-212 LRFD" SHALL INCLUDE CONCRETE DECK WITH REINFORCEMENT, CURB, DECK JOINTS, SIDEWALK COVER PLATES, BEARINGS, AND ANCHORBOLTS.

2 TEMPORARY SHORING RAILROAD AT PIER 8 SHALL NOT BE REMOVED BELOW THE TOP OF FOOTING.

3 BID ITEM "EXPANSION DEVICE B-32-212" SHALL INCLUDE STRIP SEAL, EXTRUSIONS AND SIDEWALK COVER PLATES AT DECK JOINTS OVER PIERS 3 AND 6 ONLY.

BENCH MARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
15	70+52.58	116.958 RT	CPS	669.650
16	70+79.18	37.352 LT	CPS	669.150
14	62+60.91	78.209 RT	CPF	643.840
13	61+31.02	71.005 LT	TRAV. CONTROL POINT	641.702

ESTIMATED STEEL TRUSS BRIDGE REACTIONS

DESIGN OF PIERS 7-10 AND THE NORTH ABUTMENT WERE BASED ON BRIDGE REACTIONS AS FOLLOWS:

SPAN 8

LOAD TYPE	P (LBS.)	H (LBS.)	L (LBS.)
DEAD LOAD	42,475	---	---
UNIFORM LIVE LOAD	35,345	---	---
VEHICLE LOAD	10,000	---	---
WIND UPLIFT WINDWARD/LEEWARD	-12,960 / -4,320	---	---
WIND HORIZ. WINDWARD/LEEWARD	-13,790 / 13,790	26,450	---
SEISMIC	---	---	---
THERMAL	---	---	6,375

SPAN 9

LOAD TYPE	P (LBS.)	H (LBS.)	L (LBS.)
DEAD LOAD	49,900	---	---
UNIFORM LIVE LOAD	41,350	---	---
VEHICLE LOAD	10,000	---	---
WIND UPLIFT WINDWARD/LEEWARD	-15,160 / -5,053	---	---
WIND HORIZ. WINDWARD/LEEWARD	-16,460 / 16,460	30,940	---
SEISMIC	---	---	---
THERMAL	---	---	7,485

SPAN 10

LOAD TYPE	P (LBS.)	H (LBS.)	L (LBS.)
DEAD LOAD	59,050	---	---
UNIFORM LIVE LOAD	48,550	---	---
VEHICLE LOAD	10,000	---	---
WIND UPLIFT WINDWARD/LEEWARD	-17,805 / -5,935	---	---
WIND HORIZ. WINDWARD/LEEWARD	-19,795 / 19,795	36,330	---
SEISMIC	---	---	---
THERMAL	---	---	8,860

SPAN 11

LOAD TYPE	P (LBS.)	H (LBS.)	L (LBS.)
DEAD LOAD	27,725	---	---
UNIFORM LIVE LOAD	23,940	---	---
VEHICLE LOAD	10,000	---	---
WIND UPLIFT WINDWARD/LEEWARD	-8,780 / -2,927	---	---
WIND HORIZ. WINDWARD/LEEWARD	-8,975 / 8,975	17,615	---
SEISMIC	---	---	---
THERMAL	---	---	4,160

P = VERTICAL LOAD AT EACH BEARING (4 PER SPAN)
H = HORIZONTAL LOAD AT EACH SPAN END (2 PER SPAN)
L = LONGITUDINAL LOAD AT EACH BEARING (4 PER SPAN)
NOTES:
1. VALUES IN THIS TABLE ARE ESTIMATES. ACTUAL VALUES SHALL BE PROVIDED BY PREFABRICATED TRUSS MANUFACTURER.
2. "+" INDICATES DOWNWARD LOAD
"-" INDICATES UPWARD LOAD

GENERAL NOTES

STATE PROJECT NUMBER
5991-07-19

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

ALL ELEVATIONS ARE REFERENCED TO NAVD 88.

BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGE OF CONCRETE 3/4" UNLESS OTHERWISE SHOWN.

AT THE BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING CRUSHED AGGREGATE TO THE EXTENT SHOWN ON SHEETS 1, 2 AND SHEET 6.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET, WHICH IS THE MAXIMUM QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

THE TRUSSES SHALL BE CAMBERED AN AMOUNT EQUAL TO THE PROFILE GRADE LINE PLUS AN AMOUNT TO OFFSET THE CALCULATED DEAD LOAD DEFLECTION (CAMBER NEEDED FOR PREFABRICATED BRIDGE TO BE DETERMINED BY MANUFACTURER) UNLESS OTHERWISE SHOWN OR NOTED.

RESIDUAL CAMBER FOR SPAN 10 IS BASED ON A PARABOLIC GEOMETRY AND PROFILE.

ESTIMATED MAXIMUM LIFTING WEIGHT OF BRIDGE WITHOUT DECK IS PROVIDED BELOW. ESTIMATED LIFTING WEIGHT IS FOR BIDDING PURPOSES ONLY AND SHALL BE VERIFIED BY THE CONTRACTOR.

SPAN 8 = 59,900 LBS
SPAN 9 = 70,900 LBS
SPAN 10 = 85,100 LBS
SPAN 11 = 36,500 LBS

PREFABRICATED STEEL TRUSS SHALL BE FABRICATED FROM UNPAINTED WEATHERING STEEL MATERIAL.

THE SUPERSTRUCTURE SHALL BE ANCHORED TO THE FOUNDATIONS IN A MANNER TO:

- ALLOW THERMAL MOVEMENTS OF THE SUPERSTRUCTURE.

- PREVENT HORIZONTAL TRANSLATION OF THE SUPERSTRUCTURE PERPENDICULAR TO THE CENTERLINE OF THE TRAIL.

VINYL COATED CHAIN LINK FENCE ON SIDES AND TOP OF TRUSS TO BE INCLUDED IN THE BID ITEM "PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE B-32-212 LRFD". ALTERNATE FENCING WILL BE CONSIDERED SUBJECT TO THE APPROVAL OF THE ENGINEER. VINYL COATED CHAIN LINK FENCE TO BE BROWN (FEDERAL STANDARD COLOR NO. 20059).

"RAILING TUBULAR SCREENING B-32-212 (MODIFIED)" AND "RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN B-32-212" TO BE PAINTED BROWN (FEDERAL STANDARD COLOR NO. 20059). VINYL COATED FENCE FABRIC TO BE BROWN (FEDERAL STANDARD COLOR NO. 20059).

TRUSS AND CONCRETE DECK SHALL BE DESIGNED TO ACCOMMODATE A STRIP SEAL DECK JOINT AND SIDEWALK COVER PLATE AT PIERS 7 THRU 10 AND EAST ABUTMENT, THEREFORE THE TRUSS FABRICATOR SHALL COORDINATE WITH THE JOINT MANUFACTURER TO OBTAIN NECESSARY JOINT, ANCHORAGE AND CONSTRUCTION SUPPORT DETAILS. DECK JOINT AND SIDEWALK COVER PLATE DESIGN SHALL BE SIMILAR TO DETAILS SHOWN ON SHEETS 37 & 38.

TRUSSES SHALL BE DESIGNED AS SIMPLE SPANS BETWEEN PIERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

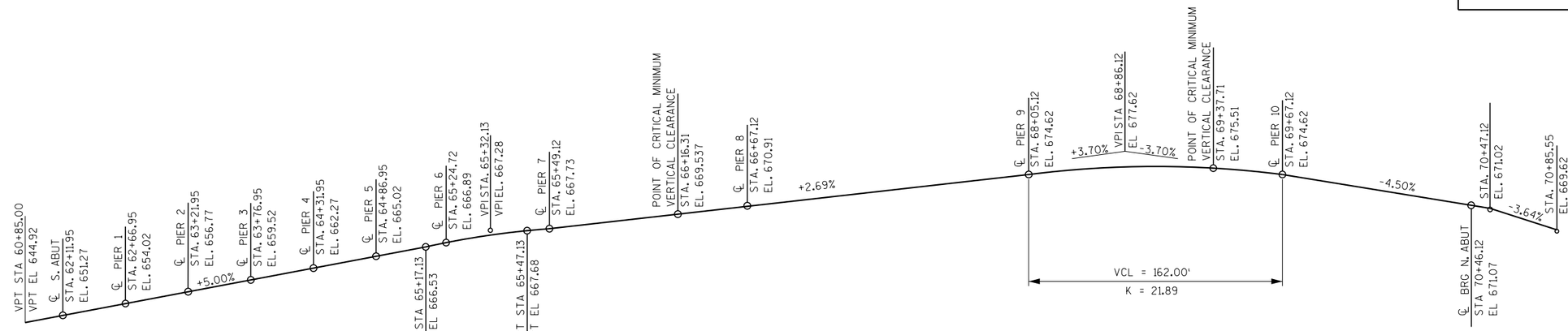
GENERAL NOTES AND QUANTITIES

SHEET 4 OF 44
108

8

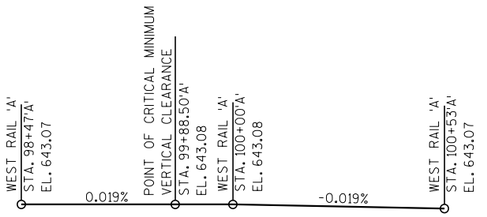
8

STATE PROJECT NUMBER
5991-07-19

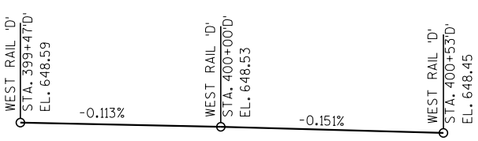


PROFILE GRADE LINE, PEDESTRAIN / BIKE PATH

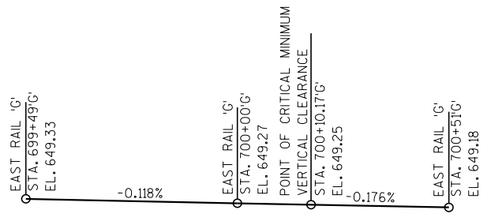
PROFILE MUST PROVIDE MINIMUM VERTICAL CLEARANCE AS SHOWN ON SHEET 1 FROM TOP OF TRACK RAILS TO LOW CHORD OF STRUCTURE.



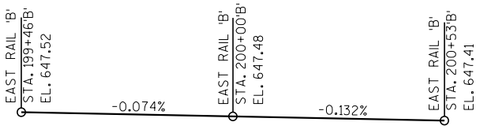
PROFILE GRADE LINE, WEST RAIL TRACK 'A'



PROFILE GRADE LINE, WEST RAIL TRACK 'D'

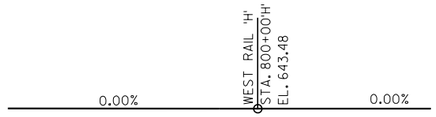


PROFILE GRADE LINE, WEST RAIL TRACK 'G'

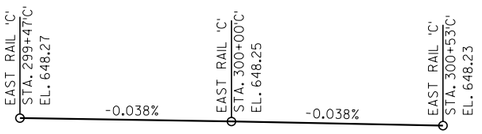


PROFILE GRADE LINE, EAST RAIL TRACK 'B'

PROFILE GRADE LINE, EAST RAIL TRACK 'E'



PROFILE GRADE LINE, HIGH RAIL TRACK 'H'



PROFILE GRADE LINE, EAST RAIL TRACK 'C'

PROFILE GRADE LINE, EAST RAIL TRACK 'F'

THE LOCATION AND ELEVATIONS OF THE RAILROAD TRACKS 'A' THROUGH 'G' REFLECT SURVEY DATA BY MEAD & HUNT, INC. COLLECTED DECEMBER 9, 2012.

THE LOCATION AND ELEVATIONS OF RAILROAD TRACK 'H' REFLECT SURVEY DATA BY MEAD & HUNT, INC. COLLECTED AUGUST 20, 2013.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

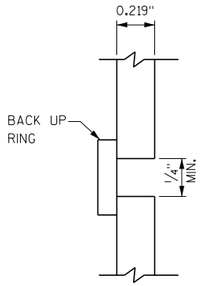
PROFILES

SHEET 5 OF 44

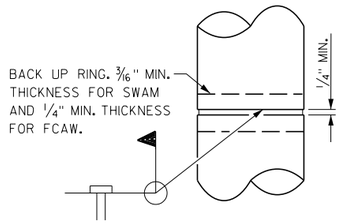
8

8

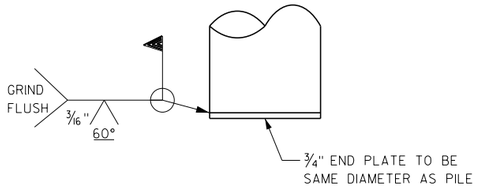
FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080105_pro.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 8.0000 '/ in.



CIP PILE WELD DETAIL



CAST-IN-PLACE 'PIPE PILE'



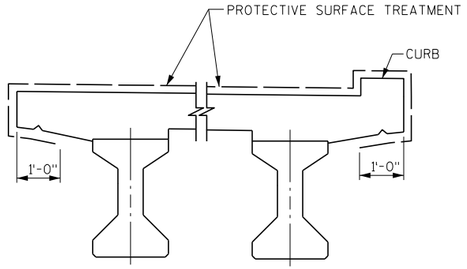
END PLATE DETAIL FOR CIP PILING

GENERAL NOTES

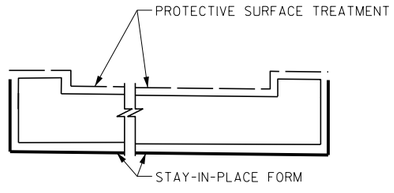
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

[1] PROTECTIVE SURFACE TREATMENT AT THE SOUTH ABUTMENT SHALL BE APPLIED TO THE TOP AND EXTERIOR EXPOSED FACE OF THE WINGS FOR A 2'-0" DISTANCE FROM THE END OF WING, AND ON THE ABUTMENT AND CONCRETE DIAPHRAGM FACE FOR A DISTANCE OF 1'-0" FROM THE END END OF DIAPHRAGM. SEE DETAIL ON THIS SHEET.

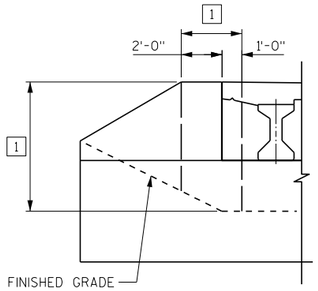
[2] PROTECTIVE SURFACE TREATMENT AT THE NORTH ABUTMENT SHALL BE APPLIED TO THE TOP AND EXTERIOR EXPOSED FACE OF THE WINGS. AND ON THE ABUTMENT FACE, BEARING SEAT AND BACKWALL FACE FOR A DISTANCE OF 3'-2" FROM THE END END OF ABUTMENT. ALSO TO BE APPLIED TO TOP OF WINGS, BACKWALL AND EXPOSED INSIDE FACE OF THE CURB. SEE DETAILS ON THIS SHEET.



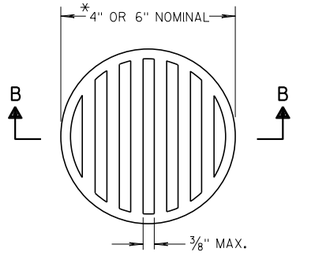
TYPICAL ON ALL PRESTRESSED GIRDER SPANS



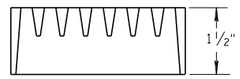
TYPICAL ON ALL TRUSS SPANS



SOUTH ABUTMENT FRONT FACE



NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.

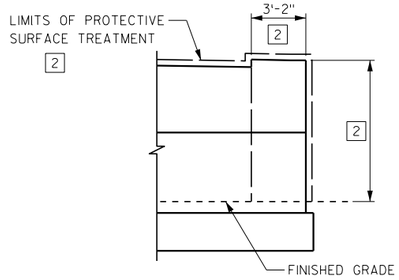


SECTION B-B

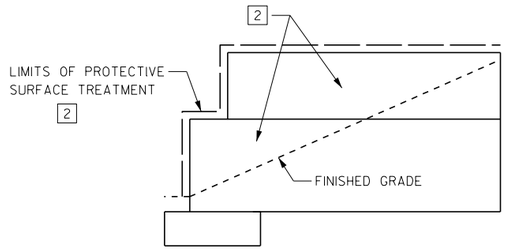
② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

② 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 OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS. THE RODENT SHIELD SHALL BE INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH.

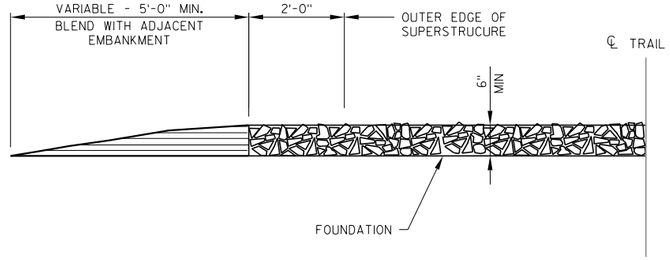


NORTH ABUTMENT FRONT FACE

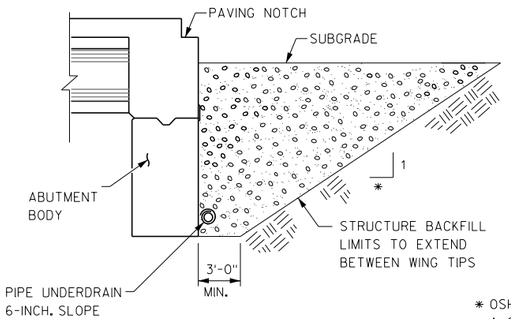


NORTH ABUTMENT WING FACE

LIMITS OF PROTECTIVE SURFACE TREATMENT

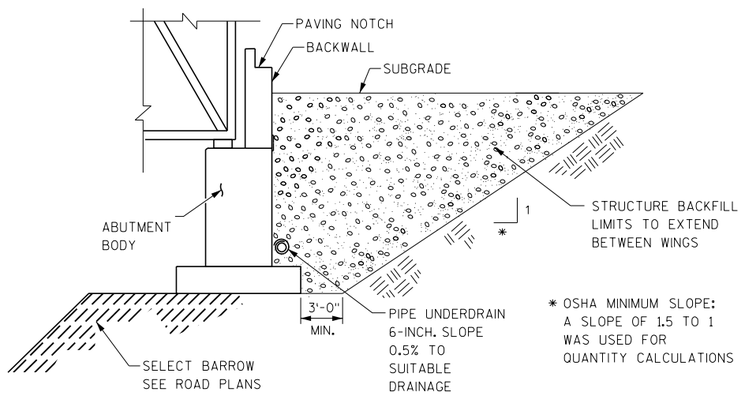


CROSS SECTION THRU SLOPE PAVING
CRUSHED AGGREGATE



STRUCTURE BACKFILL DETAIL
(SOUTH ABUTMENT SHOWN)

* OSHA MINIMUM SLOPE: A SLOPE OF 1.5 TO 1 WAS USED FOR QUANTITY CALCULATIONS



STRUCTURE BACKFILL DETAIL
(NORTH ABUTMENT SHOWN)

* OSHA MINIMUM SLOPE: A SLOPE OF 1.5 TO 1 WAS USED FOR QUANTITY CALCULATIONS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

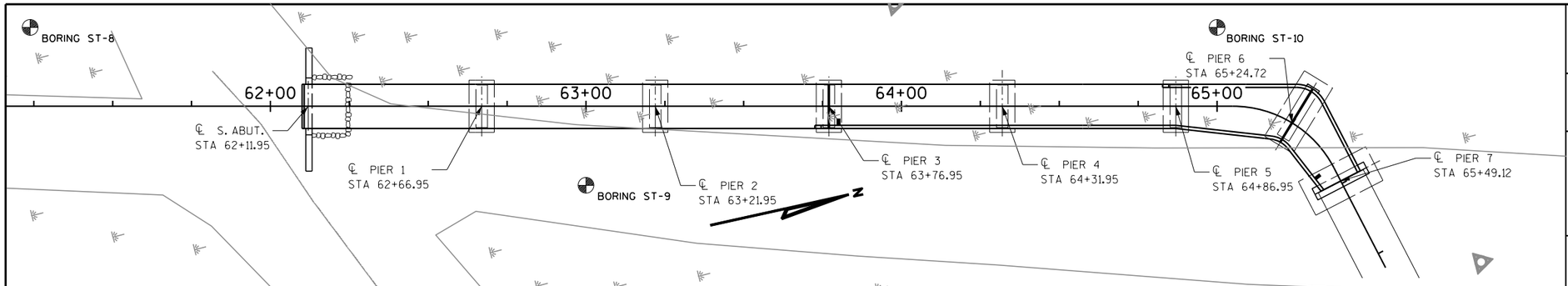
STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

CONSTRUCTION DETAILS

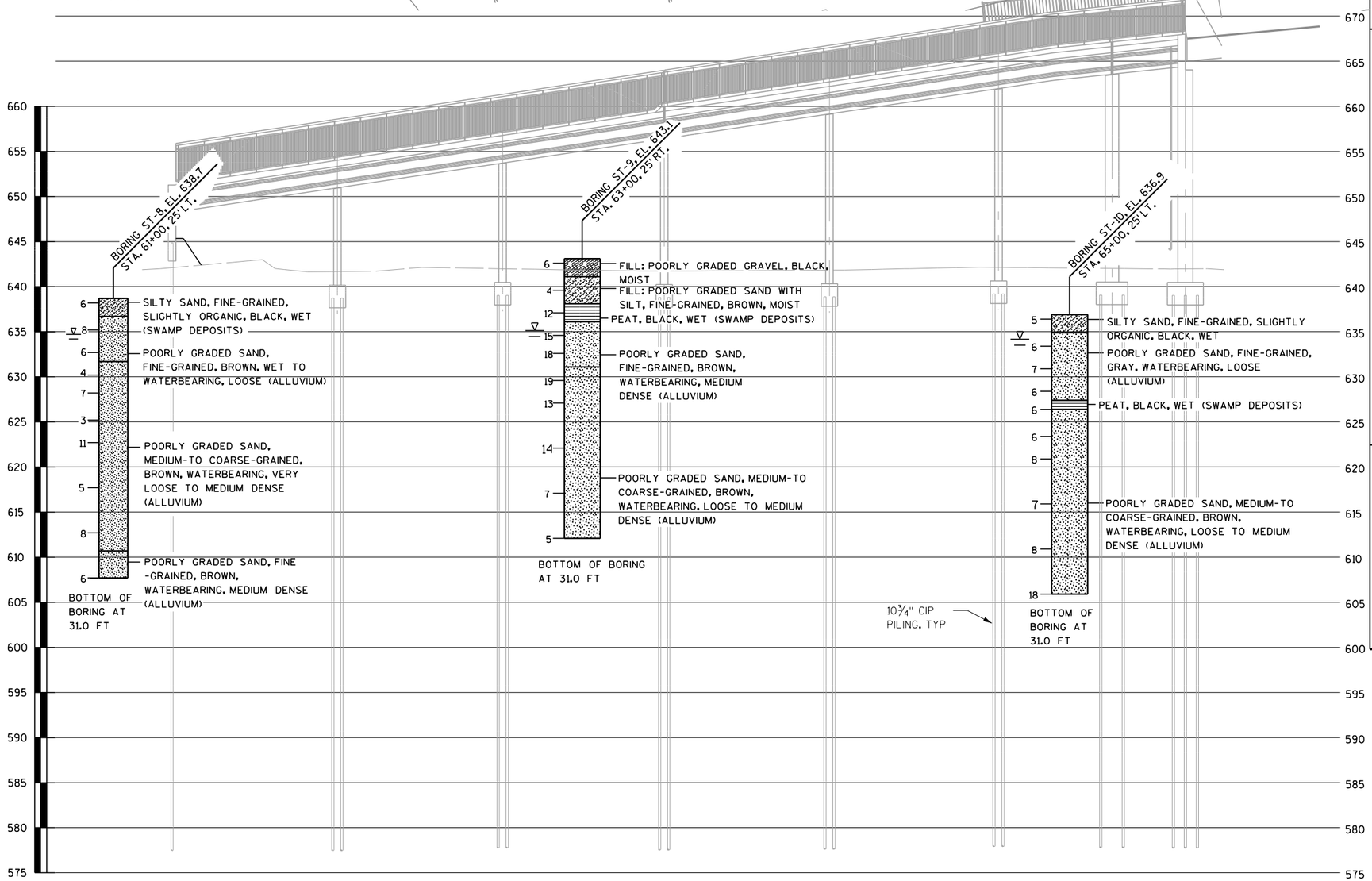
SHEET 6 OF 44
110

8



BORINGS PERFORMED BY:

BRAUN INTERTEC CORP.
2309 PALACE STREET
LA CROSSE, WI 54603
DECEMBER 3, 4, 6, 7 & 8 OF 2012



STATE PROJECT NUMBER

5991-07-19

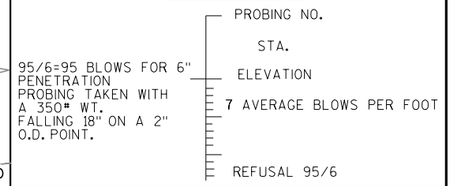
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

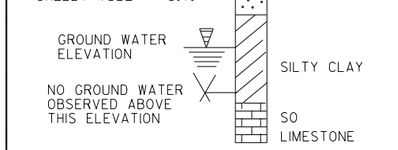
MATERIAL SYMBOLS

TOPSOIL, SAND, GRAVEL, SILT, PEAT, CLAY, SANDSTONE, LIMESTONE, 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.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

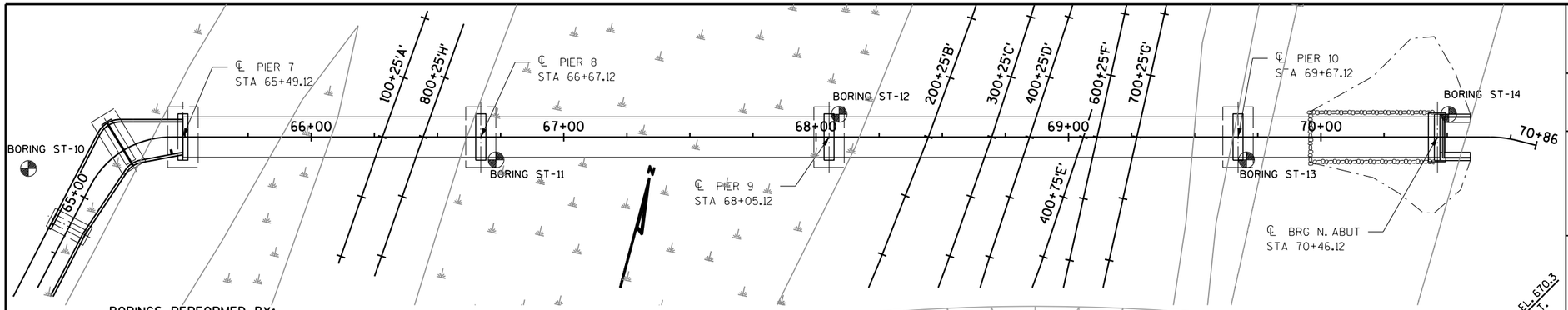
STRUCTURE B-32-212

DRAWN BY TAV PLANS CK'D. GAR

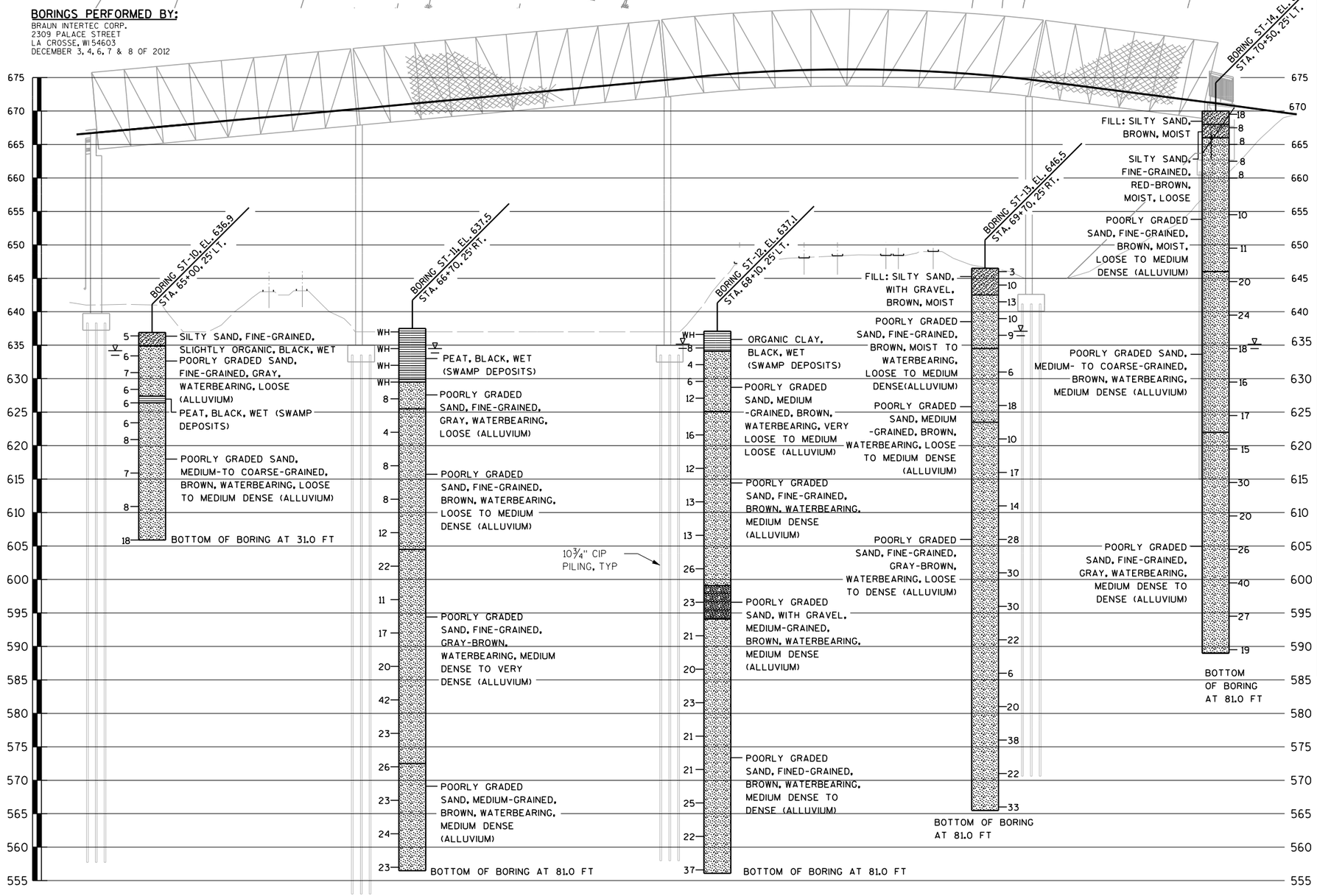
SUBSURFACE EXPLORATION

SHEET 7 OF 44
111

FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080107_se.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 40.0000 '/ in.



BORINGS PERFORMED BY:
BRAUN INTERTEC CORP.
2309 PALACE STREET
LA CROSSE, WI 54603
DECEMBER 3, 4, 6, 7 & 8 OF 2012



STATE PROJECT NUMBER
5991-07-19

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
PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6
95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING
BORING NO.
ELEV.
STA.
UNCONFINED STRENGTH → 7.7 7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO LIMESTONE

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.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

SUBSURFACE EXPLORATION

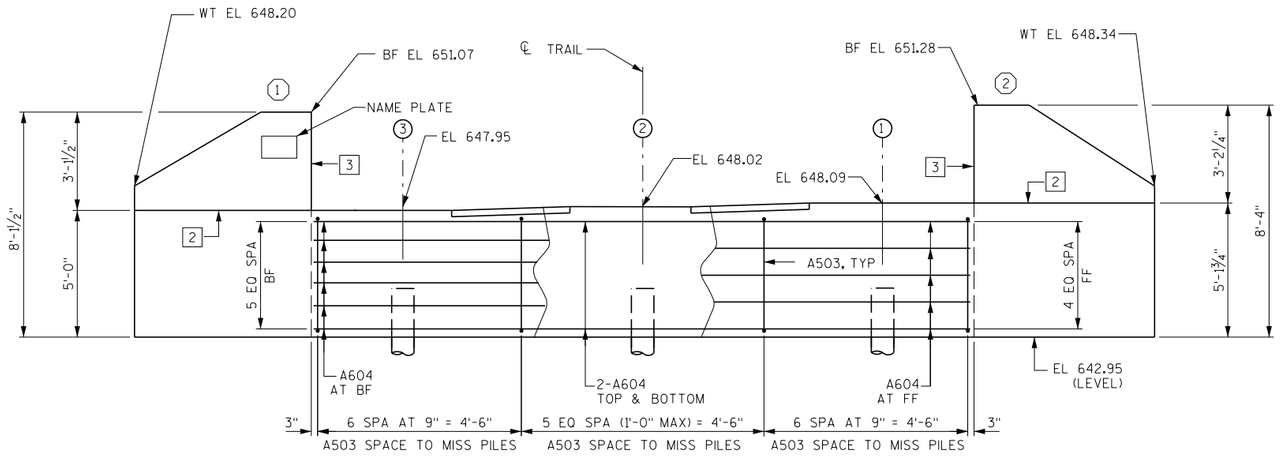
SHEET 8 OF 44
112

8

FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080108_se.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 50.0000 '/ In.

STATE PROJECT NUMBER

5991-07-19



ELEVATION
(LOOKING SOUTH)

NOTES

FOR PILE SPLICE DETAILS SEE SHEET 6.

FILL / EXCAVATE TO BOTTOM OF ABUTMENT EL 642.95 BEFORE DRIVING PILING.

ABUTMENTS TO BE SUPPORTED ON 10¾" DIA. CAST-IN-PLACE CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 110 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 80'-0" LONG.

[1] 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE. EXTEND FROM BEAM SEAT TO TOP OF WING.

[2] OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY. PROVIDE ¾" V-GROOVE AT FF AND 18" RUBBERIZED MEMBRANE WATERPROOFING ON BF OF WINGWALL IF OPTIONAL CONSTRUCTION JOINT IS USED. (COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES")

[3] ½" FILLER - TO EXTEND FROM BEAM SEAT TO TOP OF WING. INCLUDED IN WING LENGTH. 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). EXTEND SEALER 3" BELOW GUTTERLINE AT INSIDE FACE.

[4] PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF UNDERDRAIN AS SHOWN ON SHEET 6.

[6] 4" X ¾" FILLER LENGTH OF ABUTMENT.

[7] ¾" PREFORMED FILLER UNDER GIRDERS.

[8] NON-LAMINATED ELASTOMERIC BEARING PAD ½" X 8" X 1'-10"

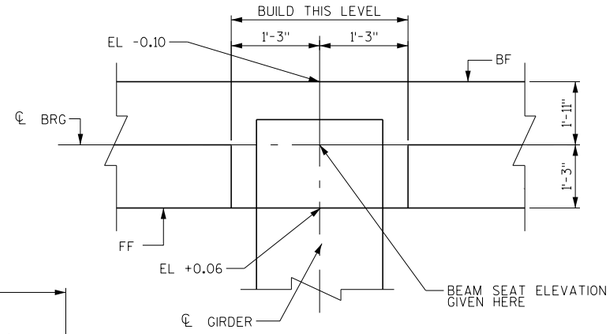
[9] ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER

[10] STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

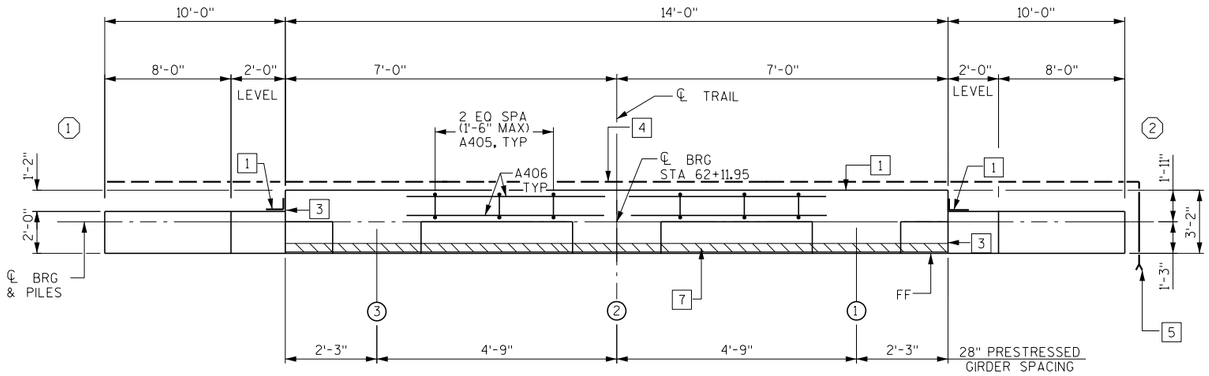
(X) INDICATES WING NUMBER

(X) INDICATES GIRDER NUMBER

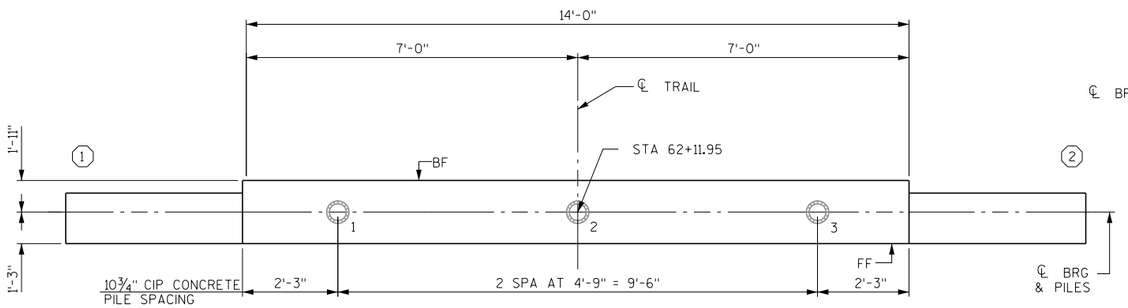
FF - FRONT FACE
BF - BACK FACE
WT - WING TIP



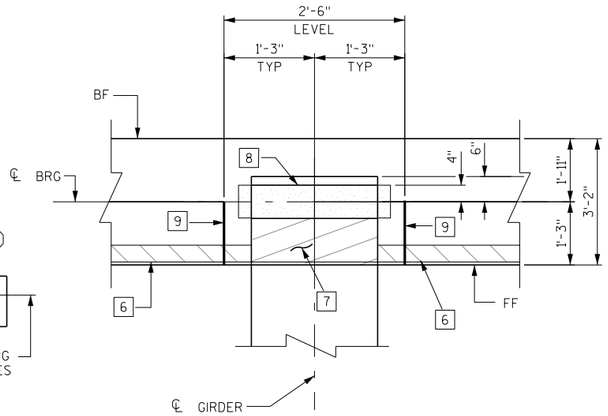
SLOPING BEAM SEAT DETAIL



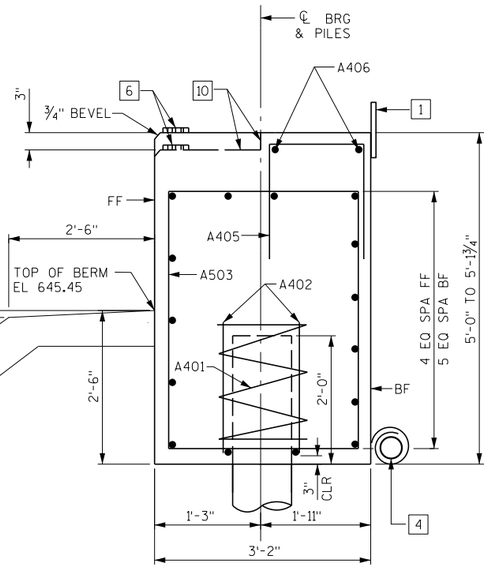
PLAN



PILE LAYOUT



BEARING PAD DETAIL
(AT SOUTH ABUTMENT)



SECTION THRU ABUTMENT BODY
ALL HORIZONTAL BARS NOT LABELED ARE A604 BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

SOUTH ABUTMENT

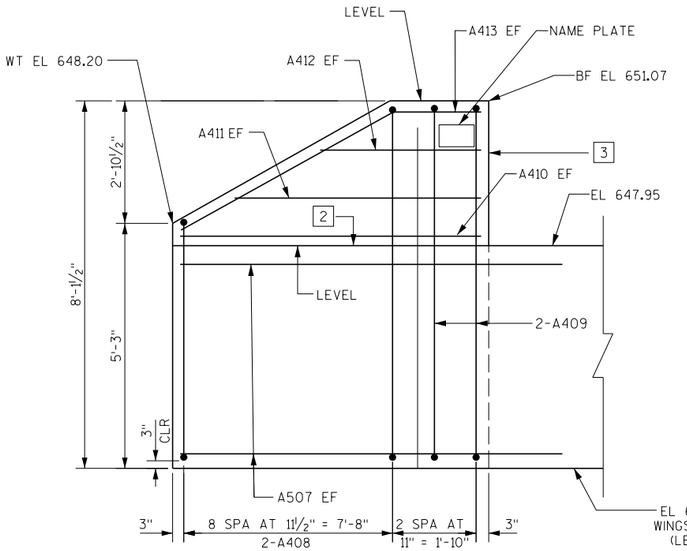
SHEET 9 OF 44
113

8

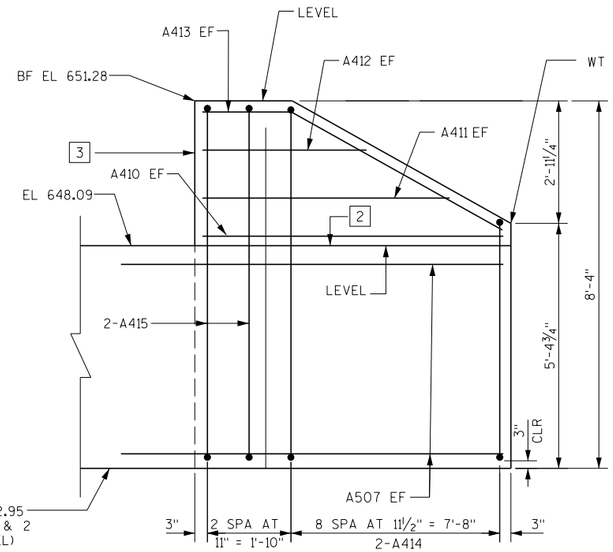
8

STATE PROJECT NUMBER

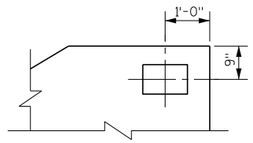
5991-07-19



WING 1 ELEVATION

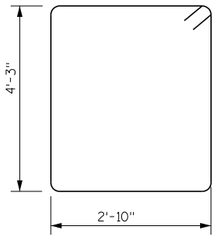


WING 2 ELEVATION

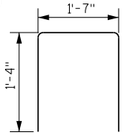


NAME PLATE LOCATION

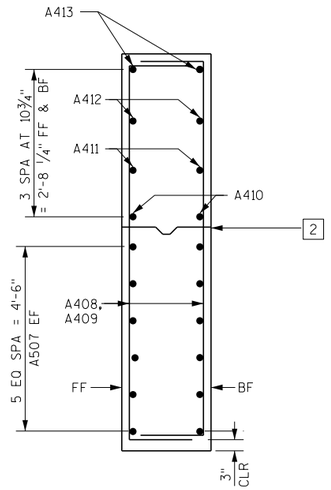
(LOCATED ON WING 1)



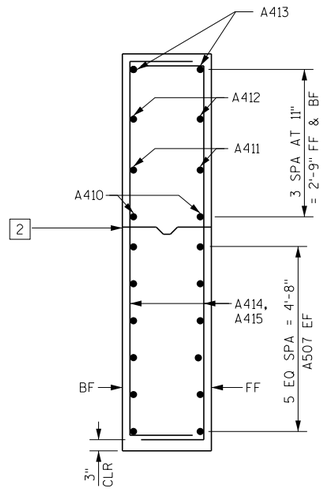
A503



A405

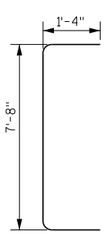


WING 1 SECTION



WING 2 SECTION

A408



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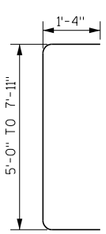

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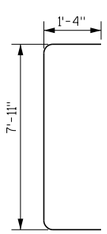

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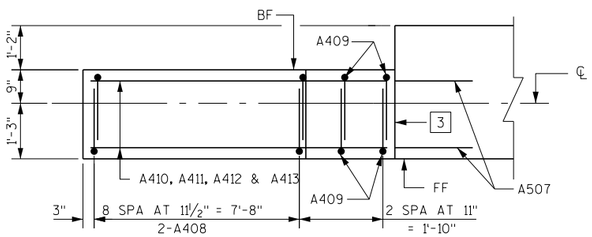
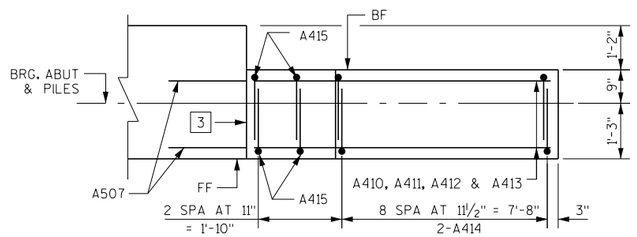


WING 1 PLAN



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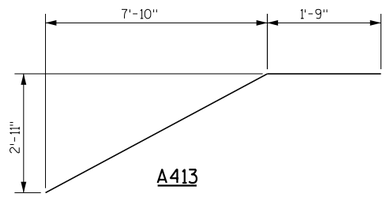

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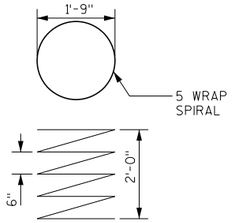


A401

BILL OF BARS
SOUTH ABUTMENT

COATED= 650 LBS.
UNCOATED= 680 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH FT - IN	BENT	BAR SERIES	LOCATION	
A401		3	28 - 0	X		ABUTMENT BODY - 1 PER PILE	SPIRAL
A402		6	2 - 3			ABUTMENT BODY - 2 PER PILE	VERT
A503		18	14 - 9	X		ABUTMENT BODY - STIRRUPS	VERT
A604		15	13 - 8			ABUTMENT BODY	HORIZ
A405		6	4 - 1	X		ABUTMENT BODY - TOP	VERT
A406		4	4 - 3			ABUTMENT BODY - TOP	HORIZ
A507	24		11 - 7			WINGS 1 & 2 - BOTTOM EF	HORIZ
◭ A408	18		8 - 10	X	X	WING 1 - STIRRUPS	VERT
A409	4		10 - 2	X		WING 1 - STIRRUPS	VERT
A410	4		9 - 4			WINGS 1 & 2 - TOP	HORIZ
A411	4		6 - 10			WINGS 1 & 2 - TOP	HORIZ
A412	4		4 - 4			WINGS 1 & 2 - TOP	HORIZ
A413	4		10 - 1	X		WINGS 1 & 2 - TOP	HORIZ
◭ A414	18		8 - 11	X	X	WING 2 - STIRRUPS	VERT
A415	4		10 - 5	X		WING 2 - STIRRUPS	VERT

FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE
WT - WING TIP

BAR DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

NOTES

◭ LENGTH SHOWN IS AN AVERAGE LENGTH FOR USE CALCULATING BAR WEIGHT ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

[2] OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" x 6" KEYWAY, PROVIDE ¾" V-GROOVE AT FF AND 18" RUBBERIZED MEMBRANE WATERPROOFING ON BF OF WINGWALL IF OPTIONAL CONSTRUCTION JOINT IS USED. (COST INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES")

[3] ½" FILLER. TO EXTEND FROM BEAM SEAT TO TOP OF WING, INCLUDED IN WING LENGTH. 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). EXTEND FILLER 3" BELOW GUTTER LINE AT INSIDE FACE.

◭ BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
A408	2 SERIES OF 9	7'-5" TO 10'-2"
A414	2 SERIES OF 9	7'-6" TO 10'-4"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

SOUTH ABUTMENT DETAILS

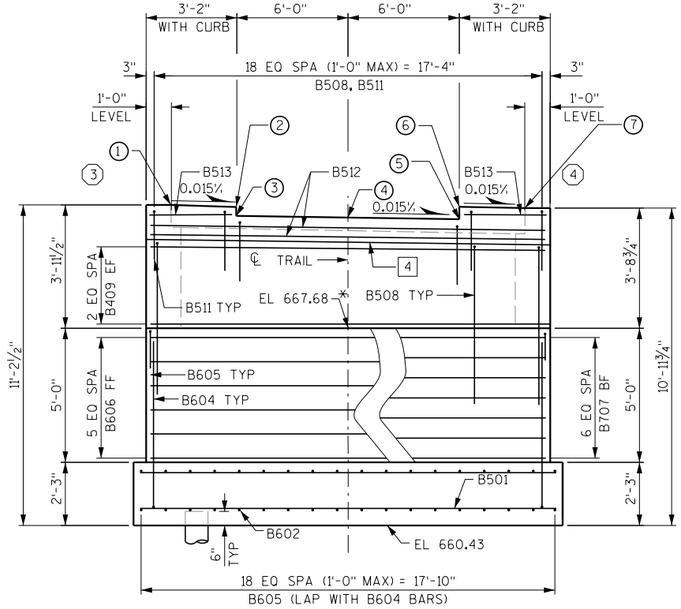
SHEET 10 OF 44
114

8

8

STATE PROJECT NUMBER

5991-07-19



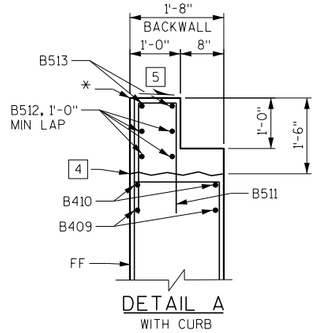
FRONT ELEVATION

NORTH ABUTMENT LOOKING EAST

BACKWALL AND WING ELEVATIONS

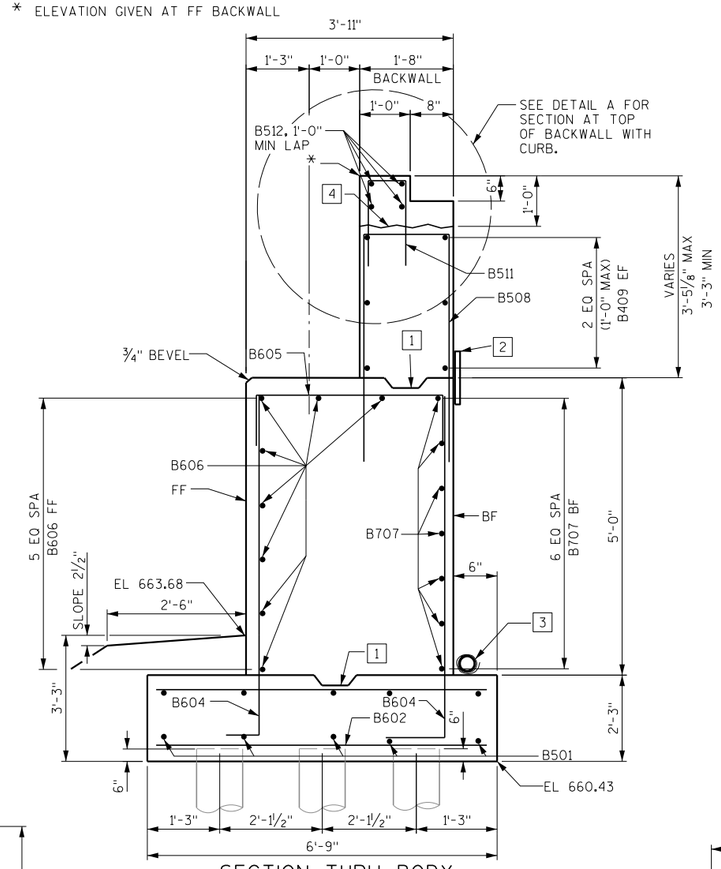
	LOCATION	ELEVATION
①	WING 3 WT	671.20
	WING 3 FF	671.64 *
②	TOP NORTH CURB	671.61 *
③	BOTTOM NORTH CURB	671.11 *
④	TOP BACKWALL AT C/L TRAIL	671.02 *
⑤	BOTTOM SOUTH CURB	670.93 *
⑥	TOP SOUTH CURB	671.43 *
⑦	WING 4 FF	671.40 *
	WING 4 WT	670.97

* ELEVATION GIVEN AT FF BACKWALL



DETAIL A

WITH CURB



SECTION THRU BODY

WITHOUT CURB

NOTES

ABUTMENTS TO BE SUPPORTED ON 10¾" DIA. CIP CONCRETE PILING, DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 110 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50 FEET LONG.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE NOTED.

FOR PILE SPLICE DETAILS SEE SHEET 6.

FILL TO BOTTOM OF FOOTING, EL. 660.43 BEFORE DRIVING PILING.

[1] KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6"

[2] 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. AND VERT. JOINTS ON BF OF ABUTMENT AND WINGS ABOVE FOOTING. EXTEND FROM BEAM SEAT TO PAVING NOTCH.

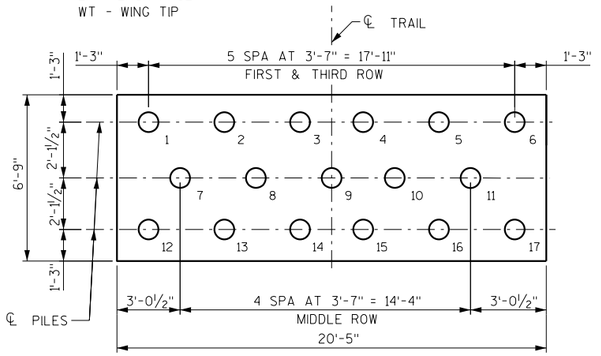
[3] PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN AS SHOWN ON SHEET 6.

[4] CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE (STRIKE OFF AND LEAVE ROUGH).

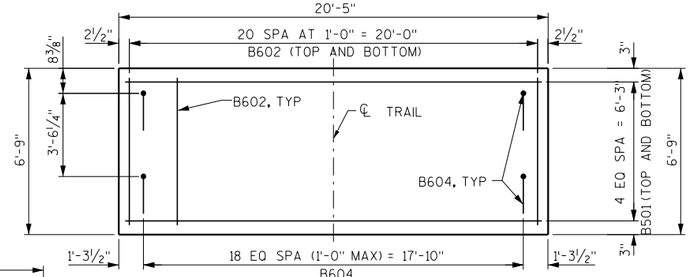
[5] SLOPE TOP OF BACKWALL -3.64%

(X) INDICATES WING NUMBER

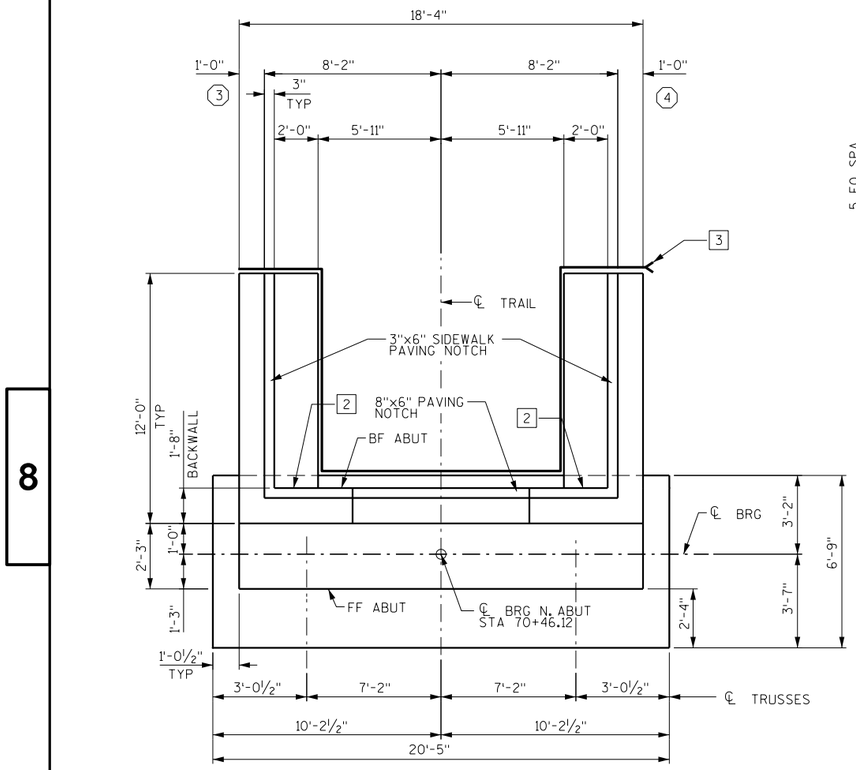
FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE
WT - WING TIP



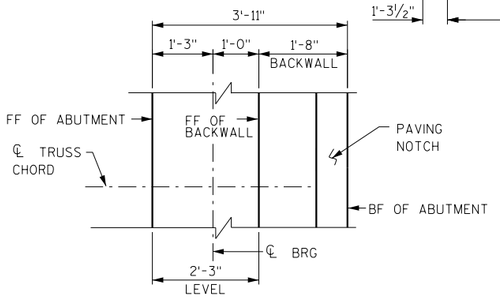
FOOTING & PILE PLAN



FOOTING PLAN



PLAN



BEARING PAD DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

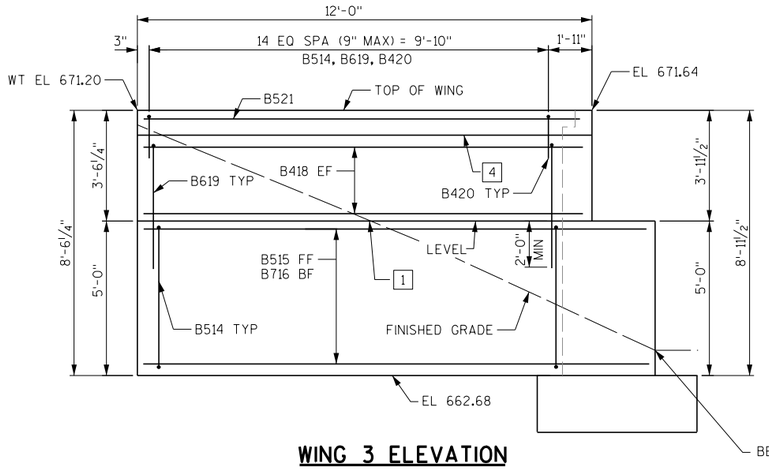
DRAWN BY TAV | PLANS CK'D. GAR

NORTH ABUTMENT

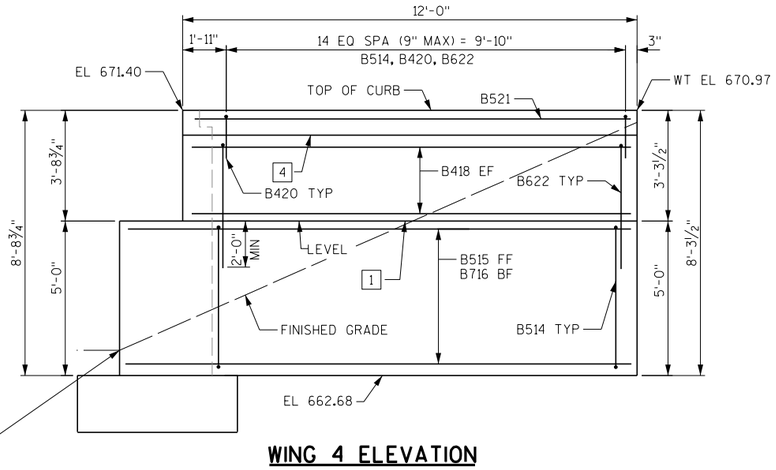
SHEET 11 OF 44
115

8

8



WING 3 ELEVATION



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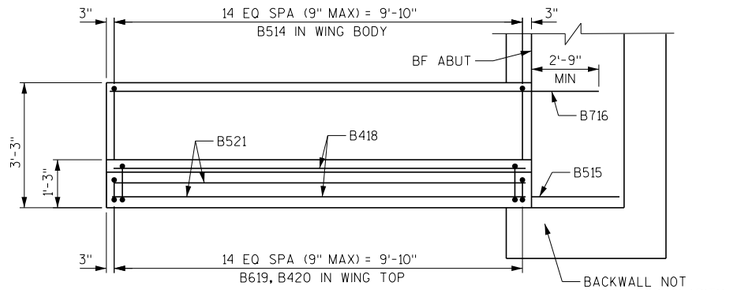
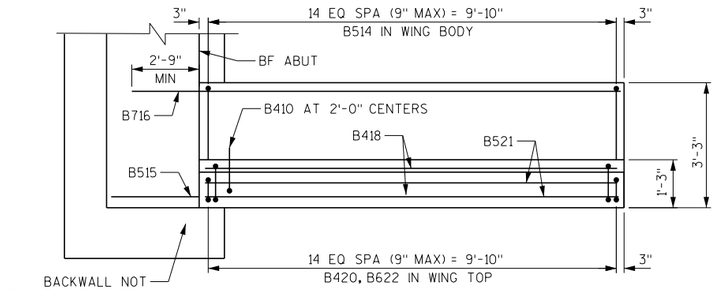
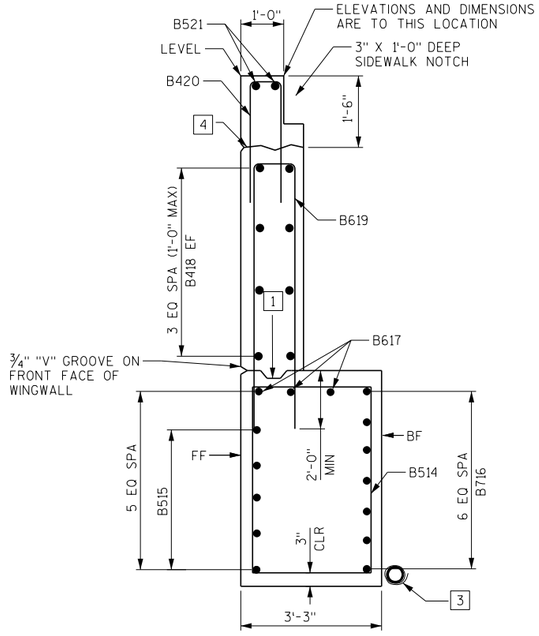


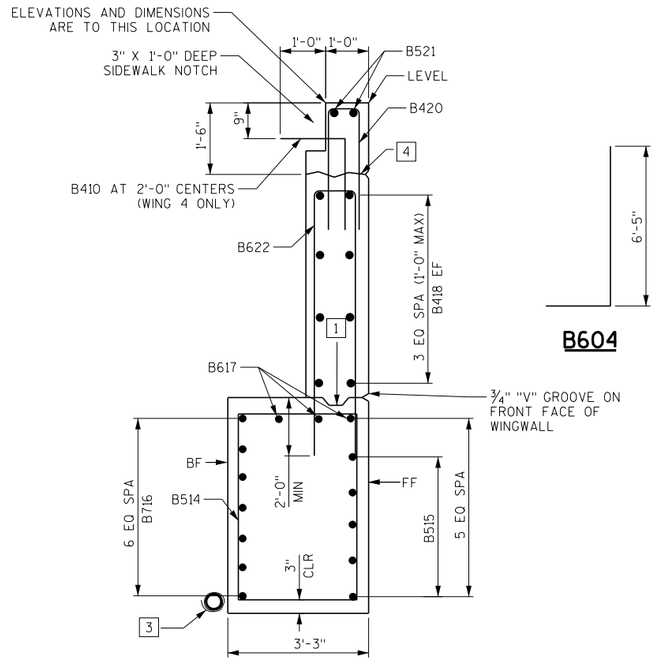
WING 3 PLAN



WING 4 PLAN



SECTION WING 3



SECTION WING 4

STATE PROJECT NUMBER

5991-07-19

BILL OF BARS
NORTH ABUTMENT

COATED= 2280 LBS.
UNCOATED= 1670 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH FT - IN	BENT	BAR SERIES	LOCATION	
B501		10	20 - 1			FOOTING	HORIZ
B602		42	6 - 5			FOOTING	HORIZ
B604		38	7 - 3	X		FOOTING TO BODY DOWEL	VERT
B605		19	5 - 9	X		ABUTMENT BODY - CAP	VERT
B606		8	18 - 0			ABUTMENT BODY - FF	HORIZ
B707		7	18 - 0			ABUTMENT BODY - BF	HORIZ
B508	19		8 - 9	X		ABUTMENT BACKWALL	VERT
B409	6		18 - 0			ABUTMENT BACKWALL	HORIZ
B410	6		3 - 3			SIDEWALK ANCHORS	WING 4
B511	19		5 - 1	X		ABUTMENT BACKWALL	VERT
B512	8		9 - 6			ABUTMENT BACKWALL	HORIZ
B513	4		2 - 10			ABUTMENT BACKWALL	HORIZ
B514	30		15 - 4	X		WINGS - BOTTOM STIRRUPS	VERT
B515	10		13 - 11			WINGS - BOTTOM FF	HORIZ
B716	14		12 - 11			WINGS - BOTTOM BF	HORIZ
B617	6		13 - 11			WINGS - BOTTOM	HORIZ
B418	16		11 - 8			WINGS - TOP FF & BF	HORIZ
B619	15		10 - 3			WING 3 - TOP STIRRUPS	VERT
B420	30		4 - 2			WINGS - PAVING BLOCK	HORIZ
B521	4		11 - 8			WINGS - PAVING BLOCK	HORIZ
B622	15		9 - 9			WING 4 - TOP STIRRUPS	VERT

FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE
WT - WING TIP

BAR DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

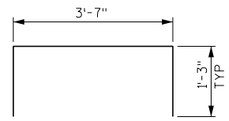
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE NOTED.

1 OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" x 6" KEYWAY, WITH RUBBERIZED MEMBRANE WATERPROOFING ON BF.

3 PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN AS SHOWN ON SHEET 6.

4 CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE (STRIKE OFF AND LEAVE ROUGH).

B604



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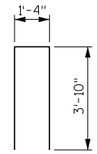
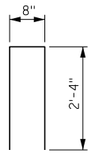


B508

B410



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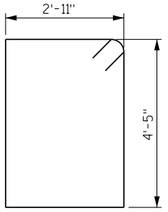

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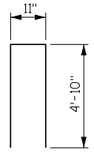

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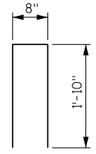

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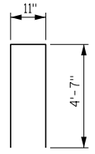


B622

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

NORTH ABUTMENT DETAILS

SHEET 12 OF 44
116

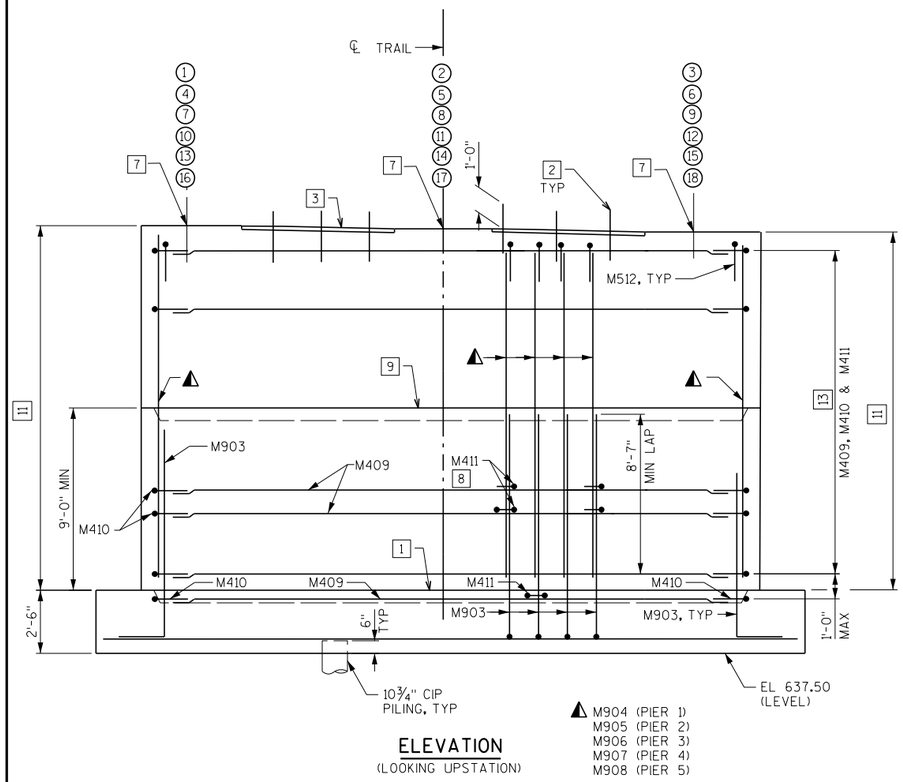
8

8

FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080112_nad.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 6.0000 sf / in.

STATE PROJECT NUMBER

5991-07-19



ELEVATION
(LOOKING UPSTATION)

▲ M904 (PIER 1)
M905 (PIER 2)
M906 (PIER 3)
M907 (PIER 4)
M908 (PIER 5)

7

	GIRDER	BEARING ELEVATIONS
PIER 1	G1/G4	650.84
	G2/G5	650.76
	G3/G6	650.69
PIER 2	G4/G7	653.59
	G5/G8	653.51
	G6/G9	653.44
PIER 3	G7/G10	656.04
	G8/G11	655.97
	G9/G12	655.90
PIER 4	G10/G13	659.09
	G11/G14	659.02
	G12/G15	658.94
PIER 5	G13/G16	661.84
	G14/G17	661.77
	G15/G18	661.70

13

	M409, M410 & M411 BAR SPACING
PIER 1	11 EQ SPA (1'-0" MAX) = 10'-2"
PIER 2	14 EQ SPA (1'-0" MAX) = 13'-1"
PIER 3	16 EQ SPA (1'-0" MAX) = 15'-6"
PIER 4	19 EQ SPA (1'-0" MAX) = 18'-7"
PIER 5	22 EQ SPA (1'-0" MAX) = 21'-6"

11

		SHAFT HEIGHT
PIER 1	WEST EDGE	10'-10 1/8"
	EAST EDGE	10'-8 1/4"
PIER 2	WEST EDGE	13'-7 1/8"
	EAST EDGE	13'-5 1/4"
PIER 3	WEST EDGE	16'-0 1/2"
	EAST EDGE	15'-10 3/4"
PIER 4	WEST EDGE	19'-1 1/8"
	EAST EDGE	18'-11 1/4"
PIER 5	WEST EDGE	21'-10 1/8"
	EAST EDGE	21'-8 3/8"

14

	C/L PIER LOCATIONS
PIER 1	STA 62+66.95
PIER 2	STA 63+21.95
PIER 3	STA 63+76.95
PIER 4	STA 64+31.95
PIER 5	STA 64+86.95

NOTES

PIER TO BE SUPPORTED ON 10¾" DIA. CAST-IN-PLACE CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 110 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 70'-0" LONG.

FOR PILE SPLICE DETAILS SEE SHEET 6.

SEE SHEET 14 FOR FOOTING DETAILS.

1 KEYED CONSTRUCTION JOINT SHALL BE FORMED BY BEVELED KEYWAY 4" DEEP X 1/3 THICKNESS OF SHAFT X 4'-0" LESS THAN LENGTH OF SHAFT. EXPOSED EDGES OF CONSTRUCTION JOINT SHALL BE FLUSH AND NOT BEVELED.

2 M513 BARS AT 1'-0" MAX CENTERS, MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0" INTO CONCRETE.

3 KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"X6" KEYWAY. BETWEEN BEAM SEATS. ALL LOCATIONS EXCEPT PIER 3.

4 4" X ¾" FILLER, UNDER PIER DIAPHRAGM.

5 ¾" PREFORMED FILLER UNDER GIRDERS.

6 NON-LAMINATED ELASTOMERIC BEARING PAD ½" X 8" X 1'-6".

7 BEARING SEAT ELEVATION GIVEN AT THIS POINT. SEE TABLE ON THIS SHEET.

8 ALTERNATE POSITION OF 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

9 OPTIONAL KEYED CONSTRUCTION JOINT SHALL BE FORMED BY BEVELED KEYWAY 4" DEEP X 1/3 THICKNESS OF SHAFT X 4'-0" LESS THAN LENGTH OF SHAFT. EXPOSED EDGES OF CONSTRUCTION JOINT SHALL BE DEFINED BY A ¾" "V" GROOVE.

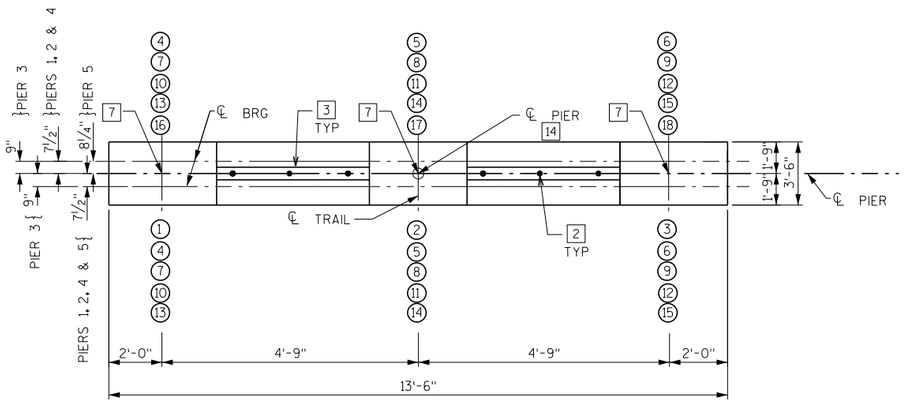
10 SLOPING BEAM SEAT ELEVATION CHANGE FROM ℄ PIER ELEVATION 7 .

11 PIER HEIGHTS ARE GIVEN TO EXTERIOR BEAM SEAT ELEVATION AT CENTERLINE OF THE PIER.

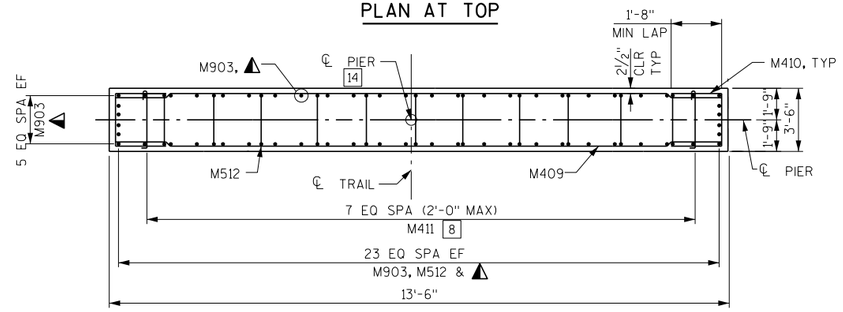
12 LAMINATED ELASTOMERIC BEARING. SEE SHEET 22 FOR DETAILS.

13 TIE BAR SPACING. SEE TABLE ON THIS SHEET.

Ⓧ INDICATES GIRDER NUMBER.



PLAN AT TOP



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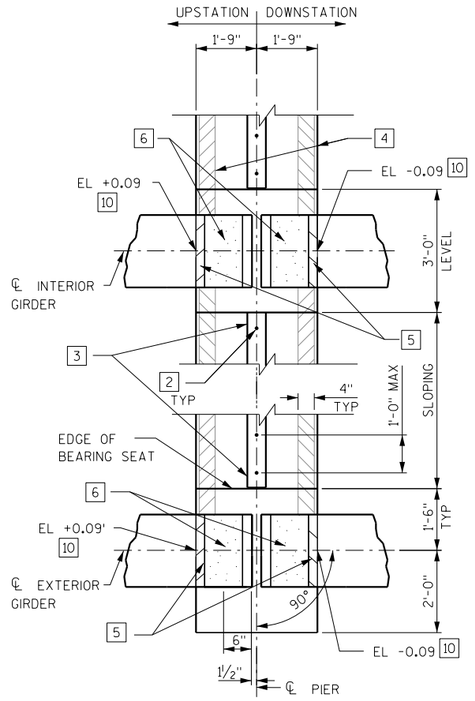
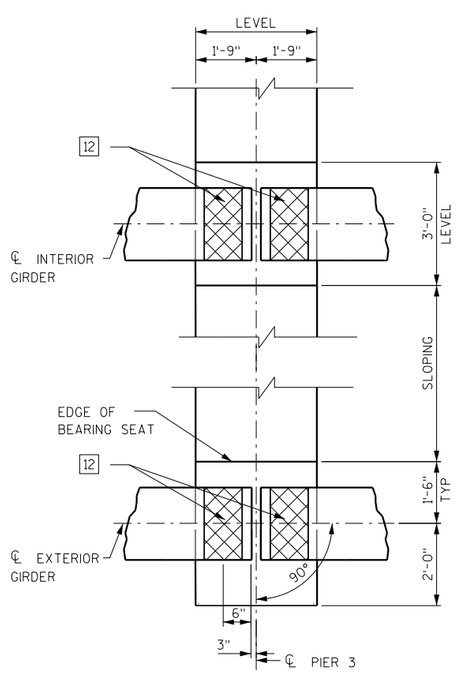


BEARING PAD DETAILS
PIERS 1, 2, 4 & 5



BEARING PAD DETAILS
PIER 3

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

PIERS 1 THRU 5

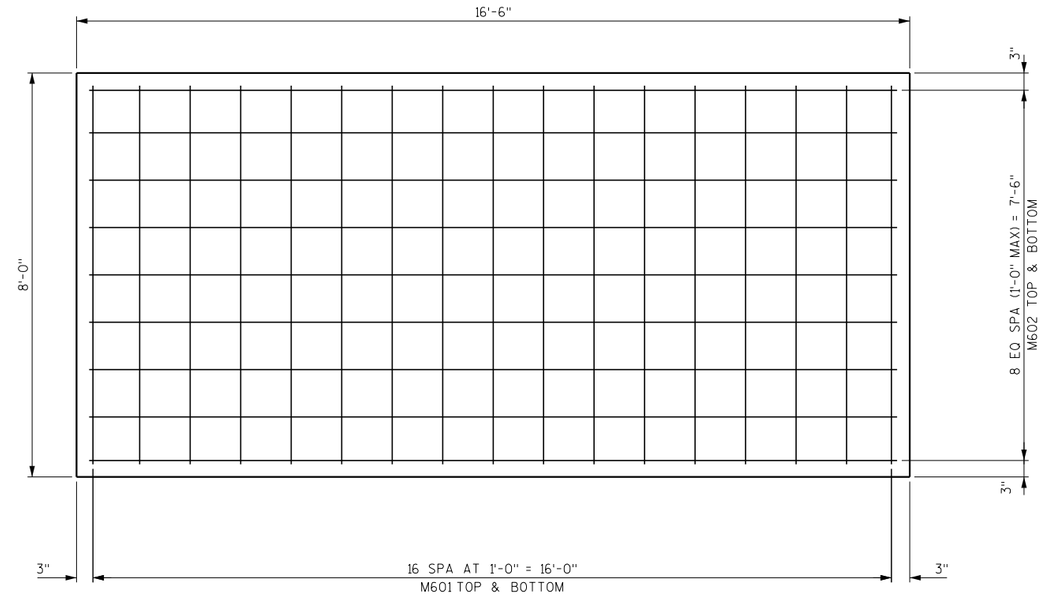
SHEET 13 OF 44
117

8

8

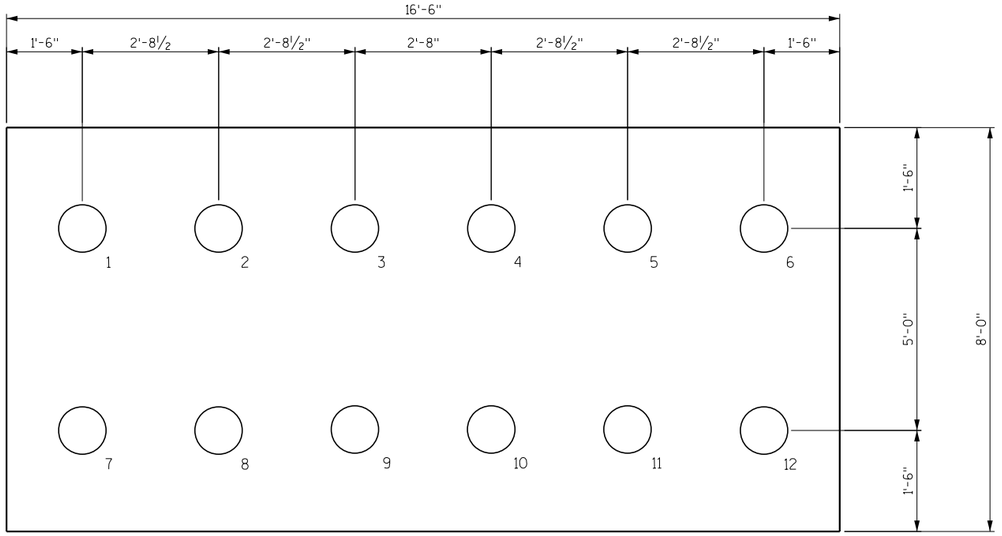
STATE PROJECT NUMBER

5991-07-19

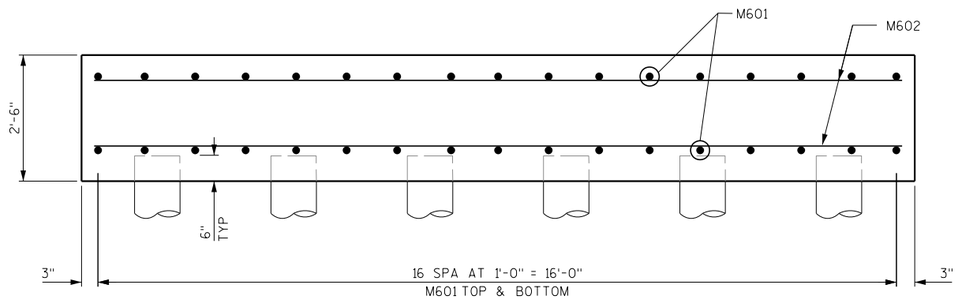


FOOTING REINFORCEMENT PLAN VIEW

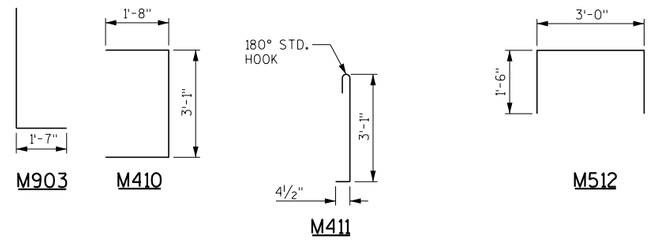
(PILES NOT SHOWN)



FOOTING PILE LAYOUT PLAN VIEW



FOOTING REINFORCEMENT ELEVATION VIEW



PIER 1 COATED= 5040 LBS.
PIER 1 UNCOATED= 830 LBS.
PIER 2 COATED= 5700 LBS.
PIER 2 UNCOATED= 830 LBS.
PIER 3 COATED= 6260 LBS.
PIER 3 UNCOATED= 830 LBS.
PIER 4 COATED= 6980 LBS.
PIER 4 UNCOATED= 830 LBS.
PIER 5 COATED= 7650 LBS.
PIER 5 UNCOATED= 830 LBS.

BILL OF BARS
PIERS 1 THROUGH 5

MARK	PIER 1 NUMBER		PIER 2 NUMBER		PIER 3 NUMBER		PIER 4 NUMBER		PIER 5 NUMBER		LENGTH	BENT	BAR SERIES	LOCATION	
	COATED	UNCOATED	COATED	UNCOATED	COATED	UNCOATED	COATED	UNCOATED	COATED	UNCOATED	FT - IN				
M601		34		34		34		34		34	7 - 8			FOOTING	HORIZ
M602		18		18		18		18		18	16 - 2			FOOTING	HORIZ
M903	56		56		56		56		56		12 - 1	X		FOOTING TO COLUMN DOWELS	VERT
M904	56										10 - 4			COLUMN - PIER 1	VERT
M905			56								13 - 1			COLUMN - PIER 2	VERT
M906					56						15 - 7			COLUMN - PIER 3	VERT
M907							56				18 - 7			COLUMN - PIER 4	VERT
M908									56		21 - 4			COLUMN - PIER 5	VERT
M409	26		32		36		42		48		13 - 1			COLUMN - LATERAL TIES	HORIZ
M410	26		32		36		42		48		6 - 3	X		COLUMN - AT ENDS	HORIZ
M411	104		128		144		168		192		3 - 11	X		VERTICAL BAR TIES	HORIZ
M512	24		24		24		24		24		5 - 9	X		COLUMN - AT TOP	VERT
M513	6		6				6		6		2 - 0			DOWEL BARS	VERT

FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE

BAR DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

PIERS 1 THRU 5
FOOTINGS

SHEET 14 OF 44
118

STATE PROJECT NUMBER

5991-07-19

NOTES

PIER TO BE SUPPORTED ON 10¾" DIA. CAST-IN-PLACE CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 110 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 70'-0" LONG.

FOR PILE SPLICE DETAILS SEE SHEET 6.

SEE SHEET 16 FOR FOOTING DETAILS.

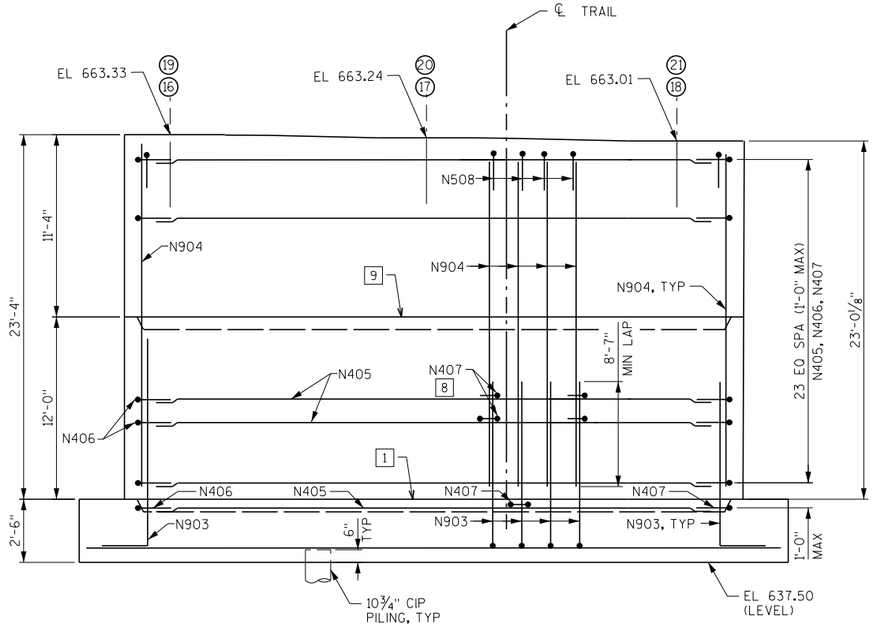
[1] KEYED CONSTRUCTION JOINT SHALL BE FORMED BY BEVELED KEYWAY 4" DEEP X 1/3 THICKNESS OF SHAFT X 4'-0" LESS THAN LENGTH OF SHAFT. EXPOSED EDGES OF CONSTRUCTION JOINT SHALL BE FLUSH AND NOT BEVELED.

[6] BEARING ASSEMBLIES EXPANSION. SEE SHEET 23 FOR DETAILS.

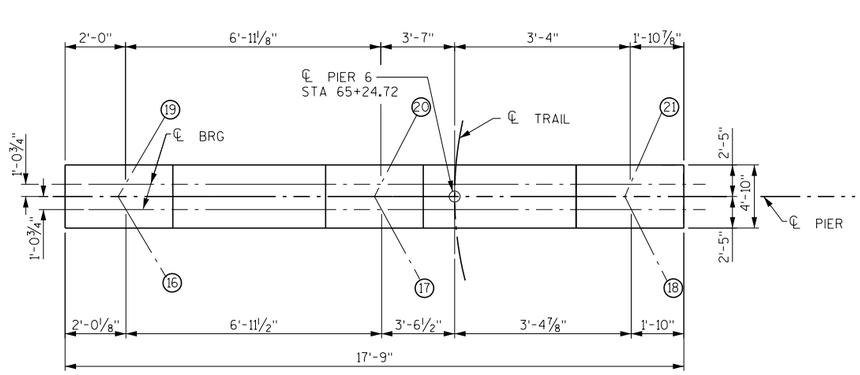
[8] ALTERNATE POSITION OF 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

[9] OPTIONAL KEYED CONSTRUCTION JOINT SHALL BE FORMED BY BEVELED KEYWAY 4" DEEP X 1/3 THICKNESS OF SHAFT X 4'-0" LESS THAN LENGTH OF SHAFT. EXPOSED EDGES OF CONSTRUCTION JOINT SHALL BE DEFINED BY A ¾" "V" GROOVE.

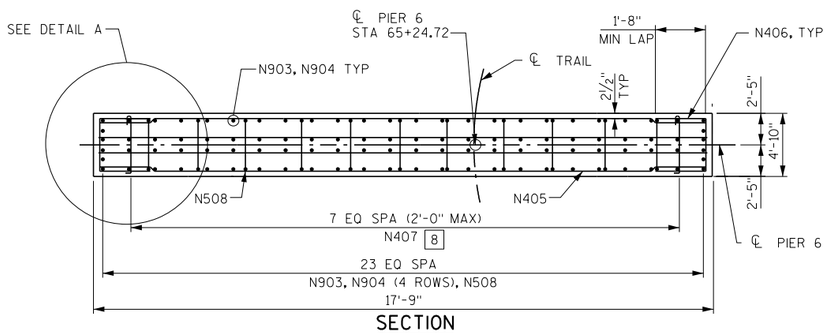
(X) INDICATES GIRDER NUMBER.



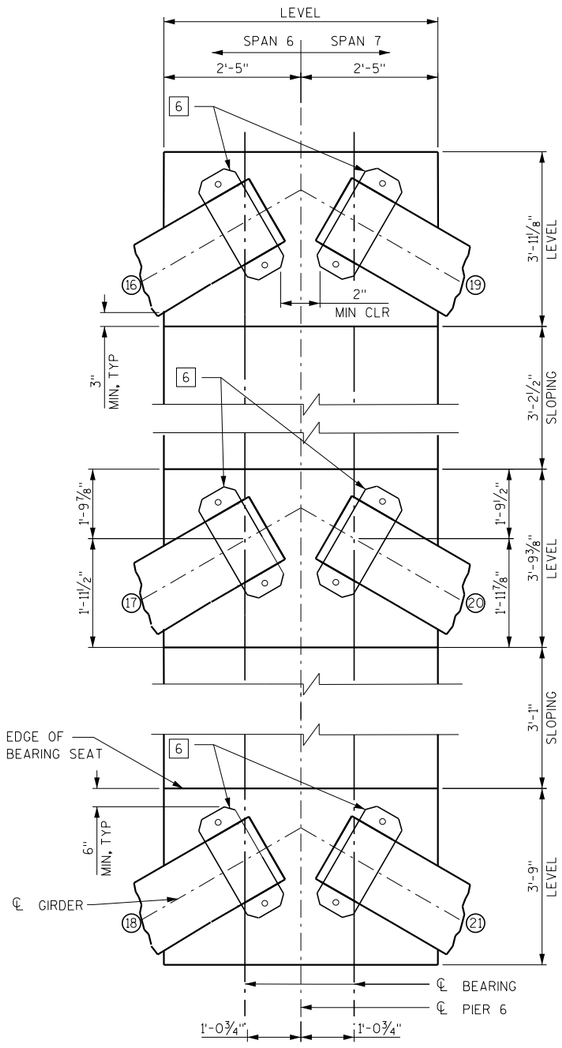
ELEVATION
(LOOKING UPSTATION)



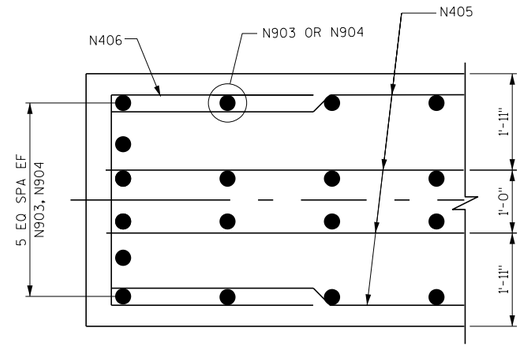
PLAN AT TOP



SECTION



BEARING PAD DETAIL



DETAIL A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

PIER 6

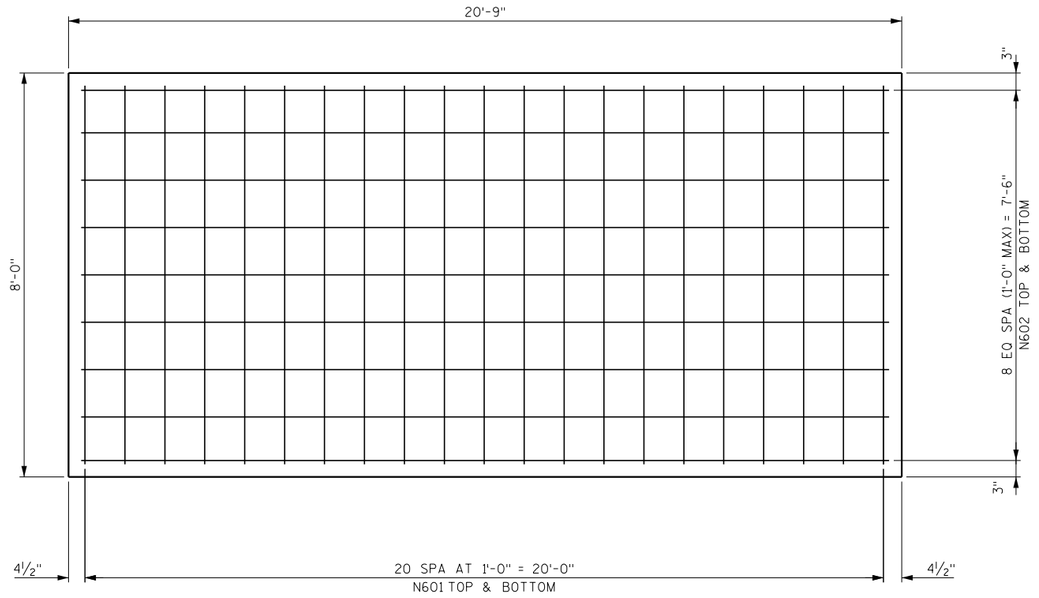
SHEET 15 OF 44
119

8

8

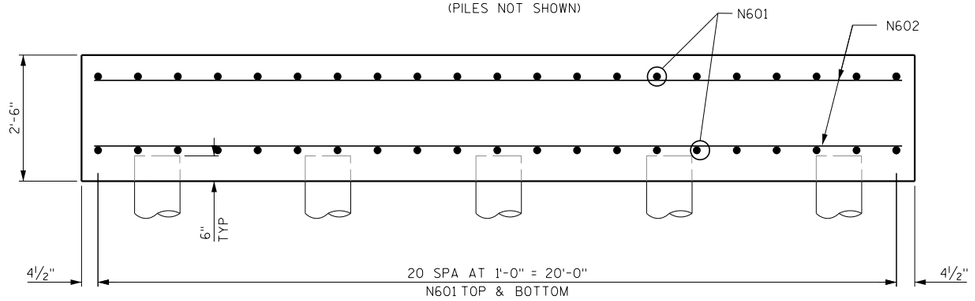
STATE PROJECT NUMBER

5991-07-19

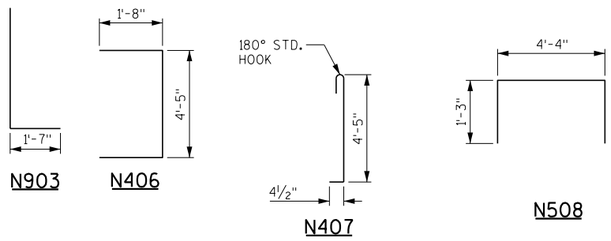


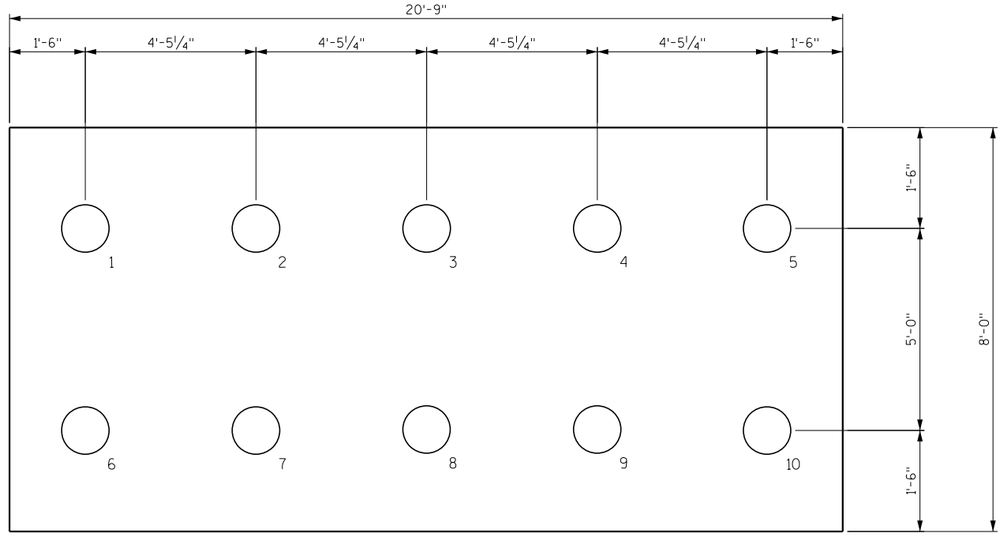
FOOTING REINFORCEMENT PLAN VIEW

(PILES NOT SHOWN)



FOOTING REINFORCEMENT ELEVATION VIEW





FOOTING PILE LAYOUT PLAN VIEW

BILL OF BARS **COATED= 14130 LBS.**
PIER 6 **UNCOATED= 1040 LBS.**

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH FT - IN	BENT	BAR SERIES	LOCATION	
N601		42	7 - 8			FOOTING	HORIZ
N602		18	20 - 5			FOOTING	HORIZ
N903	100		12 - 1	X		FOOTING TO COLUMN DOWELS	VERT
N904	100		22 - 9			COLUMN	VERT
N405	100		17 - 4			COLUMN - LATERAL TIES	HORIZ
N406	50		7 - 7	X		COLUMN - AT ENDS	HORIZ
N407	200		5 - 3	X		VERTICAL BAR TIES	HORIZ
N508	24		6 - 7	X		COLUMN - AT TOP	VERT

FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE

BAR DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

PIER 6
FOOTING

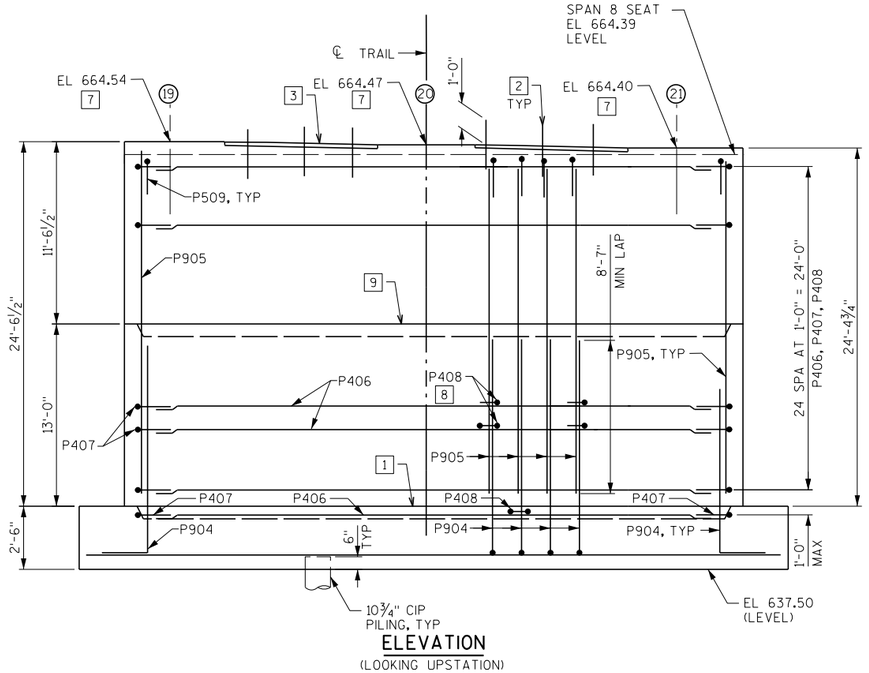
SHEET 16 OF 44
120

8

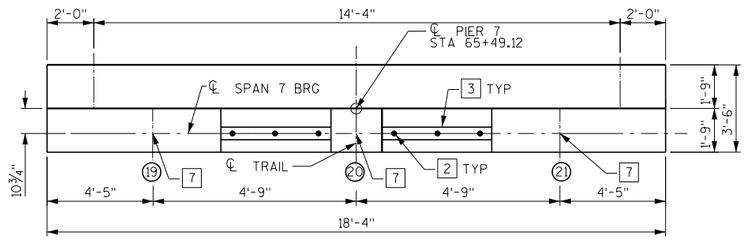
8

STATE PROJECT NUMBER

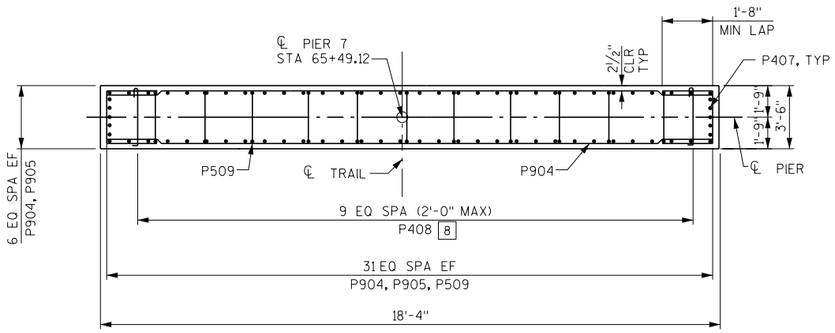
5991-07-19



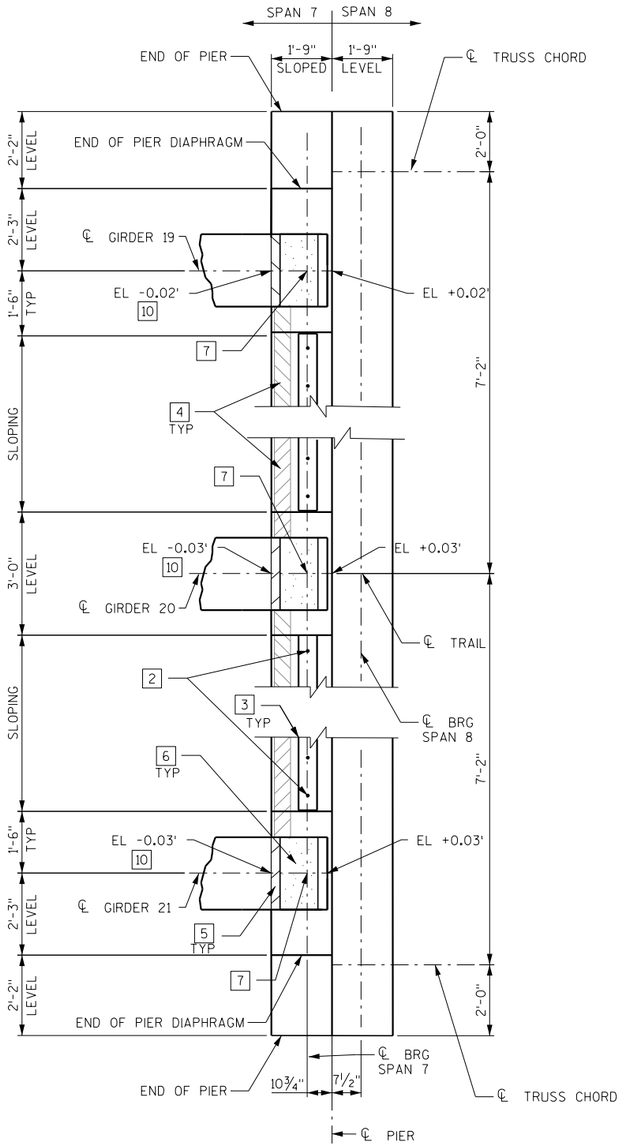
ELEVATION
(LOOKING UPSTATION)



PLAN AT TOP



SECTION



BEARING PAD DETAILS

NOTES

PIER TO BE SUPPORTED ON 10¾" DIA. CAST-IN-PLACE CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 110 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 70'-0" LONG.

FOR PILE SPLICE DETAILS SEE SHEET 6.

SEE SHEET 18 FOR FOOTING DETAILS.

[1] KEYED CONSTRUCTION JOINT SHALL BE FORMED BY BEVELED KEYWAY 4" DEEP X 1/3 THICKNESS OF SHAFT X 4'-0" LESS THAN LENGTH OF SHAFT. EXPOSED EDGES OF CONSTRUCTION JOINT SHALL BE FLUSH AND NOT BEVELED.

[2] P510 BARS AT 1'-0" MAX CENTERS, MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0" INTO CONCRETE.

[3] KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"X6" KEYWAY.

[4] 4" X ¾" FILLER, UNDER PIER DIAPHRAGM.

[5] ¾" PREFORMED FILLER UNDER GIRDERS.

[6] NON-LAMINATED ELASTOMERIC BEARING PAD ½" X 8" X 1'-6".

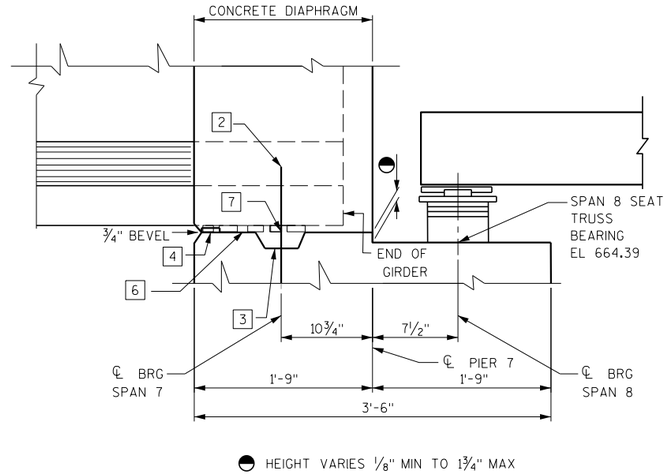
[7] BEARING SEAT ELEVATION GIVEN AT THIS POINT.

[8] ALTERNATE POSITION OF 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

[9] OPTIONAL KEYED CONSTRUCTION JOINT SHALL BE FORMED BY BEVELED KEYWAY 4" DEEP X 1/3 THICKNESS OF SHAFT X 4'-0" LESS THAN LENGTH OF SHAFT. EXPOSED EDGES OF CONSTRUCTION JOINT SHALL BE DEFINED BY A ¾" "V" GROOVE.

[10] SLOPING BEAM SEAT ELEVATION CHANGE FROM [7].

(X) INDICATES GIRDER NUMBER.



◓ HEIGHT VARIES ⅛" MIN TO 1¾" MAX

SECTION AT TOP

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

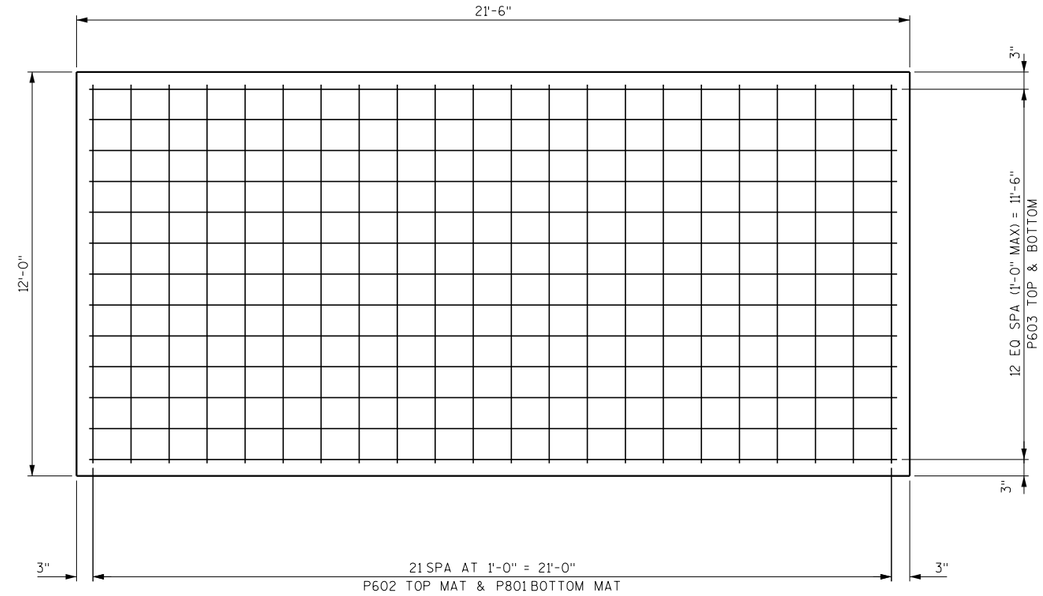
DRAWN BY TAV | PLANS CK'D. GAR

PIER 7

SHEET 17 OF 44
121

STATE PROJECT NUMBER

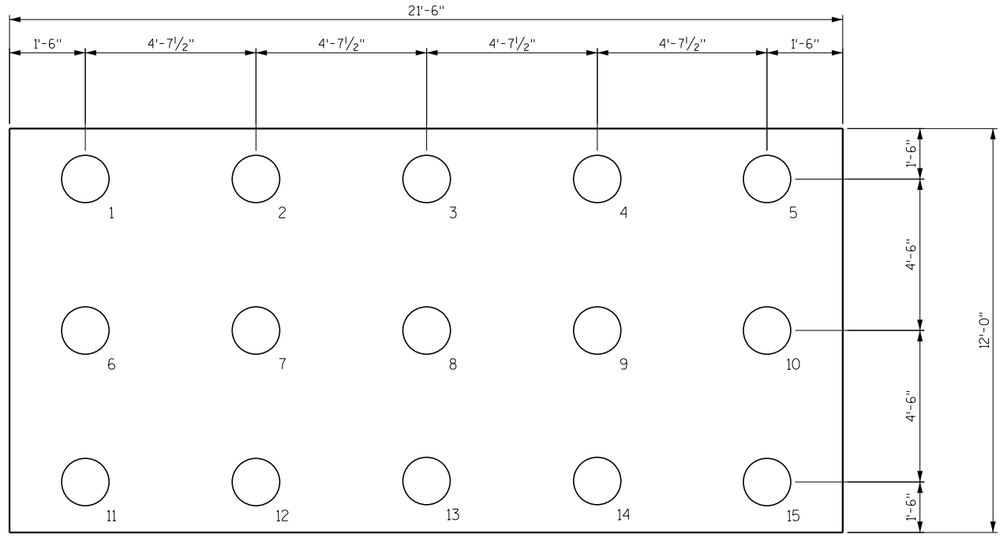
5991-07-19



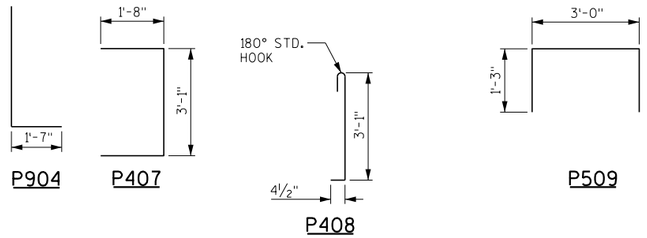
FOOTING REINFORCEMENT PLAN VIEW

(PILES NOT SHOWN)

FOOTING REINFORCEMENT ELEVATION VIEW



FOOTING PILE LAYOUT PLAN VIEW



BILL OF BARS
PIER 7

COATED= 10780 LBS
UNCOATED= 1900 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH FT - IN	BENT	BAR SERIES	LOCATION	
P801		22	11 - 8			FOOTING - BOTTOM MAT	HORIZ
P602		22	11 - 8			FOOTING - TOP MAT	HORIZ
P603		26	21 - 2			FOOTING	HORIZ
P904	74		12 - 1	X		FOOTING TO COLUMN DOWELS	VERT
P905	74		24 - 0			COLUMN	VERT
P406	52		17 - 11			COLUMN - LATERAL TIES	HORIZ
P407	52		6 - 3	X		COLUMN - AT ENDS	HORIZ
P408	260		3 - 11	X		VERTICAL BAR TIES	HORIZ
P509	30		5 - 3	X		COLUMN - AT TOP	VERT
P510	6		2 - 0			DOWEL BARS	VERT

FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE

BAR DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

PIER 7
FOOTING

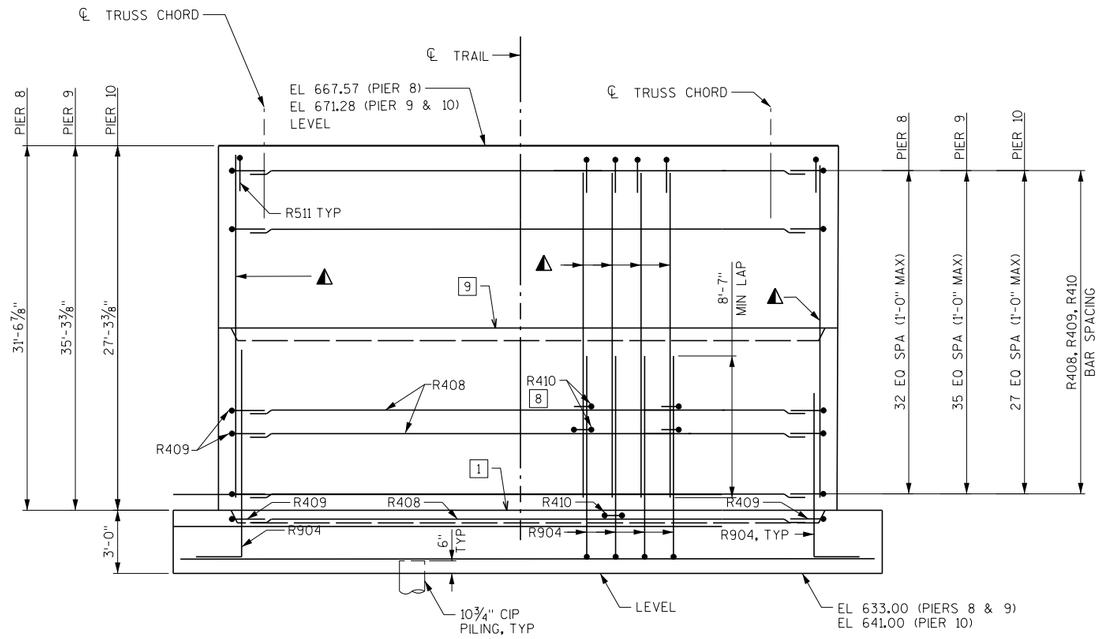
SHEET 18 OF 44
122

8

8

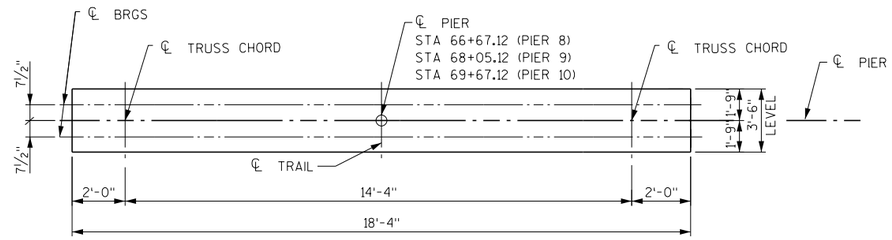
STATE PROJECT NUMBER

5991-07-19

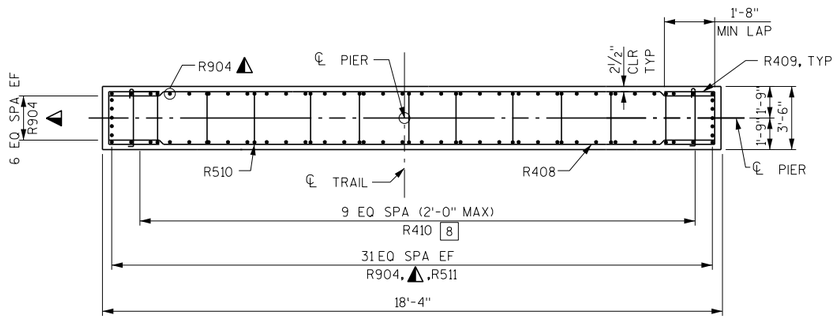


ELEVATION
(LOOKING UPSTATION)

◭ R905 (PIER 8)
R906 (PIER 9)
R907 (PIER 10)



PLAN AT TOP



SECTION

NOTES

PIER TO BE SUPPORTED ON 10¾" DIA. CAST-IN-PLACE CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 110 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 80'LONG AT PIER 8, 75'LONG AT PIER 9 AND 70'LONG AT PIER 10.

FOR PILE SPLICE DETAILS SEE SHEET 6.

SEE SHEET 20 FOR FOOTING DETAILS.

1 KEYED CONSTRUCTION JOINT SHALL BE FORMED BY BEVELED KEYWAY 4" DEEP X 1/3 THICKNESS OF SHAFT X 4'-0" LESS THAN LENGTH OF SHAFT. EXPOSED EDGES OF CONSTRUCTION JOINT SHALL BE FLUSH AND NOT BEVELED.

8 ALTERNATE POSITION OF 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

9 OPTIONAL KEYED CONSTRUCTION JOINT SHALL BE FORMED BY BEVELED KEYWAY 4" DEEP X 1/3 THICKNESS OF SHAFT X 4'-0" LESS THAN LENGTH OF SHAFT. EXPOSED EDGES OF CONSTRUCTION JOINT SHALL BE DEFINED BY A ¾" "V" GROOVE. PLACE APPROXIMATELY AT MID-HEIGHT OF SHAFT.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

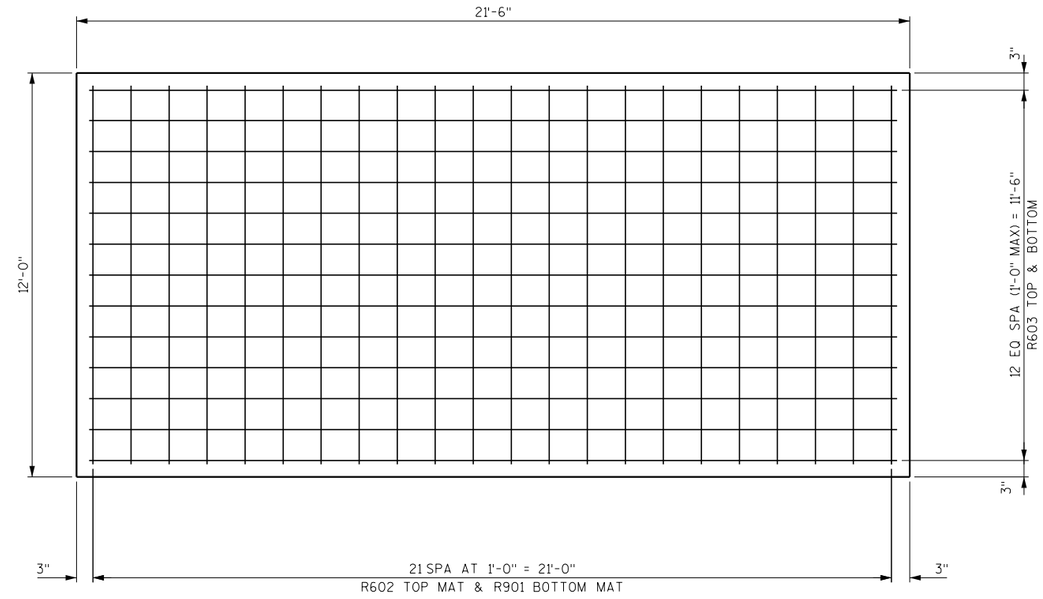
DRAWN BY TAV | PLANS CK'D. GAR

PIERS 8 THRU 10

SHEET 19 OF 44
123

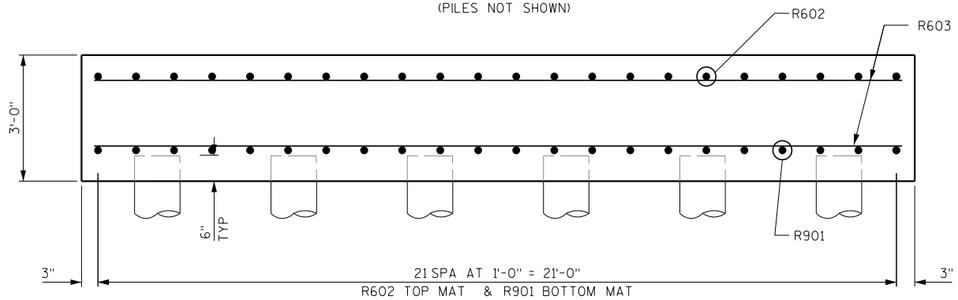
STATE PROJECT NUMBER

5991-07-19

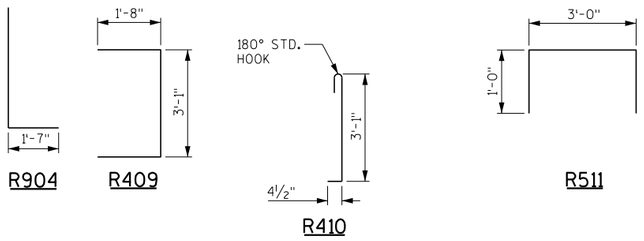


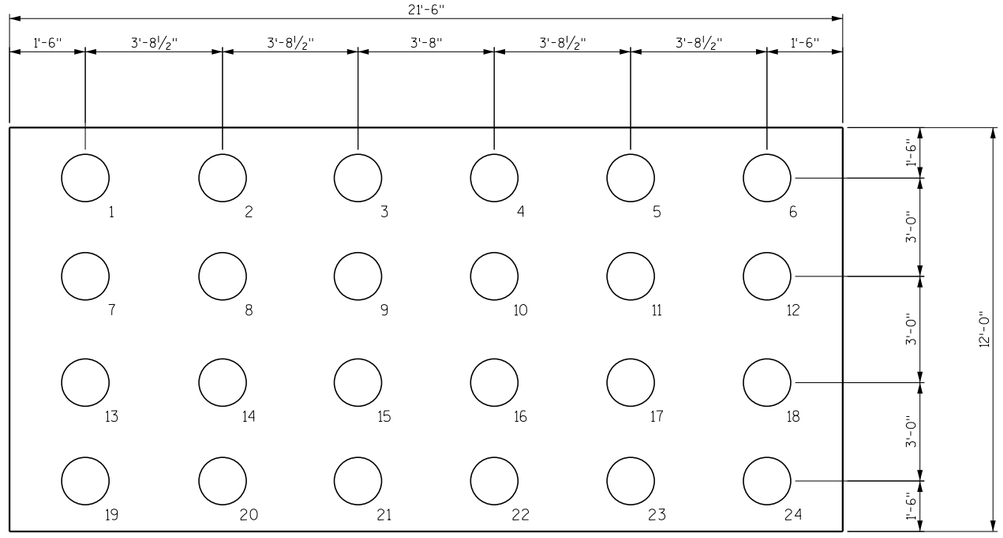
FOOTING REINFORCEMENT PLAN VIEW

(PILES NOT SHOWN)



FOOTING REINFORCEMENT ELEVATION VIEW





FOOTING PILE LAYOUT PLAN VIEW

PIER 8 COATED= 13050 LBS.
PIER 8 UNCOATED= 2090 LBS.
PIER 9 COATED= 14150 LBS.
PIER 9 UNCOATED= 2090 LBS.
PIER 10 COATED= 11670 LBS.
PIER 10 UNCOATED= 2090 LBS.

BILL OF BARS
PIERS 8 THROUGH 10

MARK	PIER 8 NUMBER COATED	PIER 8 NUMBER UNCOATED	PIER 9 NUMBER COATED	PIER 9 NUMBER UNCOATED	PIER 10 NUMBER COATED	PIER 10 NUMBER UNCOATED	LENGTH FT - IN	BENT	BAR SERIES	LOCATION	
R901		22		22		22	11 - 8			FOOTING - BOTTOM MAT	HORIZ
R602		22		22		22	11 - 8			FOOTING - TOP MAT	HORIZ
R603		26		26		26	21 - 2			FOOTING	HORIZ
R904	74		74		74		12 - 1			FOOTING TO COLUMN DOWELS	VERT
R905	74						31 - 3			COLUMN - PIER 8	VERT
R906			74				34 - 11			COLUMN - PIER 9	VERT
R907					74		26 - 11			COLUMN - PIER 10	VERT
R408	68		74		58		17 - 11			COLUMN - LATERAL TIES	HORIZ
R409	68		74		58		6 - 3	X		COLUMN - AT ENDS	HORIZ
R410	340		370		290		3 - 11	X		VERTICAL BAR TIES	HORIZ
R511	32		32		32		4 - 9	X		COLUMN - AT TOP	VERT

FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE

BAR DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

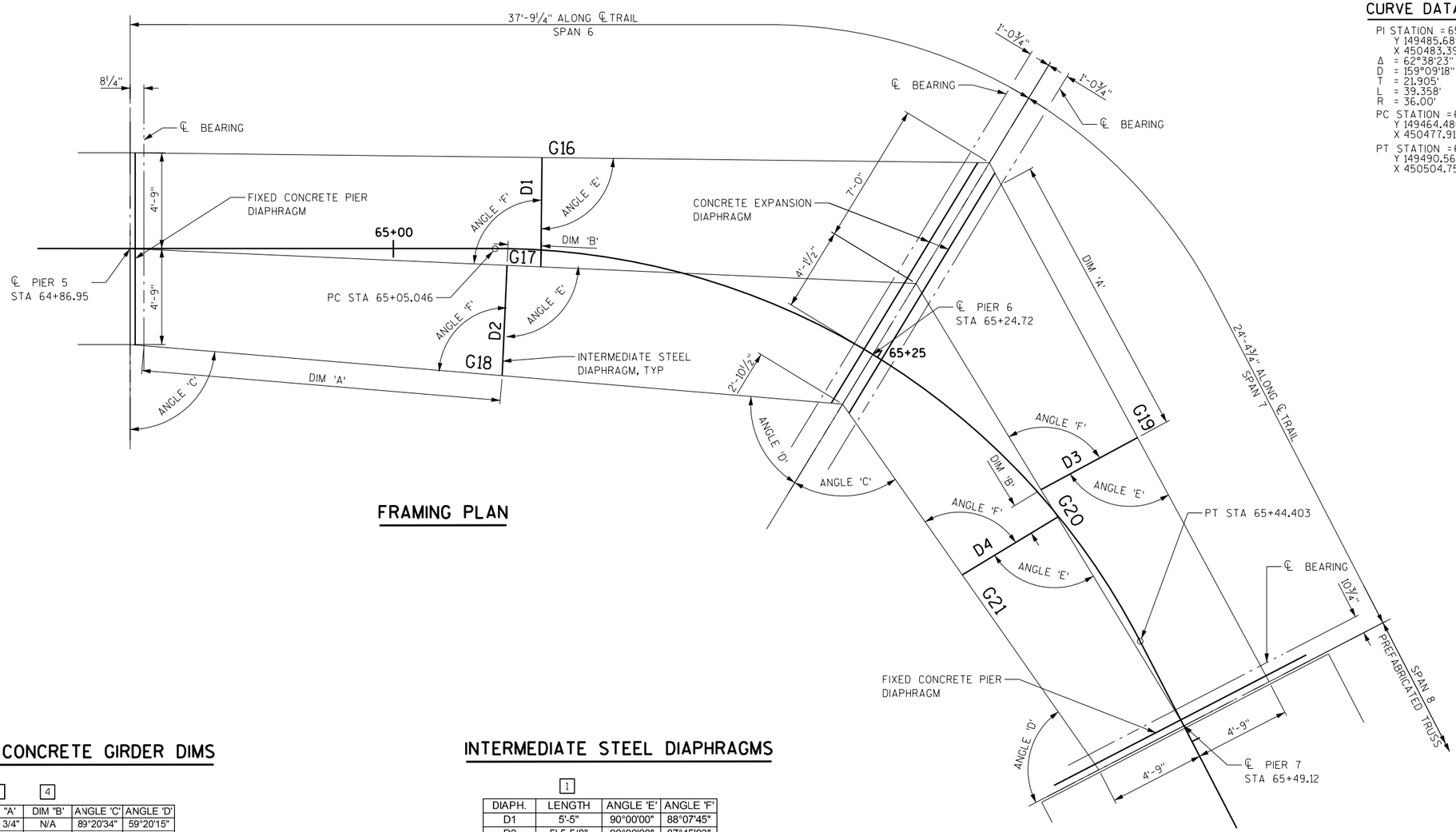
STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

PIERS 8 THRU 10 FOOTINGS

SHEET 20 OF 44
124

STATE PROJECT NUMBER
5991-07-19



FRAMING PLAN

CURVE DATA:

PI STATION = 65+26.95
Y 149485.689
X 450483.396
Δ = 62°38'23" RT
D = 159°09'18"
T = 21.905'
L = 39.358'
R = 36.00'
PC STATION = 65+05.046
Y 149464.480
X 450477.915
PT STATION = 65+44.403
Y 149490.568
X 450504.751

PRESTRESSED CONCRETE GIRDER DIMS

GIRDER	LENGTH	DIM "A" [2]	DIM "B" [3]	ANGLE 'C' [4]	ANGLE 'D' [4]
G16	40'-8 1/8"	19'-8 3/4"	N/A	89°20'34"	59°20'15"
G17	37'-1 1/8"	18'-0 1/4"	1'-8"	87°28'18"	61°12'30"
G18	33'-6 3/4"	17'-9 7/8"	N/A	85°13'22"	63°27'27"
G19	27'-1 1/8"	14'-2 7/8"	N/A	59°38'18"	89°02'30"
G20	23'-6 3/8"	10'-9"	1'-7 1/8"	62°31'40"	86°09'08"
G21	20'-0 3/4"	9'-2 1/8"	N/A	65°20'37"	82°20'12"

INTERMEDIATE STEEL DIAPHRAGMS

DIAPH. [1]	LENGTH	ANGLE 'E'	ANGLE 'F'
D1	5'-5"	90°00'00"	88°07'45"
D2	5'-5 5/8"	90°00'00"	87°45'03"
D3	5'-5 1/4"	90°00'00"	92°53'22"
D4	5'-6 1/4"	90°00'00"	93°48'57"

NOTES

[1] MEASURED ℄ GIRDER TO ℄ GIRDER ALONG ℄ DIAPHRAGM.

[2] ℄ BEARING TO ℄ BEARING

[3] ℄ BEARING TO ℄ DIAPHRAGM ALONG ℄ GIRDER

[4] ℄ DIAPHRAGM TO ℄ DIAPHRAGM ALONG ℄ GIRDER

G** = GIRDER NUMBER

D** = DIAPHRAGM NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY MJB | PLANS CK'D. GAR

FRAMING PLAN
SPANS 6 & 7

SHEET 21 OF 44
125

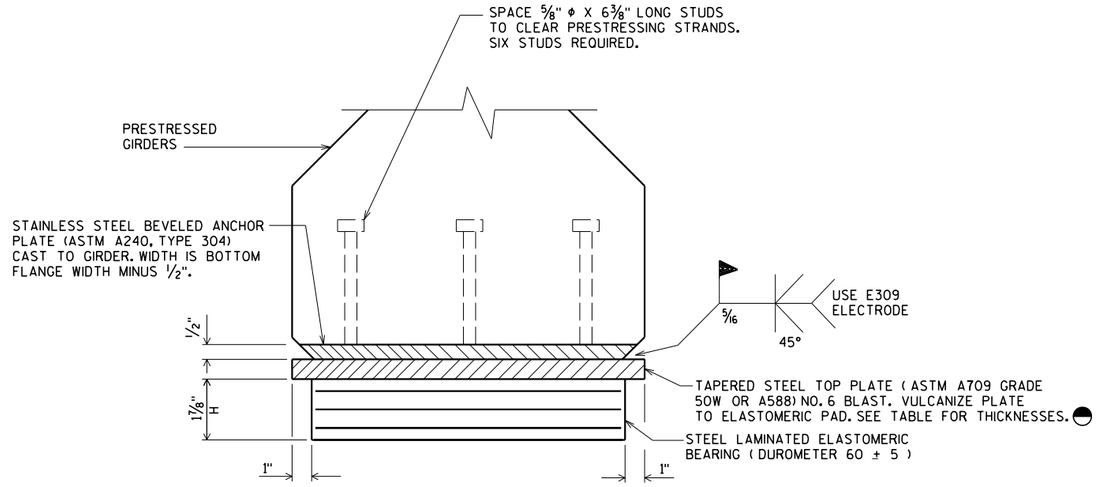
8

8

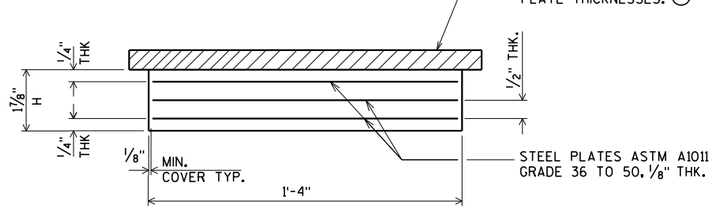
FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080121_fp.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 6.0000 '/ in.

STATE PROJECT NUMBER

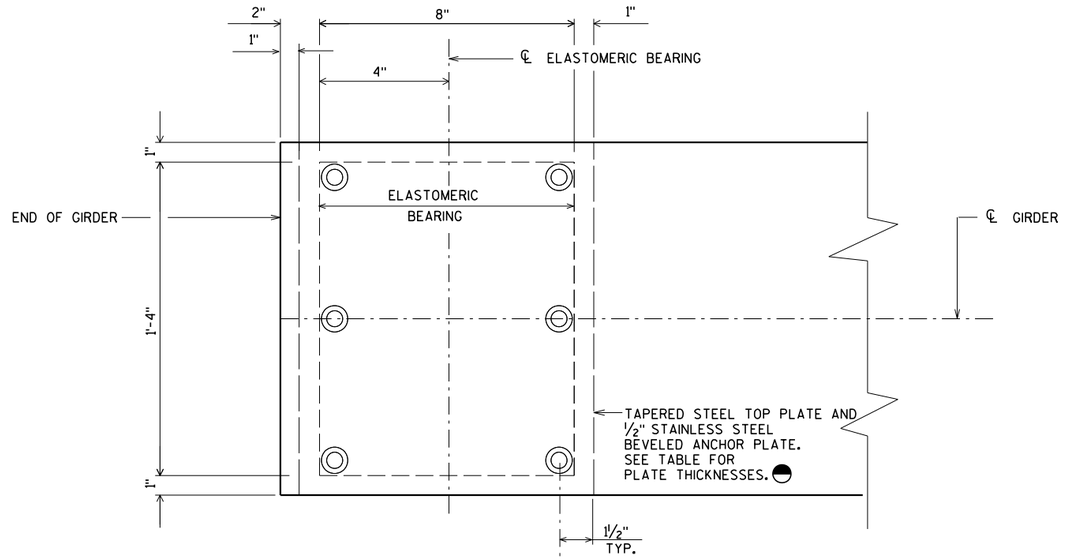
5991-07-19



END VIEW



SECTION THRU ELASTOMERIC BEARING



PLAN VIEW

NOTES

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL 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.

STEEL LAMINATED ELASTOMERIC BEARING

△ H (INCHES)	EXP. LENGTH (FEET)	TOTAL HEIGHT H (INCHES)	TOTAL ELASTOMER THICKNESS (INCHES)	LONGITUDINAL LENGTH OF BEARING L (MIN.)	NO. OF PLATES REQ'D.
5/8"	82.5	1 7/8"	1 1/2"	8"	3

TOP PLATE THICKNESS ◓

GIRDER	PIER 3	
	SOUTH END	NORTH END
G7, G8, G9	1 1/2"	2"
G10, G11, G12	2 3/8"	2 7/8"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

ELASTOMETRIC BEARINGS - PIER 3

SHEET 22 OF 44

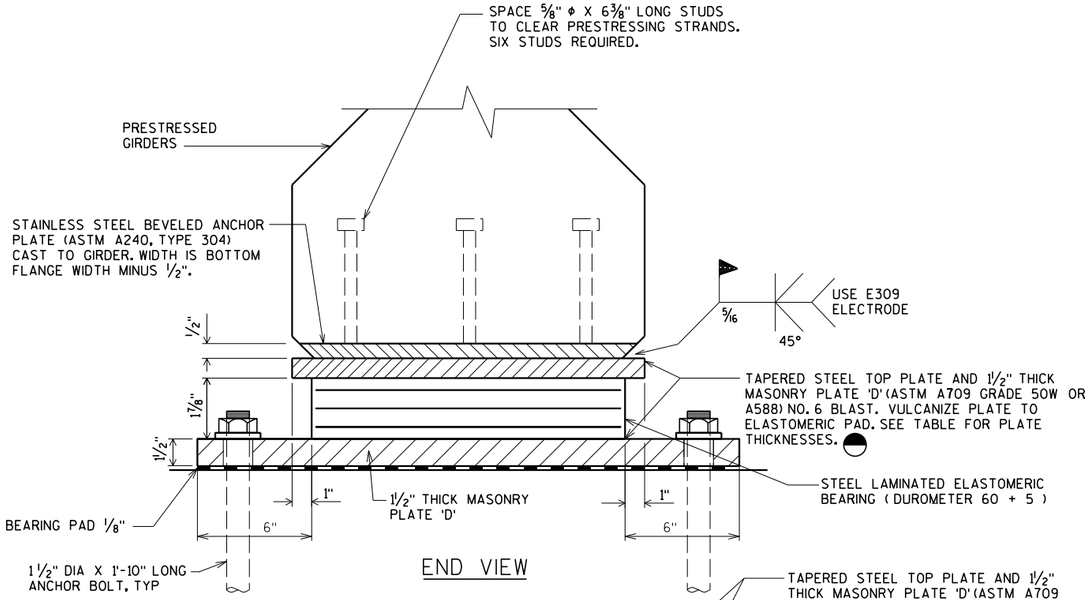
126

8

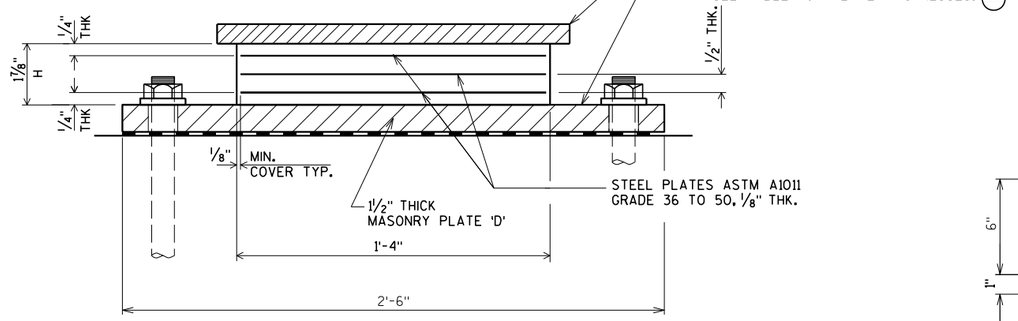
FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080122_brg.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 10.0000 sf / in.

STATE PROJECT NUMBER

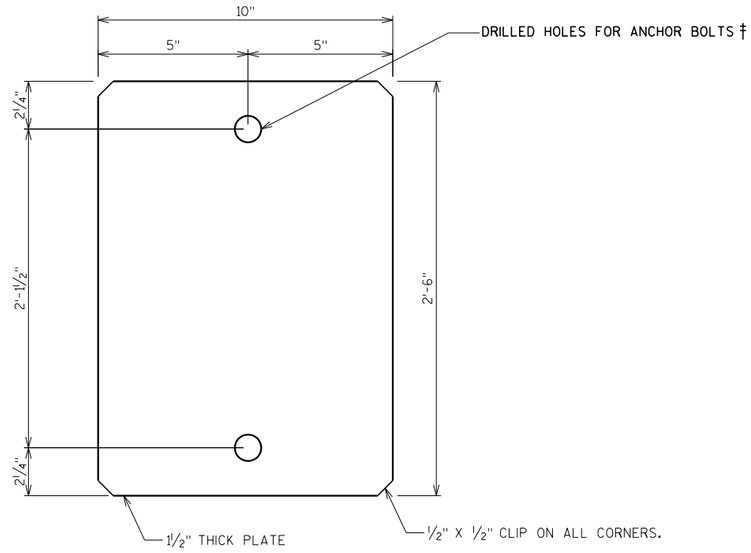
5991-07-19



END VIEW



SECTION THRU ELASTOMERIC BEARING



MASONRY PLATE 'D'

NOTES

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-32-212", EACH.

ALL STRUCTURAL STEEL 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, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. PROJECT ANCHOR BOLTS, MASONRY PLATE "D" THICKNESS + 2 1/4" ABOVE TOP OF CONCRETE. CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

MASONRY PLATE "D", ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCOURDANCE WITH ASTM A153, CLASS "C".

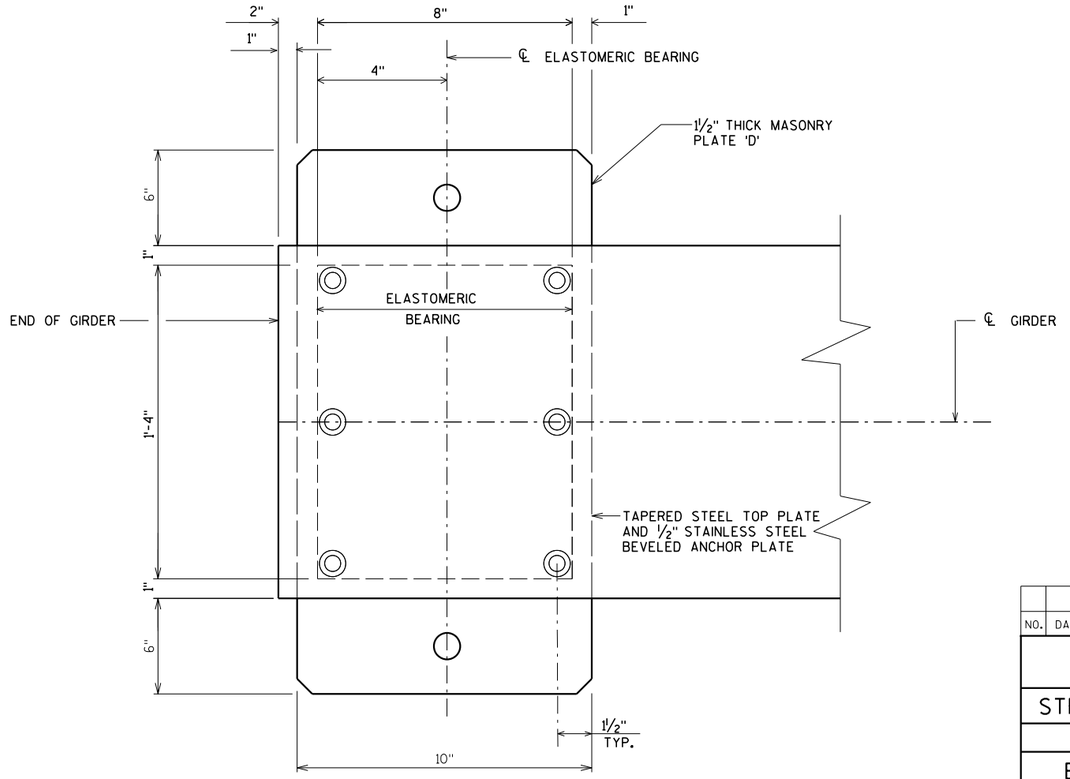
† DRILLED HOLES FOR ANCHOR BOLTS IN MASONRY PLATE 'D' SHALL HAVE A DIAMETER 3/8" LARGER THAN ANCHOR BOLT.

STEEL LAMINATED ELASTOMERIC BEARING

△ H (INCHES)	EXP. LENGTH (FEET)	TOTAL BEARING HEIGHT H (INCHES)	TOTAL ELASTOMER THICKNESS (INCHES)	LONGITUDINAL LENGTH OF BEARING L (MIN.)	NO. OF PLATES REQ'D.
5/8"	73.9	1 7/8"	1 1/2"	8"	3

TOP PLATE THICKNESS

GIRDER	PIER 6	
	SOUTH END	NORTH END
G16, G17, G18	1 1/2"	2"
G19	2 1/2"	2 7/8"
G20	2 3/4"	3 1/8"
G21	3"	3 3/8"



PLAN VIEW

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

ELASTOMETRIC BEARINGS - PIER 6

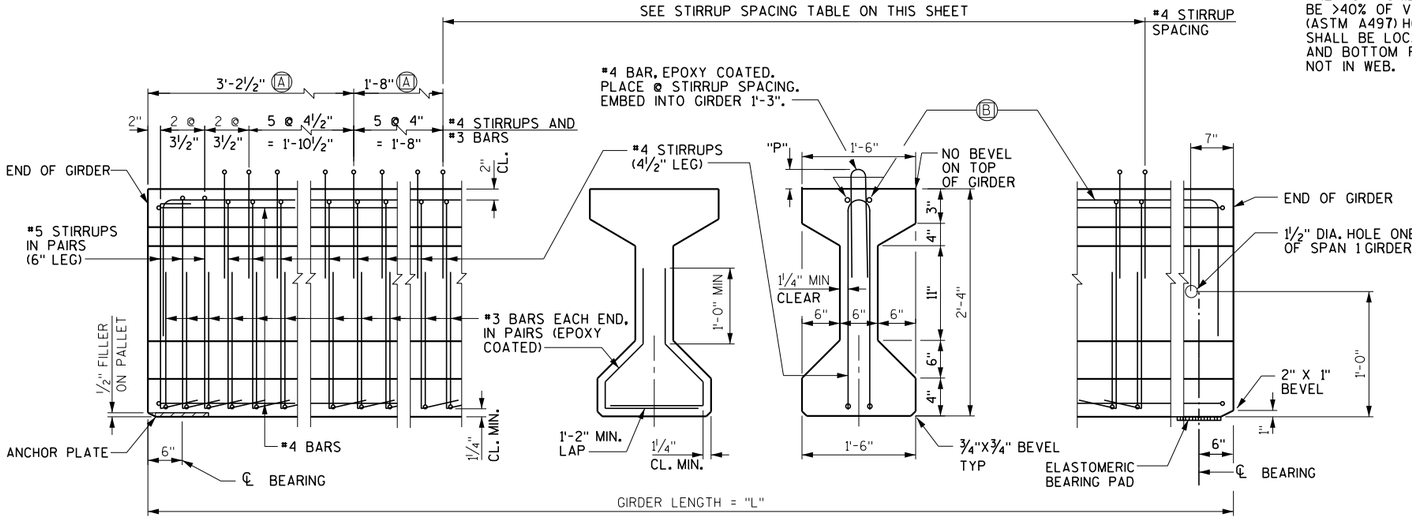
SHEET 23 OF 44
127

8

8

FILE NAME : $$....DESIGNFILE....$$ PLOT DATE : $$...PLOTTINGDATE...$$ PLOT BY : $$...PLOTUSER...$$ PLOT SCALE : $$.....PLOTSCALE.....$$

STATE PROJECT NUMBER
5991-07-19



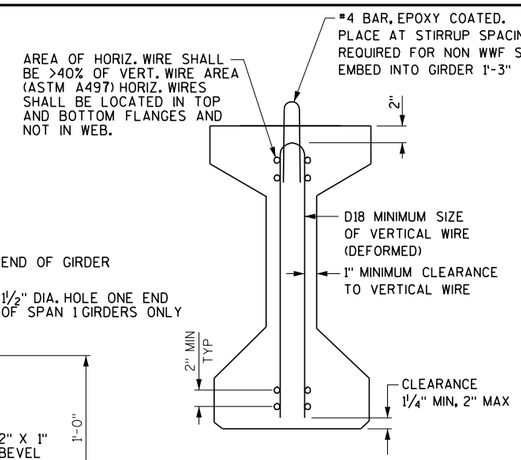
DETAIL AT EXPANSION ENDS

SIDE VIEW & TYP. SECTION IN SPAN

DETAIL AT SEMI-EXPANSION AND FIXED ENDS

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 2 - #5 BARS BEND DOWN 16 BAR DIA. AT ENDS



SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS ASTM A497 (FY = 70 KSI)

GENERAL NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 2" OF THE TOP FLANGE.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

PRESTRESSING STRANDS SHALL BE 0.5" DIA - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR 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.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "INTERMEDIATE STEEL DIAPHRAGMS" SHEET 26.

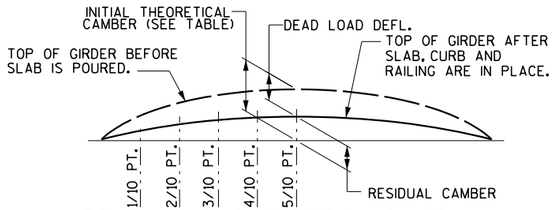
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

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.

TYP. STRAND PATTERN

TOP VIEW OF GIRDER ENDS



DEAD LOAD DEFLECTION DIAGRAM

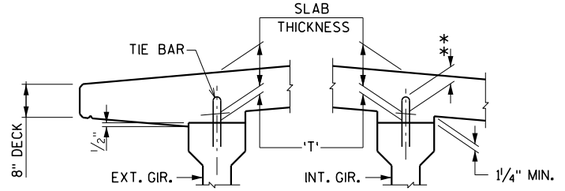
SPANS 1-5

* 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.) *
1-5	1"

THIS VALUE IS NOT TO BE USED IN DETERMINING 'T'. USE ACTUAL GIRDER SHOTS.

THIS VALUE IS FOR INFORMATIONAL PURPOSES ONLY.



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 2⅜" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

STIRRUP SPACING

SPAN	GIRDER	#4 STIRRUP SPACING
1	G1,G2,G3	31 EQ SPA (1'-6" MAX) = 45'-7 ½"
2	G4,G5,G6	30 SPA AT 1'-6" = 45'-0"
3	G7,G8,G9	30 EQ SPA (1'-6" MAX) = 44'-10 ½"
4	G10,G11,G12	30 EQ SPA (1'-6" MAX) = 44'-10 ½"
5	G13,G14,G15	30 SPA AT 1'-6" = 45'-0"

* MINIMUM CYLINDER STRENGTH OF CONCRETE AT 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	CONCRETE STRENGTH f'c (p.s.i.)	"P" 1ST ⅓ OF GIRDER	"P" 2ND ⅓ OF GIRDER	"P" 3RD ⅓ 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	G1,G2,G3	55'-4 ½"	1/4	3/8	1/2	5/8	5/8	5/8	1/2	3/8	1/4	6000	6"	6"	6"	0.5	---	---	---	---	---	---	10	4800
2	G4,G5,G6	54'-9"	1/8	3/8	1/2	5/8	5/8	5/8	1/2	3/8	1/8	6000	6"	6"	6"	0.5	---	---	---	---	---	---	10	4800
3	G7,G8,G9	54'-7 ½"	1/8	3/8	1/2	5/8	5/8	5/8	1/2	3/8	1/8	6000	6"	6"	6"	0.5	---	---	---	---	---	---	10	4800
4	G10,G11,G12	54'-7½"	1/8	3/8	1/2	5/8	5/8	5/8	1/2	3/8	1/8	6000	6"	6"	6"	0.5	---	---	---	---	---	---	10	4800
5	G13,G14,G15	54'-9"	1/8	3/8	1/2	5/8	5/8	5/8	1/2	3/8	1/8	6000	6"	6"	6"	0.5	---	---	---	---	---	---	10	4800

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY MJB | PLANS CK'D. RCP

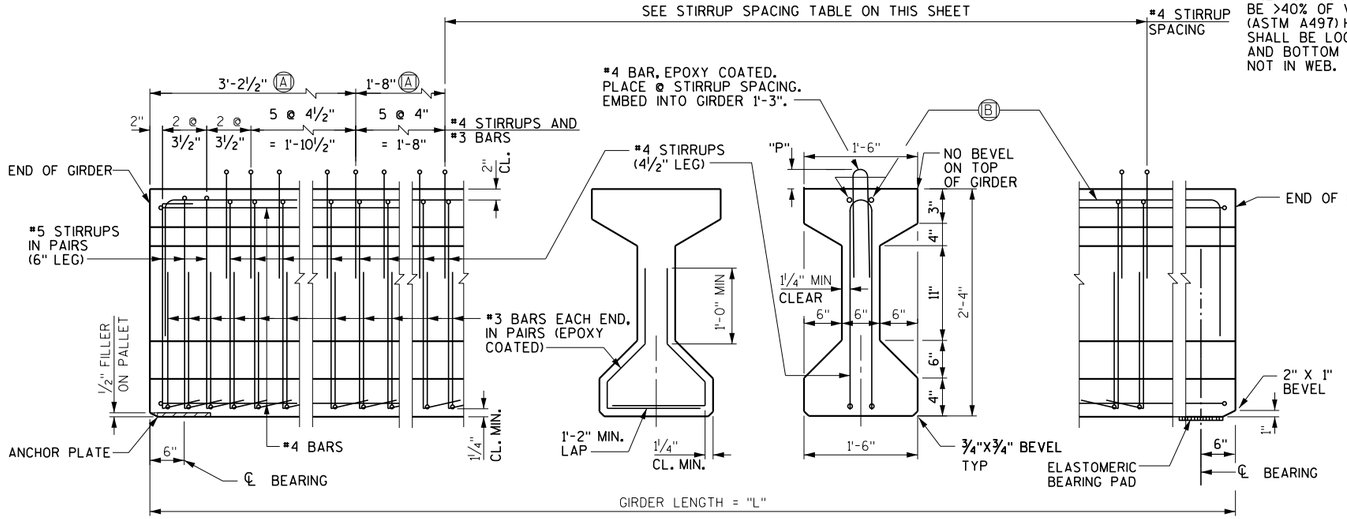
28" PRESTRESSED GIRDER DETAILS- SPANS 1 TO 5

SHEET 24 OF 44
128

8

8

STATE PROJECT NUMBER
5991-07-19



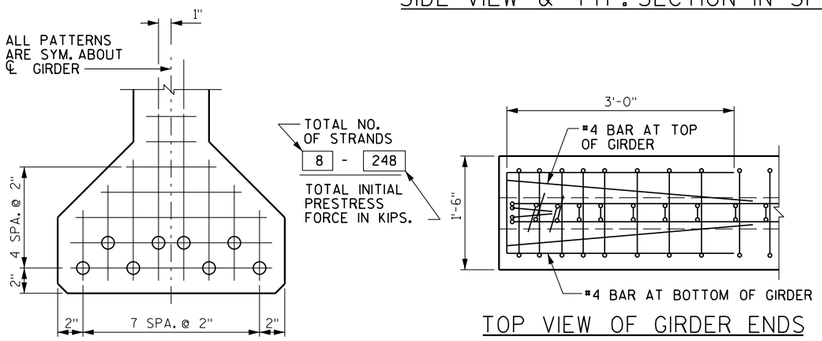
DETAIL AT EXPANSION ENDS

SIDE VIEW & TYP. SECTION IN SPAN

DETAIL AT FIXED ENDS

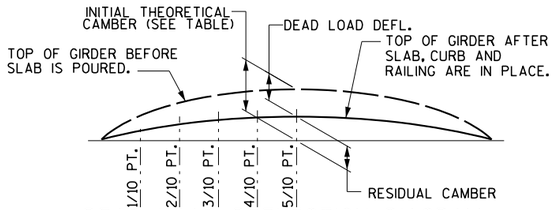
Ⓐ DETAIL TYP. AT EACH END

Ⓑ 2 - #5 BARS G16, G17, G18
2 - #6 BARS G19, G20, G21
BEND DOWN 16 BAR DIA. AT ENDS



TYP. STRAND PATTERN

TOP VIEW OF GIRDER ENDS



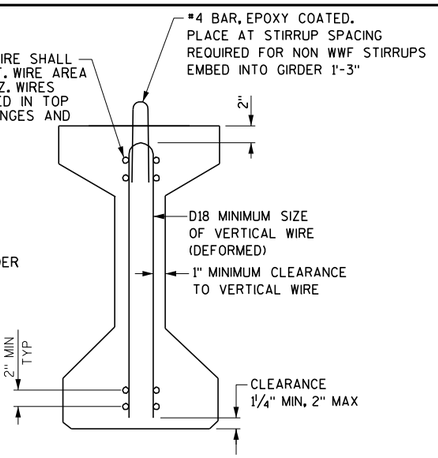
DEAD LOAD DEFLECTION DIAGRAM
SPANS 6 & 7

* 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	GIRDER	CAMBER (IN.) *
6	G16, G17	⅝
6	G18	½
7	G19	⅜
7	G20, G21	¼

THIS VALUE IS NOT TO BE USED IN DETERMINING 'T'. USE ACTUAL GIRDER SHOTS.

THIS VALUE IS FOR INFORMATIONAL PURPOSES ONLY.



SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS ASTM A497 (FY = 70 KSI)

GENERAL NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 2" OF THE TOP FLANGE.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

PRESTRESSING STRANDS SHALL BE 0.5" DIA - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

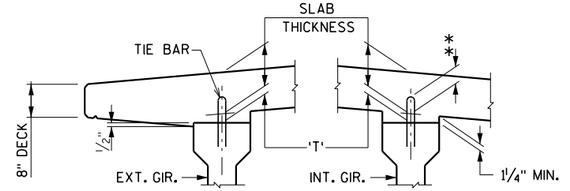
STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH 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.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "INTERMEDIATE STEEL DIAPHRAGMS" SHEET 26.

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.



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 2¾" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

STIRRUP SPACING

SPAN	GIRDER	#4 STIRRUP SPACING
6	G16	22 EQ SPA (1'-6" MAX) = 31'-11⅛"
6	G17	19 EQ SPA (1'-6" MAX) = 28'-4⅛"
6	G18	17 EQ SPA (1'-6" MAX) = 24'-9¾"
7	G19	13 EQ SPA (1'-6" MAX) = 18'-4⅛"
7	G20	10 EQ SPA (1'-6" MAX) = 14'-9⅜"
7	G21	8 EQ SPA (1'-6" MAX) = 11'-3⅞"

* MINIMUM CYLINDER STRENGTH OF CONCRETE AT 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	CONCRETE STRENGTH f'c (p.s.i.)	"P" 1ST ⅓ OF GIRDER	"P" 2ND ⅓ OF GIRDER	"P" 3RD ⅓ 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.) *
6	G16	41'-8⅛"	1/8	1/8	1/4	1/4	1/4	1/4	1/4	1/8	1/8	6000	7"	7"	7"	0.5	---	---	---	---	---	---	8	4800
6	G17	38'-1⅛"	0	1/8	1/8	1/8	1/8	1/8	1/8	1/8	0	6000	6"	6"	6"	0.5	---	---	---	---	---	---	8	4800
6	G18	34'-6¾"	0	1/8	1/8	1/8	1/8	1/8	1/8	1/8	0	6000	7"	7"	7"	0.5	---	---	---	---	---	---	8	4800
7	G19	28'-1⅛"	0	0	0	0	0	0	0	0	0	6000	7"	7"	7"	0.5	---	---	---	---	---	---	8	4800
7	G20	24'-6⅜"	0	0	0	0	0	0	0	0	0	6000	6"	6"	6"	0.5	---	---	---	---	---	---	8	4800
7	G21	21'-0⅞"	0	0	0	0	0	0	0	0	0	6000	7"	7"	7"	0.5	---	---	---	---	---	---	8	4800

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY MJB | PLANS CK'D. RCP

28" PRESTRESSED GIRDER DETAILS- SPANS 6 & 7

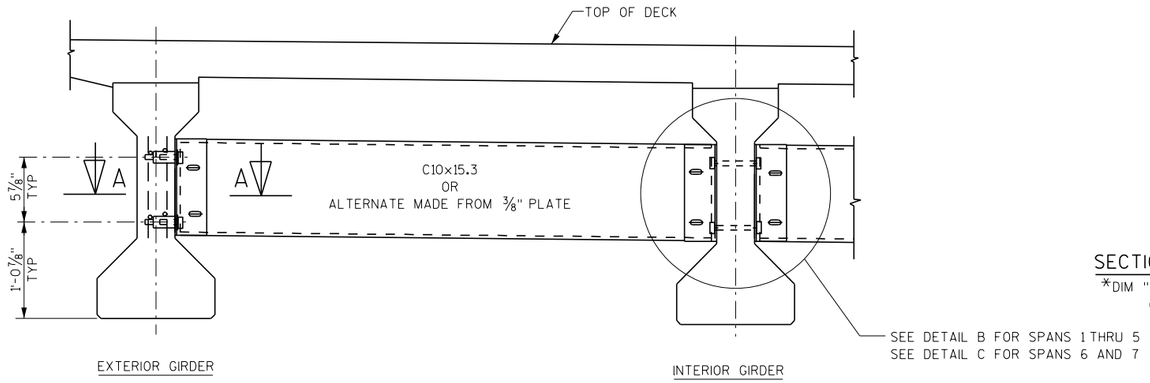
SHEET 25 OF 44
129

8

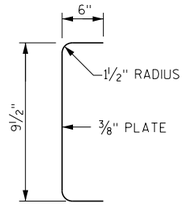
FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080125_gr.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 5.000000 '/ in.

STATE PROJECT NUMBER

5991-07-19



PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION THRU ALTERNATE DIAPHRAGM

*DIM "X" = 2½" FOR ALTERNATE PLATE DIAPHRAGM
(SEE DIAPHRAGM SUPPORT DETAIL)

NOTES

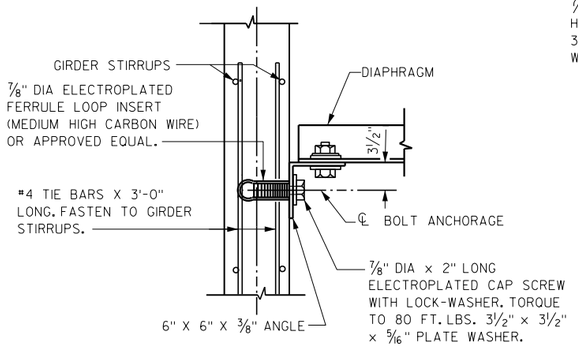
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-32-212", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

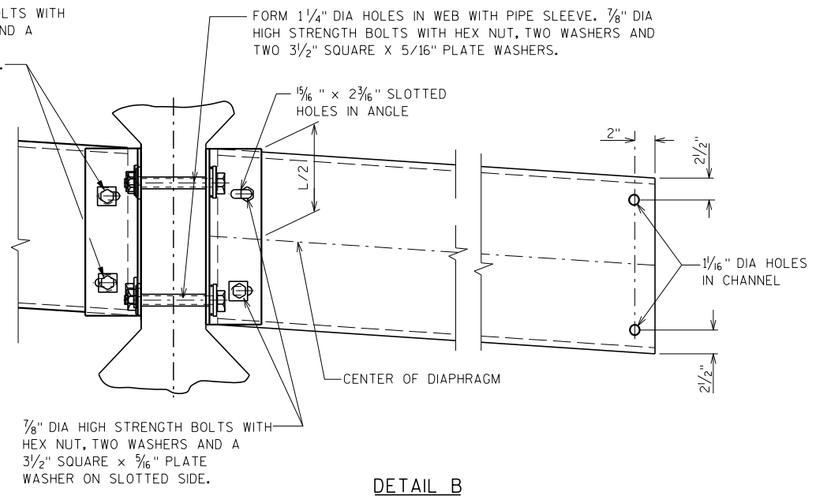
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

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.

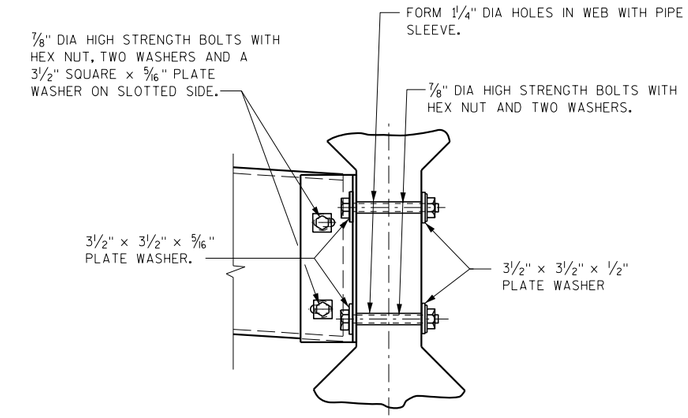
THE STEEL DIAPHRAGM DETAILS SHOWN ARE TYPICAL FOR ALL SPANS. DUE TO FLARED GIRDERS ON SPANS 6 AND 7 SEE FRAMING PLAN ON SHEET 21 FOR INFORMATION FOR DIAPHRAGMS IN THOSE SPANS.



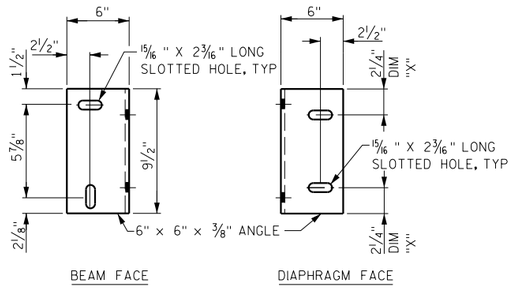
SECT. A-A
(FOR EXTERIOR ATTACHMENT)



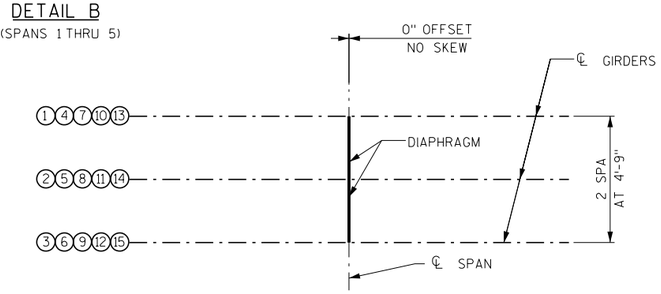
DETAIL B
(SPANS 1 THRU 5)



DETAIL C
(SPANS 6 AND 7)



DIAPHRAGM SUPPORT



PLAN
(PLACE DIAPHRAGM AT MID-LENGTH OF GIRDER)
(TYPICAL FOR SPANS 1-5)
(SEE FRAMING PLAN ON SHEET 21 FOR SPANS 6 & 7)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. RCP

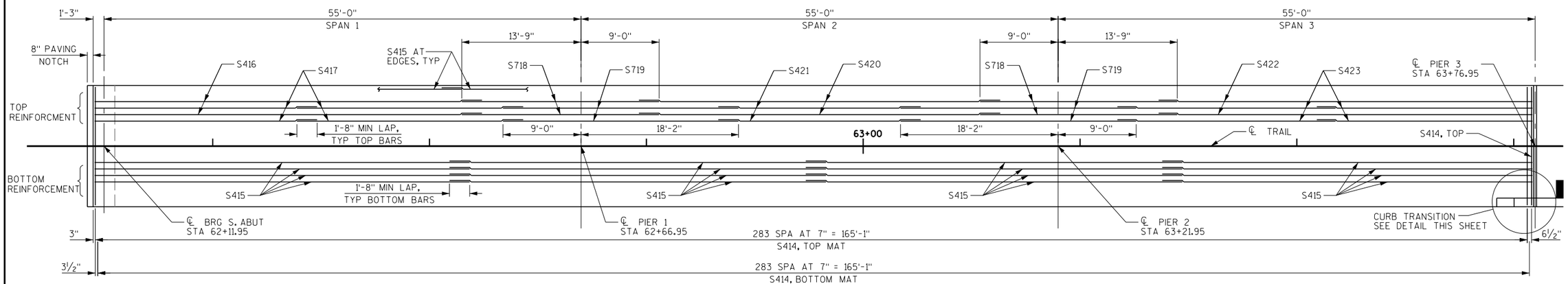
INTERMEDIATE STEEL DIAPHRAGMS

SHEET 26 OF 44
130

FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080126_di.dgn

PLOT SCALE : 3.000000 '/ in.

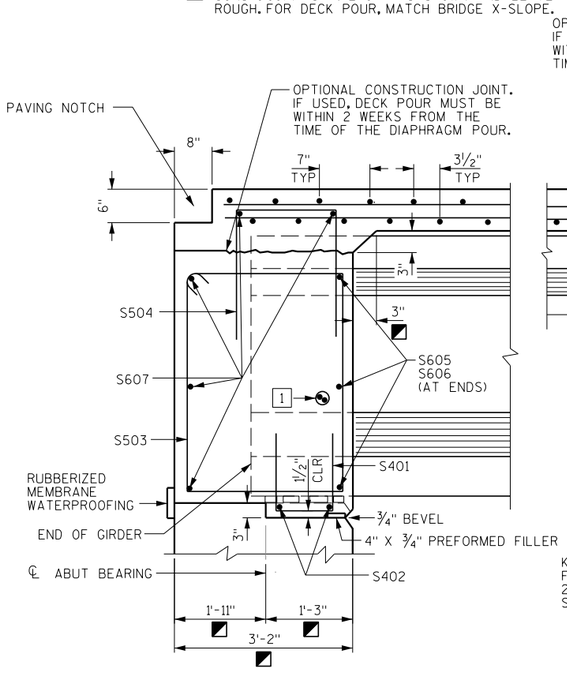
STATE PROJECT NUMBER
5991-07-19



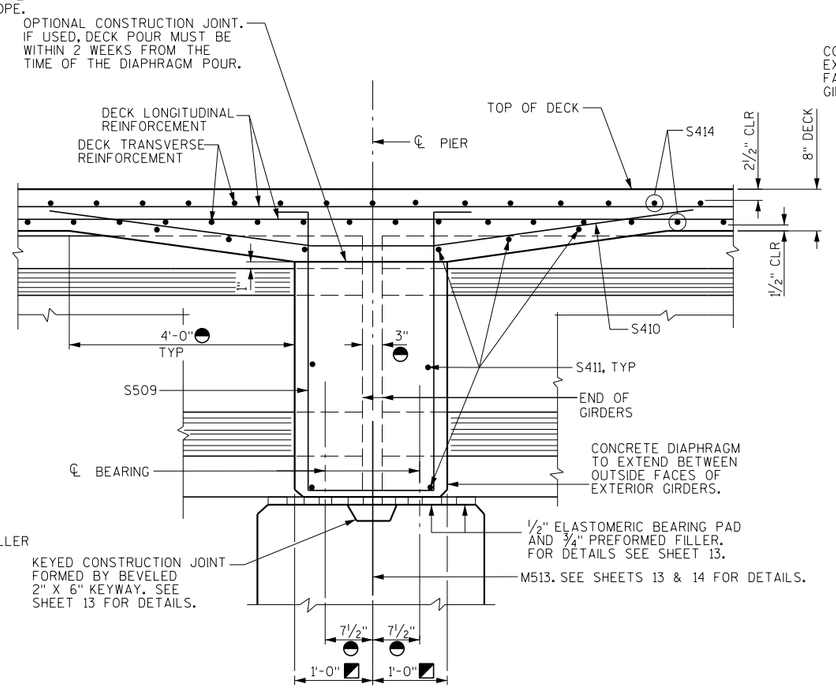
REINFORCEMENT PLAN

NOTES

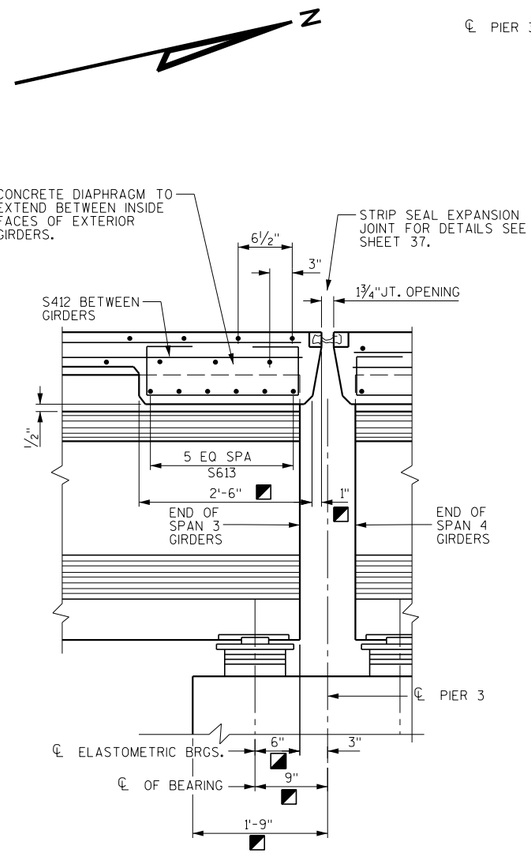
1. 1½" DIA. HOLE IN WEB FOR 2 - S508 BARS. PLACE SYMMETRICAL ABOUT ℄ OF GIRDERS.
2. DIMENSION IS TAKEN PARALLEL TO GIRDER ℄.
3. DIMENSION IS TAKEN NORMAL TO ℄ OF SUBSTRUCTURE UNITS.
4. CONST. JOINT-STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPE.



AT SOUTH ABUTMENT

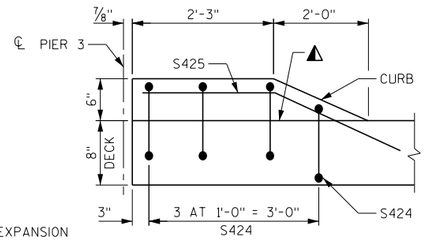


AT PIERS 1& 2

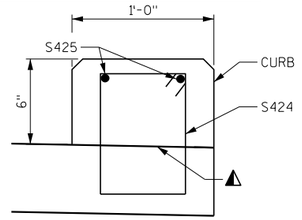


AT PIER 3

PARTIAL LONGITUDINAL SECTIONS



CURB TRANSITION DETAIL



TYPICAL CURB SECTION

(IN TRANSITION)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. RCP

SUPERSTRUCTURE SPANS 1 - 3

SHEET 27 OF 44
131

8

FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080127_ss.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 12.0000 '/ in.

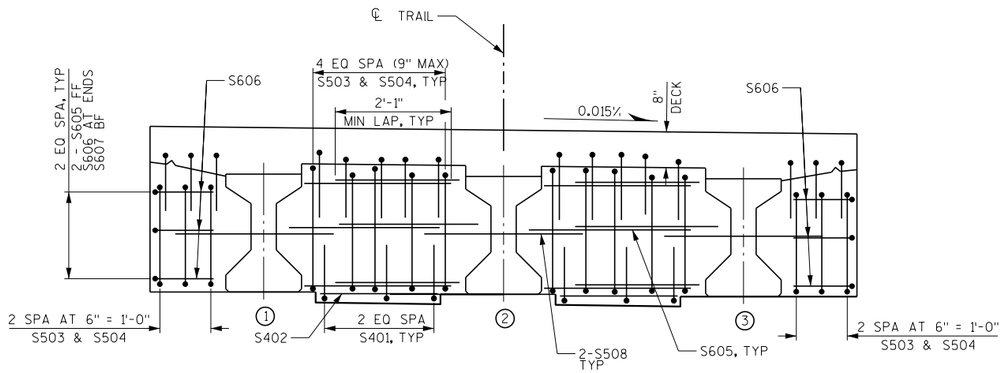
STATE PROJECT NUMBER

5991-07-19

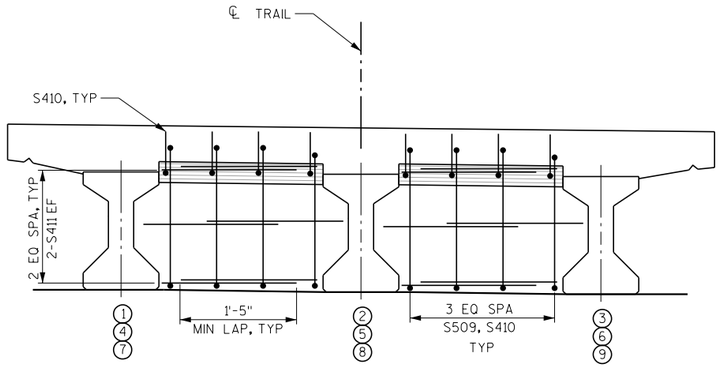
NOTES:

COAT DECK WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS.

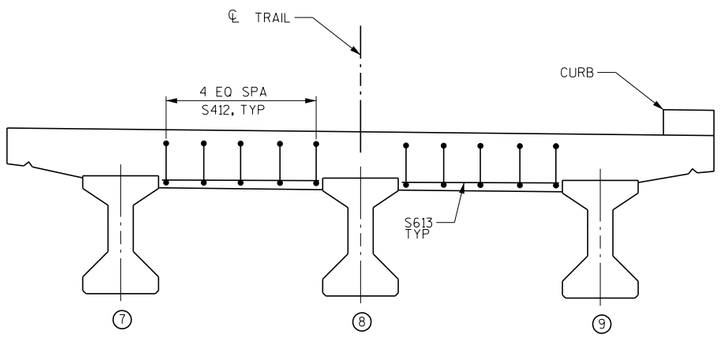
▲ 3/4" V-GROOVE. EXTEND TO SOUTH ABUTMENT AS SHOWN ON THE DETAIL ON THIS SHEET. TERMINATE 2'-0" FROM ℄ PIER 3.



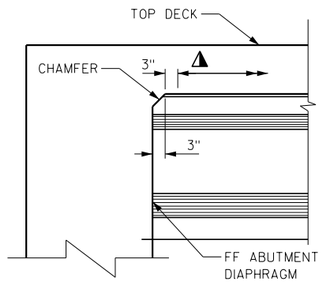
SECTION AT SOUTH ABUTMENT DIAPHRAGM



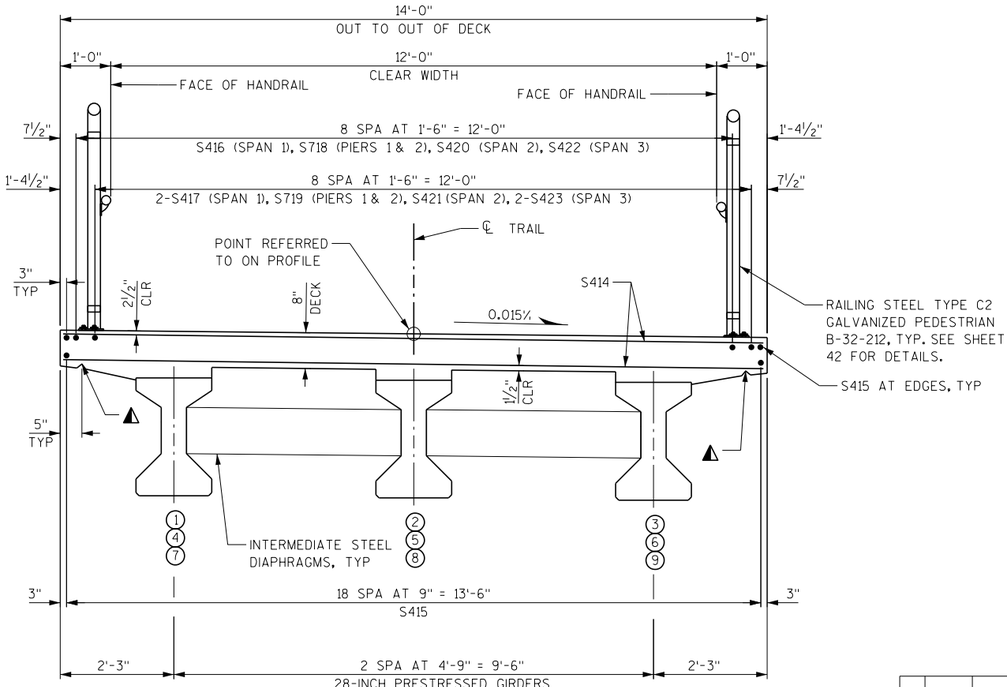
SECTION AT PIERS 1 & 2



SECTION AT EXPANSION DIAPHRAGM - PIER 3



DRIP GROOVE DETAIL AT SOUTH ABUTMENT



CROSS SECTION THRU BRIDGE

SPANS 1, 2 & 3

(CURB AT END OF SPAN 3 NOT SHOWN)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. RCP

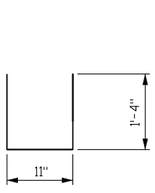
SUPERSTRUCTURE SPANS 1 TO 3

SHEET 28 OF 44

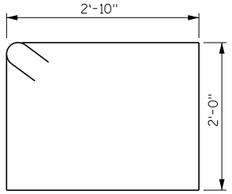
132

8

FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080128_ss.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 6.0000 '/ in.



S401



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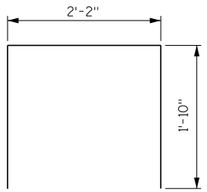

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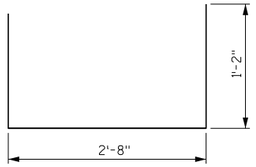

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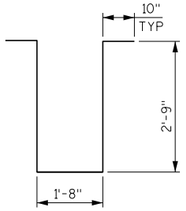

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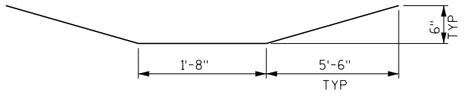

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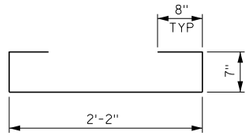

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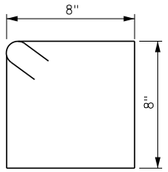

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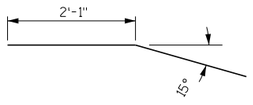


S425

EDGE OF DECK ELEVATION TABLE

SPAN POINT	WEST EDGE OF DECK			EAST EDGE OF DECK		
	STATION	ELEVATION	OFFSET	STATION	ELEVATION	OFFSET
S. ABUT	62+11.95	651.37	7.00 FT	62+11.95	651.16	7.00 FT
0.1	62+17.45	651.65	7.00 FT	62+17.45	651.44	7.00 FT
0.2	62+22.95	651.92	7.00 FT	62+22.95	651.71	7.00 FT
0.3	62+28.45	652.20	7.00 FT	62+28.45	651.99	7.00 FT
0.4	62+33.95	652.47	7.00 FT	62+33.95	652.26	7.00 FT
0.5	62+39.45	652.75	7.00 FT	62+39.45	652.54	7.00 FT
0.6	62+44.95	653.02	7.00 FT	62+44.95	652.81	7.00 FT
0.7	62+50.45	653.30	7.00 FT	62+50.45	653.09	7.00 FT
0.8	62+55.95	653.57	7.00 FT	62+55.95	653.36	7.00 FT
0.9	62+61.45	653.85	7.00 FT	62+61.45	653.64	7.00 FT
PIER 1	62+66.95	654.12	7.00 FT	62+66.95	653.91	7.00 FT
0.1	62+72.45	654.40	7.00 FT	62+72.45	654.19	7.00 FT
0.2	62+77.95	654.67	7.00 FT	62+77.95	654.46	7.00 FT
0.3	62+83.45	654.95	7.00 FT	62+83.45	654.74	7.00 FT
0.4	62+88.95	655.22	7.00 FT	62+88.95	655.01	7.00 FT
0.5	62+94.45	655.50	7.00 FT	62+94.45	655.29	7.00 FT
0.6	62+99.95	655.77	7.00 FT	62+99.95	655.56	7.00 FT
0.7	63+05.45	656.05	7.00 FT	63+05.45	655.84	7.00 FT
0.8	63+10.95	656.32	7.00 FT	63+10.95	656.11	7.00 FT
0.9	63+16.45	656.60	7.00 FT	63+16.45	656.39	7.00 FT
PIER 2	63+21.95	656.87	7.00 FT	63+21.95	656.66	7.00 FT
0.1	63+27.45	657.15	7.00 FT	63+27.45	656.94	7.00 FT
0.2	63+32.95	657.42	7.00 FT	63+32.95	657.21	7.00 FT
0.3	63+38.45	657.70	7.00 FT	63+38.45	657.49	7.00 FT
0.4	63+43.95	657.97	7.00 FT	63+43.95	657.76	7.00 FT
0.5	63+49.45	658.25	7.00 FT	63+49.45	658.04	7.00 FT
0.6	63+54.95	658.52	7.00 FT	63+54.95	658.31	7.00 FT
0.7	63+60.45	658.80	7.00 FT	63+60.45	658.59	7.00 FT
0.8	63+65.95	659.07	7.00 FT	63+65.95	658.86	7.00 FT
0.9	63+71.45	659.35	7.00 FT	63+71.45	659.14	7.00 FT
PIER 3	63+76.95	659.62	7.00 FT	63+76.95	659.43	6.00 FT

NOTES: EAST EDGE OF DECK AT PIER 3 GIVEN TO INSIDE FACE OF CURB.
OFFSET GIVEN PERPENDICULAR TO C/L TRAIL.

GIRDER ELEVATION TABLE

SPAN POINT	GIRDER 1/4/7		GIRDER 2/5/8		GIRDER 3/6/9	
	TD	TG	TD	TG	TD	TG
C/L BRG SPAN 1 AT S. ABUT	651.34	650.46	651.27	650.39	651.20	650.32
0.1	651.61	-----	651.54	-----	651.47	-----
0.2	651.88	-----	651.81	-----	651.74	-----
0.3	652.16	-----	652.08	-----	652.01	-----
0.4	652.43	-----	652.36	-----	652.28	-----
0.5	652.70	-----	652.63	-----	652.56	-----
0.6	652.97	-----	652.90	-----	652.83	-----
0.7	653.24	-----	653.17	-----	653.10	-----
0.8	653.52	-----	653.44	-----	653.37	-----
0.9	653.79	-----	653.72	-----	653.64	-----
C/L BRG SPAN 1 AT PIER 1	654.06	653.18	653.99	653.10	653.92	653.03
C/L BRG SPAN 2 AT PIER 1	654.12	653.25	654.05	653.17	653.98	653.10
0.1	654.39	-----	654.32	-----	654.25	-----
0.2	654.66	-----	654.59	-----	654.52	-----
0.3	654.93	-----	654.86	-----	654.79	-----
0.4	655.20	-----	655.13	-----	655.05	-----
0.5	655.47	-----	655.39	-----	655.32	-----
0.6	655.73	-----	655.66	-----	655.59	-----
0.7	656.00	-----	655.93	-----	655.86	-----
0.8	656.27	-----	656.20	-----	656.13	-----
0.9	656.54	-----	656.47	-----	656.40	-----
C/L BRG SPAN 2 AT PIER 2	656.81	655.93	656.74	655.85	656.67	655.78
C/L BRG SPAN 3 AT PIER 2	656.87	656.00	656.80	655.92	656.73	655.85
0.1	657.14	-----	657.07	-----	657.00	-----
0.2	657.41	-----	657.34	-----	657.27	-----
0.3	657.68	-----	657.61	-----	657.53	-----
0.4	657.94	-----	657.87	-----	657.80	-----
0.5	658.21	-----	658.14	-----	658.07	-----
0.6	658.48	-----	658.41	-----	658.34	-----
0.7	658.75	-----	658.68	-----	658.61	-----
0.8	659.02	-----	658.95	-----	658.87	-----
0.9	659.29	-----	659.21	-----	659.14	-----
C/L BRG SPAN 3 AT PIER 3	659.55	658.68	659.48	658.61	659.41	658.54

TD = TOP OF DECK
TG = TOP OF GIRDER
BRG = BEARING

NOTES: END GIRDER ELEVATIONS GIVEN AT C/L BEARING
INTERMEDIATE TENTH POINTS ARE TAKEN ALONG GIRDER C/L,
FROM C/L BRG TO C/L BRG.

BILL OF BARS
SUPERSTRUCTURE, SPANS 1-3

COATED= 11930 LBS
UNCOATED= 0 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH FT - IN	BENT	BAR SERIES	LOCATION	
S401	6		3 - 5	X		S. ABUT DIAPHRAGM - STEP	VERT
S402	4		1 - 10			S. ABUT DIAPHRAGM - STEP	HORIZ
S503	16		10 - 4	X		S. ABUT DIAPHRAGM - STIRRUP	VERT
S504	16		5 - 7	X		S. ABUT DIAPHRAGM - DECK TIE	VERT
S605	12		3 - 0			S. ABUT DIAPHRAGM - FF	HORIZ
S606	6		4 - 8	X		S. ABUT DIAPHRAGM - AT ENDS	HORIZ
S607	5		13 - 8			S. ABUT DIAPHRAGM - BF & TOP	HORIZ
S508	6		6 - 0			S. ABUT DIAPHRAGM - THRU GIRDER	HORIZ
S509	16		8 - 4	X		PIER FIXED DIAPHRAGM - STIRRUP	VERT
S410	16		12 - 8	X		PIER FIXED DIAPHRAGM - DECK HAUNCH	LONG
S411	48		2 - 8			PIER FIXED DIAPHRAGM - EF	HORIZ
S412	10		4 - 4	X		PIER EXPANSION DIAPHRAGM - STIRRUP	VERT
S613	12		2 - 11			PIER EXPANSION DIAPHRAGM - BOTTOM	HORIZ
S414	569		13 - 8			DECK - TOP AND BOTTOM	TRANS
S415	84		43 - 3			DECK - BOTTOM	LONG
S416	9		44 - 0			DECK - TOP IN SPAN 1	LONG
S417	18		25 - 3			DECK - TOP IN SPAN 1	LONG
S718	18		22 - 9			DECK - TOP OVER PIERS 1 & 2	LONG
S719	18		27 - 2			DECK - TOP OVER PIERS 1 & 2	LONG
S420	9		40 - 4			DECK - TOP IN SPAN 2	LONG
S421	9		22 - 0			DECK - TOP IN SPAN 2	LONG
S422	9		42 - 7			DECK - TOP IN SPAN 3	LONG
S423	18		24 - 6			DECK - TOP IN SPAN 3	LONG
S424	4		3 - 2	X		CURB - STIRRUP	VERT
S425	2		5 - 1	X		CURB - TOP	HORIZ

FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE

BAR DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

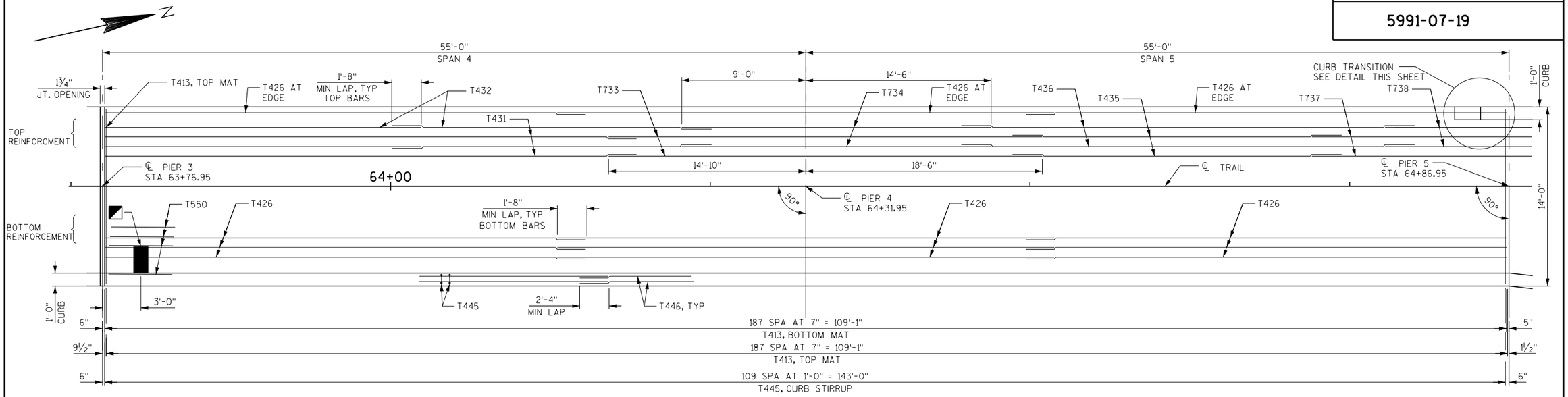
DRAWN BY TAV | PLANS CK'D. RCP

SUPERSTRUCTURE
SPANS 1 TO 3

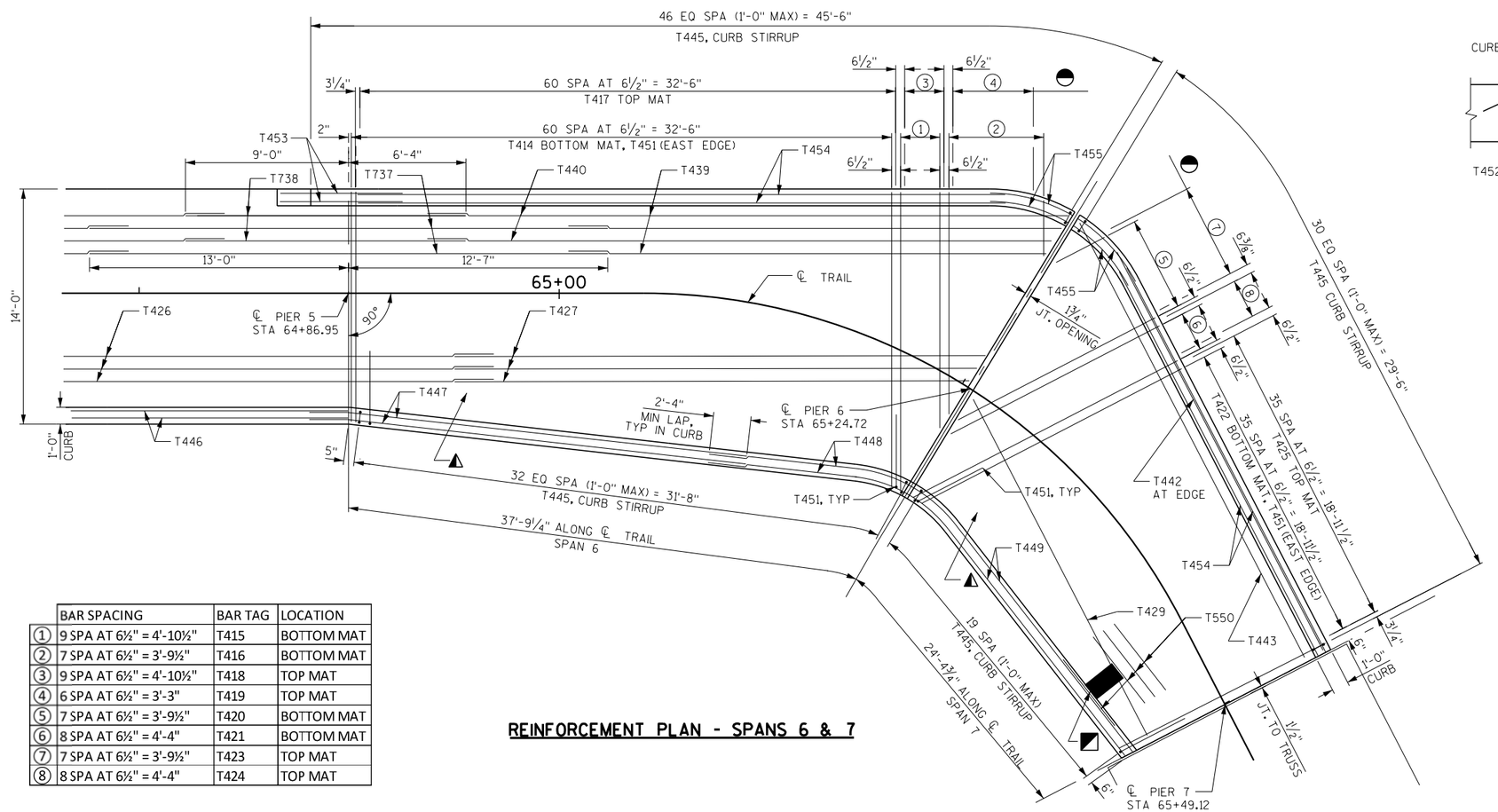
SHEET 29 OF 44
133

STATE PROJECT NUMBER

5991-07-19

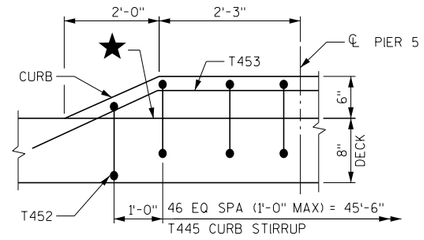


REINFORCEMENT PLAN - SPANS 4 & 5



	BAR SPACING	BAR TAG	LOCATION
①	9 SPA AT 6½" = 4'-10½"	T415	BOTTOM MAT
②	7 SPA AT 6½" = 3'-9½"	T416	BOTTOM MAT
③	9 SPA AT 6½" = 4'-10½"	T418	TOP MAT
④	6 SPA AT 6½" = 3'-3"	T419	TOP MAT
⑤	7 SPA AT 6½" = 3'-9½"	T420	BOTTOM MAT
⑥	8 SPA AT 6½" = 4'-4"	T421	BOTTOM MAT
⑦	7 SPA AT 6½" = 3'-9½"	T423	TOP MAT
⑧	8 SPA AT 6½" = 4'-4"	T424	TOP MAT

REINFORCEMENT PLAN - SPANS 6 & 7



CURB TRANSITION DETAIL

NOTES

SEE SHEET 35 FOR ADDITIONAL DETAILS ON SPANS 6 & 7.

▲ SEE DETAILS ON SHEET 31 FOR BARS AND SPACING IN THIS AREA.

◓ TOP MAT TRANSVERSE BARS NOT SHOWN FOR CLARITY.

◪ TYPE "GC" FLOOR DRAIN. SEE SHEET 39 FOR DETAILS. FOR LOCATION IN SPAN 7 SEE SHEET 35.

★ CONST. JOINT-STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

SUPERSTRUCTURE SPANS 4 TO 7

SHEET 30 OF 44
134

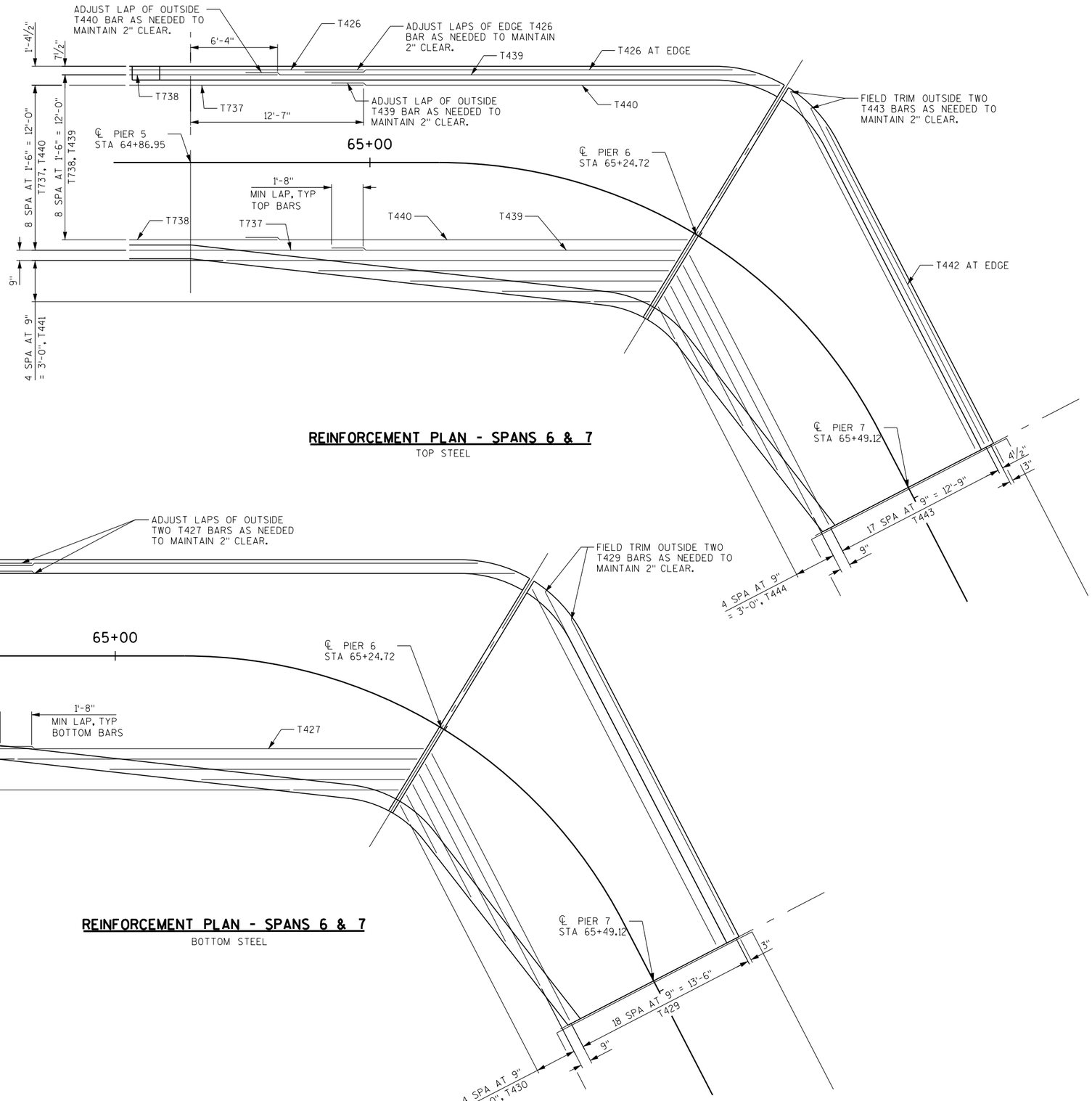
8

8

FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080130_ss.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 8.0000 '/ in.

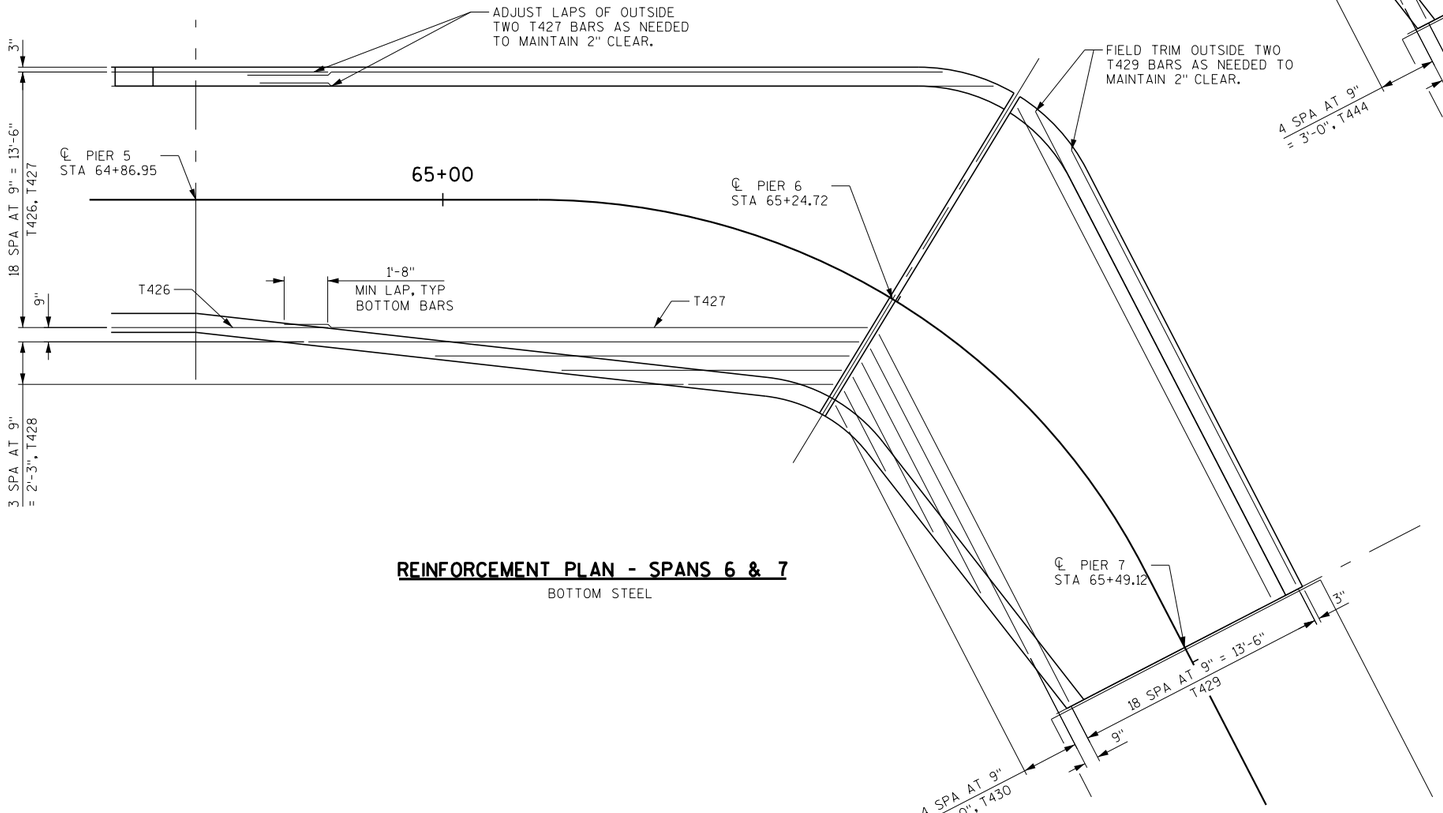
STATE PROJECT NUMBER

5991-07-19



REINFORCEMENT PLAN - SPANS 6 & 7

TOP STEEL



REINFORCEMENT PLAN - SPANS 6 & 7

BOTTOM STEEL

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

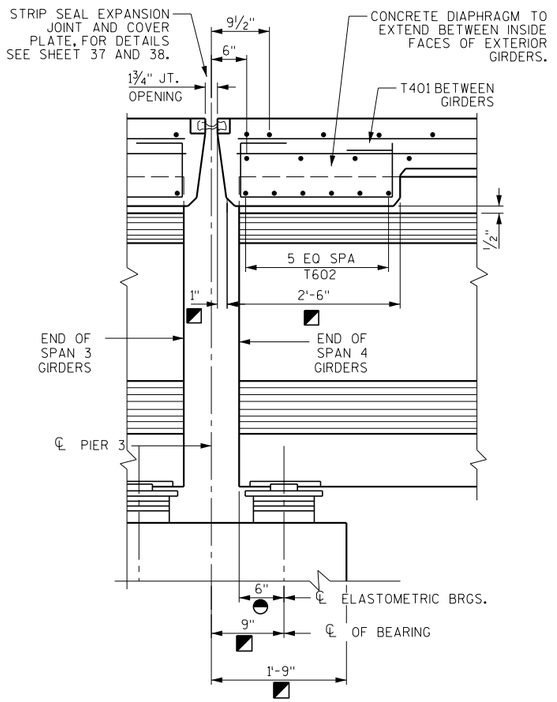
SUPERSTRUCTURE SPANS 4 TO 7

SHEET 31 OF 44

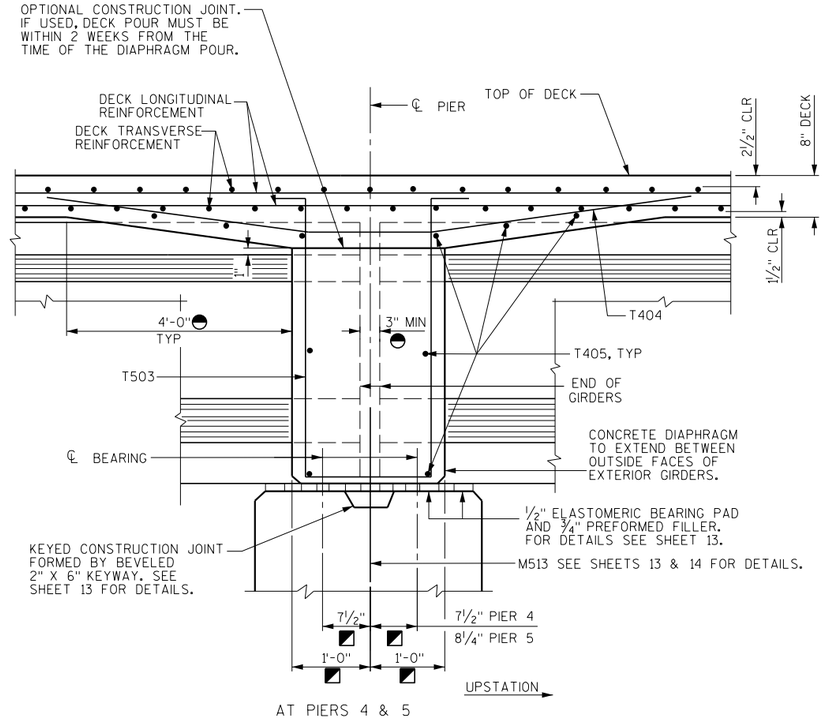
135

STATE PROJECT NUMBER

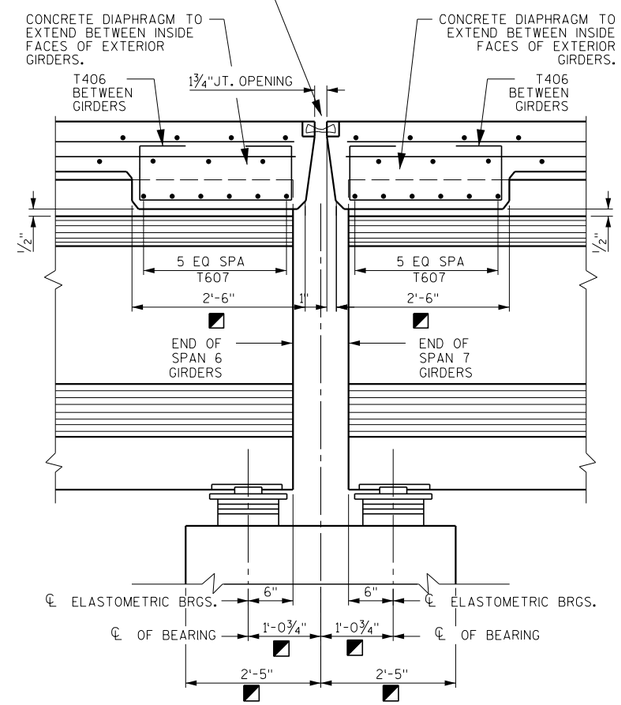
5991-07-19



AT PIER 3

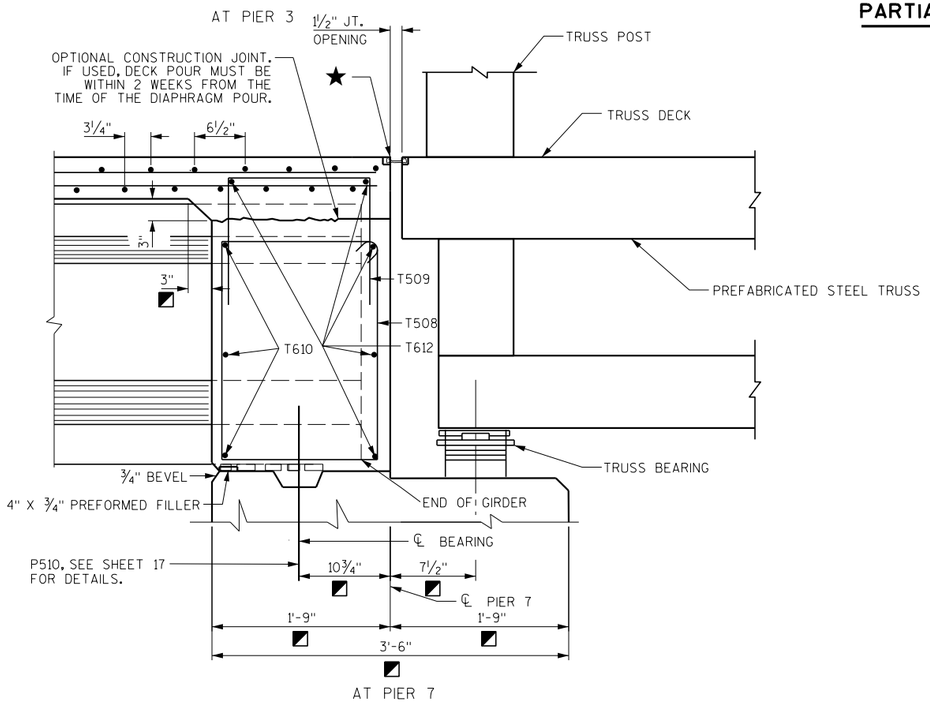


AT PIERS 4 & 5



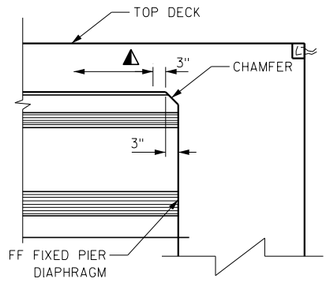
AT PIER 6

PARTIAL LONGITUDINAL SECTIONS



AT PIER 7

PARTIAL LONGITUDINAL SECTIONS



DRIP GROOVE DETAIL AT PIER 7

NOTES

- DIMENSION IS TAKEN PARALLEL TO GIRDER ℄.
- DIMENSION IS TAKEN NORMAL TO ℄ OF SUBSTRUCTURE UNITS.
- ★ STRIP SEAL EXPANSION JOINT AND COVER PLATE. COORDINATE WITH PREFABRICATED TRUSS SUPPLIER FOR OBTAIN NECESSARY DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

SUPERSTRUCTURE SPANS 4 TO 7

SHEET 32 OF 44

136

8

8

FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080132_ss.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 8.0000 '/ in.

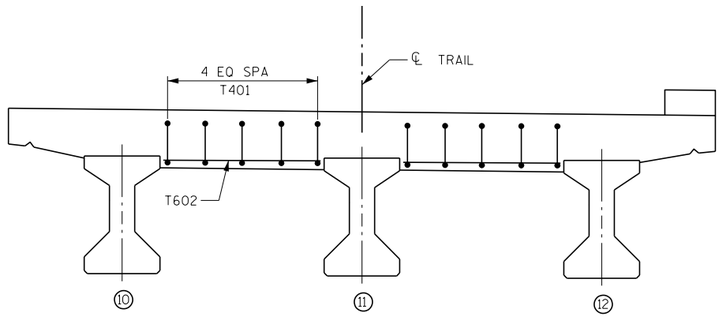
STATE PROJECT NUMBER

5991-07-19

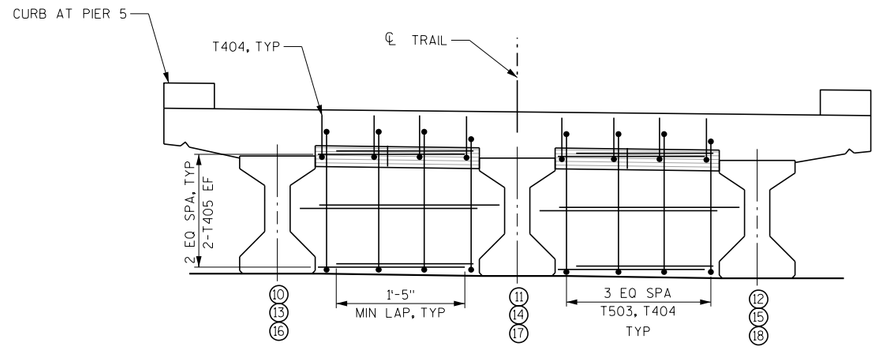
NOTES:

◓ PLACE T406 BARS PARALLEL TO GIRDERS. SPACING GIVEN PERPENDICULAR TO GIRDERS.

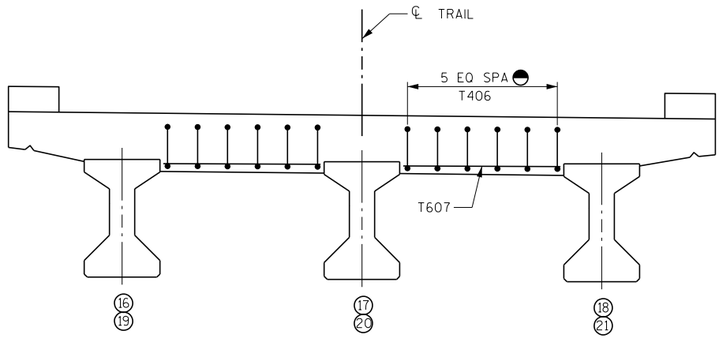
◪ 1/2" FILLER - TO EXTEND FROM EXTERIOR GIRDER BEARING PAD TO END OF DIAPHRAGM. SEALL ALL EXPOSED HORIZONTAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.



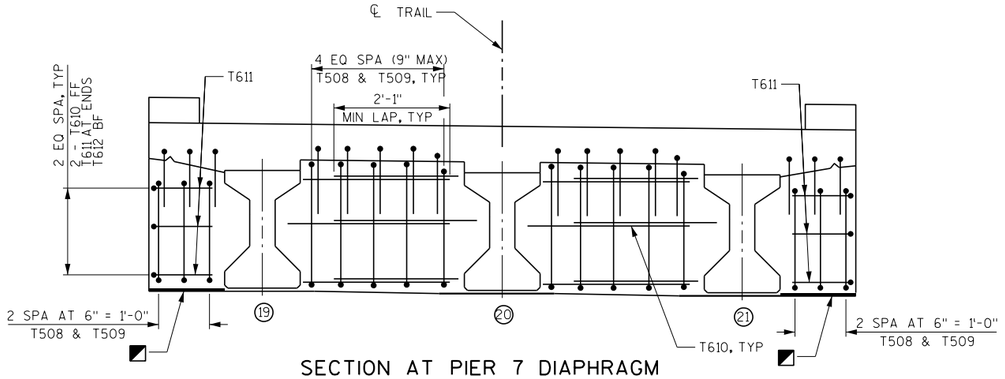
SECTION AT EXPANSION DIAPHRAGM - PIER 3



SECTION AT PIERS 4 & 5



SECTION AT EXPANSION DIAPHRAGM - PIER 6



SECTION AT PIER 7 DIAPHRAGM

8

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NO.	DATE	REVISION	BY

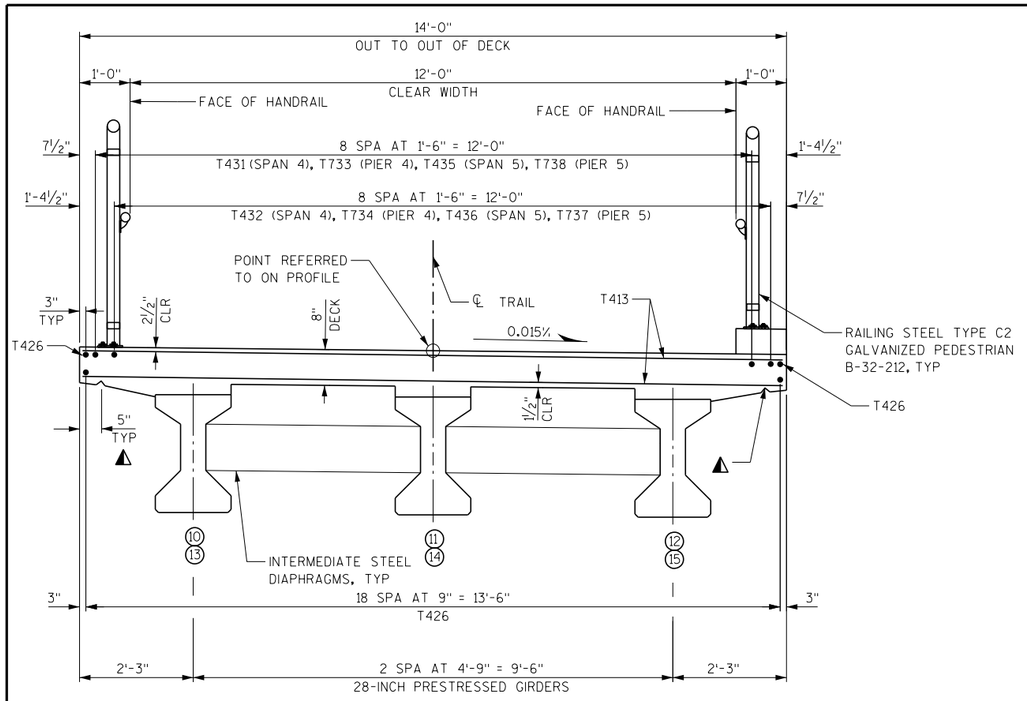
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

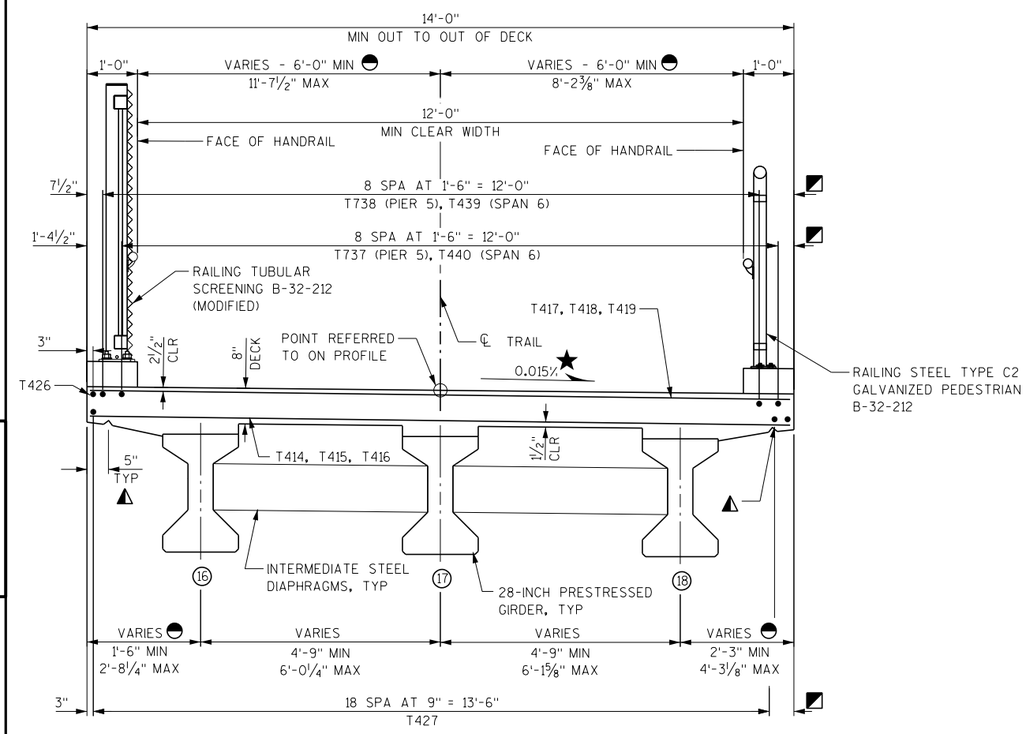
SUPERSTRUCTURE
SPANS 4 TO 7

SHEET 33 OF 44
137



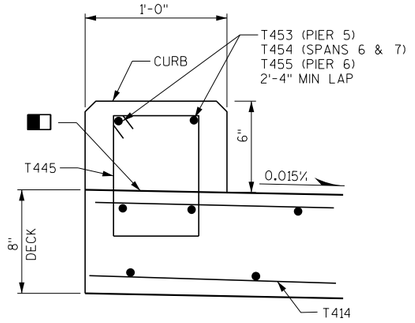
CROSS SECTION THRU BRIDGE

SPANS 4 & 5



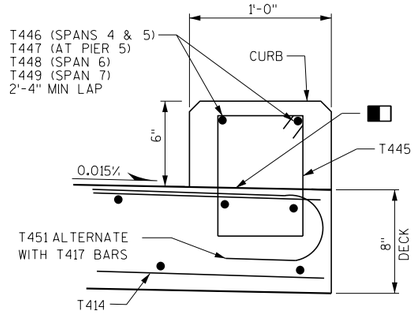
CROSS SECTION THRU BRIDGE

SPAN 6



TYPICAL CURB SECTION

WEST EDGE



TYPICAL CURB SECTION

EAST EDGE

NOTES:

COAT DECK WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS.

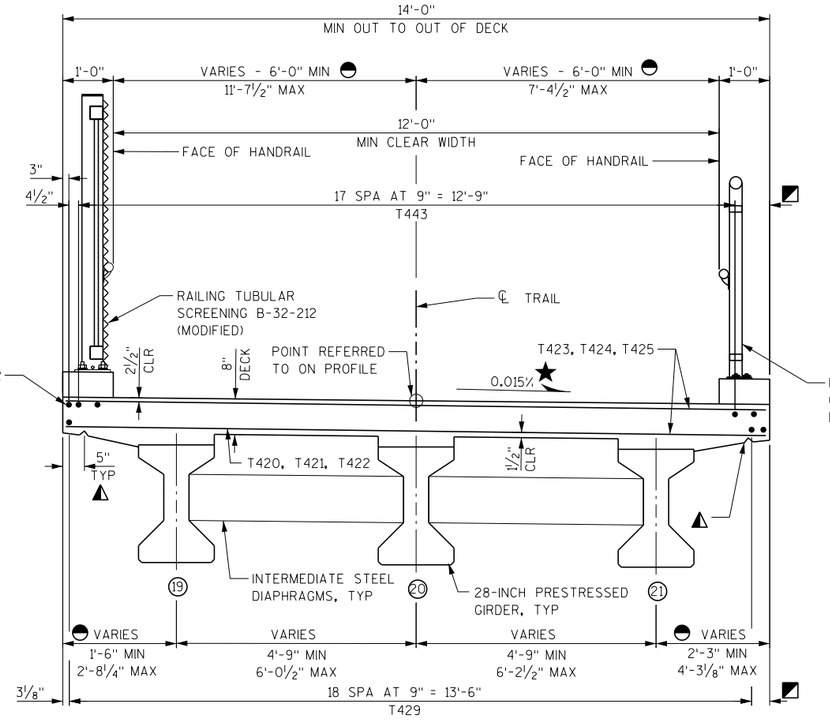
◭ ¾" V-GROOVE. EXTEND TO PIER 7 AS SHOWN ON THE DETAIL ON SHEET 32. TERMINATE 2'-0" FROM ℄ PIER 3 AND 6.

◓ DIMENSIONS MEASURED PERPENDICULAR TO EDGE OF DECK.

◪ SEE DETAILS ON SHEET 31 FOR BARS AND SPACING IN THIS AREA.

★ TRAVERSE SLOPE PERPENDICULAR TO ℄ TRAIL.

◧ CONST. JOINT-STRIKE OFF AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPE.



CROSS SECTION THRU BRIDGE

SPAN 7

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

SUPERSTRUCTURE
SPANS 4 TO 7

SHEET 34 OF 44
138

STATE PROJECT NUMBER
5991-07-19

8

8

STATE PROJECT NUMBER

5991-07-19

GIRDER ELEVATION TABLE

SPAN POINT	GIRDER 10/13/16/19		GIRDER 11/14/17/20		GIRDER 12/15/18/21	
	TD	TG	TD	TG	TD	TG
C/L BRG SPAN 4 AT PIER 3	659.63	658.75	659.56	658.68	659.49	658.61
0.1	659.90	-----	659.83	-----	659.75	-----
0.2	660.16	-----	660.09	-----	660.02	-----
0.3	660.43	-----	660.36	-----	660.29	-----
0.4	660.70	-----	660.63	-----	660.56	-----
0.5	660.97	-----	660.90	-----	660.83	-----
0.6	661.24	-----	661.17	-----	661.10	-----
0.7	661.51	-----	661.43	-----	661.36	-----
0.8	661.77	-----	661.70	-----	661.63	-----
0.9	662.04	-----	661.97	-----	661.90	-----
C/L BRG SPAN 4 AT PIER 4	662.31	661.43	662.24	661.36	662.17	661.28
C/L BRG SPAN 5 AT PIER 4	662.37	661.50	662.30	661.43	662.23	661.35
0.1	662.64	-----	662.57	-----	662.50	-----
0.2	662.91	-----	662.84	-----	662.77	-----
0.3	663.18	-----	663.11	-----	663.04	-----
0.4	663.45	-----	663.38	-----	663.31	-----
0.5	663.72	-----	663.65	-----	663.57	-----
0.6	663.99	-----	663.91	-----	663.84	-----
0.7	664.25	-----	664.18	-----	664.11	-----
0.8	664.52	-----	664.45	-----	664.38	-----
0.9	664.79	-----	664.72	-----	664.65	-----
C/L BRG SPAN 5 AT PIER 5	665.06	664.18	664.99	664.11	664.92	664.04
C/L BRG SPAN 6 AT PIER 5	665.13	664.25	665.05	664.18	664.98	664.11
0.1	665.33	-----	665.24	-----	665.15	-----
0.2	665.53	-----	665.42	-----	665.31	-----
0.3	665.73	-----	665.60	-----	665.47	-----
0.4	665.94	-----	665.79	-----	665.64	-----
0.5	666.12	-----	665.97	-----	665.80	-----
0.6	666.31	-----	666.16	-----	665.99	-----
0.7	666.50	-----	666.36	-----	666.20	-----
0.8	666.68	-----	666.55	-----	666.40	-----
0.9	666.85	-----	666.73	-----	666.60	-----
C/L BRG SPAN 6 AT PIER 6	667.00	666.10	666.90	666.01	666.78	665.78
C/L BRG SPAN 7 AT PIER 6	667.08	666.18	666.98	666.13	666.89	665.90
0.1	667.14	-----	667.05	-----	666.97	-----
0.2	667.21	-----	667.13	-----	667.05	-----
0.3	667.28	-----	667.20	-----	667.13	-----
0.4	667.35	-----	667.27	-----	667.21	-----
0.5	667.42	-----	667.35	-----	667.29	-----
0.6	667.49	-----	667.43	-----	667.37	-----
0.7	667.56	-----	667.50	-----	667.44	-----
0.8	667.63	-----	667.57	-----	667.52	-----
0.9	667.71	-----	667.64	-----	667.58	-----
C/L BRG SPAN 7 AT PIER 6	667.78	666.91	667.71	666.84	667.64	666.78

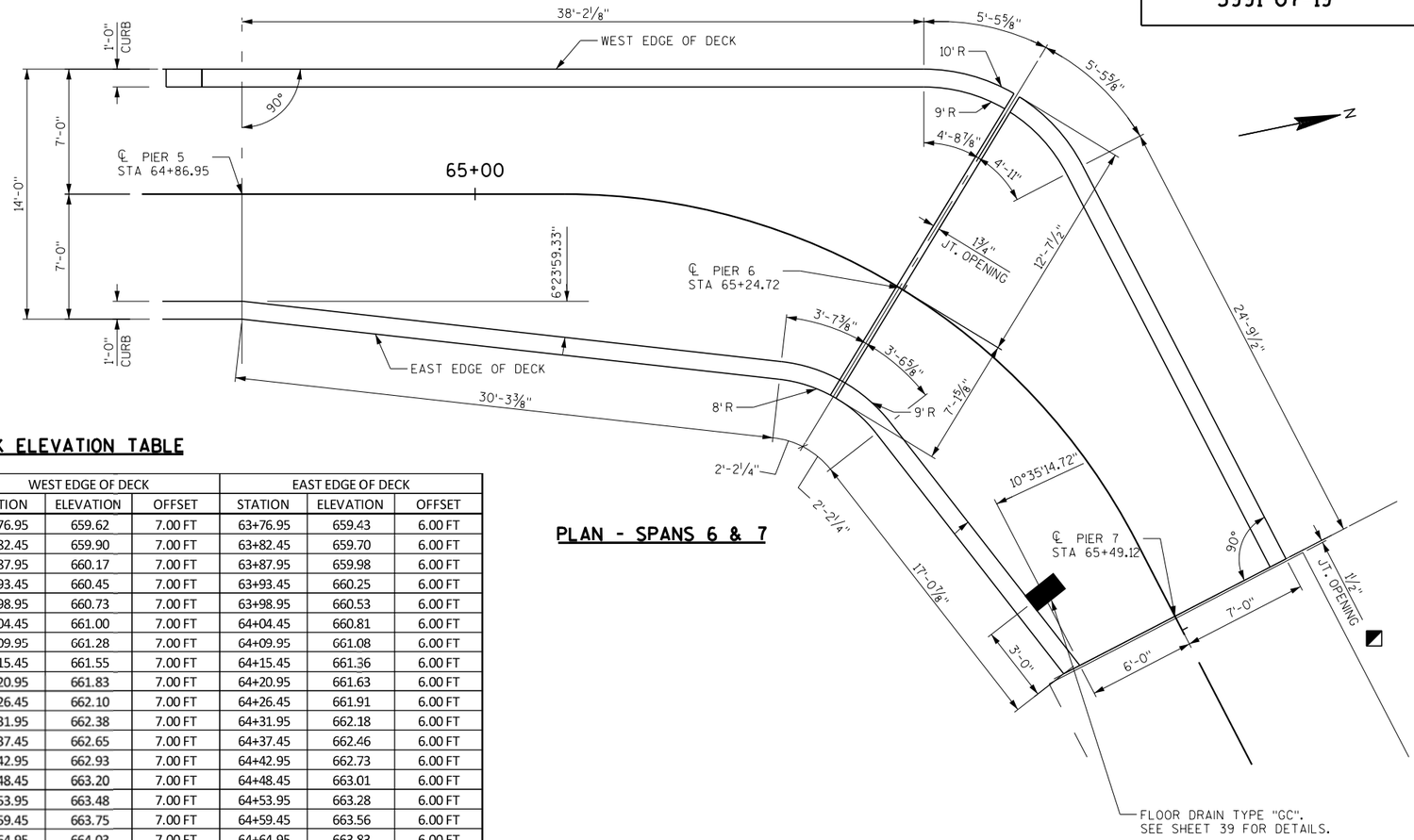
TD = TOP OF DECK
TG = TOP OF GIRDER
BRG = BEARING

NOTES: END GIRDER ELEVATIONS GIVEN AT C/L BEARING
INTERMEDIATE TENTH POINTS ARE TAKEN ALONG GIRDER C/L FROM C/L BRG TO C/L BRG.

EDGE OF DECK ELEVATION TABLE

SPAN POINT	WEST EDGE OF DECK			EAST EDGE OF DECK		
	STATION	ELEVATION	OFFSET	STATION	ELEVATION	OFFSET
C/L PIER 3	63+76.95	659.62	7.00 FT	63+76.95	659.43	6.00 FT
0.1	63+82.45	659.90	7.00 FT	63+82.45	659.70	6.00 FT
0.2	63+87.95	660.17	7.00 FT	63+87.95	659.98	6.00 FT
0.3	63+93.45	660.45	7.00 FT	63+93.45	660.25	6.00 FT
0.4	63+98.95	660.73	7.00 FT	63+98.95	660.53	6.00 FT
0.5	64+04.45	661.00	7.00 FT	64+04.45	660.81	6.00 FT
0.6	64+09.95	661.28	7.00 FT	64+09.95	661.08	6.00 FT
0.7	64+15.45	661.55	7.00 FT	64+15.45	661.36	6.00 FT
0.8	64+20.95	661.83	7.00 FT	64+20.95	661.63	6.00 FT
0.9	64+26.45	662.10	7.00 FT	64+26.45	661.91	6.00 FT
C/L PIER 4	64+31.95	662.38	7.00 FT	64+31.95	662.18	6.00 FT
0.1	64+37.45	662.65	7.00 FT	64+37.45	662.46	6.00 FT
0.2	64+42.95	662.93	7.00 FT	64+42.95	662.73	6.00 FT
0.3	64+48.45	663.20	7.00 FT	64+48.45	663.01	6.00 FT
0.4	64+53.95	663.48	7.00 FT	64+53.95	663.28	6.00 FT
0.5	64+59.45	663.75	7.00 FT	64+59.45	663.56	6.00 FT
0.6	64+64.95	664.03	7.00 FT	64+64.95	663.83	6.00 FT
0.7	64+70.45	664.30	7.00 FT	64+70.45	664.11	6.00 FT
0.8	64+75.95	664.58	7.00 FT	64+75.95	664.38	6.00 FT
0.9	64+81.45	664.85	7.00 FT	64+81.45	664.66	6.00 FT
C/L PIER 5	64+86.95	665.11	6.00 FT	64+86.95	664.93	6.00 FT
0.1	64+90.73	665.30	6.00 FT	64+90.73	665.11	6.42 FT
0.2	64+94.50	665.49	6.00 FT	64+94.50	665.30	6.84 FT
0.3	64+98.28	665.68	6.00 FT	64+98.28	665.48	7.26 FT
0.4	65+02.06	665.87	6.00 FT	65+02.06	665.66	7.69 FT
0.5	65+05.84	666.06	6.01 FT	65+05.84	665.84	8.09 FT
0.6	65+09.61	666.25	6.34 FT	65+09.61	666.03	8.19 FT
0.7	65+13.39	666.45	7.15 FT	65+13.39	666.22	8.00 FT
0.8	65+17.17	666.66	8.50 FT	65+17.17	666.42	7.48 FT
0.9	65+20.94	666.87	10.46 FT	65+20.94	666.62	6.62 FT
C/L PIER 6	65+24.72	667.06	11.63 FT	65+24.72	666.80	6.13 FT
0.1	65+27.16	667.16	11.15 FT	65+27.16	666.90	6.23 FT
0.2	65+29.60	667.24	9.82 FT	65+29.60	666.99	6.63 FT
0.3	65+32.04	667.32	8.60 FT	65+32.04	667.09	6.93 FT
0.4	65+34.48	667.40	7.65 FT	65+34.48	667.17	7.26 FT
0.5	65+36.92	667.47	6.92 FT	65+36.92	667.26	7.37 FT
0.6	65+39.36	667.55	6.42 FT	65+39.36	667.34	7.35 FT
0.7	65+41.80	667.62	6.11 FT	65+41.80	667.42	7.19 FT
0.8	65+44.24	667.69	6.00 FT	65+44.24	667.50	6.91 FT
0.9	65+46.68	667.76	6.00 FT	65+46.68	667.57	6.46 FT
C/L PIER 7	65+49.12	667.82	6.00 FT	65+49.12	667.64	6.00 FT

NOTES: EAST EDGE OF DECK GIVEN TO INSIDE FACE OF CURB.
WEST EDGE OF DECK GIVEN TO INSIDE FACE OF CURB STARTING AT C/L PIER 5.
OFFSET GIVEN PERPENDICULAR TO C/L TRAIL.



PLAN - SPANS 6 & 7

NOTES

◪ DIMENSION TO BE VERIFIED BY CONTRACTOR IN ACCORDANCE WITH PREFABRICATED BRIDGE MANUFACTURER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

SPANS 6 & 7
FORMING DETAILS

SHEET 35 OF 44
139

8

8

STATE PROJECT NUMBER

5991-07-19

BILL OF BARS
SUPERSTRUCTURE, SPANS 4-7

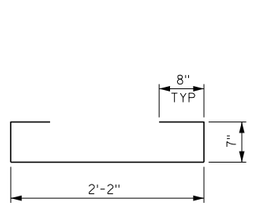
COATED= 14270 LBS.
UNCOATED= 0 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH FT - IN	BENT	BAR SERIES	LOCATION	
T401	10		4 - 4	X		PIER 3 DIAPHRAGM - STIRRUP	VERT
T602	12		2 - 11			PIER 3 DIAPHRAGM - BOTTOM	HORIZ
T503	12		8 - 4	X		PIERS 4 & 5 DIAPHRAGM - STIRRUP	VERT
T404	12		12 - 9	X		PIERS 4 & 5 DIAPHRAGM - DECK HAUNCH	LONG
T405	48		2 - 8			PIERS 4 & 5 DIAPHRAGM - EF	HORIZ
T406	24		4 - 7	X		PIER 6 DIAPHRAGM - STIRRUP	VERT
T607	24		4 - 8			PIER 6 DIAPHRAGM - BOTTOM	HORIZ
T508	16		7 - 5	X		PIER 7 DIAPHRAGM - STIRRUP	VERT
T509	16		5 - 6	X		PIER 7 DIAPHRAGM - DECK TIE	VERT
T610	12		3 - 0			PIER 7 DIAPHRAGM - FF	HORIZ
T611	6		3 - 5	X		PIER 7 DIAPHRAGM - AT ENDS	HORIZ
T612	5		13 - 8			PIER 7 DIAPHRAGM - BF	HORIZ
T413	376		13 - 8			DECK - SPANS 4 & 5 - TOP AND BOTTOM	TRANS
◭ T414	61		15 - 6		X	DECK - SPAN 6 - BOTTOM	TRANS
◭ T415	10		13 - 3		X	DECK - SPAN 6 - BOTTOM	TRANS
◭ T416	8		4 - 9		X	DECK - SPAN 6 - BOTTOM	TRANS
◭ T417	61		15 - 6		X	DECK - SPAN 6 - TOP	TRANS
◭ T418	10		12 - 10		X	DECK - SPAN 6 - TOP	TRANS
◭ T419	7		4 - 10		X	DECK - SPAN 6 - TOP	TRANS
◭ T420	8		5 - 5		X	DECK - SPAN 7 - BOTTOM	TRANS
◭ T421	9		13 - 5		X	DECK - SPAN 7 - BOTTOM	TRANS
◭ T422	36		15 - 7		X	DECK - SPAN 7 - BOTTOM	TRANS
◭ T423	8		4 - 11		X	DECK - SPAN 7 - TOP	TRANS
◭ T424	9		13 - 0		X	DECK - SPAN 7 - TOP	TRANS
◭ T425	36		15 - 7		X	DECK - SPAN 7 - TOP	TRANS
T426	64		40 - 0			DECK - SPANS 4, 5 & 6 - BOTTOM & TOP AT EDGE	LONG
◭ T427	19		34 - 4		X	DECK - SPAN 6 - BOTTOM	LONG
◭ T428	4		18 - 4		X	DECK - SPAN 6 - BOTTOM IN FLARE	LONG
◭ T429	19		25 - 11		X	DECK - SPAN 7 - BOTTOM	LONG
◭ T430	5		9 - 8		X	DECK - SPAN 7 - BOTTOM IN FLARE	LONG
T431	9		41 - 8			DECK - SPAN 4 - TOP	LONG
T432	18		24 - 7			DECK - SPAN 4 - TOP	LONG
T733	9		33 - 4			DECK - OVER PIER 4 - TOP	LONG
T734	9		23 - 6			DECK - OVER PIER 4 - TOP	LONG
T435	9		26 - 10			DECK - SPAN 5 - TOP	LONG
T436	9		34 - 10			DECK - SPAN 5 - TOP	LONG
T737	9		25 - 7			DECK - OVER PIER 5 - TOP	LONG
T738	9		15 - 4			DECK - OVER PIER 5 - TOP	LONG
◭ T439	9		35 - 2		X	DECK - SPAN 6 - TOP	LONG
◭ T440	9		28 - 6		X	DECK - SPAN 6 - TOP	LONG
◭ T441	5		18 - 5		X	DECK - SPAN 6 - TOP IN FLARE	LONG
T442	1		25 - 9			DECK - SPAN 7 - TOP AT EDGE	LONG
◭ T443	18		26 - 0		X	DECK - SPAN 7 - TOP	LONG
◭ T444	5		11 - 5		X	DECK - SPAN 7 - TOP IN FLARE	LONG
T445	241		3 - 6	X		CURB - STIRRUP	VERT
T446	6		38 - 4			EAST CURB - SPANS 4 & 5	LONG
T447	2		22 - 4	X		EAST CURB - SPAN 6	LONG
T448	2		15 - 8	X		EAST CURB - SPAN 6	LONG
T449	2		20 - 2	X		EAST CURB - SPAN 7	LONG
◓ T550	8		5 - 0			DECK - AT DECK DRAIN	HORIZ
T451	97		5 - 1	X		DECK - SPANS 6 & 7 AT EAST EDGE	TRANS
T452	1		3 - 2	X		WEST CURB - STIRRUP IN TRANSITION	VERT
T453	2		21 - 2	X		WEST CURB - TRANSITION	HORIZ
T454	4		24 - 7			WEST CURB - SPANS 6 & 7	HORIZ
T455	4		7 - 2	X		WEST CURB - PIER 6	HORIZ

FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE

BAR DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.



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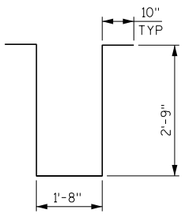

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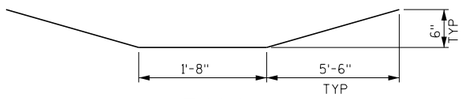

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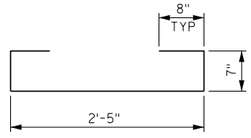

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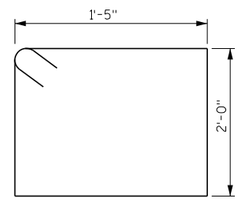

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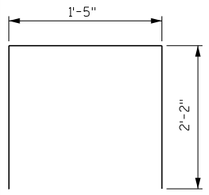

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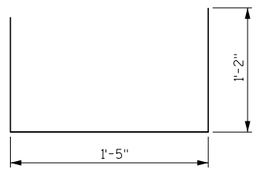

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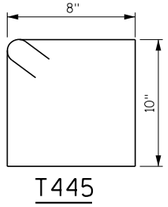

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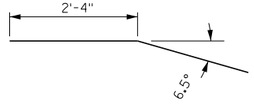

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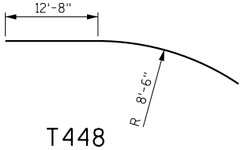

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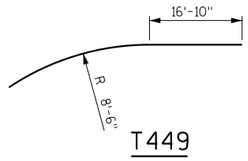

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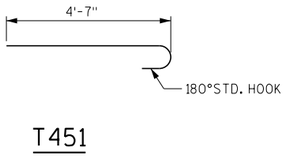
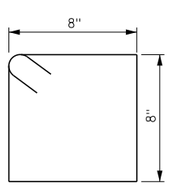


T451

BAR SERIES TABLE ◭

MARK	NO. REQUIRED	LENGTH
T414	1 SERIES OF 61	13'-8" TO 17'-4"
T415	1 SERIES OF 10	9'-3" TO 17'-3"
T416	1 SERIES OF 8	1'-2" TO 8'-4"
T417	1 SERIES OF 61	13'-8" TO 17'-4"
T418	1 SERIES OF 10	8'-9" TO 16'-10"
T419	1 SERIES OF 7	1'-9" TO 7'-10"
T420	1 SERIES OF 8	1'-11" TO 8'-11"
T421	1 SERIES OF 9	9'-10" TO 16'-11"
T422	1 SERIES OF 36	13'-9" TO 17'-4"
T423	1 SERIES OF 8	1'-4" TO 8'-6"
T424	1 SERIES OF 9	9'-5" TO 16'-6"
T425	1 SERIES OF 36	13'-10" TO 17'-4"
T427	1 SERIES OF 19	30'-2" TO 38'-5"
T428	1 SERIES OF 4	7'-7" TO 29'-0"
T429	1 SERIES OF 19	21'-10" TO 30'-0"
T430	1 SERIES OF 5	1'-4" TO 18'-0"
T439	1 SERIES OF 9	31'-6" TO 38'-10"
T440	1 SERIES OF 9	24'-9" TO 32'-1"
T441	1 SERIES OF 5	4'-1" TO 32'-8"
T443	1 SERIES OF 18	22'-1" TO 29'-10"
T444	1 SERIES OF 5	2'-7" TO 20'-3"



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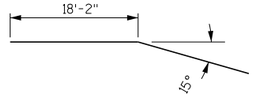

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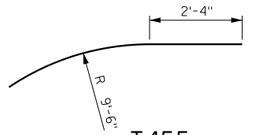


T455

NOTES

◭ LENGTH SHOWN IS AN AVERAGE LENGTH FOR USE IN CALCULATING BAR WEIGHT ONLY. SEE BARS SERIES TABLE FOR ACTUAL LENGTHS.

◓ SEE SHEET 39 FOR PLACEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

SUPERSTRUCTURE
SPANS 4 TO 7

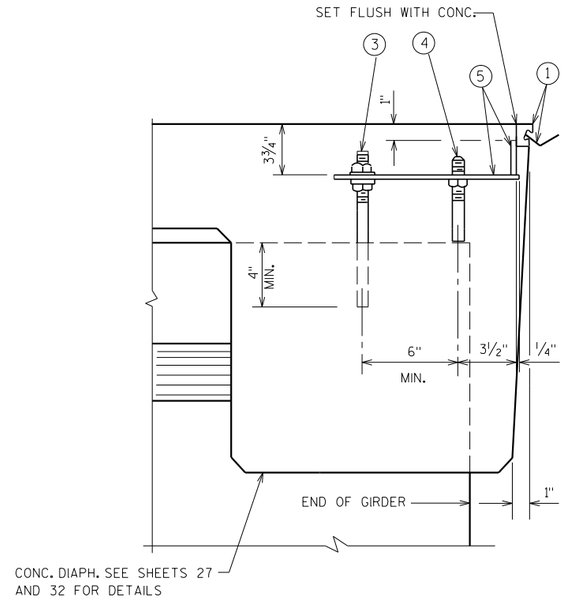
SHEET 36 OF 44
140

8

FILE NAME : X:±12035-00±121490.01±TECH±CAD±drawings±B-32-212±080136_ss.dgn PLOT DATE : 4/18/2014 PLOT BY : 1258MJB PLOT SCALE : 6.0000 '/ in.

STATE PROJECT NUMBER

5991-07-19



PART SECTION THRU JOINT AT PRESTRESSED GIRDERS

NORMAL TO ℄ SUBSTRUCTURE

LEGEND

▲ (1) NEOPRENE STRIP SEAL (1¾-INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1¾".

(2) STUDS ⅝" DIA. x 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. FOR PRESTRESSED GIRDERS, GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER.

(4) ¾" DIA. 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. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.

NOTES

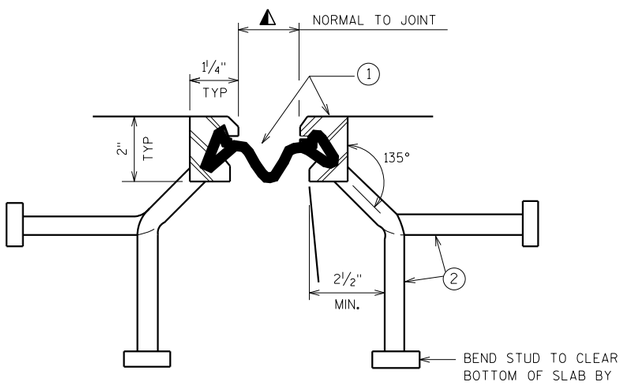
ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

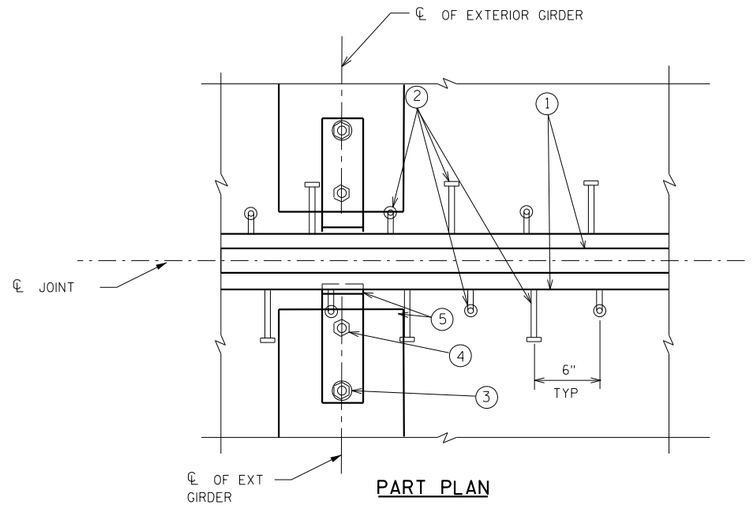
FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

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-32-212".



SECTION THRU JOINT



PART PLAN

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

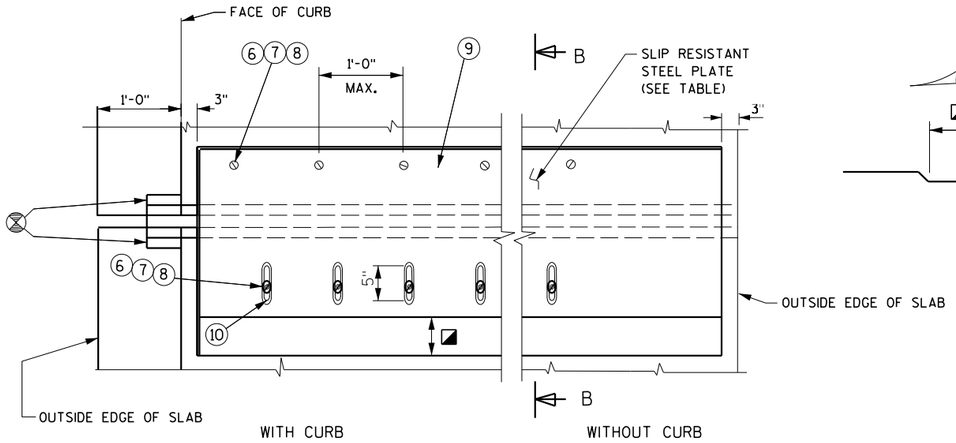
STRIP SEAL EXPANSION JOINT DETAILS

SHEET 37 OF 44

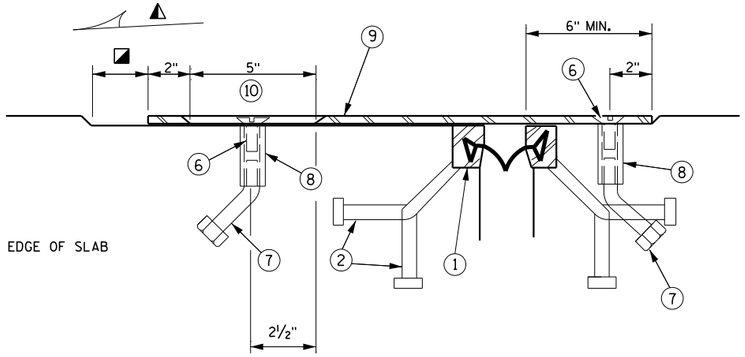
141

STATE PROJECT NUMBER

5991-07-19



PLAN VIEW



SECTION B-B

LEGEND

SEE SHEET 37 FOR LEGEND FOR ITEMS (1) & (2)

(6) ¾" DIA. x 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(7) ¾" DIA. x 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(8) ¾" DIA. x 2¼" GALVANIZED THREADED COUPLING.

(9) SIDEWALK COVER PLATE ⅜" x 2'-0" WIDE x LIMITS SHOWN.

(10) 1" x 5" SLOTTED COUNTERSUNK HOLE FOR NO. 6. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

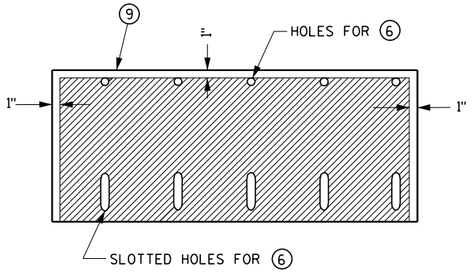
SANDBLAST PLATES AFTER FARBRICATION IN ACCORDANCE WITH SSPC SP #6 "COMMECIAL BLAST CLEANING". AFTER BLAST CLAENING, SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMEDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ANCHOR SYSTEM NO. 7 & NO. 8 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING

◪ JOINT OPENING DIM. ALONG SKEW PLUS ½"

◭ IF POSSIBLE, PLACE SLOTTED HOLE (10) ON DOWNHILL SIDE OF JOINT.

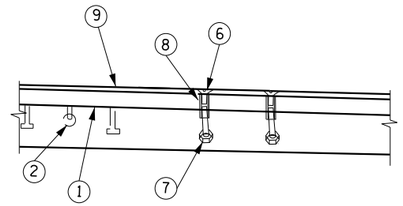


PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

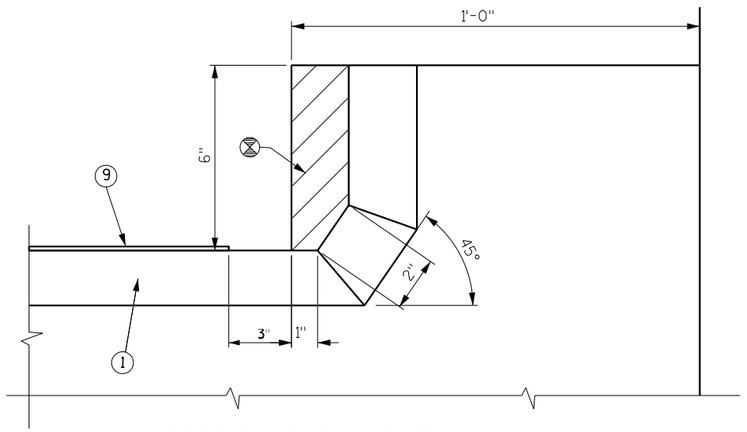
PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY.

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

SIDEWALK EXPANSION JOINT COVER PLATES MUST BE SLIP RESISTANT STEEL PLATE. CHECKER PLATE OR DIAMOND PLATE IS NOT ALLOWED NOR ARE SLIP RESISTANT TAPES, FILMS AND NON-METALLIC COATINGS.



TYPICAL SECTION



SECTION THRU JOINT
(AT CURB)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

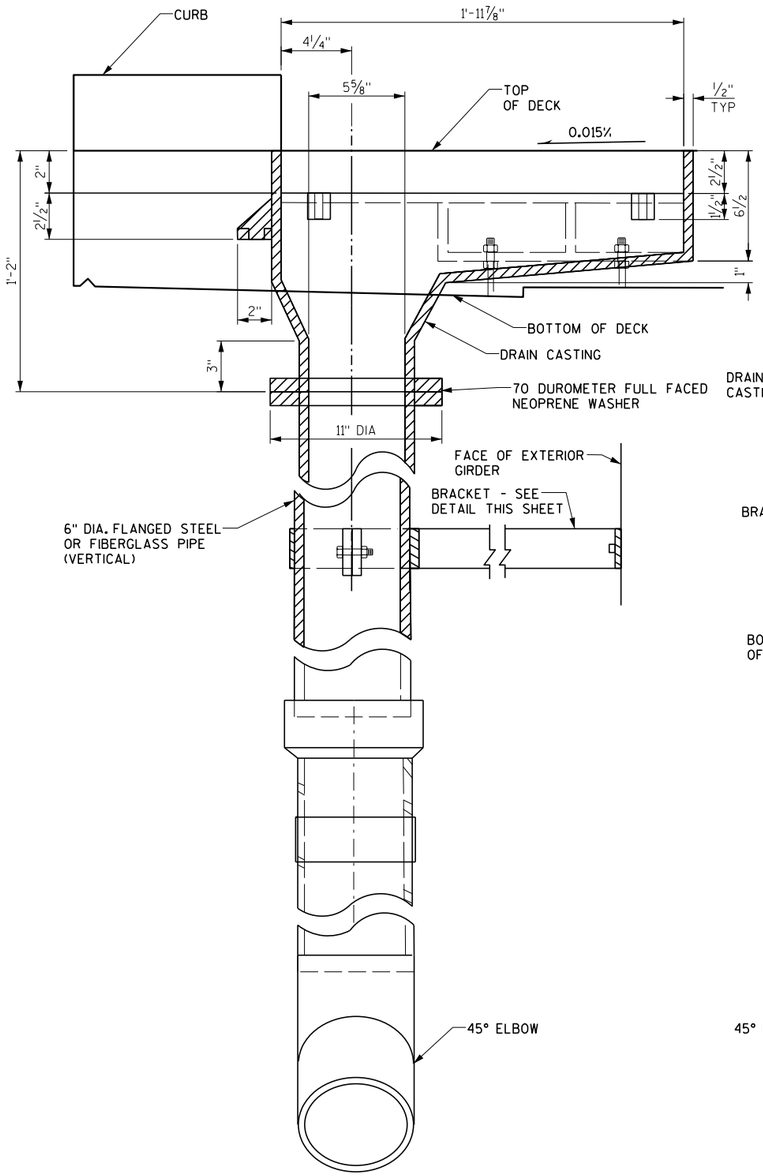
DRAWN BY TAV | PLANS CK'D. GAR

STRIP SEAL COVER PLATE DETAILS

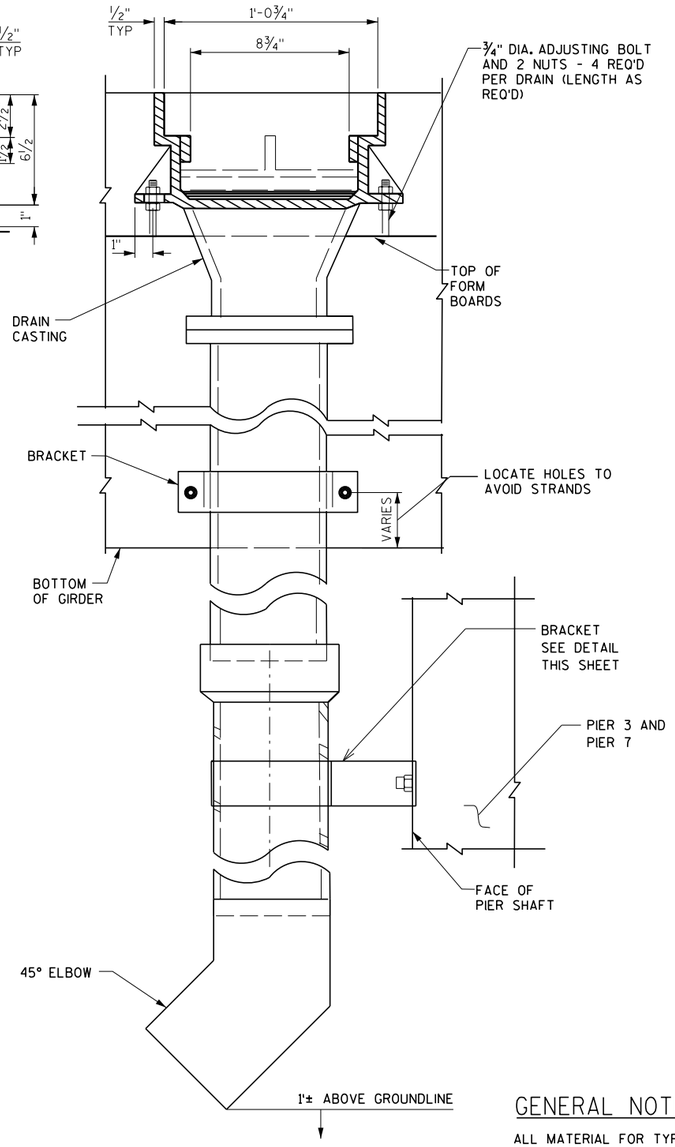
SHEET 38 OF 44
142

STATE PROJECT NUMBER

5991-07-19

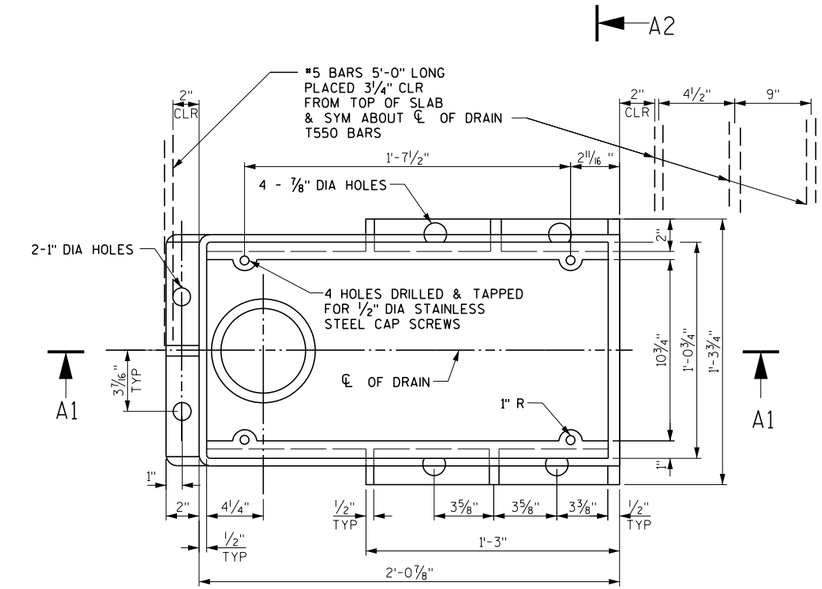


SECTION A1

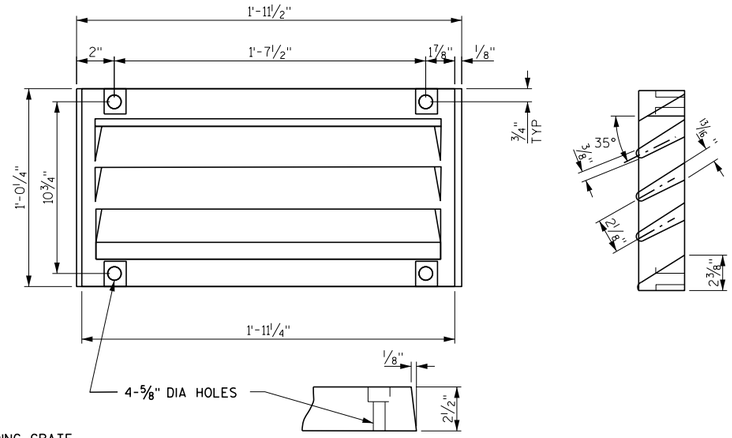


SECTION A2

TRANS. AND LONGIT. SLAB BAR REINF. TO BE CUT A MAX. OF 1" CLR FROM DRAIN FRAME. DISPLACE BARS WHERE POSSIBLE.

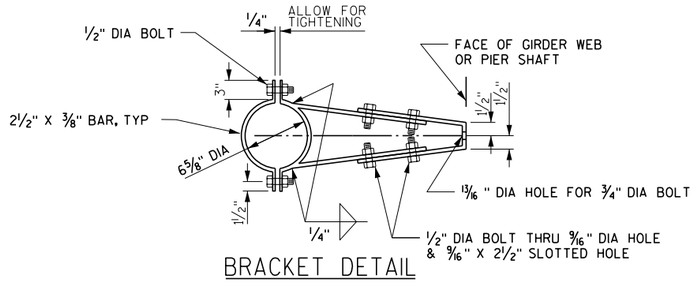


PLAN



GRATE CASTING DETAIL

ATTACH GRATE TO FRAME FOR SHIPMENT



BRACKET DETAIL

GENERAL NOTES

ALL MATERIAL FOR TYPE "GC" CASTINGS, EXCLUDING GRATE HOLD DOWN SCREWS, SHALL BE GRAY IRON CONFORMING TO ASTM A48, CLASS 30. (APPROXIMATE WEIGHT = 225#)

MATERIAL FOR BRACKETS SHALL CONFORM TO ASTM A36.

THE CONTRACTOR MAY PROPOSE AN ALTERNATE TYPE OF BRACKET. THE PROPOSED ALTERNATE DETAILS SHALL BE SUBMITTED AND SUBJECT TO THE APPROVAL OF THE ENGINEER.

FLANGED 6" DIA. DOWNSPOUTS SHALL BE EITHER STEEL OR REINFORCED THERMOSETTING RESIN PIPE CONFORMING TO SECTION 514 OF THE STANDARD SPECIFICATIONS.

ALL MATERIAL FOR FLOOR DRAINS AS SHOWN ON THIS SHEET SHALL BE INCLUDED IN THE BID ITEM "FLOOR DRAINS TYPE GC".

ALL MATERIAL FOR DOWNSPOUTS AND BRACKETS SHALL BE INCLUDED IN THE BID ITEM "DOWNSPOUT 6-INCH".

SPLASH PADS REQUIRED AT BOTTOM OF DOWNSPOUTS. SEE ROAD PLANS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY	PLANS CK'D.
TAV	GAR

FLOOR DRAIN TYPE "GC"

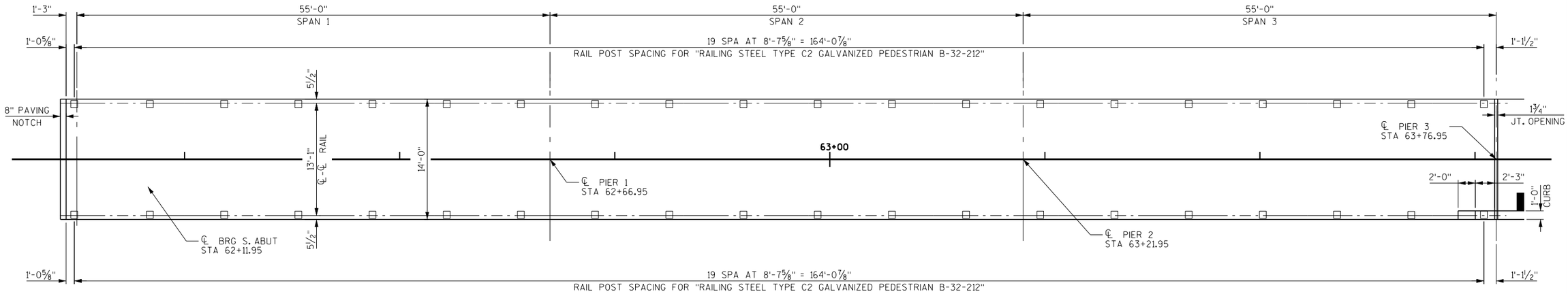
SHEET 39 OF 44
143

8

8

STATE PROJECT NUMBER

5991-07-19



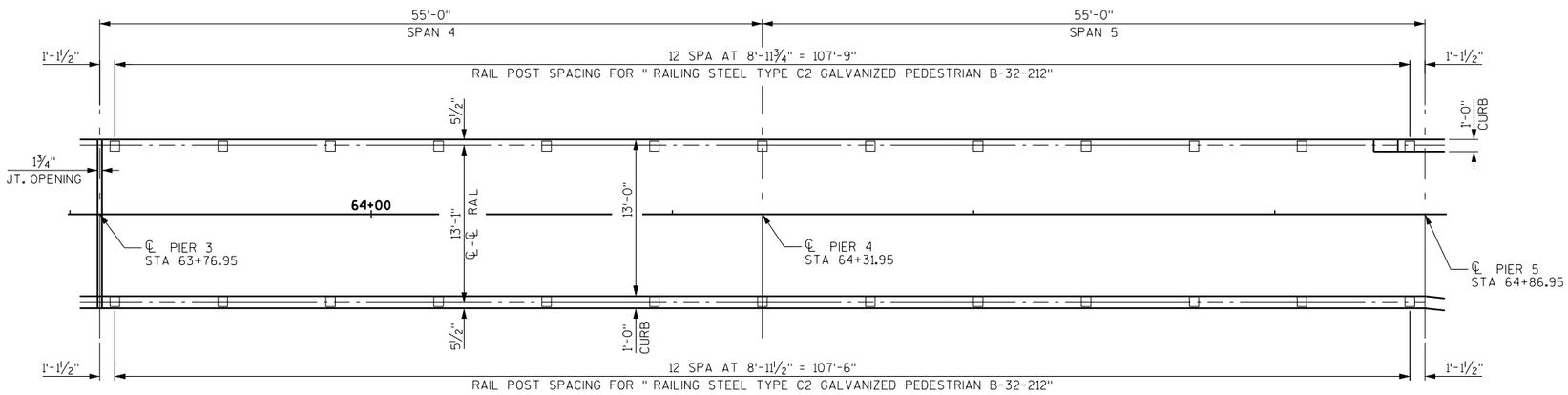
RAIL POST SPACING FOR SPANS 1 TO 3

N

NOTES:

POST SPACING IS MEASURED ALONG THE ℄ OF THE POST.

SEE SHEETS 42 & 43 FOR RAILING DETAILS.



RAIL POST SPACING FOR SPANS 4 & 5

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

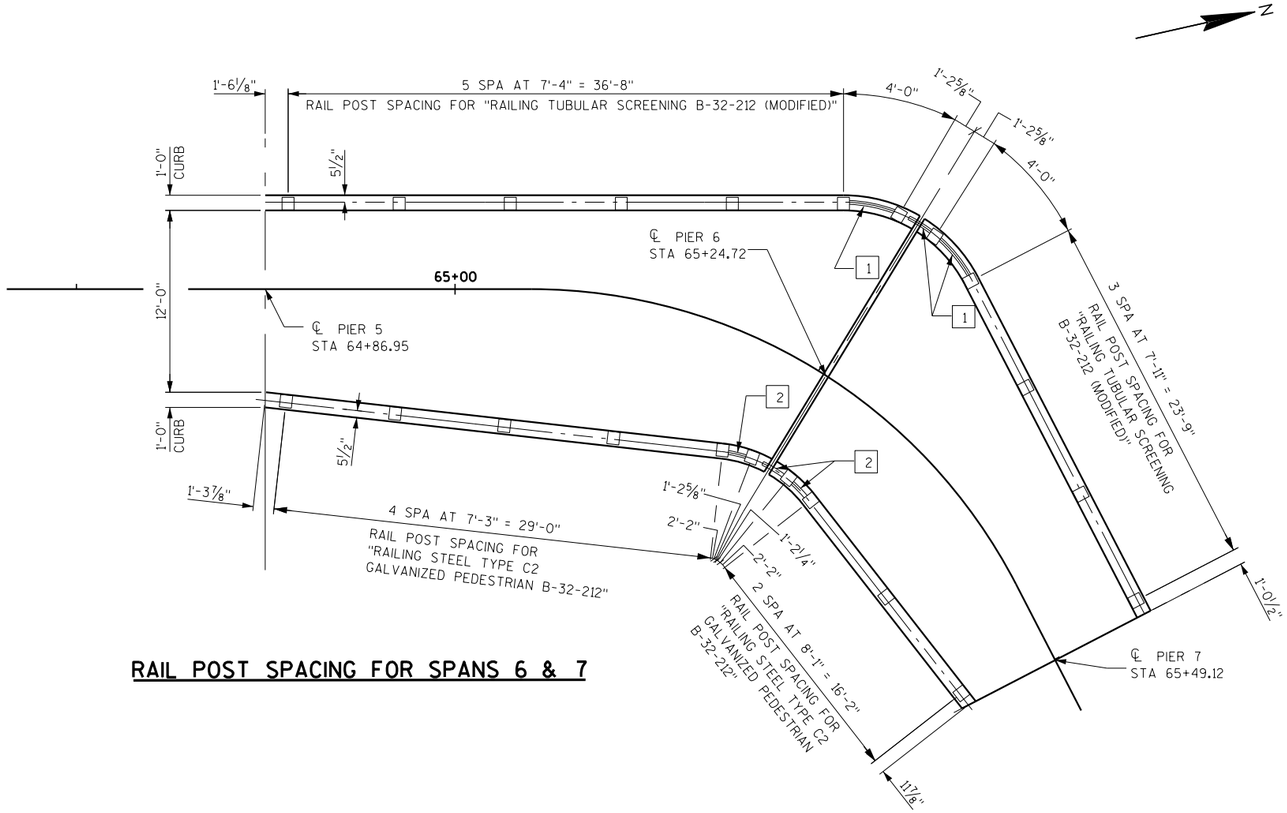
STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

RAILPOST SPACING
SPANS 1 TO 5

SHEET 40 OF 44
144

STATE PROJECT NUMBER
5991-07-19



RAIL POST SPACING FOR SPANS 6 & 7

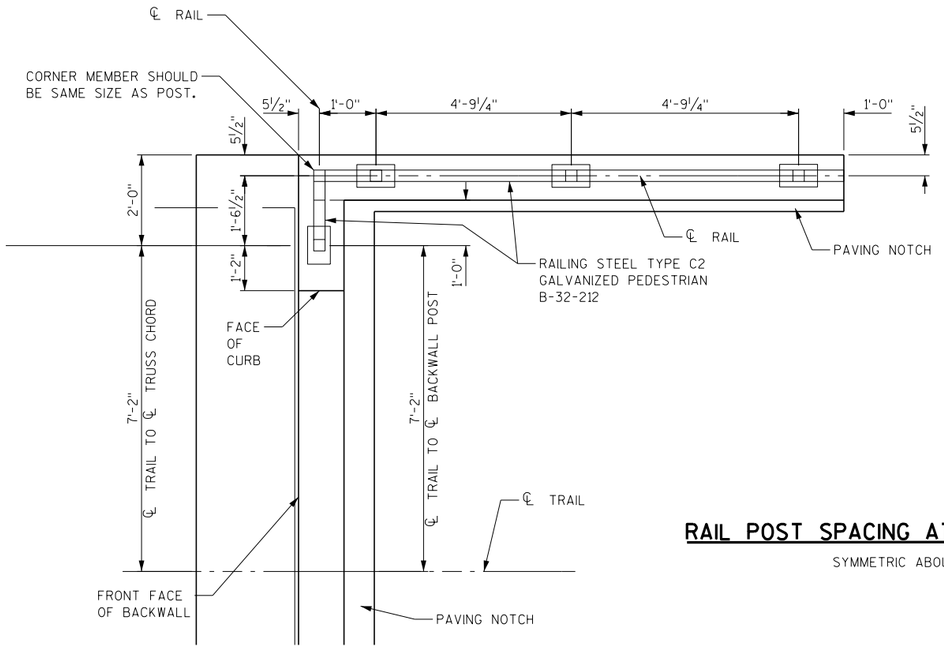
NOTES;

POST SPACING IS MEASURED ALONG THE ℄ OF THE POST.

SEE SHEETS 42 & 43 FOR RAILING DETAILS.

1 "RAILING TUBULAR SCREENING B-32-212 (MODIFIED)". BEND TO A 9'-6½" RADIUS AS MEASURED AT ℄ OF RAIL.

2 "RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN B-32-212". BEND TO 8'-5½" RADIUS AS MEASURED AT ℄ OF RAIL.



RAIL POST SPACING AT NORTH ABUTMENT

SYMMETRIC ABOUT ℄ TRAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

RAILPOST SPACING
SPANS 6 & 7

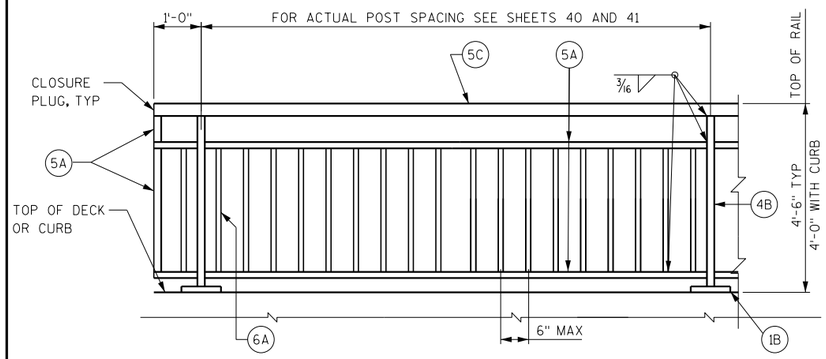
SHEET 41 OF 44
145

8

8

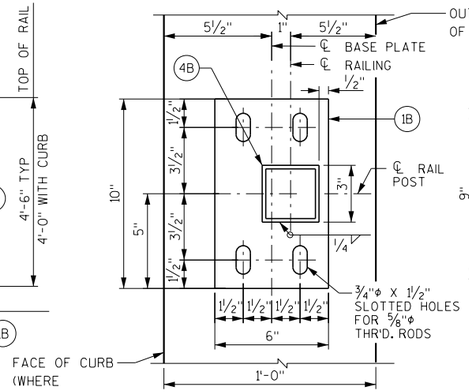
STATE PROJECT NUMBER

5991-07-19



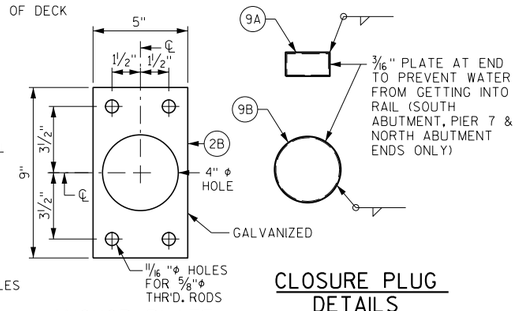
ELEVATION TYPE C2

(HANDRAIL NOT SHOWN)



TYPICAL RAIL POST BASE PLATE

FOR 3" X 3" X 3/16" POSTS (4B)



ANCHOR PLATE

FOR 3" X 3" X 3/16" POSTS (4B)

CLOSURE PLUG DETAILS

NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN B-32-212", WHICH SHALL INCLUDE ALL STEEL 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 CUTS.

NO. 1, 2, 6, 9 AND NO. 10 SHALL CONFORM TO ASTM A709 GRADE 36. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B (NO. 4 AND NO. 5).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

◪ CAULK AROUND PERIMETER OF BASE PLATES NO. 1B AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATE NO. 1B WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

VENT HOLES SHALL BE DRILLED IN RAIL MEMBERS AND POSTS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

ALL MATERIAL (EXCEPT NO. 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER WITH APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE "BRIDGE SPECIAL PROVISIONS". THE RAIL SHALL BE PAINTED FEDERAL STANDARD COLOR NO. 20059.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

▲ 90°51'34" FOR WEST RAILING
89°08'26" FOR EAST RAILING

LEGEND

(1B) PLATE 5/8" X 6" X 10" WITH 3/4" X 1 1/2" SLOTTED HOLES.

(2B) 1/4" X 5" X 9" ANCHOR PLATE WITH 11/16 " Φ HOLES FOR THR'D. RODS NO. 3

(3) 5/8" DIA. X 8" LONG (WITHOUT CURB), 1'-2" LONG (WITH CURB) TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. (ALTERNATE RAIL POST ANCHORAGE: 4 EQUIVALENT STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S, 5/8-INCH. EMBED A MIN. OF 7" FOR RAIL POSTS.)

(4B) STRUCTURAL TUBING 3" X 3" X 3/16" POSTS. PLACE VERTICAL. WELD TO NO. 1 & NO. 5.

(5A) STRUCTURAL TUBING 3" X 1 1/2" X 3/16" RAILS. WELD TO NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION AND EXPANSION JOINTS.

(5C) STRUCTURAL TUBING 2 1/2" Φ (STANDARD SIZE) (2.875" O.D.). WELD TO NO. 4 & NO. 5A. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.

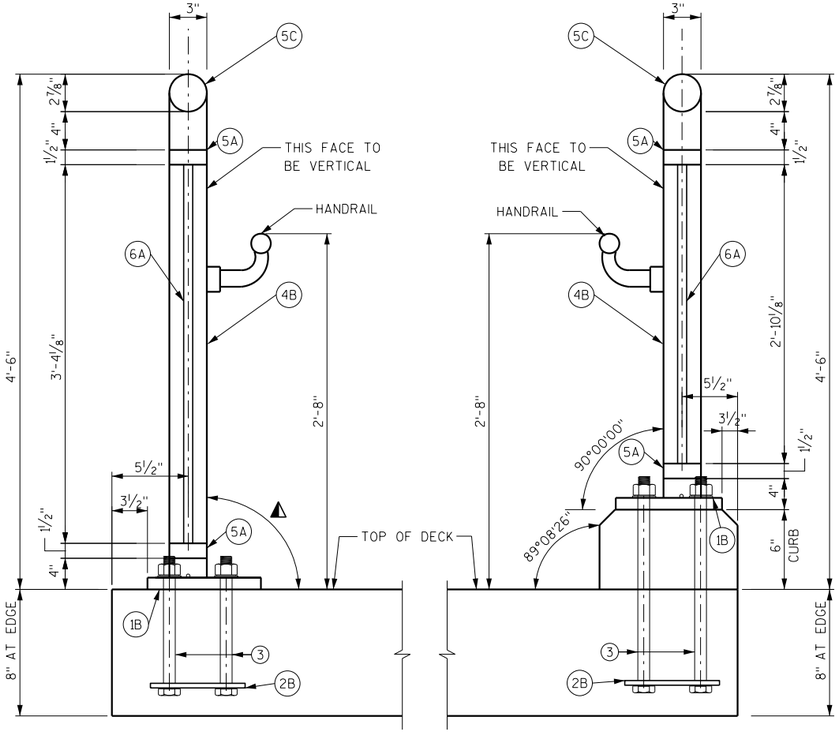
(6A) BAR 1" X 1" PICKETS. WELD TO NO. 5. SPACE AT 6" MAX. ℄ TO ℄ SPACING. PLACE VERTICAL.

(9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".

(9B) CIRCULAR SLEEVE FABRICATED FROM STRUCTURAL TUBING 2" Φ (STANDARD SIZE) (2.375" O.D.).

(10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.)

(10B) CIRCULAR SLEEVE FABRICATED FROM STRUCTURAL TUBING 2" Φ (STANDARD SIZE) (2.375" O.D.). (1'-4" @ FIELD ERECTION JTS.) (1'-4" @ STRIP SEAL EXP. JTS.)



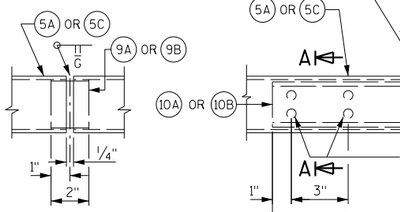
SECTION WITHOUT CURB

SECTION WITH CURB

SECTION THRU RAILING

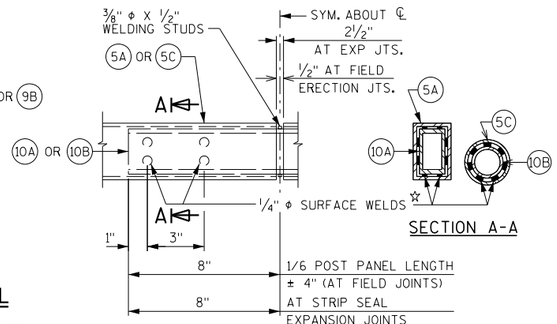
● PLASTIC WASHERS USED TO SEPARATE S.S. WASHER & GALV. STL. ANCHOR PLATE

★ 4 1/2" TYP EXCEPT 10 1/2" AT CURB SECTIONS



SHOP RAIL SPLICE DETAIL

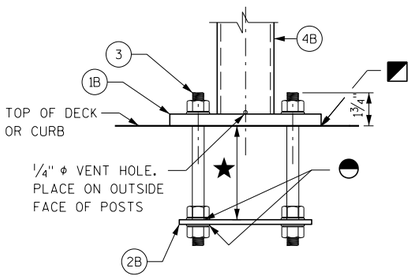
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



SECTION A-A

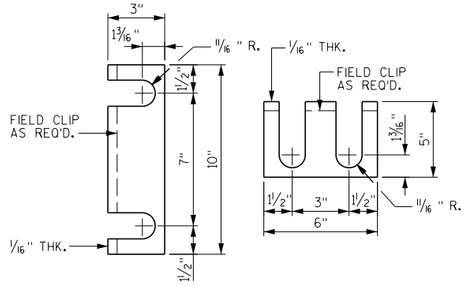
FIELD ERECTION JOINT DETAIL

☆ MIN. 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



ANCHORAGE FOR RAIL POSTS

NOTE: ANCHOR PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.



RAIL POST SHIM DETAIL

(2 SETS PER POST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

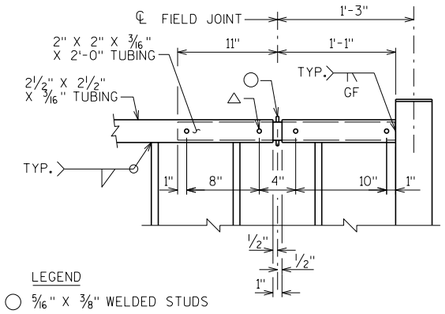
RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN

SHEET 42 OF 44

146

8

8

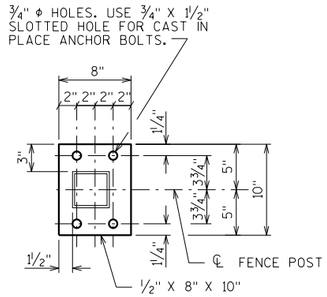


LEGEND

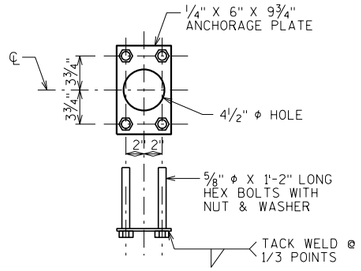
○ 5/16" X 3/8" WELDED STUDS

△ WELD BEAD ON EACH SIDE OF TUBE. GRIND BEADS SO THAT SLEEVE FITS FREELY INSIDE THE 2½" X 2½" TUBE.

RAILING EXPANSION JOINT DETAIL



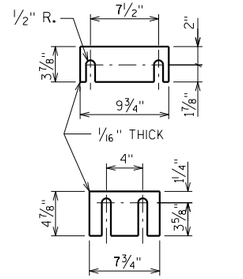
BASE PLATE



ANCHORAGE DETAIL

⅝" ϕ CAST-IN-PLACE ANCHOR BOLTS. MASONRY ANCHORS MAY BE SUBSTITUTED FOR C.I.P. ANCHOR BOLTS. ANCHORAGE PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.

MASONRY ANCHOR TYPE S ⅝-INCH. EMBED 7" IN CONCRETE.



SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST

NOTES

BID ITEM SHALL BE "RAILING TUBULAR SCREENING B-32-212 (MODIFIED)" WHICH SHALL INCLUDE ALL FRAME WORK, HANDRAIL, FENCE FABRIC, PAINTING AND 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 MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAINLING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER WITH APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE "BRIDGE SPECIAL PROVISIONS". THE RAILING SHALL BE PAINTED FEDERAL STANDARD COLOR NO. 20059.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPACES ARE TAKEN HORIZONTALLY 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 ASTM 307 IS USED ALL SHALL BE GALVANIZED.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING.

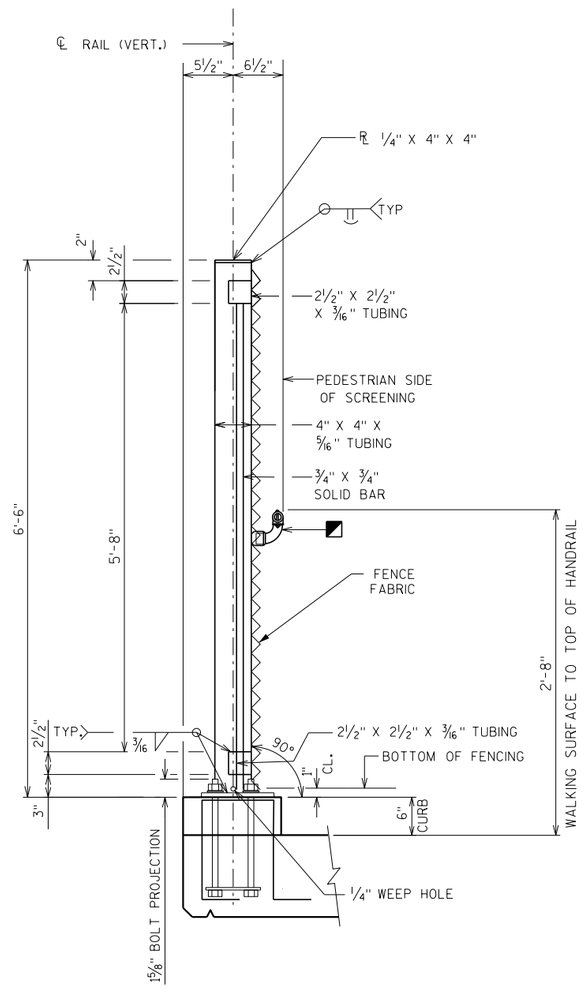
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE NOT MORE THAN 3 POSTS.

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.

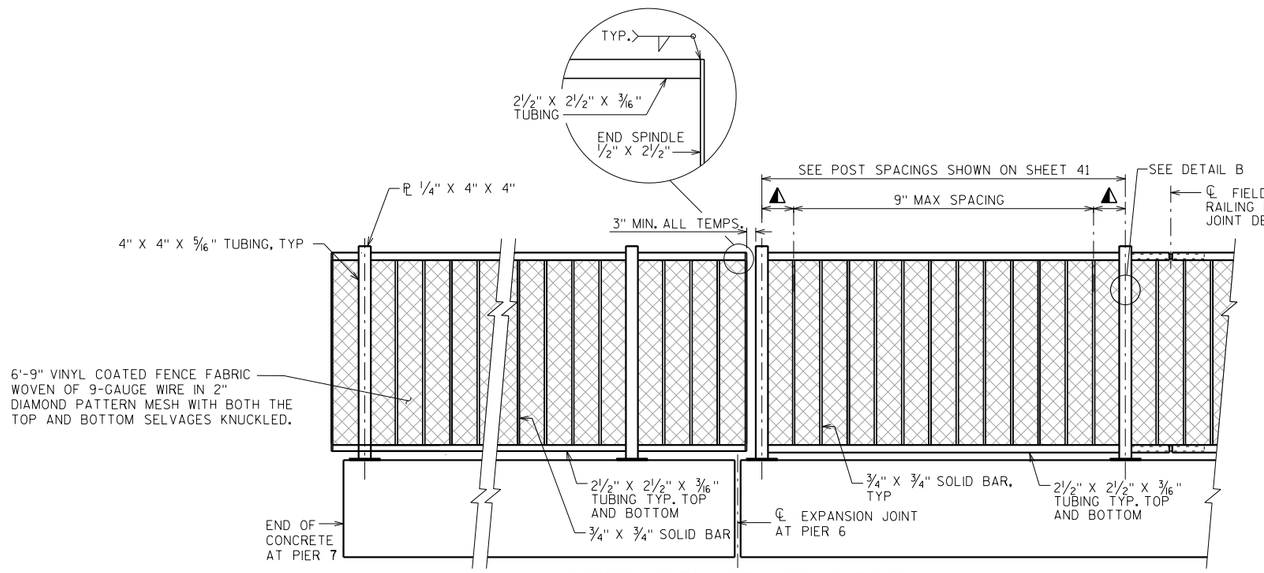
TOUCH UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

⚠ SPACES TO BE THE SAME, MAXIMUM OF 10½".

◪ SEE SHEET 44 FOR HANDRAIL DETAILS.

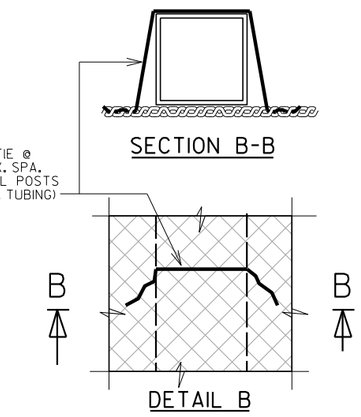


SECTION THRU RAILING



INSIDE ELEVATION OF RAILING

(HANDRAIL NOT SHOWN)



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STATE PROJECT NUMBER

5991-07-19

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

RAILING TUBULAR SCREENING (MODIFIED)

SHEET 43 OF 44

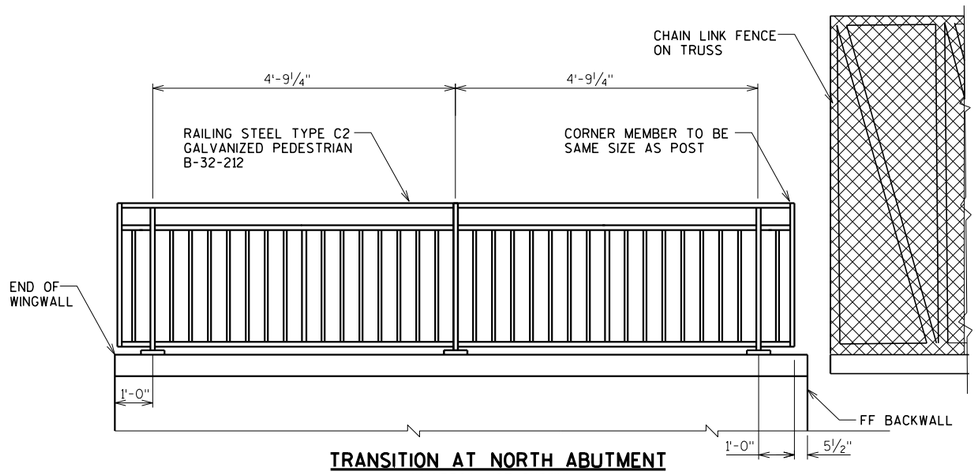
147

8

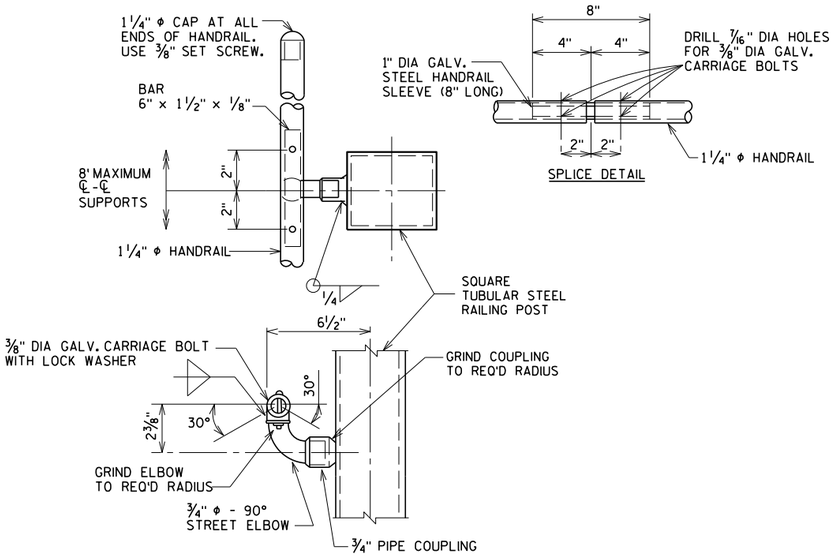
8

STATE PROJECT NUMBER

5991-07-19



TRANSITION AT NORTH ABUTMENT
(HANDRAIL NOT SHOWN)



HANDRAIL DETAILS

NOTES

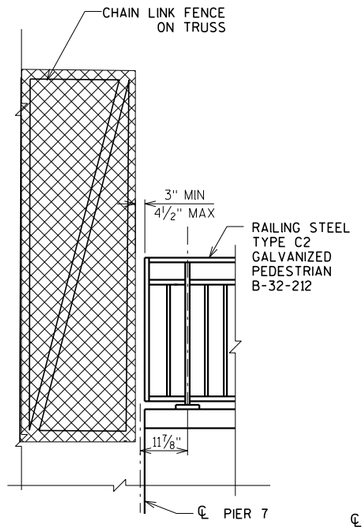
HANDRAILS SHALL BE CONTINUOUS EXCEPT AT EXPANSION JOINTS WHERE ENDS SHALL BE CAPPED.

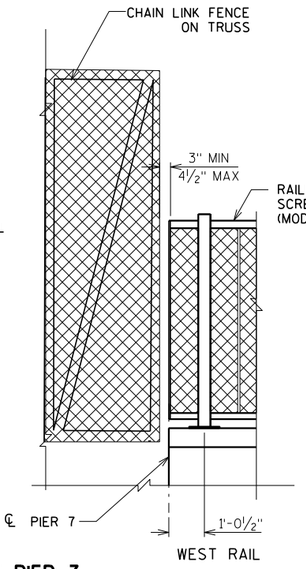
TOP OF HANDRAIL GRIPPING SURFACES SHALL BE MOUNTED BETWEEN 30" AND 32" ABOVE WALKING SURFACE.

SEE SHEET 42 FOR RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN DETAILS.

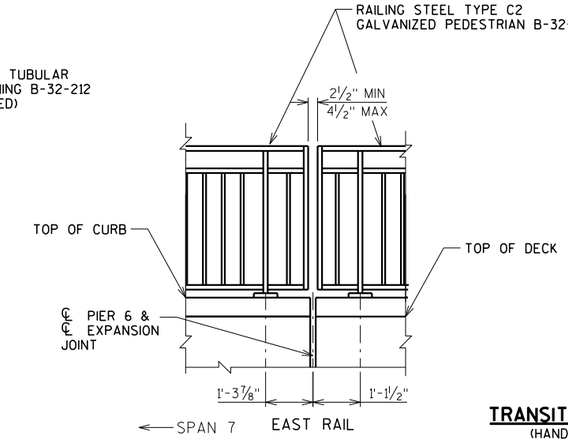
SEE SHEET 43 FOR RAILING TUBULAR SCREENING (MODIFIED) DETAILS.

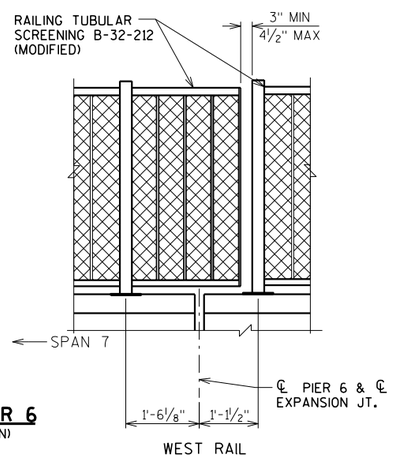
POST SPACING IS MEASURED ALONG THE CENTERLINE OF POSTS. SEE SHEETS 40 AND 41 FOR SPACING.



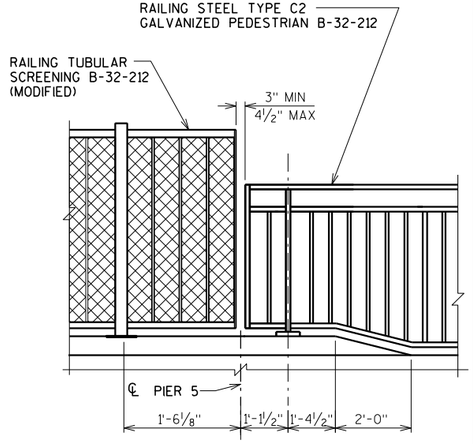


TRANSITION AT PIER 7
(HANDRAIL NOT SHOWN)

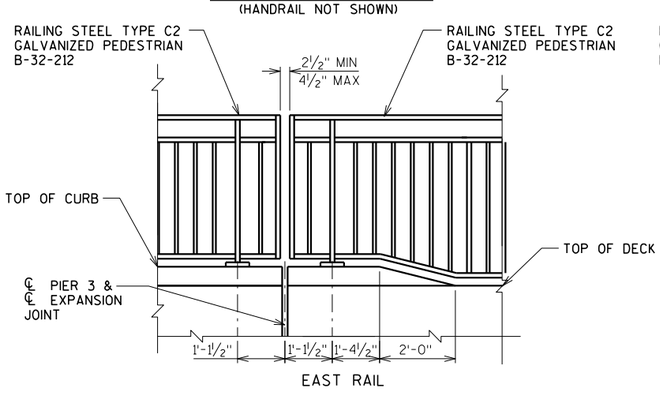


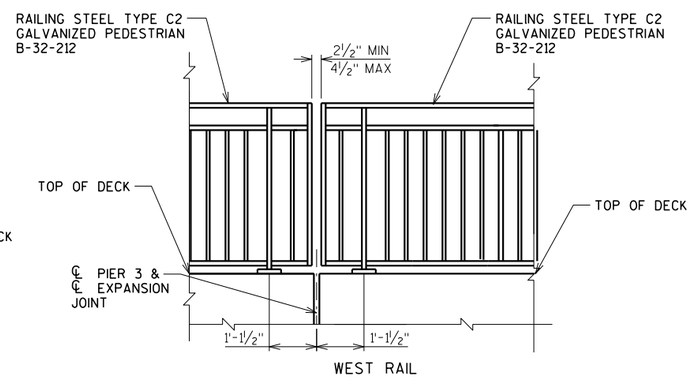


TRANSITION AT PIER 6
(HANDRAIL NOT SHOWN)

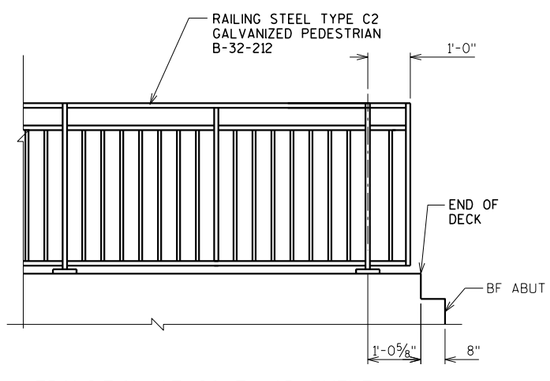


TRANSITION AT PIER 5 - WEST RAIL
(HANDRAIL NOT SHOWN)





TRANSITION AT PIER 3
(HANDRAIL NOT SHOWN)



TRANSITION AT SOUTH ABUTMENT
(HANDRAIL NOT SHOWN)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-212

DRAWN BY TAV | PLANS CK'D. GAR

PEDESTRIAN OVERPASS RAILING DETAILS

SHEET 44 OF 44
148

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5991-05-09 M/L

STATION	AREA (SF) Cut	Salvaged/Unusable Pavement Material	Fill	Incremental Vol (CY) (Unadjusted) Cut	Salvaged/Unusable Pavement Material	Usable Material	Fill	Cumulative Vol (CY) Cut 1.00	Usable Material 1.00	Expanded Fill 1.25	Mass Ordinate
10+00	40.0	0	0.0	0	0	0	0	0	0	0	0
10+50	35.5	0	0.0	70	0	70	0	70	70	0	70
11+00	22.9	0	0.0	54	0	54	0	124	124	0	124
11+50	24.0	0	0.0	43	0	43	0	167	167	0	167
12+00	1.4	0	15.3	24	0	24	14	191	191	18	173
12+50	0.0	0	11.5	1	0	1	25	192	192	49	143
13+00	14.0	0	0.6	13	0	13	11	205	205	63	142
13+50	14.5	0	0.3	26	0	26	1	232	232	64	168
14+00	12.5	0	0.2	25	0	25	0	257	257	64	192
14+50	16.9	0	0.2	27	0	27	0	284	284	65	219
15+00	16.4	0	0.2	31	0	31	0	315	315	65	249
15+50	9.3	0	0.6	24	0	24	1	338	338	66	272
16+00	12.6	2.0	0.0	20	2	18	1	359	357	67	290
17+00	10.8	2.0	0.1	43	7	36	0	402	393	67	326
17+50	8.7	2.0	0.8	18	4	14	1	420	407	68	339
18+00	8.3	2.0	0.9	16	4	12	2	436	419	70	349
18+50	4.1	2.0	2.1	11	4	8	3	447	427	74	353
19+00	6.1	0	1.8	9	2	8	4	457	435	78	356
19+50	10.3	0	0.2	15	0	15	2	472	450	80	369
20+00	10.7	0	0.3	19	0	19	0	491	469	81	388
20+50	12.4	0	0.1	21	0	21	0	513	491	81	409
21+00	12.4	0	0.0	23	0	23	0	536	514	82	432
21+50	11.3	0	0.1	22	0	22	0	558	535	82	454
22+00	11.7	0	0.1	21	0	21	0	579	557	82	475
22+50	11.6	0	0.1	22	0	22	0	601	578	82	496
23+00	11.4	0	0.1	21	0	21	0	622	600	82	517
23+50	0.0	0	4.3	11	0	11	4	632	610	88	523
24+00	0.0	0	15.8	0	0	0	19	632	610	111	499
24+50	3.0	0	1.7	3	0	3	16	635	613	131	482
24+76	21.2	0	0.0	12	0	12	1	647	625	132	493
			Total	647	22	625	106				

5991-05-09 GILLETTE ST

STATION	AREA (SF) Cut	Salvaged/Unusable Pavement Material	Fill	Incremental Vol (CY) (Unadjusted) Cut	Salvaged/Unusable Pavement Material	Usable Material	Fill	Cumulative Vol (CY) Cut 1.00	Usable Material 1.00	Expanded Fill 1.25	Mass Ordinate
500+00	2.0	1.5	0.0	0	0	0	0	0	0	0	0
500+50	16.8	4.0	0.0	17	5	12	0	17	12	0	12
501+00	15.4	4.0	0.0	30	7	22	0	47	35	0	35
501+50	17.3	4.0	0.1	30	7	23	0	78	58	0	57
502+00	15.7	4.0	0.3	31	7	23	0	108	81	1	80
502+50	14.8	4.0	0.3	28	7	21	0	136	102	1	101
502+80	2.0	4.0	0.0	9	4	5	0	146	106	1	105
			Total	146	39	106	1				

5991-07-19 M/L

STATION	AREA (SF) Cut	Salvaged/Unusable Pavement Material	Fill	Incremental Vol (CY) (Unadjusted) Cut	Salvaged/Unusable Pavement Material	Usable Material	Fill	Cumulative Vol (CY) Cut 1.00	Usable Material 1.00	Expanded Fill 1.25	Mass Ordinate
59+50	13.7	0	0.2	0	0	0	0	0	0	0	
60+00	8.7	0	3.4	21	0	21	3	21	21	4	17
60+50	0.0	0	33.1	8	0	8	34	29	29	46	-18
61+00	0.0	0	128.0	0	0	0	149	29	29	233	-204
61+50	0.0	0	215.9	0	0	0	318	29	29	631	-602
62+00	0.0	0	346.4	0	0	0	521	29	29	1,282	-1,253
62+50	0.0	0	0.0	0	0	0	321	29	29	1,683	-1,654
			Total	29	0	29	1,346				

5991-05-95 M/L

STATION	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Usable Material	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Usable Material 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Mass Ordinate
25+09	17.6	0	0.0	0	0	0	0	0	0	0	
25+50	0.2	0	3.1	14	0	14	2	14	14	3	11
26+00	0.0	0	11.3	0	0	0	13	14	14	20	-6
26+50	0.0	0	18.5	0	0	0	28	14	14	54	-40
27+00	0.0	0	26.0	0	0	0	41	14	14	106	-92
27+50	0.0	0	30.1	0	0	0	52	14	14	171	-157
28+00	0.0	0	47.3	0	0	0	72	14	14	260	-246
28+50	0.0	0	67.3	0	0	0	106	14	14	393	-379
29+00	1.8	0	9.1	2	0	2	71	15	15	481	-466
29+50	0.0	0	66.2	2	0	2	70	17	17	568	-551
30+00	0.0	0	44.4	0	0	0	102	17	17	696	-679
30+50	0.0	0	25.3	0	0	0	65	17	17	777	-760
31+00	0.0	0	13.3	0	0	0	36	17	17	822	-805
31+50	0.0	0	14.2	0	0	0	25	17	17	854	-836
32+00	0.0	0	31.4	0	0	0	42	17	17	906	-889
32+50	0.0	0	37.8	0	0	0	64	17	17	986	-969
33+00	0.0	0	30.7	0	0	0	63	17	17	1,066	-1,049
33+50	7.9	0	7.2	7	0	7	35	24	24	1,110	-1,085
34+00	18.1	0	0.0	24	0	24	7	48	48	1,118	-1,069
34+04	16.2	0	0.0	3	0	3	0	51	51	1,118	-1,067
34+04	0.0	0	0.0	0	0	0	0	51	51	1,118	-1,067
34+20	0.0	0	0.0	0	0	0	0	51	51	1,118	-1,067
34+20	18.8	0	0.0	0	0	0	0	51	51	1,118	-1,067
34+50	14.9	0	0.0	19	0	19	0	70	70	1,118	-1,048
35+00	9.3	0	0.0	22	0	22	0	92	92	1,118	-1,026
35+50	9.3	0	0.0	17	0	17	0	109	109	1,118	-1,008
36+00	11.1	0	0.3	19	0	19	0	128	128	1,118	-990
36+50	3.4	0	2.3	13	0	13	2	142	142	1,121	-980
37+00	1.5	0	6.0	5	0	5	8	146	146	1,131	-985
37+50	1.0	0	6.2	2	0	2	11	149	149	1,145	-996
38+00	0.9	0	2.6	2	0	2	8	150	150	1,155	-1,005
38+50	5.5	0	0.9	6	0	6	3	156	156	1,159	-1,003
39+00	8.9	0	0.5	13	0	13	1	170	170	1,161	-991
39+50	15.5	0	0.0	23	0	23	0	192	192	1,161	-969
40+00	12.4	0	0.0	26	0	26	0	218	218	1,161	-943
40+50	14.5	0	0.0	25	0	25	0	243	243	1,161	-918
41+00	10.1	0	0.2	23	0	23	0	266	266	1,162	-896
41+50	10.2	0	0.3	19	0	19	0	284	284	1,162	-878
42+00	2.6	0	2.7	12	0	12	3	296	296	1,166	-869
42+50	5.8	0	1.7	8	0	8	4	304	304	1,171	-867
43+00	7.2	0	0.7	12	0	12	2	316	316	1,174	-857
43+50	14.2	0	0.0	20	0	20	1	336	336	1,174	-838
44+00	10.8	0	0.1	23	0	23	0	359	359	1,174	-815
44+50	16.5	0	0.0	25	0	25	0	384	384	1,175	-790
45+00	14.3	0	0.0	29	0	29	0	413	413	1,175	-762
45+50	7.9	0	1.3	21	0	21	1	433	433	1,176	-743
46+00	8.8	0	0.4	15	0	15	2	449	449	1,178	-729
46+50	4.0	0	2.0	12	0	12	2	461	461	1,181	-720
47+00	9.1	0	0.4	12	0	12	2	473	473	1,184	-711
47+50	11.1	0	0.4	19	0	19	1	492	492	1,185	-693
48+00	20.2	0	0.0	29	0	29	0	521	521	1,185	-664
48+50	3.6	0	0.6	22	0	22	1	543	543	1,186	-643
49+00	0.8	0	6.1	4	0	4	6	547	547	1,193	-647
49+50	1.2	0	14.2	2	0	2	19	549	549	1,217	-668
50+00	11.6	0	3.6	12	0	12	16	560	560	1,238	-677
50+50	5.1	0	26.3	15	0	15	28	576	576	1,272	-696
51+00	0.2	0	36.2	5	0	5	58	581	581	1,344	-764
51+50	2.0	0	41.5	2	0	2	72	583	583	1,434	-852
52+00	5.8	0	4.4	7	0	7	43	590	590	1,488	-898
52+50	14.4	0	0.0	19	0	19	4	609	609	1,493	-884
53+00	18.4	0	0.0	30	0	30	0	639	639	1,493	-854
53+50	16.0	0	0.0	32	0	32	0	671	671	1,493	-822
54+00	19.4	0	0.0	33	0	33	0	704	704	1,493	-789
54+50	17.0	0	0.0	34	0	34	0	737	737	1,493	-755
55+00	7.6	0	0.7	23	0	23	1	760	760	1,493	-733
55+50	4.3	0	1.8	11	0	11	2	771	771	1,496	-725
56+00	15.1	0	0.0	18	0	18	2	789	789	1,498	-709
56+50	16.5	0	0.0	29	0	29	0	818	818	1,498	-680
57+00	14.4	0	0.0	29	0	29	0	847	847	1,498	-651
57+50	13.5	0	0.0	26	0	26	0	873	873	1,498	-626
58+00	16.7	0	0.0	28	0	28	0	901	901	1,498	-598
58+50	11.0	0	0.2	26	0	26	0	927	927	1,499	-572
59+00	12.1	0	0.1	21	0	21	0	948	948	1,499	-551
59+50	13.7	0	0.2	24	0	24	0	972	972	1,499	-528
			Total	972	0	972	1,199				

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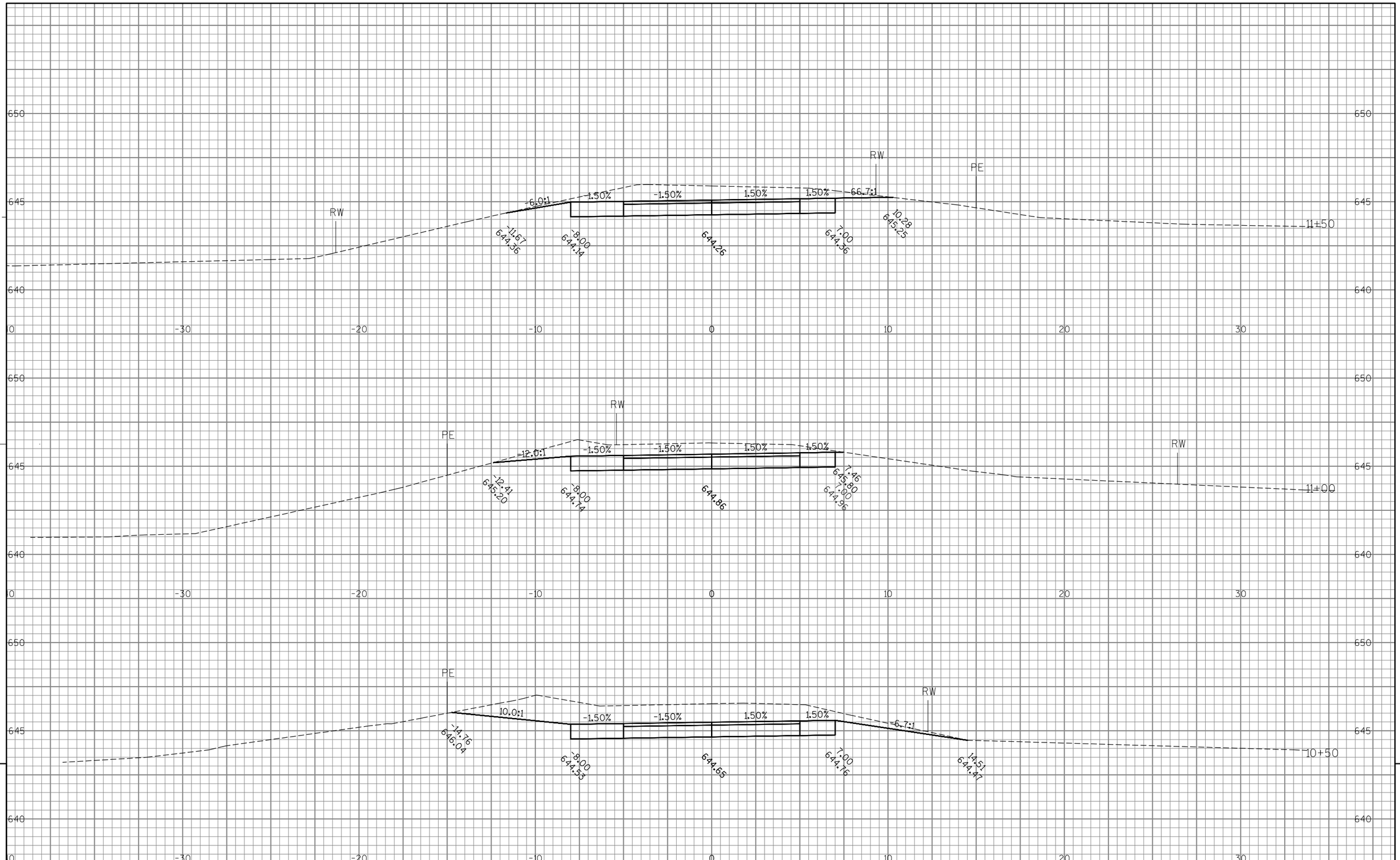
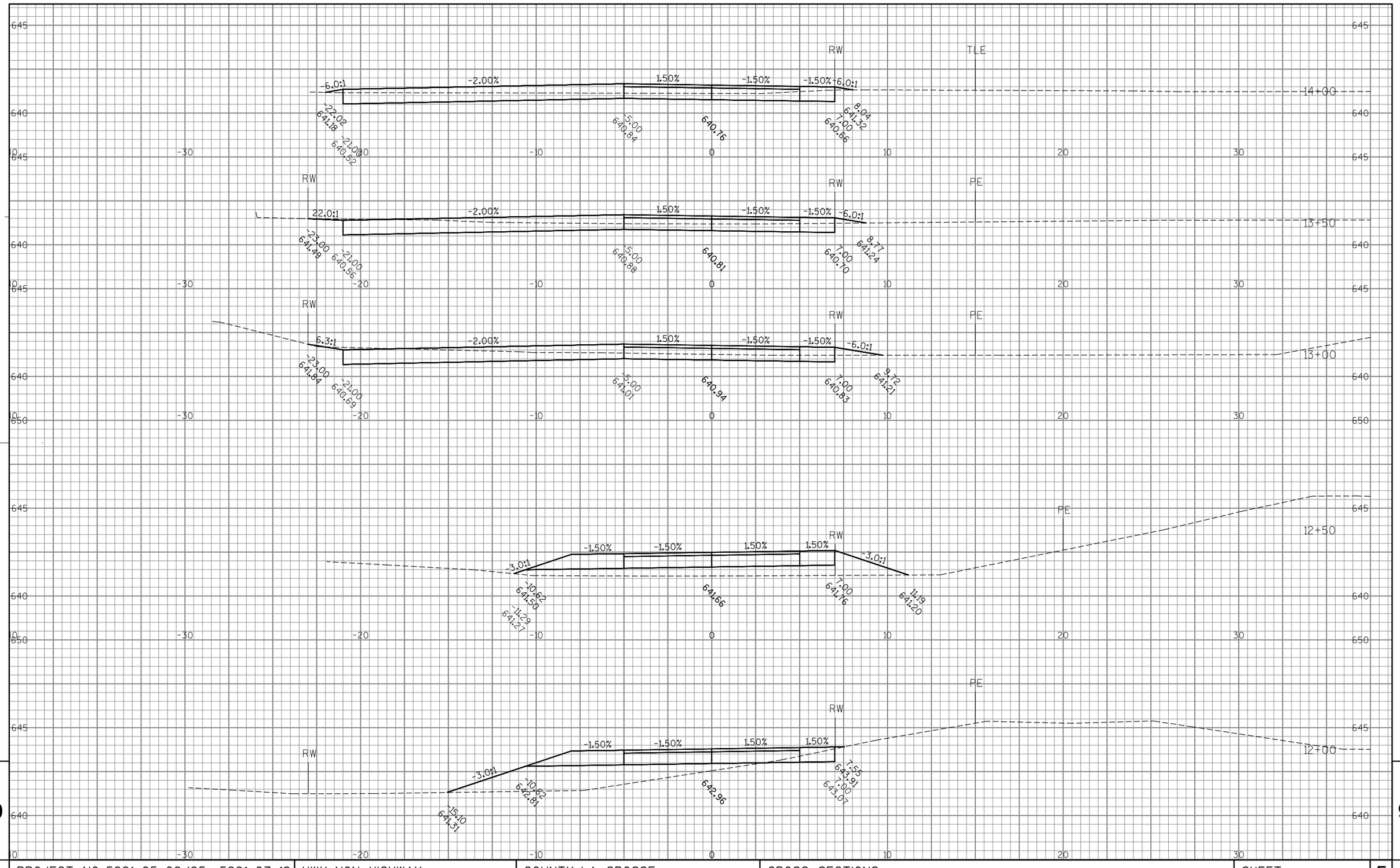
PROJECT NO: 5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	EARTHWORK SUMMARY	SHEET NO:	E

FILE NE : PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ ORG DATE : ORIGINATOR : PLOT SCALE :



PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET	E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$



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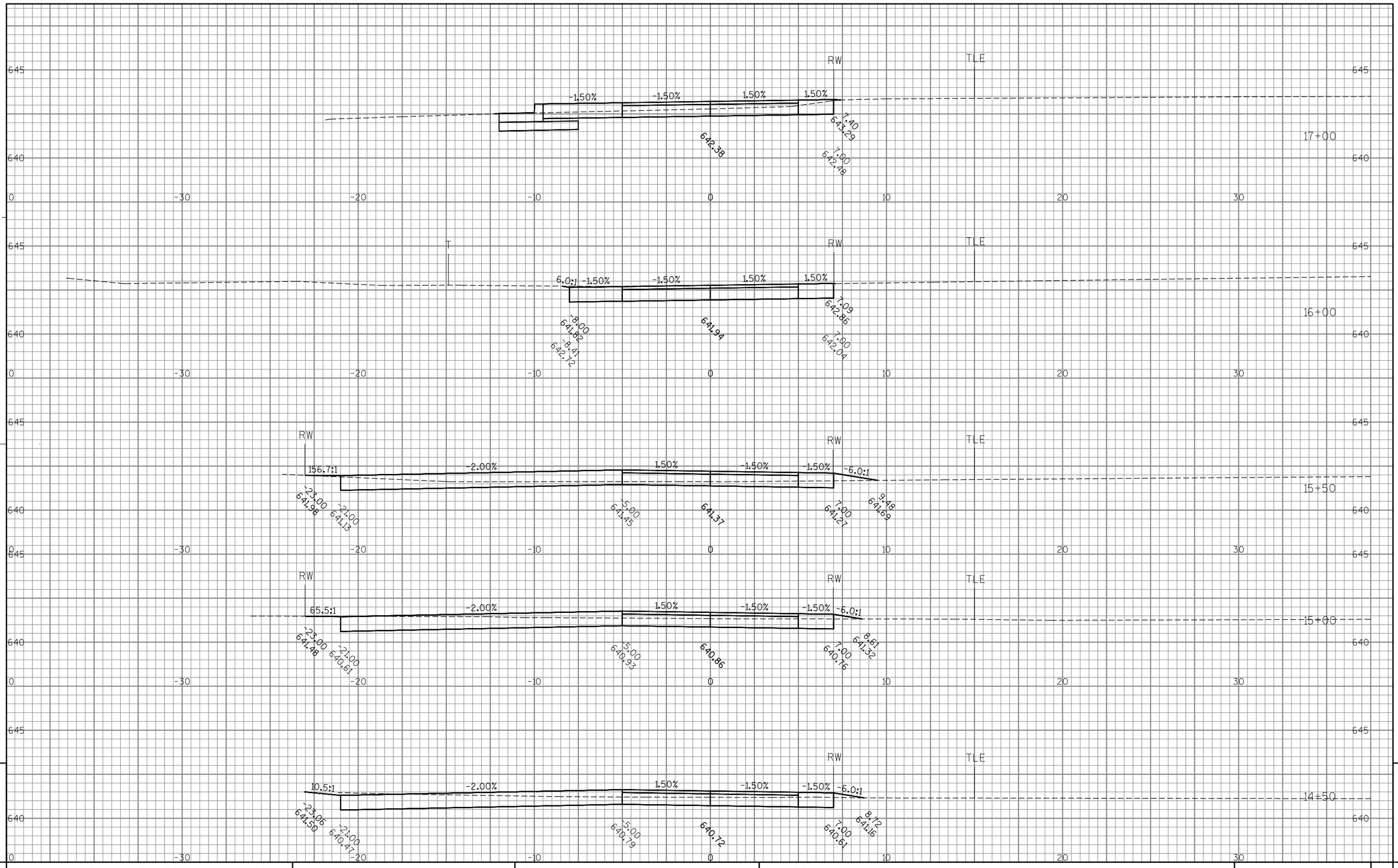
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 152	E



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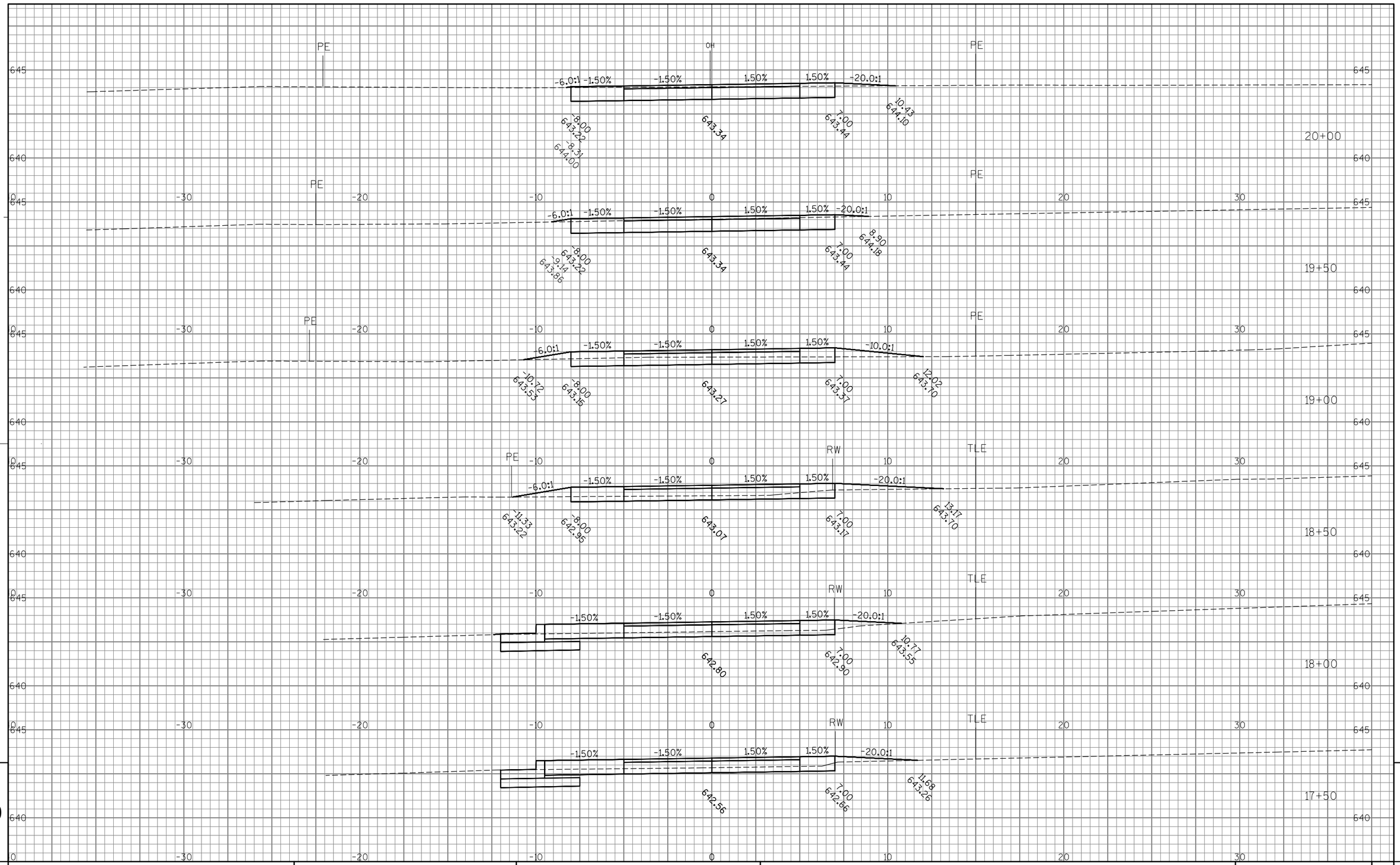
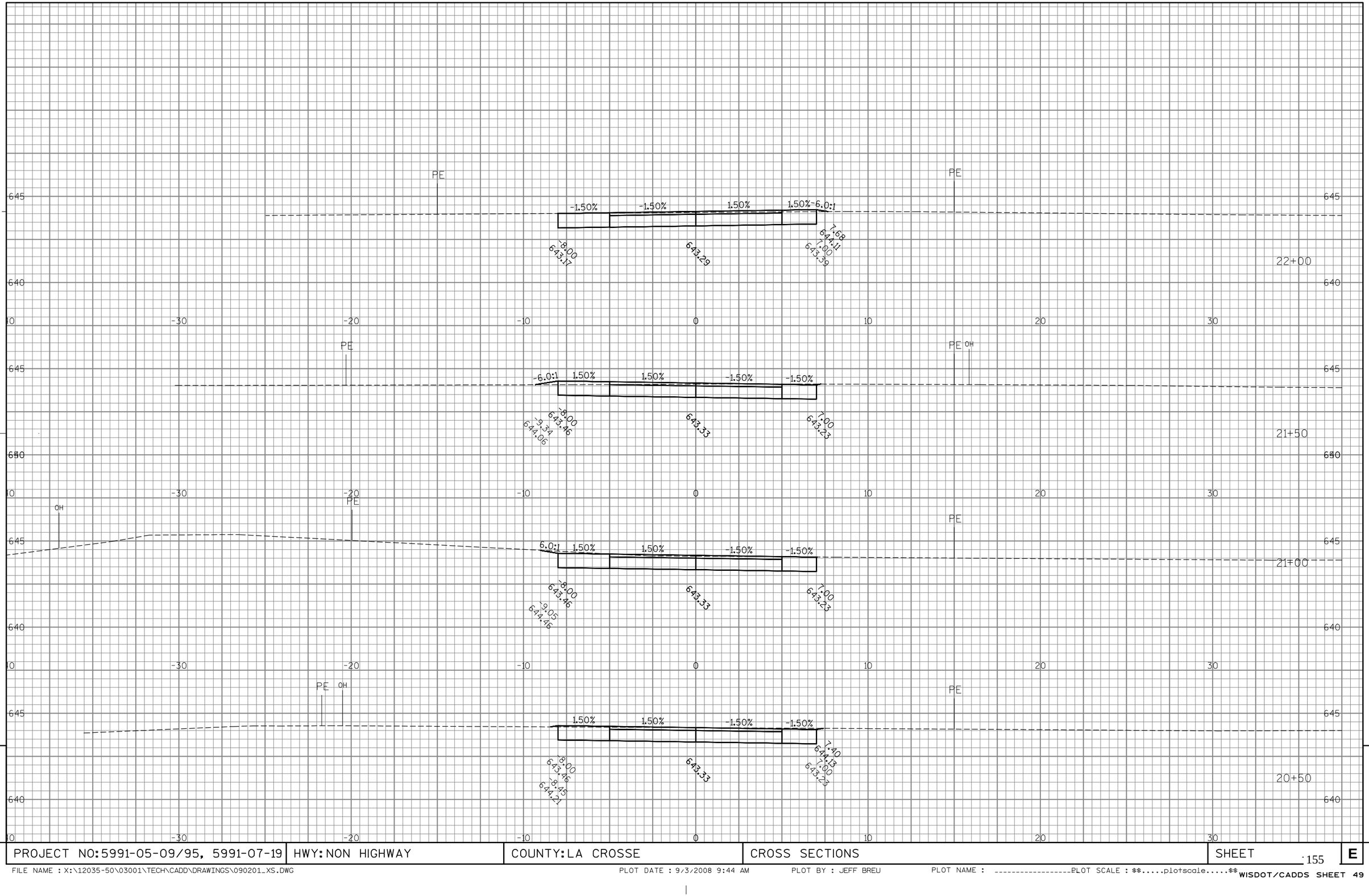
PROJECT NO:5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	CROSS SECTIONS	SHEET 153	E

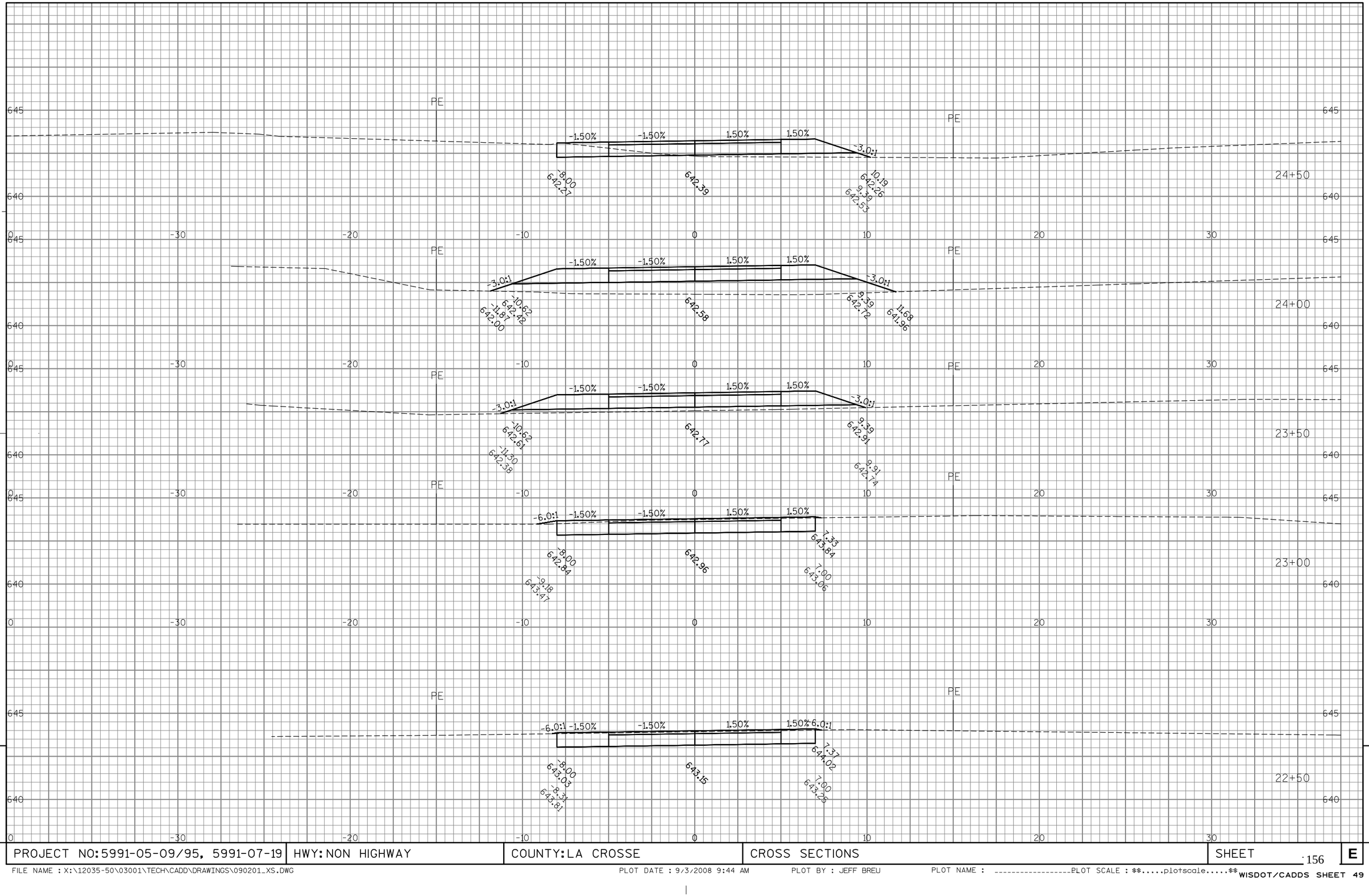


PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 154	E



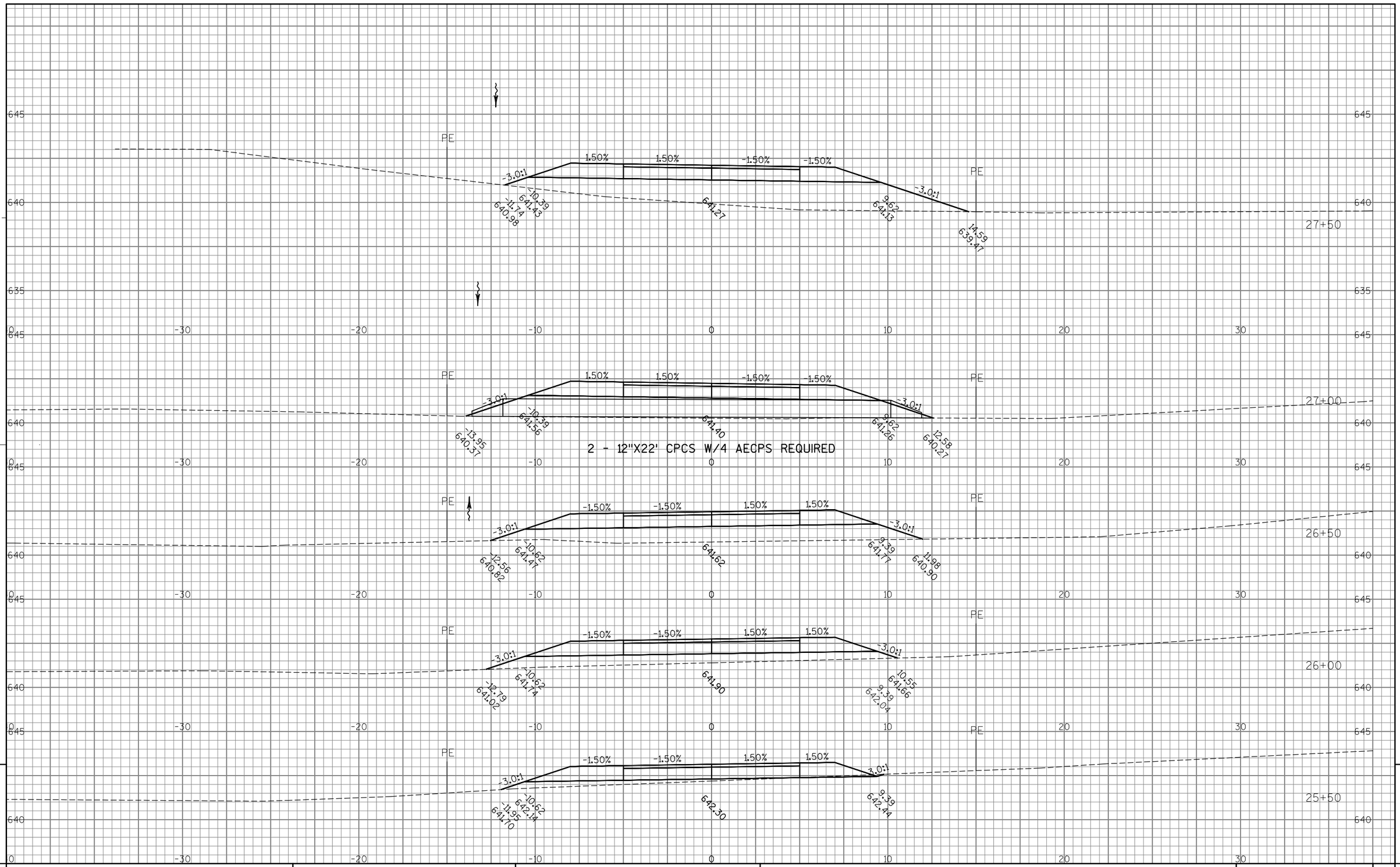
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 155	E

9 9



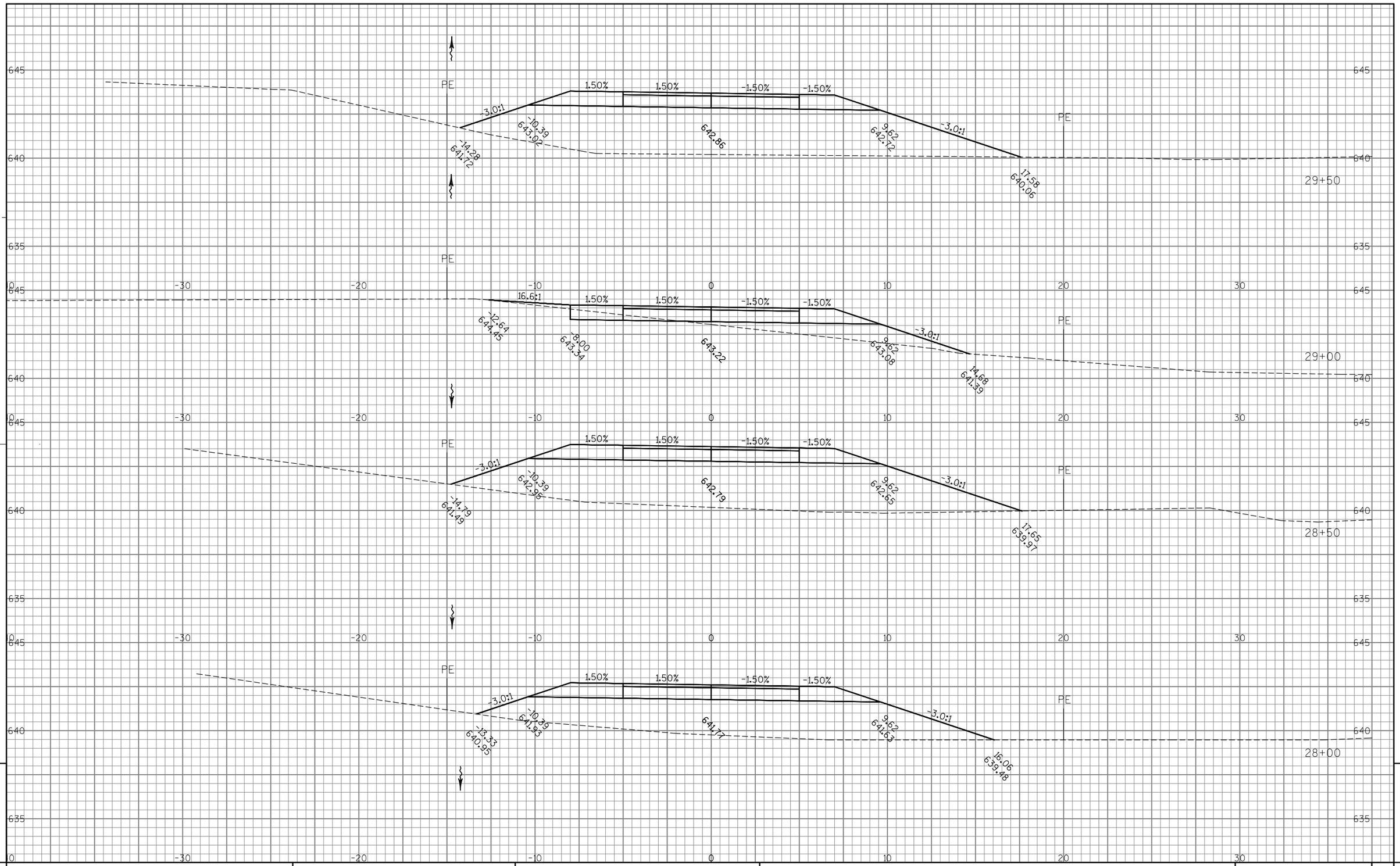
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 156	E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : ----------PLOT SCALE : $$.....plotscale.....$$



PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 157	E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$



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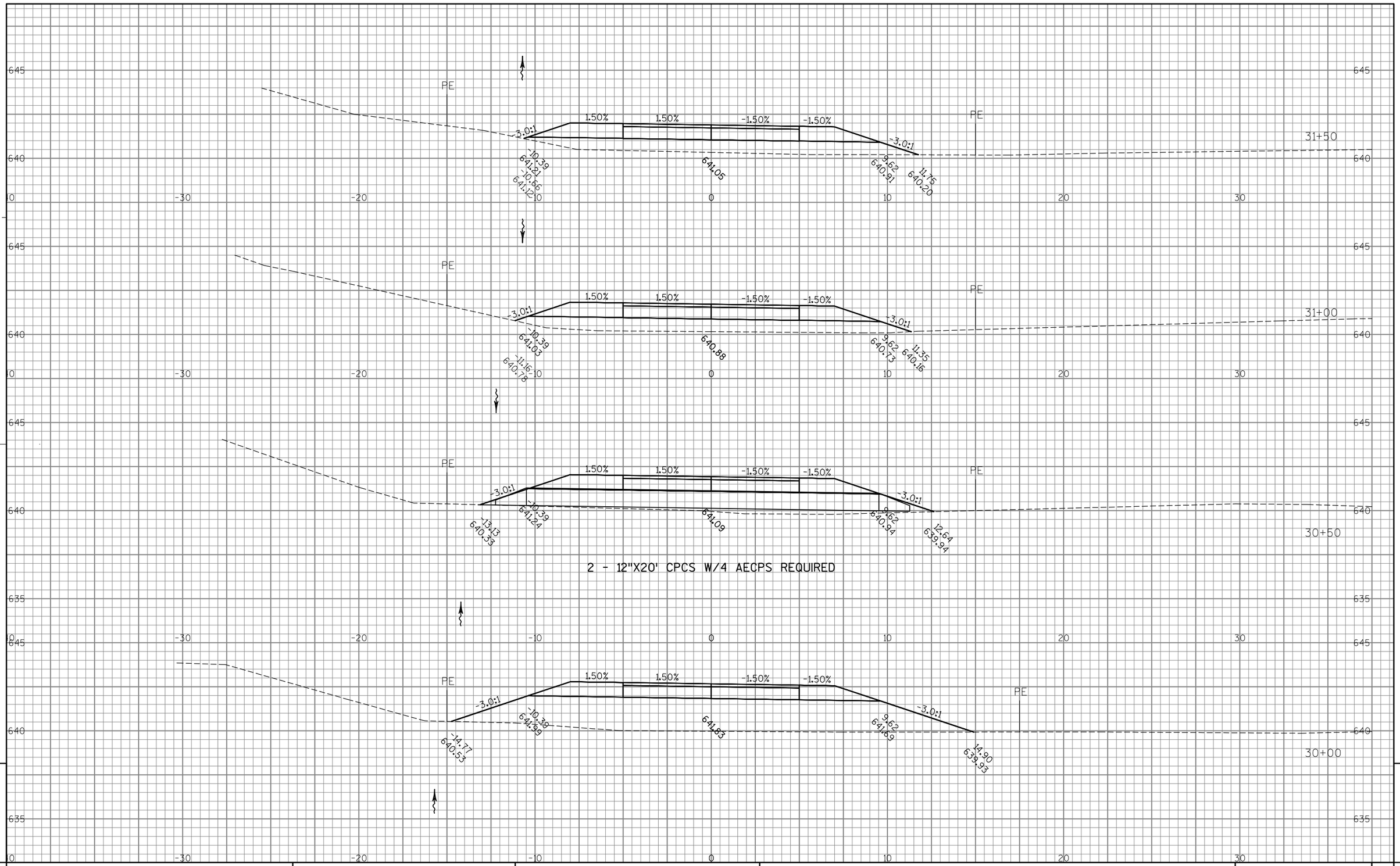
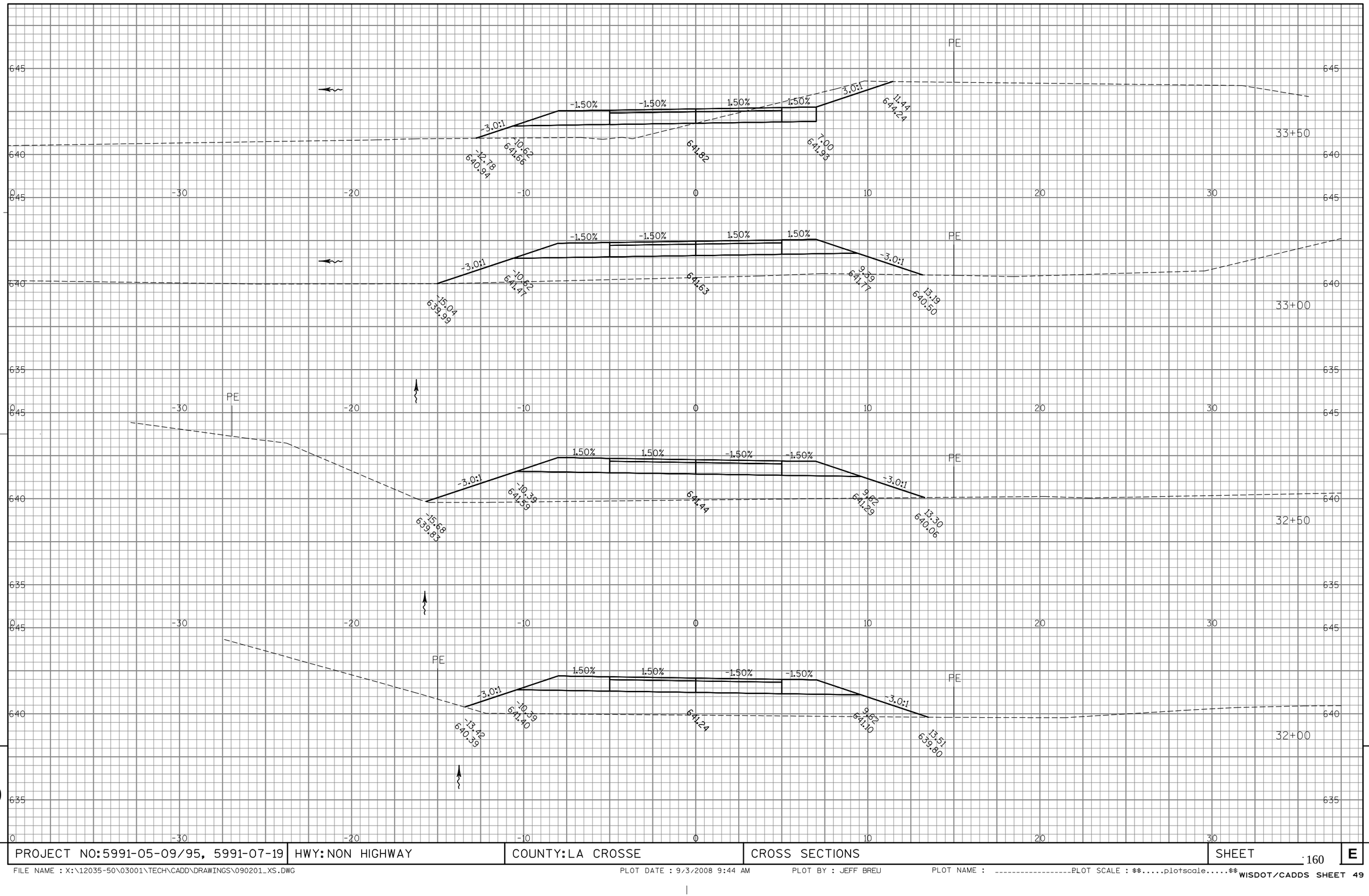
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 158	E



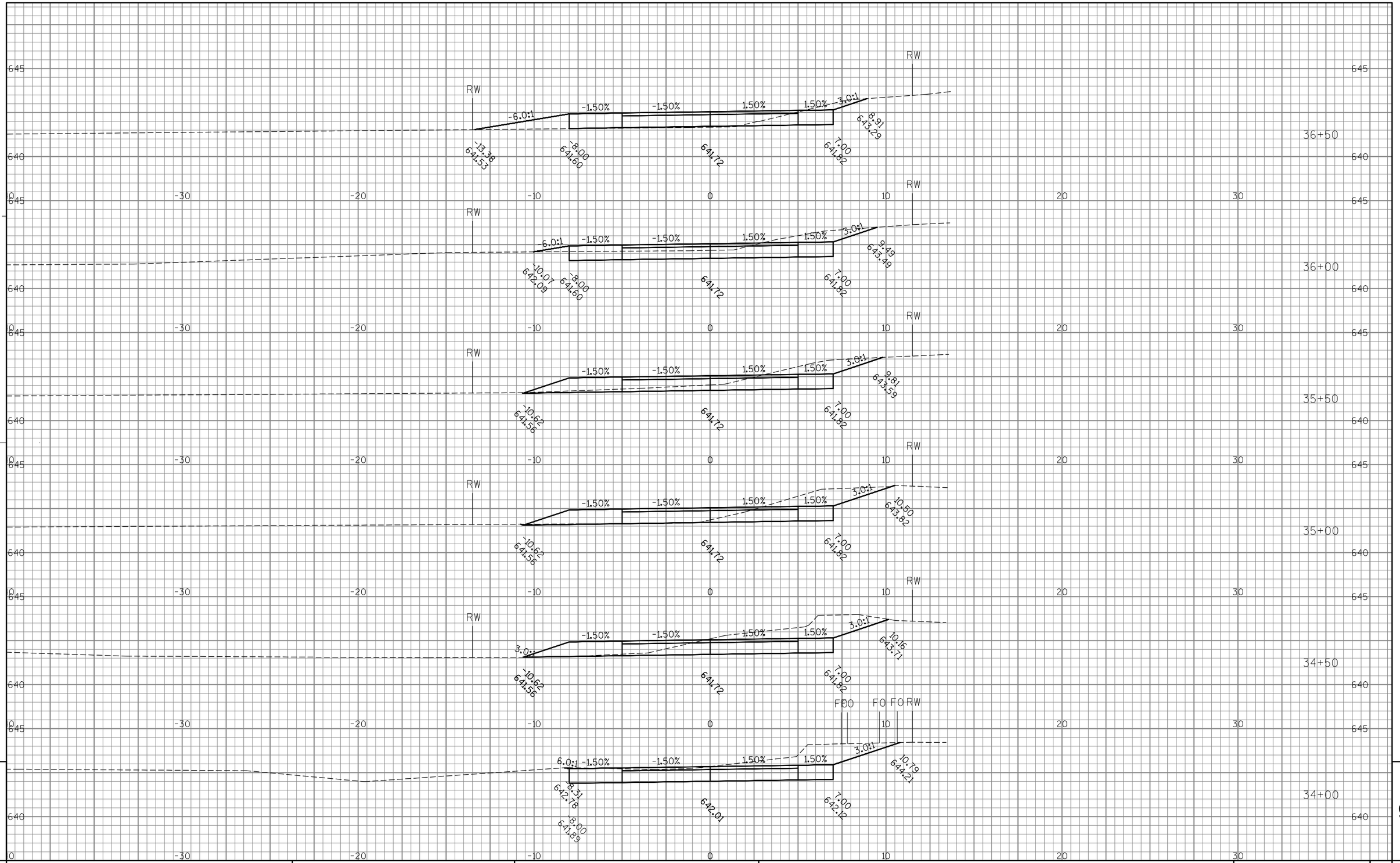
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 159	E



PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 160	E

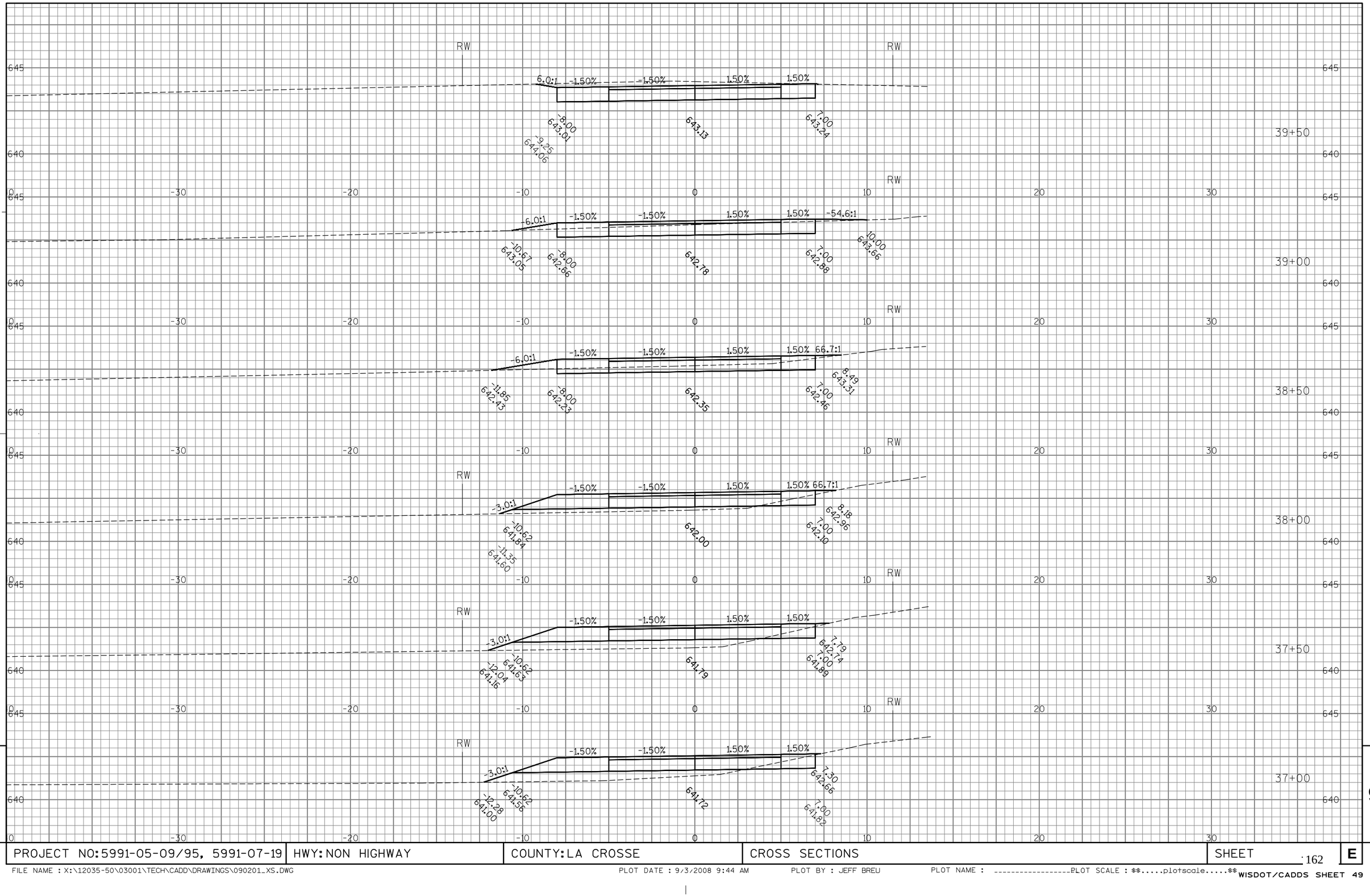
FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 49



PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : ----------PLOT SCALE : $$.....plotscale.....$$



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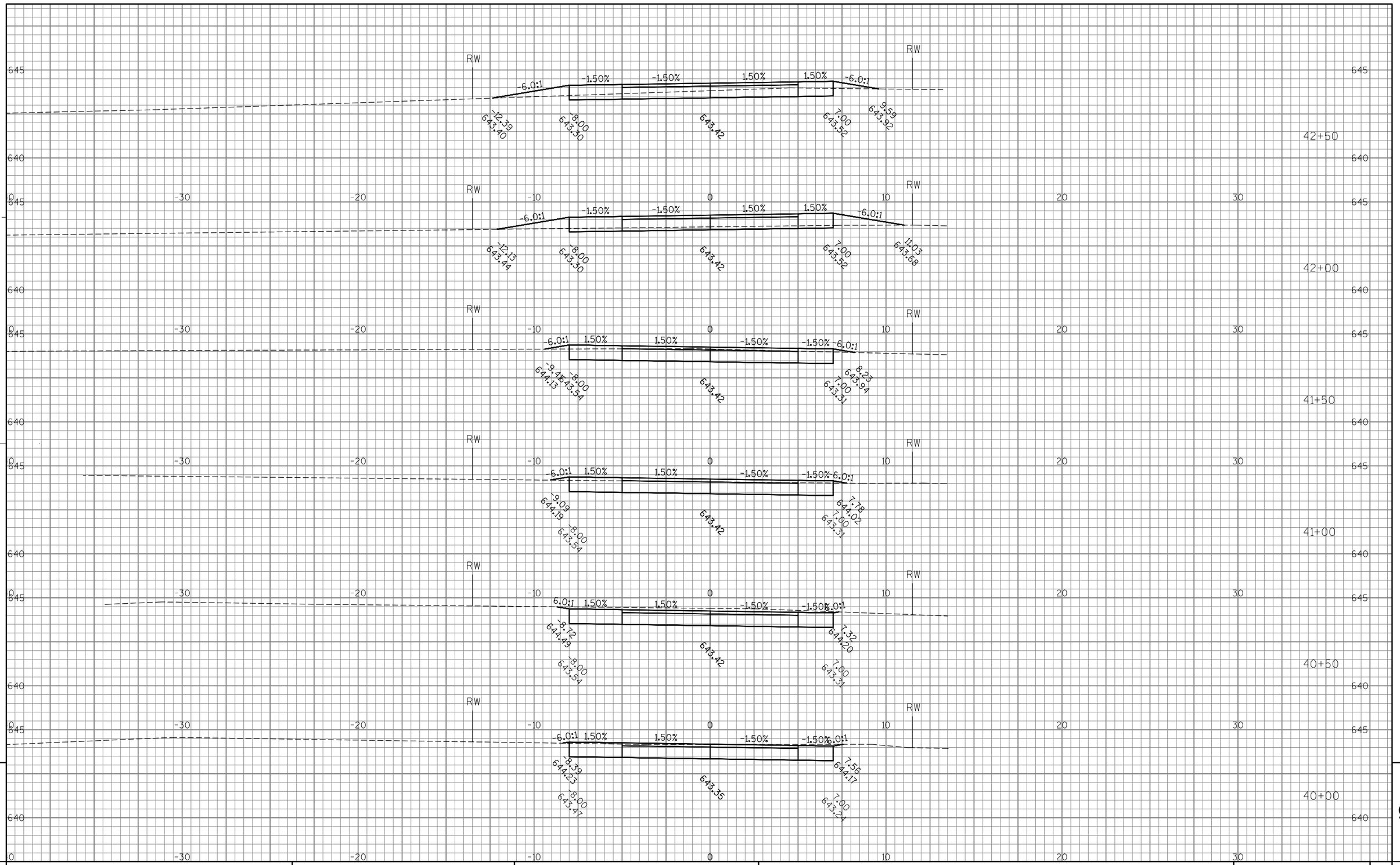
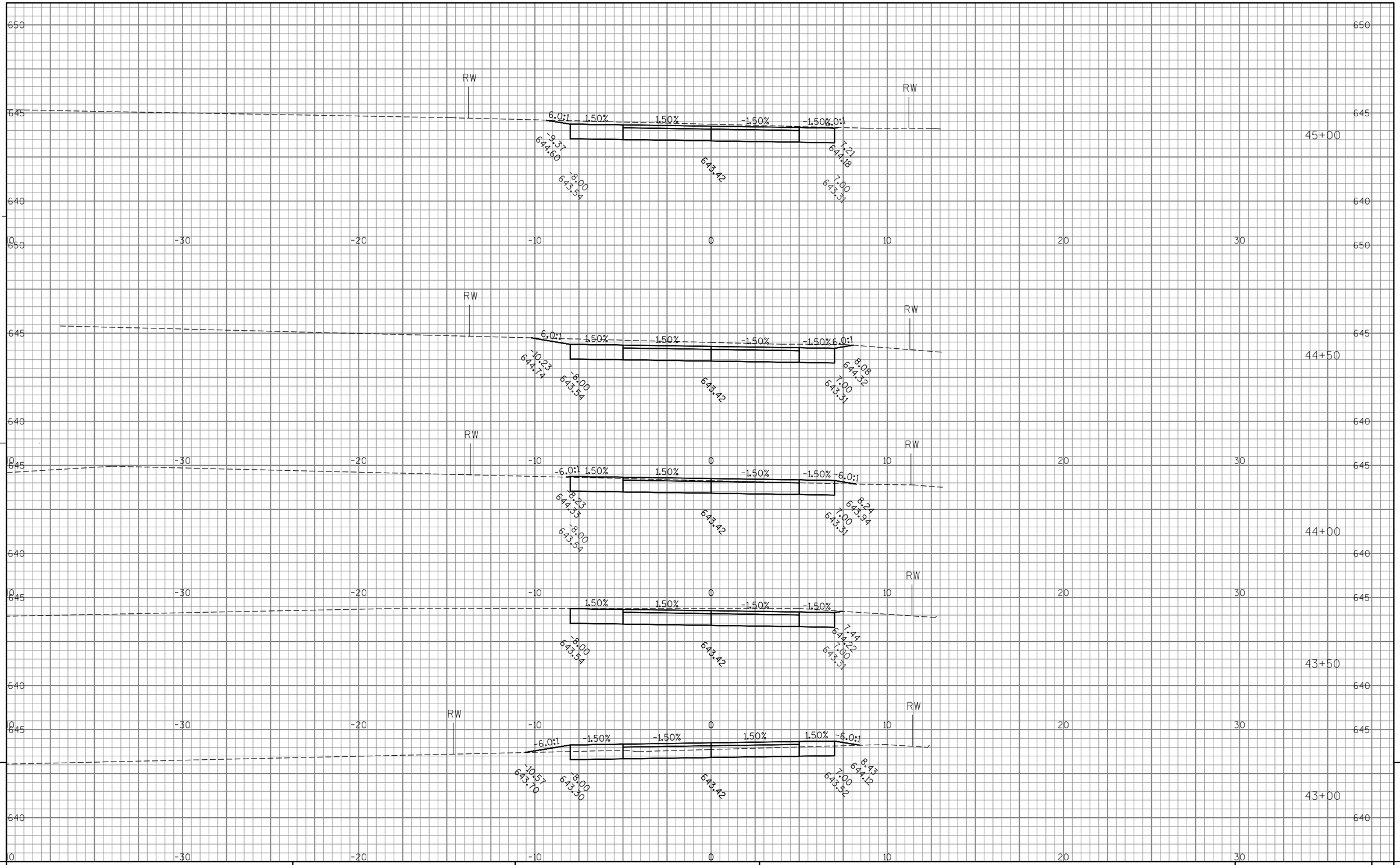
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 162	E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : ----------PLOT SCALE : $$.....plotscale.....$$

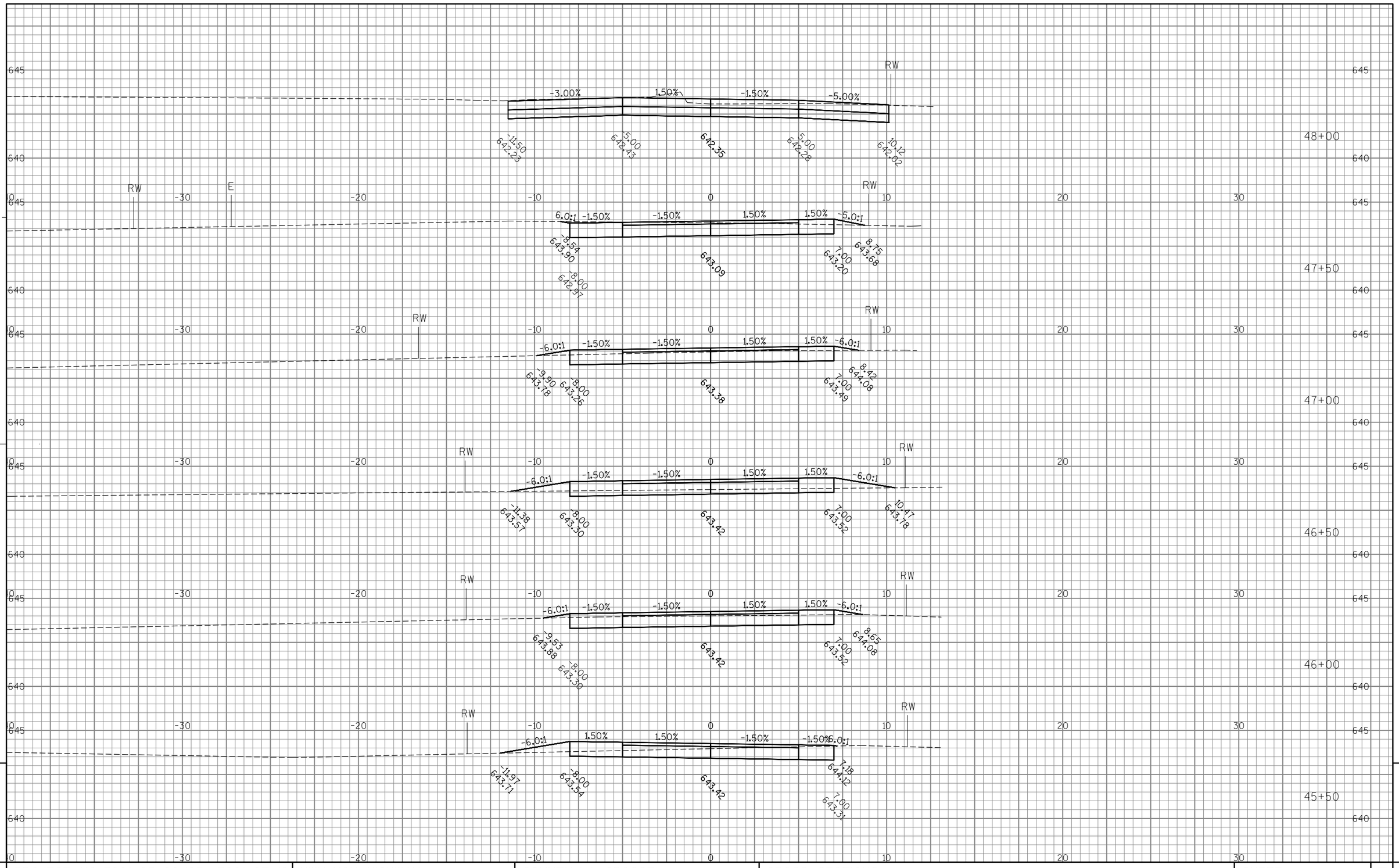


PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 163 E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$



PROJECT NO:5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 164	E



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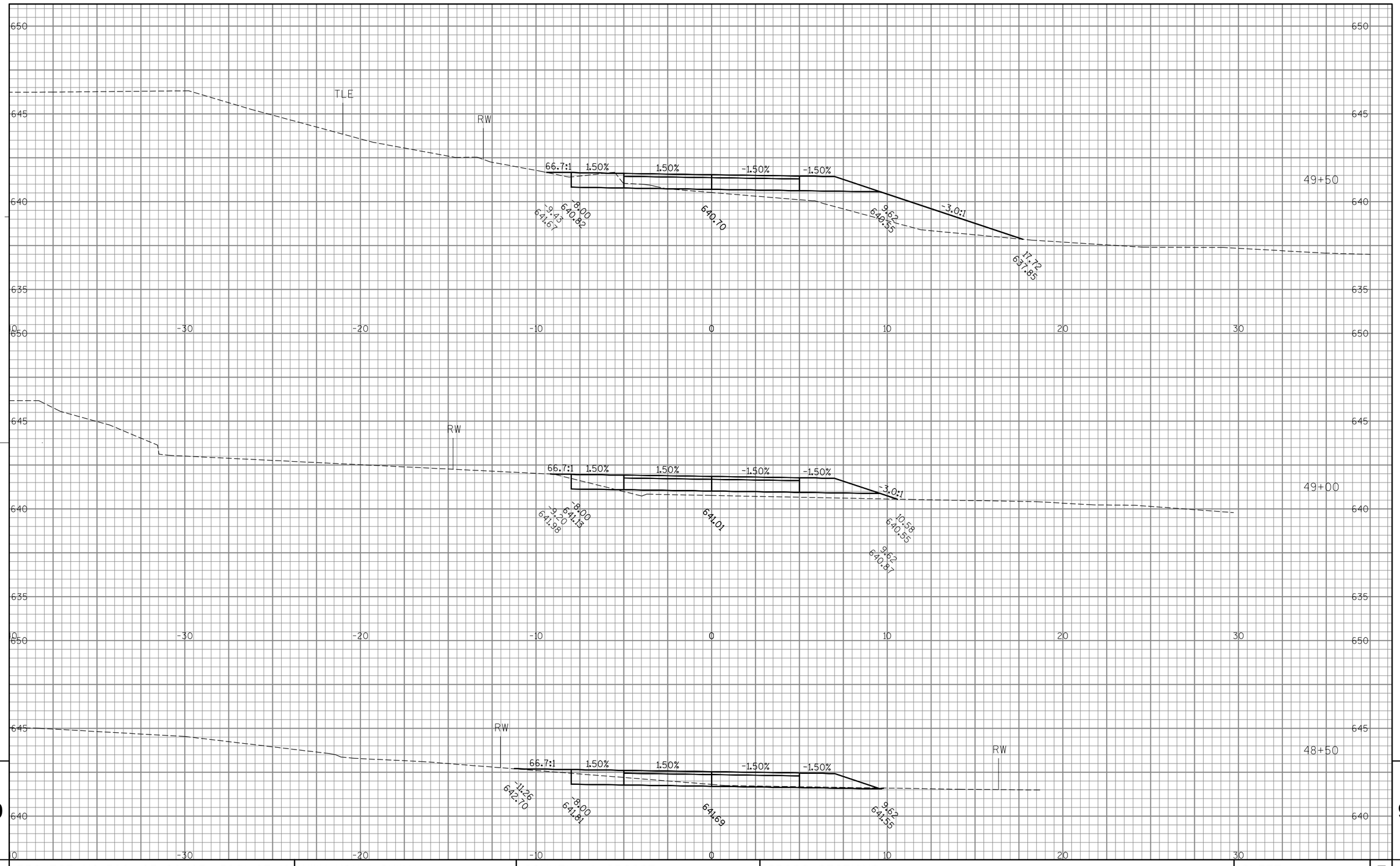
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 165	E



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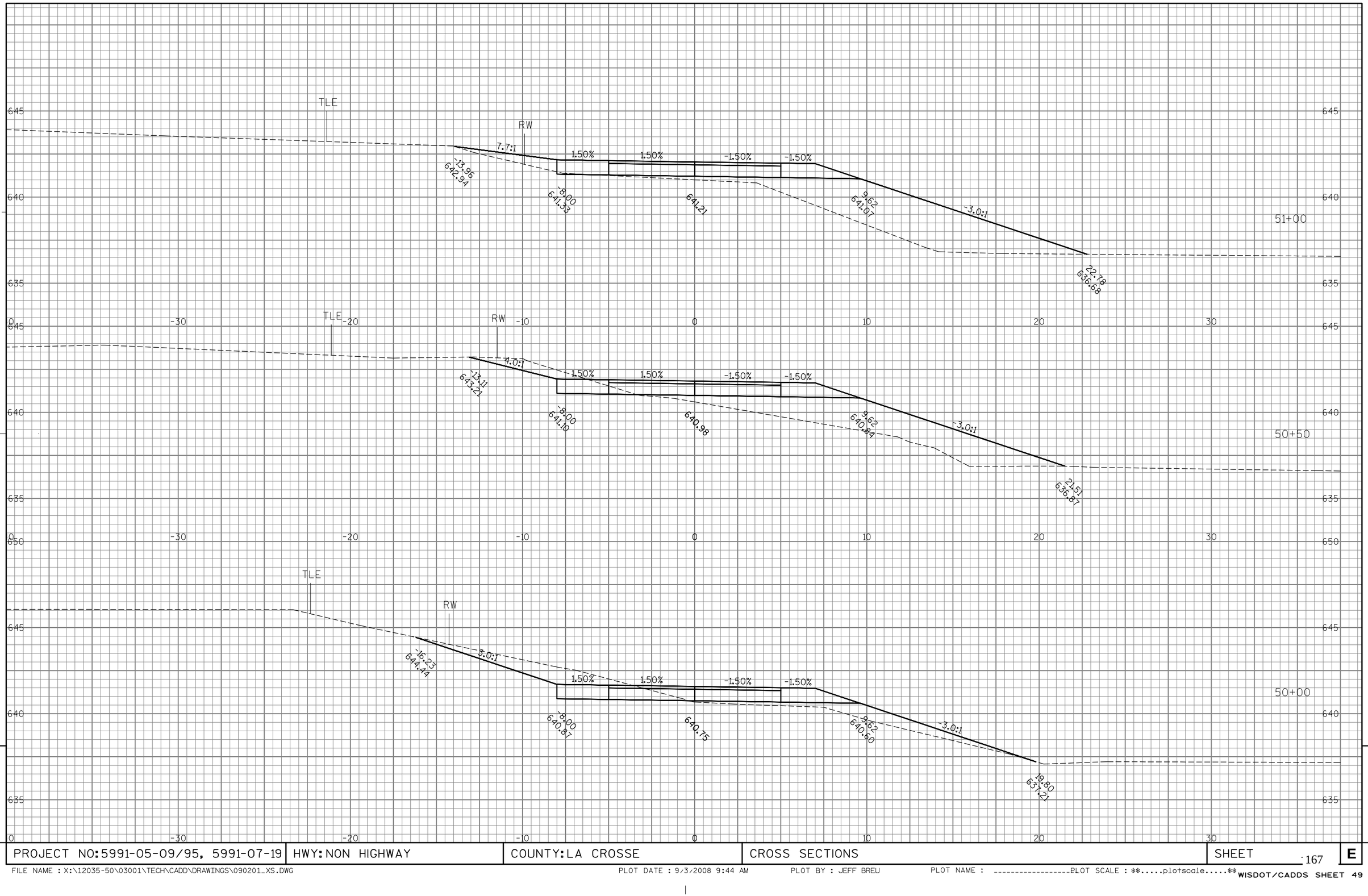
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET	E

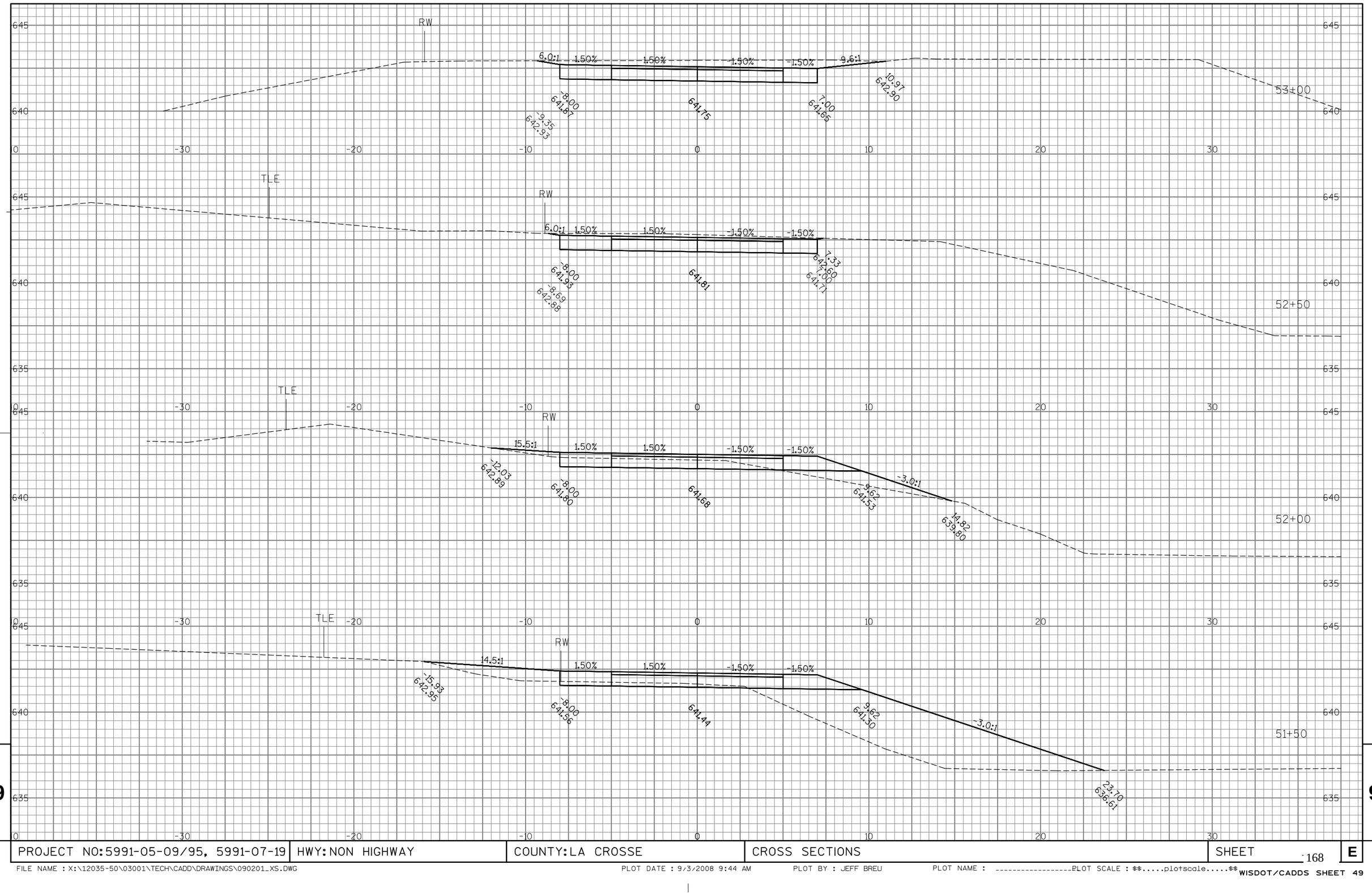
FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 49



PROJECT NO:5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	CROSS SECTIONS	SHEET	E

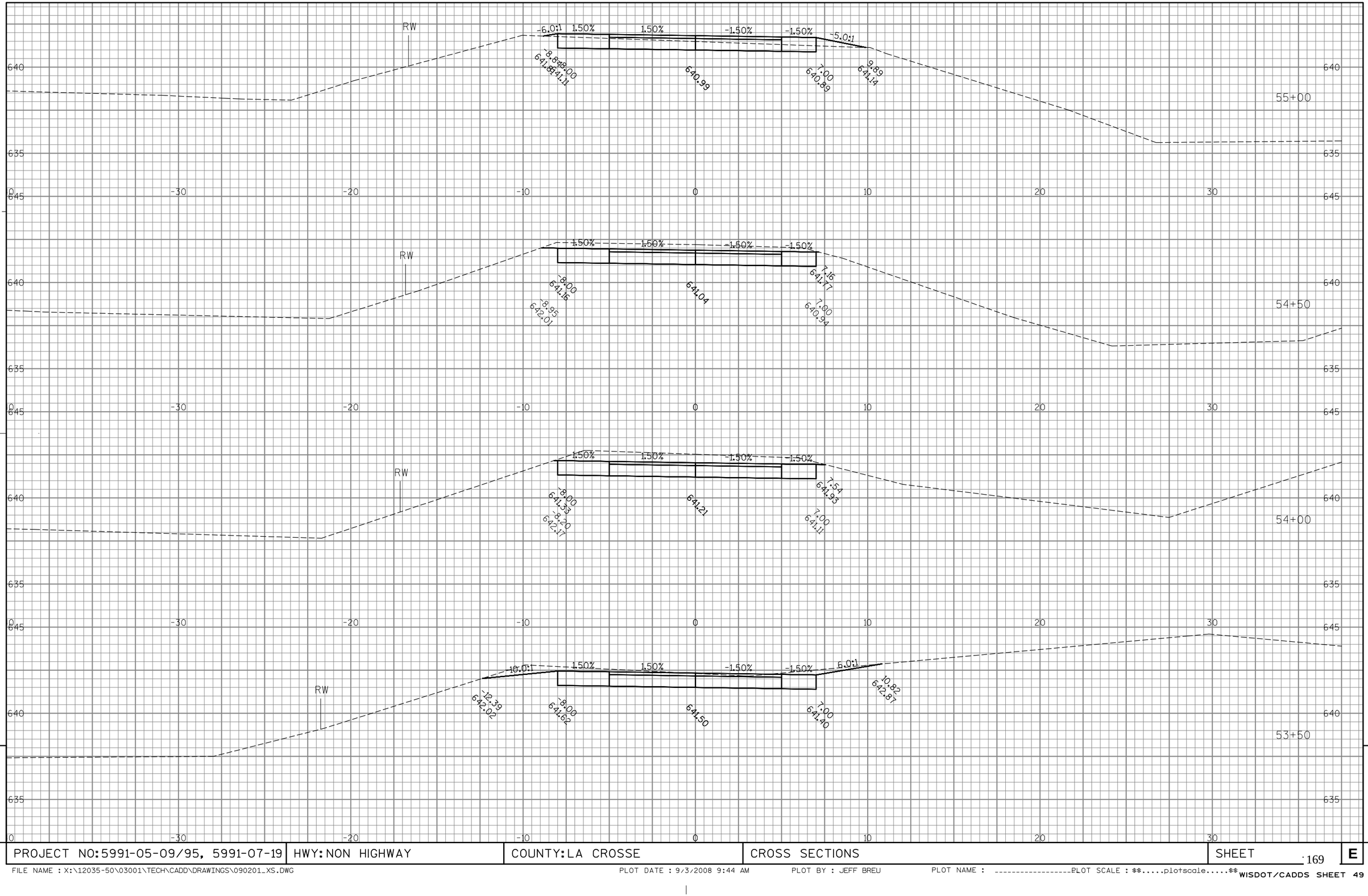
FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$



PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 168	E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 49



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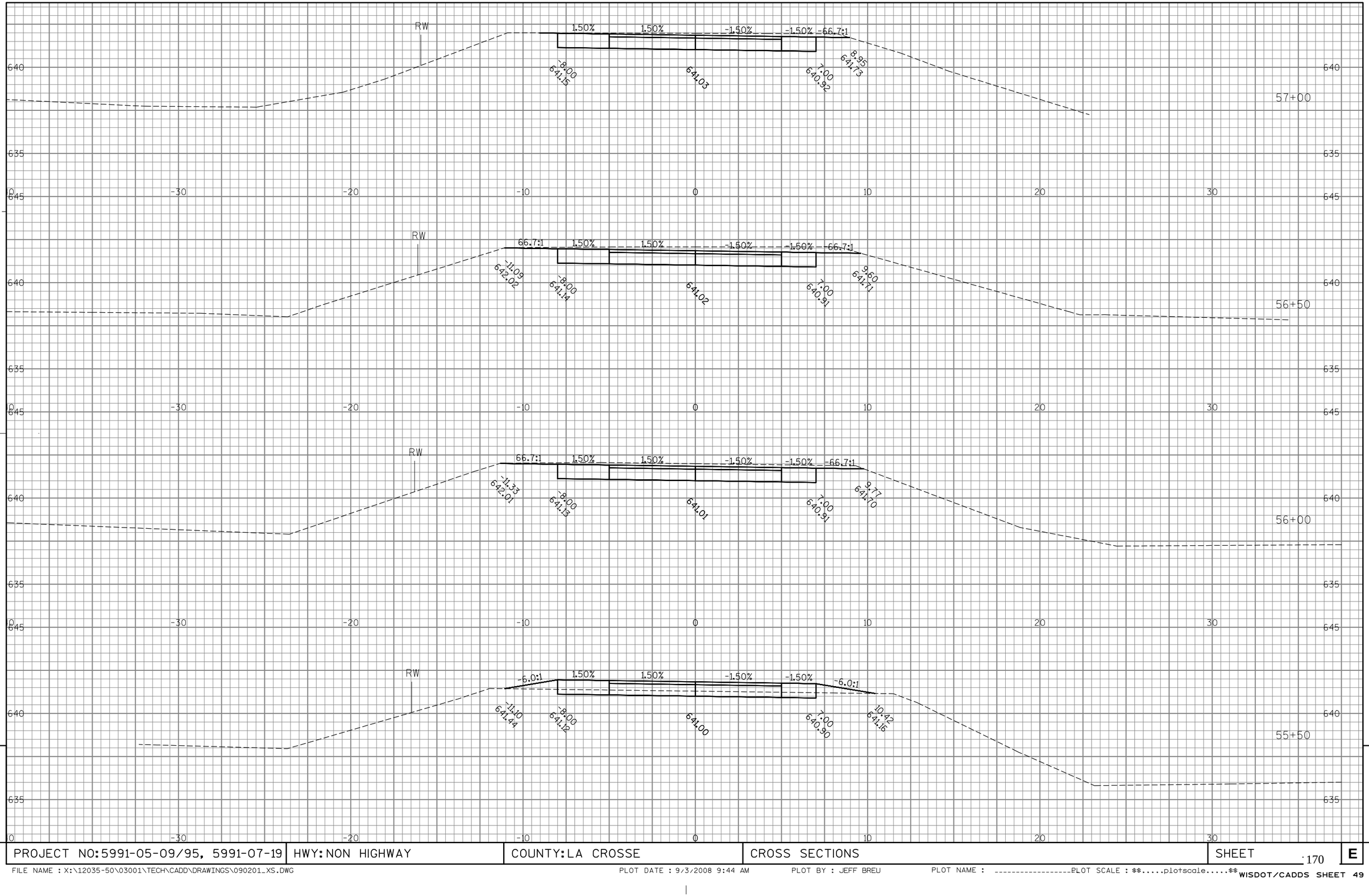
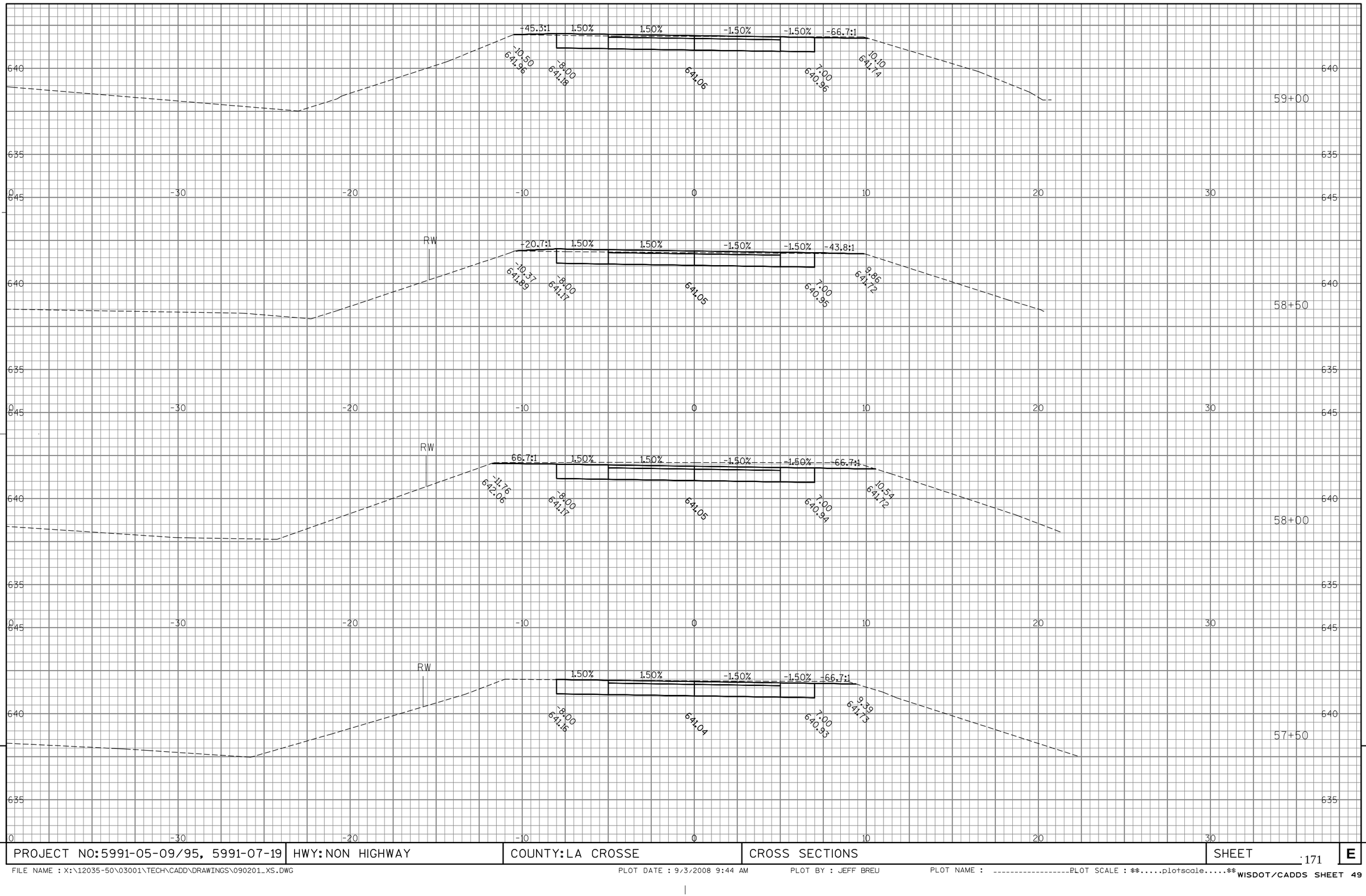
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 169	E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : ----------PLOT SCALE : $$.....plotscale.....$$



PROJECT NO:5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	CROSS SECTIONS	SHEET	E

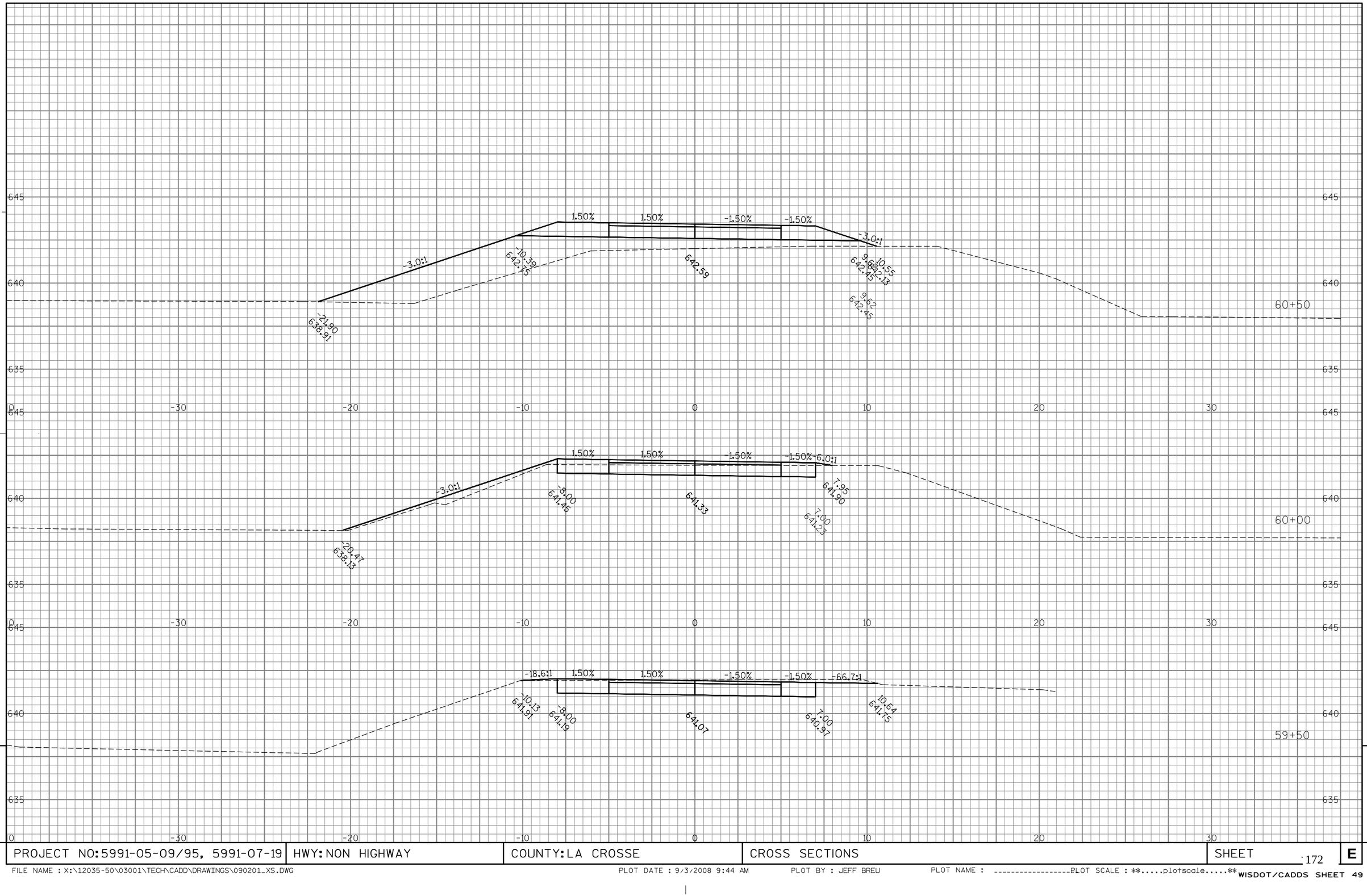
FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$



PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 171	E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$

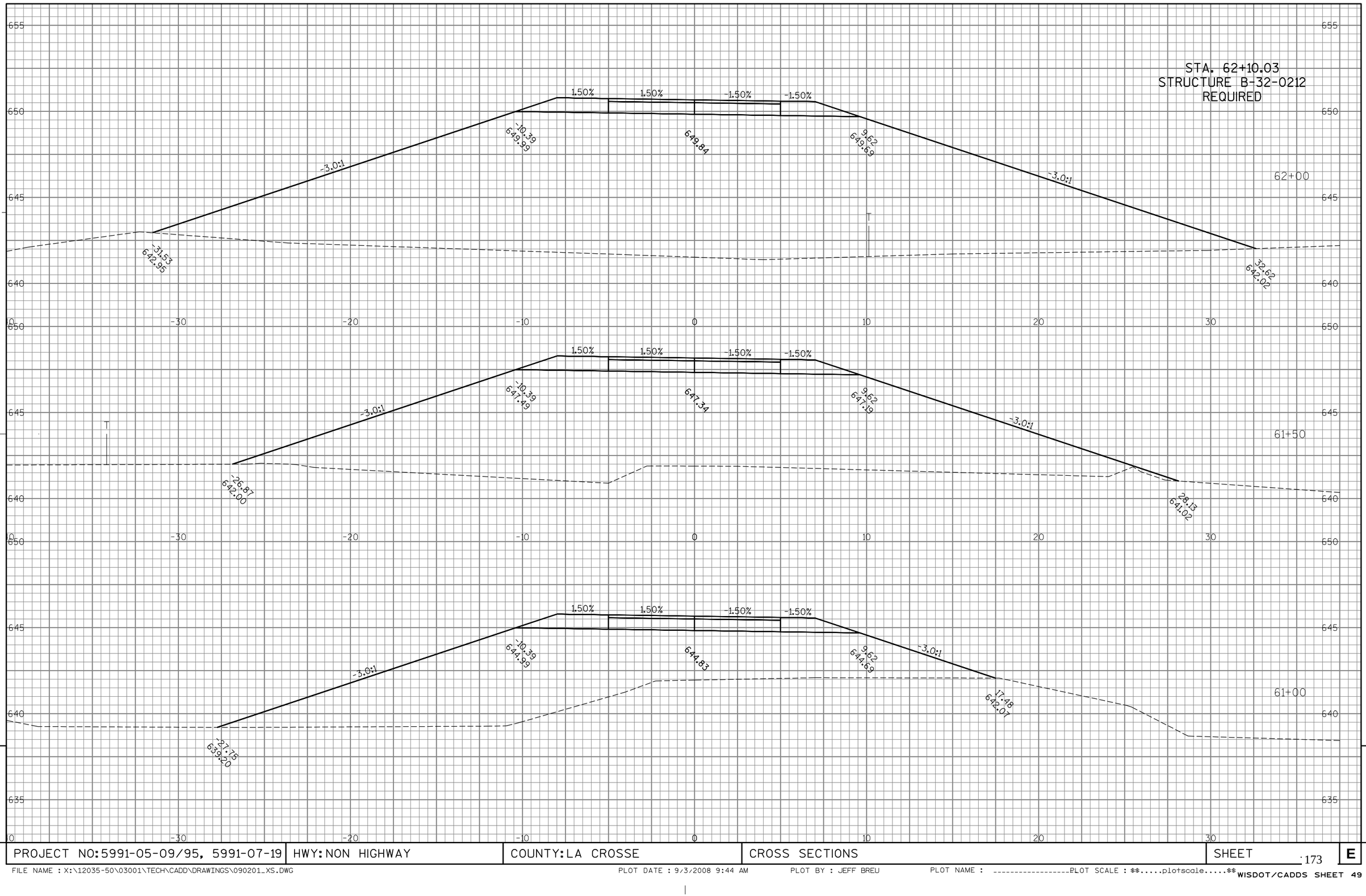
WISDOT/CADDS SHEET 49



PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS	SHEET 172	E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : ----------PLOT SCALE : $$.....plotscale.....$$

STA. 62+10.03
STRUCTURE B-32-0212
REQUIRED



PROJECT NO:5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	CROSS SECTIONS	SHEET

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : ----------PLOT SCALE : $$.....plotscale.....$$

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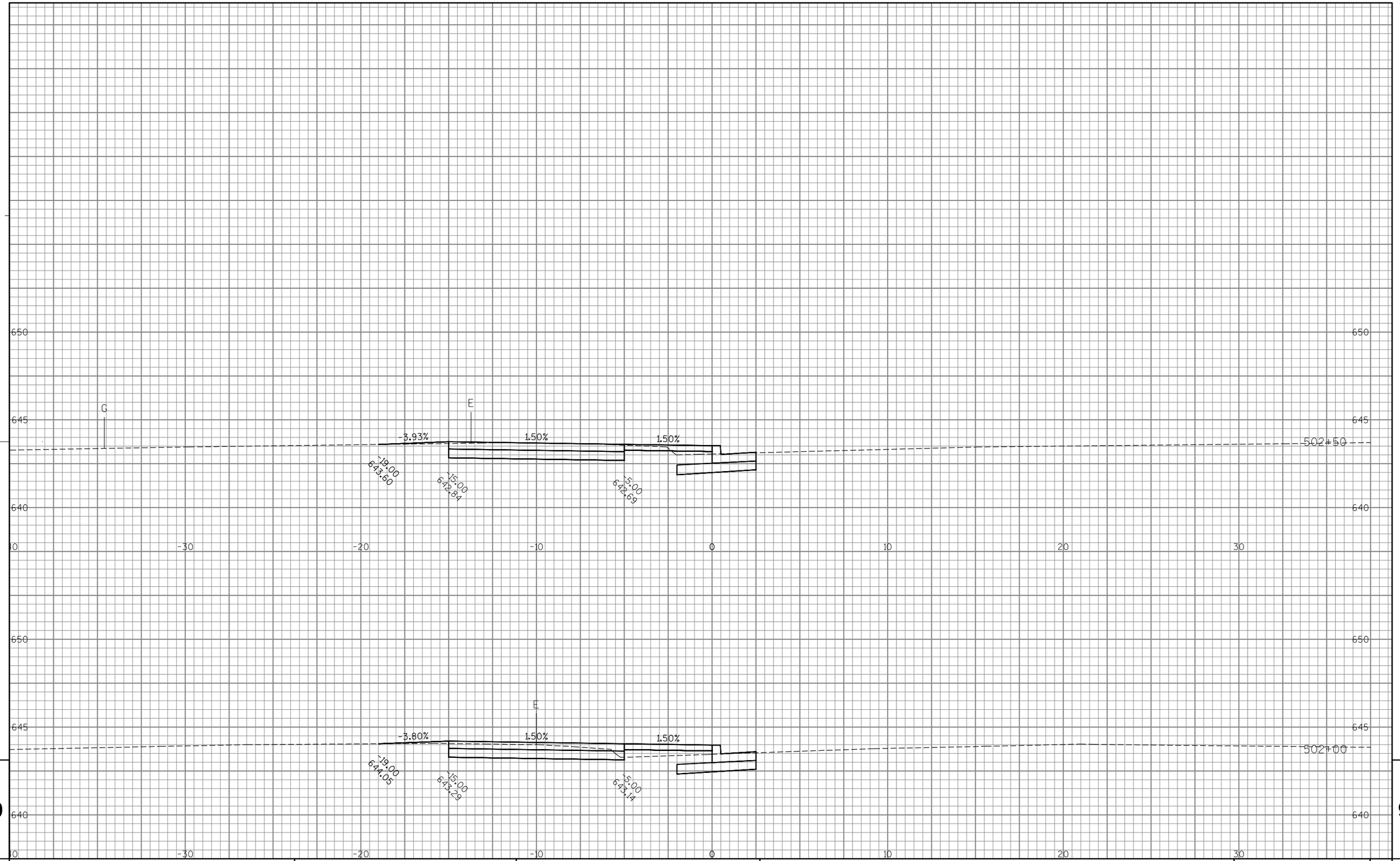
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS GILLETTE ST.	SHEET 174	E



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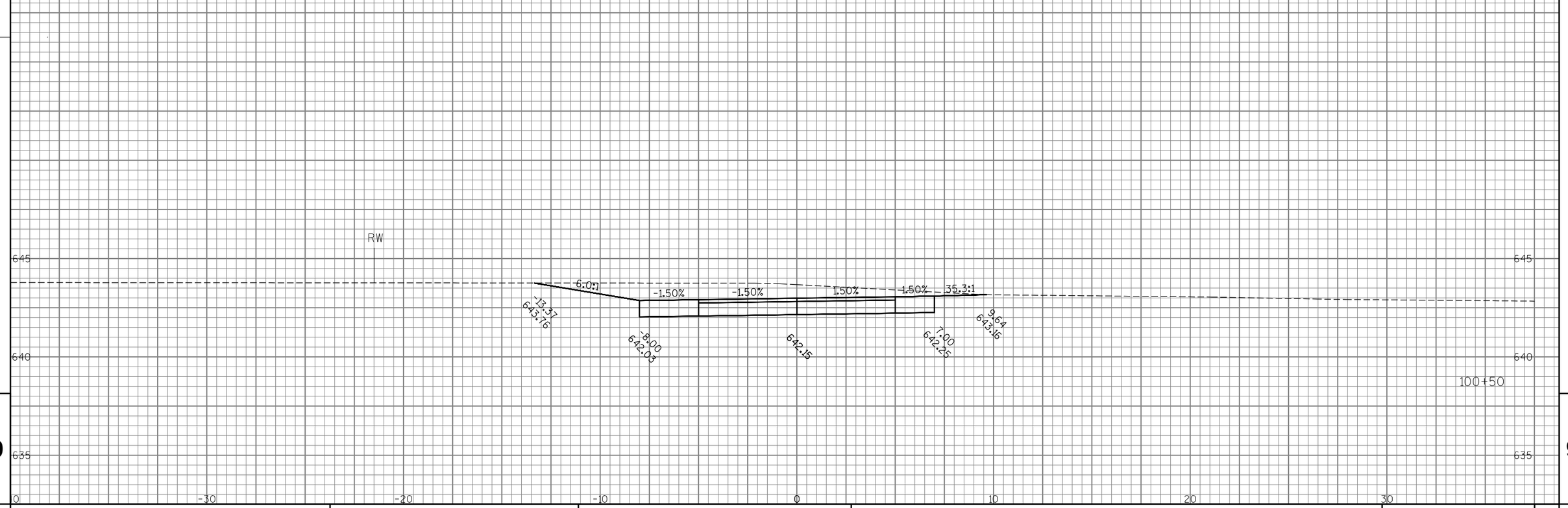
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS GILLETTE ST.	SHEET 175	E

9

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 1/5/2013 2:18 PM PLOT BY : JEFF BREU PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 49



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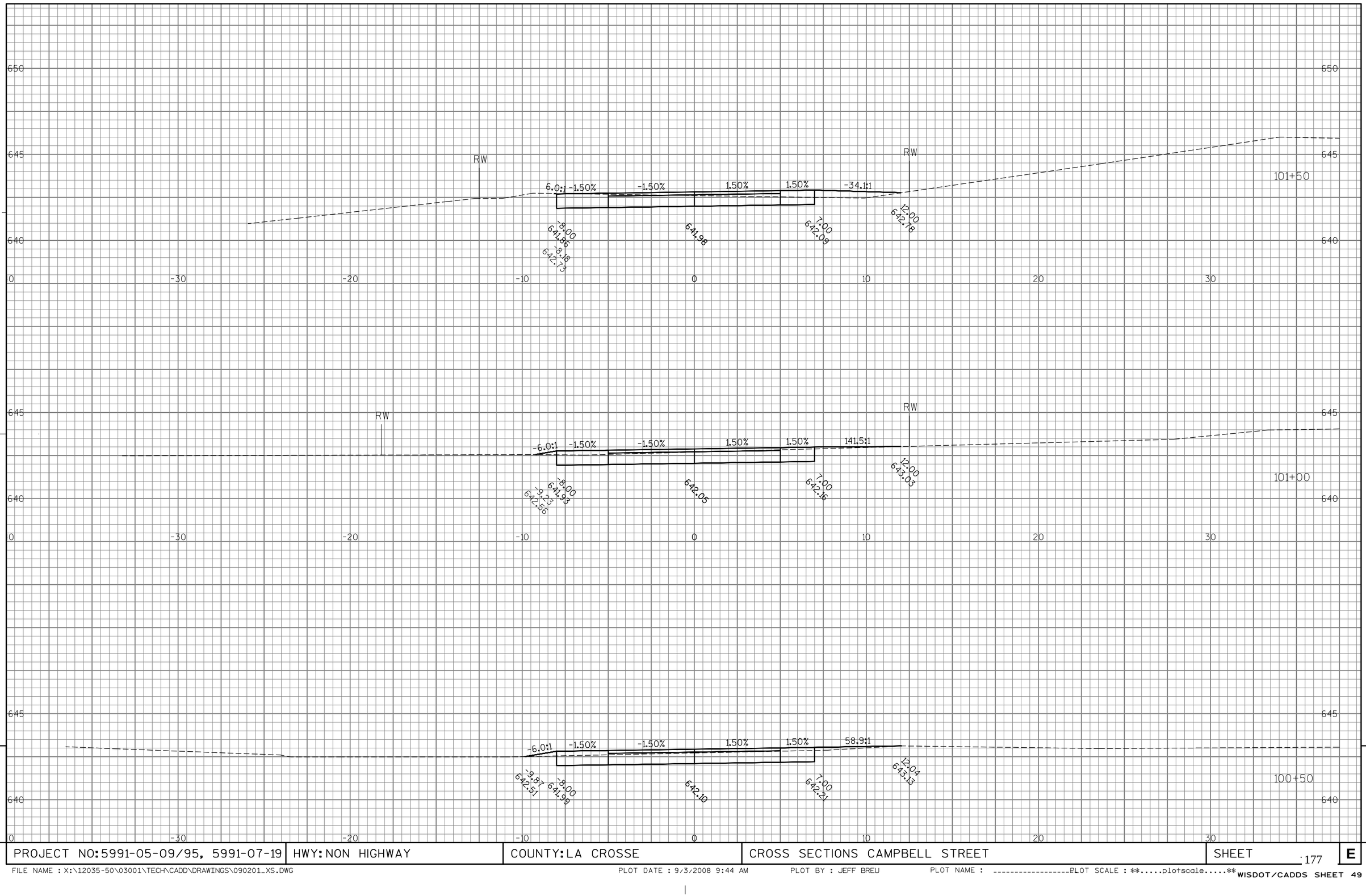
PROJECT NO:5991-05-09/95, 5991-07-19	HWY:NON HIGHWAY	COUNTY:LA CROSSE	CROSS SECTIONS PALACE STREET	SHEET	E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : ----------PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 49



PROJECT NO:5991-05-09/95, 5991-07-19	HWY: NON HIGHWAY	COUNTY: LA CROSSE	CROSS SECTIONS CAMPBELL STREET	SHEET 177	E

FILE NAME : X:\12035-50\03001\TECH\CADD\DRAWINGS\090201_XS.DWG PLOT DATE : 9/3/2008 9:44 AM PLOT BY : JEFF BREU PLOT NAME : _____PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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