WKE

DECEMBER 2018

PROJECT ID: 2350-09-71

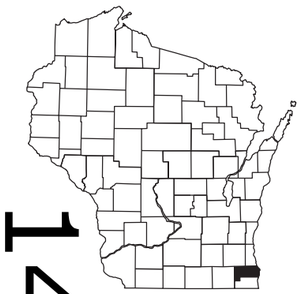
WITH: N/A

COUNTY: RACINE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control Plans)
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 = 460



14

N

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

RACINE TO MILWAUKEE ROAD

5 MILE ROAD TO STH 31

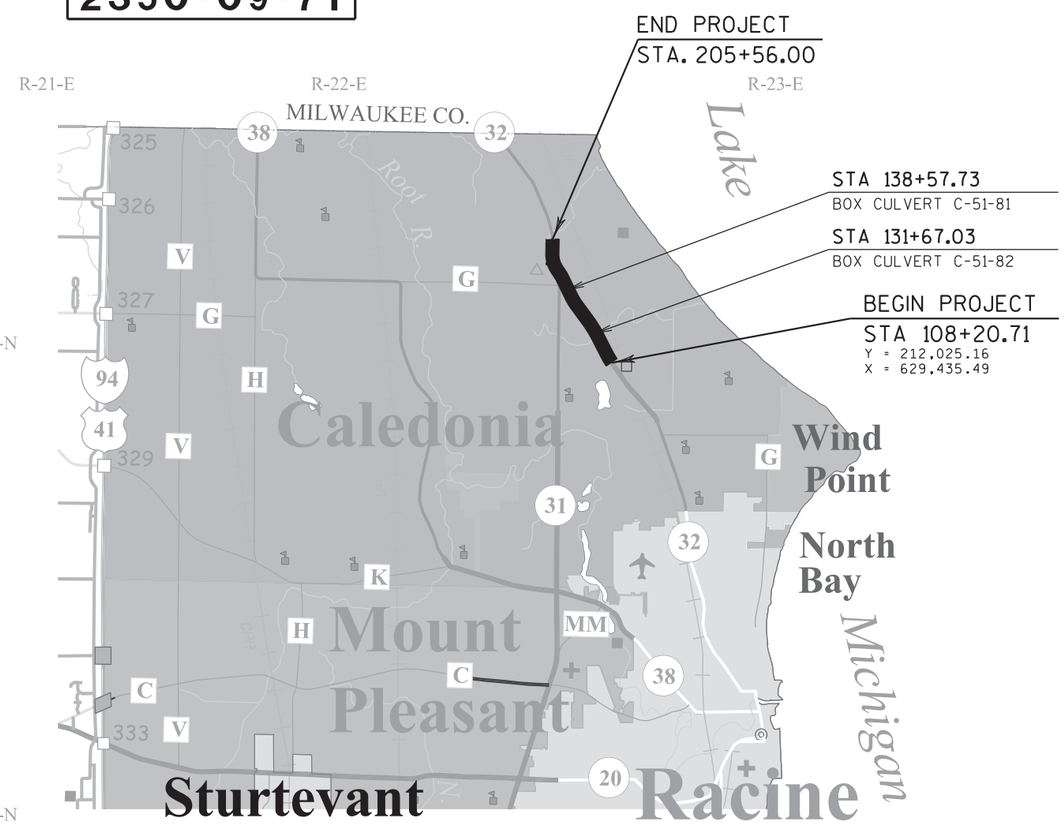
STH 32

RACINE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2350-09-71	WISC 2019007	1

STATE PROJECT NUMBER

2350-09-71



LAYOUT

SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.844 MI.

Horizontal positions shown on this plan are Wisconsin County coordinates, Racine County, NAD83 (1991), in U.S. Survey Feet. Values are Grid Coordinates, Grid Bearings, and Grid Distances. Grid Distances may be used as Ground Distances.

Elevations shown on plan are referenced to the National Geodetic Vertical Datum of 1929 (NGVD29).

DESIGN DESIGNATION

		STH 32	SIX MILE ROAD
A.A.D.T. 2018	=	11,740	6,100
A.A.D.T. 2038	=	13,477	6,300
D.H.V.	=	1430	700
D.D.	=	50/50	50/50
T.	=	5.6%	6.9%
DESIGN SPEED	=	50 MPH	50 MPH
ESALS	=	1,810,400	1,043,900

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

ORIGINAL PLANS PREPARED BY

CORRE ENGINEERING

175 E. WISCONSIN AVE. SUITE 27
OCONOMOWOC, WI 53066
(608)828-1011
www.correinc.com

JESSICA D. LEWIS E-37589 Lake Geneva, WI PROFESSIONAL ENGINEER

1/25/18

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	WISDOT
Designer	CORRE, INC.
Project Manager	MARK WILFERT
Regional Examiner	STEVE CHOJNACKI
Regional Supervisor	REEM SHAHIN
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 1-25-18 (Signature)

E

2

GENERAL NOTES

1. NO SHRUBS OR TREES ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

2. ALL CURB & GUTTER RADII ARE MEASURED TO THE FLANGE OF CURB.

3. CURB AND GUTTER PLAN GRADES ARE AT THE FLANGE LINE UNLESS OTHERWISE NOTED.

4. PIPE AND INLET ELEVATIONS AS SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER. COVER ELEVATIONS ARE THE FLOWLINE ELEVATIONS.

5. RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND MULCH/EROSION MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED AND MULCH.

6. STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILE SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED AND MULCH.

7. EROSION CONTROL ITEMS ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL ITEMS SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNITL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

8. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.

9. EXISTING CULVERT PIPE WITHIN THE CONSTRUCTION LIMITS THAT ARE TO BE REMOVED SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD. ALL CULVERT PIPE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

10. EXCAVATION BELOW SUBGRADE (EBS), FOR REMOVAL OF UNSUITABLE MATERIAL, AS SHOWN ON THE PLANS IS NOT USED TO BALANCE YARDAGE, BUT IS MEASURED AND PAID FOR AS EXCAVATION COMMON. EXACT LOCATIONS FOR REMOVING UNSUITABLE MATERIAL WILL BE DETERMINED BY THE ENGINEER.

11. SALVAGED TOPSOIL, SEEDING, MULCHING AND FERTILIZER HAS BEEN COMPUTED BY A DIRECT MEASUREMENT ON THE CROSS SECTIONS PLUS FIVE (5) FEET BEYOND THE TOE OF SLOPE.

12. CROSS DRAIN PIPE ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

13. EXISTING PIPE CULVERT SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR SHALL BASE THE BID ON THE ACTUAL FIELD CONDITIONS.

14. THE LOCATIONS OF EXISTING & PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITH IN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK.

15. THE EXACT LOCATION OF PRIVATE ENTRANCES AND DRIVEWAYS IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

16. STATIONING, DISTANCES, AND OFFSETS FOR SIGNS SHOWN ON THE PLANS ARE APPROXIMATE AND THE LOCATIONS OF SIGNS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

17. PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT, OR AS DIRECTED BY THE ENGINEER.

18. HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS & GRADATIONS:

THICKNESS	LAYERS	TYPE
4-INCHES	2 1/4-INCHES	3LT58-28S
	1 3/4-INCHES	4LT58-28S
6 1/4-INCHES	2 1/4-INCHES	3LT58-28S
	2 1/4-INCHES	3LT58-28S
	1 3/4-INCHES	4LT58-28S

19. CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND SEWRPC (JOHN WASHBURN) AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION (SEWRPC)
ATTN: JOHN WASHBURN
W239 N1812 ROCKWOOD DRIVE
PO BOX 1607
WAUKESHA, WI 53187-1007
PHONE: (262) 953-4295
CELL: (414) 218-2866
JWASHBURN@SEWRPC.ORG

INDEX OF TYPICAL SECTION & DETAIL SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
STORM SEWER PLAN
PERMANENT SIGNING
PAVEMENT MARKING
TRAFFIC CONTROL
ALIGNMENT

UTILITIES

WE ENERGIES (ELECTRIC)
GARY JOHNSON
500 5116TH ST
WEST ALLIS, WI 53214-1000
PHONE: (414) 944-5548
MOBILE: (262) 939-3911
GARY.JOHNSON@WE-ENERGIES.COM

CHARTER
STEVE CRAMER
1320 N. DR. MARTIN LUTHER KING DR.
MILWAUKEE, WI 53212
PHONE: (414) 277-4045
STEVE.CRAMER@CHARTER.COM

WINDSTREAM, LLC
MARY BETH FISHER
13935 BISHOPS DR.
BROOKFIELD, WI 53005
PHONE: (262) 792-7938
MARY.B.FISHER@WINDSTREAM.COM

WE ENERGIES (GAS)
CHRIS DEGRAVE
7815 NORTHWESTERN AVE.
RACINE, WI 53406
PHONE: (262) 886-7048
MOBILE: (262) 939-9814
CHRIS.DEGRAVE@WE-ENERGIES.COM

VILLAGE OF CALEDONIA
TONY BUNKELMAN
6922 NICHOLSON ROAD
CALEDONIA, WI 53108
PHONE: (262) 835-6416
ABUNKELMAN@CALEDONIAWI.COM

CALEDONIA UTILITY DISTRICT
BOB LUI
333 4-1/2 MILE ROAD
RACINE, WI 53402
PHONE: (262) 681-3900
BLUI@CALEDONIAWIUTILITY.COM

WISDOT SIGNALS
DERRIN WOLFORD
141 NW BARSTOW ST
WAUKESHA, WI 53187 0798
PHONE: (262) 521-4409
RDERRIN@DOT.WI.GOV

AT&T WISCONSIN
SCOTT SOKOLOWSKI
435 S. 95TH STREET
MILWAUKEE, WI 53244
PHONE: (262) 994-8070
MS4143@ATT.COM

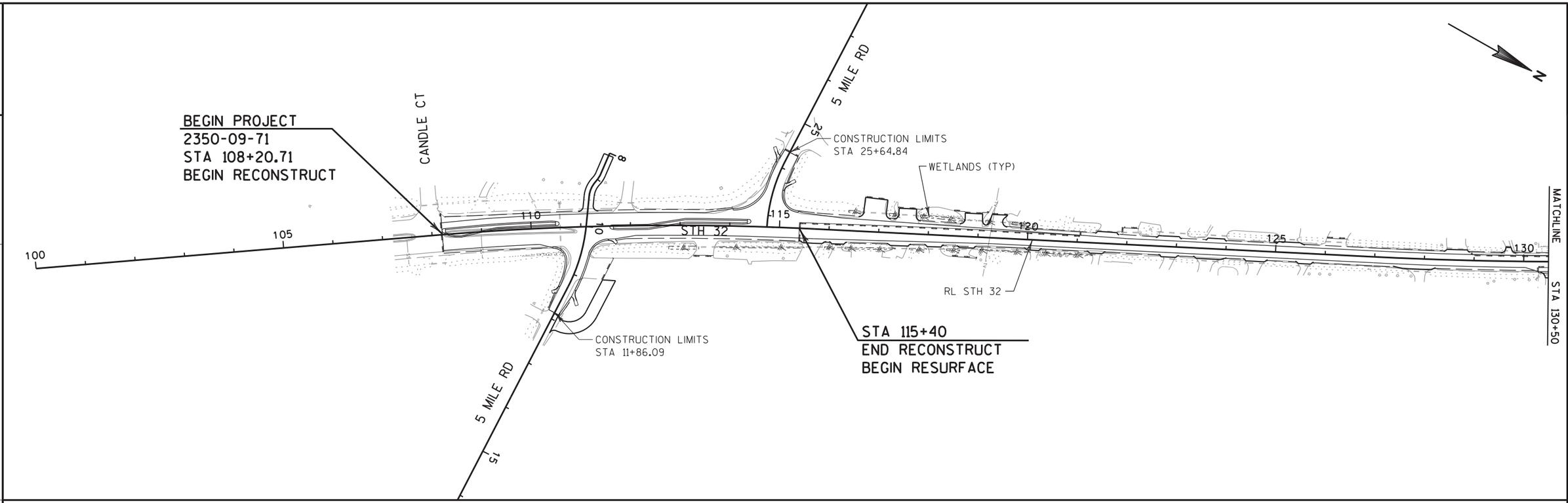
WISDOT ELECTRICAL FIELD UNIT
935 S. 60TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 266-1170

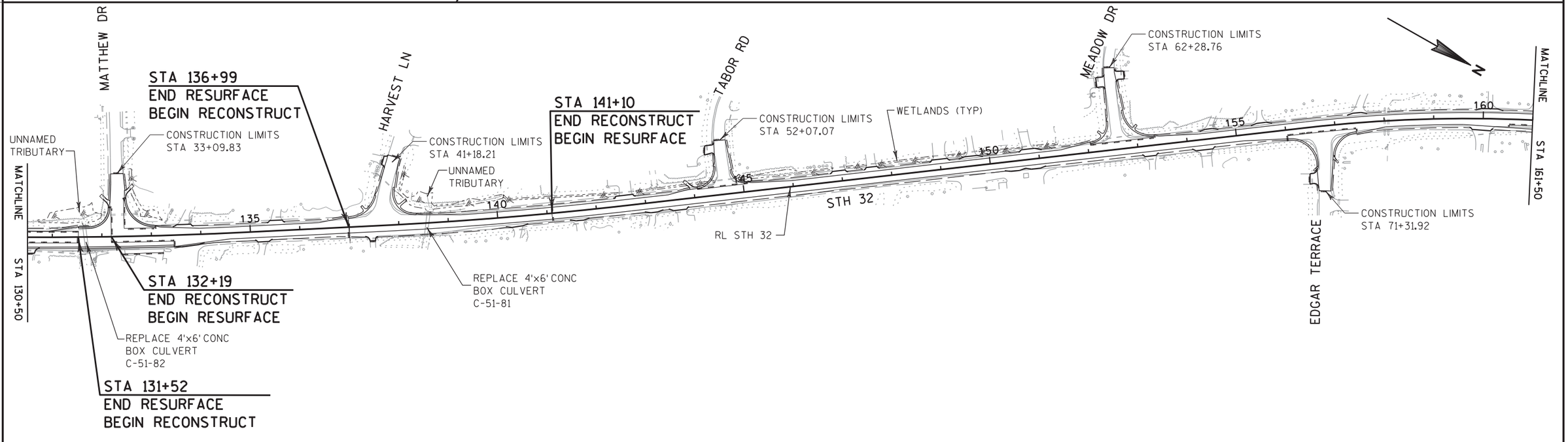
DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

DESIGN CONTACT
CORRE, INC.
MS. JESSICA LEWIS, P.E.
175 E. WISCONSIN AVE., SUITE 27
OCONMOWOC, WI 53066
PHONE: (608) 828-1011
JLEWIS@CORREINC.COM

WISDOT CONTACT
MR. MARK WILFERT
141 NW BARSTOW ST
WAUKESHA, WI 53187
PHONE: (262) 548-5936
MARK.WILFERT@DOT.WI.GOV

DNR LIAISON
DEPARTMENT OF NATURAL RESOURCES
MS. KRISTINA BETZOLD
WISDNR
2300 N. DR. MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212
PHONE: (414) 263-8517
KRISTINA.BETZOLD@WISCONSIN.GOV





PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PROJECT OVERVIEW	SHEET 3	E

CONSTRUCTION LIMITS
STA 401+91.93

STH 31

KINGDOM CT

T 4 N
12 | 7
13 | 18
R22E R23E

CONC. MON. WITH BRASS CAP
Y=217,405.85
X=625,791.91

405

RL STH 31

6 MILE RD (CTH G)

410

CONSTRUCTION LIMITS
STA 304+65.02

DALE DR

RL 6 MILE RD

STH 31

415

WETLANDS (TYP)

MANAGEMENT OF SOLID WASTE
(REFER TO SPECIAL PROVISIONS)

PROPOSED
TRAFFIC
SIGNAL

MATCHLINE
STA 161+50

165

STH 32

170

175

180

185

190

STA 190+50

REMOVE
BOX CULVERT
C-51-032.038

RL STH 32

MATCHLINE

STA 167+50
END RESURFACE
BEGIN RECONSTRUCT

RECONSTRUCT
TRAFFIC SIGNAL

STA 174+20
END RECONSTRUCT
BEGIN RESURFACE

6 MILE RD

RL 6 MILE RD

MATCHLINE

STA 325+00

WETLANDS
(TYP)

MATCHLINE

STA 325+00

6 MILE RD

RL 6 MILE RD

CONSTRUCTION LIMITS
STA 328+04.17

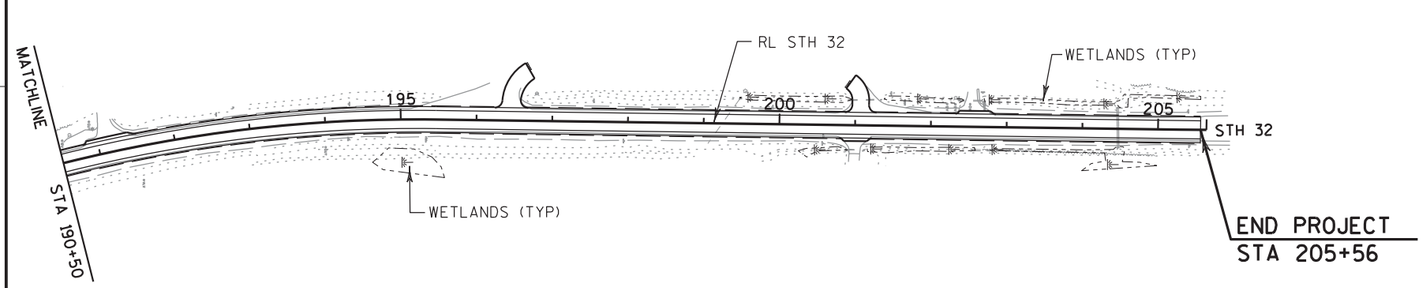
330

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PROJECT OVERVIEW	SHEET 4	E

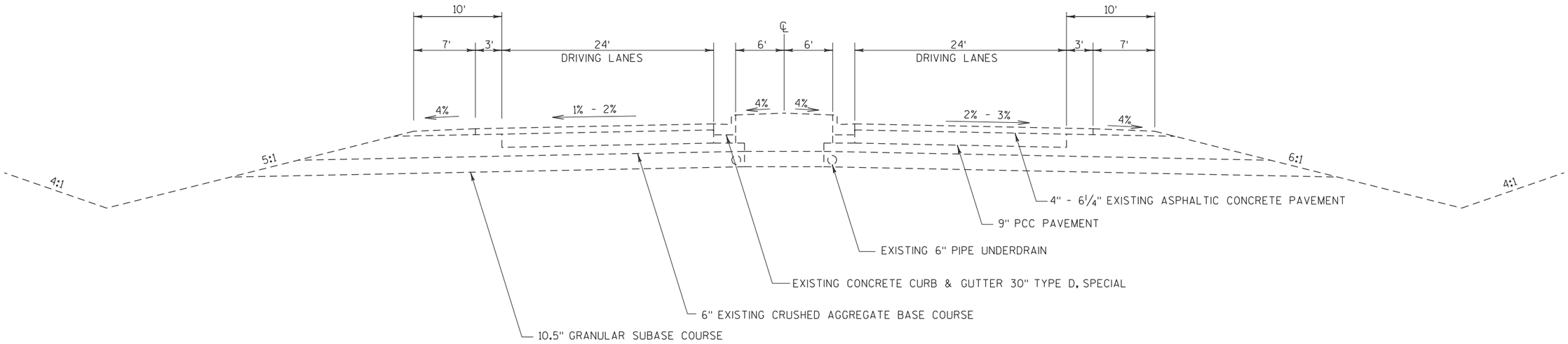
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PLOT DATE : 7/12/2018
PLOT BY : CORRE, Inc.
PLOT NAME :
PLOT SCALE : 200.0000 sf / in.
WISDOT/CADDS SHEET 42

N

2



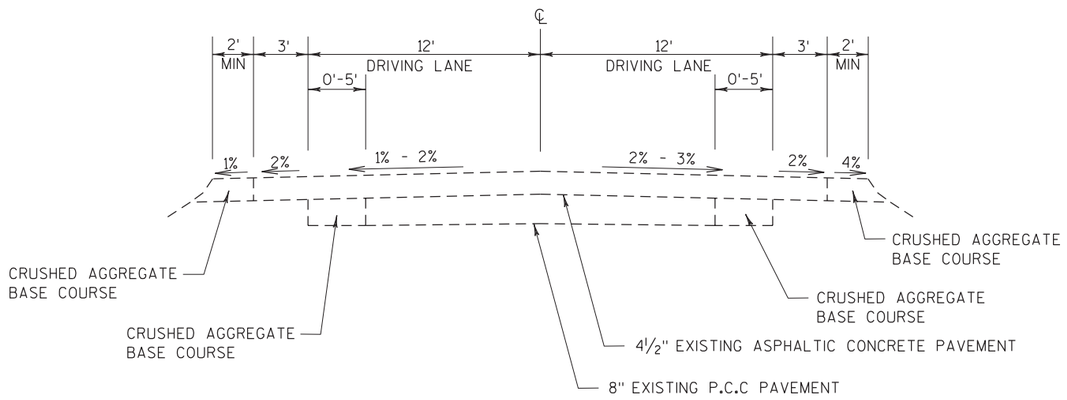
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PROJECT OVERVIEW	SHEET 5	E



EXISTING TYPICAL SECTION

STH 32

STA 108+20 TO STA 110+87

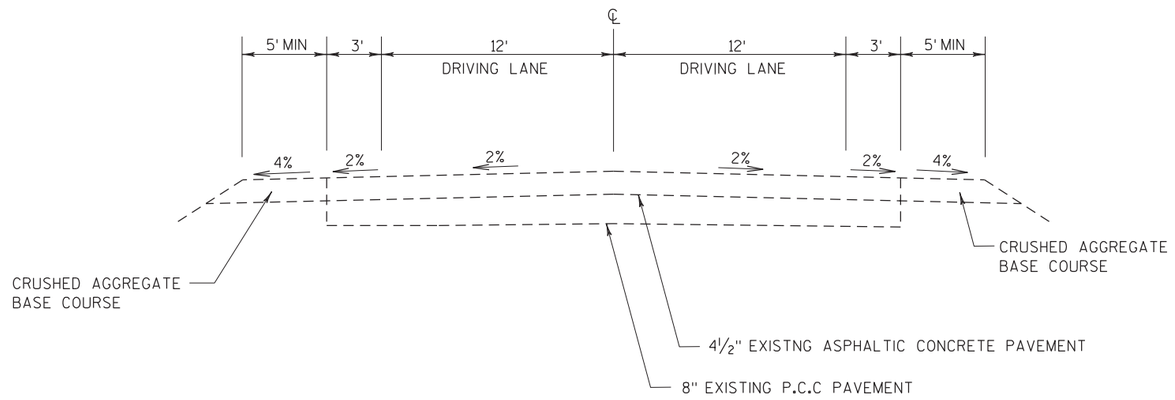


EXISTING TYPICAL SECTION

STH 32

STA 110+87 TO STA 122+16

STA 171+16 TO STA 175+12



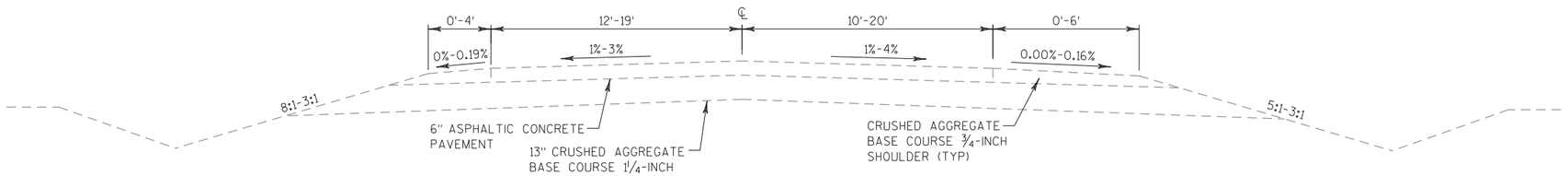
EXISTING TYPICAL SECTION

STH 32

STA 122+16 TO STA 171+16

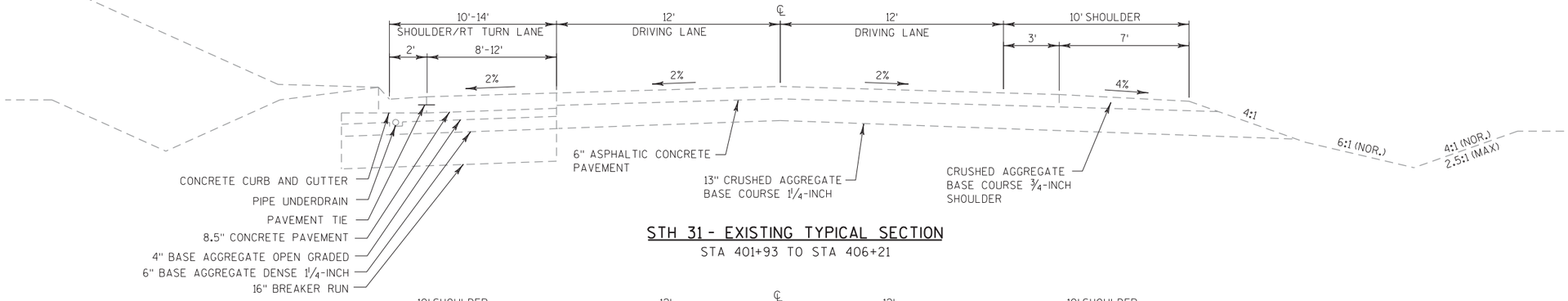
STA 175+12 TO STA 205+56

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TYPICAL SECTIONS	SHEET 6	E



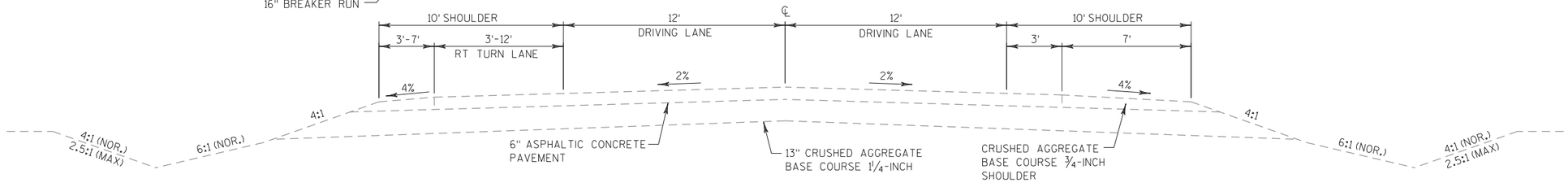
6 MILE RD - EXISTING TYPICAL SECTION

STA 305+35 TO STA 326+51



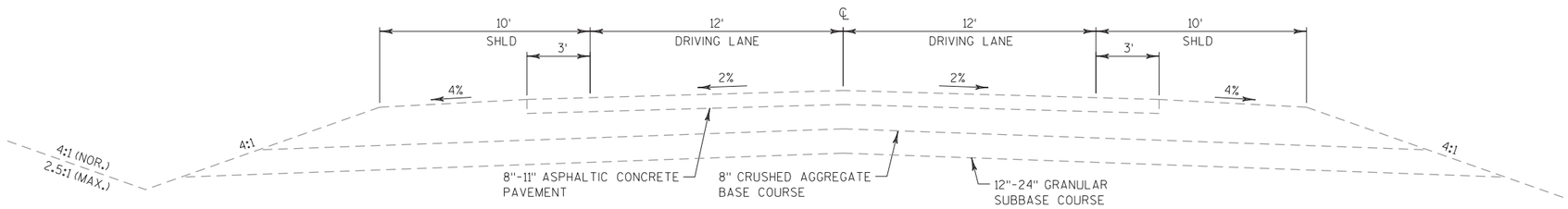
STH 31 - EXISTING TYPICAL SECTION

STA 401+93 TO STA 406+21



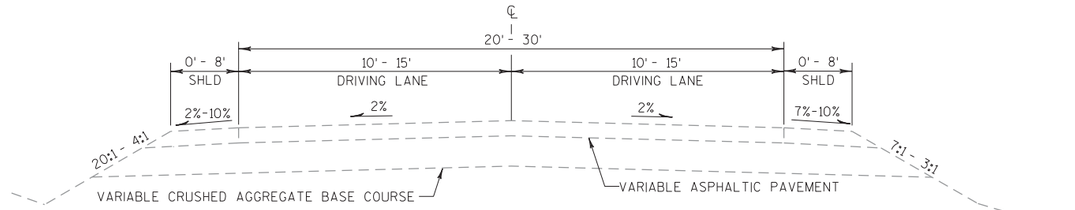
STH 31 - EXISTING TYPICAL SECTION

STA 406+21 TO STA 410+82



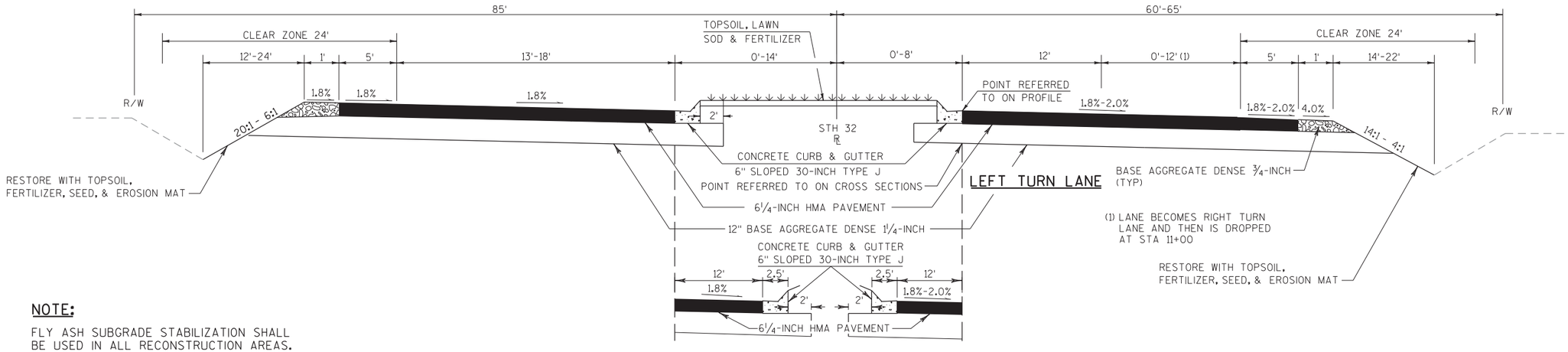
STH 31 - EXISTING TYPICAL SECTION

STA 410+82 TO STA 418+29



SIDE ROAD - EXISTING TYPICAL SECTION

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TYPICAL SECTIONS	SHEET 7	E



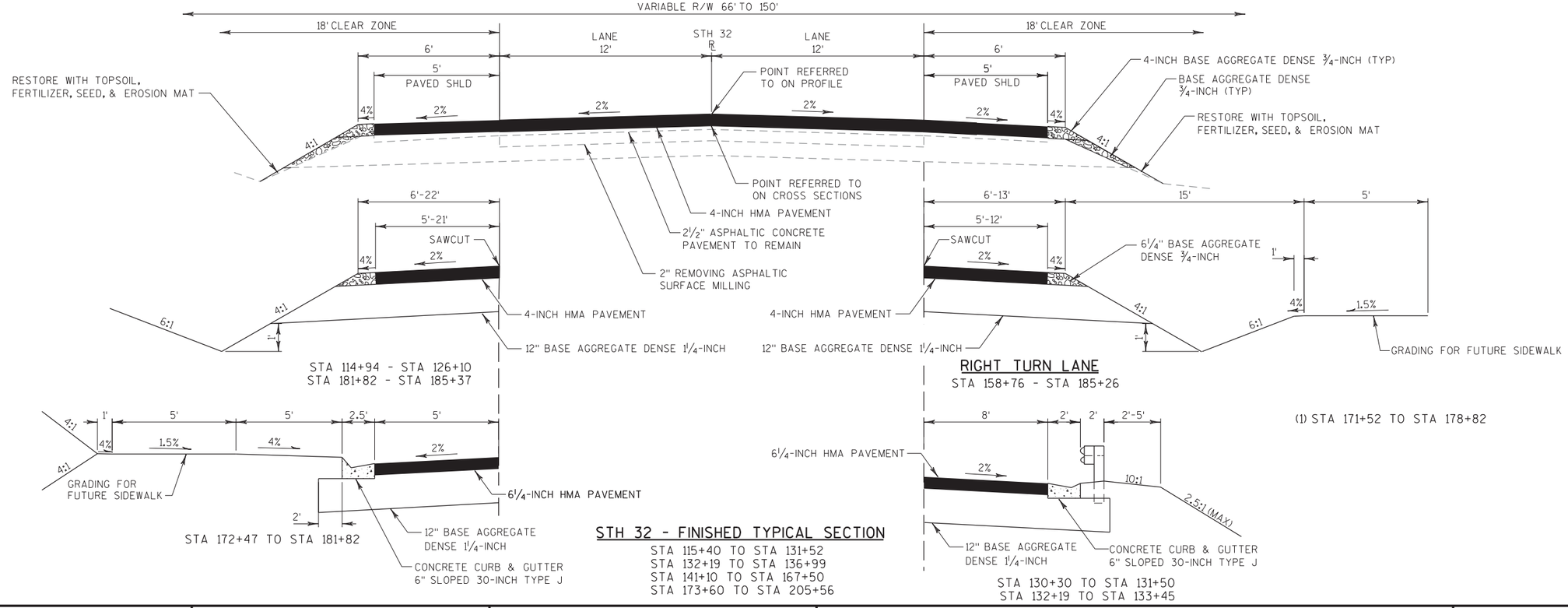
NOTE:

FLY ASH SUBGRADE STABILIZATION SHALL BE USED IN ALL RECONSTRUCTION AREAS.

LEFT TURN LANE
STA 111+62 TO STA 112+35

LEFT TURN LANE
STA 109+31 TO STA 110+52
STA 113+11 TO STA 114+39

STH 32 - FINISHED TYPICAL SECTION
STA 108+21 TO STA 115+40



STA 114+94 - STA 126+10
STA 181+82 - STA 185+37

RIGHT TURN LANE
STA 158+76 - STA 185+26

STA 172+47 TO STA 181+82

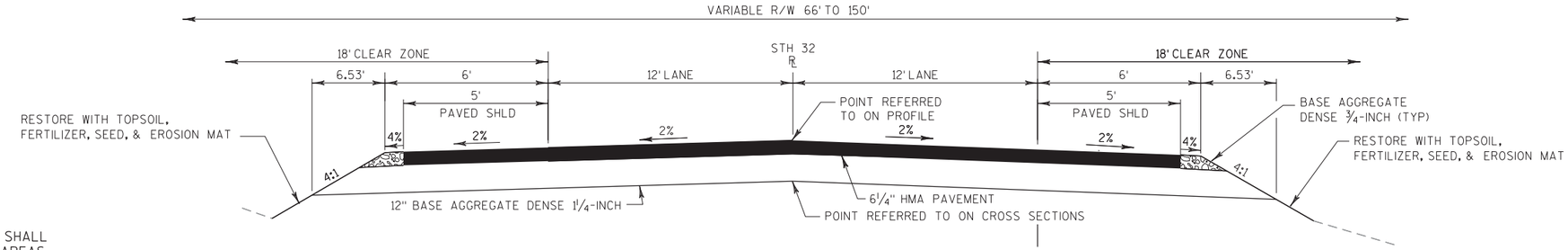
(1) STA 171+52 TO STA 178+82

STH 32 - FINISHED TYPICAL SECTION
STA 115+40 TO STA 131+52
STA 132+19 TO STA 136+99
STA 141+10 TO STA 167+50
STA 173+60 TO STA 205+56

STA 130+30 TO STA 131+50
STA 132+19 TO STA 133+45

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TYPICAL SECTIONS	SHEET 8	E

2

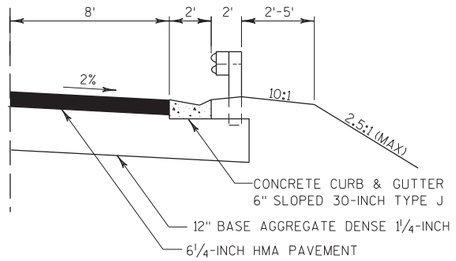


NOTE:

FLY ASH SUBGRADE STABILIZATION SHALL BE USED IN ALL RECONSTRUCTION AREAS.

STH 32 - FINISHED TYPICAL SECTION

STA 131+52 TO STA 132+19
STA 136+99 TO STA 141+10

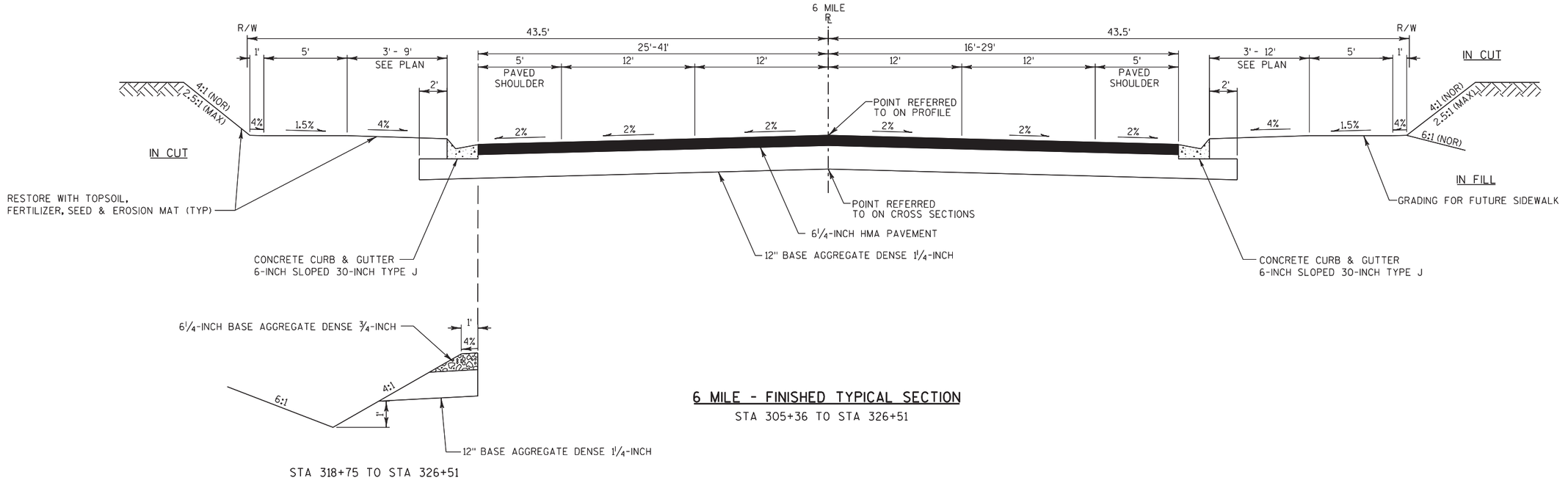


STA 137+53 TO STA 139+67

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TYPICAL SECTIONS	SHEET 9	E

NOTE:

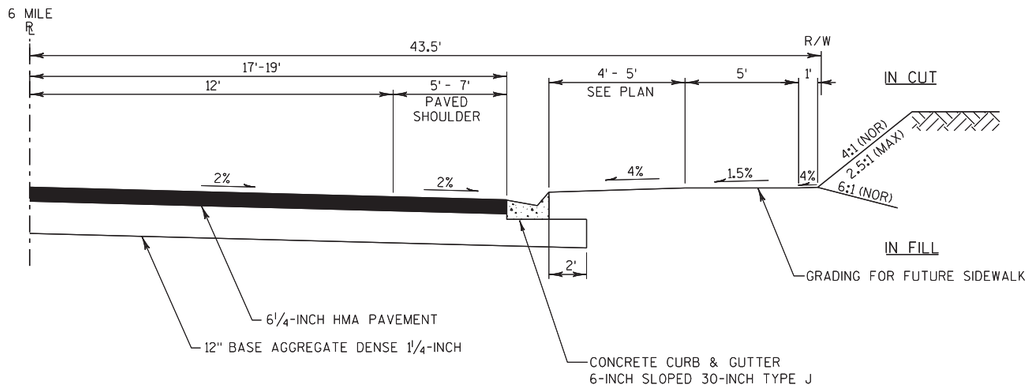
FLY ASH SUBGRADE STABILIZATION SHALL BE USED IN ALL RECONSTRUCTION AREAS.



STA 318+75 TO STA 326+51

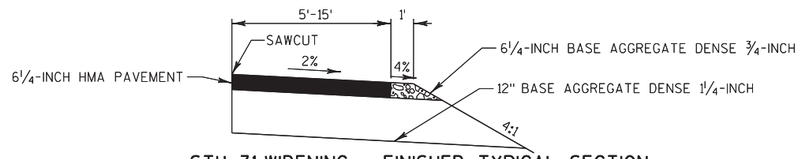
6 MILE - FINISHED TYPICAL SECTION

STA 305+36 TO STA 326+51



6 MILE - FINISHED TYPICAL SECTION

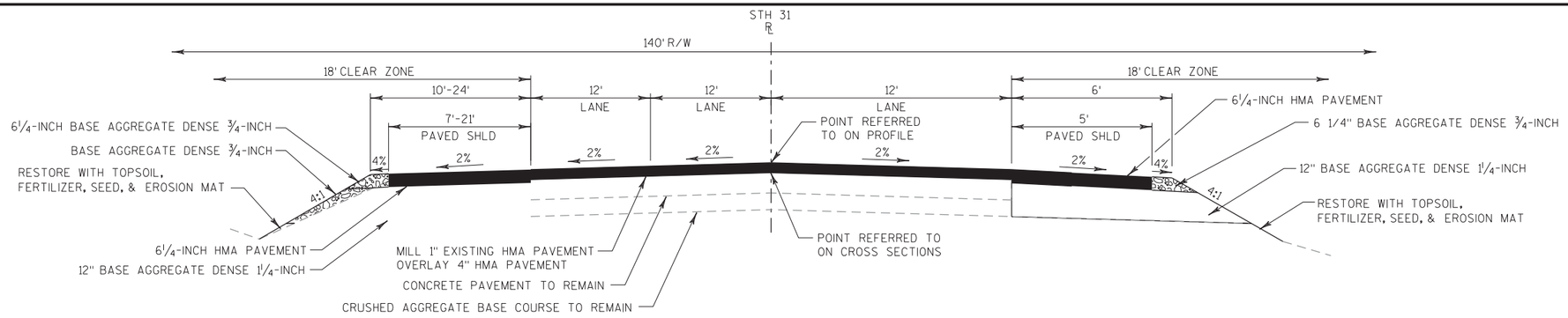
STA 326+51 TO STA 327+94



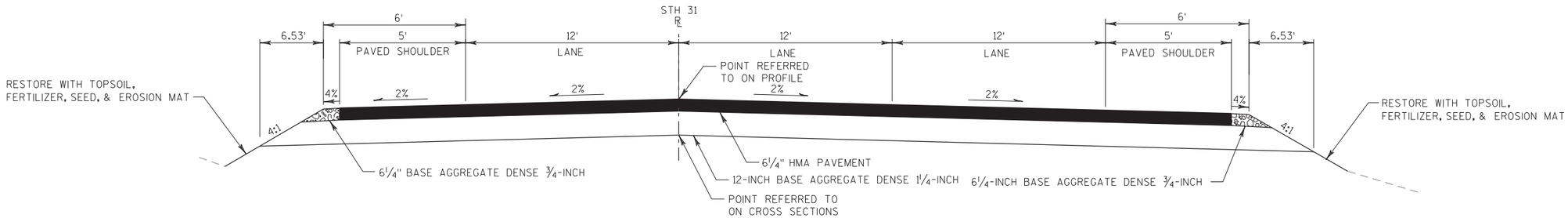
STH 31 WIDENING - FINISHED TYPICAL SECTION

STA 401+95 TO STA 405+62

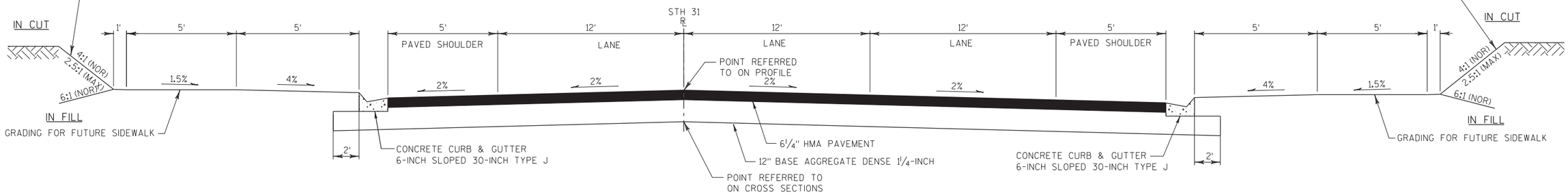
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TYPICAL SECTIONS	SHEET 10	E



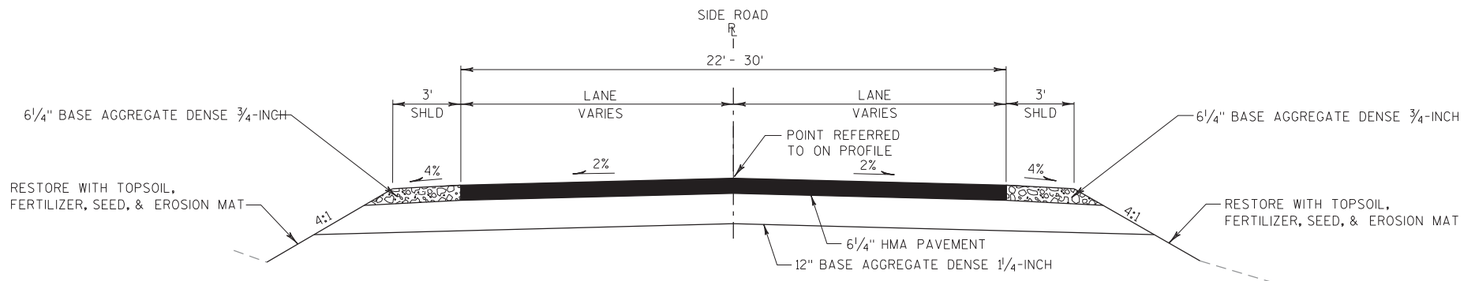
STH 31 - FINISHED TYPICAL SECTION
STA 405+62 TO STA 409+00



STH 31 - FINISHED TYPICAL SECTION
STA 409+00 TO STA 410+02



STH 31 - FINISHED TYPICAL SECTION
STA 410+02 TO STA 418+41

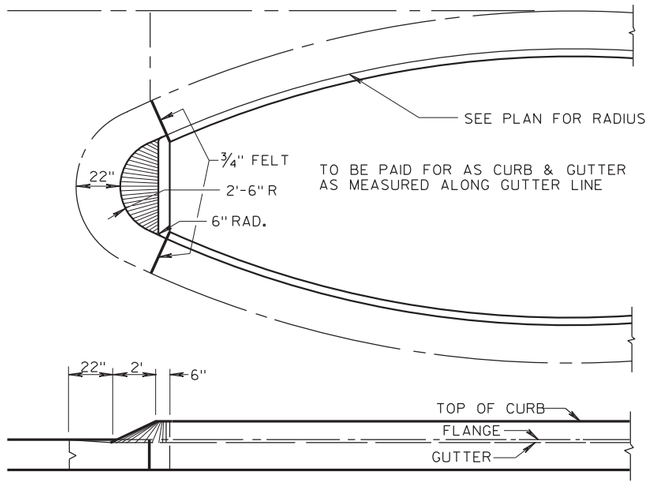


SIDE ROAD - FINISHED TYPICAL SECTION

NOTE:

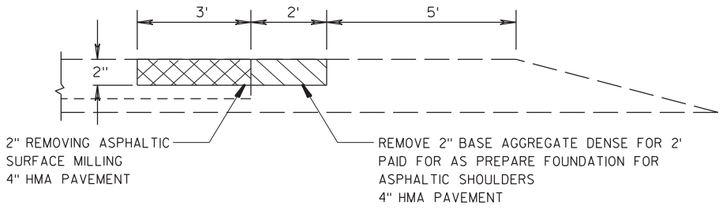
FLY ASH SUBGRADE STABILIZATION SHALL BE USED IN ALL RECONSTRUCTION AREAS.

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TYPICAL SECTIONS	SHEET 11	E

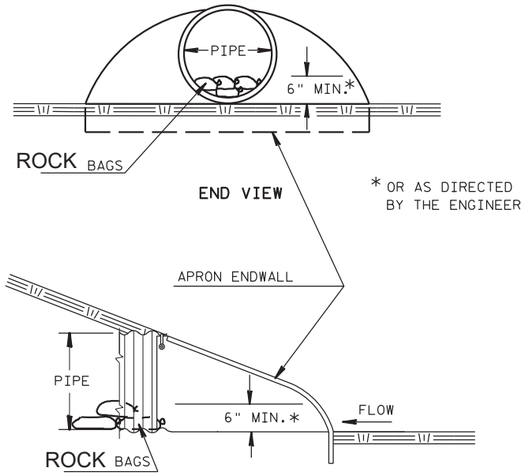


DETAIL OF ISLAND NOSE

(TO BE USED FOR ALL ISLAND NOSE RADII)

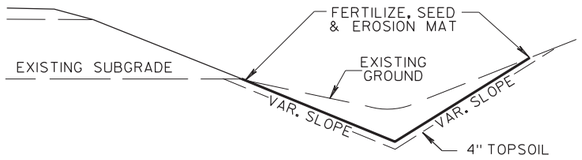


ASPHALTIC SHOULDER PREPARATION

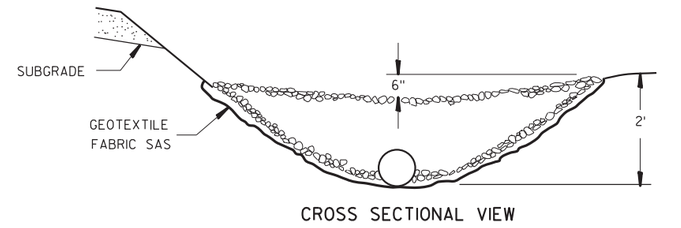


SIDE VIEW

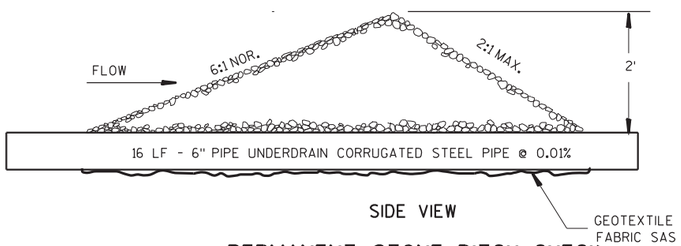
CULVERT PIPE CHECK



DITCH SHAPING DETAIL

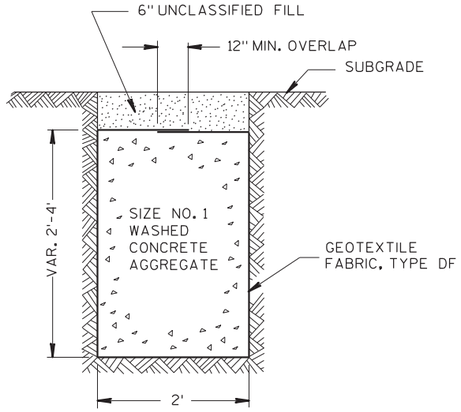


CROSS SECTIONAL VIEW

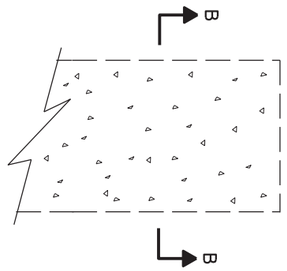


SIDE VIEW

PERMANENT STONE DITCH CHECK



SECTION B-B
(WITHOUT PIPE UNDERDRAIN)

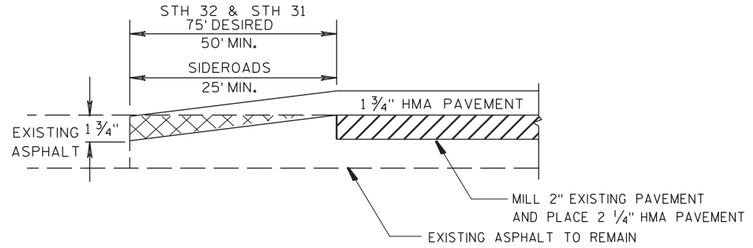


PLAN VIEW

UNDERDRAIN TRENCH DETAIL

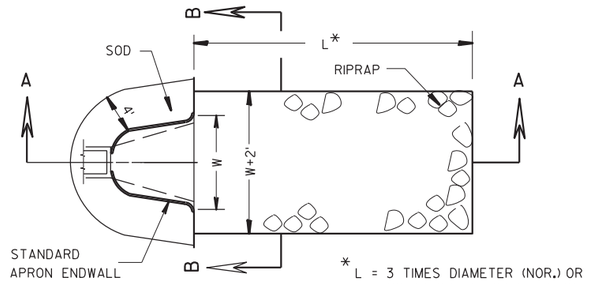
PAID FOR AS REMOVING ASPHALTIC SURFACE BUTT JOINTS

NOTE: ANY SAWCUT USED IN THIS OPERATION CONSIDERED INCIDENTAL TO THIS ITEM.

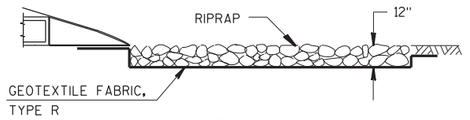


REMOVING ASPHALTIC SURFACE BUTT JOINT DETAIL

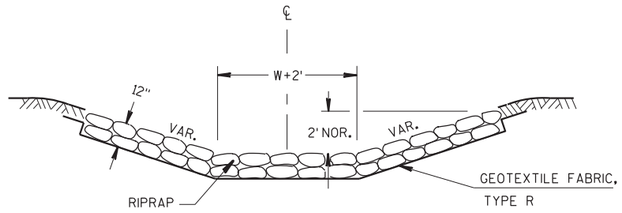
NOT TO SCALE
REQUIRED AT BEGIN AND END PAVING LOCATIONS



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

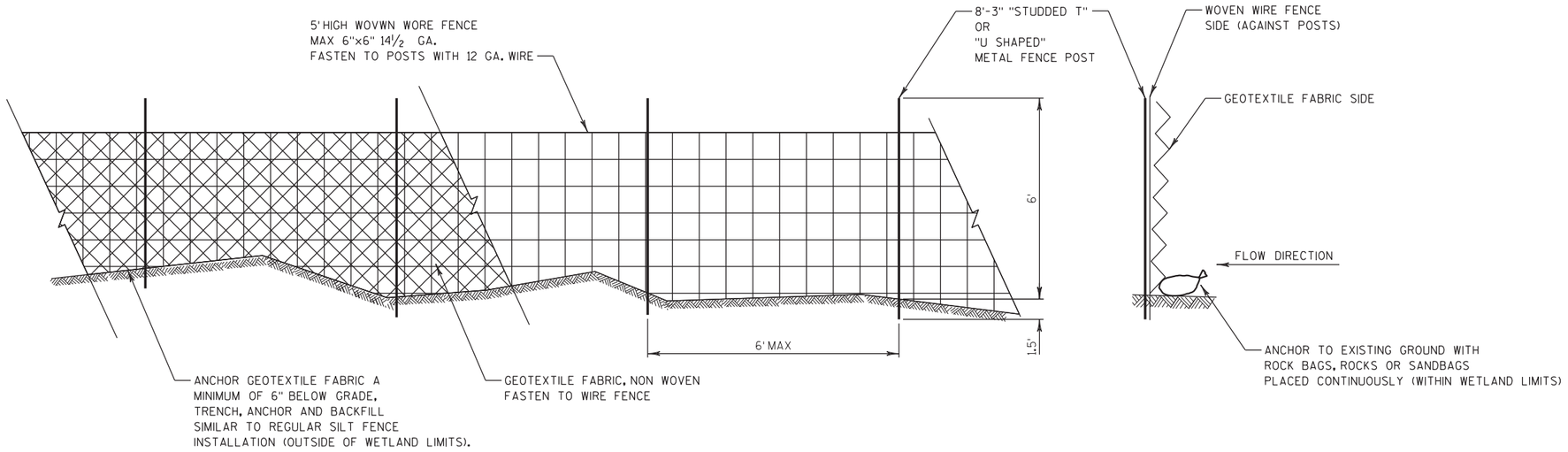


SECTION A-A

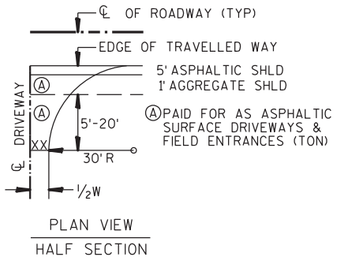


SECTION B-B

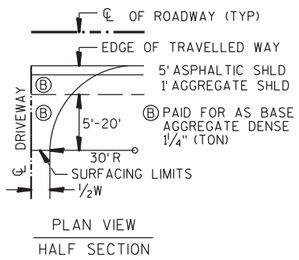
SOD, RIPRAP AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS



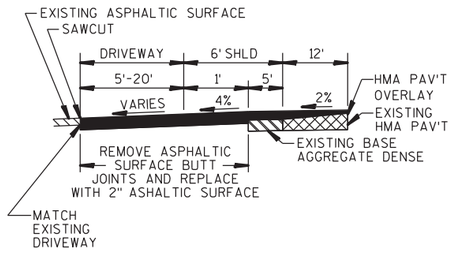
HEAVY DUTY SILT FENCE DETAIL



PLAN VIEW
HALF SECTION



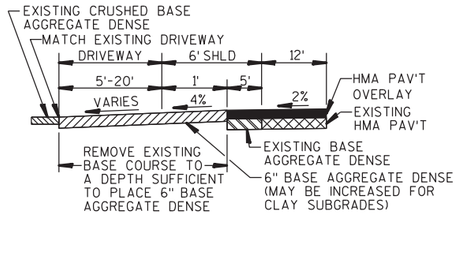
PLAN VIEW
HALF SECTION



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE

(DR02)



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 33.1 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 22.0 ACRES

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

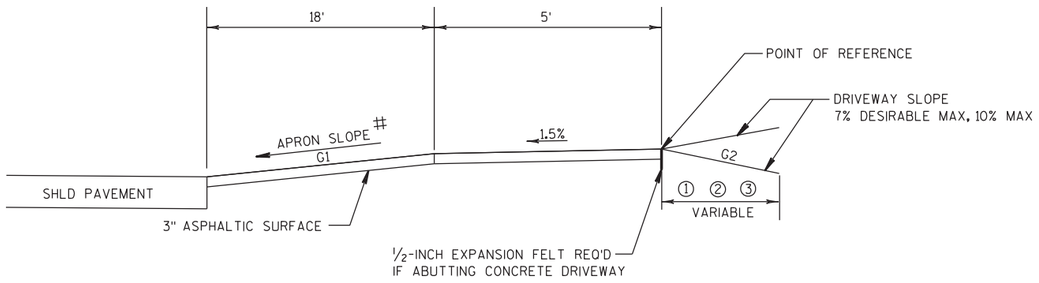
NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%. DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE.

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

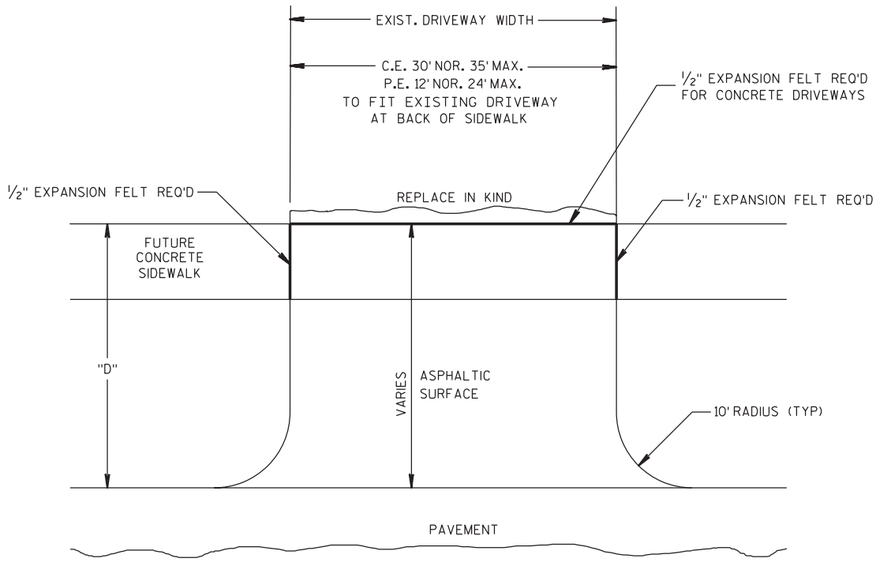
② — 6" BASE AGG. DENSE 1¼-INCH

③ — 4" BASE AGG. DENSE 1¼-INCH BASE WITH 3" ASPHALTIC SURFACE

** 6" BASE AGG. DENSE 1¼-INCH REQ'D UNDER CONCRETE DRWY

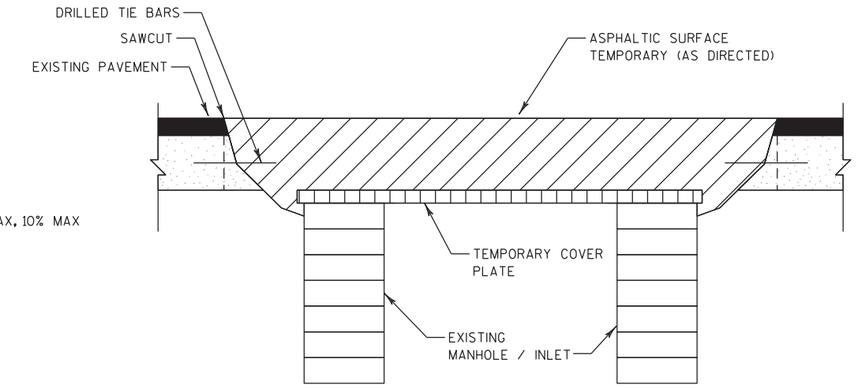


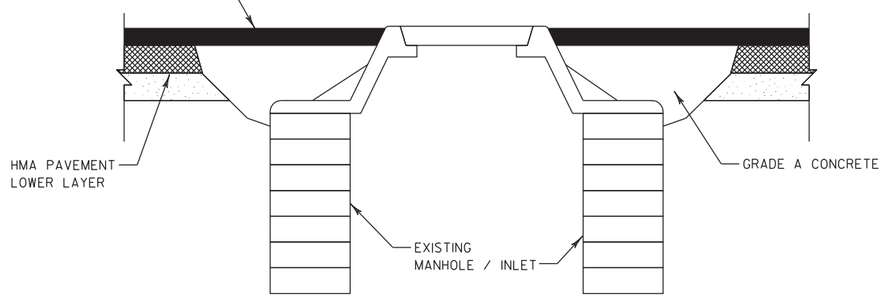
TYPICAL SECTION



PLAN VIEW

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK GRADING, RURAL





ADJUSTING MANHOLE / INLET COVERS

STEP 1

PRIOR TO REMOVING ASPHALTIC SURFACE

A. REMOVE AND STORE MANHOLE COVER
B. FURNISH AND INSTALL TEMPORARY COVER PLATE*
C. BACKFILL USING ASPHALT SURFACE TEMPORARY
D. MARK AND RECORD LOCATION OF MANHOLE

* TO BE PAID FOR UNDER CONTRACTOR ITEMS

STEP 1A MAY BE DONE BY OTHERS (UTILITY CO. OR MUNICIPALITY)

STEP 2

AFTER PAVING LOWER LAYER

A. EXCAVATE AND REMOVE TEMPORARY COVER PLATE
B. ADJUST MANHOLE AND REINSTALL MANHOLE FRAME AND COVER TO FINISH GRADE

(BACKFILL AND OTHER WORK TO BE DONE IN ACCORDANCE WITH ITEM "ADJUSTING MANHOLE COVERS)

ALL WORK DONE MAY BE DONE BY OTHERS (UTILITY CO. OR MUNICIPALITY) TEMPORARY COVER PLATES TO BE RETURNED TO CONTRACTOR.

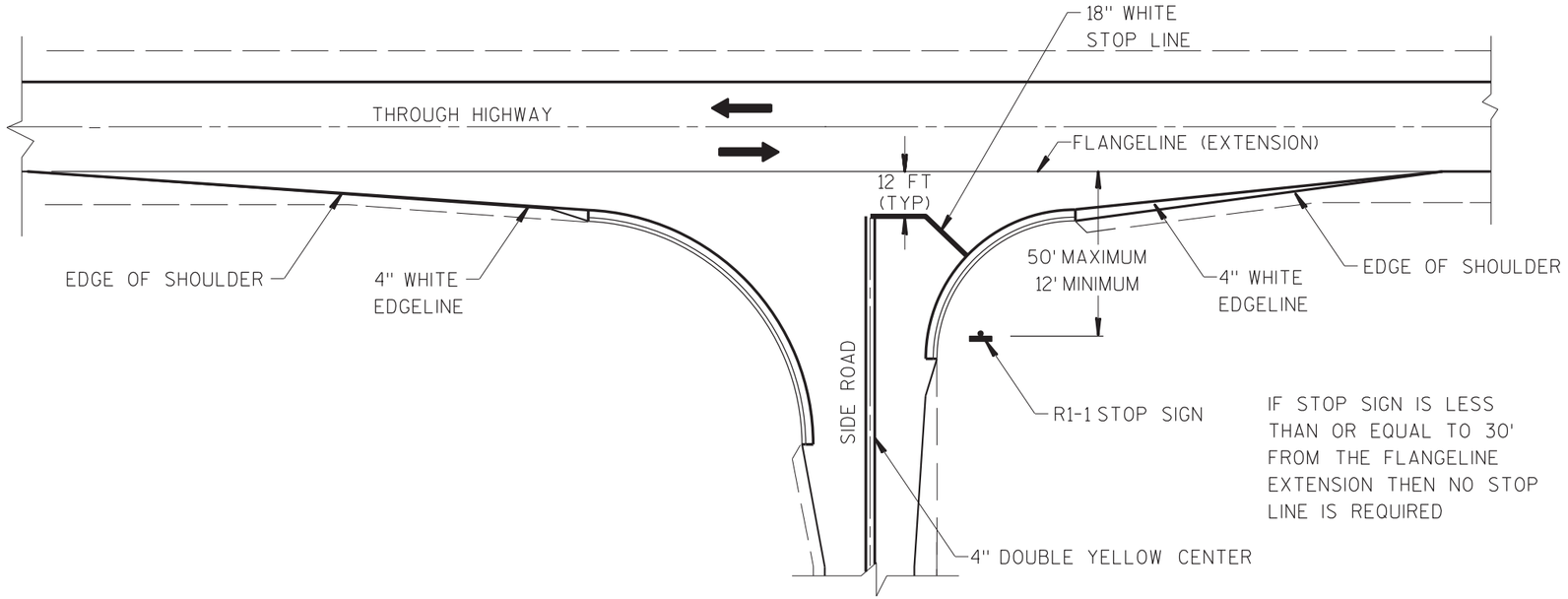
NOTES:
1.) ADJUSTING MANHOLE COVERS WILL NOT BE PAID FOR AS A SEPARATE ITEM OF WORK WHEN ADJUSTMENTS ARE MADE BY OTHERS (UTILITY CO. OR MUNICIPALITY)

COVER PLATES, TEMPORARY

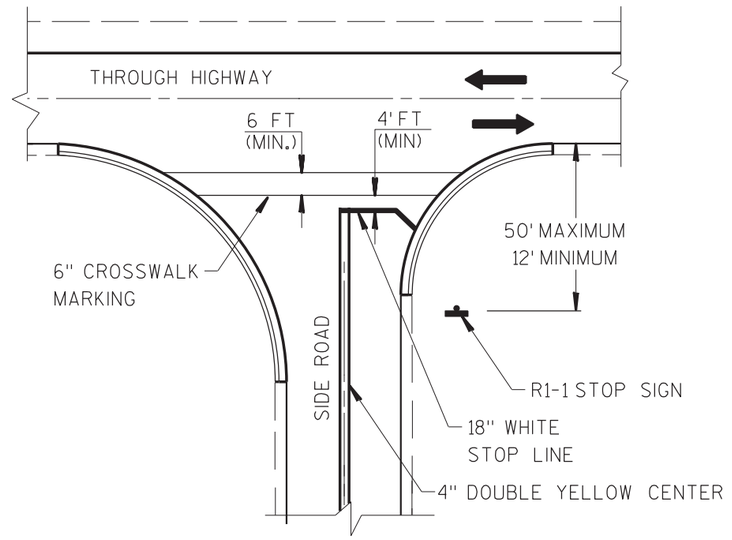
A. DESCRIPTION
THIS WORK CONSISTS OF FURNISHING, INSTALLING AND REMOVING A STEEL PLATE TO COVER AND SUPPORT BACKFILL AND TRAFFIC LAODING AT MANHOLES.

B.) MATERIALS
MATERIALS FURNISHED AND USED IN THE WORK SHALL BE 1/4-INCH MINIMUM THICKNESS STEEL PLATE THAT EXTENDS AT LEAST TO THE OUTSIDE EDGE OF EXISTING MANHOLE MASONRY.

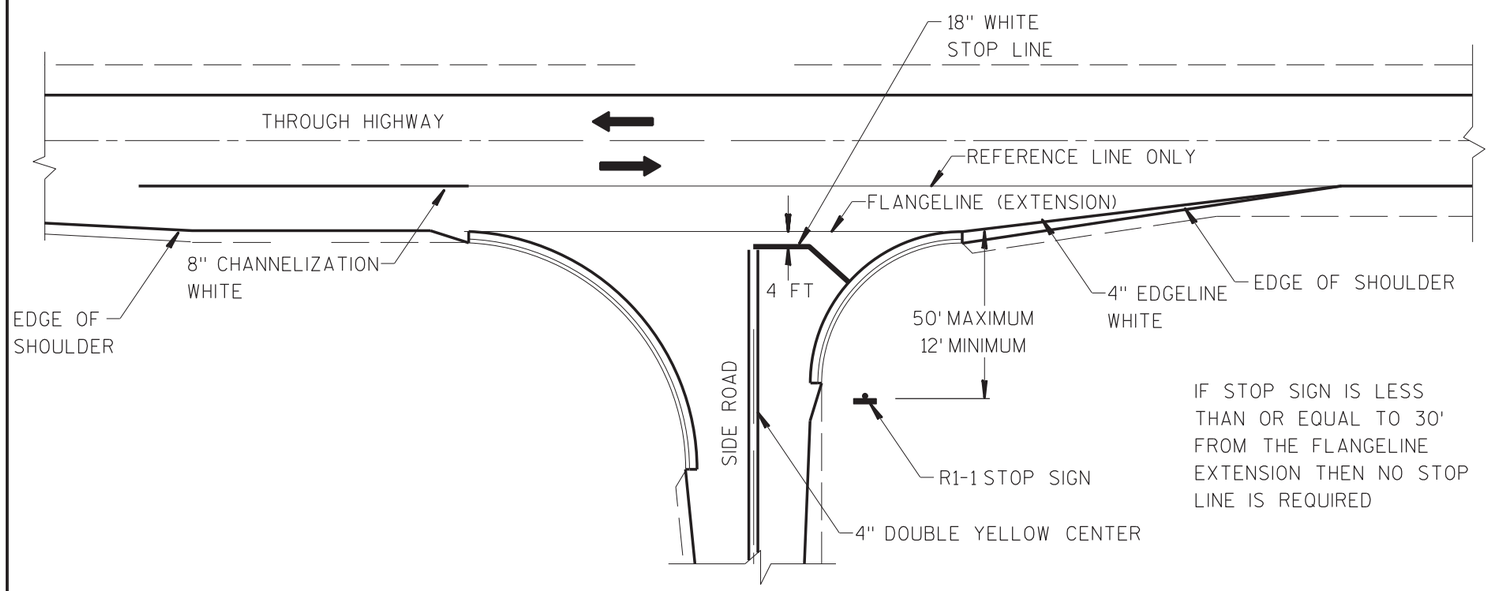
C.) METHOD OF MEASUREMENT AND BASIS OF PAYMENT
TEMPORARY COVER PLATES WILL BE MEASURED SEPARATELY AS UNITS AND WILL BE PAID FOR AT CONTRACT UNIT PRICE EACH, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING, INSTALLING AND REMOVING THE COVER PLATES: AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTAL NECESSARY TO COMPLETE THE WORK. THE STEEL PLATES SHALL BECOME THE PROPERTY OF THE CONTRACTOR WHEN NO LONGER NEEDED IN THE CONTRACT WORK.



TYPICAL PAVEMENT MARKING FOR SIDEROADS



TYPICAL PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALKS

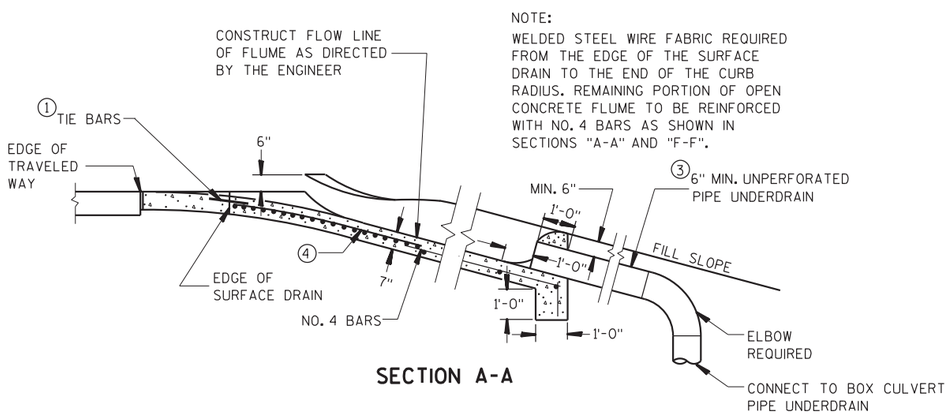


TYPICAL PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE

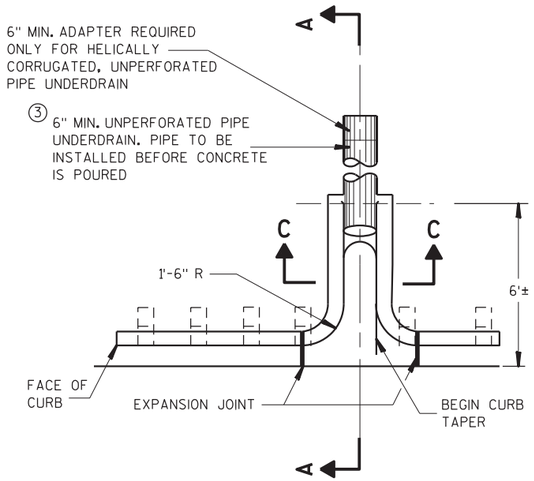
NOTES:
18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

STOP LINES REQUIRED WHERE:

- CROSSWALK MARKINGS EXIST OR BEING PROVIDED
- LARGE RADII
- OFFSET LEFT TURNS WHERE STOP BAR FOR LEFT TURN IS SET BACK FROM THE MOVEMENT



SECTION A-A



PLAN VIEW

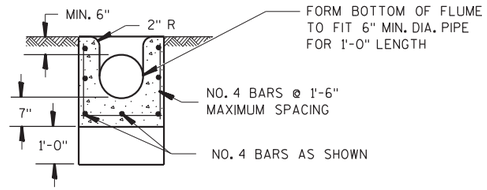
SURFACE DRAIN WITH PIPE TYPE "A"

GENERAL NOTES

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

(3) PIPE UNDERDRAIN MAY BE ANY OF THE MATERIALS LISTED IN SECTION 612.2 OF THE STANDARD SPECIFICATIONS EXCEPT DRAIN TILE.

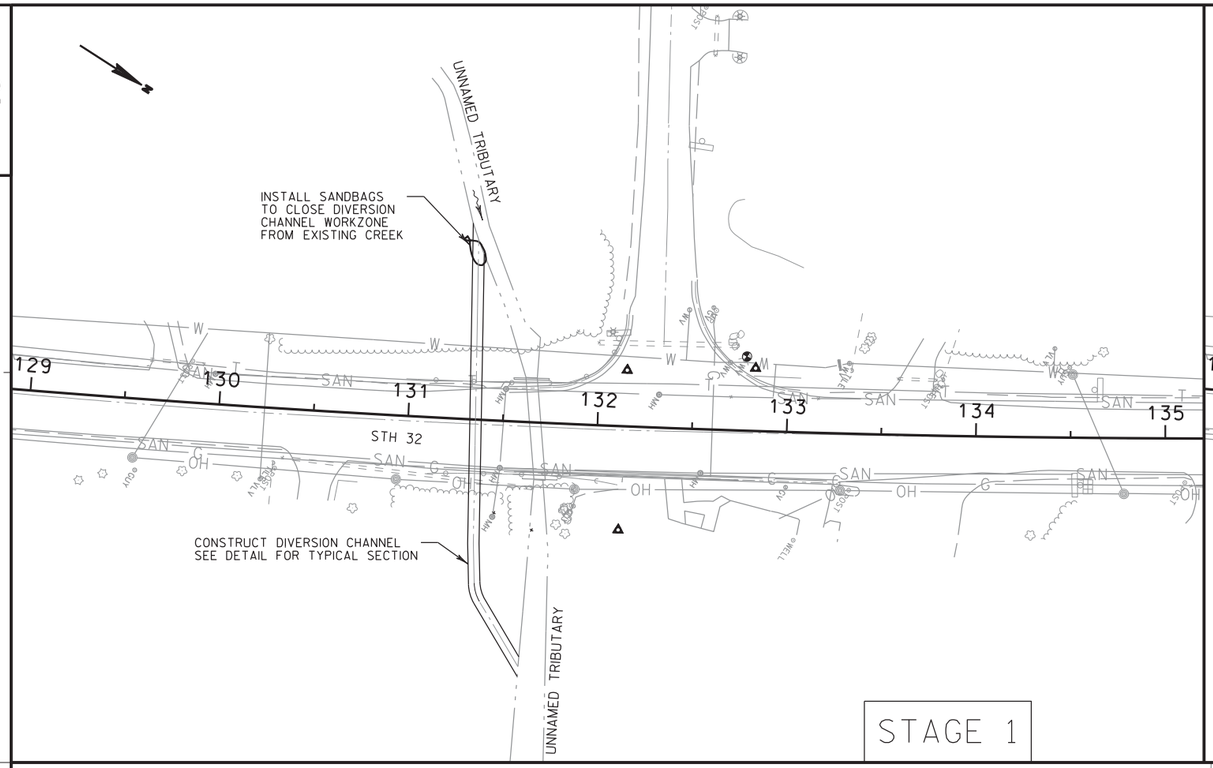
(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

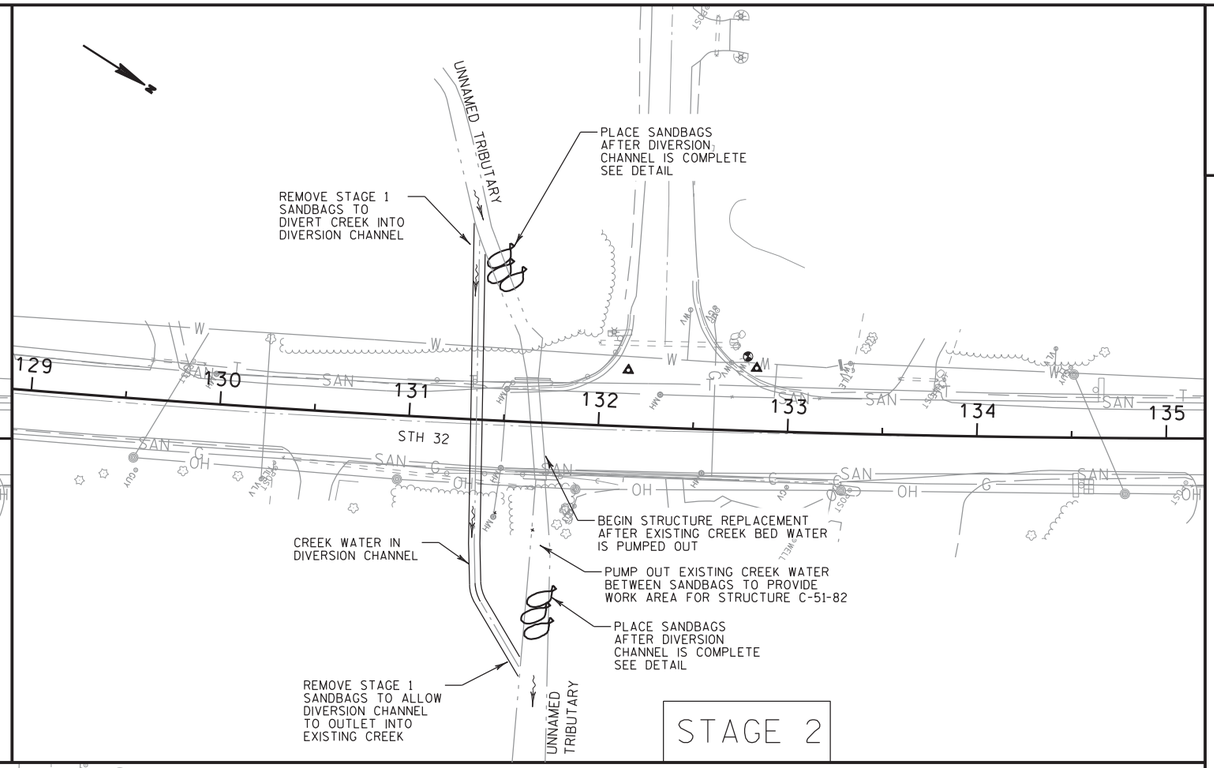


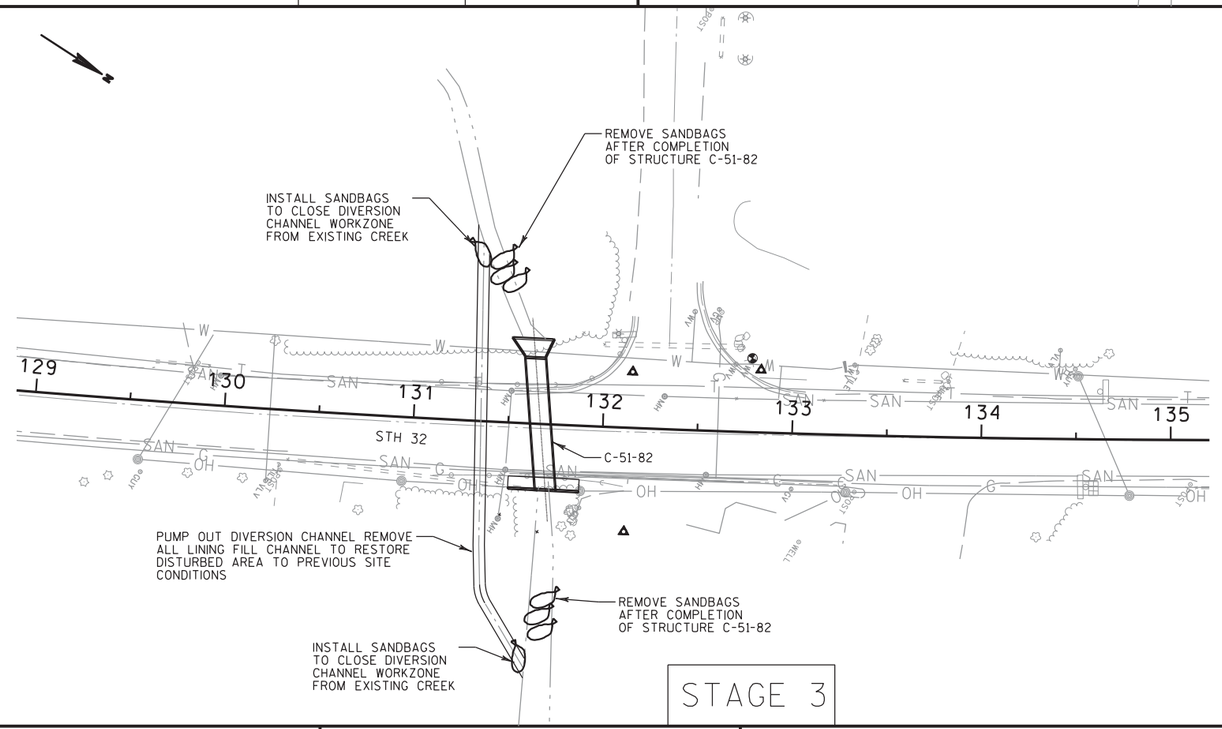
SECTION C-C

CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN

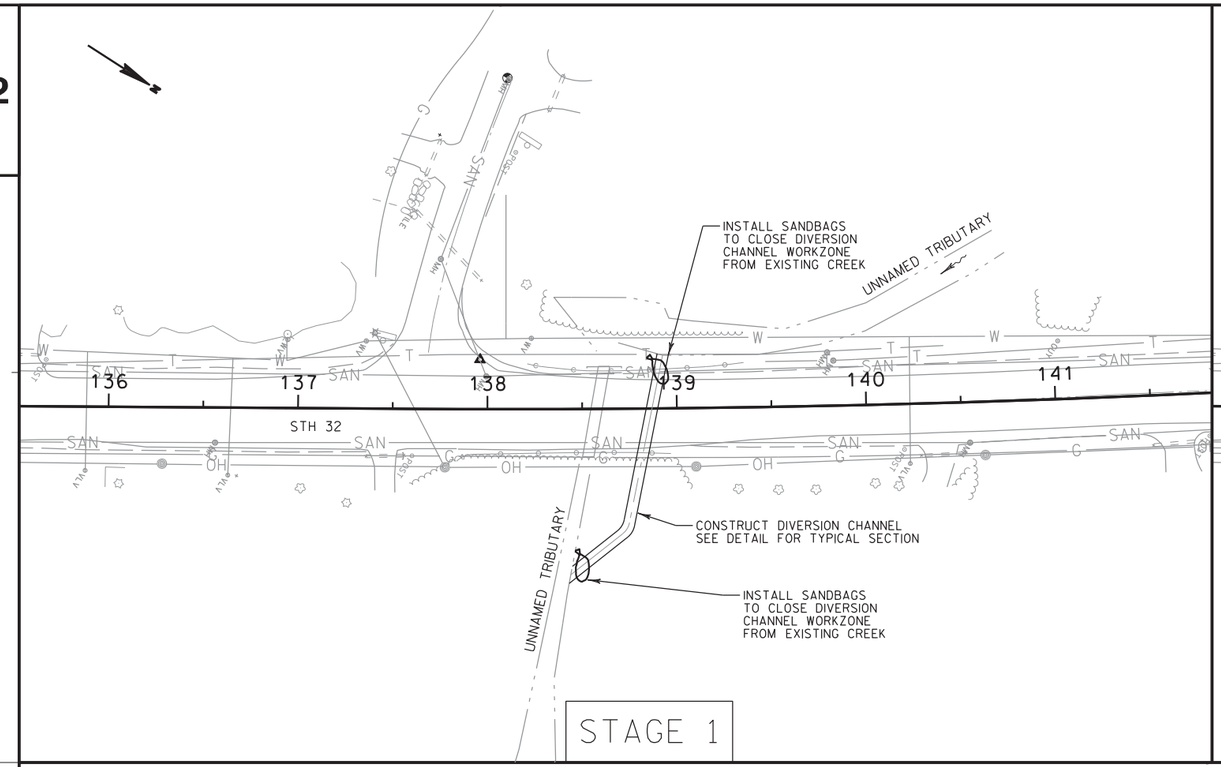
CP02

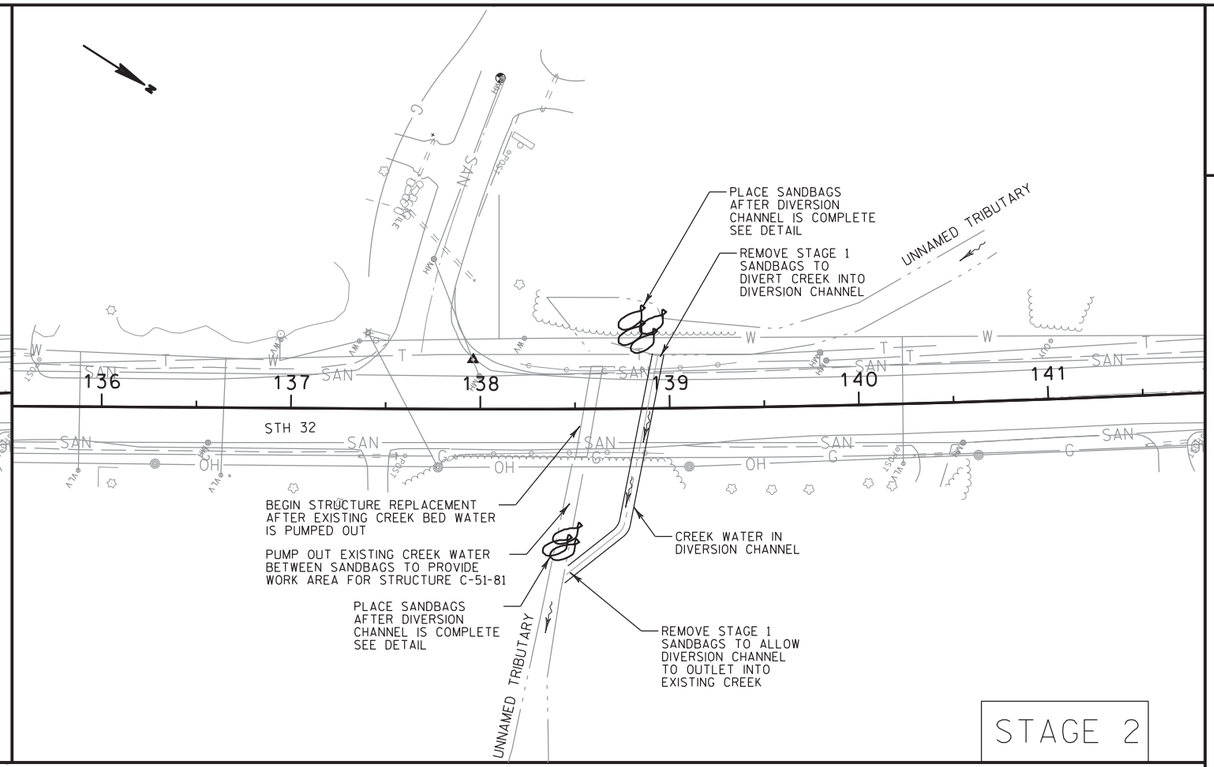


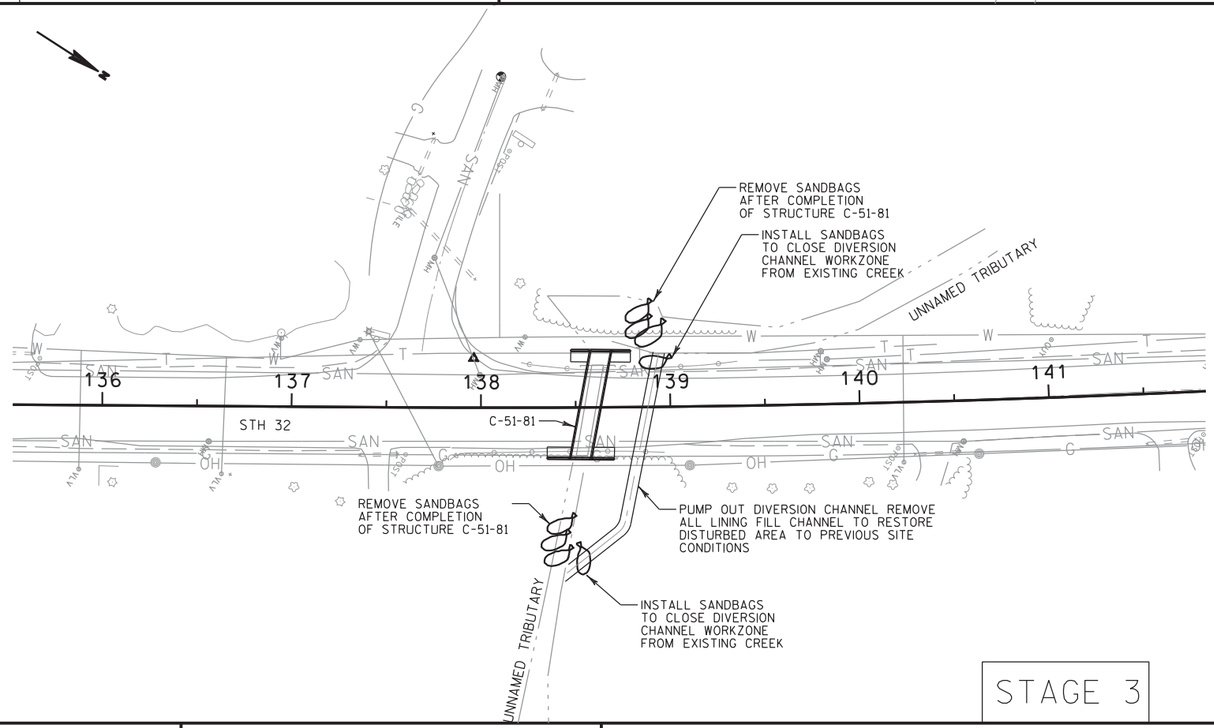




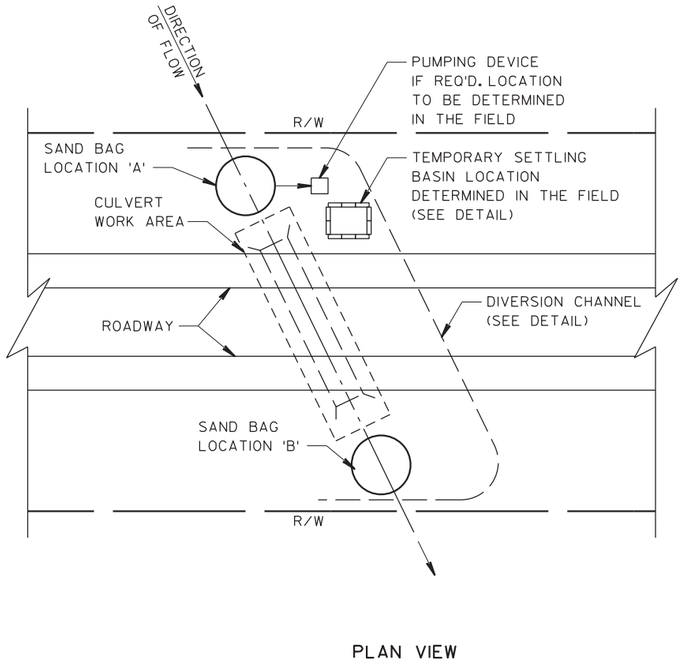
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	C-51-82 DIVERSION CHANNEL STAGING PLAN	SHEET 17	E



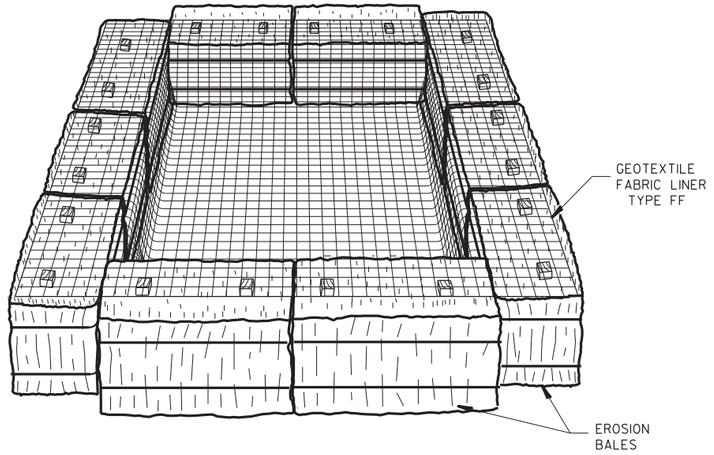




PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	C-51-81 DIVERSION CHANNEL STAGING PLAN	SHEET 18	E



PLAN VIEW



TEMPORARY SETTLING BASIN

(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

STORAGE VOLUME (C.F.) = 16 X GPM (PUMP RATE)

EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT.

SOLUTION:
SV (C.F.) = 16 X 50
SV = 800 C.F.

$\frac{800 \text{ C.F.}}{1.5 \text{ FT.}}$ = 533 S.F.

USE A 20 FT. X 27 FT. BASIN

GENERAL NOTES

SAND BAGS USED FOR CHANNEL CLOSURES SHALL NOT BE PLACED UNTIL COMPLETION OF THE DIVERSION CHANNEL. THE ENGINEER MUST APPROVE DIVERSION CHANNEL COMPLETION, AND PLACEMENT OF SAND BAGS.

EXPOSED ERODABLE AREAS OF CHANNEL SHALL BE LINED WITH GEOTEXTILE FABRIC BEFORE ALLOWING WATER FLOW BACK INTO THE WORK AREA PRIOR TO THE FINISHED CULVERT INSTALLATION.

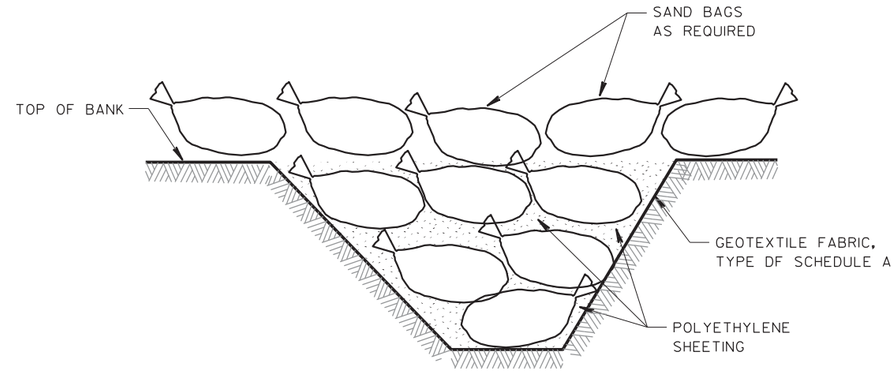
GEOTEXTILE FABRIC SHALL BE REPLACED AS NEEDED. USED GEOTEXTILE FABRIC AND SEDIMENTS SHALL BE DISPOSED OF IN AREAS WHICH WILL PREVENT FURTHER INTRUSION INTO WATERWAYS OR WETLANDS.

PUMP INTAKES SHALL BE PLACED IN A MENNERWHICH WILL NOT DISTURB THE EXISTING STREAM BOTTOM.

GEOTEXTILE FABRIC, TYPE FF AND EROSIONBALES TO BE PAID FOR UNDER RESPECTIVE ITEMS.

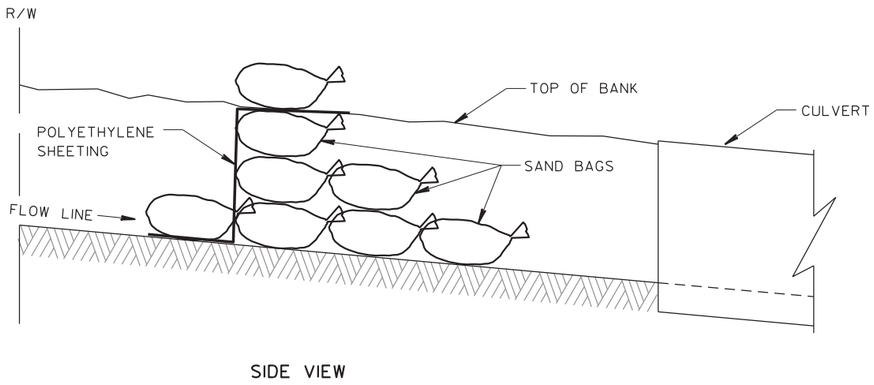
SAND BAGS, POLYETHYLENE SHEETING AND GEOTEXTILE FABRIC TYPE DF ARE INCIDENTAL TO TEMPORARY DIVERSION CHANNEL FOR STRUCTURE.

SAND BAG LOCATION 'B' CAN BE OMITTED IN AREAS WHERE STREAM BOTTOM GRADIENT ELIMINATES BACKWASH.



TYPICAL SAND BAG INSTALLATION IN EXISTING CHANNEL

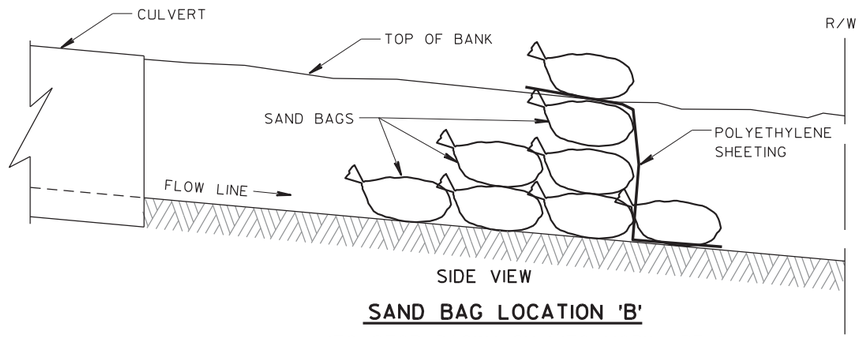
(LOCATION 'A' LOOKING UPSTREAM)



SIDE VIEW

SAND BAG LOCATION 'A'

(TO STOP FLOW INTO WORK AREA)

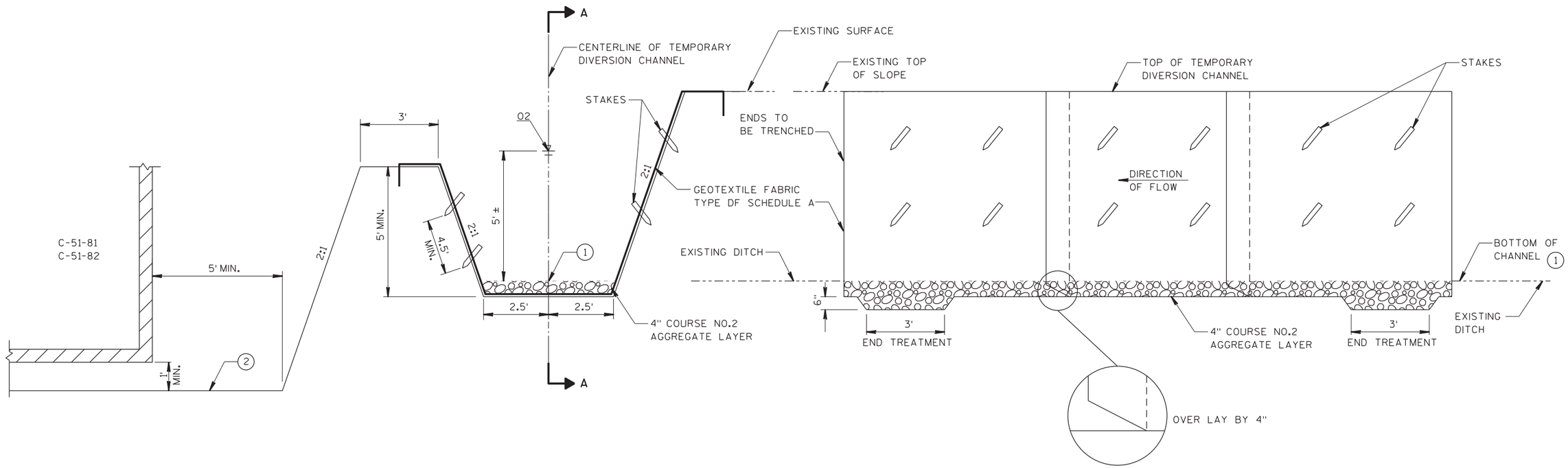


SIDE VIEW

SAND BAG LOCATION 'B'

(TO STOP BACKWASH INTO WORK AREA)

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CONSTRUCTION DETAILS	SHEET 19	E



TYPICAL SECTION

SECTION A-A VIEW

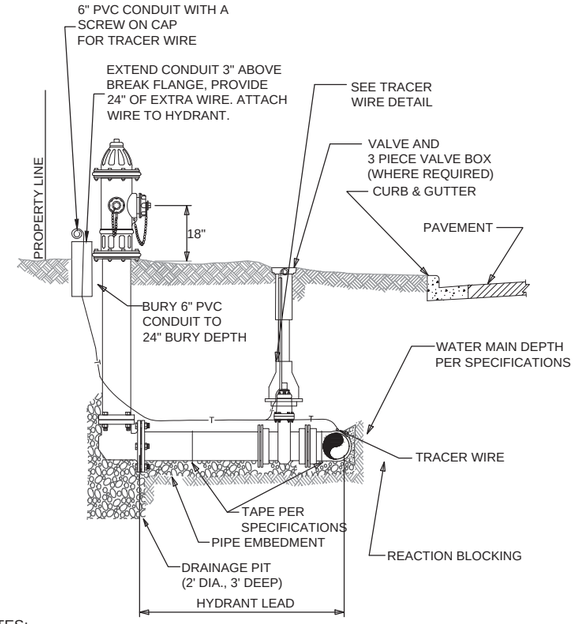
(1) C-51-81 : 654.4±
C-51-82 : 647.3±

(2) C-51-81 : 652.4±
C-51-82 : 645.3±

TEMPORARY DIVERSION CHANNEL

C-51-81
C-51-82

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CONSTRUCTION DETAILS	SHEET 20	E



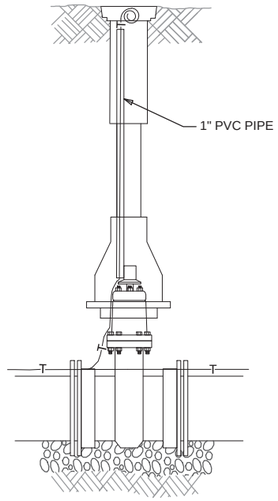
PROFILE

NOTES:

HYDRANT LEAD RESTRAINT PER SPECIFICATIONS.

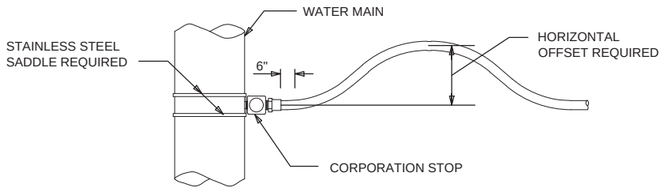
TRACER WIRE WILL BE INSTALLED AT ALL HYDRANTS AND VALVES

HYDRANT WITH TRACER WIRE DETAIL

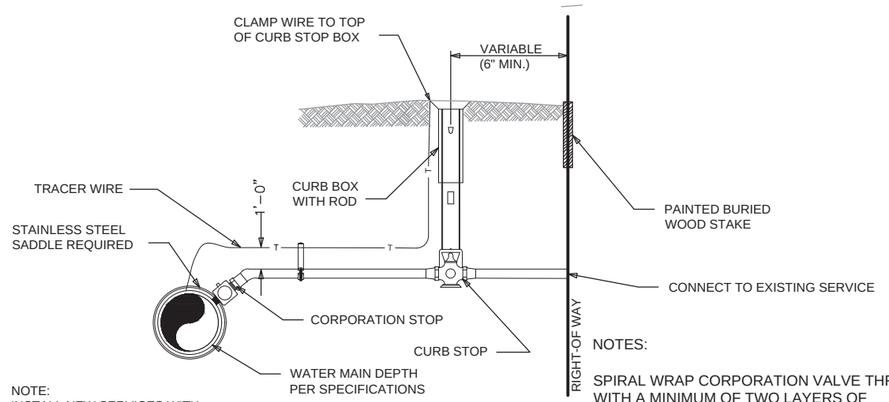


PROFILE

TRACER WIRE DETAIL AT GATE & BUTTERFLY VALVES



PLAN



NOTE:
INSTALL NEW SERVICES WITH MINIMUM SPECIFIED COVER. SEE PROPOSED DITCH GRADES ON C2 SHEETS.

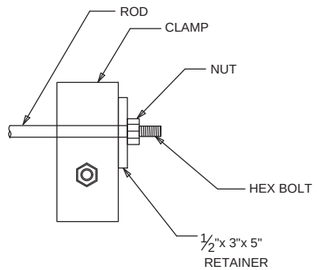
PROFILE

WATER SERVICE WITH TRACER WIRE DETAIL FOR HDPE SERVICES

NOTES:

SPIRAL WRAP CORPORATION VALVE THREADS WITH A MINIMUM OF TWO LAYERS OF TEFLON PIPE THREAD TAPE.

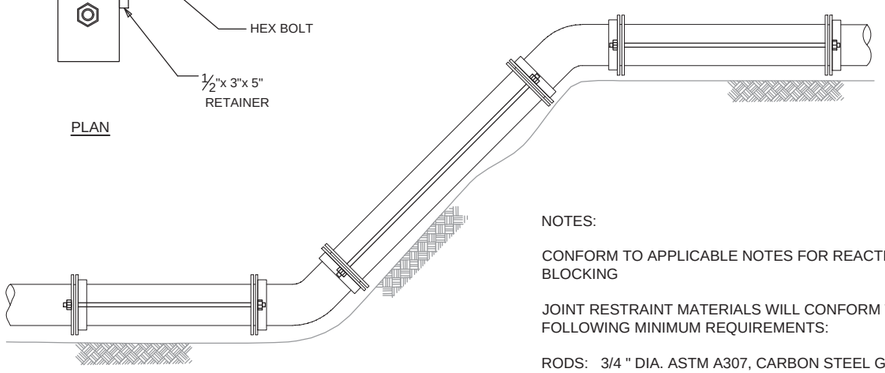
USE A SERVICE SADDLE ON ALL SERVICES OVER 1" OR WHEN THREE FULL THREADS ENGAGEMENT BY CORPORATION CANNOT BE OBTAINED.



PLAN



SECTION



PROFILE

JOINT RESTRAINT DETAILS

NOTES:

CONFORM TO APPLICABLE NOTES FOR REACTION BLOCKING

JOINT RESTRAINT MATERIALS WILL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS:

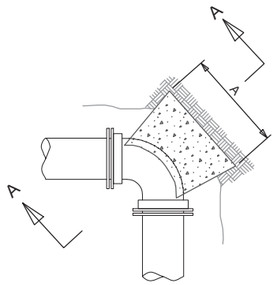
RODS: 3/4 " DIA. ASTM A307, CARBON STEEL GRADE A

CLAMPS: 1/2 " x 2" ASTM A36

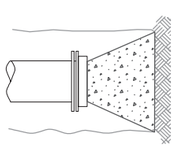
BOLTS: 5/8 " DIA. ASTM A325

BITUMINOUS COAT JOINT RESTRAINING MATERIAL

PROVIDE JOINT RESTRAINTS ON VERTICAL OFFSETS



PLAN



PLAN

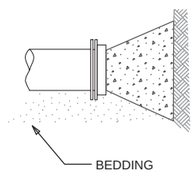
NOTES:

REACTION BLOCKING WILL CONTACT FITTING FROM BELL TO BELL AND THE FULL DIAMETER OF FITTING AS SHOWN

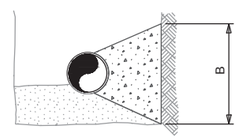
CAST BLOCKING AGAINST UNDISTURBED EARTH

USE CLASS "B" CONCRETE BLOCKING

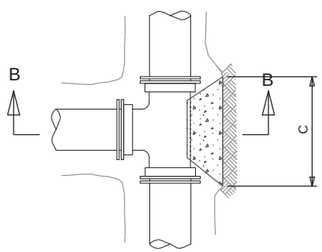
DIMENSIONS IN TABLES ARE BASED ON WATER PRESSURE OF 150 psi AND EARTH RESISTANCE OF 4000 POUNDS



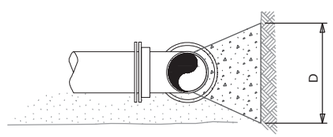
ELEVATION



SECTION A-A



PLAN



SECTION B-B

BENDS						
DIA	22 1/2		45		90	
	A	B	A	B	A	B
6" & 8"	1'-0"	1'-0"	1'-2"	1'-2"	1'-10"	1'-6"
10" & 12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"
14" & 16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
18" & 20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-5"	5'-4"	3'-10"
30"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

TEES		
DIA	C	D
6" & 8"	1'-6"	1'-4"
10" & 12"	2'-3"	2'-0"
14" & 16"	3'-2"	2'-6"
18" & 20"	4'-0"	3'-0"
24"	5'-3"	3'-4"
30"	6'-3"	4'-3"

REACTION BLOCKING DETAIL

Foth Infrastructure & Environment, LLC
2514 S. 102nd Street
Suite 220, Lincoln Center II
West Allis, WI 53227
Phone: 414-336-7900 Fax: 414-336-7901

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STH 32 PLAN OF PROPOSED IMPROVEMENTS

CALEDONIA UTILITY DISTRICT

VILLAGE OF CALEDONIA, WISCONSIN
RACINE COUNTY

REVISIONS			
NO.	BY	DATE	DESCRIPTION

RECORD DRAWING OF COMPLETED CONSTRUCTION BY
RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS.
BY
DATE

Date of Preparation: APRIL 1, 2018

	BY	DATE
SURVEYED	JAH	01/24/2017
DRAWN	MLH	04/01/2018
DESIGNED	TMS	04/01/2018
CHECKED	AMS	04/01/2018

WATER MAIN DETAILS

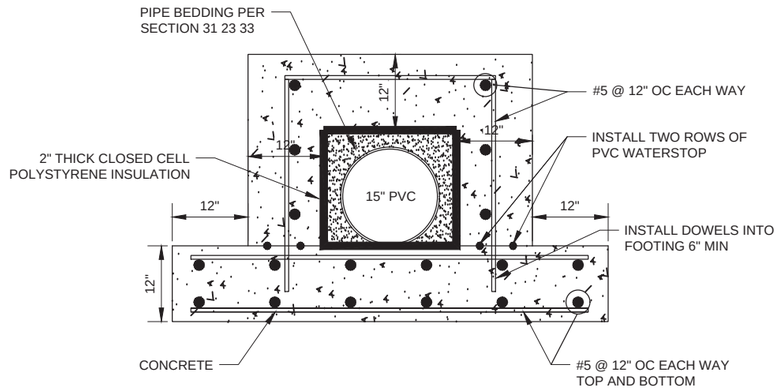
HORIZONTAL SCALE:
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PROJECT ID 16C030.02

21 01
SHEET OF

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Jun 08, 2018 - 10:16am mhy Q:\Caledonia Utility District\16C030.02 - STH 32 Road Reconst. Utility Planning\CAD\Plans\PHASE 2\C501.dwg

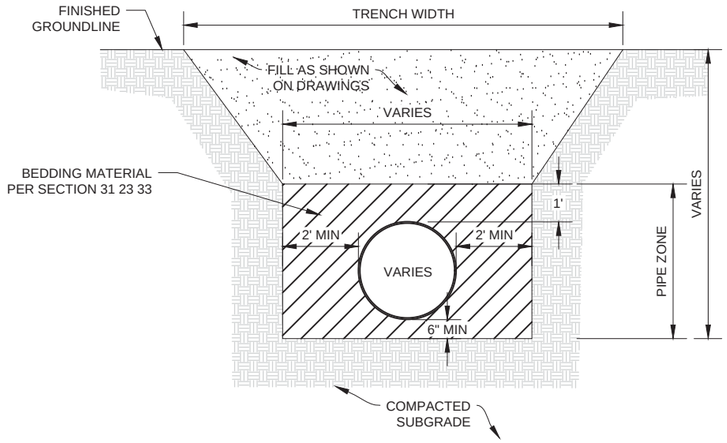


CONCRETE PIPE SUPPORT

NOTE: INSTALL ENCASEMENT IN TWO POURS

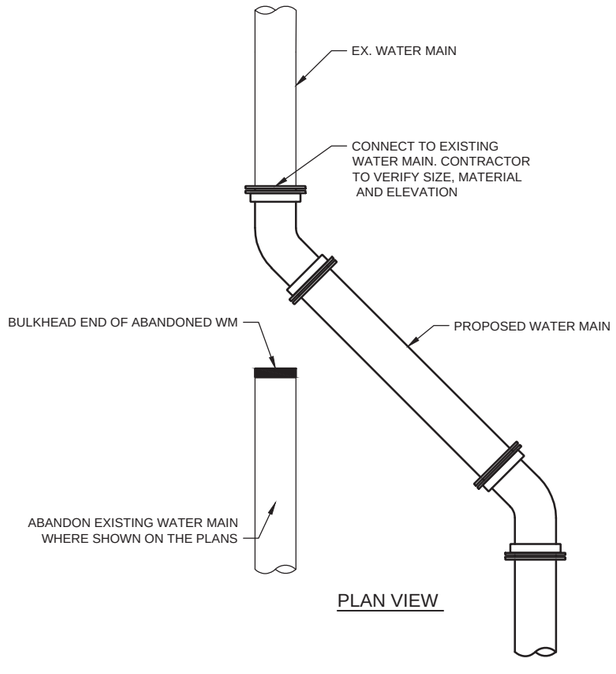
C5.02 | 1 NOT TO SCALE

MH 22-154 TO MH 22-192A



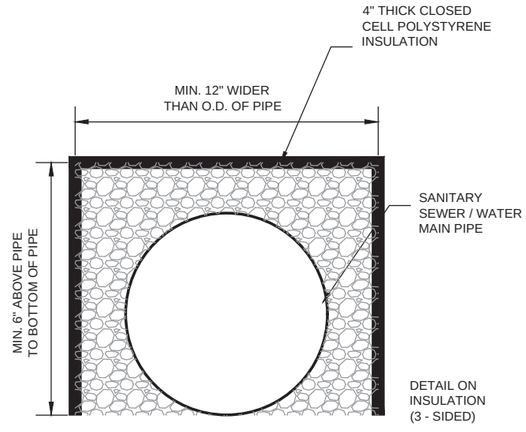
TYPICAL TRENCH DETAIL

C5.02 | 2 NOT TO SCALE



ABANDONMENT OF EXISTING WATER MAIN AT PROPOSED CONNECTION

C5.02 | 3 NOT TO SCALE



INSULATION DETAIL

C5.02 | 4 NOT TO SCALE

Foth Infrastructure & Environment, LLC
2514 S. 102nd Street
Suite 218, Lincoln Center II
West Allis, WI 53227
Phone: 414-336-7900 Fax: 414-336-7901

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STH 32 PLAN OF PROPOSED IMPROVEMENTS

CALEDONIA UTILITY DISTRICT

VILLAGE OF CALEDONIA, WISCONSIN

RACINE COUNTY

NO.	BY	DATE	REVISIONS DESCRIPTION
1			RECORD DRAWING OF COMPLETED CONSTRUCTION BY
2			RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS. BY
3			DATE
4			

Date of Preparation: APRIL 1, 2018

	BY	DATE
SURVEYED	JAH	01/24/2017
DRAWN	MLH	04/01/2018
DESIGNED	TMS	04/01/2018
CHECKED	AMS	04/01/2018

CONSTRUCTION DETAILS

HORIZONTAL SCALE:

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PROJECT ID 16C030.02

SHEET 22 OF 02

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Jun 08, 2018 - 10:17am mhy O:\Caledonia Utility District\16C030.02 - STH 32 Road Reconst. Utility Planning\CAD\Plans\PHASE 2\C5.01.dwg

2

RL 5 MILE ROAD (EAST)
(DRIVEWAY WEST OF STH 32)

STH 32

RL STH 32

REVERSE SLOPE GUTTER

RL 5 MILE ROAD (EAST)

5 MILE ROAD

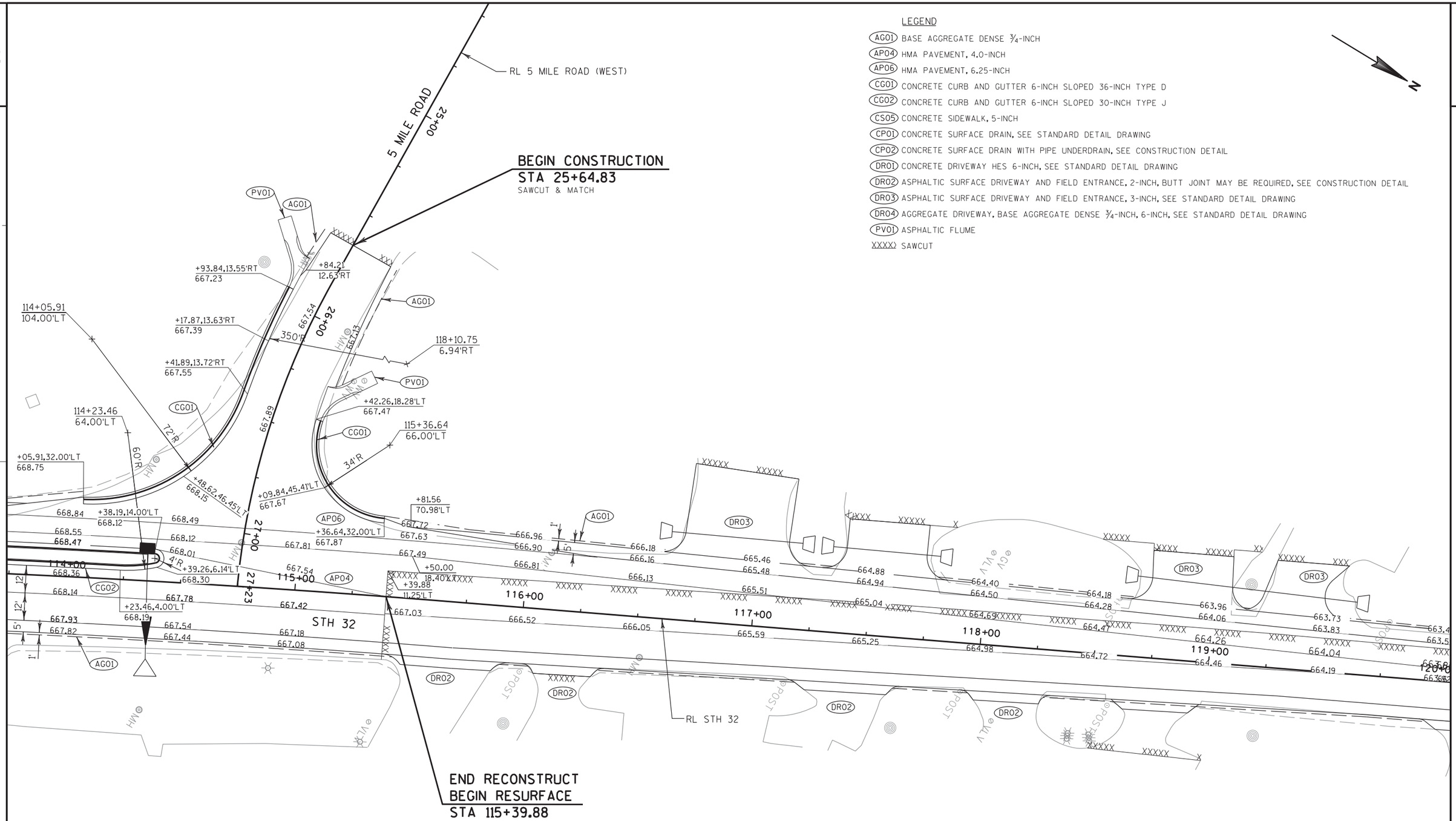
BEGIN PROJECT
STA 108+20.71
SAWCUT & MATCH

END CONSTRUCTION
STA 11+86.09
SAWCUT & MATCH

LEGEND

- AG01 BASE AGGREGATE DENSE ¾-INCH
- AP04 HMA PAVEMENT, 4.0-INCH
- AP06 HMA PAVEMENT, 6.25-INCH
- CG01 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- CG02 CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
- CS05 CONCRETE SIDEWALK, 5-INCH
- CP01 CONCRETE SURFACE DRAIN, SEE STANDARD DETAIL DRAWING
- CP02 CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN, SEE CONSTRUCTION DETAIL
- DR01 CONCRETE DRIVEWAY HES 6-INCH, SEE STANDARD DETAIL DRAWING
- DR02 ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAIL
- DR03 ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 3-INCH, SEE STANDARD DETAIL DRAWING
- DR04 AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE ¾-INCH, 6-INCH, SEE STANDARD DETAIL DRAWING
- PV01 ASPHALTIC FLUME
- XXXX SAWCUT

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS - STH 32	SHEET 23	E



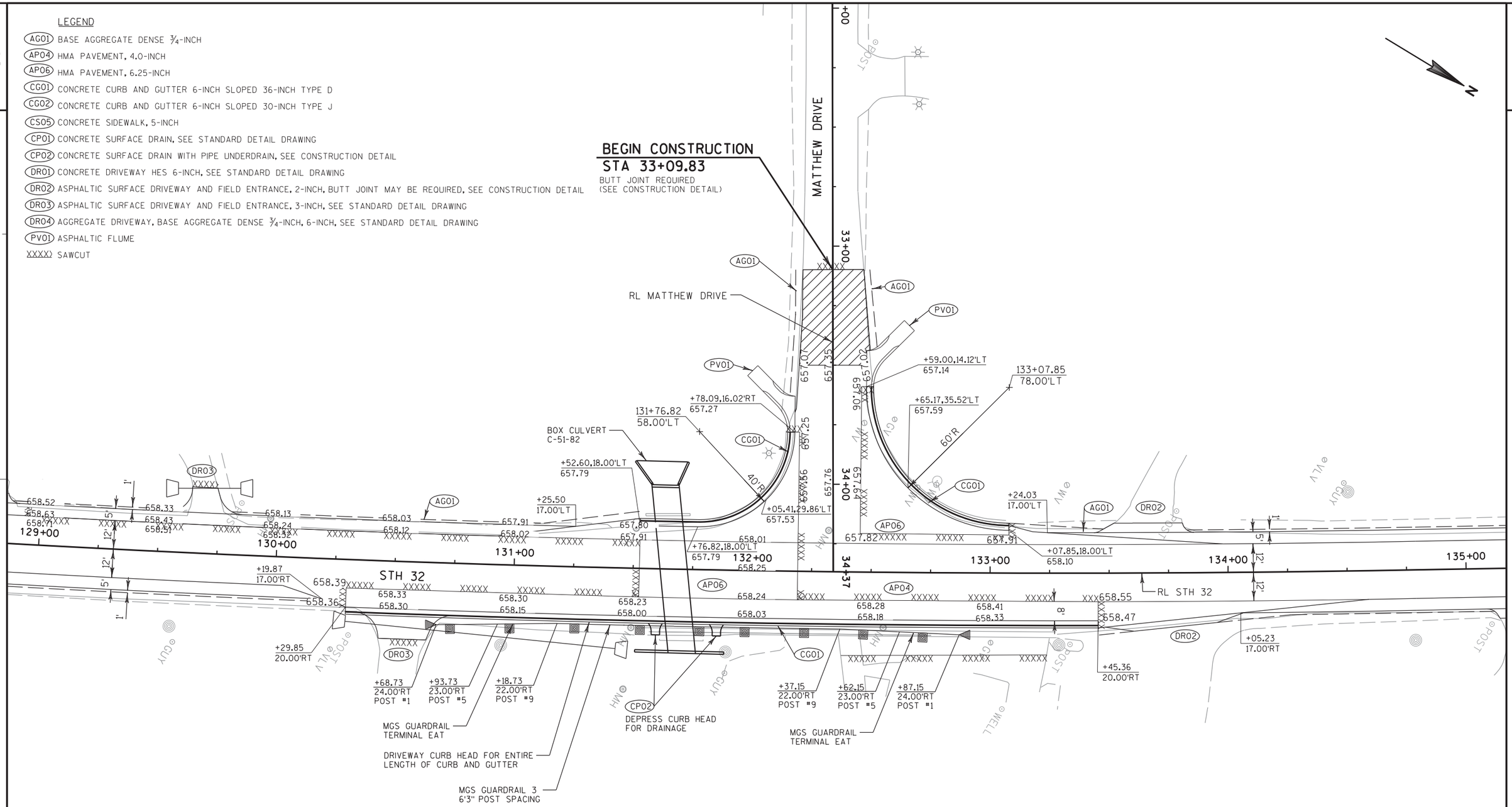
LEGEND

- AG01 BASE AGGREGATE DENSE ¾-INCH
- AP04 HMA PAVEMENT, 4.0-INCH
- AP06 HMA PAVEMENT, 6.25-INCH
- CG01 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- CG02 CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
- CS05 CONCRETE SIDEWALK, 5-INCH
- CP01 CONCRETE SURFACE DRAIN, SEE STANDARD DETAIL DRAWING
- CP02 CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN, SEE CONSTRUCTION DETAIL
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- DR04 AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE ¾-INCH, 6-INCH, SEE STANDARD DETAIL DRAWING
- PV01 ASPHALTIC FLUME
- XXXX SAWCUT

2

LEGEND

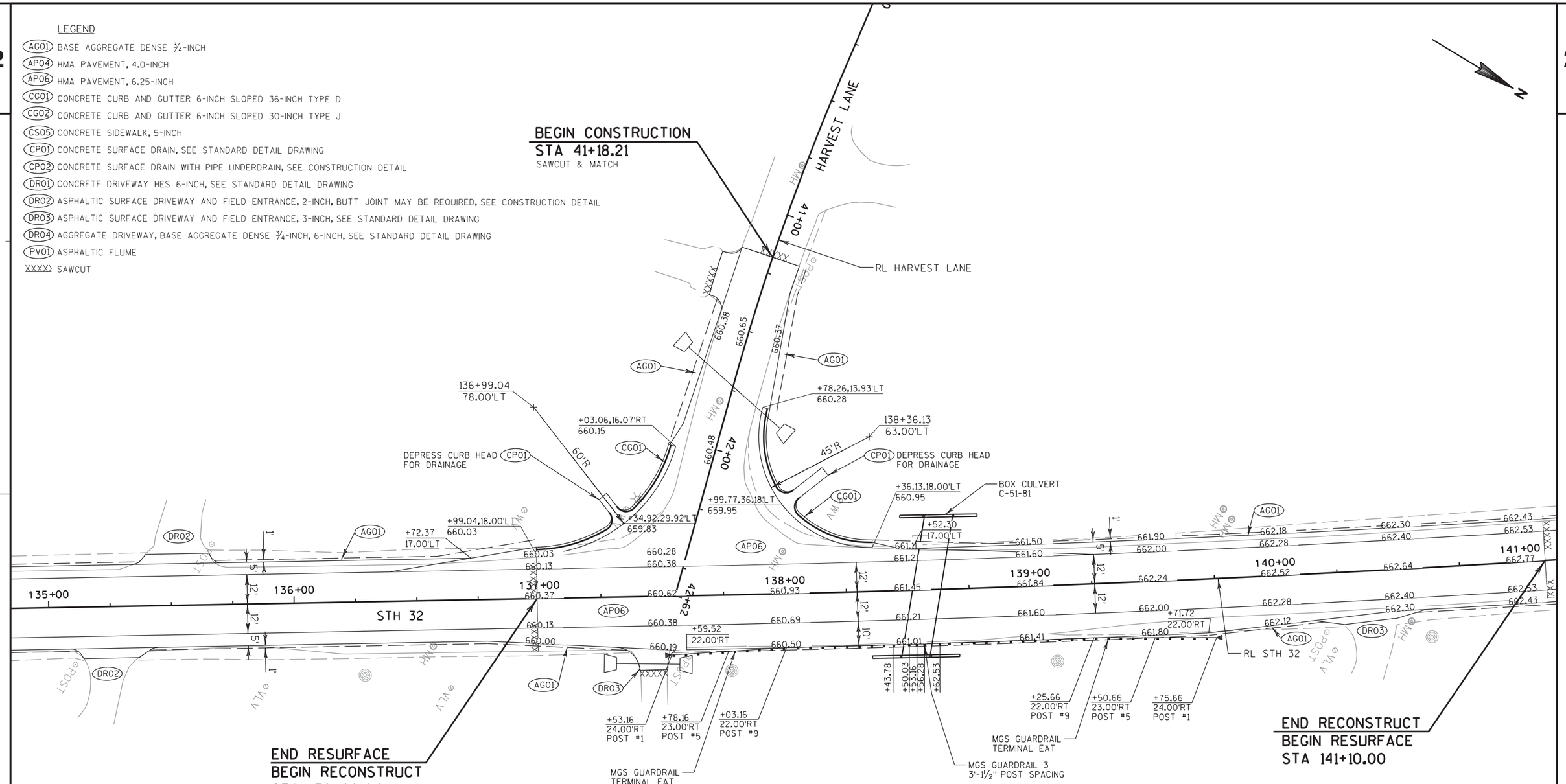
- (AG01) BASE AGGREGATE DENSE ¾-INCH
- (AP04) HMA PAVEMENT, 4.0-INCH
- (AP06) HMA PAVEMENT, 6.25-INCH
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- (CG02) CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
- (CS05) CONCRETE SIDEWALK, 5-INCH
- (CP01) CONCRETE SURFACE DRAIN, SEE STANDARD DETAIL DRAWING
- (CP02) CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN, SEE CONSTRUCTION DETAIL
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- (DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAIL
- (DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 3-INCH, SEE STANDARD DETAIL DRAWING
- (DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE ¾-INCH, 6-INCH, SEE STANDARD DETAIL DRAWING
- (PV01) ASPHALTIC FLUME
- XXXX SAWCUT



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS	SHEET 25	E

LEGEND

- (AG01) BASE AGGREGATE DENSE ¾-INCH
- (AP04) HMA PAVEMENT, 4.0-INCH
- (AP06) HMA PAVEMENT, 6.25-INCH
- (CG01) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- (CG02) CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
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- (PV01) ASPHALTIC FLUME
- XXXX SAWCUT

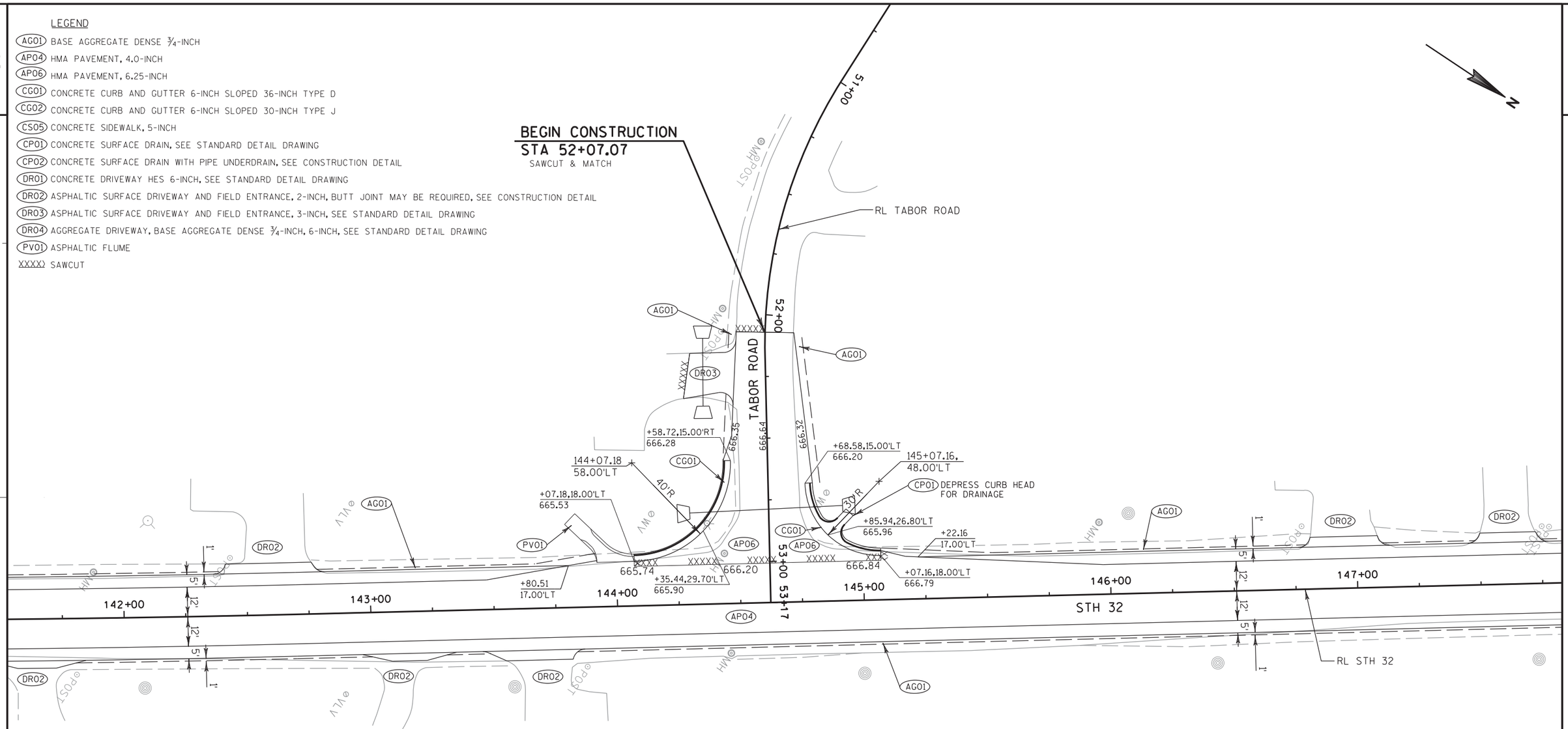


PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS	SHEET 26	E

2

LEGEND

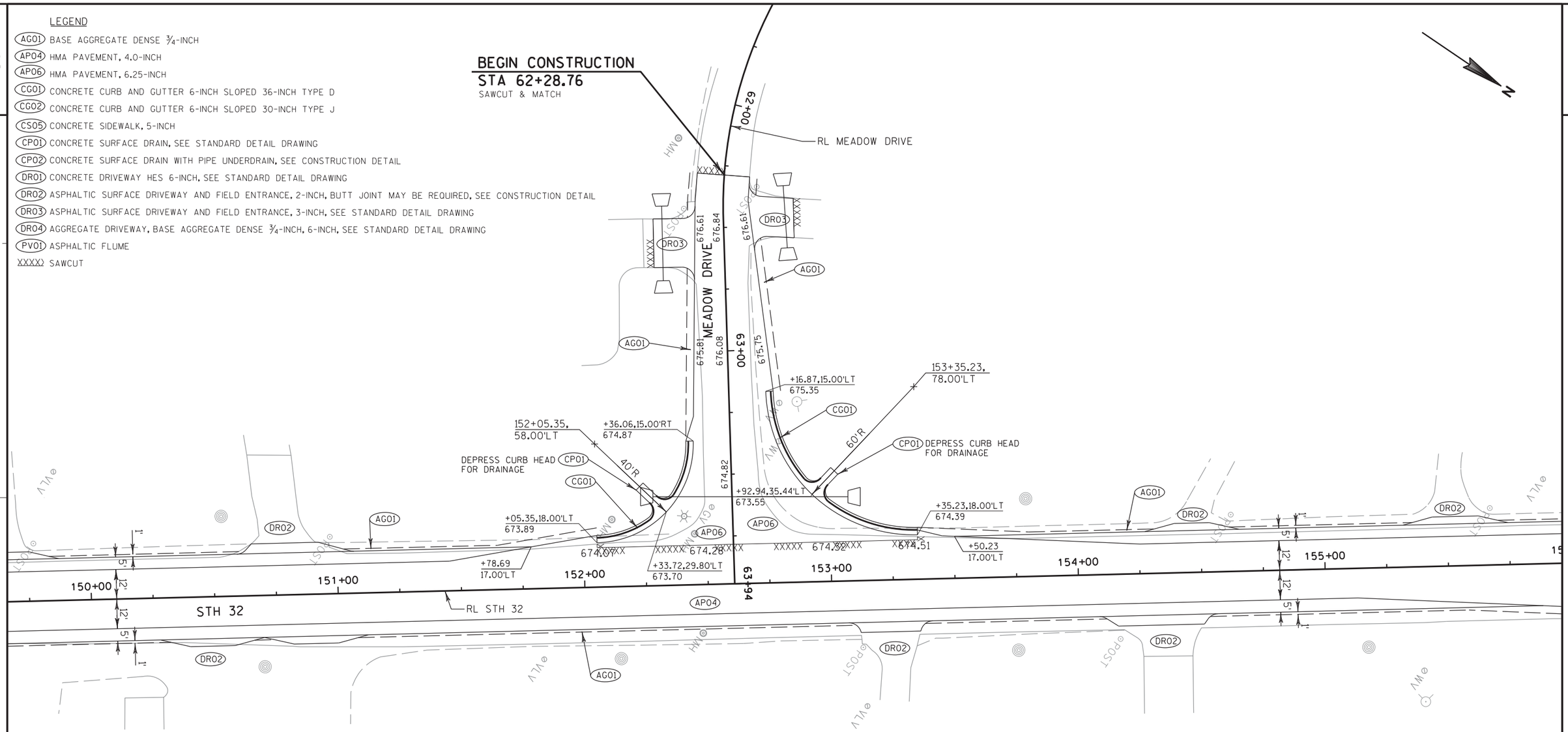
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- (PV01) ASPHALTIC FLUME
- XXXXX SAWCUT



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS	SHEET 27	E

LEGEND

- AG01 BASE AGGREGATE DENSE ¾-INCH
- AP04 HMA PAVEMENT, 4.0-INCH
- AP06 HMA PAVEMENT, 6.25-INCH
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- PV01 ASPHALTIC FLUME
- XXXX SAWCUT

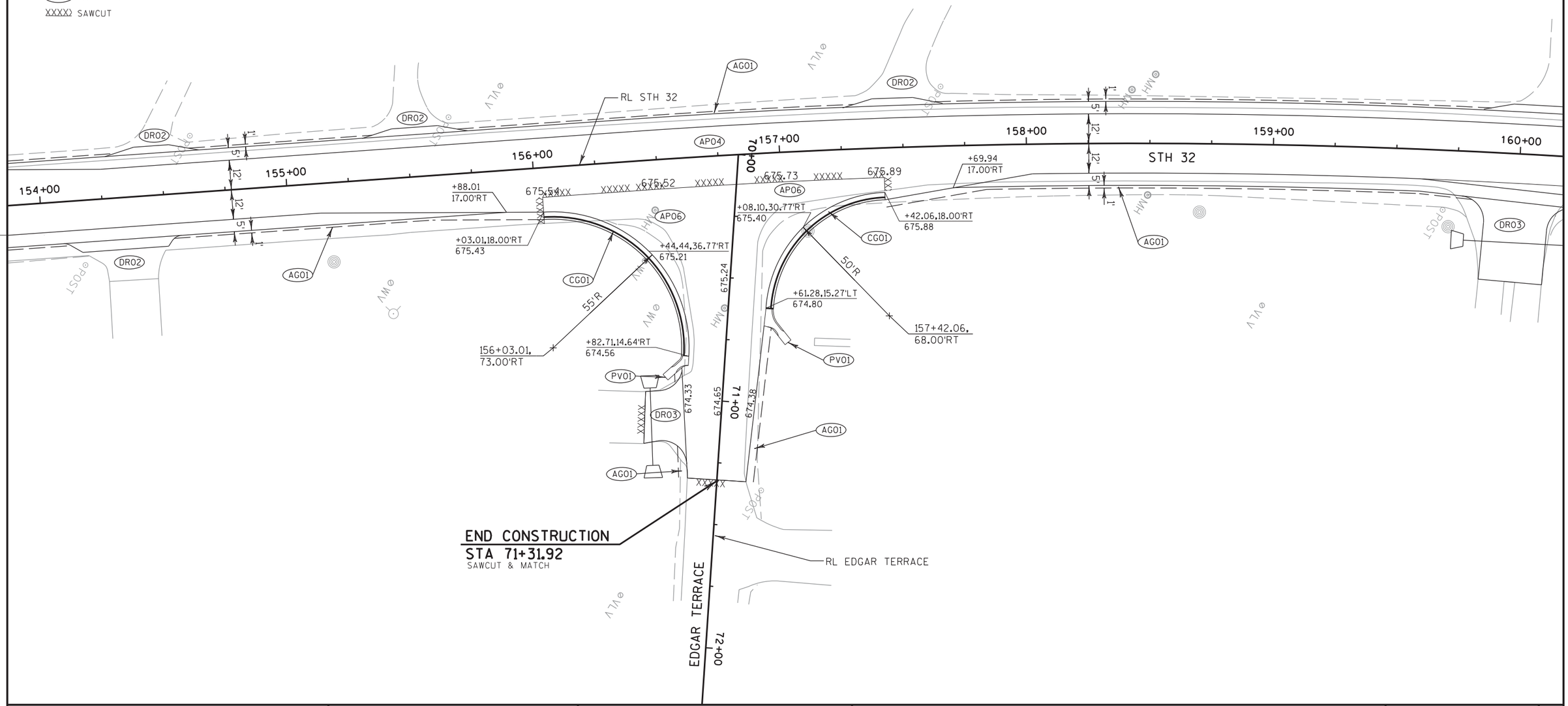


PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS	SHEET 28	E

2

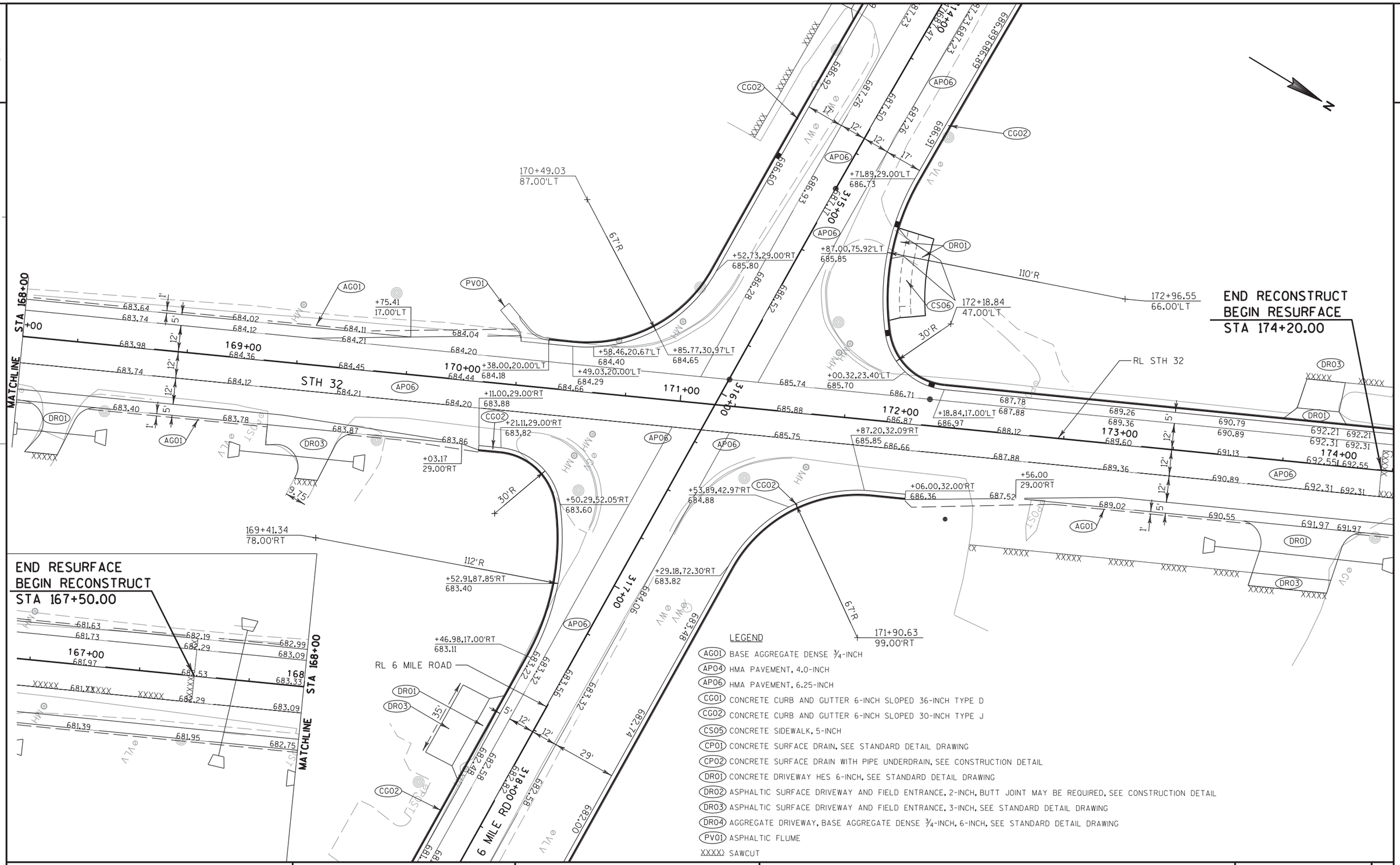
LEGEND

- (AG01) BASE AGGREGATE DENSE ¾-INCH
- (AP04) HMA PAVEMENT, 4.0-INCH
- (AP06) HMA PAVEMENT, 6.25-INCH
- (CG01) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- (CG02) CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
- (CS05) CONCRETE SIDEWALK, 5-INCH
- (CP01) CONCRETE SURFACE DRAIN, SEE STANDARD DETAIL DRAWING
- (CP02) CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN, SEE CONSTRUCTION DETAIL
- (DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE STANDARD DETAIL DRAWING
- (DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAIL
- (DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 3-INCH, SEE STANDARD DETAIL DRAWING
- (DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE ¾-INCH, 6-INCH, SEE STANDARD DETAIL DRAWING
- (PV01) ASPHALTIC FLUME
- XXXXX SAWCUT



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS	SHEET 29	E

2



LEGEND

- (AG01) BASE AGGREGATE DENSE ¾-INCH
- (APO4) HMA PAVEMENT, 4.0-INCH
- (APO6) HMA PAVEMENT, 6.25-INCH
- (CG01) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- (CG02) CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
- (CS05) CONCRETE SIDEWALK, 5-INCH
- (CP01) CONCRETE SURFACE DRAIN, SEE STANDARD DETAIL DRAWING
- (CP02) CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN, SEE CONSTRUCTION DETAIL
- (DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE STANDARD DETAIL DRAWING
- (DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAIL
- (DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 3-INCH, SEE STANDARD DETAIL DRAWING
- (DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE ¾-INCH, 6-INCH, SEE STANDARD DETAIL DRAWING
- (PV01) ASPHALTIC FLUME
- XXXX SAWCUT

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS	SHEET 30	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\021108_id.dgn PLOT DATE : 8/30/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 40.00 sf / in.

2

END RECONSTRUCT
BEGIN RESURFACE
STA 174+20.00

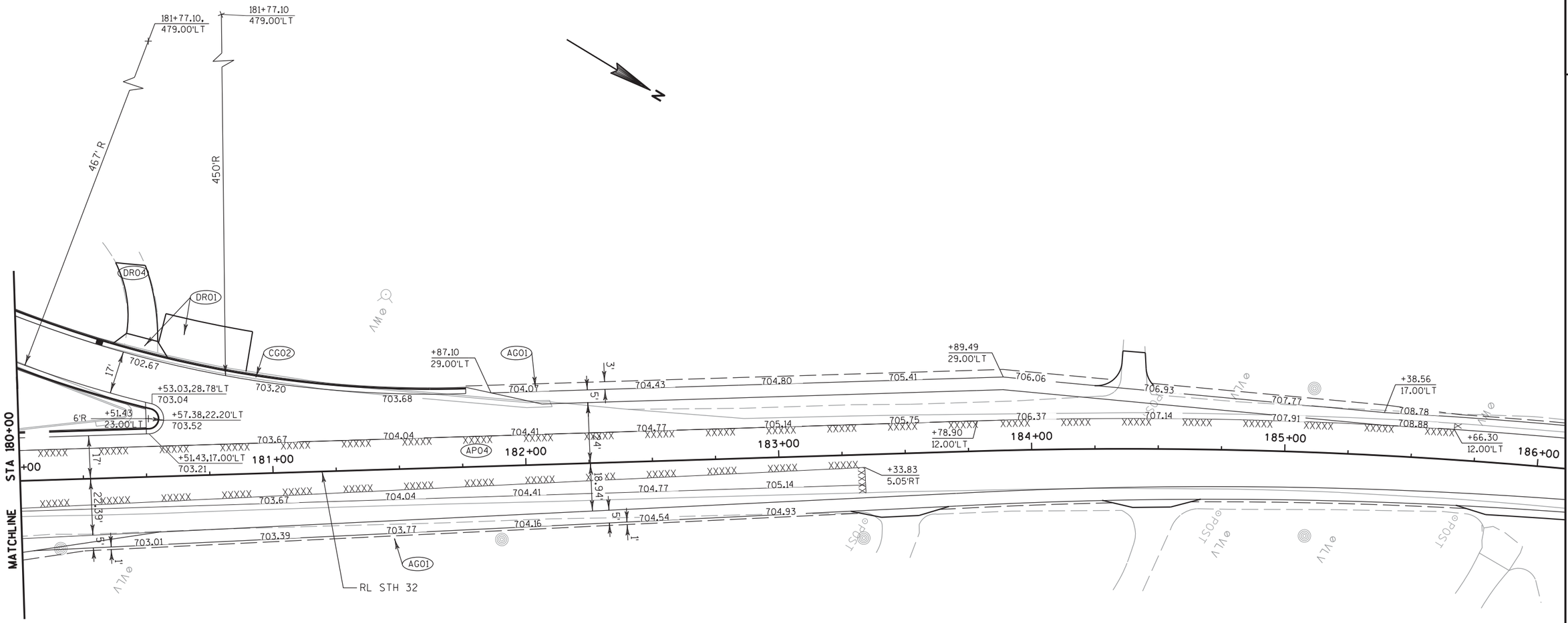
STA 174+00
MATCHLINE
STA 180+00
MATCHLINE
STA 416+00
MATCHLINE
STH 31
STH 32
RL STH 31
RL STH 32
N
467' R
94'R
30'R
6'R
10'R
35'
8.99'LT
12.00'RT
181+77.10, 479.00'LT
178+74.04, 47.00'LT
178+56.15, 30.87'LT
+94.23, 21.40'LT
+53.80, 17.00'RT
+95.78, 27.74'LT
+98.12, 17.09'LT
+52.83 62.55'LT
+61.51 27.00'LT
+51.51, 26.91'LT
+54.47, 19.90'LT
+68.29 12.00'LT
+61.51, 17.00'LT
+22.18 107.60'LT
+76.64 8.94'LT
+74.04, 17.00'LT
+23.95 9.09'LT
+67.76 29.00'RT
+77.61 29.00'R
+35.91 29.00'R
+74.47 28.33'R
CGO1 REVERSE SLOPE GUTTER

LEGEND

- AGO1 BASE AGGREGATE DENSE ¾-INCH
- APO4 HMA PAVEMENT, 4.0-INCH
- APO6 HMA PAVEMENT, 6.25-INCH
- CGO1 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- CGO2 CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
- CSO5 CONCRETE SIDEWALK, 5-INCH
- CPO1 CONCRETE SURFACE DRAIN, SEE STANDARD DETAIL DRAWING
- CPO2 CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN, SEE CONSTRUCTION DETAIL
- DRO1 CONCRETE DRIVEWAY HES 6-INCH, SEE STANDARD DETAIL DRAWING
- DRO2 ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAIL
- DRO3 ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 3-INCH, SEE STANDARD DETAIL DRAWING
- DRO4 AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE ¾-INCH, 6-INCH, SEE STANDARD DETAIL DRAWING
- PVO1 ASPHALTIC FLUME
- XXXX SAWCUT

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS	SHEET 31	E

2



LEGEND

- (AGO1) BASE AGGREGATE DENSE ¾-INCH
- (APO4) HMA PAVEMENT, 4.0-INCH
- (APO6) HMA PAVEMENT, 6.25-INCH
- (CGO1) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- (CGO2) CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
- (CSO5) CONCRETE SIDEWALK, 5-INCH
- (CPO1) CONCRETE SURFACE DRAIN, SEE STANDARD DETAIL DRAWING
- (CPO2) CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN, SEE CONSTRUCTION DETAIL
- (DRO1) CONCRETE DRIVEWAY HES 6-INCH, SEE STANDARD DETAIL DRAWING
- (DRO2) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAIL
- (DRO3) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 3-INCH, SEE STANDARD DETAIL DRAWING
- (DRO4) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE ¾-INCH, 6-INCH, SEE STANDARD DETAIL DRAWING
- (PVO1) ASPHALTIC FLUME
- XXXX SAWCUT

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS	SHEET 32	E

2

N

BEGIN CONSTRUCTION
STA 305+26.70, 93.89'LT
SAWCUT & MATCH

BEGIN CONSTRUCTION
STA 304+65.02
SAWCUT & MATCH

RL 6 MILE RD

6 MILE RD

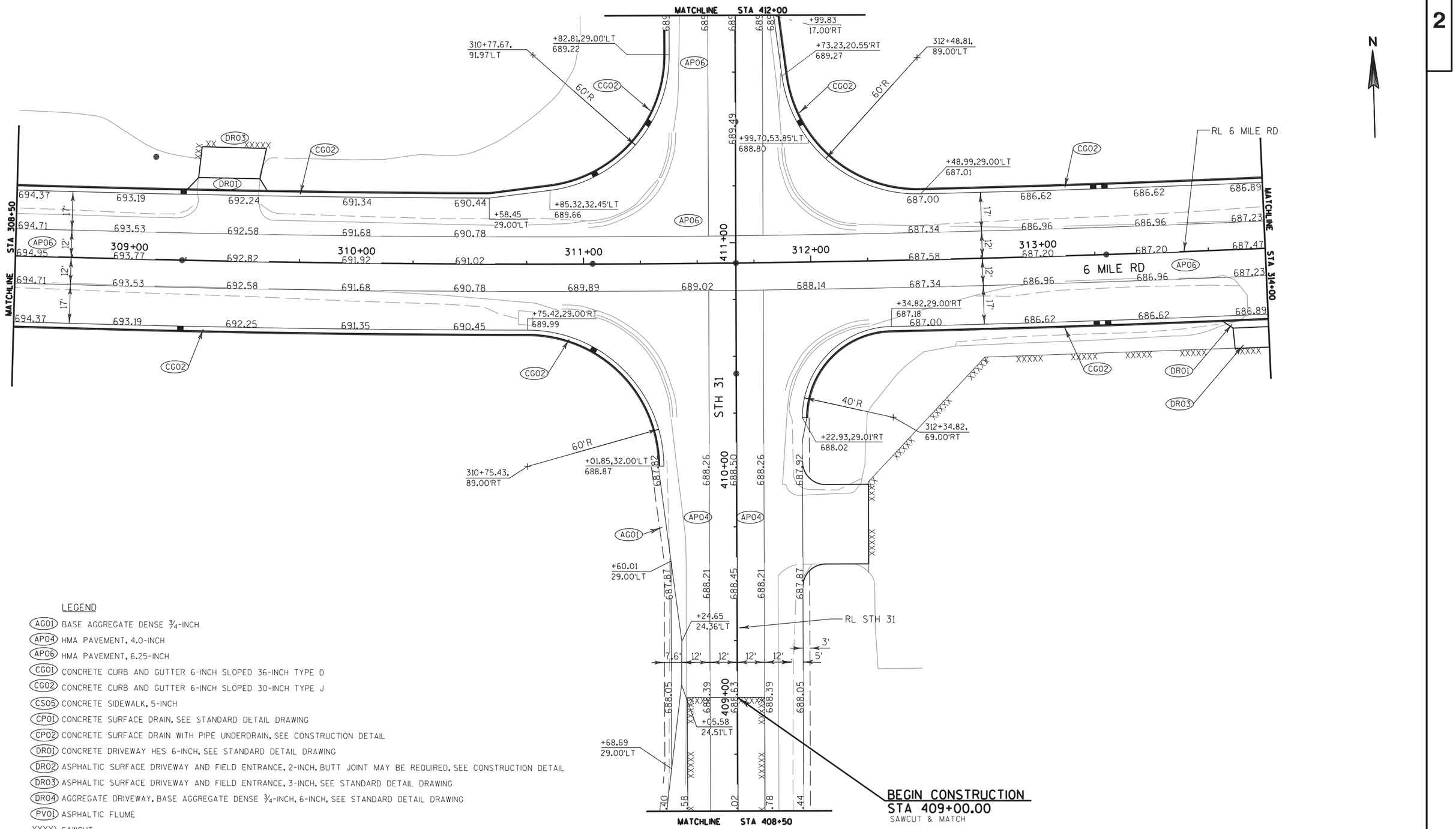
MATCHLINE STA 308+50

303+00 304+00 305+00 306+00 307+00 308+00

304+77.11, 60.32'LT
+14.61,60.32'LT 704.52
37.50'R
CG01
CG02
60'R
+38.61,85.25'LT 703.69
305+98.61 85.25'LT
+57.56,41.50'LT 703.33
+06.07,36.50'LT 705.49
+77.86,22.83'LT 706.70
+99.81,25.27'LT 702.98
+78.10,17.50'RT 703.87
+47.28,32.00'RT 704.32
+72.60,17.50'RT 706.79
+02.22,32.00'RT 705.78
40'R
304+72.60, 55.00'RT
+10.10,55.00'RT 705.05
+38.10,57.50'RT 704.67
305+78.10, 57.50'RT
DALE DR.

END CONSTRUCTION
STA 305+24.15, 68.57'RT
SAWCUT & MATCH

| | | |



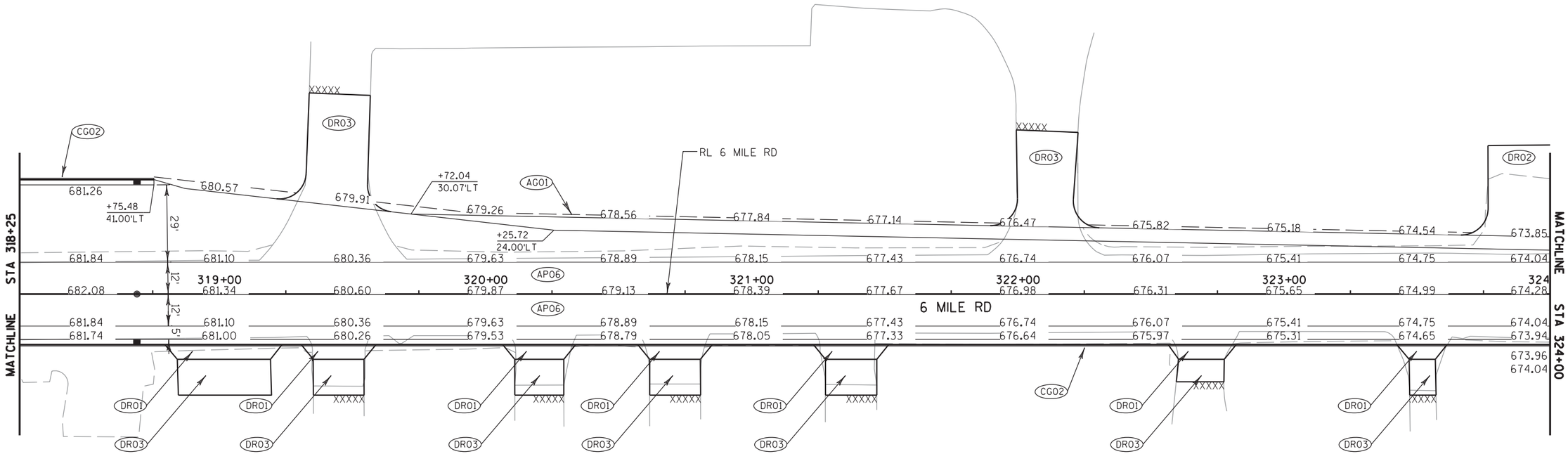
LEGEND

- (AG01) BASE AGGREGATE DENSE ¾-INCH
- (AP04) HMA PAVEMENT, 4.0-INCH
- (AP06) HMA PAVEMENT, 6.25-INCH
- (CG01) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- (CG02) CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
- (CS05) CONCRETE SIDEWALK, 5-INCH
- (CP01) CONCRETE SURFACE DRAIN, SEE STANDARD DETAIL DRAWING
- (CP02) CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN, SEE CONSTRUCTION DETAIL
- (DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE STANDARD DETAIL DRAWING
- (DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAIL
- (DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 3-INCH, SEE STANDARD DETAIL DRAWING
- (DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE ¾-INCH, 6-INCH, SEE STANDARD DETAIL DRAWING
- (PV01) ASPHALTIC FLUME
- (XXXX) SAWCUT

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS - STH 31 / 6 MILE ROAD	SHEET 34	E

2

N



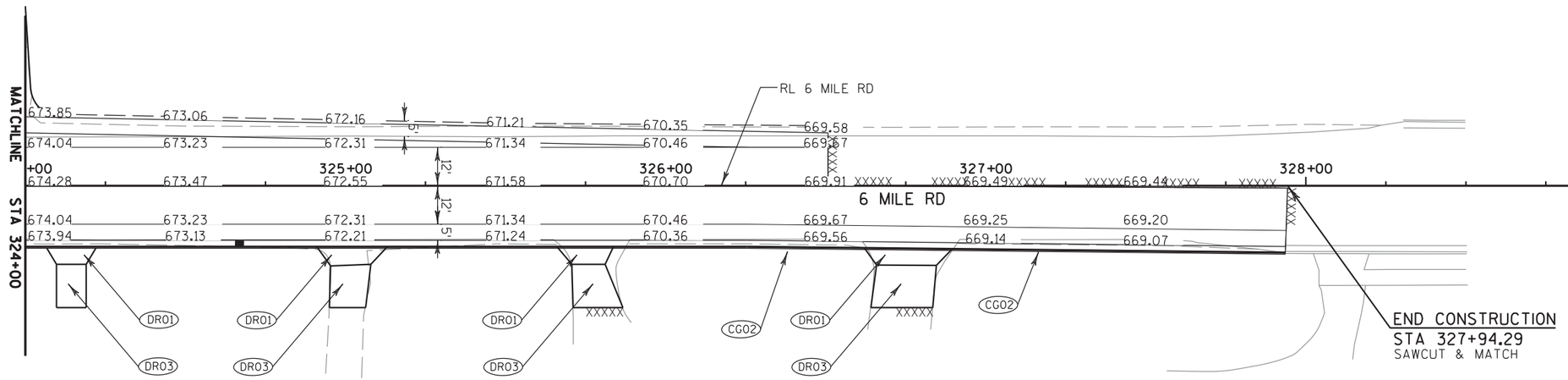
LEGEND

- (AG01) BASE AGGREGATE DENSE ¾-INCH
- (AP04) HMA PAVEMENT, 4.0-INCH
- (AP06) HMA PAVEMENT, 6.25-INCH
- (CG01) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- (CG02) CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
- (CS05) CONCRETE SIDEWALK, 5-INCH
- (CP01) CONCRETE SURFACE DRAIN, SEE STANDARD DETAIL DRAWING
- (CP02) CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN, SEE CONSTRUCTION DETAIL
- (DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE STANDARD DETAIL DRAWING
- (DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAIL
- (DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 3-INCH, SEE STANDARD DETAIL DRAWING
- (DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE ¾-INCH, 6-INCH, SEE STANDARD DETAIL DRAWING
- (PV01) ASPHALTIC FLUME
- XXXX SAWCUT

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS - 6 MILE ROAD	SHEET 35	E

2

N



LEGEND

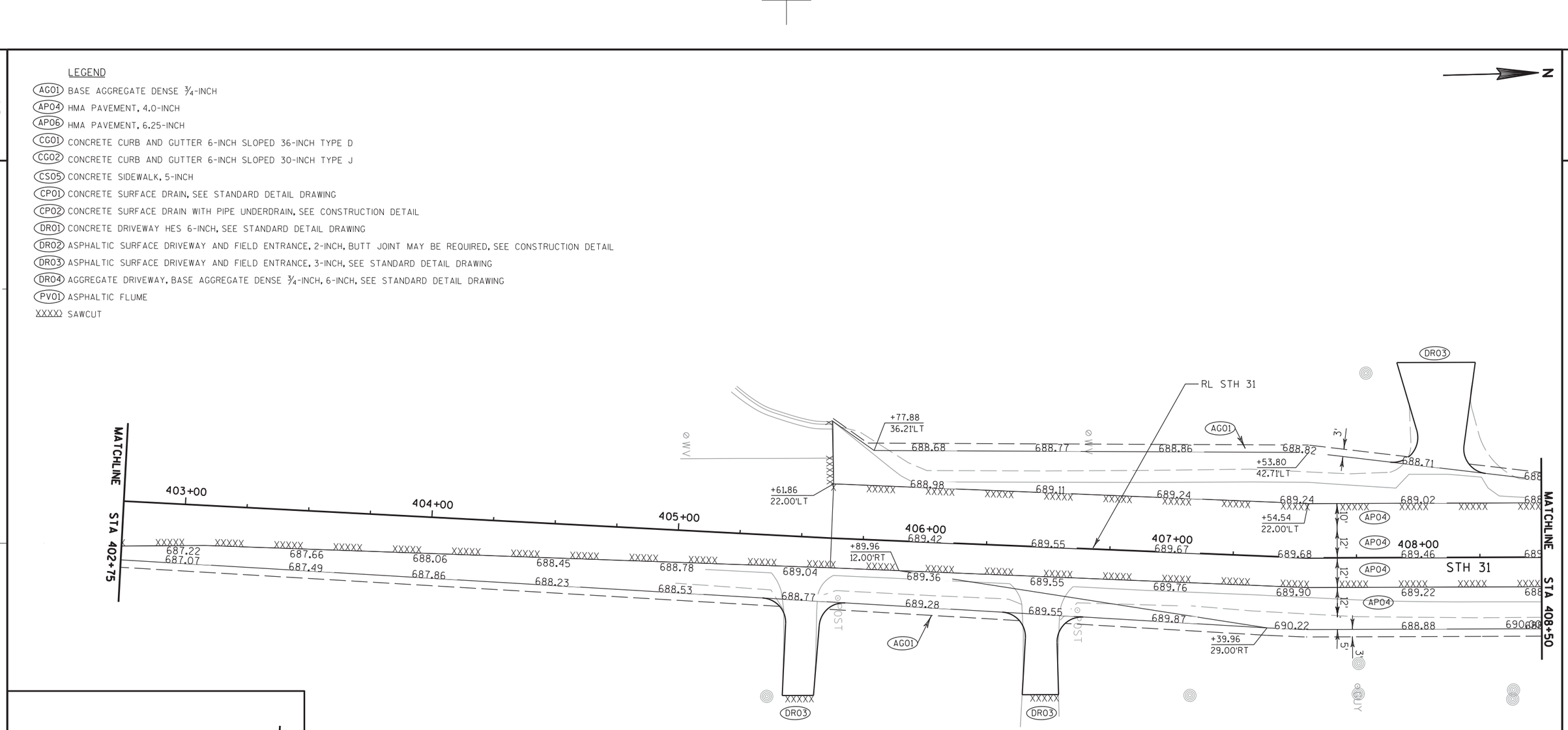
- (AG01) BASE AGGREGATE DENSE ¾-INCH
- (AP04) HMA PAVEMENT, 4.0-INCH
- (AP06) HMA PAVEMENT, 6.25-INCH
- (CG01) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- (CG02) CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
- (CS05) CONCRETE SIDEWALK, 5-INCH
- (CP01) CONCRETE SURFACE DRAIN, SEE STANDARD DETAIL DRAWING
- (CP02) CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN, SEE CONSTRUCTION DETAIL
- (DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE STANDARD DETAIL DRAWING
- (DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAIL
- (DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 3-INCH, SEE STANDARD DETAIL DRAWING
- (DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE ¾-INCH, 6-INCH, SEE STANDARD DETAIL DRAWING
- (PV01) ASPHALTIC FLUME
- (XXXX) SAWCUT

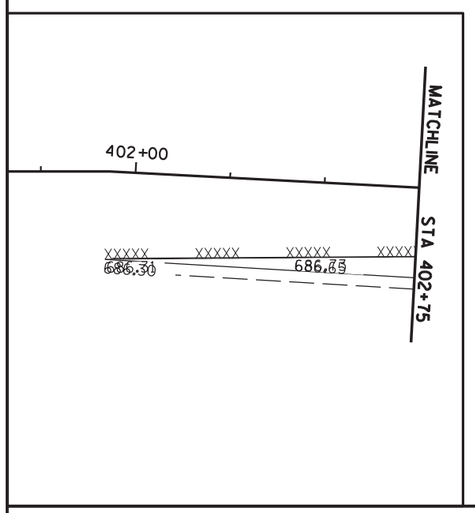
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS - 6 MILE ROAD	SHEET 36	E

2

LEGEND

- (AG01) BASE AGGREGATE DENSE ¾-INCH
- (AP04) HMA PAVEMENT, 4.0-INCH
- (AP06) HMA PAVEMENT, 6.25-INCH
- (CG01) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- (CG02) CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
- (CS05) CONCRETE SIDEWALK, 5-INCH
- (CP01) CONCRETE SURFACE DRAIN, SEE STANDARD DETAIL DRAWING
- (CP02) CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN, SEE CONSTRUCTION DETAIL
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- (DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE ¾-INCH, 6-INCH, SEE STANDARD DETAIL DRAWING
- (PV01) ASPHALTIC FLUME
- XXXXX SAWCUT





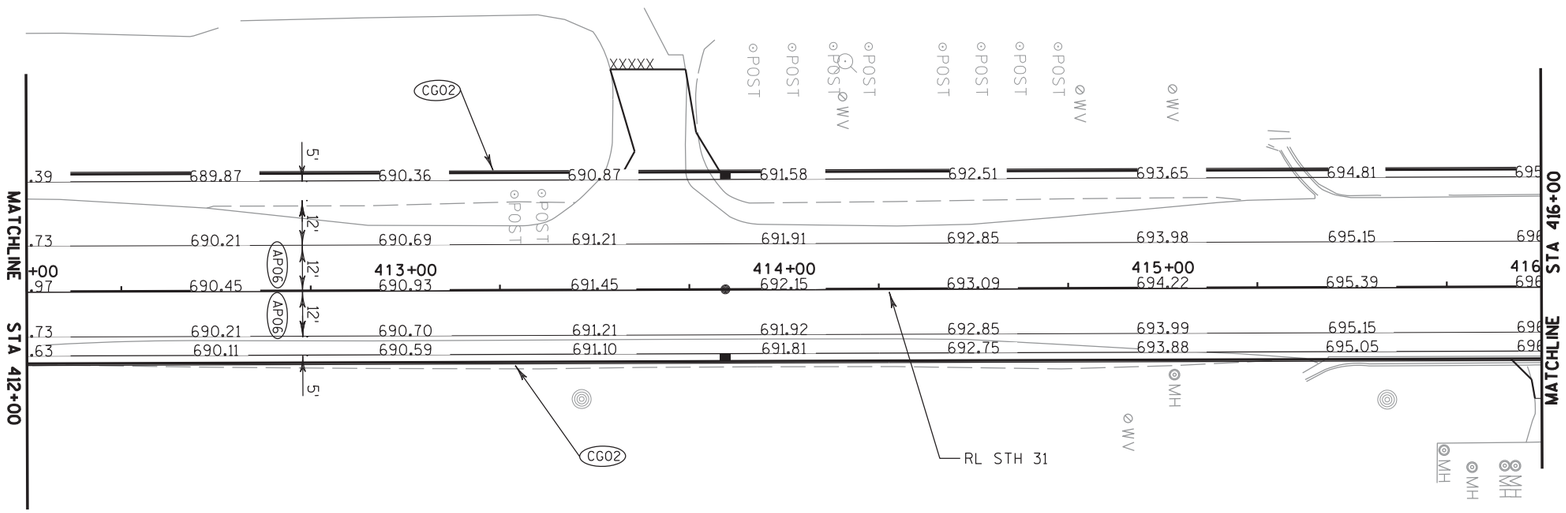
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS	SHEET 37	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\021112_id.dgn PLOT DATE : 8/30/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 40.00 sf / in.

WISDOT/CADDS SHEET 42

2

N



LEGEND

- (AG01) BASE AGGREGATE DENSE ¾-INCH
- (AP04) HMA PAVEMENT, 4.0-INCH
- (AP06) HMA PAVEMENT, 6.25-INCH
- (CG01) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- (CG02) CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J
- (CS05) CONCRETE SIDEWALK, 5-INCH
- (CP01) CONCRETE SURFACE DRAIN, SEE STANDARD DETAIL DRAWING
- (CP02) CONCRETE SURFACE DRAIN WITH PIPE UNDERDRAIN, SEE CONSTRUCTION DETAIL
- (DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE STANDARD DETAIL DRAWING
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- (DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 3-INCH, SEE STANDARD DETAIL DRAWING
- (DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE ¾-INCH, 6-INCH, SEE STANDARD DETAIL DRAWING
- (PV01) ASPHALTIC FLUME
- (XXXX) SAWCUT

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVING DETAILS	SHEET 38	E

2

CANDLE CT

5 MILE RD

BEGIN CONSTRUCTION
STA 25+64.84

BEGIN PROJECT
STA 108+20.71

STH 32

WETLANDS (TYP)

END CONSTRUCTION
STA 11+86.09

LEGEND

- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A, C, OR D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

THE IMMEDIATE RECEIVING WATER IS AN UNNAMED TRIBUTARY TO LAKE MICHIGAN

MATTHEW DR

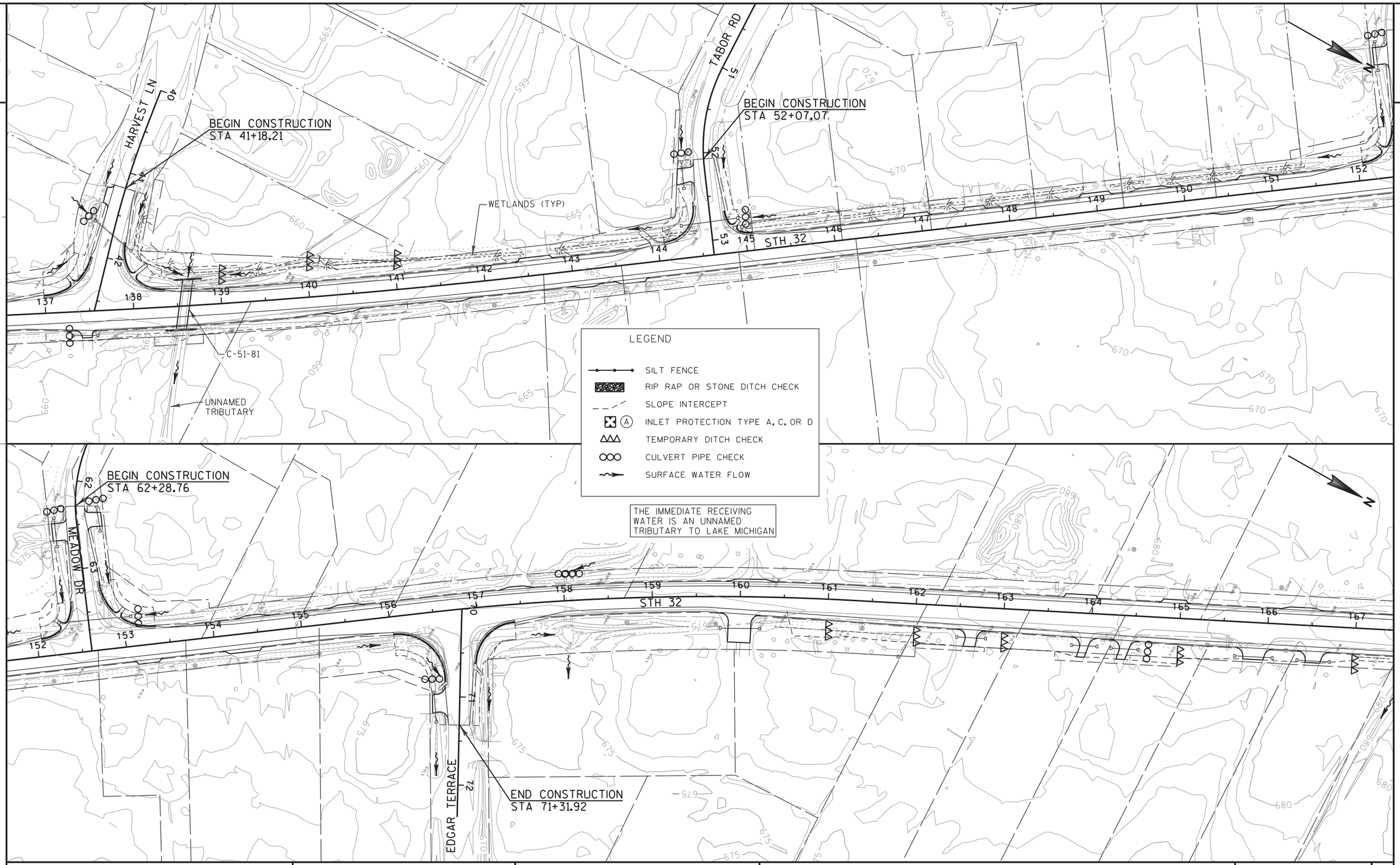
BEGIN CONSTRUCTION
STA 33+09.83

WETLANDS (TYP)

HEAVY DUTY

C-51-82

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	EROSION CONTROL	SHEET 39	E



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	EROSION CONTROL	SHEET 40	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\022002_ec.dgn PLOT DATE : 8/30/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 100.00 sf / in.

WISDOT/CADDS SHEET 42

2

STH 32

STH 31

6 MILE RD

LIGHT RIP RAP

WETLANDS (TYP)

PERMANENT DITCH CHECK

STA 325+00.00 TO
END CONSTRUCTION

END CONSTRUCTION
STA 328+04.17

LEGEND

- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A, C, OR D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

THE IMMEDIATE RECEIVING WATER IS AN UNNAMED TRIBUTARY TO LAKE MICHIGAN

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	EROSION CONTROL	SHEET 41	E

2

STH 32

WETLANDS (TYP)

WETLANDS (TYP)

END PROJECT
STA 205+56.00

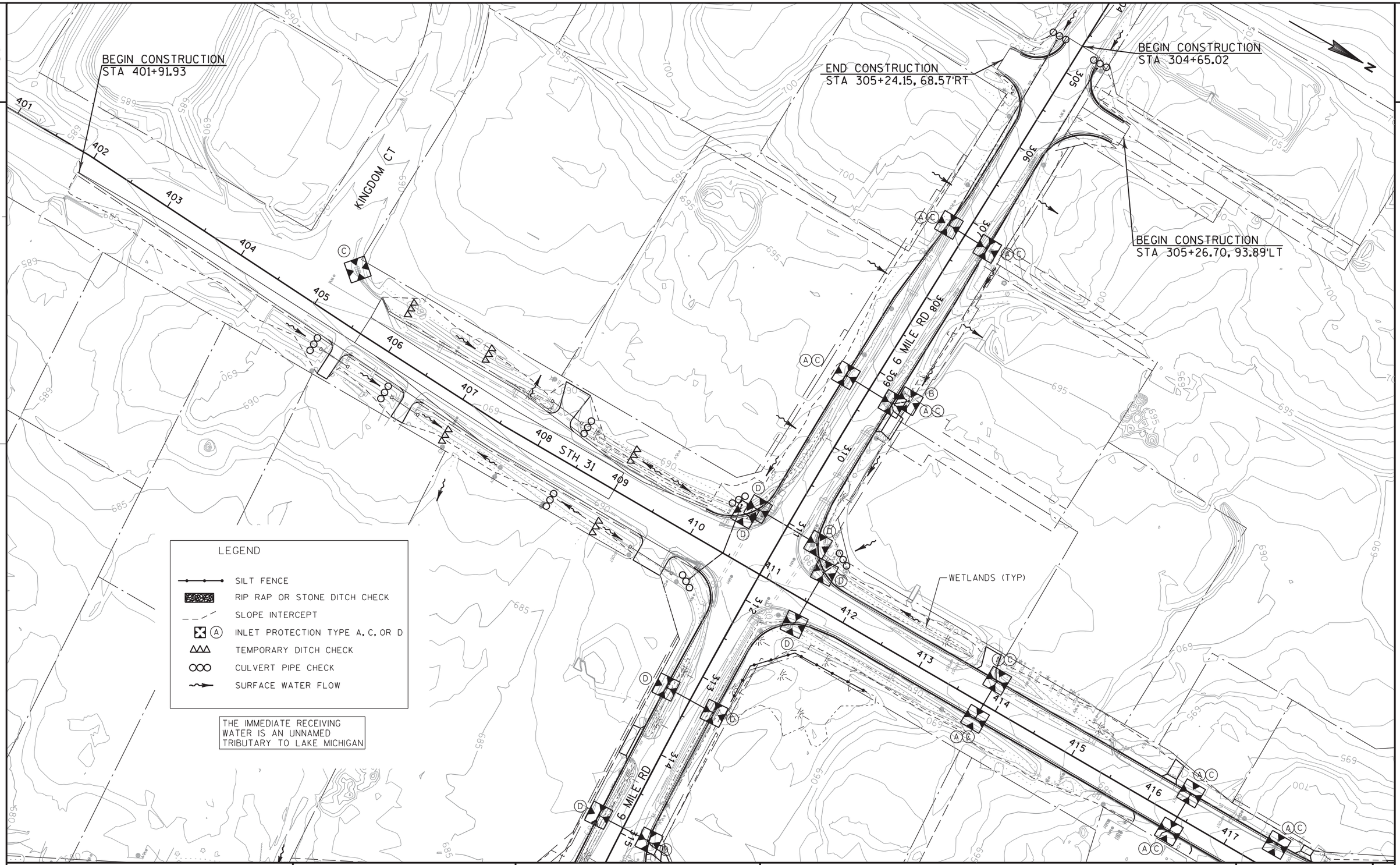
LEGEND

- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A, C, OR D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

THE IMMEDIATE RECEIVING WATER IS AN UNNAMED TRIBUTARY TO LAKE MICHIGAN

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	EROSION CONTROL	SHEET 42	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\022004_ec.dgn PLOT DATE : 8/29/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 100.00 sf / in.



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	EROSION CONTROL	SHEET 43	E

BEGIN CONSTRUCTION
STA 304+65.02

NBS PARTNERSHIP

GALLO INVESTMENTS LLC

NBS PARTNERSHIP

1.2 STA 304+78.7, 27.4'LT
1-12" APRON ENDWALL

STA 307+17.1, 29.1'LT
2'x3' HM-S CATCH BASIN 1.3

STA 309+23.4, 30.5'LT
4' DIA HM-S CATCH BASIN 2.1

STA 309+10.9, 45.2'LT
3' DIA C CATCH BASIN 2.3

305+00 306+00 307+00 308+00 309+00 310+00

MATCHLINE STA 310+50

DALE DR.

1.1 STA 304+76.2, 28.0'RT
1-12" APRON ENDWALL

SIX MILE INVESTMENTS LLC

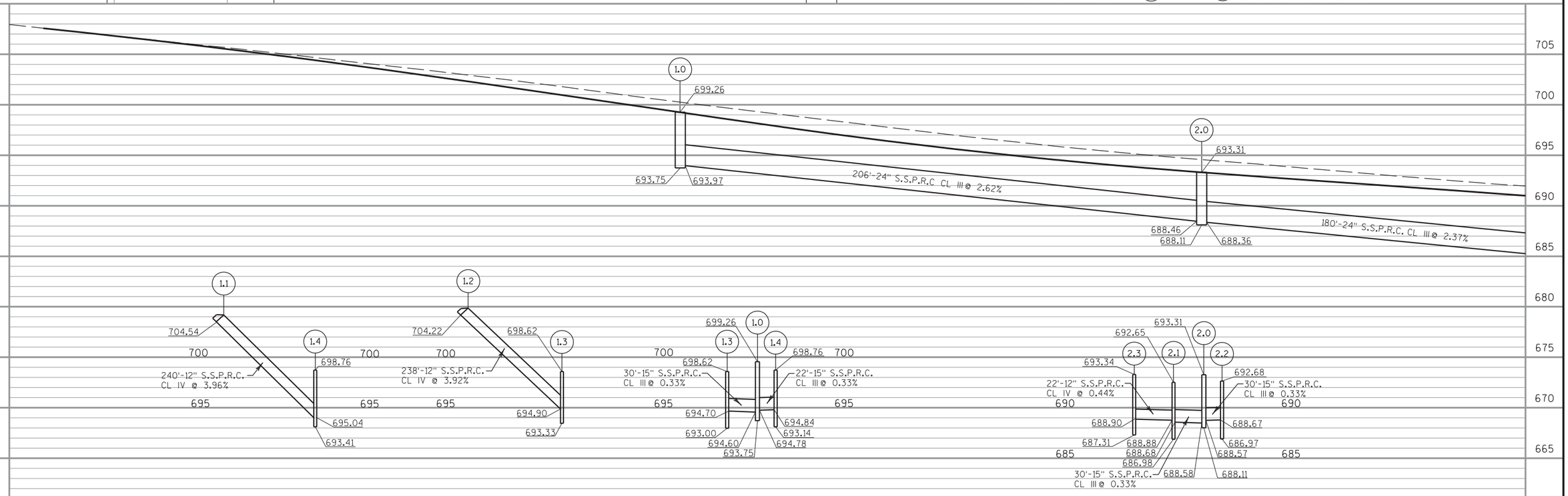
STA 307+17.1, 22.3'RT
2'x3' HM-S CATCH BASIN 1.4

1.0 STA 307+17.1, 0.0'RT
5' DIA J MANHOLE

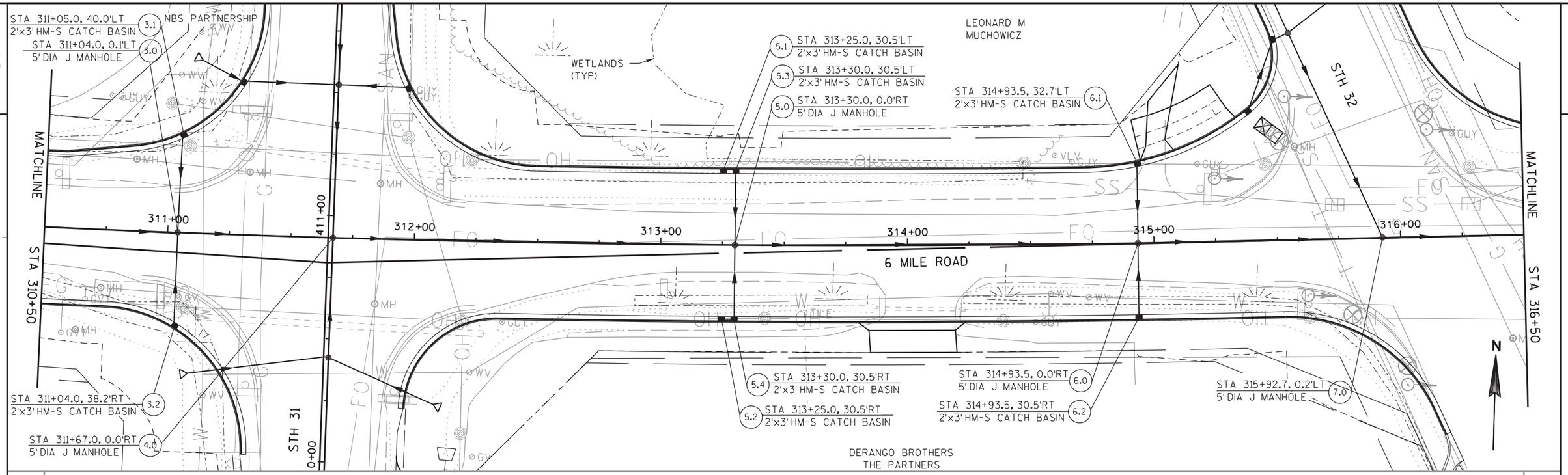
MAJESTIC NORTH
DEVELOPMENT INC

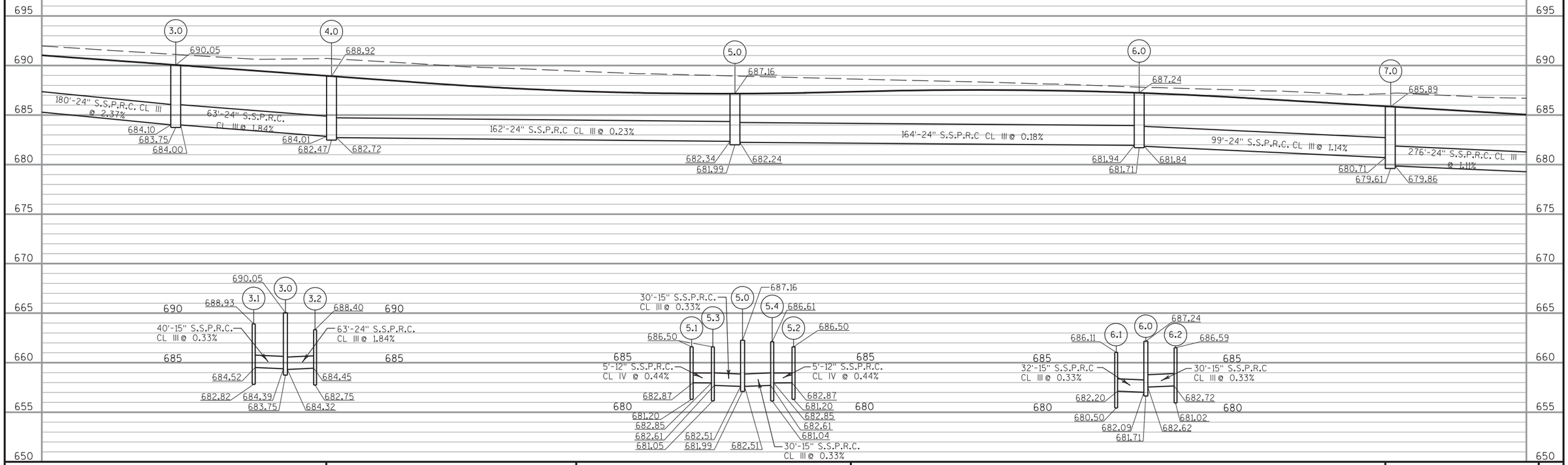
STA 309+23.4, 0.0'RT
5' DIA J MANHOLE 2.0

2.2 STA 309+23.4, 30.5'RT
2'x3' HM-S CATCH BASIN

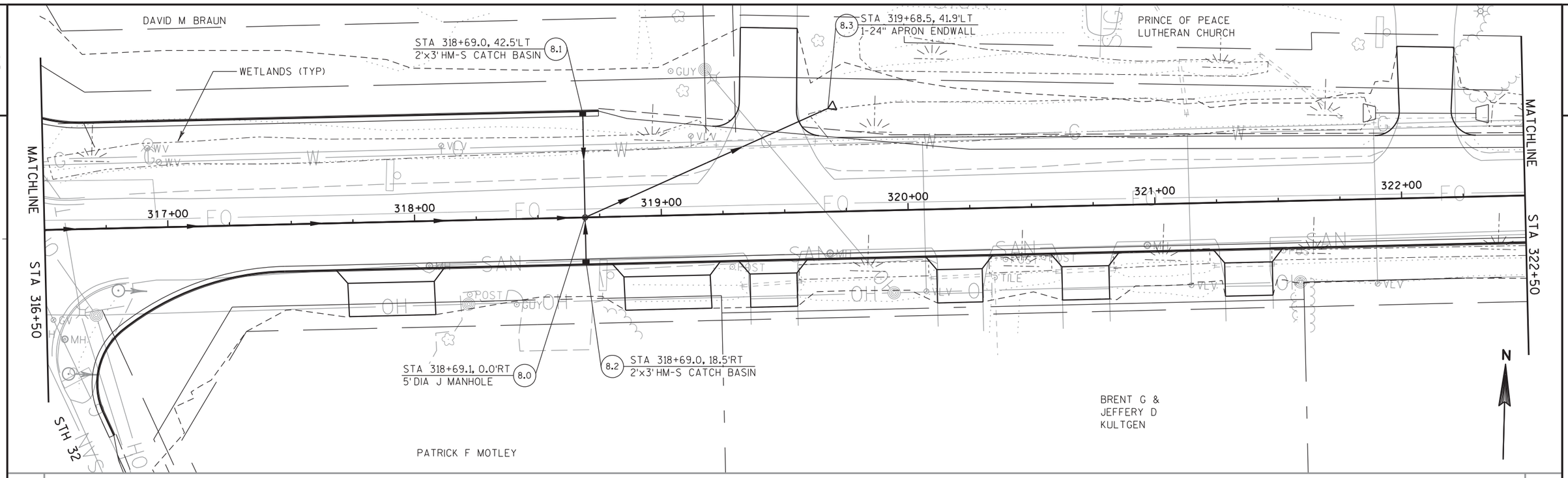


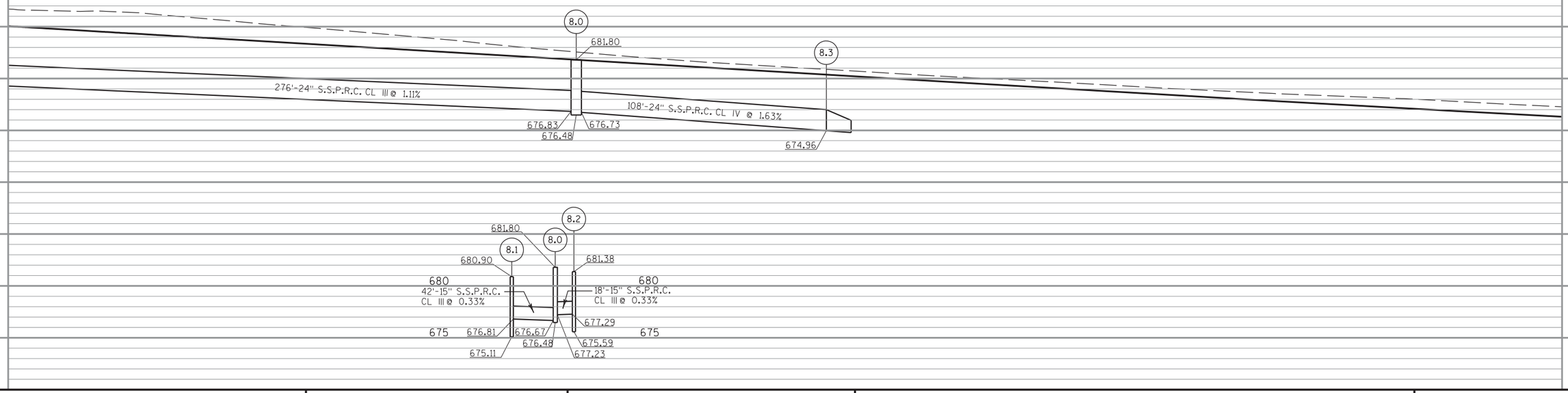
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	STORM SEWER - 6 MILE RD	SHEET 44	E





PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	STORM SEWER - 6 MILE RD	SHEET 45	E





PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	STORM SEWER - 6 MILE RD	SHEET 46	E

PRINCE OF PEACE LUTHERAN CHURCH

PATEL BRAUN PATEL LLC

WETLANDS (TYP)

MATCHLINE STA 322+50

323+00 324+00 325+00 326+00 327+00 328+00

6 MILE ROAD

EX

STA 324+66.9, 18.5'RT
2'x3' HM-S CATCH BASIN
9.1

END CONSTRUCTION
STA 327+94.29

N

DAVID R & BARBARA A GUSTIN

KARL M SR & DONNA M DEVINE

LORETTA IRELAND

695 690 685 680 675 670 665 660 655 650

EX

9.1

672.75

668.86

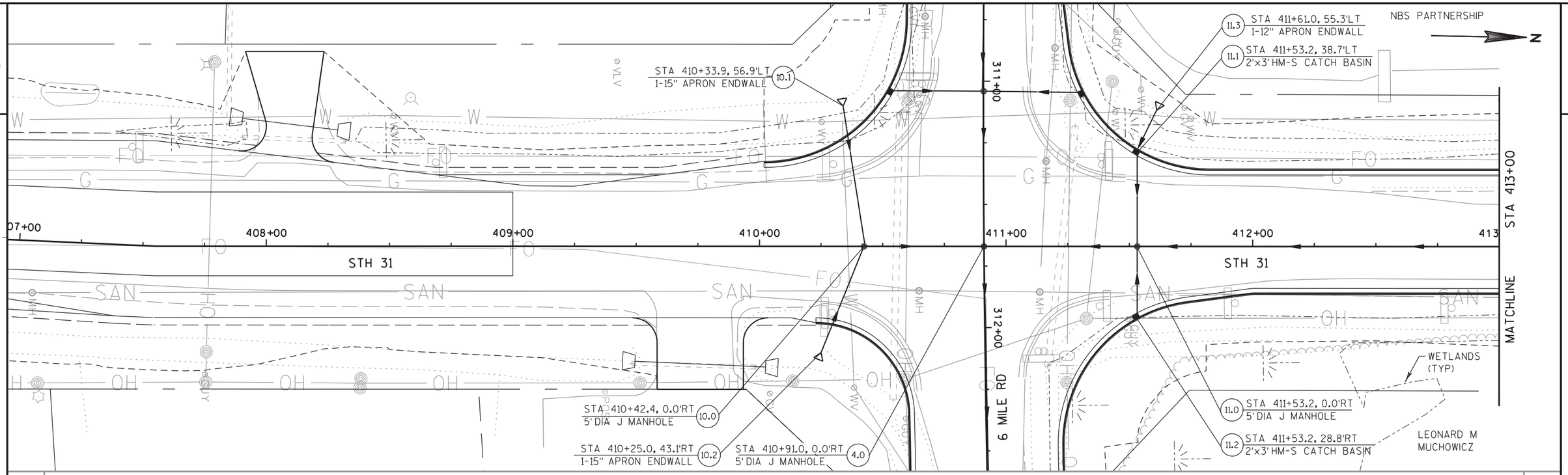
669.05

667.38

46'-12" S.S.P.R.C
CL IV @ 0.41%

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	STORM SEWER - 6 MILE RD	SHEET 47	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\022504_ss.dgn PLOT DATE : 8/30/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 40.00 sf / in.



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	STORM SEWER - STH 31	SHEET 48	E

NBS PARTNERSHIP

THOMAS & SHERRY MAYFIELD

NBS PARTNERSHIP

BRIAN A HART

JIMMY O & CHRISTINE F DEAN JR

12.1 STA 413+84.5, 30.5'LT
2'x3' HM-S CATCH BASIN

WETLANDS (TYP)

13.1 STA 416+38.8, 30.5'LT
2'x3' HM-S CATCH BASIN

REMOVE INLET

REMOVE INLET

STA 413+00

MATCHLINE

+00 414+00 415+00 416+00 417+00

STH 31

418+00

180+00

STH 32

179+00

STA 413+84.5, 18.5'RT
2'x3' HM-S CATCH BASIN 12.2

LEONARD M MUCHOWICZ

12.0 STA 413+84.5, 0.0'RT
5' DIA J MANHOLE

MANSUR ALI JINNAH

STA 416+38.8, 0.0'RT
5' DIA J MANHOLE 13.0

13.2 STA 416+38.8, 18.5'RT
2'x3' HM-S CATCH BASIN

AKIL LLC

715 710 705 700 695 690 685 680 675

12.0
691.82
686.85
686.60
686.95
232'-24" S.S.P.R.C. CL III @ 1.10%
254-24" S.S.P.R.C. CL III @ 2.25%

13.0
697.64
692.66
692.41

12.0
691.82
12.1
691.16
12.2
691.40
690
30'-15" S.S.P.R.C.
CL III @ 0.33%
18'-15" S.S.P.R.C.
CL III @ 0.33%
687.17
687.41
685
685.47
687.03
686.60
685.71
687.35

13.0
697.64
13.1
696.98
13.2
697.22
695
30'-15" S.S.P.R.C.
CL III @ 0.33%
18'-15" S.S.P.R.C.
CL III @ 0.33%
693.12
692.86
691.42
691.16
693.06
692.76
692.41
690
685

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	STORM SEWER - STH 31	SHEET 49	E

2

WETLANDS (TYP)

6 MILE RD

315+00

316+00

STA 171+21.3, 12.0'LT
5'DIA J MANHOLE (7.0)

(15.3) STA 171+91.0, 40.2'LT
2'x3' HM-S CATCH BASIN

(15.1) STA 172+12.9, 18.7'LT
2'x3' HM-S CATCH BASIN

(15.0) STA 172+12.8, 12'LT
5'DIA J MANHOLE

STA 175+25.0, 18.5'LT
2'x3' HM-S CATCH BASIN (16.1)

STA 175+25.0, 12'LT
5'DIA J MANHOLE (16.0)

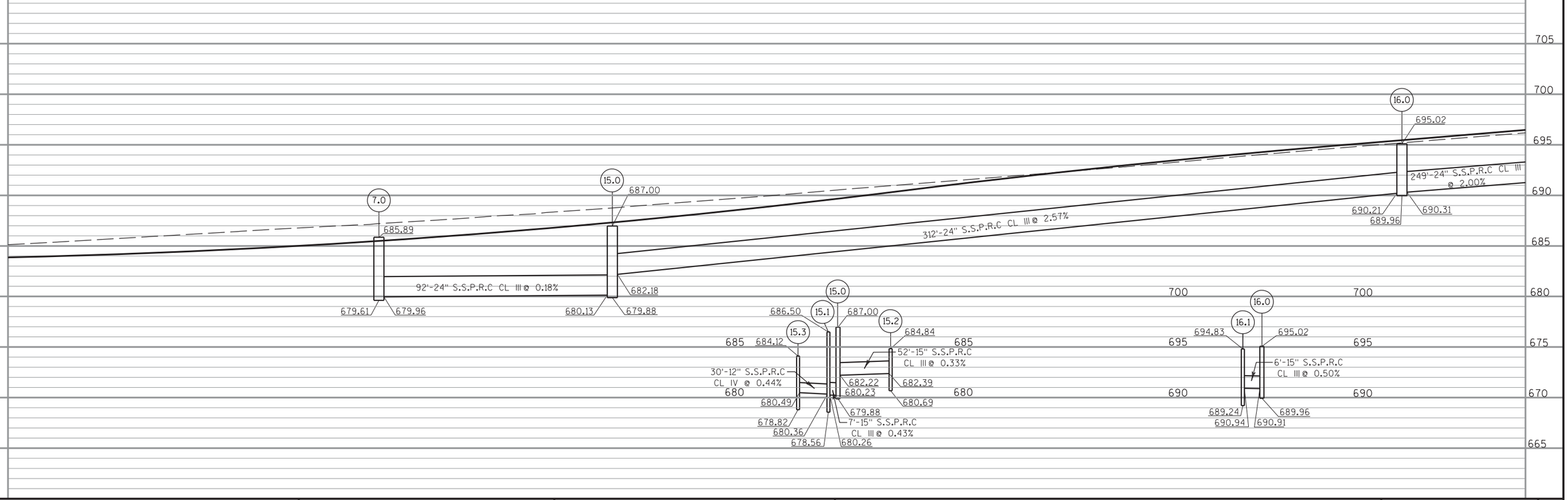
STA 172+25.0, 41.5'RT
3'DIA C CATCH BASIN (15.2)

170+00 171+00 172+00 173+00 174+00 175+00

STH 32

STA 175+50

MATCHLINE



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	STORM SEWER - STH 32	SHEET 50	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\022507_ss.dgn PLOT DATE : 8/29/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 40.00 sf / in.

2

STA 175+50

MATCHLINE

STH 32

STH 31

176+00 177+00 178+00 179+00 180+00 181+00

417+00 418+00

STA 417+52.0, 30'LT
2'x3' HM-S CATCH BASIN (20.0)

STA 177+75.0, 18.5'LT
2'x3' HM-S CATCH BASIN (17.1)

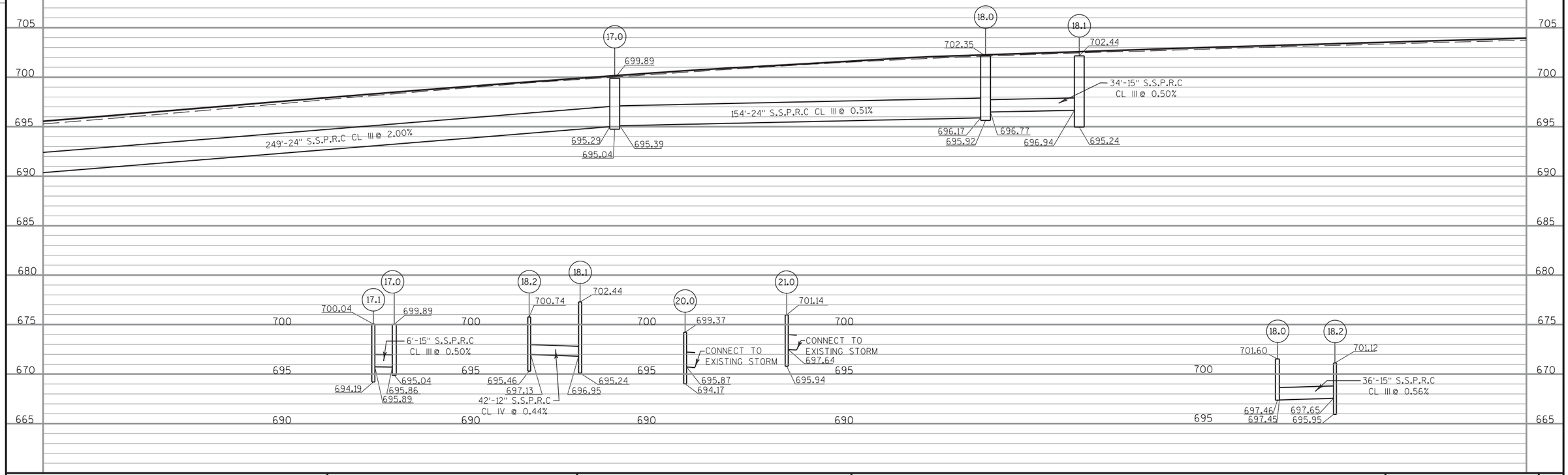
STA 179+49.7, 57.3'LT
2'x3' HM-S CATCH BASIN (18.2)

(21.0) STA 180+33, 53.9'LT
2'x3' HM-S CATCH BASIN

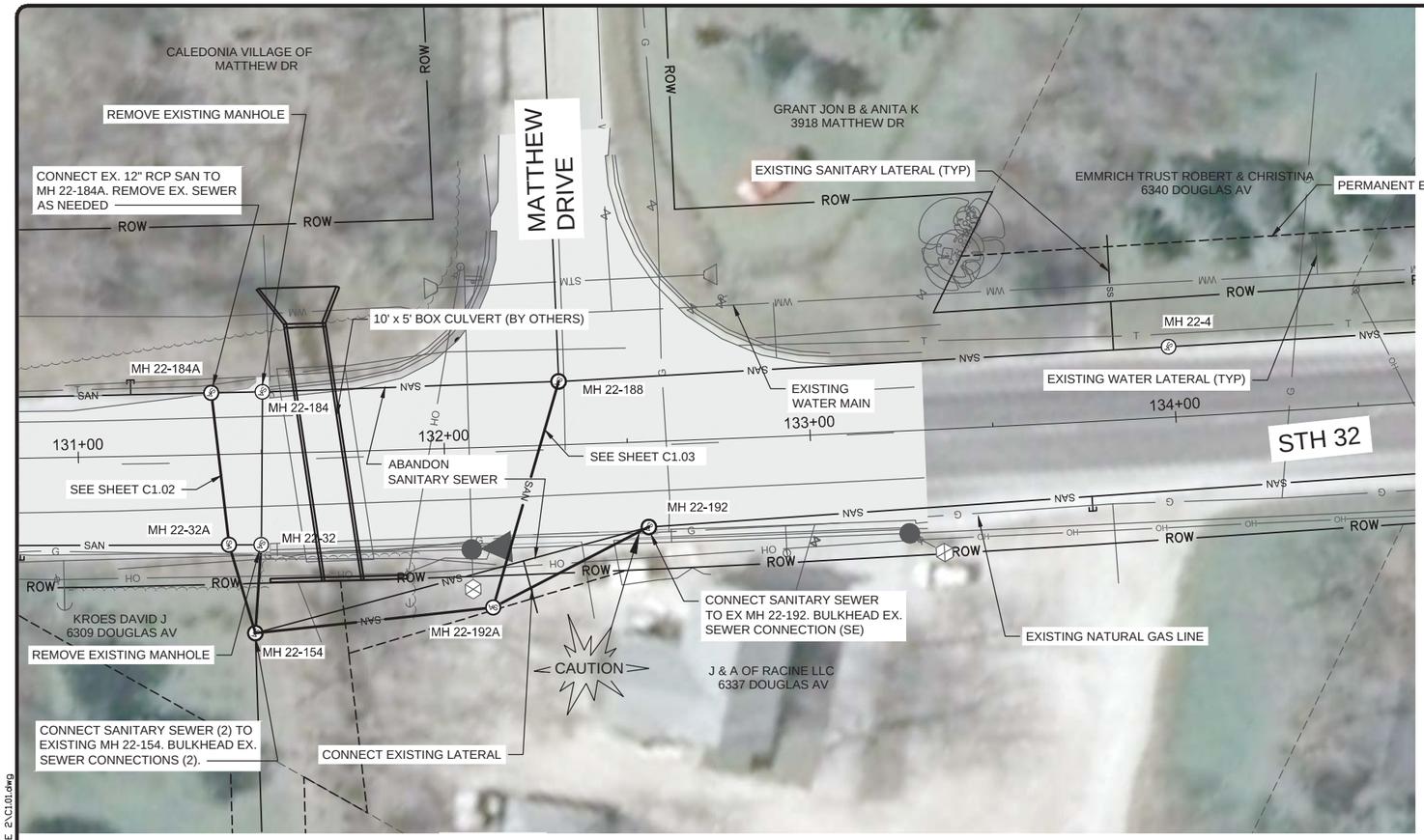
(18.1) STA 179+62.9, 18.5'LT
2'x3' HM-S CATCH BASIN

STA 177+75.0, 12.0'LT
5' DIA J MANHOLE (17.0)

(18.0) STA 179+29.6, 12'LT
5' DIA J MANHOLE



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	STORM SEWER - STH 32	SHEET 51	E



CONSTRUCTION SEQUENCE:

1. CONTRACTOR WILL NEED TO DO SEWER AND WATER RELAY WORK FROM STA 131+00 TO STA 132+60 DURING THE INSTALLATION OF DOT STRUCTURE C-51-82. THE WATERWAY AT STA 131+75 SHALL ONLY BE DIVERTED ONE TIME DURING CONSTRUCTION. ALL WORK THAT REQUIRES STREAM DIVERSION SHALL BE COMPLETED DURING THIS TIME. THE SCHEDULE FOR THIS WORK WILL BE DEPENDENT ON THE STREAM DIVERSION.
2. CONTRACTOR WILL NEED TO DO WATER OFFSET AND INSULATION WORK FROM STA 138+25 TO STA 139+50 DURING THE INSTALLATION OF DOT STRUCTURE C-51-81. THE WATERWAY AT STA 138+60 SHALL ONLY BE DIVERTED ONE TIME DURING CONSTRUCTION. ALL WORK THAT REQUIRES STREAM DIVERSION SHALL BE COMPLETED DURING THIS TIME. THE SCHEDULE FOR THIS WORK WILL BE DEPENDENT ON THE STREAM DIVERSION.

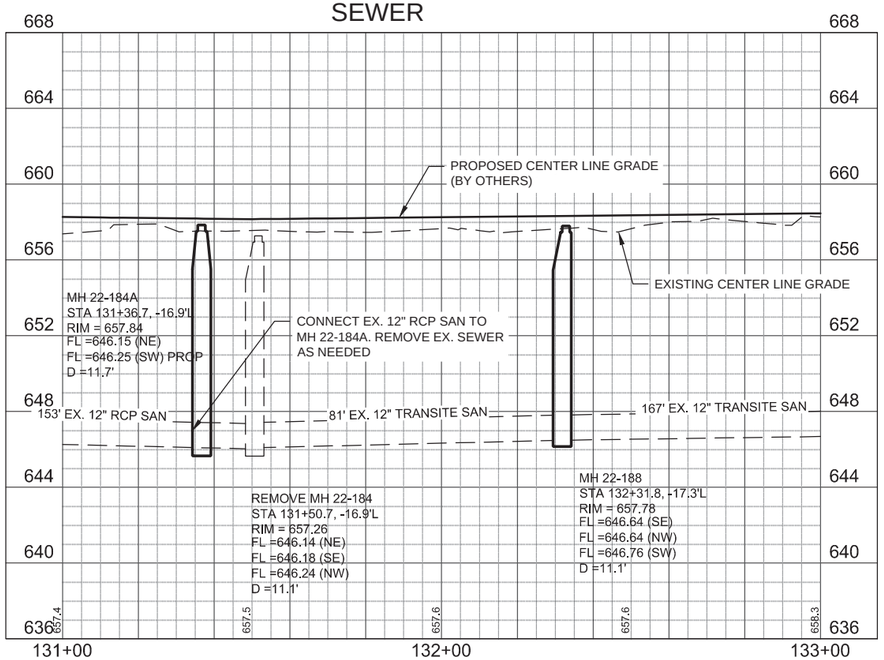
NOTES:

1. VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION BY CALLING DIGGER'S HOTLINE AT 811.
2. COORDINATE ALL WORK WITH OTHER UTILITIES AND CONTRACTORS IN THE PROJECT AREA.
3. INSTALL TRAFFIC CONTROL IN ACCORDANCE WITH TRAFFIC CONTROL DETAILS AND THE MUTCD.
4. CONTRACTOR SHALL PERFORM ALL WORK WITHIN EXISTING RIGHTS-OF-WAY OR EXISTING EASEMENTS.
5. DEWATERING OF TRENCH IS THE RESPONSIBILITY OF THE CONTRACTOR. SUBMIT DEWATERING PLAN FOR ALL EXCAVATIONS THAT REQUIRE DEWATERING.
6. SEWER SERVICE SHALL BE MAINTAINED AT ALL TIMES. CONTRACTOR SHALL SUBMIT TEMPORARY CONVEYANCE PLAN TO CONVEY FLOWS AROUND THE WORK AREA.

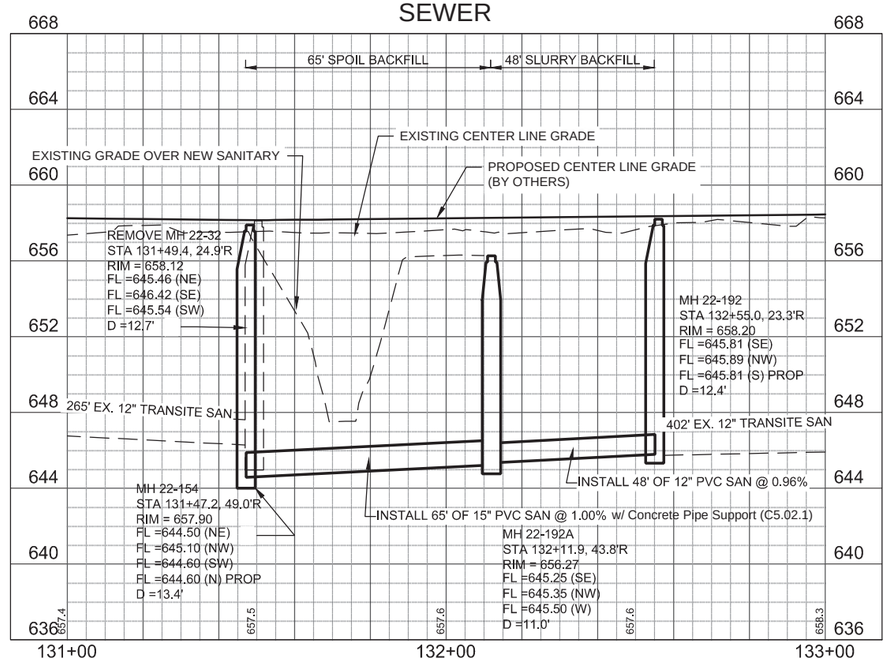
WISCONSIN
ANDREW M. SCHULTZ
E-36712
MUKWONAGO WI
PROFESSIONAL ENGINEER

9/4/2018

WEST SEWER



EAST SEWER



Foth Infrastructure & Environment, LLC
2514 S. 102nd Street
Suite 278, Lincoln Center II
West Allis, WI 53227
Phone: 414-336-7900 Fax: 414-336-7901

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STH 32 PLAN OF PROPOSED IMPROVEMENTS

CALEDONIA UTILITY DISTRICT

VILLAGE OF CALEDONIA, WISCONSIN

RACINE COUNTY

NO.	BY	DATE	DESCRIPTION
1			RECORD DRAWING OF COMPLETED CONSTRUCTION BY
2			RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS.
3			BY
4			DATE

Date of Preparation: APRIL 1, 2018

	BY	DATE
SURVEYED	JAH	01/24/2017
DRAWN	MLH	04/01/2018
DESIGNED	TMS	04/01/2018
CHECKED	AMS	04/01/2018

STH 32 SANITARY SEWER PLAN & PROFILE

VERTICAL SCALE: 4

HORIZONTAL SCALE: 0 20' 40'

PROJECT ID 16C030.02

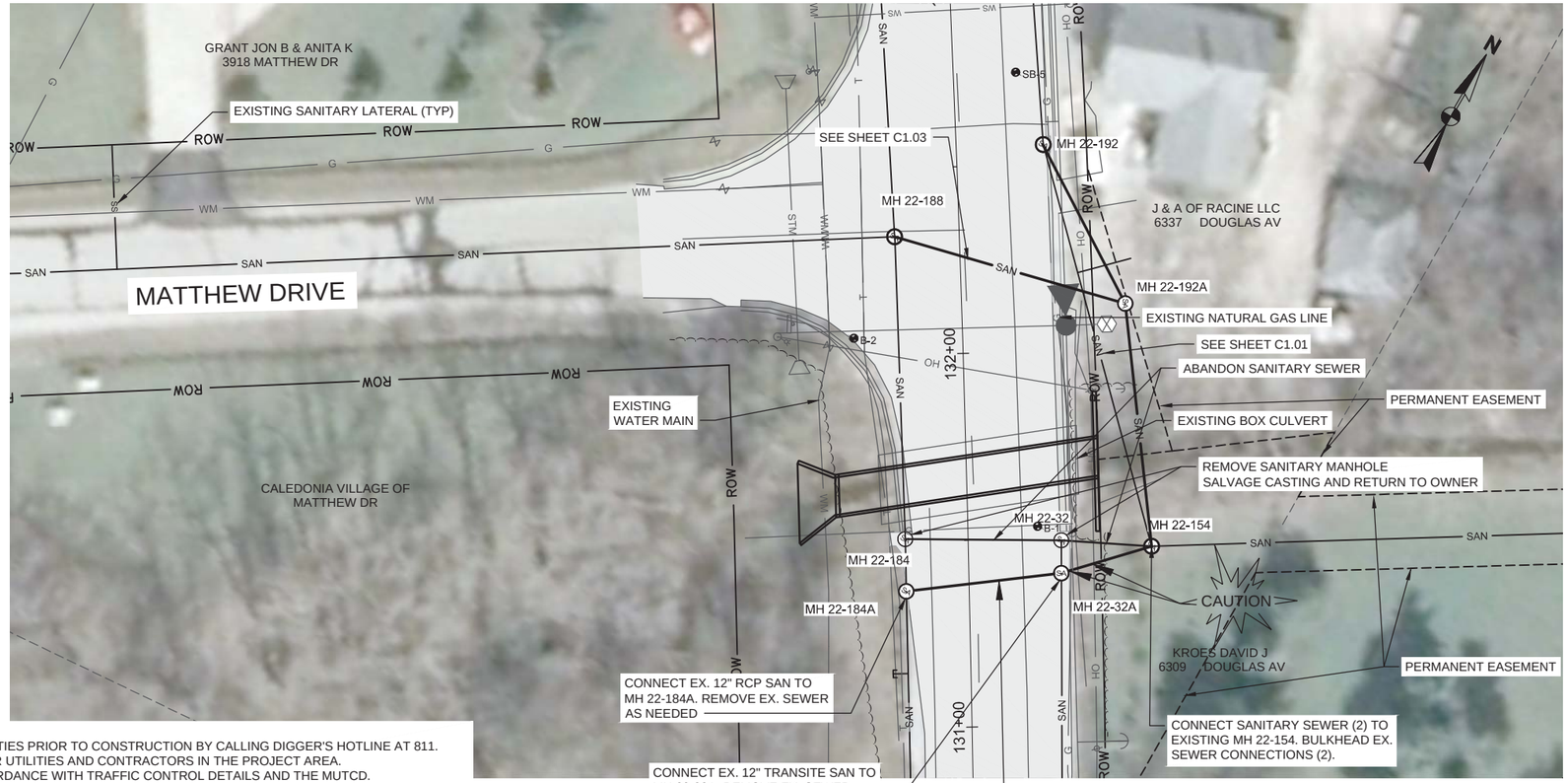
SHEET 52 OF 01

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Sep 04, 2018 - 1:26pm TMS4 Q:\Caledonia Utility District\16C030.02 - STH 32 Road Reconst. Utility Planning\CAD\Plans\PHASE 2\C101.dwg

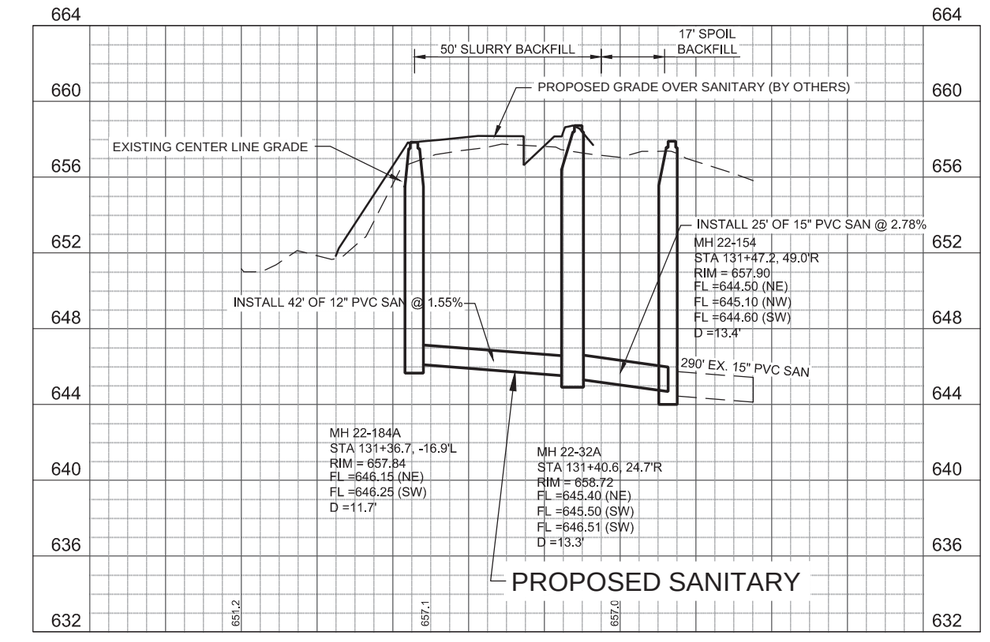
CONSTRUCTION SEQUENCE:

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NOTES:

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Foth Infrastructure & Environment, LLC
2514 S. 102nd Street
Suite 278, Lincoln Center II
West Allis, WI 53227
Phone: 414-336-7900 Fax: 414-336-7901

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STH 32 PLAN OF PROPOSED IMPROVEMENTS

CALEDONIA UTILITY DISTRICT

VILLAGE OF CALEDONIA, WISCONSIN

RACINE COUNTY

NO.	BY	DATE	DESCRIPTION
1			
2			
3			
4			
5			

RECORD DRAWING OF COMPLETED CONSTRUCTION BY

RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS.

BY

DATE

Date of Preparation: APRIL 1, 2018

	BY	DATE
SURVEYED	JAH	01/24/2017
DRAWN	MLH	04/01/2018
DESIGNED	TMS	04/01/2018
CHECKED	AMS	04/01/2018

SANITARY SEWER PLAN & PROFILE

VERTICAL SCALE: 4"

HORIZONTAL SCALE: 0 20' 40

PROJECT ID 16C030.02

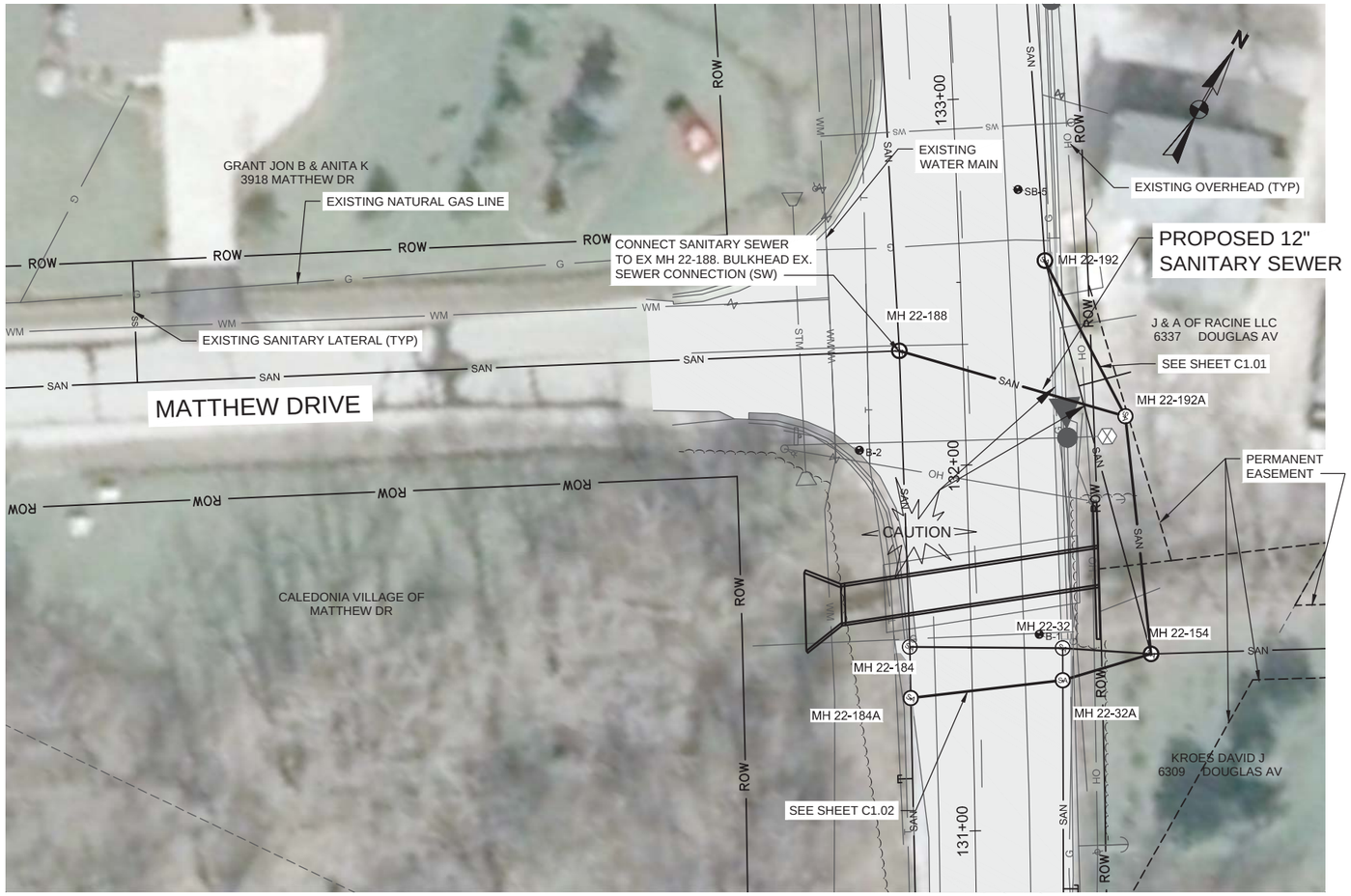
SHEET 53 OF 02

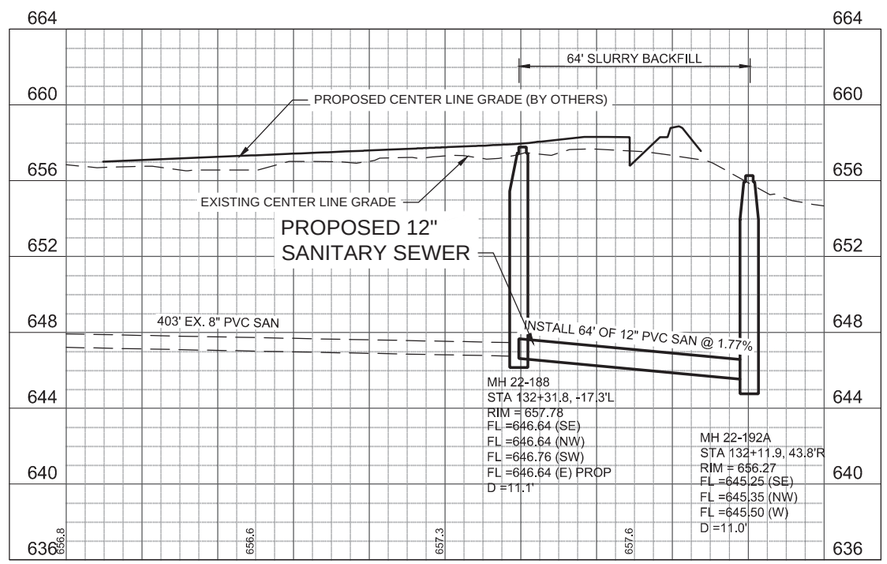
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Aug 31, 2018 - 1:19pm tns4 Q:\Caledonia Utility District\16C030.02 - STH 32 Road Reconst. Utility Planning\CAD\Plans\PHASE 2\C102.dwg

CONSTRUCTION SEQUENCE:

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STH 32 PLAN OF PROPOSED IMPROVEMENTS

CALEDONIA UTILITY DISTRICT

VILLAGE OF CALEDONIA, WISCONSIN
RACINE COUNTY

REVISIONS			
NO.	BY	DATE	DESCRIPTION

RECORD DRAWING OF COMPLETED CONSTRUCTION BY

RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS.
BY
DATE

Date of Preparation: APRIL 1, 2018

	BY	DATE
SURVEYED	JAH	01/24/2017
DRAWN	MLH	04/01/2018
DESIGNED	TMS	04/01/2018
CHECKED	AMS	04/01/2018

MATTHEW DRIVE SANITARY SEWER PLAN & PROFILE

VERTICAL SCALE: 4"
HORIZONTAL SCALE: 0 20' 40'
PROJECT ID 16C030.02

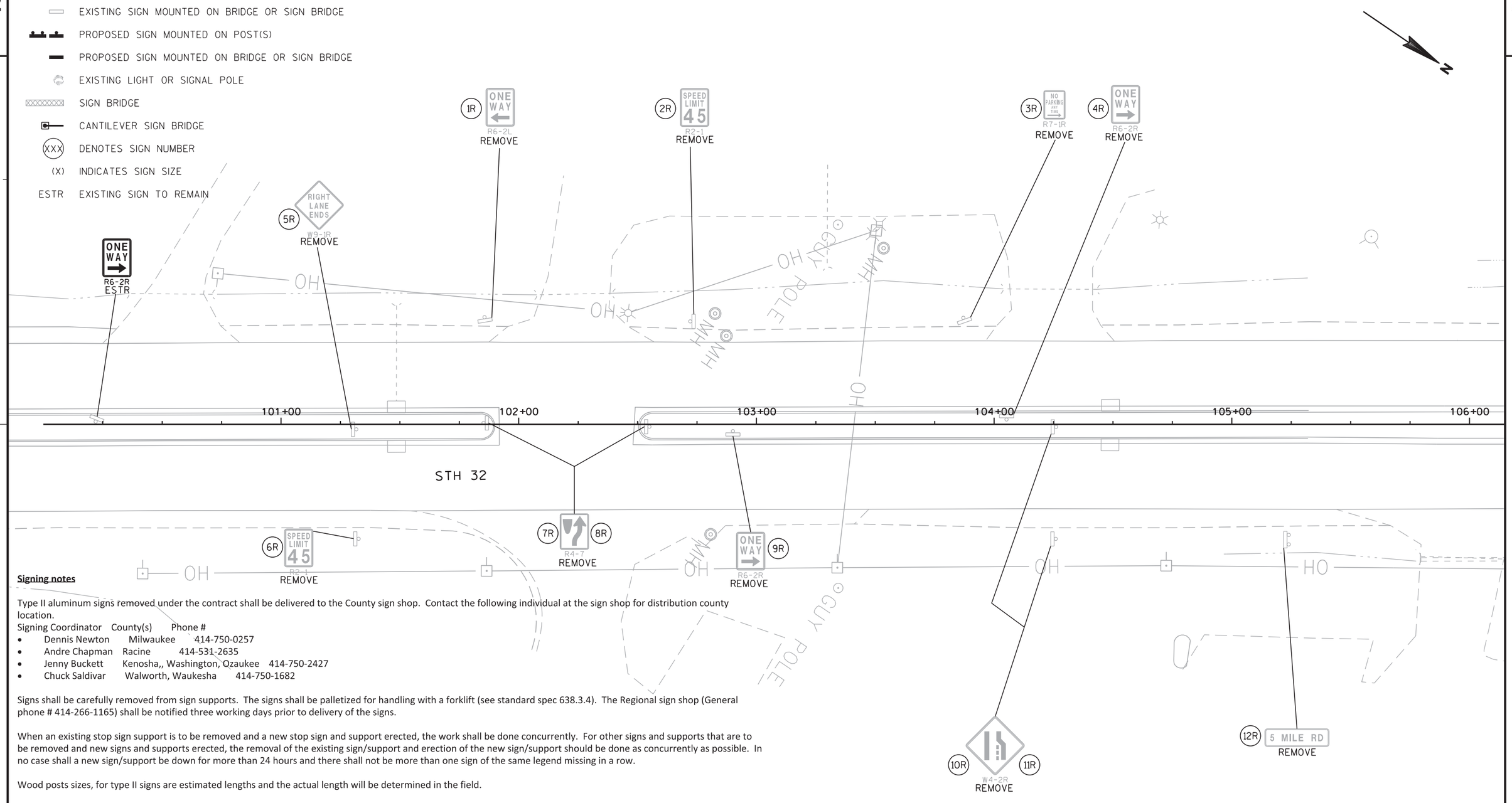
SHEET 54 OF 03

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Aug 31, 2018 - 1:13pm tns4 Q:\Caledonia Utility District\16C030.02 - STH 32 Road Reconst. Utility Planning\CAD\Plans\PHASE 2\C102.dwg

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



Signing notes

Type II aluminum signs removed under the contract shall be delivered to the County sign shop. Contact the following individual at the sign shop for distribution county location.

Signing Coordinator County(s) Phone #

- Dennis Newton Milwaukee 414-750-0257
- Andre Chapman Racine 414-531-2635
- Jenny Buckett Kenosha,, Washington, Ozaukee 414-750-2427
- Chuck Saldivar Walworth, Waukesha 414-750-1682

Signs shall be carefully removed from sign supports. The signs shall be palletized for handling with a forklift (see standard spec 638.3.4). The Regional sign shop (General phone # 414-266-1165) shall be notified three working days prior to delivery of the signs.

When an existing stop sign support is to be removed and a new stop sign and support erected, the work shall be done concurrently. For other signs and supports that are to be removed and new signs and supports erected, the removal of the existing sign/support and erection of the new sign/support should be done as concurrently as possible. In no case shall a new sign/support be down for more than 24 hours and there shall not be more than one sign of the same legend missing in a row.

Wood posts sizes, for type II signs are estimated lengths and the actual length will be determined in the field.

Street name signs are property of the municipality (city, village or town). The municipality shall be contacted to remove their street name signs prior to construction and it is their responsibility to reinstall the old signs or replace them following construction. WisDOT does not furnish or install street name signs. The street name signs shall not be placed on top of the STOP signs.

Locate no passing pennants based on establishing no passing zones pay item. Place signs based on where the pavement marking for no passing zones begin

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

13R R7-1D REMOVE

14R R7-1D REMOVE

15R SOUTH M3-3 / 32 / M1-6B / M1-93 REMOVE

16R R7-1L REMOVE

17R ONE WAY R6-2L REMOVE

18R END R3-9D / CENTER LANE ONLY R3-9B REMOVE

CANDLE CT

106+00 107+00 108+00 109+00 110+00 111+00 112+00

STH 32

19R 20R W6-2 REMOVE

21R 22R R4-7 REMOVE

23R ONE WAY R6-2L REMOVE

24R WRONG WAY R5-1A REMOVE

25R W11-8 REMOVE

DO NOT ENTER R5-1 REMOVE

29R SPEED LIMIT 35 R2-1 REMOVE

5 MILE RD

26R R4-7 REMOVE

5 MILE RD / DOUGLAS AVE STREET NAME SIGNS CONTACT VILLAGE TO REMOVE

27R STOP R1-1 REMOVE

28R CENTER LANE ONLY R3-9B REMOVE

STATUE

SHEET 2 OF 29

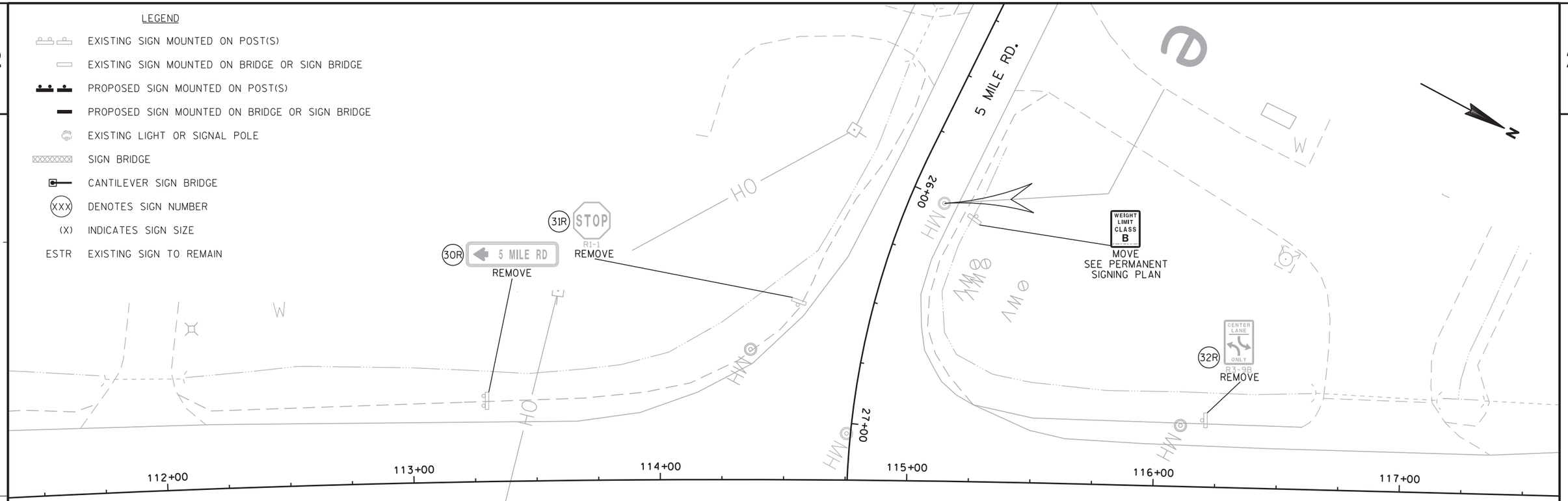
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 56	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023102_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 57	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023103_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

35R SPEED LIMIT 45 R2-1
REMOVE

36R 5 MILE RD
REMOVE

37R FIRE TRUCKS ENTERING WHEN SIGNAL FLASHES W54-6O(MOD)
REMOVE FROM FLASHING BEACON POLE

38R W6-1
REMOVE

118+00 119+00 120+00 121+00 122+00 123+00

STH 32

OH

39R SPEED LIMIT 45 R2-1
REMOVE

SHEET 4 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 58	E

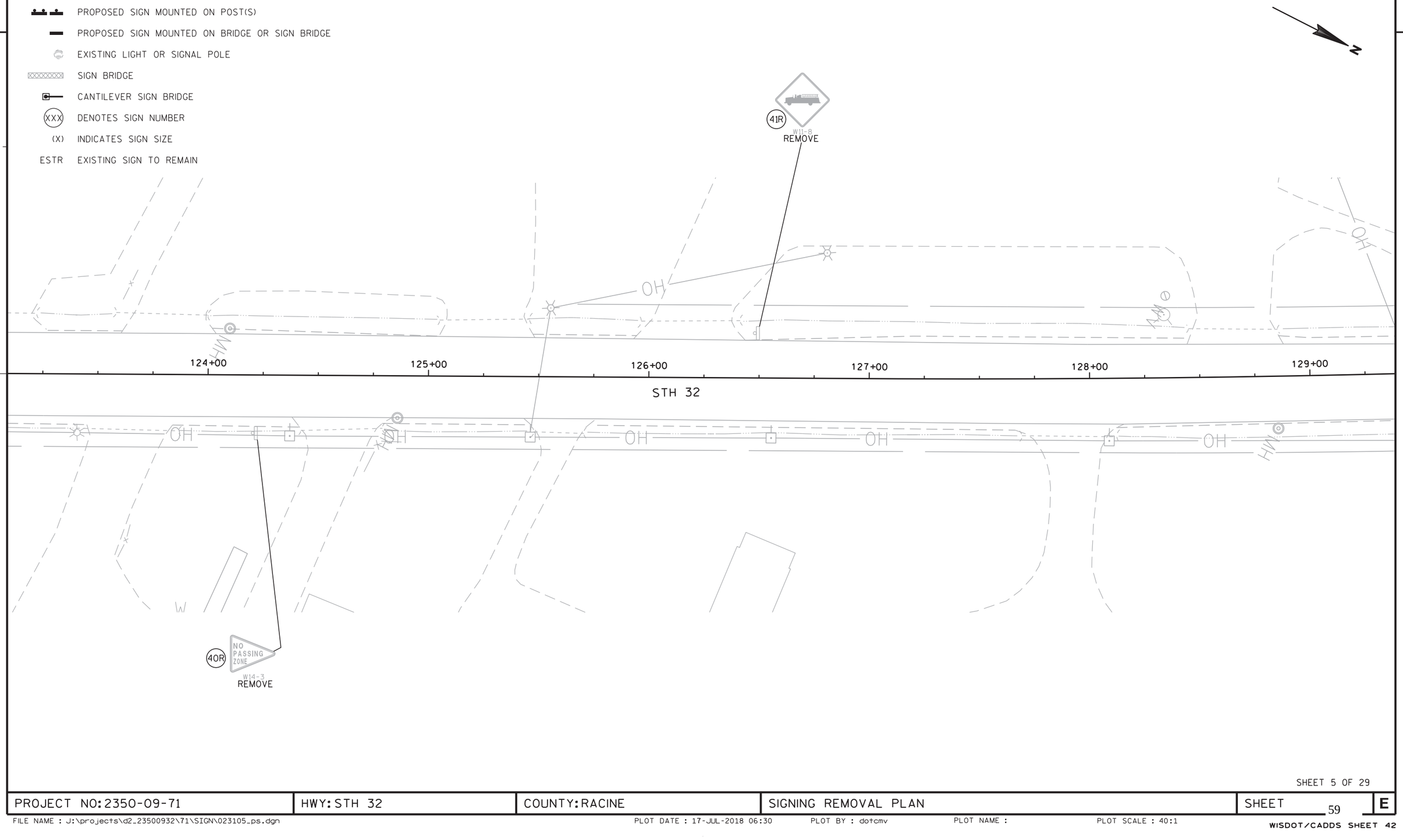
FILE NAME : J:\projects\d2_23500932\71\SIGN\023104_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 5 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 59	E

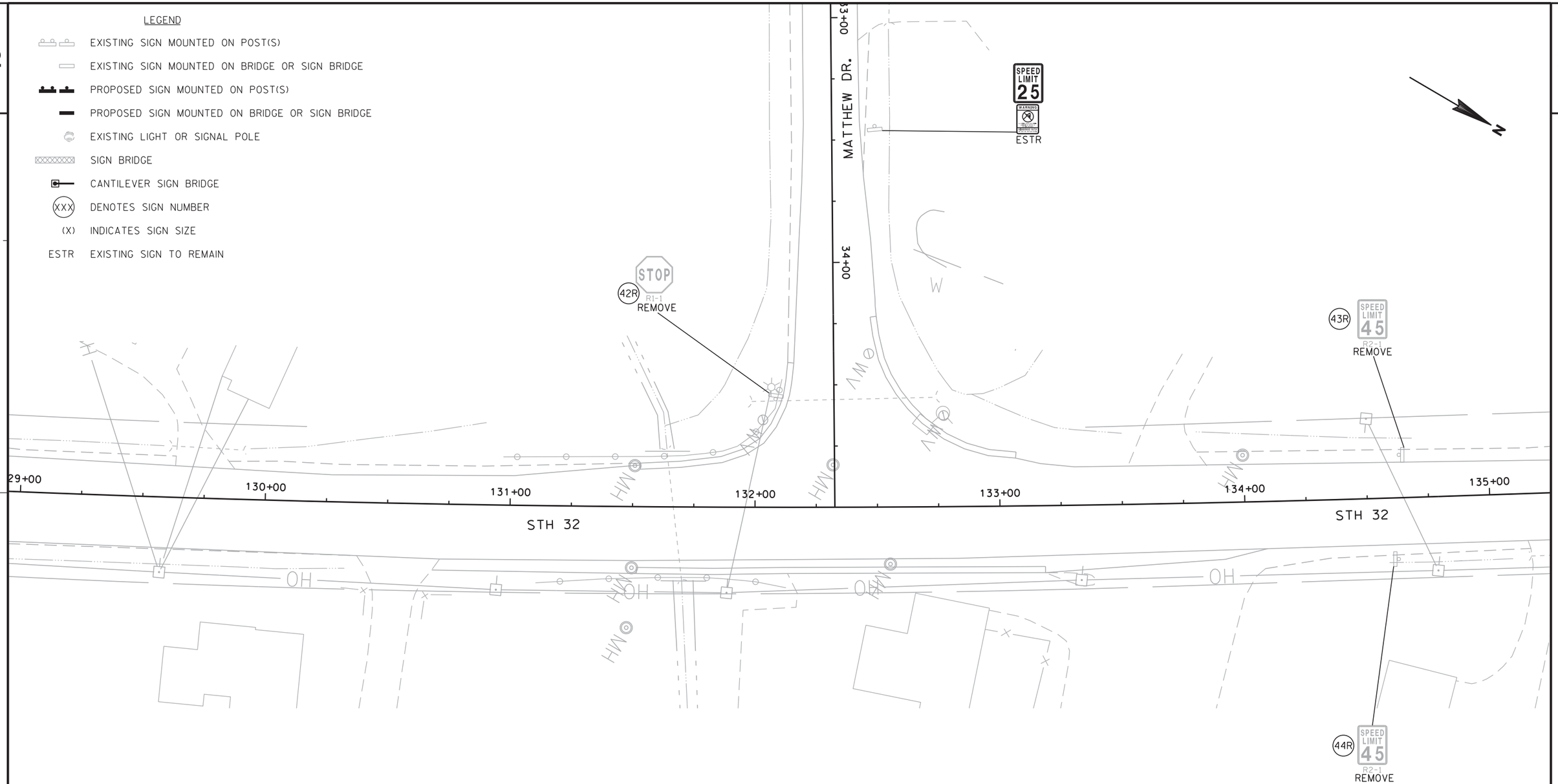
FILE NAME : J:\projects\d2_23500932\71\SIGN\023105_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 6 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 60	E

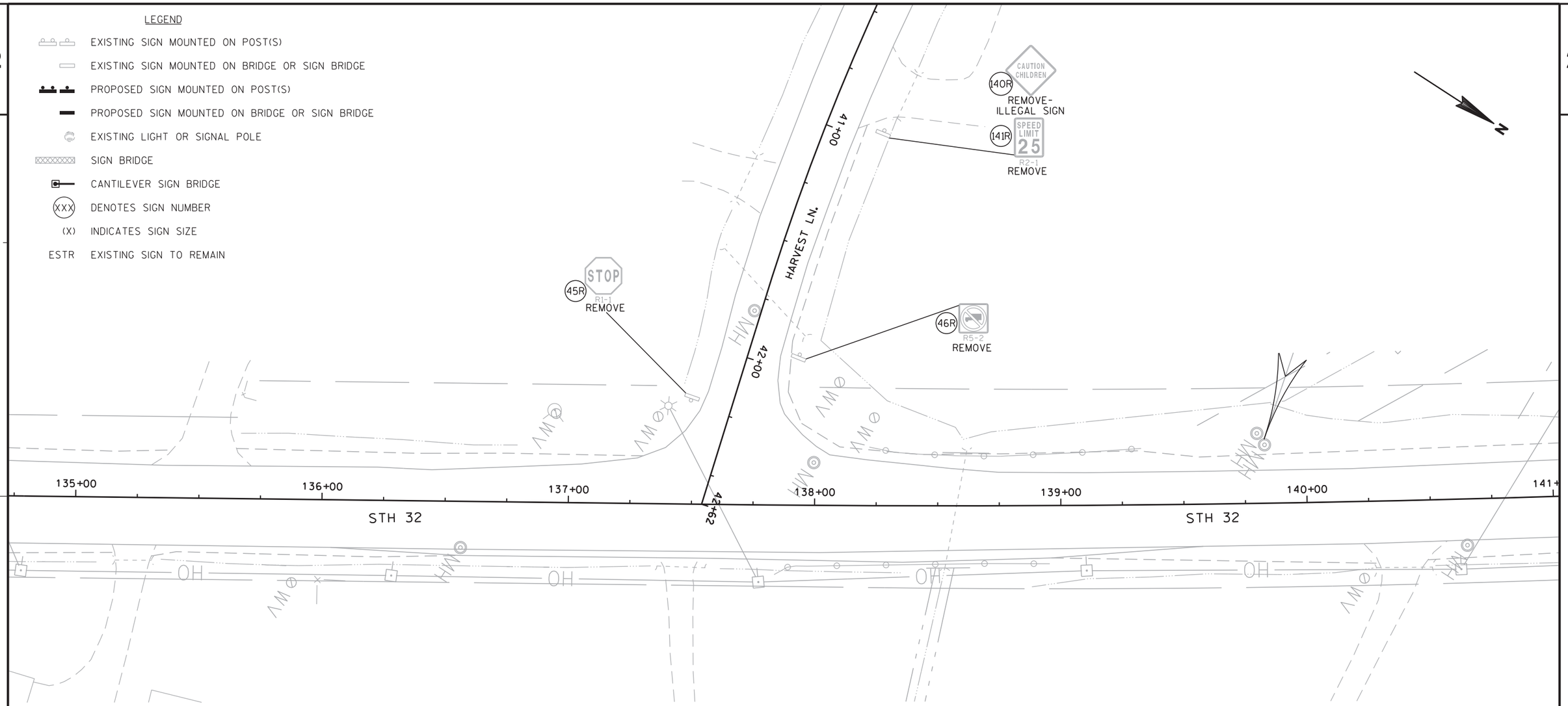
FILE NAME : J:\projects\d2_23500932\71\SIGN\023106_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 7 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 61	E

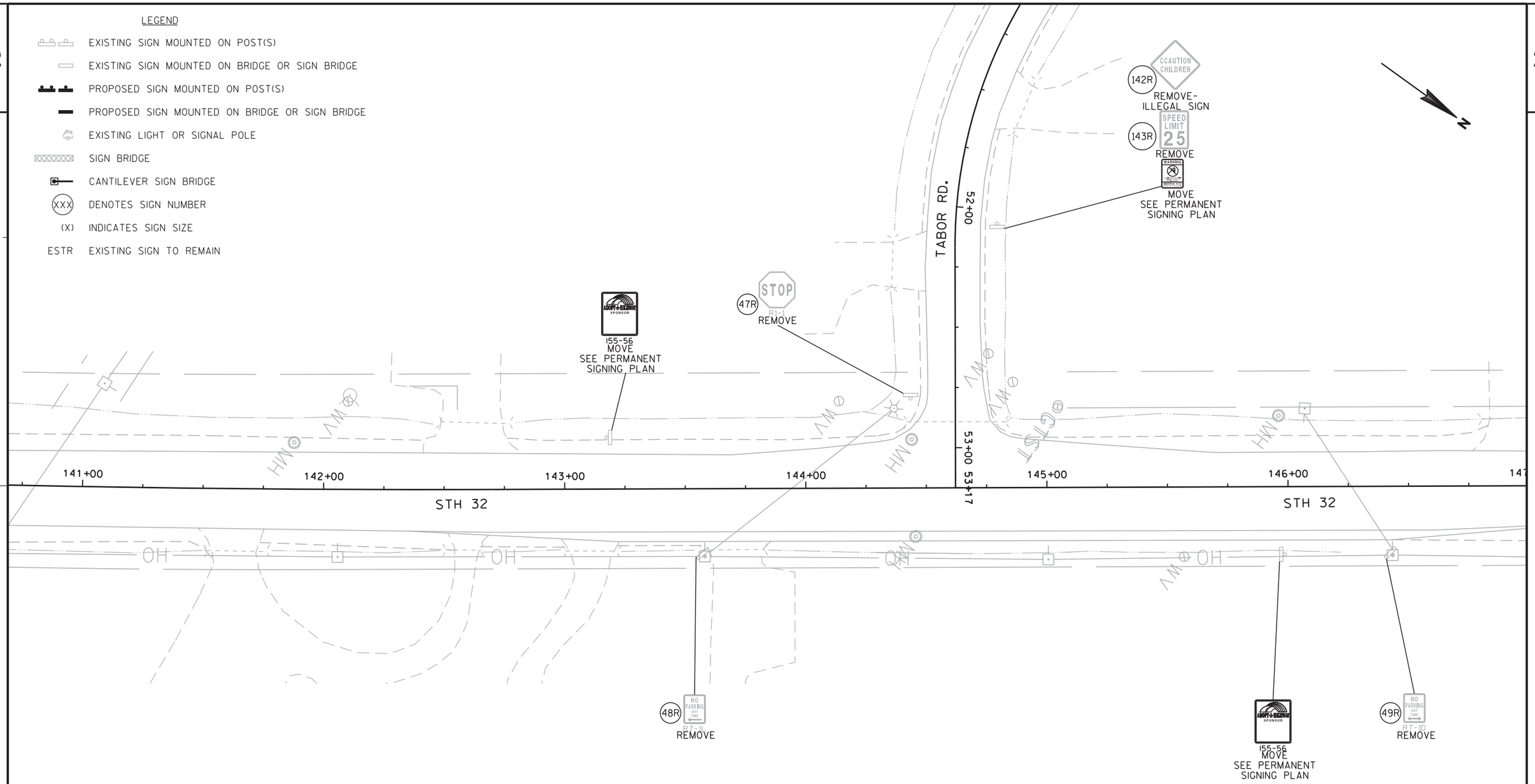
FILE NAME : J:\projects\d2_23500932\71\SIGN\023107_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 8 OF 29

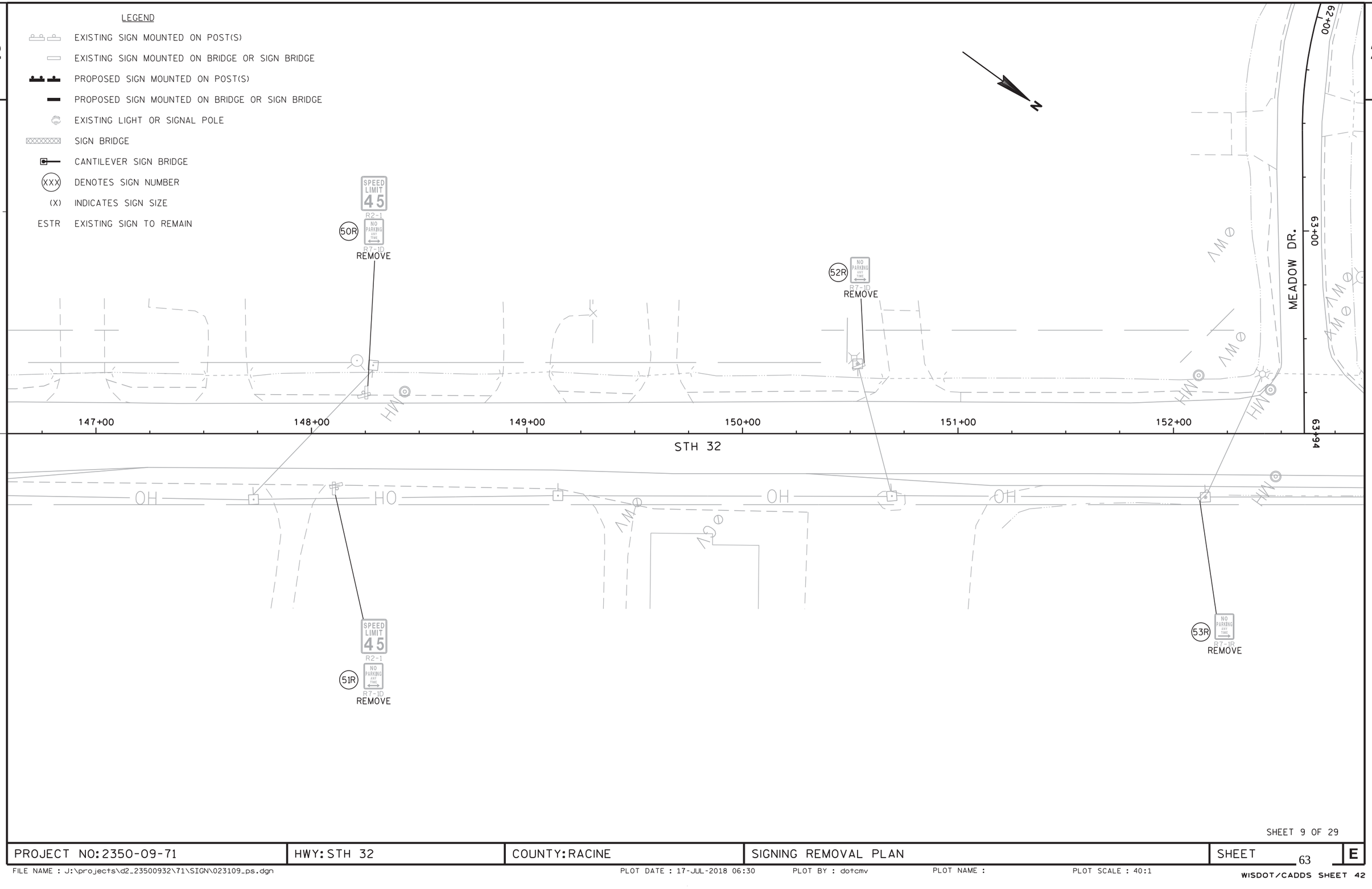
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 62	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023108_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



2

SHEET 9 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 63	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023109_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

MEADOW DR.

92+00

63+00

63+94

MOVE
SEE PERMANENT
SIGNING PLAN

152+00

153+00

154+00

155+00

156+00

157+00

158+0

STH 32

70+00

71+00

EDGAR TERRACE

54R STOP R1-1
REMOVE

55R SPEED LIMIT 25 R2-1
REMOVE

56R STOP R1-1
REMOVE

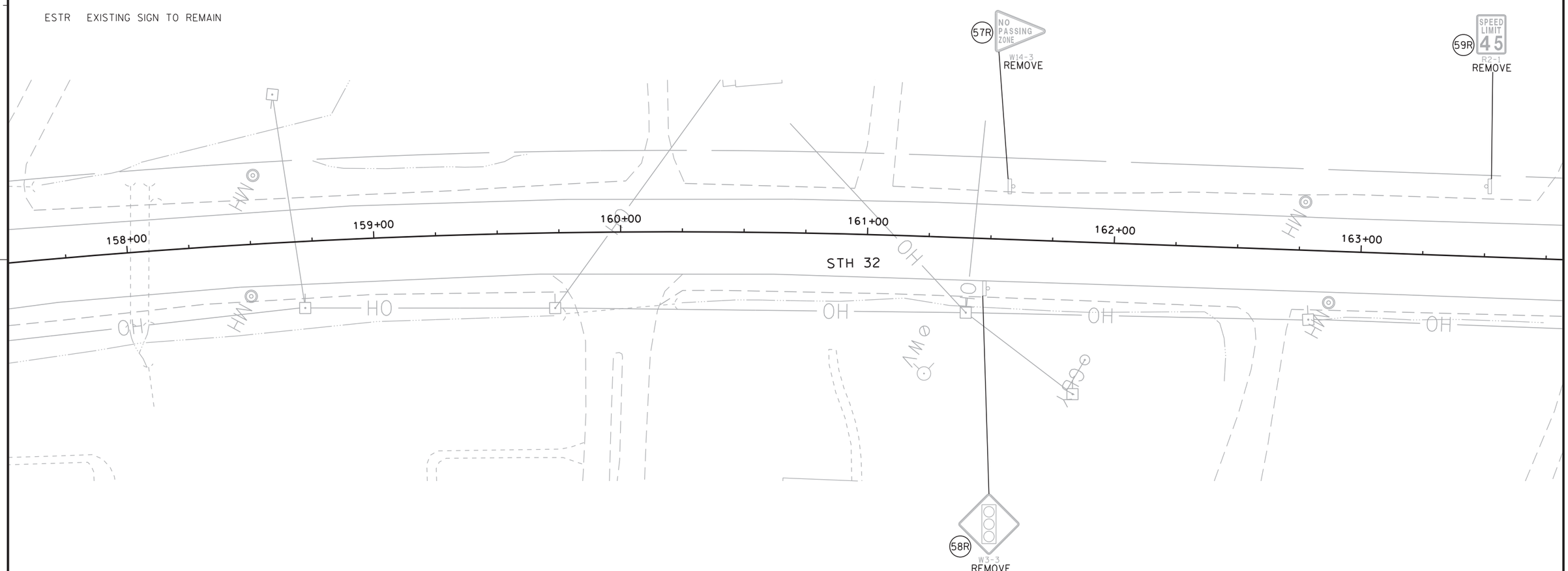
SHEET 10 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 64	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023110_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 11 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 65	E

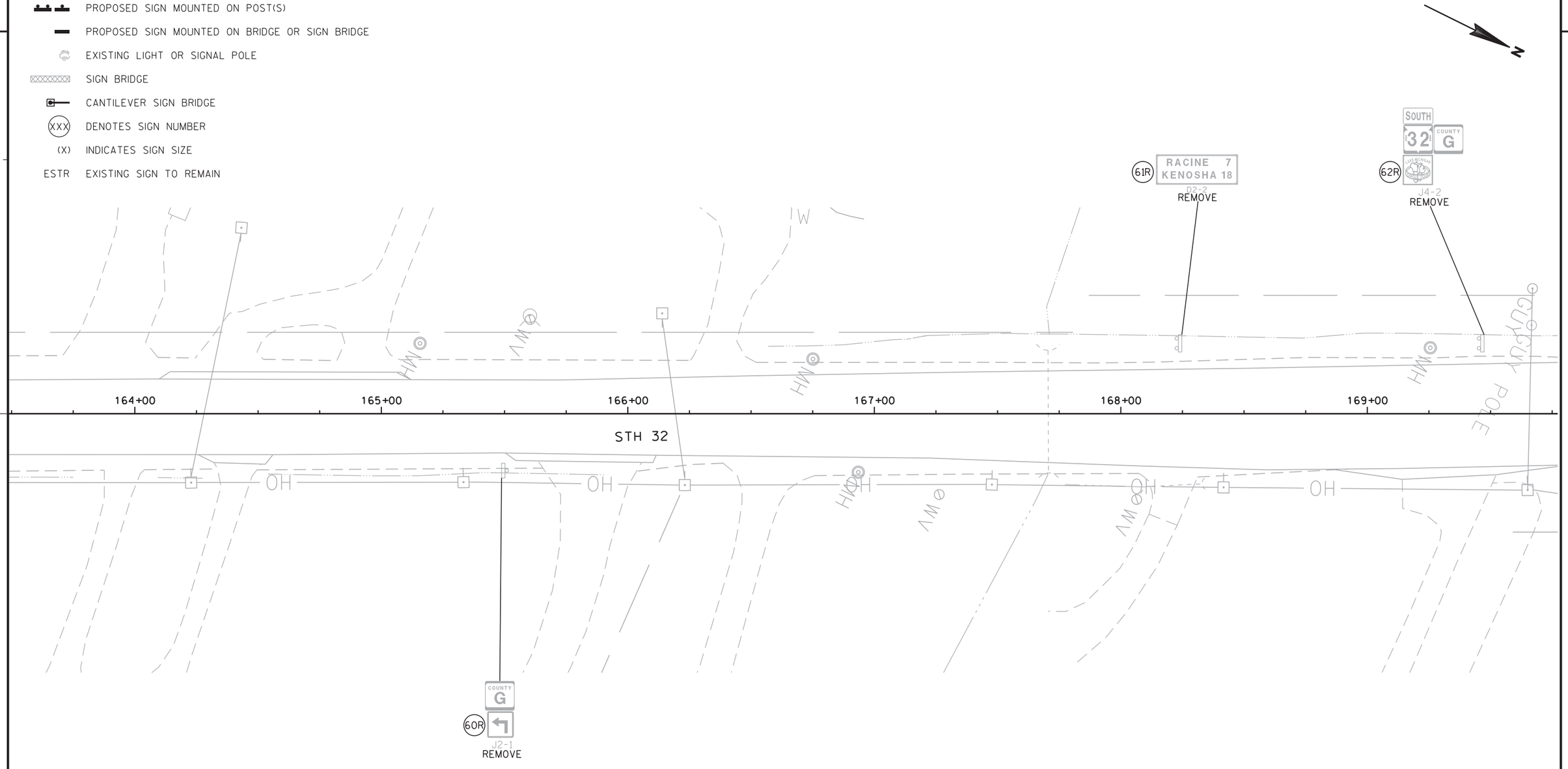
FILE NAME : J:\projects\d2_23500932\71\SIGN\023111_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 12 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 66	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023112_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

6 MILE ROAD

314+00

315+00

316+00

317+00

318+00

63R COUNTY G J3-1 REMOVE

64R STOP R1-1F REMOVE

65R COUNTY G J3-1 REMOVE

66R STOP R1-1F REMOVE

67R BIKE ROUTE D11-1 M5-1L REMOVE

68R JCT COUNTY G J3-1 REMOVE

00 170+00 171+00 172+00 173+00 174+00 175+00

STH 32

STH 32

HO OH MH GUY POLE GUY

SHEET 13 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 67	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023113_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

2

STH 31

416+00

417+00

418+00

STH 32

175+00

176+00

177+00

178+00

179+00

180+00

181+00

70R W3-3 REMOVE

71R STOP R1-1 REMOVE

72R W1-6 REMOVE

73R DO NOT ENTER R5-1 REMOVE

74R SOUTH 31 J4-1 REMOVE

NO PASSING ZONE W14-3 REMOVE

76R SOUTH 31 J3-1 REMOVE

75R SOUTH 32 J3-1 REMOVE

69R NORTH 31 SOUTH 32 J2-2 REMOVE

77R SPEED LIMIT 45 R2-1 REMOVE

78R NORTH 31 SOUTH 32 J3-2 REMOVE

79R M1-85 GREEN BAY ETHNIC TRAIL M1-85B REMOVE

80R NORTH 32 SOUTH 32 J3-2 REMOVE

81R M1-85 GREEN BAY ETHNIC TRAIL M1-85B REMOVE

82R NORTH M3-1 32 M1-6B LAKE MICHIGAN CIRCLE TOUR M1-93 J4-1 REMOVE

SHEET 14 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 68	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

83R
W5-52R
REMOVE

86R
M1-85
GREEN BAY ETHNIC TRAIL
M1-85R
REMOVE

85R
SOUTH
31
I3-1
REMOVE

STH 31

181+00 182+00 183+00 184+00 185+00 186+00

STH 32

OH OH OH

84R
RIDESHARE
INFO CALL
1-800-455-POOL
D12-2A
REMOVE

SHEET 15 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 69	E

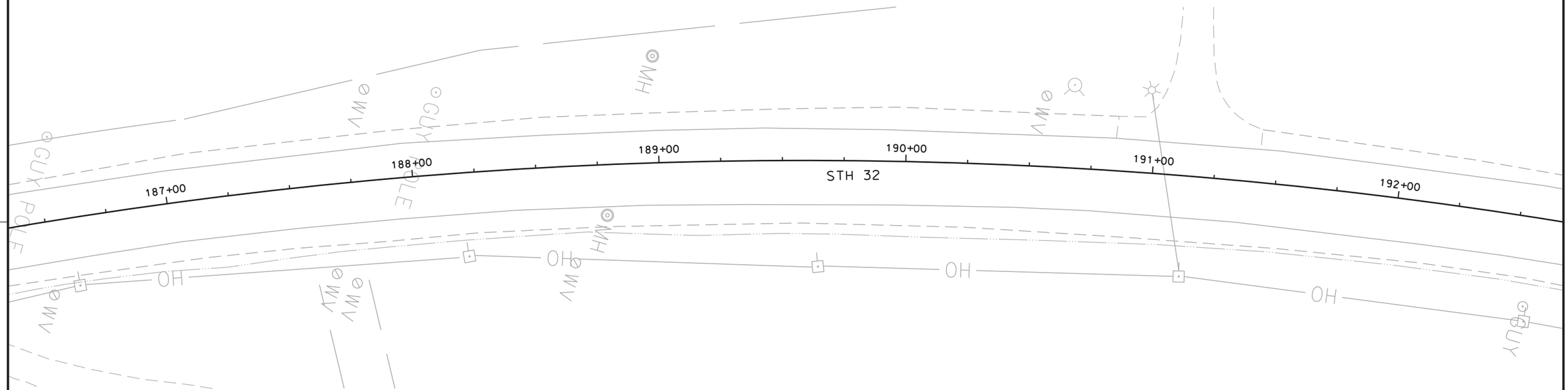
FILE NAME : J:\projects\d2_23500932\71\SIGN\023115_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



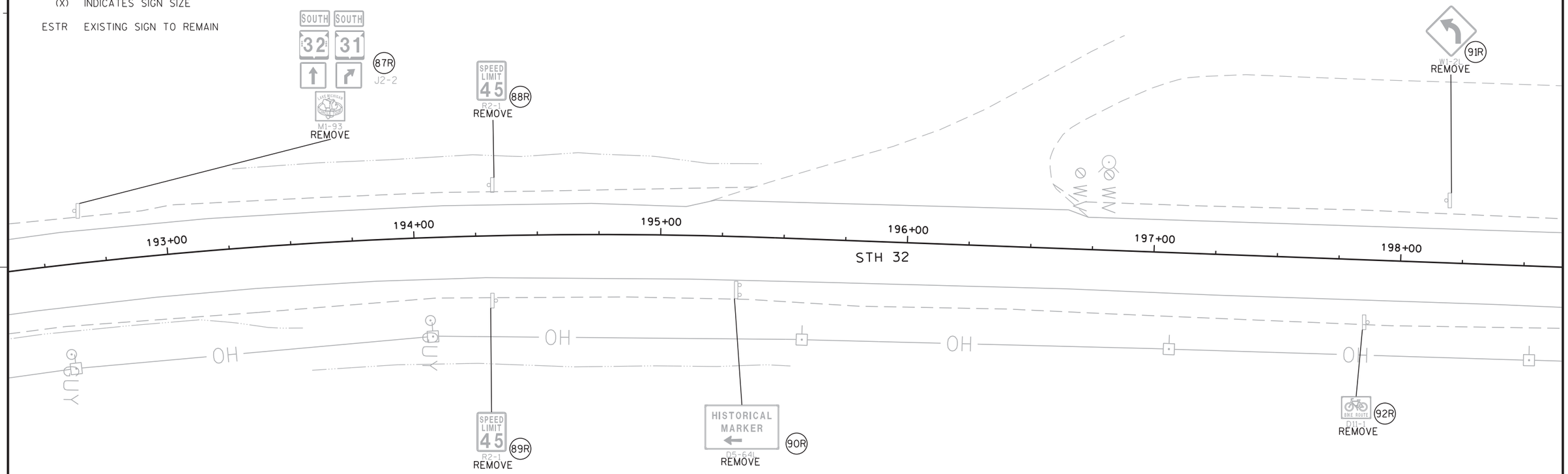
SHEET 16 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 70	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023116_ps.dgn PLOT DATE : 17-JUL-2018 06:30 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 17 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 71	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023117_ps.dgn PLOT DATE : 17-JUL-2018 06:31 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

93R JCT 31 J1-1 REMOVE

95R NO PASSING ZONE W14-3 REMOVE

HISTORICAL MARKER D5-64R REMOVE

OH

199+00 200+00 201+00 202+00 203+00 204+00

STH 32

OH OH OH OH

G G T S T

94R W1-2L REMOVE

NO PASSING ZONE W14-3 REMOVE

SHEET 18 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 72	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023118_ps.dgn PLOT DATE : 17-JUL-2018 06:31 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

36R SPEED LIMIT 45 R2-1 REMOVE

D11-1 BIKE ROUTE ESTR

205+00

STH 32

OH

OH

OH

OH

97R SPEED LIMIT 45 R2-1 REMOVE

SHEET 19 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 73	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023119_ps.dgn PLOT DATE : 17-JUL-2018 06:31 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

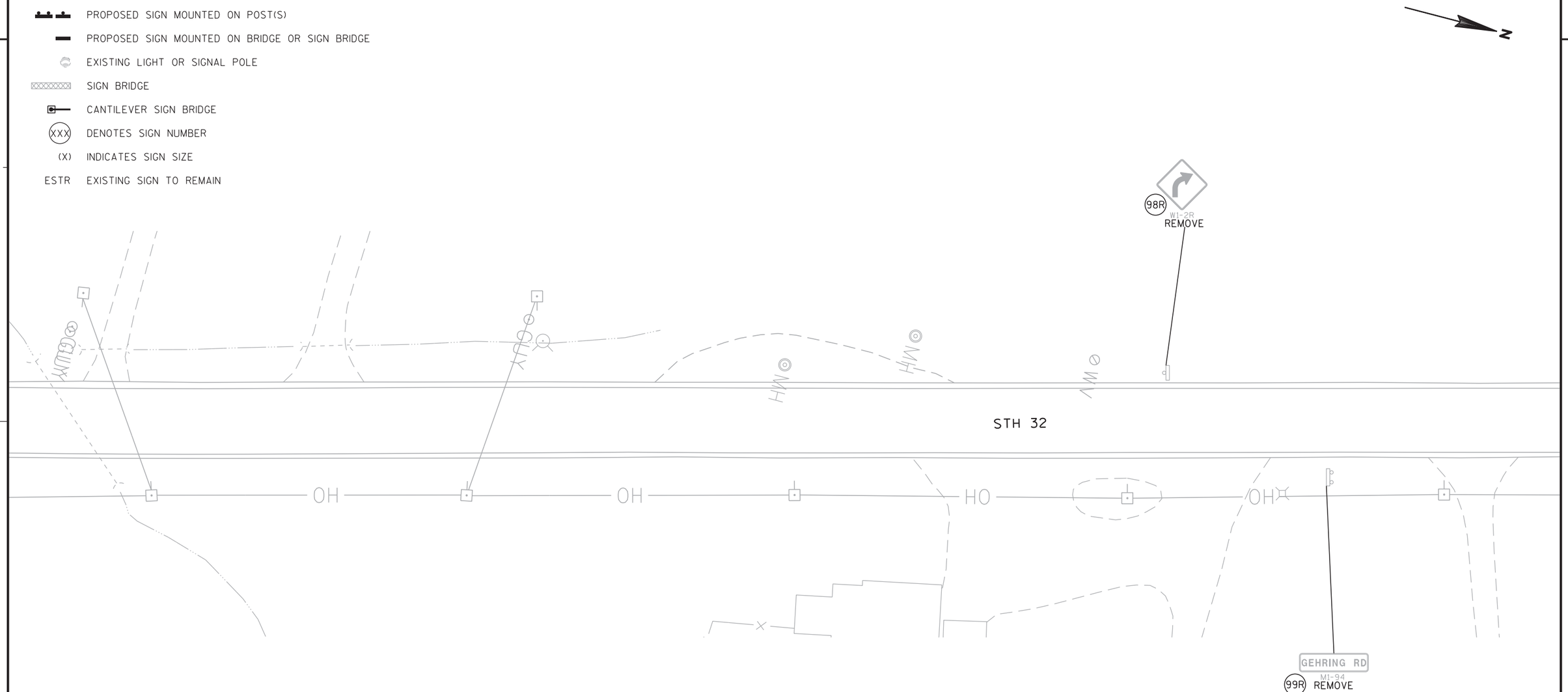
WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 20 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 74	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

MARY DREW DR

STH 31

100R STOP R1-1 REMOVE

NO OUTLET W14-2

SPEED LIMIT 25 R2-1 ESTR

MARY DREW DR STREET NAME SIGN TO REMAIN

103R W3-1 REMOVE

RIGHT TURN LANE R3-55R REMOVE

400+00 401+00 402+00 403+00

OHW

MH

POST

OH

101R JCT COUNTY G J1-1 REMOVE

102R W1-4R REMOVE

SHEET 21 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 75	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023121_ps.dgn PLOT DATE : 17-JUL-2018 06:31 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

KINGDOM CT

105R STOP R1-1 REMOVE

HWY 31
KINGDOM CT
STREET NAME
SIGNS TO REMAIN

107R SPEED LIMIT 45 R2-1 REMOVE

108R SOUTH 31 I4-1 REMOVE

109R RIGHT TURN LANE R3-6R REMOVE

404+00 405+00 406+00 407+00 408+00 409+00

STH 31

STH 31

104R W3-1 REMOVE

106R WEST COUNTY G EAST COUNTY G J2-2 REMOVE

SHEET 22 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 76	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023122_ps.dgn PLOT DATE : 17-JUL-2018 06:31 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

6 MILE ROAD

310+00

311+00

312+00

313+00

409+00

410+00

411+00

412+00

413+00

414+00

415+00

STH 31

110R W1-4R REMOVE

111R STOP R1-1 REMOVE

112R 31 J13-1 REMOVE

113R STOP R1-1 ALL WAY R1-3P REMOVE

114R COUNTY G J13-1 REMOVE

115R STOP R1-1 ALL WAY R1-3P REMOVE

116R STOP R1-1 ALL WAY R1-3P REMOVE

117R COUNTY G J13-1 REMOVE

118R STOP R1-1 ALL WAY R1-3P REMOVE

119R 31 J13-1 REMOVE

120R STOP R1-1 REMOVE

121R JCT 32 END 31 J1-2 REMOVE

122R W3-1 REMOVE

123R JCT COUNTY G REMOVE

SHEET 23 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 77	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

I55-56
MOVE
SEE PERMANENT SIGNING PLAN

124R 125R
W3-1
REMOVE

CHECK TURN SIGNAL
126R
W8-68
REMOVE

W5-52R
REMOVE

STH 31

STH 32

415+00 416+00 417+00 418+00 179+00 180+00 181+00 182+00 178+00 177+00

OH GUY CANOPY GTST

SHEET 24 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 78 E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023124_ps.dgn PLOT DATE : 17-JUL-2018 06:31 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

2

6 MILE RD
DALE DR
STREET NAME SIGNS CONTACT VILLAGE TO REMOVE

129R STOP R1-1
REMOVE

W5-52L
REMOVE

DALE DR

OH
WV
OH

301+00 302+00 303+00 304+00 305+00 306+00 30

CTH G

127R 128R W3-1
REMOVE

W5-52R
REMOVE

SPEED LIMIT 25 R2-1
RR-2
ESTR

DALE DR

CTH G

OH

130R STOP R1-1
REMOVE

SHEET 25 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 79	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023125_ps.dgn PLOT DATE : 17-JUL-2018 06:31 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

I55-56
MOVE
SEE PERMANENT SIGNING PLAN

132R SPEED LIMIT 45 R2-1
REMOVE

131R JCT 31 J1-1
REMOVE

STH 31

CTH G

6 MILE ROAD

307+00 308+00 309+00 310+00 311+00 312+00

412+00 411+00 410+00

SHEET 26 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 80	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023126_ps.dgn PLOT DATE : 17-JUL-2018 06:31 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

STH 32

173+00

172+00

171+00

170+00

313+00 314+00 315+00 316+00 317+00 318+00

6 MILE ROAD

6 MILE ROAD

134R COUNTY G M1-5A REMOVE

137R STOP R1-1F REMOVE

133R JCT 32 I1-1 REMOVE

135R STOP R1-1F REMOVE

136R 32 COUNTY G J13-2 REMOVE

138R S1-1 REMOVE

OH MH GUY WV GV GUY POLE

SHEET 27 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 81 E

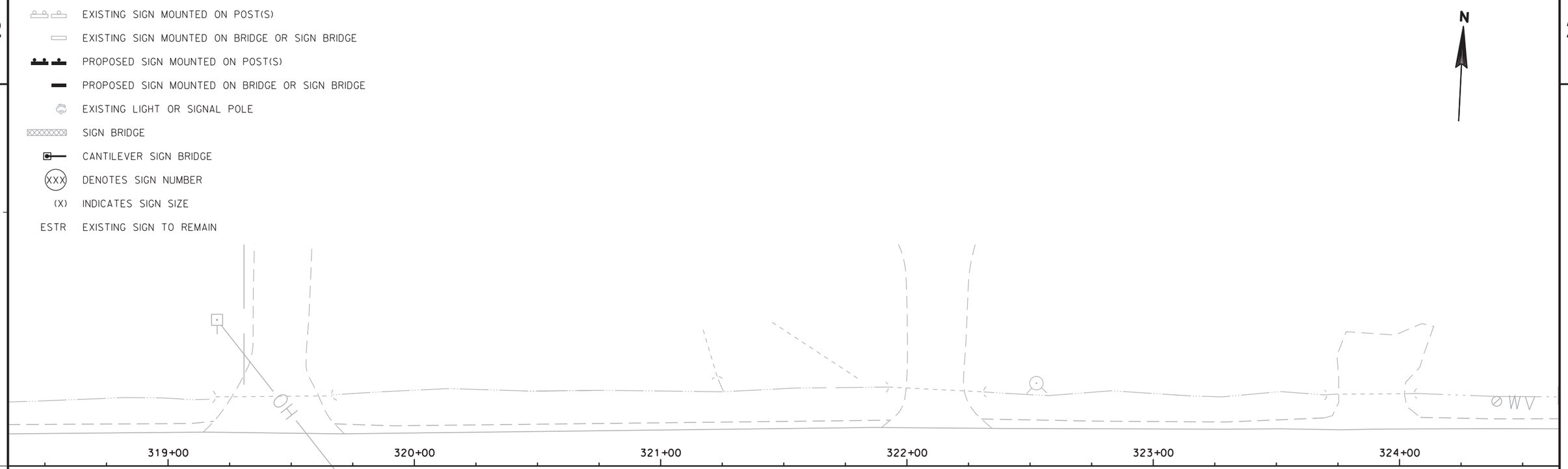
FILE NAME : J:\projects\d2_23500932\71\SIGN\023127_ps.dgn PLOT DATE : 17-JUL-2018 06:31 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



2

SHEET 28 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 82	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023128_ps.dgn PLOT DATE : 17-JUL-2018 06:31 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

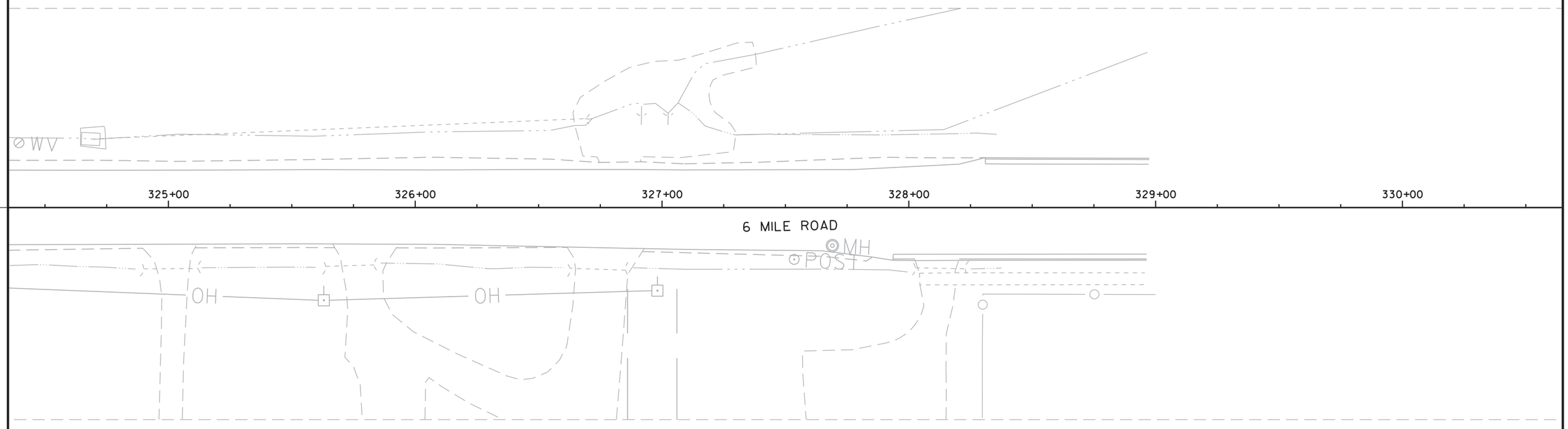
XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

N

2



SHEET 29 OF 29

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SIGNING REMOVAL PLAN	SHEET 83	E

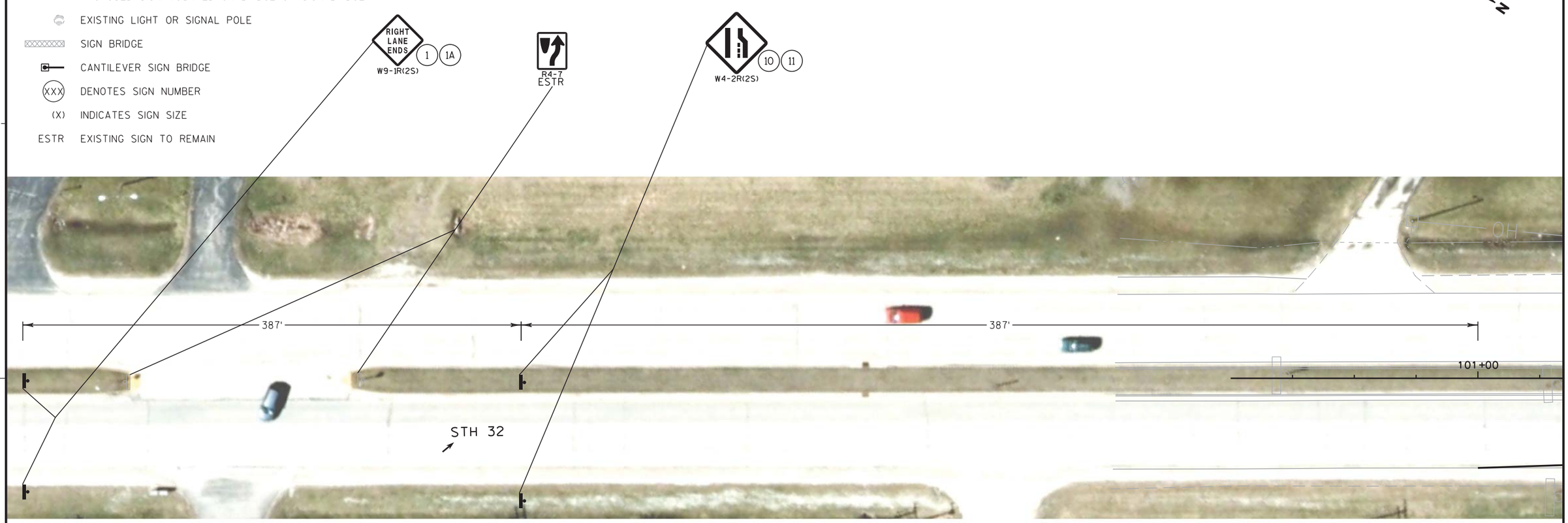
FILE NAME : J:\projects\d2_23500932\71\SIGN\023129_ps.dgn PLOT DATE : 17-JUL-2018 06:31 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



Signing notes

Type II aluminum signs removed under the contract shall be delivered to the County sign shop. Contact the following individual at the sign shop for distribution county location.

Signing Coordinator County(s) Phone #

- Dennis Newton Milwaukee 414-750-0257
- Andre Chapman Racine 414-531-2635
- Jenny Buckett Kenosha,, Washington, Ozaukee 414-750-2427
- Chuck Saldivar Walworth, Waukesha 414-750-1682

Signs shall be carefully removed from sign supports. The signs shall be palletized for handling with a forklift (see standard spec 638.3.4). The Regional sign shop (General phone # 414-266-1165) shall be notified three working days prior to delivery of the signs.

When an existing stop sign support is to be removed and a new stop sign and support erected, the work shall be done concurrently. For other signs and supports that are to be removed and new signs and supports erected, the removal of the existing sign/support and erection of the new sign/support should be done as concurrently as possible. In no case shall a new sign/support be down for more than 24 hours and there shall not be more than one sign of the same legend missing in a row.

Wood posts sizes, for type II signs are estimated lengths and the actual length will be determined in the field.

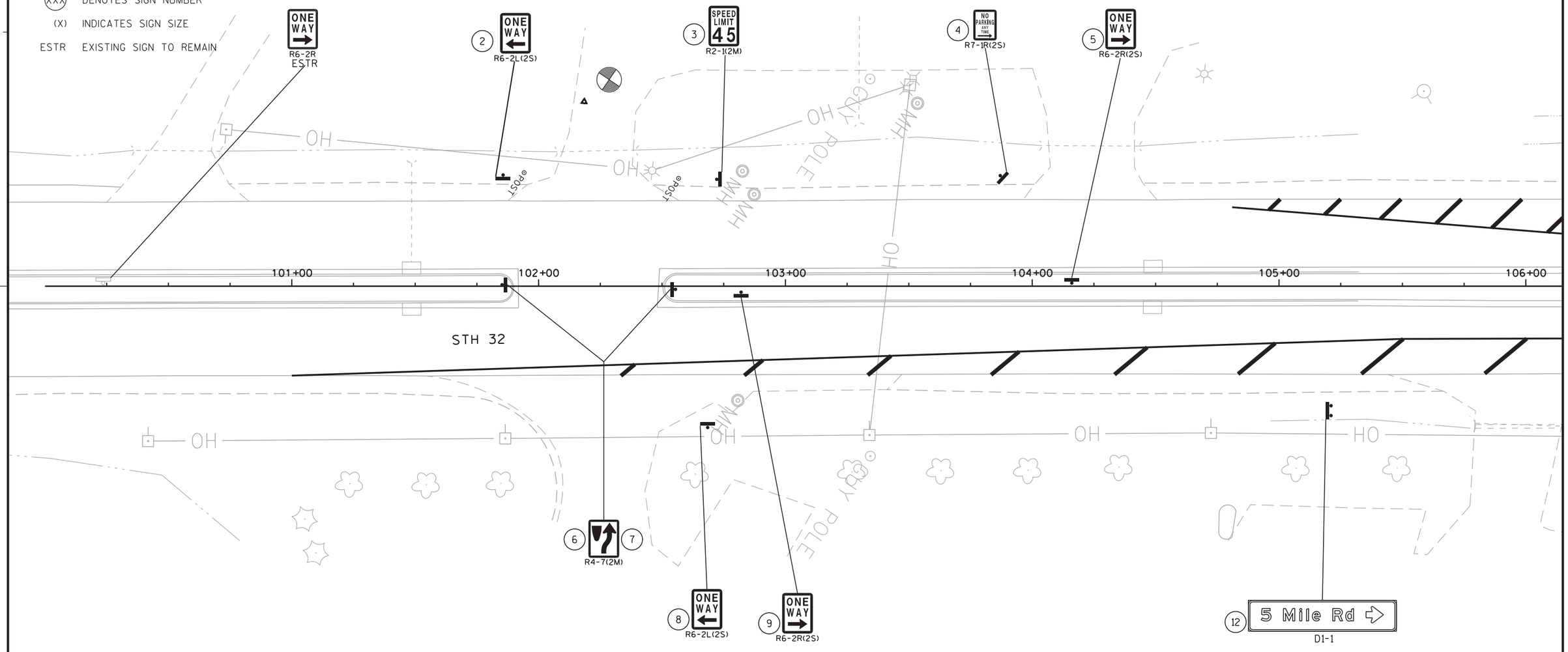
Street name signs are property of the municipality (city, village or town). The municipality shall be contacted to remove their street name signs prior to construction and it is their responsibility to reinstall the old signs or replace them following construction. WisDOT does not furnish or install street name signs. The street name signs shall not be placed on top of the STOP signs.

Locate no passing pennants based on establishing no passing zones pay item. Place signs based on where the pavement marking for no passing zones begin

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 85	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023202_ps.dgn PLOT DATE : 16-JUL-2018 07:08 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

2

N

CANDLE CT (PRIVATE ROAD)

13 NO PARKING ANY TIME R7-1D(2S)

14 NO PARKING ANY TIME R7-1D(2S)

15 SOUTH M3-3 / 32 M1-6B / LAKE MICHIGAN DRIVE M1-93 J4-1(2S)

16 R4-7(2S)

17 NO PARKING ANY TIME R7-1L(2S)

18 ONE WAY R6-2L(2S)

19 R4-7(2S)

106+00 107+00 108+00 109+00 110+00 111+00 112+

STH 32

ONLY

OH HO HW MW

23 BEGIN RIGHT TURN LANE R3-20R(2S)

20 21 R4-7(2S)

22 ONE WAY R6-2L(2S)

24 W11-8(2S)

25 DO NOT ENTER R5-1(2S)

26 SPEED LIMIT 35 R2-1(2S)

5 MILE RD

11+00

12+00

STATUE

27 STOP R1-1(2)

28 DIVIDED HIGHWAY R6-3A(2S)

29 ONE WAY R6-2L(2S)

SHEET 3 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 86	E

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

5 MILE RD.

26+00

27+00

112+00

113+00

114+00

115+00

116+00

117+00

STH 32

WEIGHT LIMIT CLASS B MOVE

32 STOP R1-1(3)

30 5 Mile Rd D1-1

31 R4-7(2S)

34 5 Mile Rd D1-1

35 WRONG WAY R5-1A(2S)

36 W6-2(2S)

37 DO NOT ENTER R5-1(2S)

NORTH M3-1

32 M1-6B

38 M1-93 J4-1(2S)

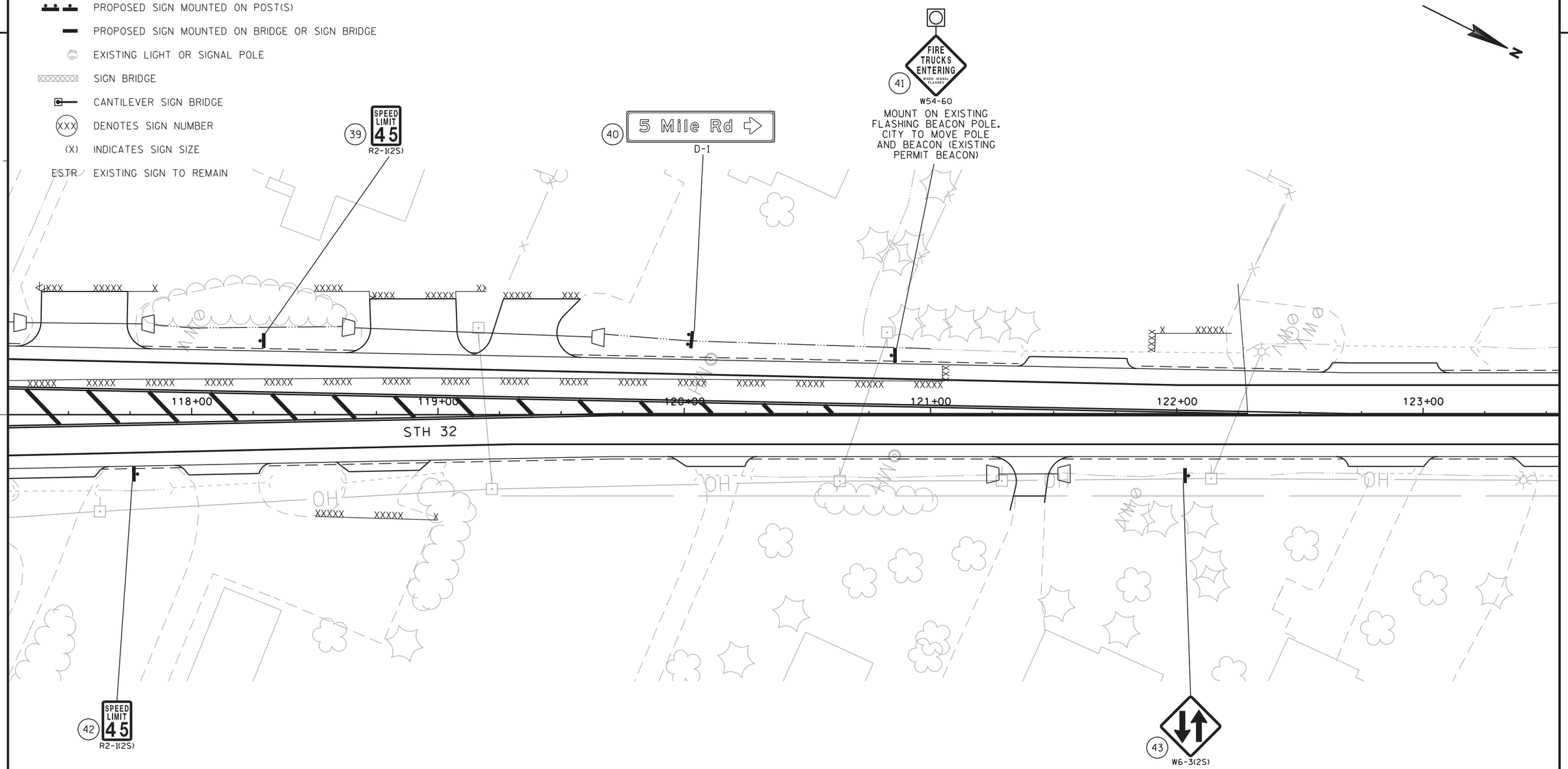
SHEET 4 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 87 E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 5 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 88	E

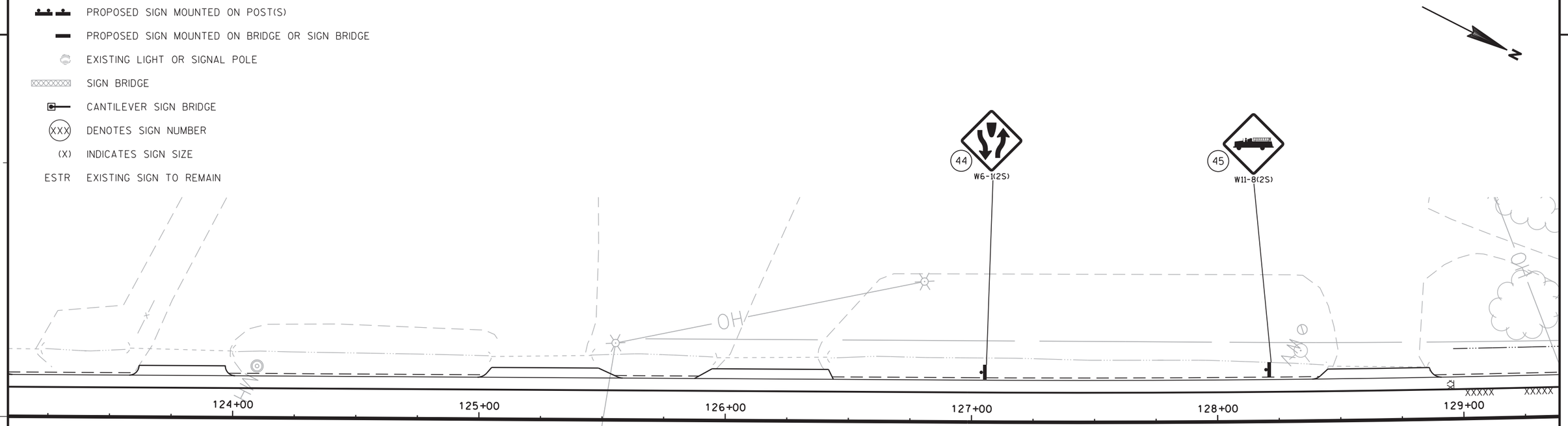
FILE NAME : J:\projects\d2_23500932\71\SIGN\023205_ps.dgn PLOT DATE : 16-JUL-2018 07:08 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



2

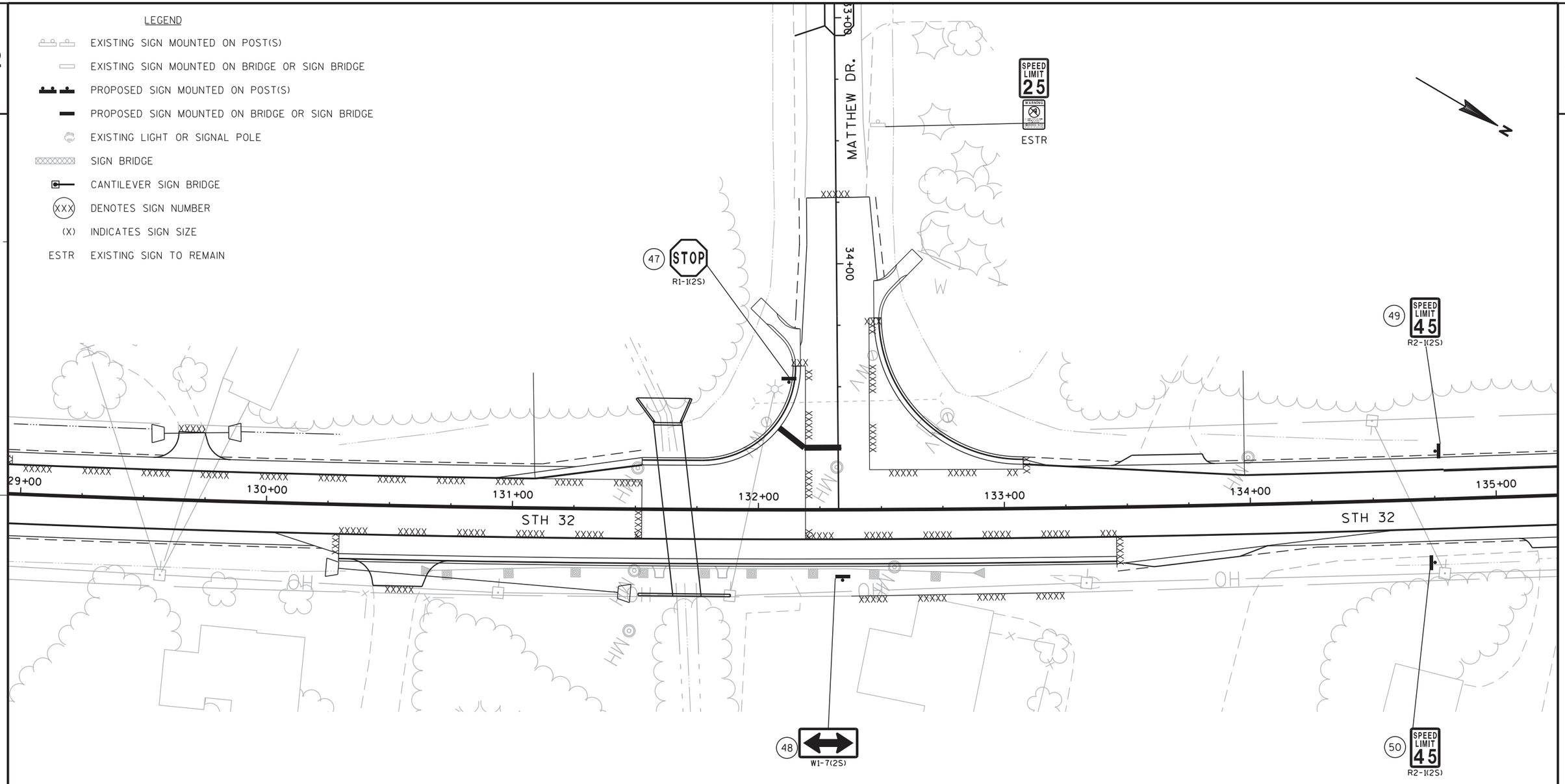
SHEET 6 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 89	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



2

SHEET 7 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 90	E

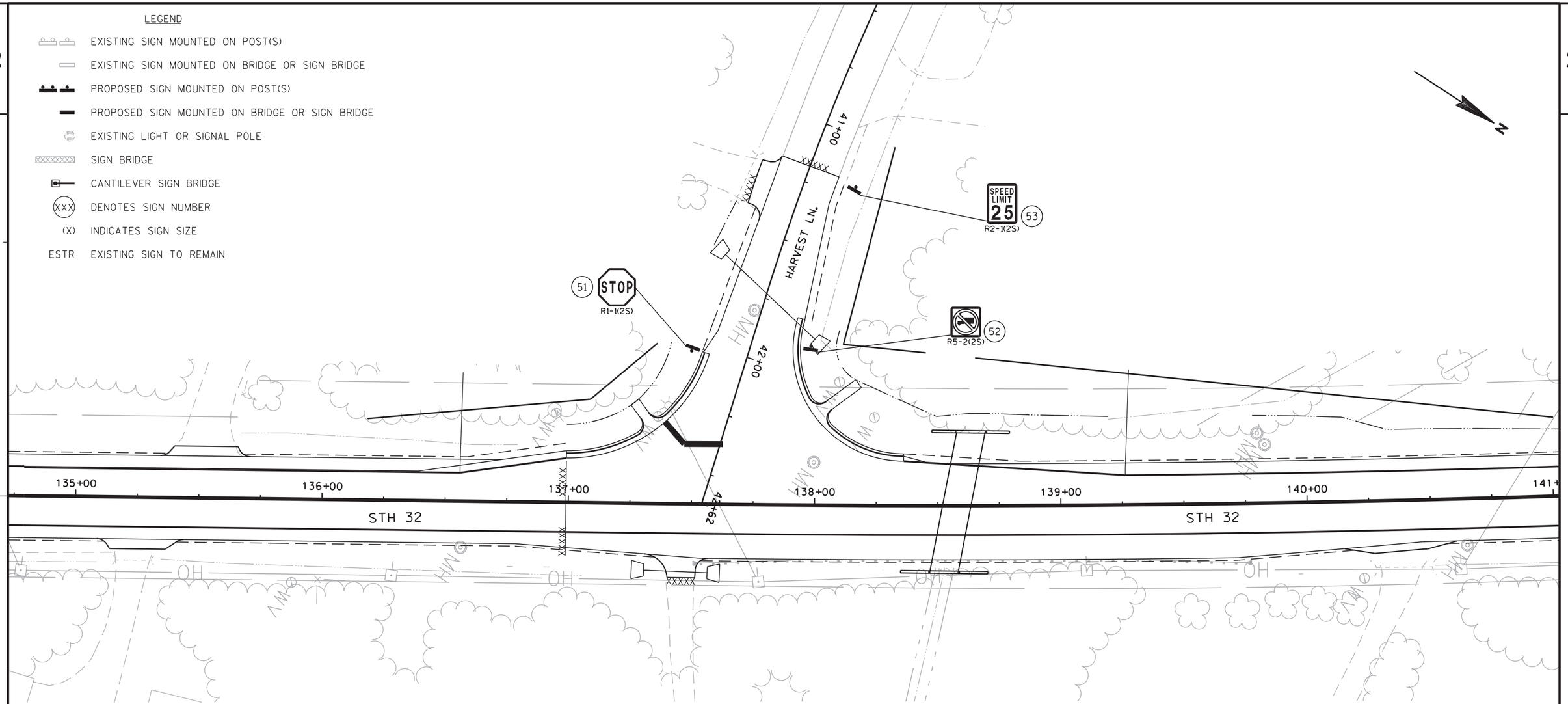
FILE NAME : J:\projects\d2_23500932\71\SIGN\023207_ps.dgn PLOT DATE : 16-JUL-2018 07:08 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



2

SHEET 8 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 91	E

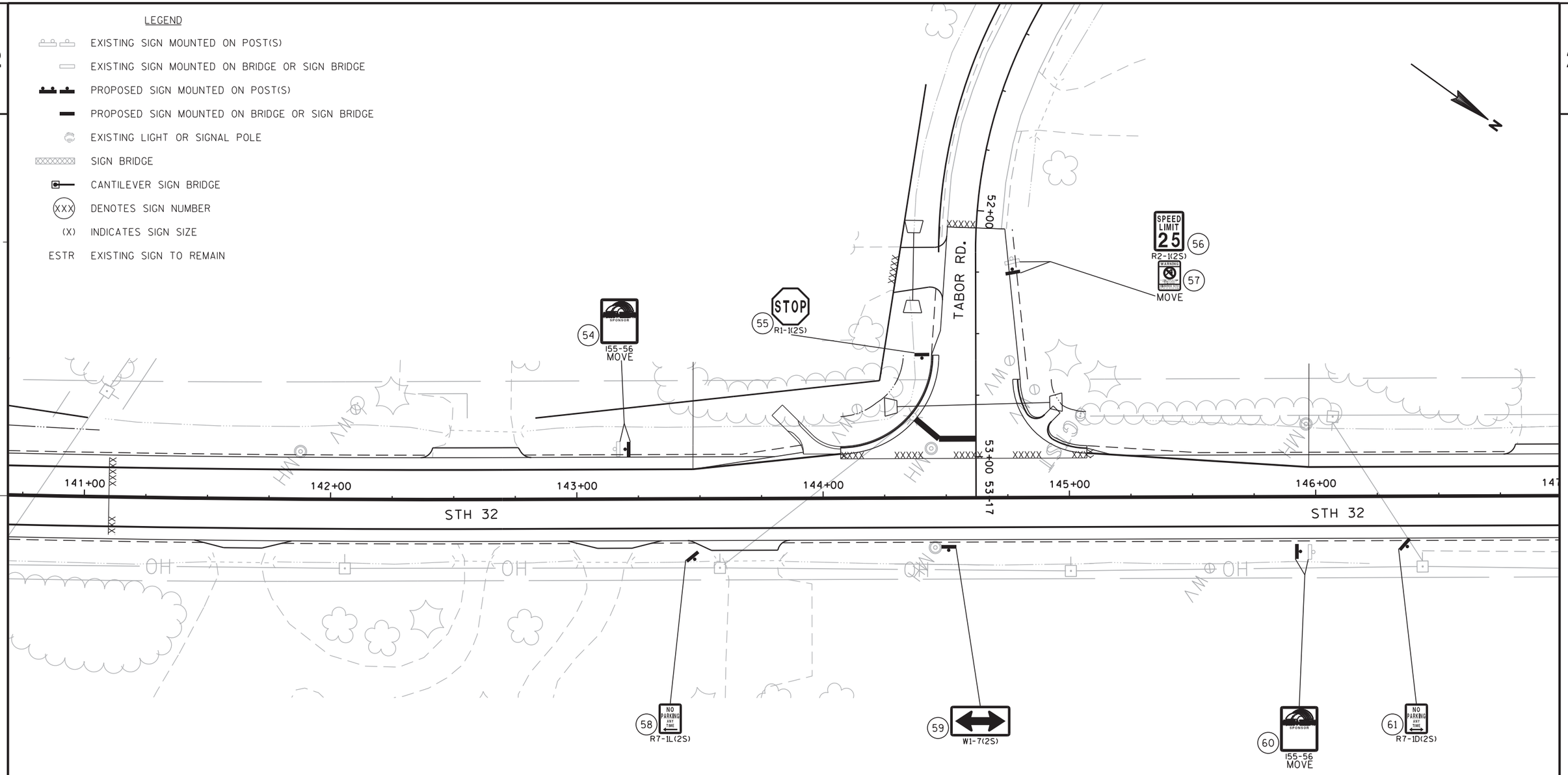
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WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 9 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 92	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

62 SPEED LIMIT 45 R2-1(2S)

63 NO PARKING ANY TIME R7-1D(2S)

64 NO PARKING ANY TIME R7-1D(2S)

65 SPEED LIMIT 45 R2-1(2S)

66 NO PARKING ANY TIME R7-1D(2S)

67 NO PARKING ANY TIME R7-1R(2S)

147+00 148+00 149+00 150+00 151+00 152+00

62+00 63+00 63+94

MEADOW DR.

STH 32

OH HWY

2

SHEET 10 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 93	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

MEADOW DR.

62+00

63+00

63+94

69 MOVE

68 STOP R1-1(2S)

74 W1-7(2S)

152+00

153+00

154+00

155+00

156+00

157+00

158+00

STH 32

70 W1-7(2S)

EDGAR TERRACE

71+00

70+00

71 DEAD END W14-1(2S)

72 SPEED LIMIT 25 R2-1(2S)

73 STOP R1-1(2S)

SHEET 11 OF 28

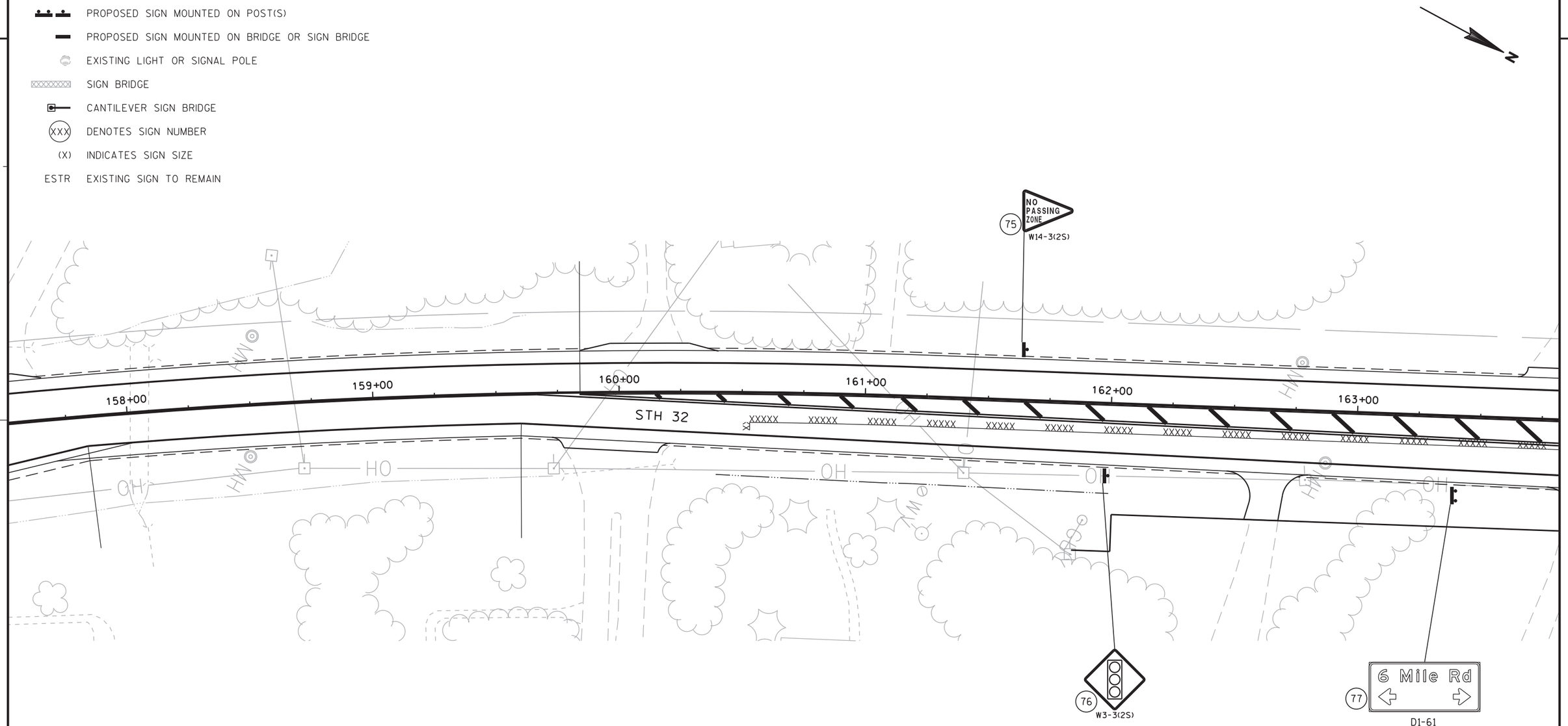
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 94	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023211_ps.dgn PLOT DATE : 16-JUL-2018 07:08 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



2

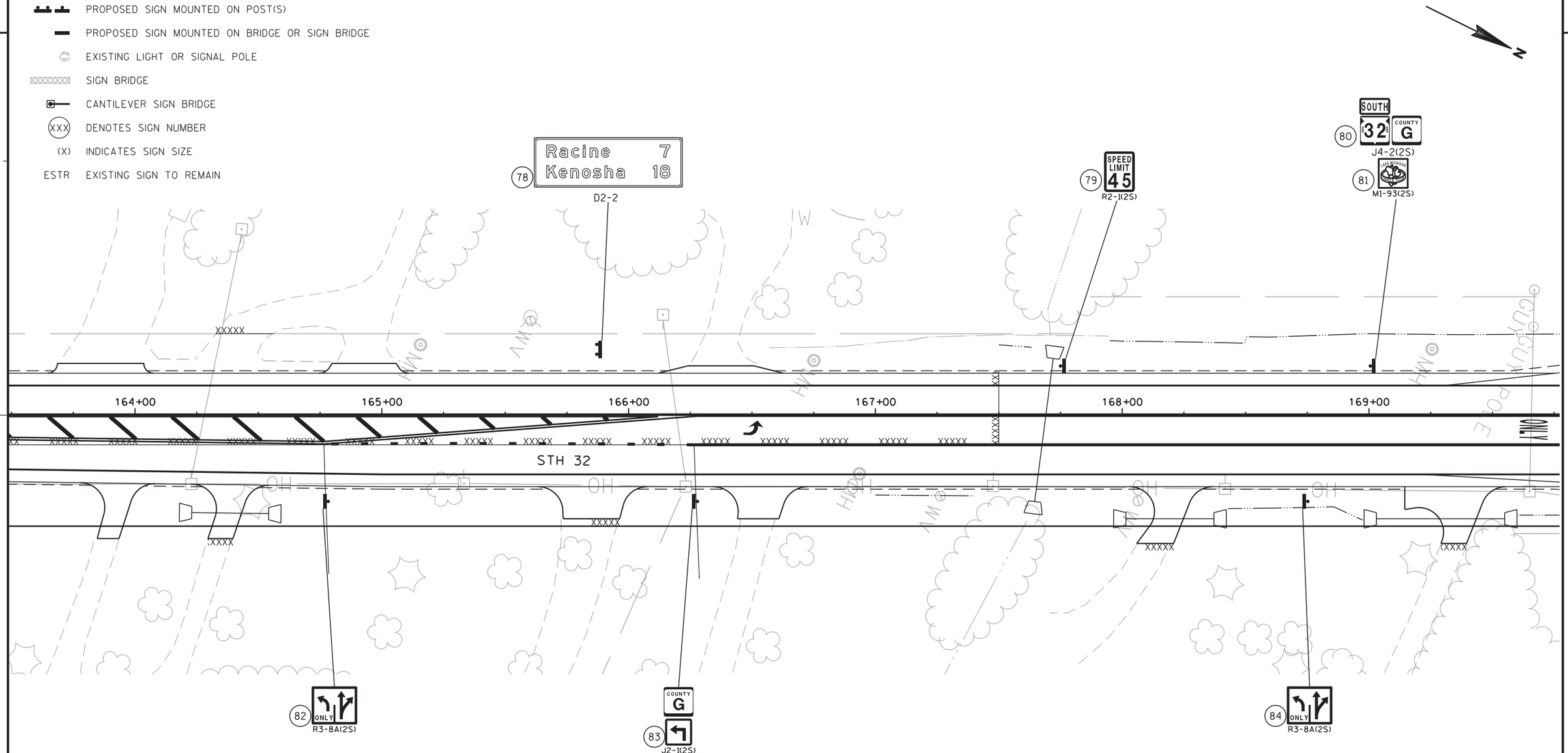
SHEET 12 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 95	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 13 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 96	E

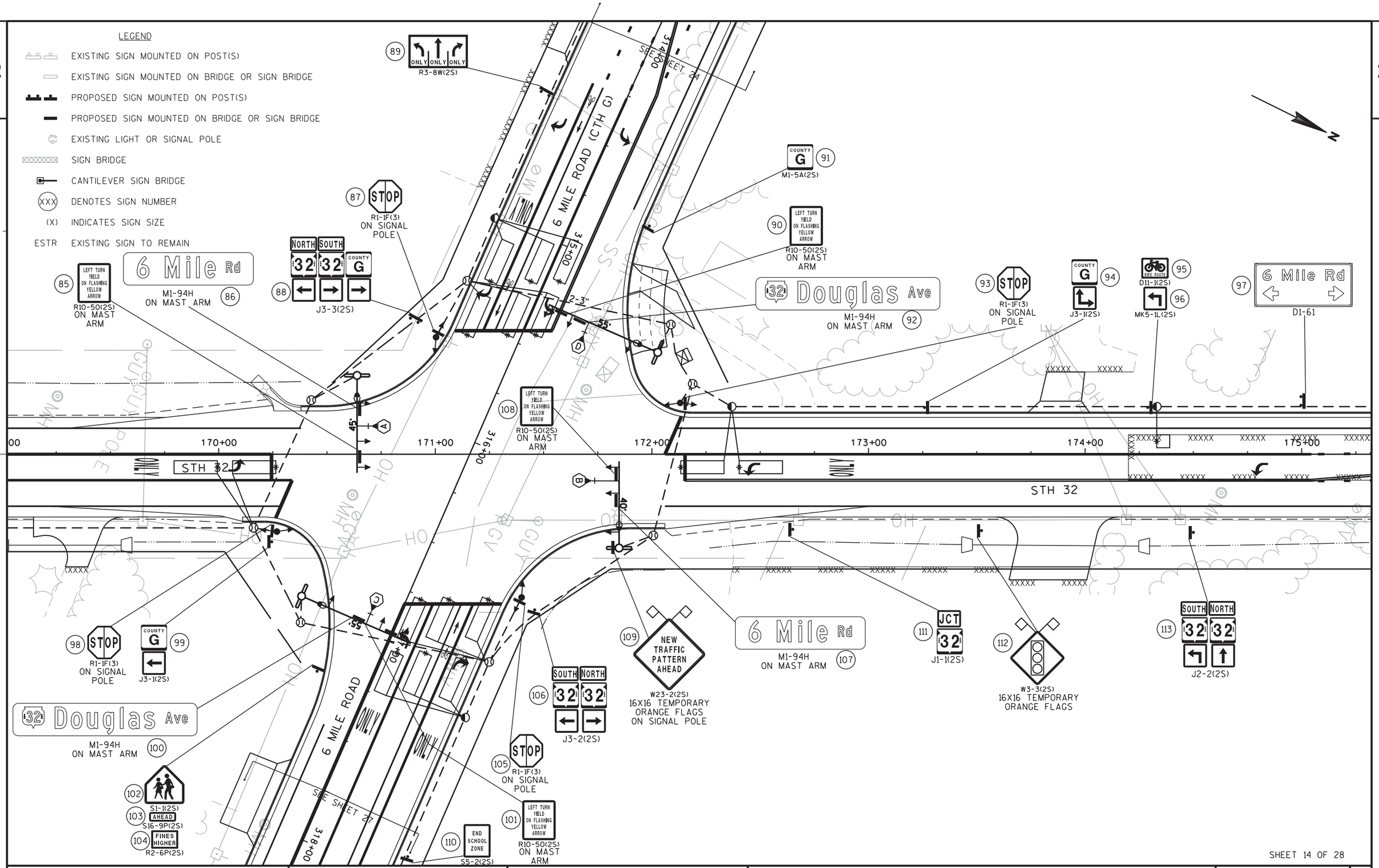
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WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 14 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 97	E

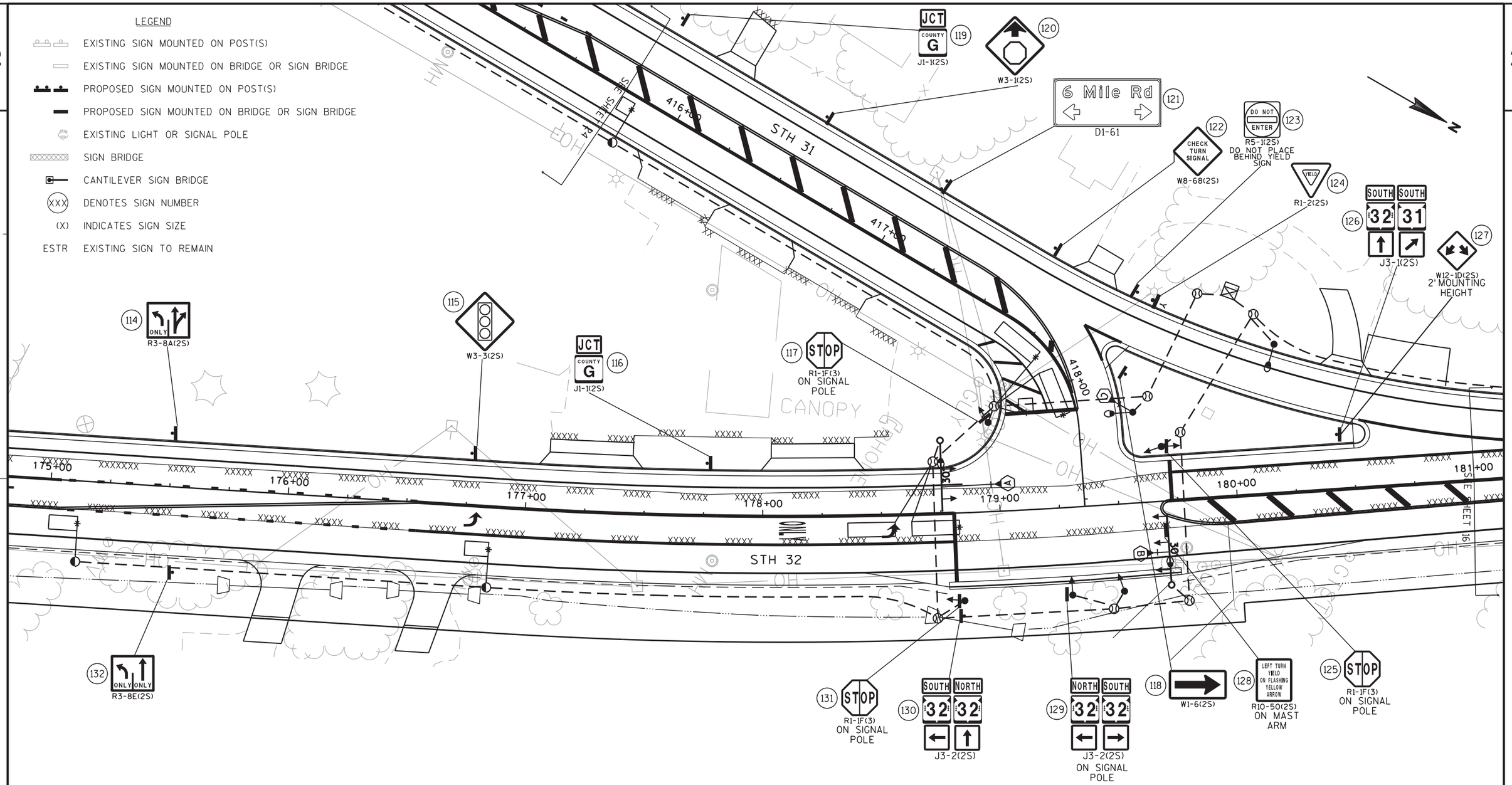
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WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 15 OF 28

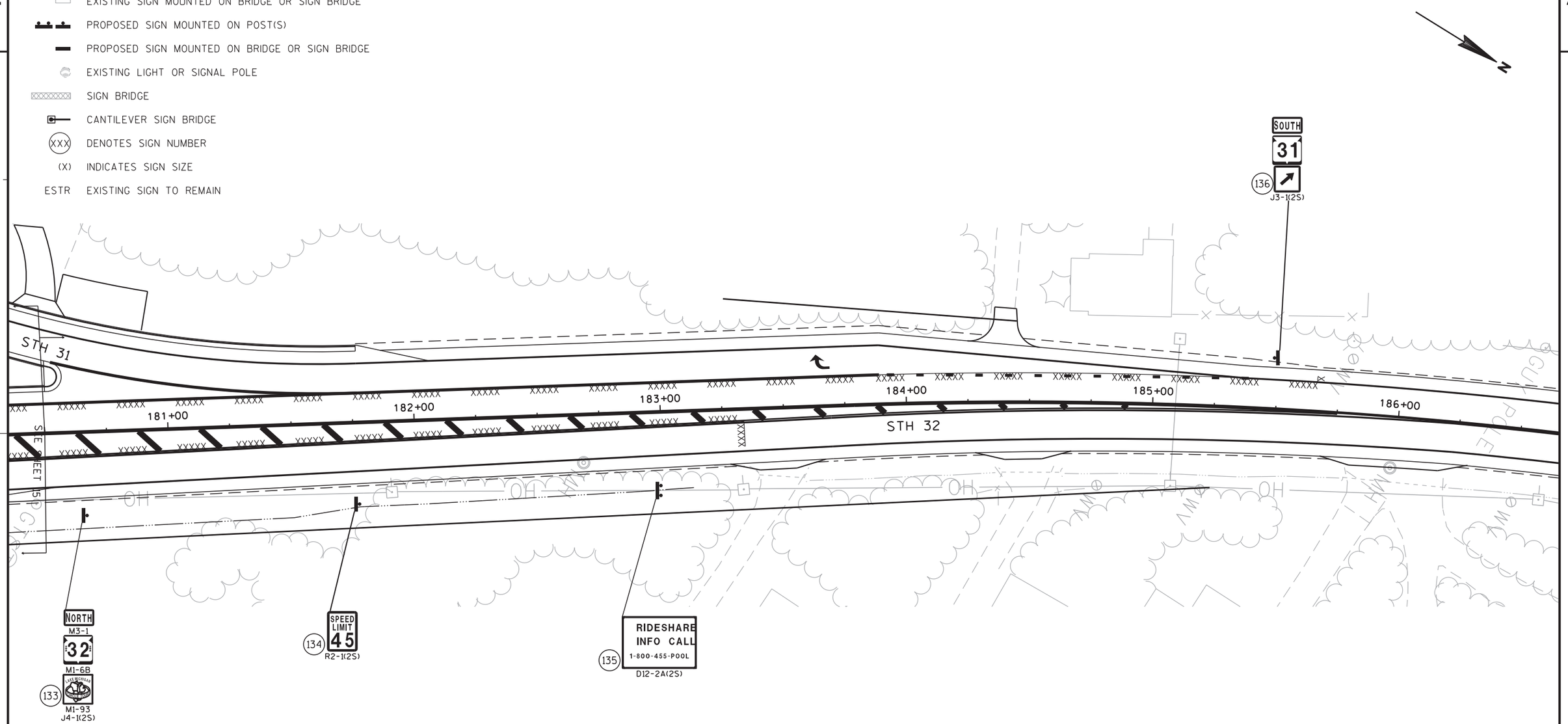
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 98	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023215_ps.dgn PLOT DATE : 16-JUL-2018 07:08 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 16 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 99	E

FILE NAME : J:\projects\d2_23500932\71\SIGN\023216_ps.dgn PLOT DATE : 16-JUL-2018 07:08 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

137 W3-3(2S) 16X16 TEMPORARY ORANGE FLAGS

138 SOUTH 32 SOUTH 31 J2-3(2S)

140 NEW TRAFFIC PATTERN AHEAD W23-2(2S) 16X16 TEMPORARY ORANGE FLAGS

187+00 188+00 189+00 190+00 191+00 192+00

STH 32

2

SHEET 17 OF 28

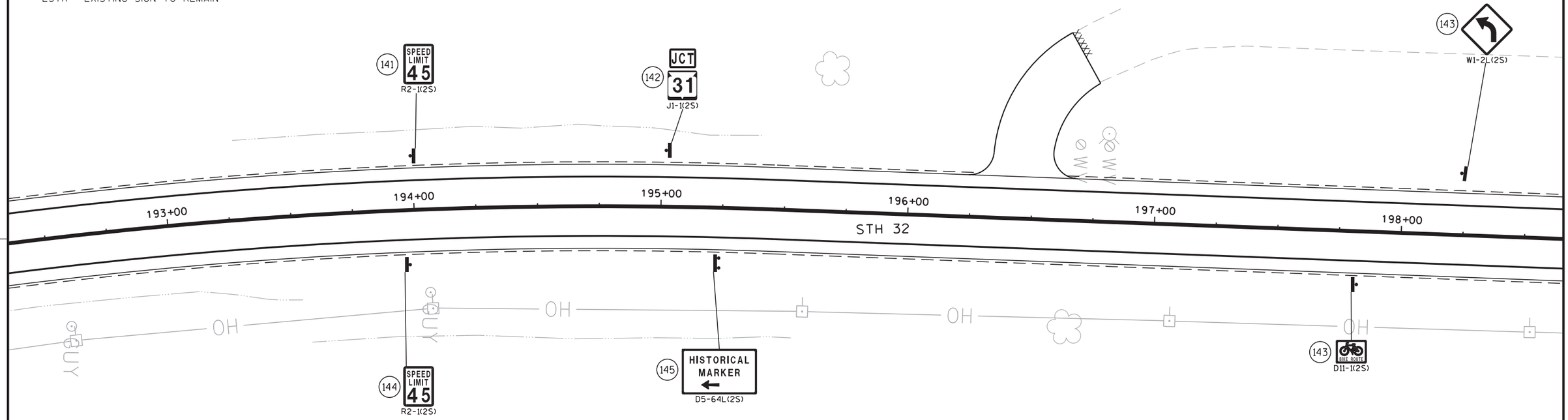
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FILE NAME : J:\projects\d2_23500932\71\SIGN\023217_ps.dgn PLOT DATE : 16-JUL-2018 07:08 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 40:1 WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 18 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 101	E

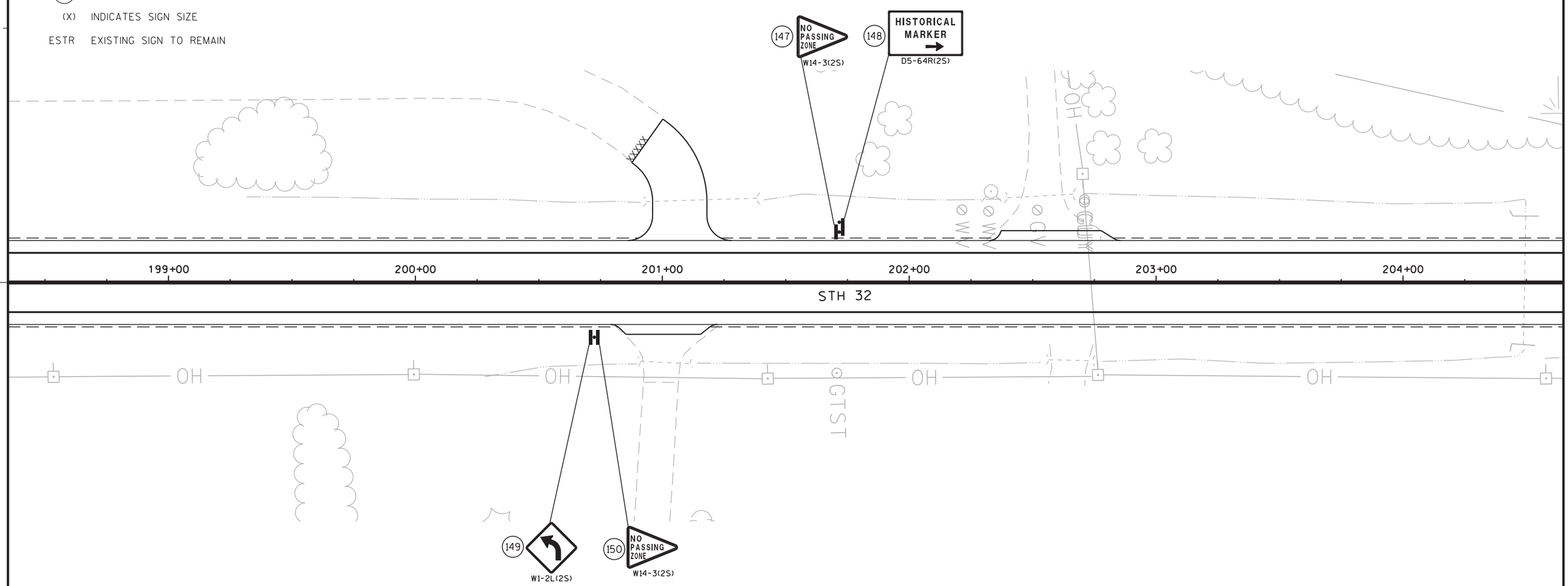
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WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



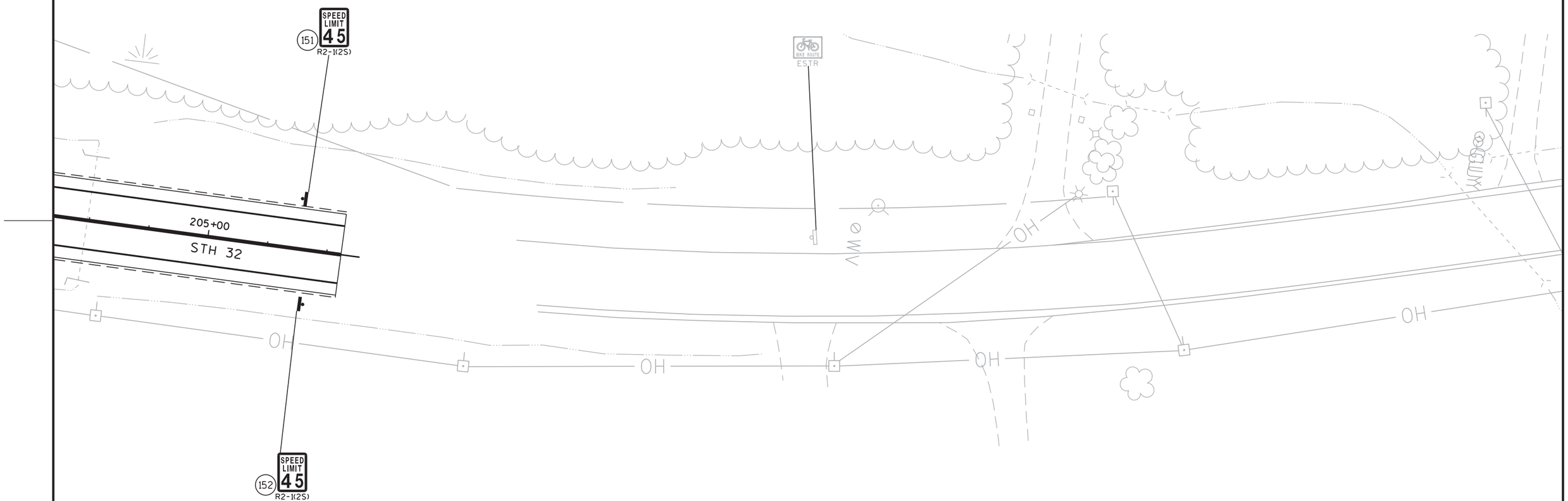
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SHEET 19 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 102	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



2

SHEET 20 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 103	E

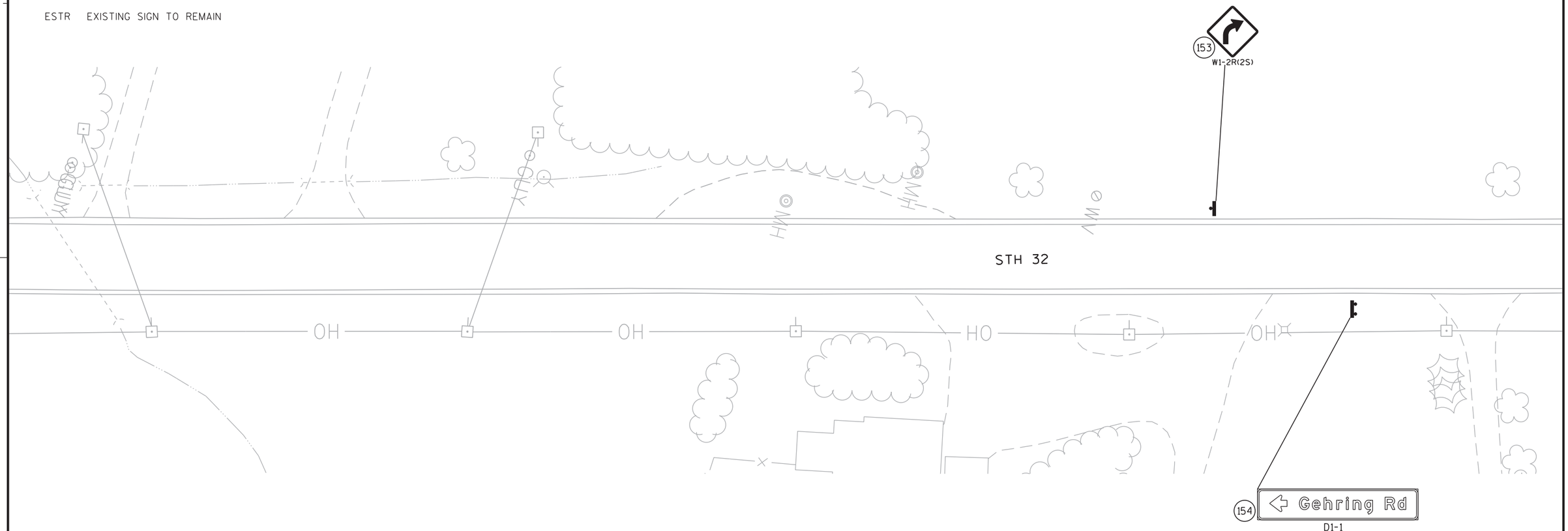
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2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

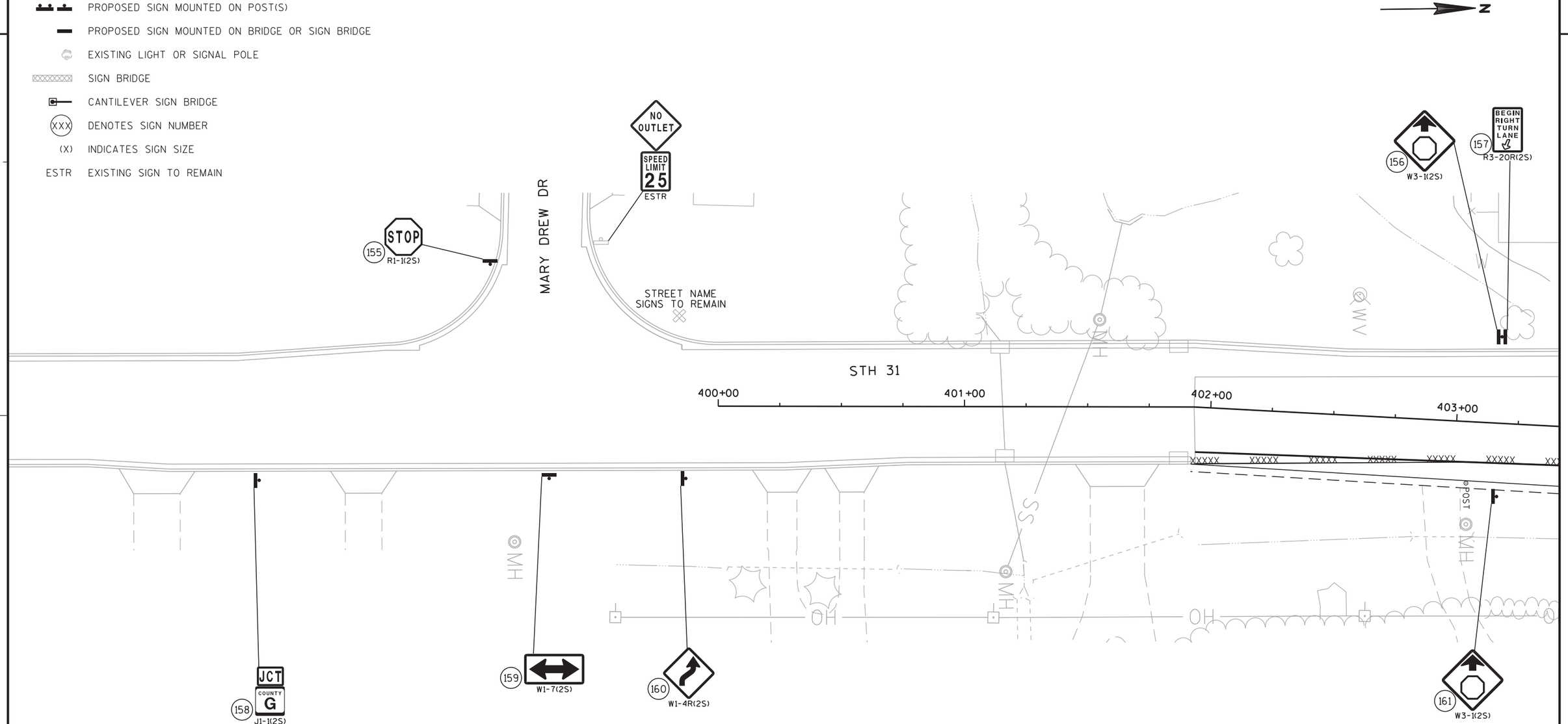


SHEET 21 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 104	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

KINGDOM CT

162 STOP R1-1(2S)

163 SPEED LIMIT 45 R2-1(2S)

164 SOUTH 31 J4-1(2S)

165 BEGIN RIGHT TURN LANE R3-20R(2S)

166 W1-7(2S)

167 ONLY R3-8(2S)

168 WEST COUNTY G / EAST COUNTY G J2-2(2S)

404+00 405+00 406+00 407+00 408+00 409+00

STH 31

STH 31

SEE SHEET 24

SHEET 23 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 106	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

2

2

N

SEE SHEET 26

6 MILE ROAD

STH 31

409+00 410+00 411+00 412+00 413+00 414+00 415+00

312+00 313+00

SEE SHEET 23

SEE SHEET 25

SEE SHEET 14

169 W1-4R(2S)

170 STOP R1-1(3)

171 NORTH SOUTH 31 31 J3-2(2S)

172 STOP R1-1(3)

173 ALL WAY R1-3P(3)

174 COUNTY G J13-1(2S)

175 STOP R1-1(3)

176 ALL WAY R1-3P(3)

177 SPONSOR I55-56 MOVE

178 ONLY R3-8A(2S)

179 STOP R1-1(3)

180 ALL WAY R1-3P(3)

181 WEST EAST COUNTY G COUNTY G J3-2(2S)

182 JCT 32 J1-1(2S)

183 ONLY R3-5R(2S)

184 RIGHT LANE MUST TURN RIGHT R3-7R(2S)

185 STOP R1-1(3)

186 ALL WAY R1-3P(3)

187 STOP R1-1(3)

188 NORTH SOUTH 31 31 J3-2(2S)

189 JCT END 32 31 J1-2(2S)

190 ONLY R3-8A(2S)

191 W3-3(2S) 16X16 TEMPORARY ORANGE FLAGS

192 NORTH SOUTH 32 32 J2-2(2S)

OVERHEAD SIGN SUPPORT S-51-610 STATION 312+50

SHEET 24 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 107	E

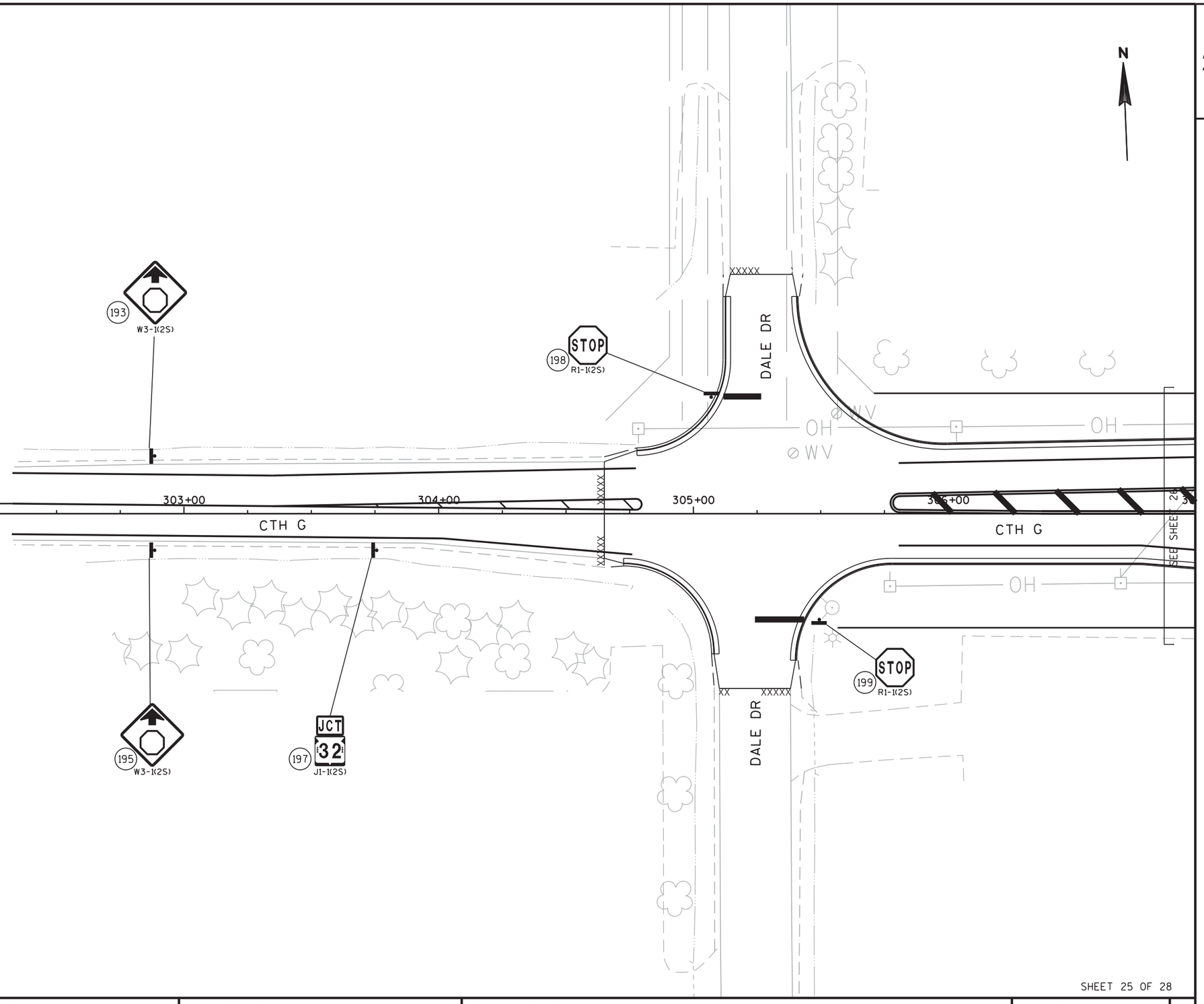
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WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



SHEET 25 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 108	E

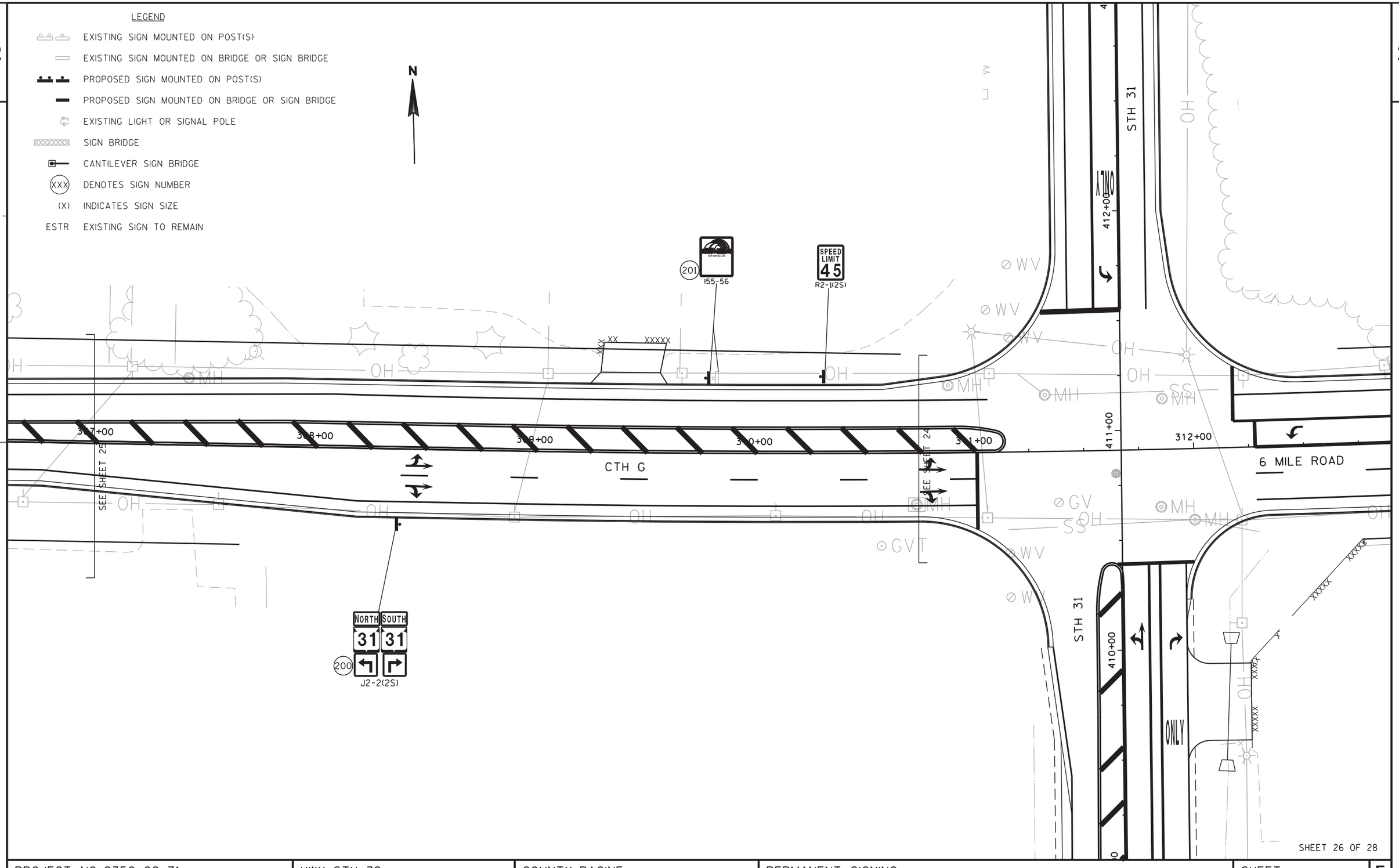
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2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N



SHEET 26 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 109 E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

2

203 SOUTH 32 NORTH 32 J2-2(2S)

204 ONLY ONLY ONLY R3-8W(2S)

205 W3-3(2S)

XXXXX

OHP

OMP

OWV

319+00 320+00 321+00 322+00 323+00 324+00

6 MILE ROAD

OMH OMH OMH

OH OH OH

XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX

SEE SHEET 14

SEE SHEET 28

206 SPEED LIMIT 35 R2-1(2S)

207 WEIGHT LIMIT CLASS B MOVE

SHEET 27 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 110 E

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

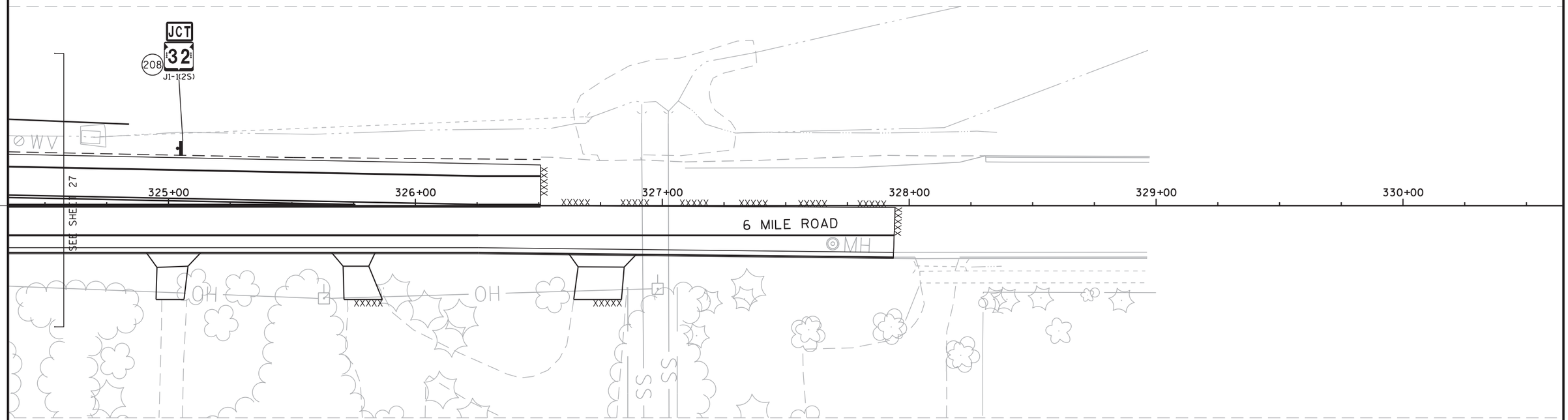
XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

N

2



SHEET 28 OF 28

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PERMANENT SIGNING	SHEET 111	E

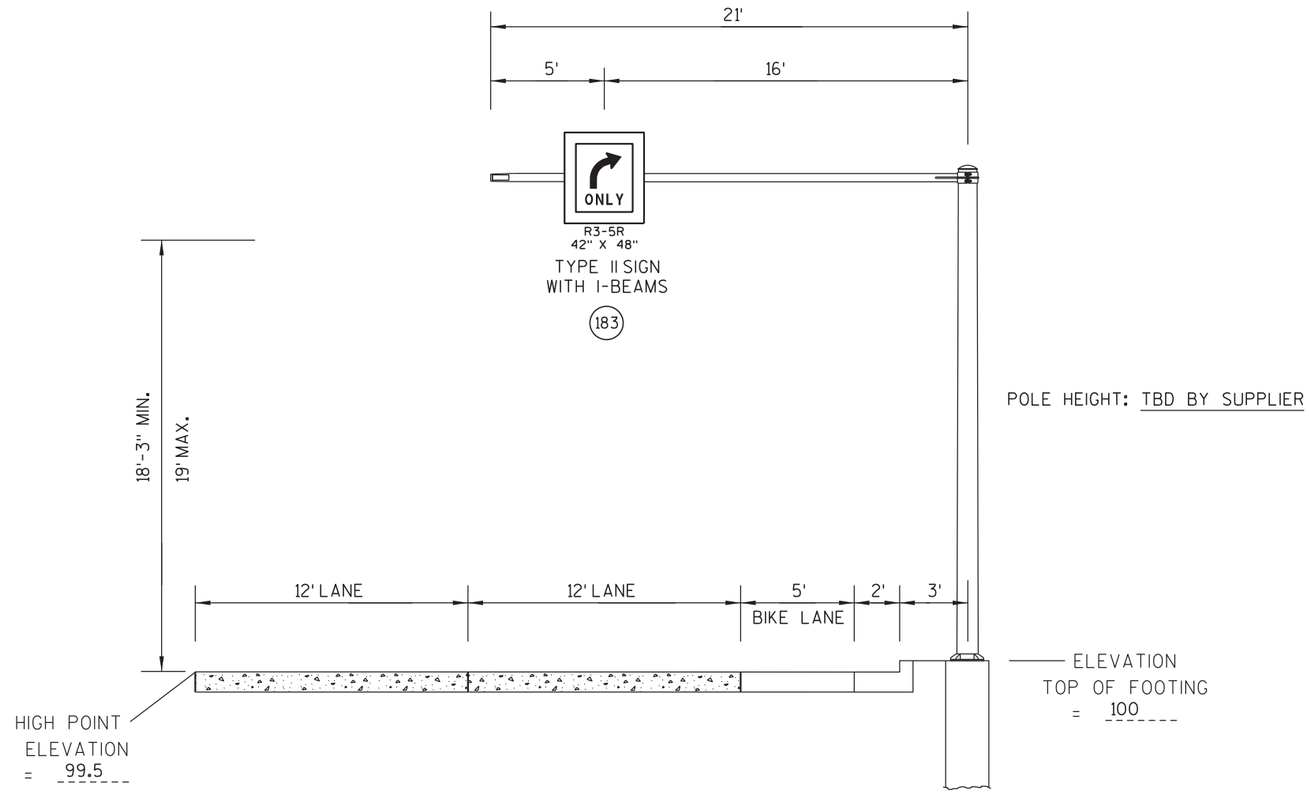
LEGEND

(X) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

GENERAL NOTES

1. DRAWINGS NOT TO SCALE.
2. DESIGN ACCORDING TO AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 6TH EDITION & INTERIM REVISIONS FATIGUE CATEGORY 1 CANTILEVERS.
3. THE SIGN STRUCTURES SHALL BE DESIGNED TO SUPPORT THE SIGNS SHOWN.
4. WIND VELOCITY PER WISDOT STD SPECIFICATIONS.
5. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR UNLESS DETAILED OTHERWISE.



OVERHEAD SIGN SUPPORTS DETAIL
S-51-610
6 MILE RD EB EAST OF STH 31
STATION 312+50

NOTE, CONTRACTOR SHALL:

1. SUBMIT SHOP DRAWINGS OF OVERHEAD SIGN SUPPORT. FOOTING IS INCIDENTAL TO OVERHEAD SIGN SUPPORT.
2. PROVIDE DESIGN CALCULATIONS.
3. SHOW SIGNS ON SHOP DRAWINGS.
4. I.D. PLAQUE INCIDENTAL TO OVERHEAD SIGN SUPPORT PER STANDARD SPEC 641.3.1.4.
5. 6 ANCHOR RODS MINIMUM PER STANDARD DETAIL DRAWING. DESIGN STRUCTURE BASE PLATE CONNECTION TO ACCOMODATE.
6. REFER TO SIGN PLATE A4-7.4 FOR ATTACHMENT OF SIGNS TO OVERHEAD SIGN SUPPORT.
7. INSTALL SIGNS OR SIGN BLANKS ON OVERHEAD SIGN SUPPORTS AT THE TIME OF ERECTION AS SPECIFIED IN STANDARD SPEC 641.3.1.4.

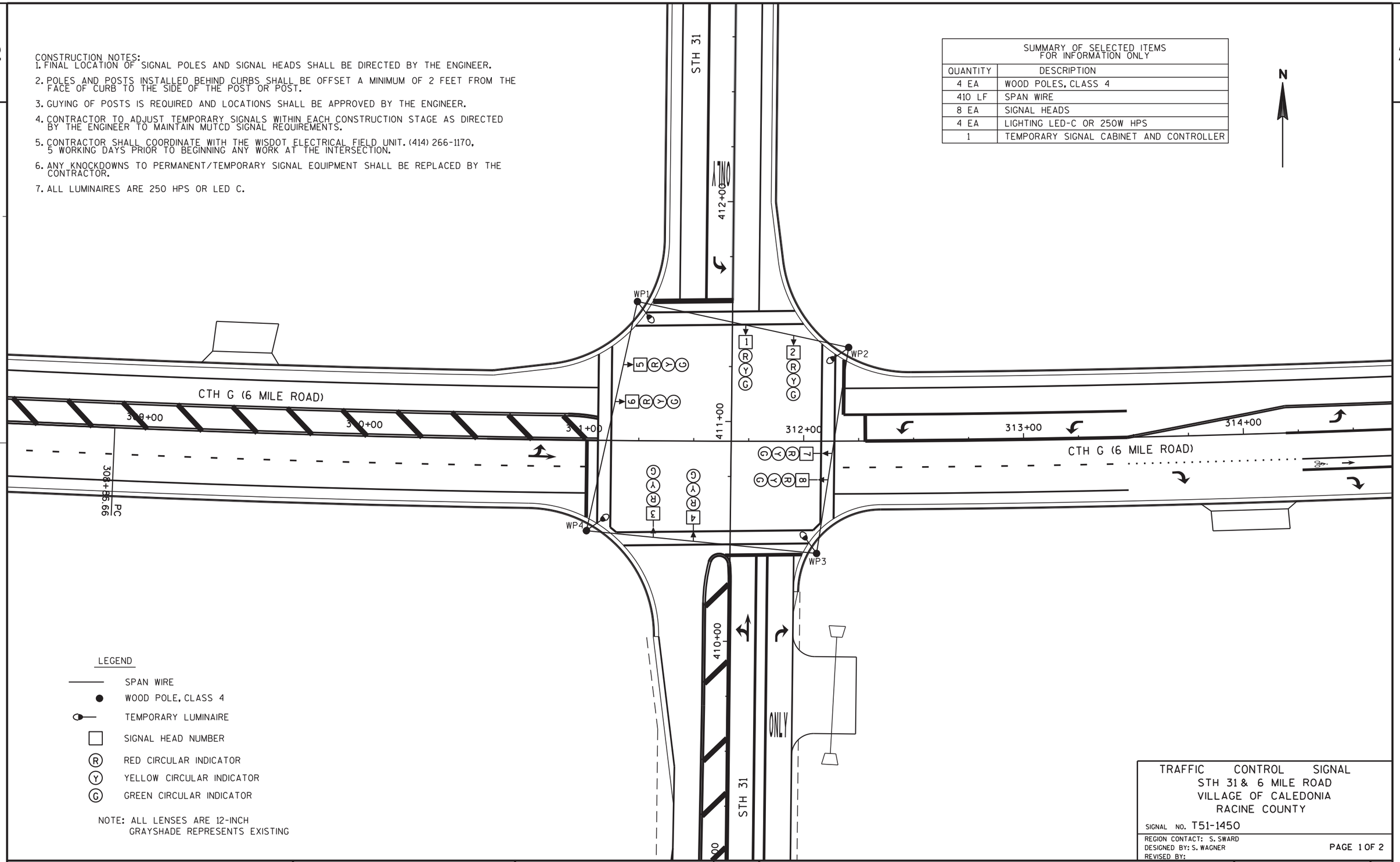
SDD 36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

I BEAMS - W5x3.7 IBEAMS FOR MOUNTING TYPE II SIGN ARE INCIDENTAL TO SIGN.

2

CONSTRUCTION NOTES:
1. FINAL LOCATION OF SIGNAL POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POST.
3. GUYING OF POSTS IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. CONTRACTOR SHALL COORDINATE WITH THE WISDOT ELECTRICAL FIELD UNIT. (414) 266-1170, 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. ALL LUMINAIRES ARE 250 HPS OR LED C.

SUMMARY OF SELECTED ITEMS FOR INFORMATION ONLY	
QUANTITY	DESCRIPTION
4 EA	WOOD POLES, CLASS 4
410 LF	SPAN WIRE
8 EA	SIGNAL HEADS
4 EA	LIGHTING LED-C OR 250W HPS
1	TEMPORARY SIGNAL CABINET AND CONTROLLER



TRAFFIC CONTROL SIGNAL
STH 31 & 6 MILE ROAD
VILLAGE OF CALEDONIA
RACINE COUNTY

SIGNAL NO. T51-1450

REGION CONTACT: S. SWARD
DESIGNED BY: S. WAGNER
REVISED BY:

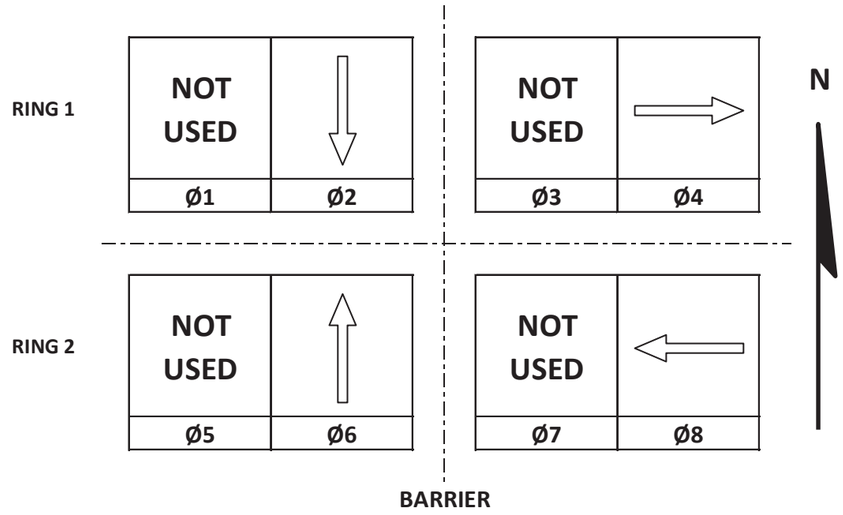
PAGE 1 OF 2

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TEMPORARY TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : J:\projects\d2_23500932\71\SIG\T51-1450\T51-1450_tsprecon.dgn PLOT DATE : 25-JUL-2018 10:39 PLOT BY : dotshw PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	3, 4	R
Ø3		
Ø4	7, 8	R
Ø5		
Ø6	1, 2	R
Ø7		
Ø8	5, 6	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA		
OLB		
OLC		
OLD		



DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2		6	MAX	X
3				
4		8	MAX	X
5				
6		2	MAX	X
7				
8		4	MAX	X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

STH 31 & 6 MILE RD
VILLAGE OF CALEDONIA
RACINE COUNTY
SIGNAL NO: T51-1450 CABINET TYPE:
CONTROLLER TYPE: TEMP
DATE: JAN 2018 PAGE NO. 2 OF 2

PROJECT NO: 2350-09-71	HWY: STH 31	COUNTY: RACINE	SEQUENCE OF OPERATIONS	SHEET NO: E

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE REGIONAL ELECTRICAL FIELD UNIT AT (414) 266-1170.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. ALL LUMINAIRES ARE LED CATEGORY C UNLESS OTHERWISE NOTED.
4. INSTALL CABINET BASE AT LEAST 6" ABOVE FINAL ROADWAY ELEVATION.
5. PROPOSED STORM SEWER, LIGHTING, DETECTABLE WARNING FIELDS, PAVEMENT MARKING AND TRAFFIC SIGNAL INTERCONNECT ARE SHOWN GRAYSHADED FOR PLAN CLARITY.
6. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- COMMUNICATIONS VAULT

EVP CONSTRUCTION NOTES

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH EXISTING SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE MANHOLE.
4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR. THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E. EVP A-B-C-D).

SEE SIGNAL NO. S51-0235

MONOTUBE STRUCTURE NUMBERS
SB2 = S51-1194
SB6 = S51-1195

NOTE: ALL LENSES ARE 12-INCH GRAYSHADED REPRESENTS EXISTING

LEGEND CONT.

- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) (FY) YELLOW ARROW
- (G) GREEN ARROW
- Y YIELD SIGN

TRAFFIC CONTROL SIGNAL

STH 31 & STH 32
VILLAGE OF CALEDONIA
RACINE COUNTY

SIGNAL NO. S51-1416
CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 7/16/18 — REGION TRAFFIC ENGINEER

APPROVED
Date 7/19/18 — STATE TRAFFIC ENGINEER

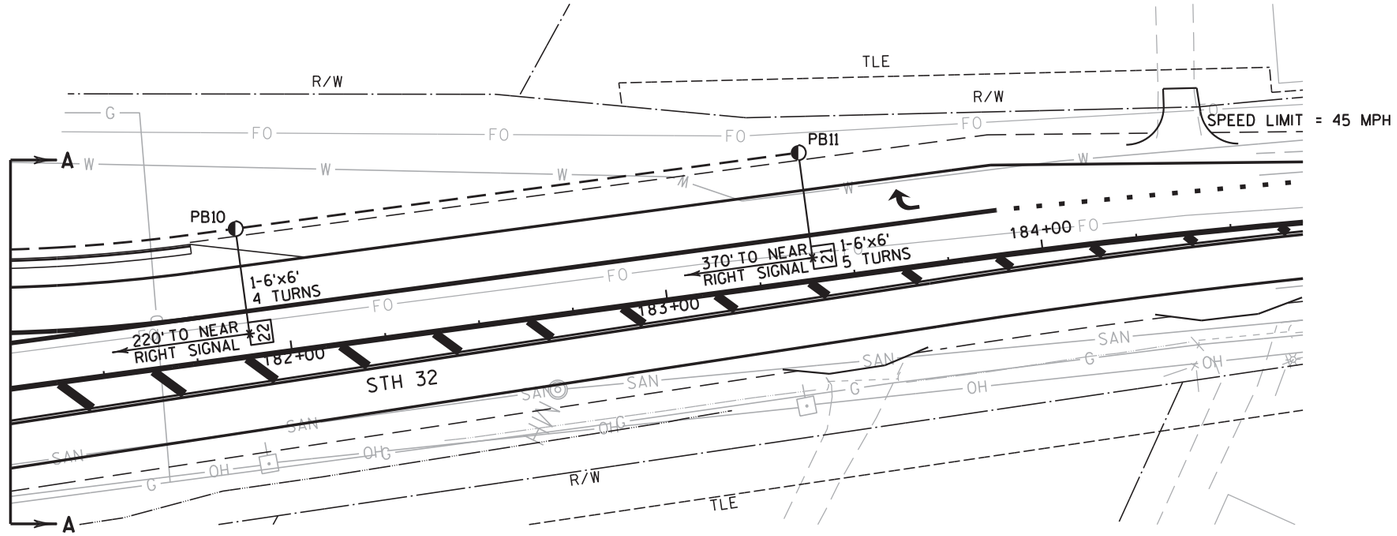
REGION CONTACT: S. SWARD
DESIGNED BY: S. WAGNER
REVISED BY:

PAGE 1 OF 3

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET E

FILE NAME : J:\projects\d2_23500932\71\SIG\S51-1416\024010_sp_S51-1416.dgn
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2



TRAFFIC CONTROL SIGNAL
STH 31 & STH 32
VILLAGE OF CALEDONIA
RACINE COUNTY

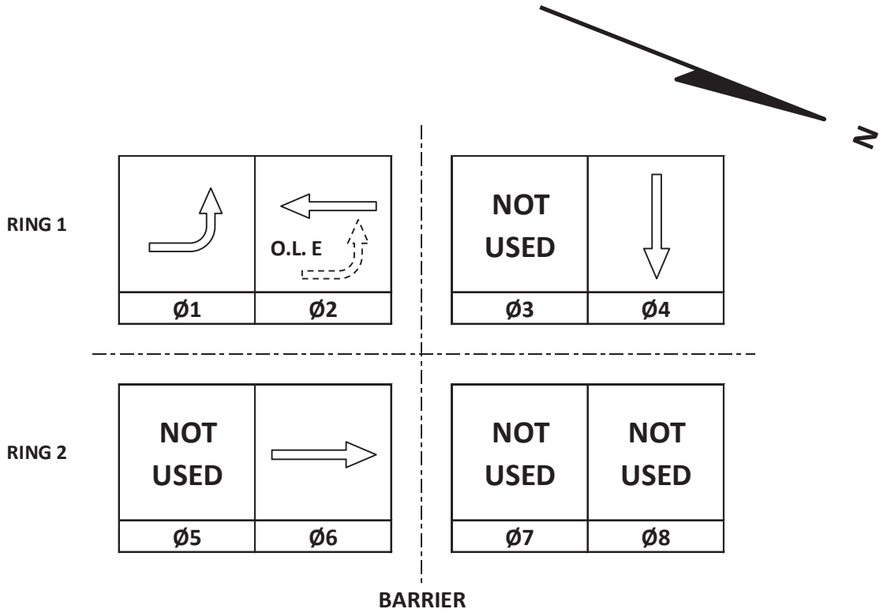
SIGNAL NO. S51-1416

REGION CONTACT: S. SWARD
DESIGNED BY: S. WAGNER
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET	E

	HEAD NUMBERS	FLASH
Ø1	4, 5	R ←
Ø2	6, 7, 8	R
Ø3		
Ø4	9, 10, 11	R
Ø5		
Ø6	1, 2, 3	R
Ø7		
Ø8		
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLE	4, 5	-
OLF		
OLG		
OLH		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4				X
5				
6	X	2	MIN	X
7				
8				

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	
MOVEMENT	← →	→	↓	
PHASE	2+6	6+1	4	

AFTER PREEMPTION SEQUENCE 6+1 OR 2+6, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4, CONTROLLER SHALL RETURN TO PHASE 4.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	21	11	43	41	45	61		
CALLED PHASE	2	1	4	4	4	6		
CALL OPTION	X	X	X		X	X		
DELAY TIME		X	X		X			
EXTENTION OPTION	X	X	X	X	X	X		
EXTEND TIME				X				
USE ADDED INITIAL	X					X		
CROSS SWITCH PHASE		2						

19	17	23	21	27	25	31	29	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	22	12	44	42		62		
CALLED PHASE	2	1	4	4		6		
CALL OPTION	X	X	X			X		
DELAY TIME		X	X					
EXTENTION OPTION	X	X	X	X		X		
EXTEND TIME				X				
USE ADDED INITIAL	X					X		
CROSS SWITCH PHASE		2						

20	18	24	22	28	26	32	30	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

STH 31 & STH 32
VILLAGE OF CALEDONIA
RACINE COUNTY
SIGNAL NO: S51-1416 CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE
DATE: JULY 2018 PAGE NO. 3 OF 3

PROJECT ID:	2350-09-71
INTERSECTION:	STH 31 & STH 32

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK		
SB1	12	4				RED	ORG	GRN	BLK/WHT				
		6	RED/BLK	ORG/BLK	GRN/BLK								
SB2	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		5				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
SB3	7	10	RED	ORG	GRN								
SB4	7	11	RED	ORG	GRN								
SB5	12	1	RED	ORG	GRN								
SB6	7	7	RED	ORG	GRN								
		8	RED	ORG	GRN								

Equipment grounding conductor 10 AWG Green XLP	
From	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB9	CB1

Pull Box Bonding Jumper 10 AWG Green XLP	
From	To
PB1	CB1
PB2	SB1
PB3	SB2
PB4	SB4
PB5	SB5
PB6	SB6
PB7	SB7
PB8	SB8
PB9	CB1

Lighting UF #10 w/ground	
From	To
CB1	SB9
SB9	SB2
CB1	SB8
SB8	SB6

EVP CABLE	
From	To
CB1	SB2 (HEAD B)
CB1	SB6 (HEAD A)
CB1	SB8 (HEAD C)

LEGEND

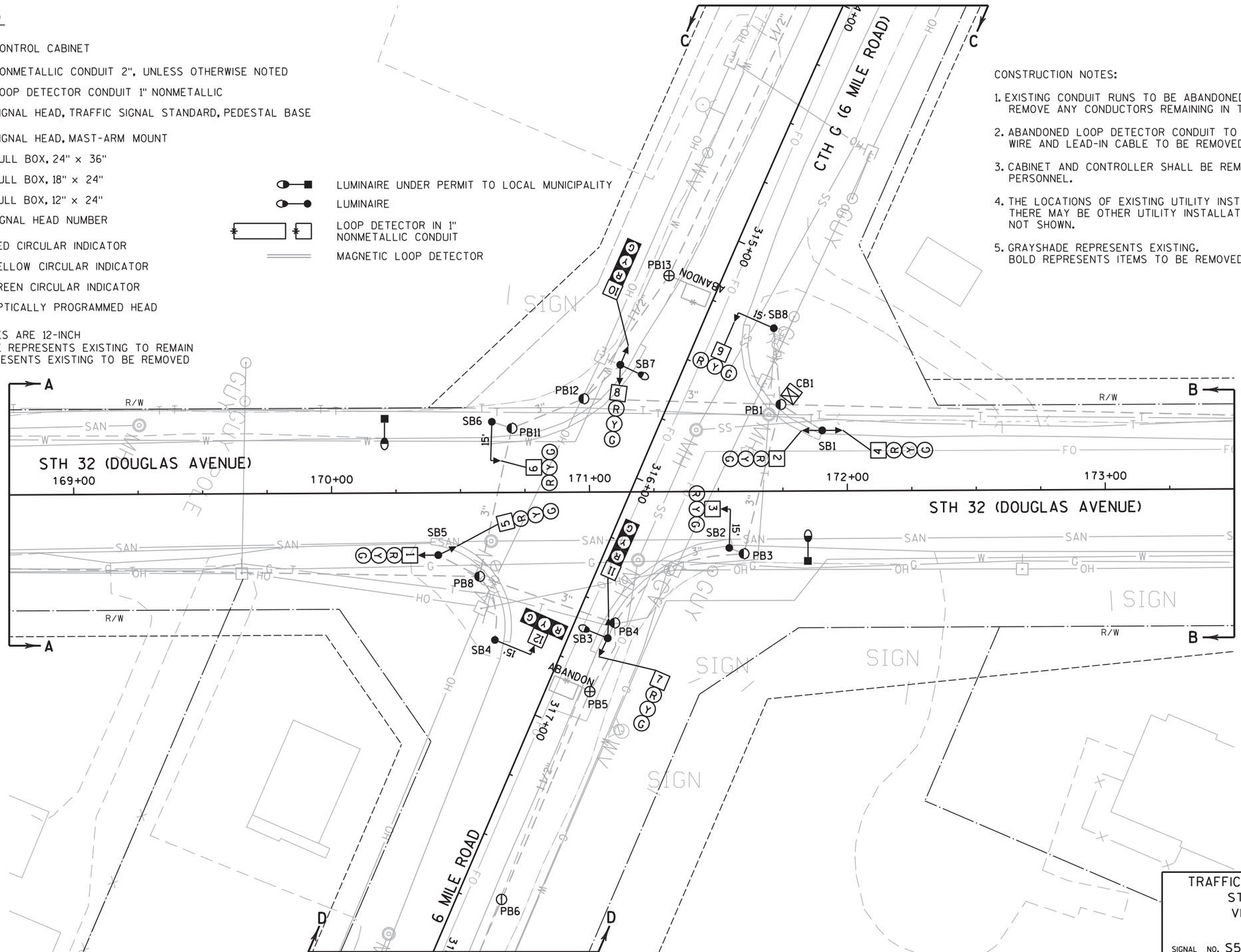
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- 15' SIGNAL HEAD, MAST-ARM MOUNT
- PULL BOX, 24" x 36"
- PULL BOX, 18" x 24"
- PULL BOX, 12" x 24"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- [R] [Y] [G] OPTICALLY PROGRAMMED HEAD

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING TO REMAIN
BOLD REPRESENTS EXISTING TO BE REMOVED

- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- MAGNETIC LOOP DETECTOR

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.
4. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
5. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.



TRAFFIC CONTROL SIGNAL
STH 32 & 6 MILE ROAD
VILLAGE OF CALEDONIA
RACINE COUNTY

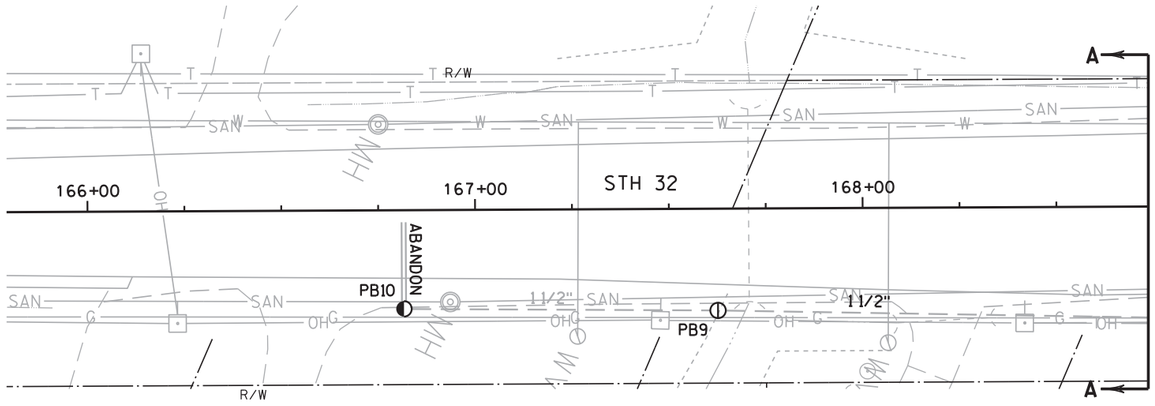
SIGNAL NO. S51-0235

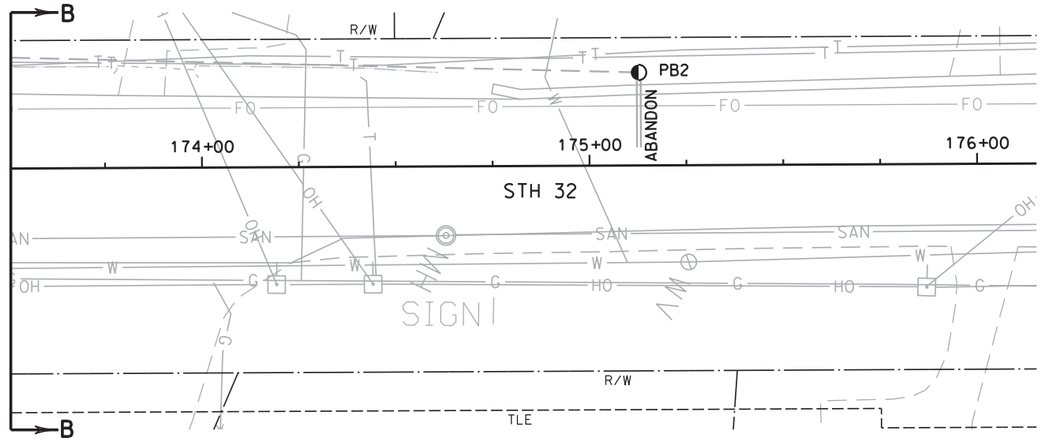
REGION CONTACT: S. SWARD
DESIGNED BY: S. WAGNER
REVISED BY:

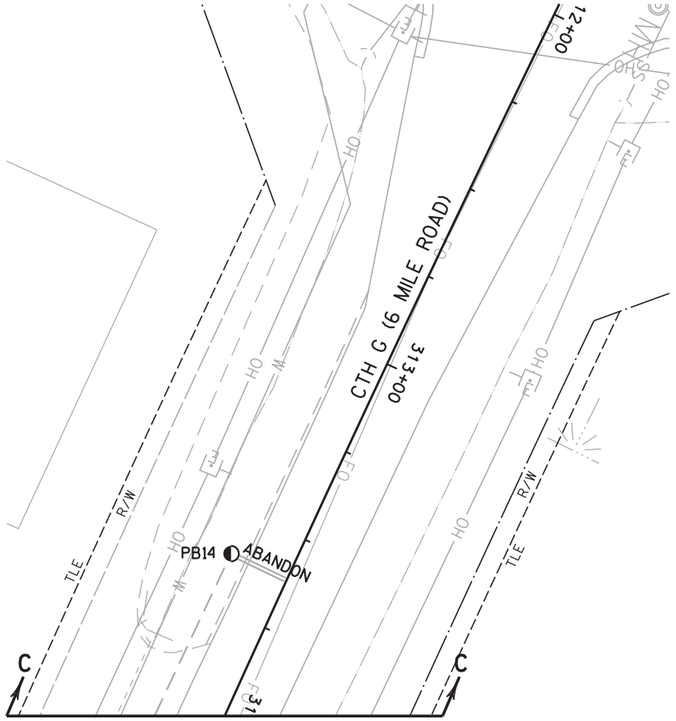
PAGE 1 OF 2

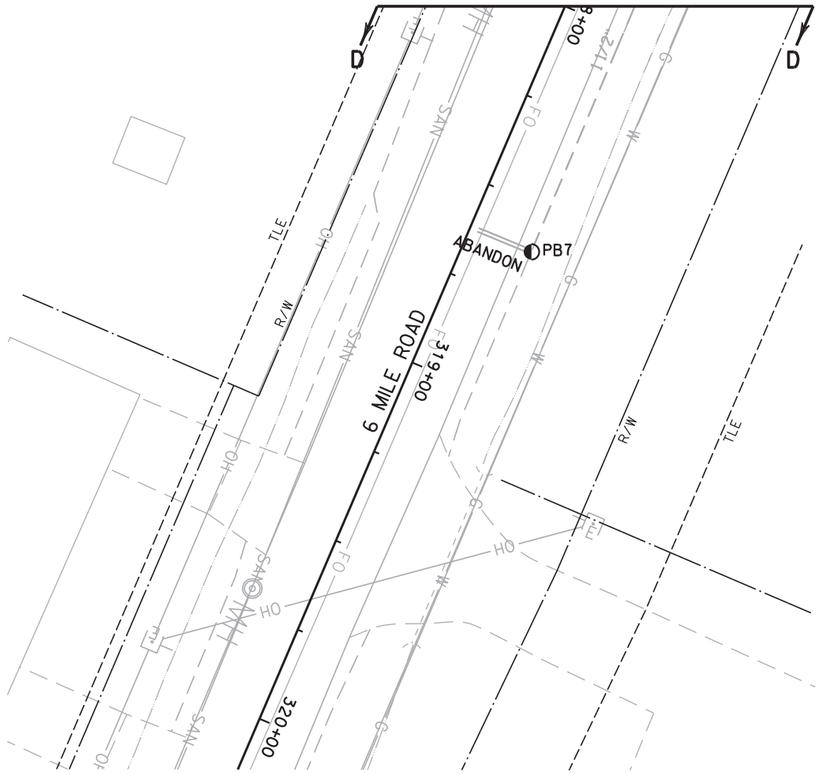
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 119	E

FILE NAME : J:\projects\d2_23500932\71\SIG\S51-0235\024000_sp_rm_S51-0235.dgn PLOT DATE : 16-JAN-2018 11:26 PLOT BY : dotshw PLOT NAME : PLOT SCALE : 40:1









TRAFFIC CONTROL SIGNAL
STH 32 & 6 MILE ROAD
VILLAGE OF CALEDONIA
RACINE COUNTY

SIGNAL NO. S51-0235

REGION CONTACT: S. SWARD
DESIGNED BY: M. GASPER
REVISED BY:

PAGE 2 OF 2

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 120	E

LEGEND

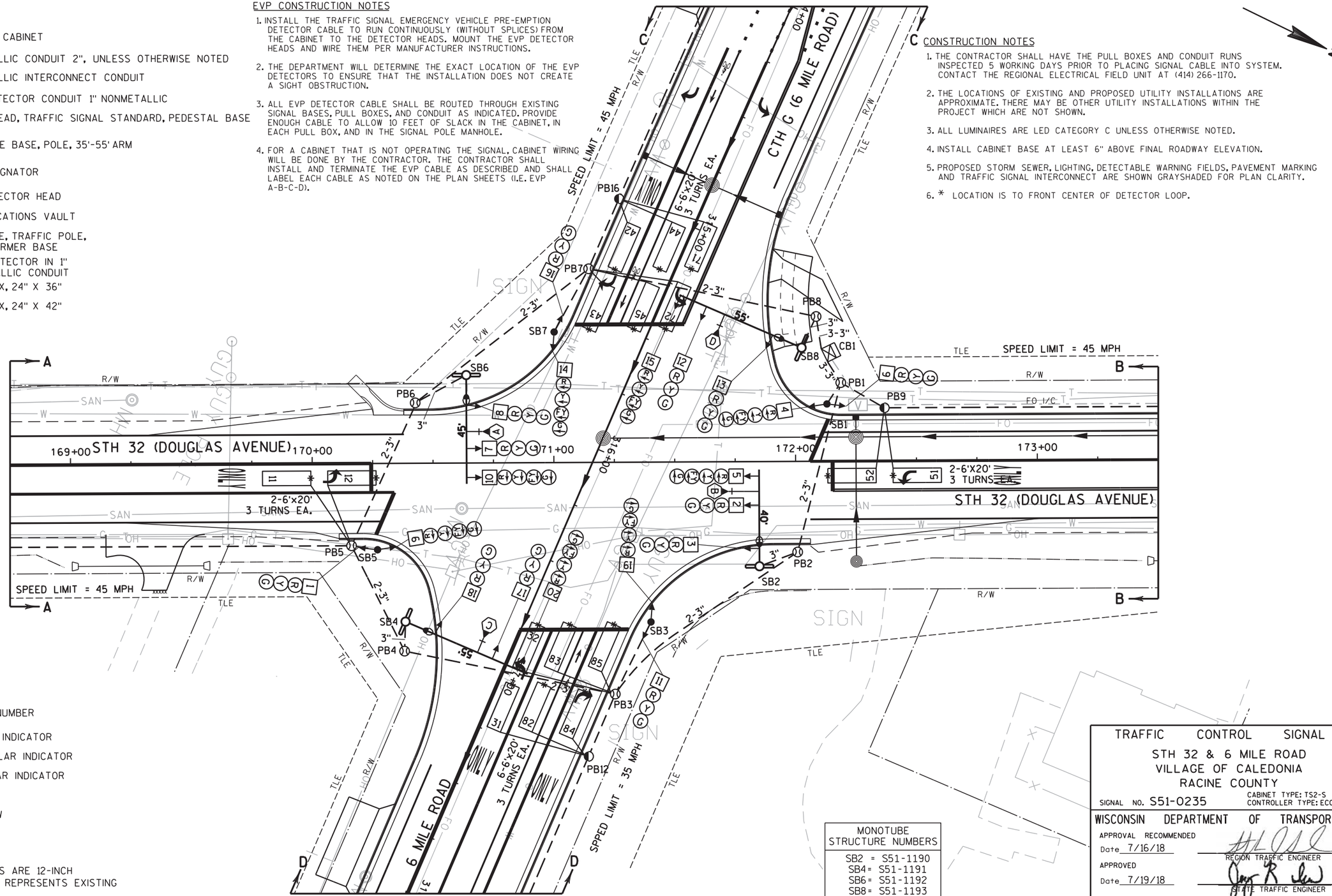
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- (V) COMMUNICATIONS VAULT
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"

EVP CONSTRUCTION NOTES

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH EXISTING SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE MANHOLE.
4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR. THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E. EVP A-B-C-D).

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE REGIONAL ELECTRICAL FIELD UNIT AT (414) 266-1170.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. ALL LUMINAIRES ARE LED CATEGORY C UNLESS OTHERWISE NOTED.
4. INSTALL CABINET BASE AT LEAST 6" ABOVE FINAL ROADWAY ELEVATION.
5. PROPOSED STORM SEWER, LIGHTING, DETECTABLE WARNING FIELDS, PAVEMENT MARKING AND TRAFFIC SIGNAL INTERCONNECT ARE SHOWN GRAYSHADED FOR PLAN CLARITY.
6. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.



LEGEND CONT.

- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

MONOTUBE STRUCTURE NUMBERS
SB2 = S51-1190
SB4 = S51-1191
SB6 = S51-1192
SB8 = S51-1193

TRAFFIC CONTROL SIGNAL

STH 32 & 6 MILE ROAD
VILLAGE OF CALEDONIA
RACINE COUNTY

SIGNAL NO. S51-0235
CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 7/16/18
REGION TRAFFIC ENGINEER

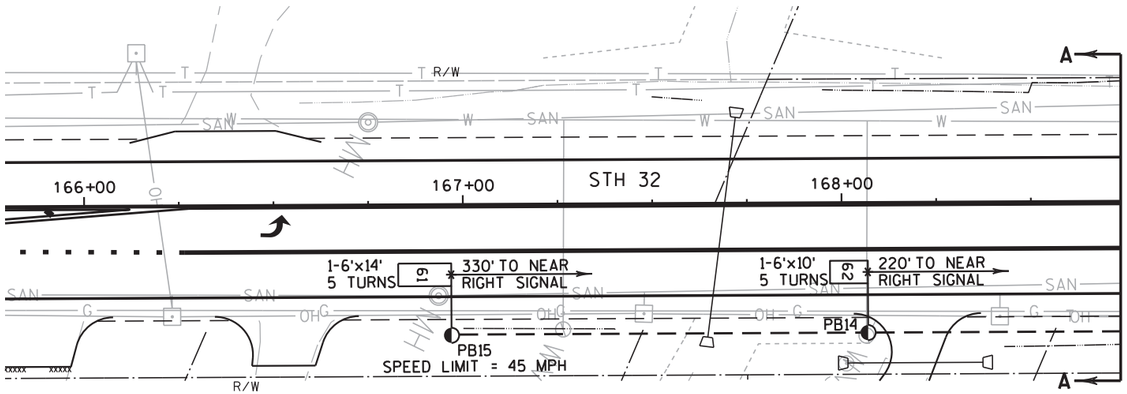
APPROVED
Date 7/19/18
STATE TRAFFIC ENGINEER

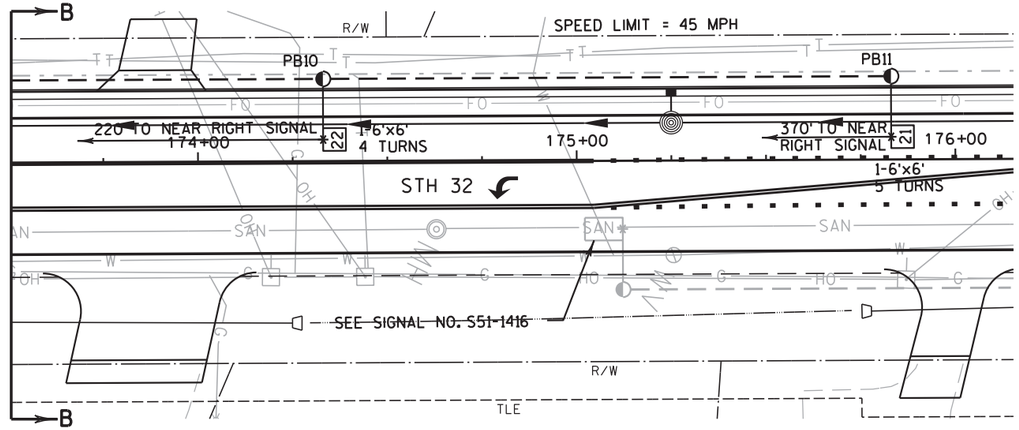
REGION CONTACT: S. SWARD
DESIGNED BY: S. WAGNER
REVISED BY:

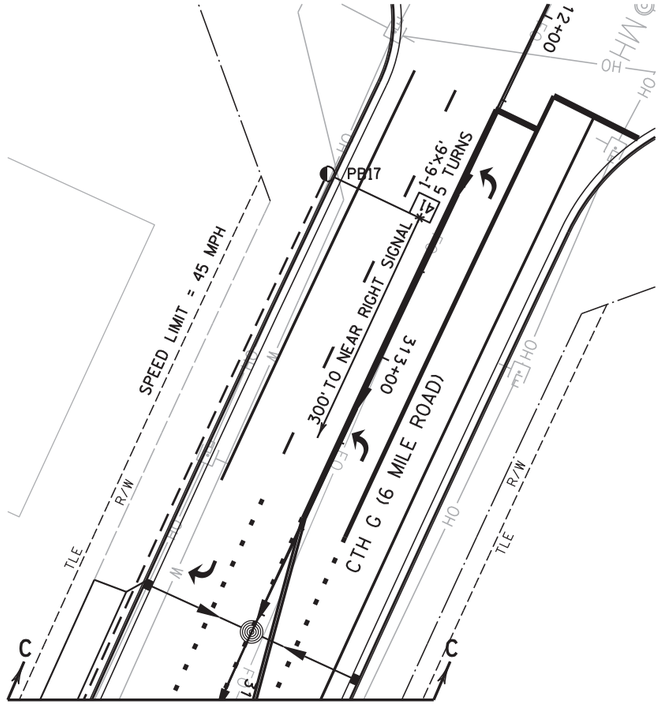
PAGE 1 OF 3

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET E

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TRAFFIC CONTROL SIGNAL
STH 32 & 6 MILE ROAD
VILLAGE OF CALEDONIA
RACINE COUNTY

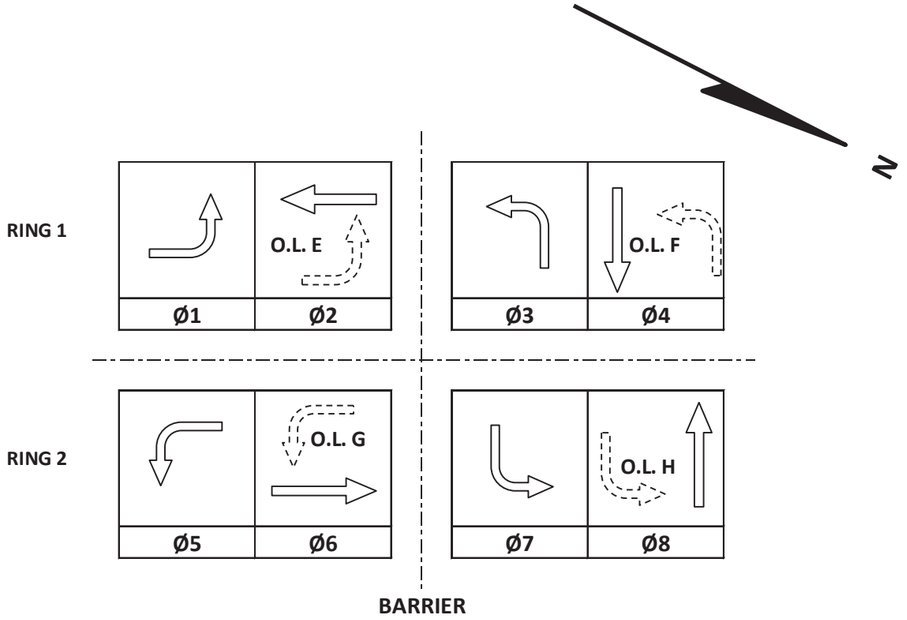
SIGNAL NO. S51-0235

REGION CONTACT: S. SWARD
DESIGNED BY: S. WAGNER
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET	E

	HEAD NUMBERS	FLASH
Ø1	4, 5	R ←
Ø2	6, 7, 8	R
Ø3	14, 15	R ←
Ø4	16, 17, 18	R
Ø5	9, 10	R ←
Ø6	1, 2, 3	R
Ø7	19, 20	R ←
Ø8	11, 12, 13	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLE	4, 5	-
OLF	14, 15	-
OLG	9, 10	-
OLH	19, 20	-



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 6+1 OR 2+5, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	X

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR*(S)	21	11	41	31	45	43	61	51	81	71	85	83				
CALLED PHASE	2	1	4	3	4	4	6	5	8	7	8	8				
CALL OPTION	X	X		X	X	X	X	X		X	X	X				
DELAY TIME		X		X		X		X		X	X					
EXTENTION OPTION	X	X	X	X	X	X	X	X	X	X	X	X				
EXTEND TIME			X						X							
USE ADDED INITIAL	X						X									
CROSS SWITCH PHASE		2		4				6		8						

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR*(S)	22	12	42	32		44	62	52	82	72		84				
CALLED PHASE	2	1	4	3		4	6	5	8	7		8				
CALL OPTION	X	X	X	X		X	X	X	X	X		X				
DELAY TIME		X	X	X				X		X		X				
EXTENTION OPTION	X	X	X	X		X	X	X	X	X		X				
EXTEND TIME																
USE ADDED INITIAL	X						X									
CROSS SWITCH PHASE		2		4				6		8						

STH 32 & 6 MILE RD
VILLAGE OF CALEDONIA
RACINE COUNTY
SIGNAL NO: S51-0235 CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE
DATE: JULY 2018 PAGE NO. 3 OF 3

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	SEQUENCE OF OPERATIONS	SHEET NO: 123	E

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1

2

2

PROJECT ID:	2350-09-71
INTERSECTION:	STH 32 & 6 Mile Rd

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK		
SB1	12	4				RED	ORG	GRN	BLK/WHT				
		6	RED/BLK	ORG/BLK	GRN/BLK								
SB2	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		5				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
SB3	12	11	RED/BLK	ORG/BLK	GRN/BLK								
		19				RED	ORG	GRN	BLK/WHT				
SB4	12	17	RED	ORG	GRN								
		18	RED	ORG	GRN								
		20				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
SB5	12	1	RED	ORG	GRN								
		9				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
SB6	12	7	RED	ORG	GRN								
		8	RED	ORG	GRN								
		10				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
SB7	12	14				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
		16	RED	ORG	GRN								
SB8	12	12	RED	ORG	GRN								
		13	RED	ORG	GRN								
		15				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				

Equipment grounding conductor 10 AWG Green XLP	
From	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	CB1

Pull Box Bonding Jumper 10 AWG Green XLP	
From	To
PB1	CB1
PB2	SB2
PB3	SB3
PB4	SB4
PB5	SB5
PB6	SB6
PB7	SB7
PB8	SB8

Lighting UF #10 w/ground	
From	To
CB1	SB2
SB2	SB4
CB1	SB8
SB8	SB6

EVP CABLE	
From	To
CB1	SB2 (HEAD B)
CB1	SB6 (HEAD A)
CB1	SB4 (HEAD C)
CB1	SB8 (HEAD D)

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
*At the signal bases, connect one terminal from the pedestrian push buttons to the color indicated in the chart. Connect the other terminal to the grounded conductor.
*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.
*Reserve the Blue/Black conductor in the cable assembly as the APS conductor for all push buttons

2

LEGEND

- V — COMMUNICATIONS VAULT
- NONMETALLIC INTERCONNECT CONDUIT 2", UNLESS OTHERWISE NOTED
- CONTROL CABINET

CTH G (SIX MILE ROAD)

STH 32 (DOUGLAS AVE.)

SIX MILE ROAD

INSTALL FO CABLE OUTDOOR PLANT 36-CT
INSTALL FIBER OPTIC TRACER CABLE

INSTALL FO CABLE PIGTAIL 8-CT
INSTALL FIBER OPTIC TRACER CABLE

CB1(S51-0235)

I/C CV101

2-2" HDPE FO I/C

170+00 171+00 172+00 173+00 174+00 175+00

315+00 316+00 317+00 318+00 319+00 320+00

MATCHLINE - STA 175+50

TRAFFIC CONTROL INTERCONNECT
STH 32
VILLAGE OF CALEDONIA
RACINE COUNTY

SIGNAL NO. S51-0235, S51-1416

REGION CONTACT: S. SWARD
DESIGNED BY: S. WAGNER
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET	E

FILE NAME : J:\projects\d2_23500932\71\SIG\Interconnect\024301_ic.dgn PLOT DATE : 16-JUL-2018 10:52 PLOT BY : dotshw PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

INSTALL FO CABLE PIGTAIL 8-CT
INSTALL FIBER OPTIC TRACER CABLE

INSTALL FO CABLE OUTDOOR PLANT 36-CT
INSTALL FIBER OPTIC TRACER CABLE

STH 31

STH 32 (DOUGLAS AVE)

CB1 (S51-1416)

I/C CV102

2-2" HDPE FO I/C

FILLER CAPS

CANOPY

416+00

417+00

418+00

176+00

177+00

178+00

179+00

180+00

181+00

MATCHLINE - STA 175+50

LEGEND

- COMMUNICATIONS VAULT
- NONMETALLIC INTERCONNECT CONDUIT 2", UNLESS OTHERWISE NOTED
- CONTROL CABINET

TRAFFIC CONTROL INTERCONNECT
STH 32
VILLAGE OF CALEDONIA
RACINE COUNTY

SIGNAL NO. S51-0235, S51-1416

REGION CONTACT: S. SWARD
DESIGNED BY: S. WAGNER
REVISED BY:

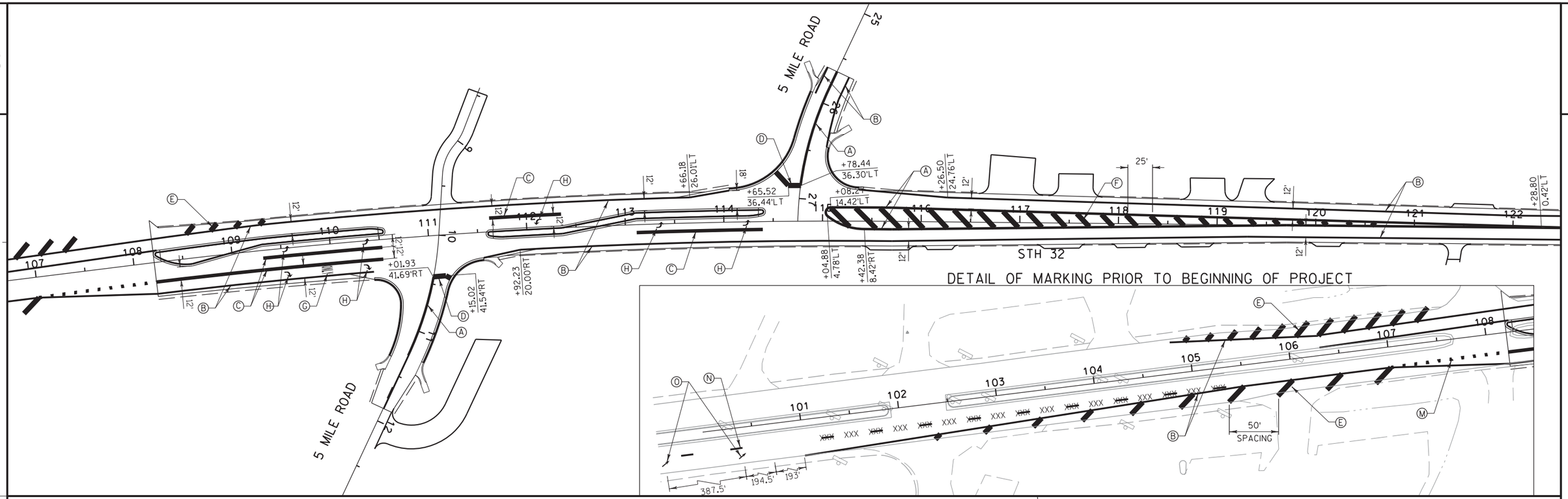
PAGE 2 OF 2

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET	E

FILE NAME : J:\projects\d2_23500932\71\SIG\Interconnect\024302_ic.dgn PLOT DATE : 16-JUL-2018 10:52 PLOT BY : dotshw PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

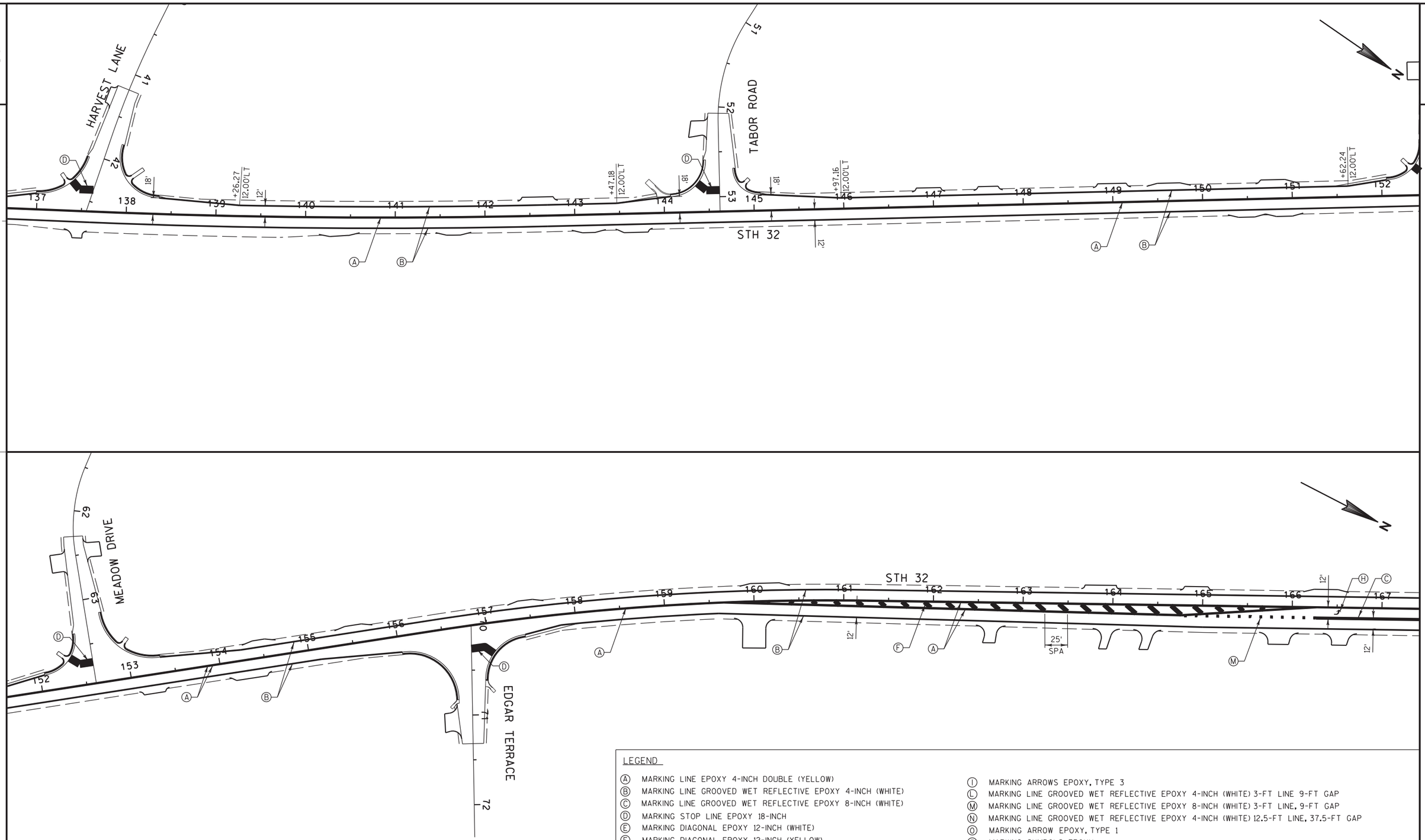
2



LEGEND

- (A) MARKING LINE EPOXY 4-INCH DOUBLE (YELLOW)
- (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE)
- (D) MARKING STOP LINE EPOXY 18-INCH
- (E) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (F) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (G) MARKING WORD EPOXY
- (H) MARKING ARROW EPOXY, TYPE 2
- (I) MARKING ARROWS EPOXY, TYPE 3
- (L) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) 3-FT LINE 9-FT GAP
- (M) MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE) 3-FT LINE, 9-FT GAP
- (N) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) 12.5-FT LINE, 37.5-FT GAP
- (O) MARKING ARROW EPOXY, TYPE 1
- (P) MARKING SYMBOLS EPOXY
- XXX MARKING REMOVAL LINE 4-INCH

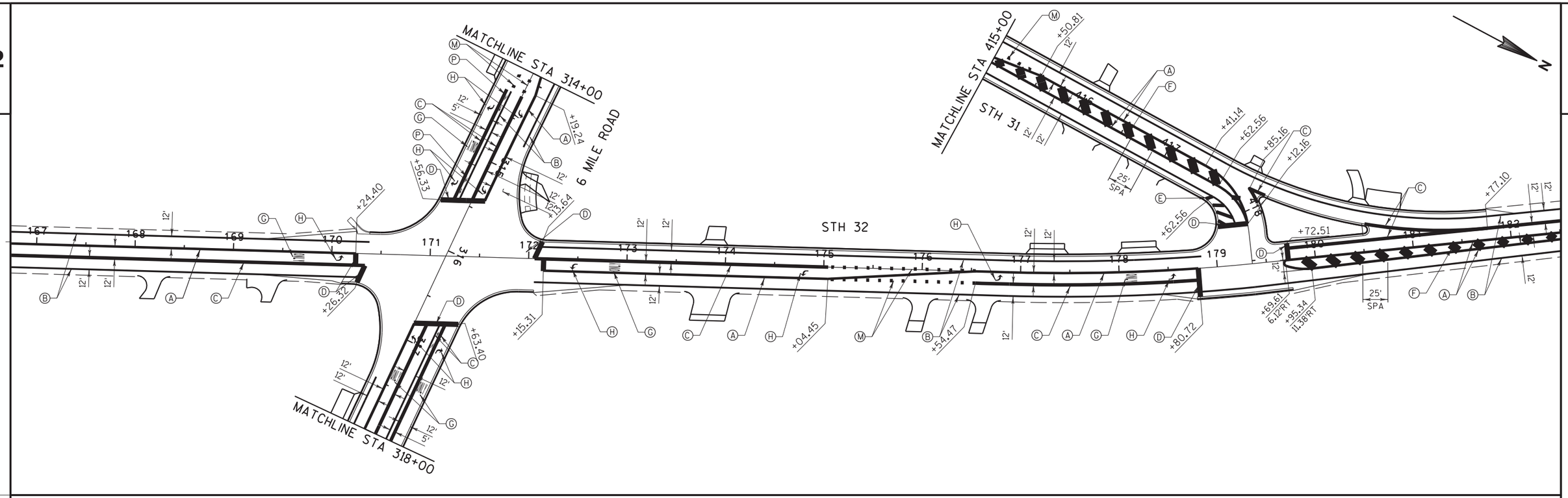
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVEMENT MARKING	SHEET 128	E

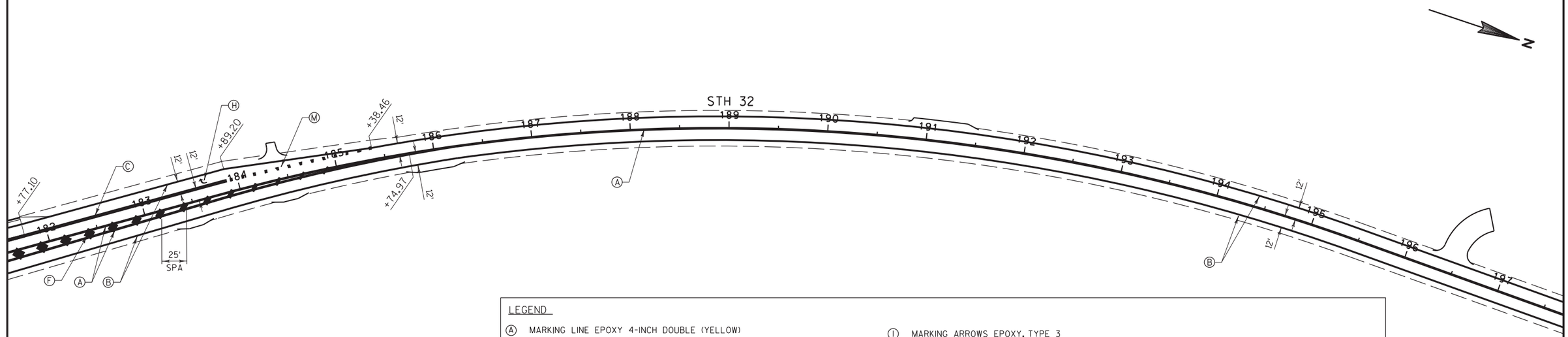


LEGEND

- (A) MARKING LINE EPOXY 4-INCH DOUBLE (YELLOW)
- (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE)
- (D) MARKING STOP LINE EPOXY 18-INCH
- (E) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (F) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (G) MARKING WORD EPOXY
- (H) MARKING ARROW EPOXY, TYPE 2
- (I) MARKING ARROWS EPOXY, TYPE 3
- (L) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) 3-FT LINE 9-FT GAP
- (M) MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE) 3-FT LINE, 9-FT GAP
- (N) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) 12.5-FT LINE, 37.5-FT GAP
- (O) MARKING ARROW EPOXY, TYPE 1
- (P) MARKING SYMBOLS EPOXY
- XXX MARKING REMOVAL LINE 4-INCH

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVEMENT MARKING	SHEET 129	E





LEGEND

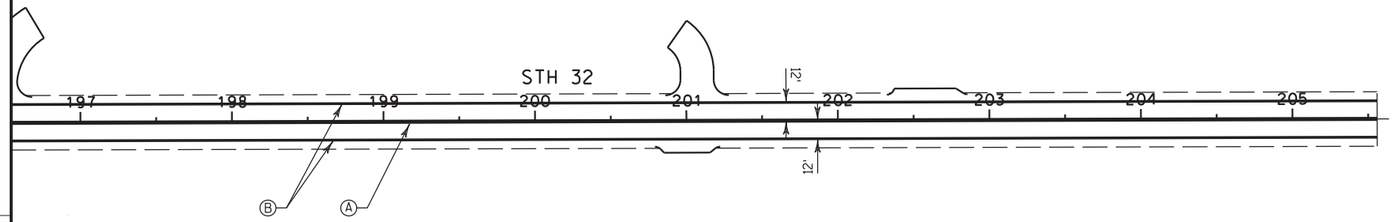
- (A) MARKING LINE EPOXY 4-INCH DOUBLE (YELLOW)
- (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE)
- (D) MARKING STOP LINE EPOXY 18-INCH
- (E) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (F) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (G) MARKING WORD EPOXY
- (H) MARKING ARROW EPOXY, TYPE 2
- (I) MARKING ARROWS EPOXY, TYPE 3
- (L) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) 3-FT LINE 9-FT GAP
- (M) MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE) 3-FT LINE, 9-FT GAP
- (N) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) 12.5-FT LINE, 37.5-FT GAP
- (O) MARKING ARROW EPOXY, TYPE 1
- (P) MARKING SYMBOLS EPOXY
- XXX MARKING REMOVAL LINE 4-INCH

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVEMENT MARKING	SHEET 130	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\024503_pm.dgn PLOT DATE : 8/29/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 100.0000 sf / in.

2

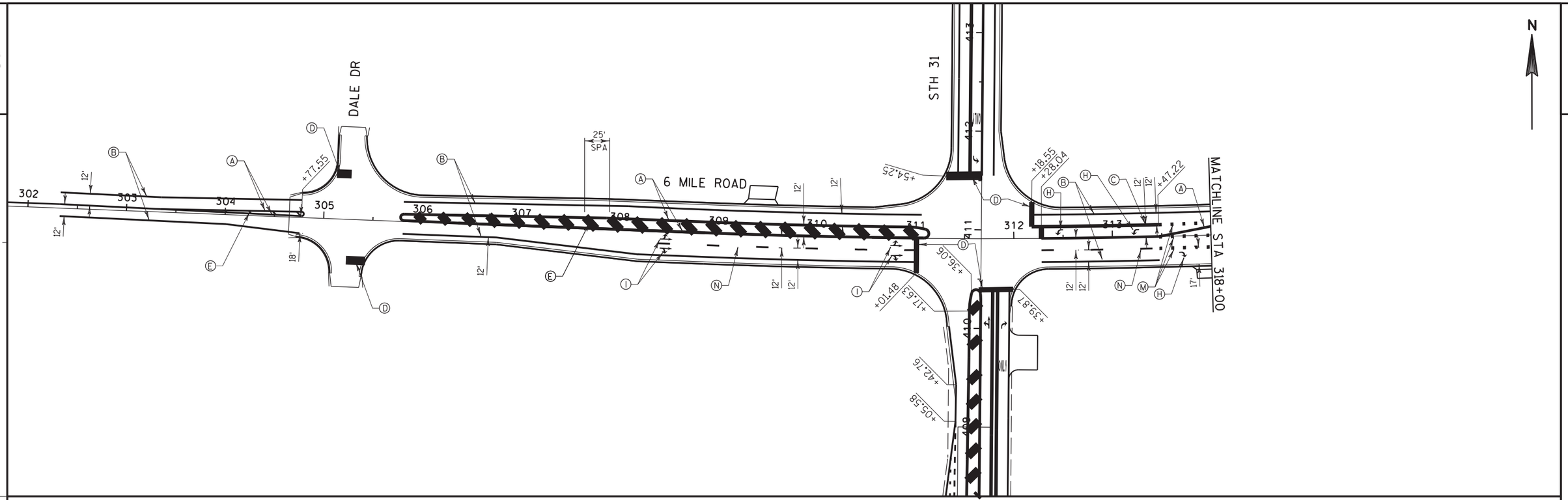
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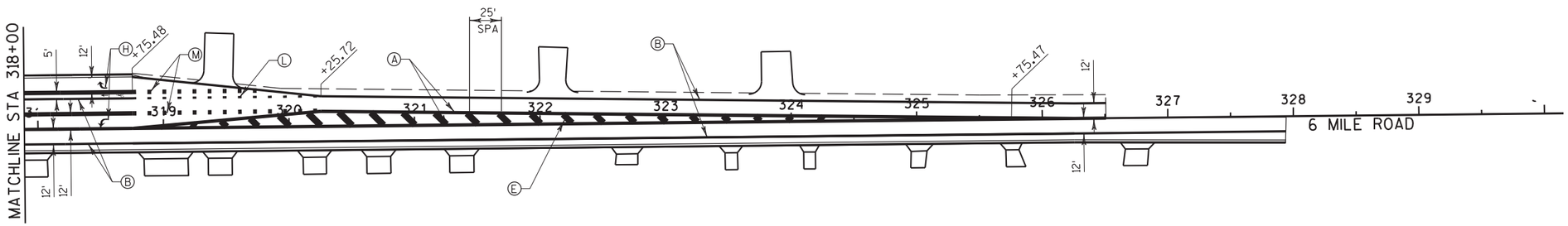


LEGEND

- (A) MARKING LINE EPOXY 4-INCH DOUBLE (YELLOW)
- (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE)
- (D) MARKING STOP LINE EPOXY 18-INCH
- (E) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (F) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (G) MARKING WORD EPOXY
- (H) MARKING ARROW EPOXY, TYPE 2
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- (L) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) 3-FT LINE 9-FT GAP
- (M) MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE) 3-FT LINE, 9-FT GAP
- (N) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) 12.5-FT LINE, 37.5-FT GAP
- (O) MARKING ARROW EPOXY, TYPE 1
- (P) MARKING SYMBOLS EPOXY
- XXX MARKING REMOVAL LINE 4-INCH

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVEMENT MARKING	SHEET 131	E





LEGEND

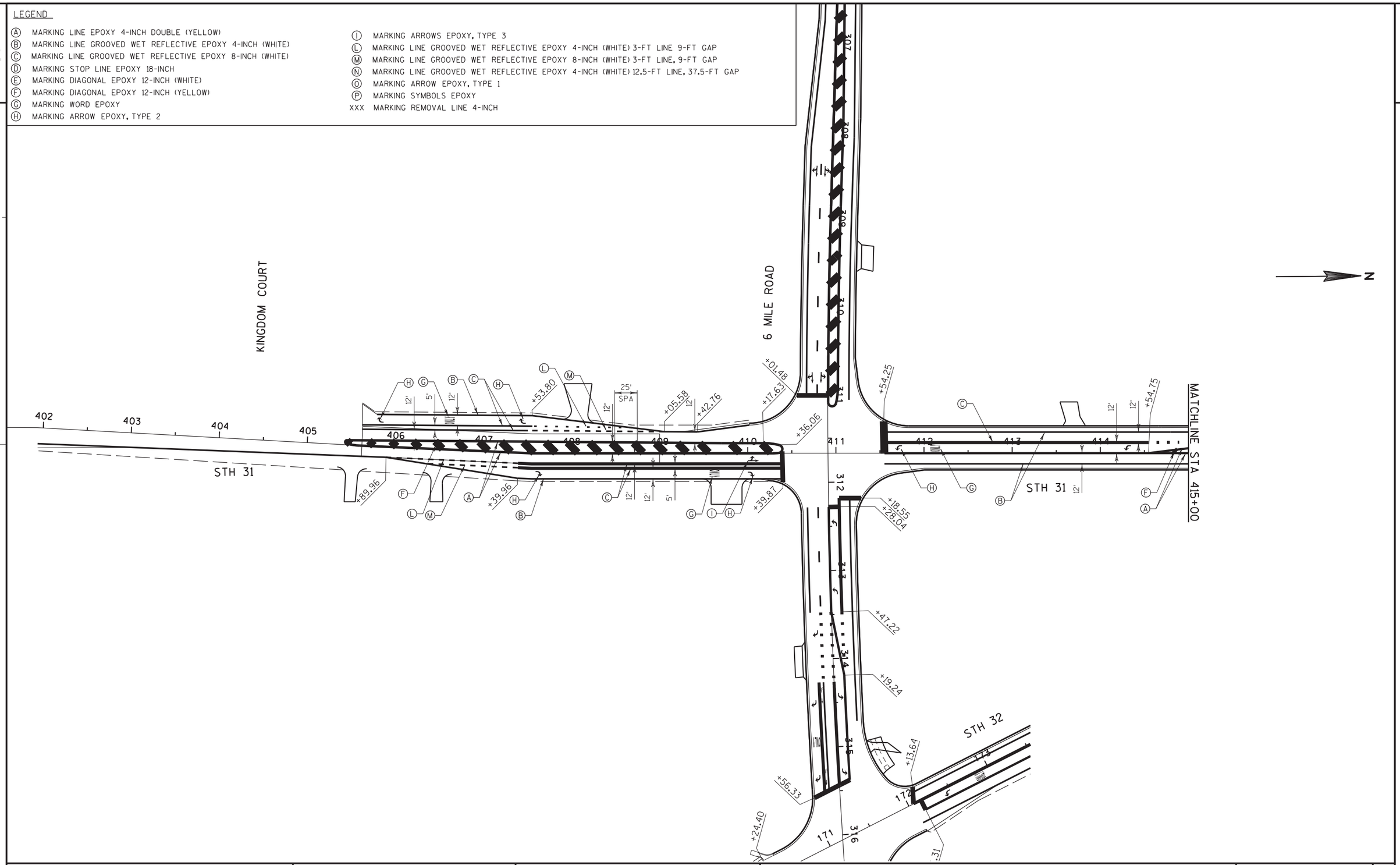
- (A) MARKING LINE EPOXY 4-INCH DOUBLE (YELLOW)
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- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE)
- (D) MARKING STOP LINE EPOXY 18-INCH
- (E) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (F) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (G) MARKING WORD EPOXY
- (H) MARKING ARROW EPOXY, TYPE 2
- (I) MARKING ARROWS EPOXY, TYPE 3
- (L) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) 3-FT LINE 9-FT GAP
- (M) MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE) 3-FT LINE, 9-FT GAP
- (N) MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) 12.5-FT LINE, 37.5-FT GAP
- (O) MARKING ARROW EPOXY, TYPE 1
- (P) MARKING SYMBOLS EPOXY
- XXX MARKING REMOVAL LINE 4-INCH

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVEMENT MARKING - 6 MILE ROAD	SHEET 132	E

2

LEGEND

- Ⓐ MARKING LINE EPOXY 4-INCH DOUBLE (YELLOW)
- Ⓑ MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
- Ⓒ MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE)
- Ⓓ MARKING STOP LINE EPOXY 18-INCH
- Ⓔ MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- Ⓕ MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- Ⓖ MARKING WORD EPOXY
- Ⓗ MARKING ARROW EPOXY, TYPE 2
- Ⓘ MARKING ARROWS EPOXY, TYPE 3
- Ⓛ MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) 3-FT LINE 9-FT GAP
- Ⓜ MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE) 3-FT LINE, 9-FT GAP
- Ⓝ MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) 12.5-FT LINE, 37.5-FT GAP
- Ⓞ MARKING ARROW EPOXY, TYPE 1
- Ⓟ MARKING SYMBOLS EPOXY
- XXX MARKING REMOVAL LINE 4-INCH



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PAVEMENT MARKING - STH 31	SHEET 133	E

2

2

FOLEY RD

BOTTING RD

6 MILE RD

WORK ZONE

RESURFACING OF STH 32 NORTH OF STH 31 CAN BE DONE DURING STAGE 1 OR STAGE 2 AND SHALL BE DONE UNDER TRAFFIC WITH FLAGGING FOR MOVEABLE OPERATIONS (USE SDD TRAFFIC CONTROL FOR LANE CLOSURE FLAGGING OPERATION)

MICHNA RD

N

DETOUR ROUTE

STH 31

STH 32

5 MILE RD

SHORT RD

4 MILE RD

STAGE 1 CONSTRUCTION NOTES:

1. CONSTRUCT STH 31 AND 6 MILE ROAD WEST OF STH 32
2. DO NOT CONSTRUCT ISLAND AT STH 31 AND STH 32. PLACE TEMPORARY PAVEMENT IN THIS LOCATION FOR TRAFFIC TO USE IN STAGE 2.

STAGE 1 TRAFFIC NOTES:

CLOSE STH 31 AND 6 MILE ROAD TO THROUGH TRAFFIC, DETOUR TRAFFIC.

TRAFFIC TO USE STH 32 TO 4 MILE ROAD DETOUR.

RESURFACING OF STH 32 NORTH OF STH 31 TO BE COMPLETED UNDER TRAFFIC WITH FLAGGING FOR MOVABLE OPERATIONS.

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC CONTROL OVERVIEW - STAGE 1	SHEET 134	E

LEGEND

- WORK ZONE
- DETOUR ROUTE
- (X) PROPOSED SIGN
- 500' DISTANCE BETWEEN SIGNS

N

DETOUR GENERAL NOTES

1. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
3. SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS. UNLESS OTHERWISE PROVIDED BY THE PLAN.
4. ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

STH 38
7 MILE RD
W RIVER RD
FOLEY RD
BOTTING RD
MICHNA RD
6 MILE RD
NICHOLSON RD
STH 38
STH 31
STH 32
5 MILE RD
CTH TKH
SHORT RD
4 MILE RD
1000'
500'

(1) ROAD WORK AHEAD W20-1
(2) DETOUR M4-8 24" X 12"
(3) 32 M1-6 24" X 24"
(4) M6-1 21" X 21"
(5) M5-1L 21" X 21"
(6) DETOUR AHEAD W20-2
(8) ROAD CLOSED TO THRU TRAFFIC R11-4 60" X 30"
(10) M6-1 21" X 21"
(11) ROAD CLOSED 500 FT W20-3
(12) M5-1R 21" X 21"
(13) ROAD CLOSED AHEAD W20-3
(16) ROAD CLOSED 0.25 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60" X 30"
(17) NORTH M3-1 24" X 12"
(18) SOUTH M3-3 24" X 12"
(19) M6-1 21" X 21"
(20) END DETOUR M4-8A 24" X 18"
(21) ROAD CLOSED 1 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60" X 30"
(22) ROAD CLOSED R11-2 48" X 30"
(23) DETOUR M4-9L 30" X 24"
(24) ROAD CLOSED 0.5 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60" X 30"
(25) 31 M1-6 24" X 24"
(26) ROAD CLOSED 1.75 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60" X 30"
(27) DETOUR M4-9R 30" X 24"

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH SIGN
- TYPE III BARRICADE

(C1) (C2)
SOUTH 31 NORTH 31

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	DETOUR - STAGE 1	SHEET 135	E

2

BEGIN CONSTRUCTION
STA 401+93.77

BEGIN CONSTRUCTION
STA 304+64.02

ROAD CLOSED TO THRU TRAFFIC
R11-4
60" X 30"

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED AHEAD
W20-3

ROAD WORK AHEAD
W20-1

200'

50'

KINGDOM CT

400

405

410

415

420

425

430

435

CTH G

STH 31

STH 32

165

170

175

180

185

190

320

6 MILE ROAD

REFER TO SDD BARRICADES & SIGNS FOR MAINLINE CLOSURE

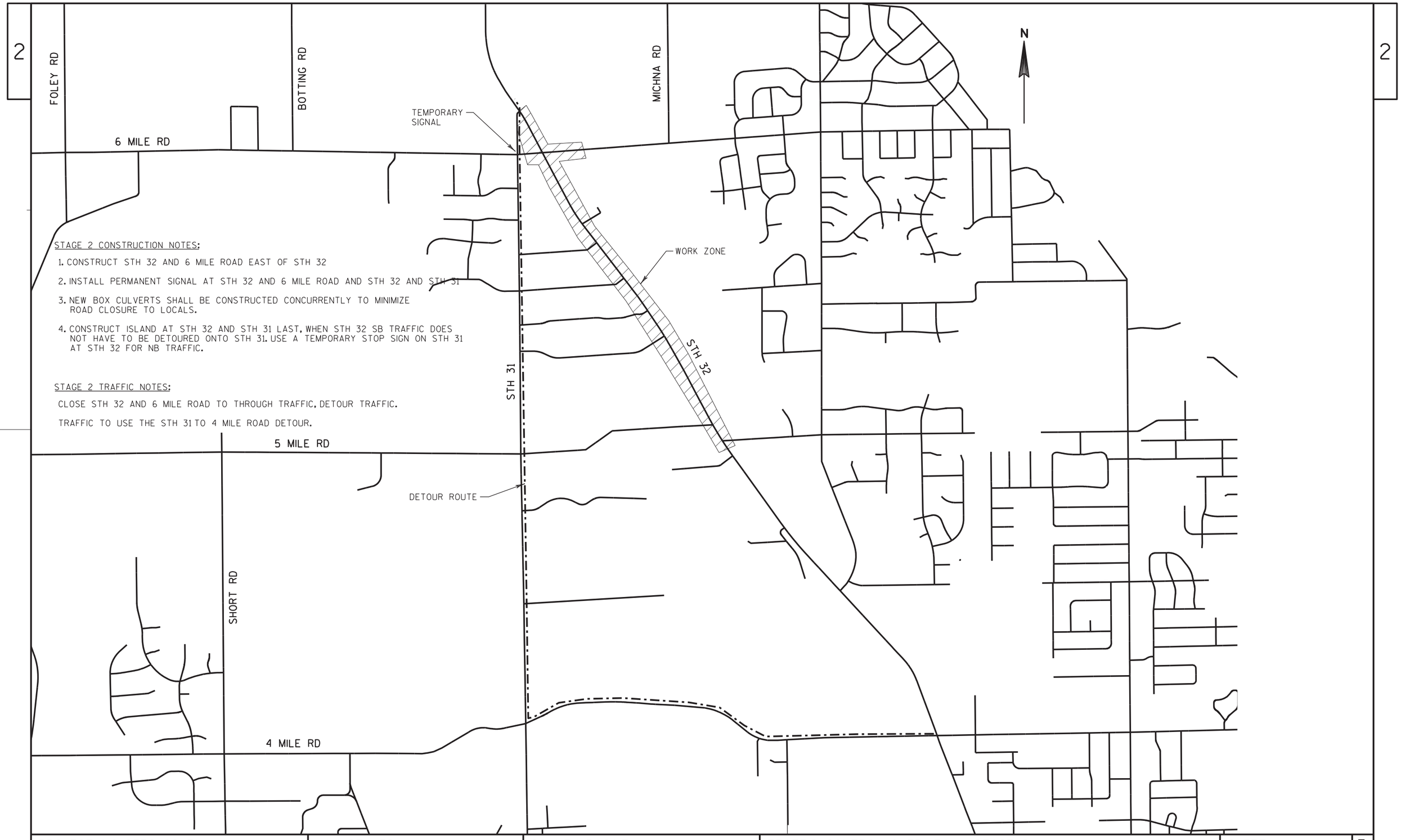
SIDEWALK CLOSED
R9-9
24" X 12"

N

LEGEND

- WORK ZONE
- POST MOUNTED SIGN
- TYPE III BARRICADE WITH SIGN
- TYPE III BARRICADE
- DRUM BARREL

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC CONTROL - STAGE 1	SHEET 136	E



STAGE 2 CONSTRUCTION NOTES:

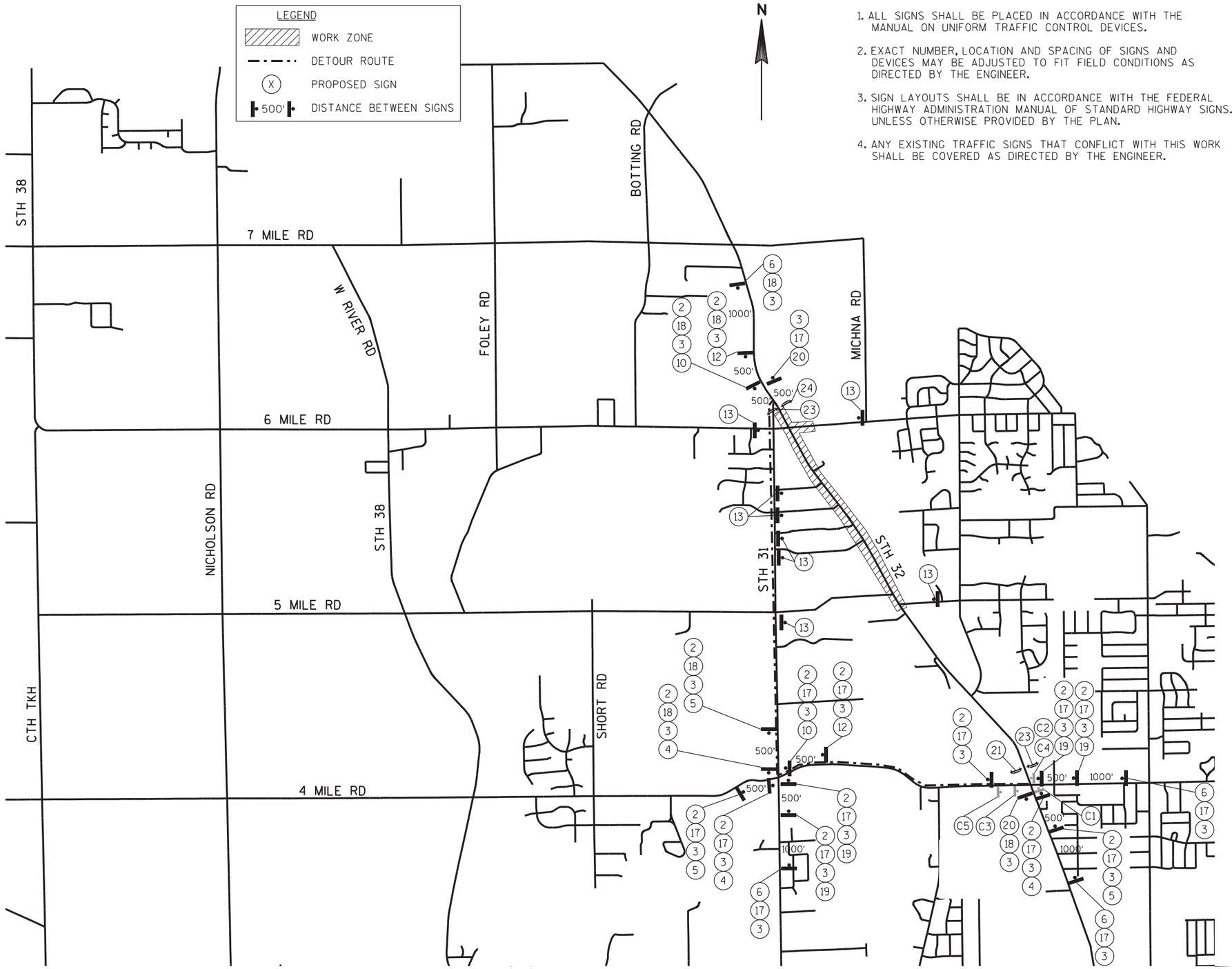
1. CONSTRUCT STH 32 AND 6 MILE ROAD EAST OF STH 32
2. INSTALL PERMANENT SIGNAL AT STH 32 AND 6 MILE ROAD AND STH 32 AND STH 31
3. NEW BOX CULVERTS SHALL BE CONSTRUCTED CONCURRENTLY TO MINIMIZE ROAD CLOSURE TO LOCALS.
4. CONSTRUCT ISLAND AT STH 32 AND STH 31 LAST, WHEN STH 32 SB TRAFFIC DOES NOT HAVE TO BE DETOURED ONTO STH 31. USE A TEMPORARY STOP SIGN ON STH 31 AT STH 32 FOR NB TRAFFIC.

STAGE 2 TRAFFIC NOTES:

CLOSE STH 32 AND 6 MILE ROAD TO THROUGH TRAFFIC, DETOUR TRAFFIC.

TRAFFIC TO USE THE STH 31 TO 4 MILE ROAD DETOUR.

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC CONTROL OVERVIEW - STAGE 2	SHEET 137 E



DETOUR GENERAL NOTES

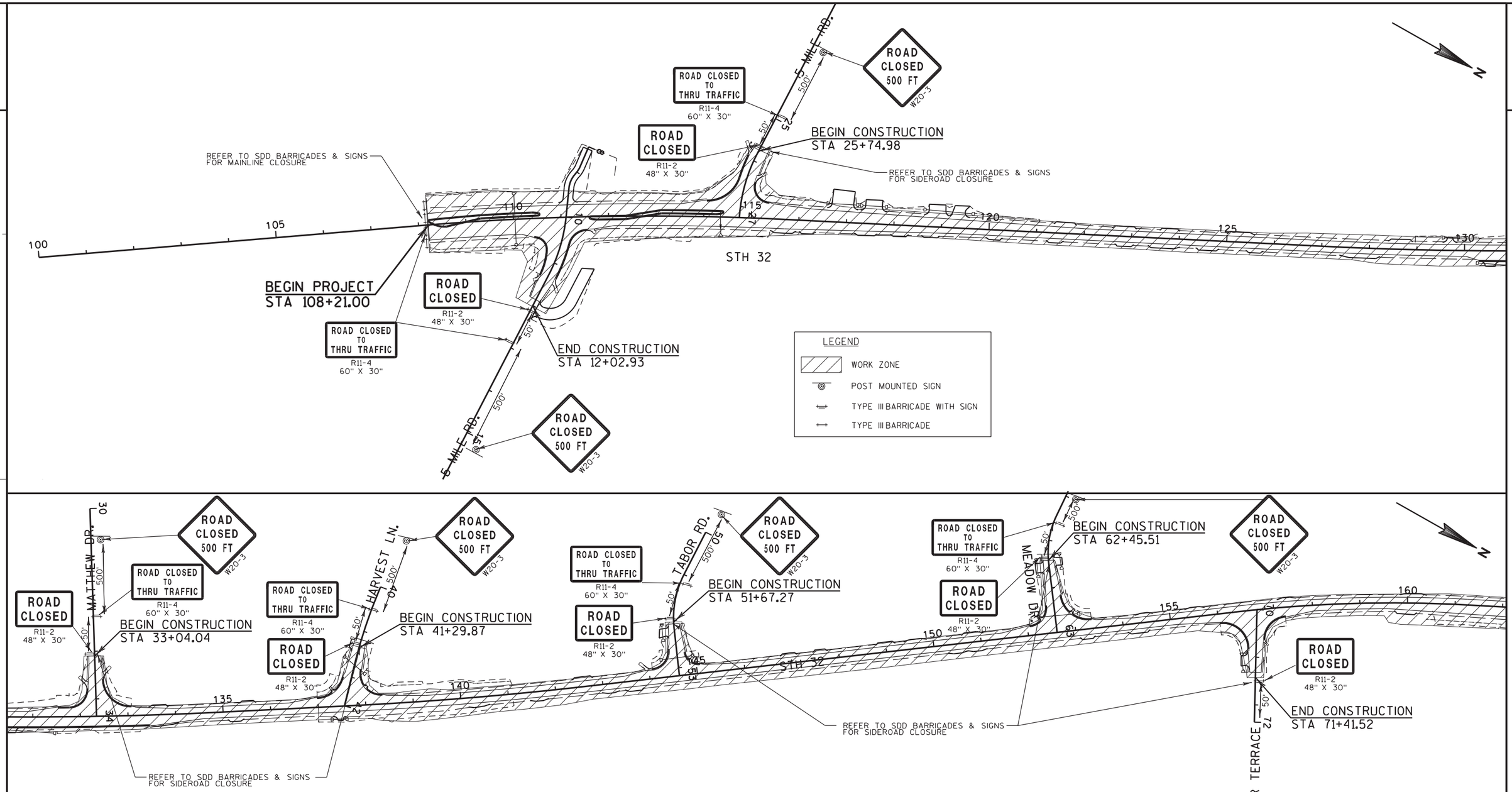
1. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
3. SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS. UNLESS OTHERWISE PROVIDED BY THE PLAN.
4. ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

(1) ROAD WORK AHEAD W20-1
(2) DETOUR M4-8 24" X 12"
(3) 32 M1-6 24" X 24"
(4) M6-1 21" X 21"
(5) M5-1L 21" X 21"
(6) DETOUR AHEAD W20-2
(8) ROAD CLOSED TO THRU TRAFFIC R11-4 60" X 30"
(10) M6-1 21" X 21"
(11) ROAD CLOSED 500 FT W20-3
(12) M5-1R 21" X 21"
(13) ROAD CLOSED AHEAD W20-3
(16) ROAD CLOSED 0.25 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60" X 30"
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(18) SOUTH M3-3 24" X 12"
(19) M6-1 21" X 21"
(20) END DETOUR M4-8A 24" X 18"
(21) ROAD CLOSED 1 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60" X 30"
(22) ROAD CLOSED R11-2 48" X 30"
(23) DETOUR M4-9L 30" X 24"
(24) ROAD CLOSED 0.5 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60" X 30"
(25) 31 M1-6 24" X 24"
(26) ROAD CLOSED 1.75 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60" X 30"

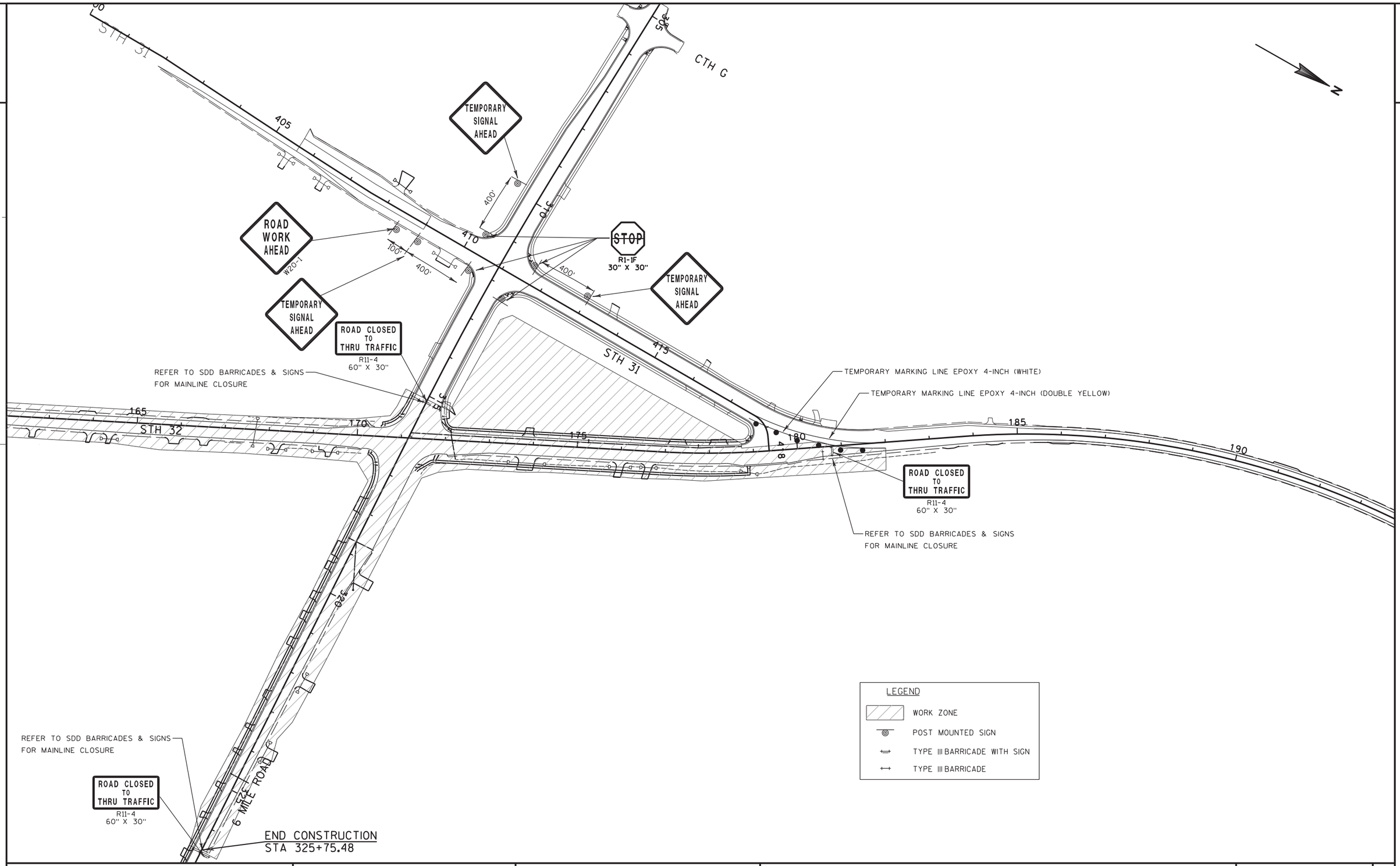
POST MOUNTED SIGN
TYPE III BARRICADE WITH SIGN
TYPE III BARRICADE

(C1) WEST COUNTY G
(C2) WEST COUNTY G
(C3) NORTH 32
(C4) NORTH 32
(C5) NORTH 32

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	DETOURS - STAGE 2	SHEET 138 E



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC CONTROL - STAGE 2	SHEET 139	E



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	TRAFFIC CONTROL - STAGE 2	SHEET 140	E

2

CURVE 1
PI STA 111+88.70
Y: 212,329.17
X: 629,228.14
DELTA = 7°38'47.85" RIGHT
D = 1°00'00.00"
T = 382.90
L = 764.66
R = 5729.58
PC STA 108+05.80
Y: 212,012.83
X: 629,443.87
PT STA 115+70.47
Y: 212,671.41
X: 629,056.42
BK: 325°42'27.13"
AH: 333°21'14.98"

CURVE 2
PI STA 130+88.98
Y: 214,028.65
X: 628,375.40
DELTA = 5°40'58.04" LEFT
D = 0°43'40.90"
T = 390.61
L = 780.57
R = 7870.00
PC STA 126+98.37
Y: 213,679.52
X: 628,550.58
PT STA 134+78.94
Y: 214,358.71
X: 628,166.52
BK: 333°21'14.98"
AH: 327°40'16.94"

CURVE 3
PI STA 140+14.72
Y: 214,811.43
X: 627,880.00
DELTA = 3°42'52.29" LEFT
D = 0°43'40.90"
T = 255.20
L = 510.22
R = 7870.00
PC STA 137+59.52
Y: 241,595.79
X: 628,016.47
PT STA 142+69.74
Y: 215,017.78
X: 627,729.84
BK: 327°40'16.94"
AH: 323°57'24.65"

CURVE 5
PI STA 8+94.57
Y: 212,243.40
X: 629,179.46
DELTA = 17°31'10.28" RIGHT
D = 1°14'35'29.61"
T = 7.70
L = 15.29
R = 50.00
PC STA 8+86.86
Y: 212,242.56
X: 629,171.81
PT STA 9+02.15
Y: 212,241.89
X: 629,187.02
BK: 83°45'37.44"
AH: 101°16'47.71"

CURVE 6
PI STA 9+23.20
Y: 212,237.77
X: 629,207.66
DELTA = 35°01'47.18" LEFT
D = 1°14'35'29.61"
T = 15.78
L = 30.57
R = 50.00
PC STA 9+07.42
Y: 212,240.86
X: 629,192.18
PT STA 9+37.99
Y: 212,244.13
X: 629,222.10
BK: 101°16'47.71"
AH: 66°15'00.53"

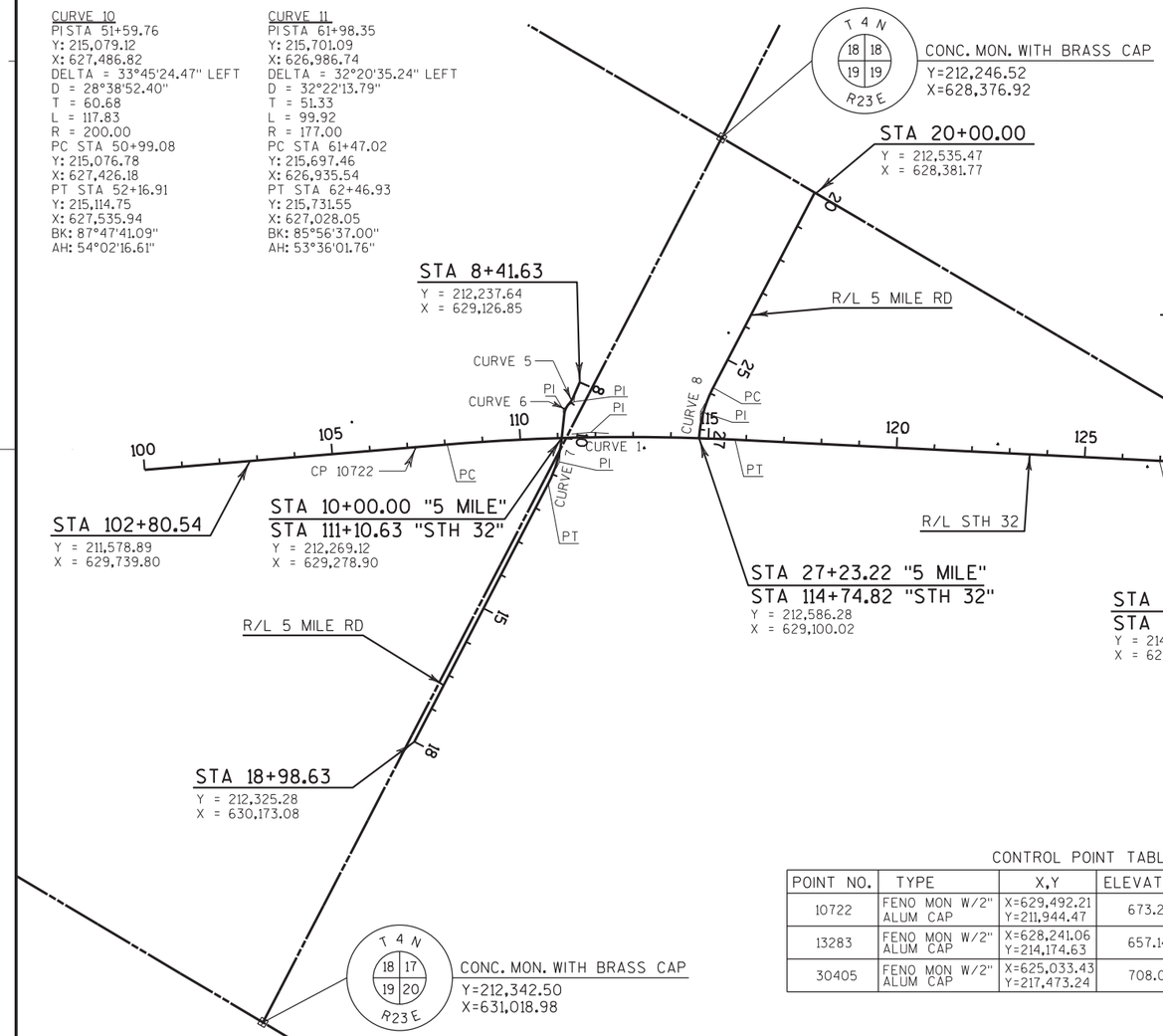
CURVE 7
PI STA 10+64.12
Y: 212,294.92
X: 629,337.55
DELTA = 21°40'10.01" RIGHT
D = 17°06'11.58"
T = 64.12
L = 126.70
R = 335.00
PC STA 10+00
Y: 212,269.10
X: 629,278.86
PT STA 11+26.70
Y: 212,297.25
X: 629,401.62
BK: 66°15'00.53"
AH: 87°55'10.54"

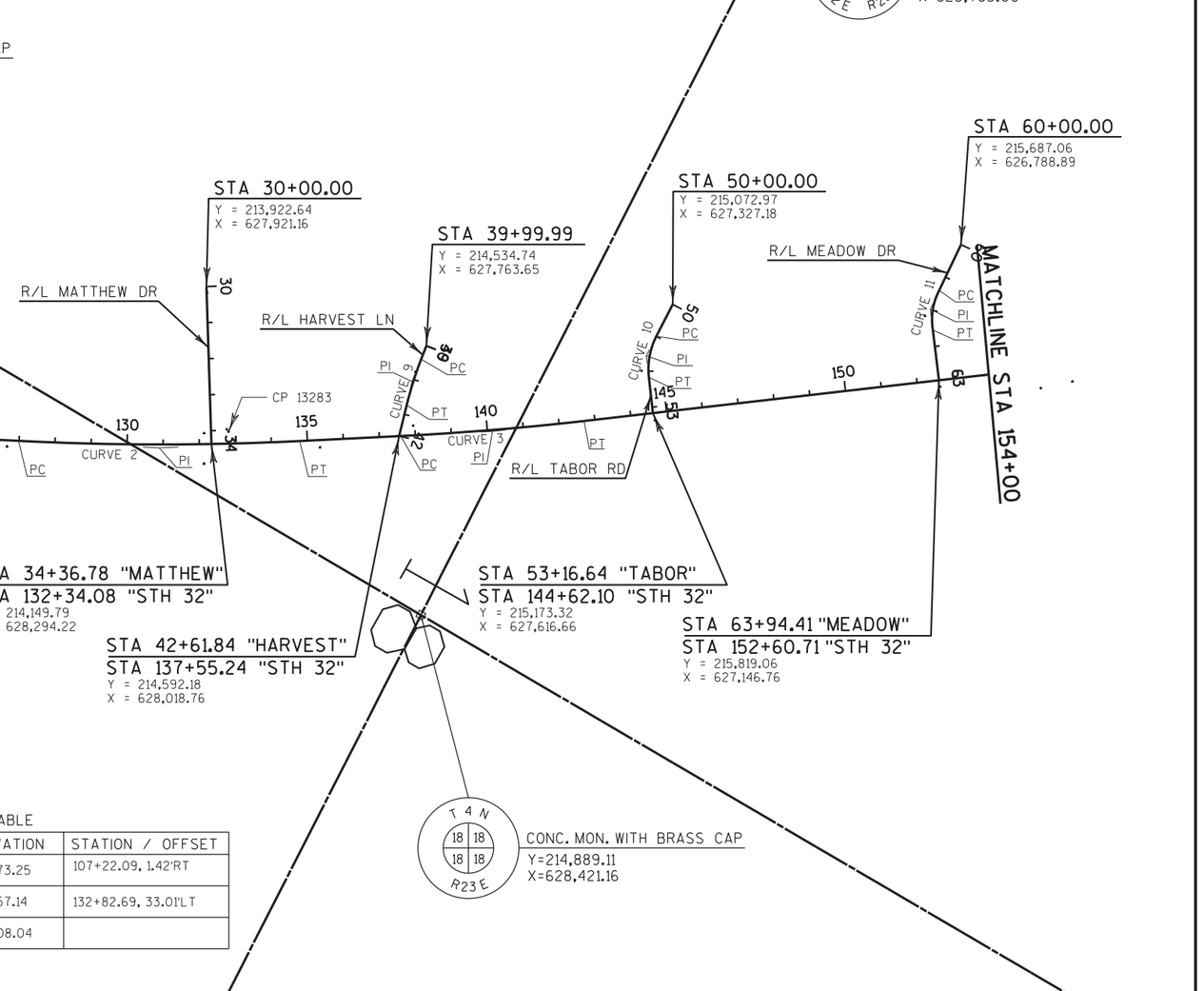
CURVE 8
PI STA 26+51.20
Y: 212,555.28
X: 629,033.03
DELTA = 22°51'46.33" LEFT
D = 17°06'11.58"
T = 67.74
L = 133.68
R = 335.00
PC STA 25+83.46
Y: 212,552.96
X: 628,965.33
PT STA 27+17.14
Y: 212,583.73
X: 629,094.50
BK: 88°02'07.14"
AH: 65°10'20.80"

CURVE 9
PI STA 41+06.66
Y: 214,549.87
X: 627,869.24
DELTA = 7°38'50.62" LEFT
D = 5°43'46.48"
T = 66.84
L = 133.47
R = 1000.00
PC STA 40+39.82
Y: 214,540.39
X: 627,803.08
PT STA 41+73.29
Y: 214,568.07
X: 627,933.55
BK: 81°50'53.46"
AH: 74°12'02.84"

CURVE 10
PI STA 51+59.76
Y: 215,079.12
X: 627,486.82
DELTA = 33°45'24.47" LEFT
D = 28°38'52.40"
T = 60.68
L = 117.83
R = 200.00
PC STA 50+99.08
Y: 215,076.78
X: 627,426.18
PT STA 52+16.91
Y: 215,114.75
X: 627,535.94
BK: 87°47'41.09"
AH: 54°02'16.61"

CURVE 11
PI STA 61+98.35
Y: 215,701.09
X: 626,986.74
DELTA = 32°20'35.24" LEFT
D = 32°22'13.79"
T = 51.33
L = 99.92
R = 177.00
PC STA 61+47.02
Y: 215,697.46
X: 626,935.54
PT STA 62+46.93
Y: 215,731.55
X: 627,028.05
BK: 85°56'37.00"
AH: 53°36'01.76"





CONTROL POINT TABLE

POINT NO.	TYPE	X,Y	ELEVATION	STATION / OFFSET
10722	FENO MON W/2" ALUM CAP	X=629,492.21 Y=211,944.47	673.25	107+22.09, 1.42'RT
13283	FENO MON W/2" ALUM CAP	X=628,241.06 Y=214,174.63	657.14	132+82.69, 33.01'LT
30405	FENO MON W/2" ALUM CAP	X=625,033.43 Y=217,473.24	708.04	

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	ALIGNMENT	SHEET 141	E

2

CURVE 4
PI STA 158+83.94
Y: 216,322.98
X: 626,780.05
DELTA = 9°41'14.96" RIGHT
D = 2°00'00.00"
T = 242.77
L = 484.37
R = 2864.79
PC STA 156+41.17
Y: 216,126.69
X: 626,922.90
PT STA 161+25.55
Y: 216,540.51
X: 626,672.28
BK: 323°57'24.65"
AH: 333°38'39.61"

CURVE 5
PI STA 178+12.50
Y: 218,052.12
X: 625,923.37
DELTA = 7°24'19.78" RIGHT
D = 3°00'00.00"
T = 123.60
L = 246.85
R = 1909.86
PC STA 176+88.91
Y: 217,941.37
X: 625,978.24
PT STA 179+35.76
Y: 218,154.87
X: 625,854.68
BK: 333°38'39.61"
AH: 326°14'19.83"

CURVE 6
PI STA 189+81.52
Y: 219,024.29
X: 625,273.51
DELTA = 35°01'28.04" RIGHT
D = 3°00'00.00"
T = 602.62
L = 1167.48
R = 1909.86
PC STA 183+78.90
Y: 218,523.29
X: 625,608.41
PT STA 195+46.38
Y: 219,626.76
X: 625,286.80
BK: 326°14'19.83"
AH: 1°15'47.88"

CURVE 12
PI STA 312+17
Y: 217,408.45
X: 625,843.83
DELTA = 5°14'24.75" LEFT
D = 0°47'36.85"
T = 330.40
L = 660.33
R = 7220.00
PC STA 308+86.66
Y: 217,422.14
X: 625,513.72
PT STA 315+47.00
Y: 217,424.98
X: 626,173.82
BK: 92°22'25.89"
AH: 87°08'01.14"

CURVE 13
PI STA 417+93.85
Y: 218,118.74
X: 625,801.69
DELTA = 55°05'09.32" RIGHT
D = 95°29'34.68"
T = 31.29
L = 57.69
R = 60.00
PC STA 417+62.56
Y: 218,087.45
X: 625,801.34
PT STA 418+20.24
Y: 218,136.37
X: 625,827.54
BK: 0°37'35.42"
AH: 55°42'44.74"

STA 300+00.00
Y = 217,458.86
X = 624,627.82

T 4 N
12 7
13 18
R22E R23E

CONC. MON. WITH BRASS CAP
Y=217,405.85
X=625,791.90
EL = 690.48

T 4 N
12 12
12 12
R22 E

CONC. MON. WITH BRASS CAP
Y=220,163.48
X=623,202.54

STA 400+00.00
Y = 216,326.10
X = 625,752.05

STA 69+99.98 "EDGAR" =
STA 156+83.33 "STH 32"
Y = 216,160.96
X = 626,898.34

R/L STH 31

STA 311+67.03 "6 MILE"
STA 410+91.03 "STH 31"
Y = 217,415.97
X = 625,794.00

R/L STH 32

MATCHLINE STA 154+00

CURVE 4

CP 15629

CURVE 5

CURVE 13

CP 17966

CURVE 6

CP 204

R/L EDGAR TERRACE

STA 72+36.29
Y = 216,273.52
X = 627,106.13

STA 316+05.87 "6 MILE"
STA 171+15.89 "STH 32"
Y = 217,427.92
X = 626,232.62

STA 418+53.09 "STH 31"
STA 179+35.76 "STH 32"
Y = 218,154.87
X = 625,854.68

R/L 6 MILE RD

CP 32789

CP 20681

STA 205+63.83
Y = 220,643.96
X = 625,309.23

STA 332+96.85
Y = 217,512.48
X = 627,921.48

T 4 N
7 7
18 18
R23 E

CONC. MON. WITH BRASS CAP
Y=217,539.50
X=628,461.01

T 4 N
12 7
12 7
R22 E R23 E

CONC. MON. WITH BRASS CAP
Y=220,029.56
X=625,828.25

CONTROL POINT TABLE

POINT NO.	TYPE	X,Y	ELEVATION	STATION / OFFSET
204	MAG NAIL	X=625,216.79 Y=219,843.08	707.47	197+61.10, 74.76'LT
15629	FENO MON W/2" ALUM CAP	X=626,967.10 Y=216,144.01	674.51	156+29.16, 45.94'RT
17966	FENO MON W/2" ALUM CAP	X=625,819.89 Y=218,167.51	702.42	179+65.60, 21.90'LT
20681	FENO MON W/2" ALUM CAP	X=625,262.54 Y=220,762.56	698.59	
32789	FENO MON W/2" ALUM CAP	X=627,411.66 Y=217,534.85	671.81	327+88.78, 47.83'LT

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	ALIGNMENT	SHEET 142	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\027202_ad.dgn PLOT DATE : 1/31/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 400.0000 sf / in.

Station	Outside Lt Lane Cross Slope	Description
102+80.56	-2.00%	Normal Crown
107+67.91	-2.00%	Normal Crown
108+13.90	-1.50%	Undefined
108+46.10	1.80%	Full Super
115+62.46	1.80%	Full Super

Station	Inside Lt Lane Cross Slope	Description
102+80.56	2.00%	Normal Crown
107+67.91	2.00%	Normal Crown
108+46.10	1.80%	Full Super
115+62.46	1.80%	Full Super

Station	Inside Rt Lane Cross Slope	Description
102+80.56	2.00%	Normal Crown
106+38.26	2.00%	Normal Crown
108+51.27	0.00%	Zero Cross Slope
110+42.07	-1.80%	Full Super
115+58.95	-1.80%	Full Super
115+87.75	0.00%	Zero Cross Slope
116+19.75	2.00%	Normal Crown

Station	Outside Rt Lane Cross Slope	Description
102+80.56	-2.00%	Normal Crown
106+38.26	-1.94%	Full Super
110+63.27	-2.00%	Normal Crown
116+19.75	-2.00%	Normal Crown

Station	Left Cross Slope	Description
118+00.00	-2.00%	Normal Crown
155+83.77	-2.00%	Normal Crown
156+42.35	2.00%	Reverse Crown
156+52.60	2.70%	Full Super
161+08.22	2.70%	Full Super
161+18.48	2.00%	Reverse Crown
161+77.07	-2.00%	Normal Crown
176+90.35	-2.00%	Normal Crown
177+10.99	-3.30%	Full Super
179+18.74	-3.30%	Full Super
179+39.38	-2.00%	Normal Crown
183+13.04	-2.00%	Normal Crown
183+76.55	2.00%	Reverse Crown
183+97.19	3.30%	Full Super
195+26.03	3.30%	Full Super
195+46.67	2.00%	Reverse Crown
196+10.18	-2.00%	Normal Crown

Station	Right Cross Slope	Description
118+00.00	-2.00%	Normal Crown
127+71.55	-2.00%	Normal Crown
128+17.45	-0.10%	Full Super
133+69.27	-0.10%	Full Super
134+15.17	-2.00%	Normal Crown
156+42.35	-2.00%	Normal Crown
156+52.60	-2.70%	Full Super
161+08.22	-2.70%	Full Super
161+18.48	-2.00%	Normal Crown
176+26.84	-2.00%	Normal Crown
176+90.35	2.00%	Reverse Crown
177+10.99	3.30%	Full Super
179+18.74	3.30%	Full Super
179+39.38	2.00%	Reverse Crown
180+02.89	-2.00%	Normal Crown
183+76.55	-2.00%	Normal Crown
183+97.19	-3.30%	Full Super
195+26.03	-3.30%	Full Super
195+46.67	-2.00%	Normal Crown

Station	Outside Lt Lane Cross Slope	Description
102+80.56	-2.00%	Normal Crown
107+67.91	-2.00%	Normal Crown
108+13.90	-1.50%	Undefined
108+46.10	1.80%	Full Super
115+62.46	1.80%	Full Super

Station	Inside Lt Lane Cross Slope	Description
102+80.56	2.00%	Normal Crown
107+67.91	2.00%	Normal Crown
108+46.10	1.80%	Full Super
115+62.46	1.80%	Full Super

Station	Inside Rt Lane Cross Slope	Description
102+80.56	2.00%	Normal Crown
106+38.26	2.00%	Normal Crown
108+51.27	0.00%	Zero Cross Slope
110+42.07	-1.80%	Full Super
115+58.95	-1.80%	Full Super
115+87.75	0.00%	Zero Cross Slope
116+19.75	2.00%	Normal Crown

Station	Outside Rt Lane Cross Slope	Description
102+80.56	-2.00%	Normal Crown
106+38.26	-1.94%	Full Super
110+63.27	-2.00%	Normal Crown
116+19.75	-2.00%	Normal Crown

Station	Left Cross Slope	Description
118+00.00	-2.00%	Normal Crown
155+83.77	-2.00%	Normal Crown
156+42.35	2.00%	Reverse Crown
156+52.60	2.70%	Full Super
161+08.22	2.70%	Full Super
161+18.48	2.00%	Reverse Crown
161+77.07	-2.00%	Normal Crown
176+90.35	-2.00%	Normal Crown
177+10.99	-3.30%	Full Super
179+18.74	-3.30%	Full Super
179+39.38	-2.00%	Normal Crown
183+13.04	-2.00%	Normal Crown
183+76.55	2.00%	Reverse Crown
183+97.19	3.30%	Full Super
195+26.03	3.30%	Full Super
195+46.67	2.00%	Reverse Crown
196+10.18	-2.00%	Normal Crown

Station	Right Cross Slope	Description
118+00.00	-2.00%	Normal Crown
127+71.55	-2.00%	Normal Crown
128+17.45	-0.10%	Full Super
133+69.27	-0.10%	Full Super
134+15.17	-2.00%	Normal Crown
156+42.35	-2.00%	Normal Crown
156+52.60	-2.70%	Full Super
161+08.22	-2.70%	Full Super
161+18.48	-2.00%	Normal Crown
176+26.84	-2.00%	Normal Crown
176+90.35	2.00%	Reverse Crown
177+10.99	3.30%	Full Super
179+18.74	3.30%	Full Super
179+39.38	2.00%	Reverse Crown
180+02.89	-2.00%	Normal Crown
183+76.55	-2.00%	Normal Crown
183+97.19	-3.30%	Full Super
195+26.03	-3.30%	Full Super
195+46.67	-2.00%	Normal Crown

2350-09-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	44.000	44.000
0004	201.0205	Grubbing	STA	44.000	44.000
0006	203.0100	Removing Small Pipe Culverts	EACH	60.000	60.000
0008	203.0200	Removing Old Structure (station) 01. 131+67	LS	1.000	1.000
0010	203.0200	Removing Old Structure (station) 01. 138+57	LS	1.000	1.000
0012	204.0100	Removing Pavement	SY	12,072.000	12,072.000
0014	204.0110	Removing Asphaltic Surface	SY	722.000	722.000
0016	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,299.000	1,299.000
0018	204.0120	Removing Asphaltic Surface Milling	SY	35,370.000	35,370.000
0020	204.0150	Removing Curb & Gutter	LF	2,985.000	2,985.000
0022	204.0165	Removing Guardrail	LF	456.000	456.000
0024	204.0195	Removing Concrete Bases	EACH	9.000	9.000
0026	204.0210	Removing Manholes	EACH	2.000	2.000
0028	204.0220	Removing Inlets	EACH	5.000	5.000
0030	204.0245	Removing Storm Sewer (size) 01. 12"	LF	46.000	46.000
0032	204.9105.S	Removing (item description) 07. Remove Traffic Signals (STH 32 & 6 Mile Road)	LS	1.000	1.000
0034	204.9105.S	Removing (item description) 08. Remove Loop Detector Wire & Lead-in Cable (STH 32 & 6 Mile Road)	LS	1.000	1.000
0036	205.0100	Excavation Common	CY	36,645.000	36,645.000
0038	206.2000	Excavation for Structures Culverts (structure) 01. C-51-81	LS	1.000	1.000
0040	206.2000	Excavation for Structures Culverts (structure) 02. C-51-82	LS	1.000	1.000
0042	208.2110.S	Fly Ash Subgrade Stabilization	SY	38,406.000	38,406.000
0044	210.2500	Backfill Structure Type B	TON	940.000	940.000
0046	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	81.000	81.000
0048	213.0100	Finishing Roadway (project) 01. 2350-09-71	EACH	1.000	1.000
0050	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,622.000	2,622.000
0052	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	32,042.000	32,042.000
0054	311.0110	Breaker Run	TON	2,250.000	2,250.000
0056	390.0203	Base Patching Asphaltic	SY	3,263.000	3,263.000
0058	416.0260	Concrete Driveway HES 6-Inch	SY	787.000	787.000
0060	416.1010	Concrete Surface Drains	CY	11.000	11.000
0062	455.0605	Tack Coat	GAL	8,125.000	8,125.000
0064	460.2000	Incentive Density HMA Pavement	DOL	12,538.000	12,538.000
0066	460.5223	HMA Pavement 3 LT 58-28 S	TON	12,872.000	12,872.000
0068	460.5224	HMA Pavement 4 LT 58-28 S	TON	6,651.000	6,651.000
0070	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	374.000	374.000
0072	465.0125	Asphaltic Surface Temporary	TON	5.000	5.000
0074	465.0315	Asphaltic Flumes	SY	160.000	160.000

2350-09-71

Line	Item	Item Description	Unit	Total	Qty
0076	504.0100	Concrete Masonry Culverts	CY	207.000	207.000
0078	505.0400	Bar Steel Reinforcement HS Structures	LB	28,120.000	28,120.000
0080	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	3,330.000	3,330.000
0082	516.0500	Rubberized Membrane Waterproofing	SY	40.000	40.000
0084	521.1717	Apron Endwalls for Pipe Arch Sloped Side Drains Steel 17x13-Inch 6 to 1	EACH	38.000	38.000
0086	521.1721	Apron Endwalls for Pipe Arch Sloped Side Drains Steel 21x15-Inch 6 to 1	EACH	16.000	16.000
0088	521.1742	Apron Endwalls for Pipe Arch Sloped Side Drains Steel 42x29-Inch 6 to 1	EACH	2.000	2.000
0090	521.1749	Apron Endwalls for Pipe Arch Sloped Side Drains Steel 49x33-Inch 6 to 1	EACH	2.000	2.000
0092	521.3717	Pipe Arch Corrugated Steel 17x13-Inch	LF	776.000	776.000
0094	521.3721	Pipe Arch Corrugated Steel 21x15-Inch	LF	358.000	358.000
0096	521.3742	Pipe Arch Corrugated Steel 42x29-Inch	LF	40.000	40.000
0098	521.3749	Pipe Arch Corrugated Steel 49x33-Inch	LF	44.000	44.000
0100	522.0412	Culvert Pipe Reinforced Concrete Class IV 12-Inch	LF	79.000	79.000
0102	522.0418	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	50.000	50.000
0104	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	37.000	37.000
0106	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	6.000	6.000
0108	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	2.000	2.000
0110	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0112	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	3.000	3.000
0114	522.2314	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 14x23-Inch	LF	62.000	62.000
0116	522.2329	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 29x45-Inch	LF	58.000	58.000
0118	522.2614	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 14x23-Inch	EACH	2.000	2.000
0120	522.2629	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	EACH	2.000	2.000
0122	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	8,291.000	8,291.000
0124	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	1,493.000	1,493.000
0126	602.0410	Concrete Sidewalk 5-Inch	SF	1,940.000	1,940.000
0128	606.0100	Riprap Light	CY	2.000	2.000
0130	606.0300	Riprap Heavy	CY	60.000	60.000
0132	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	741.000	741.000

2350-09-71

Line	Item	Item Description	Unit	Total	Qty
0134	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	2,553.000	2,553.000
0136	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	692.000	692.000
0138	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	173.000	173.000
0140	611.0420	Reconstructing Manholes	EACH	7.000	7.000
0142	611.0430	Reconstructing Inlets	EACH	2.000	2.000
0144	611.0530	Manhole Covers Type J	EACH	16.000	16.000
0146	611.0612	Inlet Covers Type C	EACH	2.000	2.000
0148	611.0636	Inlet Covers Type HM-S	EACH	29.000	29.000
0150	611.1003	Catch Basins 3-FT Diameter	EACH	2.000	2.000
0152	611.1230	Catch Basins 2x3-FT	EACH	29.000	29.000
0154	611.2005	Manholes 5-FT Diameter	EACH	16.000	16.000
0156	611.8110	Adjusting Manhole Covers	EACH	44.000	44.000
0158	611.8120.S	Cover Plates Temporary	EACH	43.000	43.000
0160	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	24.000	24.000
0162	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	140.000	140.000
0164	612.0600	Underdrain Trench	LF	1,186.000	1,186.000
0166	614.2300	MGS Guardrail 3	LF	237.500	237.500
0168	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0170	616.0205	Fence Chain Link 5-FT	LF	139.000	139.000
0172	618.0100	Maintenance And Repair of Haul Roads (project) 01. 2350-09-71	EACH	1.000	1.000
0174	619.1000	Mobilization	EACH	1.000	1.000
0176	620.0300	Concrete Median Sloped Nose	SF	346.000	346.000
0178	624.0100	Water	MGAL	308.000	308.000
0180	625.0100	Topsoil	SY	38,290.000	38,290.000
0182	627.0200	Mulching	SY	38,290.000	38,290.000
0184	628.1504	Silt Fence	LF	355.000	355.000
0186	628.1520	Silt Fence Maintenance	LF	355.000	355.000
0188	628.1905	Mobilizations Erosion Control	EACH	16.000	16.000
0190	628.1910	Mobilizations Emergency Erosion Control	EACH	9.000	9.000
0192	628.2004	Erosion Mat Class I Type B	SY	38,555.000	38,555.000
0194	628.6510	Soil Stabilizer Type B	ACRE	7.860	7.860
0196	628.7005	Inlet Protection Type A	EACH	21.000	21.000
0198	628.7010	Inlet Protection Type B	EACH	4.000	4.000
0200	628.7015	Inlet Protection Type C	EACH	26.000	26.000
0202	628.7020	Inlet Protection Type D	EACH	23.000	23.000
0204	628.7504	Temporary Ditch Checks	LF	609.000	609.000
0206	628.7515.S	Stone or Rock Ditch Checks	CY	9.000	9.000

2350-09-71

Line	Item	Item Description	Unit	Total	Qty
0208	628.7555	Culvert Pipe Checks	EACH	138.000	138.000
0210	629.0210	Fertilizer Type B	CWT	24.060	24.060
0212	630.0130	Seeding Mixture No. 30	LB	480.000	480.000
0214	630.0140	Seeding Mixture No. 40	LB	204.000	204.000
0216	630.0200	Seeding Temporary	LB	1,039.000	1,039.000
0218	631.1000	Sod Lawn	SY	125.000	125.000
0220	633.5200	Markers Culvert End	EACH	10.000	10.000
0222	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	182.000	182.000
0224	637.2210	Signs Type II Reflective H	SF	1,128.868	1,128.868
0226	637.2215	Signs Type II Reflective H Folding	SF	52.220	52.220
0228	637.2230	Signs Type II Reflective F	SF	339.750	339.750
0230	638.2102	Moving Signs Type II	EACH	8.000	8.000
0232	638.2602	Removing Signs Type II	EACH	47.000	47.000
0234	638.3000	Removing Small Sign Supports	EACH	57.000	57.000
0236	641.8100	Overhead Sign Support (structure) 01. S-51-610	LS	1.000	1.000
0238	642.5001	Field Office Type B	EACH	1.000	1.000
0240	643.0300	Traffic Control Drums	DAY	1,363.000	1,363.000
0242	643.0420	Traffic Control Barricades Type III	DAY	5,223.000	5,223.000
0244	643.0705	Traffic Control Warning Lights Type A	DAY	10,466.000	10,466.000
0246	643.0900	Traffic Control Signs	DAY	22,284.000	22,284.000
0248	643.0920	Traffic Control Covering Signs Type II	EACH	9.000	9.000
0250	643.1050	Traffic Control Signs PCMS	DAY	810.000	810.000
0252	643.5000	Traffic Control	EACH	1.000	1.000
0254	645.0105	Geotextile Type C	SY	350.000	350.000
0256	645.0111	Geotextile Type DF Schedule A	SY	1,858.000	1,858.000
0258	645.0120	Geotextile Type HR	SY	150.000	150.000
0260	645.0130	Geotextile Type R	SY	59.000	59.000
0262	645.0140	Geotextile Type SAS	SY	28.000	28.000
0264	646.1020	Marking Line Epoxy 4-Inch	LF	33,060.000	33,060.000
0266	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	30,454.000	30,454.000
0268	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	4,528.000	4,528.000
0270	646.5020	Marking Arrow Epoxy	EACH	64.000	64.000
0272	646.5120	Marking Word Epoxy	EACH	10.000	10.000
0274	646.5220	Marking Symbol Epoxy	EACH	8.000	8.000
0276	646.6120	Marking Stop Line Epoxy 18-Inch	LF	601.000	601.000
0278	646.7120	Marking Diagonal Epoxy 12-Inch	LF	2,222.000	2,222.000
0280	646.8120	Marking Curb Epoxy	LF	50.000	50.000
0282	646.8220	Marking Island Nose Epoxy	EACH	5.000	5.000
0284	646.9000	Marking Removal Line 4-Inch	LF	450.000	450.000
0286	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	1,125.000	1,125.000

2350-09-71

Line	Item	Item Description	Unit	Total	Qty
0288	650.4000	Construction Staking Storm Sewer	EACH	54.000	54.000
0290	650.4500	Construction Staking Subgrade	LF	6,209.000	6,209.000
0292	650.5000	Construction Staking Base	LF	6,209.000	6,209.000
0294	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	7,934.000	7,934.000
0296	650.6000	Construction Staking Pipe Culverts	EACH	26.000	26.000
0298	650.6500	Construction Staking Structure Layout (structure) 01. C-51-81	LS	1.000	1.000
0300	650.6500	Construction Staking Structure Layout (structure) 02. C-51-82	LS	1.000	1.000
0302	650.8000	Construction Staking Resurfacing Reference	LF	8,496.000	8,496.000
0304	650.8500	Construction Staking Electrical Installations (project) 01. STH 32 & 6 Mile Rd	LS	1.000	1.000
0306	650.8500	Construction Staking Electrical Installations (project) 02. STH 32 & STH31	LS	1.000	1.000
0308	650.9910	Construction Staking Supplemental Control (project) 01. 2350-096-71	LS	1.000	1.000
0310	650.9920	Construction Staking Slope Stakes	LF	6,209.000	6,209.000
0312	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	2,458.000	2,458.000
0314	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	2,265.000	2,265.000
0316	652.0800	Conduit Loop Detector	LF	2,814.000	2,814.000
0318	653.0135	Pull Boxes Steel 24x36-Inch	EACH	15.000	15.000
0320	653.0140	Pull Boxes Steel 24x42-Inch	EACH	17.000	17.000
0322	653.0905	Removing Pull Boxes	EACH	14.000	14.000
0324	654.0101	Concrete Bases Type 1	EACH	9.000	9.000
0326	654.0102	Concrete Bases Type 2	EACH	1.000	1.000
0328	654.0105	Concrete Bases Type 5	EACH	1.000	1.000
0330	654.0110	Concrete Bases Type 10	EACH	2.000	2.000
0332	654.0113	Concrete Bases Type 13	EACH	4.000	4.000
0334	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	2.000	2.000
0336	655.0230	Cable Traffic Signal 5-14 AWG	LF	715.000	715.000
0338	655.0240	Cable Traffic Signal 7-14 AWG	LF	1,337.000	1,337.000
0340	655.0260	Cable Traffic Signal 12-14 AWG	LF	2,567.000	2,567.000
0342	655.0320	Cable Type UF 2-10 AWG Grounded	LF	1,305.000	1,305.000
0344	655.0510	Electrical Wire Traffic Signals 12 AWG	LF	844.000	844.000
0346	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	2,904.000	2,904.000
0348	655.0610	Electrical Wire Lighting 12 AWG	LF	1,098.000	1,098.000
0350	655.0700	Loop Detector Lead In Cable	LF	10,395.000	10,395.000
0352	655.0800	Loop Detector Wire	LF	9,798.000	9,798.000
0354	655.0900	Traffic Signal EVP Detector Cable	LF	1,804.000	1,804.000
0356	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. (S51-0235)	LS	1.000	1.000

2350-09-71

Line	Item	Item Description	Unit	Total	Qty
0358	656.0200	Electrical Service Meter Breaker Pedestal (location) 02. (S51-1416)	LS	1.000	1.000
0360	657.0100	Pedestal Bases	EACH	9.000	9.000
0362	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	2.000	2.000
0364	657.0310	Poles Type 3	EACH	1.000	1.000
0366	657.0322	Poles Type 5-Aluminum	EACH	1.000	1.000
0368	657.0350	Poles Type 10	EACH	2.000	2.000
0370	657.0360	Poles Type 13	EACH	4.000	4.000
0372	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	4.000	4.000
0374	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	5.000	5.000
0376	657.0530	Monotube Arms 30-FT	EACH	2.000	2.000
0378	657.0540	Monotube Arms 40-FT	EACH	1.000	1.000
0380	657.0545	Monotube Arms 45-FT	EACH	1.000	1.000
0382	657.0555	Monotube Arms 55-FT	EACH	2.000	2.000
0384	657.0609	Luminaire Arms Single Member 4-Inch Clamp 6-FT	EACH	1.000	1.000
0386	657.0610	Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	EACH	1.000	1.000
0388	657.0815	Luminaire Arms Steel 15-FT	EACH	6.000	6.000
0390	658.0173	Traffic Signal Face 3S 12-Inch	EACH	21.000	21.000
0392	658.0174	Traffic Signal Face 4S 12-Inch	EACH	10.000	10.000
0394	658.5069	Signal Mounting Hardware (location) 01. STH 32 & 6 Mile Road	LS	1.000	1.000
0396	658.5069	Signal Mounting Hardware (location) 02. STH 31 & STH 32	LS	1.000	1.000
0398	659.1125	Luminaires Utility LED C	EACH	8.000	8.000
0400	661.0200	Temporary Traffic Signals for Intersections (location) 09. STH 31 & 6 Mile Road	LS	1.000	1.000
0402	670.0100	Field System Integrator	LS	1.000	1.000
0404	670.0200	ITS Documentation	LS	1.000	1.000
0406	671.0122	Conduit HDPE 2-Duct 2-Inch	LF	730.000	730.000
0408	673.0105	Communication Vault Type 1	EACH	2.000	2.000
0410	678.0036	Install Fiber Optic Cable Outdoor Plant 36-CT	LF	730.000	730.000
0412	678.0200	Fiber Optic Splice Enclosure	EACH	2.000	2.000
0414	678.0500	Communication System Testing	LS	1.000	1.000
0416	678.0600	Install Ethernet Switches	EACH	2.000	2.000
0418	678.0700	Install Wireless Antennas	EACH	1.000	1.000
0420	678.0800	Install Cellular Modems	EACH	1.000	1.000
0422	690.0150	Sawing Asphalt	LF	3,241.000	3,241.000
0424	690.0250	Sawing Concrete	LF	4,802.000	4,802.000
0426	715.0502	Incentive Strength Concrete Structures	DOL	1,242.000	1,242.000
0428	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0430	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	3,600.000	3,600.000

2350-09-71

Line	Item	Item Description	Unit	Total	Qty
0432	SPV.0060	Special 01. Connect to Existing Water Main	EACH	4.000	4.000
0434	SPV.0060	Special 02. Reconnect Sanitary Sewer Service	EACH	1.000	1.000
0436	SPV.0060	Special 03. Clean Sanitary Manhole	EACH	2.000	2.000
0438	SPV.0060	Special 04. Install Manhole Frame and Lid	EACH	3.000	3.000
0440	SPV.0060	Special 05. External Chimney Seal	EACH	3.000	3.000
0442	SPV.0060	Special 06. Grout Sanitary Manhole	EACH	2.000	2.000
0444	SPV.0060	Special 07. Connect to Existing Sanitary Sewer	EACH	5.000	5.000
0446	SPV.0090	Special 01. Heavy Duty Silt Fence	LF	125.000	125.000
0448	SPV.0090	Special 02. Fiber Optic Warning Tape	LF	826.000	826.000
0450	SPV.0090	Special 03. Ditching & Shaping	LF	800.000	800.000
0452	SPV.0090	Special 04. Insulate Existing Water Main (Spoil Backfill)	LF	38.000	38.000
0454	SPV.0090	Special 05. 12-Inch PVC Water Main (Granular Backfill)	LF	15.000	15.000
0456	SPV.0090	Special 06. 12-Inch PVC Water Main (Spoil Backfill)	LF	132.000	132.000
0458	SPV.0090	Special 07. Insulate Existing Water Main (Granular Backfill)	LF	14.000	14.000
0460	SPV.0090	Special 08. 12" PVC Sanitary Sewer	LF	154.000	154.000
0462	SPV.0090	Special 09. 15" PVC Sanitary Sewer	LF	90.000	90.000
0464	SPV.0090	Special 10. Concrete Encasement of Sanitary Sewer	LF	65.000	65.000
0466	SPV.0090	Special 11. Final CCTV	LF	244.000	244.000
0468	SPV.0105	Special 01. Transport & Install State Furnished Traffic Signal Cabinet (STH 32 & 6 Mile	LS	1.000	1.000
0470	SPV.0105	Special 02. Transport & Install State Furnished Traffic Signal Cabinet (STH 31 & STH 32)	LS	1.000	1.000
0472	SPV.0105	Special 05. EVP Detector Head Installation (STH 32 & 6 Mile Rd)	LS	1.000	1.000
0474	SPV.0105	Special 06. EVP Detector Head Installation (STH 31 & STH 32)	LS	1.000	1.000
0476	SPV.0105	Special 07. Temporary Diversion Channel For Structure C-51-81	LS	1.000	1.000
0478	SPV.0105	Special 08. Temporary Diversion Channel For Structure C-51-82	LS	1.000	1.000
0480	SPV.0195	Special 01. Management of Solid Waste	TON	1,050.000	1,050.000
0482	SPV.0200	Special 01. 48" Sanitary Sewer Manhole	VF	25.000	25.000
0484	SPV.0200	Special 02. 72" Sanitary Sewer Manhole	VF	11.000	11.000

CLEARING AND GRUBBING ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	2	STH 32					
			117+00	-	119+00	2	2
			120+00	-	121+00	1	1
			130+00	-	132+00	2	2
			137+00	-	140+00	3	3
			143+00	-	148+00	5	5
			152+00	-	154+00	2	2
			161+00	-	166+00	5	5
			172+00	-	177+00	5	5
			179+00	-	185+00	6	6
					SUBTOTAL	31	31
	1	6 MILE RD					
			307+00	-	311+00	4	4
			312+00	-	315+00	3	3
	2		319+00	-	320+00	1	1
			322+00	-	323+00	1	1
					SUBTOTAL	9	9
	1	STH 31					
			412+00	-	416+00	4	4
					SUBTOTAL	4	4
		TOTALS				44	44

REMOVING ASPHALTIC SURFACE

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0120 REMOVING ASPHALTIC SURFACE MILING SY
0010	2	STH 32						
			115+40	-	131+53	LT/RT	269	6,680
			132+19	-	136+99	LT/RT	--	2,190
			141+10	-	167+50	LT/RT	41	12,000
			173+60	-	205+56	LT/RT	--	13,500
						SUBTOTAL	310	34,370
	1	STH 31						
			406+37	-	409+00	LT/RT	--	1,000
			417+93	-	418+38	ISLAND	412	1,000
						SUBTOTAL	412	1,000
		TOTALS					722	35,370

REMOVING SMALL PIPE CULVERTS

CATEGORY	STAGE	ROADWAY	STATION	O/S	203.0100 REMOVING SMALL PIPE CULVERTS EACH	DESCRIPTION
0010	2	STH 32				
			110+60	LT/RT	2	24" CMP
			111+92	LT	1	15" CMP
			113+54	RT	1	13"X17" CMP
			116+90	LT	1	13"X17" CMP
			117+56	LT	1	18" CMP
			118+88	LT	1	15" CMP
			118+81	RT	1	18" CMP
			118+42	LT	1	15" CMP
			121+40	RT	1	15" CMP
			122+08	LT	1	18" CMP
			123+81	LT	1	15" CMP
			126+21	LT	1	18" CMP
			129+76	LT	1	18" CMP
			131+01	RT	1	18" CMP
			132+36	LT	1	42"X29" CMP
			137+46	RT	1	18" CMP
			137+79	LT	1	18" CMP
			144+62	LT	1	21"X15" CMP
			152+63	LT	1	12" CMP
			160+00	RT	1	12" CMP
			164+42	RT	1	12" CMP
			167+70	LT/RT	1	2'X2' BOX
			168+21	RT	1	15" CMP
			171+71	LT	1	15" CMP
			172+68	LT	1	15" CMP
			173+88	LT	1	15" CMP
			176+65	RT	1	12" CMP
				SUBTOTAL	28	
	1	6 MILE RD				
			305+16	RT	1	15" CMP
			305+34	LT	1	18" CMP
			309+43	LT	1	12" CMP
			311+67	LT	1	30" CMP
			311+71	RT	1	30" CMP
			314+06	RT	1	15" CMP
			315+09	LT	1	30" CMP
			316+01	LT	1	36" CMP
			316+43	LT	1	36" CMP
			319+43	LT	1	29"X42" CMP
			319+44	RT	1	10"X12" CMP
			320+21	RT	1	10"X12" CMP
			320+71	RT	1	13"X17" CMP
			321+36	RT	1	13"X17" CMP
			322+12	LT	1	29"X42" CMP
			322+68	RT	1	13"X17" CMP
			323+52	RT	1	15" CMP
			323+88	LT	1	33"X49" CMP
			324+15	RT	1	15" CMP
			325+01	RT	1	18" CMP
			325+76	RT	1	18" CMP
			326+77	RT	1	18" CMP
				SUBTOTAL	22	
	1	STH 31				
			405+50	RT	1	18" CMP
			406+48	RT	1	18" CMP
			408+11	LT	1	18" CMP
			409+74	RT	1	18" CMP
			413+64	LT	1	18" CMP
			414+90	RT	1	18" CMP
				SUBTOTAL	6	
	2	TABOR				
			52+24	RT	1	12" CMP
				SUBTOTAL	1	
	2	MEADOW				
			62+46	LT	1	10"X15" CMP
			62+56	RT	1	10"X12" CMP
				SUBTOTAL	2	
	2	EDGAR				
			71+07	RT	1	18" CMP
				SUBTOTAL	1	
		TOTALS			60	

3

REMOVING PAVEMENT BUTT JOINTS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY
0010	2	STH 32					
			115+40	-	202+85	DRIVEWAYS	672
						SUBTOTAL	672
	2	MATTHEW DRIVE					
			33+10	-	34+25	LT/RT	344
						SUBTOTAL	344
	1	STH 31					
			405+62	-	406+37	LT/RT	283
						SUBTOTAL	283
		TOTALS					1,299

PAVEMENT REMOVALS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	204.0150 REMOVING CURB & GUTTER LF	204.0100 REMOVING PAVEMENT SY
0010	2	STH 32						
			108+20	-	121+05	LT/RT	513	5,150
			128+96	-	133+45	LT/RT	350	782
			136+99	-	141+10	LT/RT	--	1,700
			160+53	-	185+66	LT/RT	651	4,440
						SUBTOTAL	1,514	12,072
	1	STH 31						
			410+23	-	411+48	LT/RT	421	--
			415+33	-	418+36	LT/RT	1,050	--
						SUBTOTAL	1,471	--
		TOTALS					2,985	12,072

3

REMOVING GUARDRAIL

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	204.0165 REMOVING GUARDRAIL LF
0010	2	STH 32					
			130+98	-	132+12	LT/RT	227
			137+84	-	139+36	LT/RT	229
		TOTAL					456

REMOVING INLETS

CATEGORY	STAGE	ROADWAY	STATION	O/S	204.0220 REMOVING INLETS EACH
0010	2	STH 32			
			108+99	RT	1
			110+78	RT	1
			171+19	RT	1
			171+41	LT	1
			179+90	LT	1
		TOTAL			5

REMOVING STORM SEWER 12-INCH

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	204.0245 REMOVING STORM SEWER 12-INCH LF
0010	2	STH 32					
			108+99	-	108+99	RT	46
		TOTAL					46

EARTHWORK SUMMARY

Category	From/To Station	Location	205.0100 Common Excavation (CY) (1) Cut	205.0100 Common Excavation (CY) (1) Undistributed EBS (3)	Salvaged/ Unusable Pavement Material (2)	Available Material (4)	Reduced EBS in Fill (5) Factor 0.80	Unexpanded Fill	Expanded Fill Factor 1.20	Mass Ordinate +/- (7)	Waste	Comment:
0010	304+66 to 315+00	6 MILE ROAD	6,740	--	--	6,740	--	624	749	5,991	5,991	STAGE 1
0010	401+92 to 418+41	STH 31	6,715	--	--	6,715	--	1,414	1,697	5,018	5,018	STAGE 1
SUBTOTAL (STAGE 1)			13,455								11,009	
0010	108+21 to 185+37	STH 32	13,832	--	3,273	10,559	--	1,193	1,432	9,127	9,127	STAGE 2
0010	315+00 to 327+94	6 MILE ROAD	8,358	--	--	8,358	--	374	449	7,909	7,909	STAGE 2
0010		UNDISTRIBUTED	--	1,000	--	--	800	--	-960	960	960	STAGE 2
SUBTOTAL (STAGE 2)			23,189								17,995	
Grand Total			**36,645**								**29,004**	

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Available Material = Cut - Salvaged/Unusuable Pavement Material
7) 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.

3

CONCRETE CURB & GUTTER

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	416.1010 CONCRETE SURFACE DRAINS CY	465.0315 ASPHALTIC FLUMES SY	601.0415 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF
0010	2	STH 32									
			108+21	-	114+42	LT/RT	--	--	1,040	--	--
			130+30	-	133+45	RT	3	--	--	316	24
			172+19	-	179+74	LT/RT	--	17	751	--	--
						SUBTOTAL	3	17	1,791	316	24
	2	5 MILE RD EAST									
			10+25	-	12+02	LT/RT	--	26	--	224	--
						SUBTOTAL	--	26	--	224	--
	2	5 MILE RD WEST									
			25+74	-	26+85	LT/RT	--	33	--	199	--
						SUBTOTAL	--	33	--	199	--
	2	MATTHEW DRIVE									
			33+04	-	34+20	LT/RT	--	33	--	176	--
						SUBTOTAL	--	33	--	176	--
	2	HARVEST LN									
			41+29	-	42+40	LT/RT	3	--	--	159	--
						SUBTOTAL	3	--	--	159	--
	2	TABOR									
			51+66	-	53+00	LT/RT	2	17	--	105	--
						SUBTOTAL	2	17	--	105	--
	2	MEADOW DR									
			62+38	-	63+76	LT/RT	3	--	--	155	--
						SUBTOTAL	3	--	--	155	--
	2	EDGAR TER									
			70+20	-	71+37	LT/RT	--	33	--	159	--
						SUBTOTAL	--	33	--	159	--
		6 MILE RD									
	1		304+65	-	315+83	LT/RT	--	--	3,180	--	--
	2		316+40	-	327+95	LT/RT	--	--	1,470	--	--
						SUBTOTAL	--	--	4,650	--	--
	1	STH 31									
			411+220	-	418+35	LT/RT	--	--	1,850	--	--
						SUBTOTAL	--	--	1,850	--	--
		TOTALS					11	160	8,291	1,493	24

BASE AGGREGATE ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	208.2110.S FLY ASH SUBGRADE STABILIZATION SY	305.0110 BASE AGGREGATE DENSE ¾-INCH TON	305.0120 BASE AGGREGATE DENSE 1¼-INCH TON	624.0100 WATER MGAL
0010	2	STH 32								
			108+21	-	136+99	LT/RT	7,510	962	6,480	62
			136+99	-	141+10	LT/RT	2,260	104	2,030	19
			141+10	-	185+50	LT/RT	7,700	718	6,390	61
			185+50	-	205+56	LT/RT	--	267	--	--
						SUBTOTAL	17,470	2,051	14,900	143
	2	TABOR								
			51+66	-	53+00	LT/RT	474	27	415	4
						SUBTOTAL	474	27	415	4
	2	MEADOW DR								
			62+38	-	63+76	LT/RT	552	24	478	5
						SUBTOTAL	552	24	478	5
	2	EDGAR TER								
			70+20	-	71+37	LT/RT	519	13	439	4
						SUBTOTAL	519	13	439	4
		6 MILE RD								
1			304+65	-	315+83	LT/RT	6,400	53	5,330	51
2			316+40	-	327+95	LT/RT	6,400	306	5,090	49
						SUBTOTAL	12,800	359	10,420	100
1		STH 31								
			400+00	-	418+35	LT/RT	6,590	147	5,390	52
						SUBTOTAL	6,590	147	5,390	52
		TOTALS					38,406	2,622	32,042	308

CONCRETE SIDEWALK 5-INCH

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	602.041 CONCRETE SIDEWALK 5-INCH SF
0010	2	STH 32					
			109+31	-	114+35	MEDIAN	1,940
		TOTALS					1,940

3

							ASPHALTIC PAVING								
							*								
						211.0400	390.0203	455.0605	460.5223	460.5224	460.2000	460.4000	465.0120	465.0125
						PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS	BASE PATCHING ASPHALTIC	TACK COAT	HMA PAVEMENT 3 LT 58-28 S	HMA PAVEMENT 4 LT 58-28 S	INCENTIVE DENSITY HMA PAVMENT	HMA COLD WEATHER PAVING	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	ASPHALTIC SURFACE TEMPORARY
CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	STA	SY	GAL	TON	TON	DOL	TON	TON	TON
0010	2	STH 32													
			108+21	-	115+40	LT/RT	--	--	628	1,300	504	1,160	451	47	--
			115+40	-	131+53	LT/RT	17	646	856	843	656	960	375	118	--
			131+53	-	132+19	LT/RT	--	--	42	92	36	82	32	--	--
			132+19	-	136+99	LT/RT	5	249	302	325	253	370	145	4	--
			136+99	-	141+10	LT/RT	--	--	280	607	236	540	211	2	--
			141+10	-	167+50	LT/RT	27	1,040	1,270	1,350	1,050	1,540	600	31	--
			167+50	-	174+20	LT/RT	--	--	534	1,150	444	1,030	399	13	--
			174+20	-	205+56	LT/RT	32	1,200	1,480	1,560	1,220	1,780	695	62	--
						SUBTOTAL	81	3,135	5,393	7,227	4,399	7,462	2,908	277	--
	2	TABOR													
			51+66	-	53+00	LT/RT	--	--	44	86	33	77	30	7	--
						SUBTOTAL	--	--	44	86	33	77	30	7	--
	2	MEADOW DR													
			62+38	-	63+76	LT/RT	--	--	69	142	55	127	49	6	--
						SUBTOTAL	--	--	69	142	55	127	49	6	--
	2	EDGAR TER													
			70+20	-	71+37	LT/RT	--	--	68	137	53	122	48	7	--
						SUBTOTAL	--	--	68	137	53	122	48	7	--
		6 MILE RD													
	1		304+65	-	315+83	LT/RT	--	--	904	1,960	760	1,750	680	7	--
	2		316+40	-	327+95	LT/RT	--	--	650	1,380	535	1,230	479	25	--
						SUBTOTAL	--	--	1,554	3,340	1,295	2,980	1,159	32	--
	1	STH 31													
			400+00	-	405+62	LT/RT	--	--	271	574	223	511	199	11	--
			405+62	-	410+62	LT/RT	--	128	170	166	129	189	74	25	--
			411+22	-	418+35	LT/RT	--	--	554	1,200	464	1,070	416	9	5
						SUBTOTAL	--	128	996	1,940	816	1,770	689	45	5
TOTALS							81	3,263	8,125	12,872	6,651	12,538	4,883	374	5

*UNDISTRIBUTED (10% OF RESURFACE AREAS)

CONCRETE ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	416.0260 CONCRETE DRIVEWAY HES 6-INCH SY
0010	2	STH 32					
			114+74		171+16	RT	39
			171+16	-	205+76	LT	81
						SUBTOTAL	120
		6 MILE RD					
	1		304+65	-	315+83	LT/RT	131
	2		316+40	-	327+95	RT	315
						SUBTOTAL	446
	1	STH 31					
			411+22	-	418+35	LT/RT	221
						SUBTOTAL	221
		TOTALS					787

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
0010	2	STH 32					
			108+21	-	114+74	MEDIAN	208
						SUBTOTAL	208
	2	STH 31					
			411+22	-	418+35	ISLAND	138
						SUBTOTAL	138
		TOTALS					346

													CULVERT PIPE															
						521.1717	521.1721	521.1742	521.1749	521.3717	521.3721	521.3742	521.3749	522.0412	522.0418	522.0424	522.1012	522.1018	522.1024	522.2314	522.2329	522.2614	522.2629	633.5200		
						APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS STEEL 17X13-INCH 6 TO 1	APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS STEEL 21X15-INCH 6 TO 1	APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS STEEL 42X29-INCH 6 TO 1	APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS STEEL 49X33-INCH 6 TO 1	PIPE ARCH CORRUGATED STEEL 17X13-INCH	PIPE ARCH CORRUGATED STEEL 21X15-INCH	PIPE ARCH CORRUGATED STEEL 42X29-INCH	PIPE ARCH CORRUGATED STEEL 49X33-INCH	CULVERT PIPE REINFORCED CONCRETE CLASS IV 12-INCH	CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH	CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	CULVERT PIPE REINFORCED HORIZONTAL ELLIPTICAL CLASS HE-IV 14X23-INCH	CULVERT PIPE REINFORCED HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 14X23-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 29X45-INCH	MARKERS CULVERT END	JOINT TIES	
CATEGORY	STAGE	ROADWAY	STATION	TO STATION	O/S	EACH	EACH	EACH	EACH	LF	LF	LF	LF	LF	LF	LF	EACH	EACH	EACH	LF	LF	EACH	EACH	(EACH)	(EACH)	
0010	2	STH 32																								
			110+03	- 110+03	LT	--	--	--	--	--	--	--	--	--	--	37	--	--	1	--	--	--	--	2	2	
			116+62	- 117+19	LT	2	--	--	--	58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			117+33	- 117+80	LT	2	--	--	--	48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			118+66	- 119+62	LT	2	--	--	--	96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			121+28	- 121+52	RT	2	--	--	--	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			129+61	- 129+91	LT	--	2	--	--	--	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			130+30	- 131+43	RT	--	2	--	--	--	114	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			137+31	- 137+57	RT	--	2	--	--	--	26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			159+79	- 160+21	RT	2	--	--	--	42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			162+49	- 162+79	RT	2	--	--	--	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			163+80	- 164+06	RT	2	--	--	--	26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			164+23	- 164+54	RT	2	--	--	--	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			165+66	- 166+06	RT	2	--	--	--	40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			166+36	- 166+70	RT	2	--	--	--	34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			167+64	- 167+72	LT/RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	58	--	2	2	2	
			168+02	- 168+37	RT	2	--	--	--	36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			169+03	- 169+55	RT	2	--	--	--	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			173+48	- 174+25	RT	2	--	--	--	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			175+78	- 176+20	RT	2	--	--	--	42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			176+49	- 176+78	RT	2	--	--	--	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			178+72	- 179+03	RT	2	--	--	--	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
					SUBTOTAL	32	6	--	--	694	170	--	--	--	--	37	--	--	1	--	58	--	2	4		
	2	HARVEST LN																								
			41+63	- 41+85	LT/RT	--	--	--	--	--	--	--	--	--	50	--	--	2	--	--	--	--	--	2	2	
					SUBTOTAL	--	--	--	--	--	--	--	--	--	50	--	--	2	--	--	--	--	--	--	2		
	2	TABOR																								
			52+10	- 52+36	RT	2	--	--	--	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			52+78	- 52+80	LT/RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	62	--	2	--	2	2	
					SUBTOTAL	2	--	--	--	28	--	--	--	--	--	--	--	--	--	62	--	2	--	2		
	2	MEADOW DR																								
			62+32	- 62+59	LT	2	--	--	--	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			62+41	- 62+71	RT	2	--	--	--	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			63+59	- 63+59	LT/RT	--	--	--	--	--	--	--	--	79	--	--	2	--	--	--	--	--	--	2	2	
					SUBTOTAL	4	--	--	--	54	--	--	--	79	--	--	2	--	--	--	--	--	--	2		
	2	EDGAR TER																								
			70+90	- 71+28	RT	--	2	--	--	--	34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
					SUBTOTAL	--	2	--	--	--	34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	2	6 MILE RD																								
			321+90	- 322+31	LT	--	--	2	--	--	--	40	--	--	--	--	--	--	--	--	--	--	--	--	--	
			323+67	- 324+12	LT	--	--	--	2	--	--	--	44	--	--	--	--	--	--	--	--	--	--	--	--	
					SUBTOTAL	--	--	2	2	--	--	40	44	--	--	--	--	--	--	--	--	--	--	--	--	
	1	STH 31																								
			405+35	- 405+69	RT	--	2	--	--	--	34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			406+32	- 406+65	RT	--	2	--	--	--	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			407+82	- 408+33	RT	--	2	--	--	--	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			407+90	- 408+29	LT	--	2	--	--	--	38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
					SUBTOTAL	--	8	--	--	--	154	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	TOTALS					38	16	2	2	776	358	40	44	79	50	37	2	2	1	62	58	2	2	10		

STORM SEWER

CATEGORY	STAGE	ROADWAY	STRUCTURE NUMBER	STATION	O/S	COVER ELEV	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 608.0315 15-INCH LF	608.0324 24-INCH LF	STORM SEWER REINFORCED CONCRETE CLASS IV 608.0412 12-INCH LF	608.0424 24-INCH LF	% SLOPE	* PIPE TIES REQ'D EACH	**APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 522.1012 12-INCH EACH	522.1015 15-INCH EACH	522.1024 24-INCH EACH	611.1230 CATCH BASINS 2X3-FT EACH	611.2005 MANHOLES 5-FT DIA EACH	611.1003 CATCH BASINS 3-FT DIA EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0612 INLET COVERS TYPE C EACH	611.0636 INLET COVERS TYPE HM-S EACH	*** DEPTH FT	FROM STRUCTURE	TO STRUCTURE	INLET ELEV	DISCH ELEV
0010		6 MILE																									
	1		1.0	307+17	0' LT	699.26	--	206	--	--	2.62	--	--	--	--	--	1	--	1	--	--	4.27	1.0	2.0	693.75	693.97
	1		1.1	304+76	28' RT	--	--	--	240	--	3.96	2	1	--	--	--	--	--	--	--	--	--	1.1	1.4	--	704.54
	1		1.2	304+79	27.4' LT	--	--	--	238	--	3.92	2	1	--	--	--	--	--	--	--	--	--	1.2	1.3	--	704.22
	1		1.3	307+17	29.1' LT	698.62	28	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.79	1.3	1.0	693.00	694.70
	1		1.4	307+17	22.3' RT	698.76	22	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.79	1.4	1.0	693.14	694.84
	1		2.0	309+23	0' LT	693.31	--	180	--	--	2.37	--	--	--	--	--	1	--	1	--	--	3.96	2.0	3.0	688.11	688.36
	1		2.1	309+23	30.5' LT	692.65	30	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.74	2.1	2.0	687.08	688.68
	1		2.2	309+23	30.5' RT	692.68	30	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.74	2.2	2.0	687.11	688.67
	1		2.3	309+11	45.2' LT	693.34	--	--	20	--	0.44	--	--	--	--	--	--	1	--	1	--	4.79	2.3	2.1	687.31	688.98
	1		3.0	311+04	0.1' LT	690.05	--	63	--	--	1.84	--	--	--	--	--	1	--	1	--	--	5.06	3.0	4.0	683.75	684.00
	1		3.1	311+05	40' LT	688.43	40	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.78	3.1	3.0	682.82	684.52
	1		3.2	311+04	38.2' RT	688.34	38	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.76	3.2	3.0	682.75	684.45
		STH 31																									
	1		4.0	410+91	0' RT	688.92	--	162	--	--	0.23	--	--	--	--	--	1	--	1	--	--	5.21	4.0	5.0	682.47	682.72
		6 MILE																									
	1		5.0	313+30	0' LT	687.16	--	164	--	--	0.18	--	--	--	--	--	1	--	1	--	--	3.93	5.0	6.0	681.99	682.24
	1		5.1	313+25	30.5' LT	686.50	--	--	5	--	0.44	--	--	--	--	1	--	--	--	--	1	4.47	5.1	5.3	681.20	682.87
	1		5.2	313+25	30.5' RT	686.50	--	--	5	--	0.44	--	--	--	--	1	--	--	--	--	1	4.47	5.2	5.4	681.20	682.87
	1		5.3	313+30	30.5' LT	686.50	30	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.76	5.3	5.0	680.91	682.61
	1		5.4	313+30	30.5'RT	686.50	30	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.76	5.4	5.0	680.91	682.61
	1		6.0	314+94	0' LT	687.24	--	99	--	--	1.14	--	--	--	--	--	1	--	1	--	--	4.41	6.0	7.0	681.59	681.84
	1		6.1	314+94	32.7' LT	686.11	32	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.78	6.1	6.0	680.50	682.20
	1		6.2	314+93	30.5' RT	686.59	30	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.74	6.2	6.0	681.02	682.72
	1		7.0	315+93	0.2' LT	685.89	--	276	--	--	1.37	--	--	--	--	--	1	--	1	--	--	5.04	7.0	8.0	679.61	679.86
	1		8.0	318+69	0' LT	681.80	--	--	--	108	1.63	--	--	--	--	--	1	--	1	--	--	4.08	8.0	8.3	676.48	676.73
	1		8.1	318+69	42.5' LT	680.90	42	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.96	8.1	8.0	675.11	676.81
	1		8.2	318+69	18.5' RT	681.38	18	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.96	8.2	8.0	675.59	677.29
	1		8.3	319+68	41.9' LT	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	8.3	--	--	674.96
	1		9.1	324+67	18.5' RT	672.75	--	--	46	--	0.41	--	--	--	--	1	--	--	--	--	1	4.54	9.1	EXIST	667.38	669.05
		STH 31																									
	1		10.0	410+42	0' RT	688.68	--	48	--	--	0.18	--	--	--	--	--	1	--	1	--	--	4.81	10.0	4.0	682.63	682.88
	1		10.1	410+34	56.9' LT	--	58	--	--	--	2.67	2	--	1	--	--	--	--	--	--	--	--	10.1	10.3	--	684.06
	1		10.2	410+25	43.1' RT	--	46	--	--	--	0.33	2	--	1	--	--	--	--	--	--	--	--	10.2	10.0	--	684.74
	1		11.0	411+53	0' RT	688.69	--	62	--	--	0.27	--	--	--	--	--	1	--	1	--	--	4.71	11.0	4.0	682.74	682.99
	1		11.1	411+53	38.7' LT	687.80	38	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.98	11.1	11.0	681.99	683.69
	1		11.2	411+53	28.8' RT	687.98	28	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.76	11.2	11.0	682.39	684.09
	1		11.3	411+61	55.3' LT	--	--	--	18	--	0.44	2	1	--	--	--	--	--	--	--	--	--	11.3	11.1	--	686.82
	1		12.0	413+84	0' LT	691.82	--	232	--	--	1.10	--	--	--	--	--	1	--	1	--	--	3.98	12.0	11.0	686.60	686.85
	1		12.1	413+84	30.5' LT	691.16	30	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.86	12.1	12.0	685.47	687.17
	1		12.2	413+84	18.5' RT	691.40	18	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.86	12.2	12.0	685.71	687.41
	1		13.0	416+39	0' LT	697.64	--	254	--	--	2.25	--	--	--	--	--	1	--	1	--	--	3.99	13.0	12.0	692.41	692.66
	1		13.1	416+39	30.5' LT	696.98	30	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.99	13.1	13.0	691.16	692.86
	1		13.2	416+39	18.5' RT	697.22	18	--	--	--	0.33	--	--	--	--	1	--	--	--	--	1	4.97	13.2	13.0	691.42	693.12
		STH 32																									
	2		15.0	172+13	12' LT	687.00	--	92	--	--	0.18	--	--	--	--	--	1	--	1	--	--	5.88	15.0	7.0	679.88	680.13
	2		15.1	172+13	19.1' LT	686.50	7	--	--	--	0.43	--	--	--	--	1	--	--	--	--	1	7.11	15.3	15.1	678.56	680.26
	2		15.2	172+25	41.5' RT	684.84	52	--	--	--	0.33	--	--	--	--	--	--	1	--	1	--	2.91	15.2	15.0	680.69	682.39
	2		15.3	171+91	40.2' LT	684.12	--	--	30	--	0.44	--	--	--	--	1	--	--	--	--	1	4.47	15.3	15.1	678.82	680.49
	2		16.0	175+25	12' LT	695.02	--	312	--	--	2.57	--	--	--	--	--	1	--	1	--	--	3.82	16.0	15.0	689.96	690.21
	2		16.1	175+25	18.5' LT	694.83	6	--	--	--	0.50	--	--	--	--	1	--	--	--	--	1	4.76	16.1	16.0	689.24	690.94
	2		17.0	177+75	12' LT	699.89	--	249	--	--	2.00	--	--	--	--	--	1	--	1	--	--	3.61	17.0	16.0	695.04	695.29
	2		17.1	177+75	18.5' LT	700.04	6	--	--	--	0.50	--	--	--	--	1	--	--	--	--	1	5.02	17.1	17.0	694.19	695.89
	2		18.0	179+30	12' LT	702.35	--	154	--	--	0.51	--	--	--	--	--	1	--	1	--	--	5.19	18.0	17.0	695.92	696.17
	2		18.1	179+63	18.5' LT	702.44	34	--	--	--	0.50	--	--	--	--	1	--	--	--	--	1	6.37	18.1	18.0	695.24	696.94
	2		18.2	179+50	57.4' LT	700.74	--	--	42	--	0.44	--	--	--	--	1	--	--	--	--	1	5.72	18.2	18.1	694.19	697.13
	2		30.1	110+03	12.5' LT	671.60	--	--	--	65	1.06	2	--	--	1	1	--	--	--	--	1	5.83	30.1	DITCH	664.94	667.69
	2		30.2	114+35	12.5' LT	668.08	--	--	48	--	0.44	2	1	--	--	1	--	--	--	--	1	4.35	30.2	DITCH	662.90	664.57
TOTAL							741	2,553	692	173		4	2	2	29	16	2	16	2	29							

*FOR INFORMATION ONLY

**ADDITIONAL QUANTITIES SHOWN ELSEWHERE

***STRUCTURE DEPTH DOES NOT INCLUDE 6 INCHES OF ADJUSTMENT RINGS

RECONSTRUCTING MANHOLES

CATEGORY	STAGE	ROADWAY	STATION	O/S	611.0420 RECONSTRUCTING MANHOLES EA	611.8110 ADJUSTING MANHOLE COVERS EA
0010	1	STH 31	417+52	35' LT	--	1
			SUBTOTAL		--	1
0050	2	STH 32				
			110+88	38' RT	--	1
			114+36	53' LT	--	1
			116+10	25' LT	--	1
			116+52	18' RT	--	1
			120+11	23' LT	--	1
			120+85	17' RT	--	1
			124+86	19' RT	--	1
			127+99	18' LT	--	1
			129+97	16' LT	--	1
			131+51	17' LT	--	1
			131+50	25' RT	--	1
			132+32	17' LT	--	1
			132+55	23' RT	--	1
			136+56	19' RT	--	1
			137+99	17' LT	--	1
			140+54	22' RT	--	1
			141+88	19' LT	--	1
			144+44	20' LT	--	1
			144+46	20' RT	--	1
			148+48	19' RT	--	1
			152+45	20' LT	--	1
			152+48	20' RT	--	1
			156+48	20' RT	--	1
			158+43	22' LT	--	1
			158+49	21' RT	--	1
			160+43	19' LT	--	1
			160+51	21' RT	--	1
			162+88	21' RT	--	1
			166+83	20' RT	--	1
			169+26	27' LT	1	--
			170+62	19' RT	1	--
			174+63	18' RT	--	1
			177+81	18' RT	--	1
			185+98	20' RT	--	1
0050	2	5 MILE RD WEST				
			25+76	15' RT	--	1
0050	2	HARVEST LN				
			41+80	4' RT	--	1
0050	2	EDGAR TER				
			70+62	1' RT	--	1
0050	1	6 MILE RD				
			307+40	30' LT	1	--
			310+86	29' LT	--	1
			311+33	26' LT	1	--
			311+86	22' LT	1	--
			311+85	26' RT	1	--
			318+06	18' RT	1	--
			319+68	17' RT	--	1
			320+97	17' RT	--	1
			323+68	15' RT	--	1
			327+67	16' RT	--	1
0050	1	STH 31				
0050			407+06	21' RT	--	1
0050			415+03	23' RT	--	1
0050			417+84	23' RT	--	1
			SUBTOTAL		7	43
		TOTAL			7	44

RECONSTRUCTING INLETS

CATEGORY	STAGE	ROADWAY	STATION	O/S	611.0430 RECONSTRUCTING INLETS EA
0010	1	STH 31			
			417+52	26' LT	1
			418+12	99' LT	1
		TOTAL			2

UNDERDRAIN

CATEGORY	STAGE	ROADWAY	STATION		STATION	O/S	612.0600 UNDERDRAIN TRENCH LF	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY
0010		6 MILE RD						
	1		313+30	-	313+58	RT	28	50
	2		320+35	-	326+93	RT	658	1,030
	2		320+00	-	325+00	LT	500	778
		TOTAL					1,186	1,858

GUARDRAIL

CATEGORY	STAGE	ROADWAY	STATION		STATION	O/S	614.2300 MGS GUARDRAIL 3 LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
0010	2	STH 32						
			131+19	-	132+37	RT	118.75	2
			138+06	-	139+20	RT	118.75	2
		TOTAL					237.5	4

TRAFFIC CONTROL

CATEGORY	STAGE	ROADWAY	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0900 SIGNS DAY	643.0920 COVERING SIGNS TYPE II EACH	643.1050 SIGNS PCMS DAY	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH LF
0010	1								
		STH 32	1,090	--	--	4,610	--	--	--
		6 MILE RD	--	896	1,792	320	--	128	--
		STH 31	--	832	1,670	448	3	128	--
		SUBTOTAL	1,090	1,728	3,462	5,378	3	256	--
	2								
		STH 32	--	588	1,180	9,310	4	196	--
		5 MILE RD EAST	--	196	392	294	--	--	--
		5 MILE RD WEST	--	196	392	294	--	--	--
		MATTEW DRIVE	--	196	392	294	--	--	--
		HARVEST LN	--	196	392	294	--	--	--
		TABOR	--	196	392	294	--	--	--
		MADOW DR	--	196	392	294	--	--	--
		EDGAR TER	--	196	392	294	--	--	--
		6 MILE RD	--	490	980	686	--	196	--
		STH 31	--	--	--	392	--	--	900
		SUBTOTAL	--	2,450	4,904	12,446	4	392	900
		UNDISTRIBUTED	273	1,045	2,100	4,460	2	162	225
		TOTAL	1,363	5,223	10,466	22,284	9	810	1,125

***ONE CYCLE FOR ALL SIGN COVERINGS**

3

RESTORATION

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	625.0100 TOPSOIL SY	627.0200 MULCHING SY	628.2004* EROSION MAT CLASS I TYPE B SY	628.6510 SOIL STABILIZER TYPE B ACRE	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	SOD LAWN SY
0010	2	STH 32													
			108+21	-	128+16	LT/RT	4,730	4,730	4,730	0.95	2.98	83	--	125	125
			128+16	-	144+80	LT/RT	3,210	3,210	3,210	0.66	2.02	58	--	87	--
			144+80	-	152+78	LT	571	571	571	0.12	0.36	10	--	16	--
			152+78	-	171+31	LT/RT	3,210	3,210	3,210	0.66	2.02	58	--	87	--
			171+31	-	178+91	LT	1,570	1,570	1,570	0.32	0.99	--	28	43	--
			171+31	-	178+91	RT	1,730	1,730	1,730	0.36	1.08	31	--	47	--
			178+91	-	205+56	LT/RT	1,900	1,900	1,900	0.39	1.19	34	--	52	--
	2	5 MILE RD EAST						--							
			11+27	-	11+86	LT/RT	128	128	128	0.03	0.08	2	--	4	--
	2	5 MILE RD WEST						--							
			25+65	-	26+42	LT/RT	77	77	77	0.02	0.05	1	--	3	--
	2	MATTHEW DRIVE						--							
			33+10	-	33+79	LT/RT	114	114	114	0.02	0.07	2	--	4	--
	2	HARVEST LN						--							
			41+18	-	42+03	LT/RT	141	141	141	0.03	0.09	3	--	4	--
	2	TABOR						--							
			52+07	-	52+68	LT/RT	221	221	221	0.05	0.14	4	--	6	--
	2	MEADOW DR						--							
			62+29	-	63+36	LT/RT	278	278	278	0.06	0.17	5	--	8	--
	2	EDGAR TER						--							
			70+61	-	71+32	LT/RT	70	70	70	0.01	0.04	1	--	2	--
		6 MILE RD						--							
	1		304+65	-	315+53	LT/RT	3,700	3,700	3,700	0.76	2.33	--	66	100	--
	2		316+67	-	327+94	LT	2,560	2,560	2,560	0.53	1.61	46	--	69	--
	2		316+67	-	327+94	RT	1,300	1,300	1,300	0.27	0.82	--	23	35	--
	1	STH 31						--							
			401+92	-	410+23	LT/RT	2,580	2,580	2,580	0.53	1.62	46	--	70	--
			411+83	-	418+13	LT/RT	2,540	2,540	2,540	0.52	1.60	--	46	69	--
SUBTOTAL CATEGORY 0010							30,630	30,630	30,630	6.29	19.25	384	164	831	125
UNDISTRIBUTED CATEGORY 0010							7,660	7,660	7,660	1.57	4.81	96	41	208	--
TOTAL							38,290	38,290	38,290	7.86	24.06	480	204	1,039	125

*ADDITIONAL QUANTITY SHOWN ELSEWHERE

EROSION CONTROL

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	606.0100 RIP RAP LIGHT CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EA	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EA	628.2004 * EROSION MAT CLASS I TYPE B SY	628.7005 INLET PROTECTION TYPE A EA	628.7010 INLET PROTECTION TYPE B EA	628.7015 INLET PROTECTION TYPE C EA	628.7020 INLET PROTECTION TYPE D EA	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EA	645.0130 GEOTEXTILE FABRIC TYPE R SY	SPV.0090.01 HEAVY DUTY SILT FENCE LF
0010	2	STH 32																		
			108+21	-	115+40	LT/RT	--	--	--	1	1	38	1	--	5	1	88	6	--	--
			115+40	-	171+16	LT/RT	--	284	284	5	1	71	--	--	--	--	163	34	--	100
			171+16	-	205+76	LT/RT	--	--	--	3	1	60	3	1	2	4	138	13	--	--
						SUBTOTAL	--	284	284	9	3	169	4	1	7	5	388	53	--	100
	2	MATTHEW DRIVE																		
			33+04	-	34+20	LT/RT	--	--	--	--	--	--	--	--	--	--	--	3	--	--
						SUBTOTAL	--	--	--	--	--	--	--	--	--	--	--	3	--	--
	2	HARVEST LN																		
			41+29	-	42+40	LT/RT	--	--	--	--	--	--	--	--	--	--	--	3	--	--
						SUBTOTAL	--	--	--	--	--	--	--	--	--	--	--	3	--	--
	2	TABOR																		
			51+66	-	53+00	LT/RT	--	--	--	--	--	--	--	--	--	--	--	6	--	--
						SUBTOTAL	--	--	--	--	--	--	--	--	--	--	--	6	--	--
	2	MEADOW DR																		
			62+38	-	63+76	LT/RT	--	--	--	--	--	--	--	--	--	--	--	9	--	--
						SUBTOTAL	--	--	--	--	--	--	--	--	--	--	--	9	--	--
	2	EDGAR TER																		
			70+20	-	71+37	LT/RT	--	--	--	--	--	--	--	--	--	--	--	3	--	--
						SUBTOTAL	--	--	--	--	--	--	--	--	--	--	--	3	--	--
		6 MILE RD																		
1			304+65	-	315+83	LT/RT	--	--	--	1	1	--	4	1	4	11	--	15	--	--
2			316+40	-	327+95	LT/RT	1	--	--	1	1	16	3	1	3	--	38	6	47	--
						SUBTOTAL	1	--	--	2	2	16	7	2	7	11	38	21	47	--
1		STH 31																		
			400+00	-	410+62	LT/RT	--	--	--	1	1	27	--	--	1	--	63	12		--
			411+22	-	418+35	LT/RT	--	--	--	1	1	--	6	--	6	2	--	--		--
						SUBTOTAL	--	--	--	2	2	27	6	--	7	2	63	12	--	--
		UNDISTRIBUTED CATEGORY 0010					1	71	71	3	2	53	4	1	5	5	122	28	12	25
		TOTALS					2	355	355	16	9	265	21	4	26	23	609	138	59	125

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

STONE DITCH CHECK

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	628.7515.S CY	645.0140 GEOTEXTILE FABRIC TYPE SAS SY
0010		6 MILE RD						
	2		316+40	-	327+95	LT	7	22
		UNDISTRIBUTED CATEGORY 0010					2	6
		TOTALS					9	28

3

PAVEMENT MARKING

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE LF	646.3040 MARKING LINE GROOVED WET REF EPOXY 8-INCH LF	646.5020 MARKING ARROW EPOXY TYPE 1 EA	TYPE 2 EA	TYPE 3 EA	646.5120 MARKING WORD EPOXY EA	646.5220 MARKING SYMBOL EPOXY EA	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH LF	646.8120 MARKING CURB EPOXY LF	646.8220 MARKING ISLAND NOSE EPOXY EA	646.9000 MARKING REMOVAL LINE 4-INCH LF
0010	2	STH 32																	
			93+25	-	115+00	LT/RT	--	2,700	583	7	7	--	1	--	--	387	--	--	450
			115+00	-	171+16	LT/RT	13,800	11,300	445	2	2	--	1	--	188	633	40	4	--
			171+16	-	205+76	LT/RT	7,730	6,920	1,190	5	5	--	2	--	77	175	--	--	--
						SUBTOTAL	21,530	20,920	2,218	14	14	--	4	--	265	1,195	40	4	450
	2	5 MILE RD EAST																	
			10+25	-	12+02	LT/RT	276	--	--	--	--	--	--	--	18	--	--	--	--
						SUBTOTAL	276	--	--	--	--	--	--	--	18	--	--	--	--
	2	5 MILE RD WEST																	
			25+74	-	26+85	LT/RT	244	104	--	--	--	--	--	--	32	--	--	--	--
						SUBTOTAL	244	104	--	--	--	--	--	--	32	--	--	--	--
		6 MILE RD																	
	1		302+32	-	315+83	LT/RT	3,670	3,790	416	7	7	4	1	4	139	343	--	--	--
	2		316+40	-	327+95	LT/RT	3,320	2,940	470	4	4	--	2	4	45	203	--	--	--
						SUBTOTAL	6,990	6,730	886	11	11	4	3	8	184	546	--	--	--
	1	STH 31																	
			400+00	-	410+62	LT/RT	2,000	1,340	1,090	2	3	1	2	--	35	264	--	--	--
			411+22	-	418+35	LT/RT	2,020	1,360	334	2	2	--	1	--	67	217	10	1	--
						SUBTOTAL	4,020	2,700	1,424	4	5	1	3	--	102	481	10	1	--
	TOTALS						33,060	30,454	4,528		64		10	8	601	2,222	50	5	450

3

CONSTRUCTION STAKING

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	650.4000 CONSTRUCTION STAKING STORM SEWER EA	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB AND GUTTER LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EA	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT LS	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATION 2350-09-70 LS	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 2350-09-70 LS	650.9920 CONSTRUCTION STAKING SLOPES STAKES LF
0010	2	STH 32														
			108+21	-	115+40	LT/RT	1	719	719	1,040	1	--	--	--	1	719
			115+40	-	131+53	LT/RT	--	--	--	316	4	--	1,620	--	--	--
			131+53	-	132+19	LT/RT	--	66	66	--	--	1	--	--	--	66
			132+19	-	136+99	LT/RT	--	--	--	--	--	--	480	--	--	--
			136+99	-	141+10	LT/RT	--	411	411	--	1	1	--	--	--	411
			141+10	-	167+50	LT/RT	--	--	--	--	1	--	2,640	--	--	--
			167+50	-	174+20	LT/RT	5	670	670	751	3	--	--	1	--	670
			174+20	-	205+56	LT/RT	7	--	--	--	3	--	3,140	--	--	--
						SUBTOTAL	13	1,866	1,866	2,107	13	2	7,880	1	1	1,866
	2	5 MILE RD EAST														
			10+25	-	12+02	LT/RT	--	177	177	224	--	--	--	--	--	177
						SUBTOTAL	--	177	177	224	--	--	--	--	--	177
	2	5 MILE RD WEST														
			25+74	-	26+85	LT/RT	--	111	111	199	--	--	--	--	--	111
						SUBTOTAL	--	111	111	199	--	--	--	--	--	111
	2	MATTHEW DRIVE														
			33+04	-	34+20	LT/RT	--	--	--	176	--	--	116	--	--	--
						SUBTOTAL	--	--	--	176	--	--	116	--	--	--
	2	HARVEST LN														
			41+29	-	42+40	LT/RT	--	111	111	159	1	--	--	--	--	111
						SUBTOTAL	--	111	111	159	1	--	--	--	--	111
	2	TABOR														
			51+66	-	53+00	LT/RT	--	134	134	105	2	--	--	--	--	134
						SUBTOTAL	--	134	134	105	2	--	--	--	--	134
	2	MEADOW DR														
			62+38	-	63+76	LT/RT	--	138	138	155	3	--	--	--	--	138
						SUBTOTAL	--	138	138	155	3	--	--	--	--	138
	2	EDGAR TER														
			70+20	-	71+37	LT/RT	--	117	117	159	1	--	--	--	--	117
						SUBTOTAL	--	117	117	159	1	--	--	--	--	117
		6 MILE RD														
	1		304+65	-	315+83	LT/RT	21	1,120	1,120	3,180	--	--	--	--	--	1,120
	2		316+40	-	327+95	LT/RT	4	1,160	1,160	1,470	2	--	--	--	--	1,160
						SUBTOTAL	25	2,280	2,280	4,650	2	--	--	--	--	2,280
	1	STH 31														
			400+00	-	405+62	LT/RT	--	562	562	--	1	--	--	1	--	562
			405+62	-	410+62	LT/RT	4	--	--	--	3	--	500	--	--	--
			411+22	-	418+35	LT/RT	12	713	713	--	--	--	--	--	--	713
						SUBTOTAL	16	1,275	1,275	--	4	--	500	1	--	1,275
		TOTALS					54	6,209	6,209	7,934	26	2	8,496	2	1	6,209

SAWING EXISTING PAVEMENT

CATEGORY	STAGE	ROADWAY	STATION	-	STATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
0010	2	STH 32					
			108+21	-	115+40	157	130
			115+40	-	131+53	413	991
			131+53	-	132+19	--	24
			132+19	-	136+99	--	349
			136+99	-	141+10	30	38
			141+10	-	167+50	33	1130
			167+50	-	174+20	237	30
			174+20	-	205+56	145	2110
					SUBTOTAL	1015	4802
	2	5 MILE RD EAST					
			10+25	-	12+02	22	--
					SUBTOTAL	22	--
	2	5 MILE RD WEST					
			25+74	-	26+85	30	--
					SUBTOTAL	30	--
	2	MATTEW DRIVE					
			33+04	-	34+20	26	--
					SUBTOTAL	26	--
	2	HARVEST LN					
			41+29	-	42+40	43	--
					SUBTOTAL	43	--
	2	TABOR					
			51+66	-	53+00	42	--
					SUBTOTAL	42	--
	2	MEADOW DR					
			62+38	-	63+76	57	--
					SUBTOTAL	57	--
	2	EDGAR TER					
			70+20	-	71+37	45	--
					SUBTOTAL	45	--
		6 MILE RD					
	1		304+65	-	315+83	465	--
	2		316+40	-	327+95	185	--
					SUBTOTAL	650	--
	1	STH 31					
			400+00	-	410+62	1140	
			411+22	-	418+35	171	--
					SUBTOTAL	1311	--
		TOTALS				3241	4802

SPECIAL ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	SPV.0090.03 DITCHING & SHAPING LF	SPV.0105.07 TEMPORARY DIVERSION CHANNEL FOR STRUCTURE C-51-81 LS	SPV.0105.08 TEMPORARY DIVERSION CHANNEL FOR STRUCTURE C-51-82 LS
0010	2								
		STH 32	120+25	-	122+75	RT	250	--	--
			131+25	-	131+75	LT/RT	--	--	1
			138+50	-	139+00	LT/RT	--	1	--
			142+75	-	144+25	LT	150	--	--
			145+00	-	146+75	LT	175	--	--
			151+00	-	152+25	LT	125	--	--
			153+25	-	154+25	LT	100	--	--
		TOTAL					800	1	1

MANAGEMENT OF SOLID WASTE

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	O/S	SPV.0195.01 TON
0010	2	STH 32					
			170+25	-	171+25	LT	1,050
		TOTAL					1,050

OVERHEAD SIGN SUPPORTS - MISC QUANTITIES		2350-09-71 STH 32
LOCATION	OVERHEAD SIGN SUPPORT STRUCTURE S-51-610 L.S. 641.8100.01	
6 MILE ROAD EB EAST OF STH 31	1	
TOTAL	1	

SHEET 1 OF 1

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	MISCELLANEOUS QUANTITIES	SHEET:	E

TYPE II SIGN REMOVAL **2350-09-71 STH 32**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	REMARKS / SIGN LOCATION
1R	R6-2L	--	1	1	--
2R	R2-1	--	1	1	--
3R	R7-1R	--	1	1	--
4R	R6-2R	--	1	1	--
5R	W9-1R	--	1	1	--
6R	R2-1	--	1	1	--
7R	R4-7	--	1	1	--
8R	R4-7	--	1	1	--
9R	R6-2R	--	1	1	--
10R	W4-2R	--	1	1	--
11R	W4-2R	--	1	1	--
12R	M1-94	5 MILE RD	1	2	--
13R	R7-1D	--	1	1	--
14R	R7-1D	--	1	1	--
15R	J4-1	--	1	1	--
16R	R7-1L	--	1	1	--
17R	R6-2L	--	1	1	--
18R	R3-9B	--	1	1	--
19R	W6-2	--	1	1	--
20R	W6-2	--	1	1	--
21R	R4-7	--	1	1	--
22R	R4-7	--	1	1	--
23R	R6-2L	--	1	1	--
24R	R5-1A	--	1	1	--
25R	W11-8	--	1	1	ALSO REMOVE DO NOT ENTER
26R	R4-7	--	1	1	--
27R	R1-1	--	1	1	CONTACT VILLAGE OF CALEDONIA TO REMOVE STREET NAME SIGNS
28R	R3-9B	--	1	1	--
29R	R2-1	--	1	1	--
30R	D1-1	[A] 5 MILE RD	1	2	--
31R	R1-1	--	1	1	--
32R	R3-9B	--	1	1	--
33R	R3-9B	--	1	1	--
34R	J4-1	--	1	1	--
35R	R2-1	--	1	1	--

TYPE II SIGN REMOVAL **2350-09-71 STH 32**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	REMARKS / SIGN LOCATION
36R	D1-1	5 MILE RD [A]	1	2	--
37R	W54-60	--	1	--	REMOVE FROM FLASHING BEACON POLE
38R	W6-1	--	1	1	--
39R	R2-1	--	1	1	--
40R	W14-3	--	1	1	--
41R	W11-8	--	1	1	--
42R	R1-1	--	1	1	--
43R	R2-1	--	1	1	--
44R	R2-1	--	1	1	--
45R	R1-1	--	1	1	--
46R	R5-2	--	1	1	--
47R	R1-1	--	1	1	--
48R	R7-1L	--	1	--	REMOVE FROM POWER POLE
49R	R7-1D	--	1	--	REMOVE FROM POWER POLE
50R	R2-1	--	1	1	ALSO REMOVE NO PARKING SIGN
51R	R2-1	--	1	1	ALSO REMOVE NO PARKING SIGN
52R	R7-1D	--	1	--	REMOVE FROM POWER POLE
53R	R7-1R	--	1	--	REMOVE FROM POWER POLE
54R	R1-1	--	1	1	--
55R	R2-1	--	1	1	--
56R	R1-1	--	1	1	--
57R	W14-3	--	1	1	--
58R	W3-3	--	1	1	--
59R	R2-1	--	1	1	--
60R	J2-1	--	1	1	--
61R	D2-2	RACINE 7 / KENOSHA 18	1	2	--
62R	J4-2	--	1	2	--
63R	J3-1	--	1	--	REMOVE FROM SIGNAL POLE
64R	R1-1F	--	1	--	REMOVE FROM SIGNAL POLE
65R	J3-1	--	1	1	--
66R	R1-1F	--	1	--	REMOVE FROM SIGNAL POLE
67R	D11-1	--	1	1	ALSO REMOVE ARROW SIGN
68R	J1-1	--	1	1	--
69R	J2-2	--	1	2	--
70R	W3-3	--	1	1	--

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TYPE II SIGN REMOVAL **2350-09-71 STH 32**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	REMARKS / SIGN LOCATION
71R	R1-1	--	1	1	--
72R	W1-6	--	1	1	ALSO REMOVE NO PASSING ZONE SIGN
73R	R5-1	--	1	--	REMOVE FROM POWER POLE
74R	J4-1	--	1	--	REMOVE FROM POWER POLE
75R	J3-1	--	1	1	--
76R	J3-1	--	1	1	--
77R	R2-1	--	1	1	--
78R	J3-2	--	1	1	--
79R	M1-85	--	1	1	--
80R	J3-2	--	1	1	--
81R	M1-85	--	1	--	REMOVE FROM POWER POLE
82R	J4-1	--	1	1	--
83R	W5-52R	--	1	1	--
84R	D12-2A	--	1	2	--
85R	J3-1	--	1	1	--
86R	M1-85	--	1	1	--
87R	J2-2	--	1	1	--
88R	R2-1	--	1	1	--
89R	R2-1	--	1	1	--
90R	D5-64L	--	1	2	--
91R	W1-2L	--	1	1	--
92R	D11-1	--	1	1	--
93R	J1-1	--	1	1	--
94R	W1-2L	--	1	1	ALSO REMOVE NO PASSING ZONE SIGN
95R	W14-3	--	1	2	ALSO REMOVE HISTORICAL MARKER SIGN
96R	R2-1	--	1	1	--
97R	R2-1	--	1	1	--
98R	W1-2R	--	1	1	--
99R	M1-94	GEHRING RD	1	2	--
100R	R1-1	--	1	1	--
101R	J1-1	--	1	1	--
102R	W1-4R	--	1	1	--
103R	W3-1	--	1	1	ALSO REMOVE RIGHT TURN LANE SIGN
104R	W3-1	--	1	1	--
105R	R1-1	--	1	1	--

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TYPE II SIGN REMOVAL **2350-09-71 STH 32**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	REMARKS / SIGN LOCATION
106R	J2-2	--	1	2	--
107R	R2-1	--	1	1	--
108R	J4-1	--	1	1	--
109R	R3-55R	--	1	1	--
110R	W1-4R	--	1	1	--
111R	R1-1	--	1	1	--
112R	J13-1	--	1	1	--
113R	R1-1	--	1	1	ALSO REMOVE ALL WAY SIGN
114R	J13-1	--	1	1	--
115R	R1-1	--	1	1	ALSO REMOVE ALL WAY SIGN
116R	R1-1	--	1	1	ALSO REMOVE ALL WAY SIGN
117R	J13-1	--	1	1	--
118R	R1-1	--	1	1	ALSO REMOVE ALL WAY SIGN
119R	J13-1	--	1	1	--
120R	R1-1	--	1	1	--
121R	J1-2	--	1	1	--
122R	W3-1	--	1	1	--
123R	J1-1	--	1	1	--
124R	W3-1	--	1	1	--
125R	W3-1	--	1	1	--
126R	W8-68	--	1	1	--
127R	W3-1	--	1	1	ALSO REMOVE OBJECT MARKER
128R	W3-1	--	1	1	ALSO REMOVE OBJECT MARKER
129R	R1-1	--	1	1	CONTACT VILLAGE OF CALEDONIA TO REMOVE STREET NAME SIGNS
130R	R1-1	--	1	1	--
131R	J1-1	--	1	1	--
132R	R2-1	--	1	1	--
133R	J1-1	--	1	1	--
134R	M1-5A	--	1	1	--
135R	R1-1F	--	1	--	REMOVE FROM SIGNAL POLE

3

TYPE II SIGN REMOVAL **2350-09-71 STH 32**

SIGN NO.	SIGN CODE	SIGN MESSAGE	**638.2602** REMOVING SIGNS TYPE II [EA]	**638.3000** REMOVING SMALL SIGN SUPPORTS [EA]*	REMARKS / SIGN LOCATION
136R	J13-2	--	1	1	--
137R	R1-1F	--	1	--	REMOVE FROM SIGNAL POLE
138R	S1-1	--	1	--	REMOVE FROM SIGNAL POLE
139R	R2-1	--	1	1	--
140R	--	CAUTION CHILDREN	1	1	REMOVE ILLEGAL SIGN - SHEET 7 OF 29
141R	R2-1	--	--	--	REMOVAL INCLUDED WITH #140R - SHEET 7
142R	--	CAUTION CHILDREN	1	1	REMOVE ILLEGAL SIGN - SHEET 8 OF 29
143R	R2-1	--	--	--	REMOVAL INCLUDED WITH #142R - SHEET 8
	TOTALS		47	49 *	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	W9-1R(2S)	--	30	x	30	--	6.250	--	--	1	--	--	--
1A	W9-1R(2S)	--	30	x	30	--	6.250	--	--	1	--	--	--
2	R6-2L(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
3	R2-1(2M)	45 MPH	30	x	36	7.500	--	--	--	1	--	--	--
4	R7-1R(2M)	--	18	x	24	3.000	--	--	--	1	--	--	--
5	R6-2R(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
6	R4-7(2M)	--	24	x	30	5.000	--	--	--	1	--	--	--
7	R4-7(2M)	--	24	x	30	5.000	--	--	--	1	--	--	--
8	R6-2L(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
9	R6-2R(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
10	W4-2R(2S)	--	36	x	36	--	9.000	--	--	1	--	--	SHEET 1
11	W4-2R(2S)	--	36	x	36	--	9.000	--	--	1	--	--	SHEET 1
12	D1-1	5 MILE RD [A]	72	x	15	7.500	--	--	--	2	--	--	--
13	R7-1D(2S)	--	18	x	24	3.000	--	--	--	1	--	--	--
14	R7-1D(2S)	--	18	x	24	3.000	--	--	--	1	--	--	--
15	J4-1(2S)	--	24	x	60	10.000	--	--	--	1	--	--	--
	M3-3	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M1-93	--	24	x	24								
16	R4-7(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
17	R7-1L(2S)	--	18	x	24	3.000	--	--	--	1	--	--	--
18	R6-2L(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
19	R4-7(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
20	R4-7(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
21	R4-7(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
22	R6-2L(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
23	R3-20R(2S)	--	24	x	36	6.000	--	--	--	1	--	--	--
24	W11-8(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--
25	R5-1(2S)	--	30	x	30	6.250	--	--	--	--	--	#24	--
26	R2-1(2S)	35 MPH	24	x	30	5.000	--	--	--	1	--	--	--
27	R1-1(3)	--	36	x	36	7.460	--	--	--	1	--	--	--
28	R6-3A(2S)	--	30	x	24	5.000	--	--	--	--	--	#27	--
29	R6-2L(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
30	D1-1	[A] 5 MILE RD	72	x	15	7.500	--	--	--	2	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
31	R4-7(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
32	R1-1(3)	--	36	x	36	7.460	--	--	--	1	--	--	--
33	--	WEIGHT LIMIT CLASS B	--	x	--	--	--	--	1	1	1	--	--
34	D1-1	[A] 5 MILE RD	72	x	15	7.500	--	--	--	2	--	--	--
35	R5-1A(2S)	--	36	x	24	6.000	--	--	--	--	--	#34	--
36	W6-2(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--
37	R5-1(2S)	--	30	x	30	6.250	--	--	--	1	--	--	--
38	J4-1(2S)	--	24	x	60	10.000	--	--	--	1	--	--	--
	M3-1	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M1-93	--	24	x	24								
39	R2-1(2S)	--	--	x	--	--	--	--	--	--	--	--	--
40	D1-1	5 MILE RD [A]	72	x	15	7.500	--	--	--	2	--	--	--
41	W54-60	--	36	x	36	--	9.000	--	--	--	--	--	MOUNT ON FLASHING BEACON POLE
42	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
43	W6-3(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--
44	W6-1(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--
45	W11-8(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--
46	W14-3(2S)	--	48	x	36	--	6.000	--	--	1	--	--	--
47	R1-1(2S)	--	30	x	30	5.180	--	--	--	1	--	--	--
48	W1-7(2S)	--	48	x	24	--	8.000	--	--	1	--	--	--
49	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
50	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
51	R1-1(2S)	--	30	x	30	5.180	--	--	--	1	--	--	--
52	R5-2(2S)	--	24	x	24	4.000	--	--	--	1	--	--	--
53	R2-1(2S)	25 MPH	24	x	30	5.000	--	--	--	1	--	--	--
54	I55-56	--	--	x	--	--	--	--	1	1	1	--	--
55	R1-1(2S)	--	30	x	30	5.180	--	--	--	1	--	--	--
56	R2-1(2S)	25 MPH	24	x	30	5.000	--	--	--	1	--	--	--
57	--	NEIGHBORHOOD WATCH SIGN	--	x	--	--	--	--	1	1	1	#56	--
58	R7-1L(2S)	--	18	x	24	3.000	--	--	--	1	--	--	--
59	W1-7(2S)	--	48	x	24	--	8.000	--	--	1	--	--	--
60	I55-56	--	--	x	--	--	--	--	1	1	1	--	--
61	R7-1D(2S)	--	18	x	24	3.000	--	--	--	1	--	--	--
62	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
63	R7-1D(2S)	--	18	x	24	3.000	--	--	--	--	--	#62	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
64	R7-1D(2S)	--	18	x	24	3.000	--	--	--	1	--	--	--
65	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
66	R7-1D(2S)	--	18	x	24	3.000	--	--	--	--	--	#66	--
67	R7-1R(2S)	--	18	x	24	3.000	--	--	--	1	--	--	--
68	R1-1(2S)	--	30	x	30	5.180	--	--	--	1	--	--	--
69	--	NEIGHBORHOOD WATCH SIGN	--	x	--	--	--	--	1	1	1	--	--
70	W1-7(2S)	--	48	x	24	--	8.000	--	--	1	--	--	--
71	W14-1(2S)	--	30	x	30	--	6.250	--	--	1	--	--	--
72	R2-1(2S)	25 MPH	24	x	30	5.000	--	--	--	1	--	--	--
73	R1-1(2S)	--	30	x	30	5.180	--	--	--	1	--	--	--
74	W1-7(2S)	--	48	x	24	--	8.000	--	--	1	--	--	--
75	W14-3(2S)	--	48	x	36	--	6.000	--	--	1	--	--	--
76	W3-3(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--
77	D1-61	[A] 6 MILE RD [A]	54	x	24	9.000	--	--	--	2	--	--	--
78	D2-2	RACINE 7 KENOSHA 18	72	x	24	12.000	--	--	--	2	--	--	--
79	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
80	J4-2(2S)	--	48	x	36	12.000	--	--	--	1	--	--	--
	M3-3	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M1-5A	CTH G	24	x	24								
81	M1-93(2S)	--	24	x	24	4.000	--	--	--	--	--	#80	--
82	R3-8A(2S)	--	36	x	30	7.500	--	--	--	1	--	--	--
83	J2-1(2S)	--	24	x	45	7.500	--	--	--	1	--	--	--
	M1-5A	CTH G	24	x	24								
	M1-5L	--	21	x	21								
84	R3-8A(2S)	--	36	x	30	7.500	--	--	--	1	--	--	--
85	R10-50(2S)	--	30	x	36	7.500	--	--	--	--	--	--	MOUNT ON MAST ARM
86	M1-94H	6 MILE RD	72	x	18	9.000	--	--	--	--	--	--	MOUNT ON MAST ARM
87	R1-1F(3)	--	36	x	36	--	--	7.460	--	--	--	--	MOUNT ON SIGNAL POLE

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
88	J3-3(2S)	--	72	x	57	28.500	--	--	--	2	--	--	--
	M3-1	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M6-1	--	21	x	21								
	M3-3	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M6-1	--	21	x	21								
	M1-5A	CTH G	24	x	24								
	M6-1	--	21	x	21								
89	R3-8W(2S)	--	54	x	30	11.250	--	--	--	2	--	--	--
90	R10-50(2S)	--	30	x	36	7.500	--	--	--	--	--	--	MOUNT ON MAST ARM
91	M1-5A	CTH G	24	x	24	4.000	--	--	--	2	--	--	--
92	M1-94S	[32] DOUGLAS AVE	102	x	18	12.750	--	--	--	--	--	--	MOUNT ON MAST ARM
93	R1-1F(3)	--	36	x	36	--	--	7.460	--	--	--	--	MOUNT ON SIGNAL POLE
94	J3-1(2S)	--	24	x	45	7.500	--	--	--	1	--	--	--
	M1-5A	CTH G	24	x	24								
	M6-6	--	21	x	21								
95	D11-1(2S)	--	24	x	18	3.000	--	--	--	1	--	--	--
96	MK5-1L(2S)	--	21	x	21	3.063	--	--	--	--	--	#95	--
97	D1-61	[A] 6 MILE RD [A]	54	x	24	9.000	--	--	--	1	--	--	--
98	R1-1F(3)	--	36	x	36	--	--	7.460	--	1	--	--	--
99	J3-1(2S)	--	24	x	45	7.500	--	--	--	1	--	--	--
	M1-5A	CTH G	24	x	24								
	M6-1	--	21	x	21								
100	M1-94S	[32] DOUGLAS AVE	102	x	18	12.750	--	--	--	--	--	--	MOUNT ON MAST ARM
101	R10-50(2S)	--	30	x	36	7.500	--	--	--	--	--	--	MOUNT ON MAST ARM
102	S1-1(2S)	--	36	x	36	--	6.750	--	--	1	--	--	--
103	S16-9P(2S)	--	30	x	18	--	3.750	--	--	--	--	#102	--
104	R2-6P(2S)	--	24	x	18	3.000	--	--	--	--	--	#102	--
105	R1-1F(3)	--	36	x	36	--	--	7.460	--	--	--	--	MOUNT ON SIGNAL POLE
106	J3-2(2S)	--	48	x	57	19.000	--	--	--	1	--	--	--
	M3-3	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M6-1	--	21	x	21								
	M3-1	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M6-1	--	21	x	21								

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
107	M1-94H	6 MILE RD	72	x	18	9.000	--	--	--	--	--	--	MOUNT ON MAST ARM
108	R10-50(2S)	--	30	x	36	7.500	--	--	--	--	--	--	MOUNT ON MAST ARM
109	W23-2(2S)	--	36	x	36	--	9.000	--	--	--	--	--	16X16 TEMPORARY FLAGS INCIDENTAL. ON SIGNAL POLE
110	S5-2(2S)	--	24	x	30	5.000	--	--	--	1	--	--	--
111	J1-1(2S)	--	24	x	39	6.500	--	--	--	1	--	--	--
	M2-1	--	21	x	15								
	M1-6	STH 31	24	x	24								
112	W3-3(2S)	--	36	x	36	--	9.000	--	--	1	--	--	16X16 TEMPORARY FLAGS INCIDENTAL
113	J2-2(2S)	--	48	x	57	19.000	--	--	--	1	--	--	--
	M3-3	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M5-1L	--	21	x	21								
	M3-1	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M6-1	--	21	x	21								
114	R3-8A(2S)	--	36	x	30	7.500	--	--	--	1	--	--	--
115	W3-3(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--
116	J1-1(2S)	--	24	x	39	6.500	--	--	--	1	--	--	--
	M2-1	--	21	x	15								
	M1-5A	CTH G	24	x	24								
117	R1-1F(3)	--	36	x	36	--	--	7.460	--	--	--	--	MOUNT ON SIGNAL POLE
118	W1-6(2S)	--	48	x	24	--	8.000	--	--	1	--	--	--
119	J1-1(2S)	--	24	x	39	6.500	--	--	--	1	--	--	--
	M2-1	--	21	x	15								
	M1-5A	--	24	x	24								
120	W3-1(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--
121	D1-61	[A] 6 MILE RD [A]	54	x	24	9.000	--	--	--	2	--	--	--
122	W8-68(2S)	--	30	x	30	--	6.250	--	--	1	--	--	--
123	R5-1(2S)	--	30	x	30	6.250	--	--	--	1	--	--	DO NOT PLACE BEHIND YIELD SIGN
124	R1-2(2S)	--	36	x	31	3.880	--	--	--	1	--	--	--
125	R1-1F(3)	--	36	x	36	--	--	7.460	--	--	--	--	MOUNT ON SIGNAL POLE

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
126	J3-1(2S)	--	48	x	57	19.000	--	--	--	1	--	--	--
	M3-3	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M6-1	--	21	x	21								
	M3-3	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M6-2	--	21	x	21								
127	W12-1D(2S)	--	24	x	24	--	4.000	--	--		--	126	2 FT MOUNTING HEIGHT
128	R10-50(2S)	--	30	x	36	7.500	--	--	--	--	--	--	MOUNT ON MAST ARM
129	J3-2(2S)	--	48	x	57	19.000	--	--	--		--	--	ON SIGNAL POLE
	M3-1	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M6-1	--	21	x	21								
	M3-3	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M6-1	--	21	x	21								
130	J3-2(2S)	--	48	x	57	19.000	--	--	--	1	--	--	--
	M3-3	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M6-1	--	21	x	21								
	M3-1	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M6-1	--	21	x	21								
131	R1-1F(3)	--	--	x	--	--	--	7.460	--	--	--	--	MOUNT ON SIGNAL POLE
132	R3-8E(2S)	--	36	x	30	7.500	--	--	--	1	--	--	--
133	J4-1(2S)	--	24	x	60	10.000	--	--	--	1	--	--	--
	M3-1	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M1-93	--	24	x	24								
134	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
135	D12-2A(2S)	--	60	x	42	17.500	--	--	--	2	--	--	--
136	J3-1(2S)	--	24	x	57	9.500	--	--	--	1	--	--	--
	M3-3	--	24	x	12								
	M1-6	STH 31	24	x	24								
	M6-2	--	21	x	21								

TYPE II PERMANENT SIGNING

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	SIGN SIZE H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
137	W3-3(2S)	--	36	x	36	--	9.000	--	--	1	--	--	16X16 TEMPORARY FLAGS INCIDENTAL
138	J2-3(2S)	--	72	x	57	28.500	--	--	--	2	--	--	--
	M3-3	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M6-1	--	21	x	21								
	M1-93	--	24	x	24								
	M6-1	--	21	x	21								
	M3-3	--	24	x	12								
	M1-6	STH 31	24	x	24								
	M5-2R	--	21	x	21								
139	NOT USED	--	--	x	--	--	--	--	--	--	--	--	--
140	W23-2(2S)	--	36	x	36	--	9.000	--	--	1	--	--	16X16 TEMPORARY FLAGS INCIDENTAL
141	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
142	J1-1(2S)	--	24	x	39	6.500	--	--	--	1	--	--	--
	M2-1	--	21	x	15								
	M1-6	STH 31	24	x	24								
143	W1-2L(2S)	--	30	x	30	--	6.250	--	--	1	--	--	--
144	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
145	D5-64L(2S)	--	60	x	36	15.000	--	--	--	2	--	--	--
146	D11-1(2S)	--	24	x	18	3.000	--	--	--	1	--	--	--
147	W14-3(2S)	--	48	x	36	--	6.000	--	--	--	--	#148	--
148	D5-65R(2S)	--	60	x	36	15.000	--	--	--	2	--	--	--
149	W1-2L(2S)	--	30	x	30	--	6.250	--	--	1	--	--	--
150	W14-3(2S)	--	48	x	36	--	6.000	--	--	--	--	#149	--
151	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
152	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
153	W1-2R(2S)	--	30	x	30	--	6.250	--	--	1	--	--	--
154	D1-1	[A] GEHRING RD	78	x	15	8.125	--	--	--	2	--	--	--
155	R1-1(2S)	--	30	x	30	5.180	--	--	--	1	--	--	--
156	W3-1(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--
157	R3-20R(2S)	--	24	x	36	6.000	--	--	--	--	--	#156	--
158	J1-1(2S)	--	24	x	39	6.500	--	--	--	1	--	--	--
	M2-1	--	21	x	15								
	M1-5A	CTH G	24	x	24								
159	W1-7(2S)	--	48	x	24	--	8.000	--	--	1	--	--	--
160	W1-4R(2S)	--	30	x	30	--	6.250	--	--	1	--	--	--
161	W3-1(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	MISCELLANEOUS QUANTITIES – PERMANENT SIGNING	SHEET:	E

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
162	R1-1(2S)	--	30	x	30	5.180	--	--	--	1	--	--	--
163	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
164	J4-1(2S)	--	24	x	36	6.000	--	--	--	1	--	--	--
	M3-3	--	24	x	12								
	M1-6	STH 31	24	x	24								
165	R3-20R(2S)	--	24	x	36	6.000	--	--	--	1	--	--	--
166	W1-7(2S)	--	48	x	24	--	8.000	--	--	1	--	--	--
167	R3-8(2S)	--	36	x	30	7.500	--	--	--	1	--	--	--
168	J2-2(2S)	--	48	x	57	19.000	--	--	--	1	--	--	--
	M3-4	--	24	x	12								
	M1-5A	CTH G	24	x	24								
	M5-1L	--	21	x	21								
	M3-2	--	24	x	12								
	M1-5A	CTH G	24	x	24								
	M5-1R	--	21	x	21								
169	W1-4R(2S)	--	30	x	30	--	6.250	--	--	1	--	--	--
170	R1-1(3)	--	36	x	36	7.460	--	--	--	1	--	--	--
171	J3-2(2S)	--	48	x	57	19.000	--	--	--	1	--	--	--
	M3-1	--	24	x	12								
	M1-6	STH 31	24	x	24								
	M6-1	--	21	x	21								
	M3-3	--	24	x	12								
	M1-6	STH 31	24	x	24								
	M6-1	--	21	x	21								
172	R1-1(3)	--	36	x	36	7.460	--	--	--	1	--	--	--
173	R1-3P(3)	--	24	x	9	1.500	--	--	--	--	--	#172	--
174	J13-1(2S)	--	24	x	45	7.500	--	--	--	1	--	--	--
	M1-5A	CTH G	24	x	24								
	M6-4	--	21	x	21								
175	R1-1(3)	--	36	x	36	7.460	--	--	--	1	--	--	--
176	R1-3P(3)	--	24	x	9	1.500	--	--	--	--	--	#175	--
177	I55-56	--	--	x	--	--	--	--	1	1	1	--	--
178	R3-8A(2S)	--	36	x	30	7.500	--	--	1	--	--	--	--
179	R1-1(3)	--	36	x	36	7.460	--	--	--	1	--	--	--
180	R1-3P(3)	--	24	x	9	1.500	--	--	--	--	--	#179	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
181	J3-2(2S)	--	48	x	57	19.000	--	--	--	1	--	--	--
	M3-4	--	24	x	12								
	M1-5A	CTH G	24	x	24								
	M6-1	--	21	x	21								
	M3-2	--	24	x	12								
	M1-5A	CTH G	24	x	24								
	M6-1	--	21	x	21								
182	J1-1(2S)	--	24	x	39	6.500	--	--	--	--	--	--	MOUNT ON UPRIGHT
	M2-1	--	21	x	15								S-51-610
	M1-6B	STH 32	24	x	24								
183	R3-5R(2S)	--	42	x	48	14.000	--	--	--	--	--	--	OVERHEAD SIGN SUPPORT S-51-610
184	R3-7R(3)	--	30	x	30	6.250	--	--	--	1	--	--	--
185	R1-1(3)	--	36	x	36	7.460	--	--	--	1	--	--	--
186	R1-3P(3)	--	24	x	9	1.500	--	--	--	--	--	#185	--
187	R1-1(3)	--	36	x	36	7.460	--	--	--	1	--	--	--
188	J3-2(2S)	--	48	x	57	19.000	--	--	--	1	--	--	--
	M3-3	--	24	x	12								
	M1-6	STH 31	24	x	24								
	M6-1	--	21	x	21								
	M3-1	--	24	x	12								
	M1-6	STH 31	24	x	24								
	M6-1	--	21	x	21								
189	J1-2(2S)	--	48	x	39	13.000	--	--	--	1	--	--	--
	M2-1	--	21	x	15								
	M1-6B	STH 32	24	x	24								
	M4-6	--	24	x	12								
	M1-6	STH 31	24	x	24								
190	R3-8A(2S)	--	36	x	30	7.500	--	--	--	1	--	--	--
191	W3-3(2S)	--	36	x	36	--	9.000	--	--	1	--	--	16X16 TEMPORARY FLAGS INCIDENTAL
192	J2-2(2S)	--	48	x	57	19.000	--	--	--	1	--	--	--
	M3-1	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M5-1L	--	21	x	21								
	M3-3	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M5-1R	--	21	X	21								

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]*	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
193	W3-1(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--
194	NOT USED	--	--	x	--	--	--	--	--	--	--	--	--
195	W3-1(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--
196	NOT USED	--	--	x	--	--	--	--	--	--	--	--	--
197	J1-1(2S)	--	24	x	39	6.500	--	--	--	1	--	--	--
	M2-1	--	21	x	15								
	M1-6	STH 31	24	x	24								
198	R1-1(2S)	--	30	x	30	5.180	--	--	--	1	--	--	--
199	R1-1(2S)	--	30	x	30	5.180	--	--	--	1	--	--	--
200	J2-2(2S)	--	48	x	57	19.000	--	--	--	1	--	--	--
	M3-1	--	24	x	12								
	M1-6	STH 31	24	x	24								
	M5-1L	--	21	x	21								
	M3-3	--	24	x	12								
	M1-6	STH 31	24	x	24								
	M5-1R	--	21	x	21								
201	I55-56	--	--	x	--	--	--	--	1	1	1	--	--
202	R2-1(2S)	45 MPH	24	x	30	5.000	--	--	--	1	--	--	--
203	J2-2(2S)	--	48	x	57	19.000	--	--	--	1	--	--	--
	M3-3	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M5-1L	--	21	x	21								
	M3-1	--	24	x	12								
	M1-6B	STH 32	24	x	24								
	M5-1L	--	21	x	21								
204	R3-8W(2S)	--	54	x	30	11.250	--	--	--	2	--	--	--
205	W3-3(2S)	--	36	x	36	--	9.000	--	--	1	--	--	--
206	R2-1(2S)	35 MPH	24	x	30	5.000	--	--	--	1	--	--	--
207	--	CLASS B WEIGHT LIMIT	--	x	--	--	--	--	--	--	1	#206	--
208	J1-1(2S)	--	24	x	39	6.500	--	--	--	1	--	--	--
	M2-1	--	21	x	15								
	M1-6B	STH 32	24	x	24								
--	--	--	--	x	--	--	--	--	--	--	--	--	--
TOTALS						1128.868	339.750	52.220	8 *	182	8		

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

STH 31 & 6 MILE ROAD
RACINE COUNTY
CATEGORY 0020
T51-1450

3

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS

LOCATION		661.0200.09 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS L.S.
STH 31 & 6 MILE ROAD		1
	TOTAL	1

FILE NAME : J:\PROJECTS\D2_23500932\71\SIG\STH31 6MILE\TXX-XXXX_mq.pptx PLOT DATE : 1/12/2018 PLOT BY : DOTSHW PLOT NAME : TXX-XXXX_mq.pdf PLOT SCALE : 1:1

3

STH 31 & STH 32
RACINE COUNTY
CATEGORY 0020
S51-1416

STATE FURNISHED MATERIALS SUMMARY

EACH	DESCRIPTION
1	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8 PHASE
1	TRAFFIC SIGNAL CABINET
3	EVP DETECTOR HEADS

STATE FURNISHED FOR INFORMATION ONLY

SIGNAL BASE NO.	EVP DETECTOR HEADS EACH
SB2	1
SB6	1
SB8	1
TOTAL	3

CONDUIT

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.
CB1	PB1		39
PB1	PB2		116
PB2	PB3		142
PB3	PB4		64
PB4	PB5		148
PB5	PB6		132
PB6	PB7		70
PB7	PB8		130
PB8	PB9		96
PB9	CB1		39
PB1	PB10	187	
PB10	PB11	150	
PB5	PB12	192	
PB12	PB13	173	
PB7	PB14	200	
PB14	PB15	150	
PB2	SB1	10	
PB3	SB2		10
PB4	SB3	9	
PB4	SB4	18	
PB5	SB5	14	
PB6	SB6		9
PB7	SB7	7	
PB8	SB8	9	
PB1	SB9	15	
	TOTAL	1134	995

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
11	PB6	178+55.7, 6.0' RT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	112	239	336
12	PB6	178+82.6, 6.0' RT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	106	239	318
21	PB11	183+39.5, 6.0' LT	6'X6'	5	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	74	412	370
22	PB10	181+89.5, 6.0' LT	6'X6'	4	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	74	246	296
41	PB15	414+31.2, 6.0' RT	6'X10'	5	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	58	570	290
42	PB14	415+81.2, 6.0' RT	6'X6'	5	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	50	404	250
43	PB7	417+83.2, 6.0' RT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	188	300
44	PB7	418+13.3, 6.0' RT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COOURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	98	188	294
45	PB7	418+7.4, 20.8' RT	6'X6'	3	LOOP DETECTOR IN BASE COURSE WITH PULL (SPICE) BOX OFF ROADWAY (OPTION 1)	46	188	138
61	PB13	175+12.1, 18.0' RT	6'X12'	5	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	62	718	310
62	PB12	176+85.5, 18.0' RT	6'X10'	5	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	58	529	290
					TOTAL	838	3921	3192

* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
* * FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

PULL BOXES

PULL BOX NO.	LOCATION*	653.0135 PULL BOXES STEEL 24x36-INCH EACH	653.0140 PULL BOXES STEEL 24x42-INCH EACH
PB1	180+11.9, 76.1' LT		1
PB2	179+77.9, 28.5' LT		1
PB3	179+77.1, 42.5' RT		1
PB4	179+45.1, 43.8' RT		1
PB5	178+72.3, 44.0' RT		1
PB6	178+72.3, 22.0' LT		1
PB7	178+99.5, 44.3' LT		1
PB8	179+65.1, 44.5' LT		1
PB9	179+88.9, 86.3' LT		1
PB10	181+89.5, 34.0' LT	1	
PB11	183+39.5, 34.0' LT	1	
PB12	176+85.5, 34.0' RT	1	
PB13	175+12.1, 34.0' RT	1	
PB14	415+81.2, 22.0' RT	1	
PB15	414+31.2, 22.0' RT	1	
	TOTAL	6	9

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

CONCRETE BASES

SIGNAL BASE NO.	LOCATION*	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0105 CONCRETE BASES TYPE 5 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	180+02.3, 85.6' LT					1
SB1	179+69.5, 23.0' LT	1				
SB2	179+70.0, 35.4' RT				1	
SB3	179+50.0, 36.8' RT	1				
SB4	179+28.3, 36.9' RT	1				
SB5	178+83.7, 37.0' RT	1				
SB6	178+75.7, 30.8' LT				1	
SB7	178+96.6, 37.6' LT	1				
SB8	179+58.46, 38.3' LT		1			
SB9	180+19.7, 62.9' LT			1		
	TOTAL	5	1	1	2	1

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0320 CABLE TYPE UF 2-10 AWG GROUNDED L.F.
CB1	SB1		124	
CB1	SB2		211	
CB1	SB3	258		
CB1	SB4	267		
CB1	SB5		332	
CB1	SB6	245		
CB1	SB7		192	
CB1	SB8	113		
CB1	SB9			55
SB9	SB2			210
CB1	SB8			113
SB8	SB6			174
	TOTAL	883	859	552

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.
CB1	SB1	124
SB1	SB2	131
SB2	SB3	91
SB3	SB4	51
SB4	SB5	146
SB5	SB6	129
SB6	SB7	91
SB7	SB8	121
SB8	CB1	113
PB1	CB1	36
PB2	SB1	104
PB3	SB2	30
PB4	SB4	38
PB5	SB5	34
PB6	SB6	29
PB7	SB7	27
PB8	SB8	29
PB9	CB1	36
	TOTAL	1360

3

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.
SB1	HEAD 4		22
SB1	HEAD 6	19	
SB2	HEAD 2	43	
SB2	HEAD 3	32	
SB2	HEAD 5		55
SB3	HEAD 10	19	
SB4	HEAD 11	19	
SB5	HEAD 1	19	
SB6	HEAD 7	50	
SB6	HEAD 8	37	
SB7	HEAD 9	19	
	TOTAL	257	77

* QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.
SB2	LUMIN.	144
SB6	LUMIN.	144
SB8	LUMIN.	117
SB9	LUMIN.	117
	TOTAL	522

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1	SB2 (HEAD B)	258
CB1	SB6 (HEAD A)	293
CB1	SB8 (HEAD C)	143
	TOTAL	694

ELECTRICAL SERVICE METER BREAKER PEDESTAL

LOCATION*	656.0200.02 ELECTRICAL SERVICE METER BREAKER PEDESTAL L.S.
STH 31 & STH 32	1
TOTAL	1

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

POLES

SIGNAL BASE NO.		657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0310 POLES TYPE 3 EACH	657.0322 POLES TYPE 5 ALUMINUM EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0609 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 6-FT EACH	657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT EACH	657.0350 POLES TYPE 10 EACH	657.0530 MONOTUBE ARMS 30-FT EACH	657.0815 JMINAIRE ARMS STEEL 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH
SB1		1					1						
SB2										1	1	1	1
SB3		1				1							
SB4		1				1							
SB5		1				1							
SB6										1	1	1	1
SB7		1				1							
SB8			1	1				1					1
SB9			1		1				1				1
	TOTAL	5	2	1	1	4	1	1	1	2	2	2	4

3

STH 31 & STH 32
RACINE COUNTY
CATEGORY 0020
S51-1416

FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.		658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH
1	SB5		1	
2	SB2		1	
3	SB2		1	
4	SB1			1
5	SB2			1
6	SB1		1	
7	SB6		1	
8	SB6		1	
9	SB7		1	
10	SB3		1	
11	SB4		1	
		TOTAL	9	2

SIGNAL MOUNTING HARDWARE

LOCATION		658.5069.02 SIGNAL MOUNTING HARDWARE L.S.
STH 31 & STH 32		1
	TOTAL	1

TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET

LOCATION		SPV.0105.02 TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET L.S.
STH 31 & STH 32		1
	TOTAL	1

EVP DETECTOR HEAD INSTALLATION

LOCATION		SPV.0105.06 EVP DETECTOR HEAD INSTALLATION L.S.
STH 31 & STH 32		1
	TOTAL	1

STH 32 & 6 MLE ROAD
RACINE COUNTY
CATEGORY 0020
S51-0235

STATE FURNISHED MATERIALS SUMMARY

EACH	DESCRIPTION
1	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8 PHASE
1	TRAFFIC SIGNAL CABINET
4	EVP DETECTOR HEADS
1	CELLULAR MODEM

STATE FURNISHED FOR INFORMATION ONLY

SIGNAL BASE NO.	EVP DETECTOR HEADS EACH
SB2	1
SB4	1
SB6	1
SB8	1
TOTAL	4

REMOVING CONCRETE BASES

SIGNAL BASE NO.	204.0195 REMOVING CONCRETE BASES EACH
CB1	1
SB1	1
SB2	1
SB3	1
SB4	1
SB5	1
SB6	1
SB7	1
SB8	1
TOTAL	9

CONDUIT

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.
CB1	PB1		39
PB1	PB2		144
PB2	PB3		192
PB3	PB4		178
PB4	PB5		98
PB5	PB6		130
PB6	PB7		182
PB7	PB8		192
PB8	CB1		48
PB1	PB9	21	
PB9	PB10	196	
PB10	PB11	150	
PB3	PB12	28	
PB12	PB13	157	
PB5	PB14	209	
PB14	PB15	110	
PB7	PB16	32	
PB16	PB17	240	
PB1	SB1	11	
PB2	SB2		17
PB3	SB3	33	
PB4	SB4		12
PB5	SB5	11	
PB6	SB6		24
PB7	SB7	30	
PB8	SB8		14
	TOTAL	1228	1270

3

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
11	PB5	169+99.4, 6.0' RT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	112	346	336
12	PB5	170+26.4, 6.0' RT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	106	346	318
21	PB11	175+831., 6.0' LT	6'X6'	5	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	50	458	250
22	PB10	174+33.1, 6.0' LT	6'X6'	4	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	46	292	184
31	PB12	317+03.5, 6.0' LT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	128	287	384
32	PB3	316+76.5, 6.0' LT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	128	243	384
41	PB17	312+62.5, 6.0' RT	6'X6'	5	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	72	462	360
42	PB16	315+28.9, 23.0' RT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	72	206	216
43	PB7	315+55.9, 23.0' RT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	68	158	204
44	PB16	315+21.5, 6.0' RT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	206	300
45	PB7	315+48.5, 6.0' RT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	158	300

3

51	PB9	172+40.3, 6.0' RT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	80	306
52	PB9	172+13.3, 6.0' RT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	80	306
61	PB15	166+96.9, 18.0' RT	6'X14'	5	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	66	697	330
62	PB14	168+06.9, 18.0' RT	6'X10'	5	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	58	571	290
71	PB16	315+16.2, 6.0' LT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	124	206	372
72	PB7	315+43.3, 6.0' LT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	126	158	378
81	PB13	319+07.0, 18.0' LT	6'X6'	5	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	70	460	350
82	PB12	316+99.3, 18.0' LT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	104	287	312
83	PB3	316+71.3, 18.0' LT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	104	243	312
84	PB12	371+18.3, 46.5' LT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	68	287	204
85	PB3	316+90.2, 71.0' LT	6'X20'	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	70	243	210
					TOTAL	1976	6474	6606

* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

* * FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

STH 32 & 6 MLE ROAD
RACINE COUNTY
CATEGORY 0020
S51-0235

3

PULL BOXES

PULL BOX NO.	LOCATION*	653.0135 PULL BOXES STEEL 24x36-INCH EACH	653.0140 PULL BOXES STEEL 24x42-INCH EACH
PB1	172+18.7, 32.6' LT		1
PB2	172+01.2, 37.5' RT		1
PB3	171+24.9, 96.0' RT		1
PB4	170+37.8, 77.7' RT		1
PB5	170+16.1, 34.0' RT		1
PB6	170+42.7, 25.0' LT		1
PB7	171+14.7, 80.1' LT		1
PB8	172+08.8, 60.0' LT		1
PB9	172+36.8, 22.0' LT	1	
PB10	174+33.1, 22.0' LT	1	
PB11	175+83.1, 22.0' LT	1	
PB12	371+18.3, 46.5' LT	1	
PB13	319+07.0, 43.8' LT	1	
PB14	168+06.9, 34.0' RT	1	
PB15	166+96.9, 34.0' RT	1	
PB16	315+01.5, 33.0' RT	1	
PB17	312+62.5, 33.0' RT	1	
	TOTAL	9	8

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

REMOVE PULL BOXES

PULL BOX NO.	653.0905 REMOVING PULL BOXES EACH
PB1	1
PB2	1
PB3	1
PB4	1
PB5	1
PB6	1
PB7	1
PB8	1
PB9	1
PB10	1
PB11	1
PB12	1
PB13	1
PB14	1
TOTAL	14

CONCRETE BASES

SIGNAL BASE NO.	LOCATION*	654.0101 CONCRETE BASES TYPE 1 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	172+14.0, 44.6' LT			1
SB1	172+13.1, 23.7' LT	1		
SB2	171+84.8, 43.3' RT		1	
SB3	316+57.0, 48.3' LT	1		
SB4	316+96.9, 45.1' RT		1	
SB5	316+74.1, 67.4' RT	1		
SB6	315+93.2, 62.2' RT		1	
SB7	315+62.5, 35.8' RT	1		
SB8	172+02.7, 47.0' LT		1	
	TOTAL	4	4	1

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0320 CABLE TYPE UF 2-10 AWG GROUNDED L.F.
CB1	SB1	51	
CB1	SB2	145	
CB1	SB3	273	
CB1	SB4	357	
CB1	SB5	354	
CB1	SB6	286	
CB1	SB7	185	
CB1	SB8	57	
CB1	SB2		145
SB2	SB4		270
CB1	SB8		57
SB8	SB6		281
	TOTAL	1708	753

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.
CB1	SB1	51
SB1	SB2	140
SB2	SB3	186
SB3	SB4	174
SB4	SB5	112
SB5	SB6	140
SB6	SB7	185
SB7	SB8	180
SB8	CB1	57
PB1	CB1	36
PB2	SB2	37
PB3	SB3	53
PB4	SB4	34
PB5	SB5	31
PB6	SB6	44
PB7	SB7	50
PB8	SB8	34
	TOTAL	1544

3

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.
SB1	HEAD 4		22
SB1	HEAD 6	19	
SB2	HEAD 2	50	
SB2	HEAD 3	32	
SB2	HEAD 5		63
SB3	HEAD 11	19	
SB3	HEAD 19		22
SB4	HEAD 17	64	
SB4	HEAD 18	38	
SB4	HEAD 20		77
SB5	HEAD 1	19	
SB5	HEAD 9		22
SB6	HEAD 7	55	
SB6	HEAD 8	37	
SB6	HEAD 10		68
SB7	HEAD 14		22
SB7	HEAD 16	19	
SB8	HEAD 12	68	
SB8	HEAD 13	38	
SB8	HEAD 15		81
	TOTAL	458	377

* QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.
SB2	LUMIN	144
SB4	LUMIN	144
SB6	LUMIN	144
SB8	LUMIN	144
	TOTAL	576

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1	SB2 (HEAD B)	216
CB1	SB6 (HEAD A)	333
CB1	SB4 (HEAD C)	429
CB1	SB8 (HEAD D)	132
	TOTAL	1110

ELECTRICAL SERVICE METER BREAKER PEDESTAL

LOCATION*	656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL L.S.
STH 32 & 6 MILE ROAD	1
TOTAL	1

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

POLES

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0360 POLES TYPE 13 EACH	657.0540 MONOTUBE ARMS 40-FT EACH	657.0545 MONOTUBE ARMS 45-FT EACH	657.0555 MONOTUBE ARMS 55-FT EACH	657.0815 LUMINAIRE ARMS STEEL 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH
SB1	1	1						
SB2			1	1			1	1
SB3	1	1						
SB4			1			1	1	1
SB5	1	1						
SB6			1		1		1	1
SB7	1	1						
SB8			1			1	1	1
TOTAL	4	4	4	1	1	2	4	4

STH 32 & 6 MLE ROAD
RACINE COUNTY
CATEGORY 0020
S51-0235

FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH
1	SB5	1	
2	SB2	1	
3	SB2	1	
4	SB1		1
5	SB2		1
6	SB1	1	
7	SB6	1	
8	SB6	1	
9	SB5		1
10	SB6		1
11	SB3	1	
12	SB8	1	
13	SB8	1	
14	SB7		1
15	SB8		1
16	SB7	1	
17	SB4	1	
18	SB4	1	
19	SB3		1
20	SB4		1
	TOTAL	12	8

SIGNAL MOUNTING HARDWARE

LOCATION	658.5069.01 SIGNAL MOUNTING HARDWARE L.S.
STH 32 & 6 MILE ROAD	1
TOTAL	1

TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET

LOCATION	SPV.0105.01 TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET L.S.
STH 32 & 6 MILE ROAD	1
TOTAL	1

EVP DETECTOR HEAD INSTALLATION

LOCATION	SPV.0105.05 EVP DETECTOR HEAD INSTALLATION L.S.
STH 32 & 6 MILE ROAD	1
TOTAL	1

REMOVE TRAFFIC SIGNALS

LOCATION	204.9105.S.07 REMOVE TRAFFIC SIGNALS L.S.
STH 32 & 6 MILE ROAD	1
TOTAL	1

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION	204.9105.S.08 REMOVE LOOP DETECTOR WIRE & LEAD-IN CABLE L.S.
STH 32 & 6 MILE ROAD	1
TOTAL	1

STH 32 CORRIDOR
RACINE COUNTY
CATEGORY 0020
COMMUNICATIONS

3

CONDUIT

FROM	TO		671.0122 CONDUIT HDPE 2-DUCT 2-INCH L.F.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	655.0510 ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG L.F.
CB1(S51-0235)	I/C CV101			25	31
I/C CV101	I/C CV102		730		736
I/C CV102	CB1(S51-1416)			71	77
		TOTAL	730	96	844

I/C PULL BOXES & VAULTS

STRUCTURE NO.	LOCATION*		673.0105 COMMUNICATION VAULT TYPE 1 EACH
I/C CV101	172+26.0, 23.3' LT		1
I/C CV102	179+59.0, 29.0' LT		1
		TOTAL	2

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

FIBER OPTIC SPLICE

LOCATION		678.0200 FIBER OPTIC SPLICE ENCLOSURE EACH
I/C CV101		1
I/C CV102		1
	TOTAL	2

FIELD SYSTEM INTEGRATOR

LOCATION*		670.0100 FIELD SYSTEM INTEGRATOR L.S.	670.0200 ITS DOCUMENTATION L.S.	678.0500 COMMUNICATION SYSTEM TESTING L.S.
2350-09-71		1	1	1
	TOTAL	1	1	1

FIBER OPTIC CABLE

FROM	TO		678.0036 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT L.F.	SPV.0090.02 FIBER OPTIC WARNING TAPE L.F.
CB1 (S51-0235)	I/C CV101			25
I/C CV101	I/C CV102		730	730
I/C CV102	CB1(S51-1416)			71
		TOTAL	730	826

FIBER OPTIC COMMUNICATIONS EQUIPMENT

LOCATION		678.0600 INSTALL ETHERNET SWITCHES EACH	678.0700 INSTALL WIRELESS ANTENNAS EACH	678.0800 INSTALL CELLULAR MODEMS EACH	ST-ST SINGLE MODE FIBER JUMPER 2-CT 4-FEET*** EACH	CAT-5E CABLE 5-FEET*** EACH
CB1 (S51-0235)		1	1	1	2	1
CB1 (S51-1416)		1			2	1
	TOTAL	2	1	1	4	2

* PAY ITEM INCLUDES INSTALLATION OF BOTH CONTRACTOR FURNISHED AND STATE FURNISHED MATERIALS

*** FOR INFORMATION ONLY

STATE FURNISHED MATERIALS SUMMARY (FOR INFORMATION ONLY)

FROM	TO	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 8-CT EACH	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 8-CT L.F.	INSTALL ETHERNET SWITCH EACH	678.0036 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT L.F.
I/C CV101	CB1 (S51-0235)	1	125	1	
I/C CV102	CB1(S51-1416)	1	171	1	
I/C CV101	I/C CV102				730
15% CONTINGENCY		--	--	--	--
	TOTAL	2	296	2	730

TRANSPORT AND INSTALL STATE FURNISHED FIBER OPTIC COMMUNICATIONS MATERIALS

LOCATION		SPV.0105.01 TRANSPORT AND INSTALL STATE FURNISHED FIBER OPTIC CABLE PIGTAIL 8-CT L.S.	SPV.0105.02 TRANSPORT AND INSTALL STATE FURNISHED FIBER OPTIC CABLE PIGTAIL 8-CT L.S.
CB1 (S51-0235)		1	
CB1 (S51-1416)			1
	TOTAL	1	1

WATER MAIN

CATEGORY	FROM STA		TO STA	SPV.0090.05 12-INCH PVC WATER MAIN (GRANULAR BACKFILL) LF	SPV.0090.06 12-INCH PVC WATER MAIN (SPOIL BACKFILL) LF
0050	131+22.3, 38.0' LT	-	131+88.8, 47.0' LT	-	75
	131+88.8, 47.0' LT	-	131+99.1 36.6' LT	15	-
	138+34.3 37.5' LT	-	138+91.4 38.3' LT	-	57
	PROJECT TOTAL			15	132

INSULATE EXISTING WATER MAIN

CATEGORY	FROM STA		TO STA	SPV.0090.04 INSULATE EXISTING WATER MAIN (SPOIL BACKFILL) LF	SPV.0090.07 INSULATE EXISTING WATER MAIN (GRANULAR LF
0050	138+20.2 37.0' LT	-	138+34.3, 37.5' LT	-	14
	138+91.4, 38.3' LT	-	139+29.6, 38.6' LT	38	-
	PROJECT TOTAL			38	14

SANITARY SEWER

CATEGORY	FROM STA		TO STA	SPV.0090.08 12" PVC SANITARY SEWER LF	SPV.0090.09 15" PVC SANITARY SEWER LF
0050	131+47.2, 49.0' RT	-	132+11.9, 43.8' RT	-	65
	132+11.9, 43.8' RT	-	132+55.0, 23.3' RT	48	-
	131+36.7, 16.9' LT	-	131+40.6, 24.7' RT	42	-
	131+40.6, 24.7' RT	-	131+47.2, 49.0' RT	-	25
	132+31.8, 17.3' LT	-	132+11.9, 43.8' RT	64	-
	PROJECT TOTAL			154	90

CONCRETE ENCASEMENT OF SANITARY SEWER

CATEGORY	FROM STA		TO STA	SPV.0090.10 LF
0050	131+47.2, 49.0' RT	-	132+11.9, 43.8' RT	65
	PROJECT TOTAL			65

FINAL CCTV

CATEGORY	FROM STA		TO STA	SPV.0090.08 12" PVC SANITARY LF
0050	131+47.2, 49.0' RT	-	132+11.9, 43.8' RT	65
	132+11.9, 43.8' RT	-	132+55.0, 23.3' RT	48
	131+36.7, 16.9' LT	-	131+40.6, 24.7' RT	42
	131+40.6, 24.7' RT	-	131+47.2, 49.0' RT	25
	132+31.8, 17.3' LT	-	132+11.9, 43.8' RT	64
	PROJECT TOTAL			244

CONNECT TO EXISTING WATER MAIN

CATEGORY	STA	LOCATION	SPV.0060.01 EA
0050	131+22.3	38.0' LT	1
	131+99.1	36.6' LT	1
	138+34.3	37.5' LT	1
	138+91.4	38.3' LT	1
	PROJECT TOTAL		4

RECONNECT SANITARY SEWER SERVICE

CATEGORY	STA	LOCATION	SPV.0060.02 EA
0050	132+20.6	RT	1
	PROJECT TOTAL		1

CLEAN SANITARY MANHOLE

CATEGORY	STA	LOCATION	SPV.0060.03 EA
0050	132+31.8	17.3' LT	1
	132+55.0	23.3' RT	1
	PROJECT TOTAL		2

INSTALL MANHOLE FRAME AND LID

CATEGORY	STA	LOCATION	SPV.0060.04 EA
0050	131+36.7	16.9' LT	1
	131+40.6	24.7' RT	1
	132+11.9	43.8' RT	1
	PROJECT TOTAL		3

EXTERNAL CHIMNEY SEAL

CATEGORY	STA	LOCATION	SPV.0060.05 EA
0050	131+36.7	16.9' LT	1
	131+40.6	24.7' RT	1
	132+11.9	43.8' RT	1
	PROJECT TOTAL		3

GROUT SANITARY MANHOLE

CATEGORY	STA	LOCATION	SPV.0060.06 EA
0050	132+31.8	17.3' LT	1
	132+55.0	23.3' RT	1
	PROJECT TOTAL		2

CONNECT TO EXISTING SANITARY SEWER

CATEGORY	STA	LOCATION	SPV.0060.07 EA
0050	131+40.6	24.7' RT	1
	131+40.6	24.7' RT	1
	131+47.2	49.0' RT	1
	132+31.8	17.3' LT	1
	132+55.00	23.3' RT	1
	PROJECT TOTAL		5

SANITARY MANHOLE

CATEGORY	STA	LOCATION	RIM ELEVATION	LOWEST INVERT ELEVATION	SPV.0200.01 48" SANITARY SEWER MANHOLE VF	SPV.0200.02 72" SANITARY SEWER MANHOLE VF
0050	131+36.7	16.9' LT	657.84	646.15	11.7	-
	131+40.6	24.7' RT	658.72	645.40	13.3	-
	132+11.9	43.8 RT	656.27	645.25	-	11.0
	PROJECT TOTAL				25.0	11.0

REMOVING MANHOLES

CATEGORY	STA	LOCATION	204.0210 EA
0050	131+50.7	LT	1
	131+49.4	RT	1
	PROJECT TOTAL		2

Foth Infrastructure & Environment, LLC
2514 S. 102nd Street
Suite 278, Lincoln Center II
West Allis, WI 53227
Phone: 414-336-7900 Fax: 414-336-7901

REUSE OF DOCUMENTS
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STH 32 PLAN OF PROPOSED IMPROVEMENTS

CALEDONIA UTILITY DISTRICT

VILLAGE OF CALEDONIA, WISCONSIN

RACINE COUNTY

REVISIONS

NO.	BY	DATE	DESCRIPTION
1			
2			
3			
4			

RECORD DRAWING OF COMPLETED CONSTRUCTION BY

RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS.

DATE

BY

Date of Preparation: APRIL 1, 2018

	BY	DATE
SURVEYED	JAH	01/24/2017
DRAWN	MLH	04/01/2018
DESIGNED	TMS	04/01/2018
CHECKED	AMS	04/01/2018

QUANTITIES

VERTICAL SCALE: 2" 0

HORIZONTAL SCALE: 0 20' 40'

PROJECT ID 16C030.02

197 03
SHEET OF

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Sep 04, 2018 - 1:35pm TMS4 O:\Caledonia Utility District\16C030.02 - STH 32 Road Reconst. Utility Planning\CAD\Plans\PHASE 2\C2.03.dwg

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 2350-09-21
RACINE TO MILWAUKEE ROAD

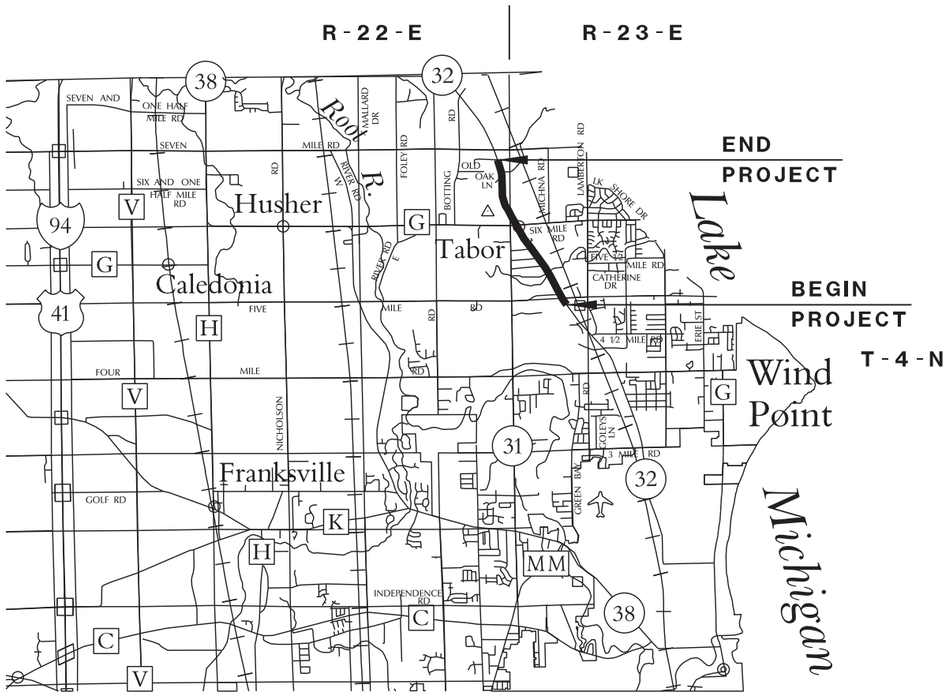
5 MILE ROAD TO 0.5 MILE NORTH OF STH 31

STH 32

RACINE COUNTY



N



R-22-E | R-23-E

LAYOUT

SCALE 0 1 MI.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	$\mathcal{L}$
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.
CONCRETE	CONC.	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VILLAGE	VILL.
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	POINT OF INTERSECTION	PI
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	LP (1" UNLESS NOTED)	BUILDING	
R/W MONUMENT	●(SET)	PROPOSED R/W LINE	
R/W STANDARD	▲(SET)	EXISTING H.E. LINE	
SIGN	ISIGN	PROPERTY LINE	
SECTION CORNER MONUMENT		LOT & TIE LINES	
SECTION CORNER SYMBOL		SLOPE INTERCEPTS	
		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 BOUNDARY POINT	RW100	SECTION LINE	
TEMPORARY LIMITED EASEMENT POINT	T1	QUARTER LINE	
PARCEL NUMBER	1	SIXTEENTH LINE	
UTILITY PARCEL NUMBER	80	EXISTING CENTERLINE	
SIGN NUMBER (OFF PREMISE)	21-	PROPOSED REFERENCE LINE	
		PARALLEL OFFSET	

CONVENTIONAL UTILITY SYMBOLS

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

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, NAD83, (1991) ADJUSTMENT, IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS NOTED ON EACH PLAT DETAIL SHEET.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES EXCEPT ON 6 MILE ROAD WEST OF STH 31 WHERE THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE SECTION LINE..

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A **HIGHWAY EASEMENT** (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2350-09-21- 4.01
SHEET 2 OF 2
AMENDMENT NO:

198

HIGHWAY	BASIS OF EXISTING R/W	YEAR	WIDTH
STH 32	DIVISION JOB NO. 2179	1933	66'
	PROJECT F 01-1(28)	1957	VARIES
	DEER RUN PARK SUBDIVISION	1994	66' WEST 1/2
5 MILE ROAD WEST OF STH 32	BY STATUTE 82.31	----	66'
5 MILE ROAD EAST OF STH 32	PROJECT F 01-1(28)	1957	50' NORTH 1/2
MATTHEWS DRIVE	DEER RUN PARK SUBDIVISION	1994	66'
HARVEST LANE	DEED: V. 2468, P. 34, DOC. 1509875 DEED: V. 2884, P. 417, DOC. 1672238	1995 1999	66'

TRANSPORTATION PROJECT PLAT NO: 2350-09-21 - 4.01

THAT PART OF THE SW 1/4 OF THE SE 1/4 AND THE NE 1/4 OF THE SW 1/4 OF SECTION AND THE NW 1/4 OF THE NE 1/4 OF SECTION 19, ALL IN TOWN 4 NORTH, RANGE 23 EAST, VILLAGE OF CALEDONIA, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER RACINE TO MILWAUKEE ROAD (5 MILE ROAD TO 0.5 MILE NORTH OF STH 31)
STH 32 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SEC4078 CAST IRON MON. W/BRASS CAP Y=214,772.49 X=625,763.00

SEC4067 CONC. MON. W/BRASS CAP Y=214,889.11 X=628,421.16

SEC4068 CONC. MON. W/BRASS CAP Y=215,003.77 X=631,085.11

SEC4091 CONC. MON. W/BRASS CAP Y=212,136.98 X=625,711.02

SEC4080 CONC. MON. W/BRASS CAP Y=212,246.52 X=628,376.92

SEC4081 CONC. MON. W/BRASS CAP Y=212,342.50 X=631,018.98

N87°32'08"E 2666.42' (MON.-MON.)

N87°38'30"E 2662.15' (MON.-MON.)

DOC. 2412961
V. 1, P. 277-278
RECORDED JULY 20, 2015.

NOTES:

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF THIS DOCUMENT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

POSITIONS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY, NAD83, (1991) ADJUSTMENT, IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE DEPARTMENT OF TRANSPORTATION REGION OFFICE IN WAUKESHA.

FOR EXISTING ACCESS CONTROL AND VISION CORNER EASEMENT RESTRICTIONS, SEE DEER RUN PARK SUBDIVISION.

GN

SCALE, FEET
0 100 200

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2350-09-21 -4.01
SHEET 1 OF 2
AMENDMENT NO:

gai consultants
transforming ideas into reality
W175 N11081 STONEWOOD DR, SUITE 103
GERMANTOWN, WI 53022
262.250.8000 • Fax 262.250.8011

I, TERRANCE E. PISAREK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2350-09-21-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE 6-24-15
TERRANCE E. PISAREK S-1930

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE 06/24/15
ROBERT L. DUFFECK, PLS

SEAL

LOCATION SKETCH
NOT TO SCALE
END PROJECT
BEGIN PROJECT
SHEET LOCATION
T-4-N
R-22-E T R-23-E

PI STA. 140+14.67
Y 214,811.43
X 627,880.00
PC STA. 138+28.88
PT STA. 142+00.33
DELTA 03°42'52"
D 01°00'00"
L 371.45'
R 5729.58'
LCH 371.39'
LCB N34°11'09"W

PI STA. 130+88.75
Y 214,028.65
X 628,375.40
PC STA. 128+04.38
PT STA. 133+72.66
DELTA 05°40'58"
D 01°00'00"
L 568.28'
R 5729.58'
LCH 568.05'
LCB N29°29'14"W

RW113-RW114
L 36.79'
R 5696.58'
LCH 36.79'
LCB N32°08'37"W

RW109-RW112
L 318.59'
R 5664.58'
LCH 318.54'
LCB N30°31'50"W

L 66.00'
R 5664.58'
LCH 66.00'
LCB N30°55'39"W

RW123-RW124
L 231.72'
R 5762.58'
LCH 231.70'
LCB S33°28'50"E

RW125-RW126
L 571.55'
R 5762.58'
LCH 571.32'
LCB S29°29'14"E

RW107-RW108
L 210.44'
R 5696.58'
LCH 210.43'
LCB N27°42'15"W

RW100-RW101
L 190.99'
R 5814.58'
LCH 190.98'
LCB N29°43'22"W

RW129-RW130
L 295.65'
R 5669.58'
LCH 295.61'
LCB S28°08'23"E

T10-RW100
L 45.55'
R 5814.58'
LCH 45.55'
LCB S30°26'21"E

RW133-RW100
L 58.90'
R 5814.58'
LCH 58.90'
LCB N30°57'14"W

DEER RUN PARK LOT
V.34,P.77,DOC.1461133 21

MATTHEWS DRIVE

HARVEST LANE

TOWN OF CALEDONIA
ASSESSOR'S PLAT NO."2"
V.33,P.108,DOC.1250699

VILLAGE OF CALEDONIA

1/16TH LINE

NE-SW NW-SE
SE-SW SW-SE

BEGINNING LIMITS RELOCATION ORDER
STA. 110+62.86
X=629,303.732
Y=212,228.573

5 MILE ROAD

STH 32

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	PLE	TLE
1	NEW HOPE EVANGELICAL LUTHERAN CHURCH	TLE	-----	-----	-----	-----	0.114
2	MICHAEL R. LUCAS & RACHAEL L. MAYNE	FEE/TLE	0.022	0.136	0.158	-----	0.029
3	WARREN P. KRUG, et al.	FEE/TLE	0.141	0.000	0.141	-----	0.020
43	DAVID J. KROES	TLE	-----	-----	-----	-----	0.005
44	J & A OF RACINE, LLC	TLE	-----	-----	-----	-----	0.008
45	JEFFREY M. & JACKIE L. BAUGRUD	TLE	-----	-----	-----	-----	0.013

TLE POINT STATION & OFFSET TABLE

POINT	STATION	OFFSET
T1	136+18.00	43.05'
T2	137+04.36	51.62'
T3	137+36.02	78.67'
T4	138+40.91	143.32'
T5	138+22.83	72.00'
T6	138+32.04	63.55'
T8	111+47.16	152.74'
T9	112+18.67	121.45'
T10	112+13.33	85.00'
T11	131+43.00	33.00'
T12	131+43.00	43.00'
T13	131+98.00	43.00'
T14	131+98.00	33.00'
T15	138+22.00	33.00'
T16	138+22.00	43.00'
T17	138+28.88	43.00'
T18	138+77.00	43.00'
T19	138+77.00	33.00'

UTILITY SCHEDULE & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
80	VILLAGE OF CALEDONIA	ROR
81	WE ENERGIES - ELECTRIC	ROR
82	WE ENERGIES - GAS	ROR

(80) NO RECORDED EASE. - PARCEL 1
HYDRANT

V. 2370, P. 127, DOC. 1465476 - PARCEL 2
15' WATER MAIN EASE.

V. 1670, P. 512, DOC. 1121218 - PARCEL 3
30' DRAINAGE EASE.

V. 2370, P. 187, DOC. 1465496 - PARCEL 3
15' WATER MAIN EASE.

NO RECORDED EASE. - PARCELS 43 & 44
SANITARY SEWER EASE.

(81) V. 194, P. 640, DOC. 293728 - PARCELS 2 & 3
(UNLOCATABLE)

V. 1487, P. 242, DOC. 1044536 - PARCEL 3
(UNLOCATABLE)

(82) V. 194, P. 640, DOC. 293728 - PARCELS 2 & 3
(UNLOCATABLE)

R/W & TLE COURSE TABLE

COURSE	BEARING	DISTANCE
PRW115-PRW116	N37°59'48"W	90.92'
PRW116-PRW117	N72°50'16"W	35.52'
PRW117-PRW118	N72°32'58"W	124.98'
PRW118-PRW119	N71°40'05"E	82.75'
T1-T2	N37°59'48"W	86.79'
T2-T3	N72°50'16"W	41.64'
T4-T5	N71°40'05"E	76.36'
T5-T6	N10°18'26"E	12.47'
RW133-T8	S87°55'11"W	77.44'
T8-T9	N07°22'24"W	79.62'
T9-T10	N68°17'08"E	36.85'
T12-T13	CURVE	55.41'
T16-T17	N32°19'43"W	6.88'
T17-T18	CURVE	48.49'

199
2350-09-21 4.01
PLOT SCALE : 1:100
PLOT NAME :
PLOT BY : rubenmw
PLOT DATE : 6/23/2015
PLOT DATE :
FILE NAME : P:\GMT\WisDOT\R09-0319-100 STH 32\graphics\040101_rp.dgn
APPRAISAL PLAT DATE :

TRANSPORTATION PROJECT PLAT NO: 2350-09-21 - 4.02

THAT PART LOT 3 OF CSM 1985, LOTS 2 AND 3 OF CSM 2593 AND LOT 1 OF BLOCK 2 OF OLD COLONY ORCHARD SUBDIVISION IN AND INCLUDING THAT PART OF THE NE 1/4 OF THE NW 1/4, THE SE 1/4 OF THE NW 1/4, THE SW 1/4 OF THE NW 1/4 AND THE NW 1/4 OF THE NW 1/4 OF SECTION 18, ALSO THAT PART OF THE SE 1/4 OF THE SW 1/4 AND THE SW 1/4 OF THE SW 1/4 OF SECTION 7, ALL IN TOWN 4 NORTH, RANGE 23 EAST, VILLAGE OF CALEDONIA, RACINE COUNTY, WISCONSIN.

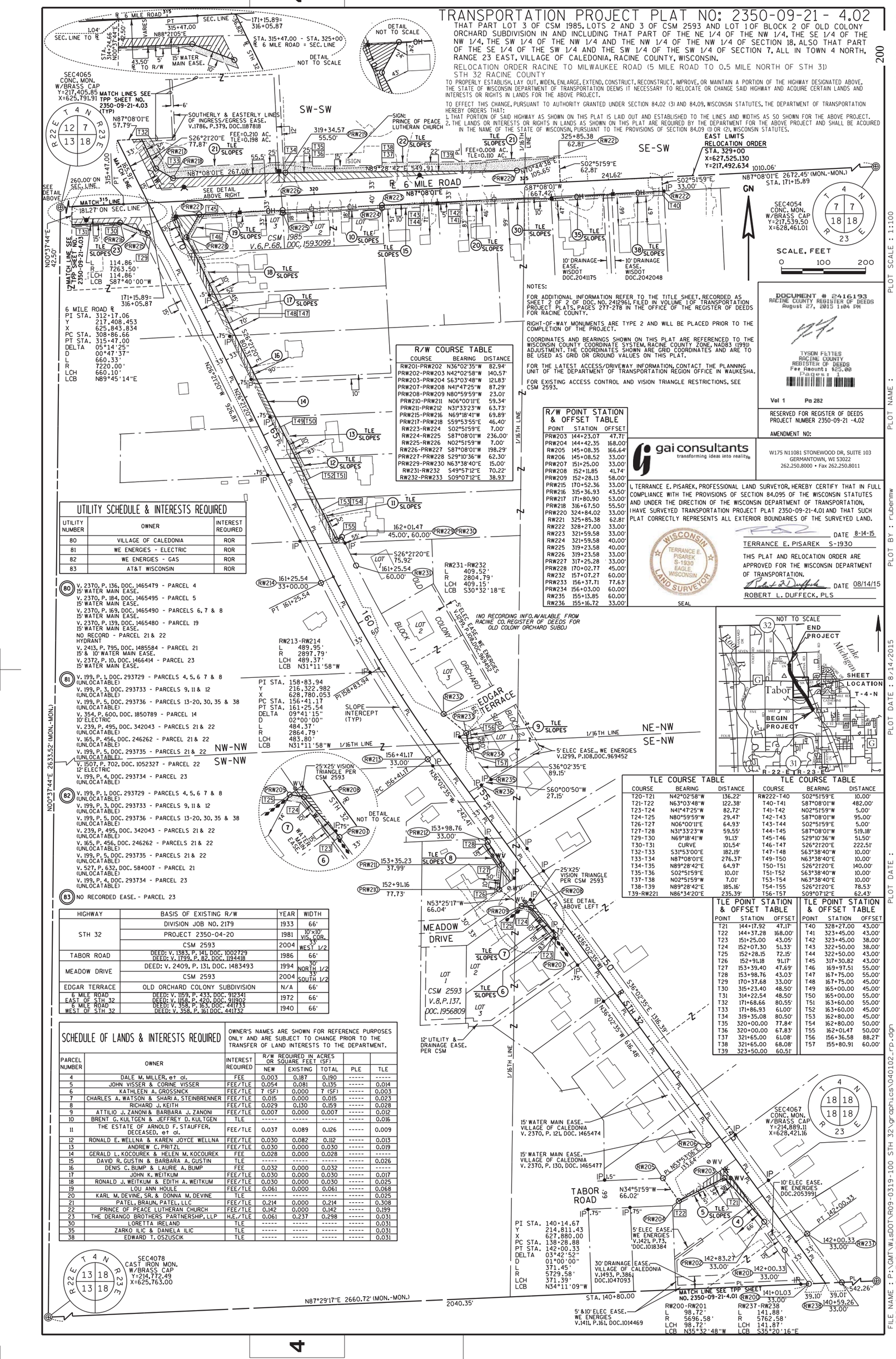
RELOCATION ORDER RACINE TO MILWAUKEE ROAD (5 MILE ROAD TO 0.5 MILE NORTH OF STH 31)

STH 32 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

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R/W COURSE TABLE

COURSE	BEARING	DISTANCE
PRW201-PRW202	N36°02'35"W	82.94'
PRW202-PRW203	N42°02'58"W	140.57'
PRW203-PRW204	S63°03'48"W	121.83'
PRW207-PRW208	N41°47'25"W	87.29'
PRW208-PRW209	N80°59'59"W	23.01'
PRW210-PRW211	N06°00'11"E	59.34'
PRW211-PRW212	N31°33'23"W	63.73'
PRW215-PRW216	N69°18'41"W	69.89'
PRW217-PRW218	S59°53'55"E	46.40'
PRW223-PRW224	S02°51'59"E	7.00'
PRW224-PRW225	S87°08'01"W	236.00'
PRW225-PRW226	N02°51'59"W	7.00'
PRW226-PRW227	S87°08'01"W	198.29'
PRW227-PRW228	S29°10'36"W	62.30'
PRW229-PRW230	N63°38'40"E	15.00'
PRW231-PRW232	S49°57'12"E	70.22'
PRW232-PRW233	S09°07'12"E	38.93'

R/W POINT STATION & OFFSET TABLE

POINT	STATION	OFFSET
PRW203	144+23.07	47.71'
PRW204	144+42.35	168.00'
PRW205	145+08.35	166.64'
PRW206	145+08.52	33.00'
PRW207	151+25.00	33.00'
PRW208	152+11.85	41.74'
PRW209	152+28.13	58.00'
PRW215	170+52.36	33.00'
PRW216	315+36.93	43.50'
PRW217	171+80.90	53.00'
PRW218	316+67.50	55.50'
PRW220	324+84.02	33.00'
RW221	325+85.38	62.81'
RW222	328+27.00	33.00'
RW223	321+59.58	33.00'
RW224	321+59.58	40.00'
RW225	319+23.58	40.00'
RW226	319+23.58	33.00'
RW227	317+25.28	33.00'
RW228	170+02.77	45.00'
RW232	157+07.27	60.00'
RW233	156+37.71	77.63'
RW234	156+03.00	60.00'
RW235	155+13.85	60.00'
RW236	155+16.72	33.00'

UTILITY SCHEDULE & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
80	VILLAGE OF CALEDONIA	ROR
81	WE ENERGIES - ELECTRIC	ROR
82	WE ENERGIES - GAS	ROR
83	AT&T WISCONSIN	ROR

(80) V. 2370, P. 136, DOC. 1465479 - PARCEL 4
15' WATER MAIN EASE.
V. 2370, P. 184, DOC. 1465495 - PARCEL 5
15' WATER MAIN EASE.
V. 2370, P. 169, DOC. 1465490 - PARCELS 6, 7 & 8
15' WATER MAIN EASE.
V. 2370, P. 159, DOC. 1465480 - PARCEL 19
15' WATER MAIN EASE.
NO RECORD - PARCEL 21 & 22
HYDRANT
V. 2413, P. 795, DOC. 1485584 - PARCEL 21
15' & 10' WATER MAIN EASE.
V. 2372, P. 10, DOC. 1466414 - PARCEL 23
15' WATER MAIN EASE.

(81) V. 199, P. 1, DOC. 293729 - PARCELS 4, 5, 6 7 & 8 (UNLOCATABLE)
V. 199, P. 3, DOC. 293733 - PARCELS 9, 11 & 12 (UNLOCATABLE)
V. 199, P. 5, DOC. 293736 - PARCELS 13-20, 30, 35 & 38 (UNLOCATABLE)
V. 354, P. 600, DOC. 1850789 - PARCEL 14
10' ELECTRIC
V. 239, P. 495, DOC. 342043 - PARCELS 21 & 22 (UNLOCATABLE)
V. 165, P. 456, DOC. 246262 - PARCEL 21 & 22 (UNLOCATABLE)
V. 199, P. 5, DOC. 293735 - PARCELS 21 & 22 (UNLOCATABLE)
V. 1507, P. 702, DOC. 1052327 - PARCEL 22
12' ELECTRIC
V. 199, P. 4, DOC. 293734 - PARCEL 23 (UNLOCATABLE)

(82) V. 199, P. 1, DOC. 293729 - PARCELS 4, 5, 6 7 & 8 (UNLOCATABLE)
V. 199, P. 3, DOC. 293733 - PARCELS 9, 11 & 12 (UNLOCATABLE)
V. 199, P. 5, DOC. 293736 - PARCELS 13-20, 30, 35 & 38 (UNLOCATABLE)
V. 239, P. 495, DOC. 342043 - PARCELS 21 & 22 (UNLOCATABLE)
V. 165, P. 456, DOC. 246262 - PARCELS 21 & 22 (UNLOCATABLE)
V. 199, P. 5, DOC. 293735 - PARCELS 21 & 22 (UNLOCATABLE)
V. 527, P. 60, DOC. 584007 - PARCEL 21 (UNLOCATABLE)
V. 199, P. 4, DOC. 293734 - PARCEL 23 (UNLOCATABLE)

(83) NO RECORDED EASE. - PARCEL 23

HIGHWAY	BASIS OF EXISTING R/W	YEAR	WIDTH
STH 32	DIVISION JOB NO. 2179	1933	66'
	PROJECT 2350-04-20	1981	10'x10' VIS. COR. 33' WEST 1/2
	CSM 2593	2004	
TABOR ROAD	DEED: V. 1383, P. 141, DOC. 1002729 DEED: V. 1799, P. 82, DOC. 1194418	1986	66'
MEADOW DRIVE	DEED: V. 2409, P. 131, DOC. 1483493	1994	30' NORTH 1/2
	CSM 2593	2004	33' SOUTH 1/2
EDGAR TERRACE	OLD ORCHARD COLONY SUBDIVISION	N/A	66'
6 MILE ROAD EAST OF STH 32	DEED: V. 1159, P. 433, DOC. 912341 DEED: V. 1158, P. 420, DOC. 911902	1972	66'
6 MILE ROAD WEST OF STH 32	DEED: V. 358, P. 163, DOC. 441733 DEED: V. 358, P. 161 DOC. 441732	1940	66'

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED IN ACRES OR SQUARE FEET (SF) NEW	EXISTING	TOTAL	PLE	TLE
4	DALE M. MILLER, et al.	FEE	0.003	0.187	0.190	-----	-----
5	JOHN VISSER & CORINE VISSER	FEE/TLE	0.054	0.081	0.135	-----	0.014
6	KATHLEEN A. GROSSNICK	FEE/TLE	7 (SF)	0.000	7 (SF)	-----	0.003
7	CHARLES A. WATSON & SHARI A. STEINBRENNER	FEE/TLE	0.015	0.000	0.015	-----	0.023
8	RICHARD J. KEITH	FEE/TLE	0.029	0.130	0.159	-----	0.028
9	ATTILIO J. ZANONI & BARBARA J. ZANONI	FEE/TLE	0.007	0.000	0.007	-----	0.012
10	BRENT C. KULTGEN & JEFFREY D. KULTGEN	TLE	-----	-----	-----	-----	0.016
11	THE ESTATE OF ARNOLD F. STAUFFER, DECEASED, et al.	FEE/TLE	0.037	0.089	0.126	-----	0.009
12	RONALD E. WELLNA & KAREN JOYCE WELLNA	FEE/TLE	0.030	0.082	0.112	-----	0.013
13	ANDREW C. PRITZL	FEE/TLE	0.030	0.000	0.030	-----	0.019
14	GERALD L. KOCOUREK & HELEN M. KOCOUREK	FEE	0.028	0.000	0.028	-----	-----
15	DAVID R. GUSTIN & BARBARA A. GUSTIN	TLE	-----	-----	-----	-----	0.026
16	DENIS C. BUMP & LAURIE A. BUMP	FEE	0.032	0.000	0.032	-----	-----
17	JOHN K. WEITKUM	FEE/TLE	0.030	0.000	0.030	-----	0.017
18	RONALD J. WEITKUM & EDITH A. WEITKUM	FEE/TLE	0.030	0.000	0.030	-----	0.025
19	LOU ANN HOULE	FEE/TLE	0.061	0.000	0.061	-----	0.068
20	KARL M. DEVINE, SR. & DONNA M. DEVINE	TLE	-----	-----	-----	-----	0.025
21	PATEL, BRAUN, PATEL, LLC	FEE/TLE	0.214	0.000	0.214	-----	0.308
22	PRINCE OF PEACE LUTHERAN CHURCH	FEE/TLE	0.142	0.000	0.142	-----	0.199
23	THE DERANGO BROTHERS PARTNERSHIP, LLP	H.E./TLE	0.061	0.237	0.298	-----	0.031
30	LORETTA IRELAND	TLE	-----	-----	-----	-----	0.031
35	ZARKO ILIC & DANIELA ILIC	TLE	-----	-----	-----	-----	0.031
38	EDWARD T. OSZUSCIK	TLE	-----	-----	-----	-----	0.031

TLE COURSE TABLE

COURSE	BEARING	DISTANCE
T20-T21	N42°02'58"W	136.22'
T21-T22	N63°03'48"W	122.38'
T23-T24	N41°47'25"W	82.72'
T24-T25	N80°59'59"W	29.47'
T26-T27	N06°00'11"E	64.93'
T27-T28	N31°33'23"W	59.55'
T29-T30	N69°18'41"W	91.13'
T30-T31	CURVE	101.54'
T32-T33	S31°53'00"E	182.19'
T33-T34	N87°08'01"E	276.37'
T34-T35	N89°28'42"E	64.97'
T35-T36	S02°51'59"E	10.01'
T37-T38	N02°51'59"W	7.01'
T38-T39	N89°28'42"E	185.16'
T39-RW221	N86°34'20"E	235.39'
RW222-T40	S02°51'59"E	10.00'
T40-T41	S87°08'01"W	482.00'
T41-T42	N02°51'59"W	5.00'
T42-T43	S87°08'01"W	95.00'
T43-T44	S02°51'59"E	5.00'
T44-T45	S87°08'01"W	519.18'
T45-T46	S29°10'36"W	51.50'
T46-T47	S26°21'20"E	222.51'
T47-T48	S63°38'40"W	10.00'
T49-T50	N63°38'40"E	10.00'
T50-T51	S26°21'20"E	140.00'
T51-T52	S63°38'40"W	10.00'
T53-T54	N63°38'40"E	10.00'
T54-T55	S26°21'20"E	78.53'
T56-T57	S09°07'12"E	62.43'

TLE POINT STATION & OFFSET TABLE

POINT	STATION	OFFSET
T21	144+17.92	47.17'
T22	144+37.28	168.00'
T23	151+25.00	43.05'
T24	152+07.30	51.33'
T25	152+28.15	72.15'
T26	152+91.18	91.17'
T27	153+39.40	47.69'
T28	153+98.76	43.03'
T29	170+37.68	33.00'
T30	315+23.40	48.50'
T31	314+22.54	48.50'
T32	171+68.66	80.55'
T33	171+86.93	61.00'
T34	319+35.08	80.50'
T35	320+00.00	77.84'
T36	320+00.00	67.83'
T37	321+65.00	61.08'
T38	321+65.00	68.08'
T39	323+50.00	60.51'

TLE POINT STATION & OFFSET TABLE

POINT	STATION	OFFSET
T40	328+27.00	43.00'
T41	323+45.00	43.00'
T42	323+45.00	38.00'
T43	322+50.00	38.00'
T44	322+50.00	43.00'
T45	317+30.82	43.00'
T46	169+97.51	55.00'
T47	167+75.00	55.00'
T48	167+75.00	45.00'
T49	165+00.00	45.00'
T50	165+00.00	55.00'
T51	163+60.00	55.00'
T52	163+60.00	45.00'
T53	162+80.00	45.00'
T54	162+80.00	50.00'
T55	162+01.47	50.00'
T56	156+36.58	66.27'
T57	155+80.91	60.00'

NOTES:

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOC. NO. 2412961, FILED IN VOLUME 1 OF TRANSPORTATION PROJECT PLATS, PAGES 277-278 IN THE OFFICE OF THE REGISTER OF DEEDS FOR RACINE COUNTY.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (1991) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE DEPARTMENT OF TRANSPORTATION REGION OFFICE IN WAUKESHA.

FOR EXISTING ACCESS CONTROL AND VISION TRIANGLE RESTRICTIONS, SEE CSM 2593.

DOCUMENT # 2416193
RACINE COUNTY REGISTER OF DEEDS
August 27, 2015 1:04 PM
TYSON FEITER
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 125.00
Pages: 1
Vol 1 Pg 282

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2350-09-21 -4.02

AMENDMENT NO:

gai consultants
transforming ideas into reality®
W175 N11081 STONEWOOD DR, SUITE 103
GERMANTOWN, WI 53022
262.250.8000 • Fax 262.250.8011

I, TERRANCE E. PISAREK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2350-09-21-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE 8-14-15

TERRANCE E. PISAREK S-1930

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE 08/14/15

ROBERT L. DUFFECK, PLS

SEAL

PLOT NAME : P:\GMT\WisDOT\R09-0319-100 STH 32\graphics\04102_rp.dgn
PLOT SCALE : 1:100
PLOT BY : rubenmw
PLOT DATE : 8/14/2015
APPRAISAL PLAT DATE :
2350-09-21 4.02
200

TRANSPORTATION PROJECT PLAT NO: 2350-09-21- 4.03

THAT PART OF LOT 15 OF MAJESTIC MANOR SUBDIVISION AND PARCEL 2 OF CSM 1090 IN AND INCLUDING THAT PART OF THE NE 1/4 OF THE NE 1/4 OF SECTION 13 AND THAT PART OF THE SE 1/4 OF THE SE 1/4 OF SECTION 12, ALL IN TOWN 4 NORTH, RANGE 22 EAST, ALSO THAT PAR OF THE SW 1/4 OF THE SW 1/4 OF SECTION 7 AND THAT PART OF THE NW 1/4 OF THE NW 1/4 OF SECTION 18, ALL IN TOWN 4 NORTH, RANGE 23 EAST, VILLAGE OF CALEDONIA, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER RACINE TO MILWAUKEE ROAD (5 MILE ROAD TO 0.5 MILE NORTH OF STH 31)
STH 32 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOC. NO. 2412961, FILED IN VOLUME 1 OF TRANSPORTATION PROJECT PLATS, PAGES 277-278 IN THE OFFICE OF THE REGISTER OF DEEDS FOR RACINE COUNTY.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (1991) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE DEPARTMENT OF TRANSPORTATION REGION OFFICE IN WAUKESHA.

FOR EXISTING ACCESS CONTROL ALONG 6 MILE ROAD AND STH 31, SEE CSM 1090, MAJESTIC MANOR SUBDIVISION AND AFFIDAVIT OF CHANGE, DOC. 2055210.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED IN ACRES OR SQUARE FEET (SF) NEW	EXISTING	TOTAL	PLE	TLE
21	PATEL, BRAUN, PATEL, LLC	FEE/TLE	0.211	0.000	0.211	-----	0.146
23	DERANGO BROTHERS PARTNERSHIP, LLP	H.E./TLE	0.042	0.000	0.042	-----	0.017
24	NBS PARTNERSHIP	FEE/TLE	0.037	0.000	0.037	-----	0.018
25	SIX MILE INVESTMENTS LLC	FEE/TLE	0.040	0.000	0.040	-----	0.022
26	GALLO INVESTMENTS, LLC	FEE/TLE	0.052	0.000	0.052	-----	0.039
27	LEONARD M. MUCHOWICZ	FEE/TLE	0.096	0.000	0.096	-----	0.075
28	JOHN H. SCHUETTE & OREN B. SCHUETTE	FEE/TLE	0.069	0.000	0.069	-----	0.045
29	JASON M. DAHL	FEE/TLE	0.037	0.000	0.037	-----	0.023
31	JAMES A. LOWE	FEE/TLE	0.030	0.000	0.030	-----	0.023
32	ROSTISLAV IVSIN & JANA IVSIN	FEE/TLE	0.042	0.000	0.042	-----	0.050
33	CHERYL J. BERGEMAN	FEE/TLE	0.043	0.063	0.106	-----	0.067
34	ROSALAND M. SIKES	FEE/TLE	0.006	0.043	0.049	-----	0.011
36	JANET SIKES	FEE	4 (SF)	2109 (SF)	2113 (SF)	-----	-----
37	ERIC R. SCHUMANN & JANE SCHUMANN	FEE/TLE	0.009	0.237	0.246	-----	0.040
40	MAJESTIC NORTH DEVELOPMENT, INC.	TLE	-----	-----	-----	-----	0.022
41	JIMMY O. DEAN, JR. & CHRISTINE F. DEAN	TLE	-----	-----	-----	-----	0.013
42	NBS PARTNERSHIP 7012 hwy 31 , LLC	FEE/TLE	0.031	0.000	0.031	-----	0.025

DOCUMENT # 2416194
RACINE COUNTY REGISTER OF DEEDS
August 27, 2015 1:04 PM
TYSON FETTES
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Pages: 1
Vol 1 Pg 281

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2350-09-21 -4.02

AMENDMENT NO:

R/W POINT STATION & OFFSET TABLE

POINT	STATION	OFFSET
PRW300	312+75.39	43.50'
RW301	310+65.44	56.98'
RW302	307+66.80	54.75'
PRW303	307+66.50	44.75'
PRW304	305+56.60	44.75'
PRW305	305+81.59	36.50'
PRW306	305+70.84	47.25'
PRW307	310+67.01	45.01'
PRW308	312+66.98	43.50'
RW311	176+88.90	33.00'
RW312	178+75.73	33.00'
RW313	417+54.57	32.98'
PRW328	185+24.48	33.00'

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
RW301-RW302	N87°37'34"W	300.02'
RW302-PRW303	N00°37'12"E	10.00'
PRW303-PRW304	N87°37'34"W	209.90'
PRW304-PRW305	N19°28'07"E	85.01'
PRW305-PRW306	N42°37'34"W	15.20'
PRW306-PRW307	S87°37'34"E	495.03'
PRW309-PRW310	N37°52'27"E	69.17'
RW312-RW313	N72°30'35"W	26.23'
RW314-RW315	N00°47'37"E	109.67'
RW326-RW327	N87°21'12"W	8.06'
PRW329-PRW330	N56°14'20"E	8.00'
PRW330-PRW331	S33°45'40"E	64.25'

TLE POINT STATION & OFFSET TABLE

POINT	STATION	OFFSET
T70	314+22.54	48.50'
T71	312+70.50	48.50'
T72	310+70.42	62.11'
T73	308+80.00	59.75'
T74	308+80.00	54.75'
T76	306+90.00	54.75'
T77	306+90.00	49.75'
T78	306+40.00	49.75'
T79	306+40.00	44.75'
T80	305+65.84	52.25'
T81	307+80.00	52.25'
T82	307+80.00	57.25'
T83	309+35.88	57.08'
T84	309+35.87	55.08'
T85	310+75.05	52.81'
T86	312+61.87	48.50'
T87	314+86.81	48.50'
T88	172+30.29	43.00'
T89	179+49.83	43.00'

TLE POINT STATION & OFFSET TABLE

POINT	STATION	OFFSET
T90	179+49.83	33.00'
T91	172+50.23	72.66'
T92	173+50.00	63.00'
T93	175+75.00	63.00'
T94	175+75.00	68.00'
T95	176+88.90	68.00'
T96	179+35.75	68.00'
T97	180.00.00	68.00'
T98	180+00.00	57.00'
T99	184+70.00	49.01'
T100	184+70.00	36.99'
T101	185+25.00	33.00'
T102	185+25.00	35.00'
T103	184+64.00	35.00'
T104	184+64.00	41.65'
T105	182+95.00	58.60'
T106	182+95.00	52.41'
T107	417+84.24	57.47'
T108	416+85.00	50.22'

TLE COURSE TABLE

COURSE	BEARING	DISTANCE
T70-T71	CURVE	153.06'
T72-T73	S87°37'34"E	191.98'
T73-T74	N00°22'26"E	5.00'
RW302-T76	N87°37'34"W	76.80'
T76-T77	N02°22'26"E	5.00'
T77-T78	N87°37'34"W	50.00'
T78-T79	N02°22'26"E	5.00'
T80-T81	S87°37'34"E	214.16'
T81-T82	N02°22'26"E	5.00'
T82-T83	S87°37'34"E	95.00'
T83-T84	S02°22'26"W	2.00'
T84-T85	S87°37'34"E	198.65'
T86-T87	CURVE	223.43'
T88-T89	N26°21'20"W	219.53'
T89-T90	N63°38'40"E	10.00'

TLE COURSE TABLE

COURSE	BEARING	DISTANCE
T91-T92	N31°53'00"W	182.19'
T92-T93	N26°21'20"W	225.00'
T93-T94	N63°38'40"E	5.00'
T94-T95	N26°21'20"W	113.90'
T95-T96	CURVE	255.64'
T96-T97	N33°45'40"W	64.25'
T97-T98	S56°14'20"W	11.00'
T98-T99	N34°28'49"W	467.67'
T99-T100	S58°58'19"W	12.02'
T101-T102	S60°37'19"W	2.00'
T102-T103	S30°17'35"E	62.12'
T103-T104	S58°47'31"W	6.65'
T104-T105	S27°26'56"E	171.87'
T105-T106	N56°14'20"E	6.19'
T107-T108	S00°47'37"W	119.10'

TLE COURSE TABLE

COURSE	BEARING	DISTANCE
RW327-RW328		
L		76.52'
R		1876.86'
LCH		76.51'
LCB	S28°13'32"E	

gai consultants

transforming ideas into reality®

W175 N11081 STONEWOOD DR, SUITE 103
GERMANTOWN, WI 53022
262.250.8000 • Fax 262.250.8011

I, TERRANCE E. PISAREK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2350-09-21-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN TERRANCE E. PISAREK S-1930 EAGLE WISCONSIN LAND SURVEYOR SEAL

DATE 8-18-15

TERRANCE E. PISAREK S-1930

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE 08/18/15

ROBERT L. DUFFECK, PLS

LOCATION SKETCH
NOT TO SCALE

UTILITY SCHEDULE & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
80	VILLAGE OF CALEDONIA	ROR
81	WE ENERGIES - ELECTRIC	ROR
82	WE ENERGIES - GAS	ROR
83	AT&T WISCONSIN	ROR

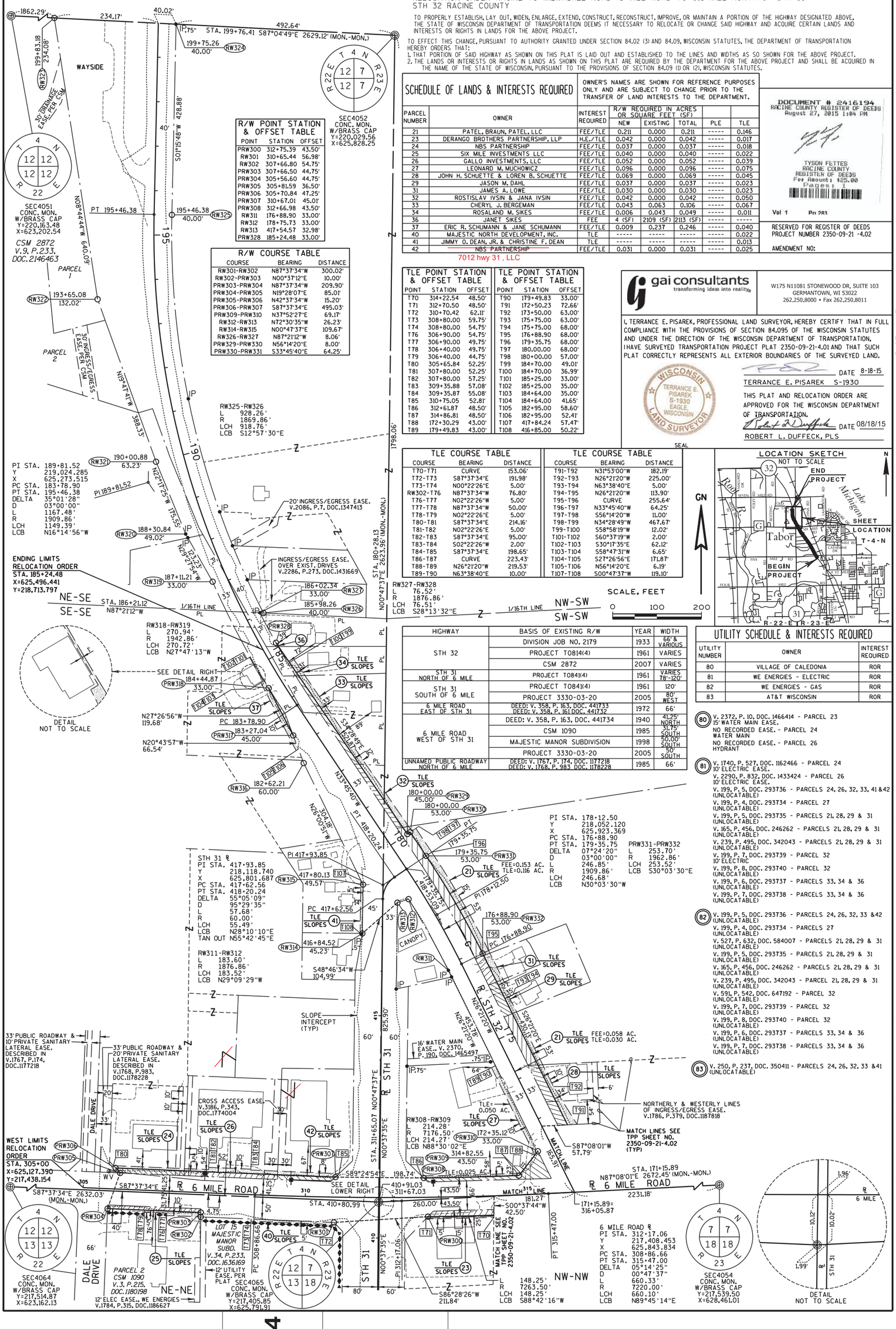
HIGHWAY	BASIS OF EXISTING R/W	YEAR	WIDTH
STH 32	DIVISION JOB NO. 2179	1933	66' & VARIOUS
	PROJECT T0814(4)	1961	VARIES
	CSM 2872	2007	VARIES
STH 31 NORTH OF 6 MILE	PROJECT T0841(4)	1961	VARIES 78'-120'
STH 31 SOUTH OF 6 MILE	PROJECT T0841(4)	1961	120'
	PROJECT 3330-03-20	2005	80' WEST
6 MILE ROAD EAST OF STH 31	DEED: V. 358, P. 163, DOC. 441733 DEED: V. 358, P. 161 DOC. 441732	1972	66'
6 MILE ROAD WEST OF STH 31	DEED: V. 358, P. 163, DOC. 441734	1940	41.25' NORTH 31.75' SOUTH
	CSM 1090	1985	50.00' SOUTH
	MAJESTIC MANOR SUBDIVISION	1998	50' SOUTH
	PROJECT 3330-03-20	2005	50' SOUTH
UNNAMED PUBLIC ROADWAY NORTH OF 6 MILE	DEED: V. 1767, P. 174, DOC. 1177218 DEED: V. 1768, P. 983 DOC. 1178228	1985	66'

(80) V. 2372, P. 10, DOC. 1466414 - PARCEL 23
15' WATER MAIN EASE.
NO RECORDED EASE. - PARCEL 24
WATER MAIN
NO RECORDED EASE. - PARCEL 26
HYDRANT

(81) V. 1740, P. 527, DOC. 1162466 - PARCEL 24
10' ELECTRIC EASE.
V. 2290, P. 832, DOC. 1433424 - PARCEL 26
10' ELECTRIC EASE.
V. 199, P. 5, DOC. 293736 - PARCELS 24, 26, 32, 33, 41 &42 (UNLOCATABLE)
V. 199, P. 4, DOC. 293734 - PARCEL 27 (UNLOCATABLE)
V. 199, P. 5, DOC. 293735 - PARCELS 21, 28, 29 & 31 (UNLOCATABLE)
V. 165, P. 456, DOC. 246262 - PARCELS 21, 28, 29 & 31 (UNLOCATABLE)
V. 239, P. 495, DOC. 342043 - PARCELS 21, 28, 29 & 31 (UNLOCATABLE)
V. 199, P. 7, DOC. 293739 - PARCEL 32
10' ELECTRIC
V. 199, P. 8, DOC. 293740 - PARCEL 32 (UNLOCATABLE)
V. 199, P. 6, DOC. 293737 - PARCELS 33, 34 & 36 (UNLOCATABLE)
V. 199, P. 7, DOC. 293738 - PARCELS 33, 34 & 36 (UNLOCATABLE)

(82) V. 199, P. 5, DOC. 293736 - PARCELS 24, 26, 32, 33 &42 (UNLOCATABLE)
V. 199, P. 4, DOC. 293734 - PARCELS 27 (UNLOCATABLE)
V. 527, P. 632, DOC. 584007 - PARCELS 21, 28, 29 & 31 (UNLOCATABLE)
V. 199, P. 5, DOC. 293735 - PARCELS 21, 28, 29 & 31 (UNLOCATABLE)
V. 165, P. 456, DOC. 246262 - PARCELS 21, 28, 29 & 31 (UNLOCATABLE)
V. 239, P. 495, DOC. 342043 - PARCEL 21, 28, 29 & 31 (UNLOCATABLE)
V. 591, P. 542, DOC. 647192 - PARCEL 32 (UNLOCATABLE)
V. 199, P. 7, DOC. 293739 - PARCEL 32 (UNLOCATABLE)
V. 199, P. 8, DOC. 293740 - PARCEL 32 (UNLOCATABLE)
V. 199, P. 6, DOC. 293737 - PARCELS 33, 34 & 36 (UNLOCATABLE)
V. 199, P. 7, DOC. 293738 - PARCELS 33, 34 & 36 (UNLOCATABLE)

(83) V. 250, P. 237, DOC. 350411 - PARCELS 24, 26, 32, 33 &41 (UNLOCATABLE)



PLOT SCALE : 1:100
PLOT NAME :
PLOT BY : rubenmw
8/18/2015
PLOT DATE :
FILE NAME : P:\GMT\WisDOT\R09-0319-100 STH 32\graphics\04103_rp.dgn
APPRAISAL PLAT DATE :
2350-09-21 4.03
201

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
10559	105+59, LT	NW FLANGE BOLT OF HYD	672.55

LEGEND

(DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE CONSTRUCTION DETAIL

(DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAILS

(DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 3-INCH, SEE CONSTRUCTION DETAIL

(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 1¾-INCH, 6-INCH, SEE CONSTRUCTION DETAIL

PATEL-PATEL MAHENDRA-HANSA

TRUSTEES OF ELKS CLUB

TRUSTEES OF ELKS CLUB

REMOVING PAVEMENT
STA 108+20 TO STA 121+05

JAMES J & HELEN R KRAHN

NEW HOPE EV. LUTHERAN CHURCH

BEGIN PROJECT
STA 108+20.71
SAWCUT & MATCH

CANDLE CT

BM #10559

STA 110+03
51' LT, IE = 668.25'
51' RT, IE = 666.00'
2-24" AEW REQ'D

STA 110+03, 12.5' LT
CB#30.1
COVER EL=671.60
IE(W)=667.79
IE(E)=667.69

REMOVE SMALL PIPE CULVERT
REMOVE MANHOLE
REMOVE INLET
REMOVE SMALL PIPE CULVERT
REMOVE DRIVEWAY

STH 32

RL STH 32

R/W

ASPH

24" CMP

REMOVE INLET
REMOVE STORM SEWER
REMOVE CURB AND GUTTER
REMOVE SMALL PIPE CULVERT
ADJUST MH COVER
REMOVE DRIVEWAY
REMOVE DRIVEWAY
REMOVE SMALL PIPE CULVERT
SLOPE INTERCEPT (TYP)
WETLANDS (TYP)

CAUTION

+81.43

+26.85

RL 5 MILE RD

5 MILE RD

END CONSTRUCTION
STA 11+89.54
SAWCUT & MATCH

SIGNORIN LEASING LLC

GERALD L & HELEN M KOCOUREK

G & F EXCAVATING INC

JON R ZEIMETZ

ROSALLIE & JULIAN GUTIERREZ

RACINE COUNTY PUBLIC WORKS

S & P HOLDINGS LLC

PI STA 111+88.70
DELTA = 7°38'47.85" RIGHT
D = 1°00'00.00"
T = 382.90
L = 764.66
R = 5729.58
PC STA 108+05.80
PT STA 115+70.47
BK: 325°42'27.13"
AH: 333°21'14.98"

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN SHEETS - STH 32	SHEET 202	E

PISTA 111+88.70
DELTA = 7°38'47.85" RIGHT
D = 1°00'00.00"
T = 382.90
L = 764.66
R = 5729.58
PC STA 108+05.80
PT STA 115+70.47
BK: 325°42'27.13"
AH: 333°21'14.98"

PISTA 130+88.98
DELTA = 5°40'58.04" LEFT
D = 0°43'40.90"
T = 390.61
L = 780.57
R = 7870.00
PC STA 126+98.37
PT STA 134+78.94
BK: 333°21'14.98"
AH: 327°40'16.94"

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
3	24+35, LT	RR SPIKE IN W FACE OF PP#58-424	666.41

LEGEND

(DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE CONSTRUCTION DETAIL
(DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAILS
(DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 3-INCH, SEE CONSTRUCTION DETAIL
(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 1¾-INCH, 6-INCH, SEE CONSTRUCTION DETAIL

5 | 5

22 | 23 | 24 | 25 | 26

S 25 MILE RD

RL 5 MILE

BEGIN CONSTRUCTION
STA 25+65.16
SAWCUT & MATCH

CM BM#3

DONALD KASKE

TOWN OF CALEDONIA

SECURE LLC

ARTURO SANCHEZ

VILLAGE OF CALEDONIA

BRIAN RAMCZYK

McCLOSKEY REAL ESTATE MMC LLC

ADJUST MH COVER

SLOPE INTERCEPT (TYP)

STA 116+91, 38'LT
1-17"x13"x58' CMCP REQ'D
STA 116+62, 38'LT
1-17"x13" AEW REQ'D
IE = 663.77
STA 117+19, 39'LT
1-17"x13" AEW REQ'D
IE = 663.39

STA 114+35, 13.8'LT
CB #30.2
COVER ELEV = 668.08
1 - 48"x12" RCCP REQ'D
IE = 664.57

REMOVE SMALL PIPE CULVERT

STA 117+56, 37'LT
1-17"x13"x48' CMCP REQ'D
STA 117+33, 38'LT
1-17"x13" AEW REQ'D
IE = 663.37
STA 117+80, 38'LT
1-17"x13" AEW REQ'D
IE = 663.14

SHELLY MAYER

REMOVE SMALL PIPE CULVERT

STA 119+14, 33'LT
1-17"x13"X96' CMCP REQ'D
STA 118+66, 35'LT
1-17x13" AEW REQ'D
IE = 662.03
STA 119+62, 32'LT
1-17"x13" AEW REQ'D
IE = 661.71

REMOVE SMALL PIPE CULVERT

REMOVE SMALL PIPE CULVERT

ADJUST MH COVER

ADJUST MH COVER

R/W

N26°38'45"W

STH 32

ASPH

RL STH 32

R/W

REMOVE SMALL PIPE CULVERT

ADJUST MH COVER

ADJUST MH COVER

WETLANDS (TYP)

RE-GRADE DITCH TO DRAIN

RE-GRADE DITCH TO DRAIN

STA 121+40, 24'RT
1-17"x13"X24' CMCP REQ'D
STA 121+28, 24'RT
1-17"x13" AEW REQ'D
IE = 660.89
STA 121+52, 24'RT
1-17"x13" AEW REQ'D
IE = 660.82

JAMES A & KATHERINE MASSMANN

DAVID L MEYERS

JAMES W & DONNA M STRIKE

RICHARD J & ROXANNE M BARLOW

WSKJ HOLDINGS LLC

RALPH T & RENEE C SURA

AMBROSE A & JACQUEL GREENING

TAMMY LYNN STEPHAN

STA 114+36, 34'RT
1 - 12" RCAEW REQ'D
IE = 664.36

END RECONSTRUCT
BEGIN RESURFACE
STA 115+39.88

HOVATH REV TRUST 8/15/01

SUNNY T CHONG

KENNETH WHITE

S & P HOLDINGS LLC

CLEARING AND GRUBBING
STA 117+00 TO STA 119+00, LT
STA 120+00 TO STA 121+00, RT

REMOVING PAVEMENT
STA 128+96 TO STA 133+45

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN SHEETS - STH 32	SHEET 203	E

PISTA 130+88.98
DELTA = 5°40'58.04" LEFT
D = 0°43'40.90"
T = 390.61
L = 780.57
R = 7870.00
PC STA 126+98.37
PT STA 134+78.94
BK: 333°21'14.98"
AH: 327°40'16.94"

PISTA 140+14.72
DELTA = 3°42'52.29" LEFT
D = 0°43'40.90"
T = 255.20
L = 510.22
R = 7870.00
PC STA 137+59.52
PT STA 142+69.74
BK: 327°40'16.94"
AH: 323°57'24.65"

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
4	30+17, RT	CHISELED "X" ON N EDGE OF SAN MH RIM	658.71
5	40+79, RT	CHISELED "X" ON S EDGE OF SAN MH RIM	661.02
13278	132+78, LT	NW FLANGE BOLT OF HYDRANT	659.65

CLEARING AND GRUBBING
STA 130+00 TO STA 132+00, LT
STA 137+00 TO STA 140+00, LT & RT
REMOVING PAVEMENT
STA 136+99 TO STA 141+10

PISTA 51+59.76
DELTA = 33°45'24.47" LEFT
D = 28°38'52.40"
T = 60.68
L = 117.83
R = 200.00
PC STA 50+99.08
PT STA 52+16.91
BK: 87°47'41.09"
AH: 54°02'16.61"

BEGIN CONSTRUCTION
STA 33+09.83
BUTT JOINT REQUIRED
(SEE CONSTRUCTION DETAIL)

BEGIN CONSTRUCTION
STA 41+30.00
SAWCUT & MATCH

STA 41+73.29
1-18"x50' RCCP REQ'D
STA 41+84.70, 23.1' LT
1-18" AEW REQ'D
IE = 657.16
STA 41+62.80, 21.8' RT
1-18" AEW REQ'D
IE = 657.59

BM#4
BM#5
BM#13278

RL MATTHEW DR
RL HARVEST LN
MATTHEW DRIVE
HARVEST LANE
RL STH 32
STH 32
TLE
N32°19'43"W
N36°02'35"W

TOWN OF CALEDONIA
DAVID K & ROBIN L BARTH
JOHN B & ANITA K GRANT
ROBERT R & CHRISTINA EMMRICH
KIM WEON SUP & KYONG SOOK
RACHEL MAYNE
BENJAMIN & TABITHA KRUG
RANDY W & JEAN M BOWMAN
DALE M & MILLER FAMILY TRUST
JOHN & CORINE VISSER
DAVID J KROES
J & A OF RACINE LLC
JAVIER SANCHEZ
JEFFREY M & JACKIE L BAUGRUD
LAWRENCE A & CATHERIN WINTERLE
HARRY F & CINDA M PIEPMEIER
FRANK E STRANGE

REMOVE SMALL PIPE CULVERT
ADJUST MH COVER
REMOVE CURB AND GUTTER
WETLANDS (TYP.)
REMOVE GUARDRAIL
REMOVE CURB & GUTTER
REMOVE DRIVEWAY
C-51-82 (SEE STRUCTURE PLANS)
ADJUST MH COVER & ROTATE OUT OF CURB HEAD
C-51-81 (SEE STRUCTURE PLANS)
SLOPE INTERCEPT (TYP)
REMOVE DRIVEWAY GRADE TO DRAIN
RE-GRADE DITCH TO DRAIN
CAUTION

END RESURFACE
BEGIN RECONSTRUCT
STA 131+02.60

END RECONSTRUCT
BEGIN RESURFACE
STA 132+19.14

END RESURFACE
BEGIN RECONSTRUCT
STA 136+99.04

END RECONSTRUCT
BEGIN RESURFACE
STA 141+10.00

EXISTING PROFILE
FINISHED PROFILE
VPI 137+90.00 @ 660.82
VPI 138+38.00 @ 661.35
VPI 139+79.00 @ 662.47
VPI 141+10.00 @ 662.79
1.10%
0.79%
0.25%

STA 131+67
REMOVE STRUCTURE C-51-59
CONCRETE BOX CULVERT
54' OVERALL LENGTH
6' OVERALL WIDTH

STA 131+67
STRUCTURE C-51-82 REQ'D
10'X5' BOX CULVERT
SKEW 7°LHF

STA 138+58
REMOVE STRUCTURE C-51-60
CONCRETE BOX CULVERT
48' OVERALL LENGTH
6' OVERALL WIDTH

STA 138+58
STRUCTURE C-51-81 REQ'D
10'X5' BOX CULVERT
SKEW 11°RHF

EXISTING CENTERLINE GRADES
FINISHED CENTERLINE GRADES

658.67 658.43 658.24 658.09 657.95 657.90 657.96 658.12 658.25 658.48 658.70 658.97 659.22 659.51 659.72 659.95 660.21 660.46 660.71 660.93 661.00 661.45 661.29 661.84 661.56 662.24 661.87 662.52 662.18 662.64 662.55 662.77 662.95 663.39 663.92 664.49 665.08 665.69

129+00 130+00 131+00 132+00 133+00 134+00 135+00 136+00 137+00 138+00 139+00 140+00 141+00 142+00 143+00 144+00

678 673 668 663 658 653 648

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN AND PROFILE SHEETS - STH 32	SHEET 204	E

BEGIN CONSTRUCTION
STA 52+07.07
SAWCUT & MATCH

BEGIN CONSTRUCTION
STA 62+28.76
SAWCUT & MATCH

PISTA 158+83.94
DELTA = 9°41'14.96" RIGHT
D = 2°00'00.00"
T = 242.77
L = 484.37
R = 2864.79
PC STA 156+41.17
PT STA 161+25.55
BK: 323°57'24.65"
AH: 333°38'39.61"

RL TABOR RD
TABOR RD
CURVE 10
51
RL MEADOW DR
MEADOW DR
61
62
63
CLIFFORD L & KATHLE LINGAFELT
LEE W & KAREN J ISON
WILLIAM J & SUZANNE SCHROEDER
NELSON HOOTEN & JERICKA L. NICOLAS HOOTEN
ABRAM & JOAN M DE LEON
KATHLEEN GROSSNICK
CHARLES A. WATSON & SHARI A. STEINBRENNER
RICHARD KEITH
GILBERT E NIELSEN
WILLIAM & CAROL A GENEROTZKY
DAVID M PAUL
BM#6
BM#7
BM#15540
REMOVE SMALL PIPE CULVERT
STA 52+78.78
1-14"x23"x62'RCCP REQ
STA 52+78.0, 30'LT
1-14"x23" AEW REQ'D
IE=662.90
STA 52+79.6, 32'RT
1-14"x23" AEW REQ'D
IE=662.44
RE-GRADE DITCH TO DRAIN
WETLANDS (TYP.)
ADJUST MH COVER
SLOPE INTERCEPT (TYP)
STA 63+59.11
1-12"x79'RCCP REQ'D
STA 63+60.6, 46.9'LT
1-12" AEW REQ'D
IE=672.07
STA 63+58.1, 32'RT
1-12" AEW REQ'D
IE=671.72
8'x12' CMCP
STH 32
N36°02'35"W
R/W
RL STH 32
CAUTION
REMOVE DRIVEWAY GRADE TO DRAIN
ASPH
CONC
ADJUST MH COVER
REMOVE SMALL PIPE CULVERT
SCOTT J. & JEFFERY ZONDAG
RANDY J. & CHRISTINE M. HETTWER
RL EDGAR TERRACE
EDGAR TERRACE
END CONSTRUCTION
STA 71+31.92
SAWCUT & MATCH
CLEARING AND GRUBBING
STA 143+00 TO STA 148+00, LT
STA 152+00 TO STA 154+00, LT
THE CHUMBLEY FAMILY TRUST
JAMES A & DEBRA A LADWIG
LADWIG & LADWIG LLC
LADWIG & LADWIG LLC
CORNEL & VIRGINIA JOHNSON
DAVID ALLEN & SALLY J WEASEMAN

PISTA 51+59.76
DELTA = 33°45'24.47" LEFT
D = 28°38'52.40"
T = 60.68
L = 117.83
R = 200.00
PC STA 50+99.08
PT STA 52+16.91
BK: 87°47'41.09"
AH: 54°02'16.61"

PISTA 61+98.35
DELTA = 32°20'35.24" LEFT
D = 32°22'13.79"
T = 51.33
L = 99.92
R = 177.00
PC STA 61+47.02
PT STA 62+46.93
BK: 85°56'37.00"
AH: 53°36'01.76"

LEGEND

(DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE CONSTRUCTION DETAIL
(DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAILS
(DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 3-INCH, SEE CONSTRUCTION DETAIL
(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 1¾-INCH, 6-INCH, SEE CONSTRUCTION DETAIL

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
6	51+99, RT	CHISELED "X" ON S EDGE OF SAN MH RIM	666.07
7	662+16, RT	CHISELED "X" ON N EDGE OF SAN MH RIM	676.71
15540	155+40, RT	NW FLANGE BOLT OF HYDRANT	676.03

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN SHEETS - STH 32	SHEET 205	E

LEGEND

(DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE CONSTRUCTION DETAIL

(DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAILS

(DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 3-INCH, SEE CONSTRUCTION DETAIL

(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 1¾-INCH, 6-INCH, SEE CONSTRUCTION DETAIL

PISTA 158+83.94
DELTA = 9°41'14.96" RIGHT
D = 2°00'00.00"
T = 242.77
L = 484.37
R = 2864.79
PC STA 156+41.17
PT STA 161+25.55
BK: 323°57'24.65"
AH: 333°38'39.61"

CLEARING AND GRUBBING
STA 161+00 TO STA 166+00, RT

REMOVING PAVEMENT
STA 160+53 TO STA 185+66, RT

DAVID R & JACQUELYN M BENNETT

LESLIE F. & MARSHA L. THIEL

JOHN C. MATHISON

SUSAN ANN BENDIKSON

DERANGO BROTHERS THE PARTNERS

RL STH 31

RL 6 MILE RD

RL STH 32

STH 31

STH 32

6 MILE RD

ADJUST MH COVER

REMOVE DRIVEWAY GRADE TO DRAIN

END RESURFACE
BEGIN RECONSTRUCT
STA 167+50.00

STA 167+66.54, 7.39'RT/
1-29"x45"x58' RCP REQ'D
STA 167+64.50, 35' RT
RCP 1-29"x45" AEW REQ'D
IE=678.09
STA 167+72, 23' LT
RCP 1-29"x45" AEW REQ'D
IE=678.33

REMOVE CONCRETE BASES

RECONSTRUCT MH

REMOVE SMALL PIPE CULVERT

WETLANDS (TYP)

LEONARD M MUCHOWICZ

REMOVE DRIVEWAY

REMOVE SMALL PIPE CUVERT

SLOPE INTERCEPT (TYP)

STA 160+00, 36'RT
1-17"x13"x42' CMCP REQ'D
2-17"x13" AEW REQ'D/
IE=672.61 (S)
IE=673.17 (N)

STA 163+93, 37'RT
1-17"x13"x26' CMCP REQ'D
2-17"x13" AEW REQ'D
IE=676.16 (S)
IE=676.31 (N)

STA 164+39, 38'RT
1-17"x13"x28' CMCP REQ'D
2-17"x13" AEW REQ'D
IE=676.38 (S)
IE=676.54 (N)

STA 162+64, 35'RT
1-17"x13"x30' CMCP REQ'D
2-17"x13" AEW REQ'D
IE=675.51 (S)
IE=675.67 (N)

STA 165+86, 39'RT
1-17"x13"x40' CMCP REQ'D
2-17"x13" AEW REQ'D
IE=677.08 (S)
IE=677.30 (N)

STA 166+53, 40'RT
1-17"x13"x34' CMCP REQ'D
2-17"x13" AEW REQ'D/
IE=677.44 (S)
IE=677.63 (N)

STA 168+18.59, 42'RT
1-17"x13"x36' CMCP REQ'D
2-17"x13" AEW REQ'D
IE=679.71 (S) /
IE=679.83 (N)

STA 169+29.95, 42'RT
1-17"x13"x52' CMCP REQ'D
2-17"x13" AEW REQ'D
IE=680.92 (S)
IE=681.09 (N)

STA 173+86.32, 42'RT
1-17"x13" CMCP REQ'D
2-17"x13"x77' AEW REQ'D
IE=687.52 (S)
IE=689.48 (N)

WETLANDS (TYP.)

REMOVE DRIVEWAY

REMOVE CONCRETE BASES

REMOVE INLET

O'CONNER REAL ESTATE CORPORATION

THOMAS F & MA SIPLA REV TRUST

GUERRERO-DICKMAN-KOMAREC

RONALD E & KAREN J WELLNA

HEMPEL-NEU-STAUERSBOL-BECKER

DENNIS C & LAURIE A BUMP

RONALD J & EDITH A WEIKUM

LOU ANN HOULE

LOREN B JOHN H SCHUETTE

END RECONSTRUCT
BEGIN RESURFACE
STA 174+20.00

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN SHEETS - STH 32	SHEET 206	E

LEGEND

(DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE CONSTRUCTION DETAIL
(DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAILS
(DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 3-INCH, SEE CONSTRUCTION DETAIL
(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 1¾-INCH, 6-INCH, SEE CONSTRUCTION DETAIL

CLEARING AND GRUBBING
STA 172+00 TO STA 177+00, LT & RT
STA 179+00 TO STA 185+00, LT & RT

RL STH 31
RL STH 32
STH 31
STH 32
WETLANDS (TYP)
LEONARD M MUCHOWICZ
MANSUR ALI JINNAH
AKIL LLC
BRIAN A HART
NBS PARTNERSHIP
JIMMY O & CHRISTINE F DEAN JR
JIMMY O & CHRISTINE F DEAN JR
SCHUMANN REAL ESTATE INVESTMENT
ERIC R & JANE SCHUMANN
WENDY LEE MC CLURE
CHERYL J. BERGEMANN
ROSALAND M SIKES
JANET SIKES
JEFFREY D & CARLA A ABEL
ADRIENNE POLACCI
ROSTISLAV & JANA IVSIN
ROSTISLAV & JANA IVSIN
JAMES A LOWE
JASON M. DAHL
PATEL BRAUN PATEL LLC
PATEL BRAUN PATEL LLC

CAUTION
REMOVE CURB AND GUTTER
REMOVE INLET
REMOVE SMALL PIPE CULVERT
ADJUST MH COVER
ADJUST MH COVER
ADJUST MH COVER
SLOPE INTERCEPT (TYP)
BM=17903
TLE
R/W
ASPH
N26°21'20"W
N55°42'45"E
N33°45'40"W
N00°37'35"E

STA 175+99.40, 40.5'RT
1-17"x13"x42' CMCP REQ'D
STA 175+78, 40'RT
1-17"x13" AEW REQ'D
IE=693.42
STA 176+20, 39'RT
1-17"x13" AEW REQ'D
IE=694.80

STA 176+63.88, 40.5'RT
1-17"x13"x29' CMCP REQ'D
STA 176+49, 38'RT
1-17"x13" AEW REQ'D
IE=695.91
STA 176+78, 37'RT
1-17"x13" AEW REQ'D
IE=697.12

STA 178+88, 47'RT
1-17"x13"x32' CMCP REQ'D
STA 178+72, 43'RT
1-17"x13" AEW REQ'D
IE=699.44
STA 178+72, 43'RT
1-17"x13" AEW REQ'D
IE=699.44

END RECONSTRUCT
BEGIN RESURFACE
STA 174+20.00

PISTA 178+12.50
DELTA = 7°24'19.78" RIGHT
D = 3°00'00.00"
T = 123.60
L = 246.85
R = 1909.86
PC STA 176+88.91
PT STA 179+35.76
BK: 333°38'39.61"
AH: 326°14'19.83"

PISTA 189+81.52
DELTA = 35°01'28.04" RIGHT
D = 3°00'00.00"
T = 602.62
L = 1167.48
R = 1909.86
PC STA 183+78.90
PT STA 195+46.38
BK: 326°14'19.83"
AH: 1°15'47.88"

PISTA 417+93.85
DELTA = 55°05'09.32" RIGHT
D = 95°29'34.68"
T = 31.29
L = 57.69
R = 60.00
PC STA 417+62.56
PT STA 418+20.24
BK: 0°37'35.42"
AH: 55°42'44.74"

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
17903	179+03, LT	8" SPIKE	701.97

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN SHEETS - STH 32	SHEET 207 E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\050206_pn.dgn PLOT DATE : 7/12/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 100.00 sf / in.

WISDOT/CADDS SHEET 44

PI STA 189+81.52
DELTA = 35°01'28.04" RIGHT
D = 3°00'00.00"
T = 602.62
L = 1167.48
R = 1909.86
PC STA 183+78.90
PT STA 195+46.38
BK: 326°14'19.83"
AH: 1°15'47.88"

DEREK A.
&
RACHEL A.
BAKER

R/W

JEFFREY F.
&
BRENDA L.
KEREKES

JEFFREY F &
BRENDA L
KEREKES

N

5

5

DR02 55'

189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204

12' 12' 16' 16'

BM=19680

DR03 23'

R 38'

+24.03

+58.22

RL STH 32

N01°15'48"E

STH 32

ASPH

R 19'

DR03 22'

+86.07

+28.07

DR02 40'

30'

DR02

FO W G OH

WETLANDS
(TYP)

CAUTION

ROSTISLAV & JANA
IVSIN

ROBERT L.
&
JANE M.
HANSEN

RONALD G
COOKE

LEGEND

(DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE CONSTRUCTION DETAIL
(DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAILS
(DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 3-INCH, SEE CONSTRUCTION DETAIL
(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 1¾-INCH, 6-INCH, SEE CONSTRUCTION DETAIL

BENCH MARKS

BM	LOCATION	DESCRIPTION	ELEV.
19680	196+80, LT	NW FLANGE BOLT OF HYDRANT	709.91

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN SHEETS - STH 32	SHEET	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\050207_pn.dgn PLOT DATE : 1/31/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 100.00 sf / in.
WISDOT/CADDS SHEET 44

GOBIS REV TRUST

END PROJECT
STA 205+56
BUTT JOINT REQUIRED
(SEE CONSTRUCTION DETAIL)

WETLANDS (TYP)

2'x2' CONC BOX CULVERT TO REMAIN

204

205

N01°15'48"E

ASPH

STH 32

RL STH 32

CAUTION

WETLANDS (TYP.)

RONALD G COOKE

N

5

5

PROJECT NO:2350-09-71	HWY:STH 32	COUNTY:RACINE	PLAN SHEETS - STH 32	SHEET 209	E

LEGEND

(DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE CONSTRUCTION DETAIL

(DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAILS

(DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 3-INCH, SEE CONSTRUCTION DETAIL

(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 1¾-INCH, 6-INCH, SEE CONSTRUCTION DETAIL

PISTA 8+94.57
DELTA = 17°31'10.28" RIGHT
D = 114°35'29.61"
T = 7.70
L = 15.29
R = 50.00
PC STA 8+86.86
PT STA 9+02.15
BK: 83°45'37.44"
AH: 101°16'47.71"

PISTA 9+23.20
DELTA = 35°01'47.18" LEFT
D = 114°35'29.61"
T = 15.78
L = 30.57
R = 50.00
PC STA 9+07.42
PT STA 9+37.99
BK: 101°16'47.71"
AH: 66°15'00.53"

PISTA 10+64.12
DELTA = 21°40'10.01" RIGHT
D = 17°06'11.58"
T = 64.12
L = 126.70
R = 335.00
PC STA 10+00
PT STA 11+26.70
BK: 66°15'00.53"
AH: 87°55'10.54"

PISTA 26+51.20
DELTA = 22°51'46.33" LEFT
D = 17°06'11.58"
T = 67.74
L = 133.68
R = 335.00
PC STA 25+83.46
PT STA 27+17.14
BK: 88°02'07.14"
AH: 65°10'20.80"

S & P HOLDINGS LLC

MATCH PARKING LOT

REMOVE DRIVEWAY

+53.59 78.63' LT

+53.59 16.63' LT

+15.55 18.80' LT

R/W

5 MILE RD

ASPH

RL 5 MILE RD

NEW HOPE EV. LUTHERAN CHURCH

RACINE COUNTY PUBLIC WORKS

ADJUST MH COVER

CAUTION

JAMES J & HELEN R KRAHN

TOWN OF CALEDONIA

N65°10'21"E

N88°02'07"E

BM#3

DONALD KASKE

BEGIN CONSTRUCTION
STA 10+00.00
SAWCUT & MATCH

END CONSTRUCTION
STA 11+89.54
SAWCUT & MATCH

BEGIN CONSTRUCTION
STA 25+65.16
SAWCUT & MATCH

END CONSTRUCTION
STA 27+23.22
SAWCUT & MATCH

5 MILE ROAD

EXISTING GROUND

PROPOSED GROUND

VPI 9+98.21
@670.86

VPI 10+30.37
@669.83

-1.67%

VPI 11+84.30
@667.26

VPI 25+64.83
@667.30

0.70%

VPI 26+96.40
@668.21

VPI 27+23.13
@667.69

8+00	9+00	10+00	11+00	12+00	13+00	14+00	15+00
670.36	670.82	668.75	670.70 / 670.81	669.86 / 669.50	668.70 / 668.66	667.92 / 667.83	667.00
666.05	665.01	664.49	664.08	663.86	663.57		

23+00	24+00	25+00	26+00	27+00	28+00
665.75	665.67	665.90	666.35	666.50	667.23
667.52 / 667.54	667.67 / 667.89	668.10 / 668.14			

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN AND PROFILE SHEET - 5 MILE ROAD	SHEET 210	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\050213_pn.dgn PLOT DATE : 1/31/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 100.00 sf / in.

WISDOT/CADDS SHEET 40

LEGEND

(DRO1) CONCRETE DRIVEWAY HES 6-INCH, SEE CONSTRUCTION DETAIL

(DRO2) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAILS

(DRO3) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 3-INCH, SEE CONSTRUCTION DETAIL

(DRO4) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 1¾-INCH, 6-INCH, SEE CONSTRUCTION DETAIL

N

STA 41+73.29
1-18"x50' RCCP REO'D
STA 41+84.70, 23.1' LT
1-18" AEW REO'D
IE = 657.16
STA 41+62.80, 21.8' RT
1-18" AEW REO'D
IE = 657.59

BENJAMIN KRUG & KRUG & KRUG

REMOVE GUARDRAIL

REMOVE SMALL PIPE CULVERT

RANDY W & JEAN M BOWMAN

R/W

HARVEST LANE

RL HARVEST LN

CAUTION

ADJUST MH COVER

MICHAEL R & RACHAEL L LUCAS

PISTA 41+06.66
DELTA = 7°38'50.62" LEFT
D = 5°43'46.48"
T = 66.84
L = 133.47
R = 1000.00
PC STA 40+39.82
PT STA 41+73.29
BK: 81°50'53.46"
AH: 74°12'02.84"

BEGIN CONSTRUCTION
STA 41+30.00
SAWCUT & MATCH

END CONSTRUCTION
STA 42+60.06
SAWCUT & MATCH

HARVEST LANE

EXISTING GROUND

VPI 41+18.21
660.76

-0.34%

VPI 42+44.11
660.32

VPI 42+61.84
660.65

PROPOSED GROUND

EXISTING GROUND

PROPOSED GROUND

663.26 662.24 660.91 660.53 660.65 660.33 660.48 660.35 660.44

39+00 40+00 41+00 42+00 43+00

STA 52+78.78
1-14"x23"x62' RCCP REO
STA 52+78.0, 30'LT
1-14"x23" AEW REO'D
IE=662.90
STA 52+79.6, 32'RT
1-14"x23" AEW REO'D
IE=662.44

CLIFFORD L & KATHLE LINGAFELT

TABOR RD

RL TABOR RD

R/W

REMOVE SMALL PIPE CULVERT

BM#6

N74°12'03"E

ASPH

18'

DRO2

REMOVE SMALL PIPE CULVERT

JOHN & CORINE VISSER

PISTA 51+59.76
DELTA = 33°45'24.47" LEFT
D = 28°38'52.40"
T = 60.68
L = 117.83
R = 200.00
PC STA 50+99.08
PT STA 52+16.91
BK: 87°47'41.09"
AH: 54°02'16.61"

JAMES A & DEBRA A LADWIG

THE CHUMBLEY FAMILY TRUST

BEGIN CONSTRUCTION
STA 51+92.93
SAWCUT & MATCH

END CONSTRUCTION
STA 52+99.37
SAWCUT & MATCH

TABOR ROAD

EXISTING GROUND

VPI 52+07.07
666.96

-0.75%

VPI 52+99.64
666.61

PROPOSED GROUND

EXISTING GROUND

PROPOSED GROUND

668.22 667.60 667.50 667.10 666.99 666.67 666.64 666.21 666.28

50+00 51+00 52+00 53+00 54+00

675 670 665 660 655 650 645 640

5

5

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN AND PROFILE SHEET - HARVEST LANE / TABOR ROAD	SHEET 211	E

PI STA 61+98.35
DELTA = 32°20'35.24" LEFT
D = 32°22'13.79"
T = 51.33
L = 99.92
R = 177.00
PC STA 61+47.02
PT STA 62+46.93
BK: 85°56'37.00"
AH: 53°36'01.76"

STA 63+59.11
1-12"x79' RCCP REQ'D
STA 63+60.6, 46.9'LT
1-12" AEW REQ'D
IE=672.07
STA 63+58.1, 32'RT
1-12" AEW REQ'D
IE=671.72

JAMES W & JOAN M WOOLRAGE

PATRICK & MARY MACHTEL

TIMOTHY J & KATHLEEN GROSSNICK

RL MEADOW DR

MEADOW DR

N85°56'37"E

N53°36'02"E

BM#7

SLOPE INTERCEPT (TYP)

REMOVE SMALL PIPE CULVERT

ADJUST MH COVER

DR03

BEGIN CONSTRUCTION
STA 62+28.76
SAWCUT & MATCH

END CONSTRUCTION
STA 63+77.14
SAWCUT & MATCH

MEADOW DRIVE

EXISTING GROUND

PROPOSED GROUND

VPI 62+00.00
677.31

VPI 62+28.76
677.16

-1.52%

VPI 63+00.00
676.08

-2.53%

VPI 63+77.41
674.46

VPI 63+94.41

60+00 61+00 62+00 63+00 64+00

678.91 678.16 677.54 677.11 677.31 677.31 676.98 676.84 676.51 676.08 675.35 674.82

LEGEND

DR01 CONCRETE DRIVEWAY HES 6-INCH, SEE CONSTRUCTION DETAIL

DR02 ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAILS

DR03 ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 3-INCH, SEE CONSTRUCTION DETAIL

DR04 AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 1¾-INCH, 6-INCH, SEE CONSTRUCTION DETAIL

EDGAR TERRACE

N53°36'02"E

SLOPE INTERCEPT (TYP)

REMOVE SMALL PIPE CULVERT

ADJUST MH COVER

DR03

BEGIN CONSTRUCTION
STA 70+10.81
SAWCUT & MATCH

END CONSTRUCTION
STA 71+31.92
SAWCUT & MATCH

EDGAR TERRACE

EXISTING GROUND

PROPOSED GROUND

VPI 70+00.00
676.70

VPI 70+17.11
675.63

-1.19%

VPI 71+31.95
674.27

69+00 70+00 71+00 72+00 73+00

675.92 676.10 674.90 675.24 674.65 674.65 674.00 673.16

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN AND PROFILE SHEET - MEADOW DRIVE / EDGAR TERRACE	SHEET 212	E

SCHUMANN REAL ESTATE INVESTMENT

S-K INVESTMENT PARTNERS

NBS PARTNERSHIP

GALLO INVESTMENTS LLC

7012 HWY 31 LLC

LEONARD M MUCHOWICZ

BEGIN CONSTRUCTION
STA 304+65.02
SAWCUT & MATCH

REMOVE SMALL PIPE CULVERT

RECONSTRUCT MH & ROTATE OUT OF CURB HEAD

REMOVE SMALL PIPE CULVERT

RECONSTRUCT MH

ADJUST MH COVER

RECONSTRUCT MH

REMOVE SMALL PIPE CULVERT

WETLAND (TYP)

R 38'

R 60'

R 40'

R/W

TLE

ASPH

RL 6 MILE RD

SLOPE INTERCEPT (TYP)

CAUTION

REMOVE SMALL PIPE CULVERT

REMOVE SMALL PIPE CULVERT

RECONSTRUCT MH

RL STH 31

DALE DR

SIX MILE INVESTMENTS LLC

AKIL LLC

PISTA 312+17
DELTA = 5°14'24.75" LEFT
D = 0°47'36.85"
T = 330.40
L = 660.33
R = 7220.00
PC STA 308+86.66
PT STA 315+47.00
BK: 92°22'25.89"
AH: 87°08'01.14"

CLEARING AND GRUBBING
STA 307+00 TO 311+00, LT

BEGIN CONSTRUCTION
STA 409+00.00
SAWCUT & MATCH

301 302 303 6 MILE RD 304 305 306 307 308 309 310 311 312 313

S87°37'34"E

413 412 411 410 409 STH 31

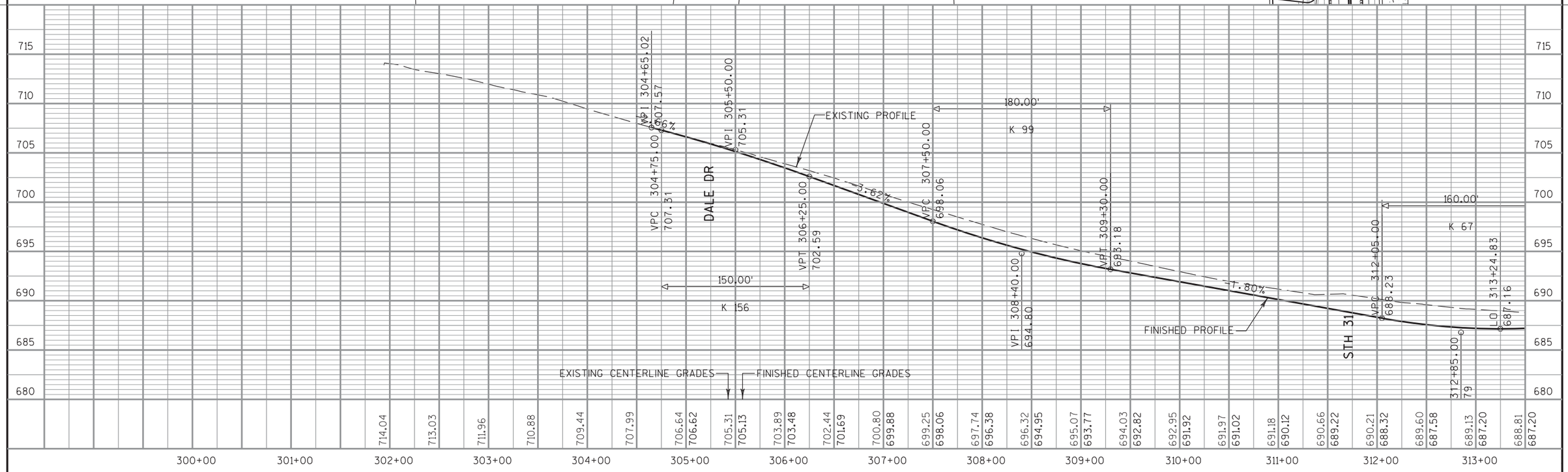
LEGEND

(DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE CONSTRUCTION DETAIL

(DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAILS

(DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 3-INCH, SEE CONSTRUCTION DETAIL

(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 1¾-INCH, 6-INCH, SEE CONSTRUCTION DETAIL



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN & PROFILE - 6 MILE ROAD	SHEET 213 E

PISTA 312+17
DELTA = 5°14'24.75" LEFT
D = 0°47'36.85"
T = 330.40
L = 660.33
R = 7220.00
PC STA 308+86.66
PT STA 315+47.00
BK: 92°22'25.89"
AH: 87°08'01.14"

STA 313+30 TO
STA 313+58, 31' RT
UNDERDRAIN TRENCH

STA 320+00 TO STA 325+00, 30.5' LT
UNDERDRAIN TRENCH, TO DRAIN EAST TO DITCH

STA 320+35 TO STA 326+93, 30.5' RT
UNDERDRAIN TRENCH, TO DRAIN EAST TO DITCH

CLEARING AND GRUBBING
STA 312+00 TO 315+00, LT
STA 319+00 TO 320+00, LT
STA 322+00 TO STA 323+00, LT

END CONSTRUCTION
STA 327+94.29
SAWCUT & MATCH

LEGEND

(DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE CONSTRUCTION DETAIL
(DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAILS
(DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 3-INCH, SEE CONSTRUCTION DETAIL
(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 1¾-INCH, 6-INCH, SEE CONSTRUCTION DETAIL

PATEL BRAUN PATEL LLC
PRINCE OF PEACE LUTHERAN CHURCH
PATEL BRAUN PATEL LLC
DERANGO BROTHERS THE PARTNERS
LOU ANN HOULE
BRENT G & JEFFERY D KULTGEN
DAVID R & BARBARA A GUSTIN
KARL M SR & DONNA M DEVINE
LORETTA IRELAND

STH 32
6 MILE RD
RL STH 32
RL 6 MILE RD
N87°08'01"E

REMOVE SMALL PIPE CULVERT
REMOVE STORM SEWER
WETLANDS (TYP)
TLE
SLOPE INTERCEPT (TYP)
RECONSTRUCT MH & ROTATE OUT OF CURB HEAD
ADJUST MH COVER
REMOVE SMALL-PIPE CULVERT
ASPH

EXISTING PROFILE
FINISHED PROFILE
EXISTING CENTERLINE GRADES
FINISHED CENTERLINE GRADES

VPI 313+65.00 687.28
VPC 313+85.00 687.40
VPI 314+60.00 687.85
VPT 315+35.00 686.74
VPC 320+85.00 678.61
VPI 321+60.00 677.50
VPT 322+35.00 676.51
VPC 323+50.00 674.99
VPI 324+25.00 674.00
VPT 325+00.00 672.55
VPI 325+75.00 671.10
VPI 326+55.00 669.83
VPI 327+14.39 669.39
VPI 327+55.60 669.45
VPI 328+00.00 669.82

150.00' K 72
150.00' K 950
-1.48%
-1.32%
-1.93%
-1.59%
0.75%
0.15%
0.83%

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN & PROFILE - 6 MILE ROAD	SHEET 214 E

MARY DREW DR

RICHARD J & TRA
KUTCH & JOSEPH

4719 KINGDOM CT LLC

KINGDOM CT

FRANCES J BROSSMAN

MAJESTIC NORTH
DEVELOPMENT INC

N

BEGIN CONSTRUCTION
STA 401+93.77
SAWCUT & MATCH

STA 405+62.10
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAIL)

RL STH 31

R/W

DR04
32'

REMOVE SMALL
PIPE CULVERT

WETLANDS
(TYP)

SLOPE INTERCEPT
(TYP)

401 402 403 404 405 406 407 408 409 410

N00°51'50"E

N03°49'20"E

N03°12'02"E

N00°37'35"E

ASPH

STH 31

+32.47
+56.82
+32.47
+65.35
+88.82
+21.39
+48.50
+03.50

REMOVE SMALL
PIPE CULVERT

13'
DR03

15'
DR03

R/W

ADJUST MH
COVER

REMOVE SMALL
PIPE CULVERT

STA 409+76, 48' RT
1-18"×53' CMCP REQ'D
STA 409+50, 45' RT
1-18" AEW REQ'D
IE = 685.78
STA 410+02, 49' RT
1-18" AEW REQ'D
IE = 685.63

35'
DR03

REMOVE SMALL
PIPE CULVERT

JEFFREY P &
SANDRA D
MEIER

JOHN R & BETH A
URICK

PATRIC L &
COLLEEN A
MOGDEN

LEONARD F &
PATRICIA PILLING

VOELKEL
REVOCABLE
TRUST

ELAINE M
DYER

DERANGO BROTHERS
THE PARTNERS

DERANGO BROTHERS
THE PARTNERS

LEGEND

(DR01) CONCRETE DRIVEWAY HES 6-INCH, SEE CONSTRUCTION DETAIL

(DR02) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCE, 2-INCH, BUTT JOINT MAY BE REQUIRED, SEE CONSTRUCTION DETAILS

(DR03) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 3-INCH, SEE CONSTRUCTION DETAIL

(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE 1¾-INCH, 6-INCH, SEE CONSTRUCTION DETAIL

700
695
690
685
680
675
670
665

KINGDOM CT

VPI 405+62.00
689.32

0.26%

VPI 407+71.00
689.86

VPC 406+96.00
689.67

K 114
150.00'
SSD 582FT

TVPRC 408+46.00
689.07

170.00'
SSD 483FT
K 112

VPI 409+63.74
688.44

LD

VPI 409+31.00
688.17

FINISHED PROFILE

EXISTING PROFILE

EXISTING CENTERLINE GRADES

FINISHED CENTERLINE GRADES

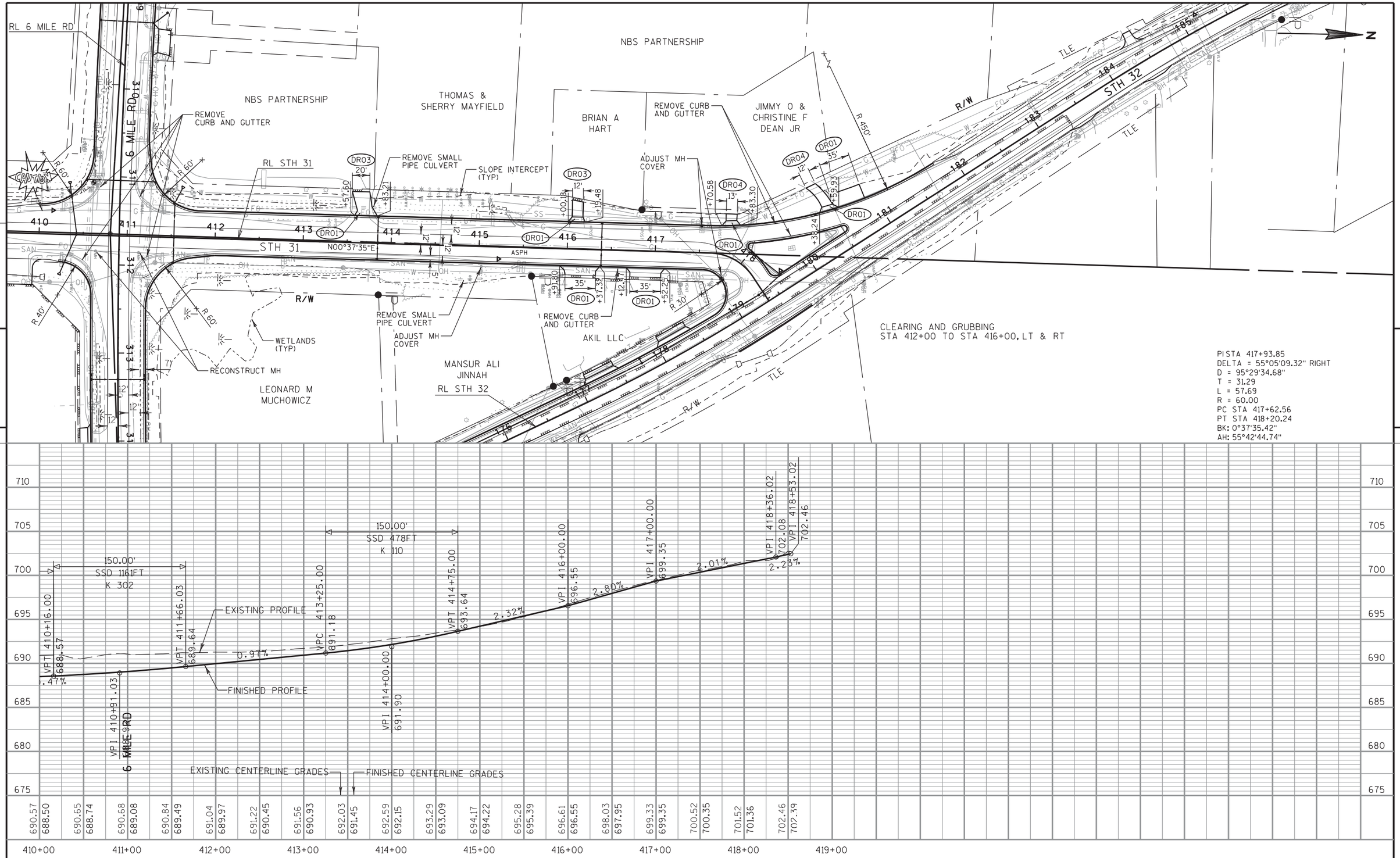
688.95 689.32 689.21 689.42 689.43 689.55 689.58 689.67 689.78 689.68 689.99 689.46 690.18 689.02 690.35 688.63 690.43 688.45 690.57

400+00 401+00 402+00 403+00 404+00 405+00 406+00 407+00 408+00 409+00 410+00

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN & PROFILE - STH 31	SHEET 215	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\050211_pn.dgn PLOT DATE : 1/31/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 100.00 sf / in.

WISDOT/CADDS SHEET 40



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	PLAN & PROFILE - STH 31	SHEET 216	E

Standard Detail Drawing List

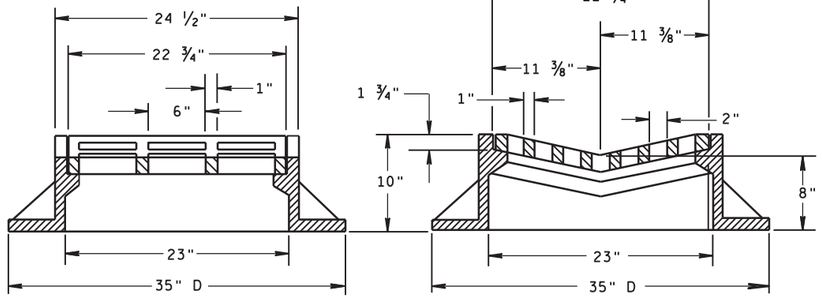
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08A09-02	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D18-02	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-02	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08D20-01	DRIVEWAYS WITH CURB & GUTTER RETURNS
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
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
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-10	CONCRETE BASE TYPE 10
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09D02-03	SIGNAL CONTROL CABINET
09E01-14A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-14D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E12-01A	OVER HEIGHT TYPE 9 POLE 15'-30' MONOTUBE ARM
09E12-01B	OVER HEIGHT TYPE 10 POLE 15'-30' MONOTUBE ARM
09E12-01C	OVER HEIGHT TYPE 12 POLE 35'-55' MONOTUBE ARM
09E12-01D	OVER HEIGHT TYPE 13 POLE 35'-55' MONOTBE ARM
09E12-01E	GENERAL NOTES AND HARDWARE DETAILS FOR OVER HEIGHT TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F15-04A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09H09-02	COMMUNICATION VAULT TYPE 1
11B02-02	CONCRETE MEDIAN NOSE
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-04	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-14A	PAVEMENT MARKING SYMBOLS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS

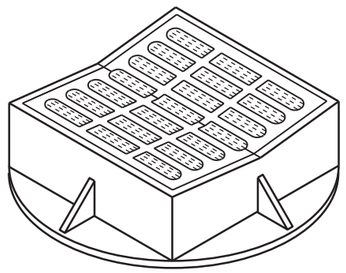
6

Standard Detail Drawing List

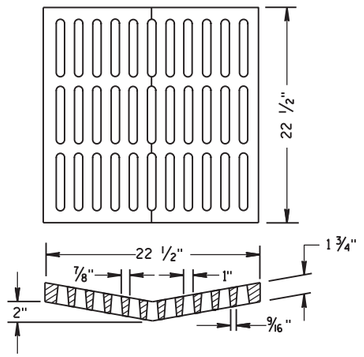
15C07-14E	PAVEMENT MARKING FOR BIKE LANES
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19B	PAVEMENT MARKING (TURN LANES)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-04	MEDIAN ISLAND MARKING
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C29-06A	BICYCLE LANE MARKING
15C35-03A	PAVEMENT MARKING (INTERSECTIONS)
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

6



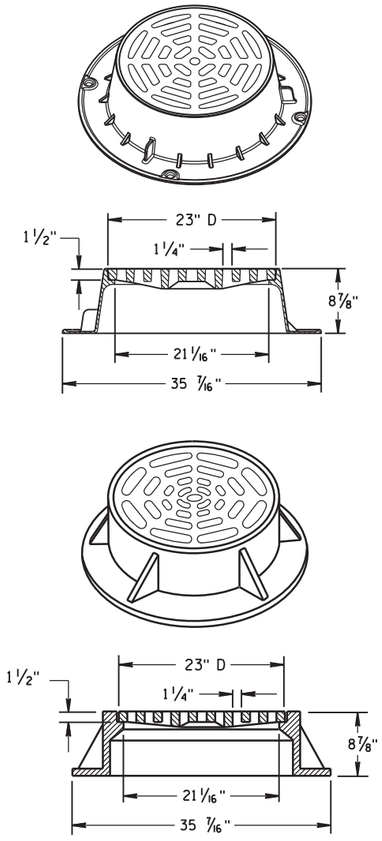


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

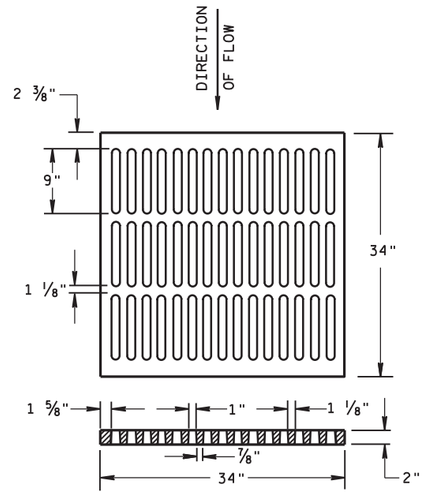
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

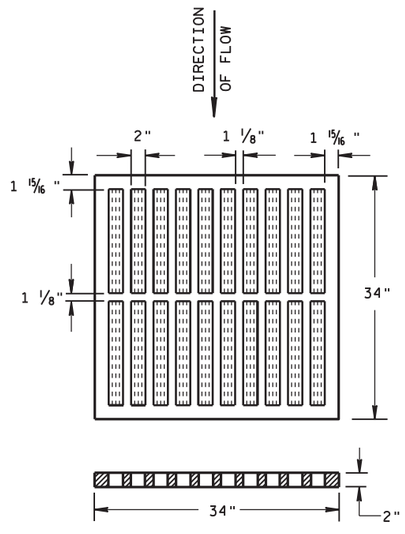
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



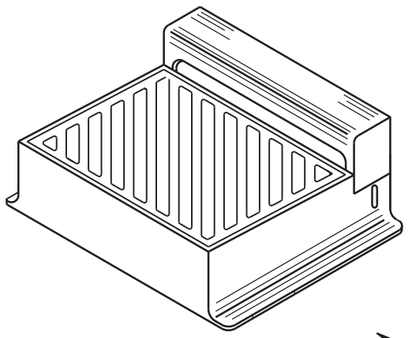
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

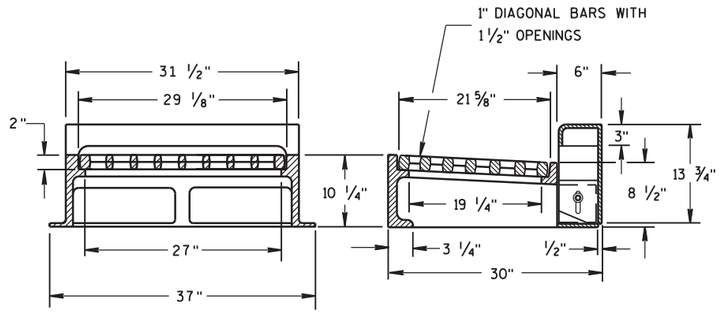


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

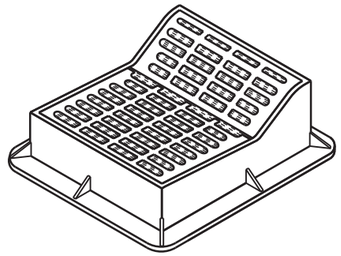
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

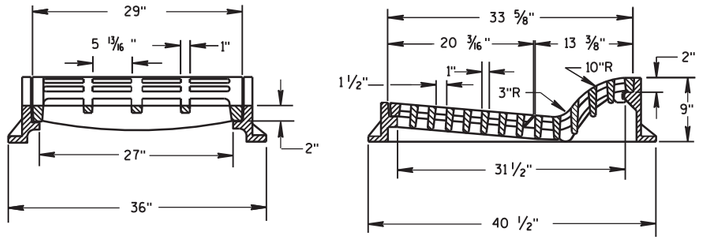
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

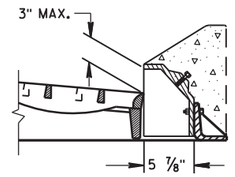
S.D.D. 8 A 5-19b





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

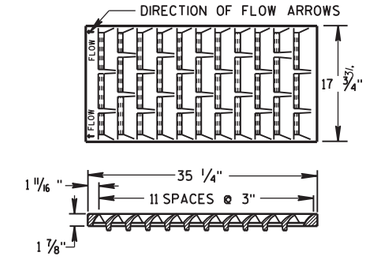
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

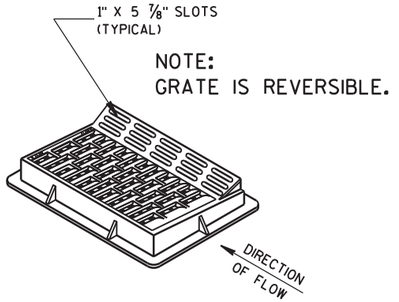
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

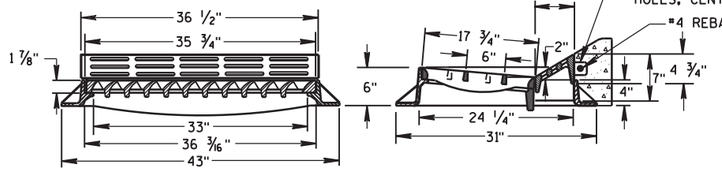
GENERAL NOTES

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

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



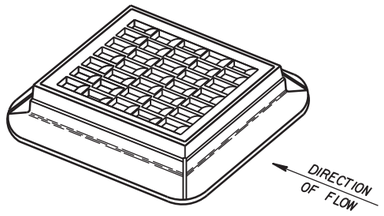


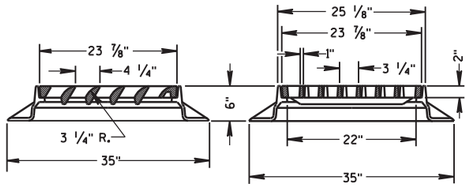


TYPE "HM"

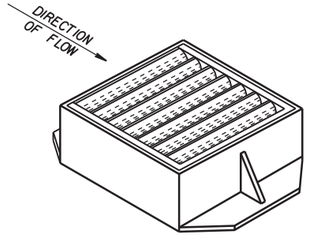
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

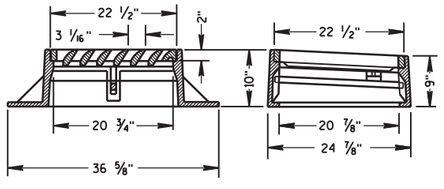
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



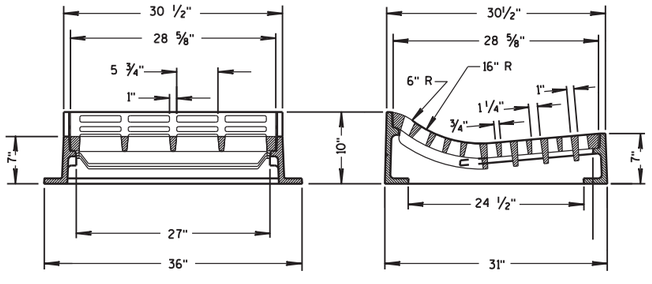


TYPE "S"



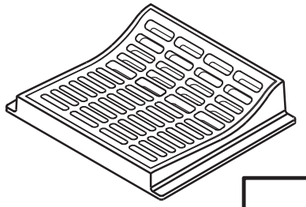


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

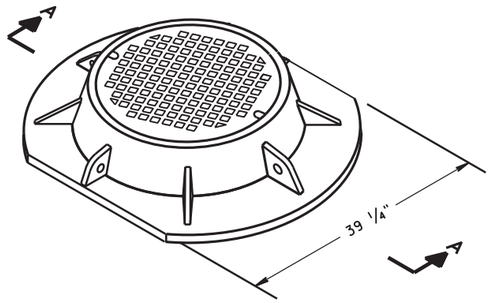
APPROVED
11/27/2013
DATE

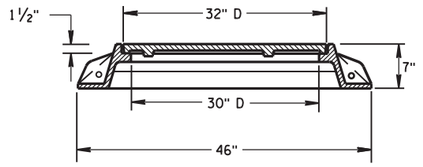
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

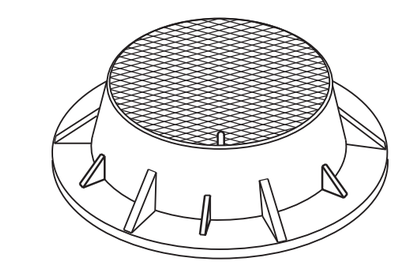
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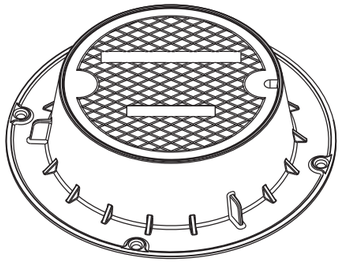
S.D.D. 8 A 5-19c

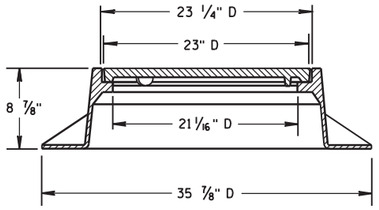


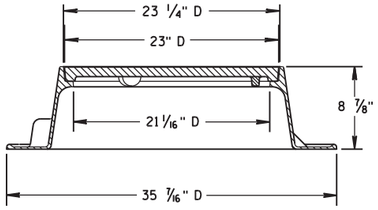


SECTION A-A
TYPE "K"









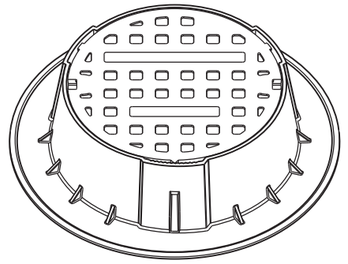
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

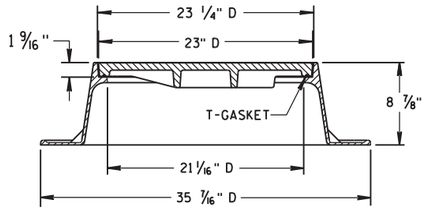
GENERAL NOTES

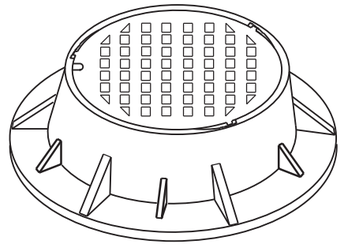
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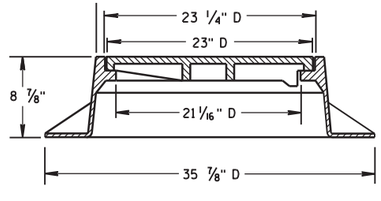
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

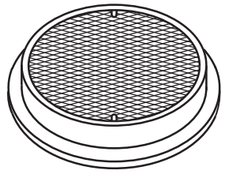


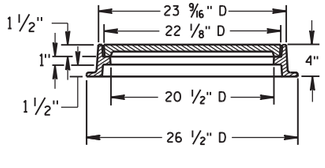




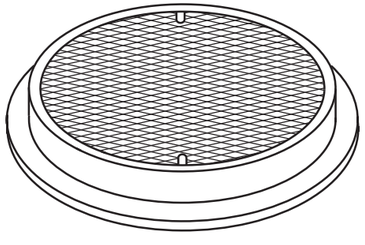


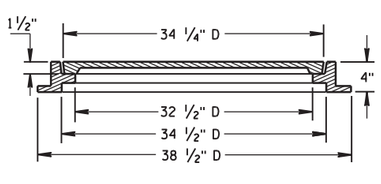
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



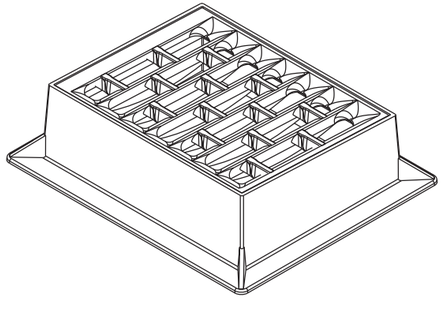


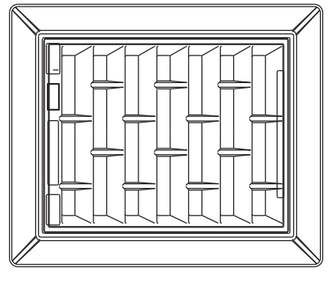
TYPE "L"

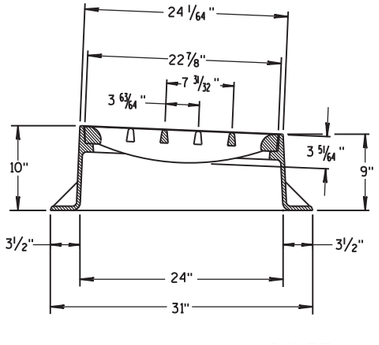


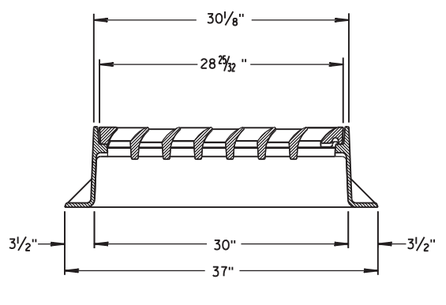


TYPE "M"









INLET COVER TYPE "BW"

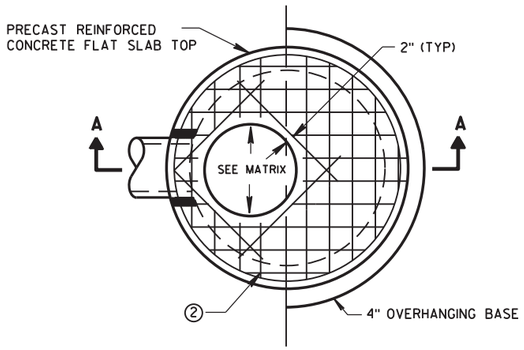
INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

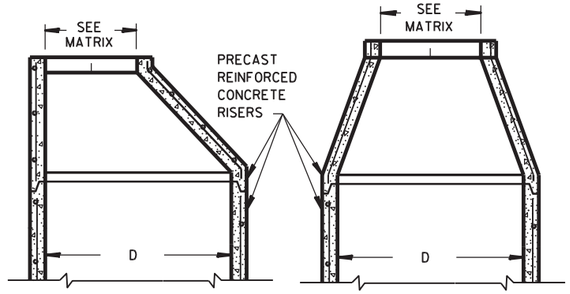
APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 A 5-19d

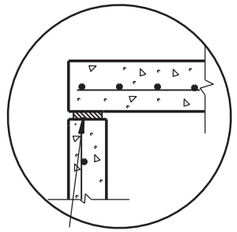


PLAN VIEW CIRCULAR OPENING

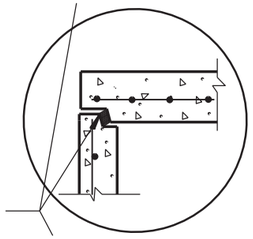


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

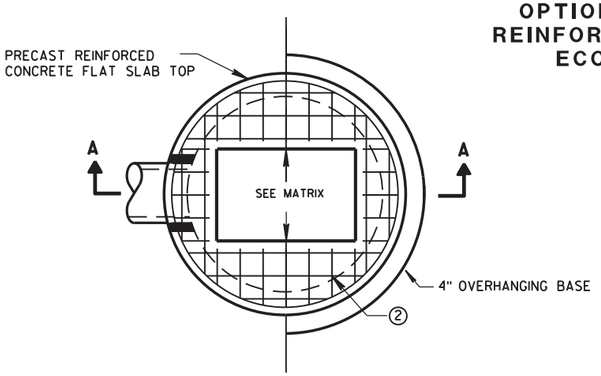
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



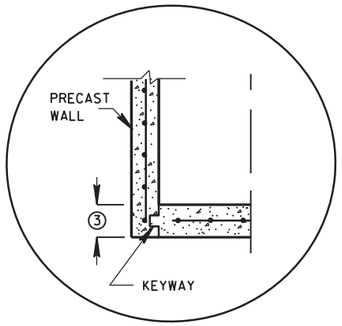
TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT

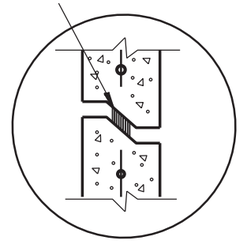


PLAN VIEW RECTANGULAR OPENING



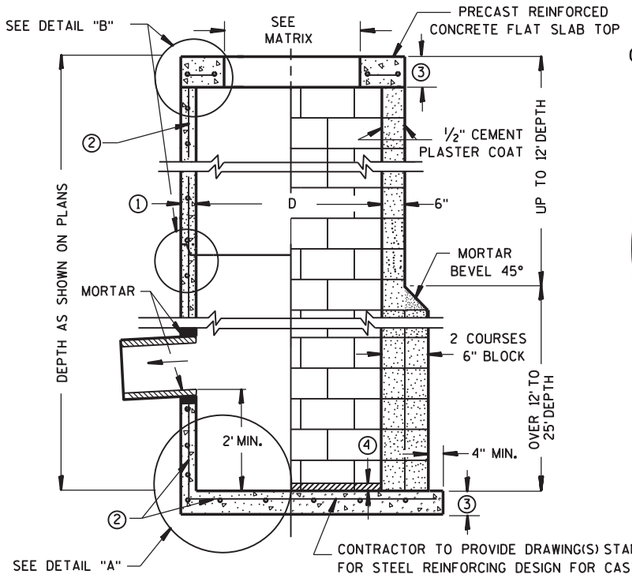
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

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

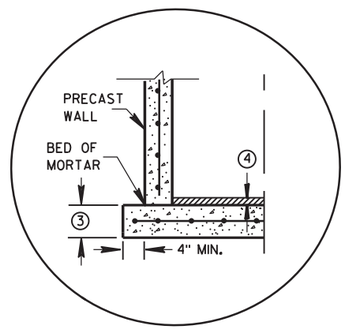


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

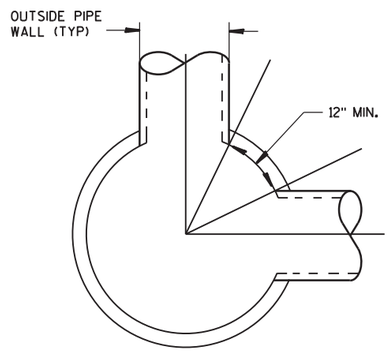


SECTION A-A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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 FOUNDATION 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.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ 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

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Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
222
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FHWA

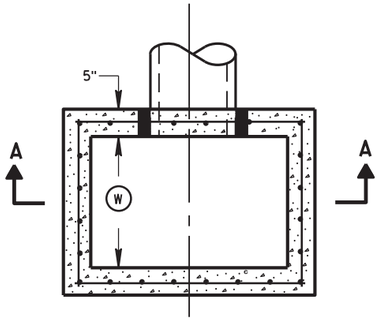
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

6

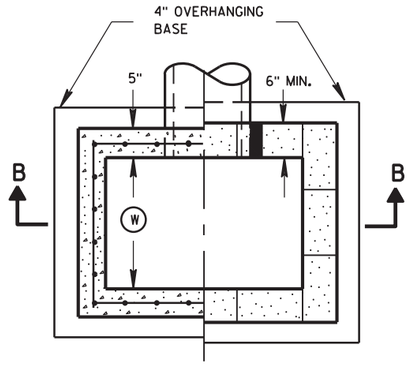
S.D.D. 8 A 8-2

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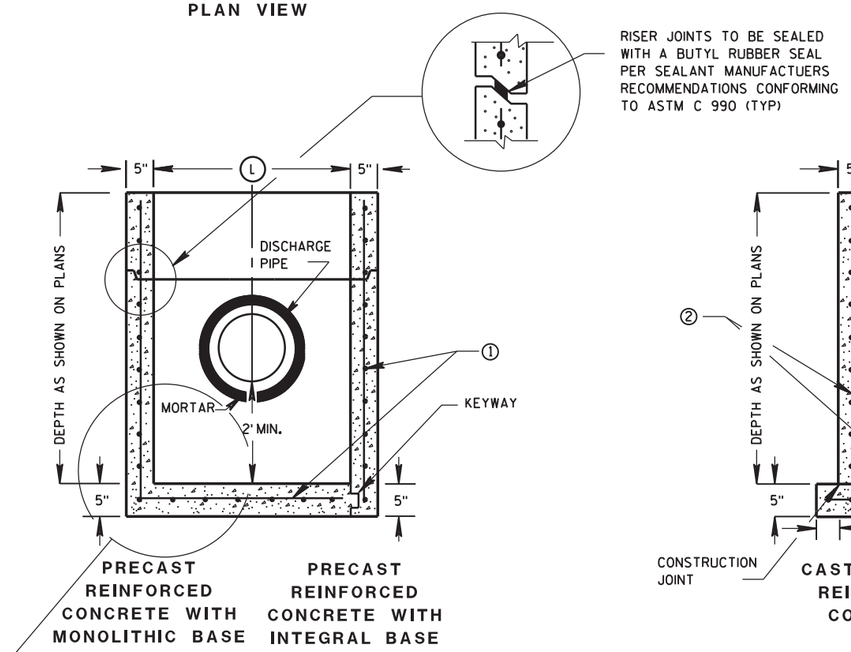
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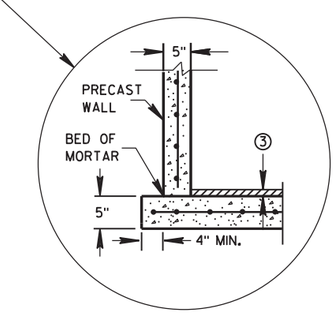
PLAN VIEW



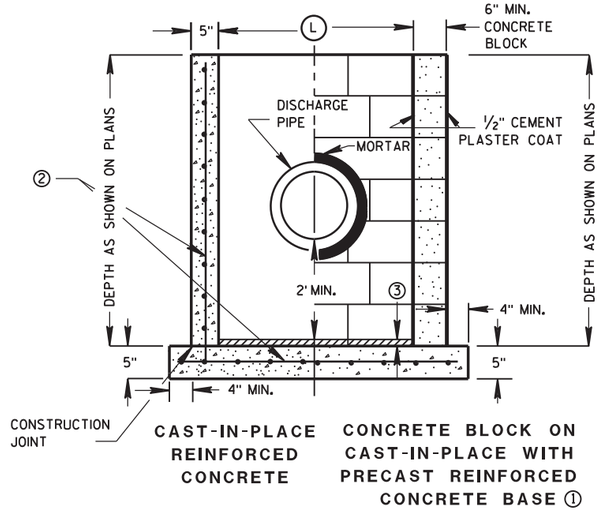
PLAN VIEW



SECTION A-A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



SECTION B-B

GENERAL NOTES

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

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 PRECAST CATCH BASIN UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

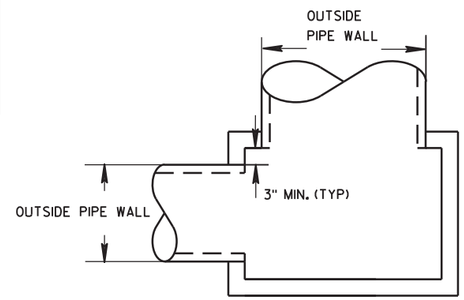
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER TYPE	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

CATCH BASINS 2X3-FT AND 2.5X3-FT

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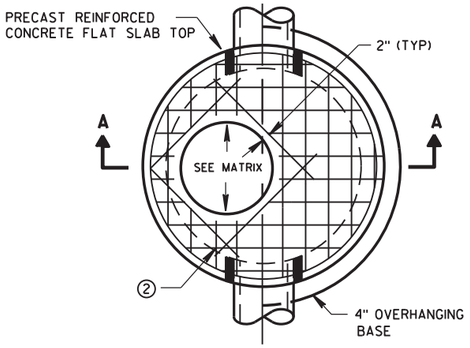
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

6

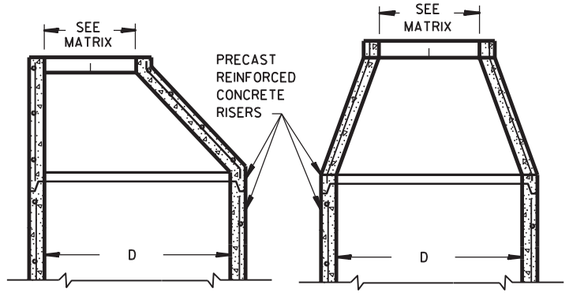
S.D.D. 8 A 9-2

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S.D.D. 8 A 9-2

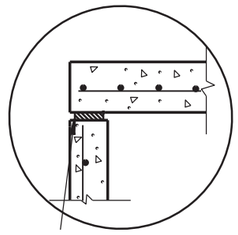


PLAN VIEW CIRCULAR OPENING

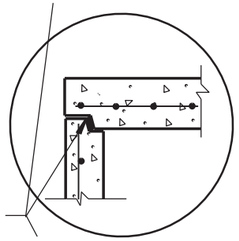


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

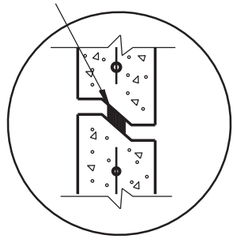


TOP WITH PLAIN END JOINT



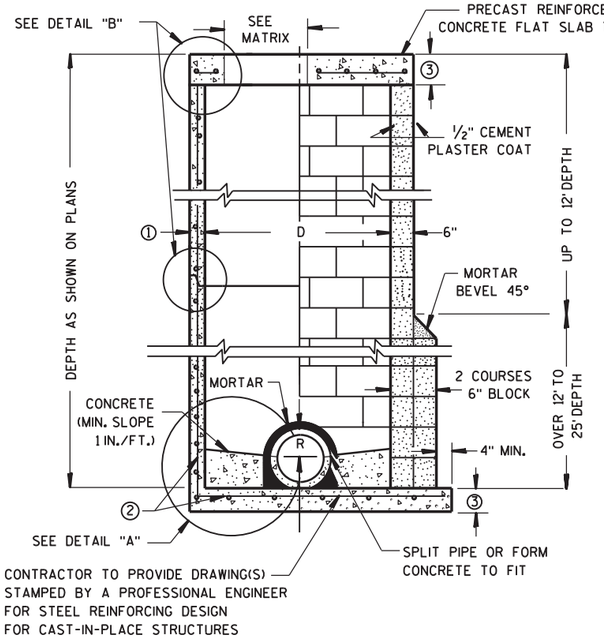
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



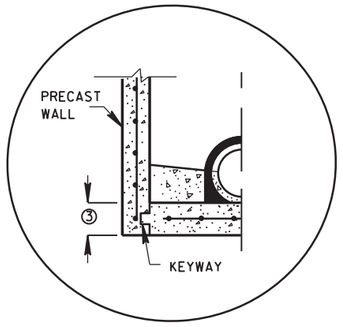
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

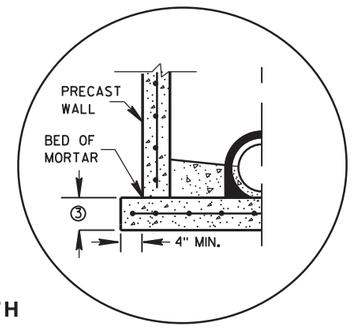


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

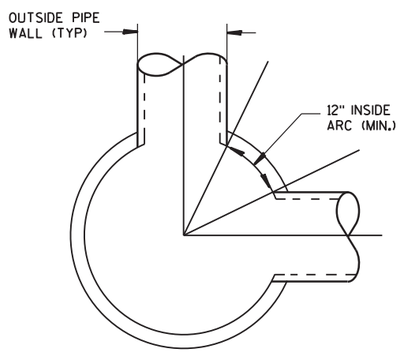


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2016
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV 224

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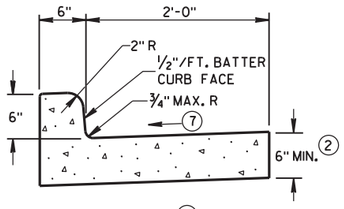
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

6

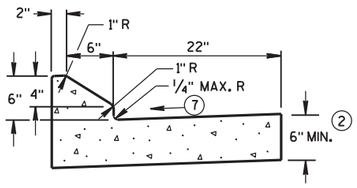
S.D.D. 8 B 9-2

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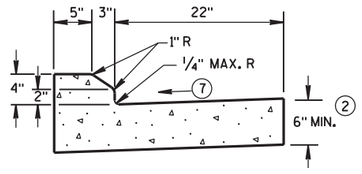
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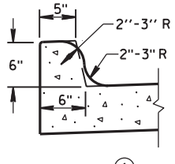
TYPES A (1) & D



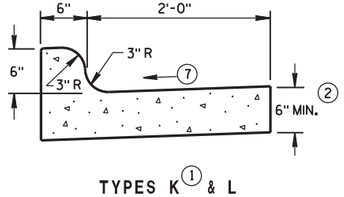
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

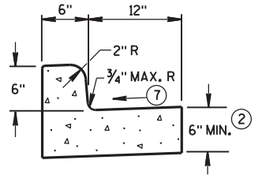


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



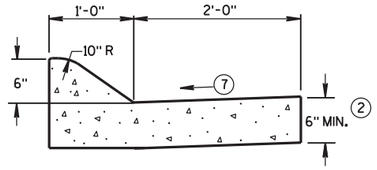
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

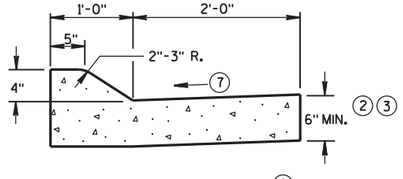


TYPES A (1) & D

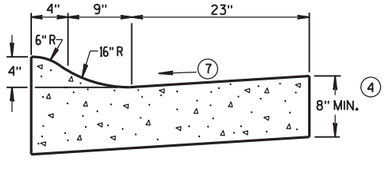
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

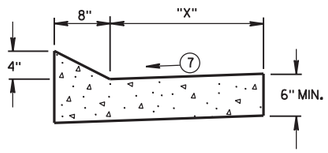


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

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.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

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

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

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) 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.

(5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

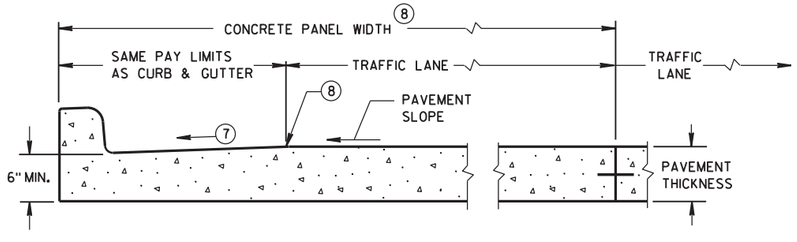
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

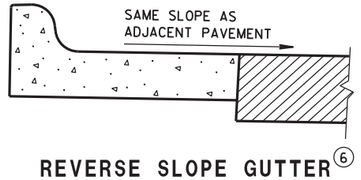
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB & GUTTER

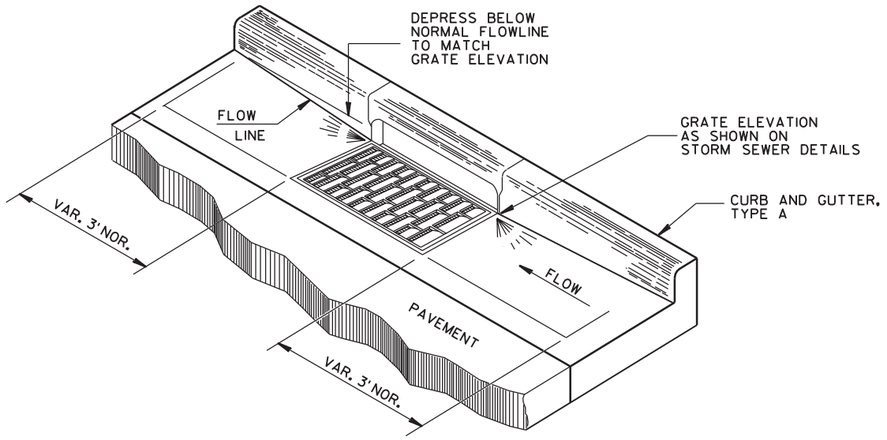
* BIKE LANE IS NOT SHOWN.



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

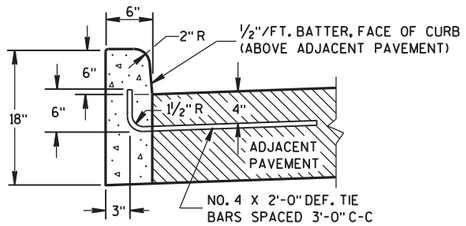
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

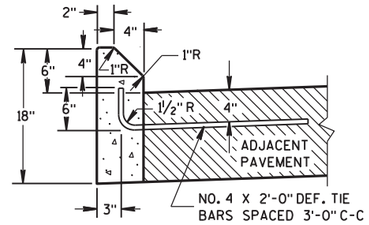
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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

(9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

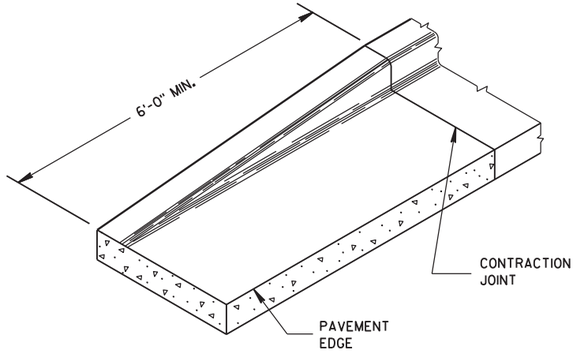


TYPES A(1) & D

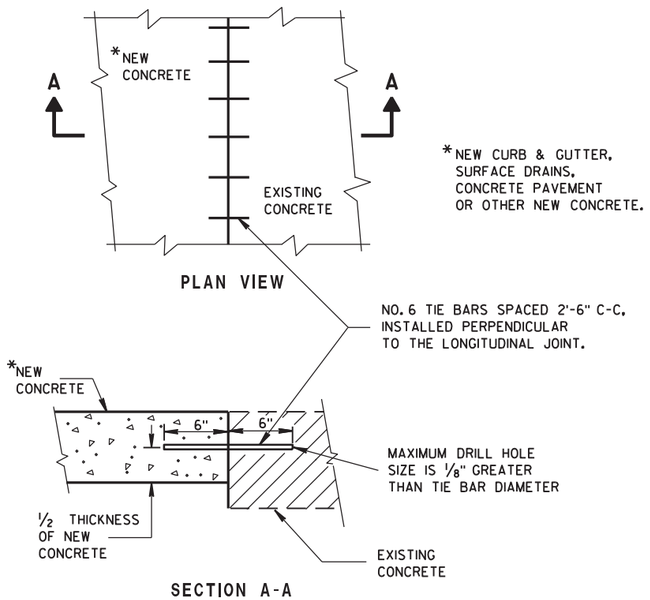


TYPES G(1) & J

CONCRETE CURB



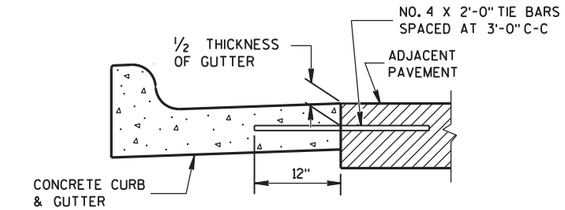
END SECTION CURB & GUTTER



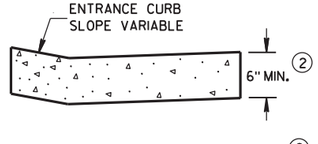
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

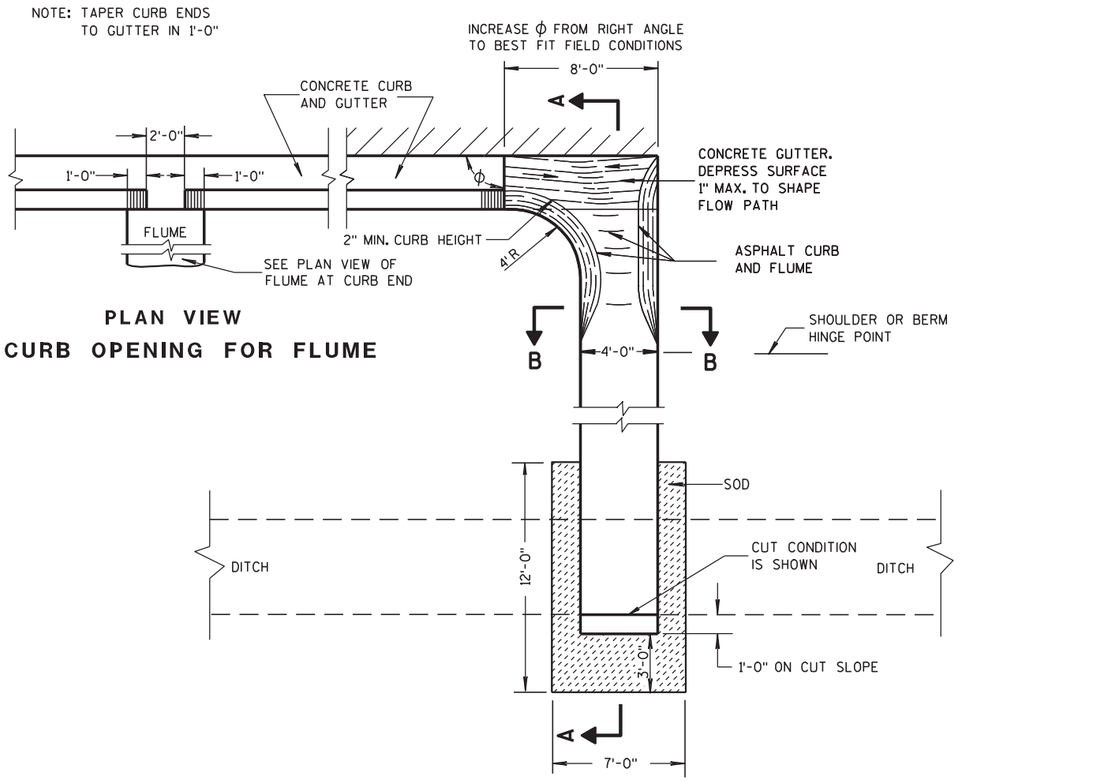
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S.D.D. 8 D 1-20b

6

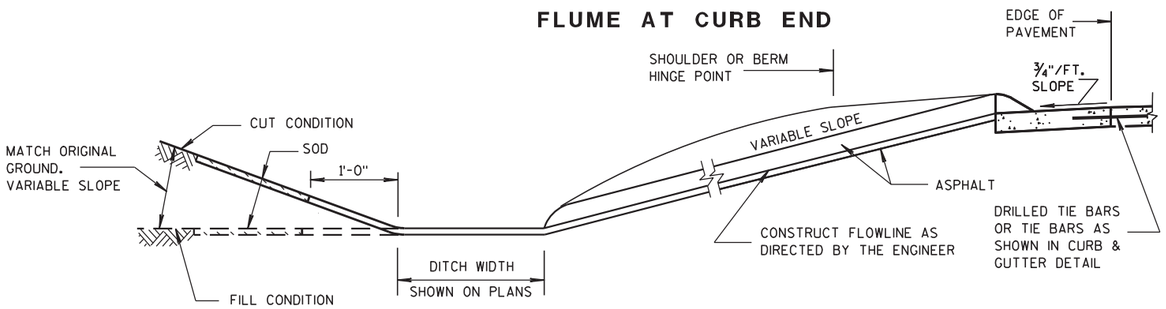
S.D.D. 8 D 1-20b

ASPHALTIC FLUME

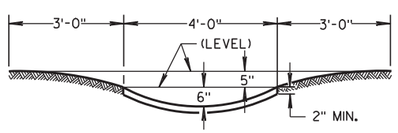


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

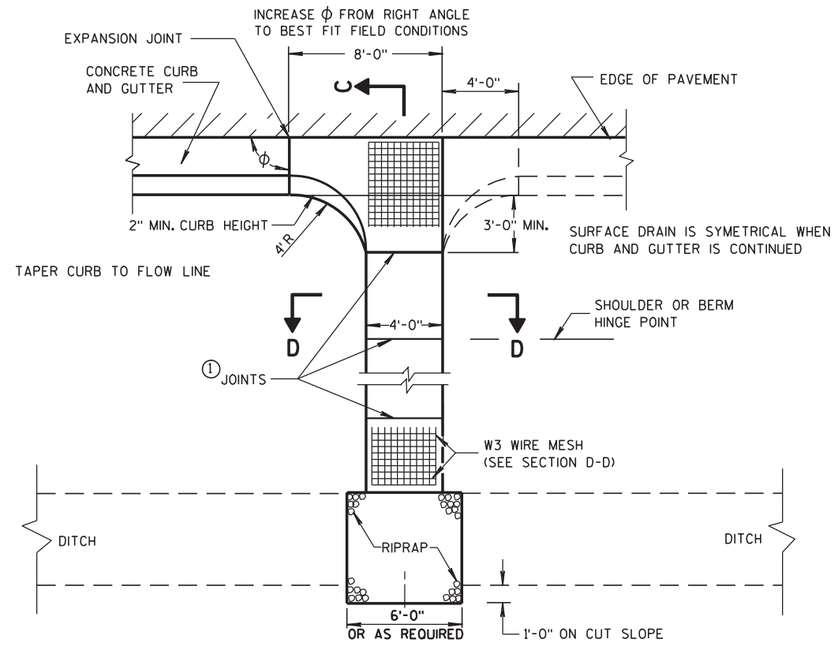
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

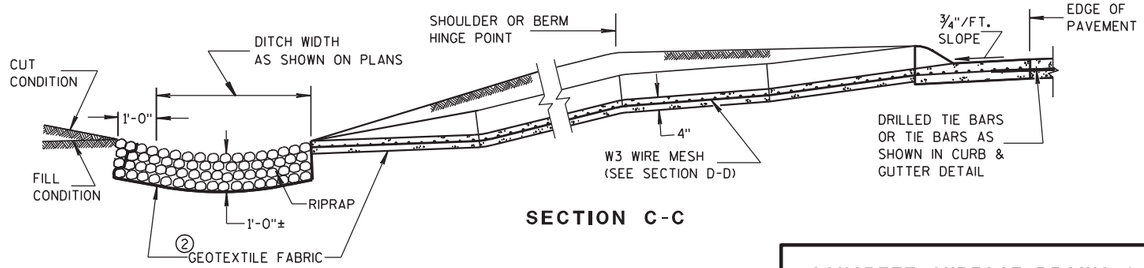
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

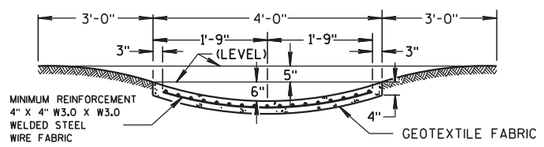
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C

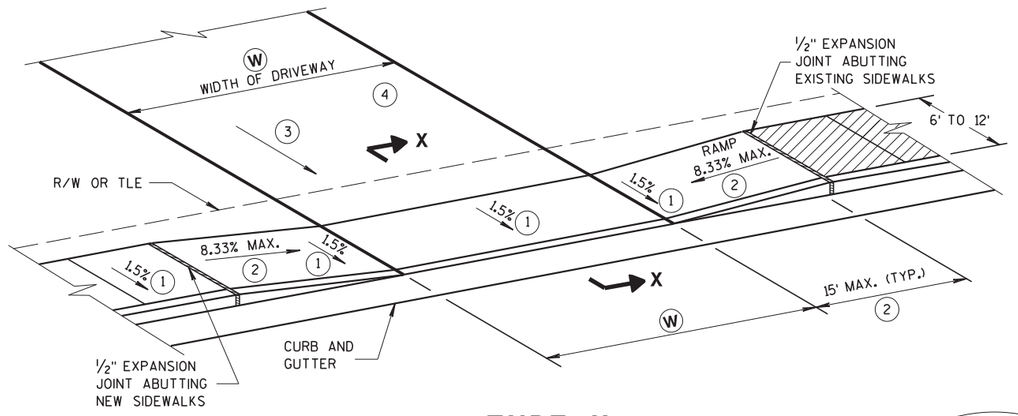


SECTION D-D

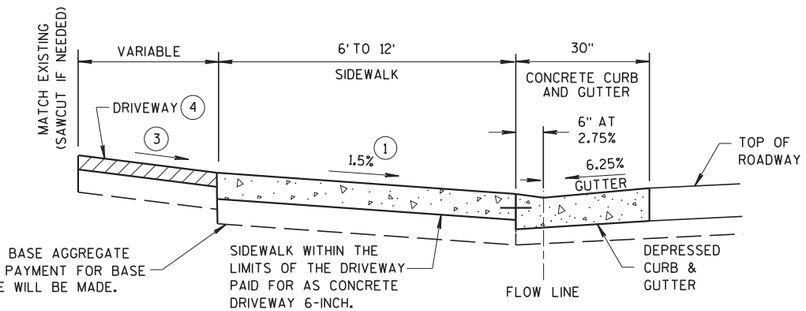
CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

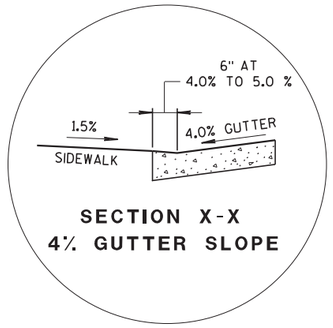
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
227
MENT
FHWA



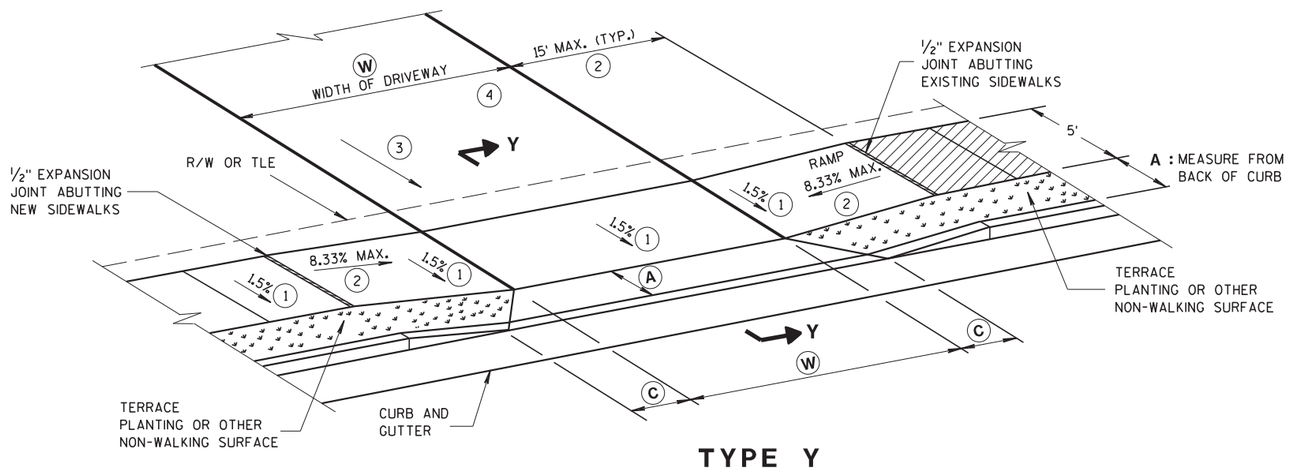
TYPE X
SIDEWALK ABUTS CURB & GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X-X



SECTION X-X
4% GUTTER SLOPE



TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

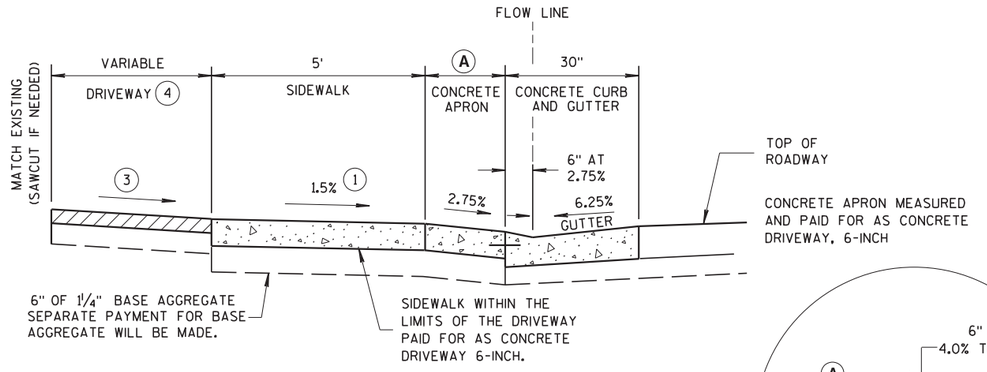
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

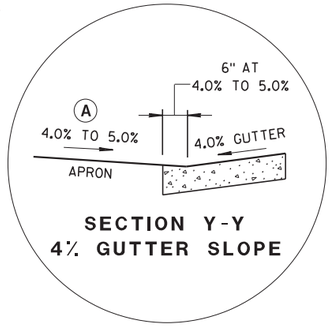
(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y-Y

DRIVEWAY DETAIL
WITH CONCRETE CURB & GUTTER
(URBAN AND SUBURBAN)



SECTION Y-Y
4% GUTTER SLOPE

TABLE Y

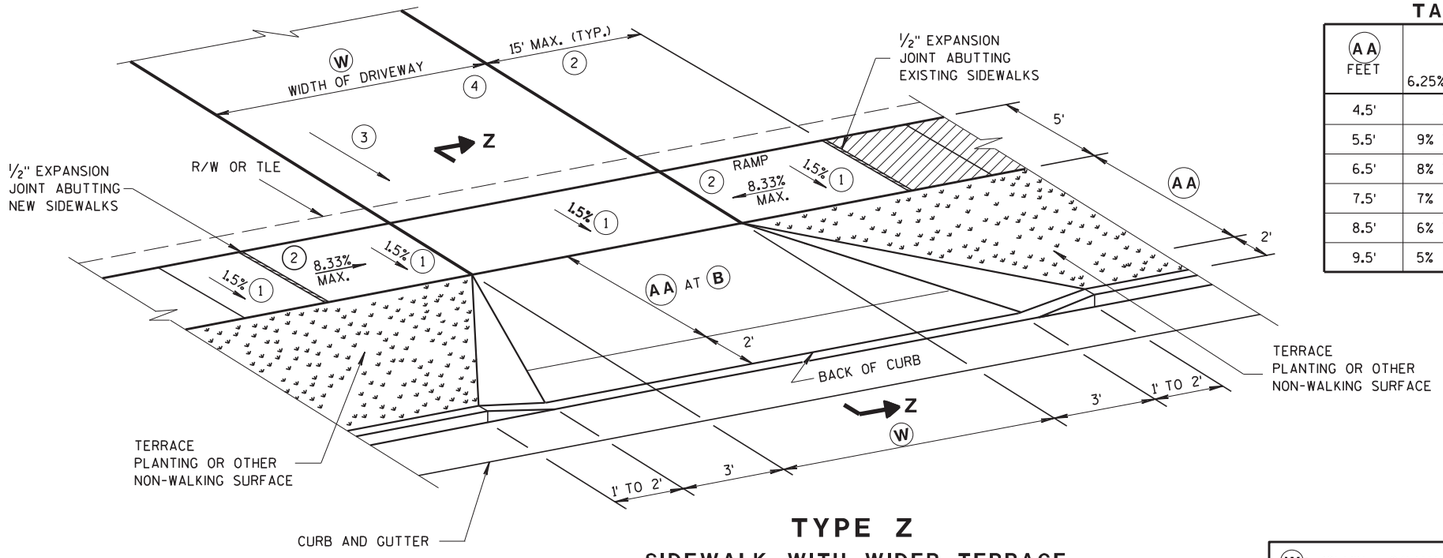
(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS
TYPES X & Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA



TYPE Z

SIDEWALK WITH WIDER TERRACE

TERRACE VARIES 7 TO 12 FEET

TABLE Z

(AA) FEET	(B) % 6.25% GUTTER	(B) % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

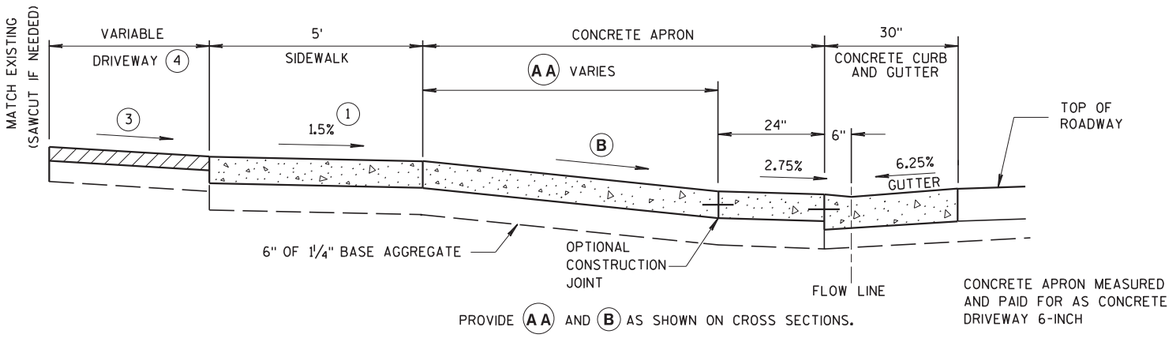
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

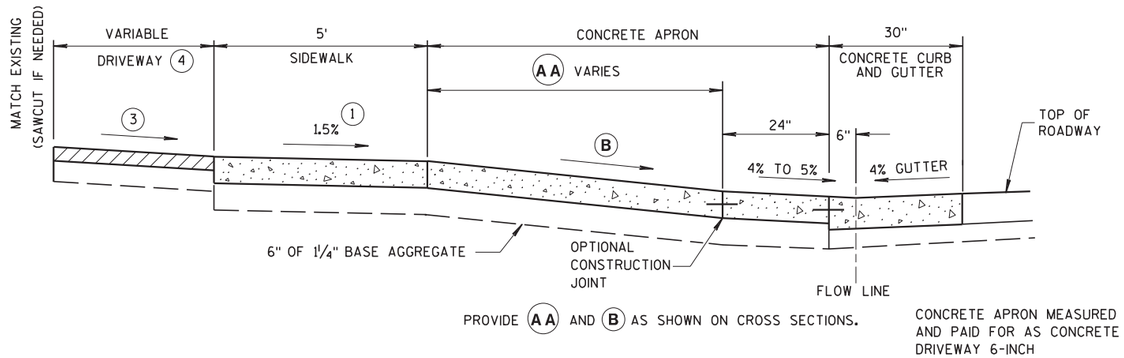
(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



6.25% GUTTER SLOPE



4% GUTTER SLOPE

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR **B** VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

SECTION Z-Z

DRIVEWAY DETAIL WITH CONCRETE CURB & GUTTER

(URBAN AND SUBURBAN)

NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

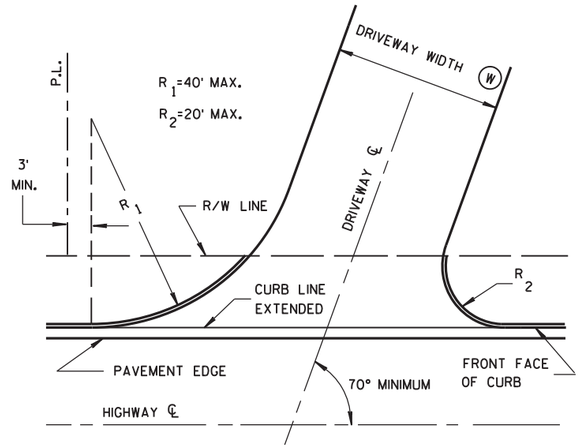
APPROVED
March 2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

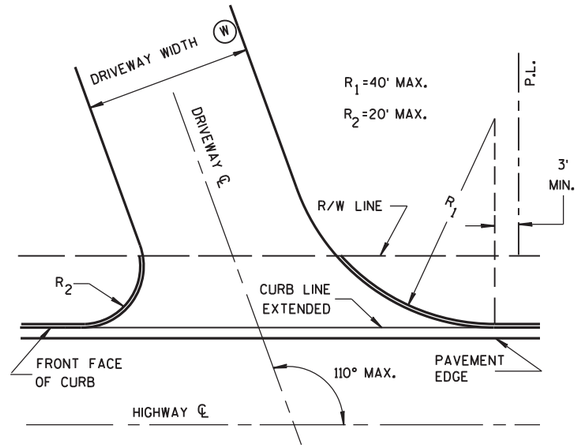
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S.D.D. 8 D 19-2

6

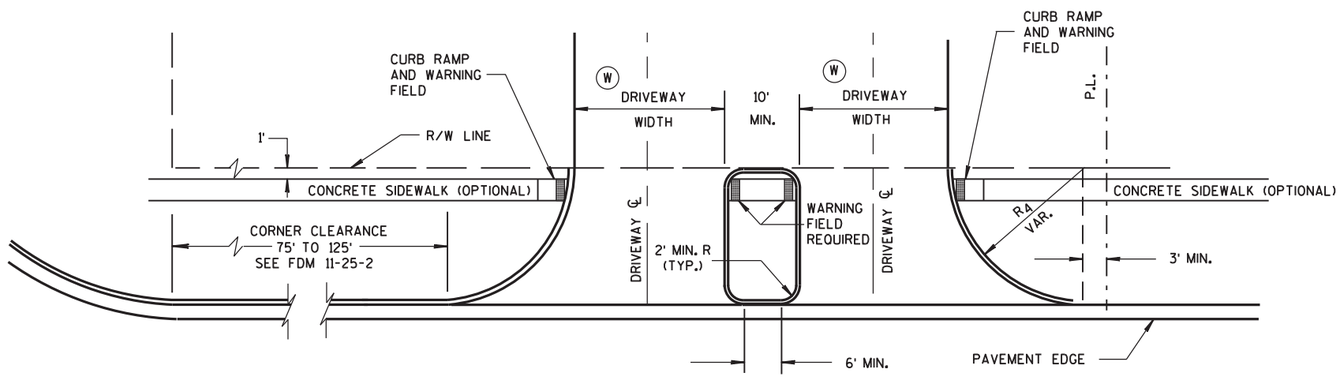
S.D.D. 8 D 19-2





SKEWED DRIVEWAY DETAILS
(COMMERCIAL AND NON-COMMERCIAL)

SIDEWALK NOT SHOWN



DRIVEWAY LOCATION AND SPACING DETAILS

SIDEWALK SHOWN

NOTES

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

Ⓦ DRIVEWAY WIDTHS:

COMMERCIAL - 35' MAX., 16' MIN.

RESIDENTIAL AND NON-COMMERCIAL - 24' MAX., 12' MIN.

DRIVEWAYS WITH CURB & GUTTER RETURNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERV
FHWA

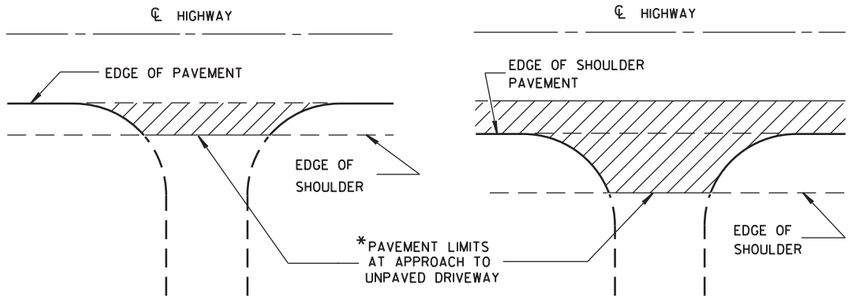
ENT

6

S.D.D. 8 D 20-1

6

S.D.D. 8 D 20-1



*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

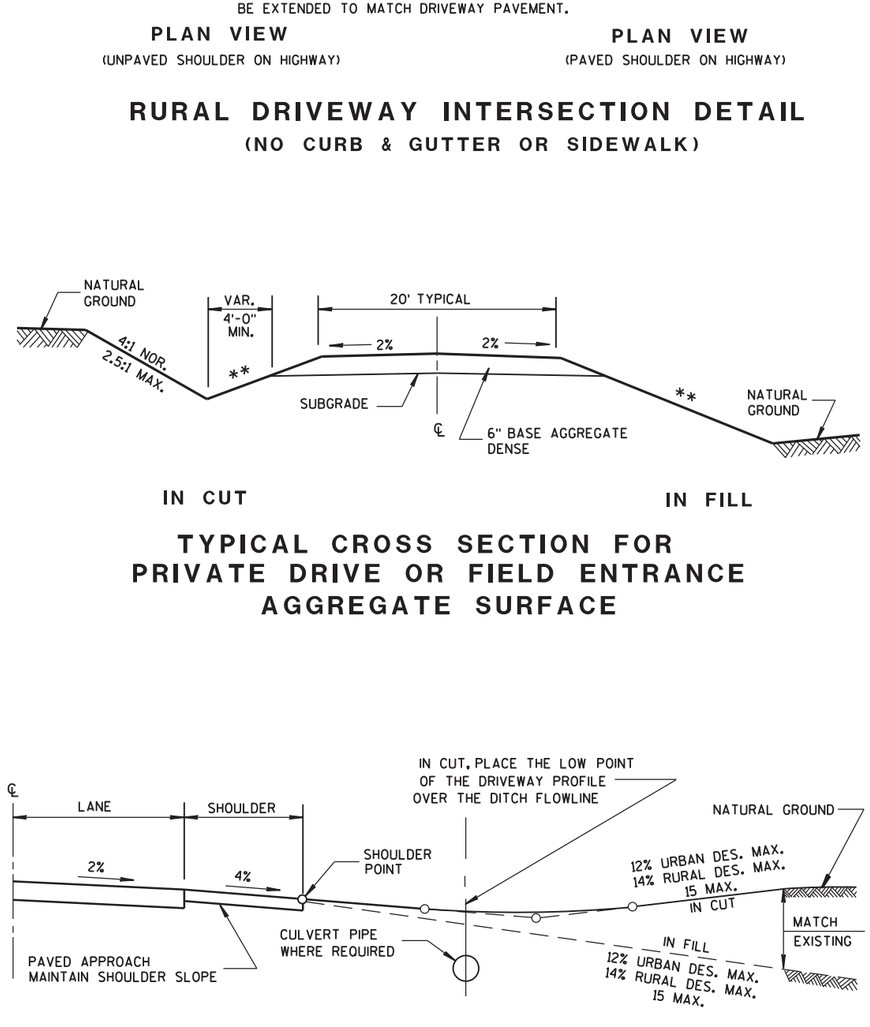
RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB & GUTTER OR SIDEWALK)

IN CUT **IN FILL**

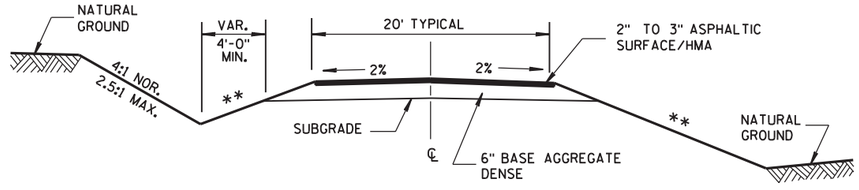
TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-2.6.2.

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥35 TO <60	6:1
≥60	10:1



TYPICAL DRIVEWAY PROFILES



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

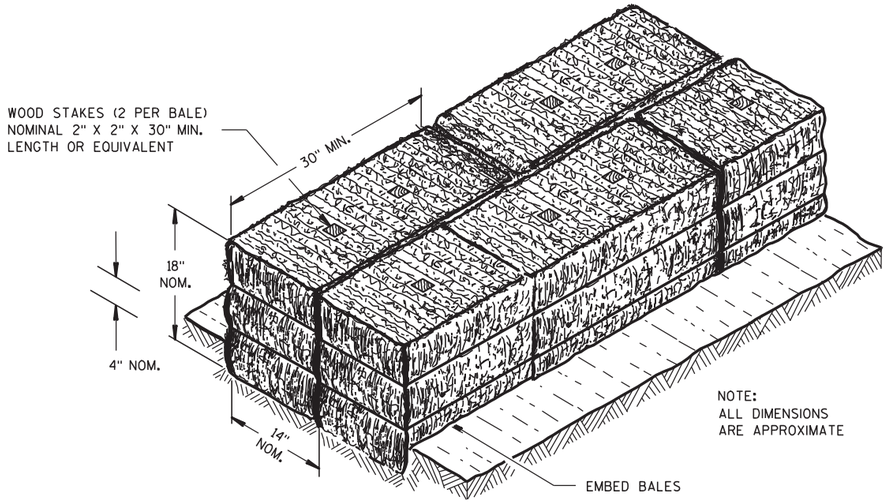
DRIVEWAYS WITHOUT CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

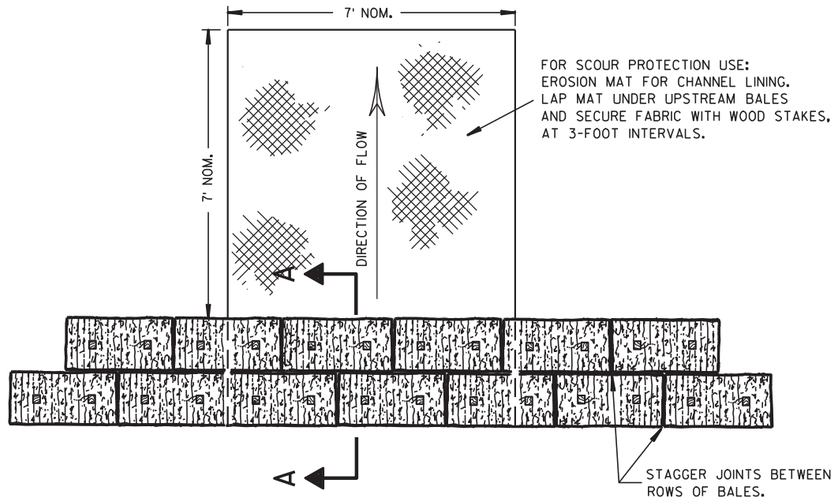
APPROVED
December, 2016 — /S/ Rodney Taylor
DATE — ROADWAY STANDARDS UNIT SUPERV — ENT
FHWA

6

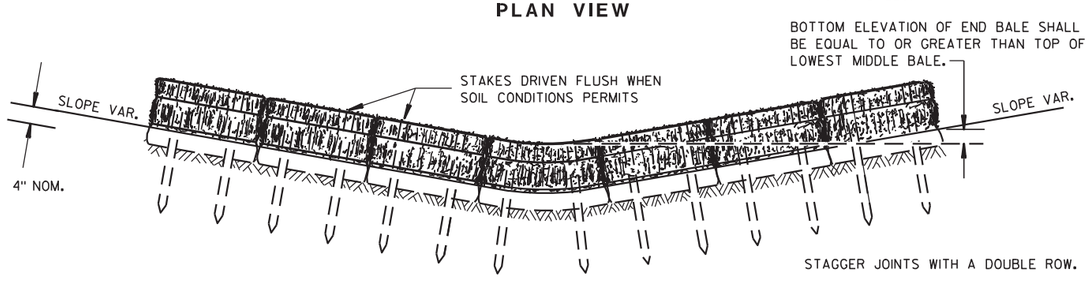
S.D.D. 8 D 21-1



SECTION A-A



PLAN VIEW



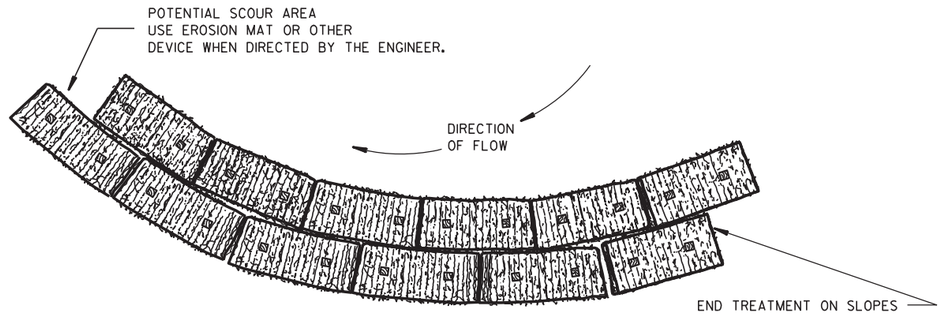
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

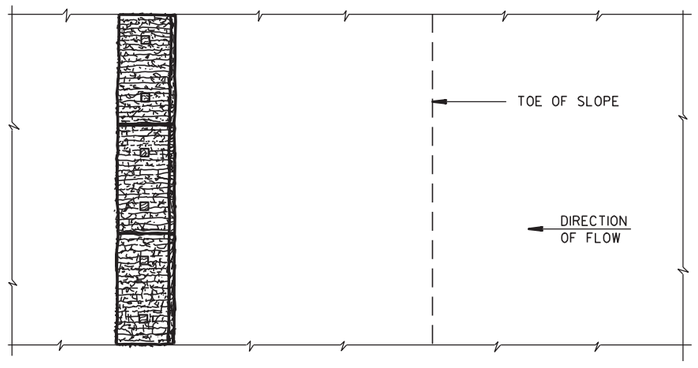
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

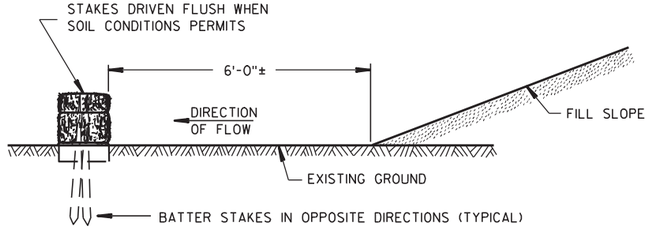


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

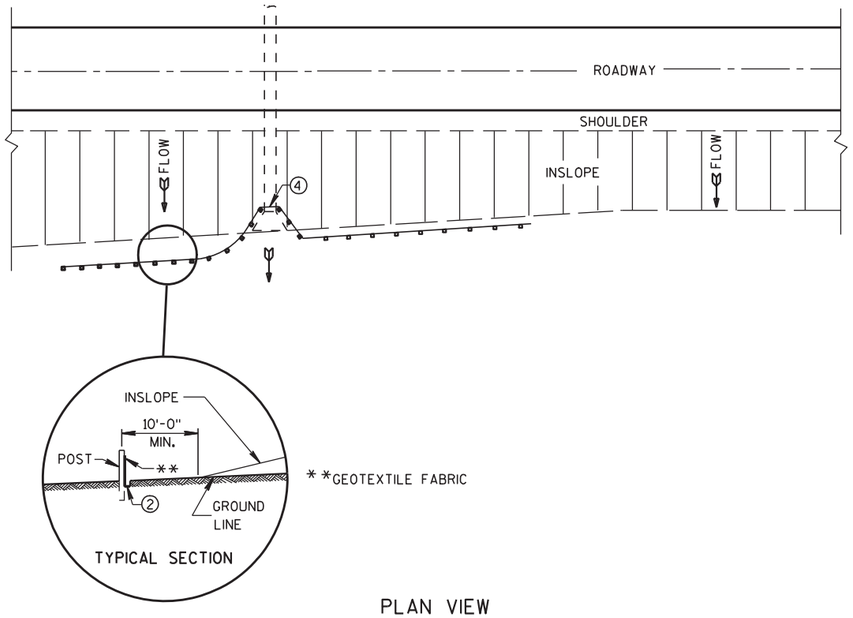
EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

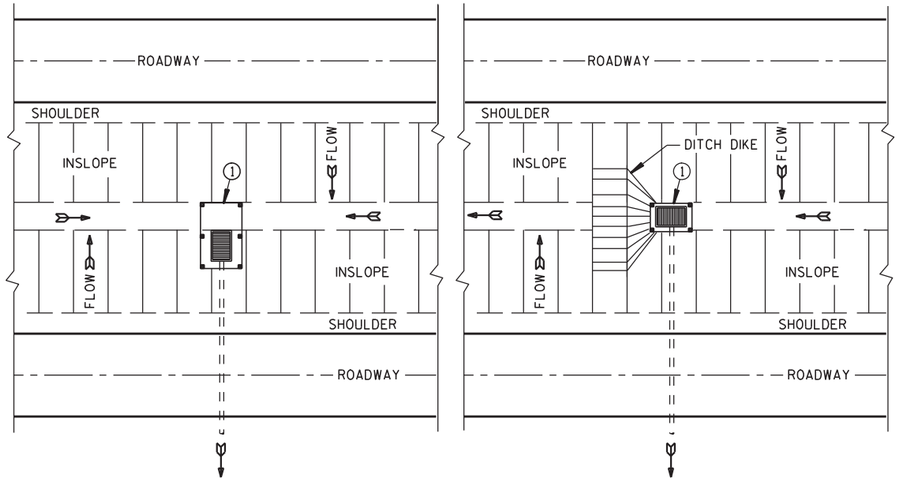
APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



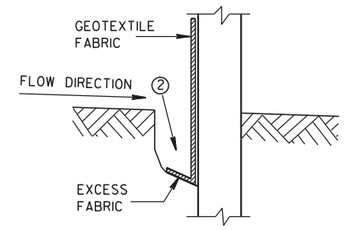
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

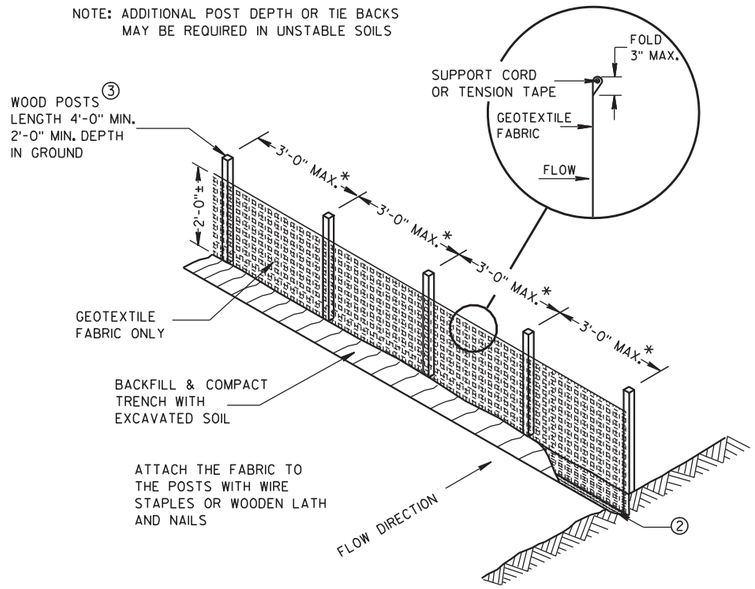
GENERAL NOTES

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

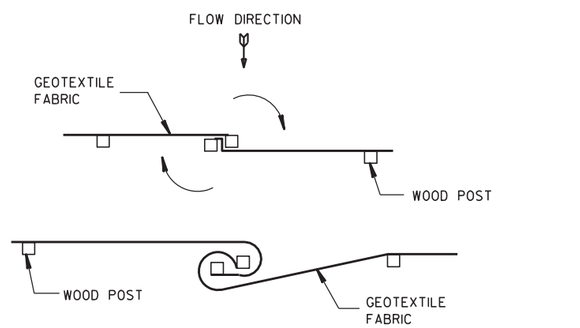
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



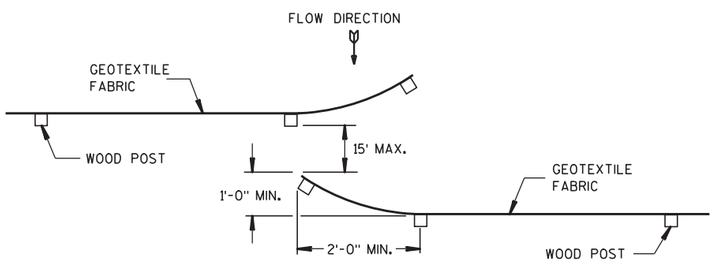
TRENCH DETAIL



SILT FENCE

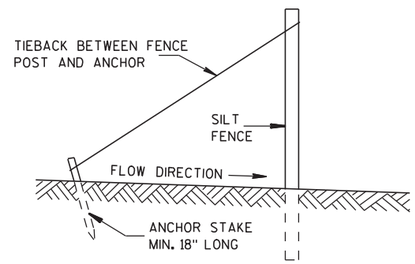


TWIST METHOD



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

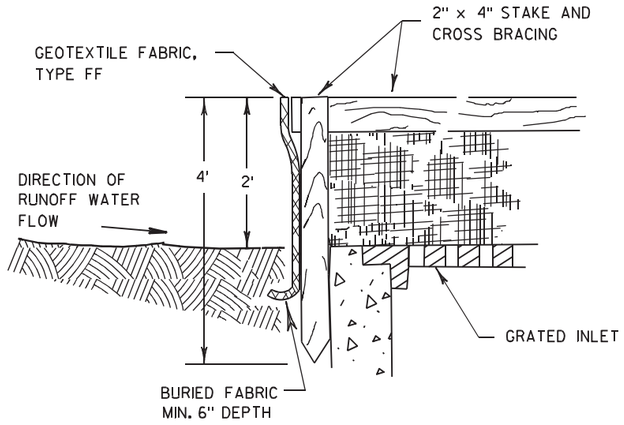
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

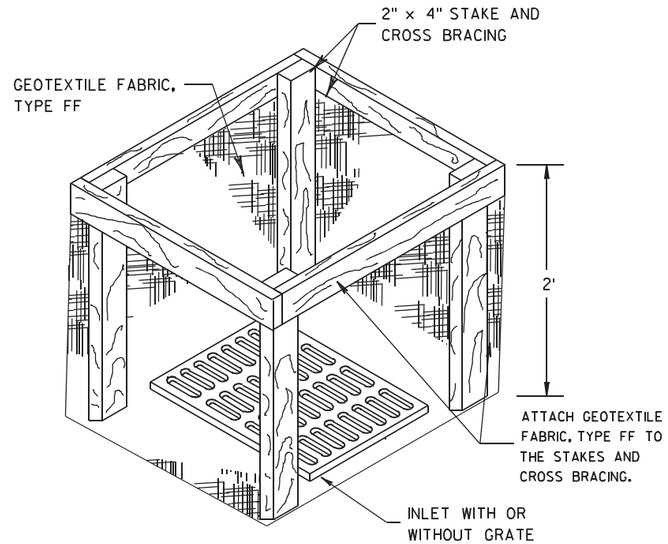
6

S.D.D. 8 E 9-6

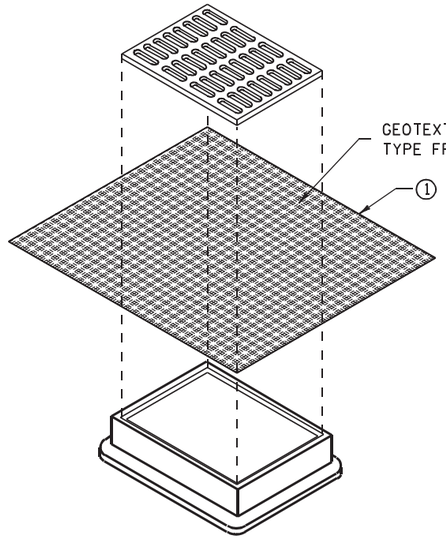
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S.D.D. 8 E 9-6



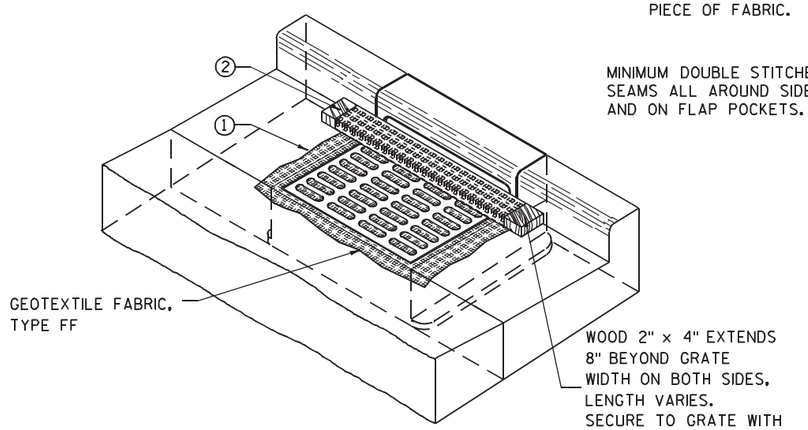


INLET PROTECTION, TYPE A

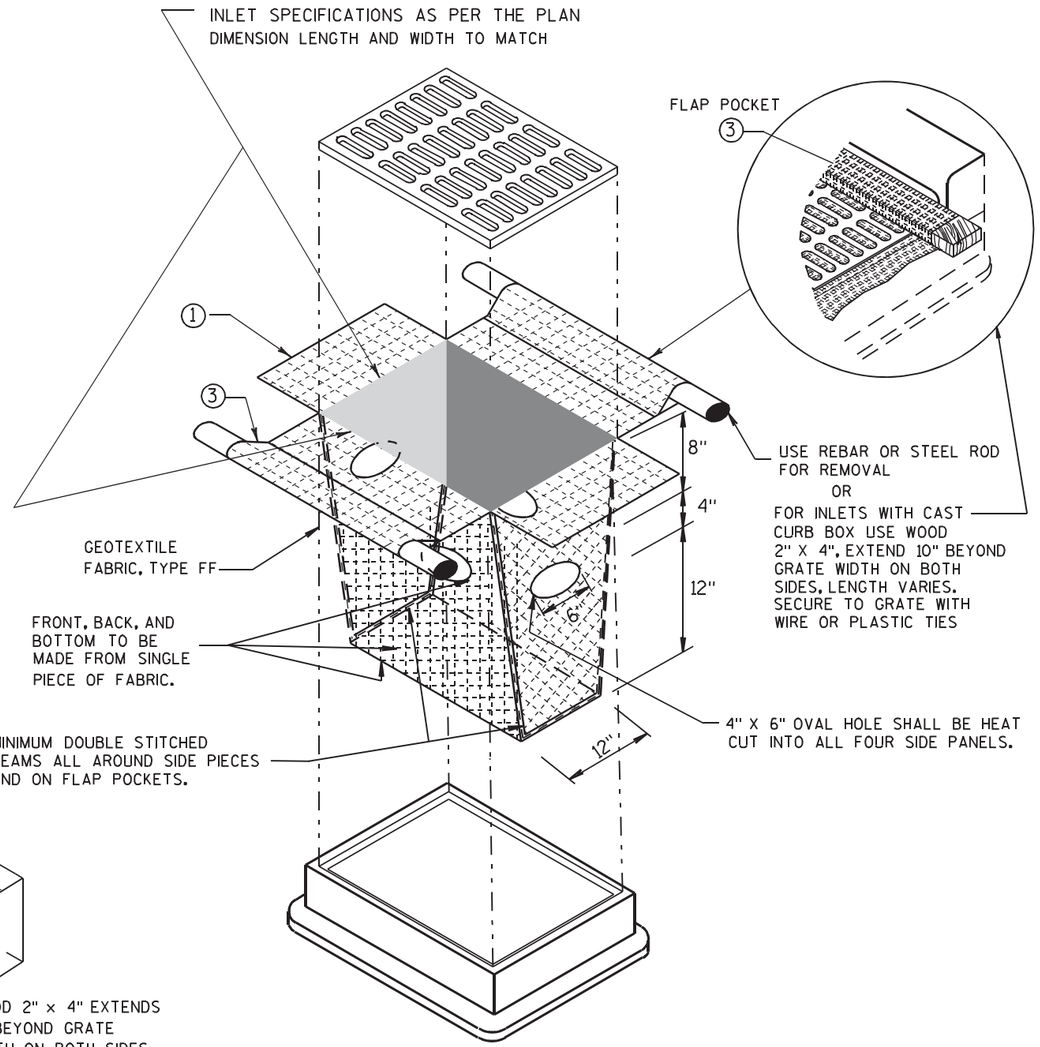


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2

METAL APRON ENDWALLS

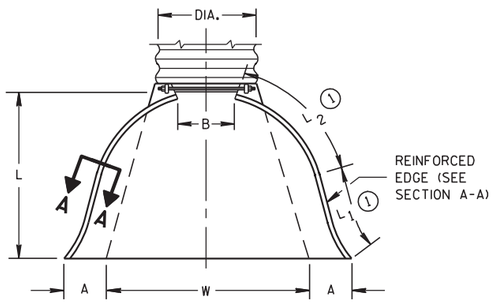
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE APRON ENDWALLS

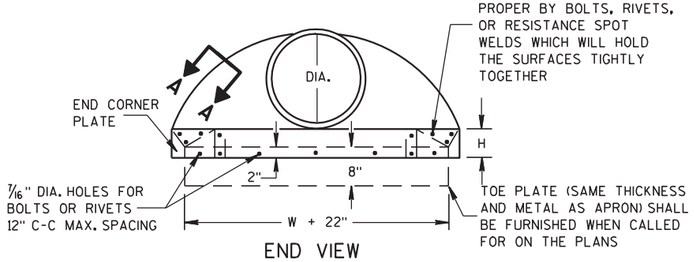
PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 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



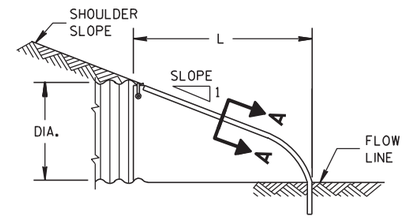
PLAN VIEW

REINFORCED EDGE (SEE SECTION A-A)



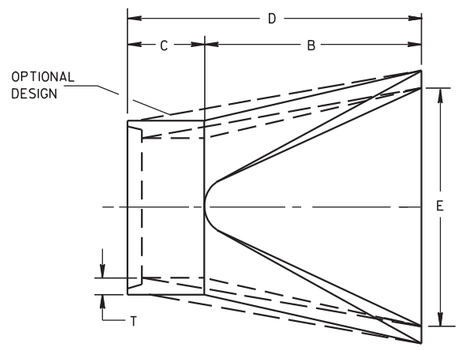
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

END VIEW

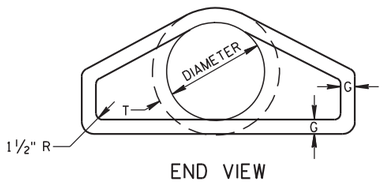


SIDE ELEVATION

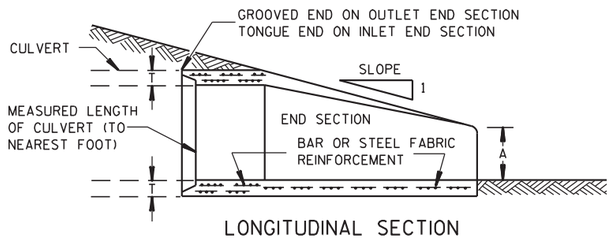
METAL ENDWALLS



PLAN

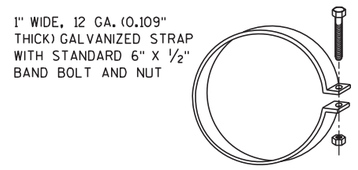


END VIEW



LONGITUDINAL SECTION

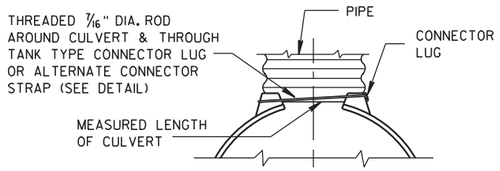
CONCRETE ENDWALLS



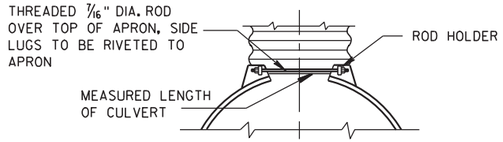
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT

ALTERNATE FOR TYPE 1 CONNECTION

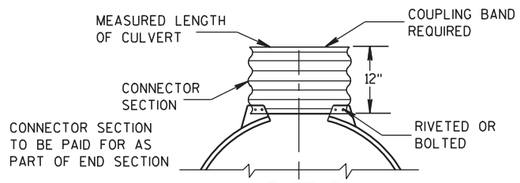
END SECTION CONNECTOR STRAP



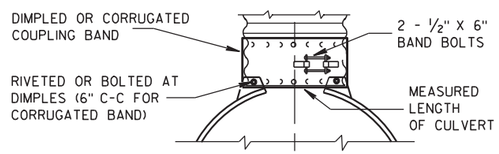
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

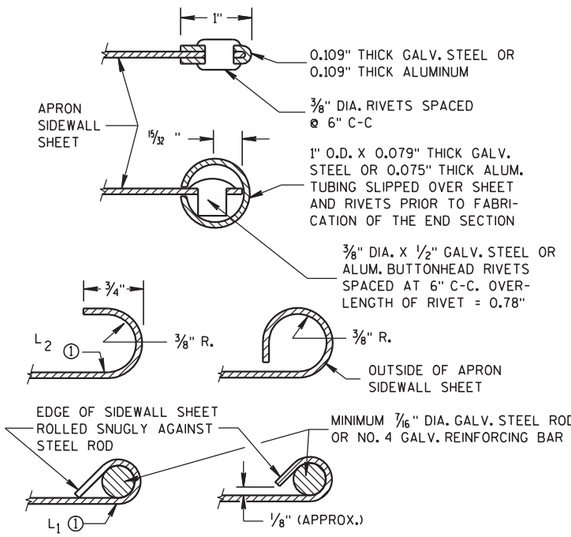
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

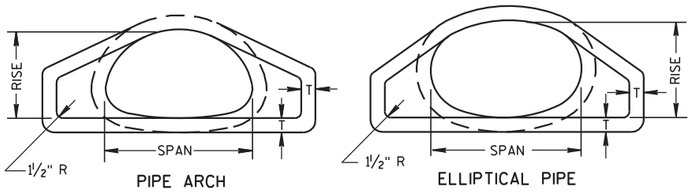
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

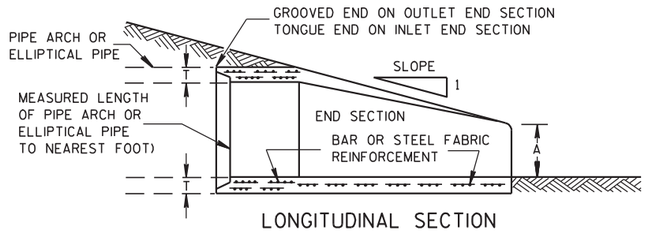
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOP 235 NEER
FHWA

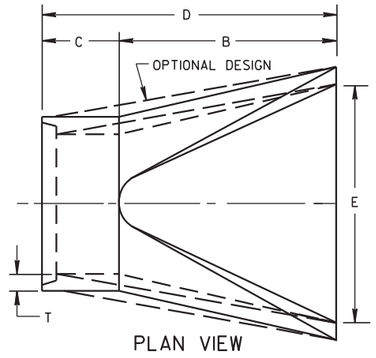
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END VIEW

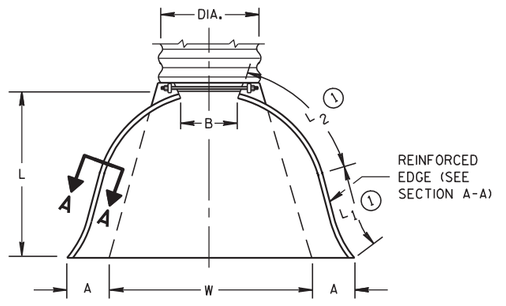


LONGITUDINAL SECTION

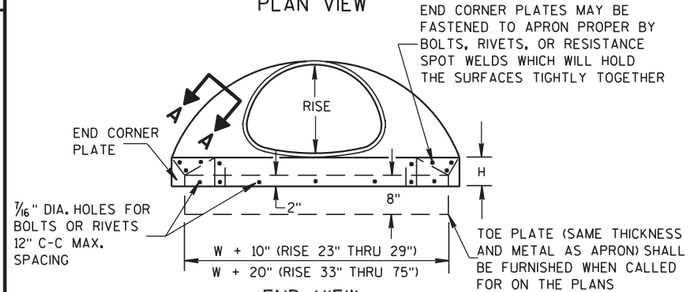


PLAN VIEW

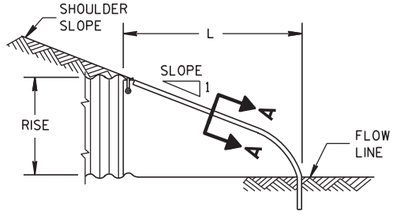
CONCRETE ENDWALLS



PLAN VIEW

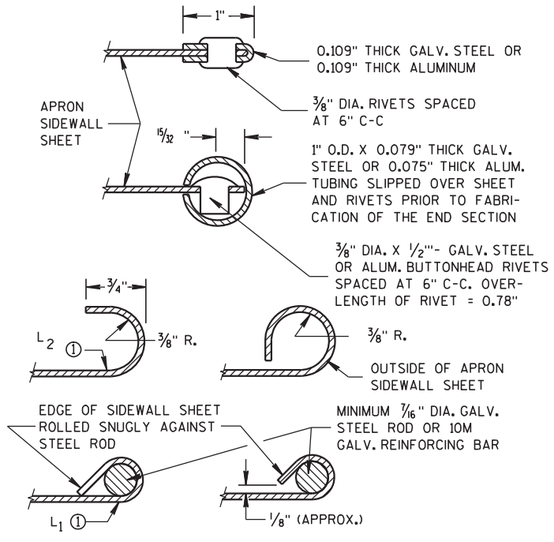


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

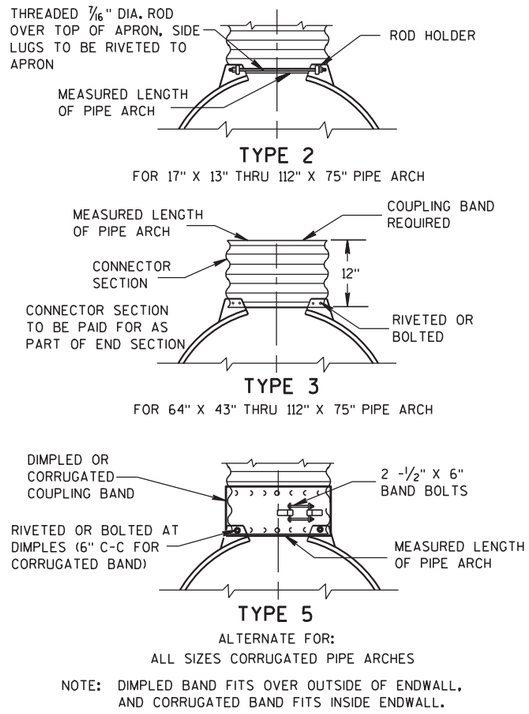
EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES



NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE

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 APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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 ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

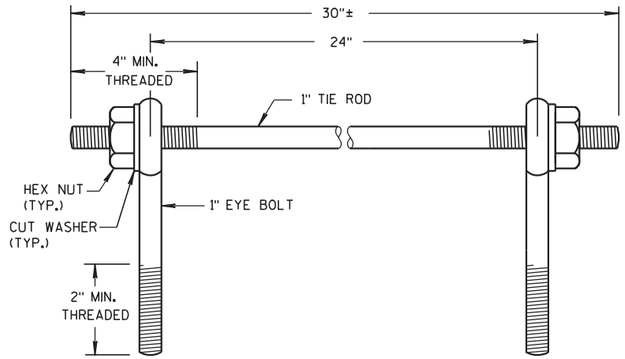
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

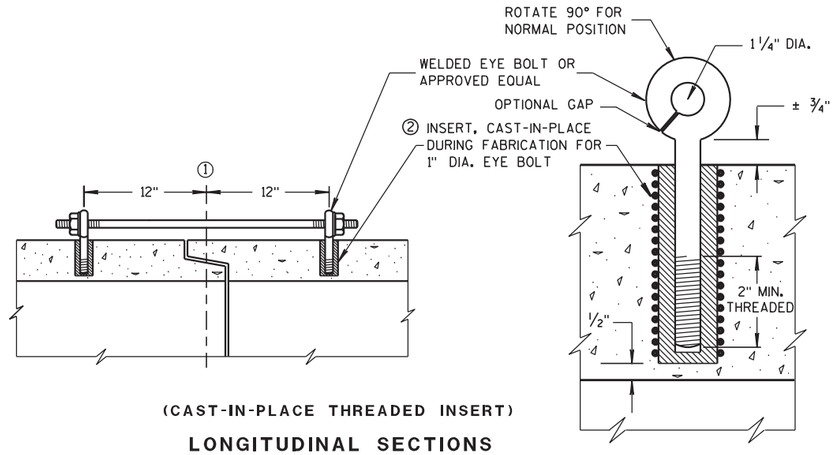
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S.D.D. 8 F 2-1



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.

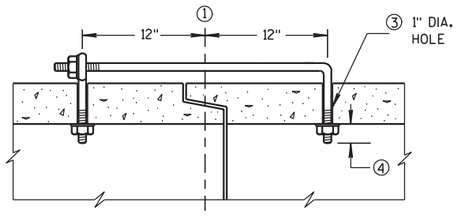
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

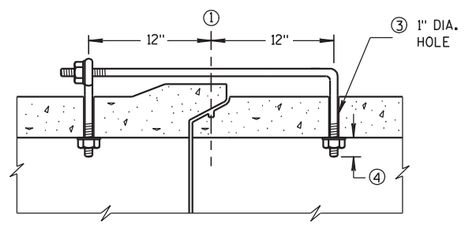
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

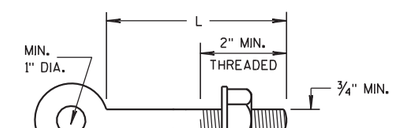


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

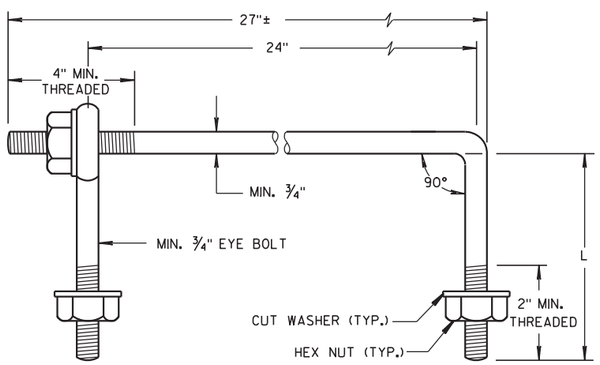
EYE BOLT DIMENSION TABLE

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"	



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

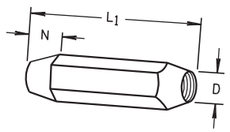
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

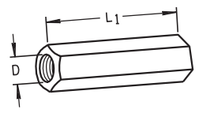
ADJUSTABLE TIE ROD TABLE

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



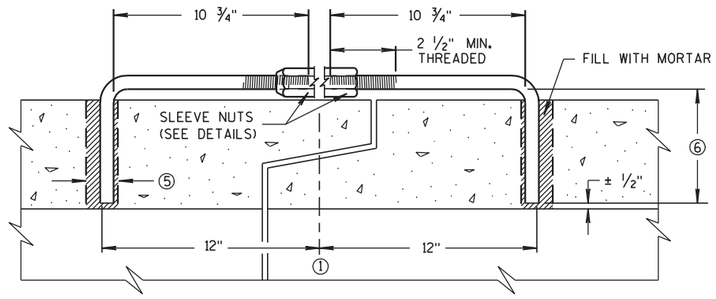
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PLAIN

RIGHT AND LEFT THREADS

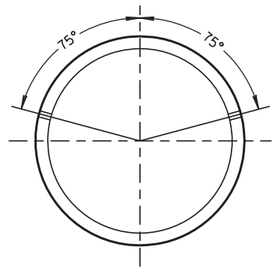
SLEEVE NUTS



LONGITUDINAL SECTION

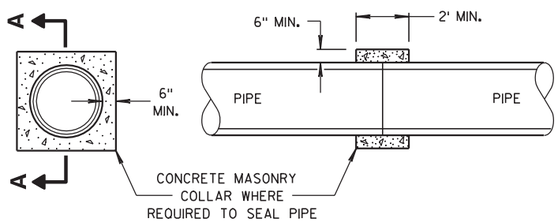
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

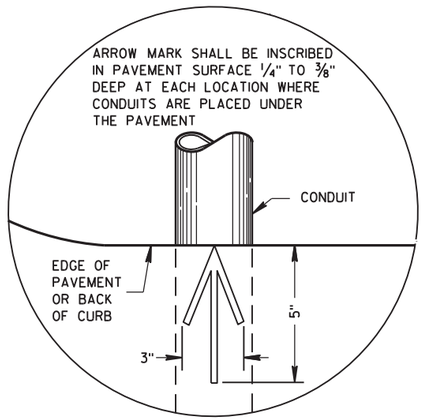
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
237
FHWA

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S.D.D. 8 F 4-7

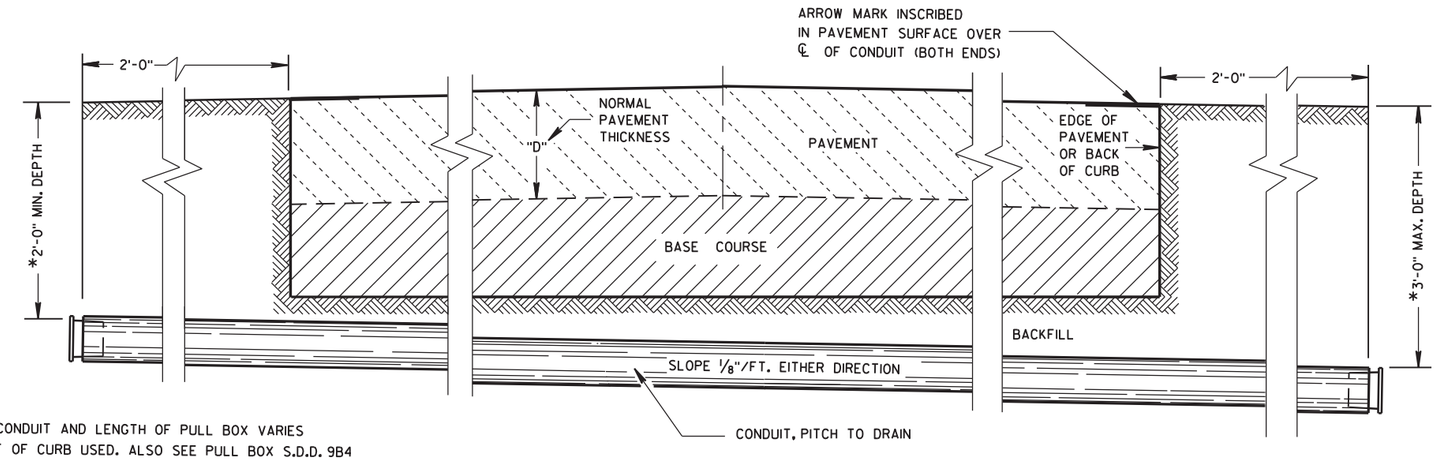
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S.D.D. 8 F 4-7



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

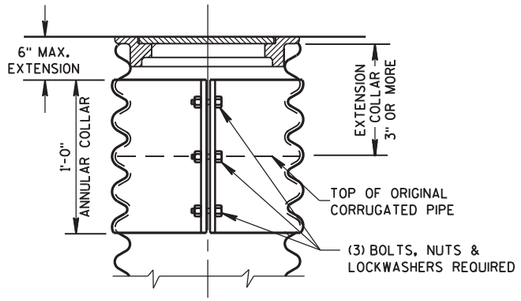
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

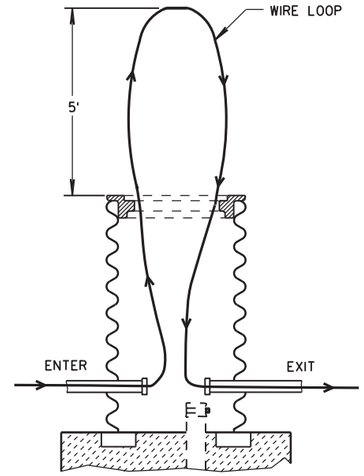
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

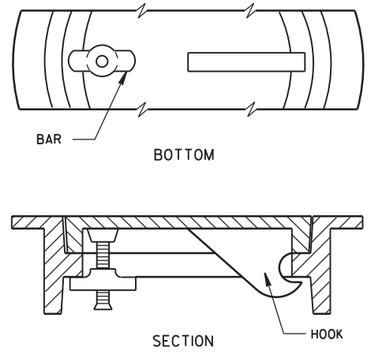
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

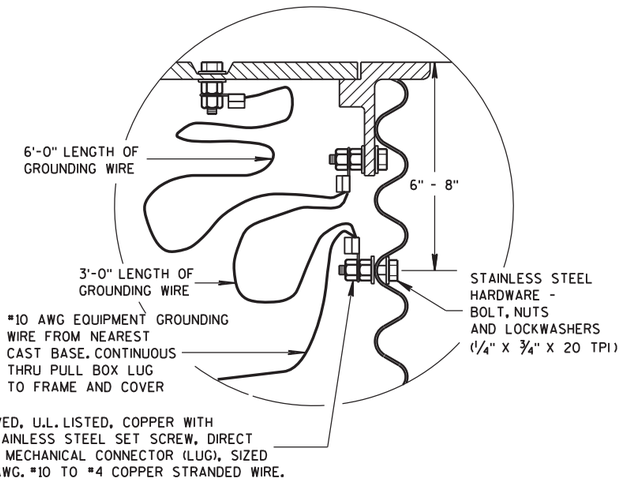


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

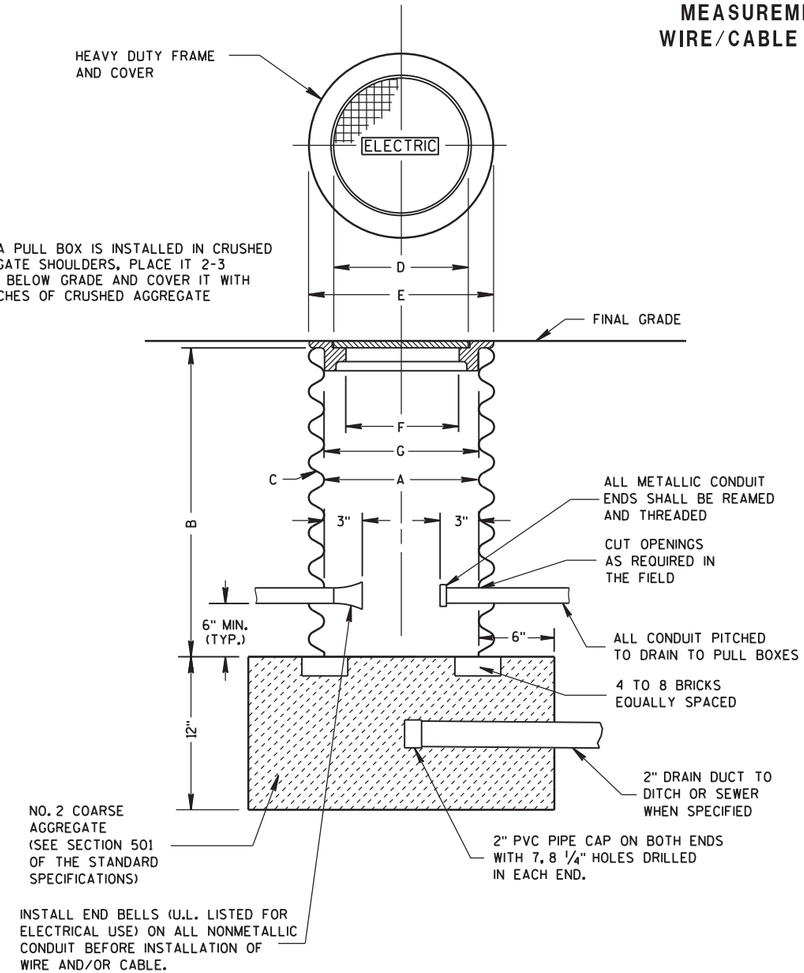
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

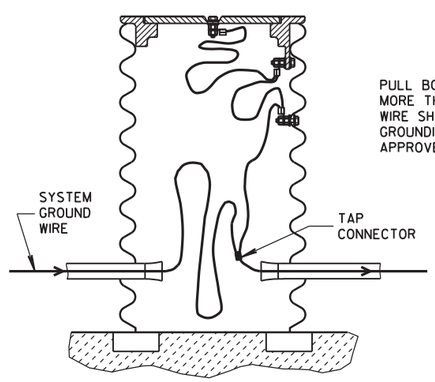
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

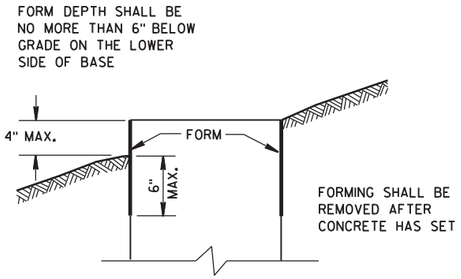
PULL BOX

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DEPARTMENT OF TRANSPORTATION

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6

S.D.D. 9 B 4-11



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

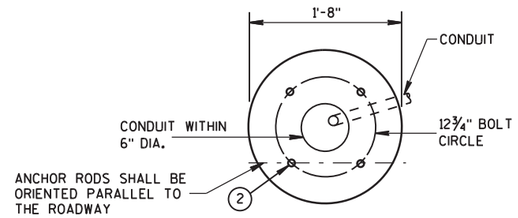
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

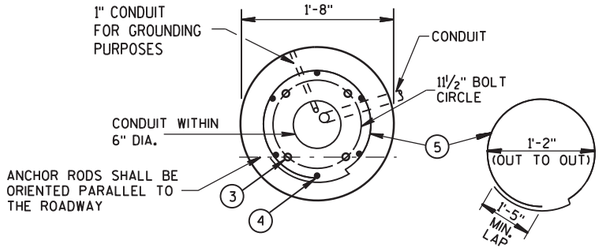
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

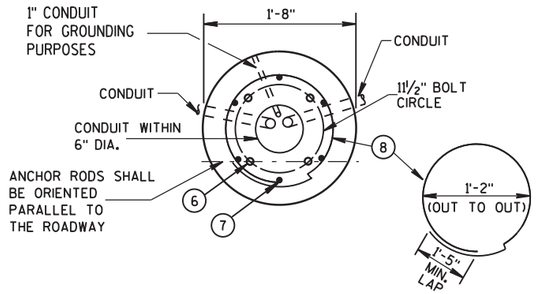
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

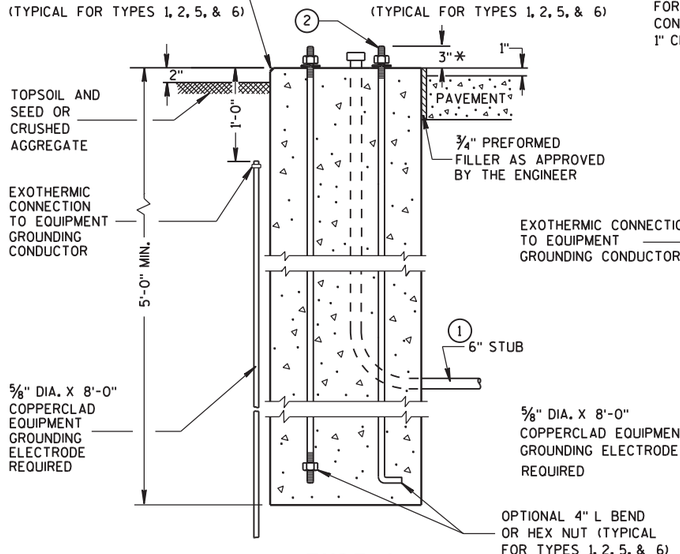




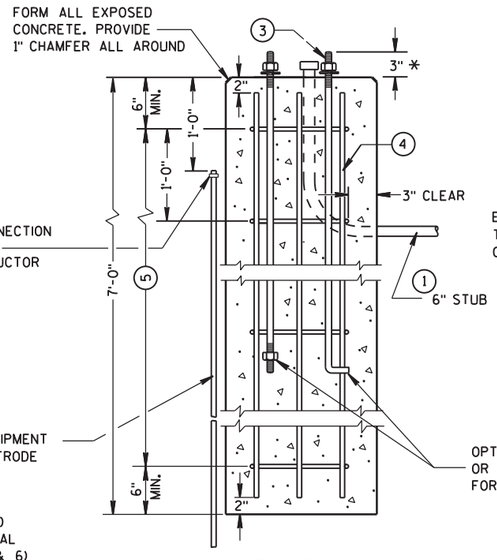


HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

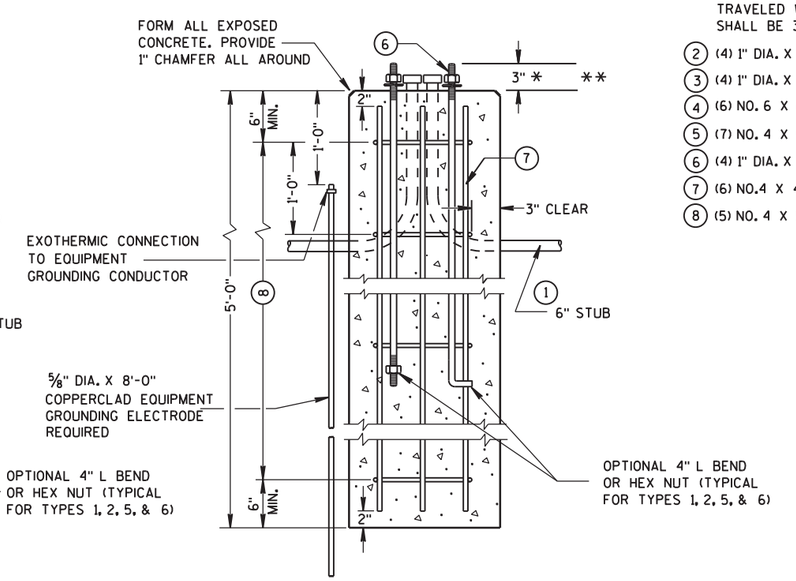
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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6

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GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

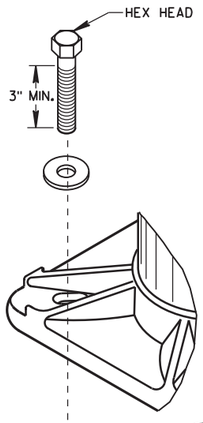
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

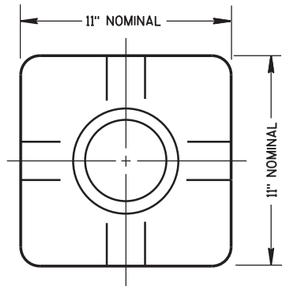
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

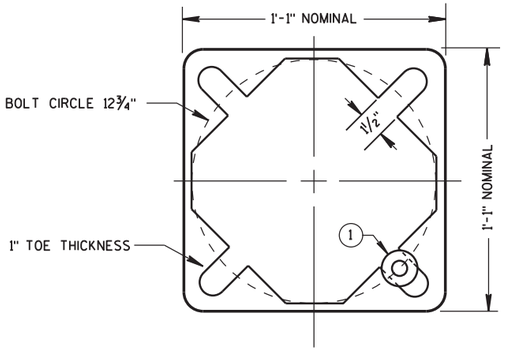
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

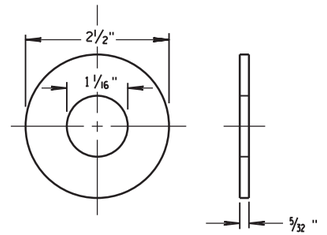




TOP VIEW
(PEDESTAL BASE)

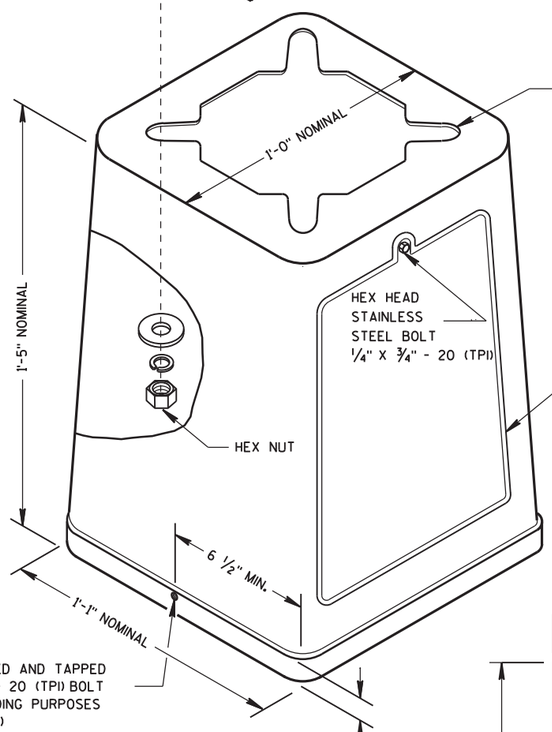


BOTTOM VIEW
(PEDESTAL BASE)

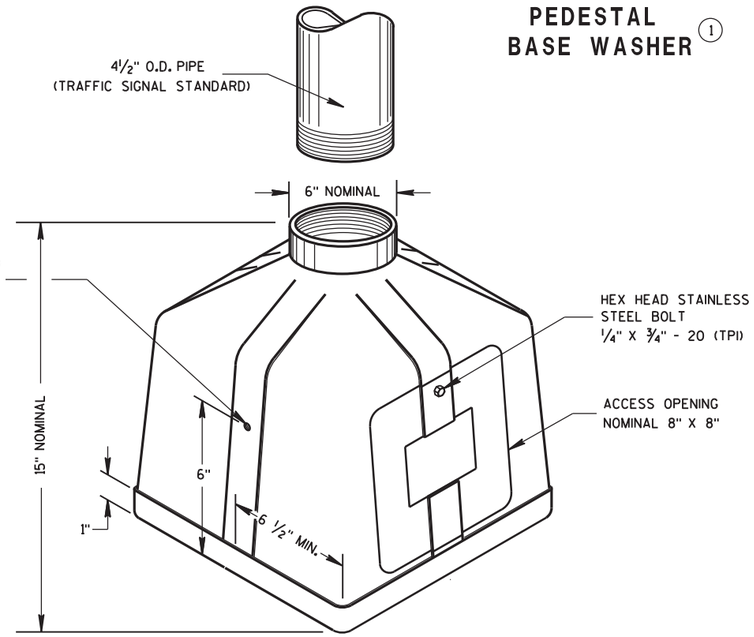


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

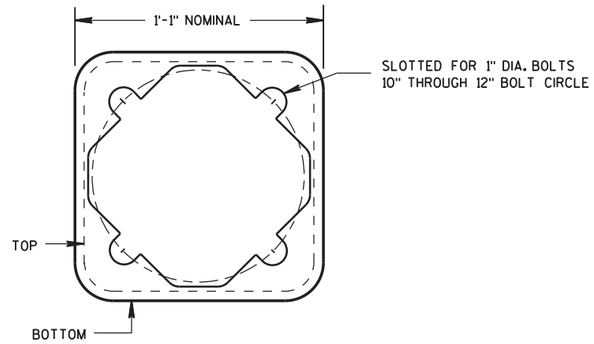


ISOMETRIC VIEW

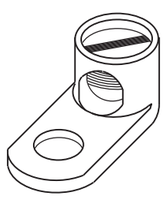


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

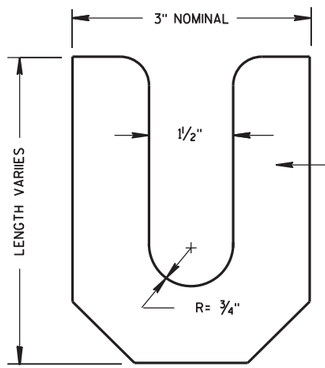


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

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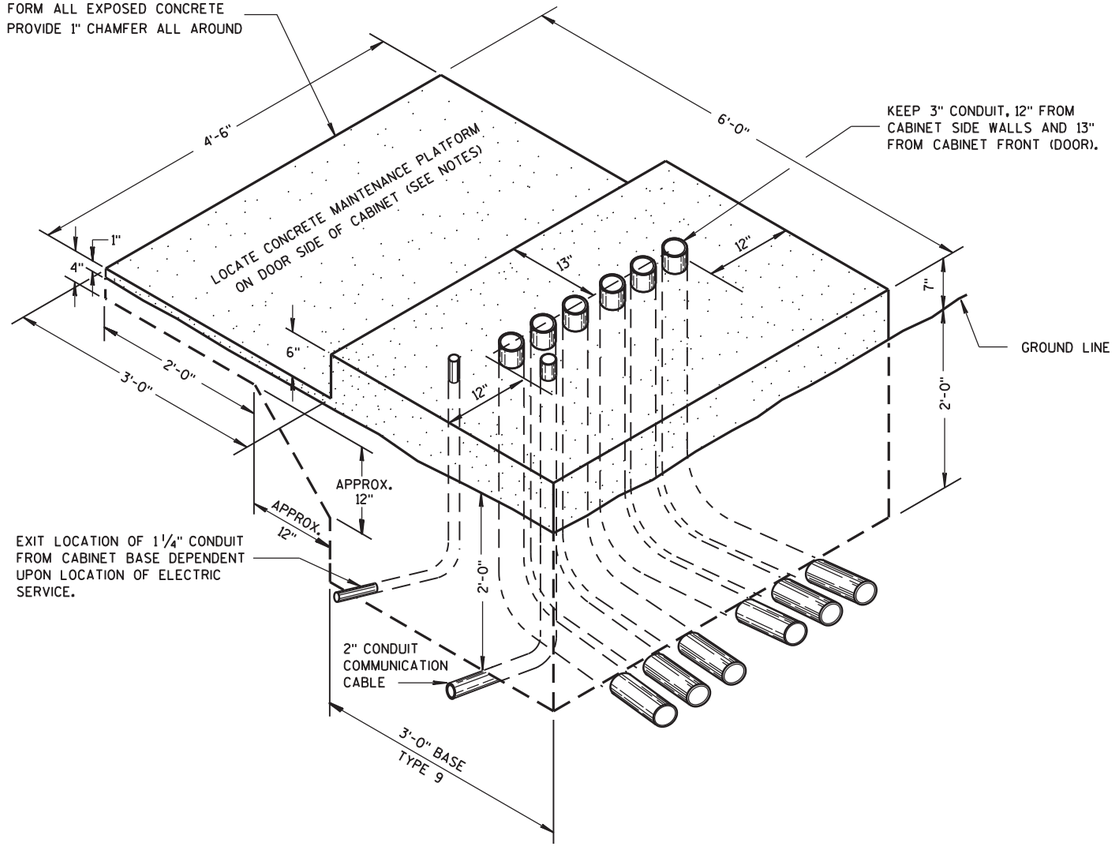
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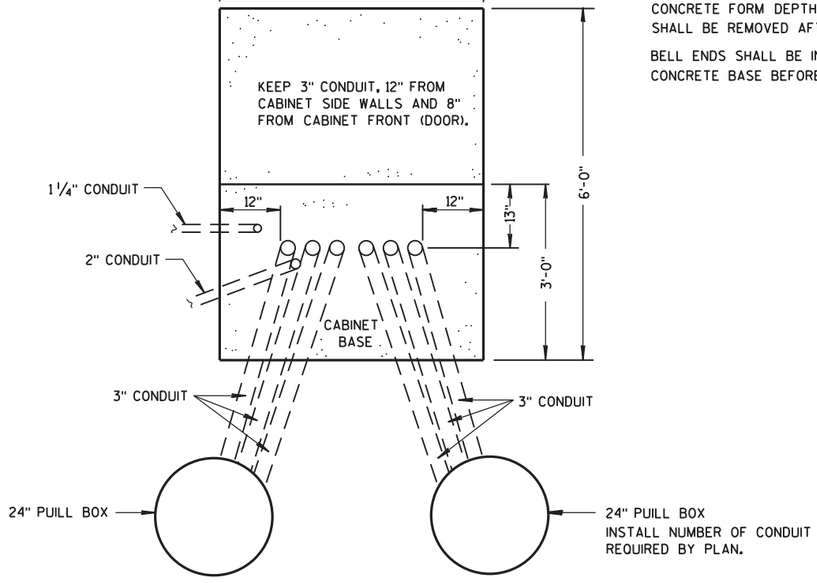
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ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

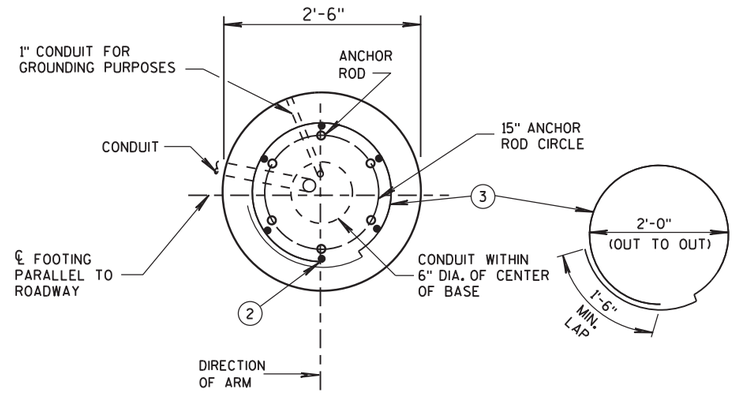
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

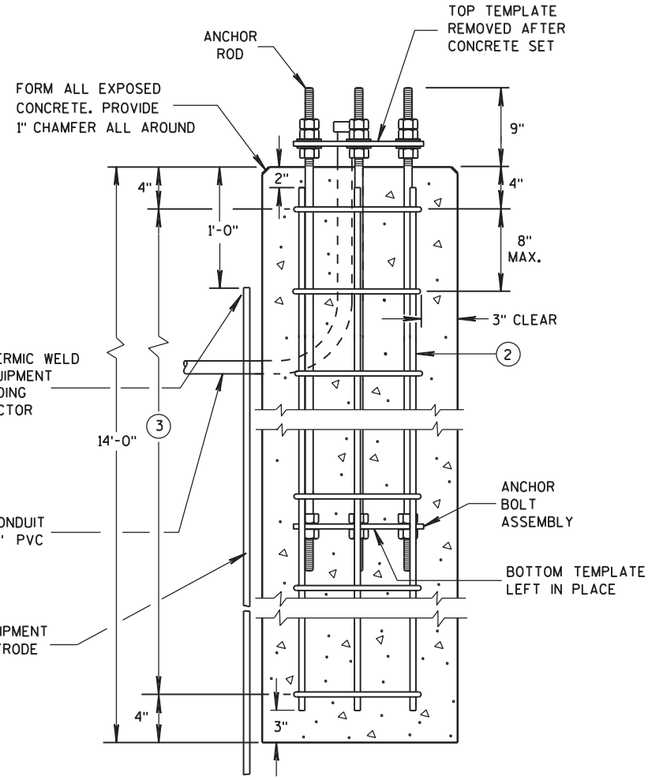
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.

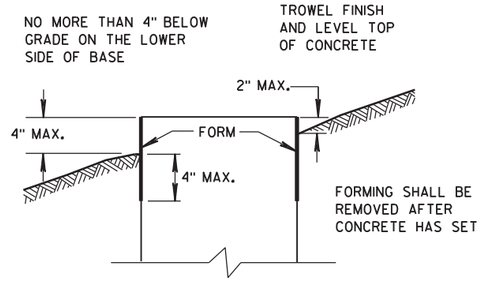




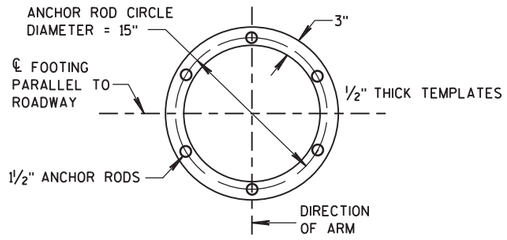
CONCRETE BASE TYPE 10

(FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

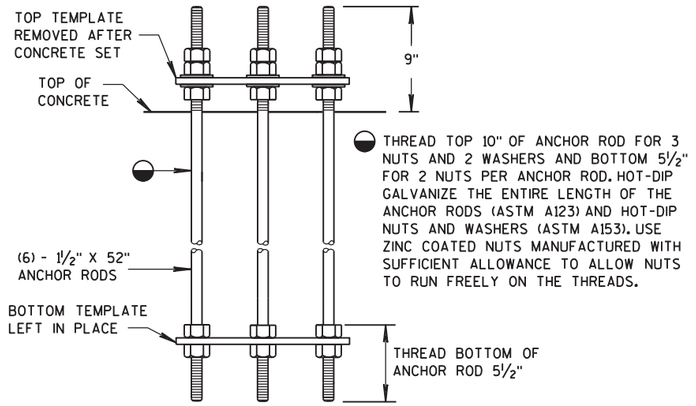
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

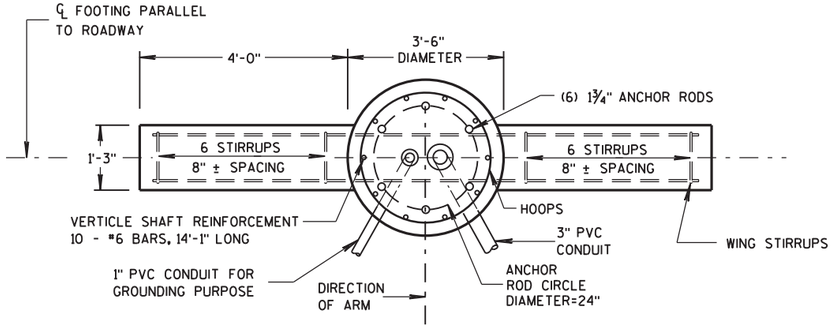
May 2017 — DATE

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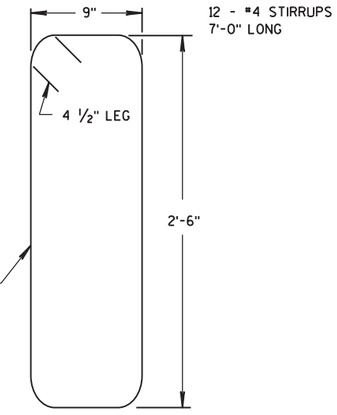
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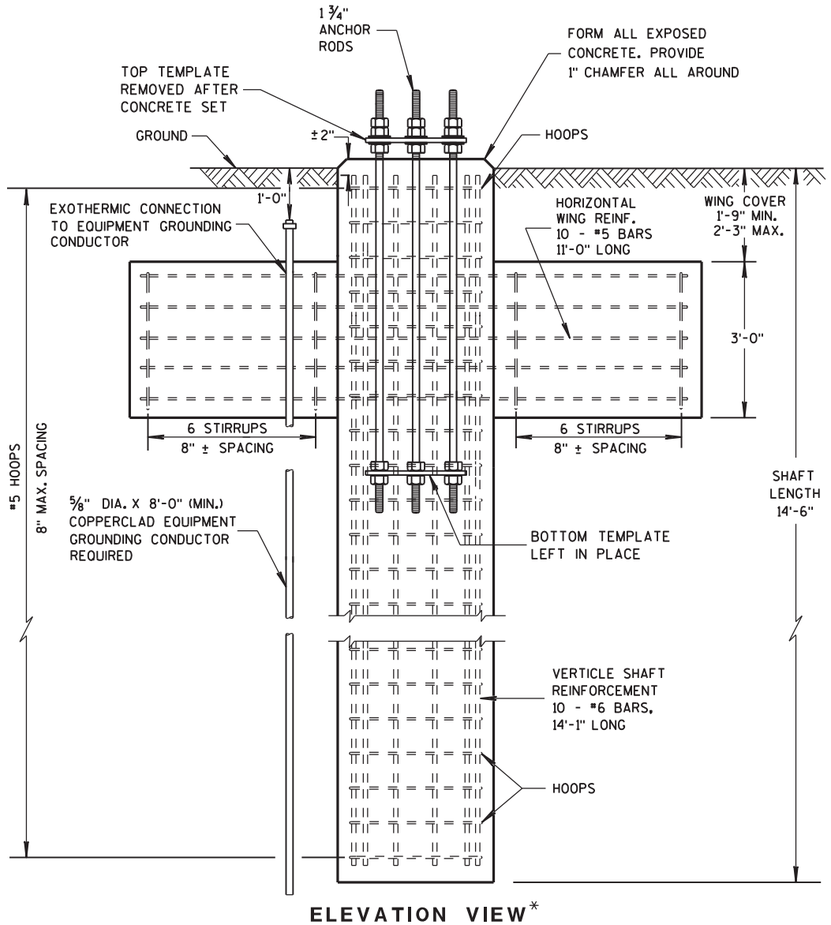
S.D.D. 9 C 11-10



PLAN VIEW

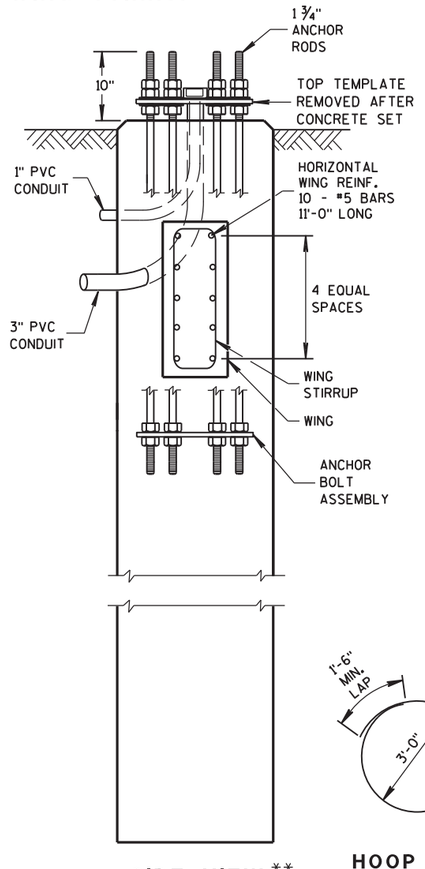


WING STIRRUP



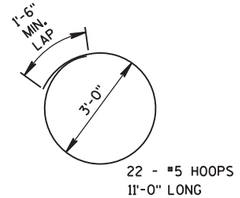
ELEVATION VIEW*

* CONDUITS ARE NOT SHOWN
ON THIS VIEW FOR CLARITY



SIDE VIEW**

** HOOPS AND VERTICAL SHAFT REINFORCEMENT
NOT SHOWN ON THIS VIEW FOR CLARITY



HOOP DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATIONS	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 & OVER HEIGHT (OH) POLES)

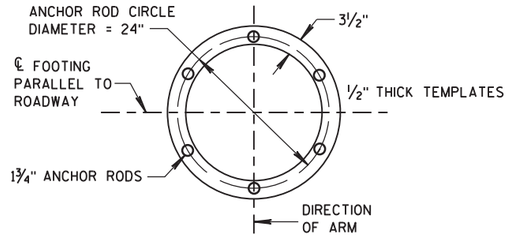
CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 635 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

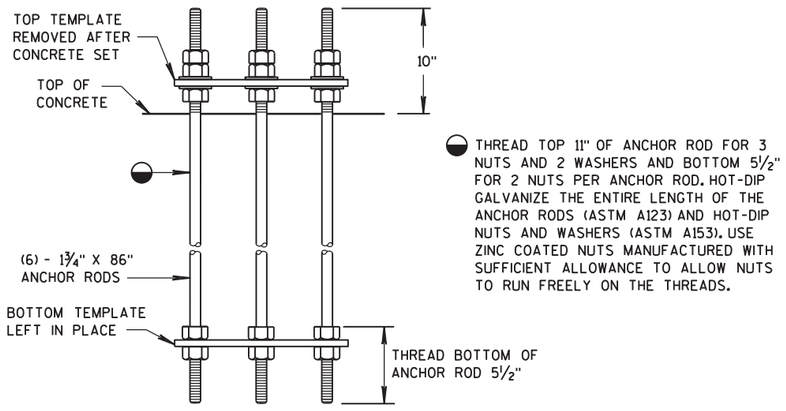
CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 9 C 12-9a

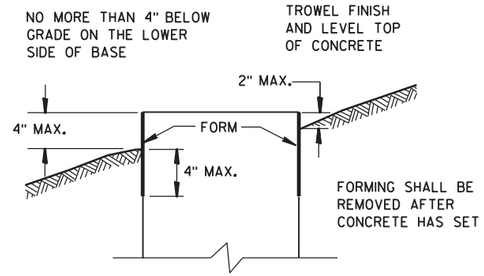


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

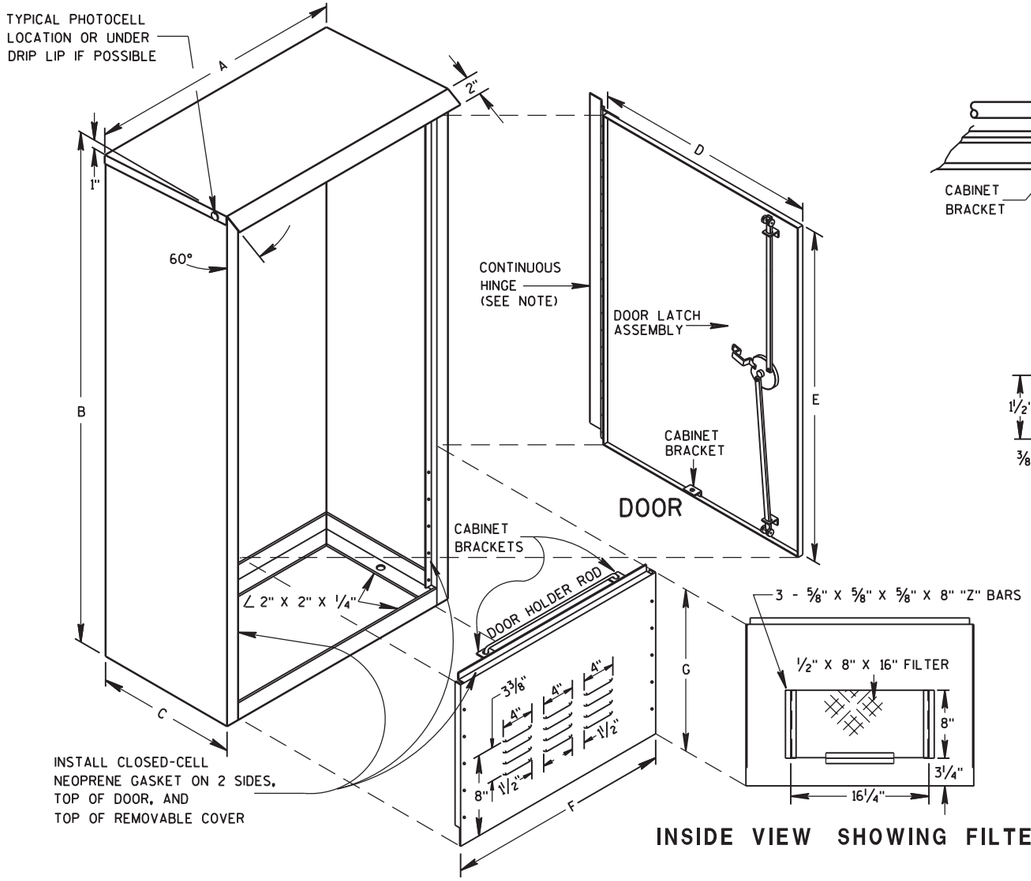
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CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

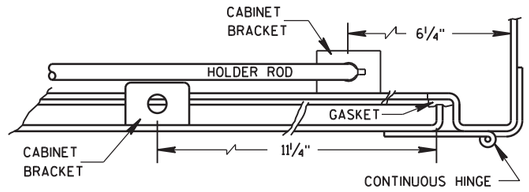
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May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

S.D.D. 9 C 12-9b

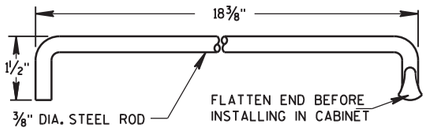


REMOVABLE COVER

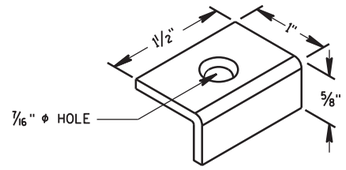
INSIDE VIEW SHOWING FILTER



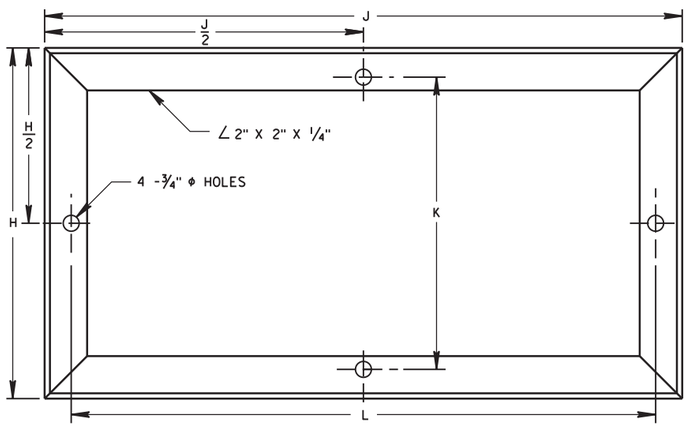
HINGE & DOOR HOLDER



HOLDER ROD



CABINET BRACKET



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

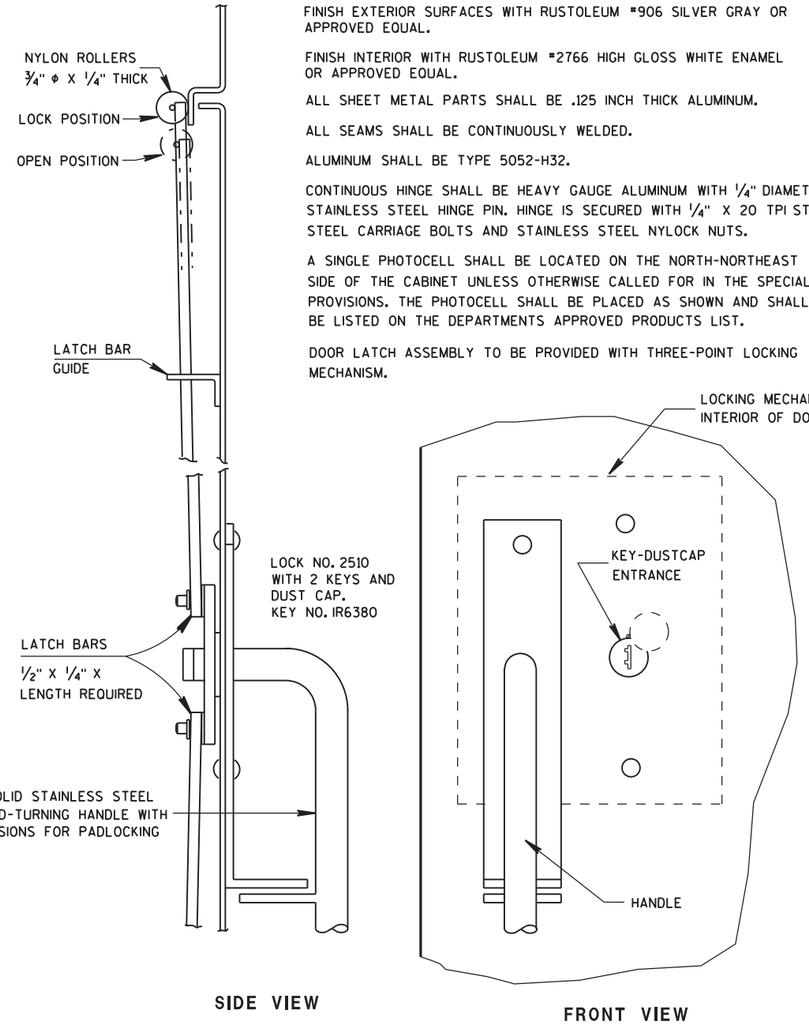
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

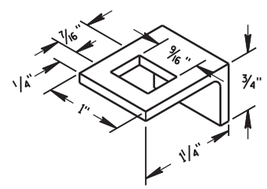
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



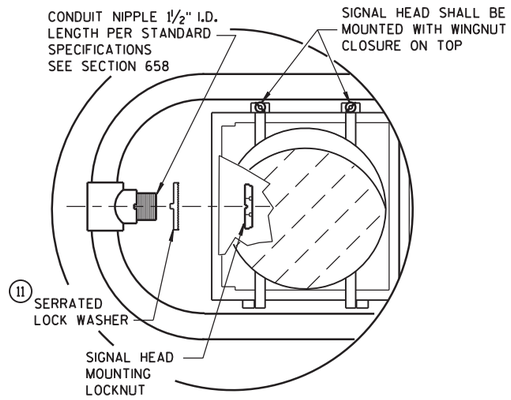
LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

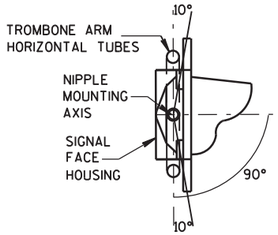
APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

6
S.D.D. 9 D 2-3



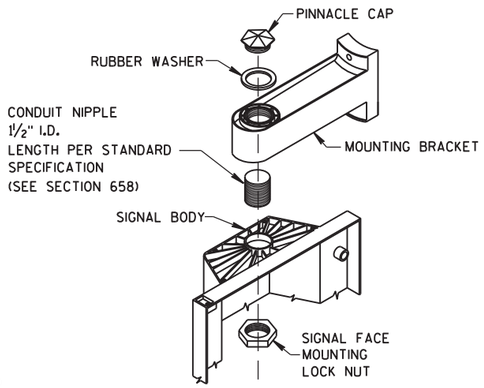
HORIZONTAL SIGNAL HEAD MOUNTING DETAIL *

* SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR



SECTION A-A

(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652 SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658).

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" LONG- 20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

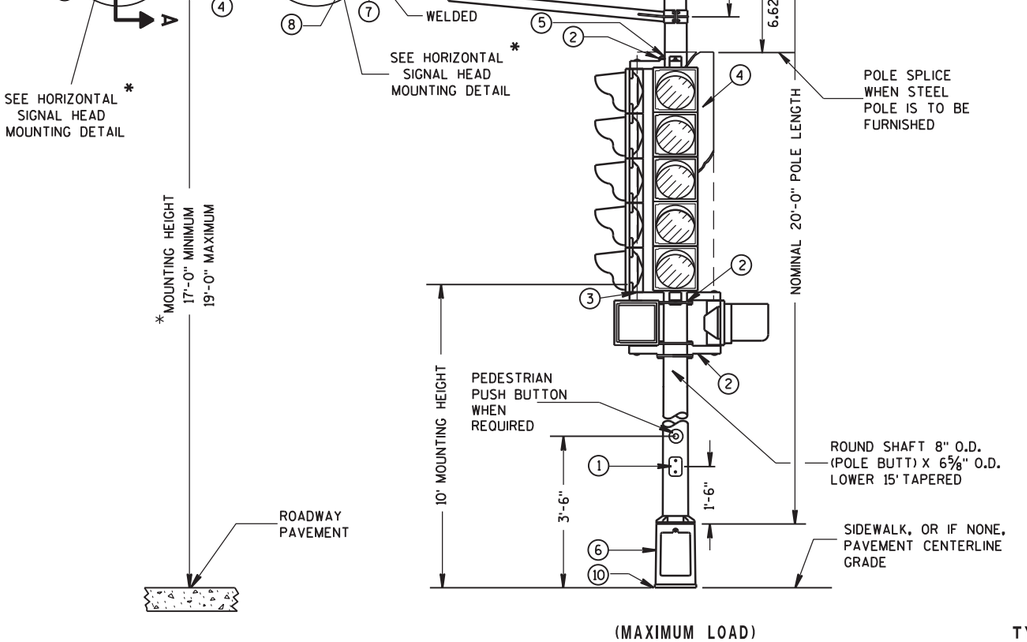
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

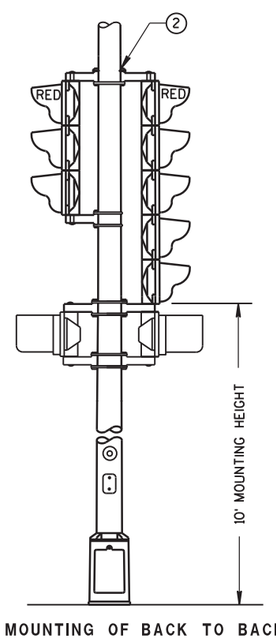
*MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE/NON-USE OF A TRANSFORMER BASE.

FOR MANUFACTURERS USE ONLY

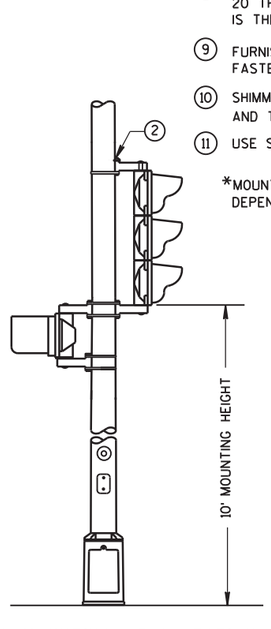
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.



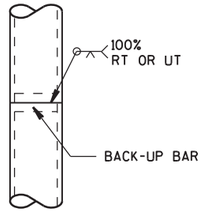
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



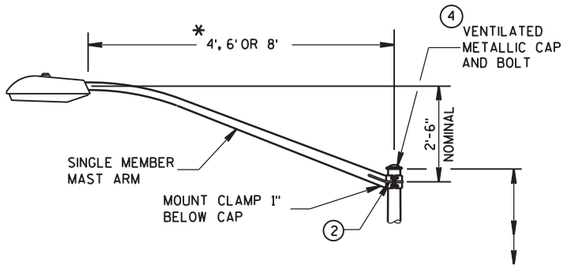
POLE SPLICE DETAIL

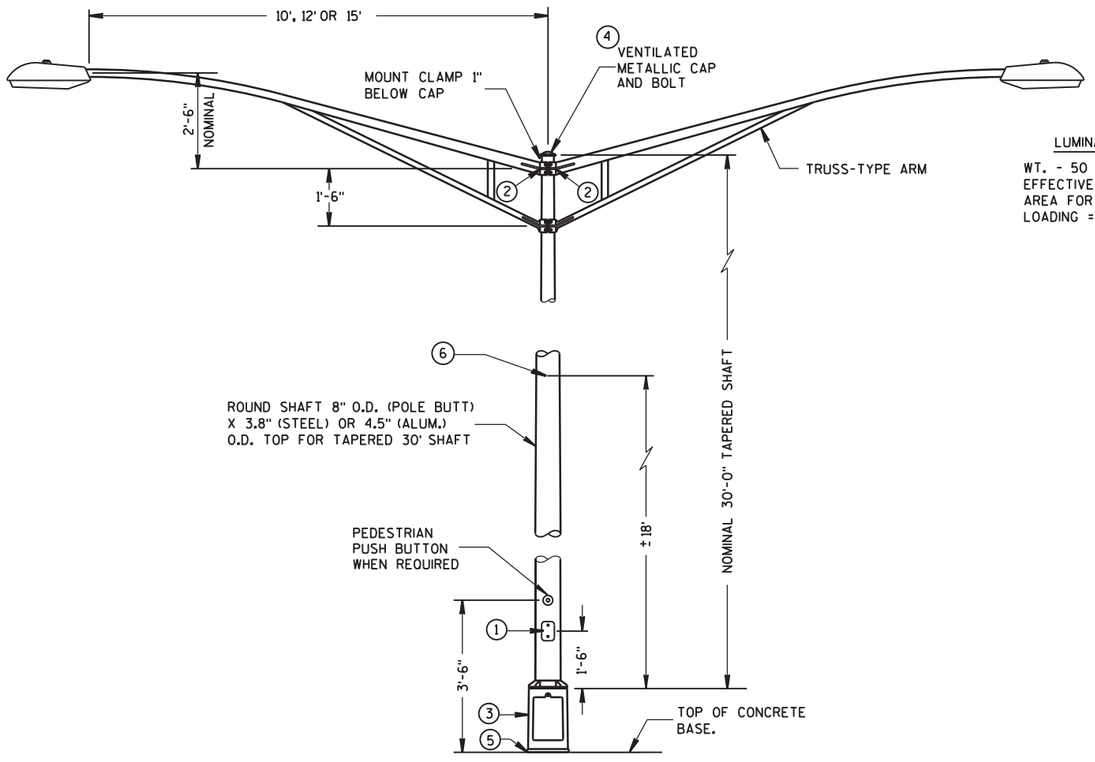
TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

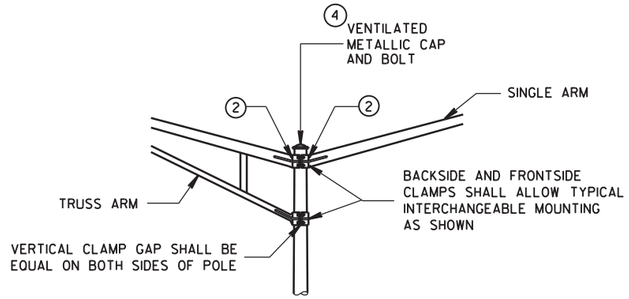
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) 1/4" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

6

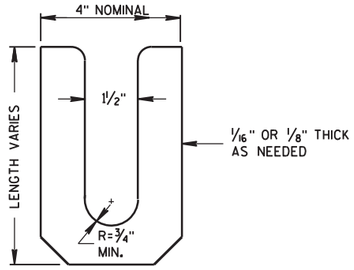
S.D.D. 9 E 1-14d

POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

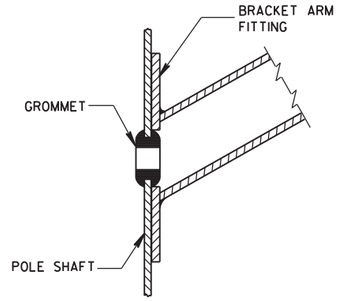
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S.D.D. 9 E 1-14d

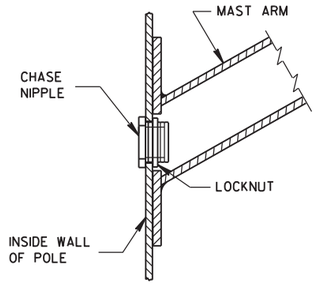


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

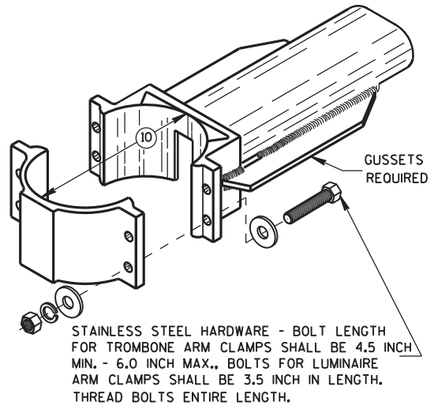
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

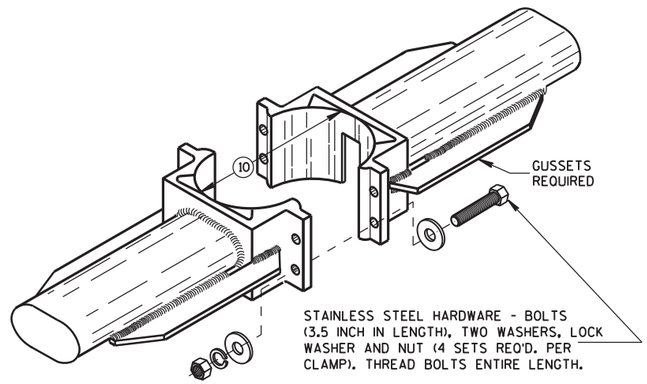
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

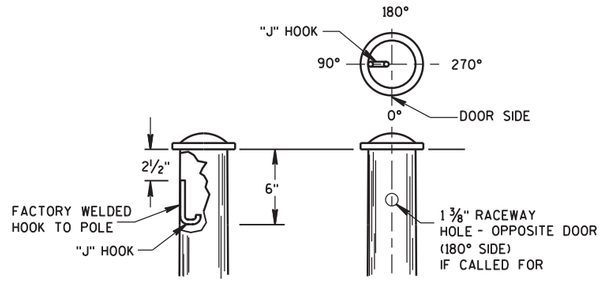
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



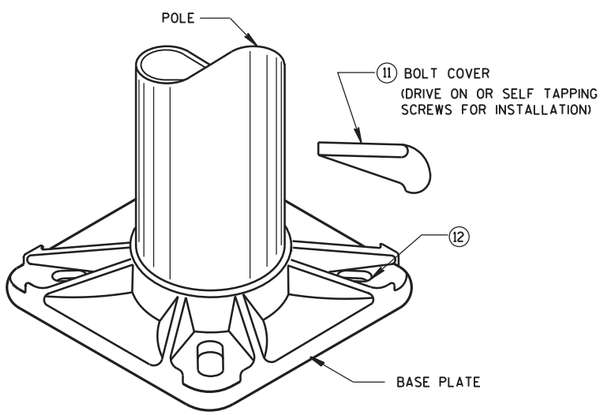
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



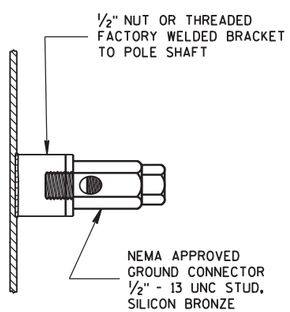
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

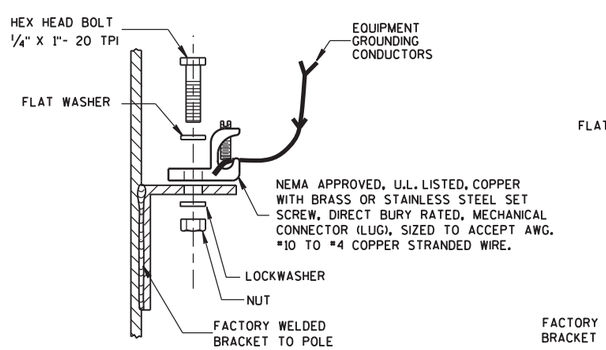


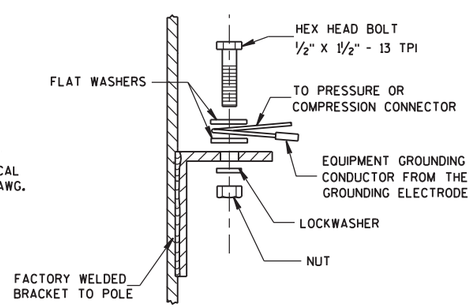
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

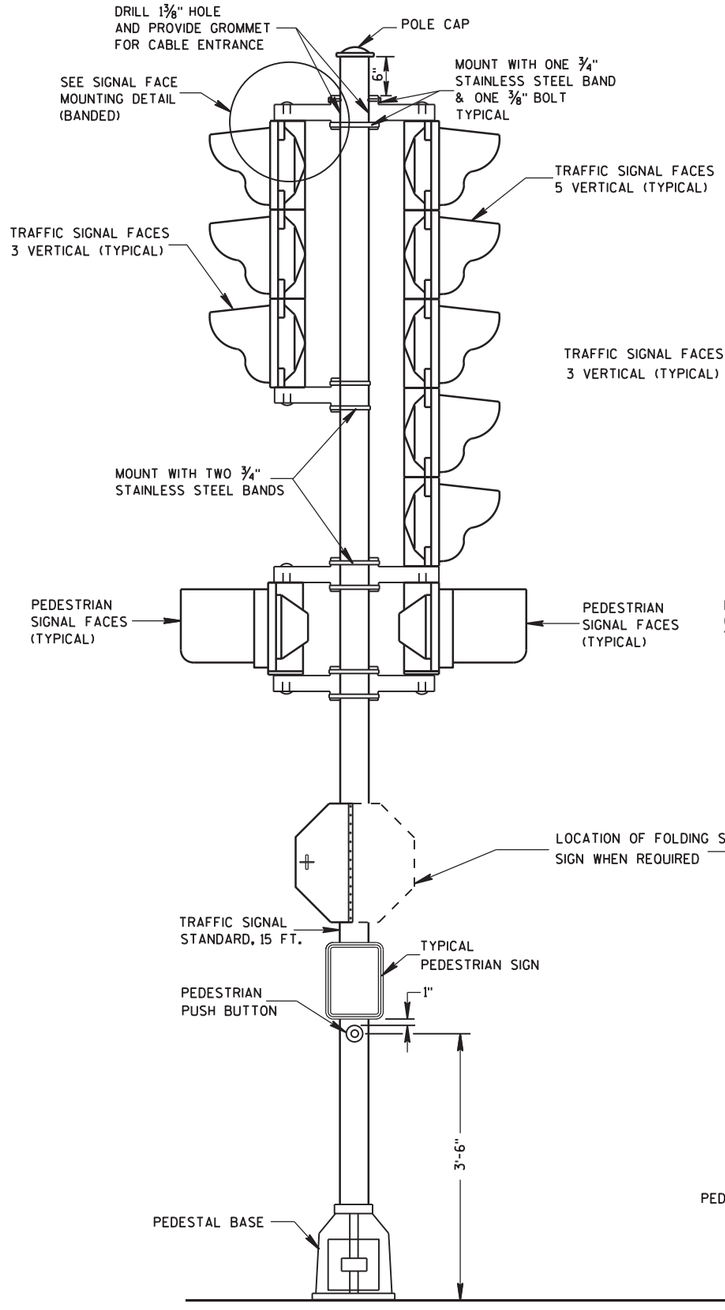
HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

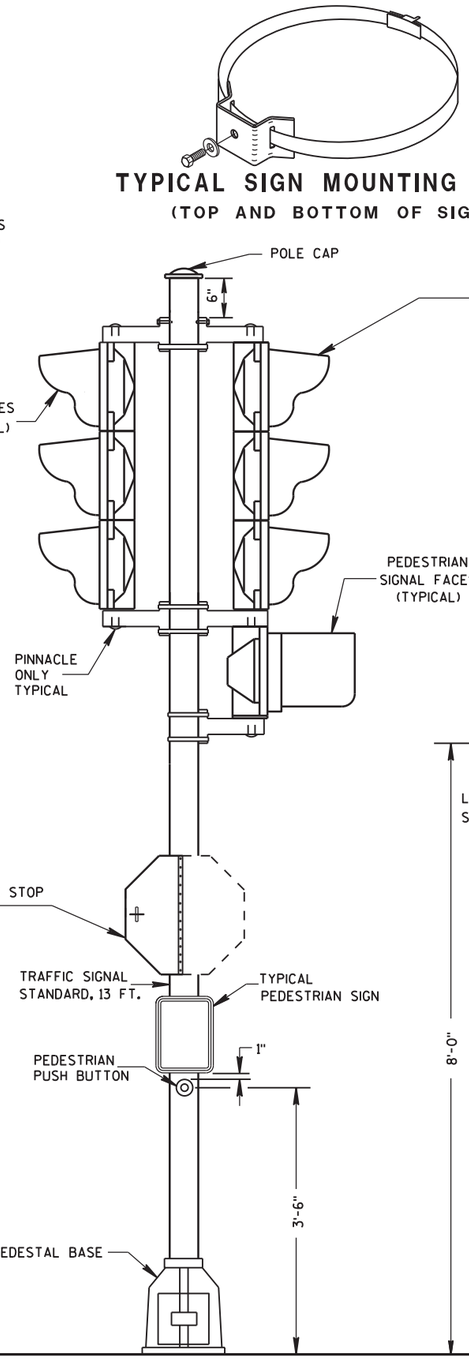
APPROVED
Feb. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 E 1-14g

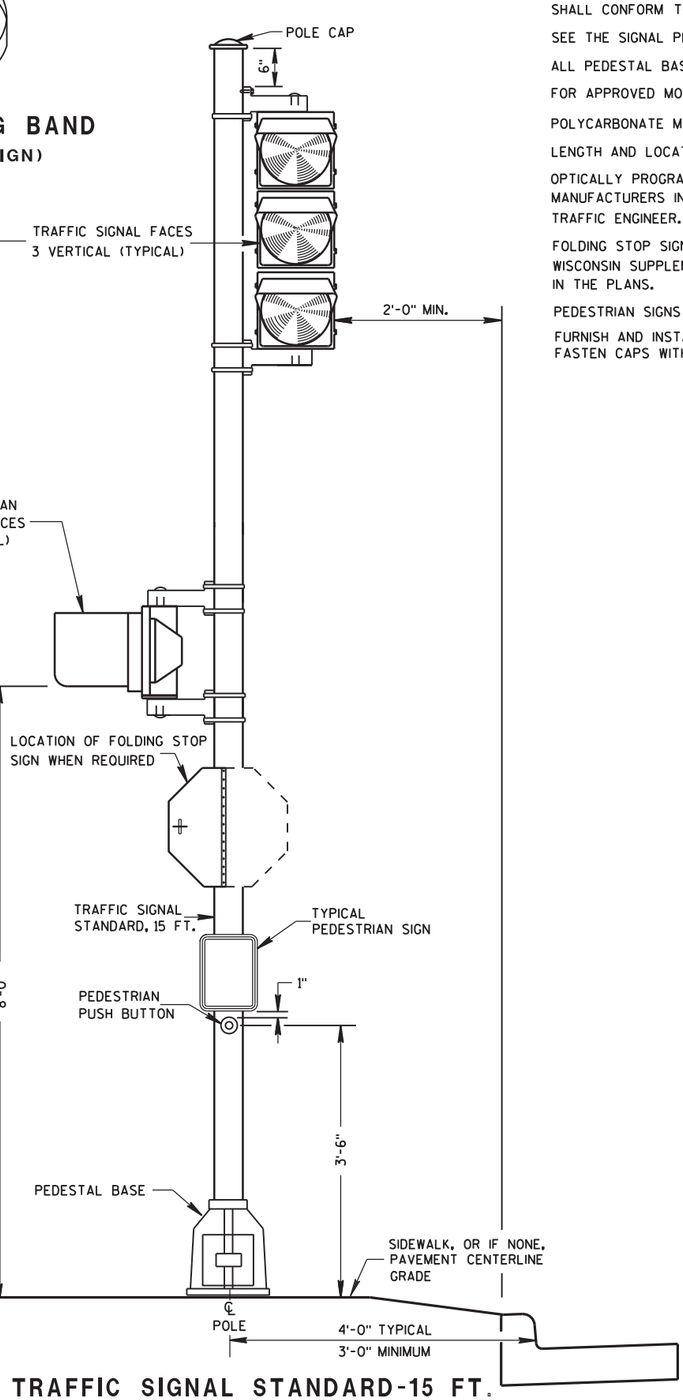


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

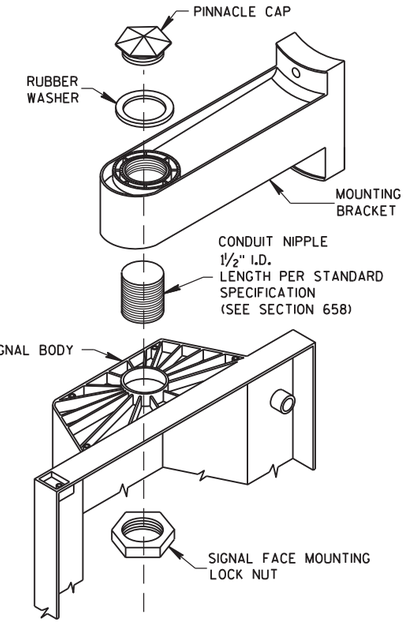
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



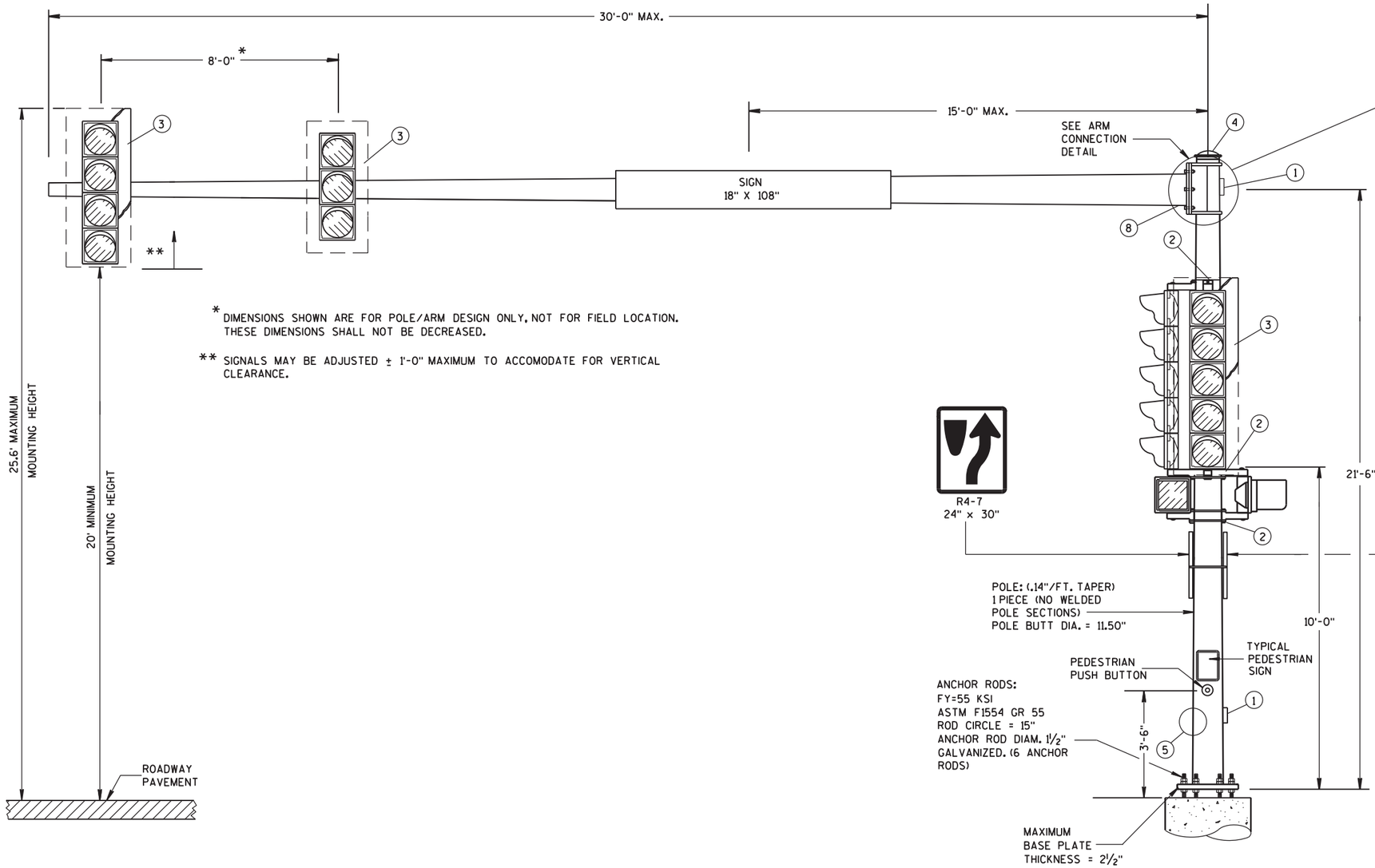
SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

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DEPARTMENT OF TRANSPORTATION

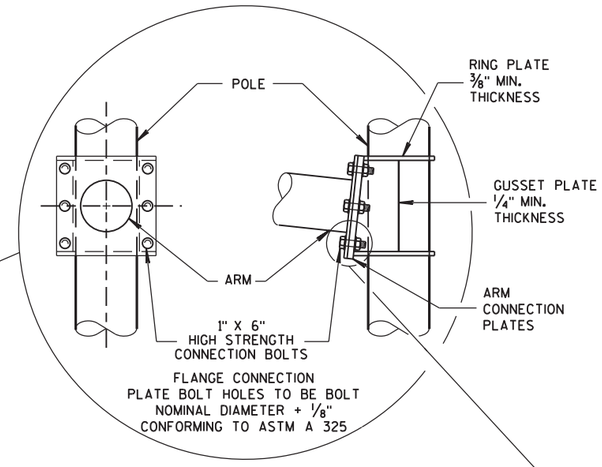
APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 250
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6
S.D.D. 9 E 6-5

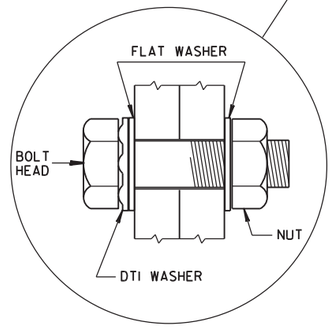


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

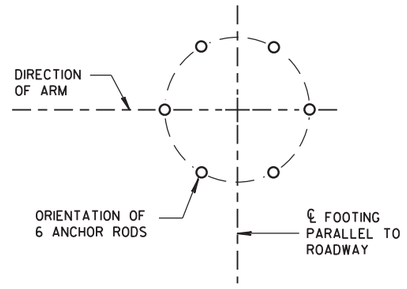
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

OVER HEIGHT TYPE 9 POLE
15'- 30' MONOTUBE ARM

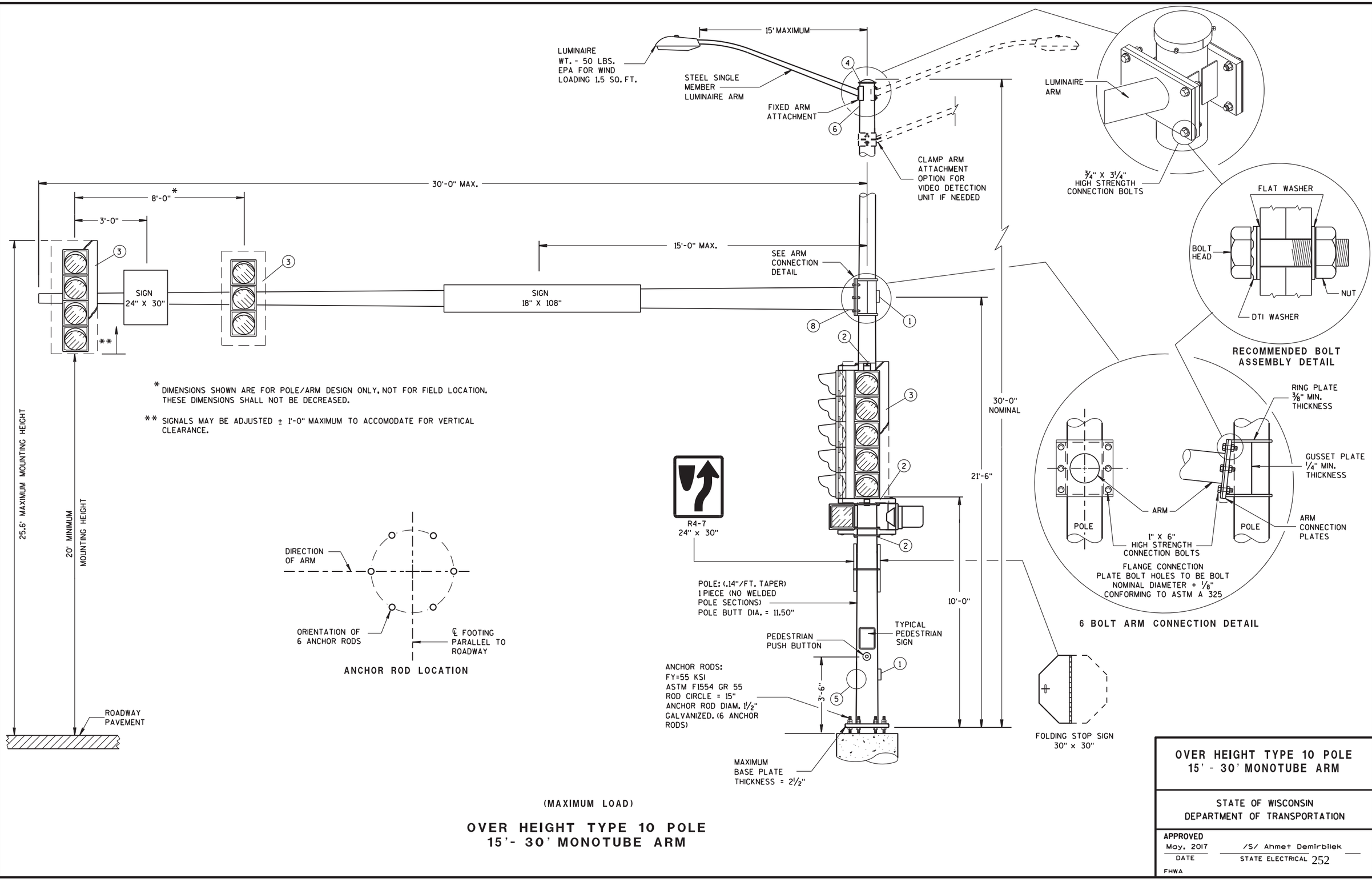
OVER HEIGHT TYPE 9 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 9 E 12-1a

S.D.D. 9 E 12-1a



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

ANCHOR ROD LOCATION

RECOMMENDED BOLT ASSEMBLY DETAIL

6 BOLT ARM CONNECTION DETAIL

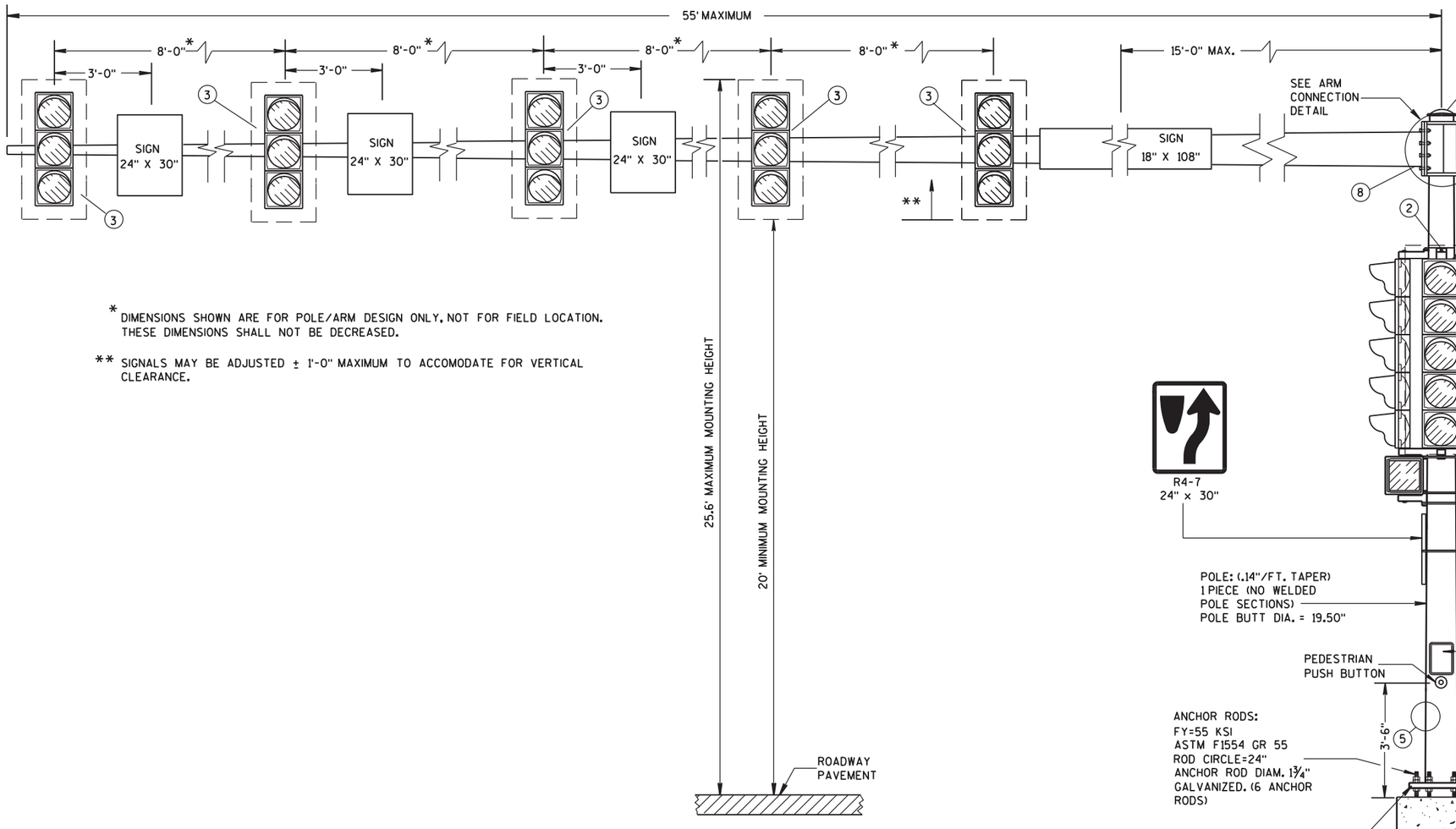
(MAXIMUM LOAD)

OVER HEIGHT TYPE 10 POLE 15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

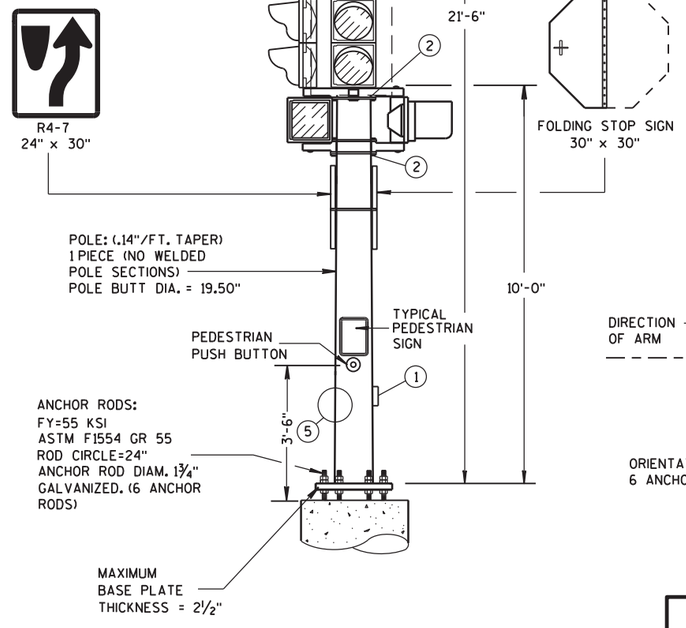
APPROVED
May. 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 252
FHWA

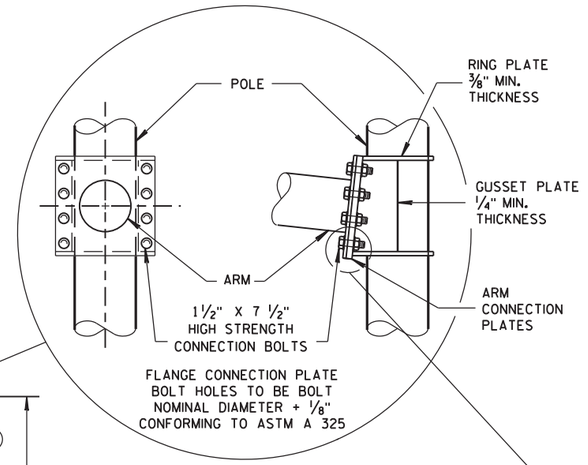
6
S.D.D. 9 E 12-1b



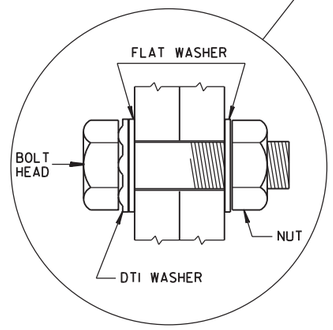
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

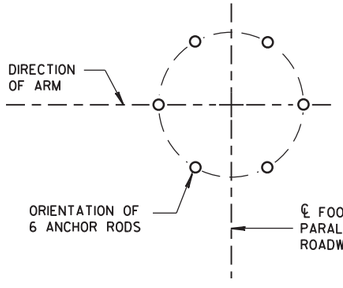




8 BOLT ARM CONNECTION DETAIL



RECOMMENDED
BOLT ASSEMBLY
DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

OVER HEIGHT TYPE 12 POLE 35'- 55' MONOTUBE ARM

OVER HEIGHT TYPE 12 POLE 35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

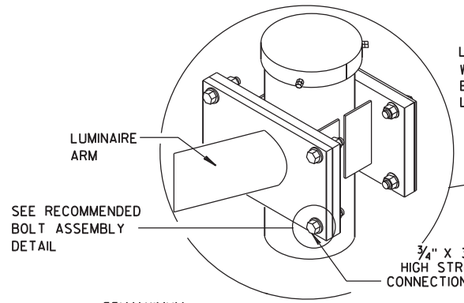
APPROVED
May, 2017
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 253
FHWA

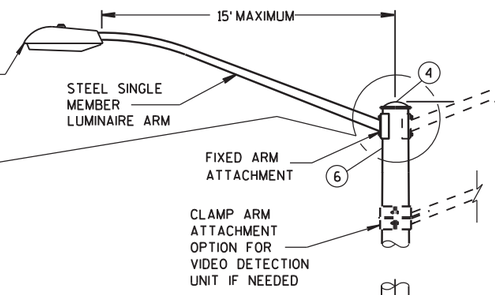
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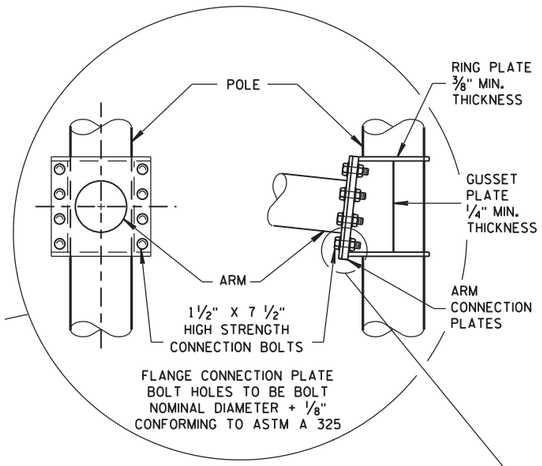
S.D.D. 9 E 12-1c

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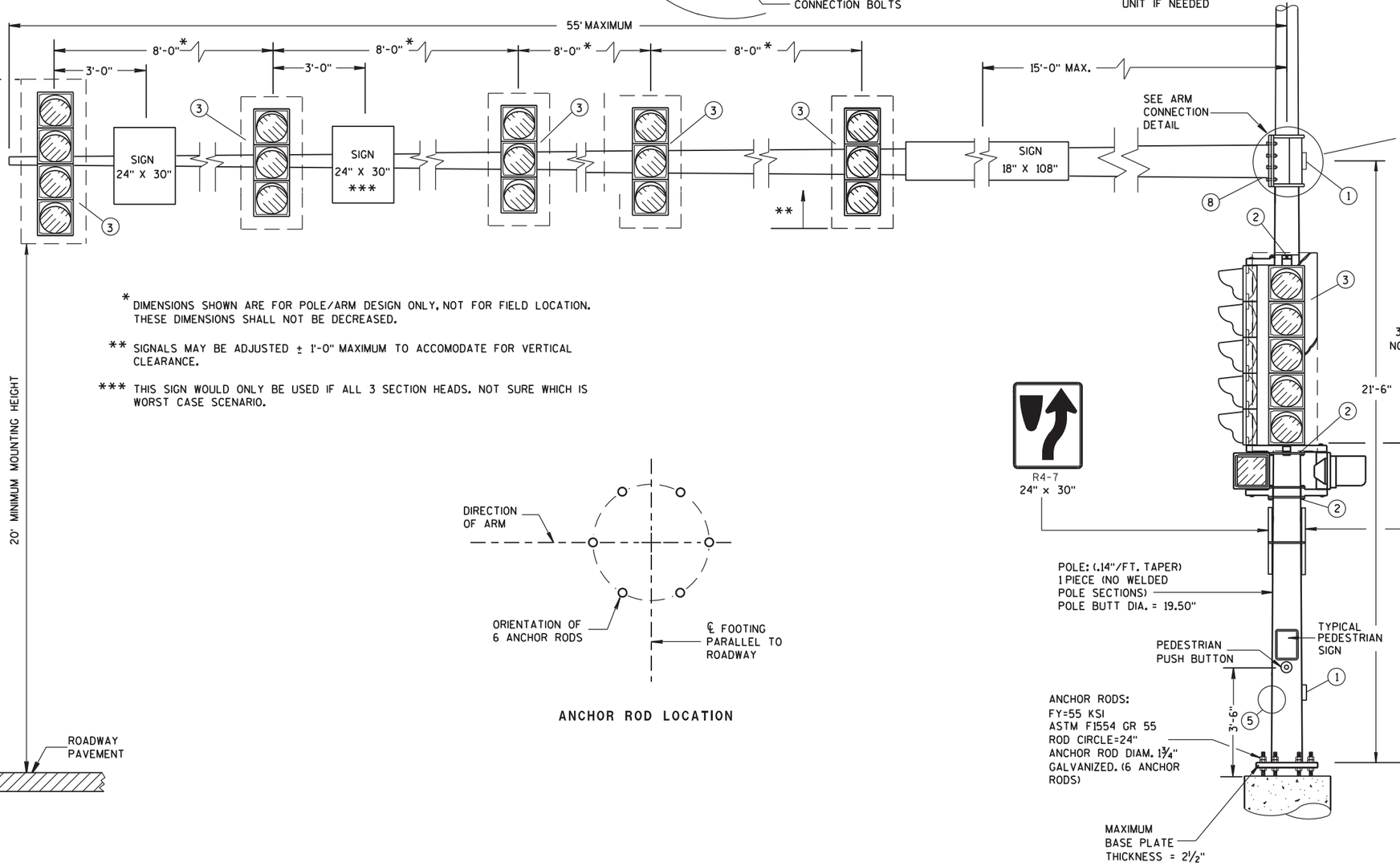
S.D.D. 9 E 12-1c







8 BOLT ARM CONNECTION DETAIL

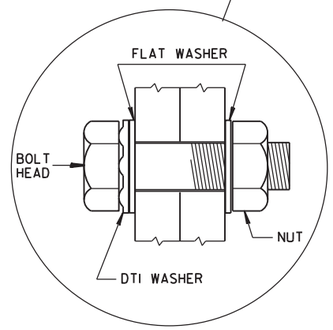


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY. NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

*** THIS SIGN WOULD ONLY BE USED IF ALL 3 SECTION HEADS. NOT SURE WHICH IS WORST CASE SCENARIO.

ANCHOR ROD LOCATION



RECOMMENDED BOLT ASSEMBLY DETAIL

(MAXIMUM LOAD)

OVER HEIGHT TYPE 13 POLE 35'- 55' MONOTUBE ARM

OVER HEIGHT TYPE 13 POLE 35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
254
FHWA

6
S.D.D. 9 E 12-1d

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

OVER HEIGHT POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

OVER HEIGHT POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING 2017 INTERIM REVISIONS) AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

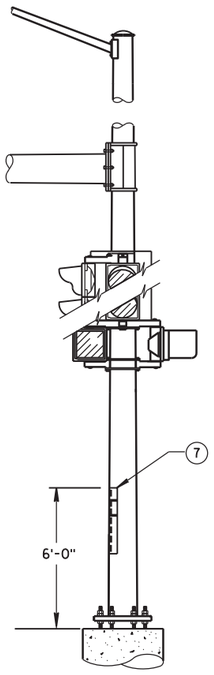
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

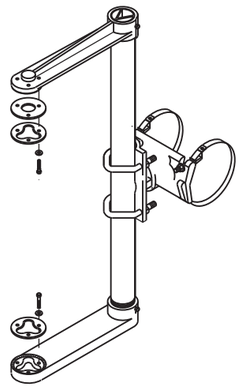
STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

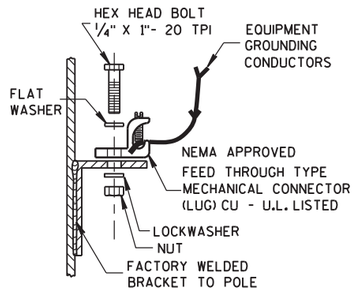


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



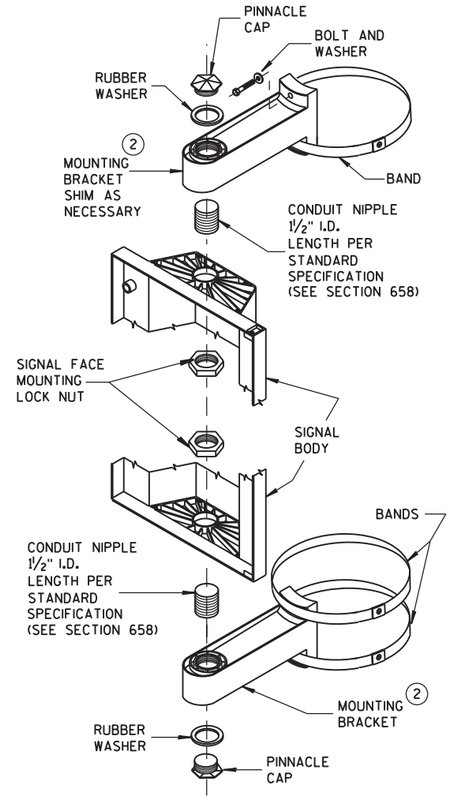
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

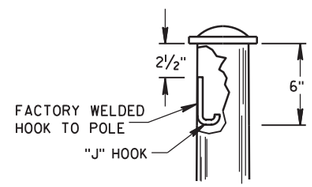


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR OVER HEIGHT TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

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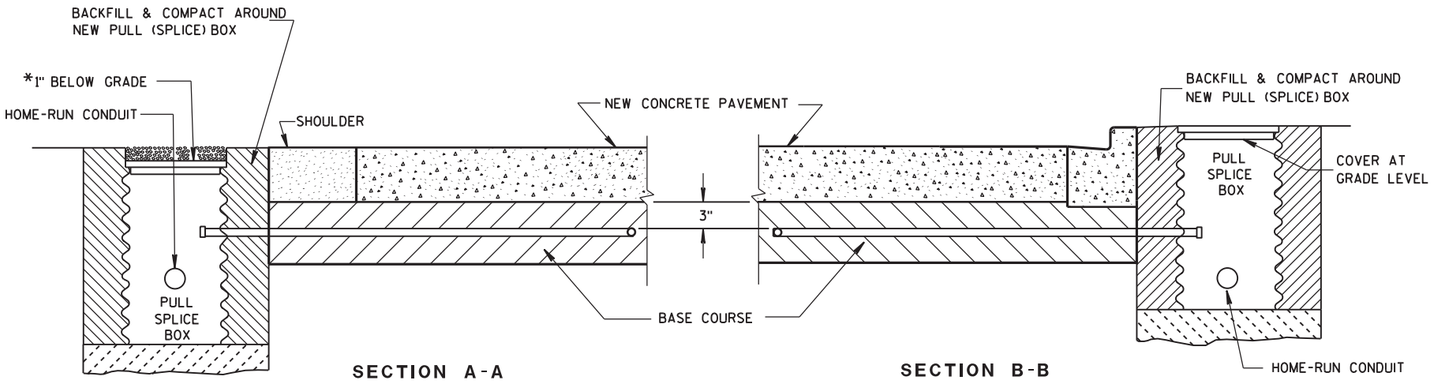
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S.D.D. 9 E 12-1e

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S.D.D. 9 E 12-1e



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

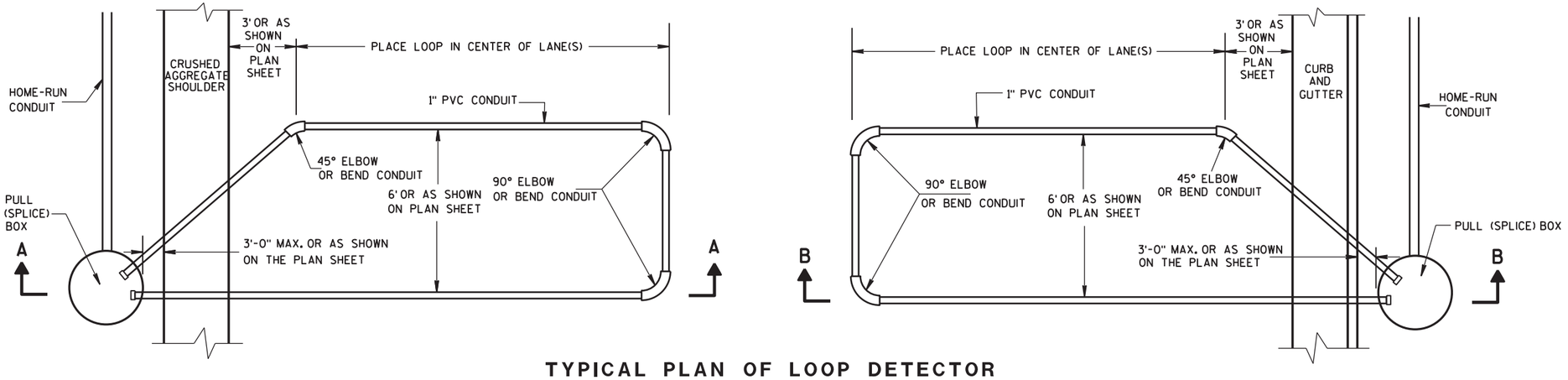
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

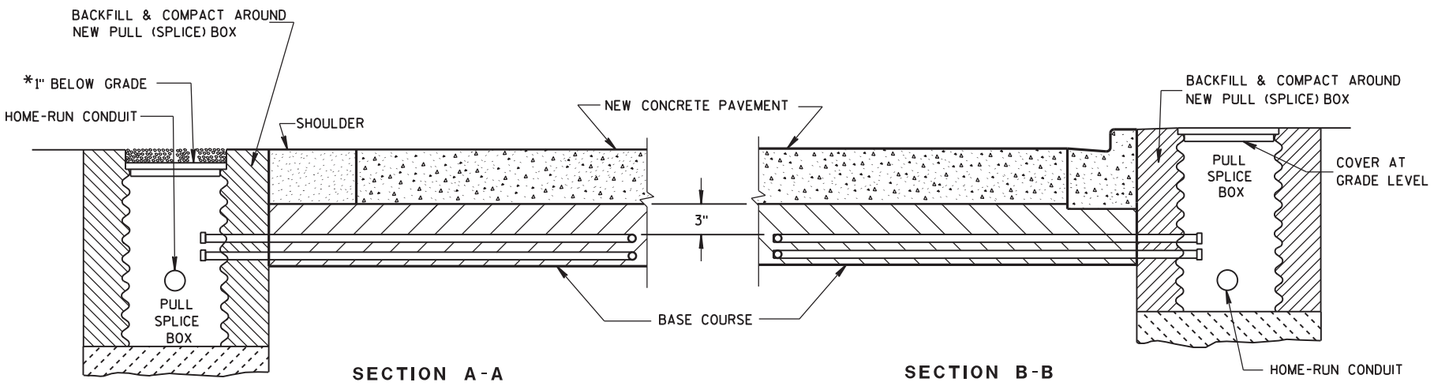
LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

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APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
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SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

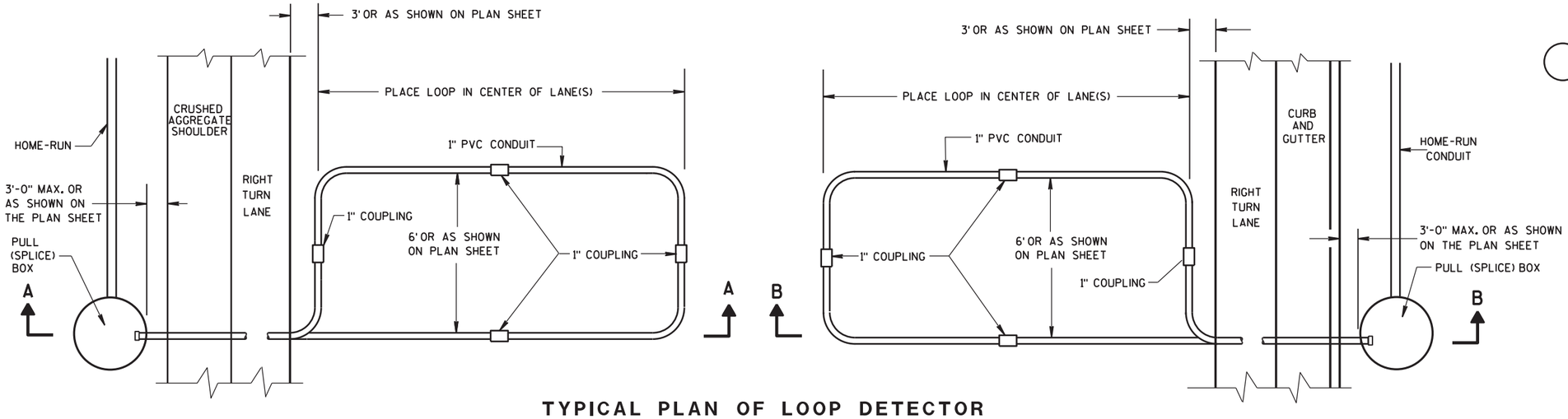
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

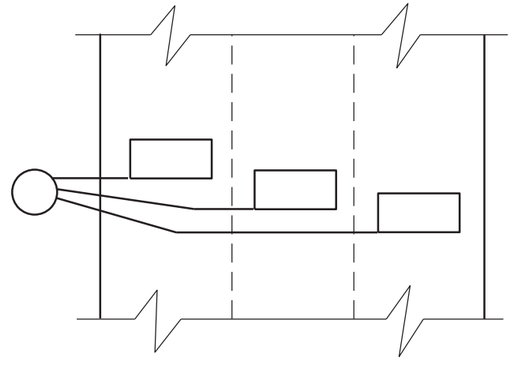
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED Sept. 2014 — DATE /S/ Ahmet Demirbilek — STATE ELECTRICAL 257 FHWA

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S.D.D. 9 F 15-4b

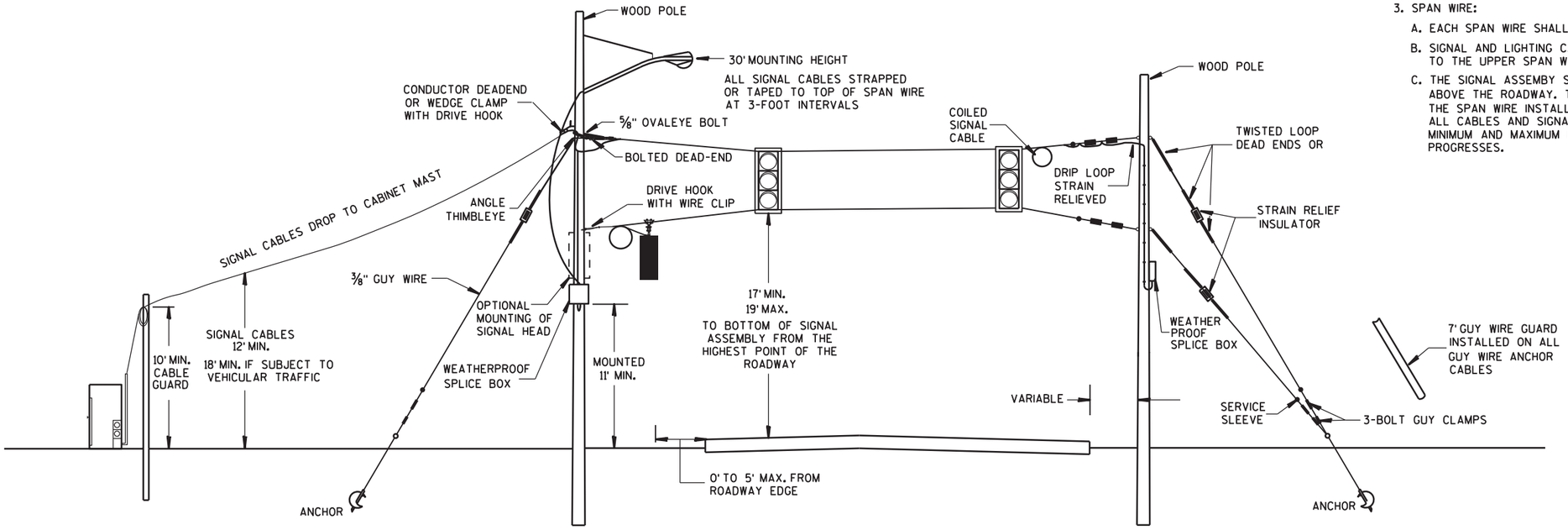
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

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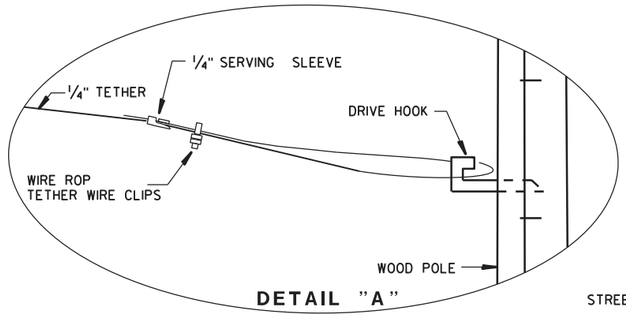
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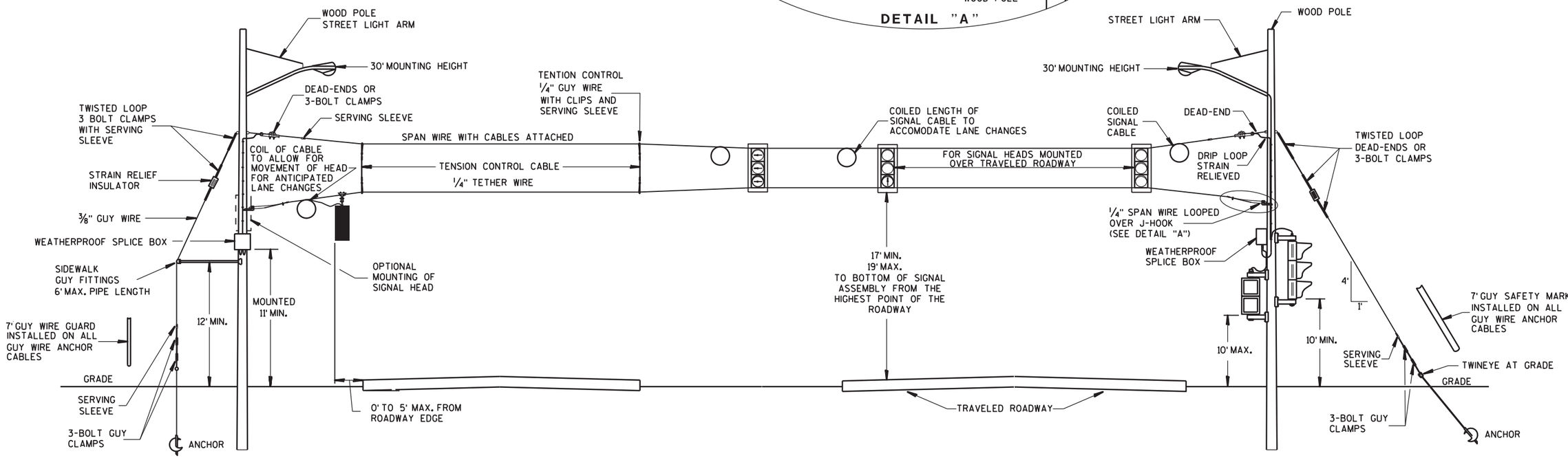
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DETAIL "A"



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

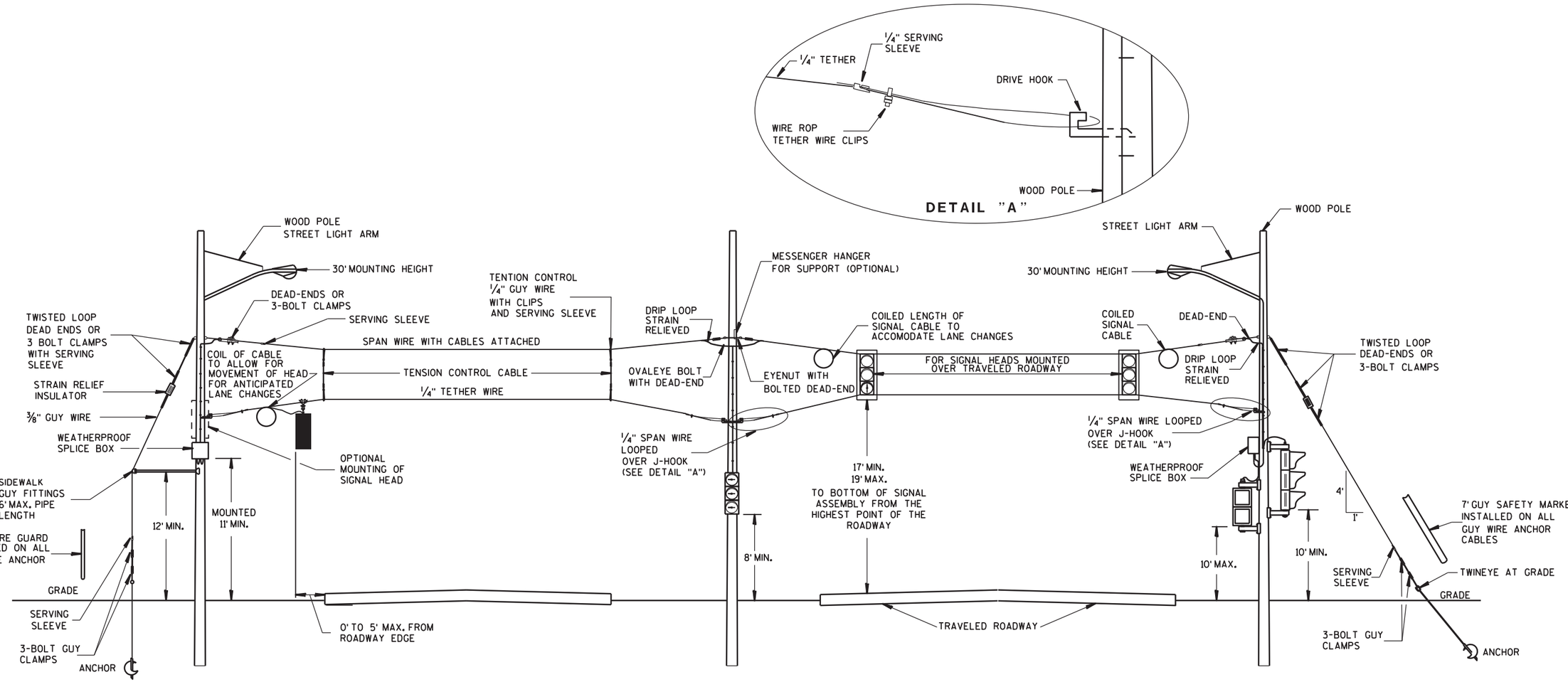
SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

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SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

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   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
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   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

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DEPARTMENT OF TRANSPORTATION

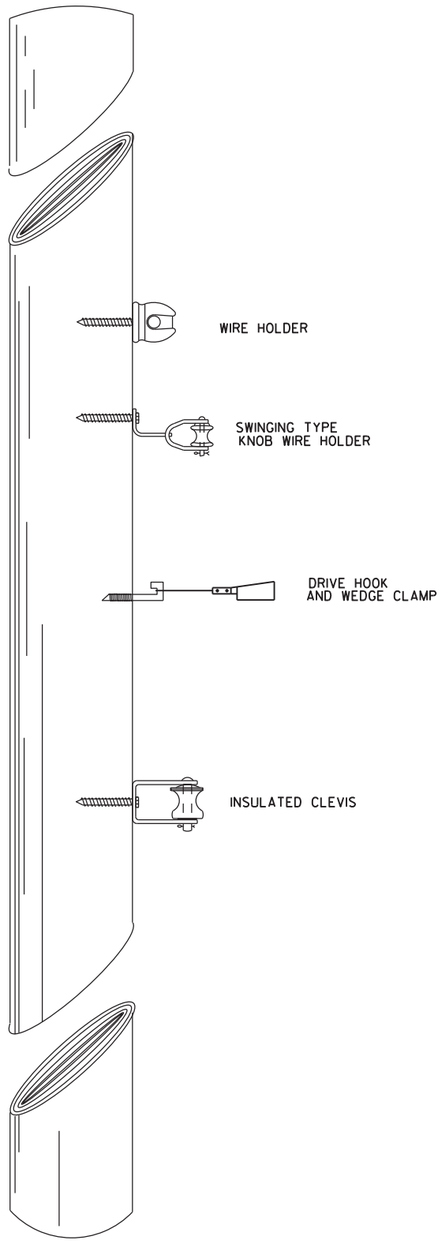
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June. 2015 — DATE
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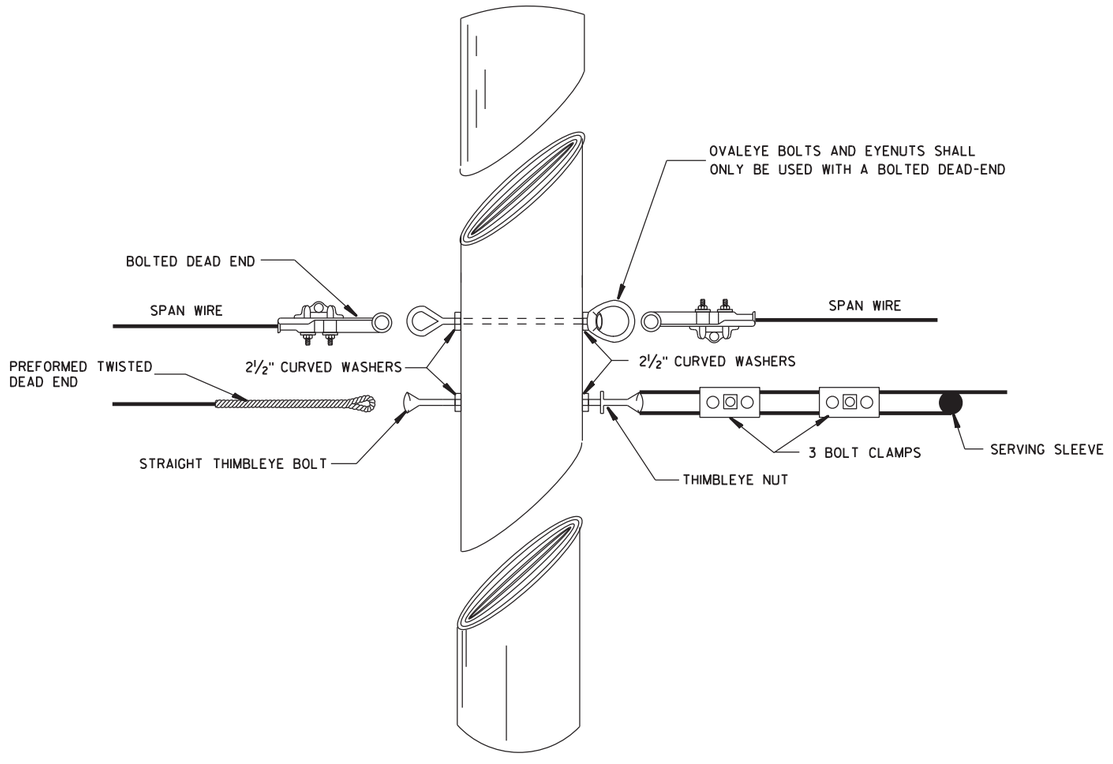
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TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

6

6

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SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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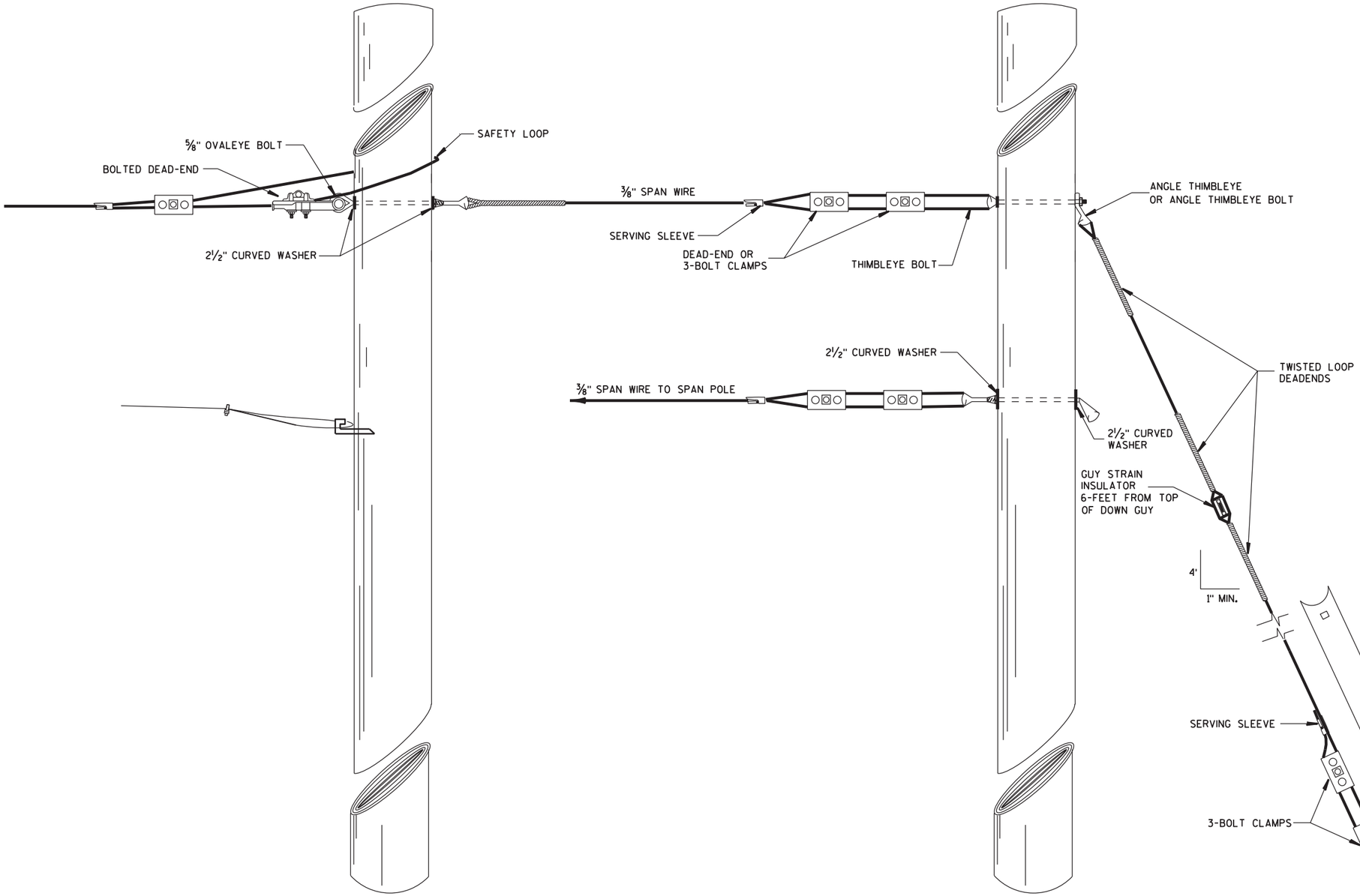
June, 2015
DATE

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STATE ELECTRICAL

FHWA

GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE

GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
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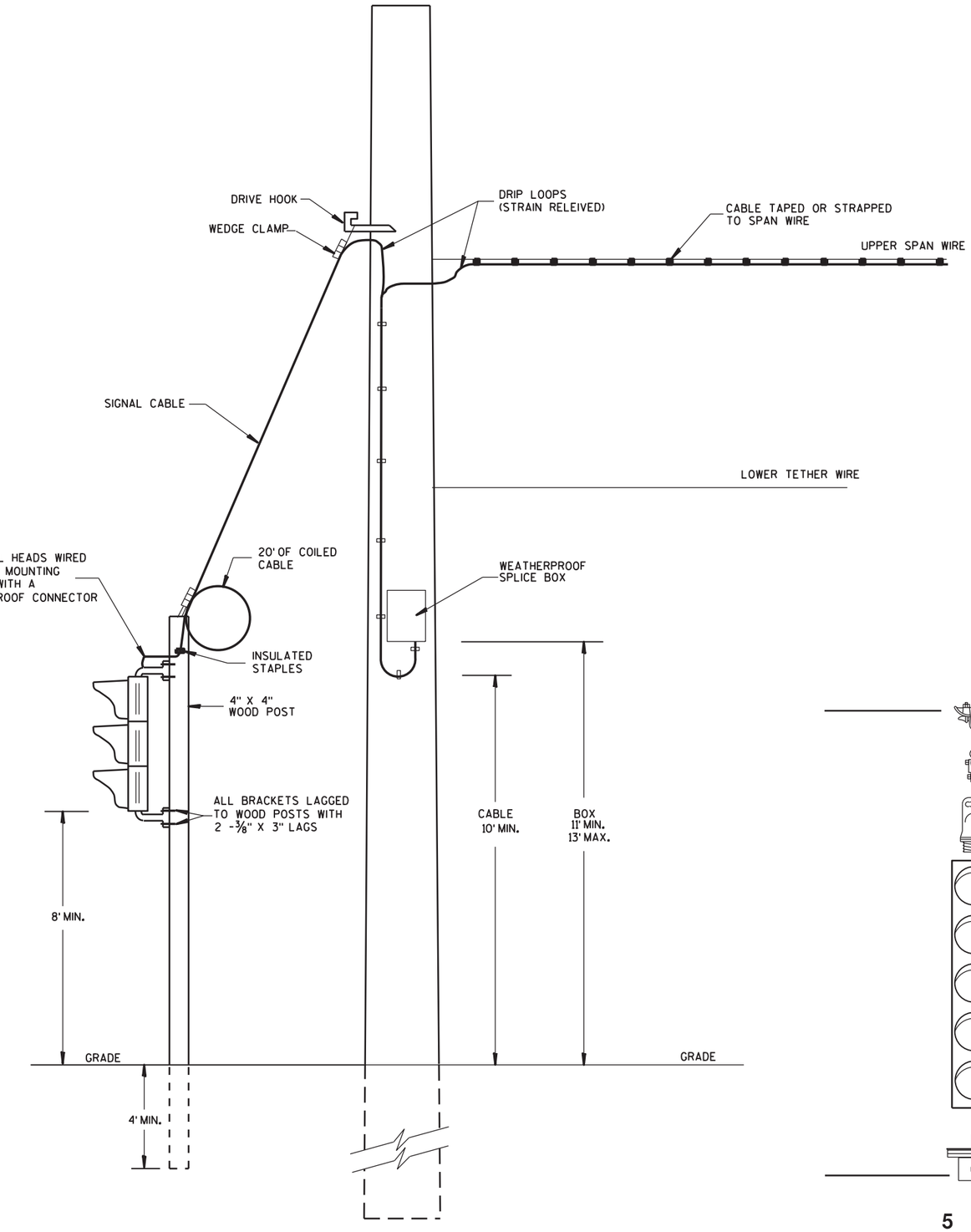
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June. 2015 — DATE
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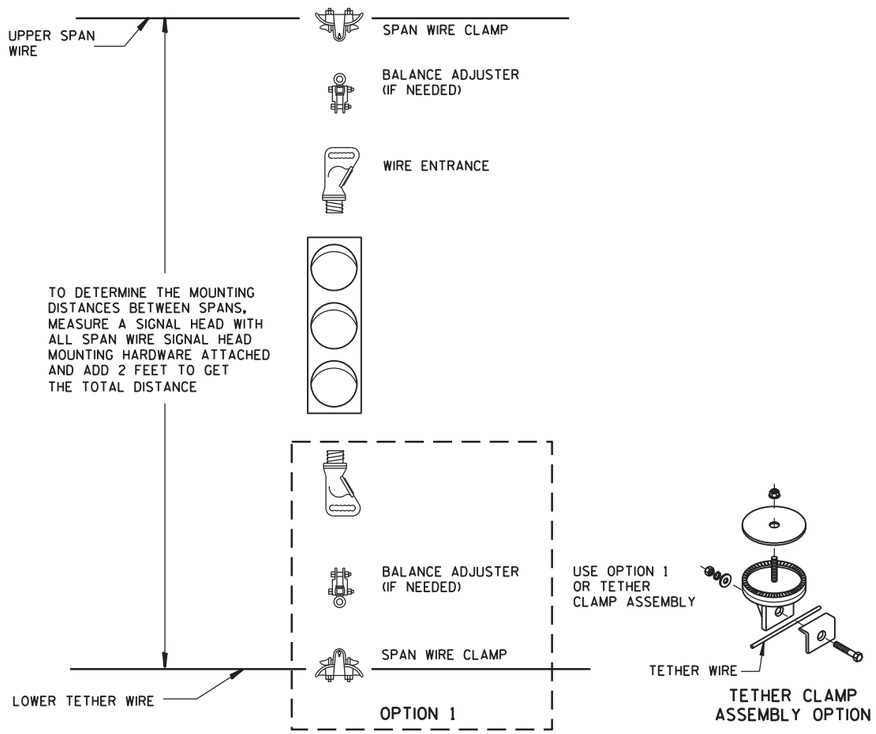
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S.D.D. 9 G 1-4e

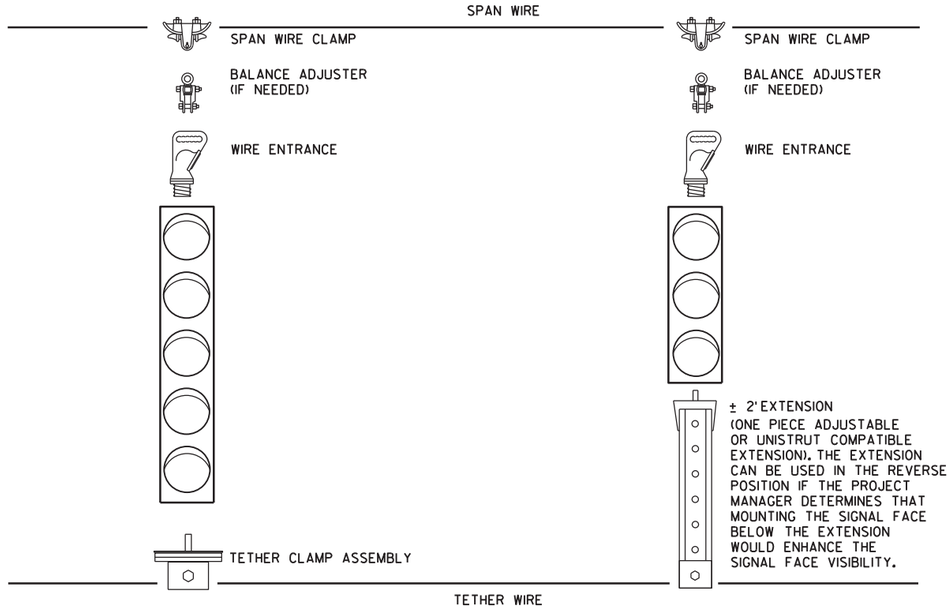


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

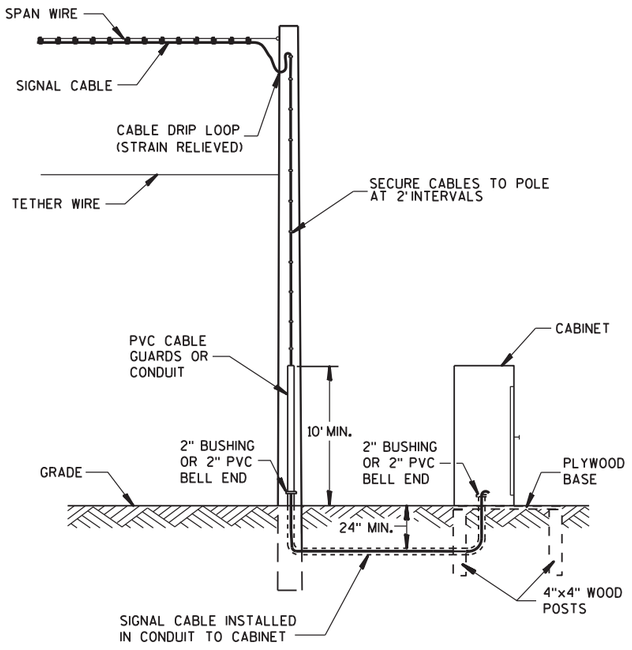
APPROVED
June. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

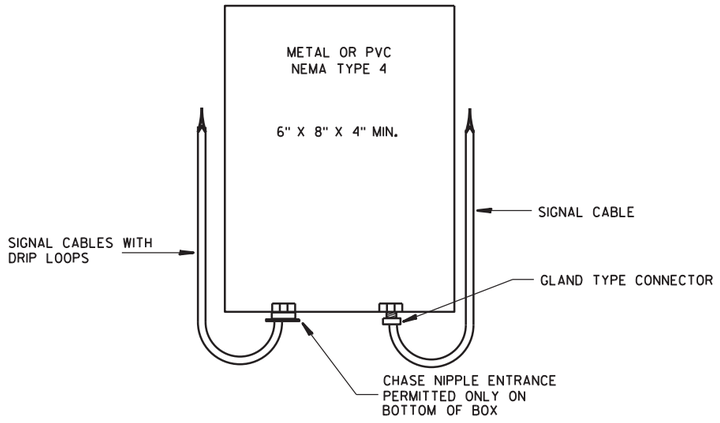
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S.D.D. 9 G 1-4f

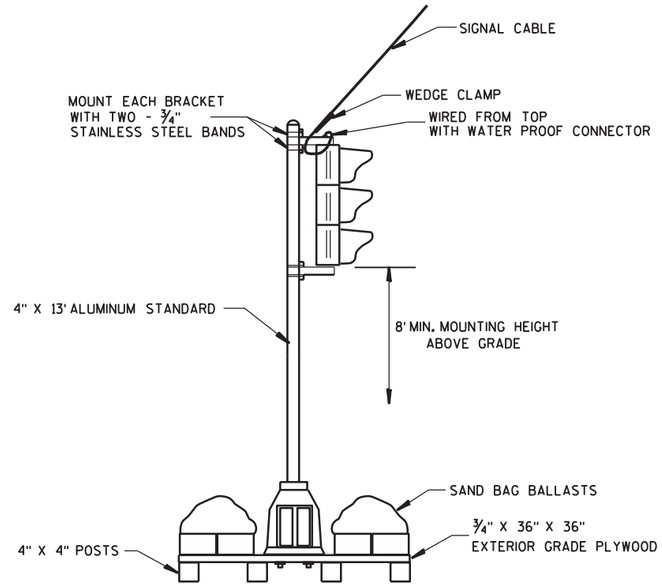
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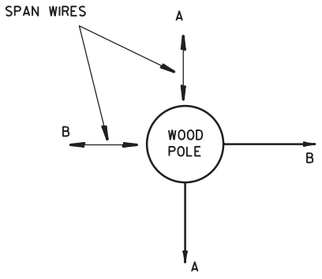




SPLICE BOX

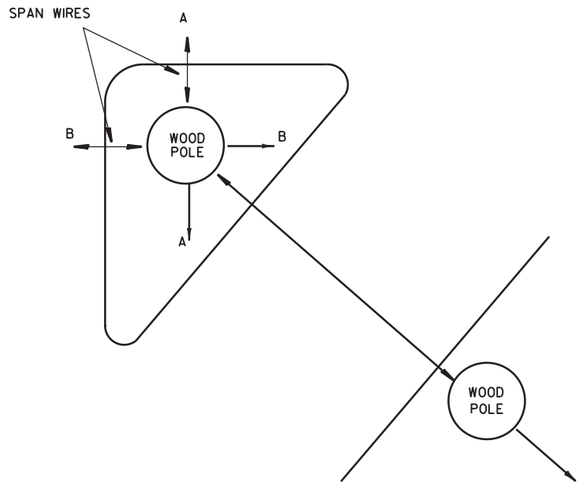


TYPICAL SKID TYPE TEMPORARY

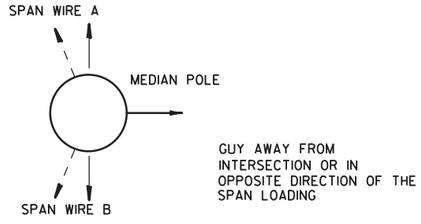


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

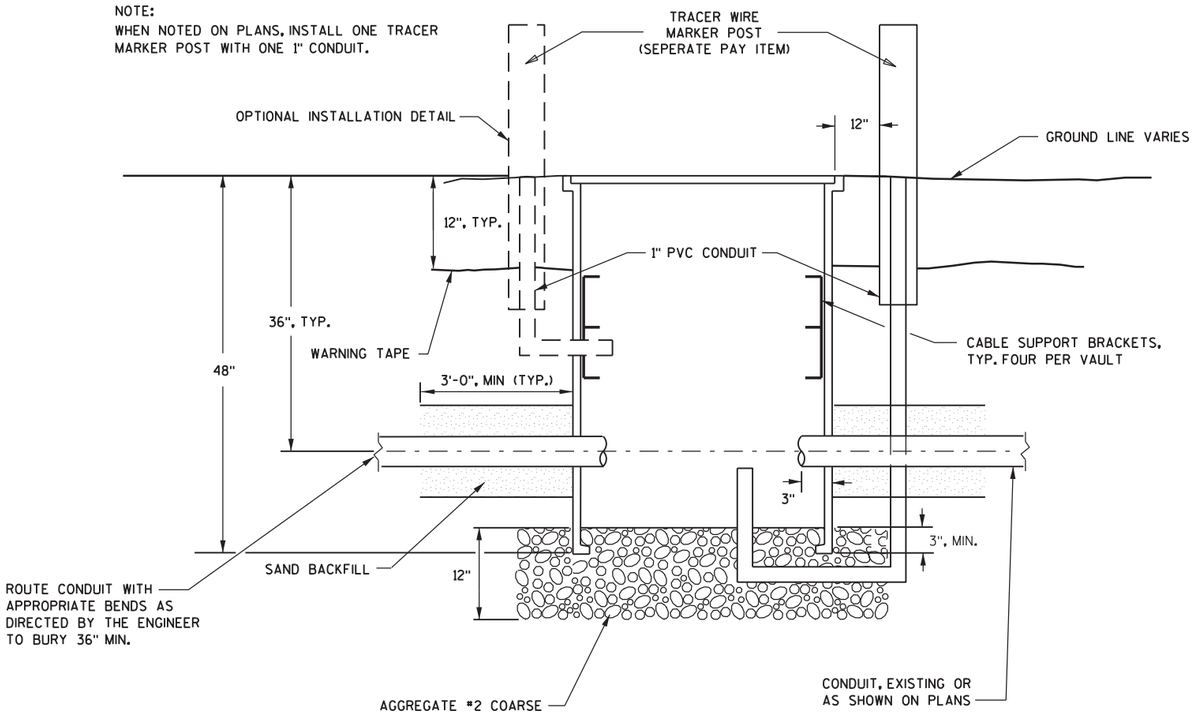
APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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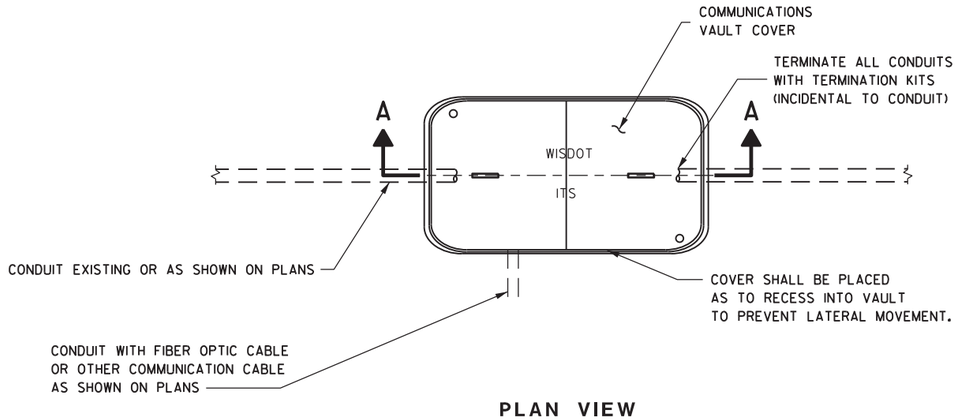
S.D.D. 9 G 1-4g

6

S.D.D. 9 G 1-4g



SECTION A-A



PLAN VIEW

COMMUNICATIONS VAULT TYPE 1

GENERAL NOTES

PROVIDE VAULT WITH OPEN BASE.

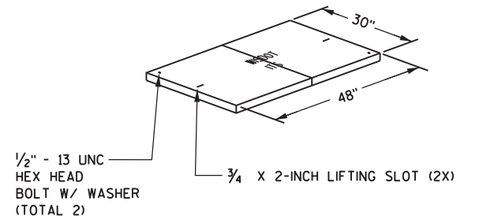
COVER SHALL HAVE A MINIMUM DESIGN LOAD OF 15,000 LBS AND SHALL LOCK.

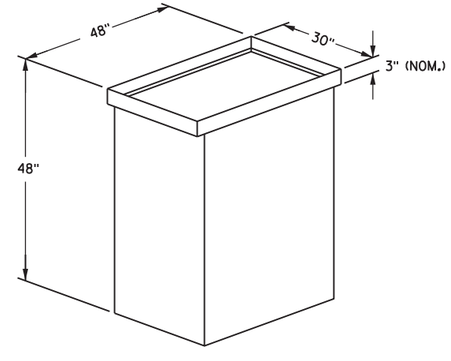
ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION, OR PUNCH DRIVEN AT TIME OF PLACEMENT.

VAULTS SHALL BE OF ONE-PIECE CONSTRUCTION. TWO-PIECE/STACKABLE VAULTS WILL NOT BE PERMITTED.

FIELD PLACEMENT OF COMMUNICATIONS VAULTS SHALL BE AS DIRECTED BY THE ENGINEER.

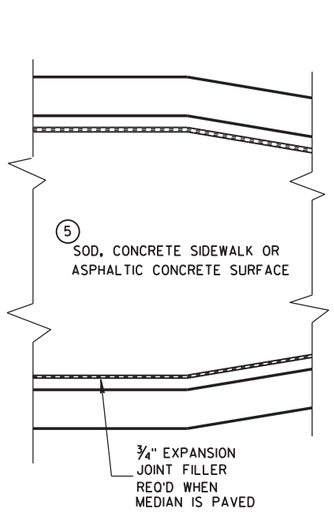
FIBER TRACER MARKER POSTS SHALL BE CONSTRUCTED WITH HIGH-IMPACT PLASTIC MATERIAL WHICH IS FADE RESISTANT AND UV STABLE. ALL HARDWARE SHALL BE STAINLESS STEEL AND CONTAIN A MINIMUM OF FIVE STANDARD TERMINALS.

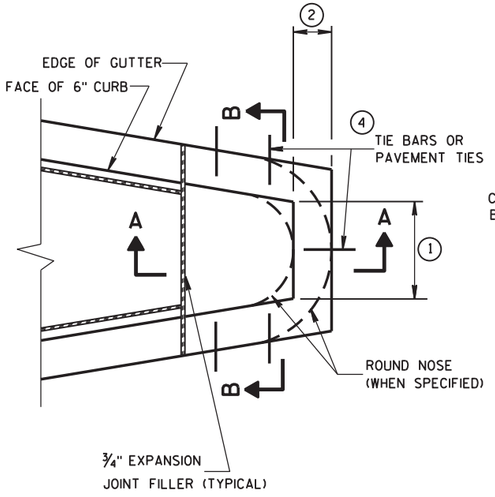


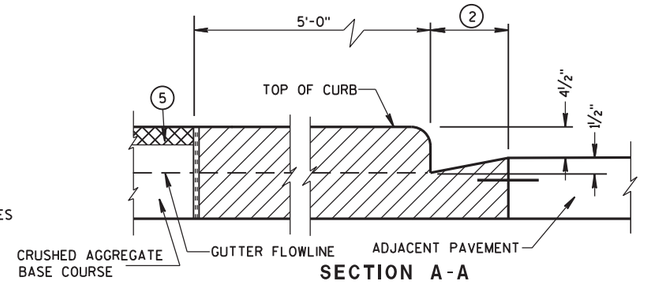


ISOMETRIC VIEW

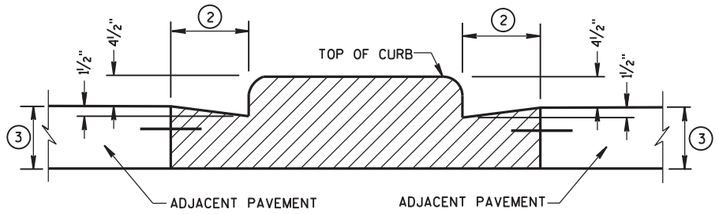
COMMUNICATION VAULT TYPE 1	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
May, 2017 DATE	/S/Ahmet Demirbilek STATE ELECTRICAL
FHWA	







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.

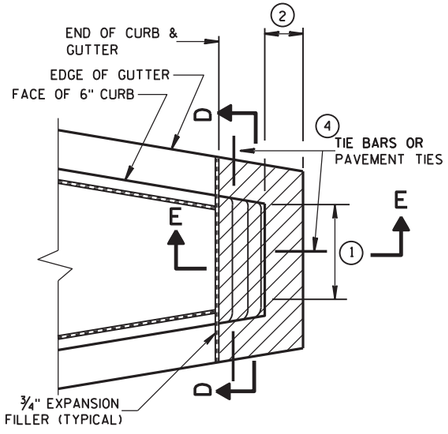
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

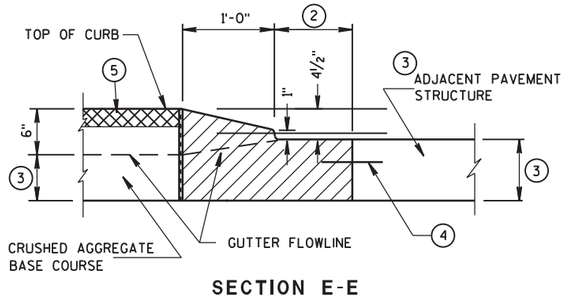
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(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.

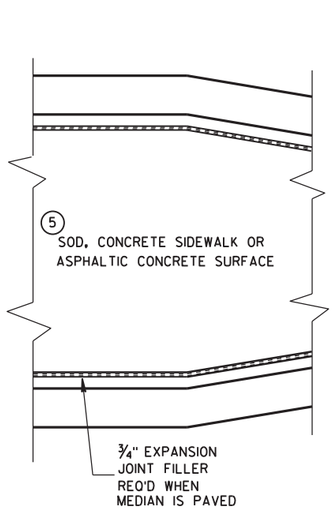
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

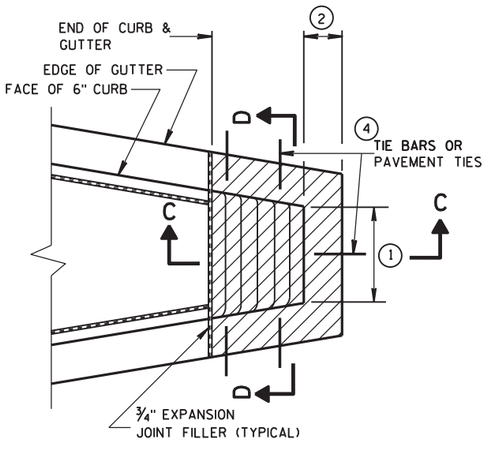


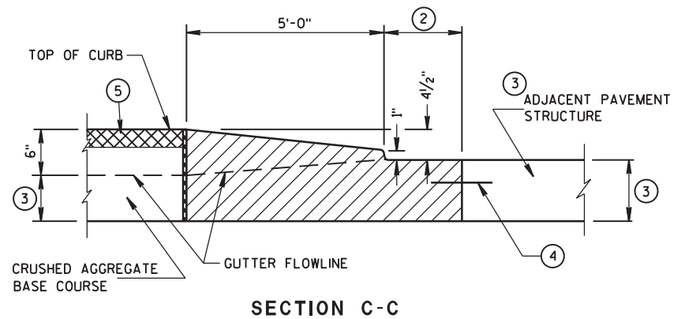


SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2

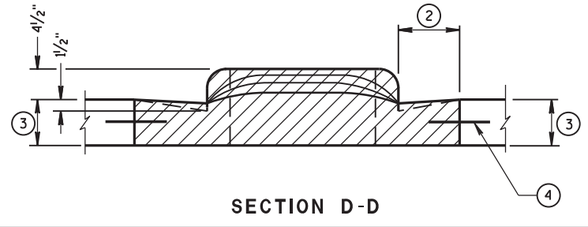






SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

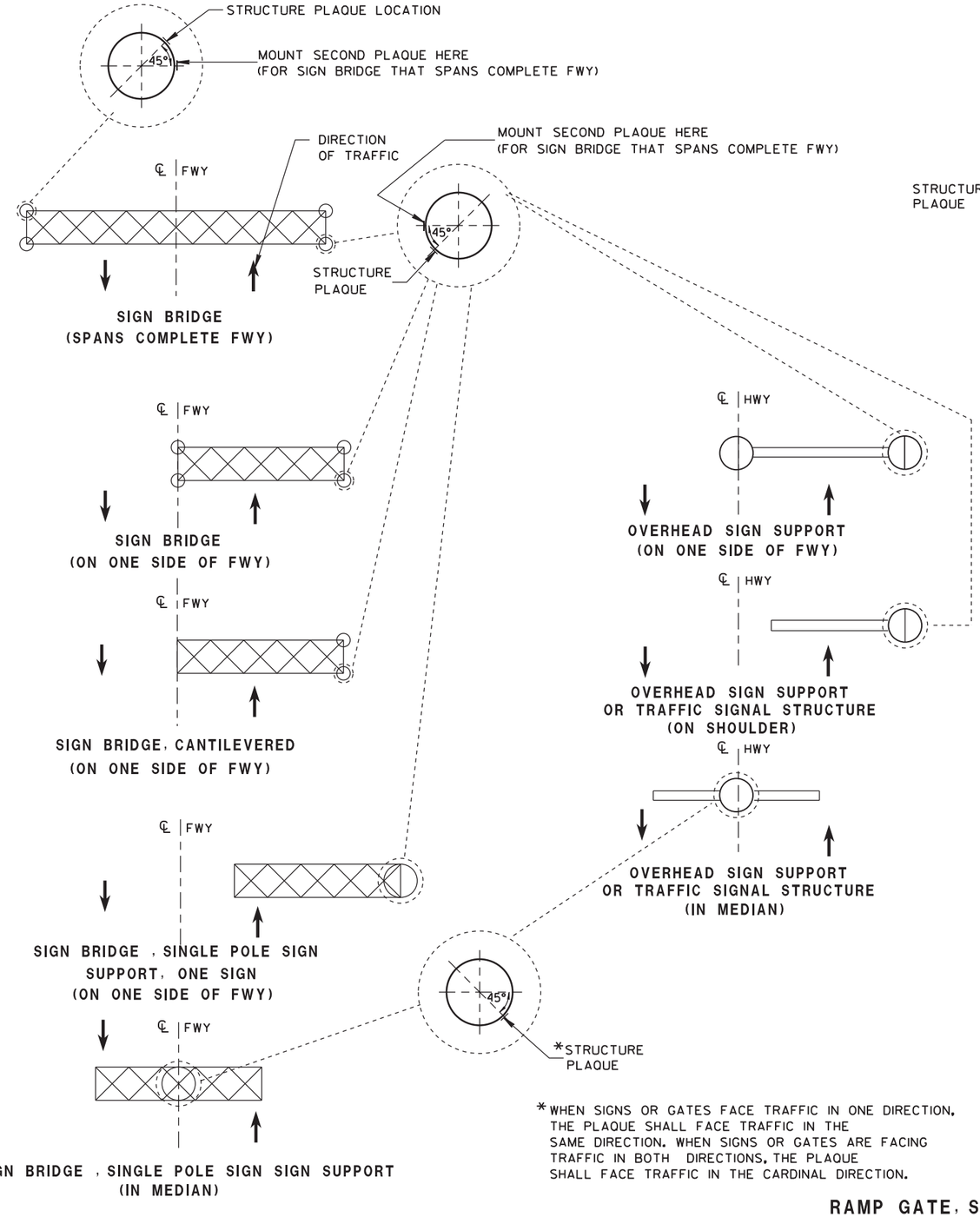
FHWA

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S.D.D. 11 B 2-2

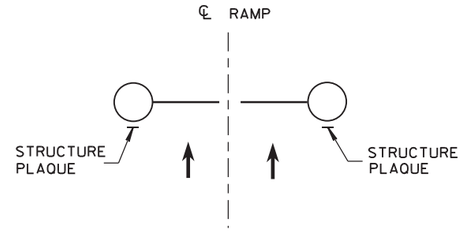
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S.D.D. 11 B 2-2

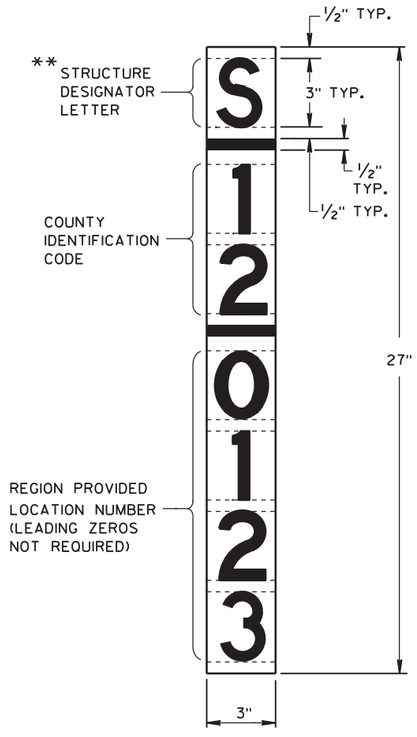


* WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE (ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

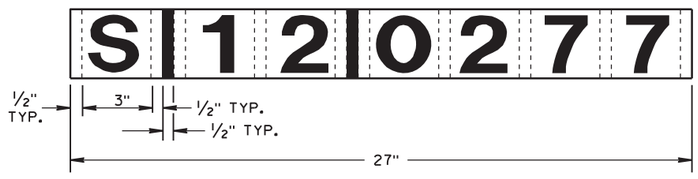
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

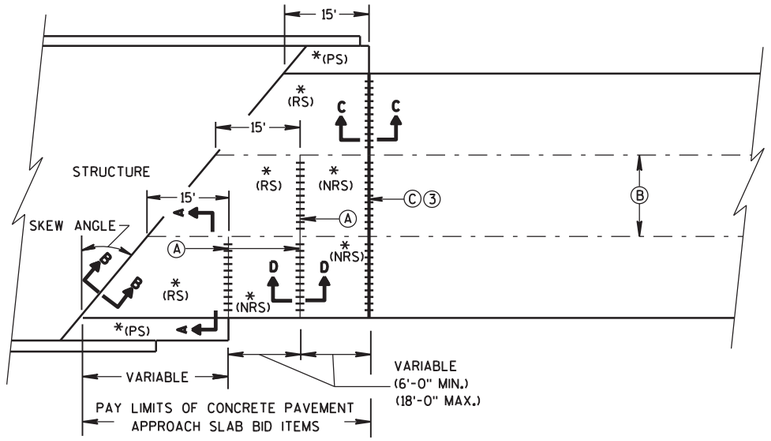
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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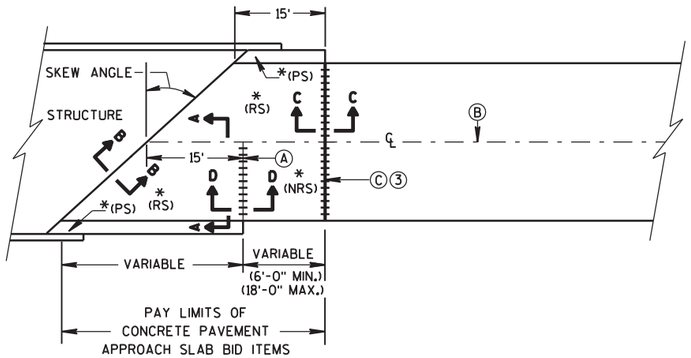
S.D.D. 12 A 4-3

6

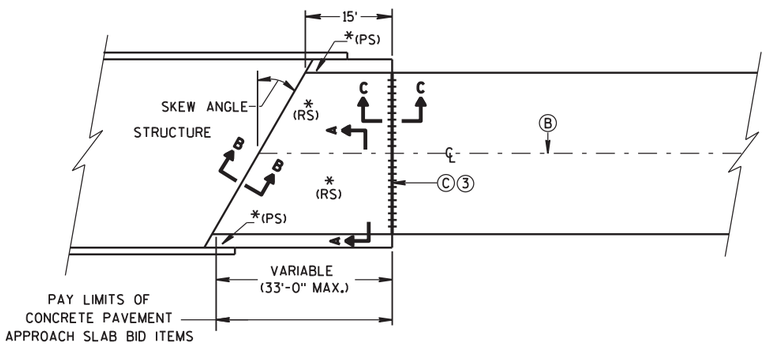
S.D.D. 12 A 4-3



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

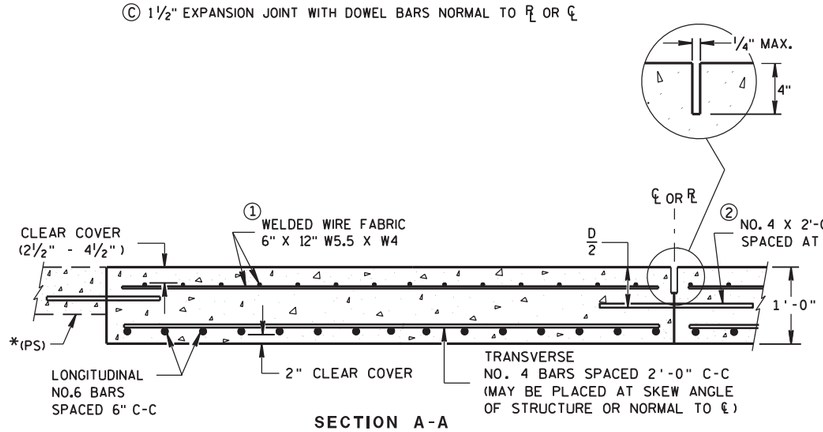
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

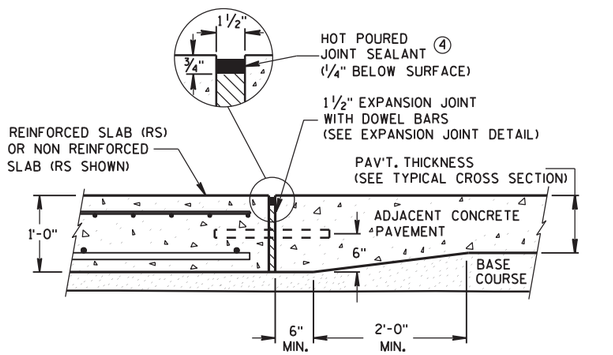
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

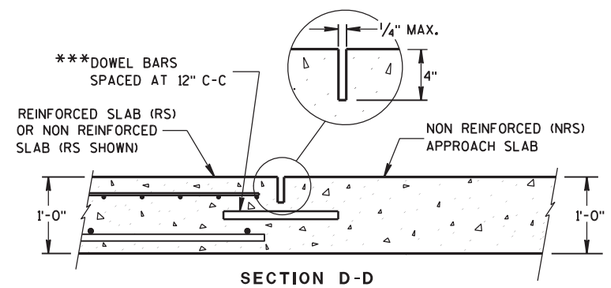
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

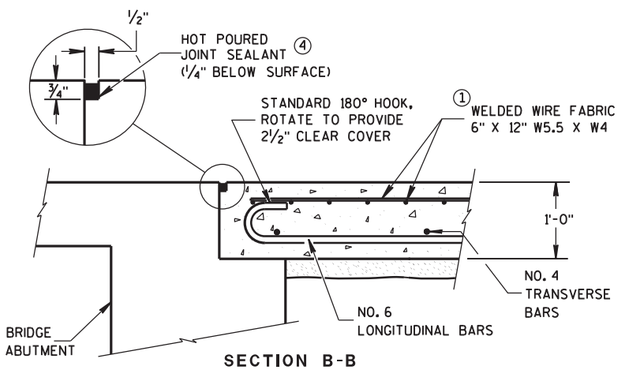
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

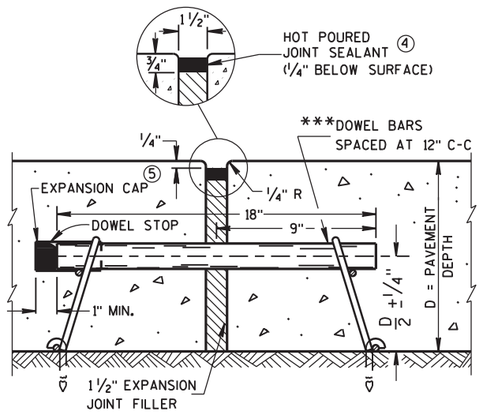
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

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S.D.D. 13 B 2-8a

6

S.D.D. 13 B 2-8a

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

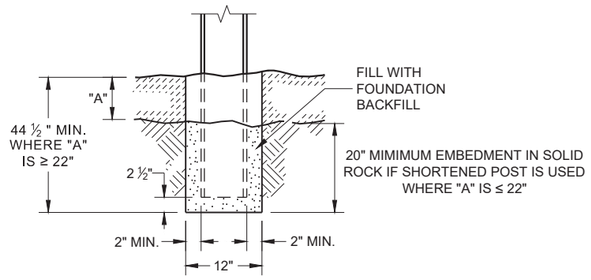
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

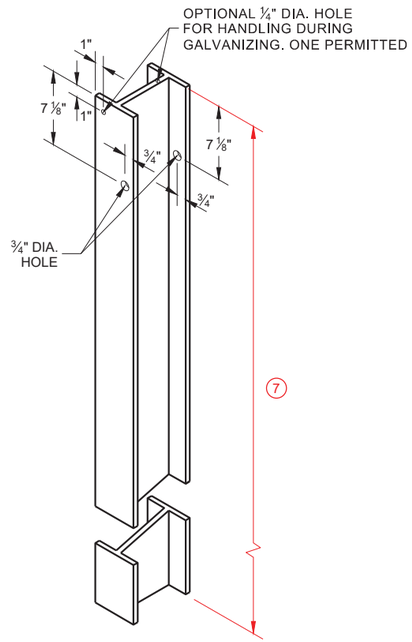
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

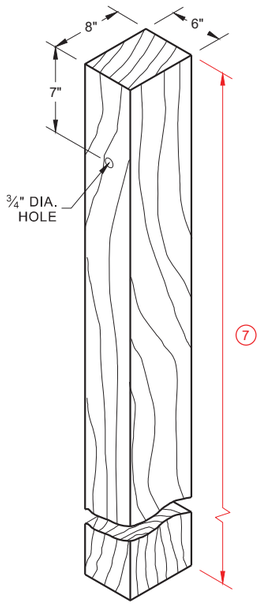
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



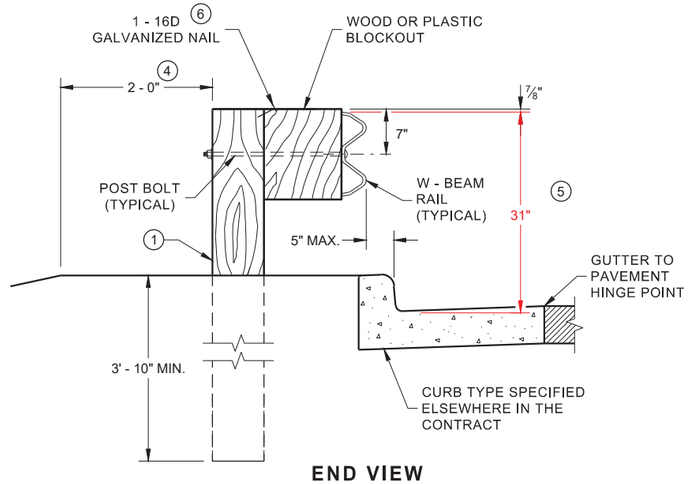
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



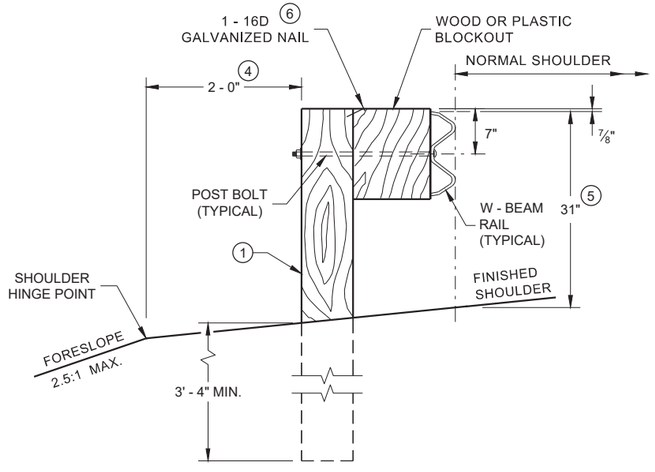
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



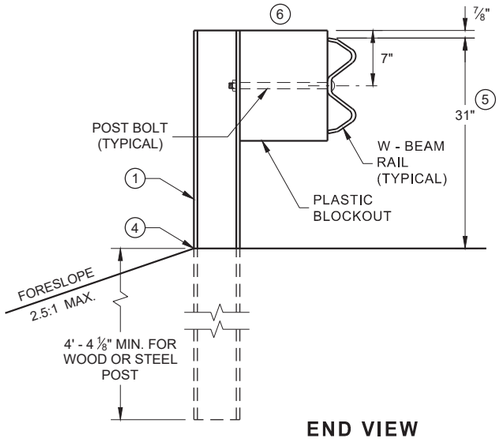
WOOD POST (6" X 8") NOMINAL (1)



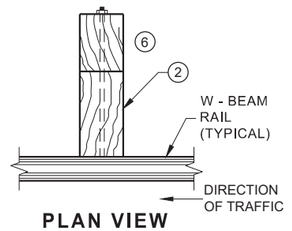
END VIEW
LOCATED ALONG A CURBED ROADWAY



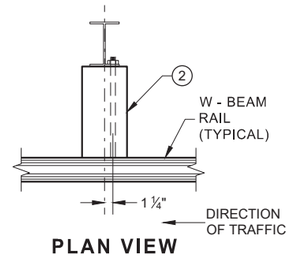
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



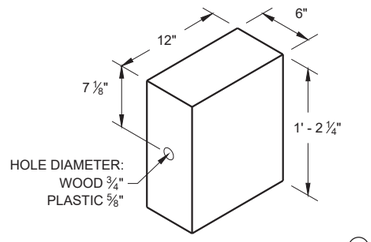
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW WOOD POST, BLOCKOUT & BEAM



PLAN VIEW STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

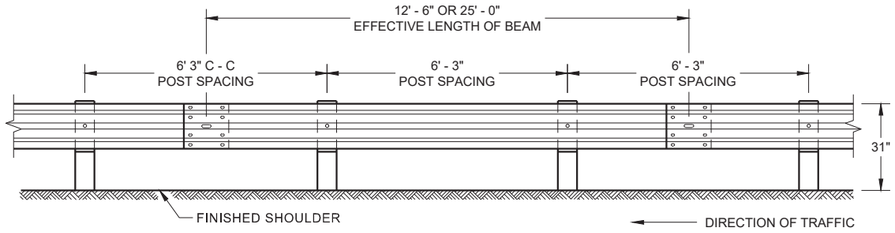
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

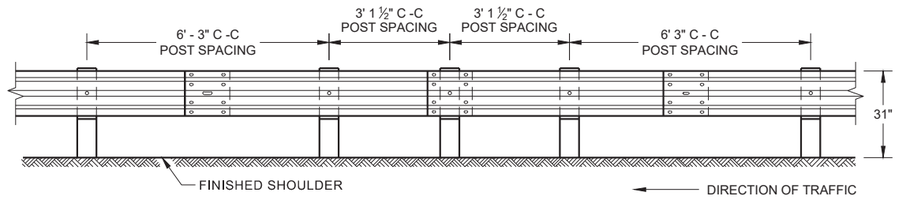
SDD 14B42 - 06a

6

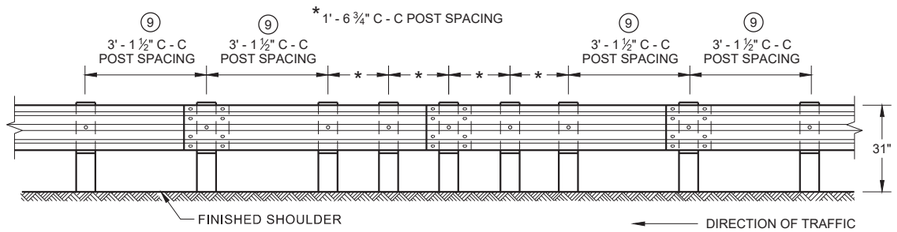
SDD 14B42 - 06a



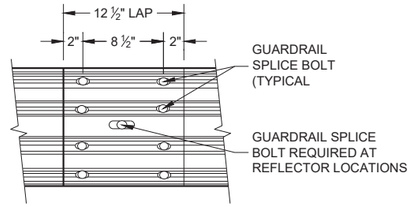
FRONT VIEW
POST SPACING STANDARD INSTALLATION



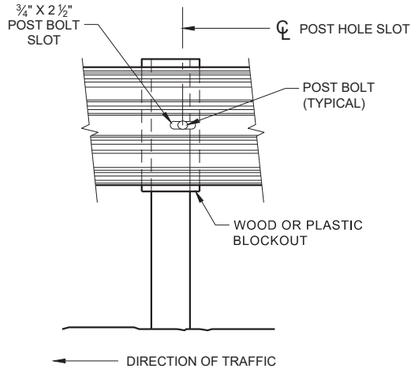
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



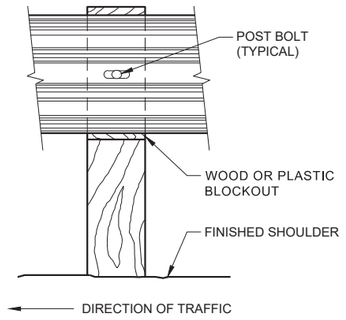
FRONT VIEW
QUARTER POST SPACING (QS)



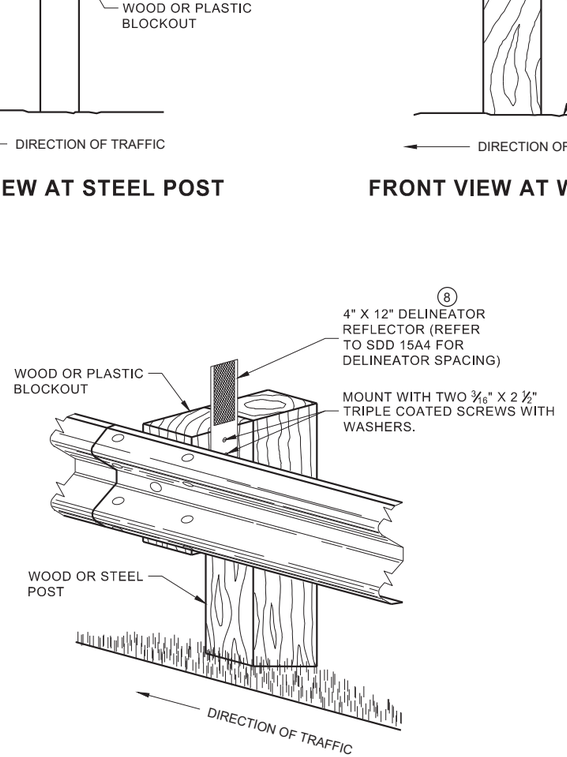
FRONT VIEW
MID-SPAN BEAM SPLICE



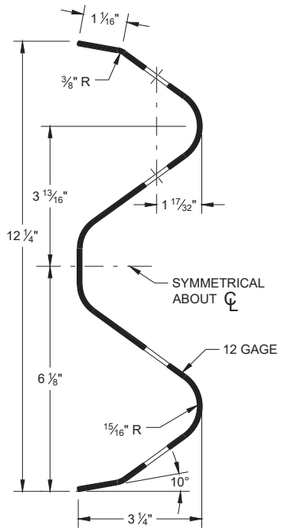
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION



SECTION THRU W-BEAM RAIL

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ¾" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

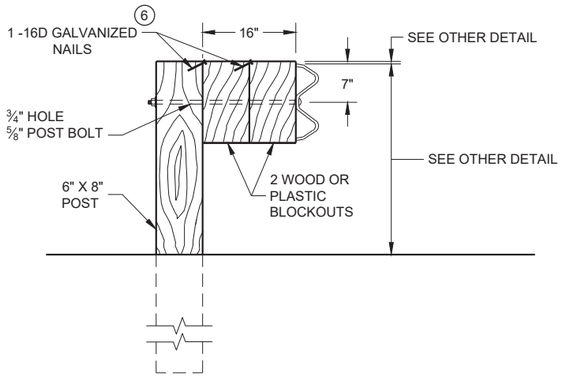
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

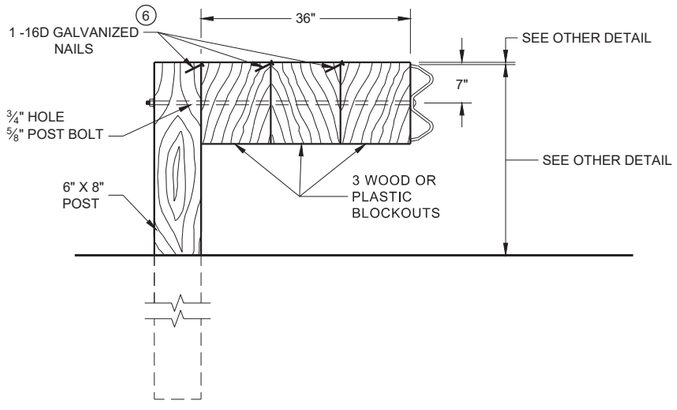
6

SDD 14B42 - 06b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



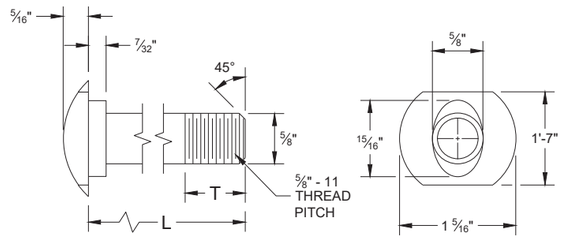
DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

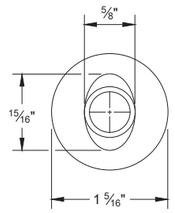
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

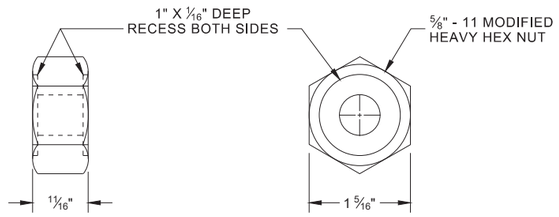


POST BOLT TABLE

L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"

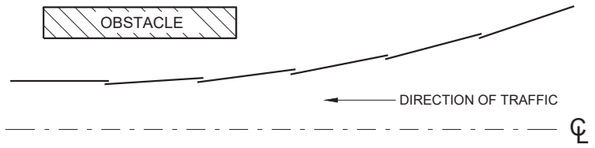


ALTERNATE BOLT HEAD

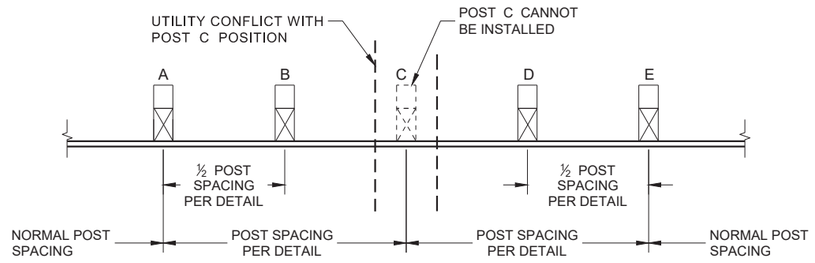


POST BOLT, SPLICE BOLT AND RECESS NUT

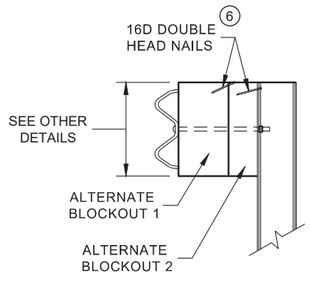
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



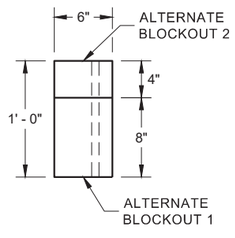
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



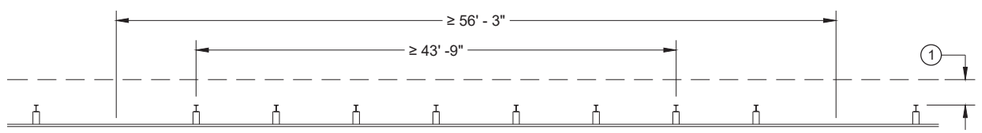
SIDE VIEW



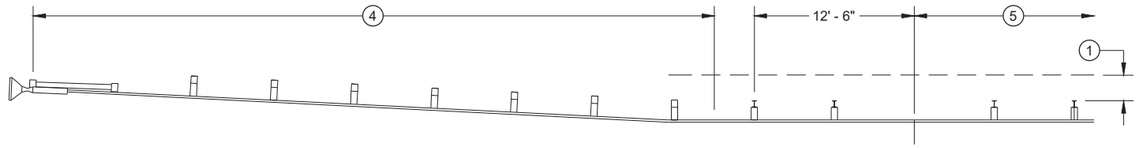
PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

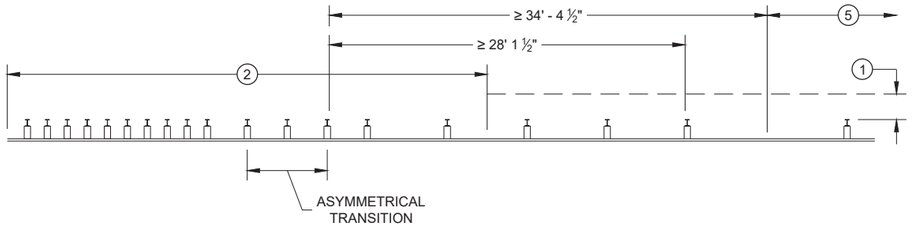
6
SDD 14B42 - 06c



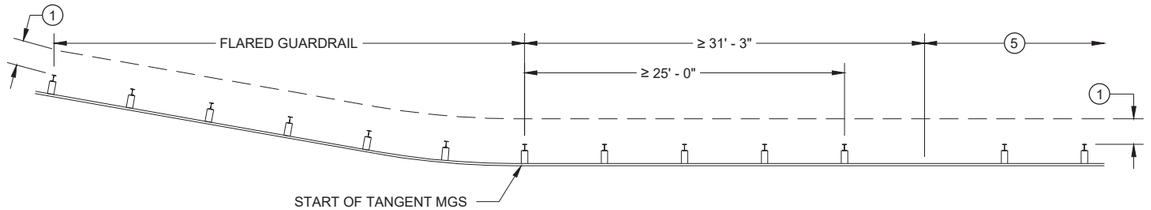
MISSING POST IN NORMAL BEAM GUARD RUN



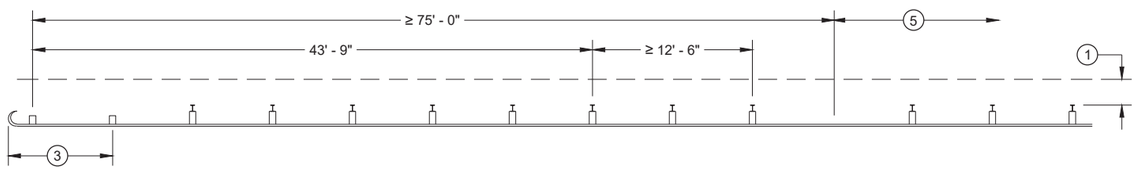
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



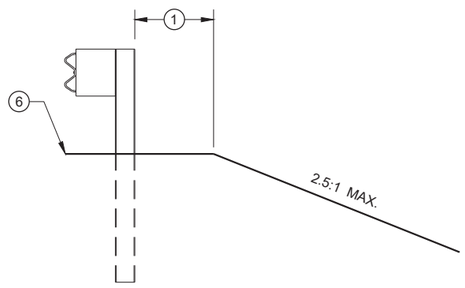
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 06d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

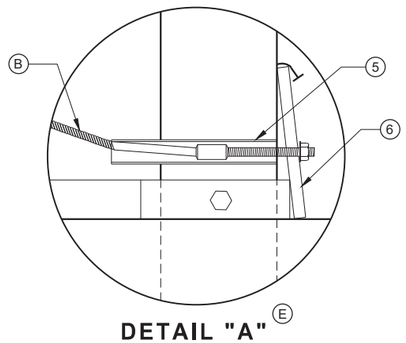
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

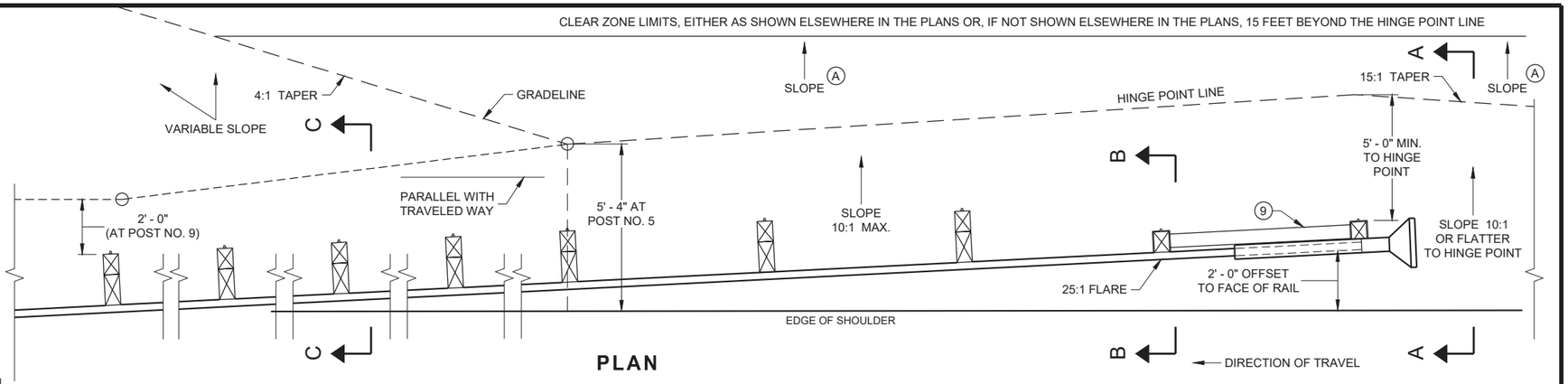
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

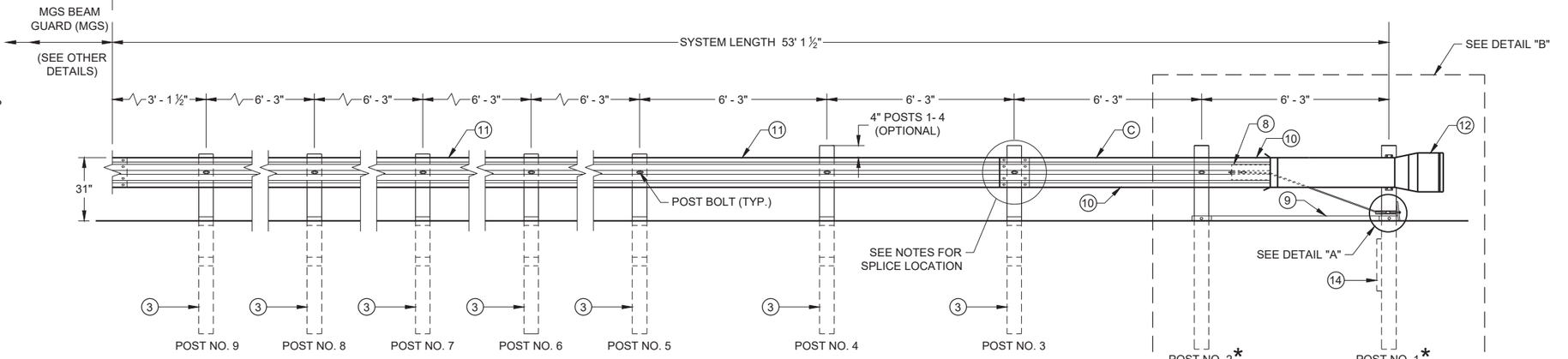
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



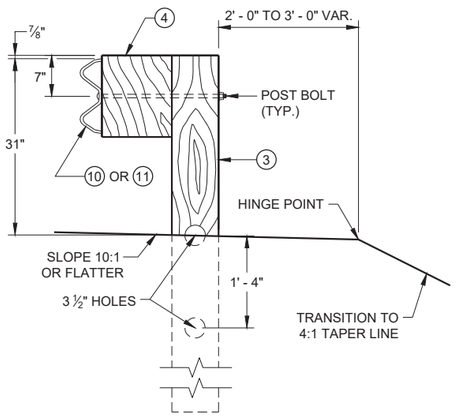
DETAIL "A" (E)



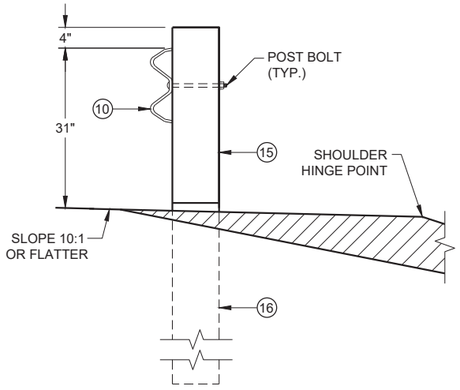
PLAN



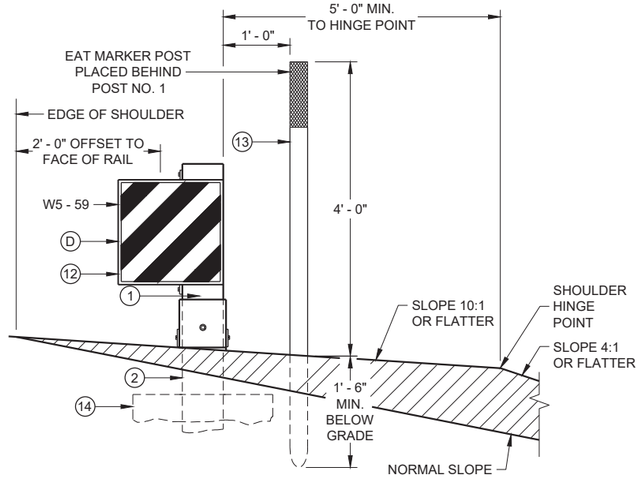
ELEVATION



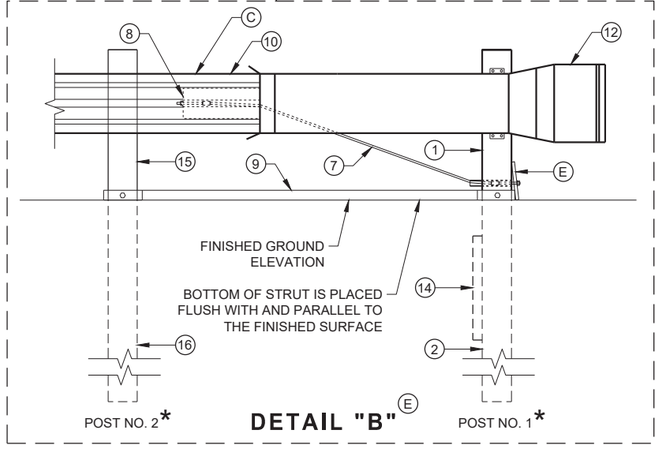
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

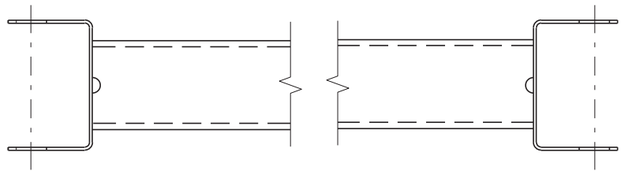
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B44 - 04a

6

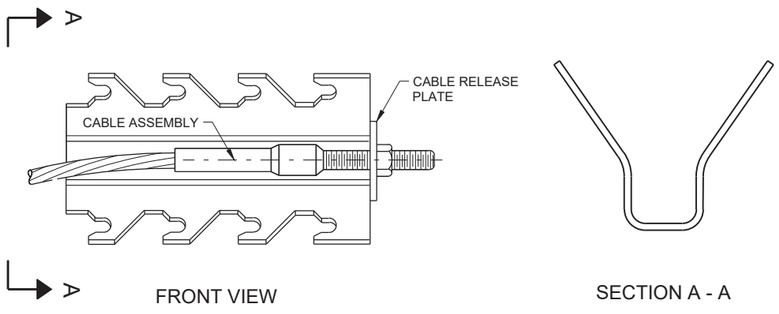
SDD 14B44 - 04a



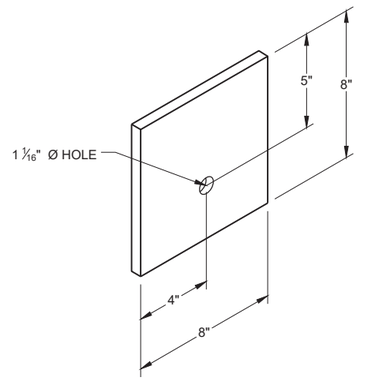
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

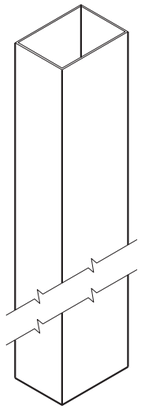
SDD 14B45 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

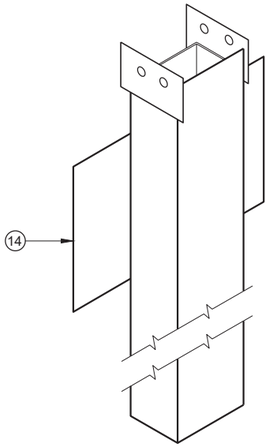
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

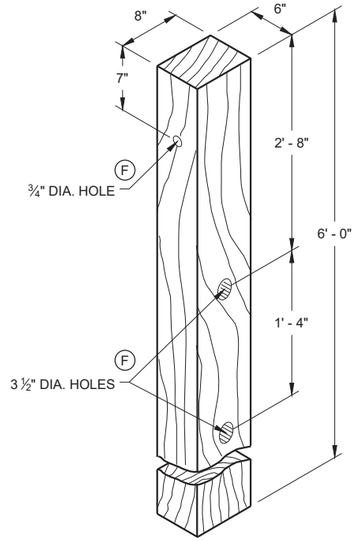
SDD 14B45 - 04b



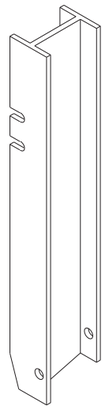
UPPER POST NO. 1 ① Ⓔ



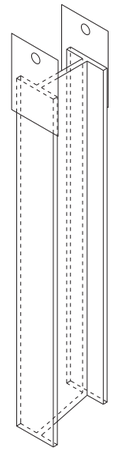
LOWER POST NO. 1 ② Ⓔ



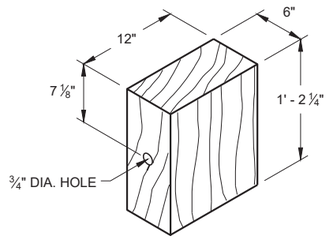
WOOD CRT POST ③ Ⓔ
POSTS NUMBER 3-9



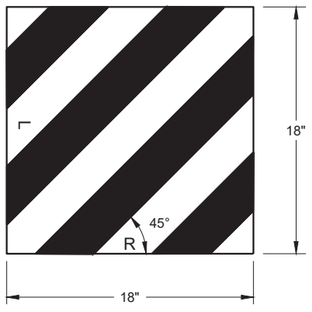
UPPER POST NO. 2 ⑮ Ⓔ



LOWER POST NO. 2 ⑯ Ⓔ

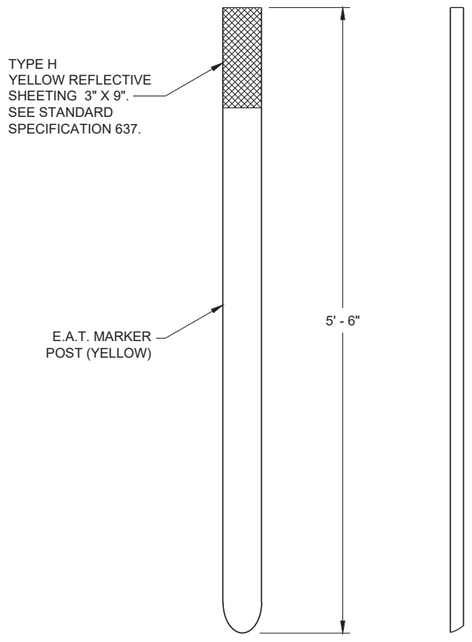


WOOD BLOCKOUT ④
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



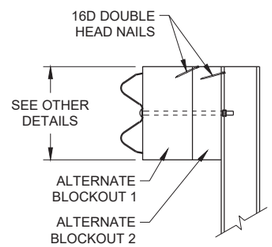
W5 - 59

REFLECTIVE SHEETING DETAIL Ⓔ

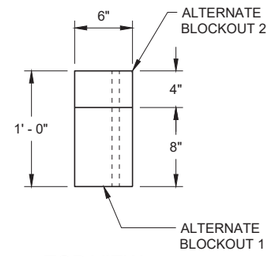


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST ⑬



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

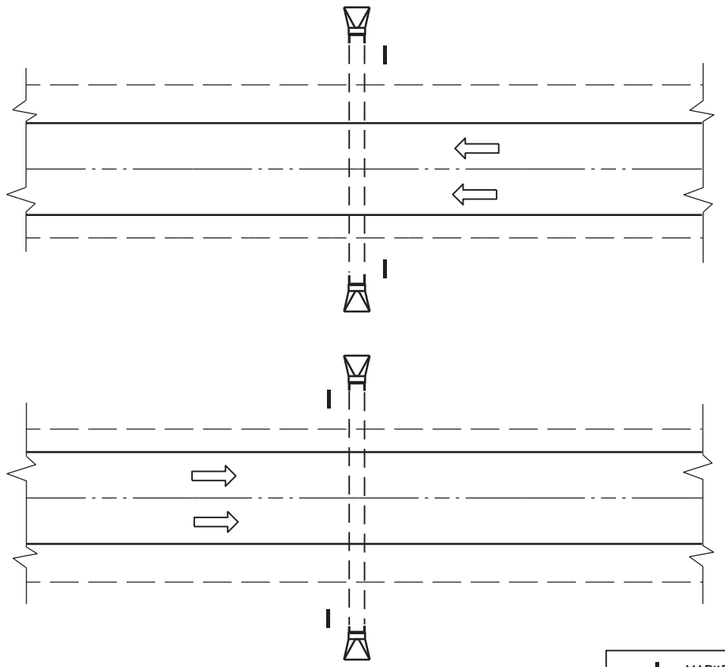
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

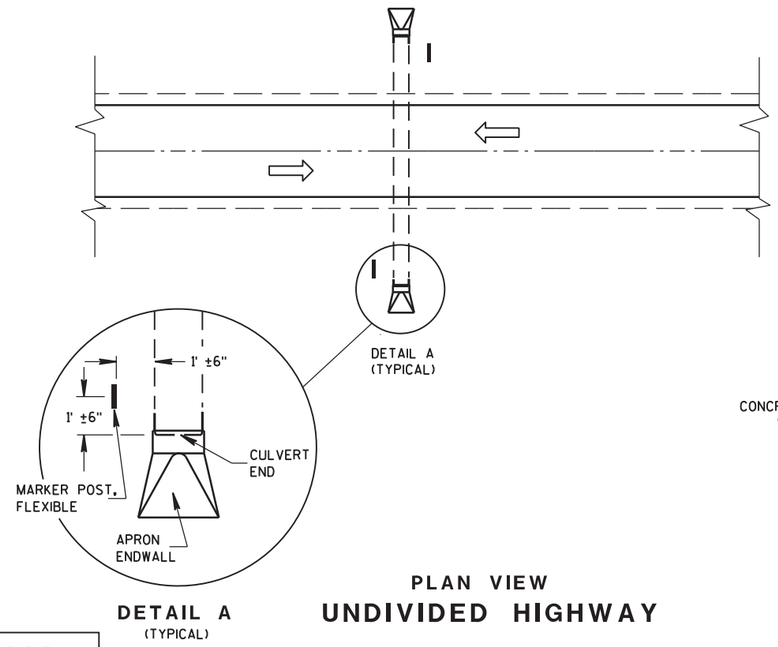
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SDD 14B44 - 04c



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

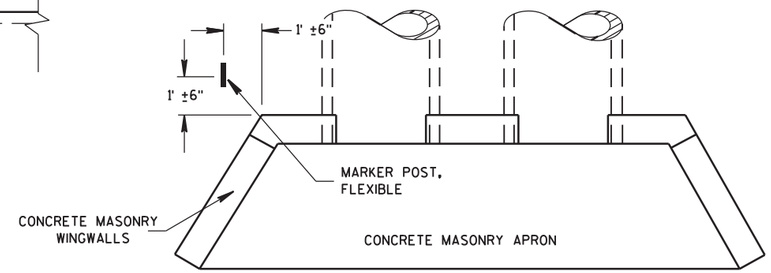
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

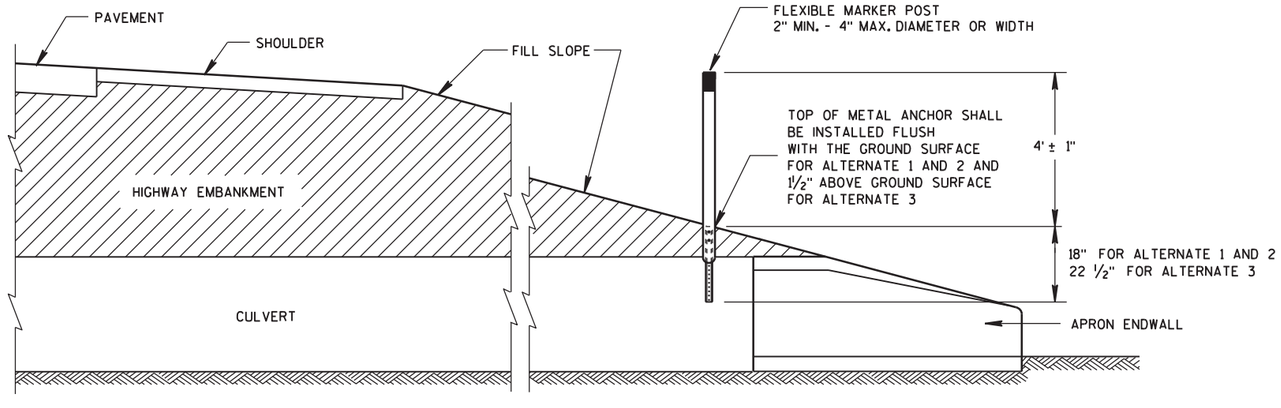
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

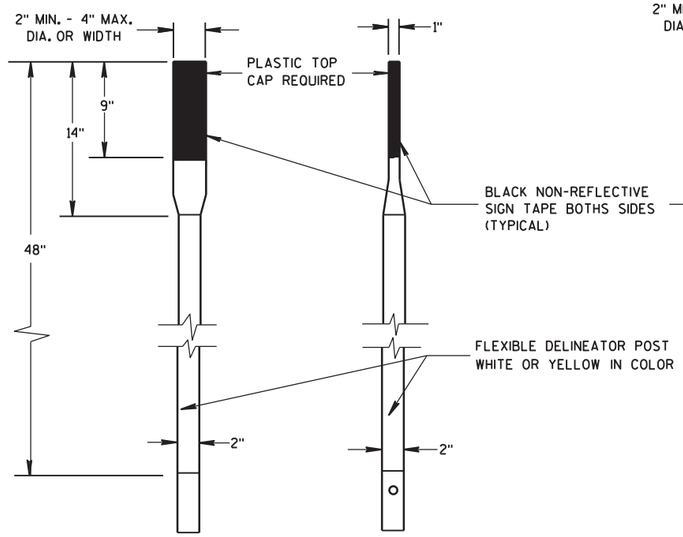
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

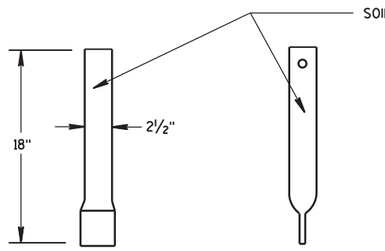
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S.D.D. 15 A 3-2a

6

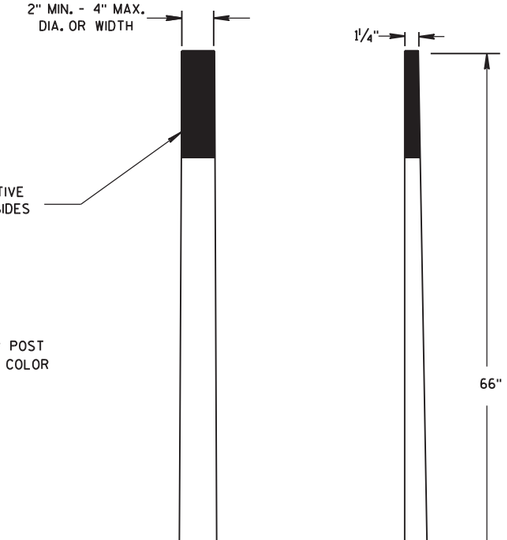
S.D.D. 15 A 3-2a





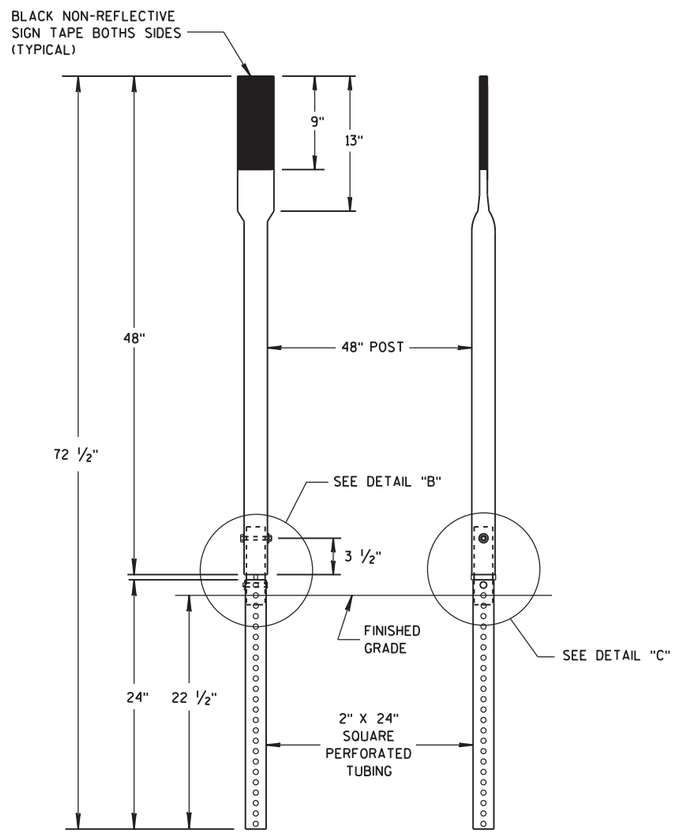
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

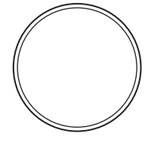
ALTERNATE 2



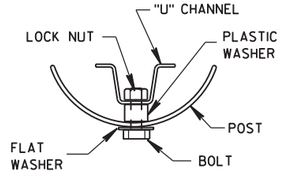
FRONT VIEW SIDE VIEW

ALTERNATE 3

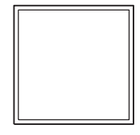
FLEXIBLE MARKER POSTS



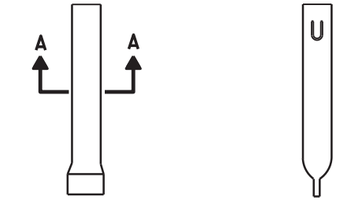
SECTION A-A



SECTION B-B

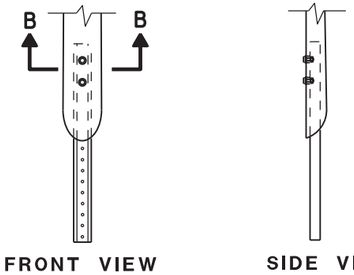


SECTION C-C



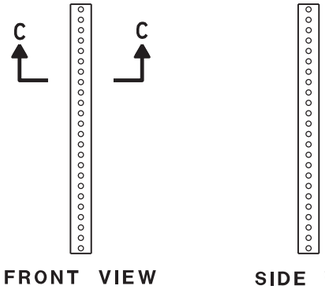
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

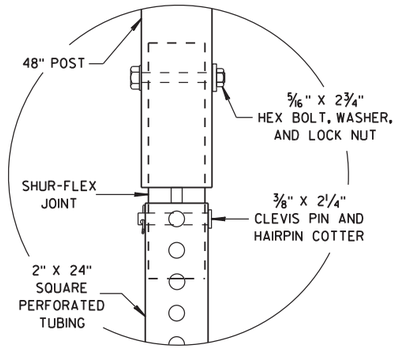
ALTERNATE 2



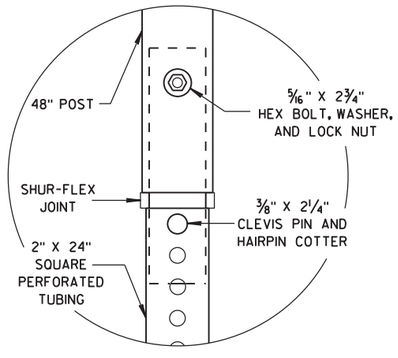
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

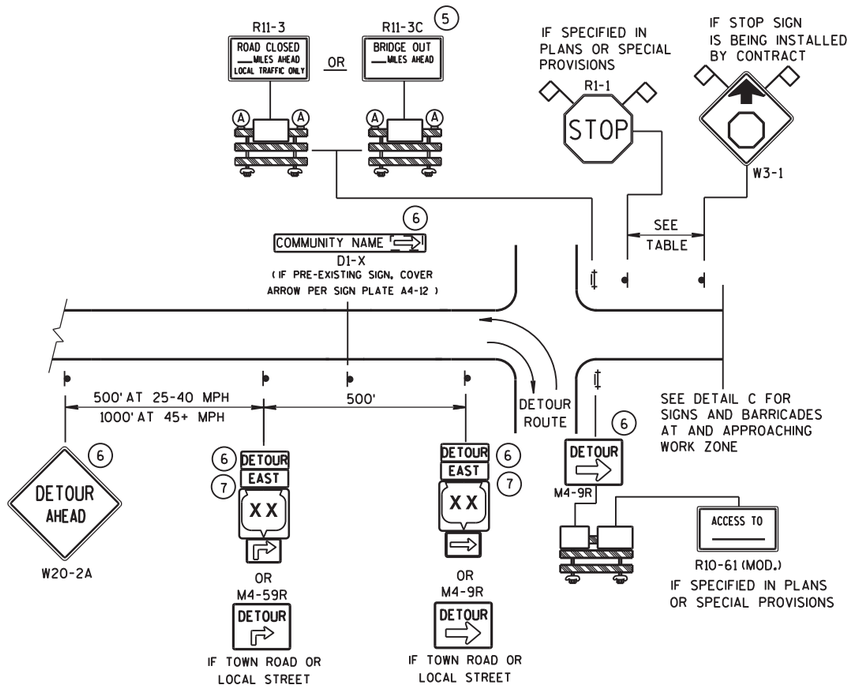
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
277
IGN
FHWA

6

S.D.D. 15 A 3-2b

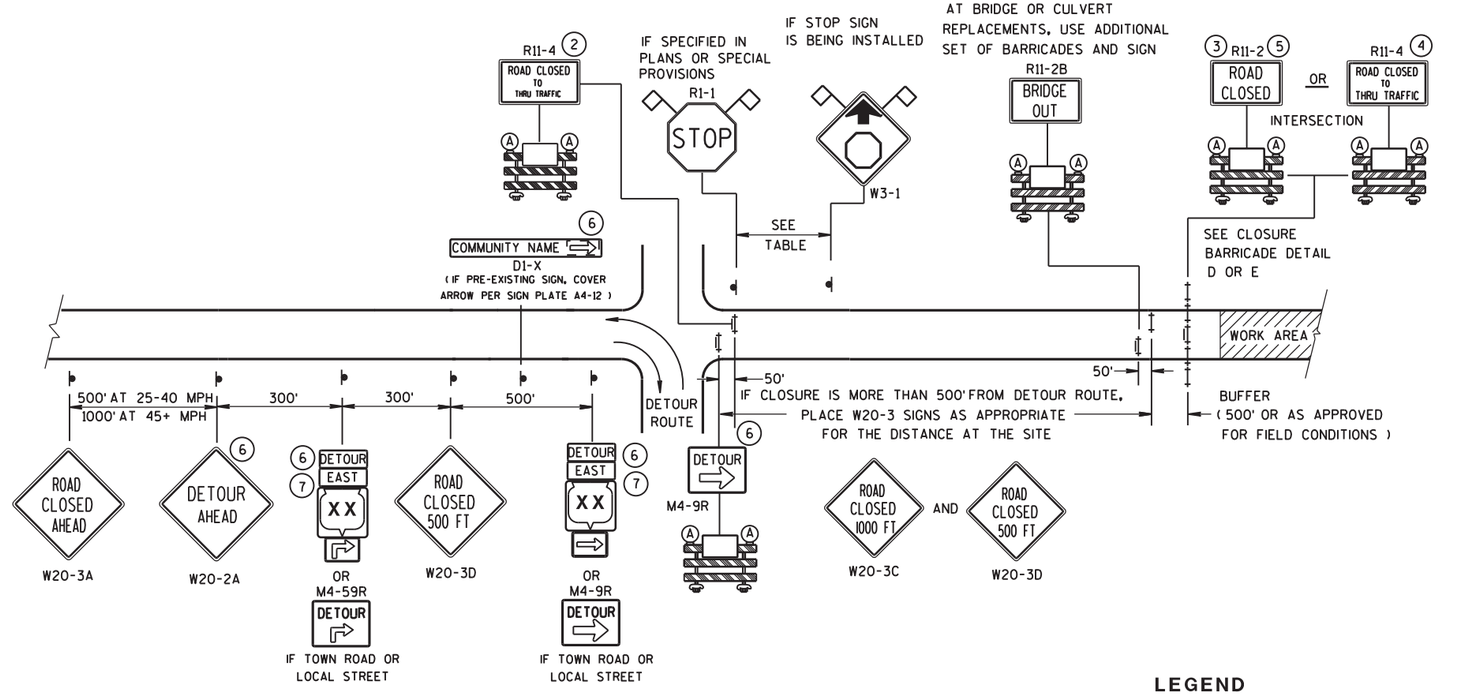
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S.D.D. 15 A 3-2b



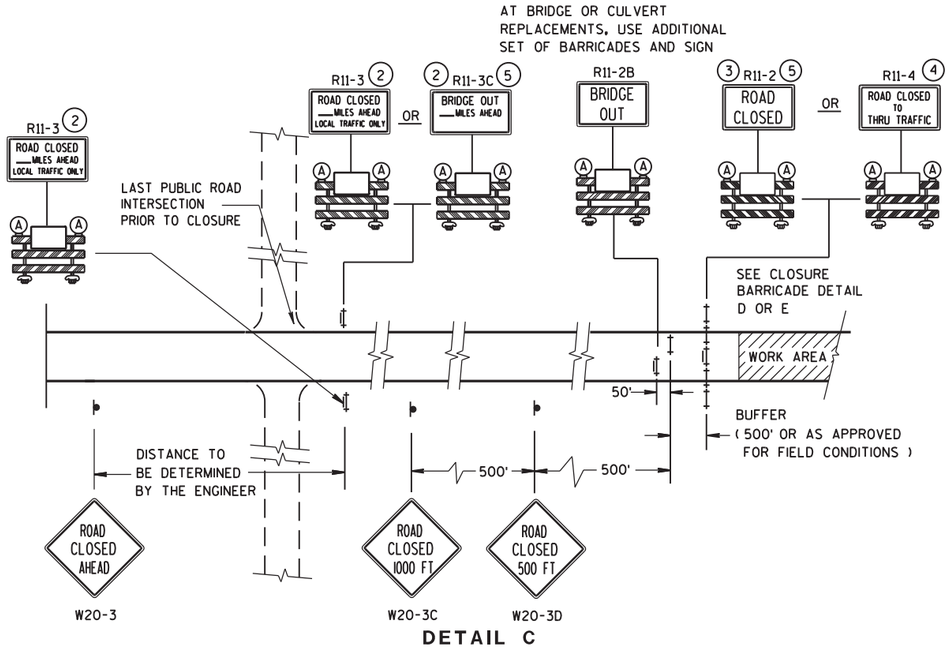
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

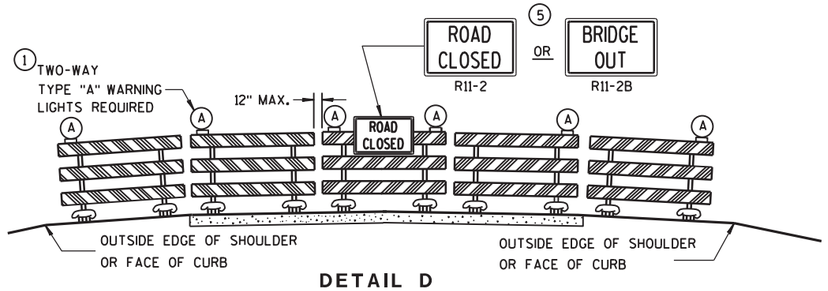
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

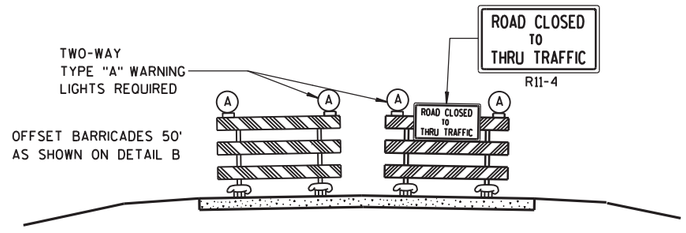
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI

FHWA

FIC

6

S.D.D. 15 C 2-6b

6

S.D.D. 15 C 2-6b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

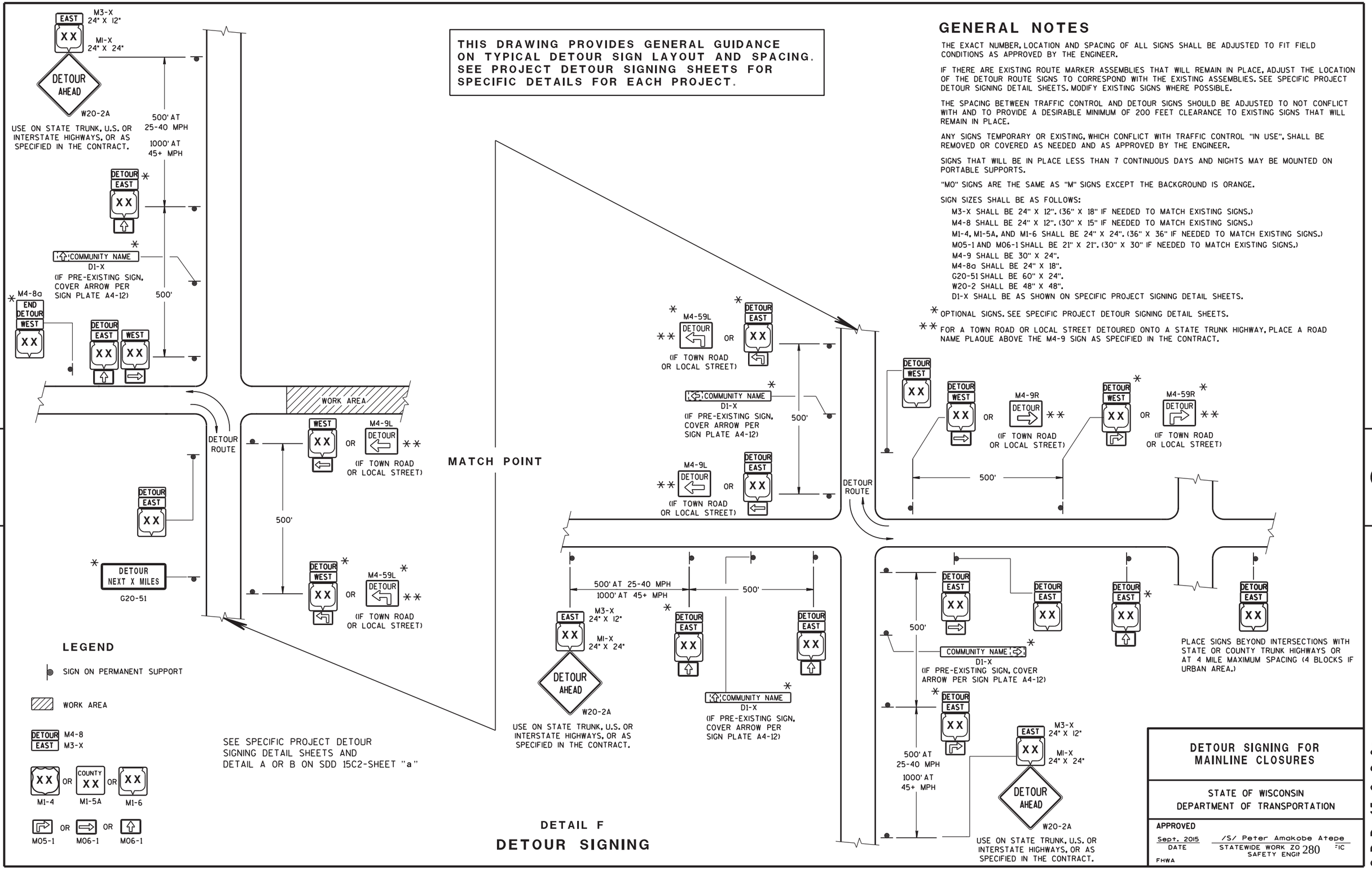
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- MO5-1 AND MO6-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- MO5-1 OR MO6-1 OR MO6-1

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI

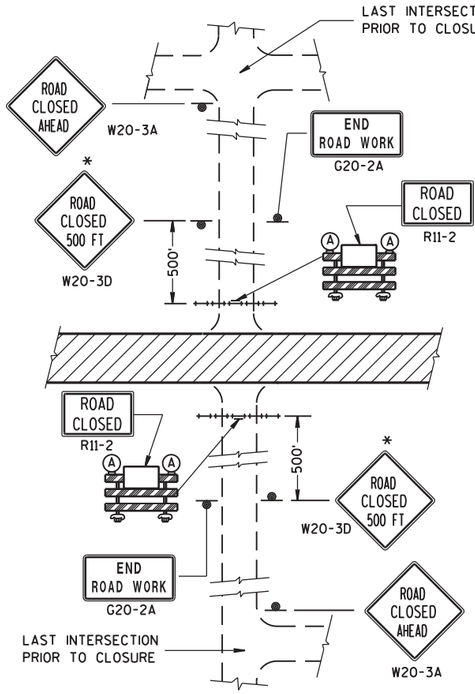
FHWA

6

S.D.D. 15 C 2-6c

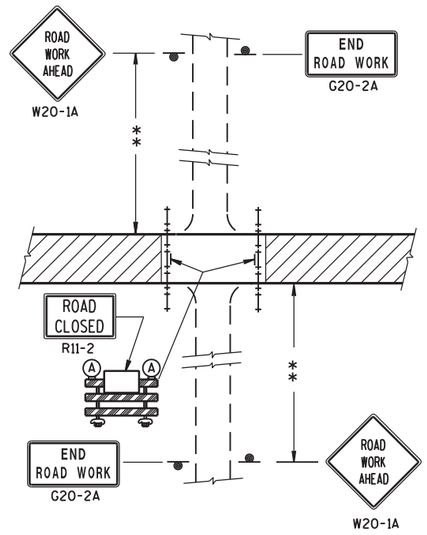
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S.D.D. 15 C 2-6c



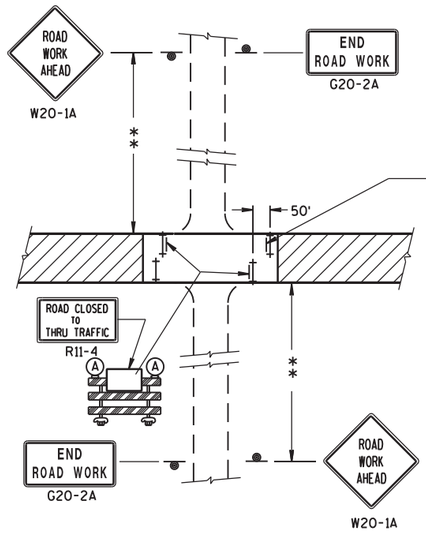
DETAIL 1

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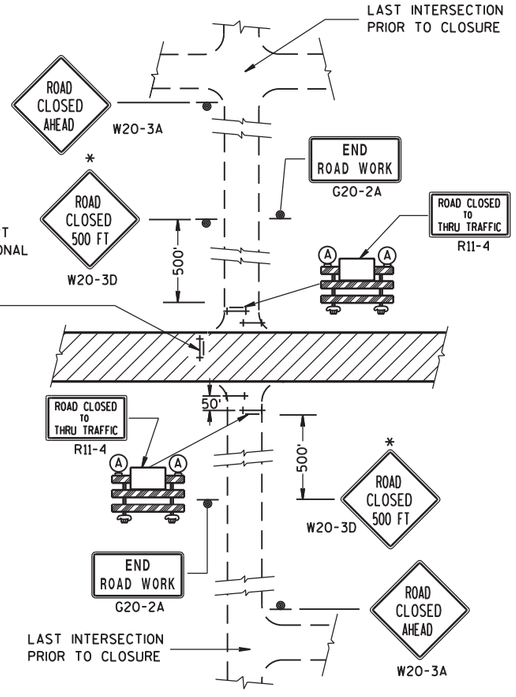
DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

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ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
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*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

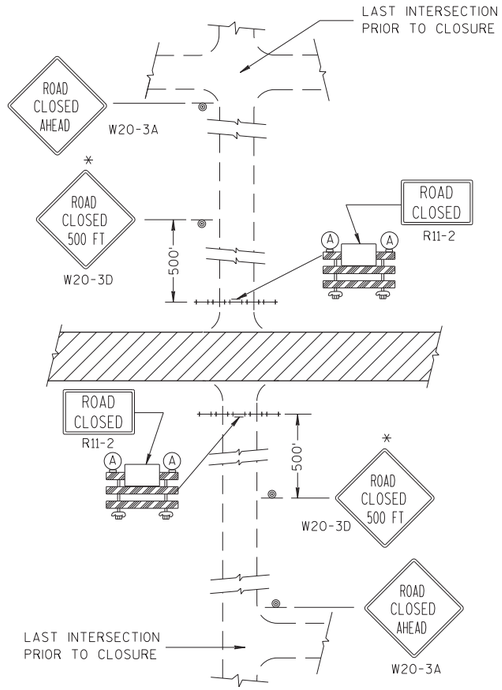
APPROVED
Sept. 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENG
FHWA

6

S.D.D. 15 C 3-4

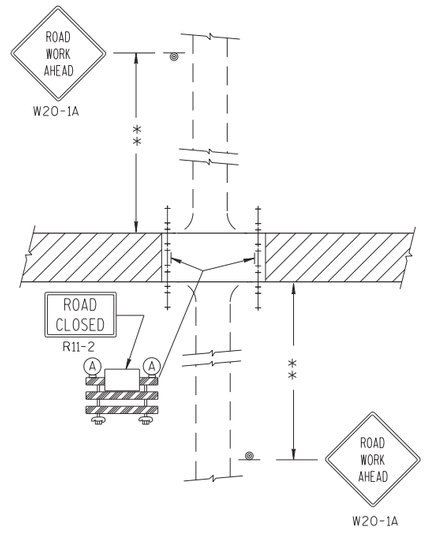
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S.D.D. 15 C 3-4



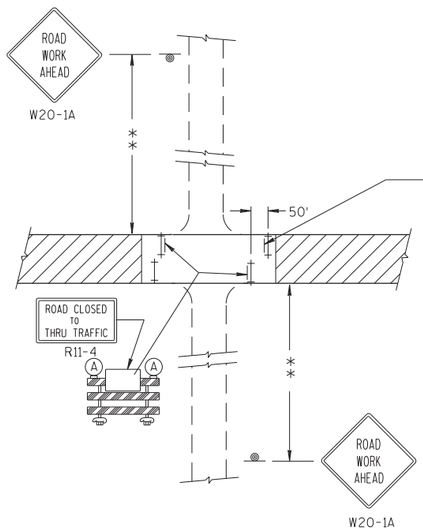
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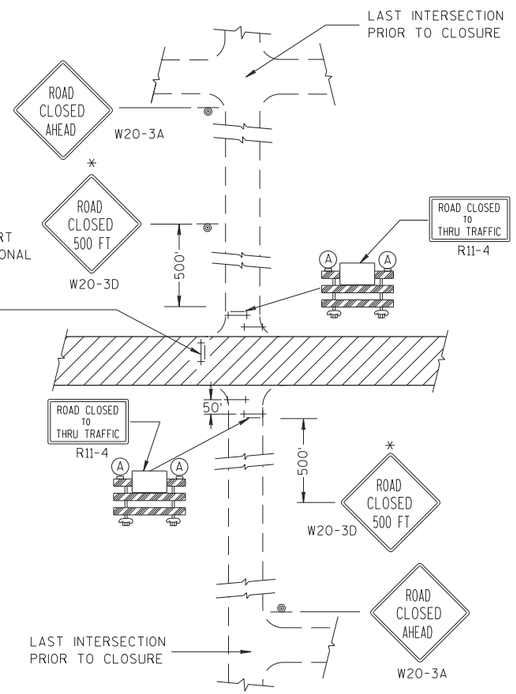
DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
LOCAL BUSINESS AND RESIDENT ACCESS).



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(CONTRACTOR, LOCAL BUSINESS AND
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- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGI

FHWA

6

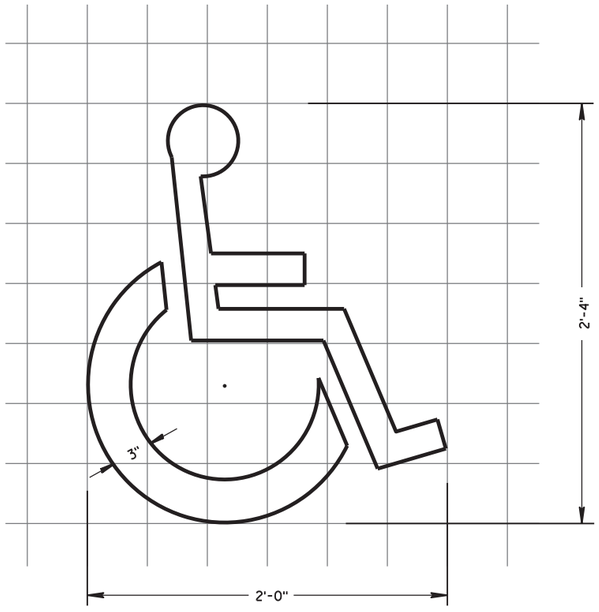
S.D.D. 15 C 3-5

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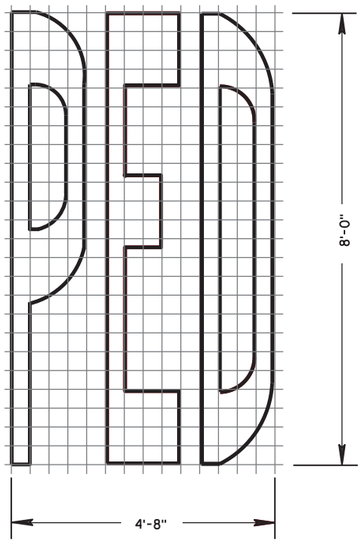
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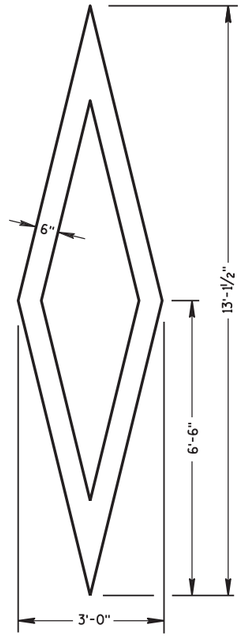
GENERAL NOTES

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



HANDICAP SYMBOL





PREFERENTIAL LANE SYMBOL

6

6

S.D.D. 15 C 7-14a

S.D.D. 15 C 7-14a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

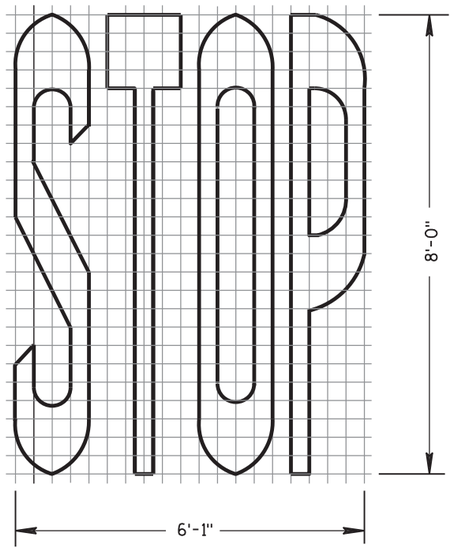
June 2017 — DATE

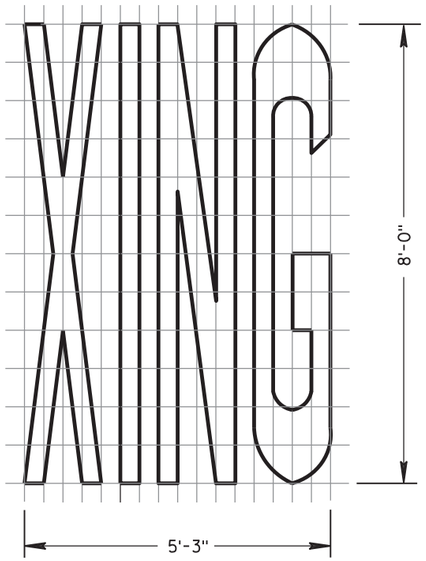
/S/ Matthew R. Rauch — STATE SIGNING AND MARK EER

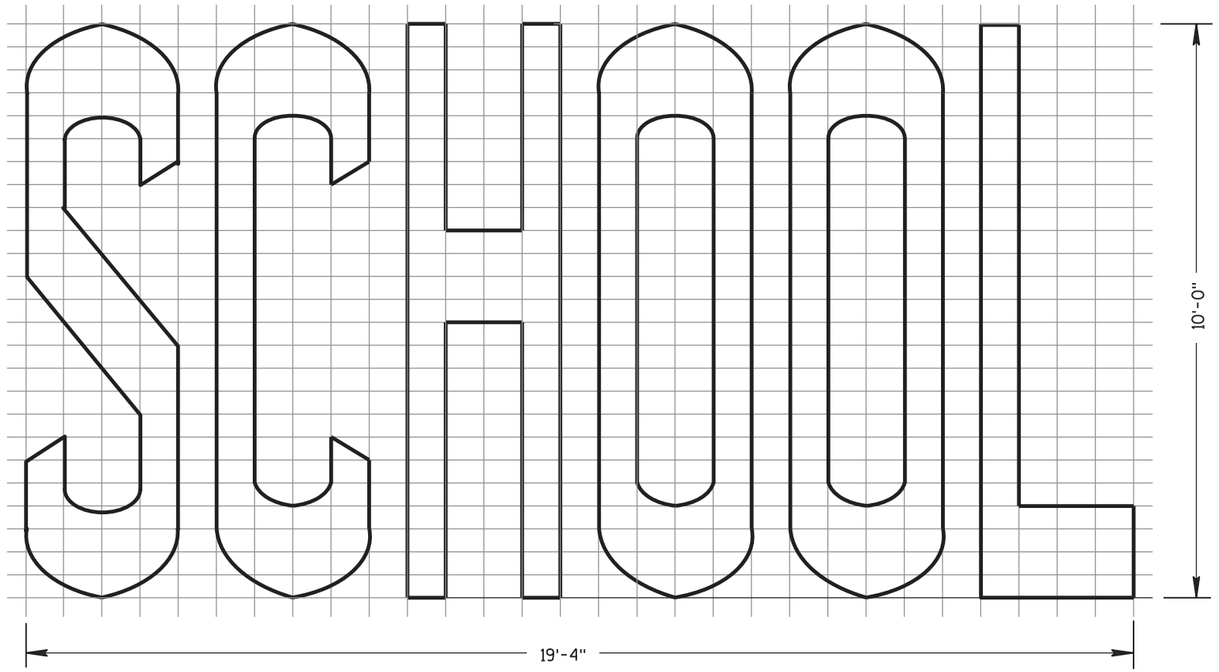
FHWA

GENERAL NOTES

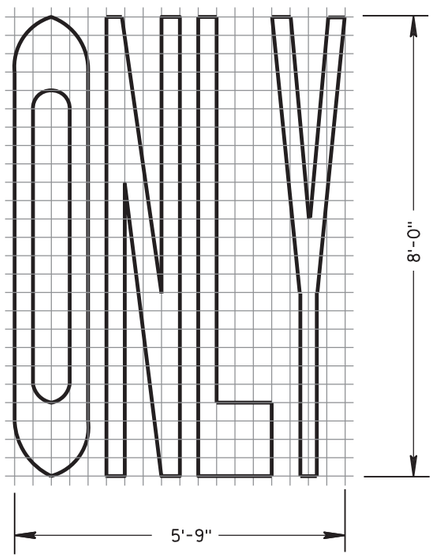
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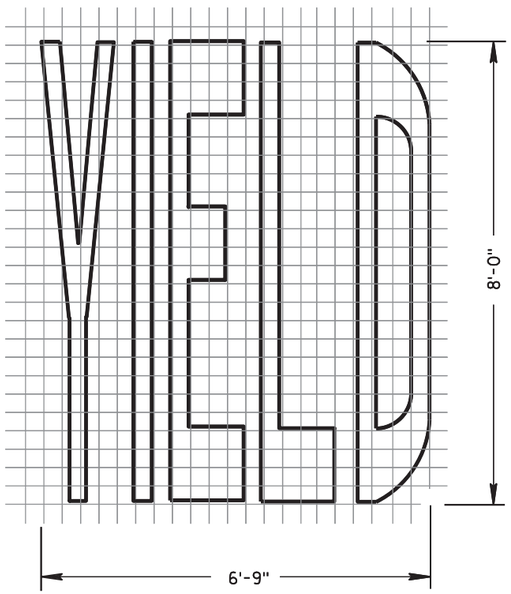


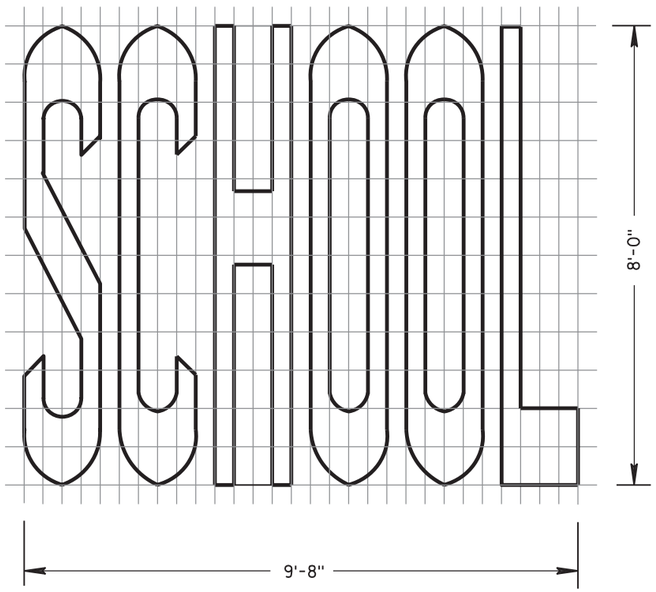




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARK
EER
FHWA

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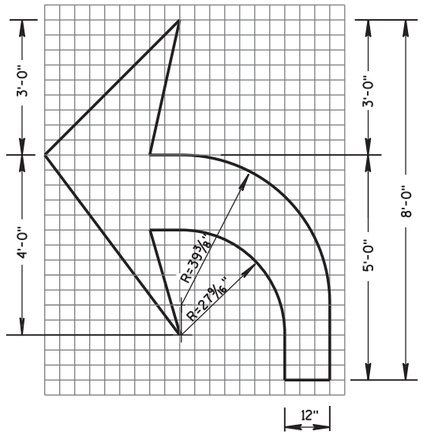
S.D.D. 15 C 7-14b

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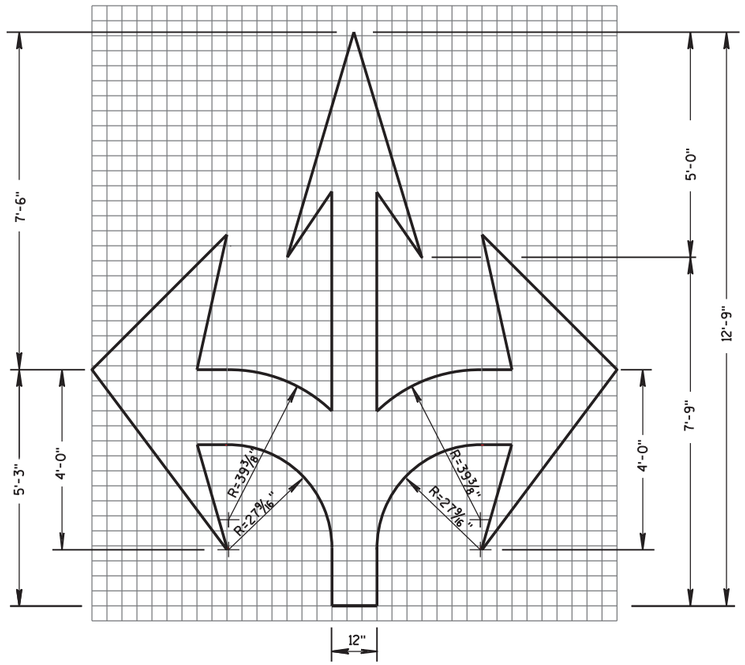
S.D.D. 15 C 7-14b

GENERAL NOTES

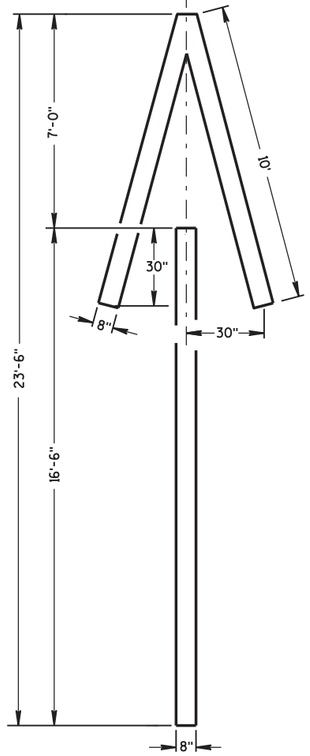
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



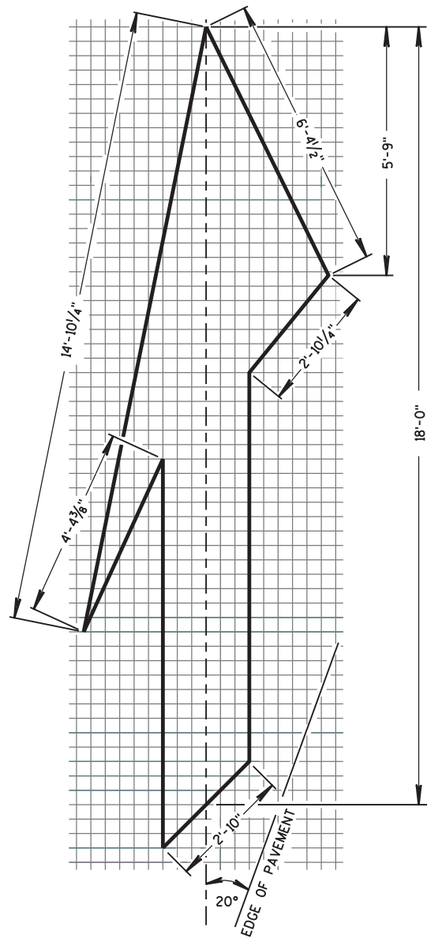
TYPE 2



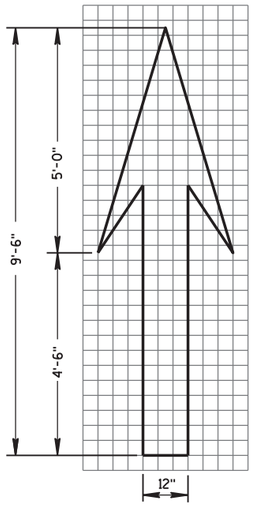
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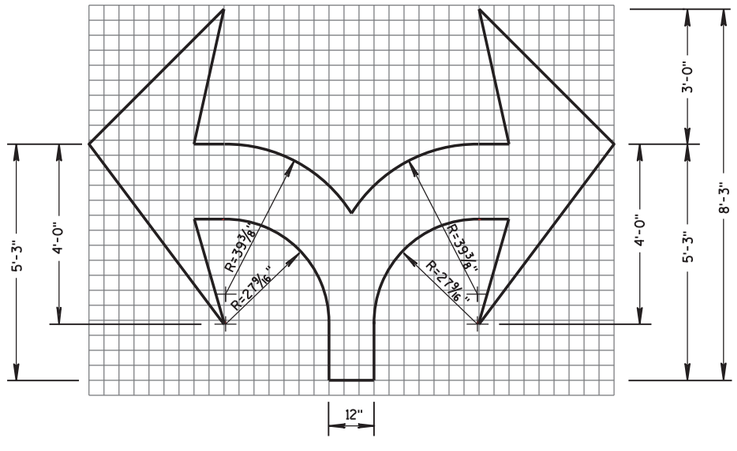
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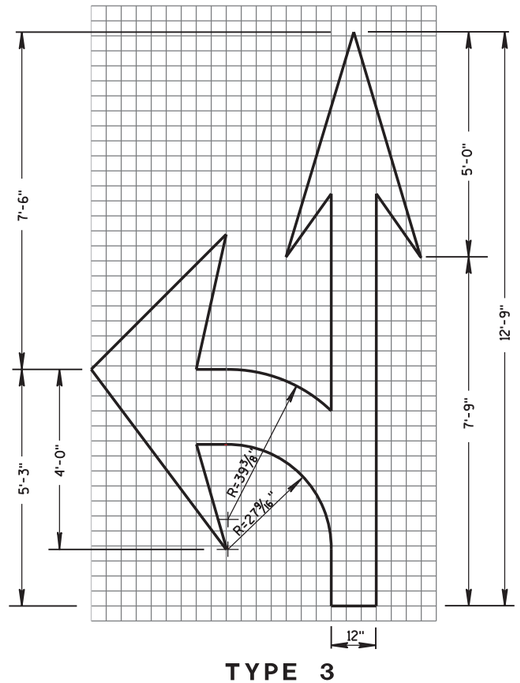
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

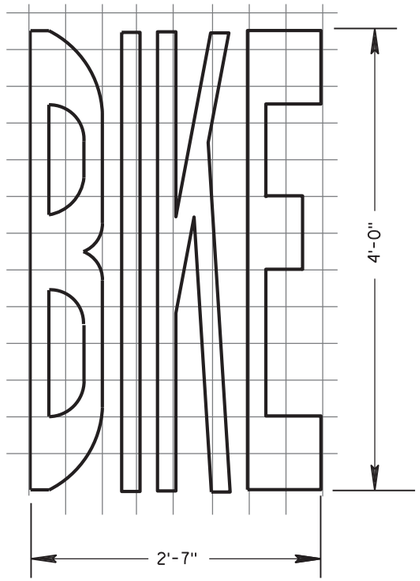
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR
ENGINEER
FHWA

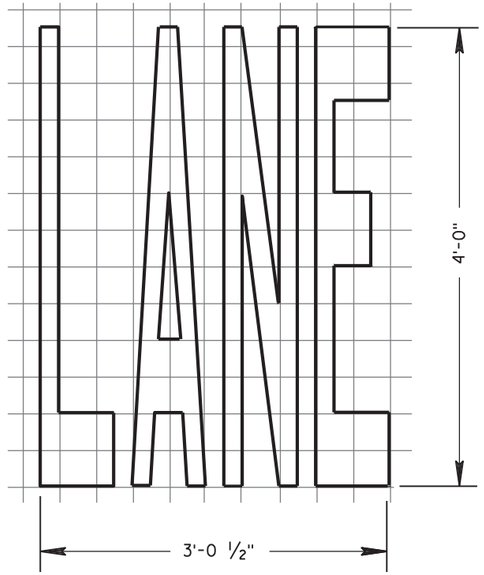
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S.D.D. 15 C 7-14c

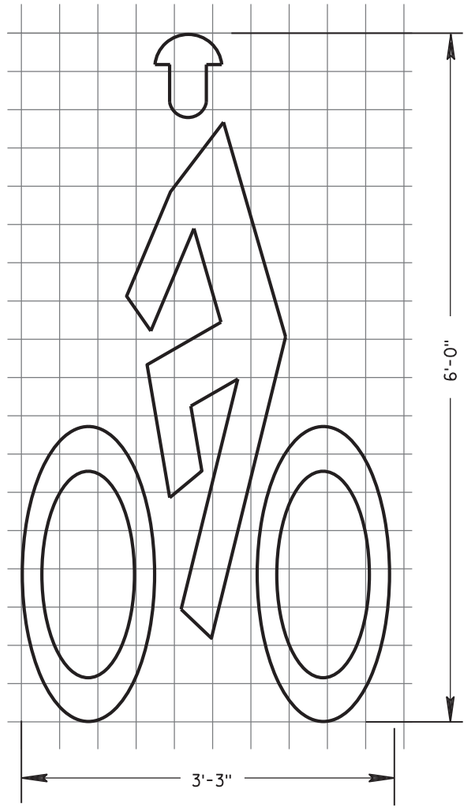
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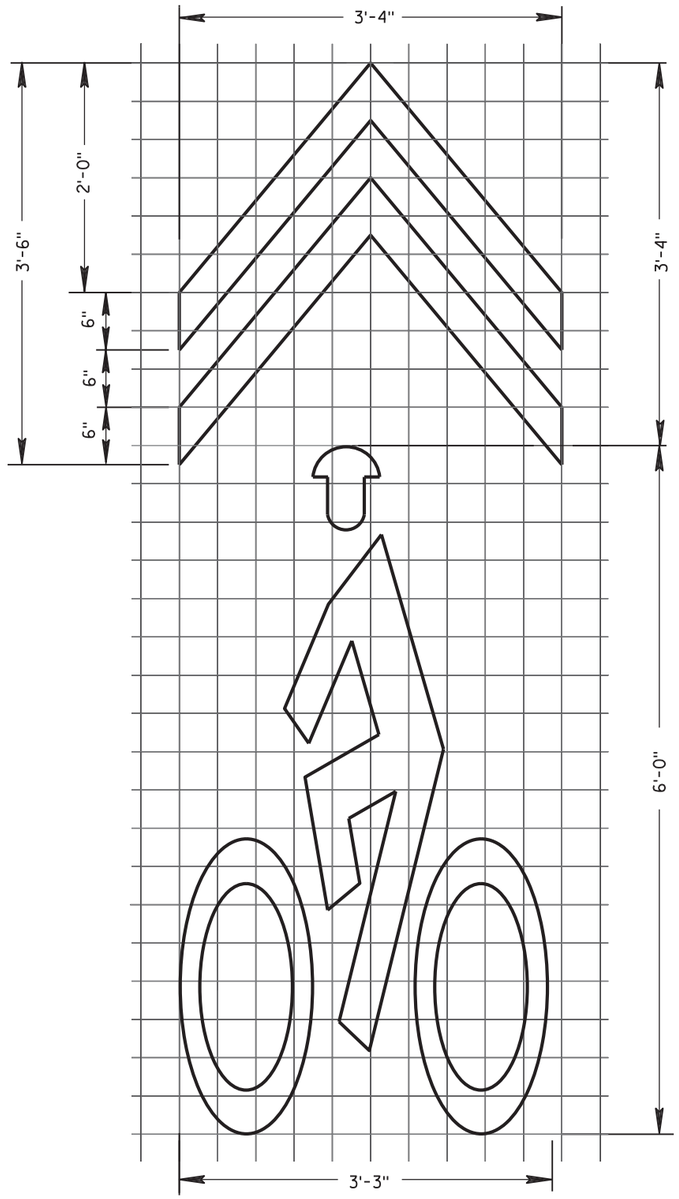




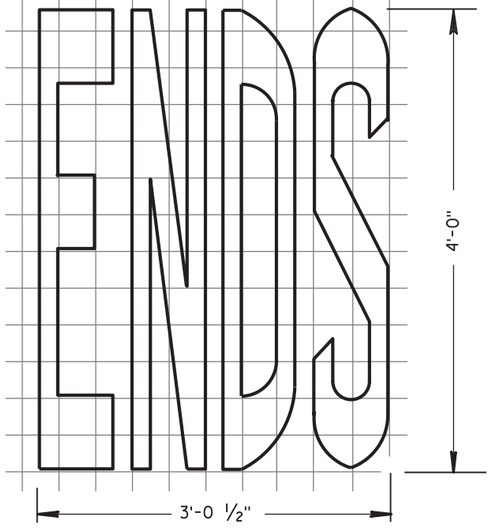
BIKE LANE WORDS



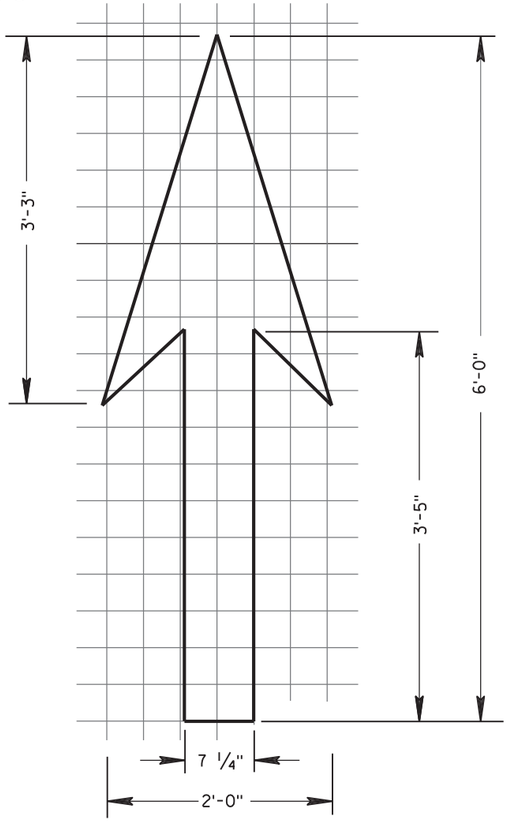
BIKE LANE SYMBOL



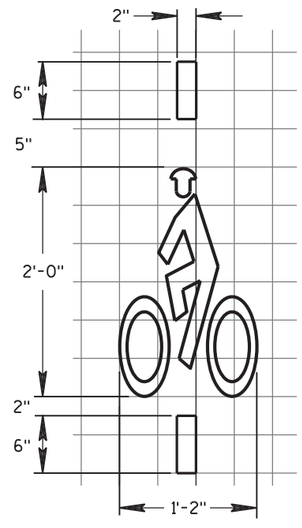
BIKE SYMBOL FOR SHARED LANE



BIKE LANE WORDS



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

GENERAL NOTES

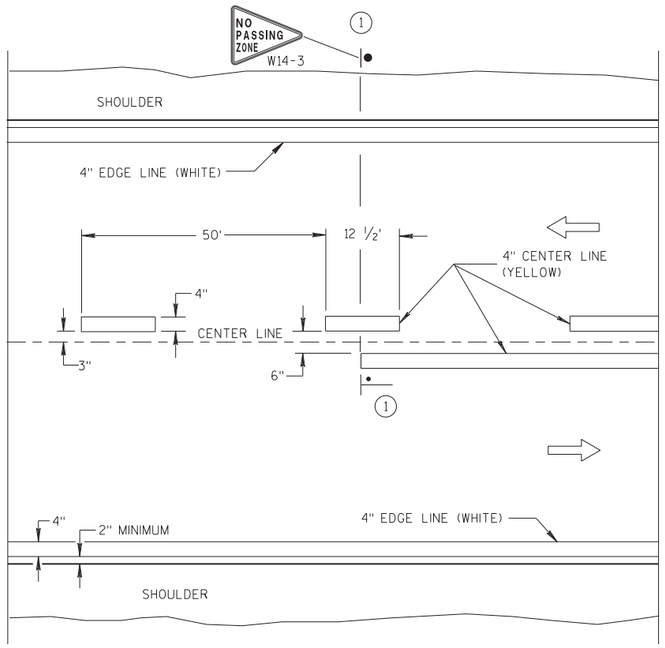
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PAVEMENT MARKING FOR BIKE LANES

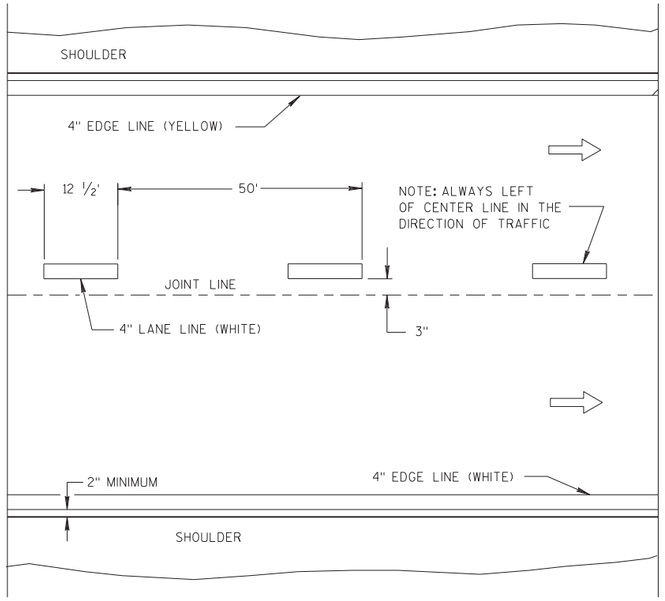
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MARK 286 EER
FHWA

6
S.D.D. 15 C 7-14e



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

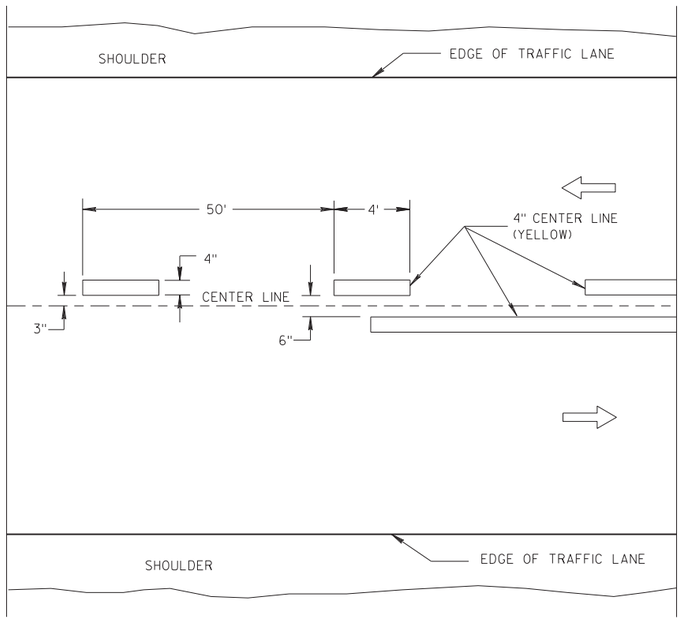
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

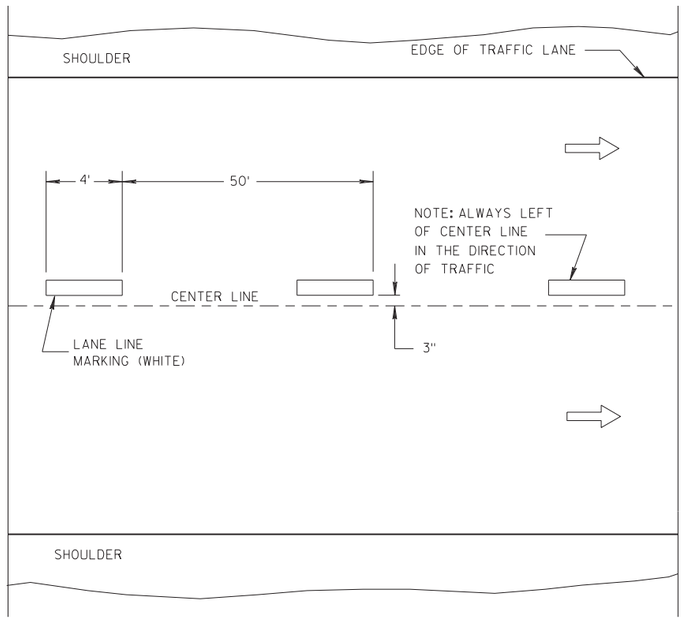
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6

S.D.D. 15 C 8-19a

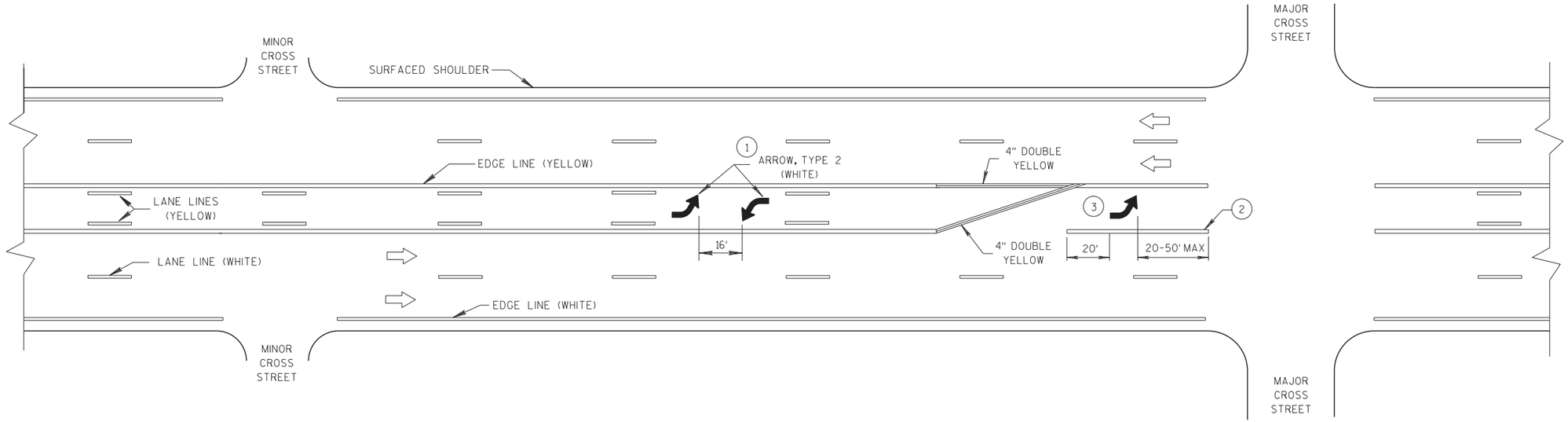
6

S.D.D. 15 C 8-19a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48'DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT

DIRECTION OF TRAFFIC



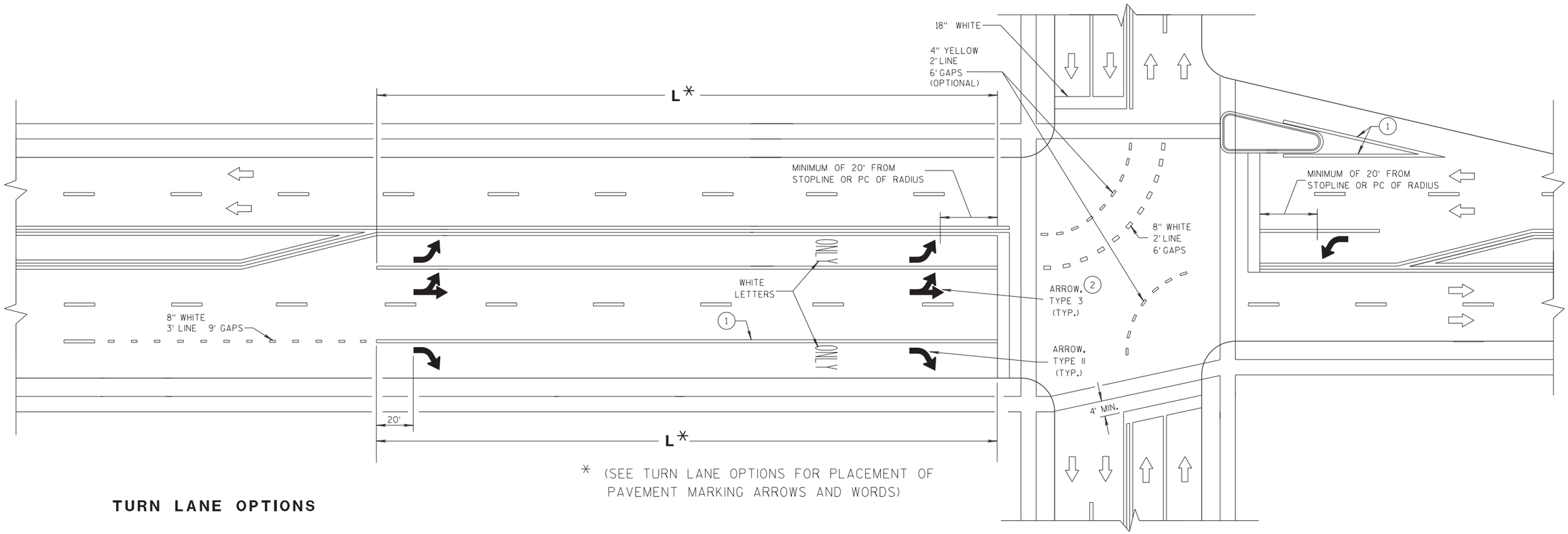
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

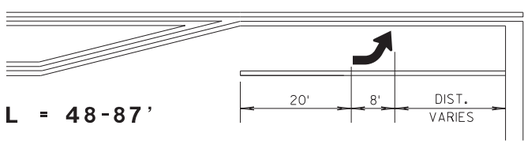
S.D.D. 15 C 8-19b



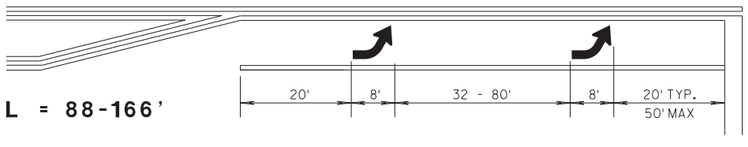
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

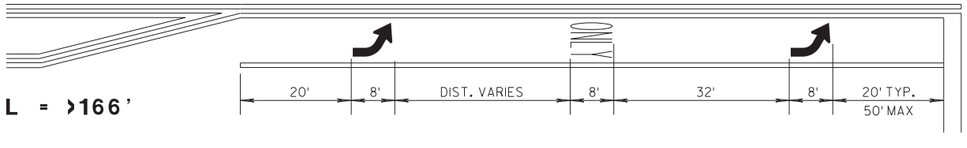
LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48-87'



L = 88-166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROW ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION, THE ARROWS AND ONLY MARKING ARE ELIMINATED.

⇨ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

LEGEND

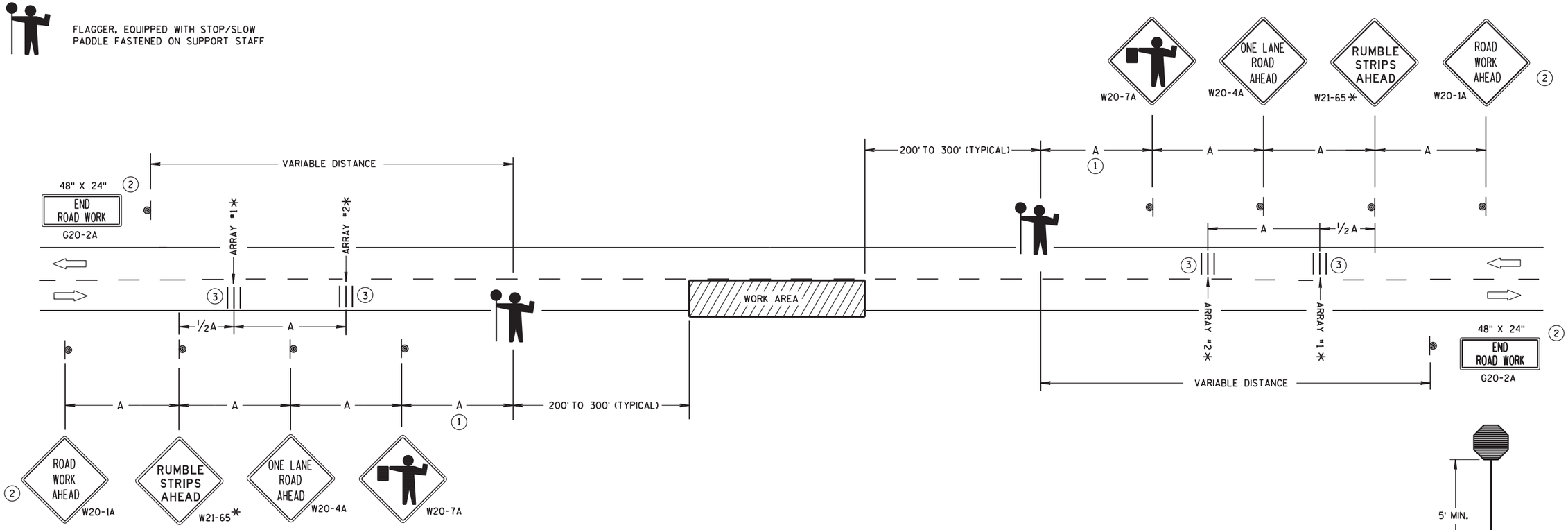
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

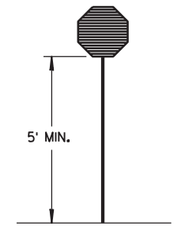
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING A
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING A.





STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

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

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

(3) EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

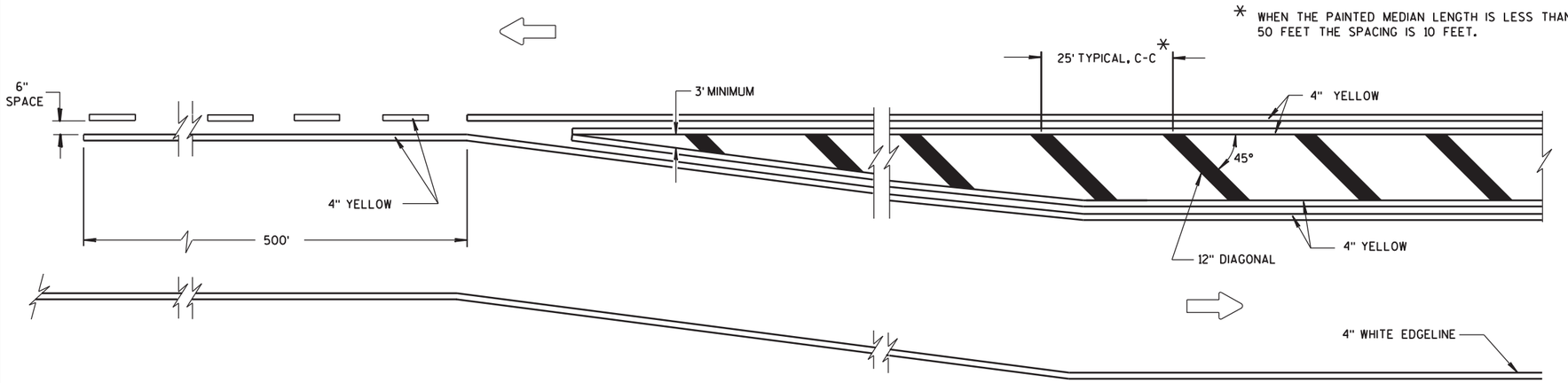
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENG
FHWA

6

S.D.D. 15 C 12-6

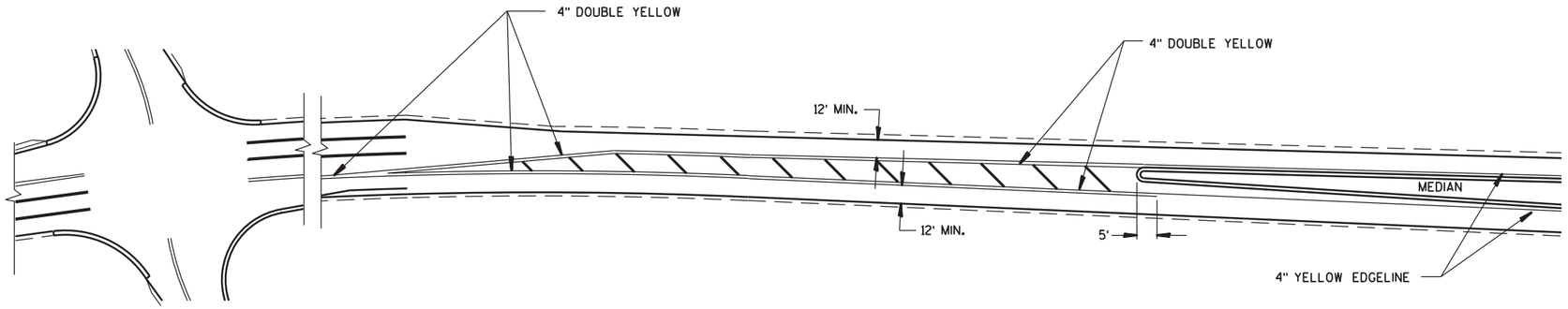


MEDIAN ISLAND DETAIL

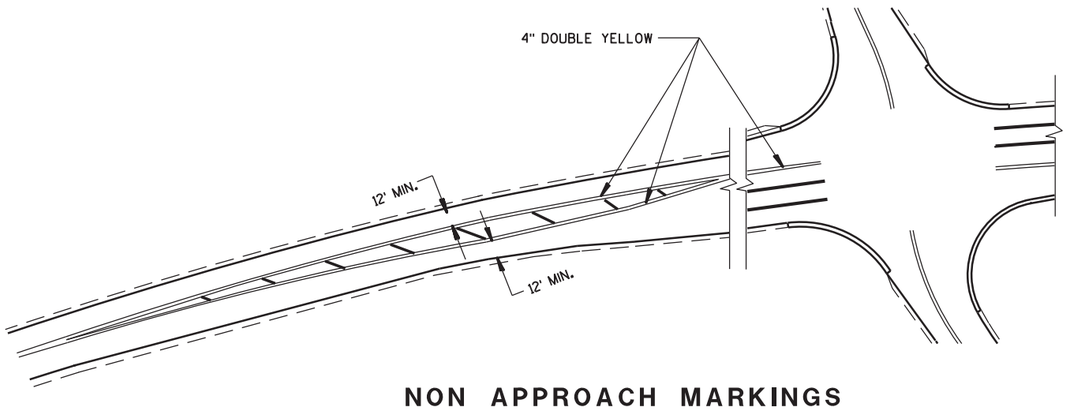
GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

DIRECTION OF TRAVEL



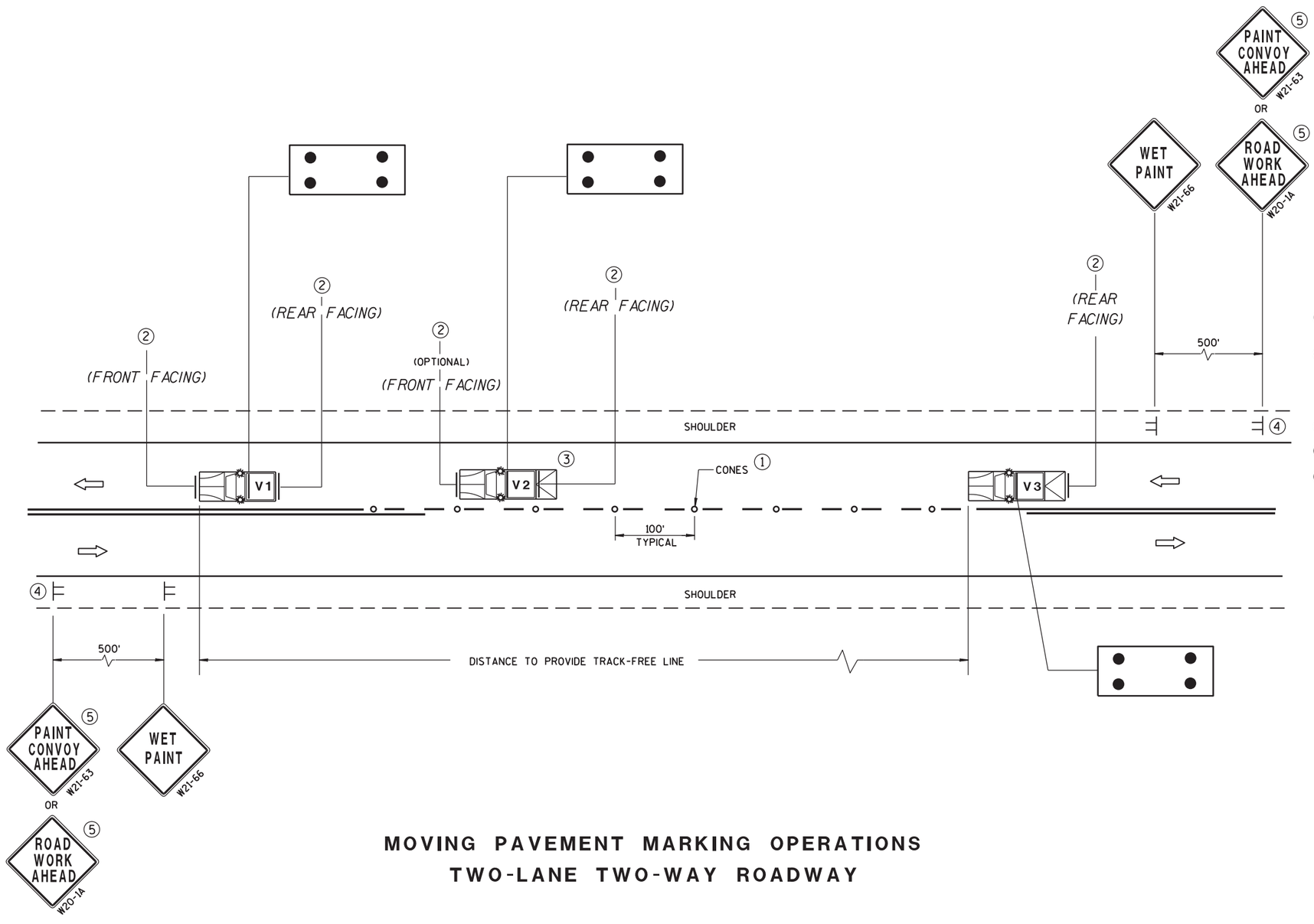
APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE FHWA	/S/ Matthew Rauch STATE SIGNING AND MARK ... EER

6
S.D.D. 15 C 18-4



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

- **V1** LEAD VEHICLE
- **V2** SHADOW VEHICLE
- **V3** TRAIL VEHICLE WITH TMA
- **TMA** TRUCK-MOUNTED ATTENUATOR
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONES
- FLASHING ARROW PANEL (CAUTION)

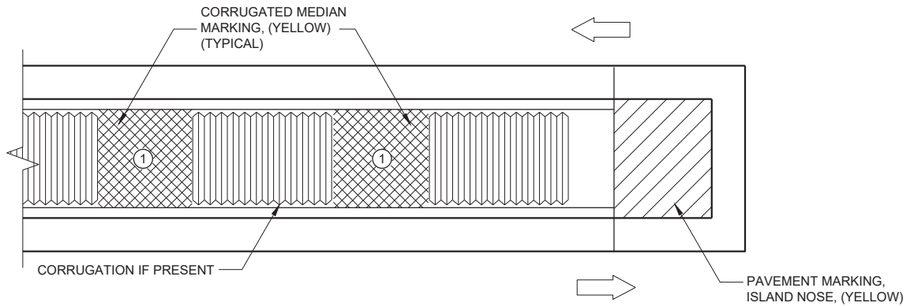
MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept., 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGR
FHWA	

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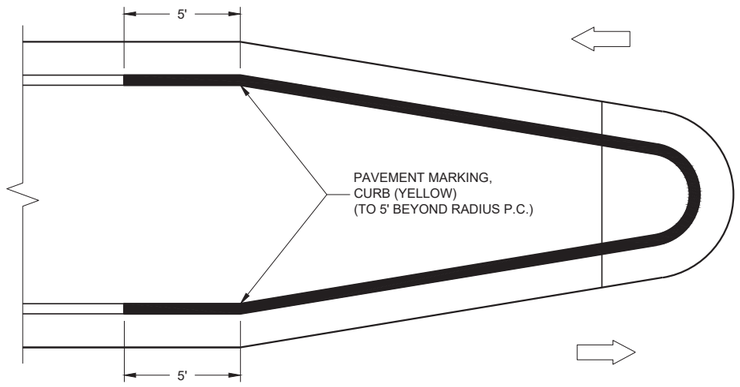
S.D.D. 15 C 19-5a

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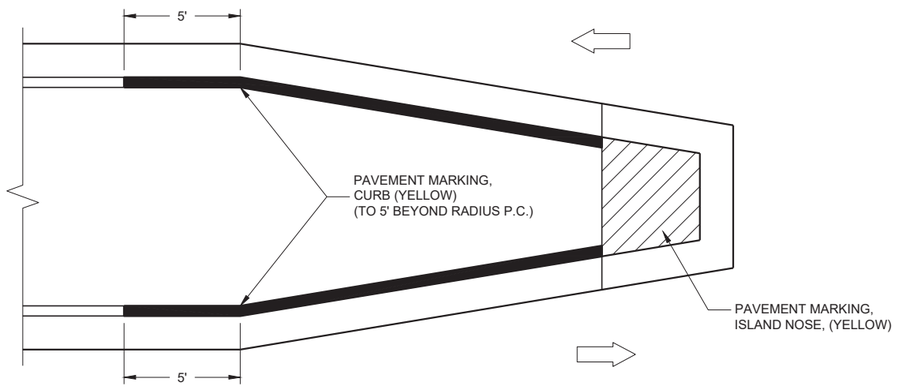
S.D.D. 15 C 19-5a



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

GENERAL NOTES

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 ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF
ENGINEER

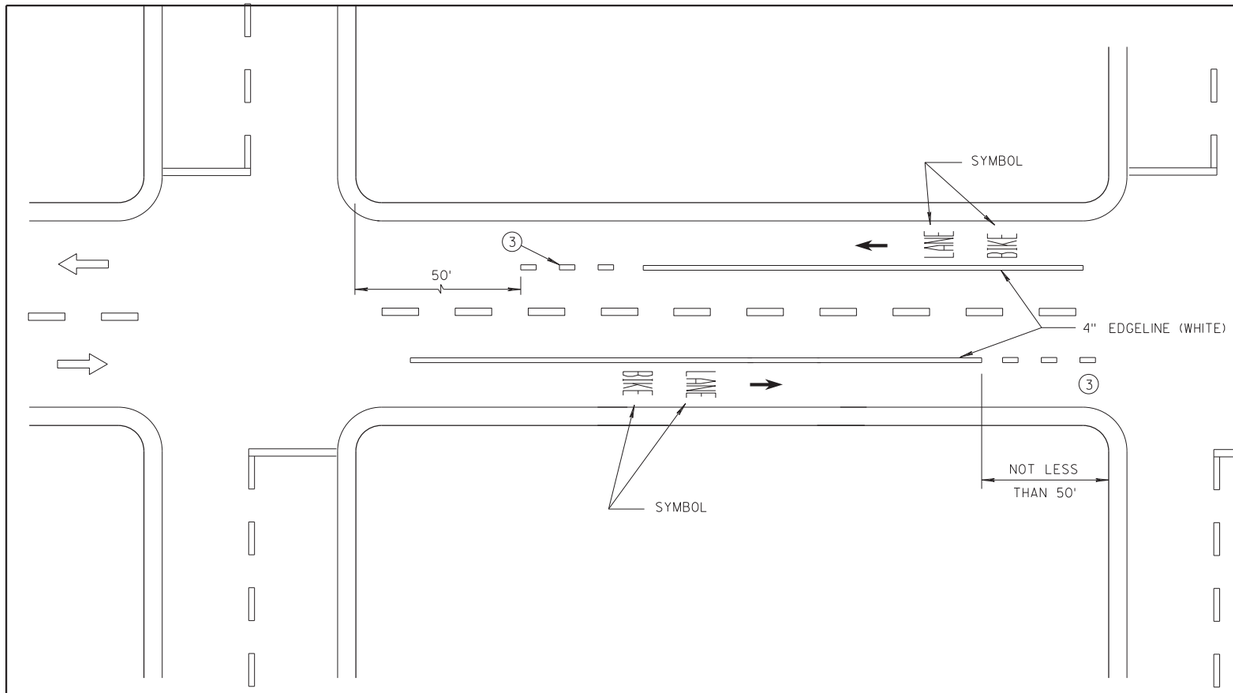
FHWA

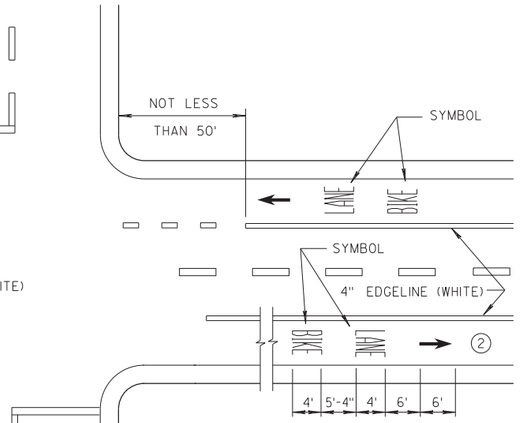
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SDD 15C27 - 03b

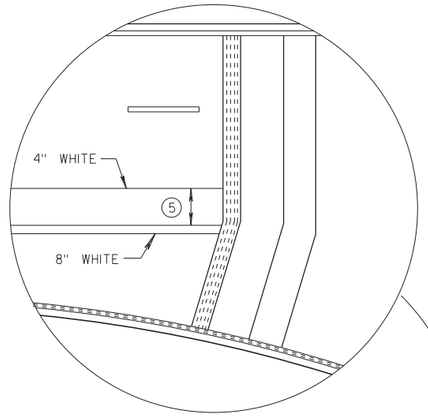
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SDD 15C27 - 03b

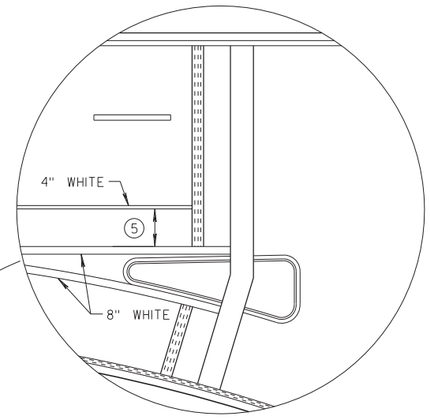




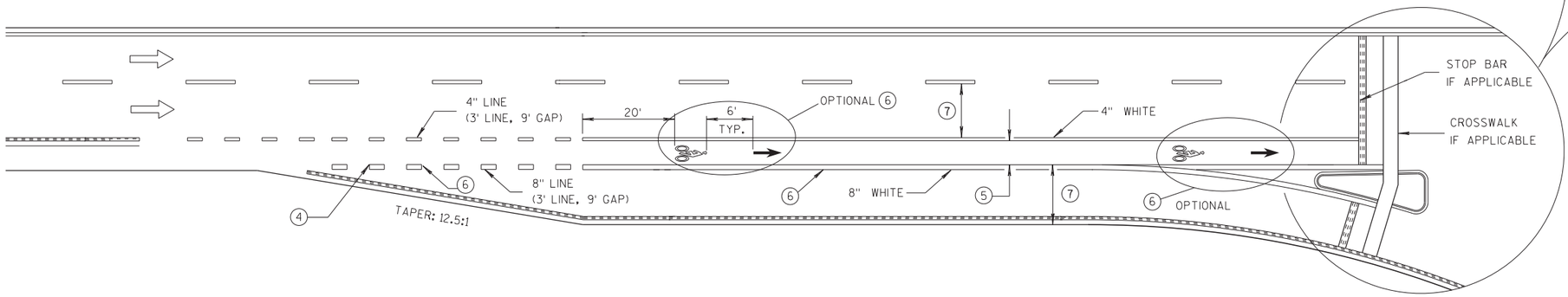
DESIGNATED BICYCLE LANE
NO PARKING



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMODATION IS TYPICALLY 5 FEET WIDE AND A MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT 45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FEET WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

DIRECTION OF TRAVEL

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

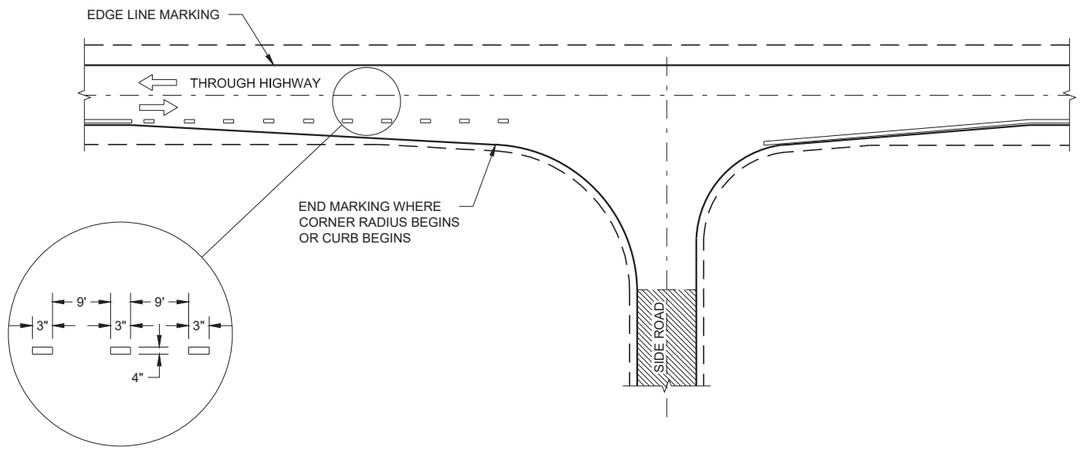
APPROVED
7/2018 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR ... ENGINEER
FHWA

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S.D.D. 15 C 29-6a

6

S.D.D. 15 C 29-6a



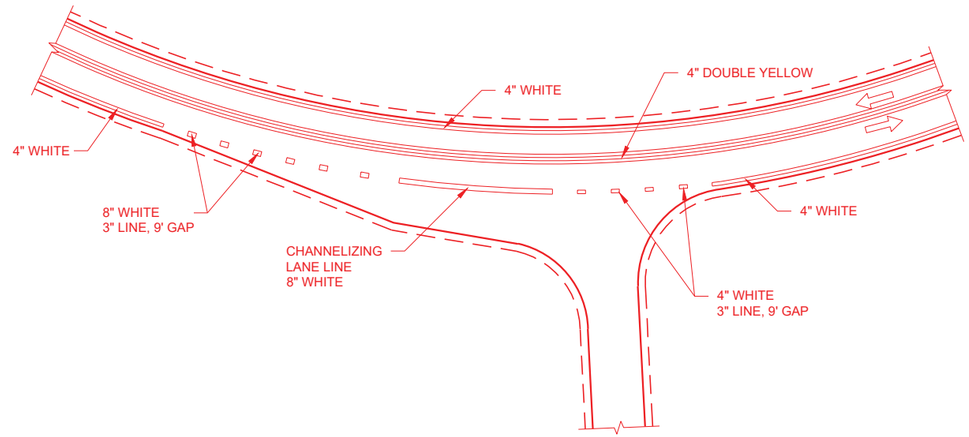
MINOR INTERSECTION

GENERAL NOTES

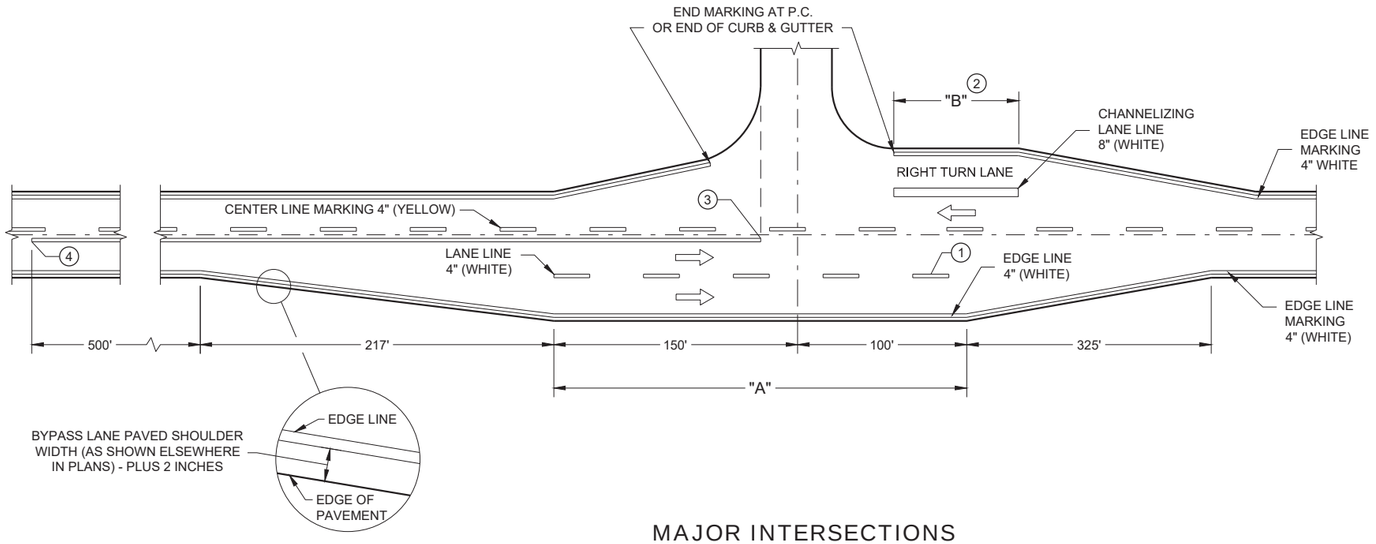
OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

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. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING
(INTERSECTIONS)

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

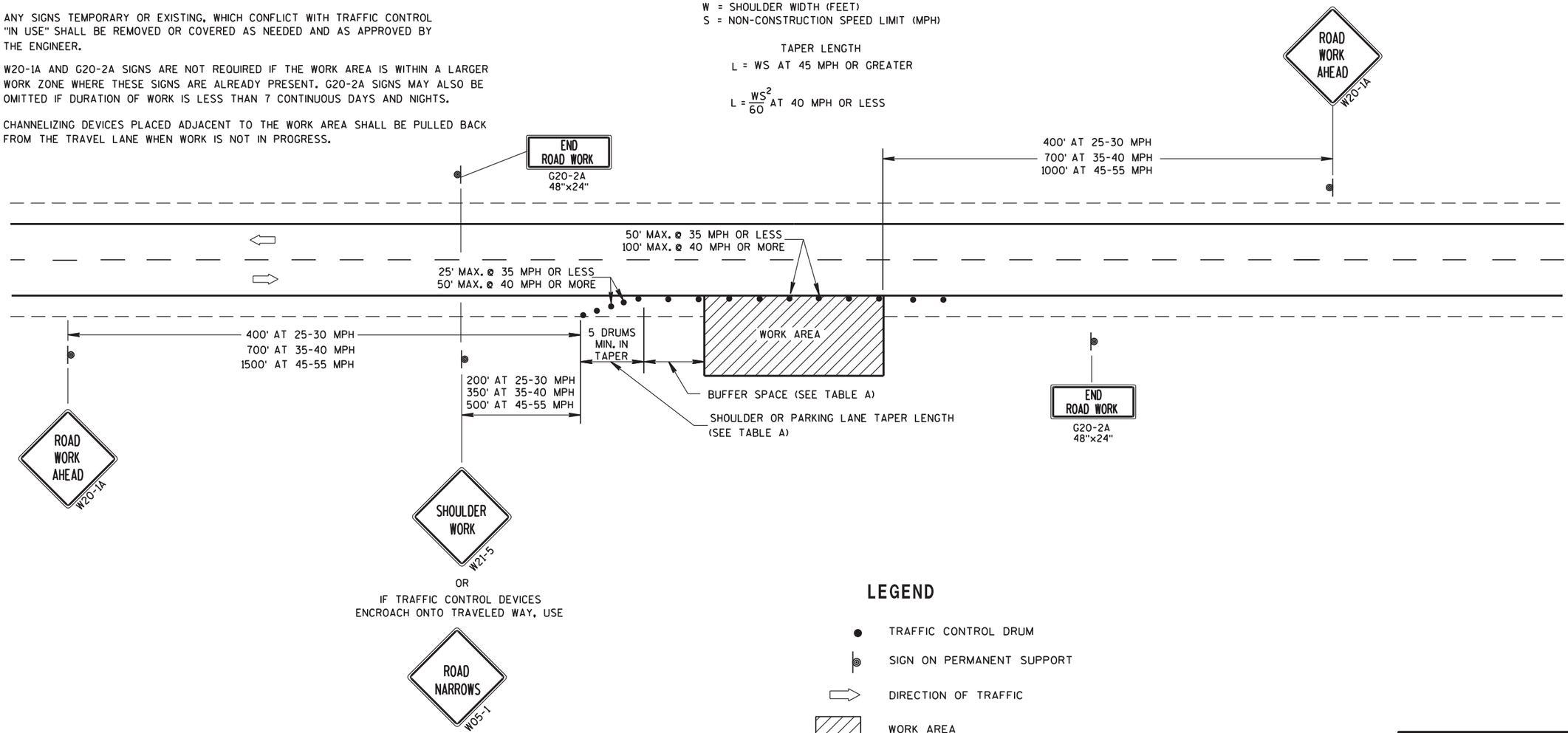
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible] FIC

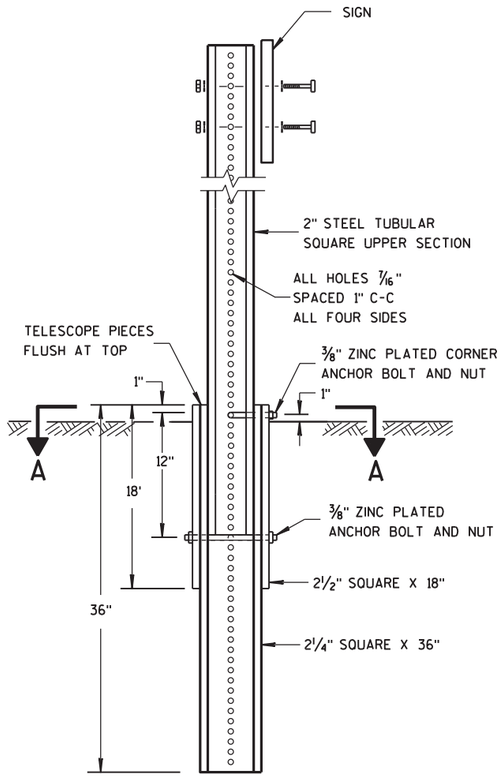
FHWA

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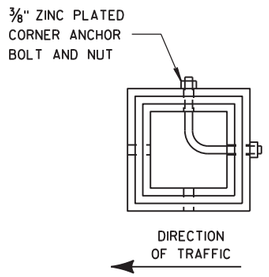
S.D.D. 15 D 28-3

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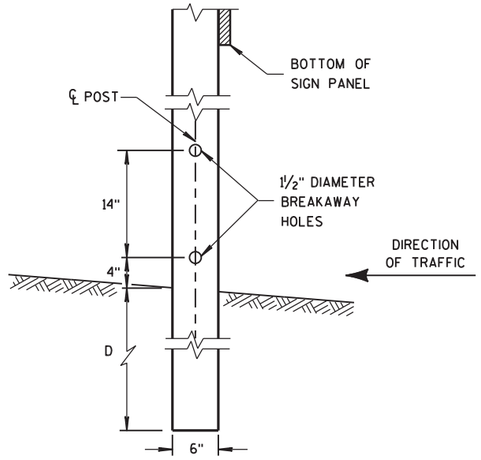
S.D.D. 15 D 28-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



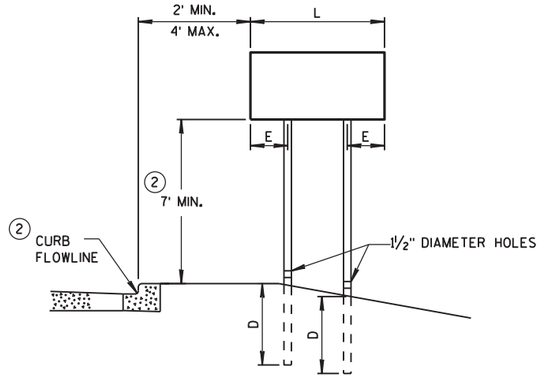
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

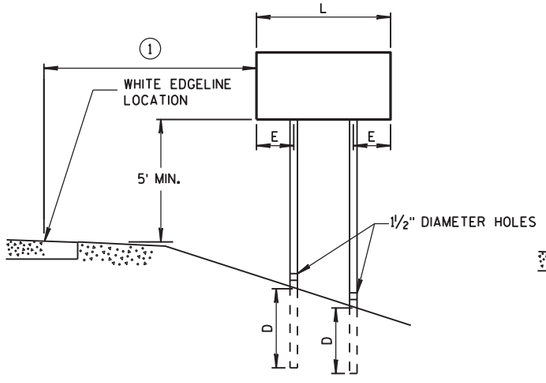
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

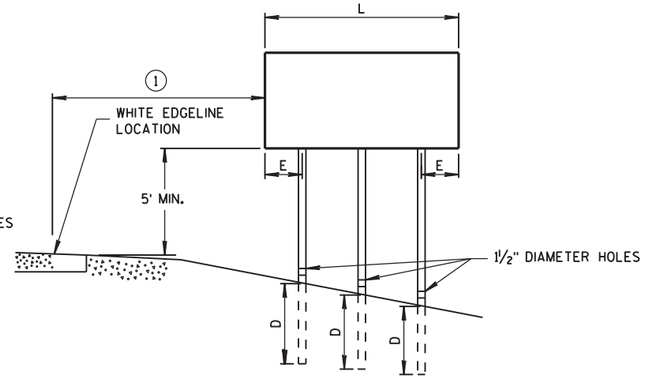
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

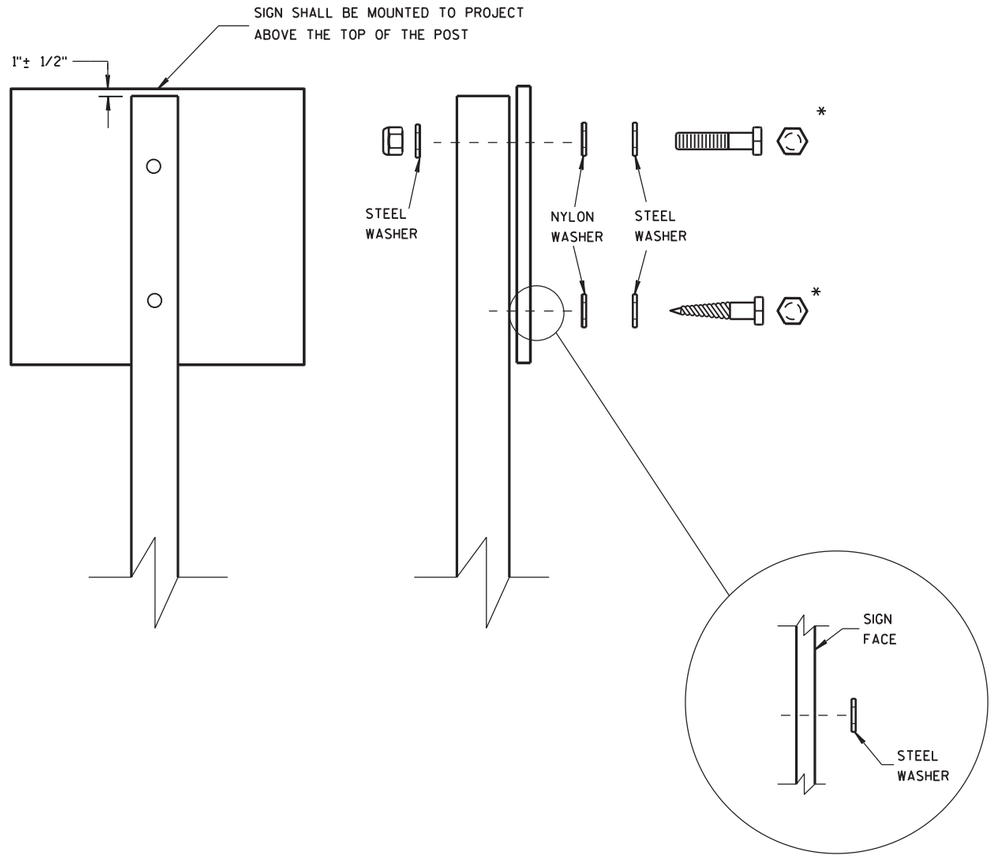
POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

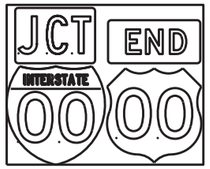
/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

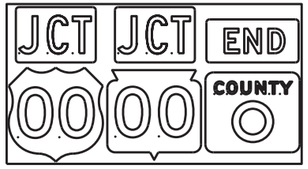
TYPICAL ASSEMBLIES



J1-1



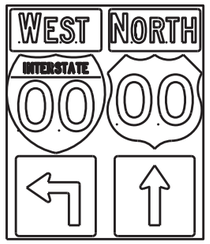
J1-2



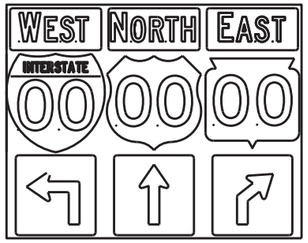
J1-3



J2-1



J2-2



J2-3

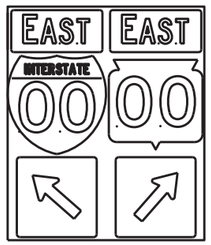


JV

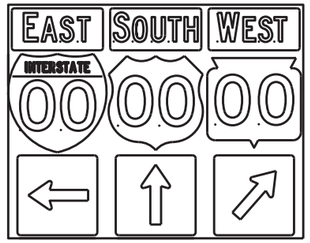
(Typical Vertical J-Assembly
See Note 10 and 11)



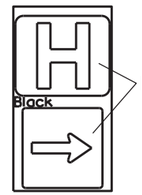
J3-1



J3-2



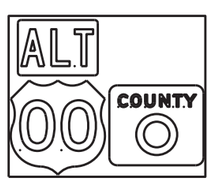
J3-3



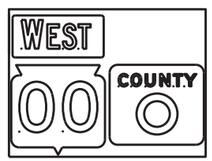
JH-1



J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

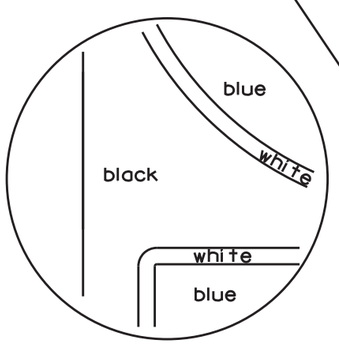


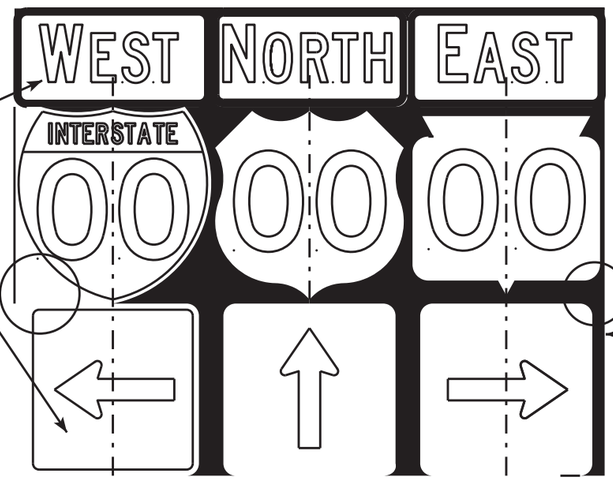
J23-1

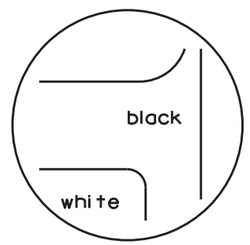


J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

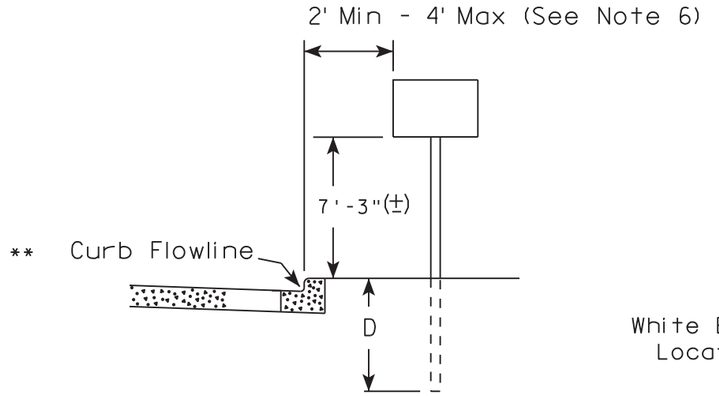
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

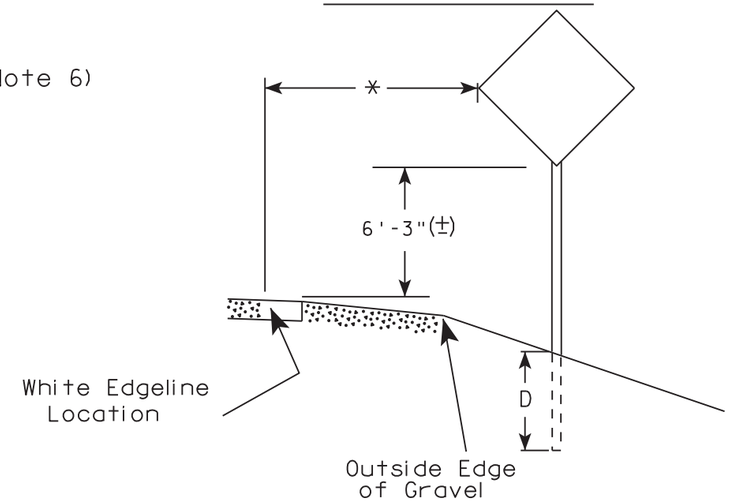
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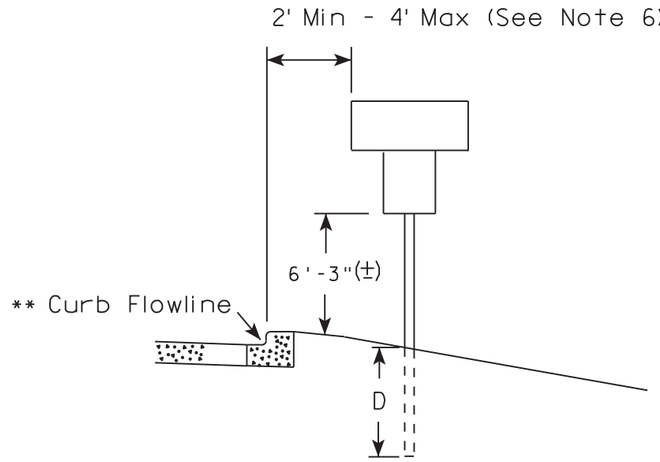
WISDOT/CADDS SHEET 42

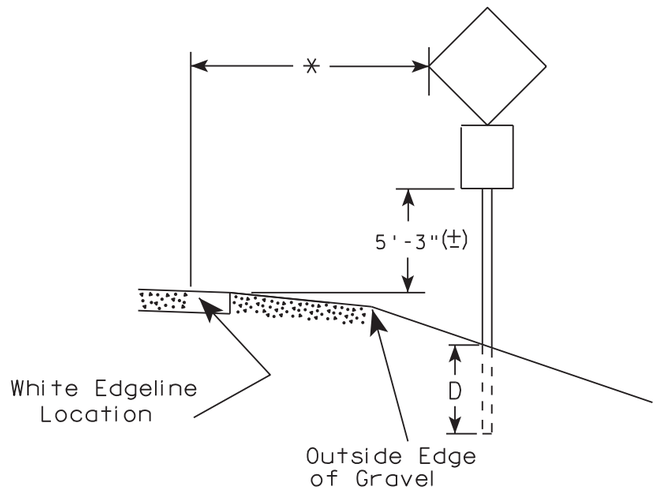
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

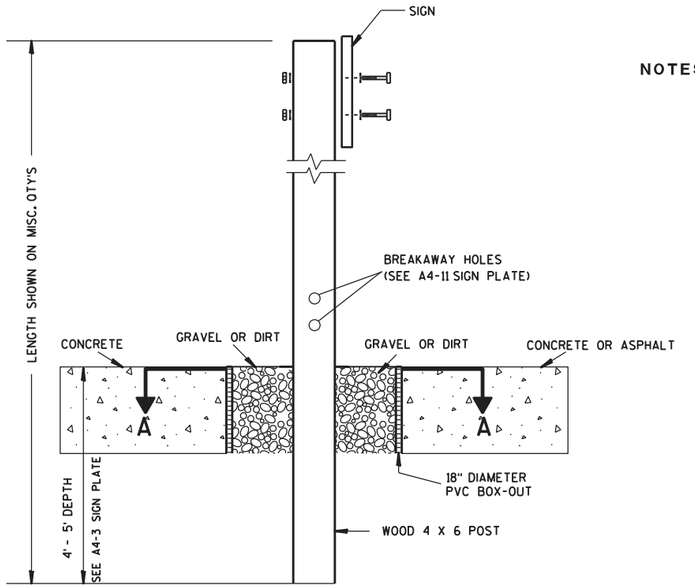
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

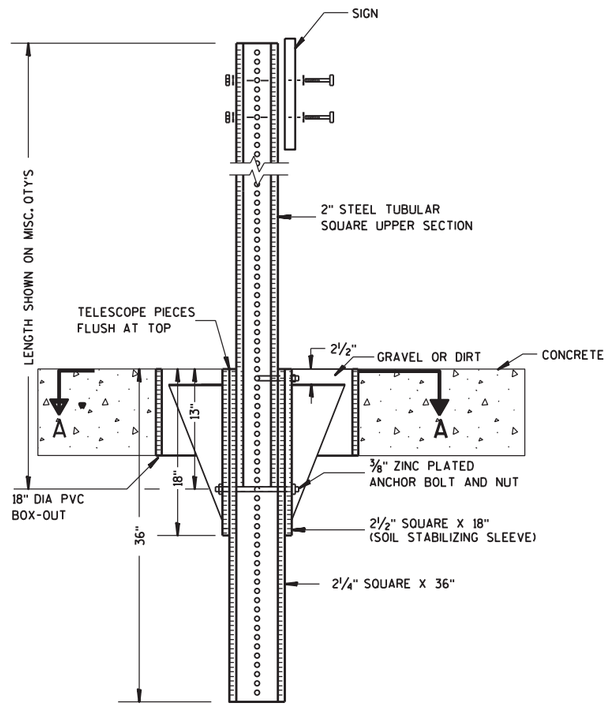
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 300	E



ELEVATION VIEW

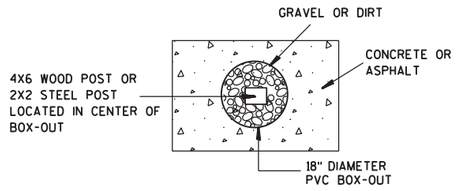
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

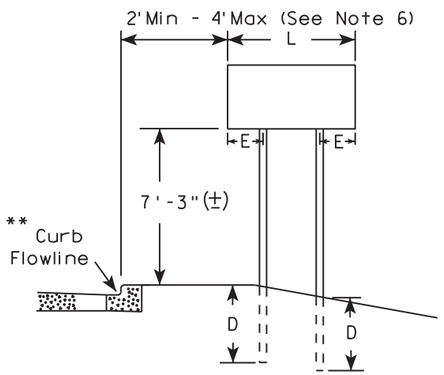
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

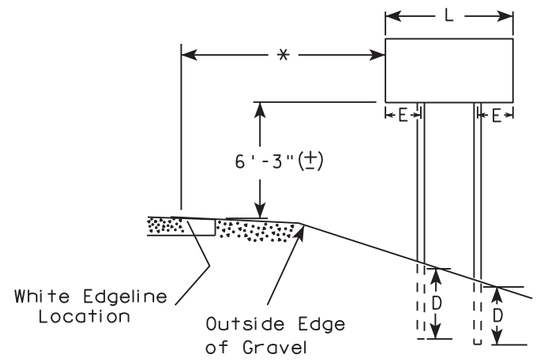
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

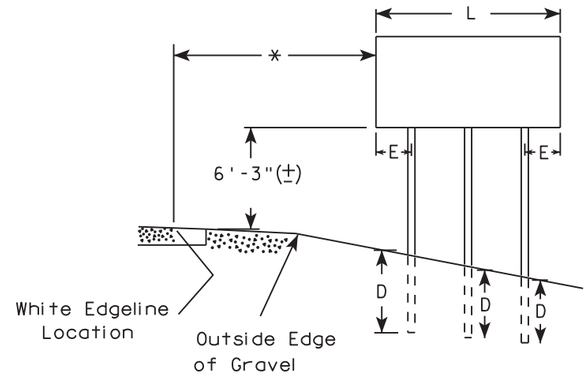
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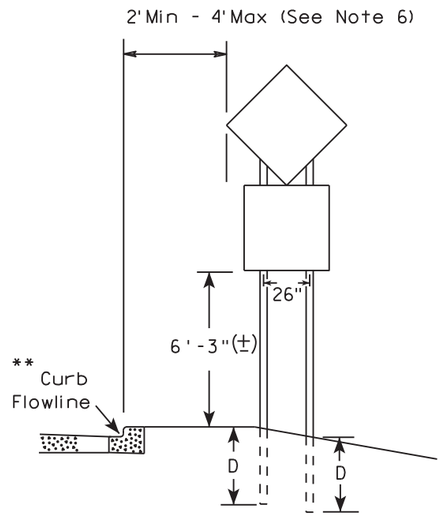
URBAN AREA



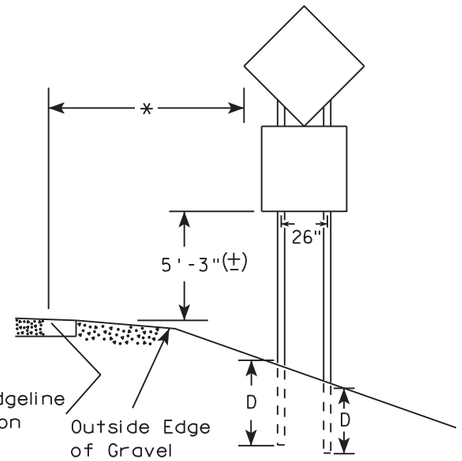
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

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

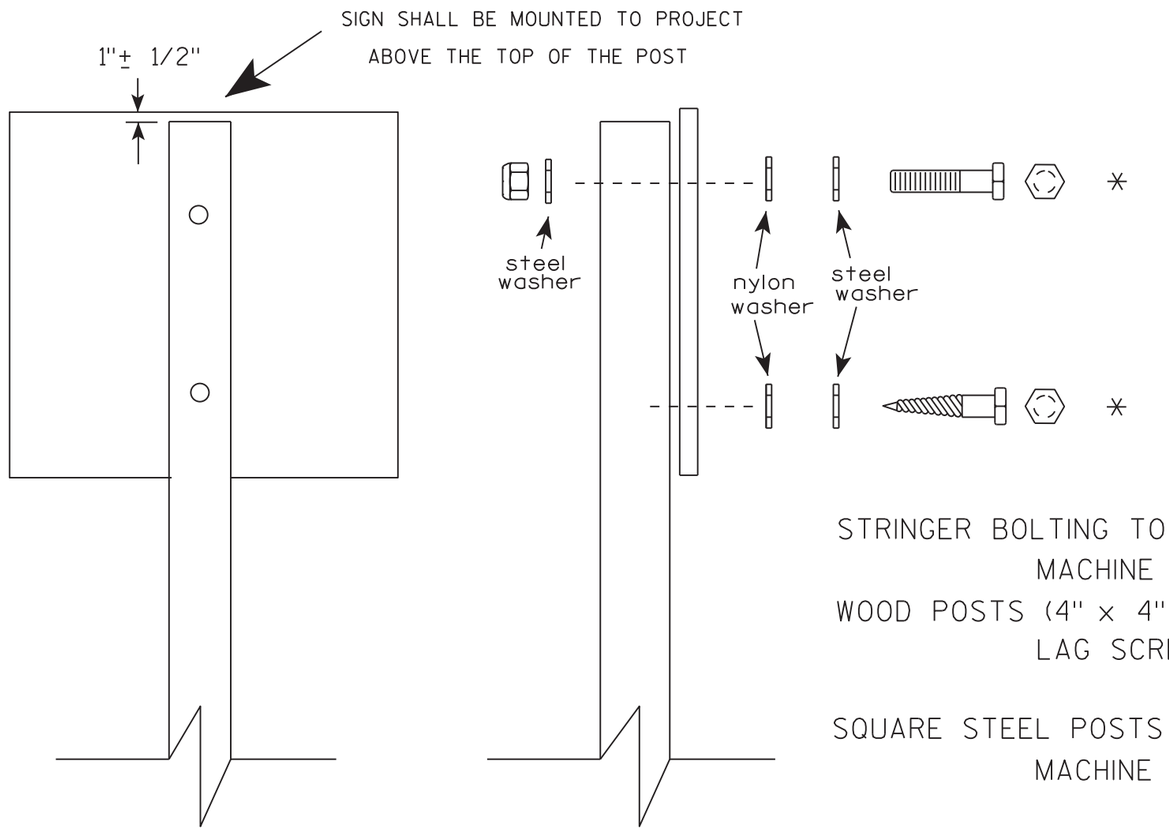
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 302	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

* 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 8/11/16 PLATE NO. A4-8.8

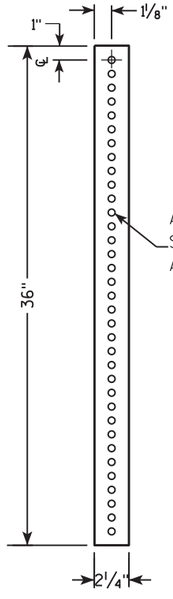
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PROJECT NO: SHEET NO: E

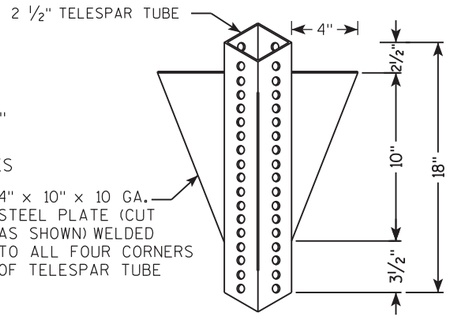
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TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

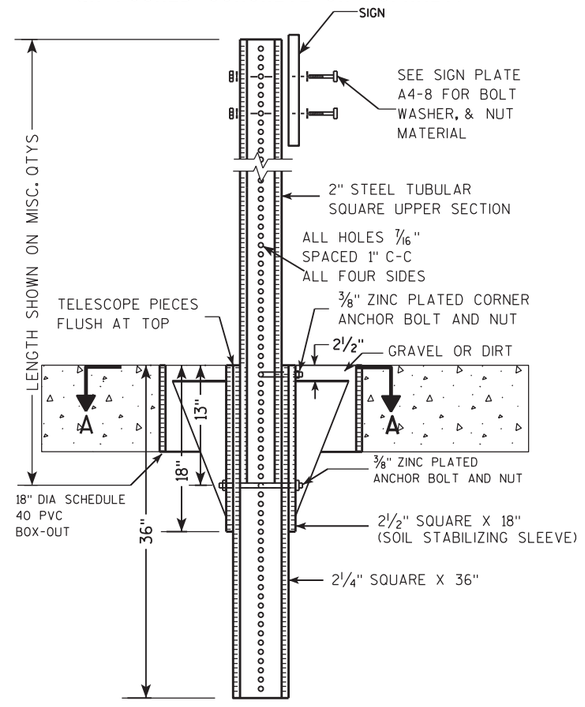
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



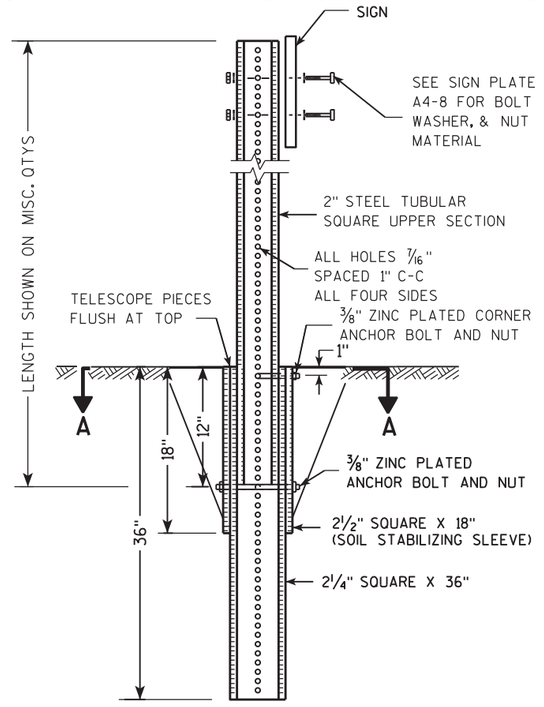
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

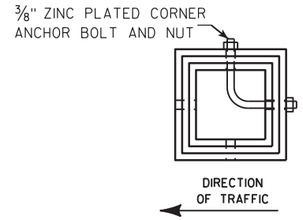


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

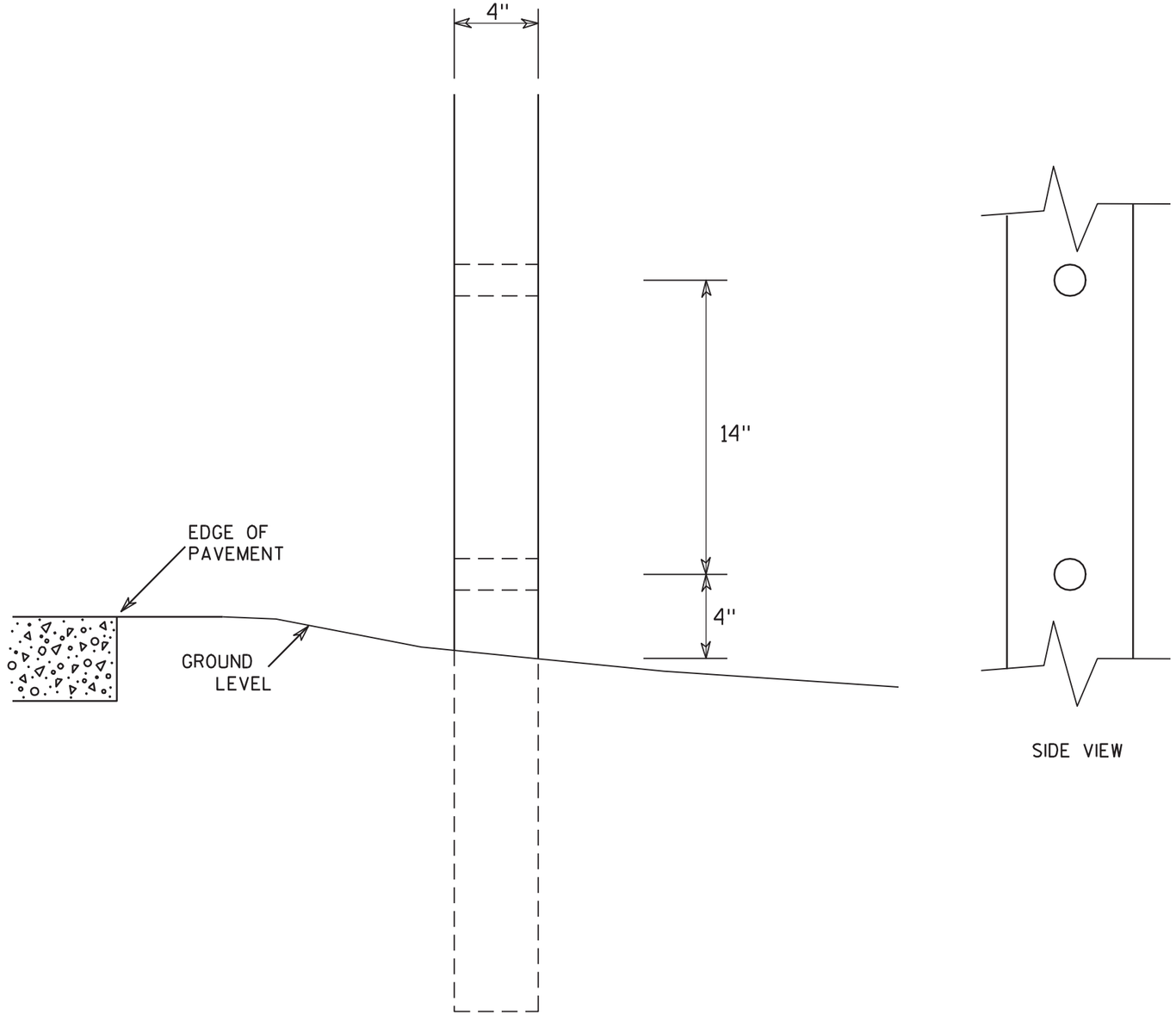
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 304 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

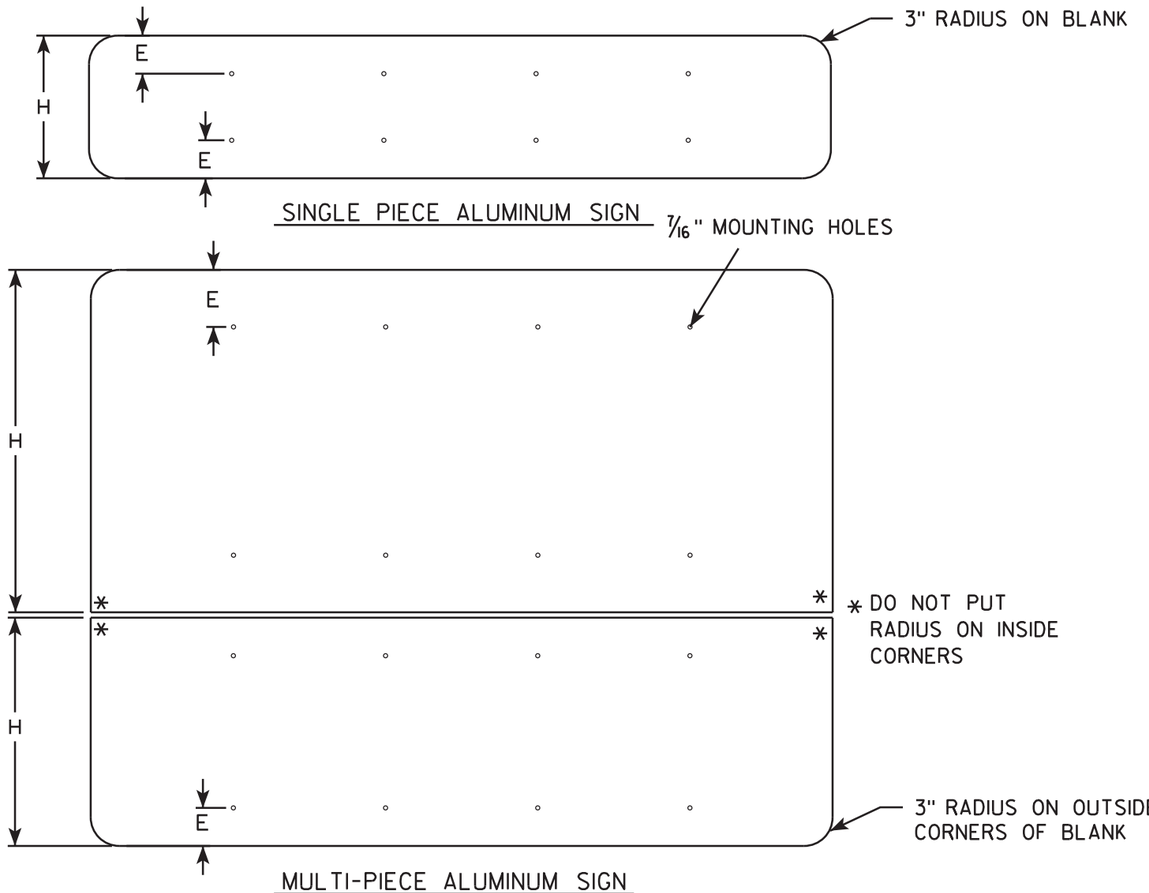
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

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

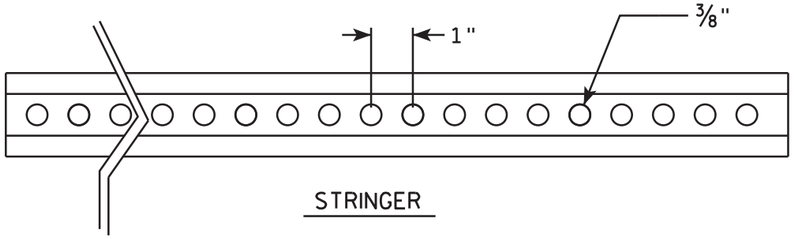
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 305	E



GENERAL NOTES

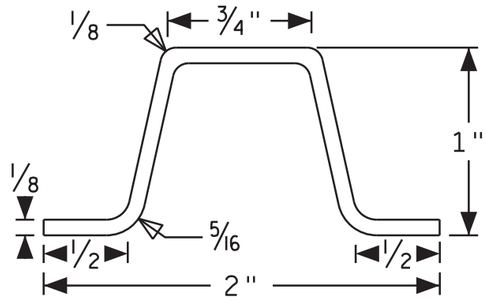
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

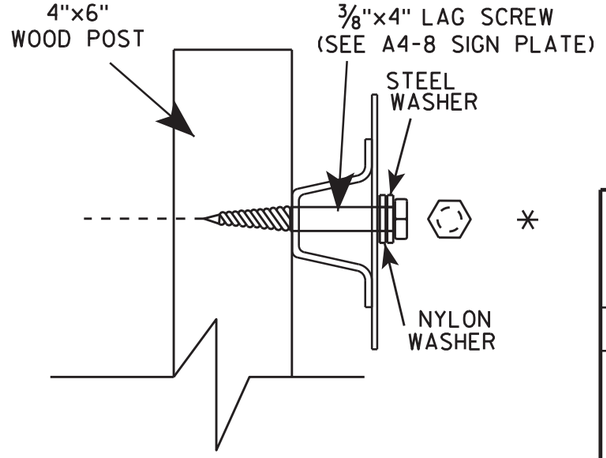


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

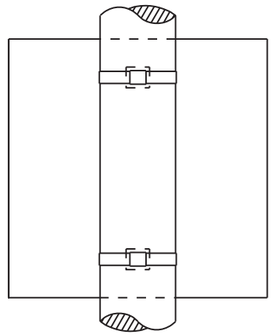
DATE 4/26/16 PLATE NO A4-18.1

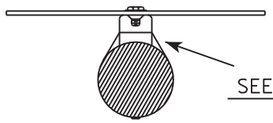
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

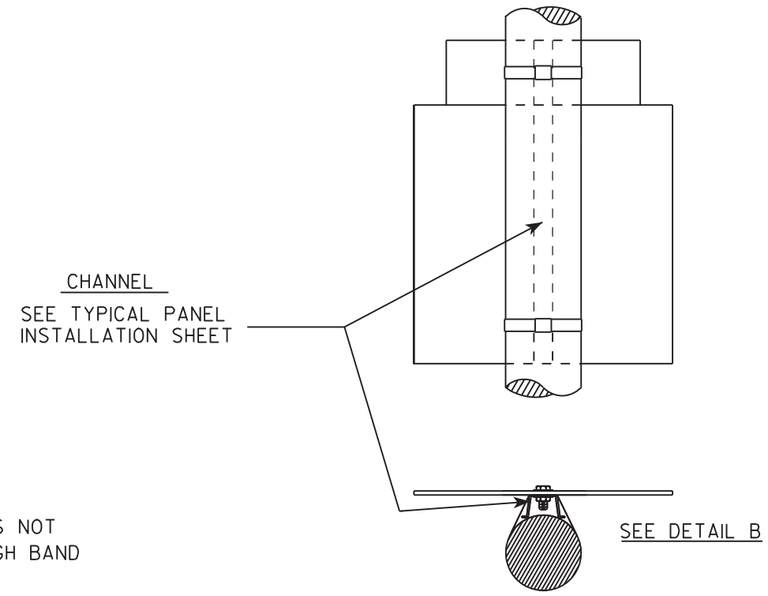
BANDING

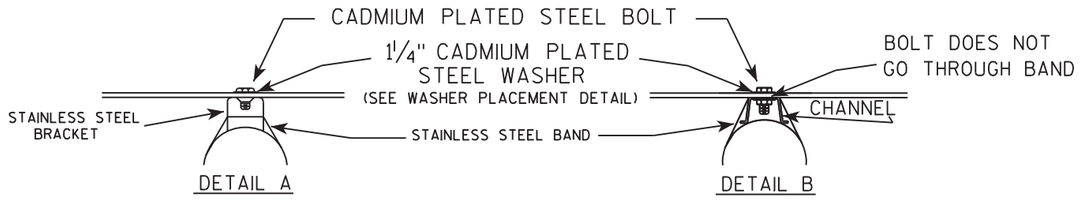
SINGLE SIGN



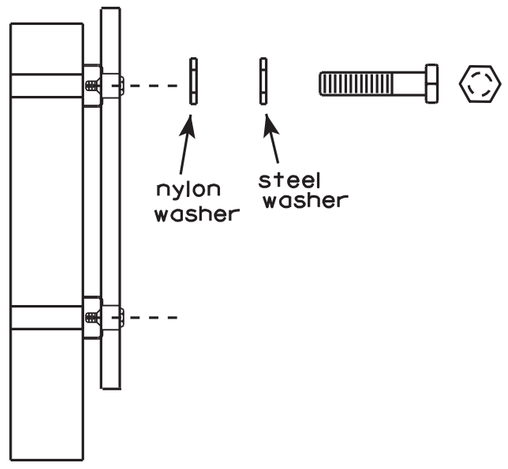


"J" ASSEMBLY





WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

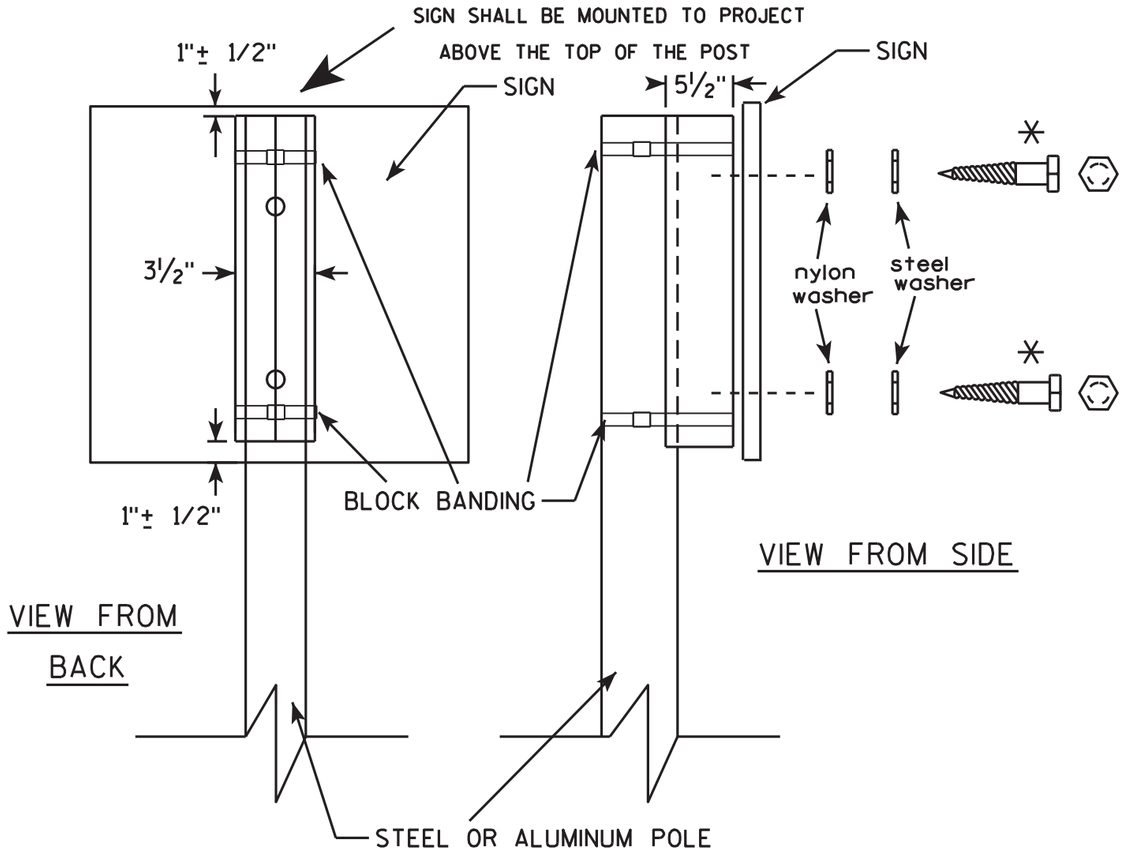
STANDARD SIGN
SIGN BANDING DETAILS

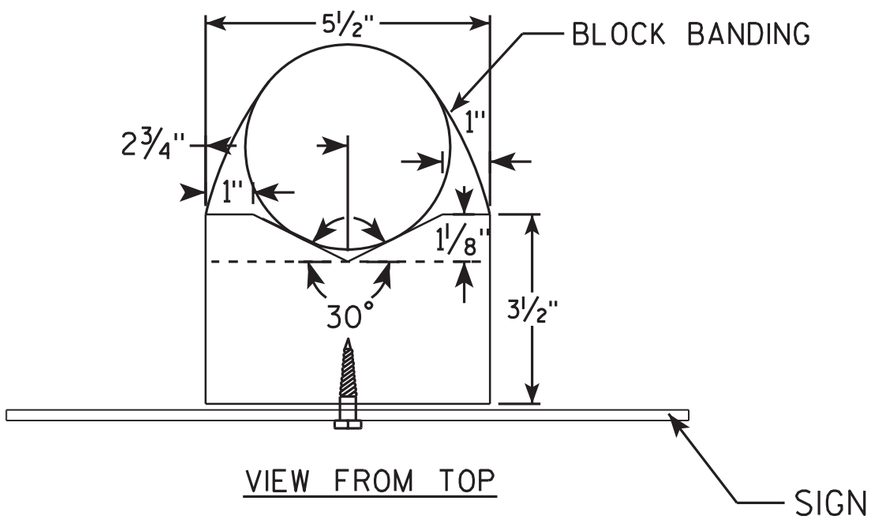
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 307	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

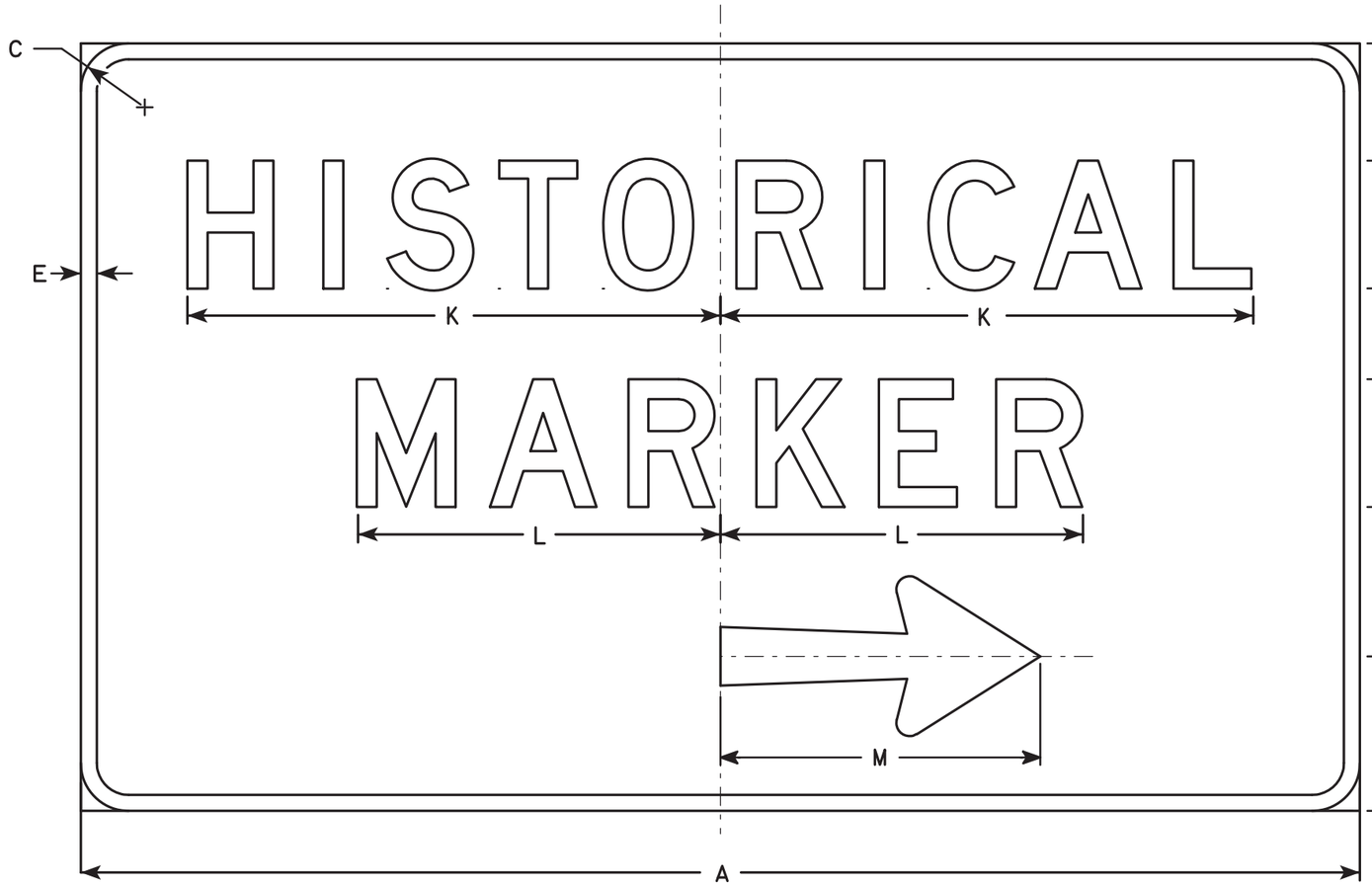
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

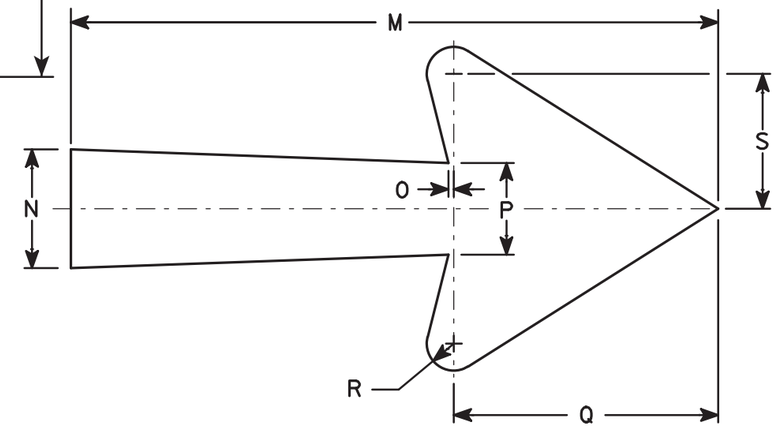
PROJECT NO:				SHEET NO: 308	E



D5-64R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Brown
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. D5-64L is the same as D5-64R except the arrow is reversed.



Arrow Detail

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	36	2 1/4		3/4	6	5 1/2	4 1/4	7	7 1/4	25	17	15	2 3/4	1/8	2 1/8	6 1/8	5/8	3 1/8								15.0	1.35
3																												
4																												
5																												

STANDARD SIGN
D5-64

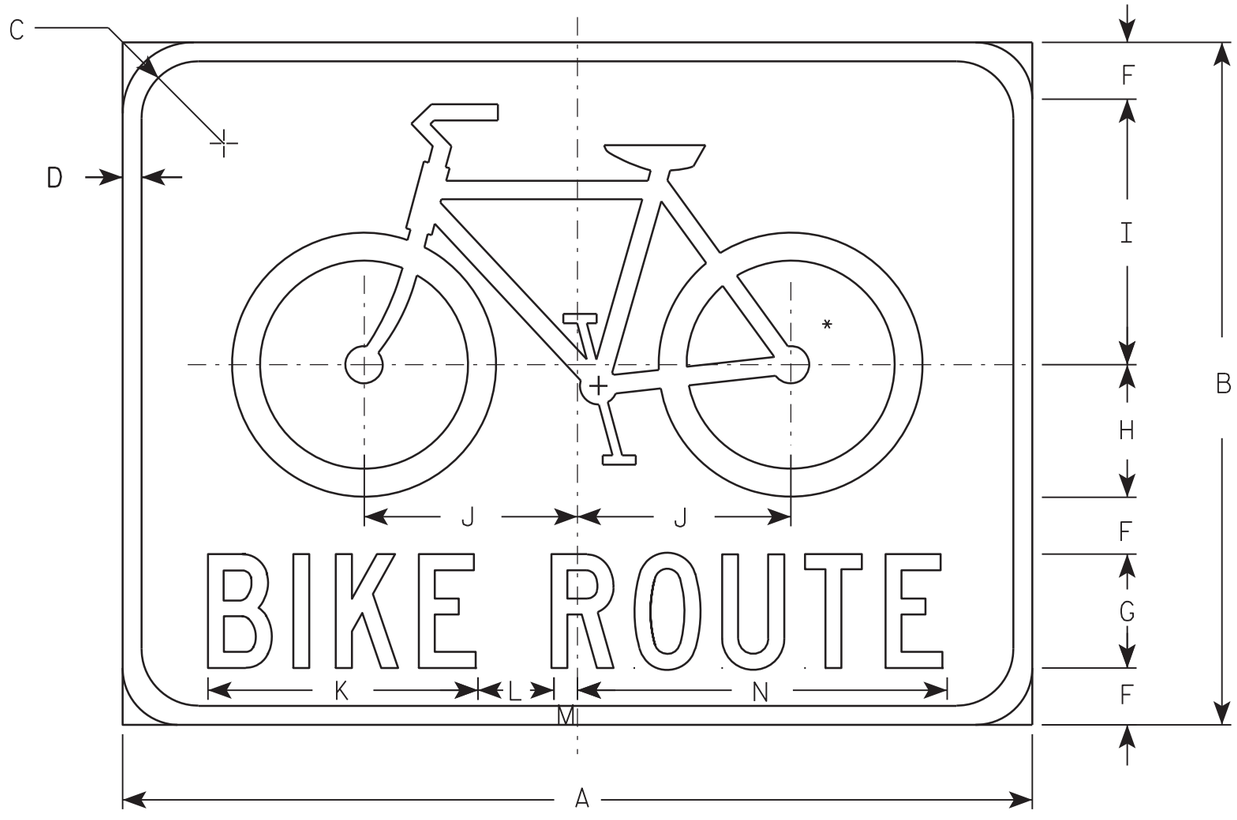
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spacy for State Traffic Engineer

DATE 1/09/02 PLATE NO. D5-64.5

STATE PROJECT NUMBER:

SHEET NO: 309 E



D11-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

* See W11-1 for symbol design

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 450 mm
3	750 mm X 600 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	18	1 1/2	1/2		1 1/2	3	3 1/2	7	5 5/8	7 1/8	2	5/8	9 3/4													3.0	0.27
3	30	24	1 1/4	5/8		2	4	4 3/4	9 1/4	7 1/2	9 1/2	2 5/8	7/8	13													5.0	0.45
4																												
5																												

STANDARD SIGN
D11-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/04 PLATE NO. D11-1.1

PROJECT NO:

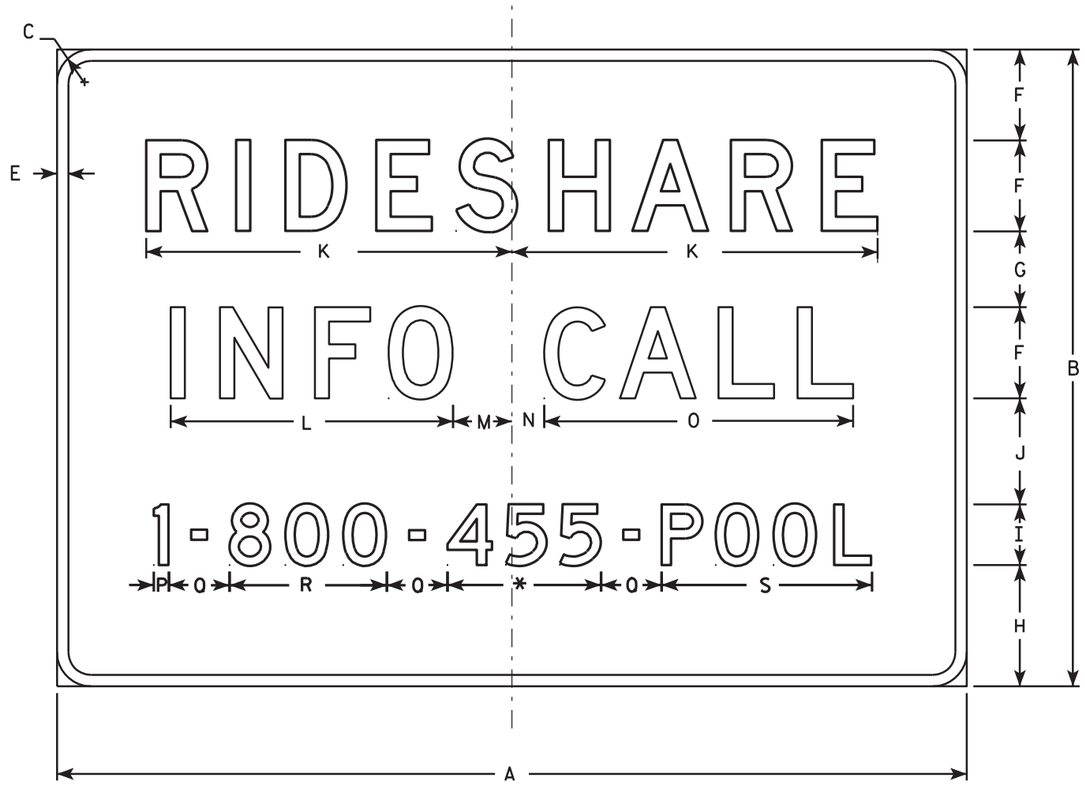
SHEET NO: 310 E

FILE NAME : C:\Users\Projects\tr_stdplate\D111.DGN PLOT DATE : 17-MAR-2005 10:38 PLOT BY : DOTDZK

WISDOT/CADDS SHEET 42

7

7



D12-2A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as required to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	1200 mm X 525 mm
2	1500 mm X 1050 mm
3	
4	1500 mm X 1050 mm
5	1950 mm X 1350 mm

* Variable (See note 5)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	48	21	1 1/2		1/2	3	2 3/4	3 1/2	3	2 3/4	12 1/8	9 3/8	2	1 1/8	10 1/4	3/4	3	7 3/4	10 5/8								7.0	0.63
2	60	42	2 1/4		3/4	6	5	8	4	7	24 1/8	18 5/8	3 7/8	2 1/8	20 1/8	1	4	10 3/8	13 7/8								17.5	1.58
3																												
4	60	42	2 1/4		3/4	6	5	8	4	7	24 1/8	18 5/8	3 7/8	2 1/8	20 1/8	1	4	10 3/8	13 7/8								17.5	1.58
5	78	54	3		1	8	6	10	6	8	30 7/8	23 5/8	4 7/8	2 1/8	26 3/8	1 1/2	5	15 1/2	21 1/4								29.25	2.63

STANDARD SIGN
D12-2A

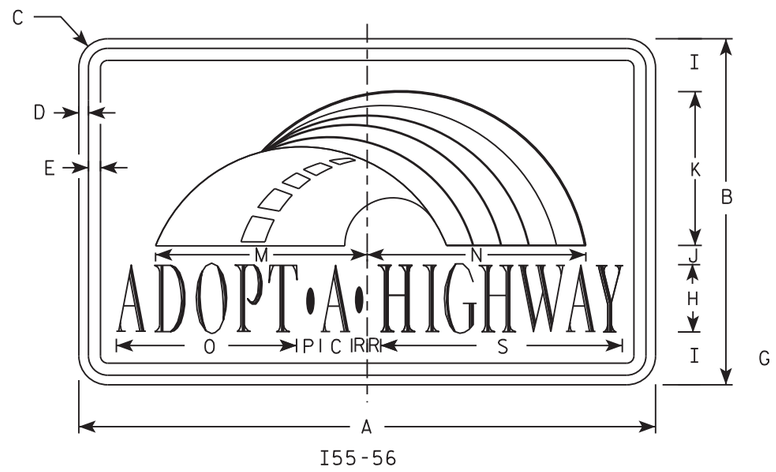
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spacy for State Traffic Engineer

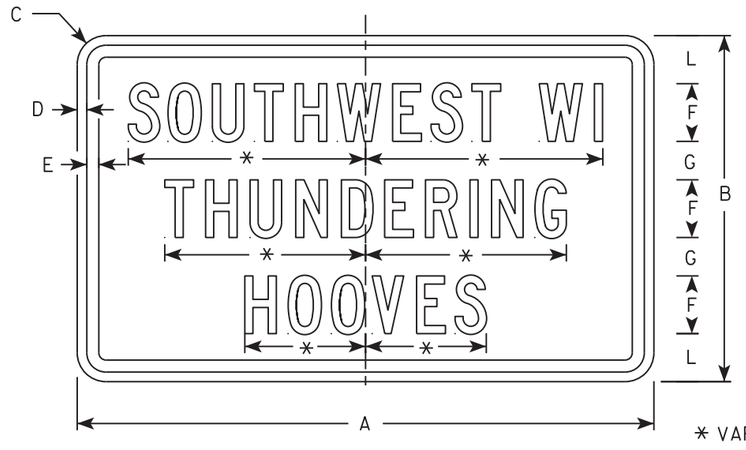
DATE 1/16/02 PLATE NO. D12-2A.3

PROJECT NO:

SHEET NO: 311 E



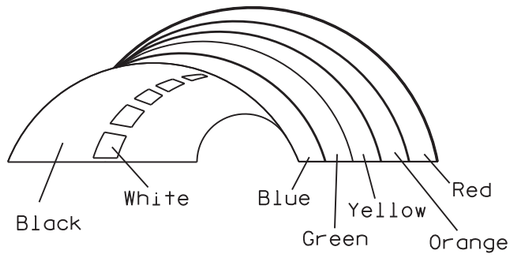
I55-56



* VARIES

I55-56P

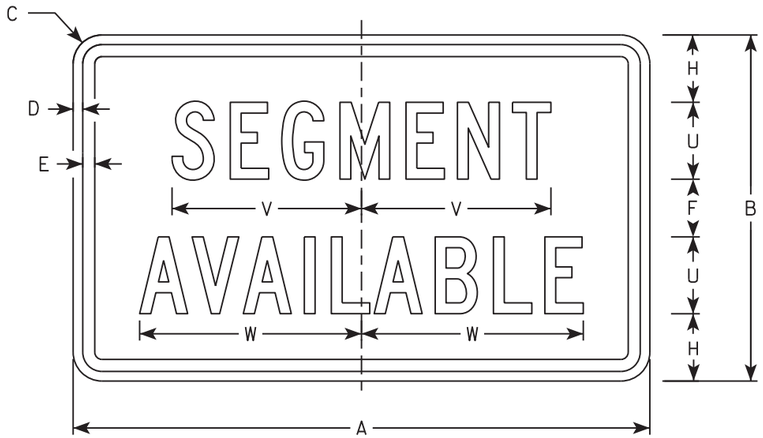
Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - (See Note 4)
3. Message Series - (See Note 5)
4. Border - Blue
   Adopt a Highway - Red
   All other Text - Blue
5. Adopt a Highway - Dutch 8011L
   All other Text - Series C
6. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.



I55-56S

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	18	1 1/2	1/2	5/8	3	2	3 1/2	2 3/4	1	8	2 1/2	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2	4	9 7/8	11 1/2				3.75
3																											
4																											
5																											

STANDARD SIGN
I55-56

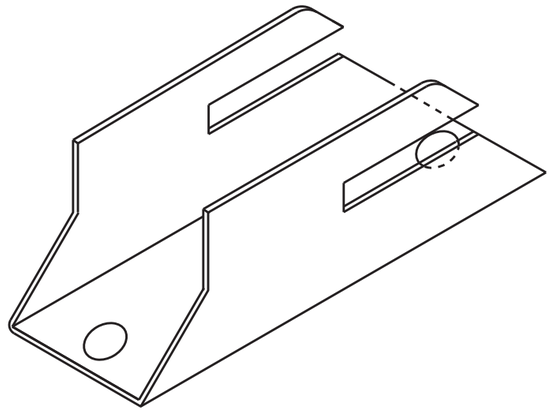
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

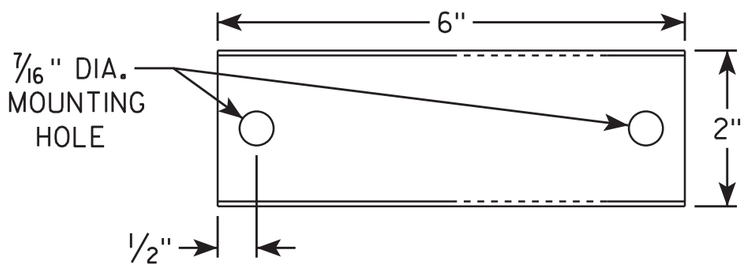
DATE 2/20/18 PLATE NO. I55-56.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 312 | E

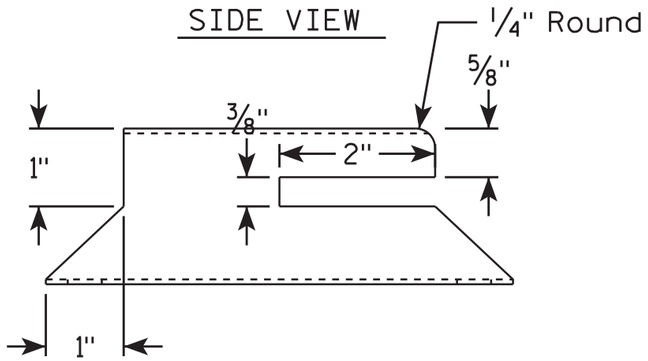
ISOMETRIC VIEW



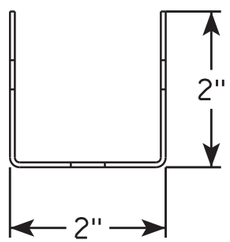
TOP VIEW



SIDE VIEW



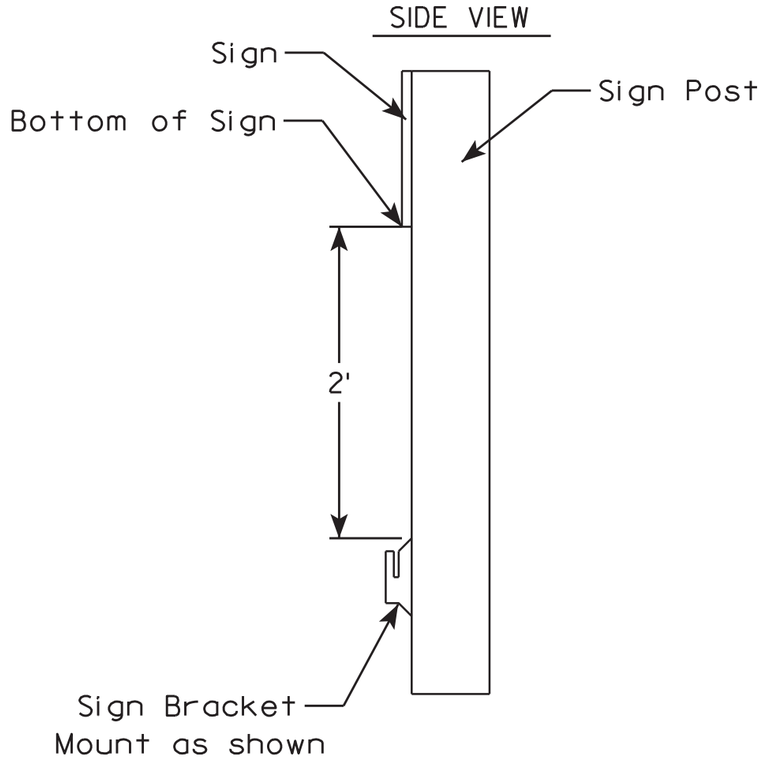
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

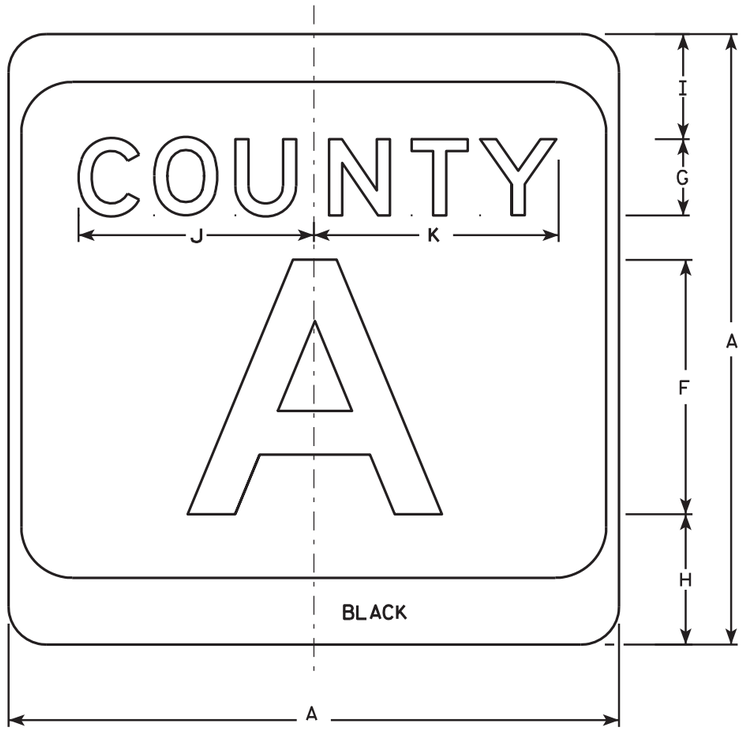
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

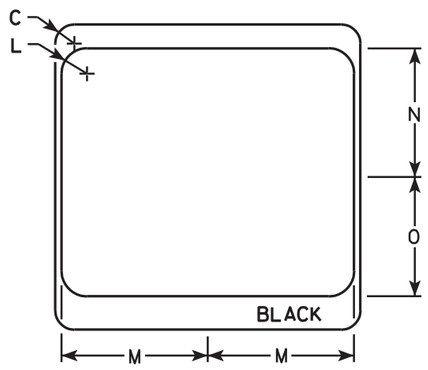
DATE 4/26/16 PLATE I55-56B.2

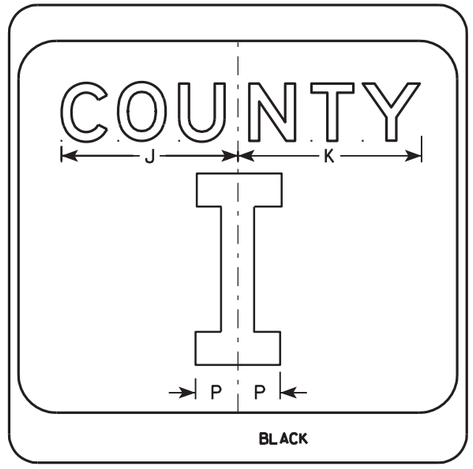
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

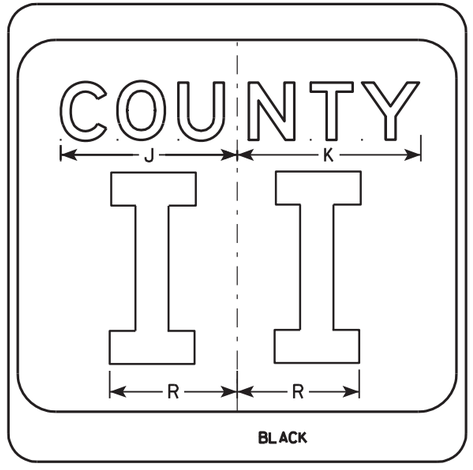
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\I5556B.DGN PLOT DATE : 26-APR-2016 17:29 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.945842:1.000000
WISDOT/CADDS SHEET 42



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

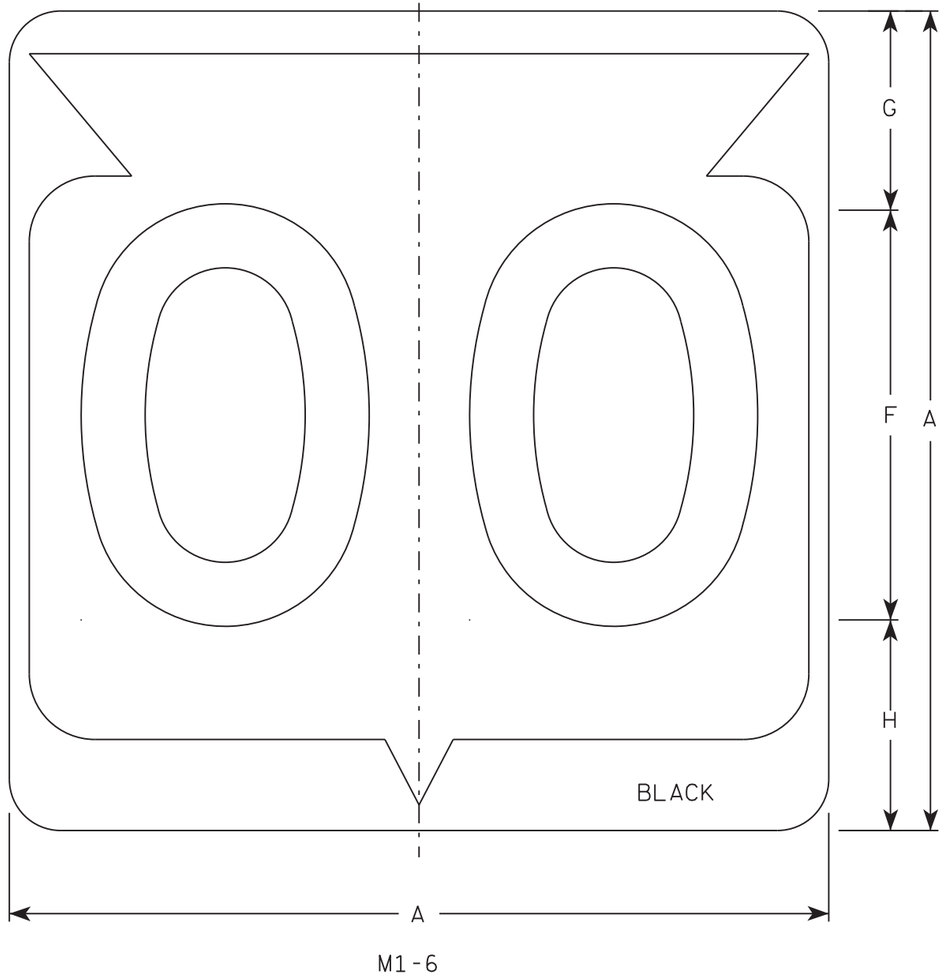
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

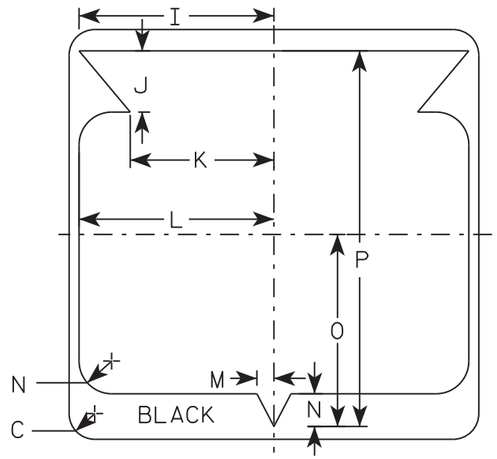
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 314	E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

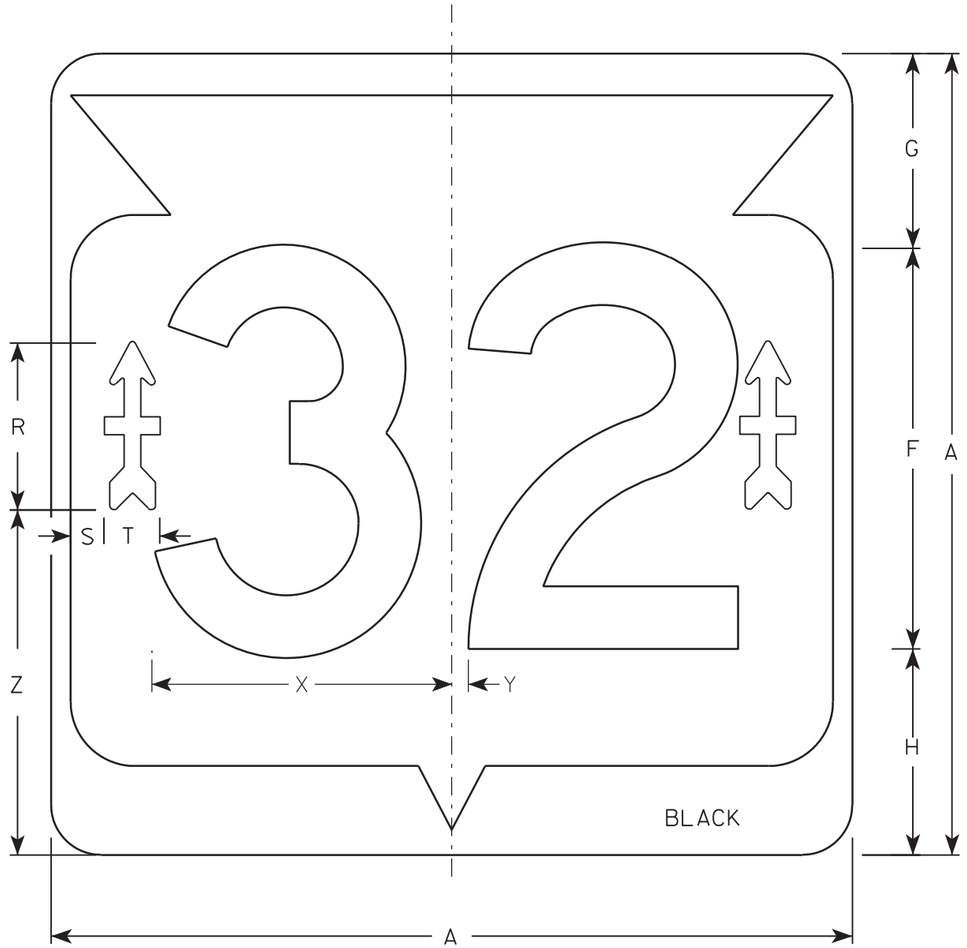
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

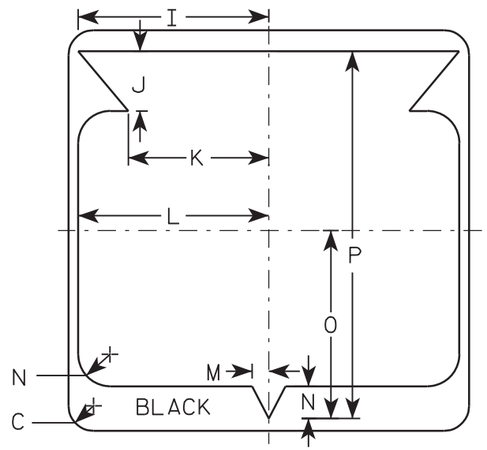
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 315	E



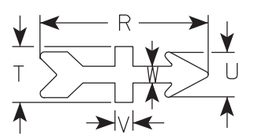
M1-6B

NOTES

1. Sign is Type II - Type H - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black
   Message - Black
   Arrow - Type H Reflective Red
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



32nd DIVISION ARROW
ACTUAL SIZE



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8		5 1/8	3/4	1 7/8	1 1/2	5/8	5/8	9	1/2	10 1/2	4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81

STATE ROUTE MARKER "32"
M1-6B FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 12/5/05 PLATE NO. M1-6B.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 316	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White - Graphics - White
   Circle Tour Message is Green
3. Message Series - Special
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.	Area m2
1																												
2	24			1 1/8	1/2																						4.0	.36
3																												
4	36			1 5/8	3/4																						9.0	.81
5																												

STANDARD SIGN
M1-93

WISCONSIN DEPT OF TRANSPORTATION

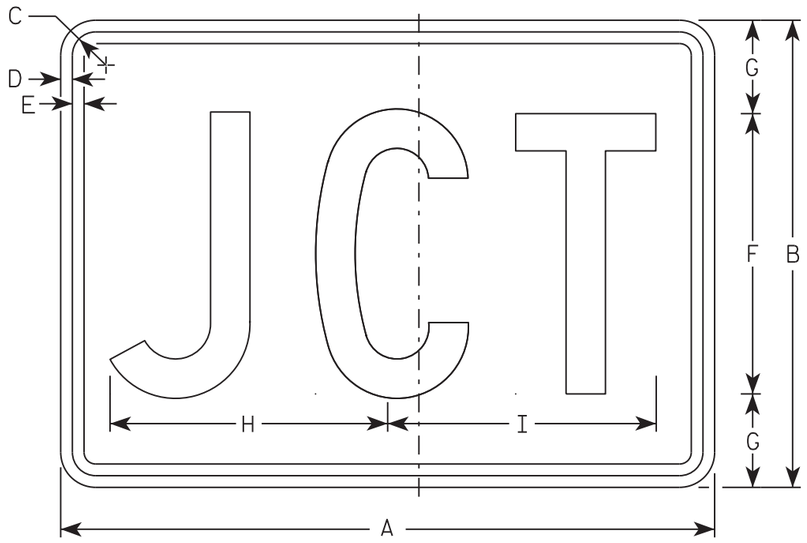
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/5/15 PLATE NO. M1-93.2

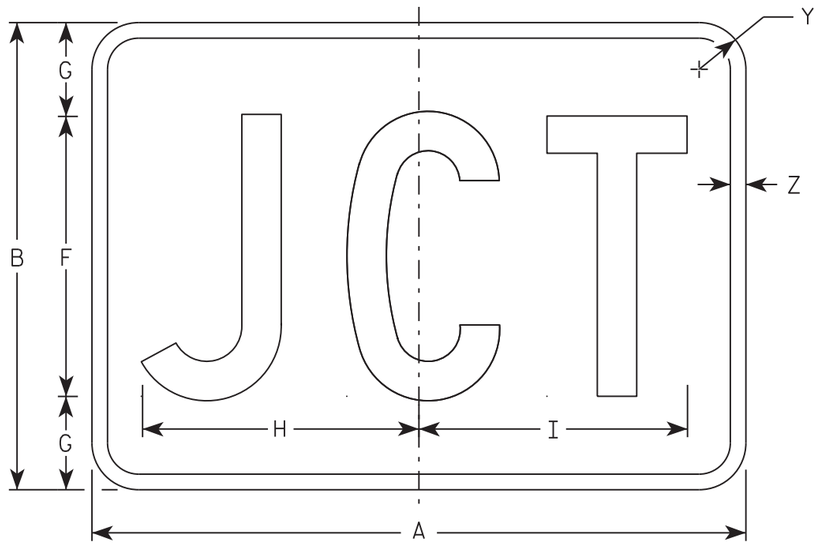
317

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M193.DGN PLOT DATE : 01-DEC-2015 18:00 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.837526:1.000000



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN
M2-1

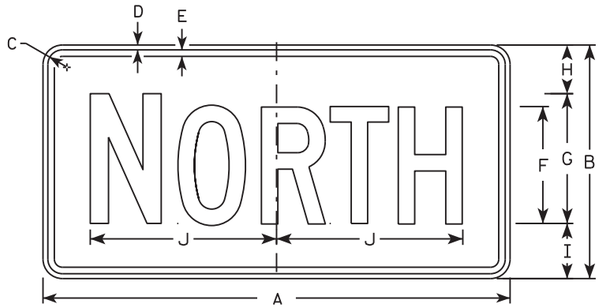
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

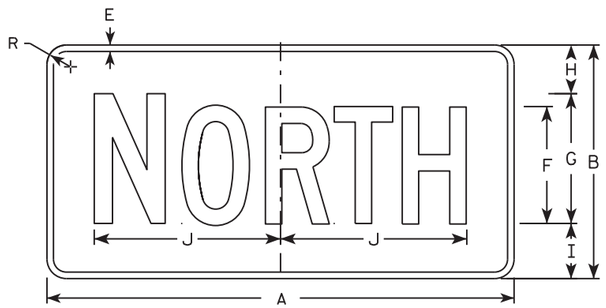
DATE 10/15/15 PLATE 318 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



M3-1
MM3-1
MP3-1



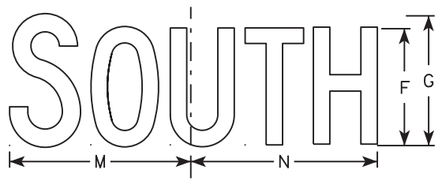
MB3-1
MK3-1
MN3-1



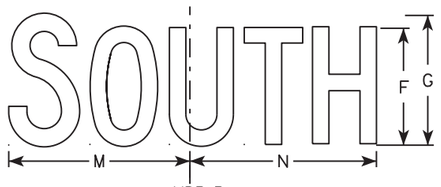
M3-2
MM3-2
MP3-2



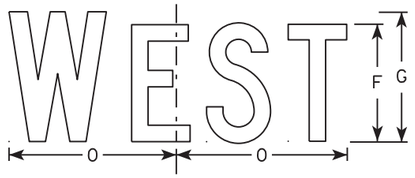
MB3-2
MK3-2
MN3-2



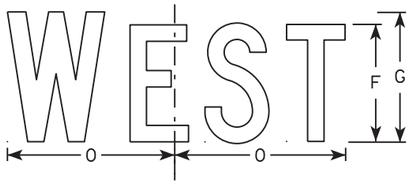
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

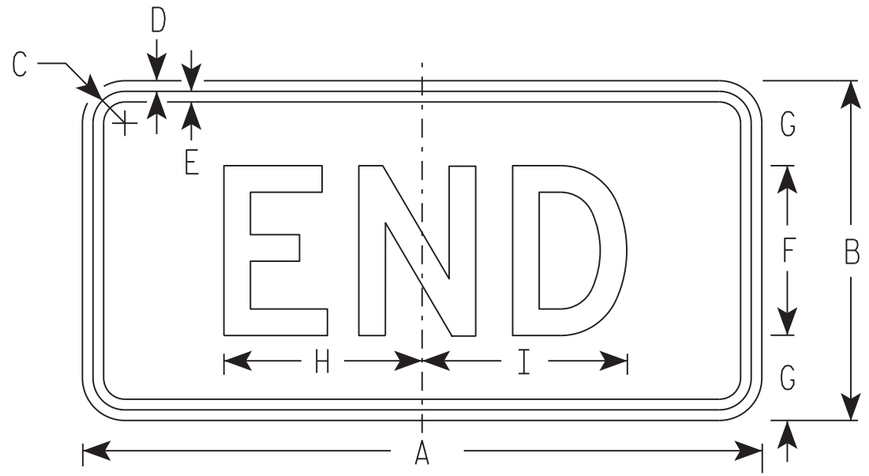
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

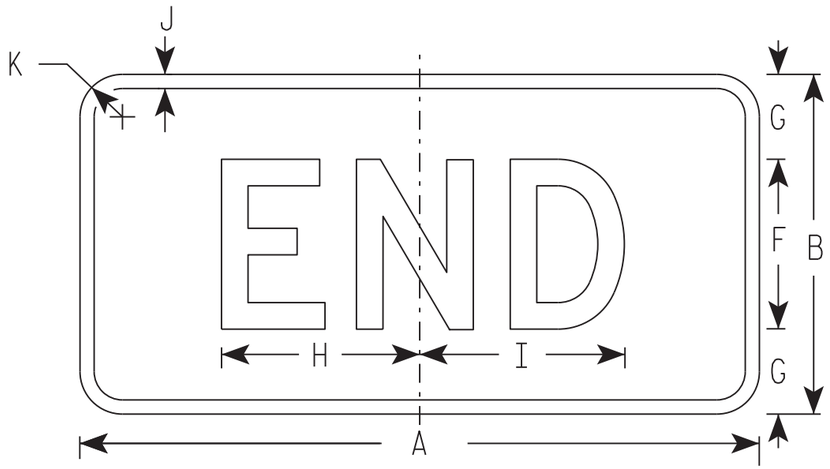
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-6
MM4-6
MP4-6



MB4-6
MK4-6
MN4-6
MR4-6

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-6 Background - White
   Message - Black

   MB4-6 Background - Blue
   Message - White

   MK4-6 Background - Green
   Message - White

   MM4-6 Background - White
   Message - Green

   MN4-6 Background - Brown
   Message - White

   MP4-6 Background - White
   Message - Blue

   MR4-6 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-6

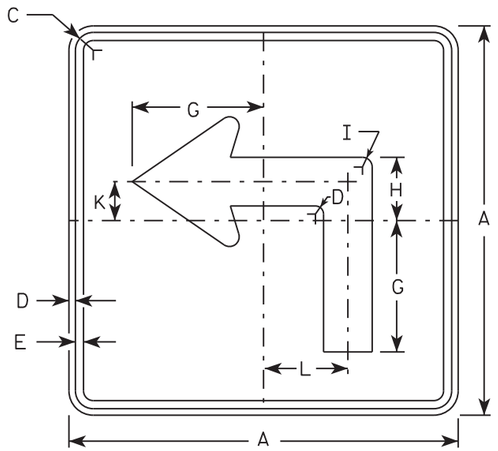
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

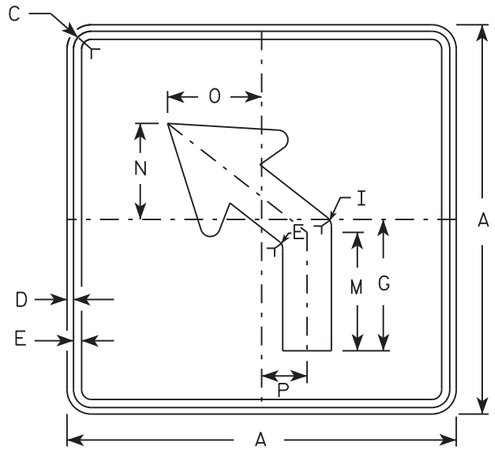
DATE 10/15/15 PLATE 320 '14-7.9

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

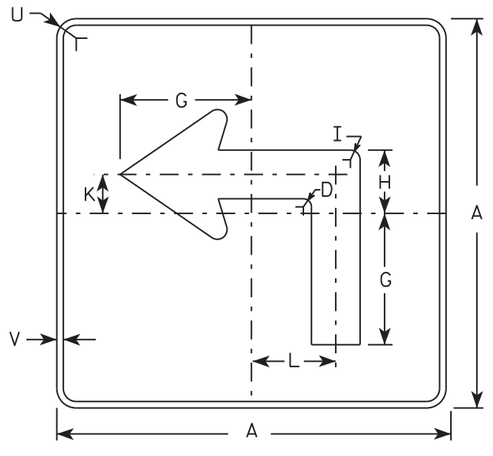
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M46.DGN PLOT DATE : 01-DEC-2015 17:55 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000



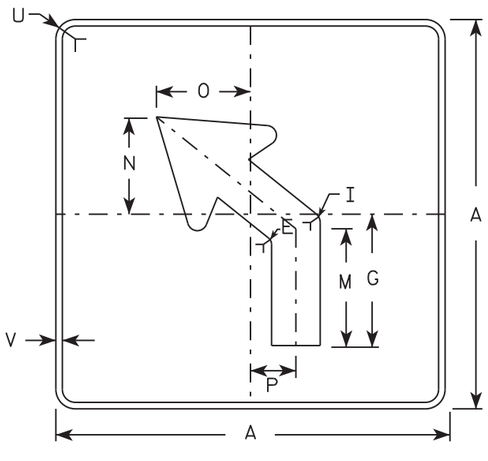
M5-1L
MM5-1L
MO5-1L
MP5-1L



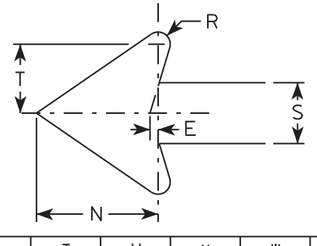
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

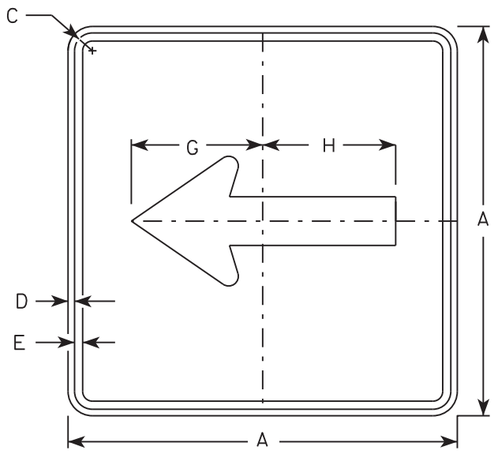
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

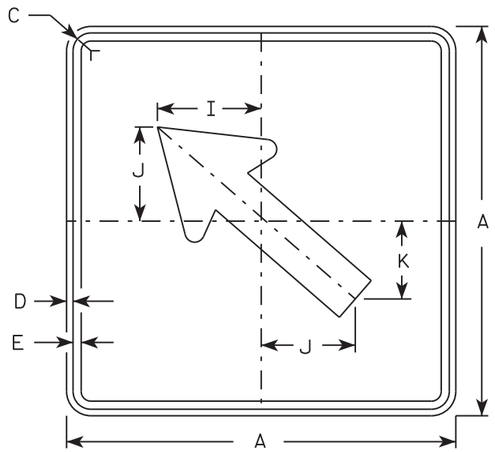
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



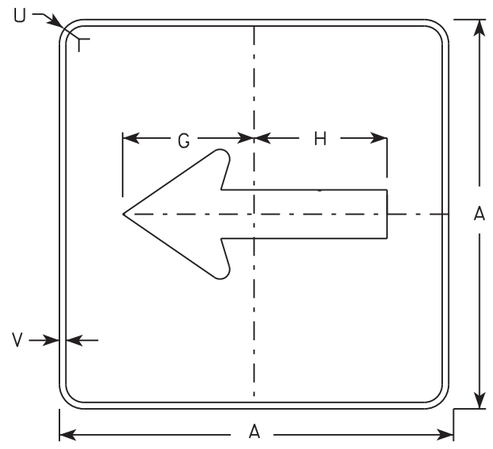
M6-1
MM6-1
MO6-1
MP6-1



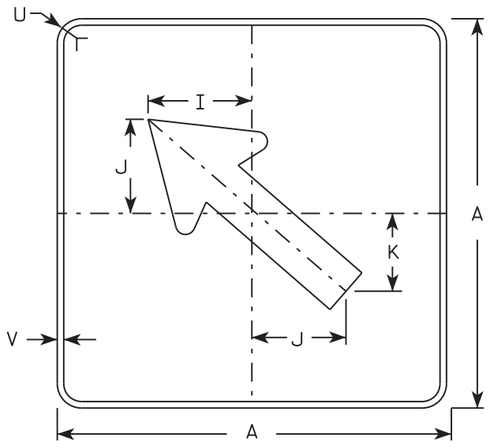
M6-2
MM6-2
MO6-2
MP6-2

NOTES

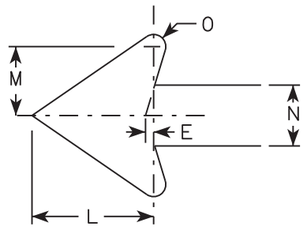
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

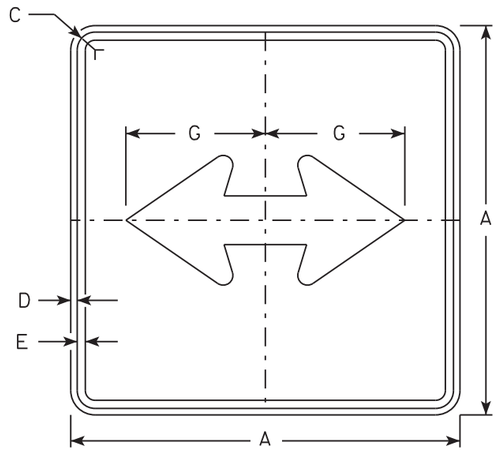
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

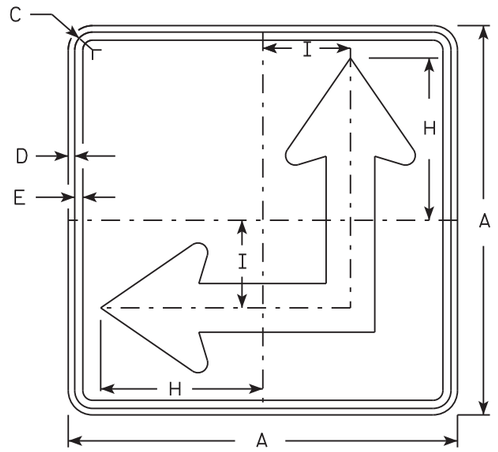
DATE 10/15/15 PLATI 322 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



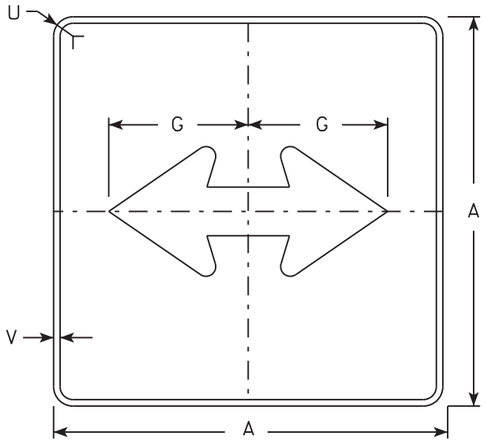
M6-4
MM6-4
MO6-4
MP6-4



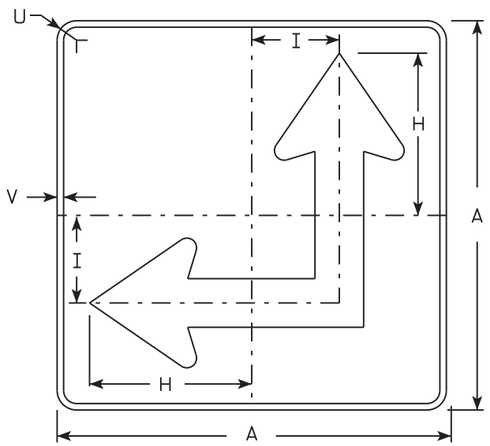
M6-6
MM6-6
MO6-6
MP6-6

NOTES

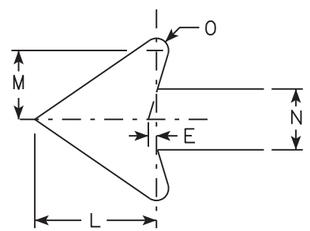
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6-4 & M6-6
SERIES

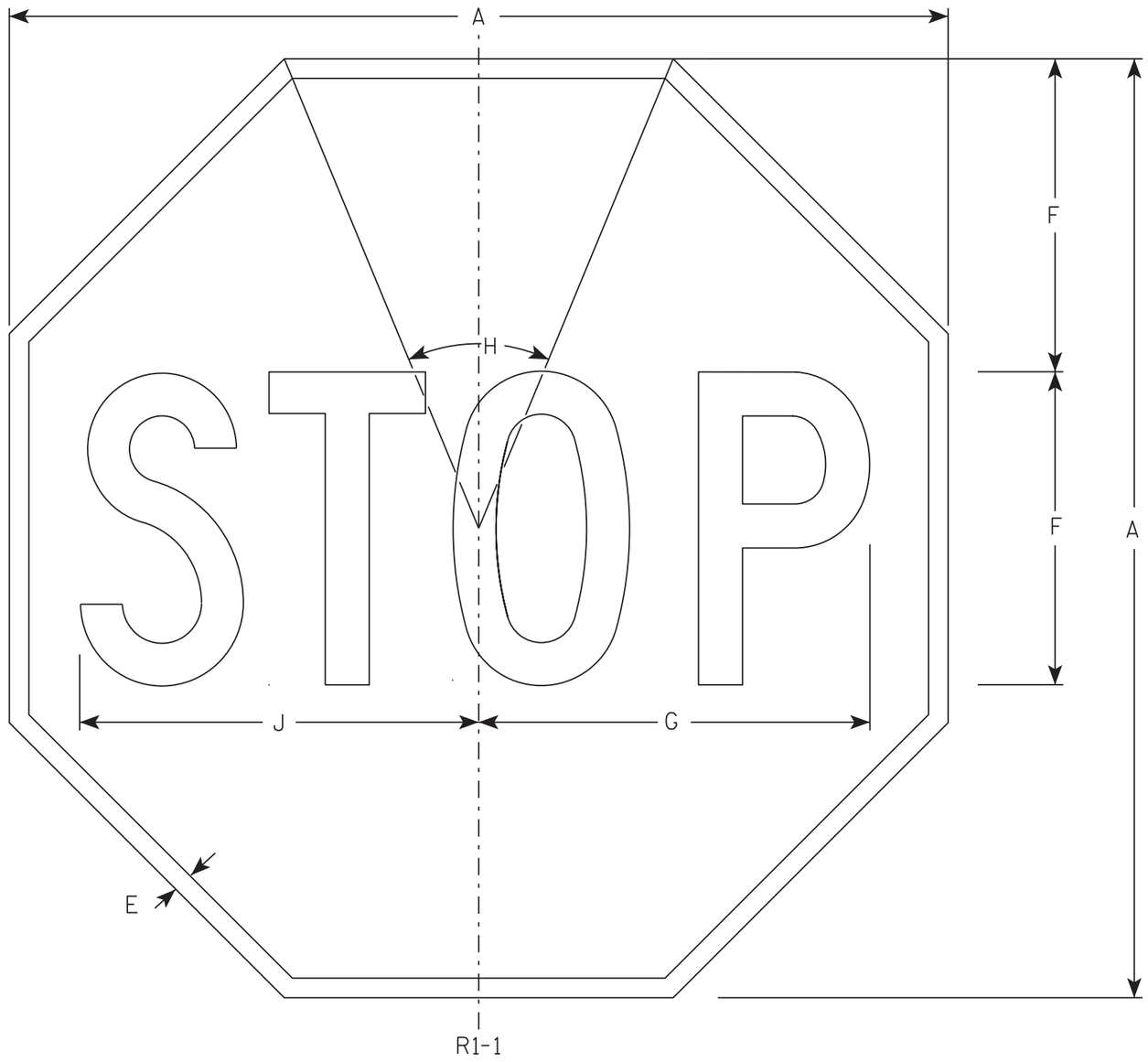
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 10/15/15 PLATI 323 M6-4.10

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
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

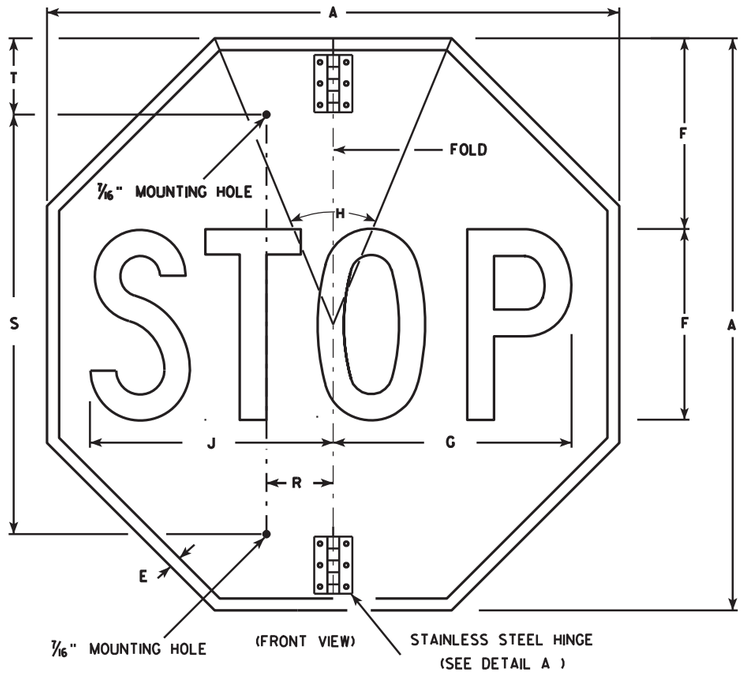
STANDARD SIGN
R1-1

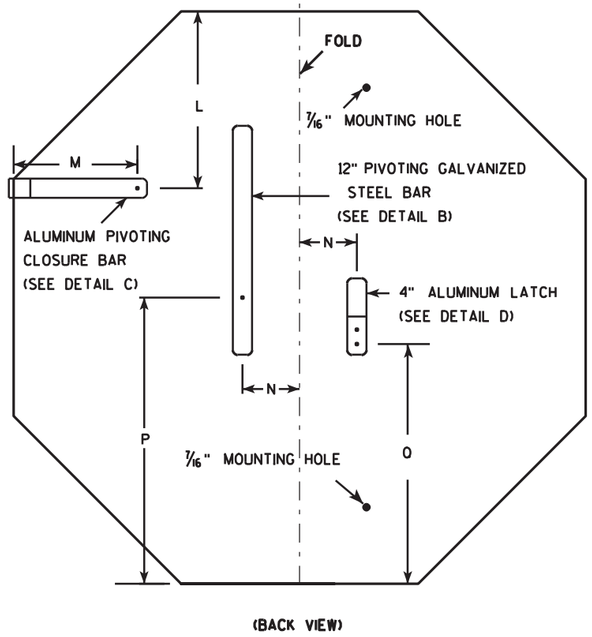
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

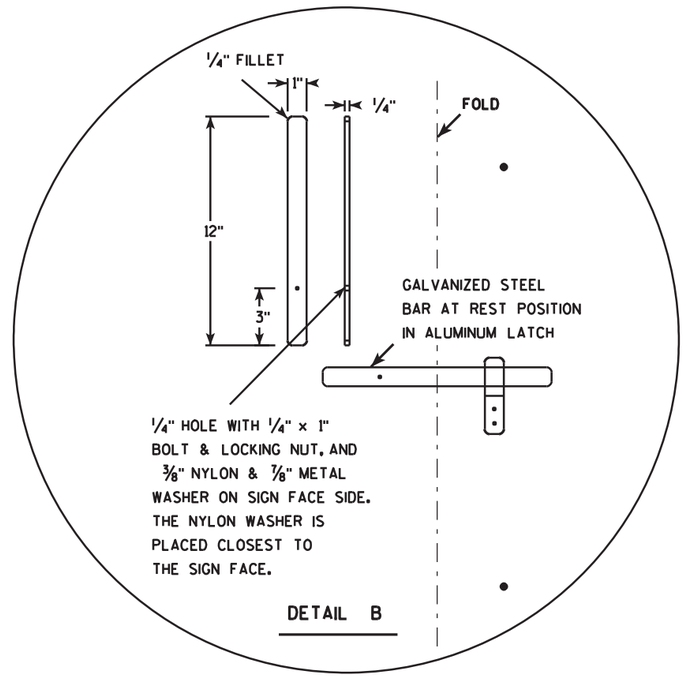
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 324	E

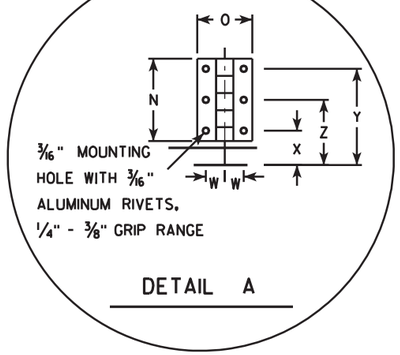


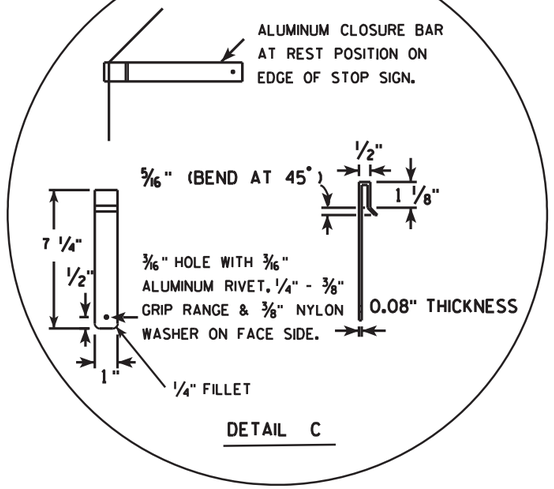


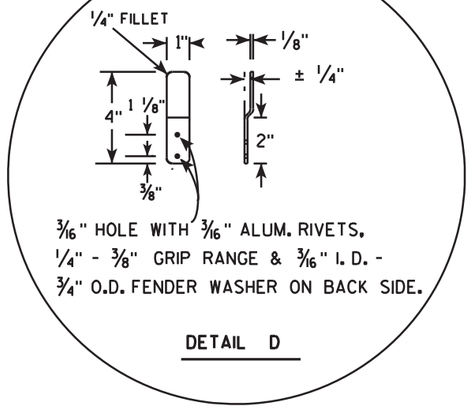
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

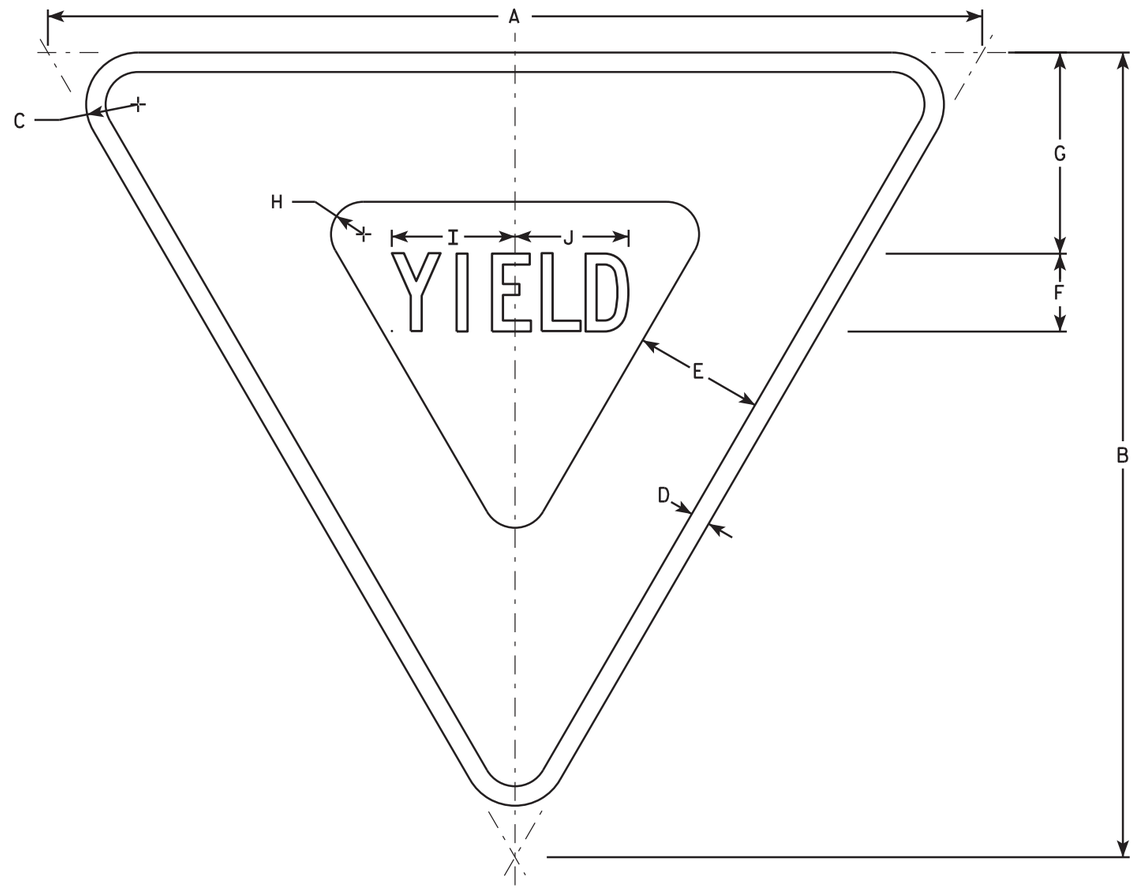
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 325	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

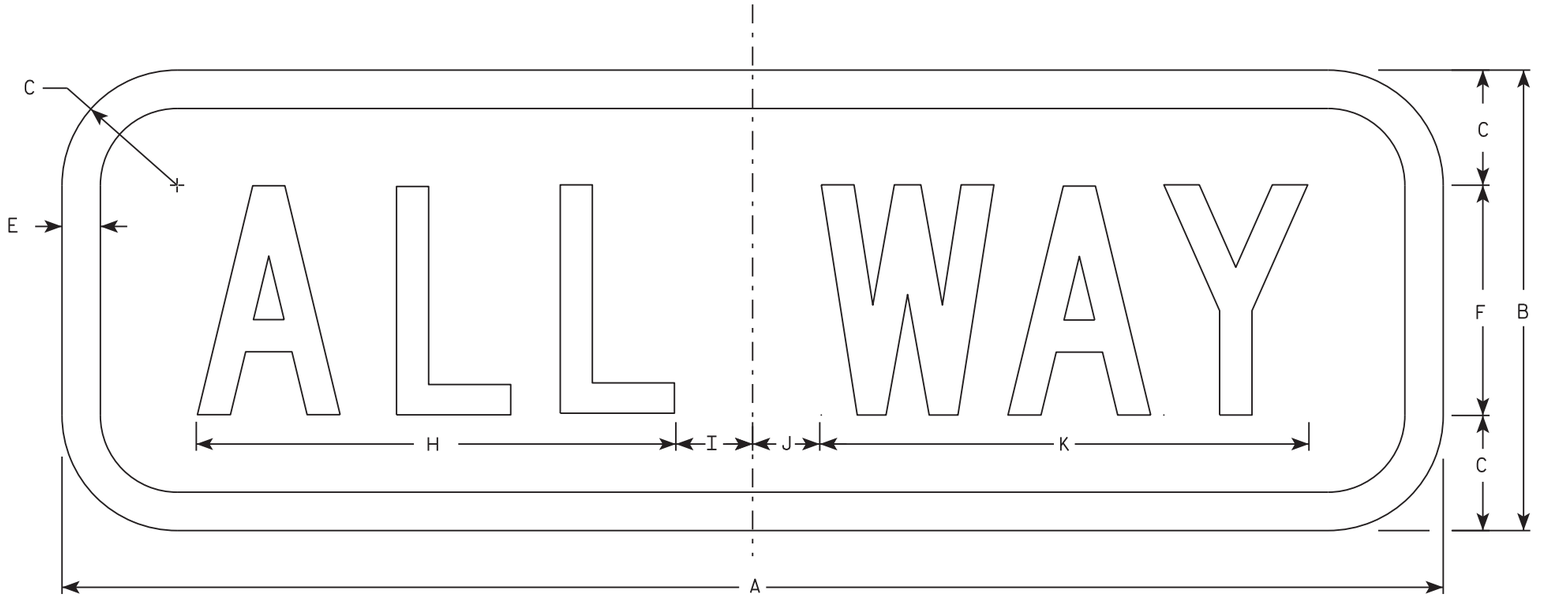
DATE 10/13/14 PLATE R1-2.12

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. For 30"x30" R1-1 use 18"x6" R1-3P sign
   For 36"x36" R1-1 use 24"x9" R1-3P sign
   For 48"x48" R1-1 use 30"x12" R1-3P sign



R1-3P

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2S	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																1.5
2M	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
3	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
4	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5
5	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5

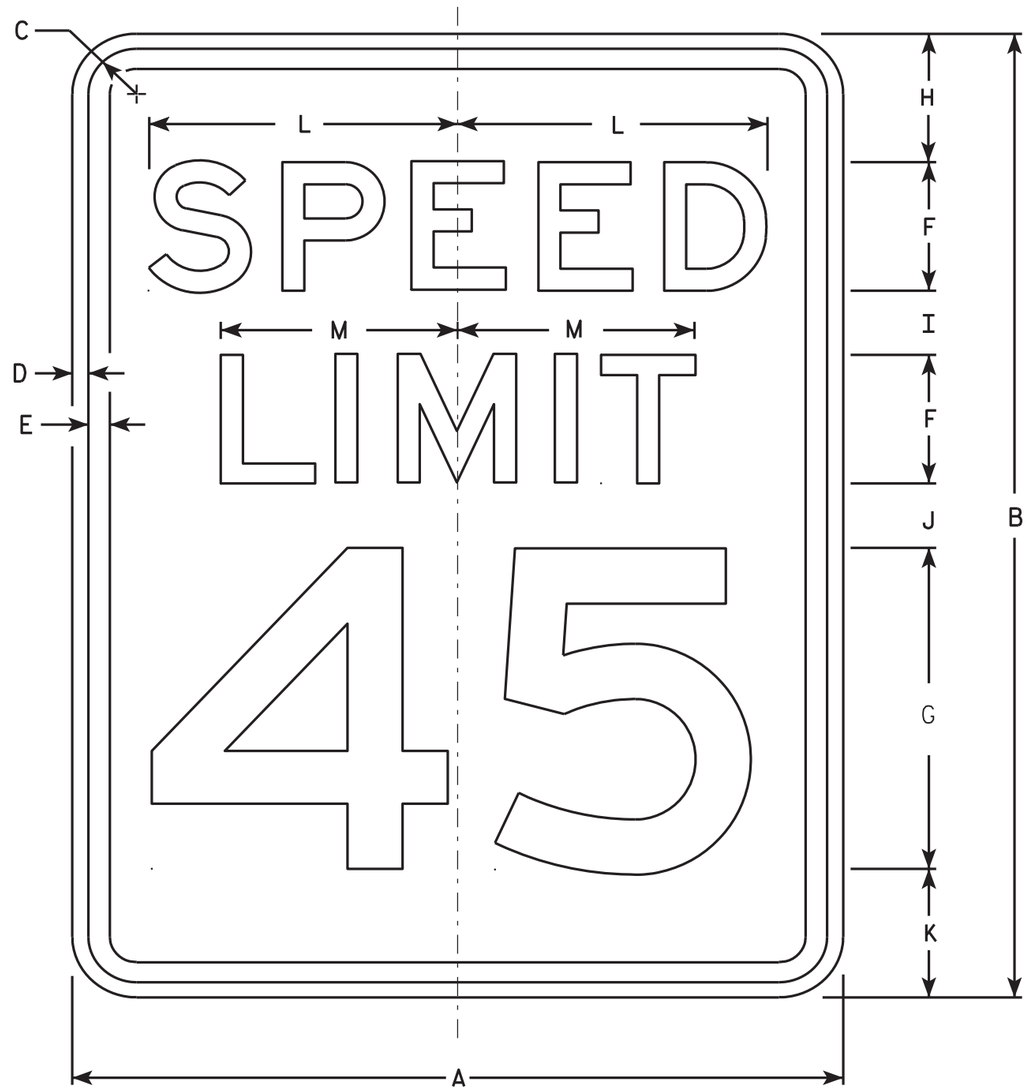
STANDARD SIGN
R1-3P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 11/29/16 PLATE NO. R1-3P.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 327 | E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

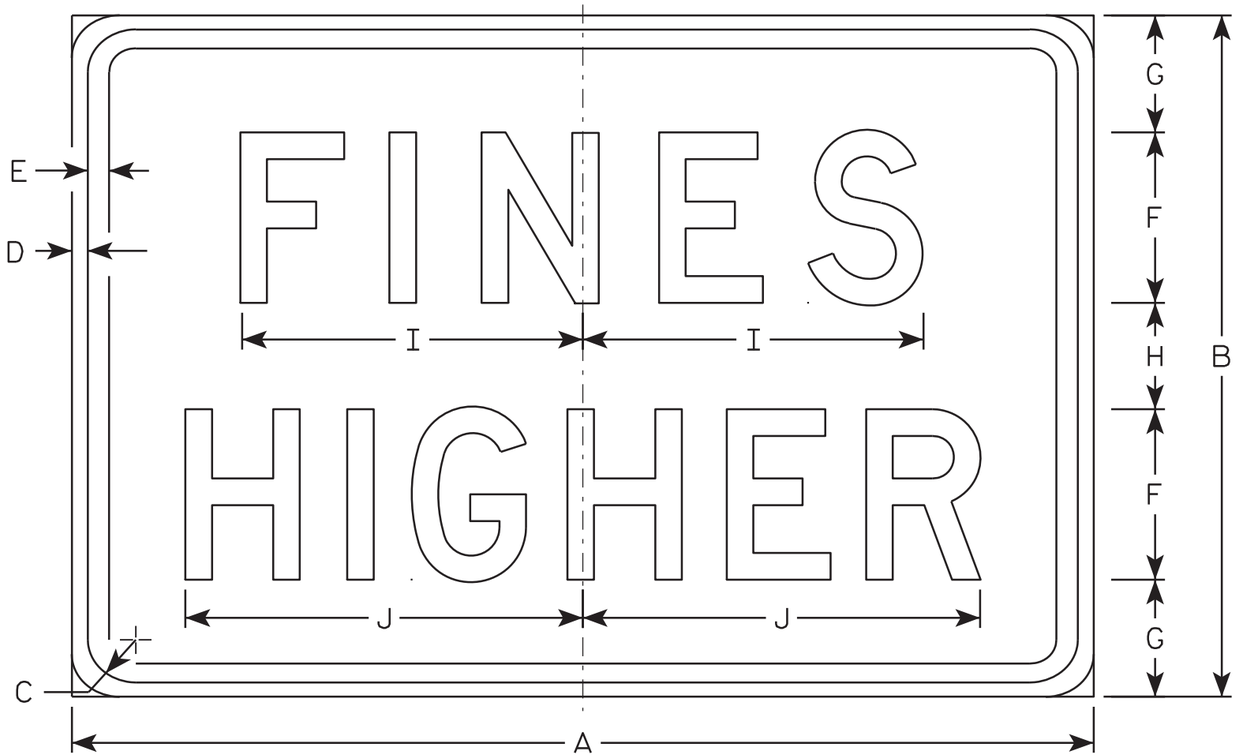
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 328	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000

WISDOT/CADDS SHEET 42

7

7



R2-6P

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

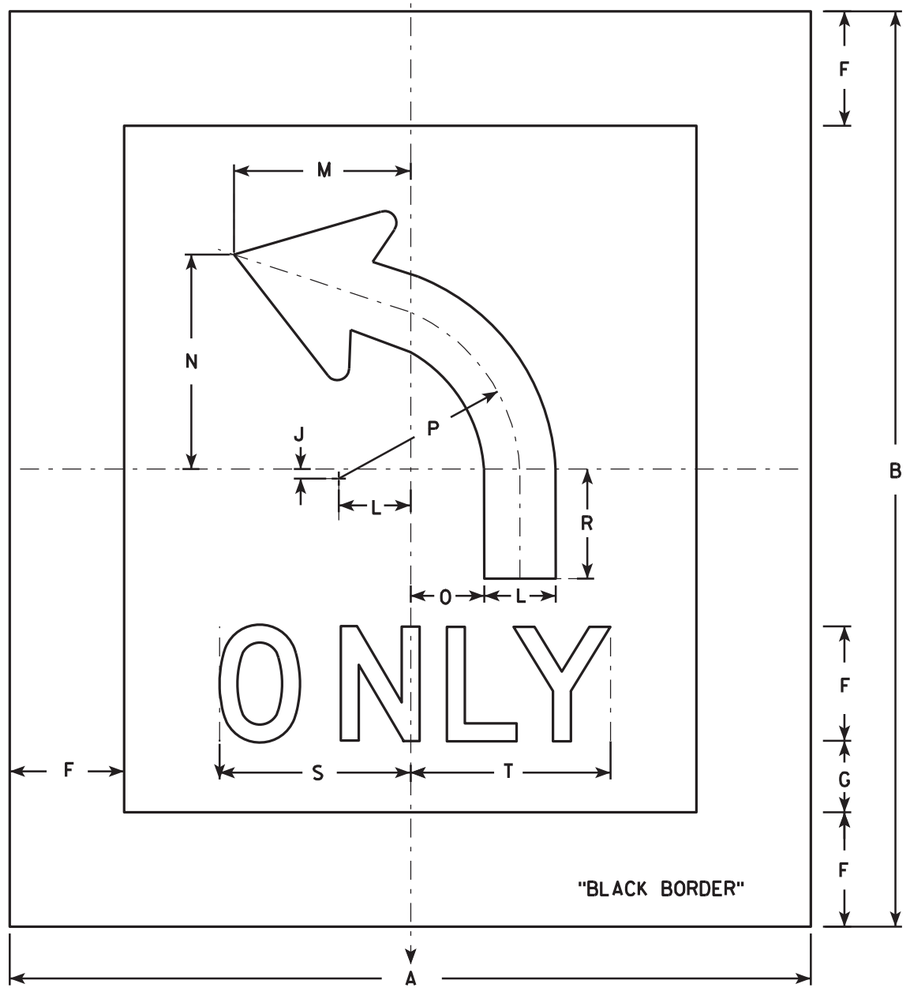
STANDARD SIGN
R2-6P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.2

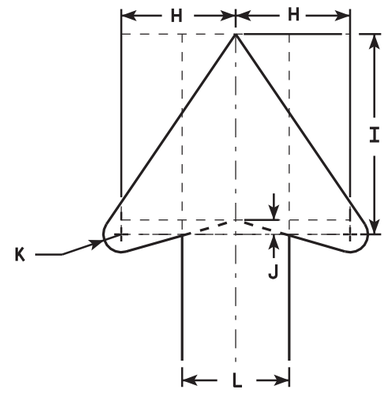
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 329 | E



R3-5L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
5. R3-5R is the same as R3-5L except curved portion of arrow points right.
6. The 6" border is non-reflective black.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
2M	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
3																											
4																											
5																											

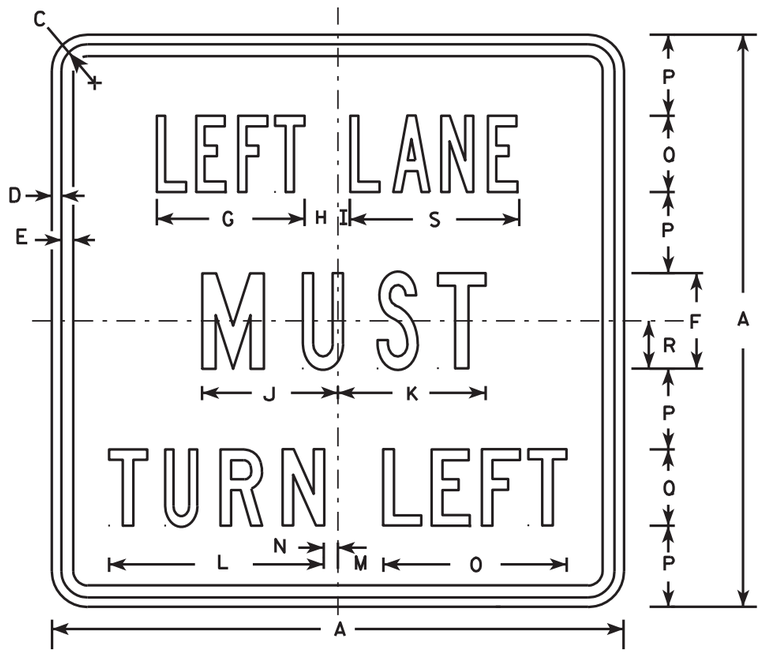
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

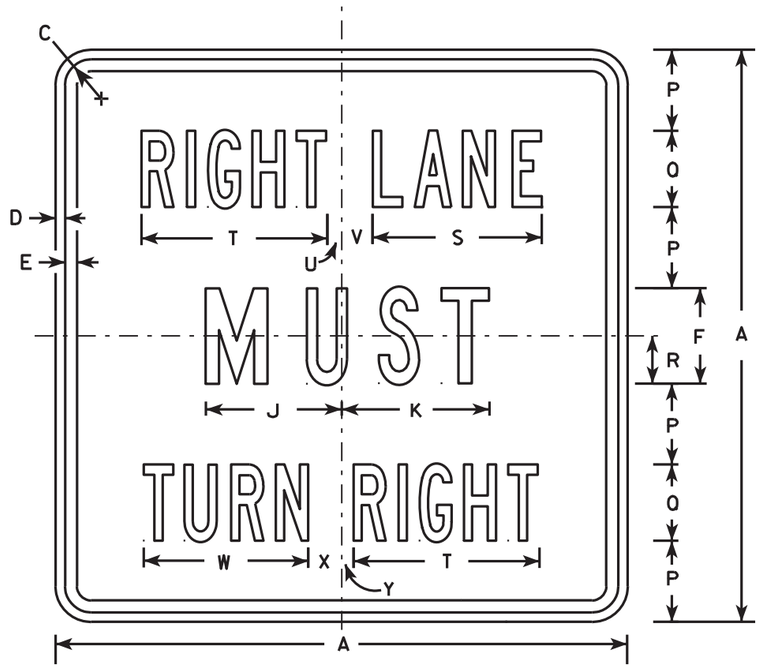
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 330 | E



R3-7L



R3-7R

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 - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

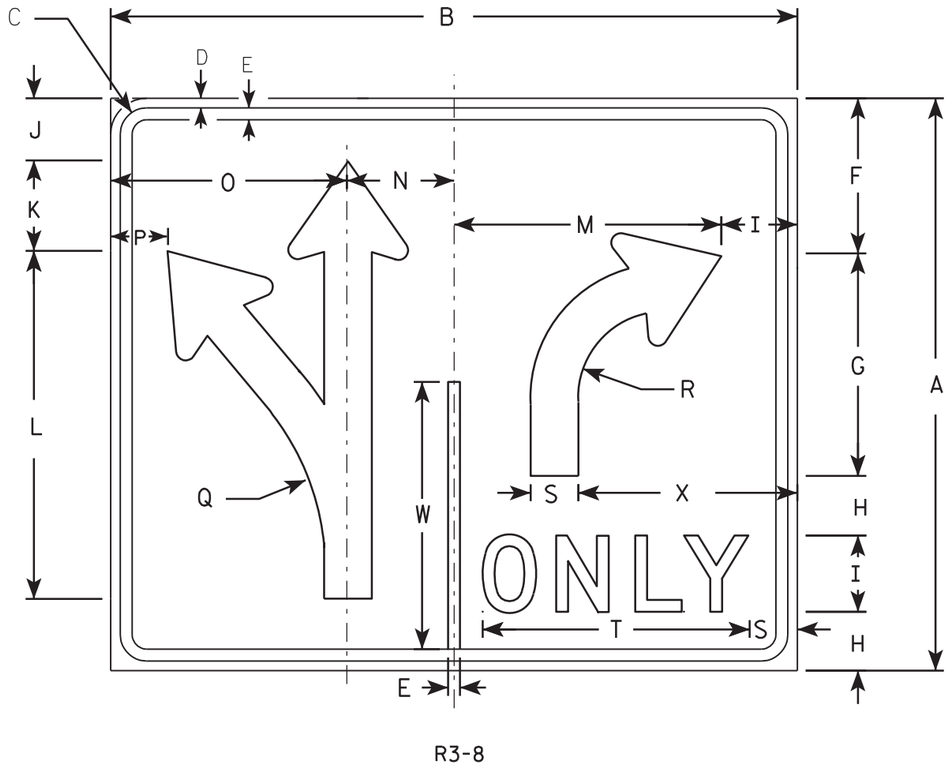
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

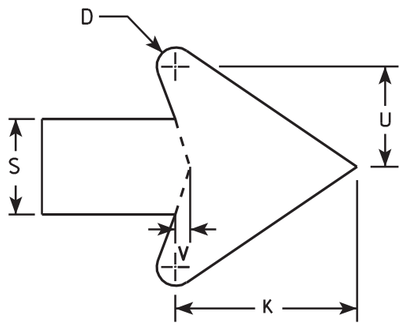
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 331 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R37.DGN PLOT DATE : 18-MAR-2011 09:43 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 7.945391:1.000000

WISDOT/CADDS SHEET 42



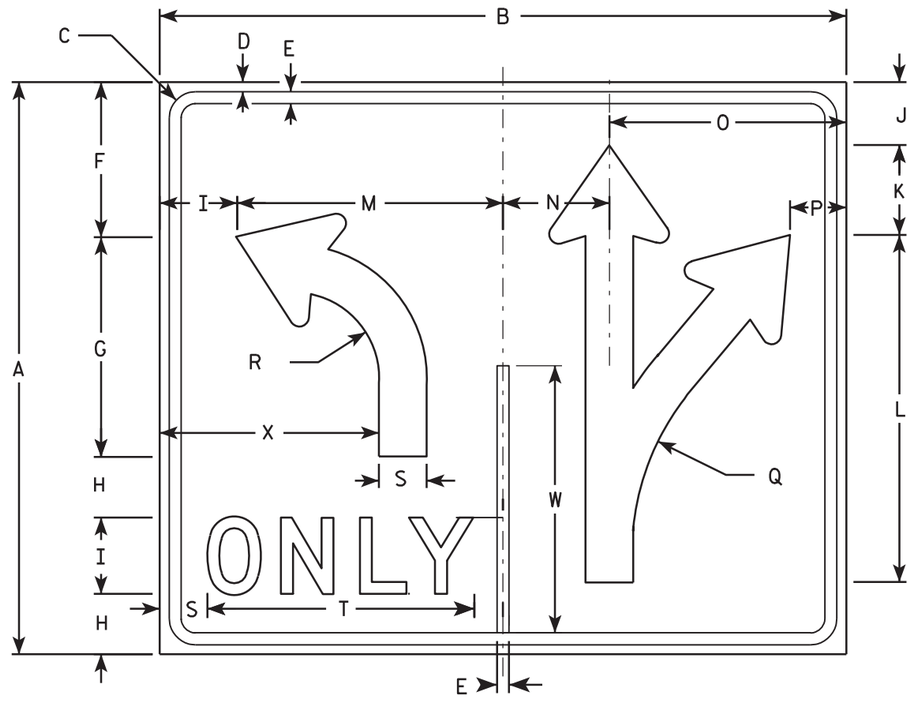
R3-8



ARROW DETAIL

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R3-8A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14	5 5/8	12 3/8	3	13 1/4	4 1/2	2 1/2	14	2 5/8	3/8	14	11 1/2			7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14	5 5/8	12 3/8	3	13 1/4	4 1/2	2 1/2	14	2 5/8	3/8	14	11 1/2			7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	21	8 3/8	18 5/8	4 3/8	21 7/8	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	17 1/4			18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	21	8 3/8	18 5/8	4 3/8	21 7/8	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	17 1/4			18.0

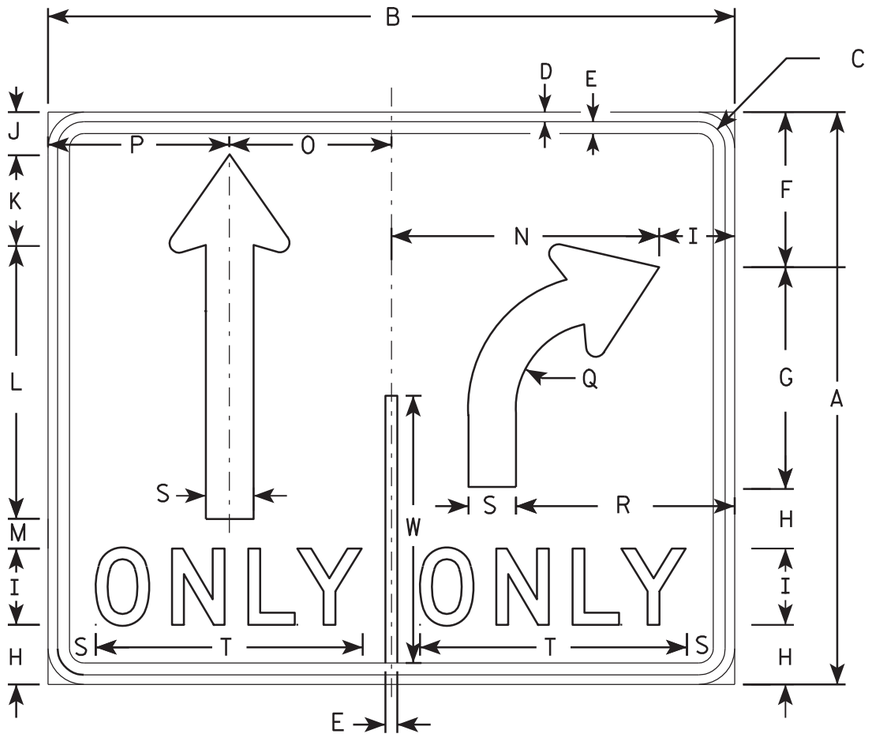
STANDARD SIGN
R3-8 & R3-8A

WISCONSIN DEPT OF TRANSPORTATION

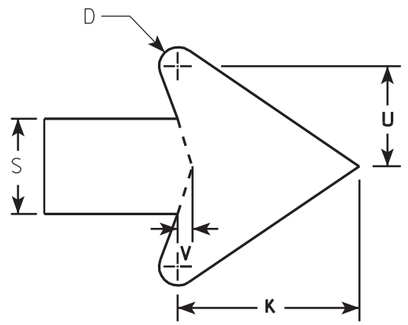
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 332	E



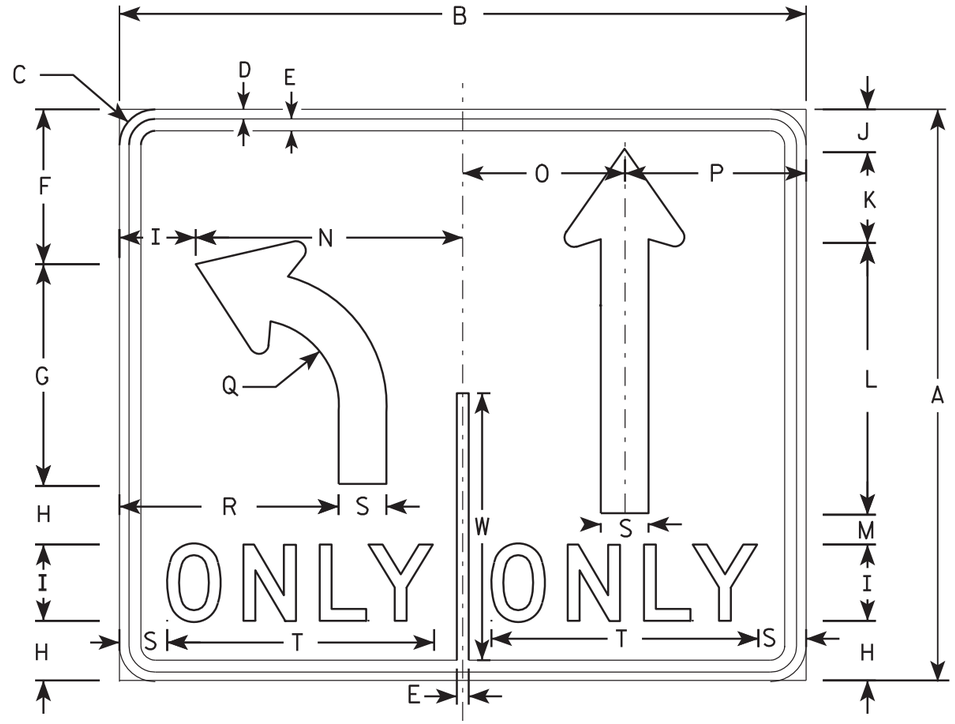
R3-8D



ARROW DETAIL

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R3-8E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	14	8 1/2	9 1/2	4 1/2	11 1/2	2 1/2	14	2 5/8	3/8	14				7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	14	8 1/2	9 1/2	4 1/2	11 1/2	2 1/2	14	2 5/8	3/8	14				7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	3 1/2	7 1/8	21 1/2	4 3/4	21	12 3/4	14 1/4	7 1/4	17 1/8	3 3/4	20 5/8	4	5/8	22 3/8				18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	3 1/2	7 1/8	21 1/2	4 3/4	21	12 3/4	14 1/4	7 1/4	17 1/8	3 3/4	20 5/8	4	5/8	22 3/8				18.0

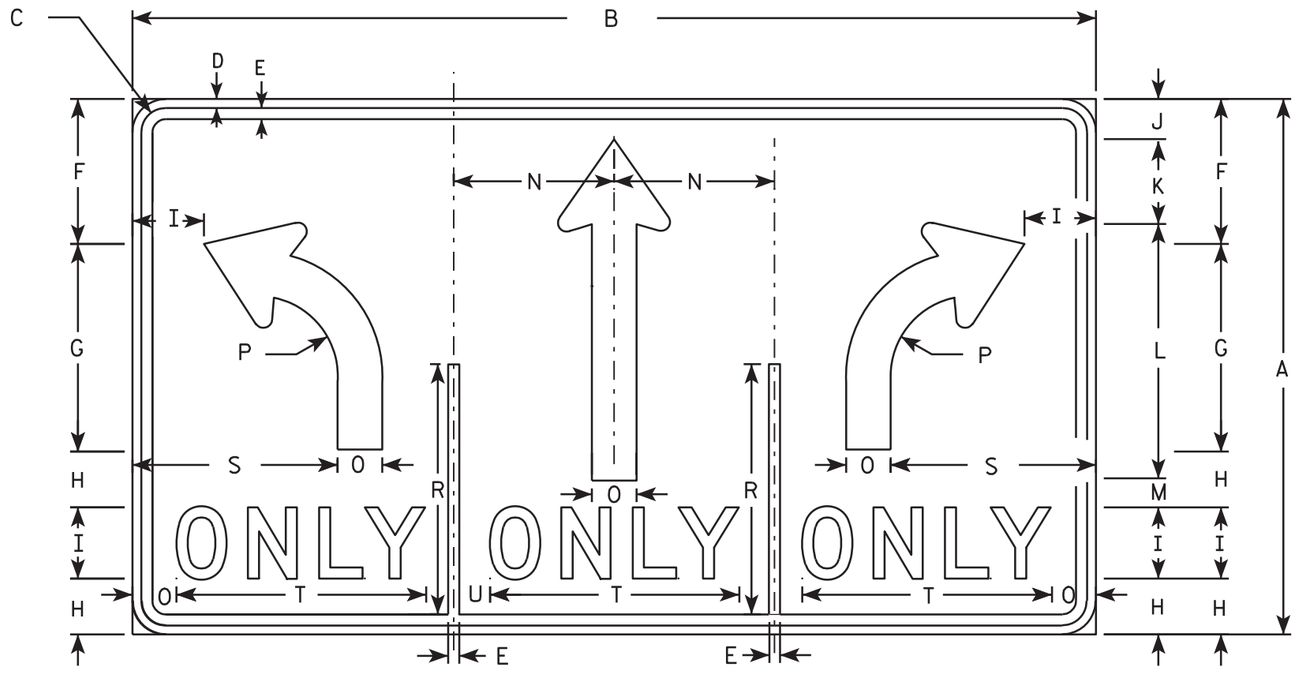
STANDARD SIGN
R3-8D & R3-8E

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8D.2

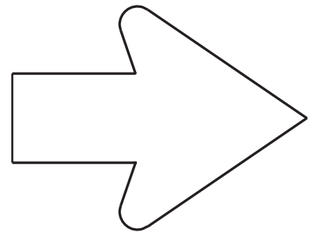
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 333	E



R3-8W

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SEE R3-8 FOR ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
2M	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
3																											
4	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 3/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0
5	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 7/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0

STANDARD SIGN
R3-8W

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-8W.4

PROJECT NO:

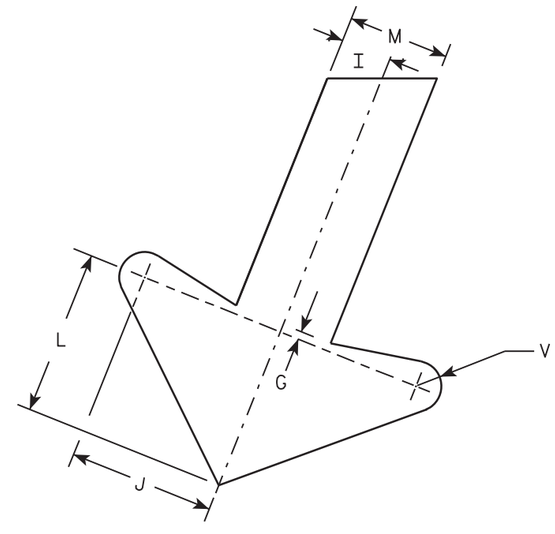
SHEET NO: 334 E



R3-20R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

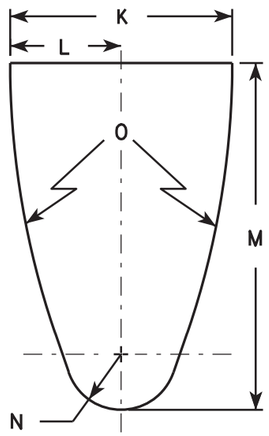
STANDARD SIGN
R3-20R

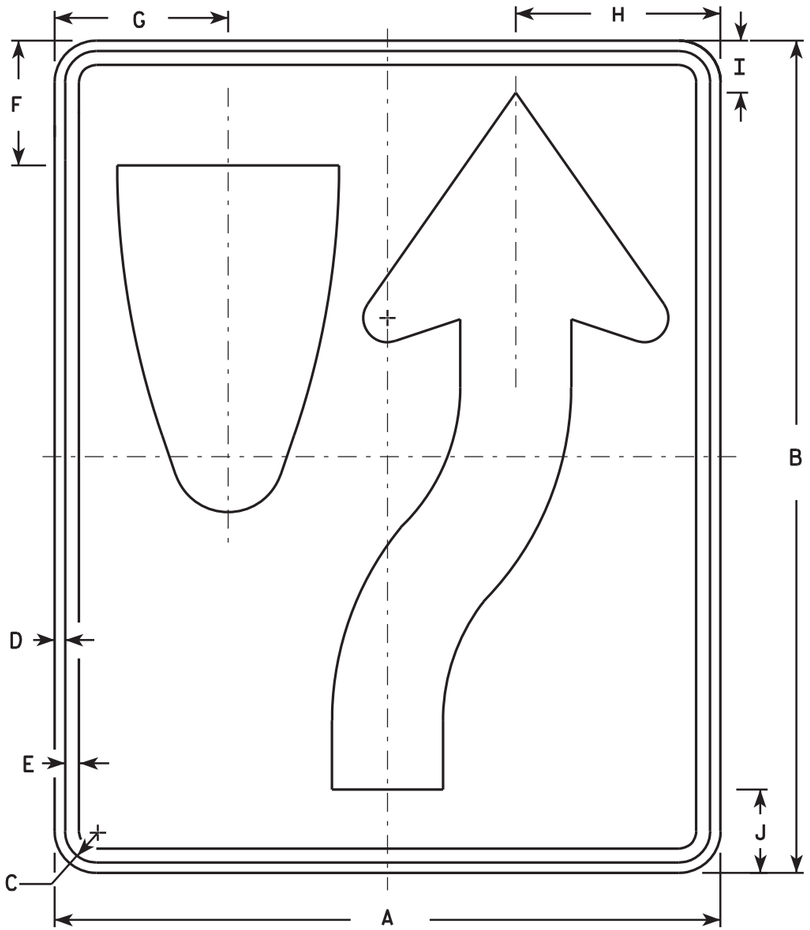
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 335 | E

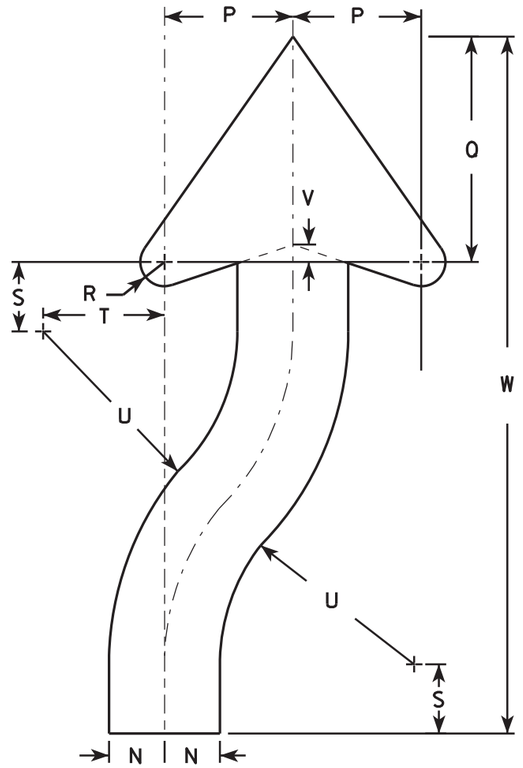




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

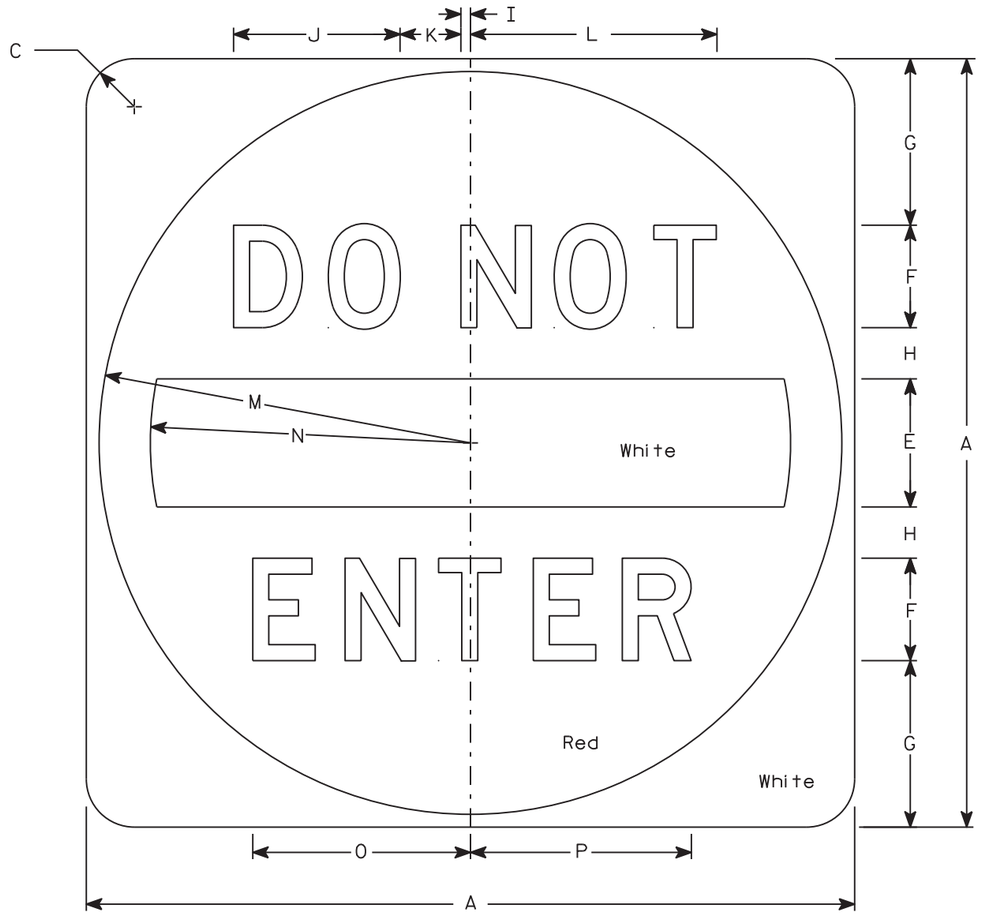
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 336	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

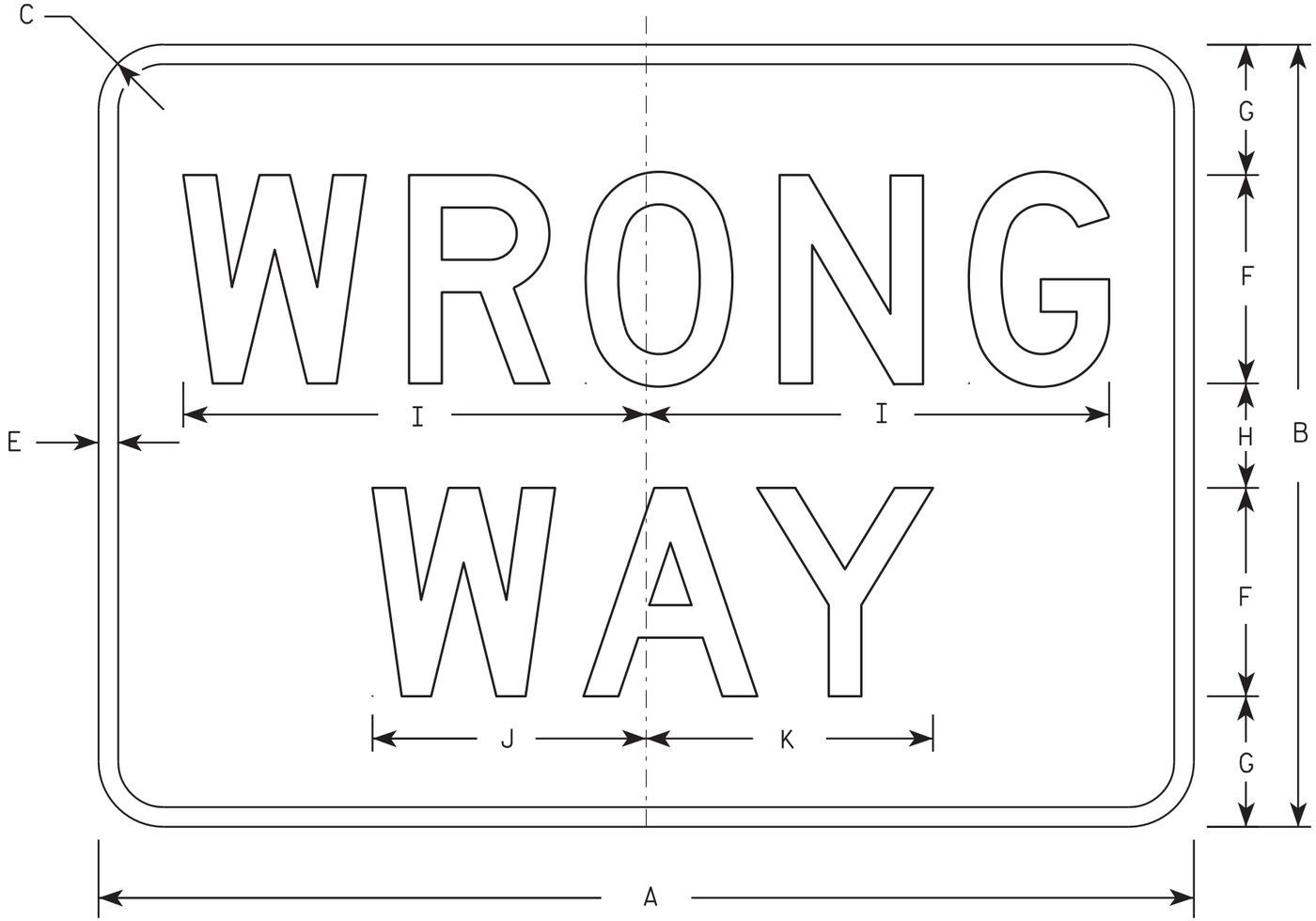
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 337 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

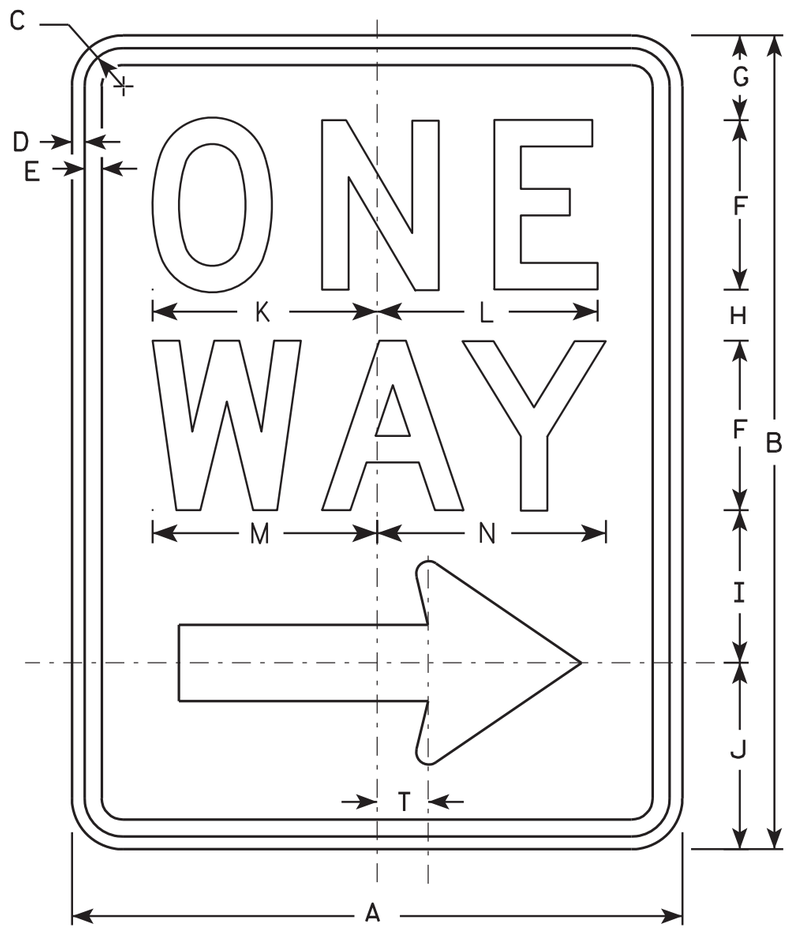
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

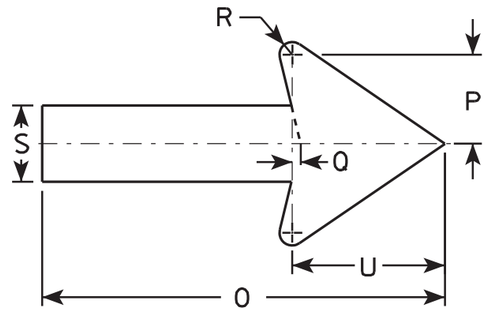
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 338	E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

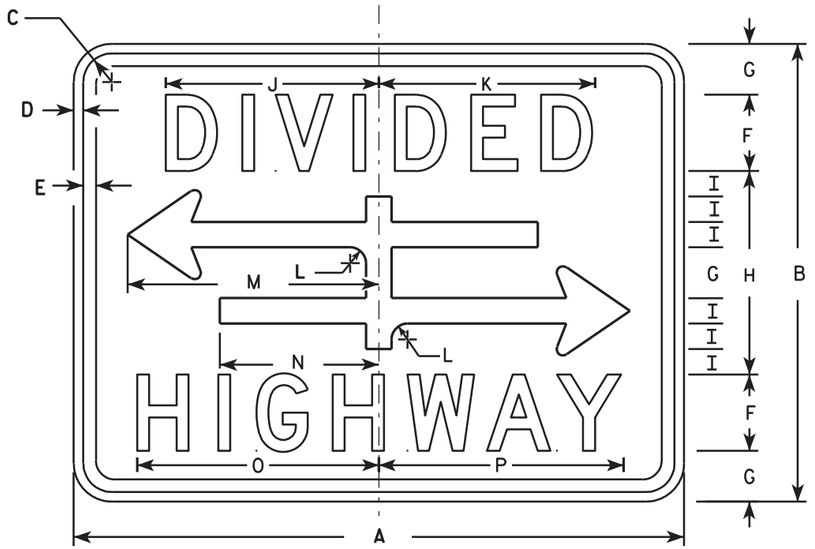
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

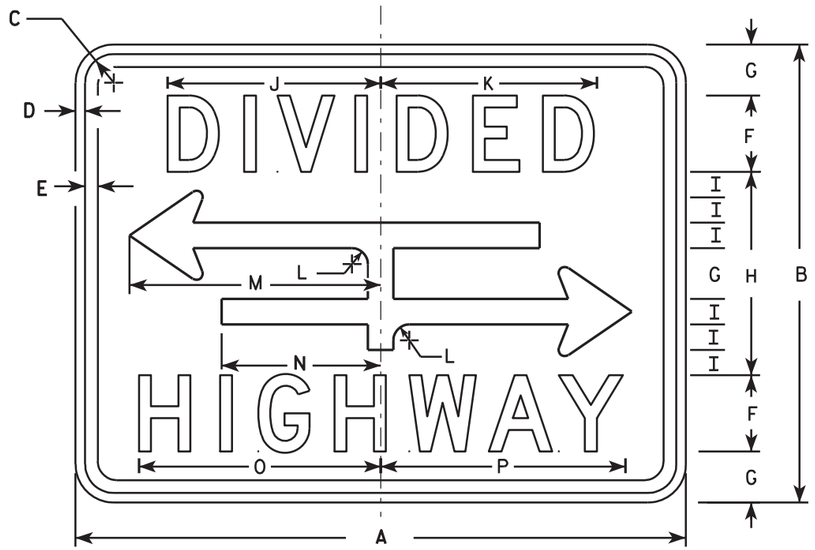
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 339	E



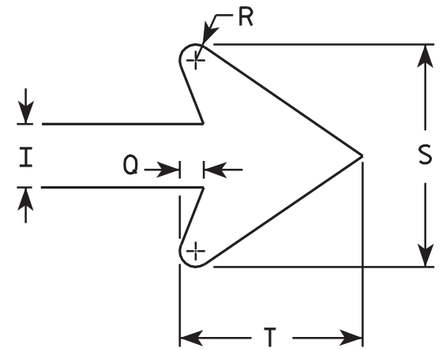
R6-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R6-3A



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

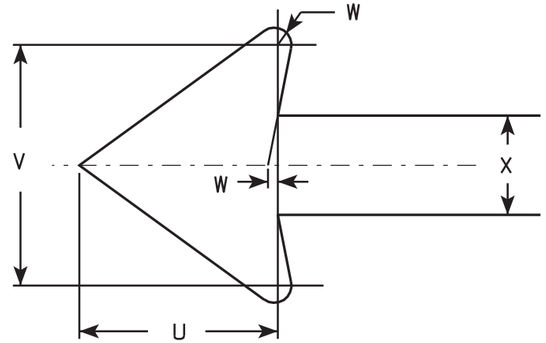
SHEET NO: 340 E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

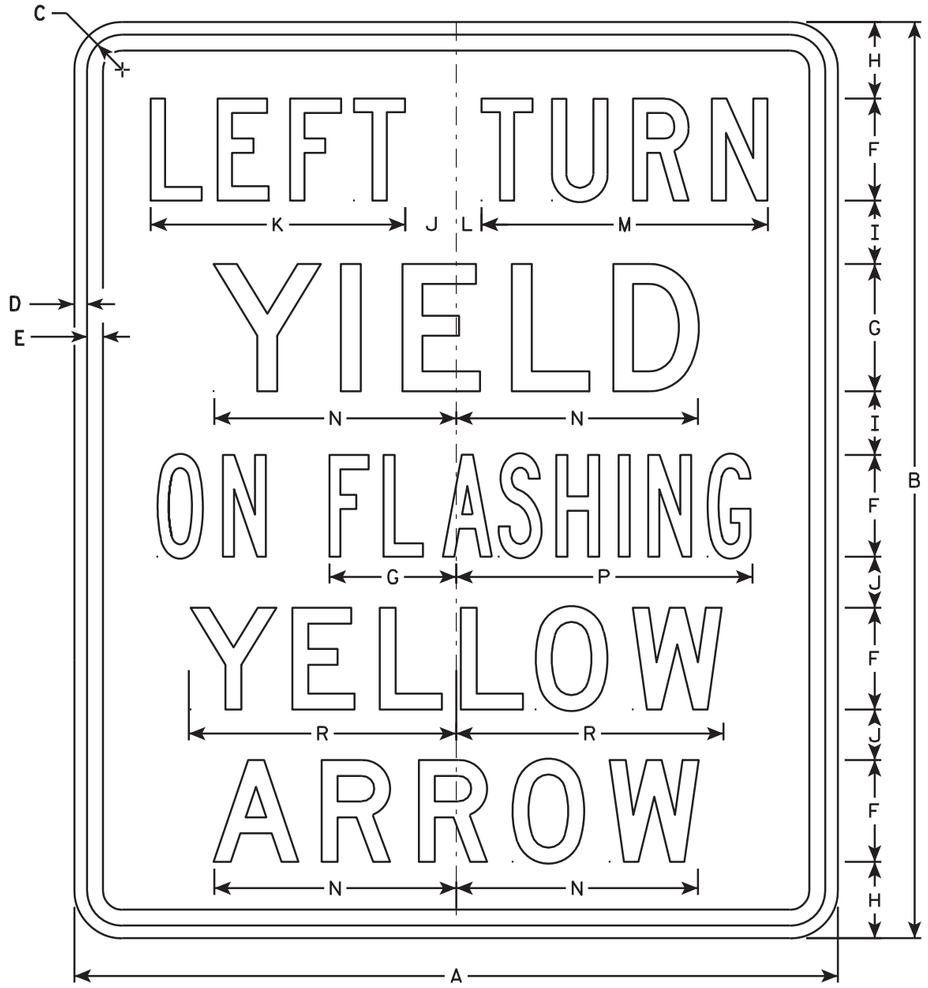
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 341	E

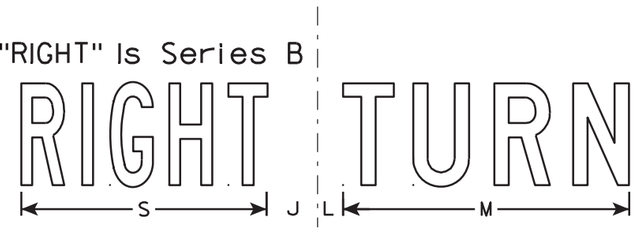


R10-50L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C.
   Lines 2, 4 and 5 are Series D.
   Line 3 is Series B.

"RIGHT" Is Series B



R10-50R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	4	5	3	2 1/2	2	10	1	11 1/4	9 1/2	4 1/4	11 5/8		10 1/2	9 5/8								7.5
2M	30	36	1 3/8	1/2	5/8	4	5	3	2 1/2	2	10	1	11 1/4	9 1/2	4 1/4	11 5/8		10 1/2	9 5/8								7.5
3																											
4																											
5																											

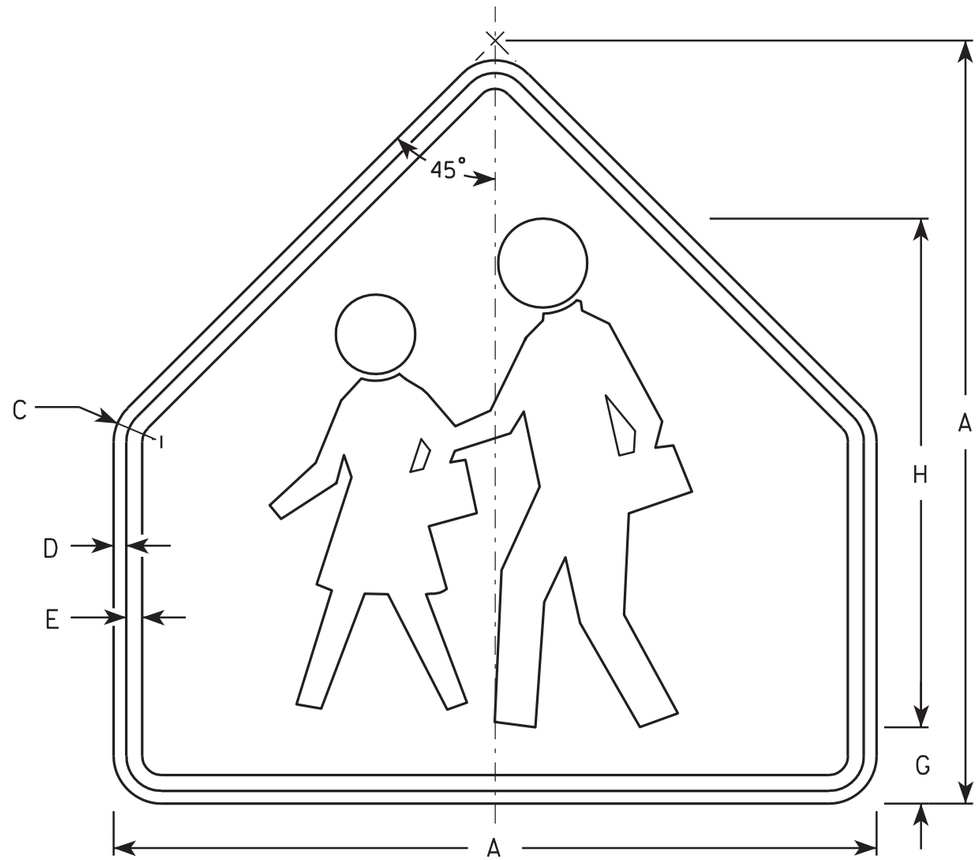
STANDARD SIGN
R10-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/11/13 PLATE NO. R10-50.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 342	E



S1-1

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-Green
   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	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

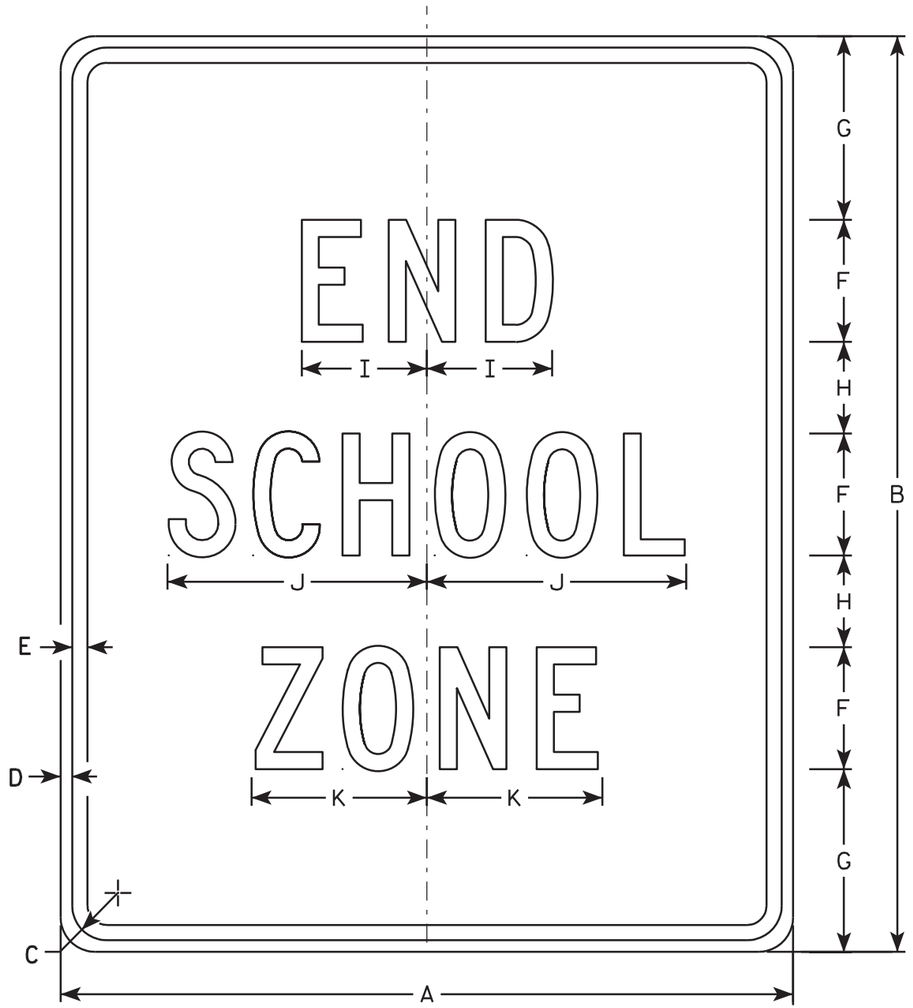
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 343	E



S5-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

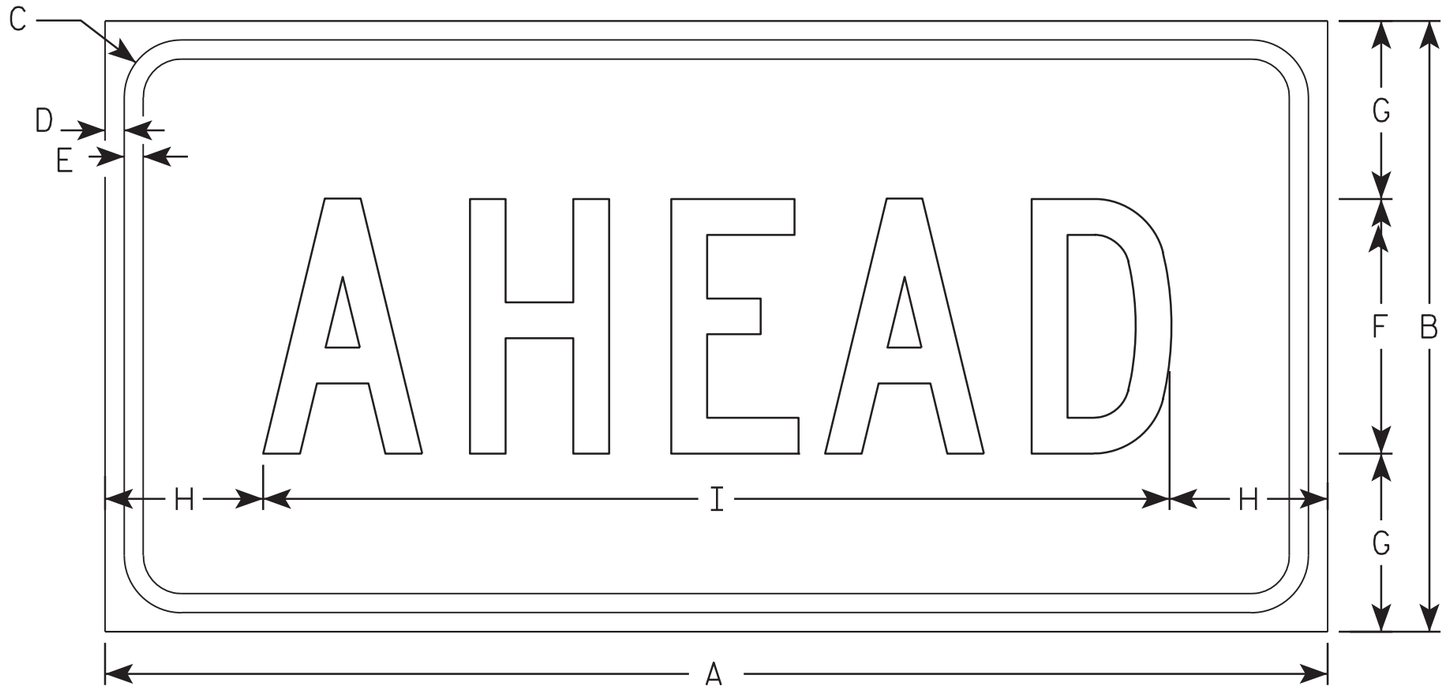
STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/8/11 PLATE NO. S5-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 344 | E



S16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
S16-9P

WISCONSIN DEPT OF TRANSPORTATION

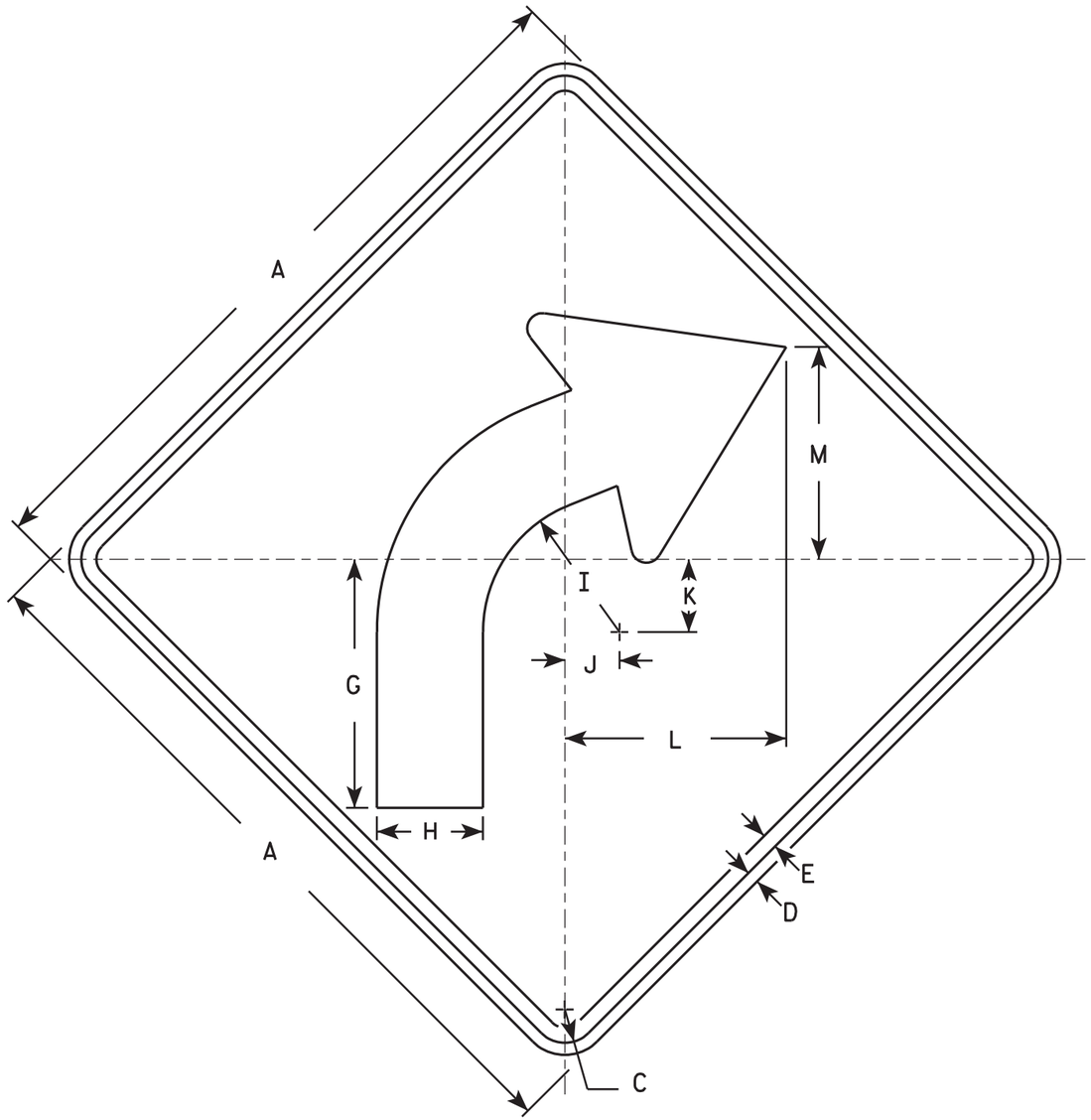
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

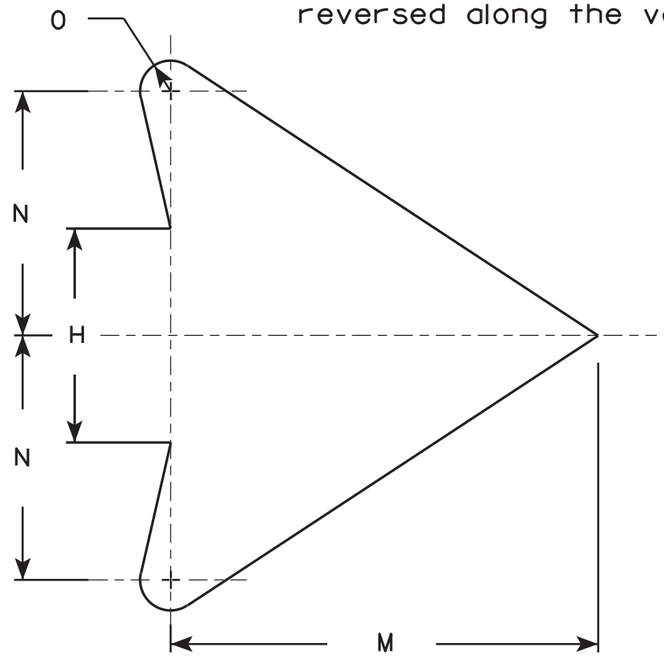
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 345 | E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

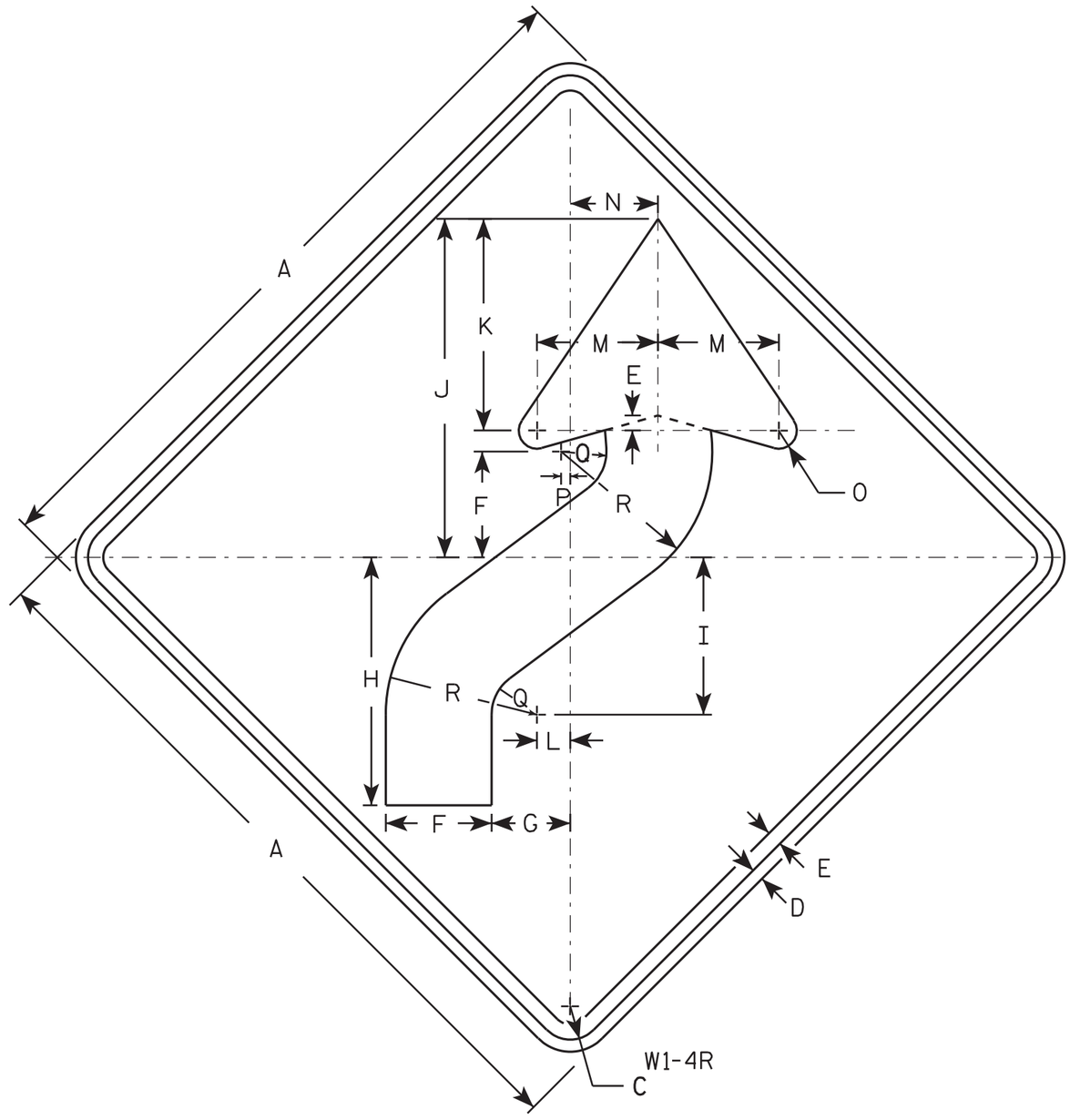
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 346	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

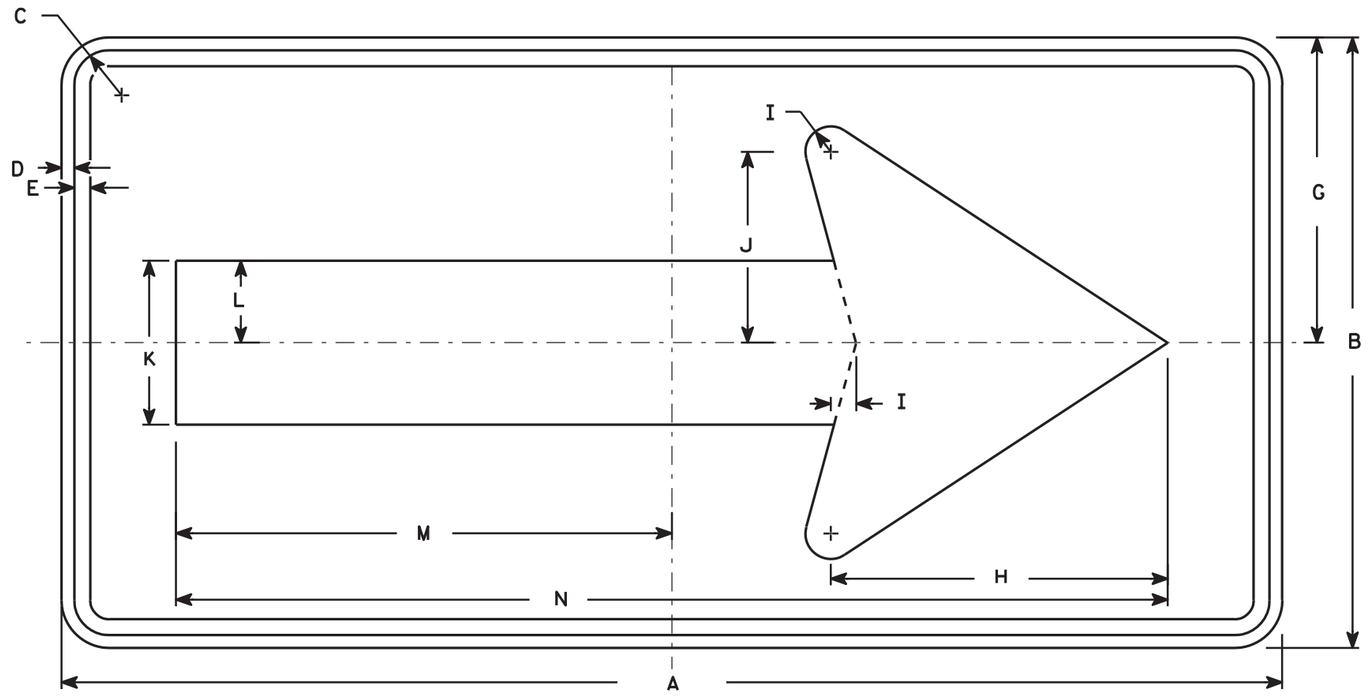
STANDARD SIGN
W1-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 347 | E



W1-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

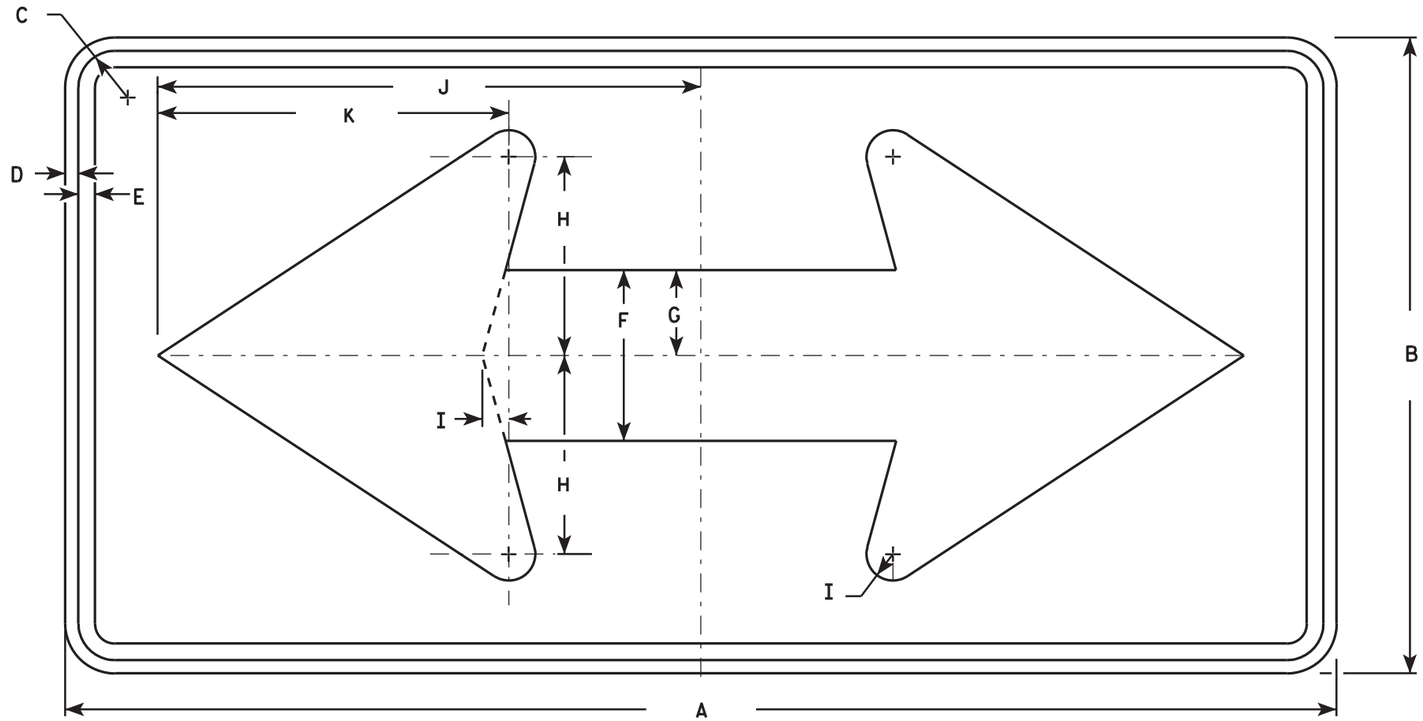
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 348



W1-7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

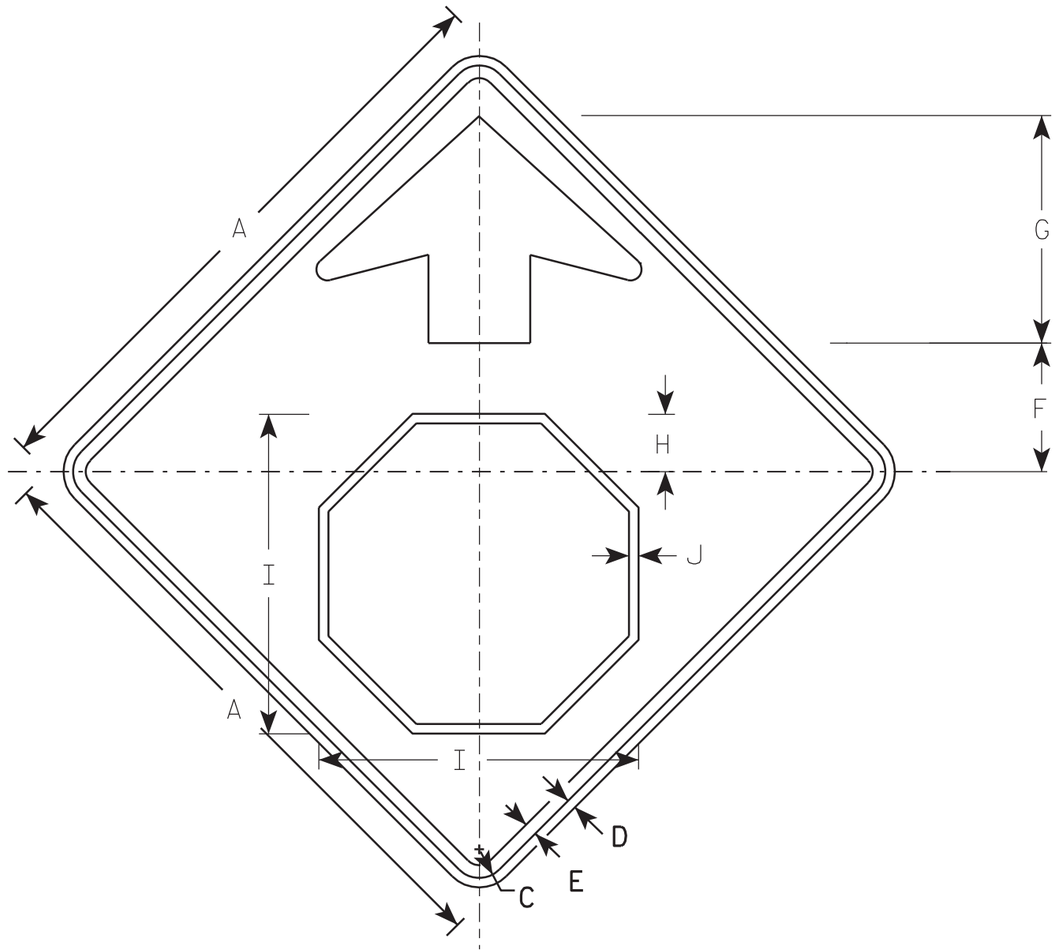
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

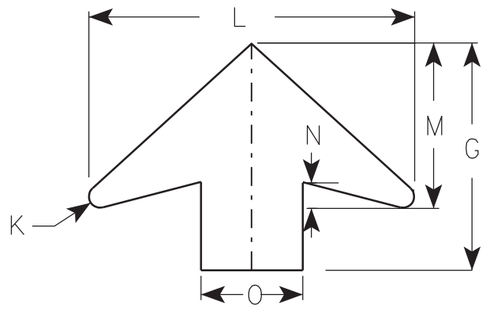
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 349 | E



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

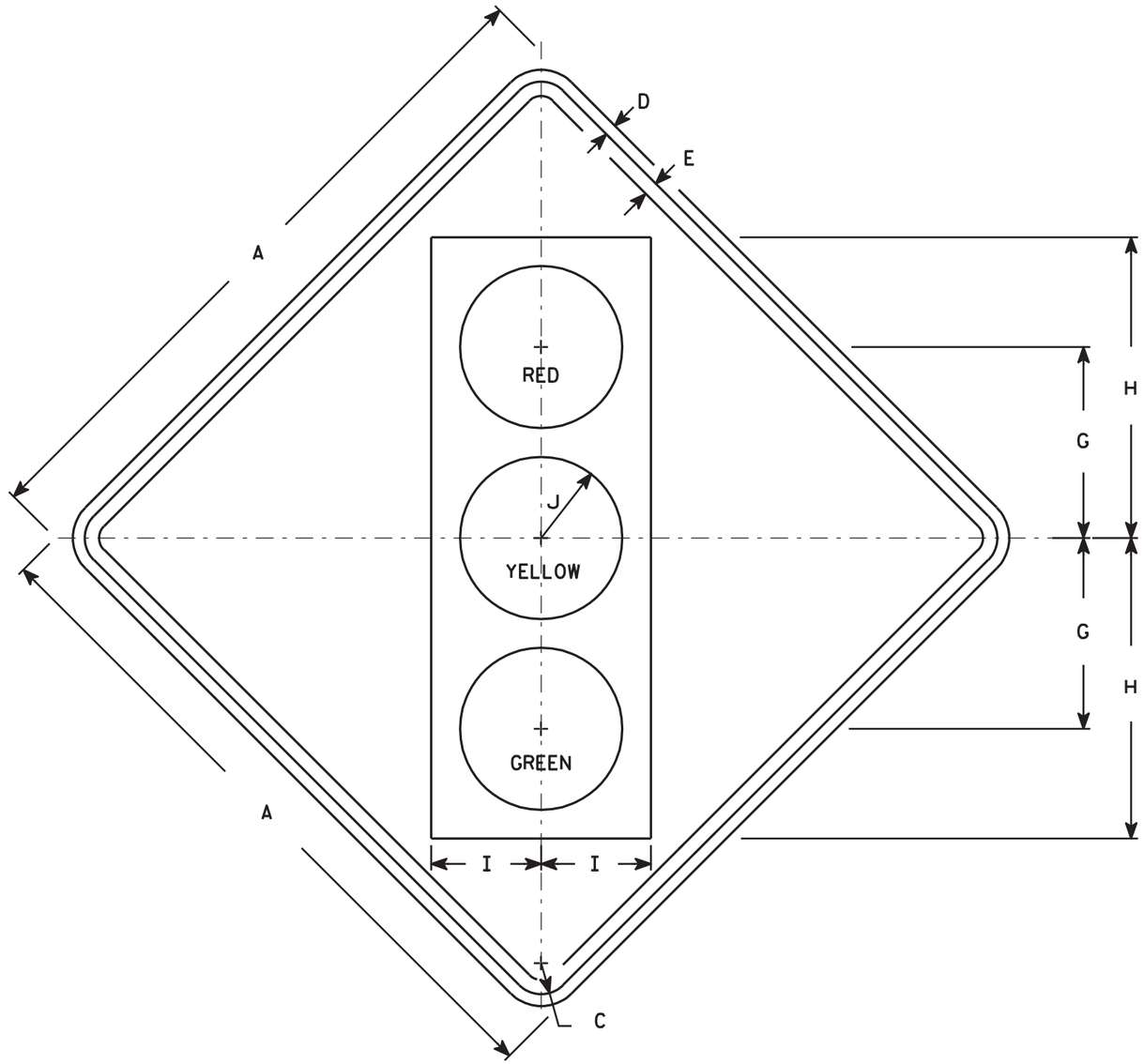
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 350 E



W3-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

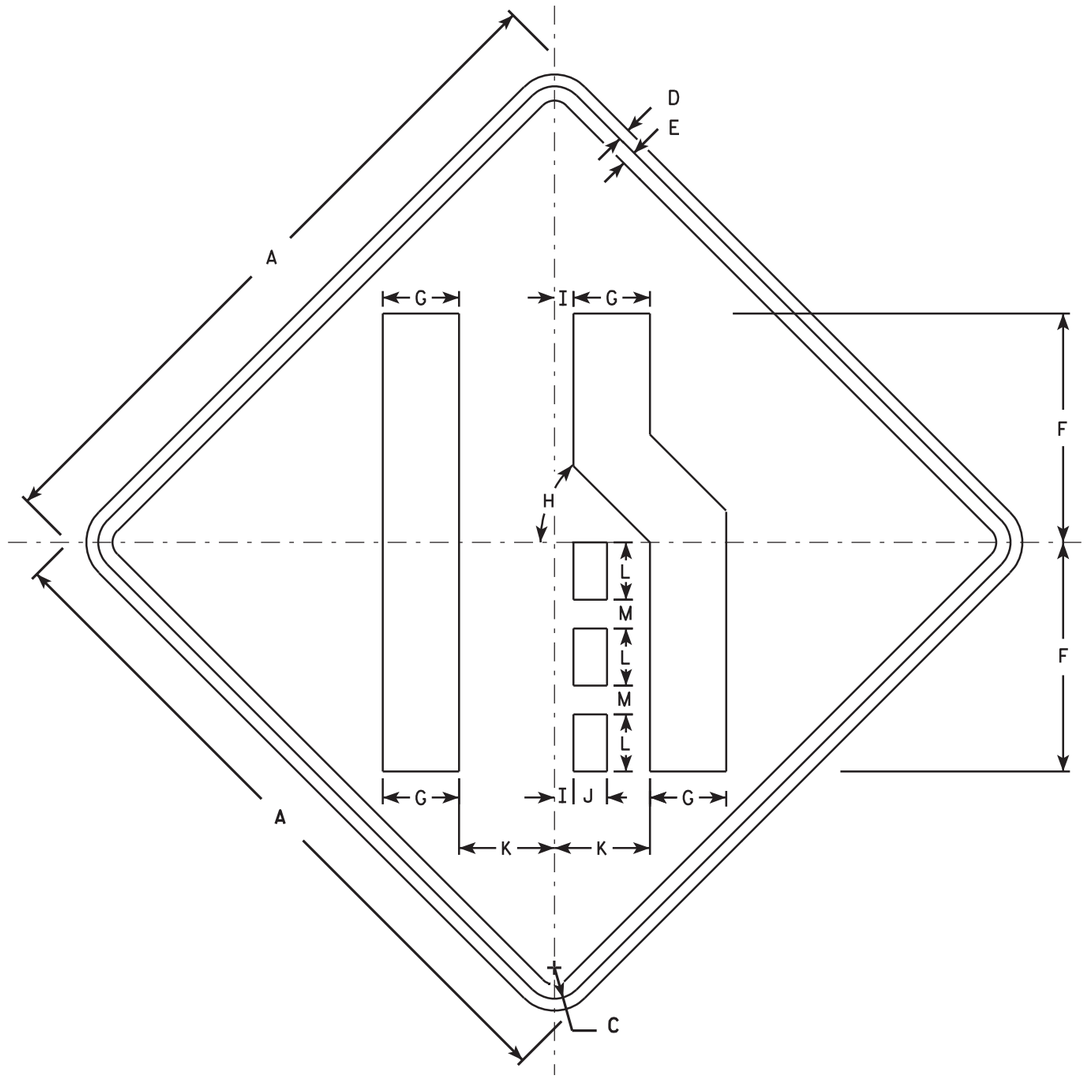
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 351	E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	1/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

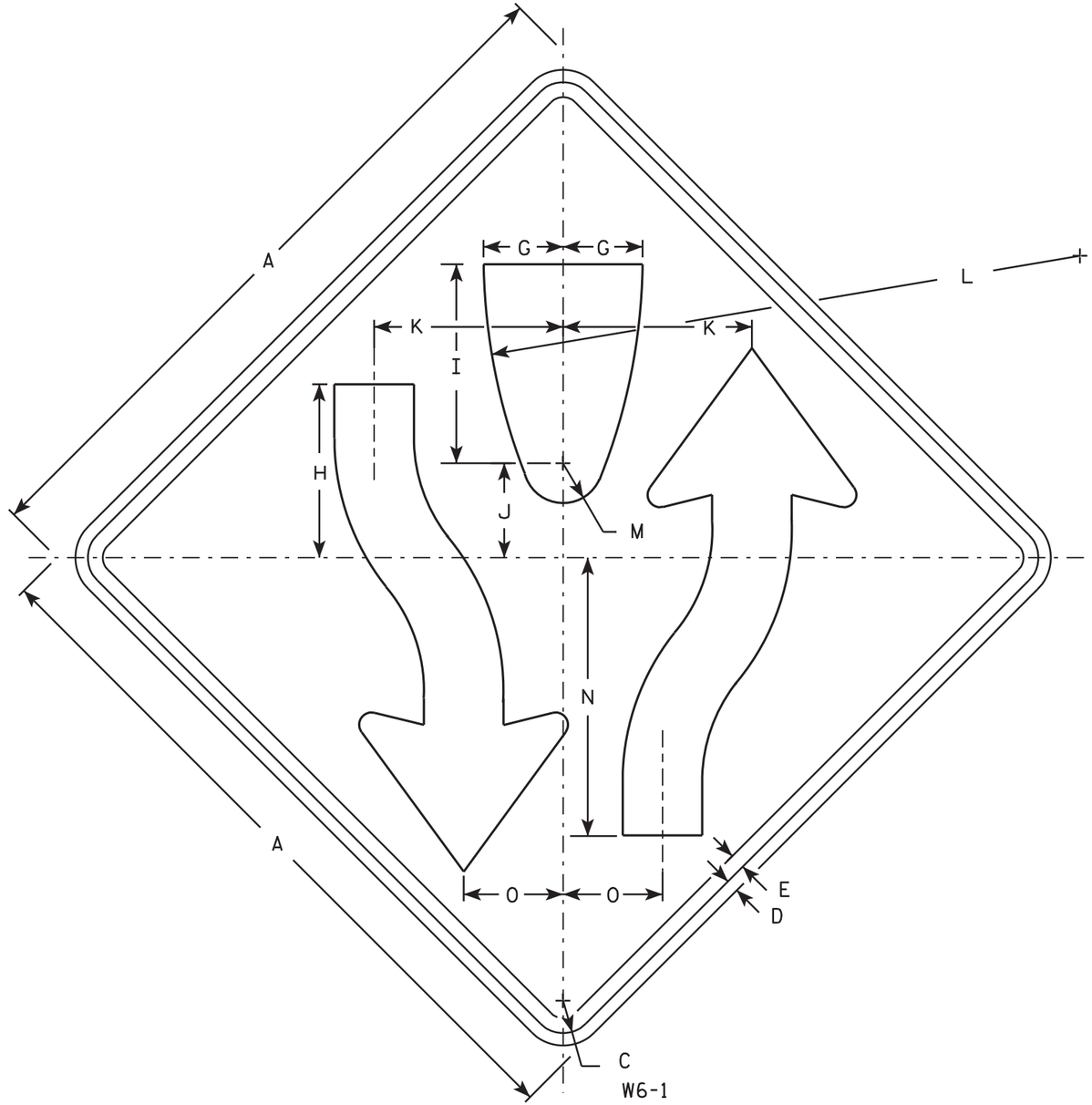
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

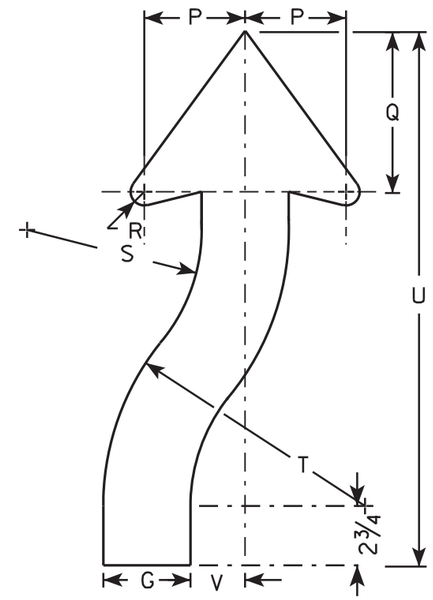
PROJECT NO:

SHEET NO: 352 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 but is rotated 180° when mounted.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

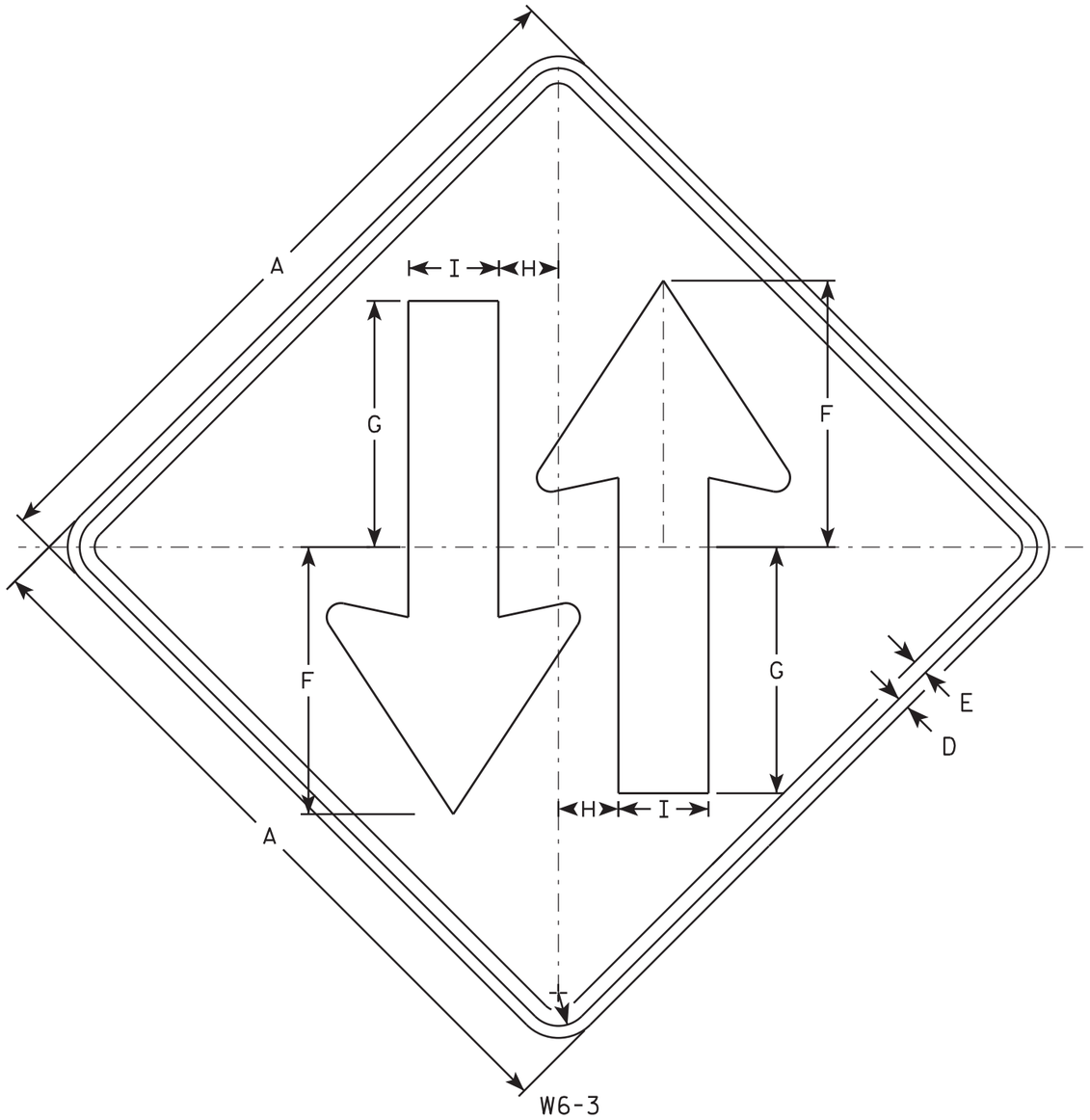
STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

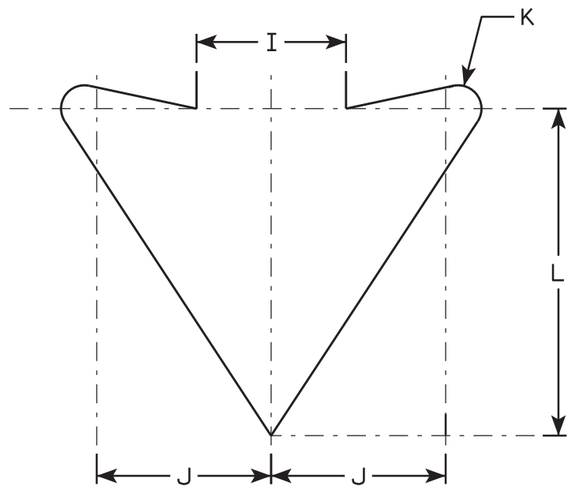
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 353	E



W6-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 1/8	10 1/4	2 1/2	3 3/4	4 3/8	5/8	8 1/4															6.25
2S	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
2M	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
3																											
4	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0
5	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0

STANDARD SIGN
W6-3

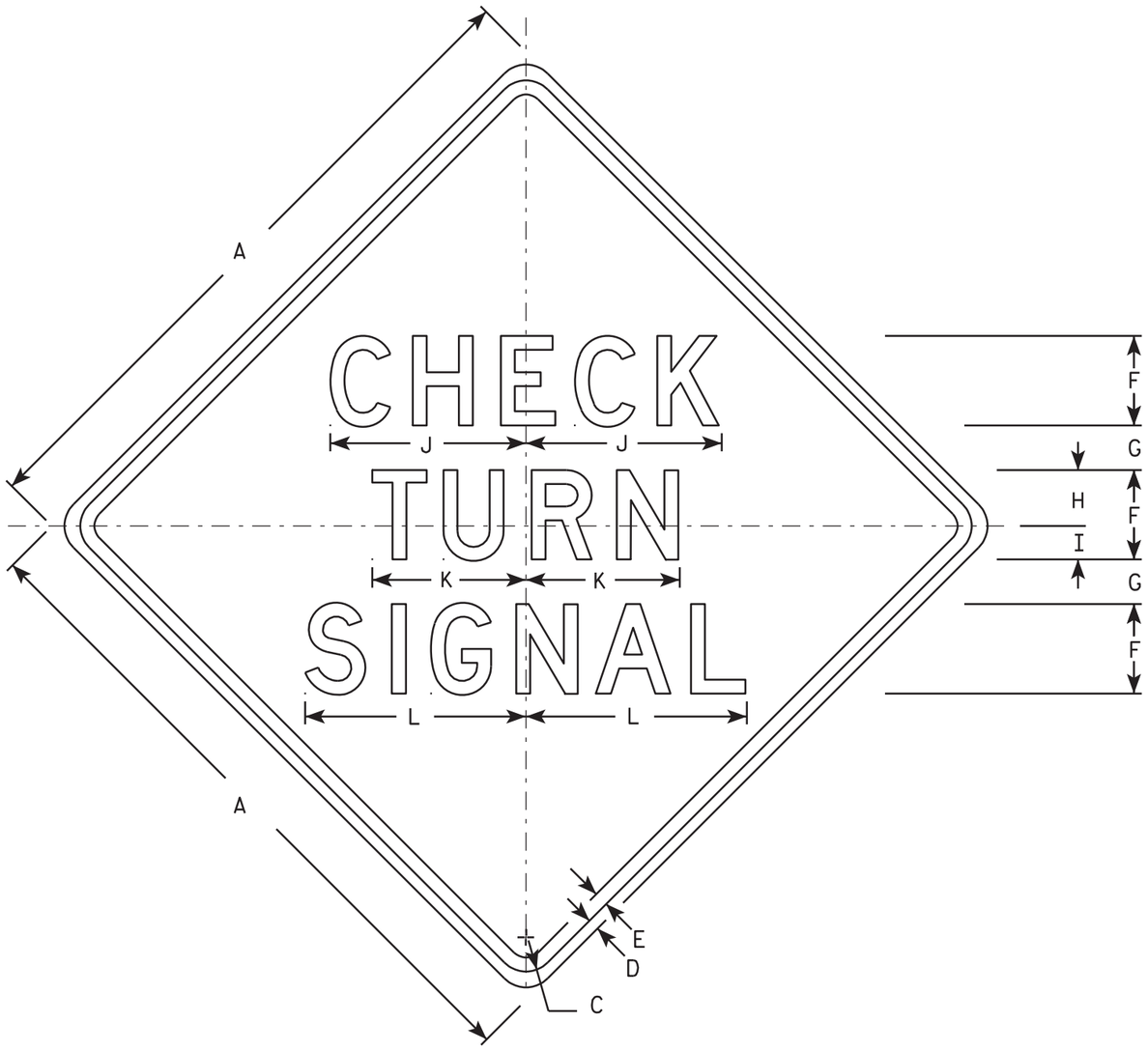
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/16 PLATE W6-3.11

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W63.DGN PLOT DATE : 10-MAR-2016 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42



W8-68

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	4	2	2 1/2	1 1/2	8 3/4	6 7/8	9 7/8															6.25
2M	30		1 3/8	1/2	5/8	4	2	2 1/2	1 1/2	8 3/4	6 7/8	9 7/8															6.25
3																											
4																											
5																											

STANDARD SIGN
W8-68

WISCONSIN DEPT OF TRANSPORTATION

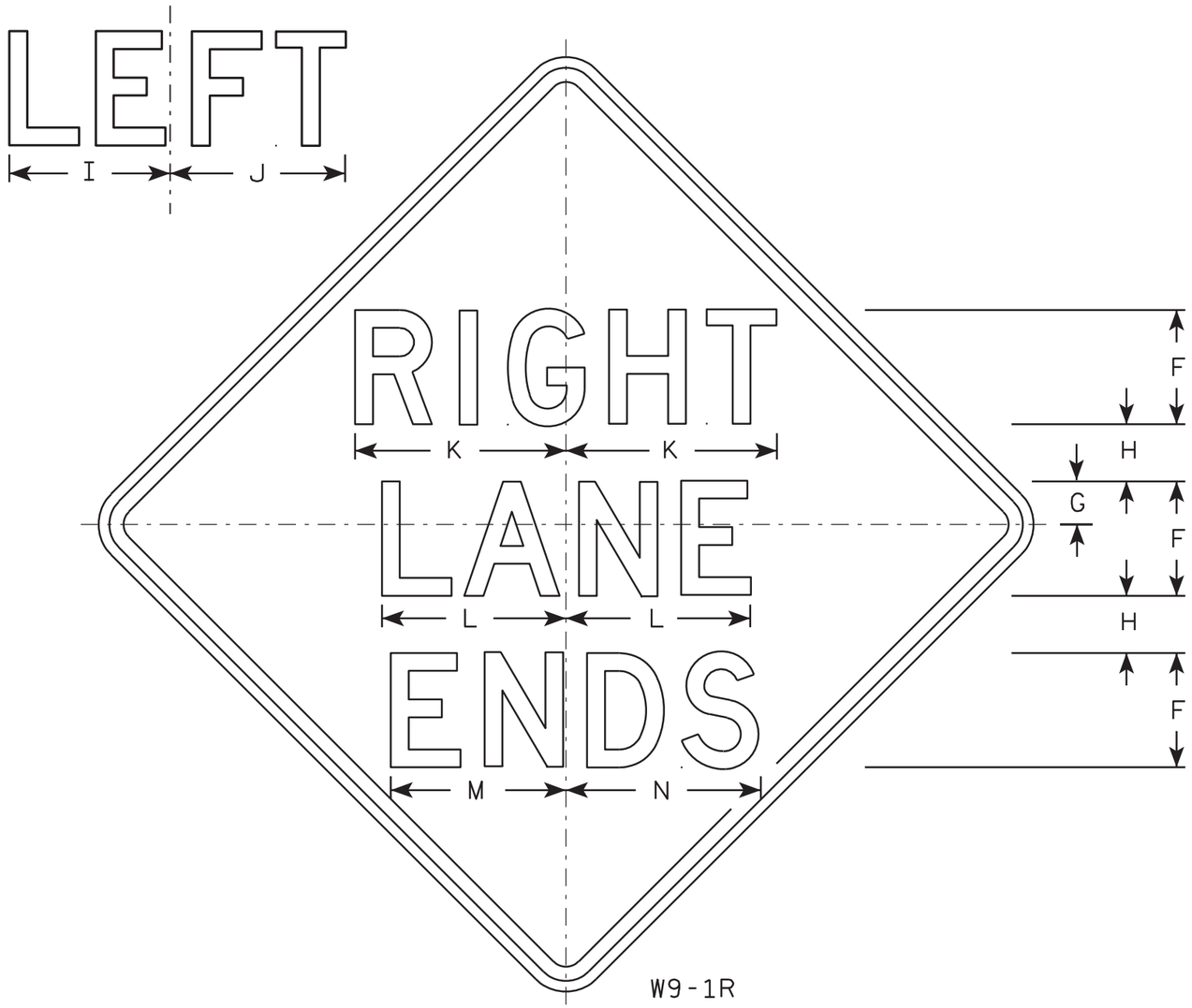
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/18/13 PLATE NO. W8-68.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 355	E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W868.DGN PLOT DATE : 18-MAR-2013 10:56 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.549705:1.000000
WISDOT/CADDS SHEET 42



W9-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. W9-1L same as W9-1R except the word Left replaces Right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	1 1/2	2 1/2	7 1/8	7 5/8	9 1/4	8 1/8	7 5/8	8 5/8													6.25
2S	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
2M	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
3	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
4	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
5	48		2 1/4	3/4	1	8	3	4	11 1/4	12 1/4	14 3/4	12 7/8	12 1/4	13 5/8													16.0

STANDARD SIGN
W9-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

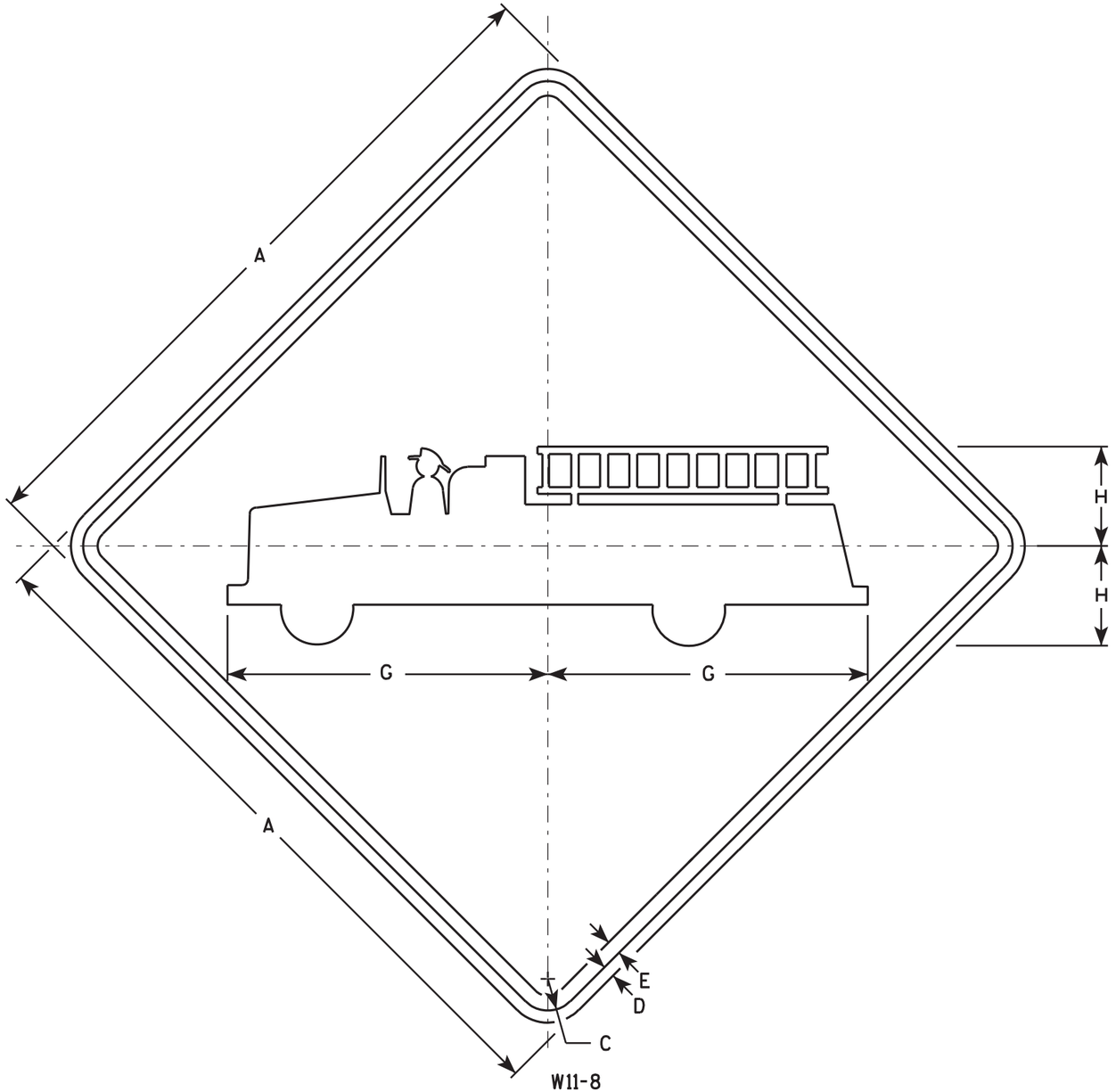
DATE 03/18/13 PLATE NO. W9-1.8

PROJECT NO:

SHEET NO: 356 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W91.DGN PLOT DATE : 18-MAR-2013 11:42 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W11-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		11	3 3/8																			4.0
2S	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
2M	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
3	36		1 5/8	5/8	3/4		16 1/2	5 1/4																			9.0
4	48		2 1/4	3/4	1		22	7																			16.0
5																											

STANDARD SIGN
W11-8

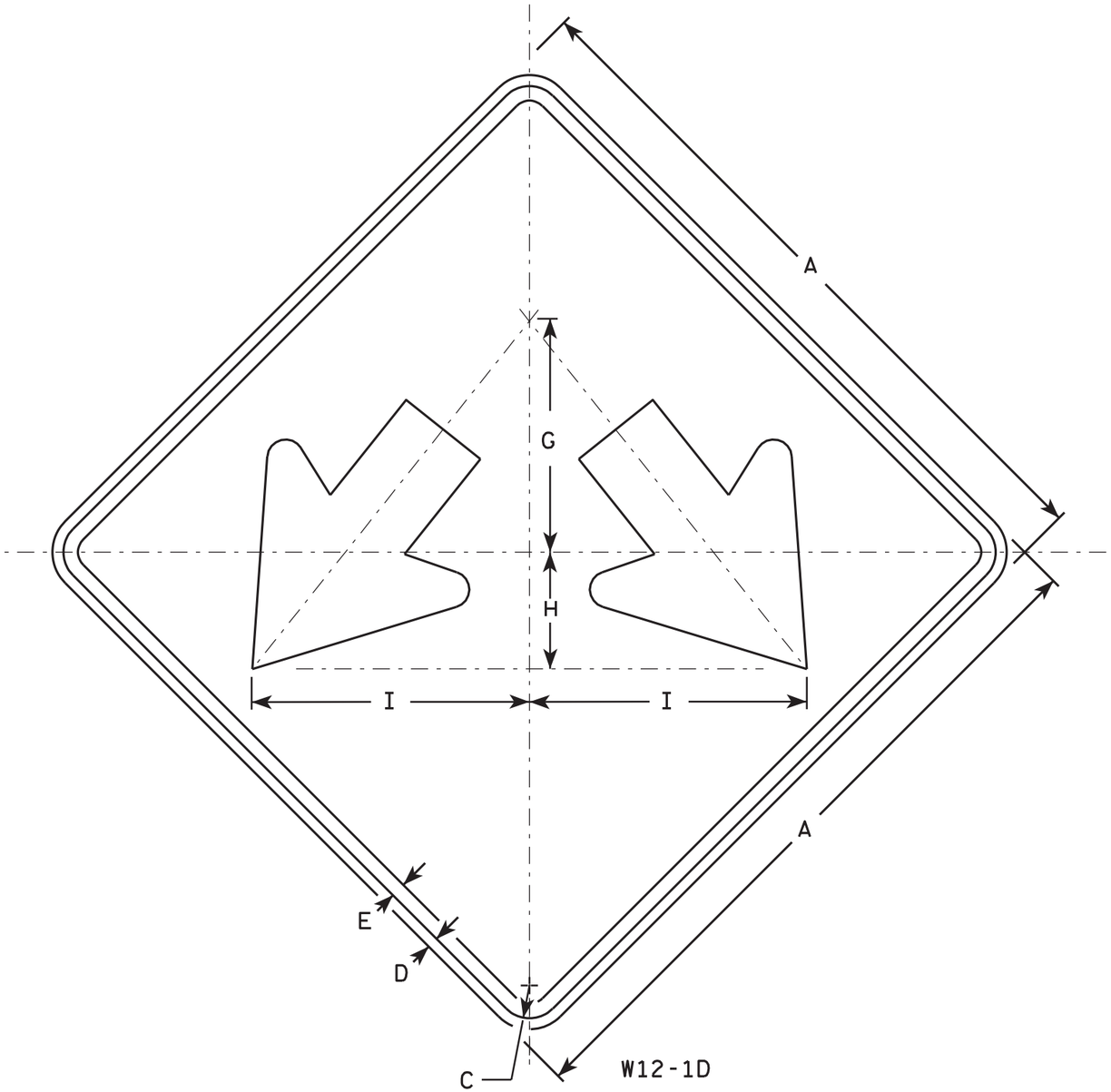
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-8.7

PROJECT NO:

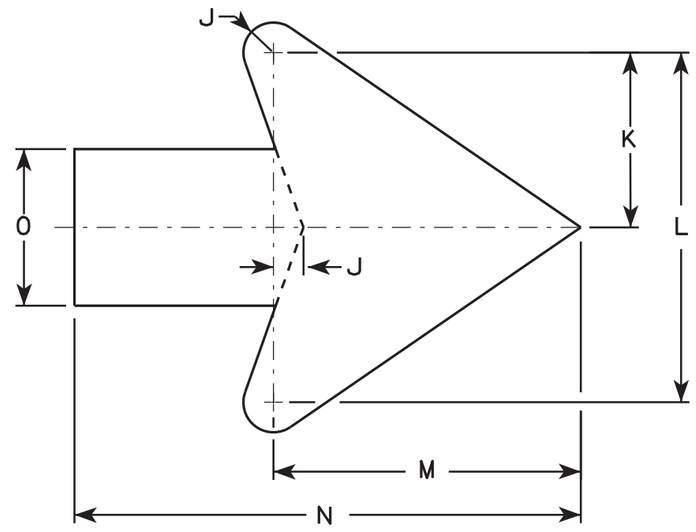
SHEET NO: 357 E



W12-1D

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W12-1D

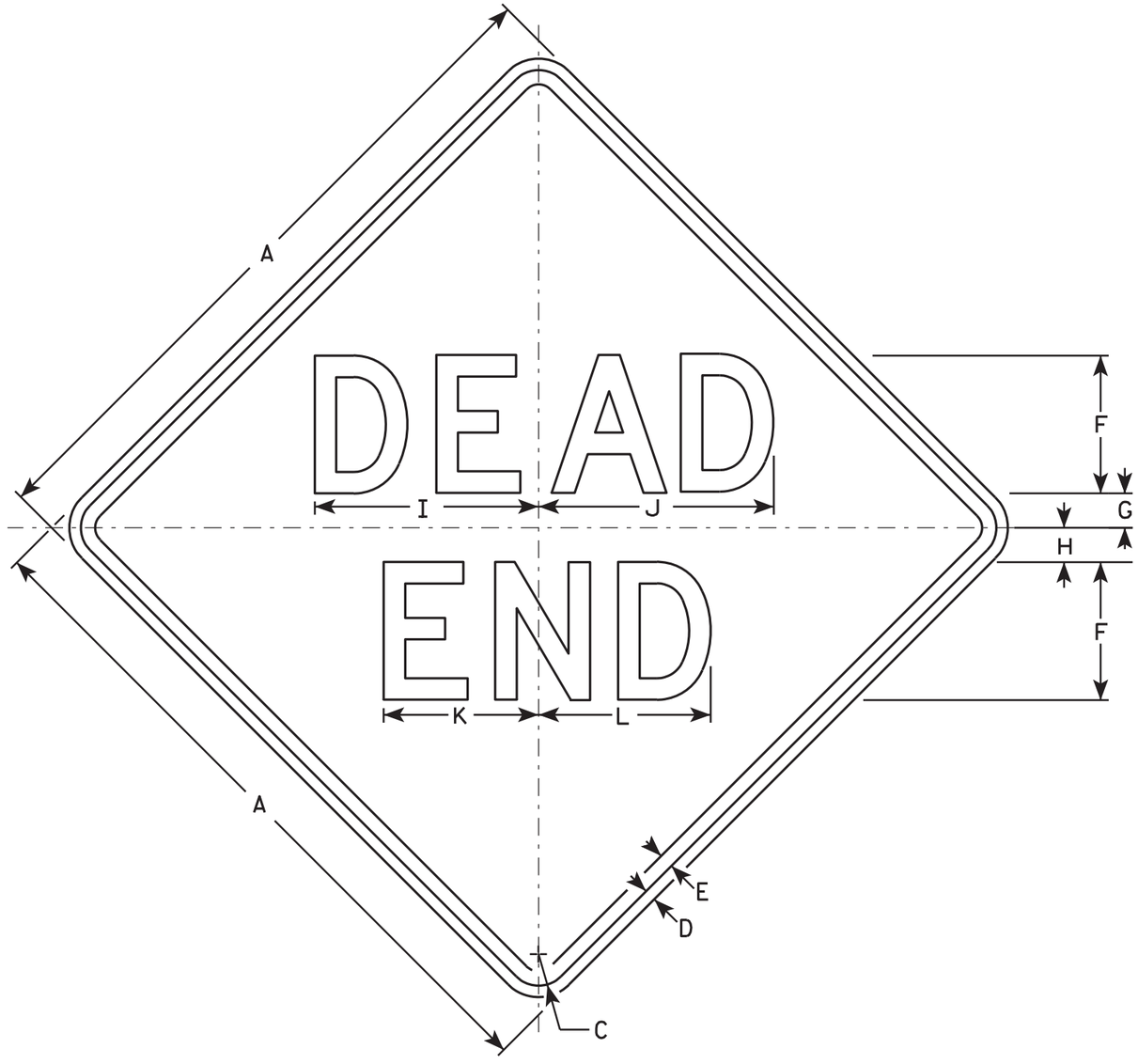
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 358	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W121D.DGN PLOT DATE : 13-MAR-2013 13:26 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.713802:1.000000



W14-1

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. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		1 5/8	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

STANDARD SIGN
W14-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

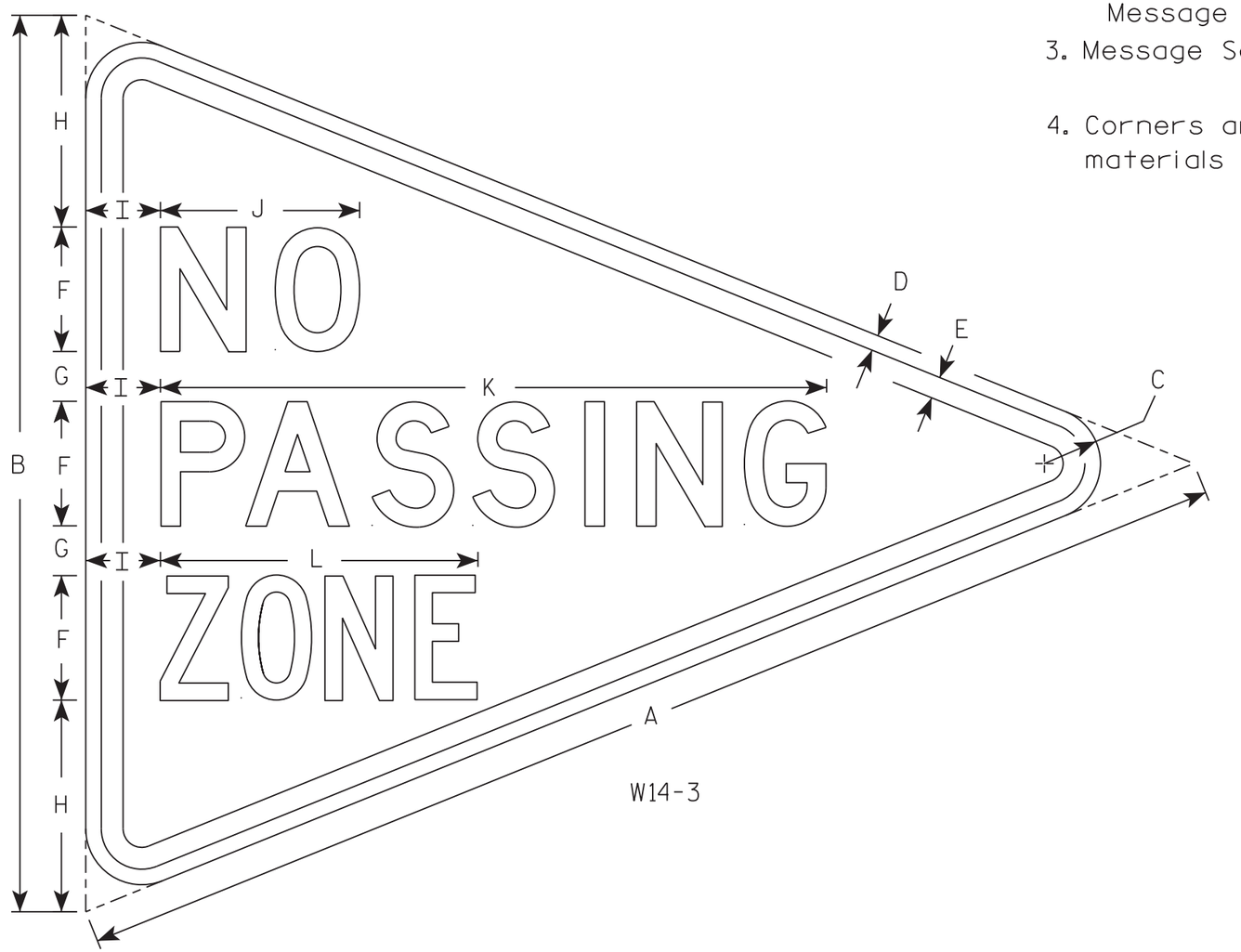
DATE 3/13/13 PLATE NO. W14-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 359	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W141.DGN PLOT DATE : 13-MAR-2013 13:30 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.202372:1.000000 WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - Lines 1 and 2 are Series D.
   Line 3 is series C.
4. Corners and borders shall be rounded on all base materials for this sign.



W14-3

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															5.56
2M																											
3																											
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

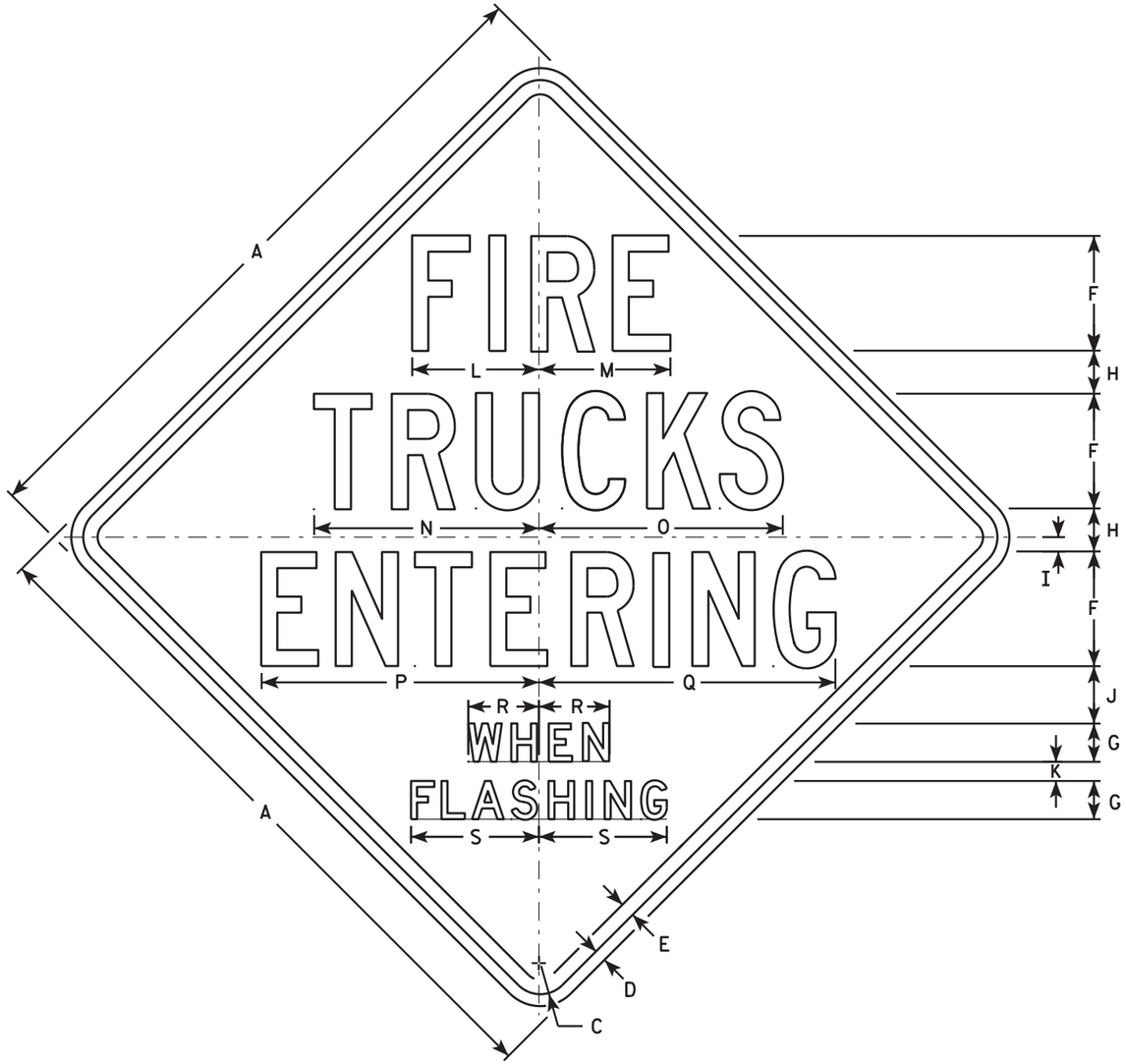
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W14-3.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 360 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W143.DGN PLOT DATE : 21-MAR-2017 08:48 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 5.650195:1.000000

WISDOT/CADDS SHEET 42



W54-60

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - Lines 1, 2, & 3 are Series C
   Lines 4 & 5 are Series D.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4	1 1/2	1 1/2	1/2	1 3/4	3/4	4 3/8	4 1/2	7 7/8	8 1/2	9 5/8	10 1/4	2 3/4	5								4.00
2S	36		1 5/8	5/8	3/4	6	2	2 1/4	3/4	3	1	6 5/8	6 7/8	11 3/4	12 3/4	14 1/2	15 1/2	3 3/4	6 3/4								9.00
2M	36		1 5/8	5/8	3/4	6	2	2 1/4	3/4	3	1	6 5/8	6 7/8	11 3/4	12 3/4	14 1/2	15 1/2	3 3/4	6 3/4								9.00
3	36		1 5/8	5/8	3/4	6	2	2 1/4	3/4	3	1	6 5/8	6 7/8	11 3/4	12 3/4	14 1/2	15 1/2	3 3/4	6 3/4								9.00
4																											
5																											

STANDARD SIGN
W54-60

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

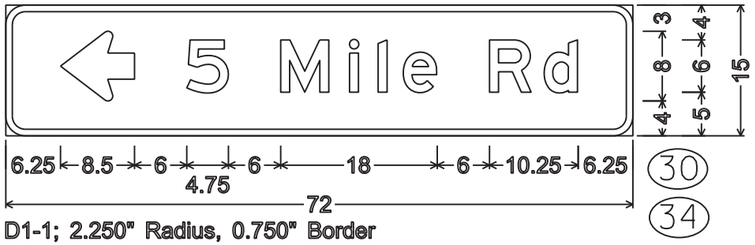
DATE 4/27/16 PLATE NO. W54.60.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

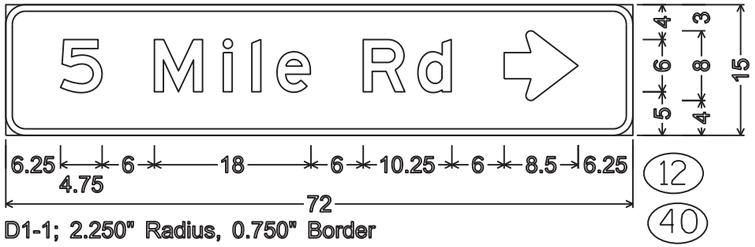
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W5460.DGN PLOT DATE : 27-APR-2016 09:59 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 7.783368:1.000000
WISDOT/CADDS SHEET 42

NOTES

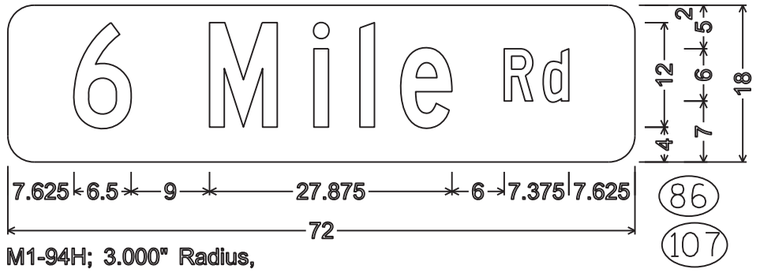
1. Signs are Type II- Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted
4. M1-94H and M1-94S base material is .125" aluminum



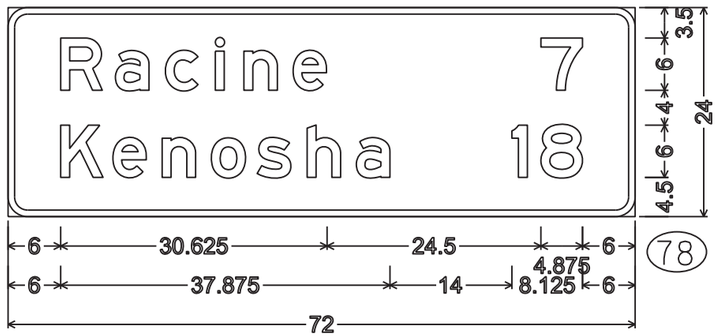
D1-1; 2.250" Radius, 0.750" Border



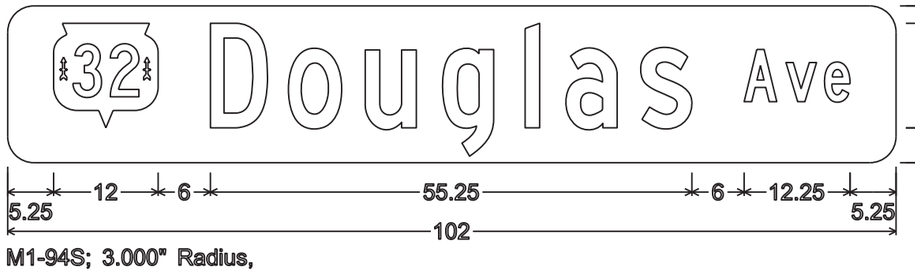
D1-1; 2.250" Radius, 0.750" Border



M1-94H; 3.000" Radius,
"6" C; "Mile" C; "Rd" C



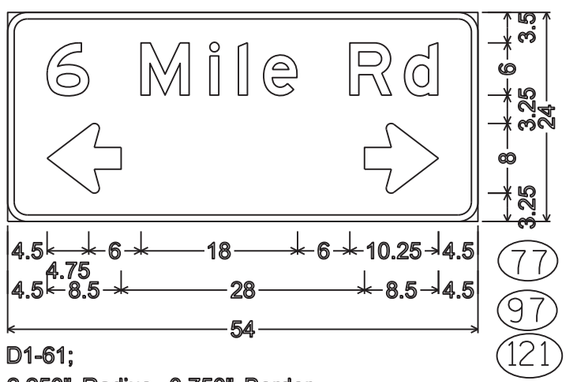
D2-2; 2.250" Radius, 0.750" Border



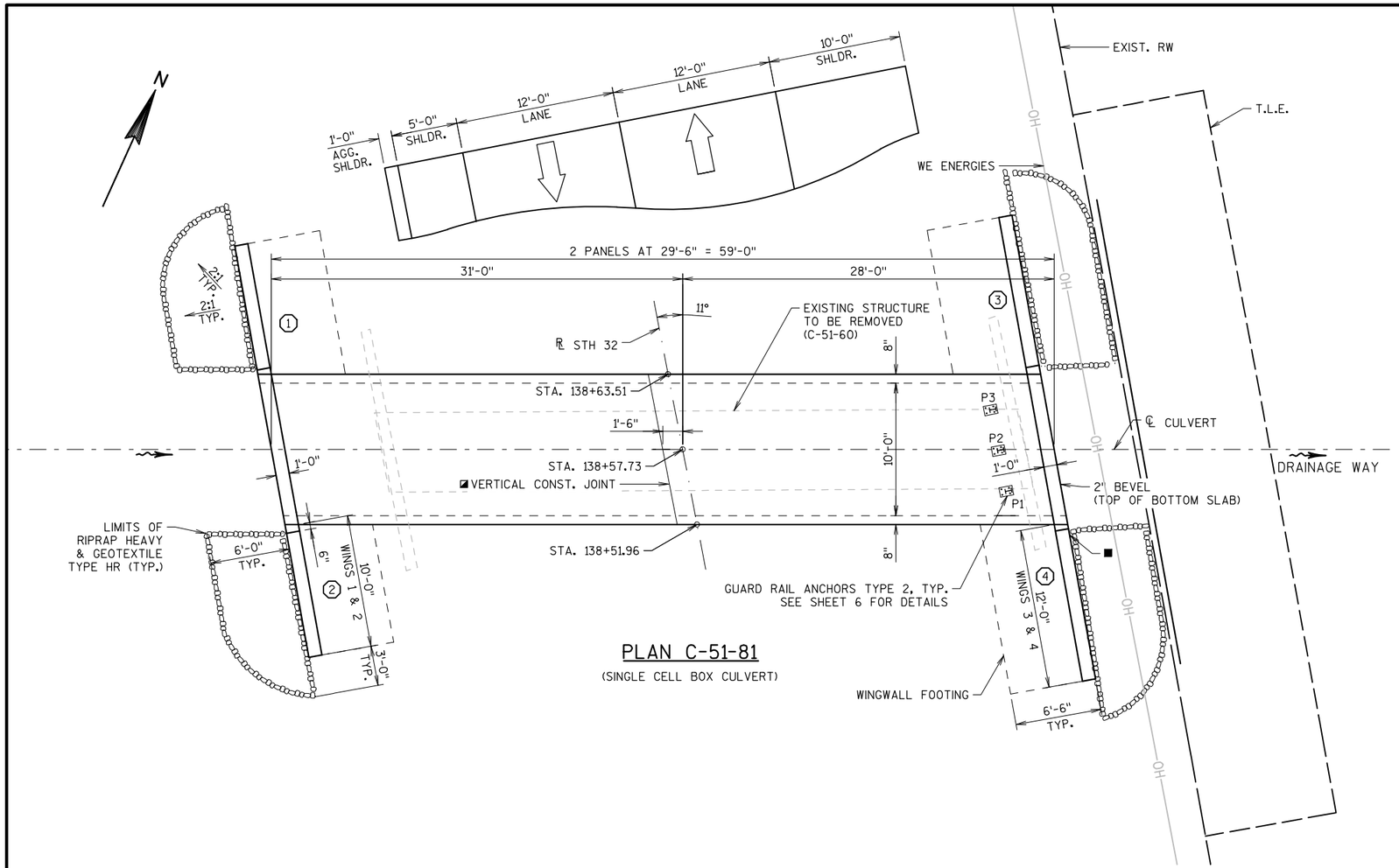
M1-94S; 3.000" Radius,
State Highway 32 M1-56; "Douglas" C; "Ave" C



D1-1; 2.250" Radius, 0.750" Border

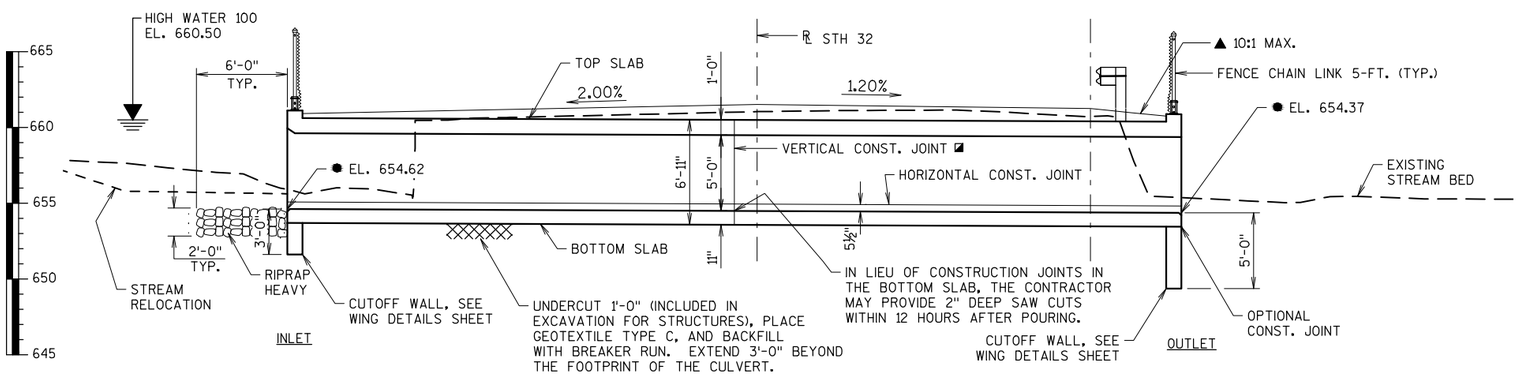


D1-61;
2.250" Radius, 0.750" Border



PLAN C-51-81

(SINGLE CELL BOX CULVERT)



ELEVATION

(LOOKING NORTH)

DESIGN DATA

LIVE LOAD

DESIGN LOADING	HL-93
INVENTORY RATING FACTOR	1.05
OPERATIONAL RATING FACTOR	1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	255 KIPS

EARTH LOAD

STRUCTURE IS DESIGNED FOR FILL HEIGHT RANGE OF 0.5 TO 1.5 FEET.

MATERIAL PROPERTIES

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

TRAFFIC DATA STH 32

ADT (2018) =	11,740
ADT (2038) =	13,477
DESIGN SPEED =	50 MPH

HYDRAULIC DATA

100 YEAR FREQUENCY

DRAINAGE AREA	0.3 SQ. MI.
Q_{100}	200 C.F.S.
VELOCITY	8.43 F.P.S.
HIGH WATER $_{100}$	EL. 660.50
WATERWAY AREA	29 SQ. FT.
SCOUR CRITICAL CODE	8
OVERTOPPING FREQUENCY	>100 YEARS

2 YEAR FREQUENCY

Q_2	60 C.F.S.
VELOCITY	3.7 F.P.S.
HIGH WATER $_2$	EL. 659.37

LEGEND

- ○ INDICATES WING NUMBER
- ■ NAME PLATE REQUIRED, SEE "WING DETAILS" SHEET
- ◪ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB
- ● ELEVATIONS PLACE THE TOP OF THE BOTTOM SLAB APPROXIMATELY 1'-0" BELOW THE STREAMBED.
- ▲ STRAIGHT LINE FILL FROM SHOULDER EDGE TO TOP OF HEADER. REQUIRED TO MEET BEAM GUARD EMBEDMENT CRITERIA.

WISCONSIN PROFESSIONAL ENGINEER
WILLIAM A. HOVE
E-33600
MADISON, WI

1/10/18

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION, NOTES, & QUANTITIES
3. SUBSURFACE EXPLORATION
4. BOX DETAILS
5. WING DETAILS
6. WING & MISCELLANEOUS DETAILS
7. FENCE DETAILS

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

CONSULTANT CONTACT
BILL HOVE, P.E.
TELEPHONE: (608) 826-6125

STATE PROJECT NUMBER

2350-09-71

NO.	DATE	REVISION	BY

CORRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SCR 02/20/18
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-51-81

STH 32 OVER DRAINAGE WAY

COUNTY	~~TOWN/CITY~~/VILLAGE
RACINE	CALEDONIA

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ERA	BH	PKF	BH

GENERAL PLAN

SHEET 1 OF 7

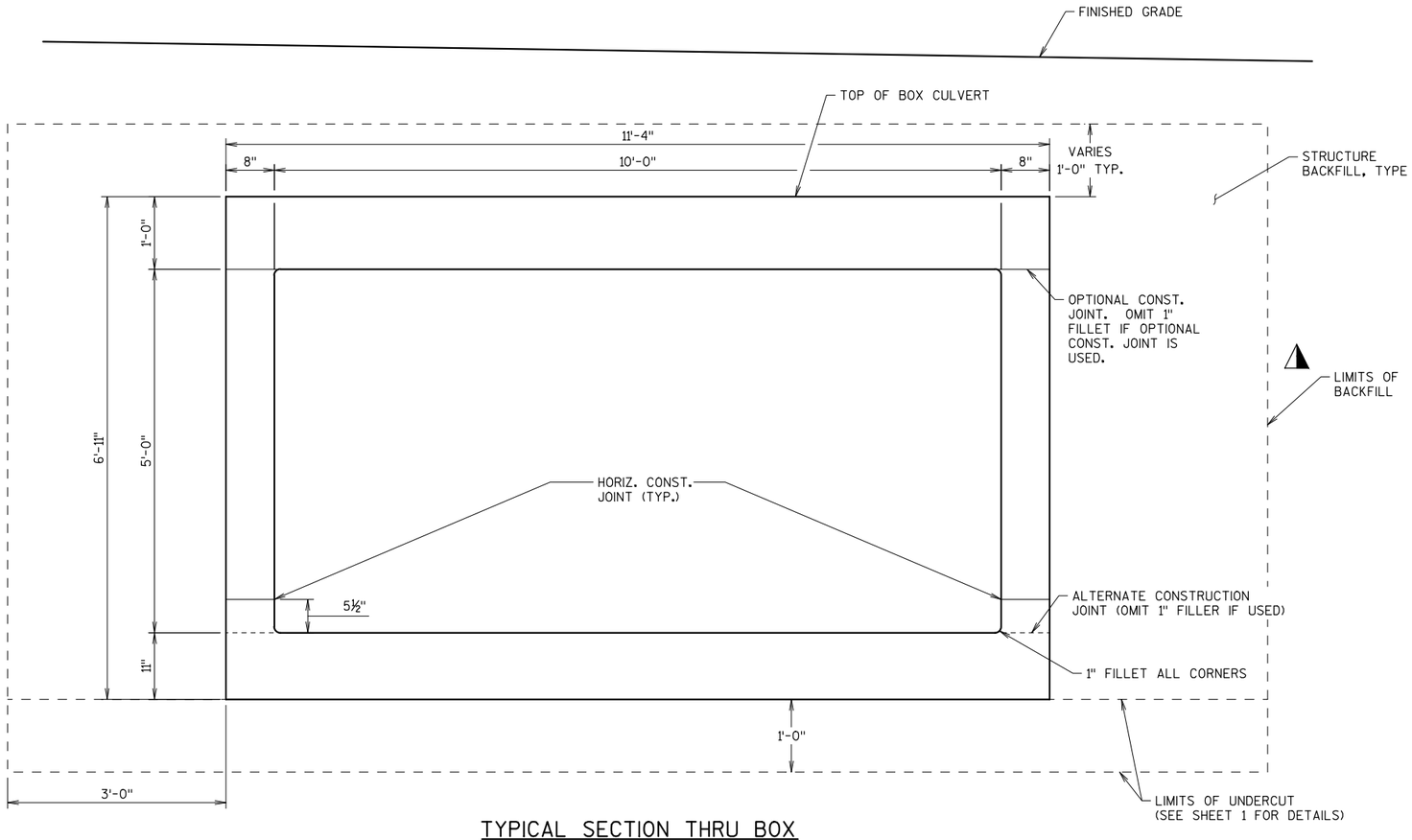
363

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STATE PROJECT NUMBER

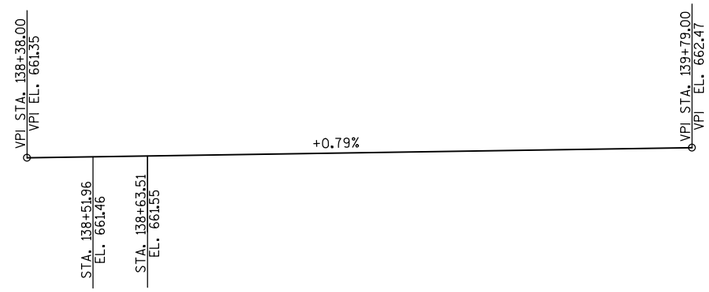
2350-09-71



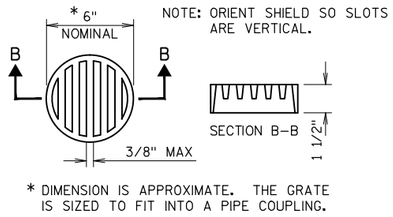
TYPICAL SECTION THRU BOX

HORIZONTAL CURVE DATA

PI STA = 139+71.38
Y = 214774.814
X = 627903.173
DELTA = 3°05'03"
D = 0°43'41"
T = 211.86'
L = 423.62'
R = 7870.00'
PC STA = 137+59.52
PT STA = 141+83.14



PROFILE GRADE LINE - STH 32



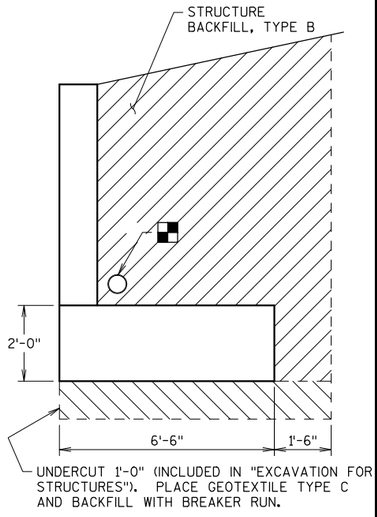
NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.

* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

RODENT SHIELD DETAIL

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE 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.



BACKFILL AT WINGS

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
4	30+17, RT.	CHISELED "X" ON N. EDGE OF SAN. MH RIM	658.71
5	40+79, RT.	CHISELED "X" ON S. EDGE OF SAN. MH RIM	661.02
13278	132+78, LT.	NW FLANGE BOLT OF HYDRANT	659.65

TOTAL ESTIMATED QUANTITIES

BID ITEMS

203.0200	REMOVING OLD STRUCTURE STA. 138+57	1	LS
206.2000	EXCAVATION FOR STRUCTURES CULVERTS C-51-81	1	LS
210.2500	BACKFILL STRUCTURE TYPE B	450	TON
311.0110	BREAKER RUN	110	TON
504.0100	CONCRETE MASONRY CULVERTS	98	CY
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	13,810	LB
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	1,620	LB
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	20	SY
606.0300	RIPRAP HEAVY	30	CY
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	90	LF
616.0205	FENCE CHAIN LINK 5-FT	67	LF
645.0105	GEOTEXTILE TYPE C	160	SY
645.0120	GEOTEXTILE TYPE HR	80	SY

NON BID ITEMS

FILLER	3/4"

ALL ITEMS ARE CATEGORY 0030

GENERAL NOTES & LEGEND

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-51-81" SHALL BE THE EXISTING GROUND LINE.

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE WING WALLS.

THE ALTERNATE CUTOFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUTOFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUTOFF WALLS.

THE EXISTING STRUCTURE (C-51-60) IS A SINGLE CELL REINFORCED CONCRETE BOX CULVERT WITH A 6' WIDE x 4' HIGH OPENING AND AN OVERALL LENGTH OF 48' AND IS TO BE REMOVED.

THE CONCRETE IN THE CUTOFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE STRUCTURE IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

ALL PRECAST BOX SECTIONS SHALL BE PLACED ON A BEDDING OF "STRUCTURE BACKFILL TYPE B" OF 6" MINIMUM DEPTH.

■ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

SEE ROADWAY PLANS FOR TEMPORARY STREAM DIVERSION DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-51-81

DRAWN BY PKF | PLANS CK'D. BH

ORIGINAL PLAN PREPARED BY CORRE

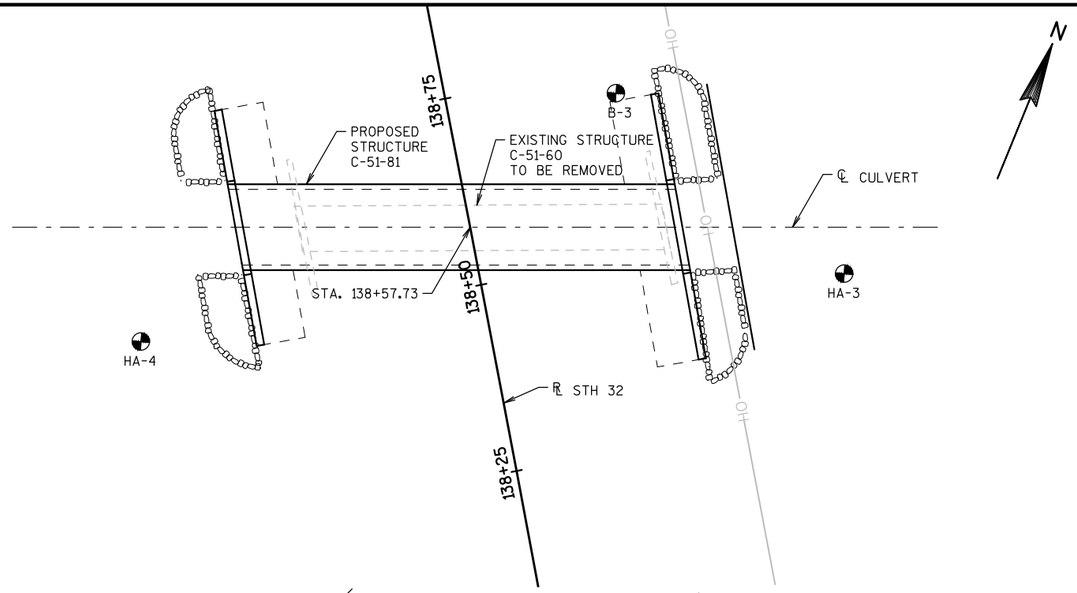
TYPICAL SECTION, NOTES & QUANTITIES

SHEET 2 OF 7

364

8

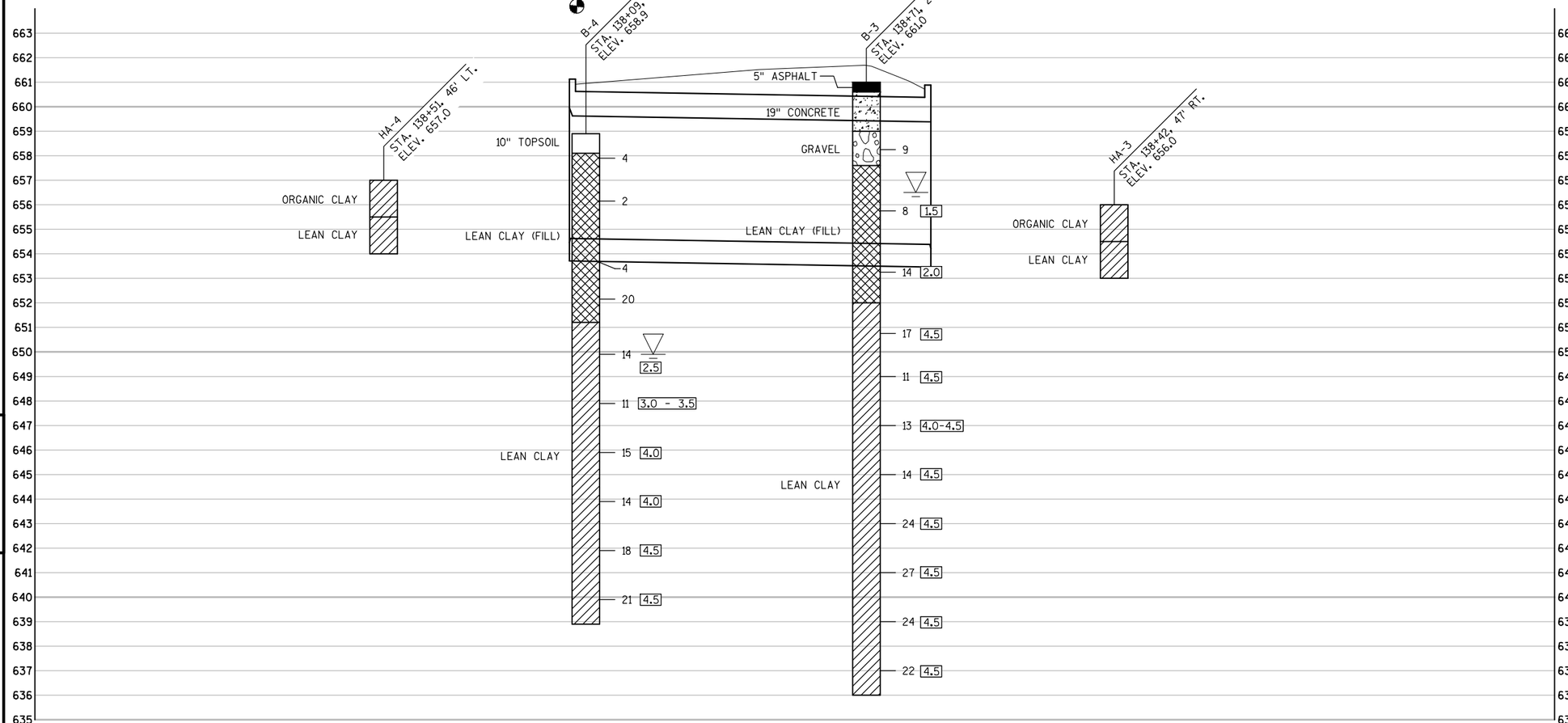
8



SOIL BORINGS COMPLETED BY:

GESTRA ENGINEERING, INC.
191 W. EDGERTON AVENUE
MILWAUKEE, WI 53207

MAY 18 & 19, 2017



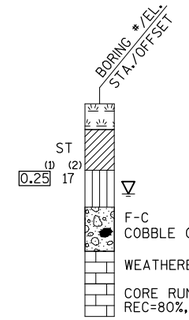
STATE PROJECT NUMBER

2350-09-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-51-81

DRAWN BY PKF | PLANS CK'D. BH

SUBSURFACE EXPLORATION

SHEET 3 OF 7

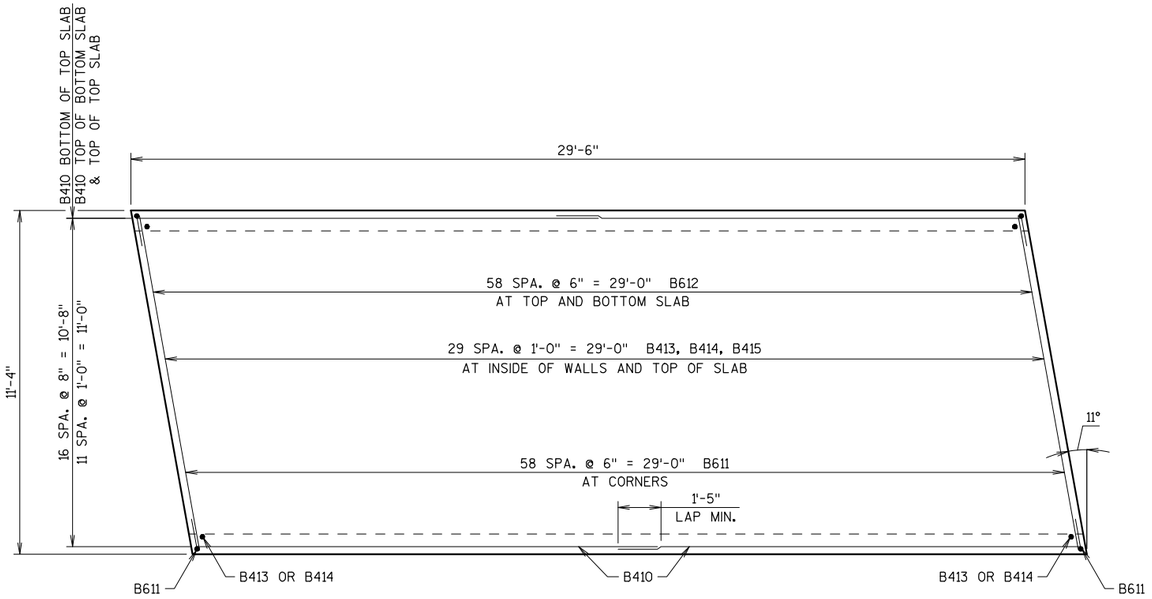
365

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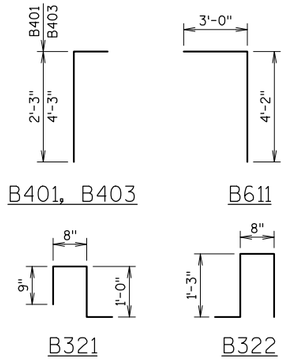
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STATE PROJECT NUMBER

2350-09-71



PLAN VIEW TYPICAL PANEL

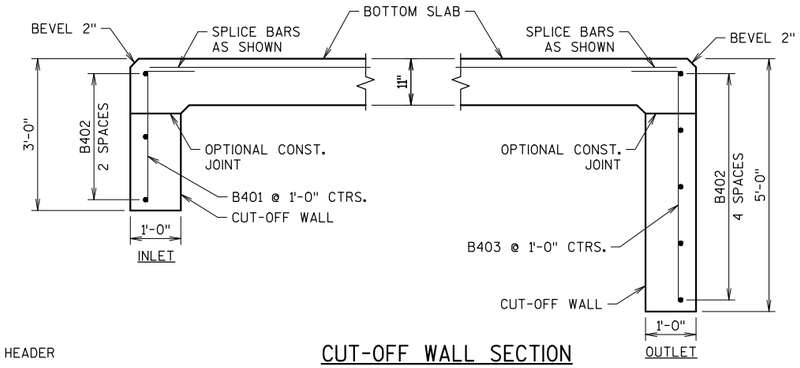


BILL OF BARS

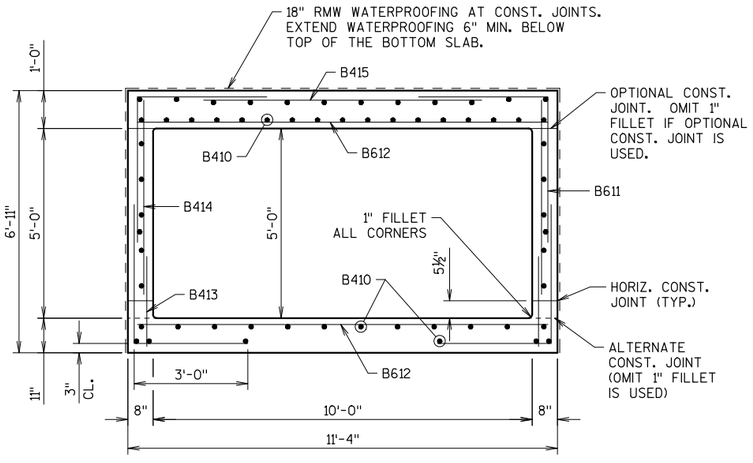
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
NON-COATED BARS					TOTAL WEIGHT = 12,660 LBS
B401	12	3'-8"	X		INLET CUT-OFF WALL VERT.
B402	8	11'-2"			CUT-OFF WALLS HORIZ.
B403	12	5'-8"	X		OUTLET CUT-OFF WALL VERT.
B410	236	15'-4"			TOP, BOTTOM, AND WALLS HORIZ.
B611	472	7'-0"	X		CORNERS VERT.
B612	236	11'-2"			TOP & BOTTOM SLABS HORIZ.
B413	120	2'-10"			WALL - DOWELS VERT.
B414	120	5'-2"			WALL - INSIDE FACE VERT.
B415	60	8'-0"			TOP OF TOP SLAB HORIZ.
B516	34	4'-0"			VERTICAL CONSTRUCTION JOINT HORIZ.
B420	4	11'-2"			HEADERS HORIZ.
B321	16	2'-8"	X		INLET HEADER VERT.
B322	16	3'-5"	X		OUTLET HEADER VERT.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BILL OF BARS INCLUDES BOTH PANELS.

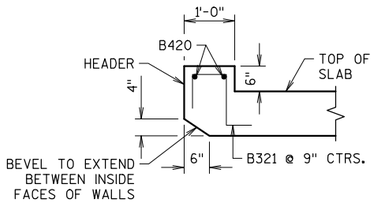


CUT-OFF WALL SECTION

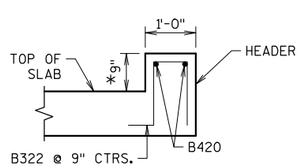


NOTE: ALL LONGITUDINAL BARS NOT IDENTIFIED ARE B410

TYPICAL SECTION THRU BOX

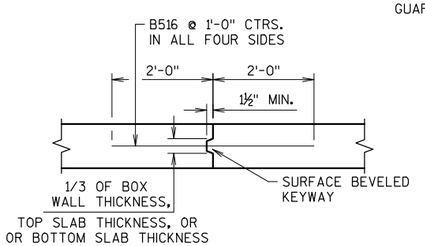


SECTION THRU INLET HEADER



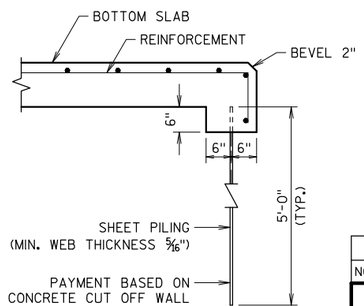
SECTION THRU OUTLET HEADER

*9" HEADER HEIGHT REQUIRED TO MEET BEAM GUARD EMBEDMENT CRITERIA.



VERTICAL CONSTRUCTION JOINT

IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.



ALTERNATE CUT-OFF WALL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-51-81

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ORIGINAL PLAN PREPARED BY CORRE

BOX DETAILS

SHEET 4 OF 7

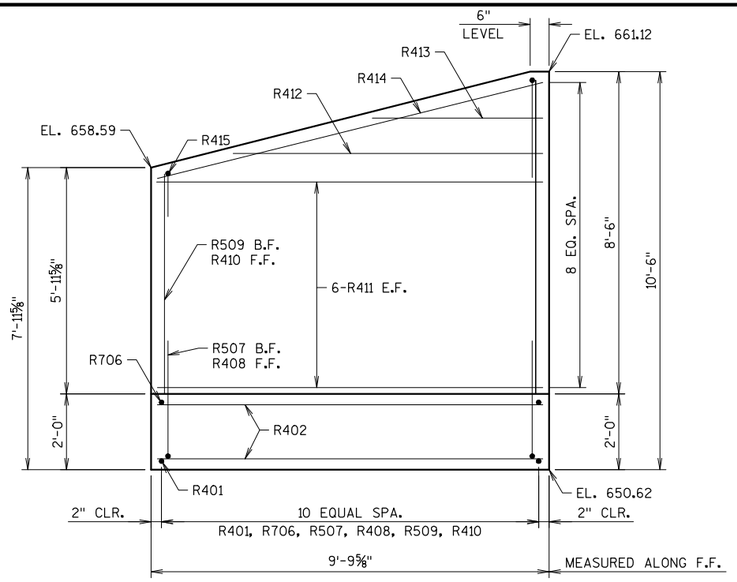
366

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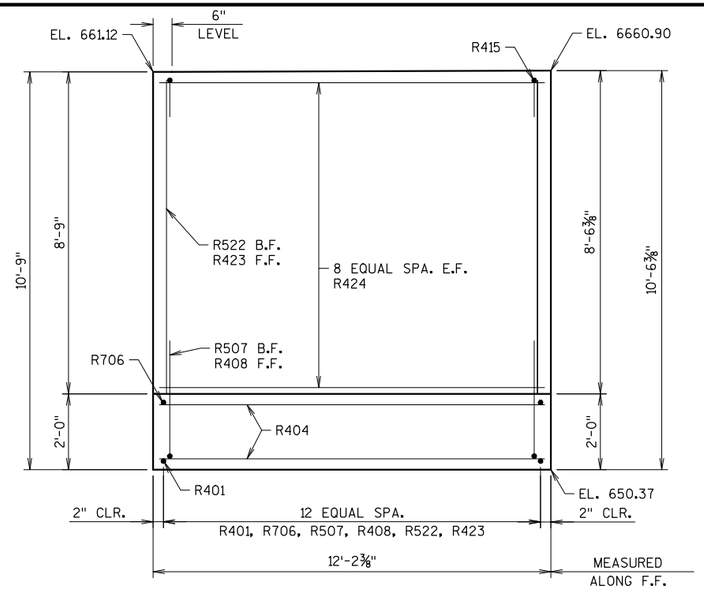
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STATE PROJECT NUMBER

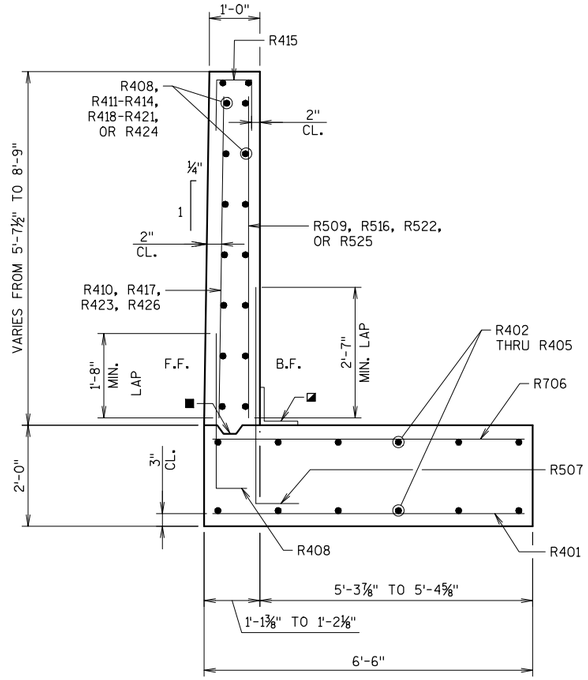
2350-09-71



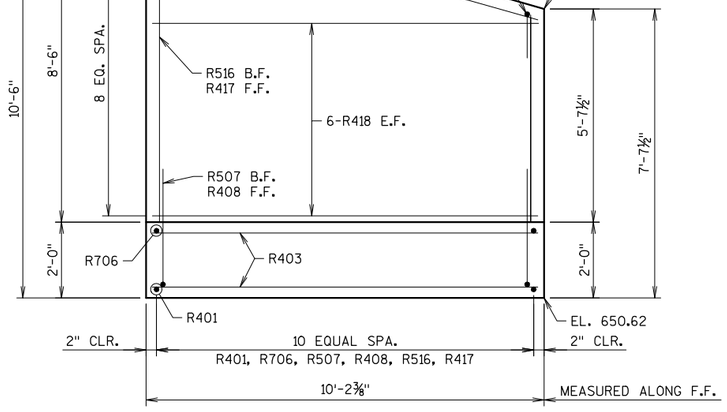
WING 1 ELEVATION



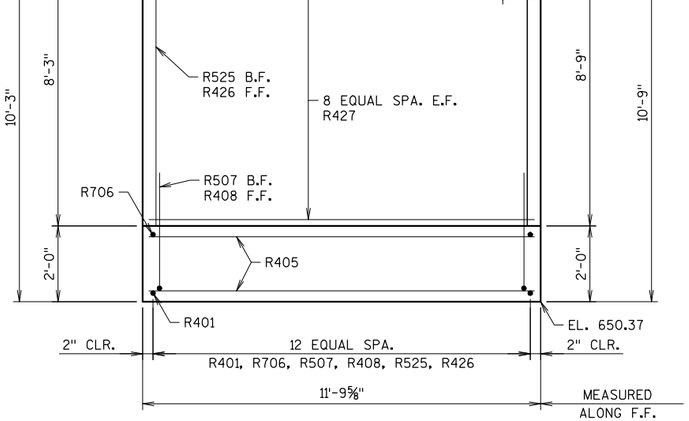
WING 3 ELEVATION



TYPICAL WING SECTION



WING 2 ELEVATION



WING 4 ELEVATION

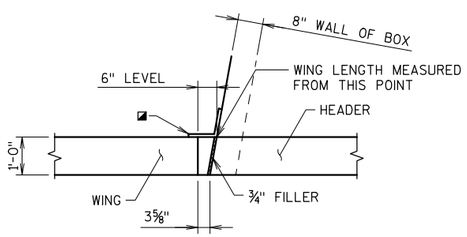
LEGEND

- ■ KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6"
- ◪ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

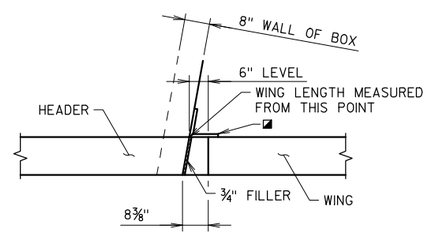
B.F. = BACK FACE
F.F. = FRONT FACE
E.F. = EACH FACE

NOTE

HEADER AND WALL TO ALIGN AT TOP. PROVIDE BEVEL ON WALL END, WHERE IT TIES INTO BOX CULVERT, TO ALIGN THE BATTERED WALL FLUSH WITH THE END OF THE BOX.



WINGS 1 & 4



WINGS 2 & 3

CORNER DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-51-81

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CORRE

WING DETAILS

SHEET 5 OF 7

367

8

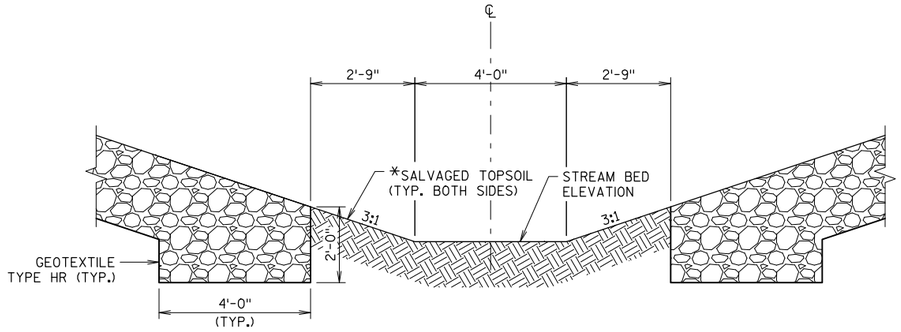
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STATE PROJECT NUMBER

2350-09-71

STEEL SHIM DETAIL

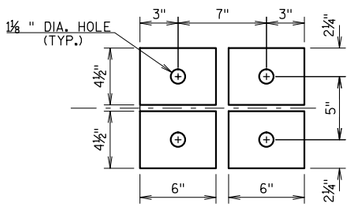
4 PER POST



TYPICAL SECTION AT STRUCTURE C-51-81 INLET & OUTLET

(NORMAL TO STREAM)

*ITEMS INCLUDED AS PART OF ROADWAY QUANTITIES.

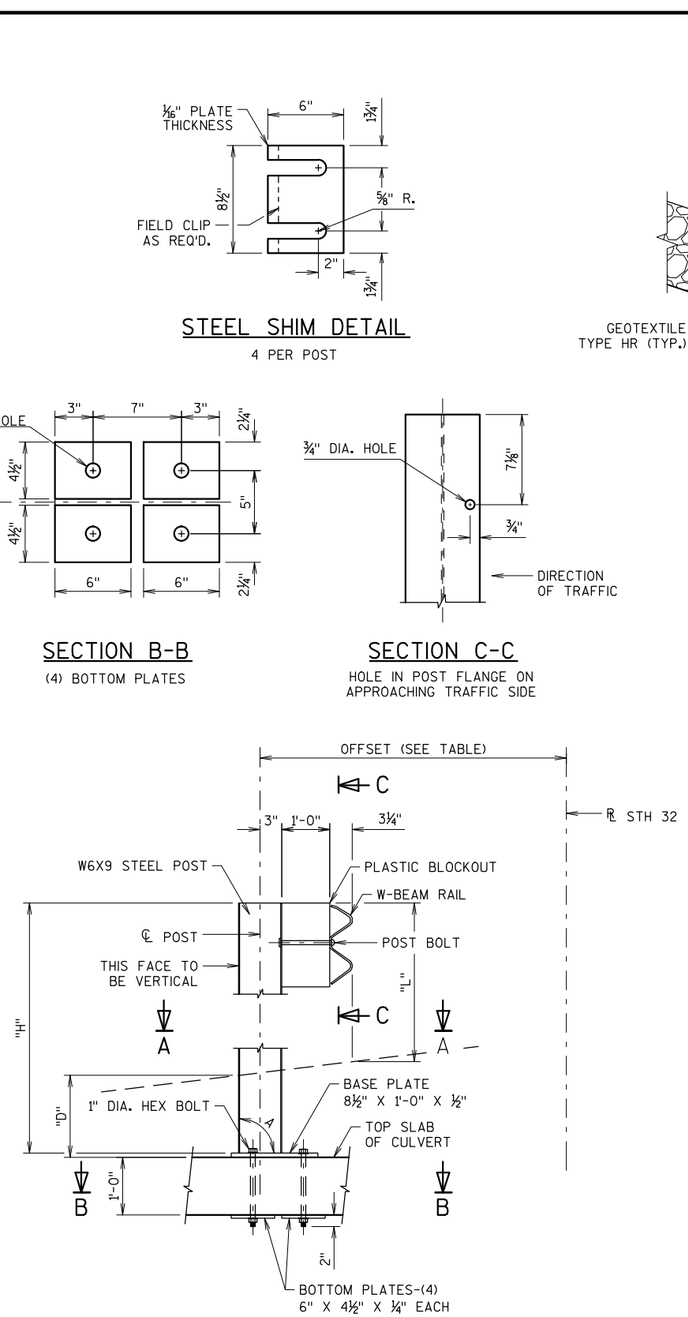


SECTION B-B

(4) BOTTOM PLATES

SECTION C-C

HOLE IN POST FLANGE ON APPROACHING TRAFFIC SIDE



ELEVATION

GUARDRAIL POST ANCHORS TYPE 2

NOTES

DETAILS SHOWN FOR POSTS, PLATES, ANCHORAGE SYSTEM AND INSTALLATION, BLOCKS, AND GUARD RAIL ARE NOT PART OF THE STRUCTURE CONTRACT, BUT ARE BID PER THE ROADWAY DESIGN PLANS.

POST BASE PLATES (AND BOTTOM PLATES IF USED) 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.

CUT BOTTOM OF POST SO THAT POST WILL BE VERTICAL WHEN POST ASSEMBLY IS PLACED ON TOP OF THE CULVERT. ALONG THE ROADWAY THE POST WILL BE NORMAL TO GRADE LINE. HEX BOLTS AND THREADED RODS ARE TO BE PLACED PERPENDICULAR TO THE BASE PLATE.

POST, BASE PLATE (AND BOTTOM PLATE IF USED), AND SHIMS SHALL BE GALVANIZED AFTER FABRICATION.

PRIOR TO GALVANIZING, ALL STEEL POSTS AND PLATES SHALL BE GIVEN A NO. 6 COMMERCIAL BLAST CLEANING BY SSPC SPECS.

ALL MATERIAL USED IN POSTS AND PLATES SHALL BE MADE FROM MATERIAL CONFORMING TO ASTM DESIGNATION A709 GRADE 50 OR 50S.

HEX BOLTS, THREADED RODS, HEX NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1554 GRADE 36, AND SHALL BE GALVANIZED. RODS ARE TO BE FULLY THREADED AND BOLTS TO BE THREADED 3". CHAMFER TOP OF BOLTS AND RODS BEFORE THREADING.

STEEL SHIMS MAY BE USED BETWEEN PLATES AND SLAB WHERE REQUIRED FOR ALIGNMENT.

GUARDRAIL POST ANCHOR TABLE

POST	STATION	OFFSET	HEIGHT (H)	ANGLE (A)	DEPTH (D)	HEIGHT (L)
P1	138+50.03	23'-6 1/4"	3'-5"	89.75°	0.77'	2'-7 7/8"
P2	138+53.16	23'-6 1/4"	3'-5 1/4"	89.75°	0.79'	2'-7 7/8"
P3	138+56.28	23'-6 1/4"	3'-5 5/8"	89.75°	0.80'	2'-7 7/8"

GUARD RAIL POST ANCHORAGE SYSTEM

BILL OF BARS

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

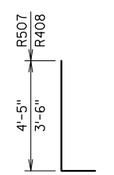
BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS					TOTAL WEIGHT = 1,150 LBS	
R401	48	6'-2"			WINGS 1 THRU 4 - FOOTINGS	HORIZ.
R402	12	9'-5"			WING 1 - FOOTING	HORIZ.
R403	12	9'-10"			WING 2 - FOOTING	HORIZ.
R404	12	11'-10"			WING 3 - FOOTING	HORIZ.
R405	12	11'-5"			WING 4 - FOOTING	HORIZ.
R706	48	6'-2"			WINGS 1 THRU 4 - FOOTINGS	HORIZ.
COATED BARS					TOTAL WEIGHT = 1,620 LBS	
R507	48	5'-2"	X		WINGS 1 THRU 4 - FOOTINGS/STEM @ B.F.	VERT.
R408	48	4'-1"	X		WINGS 1 THRU 4 - FOOTINGS/STEM @ F.F.	VERT.
R509	11	6'-11"		X	WING 1 @ B.F.	VERT.
R410	11	6'-11"		X	WING 1 @ F.F.	VERT.
R411	12	9'-5"			WING 1 F.F & B.F.	HORIZ.
R412	2	8'-2"			WING 1 F.F & B.F.	HORIZ.
R413	2	4'-6"			WING 1 F.F & B.F.	HORIZ.
R414	2	9'-10"			WING 1 F.F & B.F.	HORIZ.
R415	48	3'-6"	X		WINGS 1 THRU 4 - TOP OF STEM	VERT.
R516	11	6'-9"		X	WING 2 @ B.F.	HORIZ.
R417	11	6'-9"		X	WING 2 @ F.F.	HORIZ.
R418	12	9'-10"			WING 2 F.F & B.F.	HORIZ.
R419	2	7'-6"			WING 2 F.F & B.F.	HORIZ.
R420	2	4'-2"			WING 2 F.F & B.F.	HORIZ.
R421	2	10'-2"			WING 2 F.F & B.F.	HORIZ.
R522	13	8'-4"		X	WING 3 @ B.F.	VERT.
R423	13	8'-4"		X	WING 3 @ F.F.	VERT.
R424	18	11'-10"			WING 3 F.F & B.F.	HORIZ.
R525	13	8'-2"		X	WING 4 @ B.F.	VERT.
R426	13	8'-2"		X	WING 4 @ F.F.	VERT.
R427	18	11'-5"			WING 4 F.F & B.F.	HORIZ.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
LENGTHS IN BILL OF BARS FOR REINFORCEMENT WITH A BAR SERIES IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

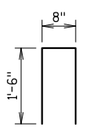
BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
R509	1 SERIES OF 11	5'-8" TO 8'-2"
R410	1 SERIES OF 11	5'-8" TO 8'-2"
R516	1 SERIES OF 11	5'-4" TO 8'-2"
R417	1 SERIES OF 11	5'-4" TO 8'-2"
R522	1 SERIES OF 13	8'-2" TO 8'-5"
R423	1 SERIES OF 13	8'-2" TO 8'-5"
R525	1 SERIES OF 13	7'-11" TO 8'-5"
R426	1 SERIES OF 13	7'-11" TO 8'-5"

BUNDLE AND TAG EACH SERIES SEPARATELY



R507, R408



R415

ORIGINAL PLAN PREPARED BY CORRE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-51-81

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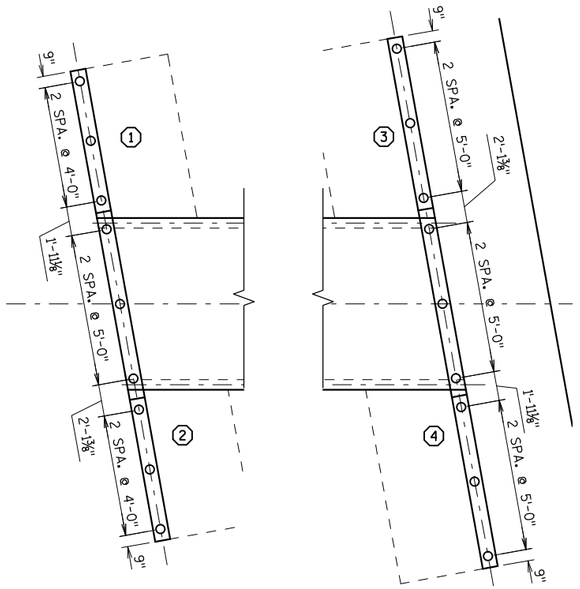
WING & MISCELLANEOUS DETAILS

SHEET 6 OF 7

368

8

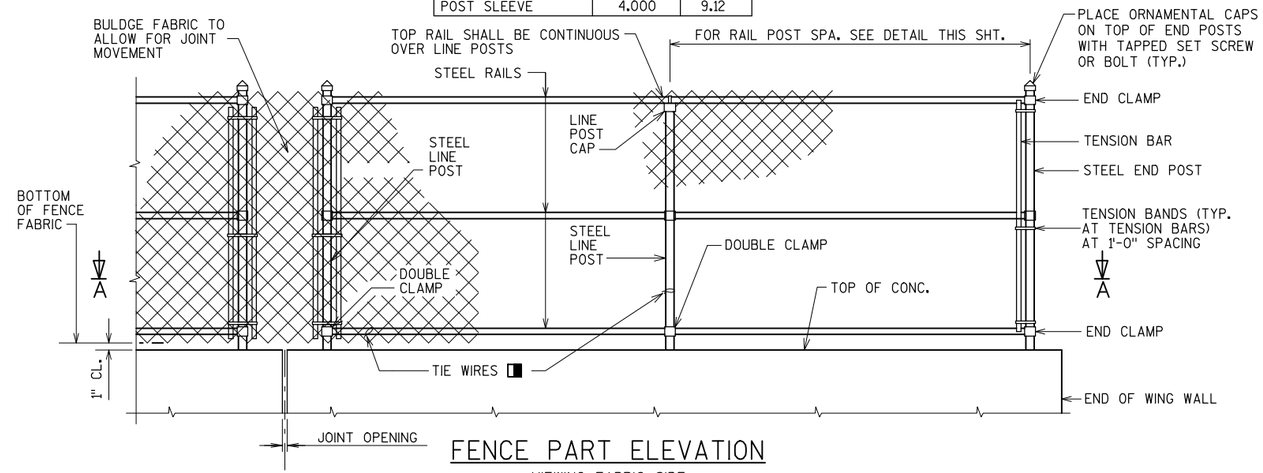
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POST SPACING ON WINGWALLS & HEADWALLS

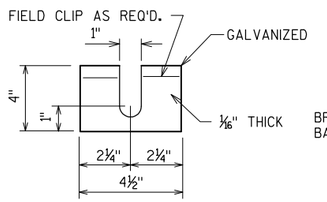
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



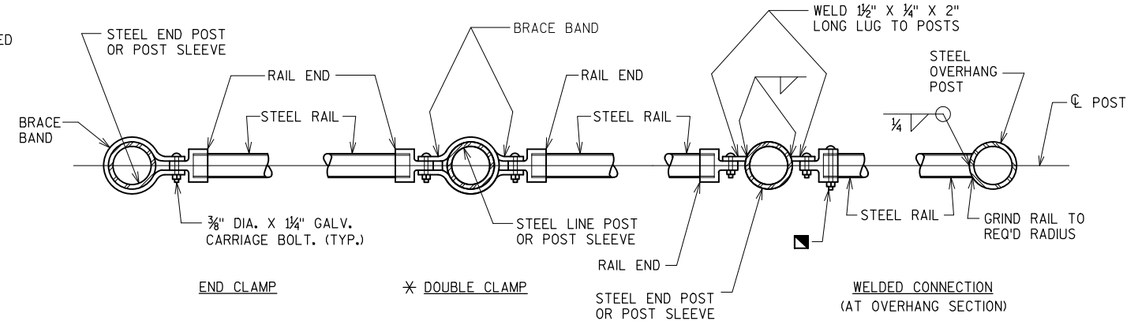
FENCE PART ELEVATION

VIEWING FABRIC SIDE



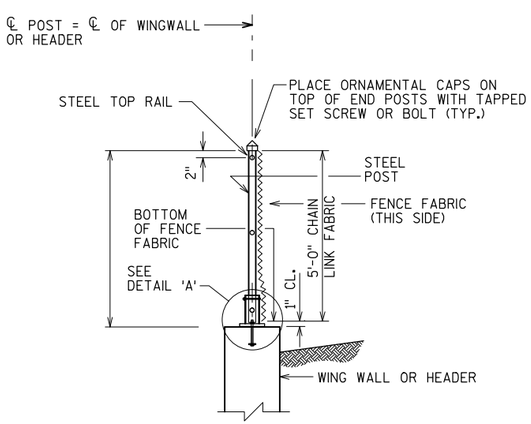
POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.

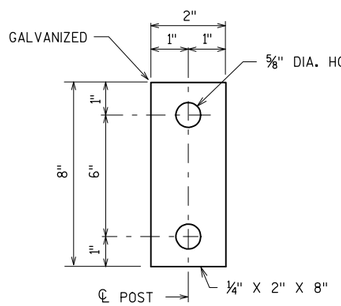


SECTION A-A

NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS

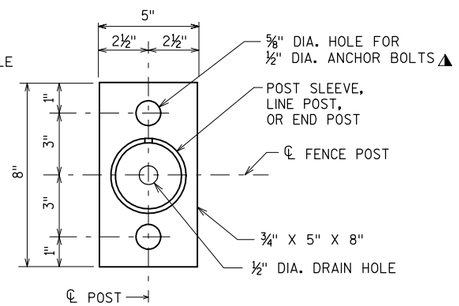


SECTION THRU FENCE

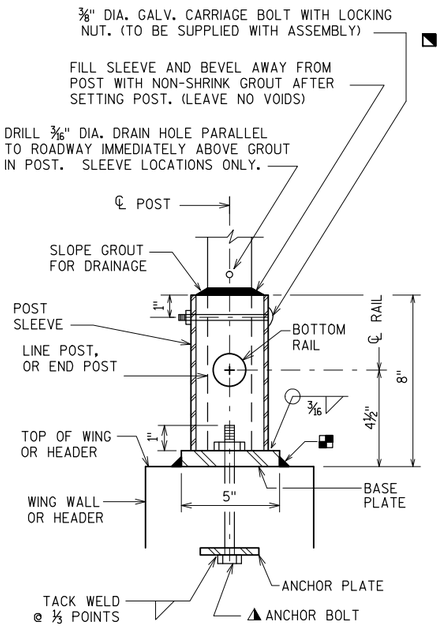


ANCHOR PLATE

NOTE: ANCHOR PLATE NOT REQUIRED ☆WHEN ADHESIVE ANCHORS ARE USED.



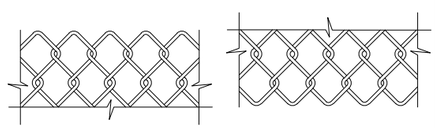
BASE PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

STATE PROJECT NUMBER

2350-09-71

NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 5-FT".

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

◭ ½" DIA. X 6 7/8" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. ☆

☆ ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS ½-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

◥ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4 POINT OF POST SPACING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-51-81

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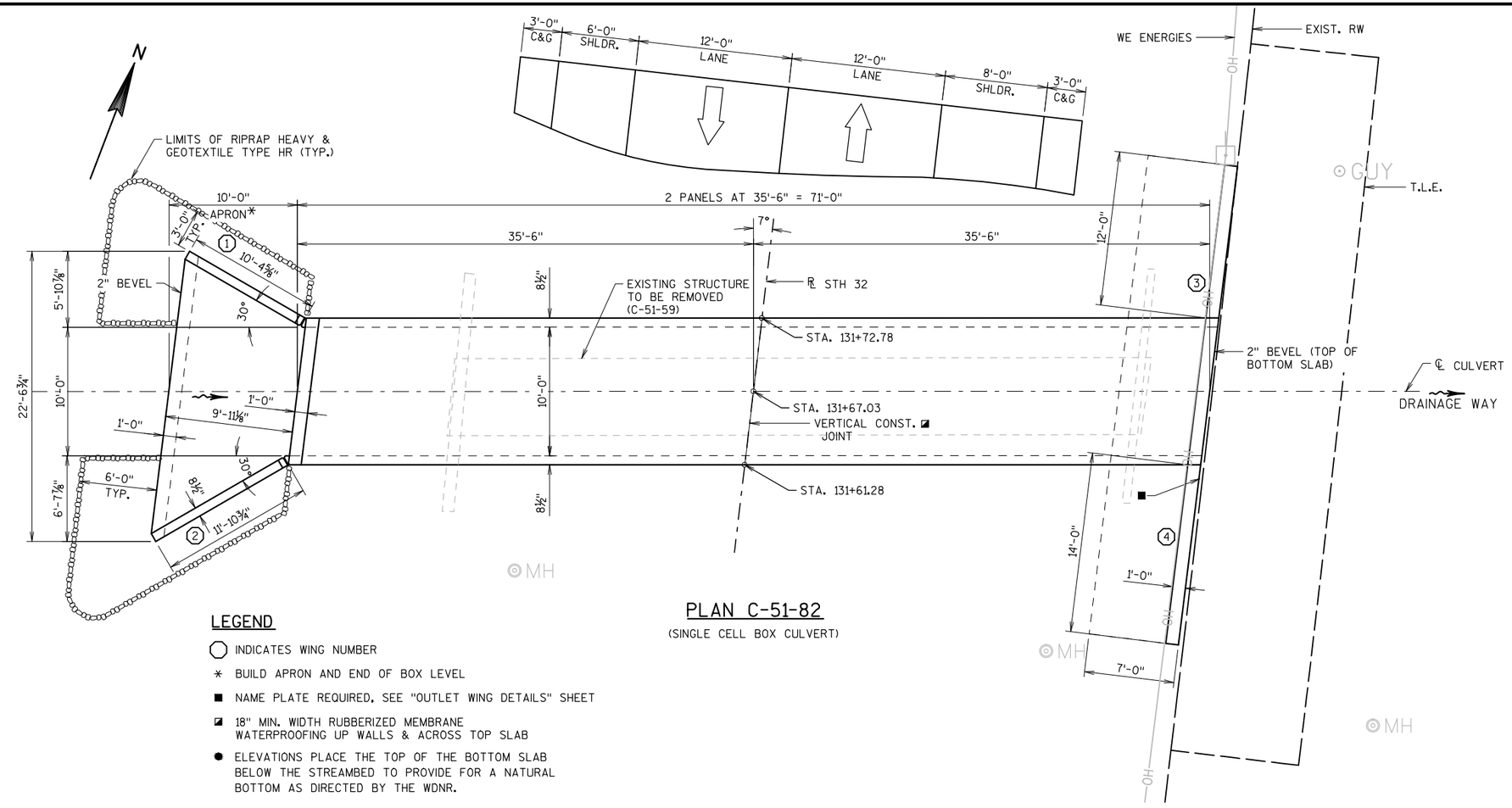
FENCE DETAILS

SHEET 7 OF 7

369

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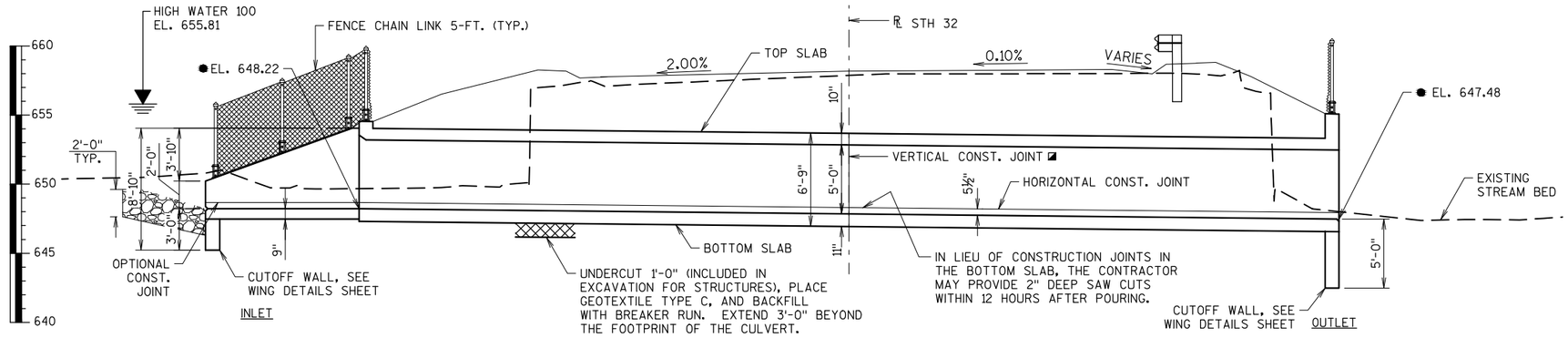


PLAN C-51-82

(SINGLE CELL BOX CULVERT)

LEGEND

- ⬡ INDICATES WING NUMBER
- * BUILD APRON AND END OF BOX LEVEL
- ■ NAME PLATE REQUIRED, SEE "OUTLET WING DETAILS" SHEET
- ◪ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB
- ● ELEVATIONS PLACE THE TOP OF THE BOTTOM SLAB BELOW THE STREAMBED TO PROVIDE FOR A NATURAL BOTTOM AS DIRECTED BY THE WDNR.



ELEVATION

(LOOKING NORTH)

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION, NOTES, & QUANTITIES
3. SUBSURFACE EXPLORATION
4. BOX DETAILS
5. INLET APRON DETAILS
6. OUTLET WING DETAILS
7. FENCE DETAILS

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

CONSULTANT CONTACT
BILL HOVE, P.E.
TELEPHONE: (608) 826-6125

STATE PROJECT NUMBER

2350-09-71

DESIGN DATA

LIVE LOAD

DESIGN LOADING	HL-93
INVENTORY RATING FACTOR	1.05
OPERATIONAL RATING FACTOR	1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	255 KIPS

EARTH LOAD

STRUCTURE IS DESIGNED FOR FILL HEIGHT OF 4.0 TO 6.0 FEET.

MATERIAL PROPERTIES

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

TRAFFIC DATA STH 32

ADT (2018) =	11,470
ADT (2038) =	13,477
DESIGN SPEED =	50 MPH

HYDRAULIC DATA

100 YEAR FREQUENCY

DRAINAGE AREA	0.6 SQ. MI.
Q_{100}	380 C.F.S.
VELOCITY	8.44 F.P.S.
HIGH WATER $_{100}$	EL. 655.81
WATERWAY AREA	45 SQ. FT.
SCOUR CRITICAL CODE	8
OVERTOPPING FREQUENCY	>100 YEARS

2 YEAR FREQUENCY

Q_2	80 C.F.S.
VELOCITY	2.87 F.P.S.
HIGH WATER $_2$	EL. 652.33

WISCONSIN
WILLIAM A. HOVE E-33600 MADISON, WI
PROFESSIONAL ENGINEER

1/10/18

NO.	DATE	REVISION	BY

CORRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 02/20/18
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-51-82

STH 32 OVER DRAINAGE WAY

COUNTY	~~TOWN/CITY~~/VILLAGE
RACINE	CALEDONIA

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ERA	BH	PKF	BH

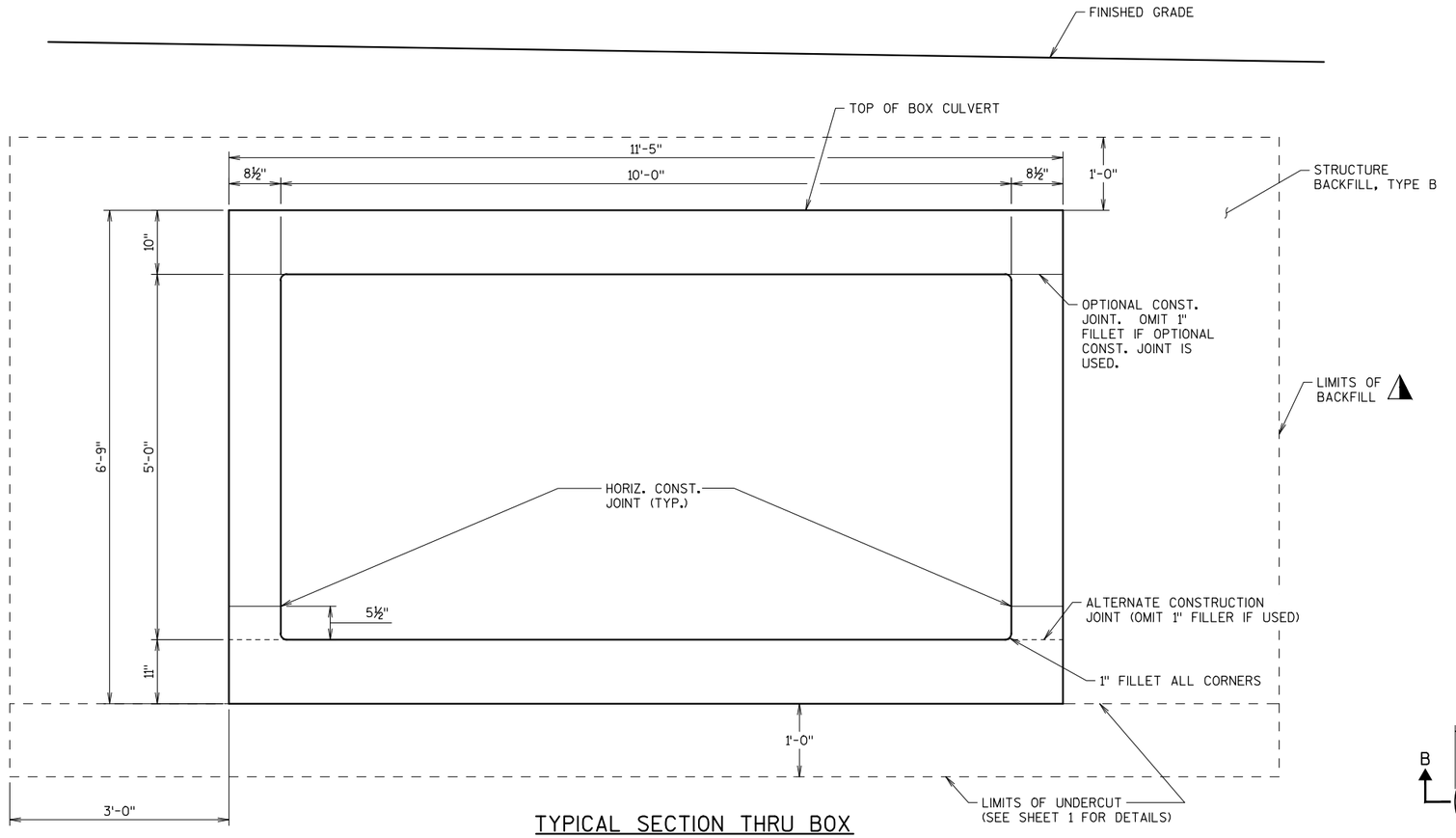
GENERAL PLAN

SHEET 1 OF 7

370

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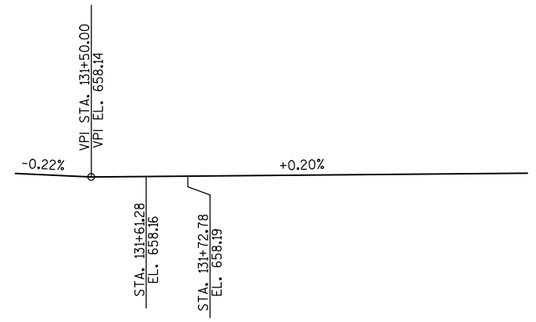
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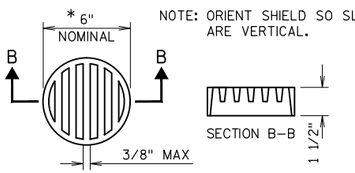
TYPICAL SECTION THRU BOX

HORIZONTAL CURVE DATA

PI STA = 131+07.74
Y = 214044.579
X = 628365.319
DELTA = 5°24'32"
D = 0°43'41"
T = 371.75'
L = 742.95'
R = 7870.00'
PC STA = 127+35.99
PT STA = 134+78.94



PROFILE GRADE LINE - STH 32

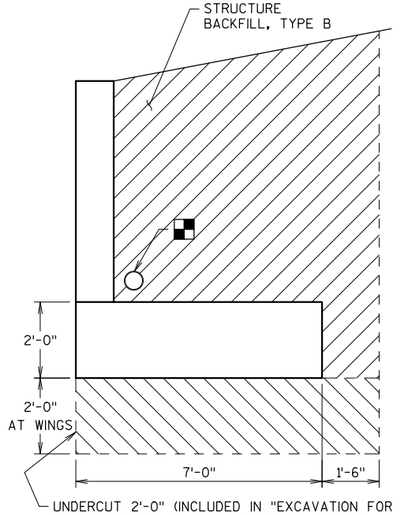


* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

RODENT SHIELD DETAIL

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE 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.



BACKFILL AT WINGS 3 & 4

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
4	30+17, RT.	CHISELED "X" ON N. EDGE OF SAN. MH RIM	658.71
5	40+79, RT.	CHISELED "X" ON S. EDGE OF SAN. MH RIM	661.02
13278	132+78, LT.	NW FLANGE BOLT OF HYDRANT	659.65

GENERAL NOTES & LEGEND

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-51-82" SHALL BE THE EXISTING GROUND LINE.

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE WING WALLS.

THE ALTERNATE CUTOFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUTOFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUTOFF WALLS.

THE EXISTING STRUCTURE (C-51-59) IS A SINGLE CELL REINFORCED CONCRETE BOX CULVERT WITH A 6' WIDE x 4' HIGH OPENING AND AN OVERALL LENGTH OF 56' AND IS TO BE REMOVED.

THE CONCRETE IN THE CUTOFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE STRUCTURE IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

ALL PRECAST BOX SECTIONS SHALL BE PLACED ON A BEDDING OF "STRUCTURE BACKFILL TYPE B" OF 6" MINIMUM DEPTH.

■ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

SEE ROADWAY PLANS FOR TEMPORARY STREAM DIVERSION DETAILS.

TOTAL ESTIMATED QUANTITIES

BID ITEMS

203.0200	REMOVING OLD STRUCTURE STA. 131+67	1	LS
206.2000	EXCAVATION FOR STRUCTURES CULVERTS C-51-82	1	LS
210.2500	BACKFILL STRUCTURE TYPE B	490	TON
311.0110	BREAKER RUN	140	TON
504.0100	CONCRETE MASONRY CULVERTS	109	CY
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	14,310	LB
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	1,710	LB
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	20	SY
606.0300	RIPRAP HEAVY	30	CY
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	50	LF
616.0205	FENCE CHAIN LINK 5-FT	72	LF
645.0105	GEOTEXTILE TYPE C	190	SY
645.0120	GEOTEXTILE TYPE HR	70	SY

NON BID ITEMS

FILLER — 3/4"

ALL ITEMS ARE CATEGORY 0040

STATE PROJECT NUMBER

2350-09-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-51-82

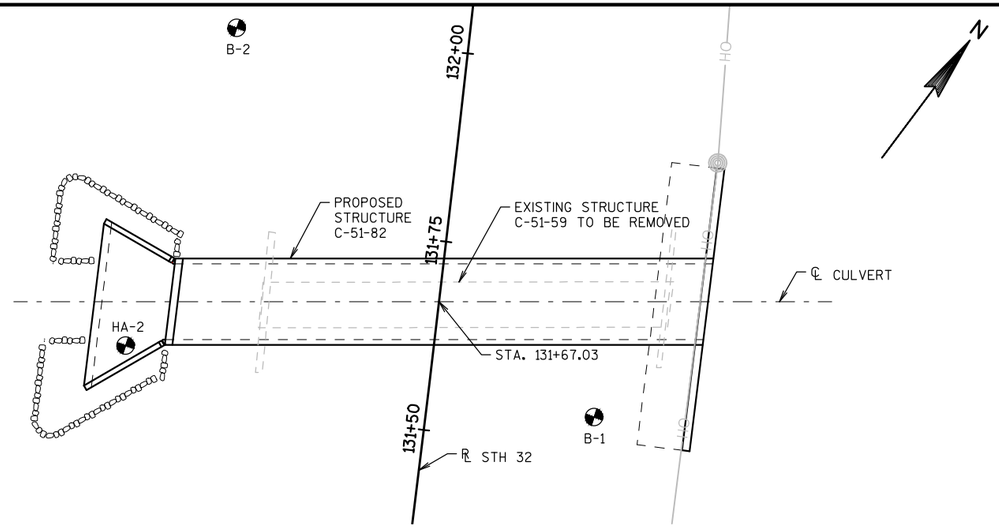
DRAWN BY PKF | PLANS CK'D. BH

ORIGINAL PLAN PREPARED BY
CORRE

TYPICAL SECTION, NOTES & QUANTITIES

SHEET 2 OF 7

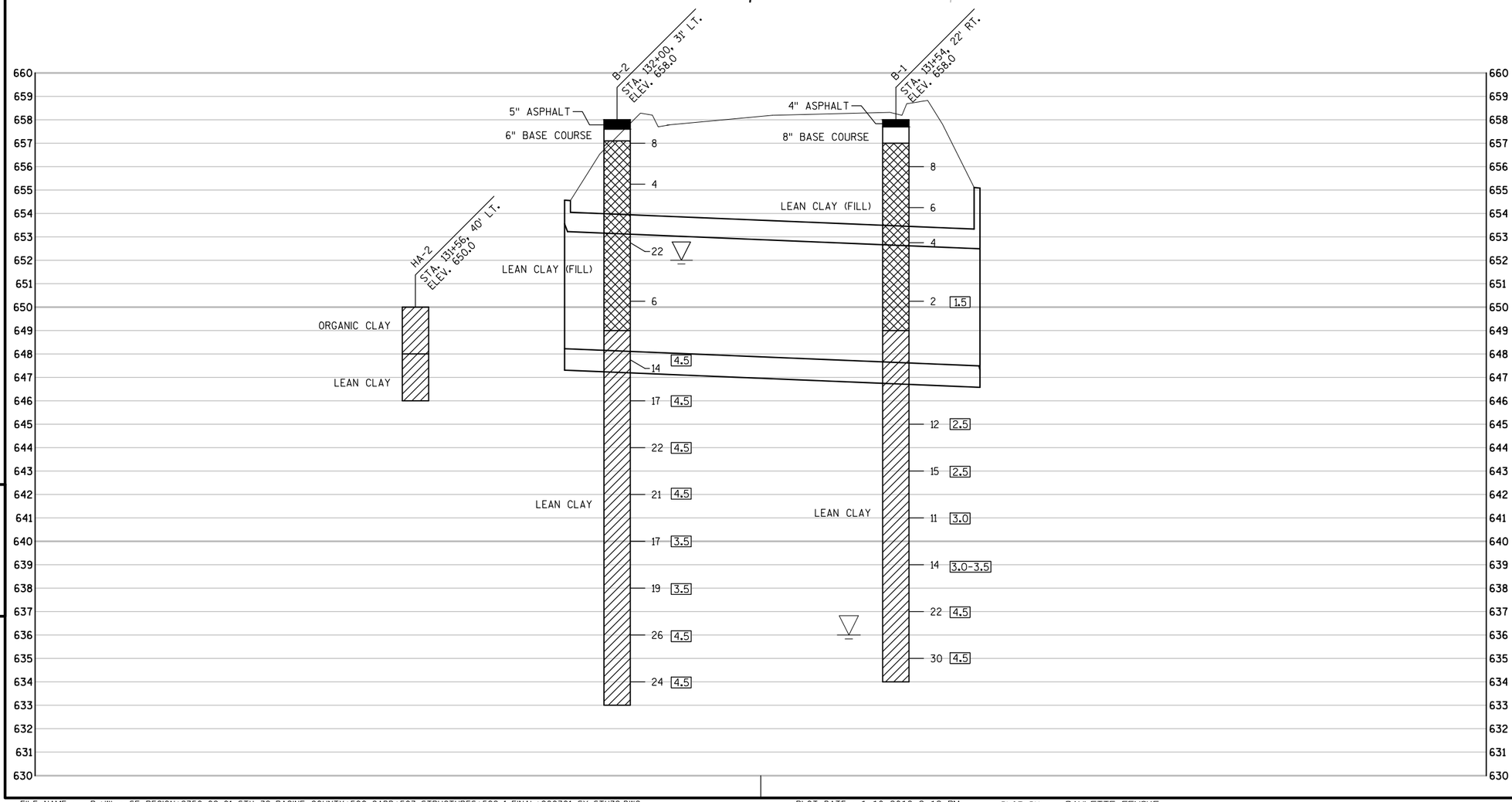
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SOIL BORINGS COMPLETED BY:

GESTRA ENGINEERING, INC.
191 W. EDGERTON AVENUE
MILWAUKEE, WI 53207

MAY 18 & 19, 2017



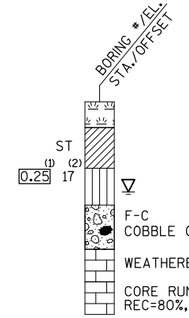
STATE PROJECT NUMBER

2350-09-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▼ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-51-82

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SUBSURFACE EXPLORATION

SHEET 3 OF 7

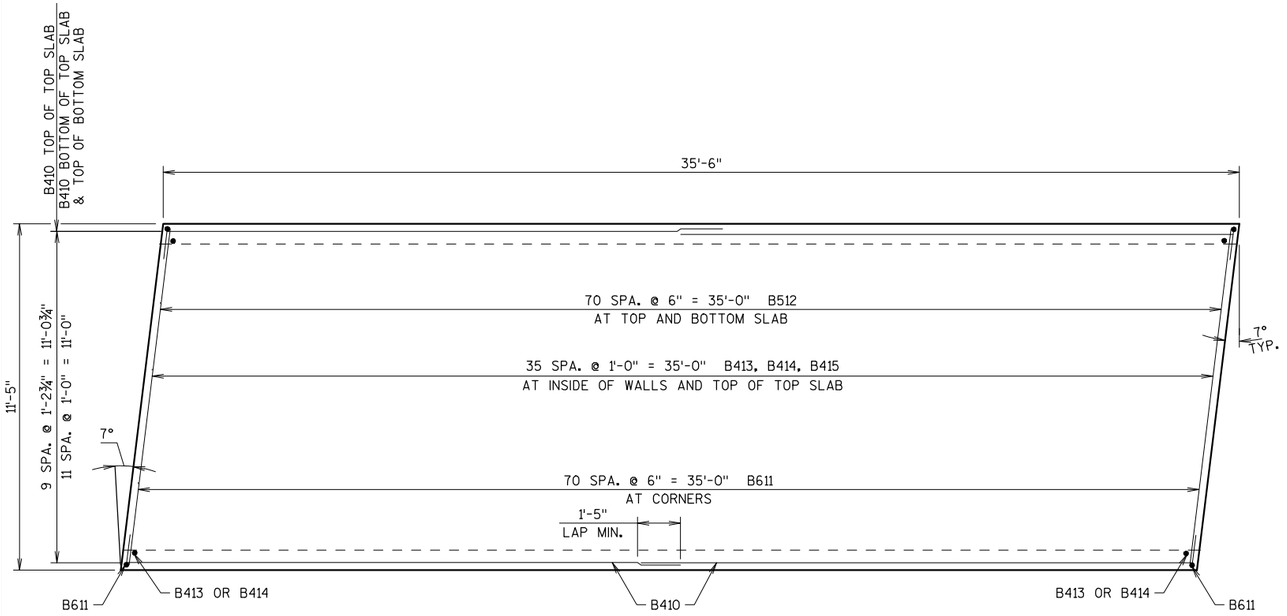
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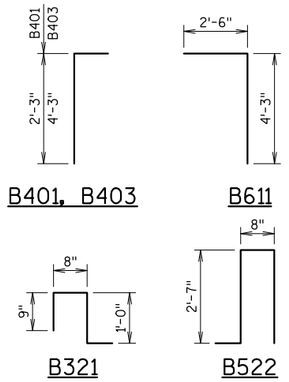
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STATE PROJECT NUMBER

2350-09-71



PLAN VIEW TYPICAL PANEL

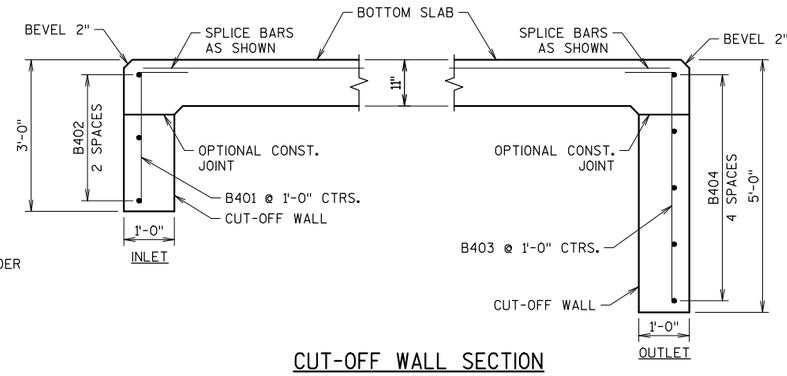


BILL OF BARS

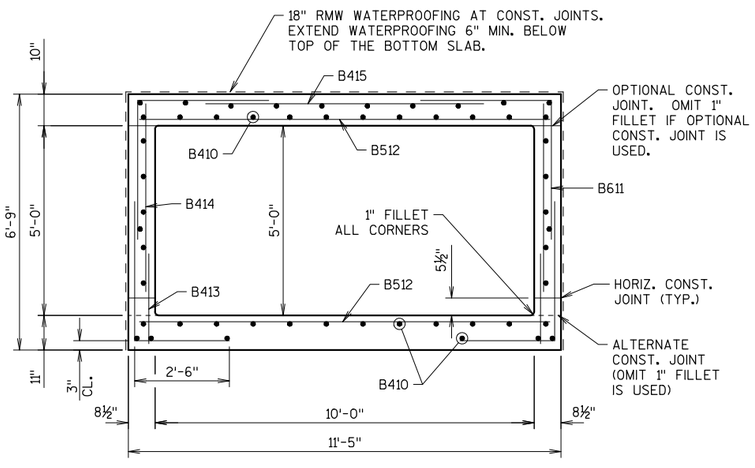
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS					TOTAL WEIGHT = 13,270 LBS	
B401	23	3'-8"	X		INLET CUT-OFF WALL	VERT.
B402	3	21'-6"			INLET CUT-OFF WALL	HORIZ.
B403	12	5'-8"	X		OUTLET CUT-OFF WALL	VERT.
B404	5	11'-2"			OUTLET CUT-OFF WALL	HORIZ.
B410	208	18'-4"			TOP, BOTTOM, AND WALLS	HORIZ.
B611	568	6'-7"	X		CORNERS	VERT.
B512	284	11'-2"			TOP & BOTTOM SLABS	HORIZ.
B413	144	2'-10"			WALL - DOWELS	VERT.
B414	144	5'-1"			WALL - INSIDE FACE	VERT.
B415	72	9'-0"			TOP OF TOP SLAB	HORIZ.
B516	34	4'-0"			VERTICAL CONSTRUCTION JOINT	HORIZ.
B420	2	11'-2"			INLET HEADER	HORIZ.
B321	16	2'-8"	X		INLET HEADER	VERT.
B522	16	6'-4"	X		OUTLET HEADER	VERT.
B623	8	11'-2"			OUTLET HEADER	HORIZ.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BILL OF BARS INCLUDES BOTH PANELS

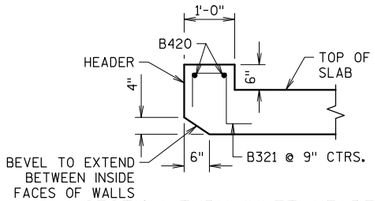


CUT-OFF WALL SECTION

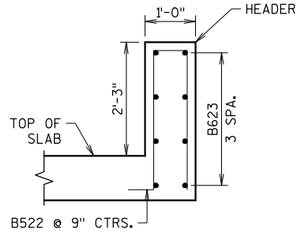


NOTE: ALL LONGITUDINAL BARS NOT IDENTIFIED ARE B410

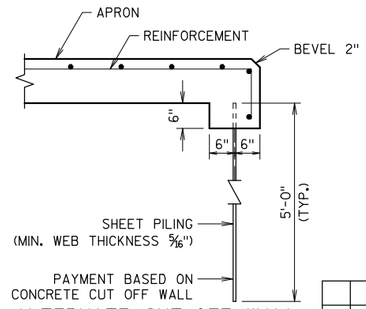
TYPICAL SECTION THRU BOX



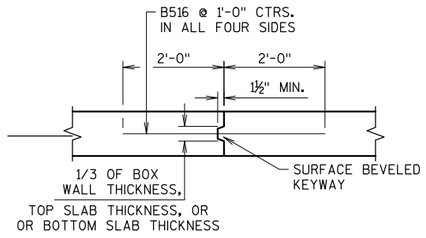
SECTION THRU INLET HEADER



SECTION THRU OUTLET HEADER



ALTERNATE CUT-OFF WALL



VERTICAL CONSTRUCTION JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-51-82

DRAWN BY PKF | PLANS CK'D. BH

ORIGINAL PLAN PREPARED BY
CORRE

BOX DETAILS

SHEET 4 OF 7

373

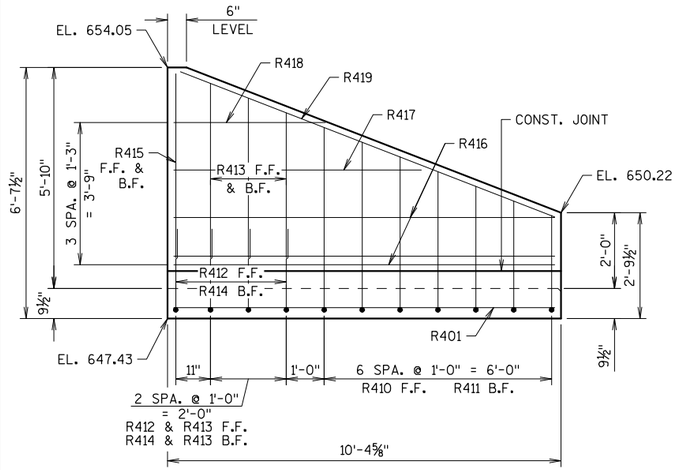
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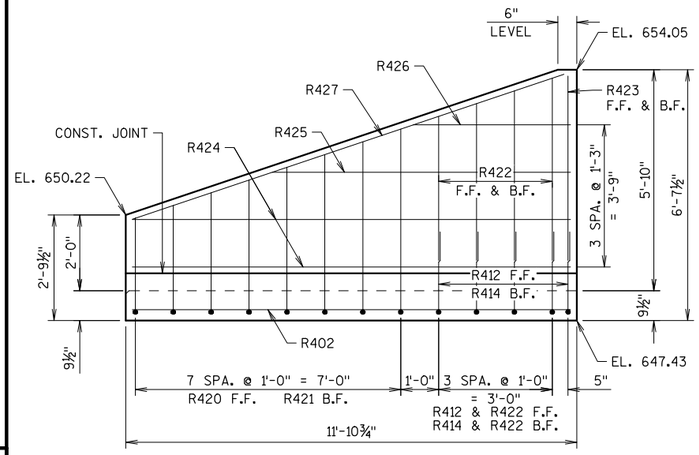
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PLOT DATE : 1/10/2018 2:20 PM

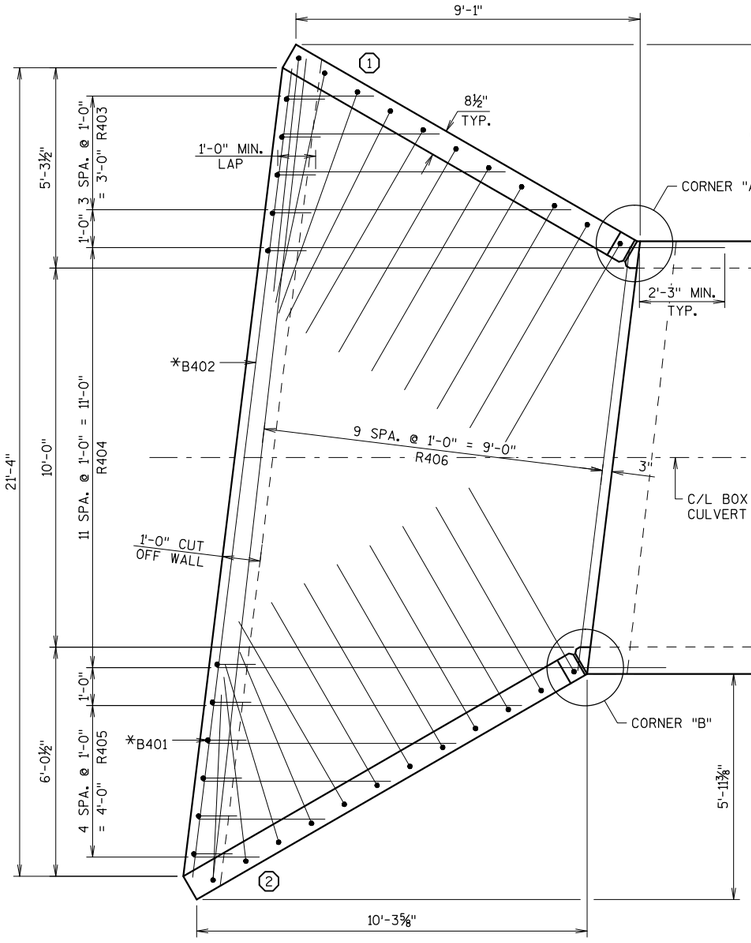
PLOT BY : PAULETTE FENSKE



WING 1 ELEVATION



WING 2 ELEVATION



INLET APRON DETAIL

BILL OF BARS

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

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
NON-COATED BARS					TOTAL WEIGHT = 290 LBS
R401	2	10'-0"			APRON - BELOW WING 1 LONGIT.
R402	2	11'-6"			APRON - BELOW WING 2 LONGIT.
R403	4	5'-1"		X	APRON LONGIT.
R404	14	12'-2"			APRON LONGIT.
R405	5	4'-11"		X	APRON LONGIT.
R406	10	16'-8"		X	APRON TRANS.
COATED BARS					TOTAL WEIGHT = 360 LBS
R410	7	3'-7"		X	APRON & WING 1 - F.F. VERT.
R411	7	8'-8"	X	X	APRON & WING 1 - B.F. VERT.
R412	9	2'-10"			APRON & WINGS 1 & 2 - F.F. VERT.
R413	6	4'-5"		X	APRON & WING 1 - F.F. & B.F. VERT.
R414	9	7'-11"	X		APRON & WINGS 1 & 2 - B.F. VERT.
R415	2	5'-1"			APRON & WING 1 - F.F. & B.F. VERT.
R416	4	10'-0"			APRON & WING 1 - F.F. & B.F. HORIZ.
R417	2	6'-10"			APRON & WING 1 - F.F. & B.F. HORIZ.
R418	2	3'-7"			APRON & WING 1 - F.F. & B.F. HORIZ.
R419	2	5'-3"			APRON & WING 1 - F.F. & B.F. HORIZ.
R420	8	3'-7"		X	APRON & WING 2 - F.F. VERT.
R421	8	8'-8"	X	X	APRON & WING 2 - B.F. VERT.
R422	8	4'-7"		X	APRON & WING 2 - F.F. & B.F. VERT.
R423	2	5'-1"			APRON & WING 2 - F.F. & B.F. VERT.
R424	4	11'-6"			APRON & WING 2 - F.F. & B.F. HORIZ.
R425	2	7'-9"			APRON & WING 2 - F.F. & B.F. HORIZ.
R426	2	4'-1"			APRON & WING 2 - F.F. & B.F. HORIZ.
R427	2	11'-11"			APRON & WING 2 - F.F. & B.F. HORIZ.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
LENGTHS IN BILL OF BARS FOR REINFORCEMENT WITH A BAR SERIES IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

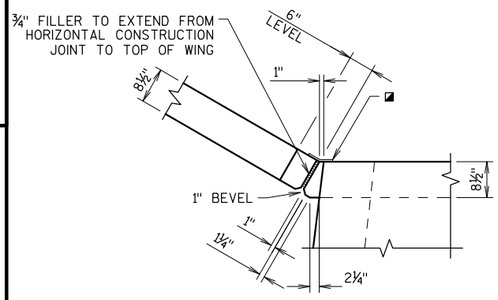
LEGEND

- ⬡ INDICATES WING NUMBER
- ◪ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. & VERT. CONST. JOINTS IN WING.
- B.F. = BACK FACE
- F.F. = FRONT FACE
- * B401 & B402 INCLUDED IN BILL OF BARS ON SHEET 4.

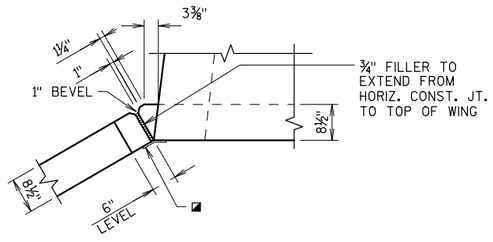
BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
R403	1 SERIES OF 4	2'-3" TO 7'-11"
R405	1 SERIES OF 5	1'-8" TO 8'-1"
R406	1 SERIES OF 10	11'-4" TO 21'-11"
R410	1 SERIES OF 7	2'-5" TO 4'-9"
R411	1 SERIES OF 7	7'-6" TO 9'-10"
R413	2 SERIES OF 3	4'-0" TO 4'-9"
R420	1 SERIES OF 8	2'-5" TO 4'-9"
R421	1 SERIES OF 8	7'-6" TO 9'-10"
R422	2 SERIES OF 4	4'-1" TO 5'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY

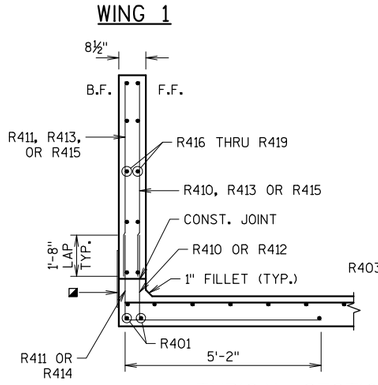


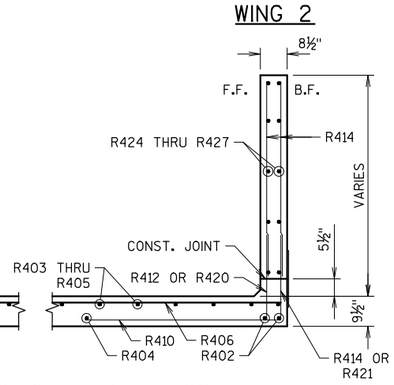
CORNER "A"



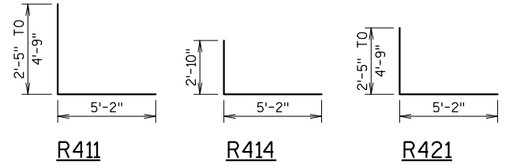
CORNER "B"

CORNER DETAILS





TYPICAL SECTION THRU WINGS



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-51-82

DRAWN BY PKF | PLANS CK'D. BH

ORIGINAL PLAN PREPARED BY
CORRE

INLET APRON DETAILS

SHEET 5 OF 7

374

STATE PROJECT NUMBER

2350-09-71

8

8

STATE PROJECT NUMBER

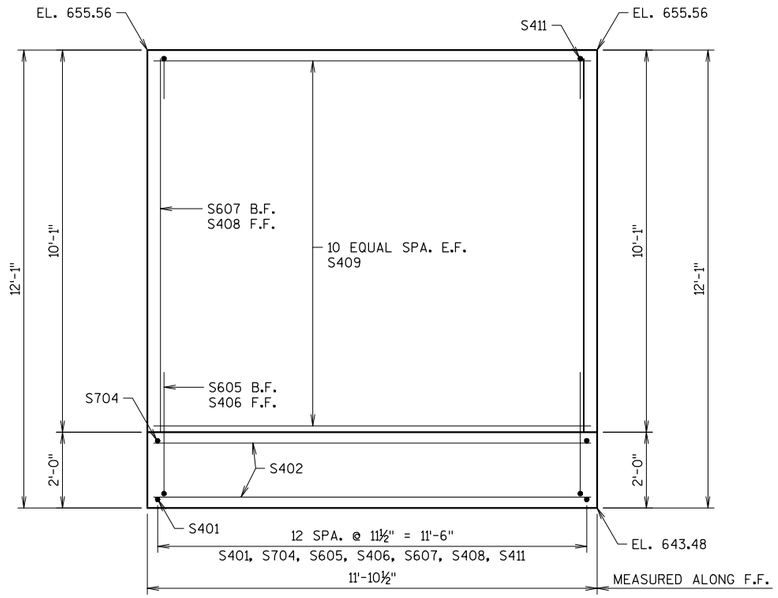
2350-09-71

BILL OF BARS

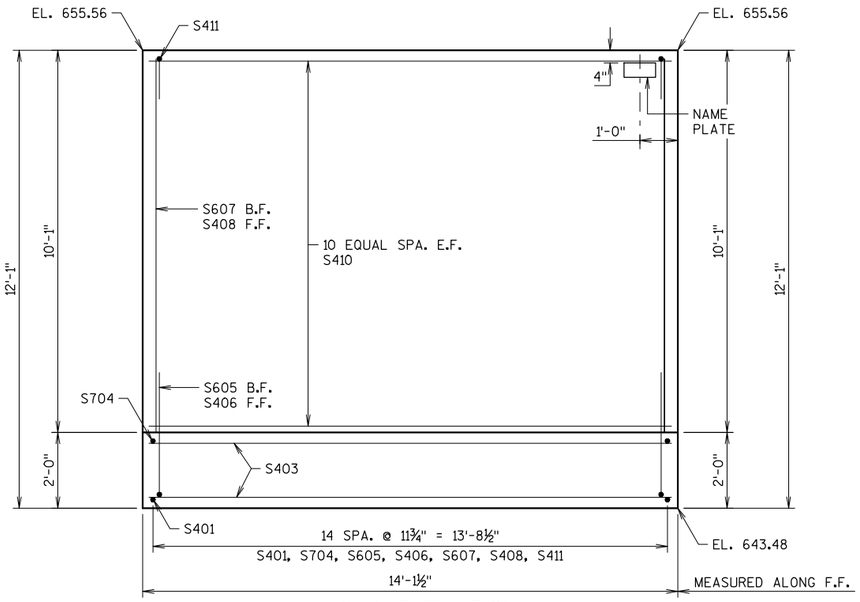
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
NON-COATED BARS					TOTAL WEIGHT = 750 LBS
S401	28	6'-8"			WINGS 3 & 4 - FOOTINGS HORIZ.
S402	14	11'-6"			WING 3 - FOOTING HORIZ.
S403	14	13'-9"			WING 4 - FOOTING HORIZ.
S704	28	6'-8"			WINGS 3 & 4 - FOOTINGS HORIZ.
COATED BARS					TOTAL WEIGHT = 1,350 LBS
S605	28	5'-9"	X		WINGS 3 & 4 - FOOTINGS/STEM @ B.F. VERT.
S406	28	4'-1"	X		WINGS 3 & 4 - FOOTINGS/STEM @ F.F. VERT.
S607	28	9'-9"			WINGS 3 & 4 @ B.F. VERT.
S408	28	9'-9"			WINGS 3 & 4 @ F.F. VERT.
S409	22	11'-6"			WING 3 F.F & B.F. HORIZ.
S410	22	13'-9"			WING 4 F.F & B.F. HORIZ.
S411	28	3'-6"	X		WINGS 3 & 4 - TOP VERT.

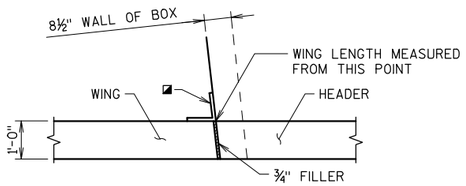
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.



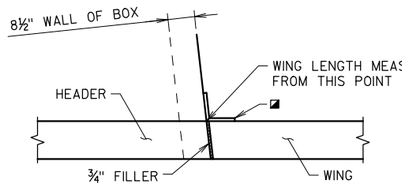
WING 3 ELEVATION



WING 4 ELEVATION

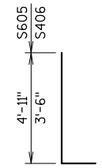


WING 4

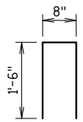


WING 3

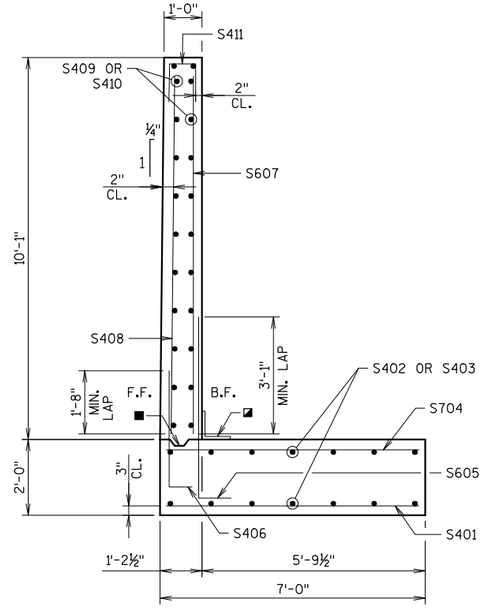
CORNER DETAILS



S605, S406



S411



TYPICAL WING SECTION

LEGEND

- ■ KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6"
- ◪ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

B.F. = BACK FACE
F.F. = FRONT FACE
E.F. = EACH FACE

NOTE

HEADER AND WALL TO ALIGN AT TOP. PROVIDE BEVEL ON WALL END, WHERE IT TIES INTO BOX CULVERT, TO ALIGN THE BATTERED WALL FLUSH WITH THE END OF THE BOX.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-51-82

DRAWN BY PKF | PLANS CK'D. BH

ORIGINAL PLAN PREPARED BY
CORRE

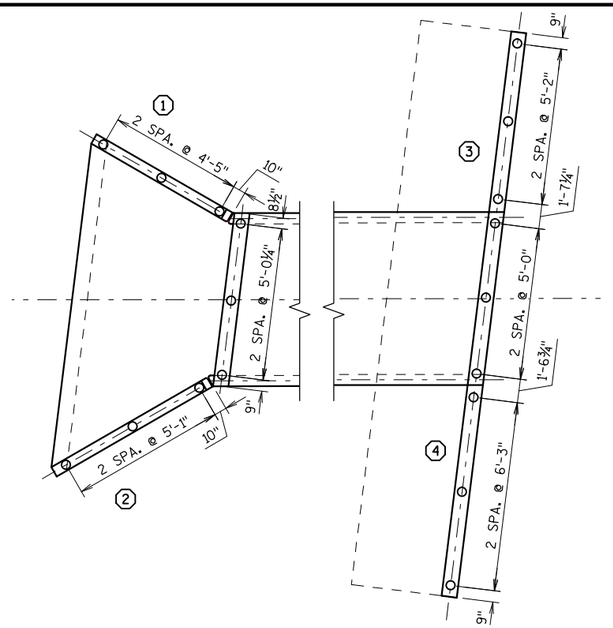
OUTLET WING DETAILS

SHEET 6 OF 7

375

8

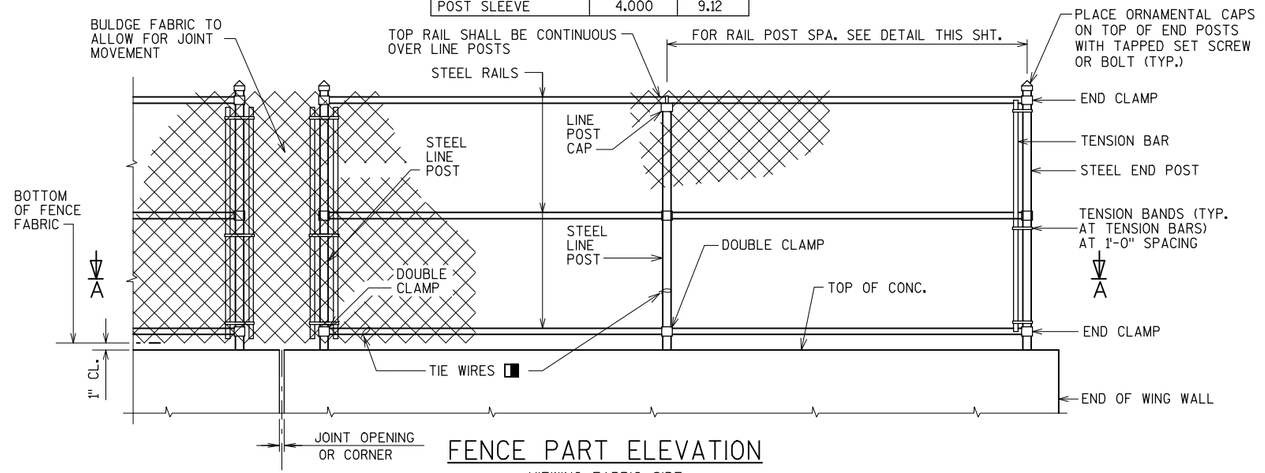
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POST SPACING ON WINGWALLS & HEADWALLS

FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



FENCE PART ELEVATION

VIEWING FABRIC SIDE

NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 5-FT".

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

▀ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

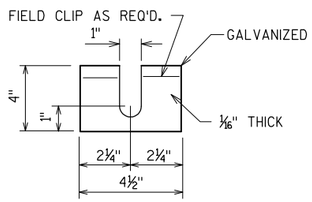
◭ 1/2" DIA. X 6 7/8" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. ☆

☆ ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS 1/2-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

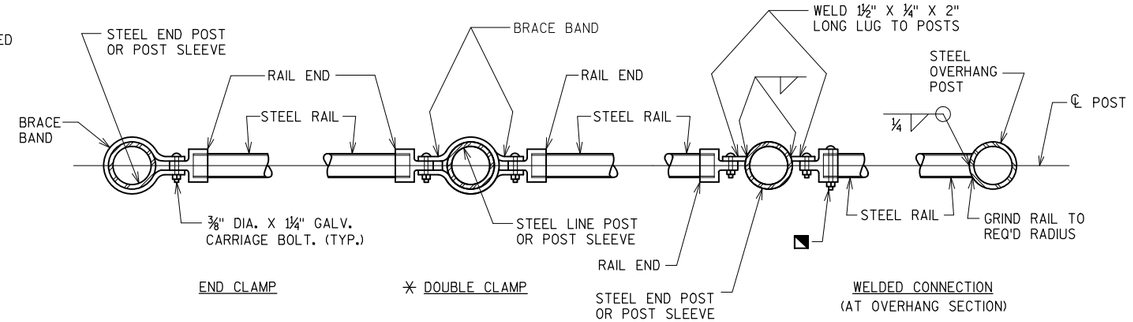
◥ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4 POINT OF POST SPACING.



POST SHIM DETAILS

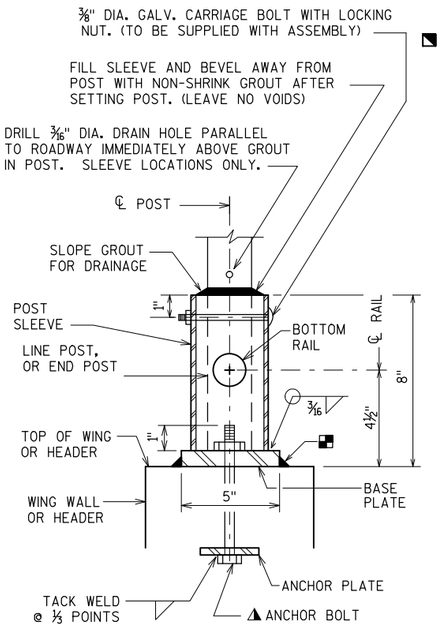
SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



END CLAMP ✳ DOUBLE CLAMP WELDED CONNECTION (AT OVERHANG SECTION)

SECTION A-A

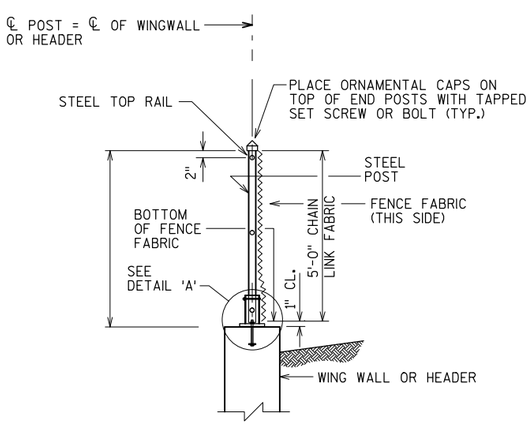
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



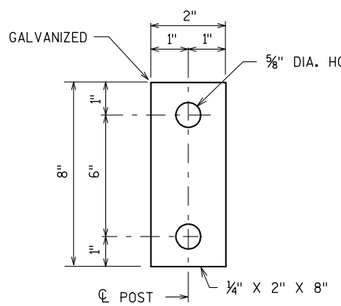
DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

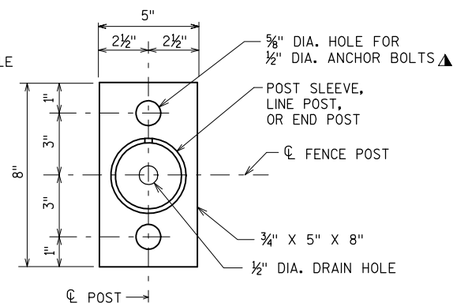


SECTION THRU FENCE

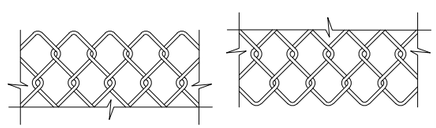


ANCHOR PLATE

NOTE: ANCHOR PLATE NOT REQUIRED ☆WHEN ADHESIVE ANCHORS ARE USED.



BASE PLATE



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE PROJECT NUMBER

2350-09-71

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-51-82

DRAWN BY PKF | PLANS CK'D. BH

FENCE DETAILS

SHEET 7 OF 7

376

8

8

FILE NAME : P:±WI - SE REGION±2350-09-01 STH 32_RACINE COUNTY±500_CADD±503_STRUCTURES±502.4_FINAL±080801 FENCE_STH32.DWG PLOT DATE : 1/10/2018 2:20 PM PLOT BY : PAULETTE FENSKE

STH 32												
			AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			
Station	Real Station	Distance	Cut	Salvaged/ Unusable Pavement Material	Fill	Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.2		Mass Ordinate
108+21.00	10821		150	0	4	0	0	0	0	0		0
109+00.00	10900	79	191	3792	0	498	105	7	498	8		385
110+00.00	11000	100	178	4800	0	683	133	1	1180	9		933
110+03.36	11003	3	0	144	0	10	4	0	1190	9		939
111+00.00	11100	97	240	2328	12	431	57	21	1621	34		1288
111+10.63	11111	11	200	264	11	90	7	5	1711	39		1365
112+00.00	11200	89	144	2136	0	567	53	19	2278	62		1856
113+00.00	11300	100	120	2400	0	490	59	0	2767	62		2287
114+00.00	11400	100	122	2400	1	450	59	2	3217	64		2675
114+75.80	11476	76	220	1824	14	482	45	20	3699	88		3087
115+00.00	11500	24	186	576	2	180	14	7	3879	97		3245
116+00.00	11600	100	7	2400	5	356	59	13	4236	113		3526
116+92.77	11693	93	35	2232	1	71	55	11	4306	127		3528
117+00.00	11700	7	36	168	1	9	4	0	4316	127		3533
118+00.00	11800	100	15	2400	0	94	59	2	4410	130		3565
118+87.12	11887	87	36	2088	0	81	52	0	4490	130		3594
119+00.00	11900	13	32	312	1	16	6	0	4507	130		3603
119+42.04	11942	42	40	1008	0	56	25	1	4563	131		3633
120+00.00	12000	58	14	1392	0	58	34	0	4621	131		3657
121+00.00	12100	100	5	2400	0	35	59	1	4657	133		3631
121+04.85	12105	5	0	120	0	0	3	0	4657	133		3629
128+96.15	12896	0	2	0	0	0	0	0	4657	133		3629
129+00.00	12900	4	17	120	2	1	3	0	4658	133		3627
130+00.00	13000	100	18	3000	2	65	74	7	4723	141		3610
130+53.41	13053	53	32	1590	6	49	39	8	4772	150		3610
131+00.00	13100	47	33	1410	5	56	35	10	4829	162		3620
131+62.16	13162	62	2	1860	120	40	46	144	4868	334		3441
131+70.37	13170	8	53	240	77	8	6	29	4877	369		3408
132+00.00	13200	30	77	900	8	73	22	47	4949	426		3402
132+32.61	13233	33	104	990	5	111	24	8	5060	435		3479
133+00.00	13300	67	62	2010	2	206	50	9	5266	446		3625
133+45.36	13345	45	0	1350	6	51	33	6	5317	453		3636
136+99.04	13699	0	34	0	7	0	0	0	5317	453		3636
137+00.00	13700	1	89	30	1	2	1	0	5320	453		3637
137+46.07	13746	46	112	1380	4	171	34	5	5491	459		3769
137+53.61	13754	8	147	240	2	38	6	1	5529	460		3800
137+54.12	13754	0	147	0	2	0	0	0	5529	460		3800
137+78.53	13778	24	142	720	5	128	18	3	5658	464		3907
138+00.00	13800	22	74	660	78	88	16	34	5746	504		3939
138+06.56	13806	6	68	180	48	16	4	14	5762	521		3933
138+52.86	13853	47	43	1410	58	97	35	93	5859	632		3884
138+63.95	13864	11	49	330	39	19	8	20	5877	656		3871
139+00.00	13900	36	46	1080	17	64	27	37	5941	701		3863
139+18.74	13919	19	48	570	15	33	14	11	5974	714		3869
139+46.77	13947	28	43	840	13	47	21	15	6021	732		3877
139+71.67	13972	25	48	750	6	42	19	9	6063	743		3890
140+00.00	14000	28	57	840	3	54	21	5	6118	749		3918
141+00.00	14100	100	65	3000	2	225	74	9	6343	759		4058
141+10.00	14110	10	5	300	5	13	7	1	6356	761		4062
159+90.67	15991	0	27	0	7	0	0	0	6356	761		4062
160+05.68	16006	15	25	450	7	14	11	4	6370	765		4061
160+53.17	16053	47	32	1410	0	50	35	6	6420	773		4069
161+00.00	16100	47	37	1410	0	61	35	0	6481	773		4094
162+00.00	16200	100	32	3000	1	129	74	2	6610	776		4147
162+62.29	16262	62	32	1860	0	74	46	1	6684	777		4173
163+00.00	16300	38	24	1140	7	40	28	5	6724	784		4178
163+89.10	16389	89	41	2670	0	108	66	12	6832	798		4207
164+00.00	16400	11	41	330	3	17	8	1	6849	799		4215
164+34.62	16435	35	47	1050	0	57	26	2	6906	801		4243
165+00.00	16500	65	43	1950	2	109	48	2	7015	804		4302
165+84.93	16585	85	41	2550	0	134	63	3	7149	807		4369
166+00.00	16600	15	32	450	0	20	11	0	7169	807		4378
166+52.52	16652	52	28	1560	0	57	39	0	7227	807		4397
167+00.00	16700	48	28	1440	0	49	36	0	7276	807		4411
167+64.53	16764	64	54	1920	14	97	47	16	7373	826		4441
167+72.05	16772	8	53	240	29	16	6	6	7389	834		4444
168+00.00	16800	28	60	840	5	59	21	18	7448	855		4461
168+13.36	16813	13	65	390	1	30	10	1	7478	857		4479
169+00.00	16900	87	92	2610	0	253	64	2	7730	859		4666

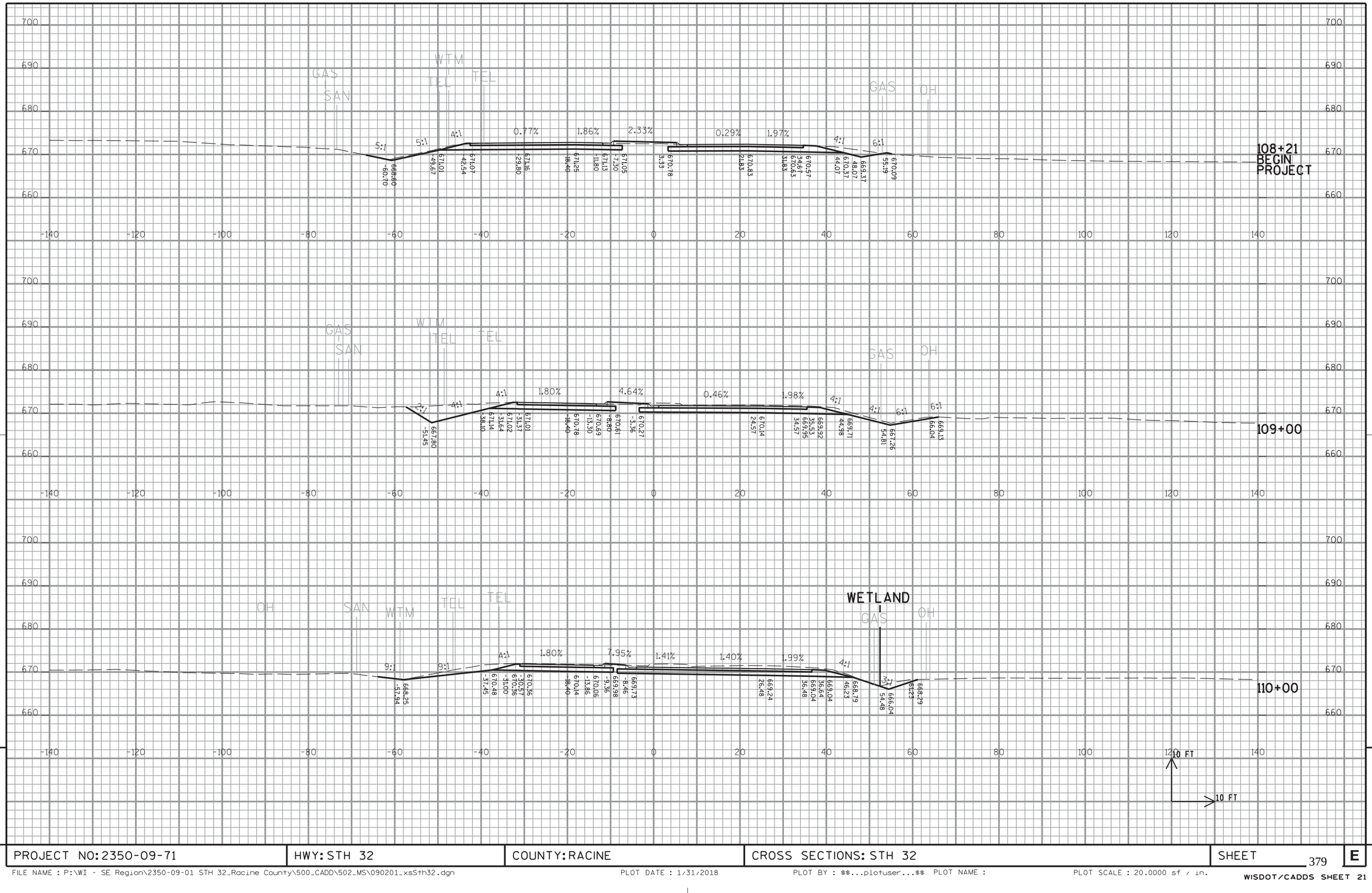
STH 32												
			AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			
Station	Real Station	Distance	Cut	Salvaged/ Unusable Pavement Material	Fill	Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.2		Mass Ordinate
169+34.34	16934	34	127	1020	0	138	25	0	7868	859		4778
170+00.00	17000	66	215	1980	0	419	49	0	8287	859		5148
170+49.03	17049	49	586	1470	0	727	36	0	9014	859		5839
172+18.84	17219	0	440	0	0	0	0	0	9014	859		5839
172+50.00	17250	31	215	744	0	376	18	0	9390	859		6196
172+59.39	17259	9	239	216	1	76	5	0	9466	859		6266
173+00.00	17300	41	217	984	0	346	24	1	9812	860		6587
173+50.00	17350	50	145	1200	3	336	30	3	10148	864		6890
173+82.82	17383	33	110	792	2	156	20	3	10303	867		7022
173+91.08	17391	8	103	192	2	32	5	1	10335	868		7048
174+00.00	17400	9	99	216	4	34	5	1	10368	869		7075
174+50.00	17450	50	96	1200	10	181	30	13	10549	885		7211
175+00.00	17500	50	115	1200	2	196	30	11	10745	898		7364
175+50.00	17550	50	113	1500	0	211	37	1	10956	900		7537
175+92.98	17593	43	93	1290	3	164	32	2	11120	902		7666
176+00.00	17600	7	95	210	2	24	5	1	11145	903		7685
176+50.00	17650	50	97	1500	2	178	37	4	11322	908		7821
176+56.05	17656	6	83	180	6	20	4	1	11343	909		7835
177+00.00	17700	44	63	1320	24	119	33	24	11461	938		7892
177+26.92	17727	27	54	810	23	59	20	24	11520	966		7903
177+50.00	17750	23	62	690	34	50	17	24	11570	996		7906
178+00.00	17800	50	62	1500	44	115	37	72	11685	1082		7898
178+50.00	17850	50	73	1500	31	125	37	70	11810	1165		7902
179+00.00	17900	50	169	1500	16	224	37	44	12034	1218		8037
179+50.00	17950	50	174	1500	14	318	37	28	12352	1251		8284
180+00.00	18000	50	118	1500	6	271	37	19	12622	1274		8495
180+50.00	18050	50	76	1500	11	180	37	16	12802	1293		8619
181+00.00	18100	50	101	1500	4	164	37	14	12967	1310		8729
181+50.00	18150	50	95	1500	4	182	37	7	13149	1319		8866
181+77.10	18177	27	98	810	2	97	20	3	13245	1322		8939
182+00.00	18200	23	94	690	2	82	17	1	13327	1324		9002
183+00.00	18300	100	65	3000	10	294	74	22	13621	1350		9195
184+00.00	18400	100	16	3000	12	150	74	41	13771	1400		9222
184+40.41	18440	40	14	1200	2	22	30	11	13793	1413		9201
185+00.00	18500	60	10	1800	1	26	44	4	13820	1417		9178
185+66.30	18566	66	0	1980	9	12	49	12	13832	1432		9127
						Column Totals	13832	3273	1193			

6 MILE ROAD

Station	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
304+66.00	30466		69	0	51	0	0	0	0	0	0
305+00.00	30500	34	86	0	24	97	0	47	97	56	41
305+24.15	30524	24	91	0	6	79	0	13	176	72	104
305+50.00	30550	26	92	0	6	88	0	6	264	79	185
306+00.00	30600	50	88	0	17	167	0	21	431	104	327
306+50.00	30650	50	92	0	29	167	0	43	598	156	442
307+00.00	30700	50	96	0	53	175	0	77	773	248	524
307+50.00	30750	50	113	0	30	194	0	77	966	340	626
308+00.00	30800	50	122	0	48	218	0	72	1184	427	757
308+50.00	30850	50	139	0	10	241	0	54	1425	492	933
309+00.00	30900	50	139	0	0	257	0	10	1682	504	1178
309+45.44	30945	45	155	0	0	244	0	0	1927	504	1422
309+50.00	30950	5	152	0	0	28	0	0	1955	504	1451
310+00.00	31000	50	129	0	4	260	0	4	2214	509	1705
310+50.00	31050	50	117	0	8	228	0	11	2442	523	1920
311+00.00	31100	50	380	0	12	461	0	18	2903	545	2359
311+50.00	31150	50	626	0	0	932	0	11	3835	558	3277
311+67.03	31167	17	616	0	0	391	0	0	4226	558	3668
312+00.00	31200	33	388	0	13	613	0	8	4839	568	4271
312+50.00	31250	50	176	0	12	522	0	24	5360	596	4765
313+00.00	31300	50	80	0	33	237	0	42	5597	646	4951
313+50.00	31350	50	154	0	2	217	0	32	5814	685	5129
314+00.00	31400	50	156	0	5	287	0	6	6102	692	5410
314+02.41	31402	2	155	0	5	12	0	0	6113	692	5421
314+50.00	31450	48	133	0	15	256	0	18	6369	714	5655
315+00.00	31500	50	268	0	16	371	0	29	6740	749	5991
315+50.00	31550	50	493	0	8	704	0	22	7444	775	6669
316+00.00	31600	50	553	0	0	968	0	7	8412	784	7628
316+50.00	31650	50	529	0	0	1002	0	0	9414	784	8630
317+00.00	31700	50	433	0	0	891	0	0	10305	784	9521
317+50.00	31750	50	234	0	0	618	0	0	10923	784	10139
317+90.22	31790	40	200	0	0	322	0	0	11245	784	10461
318+00.00	31800	10	183	0	0	71	0	0	11316	784	10532
318+50.00	31850	50	126	0	5	286	0	4	11601	789	10812
319+00.00	31900	50	122	0	9	230	0	12	11831	804	11027
319+44.89	31945	45	147	0	0	224	0	7	12055	813	11242
319+45.28	31945	0	147	0	0	0	0	0	12055	813	11242
319+50.00	31950	5	145	0	0	27	0	0	12082	813	11269
320+00.00	32000	50	102	0	12	229	0	11	12311	826	11484
320+20.26	32020	20	98	0	5	74	0	7	12385	834	11551
320+50.00	32050	30	95	0	11	107	0	9	12492	845	11647
320+71.27	32071	21	93	0	4	73	0	6	12565	852	11714
321+00.00	32100	29	89	0	9	98	0	6	12663	860	11804
321+37.39	32137	37	105	0	2	133	0	7	12796	868	11928
321+50.00	32150	13	96	0	6	48	0	2	12845	870	11974
322+00.00	32200	50	65	0	16	149	0	21	12994	895	12099
322+11.42	32211	11	150	0	8	44	0	5	13037	901	12136
322+50.00	32250	39	102	0	11	182	0	13	13219	917	12302
322+68.51	32268	18	113	0	0	72	0	4	13291	921	12369
323+00.00	32300	32	104	0	8	128	0	5	13419	927	12492
323+50.00	32350	50	111	0	3	199	0	10	13618	938	12680
323+52.20	32352	2	112	0	2	8	0	0	13626	939	12688
323+88.34	32388	36	162	0	11	183	0	9	13809	949	12860
324+00.00	32400	12	155	0	11	70	0	5	13880	955	12925
324+14.36	32414	14	124	0	0	72	0	3	13952	959	12993
324+50.00	32450	36	116	0	7	160	0	5	14112	965	13147
325+00.00	32500	50	110	0	0	209	0	7	14320	973	13348
325+00.62	32501	1	110	0	0	4	0	0	14324	973	13352
325+50.00	32550	49	73	0	14	166	0	13	14491	988	13502
325+78.87	32579	29	74	0	0	79	0	8	14570	998	13572
326+00.00	32600	21	57	0	10	51	0	4	14621	1002	13619
326+50.00	32650	50	60	0	8	109	0	17	14730	1023	13706
326+73.80	32674	24	71	0	28	58	0	16	14788	1043	13745
327+00.00	32700	26	61	0	74	64	0	49	14852	1102	13750
327+50.00	32750	50	109	0	7	158	0	75	15009	1192	13818
327+94.00	32794	44	0	0	0	89	0	5	15098	1198	13900
					Column Totals	15098	0	998			

STH 31

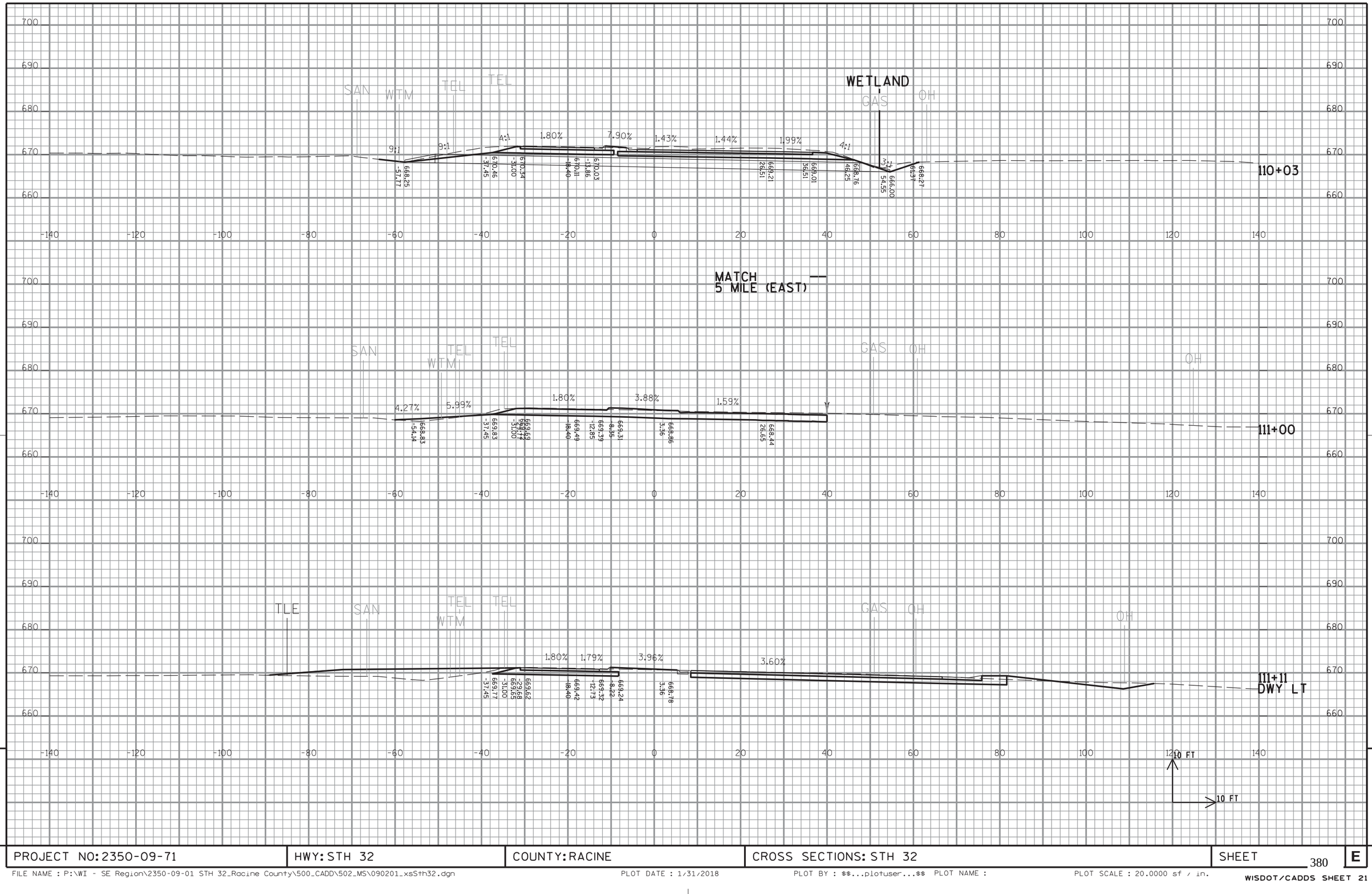
Station	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
401+92.00	40192		10	0	0	0	0	0	0	0	0
402+00.00	40200	8	44	0	0	8	0	0	8	0	8
403+00.00	40300	100	45	0	0	163	0	0	171	0	171
404+00.00	40400	100	18	0	0	116	0	0	287	0	287
405+00.00	40500	100	14	0	2	60	0	3	347	4	343
405+52.23	40552	52	41	0	0	54	0	2	401	6	395
406+00.00	40600	48	77	0	44	105	0	39	506	53	453
406+48.73	40649	49	69	0	30	132	0	67	638	133	505
407+00.00	40700	51	40	0	40	102	0	66	740	213	527
408+00.00	40800	100	14	0	44	100	0	156	840	400	440
408+07.49	40807	7	16	0	43	4	0	11	844	413	430
409+00.00	40900	93	67	0	12	143	0	96	987	528	458
410+00.00	41000	100	182	0	1	461	0	25	1448	558	890
410+44.00	41044	44	424	0	3	493	0	3	1941	561	1380
411+43.00	41143	99	445	0	7	1592	0	18	3533	582	2950
411+50.00	41150	7	438	0	14	114	0	3	3647	586	3062
412+00.00	41200	50	169	0	33	563	0	44	4210	639	3571
412+50.00	41250	50	140	0	50	286	0	77	4496	731	3765
413+00.00	41300	50	121	0	58	242	0	100	4738	852	3886
413+50.00	41350	50	114	0	38	218	0	89	4956	959	3997
413+65.21	41365	15	112	0	28	63	0	18	5018	981	4038
414+00.00	41400	35	97	0	72	136	0	65	5154	1059	4095
414+50.00	41450	50	90	0	71	173	0	132	5327	1218	4109
415+00.00	41500	50	77	0	61	154	0	122	5482	1364	4117
415+50.00	41550	50	77	0	18	143	0	73	5624	1453	4172
416+00.00	41600	50	87	0	14	152	0	29	5776	1488	4288
416+10.60	41611	11	83	0	8	35	0	4	5811	1493	4317
416+15.50	41616	5	82	0	8	15	0	1	5826	1495	4331
416+50.00	41650	34	88	0	97	107	0	67	5932	1575	4358
416+89.35	41689	39	82	0	15	122	0	81	6055	1672	4383
417+00.00	41700	11	82	0	12	33	0	6	6088	1679	4409
417+50.00	41750	50	106	0	2	174	0	13	6262	1694	4567
417+75.49	41775	25	165	0	0	125	0	1	6387	1695	4692
418+00.00	41800	25	142	0	1	142	0	0	6529	1696	4834
418+41.00	41841	41	102	0	1	186	0	1	6715	1697	5018
					Column Totals	6715	0	1414			



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 379	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\090201_xsSth32.dgn PLOT DATE : 1/31/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

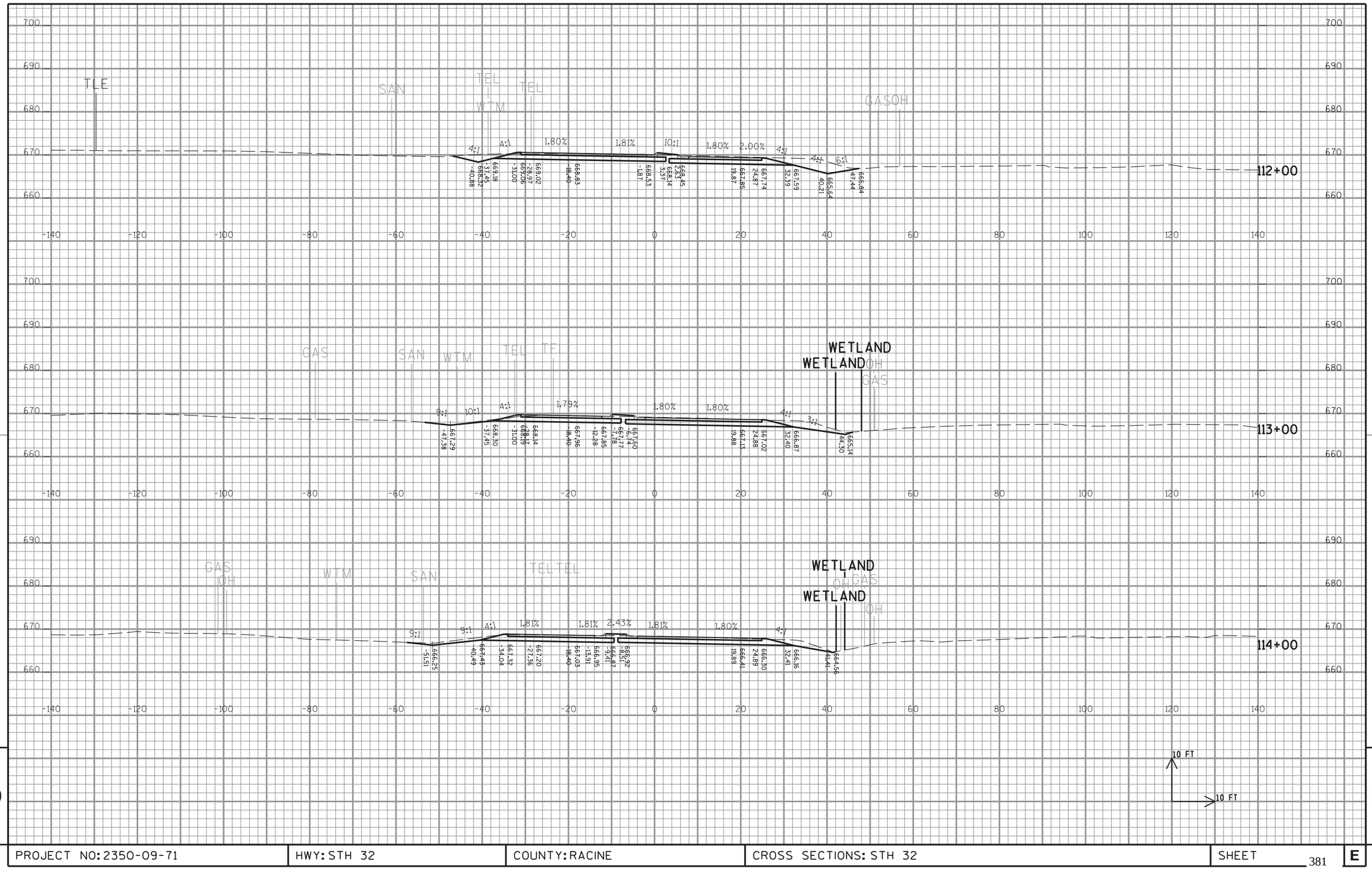
WISDOT/CADDS SHEET 21



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 380	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\090201_xsSth32.dgn PLOT DATE : 1/31/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

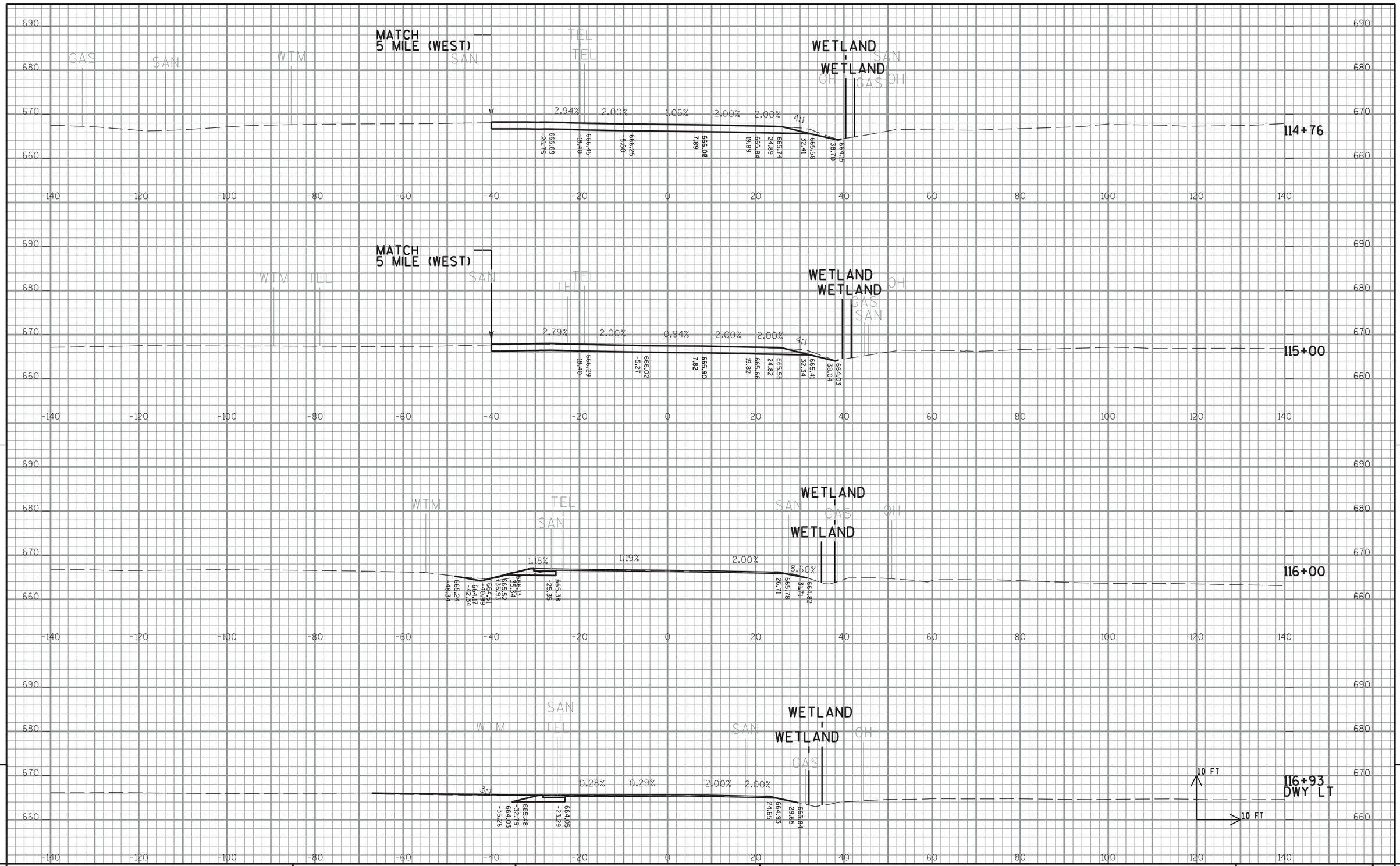


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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 381	E

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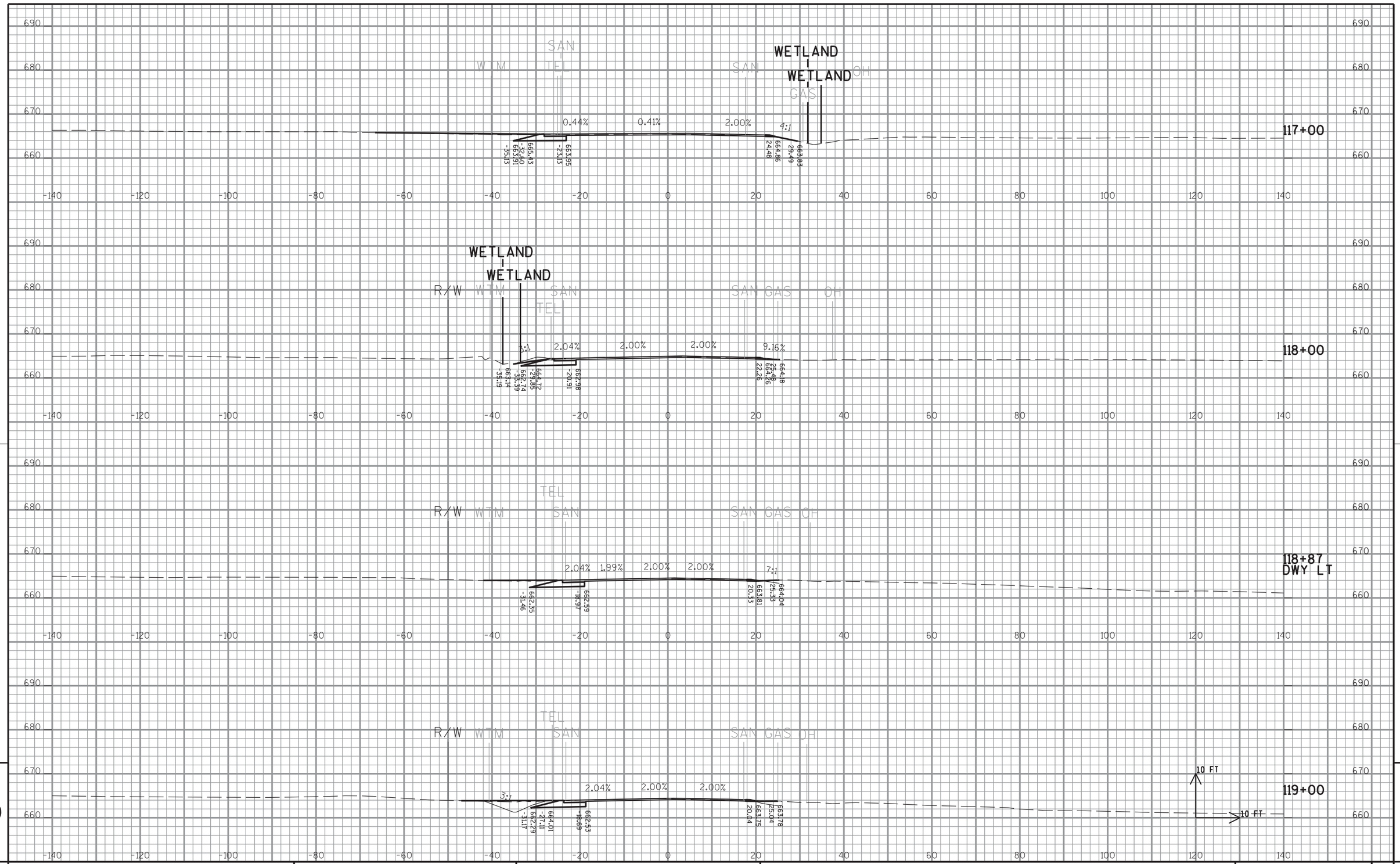
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 382	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\090201_xsSth32.dgn PLOT DATE : 1/31/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

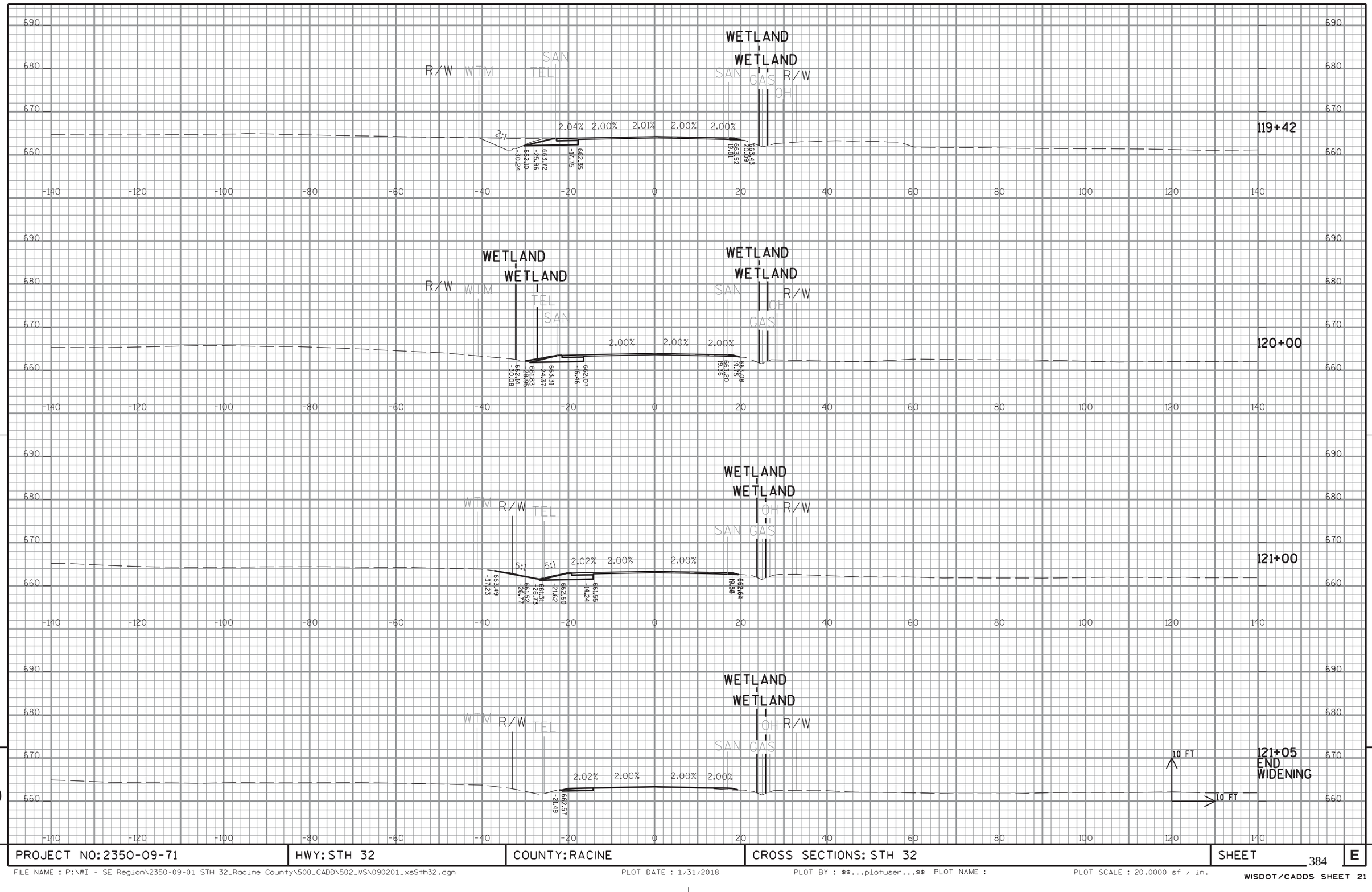
WISDOT/CADDS SHEET 21



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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 383	E



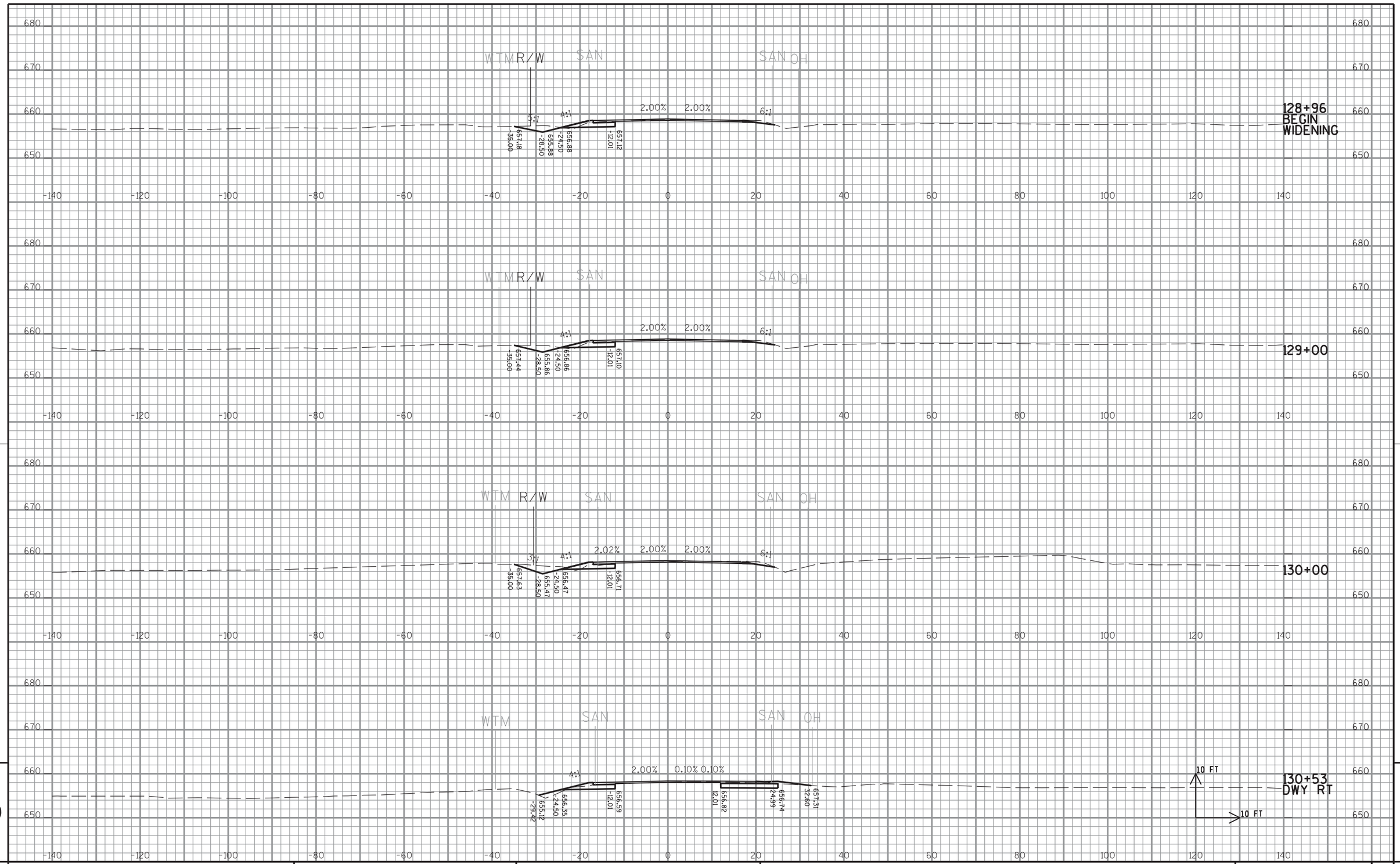
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 384	E

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WISDOT/CADDS SHEET 21



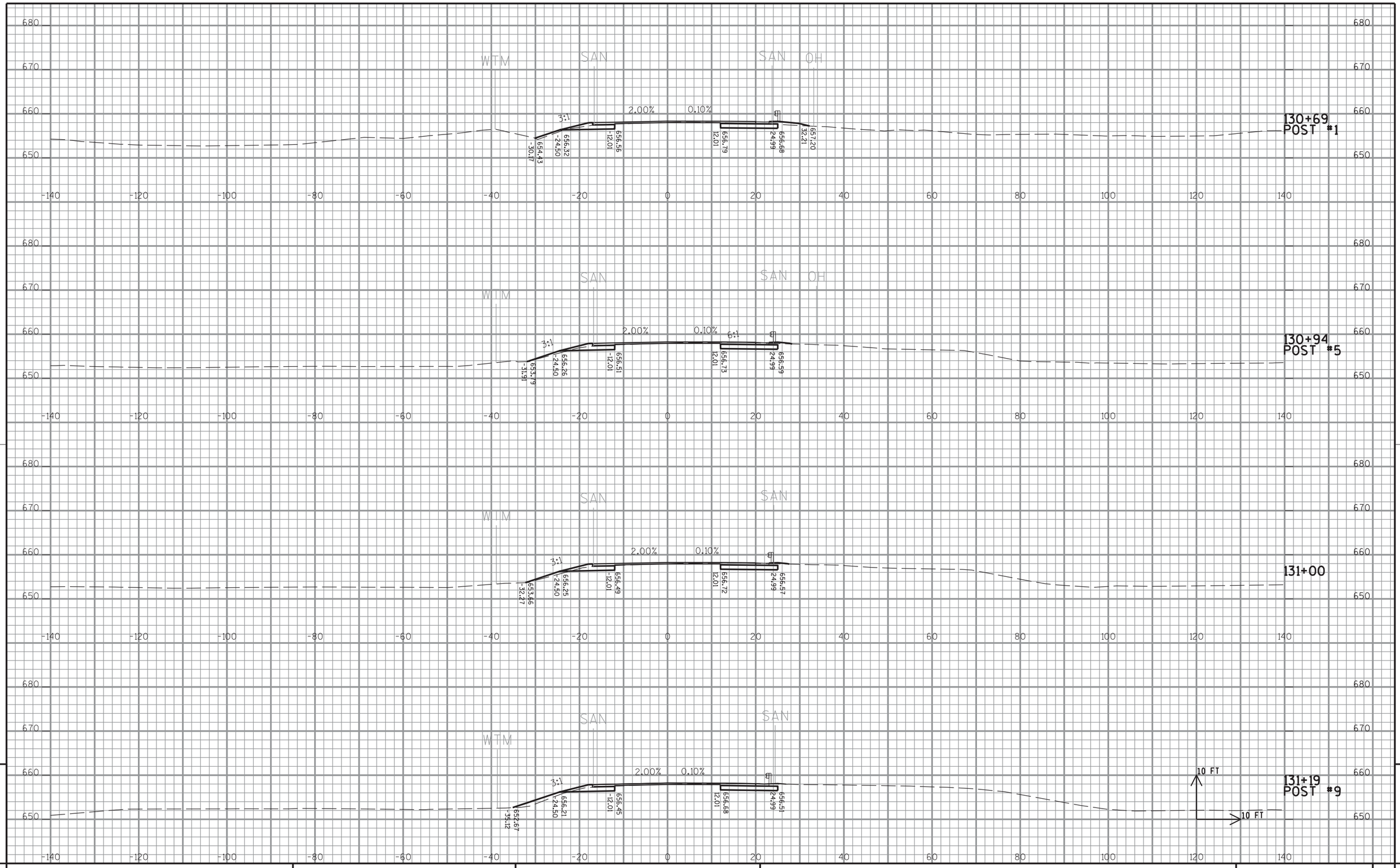
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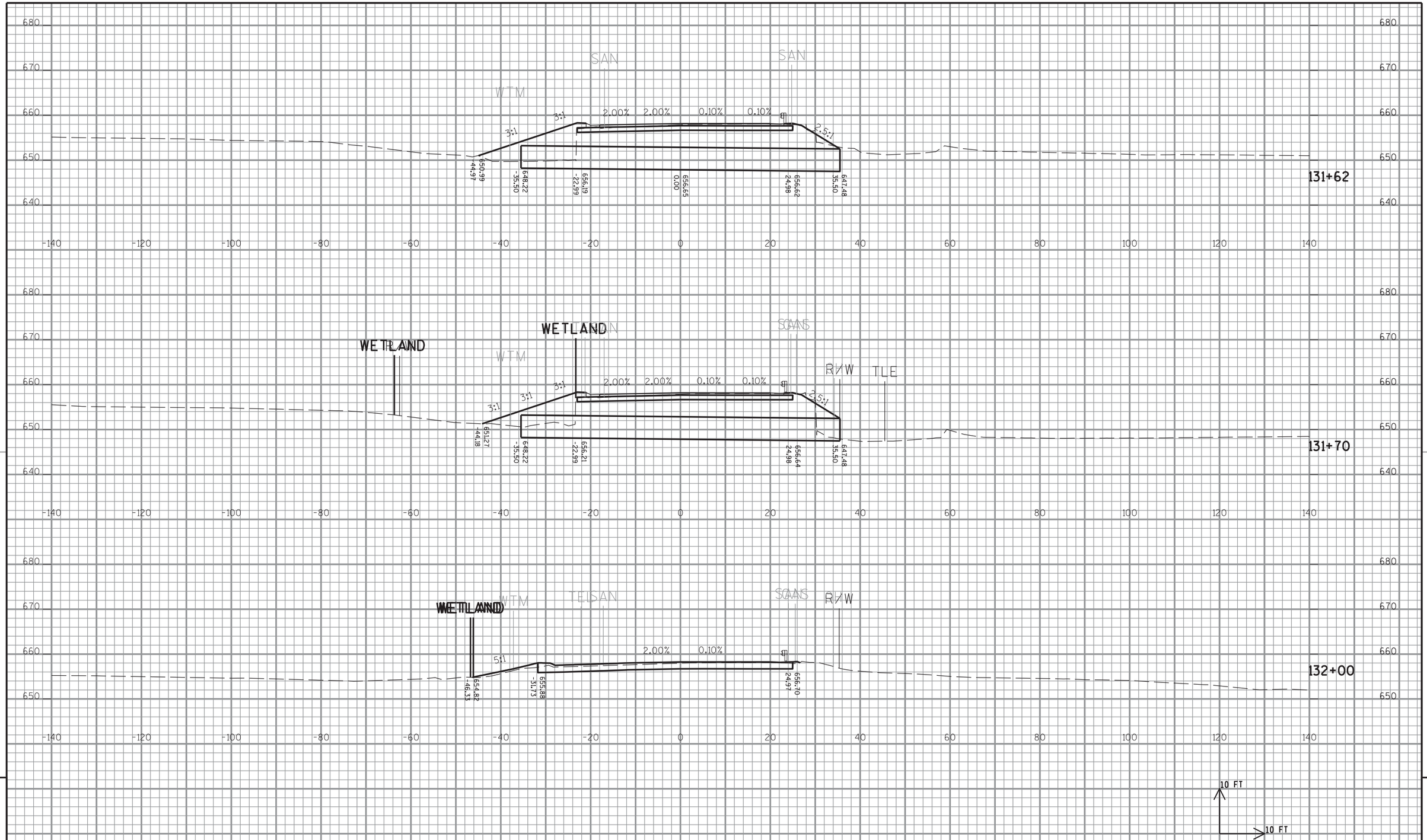
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 385	E

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WISDOT/CADDS SHEET 21



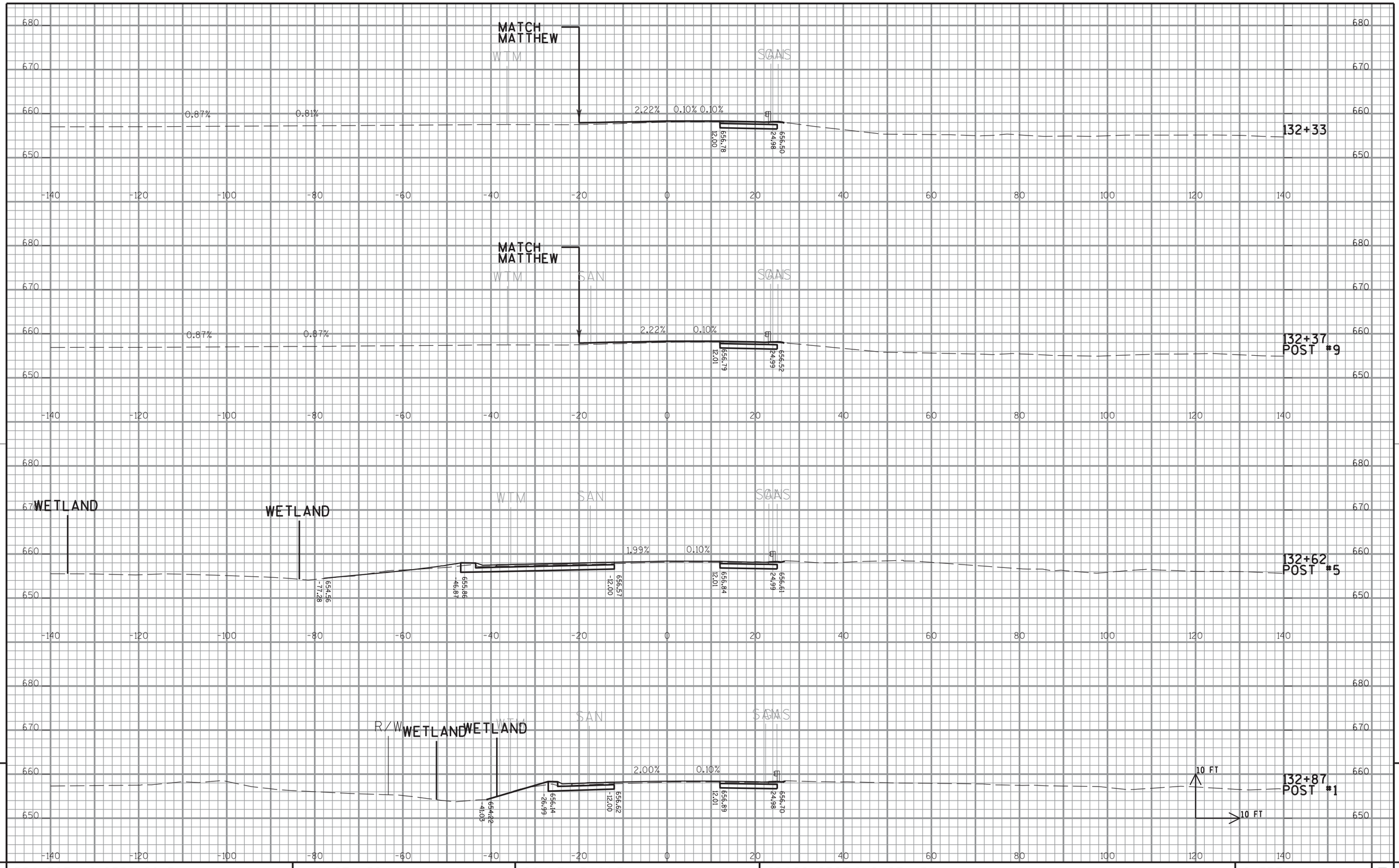
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 386	E



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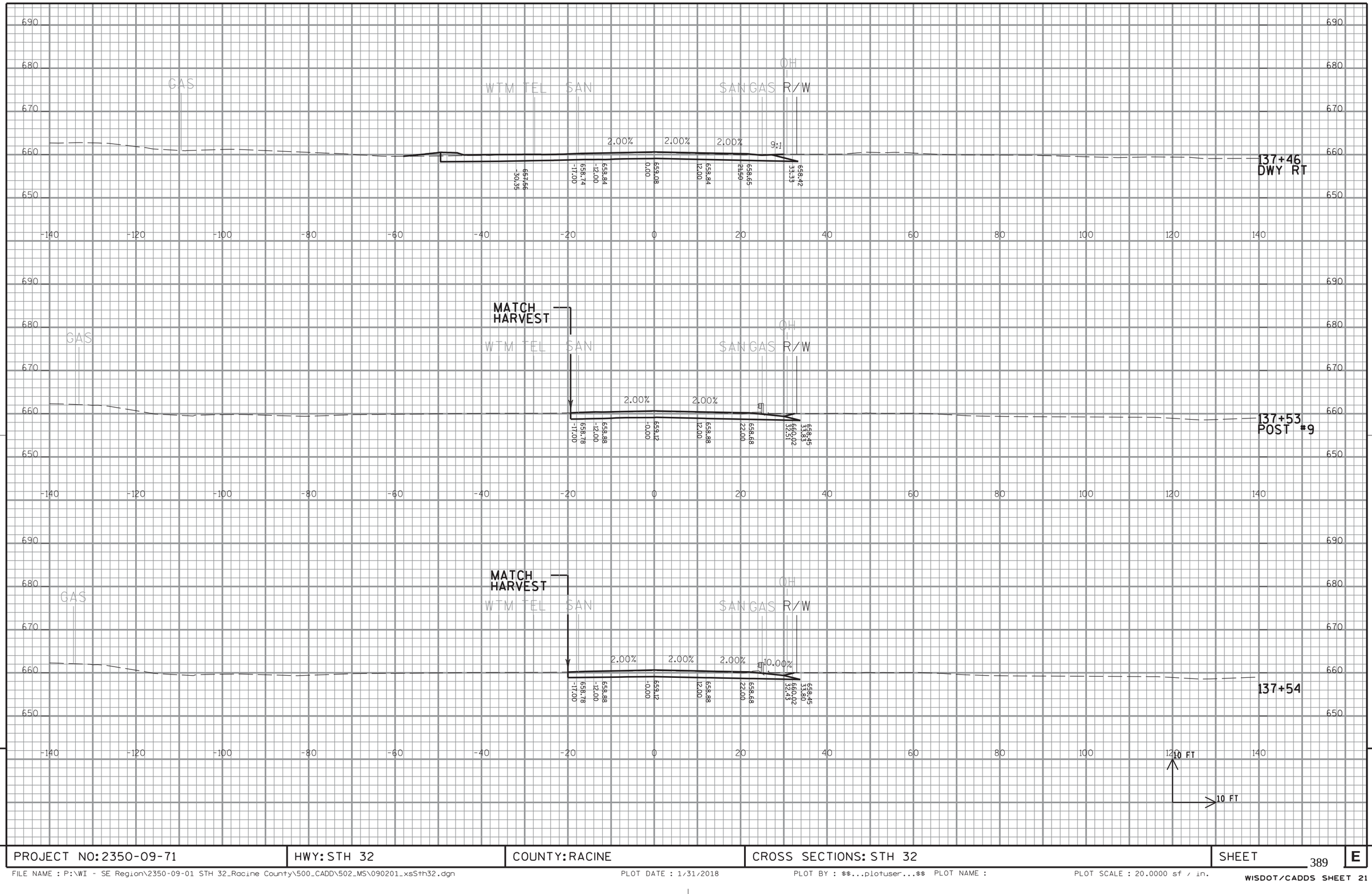
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 387	E



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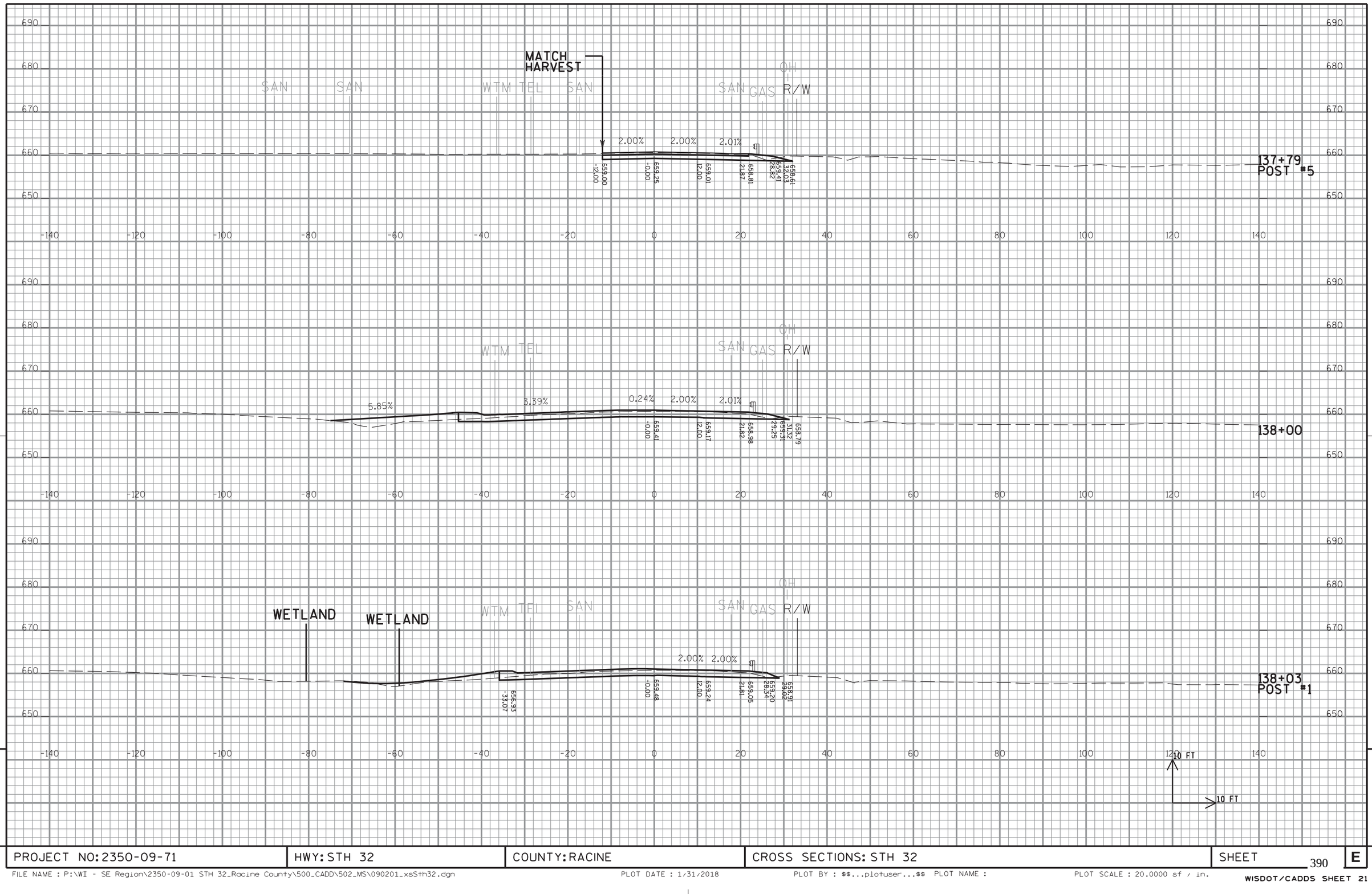
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 388	E



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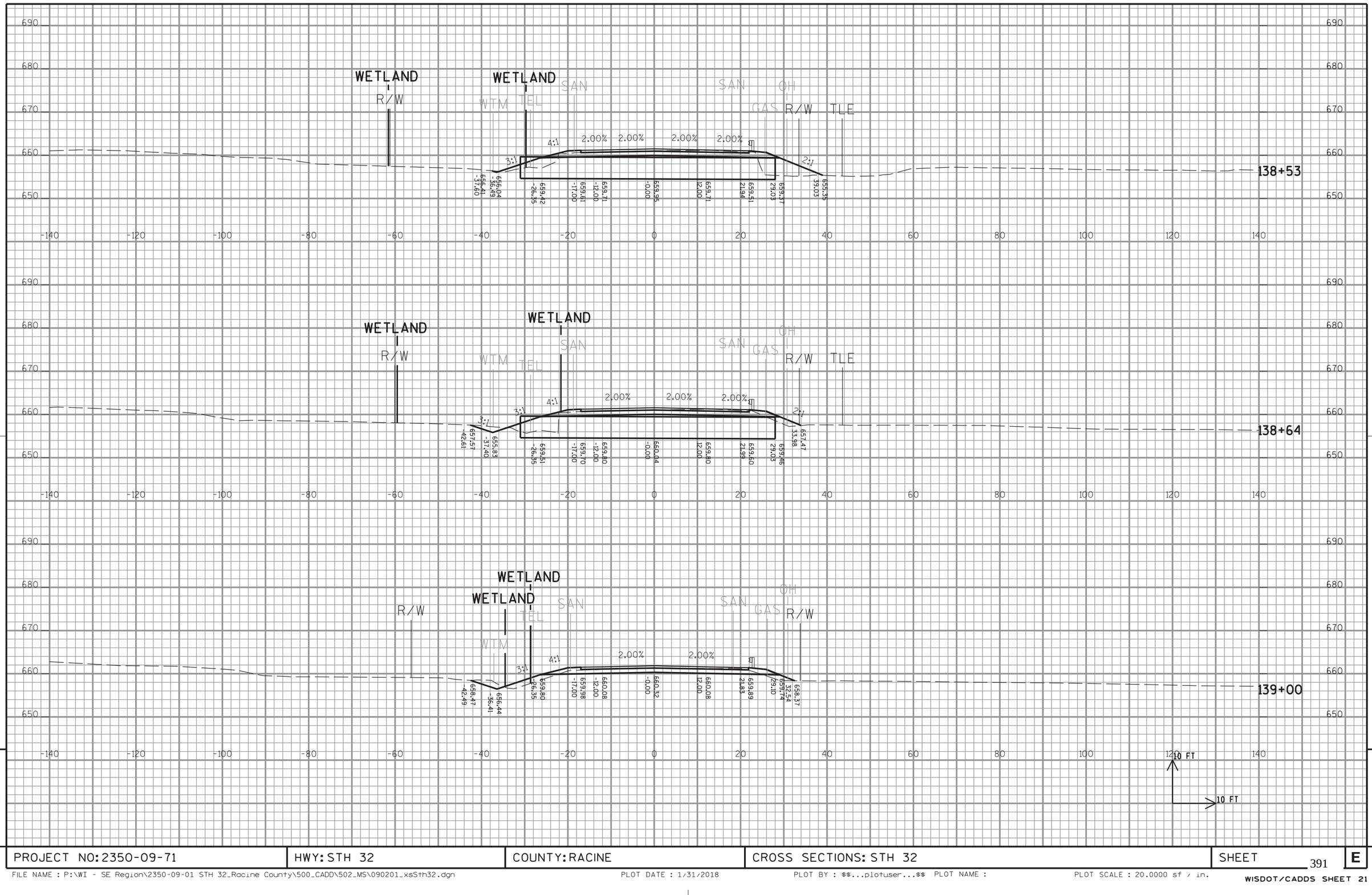
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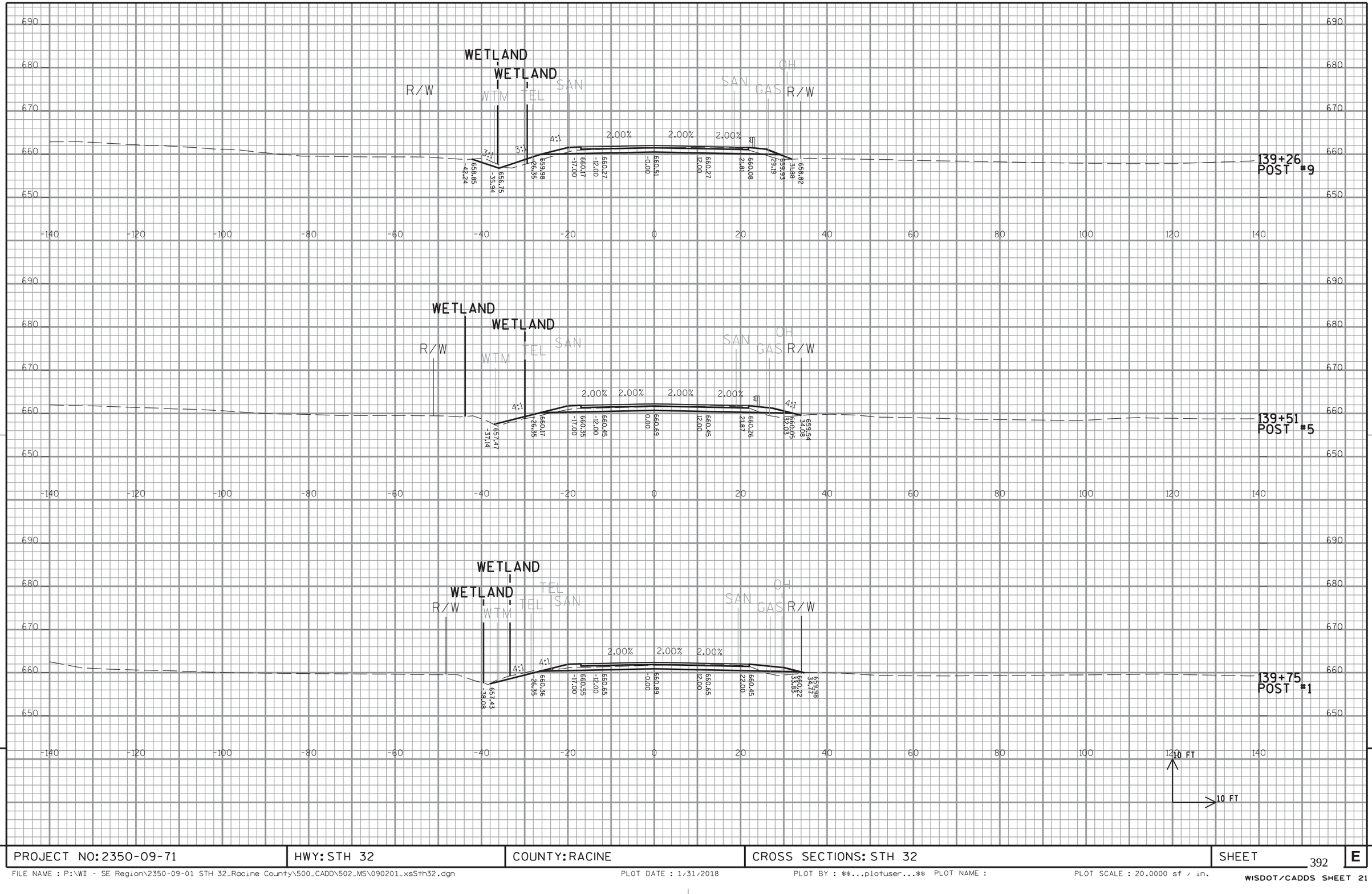
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 390	E



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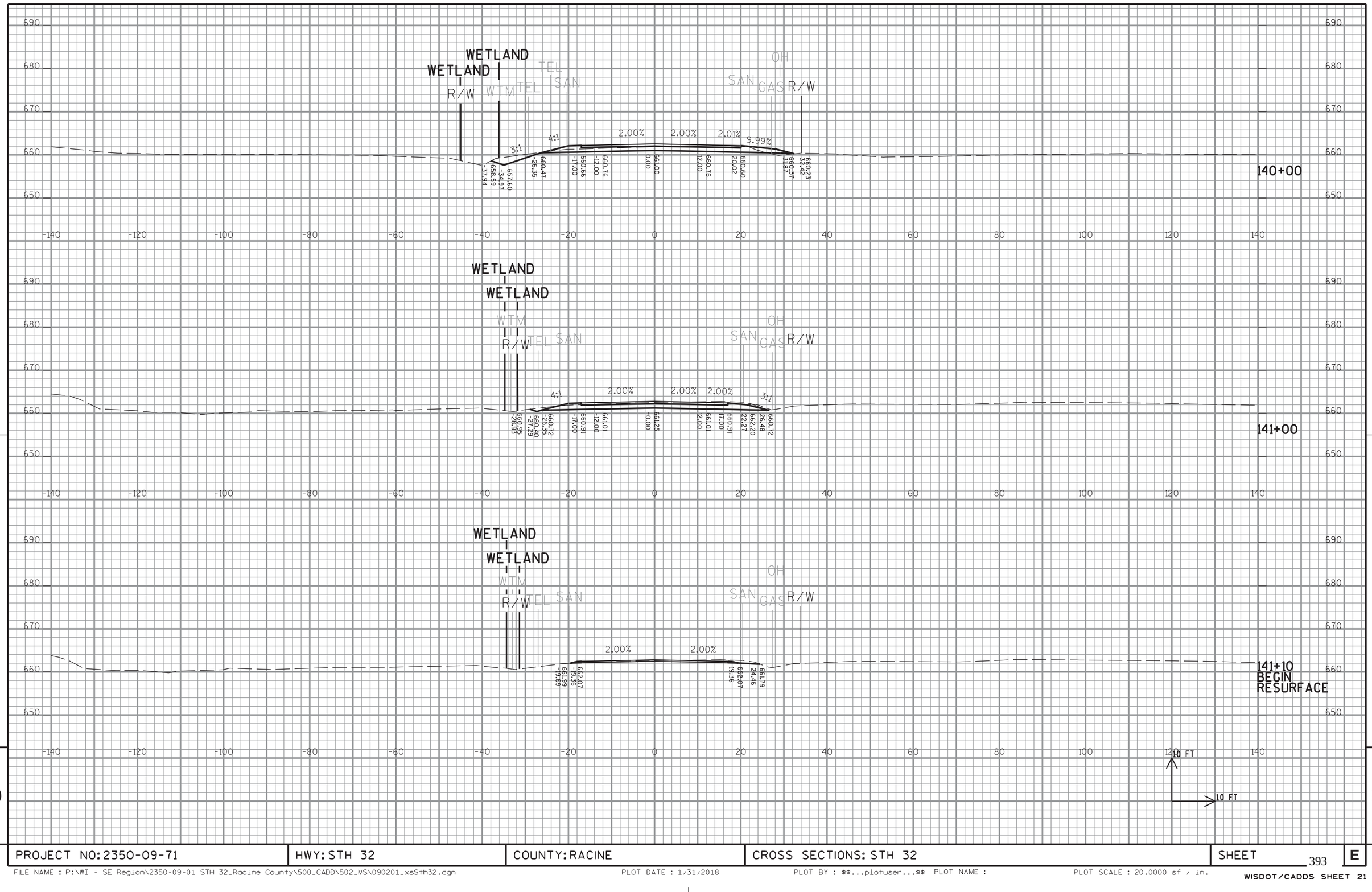
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 391	E



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 392	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\090201_xsSth32.dgn PLOT DATE : 1/31/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

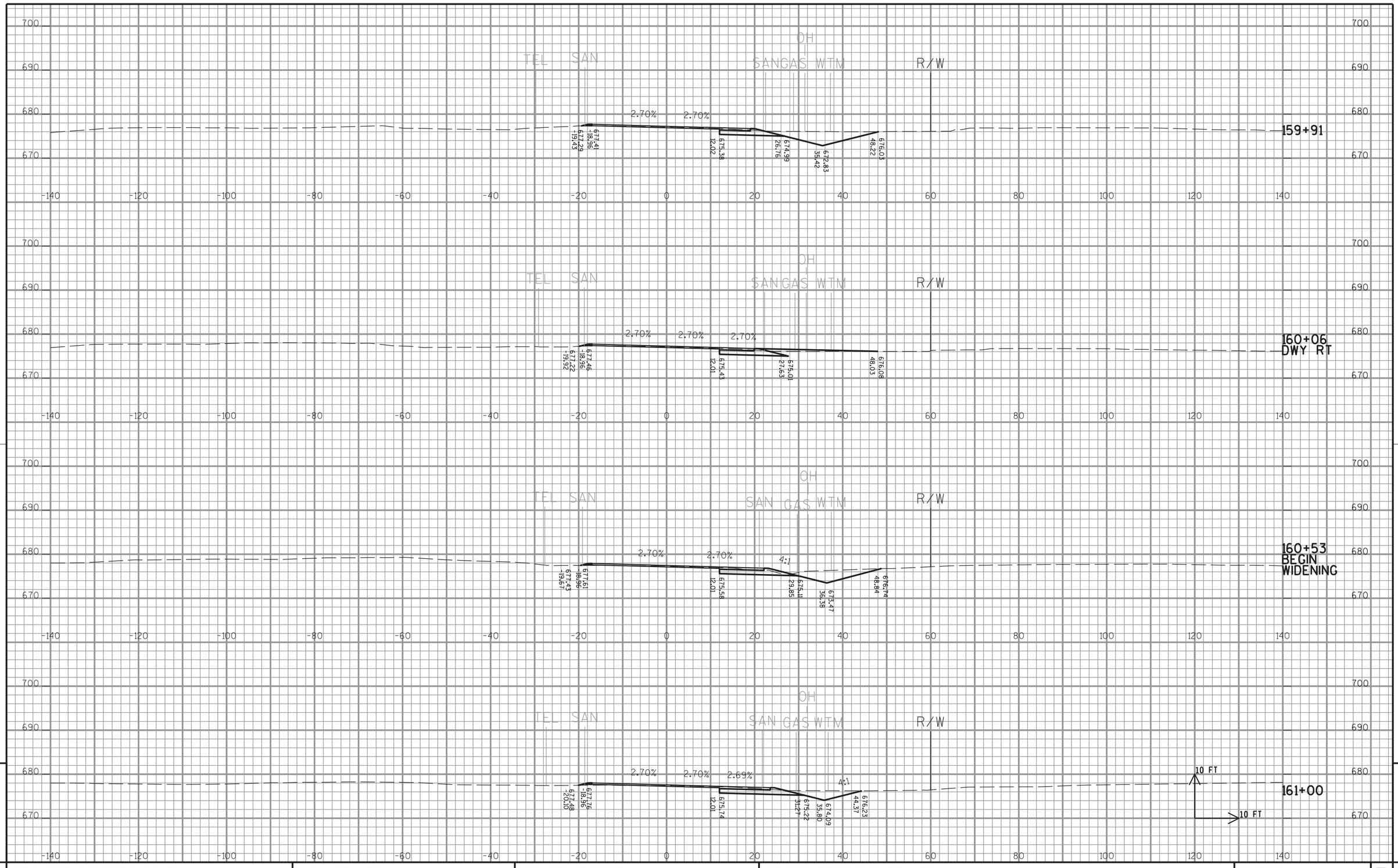
WISDOT/CADDS SHEET 21



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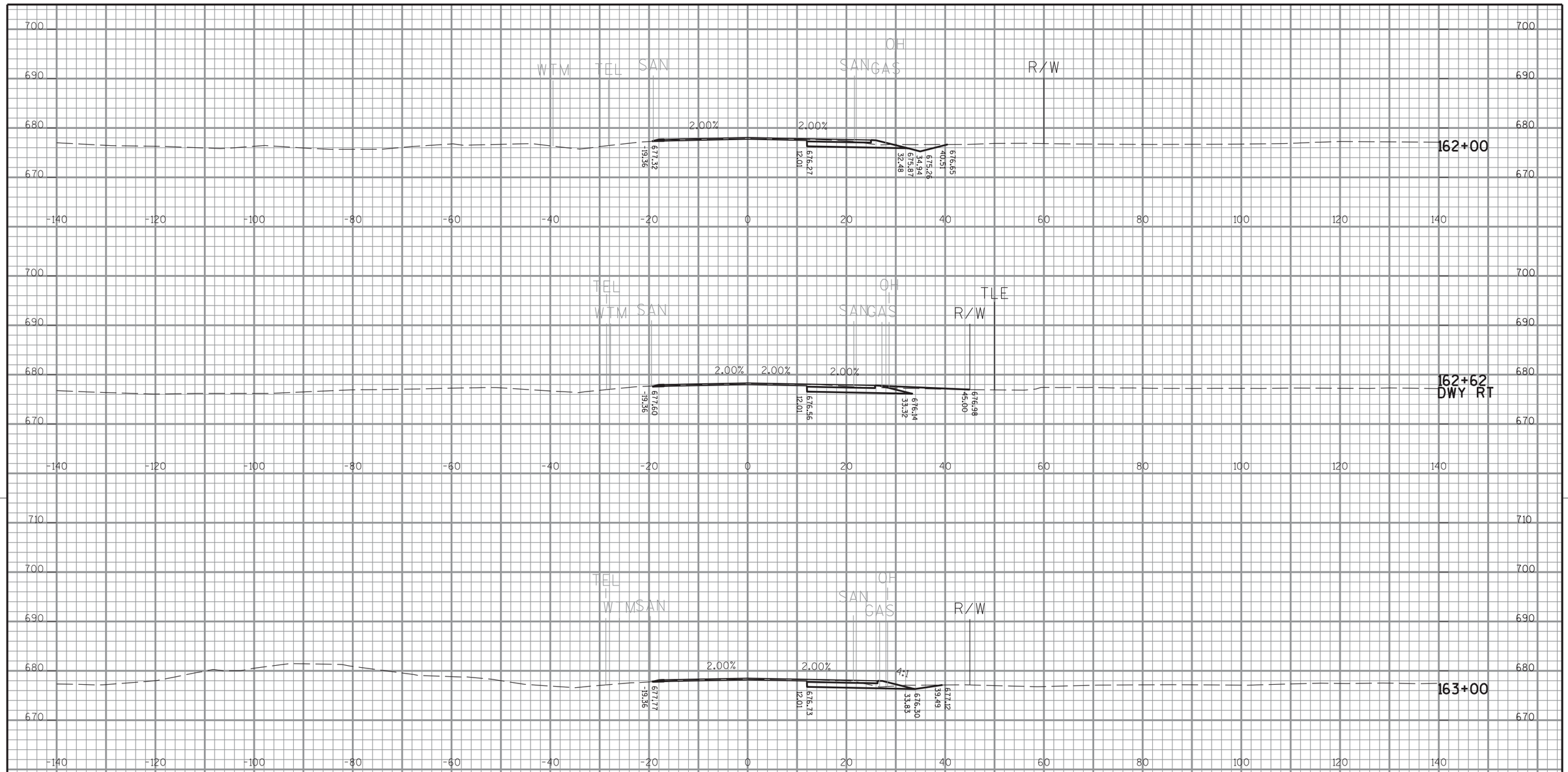
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 393	E



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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 394	E



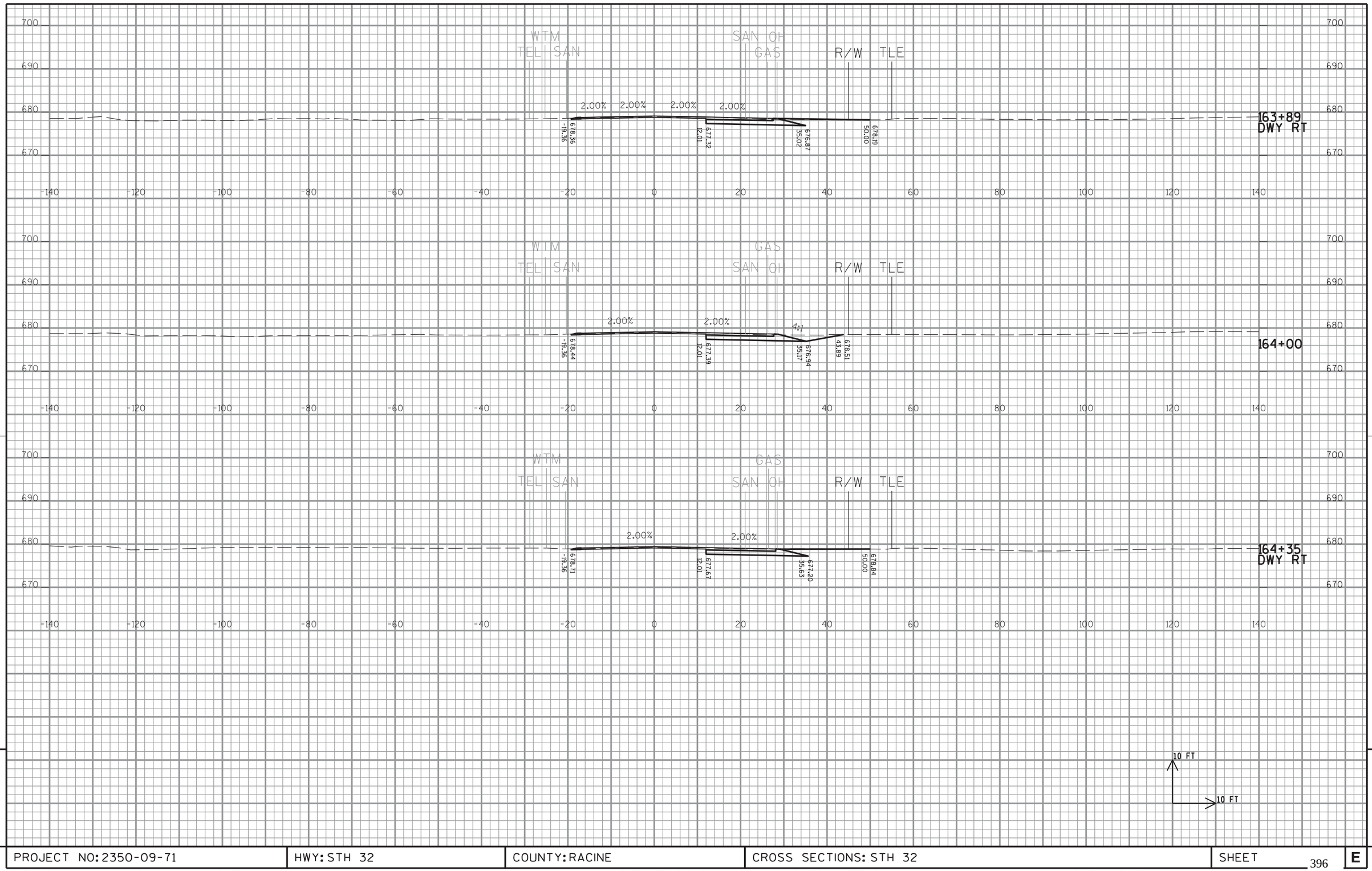
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 395	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/31/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 20.0000 sf / in.

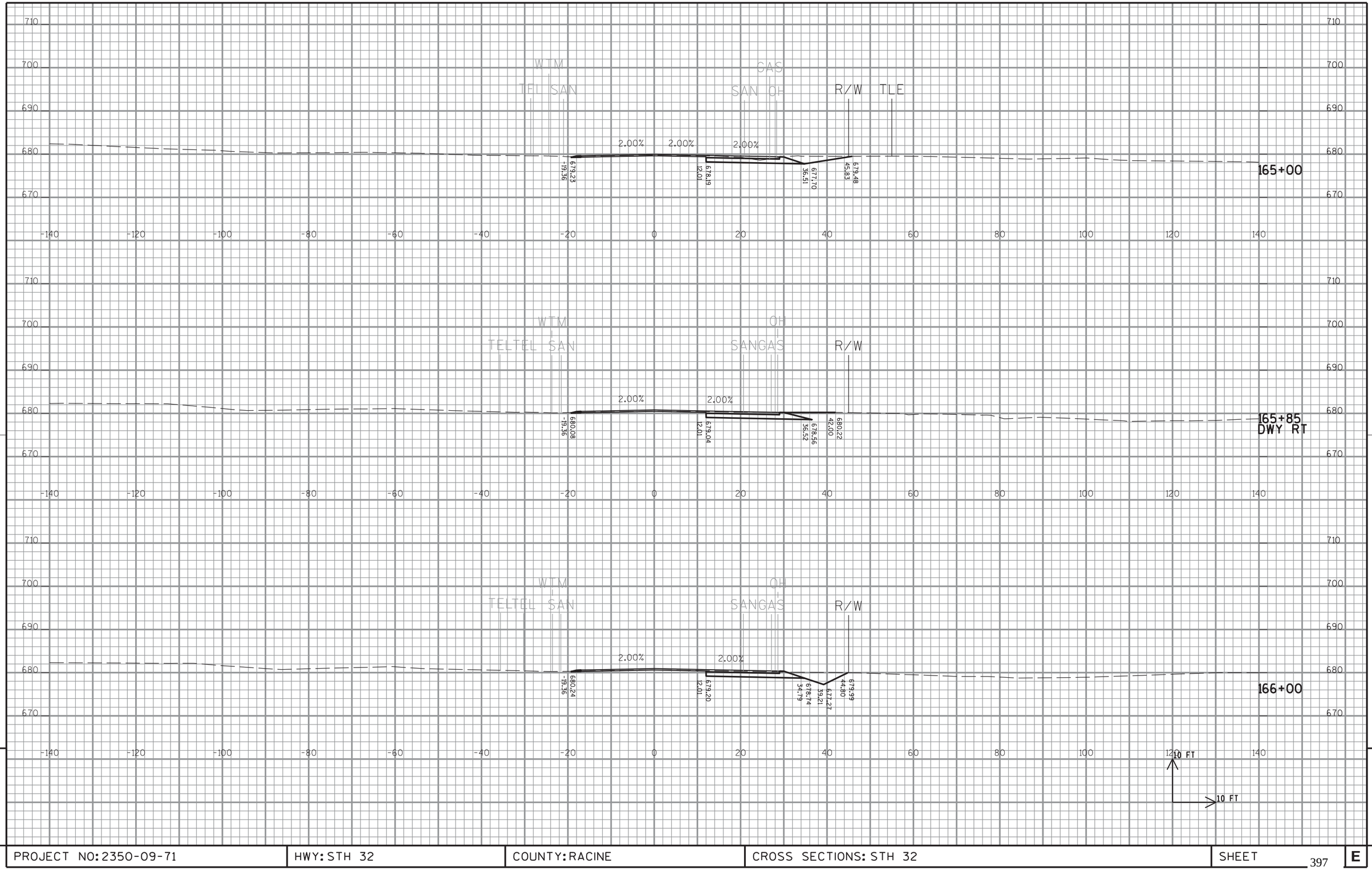
WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 396	E



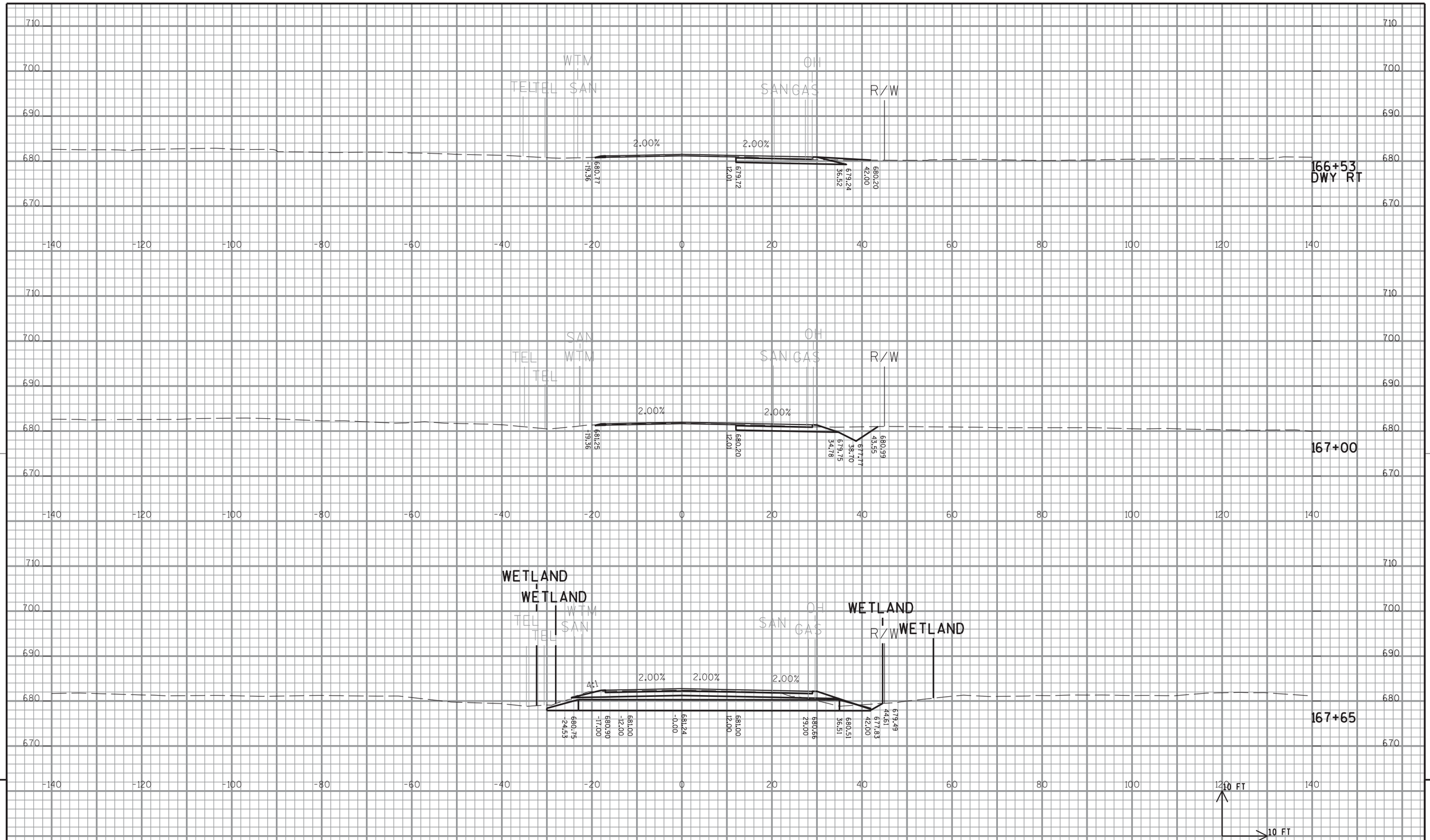
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9

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 397	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/31/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



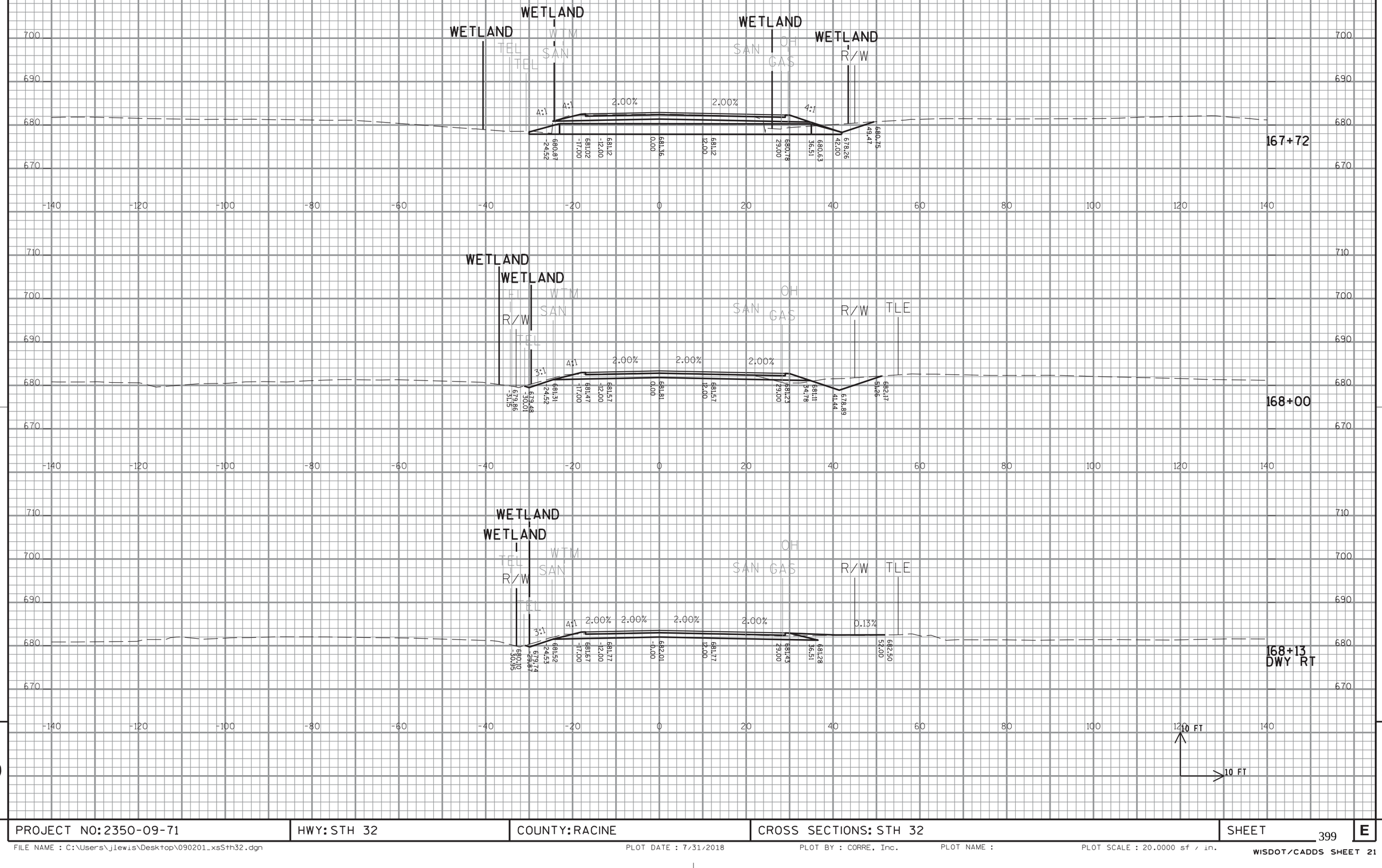
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 398	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/31/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



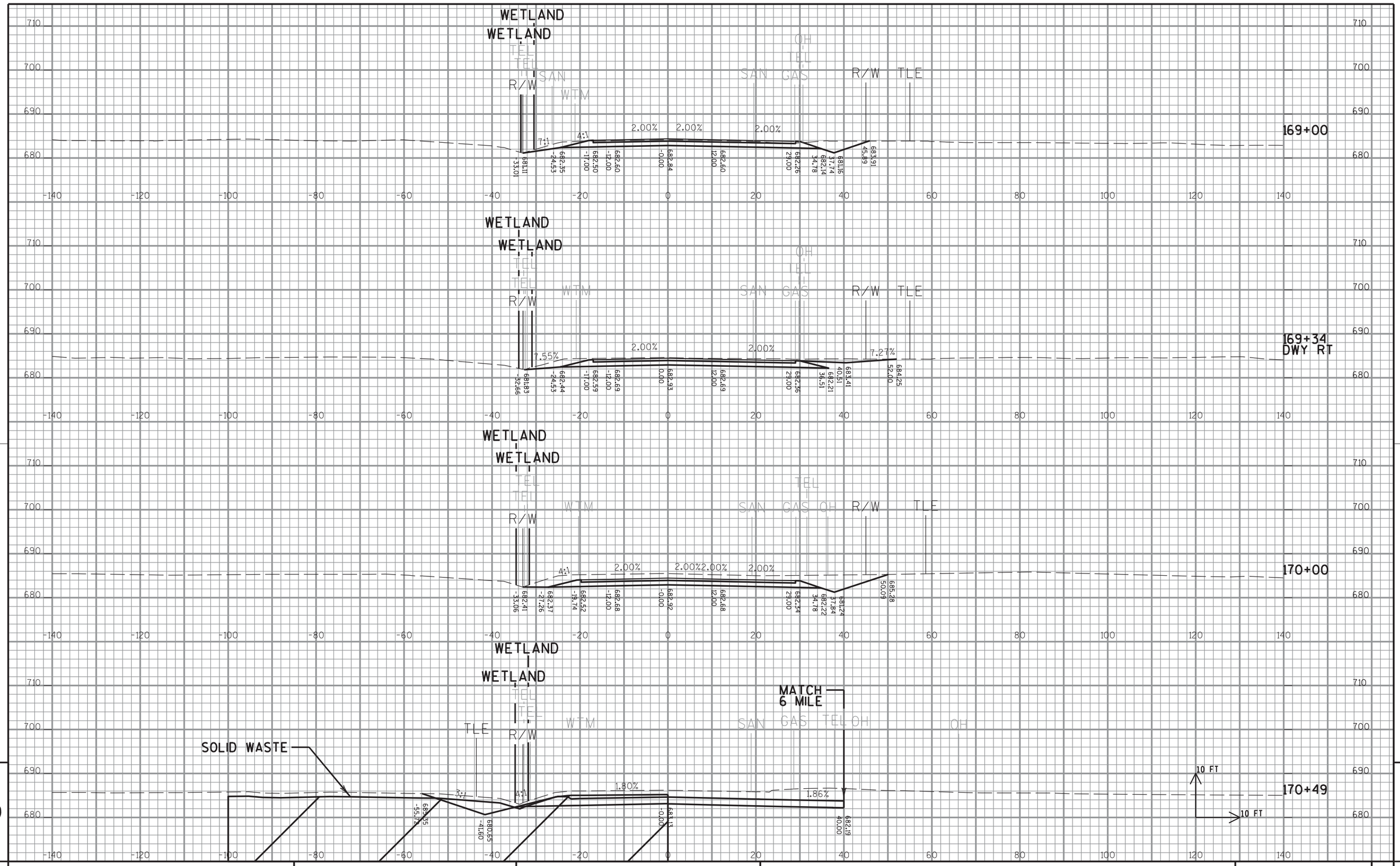
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 399	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/31/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 20.0000 sf / in.

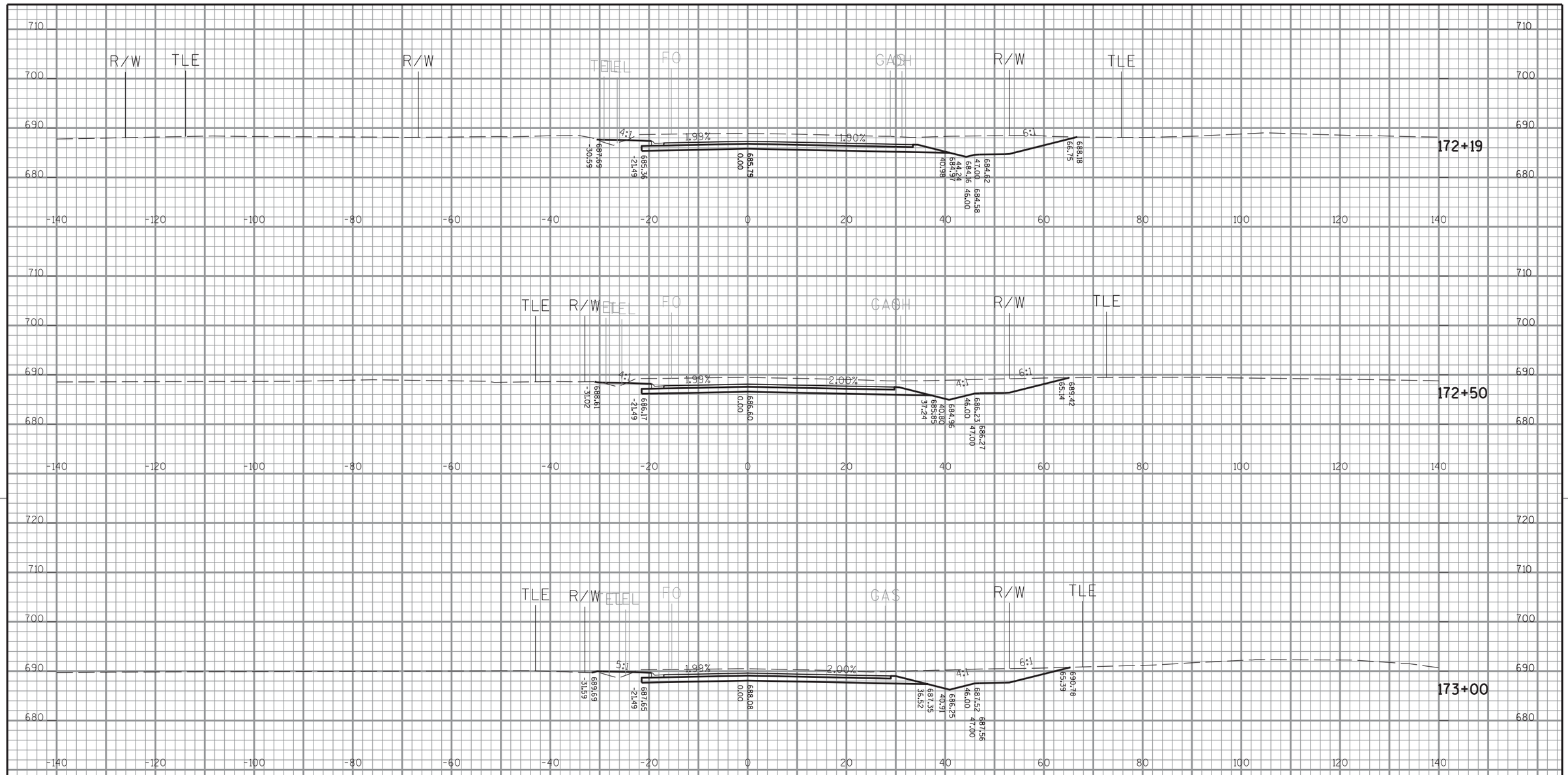
WISDOT/CADDS SHEET 21



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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 400	E



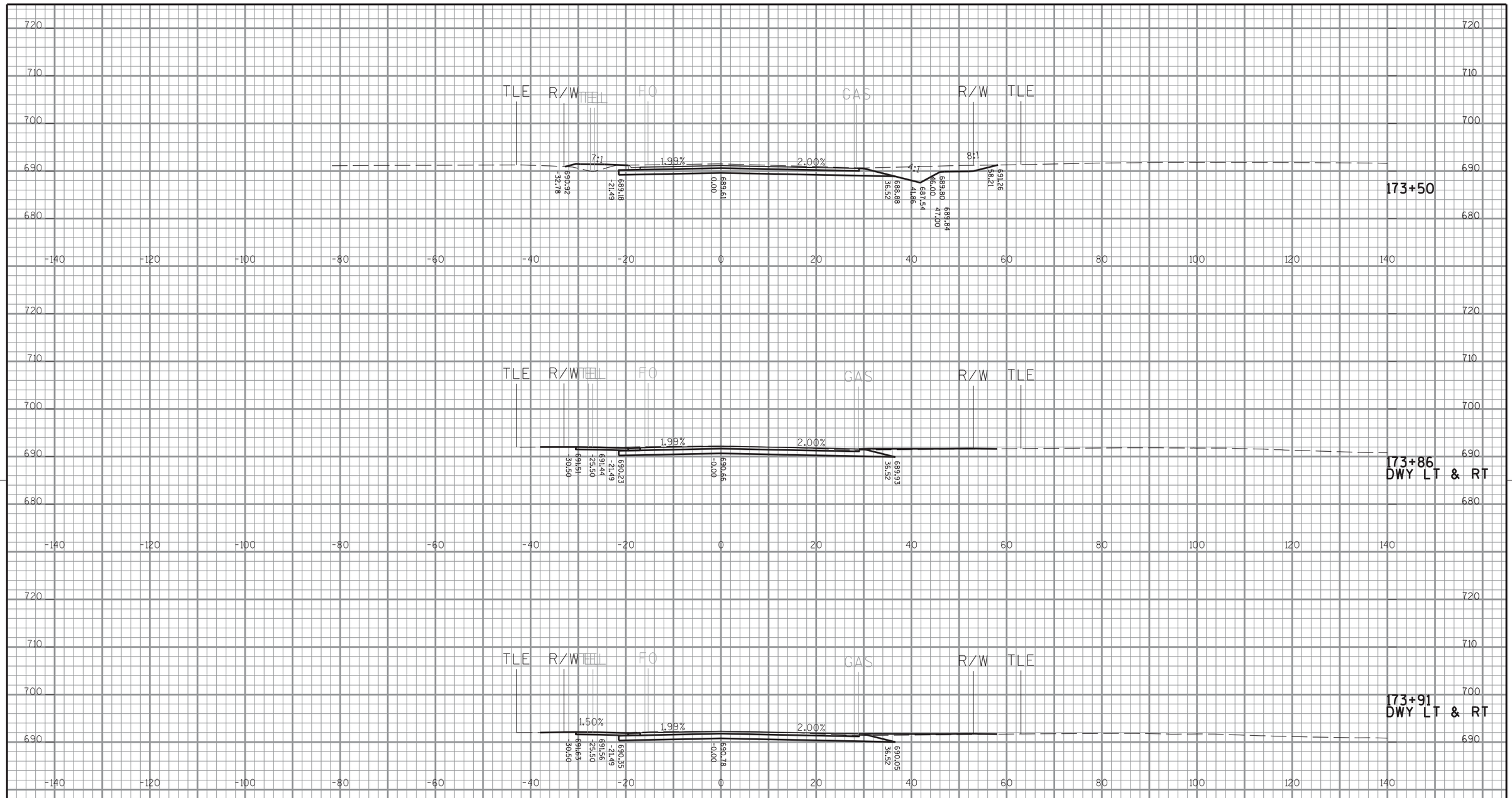
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 401	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

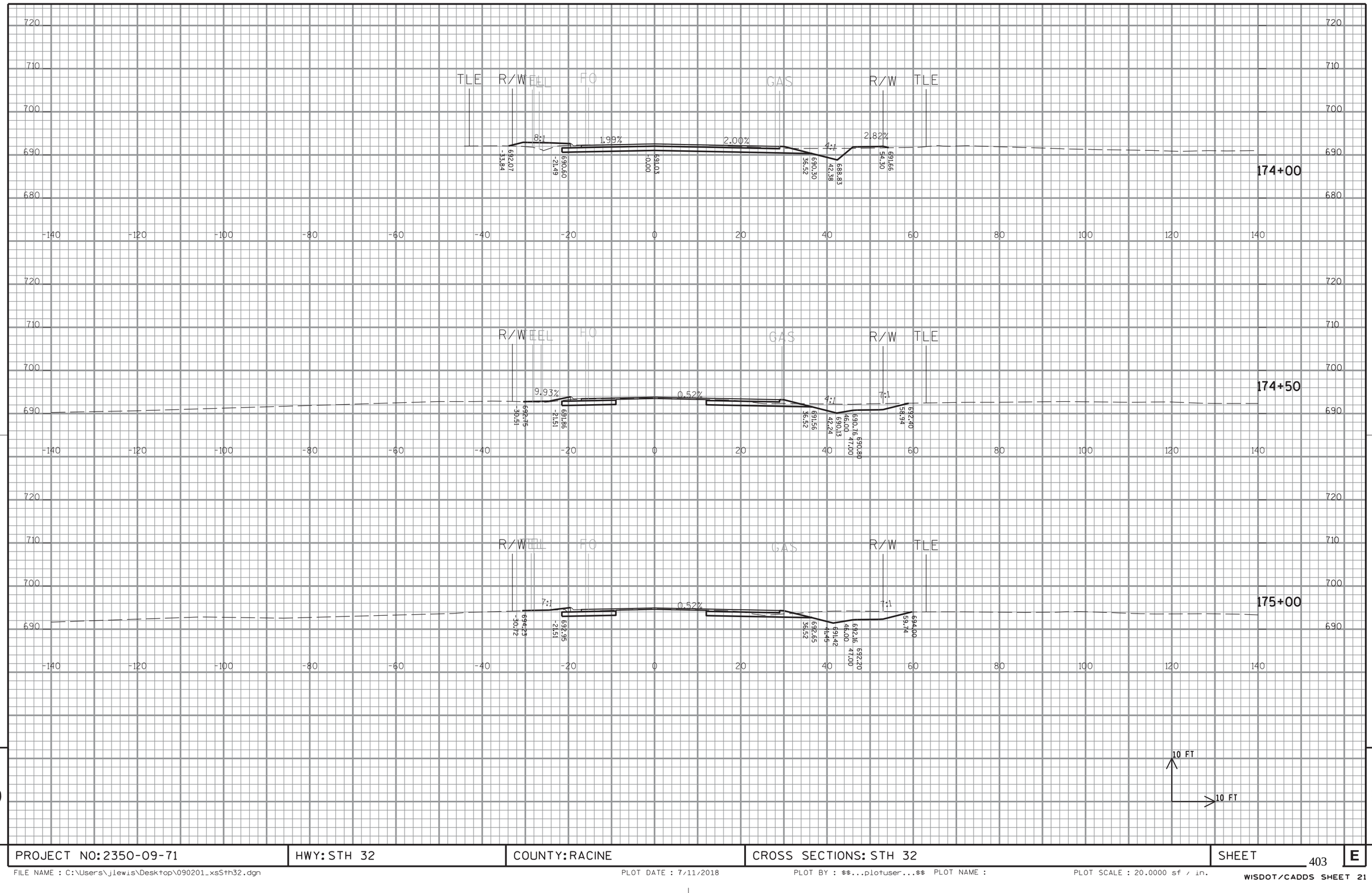
WISDOT/CADDS SHEET 21



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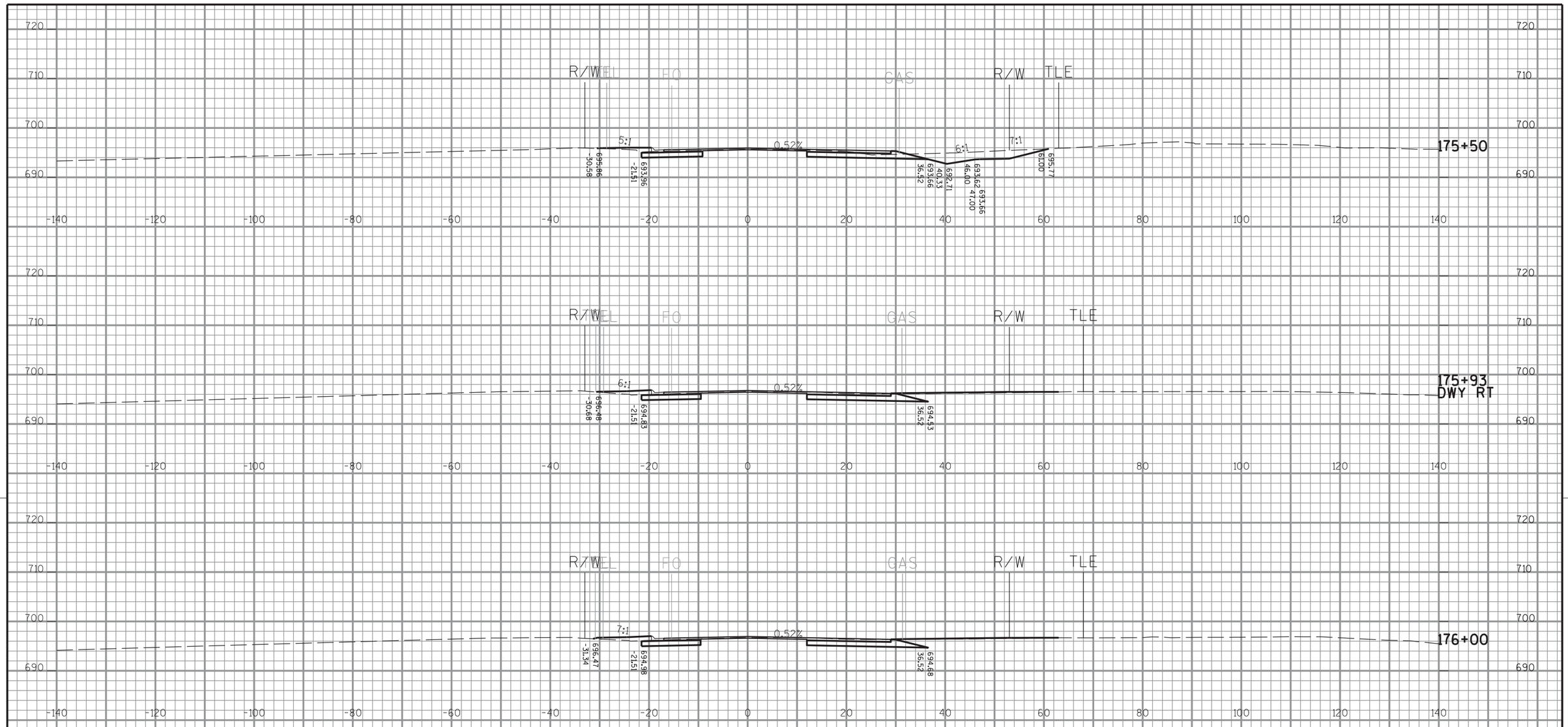
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 402	E



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 403	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



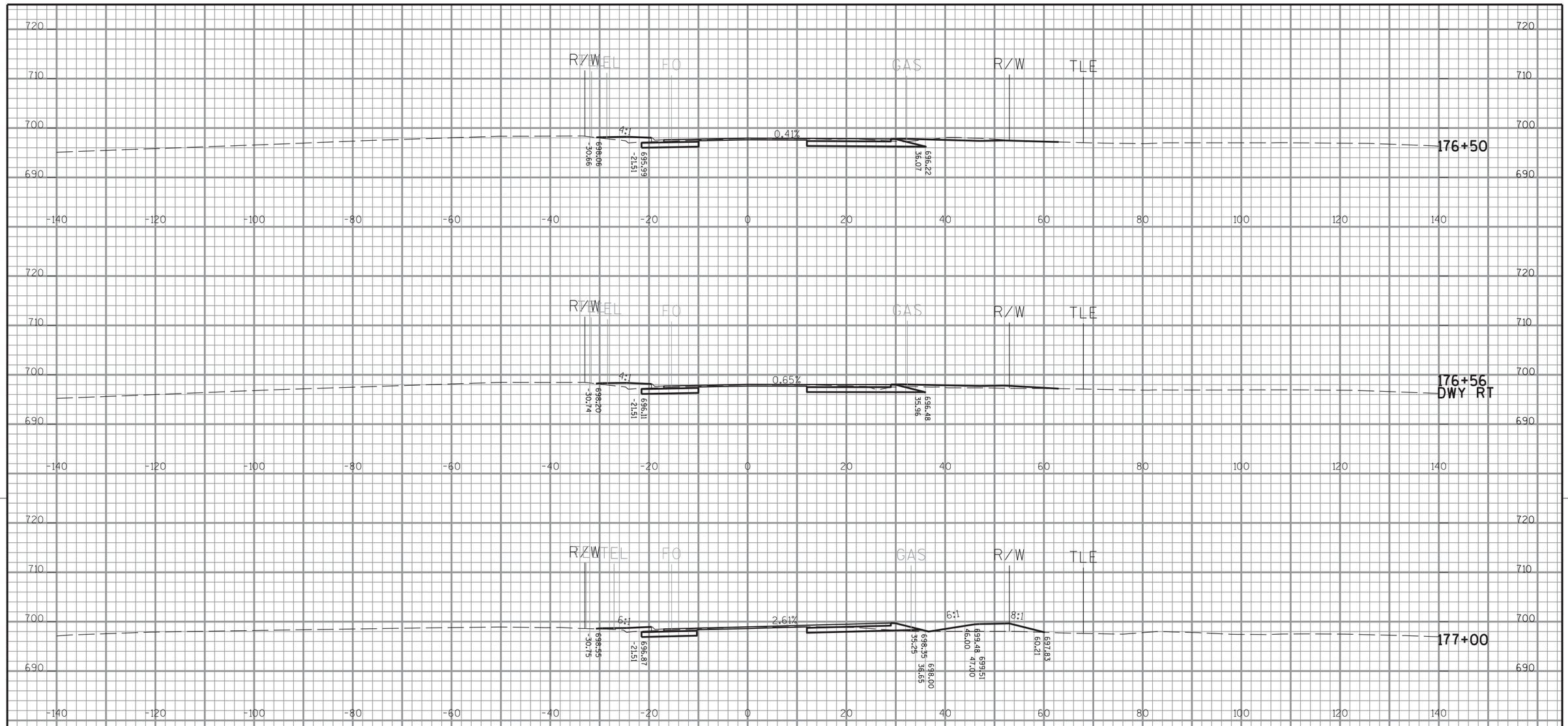
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 404	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



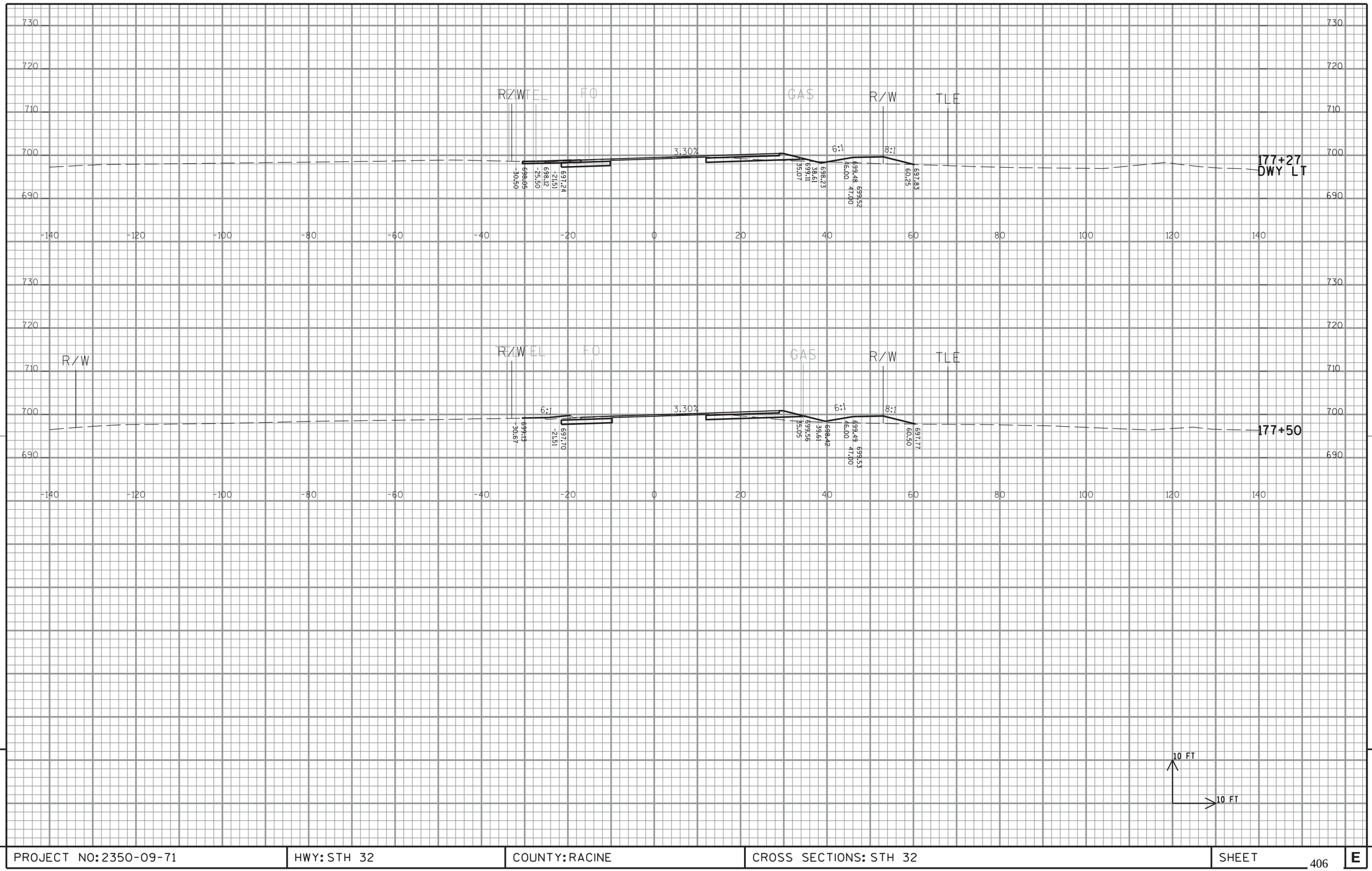
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 405	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

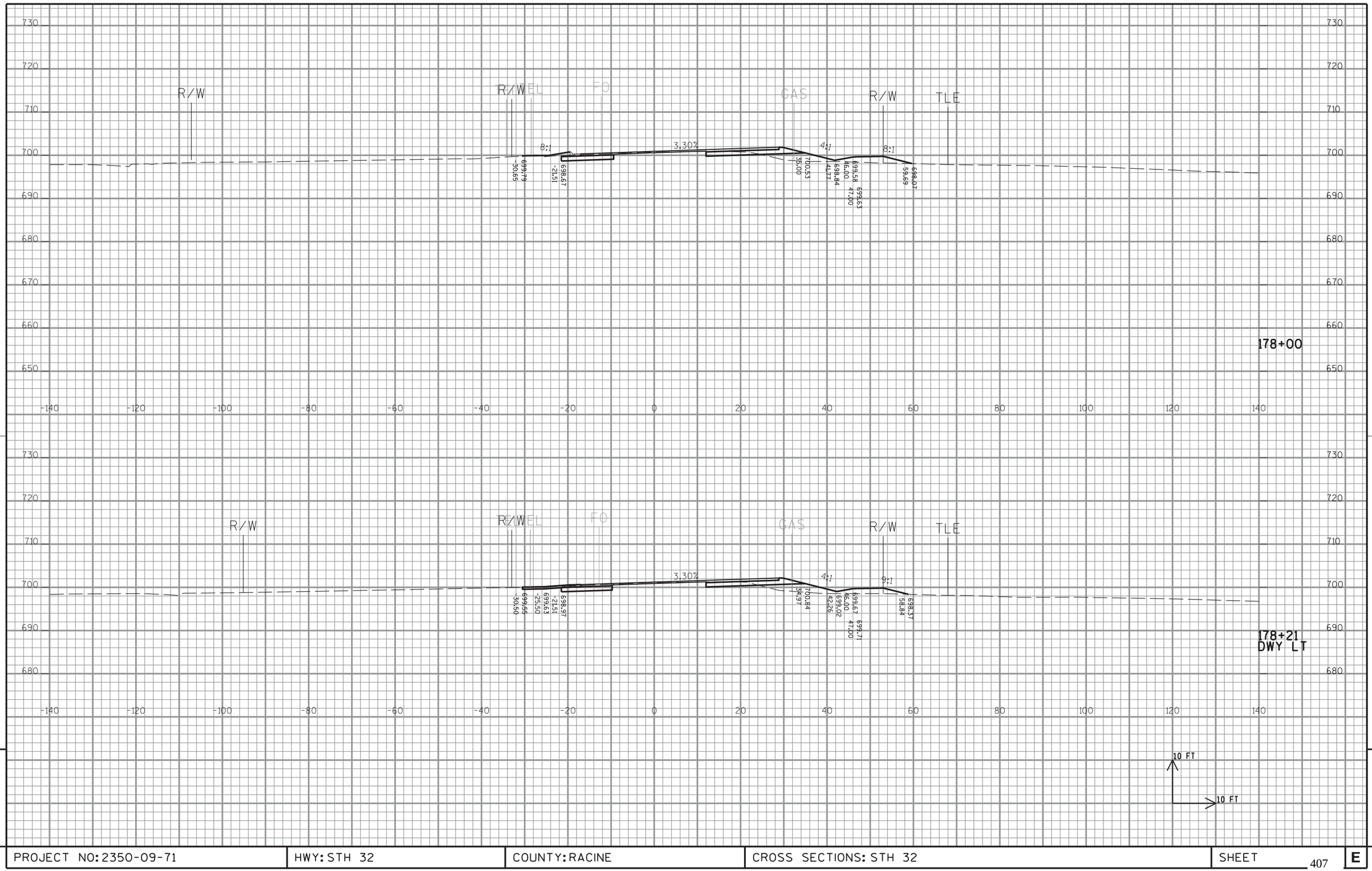
WISDOT/CADDS SHEET 21



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 406	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



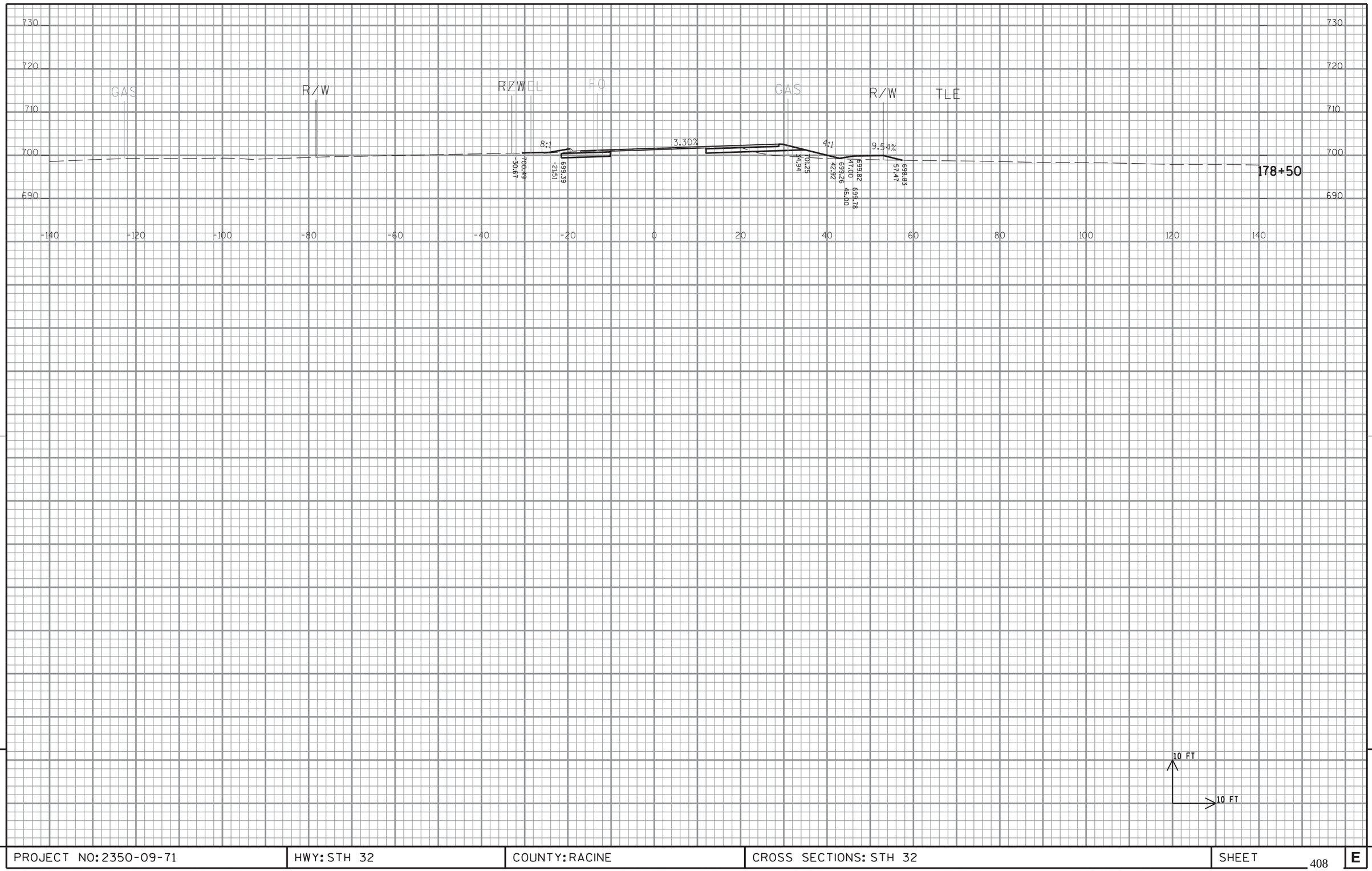
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 407	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

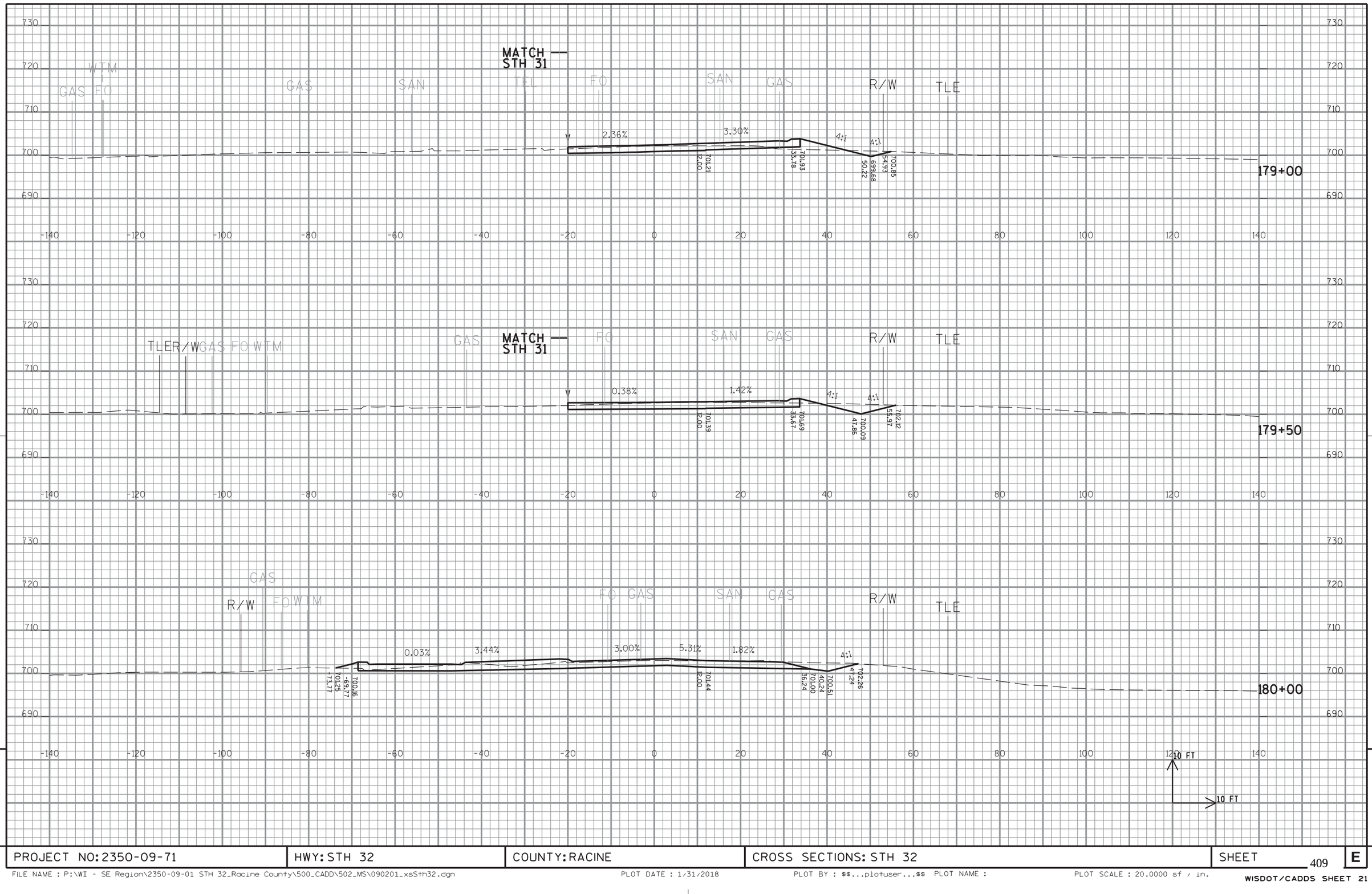
WISDOT/CADDS SHEET 21



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 408	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

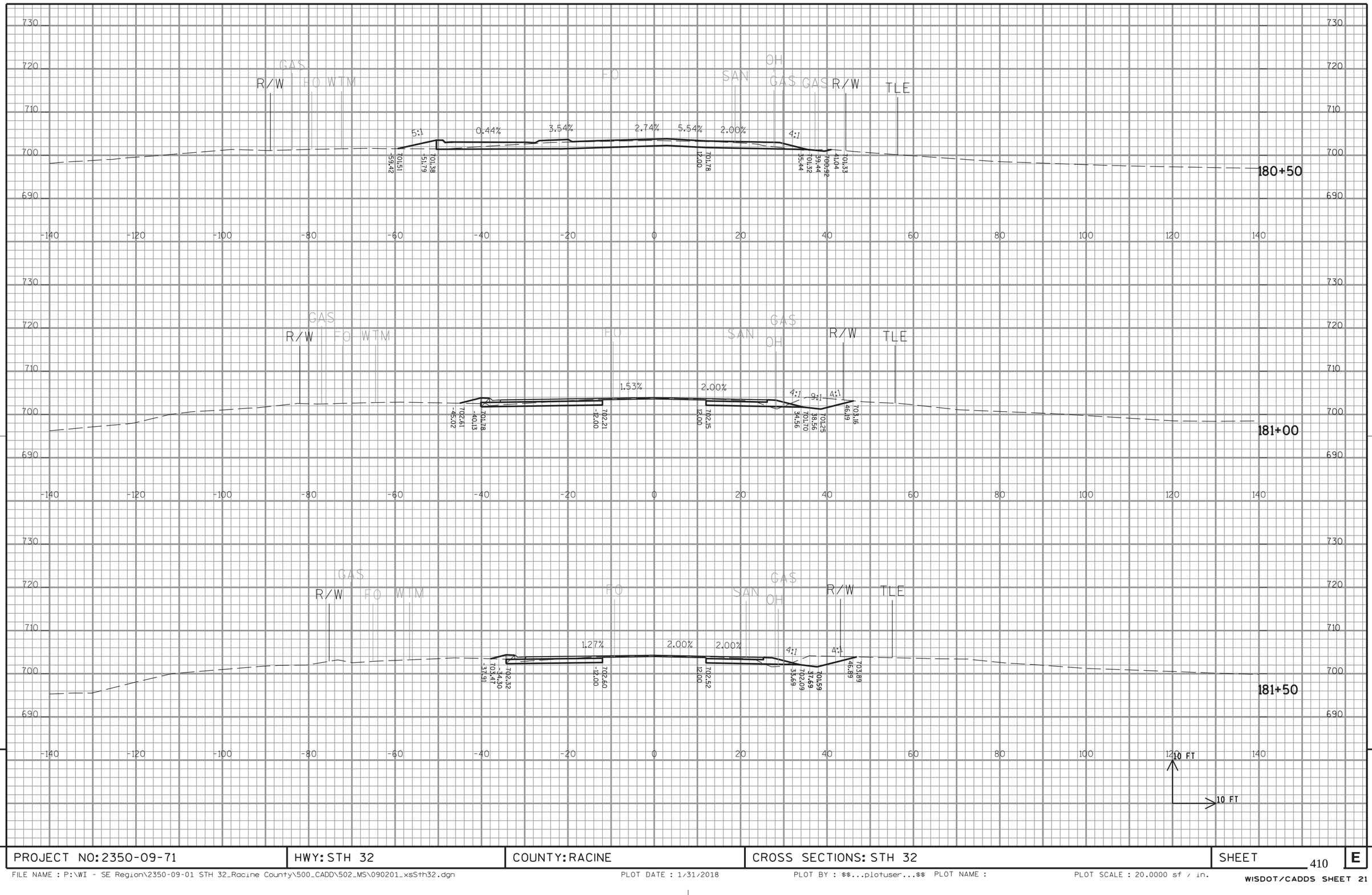
WISDOT/CADDS SHEET 21



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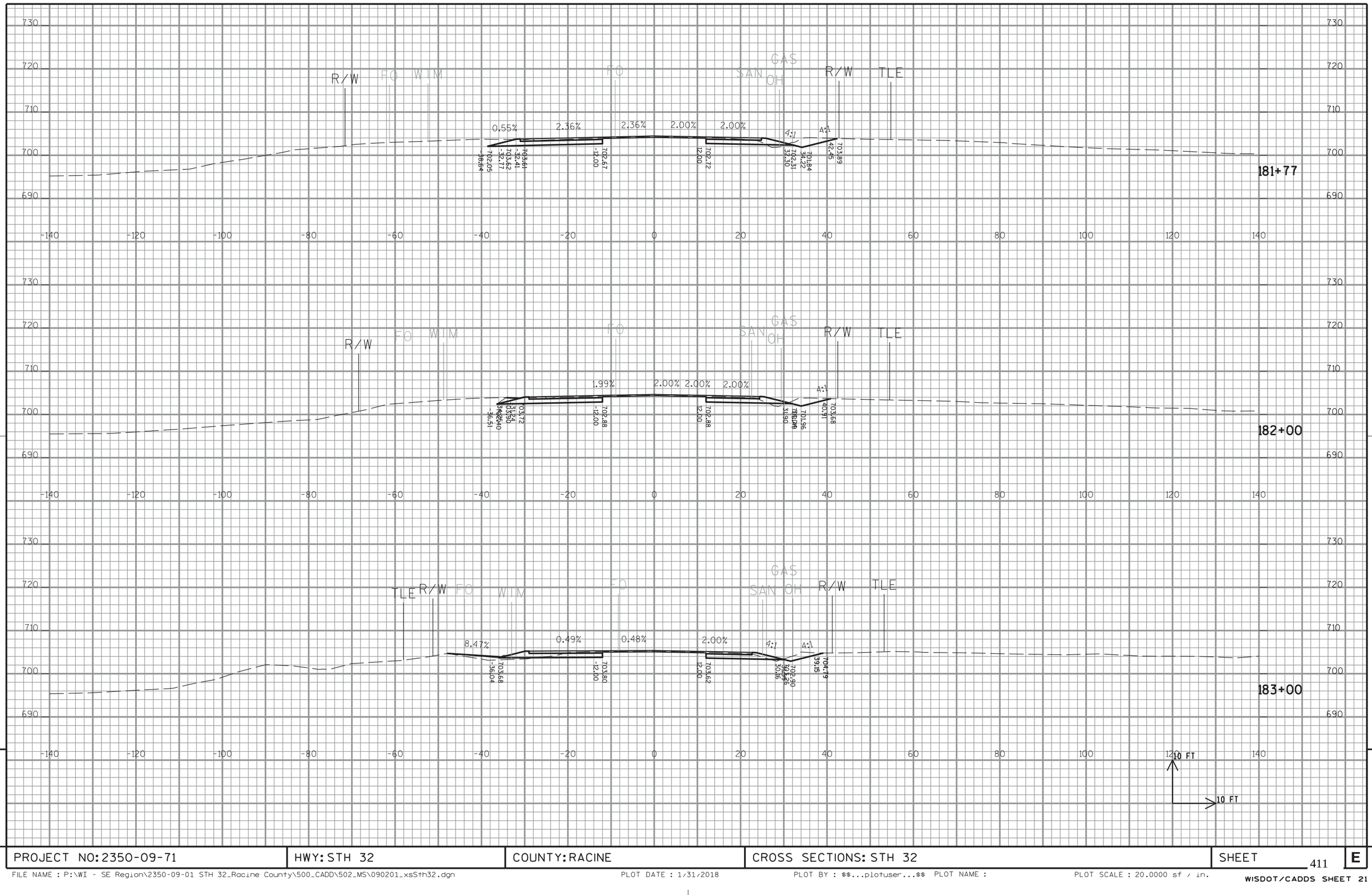
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 409	E



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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 410	E

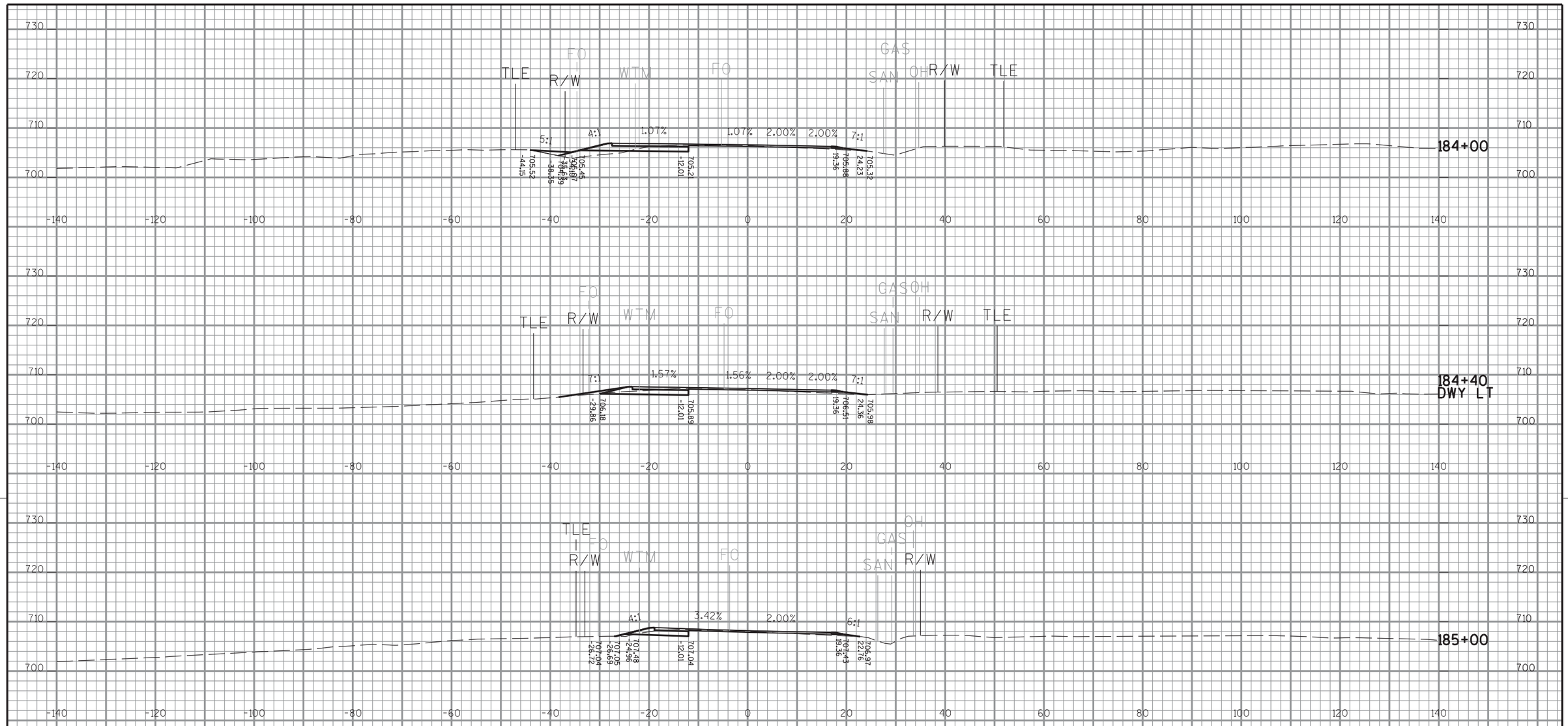


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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 411	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\090201_xsSth32.dgn PLOT DATE : 1/31/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.



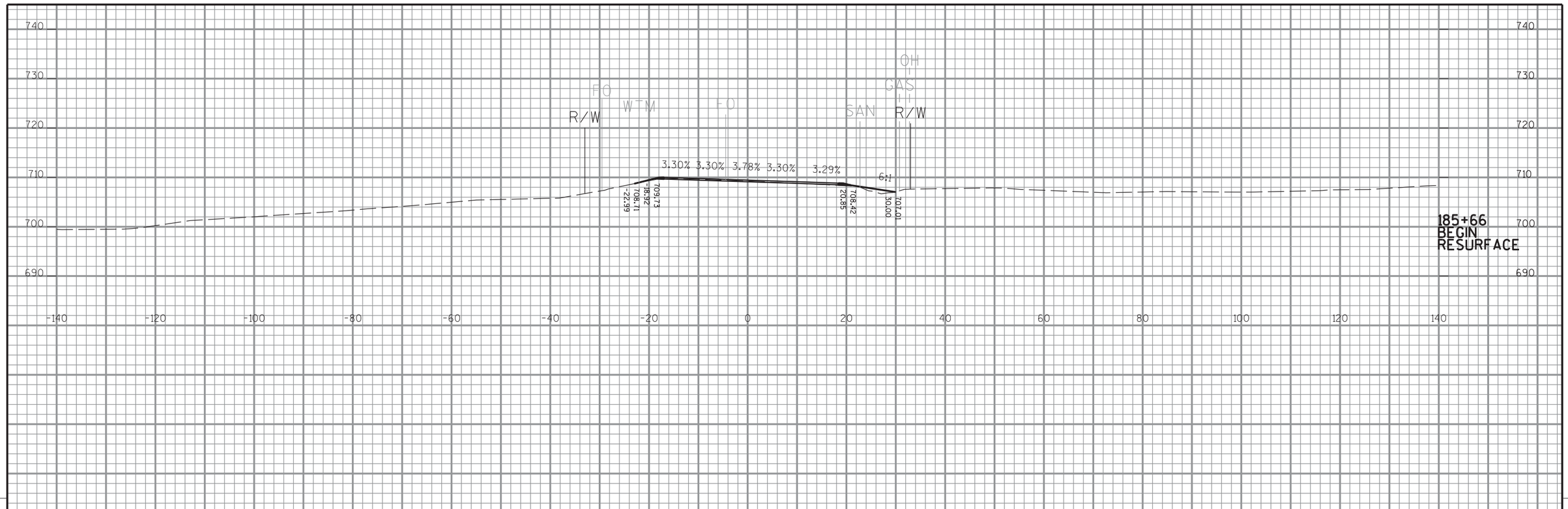
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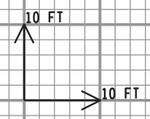
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 412	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\090201_xsSth32.dgn PLOT DATE : 1/31/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



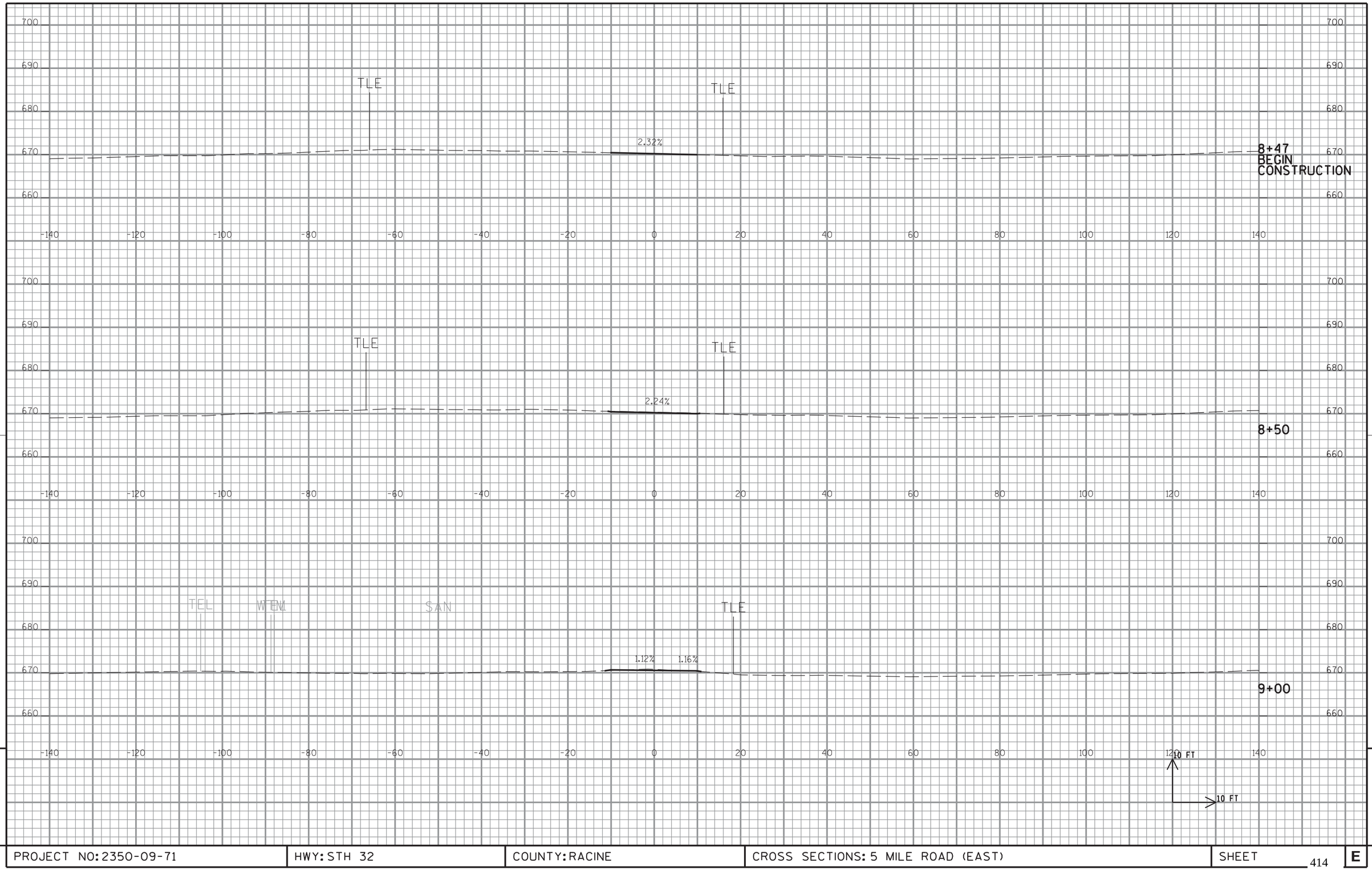


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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 413	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\090201_xsSth32.dgn PLOT DATE : 1/31/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.



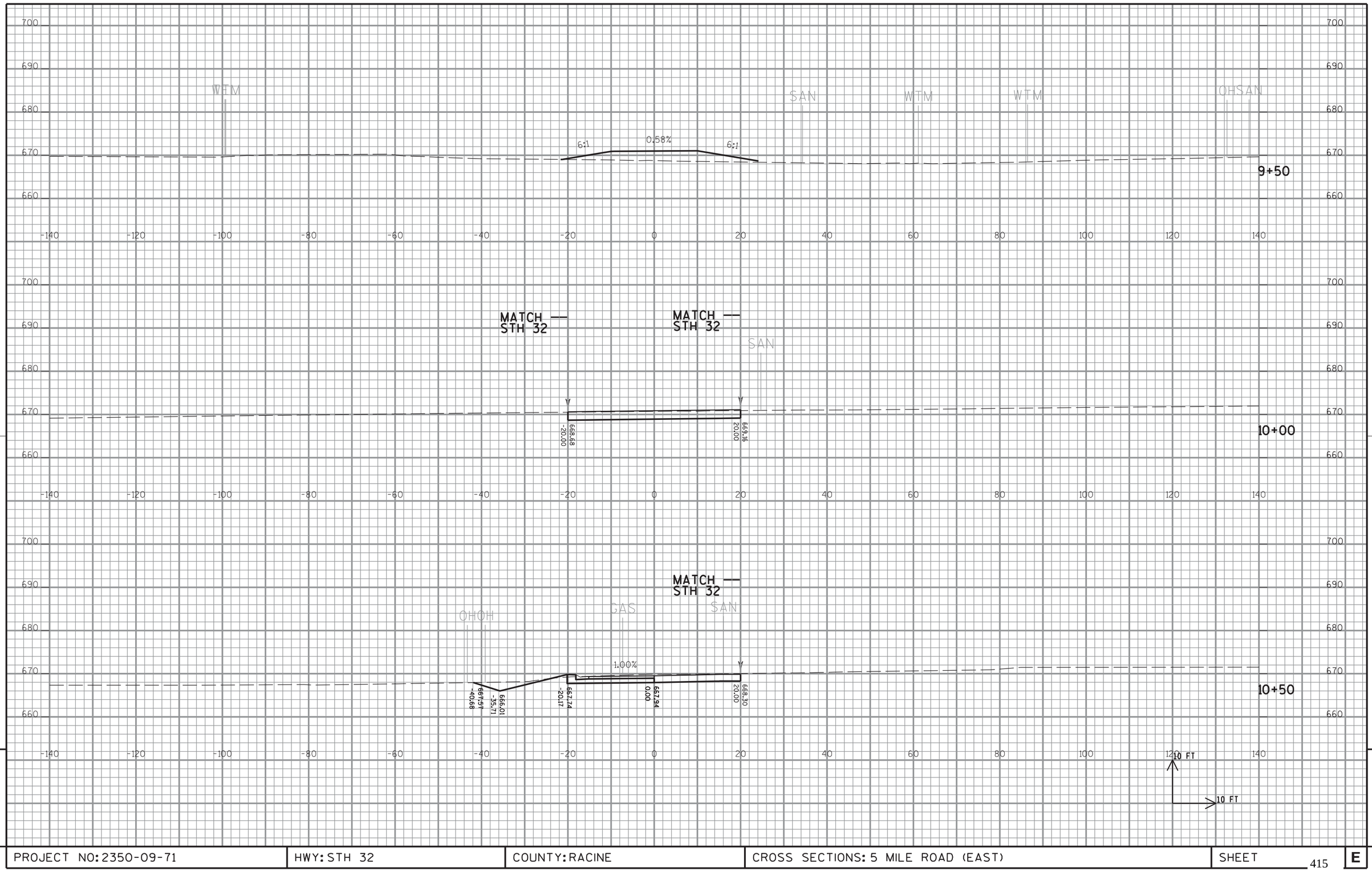
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9

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 5 MILE ROAD (EAST)	SHEET 414	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/31/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



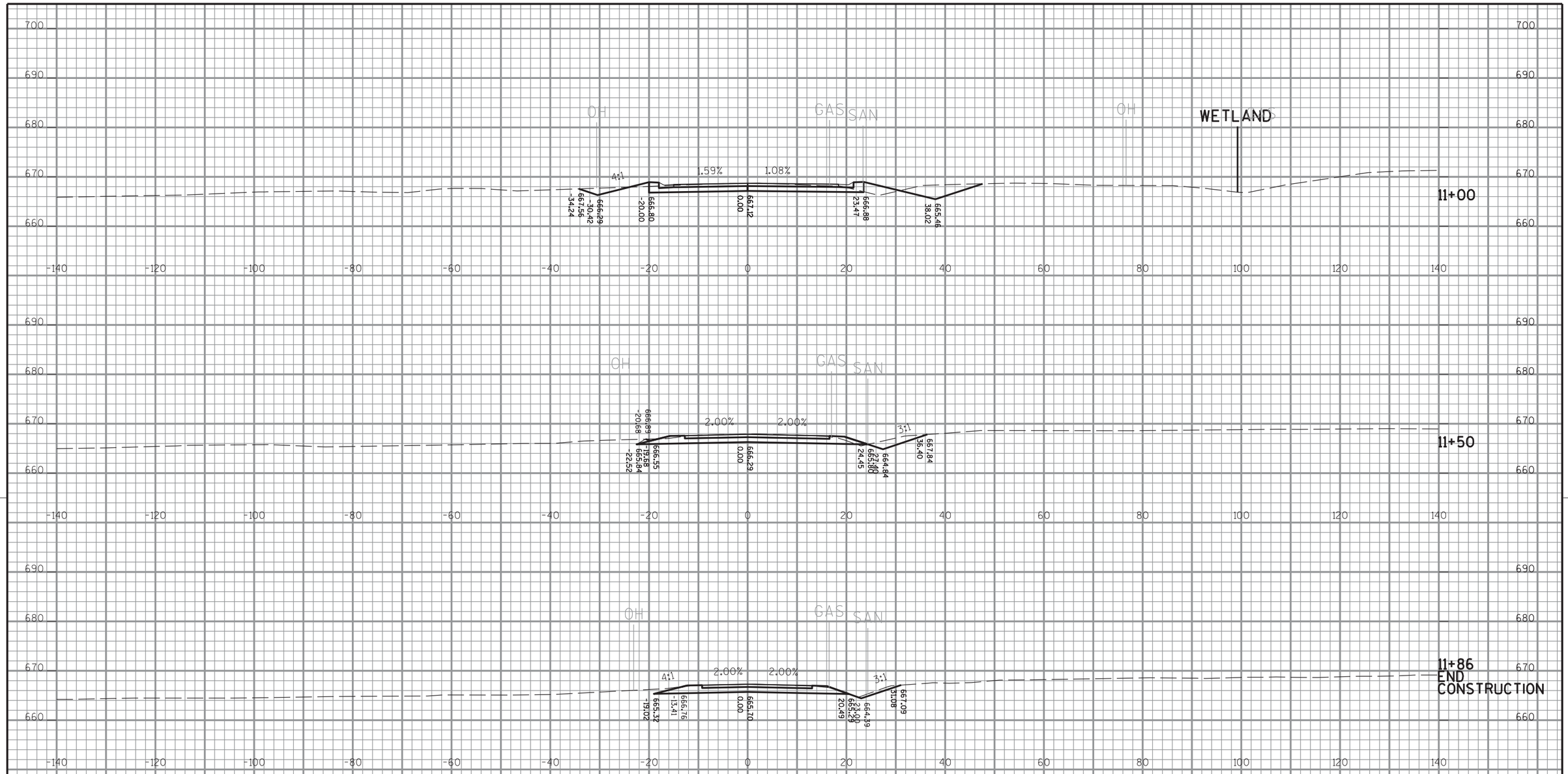
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 5 MILE ROAD (EAST)	SHEET 415	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/31/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



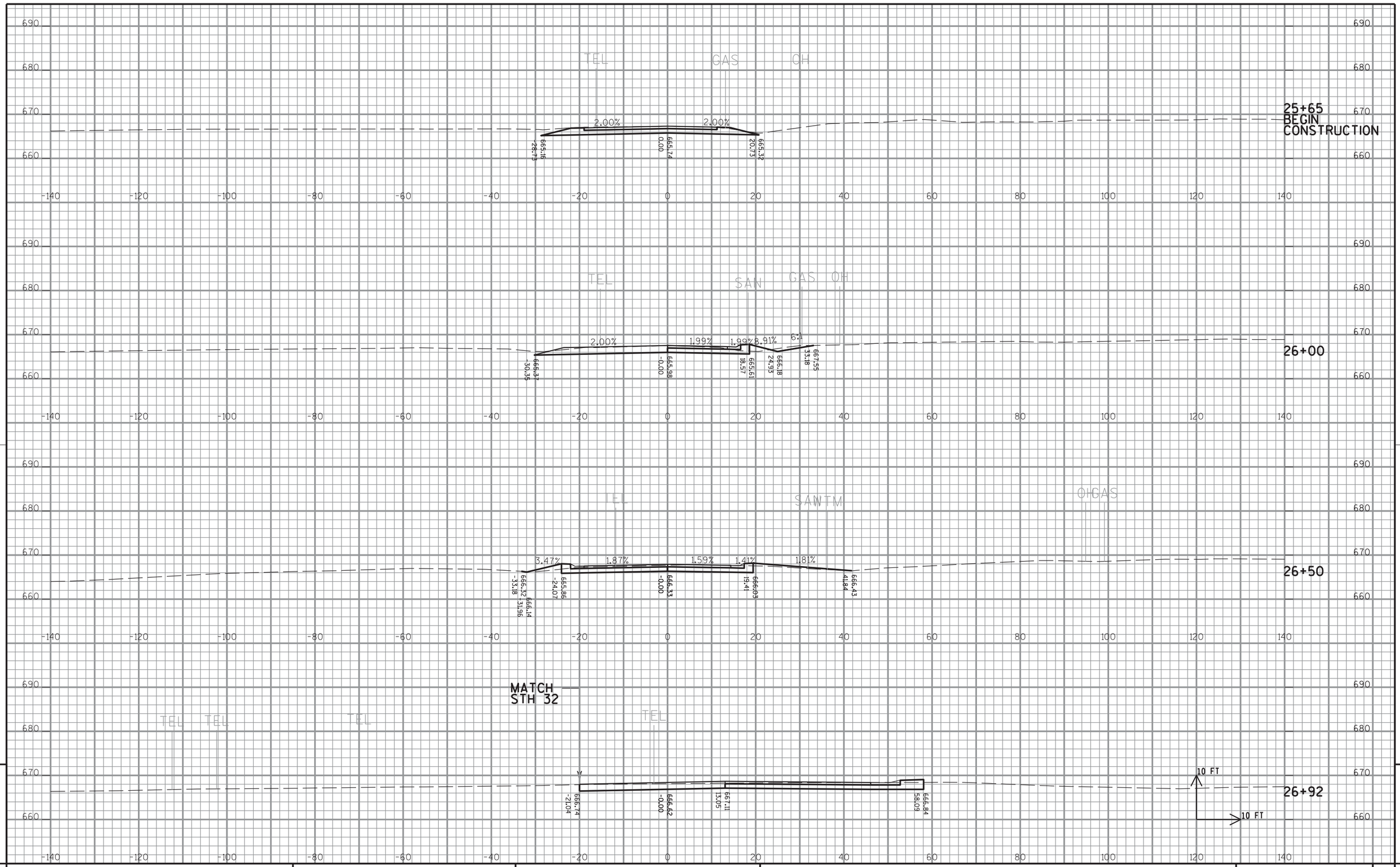
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 5 MILE ROAD (EAST)	SHEET 416	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/31/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 20.0000 sf / in.

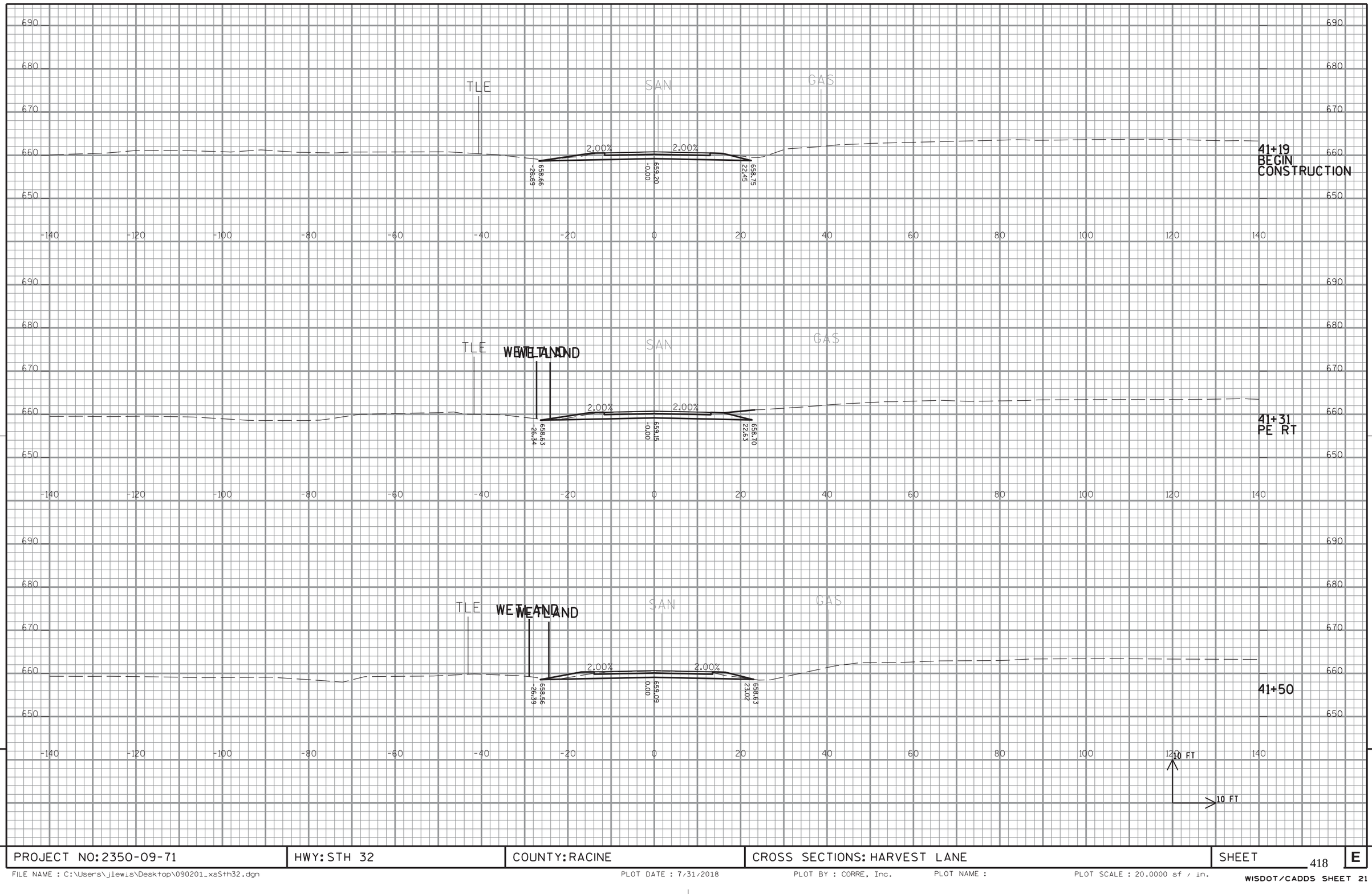
WISDOT/CADDS SHEET 21



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9

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 5 MILE ROAD (WEST)	SHEET 417	E



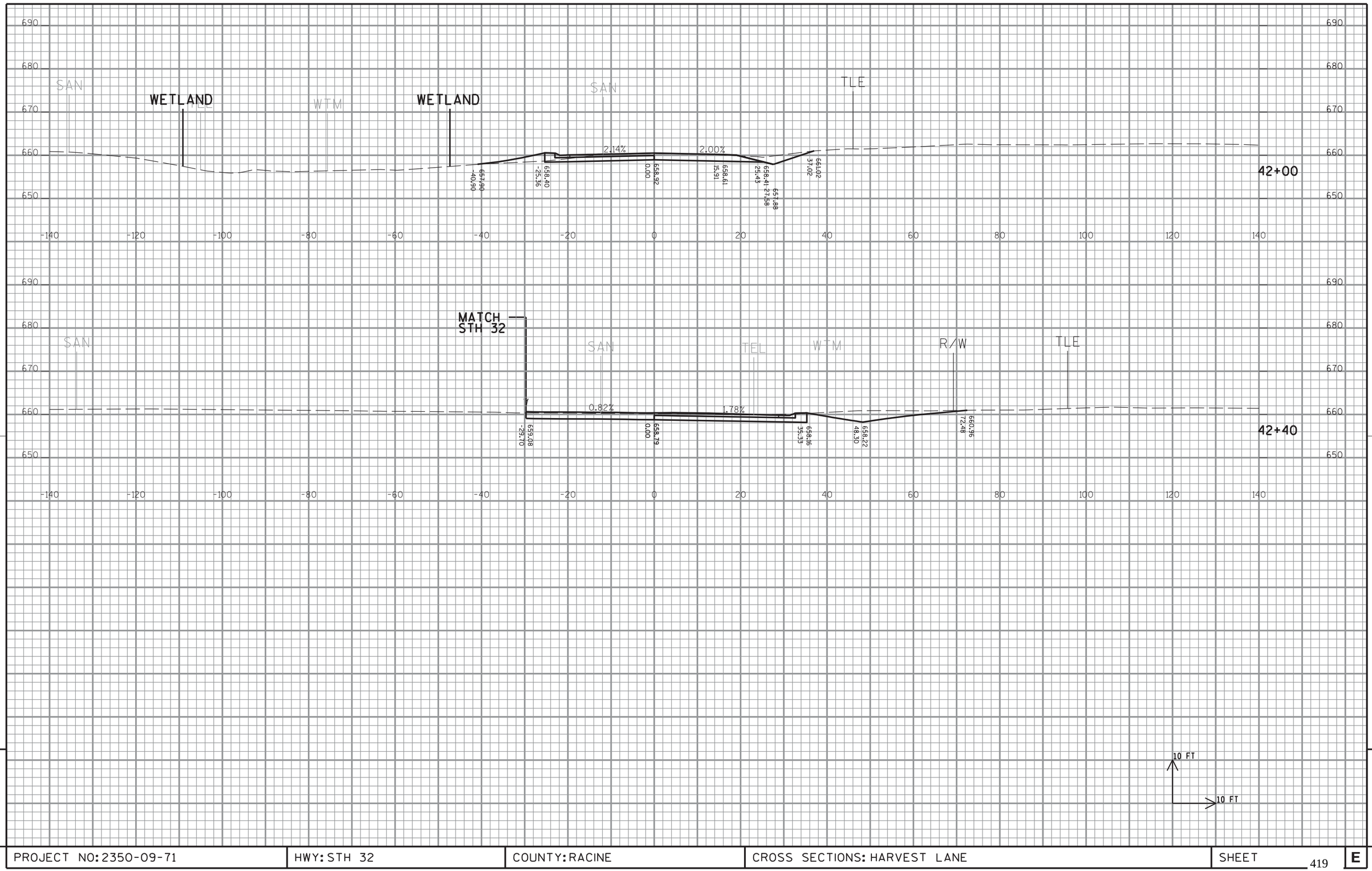
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: HARVEST LANE	SHEET 418	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/31/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



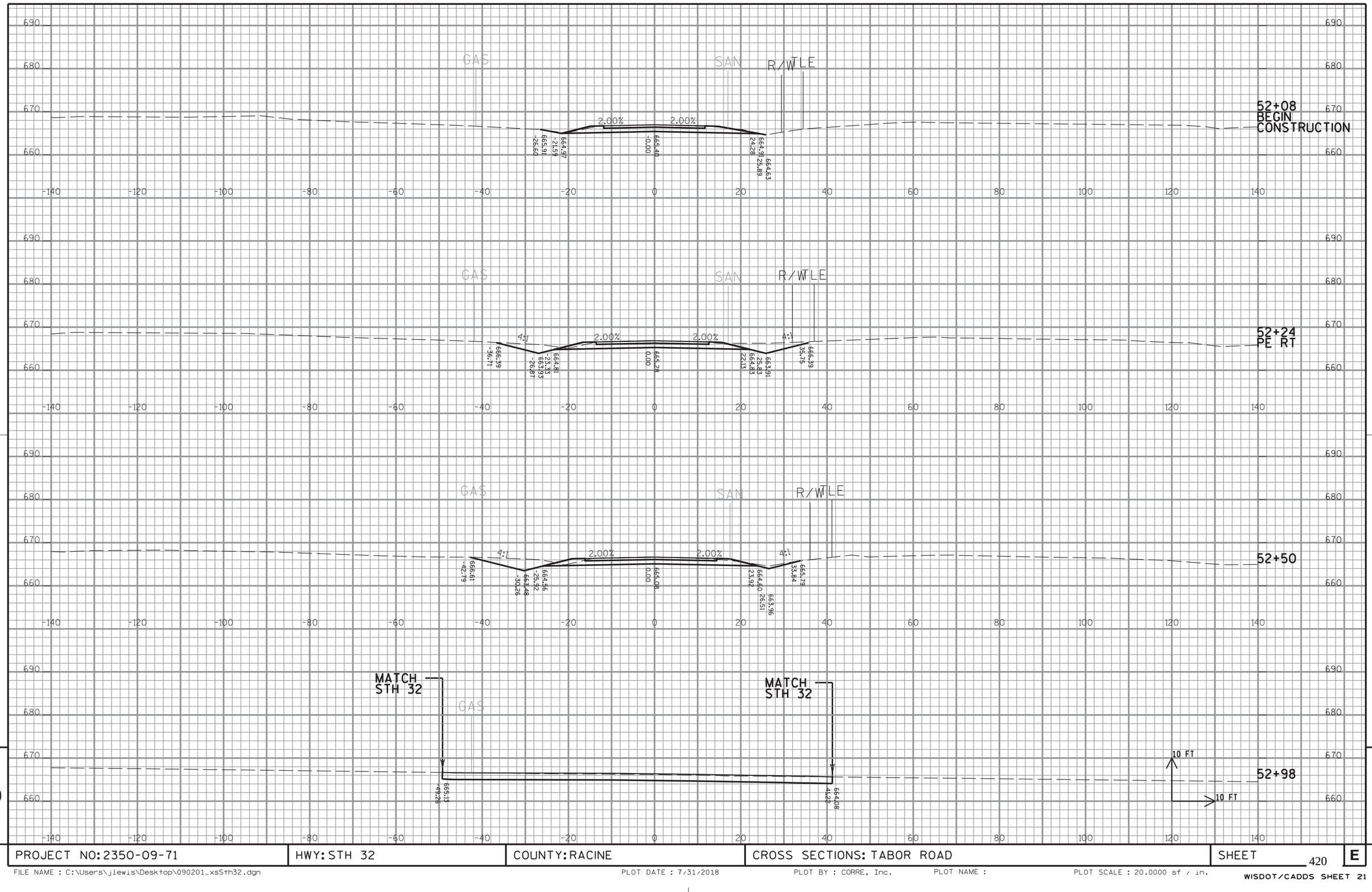
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: HARVEST LANE	SHEET 419	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/31/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



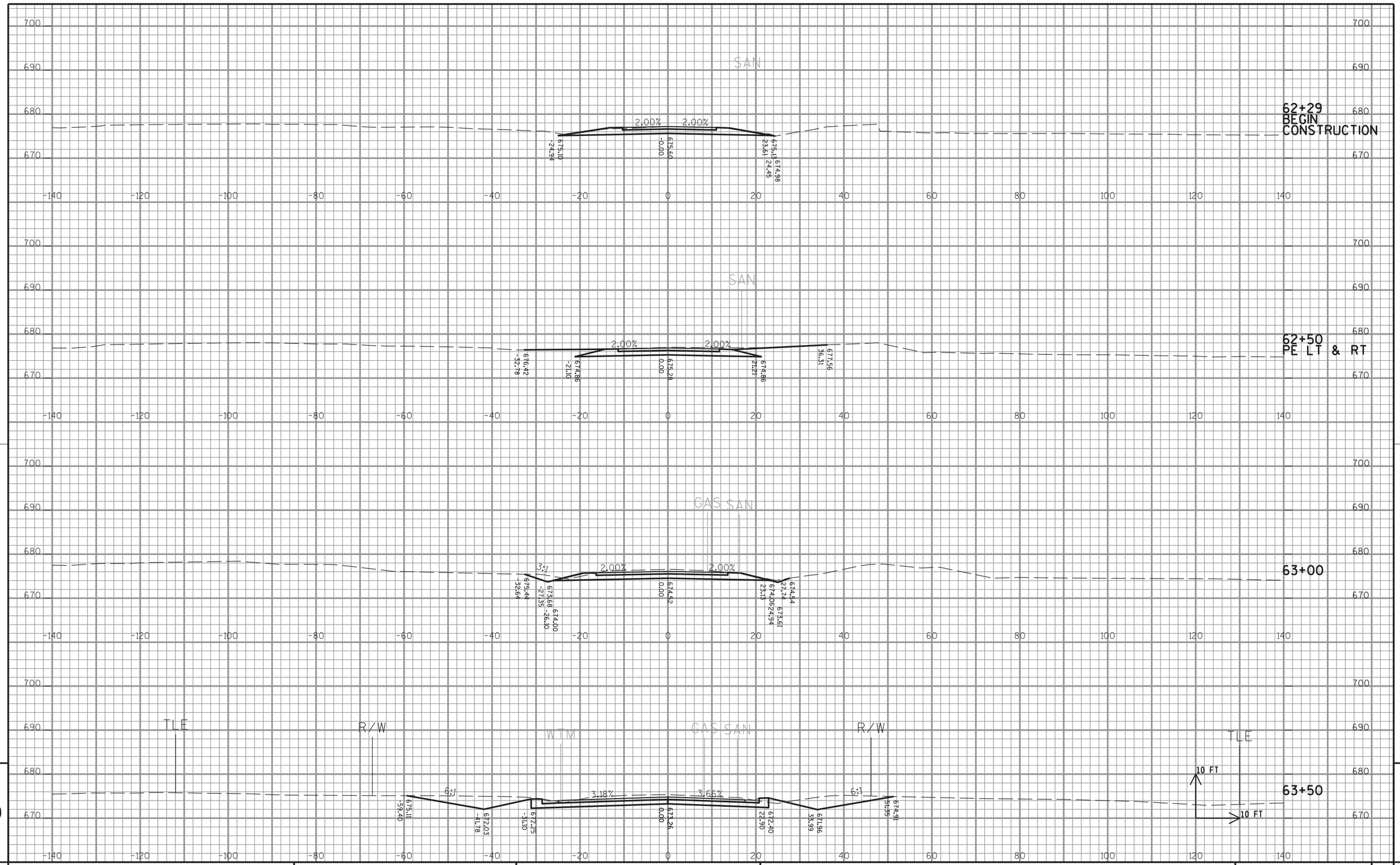
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: TABOR ROAD	SHEET 420	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/31/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 20.0000 sf / in.

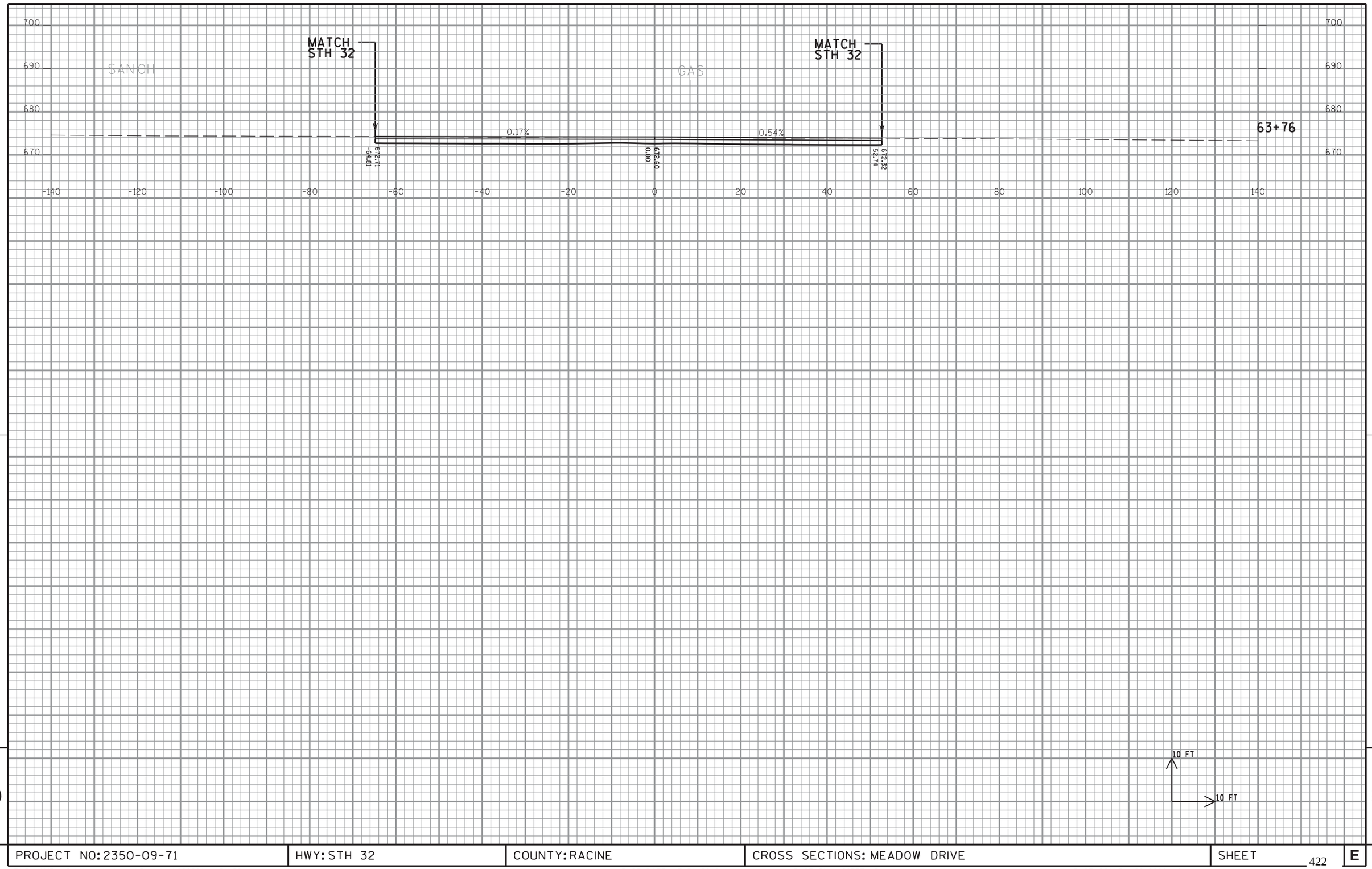
WISDOT/CADDS SHEET 21



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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: MEADOW DRIVE	SHEET 421	E

9



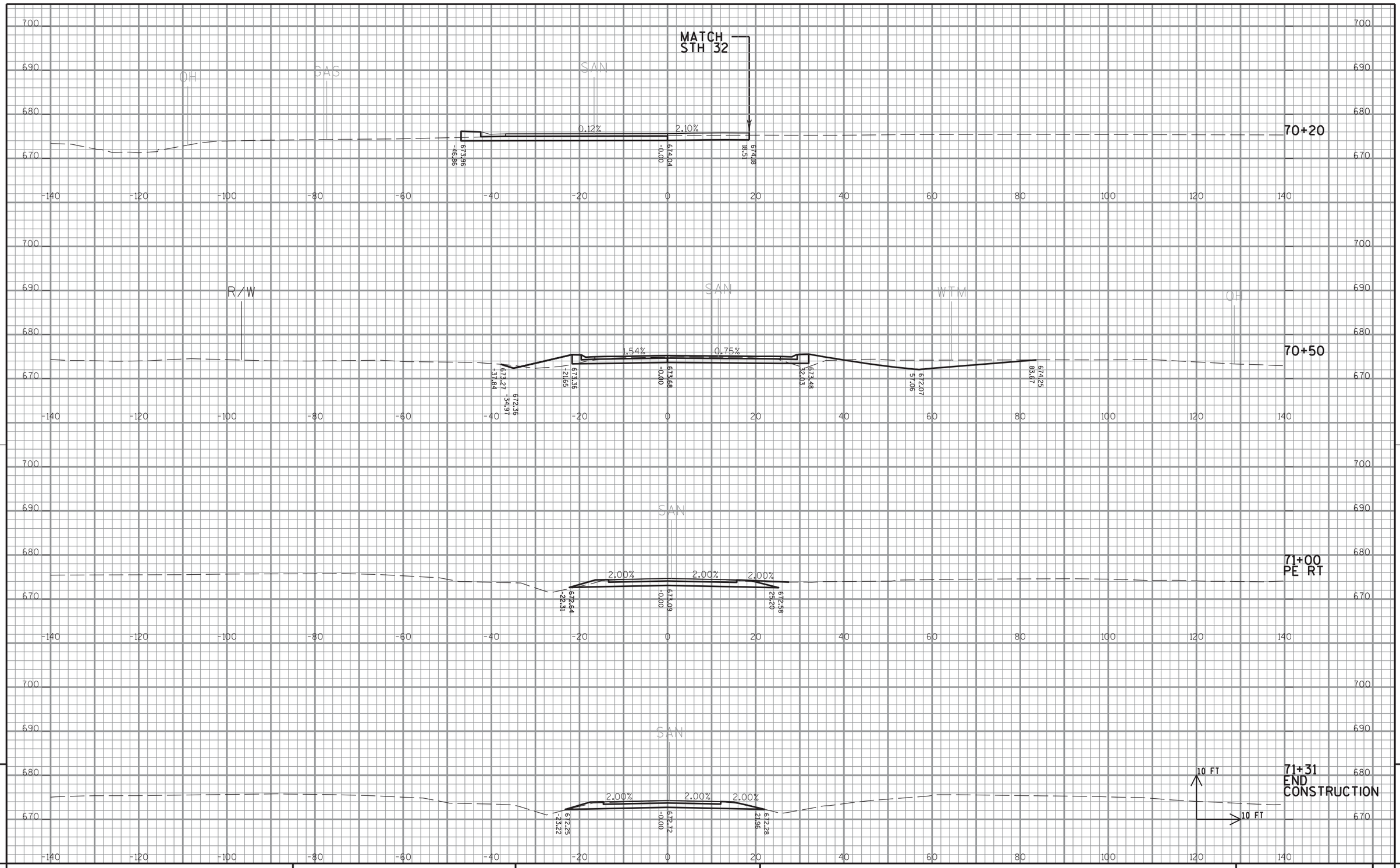
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: MEADOW DRIVE	SHEET 422	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/31/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



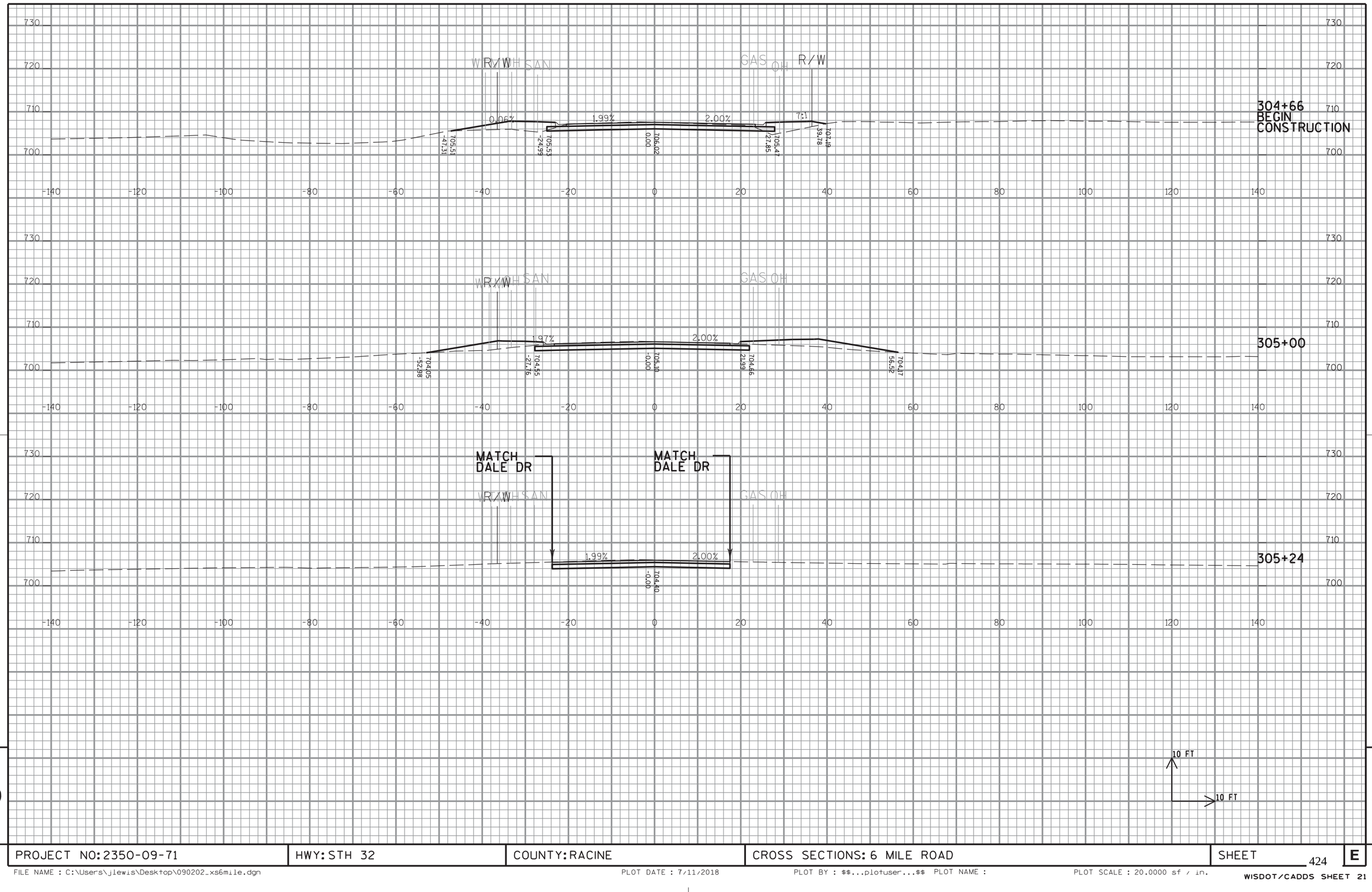
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: EDGAR TERRACE	SHEET 423	E

FILE NAME : C:\Users\jlewis\Desktop\090201_xsSth32.dgn PLOT DATE : 7/31/2018 PLOT BY : CORRE, Inc. PLOT NAME : PLOT SCALE : 20.0000 sf / in.

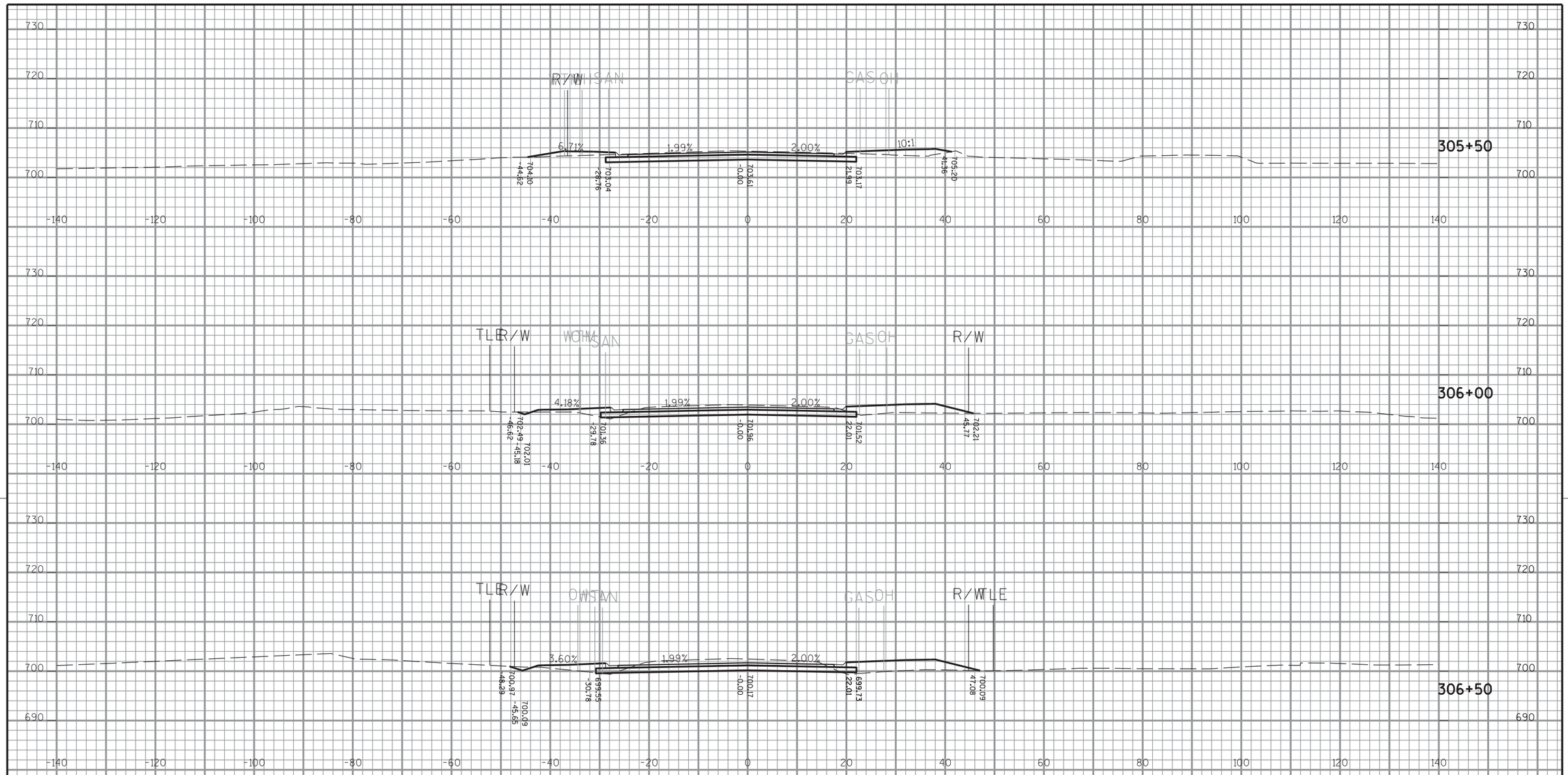
WISDOT/CADDS SHEET 21



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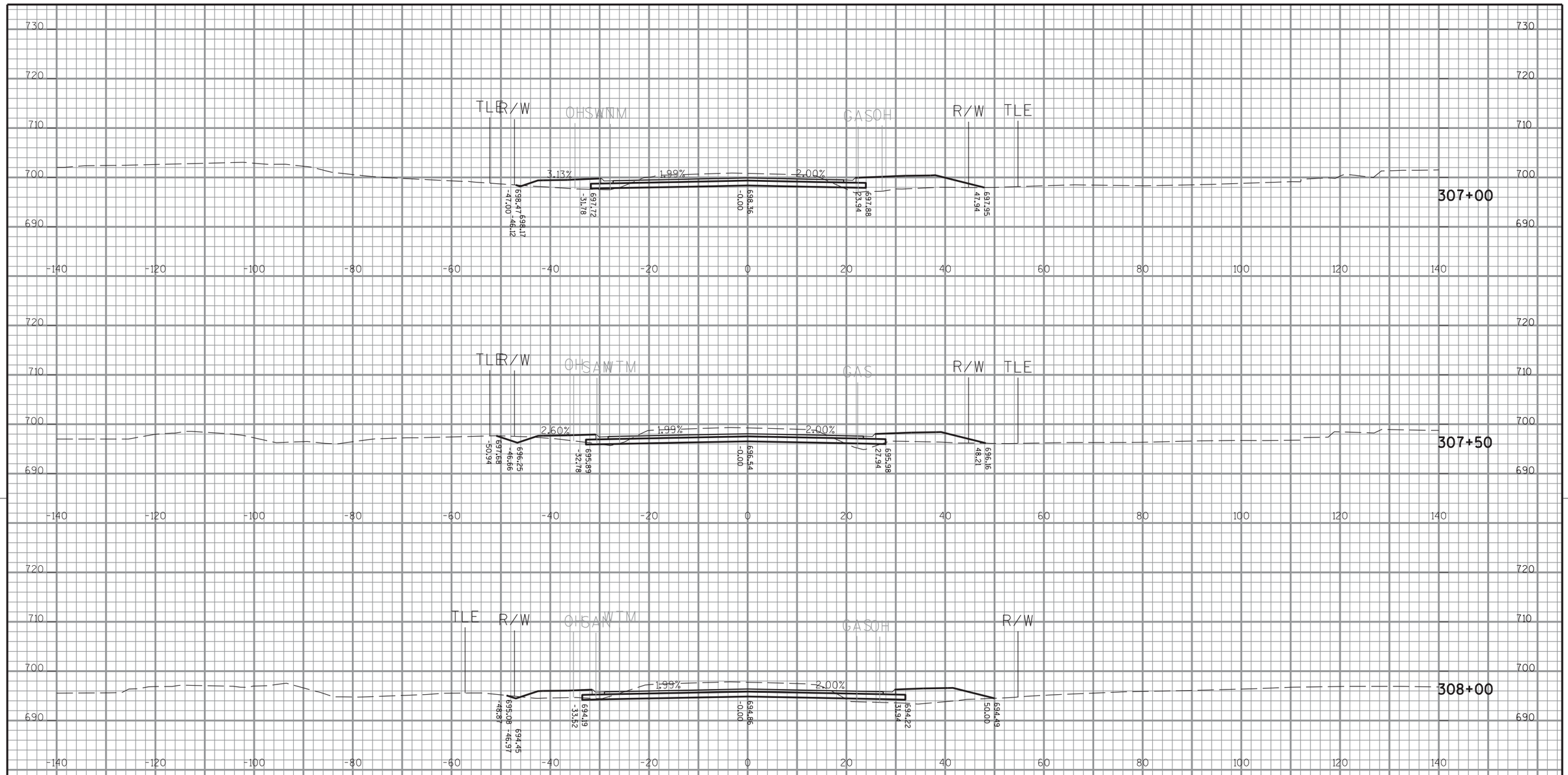
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 424	E



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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 425	E



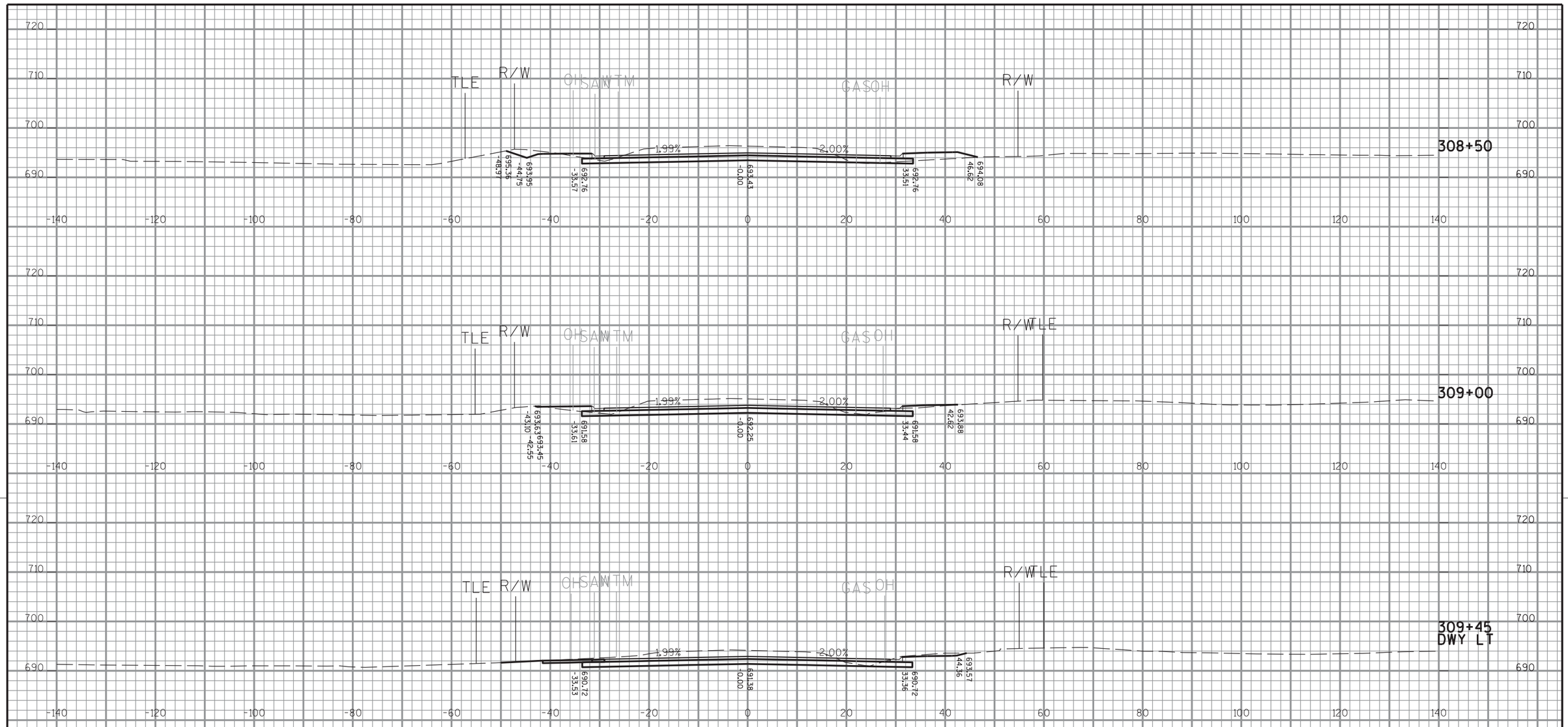
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9

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 426	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

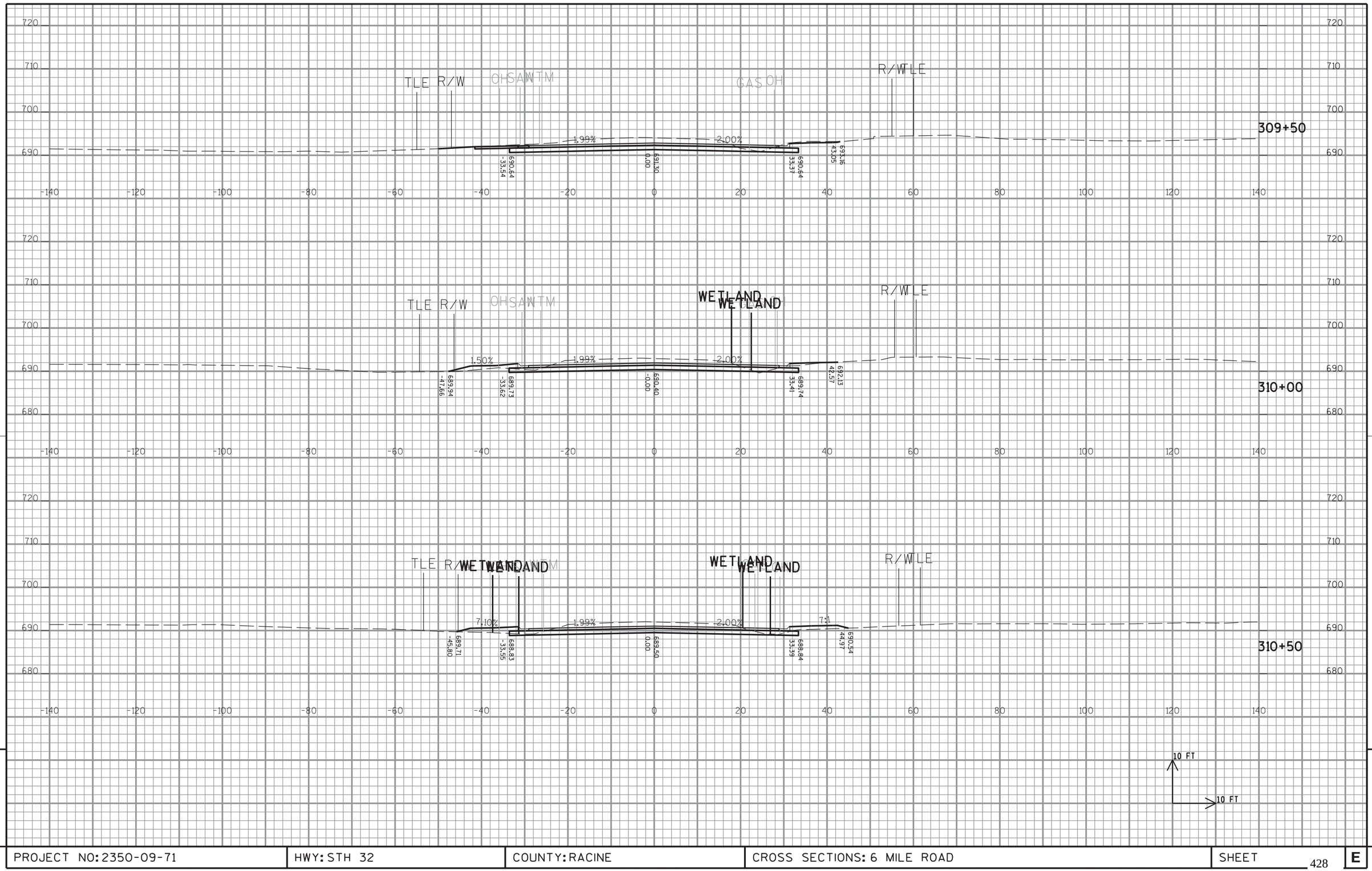
WISDOT/CADDS SHEET 21



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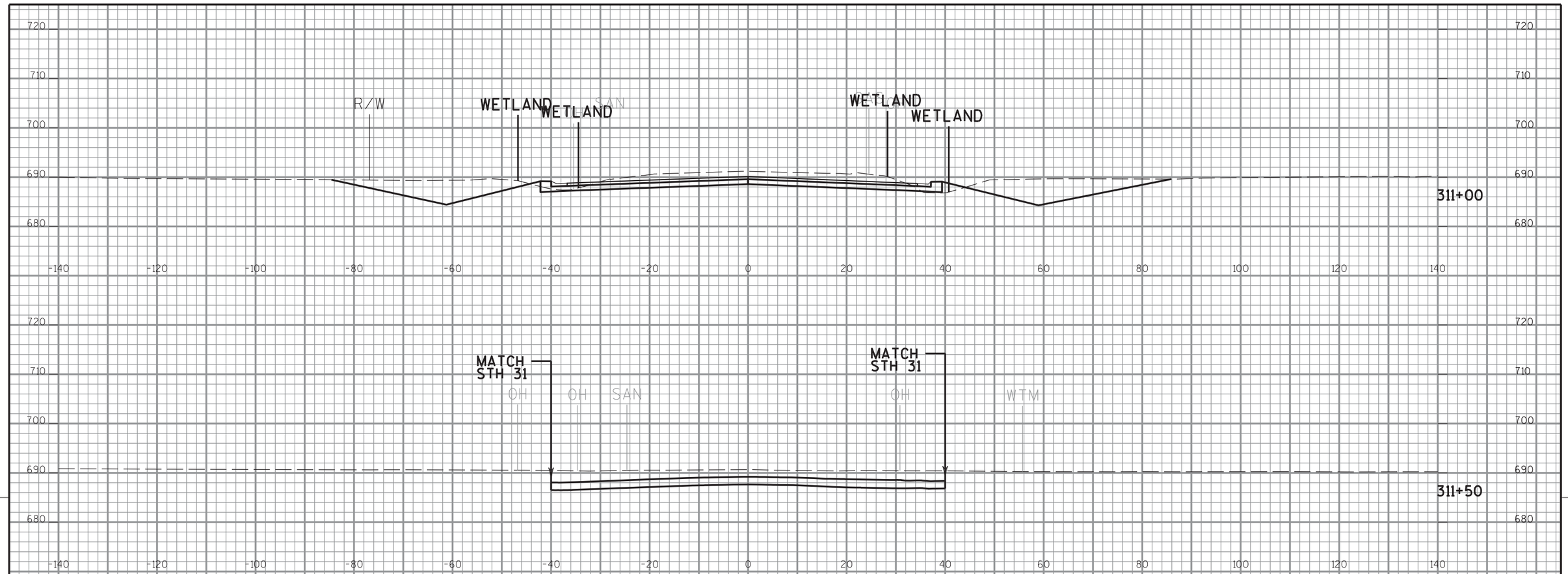
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 427	E



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 428	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



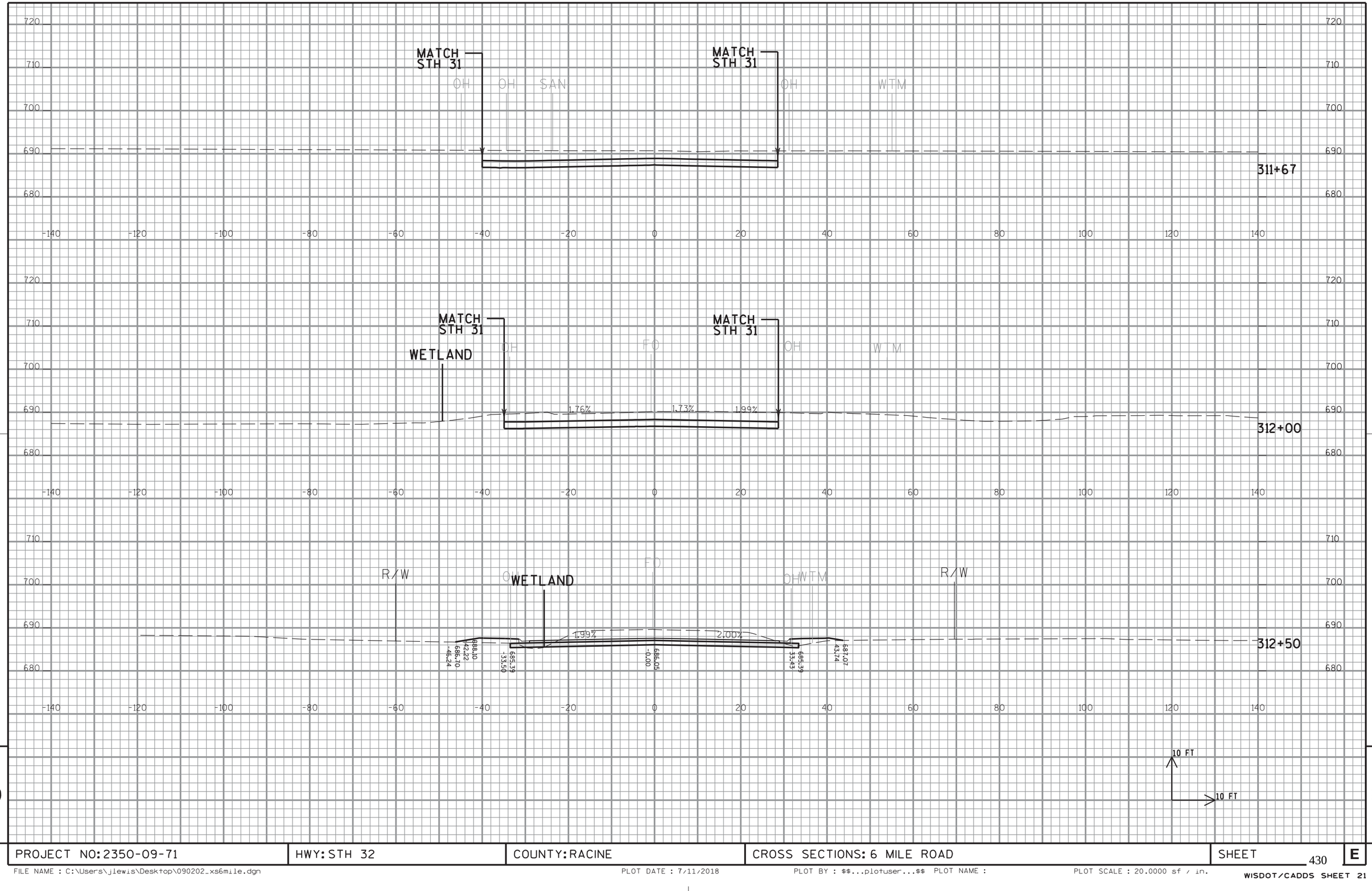
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9

PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 429	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

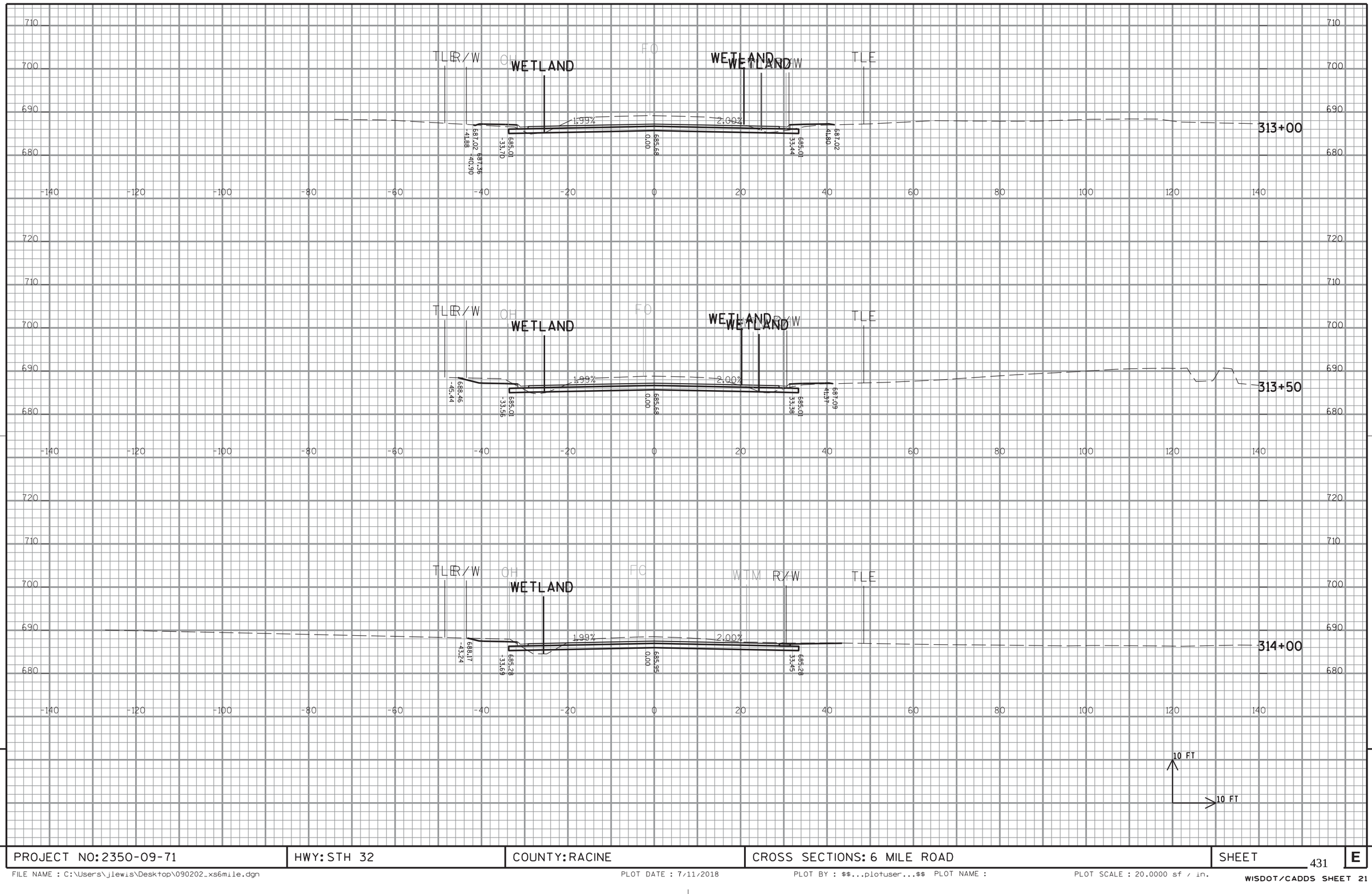
WISDOT/CADDS SHEET 21



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 430	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

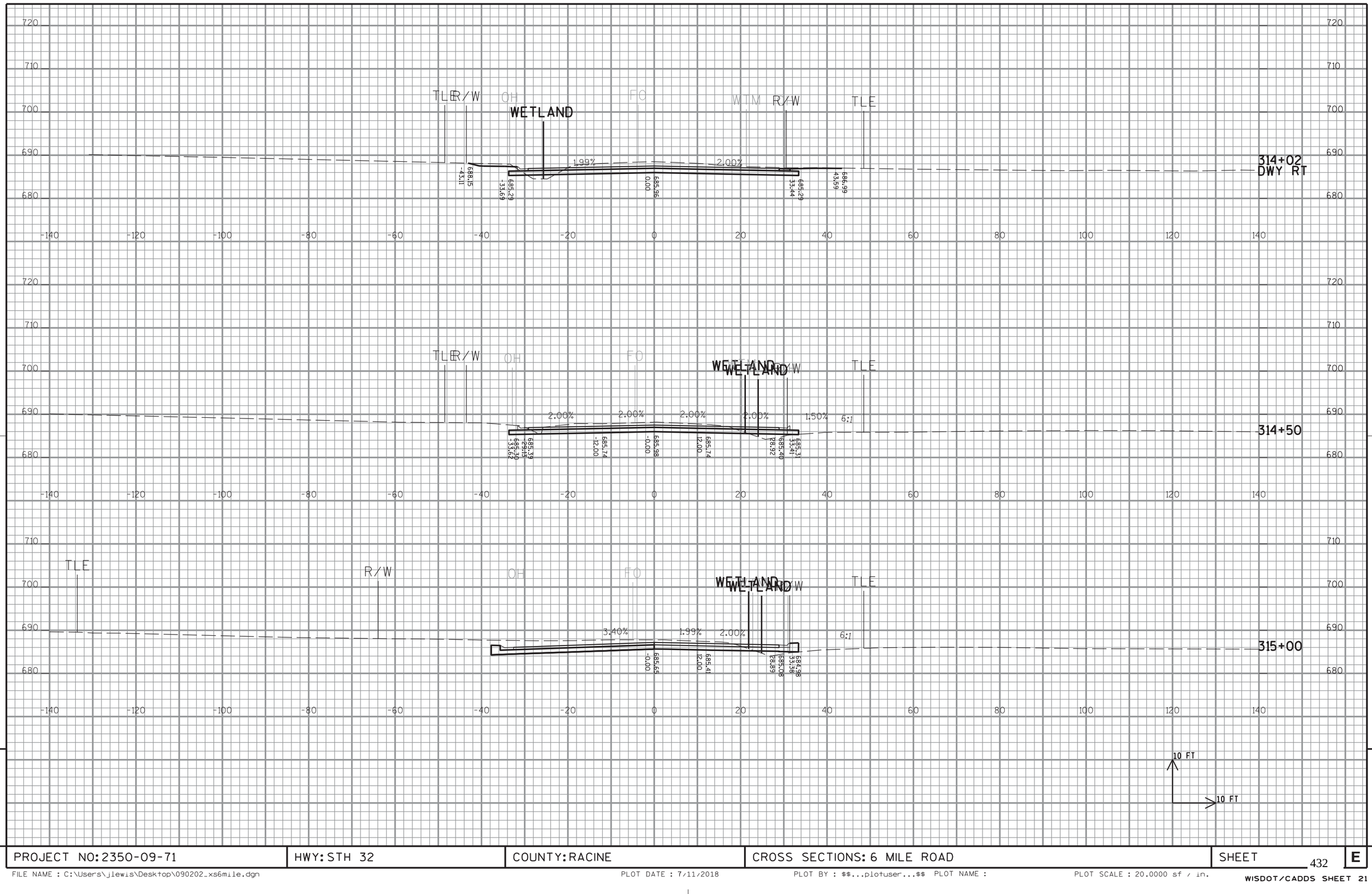
WISDOT/CADDS SHEET 21



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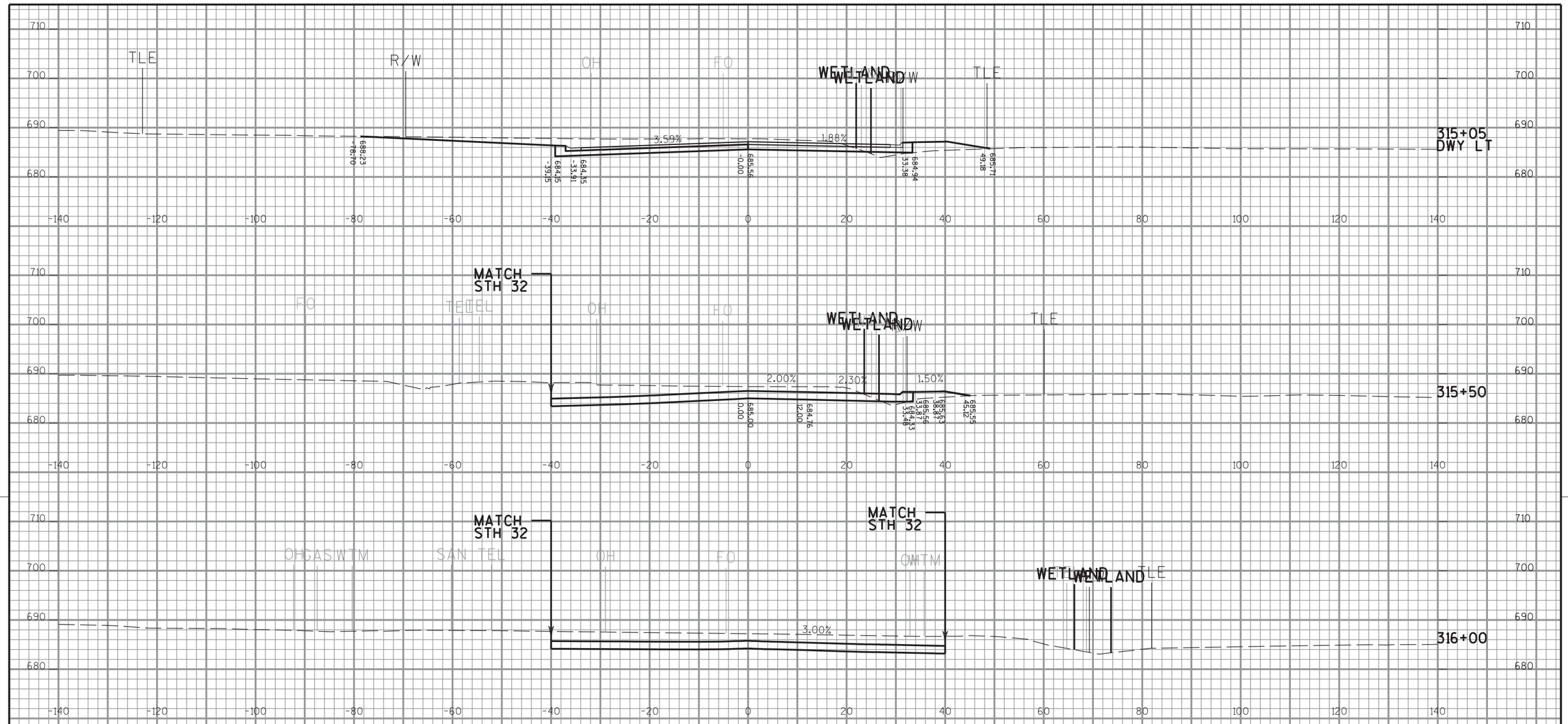
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 431	E



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 432	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



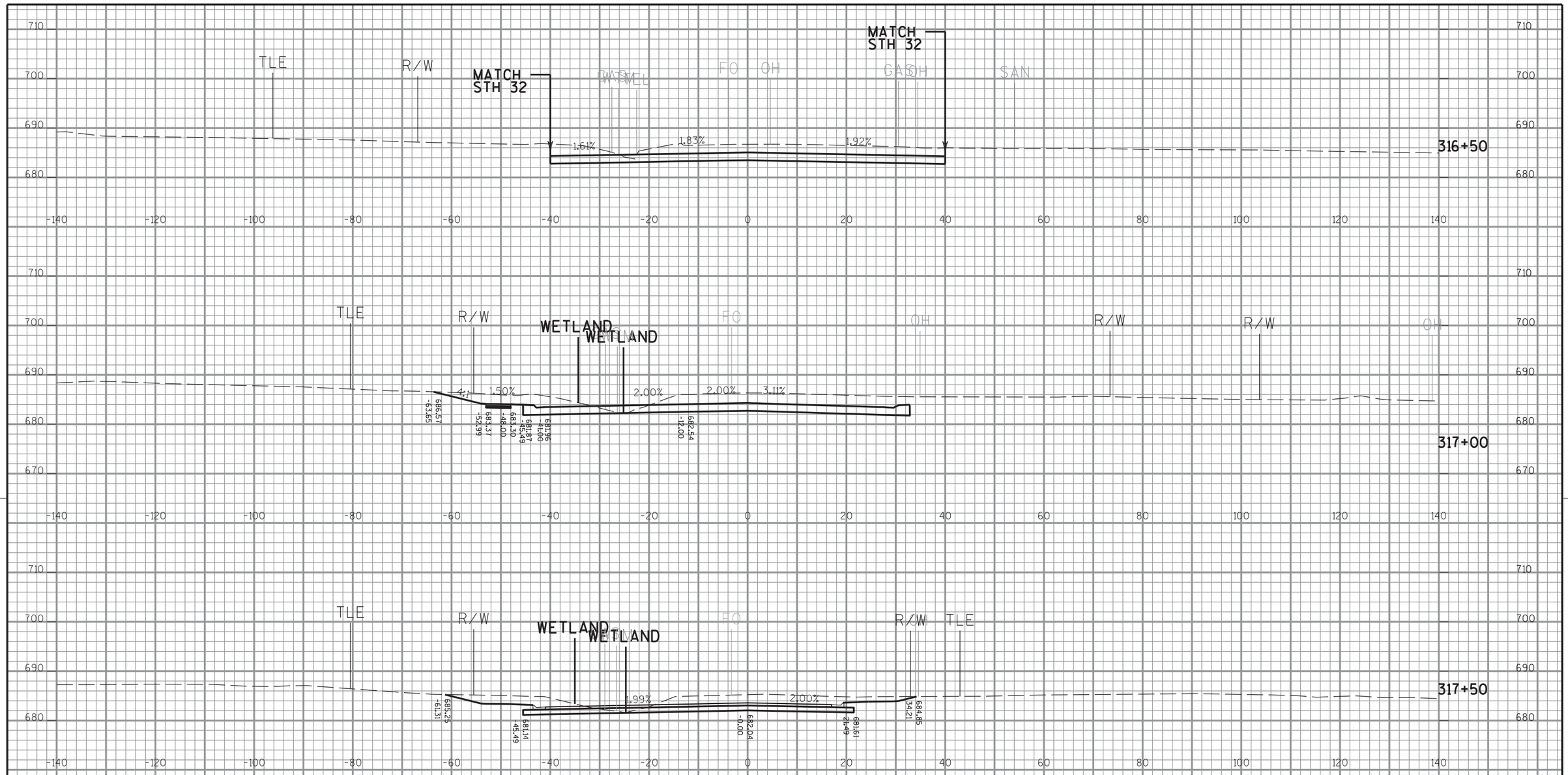
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 433	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



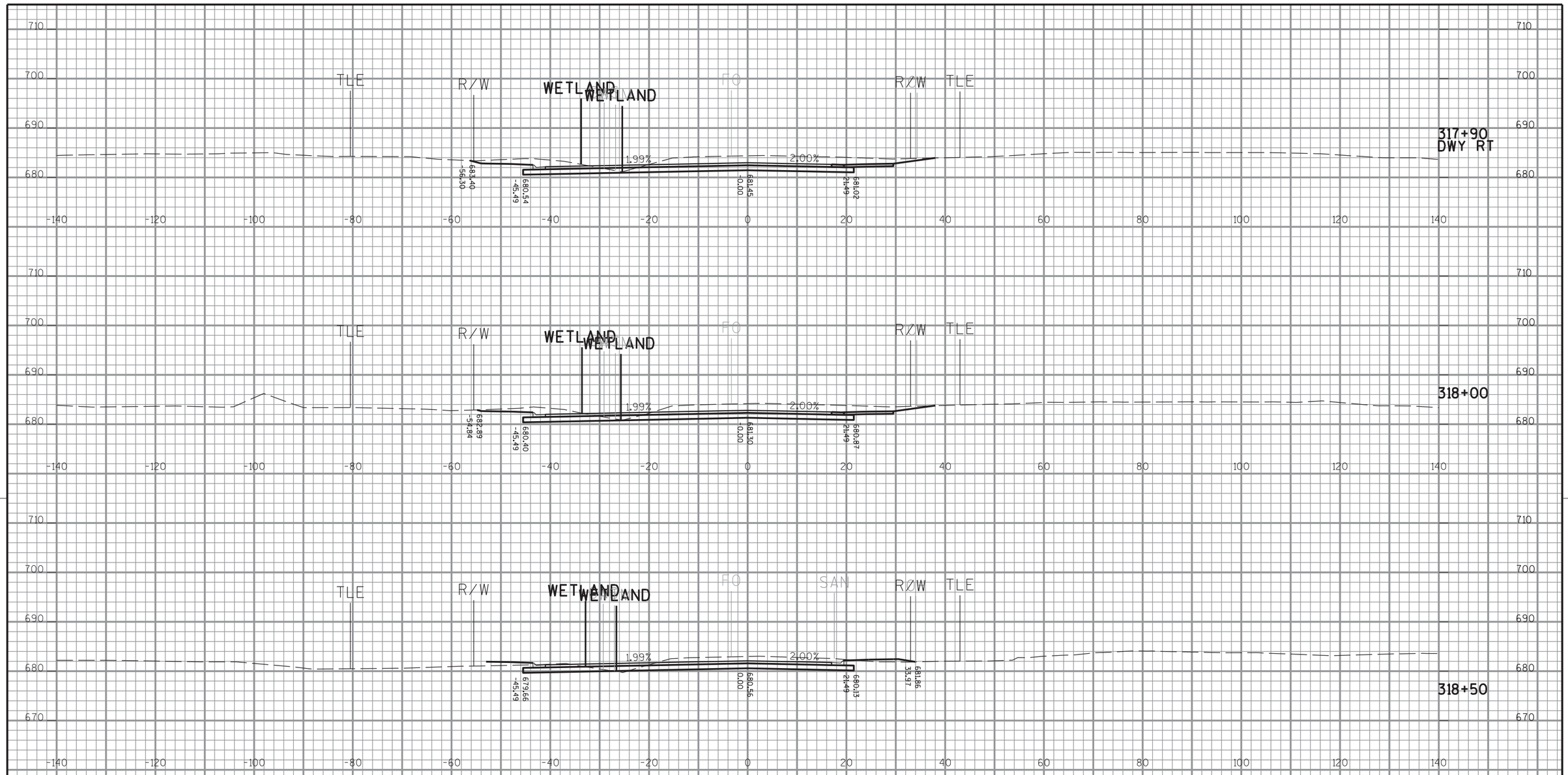
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 434	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



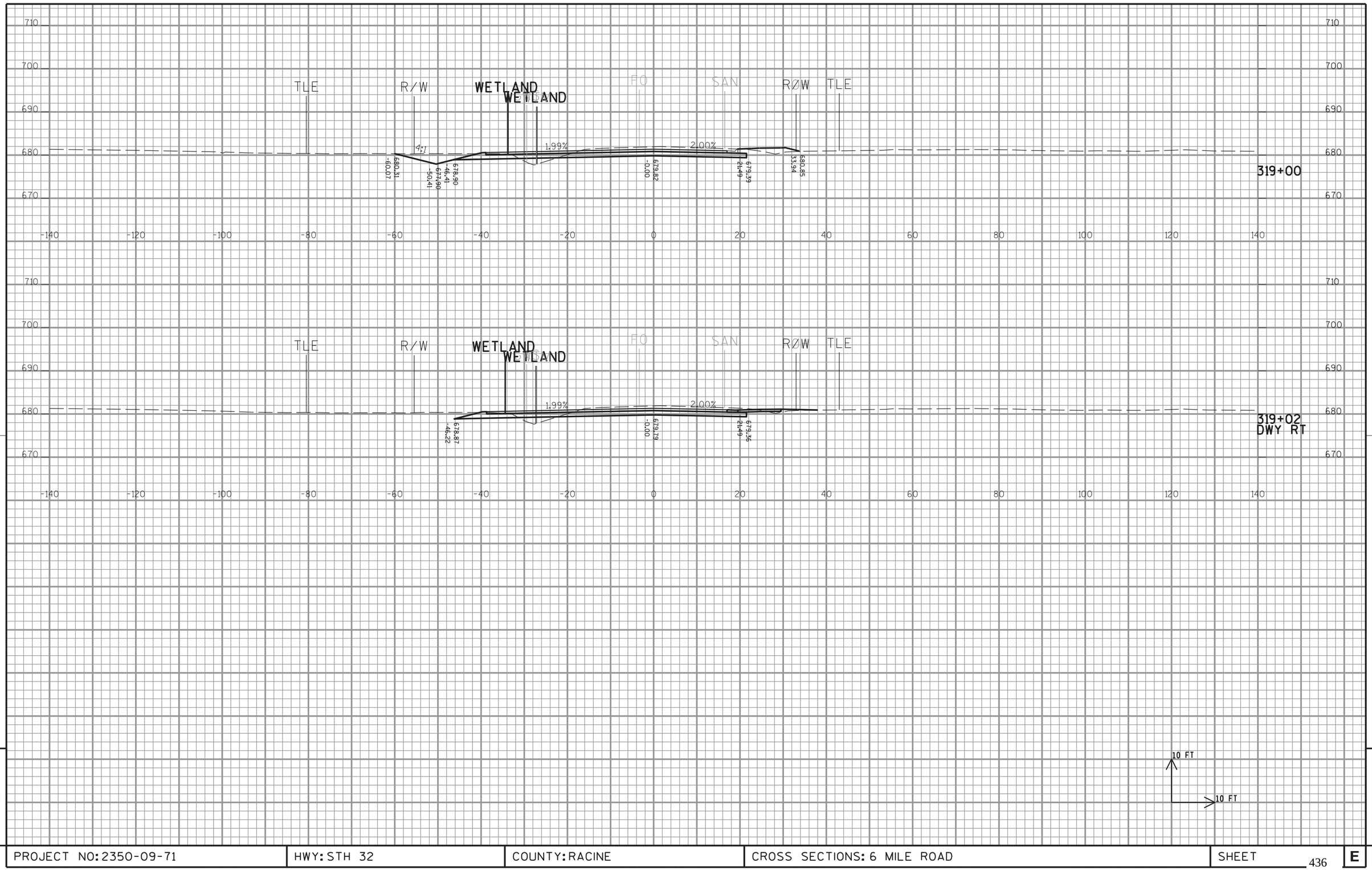
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 435	E

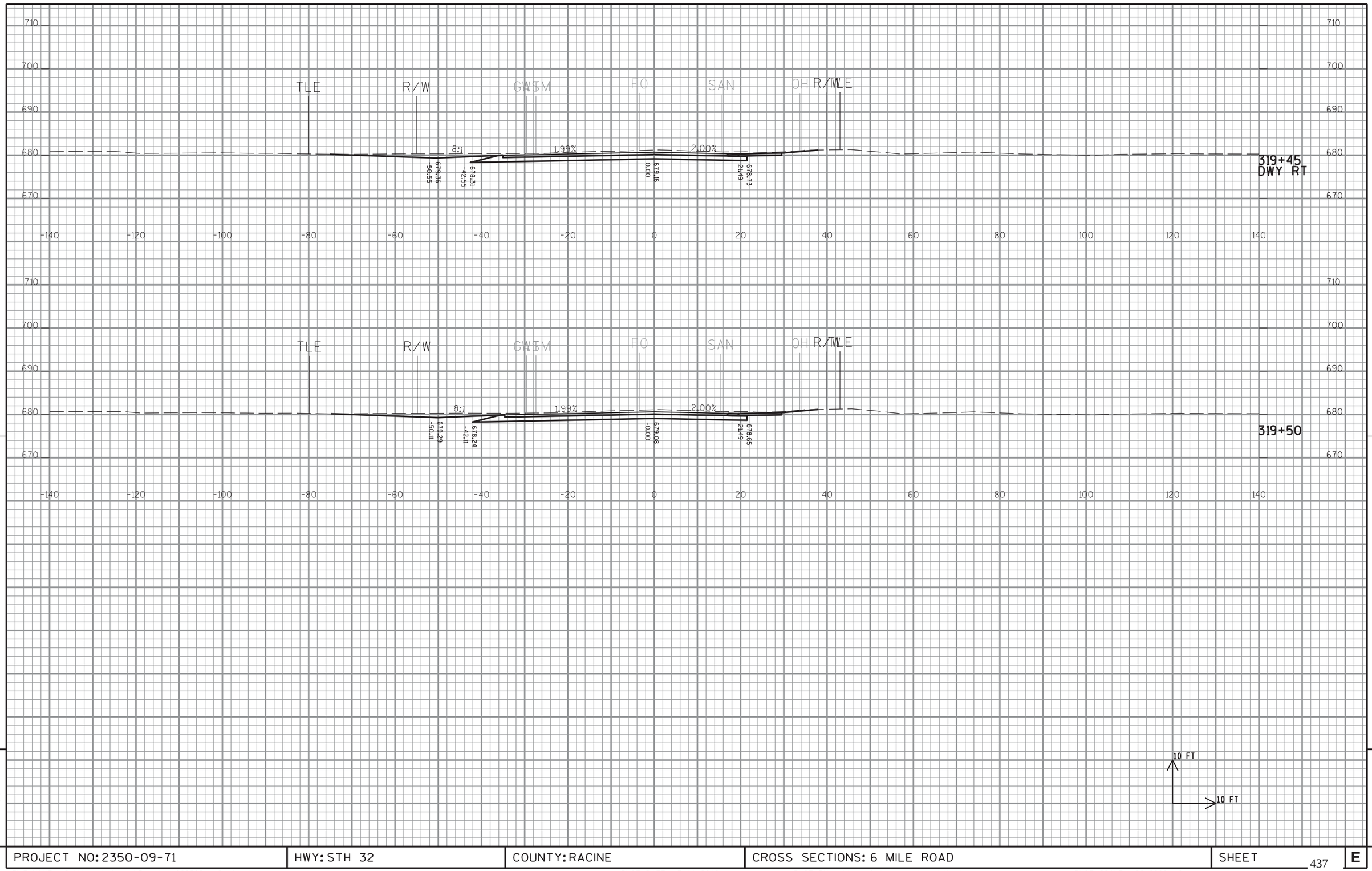
FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 436	E



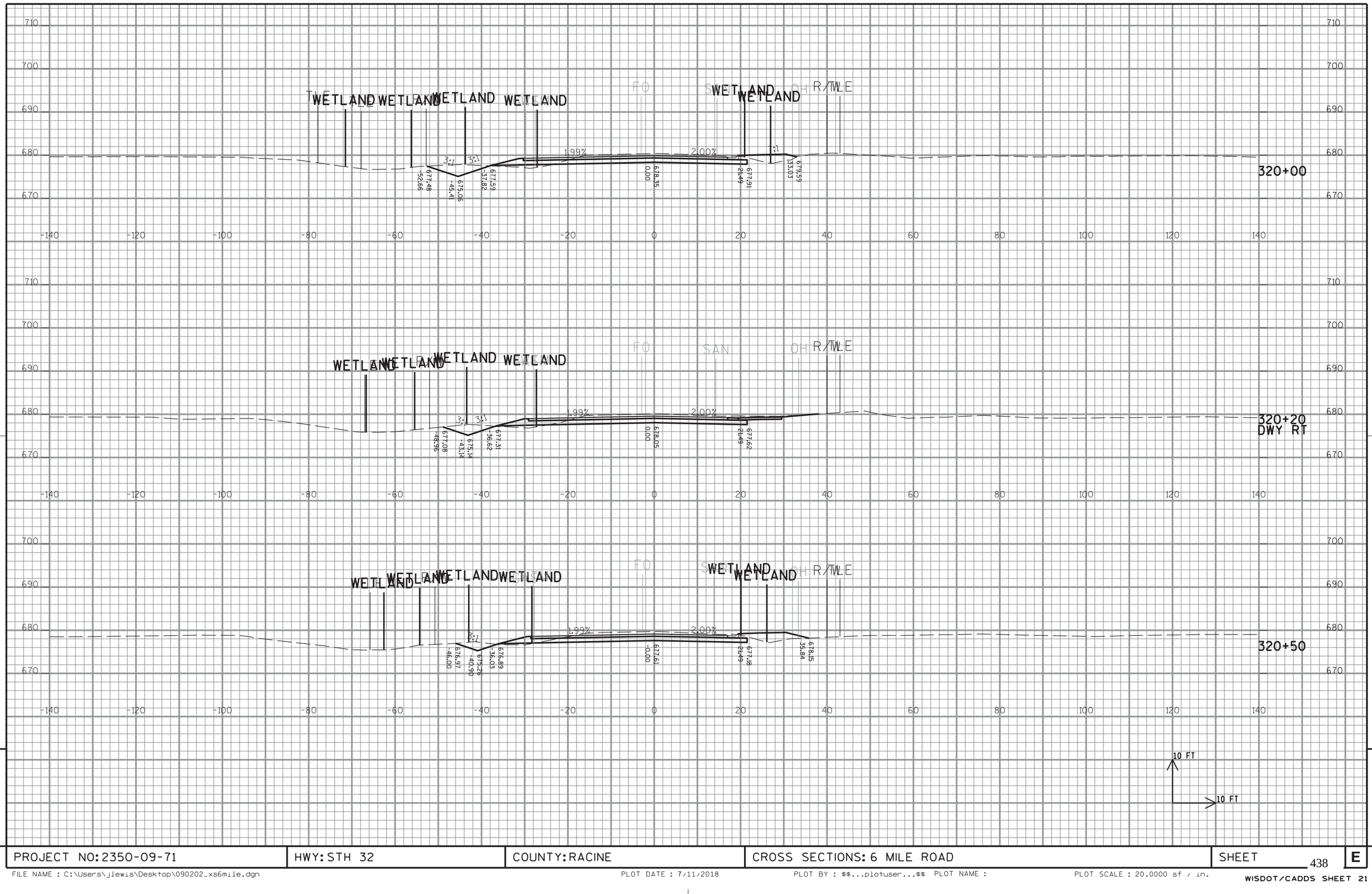
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 437	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

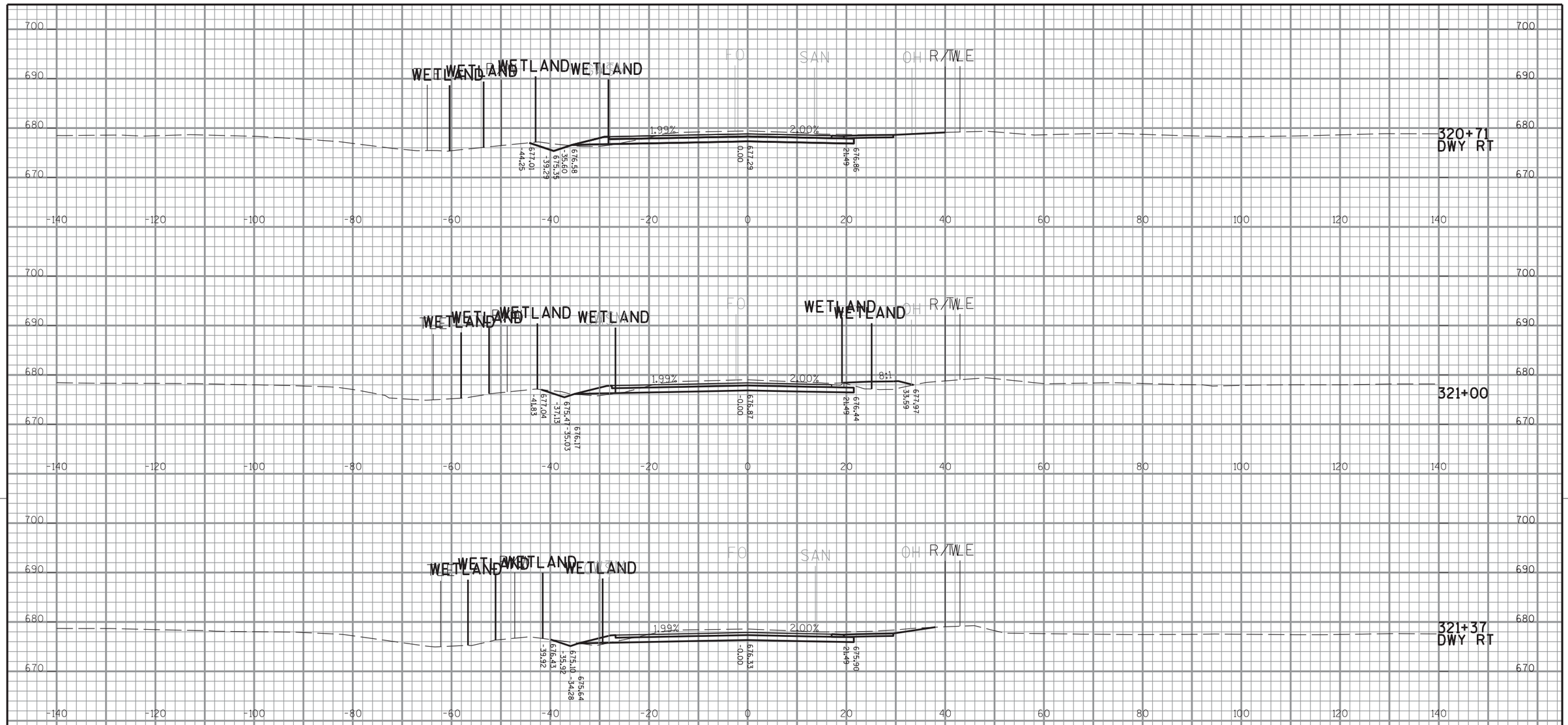
WISDOT/CADDS SHEET 21



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 438	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



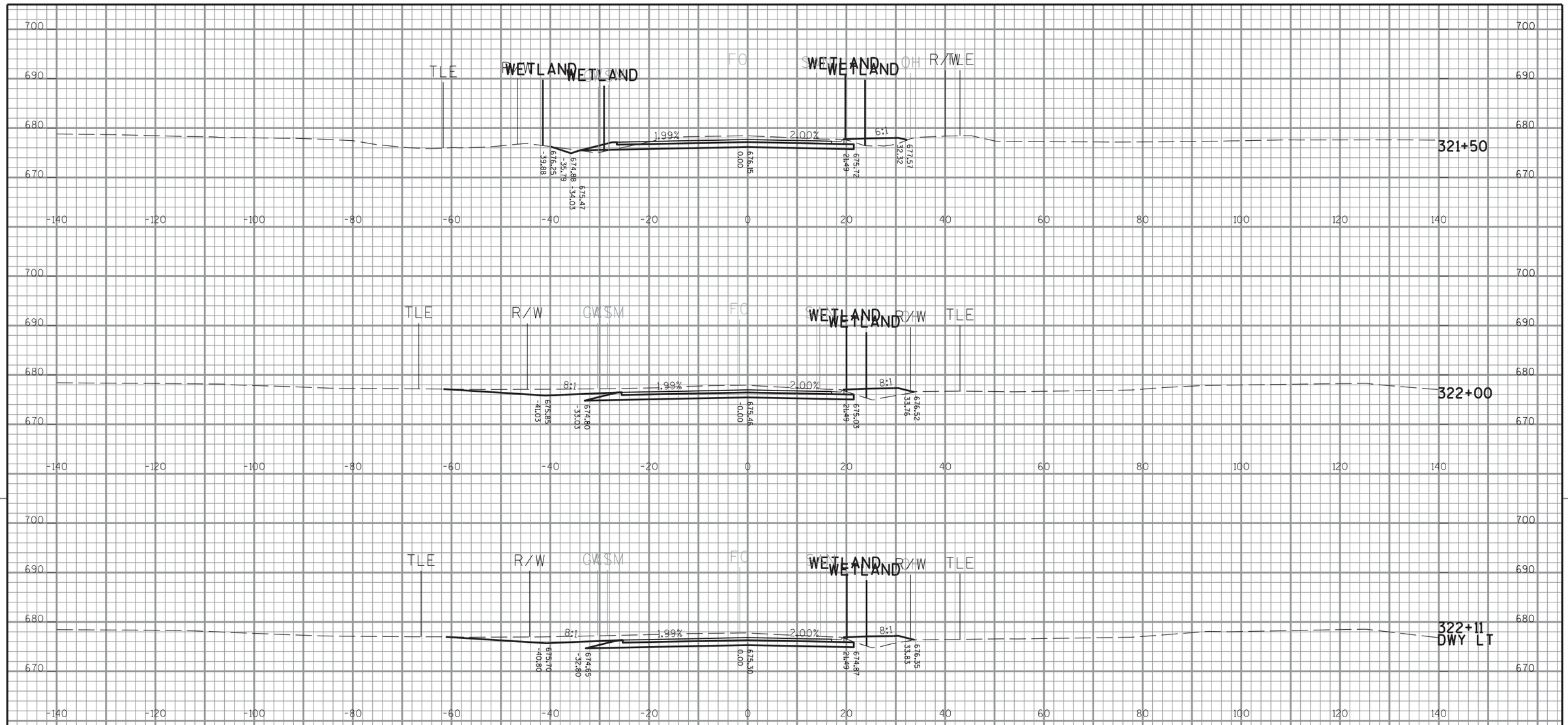
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 439	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

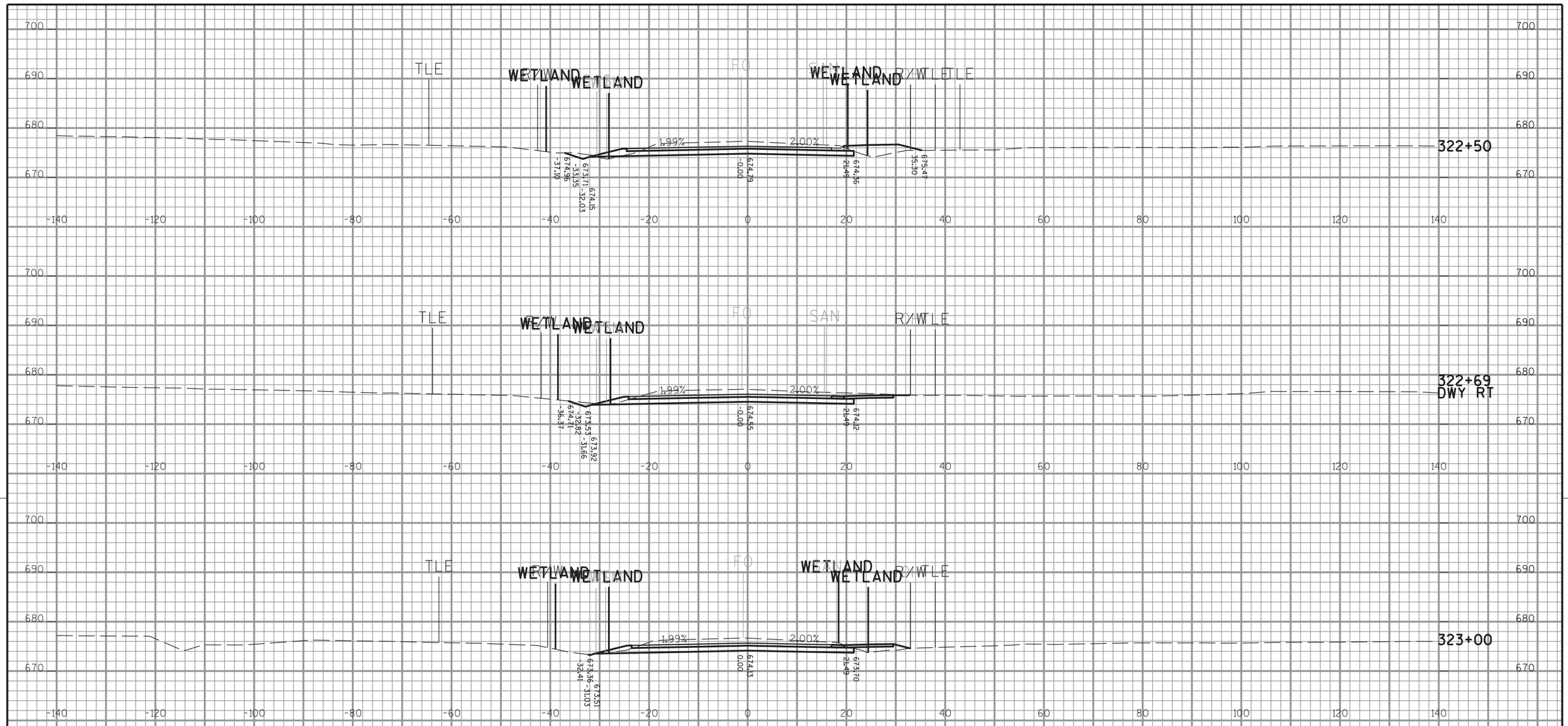


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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 440	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.



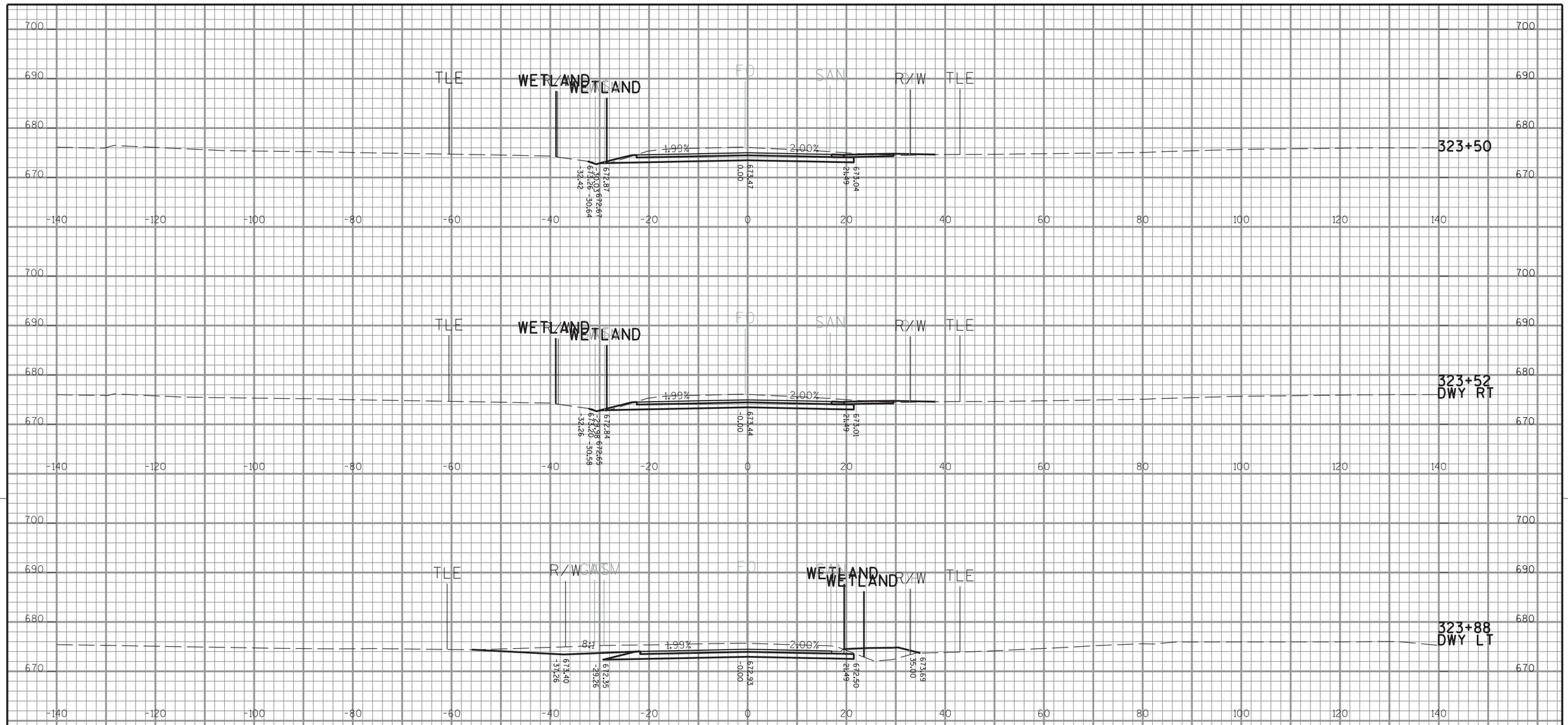
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 441	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

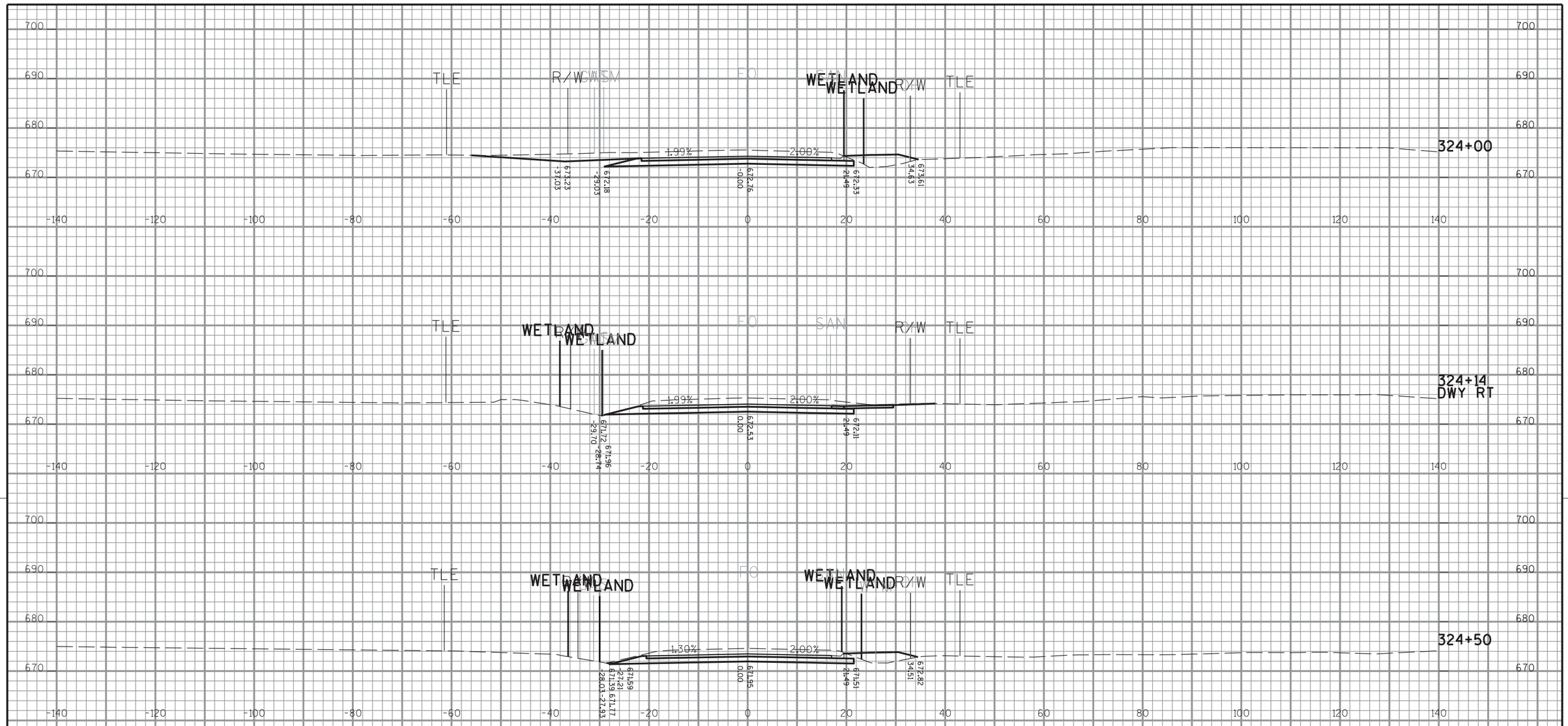
WISDOT/CADDS SHEET 21



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 442	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



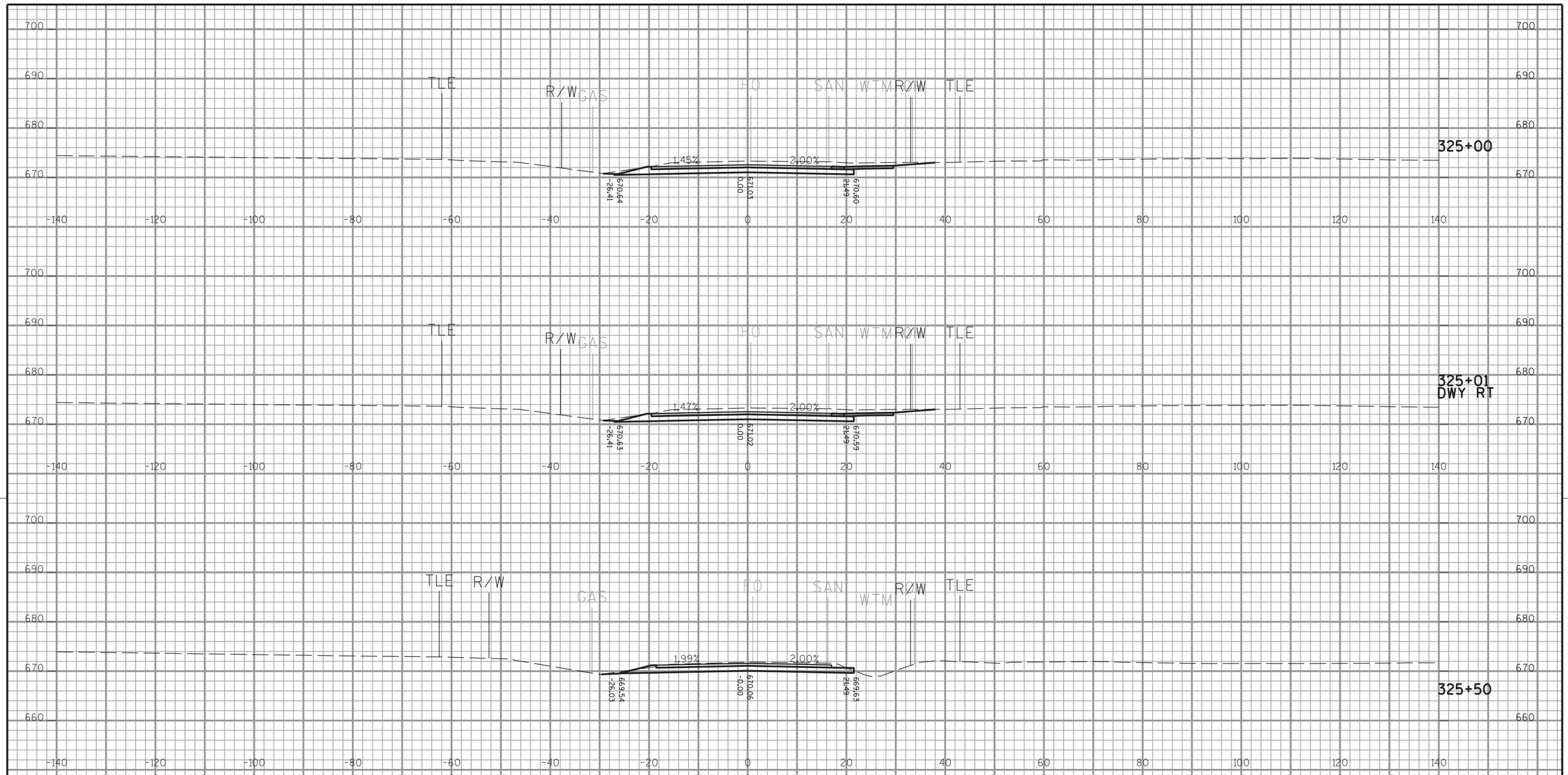
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 443	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

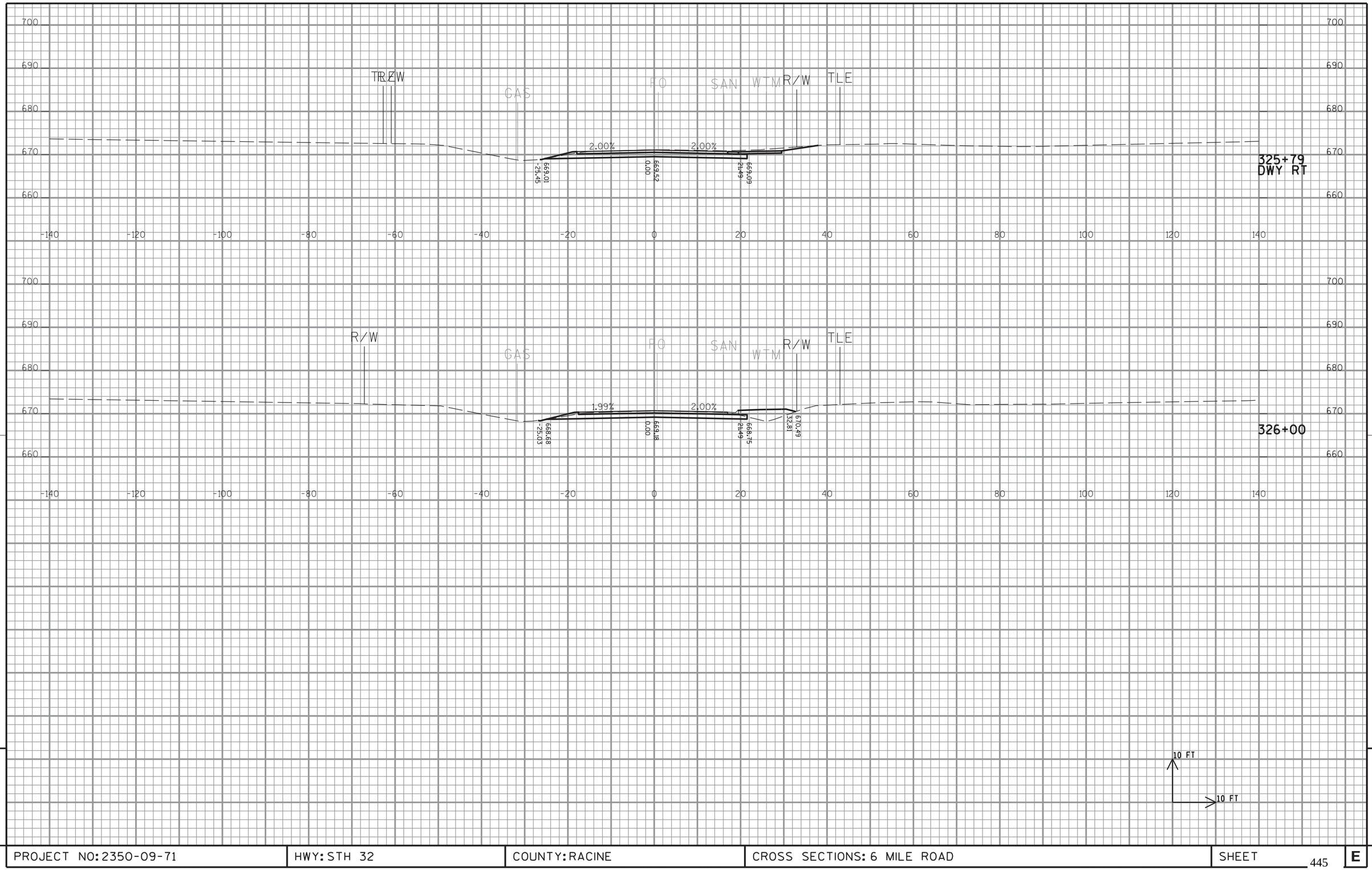


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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 444	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.



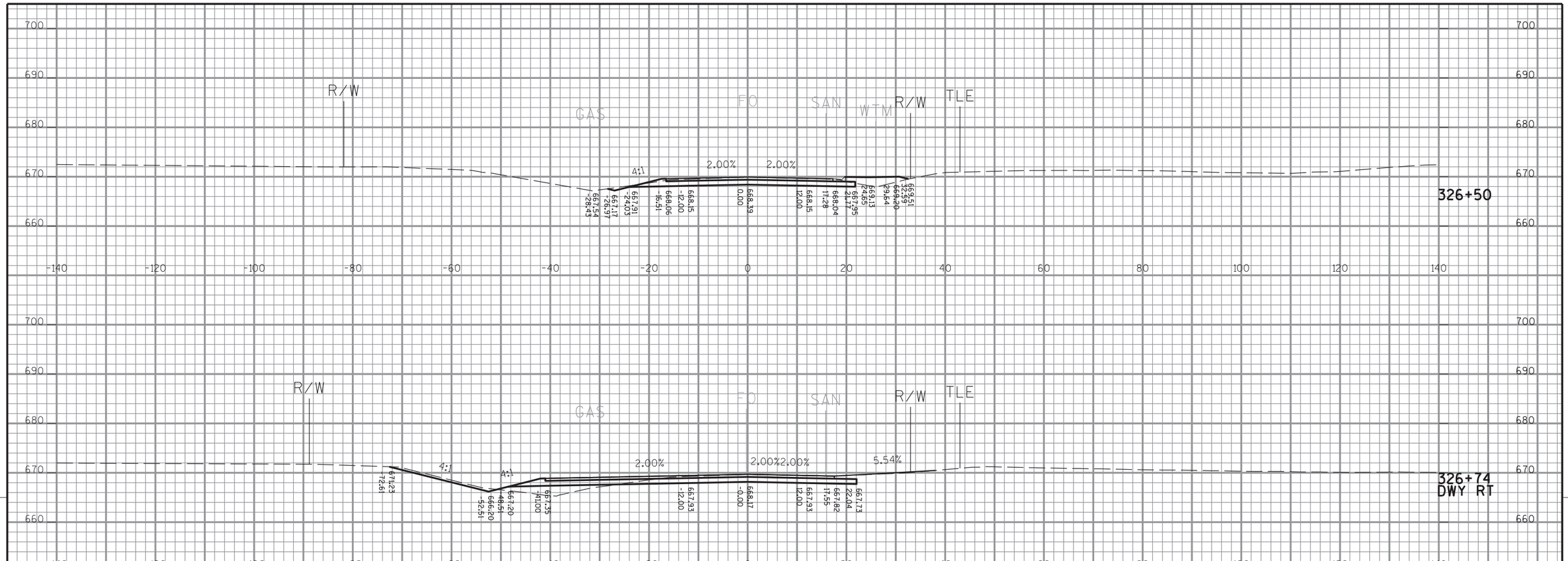
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 445	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

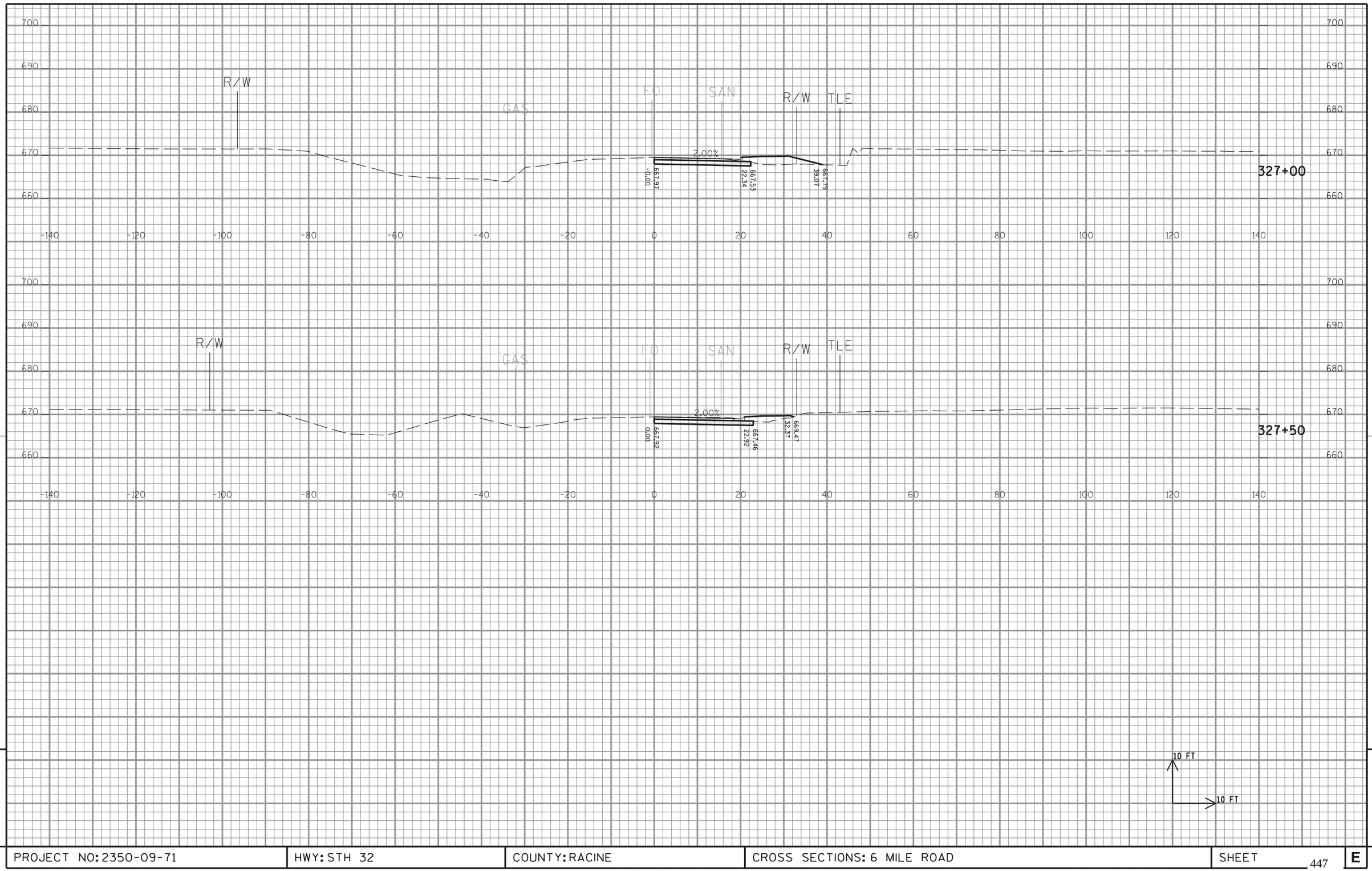
WISDOT/CADDS SHEET 21



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 446	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



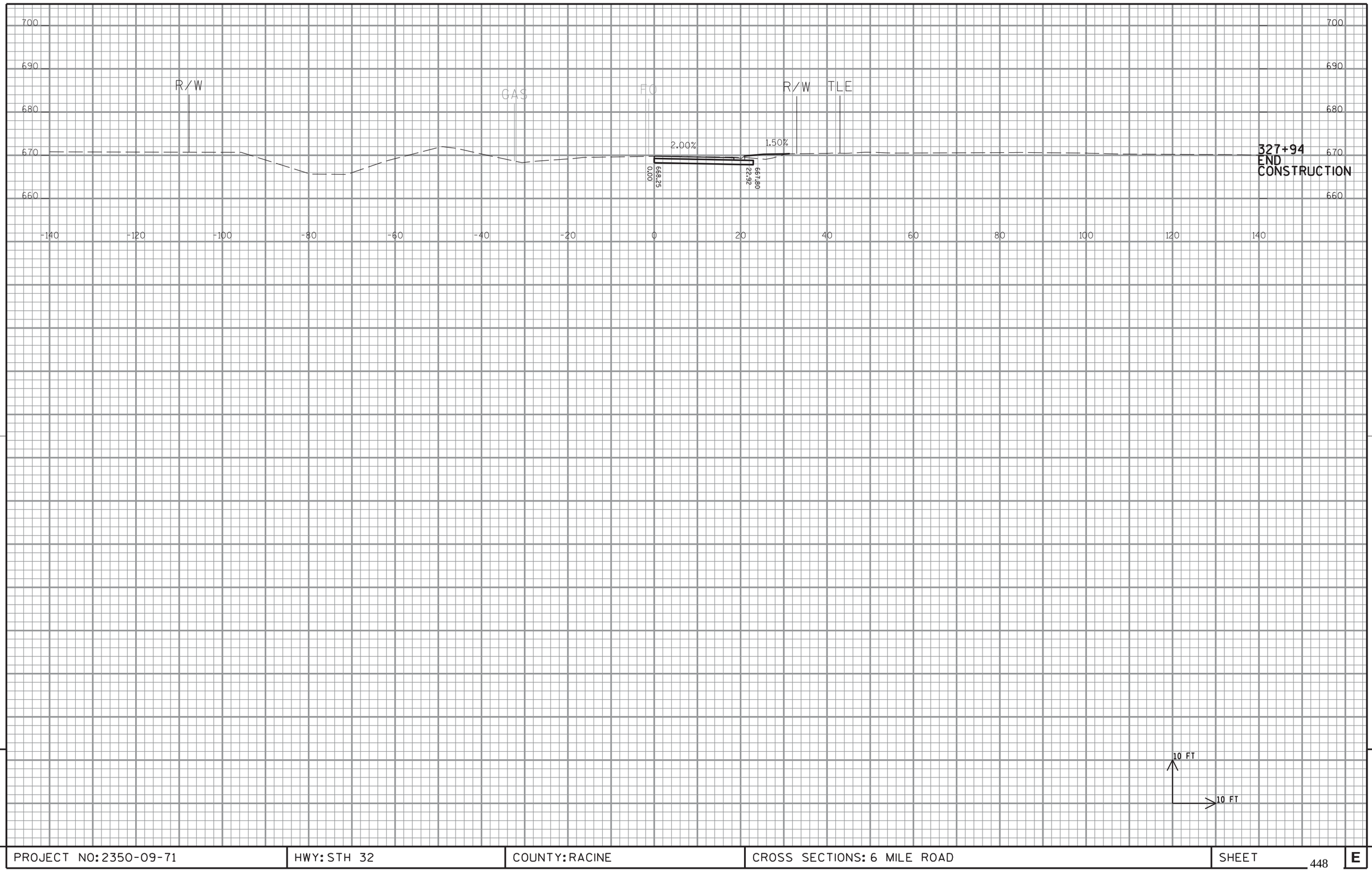
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 447	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



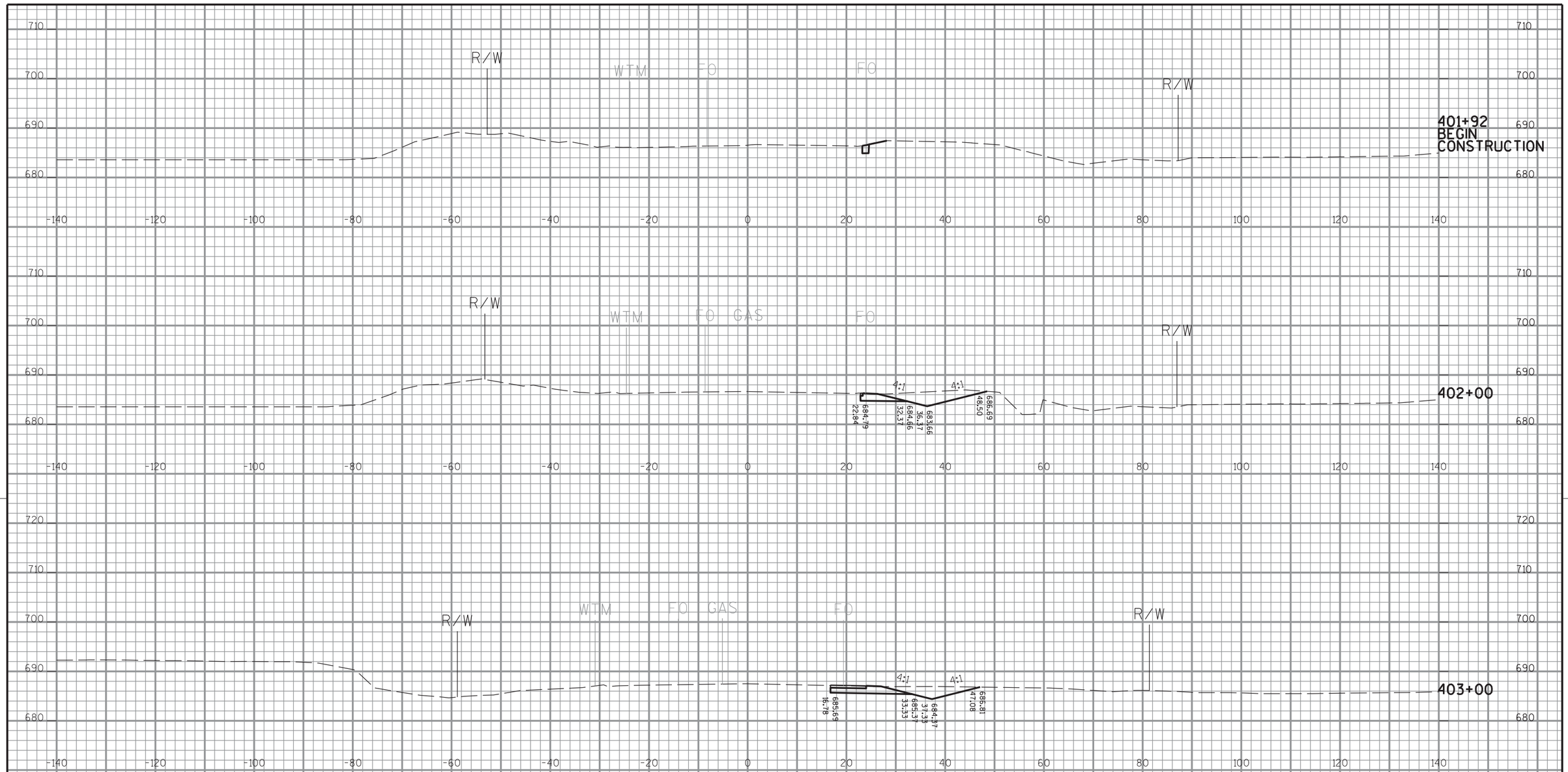
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: 6 MILE ROAD	SHEET 448	E

FILE NAME : C:\Users\jlewis\Desktop\090202_xs6mile.dgn PLOT DATE : 7/11/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

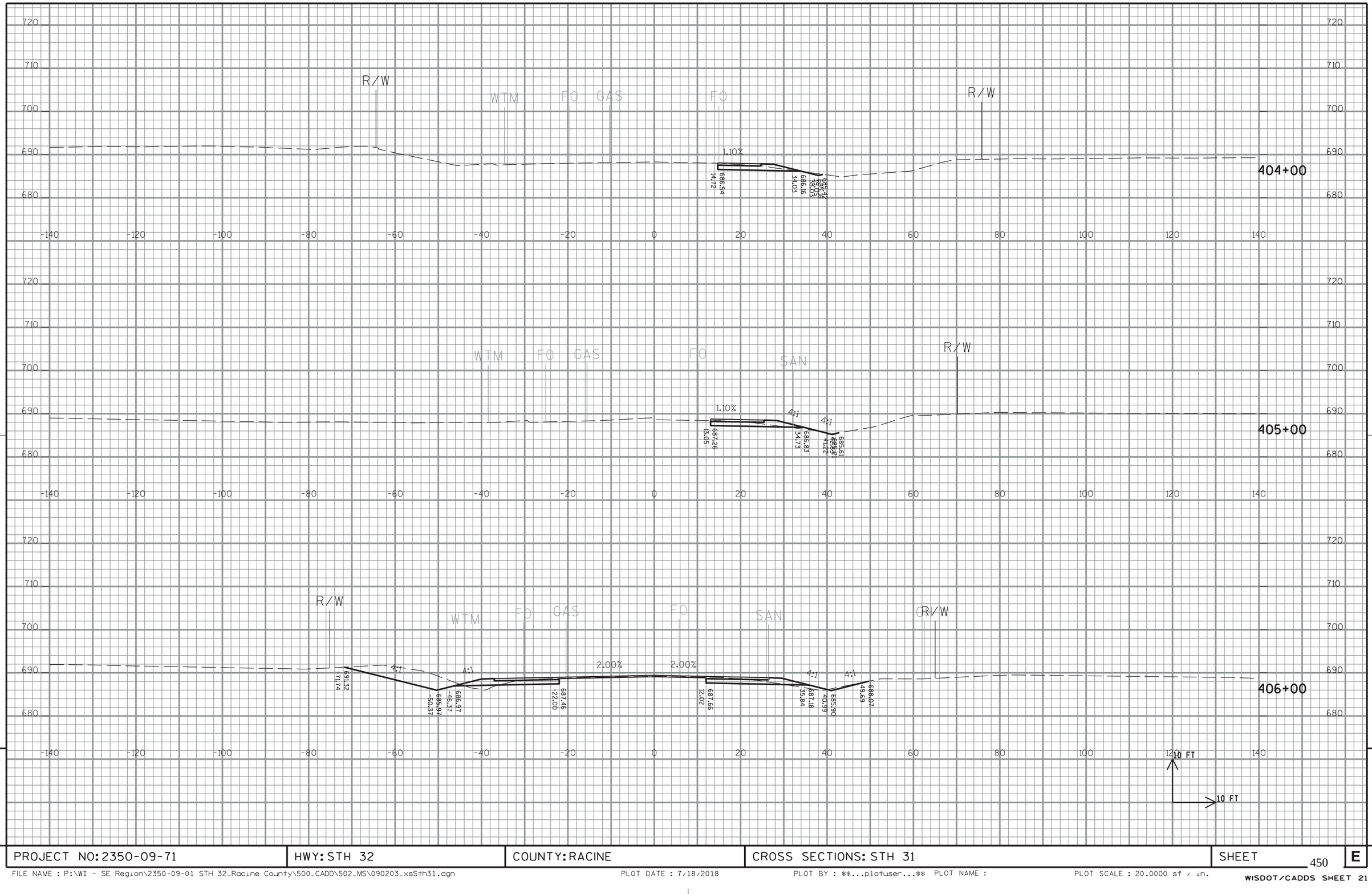
WISDOT/CADDS SHEET 21



PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 31	SHEET 449	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\090203_xsSth31.dgn PLOT DATE : 7/18/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21



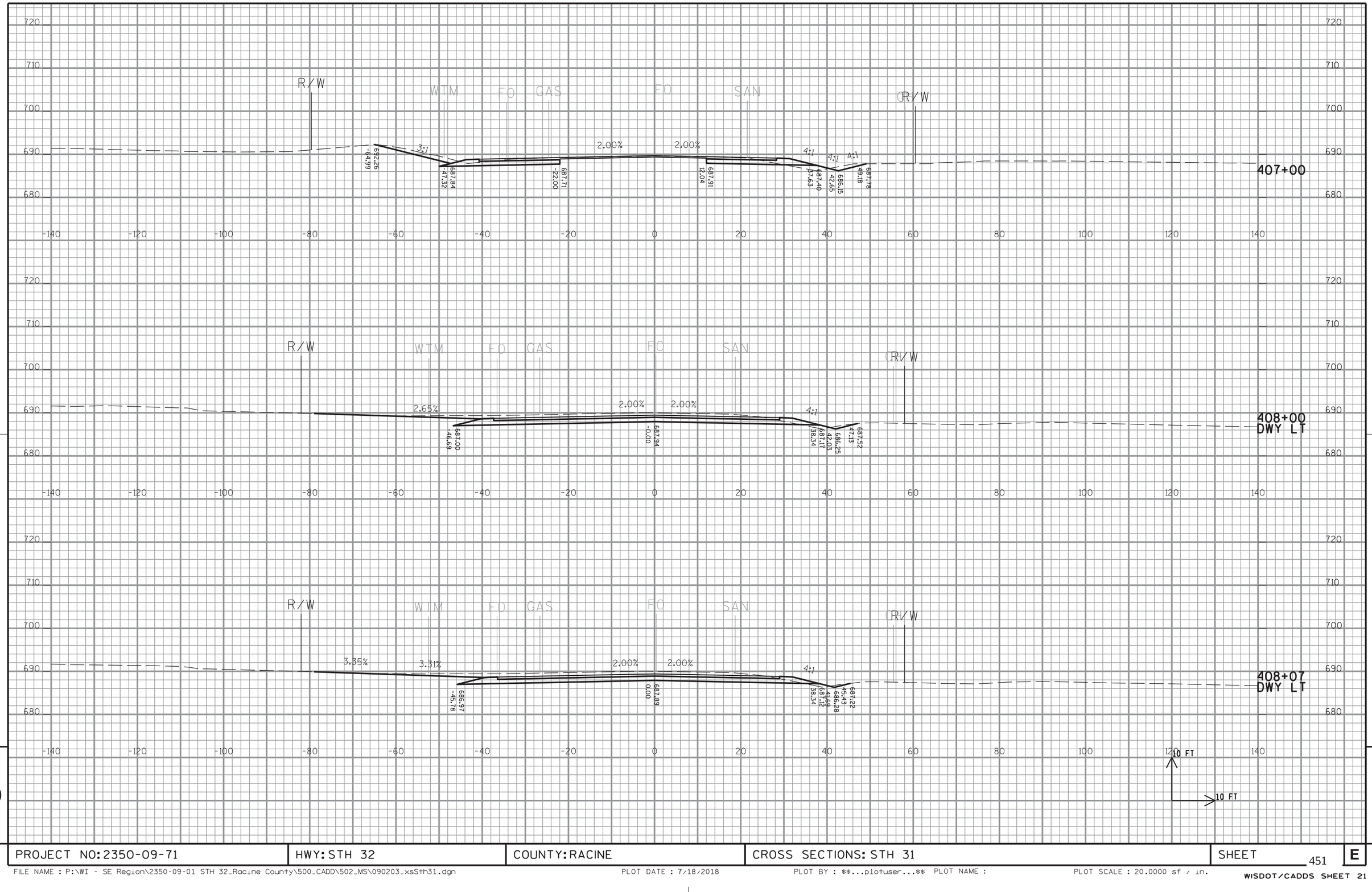
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 31	SHEET 450	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\090203_xsSth31.dgn PLOT DATE : 7/18/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

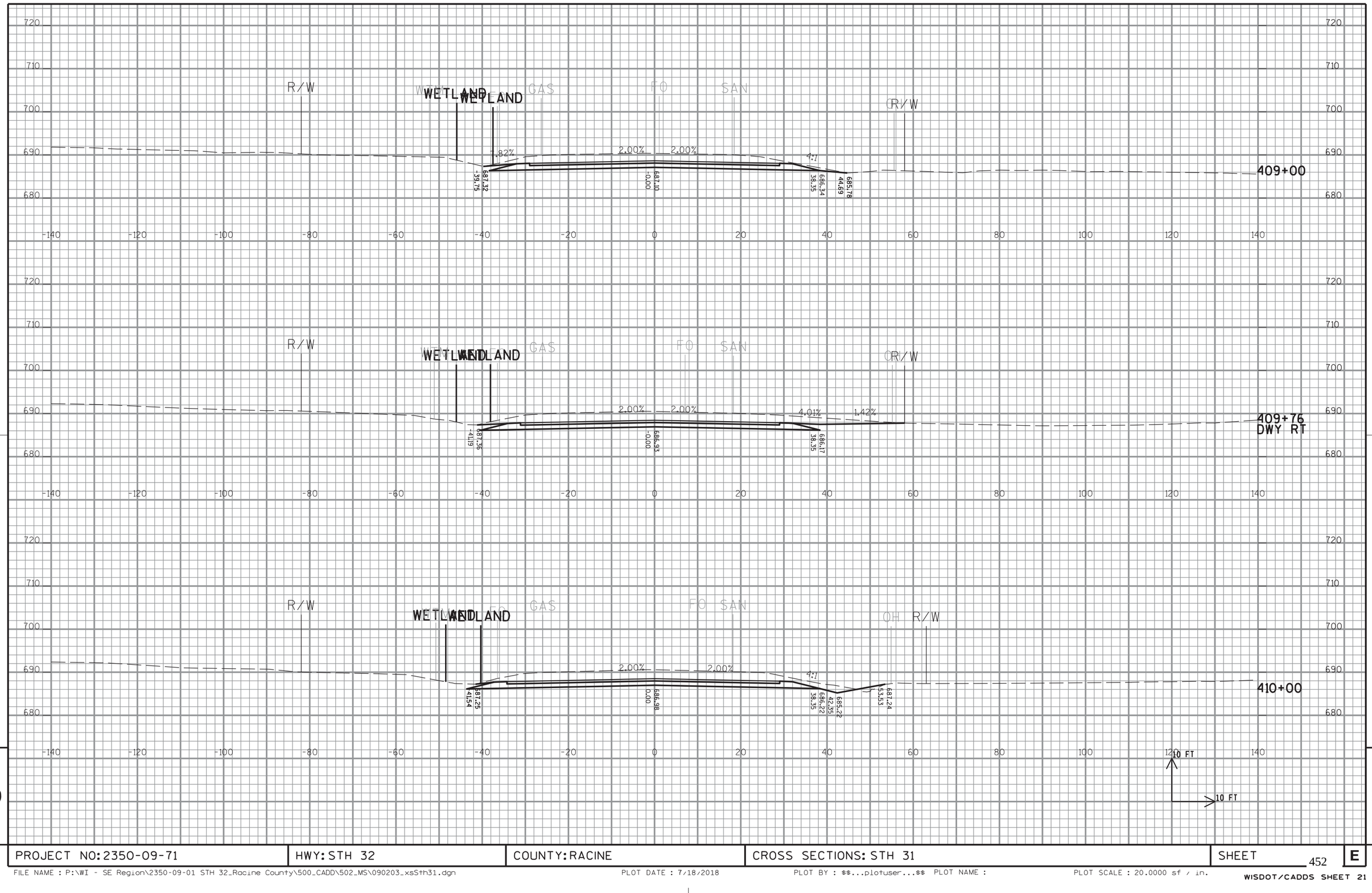
WISDOT/CADDS SHEET 21



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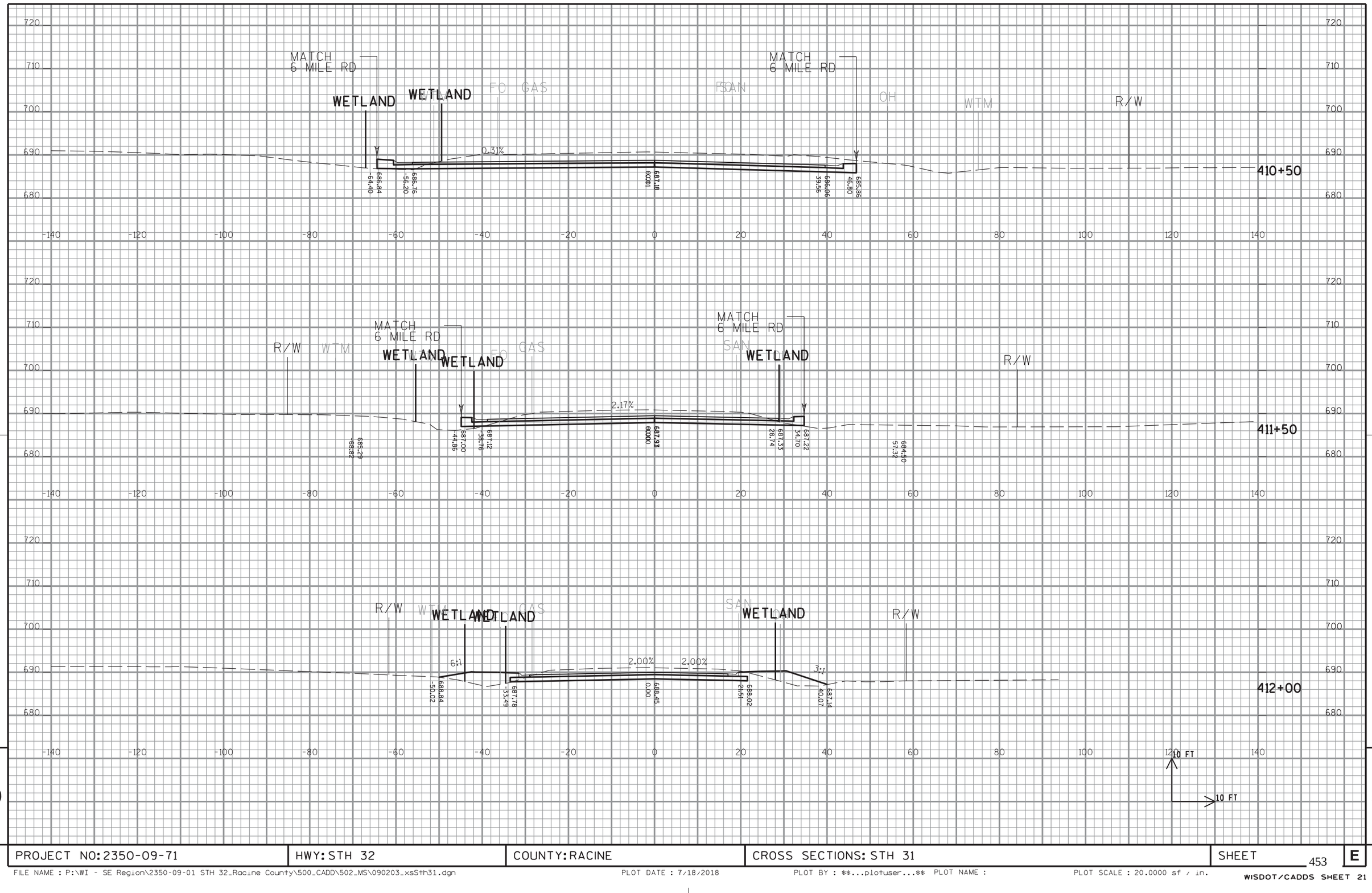
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 31	SHEET 451	E



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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 31	SHEET 452	E



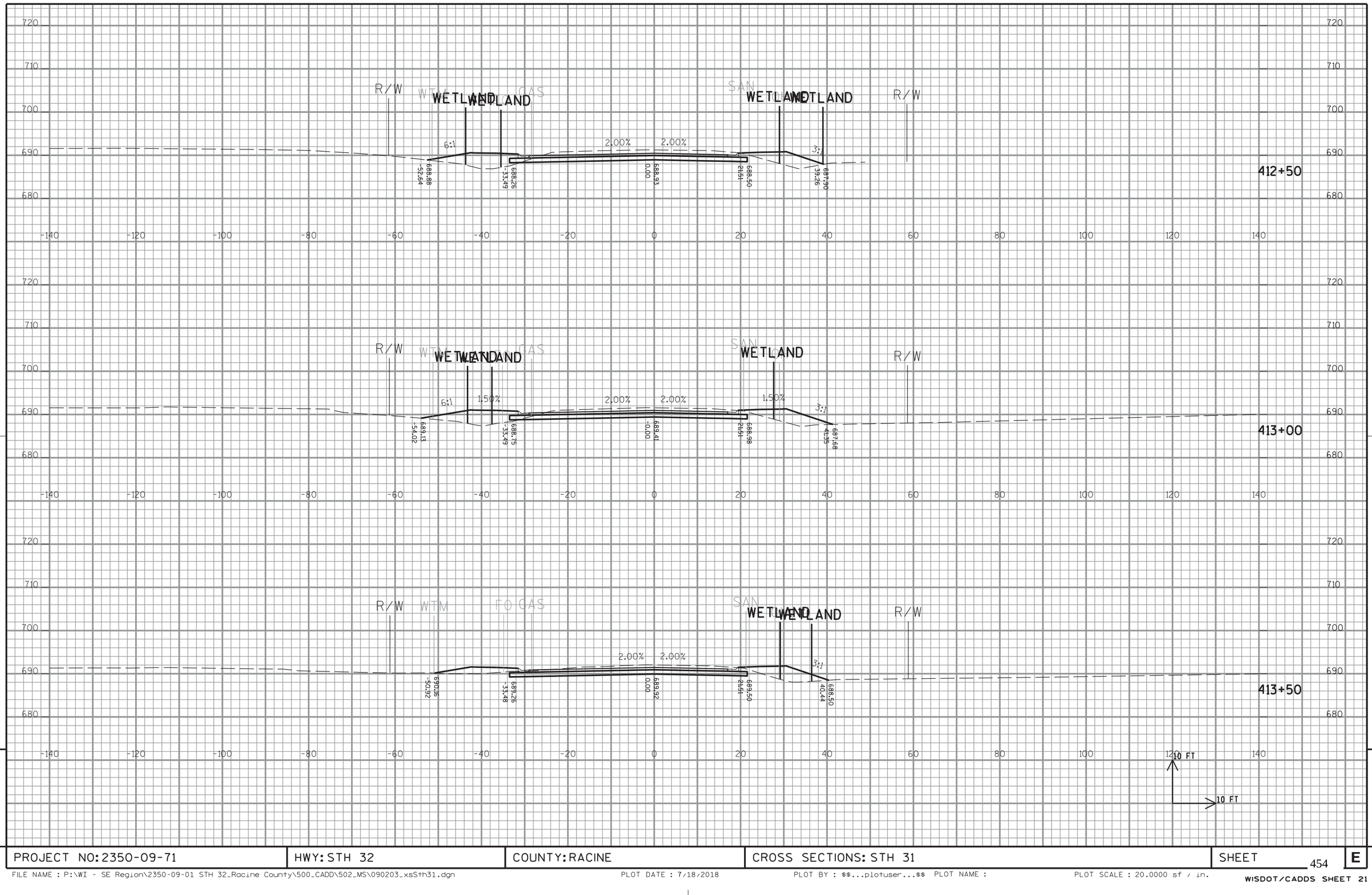
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 31	SHEET 453	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\090203_xsSth31.dgn PLOT DATE : 7/18/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

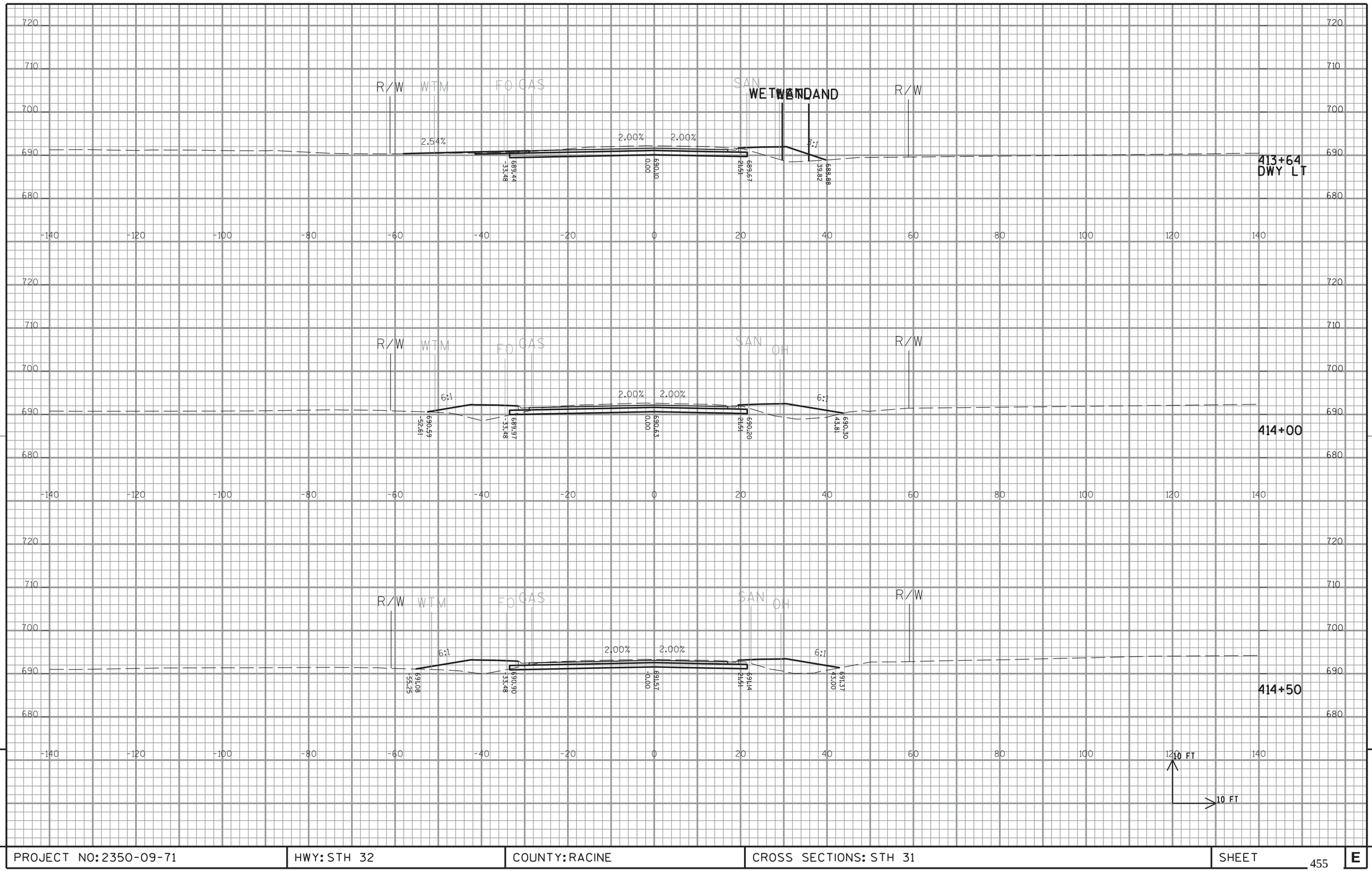


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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 31	SHEET 454	E

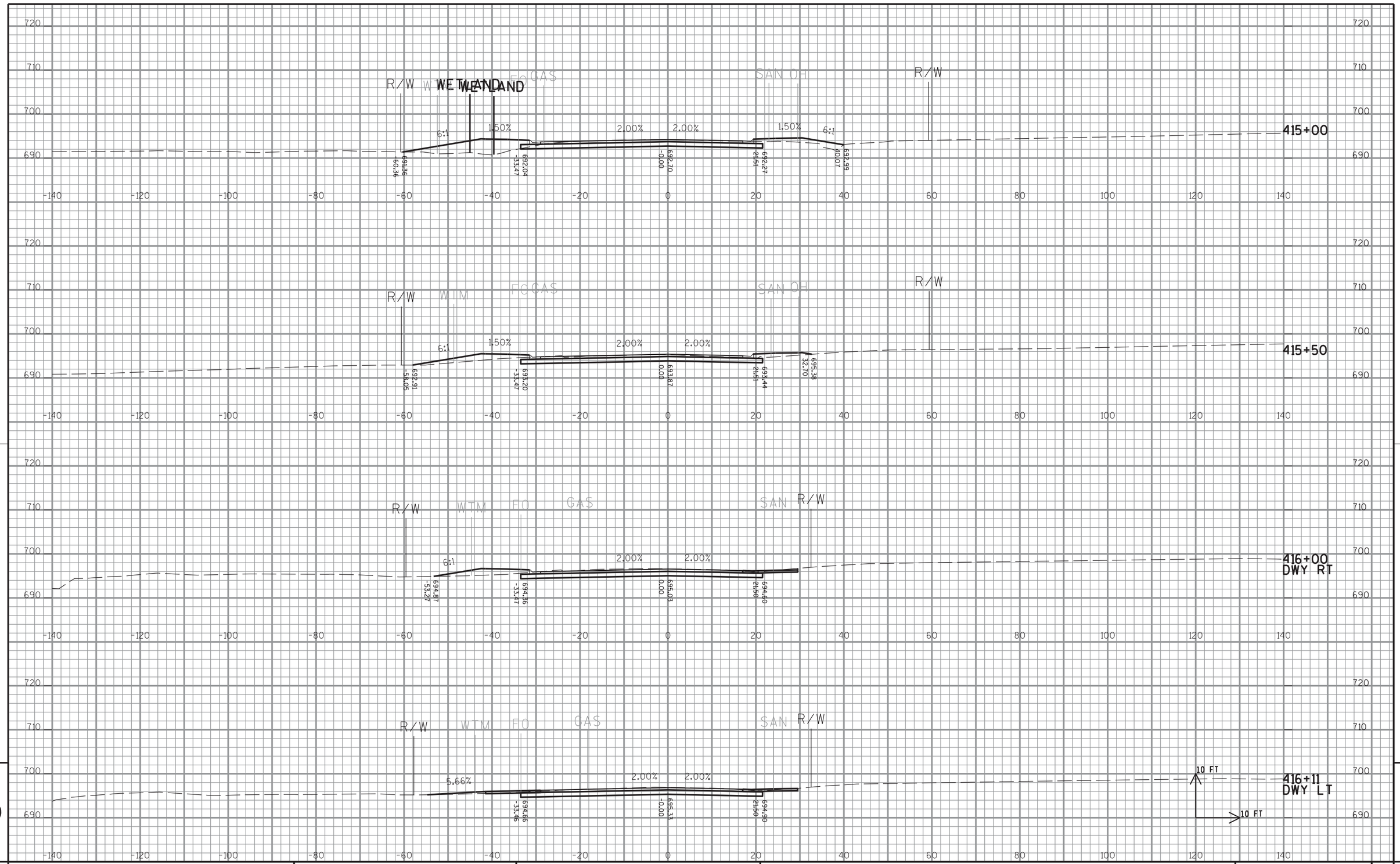
FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\090203_xsSth31.dgn PLOT DATE : 7/18/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.



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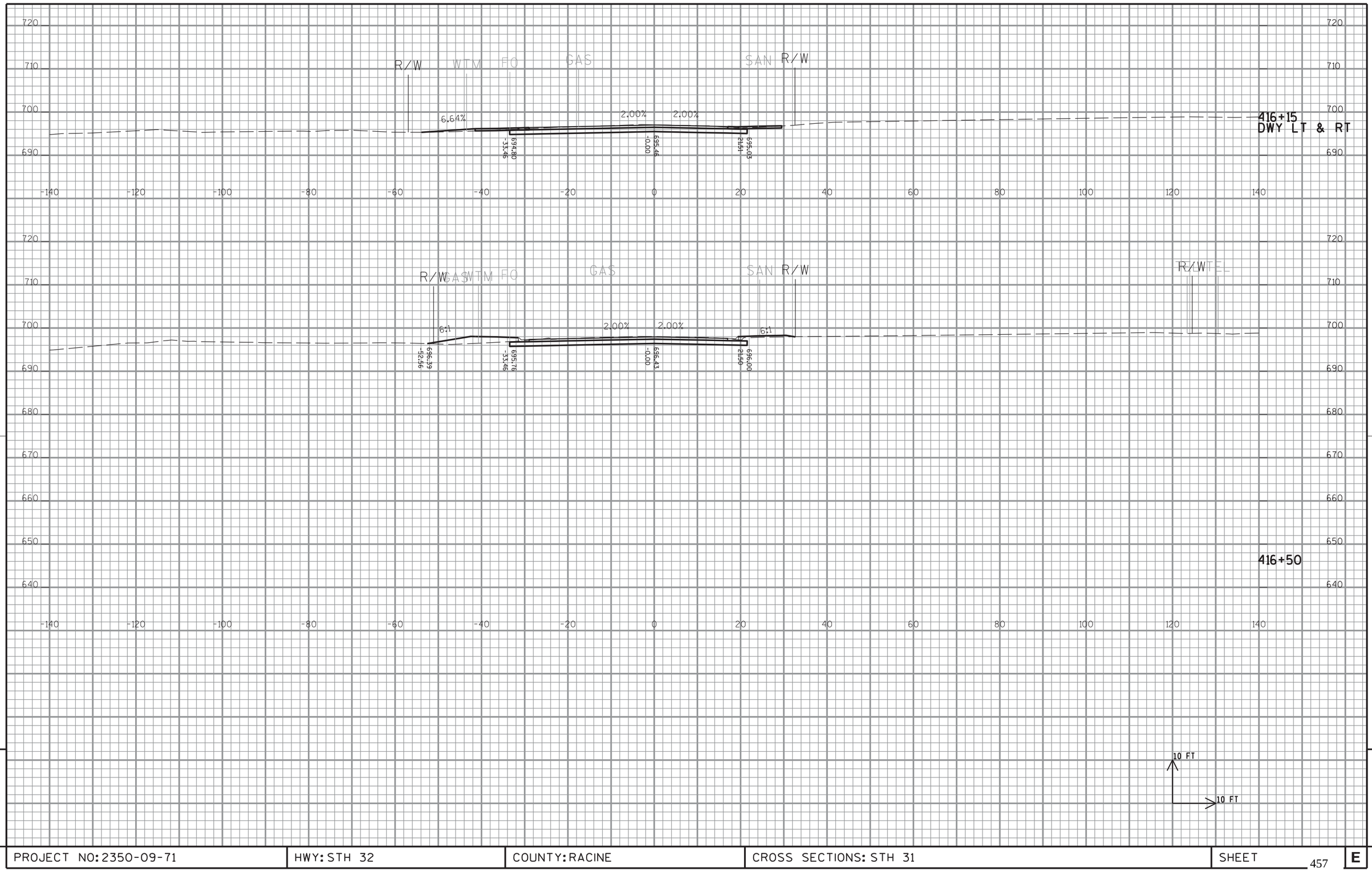
PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 31	SHEET 455	E



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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 31	SHEET 456	E



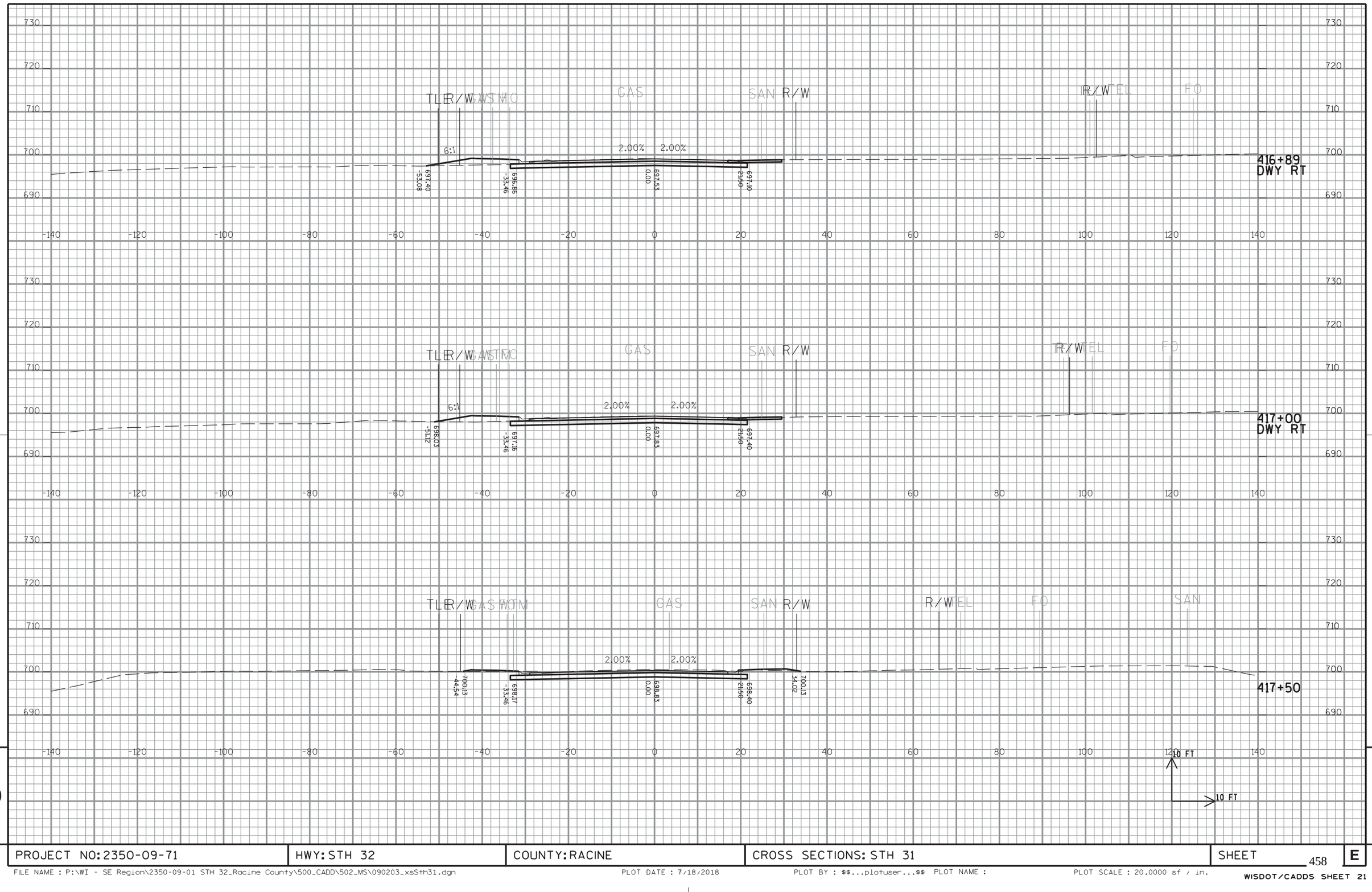
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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 31	SHEET 457	E

FILE NAME : P:\WI - SE Region\2350-09-01 STH 32_Racine County\500_CADD\502_MS\090203_xsSth31.dgn PLOT DATE : 7/18/2018 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 20.0000 sf / in.

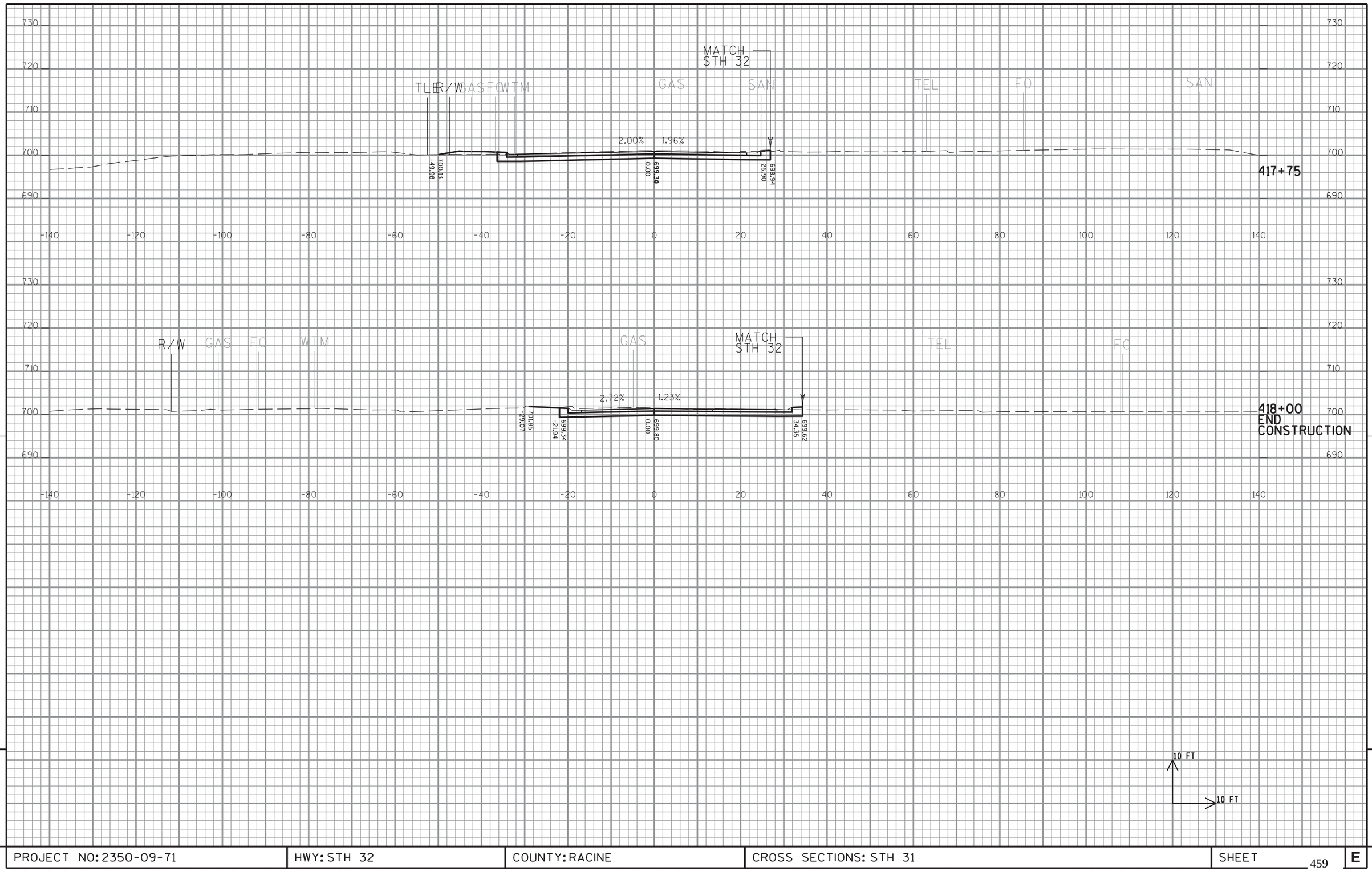
WISDOT/CADDS SHEET 21



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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 31	SHEET 458	E



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PROJECT NO: 2350-09-71	HWY: STH 32	COUNTY: RACINE	CROSS SECTIONS: STH 31	SHEET 459	E

Wisconsin Department of Transportation

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