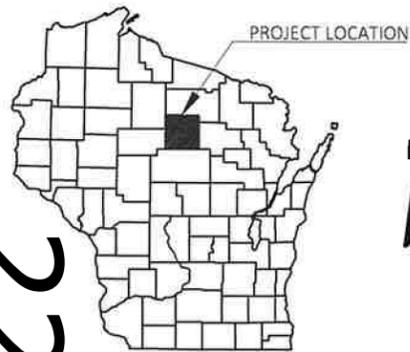


ORDER OF SHEETS

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

TOTAL SHEETS = 120



DESIGN DESIGNATION

A.A.D.T.	2027	=	310
A.A.D.T.	2047	=	310
D.H.V.		=	90
D.D.		=	60/40
T.		=	8.1%
DESIGN SPEED		=	60 MPH
ESALS		=	40,000

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	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MERRILL - TOMAHAWK

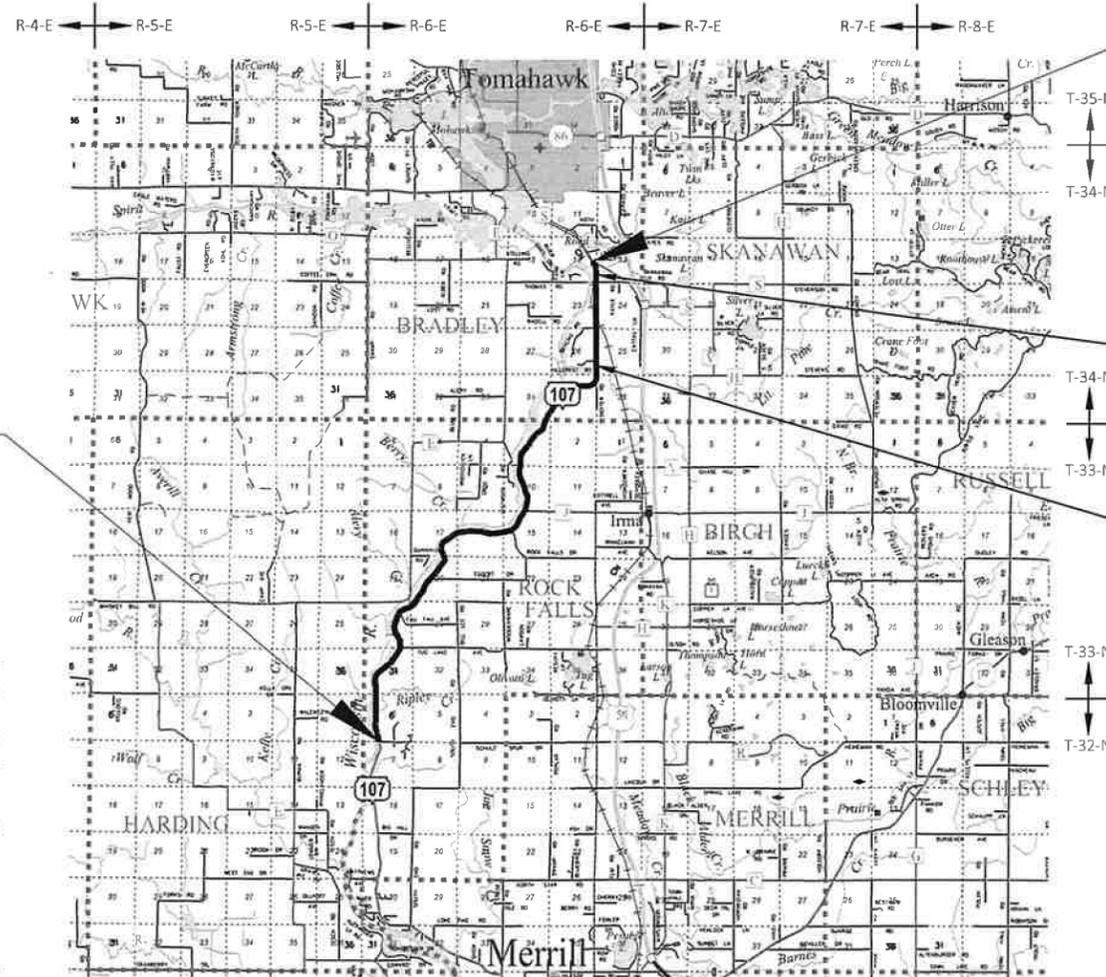
WILDERNESS DRIVE TO CTH S

STH 107

LINCOLN COUNTY

STATE PROJECT NUMBER

9305-07-70



HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), LINCOLN COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9305-07-70		

ORIGINAL PLANS PREPARED BY



MADISON | EAU CLAIRE | WAUKESHA | APPLETON | TOMAH | WAUSAU



DATE: _____ (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	WISDOT / CORRE, INC.
Designer	CORRE, INC.
Project Manager	ANDREW CASPER, P.E.
Regional Examiner	FRED SCHUNKE, P.E.
Regional Supervisor	KAI KILEN, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 10/21/2025 Andrew Casper (Signature)

PROJECT ID: 9305-07-70

COUNTY: LINCOLN

22

WITH: N/A

GENERAL NOTES:

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

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

THE SUPERELEVATION OF OVERLAY HMA SURFACE WILL MATCH THE EXISTING CONDITIONS

THE LOCATION OF EXISTING RIGHT-OF-WAY AS SHOWN ON THE PLANS IS APPROXIMATE. THE RIGHT-OF-WAY IS BASED ON AS-BUILTS AND GIS DATA

ORDER OF SECTION 2 SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS
- DETOUR

UTILITIES

COMMUNICATION LINE

FRONTIER COMMUNICATIONS OF WISCONSIN LLC
CHRISTOPHER POLLACK
521 N 4TH ST
WAUSAU, WI 54403
TELEPHONE: 715-847-1240
E-MAIL: CHRISTOPHER.POLLACK@FTR.COM

ELECTRICITY - TRANSMISSION

ATC MANAGEMENT, INC.
DOUG VOSBERG
2489 RINDEN ROAD
COTTAGE GROVE, WI 53527
TELEPHONE: 608-877-7650
E-MAIL: DVOSBERG@ATCLLC.COM

ELECTRICITY

WISCONSIN PUBLIC SERVICE CORPORATION
JESSE PATTEN
P.O. BOX 1166
WAUSAU, WI 54402-1166
TELEPHONE: 715-848-7405
E-MAIL: JESSE.PATTEN@WISCONSINPUBLICSERVICE.COM



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

	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 = 39.5 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.55 ACRES

WISDOT RAILROAD LIAISON

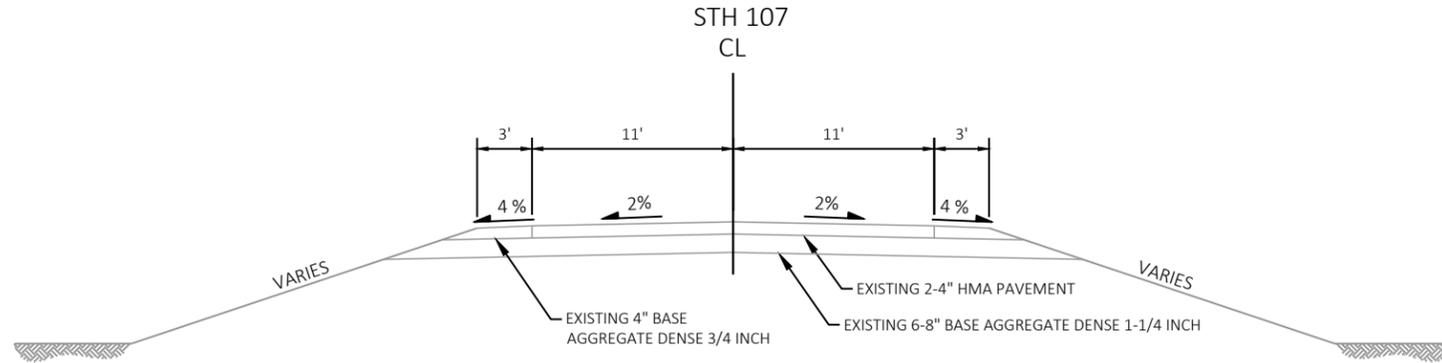
WISCONSIN RAPIDS OFFICE
1681 SECOND AVE. SOUTH
WISCONSIN RAPIDS, WI 54495

CALEB HERRIN
PHONE: (715) 712-8856
CALEB.HERRIN@DOT.WI.GOV

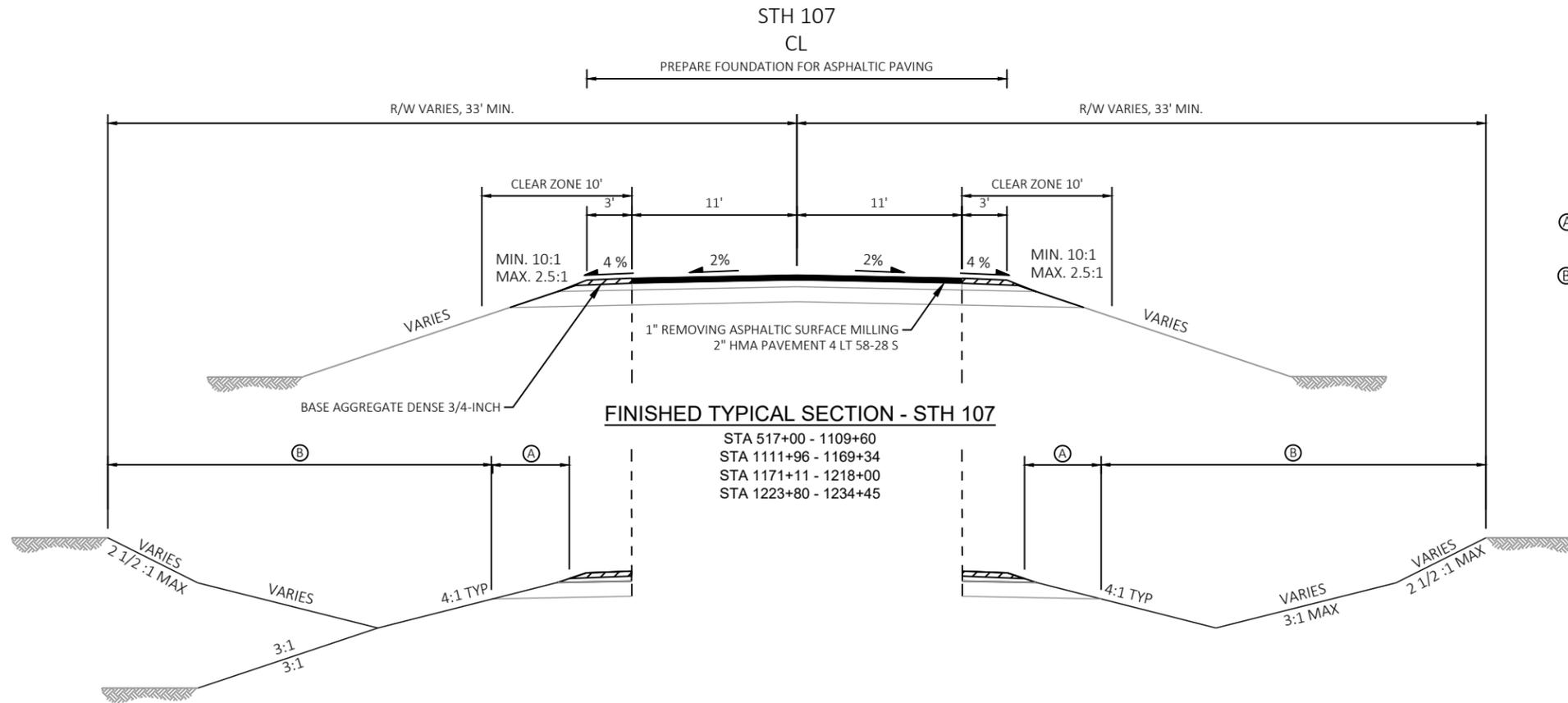
DNR CONTACT

DNR RHINELANDER SERVICE CENTER
107 SUTLIFF AVENUE
RHINELANDER, WI 54501

WENDY HENNIGES
PHONE: (715) 365-8916
WENDY.HENNIGES@WISCONSIN.GOV



EXISTING TYPICAL SECTION - STH 107
 STA 517+00 - 1219+85
 STA 1220+19 - 1235+19



FINISHED TYPICAL SECTION - STH 107
 STA 517+00 - 1109+60
 STA 1111+96 - 1169+34
 STA 1171+11 - 1218+00
 STA 1223+80 - 1234+45

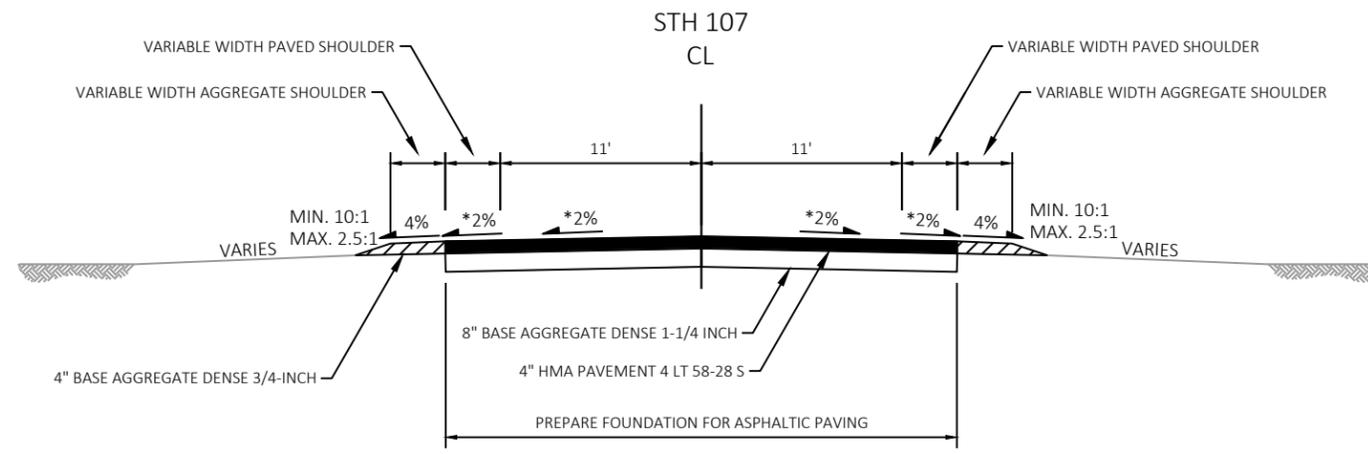
FINISHED PARTIAL TYPICAL CULVERT REPLACEMENT SECTION - STH 107
 SEE PLAN SHEETS FOR LOCATIONS

FINISHED PARTIAL TYPICAL GRADING SECTION - STH 107
 STA 518+13 - 523+00
 STA 680+06 - 683+20
 STA 734+25 - 735+30

LEGEND

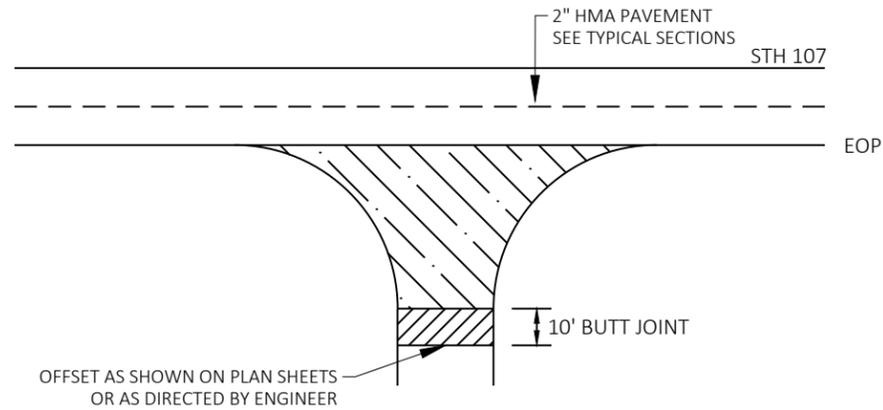
- Ⓐ FERTILIZER TYPE B; SEEDING MIXTURE NO. 20
- Ⓑ TOPSOIL; EROSION MAT URBAN CLASS 1 TYPE B; FERTILIZER TYPE B; SEEDING MIXTURE NO. 20

THE SUPERELEVATION OF OVERLAY HMA SURFACE WILL MATCH THE EXISTING CONDITIONS



FINISHED TYPICAL SECTION - RAILROAD CROSSING
 STA 1169+34 - STA 1171+11

*SLOPE WILL VARY BASED ON RAIL ADJUSTMENT



OFFSET AS SHOWN ON PLAN SHEETS
OR AS DIRECTED BY ENGINEER

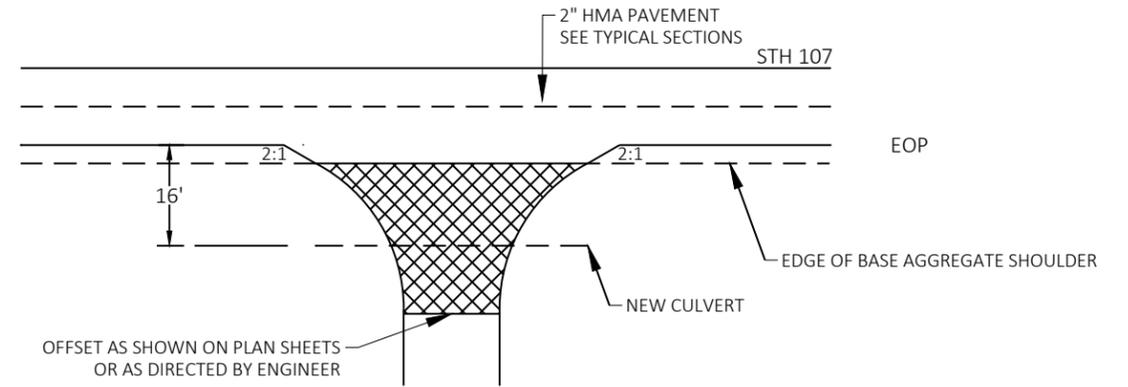
-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE BUTT JOINTS
SEE BUTT JOINT DETAIL

NOTE: WHEN MATCHING TO AN UNPAVED SURFACE
BUTT JOINT IS NOT REQUIRED

SIDEROADS

WITHOUT CURB AND GUTTER

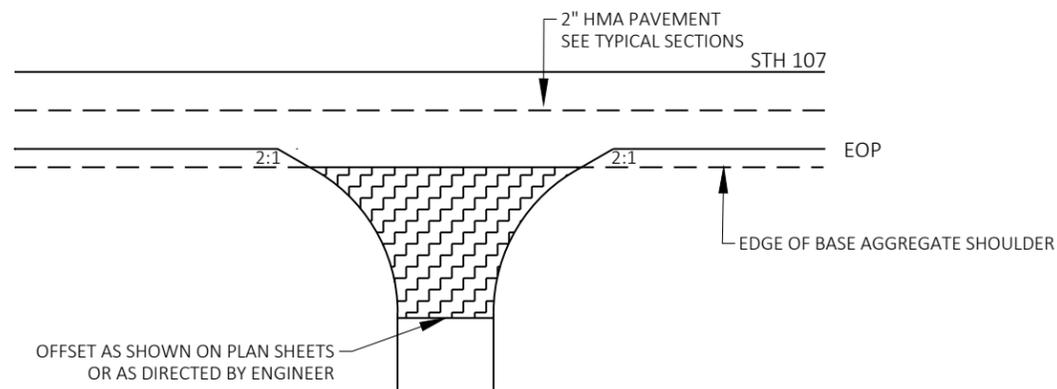
WILDERNESS DR, TUG LAKE RD, CTH E, ROCK FALLS DR, CTH J
DOTTER RD, HILLCREST RD, BEHLING RD, E HERB MITCHELL RD,
W HERB MITCHELL RD



OFFSET AS SHOWN ON PLAN SHEETS
OR AS DIRECTED BY ENGINEER

-  4-INCH HMA PAVEMENT 4LT 58-28 S

FAUFAU AVE

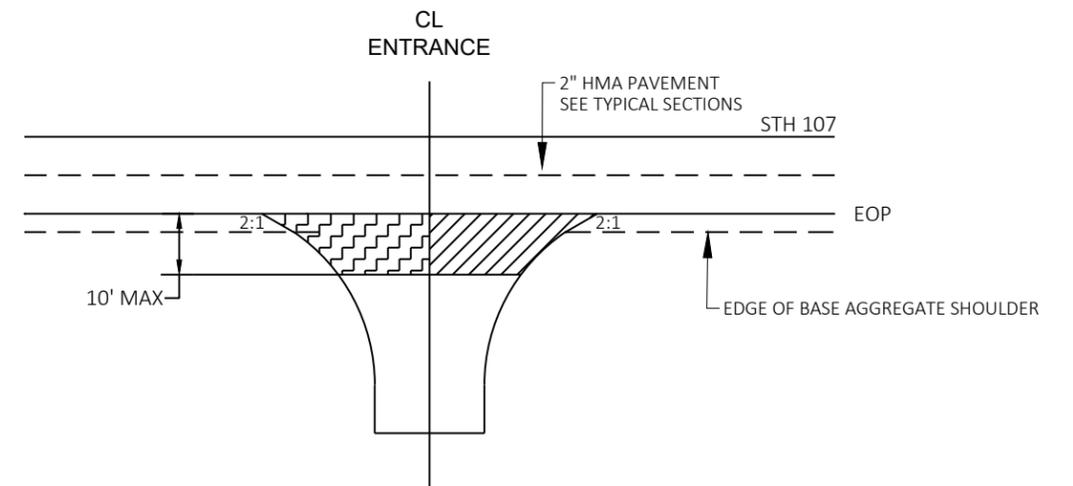


OFFSET AS SHOWN ON PLAN SHEETS
OR AS DIRECTED BY ENGINEER

-  BASE AGGREGATE DENSE 3/4-INCH AS NECESSARY

GRAVEL SIDEROADS

EGGERT DRIVE, SUGAR MAPLE LN

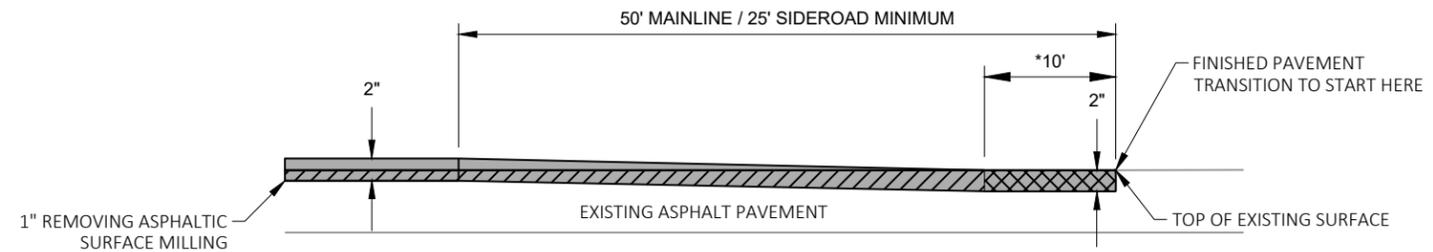


10' MAX

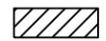
-  REMOVING ASPHALTIC SURFACE BUTT JOINTS
2" ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
-  BASE AGGREGATE DENSE 3/4-INCH AS NECESSARY

PLAN VIEW

DRIVEWAYS

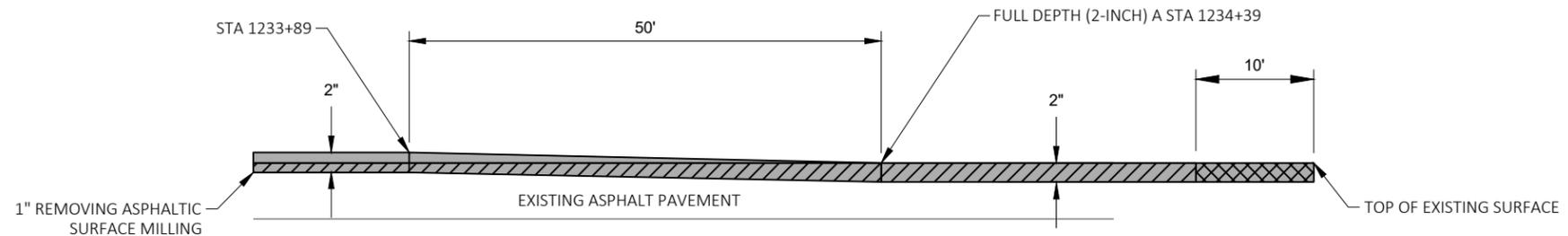


LEGEND

-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE BUTT JOINTS
-  HMA PAVEMENT

PROFILE TRANSITION

AGGREGATE SIDE ROADS OR DRIVEWAYS DO NOT REQUIRE BUTT JOINTS.
 TRANSITION CONSIDERED INCIDENTAL TO REMOVING ASPHALTIC SURFACE MILLING.

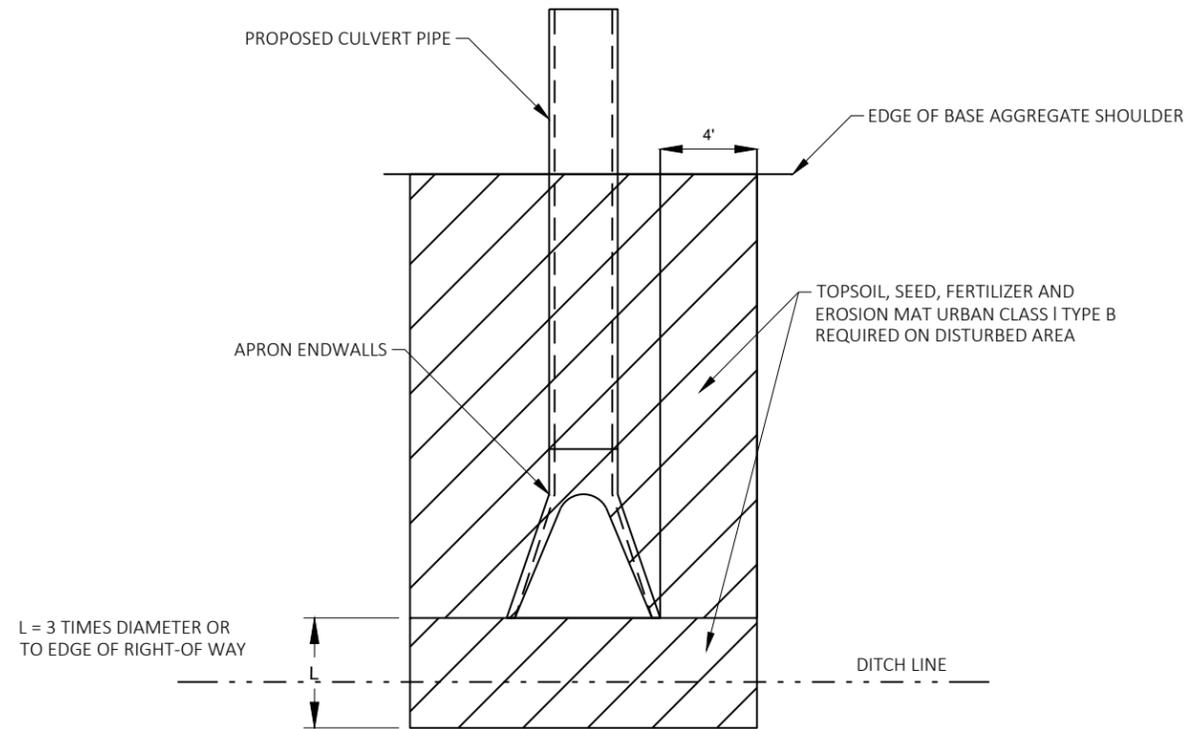


LEGEND

-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE BUTT JOINTS
-  HMA PAVEMENT

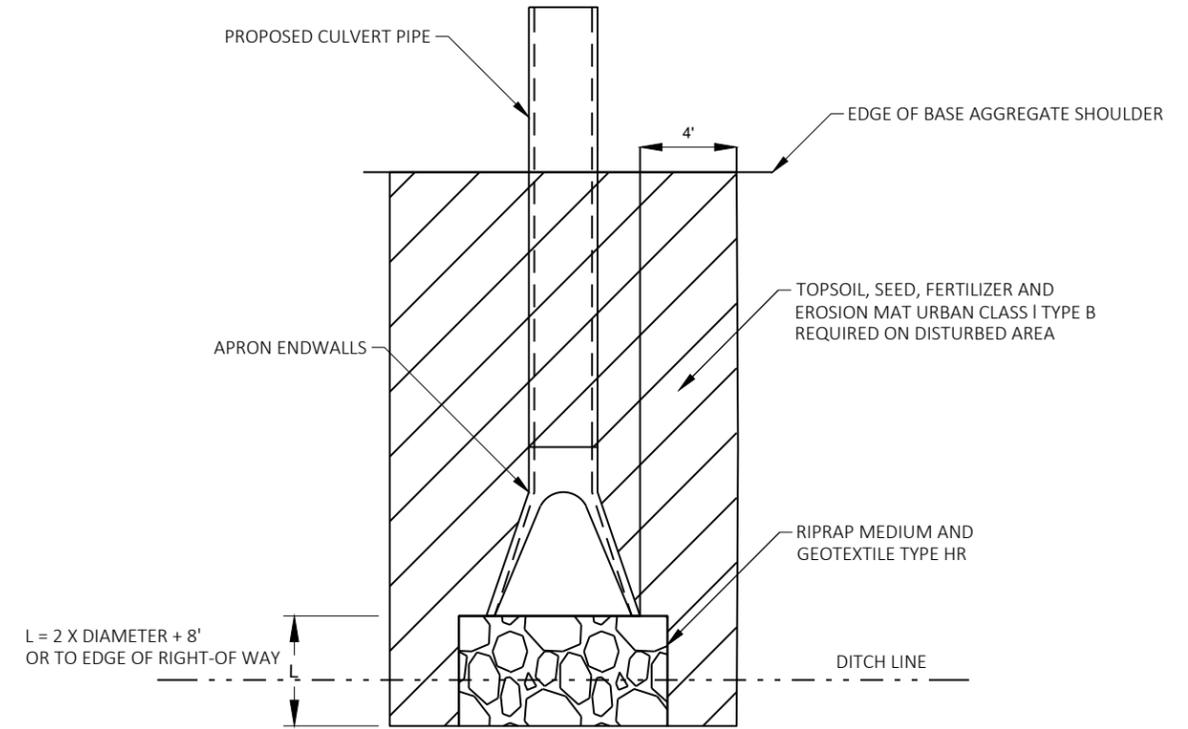
PROFILE TRANSITION

TRANSITION CONSIDERED INCIDENTAL TO REMOVING ASPHALTIC SURFACE MILLING.



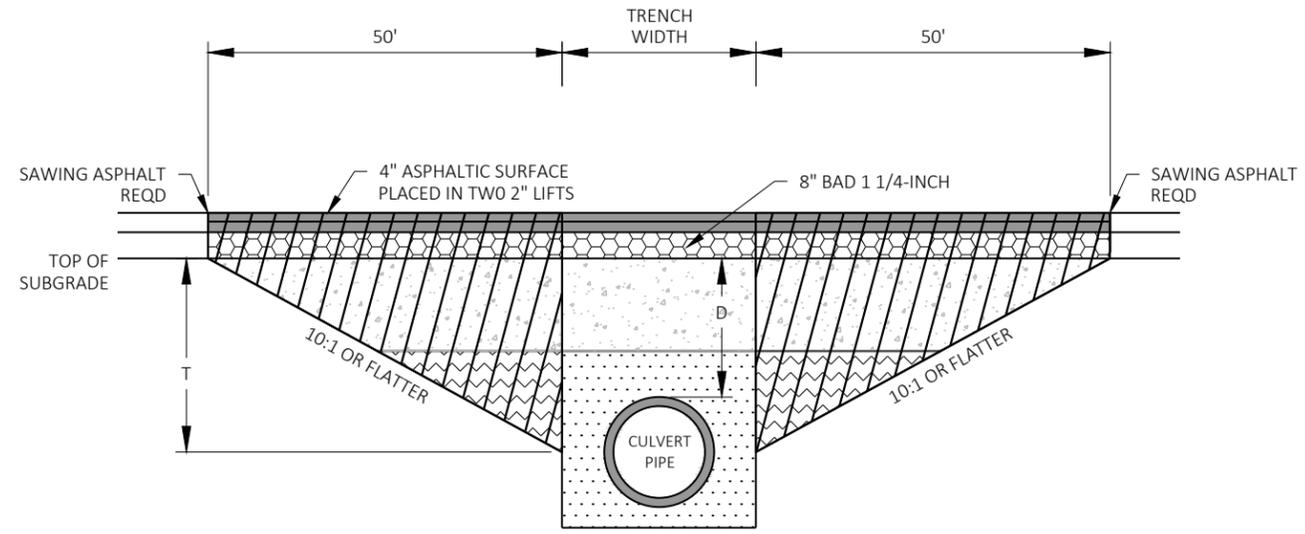
FINISHING ITEMS AT CULVERT PIPE TRANSITION

- STA 561+56 TO 561+69
- STA 728+01 TO 728+19
- STA 810+32 TO 810+46
- STA 883+70 TO 883+84
- STA 922+94 TO 923+08
- STA 960+64 TO 960+80
- STA 1020+28 TO 1020+42
- STA 1025+85 TO 1026+25
- STA 1098+59 TO 1098+73
- STA 1164+13 TO 1164+27
- STA 1189+08 TO 1189+22
- STA 1203+01 TO 1203+14



FINISHING ITEMS AT CULVERT PIPE TRANSITION WITH RIPRAP

- STA 879+39 TO 879+54
- STA 1057+58 TO 1057+72



KEY	
	PROPOSED SURFACE
	PROPOSED BASE
	TRENCH BACKFILL
	TRENCH OR FOUNDATION BACKFILL
	FOUNDATION BACKFILL
	TRANSITION CUT

TRANSITION CUT DEPTH (T) = THE LESSER OF DEPTH TO CENTER OF PIPE OR 5 FT.
DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.

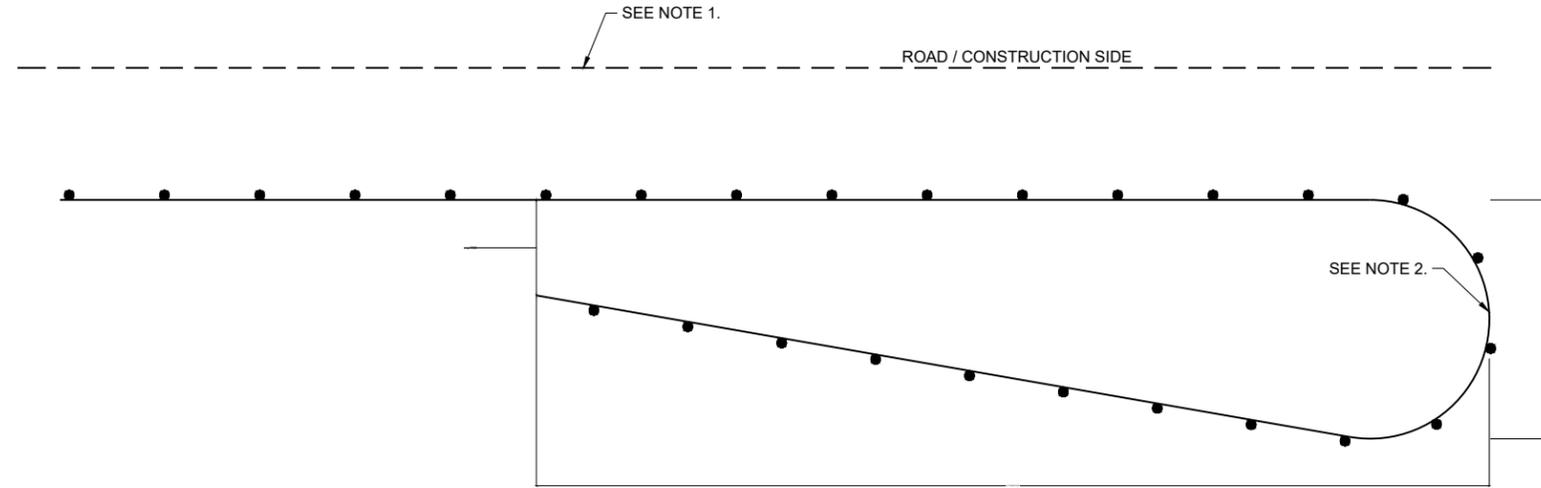
DEPTH D < 6 FT

CULVERT PIPE TRANSITION

STA (CL)	DEPTH D	PIPE SIZE	REMARKS
STA 561+12 TO 562+14	D = 0.96'	24" CPRC	CP 36107001877
STA 681+25 TO 681+85	D = 0.50'	14X23" CPRC	FAU FAU AVE
STA 727+59 TO 728+61	D = 0.50'	34X53" CPRC	CP 36107001893
STA 809+88 TO 810+90	D = 1.00'	19X30" CPRC	CP 36107001898
STA 883+26 TO 884+28	D = 2.47'	24" NON-METAL	CP 36107001906
STA 922+50 TO 923+52	D = 0.67'	24" CPRC	CP 36107001910
STA 960+20 TO 961+22	D = 0.86'	24" CPRC	CP 36107001913
STA 1019+84 TO 1020+86	D = 0.87'	19X30" CPRC	CP 36107001918
STA 1025+55 TO 1026+57	D = 0.71'	19X30" CPRC	CP 36107001919
STA 1057+14 TO 1058+16	D = 0.91'	24" CPRC	CP 36107001924
STA 1098+15 TO 1099+17	D = 0.90'	24" CPRC	CP 36107001926
STA 1163+69 TO 1164+71	D = 0.45'	19X30" CPRC	CP 36107001928
STA 1188+64 TO 1189+66	D = 0.50'	19X30" CPRC	CP 36107001930
STA 1202+57 TO 1203+59	D = 0.96'	24" CPRC	CP 36107001932

NOTES

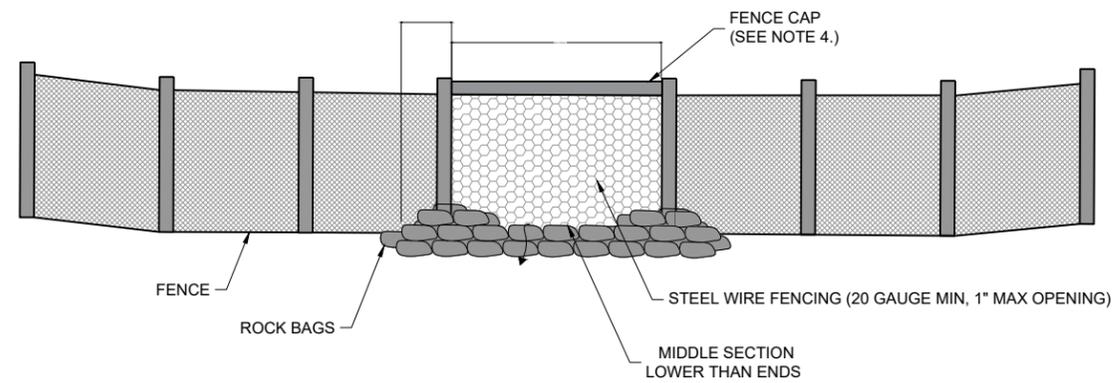
TRANSITION CUT IS PAID AS EXCAVATION COMMON.
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.
BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.
PLACE ASPHALTIC SURFACE AFTER CULVERT PIPE INSTALLATION AND PRIOR TO REMOVING ASPHALTIC SURFACE MILLING OPERATION.



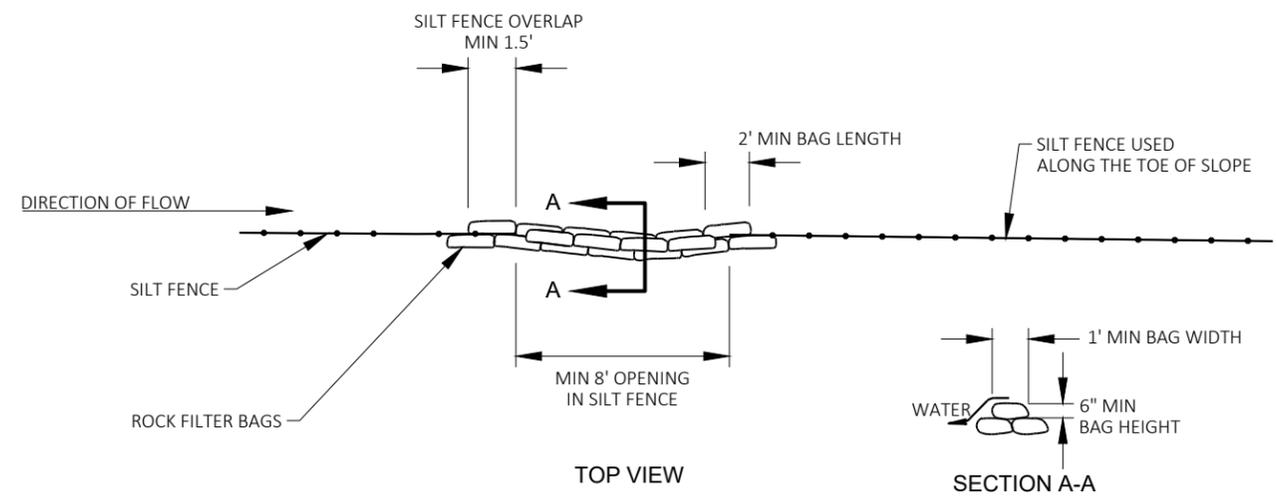
PLAN VIEW
CLIMBING TURTLE EXCLUSION FENCE DETAIL

GENERAL NOTES:

1. WHERE SILT FENCE IS REQUIRED, IT SHALL BE PLACED ON THE CONSTRUCTION SIDE OF THE EXCLUSION FENCING, OR COMBINED WITH THE EXCLUSION FENCING AS ALLOWED IN THE SPECIFICATIONS. STAKES ON THIS DETAIL ARE OPPOSITE OF STANDARD SILT FENCE FOR SEDIMENT CONTROL.
2. PLACE TURNAROUNDS AT ALL TERMINI ENDS OF THE EXCLUSION FENCING.
3. IF TEMPORARY ACCESS POINTS ARE NEEDED DURING CONSTRUCTION THAT REQUIRE OPENINGS IN THE EXCLUSION FENCING, ACCESS OPENINGS SHOULD BE TIGHTLY SECURED WITH BALES OF HAY OR STRAW WHENEVER CONSTRUCTION RELATED ACTIVITIES ARE NOT OCCURRING. REINSTALL EXCLUSION FENCING WHEN THE WORK REQUIRING THE TEMPORARY ACCESS OPENING IS COMPLETED.
4. THE FENCE CAP MAY BE A 6" UNDER DRAIN PIPE, SLIT DOWN THE CENTER AND PLACED OVER THE FENCE. COMMERCIALY AVAILABLE SAFETY CAPS WITH A LIP MAY BE USED. OTHER DNR APPROVED METHODS TO PREVENT TURTLES FROM PASSING OVER THE TOP OF THE FENCE MAY BE USED.
 SECURELY FASTEN THE CAP TO PREVENT IT FROM BEING DISLODGED.



FRONT VIEW
CLIMBING TURTLE FENCE RELIEF DETAIL

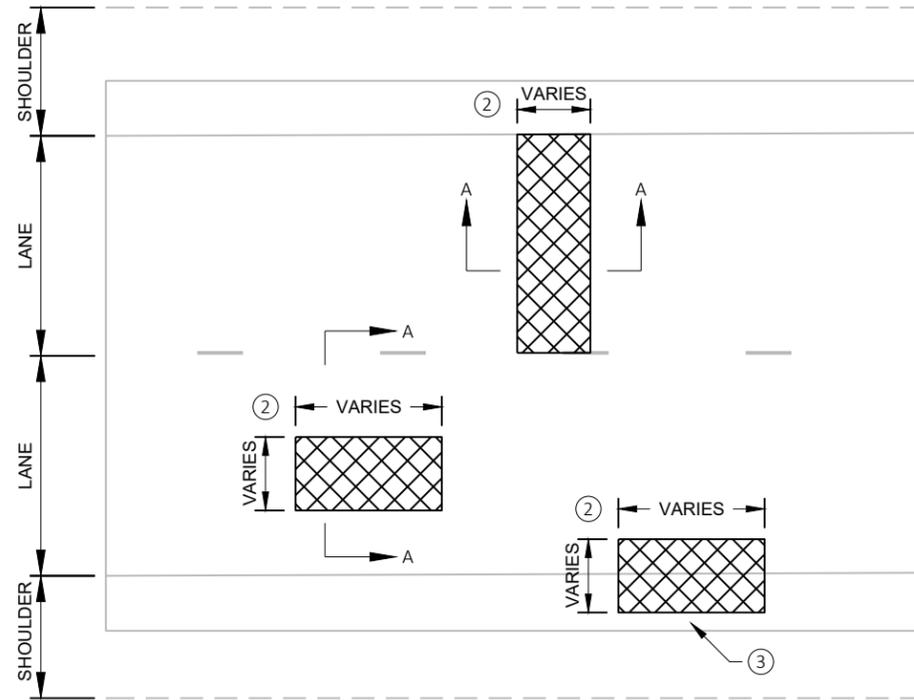


TOP VIEW
PLAN VIEW

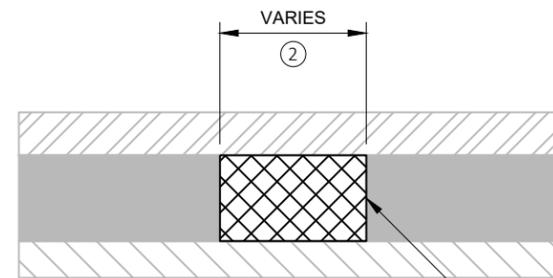
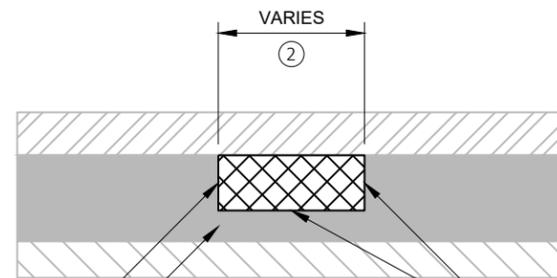
NOTES:

PERFORM REMOVING ASPHALTIC SURFACE MILLING PRIOR TO REMOVING DISTRESSED ASPHALTIC SURFACE MILLING

- ① MILLED VERTICAL EDGES ARE ACCEPTABLE, SAW CUTS ARE NOT REQUIRED.
- ② THE SMALLEST DIMENSION OF REMOVING DISTRESSED ASPHALTIC SURFACE MILLING IS 4 FEET IN ANY DIRECTION.
- ③ WHEN THE DISTANCE FROM THE EDGE OF PAVEMENT TO EDGE OF REMOVING DISTRESSED ASPHALTIC SURFACE MILLING IS LESS THAN 1-FOOT, EXTEND THE REMOVING DISTRESSED ASPHALTIC SURFACE MILLING TO THE EDGE OF PAVEMENT.



PLAN VIEW



2-INCH MIN DEPTH
2-INCH MIN ASPHALT TO REMAIN
IF LESS THAN 2 INCHES WILL REMAIN REMOVE FULL DEPTH

PARTIAL DEPTH

APPLY TACK COAT TO BOTTOM AND VERTICAL EDGES ①

FULL DEPTH

APPLY TACK COAT TO VERTICAL EDGES ①

SECTION A-A

- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING DISTRESSED ASPHALTIC SURFACE MILLING
ASPHALTIC SURFACE PATCHING
- EXISTING ASPHALT
- EXISTING BASE COURSE

REMOVING DISTRESSED ASPHALTIC SURFACE MILLING

LOCATIONS AND LIMITS DETERMINED BY THE ENGINEER IN THE FIELD



RICKY BEATTY

RICKY BEATTY

RR RW
FOX VALLEY & LAKE SUPERIOR RAIL SYSTEM LLC

CROSSBUCK AND SIGNAL
(INSTALLED BY OTHERS)

CONTROL CABINET
(INSTALLED BY OTHERS)

STA 1171+07.2, 27.0' LT

STA 1171+27.2, 27.0' LT

STA 1172+57.2, 14.0' LT

RICKY BEATTY

AGG PE
STA 1170+18

HWY RW

HWY RW

1168

1169

1170

1171

1172

1173

STA 1167+88.1, 14.0' RT

JAMES DIETZLER

CROSSBUCK AND SIGNAL
(INSTALLED BY OTHERS)

STA 1169+18.1, 27.0' RT

STA 1169+38.1, 27.0' RT

SEPC

ADAM MASSA

DERRICK BEATTY

PROJECT NO: 9305-07-70

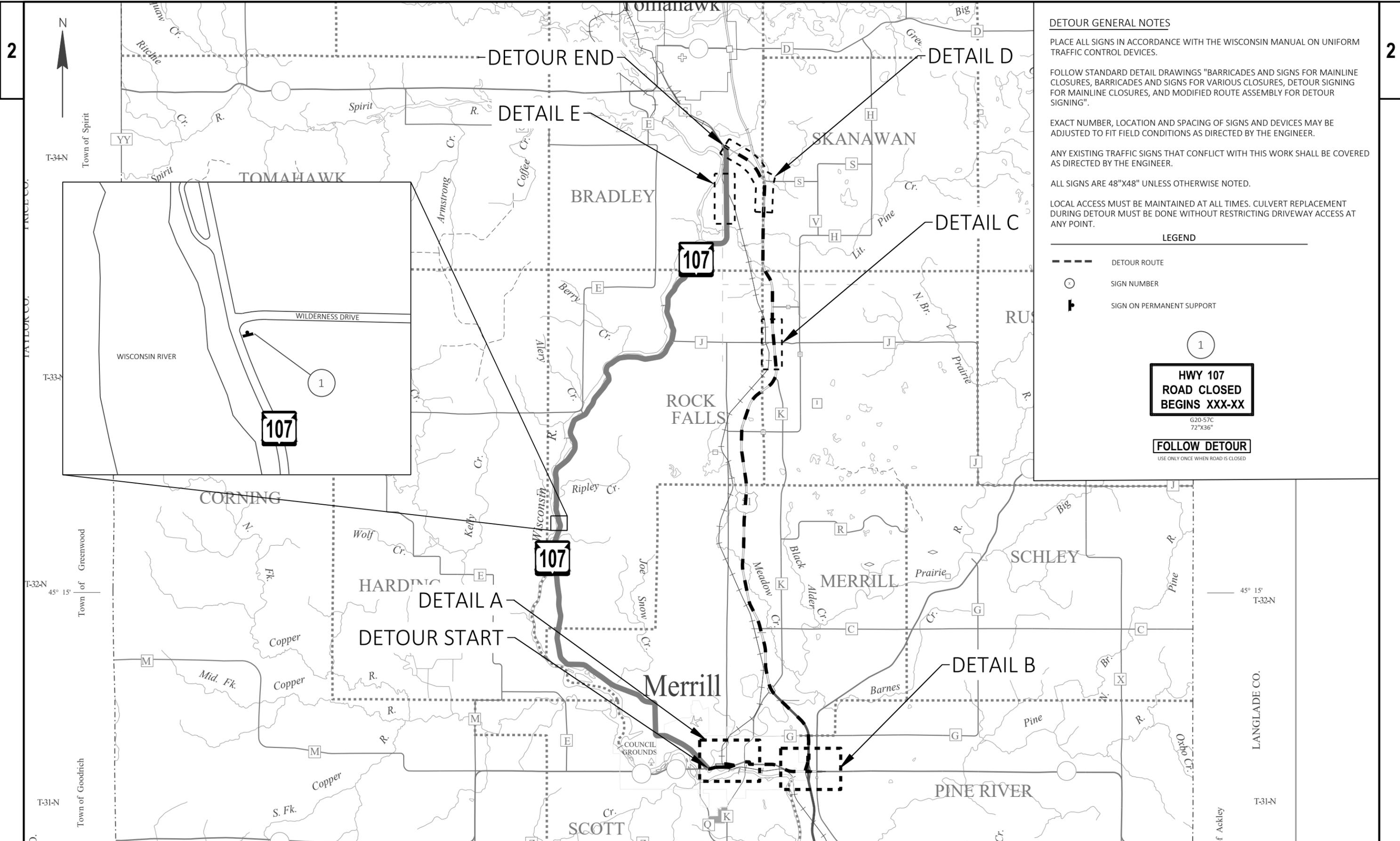
HWY: STH 107

COUNTY: LINCOLN

CONSTRUCTION DETAILS

SHEET

E



DETOUR GENERAL NOTES

PLACE ALL SIGNS IN ACCORDANCE WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

FOLLOW STANDARD DETAIL DRAWINGS "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, BARRICADES AND SIGNS FOR VARIOUS CLOSURES, DETOUR SIGNING FOR MAINLINE CLOSURES, AND MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING".

EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

LOCAL ACCESS MUST BE MAINTAINED AT ALL TIMES. CULVERT REPLACEMENT DURING DETOUR MUST BE DONE WITHOUT RESTRICTING DRIVEWAY ACCESS AT ANY POINT.

LEGEND

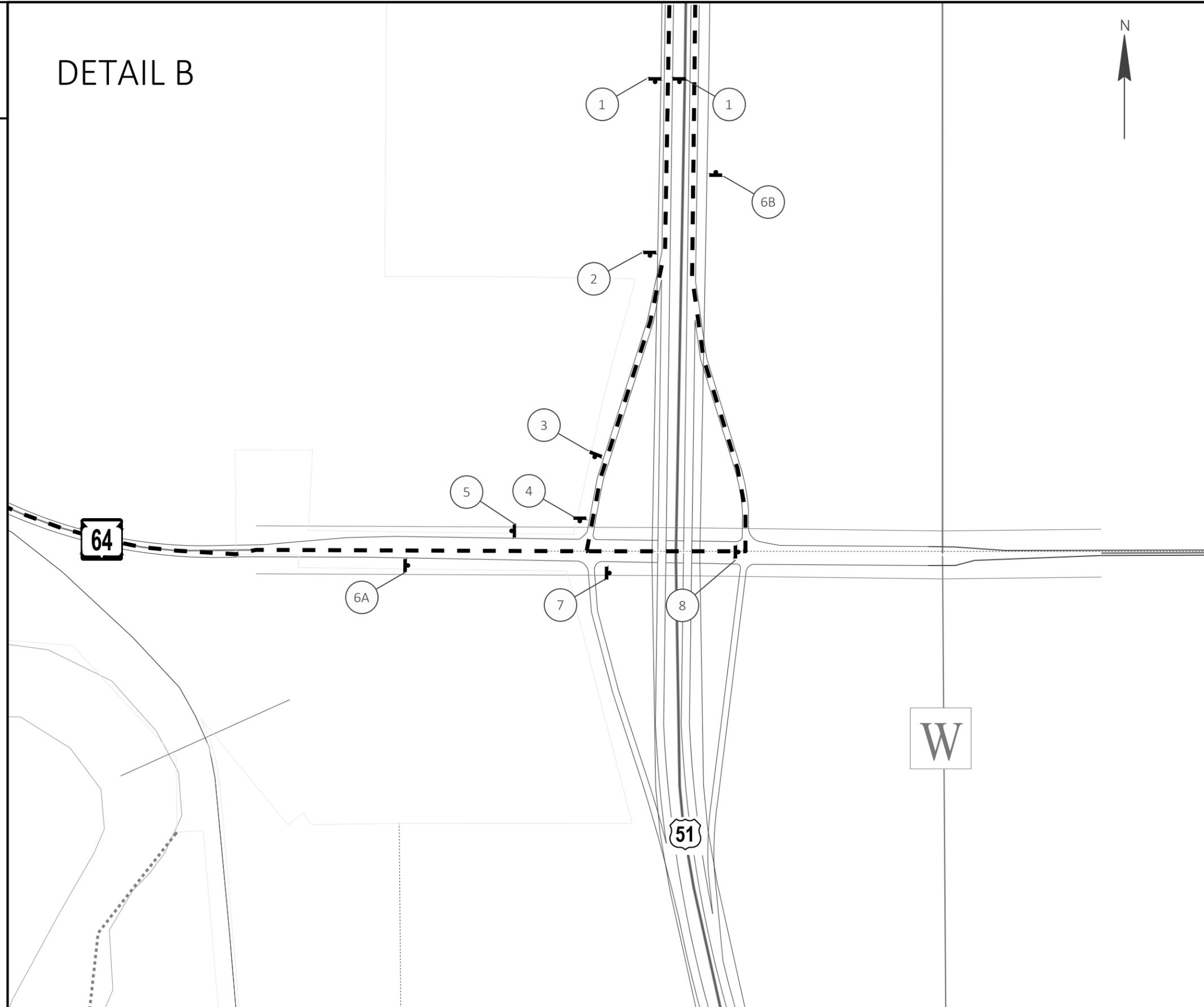
- DETOUR ROUTE
- SIGN NUMBER
- SIGN ON PERMANENT SUPPORT

1

HWY 107 ROAD CLOSED BEGINS XXX-XX
G20-57C
72"x36"

FOLLOW DETOUR
USE ONLY ONCE WHEN ROAD IS CLOSED

DETAIL B



DETOUR GENERAL NOTES

PLACE ALL SIGNS IN ACCORDANCE WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

FOLLOW STANDARD DETAIL DRAWINGS "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, BARRICADES AND SIGNS FOR VARIOUS CLOSURES, DETOUR SIGNING FOR MAINLINE CLOSURES, AND MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING".

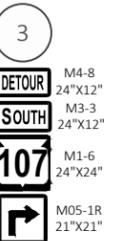
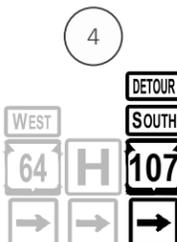
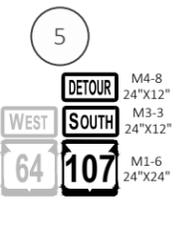
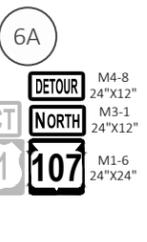
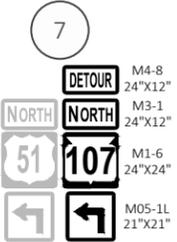
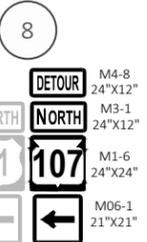
EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

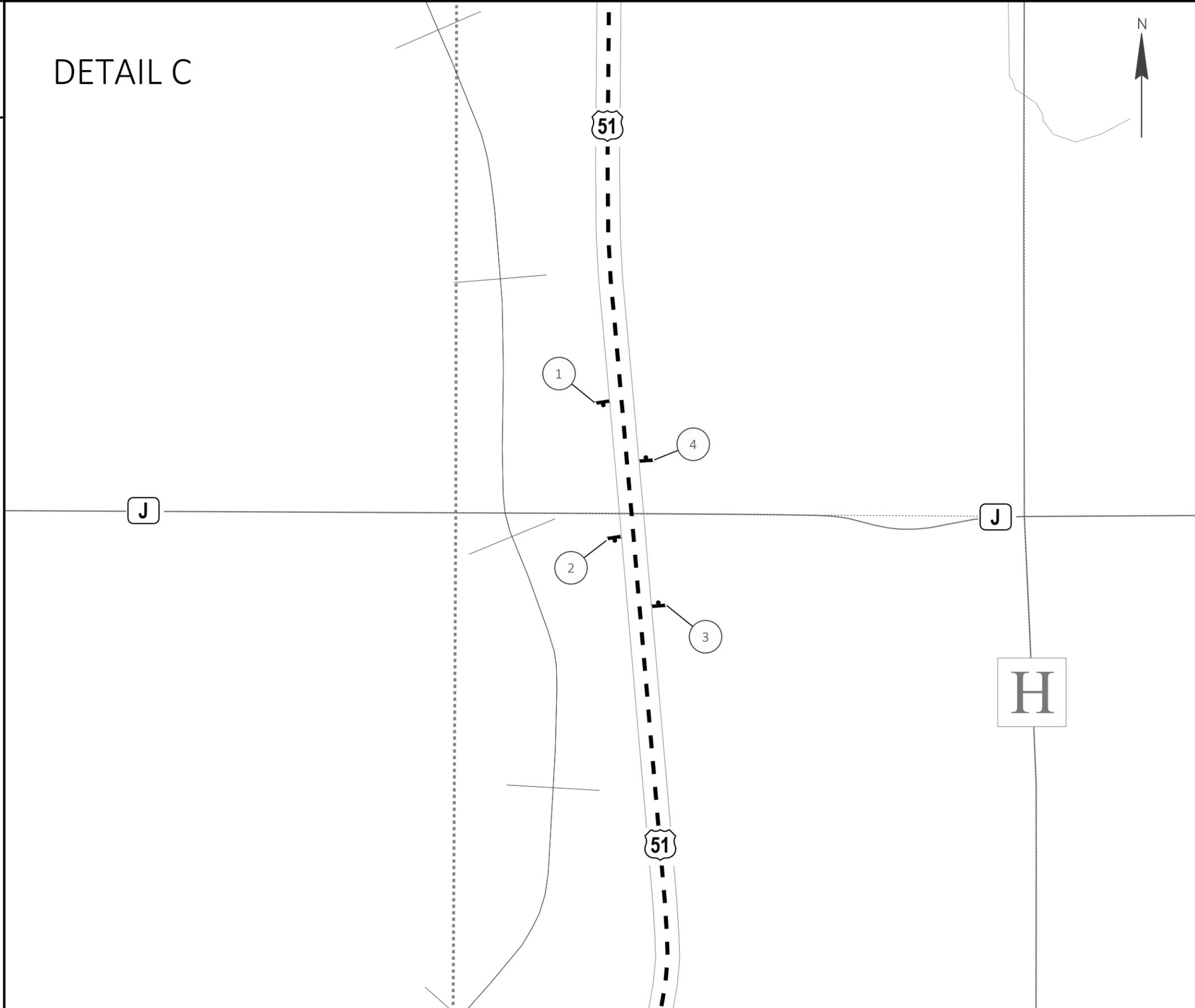
ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN NUMBER
-  DETOUR ROUTE

<p>1</p>  <p>M4-8 36"X18" M3-3 36"X18" M1-6 36"X36" M05-2R 30"X30"</p>	<p>2</p>  <p>M4-8 36"X18" M3-3 36"X18" M1-6 36"X36" M06-2 30"X30"</p>	<p>3</p>  <p>M4-8 24"X12" M3-3 24"X12" M1-6 24"X24" M05-1R 21"X21"</p>
<p>4</p>  <p>WEST 64 SOUTH 107 M4-8 24"X12" M3-3 24"X12" M1-6 24"X24" M06-1 21"X21"</p>	<p>5</p>  <p>WEST 64 SOUTH 107 M4-8 24"X12" M3-3 24"X12" M1-6 24"X24"</p>	<p>6A</p>  <p>JCT NORTH 51 NORTH 107 M4-8 24"X12" M3-1 24"X12" M1-6 24"X24"</p>
<p>6B</p>  <p>DETOUR NORTH 107 M4-8 36"X18" M3-1 36"X18" M1-6 36"X36"</p>	<p>7</p>  <p>NORTH 51 NORTH 107 M4-8 24"X12" M3-1 24"X12" M1-6 24"X24" M05-1L 21"X21"</p>	<p>8</p>  <p>NORTH 51 NORTH 107 M4-8 24"X12" M3-1 24"X12" M1-6 24"X24" M06-1 21"X21"</p>

DETAIL C



DETOUR GENERAL NOTES

PLACE ALL SIGNS IN ACCORDANCE WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

FOLLOW STANDARD DETAIL DRAWINGS "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, BARRICADES AND SIGNS FOR VARIOUS CLOSURES, DETOUR SIGNING FOR MAINLINE CLOSURES, AND MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING".

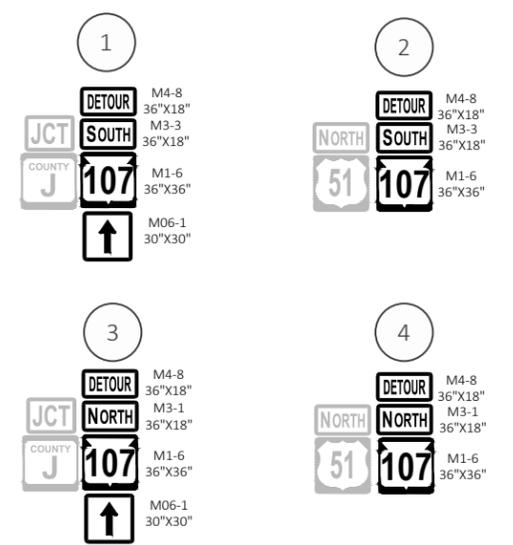
EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

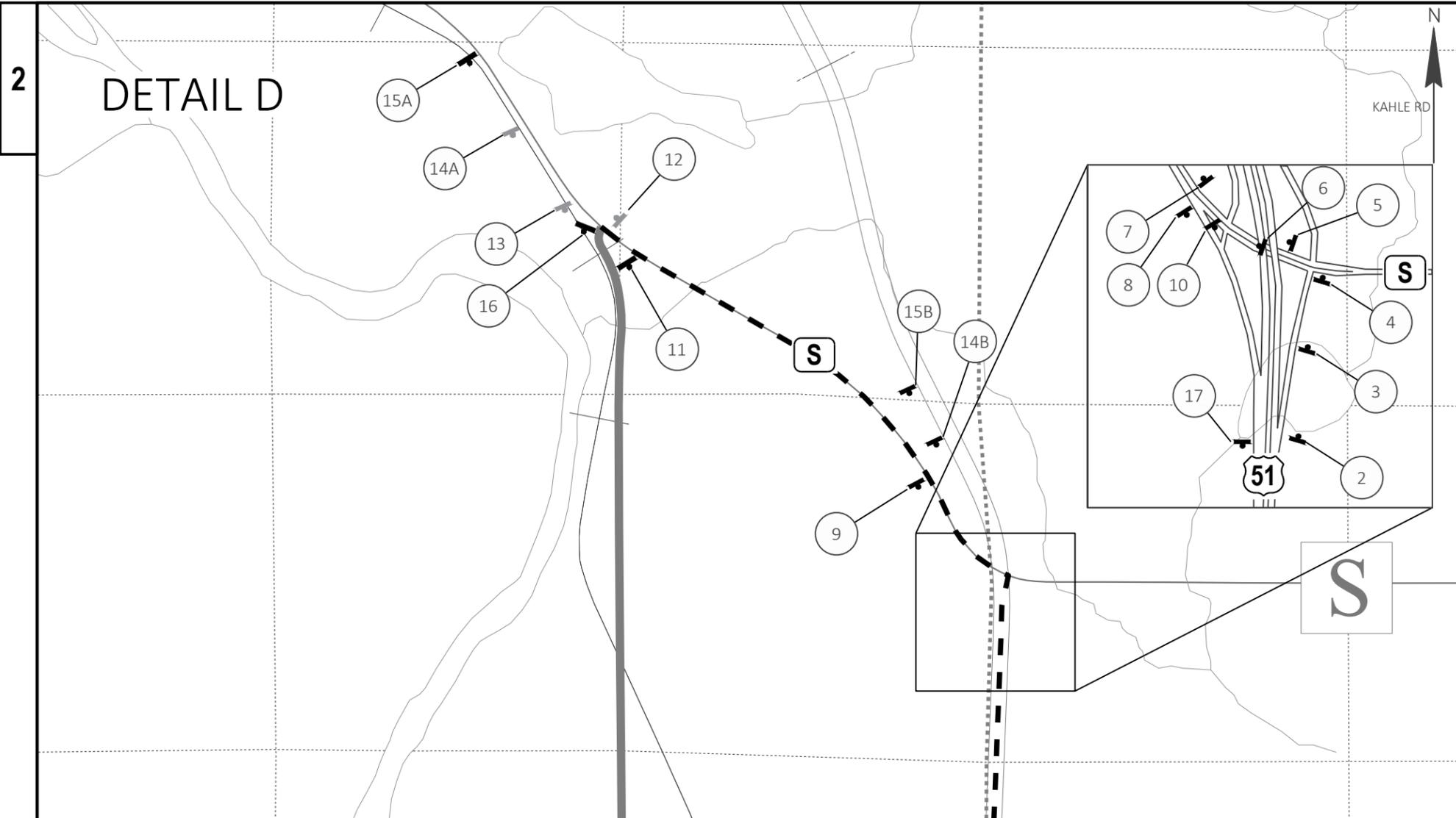
ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN NUMBER
-  DETOUR ROUTE





DETAIL D

DETOUR GENERAL NOTES

PLACE ALL SIGNS IN ACCORDANCE WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

FOLLOW STANDARD DETAIL DRAWINGS "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, BARRICADES AND SIGNS FOR VARIOUS CLOSURES, DETOUR SIGNING FOR MAINLINE CLOSURES, AND MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING".

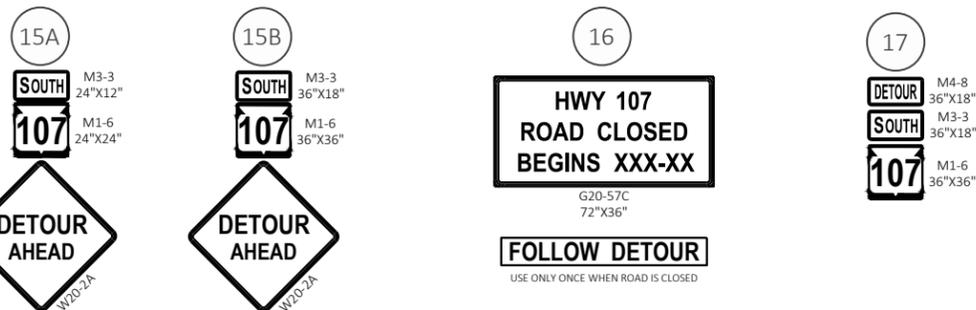
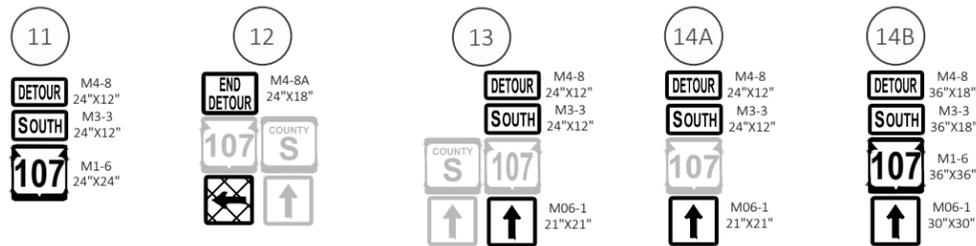
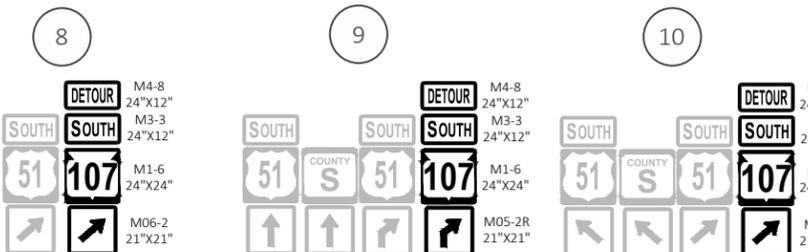
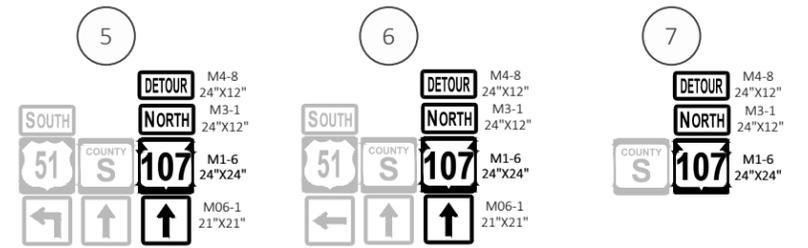
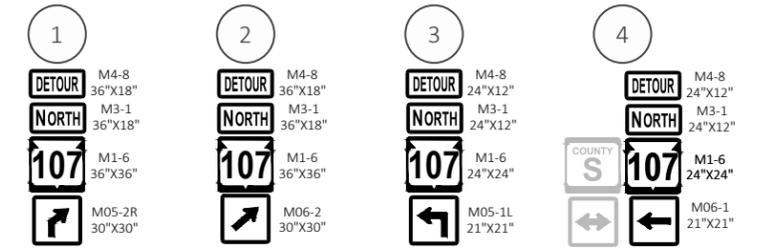
EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON EXISTING SUPPORT
- SIGN NUMBER
- DETOUR ROUTE
- COVERED SIGN



PROJECT NO: 9305-07-70

HWY: STH 107

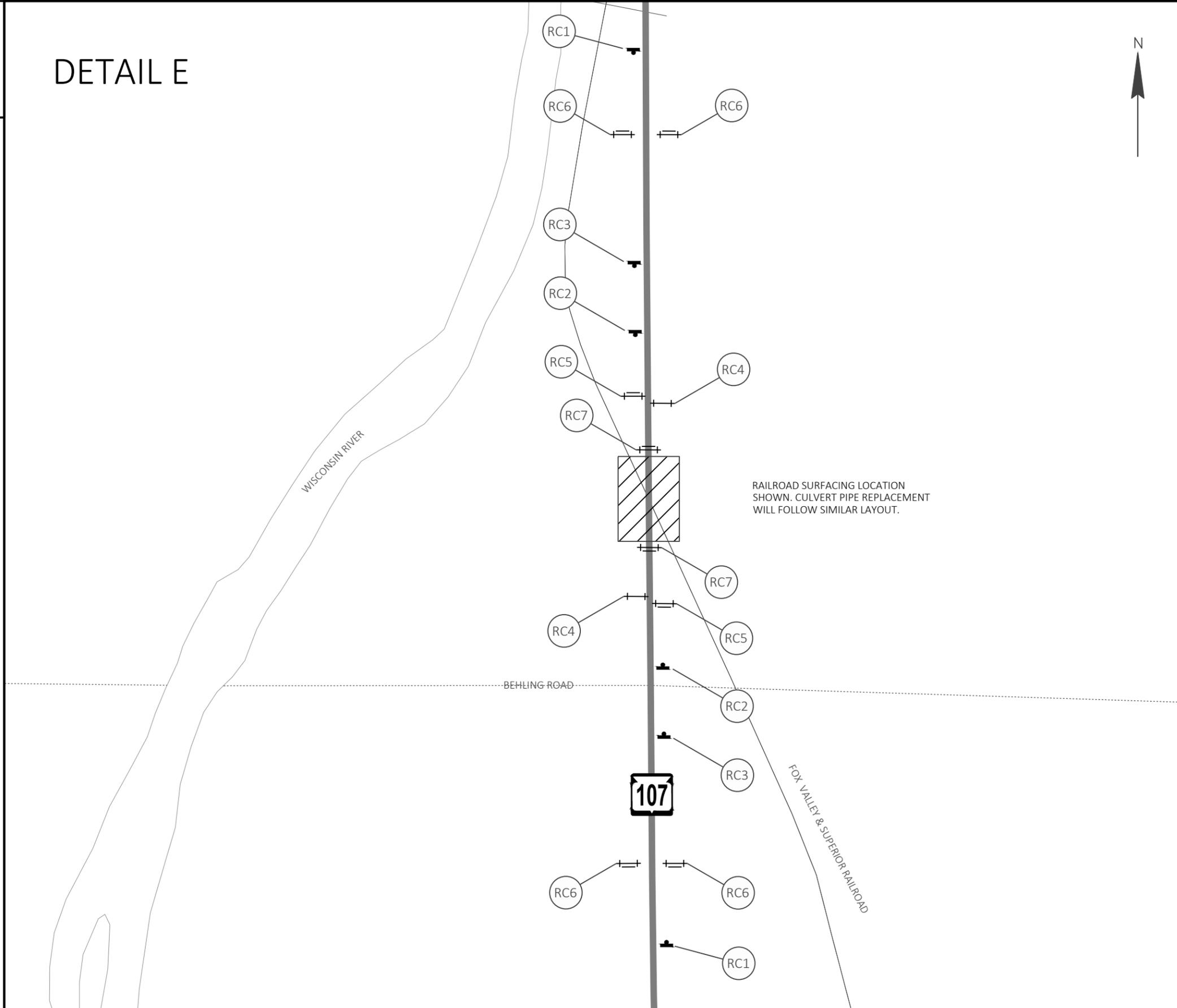
COUNTY: LINCOLN

DETOUR-DETAIL D

SHEET

E

DETAIL E



RAILROAD SURFACING LOCATION SHOWN. CULVERT PIPE REPLACEMENT WILL FOLLOW SIMILAR LAYOUT.

DETOUR GENERAL NOTES

PLACE ALL SIGNS IN ACCORDANCE WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

FOLLOW STANDARD DETAIL DRAWINGS "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, BARRICADES AND SIGNS FOR VARIOUS CLOSURES, DETOUR SIGNING FOR MAINLINE CLOSURES, AND MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING".

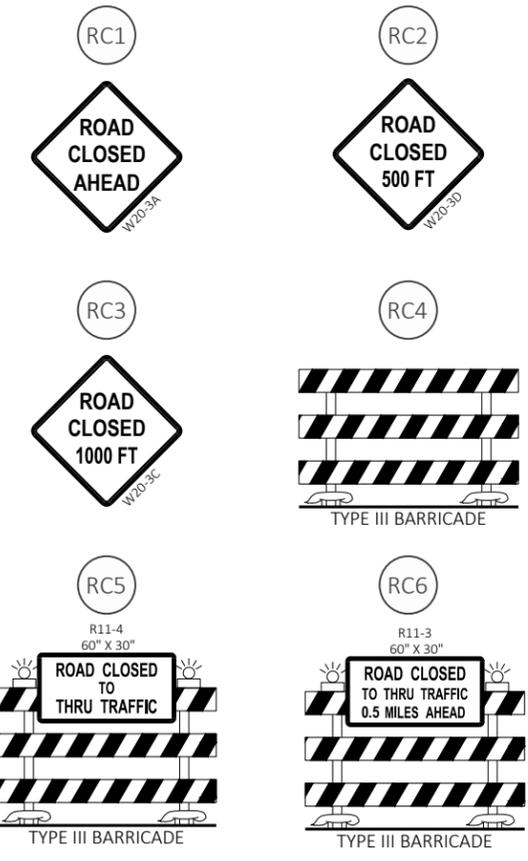
EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

LEGEND

-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  SIGN ON PERMANENT SUPPORT
-  SIGN NUMBER
-  WORK ZONE



Estimate Of Quantities

9305-07-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	20.000	20.000
0004	203.0100	Removing Small Pipe Culverts	EACH	13.000	13.000
0006	204.0115	Removing Asphaltic Surface Butt Joints	SY	2,415.000	2,415.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	178,700.000	178,700.000
0010	205.0100	Excavation Common	CY	3,495.000	3,495.000
0012	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 9305-07-70	EACH	1.000	1.000
0014	213.0100	Finishing Roadway (project) 01. 9305-07-70	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	6,790.000	6,790.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,440.000	3,440.000
0020	455.0605	Tack Coat	GAL	12,850.000	12,850.000
0022	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0024	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0026	460.2005	Incentive Density PWL HMA Pavement	DOL	19,580.000	19,580.000
0028	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	28,600.000	28,600.000
0030	460.2010	Incentive Air Voids HMA Pavement	DOL	20,190.000	20,190.000
0032	460.5224	HMA Pavement 4 LT 58-28 S	TON	20,190.000	20,190.000
0034	465.0105	Asphaltic Surface	TON	770.000	770.000
0036	465.0110	Asphaltic Surface Patching	TON	2,100.000	2,100.000
0038	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	101.000	101.000
0040	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	2.000	2.000
0042	520.3424	Culvert Pipe Class III-A Non-metal 24-Inch	LF	50.000	50.000
0044	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	212.000	212.000
0046	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	11.000	11.000
0048	522.2314	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 14x23-Inch	LF	40.000	40.000
0050	522.2419	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	226.000	226.000
0052	522.2434	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 34x53-Inch	LF	38.000	38.000
0054	522.2614	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 14x23-Inch	EACH	2.000	2.000
0056	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	10.000	10.000
0058	522.2634	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 34x53-Inch	EACH	2.000	2.000
0060	606.0200	Riprap Medium	CY	4.000	4.000
0062	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	50.000	50.000
0064	611.0642	Inlet Covers Type MS	EACH	2.000	2.000
0066	611.3902	Inlets Median 2 Grate	EACH	1.000	1.000
0068	618.0100	Maintenance and Repair of Haul Roads (project) 01. 9305-07-70	EACH	1.000	1.000
0070	619.1000	Mobilization	EACH	1.000	1.000
0072	624.0100	Water	MGAL	68.000	68.000
0074	625.0100	Topsoil	SY	2,670.000	2,670.000
0076	628.1504	Silt Fence	LF	6,495.000	6,495.000
0078	628.1520	Silt Fence Maintenance	LF	1,650.000	1,650.000
0080	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0082	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0084	628.2008	Erosion Mat Urban Class I Type B	SY	2,670.000	2,670.000
0086	628.7005	Inlet Protection Type A	EACH	1.000	1.000
0088	628.7504	Temporary Ditch Checks	LF	168.000	168.000
0090	628.7555	Culvert Pipe Checks	EACH	90.000	90.000
0092	628.7570	Rock Bags	EACH	200.000	200.000
0094	629.0210	Fertilizer Type B	CWT	3.300	3.300
0096	630.0120	Seeding Mixture No. 20	LB	86.000	86.000
0098	630.0500	Seed Water	MGAL	77.000	77.000

Estimate Of Quantities

9305-07-70

Line	Item	Item Description	Unit	Total	Qty
0100	633.5200	Markers Culvert End	EACH	26.000	26.000
0102	642.5001	Field Office Type B	EACH	1.000	1.000
0104	643.0300	Traffic Control Drums	DAY	840.000	840.000
0106	643.0420	Traffic Control Barricades Type III	DAY	720.000	720.000
0108	643.0715	Traffic Control Warning Lights Type C	DAY	224.000	224.000
0110	643.0900	Traffic Control Signs	DAY	14,720.000	14,720.000
0112	643.0910	Traffic Control Covering Signs Type I	EACH	1.000	1.000
0114	643.1000	Traffic Control Signs Fixed Message	SF	36.000	36.000
0116	643.5000	Traffic Control	EACH	1.000	1.000
0118	645.0120	Geotextile Type HR	SY	14.000	14.000
0120	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	275,950.000	275,950.000
0122	646.5320	Marking Railroad Crossing Epoxy	EACH	2.000	2.000
0124	646.6120	Marking Stop Line Epoxy 18-Inch	LF	200.000	200.000
0126	650.4000	Construction Staking Storm Sewer	EACH	1.000	1.000
0128	650.4500	Construction Staking Subgrade	LF	1,070.000	1,070.000
0130	650.5000	Construction Staking Base	LF	1,070.000	1,070.000
0132	650.6000	Construction Staking Pipe Culverts	EACH	13.000	13.000
0134	650.8000	Construction Staking Resurfacing Reference	LF	70,170.000	70,170.000
0136	650.9911	Construction Staking Supplemental Control (project) 01. 9305-07-70	EACH	1.000	1.000
0138	650.9920	Construction Staking Slope Stakes	LF	1,070.000	1,070.000
0140	690.0150	Sawing Asphalt	LF	616.000	616.000
0142	740.0440	Incentive IRI Ride	DOL	53,792.000	53,792.000
0144	999.2105.S	Maintaining Climbing Turtle Exclusion Fence	LF	7,235.000	7,235.000
0146	SPV.0180	Special 01. Removing Distressed Asphaltic Surface Milling	SY	18,900.000	18,900.000

DIVISION	FROM/TO STATION	205.0100 COMMON EXCAVATION (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5)	MASS ORDINATE +/- (6)	WASTE
		CUT (2)				FACTOR 1.25		
WILDERNESS DRIVE	518+30/523+00	196	0	196	0	0	196	196
CP: 35107001877	561+11/562+14	220	21	199	0	0	199	199
FAUFAU AVE	680+06/683+20	134	0	134	0	0	134	134
CP: 35107001893	727+52/728+58	260	21	239	0	0	239	239
EGGERT DRIVE	733+90/735+30	36	0	36	0	0	36	36
CP: 35107001898	810+03/811+07	190	21	169	0	0	169	169
CP: 35107001906	883+24/884+27	280	21	259	0	0	259	259
CP: 35107001910	922+48/923+52	250	21	229	0	0	229	229
SS 35107001913	960+17/961+24	219	0	219	23	29	190	190
CP: 35107001918	1019+82/1020+86	200	21	179	0	0	179	179
CP: 35107001919	1025+50/1026+53	170	21	149	0	0	149	149
CP: 35107001924	1057+12/1058+15	200	21	179	0	0	179	179
CP: 35107001926	1098+12/1099+16	240	21	219	0	0	219	219
CP: 35107001928	1163+68/1164+71	260	21	239	0	0	239	239
RAILROAD CROSSING	1169+34/1171+11	270	31	239	4	5	234	234
CP: 35107001930	1188+63/1189+66	170	21	149	0	0	149	149
CP: 35107001932	1202+56/1203+60	200	21	179	0	0	179	179
GRAND TOTAL		3,495	283	3,212	27	34	3,178	3,178
TOTAL COMMON EXC		3,495						

NOTES:

- (1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
 - (2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
 - (3) SALVAGED/UNUSABLE PAVEMENT MATERIAL
 - (4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
 - (5) EXPANDED FILL FACTOR = 1.25
 - (6) MASS ORDINATE = AVAILABLE MATERIAL - EXPANDED FILL
- DEPENDENT ON SELECTIONS:
EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR

BASE AGGREGATE ITEMS

STATION	TO	STATION	LOCATION	305.0110	624.0100
				BASE AGGREGATE DENSE 3/4-INCH	WATER MGAL
517+10	-	518+00	RT	5	0.10
517+00	-	518+00	LT	5	0.10
518+00	-	638+00	RT	560	5.60
518+00	-	638+00	LT	560	5.60
638+00	-	697+00	RT	280	2.80
638+00	-	697+00	LT	280	2.80
681+17	-	681+75	RT	20	0.20
697+00	-	868+00	RT	800	8.00
697+00	-	868+00	LT	800	8.00
868+00	-	895+50	RT	130	1.30
868+00	-	895+50	LT	130	1.30
895+50	-	1092+25	RT	920	9.20
895+50	-	1092+25	LT	920	9.20
1092+25	-	1209+75	RT	550	5.50
1092+25	-	1209+75	LT	550	5.50
1168+36	-	1169+69	RT RR XING	20	0.20
1170+74	-	1172+06	LT RR XING	20	0.20
1209+75	-	1234+42	RT	120	1.20
1209+75	-	1234+42	LT	120	1.20
TOTAL 0010				6,790	68

STATION	LOCATION	305.0120
		BASE AGGREGATE DENSE 1 1/4-INCH
561+62	CP: 35107001877	210
681+75	FAUFAU AVE	20
728+06	CP: 35107001893	220
810+55	CP: 35107001898	210
883+75	CP: 35107001906	210
923+00	CP: 35107001910	210
960+72	CP: 35107001913	210
1020+34	CP: 35107001918	210
1026+01	CP: 35107001919	210
1057+63	CP: 35107001924	210
1098+64	CP: 35107001926	210
1164+19	CP: 35107001928	210
1189+14	CP: 35107001930	210
1171+00	SOUTH RR XING	310
1189+15	NORTH RR XING	310
1175+00	BIKE BUMP OUTS	60
1203+08	CP: 35107001932	210
TOTAL 0010		3,440

ASPHALT ITEMS

STATION	TO	STATION	LOCATION	455.0605	460.5224
				TACK COAT	HMA PAVEMENT 4 LT 58-28 S
				GAL	TON
517+10	-	638+00	ML	2090	3340
517+83			WILDERNESS DR	10	20
637+89			TUG LAKE RD	15	30
638+00	-	697+00	ML	1030	1650
681+50			FAUFAU AVE	10	20
696+99			CTH E	35	50
697+00	-	868+00	ML	3010	4820
867+96			ROCK FALLS DR	15	30
868+00	-	895+50	ML	480	770
895+56	-		CTH J	35	60
895+50	-	1092+25	ML	3400	5440
1092+33			DOTTER RD	20	30
1092+25	-	1109+60	ML	300	480
1111+96	-	1209+75	ML	1710	2740
1169+34	-	1171+11	RAILROAD CROSSING	30	90
1119+07			HILLCREST RD	10	20
1156+85			BEHLING RD	10	20
1209+69			HERB MITCHELL RD LT	10	20
1209+82			HERB MITCHELL RD RT	15	30
1209+75	-	1218+00	ML	145	230
1223+80	-	1234+45	ML	185	300
VARIES			CULVERT PATCHES	285	
TOTAL 0010				12,850	20,190

STATION	LOCATION	465.0105
		ASPHALTIC SURFACE TON
561+62	CP: 35107001877	30
728+05	CP: 35107001893	30
740+01	CP: 35107001894	30
810+55	CP: 35107001898	30
883+75	CP: 35107001906	30
923+00	CP: 35107001910	30
960+72	CP: 35107001913	30
1020+34	CP: 35107001918	30
1026+01	CP: 35107001919	30
1057+63	CP: 35107001924	30
1098+64	CP: 35107001926	30
1164+19	CP: 35107001928	30
1170+24	RR XING	350
1189+14	CP: 35107001930	30
1203+08	CP: 35107001932	30
TOTAL 0010		770

LOCATION	460.0105.S	460.0110.S
	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH
PROJECT	1	1
TOTAL 0010	1	1

STATION	LOCATION	465.0120
		ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
548+34	LT	4
550+14	LT	3
560+75	LT	4
695+19	RT	4
707+93	LT	4
709+61	LT	3
710+58	LT	3
713+40	LT	4
720+64	LT	3
734+37	LT	3
735+18	LT	3
738+59	LT	3
739+02	LT	4
739+80	LT	4
755+97	RT	3
794+17	RT	3
805+37	LT	5
806+59	LT	3
813+77	LT	3
814+78	LT	3
853+21	LT	3
866+79	RT	4
939+97	RT	4
1032+19	LT	3
1063+09	RT	2
1145+55	LT	4
1183+51	RT	5
1200+19	LT	7
TOTAL 0010		101

PWL MIXTURE USE TABLE							
THE FOLLOWING ACCEPTANCE CRITERIA ARE APPLICABLE TO THIS PROJECT:							
LOCATION	STATION	MIXTURE USE:	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:
							MIXTURE ACCEPTANCE
11 FOOT DRIVING LANE	517+00 TO 1169+34 1171+11 TO 1234+47	UPPER LAYER	MILLED EXISTING HMA SURFACE	HMA PAVEMENT 4 LT 58-28 S	19020.00	2-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010
11 FOOT DRIVING LANE	TEST STRIP	UPPER LAYER	MILLED EXISTING HMA SURFACE	HMA PAVEMENT 4 LT 58-28 S	750.00	2-INCH	
11 FOOT DRIVING LANE	1169+34 TO 1171+11	UPPER LAYER	HMA PAVEMENT 4 LT 58-28 S	HMA PAVEMENT 4 LT 58-28 S	45.00	2-INCH	
11 FOOT DRIVING LANE	1169+34 TO 1171+11	LOWER LAYER	BASE AGGREGATE	HMA PAVEMENT 4 LT 58-28 S	45.00	2-INCH	DEPARTMENT ACCEPTANCE (SS 460.3.3.2) NOT ELLIGIBLE FOR INCENTIVE
SIDE ROADS	VARIOUS	UPPER LAYER	MILLED EXISTING HMA SURFACE	HMA PAVEMENT 4 LT 58-28 S	330.00	2-INCH	
CULVERTS	VARIOUS	UPPER LAYER	ASPHALTIC SURFACE	ASPHALTIC SURFACE	450.00	2-INCH	SS 465
CULVERTS	VARIOUS	LOWER LAYER	BASE AGGREGATE	ASPHALTIC SURFACE	450.00	2-INCH	
DRIVEWAYS/ FIELD ENTRANCES	VARIOUS	UPPER LAYER	MILLED EXISTING HMA SURFACE	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	101.00	2-INCH	

465.0110 ASPHALTIC SURFACE PATCHING		
LOCATION	TON	REMARKS
PROJECT	2,100	REMOVING DISTRESSED ASPHALT SURFACE MILLING LOCATIONS TO BE DETERMINED BY ENGINEER
TOTAL 0010	2,100	

3

3

CULVERT ITEMS

STATION	LOCATION	520.1024	520.3424	522.0424	*	522.2414	522.2419	522.2434	522.2614	522.2619	522.2634	633.5200	REMARKS
		APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	CULVERT PIPE CLASS III-A NON-METAL 24-INCH LF	CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 14X23-INCH LF	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH LF	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 34X53-INCH LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 14X23-INCH EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34X53-INCH EACH	MARKERS CULVERT END EACH	
561+63	ML	-	-	44	2	-	-	-	-	-	-	2	
681+66	RT	-	-	-	-	40	40	-	2	-	-	2	FAUFAU
728+10	ML	-	-	-	-	-	-	38	-	-	2	2	
810+39	ML	-	-	-	-	-	36	-	-	2	-	2	
883+77	ML	2	50	-	-	-	-	-	-	-	-	2	
923+01	ML	-	-	44	2	-	-	-	-	-	-	2	
1020+35	ML	-	-	-	-	-	40	-	-	2	-	2	
1026+06	ML	-	-	-	-	-	36	-	-	2	-	2	
1057+65	ML	-	-	40	2	-	-	-	-	-	-	2	
1098+66	ML	-	-	48	2	-	-	-	-	-	-	2	
1164+20	ML	-	-	-	-	-	42	-	-	2	-	2	
1189+15	ML	-	-	-	-	-	32	-	-	2	-	2	
1203+08	ML	-	-	36	2	-	-	-	-	-	-	2	
TOTAL 0010		2	50	212	10	40	226	38	2	10	2	26	

STORM SEWER ITEMS

STATION	LOCATION	522.1024	608.0424	611.0642	611.3902
		APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	INLET COVERS TYPE MS EACH	INLETS MEDIAN 2 GRATE EACH
960+72	ML	1	50	2	1
TOTAL 0010		1	50	2	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	DEVICES	DAY	643.0300	643.0420		643.0705		643.0900		* 643.0910	643.1000			
				TRAFFIC CONTROL DRUMS	TRAFFIC CONTROL BARRICADES TYPE III	TRAFFIC CONTROL WARNING LIGHTS TYPE A	TRAFFIC CONTROL SIGNS	TRAFFIC CONTROL COVERING SIGNS TYPE I	TRAFFIC CONTROL SIGNS FIXED MESSAGE						
				DAY	DEVICES	DAY	DAY	DAY	DAY	DAY	EACH	SF			
0010	PROJECT	-	-	-	-	-	-	-	211	57	11,927	1	36		
0010	PROJECT	40	21.00	840	6	57	342	-	111	21	1,995	-	-		
0010	PROJECT	-	-	-	18	21	378	16	14	224	14	57	798	-	-
TOTAL 0010				840		720		224		14,720		1	36		

* 1 CYCLE

LINE MARKING ITEMS

STATION	TO	STATION	LOCATION	646.2040	646.5320	646.6120	REMARKS
				MARKING LINE GROOVED WET REF EPOXY 6-INCH	MARKING RAILROAD CROSSING EPOXY	MARKING STOP LINE EPOXY 18-INCH	
				LF	EACH	LF	
517+00	-	1234+47	CL	133,200	-	-	UPPER LIFT YELLOW CL
517+00	-	1234+47	LT	71,550	-	-	UPPER LIFT EDGE LINES
517+00	-	1234+47	RT	71,200	-	-	UPPER LIFT EDGE LINES
517+83			WILDERNESS DR	-	-	12	
637+89			TUG LAKE RD	-	-	24	
681+50			FAU FAU AVE	-	-	20	
696+99			CTH E	-	-	36	
867+96			ROCK FALLS DR	-	-	24	
895+56			CTH J	-	-	60	
1092+33			DOTTER RD	-	-	24	
1165+85	-	1174+60	RR XING	-	2	-	RR XING MARKING
TOTAL 0010				275,950	2	200	

STAKING ITEMS

STATION	LOCATION	650.4000	650.4500	650.5000	650.6000	650.8000	650.9920
		CONSTRUCTION STAKING STORM SEWER EACH	CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING PIPE CULVERTS EACH	CONSTRUCTION STAKING RESURFACING REFERENCE LF	CONSTRUCTION STAKING SLOPE STAKES LF
	PROJECT	-	-	-	-	70,170	-
518+00	WILDERNESS DR	-	500	500	-	-	500
561+62	CP: 35107001877	-	-	-	1	-	-
681+50	FAUFAU AVE	-	250	250	1	-	250
728+05	CP: 35107001893	-	-	-	1	-	-
735+00	EGGERT DR	-	140	140	-	-	140
810+55	CP: 35107001898	-	-	-	1	-	-
883+75	CP: 35107001906	-	-	-	1	-	-
923+00	CP: 35107001910	-	-	-	1	-	-
960+71	CP: 35107001913	1	-	-	-	-	-
1020+34	CP: 35107001918	-	-	-	1	-	-
1026+01	CP: 35107001919	-	-	-	1	-	-
1057+63	CP: 35107001924	-	-	-	1	-	-
1098+64	CP: 35107001926	-	-	-	1	-	-
1164+19	CP: 35107001928	-	-	-	1	-	-
1169+34	RAILROAD CROSSING	-	180	180	-	-	180
1189+14	CP: 35107001930	-	-	-	1	-	-
1203+08	CP: 35107001932	-	-	-	1	-	-
	TOTAL 0010	1	1,070	1,070	13	70,170	1,070

SAWING ASPHALT

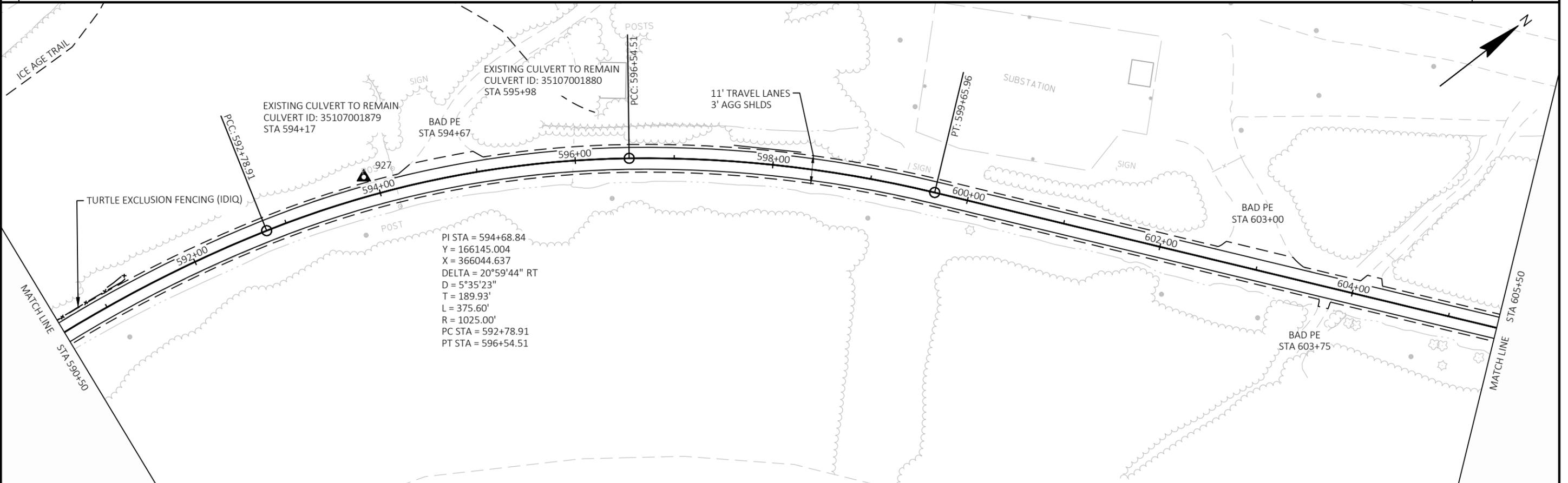
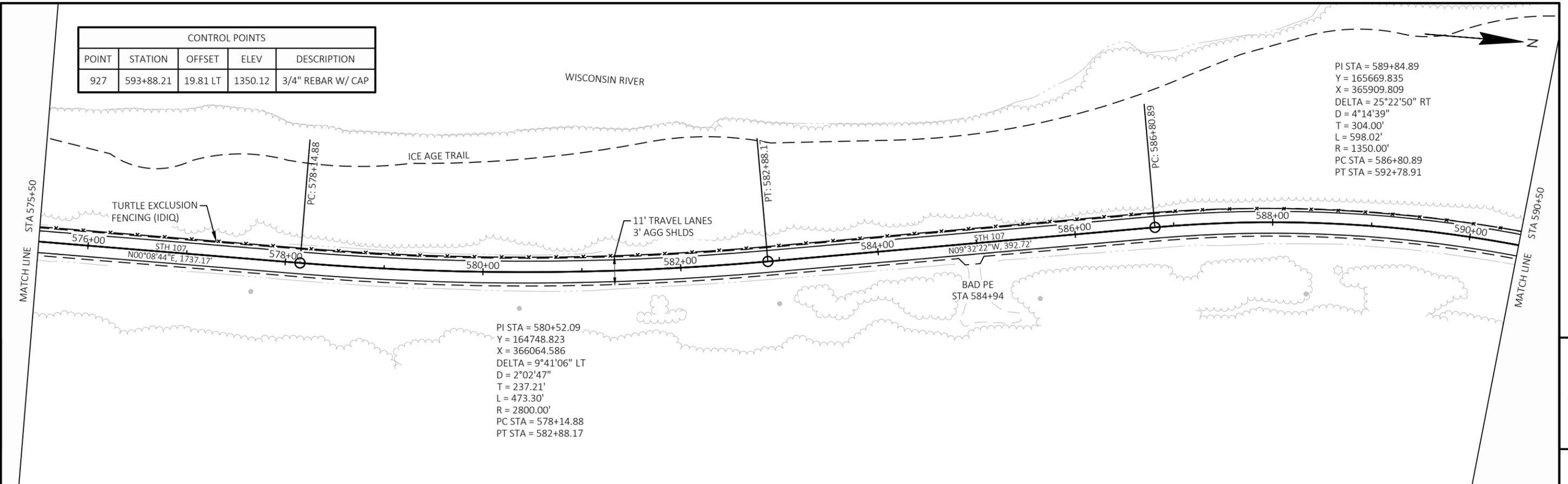
STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF
561+12	-	562+12	CP: 35107001877	44
727+56	-	728+56	CP: 35107001893	44
810+05	-	811+05	CP: 35107001898	44
883+25	-	884+25	CP: 35107001906	44
922+50	-	923+50	CP: 35107001910	44
960+21	-	961+21	CP: 35107001913	44
1019+84	-	1020+84	CP: 35107001918	44
1025+51	-	1026+51	CP: 35107001919	44
1057+13	-	1058+13	CP: 35107001924	44
1098+14	-	1099+14	CP: 35107001926	44
1163+69	-	1164+69	CP: 35107001928	44
1169+34	-	1171+11	RAILROAD CROSSING	44
1188+64	-	1189+64	CP: 35107001930	44
1202+58	-	1203+58	CP: 35107001932	44
		TOTAL 0010		616

CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
927	593+88.21	19.81 LT	1350.12	3/4" REBAR W/ CAP

PI STA = 589+84.89
 Y = 165669.835
 X = 365909.809
 DELTA = 25°22'50" RT
 D = 4°14'39"
 T = 304.00'
 L = 598.02'
 R = 1350.00'
 PC STA = 586+80.89
 PT STA = 592+78.91

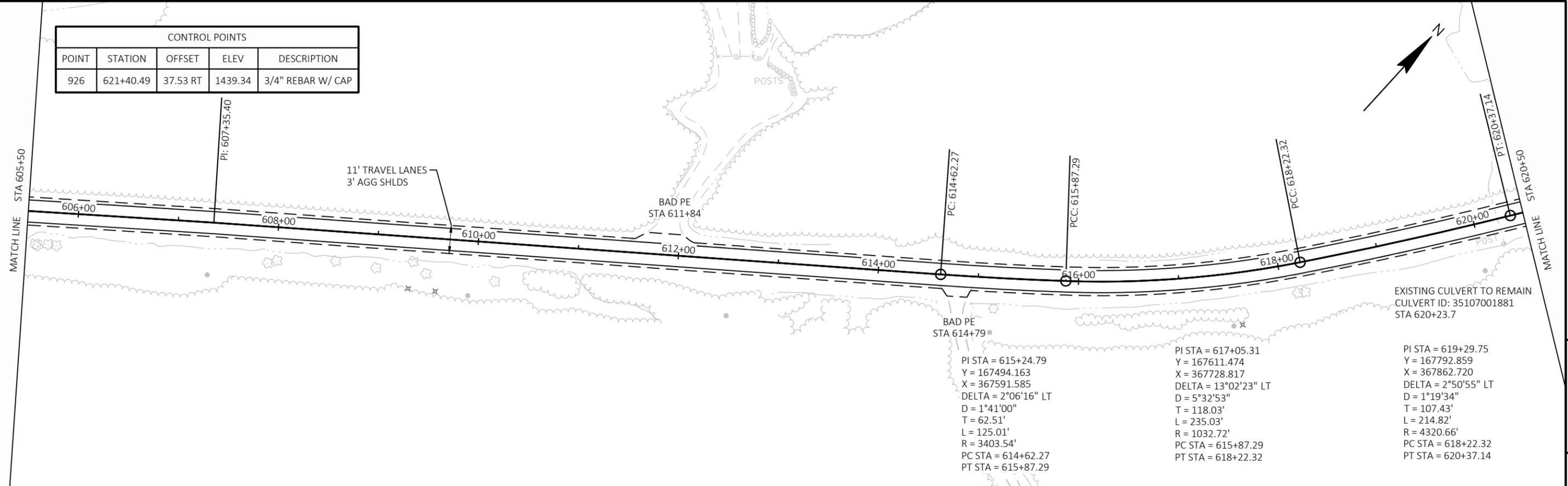
PI STA = 580+52.09
 Y = 164748.823
 X = 366064.586
 DELTA = 9°41'06" LT
 D = 2°02'47"
 T = 237.21'
 L = 473.30'
 R = 2800.00'
 PC STA = 578+14.88
 PT STA = 582+88.17

PI STA = 594+68.84
 Y = 166145.004
 X = 366044.637
 DELTA = 20°59'44" RT
 D = 5°35'23"
 T = 189.93'
 L = 375.60'
 R = 1025.00'
 PC STA = 592+78.91
 PT STA = 596+54.51



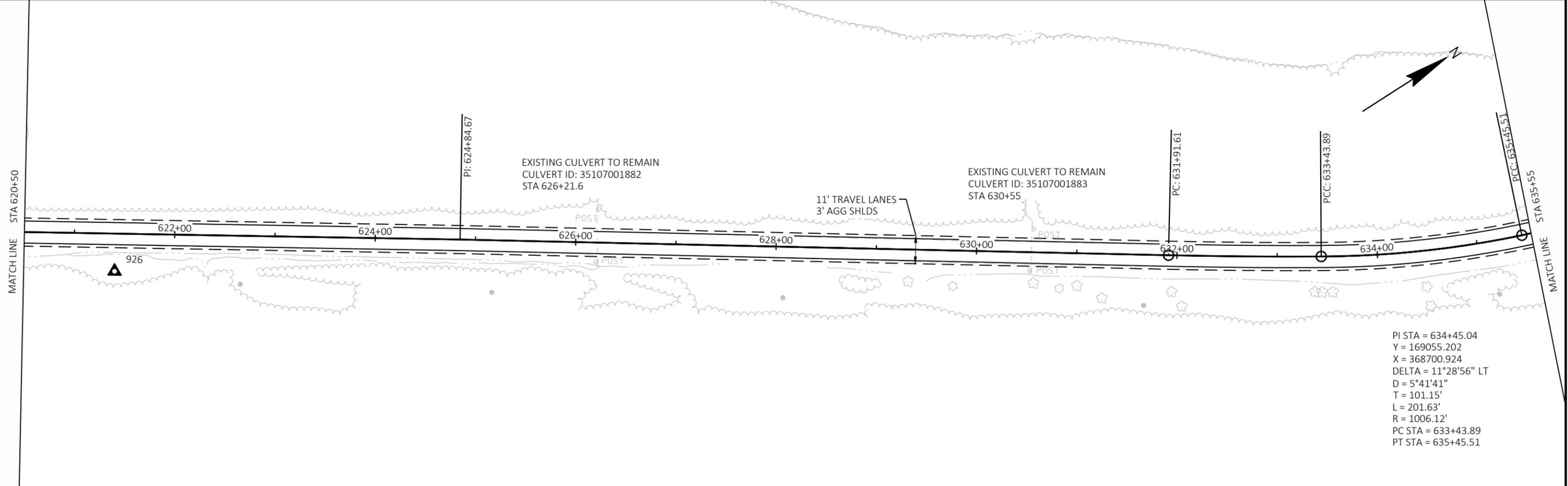
PROJECT NO: 9305-07-70	HWY: STH 107	COUNTY: LINCOLN	PLAN SHEETS	SHEET	E
------------------------	--------------	-----------------	-------------	-------	---

CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
926	621+40.49	37.53 RT	1439.34	3/4" REBAR W/ CAP



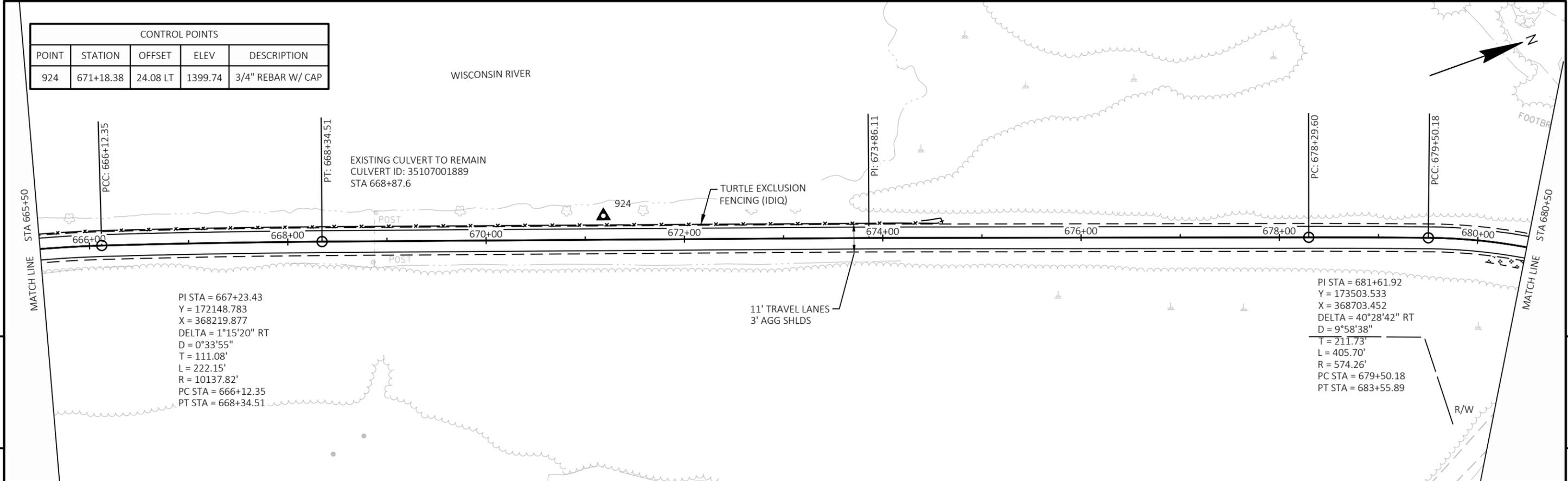
5

5



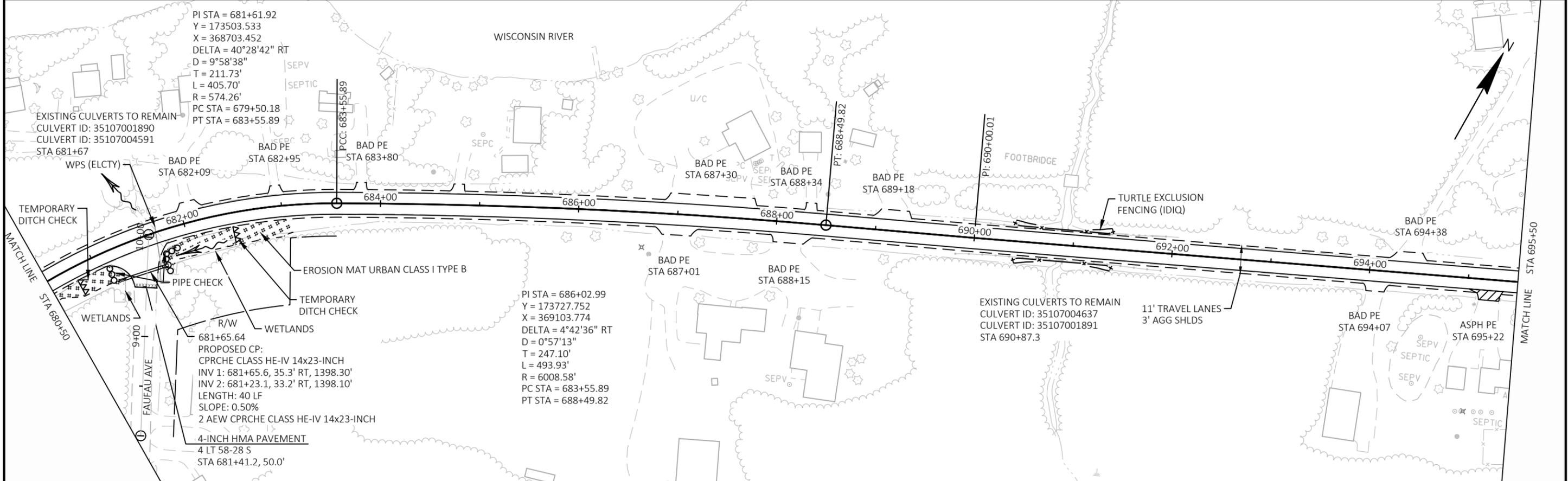
PROJECT NO: 9305-07-70	HWY: STH 107	COUNTY: LINCOLN	PLAN SHEETS	SHEET	E
------------------------	--------------	-----------------	-------------	-------	---

CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
924	671+18.38	24.08 LT	1399.74	3/4" REBAR W/ CAP



PI STA = 667+23.43
 Y = 172148.783
 X = 368219.877
 DELTA = 1°15'20" RT
 D = 0°33'55"
 T = 111.08'
 L = 222.15'
 R = 10137.82'
 PC STA = 666+12.35
 PT STA = 668+34.51

PI STA = 681+61.92
 Y = 173503.533
 X = 368703.452
 DELTA = 40°28'42" RT
 D = 9°58'38"
 T = 211.73'
 L = 405.70'
 R = 574.26'
 PC STA = 679+50.18
 PT STA = 683+55.89



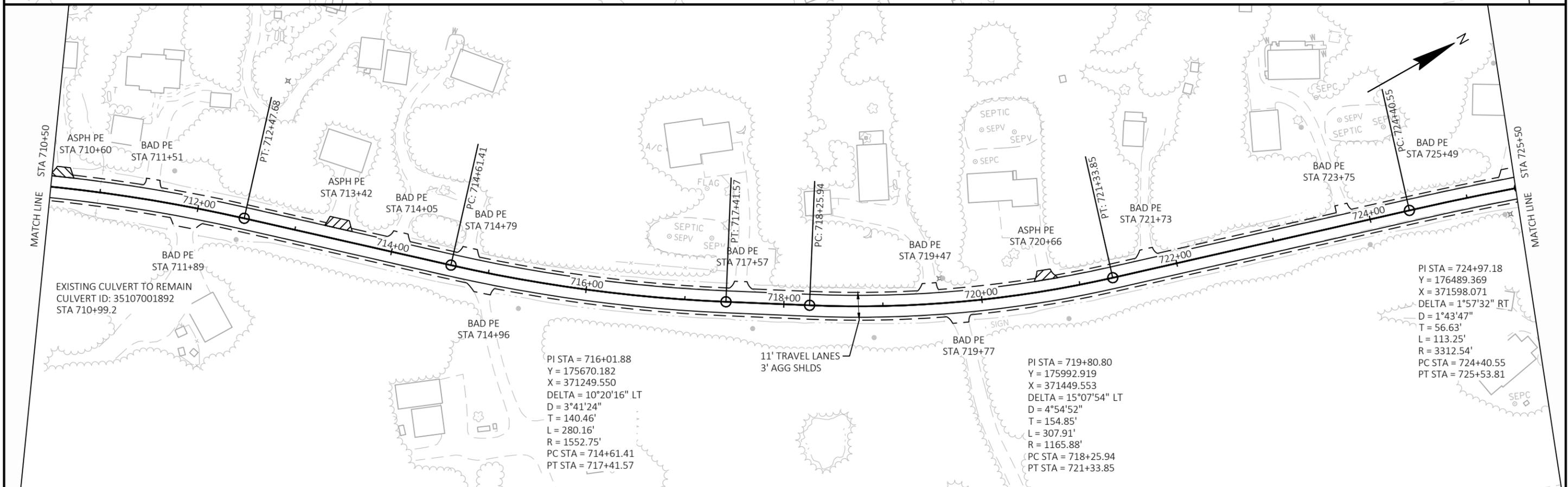
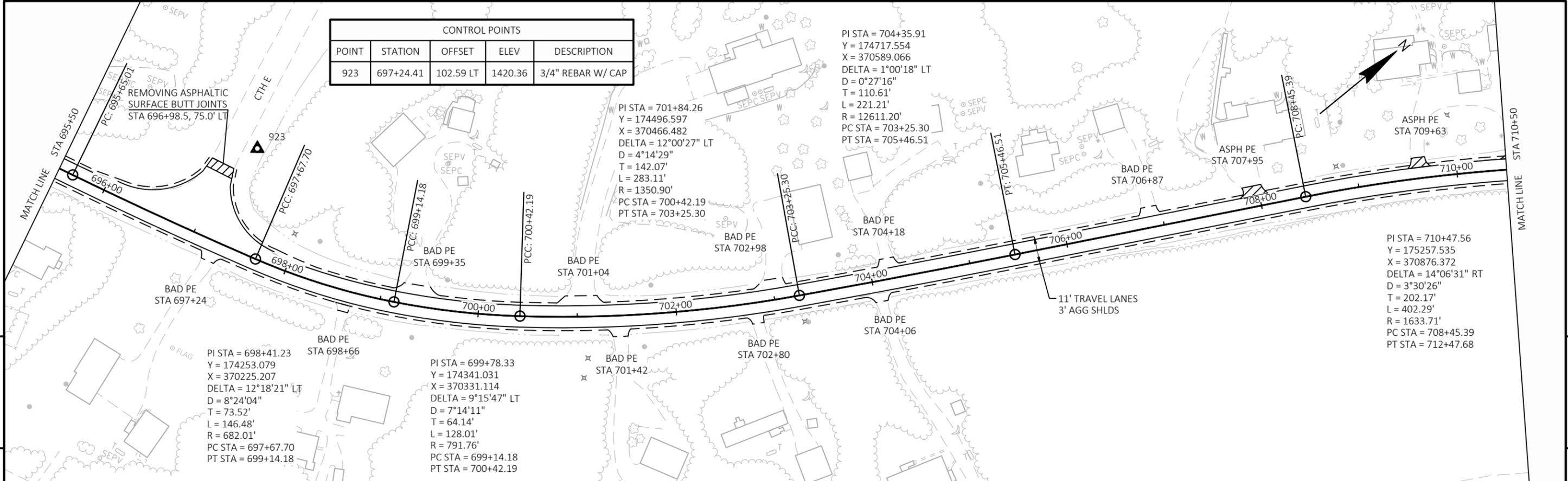
PI STA = 681+61.92
 Y = 173503.533
 X = 368703.452
 DELTA = 40°28'42" RT
 D = 9°58'38"
 T = 211.73'
 L = 405.70'
 R = 574.26'
 PC STA = 679+50.18
 PT STA = 683+55.89

PI STA = 686+02.99
 Y = 173727.752
 X = 369103.774
 DELTA = 4°42'36" RT
 D = 0°57'13"
 T = 247.10'
 L = 493.93'
 R = 6008.58'
 PC STA = 683+55.89
 PT STA = 688+49.82

EXISTING CULVERTS TO REMAIN
 CULVERT ID: 35107004637
 CULVERT ID: 35107001891
 STA 690+87.3

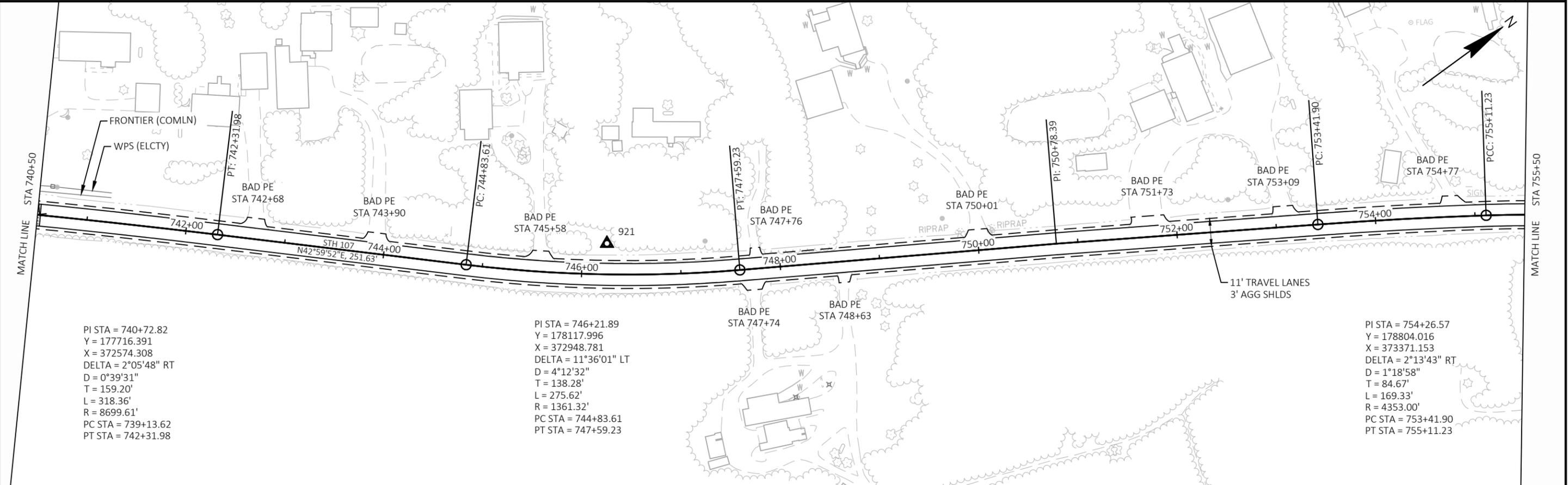
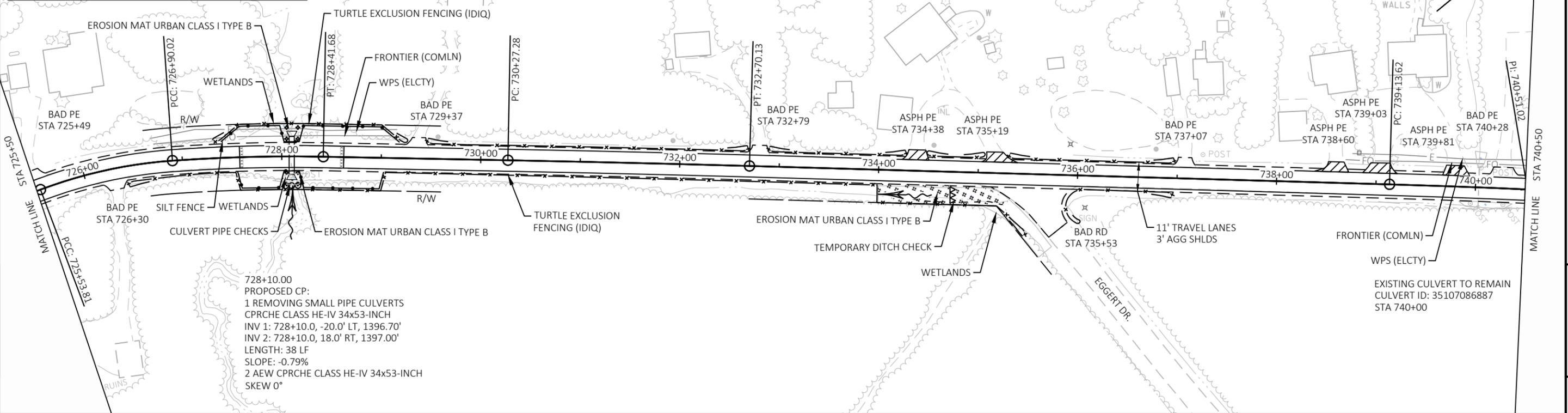
681+65.64
 PROPOSED CP:
 CPRCHE CLASS HE-IV 14x23-INCH
 INV 1: 681+65.6, 35.3' RT, 1398.30'
 INV 2: 681+23.1, 33.2' RT, 1398.10'
 LENGTH: 40 LF
 SLOPE: 0.50%
 2 AEW CPRCHE CLASS HE-IV 14x23-INCH
 4-INCH HMA PAVEMENT
 4 LT 58-28 S
 STA 681+41.2, 50.0'

CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
923	697+24.41	102.59 LT	1420.36	3/4" REBAR W/ CAP

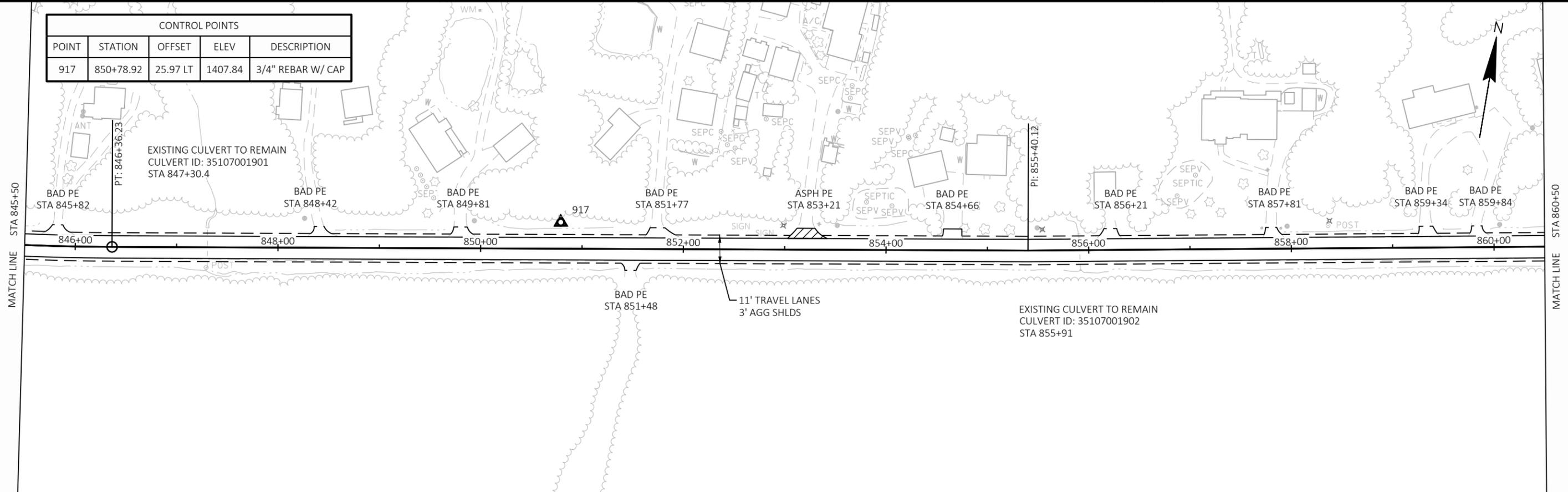


PROJECT NO: 9305-07-70	HWY: STH 107	COUNTY: LINCOLN	PLAN SHEETS	SHEET	E
------------------------	--------------	-----------------	-------------	-------	---

CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
921	746+25.02	31.00 LT	1420.95	3/4" REBAR W/ CAP

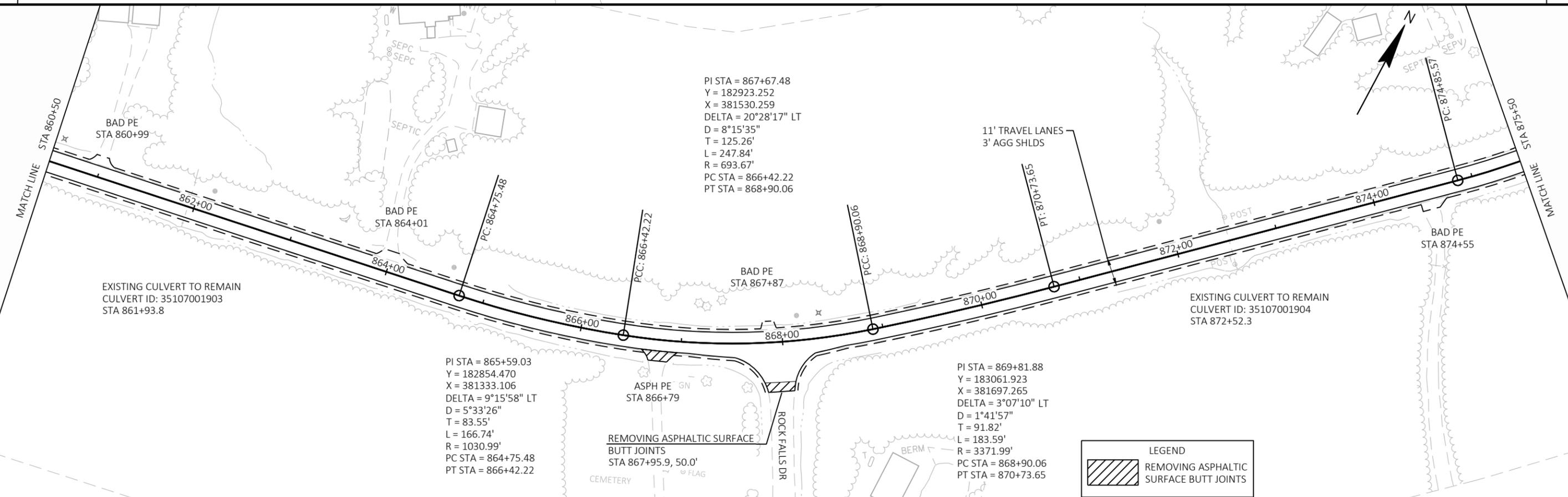


CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
917	850+78.92	25.97 LT	1407.84	3/4" REBAR W/ CAP



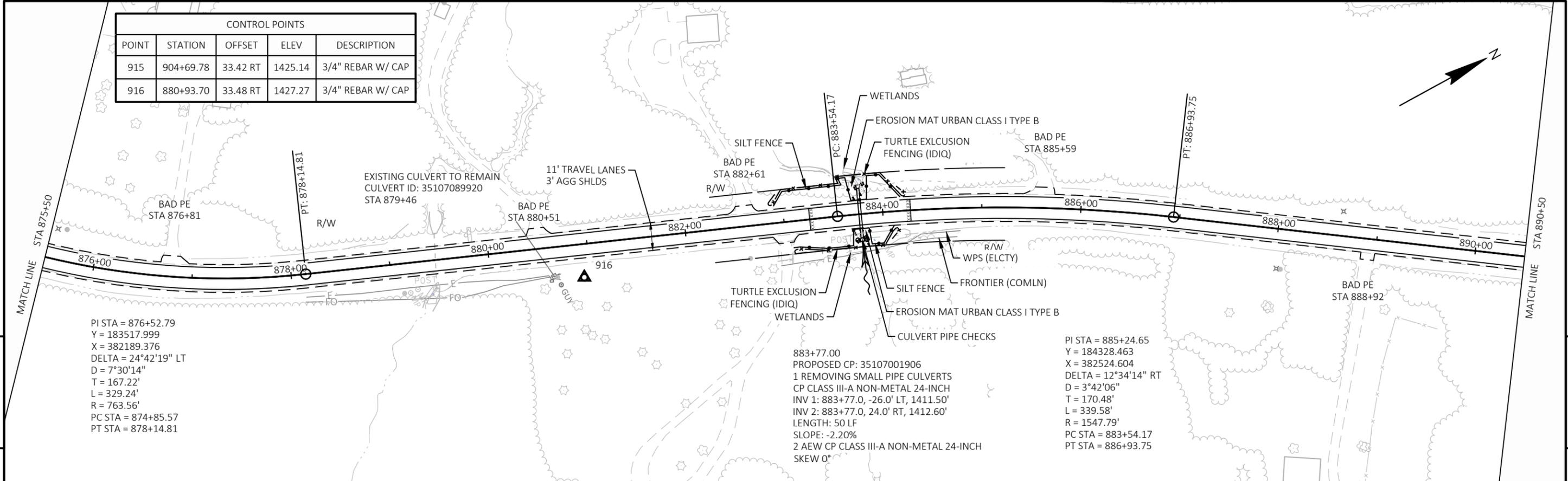
5

5



LEGEND	
	REMOVING ASPHALTIC SURFACE BUTT JOINTS

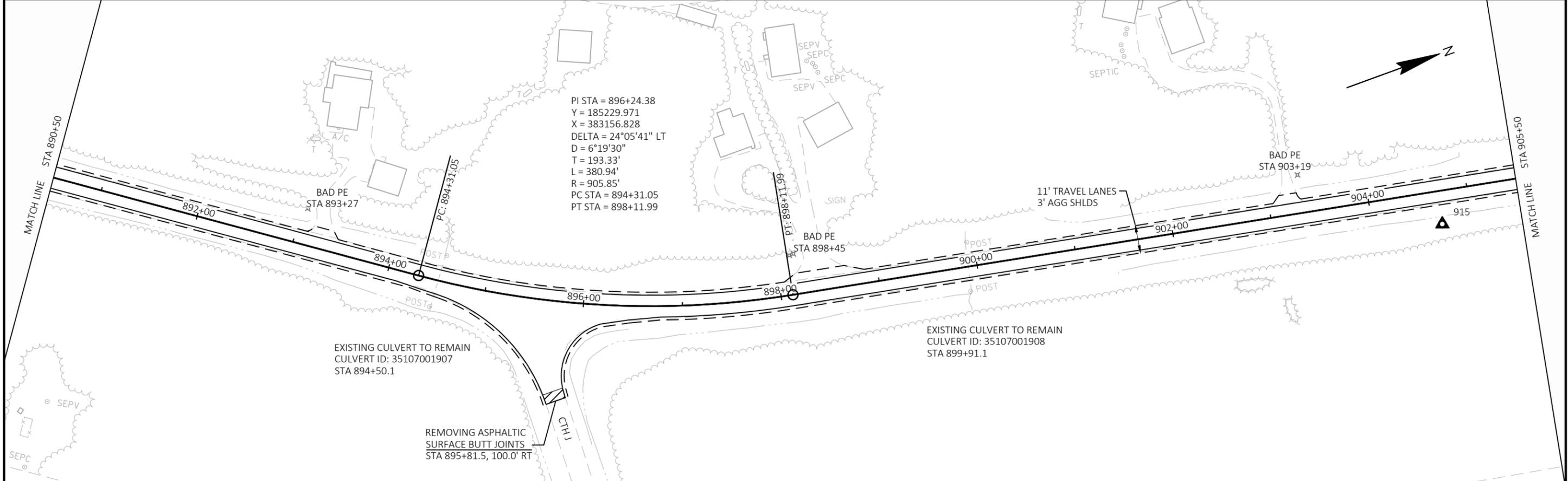
CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
915	904+69.78	33.42 RT	1425.14	3/4" REBAR W/ CAP
916	880+93.70	33.48 RT	1427.27	3/4" REBAR W/ CAP



PI STA = 876+52.79
 Y = 183517.999
 X = 382189.376
 DELTA = 24°42'19" LT
 D = 7°30'14"
 T = 167.22'
 L = 329.24'
 R = 763.56'
 PC STA = 874+85.57
 PT STA = 878+14.81

883+77.00
 PROPOSED CP: 35107001906
 1 REMOVING SMALL PIPE CULVERTS
 CP CLASS III-A NON-METAL 24-INCH
 INV 1: 883+77.0, -26.0' LT, 1411.50'
 INV 2: 883+77.0, 24.0' RT, 1412.60'
 LENGTH: 50 LF
 SLOPE: -2.20%
 2 AEW CP CLASS III-A NON-METAL 24-INCH
 SKEW 0°

PI STA = 885+24.65
 Y = 184328.463
 X = 382524.604
 DELTA = 12°34'14" RT
 D = 3°42'06"
 T = 170.48'
 L = 339.58'
 R = 1547.79'
 PC STA = 883+54.17
 PT STA = 886+93.75



PI STA = 896+24.38
 Y = 185229.971
 X = 383156.828
 DELTA = 24°05'41" LT
 D = 6°19'30"
 T = 193.33'
 L = 380.94'
 R = 905.85'
 PC STA = 894+31.05
 PT STA = 898+11.99

EXISTING CULVERT TO REMAIN
 CULVERT ID: 35107001907
 STA 894+50.1

EXISTING CULVERT TO REMAIN
 CULVERT ID: 35107001908
 STA 899+91.1

REMOVING ASPHALTIC
 SURFACE BUTT JOINTS
 STA 895+81.5, 100.0' RT

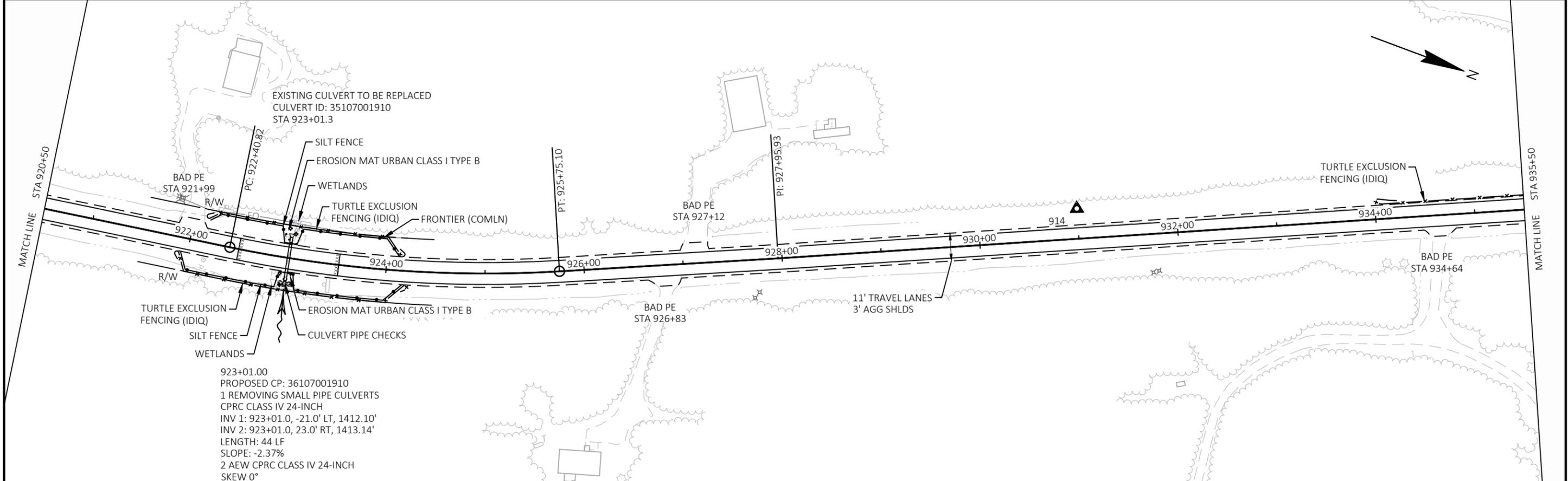
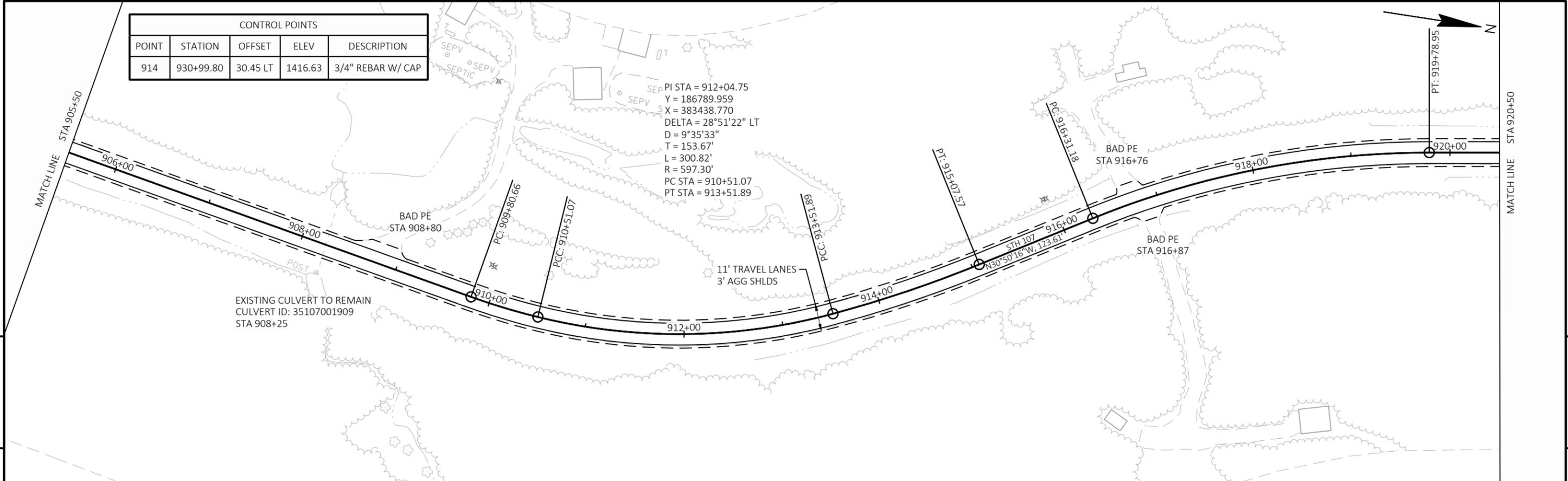
CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
914	930+99.80	30.45 LT	1416.63	3/4" REBAR W/ CAP

PI STA = 912+04.75
 Y = 186789.959
 X = 383438.770
 DELTA = 28°51'22" LT
 D = 9°35'33"
 T = 153.67'
 L = 300.82'
 R = 597.30'
 PC STA = 910+51.07
 PT STA = 913+51.89

EXISTING CULVERT TO REMAIN
 CULVERT ID: 35107001909
 STA 908+25

EXISTING CULVERT TO BE REPLACED
 CULVERT ID: 35107001910
 STA 923+01.3

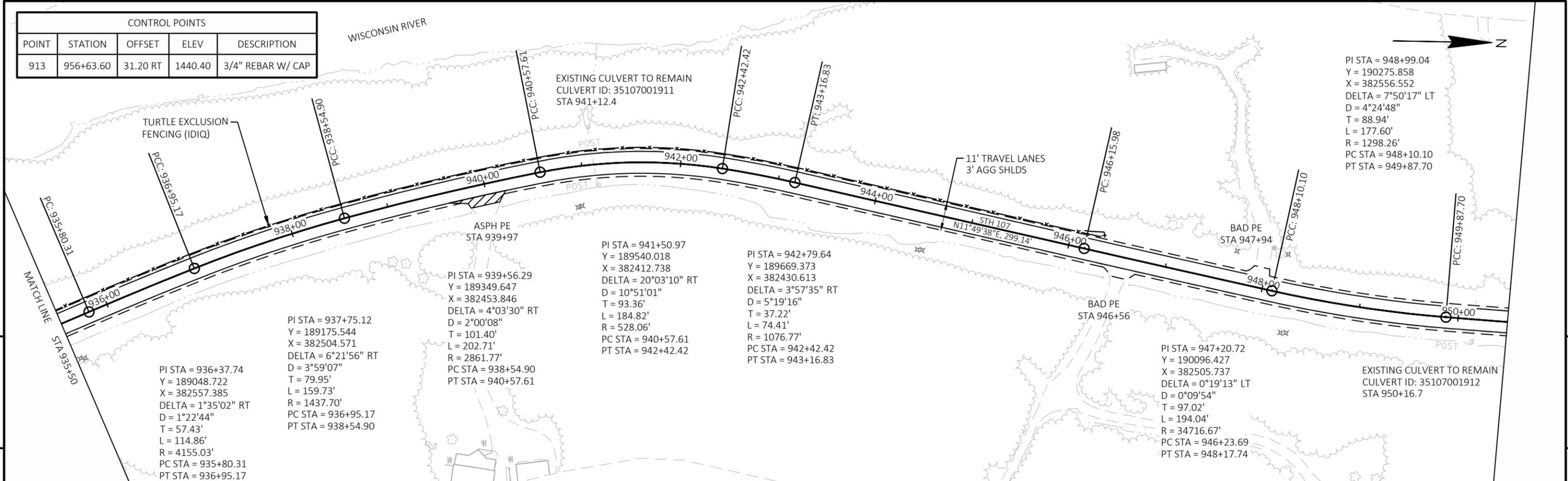
923+01.00
 PROPOSED CP: 36107001910
 1 REMOVING SMALL PIPE CULVERTS
 CPRC CLASS IV 24-INCH
 INV 1: 923+01.0, -21.0' LT, 1412.10'
 INV 2: 923+01.0, 23.0' RT, 1413.14'
 LENGTH: 44 LF
 SLOPE: -2.37%
 2 AEW CPRC CLASS IV 24-INCH
 SKEW 0°



CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
913	956+63.60	31.20 RT	1440.40	3/4" REBAR W/ CAP

WISCONSIN RIVER

PI STA = 948+99.04
 Y = 190275.858
 X = 382556.552
 DELTA = 7°50'17" LT
 D = 4°24'48"
 T = 88.94'
 L = 177.60'
 R = 1298.26'
 PC STA = 948+10.10
 PT STA = 949+87.70



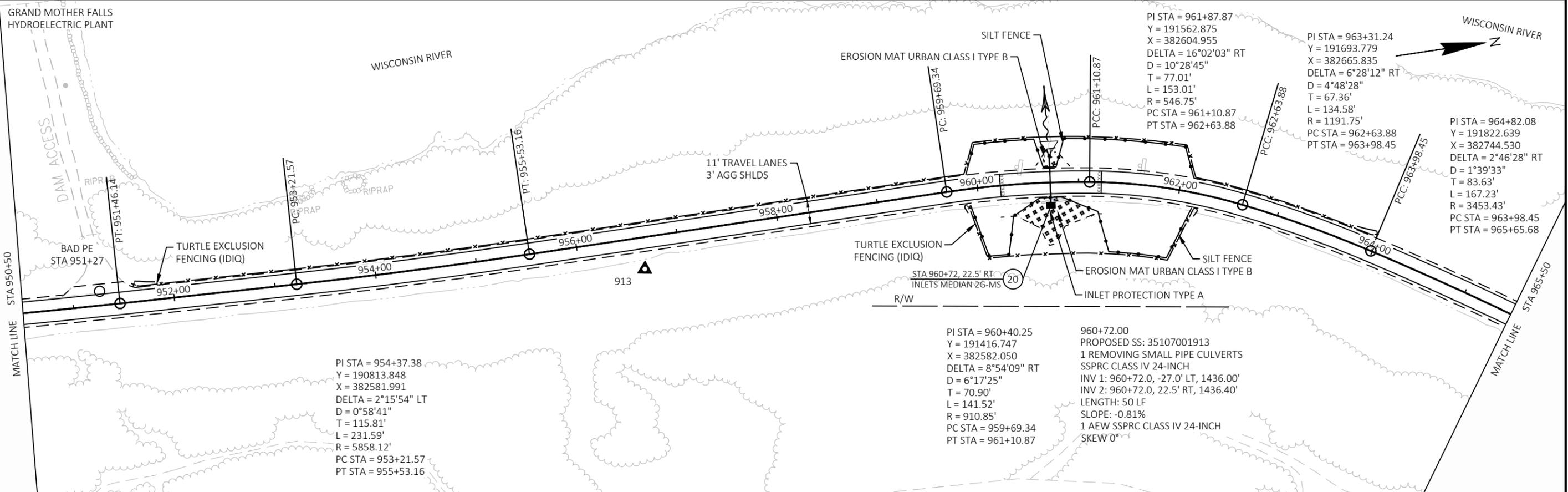
5

5

GRAND MOTHER FALLS HYDROELECTRIC PLANT

WISCONSIN RIVER

WISCONSIN RIVER



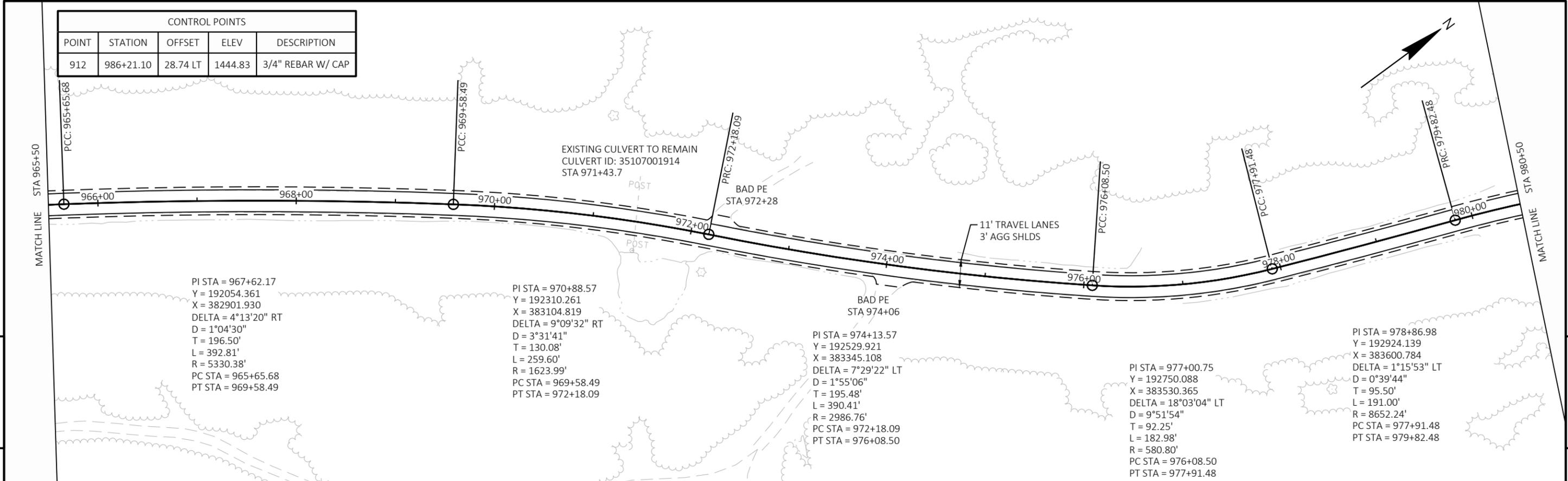
MATCH LINE STA 950+50

MATCH LINE STA 965+50

PROJECT NO: 9305-07-70	HWY: STH 107	COUNTY: LINCOLN	PLAN SHEETS	SHEET	E
------------------------	--------------	-----------------	-------------	-------	---

FILE NAME : C:\OD\ONEDRIVE - CORRE, INC\3] PROJECTS\NC REGION\9305-07-00_STH 107_LINCOLN CO\500_CADD\501_C3D_2024\93050700\SHEETS\PLAN\050201-PN.DWG PLOT DATE : 10/27/2025 5:23 PM PLOT BY : ALEX BANDLI, PE PLOT NAME : PLOT SCALE : 1 IN:100 FT WISDOT/CADD SHEET 44

CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
912	986+21.10	28.74 LT	1444.83	3/4" REBAR W/ CAP



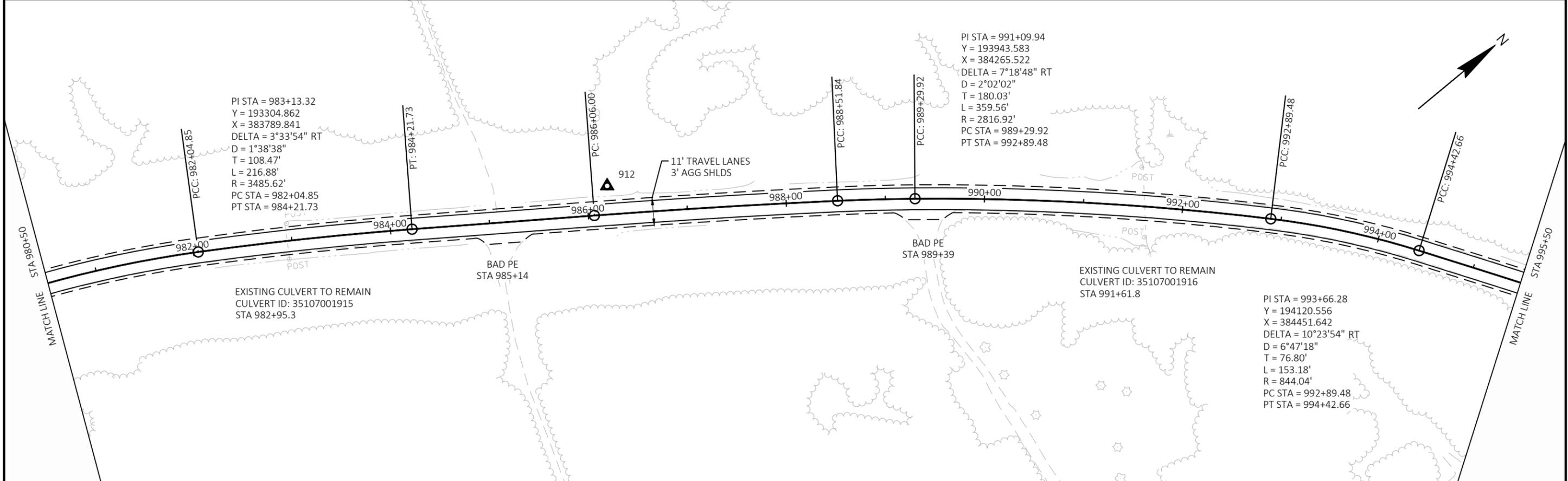
PI STA = 967+62.17
 Y = 192054.361
 X = 382901.930
 DELTA = 4°13'20" RT
 D = 1°04'30"
 T = 196.50'
 L = 392.81'
 R = 5330.38'
 PC STA = 965+65.68
 PT STA = 969+58.49

PI STA = 970+88.57
 Y = 192310.261
 X = 383104.819
 DELTA = 9°09'32" RT
 D = 3°31'41"
 T = 130.08'
 L = 259.60'
 R = 1623.99'
 PC STA = 969+58.49
 PT STA = 972+18.09

PI STA = 974+13.57
 Y = 192529.921
 X = 383345.108
 DELTA = 7°29'22" LT
 D = 1°55'06"
 T = 195.48'
 L = 390.41'
 R = 2986.76'
 PC STA = 972+18.09
 PT STA = 976+08.50

PI STA = 977+00.75
 Y = 192750.088
 X = 383530.365
 DELTA = 18°03'04" LT
 D = 9°51'54"
 T = 92.25'
 L = 182.98'
 R = 580.80'
 PC STA = 976+08.50
 PT STA = 977+91.48

PI STA = 978+86.98
 Y = 192924.139
 X = 383600.784
 DELTA = 1°15'53" LT
 D = 0°39'44"
 T = 95.50'
 L = 191.00'
 R = 8652.24'
 PC STA = 977+91.48
 PT STA = 979+82.48

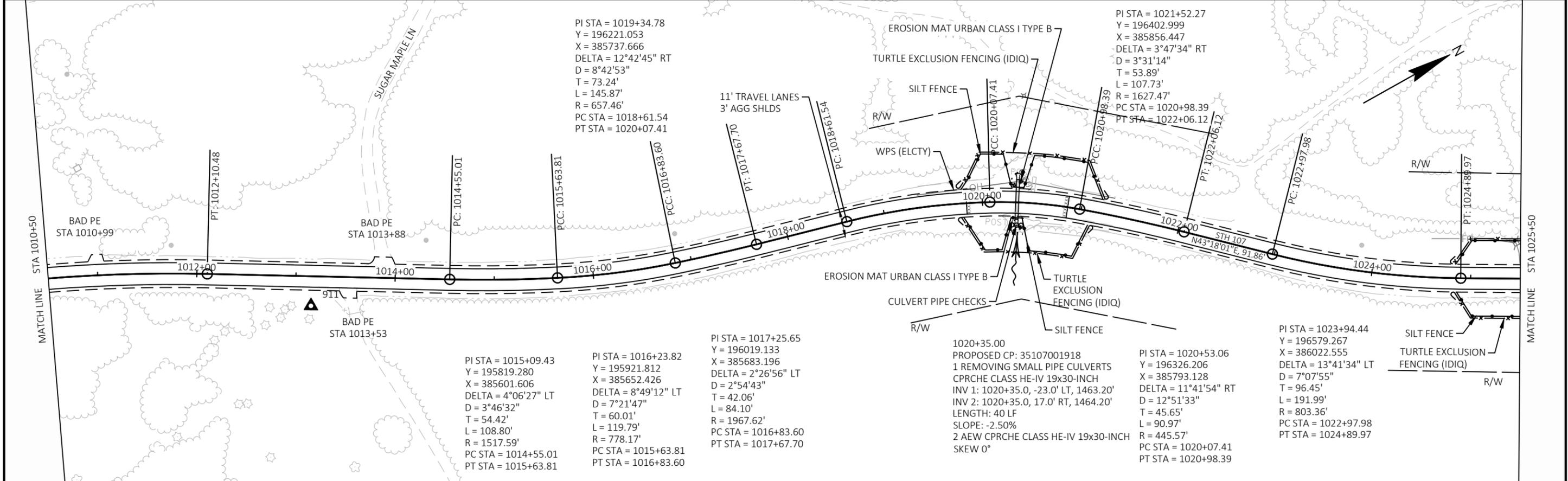
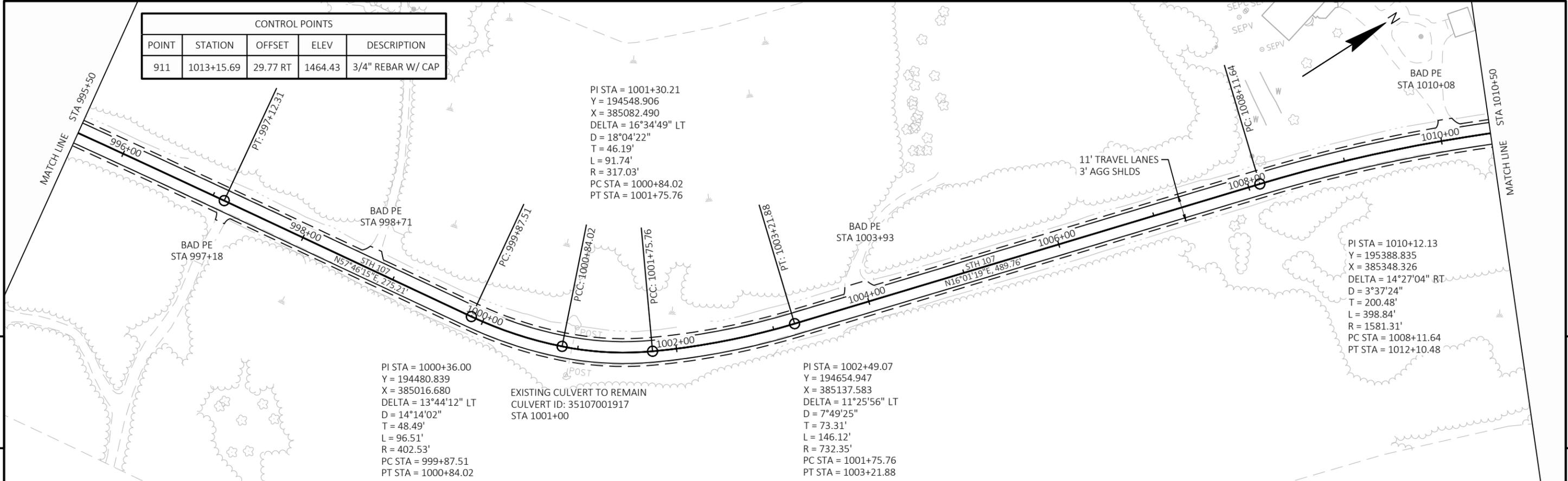


PI STA = 983+13.32
 Y = 193304.862
 X = 383789.841
 DELTA = 3°33'54" RT
 D = 1°38'38"
 T = 108.47'
 L = 216.88'
 R = 3485.62'
 PC STA = 982+04.85
 PT STA = 984+21.73

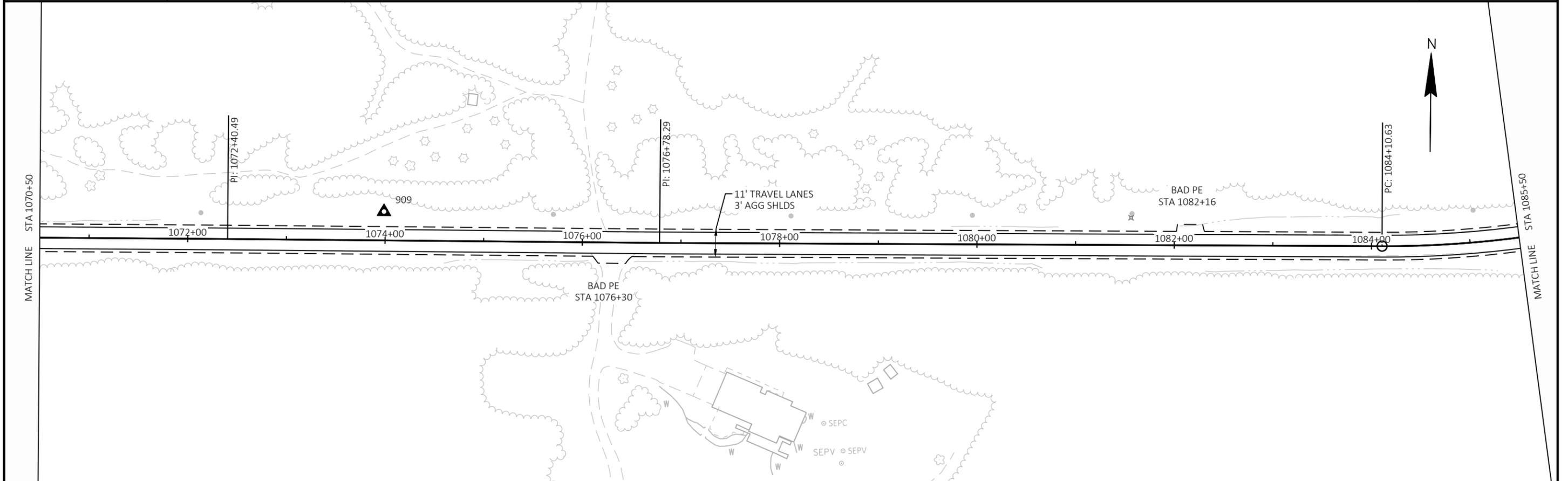
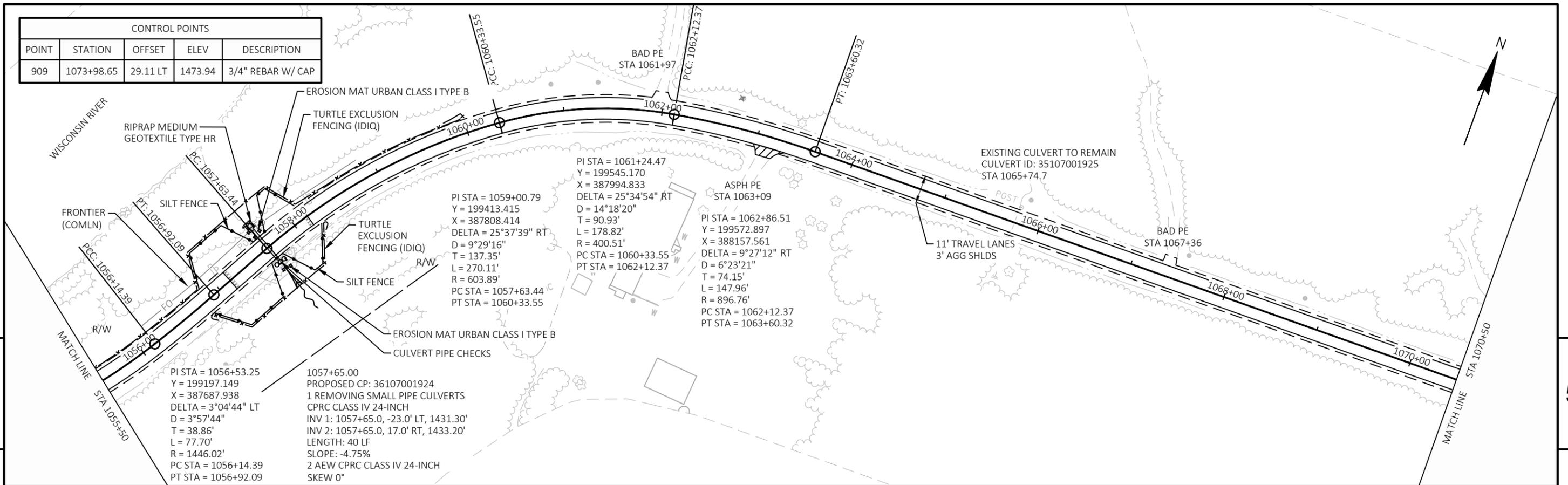
PI STA = 991+09.94
 Y = 193943.583
 X = 384265.522
 DELTA = 7°18'48" RT
 D = 2°02'02"
 T = 180.03'
 L = 359.56'
 R = 2816.92'
 PC STA = 989+29.92
 PT STA = 992+89.48

PI STA = 993+66.28
 Y = 194120.556
 X = 384451.642
 DELTA = 10°23'54" RT
 D = 6°47'18"
 T = 76.80'
 L = 153.18'
 R = 844.04'
 PC STA = 992+89.48
 PT STA = 994+42.66

CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
911	1013+15.69	29.77 RT	1464.43	3/4" REBAR W/ CAP

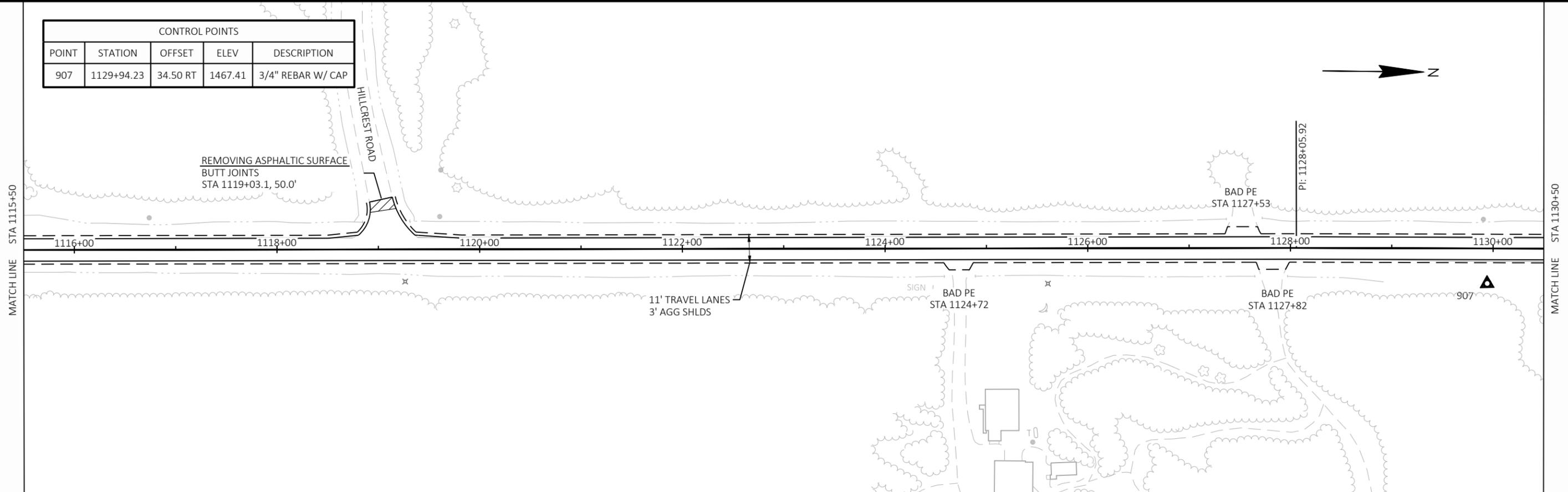


CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
909	1073+98.65	29.11 LT	1473.94	3/4" REBAR W/ CAP



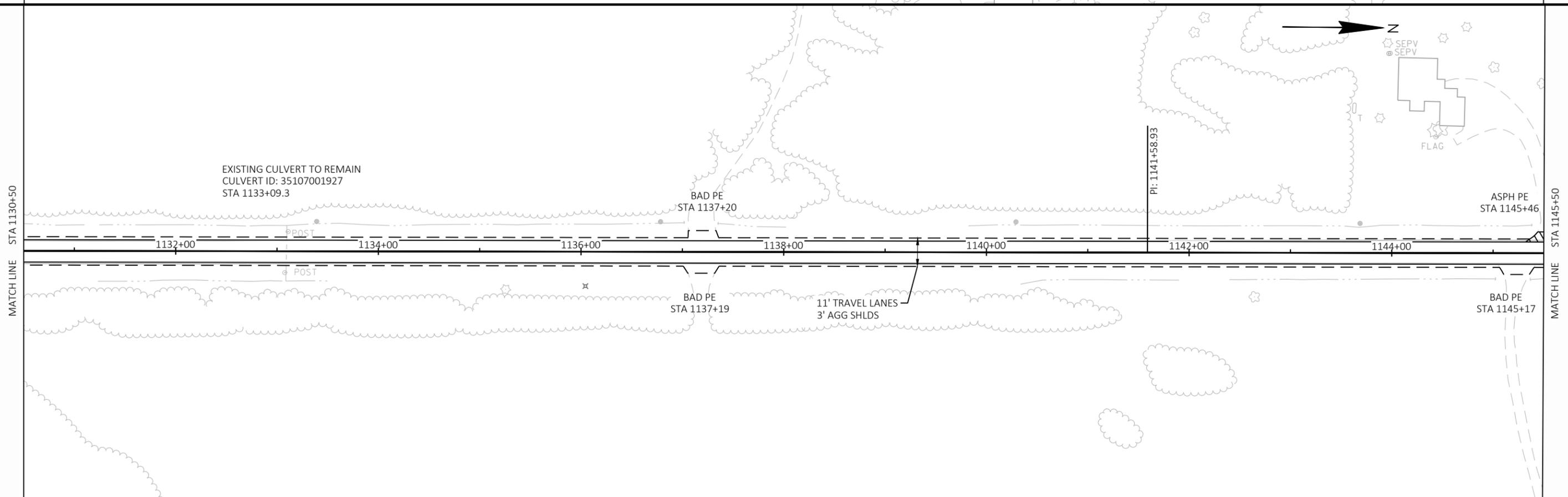
PROJECT NO: 9305-07-70	HWY: STH 107	COUNTY: LINCOLN	PLAN SHEETS	SHEET	E
------------------------	--------------	-----------------	-------------	-------	---

CONTROL POINTS				
POINT	STATION	OFFSET	ELEV	DESCRIPTION
907	1129+94.23	34.50 RT	1467.41	3/4" REBAR W/ CAP



5

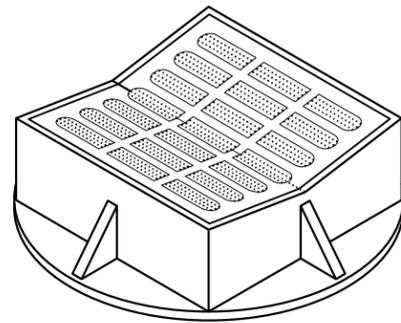
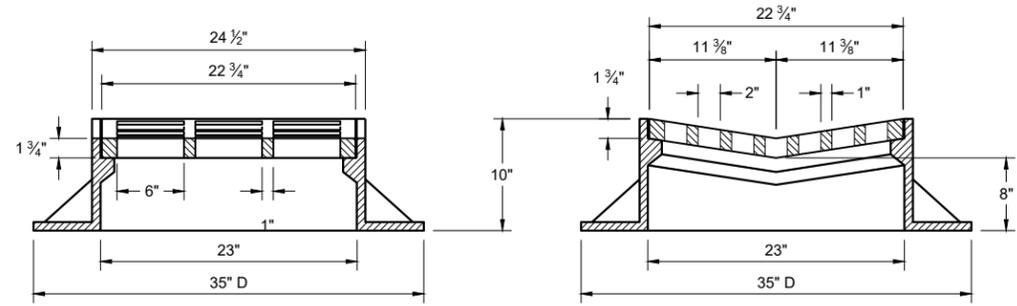
5



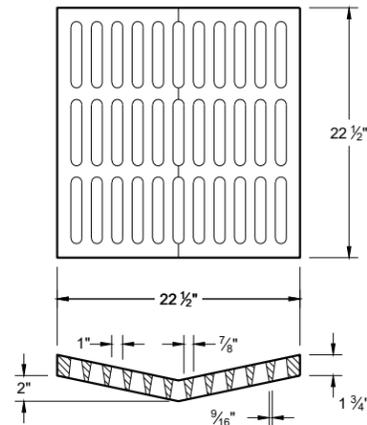
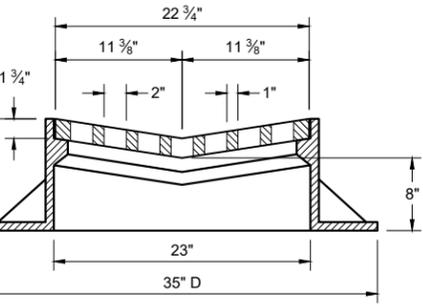
PROJECT NO: 9305-07-70 HWY: STH 107 COUNTY: LINCOLN PLAN SHEETS SHEET E

Standard Detail Drawing List

08A05-22B	INLET COVERS TYPE B, B-A, C, MS, MS-A, DW & WM
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13C19-03	HMA LONGITUDINAL JOINTS
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C09-13A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-03	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

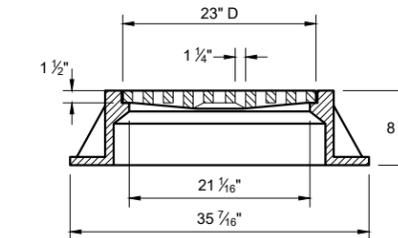
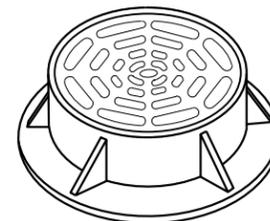
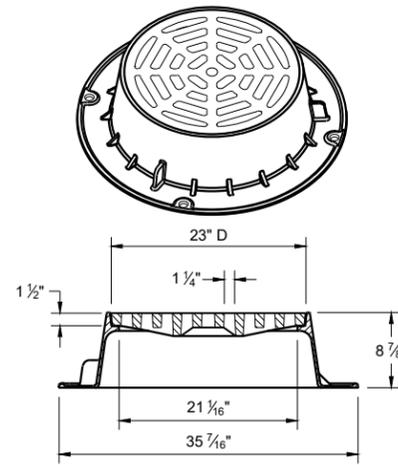


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE
NOTED AS TYPE B - A ON THE DRAINAGE TABLE



TYPE "C"

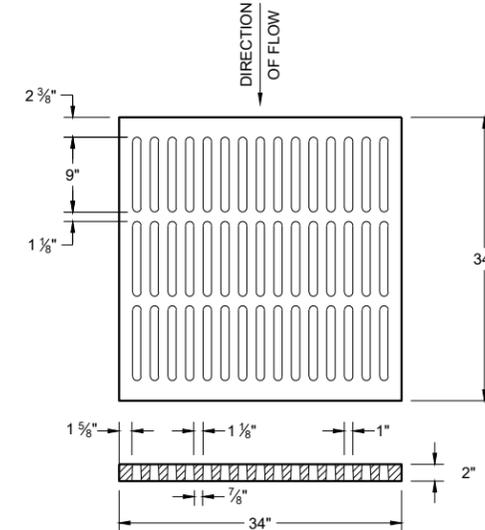
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

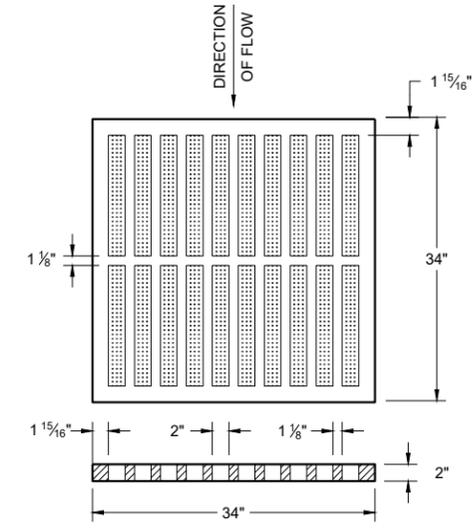
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.



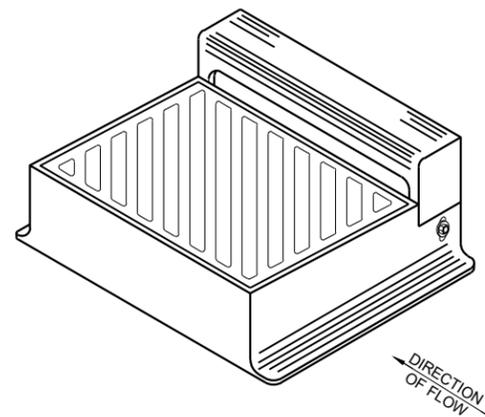
ALTERNATIVE TYPE "MS"
 USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



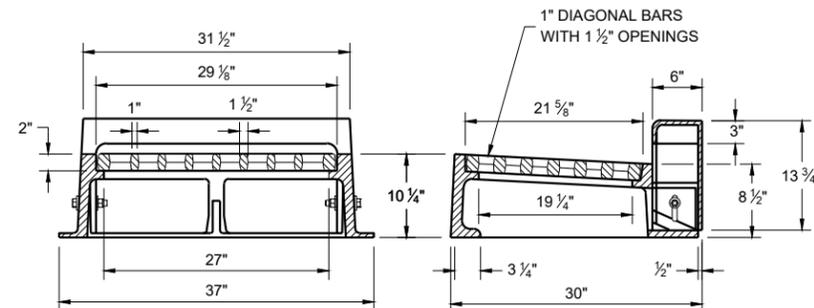
TYPE "MS"
 USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON THE DRAINAGE TABLE

6

6

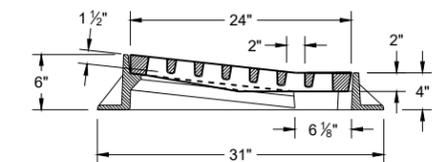
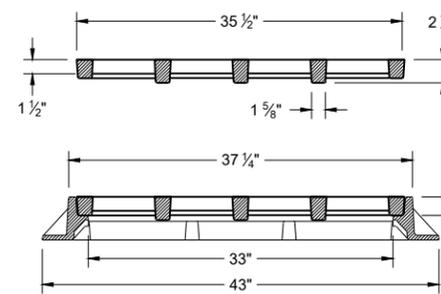
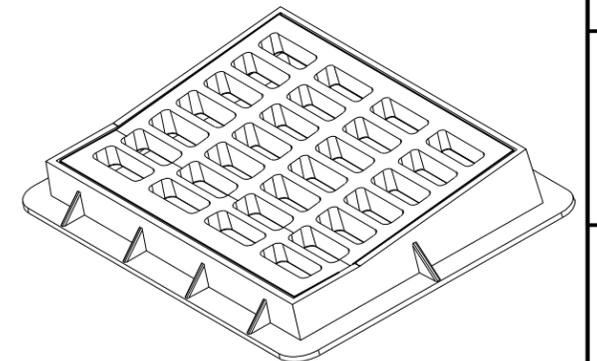
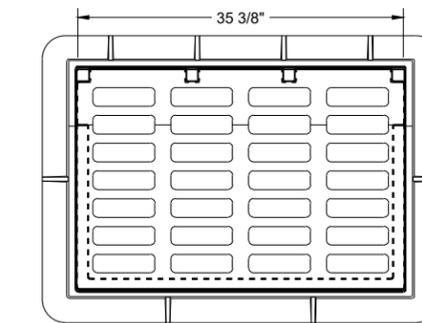


DIAGONAL SLOTS SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"



TYPE "DW"

NOTES: FOR USE IN A SUMP CONDITION. THIS OPTION IS ONLY TO BE USED IF NO OTHER INLETS ARE APPLICABLE.

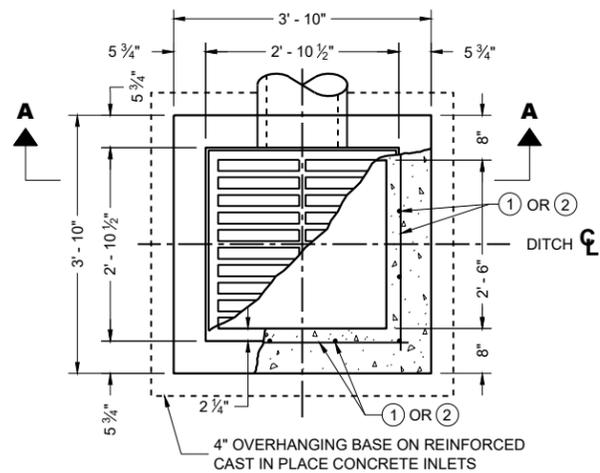
**INLET COVERS
 TYPES B, B-A, C,
 MS, MS-A, DW AND WM**

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

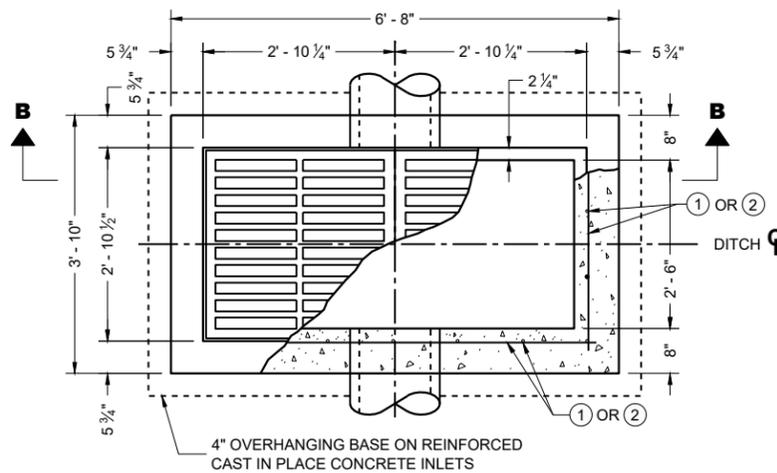
APPROVED
 February 2025 DATE /S/ Rodney Taylor
 ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

SDD 08A05-22b

SDD 08A05-22b



PLAN VIEW



PLAN VIEW

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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.

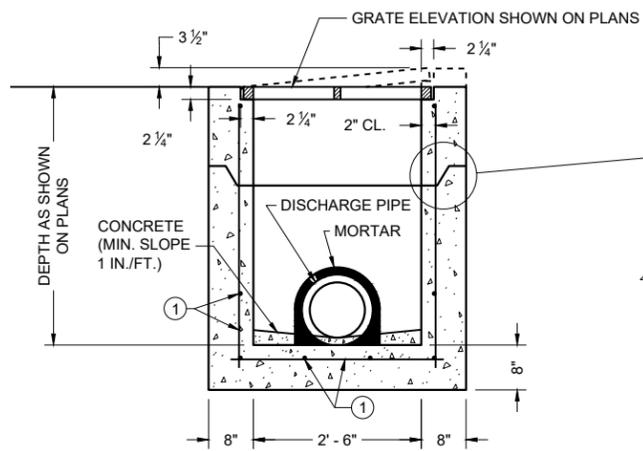
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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

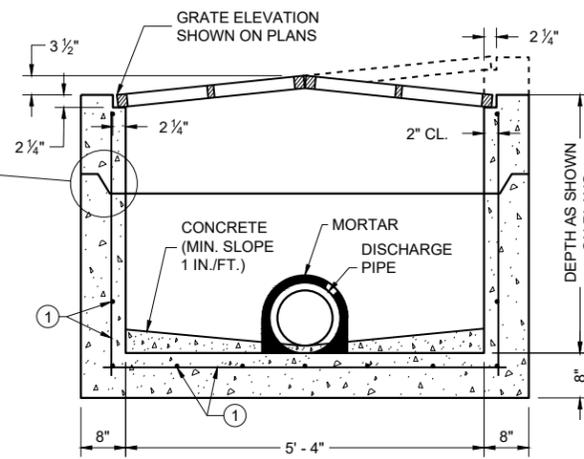
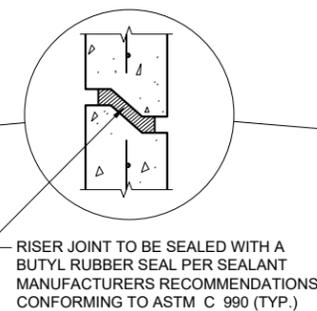
PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

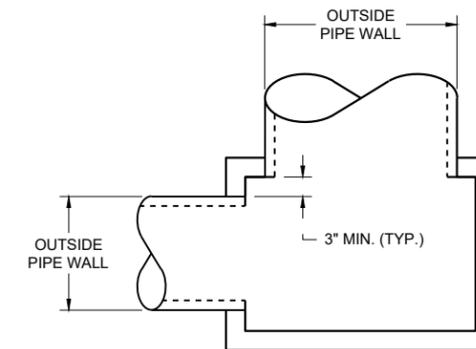
- ① FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.



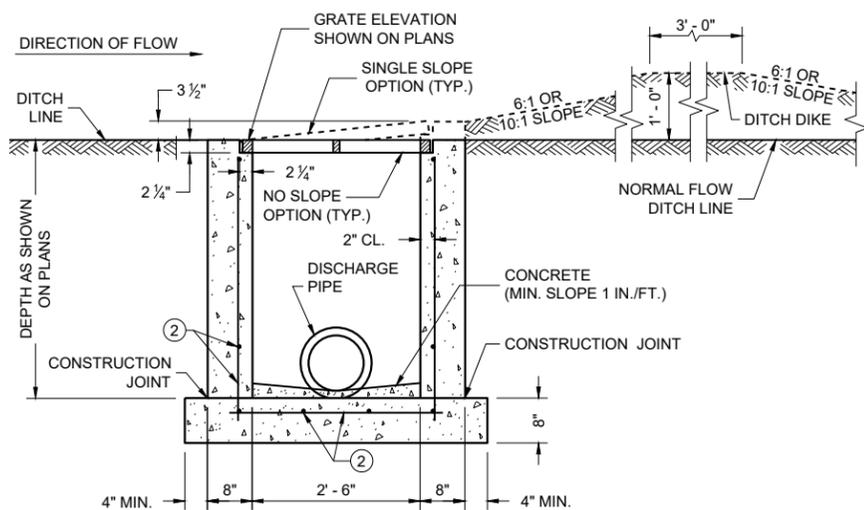
PRECAST REINFORCED CONCRETE SECTION A - A



PRECAST REINFORCED CONCRETE SECTION B - B

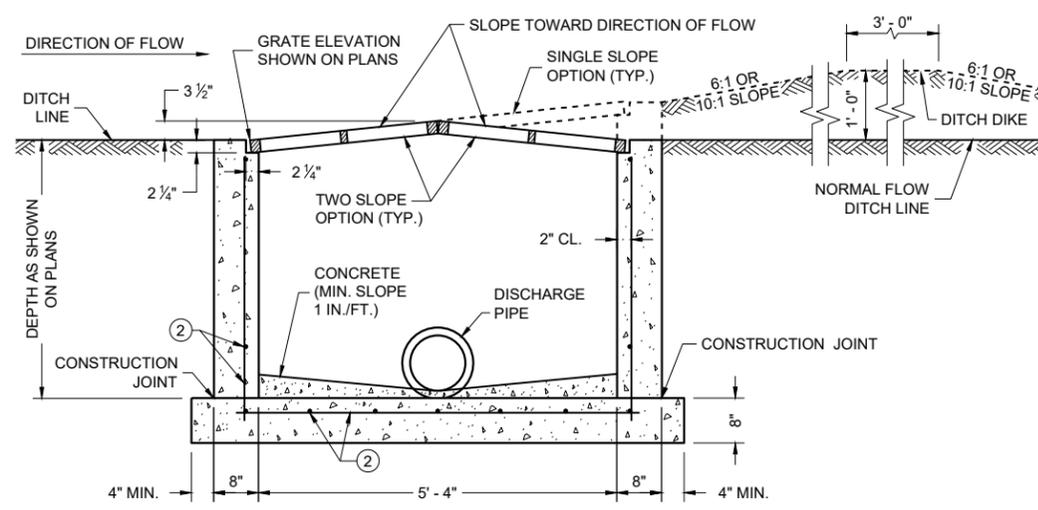


DETAIL "A"



REINFORCED CAST IN PLACE CONCRETE SECTION A - A

INLETS MEDIAN 1 GRATE



REINFORCED CAST IN PLACE CONCRETE SECTION B - B

INLETS MEDIAN 2 GRATE

PIPE MATRIX

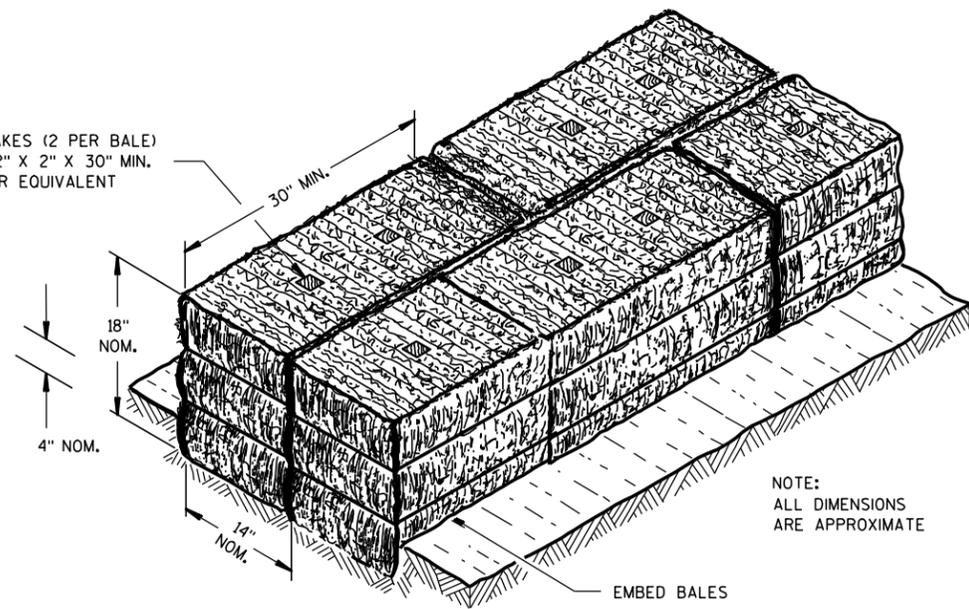
INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42

**INLETS
MEDIAN 1 AND 2 GRATE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

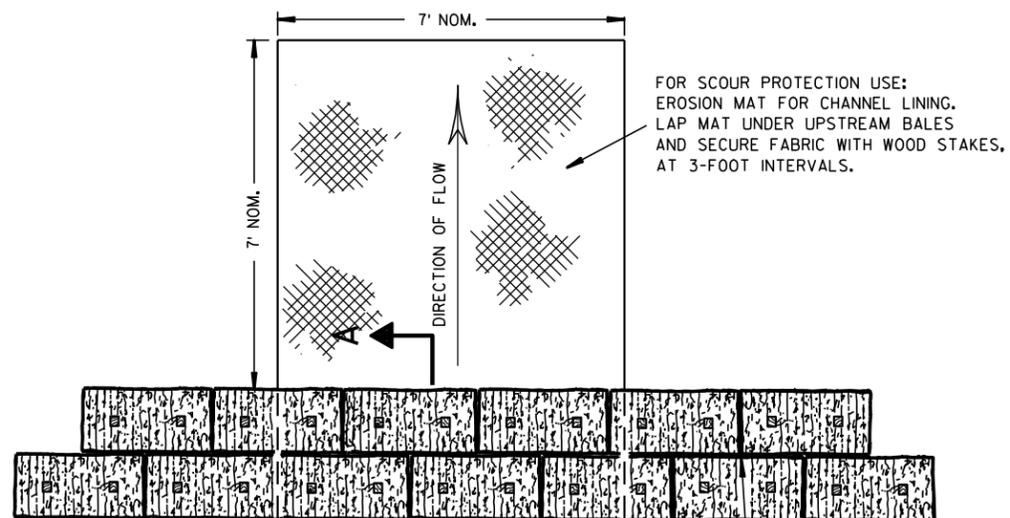
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

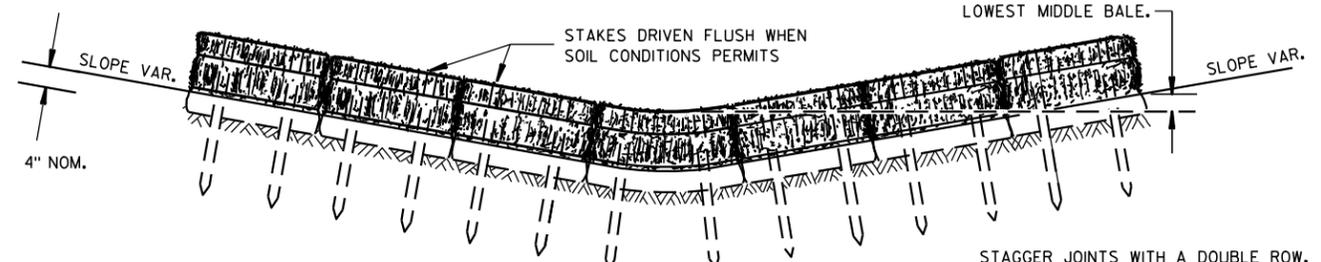
SECTION A-A



STAGGER JOINTS BETWEEN ADJACENT ROWS OF BALES.

PLAN VIEW

BOTTOM ELEVATION OF END BALE SHALL BE EQUAL TO OR GREATER THAN TOP OF LOWEST MIDDLE BALE.



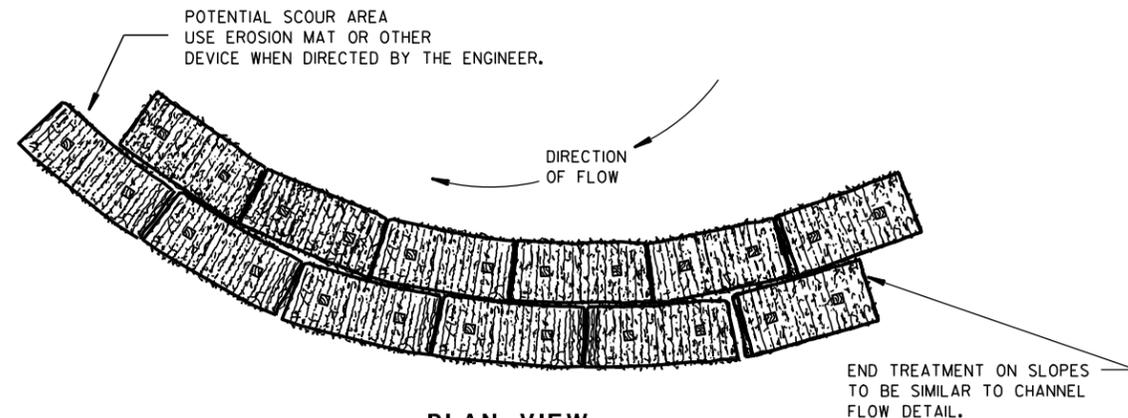
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

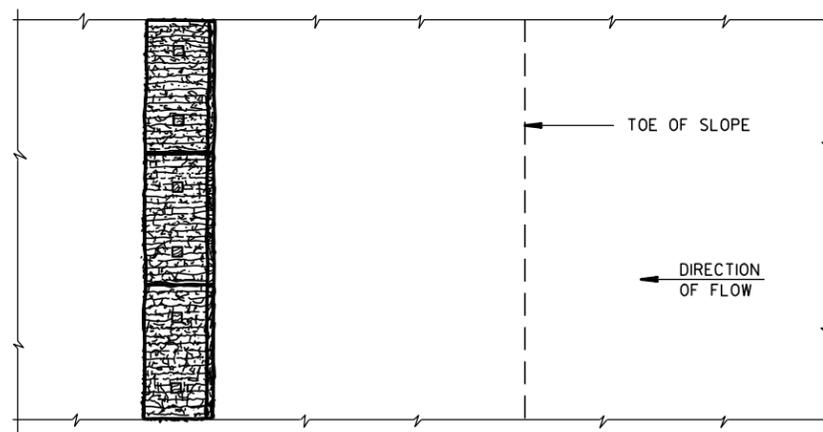
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

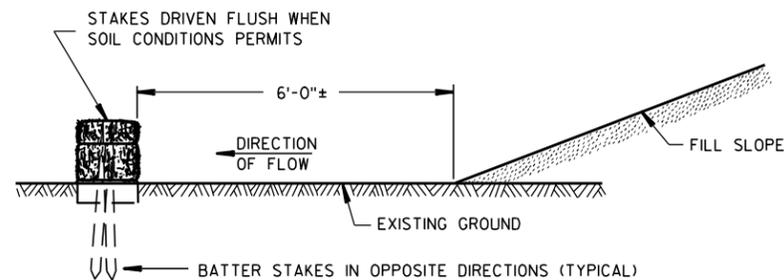


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

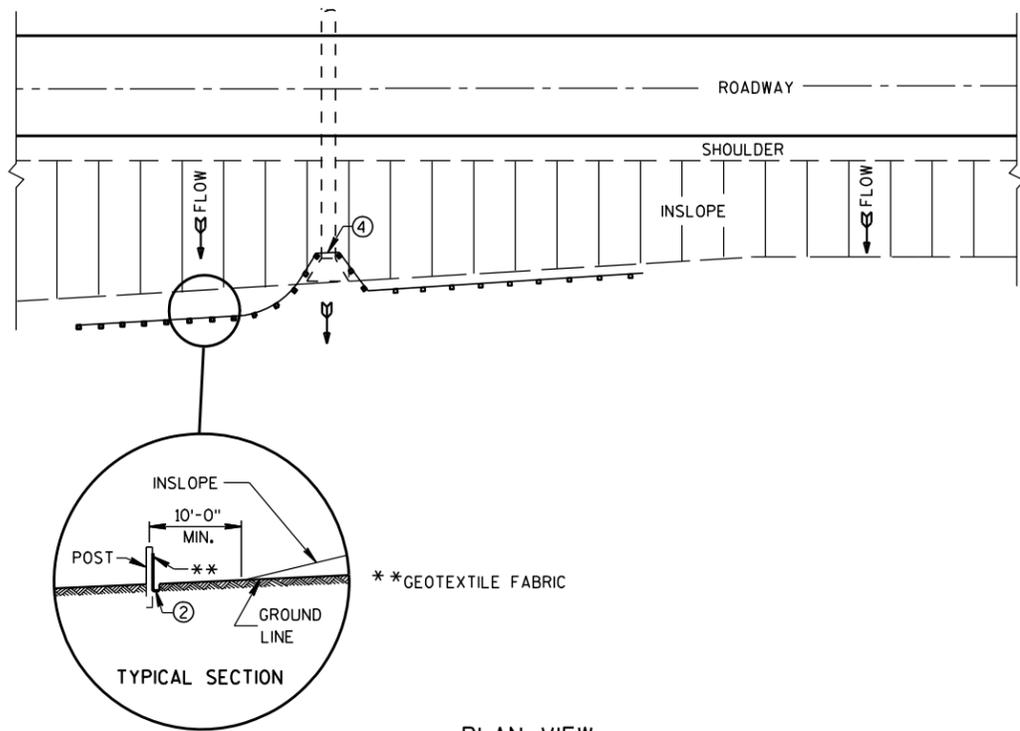
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

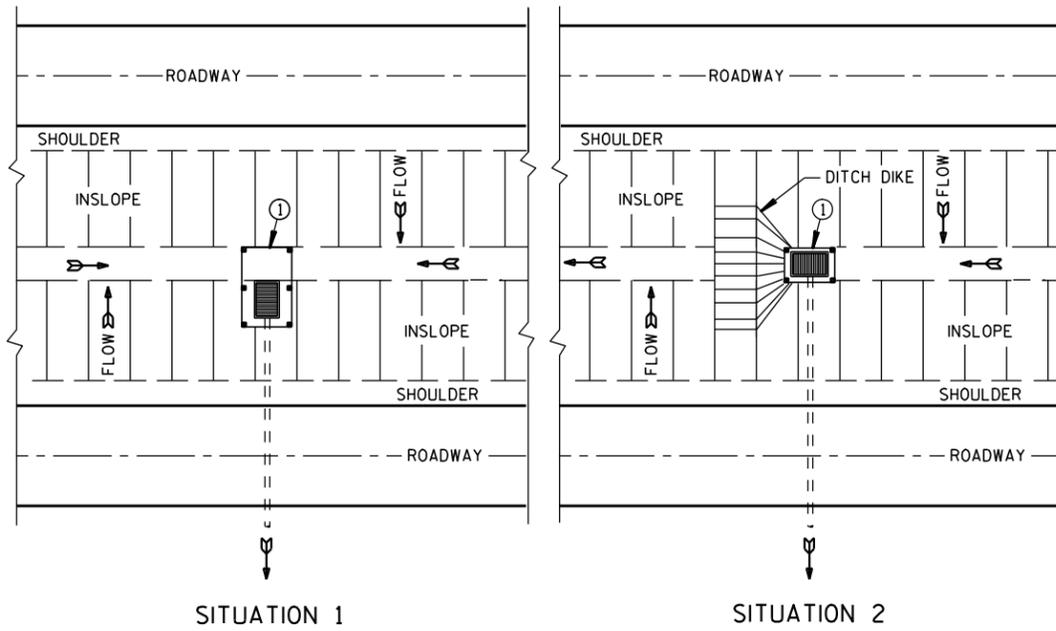
TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 6/04/02 /S/ Beth Canestra
 DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
 FHWA



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

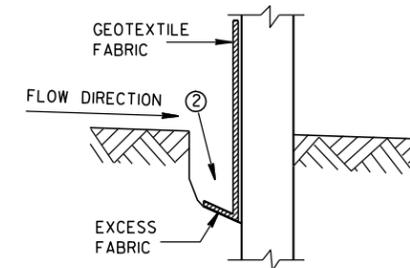


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

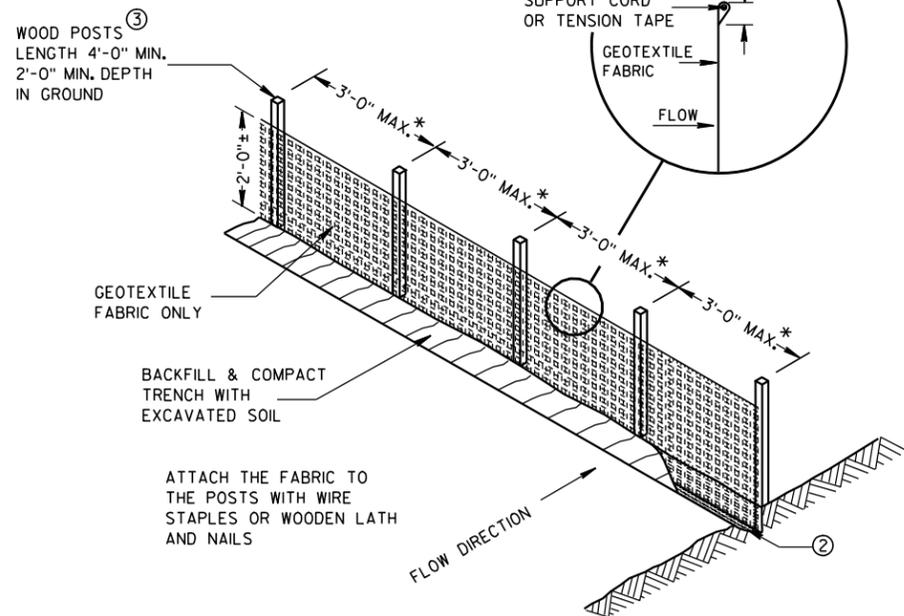
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- 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 1 1/8" X 1 1/8" 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.



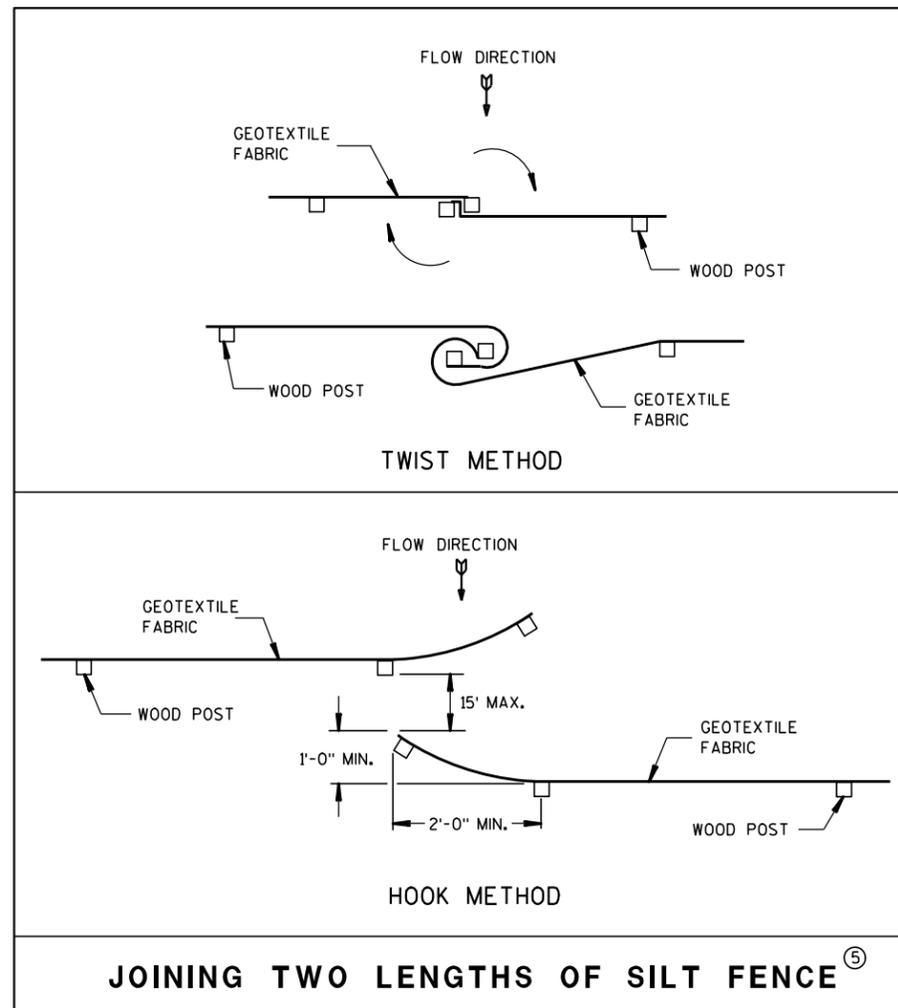
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

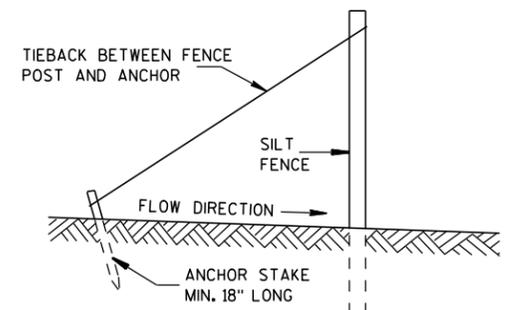


SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



JOINING TWO LENGTHS OF SILT FENCE ⑤

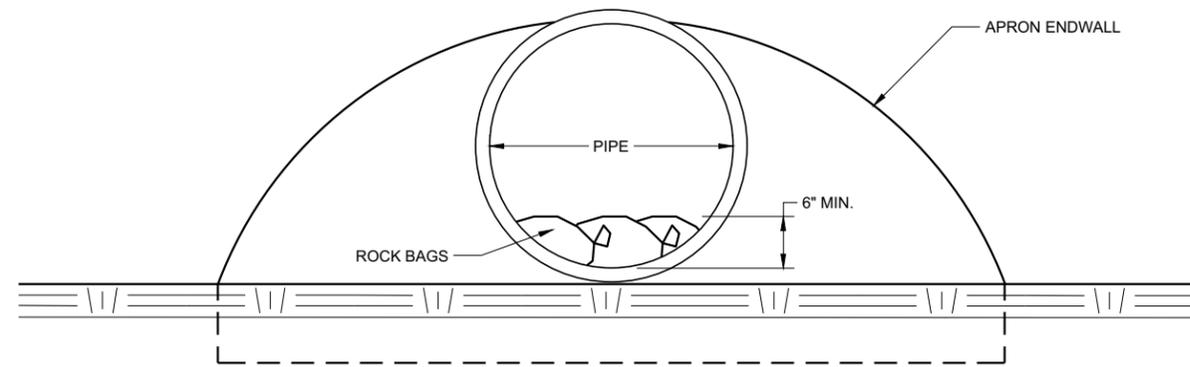


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

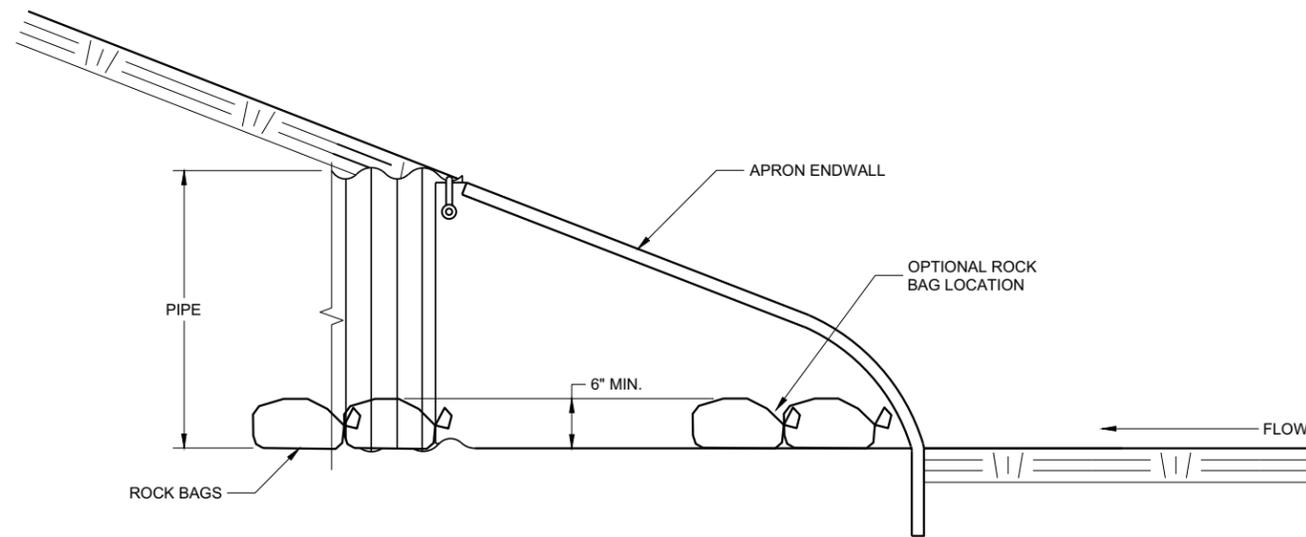
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



END VIEW



SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

6

6

SDD 08E15 - 01

SDD 08E15 - 01

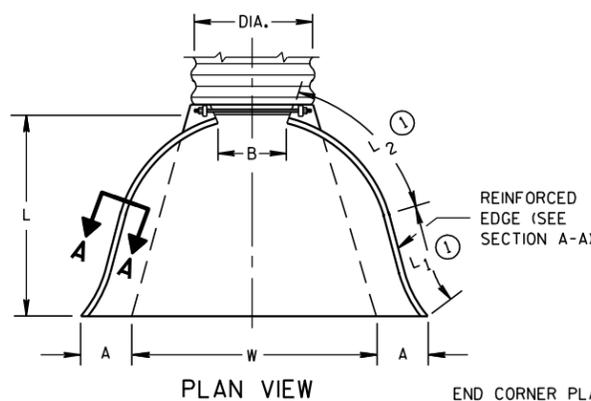
CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGINEER
<small>FHWA</small>	

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1	L2	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

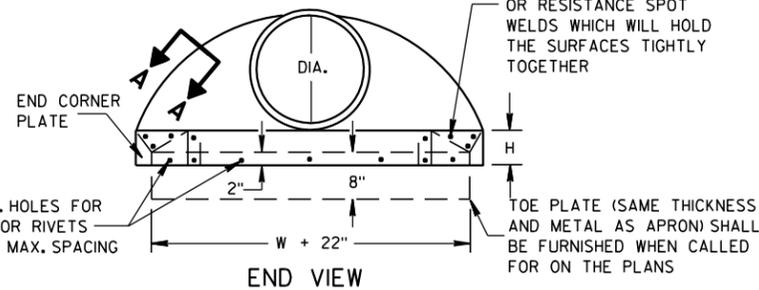
* EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE APRON ENDWALLS									
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE	
	T	A	B	C	D	E	G		
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1	
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1	
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1	
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1	
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1	
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1	
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1	
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1	
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1	
48	5	24	72	26	98	84	5	3 to 1	
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 1/2 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	

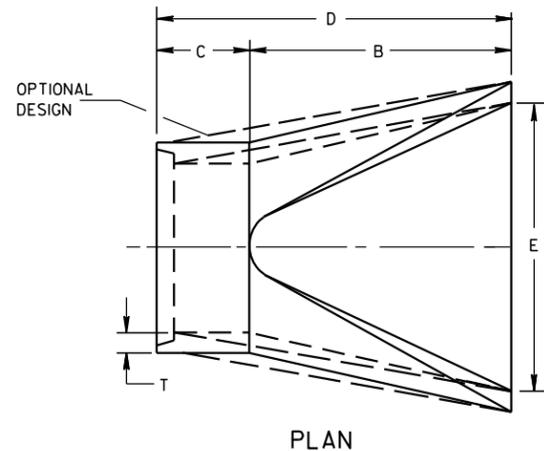
* MINIMUM
** MAXIMUM



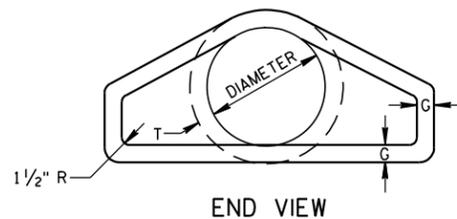
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



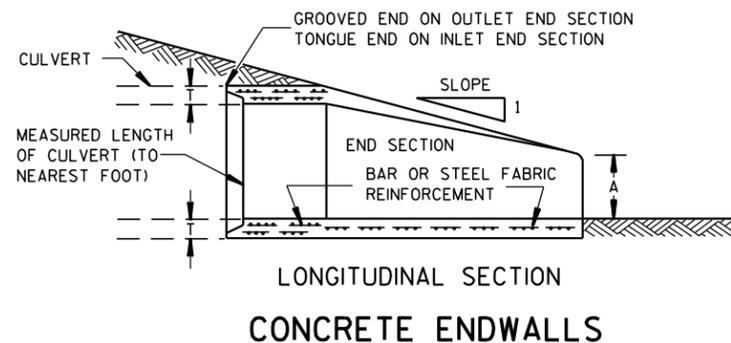
SIDE ELEVATION
METAL ENDWALLS



PLAN

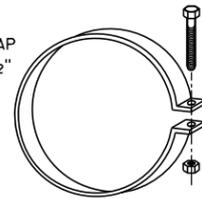


END VIEW

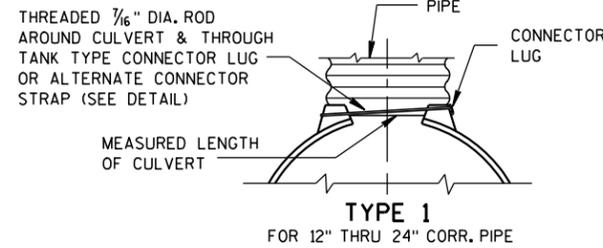


LONGITUDINAL SECTION
CONCRETE ENDWALLS

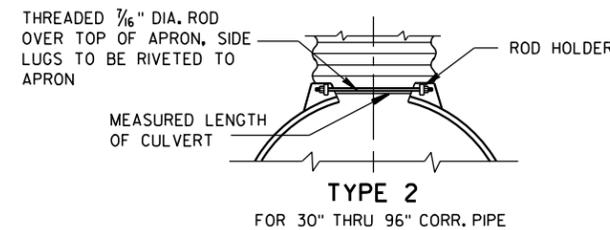
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



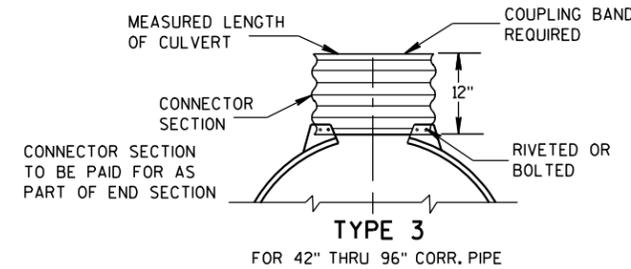
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



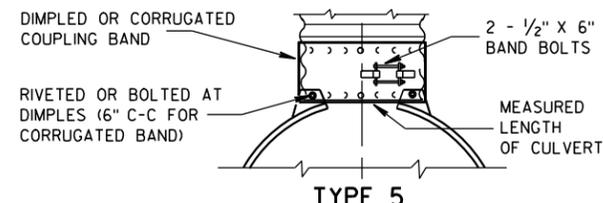
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

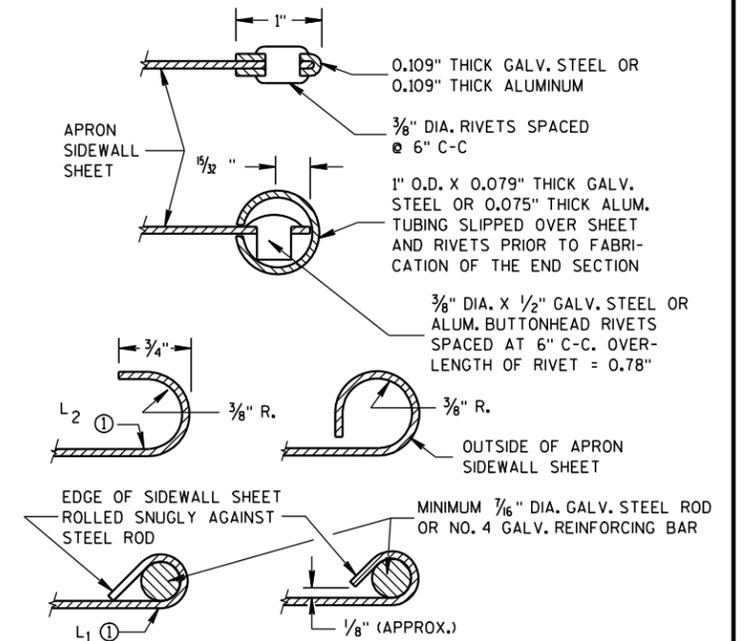
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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 VICE 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.

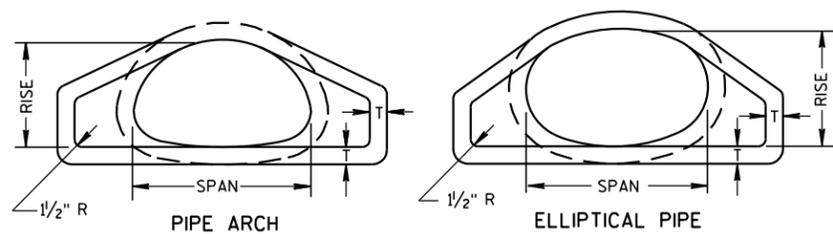
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

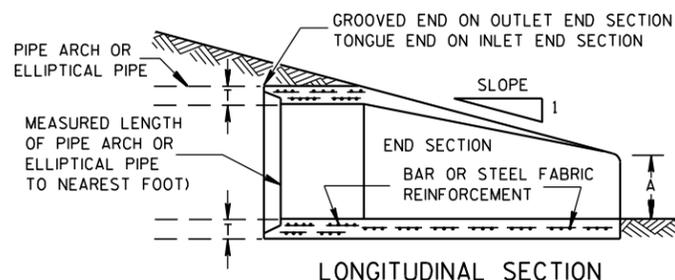
APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

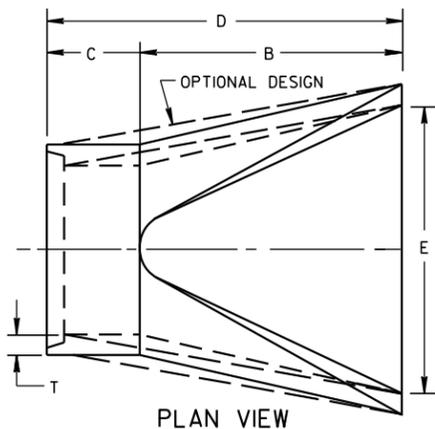


END VIEW



LONGITUDINAL SECTION

CONCRETE ENDWALLS



PLAN VIEW

2- 2/3" X 1/2" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (⊙)	L2 (⊙)	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 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)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (⊙)	L2 (⊙)	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 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	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED. * EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE PIPE ARCH										
EQUIV. DIA. (Inches)	DIMENSIONS (Inches)									APPROX. SLOPE
	**SPAN	**RISE	T	A	B	C	D	E		
24	29	18	3	8 1/2	39	33	72	48	3 to 1	
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1	
36	44	27	4	11 1/8	60	36	96	72	3 to 1	
42	51	31	4 1/2	15 1/8	60	36	96	78	3 to 1	
48	58	36	5	21	60	36	96	84	3 to 1	
54	65	40	5 1/2	25 1/2	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	28 1/2	83	19	102	144	2 to 1	

REINFORCED CONCRETE ELLIPTICAL PIPE										
EQUIV. DIA. (Inches)	DIMENSIONS (Inches)									APPROX. SLOPE
	**SPAN	**RISE	T	A	B	C	D	E		
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1	
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1	
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1	
42	53	34	5	15 3/4	60	36	96	78	2 1/2 to 1	
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1	
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1	
60	76	48	6 1/2	30	60	36	96	96	2 1/2 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.

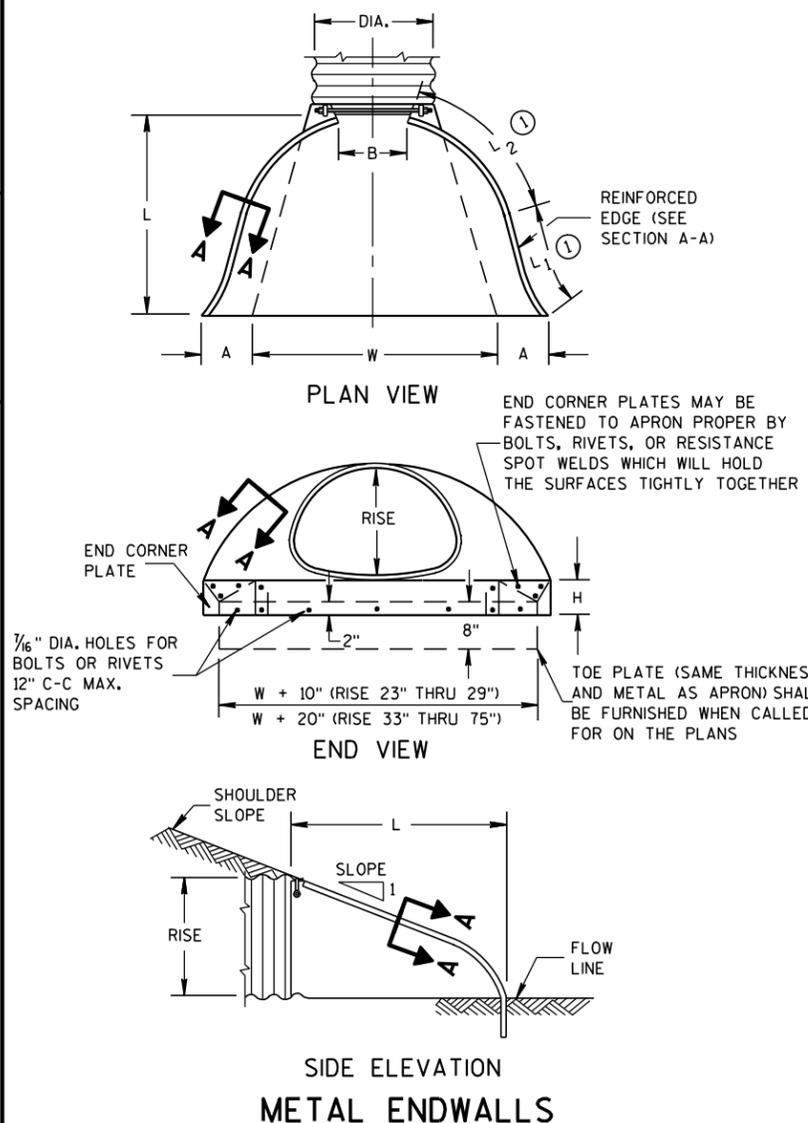
CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

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.

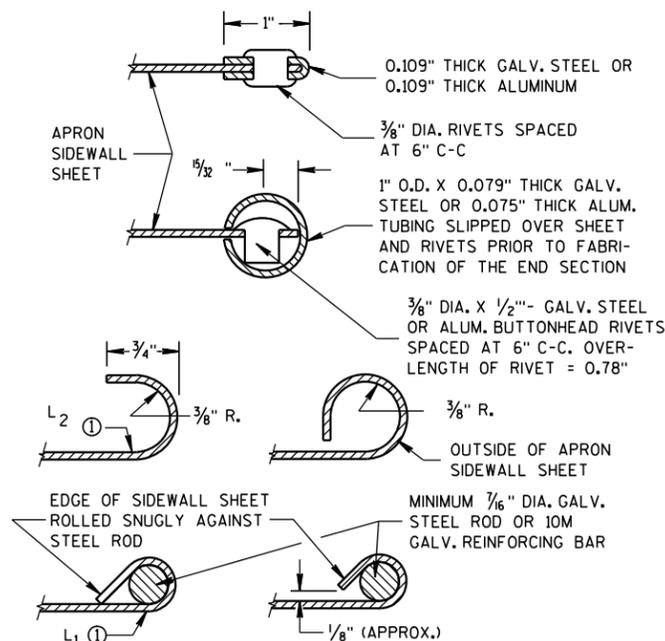
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER 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.

Ⓛ 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.



METAL ENDWALLS

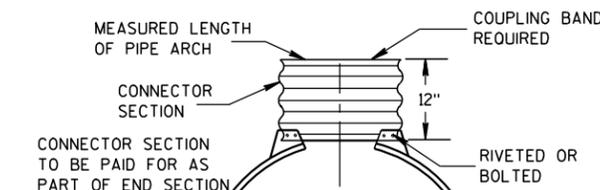


SECTION A-A



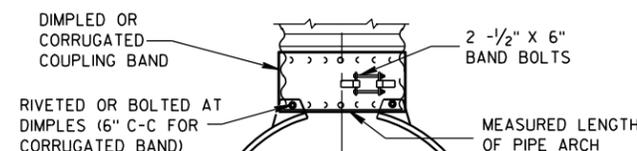
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR: ALL SIZES CORRUGATED PIPE ARCHES

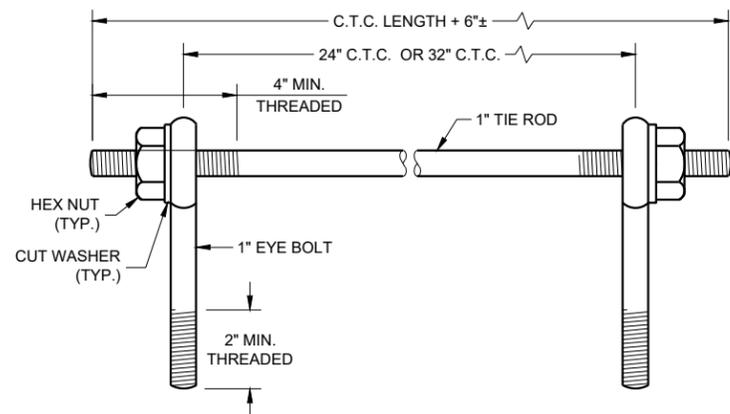
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

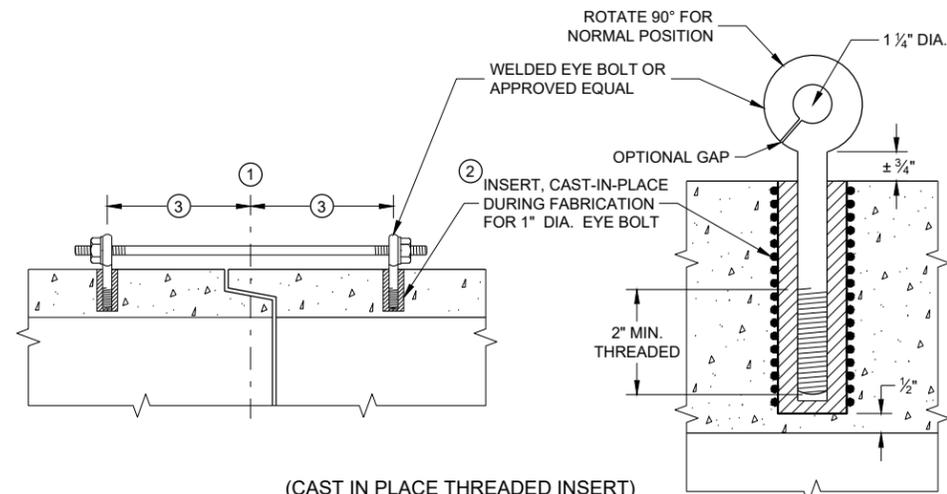
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



EYE BOLTS AND TIE ROD

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



(CAST IN PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

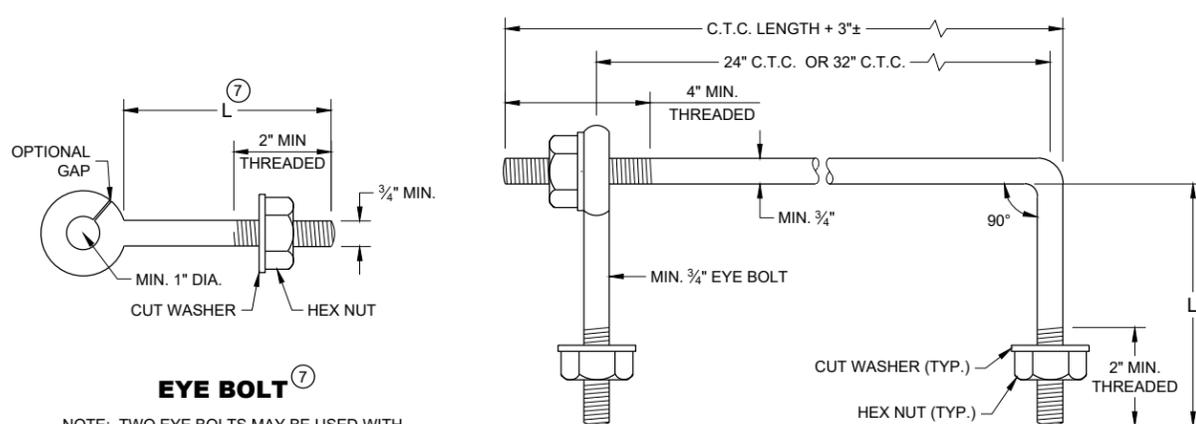
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

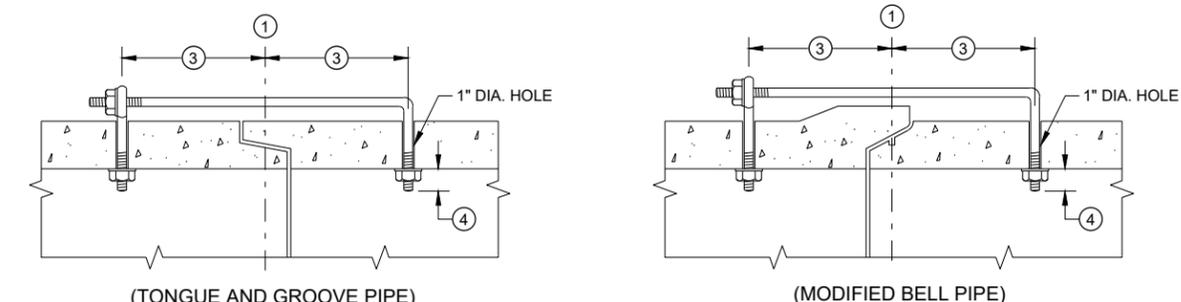
- ① CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- ④ BOLT PROJECTION 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.
- ⑦ EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.



EYE BOLT ⑦

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30\"/>

EYE BOLT AND TIE ROD



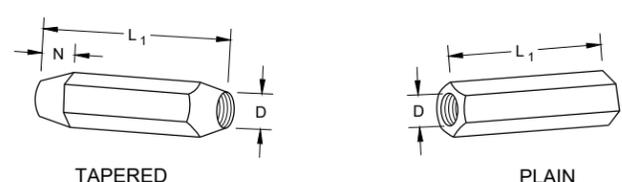
LONGITUDINAL SECTION
(JOINT TIES FOR 18\"/>

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

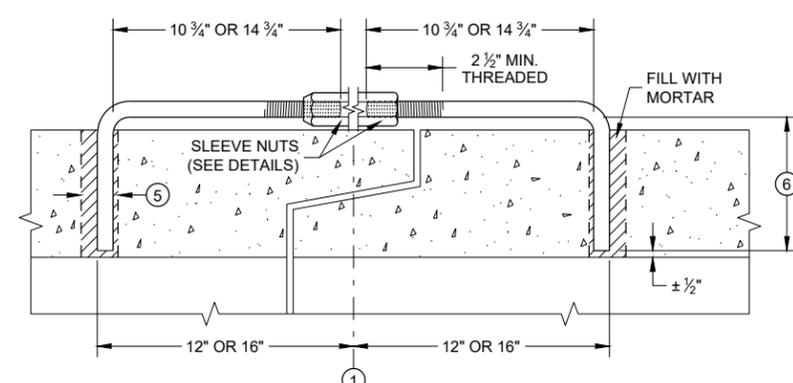
ADJUSTABLE TIE ROD TABLE

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 - 144	1	1	7	1 7/16

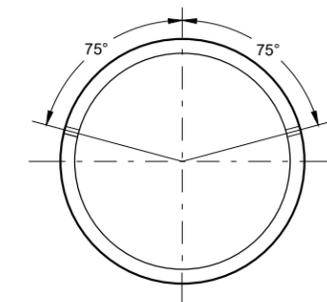
DIMENSIONS SHOWN ARE IN INCHES



RIGHT AND LEFT THREADS SLEEVE NUTS

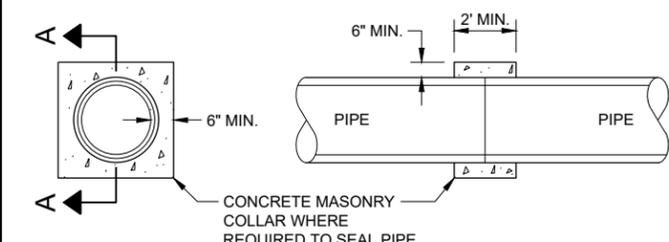


LONGITUDINAL SECTION
ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION

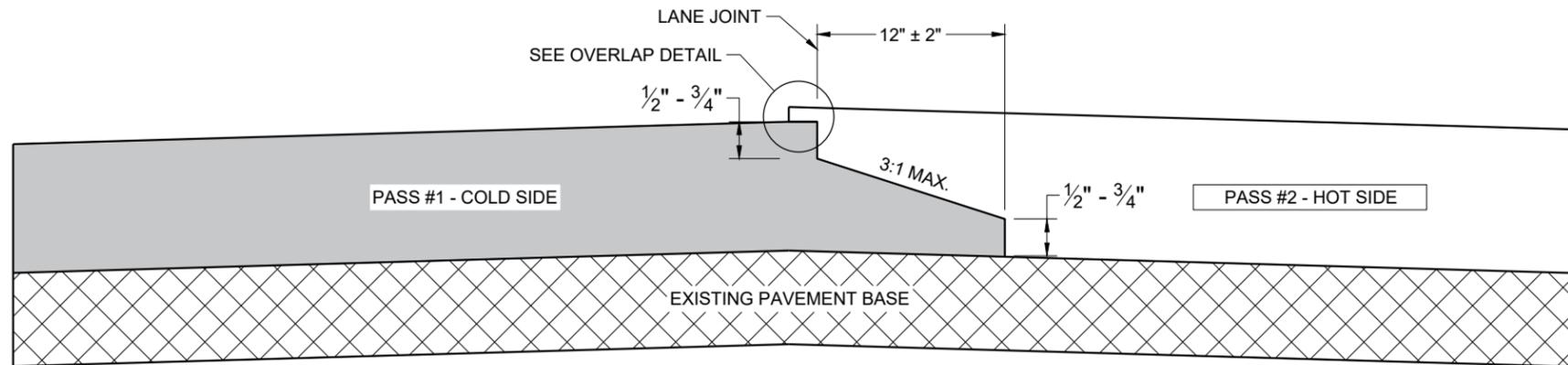


SECTION A - A
CONCRETE COLLAR DETAIL

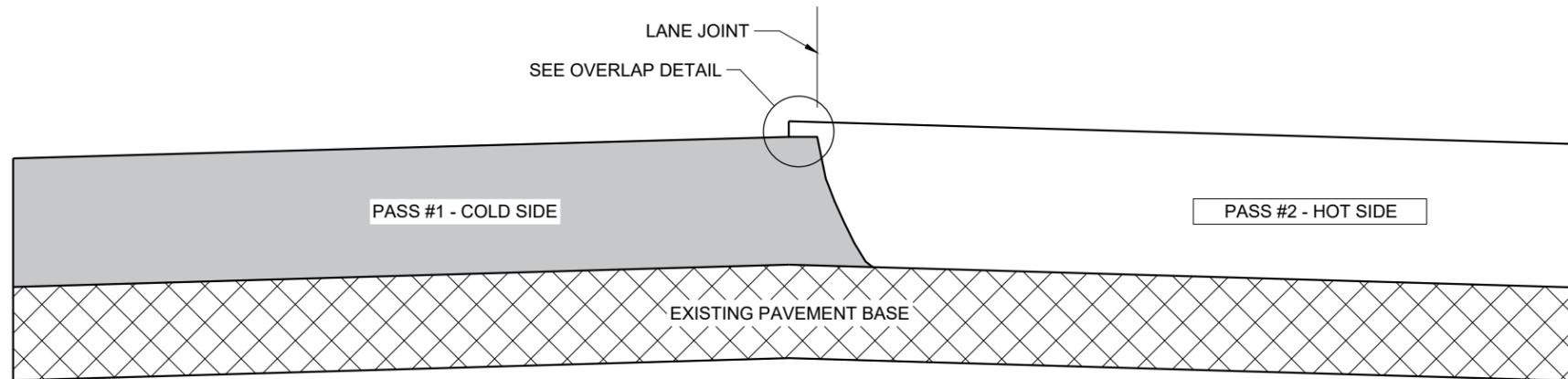
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

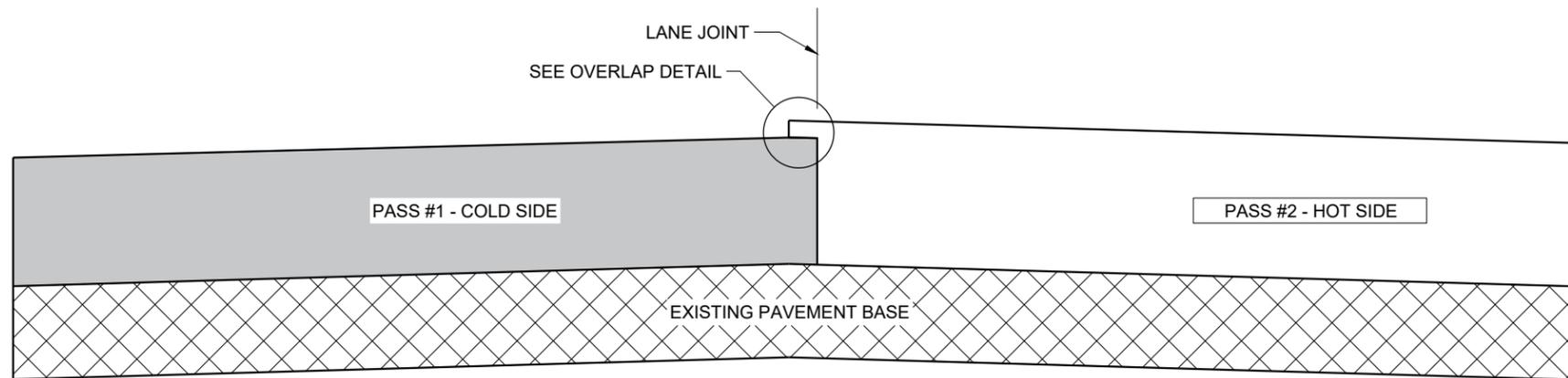
APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

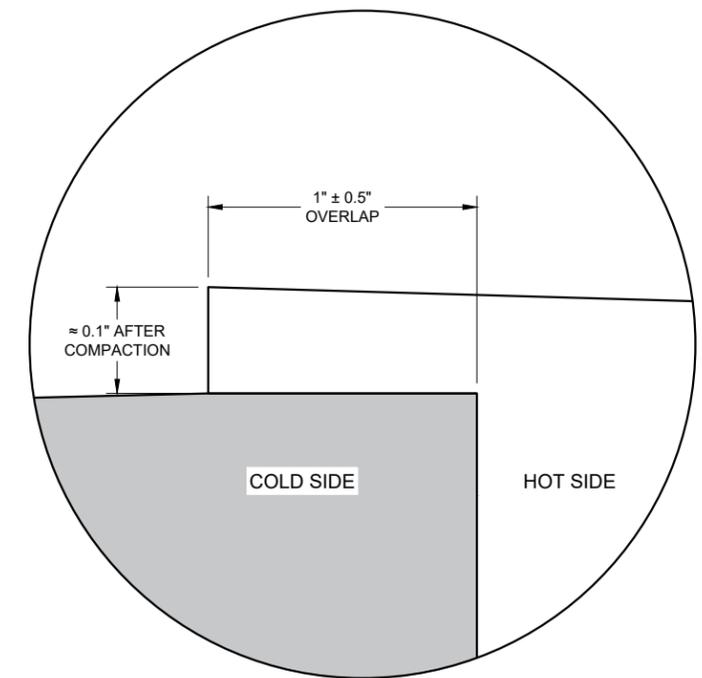
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

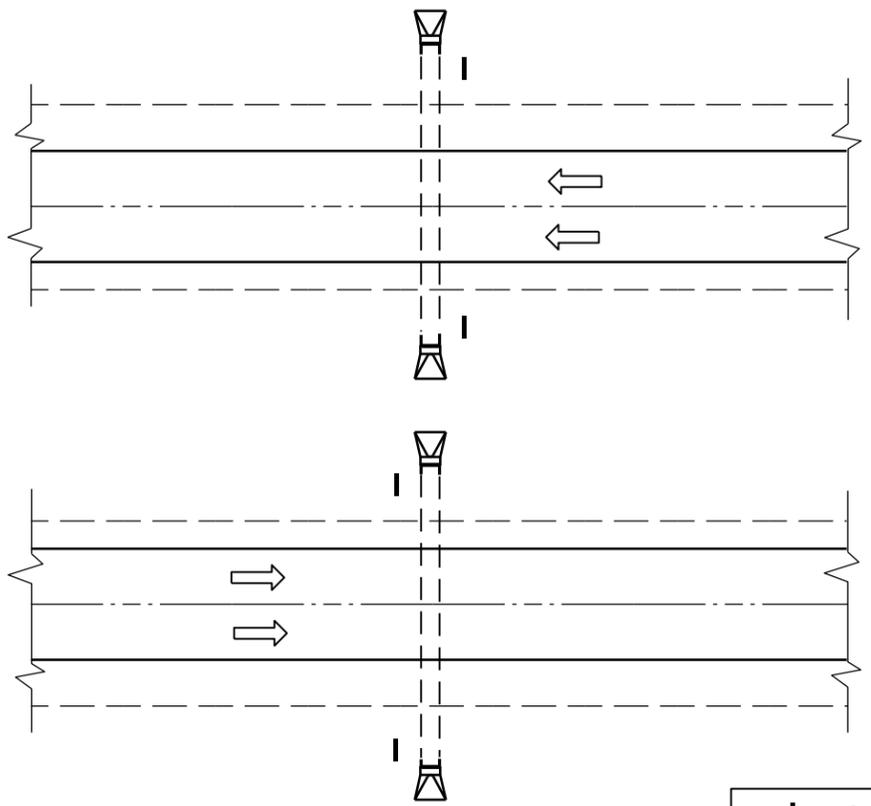
6

6

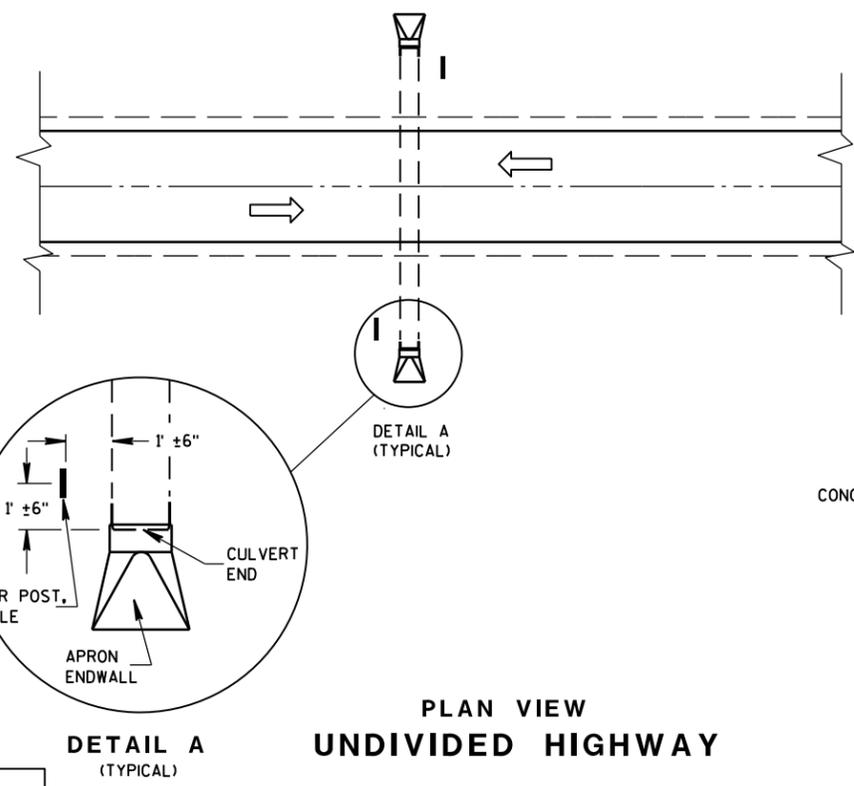
SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	



PLAN VIEW
DIVIDED HIGHWAY

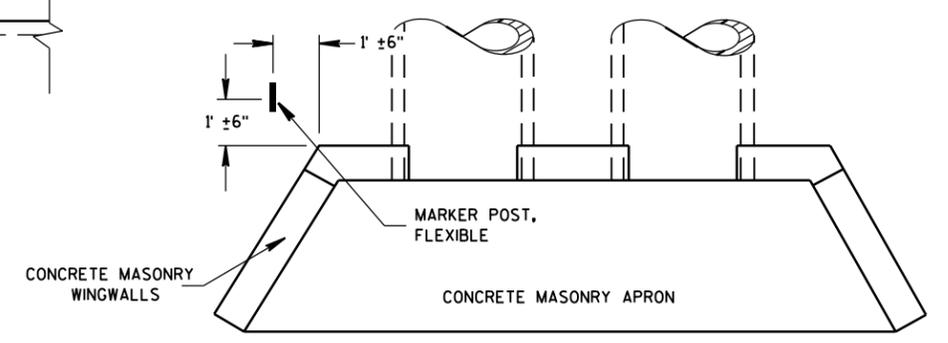


PLAN VIEW
UNDIVIDED HIGHWAY

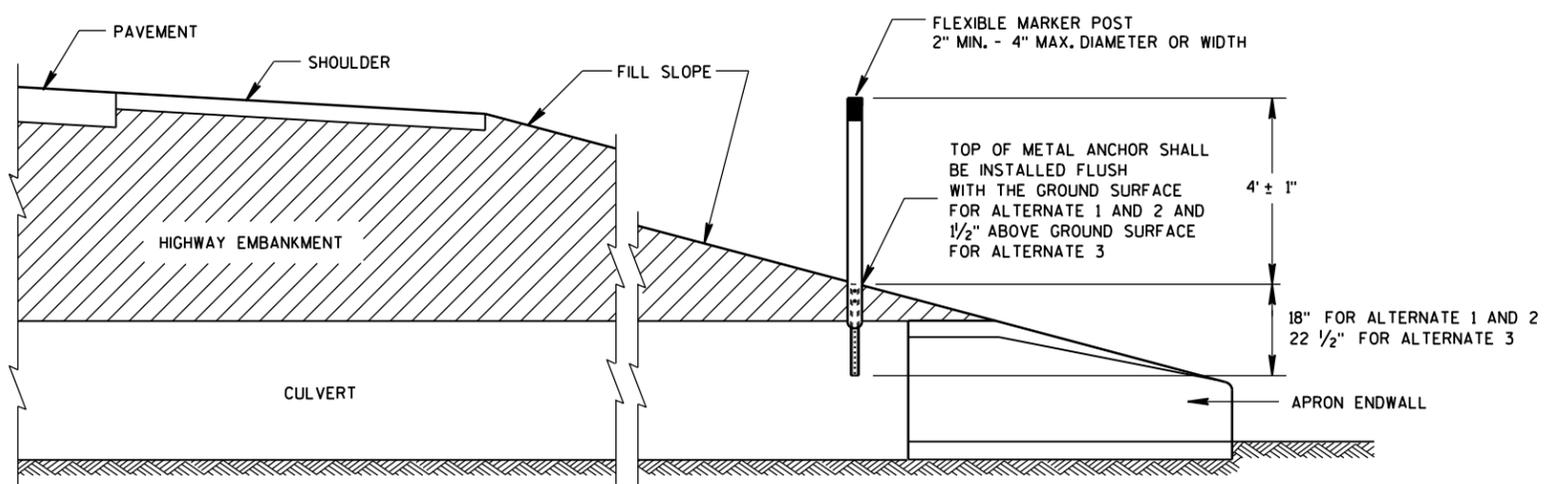
FLEXIBLE MARKER POST LOCATION

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



CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

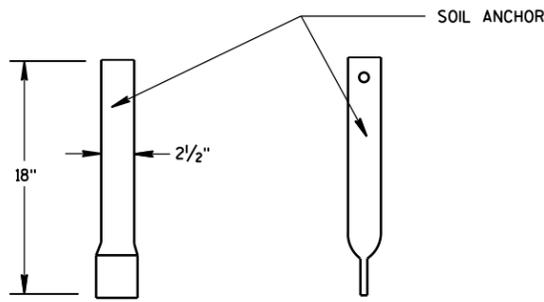
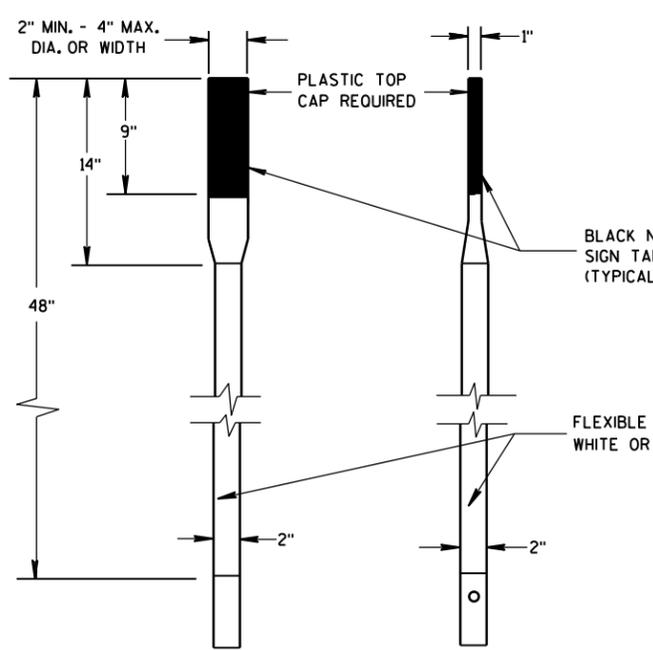
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

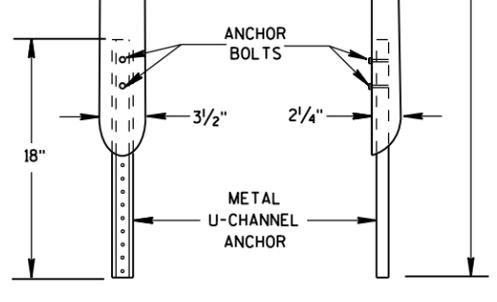
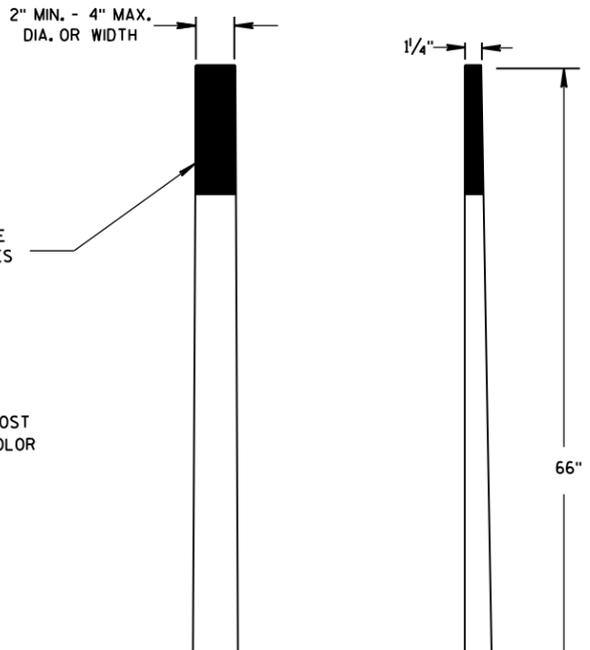
6

S.D.D. 15 A 3-2a

S.D.D. 15 A 3-2a

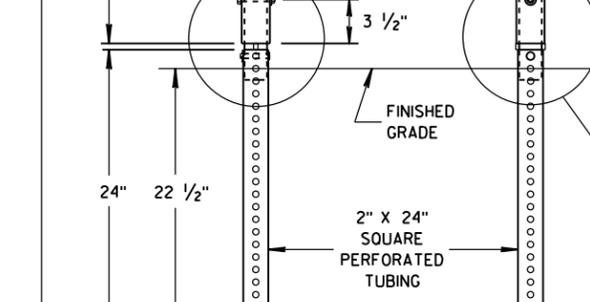
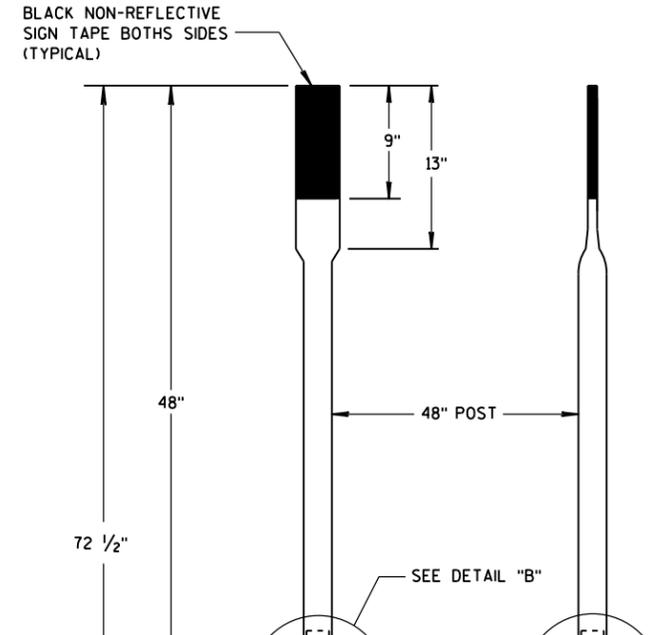


FRONT VIEW SIDE VIEW
ALTERNATE 1

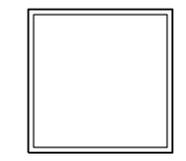


FRONT VIEW SIDE VIEW
ALTERNATE 2

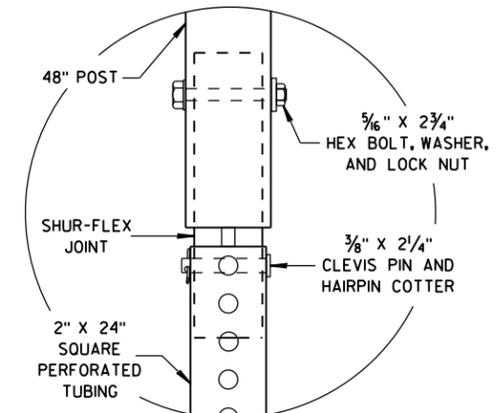
FLEXIBLE MARKER POSTS



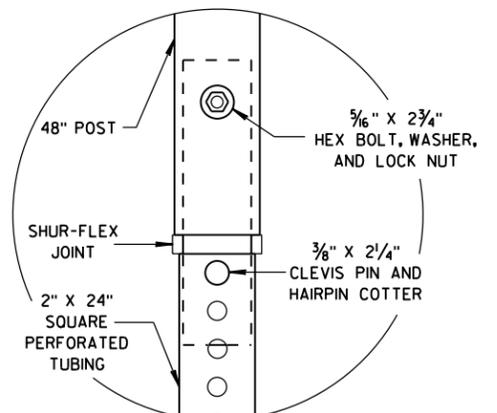
FRONT VIEW SIDE VIEW
ALTERNATE 3



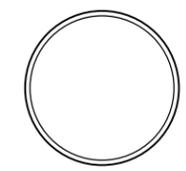
SECTION C-C



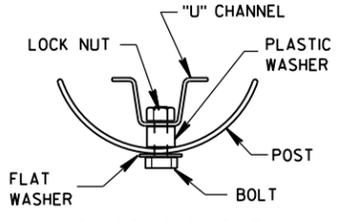
DETAIL B



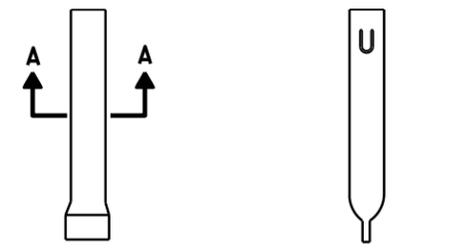
DETAIL C



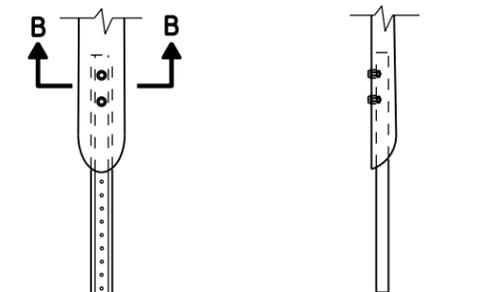
SECTION A-A



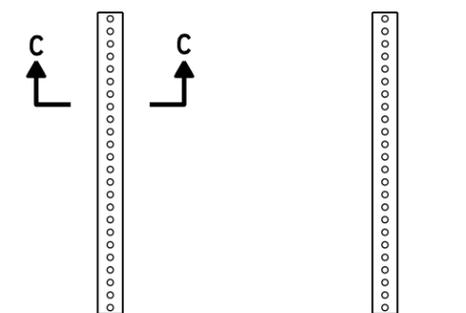
SECTION B-B



FRONT VIEW SIDE VIEW
ALTERNATE 1



FRONT VIEW SIDE VIEW
ALTERNATE 2



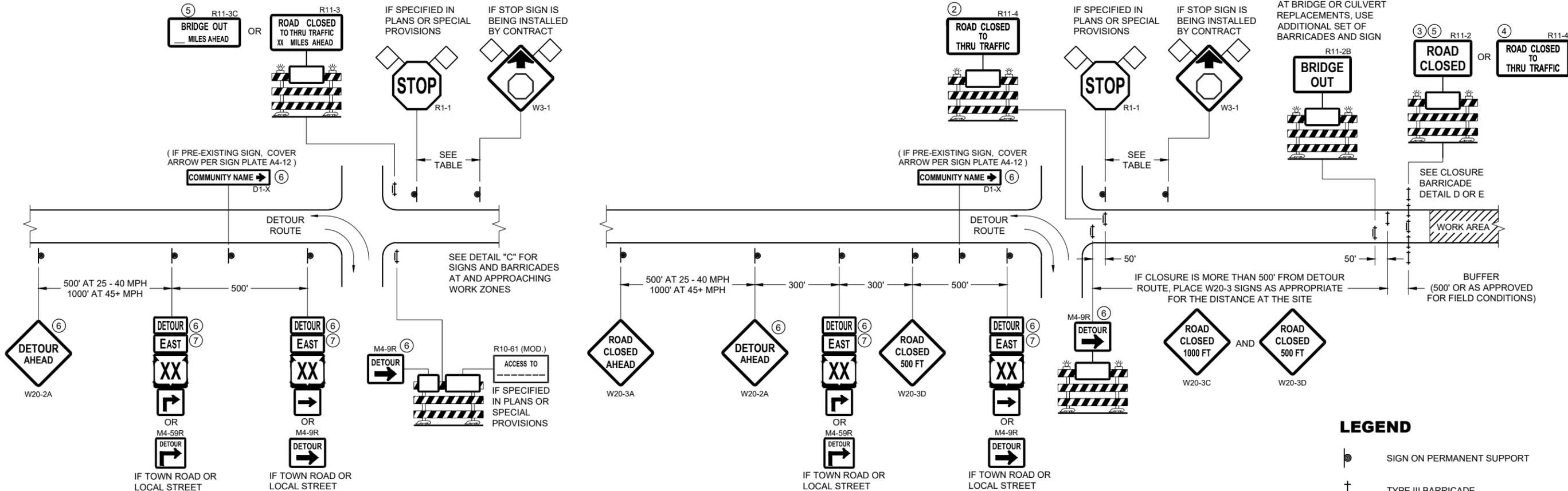
FRONT VIEW SIDE VIEW
ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 DATE /S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN
FHWA



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

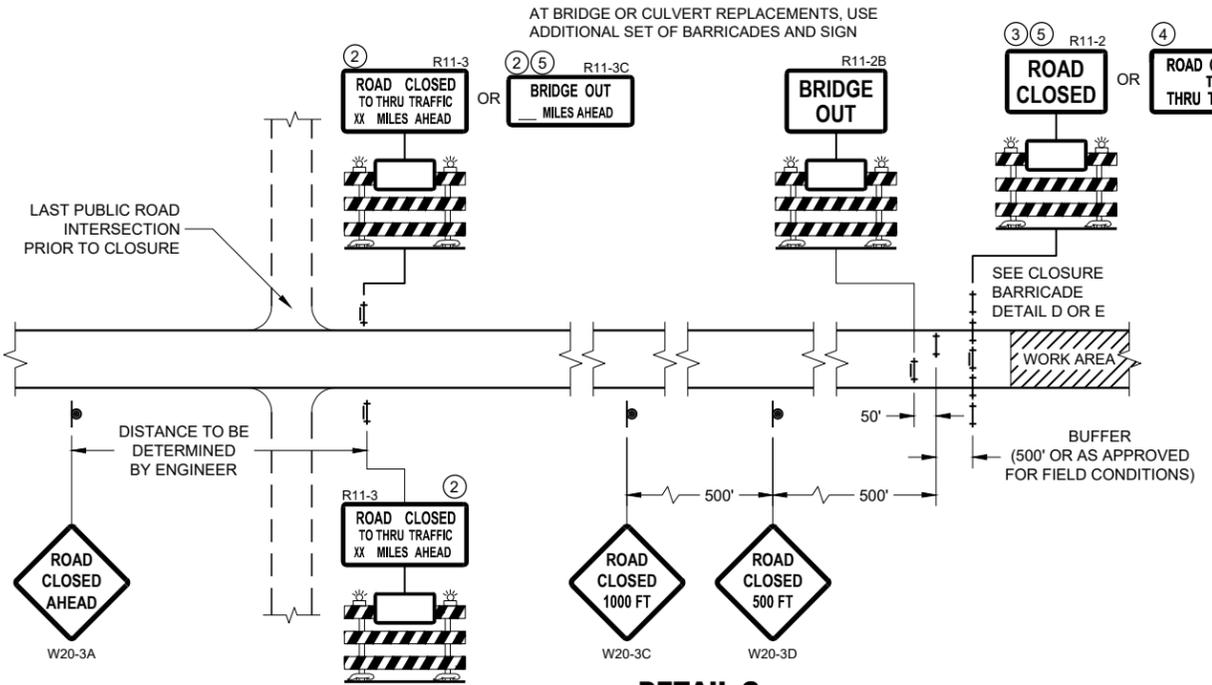
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



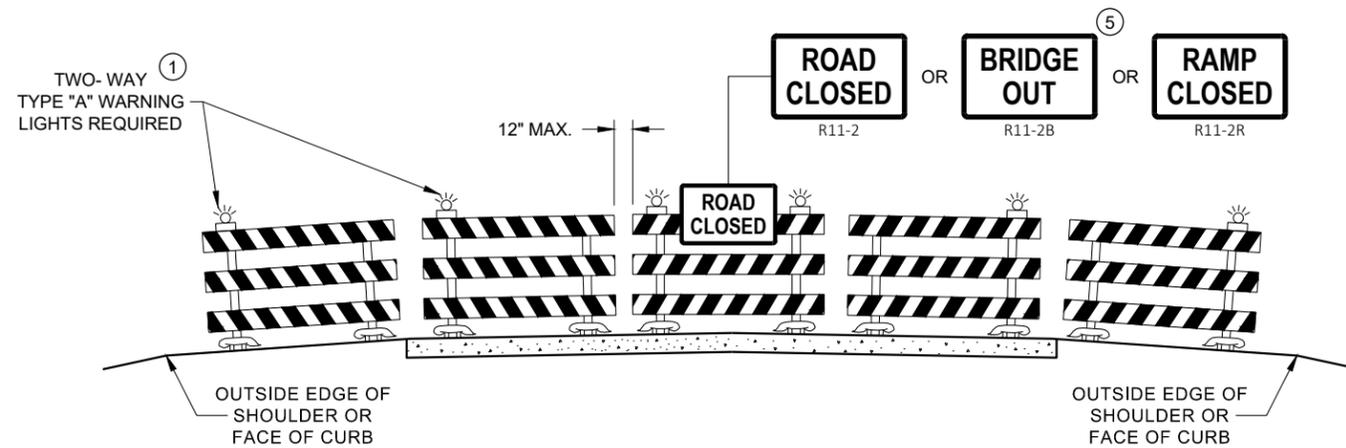
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

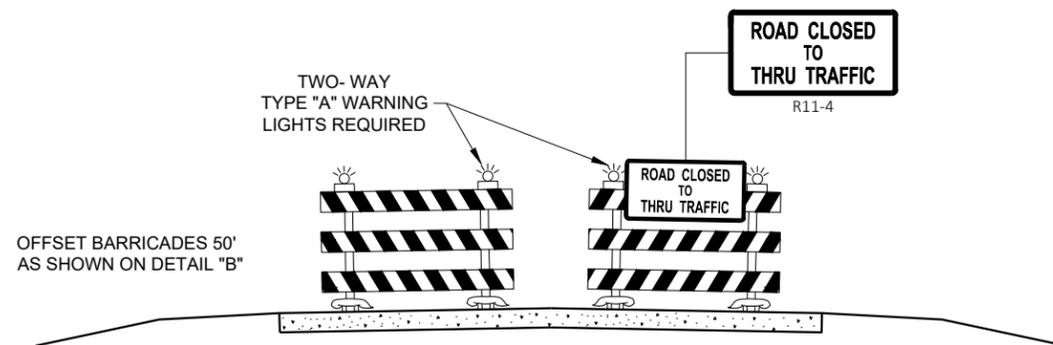
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE DATE WORK ZONE ENGINEER



**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 THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL 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:

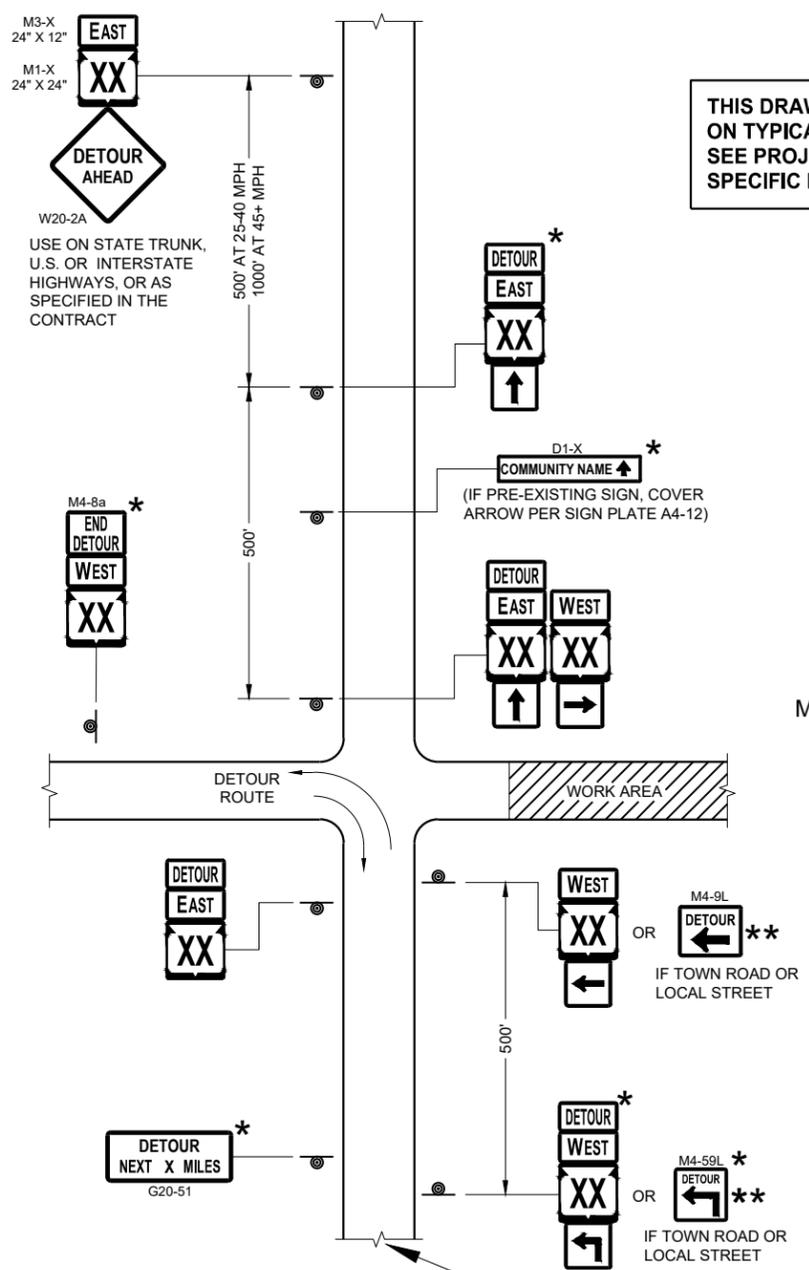
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" 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)
- 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 AN 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 ROAD 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
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

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.

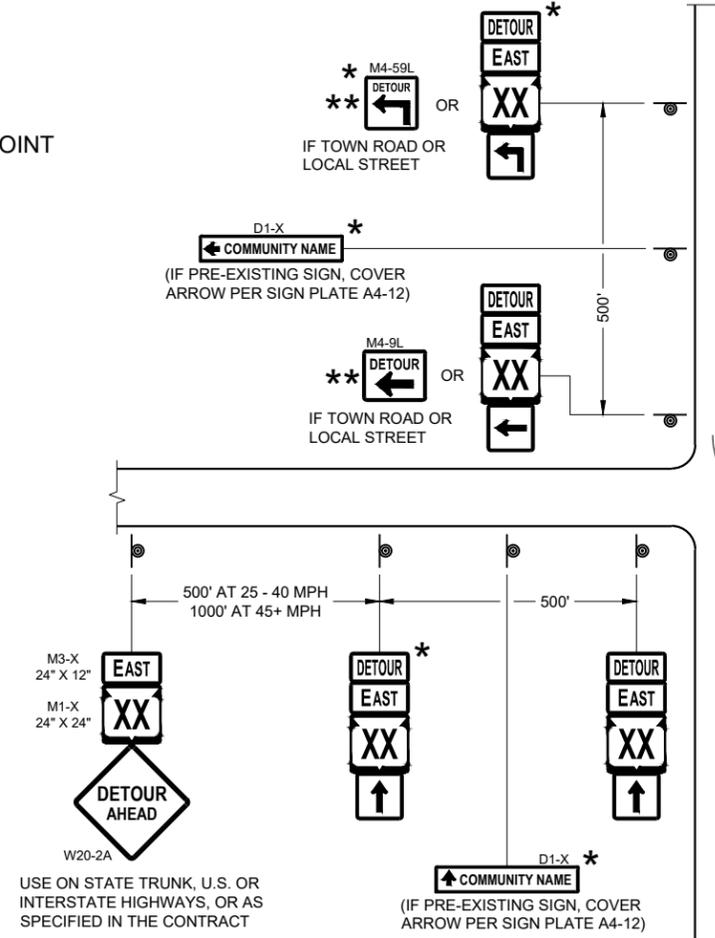
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

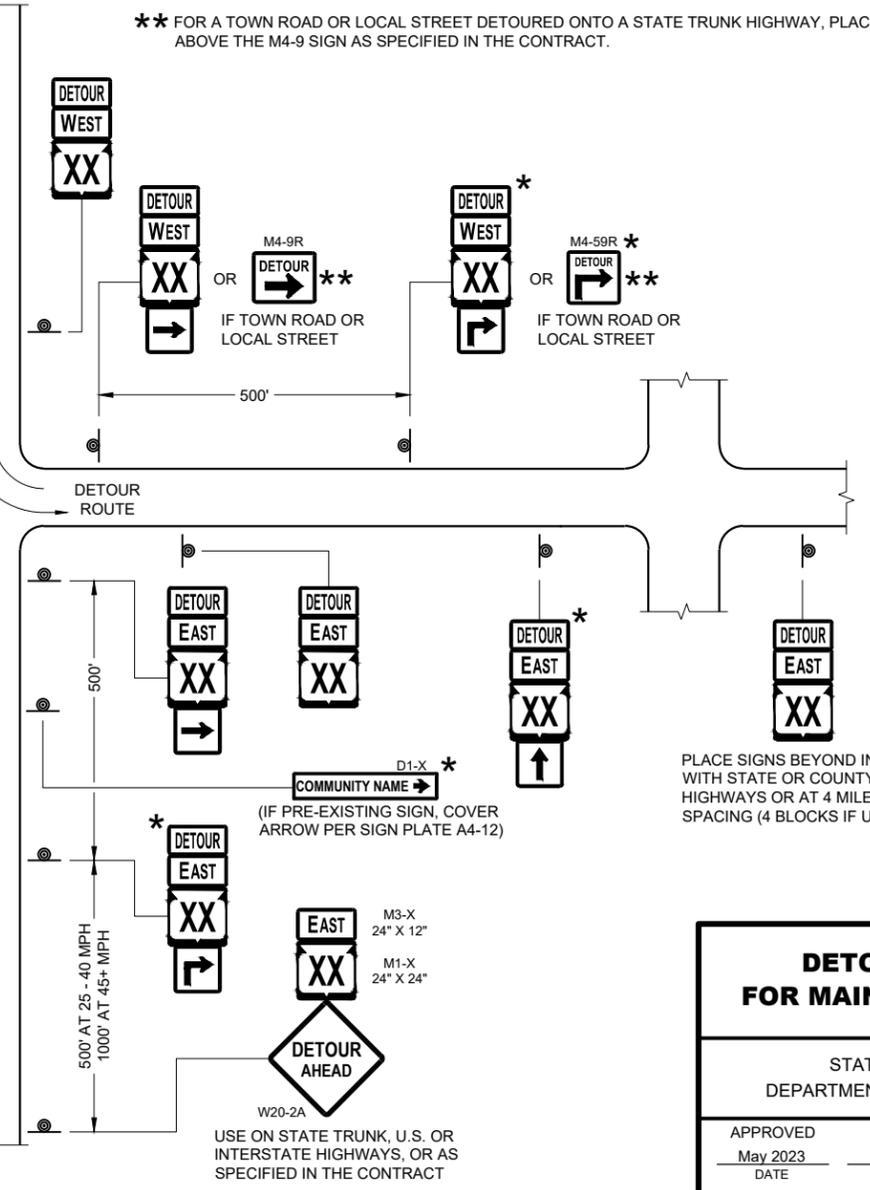
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-9R SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A 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.

MATCH POINT



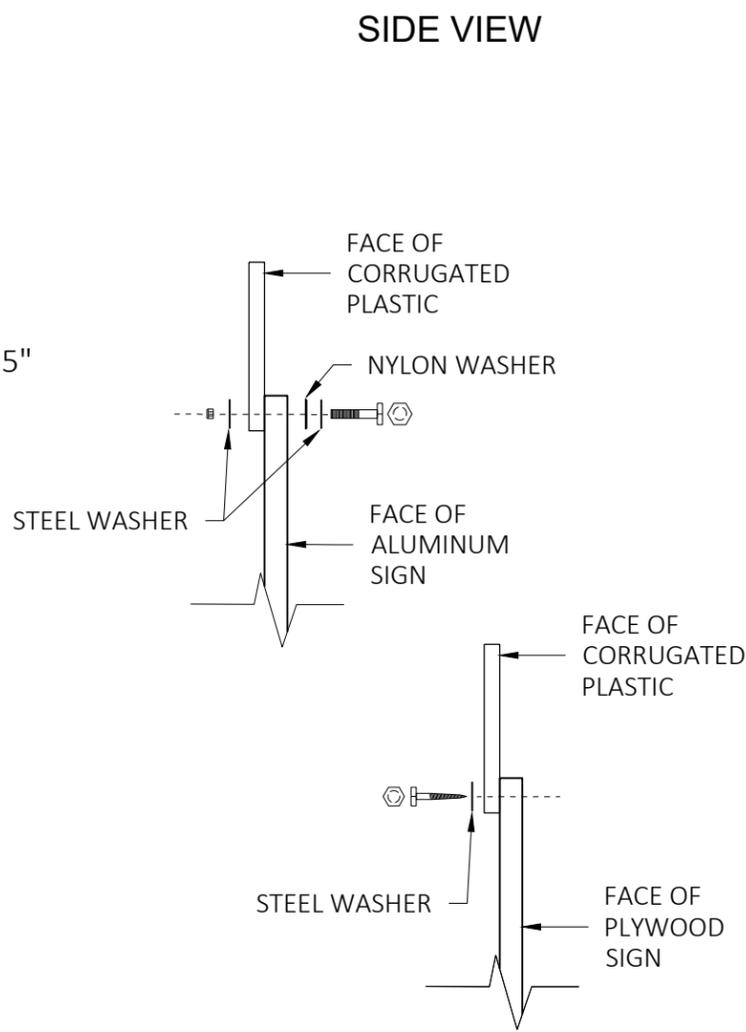
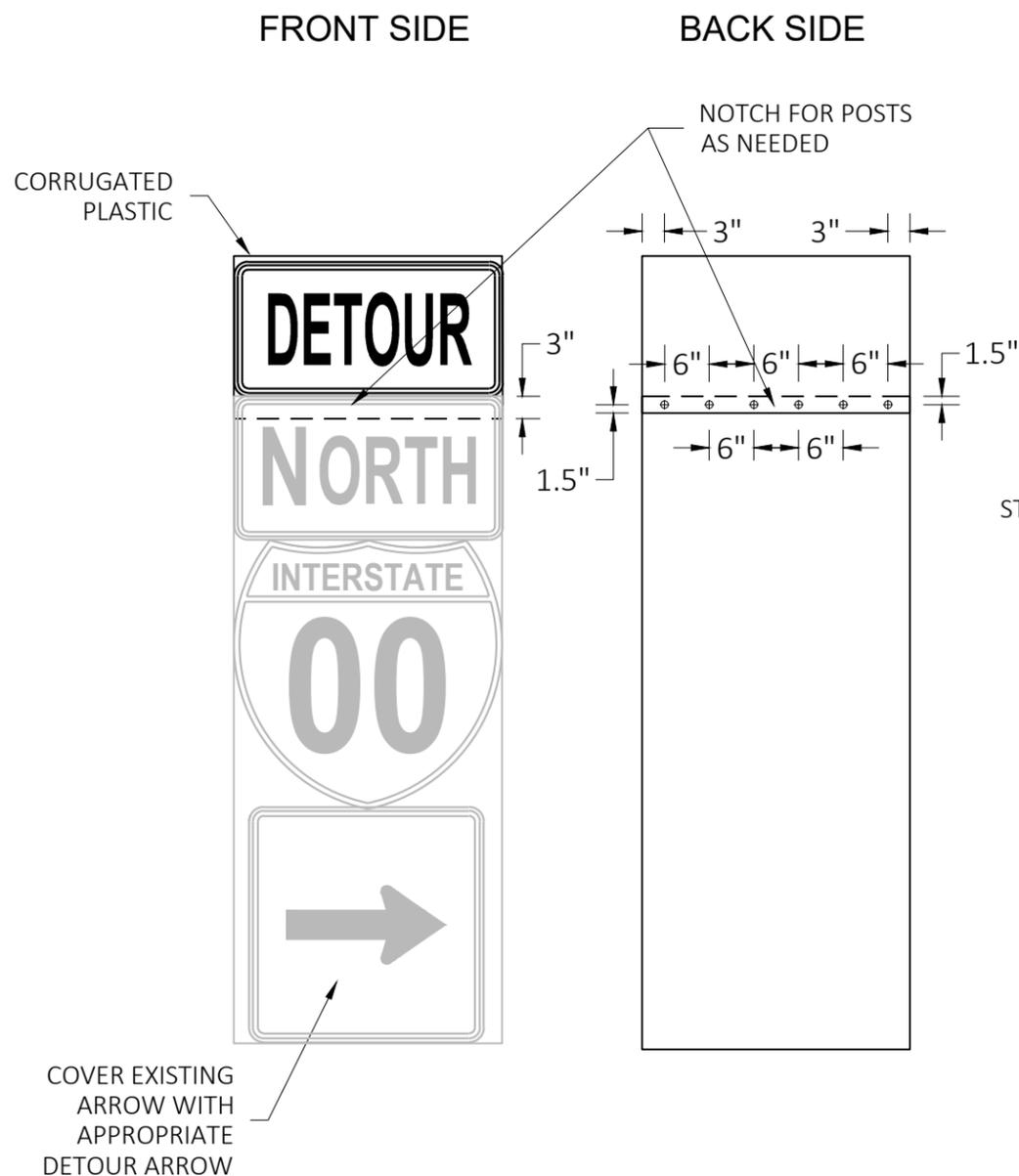
**DETAIL F
DETOUR SIGNING**



PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



GENERAL NOTES

- CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.
- PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.
- FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.
- FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.
- METAL WASHERS, NUTS, BOLTS AND LAGS 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, SC3
- 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.
- PLYWOOD SIGNS:
 - LAG SCREWS - 5/16" x 1"
- ALUMINUM SIGNS:
 - MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS
- WASHERS:
 - 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

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Andrew Heidtke ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

6

SDD 15C02-09h

SDD 15C02-09h

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

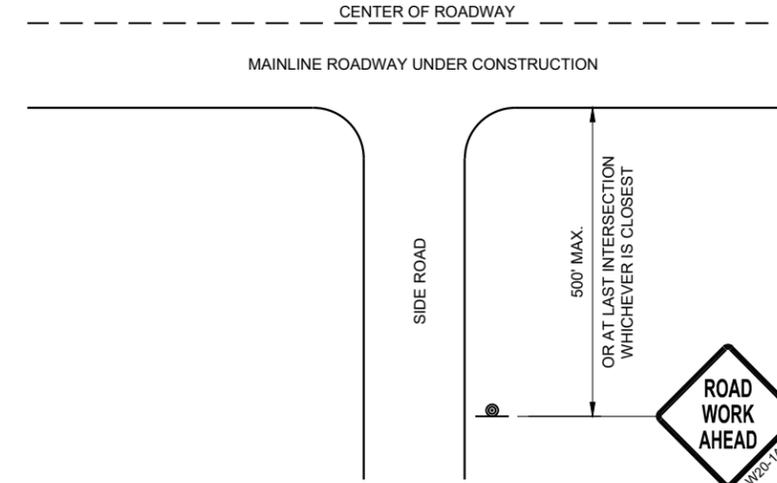
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

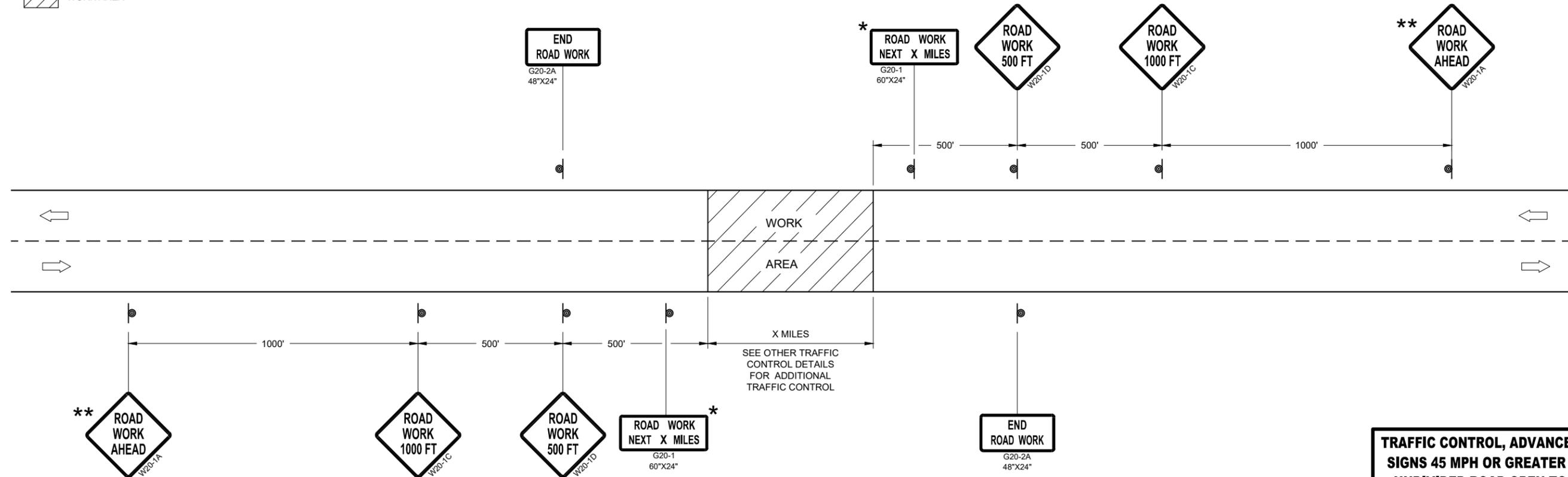
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

**TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____ /S/ Andrew Heidtke
DATE July 2018 WORK ZONE ENGINEER

FHWA

GENERAL NOTES

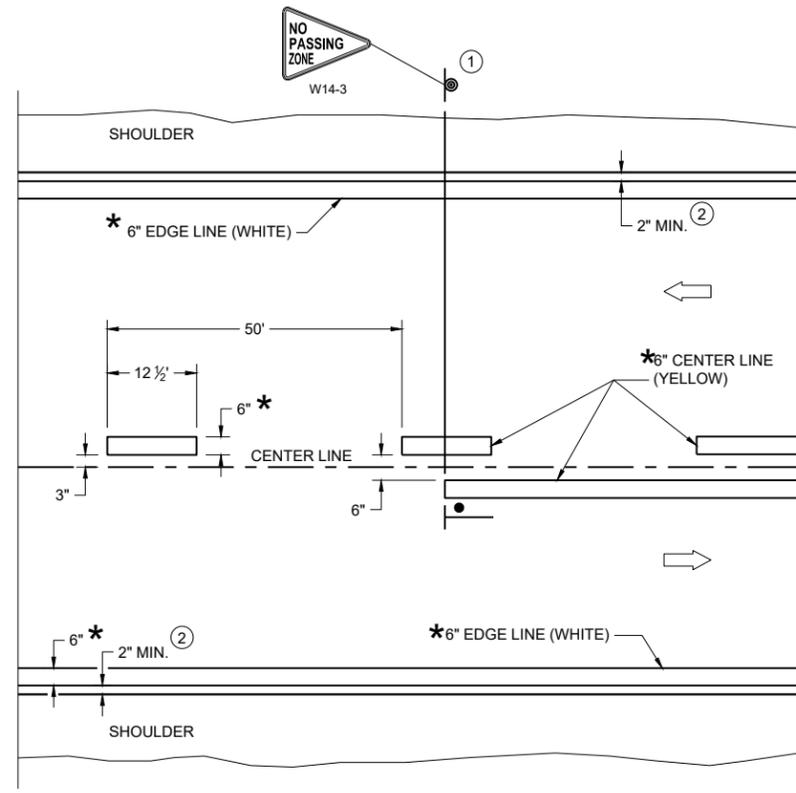
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

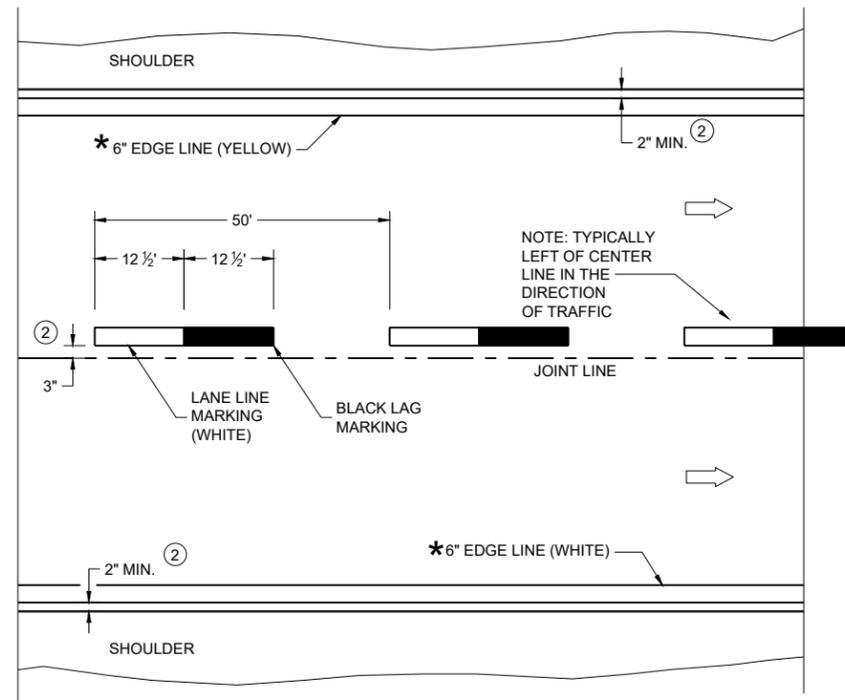
LEGEND

-  "T" MARKING
-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

6

SDD 15C08-24a

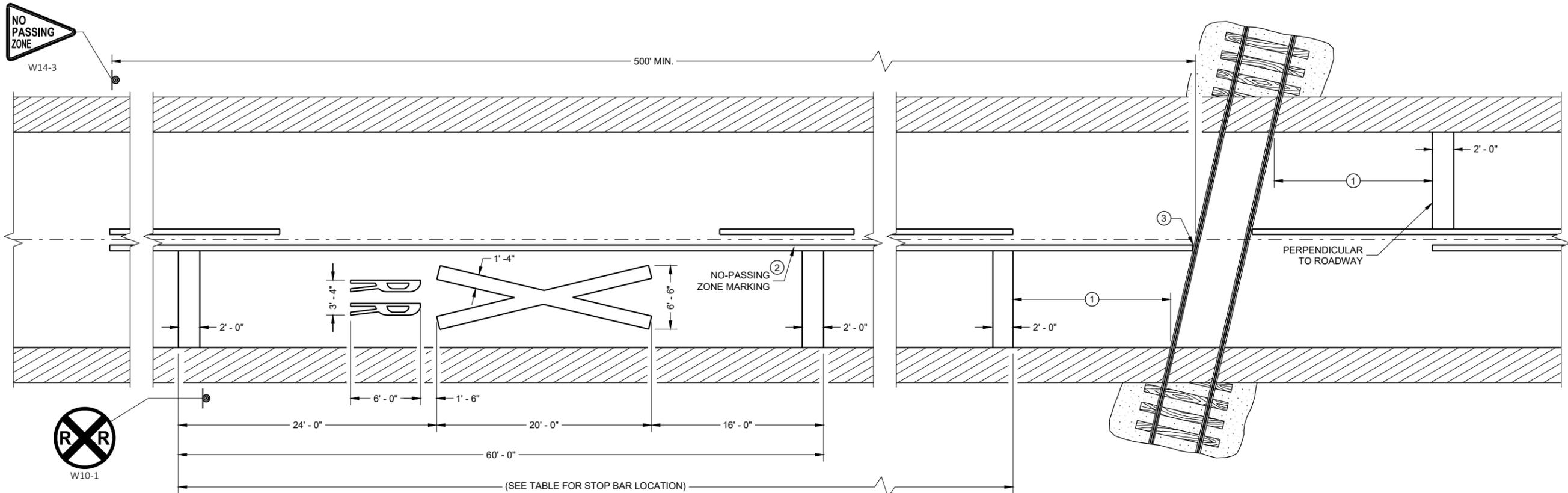
SDD 15C08-24a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer

FHWA



PAVEMENT MARKING

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

TRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

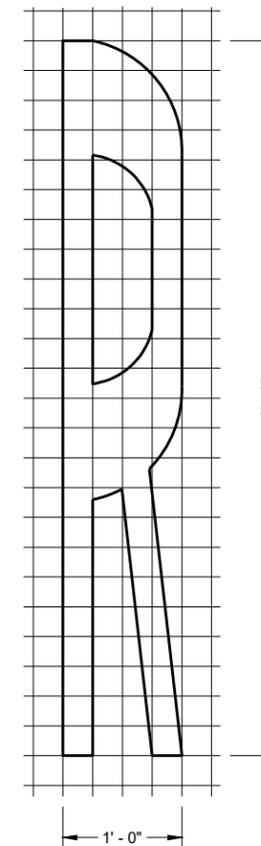
- ① PLACE STOP BAR APPROXIMATELY 8 FEET IN ADVANCE OF THE GATE (IF PRESENT), BUT NO CLOSER THAN 15 FEET IN ADVANCE OF THE NEAREST RAIL. FIELD-FIT STOP BAR TO MAXIMIZE VIEW OF APPROACHING TRAIN.
- ② 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ③ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

DISTANCE TABLE

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

POSTED SPEED (M.P.H.)	DIMENSION RANGE (FEET)
25	150* - 250'
30	200* - 300'
35	250* - 450'
40	300* - 500'
45	400* - 650'
50	550* - 800'
55	750* - 1000'
60	1000* - 1250'
65	1000* - 1250'

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSED PROXIMITY OF DRIVEWAYS, BRIDGES, SIDE ROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.



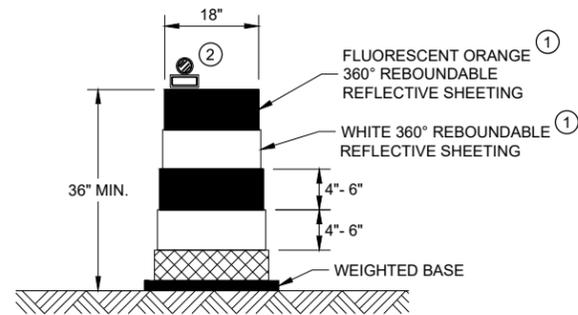
SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 DATE /S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER
FHWA

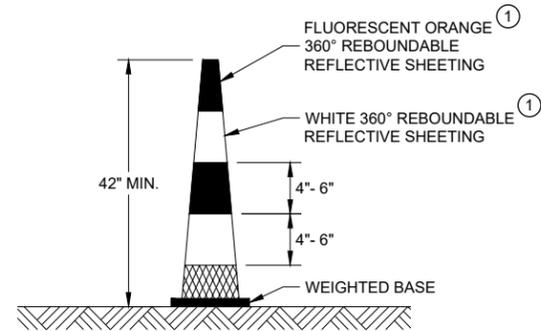
GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



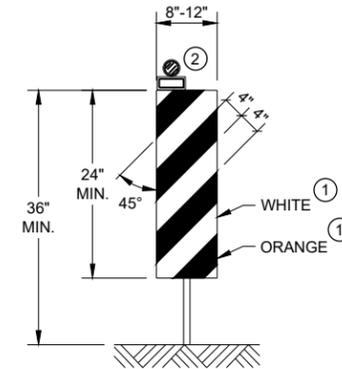
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



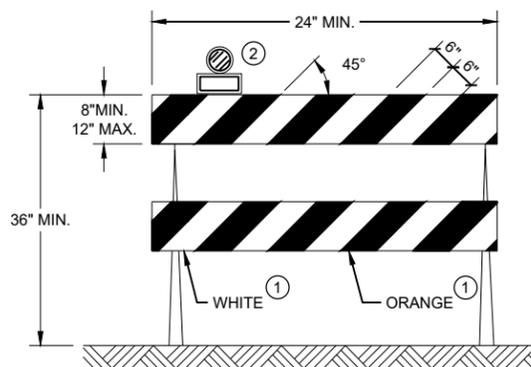
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



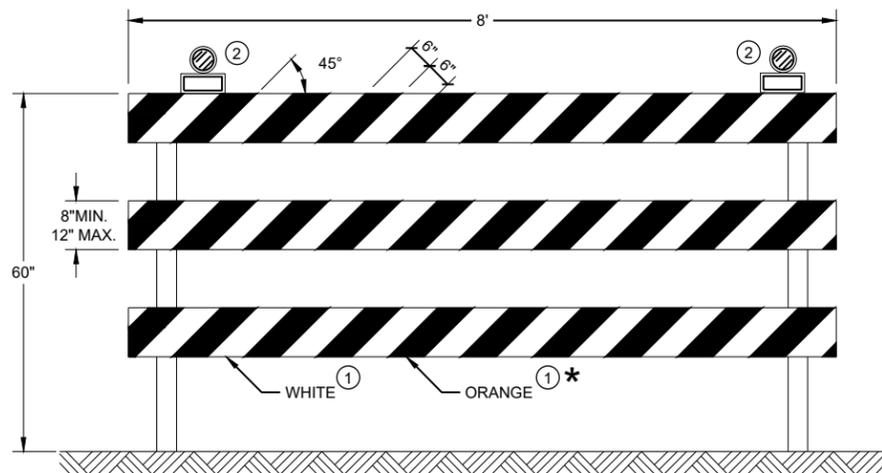
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

LEGEND

-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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.

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

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

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

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 PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' 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.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

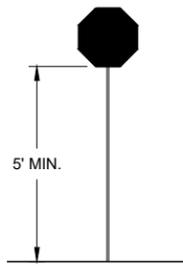
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



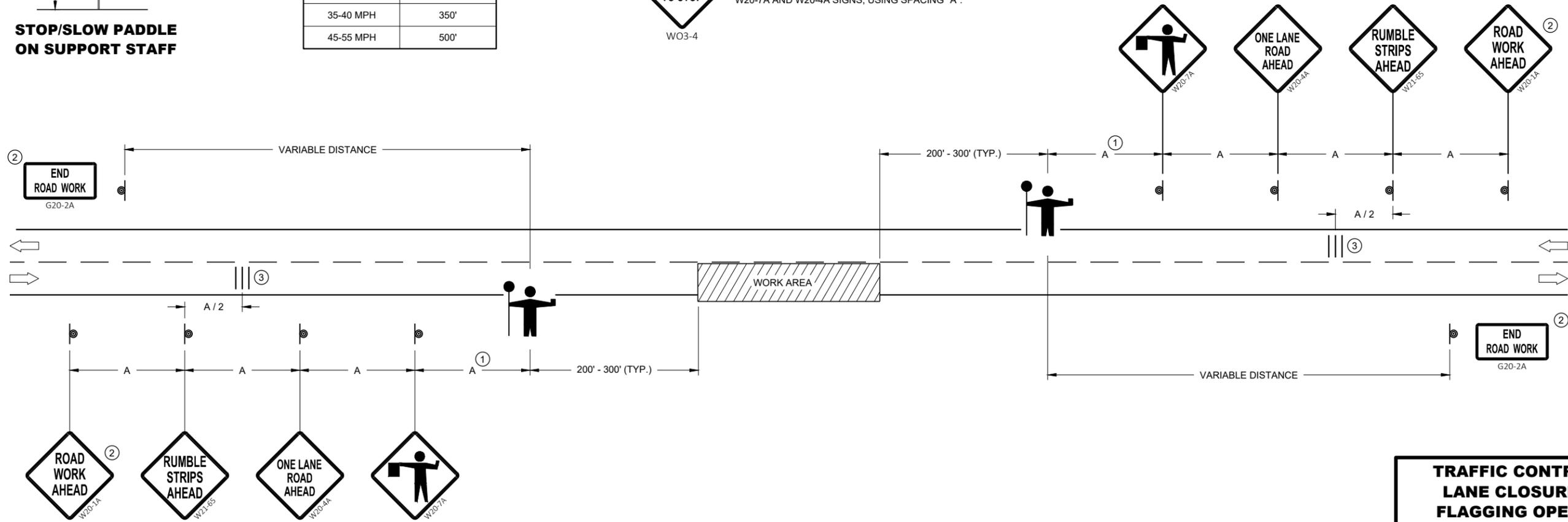
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



6

6

SDD 15C12 - 09a

SDD 15C12 - 09a

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

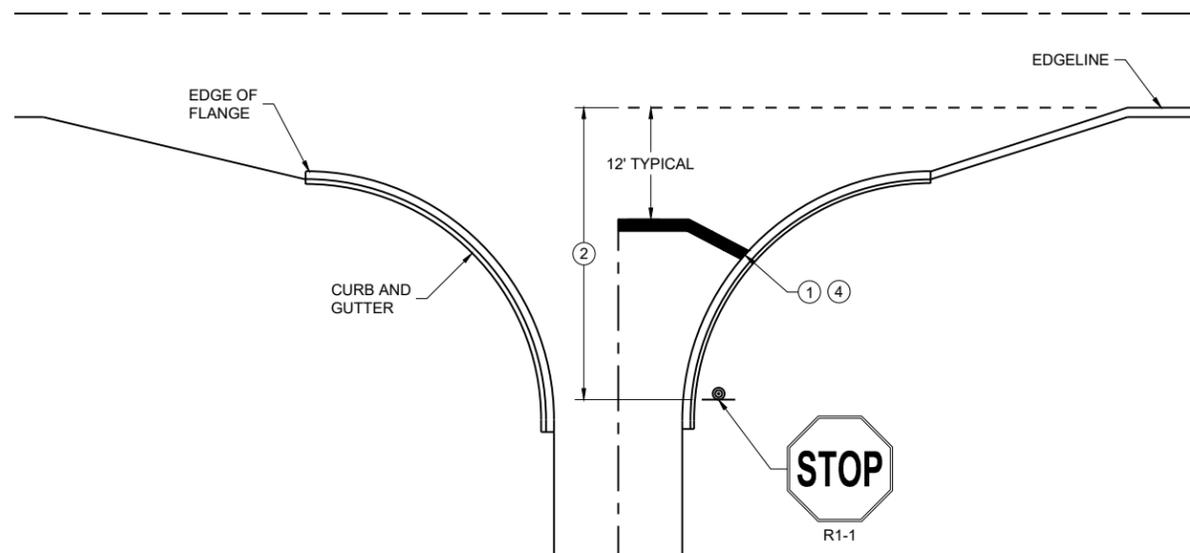
APPROVED
DATE May 2022 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

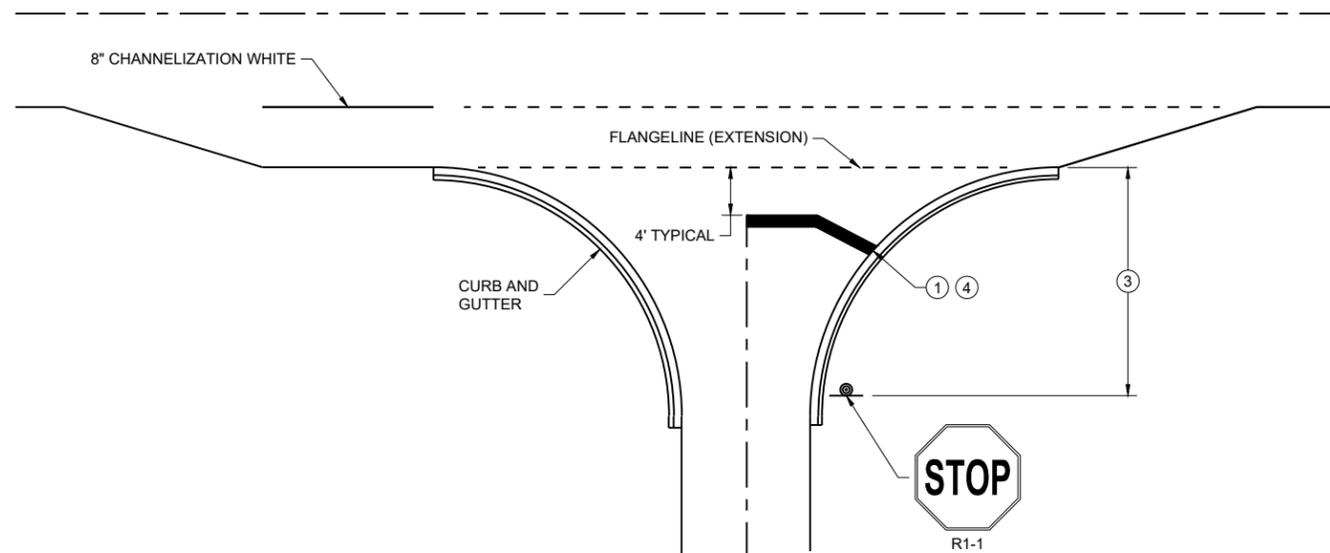
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

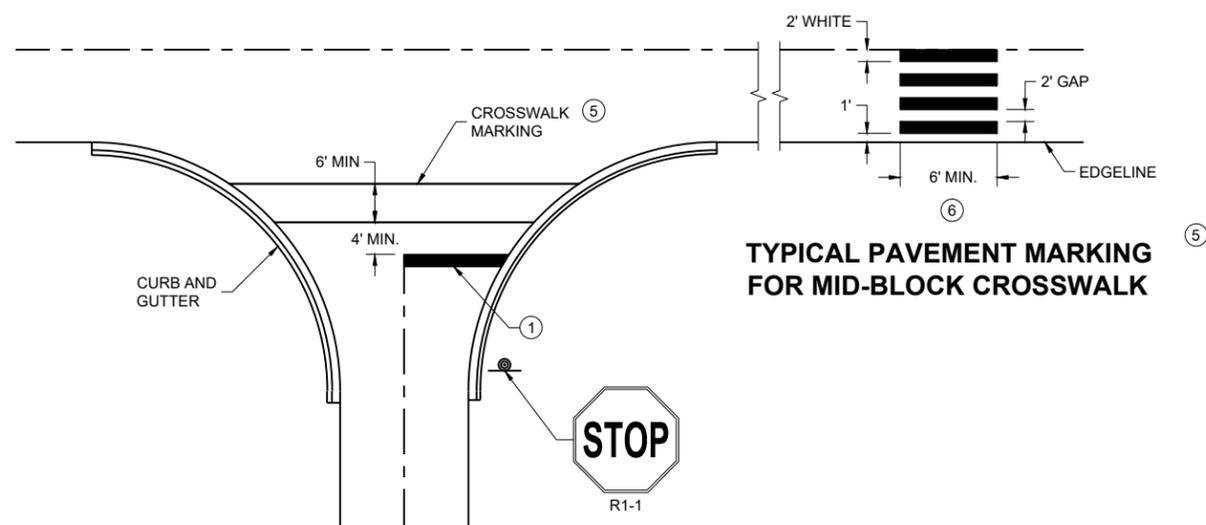
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
- ⑥ POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

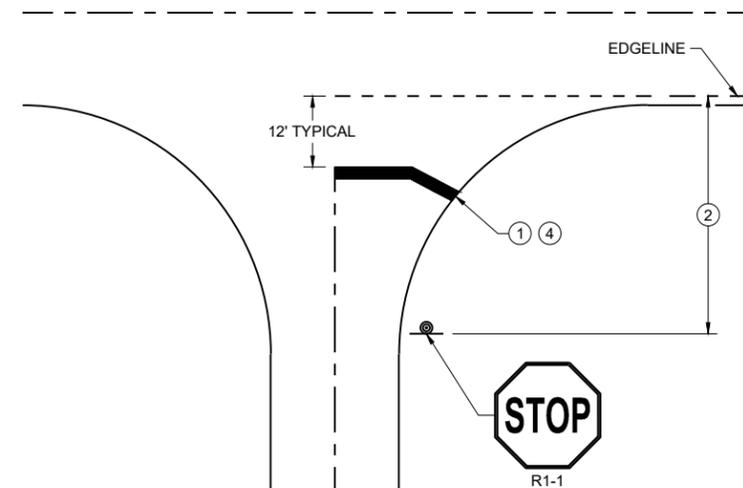


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK



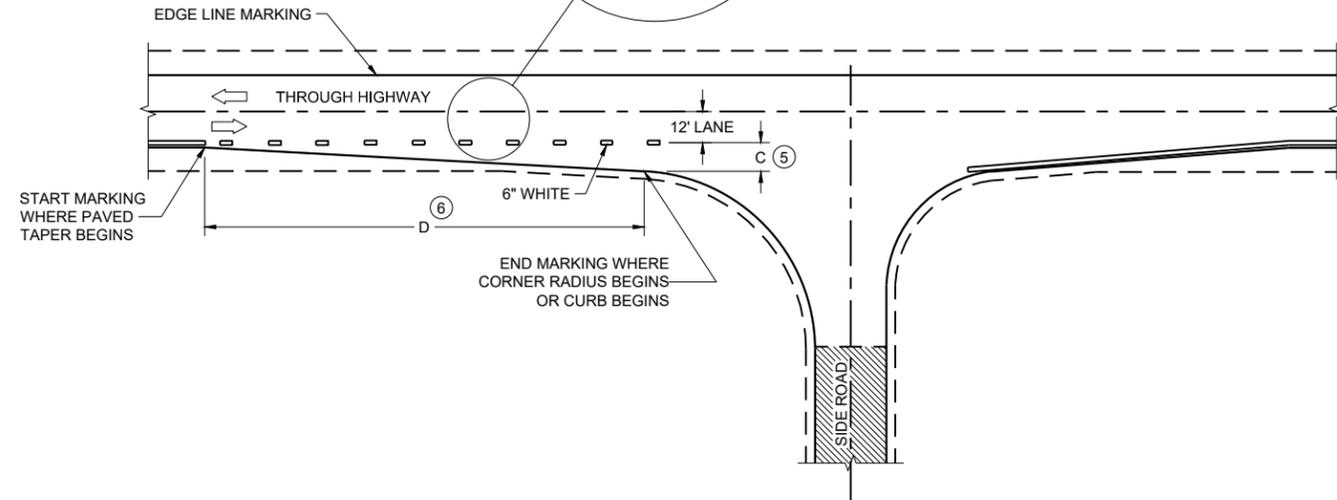
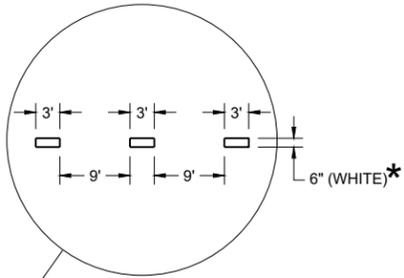
TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /s/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER

FHWA



MINOR INTERSECTION

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

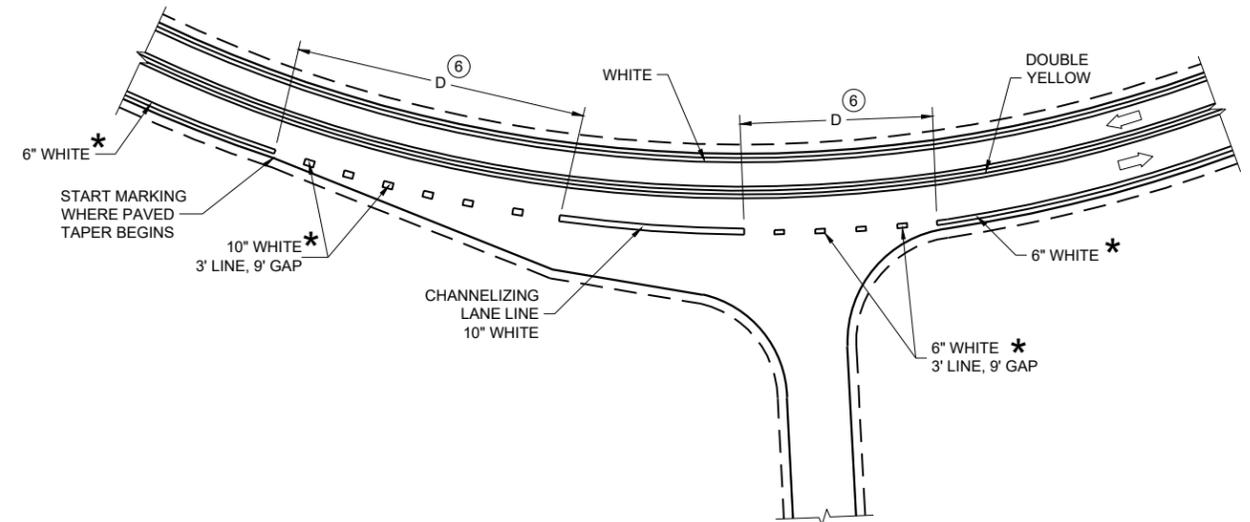
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

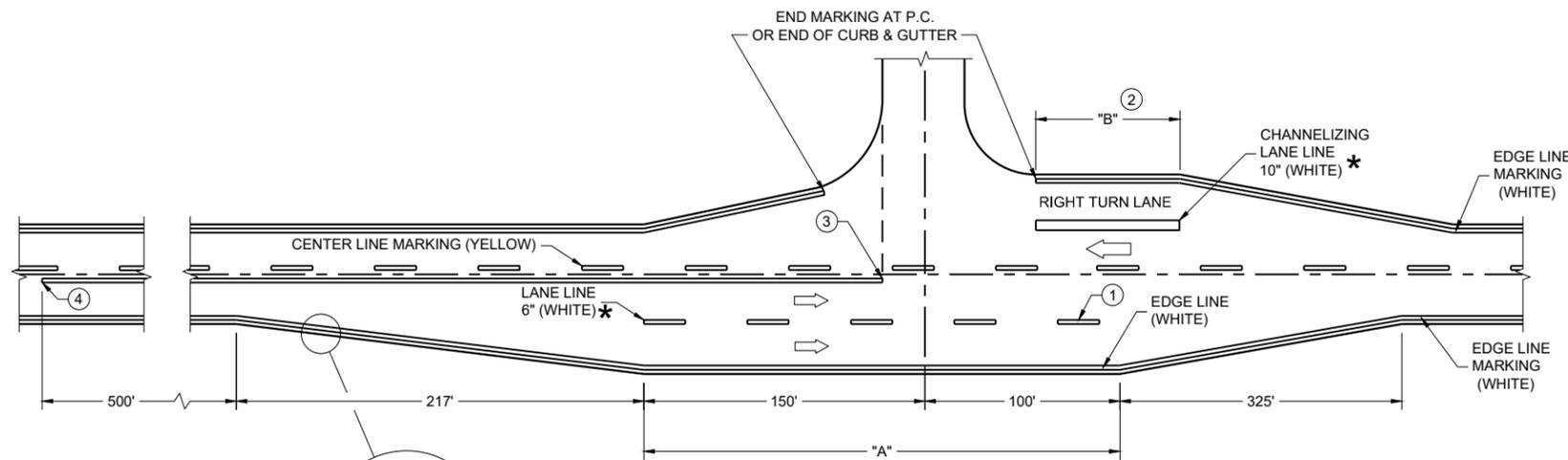
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

➡ DIRECTION OF TRAVEL

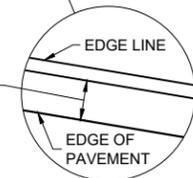


INTERSECTION ON OUTSIDE OF CURVE



**MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**

BYPASS LANE PAVED SHOULDER WIDTH (AS SHOWN ELSEWHERE IN PLANS) - PLUS 2 INCHES



**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

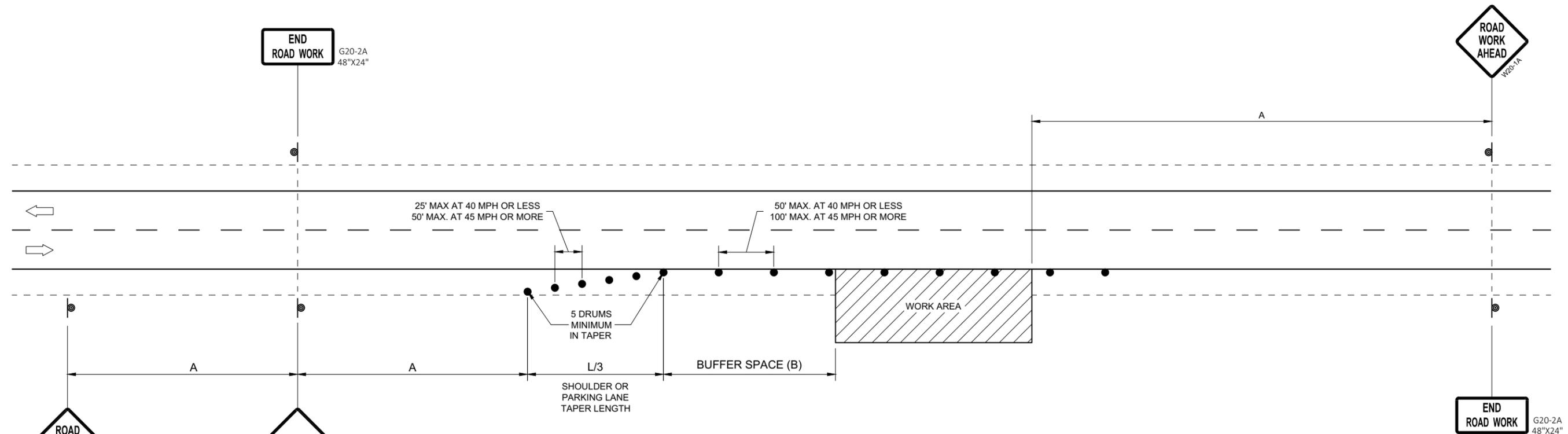
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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.

6

6



OR
IF TRAFFIC CONTROL DEVICES
ENCROACH ONTO TRAVELED WAY, USE

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

**TRAFFIC CONTROL, WORK ON
SHOULDER OR PARKING LANE,
UNDIVIDED ROADWAY**

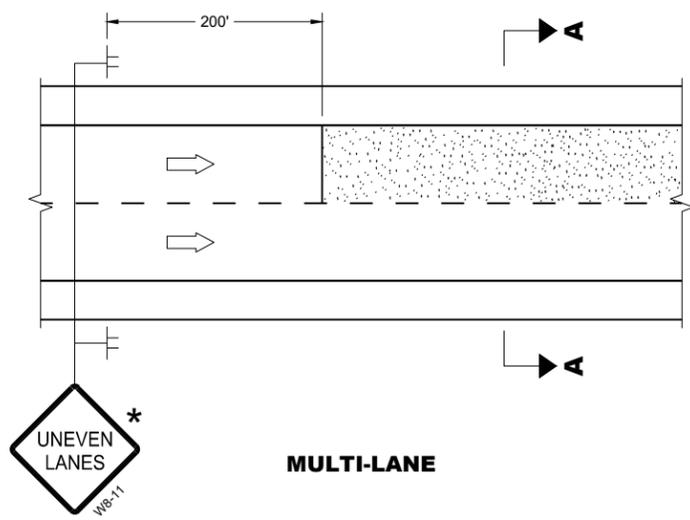
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

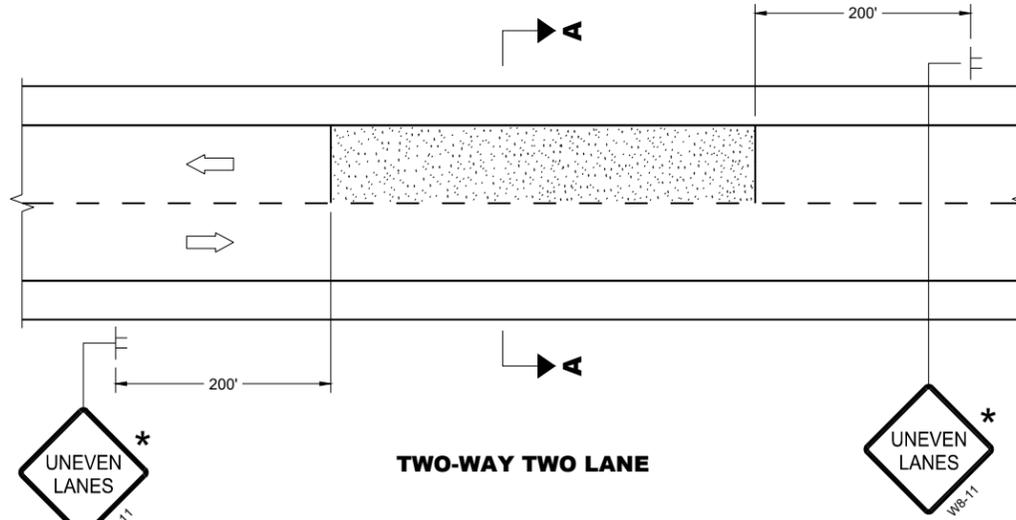
FHWA

SDD 15D28 - 04

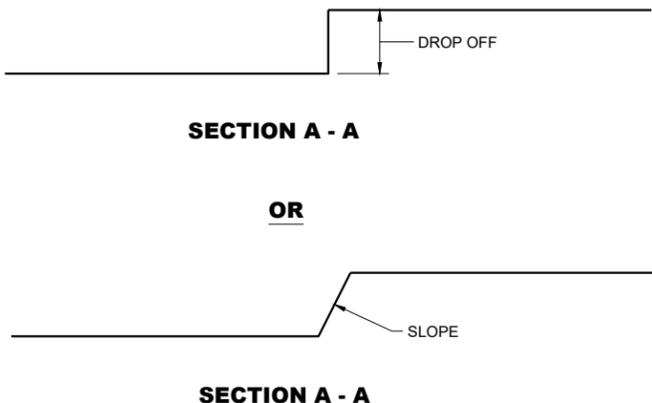
SDD 15D28 - 04



MULTI-LANE



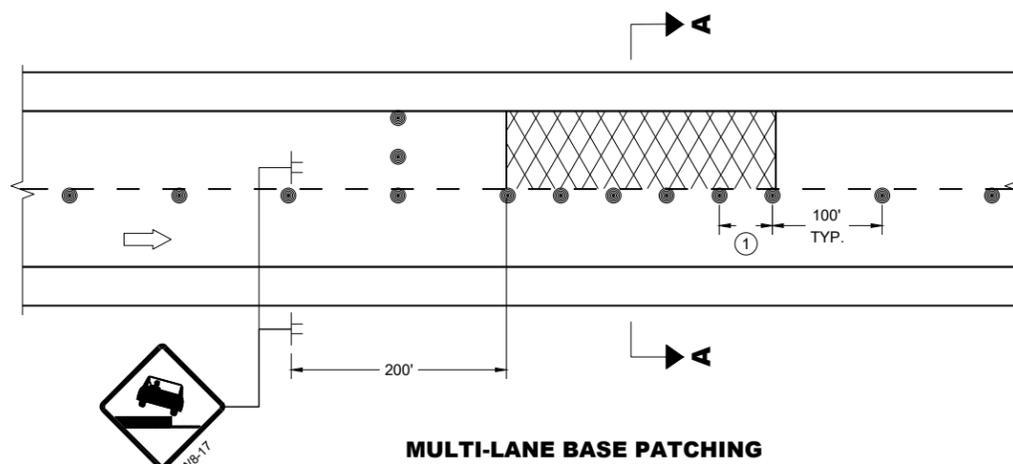
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

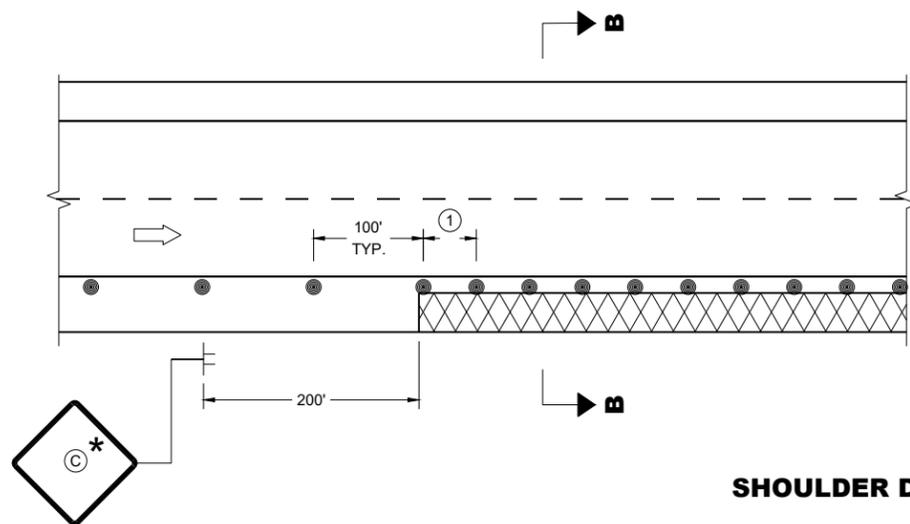
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

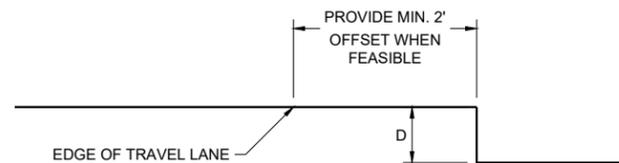
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

6



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN ©
< 2" WITH A SLOPE STEEPER THAN 3:1	 LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	 SHOULDER DROP - OFF W8-9A
PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT	

**TRAFFIC CONTROL,
DROP-OFF SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

SDD 15D39-03

SDD 15D39-03

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

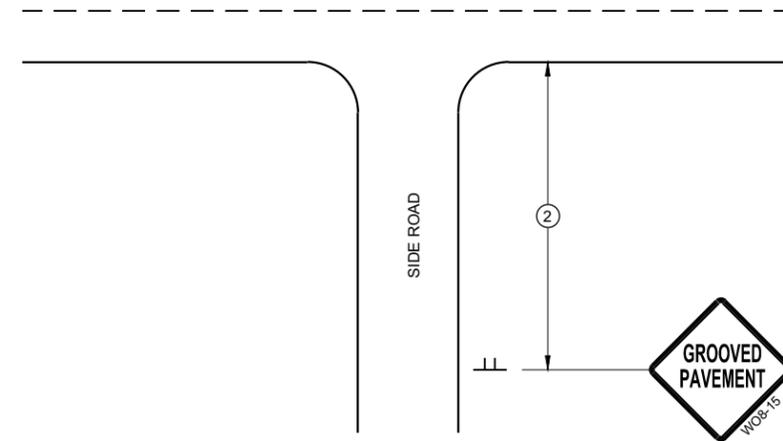
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

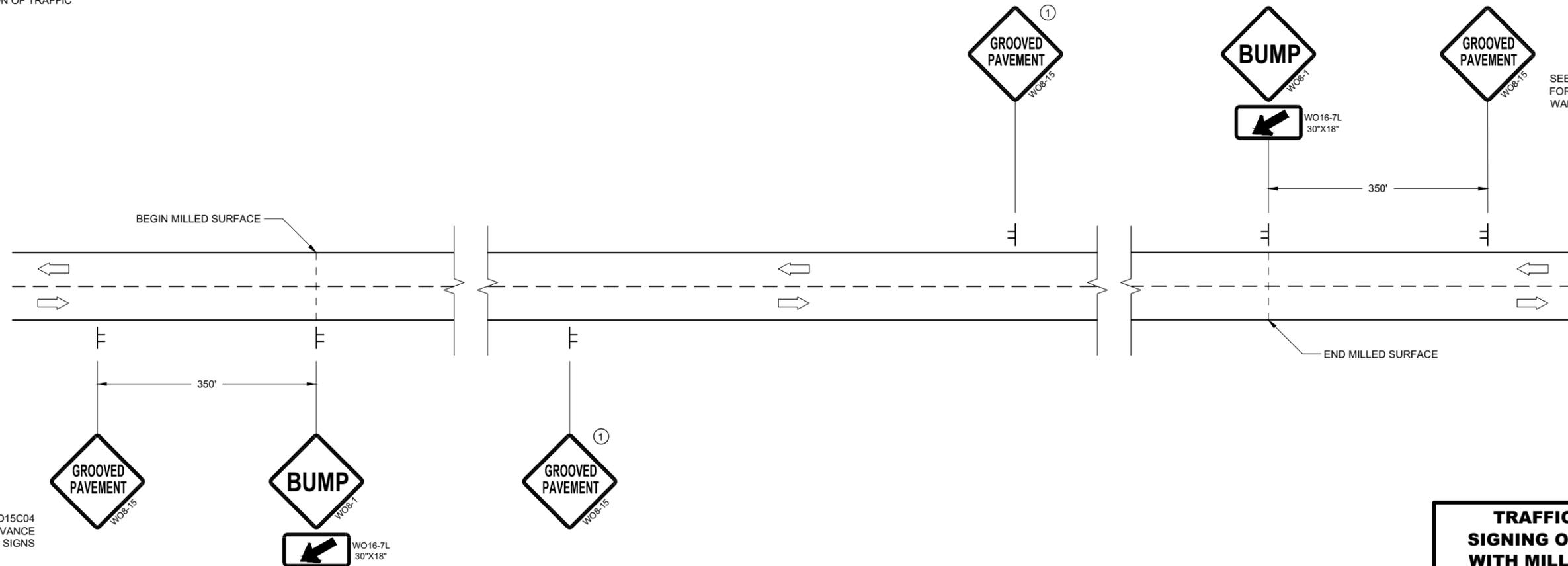
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

6

6

SDD 15D44 - 02

SDD 15D44 - 02

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

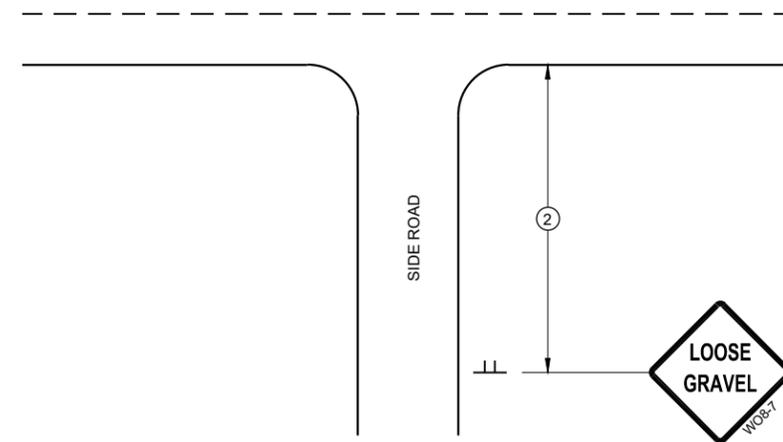
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

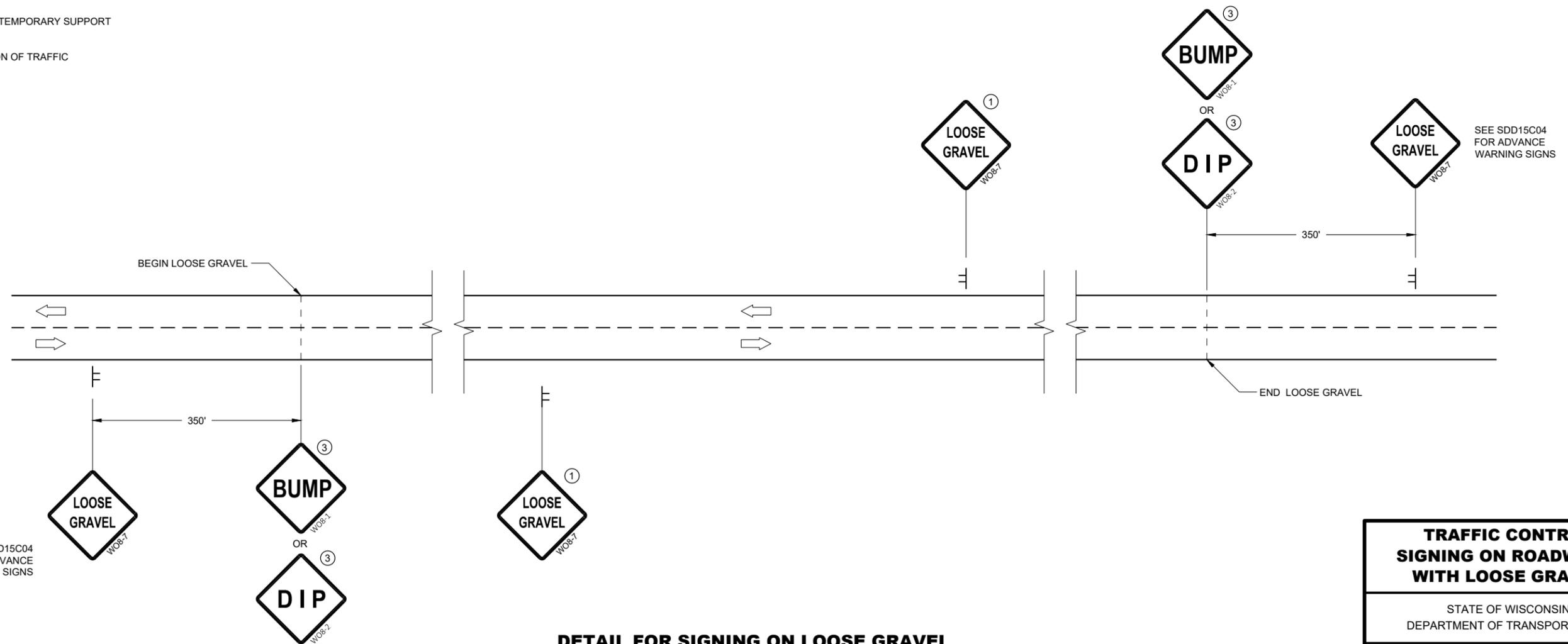
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

- ⊥ SIGN ON TEMPORARY SUPPORT
- ➡ DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

LEGEND

- V1 WORK VEHICLE
- V2 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  FLASHING ARROW PANEL (CAUTION)
-  WORK AREA
-  DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

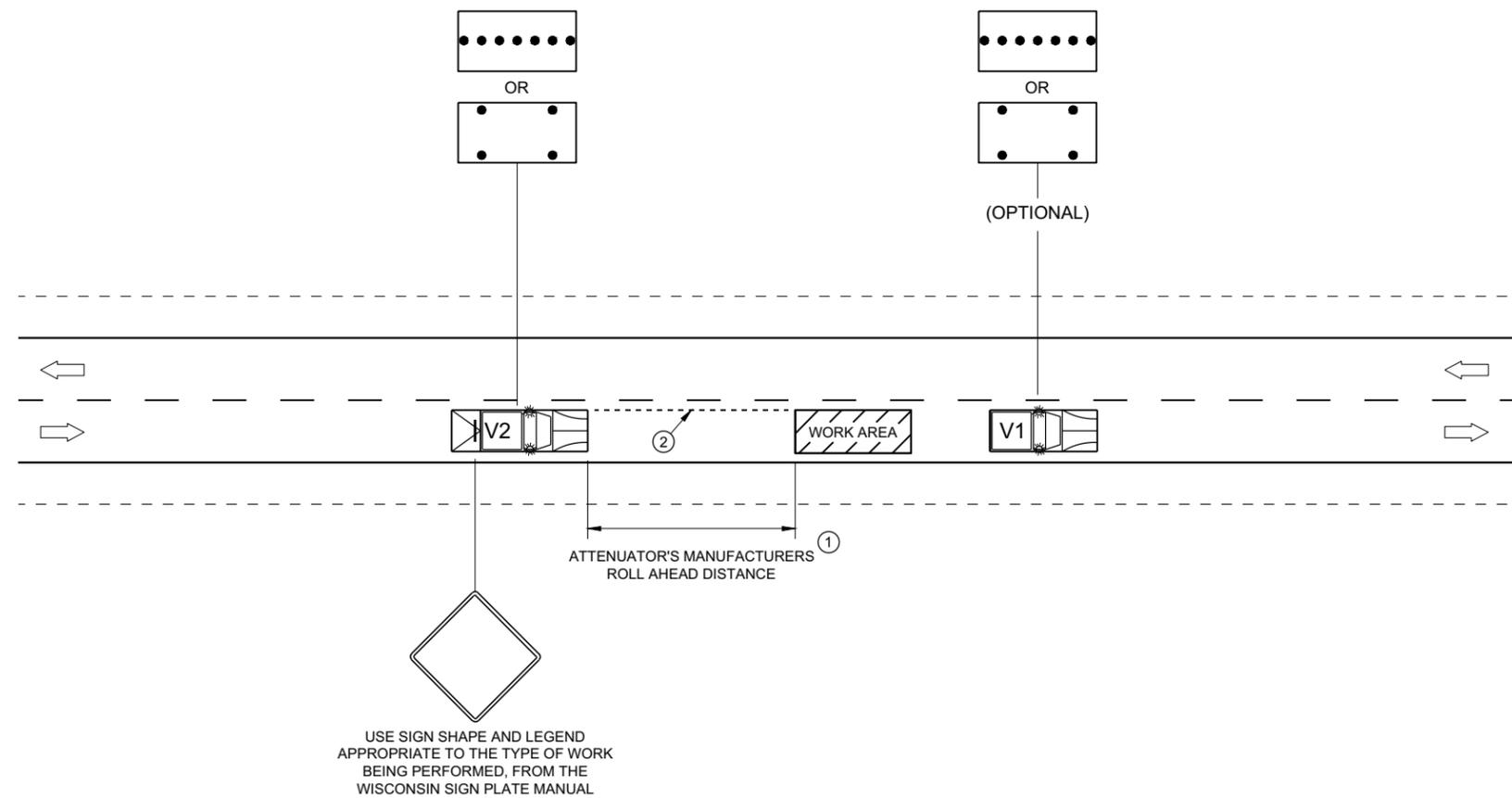
MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

- ① DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, 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.
- ② ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



6

6

SDD 15D51 - 01

SDD 15D51 - 01

**TRAFFIC CONTROL,
MOBILE OPERATIONS ON
AN UNDIVIDED ROADWAY**

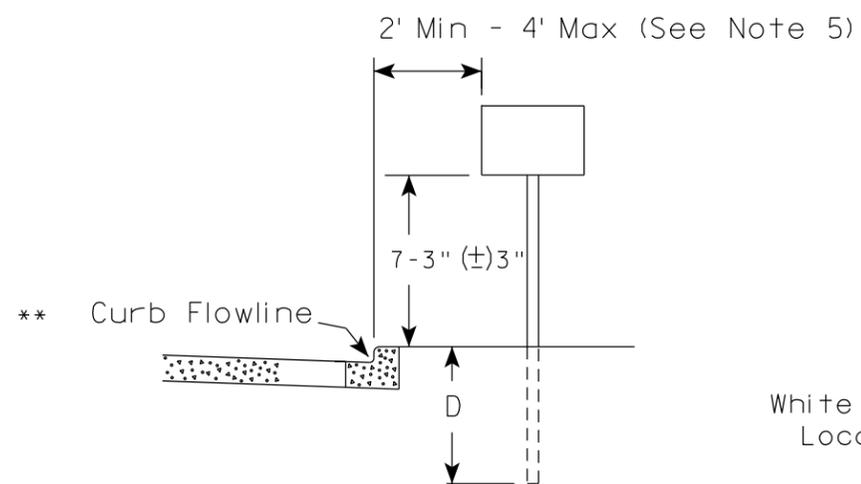
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 DATE /S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

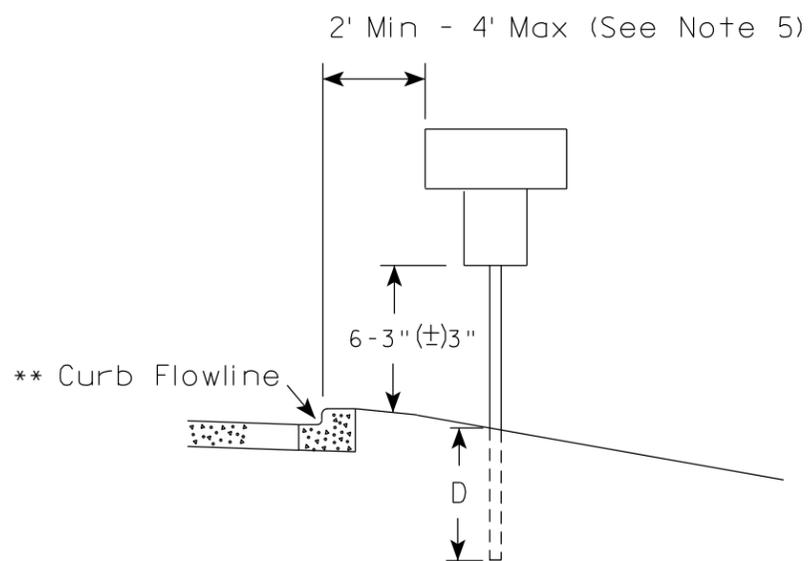
URBAN AREA

RURAL AREA (See Note 2)



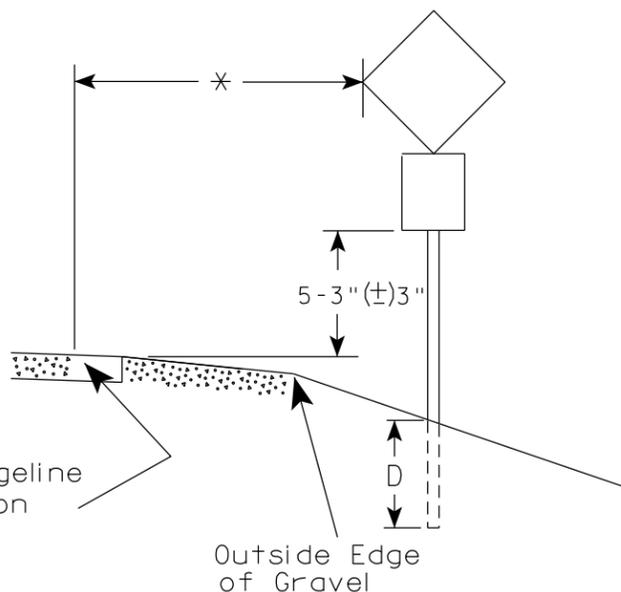
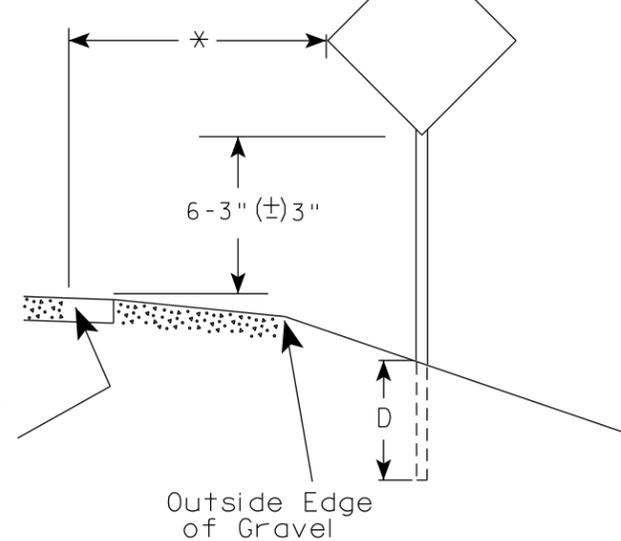
White Edgeline Location

Outside Edge of Gravel



White Edgeline Location

Outside Edge of Gravel



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 or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 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" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the 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.

* 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.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Raub
for State Traffic Engineer

DATE 12/6/23

PLATE NO. A4-3.23

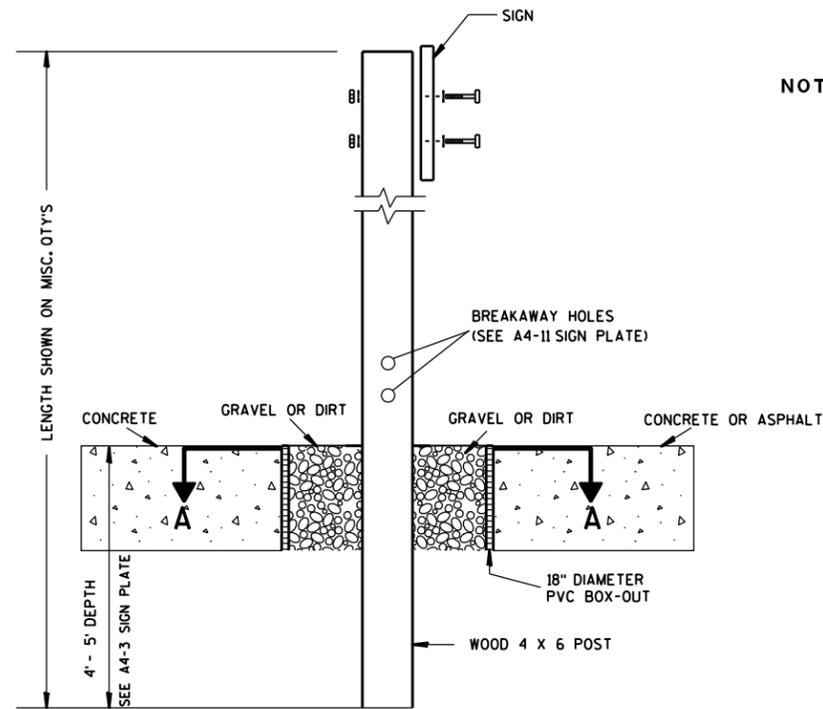
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

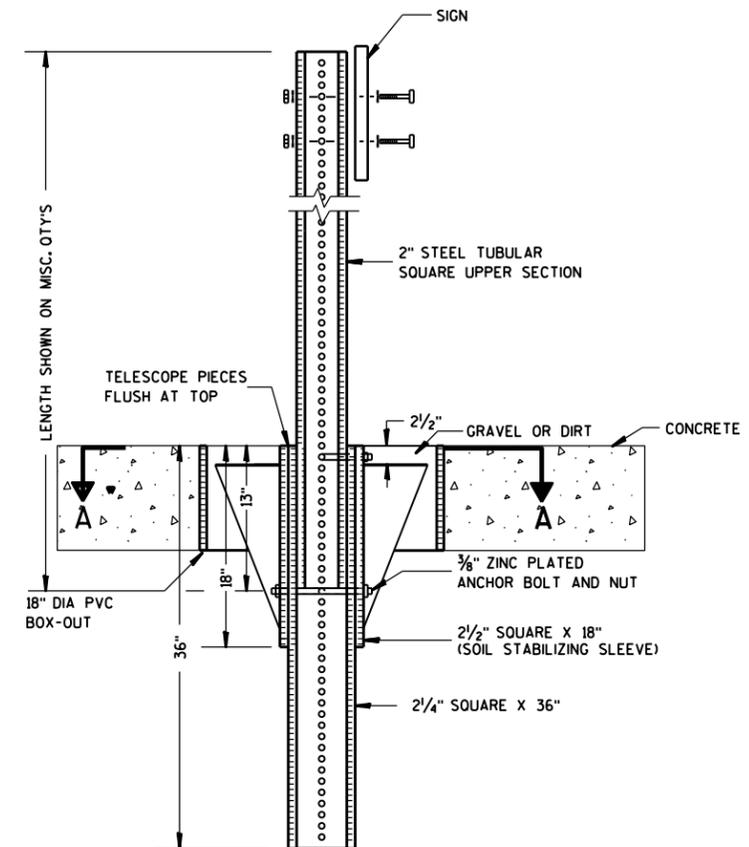
E



ELEVATION VIEW

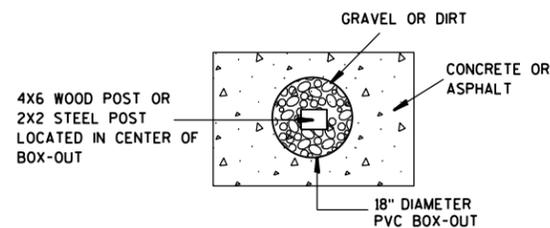
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES:**
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
 2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
 3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

**SIGN POST
BOX-OUTS
A4-3B**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

GENERAL NOTES

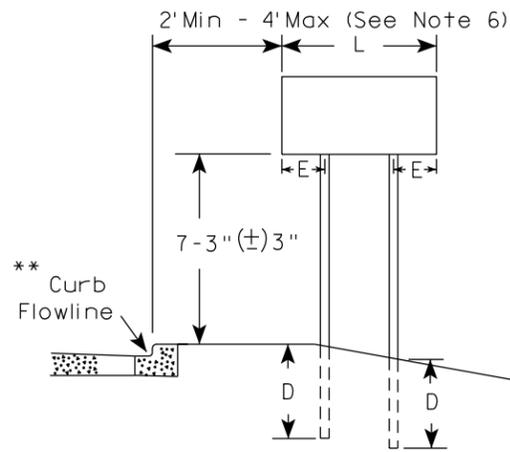
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (\pm 3") or 6'-3" (\pm 3") depending upon existence of sub-sign.
- The (\pm) tolerance for mounting height is 3 inches.
- J-Assemblies are considered to be one sign for mounting height.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" (\pm 3") or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (\pm 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" (\pm 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.

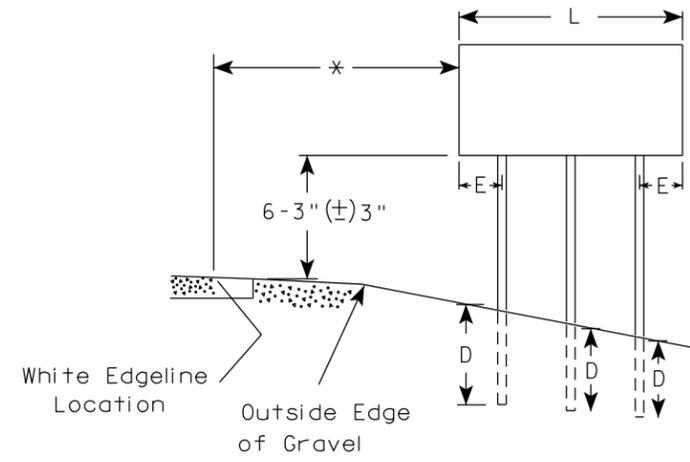
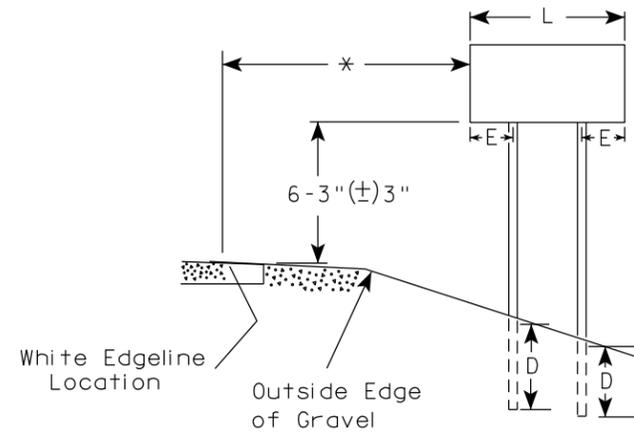
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs 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.

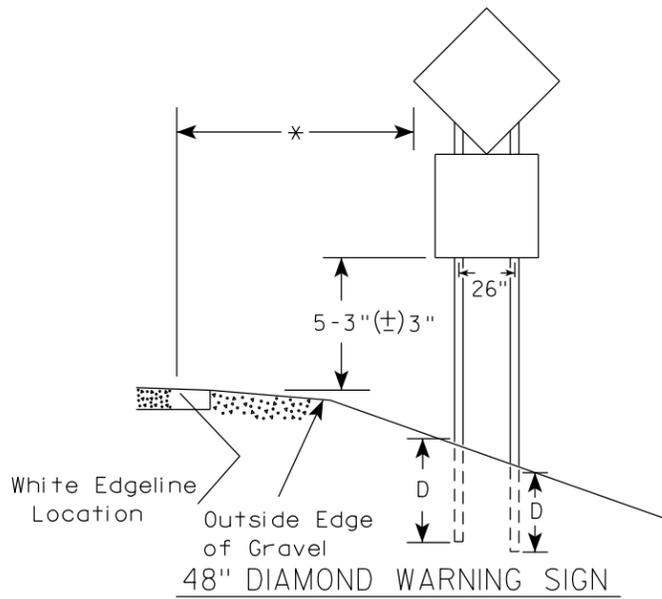
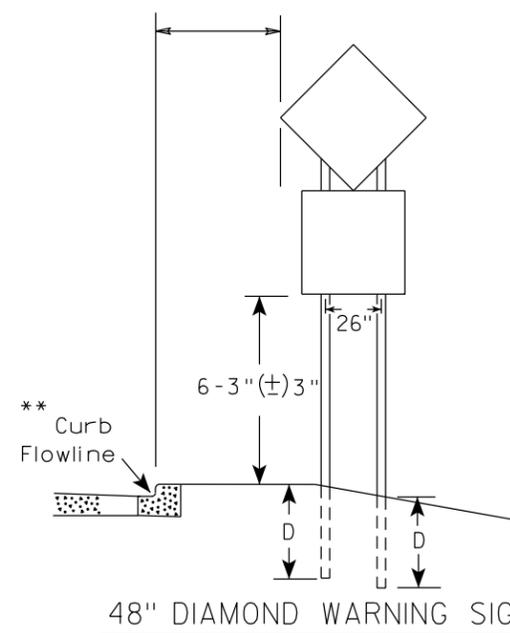
URBAN AREA



RURAL AREA (See Note 3)



URBAN AREA



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"

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 12/6/23 PLATE NO. A4-4.16

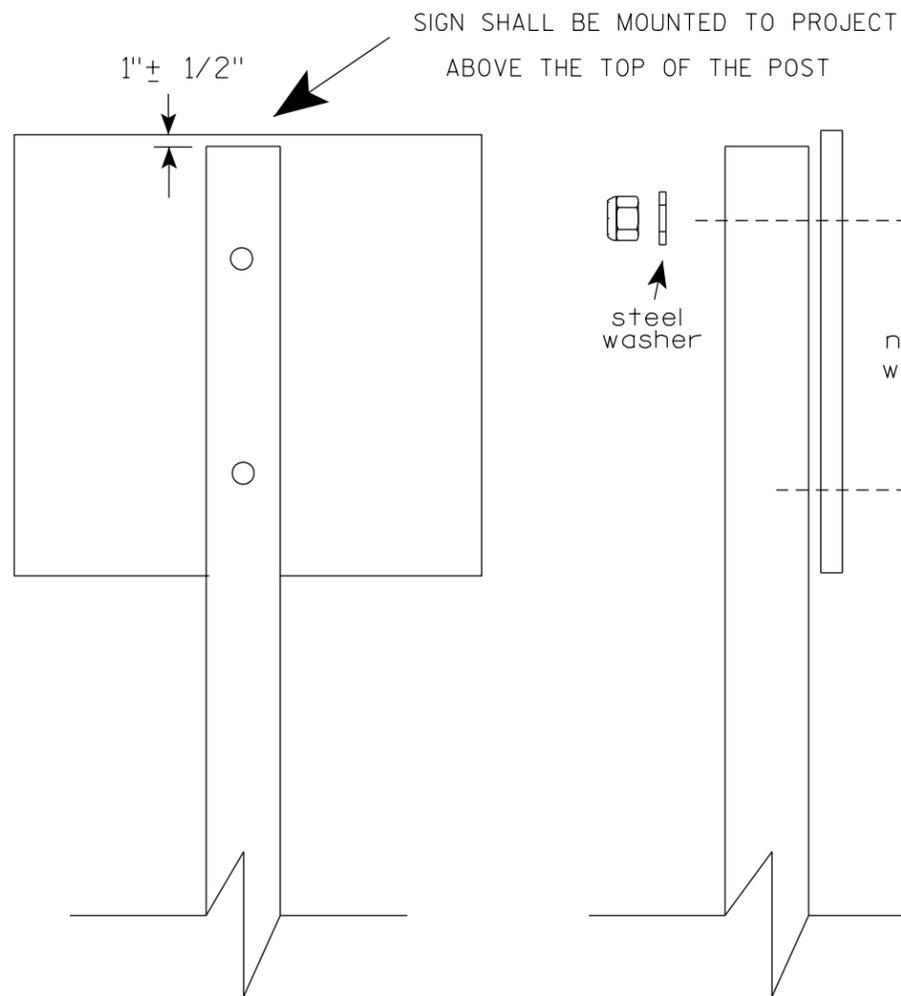
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

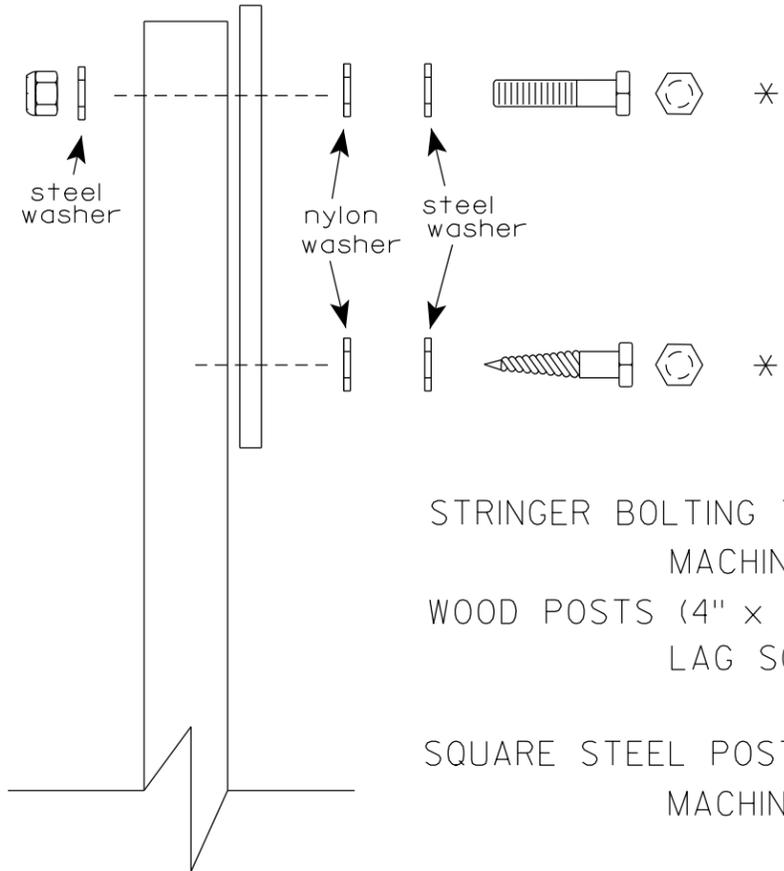
E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.



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 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) -

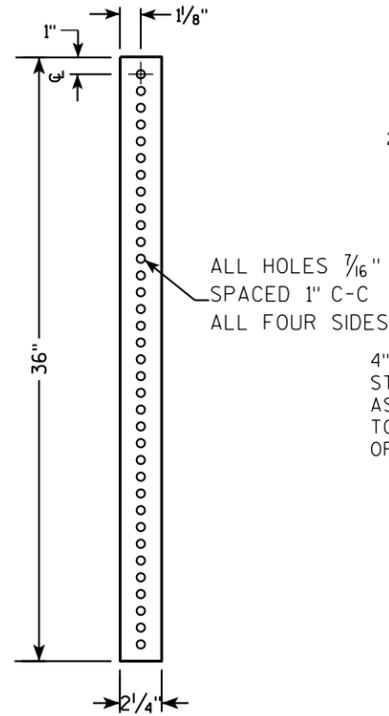
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* 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.

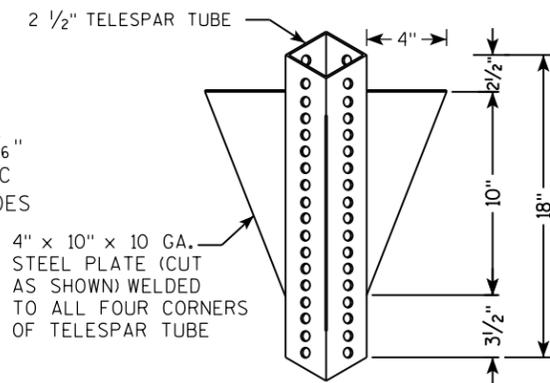
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

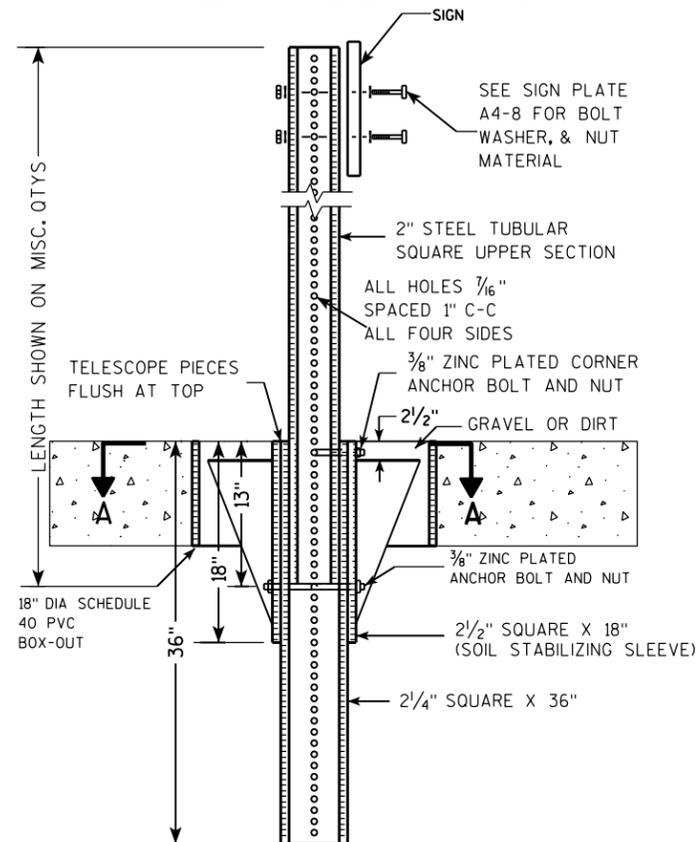
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



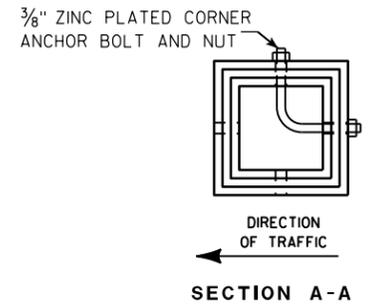
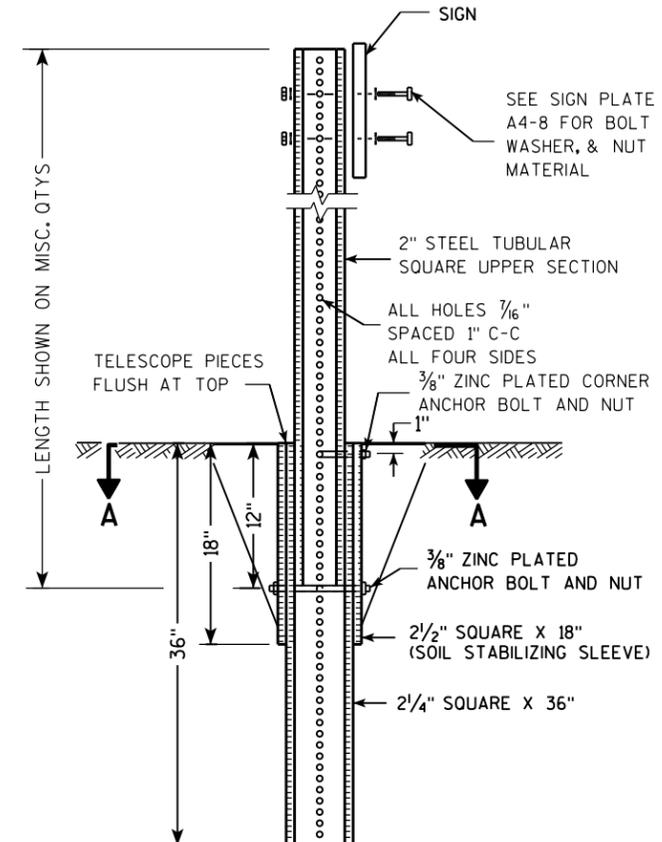
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



**DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)**



**DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)**



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 NO. A4-9.9

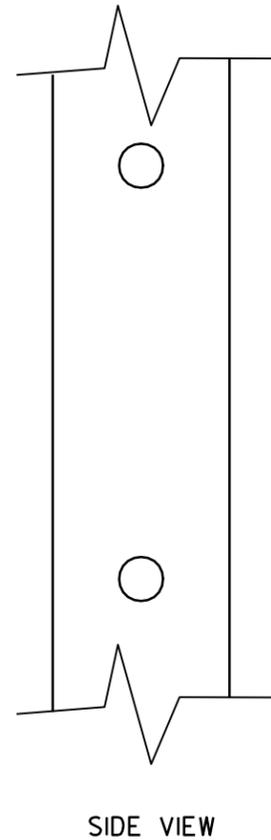
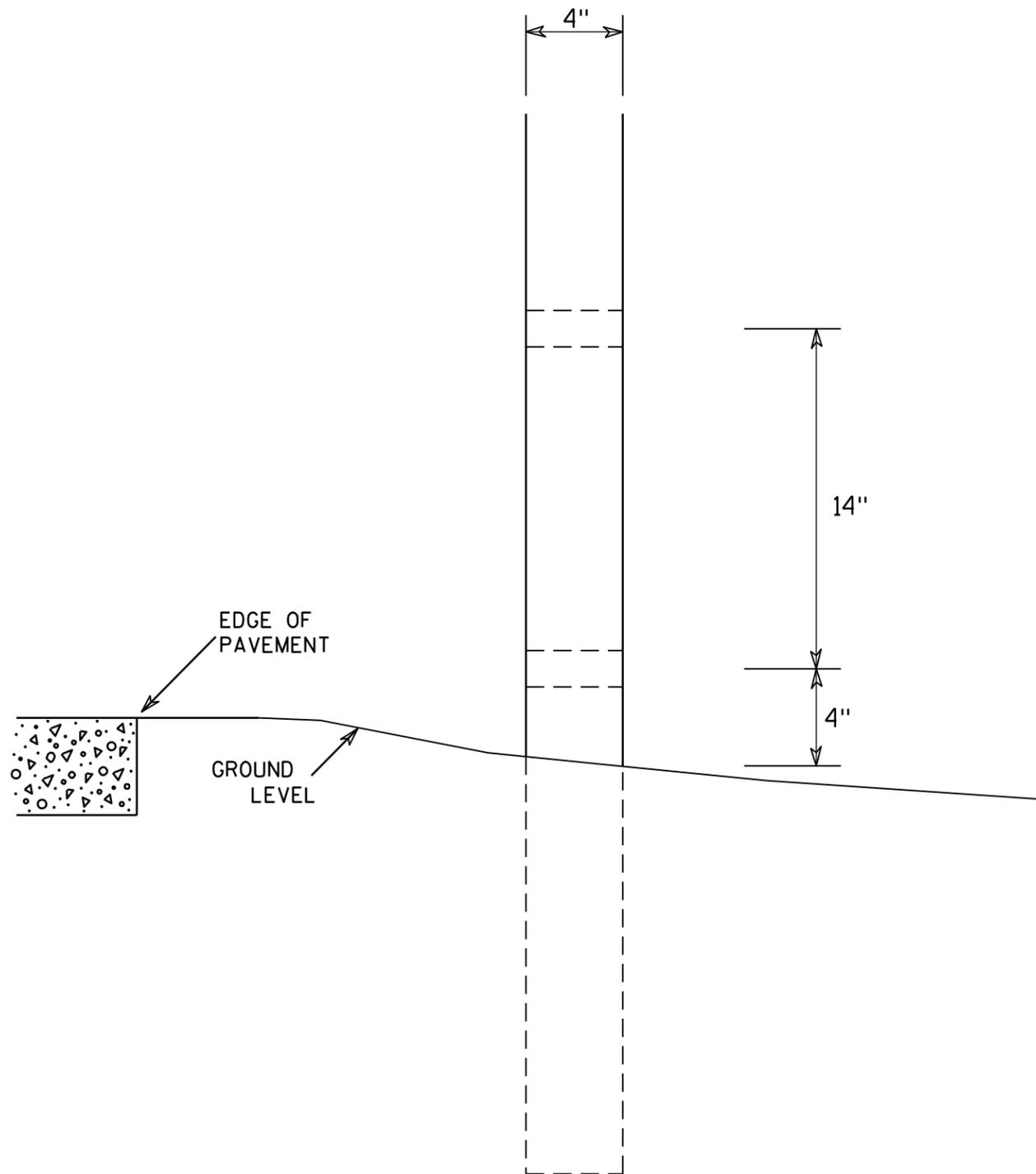
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

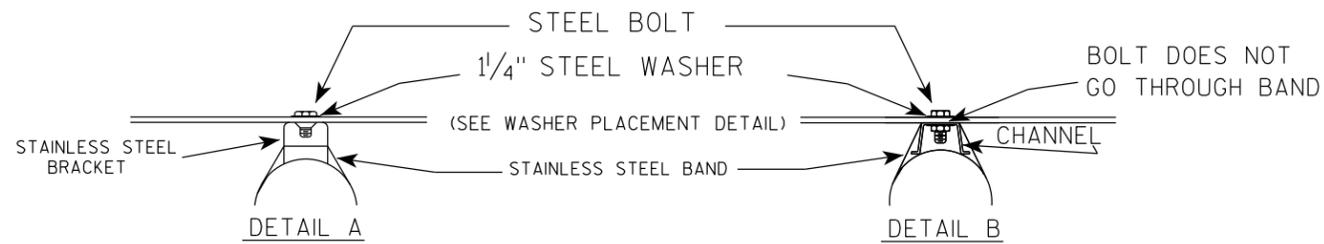
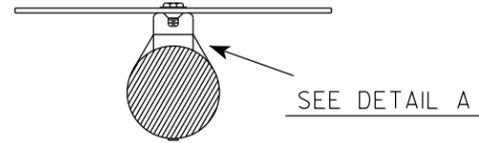
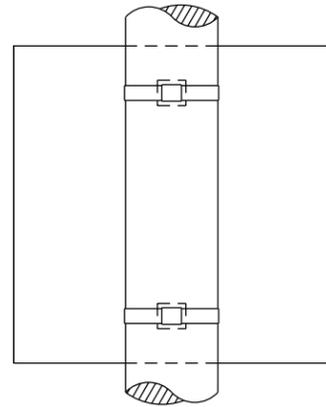
7

7

4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

BANDING

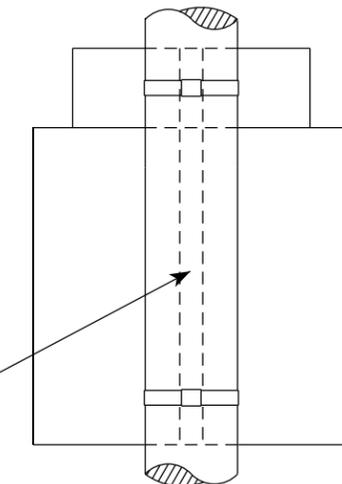
SINGLE SIGN



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.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

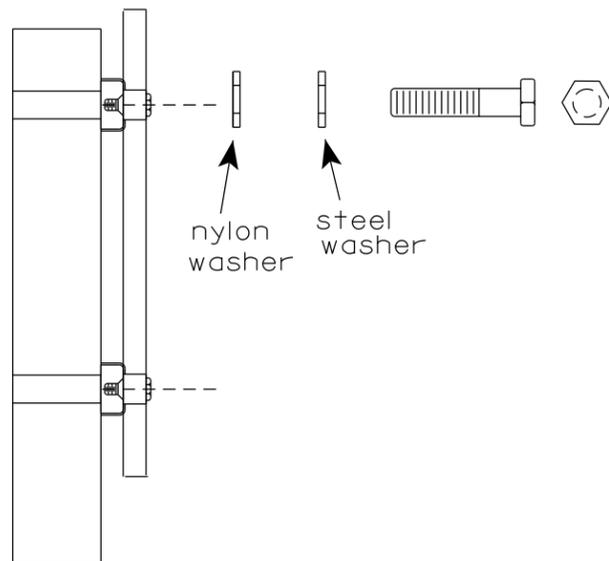
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



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

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

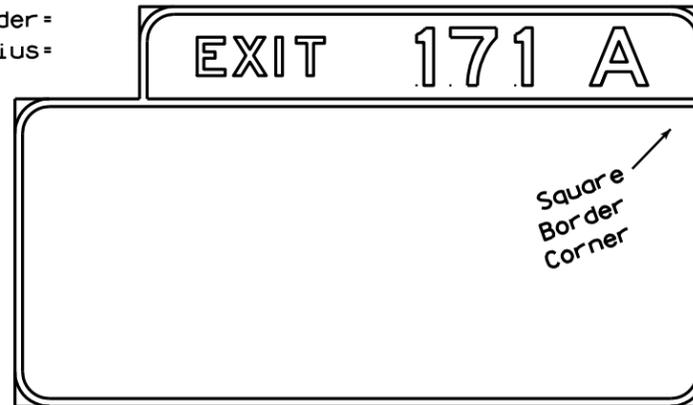
DATE 6/10/19 PLATE NO. A5-9.4

GENERAL RULES

1. The border and radius for each sign shall be determined from the table parameters.
2. Every sign detail sheet shall have notes. Refer to the sample for examples.
3. Every sign shall have a radius and border size designation. Signs with an exit number will require two as shown in the example.
4. Exit number panel shall go on right side or left side of sign depending upon a right or left exit situation.
5. Overall length of signs is in one foot increments.
6. Overall height of signs is in 6 inch increments.

SIGNS WITH EXIT NUMBERS & BORDER - RADIUS NOTES

Border =
Radius =



Border =
Radius =

BORDER-RADIUS TABLE

BORDER

60 - 150 sq. ft. = 2" Border
Over 150 sq. ft. = 3" Border

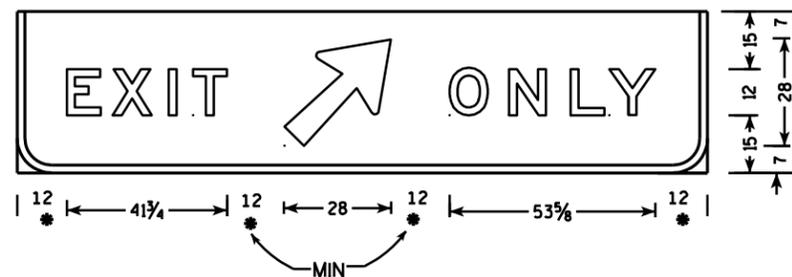
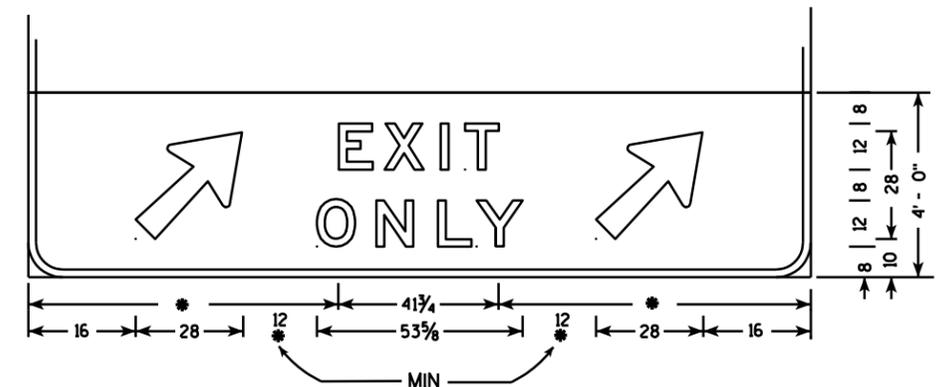
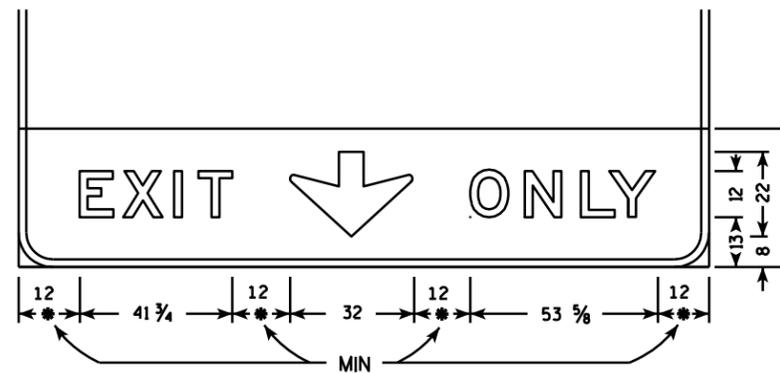
CORNER RADIUS

6' - 8' High = 9" Radius
Over 8' High = 12" Radius

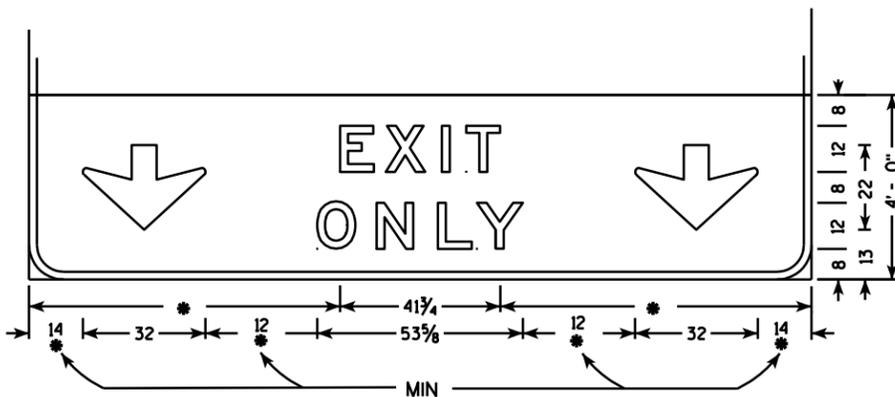
NOTES

1. All Signs are Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Green
Message - White
3. Message Series - E
4. Exit Only panel is Black non-reflective message on a Type F Yellow reflective background.

SIGNS WITH EXIT ONLY PANELS



* Adjust spacing to achieve proper balance



GENERAL GUIDANCE AND INFORMATION SHEET
 WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 For State Traffic Engineer
 DATE 8/23/10 PLATE NO. A11-1.7

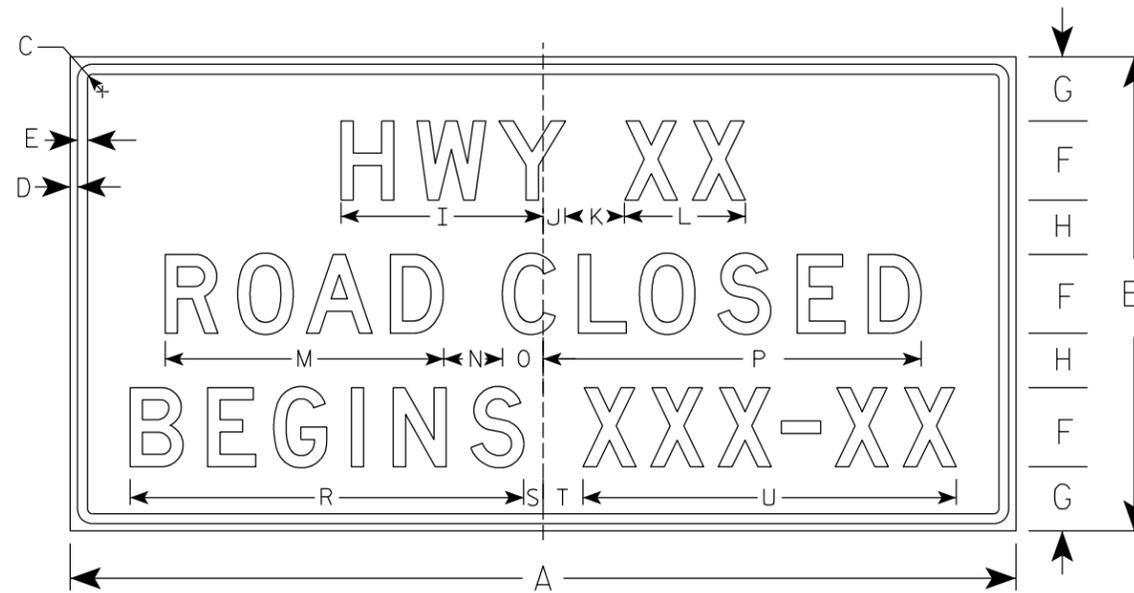
PROJECT NO:

SHEET NO:

E

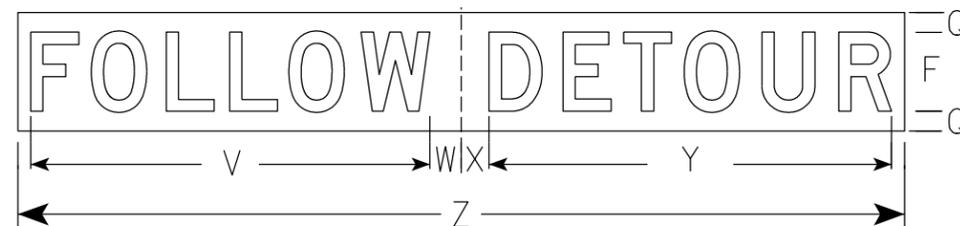
NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-57C

PLAQUE ON .040" ALUMINUM



USE ONLY ONCE WHEN ROAD IS CLOSED

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/8	5	2 7/8	29	2	30	1 3/4	3 1/4	28 3/8	40 1/2	2	2	29 3/4	66	18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	6	4 1/8	38 3/8	2	39 7/8	2	4	37 7/8	29 3/4	3 1/8	2 7/8	40 7/8	90	32.0
5																											

STANDARD SIGN
G20-57C

WISCONSIN DEPT OF TRANSPORTATION

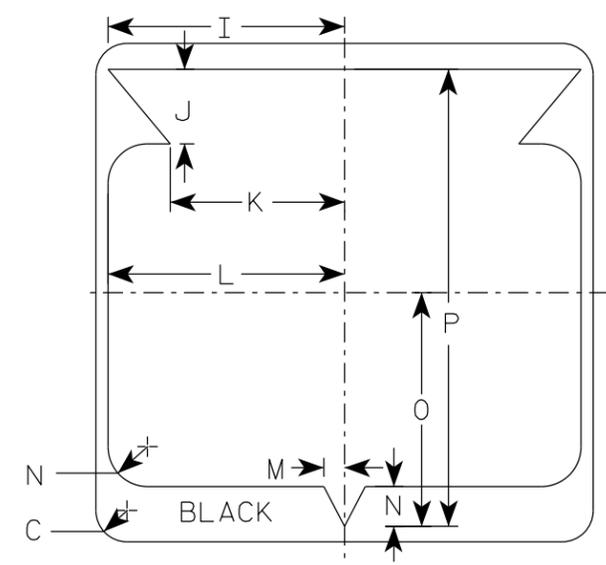
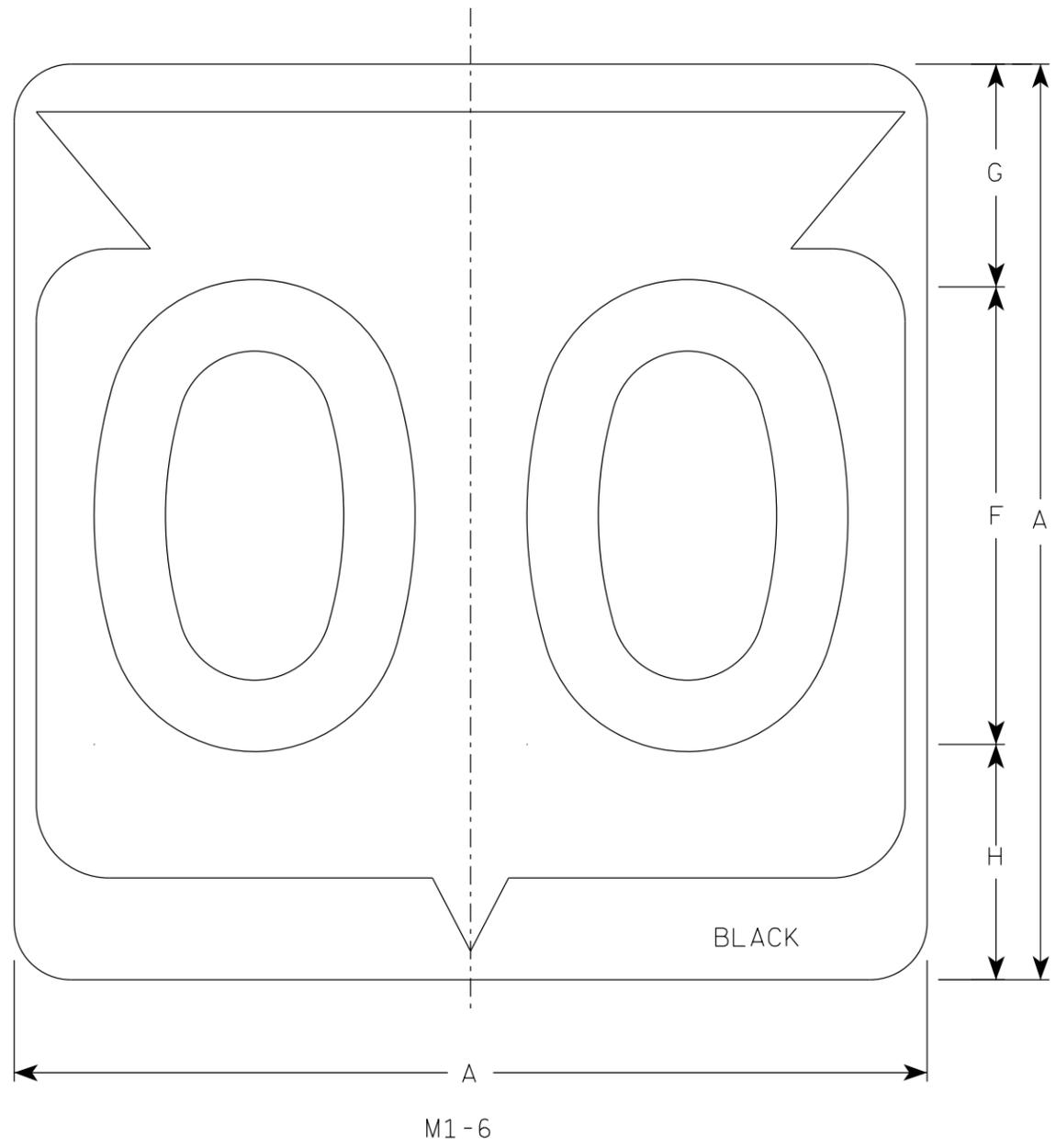
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 9/25/19 PLATE NO. G20-57C.1

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

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



7

7

M1-6

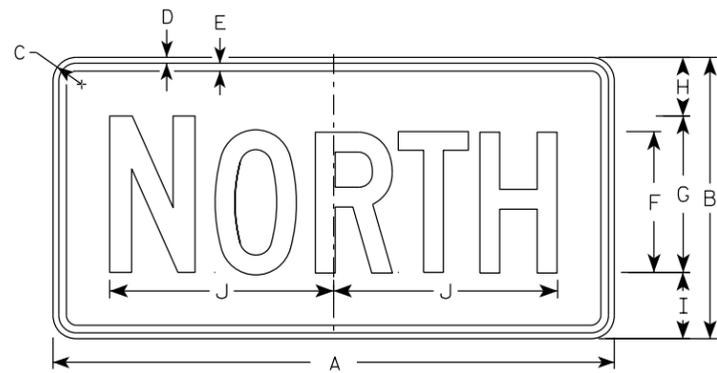
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
2M	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 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

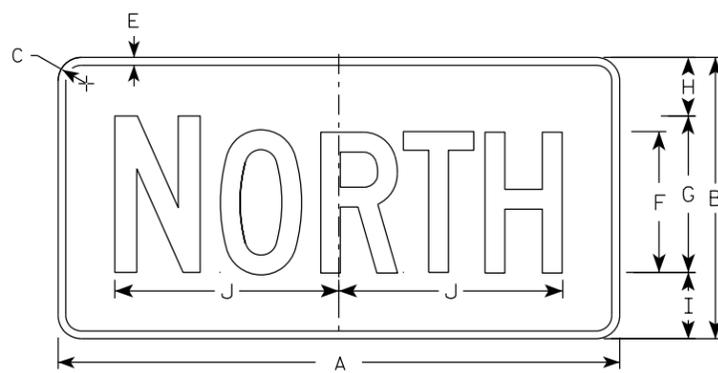
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raub*
for State Traffic Engineer

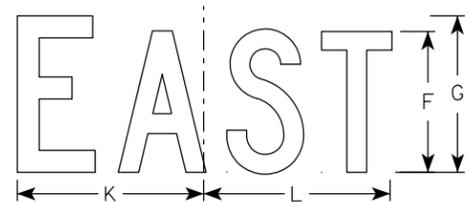
DATE 11/8/2022 PLATE NO. M1-6.11



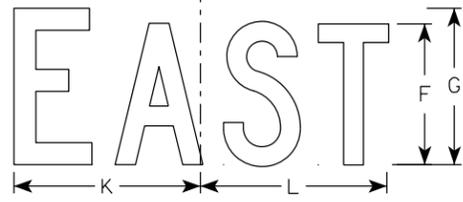
M3-1
MM3-1
MP3-1



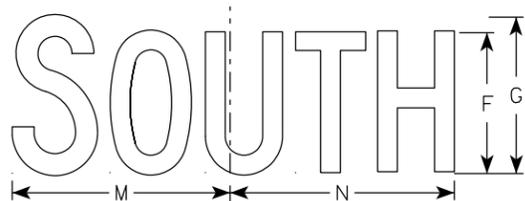
MB3-1
MK3-1
MN3-1



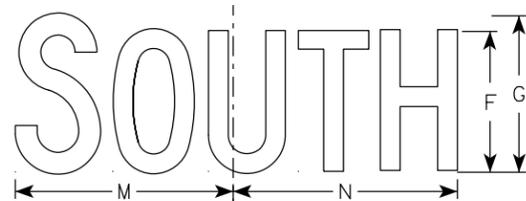
M3-2
MM3-2
MP3-2



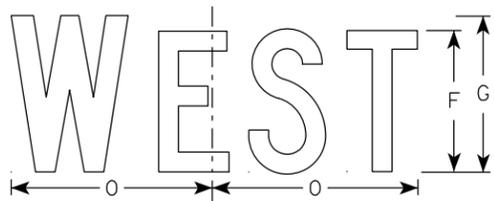
MB3-2
MK3-2
MN3-2



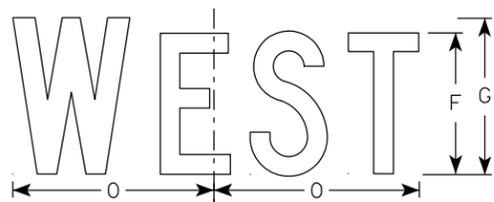
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

- All Signs Type II - Type H Reflective
- Color:
 - Background - See note 5
 - Message - See note 5
- Message Series - C
- 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.
- 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
- Note the first letter of each direction is larger than the remainder of the message.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	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												2.00
2M	24	12	1 1/2	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												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

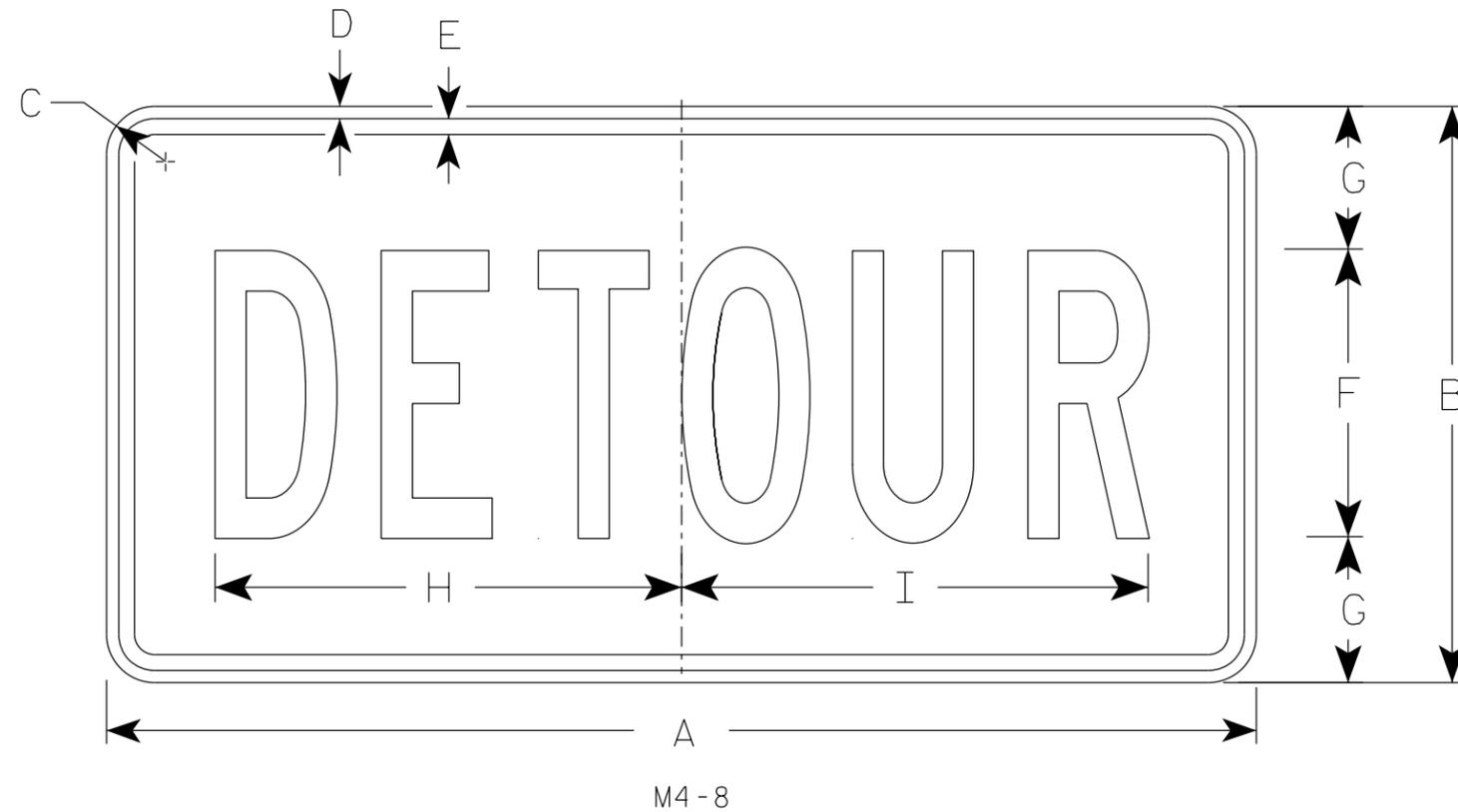
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



7

7

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 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

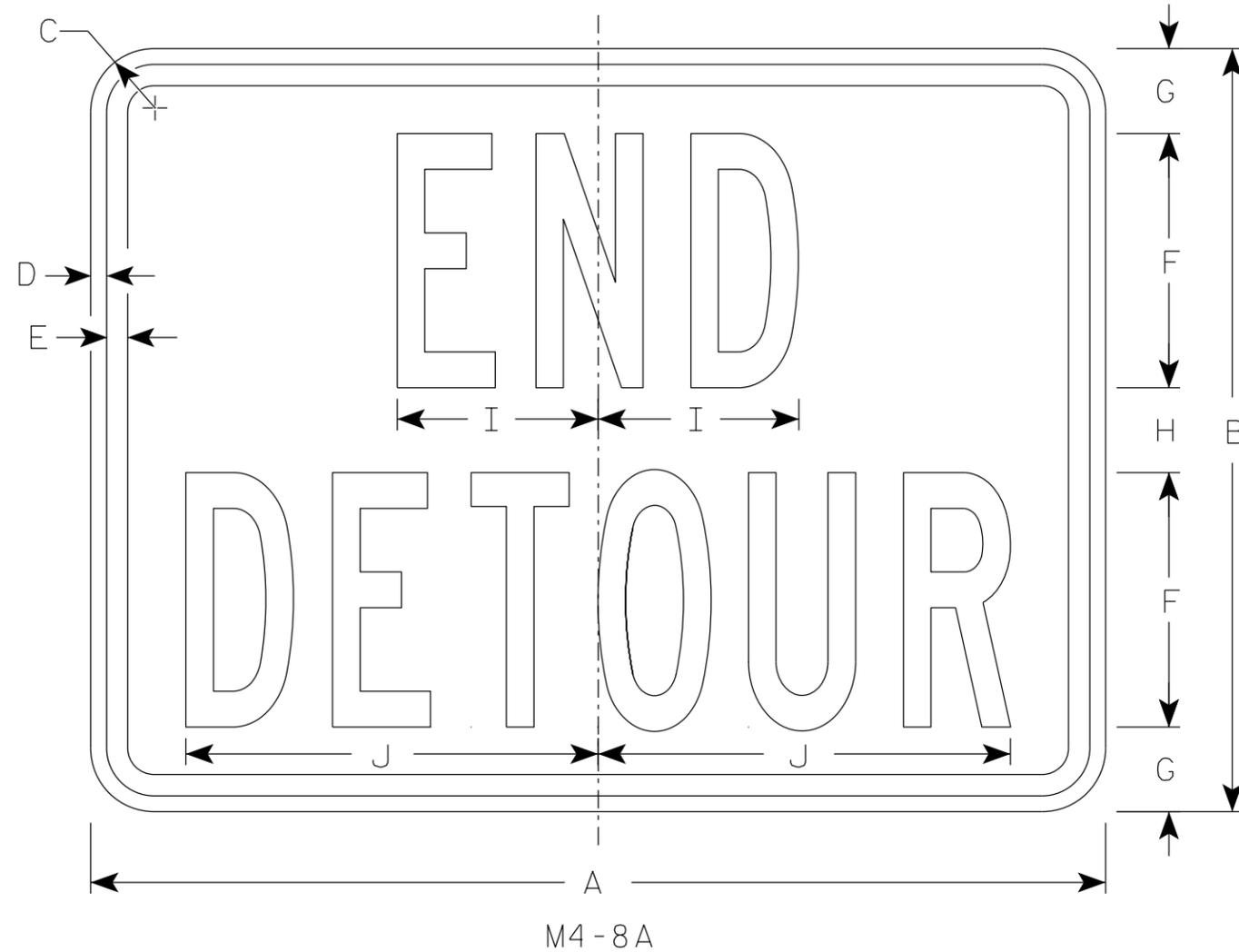
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



7

7

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	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
2M	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
5	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0

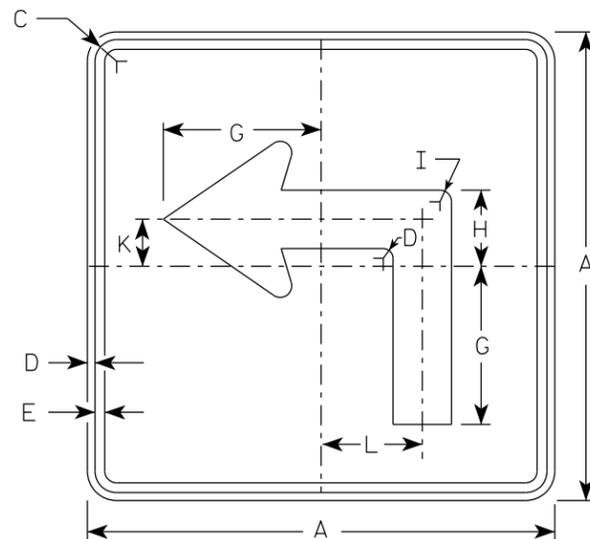
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

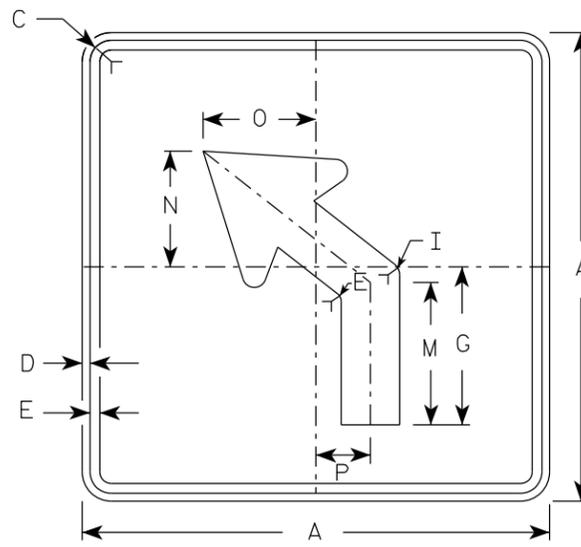
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

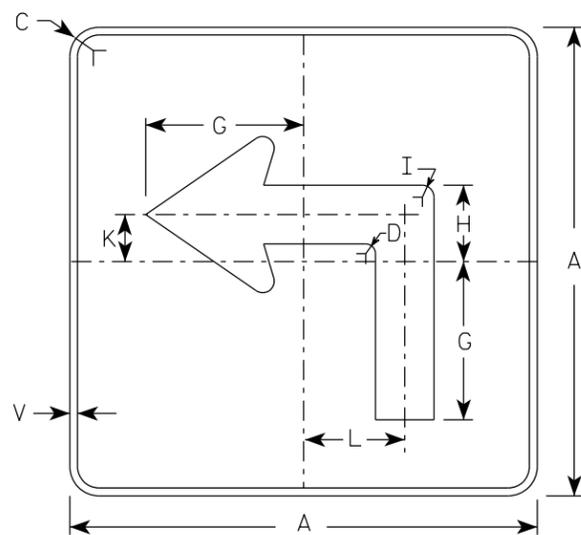
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**



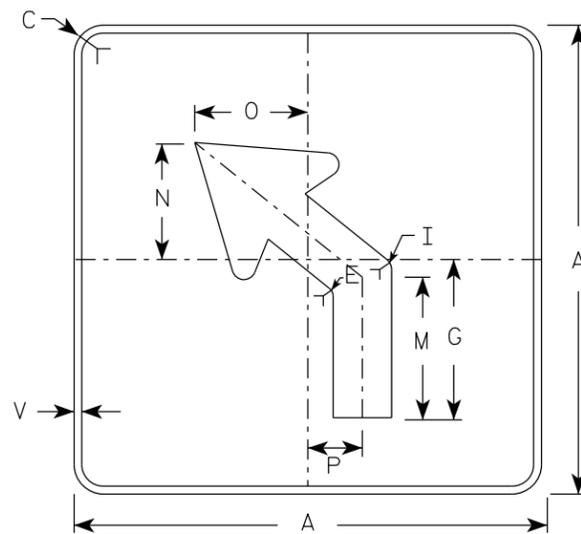
M5-1L
MM5-1L
M05-1L
MP5-1L



M5-2L
MM5-2L
M05-2L
MP5-2L

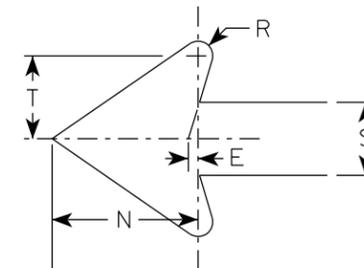


MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L

ARROW DETAIL



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 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.
- | | |
|-----------------|---|
| 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 |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
| | Message - Black |
| MP5-1 and MP5-2 | Background - White |
| | Message - Blue |
| MR5-1 and MR5-2 | Background - Brown |
| | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

7

7

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	21		1 1/2	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		1/2					3.06
2M	21		1 1/2	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		1/2					3.06
3	30		1 7/8	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		1/2					6.25
4	30		1 7/8	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		1/2					6.25
5	30		1 7/8	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		1/2					6.25

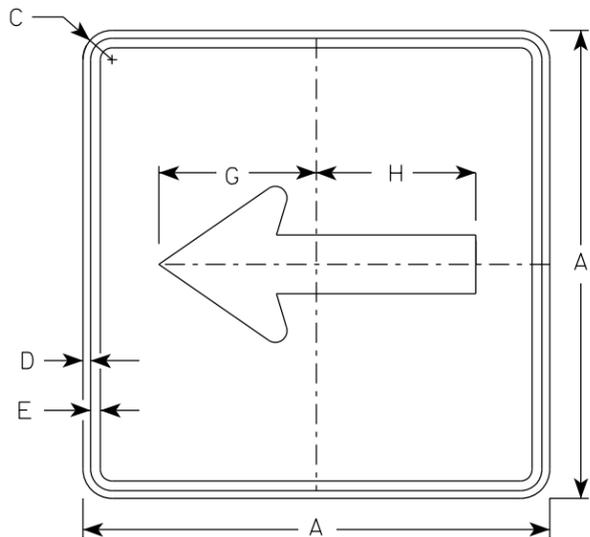
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

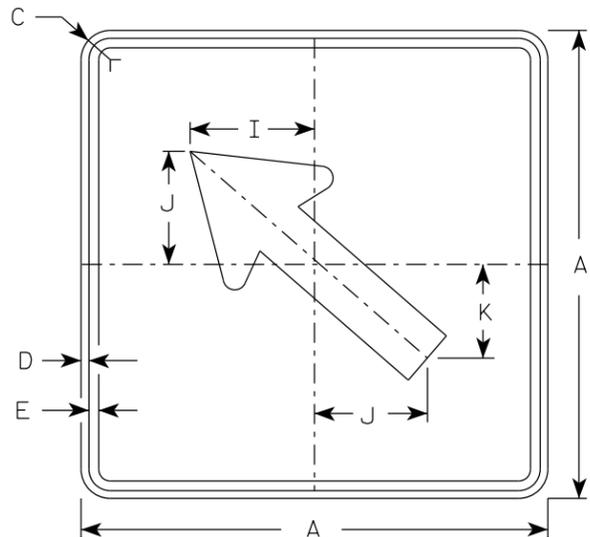
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

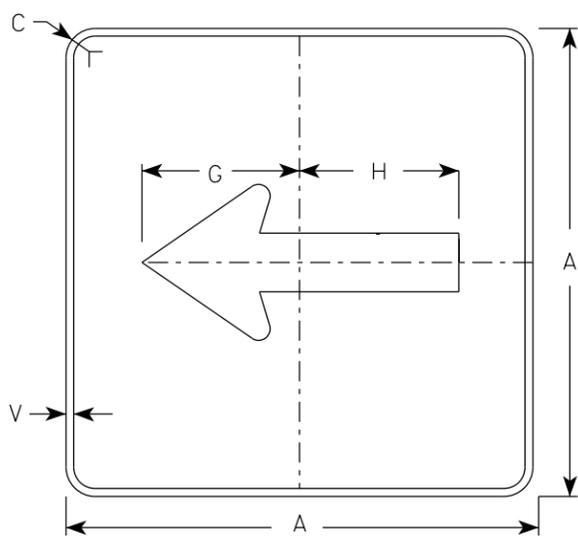
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



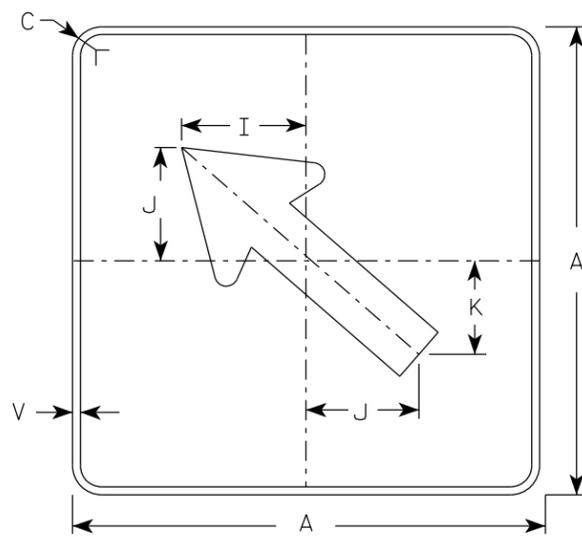
M6-1
MM6-1
M06-1
MP6-1



M6-2
MM6-2
M06-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

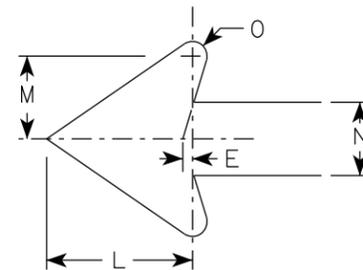


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

- Signs are Type II - Type H Reflective except as Shown
- Color:
 - Background - See note 4
 - Message - See note 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.
- 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
 M06-1 and M06-2 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

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	21		1 1/2	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							1/2					3.06
2M	21		1 1/2	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							1/2					3.06
3	30		1 7/8	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							1/2					6.25
4	30		1 7/8	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							1/2					6.25
5	30		1 7/8	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							1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

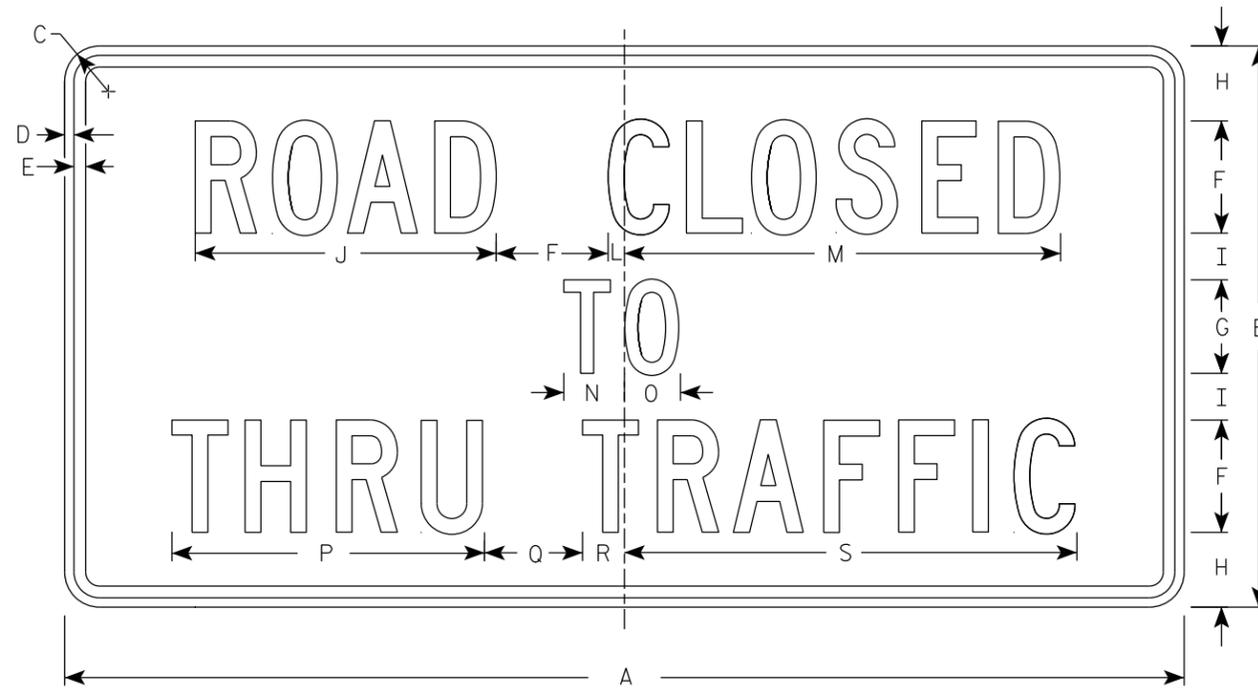
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

NOTES

1. Sign is Type II - Type H Reflective
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.



R11-4

7

7

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	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

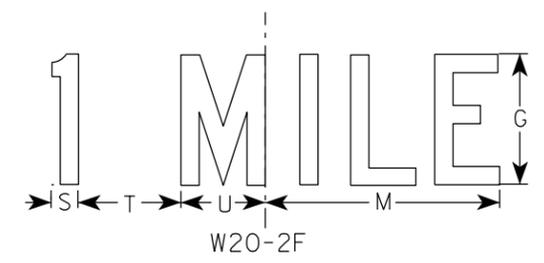
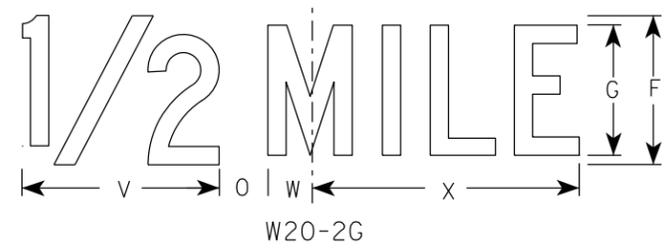
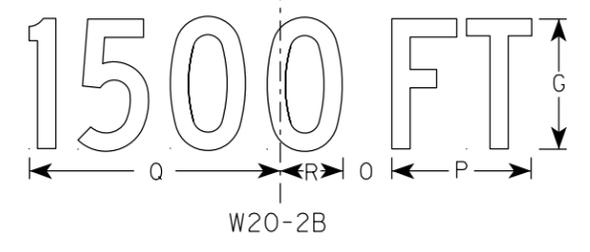
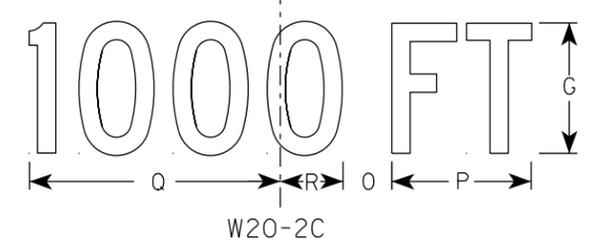
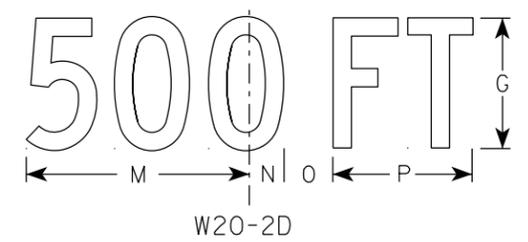
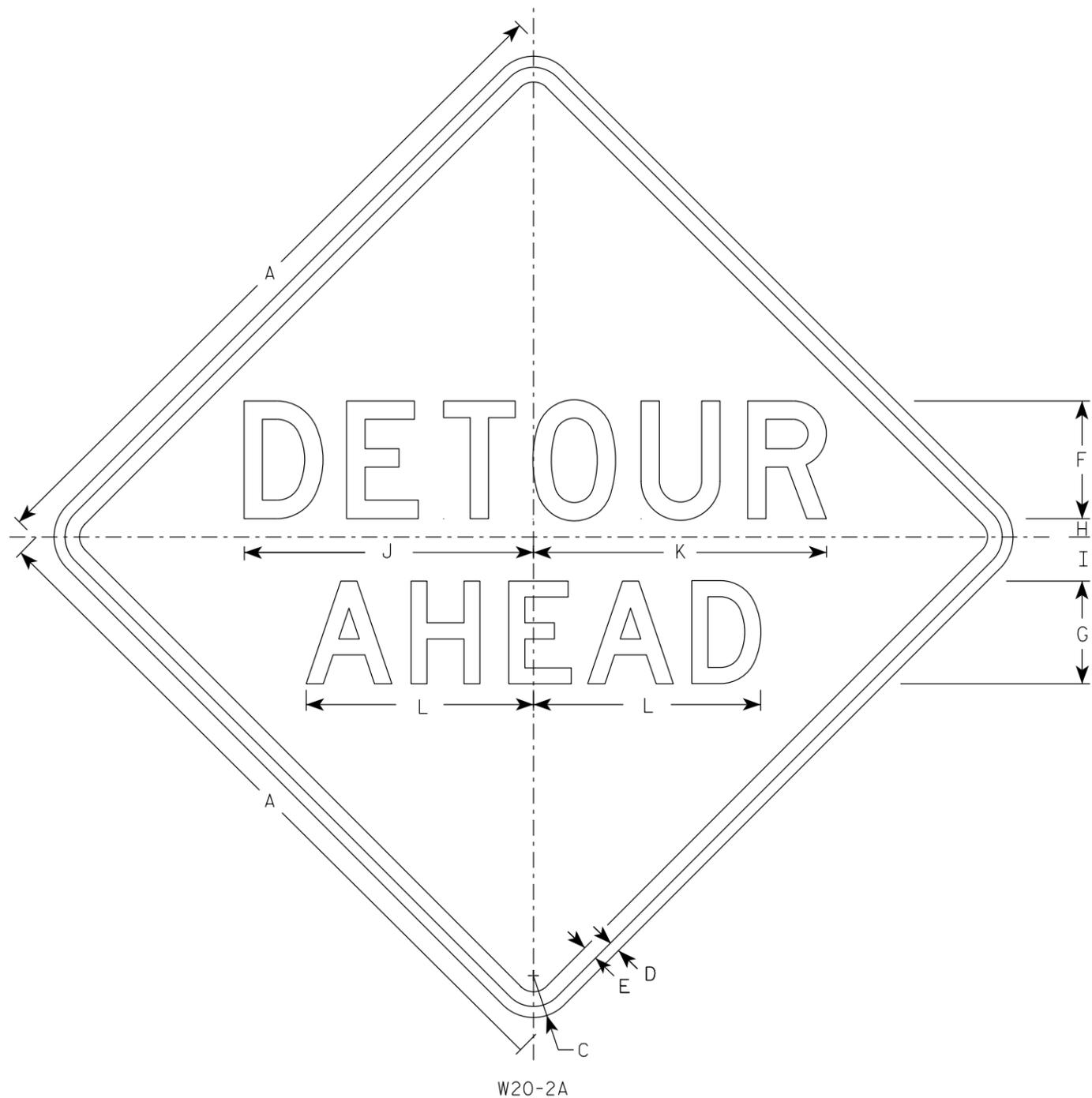
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-4.4

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

7

7

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		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

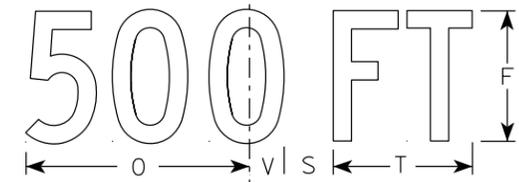
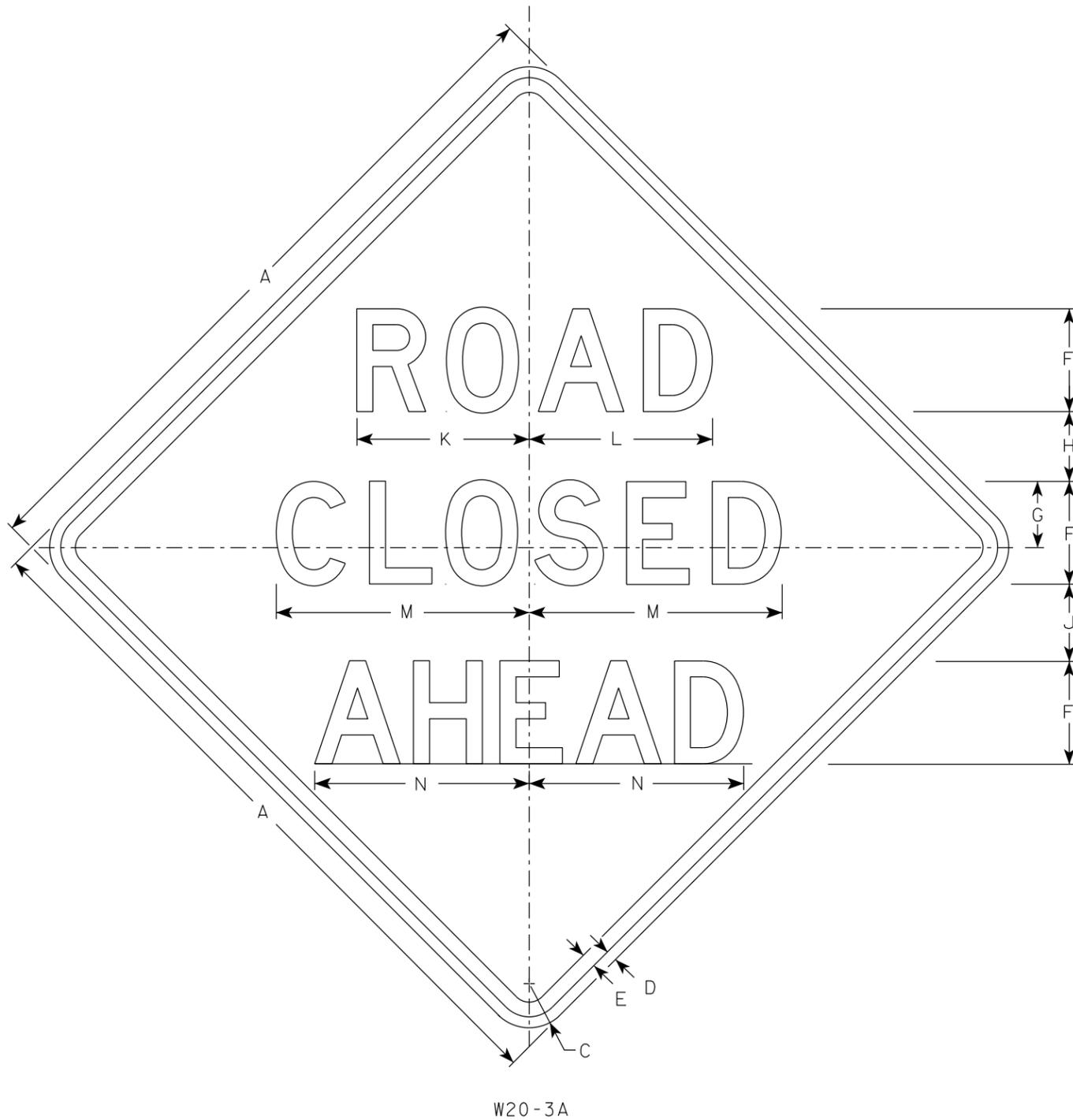
STANDARD SIGN
W20-2A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

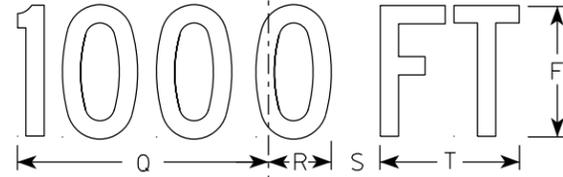
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-2.7

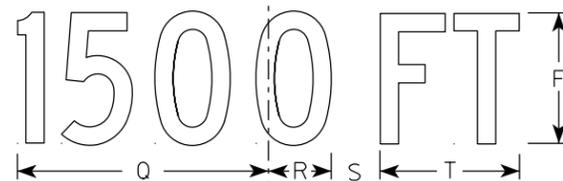
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



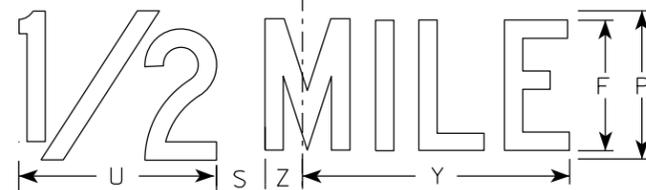
W20-3D



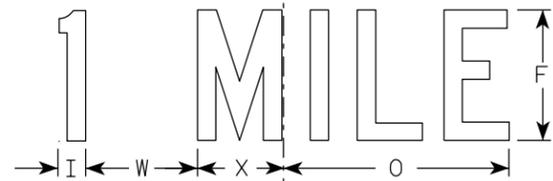
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

7

7

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		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

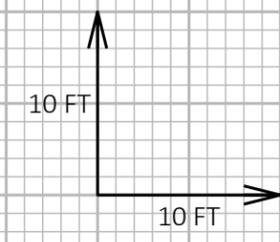
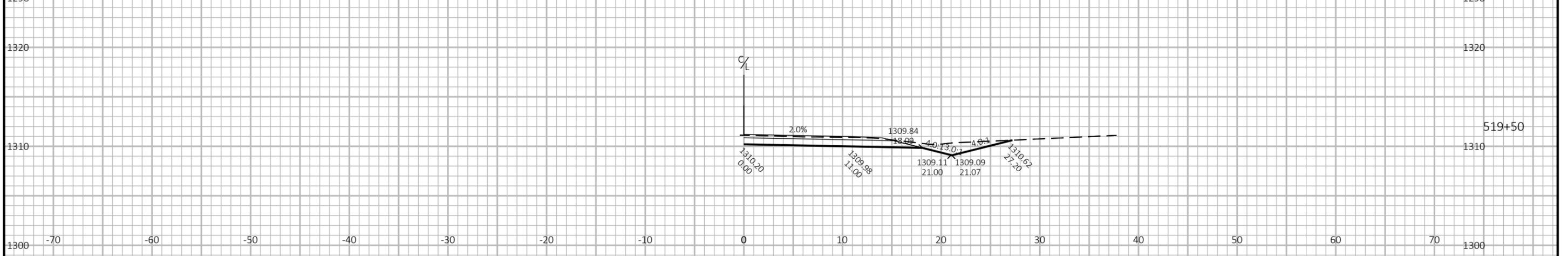
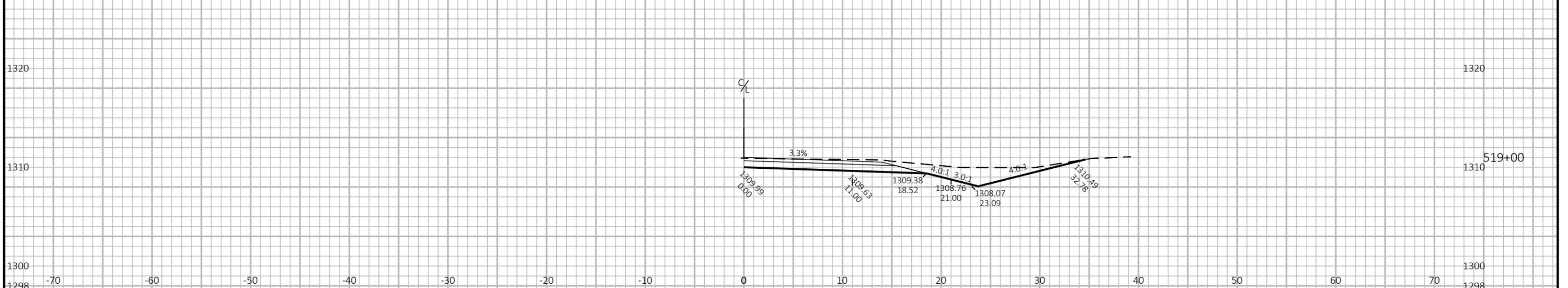
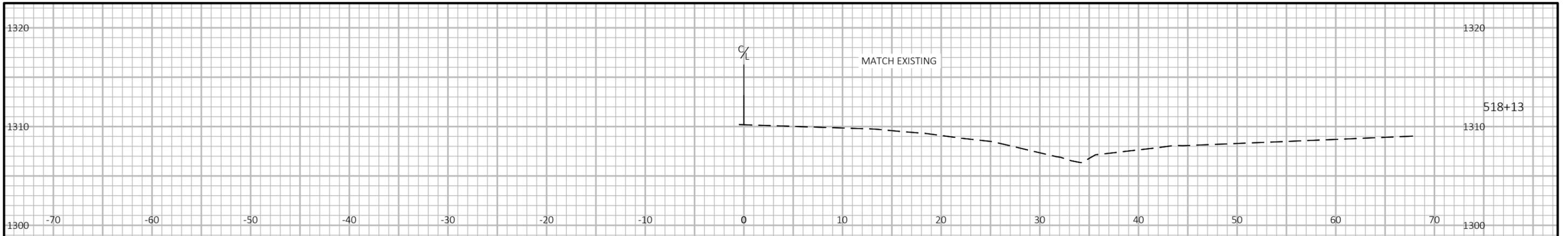
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8

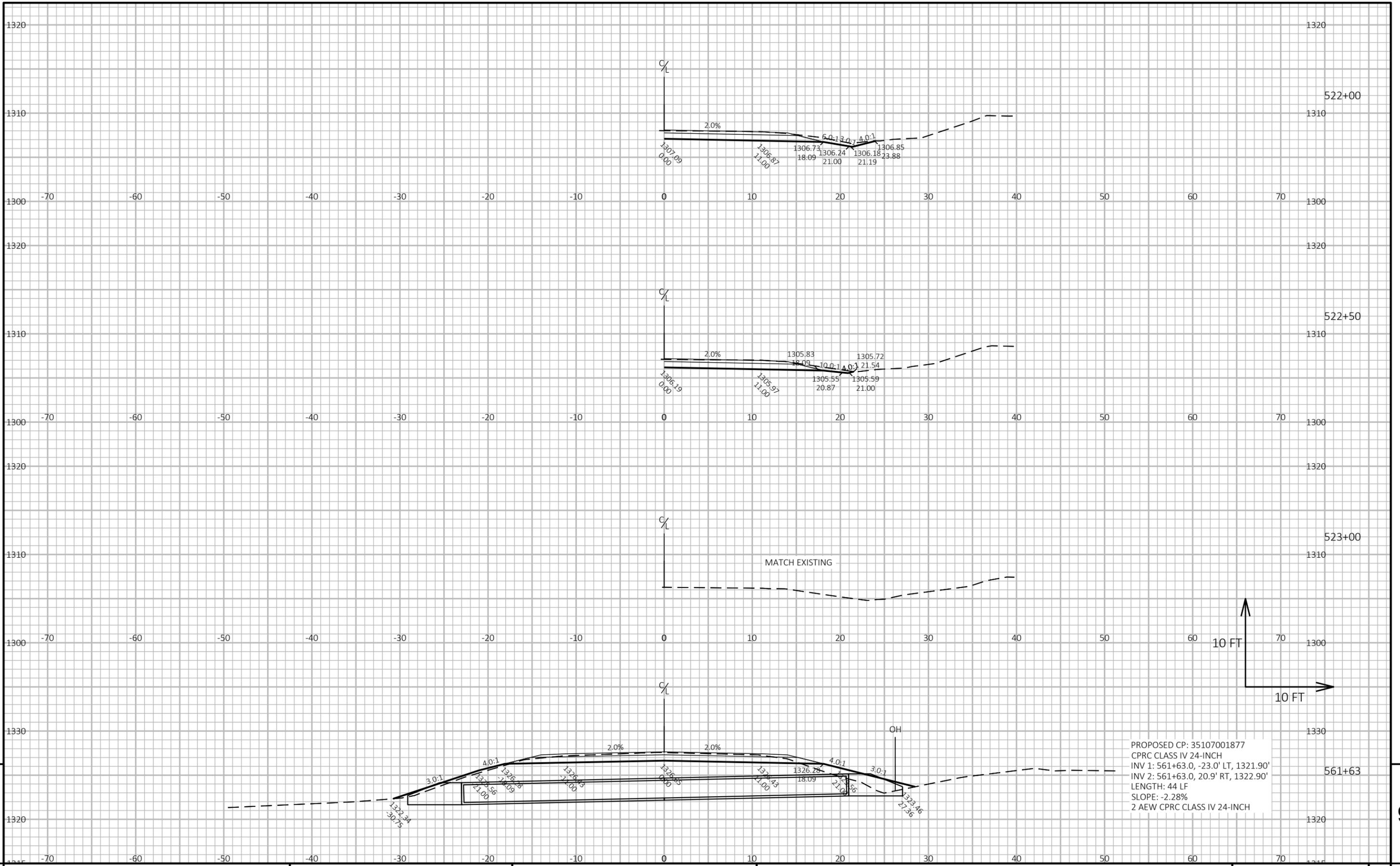
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

STATION	REAL STATION	DISTANCE	AREA (SF)						INCREMENTAL VOL (CY) (UNADJUSTED)						CUMULATIVE VOL (CY)			
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	EXPANDED FILL		MASS ORDINATE
																1.00	1.25	
NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 8	TOTAL			NOTE 1	NOTE 8	NOTE 8								
518+13.00	51813.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0
519+00.00	51900.00	87.00	23.09	0.00	0.00	0.00	0.00	0.00	37	0	0	0	0	0	37	0	37	37
519+50.00	51950.00	50.00	10.34	0.00	0.00	0.00	0.00	0.00	31	0	0	0	0	0	68	0	68	68
520+00.00	52000.00	50.00	10.92	0.00	0.02	0.00	0.00	0.00	20	0	0	0	0	0	88	0	88	88
520+50.00	52050.00	50.00	21.11	0.00	0.00	0.00	0.00	0.00	30	0	0	0	0	0	118	0	118	118
521+00.00	52100.00	50.00	10.70	0.00	0.00	0.00	0.00	0.00	29	0	0	0	0	0	147	0	147	147
521+50.00	52150.00	50.00	7.97	0.00	0.00	0.00	0.00	0.00	17	0	0	0	0	0	164	0	164	164
522+00.00	52200.00	50.00	7.14	0.00	0.00	0.00	0.00	0.00	14	0	0	0	0	0	178	0	178	178
522+50.00	52250.00	50.00	6.18	0.00	0.00	0.00	0.00	0.00	12	0	0	0	0	0	190	0	190	190
523+00.00	52300.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	6	0	0	0	0	0	196	0	196	196
TOTAL													196	0	196			
680+06.00	68006.00	15706.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0
680+25.00	68025.00	19.00	7.34	0.00	0.00	0.00	0.00	0.00	3	0	0	0	0	0	3	0	3	3
680+50.00	68050.00	25.00	6.14	0.00	0.00	0.00	0.00	0.00	6	0	0	0	0	0	9	0	9	9
680+75.00	68075.00	25.00	9.21	0.00	0.00	0.00	0.00	0.00	7	0	0	0	0	0	16	0	16	16
681+00.00	68100.00	25.00	10.48	0.00	0.00	0.00	0.00	0.00	9	0	0	0	0	0	25	0	25	25
682+00.00	68200.00	100.00	19.40	0.00	0.00	0.00	0.00	0.00	55	0	0	0	0	0	80	0	80	80
682+25.00	68225.00	25.00	17.96	0.00	0.00	0.00	0.00	0.00	17	0	0	0	0	0	97	0	97	97
682+50.00	68250.00	25.00	15.26	0.00	0.00	0.00	0.00	0.00	15	0	0	0	0	0	112	0	112	112
682+75.00	68275.00	25.00	10.47	0.00	0.00	0.00	0.00	0.00	12	0	0	0	0	0	124	0	124	124
683+00.00	68300.00	25.00	5.99	0.00	0.00	0.00	0.00	0.00	8	0	0	0	0	0	132	0	132	132
683+20.00	68320.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	2	0	0	0	0	0	134	0	134	134
TOTAL													134	0	134			
733+90.00	73390.00	5070.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0
734+25.00	73425.00	35.00	8.52	0.00	0.00	0.00	0.00	0.00	6	0	0	0	0	0	6	0	6	6
734+50.00	73450.00	25.00	8.39	0.00	0.00	0.00	0.00	0.00	8	0	0	0	0	0	14	0	14	14
734+75.00	73475.00	25.00	9.58	0.00	0.00	0.00	0.00	0.00	8	0	0	0	0	0	22	0	22	22
735+00.00	73500.00	25.00	9.38	0.00	0.00	0.00	0.00	0.00	9	0	0	0	0	0	31	0	31	31
735+29.58	73529.58	29.58	0.00	0.00	0.00	0.00	0.00	0.00	5	0	0	0	0	0	36	0	36	36
TOTAL													36	0	366			
960+17.50	96017.50	22487.92	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0
960+72.00	96072.00	54.50	110.74	0.00	11.58	0.00	0.00	0.00	112	0	12	0	0	0	112	15	97	97
961+24.01	96124.01	52.01	0.00	0.00	0.00	0.00	0.00	0.00	107	0	11	0	0	0	219	29	190	190
TOTAL													219	29	190			

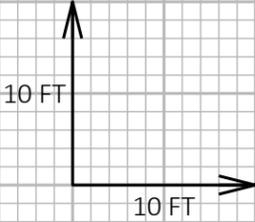
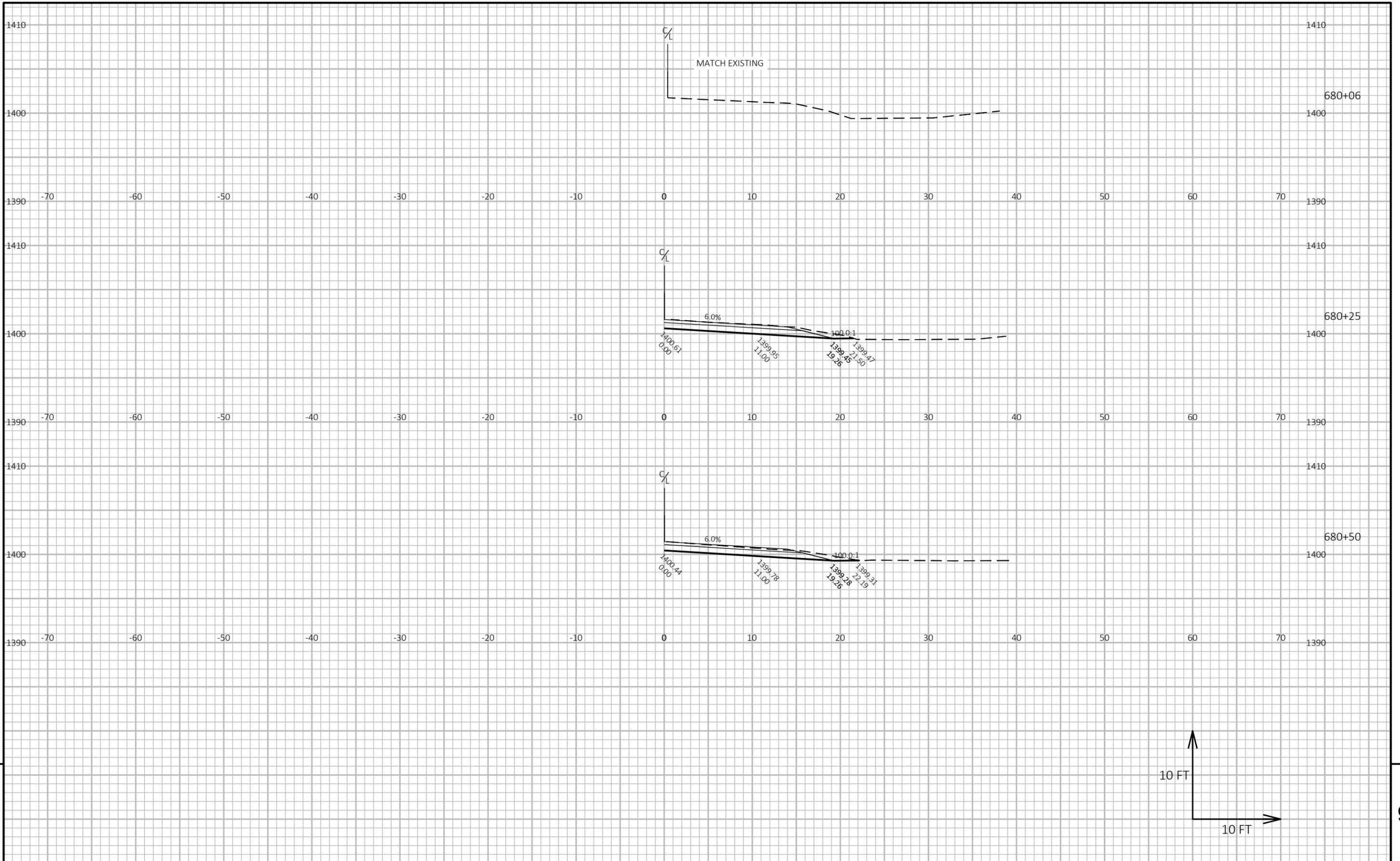


9

9



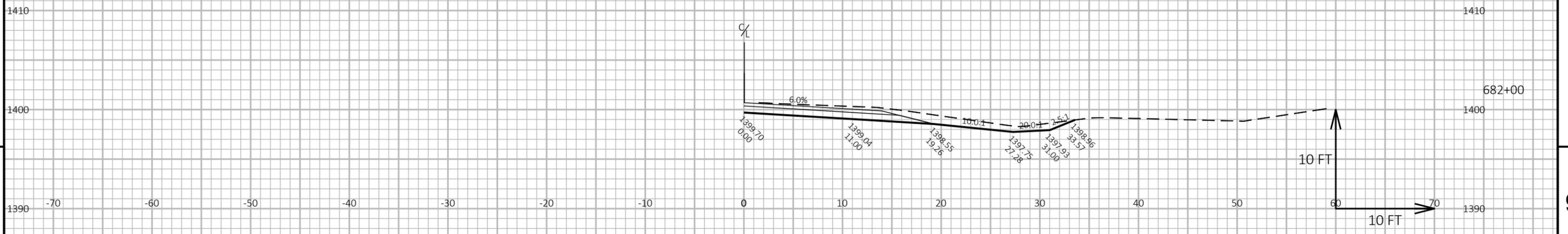
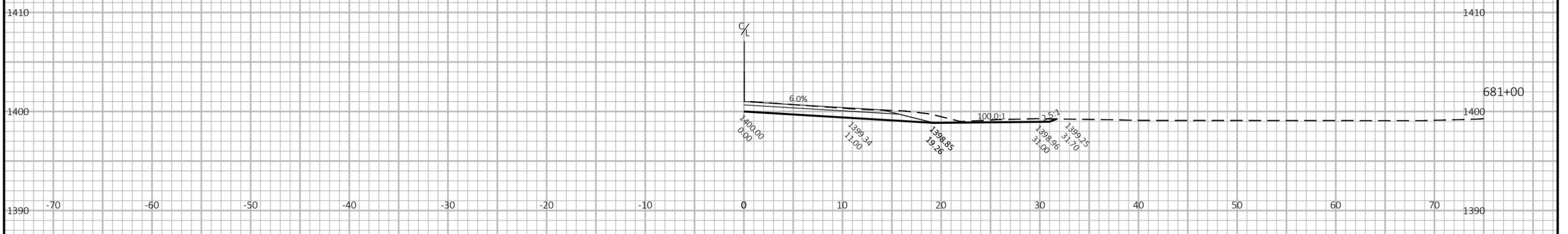
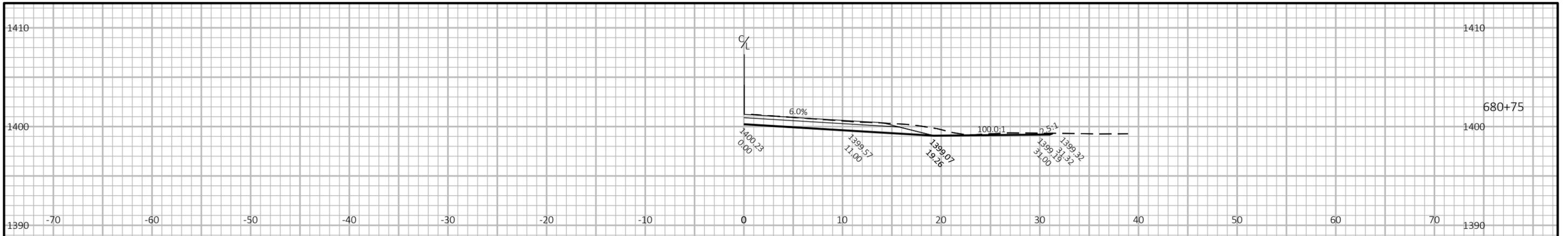
PROJECT NO: 9305-07-70 HWY: STH 107 COUNTY: LINCOLN CROSS SECTIONS: STH 107 SHEET 9



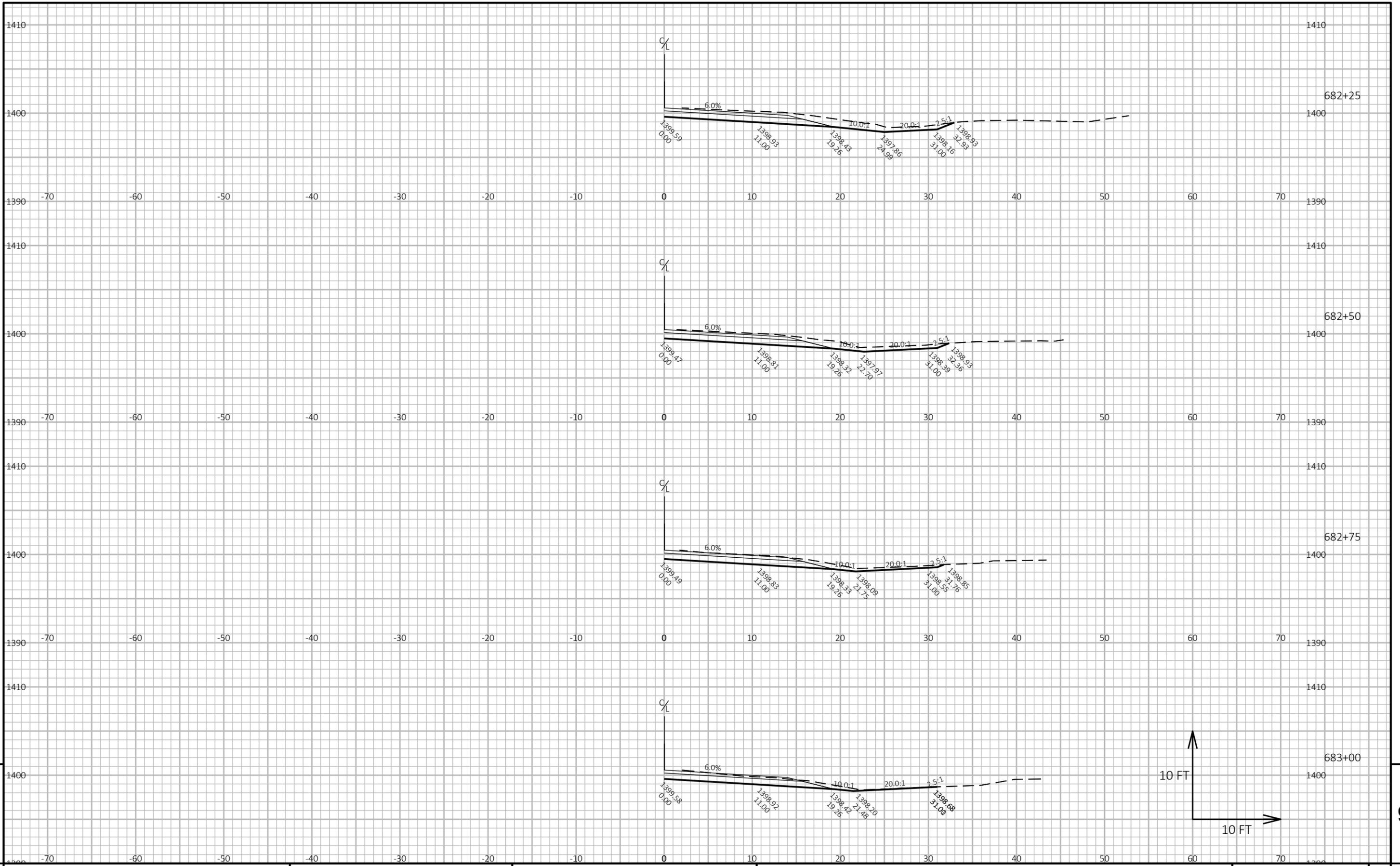
9

9

PROJECT NO: 9305-07-70	HWY: STH 107	COUNTY: LINCOLN	CROSS SECTIONS: STH 107	SHEET	E
------------------------	--------------	-----------------	-------------------------	-------	---



PROJECT NO: 9305-07-70 HWY: STH 107 COUNTY: LINCOLN CROSS SECTIONS: STH 107 SHEET **E**



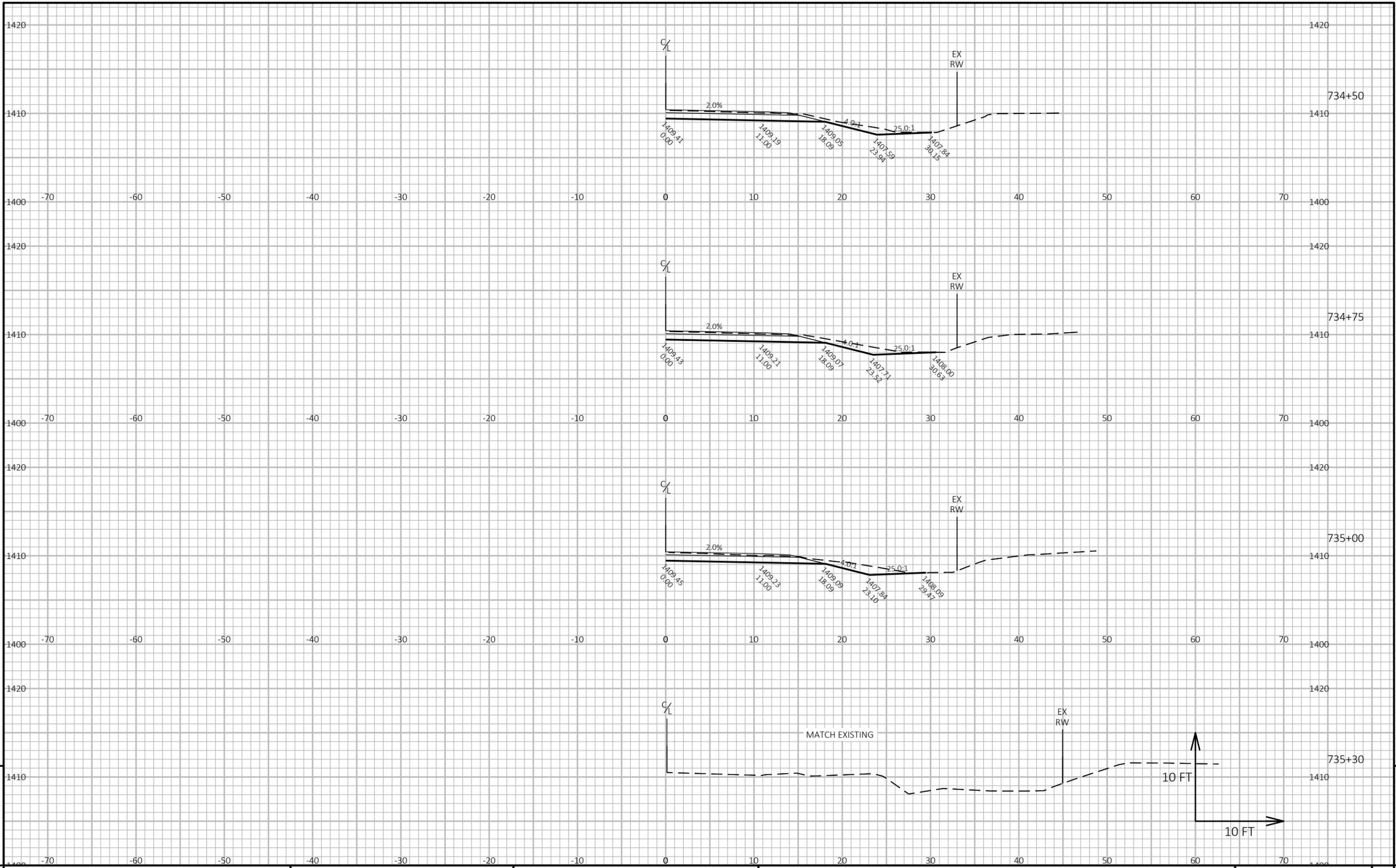
9

9

PROJECT NO: 9305-07-70 HWY: STH 107 COUNTY: LINCOLN CROSS SECTIONS: STH 107 SHEET E

FILE NAME : C:\OD\ONEDRIVE - CORRE, INC\3\ PROJECTS\NC REGION\9305-07-00_STH 107_LINCOLN CO\500_CADD\501_C3D_2024\93050700\ SHEETS\PLAN\090201-XS.DWG PLOT DATE : 10/30/2025 1:29 PM PLOT BY : ALEX BANDLI, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 06



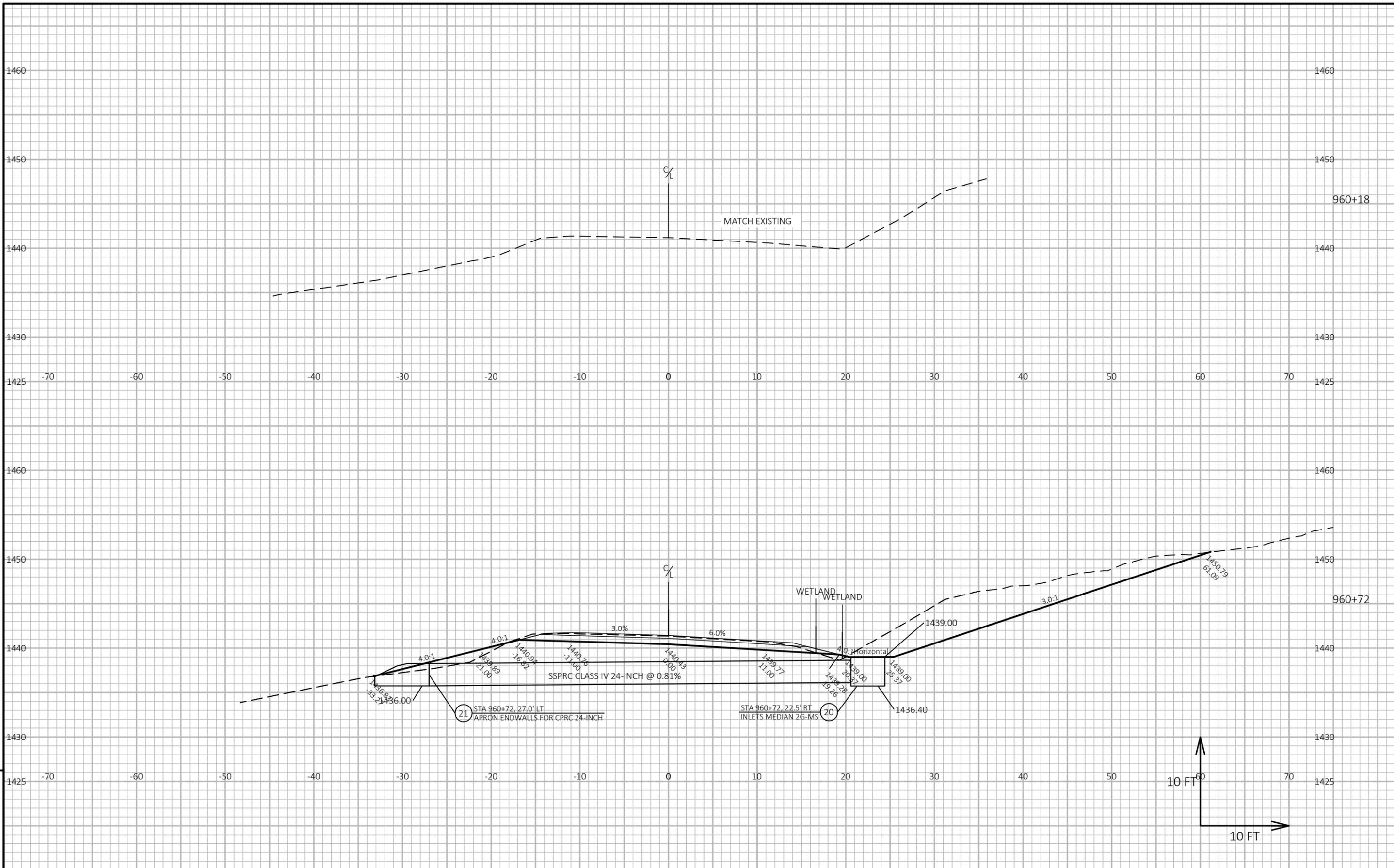
9

9

PROJECT NO: 9305-07-70 HWY: STH 107 COUNTY: LINCOLN CROSS SECTIONS: STH 107 SHEET E

FILE NAME: C:\OD\ONEDRIVE - CORRE, INC\3\PROJECTS\NC REGION\9305-07-00_STH 107_LINCOLN CO\500_CADD\501_C3D_2024\93050700\090201-XS.DWG PLOT DATE: 10/30/2025 1:29 PM PLOT BY: ALEX BANDLI, PE PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 08



PROJECT NO: 9305-07-70

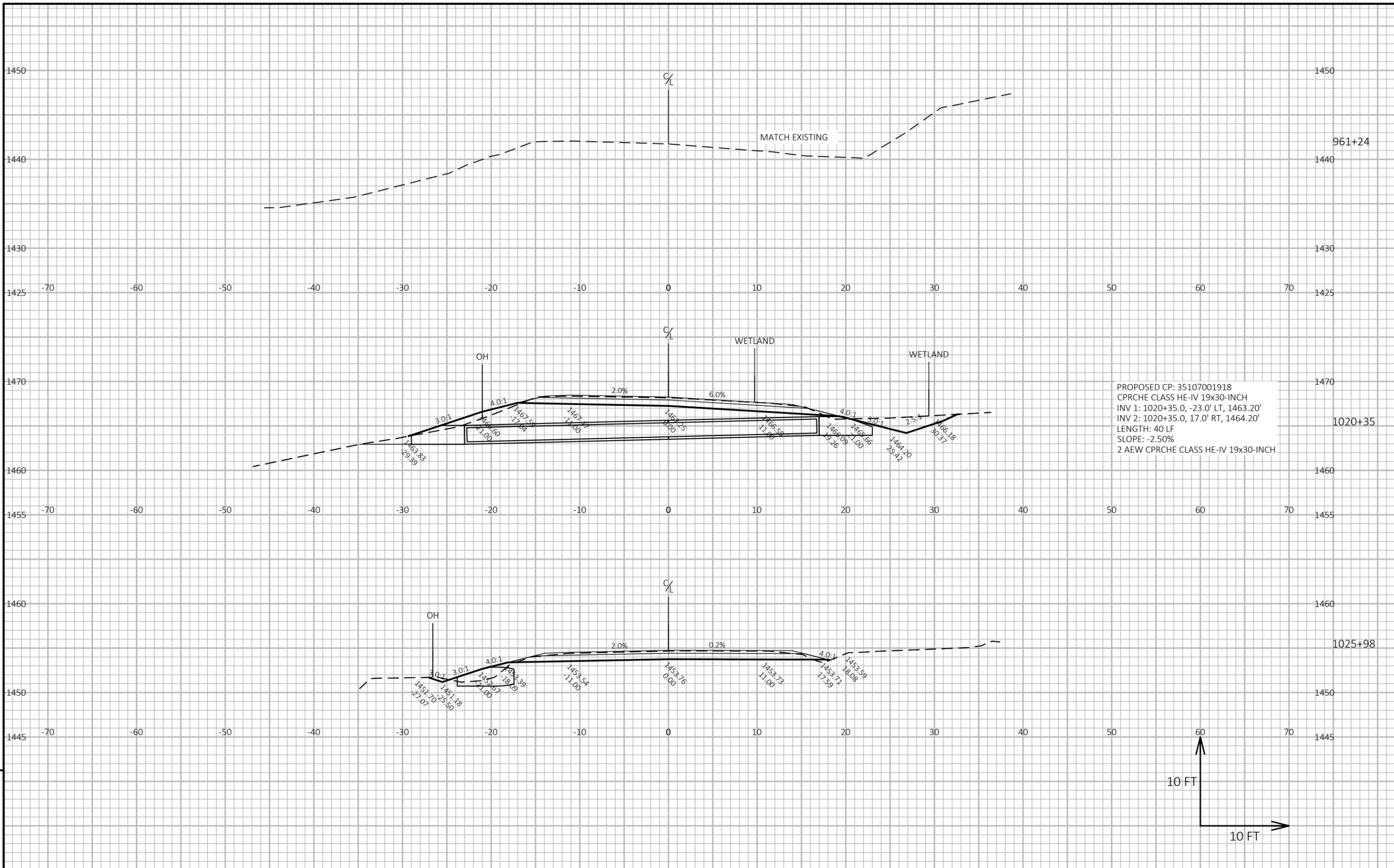
HWY: STH 107

COUNTY: LINCOLN

CROSS SECTIONS: STH 107

SHEET

E



PROJECT NO: 9305-07-70

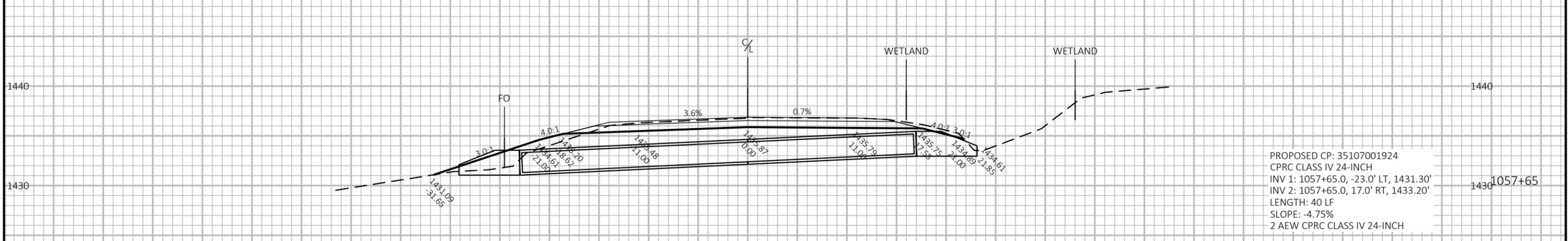
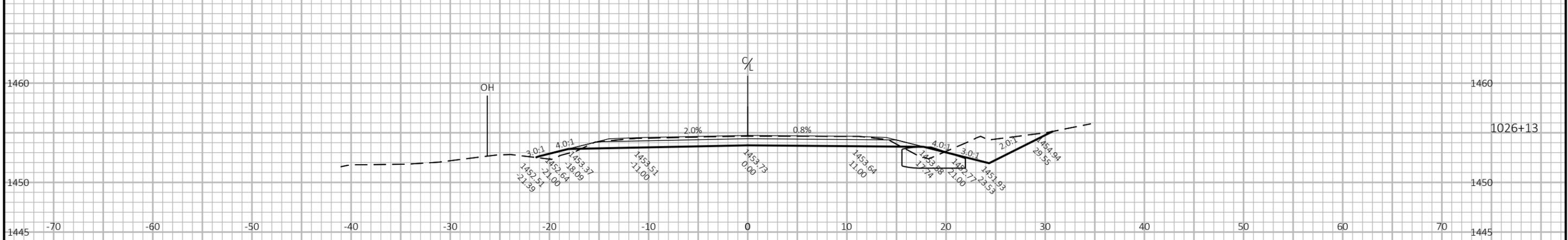
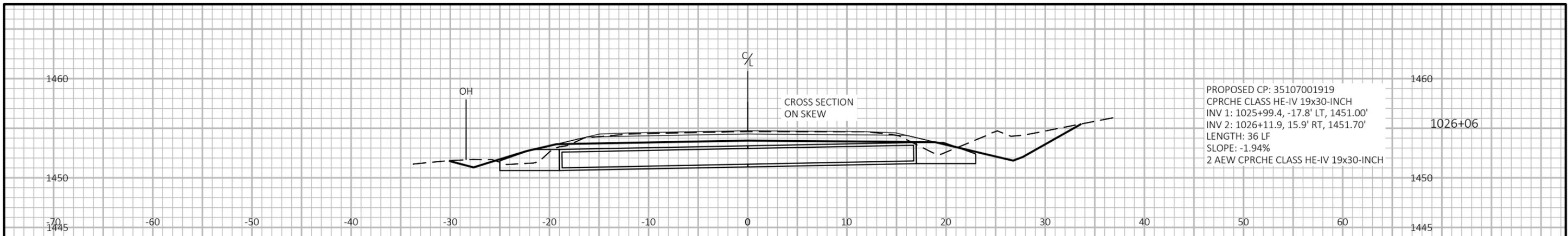
HWY: STH 107

COUNTY: LINCOLN

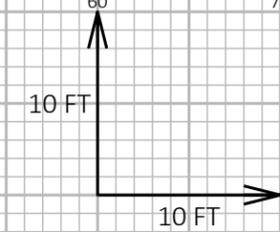
CROSS SECTIONS: STH 107

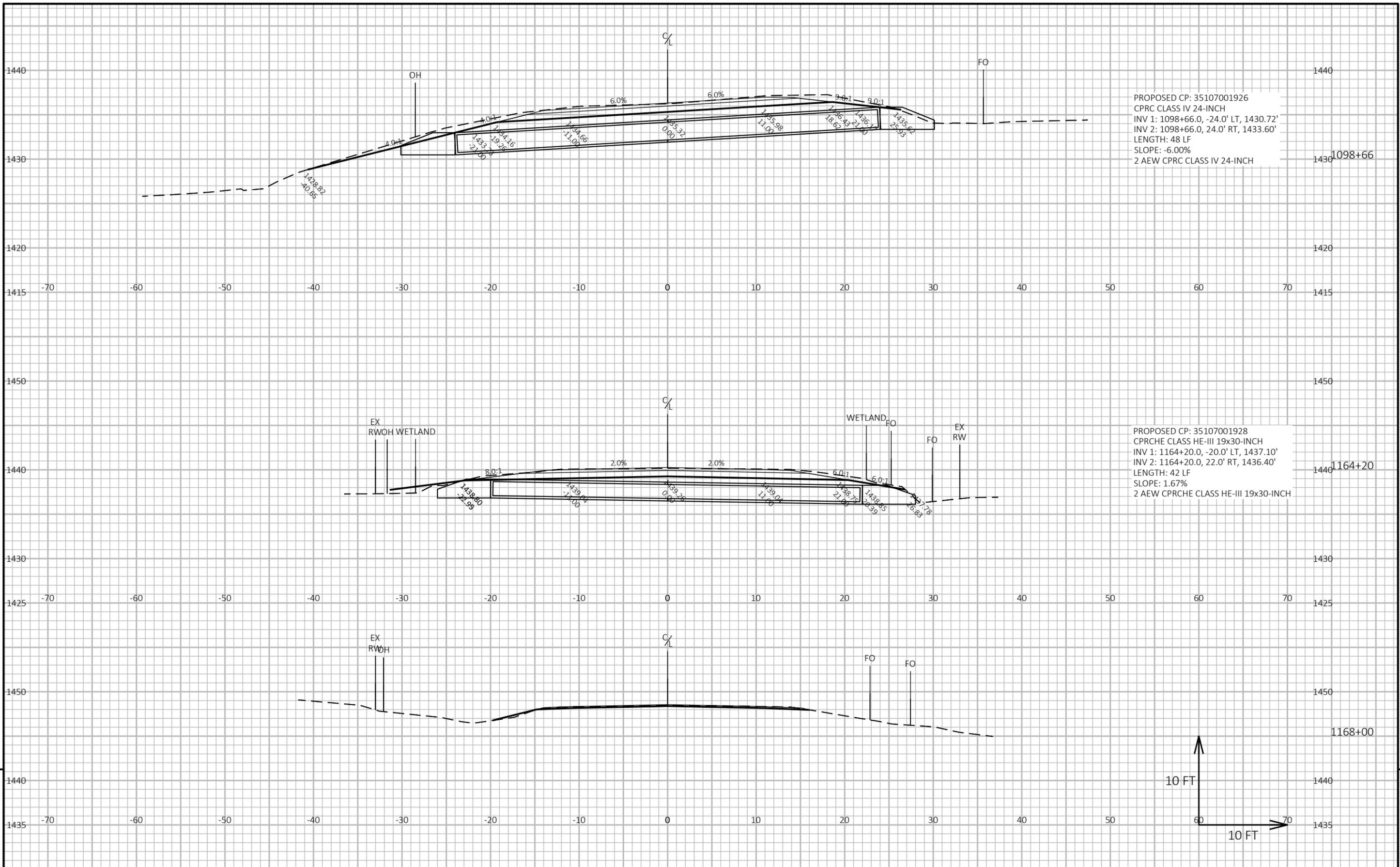
SHEET

E



PROPOSED CP: 35107001924
 CPRCHE CLASS IV 24-INCH
 INV 1: 1057+65.0, -23.0' LT, 1431.30'
 INV 2: 1057+65.0, 17.0' RT, 1433.20'
 LENGTH: 40 LF
 SLOPE: -4.75%
 2 AEW CPRCHE CLASS IV 24-INCH





PROJECT NO: 9305-07-70

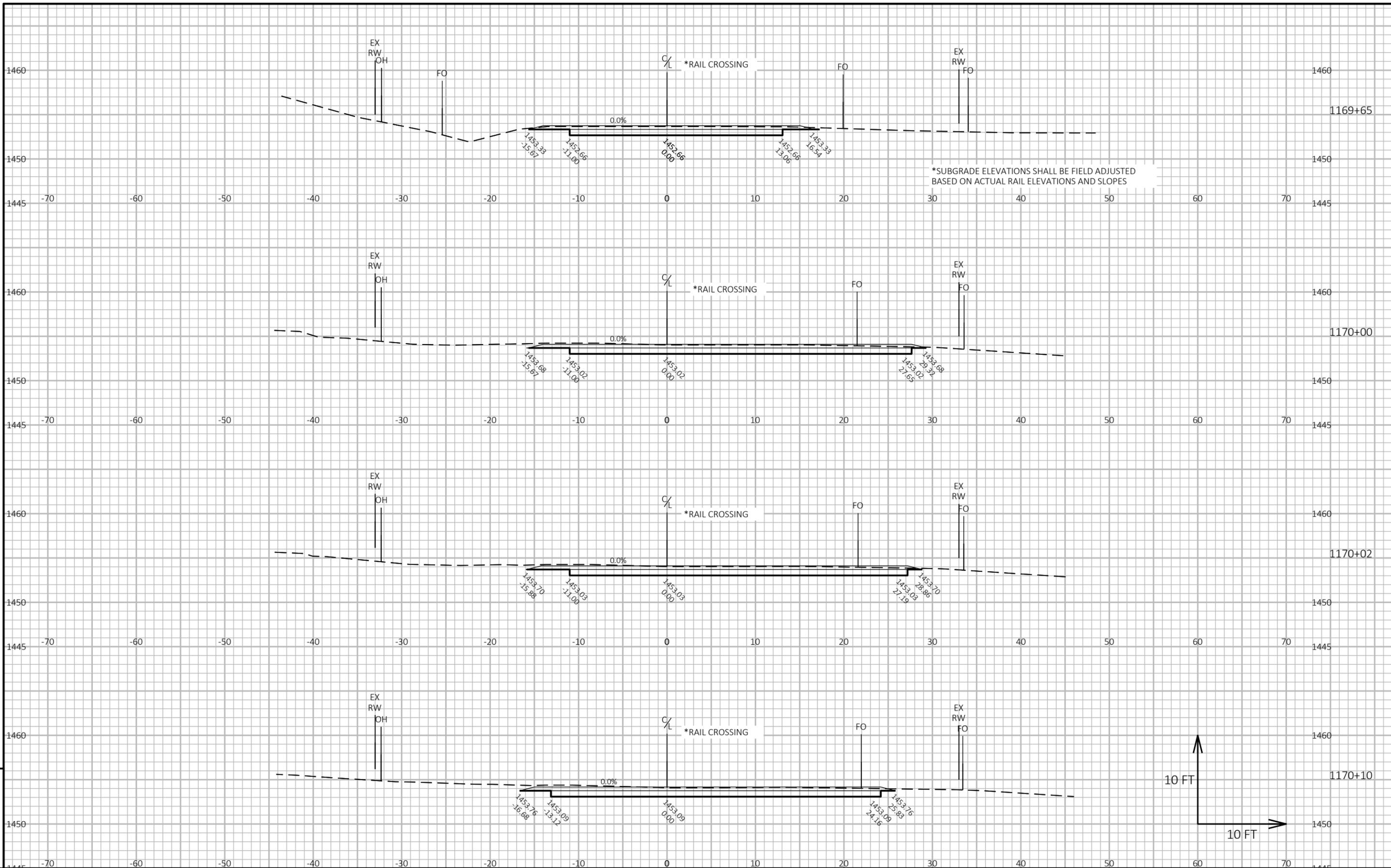
HWY: STH 107

COUNTY: LINCOLN

CROSS SECTIONS: STH 107

SHEET

E



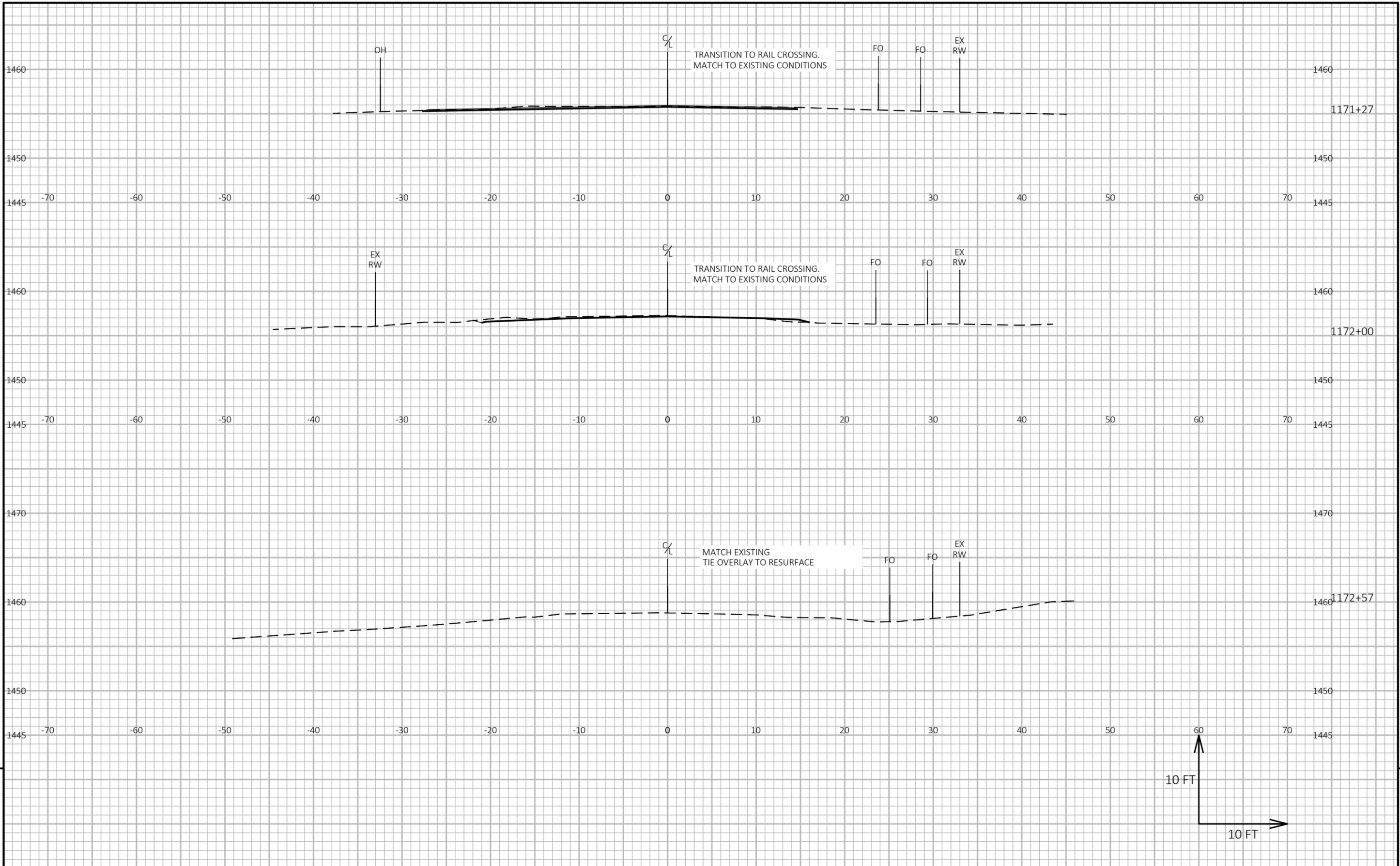
9

9

PROJECT NO: 9305-07-70 HWY: STH 107 COUNTY: LINCOLN CROSS SECTIONS: STH 107 SHEET E

FILE NAME: C:\OD\ONEDRIVE - CORRE, INC\3\PROJECTS\NC REGION\9305-07-00_STH 107_LINCOLN CO\500_CADD\501_C3D_2024\93050700\3\PLANS\090201-XS.DWG PLOT DATE: 10/30/2025 1:30 PM PLOT BY: ALEX BANDLI, PE PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

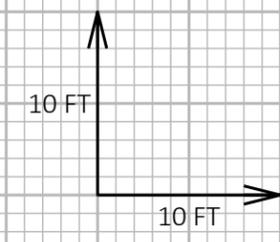
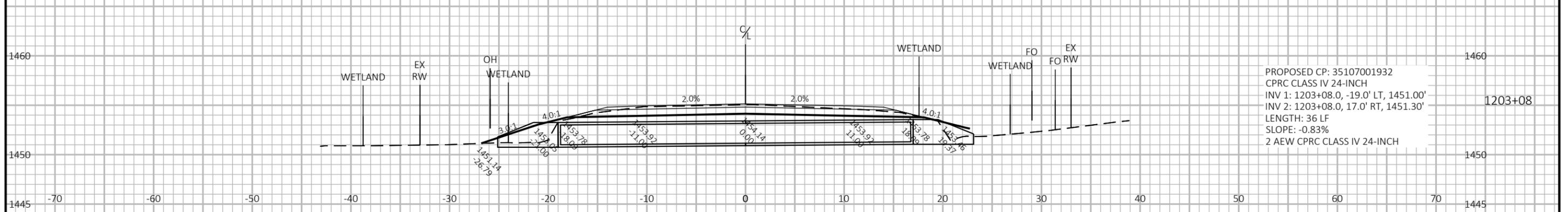
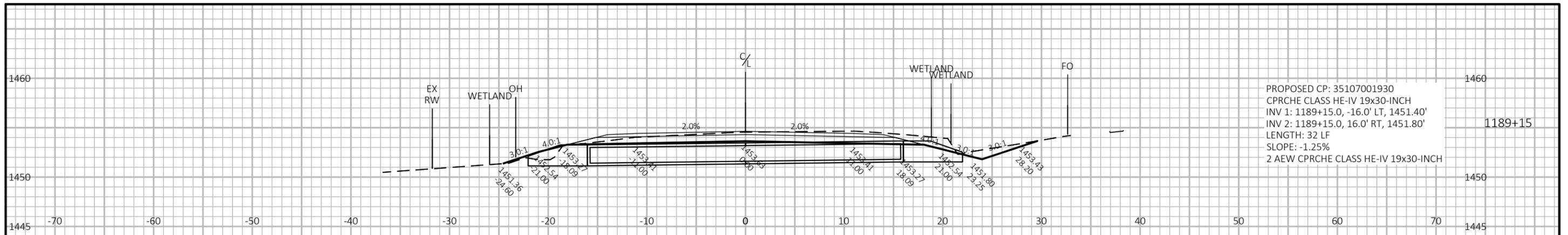
LAYOUT NAME - 15



9

9

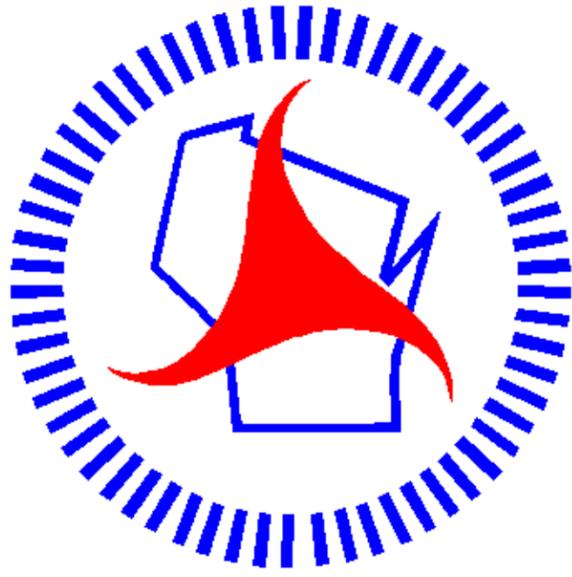
PROJECT NO: 9305-07-70	HWY: STH 107	COUNTY: LINCOLN	CROSS SECTIONS: STH 107	SHEET	E
------------------------	--------------	-----------------	-------------------------	-------	---



9

9

PROJECT NO: 9305-07-70	HWY: STH 107	COUNTY: LINCOLN	CROSS SECTIONS: STH 107	SHEET	E
------------------------	--------------	-----------------	-------------------------	-------	---



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>