

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8170-00-71		
9070-07-62		

ORDER OF SHEETS

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

TOTAL SHEETS = 68

OJIBWA - FIFIELD

CTH GG TO PRICE CO LN

STH 70

SAWYER COUNTY

OXBO - FIFIELD

SAWYER CO LN TO PIXLEY WILDERNESS W

STH 70

PRICE COUNTY

STATE PROJECT NUMBER
8170-00-71

STATE PROJECT NUMBER
9070-07-62

PROJECT ID:

8170-00-71 & 9070-07-62

COUNTY:

SAWYER & PRICE



25



DESIGN DESIGNATION 8170-00-01

A.A.D.T.	2032	=	1290
A.A.D.T.	2052	=	1290
D.H.V.		=	
D.D.		=	
T.		=	14.9%
DESIGN SPEED		=	55
ESALS		=	390,000

BEGIN PROJECT 8170-00-71
STA 604+98
Y=390793.623
X=776388.692

NET EXCEPTION TO CL LENGTH
STA 810+91 - STA 811+30
STRUCTURE B-57-0051

NET EXCEPTION TO CL LENGTH
STA 941+21 - 941+66
STRUCTURE B-57-0094

NET EXCEPTION TO CL LENGTH
STA 1031+78 - STA 1035+03
STRUCTURE B-57-0013

END PROJECT 8170-00-71
BEGIN PROJECT 9070-07-62
STA 1007+81.47

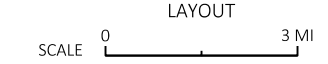
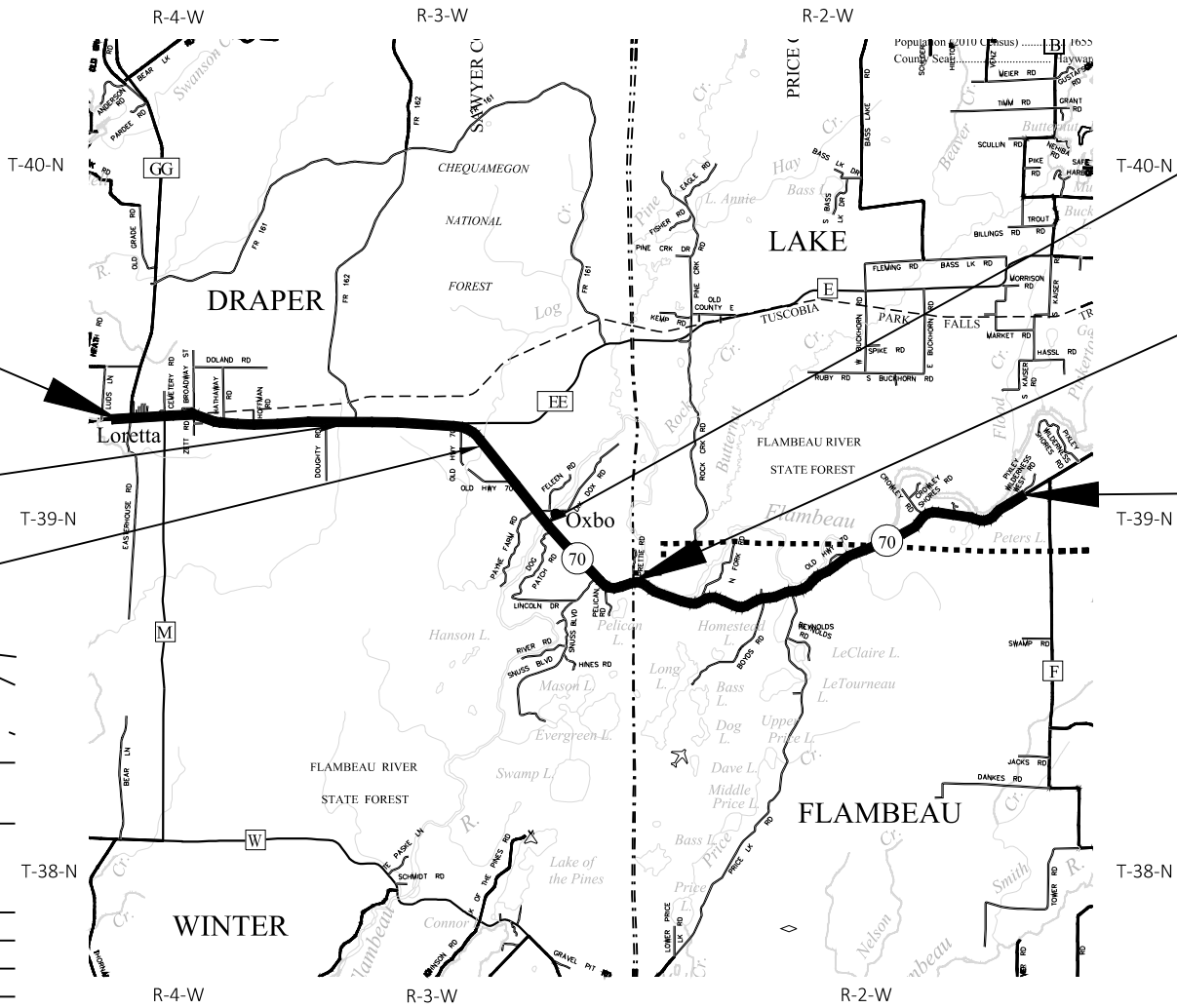
END PROJECT 9070-07-62
STA 1399+98.11
Y=478288.322
X=735120.150

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	

	ROCK
	LABEL
	95.36
	E
	FO
	G
	SAN
	SS
	T
	W



TOTAL NET LENGTH OF CENTERLINE =	17.486
8170-00-71 LENGTH OF CENTERLINE =	10.059
9070-07-62 LENGTH OF CENTERLINE =	7.427

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), SAWYER AND PRICE 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 (2008). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	_____	LIDAR
Designer	_____	KATHERINE KEMPEL
Project Manager	_____	ADAM HOGQUIST
Regional Examiner	_____	KARL KOPACZ
Regional Supervisor	_____	MATTHEW VAN NATTA

APPROVED FOR THE DEPARTMENT

DATE: **Adam Hogquist** _____
(Signature)

UTILITIES CONTACTS

CENTURYLINK
COMMUNICATION LINE
CHUCK BRUN
5475 MEREDITH DRIVE
DES MOINES, IA 50131
PHONE: (515) 336-6310
EMAIL: RELOCATIONS@LUMEN.COM

PRICE ELECTRIC COOPERATIVE INC
ELECTRICITY
BEN ORYSEN
P.O. BOX 110
PHILLIPS, WI 54555
PHONE: (715) 339-2155
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NORTH CENTRAL POWER COMPANY INC
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3661 N CLARK ST, PO BOX 68
RADISSON, WI 54867-0068
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COMMUNICATION LINE
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XCEL ENERGY
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EAU CLAIRE, WI 54702-0008
PHONE: (715) 737-2482
EMAIL: DAWN.SCHULTZ@XCELENERGY.COM



Dial **811** or (800)242-8511

www.DiggersHotline.com

ORDER OF SECTION 2 DETAIL SHEETS

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

HWY 70 - 2.5 INCHES		
LAYER	THICKNESS	TYPE
UPPER	2.5-INCHES	4 MT 58-28 S

WISCONSIN DNR LIAISON

SHAWN HASELEU
NORTHWEST REGION
810 W. MAPLE STREET
SPOONER, WI 54801
PHONE: (715) 416-0478
EMAIL: SHAWN.HASELEU@WISCONSIN.GOV

DESIGN PROJECT MANAGER

ADAM HOGQUIST
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DESIGN PROJECT LEADER

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NORTHWEST REGION
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COUNTY HIGHWAY COMMISSIONER

JOHN PINNOW
SAWYER COUNTY
14688W COUNTY ROAD B
HAYWARD, WI 54843
PHONE: (715) 634-2691
EMAIL: JOHN.PINNOW@SAWYERCOUNTYGOV.ORG

COUNTY HIGHWAY COMMISSIONER

ROGER PETRICK
PRICE COUNTY
704 N LAKE AVE
PHILLIPS, WI 54555
PHONE: (715) 339-3081
EMAIL: ROGER.PETRICK@PRICECOUNTY.WI.GOV

GENERAL NOTES

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

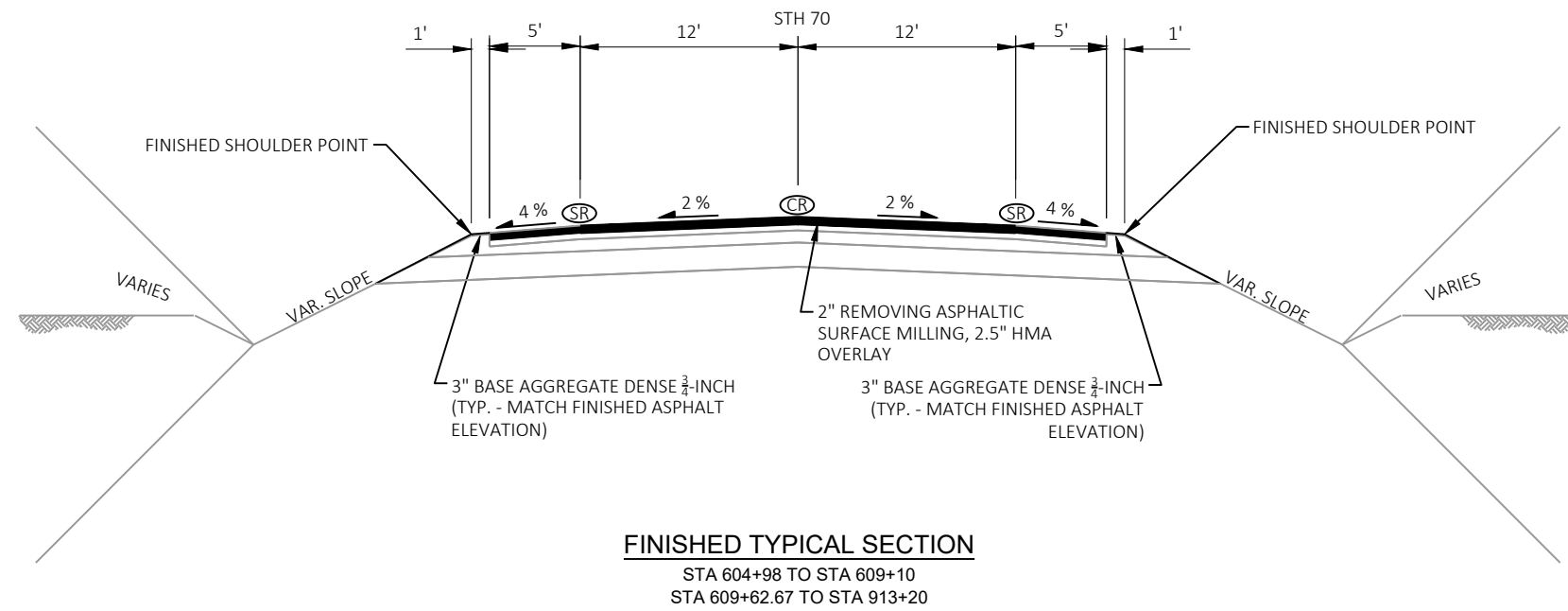
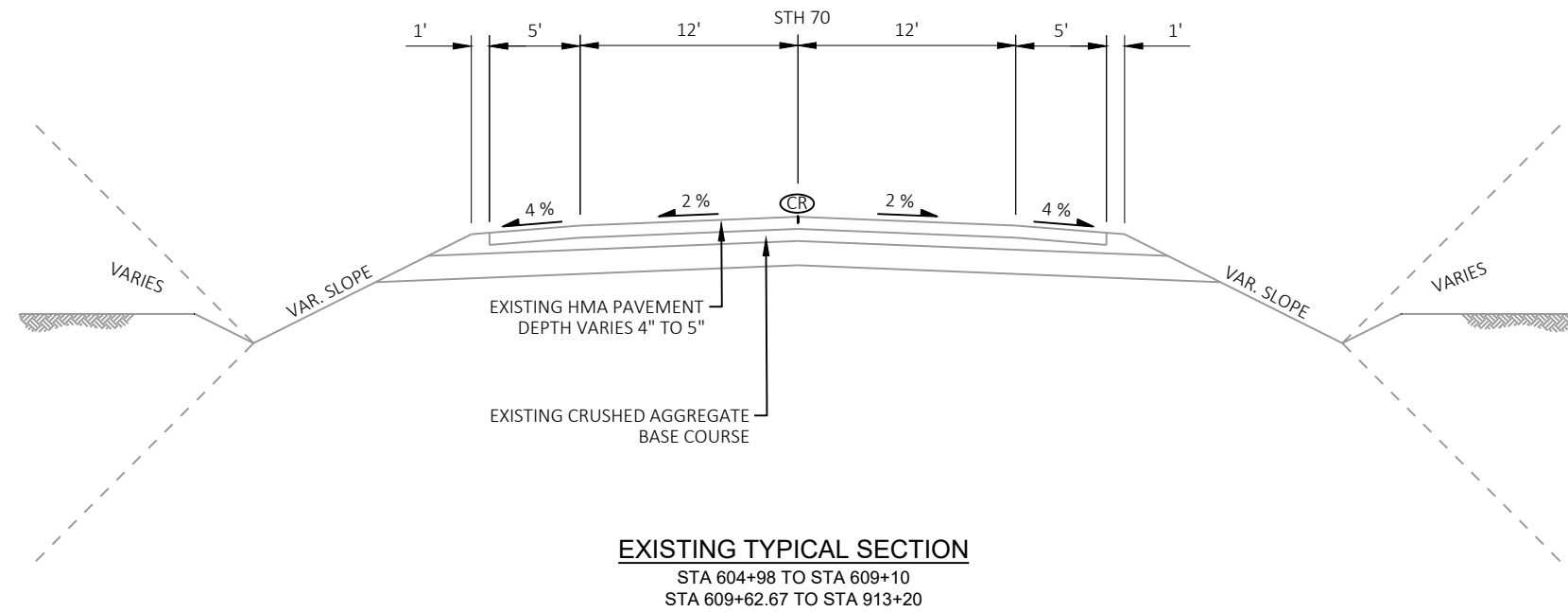
APPLY TACK COAT AT 0.070 GALLONS PER SQUARE YARD ON MILLED SURFACES.

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS, WATERWAYS, BOAT RAMP ACCESSES, OR BOAT LAUNCHES.

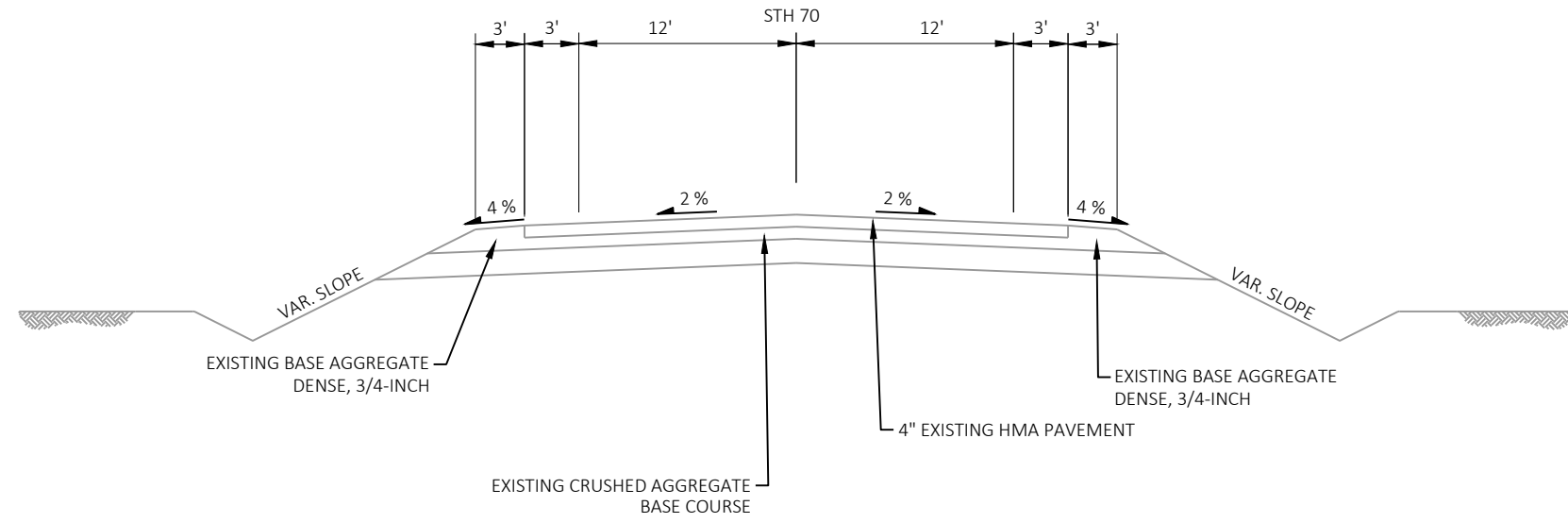
NO POSTS WILL BE REMOVED UNDER THE ADJUSTING BEAM GUARD BID ITEM.

MILLING AND PAVING ON CURVES AND TRANSITIONS TO MATCH EXISTING.

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE.

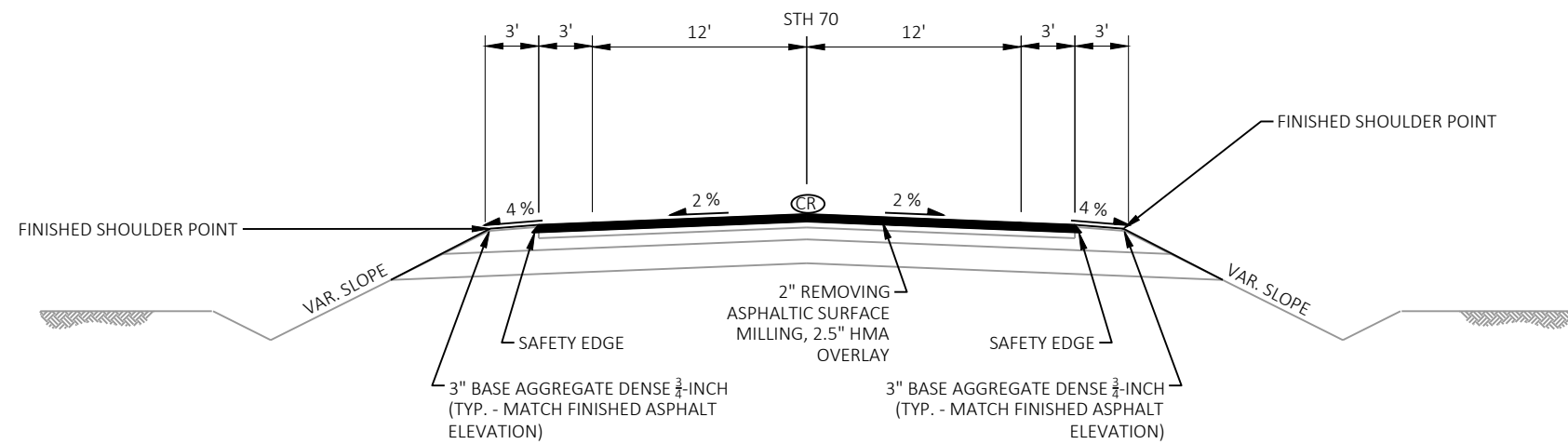


- NOTES**
- ASPHALT CENTERLINE RUMBLE STRIPS 2-LANE RURAL
 - ASPHALT SHOULDER RUMBLE STRIPS 2-LANE RURAL



EXISTING TYPICAL SECTION

STA 913+20 TO STA 1047+22
STA 918+39.51 TO STA 1007+81.47

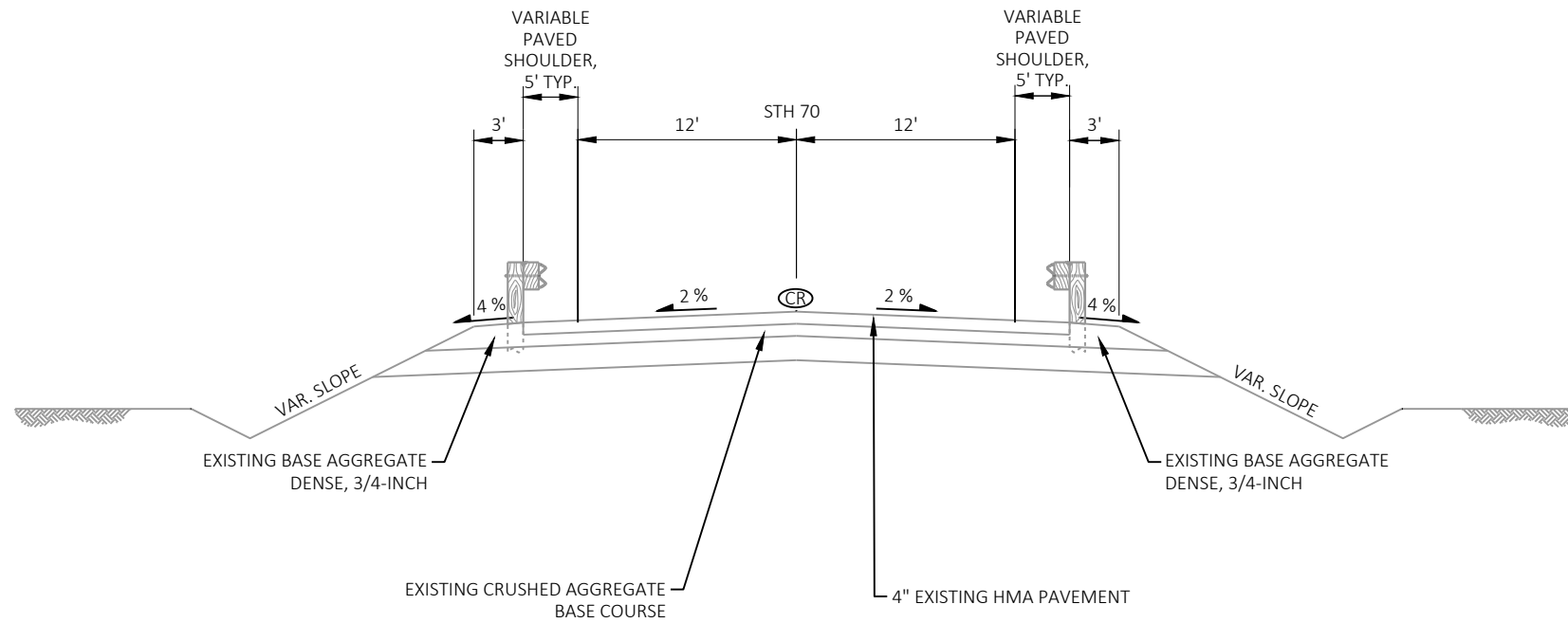


FINISHED TYPICAL SECTION

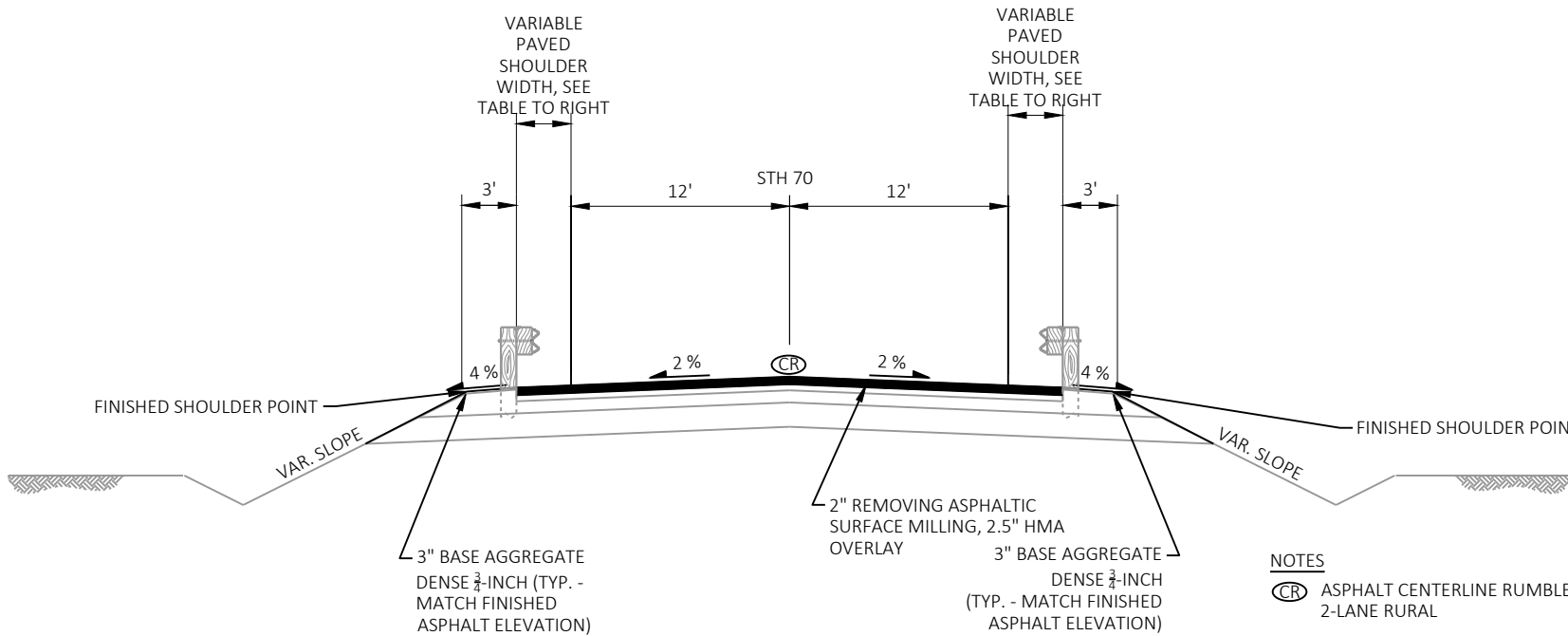
STA 913+20 TO STA 1047+22
STA 918+39.51 TO STA 1007+81.47

NOTES

- (CR) ASPHALT CENTERLINE RUMBLE STRIPS
2-LANE RURAL



EXISTING TYPICAL SECTION
SEE LOCATIONS TO THE RIGHT



FINISHED TYPICAL SECTION
SEE LOCATIONS TO THE RIGHT

NOTES
 (CR) ASPHALT CENTERLINE RUMBLE STRIPS
 2-LANE RURAL

EXISTING LOCATIONS

THORNAPPLE RIVER:
 STA 809+20 TO STA 810+81.71 LT
 STA 809+20.85 TO STA 810+83.40 RT
 STA 811+40.39 TO STA 812+26.52 LT
 STA 811+40.39 TO STA 812+27.37 RT

LOG CREEK:
 STA 939+39.80 TO STA 940+99.05 RT
 STA 940+24.05 TO STA 941+16.84 LT
 STA 941+71.67 TO STA 942+66.73 RT
 STA 941+89.84 TO STA 943+47.95 LT

FLAMBEAU RIVER:
 STA 1030+59.97 TO STA 1031+77.66 LT
 STA 1030+65.81 TO STA 1031+76.80 RT
 STA 1034+73.71 TO STA 1035+84.32 RT
 STA 1034+74.44 TO STA 1035+84.71 LT

DEADMAN SLOUGH:
 STA 1055+42.65 TO STA 1058+23.03 RT
 STA 1055+84.04 TO STA 1060+12.79 LT

NINEMILE CREEK:
 STA 1225+65.73 TO STA 1228+20.90 RT
 STA 1227+02.73 TO STA 1228+57.22 LT

SIXMILE CREEK:
 STA 1373+79.03 TO STA 1381+31.87 LT
 STA 1375+04.99 TO STA 1381+59.71 RT

FINISHED LOCATIONS

THORNAPPLE RIVER:
 STA 809+20 TO STA 810+81.71 LT
 STA 809+20.85 TO STA 810+83.40 RT
 STA 811+40.39 TO STA 812+26.52 LT
 STA 811+40.39 TO STA 812+27.37 RT
 PAVED SHOULDER WIDTH: 5 FT

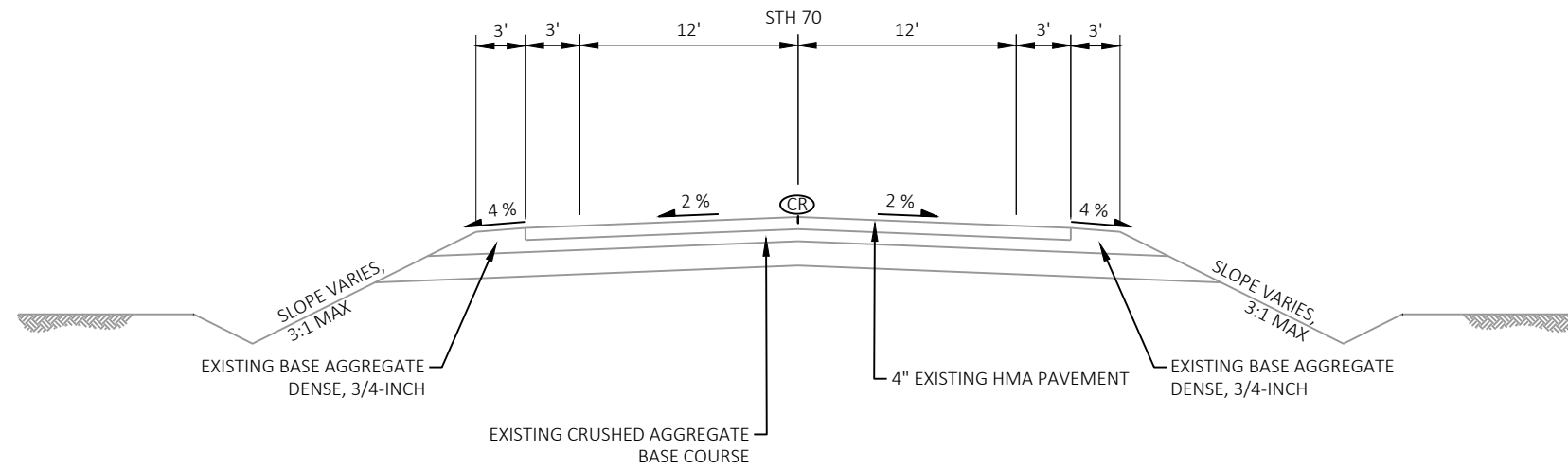
LOG CREEK:
 STA 939+39.80 TO STA 940+99.05 RT
 STA 940+24.05 TO STA 941+16.84 LT
 STA 941+71.67 TO STA 942+66.73 RT
 STA 941+89.84 TO STA 943+47.95 LT
 PAVED SHOULDER WIDTH: 6 FT

FLAMBEAU RIVER:
 STA 1030+59.97 TO STA 1031+77.66 LT
 STA 1030+65.81 TO STA 1031+76.80 RT
 STA 1034+73.71 TO STA 1035+84.32 RT
 STA 1034+74.44 TO STA 1035+84.71 LT
 PAVED SHOULDER WIDTH: 5 FT

DEADMAN SLOUGH:
 STA 1055+42.65 TO STA 1058+23.03 RT
 STA 1055+84.04 TO STA 1060+12.79 LT
 PAVED SHOULDER WIDTH: 5 FT

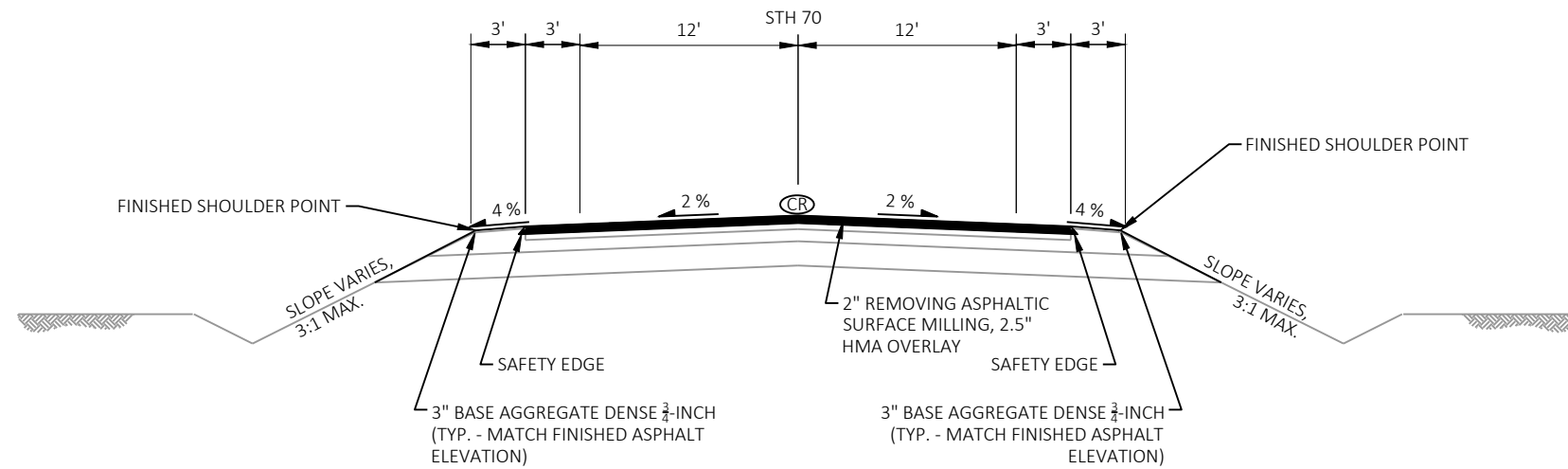
NINEMILE CREEK:
 STA 1225+65.73 TO STA 1228+20.90 RT
 STA 1227+02.73 TO STA 1228+57.22 LT
 PAVED SHOULDER WIDTH: 5 FT

SIXMILE CREEK:
 STA 1373+79.03 TO STA 1381+31.87 LT
 STA 1375+04.99 TO STA 1381+59.71 RT
 PAVED SHOULDER WIDTH: 5 FT



EXISTING TYPICAL SECTION

STA 1007+81.47 TO STA 1399+98.11

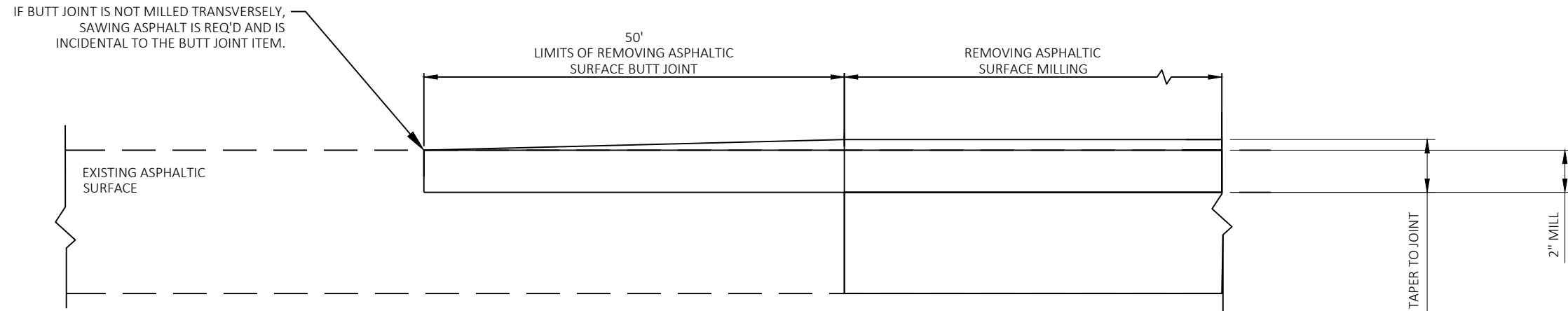


FINISHED TYPICAL SECTION

STA 1007+81.47 TO STA 1399+98.11

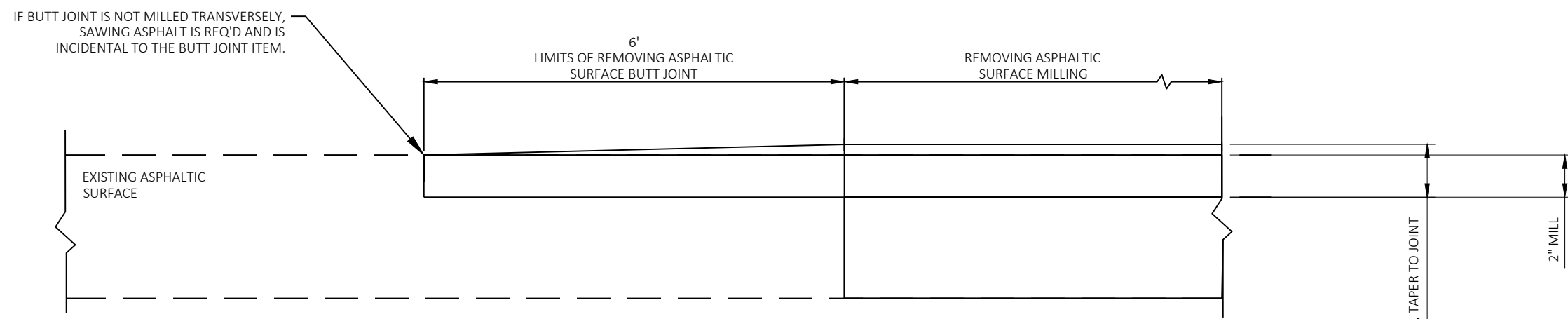
NOTES

- Ⓞ ASPHALT CENTERLINE RUMBLE STRIPS
2-LANE RURAL



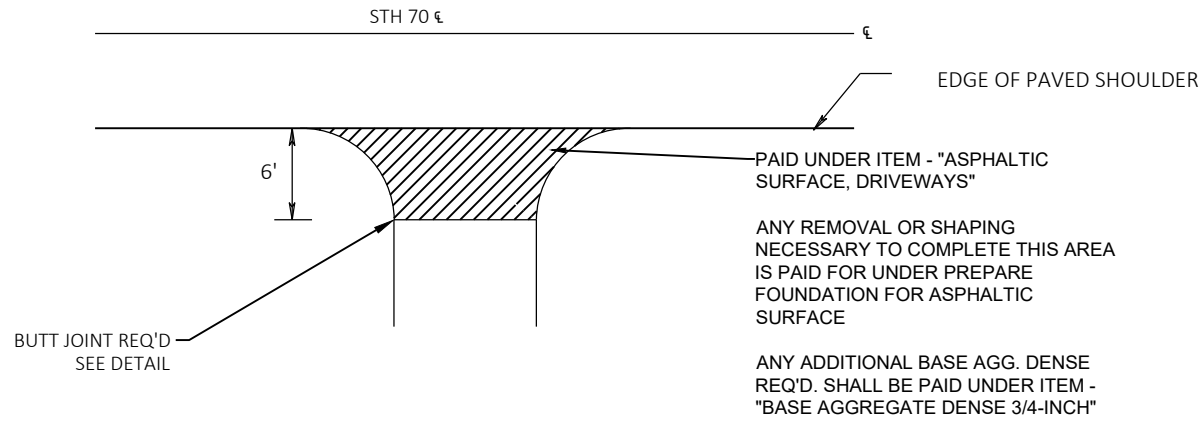
DETAIL FOR MAINLINE BUTT JOINT

- STA 604+98 - STA 654+98 BEGIN PROJECT
- STA 810+16 - STA 810+66 WEST END THORNAPPLE RIVER BRIDGE (B-57-0051)
- STA 811+47 - STA 811+97 EAST END THORNAPPLE RIVER BRIDGE (B-57-0051)
- STA 940+71 - STA 941+21 NORTH END LOG CREEK BRIDGE (B-57-0094)
- STA 941+66 - STA 942+16 SOUTH END LOG CREEK BRIDGE (B-57-0094)
- STA 1031+31 - STA 1031+81 NORTH END FLAMBEAU RIVER BRIDGE (B-57-0013)
- STA 1035+03 - STA 1035+53 SOUTH END FLAMBEAU RIVER BRIDGE (B-57-0013)
- STA 1349+98.11 - STA 1399+98.11 END PROJECT



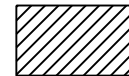
DETAIL FOR PAVED DRIVEWAY AND SIDE ROAD BUTT JOINT

- STA 622+76 LT (CTH GG)
- STA 629+76 LT (2ND ST) *10 FT
- STA 637+04 LT (5TH ST) * 10 FT
- STA 652+66 LT (CEMETERY RD) *10 FT
- STA 652+66 RT (CTH M) *10 FT
- STA 672+20 LT (N MAIN ST)
- STA 678+96 LT (BROADWAY ST)
- STA 678+96 RT (ZETT RD)
- STA 733+00 LT (HOFFMAN RD)
- STA 912+33 LT (CTH EE)
- STA 916+68 RT (OLD 70)
- STA 986+06 RT (OLD 70)
- STA 1037+89 LT (OXBO DR)
- STA 1042+06 LT (DOG PATCH RD)
- STA 971+00 RT (SNUSS BLVD)
- STA 1132+12 RT (BOYDS RD)
- STA 1157+48 RT (PRICE LAKE RD)
- STA 1297+45 LT (CROWLEY RD)
- STA 1318+40 LT (EAGLE VIEW LN)
- STA 1323+80 LT
- STA 1331+50 LT
- STA 1342+35 LT
- STA 1368+05 RT
- STA 1394+30 LT (PIXLEY WILDERNESS W RD)

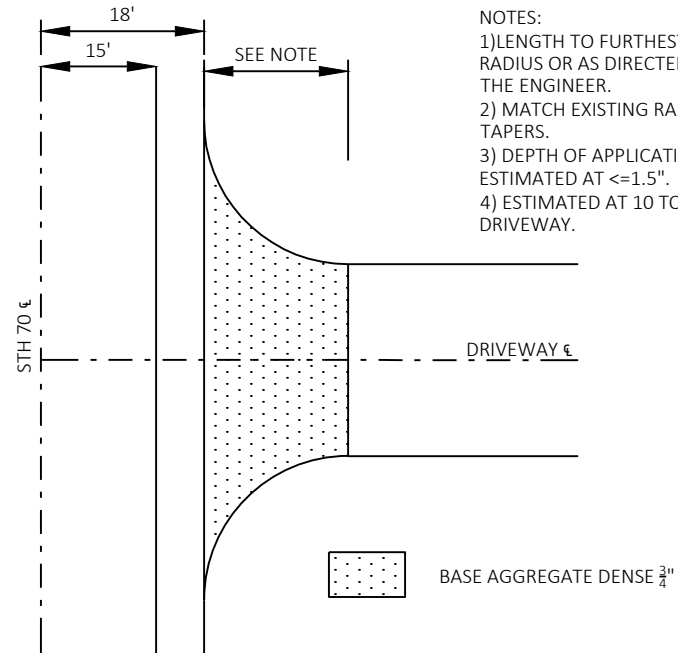


DETAIL OF PAVED RURAL DRIVEWAY

- STA 1342+35 LT
- STA 1368+05 RT



REMOVING ASPHALTIC SURFACE BUTT JOINT TAPER HMA PAVEMENT TO EXISTING DRIVEWAY SURFACE

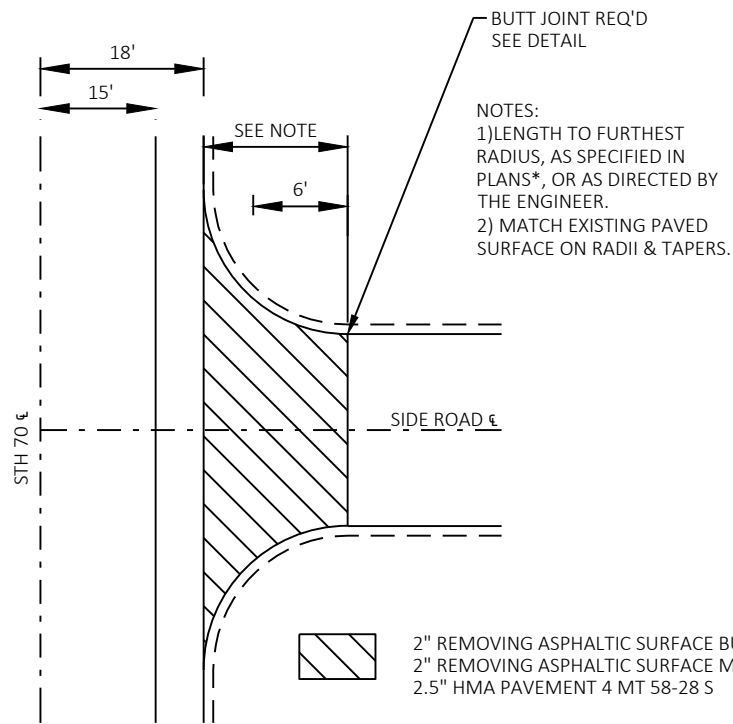


DETAIL OF UNPAVED SIDE ROAD WITH UNPAVED APPROACH AND RURAL GRAVEL DRIVEWAY

- NOTES:
- 1) LENGTH TO FURTHEST RADIUS OR AS DIRECTED BY THE ENGINEER.
 - 2) MATCH EXISTING RADII & TAPERS.
 - 3) DEPTH OF APPLICATION ESTIMATED AT <=1.5".
 - 4) ESTIMATED AT 10 TONS / DRIVEWAY.

LOCATIONS

- STA 640+04 RT
- STA 661+20 RT
- STA 677+66 LT (TUSCOBIA TRAIL)
- STA 677+58 RT (TUSCOBIA TRAIL)
- STA 685+00 LT
- STA 685+00 RT
- STA 708+33 RT
- STA 712+27 RT
- STA 728+15 LT
- STA 752+15 RT
- STA 753+65 RT
- STA 755+05 RT
- STA 774+94 LT
- STA 823+65 RT
- STA 857+29 LT
- STA 857+7 RT
- STA 862+14 RT
- STA 959+83 RT
- STA 1008+02 RT
- STA 1030+50 LT
- STA 1030+05 RT
- STA 933+35 RT
- STA 933+35 LT
- STA 946+03 LT
- STA 963+32 LT
- STA 970+58 LT
- STA 1008+04 LT (PRETTIE RD)
- STA 1049+80 RT
- STA 1055+34 LT
- STA 1161+00 LT
- STA 1197+85 LT (OLD HWY 70)
- STA 1218+20 LT (OLD HWY 70)
- 1226+75 LT
- STA 1229+00 LT
- 1230+50 LT
- STA 1231+00 RT
- STA 1244+40 RT
- STA 1258+50 RT
- STA 1272+88 LT
- STA 1274+75 RT
- STA 1283+90 LT
- STA 1285+71 LT
- STA 1300+35 RT
- STA 1310+00 RT
- STA 1311+50 RT
- STA 1312+00 LT
- STA 1313+45 RT
- STA 1314+40 LT
- STA 1322+00 RT
- STA 1326+90 LT
- STA 1326+90 RT
- STA 1329+00 RT
- STA 1337+60 LT
- STA 1338+00 RT
- STA 1341+94 LT
- STA 1346+67 LT
- STA 1347+10 LT
- STA 1351+09 LT
- STA 1355+78 LT
- STA 1358+20 LT
- STA 1359+10 RT
- STA 1371+20 LT
- STA 1372+75 LT
- STA 1373+90 RT
- STA 1374+75 RT
- STA 1384+55 RT
- STA 1386+75 LT
- STA 1388+25 LT



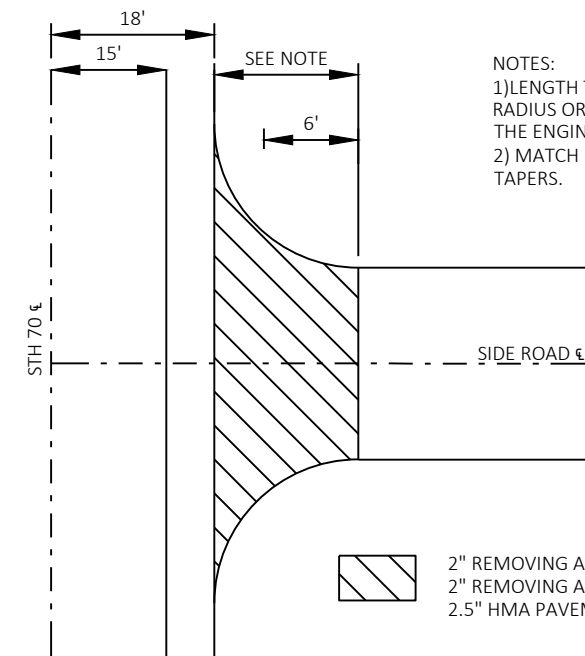
DETAIL OF PAVED SIDE ROAD

LOCATIONS:

- STA 629+76 LT (2ND ST) *10 FT
- STA 637+04 LT (5TH ST) * 10 FT
- STA 652+66 LT (CEMETERY RD) *10 FT
- STA 652+66 RT (CTH M) *10 FT
- STA 672+20 LT (N MAIN ST)
- STA 678+96 LT (BROADWAY ST)
- STA 678+96 RT (ZETT RD)
- STA 733+00 LT (HOFFMAN RD)
- STA 916+68 RT (OLD 70)
- STA 986+06 RT (OLD 70)
- STA 1037+89 LT (OXBO DR)
- STA 1042+06 LT (DOG PATCH RD)
- STA 971+00 RT (SNUSS BLVD)

- STA 1132+12 RT (BOYDS RD)
- STA 1157+48 RT (PRICE LAKE RD)
- STA 1297+45 LT (CROWLEY RD)
- STA 1318+40 LT (EAGLE VIEW LN)
- STA 1323+80 LT
- STA 1331+50 LT
- STA 1394+30 LT (PIXLEY WILDERNESS W RD)

2" REMOVING ASPHALTIC SURFACE BUTT JOINT (6' WIDTH)
 2" REMOVING ASPHALTIC SURFACE MILLING
 2.5" HMA PAVEMENT 4 MT 58-28 S



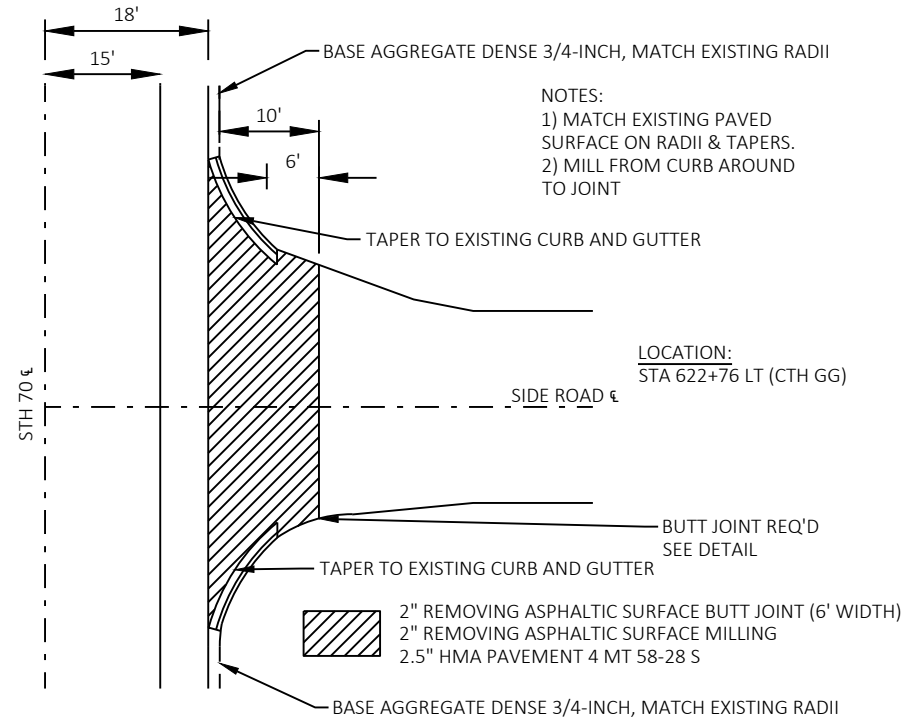
DETAIL OF UNPAVED SIDE ROAD WITH PAVED APPROACH

- NOTES:
- 1) LENGTH TO FURTHEST RADIUS OR AS DIRECTED BY THE ENGINEER.
 - 2) MATCH EXISTING RADII & TAPERS.

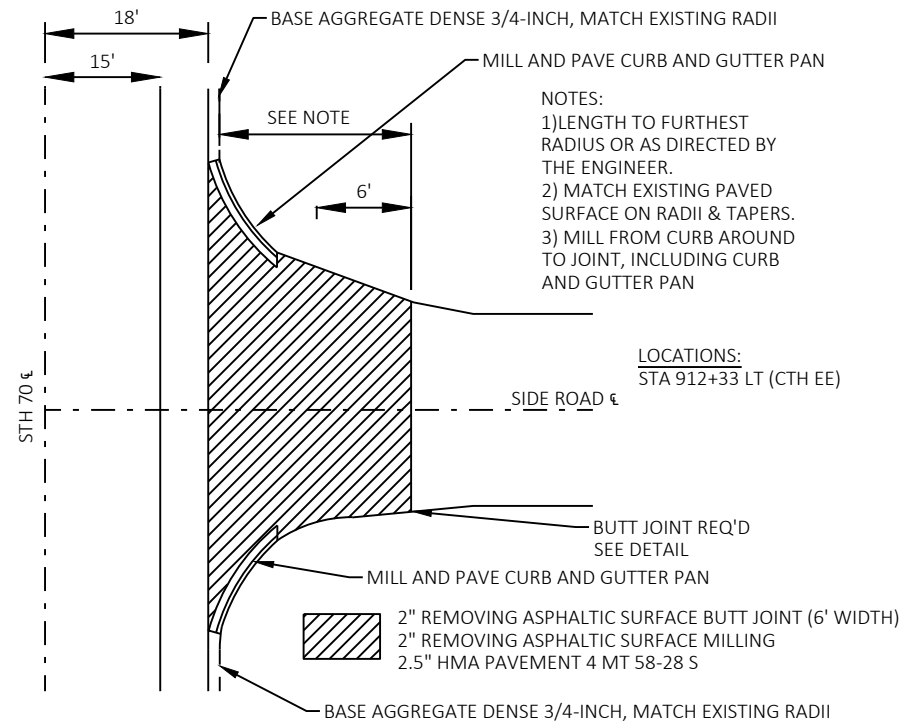
LOCATIONS:

- STA 622+73 RT (EASTERHOUSE RD)
- STA 706+09 LT (HATHAWAY RD)
- STA 797+60 RT (DOUGHTY RD)
- STA 823+65 LT (RD 162)
- STA 1020+86 LT (OXBO DR)
- STA 1020+86 RT (PAYNE FARM RD)
- STA 982+00 RT (PELICAN LAKE RD)
- STA 1075+00 LT (N FORK RD)
- STA 1129+15 LT (OAK RD)
- STA 1242+80 LT

2" REMOVING ASPHALTIC SURFACE BUTT JOINT (6' WIDTH)
 2" REMOVING ASPHALTIC SURFACE MILLING
 2.5" HMA PAVEMENT 4 MT 58-28 S



DETAIL OF PAVED SIDE ROAD WITH CURB & GUTTER

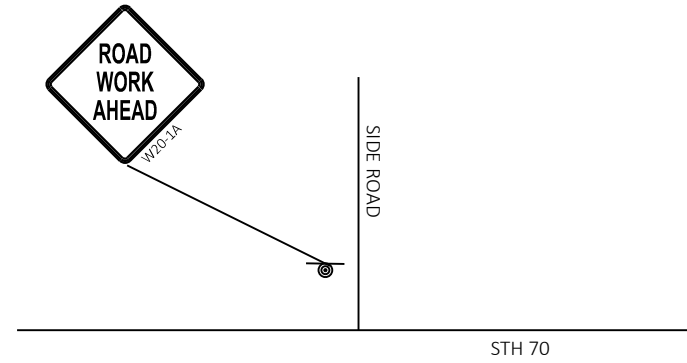


DETAIL OF PAVED SIDE ROAD, MILLED CURB & GUTTER

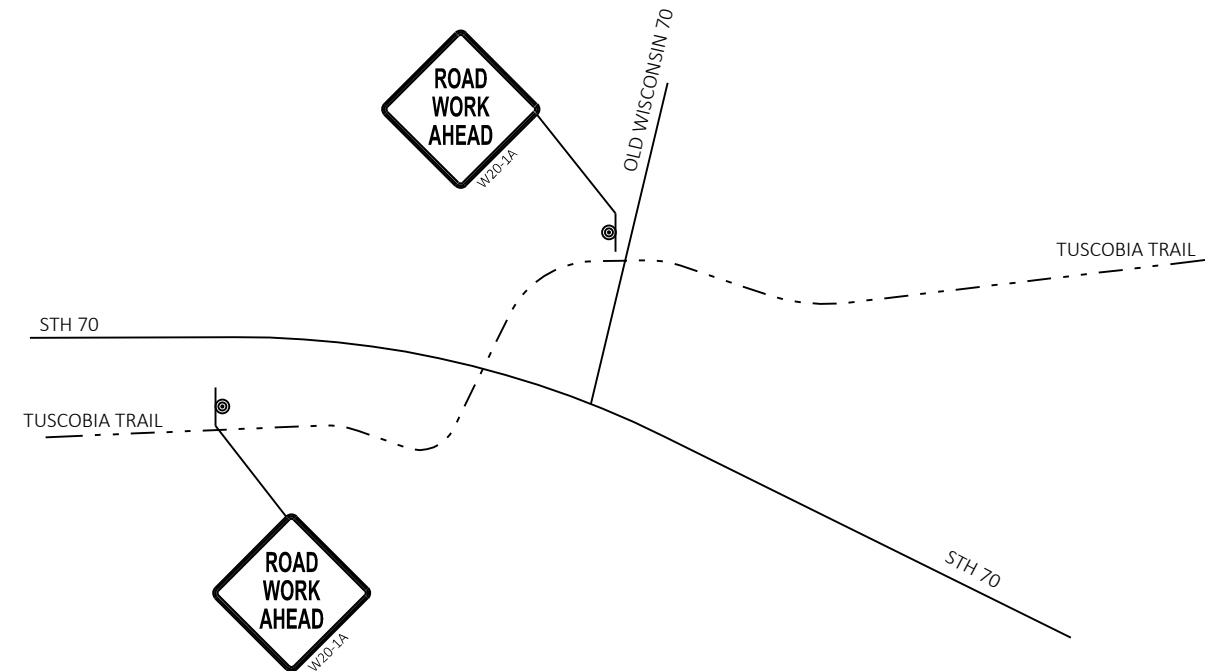
TRAFFIC CONTROL DETAIL

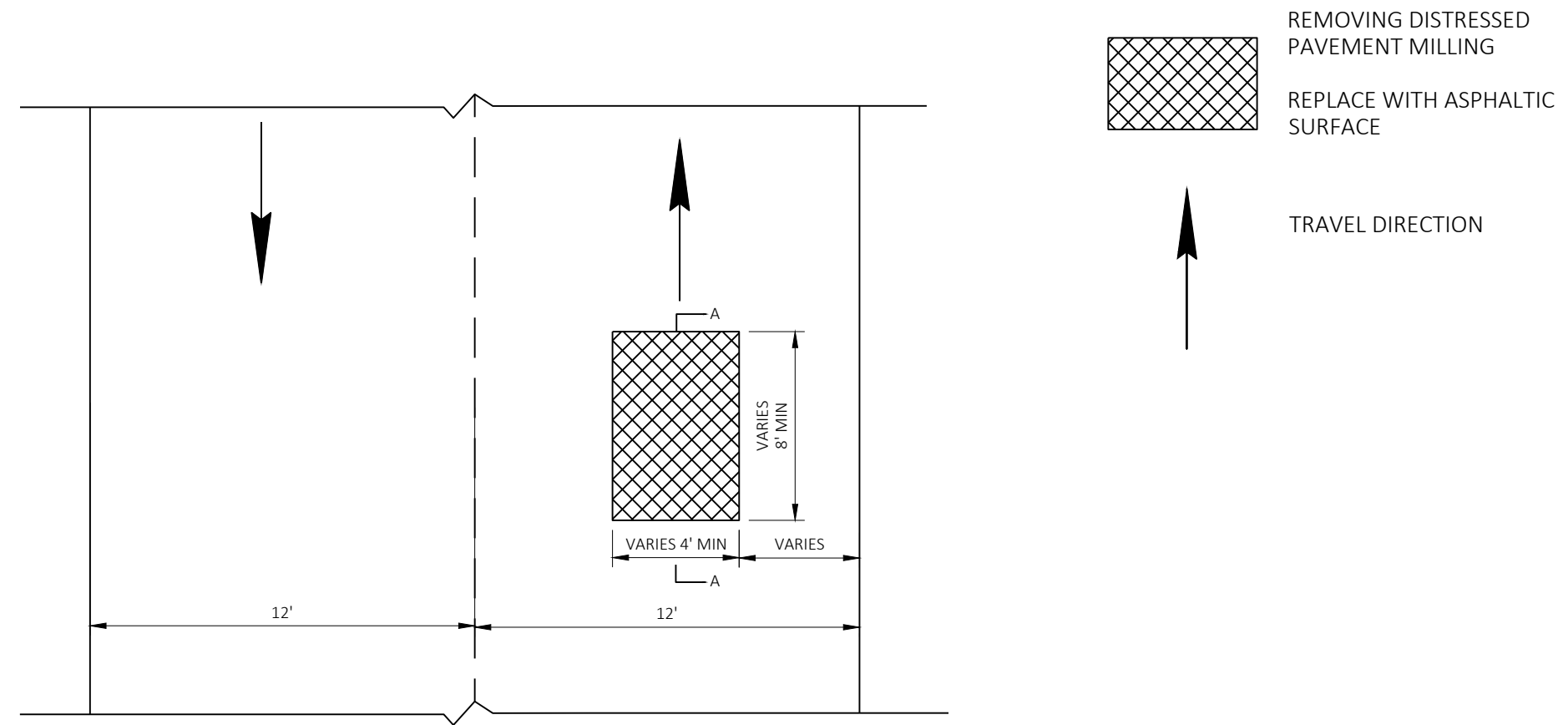
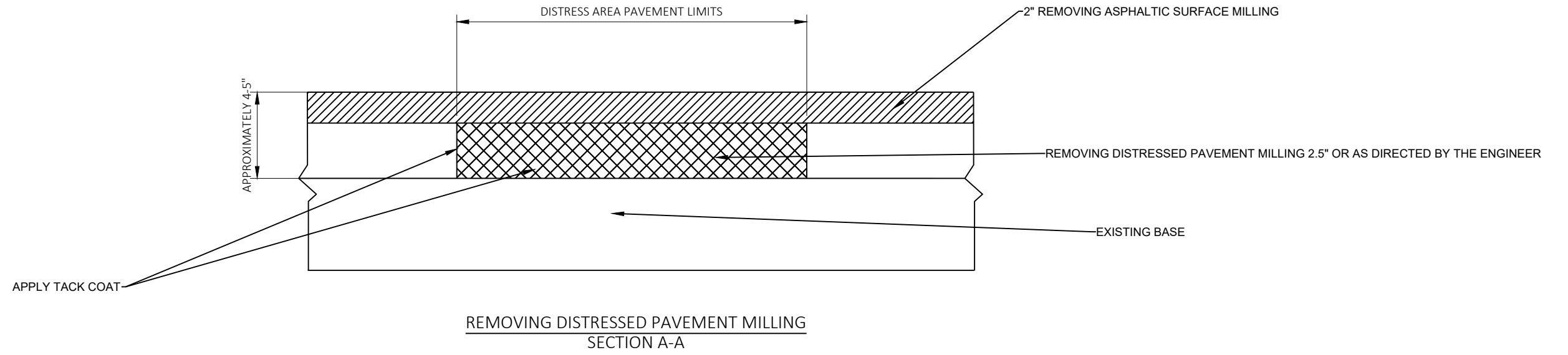
SIDE ROAD SIGNING LOCATIONS

- STA 622+76 LT (CTH GG)
- STA 622+73 RT (EASTERHOUSE RD)
- STA 629+76 LT (2ND ST)
- STA 637+04 LT (5TH ST)
- STA 652+66 LT (CEMETERY RD)
- STA 652+66 RT (CTH M)
- STA 672+20 LT (N MAIN ST)
- STA 678+96 LT (BROADWAY ST)
- STA 706+09 LT (HATHAWAY RD)
- STA 823+65 LT (RD 162)
- STA 912+33 LT (CTH EE)
- STA 1157+48 RT (PRICE LAKE RD)



TRAFFIC CONTROL TRAIL DETAIL





PLAN VIEW

EXACT LOCATION AND LIMITS OF REMOVING DISTRESSED PAVEMENT MILLING TO BE DETERMINED BY THE ENGINEER IN THE FIELD

Estimate Of Quantities By Plan Sets

8170-00-71 9070-07-62

Line	Item	Item Description	Unit	Total	Qty	Qty
0002	204.0115	Removing Asphaltic Surface Butt Joints	SY	3,430.000	2,260.000	1,170.000
0004	204.0120	Removing Asphaltic Surface Milling	SY	322,900.000	192,100.000	130,800.000
0006	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 8170-00-71	EACH	1.000	1.000	
0008	211.0101	Prepare Foundation for Asphaltic Paving (project) 02. 9070-07-62	EACH	1.000		1.000
0010	213.0100	Finishing Roadway (project) 01. 8170-00-71	EACH	1.000	1.000	
0012	213.0100	Finishing Roadway (project) 02. 9070-07-62	EACH	1.000		1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	8,400.000	3,820.000	4,580.000
0016	455.0605	Tack Coat	GAL	22,773.000	13,622.000	9,151.000
0018	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	0.500	0.500
0020	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	0.500	0.500
0022	460.2005	Incentive Density PWL HMA Pavement	DOL	46,410.000	28,100.000	18,310.000
0024	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	18,400.000	10,550.000	7,850.000
0026	460.2010	Incentive Air Voids HMA Pavement	DOL	36,450.000	27,290.000	9,160.000
0028	460.6224	HMA Pavement 4 MT 58-28 S	TON	45,980.000	27,290.000	18,690.000
0030	460.9000.S	Material Transfer Vehicle	EACH	1.000	0.500	0.500
0032	465.0105	Asphaltic Surface	TON	300.000	150.000	150.000
0034	465.0110	Asphaltic Surface Patching	TON	100.000	50.000	50.000
0036	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	14.000		14.000
0038	465.0520	Asphaltic Rumble Strips, Shoulder	LF	46,300.000	46,300.000	
0040	465.0560	Asphaltic Rumble Strips, Centerline	LF	80,820.000	45,920.000	34,900.000
0042	614.0400	Adjusting Steel Plate Beam Guard	LF	1,260.000	960.000	300.000
0044	614.0951	Replacing Guardrail Rail and Hardware	LF	150.000		150.000
0046	618.0100	Maintenance and Repair of Haul Roads (project) 01. 8170-00-71	EACH	1.000	1.000	
0048	618.0100	Maintenance and Repair of Haul Roads (project) 02. 9070-07-62	EACH	1.000		1.000
0050	619.1000	Mobilization	EACH	1.000	0.500	0.500
0052	624.0100	Water	MGAL	169.000	77.000	92.000
0054	642.5001	Field Office Type B	EACH	1.000	0.500	0.500
0056	643.0900	Traffic Control Signs	DAY	4,228.000	2,642.000	1,586.000
0058	643.3165	Temporary Marking Line Paint 6-Inch	LF	248,000.000	114,400.000	133,600.000
0060	643.5000	Traffic Control	EACH	1.000	0.500	0.500
0062	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	306,490.000	161,800.000	144,690.000
0064	650.8000	Construction Staking Resurfacing Reference	LF	92,300.000	53,000.000	39,300.000
0066	650.9911	Construction Staking Supplemental Control (project) 01. 8170-00-71	EACH	1.000	1.000	
0068	650.9911	Construction Staking Supplemental Control (project) 02. 9070-07-62	EACH	1.000		1.000
0070	740.0440	Incentive IRI Ride	DOL	34,820.000	19,965.000	14,855.000
0072	999.2105.S	Maintaining Climbing Turtle Exclusion Fence	LF	22,558.000		22,558.000
0074	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	500.000	250.000	250.000
0076	SPV.0180	Special 02. Removing Erosion Mat	SY	589.000		589.000

HMA ACCEPTANCE TABLE						
LOCATION	STATION	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USE FOR	
					MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
8170-00-71						
12' DRIVING LANES	604+98 - 609+10	460.6224	154	2.5"	INCENTIVE AIR VOIDS HMA PAVEMENT (460.2010)	INCENTIVE DENSITY PWL HMA PAVEMENT (460.2005)
12' DRIVING LANES	609+63 - 913+20	460.6224	11,303	2.5"	INCENTIVE AIR VOIDS HMA PAVEMENT (460.2010)	INCENTIVE DENSITY PWL HMA PAVEMENT (460.2005)
5' SHOULDERS	604+98 - 609+10	460.6224	64	2.5"	INCENTIVE AIR VOIDS HMA PAVEMENT (460.2010)	ACCEPTANCE TESTING BY DEPARTMENT: NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE.
5' SHOULDERS	609+63 - 913+20	460.6224	4,710	2.5"	INCENTIVE AIR VOIDS HMA PAVEMENT (460.2010)	ACCEPTANCE TESTING BY DEPARTMENT: NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE.
12' DRIVING LANES	913+20 - 1047+22	460.6224	4,987	2.5"	INCENTIVE AIR VOIDS HMA PAVEMENT (460.2010)	INCENTIVE DENSITY PWL HMA PAVEMENT (460.2005)
12' DRIVING LANES	918+40 - 1007+81	460.6224	3,338	2.5"	INCENTIVE AIR VOIDS HMA PAVEMENT (460.2010)	INCENTIVE DENSITY HMA PAVEMENT (460.2005)
3' SHOULDERS	913+20 - 1047+22	460.6224	1,313	2.5"	INCENTIVE AIR VOIDS HMA PAVEMENT (460.2010)	ACCEPTANCE TESTING BY DEPARTMENT: NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE.
3' SHOULDERS	918+40 - 1007+81	460.6224	879	2.5"	INCENTIVE AIR VOIDS HMA PAVEMENT (460.2010)	ACCEPTANCE TESTING BY DEPARTMENT: NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE.
SIDE ROAD APRONS	604+98 - 1007+81	460.6224	543	2.5"	INCENTIVE AIR VOIDS HMA PAVEMENT (460.2010)	ACCEPTANCE TESTING BY DEPARTMENT: NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE.
MISC REPAIRS/PATCHING	VARIOUS	465.0105, 465.0110	200	VARIES	QMP AS PER SS 465.	ACCEPTANCE BY ORDINARY COMPACTION
9070-07-62						
12' DRIVING LANES	1007+81 - 1399+98	460.6224	14,641	2.5"	INCENTIVE AIR VOIDS HMA PAVEMENT (460.2010)	INCENTIVE DENSITY HMA PAVEMENT (460.2005)
3' SHOULERS	1007+81 - 1399+98	460.6224	3,859	2.5"	INCENTIVE AIR VOIDS HMA PAVEMENT (460.2010)	ACCEPTANCE TESTING BY DEPARTMENT: NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE.
SIDE ROAD APRONS	1007+81 - 1399+98	460.6224	190	2.5"	INCENTIVE AIR VOIDS HMA PAVEMENT (460.2010)	ACCEPTANCE TESTING BY DEPARTMENT: NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE.
MISC REPAIRS/PATCHING	VARIOUS	465.0105, 465.0110	200	VARIOUS	QMP AS PER SS 465.	ACCEPTANCE BY ORDINARY COMPACTION
ASPHALTIC SURFACE DRIVWAYS AND FIELD ENTRANCES	1007+81 - 1399+98	465.0120	14	2.5"	QMP AS PER SS 465.	ACCEPTANCE BY ORDINARY COMPACTION

3

REMOVALS

PROJECT	STATION	TO	STATION	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	SPV.0180.01 SPECIAL (01. REMOVING DISTRESSED PAVMENT MILLING) SY	REMARKS
8170-00-71	604+98	-	1007+81		2,260			
8170-00-71	604+98	-	609+10			1,556		STA EQUATION
8170-00-71	609+62.67	-	912+08.00			114,260		STA EQUATION TO EE
8170-00-71	912+08.00	-	1047+22.00			45,047		EE TO STA EQUATION
8170-00-71	918+40	-	1007+81			29,807		STA EQUATION TO END
8170-00-71	604+98	-	1007+81			1,353		SIDEROAD/DRIVEWAYS
8170-00-71	-	-	-				250	
TOTAL 8170-00-71					2,260	192,100	250	
9070-07-62	1007+81	-	1399+98		1,170	130,723	250	
TOTAL 9070-07-62					1,170	130,800	250	

460- ASPHALT

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0120 ASPHALTIC SURFACE AND FIELD ENTRANCES TON	REMARKS
8170-00-71	604+98	-	609+10		109	218				START TO EQN
8170-00-71	609+63	-	913+20		8,028	16,013				EQN TO EE
8170-00-71	913+20	-	1047+22		3,127	6,299				EE TO STA EQN
8170-00-71	918+40	-	1007+81		2,086	4,217				STA EQN TO COUNTY LINE
8170-00-71	604+98	-	COUNTY LINE		271	543				SIDEROADS
8170-00-71	604+98	-	COUNTY LINE				150	50		
TOTAL 8170-00-71					13,622	27,290	150	50	0	
9070-07-62	1007+81	-	1399+98		9,151	18,500			14	SAWYER/PRICE COUNTY LINE TO END
						190				SIDEROADS
							150	50		
TOTAL 9070-07-62					9,151	18,690	150	50	14	

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FOUNDATION PREP

CATEGORY	STATION	TO	STATION	LOCATION	211.0101.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) (01. 8170-00-71) EACH	211.0101.02 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) (02. 9070-07-62) EACH
8170-00-71	-	-	-		1	
TOTAL 8170-00-71					1	0
9070-07-62	-	-	-			1
TOTAL 9070-07-62					0	1

BASE AGGREGATE & WATER

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4- INCH TON	624.0100 WATER MGAL	REMARKS
8170-00-71	604+98	-	609+10		16	0.3	START TO STA EQN
8170-00-71	609+63	-	912+08		1,176	24	STA EQN TO EE
8170-00-71	912+08	-	1047+22		1,577	32	EE TO STA EQN
8170-00-71	918+40	-	1007+81		1,043	21	STA EQN TO COUNTY LINE
TOTAL 8170-00-71					3,820	77	
9070-07-62	1007+81	-	1399+98		4,575	92	PRICE COUNTY LINE TO END
TOTAL 9070-07-62					4,580	92	

FINISHING ROADWAY

CATEGORY	STATION	TO	STATION	LOCATION	213.0100.01 FINISHING ROADWAY (PROJECT) (01. 81700-00-71) EACH	213.0100.02 FINISHING ROADWAY (PROJECT) (02. 9070- 07-62) EACH
8170-00-71	-	-	-		1	
TOTAL 8170-00-71					1	0
9070-07-62	-	-	-			1
TOTAL 9070-07-62					0	1

PROJECT NO: 8170-00-71 & 9070-07-62

HWY: STH 70

COUNTY: SAWYER & PRICE

MISCELLANEOUS QUANTITIES

SHEET

E

GUARDRAIL

CATEGORY	STATION	TO STATION	LOCATION	614.0400	614.0951
				ADJUSTING STEEL PIATF BFAM GUARD LF	REPLACING GUARDRAIL RAIL AND HARDWARE LF
8170-00-71	809+22.54	- 810+83	RIGHT	161	
8170-00-71	809+23.74	- 810+85	LEFT	161	
8170-00-71	811+41.18	- 812+27	RIGHT	85	
8170-00-71	811+41.00	- 812+27	LEFT	86	
8170-00-71	1030+67.00	- 1031+78	RIGHT	111	
8170-00-71	1030+59.00	- 1031+94	LEFT	135	
8170-00-71	1034+72.30	- 1035+83	RIGHT	110	
8170-00-71	1034+72.30	- 1035+83	LEFT	110	
TOTAL 8170-00-71				960	0
9070-07-62	1055+44.10	- 1058+23	RIGHT	50	
9070-07-62	1055+82.78	- 1060+13	LEFT	50	
9070-07-62	1225+65.62	- 1228+21	RIGHT	50	
9070-07-62	1277+07.94	- 1278+58	LEFT	50	
9070-07-62	1375+04.87	- 1381+60	RIGHT	50	
9070-07-62	1373+78.35	- 1381+33	LEFT	50	
9070-07-62	1055+44.10	- 1055+94	RIGHT		50
9070-07-62	1375+04.82	- 1375+55	RIGHT		50
9070-07-62	1381+09.50	- 1381+60	RIGHT		50
TOTAL 9070-07-62				300	150

TEST STRIP

CATEGORY	STATION	TO STATION	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
8170-00-71	-			0.5	0.5
TOTAL 8170-00-71				1	1
9070-07-62	-			0.5	0.5
TOTAL 9070-07-62				1	1

MOBILIZATION

CATEGORY	STATION	TO STATION	LOCATION	619.1000 MOBILIZATION EACH
8170-00-71	604+98	- 1007+81		0.5
TOTAL 8170-00-71				1
9070-07-62	1007+81	- 1399+98		0.5
TOTAL 9070-07-62				1

MATERIAL TRANSFER VEHICLE

CATEGORY	STATION	TO STATION	LOCATION	460.9000.S MATERIAL TRANSFER VEHICLE EACH
8170-00-71	-			0.5
TOTAL 8170-00-71				1
9070-07-62	-			0.5
TOTAL 9070-07-62				1

RUMBLE STRIPS

CATEGORY	STATION	TO STATION	LOCATION	465.0520 ASPHALTIC RUMBLE STRIPS, SHOULDER LF	465.0560 ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
8170-00-71	604+98	609+10		659	412
8170-00-71	609+63	913+20		45,548	25,557
8170-00-71	913+20	- 1047+22			12,602
8170-00-71	918+40	- 1007+81			7,342
TOTAL 8170-00-71				46,300	45,920
9070-07-62	1007+81	- 1399+98			34,817
TOTAL 9070-07-62				0	34,900

FIELD OFFICE

CATEGORY	STATION	TO STATION	LOCATION	642.5001 FIELD OFFICE TYPE B EACH
8170-00-71	604+98	- 1007+81		0.5
TOTAL 8170-00-71				1
9070-07-62	1007+81	- 1399+98		0.5
TOTAL 9070-07-62				1

PROJECT NO: 8170-00-71 & 9070-07-62

HWY: STH 70

COUNTY: SAWYER & PRICE

MISCELLANEOUS QUANTITIES

SHEET

E

PAVEMENT MARKING

643.3165 646.2040
TEMPORARY MARKING LINE PAINT 6-INCH
MARKING LINE GROOVED WET REF EPOXY 6-INCH

CATEGORY	STATION TO	STATION	LOCATION	LF	LF	REMARKS
8170-00-71	604+98	- 1007+81			57,643	CENTERLINE
8170-00-71	604+98	- 1007+81		57,195		CENTERLINE MILLED SURFACE
8170-00-71	604+98	- 1007+81		57,195		CENTERLINE UPPER LAYER
8170-00-71	604+98	- 609+10	RT		412	WHITE EDGELINE - RT
8170-00-71	609+63	- 622+31	RT		1,268	WHITE EDGELINE - RT
8170-00-71	623+32	- 651+98	RT		2,866	WHITE EDGELINE - RT
8170-00-71	653+20	- 678+68	RT		2,548	WHITE EDGELINE - RT
8170-00-71	679+37	- 797+14	RT		11,777	WHITE EDGELINE - RT
8170-00-71	798+22	- 916+43	RT		11,821	WHITE EDGELINE - RT
8170-00-71	917+07	- 985+75	RT		6,868	WHITE EDGELINE - RT
8170-00-71	986+36	- 1020+08	RI		3,372	WHITE EDGELINE - RI
8170-00-71	1020+93	- 1041+66	RI		2,073	WHITE EDGELINE - RI
8170-00-71	1042+35	- 1047+22	RT		487	WHITE EDGELINE - RT
8170-00-71	918+40	- 970+02	RI		5,152	WHITE EDGELINE - RI
8170-00-71	971+43	- 982+42	RT		1,099	WHITE EDGELINE - RT
8170-00-71	982+91	- 1007+81	RT		2,490	WHITE EDGELINE - RT
8170-00-71	604+98	- 609+10	LT		412	WHITE EDGELINE - LT
8170-00-71	609+63	- 622+25	LT		1,262	WHITE EDGELINE - LT
8170-00-71	623+26	- 629+18	LT		592	WHITE EDGELINE - LT
8170-00-71	630+06	- 636+50	LT		644	WHITE EDGELINE - LT
8170-00-71	637+47	- 652+08	LI		1,451	WHITE EDGELINE - LI
8170-00-71	652+94	- 671+80	LT		1,886	WHITE EDGELINE - LT
8170-00-71	672+54	- 678+47	LT		593	WHITE EDGELINE - LT
8170-00-71	679+40	- 706+15	LT		2,675	WHITE EDGELINE - LT
8170-00-71	707+02	- 732+55	LT		2,553	WHITE EDGELINE - LT
8170-00-71	733+46	- 823+15	LT		8,969	WHITE EDGELINE - LT
8170-00-71	824+18	- 911+28	LT		8,710	WHITE EDGELINE - LT
8170-00-71	912+84	- 1020+28	LT		10,744	WHITE EDGELINE - LT
8170-00-71	1021+33	- 1037+34	LT		1,601	WHITE EDGELINE - LT
8170-00-71	1038+54	- 1047+22	LT		868	WHITE EDGELINE - LT
8170-00-71	918+40	- 1007+77	LT		8,937	WHITE EDGELINE - LT
TOTAL 8170-00-71				114,400	161,800	

PAVEMENT MARKING

643.3165 646.2040
TEMPORARY MARKING LINE PAINT 6-INCH
MARKING LINE GROOVED WET REF EPOXY 6-INCH

CATEGORY	STATION TO	STATION	LOCATION	LF	LF	REMARKS
9070-07-62	1007+81	- 1399+98			66,760	CENTERLINE
9070-07-62	1007+81	- 1399+98		66,760		CENTERLINE MILLED SURFACE
9070-07-62	1007+81	- 1399+98		66,760		CENTERLINE UPPER LAYER
9070-07-62	1007+81	- 1131+19	RT		12,338	WHITE EDGELINE - RT
9070-07-62	1132+70	- 1157+07	RT		2,437	WHITE EDGELINE - RT
9070-07-62	1157+92	- 1217+95	RT		6,003	WHITE EDGELINE - RT
9070-07-62	1218+38	- 1399+98	RT		18,160	WHITE EDGELINE - RT
9070-07-62	1005+58	- 1007+68	LT		210	WHITE EDGELINE - LT
9070-07-62	1008+18	- 1074+47	LT		6,629	WHITE EDGELINE - LT
9070-07-62	1075+12	- 1128+83	LT		5,371	WHITE EDGELINE - LT
9070-07-62	1129+60	- 1197+50	LT		6,790	WHITE EDGELINE - LT
9070-07-62	1197+86	- 1296+75	LT		9,889	WHITE EDGELINE - LT
9070-07-62	1297+74	- 1323+37	LT		2,563	WHITE EDGELINE - LT
9070-07-62	1324+07	- 1393+57	LT		6,950	WHITE EDGELINE - LT
9070-07-62	1394+13	- 1399+98	LT		585	WHITE EDGELINE - LT
TOTAL 9070-07-62				133,600	144,690	

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STAKING

CATEGORY	STATION TO STATION	LOCATION	650.8000	650.9911.01	650.9911.02	REMARKS
			CONSTRUCTION STAKING RESURFACING REFERENCE LF	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) EACH	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) EACH	
8170-00-71	604+98 - 609+10		412			
8170-00-71	609+63 - 810+66		20,103			
8170-00-71	811+47 - 941+21		12,974			
8170-00-71	941+66 - 1047+22		10,556			
8170-00-71	918+40 - 1007+81		8,942			
8170-00-71	604+98 - 1007+81			1		
TOTAL 8170-00-71			53,000	1	0	
9070-07-62	1007+81 - 1399+98		39,217		1	
TOTAL 9070-07-62			39,300	0	1	

TRAFFIC CONTROL

CATEGORY	STATION TO STATION	LOCATION	643.0900	643.5000	REMARKS
			TRAFFIC CONTROL SIGNS DAY	TRAFFIC CONTROL EACH	
8170-00-71	604+98 - 1007+81	SAWYER	2,642	0.5	
TOTAL 8170-00-71			2,642	1	
9070-07-62	1007+81 - 1399+98	PRICE	1,586	0.5	
TOTAL 9070-07-62			1,586	1	

999 - TURTLE FENCE

CATEGORY	STATION TO STATION	LOCATION	999.2105.S	SPV.0180.02	REMARKS
			MAINTAINING CLIMBING TURTLE EXCLUSION FENCE LF	SPECIAL (02. REMOVING EROSION MAT) SY	
8170-00-71	60+48 - 1007+81				
TOTAL 8170-00-71			0	0	
9070-07-62	1020+75 - 1233+22		22,558		
9070-07-62	1049+70 - 1055+00			589	QUANTITY INCLUDES 2 LAYERS OF EROSION MAT
TOTAL 9070-07-62			22,558	589	

PROJECT NO: 8170-00-71 & 9070-07-62

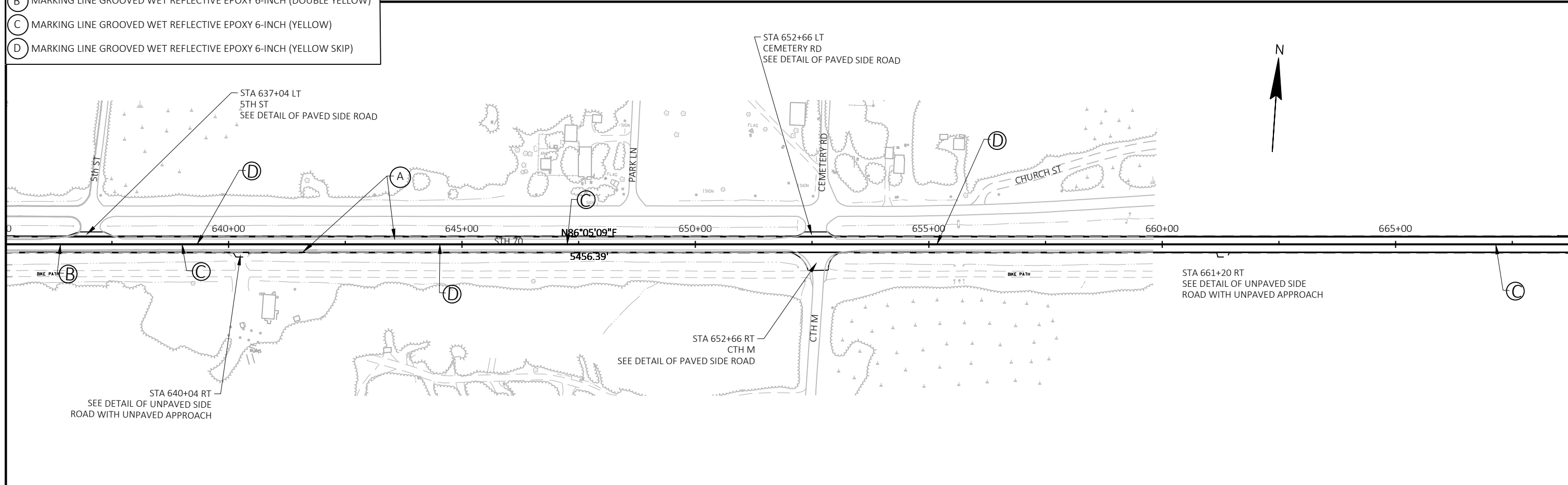
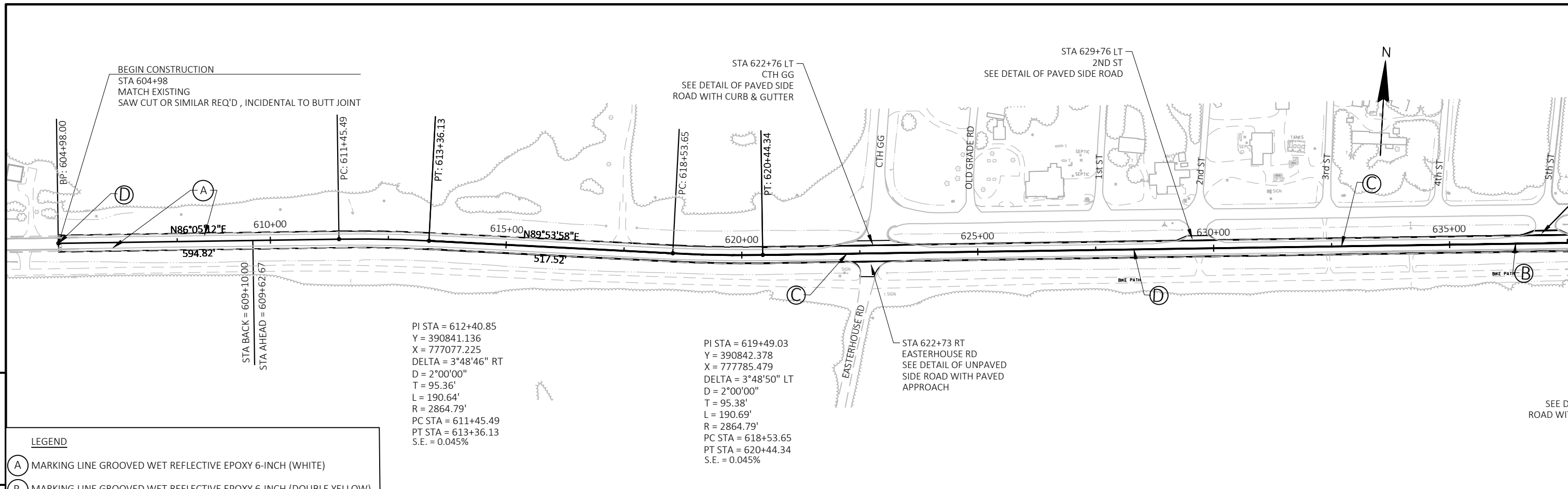
HWY: STH 70

COUNTY: SAWYER & PRICE

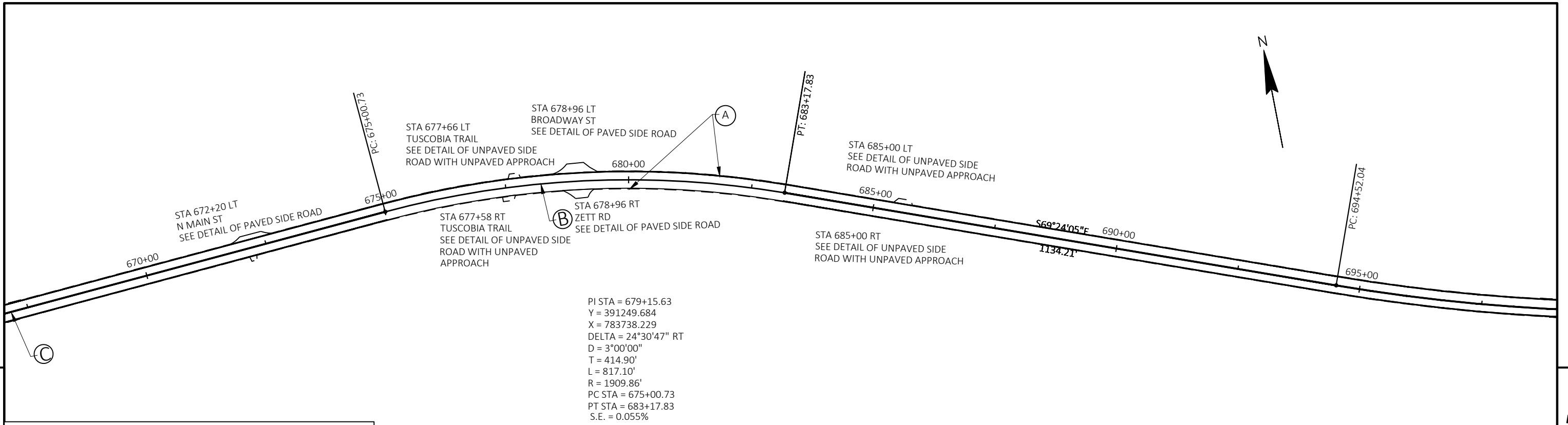
MISCELLANEOUS QUANTITIES

SHEET

E



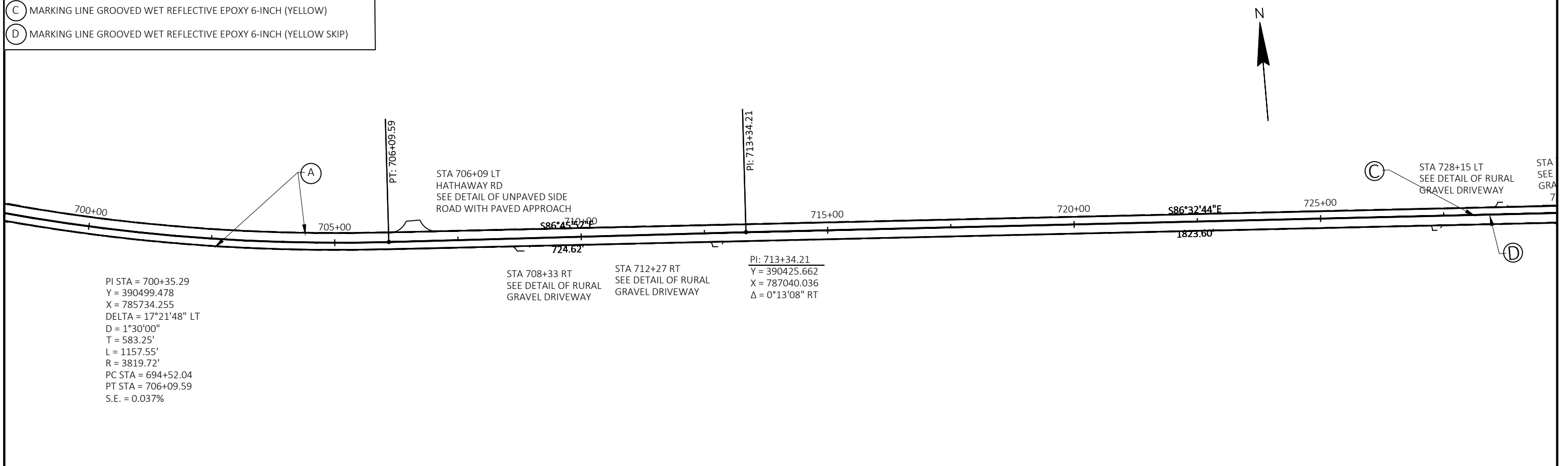
PROJECT NO: 8170-00-71	HWY: STH 70	COUNTY: SAWYER	PLAN - SAWYER COUNTY	SHEET	E
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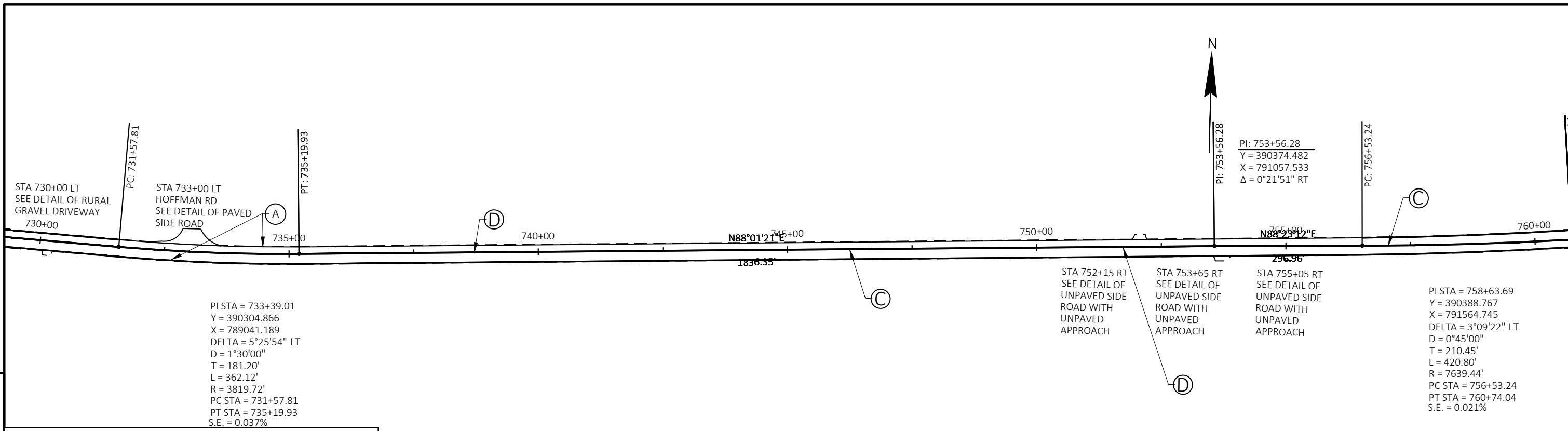
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5

- LEGEND**
- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
 - (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
 - (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
 - (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)



PROJECT NO: 8170-00-71	HWY: STH 70	COUNTY: SAWYER	PLAN - SAWYER COUNTY	SHEET	E
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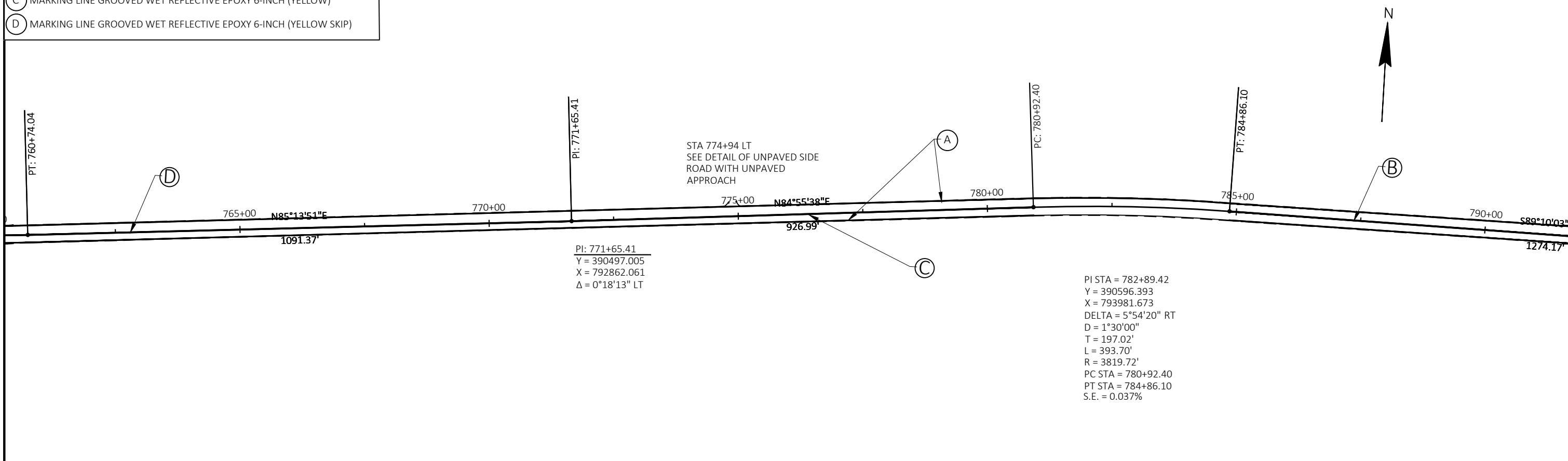


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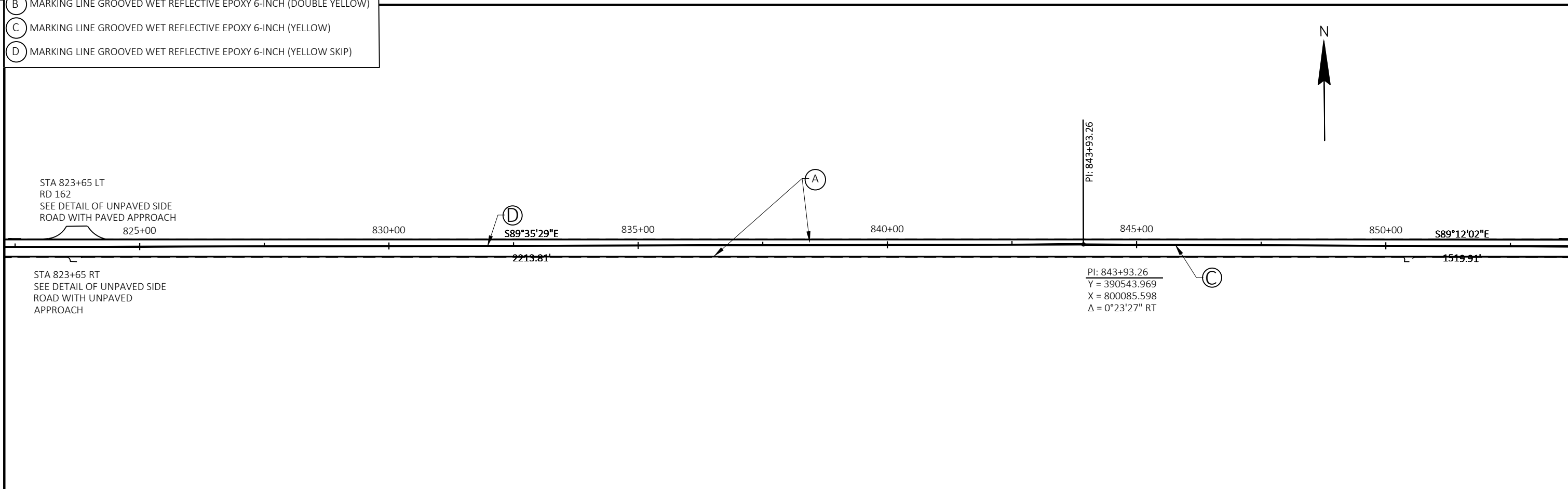
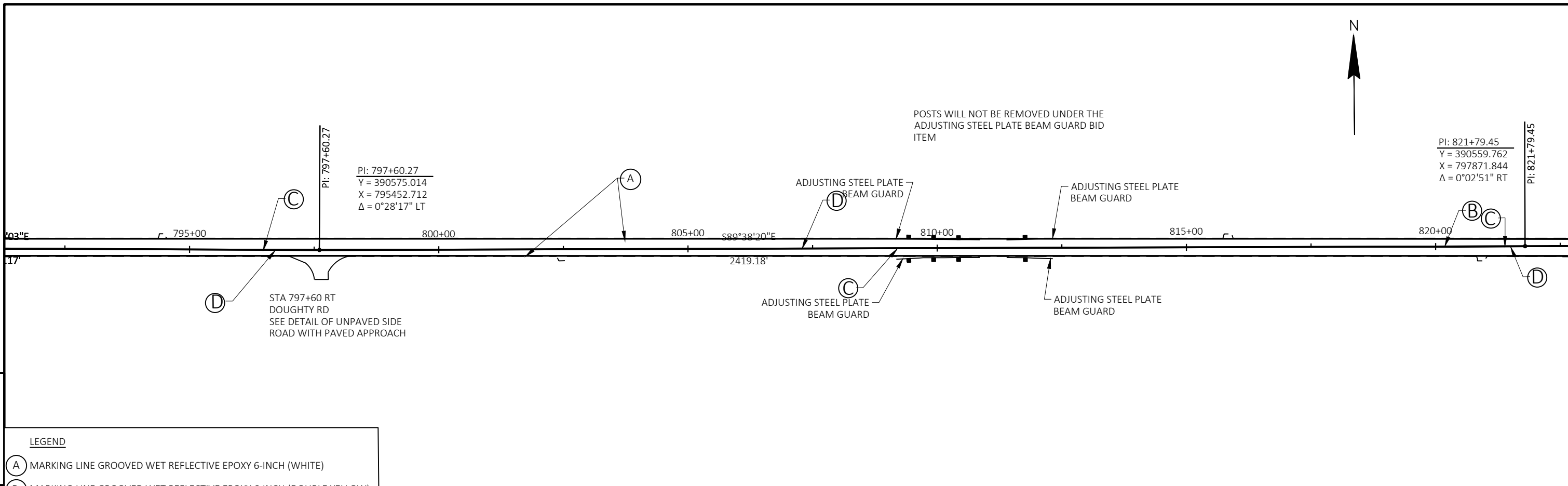
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LEGEND

- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)

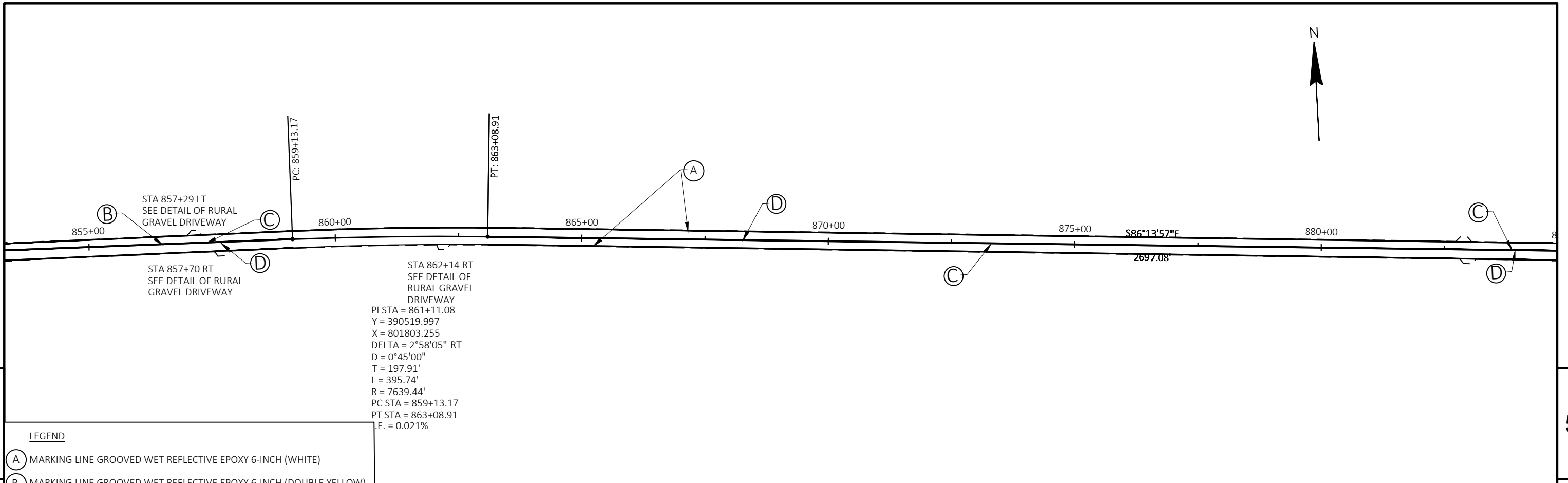


PROJECT NO: 8170-00-71	HWY: STH 70	COUNTY: SAWYER	PLAN - SAWYER COUNTY	SHEET	E
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- LEGEND**
- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
 - (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
 - (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
 - (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)

PROJECT NO: 8170-00-71	HWY: STH 70	COUNTY: SAWYER	PLAN - SAWYER COUNTY	SHEET	E
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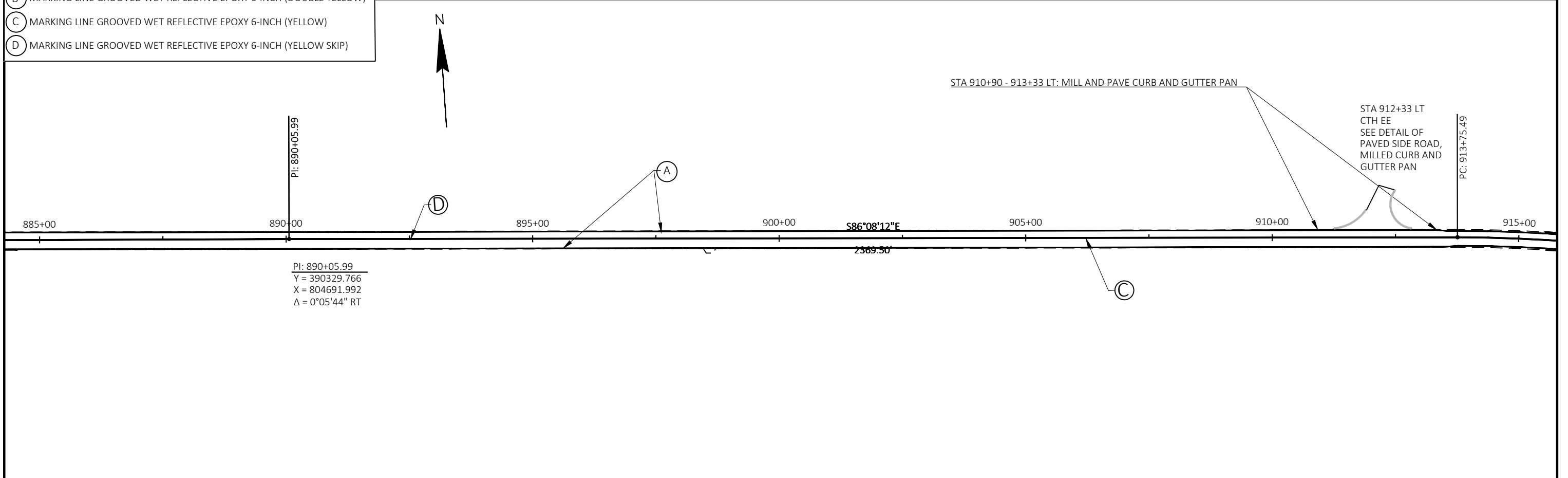
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LEGEND

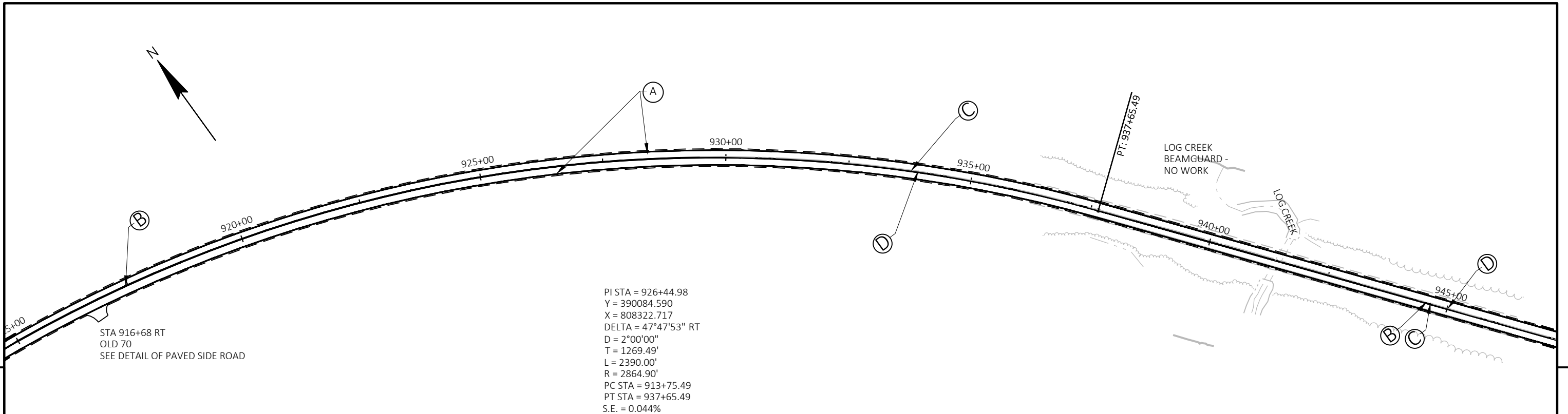
- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)

STA 862+14 RT
SEE DETAIL OF RURAL GRAVEL DRIVEWAY
PI STA = 861+11.08
Y = 390519.997
X = 801803.255
DELTA = 2°58'05" RT
D = 0°45'00"
T = 197.91'
L = 395.74'
R = 7639.44'
PC STA = 859+13.17
PT STA = 863+08.91
E. = 0.021%



PI: 890+05.99
Y = 390329.766
X = 804691.992
Δ = 0°05'44" RT

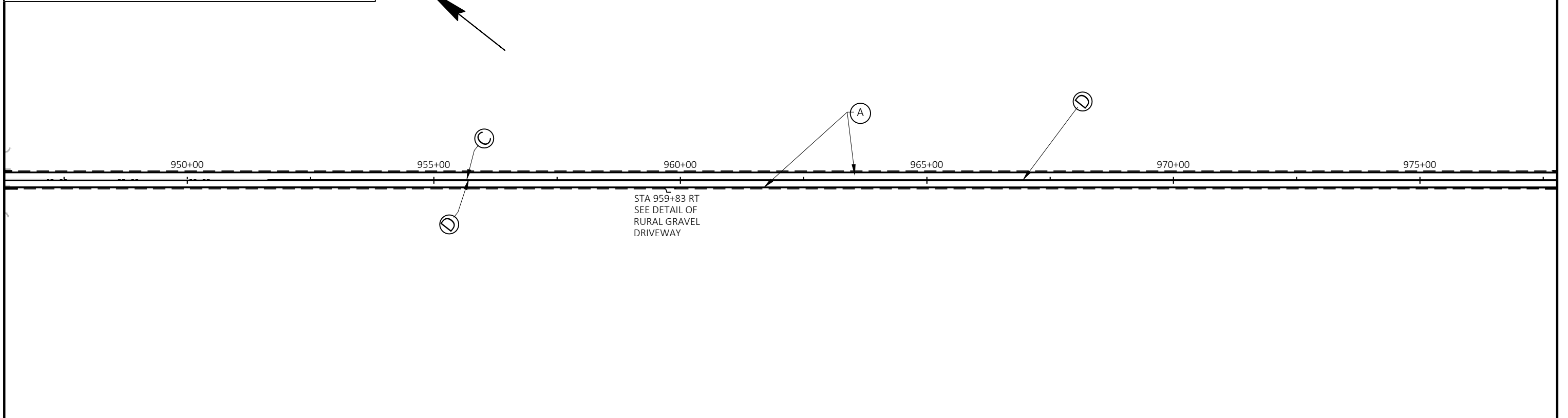
PROJECT NO: 8170-00-71	HWY: STH 70	COUNTY: SAWYER	PLAN - SAWYER COUNTY	SHEET	E
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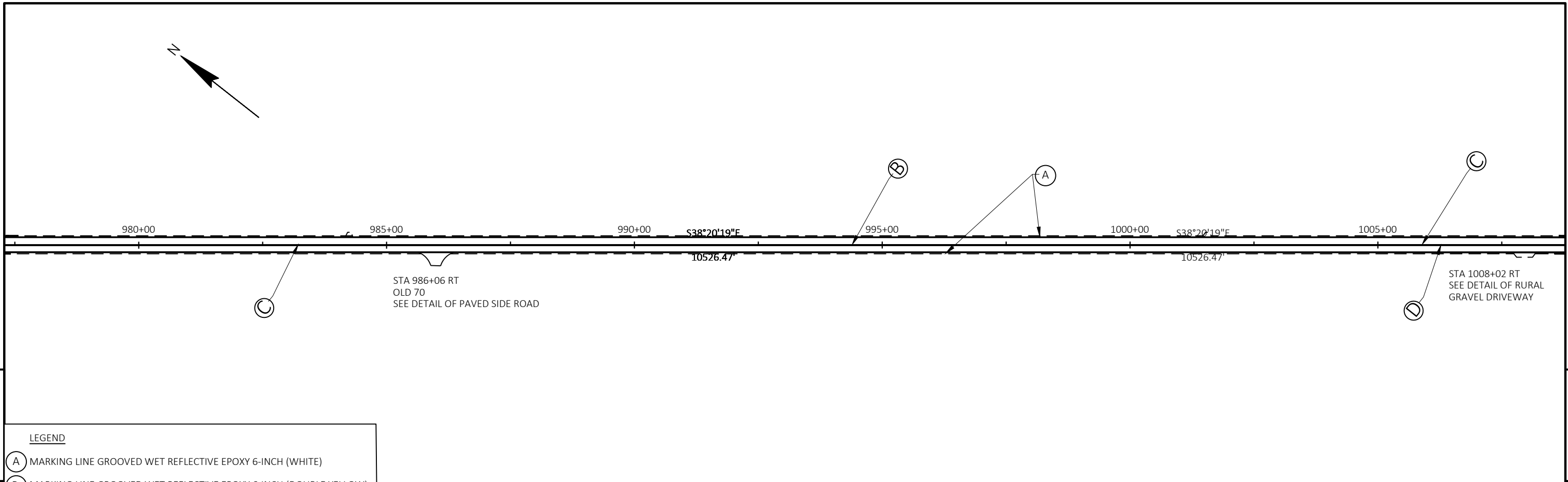
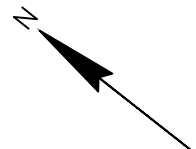
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LEGEND

- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)



PROJECT NO: 8170-00-71	HWY: STH 70	COUNTY: SAWYER	PLAN - SAWYER COUNTY	SHEET	E
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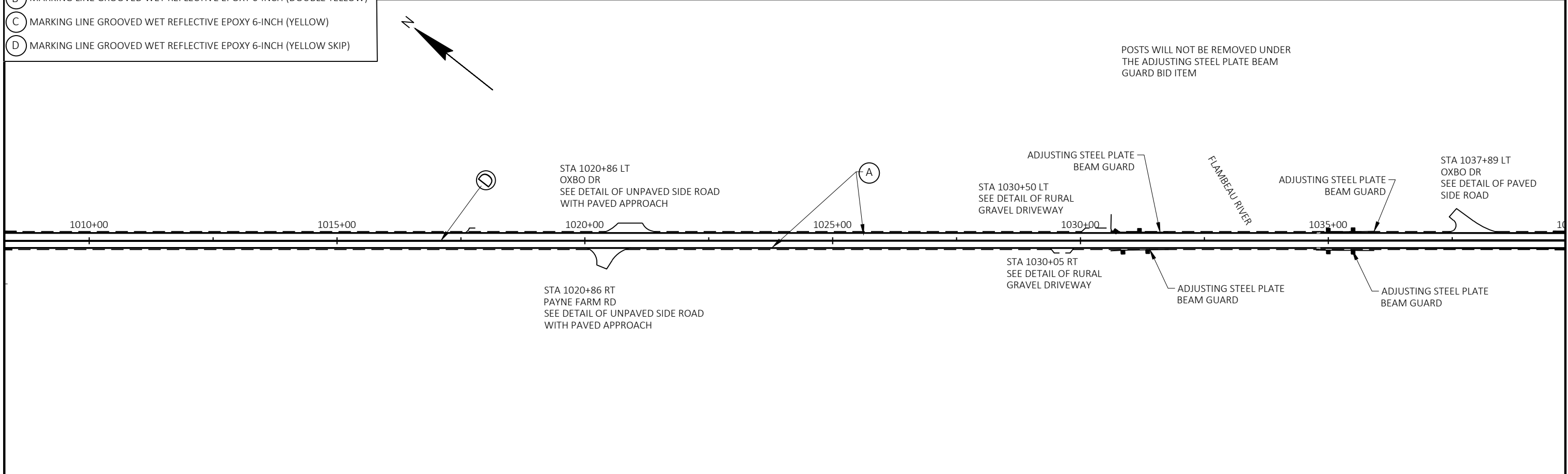
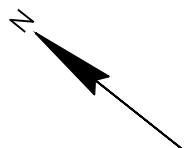
STA 986+06 RT
OLD 70
SEE DETAIL OF PAVED SIDE ROAD

STA 1008+02 RT
SEE DETAIL OF RURAL
GRAVEL DRIVEWAY

5

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- LEGEND**
- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
 - (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
 - (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
 - (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)



POSTS WILL NOT BE REMOVED UNDER
THE ADJUSTING STEEL PLATE BEAM
GUARD BID ITEM

STA 1020+86 LT
OXBO DR
SEE DETAIL OF UNPAVED SIDE ROAD
WITH PAVED APPROACH

STA 1020+86 RT
PAYNE FARM RD
SEE DETAIL OF UNPAVED SIDE ROAD
WITH PAVED APPROACH

ADJUSTING STEEL PLATE
BEAM GUARD

STA 1030+50 LT
SEE DETAIL OF RURAL
GRAVEL DRIVEWAY

STA 1030+05 RT
SEE DETAIL OF RURAL
GRAVEL DRIVEWAY

FLAMBEAU RIVER

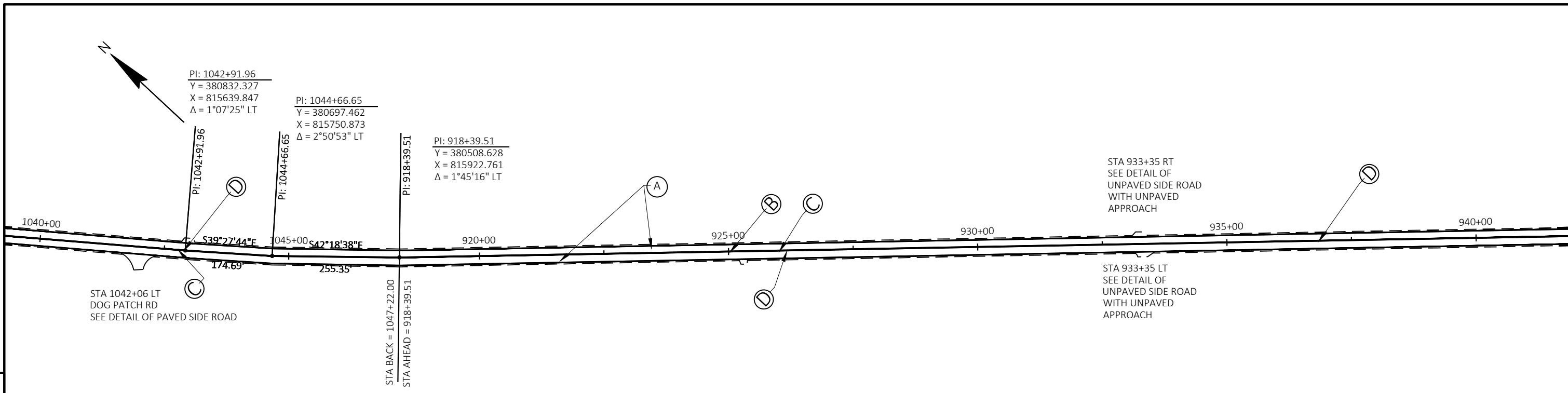
ADJUSTING STEEL PLATE
BEAM GUARD

ADJUSTING STEEL PLATE
BEAM GUARD

ADJUSTING STEEL PLATE
BEAM GUARD

STA 1037+89 LT
OXBO DR
SEE DETAIL OF PAVED
SIDE ROAD

PROJECT NO: 8170-00-71	HWY: STH 70	COUNTY: SAWYER	PLAN - SAWYER COUNTY	SHEET	E
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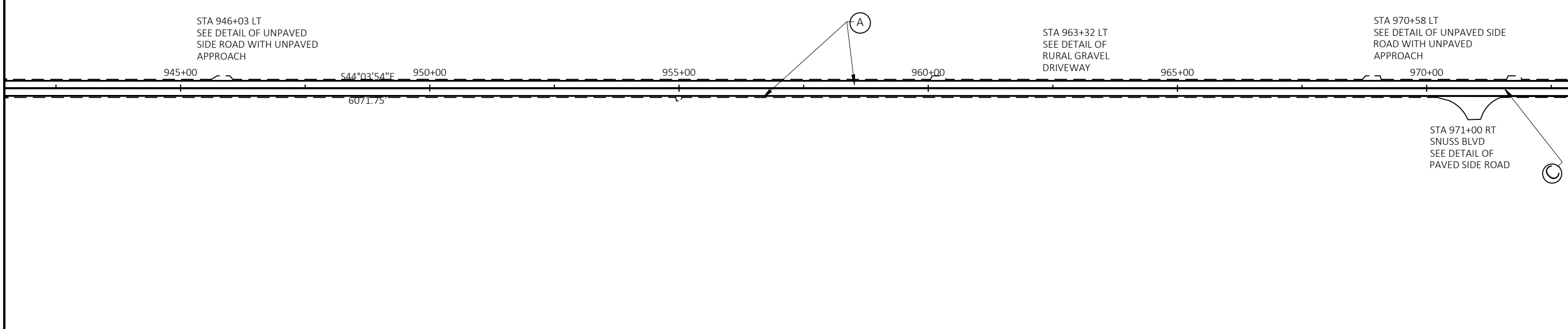
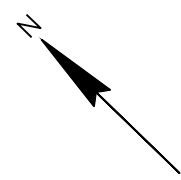


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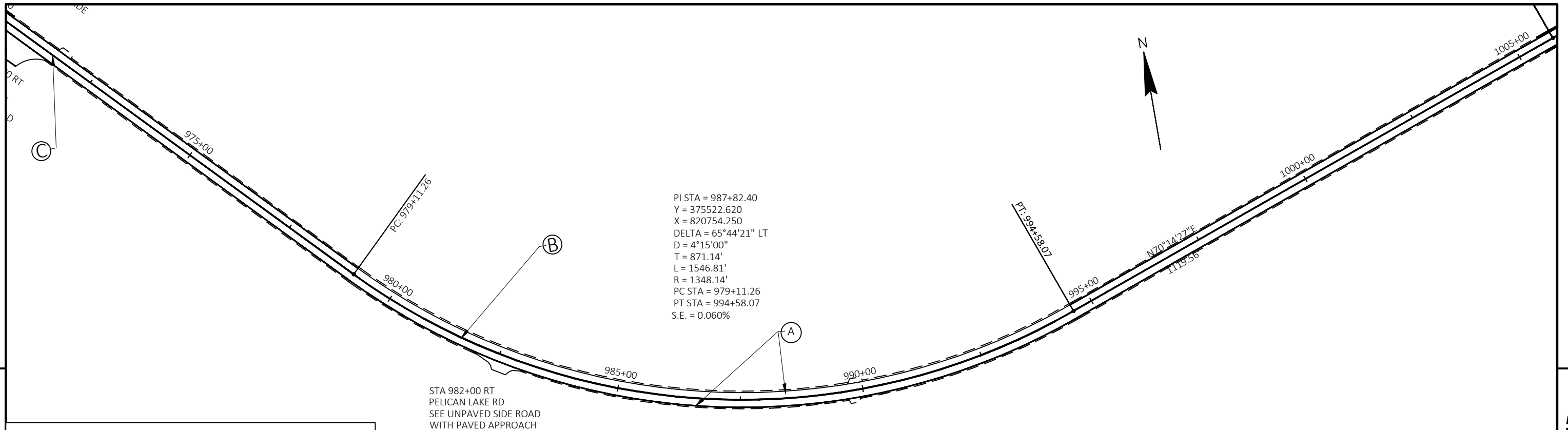
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LEGEND

- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)



PROJECT NO: 8170-00-71	HWY: STH 70	COUNTY: SAWYER	PLAN - SAWYER COUNTY	SHEET	E
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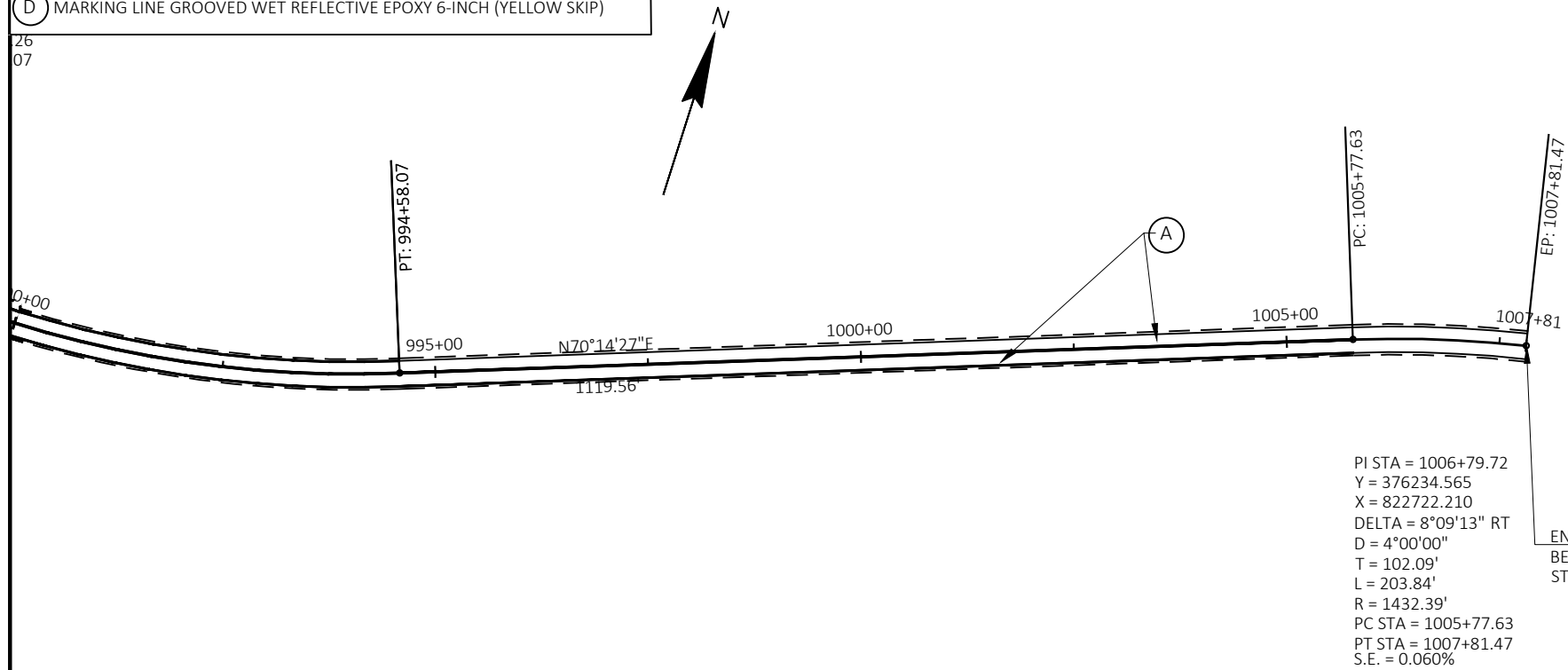


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- LEGEND**
- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
 - (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
 - (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
 - (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)

26
07



PI STA = 1014+19.48
 Y = 470291.679
 X = 700456.613
 DELTA = 47°31'57" RT
 D = 3°57'16"
 T = 638.01'
 L = 1201.98'
 R = 1448.86'
 PC STA = 1007+81.47
 PT STA = 1019+83.45
 S.E. = 0.060%

STA 1008+04 LT
 PRETTIE RD
 SEE DETAIL OF UNPAVED SIDE
 ROAD WITH UNPAVED
 APPROACH

END PROJECT 8170-00-71
 BEGIN PROJECT 9070-07-62
 STA 1007+81.47

PI STA = 1028+53.12
 Y = 469383.718
 X = 701660.230
 DELTA = 17°10'18" LT
 D = 2°30'00"
 T = 346.03'
 L = 686.87'
 R = 2291.83'
 PC STA = 1025+07.10
 PT STA = 1031+93.97
 S.E. = 0.051%

- LEGEND**
- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
 - (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
 - (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
 - (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)

INSTALLING CLIMBING TURTLE EXCLUSION FENCE (DONE BY OTHERS)
 MAINTAINING CLIMBING TURTLE EXCLUSION FENCE

NOTE: POSTS WILL NOT BE REMOVED UNDER THE
 ADJUSTING STEEL PLATE BEAM GUARD BID ITEM

INSTALLING CLIMBING TURTLE EXCLUSION FENCE (DONE BY OTHERS)
 MAINTAINING CLIMBING TURTLE EXCLUSION FENCE

STA 1049+80 RT
 SEE DETAIL OF RURAL
 GRAVEL DRIVEWAY

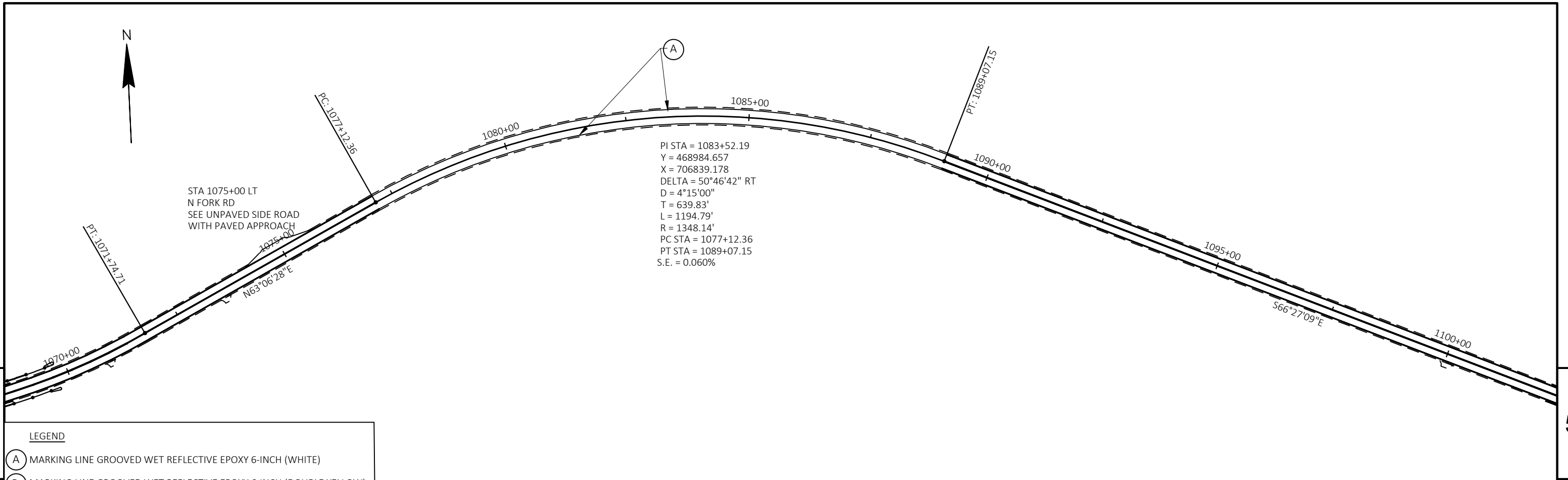
EROSION MAT CLASS II TYPE C (DONE BY OTHERS)
 DOUBLE LAYER
 REMOVING EROSION MAT

ADJUSTING STEEL PLATE BEAM GUARD
 REPLACING GUARDRAIL RAIL AND HARDWARE

ADJUSTING STEEL PLATE BEAM GUARD
 REPLACING GUARDRAIL RAIL AND HARDWARE

PI STA = 1054+57.29
 Y = 468508.530
 X = 704118.436
 DELTA = 6°19'20" LT
 D = 2°00'00"
 T = 158.22'
 L = 316.11'
 R = 2864.79'
 PC STA = 1052+99.08
 PT STA = 1056+15.19
 S.E. = 0.045%

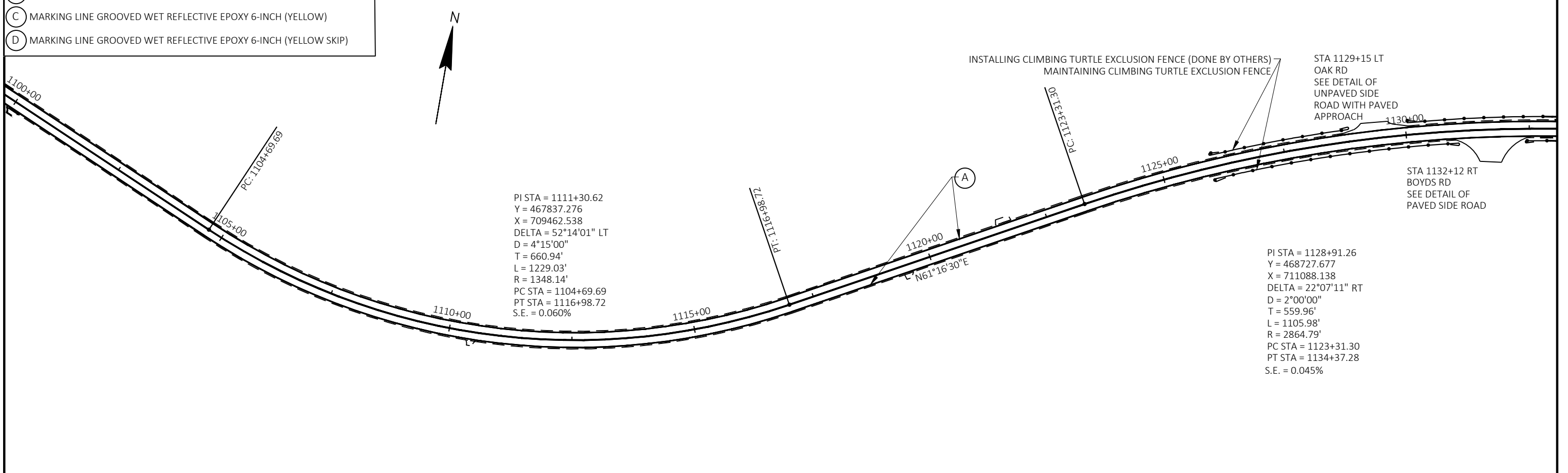
PI STA = 1067+18.31
 Y = 468222.115
 X = 705346.823
 DELTA = 40°34'47" LT
 D = 4°15'00"
 T = 498.42'
 L = 954.82'
 R = 1348.14'
 PC STA = 1062+19.89
 PT STA = 1071+74.71
 S.E. = 0.060%



PI STA = 1083+52.19
 Y = 468984.657
 X = 706839.178
 DELTA = 50°46'42" RT
 D = 4°15'00"
 T = 639.83'
 L = 1194.79'
 R = 1348.14'
 PC STA = 1077+12.36
 PT STA = 1089+07.15
 S.E. = 0.060%

STA 1075+00 LT
 N FORK RD
 SEE UNPAVED SIDE ROAD
 WITH PAVED APPROACH

- LEGEND**
- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
 - (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
 - (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
 - (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)

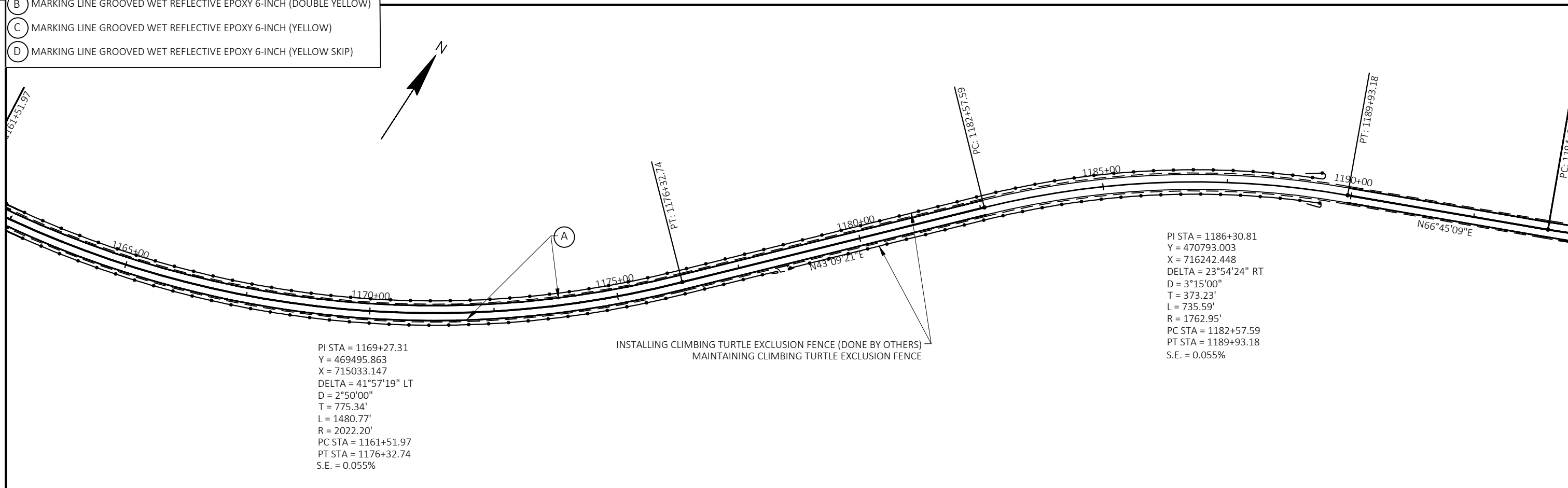
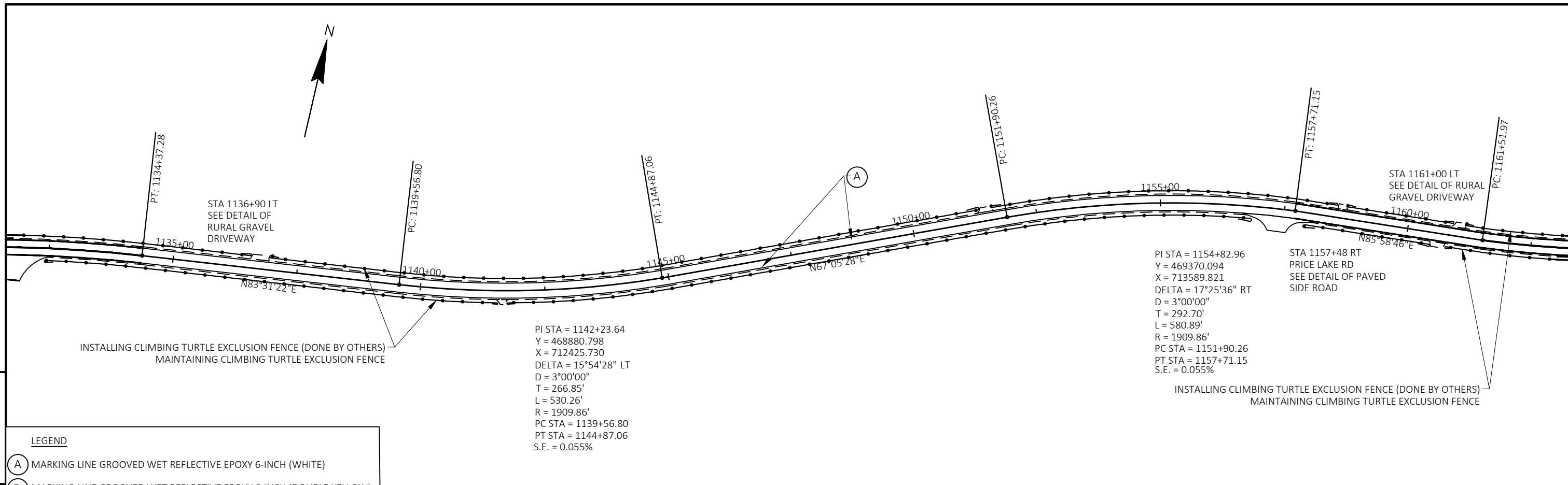


PI STA = 1111+30.62
 Y = 467837.276
 X = 709462.538
 DELTA = 52°14'01" LT
 D = 4°15'00"
 T = 660.94'
 L = 1229.03'
 R = 1348.14'
 PC STA = 1104+69.69
 PT STA = 1116+98.72
 S.E. = 0.060%

PI STA = 1128+91.26
 Y = 468727.677
 X = 711088.138
 DELTA = 22°07'11" RT
 D = 2°00'00"
 T = 559.96'
 L = 1105.98'
 R = 2864.79'
 PC STA = 1123+31.30
 PT STA = 1134+37.28
 S.E. = 0.045%

STA 1129+15 LT
 OAK RD
 SEE DETAIL OF
 UNPAVED SIDE
 ROAD WITH PAVED
 APPROACH

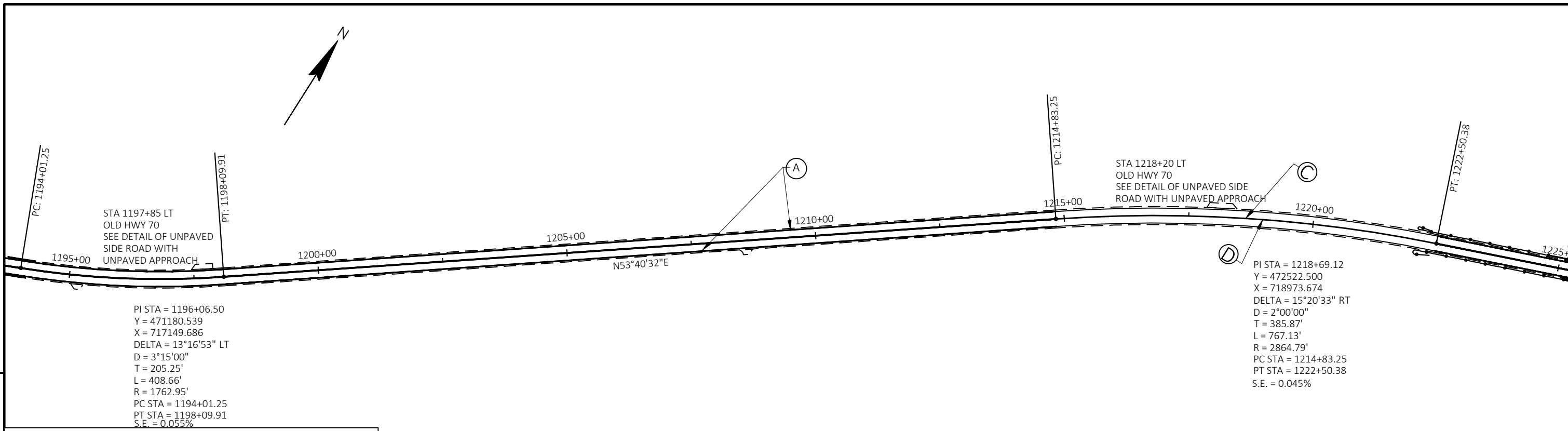
STA 1132+12 RT
 BOYDS RD
 SEE DETAIL OF
 PAVED SIDE ROAD



LEGEND

- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)

PROJECT NO: 9070-07-62	HWY: STH 70	COUNTY: PRICE	PLAN - PRICE COUNTY	SHEET E
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PI STA = 1196+06.50
 Y = 471180.539
 X = 717149.686
 DELTA = 13°16'53" LT
 D = 3°15'00"
 T = 205.25'
 L = 408.66'
 R = 1762.95'
 PC STA = 1194+01.25
 PT STA = 1198+09.91
 S.E. = 0.055%

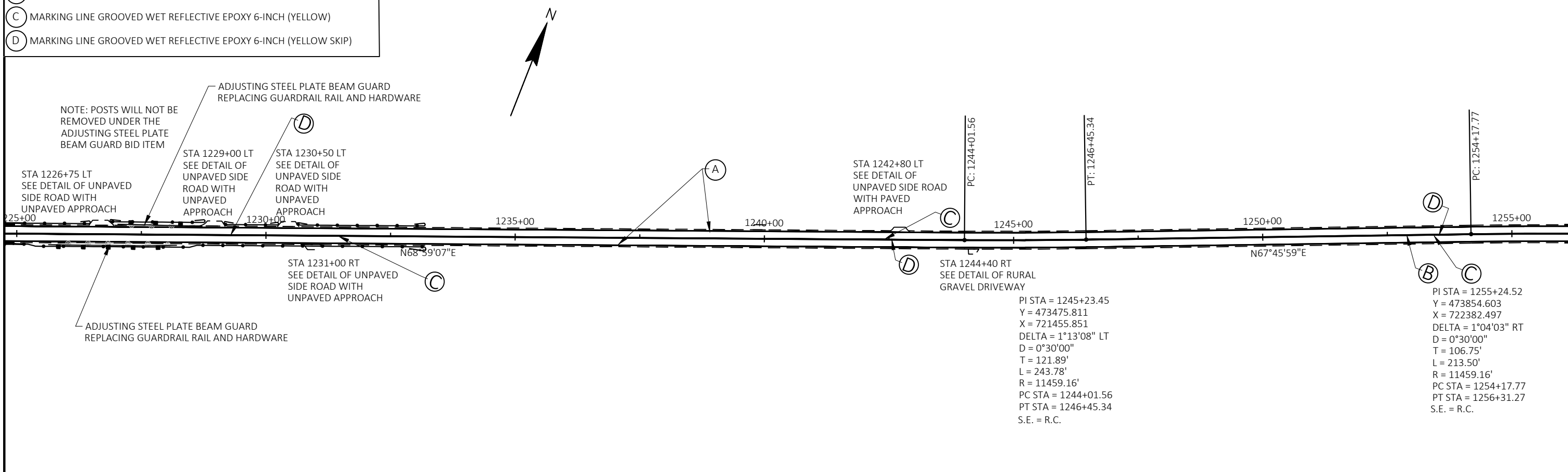
PI STA = 1218+69.12
 Y = 472522.500
 X = 718973.674
 DELTA = 15°20'33" RT
 D = 2°00'00"
 T = 385.87'
 L = 767.13'
 R = 2864.79'
 PC STA = 1214+83.25
 PT STA = 1222+50.38
 S.E. = 0.045%

5

5

LEGEND

- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)



NOTE: POSTS WILL NOT BE REMOVED UNDER THE ADJUSTING STEEL PLATE BEAM GUARD BEAM GUARD BID ITEM

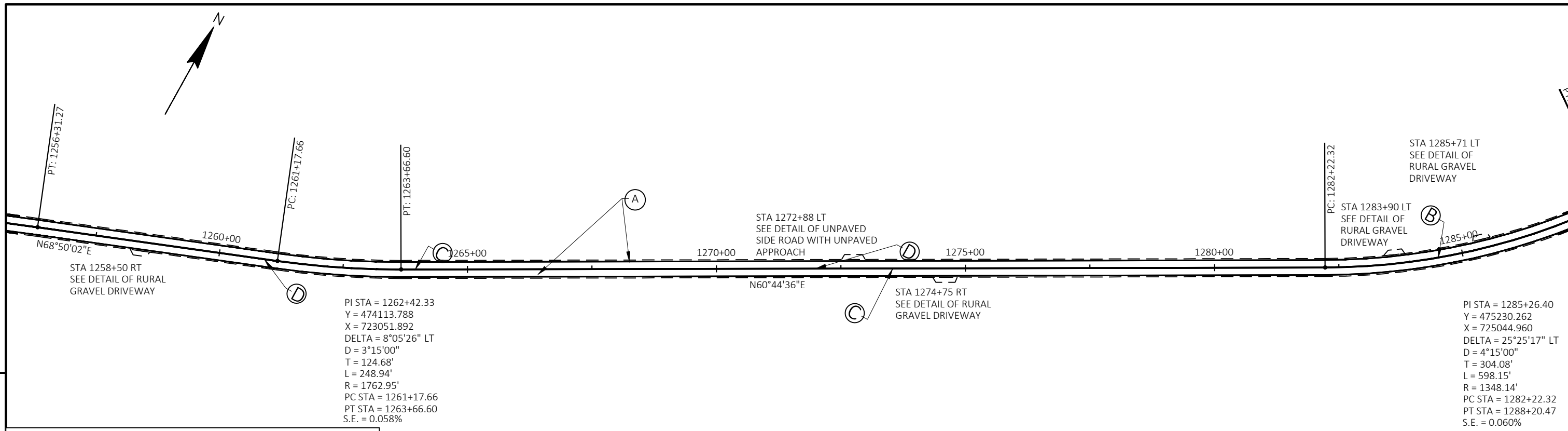
ADJUSTING STEEL PLATE BEAM GUARD REPLACING GUARDRAIL RAIL AND HARDWARE

ADJUSTING STEEL PLATE BEAM GUARD REPLACING GUARDRAIL RAIL AND HARDWARE

PI STA = 1245+23.45
 Y = 473475.811
 X = 721455.851
 DELTA = 1°13'08" LT
 D = 0°30'00"
 T = 121.89'
 L = 243.78'
 R = 11459.16'
 PC STA = 1244+01.56
 PT STA = 1246+45.34
 S.E. = R.C.

PI STA = 1255+24.52
 Y = 473854.603
 X = 722382.497
 DELTA = 1°04'03" RT
 D = 0°30'00"
 T = 106.75'
 L = 213.50'
 R = 11459.16'
 PC STA = 1254+17.77
 PT STA = 1256+31.27
 S.E. = R.C.

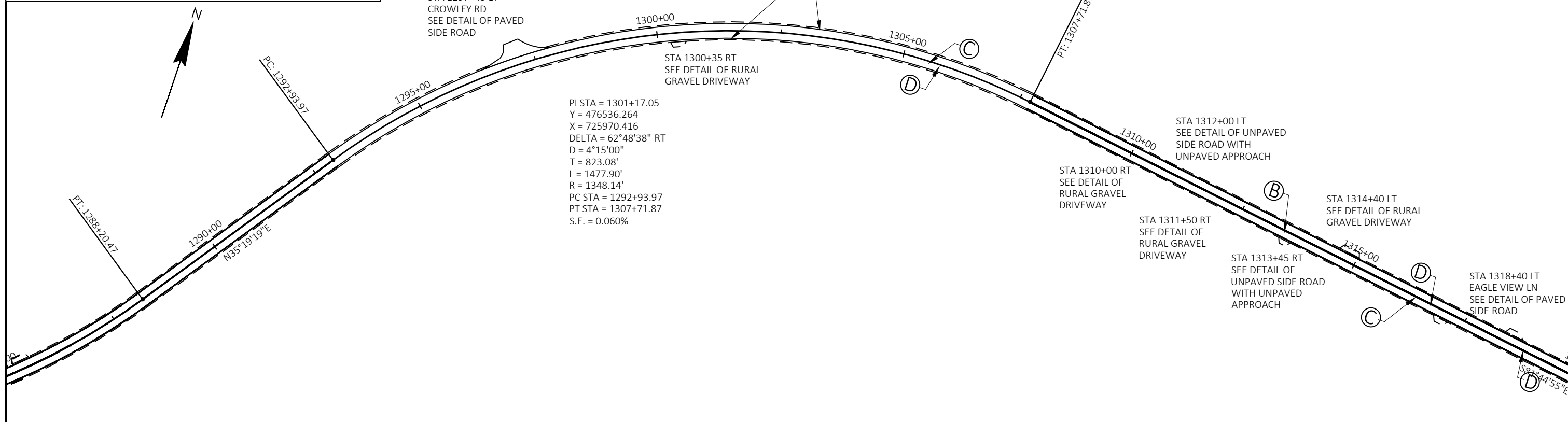
PROJECT NO: 9070-07-62	HWY: STH 70	COUNTY: PRICE	PLAN - PRICE COUNTY	SHEET E
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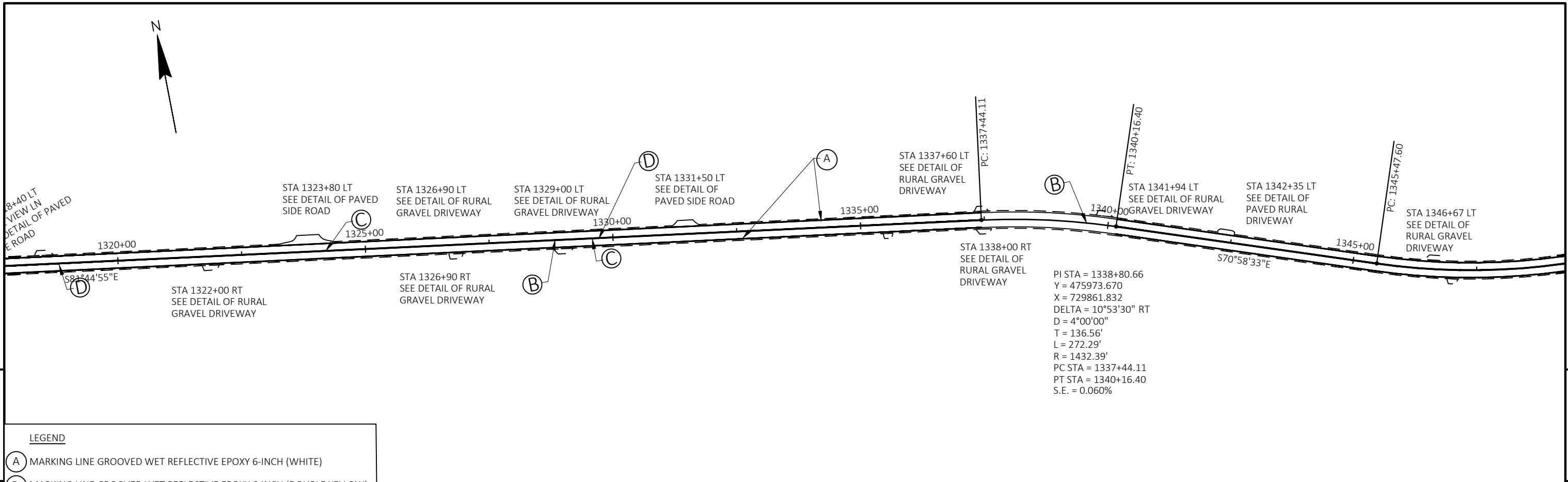
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- LEGEND**
- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
 - (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
 - (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
 - (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)



PROJECT NO: 9070-07-62	HWY: STH 70	COUNTY: PRICE	PLAN - PRICE COUNTY	SHEET	E
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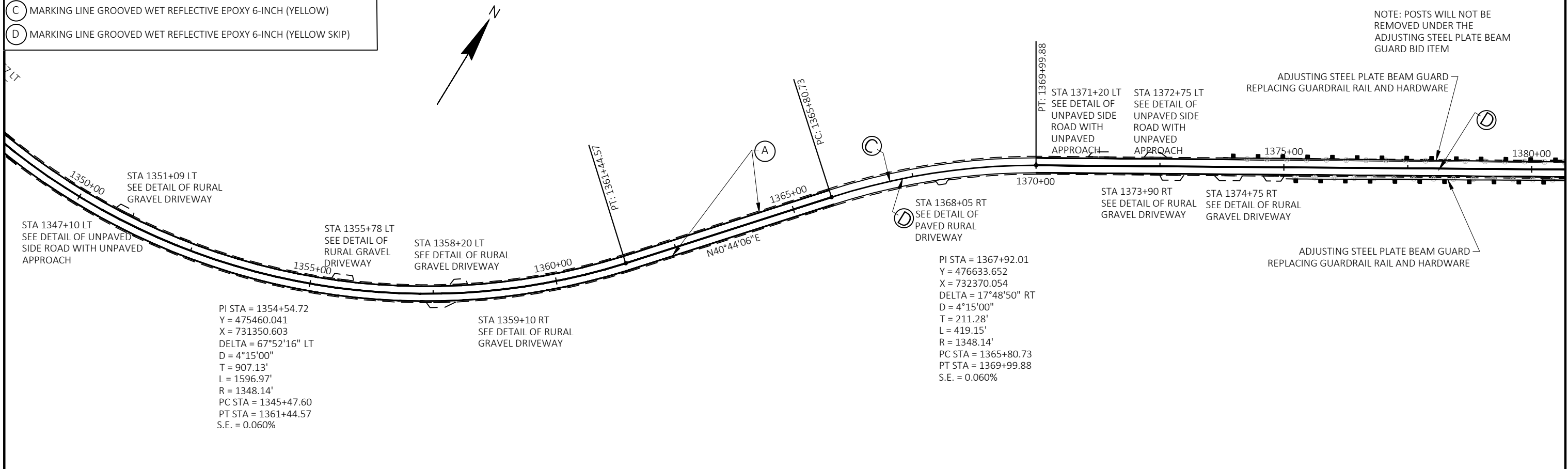


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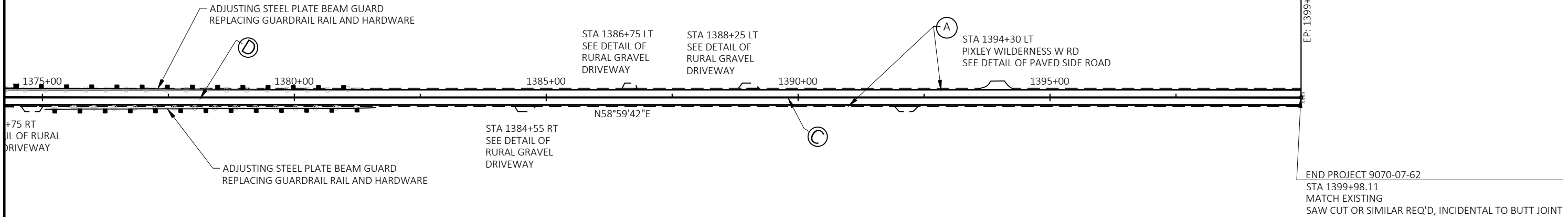
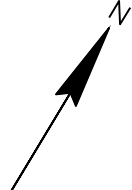
LEGEND

- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)



PROJECT NO: 9070-07-62	HWY: STH 70	COUNTY: PRICE	PLAN - PRICE COUNTY	SHEET	E
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NOTE: POSTS WILL NOT BE REMOVED UNDER THE ADJUSTING STEEL PLATE BEAM GUARD BID ITEM



END PROJECT 9070-07-62
 STA 1399+98.11
 MATCH EXISTING
 SAW CUT OR SIMILAR REQ'D, INCIDENTAL TO BUTT JOINT

5

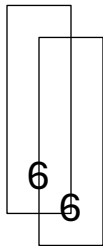
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LEGEND

- (A) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW SKIP)

Standard Detail Drawing List

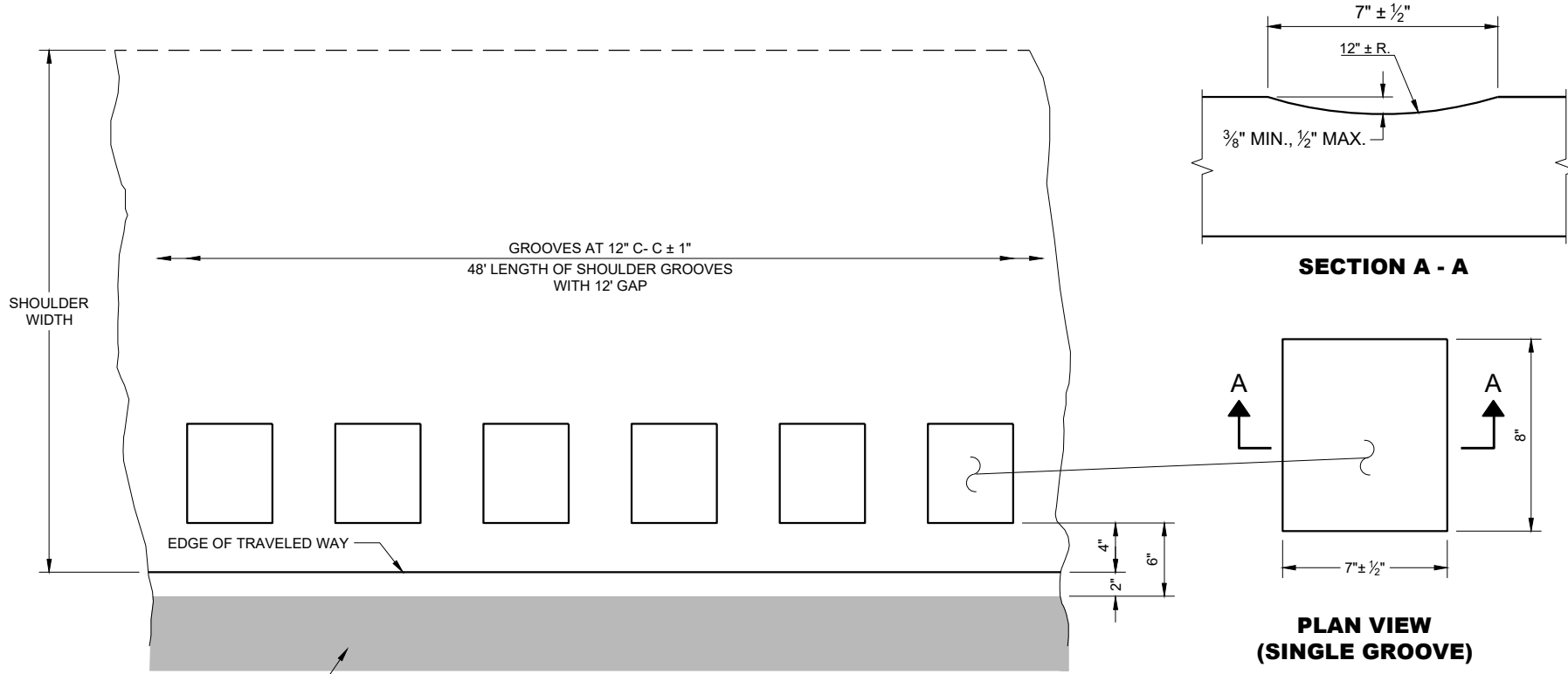
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13A10-03H	SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B20-12A	STEEL THREE BEAM STRUCTURE APPROACH
14B20-12B	STEEL THREE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B29-01	SAFETY EDGE
14D01-01	TURTLE EXCLUSION FENCE CLIMBING TURTLE
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C19-11A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D39-03	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES



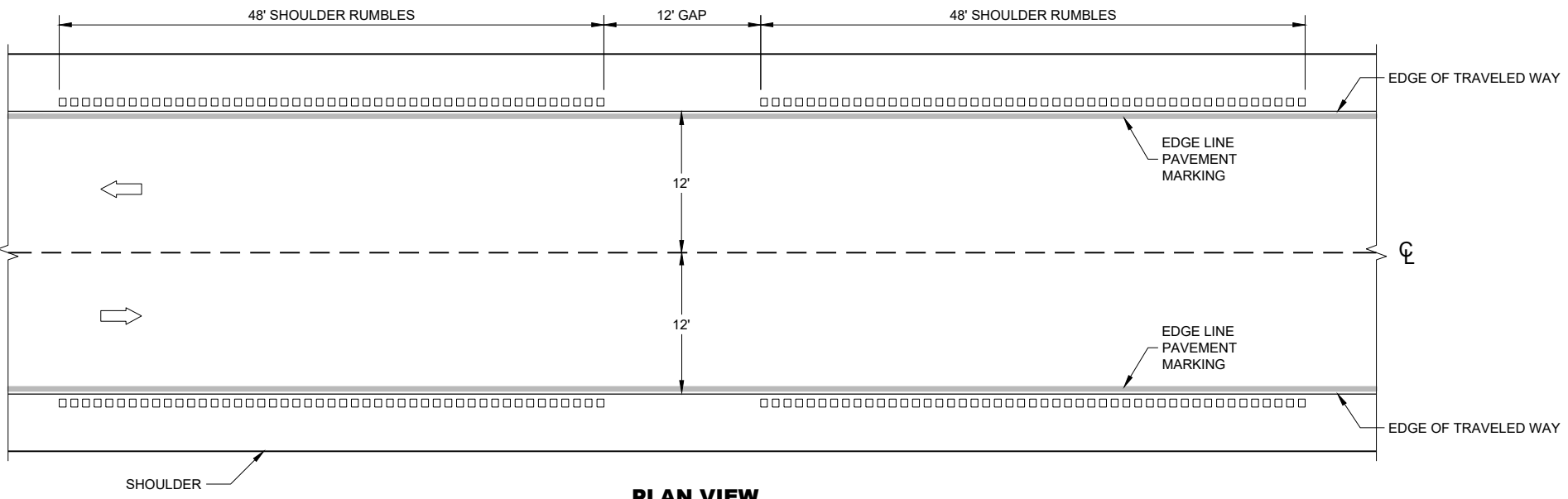
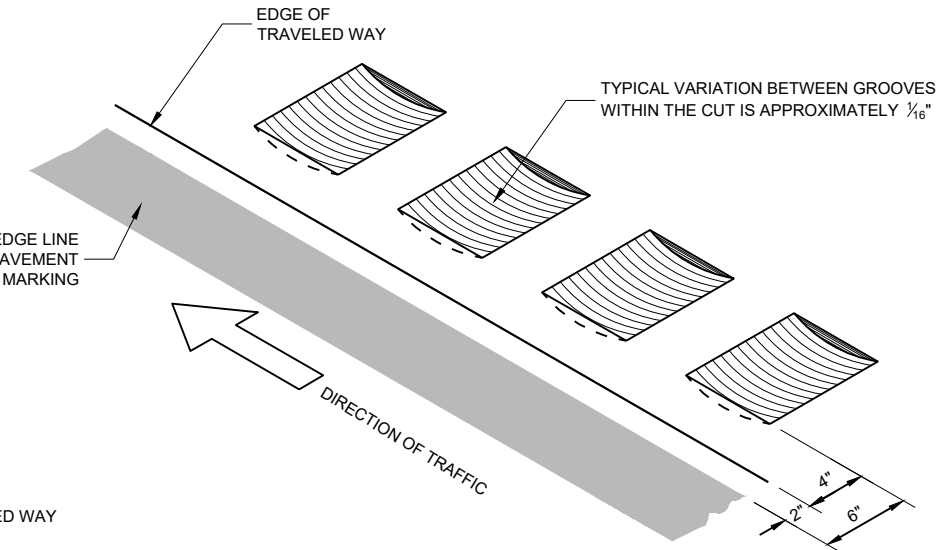
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A10 SHEETS "g" AND "h".

SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.

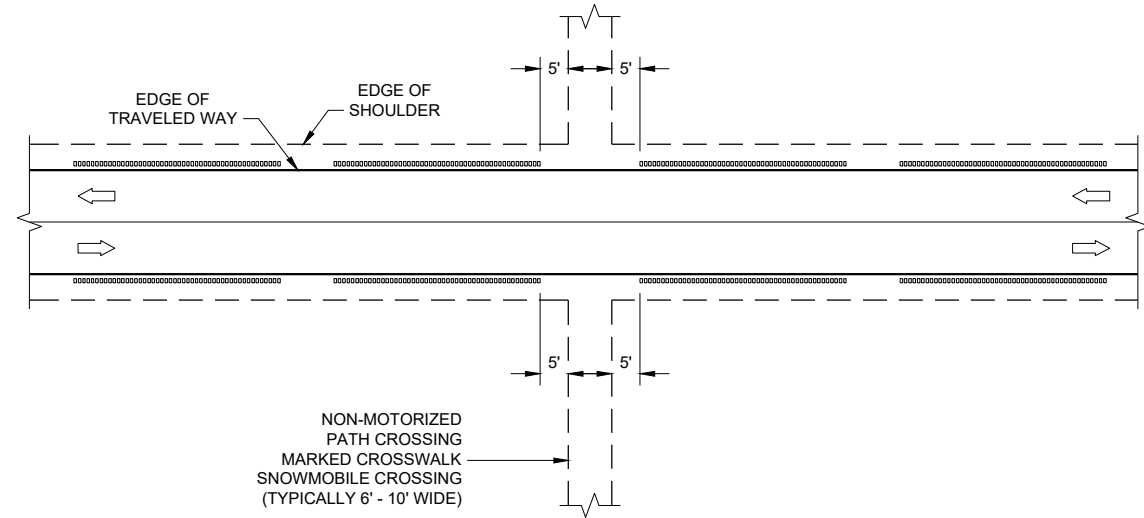


**PLAN DETAIL VIEW
SHOULDER WITH GROOVES**

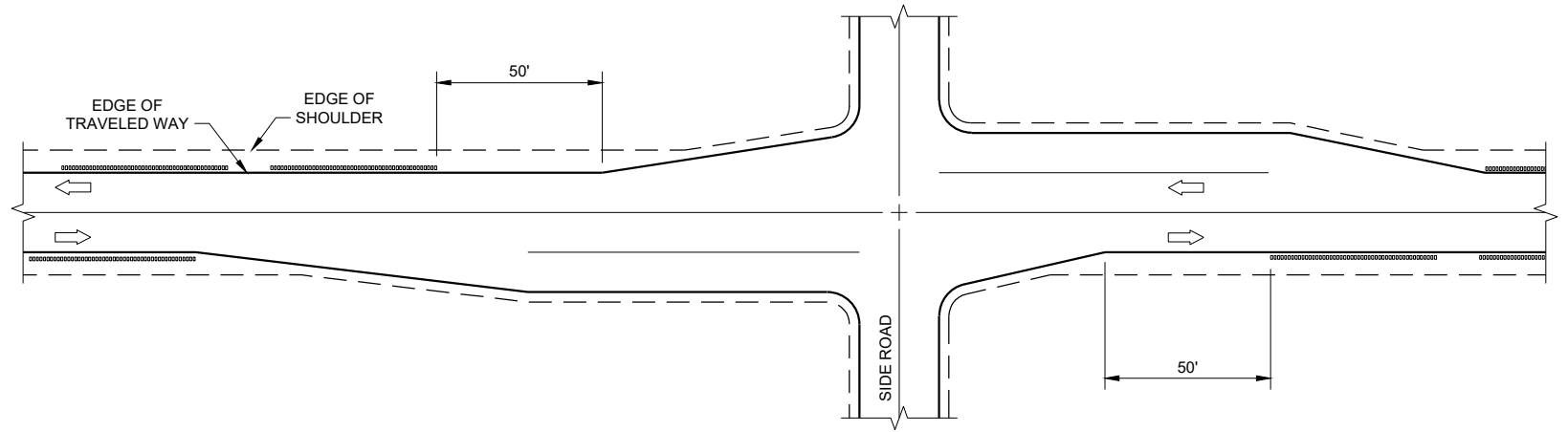


SHOULDER RUMBLE STRIPS - ASPHALT

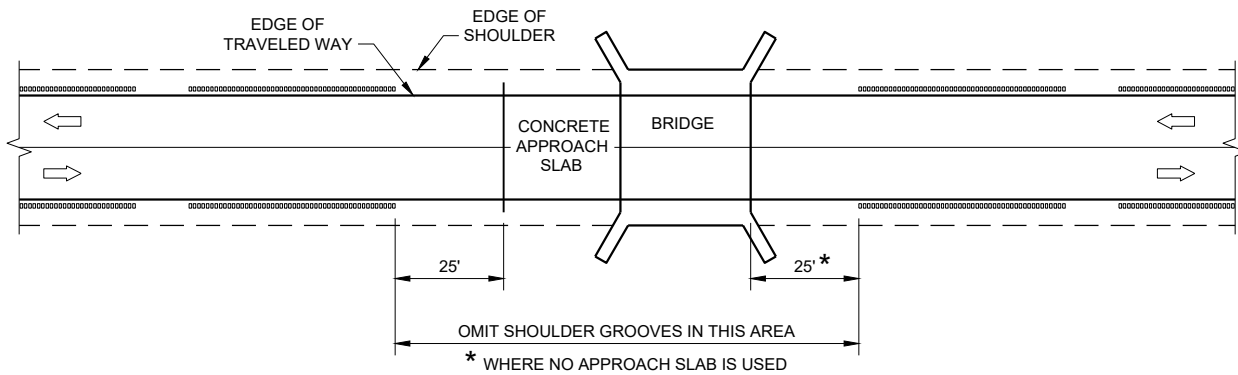
SHOULDER RUMBLE STRIPS ASPHALT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



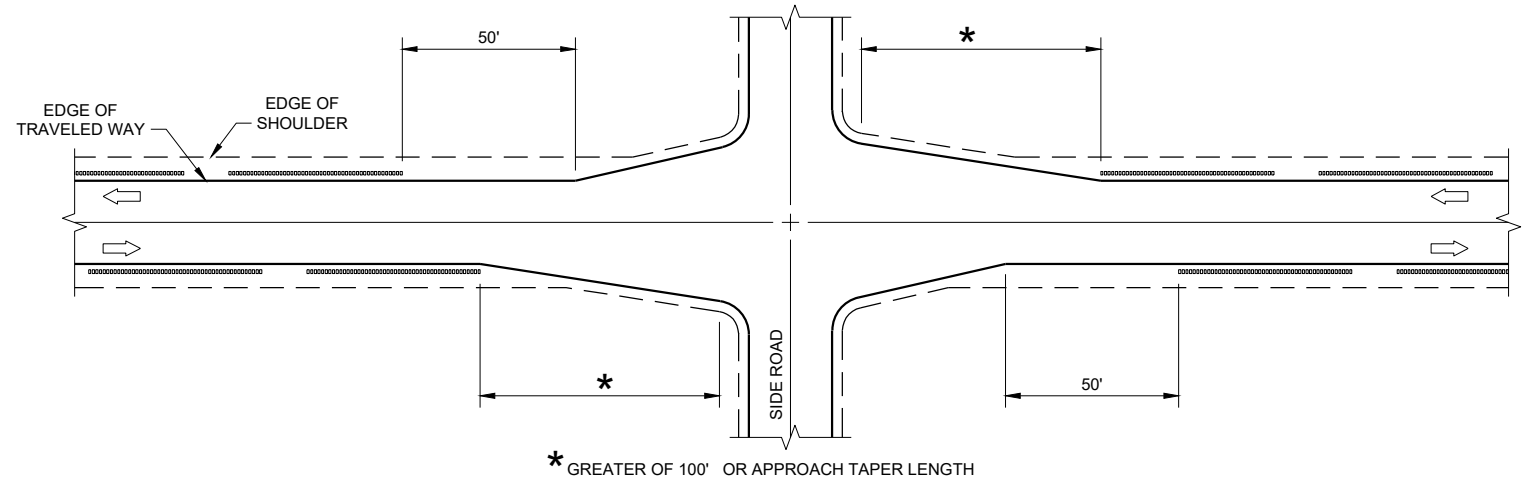
GROOVES AT MISCELLANEOUS CROSSINGS



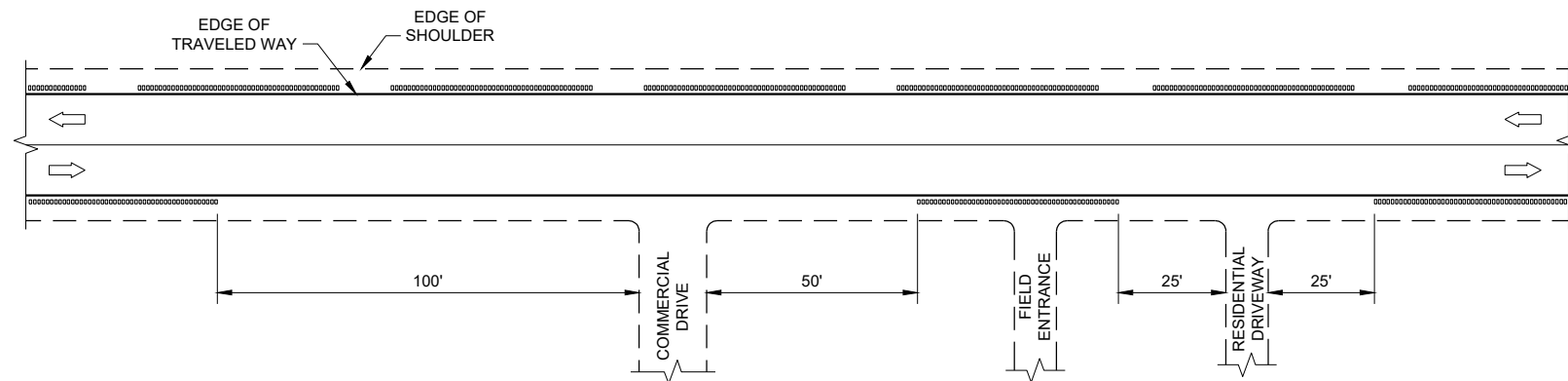
GROOVES AT RIGHT TURN LANE



GROOVES AT BRIDGES



GROOVES AT INTERSECTIONS WITH APPROACH TAPER



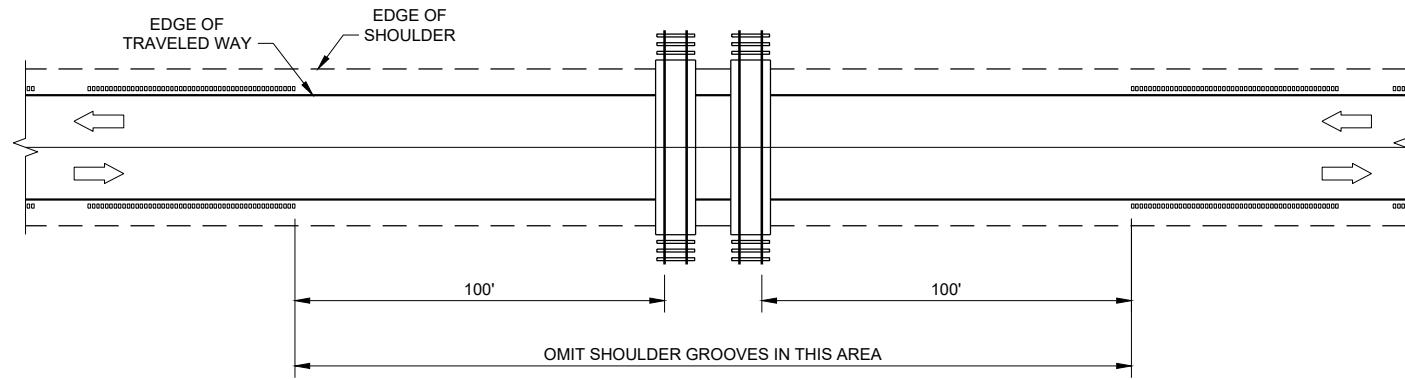
GROOVES AT DRIVEWAYS

GENERAL NOTES

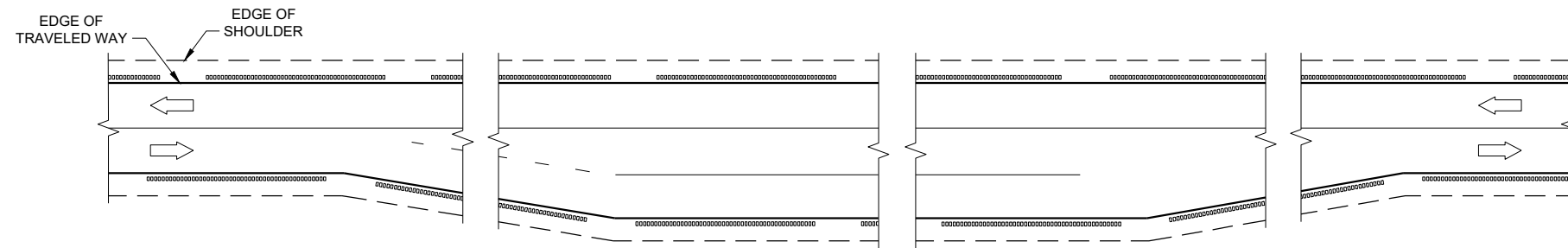
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

**SHOULDER AND EDGE LINE
RUMBLE STRIPS
CROSSINGS, INTERSECTIONS,
BRIDGES, DRIVEWAYS**

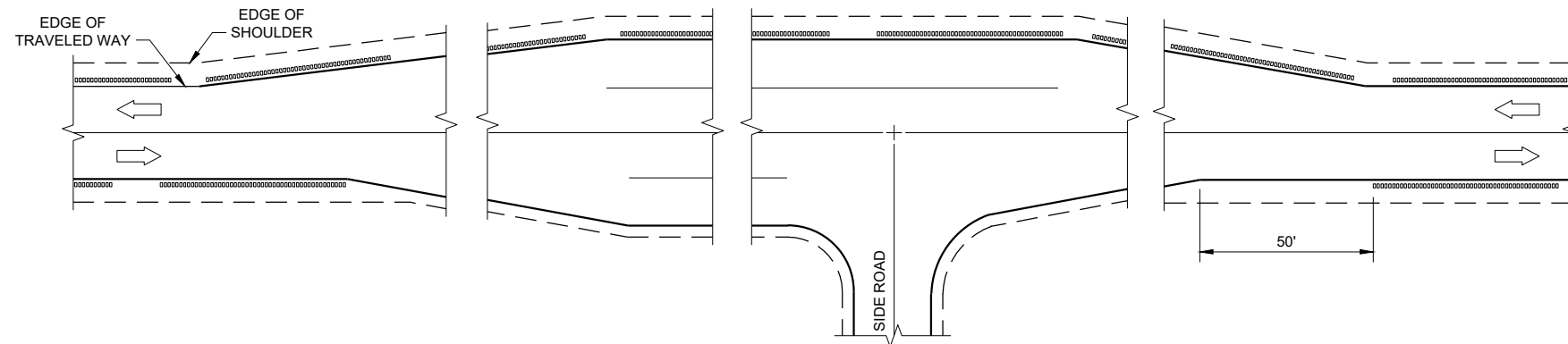
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GROOVES AT RAILROADS



GROOVES AT PASSING AND CLIMBING LANES



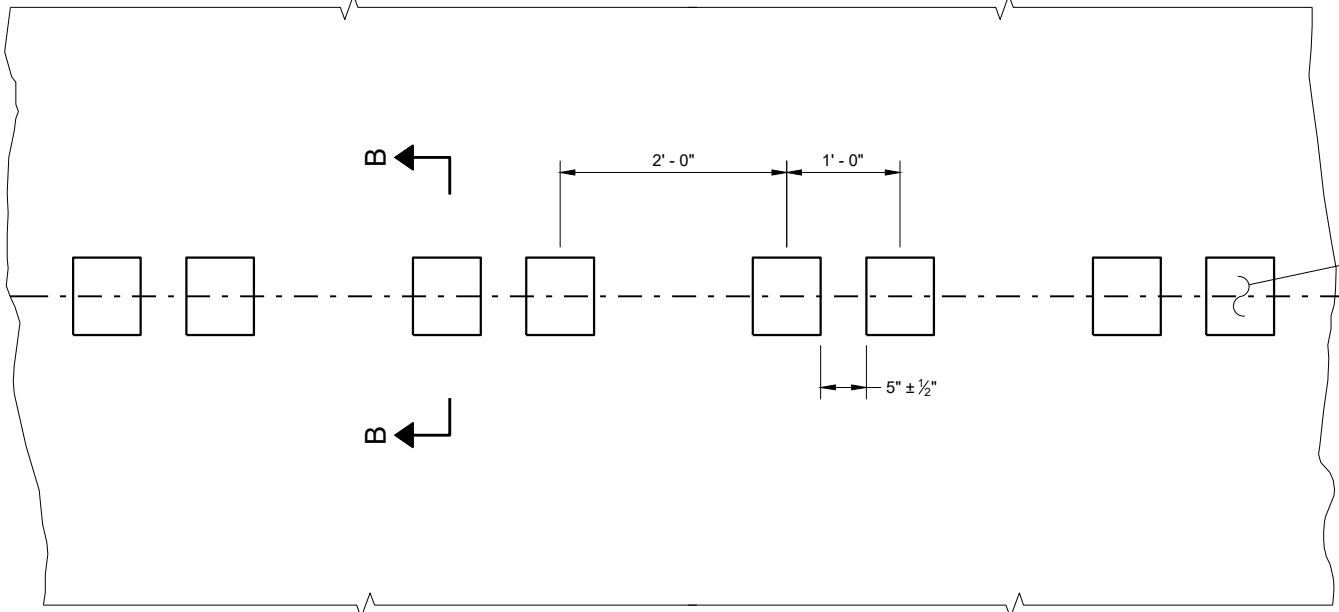
GROOVES AT BYPASS LANES

SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ John Jenkins ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

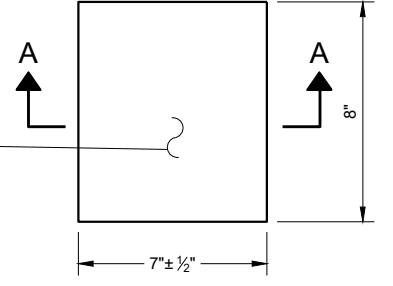
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

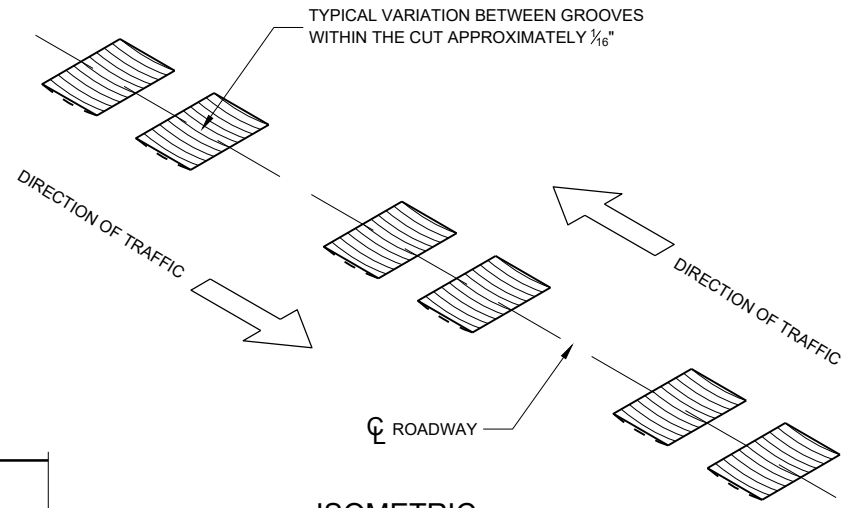
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



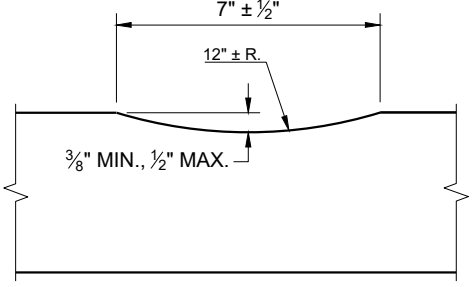
PLAN DETAIL VIEW



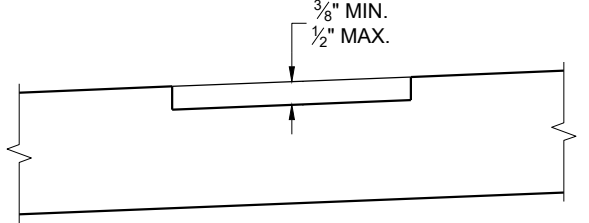
PLAN VIEW (SINGLE GROOVE)



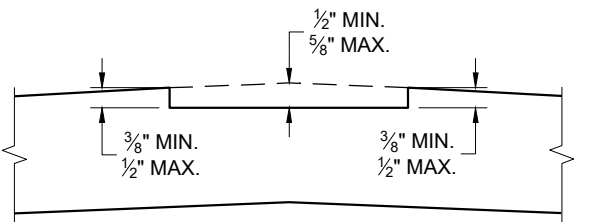
ISOMETRIC



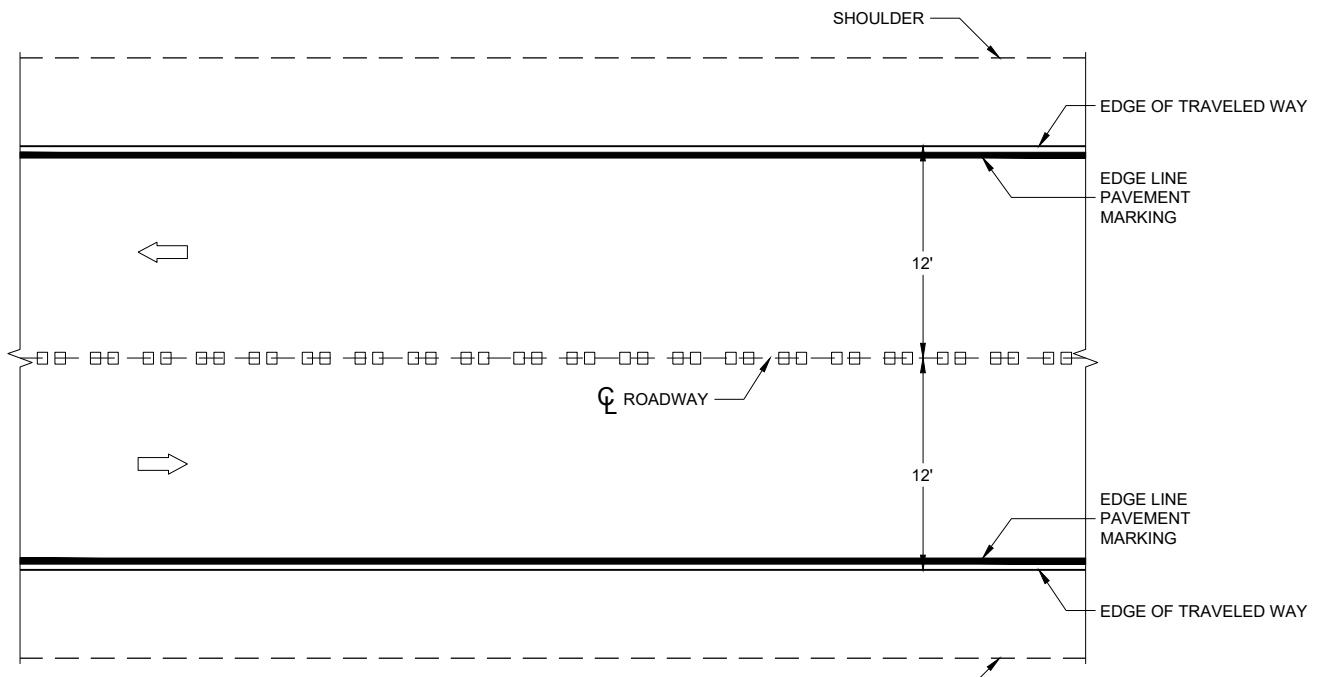
SECTION A - A



SECTION B - B SUPERELEVATED ROADWAY



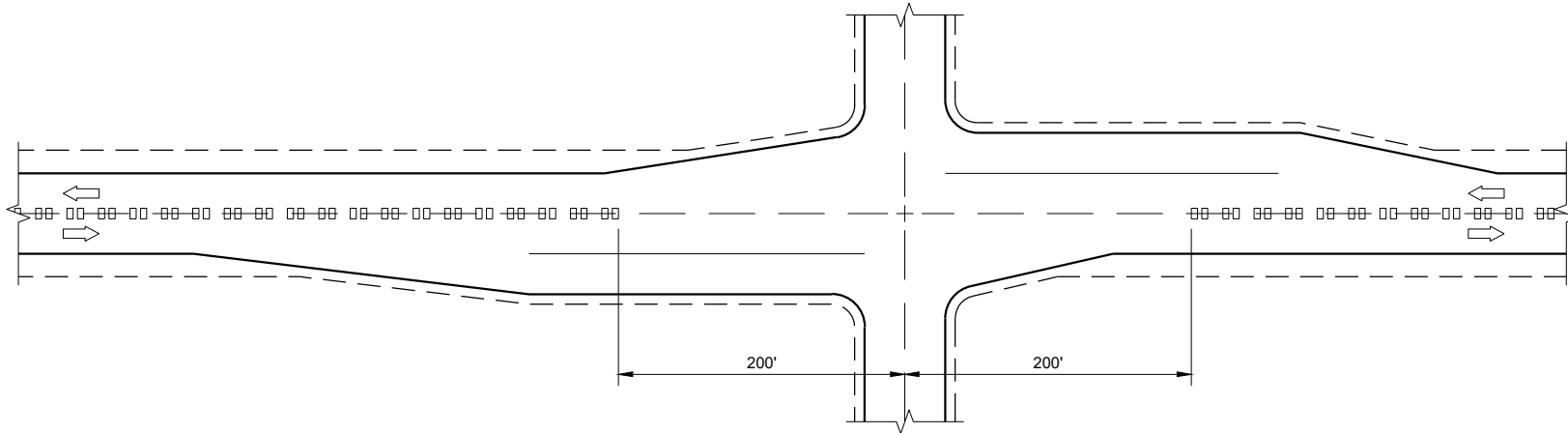
SECTION B - B CROWNED ROADWAY



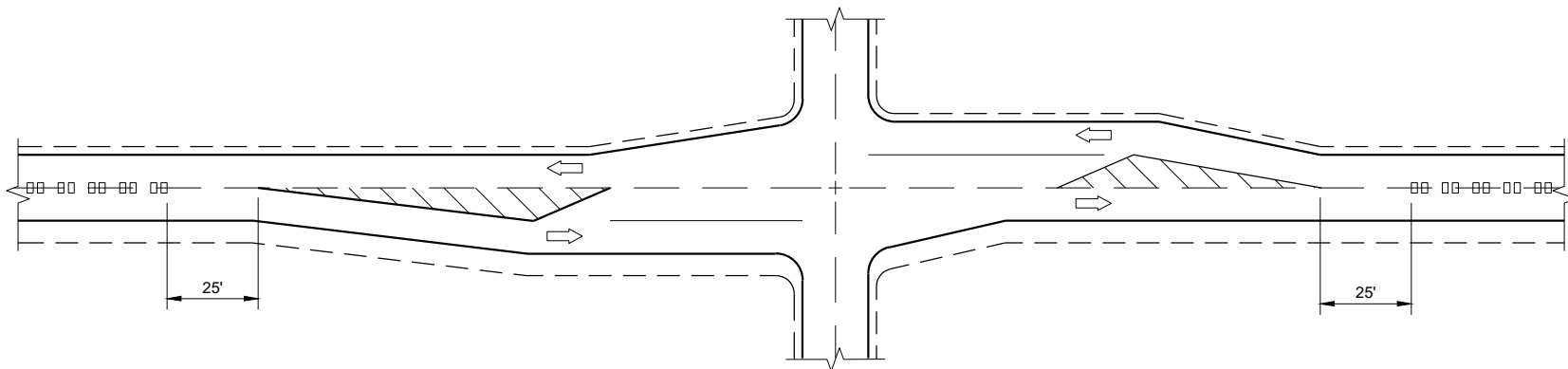
PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

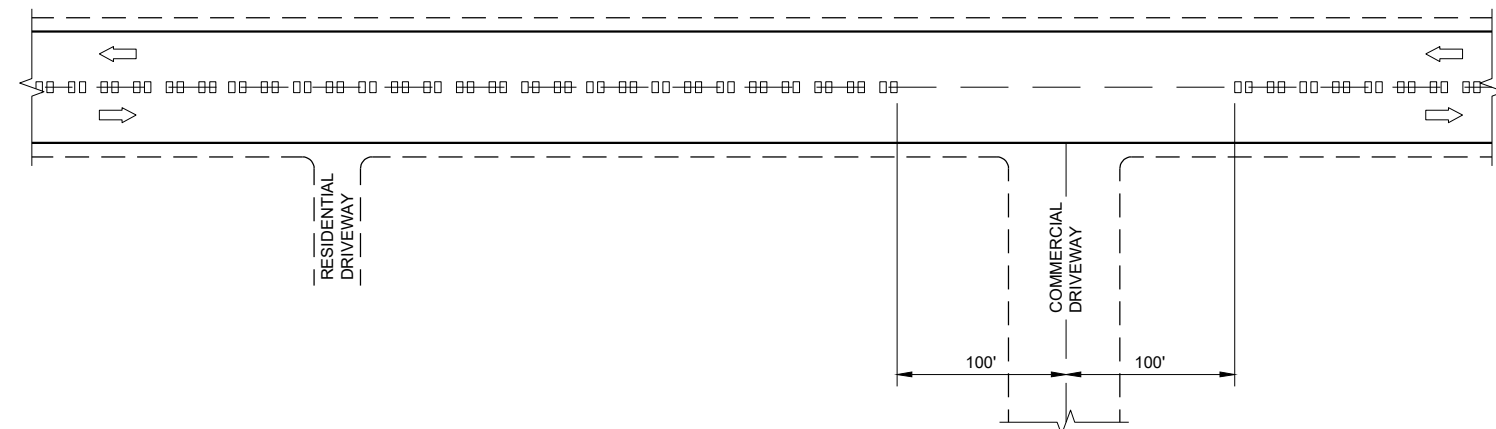
CENTERLINE RUMBLE STRIPS - ASPHALT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



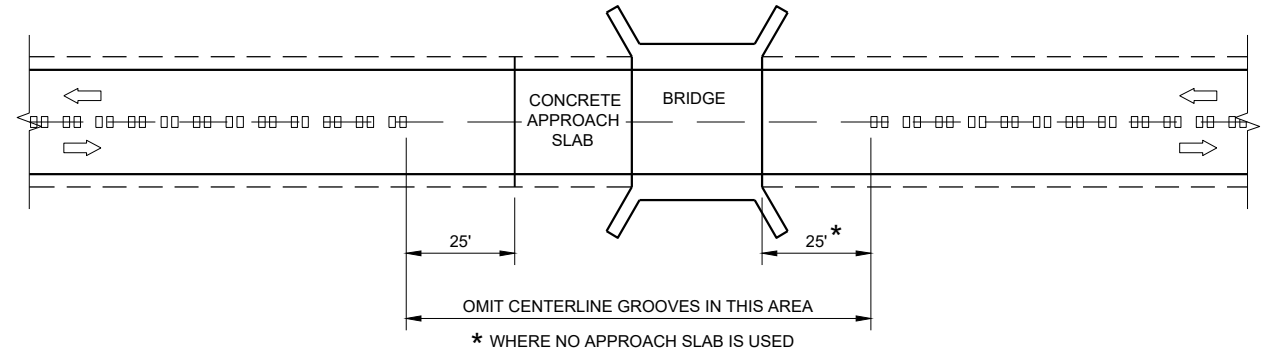
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



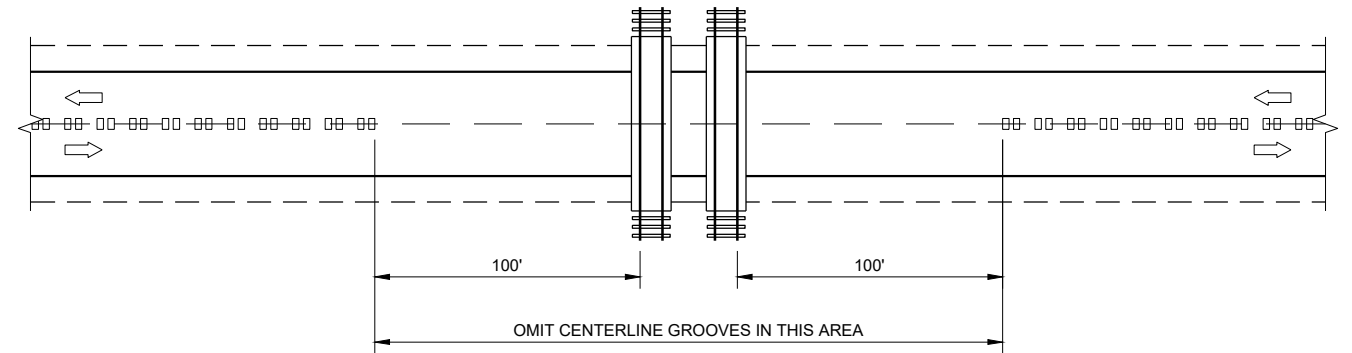
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

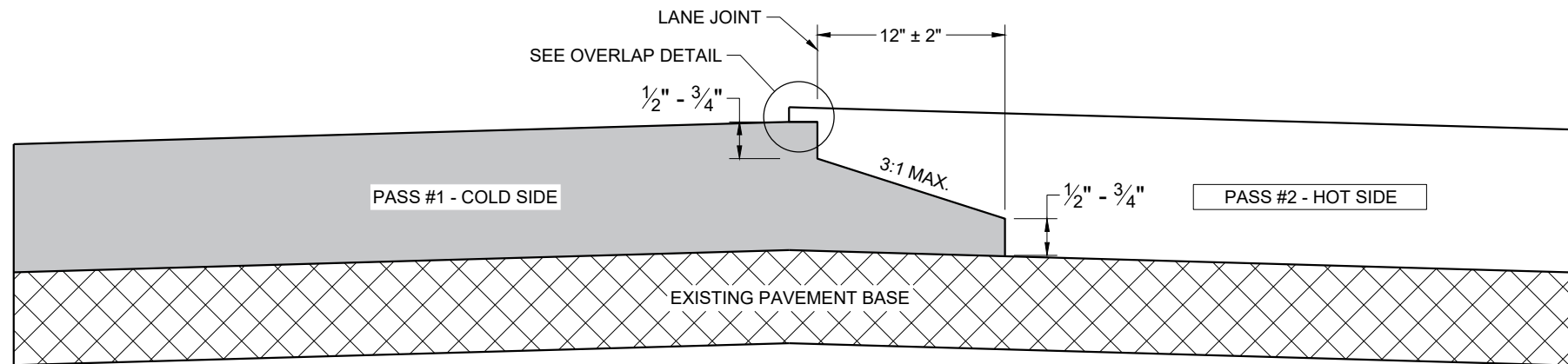
6

6

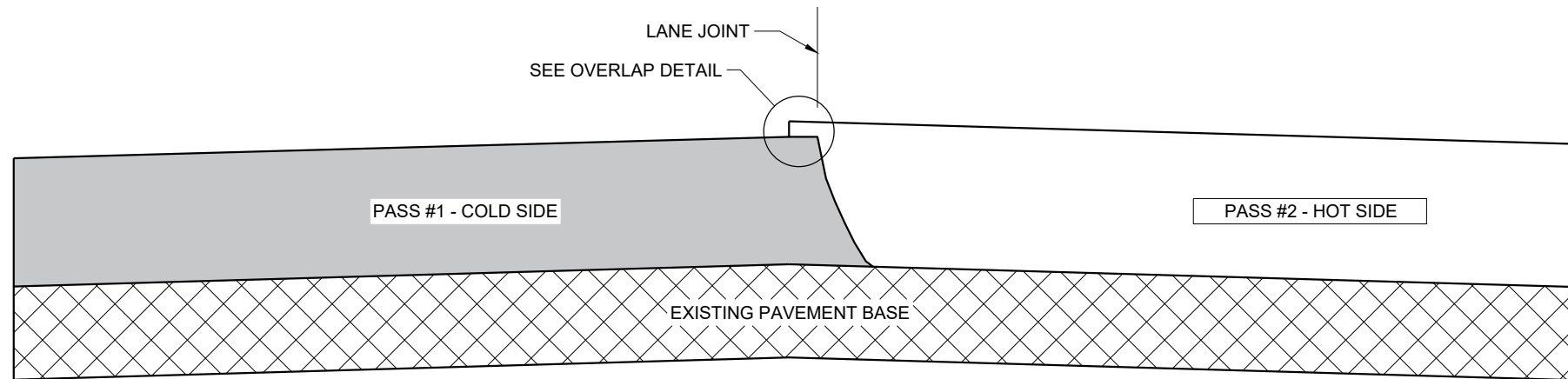
SDD 13A11 - 04d

SDD 13A11 - 04d

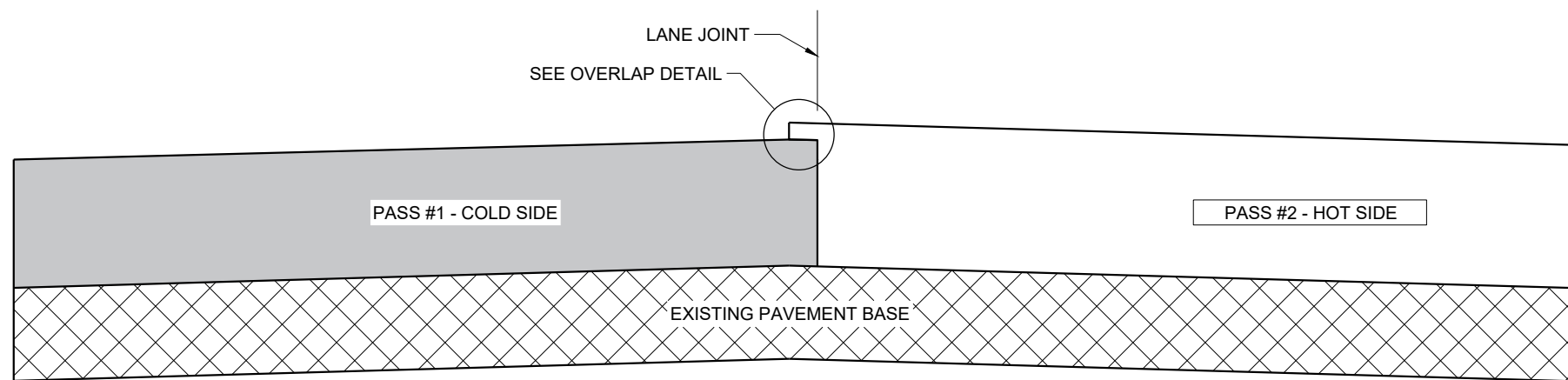
CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ John Jenkins ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



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

GENERAL NOTES

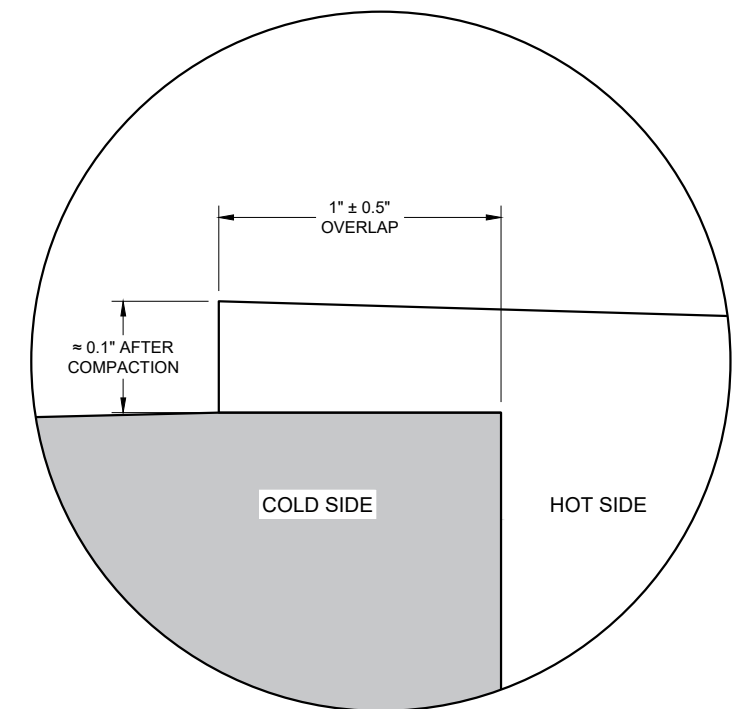
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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	



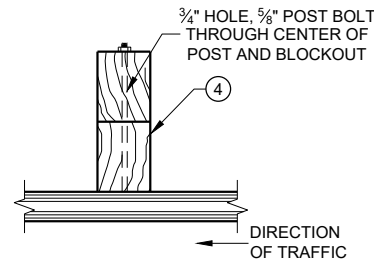
SDD 14B15a Steel Plate Beam Guard, Class "A", Installation and Elements

GENERAL NOTES

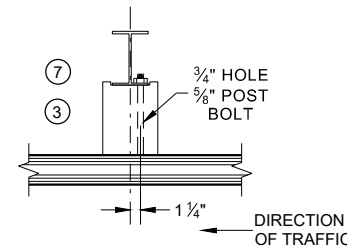
- WOOD OR STEEL POSTS (w6x9 OR w6x8.5) AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6"x8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL AND WOOD POSTS IN A SINGLE INSTALLATION.
- USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGE SPALTER COATING ON GALVANIZED POSTS.
- INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- IF THE DISTANCE FROM BACK OF POST TO SHOULDER HIGHE POINT IS LESS THAN 2 FEET, INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
- IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCHES IN DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT ADEQUATELY.
- WHEN USING STEEL POSTS AND WOOD BLOCKOUTS, INSTALL FOUR 16d GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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

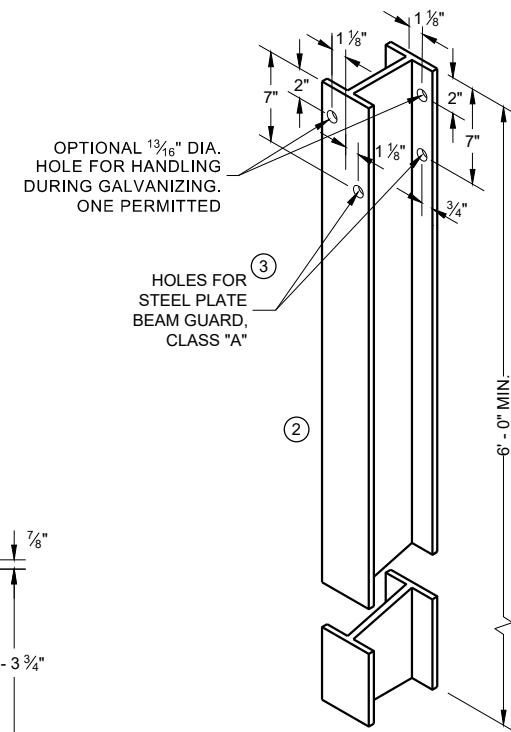
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



PLAN VIEW
WOOD POST, BLOCKOUT AND BEAM

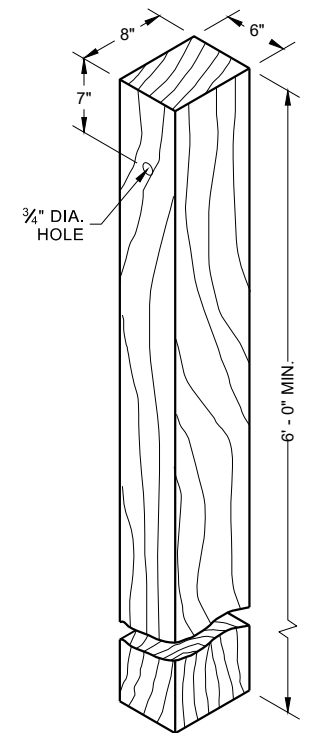


PLAN VIEW
WOOD POST, BLOCKOUT AND BEAM

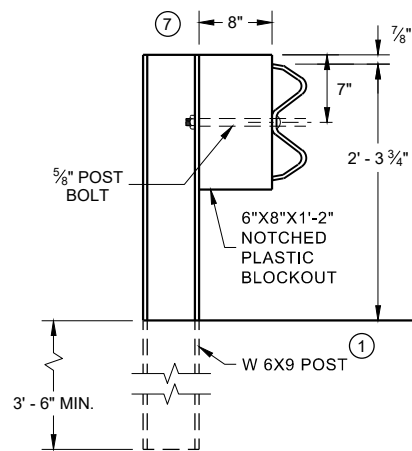


STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9)

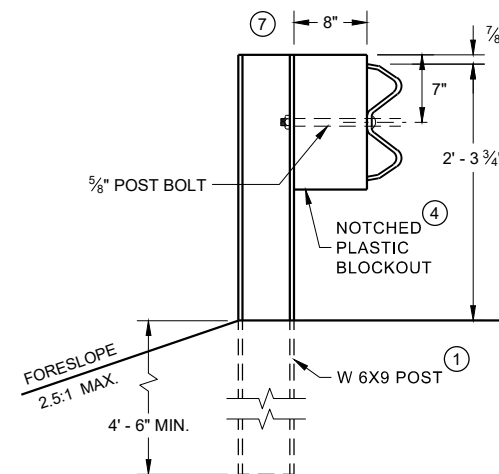
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



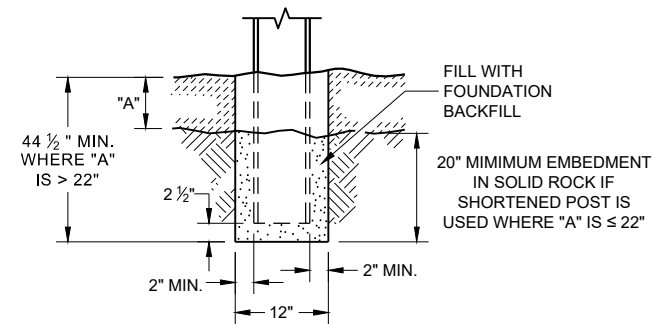
WOOD POST (6" X 8") NOMINAL



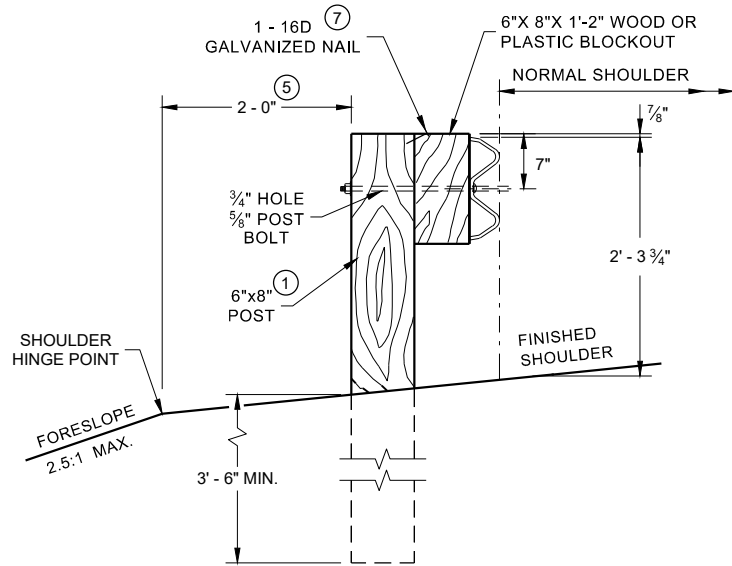
END VIEW
STEEL POST AND NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION



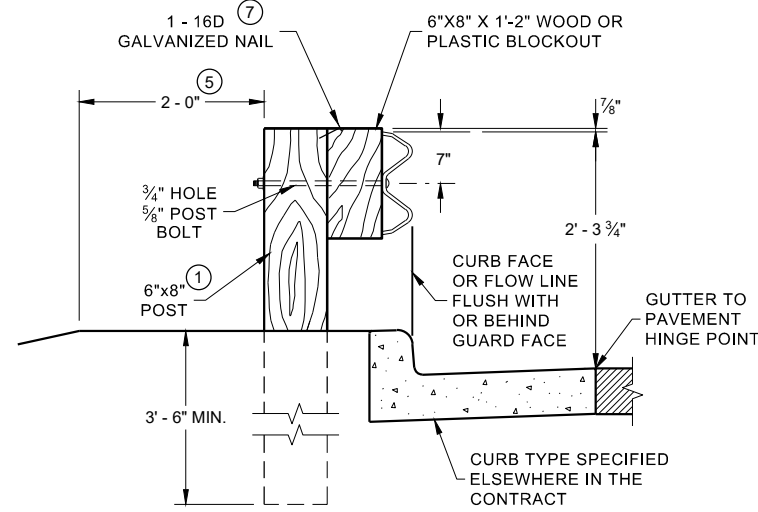
END VIEW
LONGER POST AT HALF POST SPACING W BEAM (LHW)



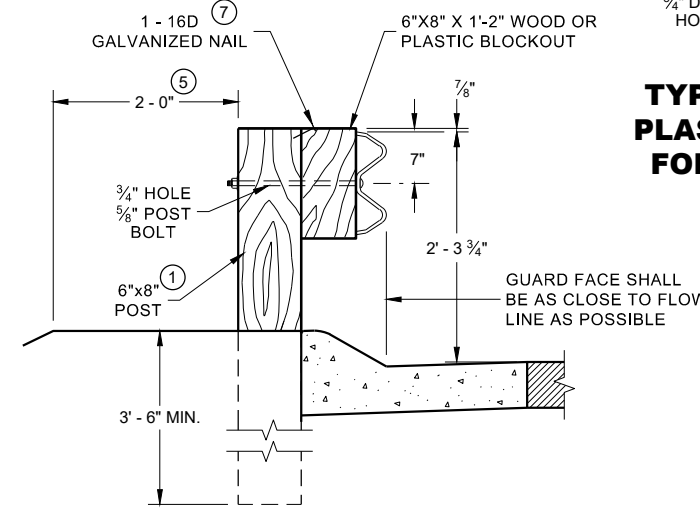
END VIEW
SETTING STEEL OR WOOD POST IN ROCK



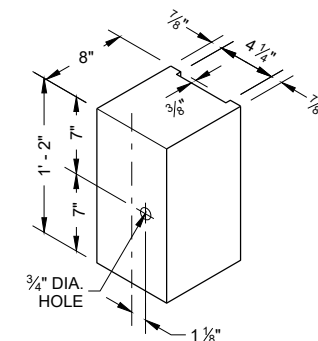
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



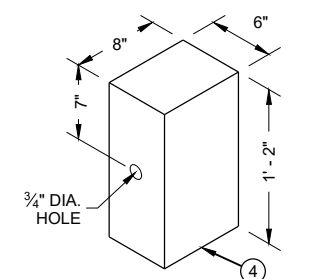
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
LOCATED ALONG A MOUNTABLE CURBED ROADWAY



TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS



WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS

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

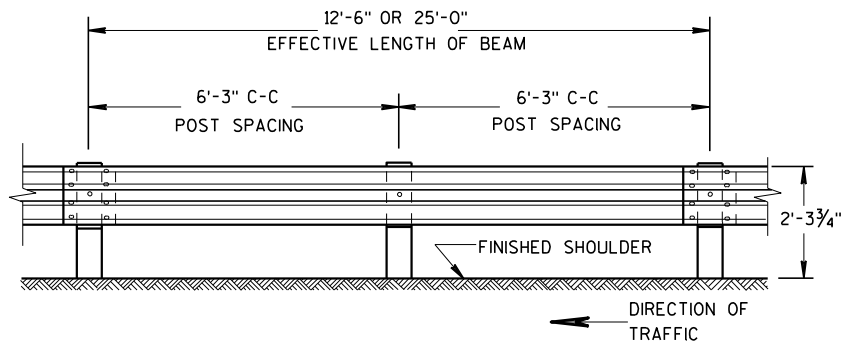
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

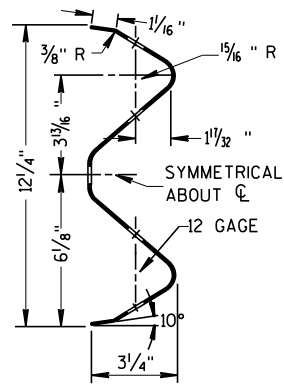
SDD 14B15 -11a

6

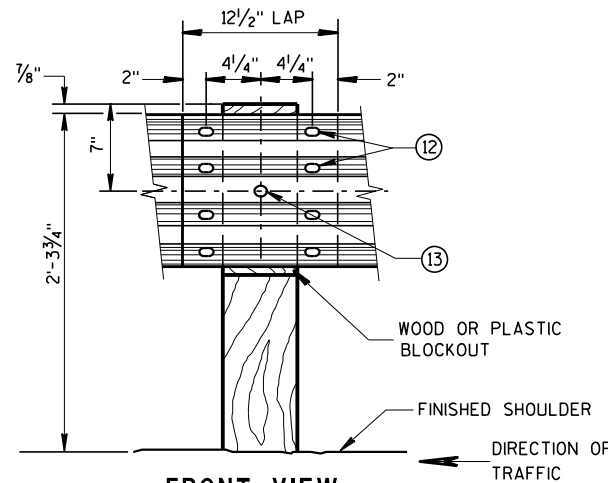
SDD 14B15 -11a



**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



SECTION THRU W BEAM

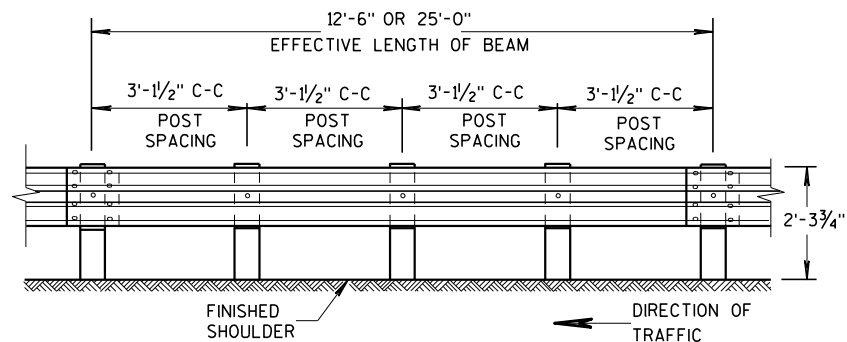


**FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL**

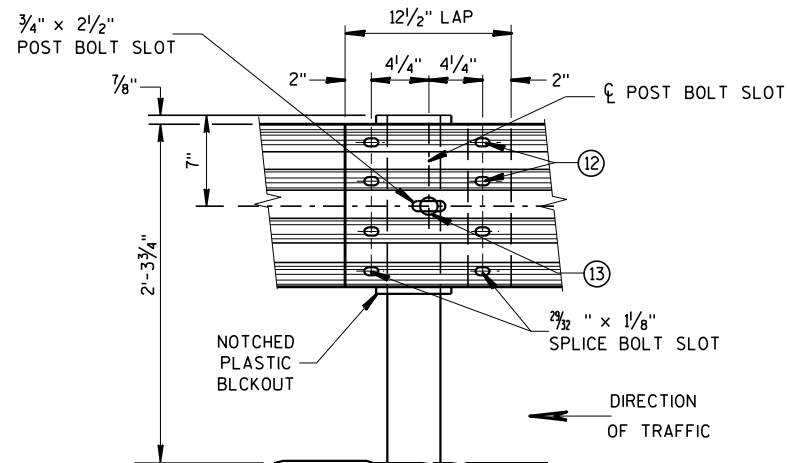
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

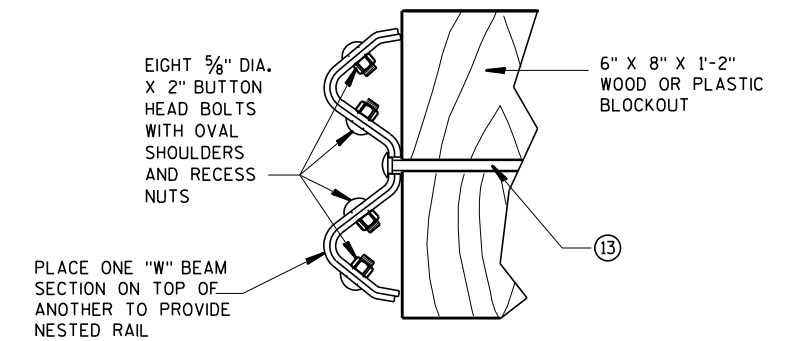
- ⑨ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.
- ⑫ 8 - 5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑬ 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



**FRONT VIEW
POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)**



**FRONT VIEW
BEAM SPLICE AT STEEL POST
TYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD**

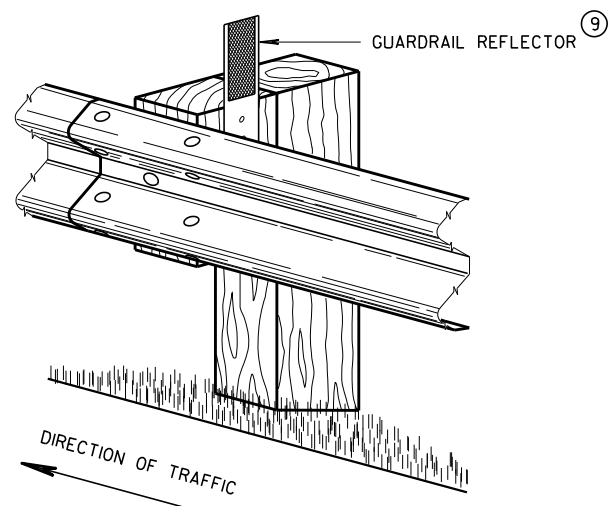


EIGHT 5/8" DIA. X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS AND RECESS NUTS

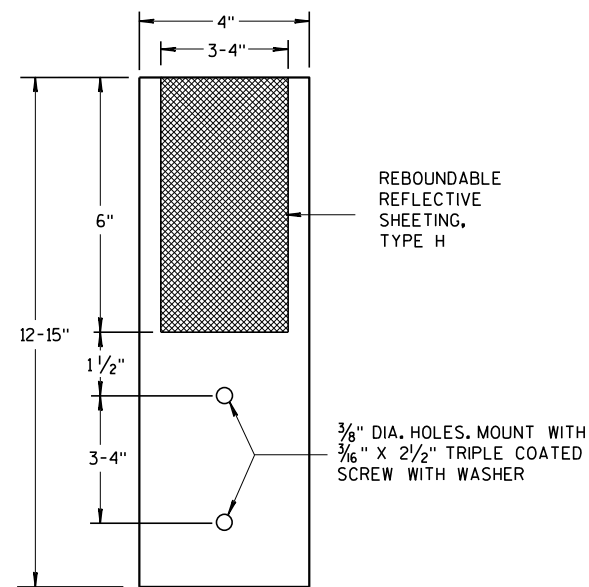
PLACE ONE "W" BEAM SECTION ON TOP OF ANOTHER TO PROVIDE NESTED RAIL

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

* USE DOUBLE SIDED WHITE GUARDRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



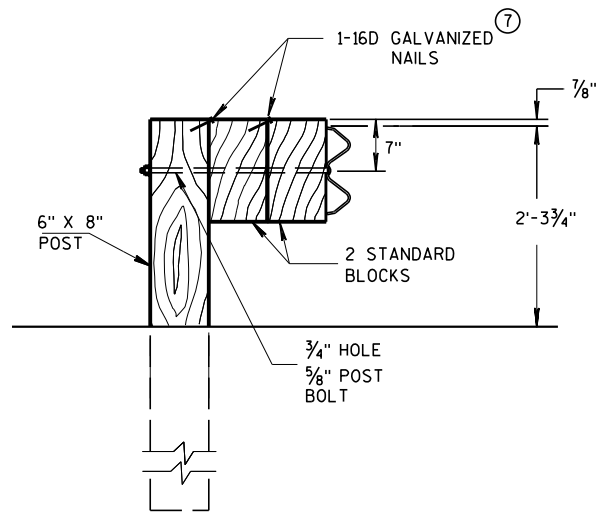
**4" X 12" GUARDRAIL REFLECTOR DETAIL
AND TYPICAL INSTALLATION ***



4" x 12" GUARDRAIL REFLECTOR

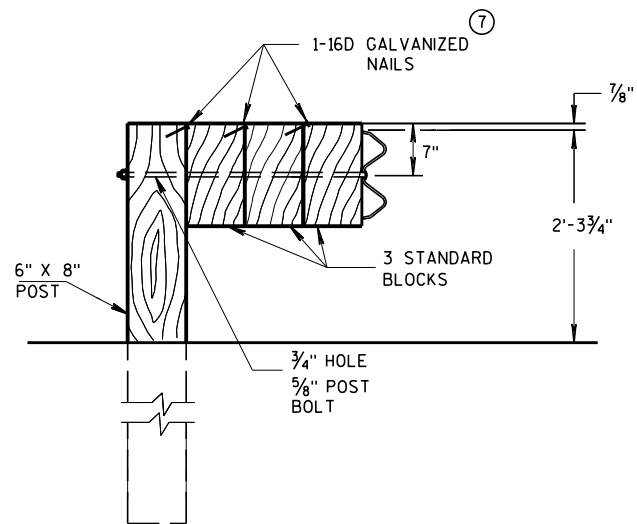
**STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

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

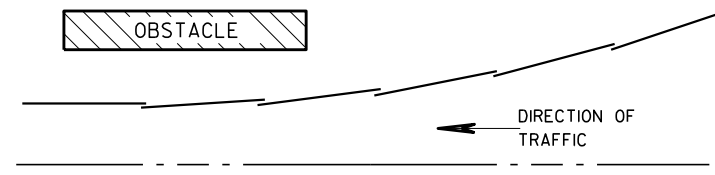


DETAIL FOR TRIPLE BLOCKS

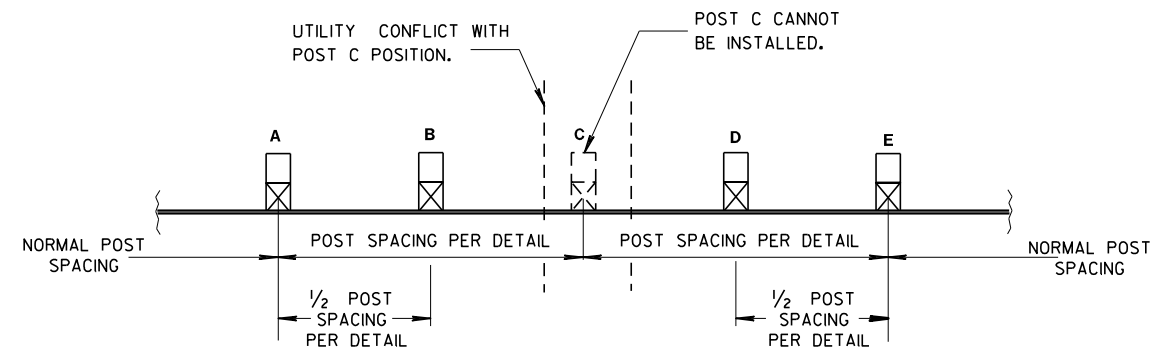
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

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

DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

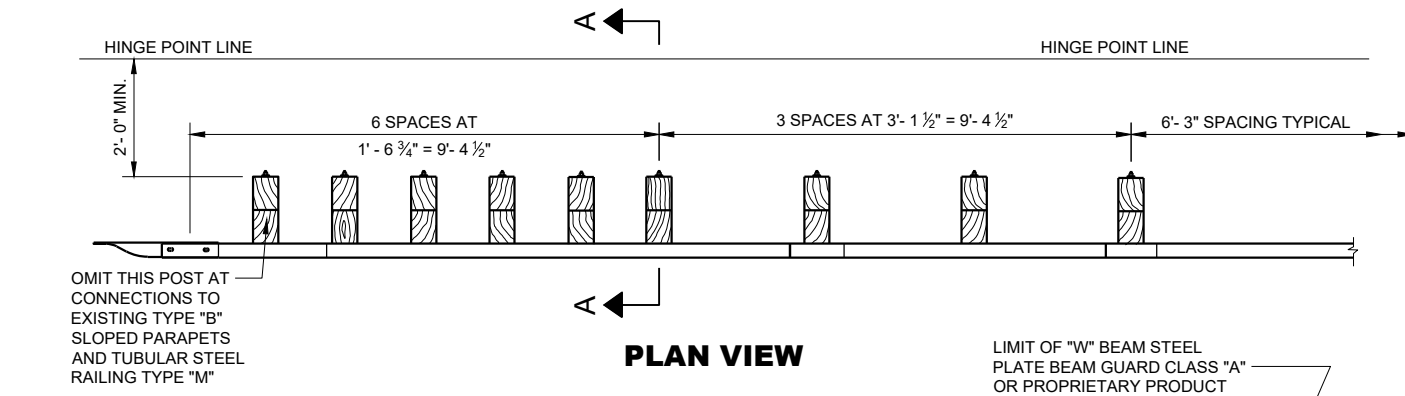


**PLAN VIEW
BEAM LAPPING DETAIL**

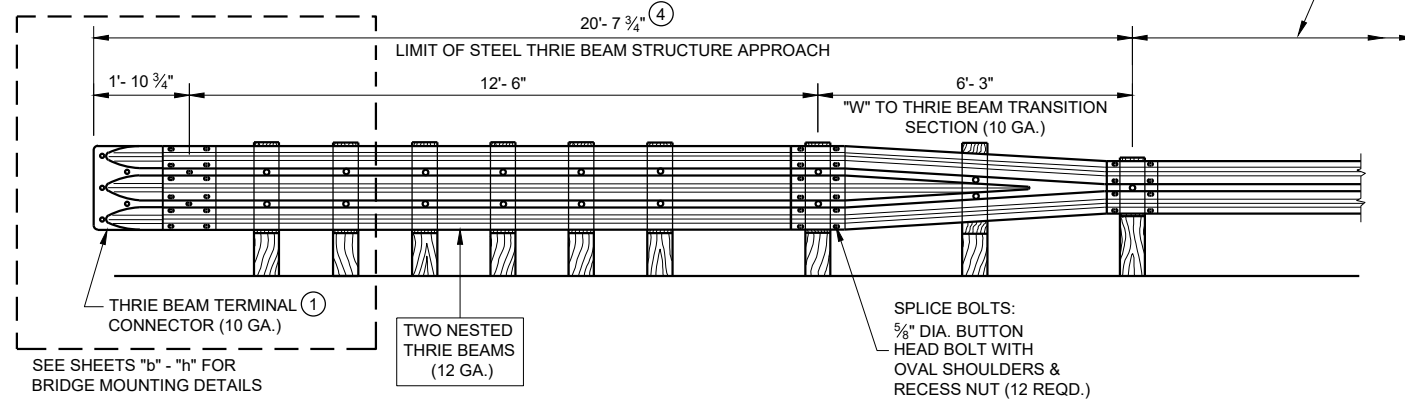


**POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION**

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017	/s/ Rodney Taylor
DATE	ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	



PLAN VIEW



FRONT VIEW

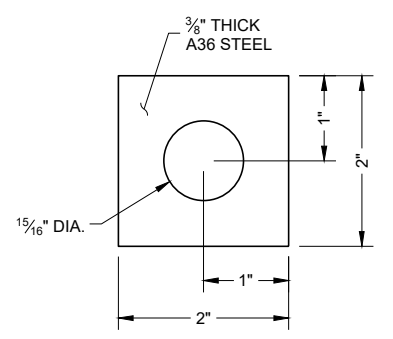


PLATE WASHER DETAIL

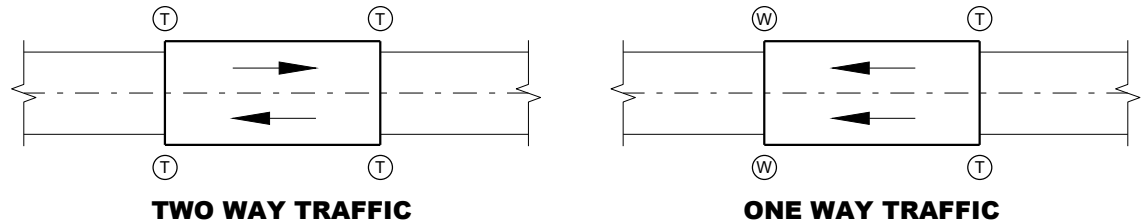
GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

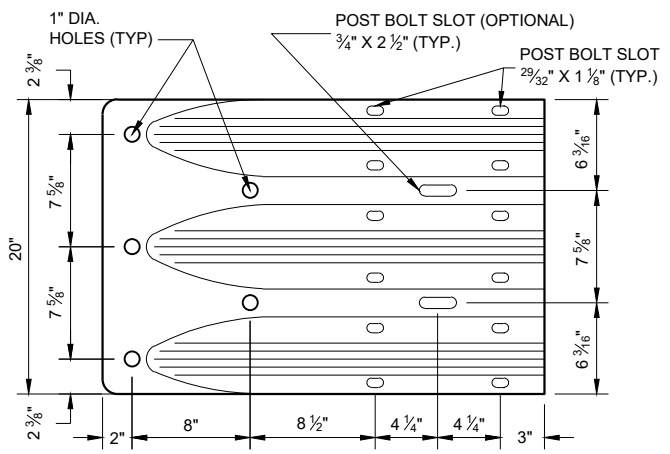
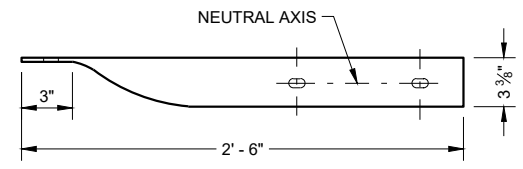
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

- ① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.
- ② MINIMUM EMBEDMENT SHALL BE 4'-0".
- ③ POST BOLTS ARE 3/4" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 3/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.
- ④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.

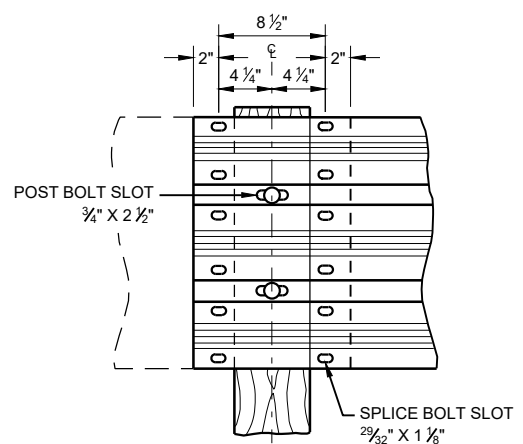


① THRIE BEAM CONNECTION
 ② W-BEAM CONNECTION WHEN REQUIRED

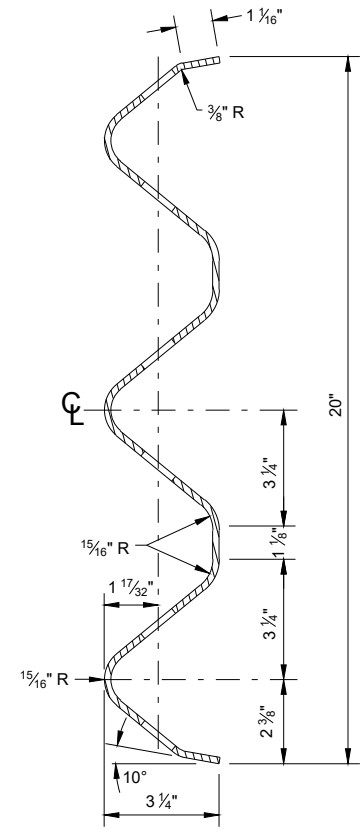
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE



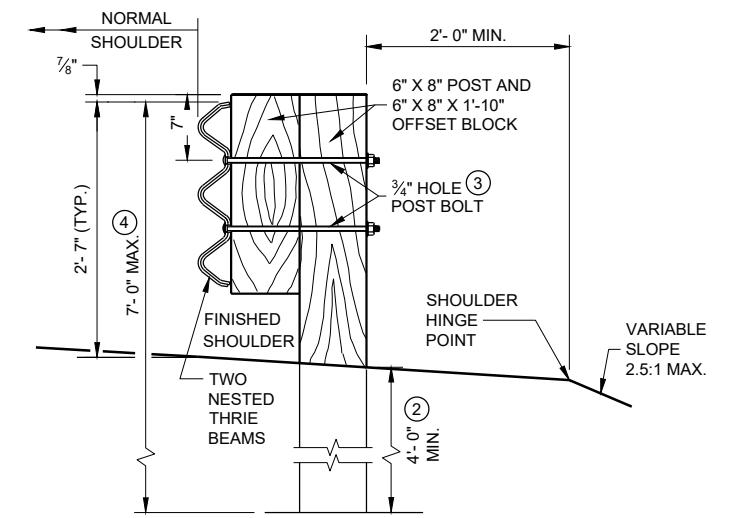
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



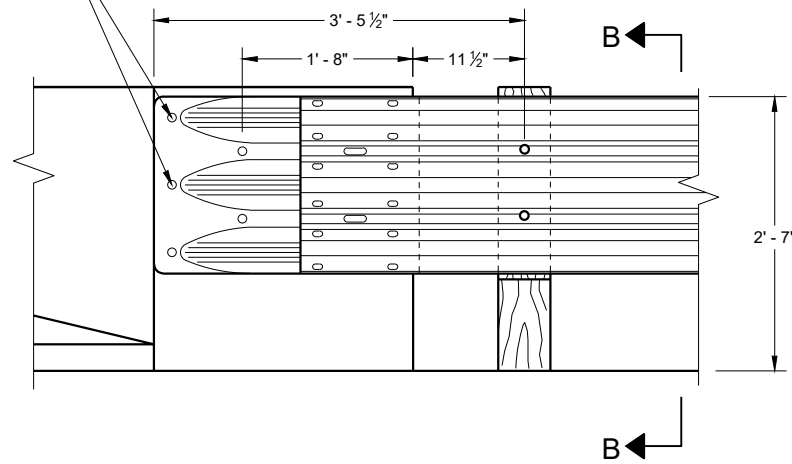
SECTION THRU BEAM RAIL ELEMENT



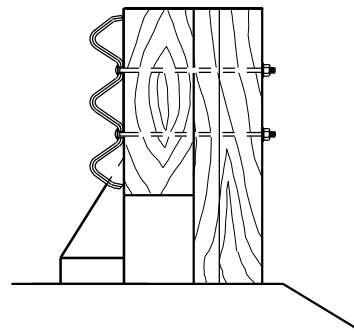
SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2022 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

- ① ② 7/8" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
- 7/8" DIA. H.S. HEX BOLT AND WASHERS REQUIRED
- 1" DIA. HOLES DRILLED THRU PARAPET (5 REQ'D)



FRONT VIEW



SECTION B - B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

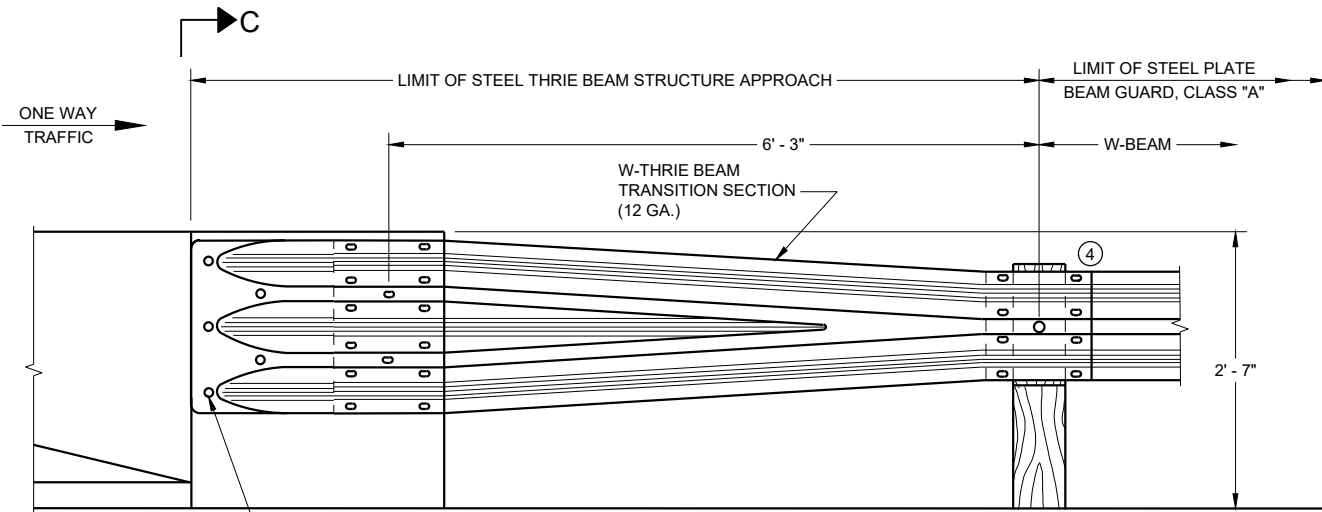
GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".
- ④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

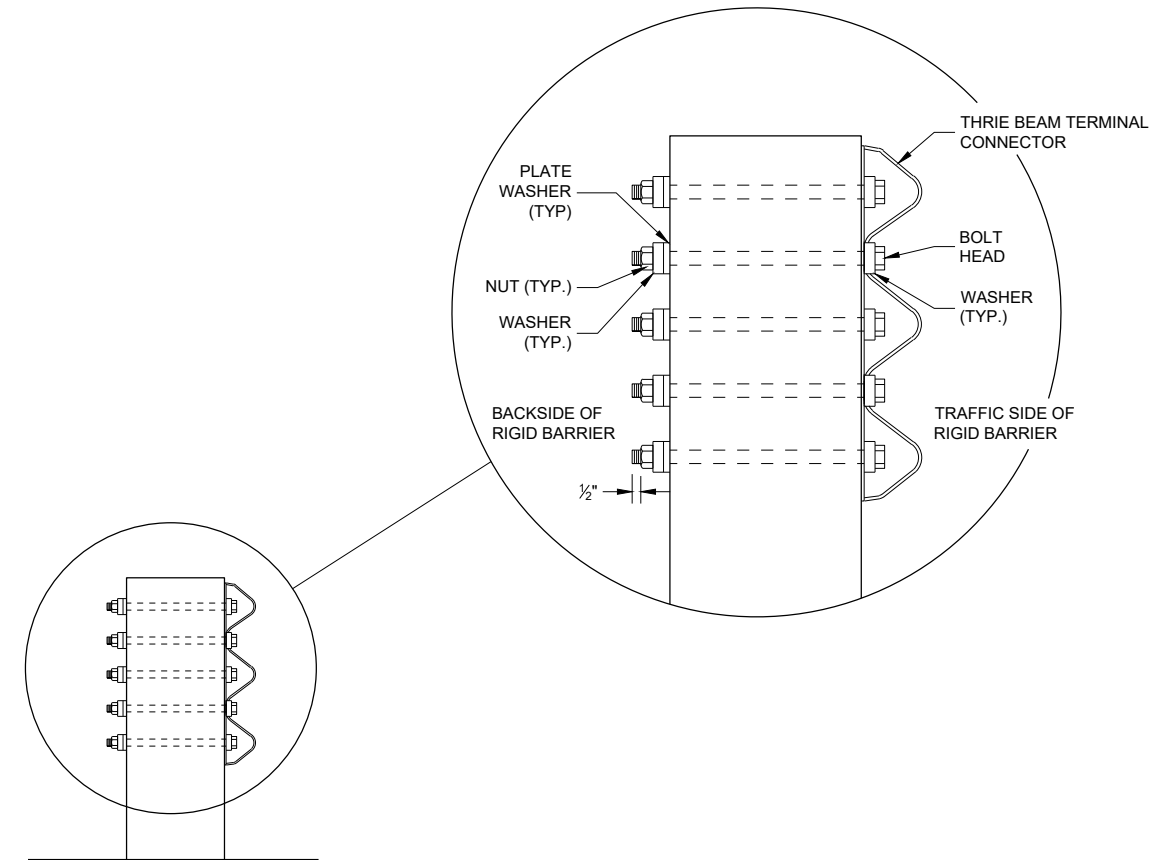
DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



- ① ② 7/8" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE). WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER 7/8" DIA. H.S. HEX BOLT AND WASHERS REQUIRED.
- 1" DIA. HOLES DRILLED THRU PARAPET. (5 REQ'D.)

FRONT VIEW

**W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGE)**



SECTION C - C

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5 1/2" X 7 1/2" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 1/2" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6 1/2"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

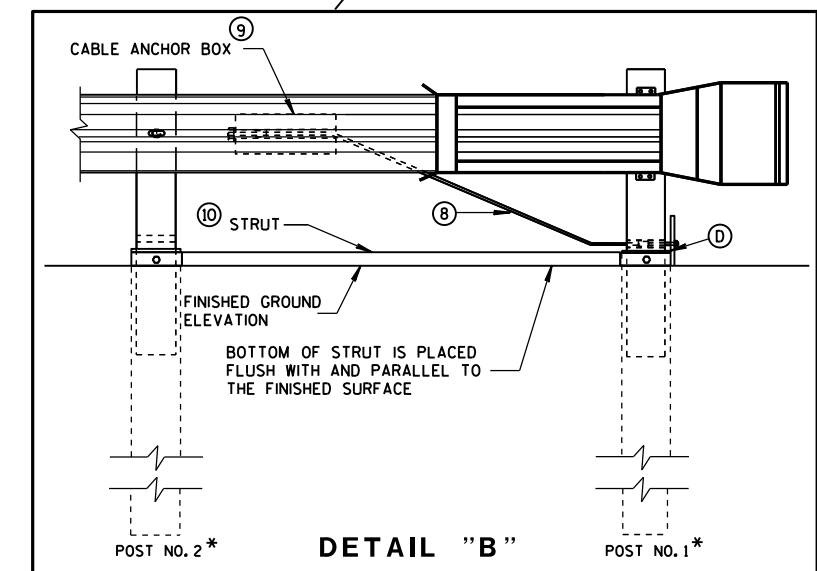
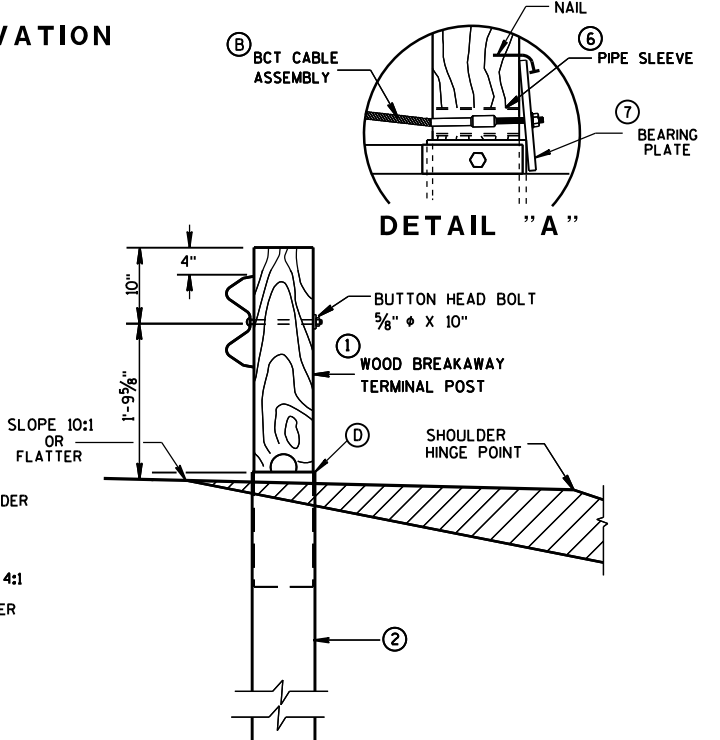
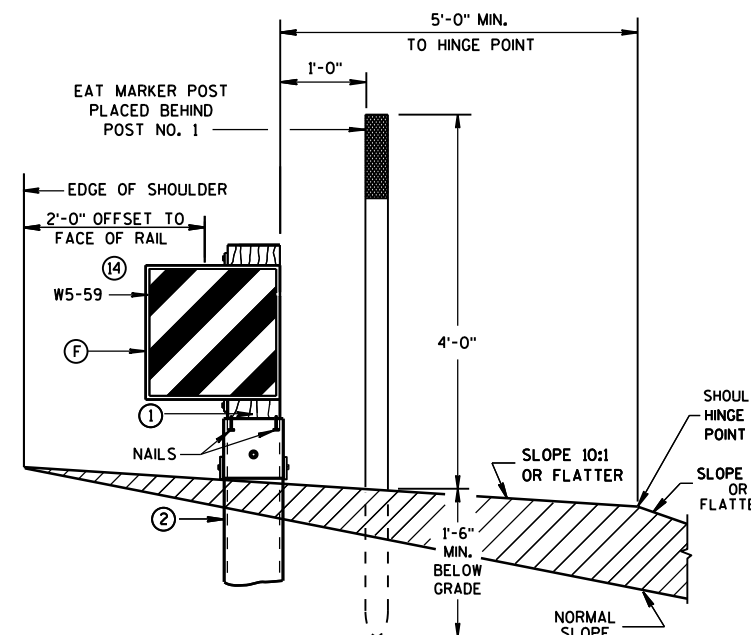
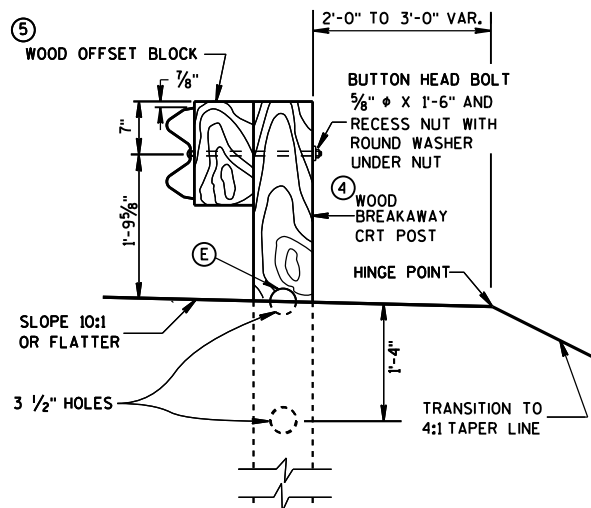
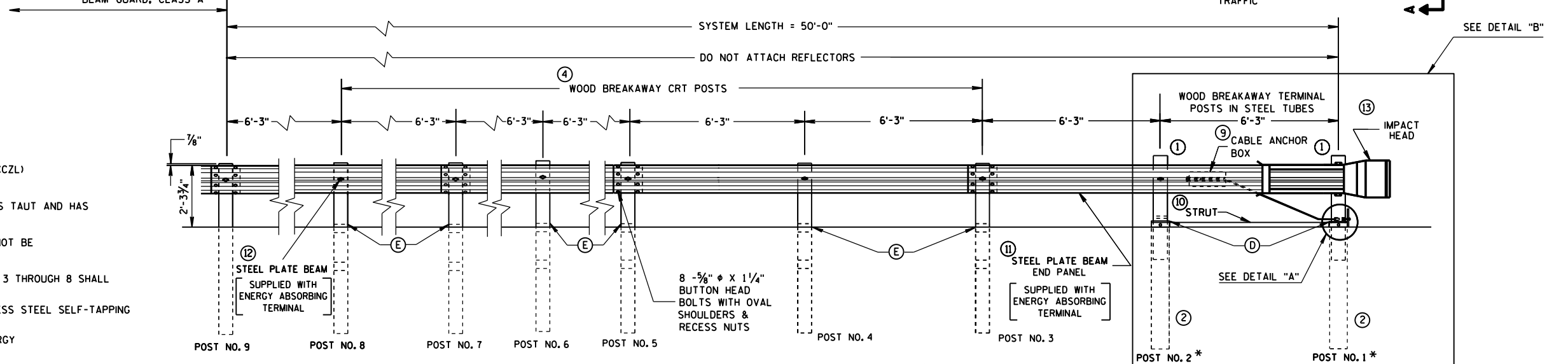
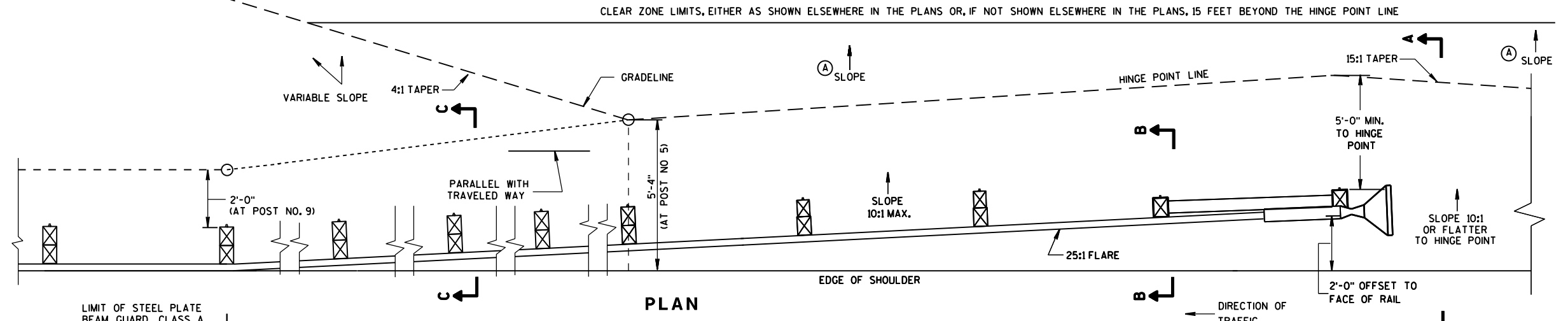
GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE 3/4" ABOVE THE FINISHED GROUND LINE.
- (F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

*DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.



**STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL**

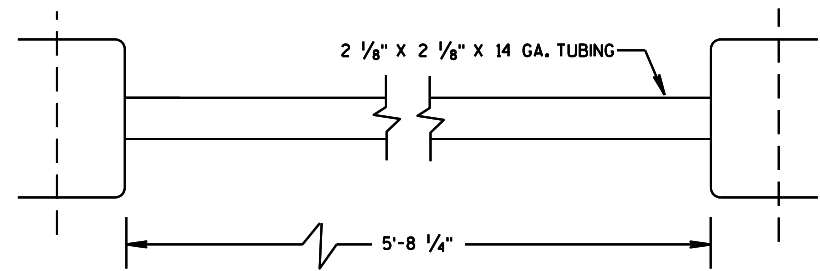
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

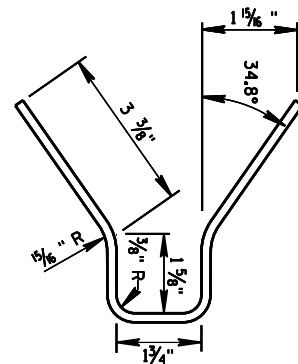
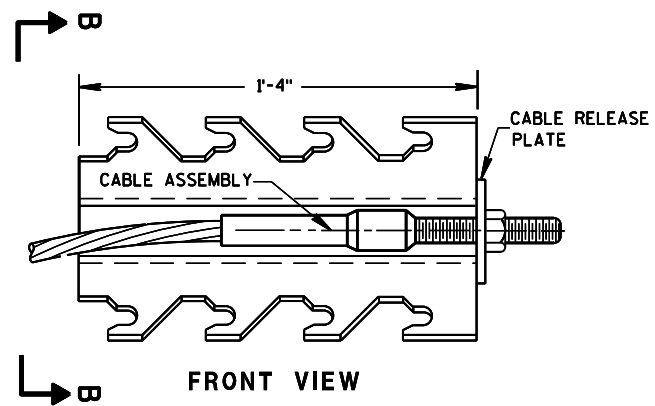
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S.D.D. 14 B 24-9a

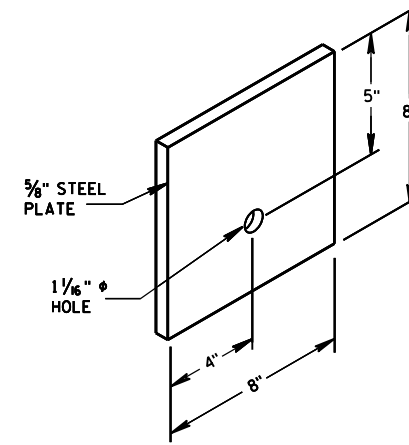
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL



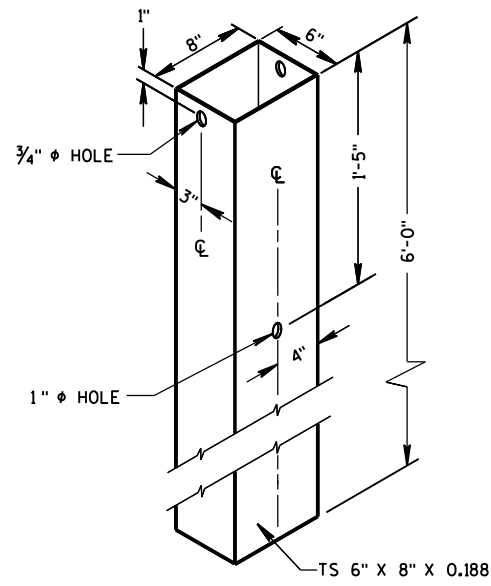
⑨ CABLE ANCHOR BOX



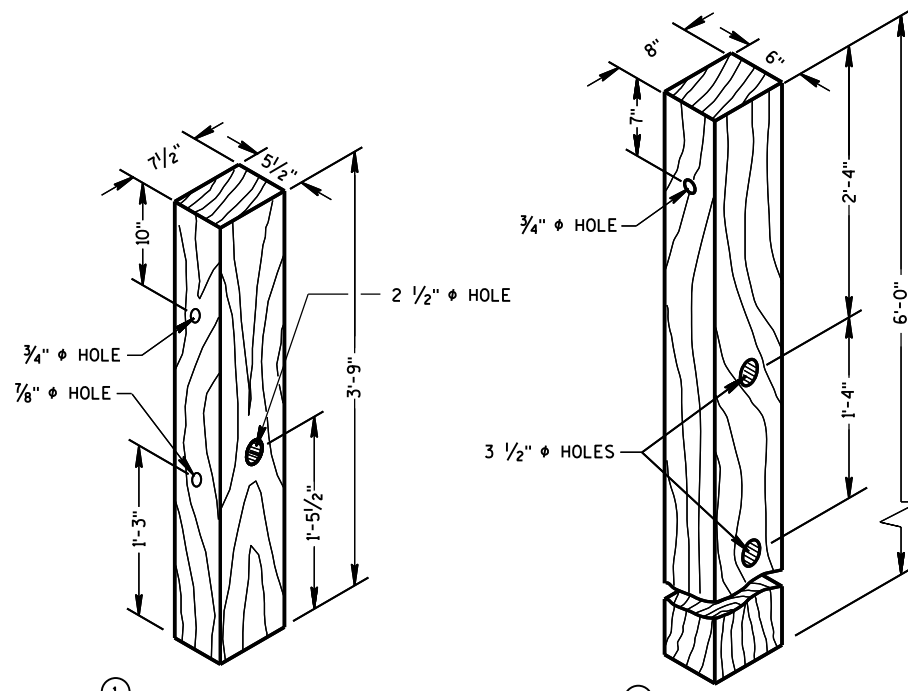
⑦ STEEL BEARING PLATE

6

6



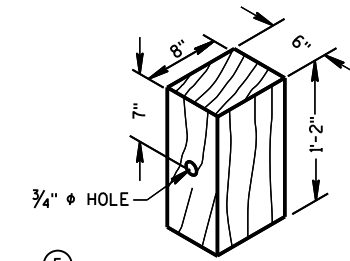
② 72" STEEL TUBE
(POSTS NO. 1-2)



① TERMINAL POST

④ CRT POST
(POSTS NO'S 5-8)

WOOD BREAKAWAY POSTS



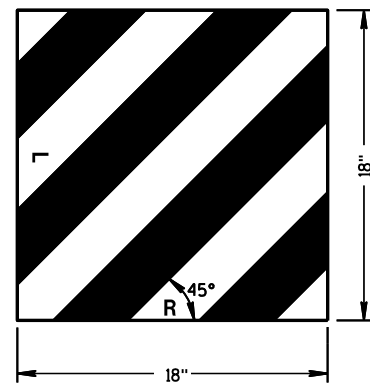
⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

GENERAL NOTES

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

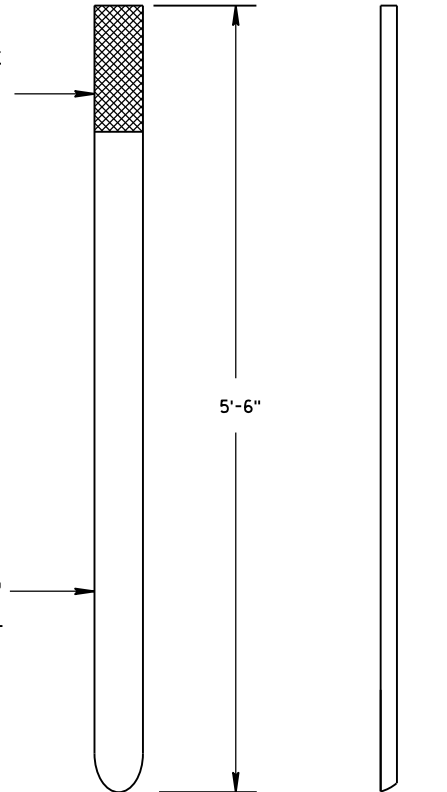
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⑭ REFLECTIVE SHEETING DETAILS

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.



FRONT VIEW SIDE VIEW

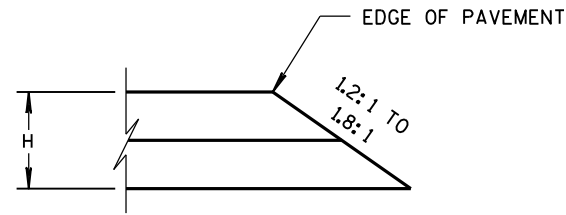
E.A.T. MARKER POST

E.A.T. MARKER
POST (YELLOW)
SEE APPROVED
PRODUCTS LIST

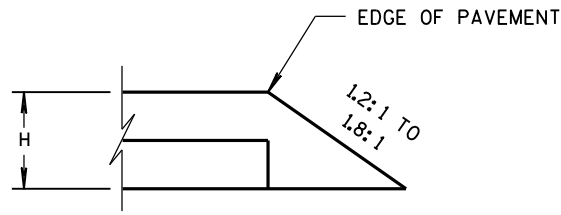
STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

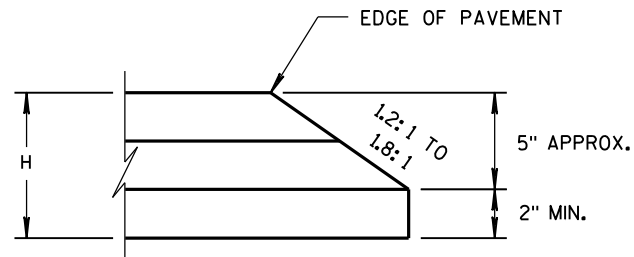
APPROVED
June 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



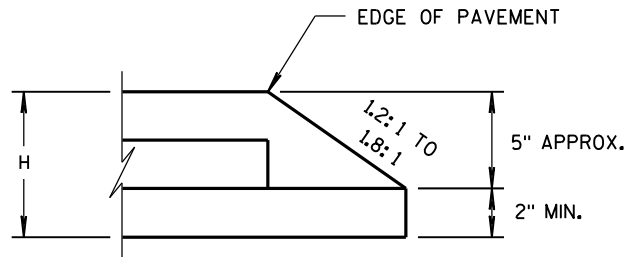
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

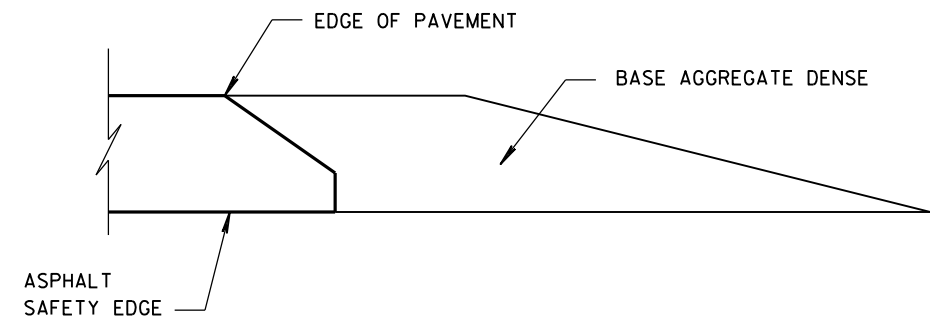


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

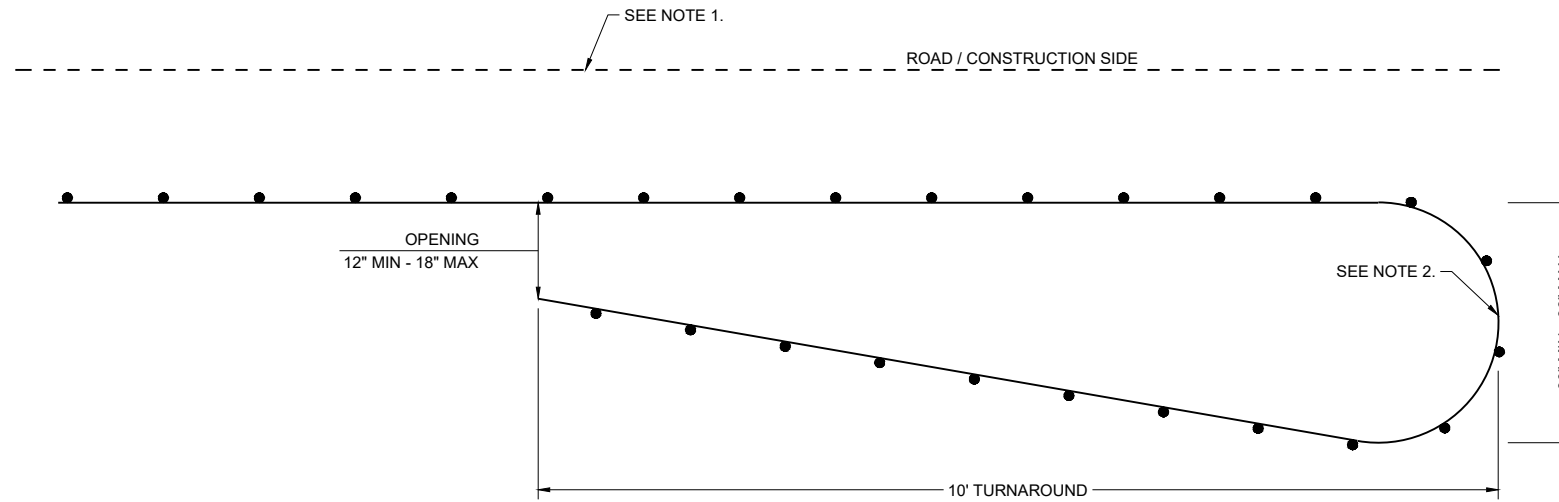
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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

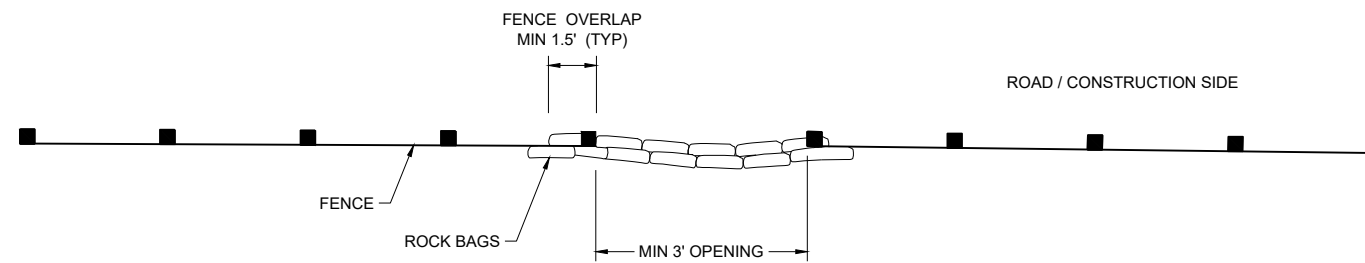


PLAN VIEW

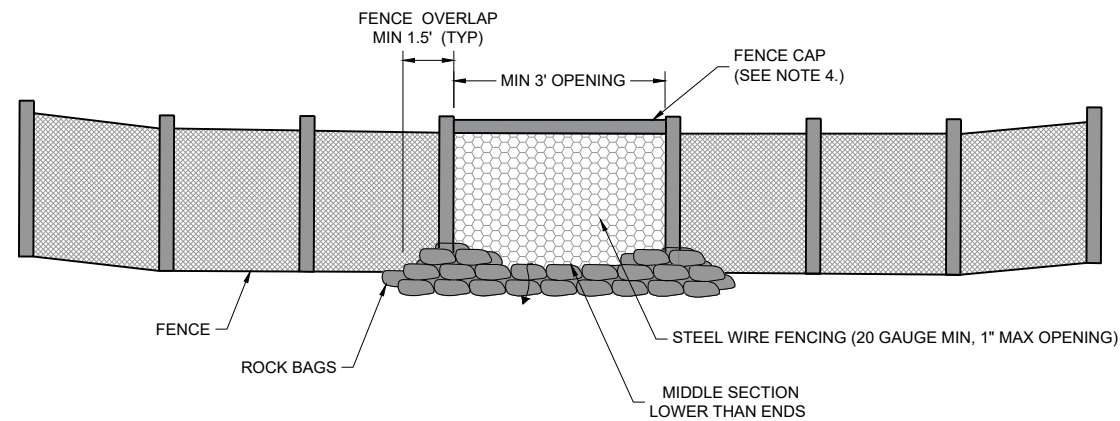
CLIMBING TURTLE EXCLUSION FENCE DETAIL

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.



PLAN VIEW



FRONT VIEW

CLIMBING TURTLE FENCE RELIEF DETAIL

**TURTLE EXCLUSION FENCE
CLIMBING TURTLE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2025 /S/ ALYSSA BARRETTE
DATE CHIEF STATEWIDE ENVIRONMENTAL SERVICES
BUREAU OF TECHNICAL SERVICES




FHWA

GENERAL NOTES

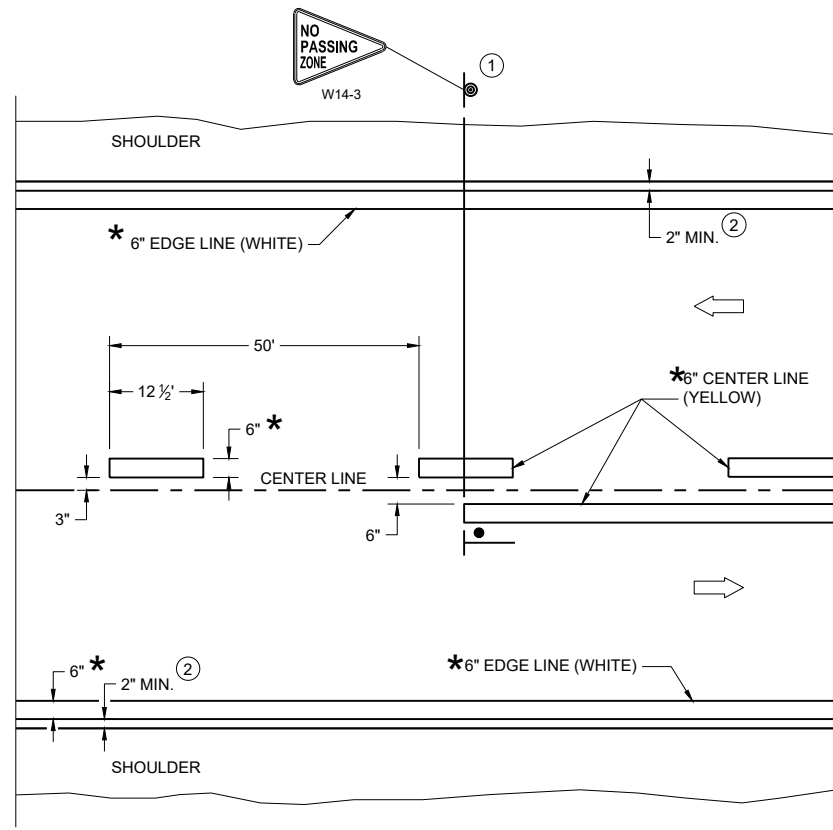
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- 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.

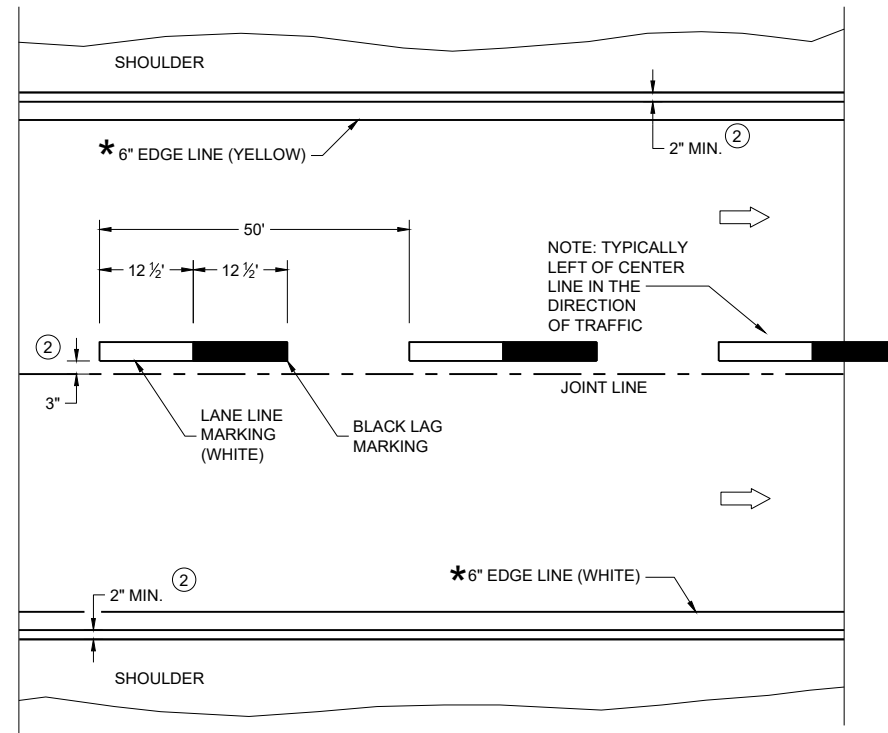
LEGEND

-  "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

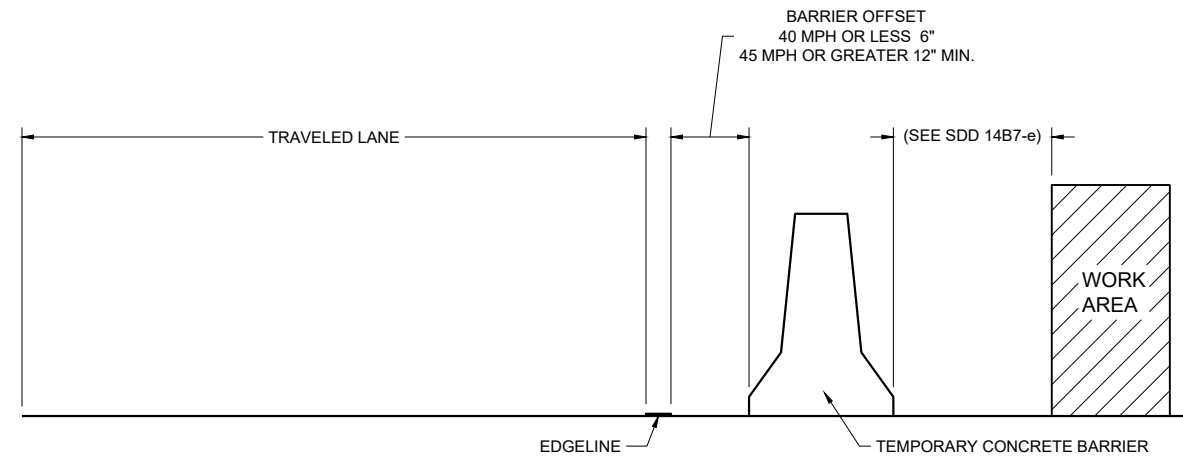
SDD 15C08-24a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



TEMPORARY BARRIER OFFSET FROM EDGELINE

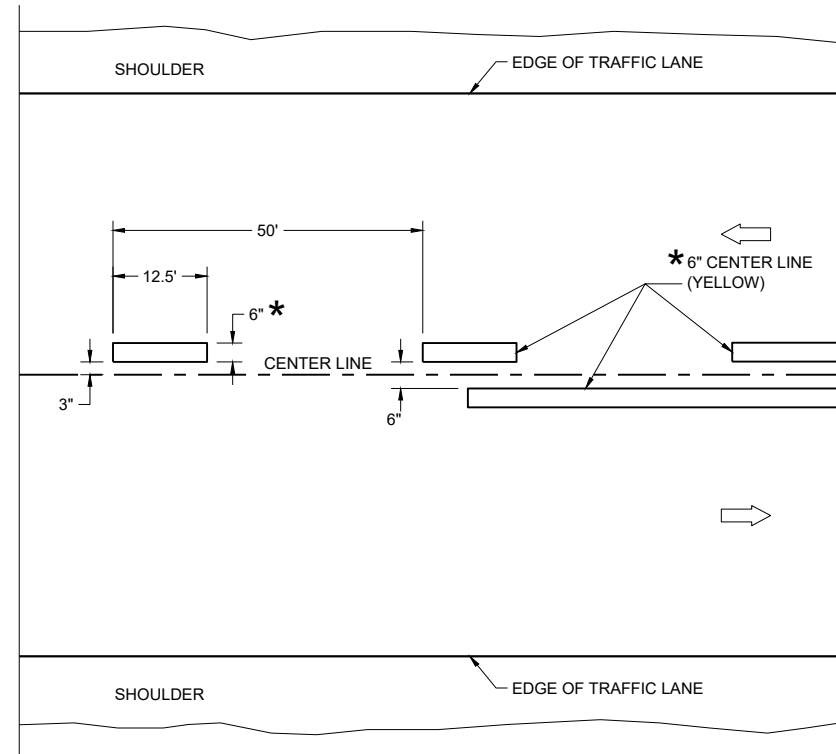
GENERAL NOTES

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

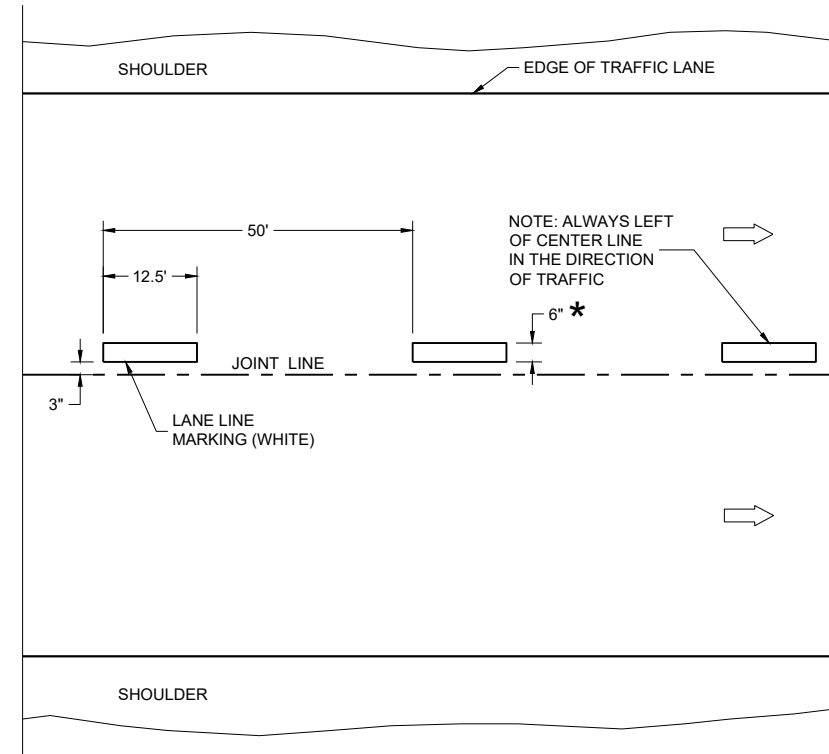
LEGEND

➡ DIRECTION OF TRAFFIC

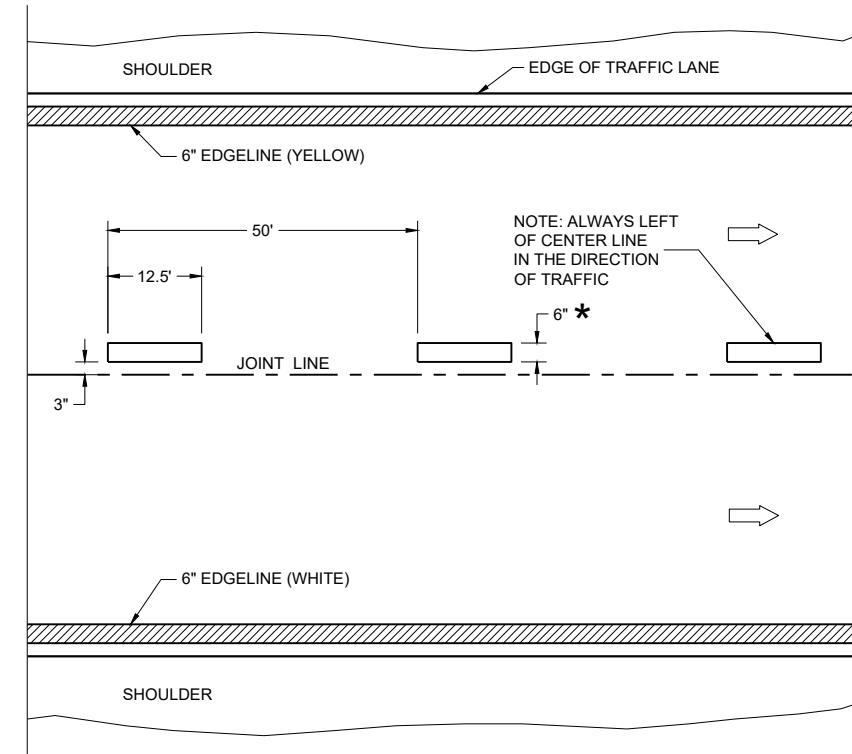
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING






TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

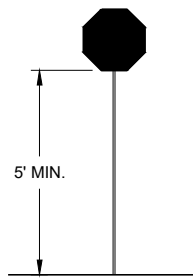
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

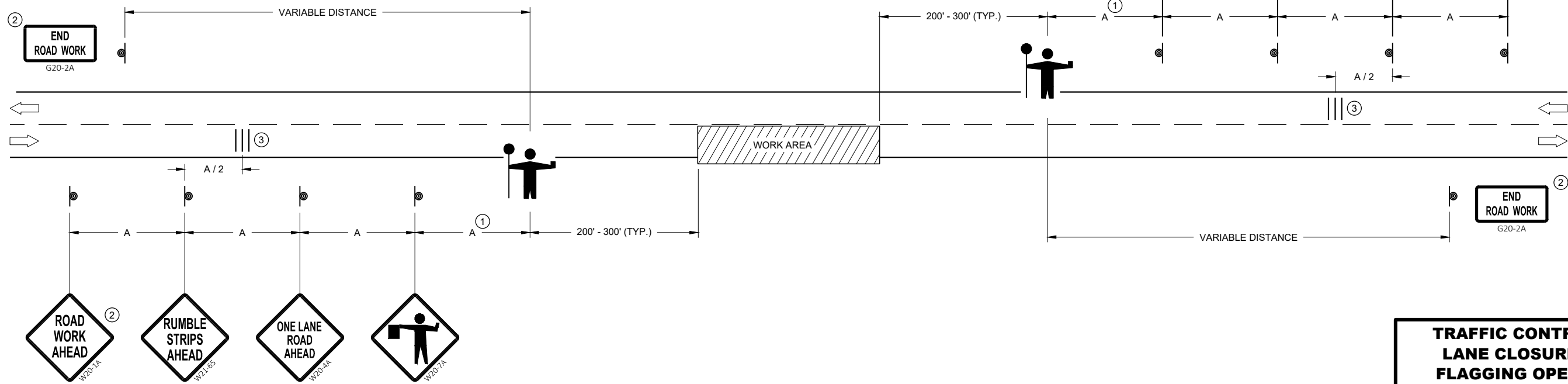
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



W03-4

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".










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

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL CONE 42-INCH
-  TRAFFIC CONTROL DRUM
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  **AFAD** AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

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

IF THE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) STOPS WORKING, 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.

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.

- ① SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ② IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

TEMPORARY PORTABLE RUMBLE STRIPS

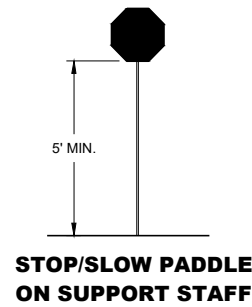
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

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

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

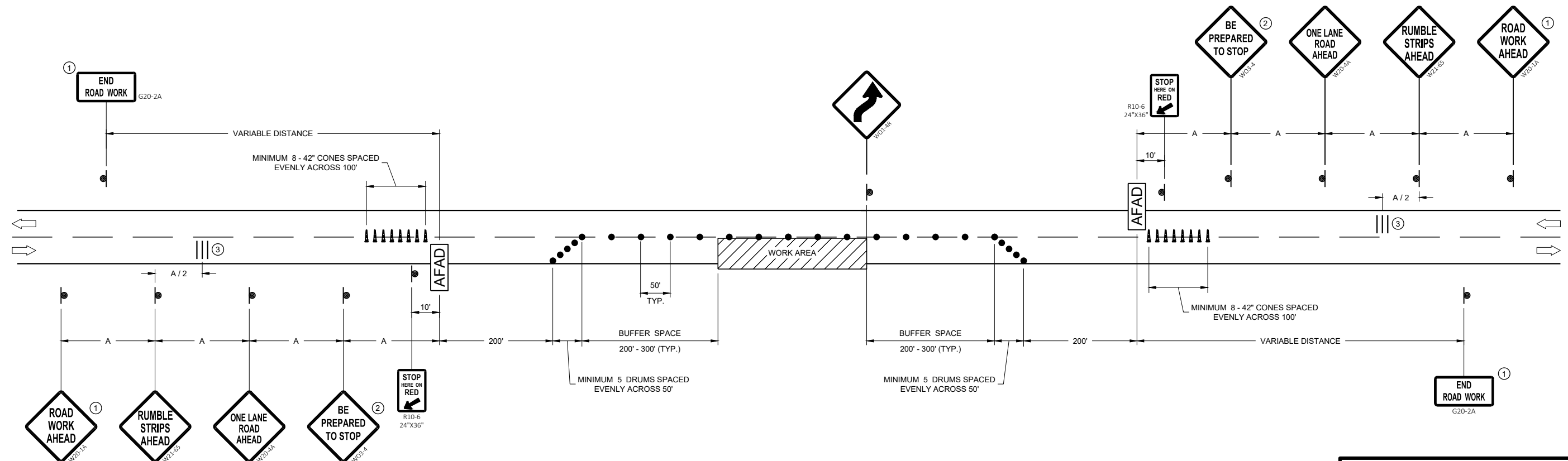
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

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



SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



6

6

SDD 15C12 - 09b

SDD 15C12 - 09b




TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

LEGEND

- V1** LEAD VEHICLE
- V2** MARKING VEHICLE
- V3** SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC

GENERAL NOTES

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

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

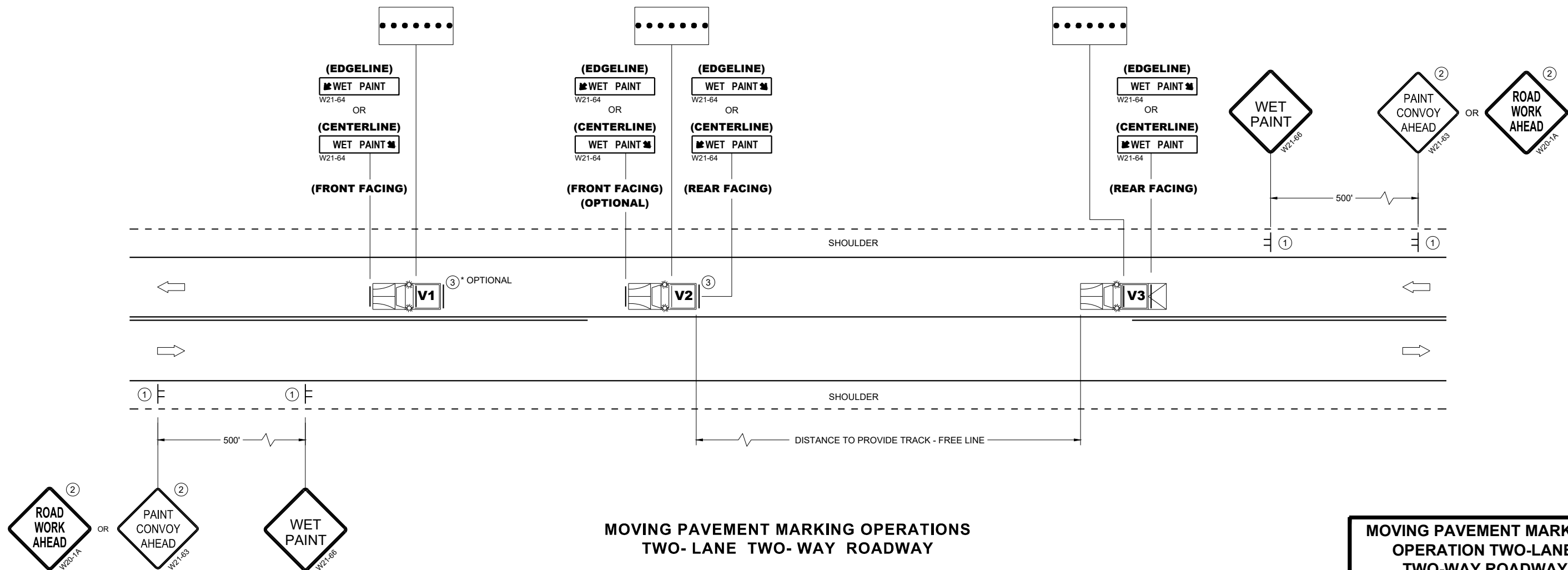
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.

6

6

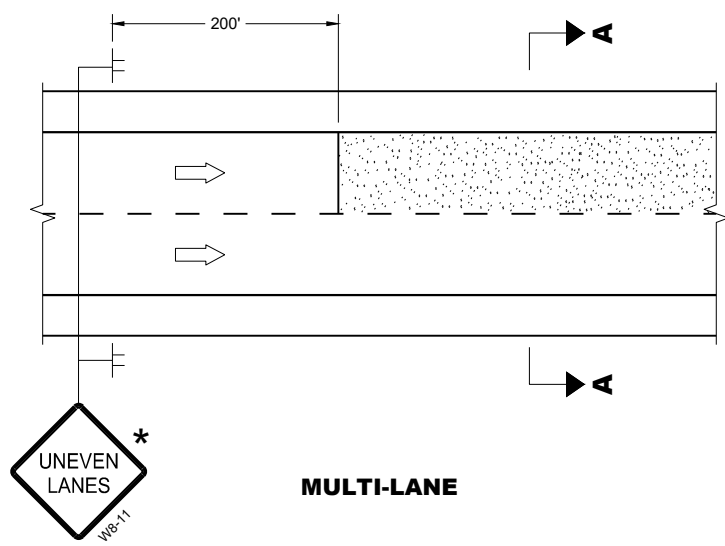


**MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY**

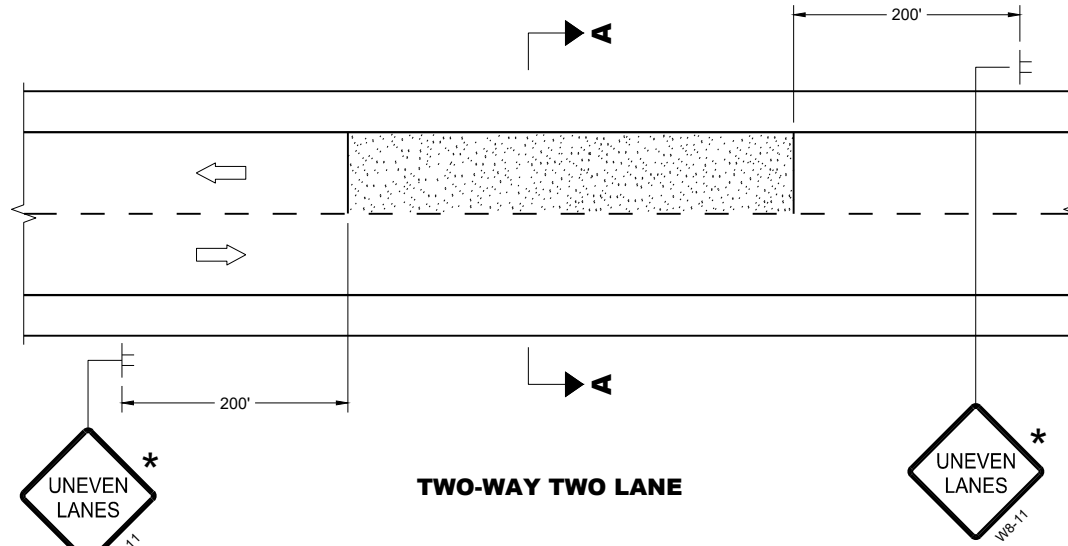
SDD 15C19-11a

SDD 15C19-11a

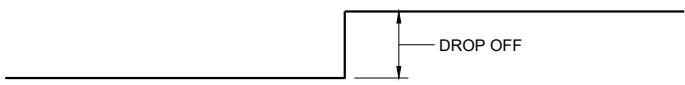
MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2025 DATE	/s/ Andrew Heidtke STATE ELECTRICAL ENGINEER
FHWA	



MULTI-LANE

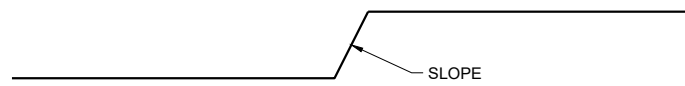


TWO-WAY TWO LANE

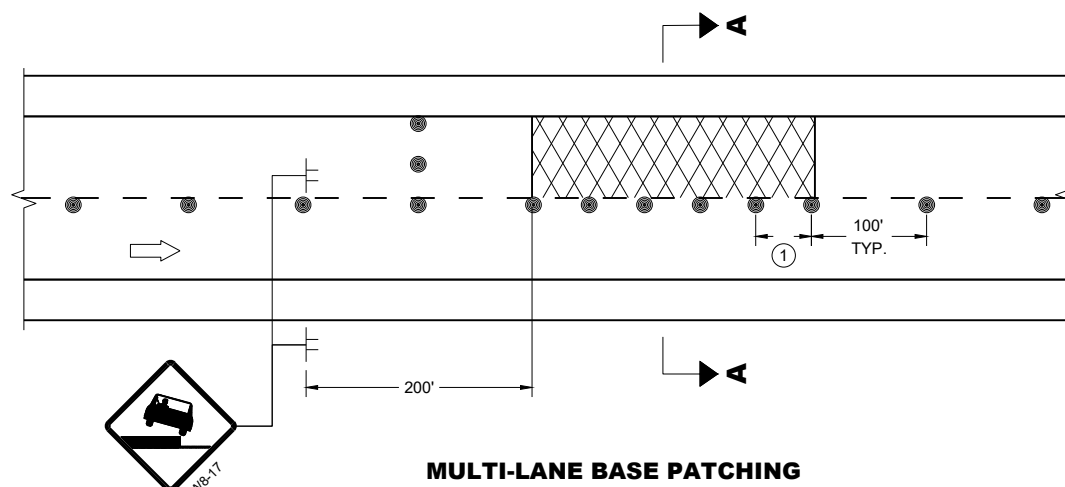


SECTION A - A

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.

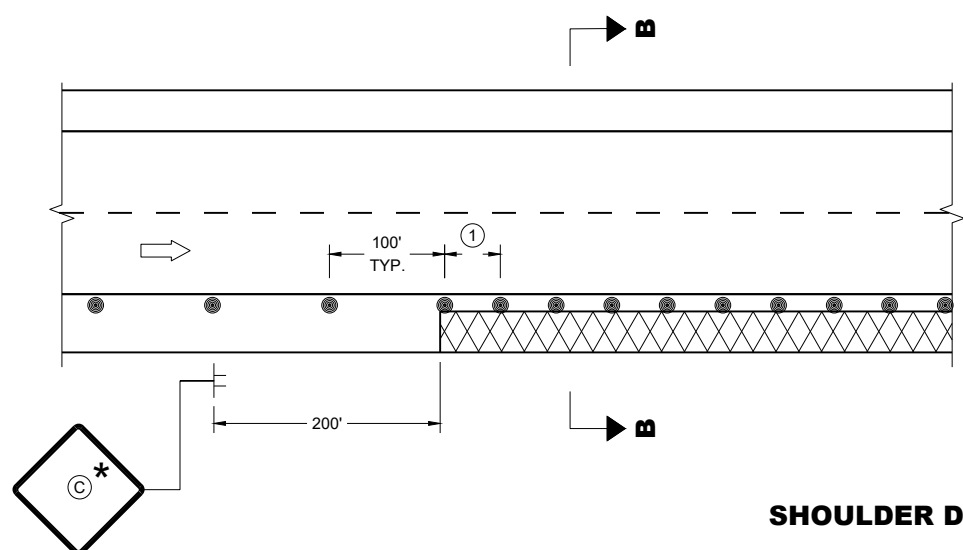
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

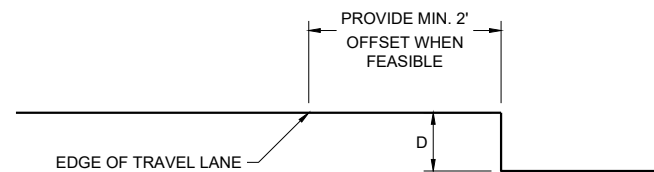
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

6



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN ©
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER W08-9
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.

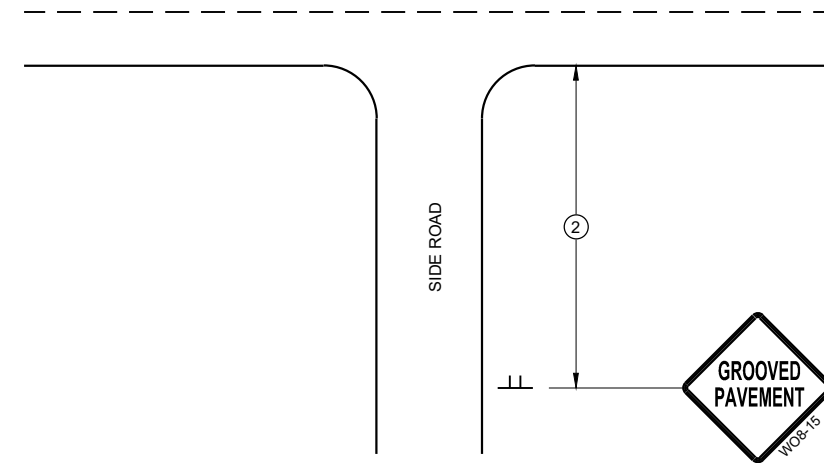
SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

- 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.

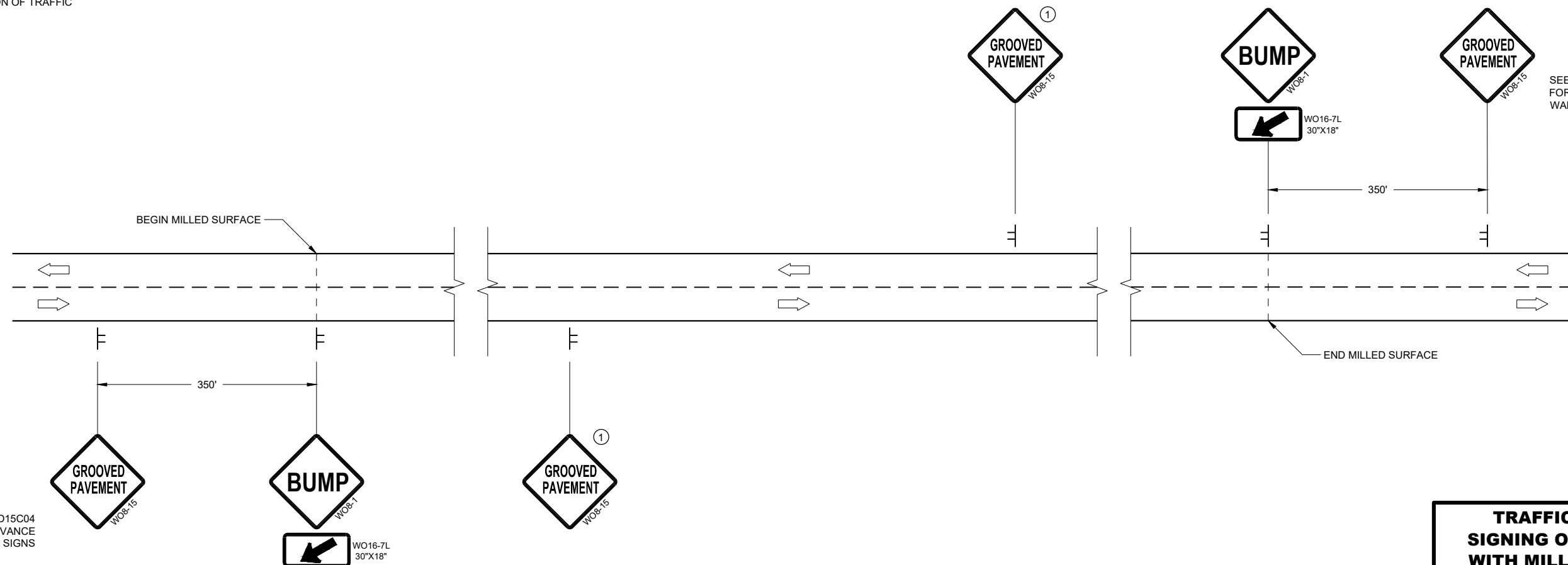
LEGEND

⊥ SIGN ON TEMPORARY SUPPORT

⇨ DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



SEE SDD15C04 FOR ADVANCE WARNING SIGNS

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

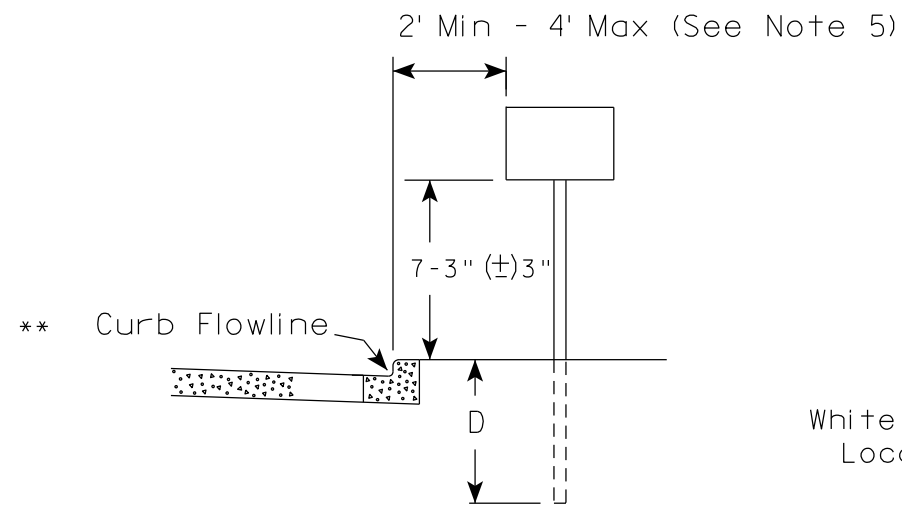
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

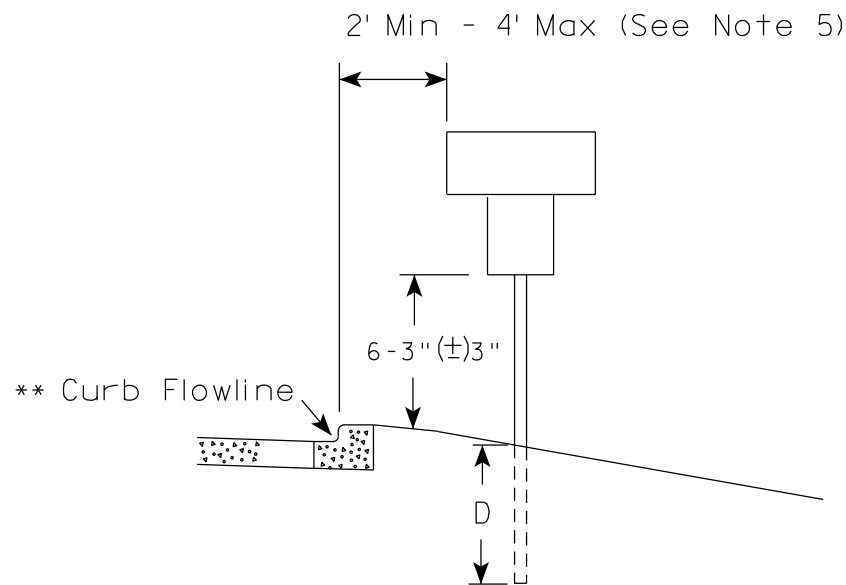
URBAN AREA

RURAL AREA (See Note 2)



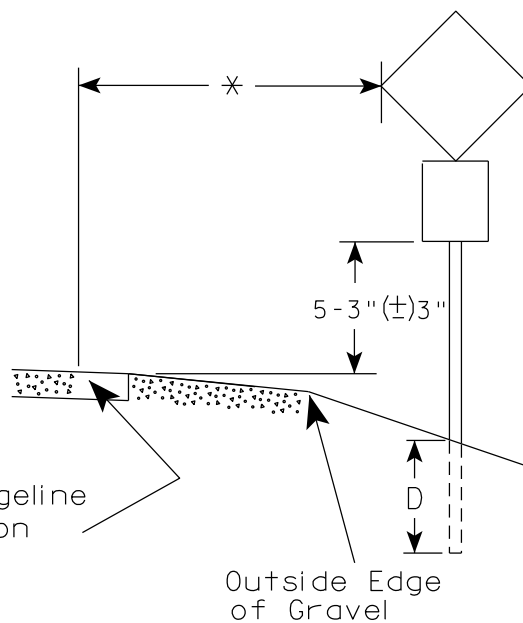
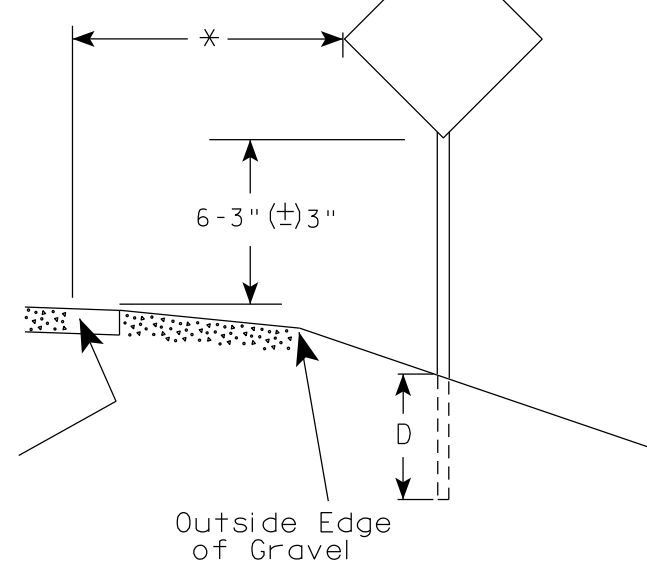
White Edgeline Location

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.

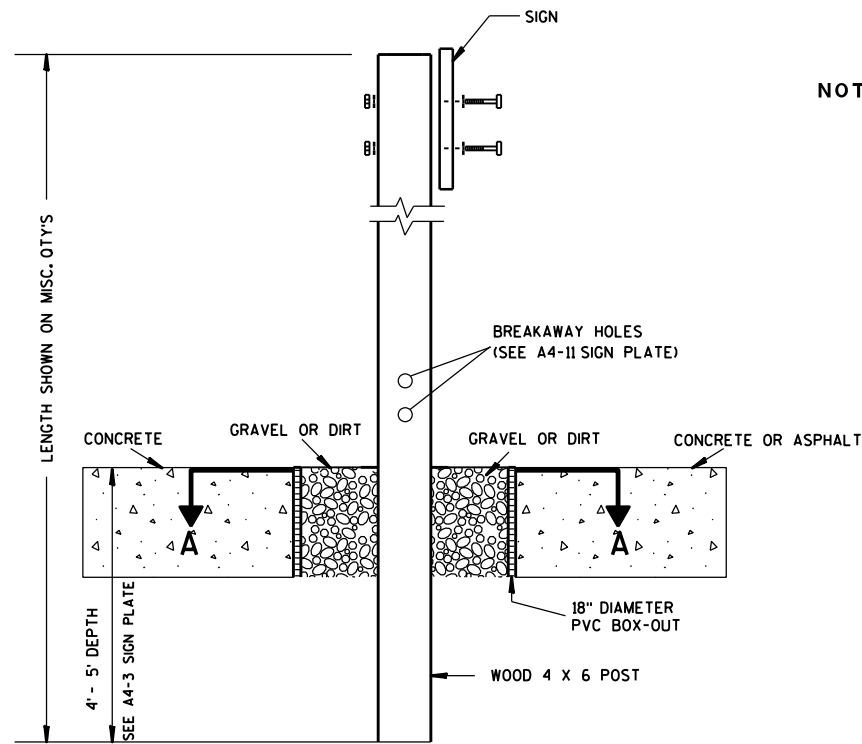
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Raub*
for State Traffic Engineer

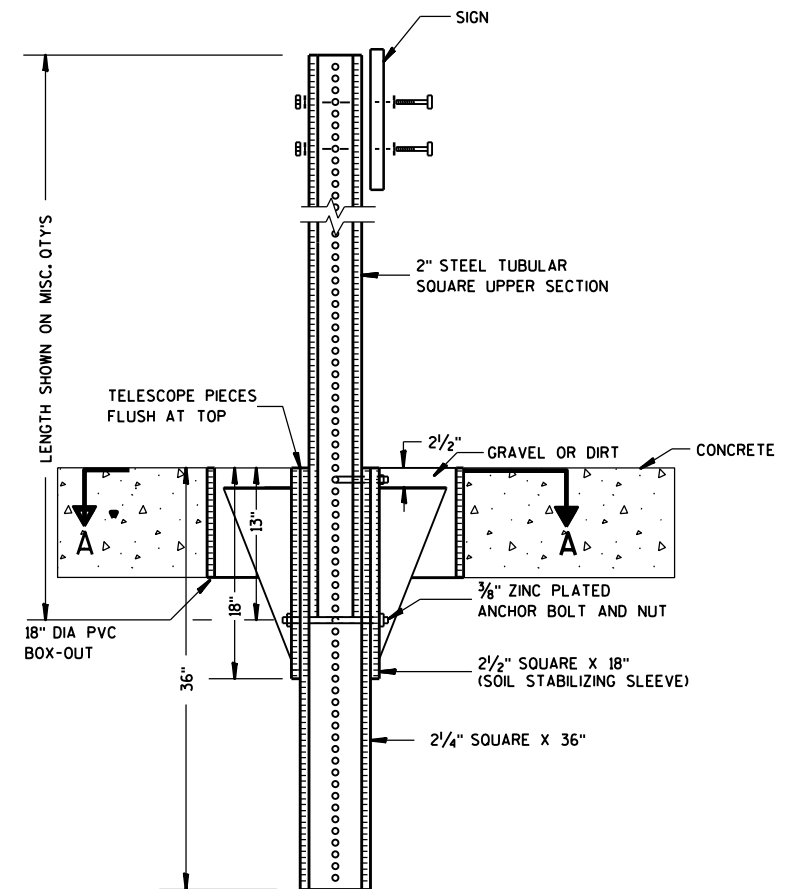
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

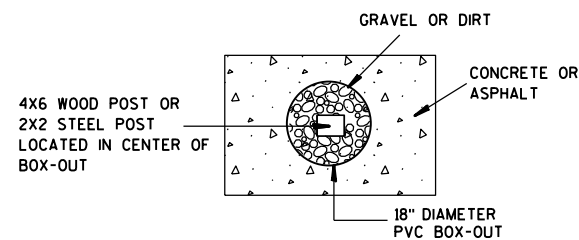
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

GENERAL NOTES

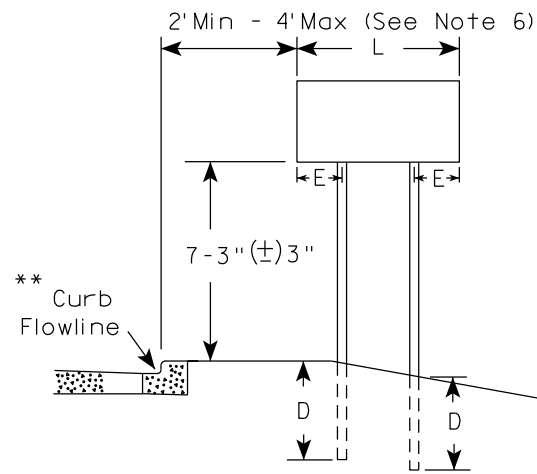
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- 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" (±) 3" or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 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" (±) 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.

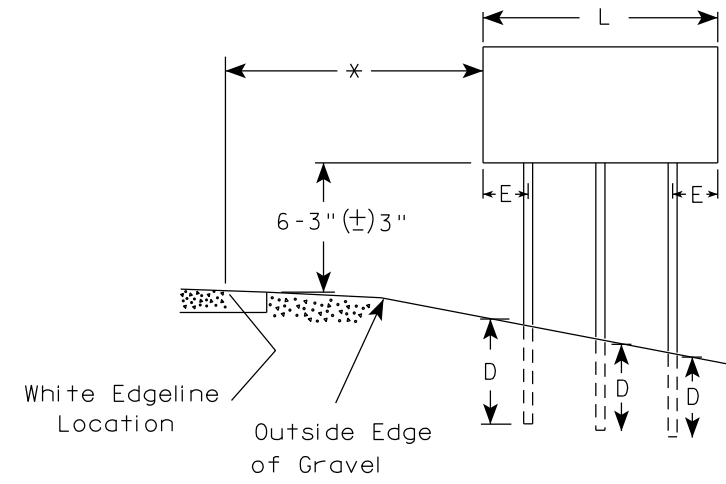
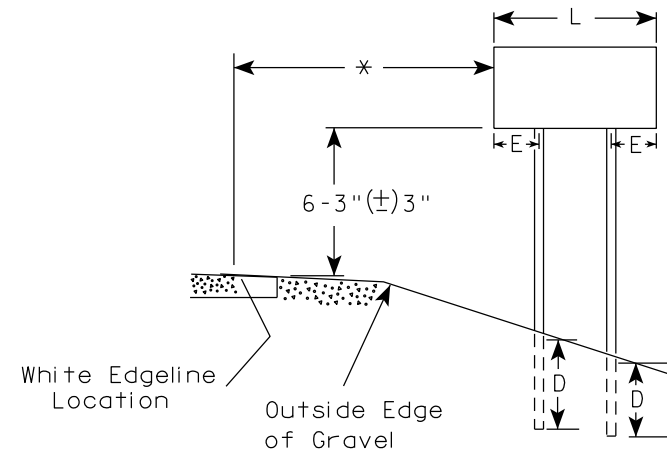
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

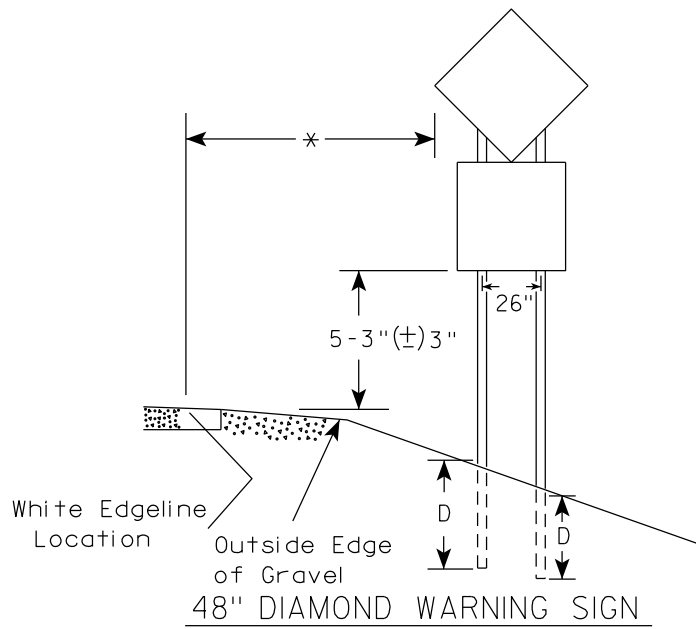
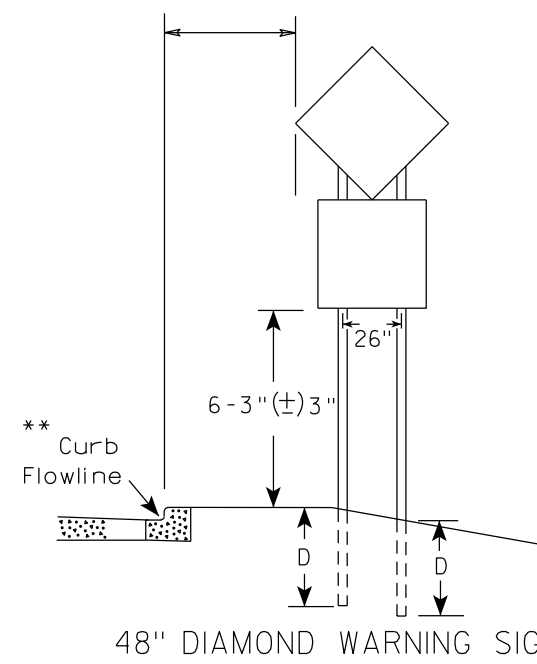
URBAN AREA



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

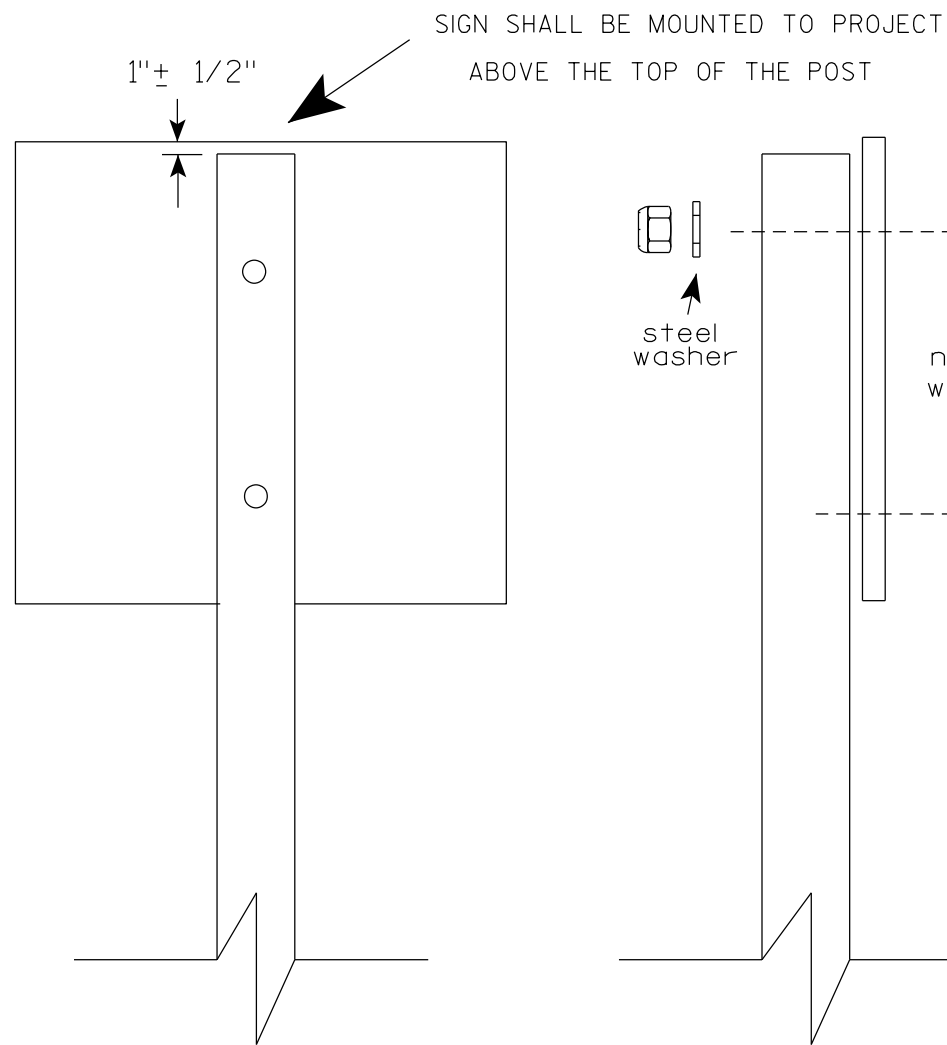
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

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



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

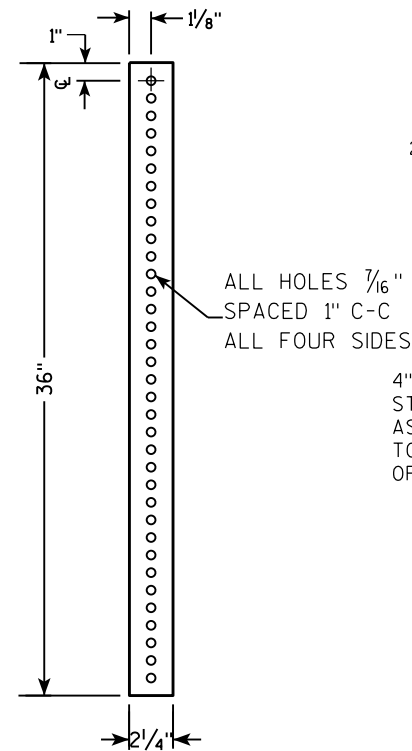
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

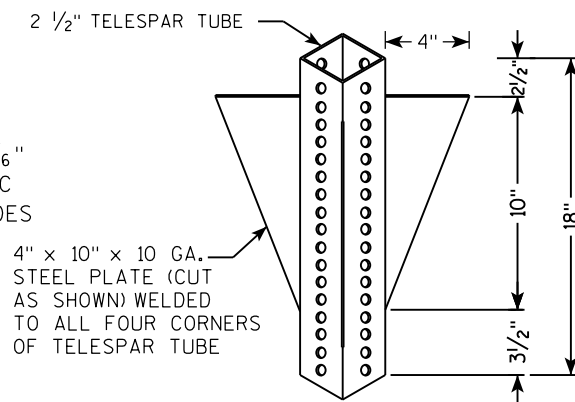
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

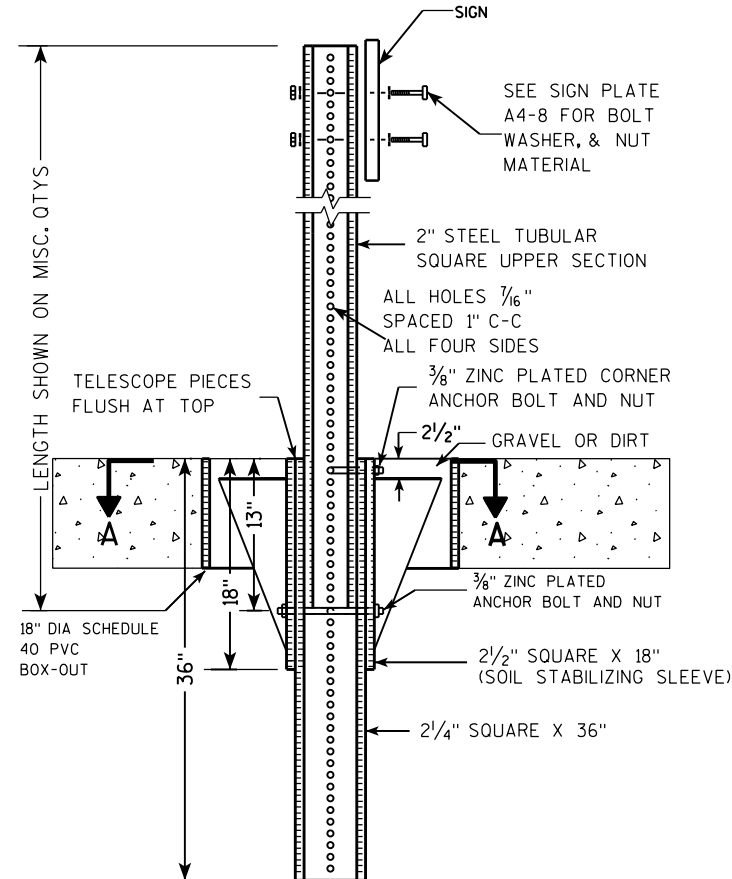
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



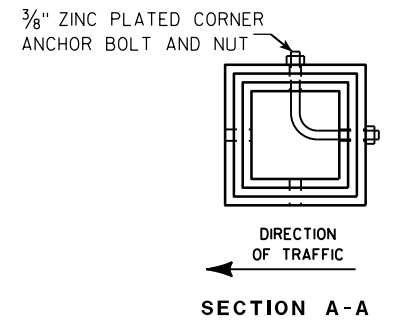
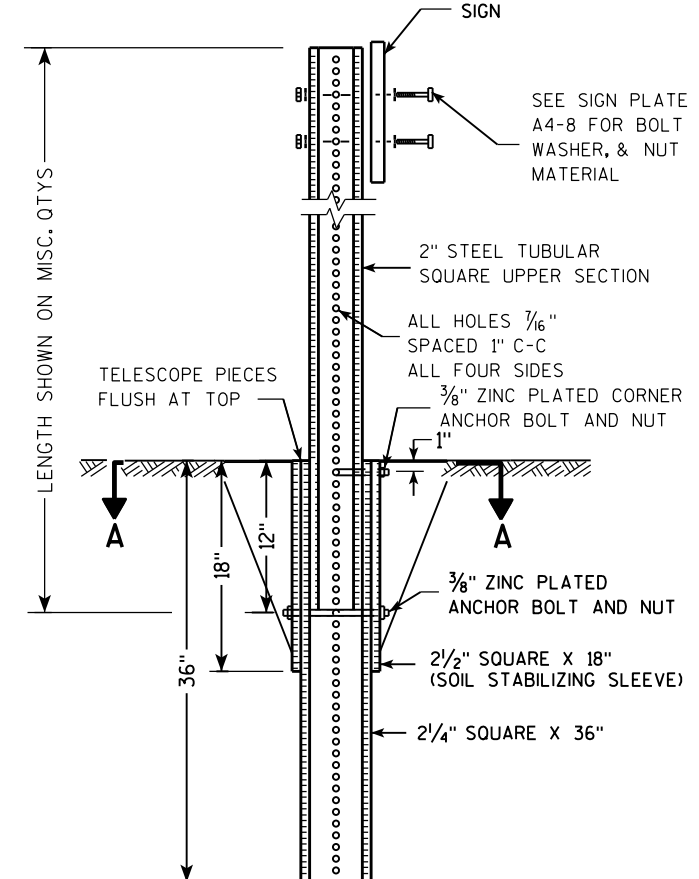
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



**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

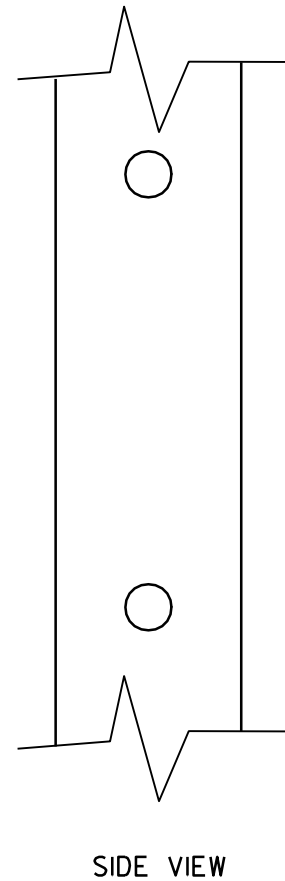
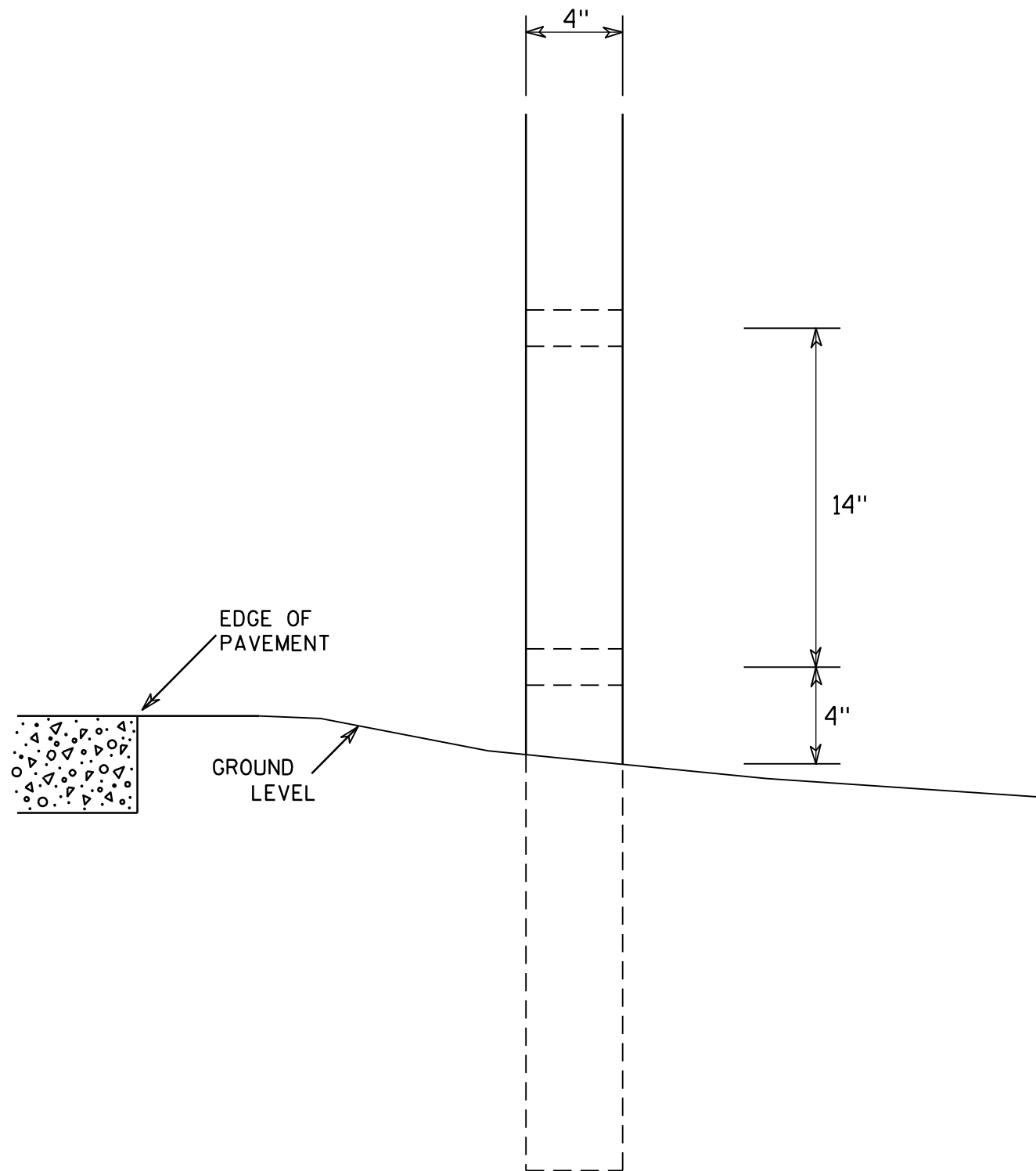
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**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



GENERAL NOTES

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

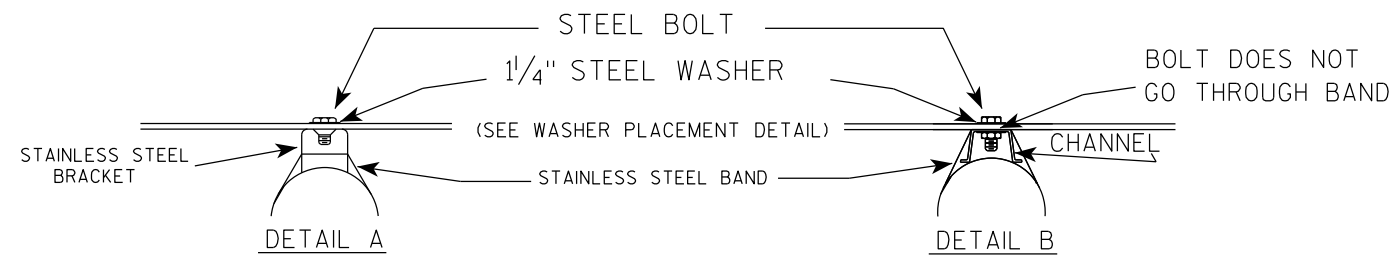
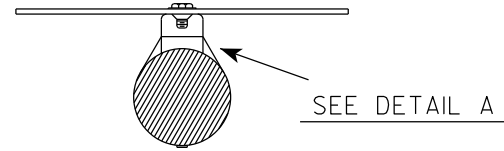
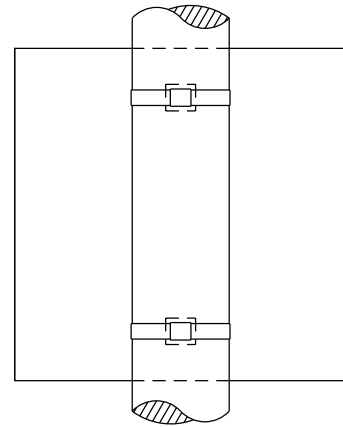
7

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

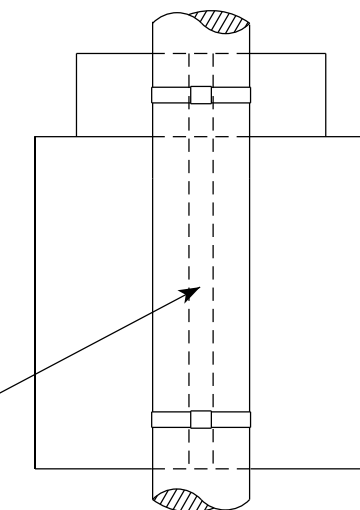
SINGLE SIGN



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 $\frac{3}{4}$ " 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

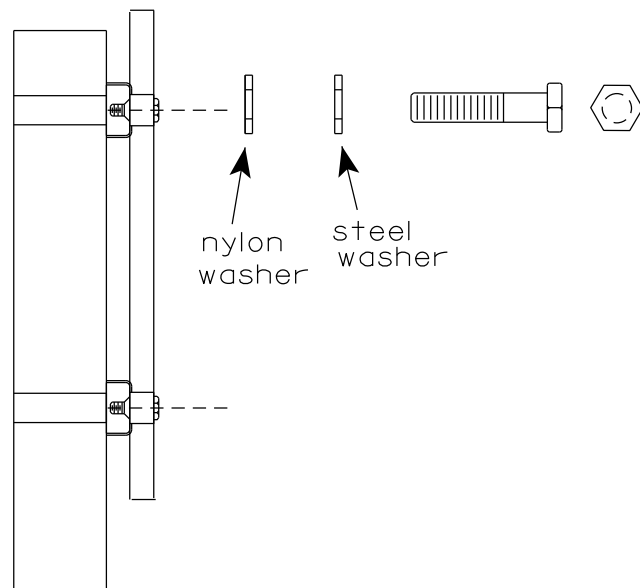
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

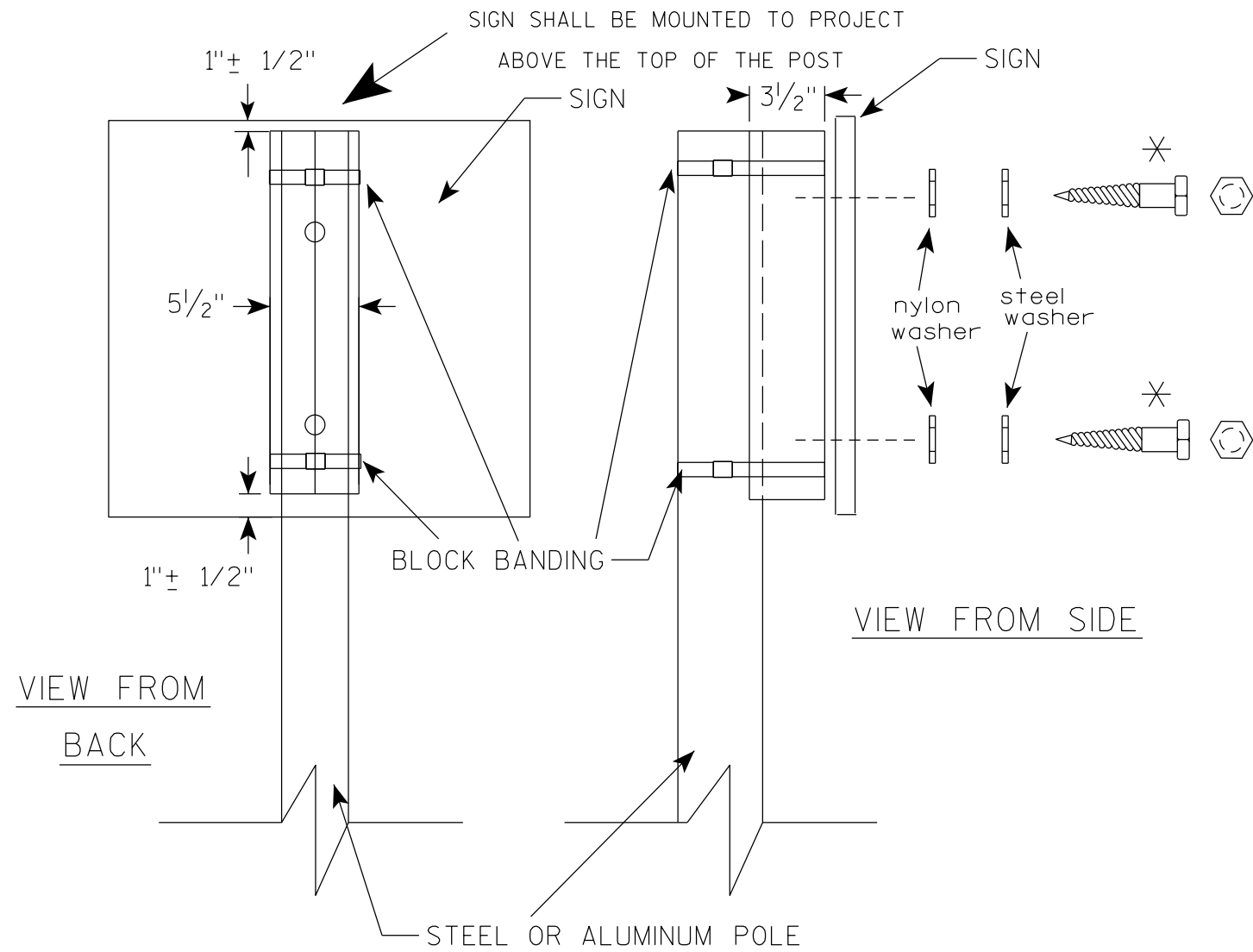


WASHER PLACEMENT



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

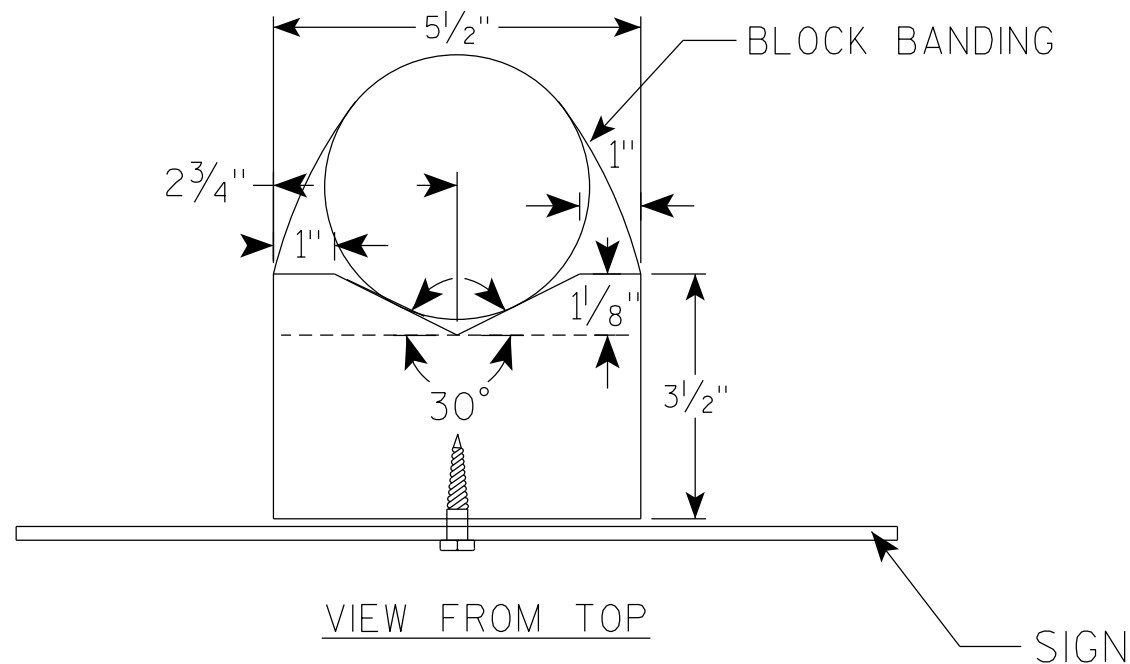
STANDARD SIGN SIGN BANDING DETAILS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 6/10/19	PLATE NO. A5-9.4



GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

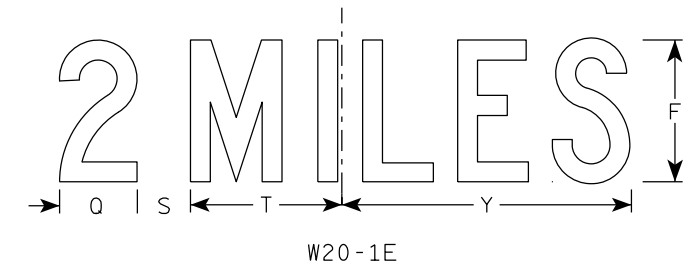
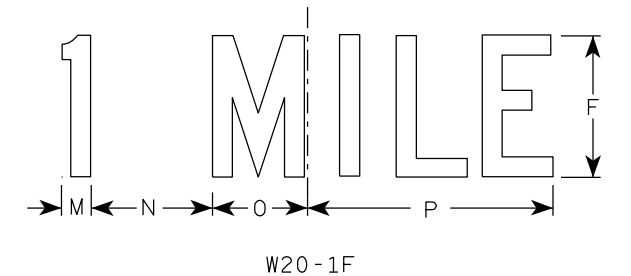
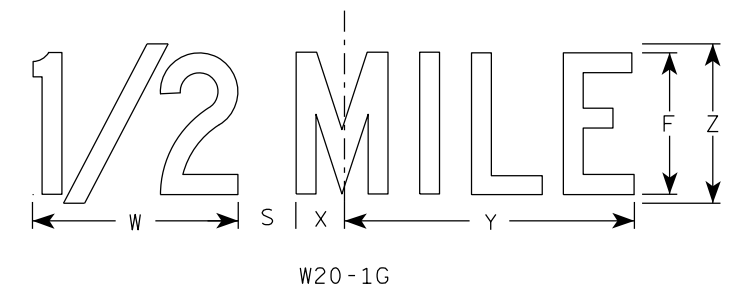
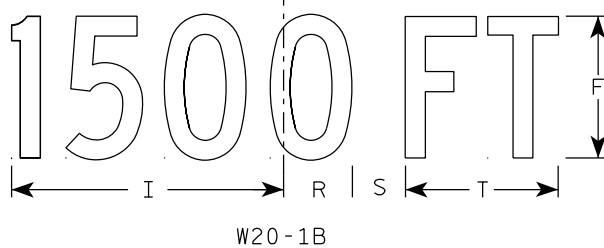
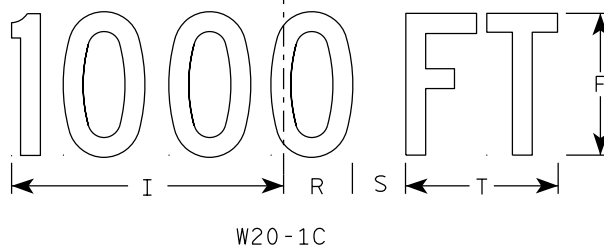
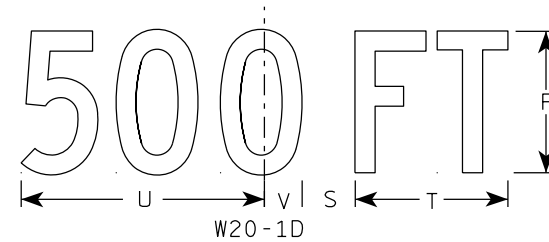
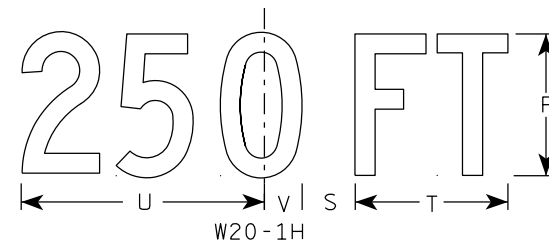
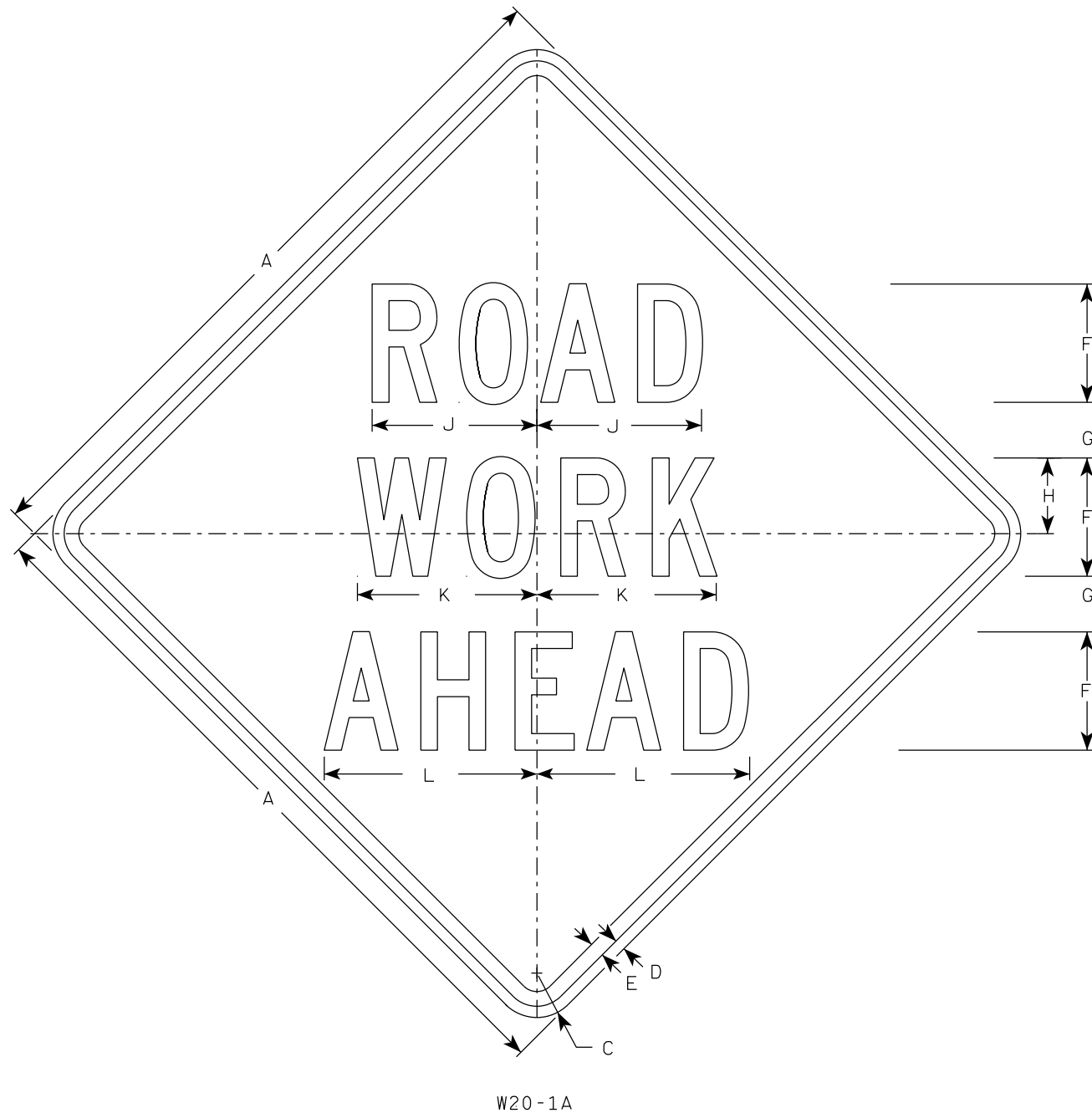
✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL (V-BLOCK OPTION)	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> for State Traffic Engineer
DATE 4/19/2022	PLATE NO. A5-10.3

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

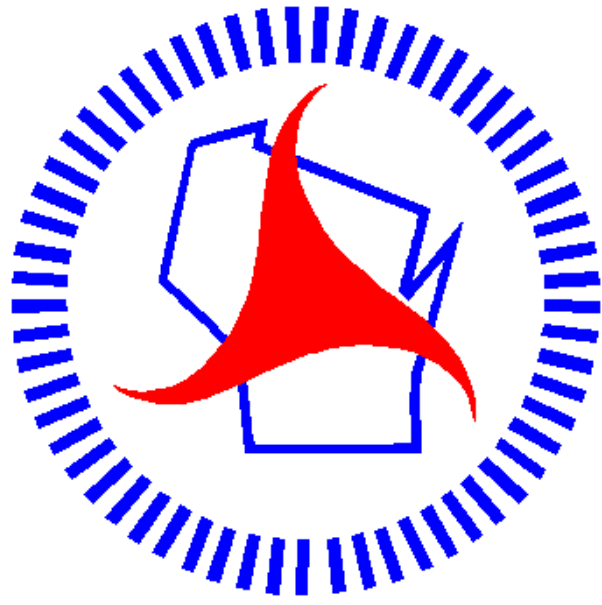
STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-1.12

Notes



Wisconsin Department of Transportation

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