

December 2024

ORDER OF SHEETS

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

TOTAL SHEETS = 72

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CONNORSVILLE - BLOOMER

CTH O TO NORTH JCT CTH W

STH 64

DUNN COUNTY

STATE PROJECT NUMBER

8110-01-78

STATE PROJECT

8110-01-78

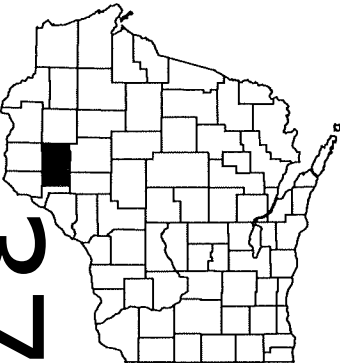
FEDERAL PROJECT

PROJECT

WISC 2025128

CONTRACT

1



DESIGN DESIGNATION

A.A.D.T.	2025	=	4,000
A.A.D.T.	2045	=	4,510
D.H.V.		=	N/A
D.D.		=	61/39
T.		=	22.4%
DESIGN SPEED		=	55 MPH
ESALS		=	2,110,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

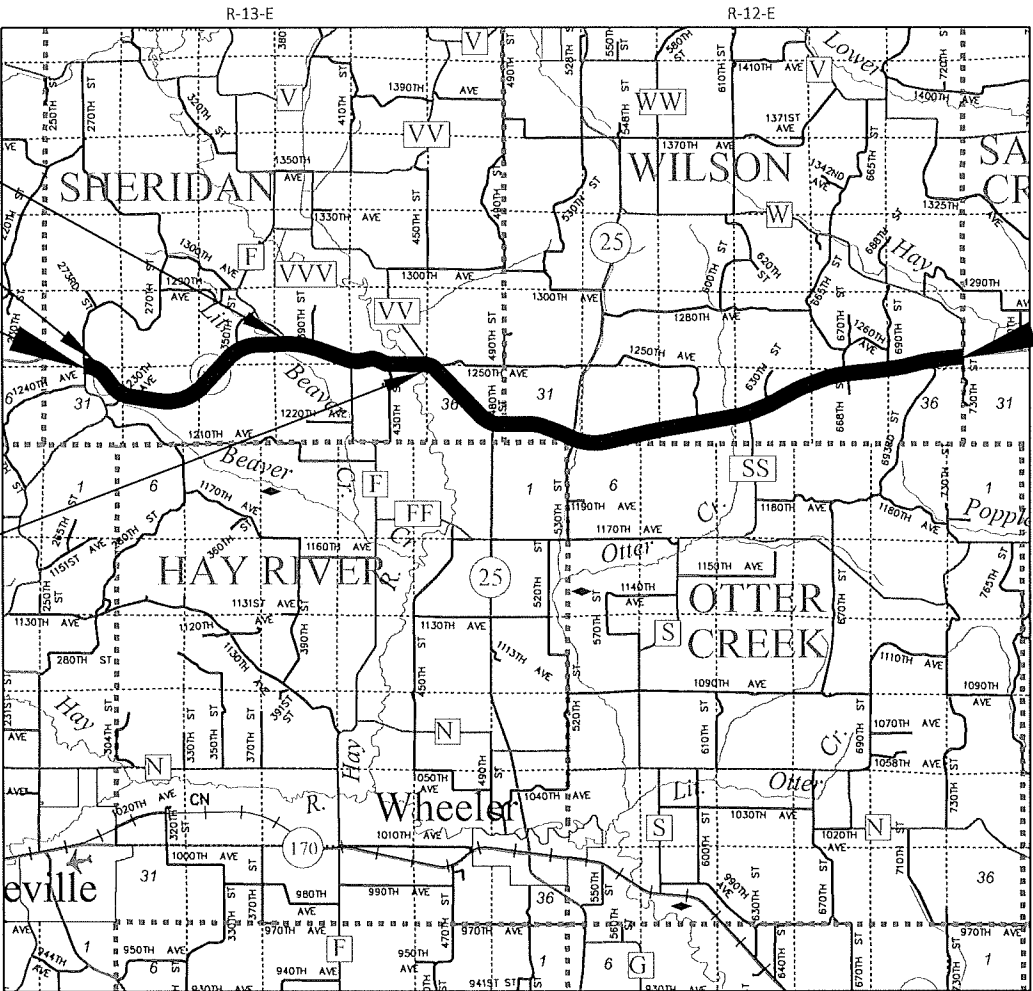
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

NET EXCEPTION TO CL LENGTH
STA 510+34.88 - STA 510+80.44
STRUCTURE B-17-157

NET EXCEPTION TO CL LENGTH
STA 360+05.87 - STA 360+52.02
STRUCTURE B-17-156

BEGIN PROJECT
STA 350+05.60
Y=265366.132
X=136095.160

NET EXCEPTION TO CL LENGTH
STA 601+67.06 - STA 603+58.46
STRUCTURE B-17-169



LAYOUT

SCALE 0 2.5 MI

TOTAL NET LENGTH OF CENTERLINE = 12.459 MI

END PROJECT
STA 1010+73.00
Y=265890.437
X=197027.085

ORIGINAL PLANS PREPARED BY

JT ENGINEERING, INC

jt ENGINEERING



DATE: 7/19/2024

Matthew J. Solin
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JT ENGINEERING, INC
Designer	JT ENGINEERING, INC
Project Manager	JESSICA DOUD
Regional Examiner	WISDOT NORTHWEST REGION
Regional Supervisor	NICOLE PASSUELLO

APPROVED FOR THE DEPARTMENT

DATE: 7/24/24 Nicole Passuello
(Signature)

E

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 47.91 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.45 ACRES

GENERAL NOTES

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

SUPERELEVATION INFORMATION PROVIDED IN THE PLAN IS FROM PREVIOUS AS-BUILT PROJECT PLANS AND HAS BEEN PROVIDED FOR INFORMATIONAL PURPOSES ONLY. EXISTING SUPERELEVATIONS ARE TO BE MAINTAINED WITH CONSTRUCTION OPERATIONS.

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

ASPHALTIC RUMBLE STRIPS, CENTERLINE TO BE INSTALLED PRIOR TO SEAL COAT AND FOG SEAL.

THE REFERENCE ALIGNMENT SHOWN IN THE PLANS IS A BEST FIT OF EXISTING PAVEMENT AND THE ACTUAL CENTERLINE MAY VARY IN LOCATIONS. THE INTENT OF THE PROJECT IS TO MATCH THE EXISTING CENTERLINE.

UTILITY CONTACTS

KYLE SCHLAMPP
CENTURYLINK - COMMUNICATION LINE
20 S WILSON AVE
RICE LAKE, WI 54868
(715) 475-2029
KYLE.SCHLAMPP@LUMEN.COM

LOREN LUZINSKI
DUNN ENERGY COOPERATIVE - ELECTRICITY
P.O. BOX 220
MENOMONIE, WI 54751-0220
(715) 232-6240
LOREN@DUNNENERGY.COM

JACE SINCLAIR
MOSAIC TELECOM - COMMUNICATION LINE
401 S 1ST ST
CAMERON, WI 54822
(715) 458-5352
JSINCLAIR@EXPERIENCEMOSAIC.COM

STEVEN CHAVERS
WE ENERGIES - GAS/PETROLEUM
104 W. SOUTH ST
RICE LAKE, WI 54868
(715) 234-9605
STEVEN.CHAVERS@WE-ENERGIES.COM

MITCHELL DIENGER
XCEL ENERGY - ELECTRICITY-TRANSMISSION
414 NICOLLET MALL 5TH FLOOR
MINNEAPOLIS, MN 55401
(612) 321-3109
MITCHELL.A.DIENGER@XCELENERGY.COM

WISCONSIN DNR LIAISON

LEAH NICOL
DNR WEST CENTRAL REGION
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
(715) 934-9014
LEAH.NICOL@WISCONSIN.GOV

DESIGN CONTACT

JT ENGINEERING, INC.
16855 COUNTY HIGHWAY X, SUITE 2
CHIPPEWA FALLS, WI 54729
ATTN:MATT SOLIN
(715) 382-3140
MATTS@JT-ENGINEERING.COM

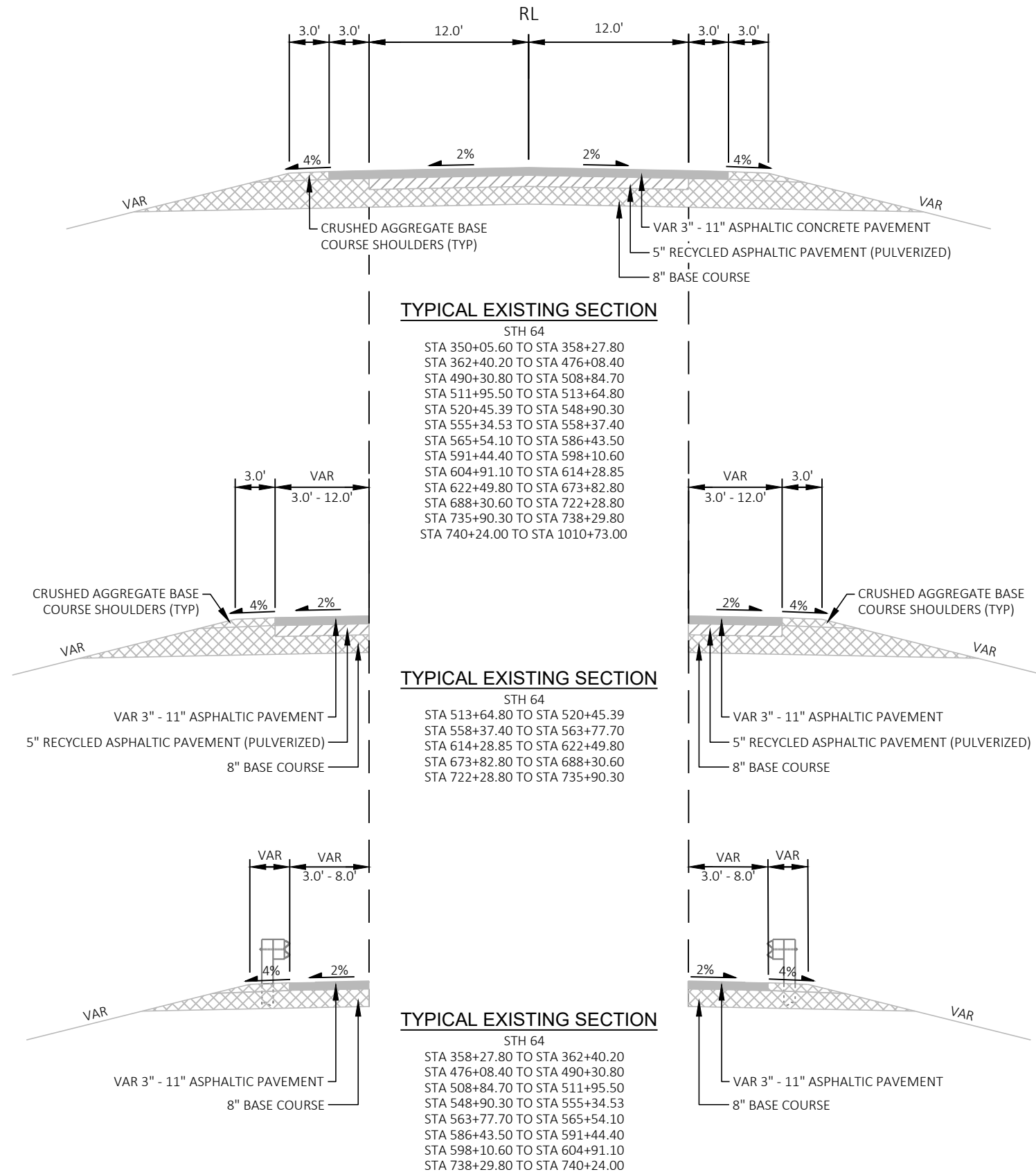


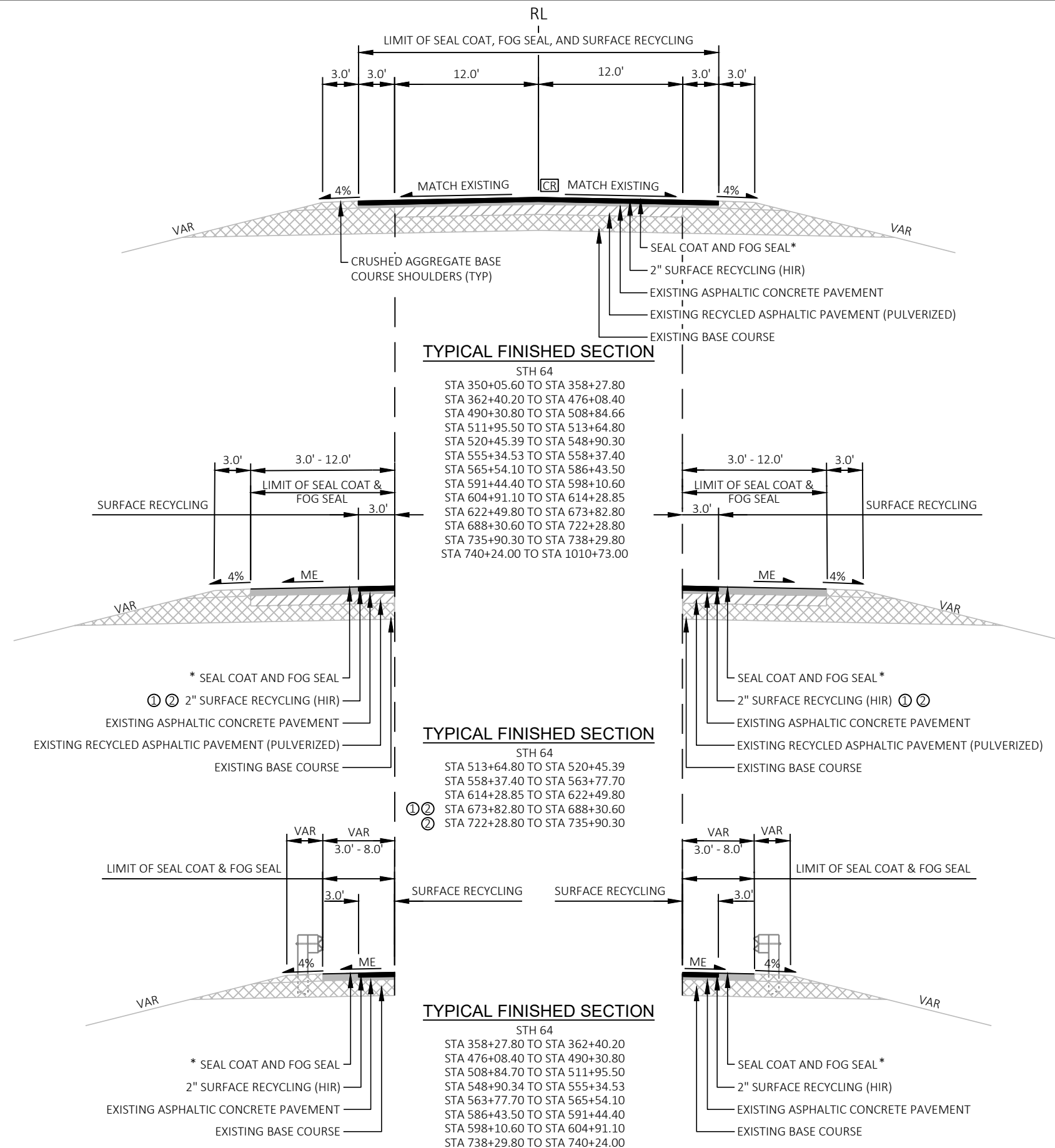
Dial 811 or (800)242-8511

www.DiggersHotline.com



PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	PROJECT OVERVIEW	SHEET	E
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**NOTES:**

- ① HIR FULL WIDTH OF BYPASS LANE, WIDTH = 12.0'
STA 673+82.80 TO STA 688+30.60 LT
- ② HIR FREE FLOW TURN LANE, WIDTH = 15.0'
STA 678+85.97 TO STA 687+92.04 RT
STA 722+49.41 TO STA 732+08.08 LT

[CR] ASPHALTIC RUMBLE STRIPS, CENTERLINE

ME = MATCH EXISTING

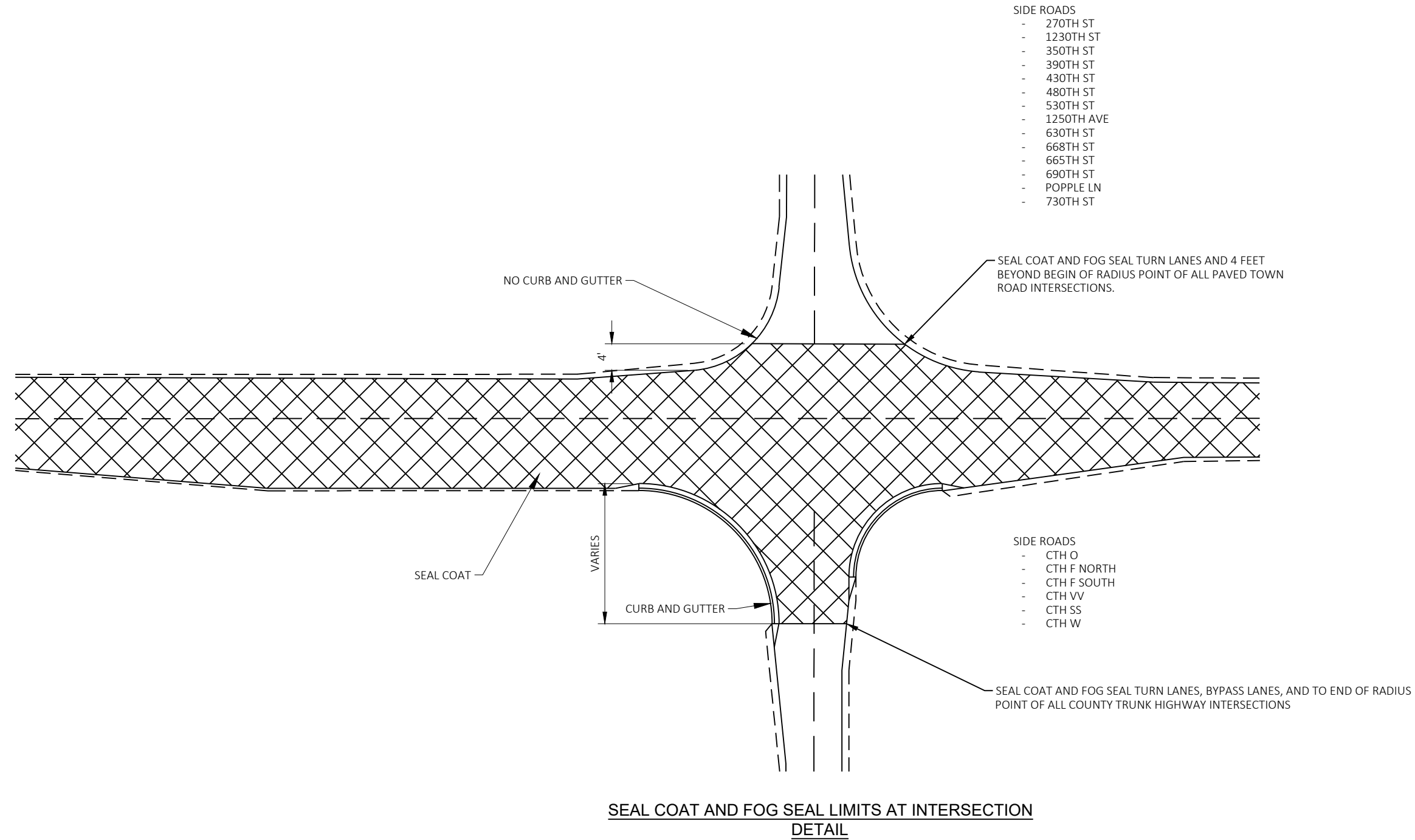
HIR = HOT IN-PLACE RECYCLE

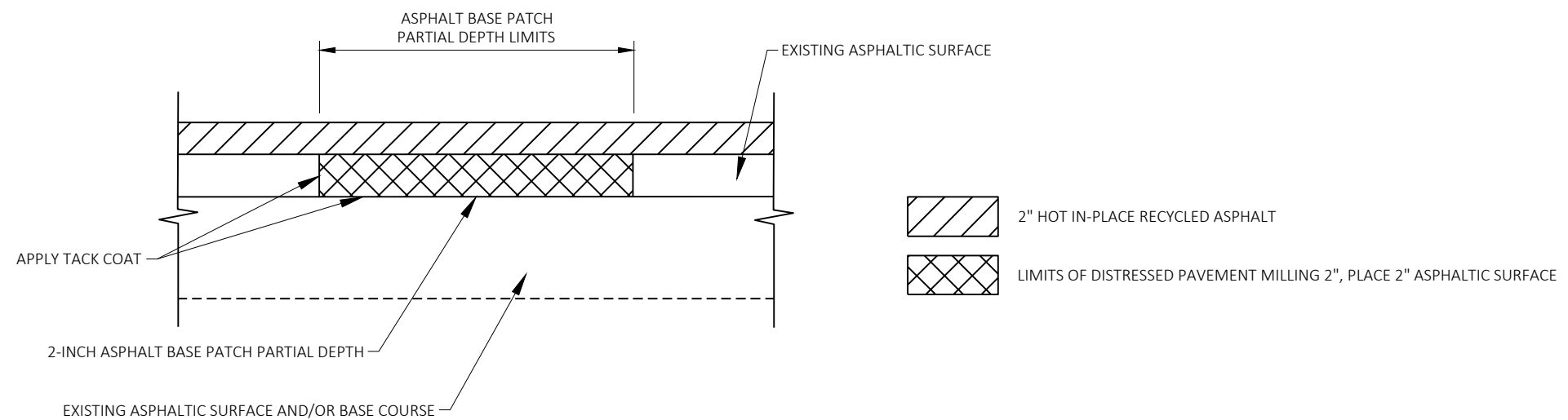
* SEAL COAT AND FOG SEAL FULL WIDTH INCLUDING
PAVED SHOULDERS, TURN LANES, AND SIDE ROAD TIE
IN SECTIONS

PAVEMENT CORE LOG

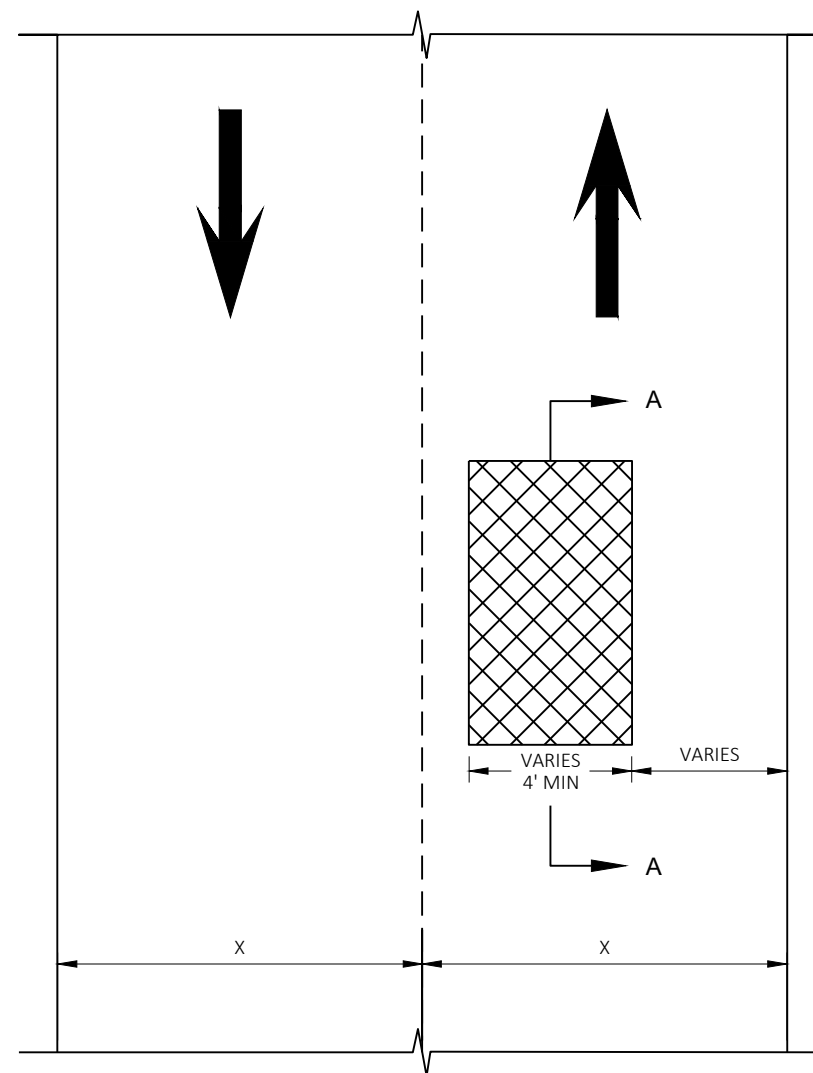
EASTBOUND		
BORING	STATION	ASPHALT THICKNESS (INCHES)
B-136	355+28	8.25
B-137	385+36	4.5
B-138	415+46	3.5
B-139	445+23	3.25
B-140	475+33	4.25
B-141	505+16	3
B-142	535+35	3.25
B-143	565+34	3.75
B-144	595+28	11.25
B-145	626+13	7
B-146	656+16	5.25
B-147	689+26	5.5
B-148	716+64	3.25
B-149	746+24	4.5
B-150	783+80	4
B-151	805+91	3.75
B-152	836+21	3.5
B-153	866+06	3.5
B-154	896+15	3.5
B-155	926+40	4
B-156	956+80	4
B-157	987+01	3.5

WESTBOUND		
BORING	STATION	ASPHALT THICKNESS (INCHES)
B-158	1002+44	7
B-159	971+93	4.25
B-160	941+73	3.5
B-161	911+40	3.5
B-162	881+07	4.25
B-163	850+91	4
B-164	821+11	3.75
B-165	791+02	5
B-166	761+22	4.25
B-167	731+21	5
B-168	701+53	4
B-169	671+20	4.75
B-170	641+04	4.75
B-171	610+72	3.5
B-172	579+15	6.5
B-173	550+41	3
B-174	520+28	3.75
B-175	490+28	3.25
B-176	460+38	3
B-177	430+47	3.25
B-178	400+89	3.75
B-179	370+56	4.5



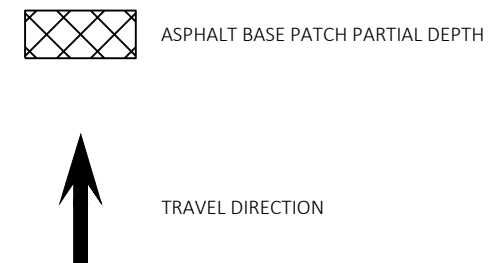


ASPHALT BASE PATCH PARTIAL DEPTH
SECTION A-A

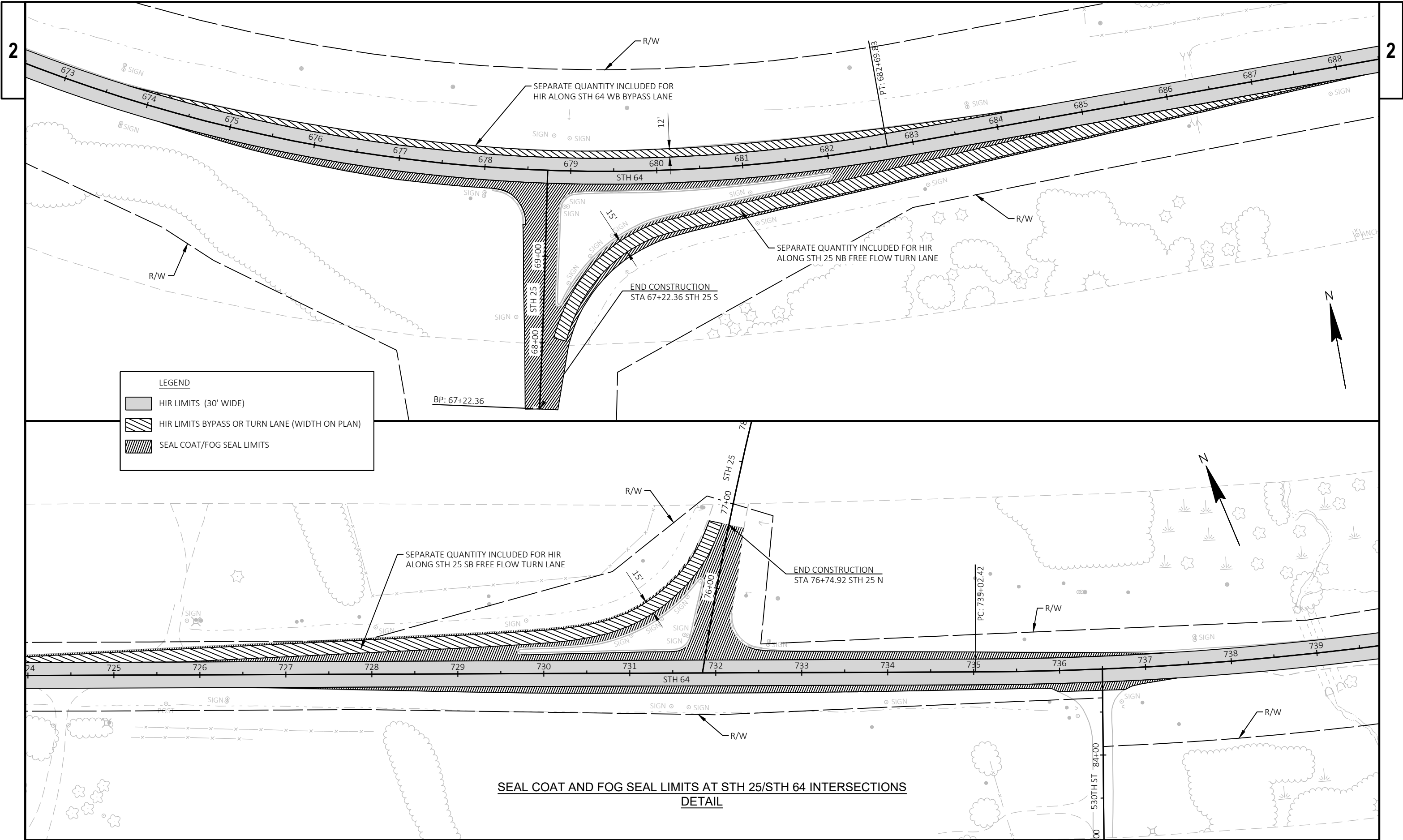


PLAN VIEW

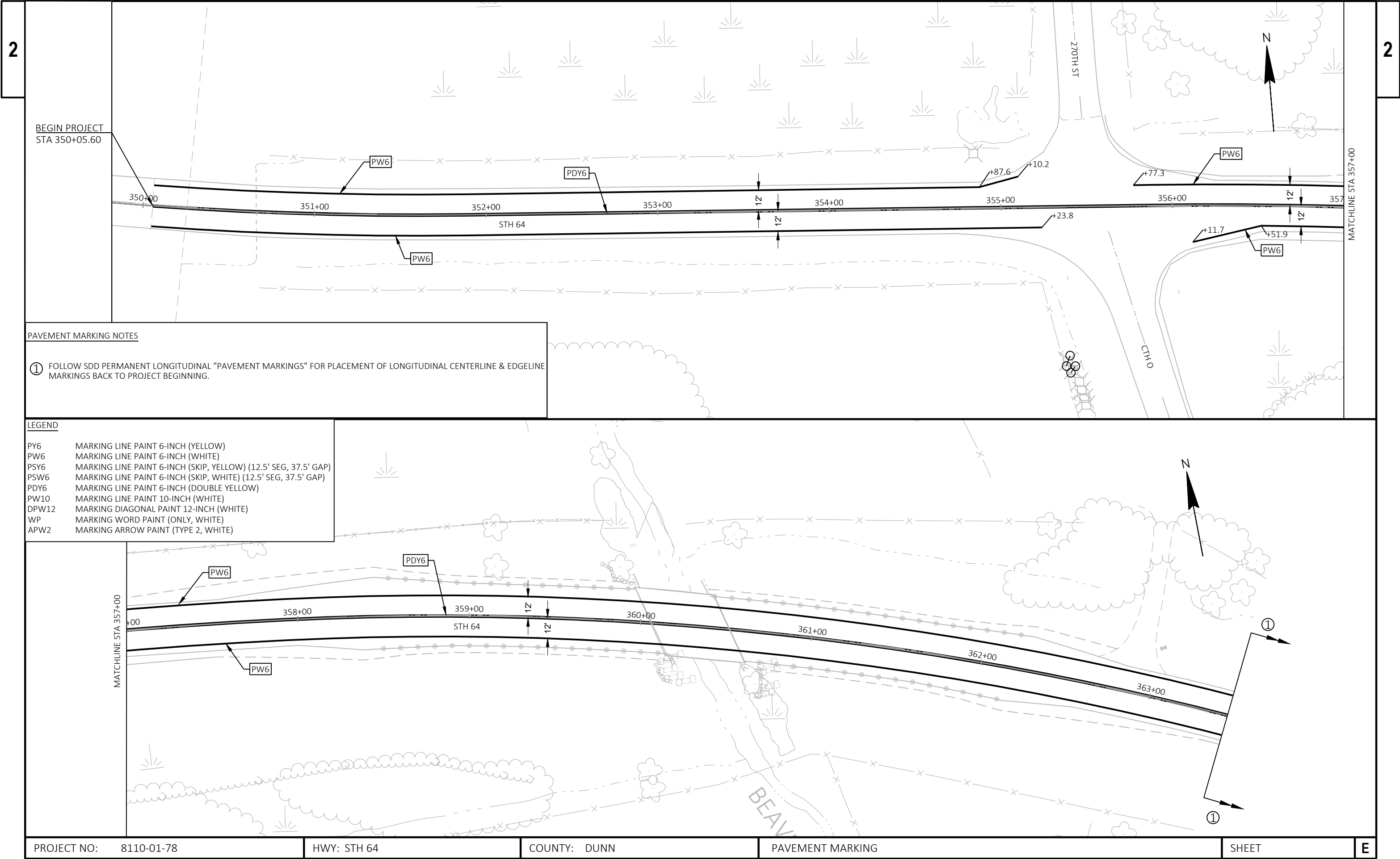
STATION - STATION	LOCATION	L (FT)	W (FT)
356+00 - 357+00	RT	60	4
441+00 - 443+00	C/L	150	4
516+00 - 517+00	RT	100	4
531+00 - 533+00	LT	200	4
564+00 - 565+00	RT	75	4
565+00 - 566+00	RT	75	4
581+00 - 586+00	RT	500	4
618+00 - 620+50	RT	250	4
618+00 - 619+00	LT	30	4
651+00 - 652+00	RT	100	4
731+00 - 732+00	RT	100	4



- NOTES:
1. EXACT LOCATION AND LIMITS OF ASPHALT BASE PATCH PARTIAL DEPTH TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
 2. PERFORM ASPHALT BASE PATCH PARTIAL DEPTH BEFORE HOT IN-PLACE RECYCLE.



PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	CONSTRUCTION DETAILS	SHEET	E
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BEGIN PROJECT
STA 350+05.60

MATCHLINE STA 357+00

PAVEMENT MARKING NOTES

- ① FOLLOW SDD PERMANENT LONGITUDINAL "PAVEMENT MARKINGS" FOR PLACEMENT OF LONGITUDINAL CENTERLINE & EDGELINE MARKINGS BACK TO PROJECT BEGINNING.

LEGEND

- PY6 MARKING LINE PAINT 6-INCH (YELLOW)
- PW6 MARKING LINE PAINT 6-INCH (WHITE)
- PSY6 MARKING LINE PAINT 6-INCH (SKIP, YELLOW) (12.5' SEG, 37.5' GAP)
- PSW6 MARKING LINE PAINT 6-INCH (SKIP, WHITE) (12.5' SEG, 37.5' GAP)
- PDY6 MARKING LINE PAINT 6-INCH (DOUBLE YELLOW)
- PW10 MARKING LINE PAINT 10-INCH (WHITE)
- DPW12 MARKING DIAGONAL PAINT 12-INCH (WHITE)
- WP MARKING WORD PAINT (ONLY, WHITE)
- APW2 MARKING ARROW PAINT (TYPE 2, WHITE)

PROJECT NO: 8110-01-78

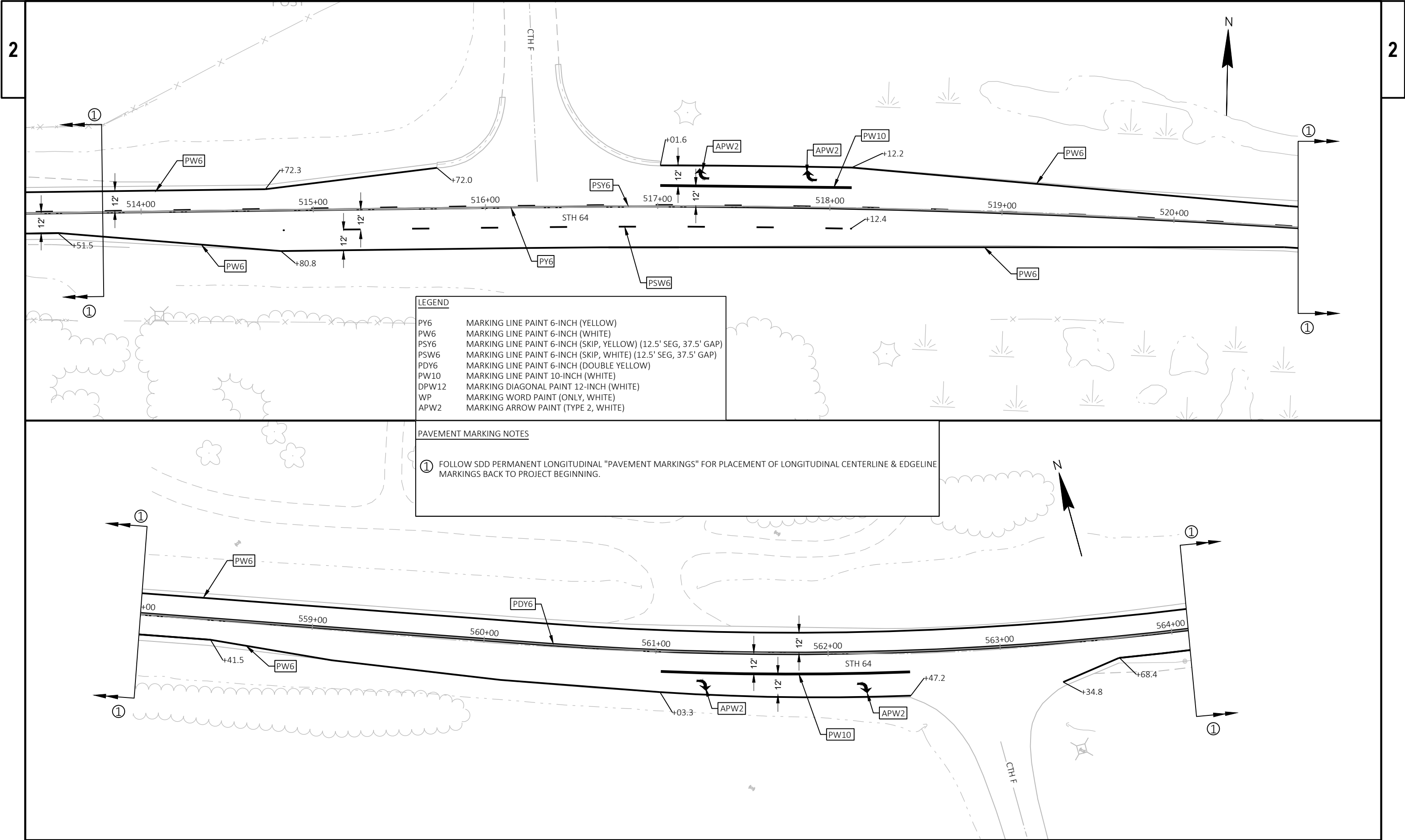
HWY: STH 64

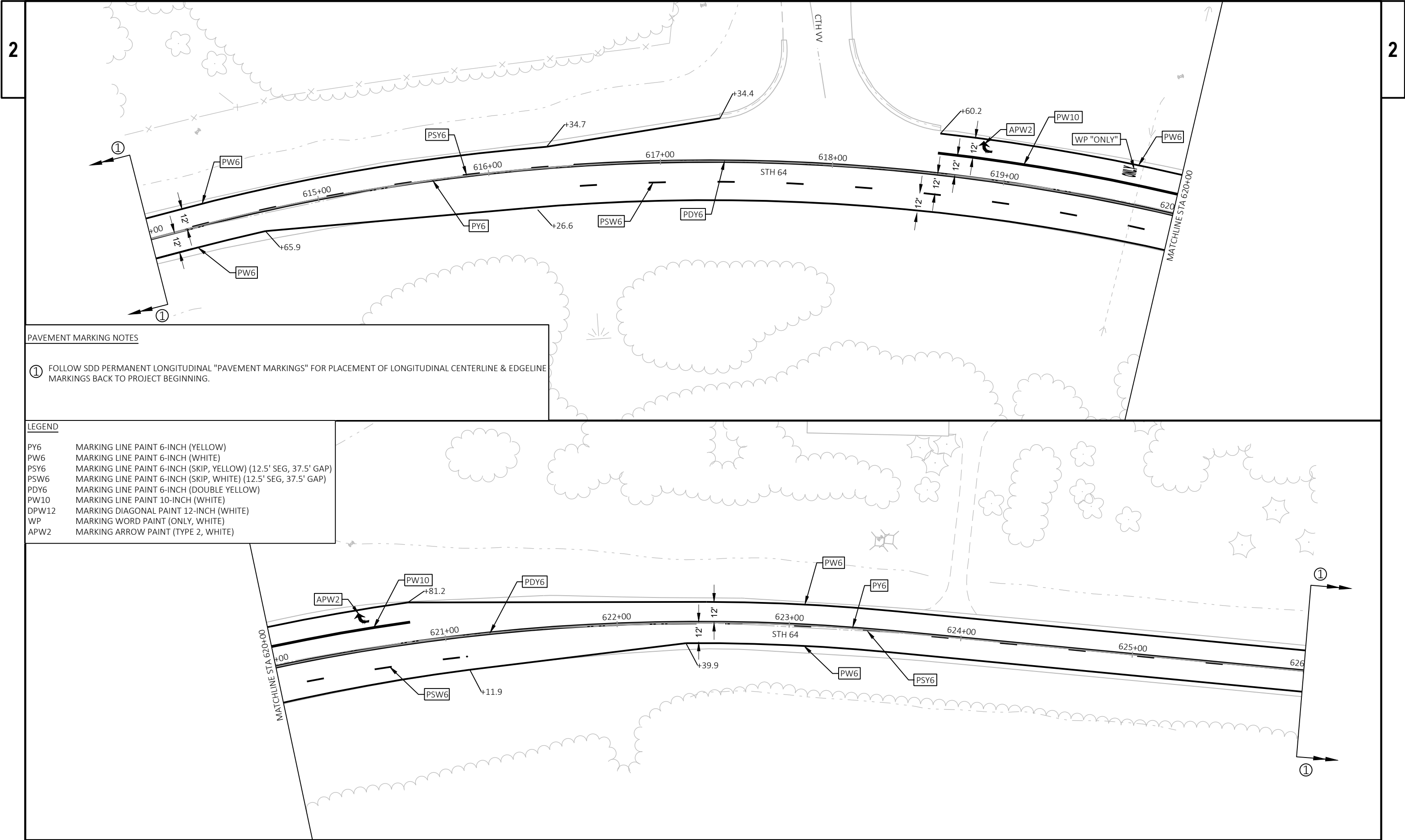
COUNTY: DUNN

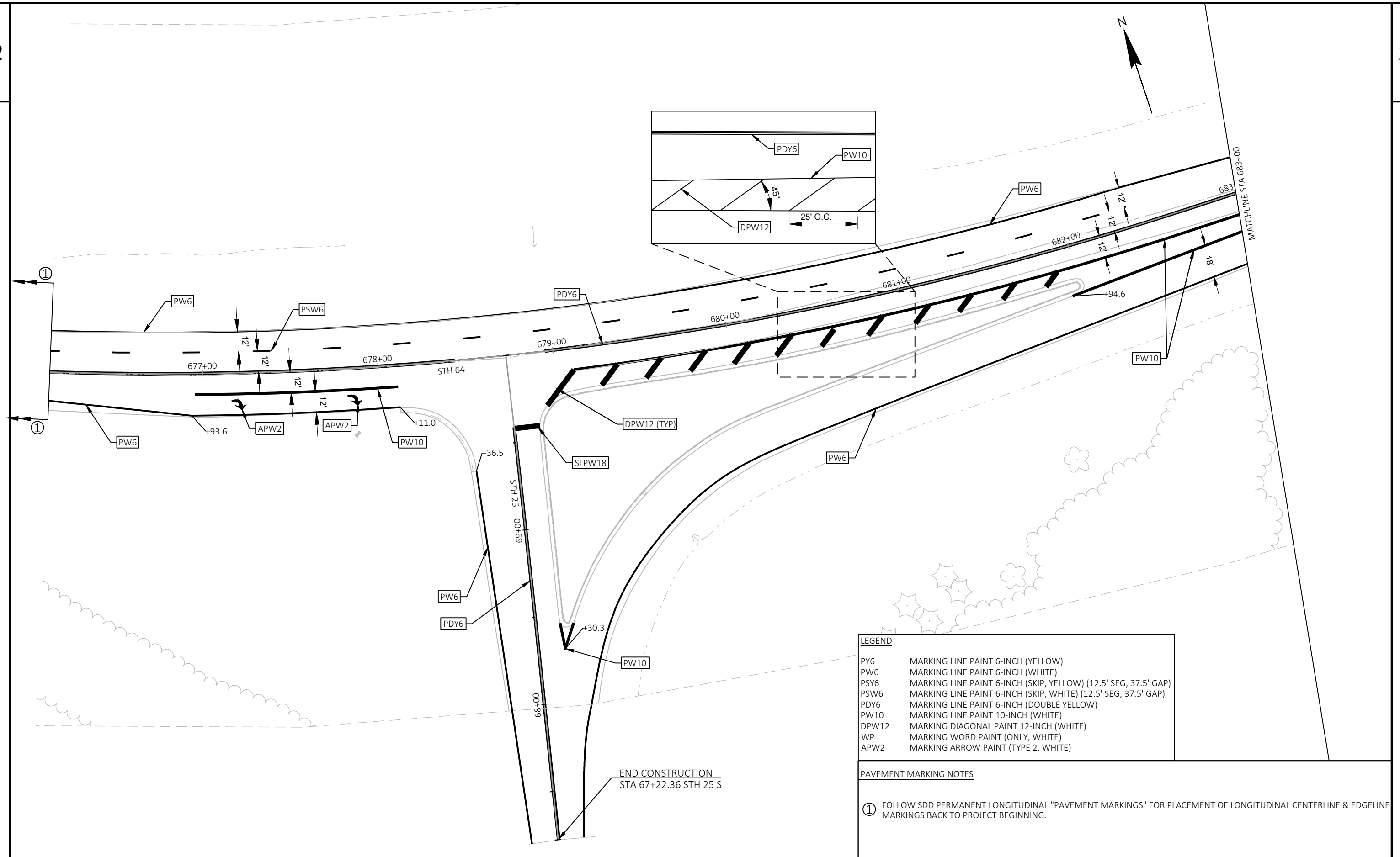
PAVEMENT MARKING

SHEET

E

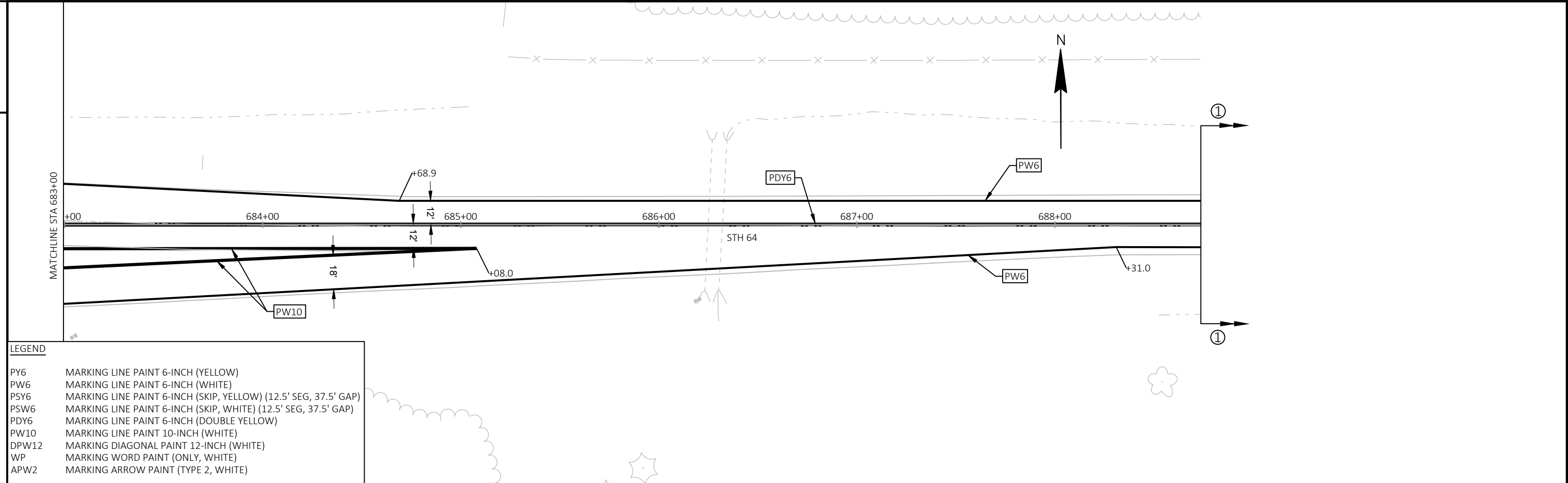






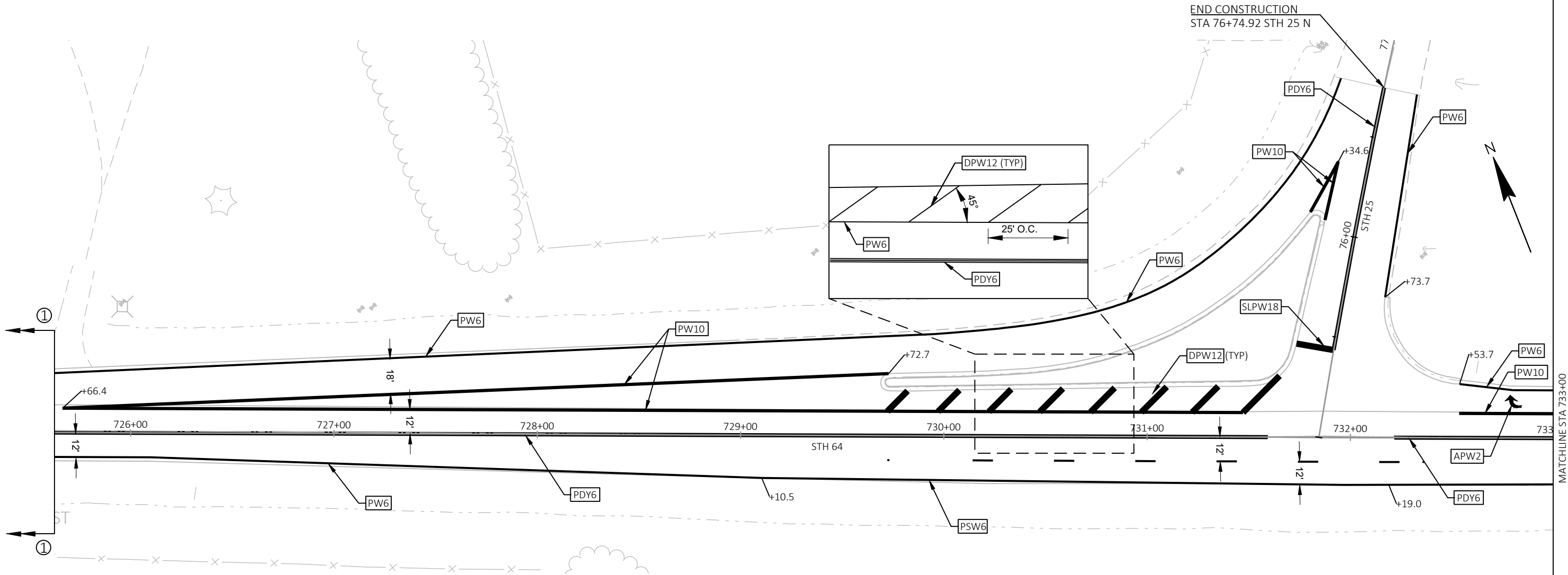
2

2



PAVEMENT MARKING NOTES	
①	FOLLOW SDD PERMANENT LONGITUDINAL "PAVEMENT MARKINGS" FOR PLACEMENT OF LONGITUDINAL CENTERLINE & EDGELINE MARKINGS BACK TO PROJECT BEGINNING.

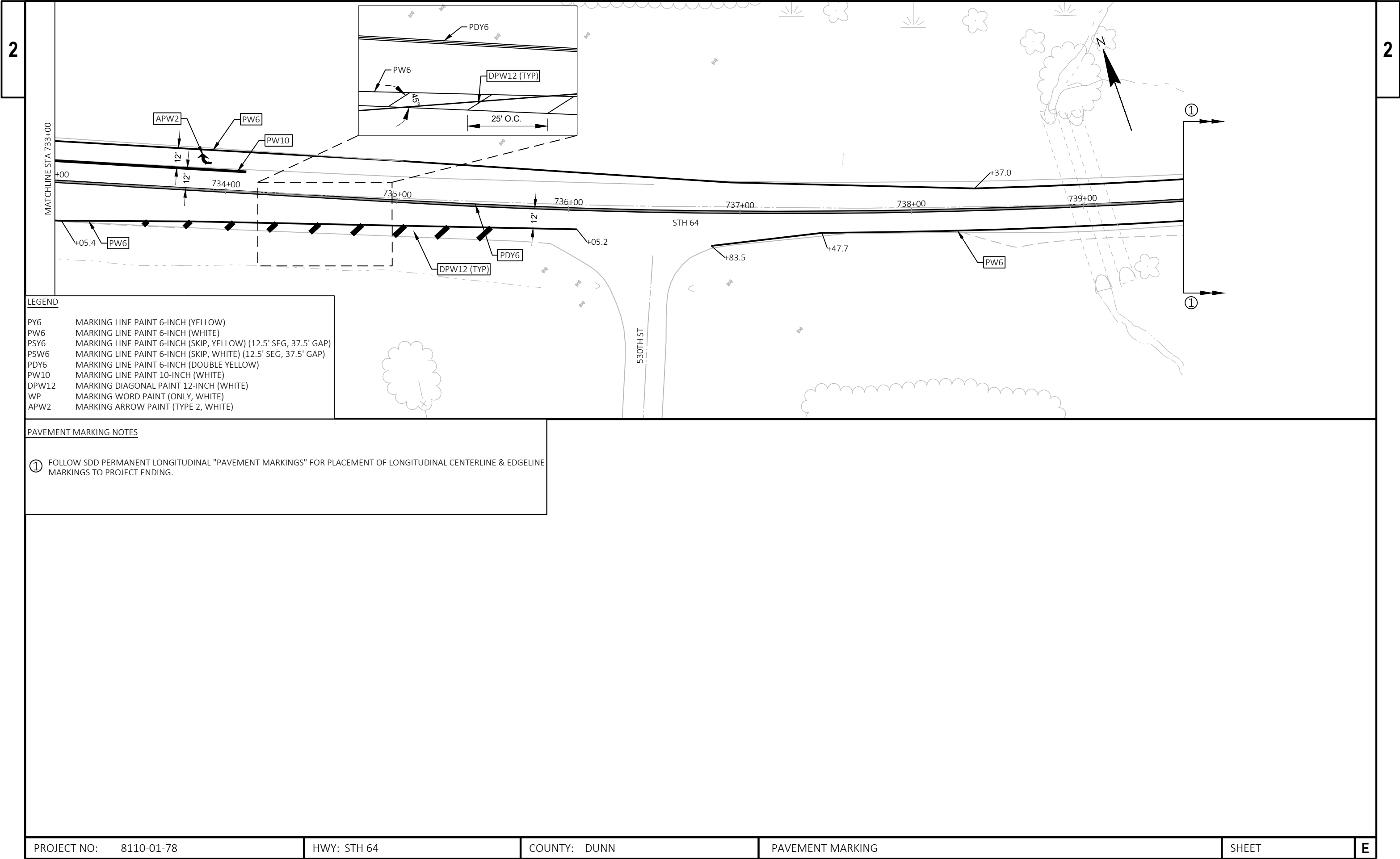
LEGEND	
PY6	MARKING LINE PAINT 6-INCH (YELLOW)
PW6	MARKING LINE PAINT 6-INCH (WHITE)
PSY6	MARKING LINE PAINT 6-INCH (SKIP, YELLOW) (12.5' SEG, 37.5' GAP)
PSW6	MARKING LINE PAINT 6-INCH (SKIP, WHITE) (12.5' SEG, 37.5' GAP)
PDY6	MARKING LINE PAINT 6-INCH (DOUBLE YELLOW)
PW10	MARKING LINE PAINT 10-INCH (WHITE)
DPW12	MARKING DIAGONAL PAINT 12-INCH (WHITE)
WP	MARKING WORD PAINT (ONLY, WHITE)
APW2	MARKING ARROW PAINT (TYPE 2, WHITE)



PAVEMENT MARKING NOTES

- ① FOLLOW SDD PERMANENT LONGITUDINAL "PAVEMENT MARKINGS" FOR PLACEMENT OF LONGITUDINAL CENTERLINE & EDGELINE MARKINGS BACK TO PROJECT BEGINNING.

PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	PAVEMENT MARKING	SHEET	E
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TRAFFIC CONTROL GENERAL NOTES:

DRAWING IS NOT TO SCALE.

ALL TRAFFIC CONTROL SIGNS AND DEVICES AND THEIR LOCATIONS SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD), THE PLANS, STANDARD SPECIFICATIONS AND APPLICABLE STANDARD DETAIL DRAWINGS .

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

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

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

THE FOLLOWING TRAFFIC CONTROL SIGNS AND SIGN SUPPORTS ARE INCIDENTAL TO ITEM 643.5000 TRAFFIC CONTROL.

- LOOSE GRAVEL
- ROAD WORK NEXT XX MILES
- NO CENTER STRIPE
- 35 MPH ADVISORY
- DO NOT PASS
- PASS WITH CARE

USE SIGNS TO DESIGNATE THE NO-PASSING ZONES AND TO WARN TRAFFIC DURING THE TIME WHEN NO-PASSING ZONE AND CENTERLINE PAVEMENT MARKINGS ARE NOT IN PLACE ON INTERMEDIATE OR FINAL SURFACES OPEN TO THROUGH TRAFFIC. THE DEPARTMENT WILL ALLOW THE USE OF SUCH SIGNS IN LIEU OF NO-PASSING ZONE AND CENTERLINE PAVEMENT MARKINGS FOR UP TO SEVEN CALENDAR DAYS FOLLOWING COMPLETION OF EACH PAVEMENT LAYER. SUCH SIGNS SHALL BE IN PLACE PRIOR TO THE TIME WHEN THE PRE-EXISTING PAVEMENT MARKING IS OBLITERATED AND SHALL BE REMOVED FOLLOWING PLACEMENT OF THE NO-PASSING ZONE AND CENTERLINE PAVEMENT MARKINGS. SIGNS MAY BE PLACED ON PORTABLE SUPPORTS UNLESS THE SIGN WILL BE USED CONTINUOUSLY AT THE SAME LOCATION FOR SEVEN OR MORE DAYS. THE FOLLOWING SIGNS SHALL BE USED:

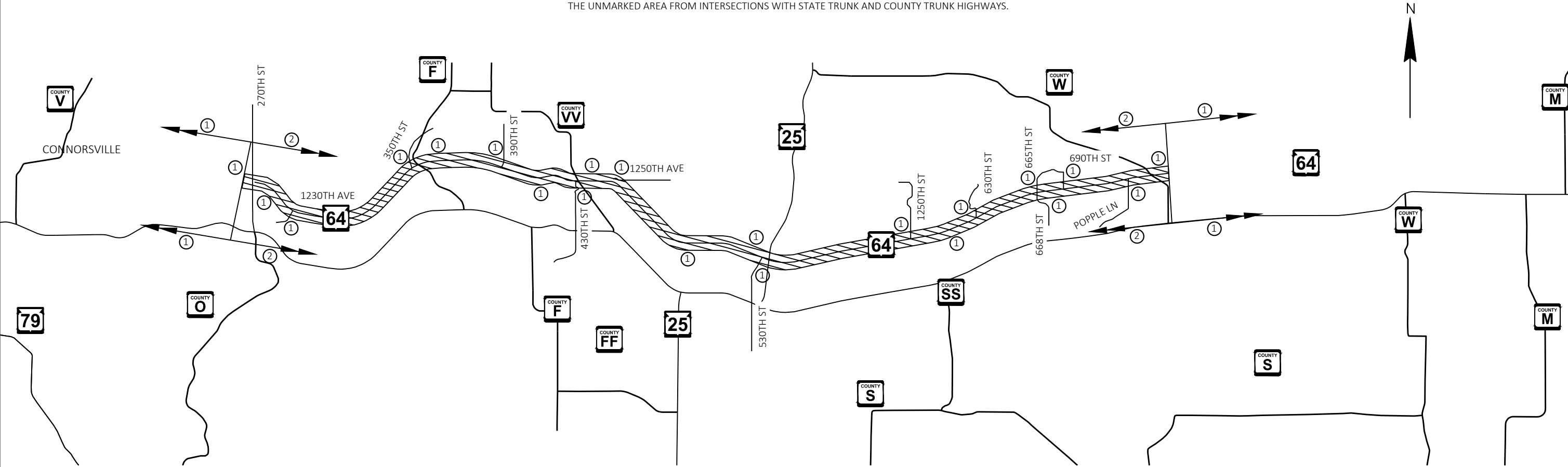
- “DO NOT PASS” (R4-1, 24” X 30”) AND THE EXISTING “NO PASSING ZONE” PENNANT (W14-3) AT THE BEGINNING OF EACH NO-PASSING ZONE.
- ADDITIONAL “DO NOT PASS” (R4-1, 24” X 30”) SIGNS WITHIN ANY NO-PASSING ZONE THAT CONTINUES BEYOND AN INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY OR THAT EXCEEDS ONE MILE IN LENGTH. PLACE AN ADDITIONAL SIGN WHERE TRAFFIC ENTERS A NO- PASSING ZONE FROM SUCH AN INTERSECTION AND WHEREVER NECESSARY TO PROVIDE A MAXIMUM ONE-MILE SIGN SPACING WITHIN ANY SINGLE ZONE.
- “PASS WITH CARE” (R4-2, 24” X 30”) AT THE END OF EACH NO-PASSING ZONE.
- “NO CENTER STRIPE” (W8-12, 48” X 48” MINIMUM) AT THE BEGINNING OF THE UNMARKED AREA, AT TWO-MILE INTERVALS THROUGHOUT THE UNMARKED AREA, AND AT LOCATIONS WHERE TRAFFIC ENTERS THE UNMARKED AREA FROM INTERSECTIONS WITH STATE TRUNK AND COUNTY TRUNK HIGHWAYS.

TRAFFIC CONTROL NOTES:

- ① INSTALL ADVANCED WARNING SIGNS ON STH 64 PRIOR TO THE PROJECT ENDING WORK ZONE AND ON ALL SIDEROADS LOCATED WITHIN THE PROJECT LIMITS WITH SPEED LIMITS 45 MPH OR GREATER, IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
- ② UTILIZE FLAGGING OPERATIONS FOR ALL MILLING, RECYCLING, AND SEALING WORK IN ACCORDANCE WITH SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" AND CONFORMING TO THE STANDARD SPECIFICATIONS WHEN CLOSING A LANE FOR CONSTRUCTION OPERATIONS.

LEGEND:

 WORK ZONE



Estimate Of Quantities

8110-01-78

Line	Item	Item Description	Unit	Total	Qty
0002	213.0100	Finishing Roadway (project) 01. 8110-01-78	EACH	1.000	1.000
0004	465.0560	Asphaltic Rumble Strips, Centerline	LF	58,750.000	58,750.000
0006	618.0100	Maintenance and Repair of Haul Roads (project) 01. 8110-01-78	EACH	1.000	1.000
0008	619.1000	Mobilization	EACH	1.000	1.000
0010	642.5001	Field Office Type B	EACH	1.000	1.000
0012	643.0300	Traffic Control Drums	DAY	350.000	350.000
0014	643.0715	Traffic Control Warning Lights Type C	DAY	350.000	350.000
0016	643.0900	Traffic Control Signs	DAY	4,370.000	4,370.000
0018	643.3165	Temporary Marking Line Paint 6-Inch	LF	257,900.000	257,900.000
0020	643.3770	Temporary Marking Raised Pavement Marker Type II	EACH	1,750.000	1,750.000
0022	646.2005	Marking Line Paint 6-Inch	LF	438,720.000	438,720.000
0024	646.4005	Marking Line Paint 10-Inch	LF	2,800.000	2,800.000
0026	646.5005	Marking Arrow Paint	EACH	10.000	10.000
0028	646.5105	Marking Word Paint	EACH	1.000	1.000
0030	646.6105	Marking Stop Line Paint 18-Inch	LF	36.000	36.000
0032	646.7105	Marking Diagonal Paint 12-Inch	LF	380.000	380.000
0034	650.8000	Construction Staking Resurfacing Reference	LF	66,067.000	66,067.000
0036	650.9911	Construction Staking Supplemental Control (project) 01. 8110-01-78	EACH	1.000	1.000
0038	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	800.000	800.000
0040	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0042	SPV.0060	Special 01. Traffic Control Special	EACH	1.000	1.000
0044	SPV.0170	Special 01. Surface Recycling	STA	692.000	692.000
0046	SPV.0180	Special 01. Seal Coat	SY	233,432.000	233,432.000
0048	SPV.0195	Special 01. Asphalt Rejuvenating Agent	TON	334.000	334.000
0050	SPV.0195	Special 02. Bituminous Material for Seal Coat	TON	346.000	346.000
0052	SPV.0195	Special 03. Asphalt Base Patch Partial Depth	TON	215.000	215.000
0054	SPV.0195	Special 04. Fog Seal	TON	177.000	177.000

ASPHALTIC RUMBLE STRIPS, CENTERLINE

465.0560 ASPHALTIC RUMBLE STRIPS, CENTERLINE			
STATION	TO	STATION	LF
350+06	-	403+00	4362
403+00	-	456+00	5299
456+00	-	508+00	5001
508+00	-	562+00	4517
562+00	-	615+00	4367
615+00	-	668+00	5590
668+00	-	721+00	3574
721+00	-	774+00	4350
774+00	-	827+00	4900
827+00	-	880+00	4900
880+00	-	933+00	4900
933+00	-	986+00	4900
986+00	-	1010+73	2090
ITEM TOTAL			58,750

ASPHALTIC ITEMS

			SPV.0170 SPECIAL 01. SURFACE RECYCLING	SPV.0195 SPECIAL 01. ASPHALT REJUVENATING AGENT
STATION	TO	STATION	STA	TON
350+06	-	403+00	53	26
403+00	-	456+00	53	26
456+00	-	508+00	52	25
508+00	-	562+00	54	27
562+00	-	615+00	53	25
615+00	-	668+00	53	26
668+00	-	721+00	74*	31*
721+00	-	774+00	63**	29**
774+00	-	827+00	53	26
827+00	-	880+00	53	26
880+00	-	933+00	53	27
933+00	-	986+00	53	27
986+00	-	1010+73	25	13
ITEM TOTAL			692	334

* INCLUDES QUANTITY FOR STH 25 SB/STH 64 WB BYPASS LANE AND STH 25 NB FREE FLOW TURN LANE
** INCLUDES QUANTITY FOR STH 25 SB FREE FLOW TURN LANE

MISCELLANEOUS PROJECT ITEMS

		213.0100 FINISHING ROADWAY (PROJECT) 01. 8110-01-78		618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 8110-01-78	
STATION	TO	STATION	EACH	STATION	EACH
350+06	-	1010+73	1		1
ITEM TOTAL			1		1

BASE PATCH

			SPV.0195 SPECIAL 03. ASPHALT BASE PATCH PARTIAL DEPTH
STATION	TO	STATION	TON
350+06	-	1010+73	165
UNDISTRIBUTED			50
ITEM TOTAL			215

3

3

PAVEMENT MARKING

STATION	TO	STATION	643.3165	646.2005	646.4005	646.5005	646.5105	646.6105	646.7105
			TEMPORARY MARKING LINE PAINT 6-INCH LF	MARKING LINE PAINT 6-INCH LF	MARKING LINE PAINT 10-INCH LF	MARKING ARROW PAINT EACH	MARKING WORD PAINT EACH	MARKING STOP LINE PAINT 18- INCH LF	MARKING DIAGONAL PAINT 12-INCH LF
350+06	-	403+00	20,591	40,256	-	-	-	-	-
403+00	-	456+00	20,813	36,372	-	-	-	-	-
456+00	-	508+00	20,320	37,060	-	-	-	-	-
508+00	-	562+00	20,906	36,893	268	4	-	-	-
562+00	-	615+00	20,713	37,628	-	-	-	-	-
615+00	-	668+00	20,713	31,703	244	2	1	-	-
668+00	-	721+00	20,613	41,248	1,084	2	-	16	174
721+00	-	774+00	20,713	38,696	1,204	2	-	20	206
774+00	-	827+00	20,713	28,568	-	-	-	-	-
827+00	-	880+00	20,713	31,452	-	-	-	-	-
880+00	-	933+00	20,713	36,220	-	-	-	-	-
933+00	-	986+00	20,713	31,707	-	-	-	-	-
986+00	-	1010+72	9,665	10,920	-	-	-	-	-
ITEM TOTAL			257,900	438,720	2,800	10	1	36	380

SEALANTS

STATION	TO	STATION	SPV.0180	SPV.0195	SPV.0195
			SPECIAL 01. SEAL COAT SY	SPECIAL 02. BITUMINOUS MATERIAL FOR SEAL COAT TON	SPECIAL 04. FOG SEAL TON
350+06	-	403+00	17,973	26	14
403+00	-	456+00	17,578	26	14
456+00	-	508+00	18,502	28	14
508+00	-	562+00	19,535	28	14
562+00	-	615+00	17,362	26	12
615+00	-	668+00	18,818	28	14
668+00	-	721+00	22,297	34	16
721+00	-	774+00	21,735	32	16
774+00	-	827+00	17,613	26	14
827+00	-	880+00	17,894	26	14
880+00	-	933+00	17,918	26	14
933+00	-	986+00	17,893	26	14
986+00	-	1010+73	8,314	12	6
ITEM TOTAL			233,432	346	177

CONSTRUCTION STAKING

STATION	TO	STATION	650.8000	650.9911.01
			RESURFACING REFERENCE LF	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (8110-01-78) EACH
350+06	-	1010+73	66,067	1
ITEM TOTAL			66,067	1

TRAFFIC CONTROL

STATION	TO	STATION	643.0300	643.0715	643.0900	643.3770	643.5000
			TRAFFIC CONTROL DRUMS DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	TRAFFIC CONTROL SIGNS DAY	TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE II EACH	TRAFFIC CONTROL EACH
350+06	-	1010+73	350	350	4,370	1,750	1
ITEM TOTAL			350	350	4,370	1,750	1

PI STA = 356+90.11
Y = 265312.217
X = 136777.373
DELTA = 4°11'25" RT
D = 2°02'47"
T = 102.43'
L = 204.77'
R = 2800.00'
PC STA = 355+87.68
Y = 265319.135
X = 136675.175
PT STA = 357+92.46
Y = 265297.850
X = 136878.794
DB = S86°07'39"E
DA = S81°56'14"E

PI STA = 347+38.77
Y = 265377.407
X = 135814.308
DELTA = 24°18'20" LT
D = 2°39'54"
T = 462.99'
L = 912.05'
R = 2150.00'
PC STA = 342+75.78
Y = 265596.036
X = 135406.188
PT STA = 351+87.84
Y = 265346.138
X = 136276.242
SE = MATCH EXISTING

BEGIN PROJECT
STA 350+05.60
MATCH EXISTING
SAWCUT REQ'D
Y = 265366.132
X = 136095.160

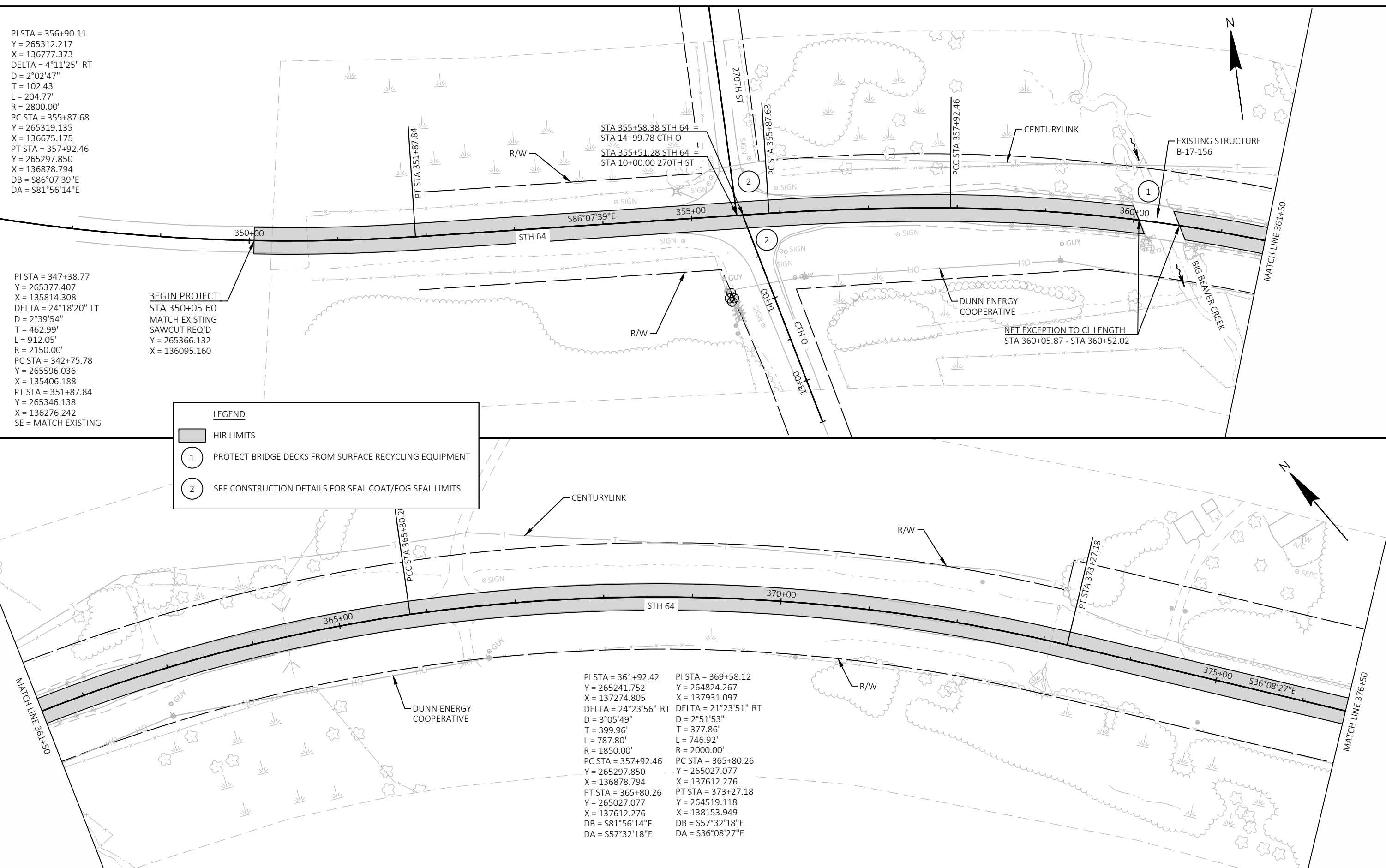
LEGEND

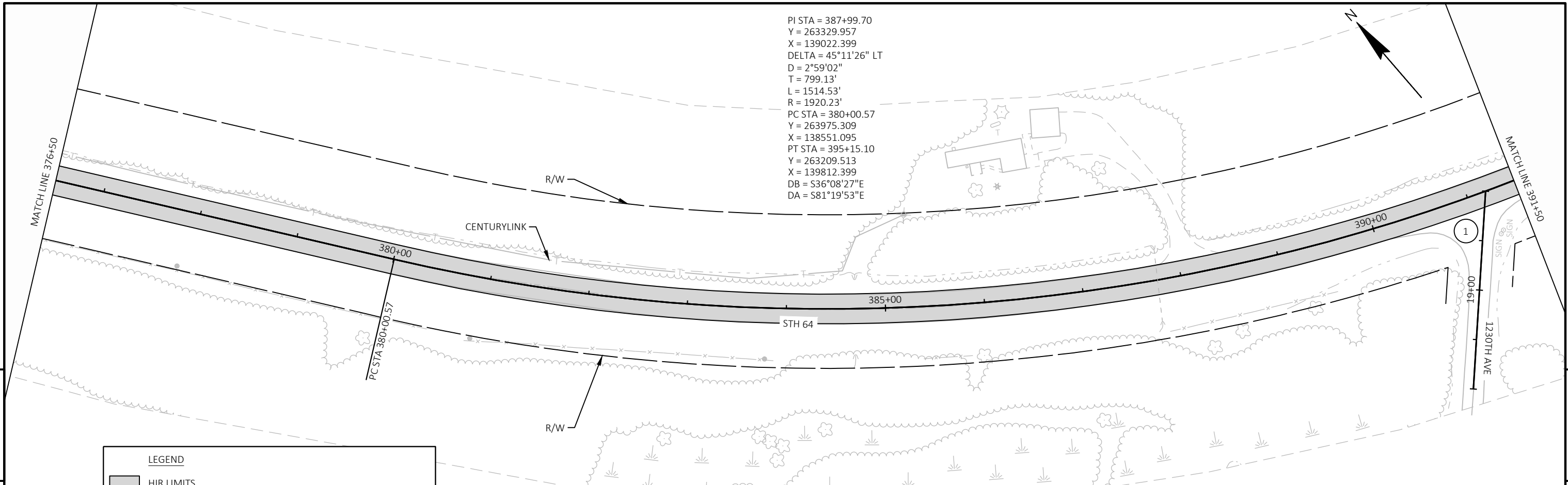
- HIR LIMITS
- 1 PROTECT BRIDGE DECKS FROM SURFACE RECYCLING EQUIPMENT
- 2 SEE CONSTRUCTION DETAILS FOR SEAL COAT/FOG SEAL LIMITS

STA 355+58.38 STH 64 =
STA 14+99.78 CTH O
STA 355+51.28 STH 64 =
STA 10+00.00 270TH ST


PI STA = 361+92.42
Y = 265241.752
X = 137274.805
DELTA = 24°23'56" RT
D = 3°05'49"
T = 399.96'
L = 787.80'
R = 1850.00'
PC STA = 357+92.46
Y = 265297.850
X = 136878.794
PT STA = 365+80.26
Y = 265027.077
X = 137612.276
DB = S81°56'14"E
DA = S57°32'18"E


PI STA = 369+58.12
Y = 264824.267
X = 137931.097
DELTA = 21°23'51" RT
D = 2°51'53"
T = 377.86'
L = 746.92'
R = 2000.00'
PC STA = 365+80.26
Y = 265027.077
X = 137612.276
PT STA = 373+27.18
Y = 264519.118
X = 138153.949
DB = S57°32'18"E
DA = S36°08'27"E

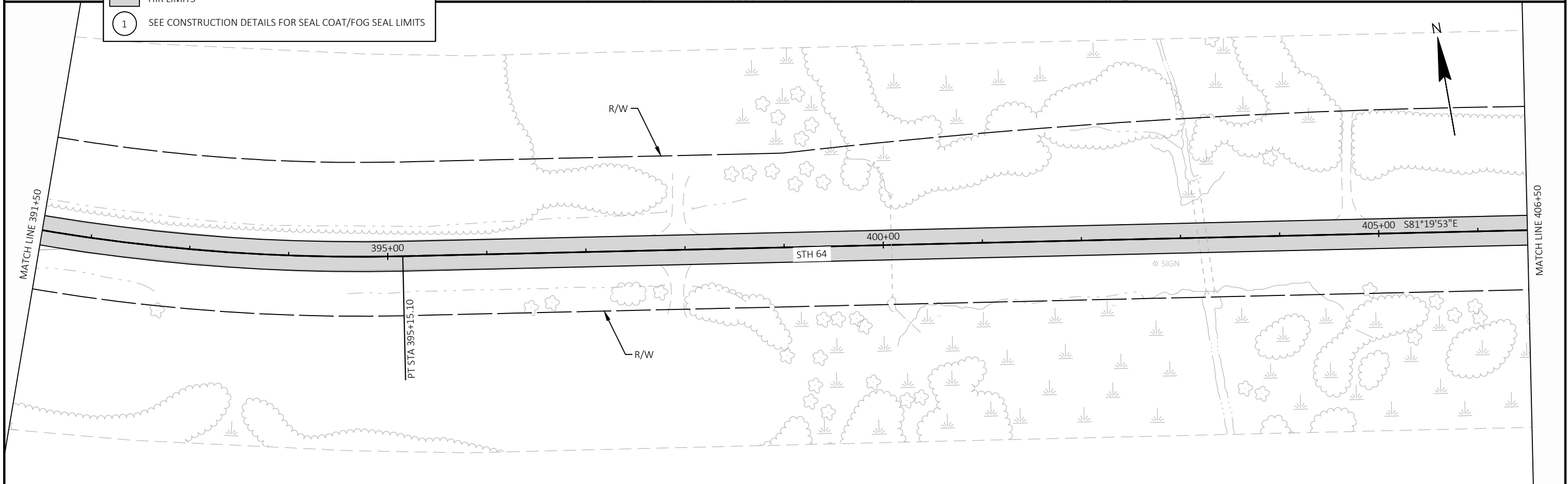




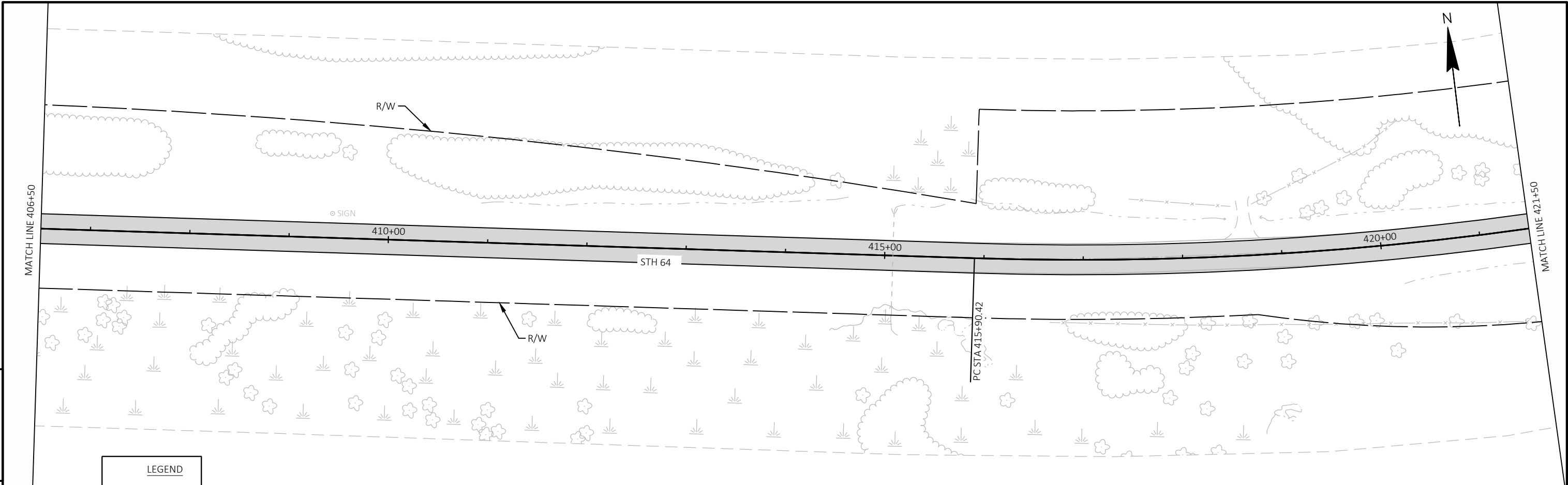
LEGEND

 HIR LIMITS

 SEE CONSTRUCTION DETAILS FOR SEAL COAT/FOG SEAL LIMITS

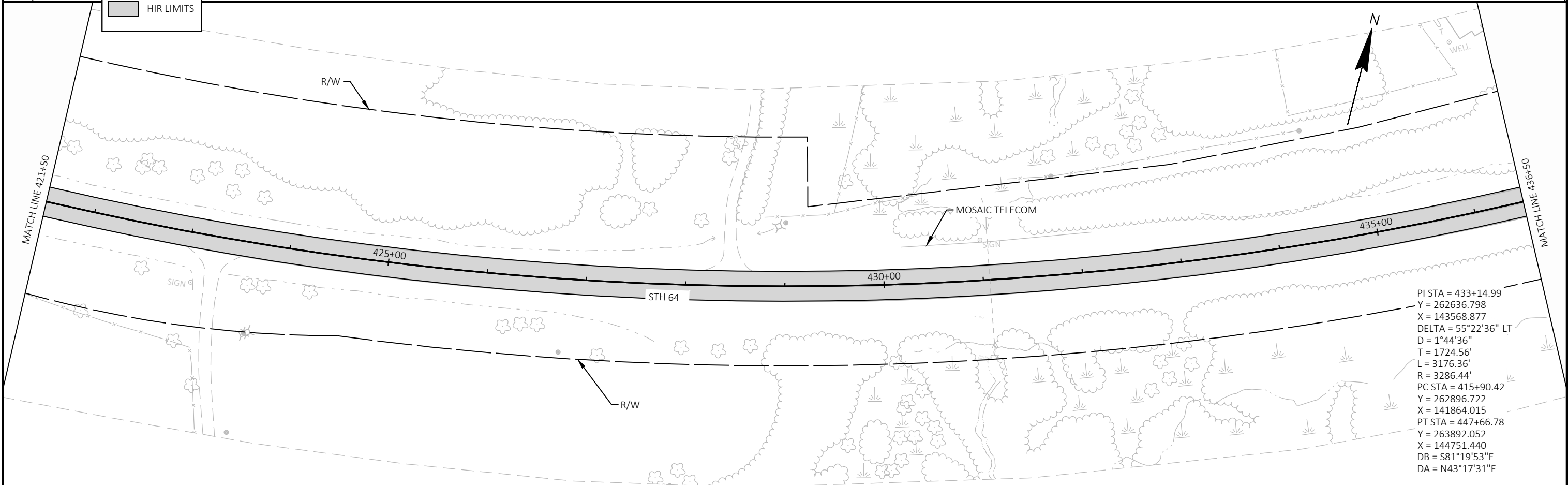


PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	PLAN	SHEET	E
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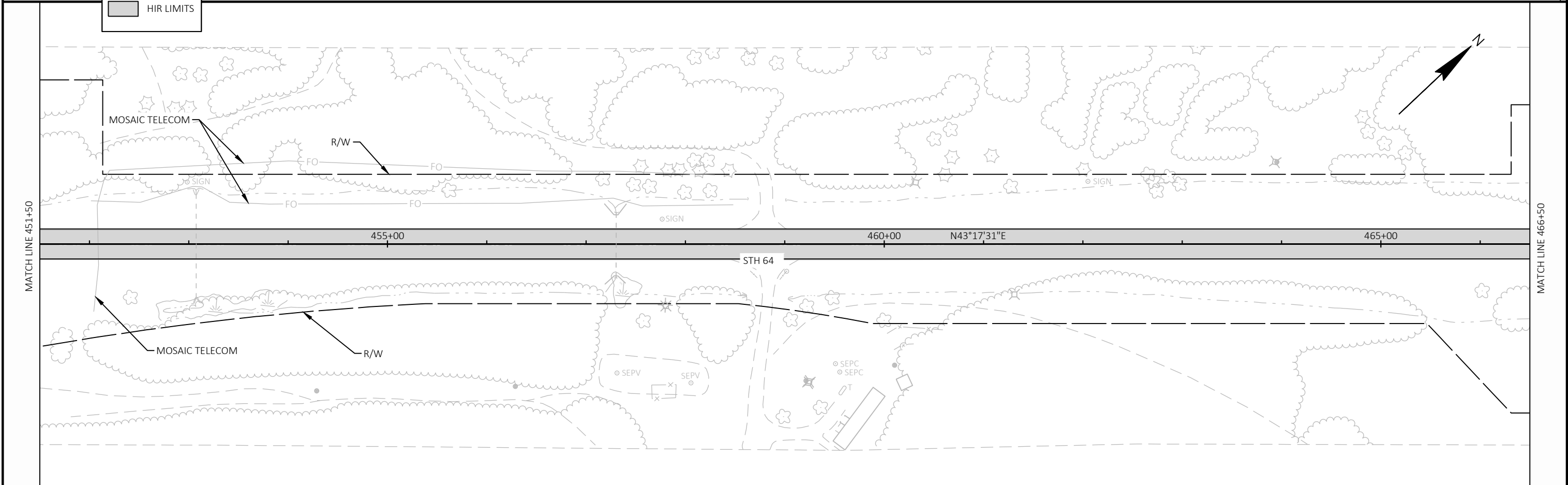
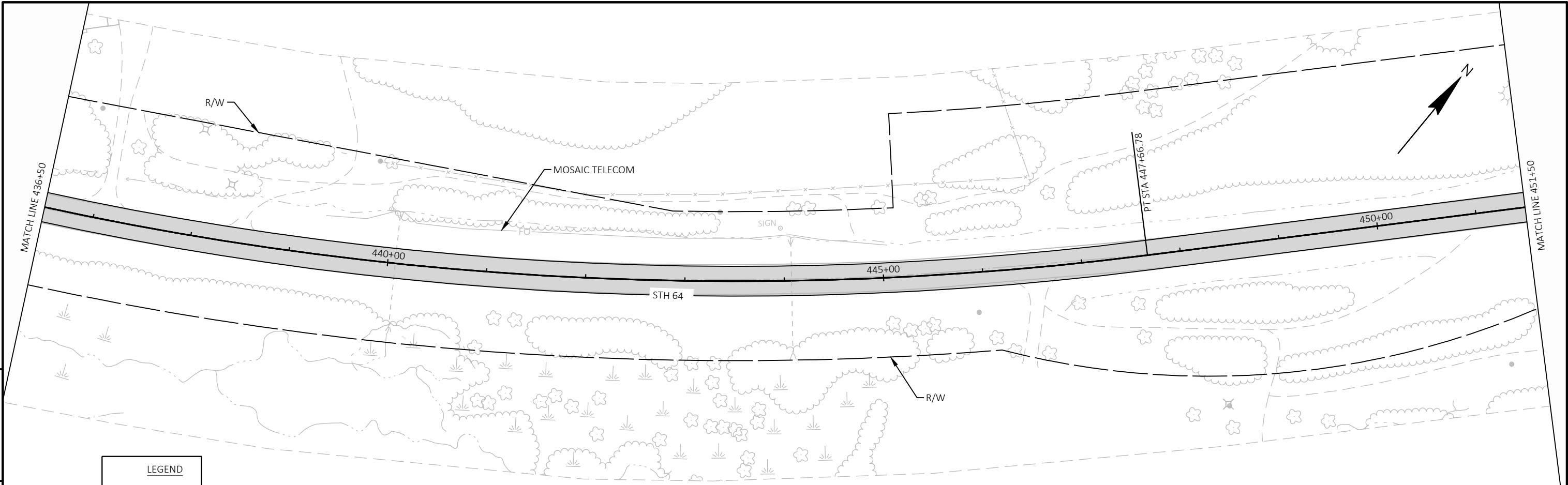
LEGEND

HIR LIMITS

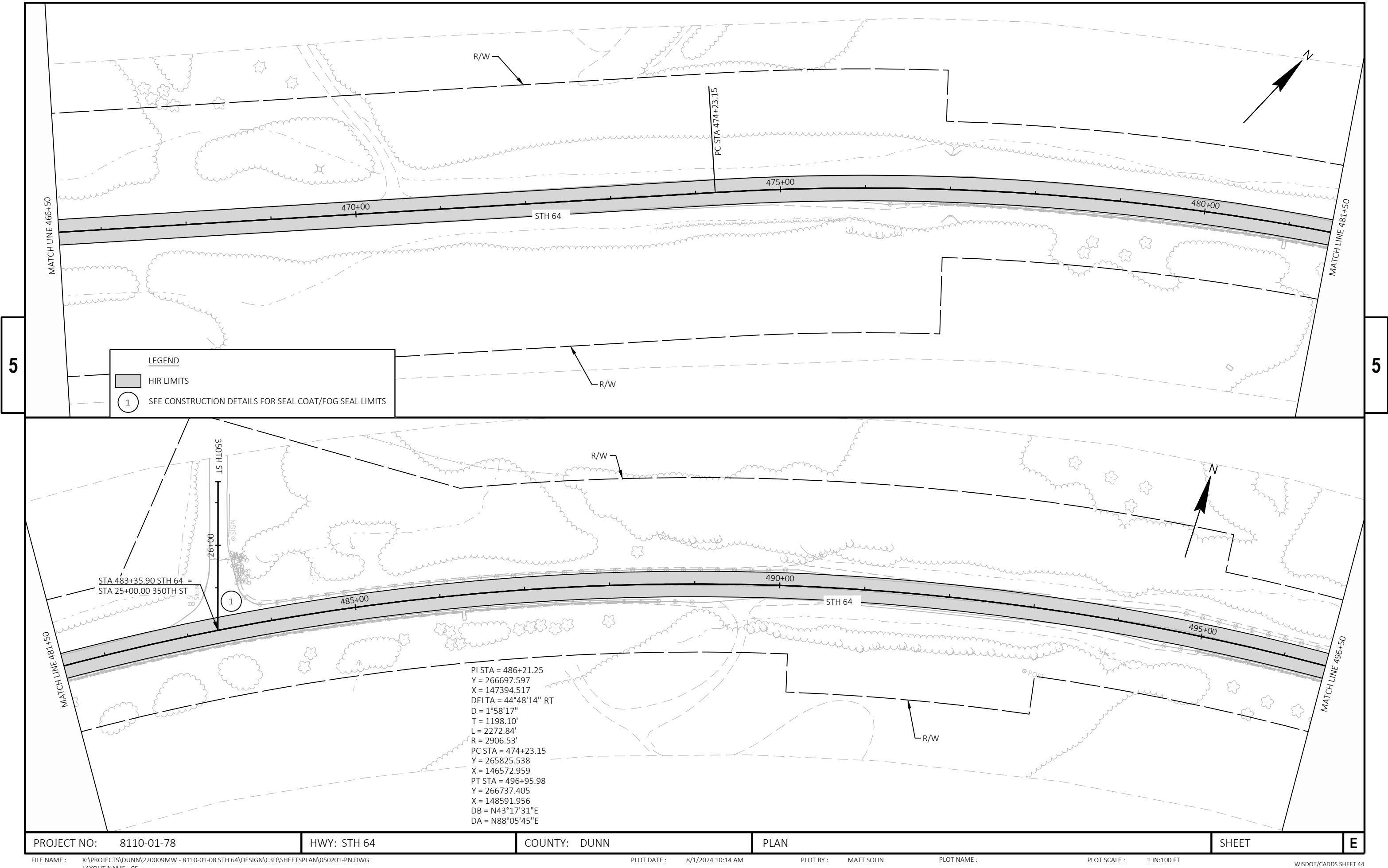


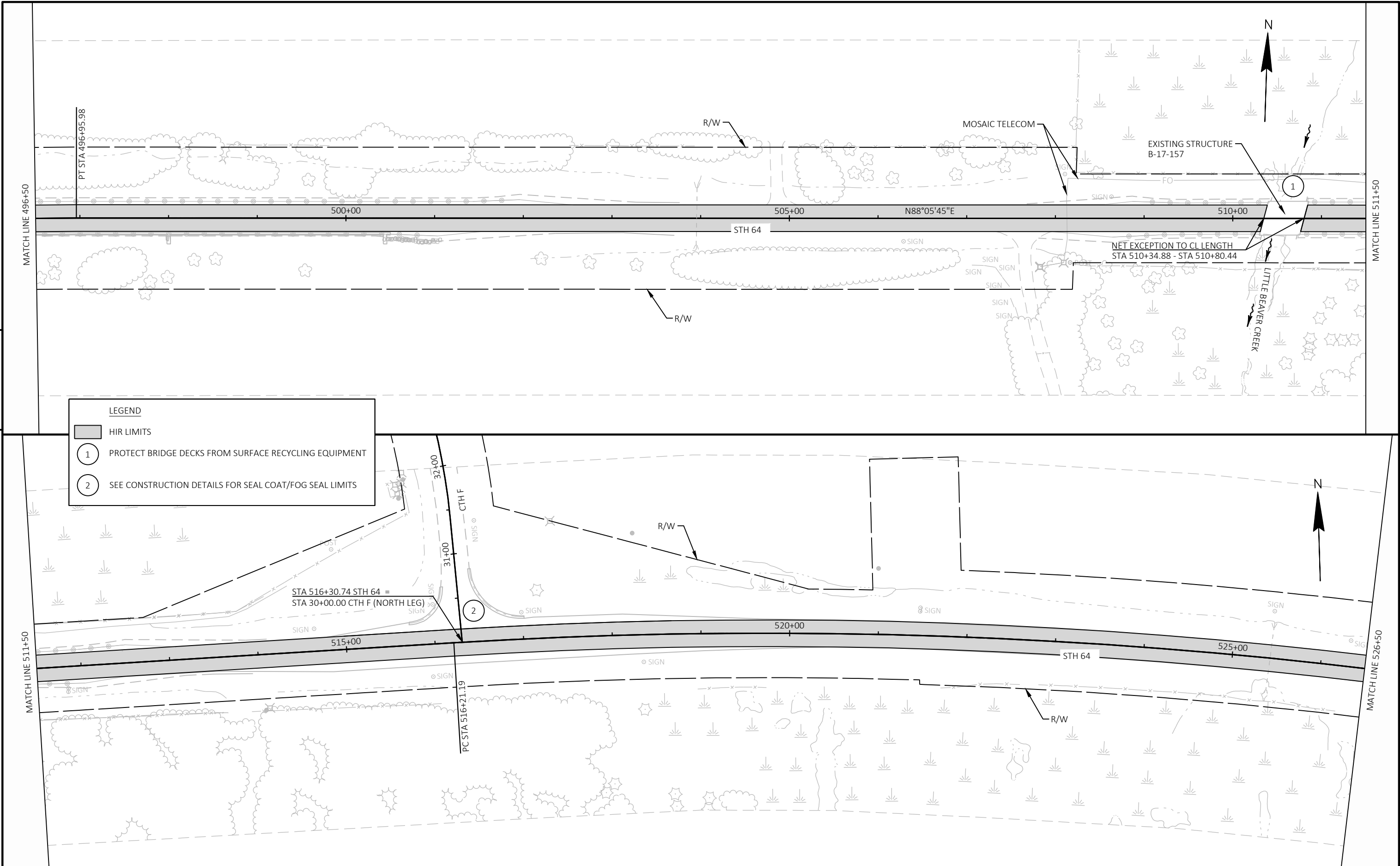
PI STA = 433+14.99
Y = 262636.798
X = 143568.877
DELTA = 55°22'36" LT
D = 1°44'36"
T = 1724.56'
L = 3176.36'
R = 3286.44'
PC STA = 415+90.42
Y = 262896.722
X = 141864.015
PT STA = 447+66.78
Y = 263892.052
X = 144751.440
DB = S81°19'53"E
DA = N43°17'31"E

PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	PLAN	SHEET	E
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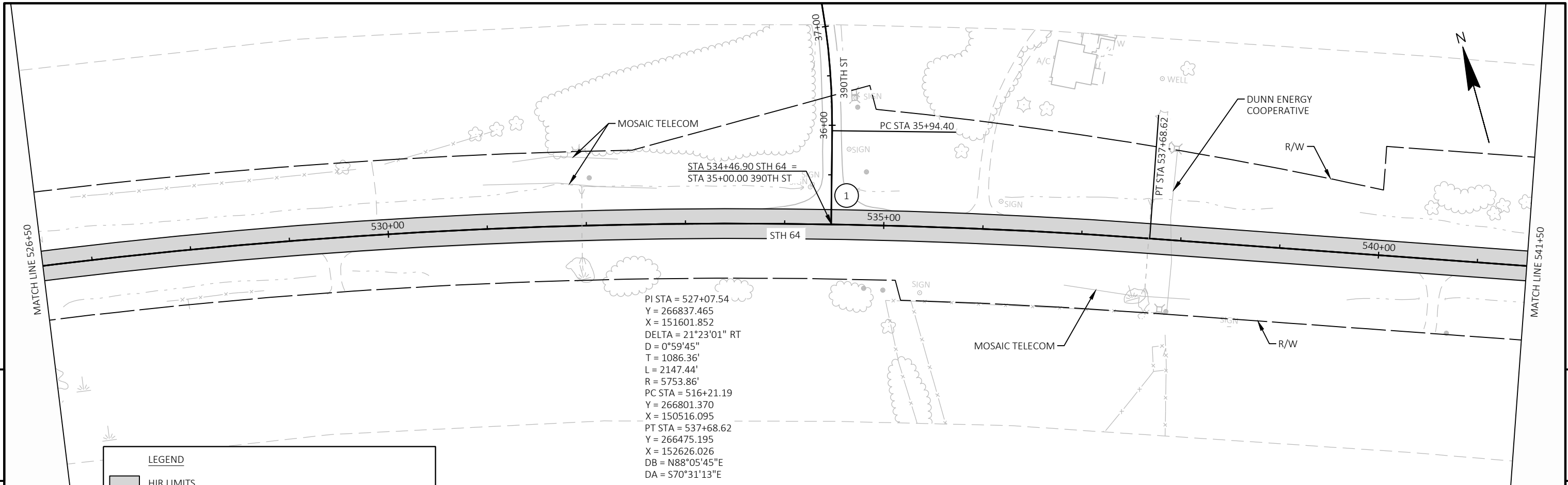


PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	PLAN	SHEET	E
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PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	PLAN	SHEET	E
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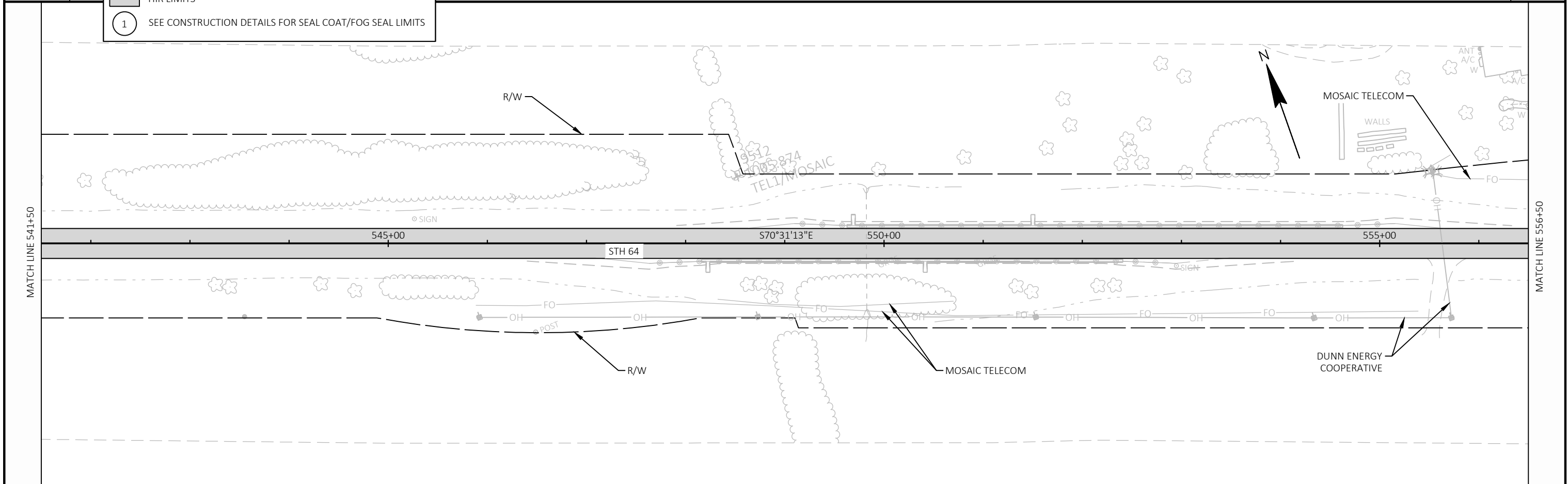
PI STA = 527+07.54
Y = 266837.465
X = 151601.852
DELTA = 21°23'01" RT
D = 0°59'45"
T = 1086.36'
L = 2147.44'
R = 5753.86'
PC STA = 516+21.19
Y = 266801.370
X = 150516.095
PT STA = 537+68.62
Y = 266475.195
X = 152626.026
DB = N88°05'45"E
DA = S70°31'13"E

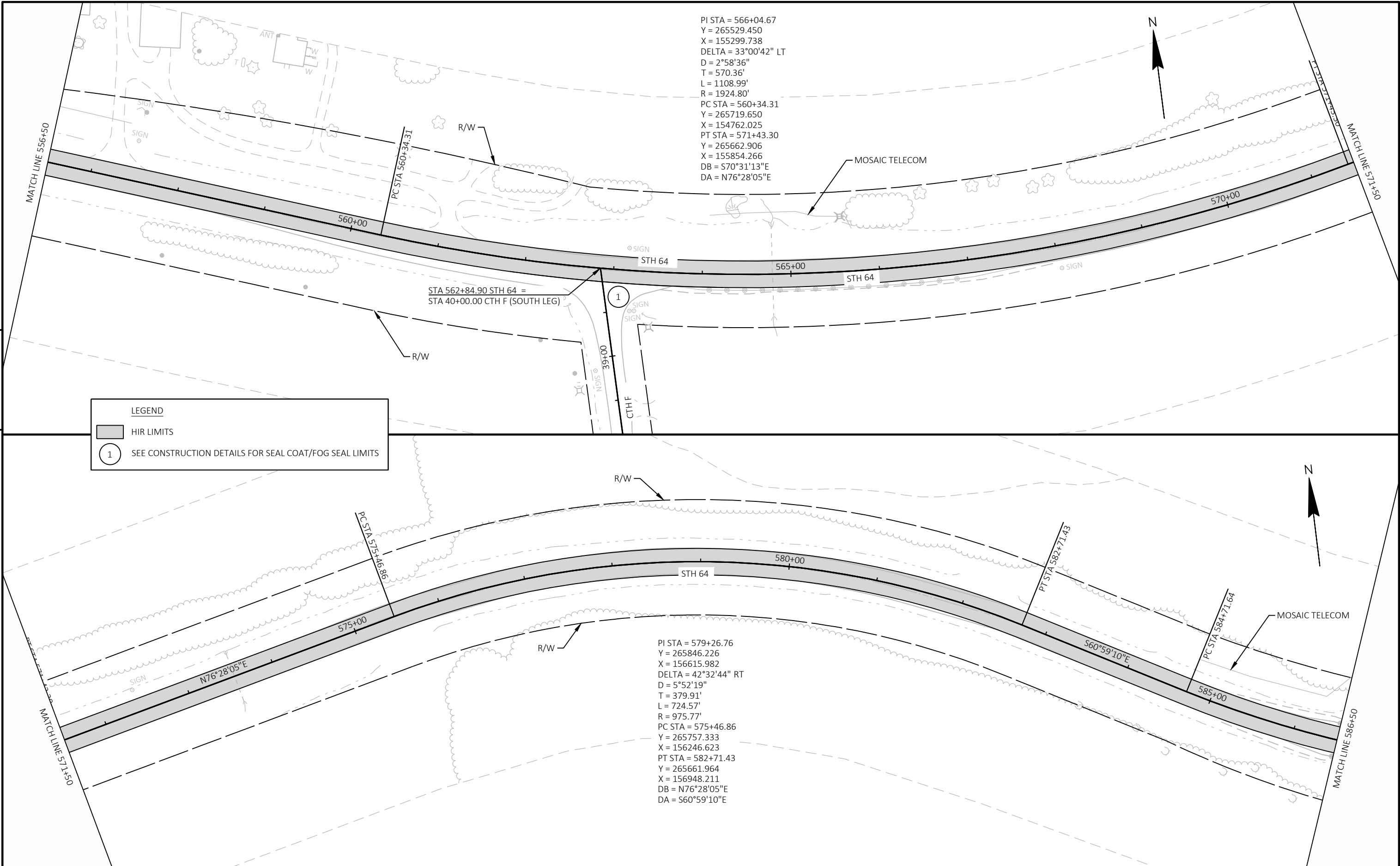
LEGEND

HIR LIMITS

1

SEE CONSTRUCTION DETAILS FOR SEAL COAT/FOG SEAL LIMITS





PI STA = 566+04.67
Y = 265529.450
X = 155299.738
DELTA = 33°00'42" LT
D = 2°58'36"
T = 570.36'
L = 1108.99'
R = 1924.80'
PC STA = 560+34.31
Y = 265719.650
X = 154762.025
PT STA = 571+43.30
Y = 265662.906
X = 155854.266
DB = S70°31'13"E
DA = N76°28'05"E

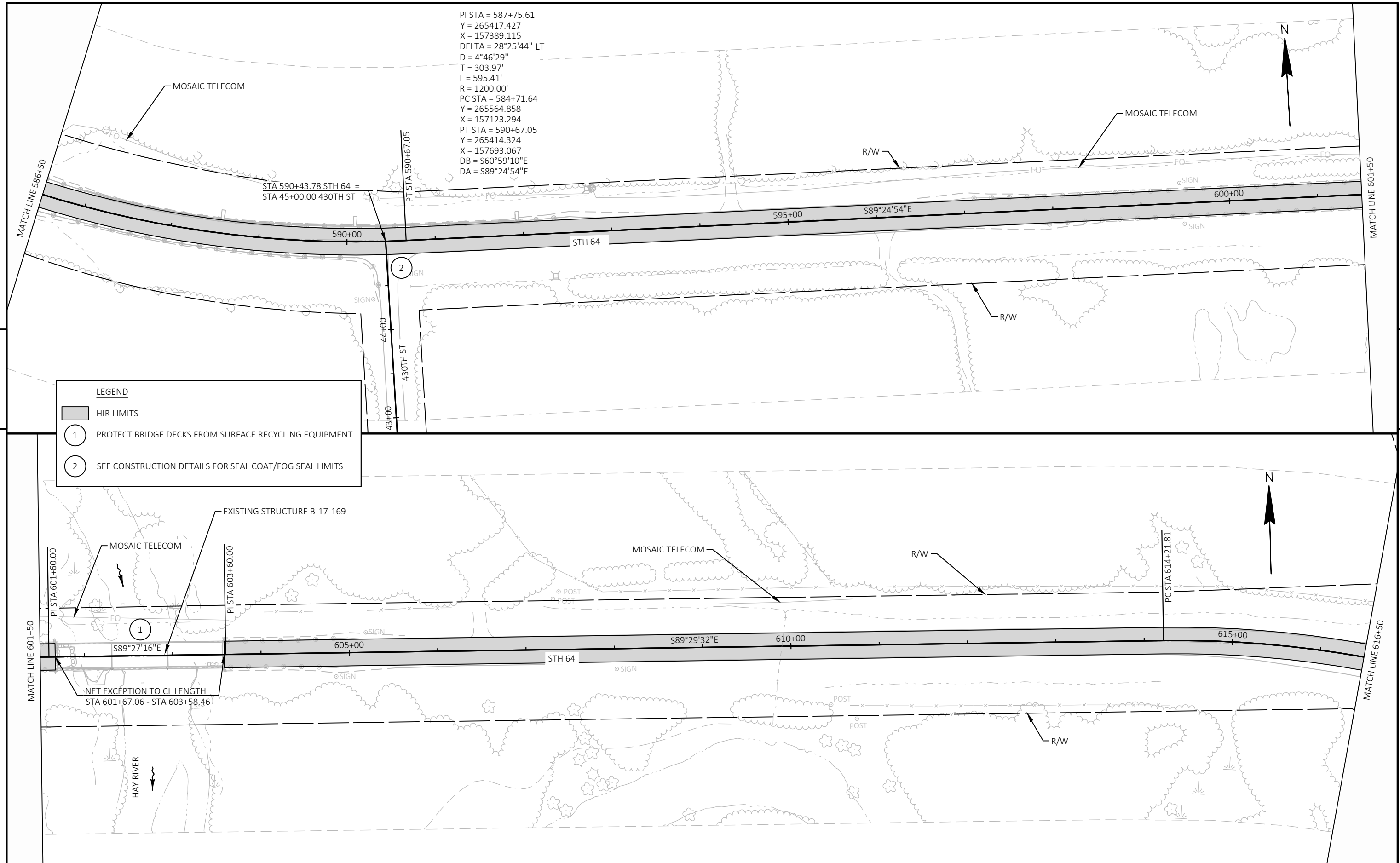
PI STA = 579+26.76
Y = 265846.226
X = 156615.982
DELTA = 42°32'44" RT
D = 5°52'19"
T = 379.91'
L = 724.57'
R = 975.77'
PC STA = 575+46.86
Y = 265757.333
X = 156246.623
PT STA = 582+71.43
Y = 265661.964
X = 156948.211
DB = N76°28'05"E
DA = S60°59'10"E

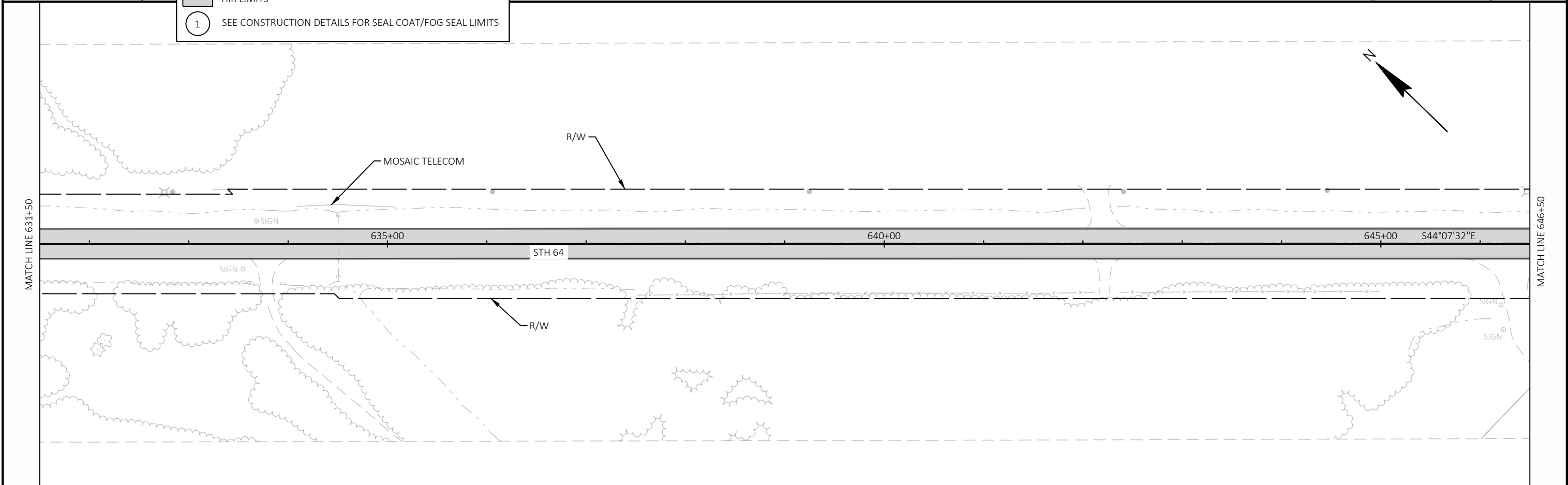
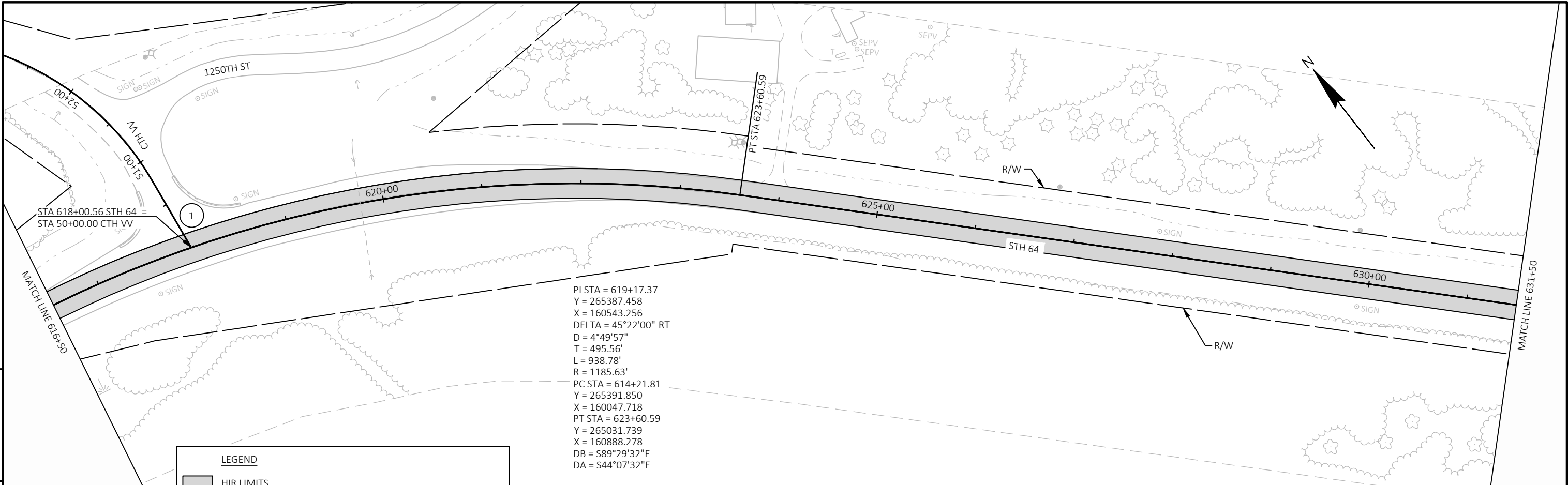
LEGEND

HIR LIMITS

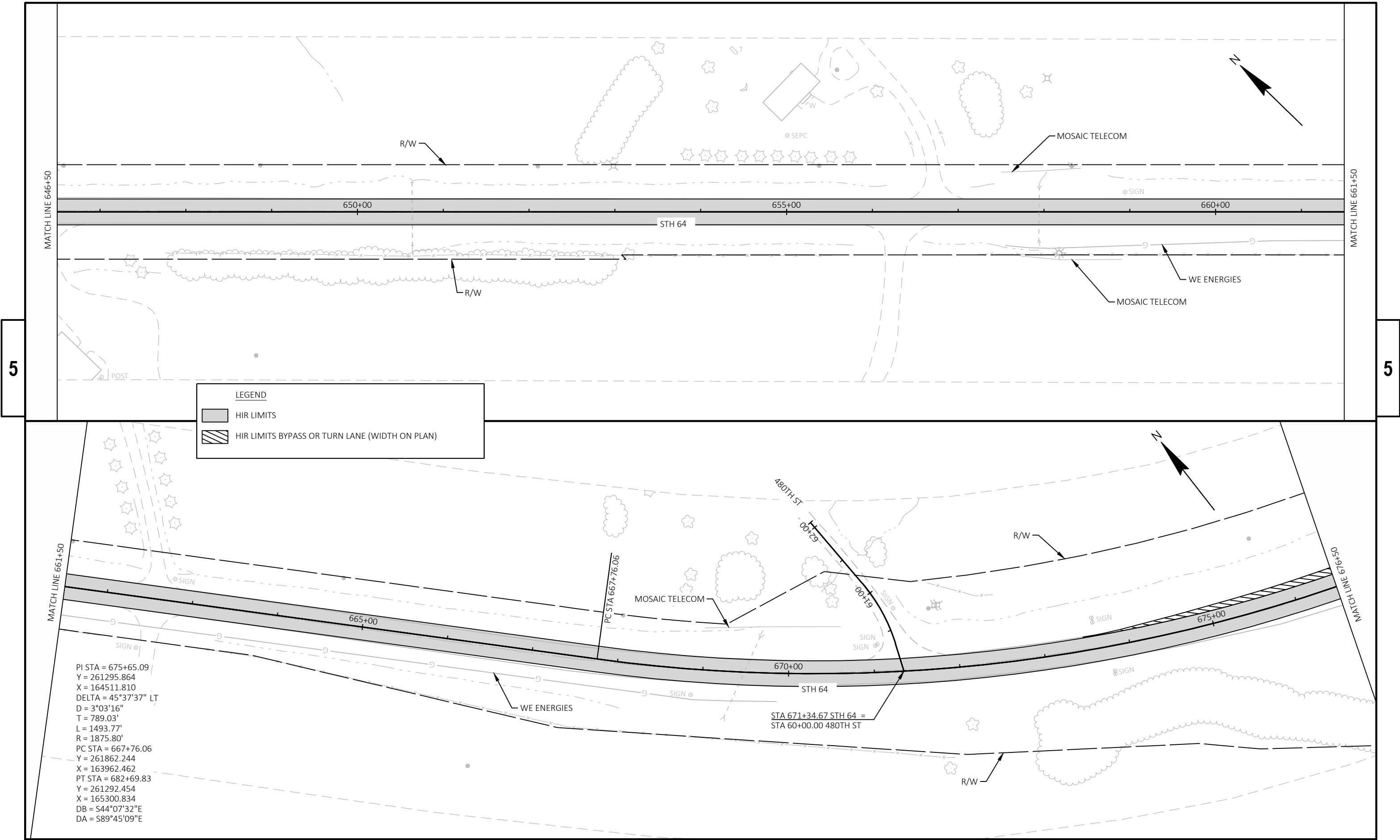
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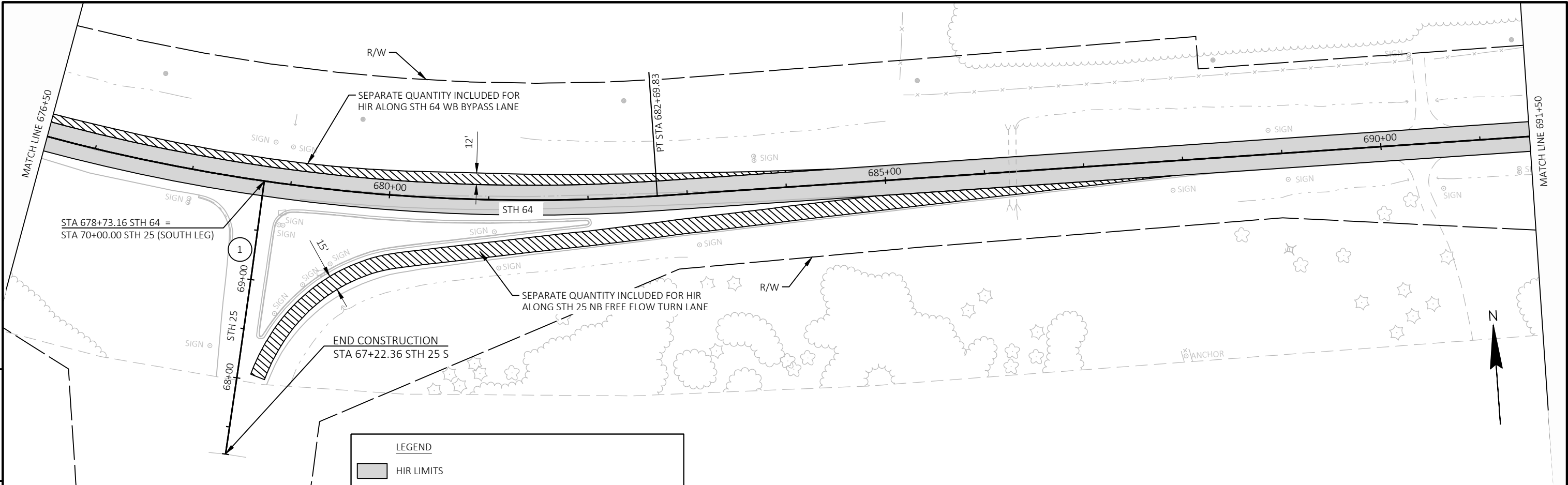
SEE CONSTRUCTION DETAILS FOR SEAL COAT/FOG SEAL LIMITS





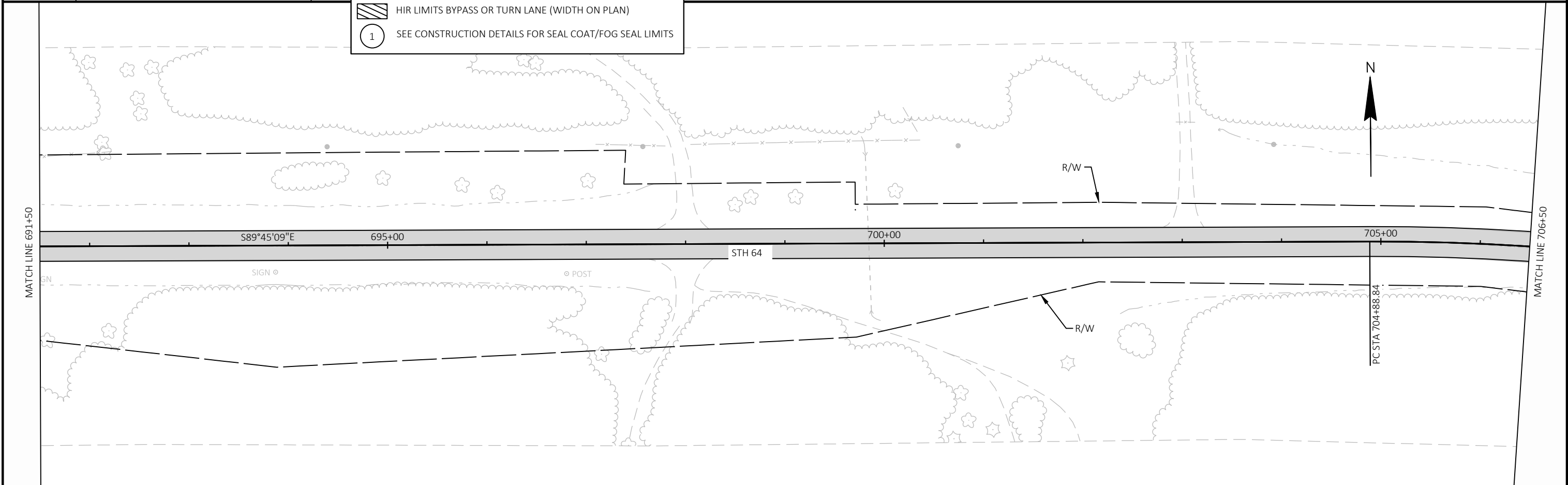
PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	PLAN	SHEET	E
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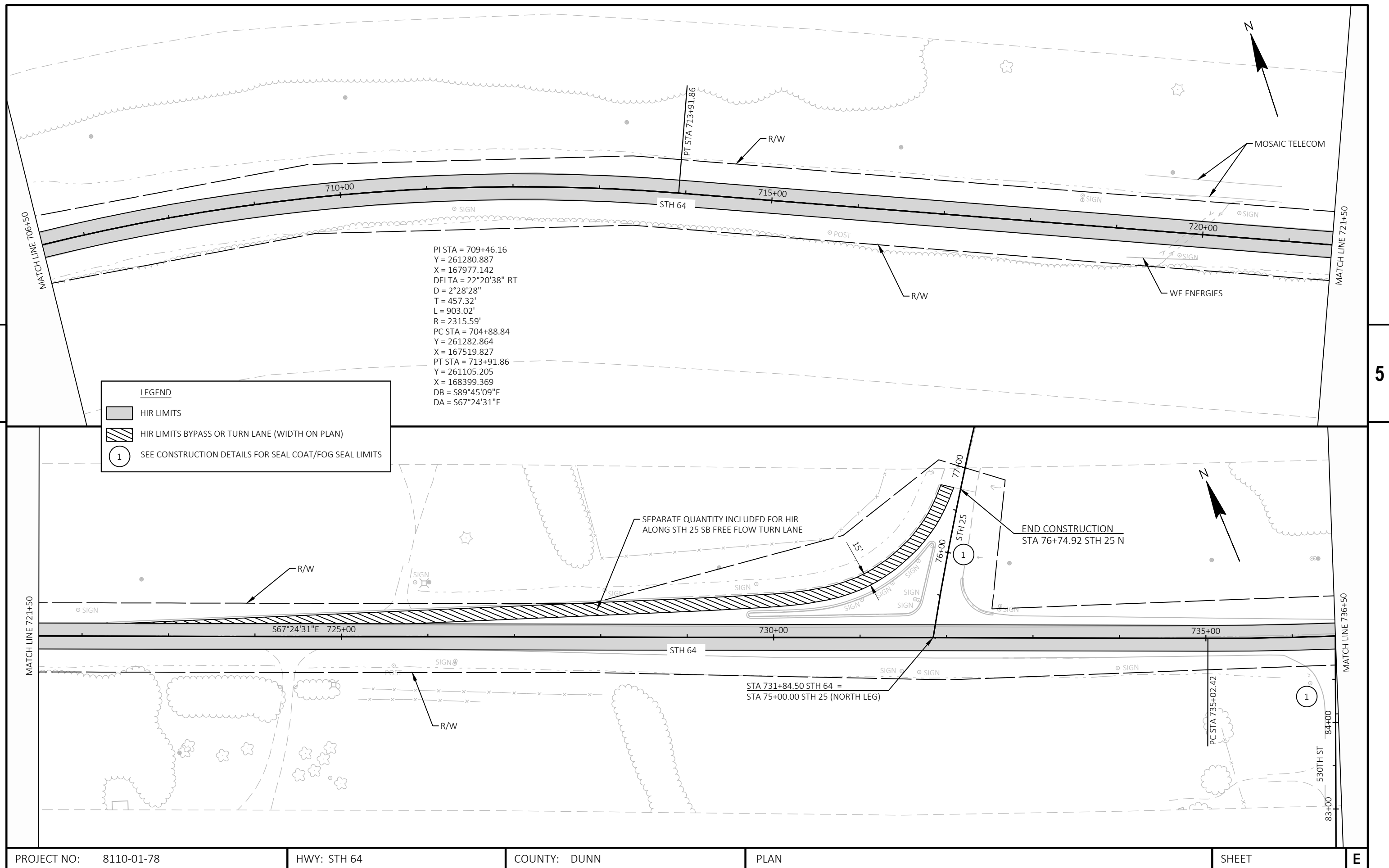


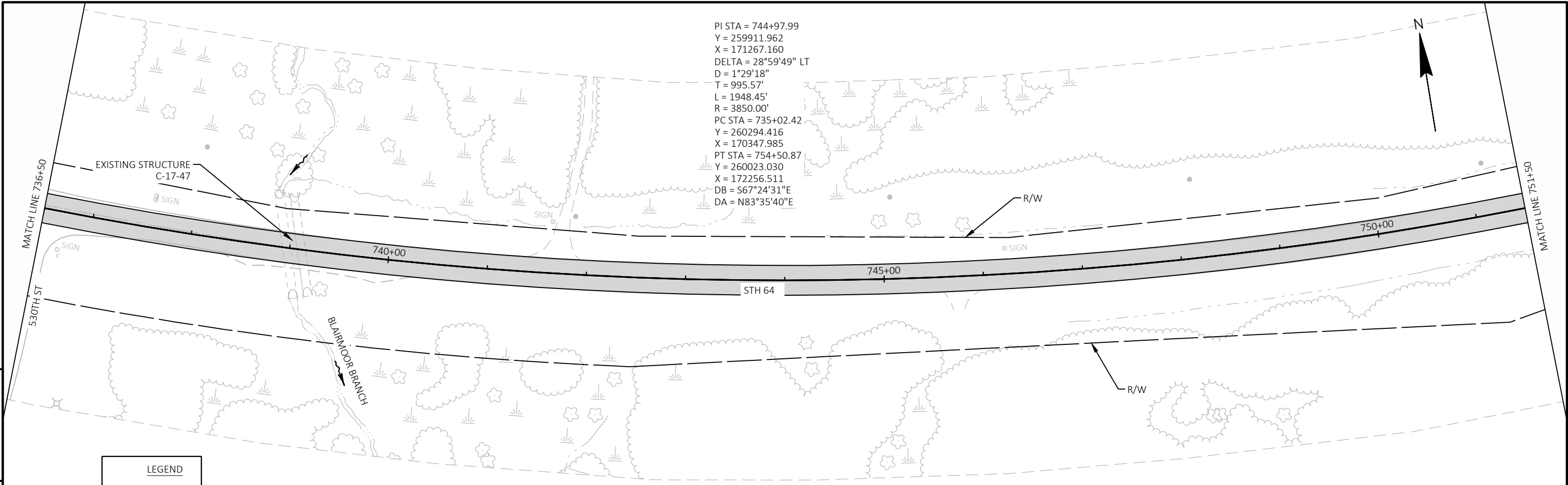
LEGEND

- HIR LIMITS
- HIR LIMITS BYPASS OR TURN LANE (WIDTH ON PLAN)
- SEE CONSTRUCTION DETAILS FOR SEAL COAT/FOG SEAL LIMITS



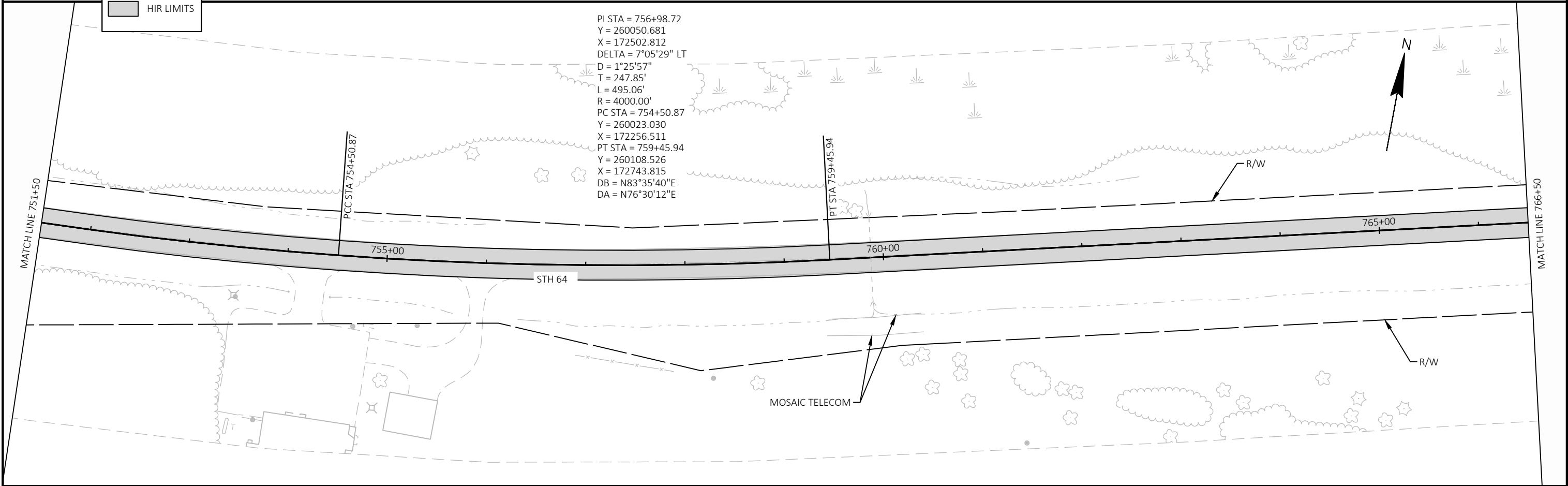
PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	PLAN	SHEET	E
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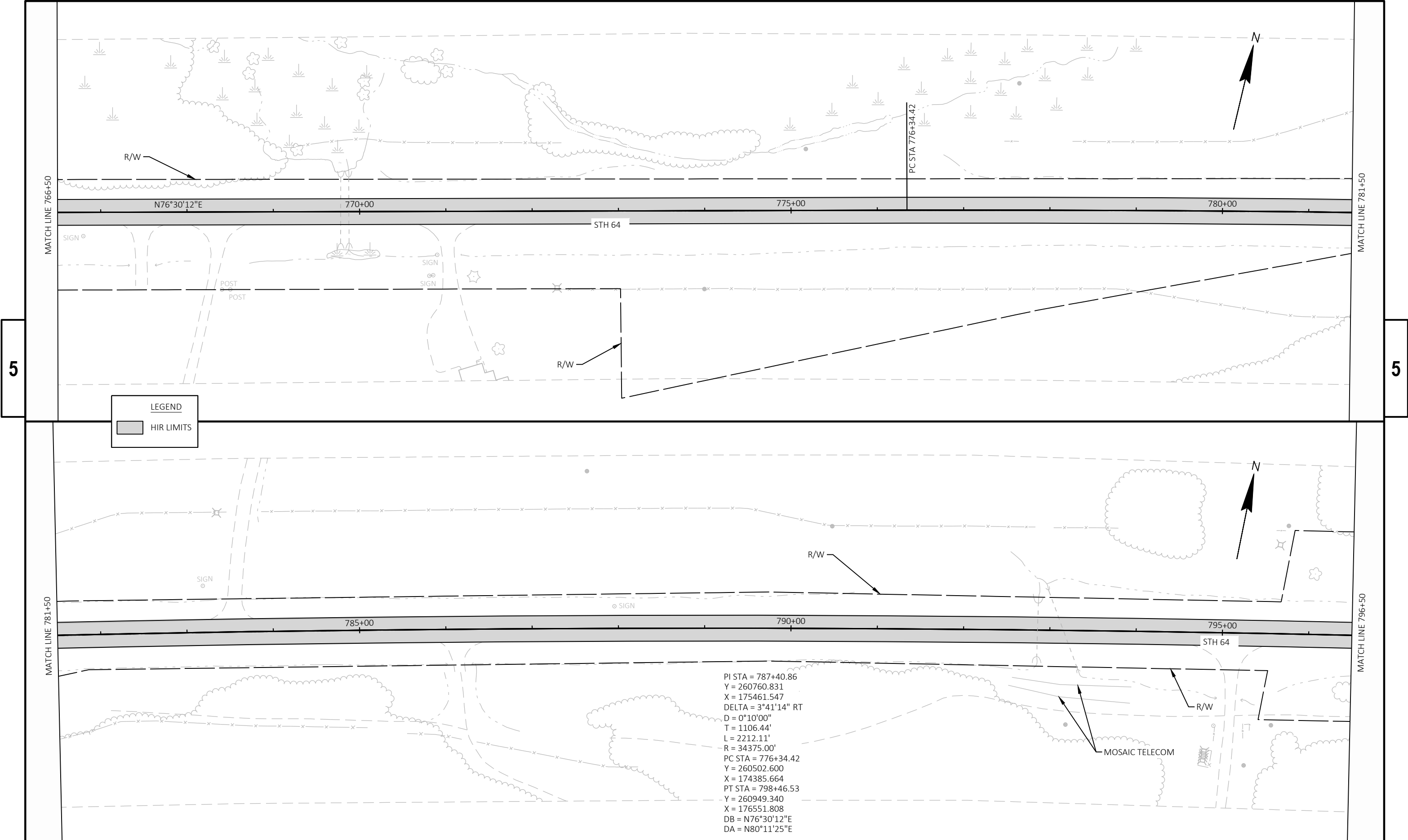


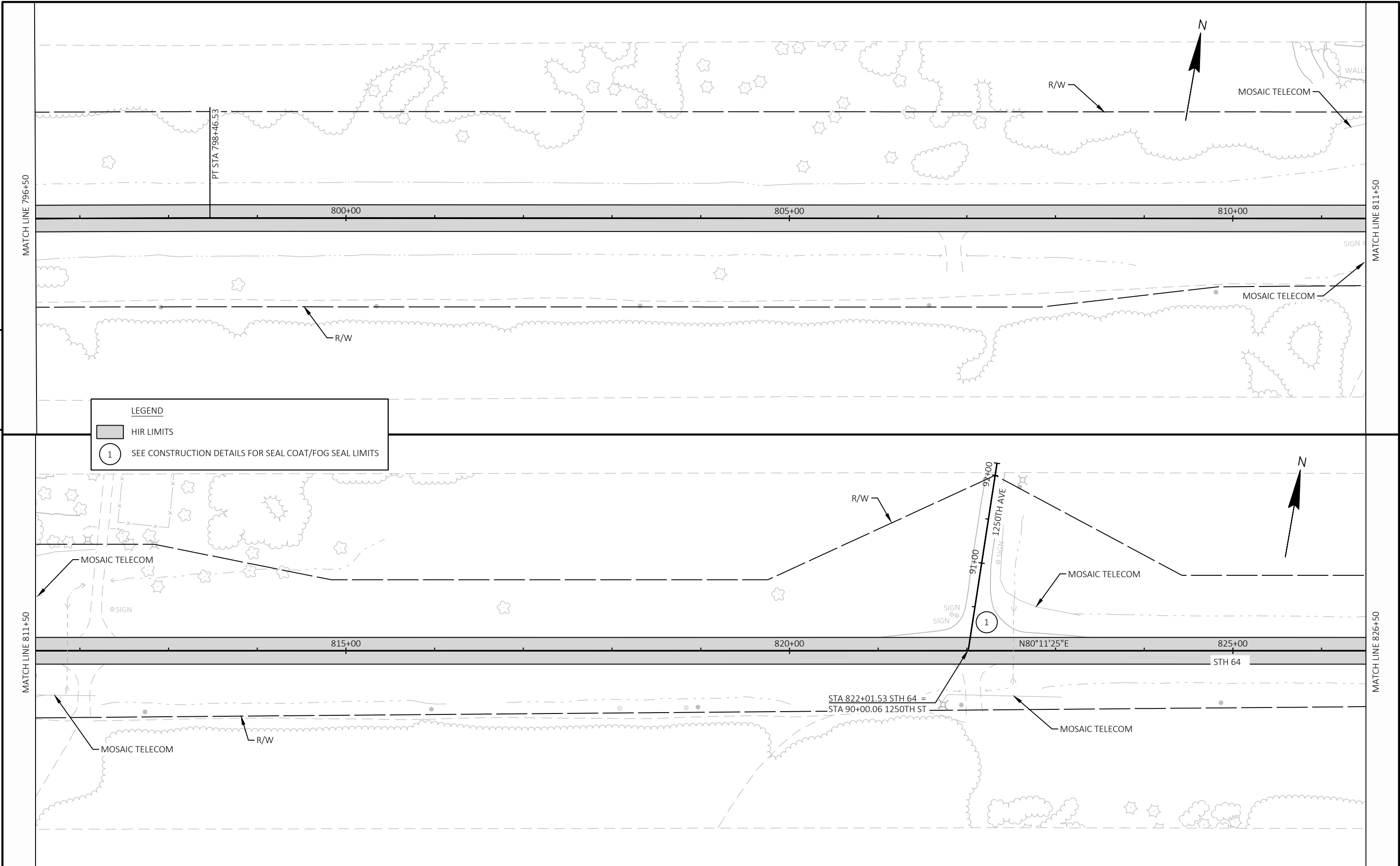
LEGEND

HIR LIMITS

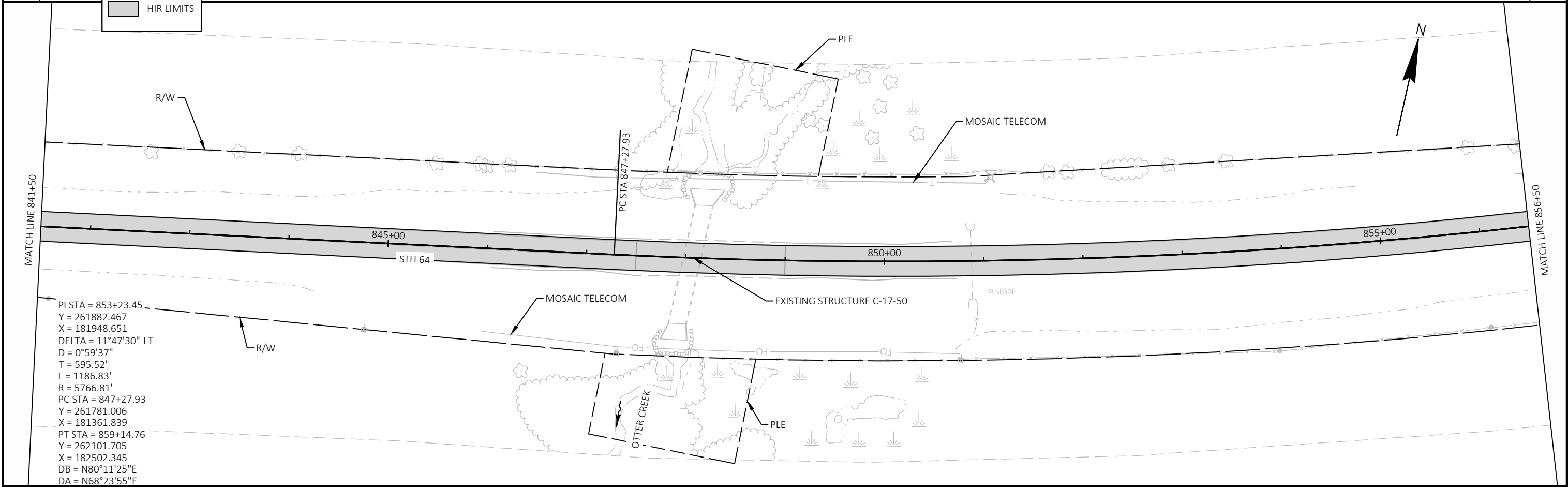
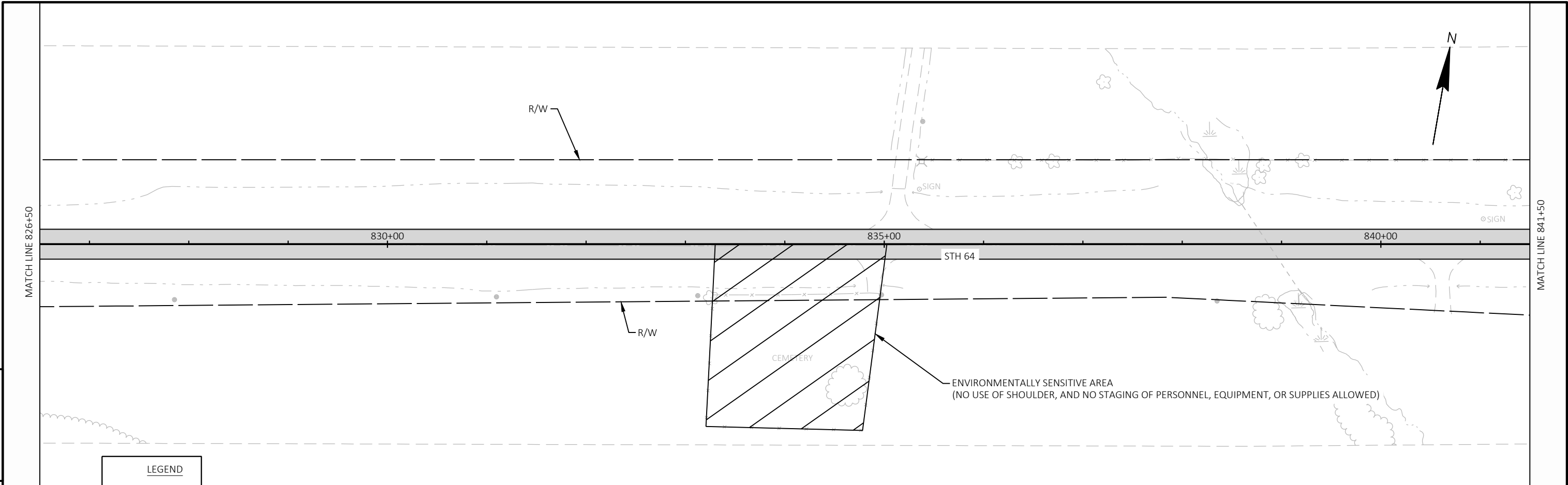


PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	PLAN	SHEET	E
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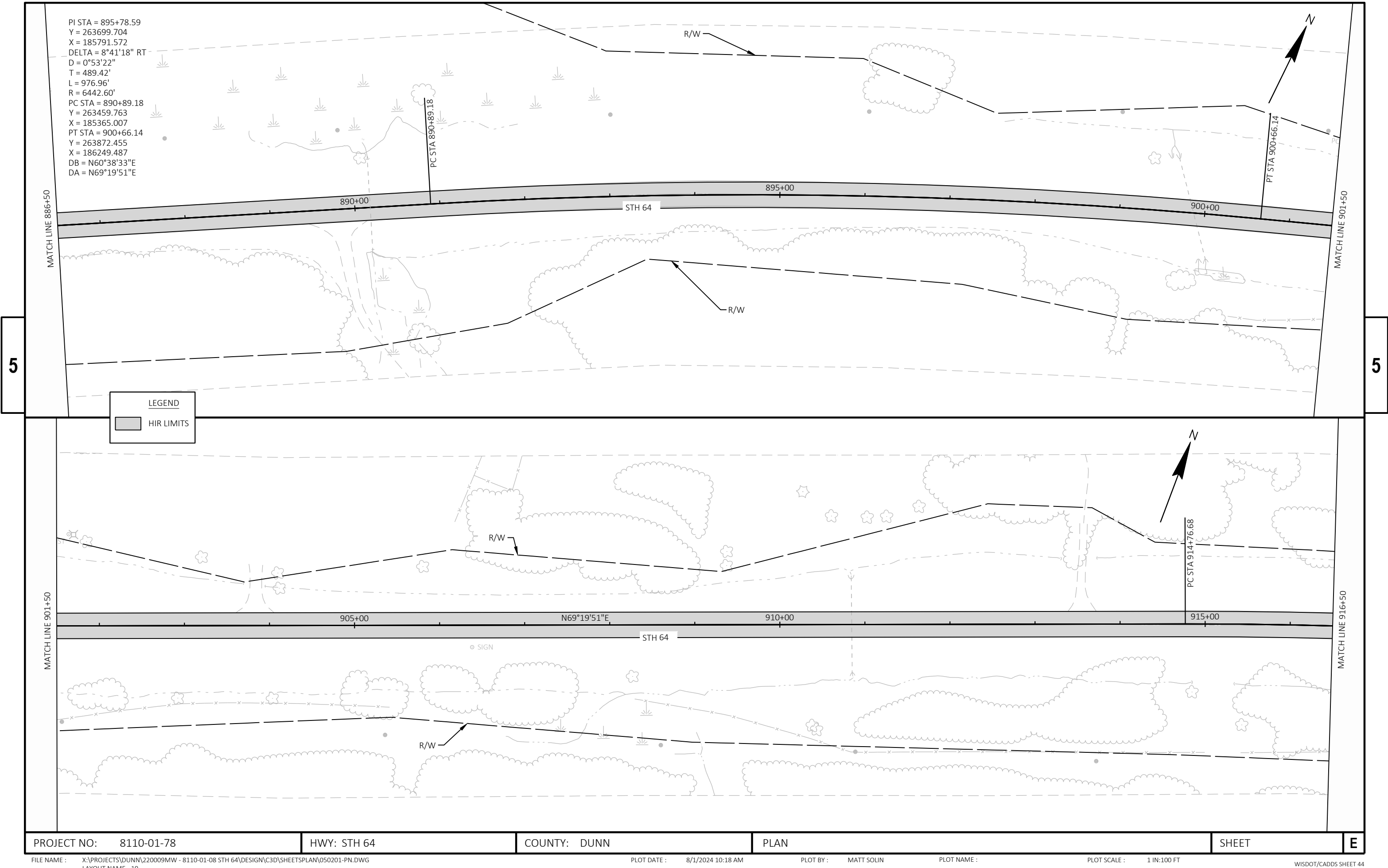


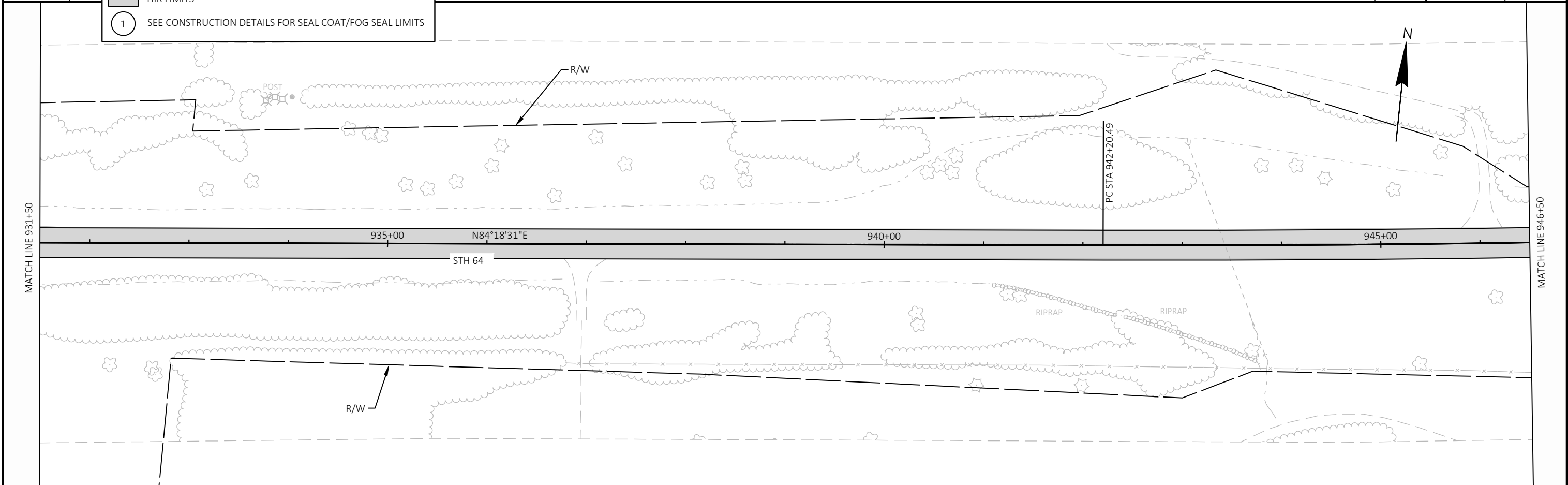
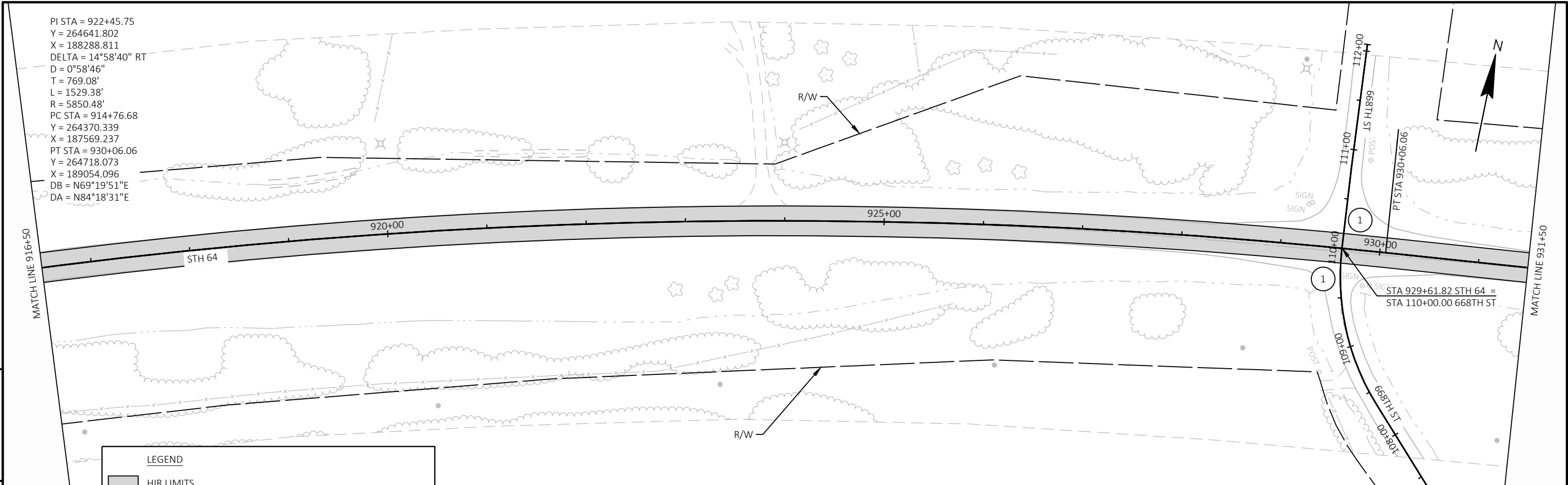


PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	PLAN	SHEET	E
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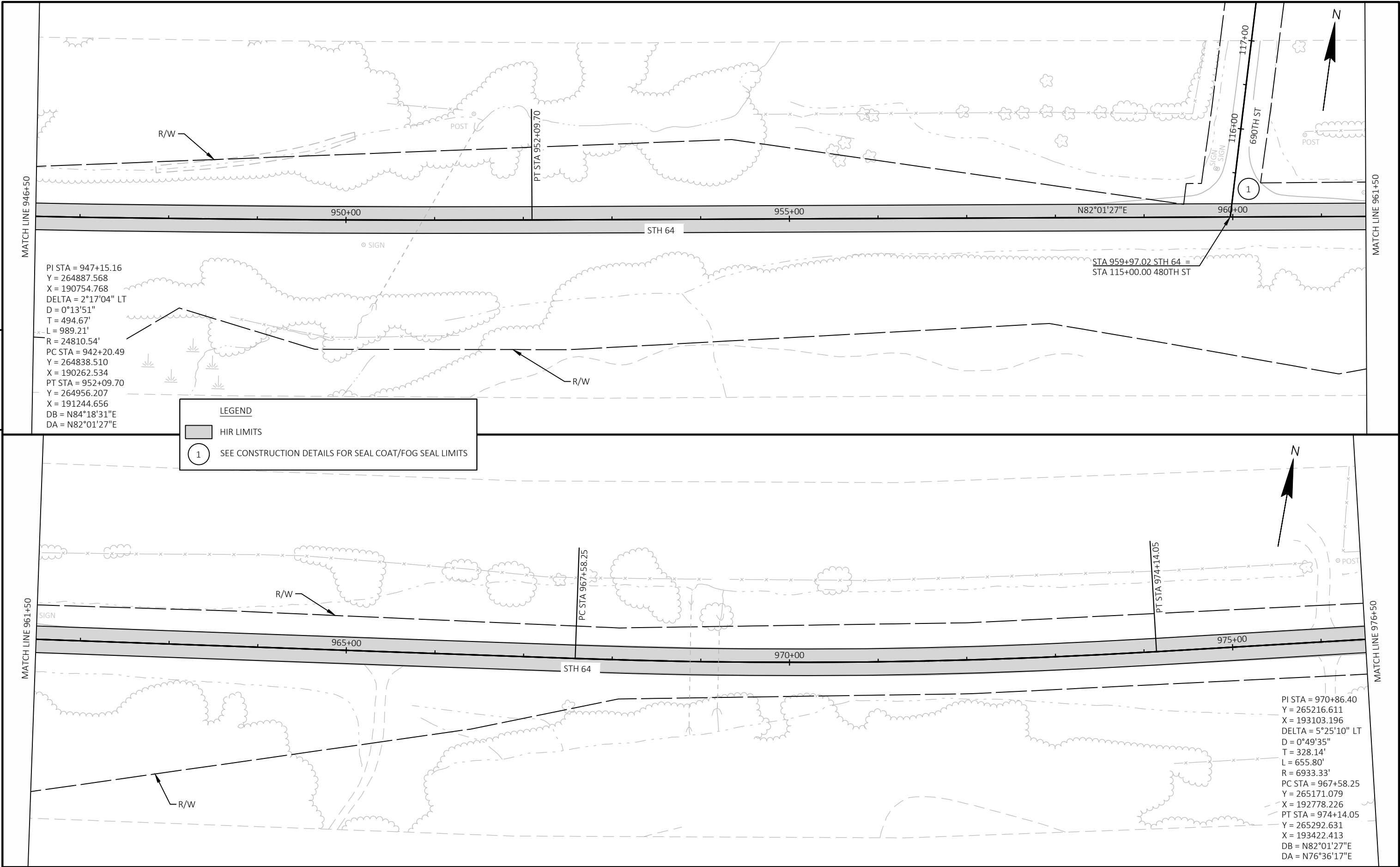


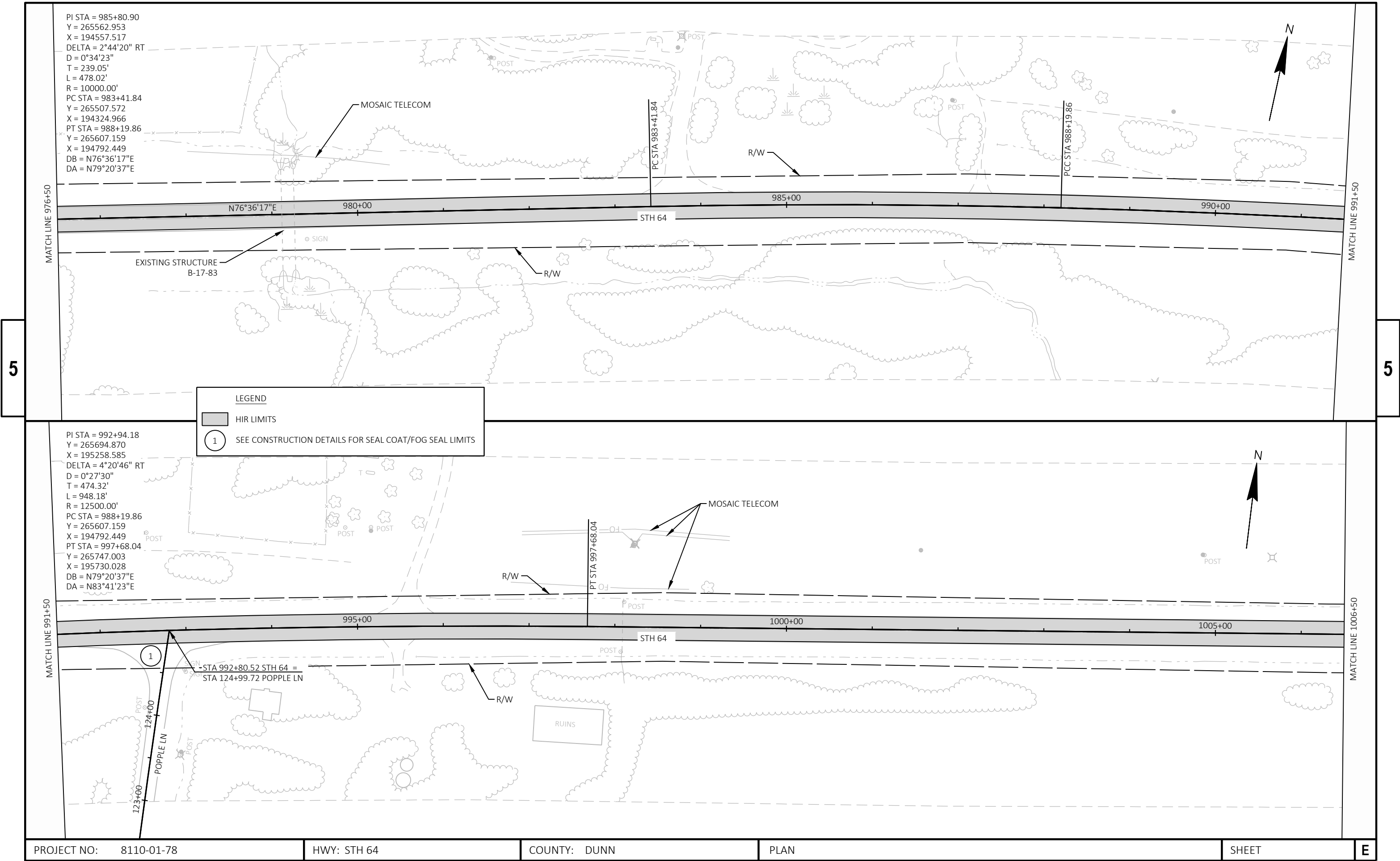
PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	PLAN	SHEET	E
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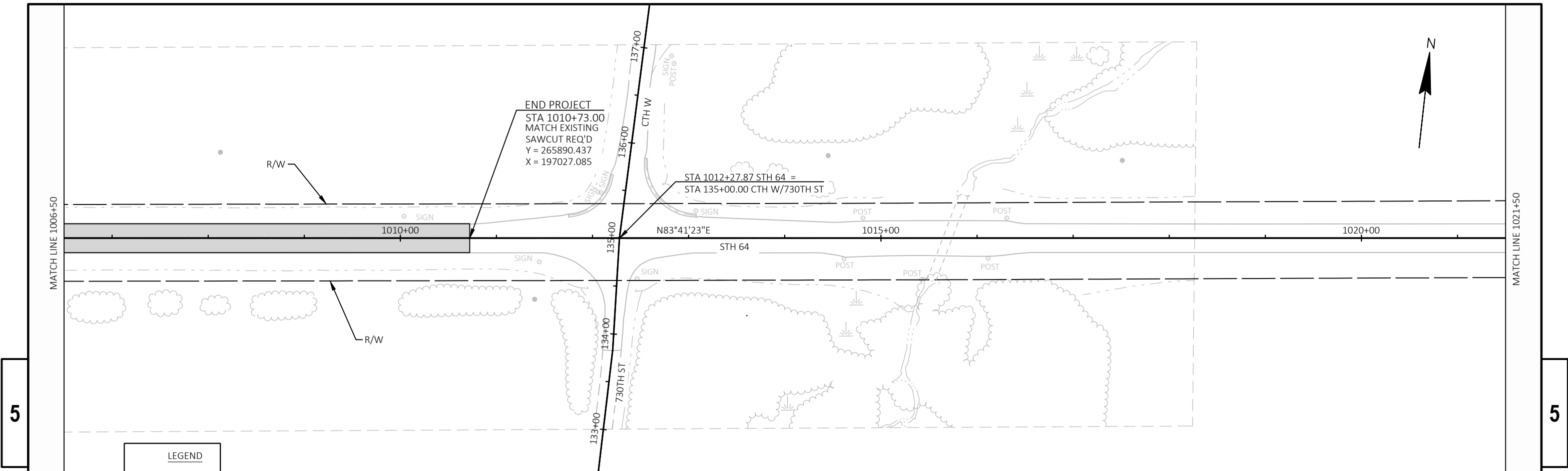




PROJECT NO: 8110-01-78	HWY: STH 64	COUNTY: DUNN	PLAN	SHEET	E
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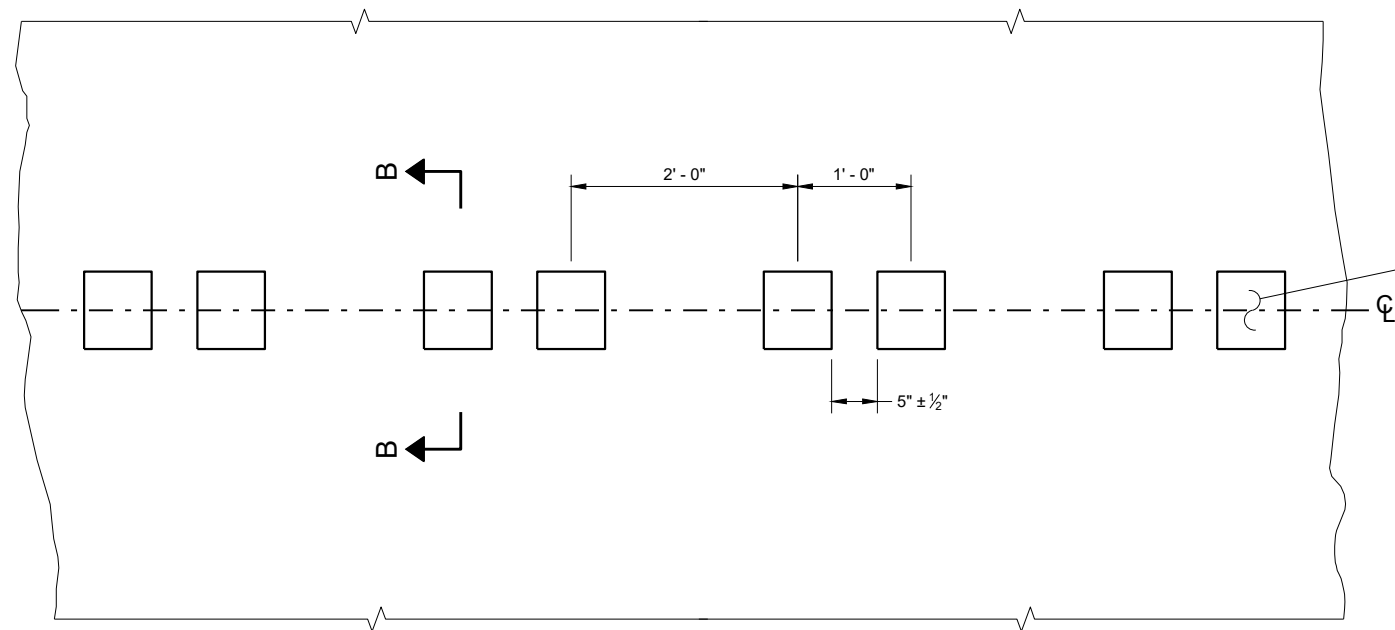


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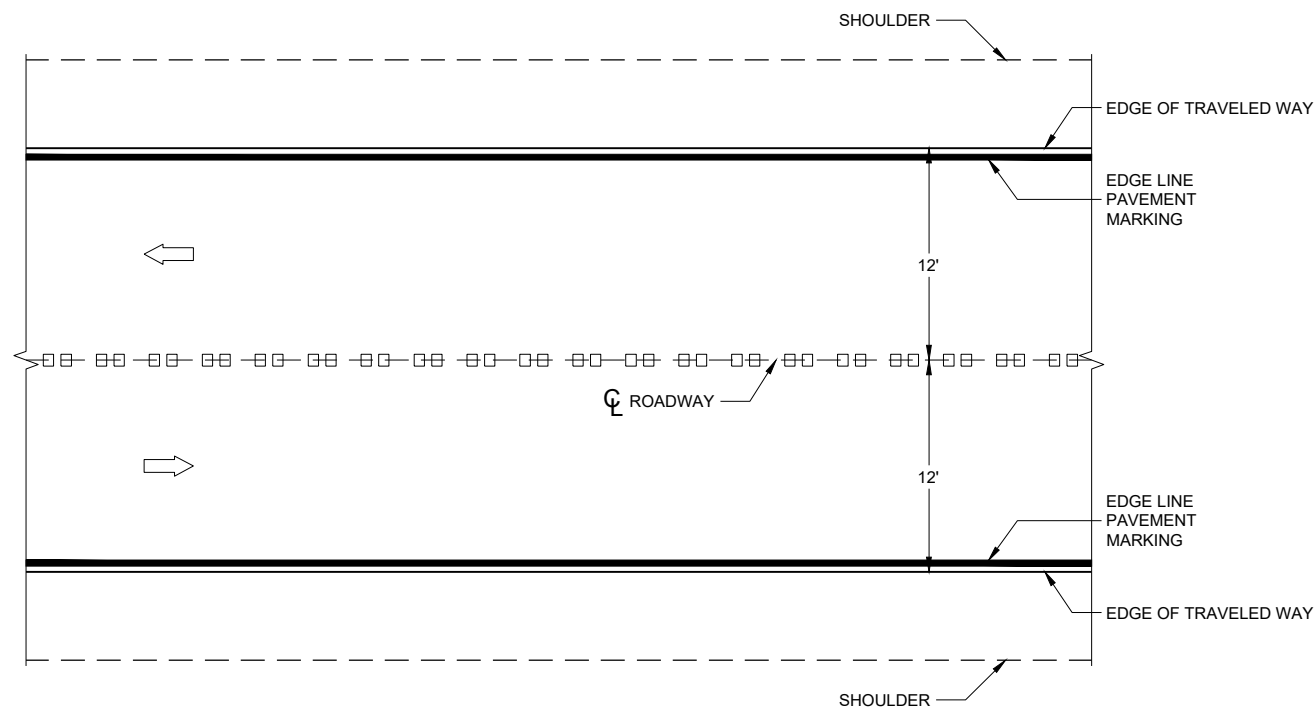
5

Standard Detail Drawing List

13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C34-04	STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKER, TYPE 2
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

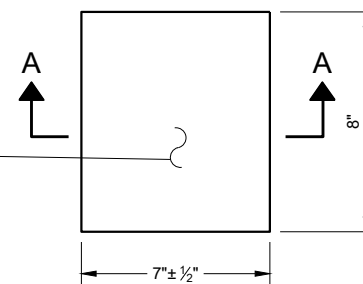


PLAN DETAIL VIEW

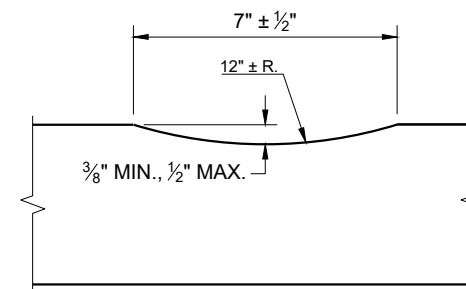


PLAN VIEW

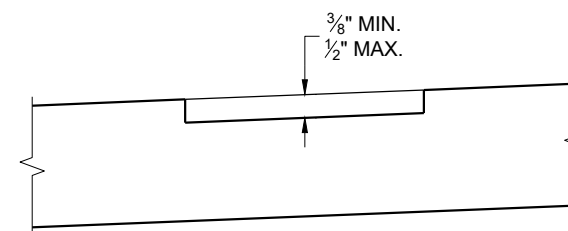
CENTERLINE RUMBLE STRIPS - ASPHALT



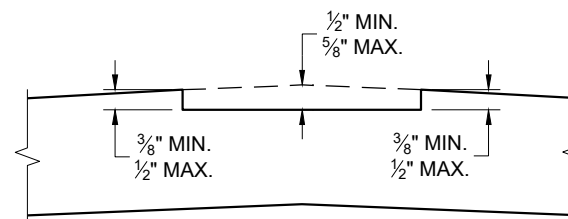
PLAN VIEW (SINGLE GROOVE)



SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY

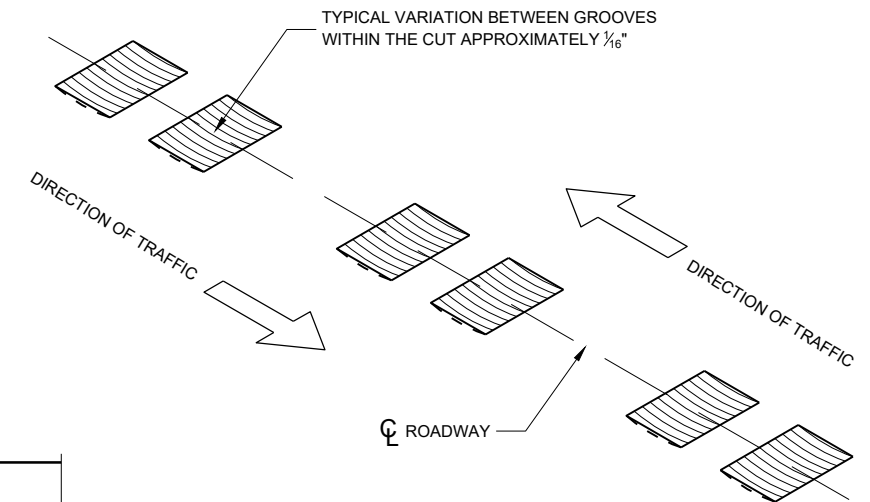


SECTION B - B
CROWNED ROADWAY

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.



CENTERLINE RUMBLE STRIPS - ASPHALT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

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




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

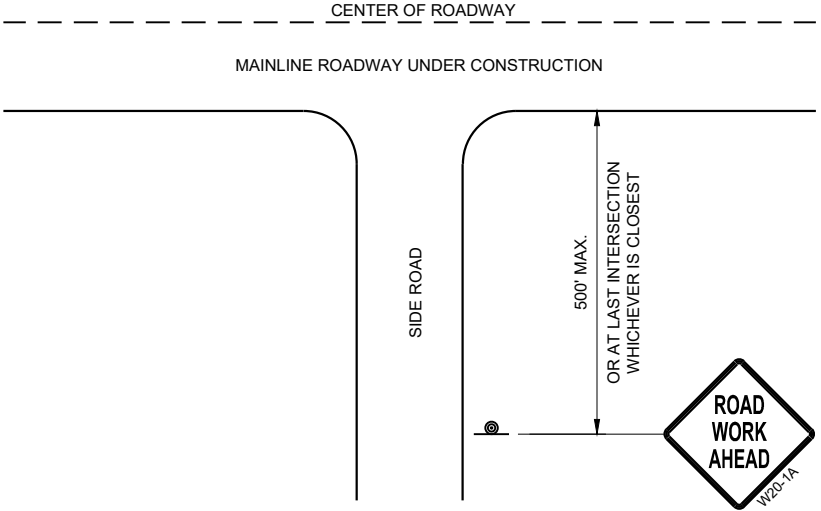
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

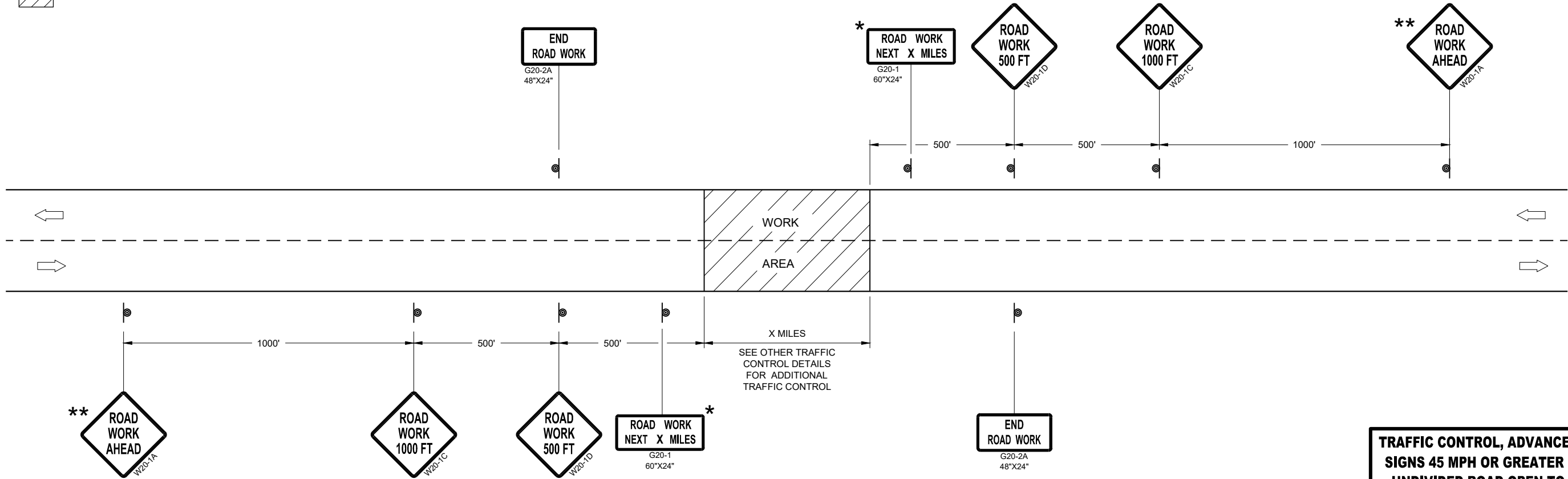
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL

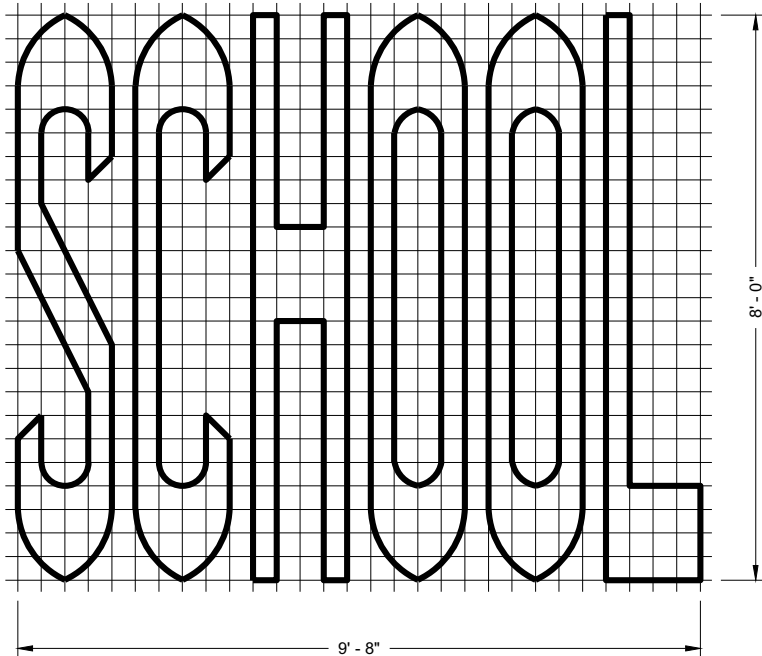
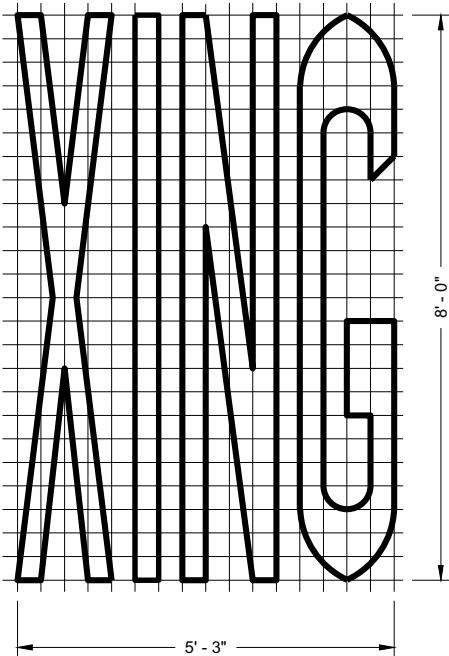
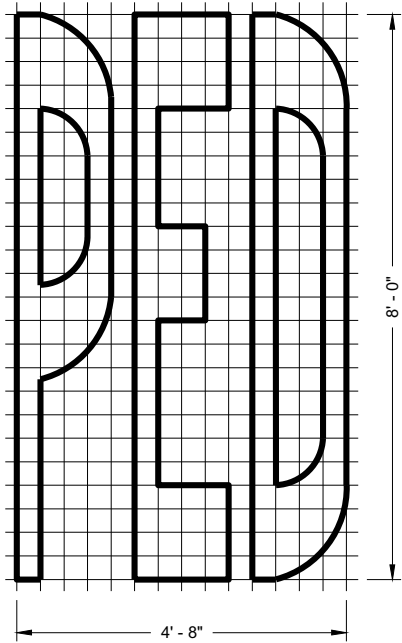
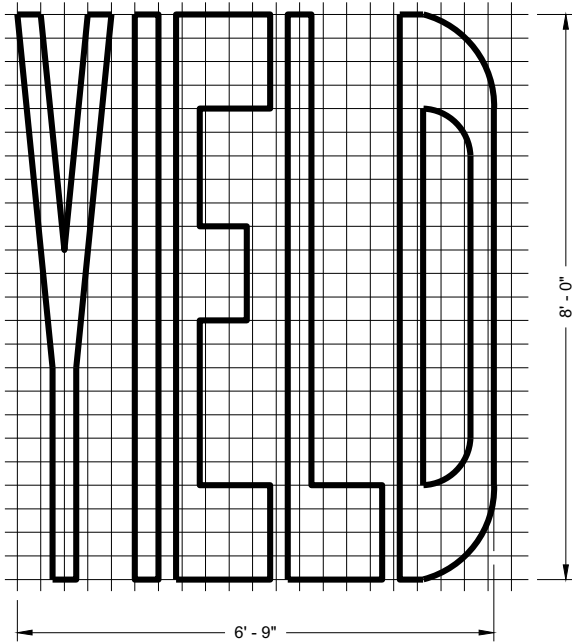
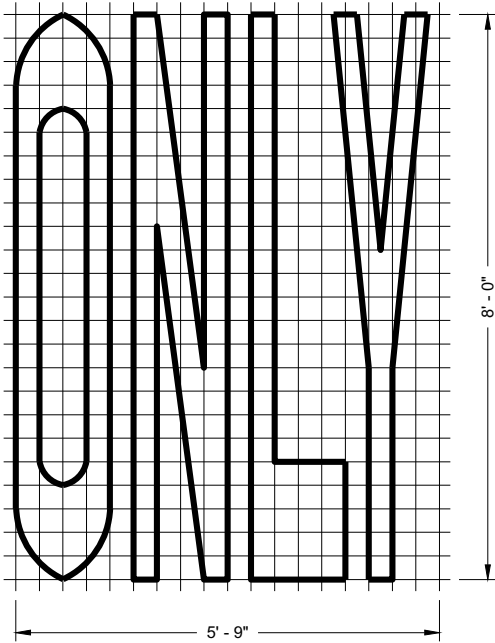
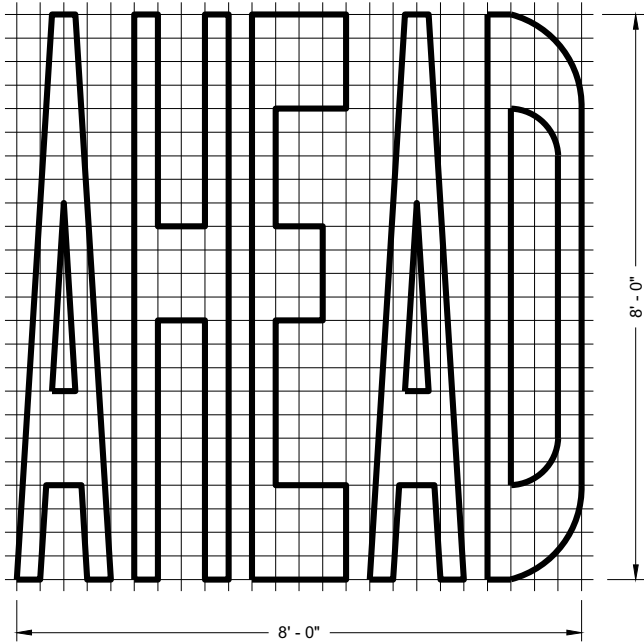
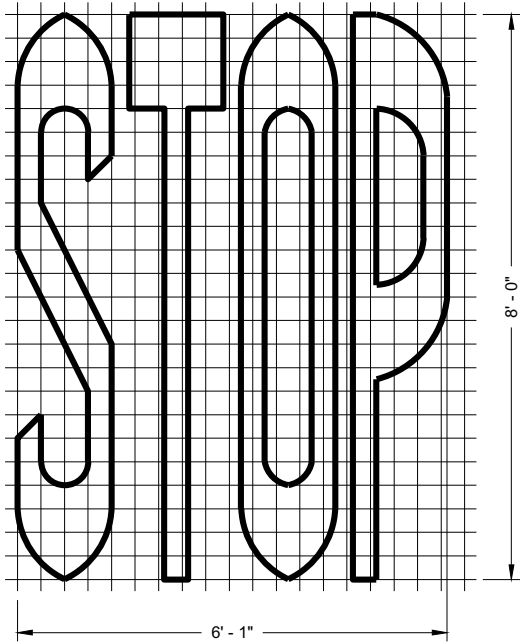


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

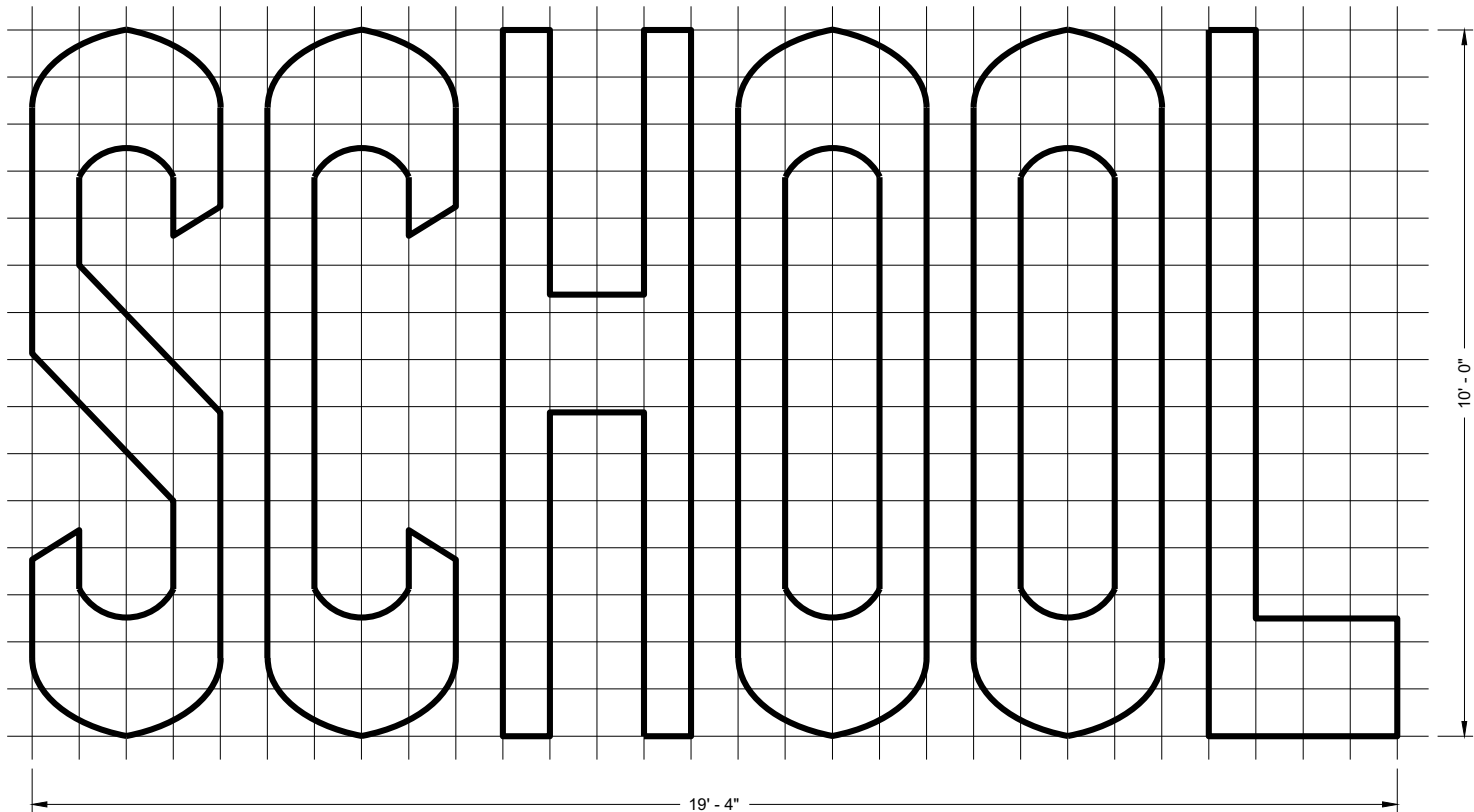
TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



SINGLE LANE



TWO - LANE

GENERAL NOTES

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

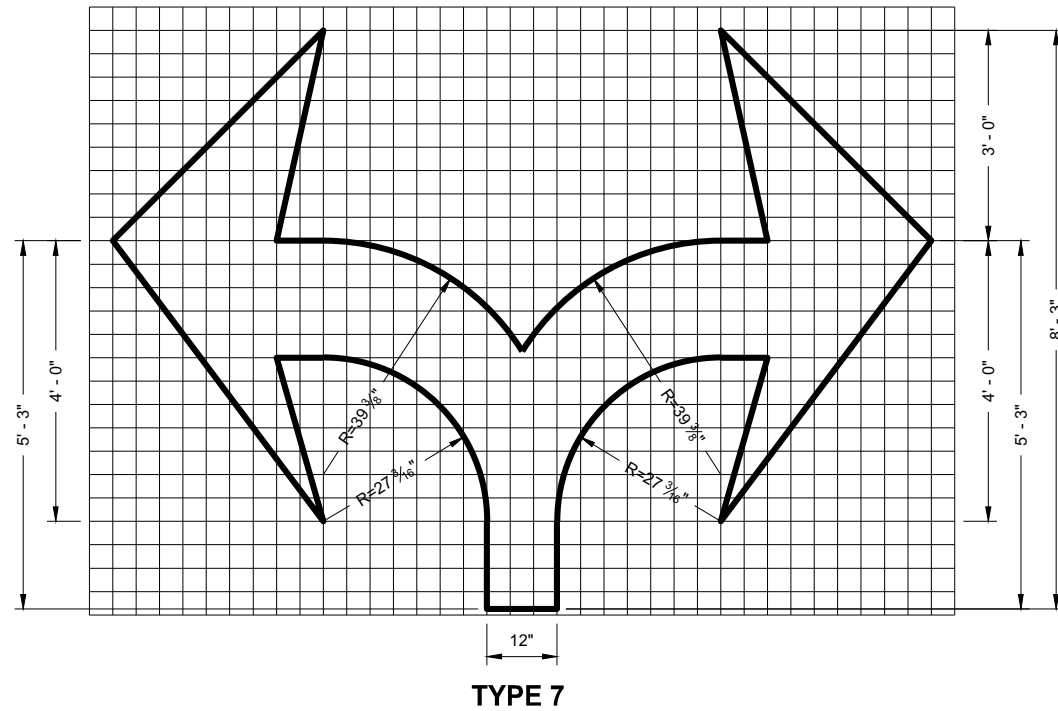
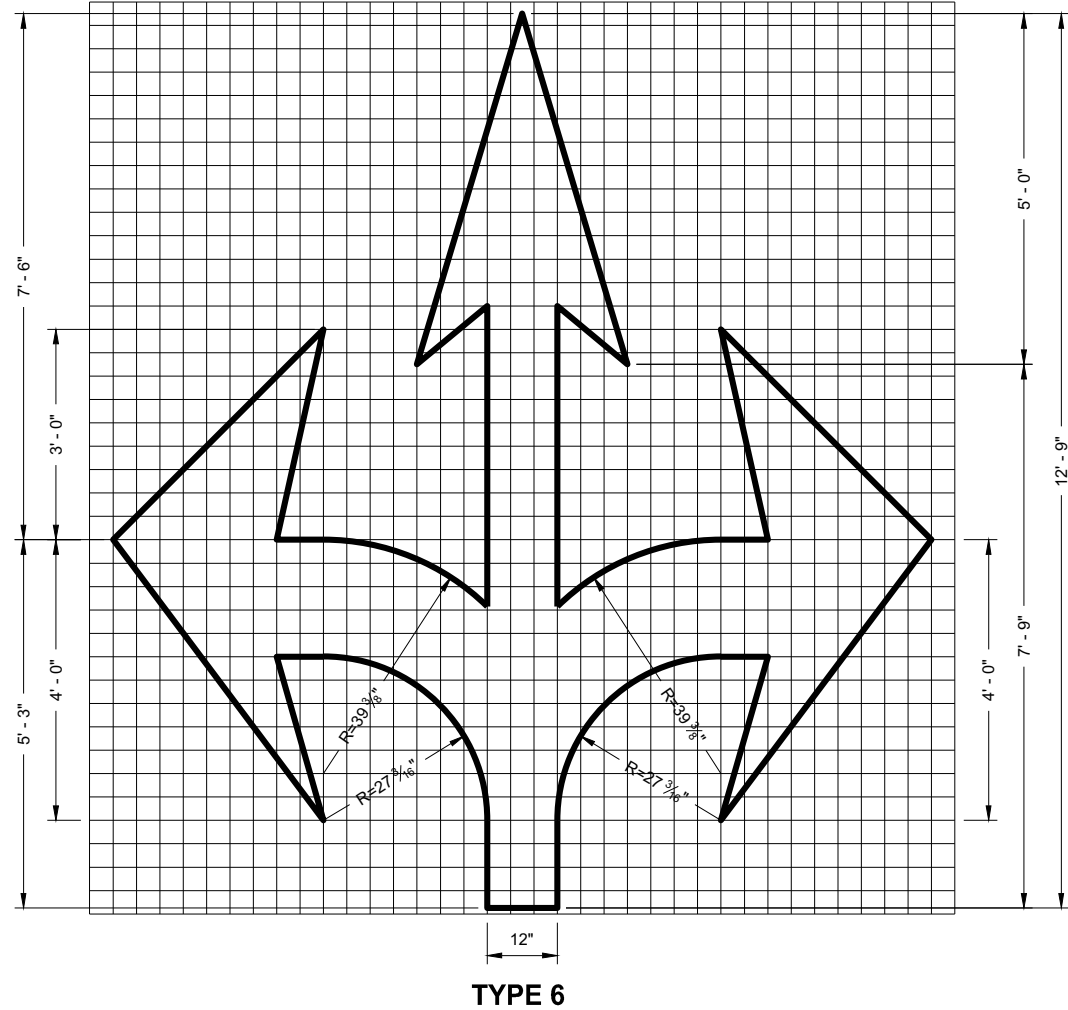
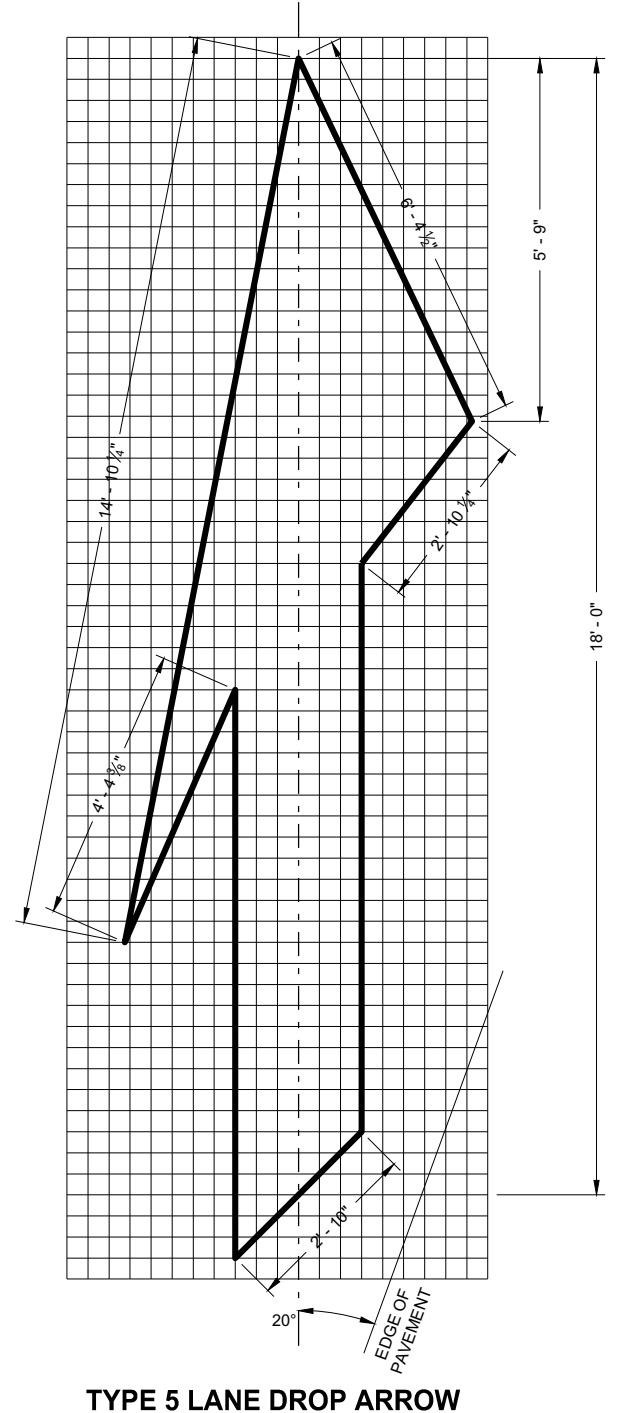
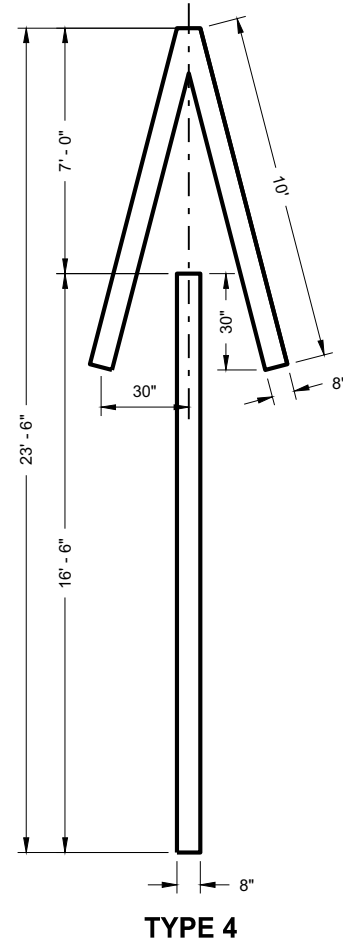
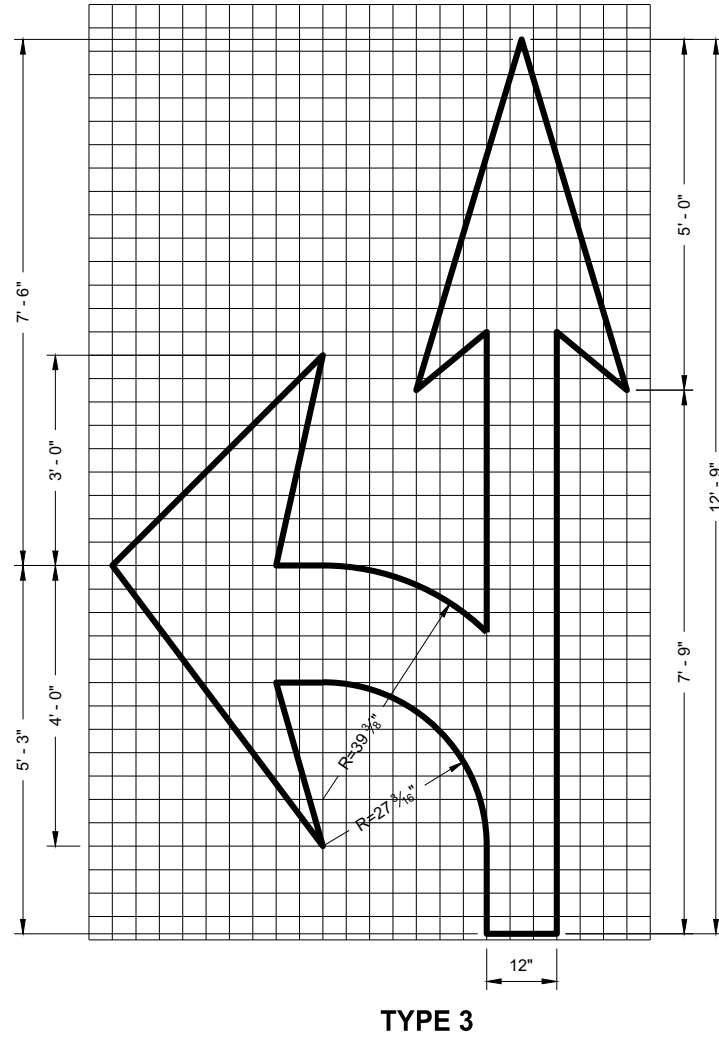
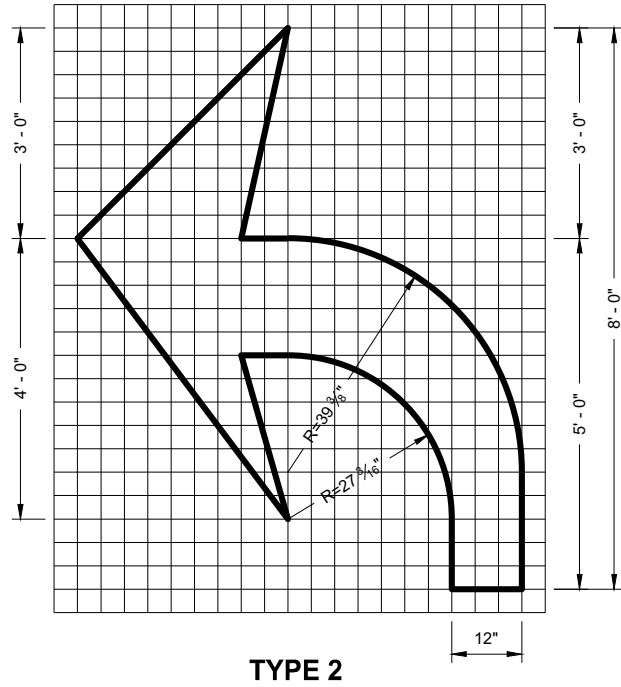
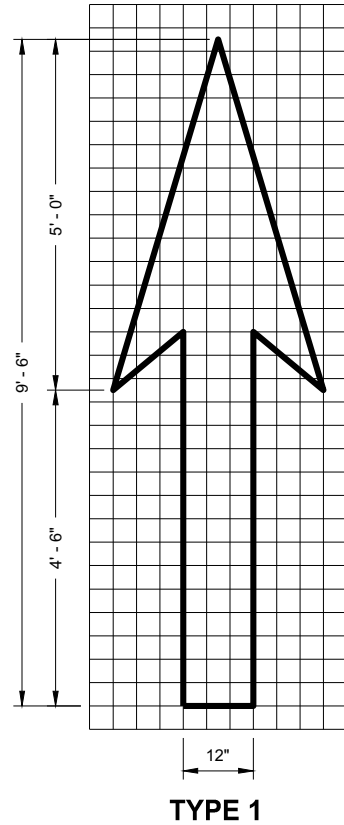
PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER

FHWA



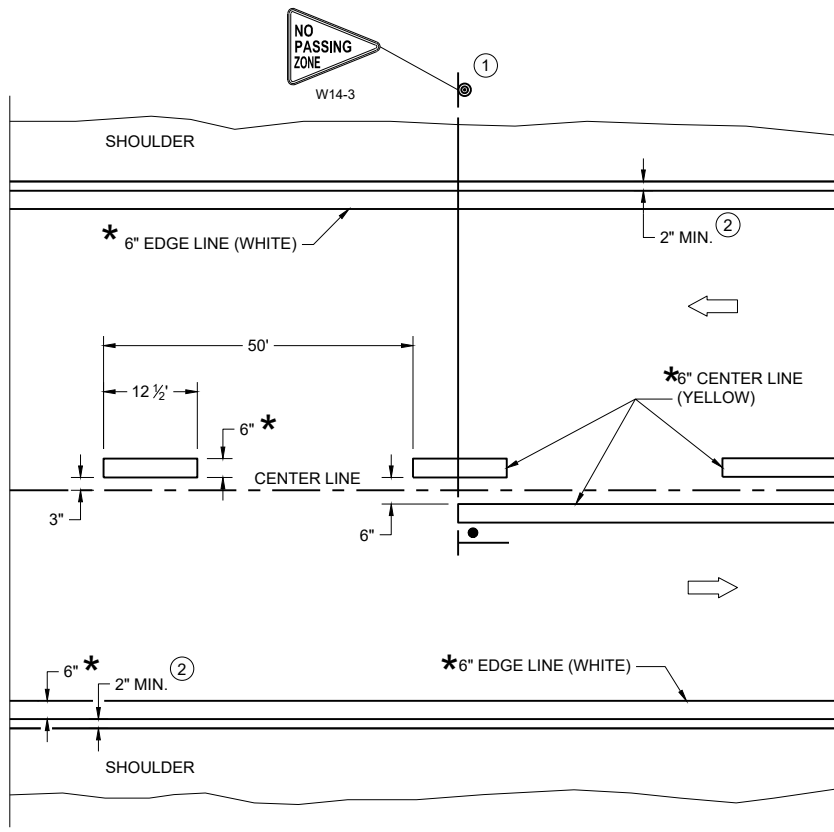
GENERAL NOTES

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

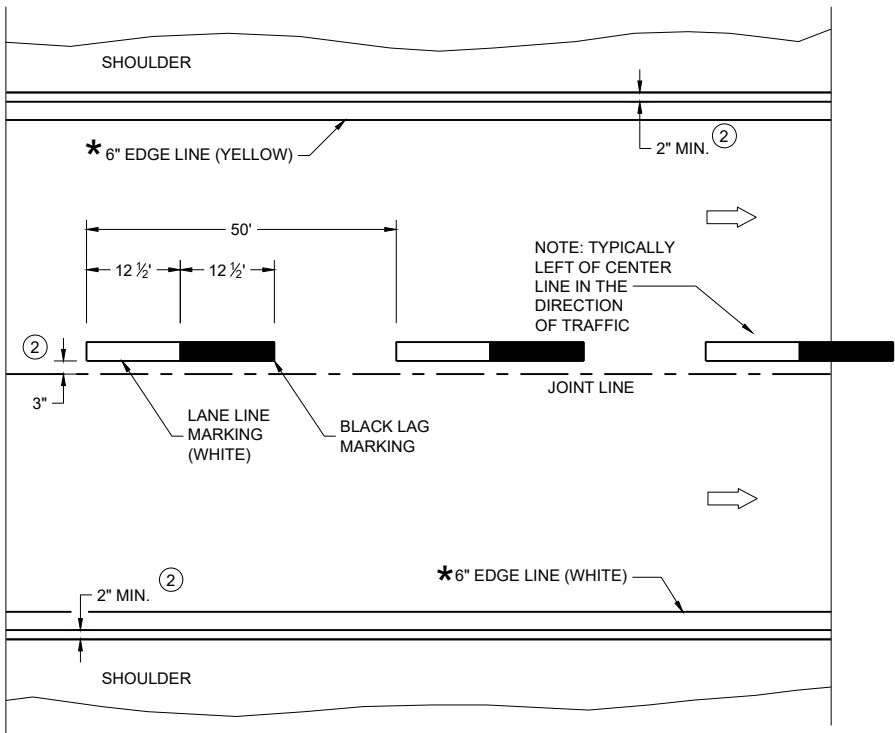
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE
/S/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER
FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

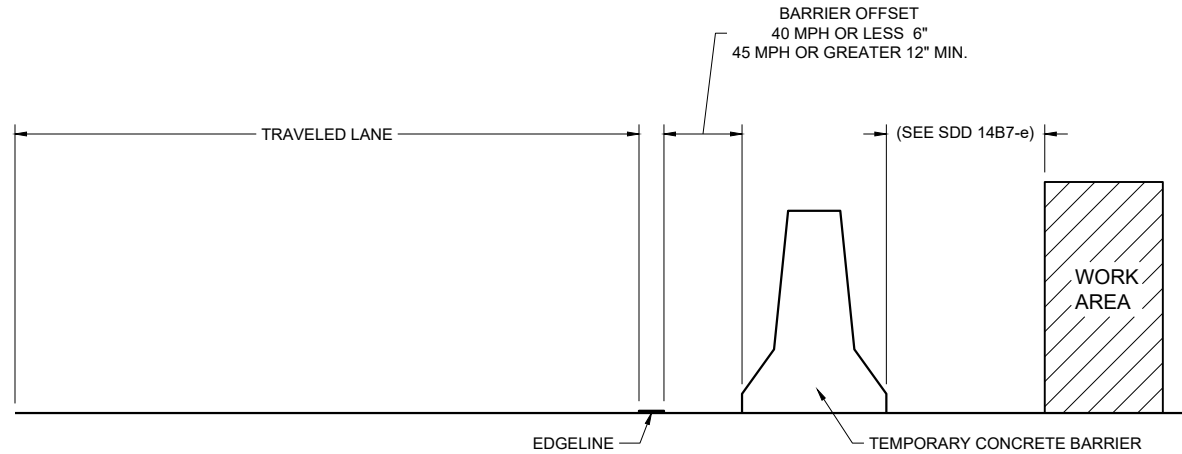
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- 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

PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	



TEMPORARY BARRIER OFFSET FROM EDGE LINE

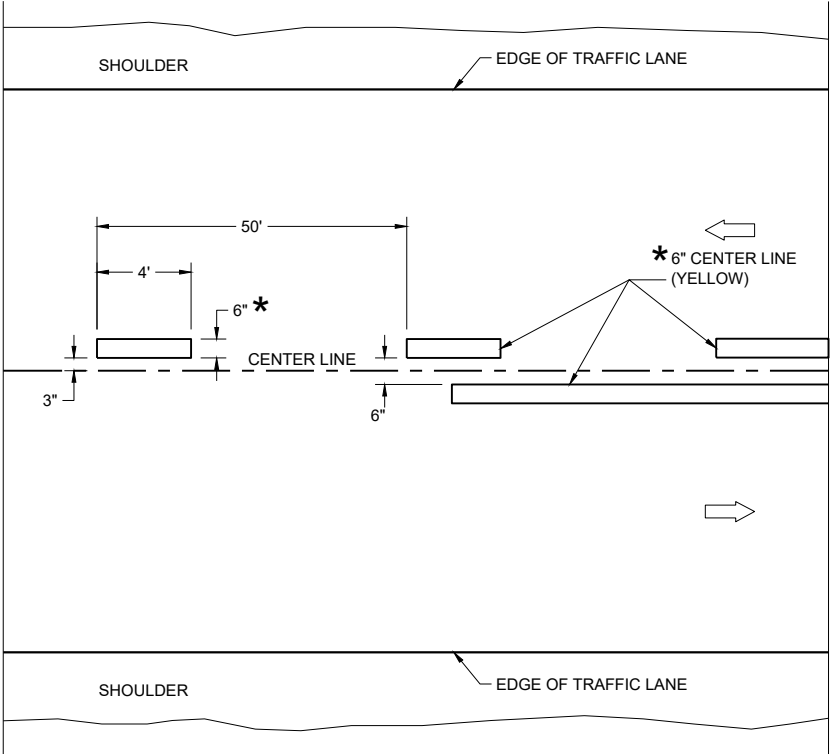
GENERAL NOTES

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

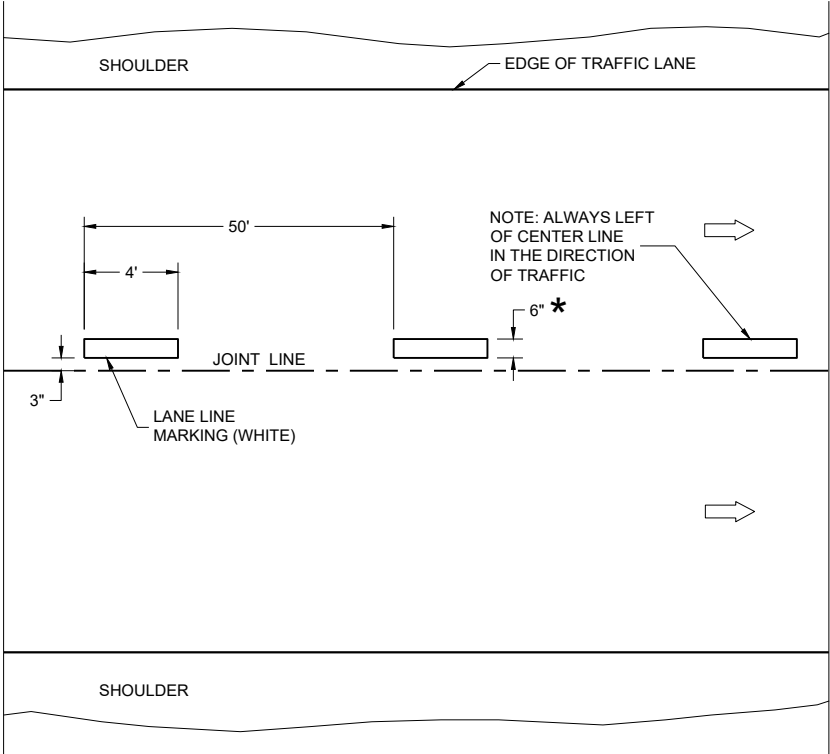
LEGEND

DIRECTION OF TRAFFIC

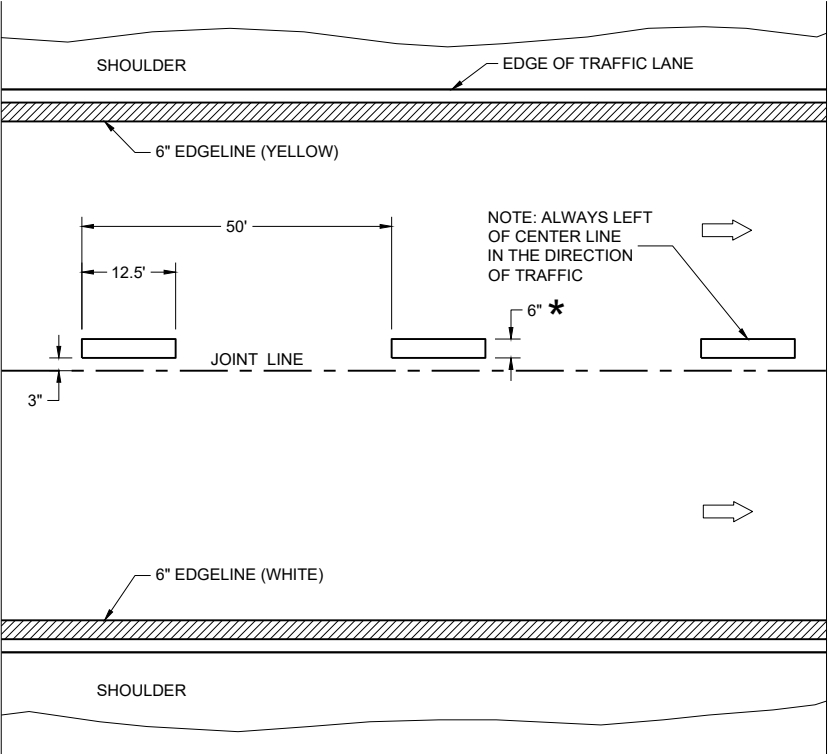
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



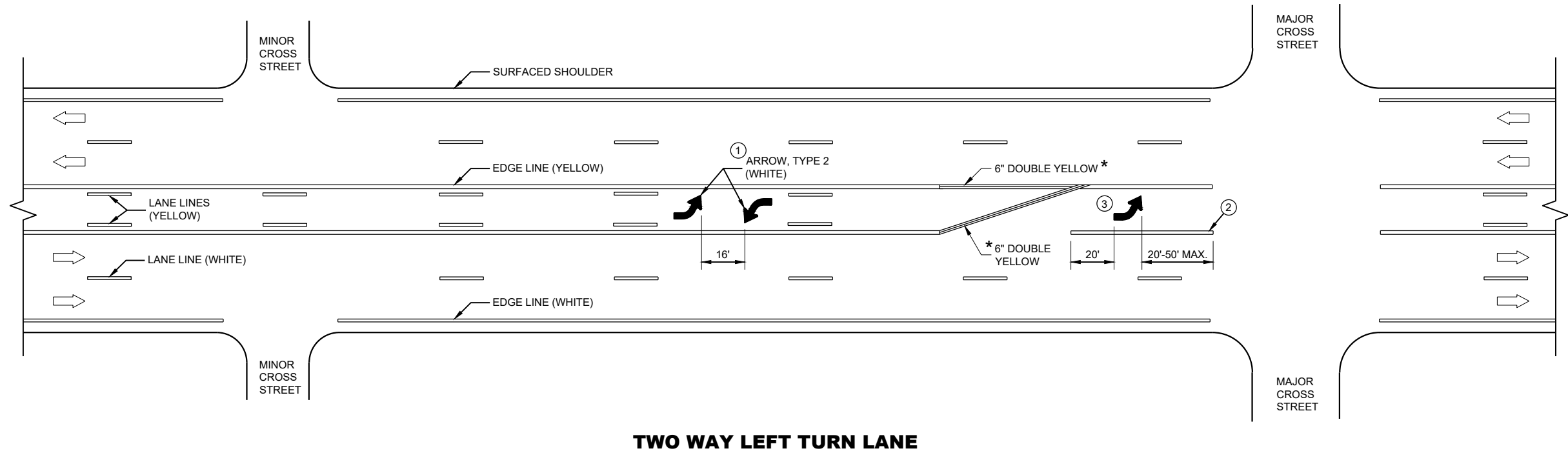
ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	



GENERAL NOTES

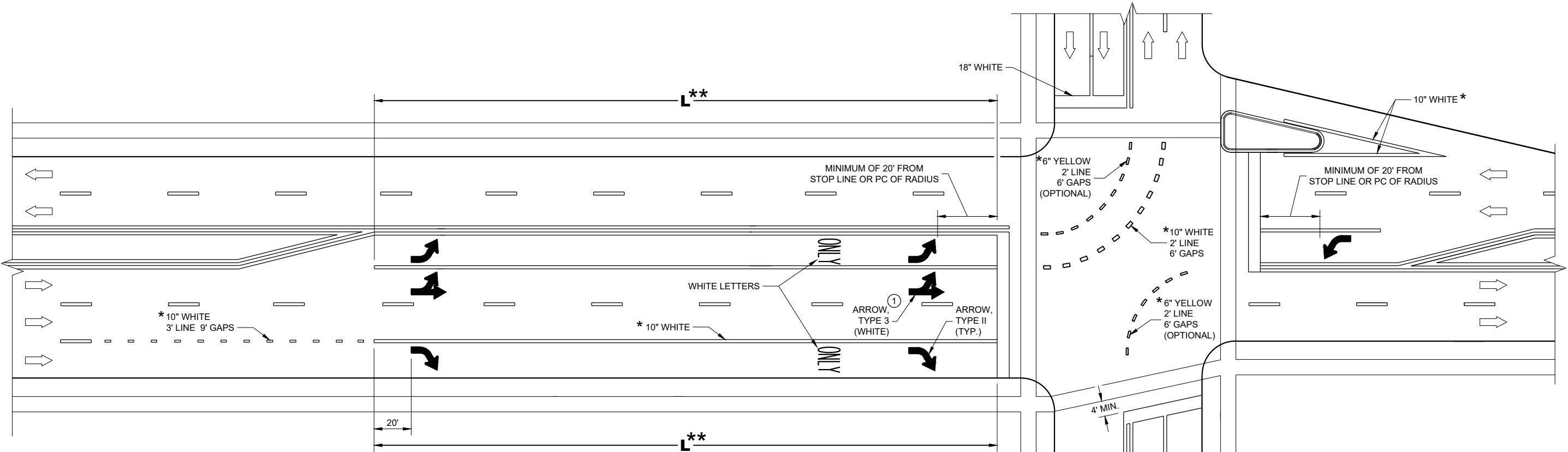
- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 10" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

➡ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

**PAVEMENT MARKING
(TURN LANES)**

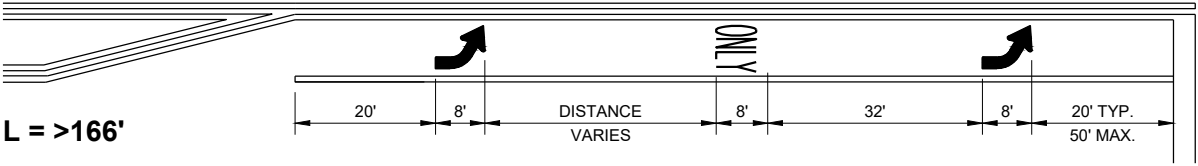
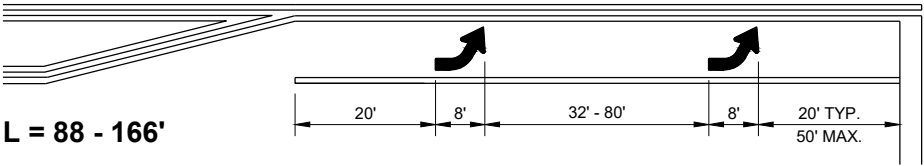
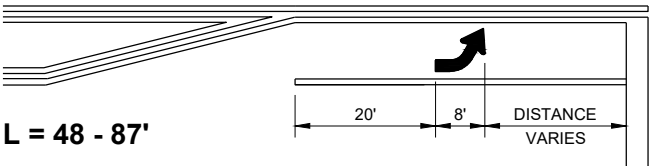
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

LENGTH OF TURN BAY (L) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



GENERAL NOTES

① QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

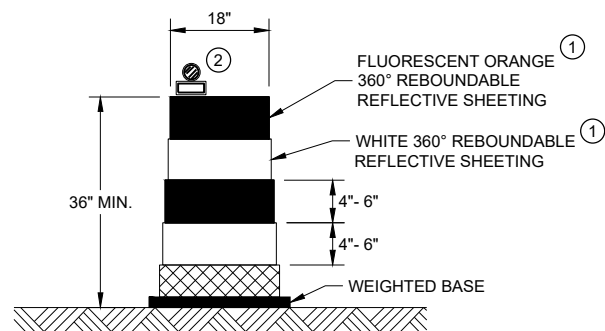
→ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

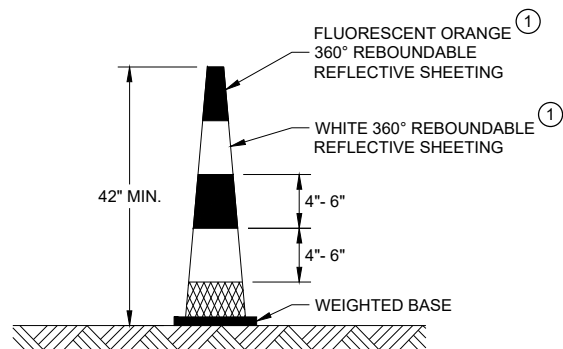
PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



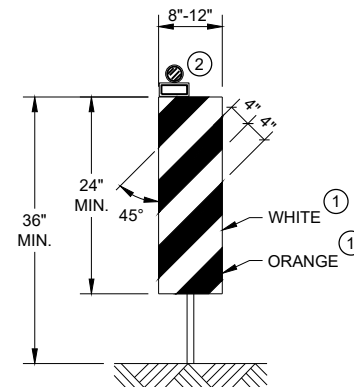
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



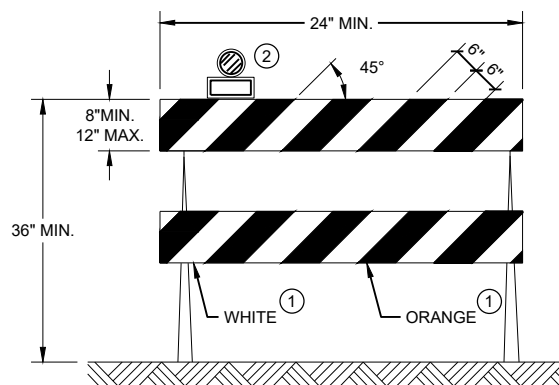
42" CONE

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



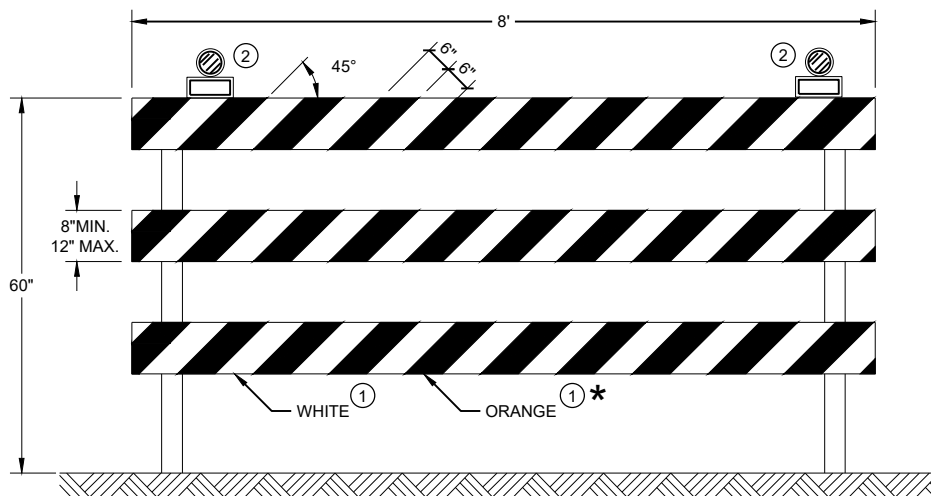
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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






* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

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

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

LEGEND

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

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

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

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

FLAGGING

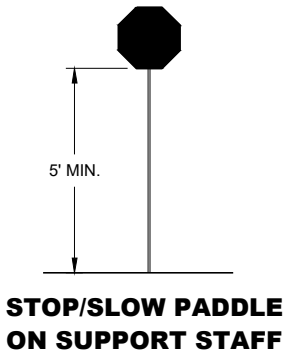
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

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

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

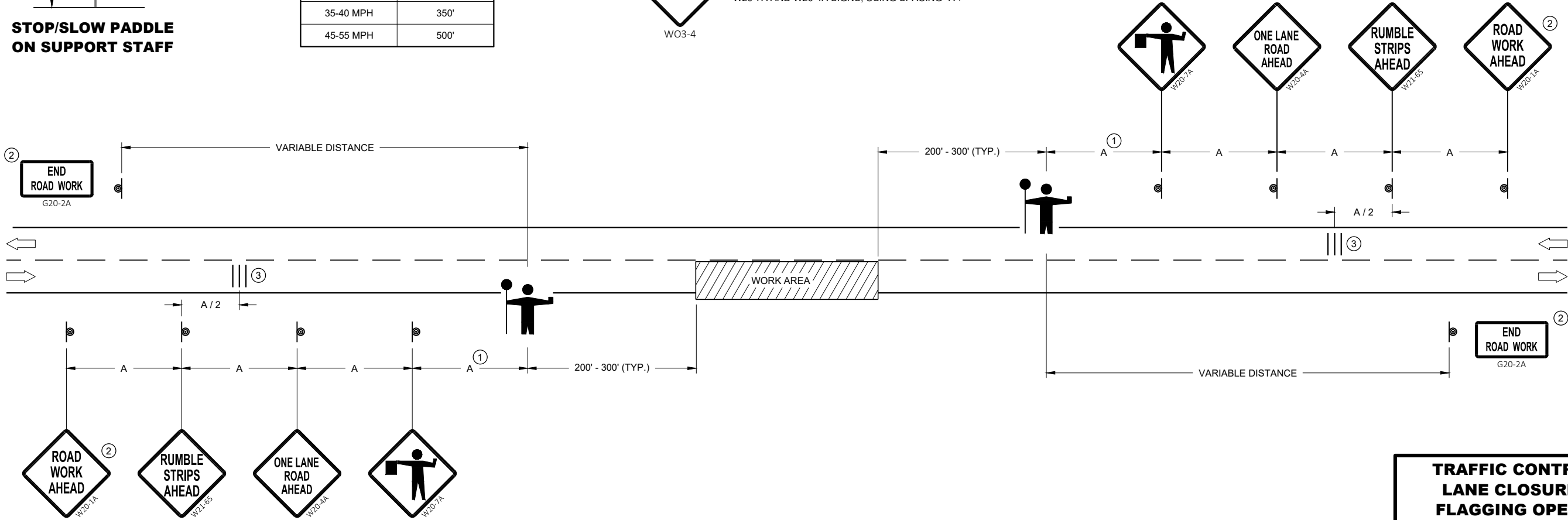


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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







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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2022 DATE	/S/ Andrew Heidtke 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
-  FLASHING ARROW PANEL (CAUTION)

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.

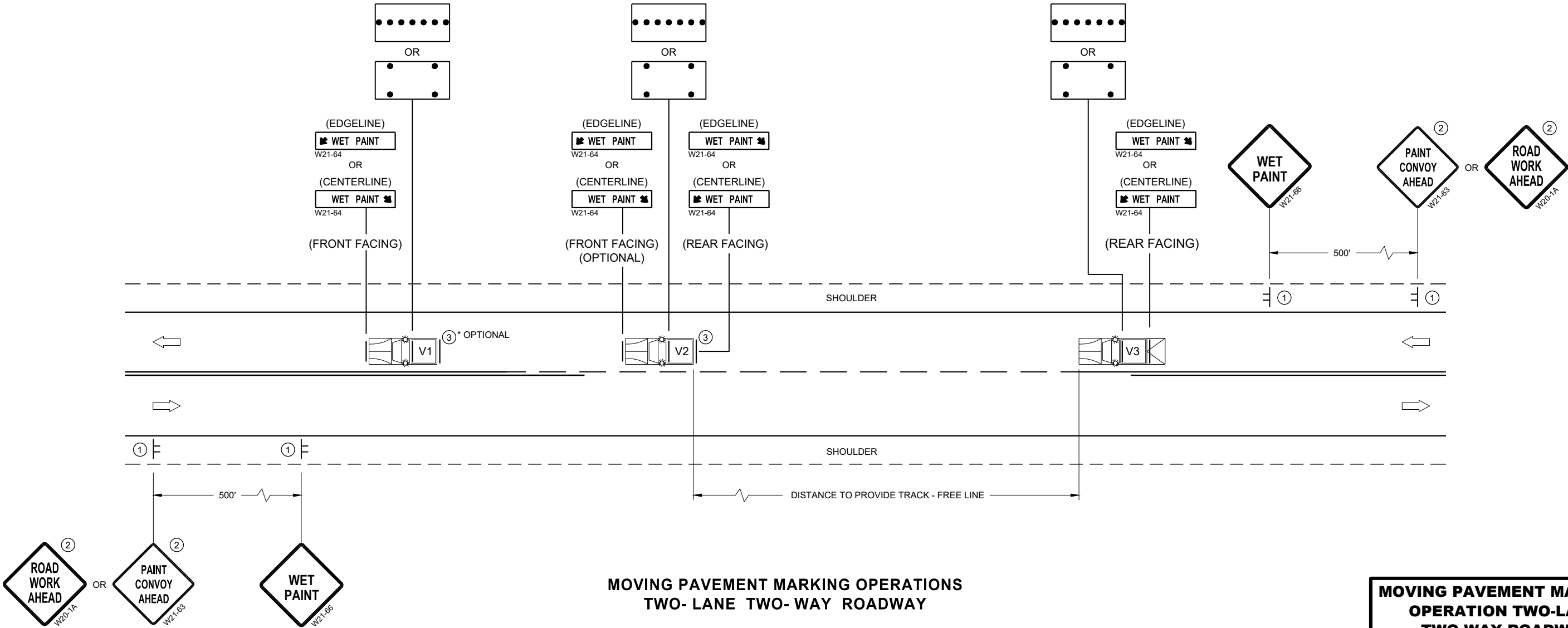
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH 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.
- 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.

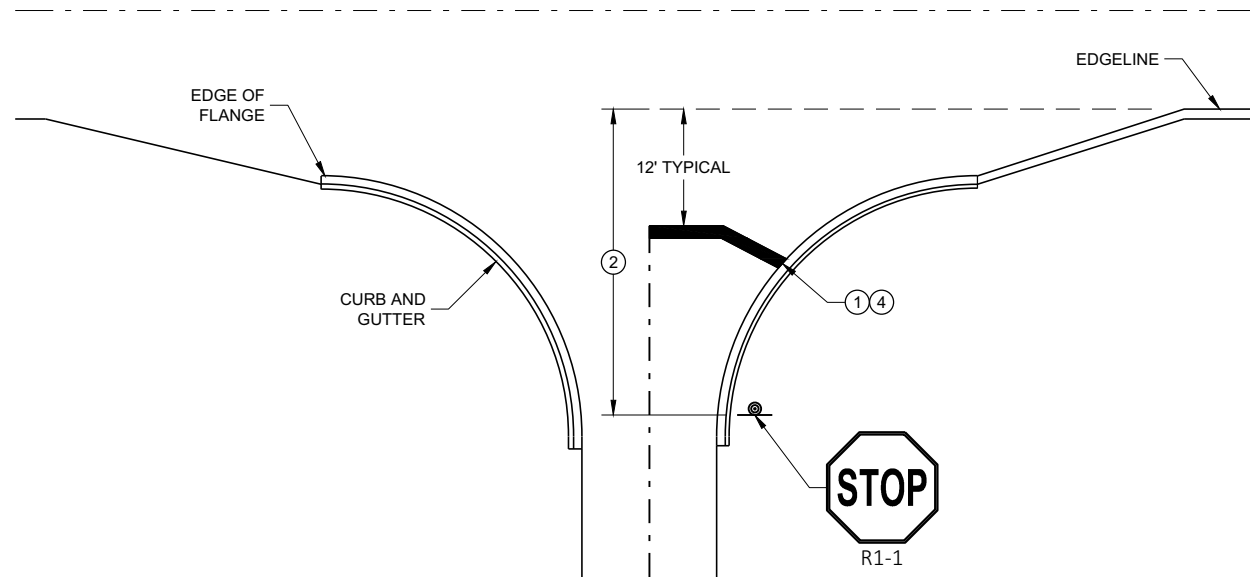


MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

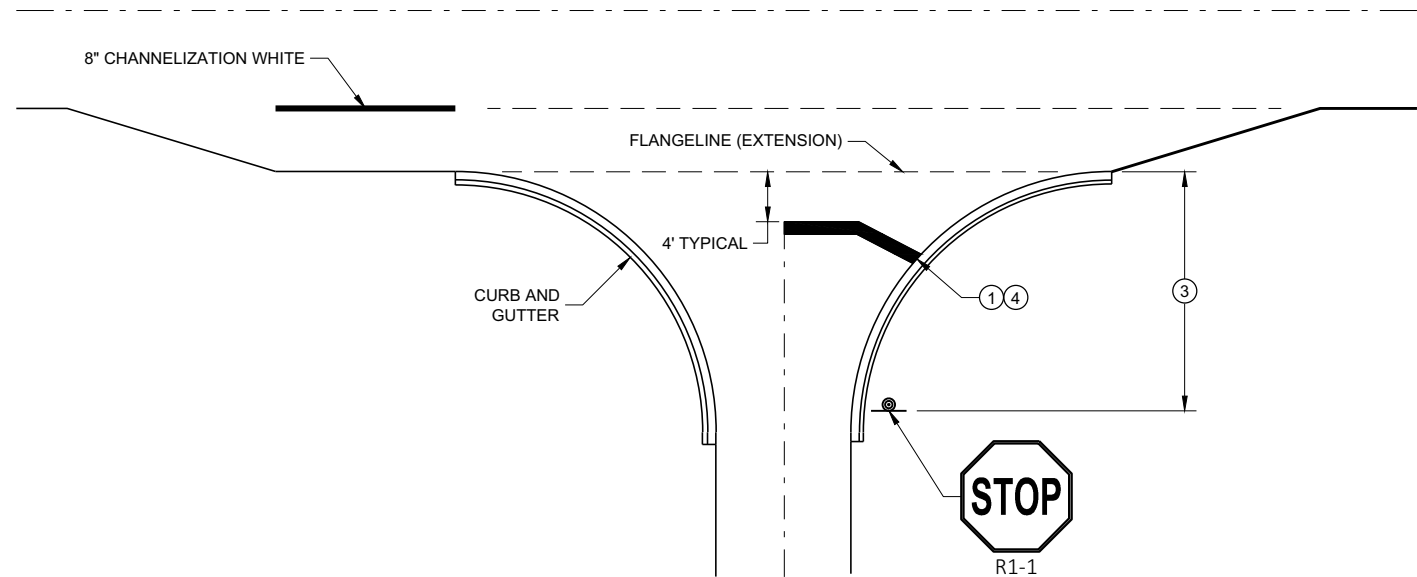
MOVING PAVEMENT MARKING
OPERATION TWO-LANE
TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

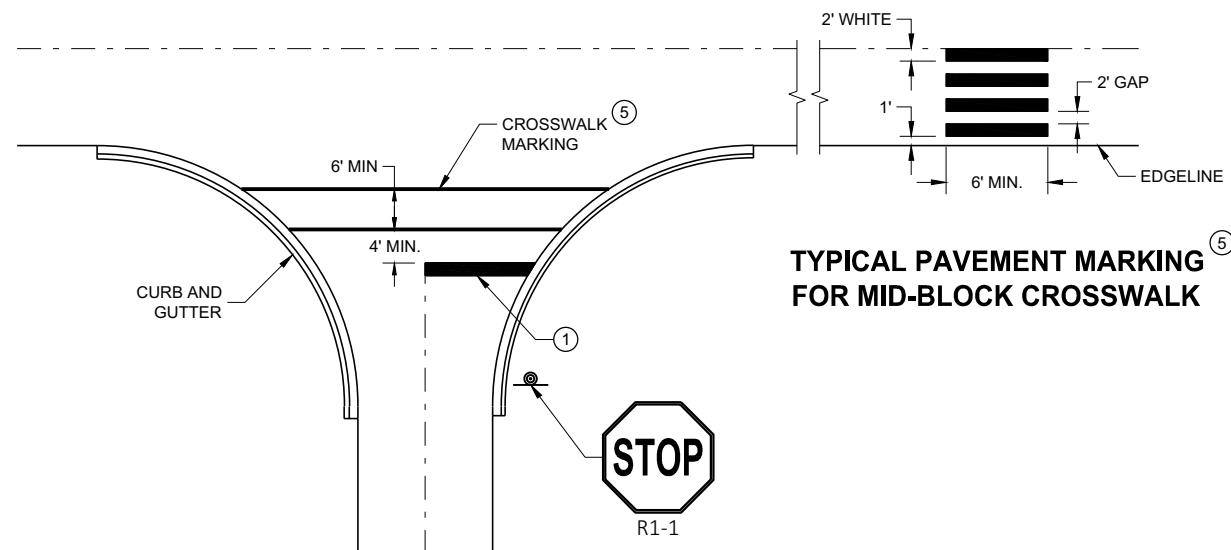
APPROVED
February 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



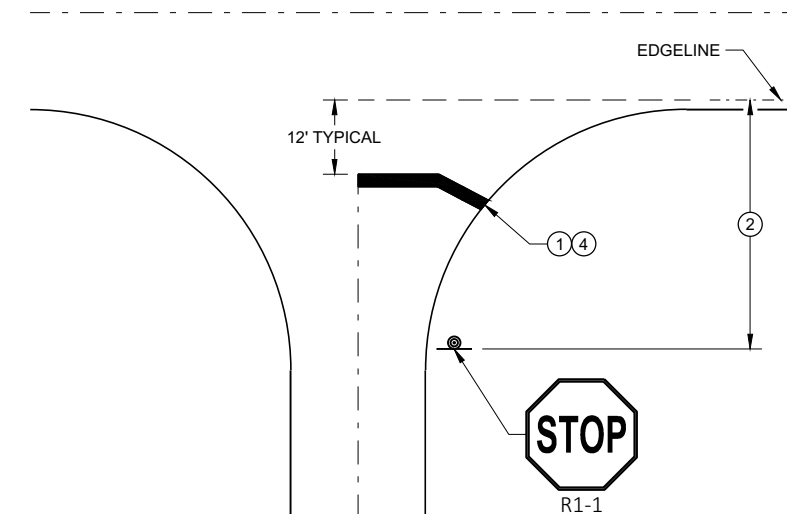
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

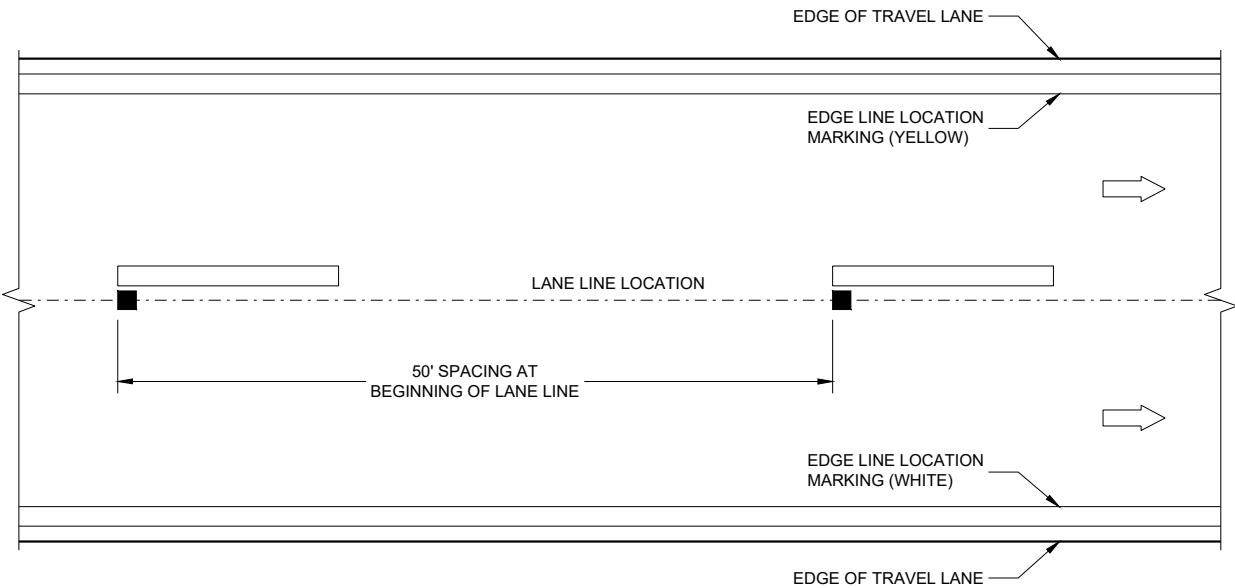
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGE LINE LOCATION.

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

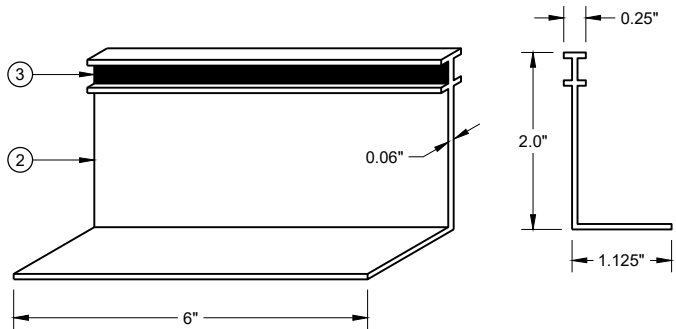
STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER
FHWA



LONGITUDINAL PLACEMENT 6 - INCH LANE LINE



ISOMETRIC VIEW SIDE VIEW

TEMPORARY RAISED PAVEMENT MARKER, TYPE II

GENERAL NOTES

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

COLOR OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II, SHALL MATCH THE COLOR OF THE MARKING THEY SUPPLEMENT.

PLACEMENT OF TEMPORARY RAISED PAVEMENT MARKERS ON EDGE LINES IS OPTIONAL. IF PLACED ON EDGE LINES, MAXIMUM SPACING SHALL BE 50 FEET.

PROVIDE SINGLE OR MULTI-COVER TEMPORARY RAISED PAVEMENT MARKERS AS SHOWN ON PLAN.

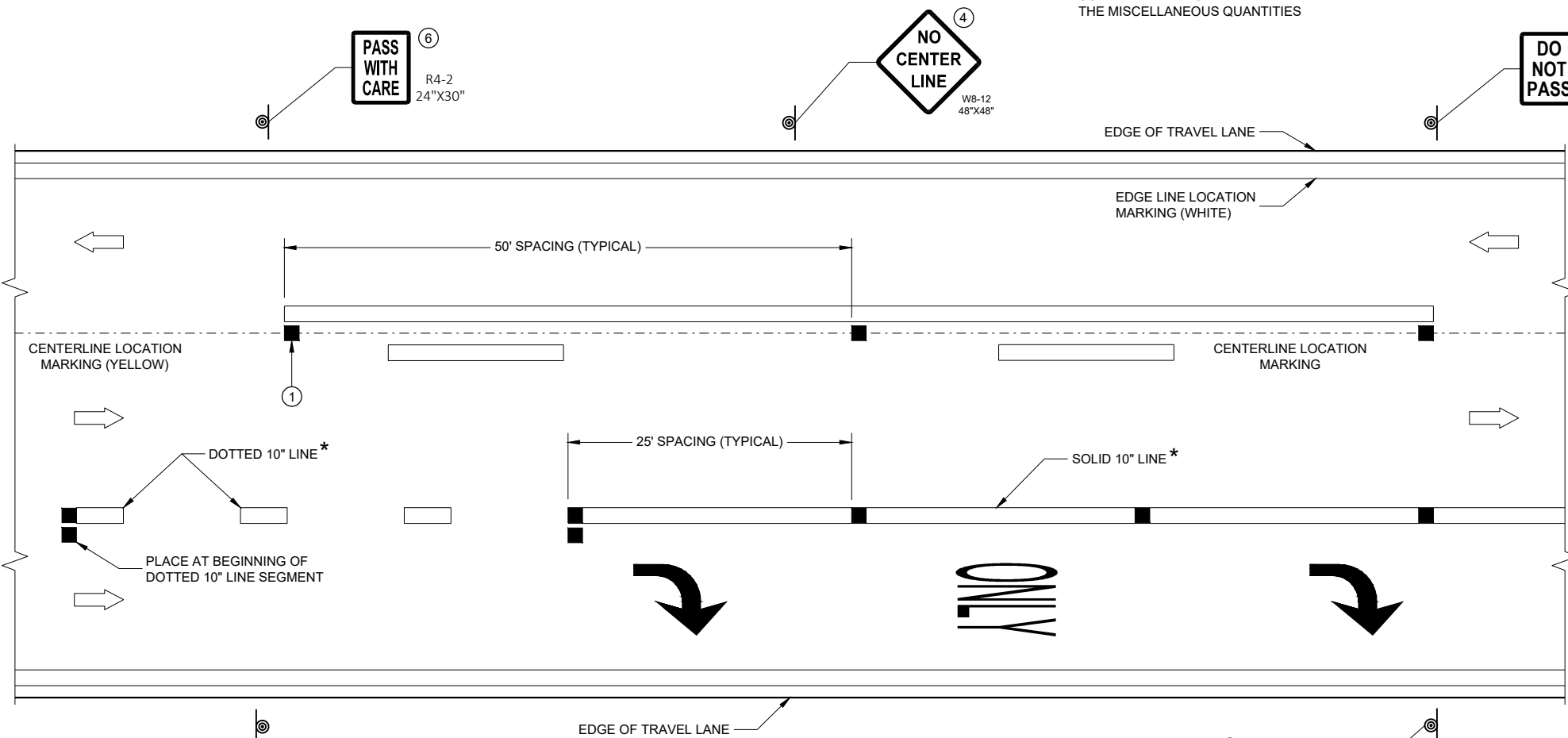
MARK "T"s ON PAVEMENT FOR REESTABLISHING NO PASSING ZONES.

SAME DAY TEMPORARY PAVEMENT MARKING MAY BE USED IN LIEU OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF TEMPORARY SAME DAY PAVEMENT MARKING IS USED, ENSURE PROPOSED PAVEMENT MARKING ARE PLACED IN THE EXACT LOCATIONS AS THE EXISTING MARKINGS, USING A MINIMAL AMOUNT OF TEMPORARY RAISED MARKERS, TYPE II OR OTHER METHODS AS APPROVED BY THE ENGINEER.

IF ROADWAY IS DETOURED DURING CONSTRUCTION, THE "DO NOT PASS," "PASS WITH CARE" AND "NO CENTERLINE" SIGNS MAY BE OMITTED, PROVIDING A LIQUID MARKING IS INSTALLED BEFORE THE ROADWAY IS REOPENED TO TRAFFIC.



LONGITUDINAL PLACEMENT 6 - INCH LANE LINE AND 10 - INCH CHANNEL LINE

- FOR DOUBLE SOLID YELLOW, PLACE THE MARKERS BETWEEN THE LINES.
- MARKERS SHALL BE OF POLYURETHANE MATERIAL.
- MARKERS SHALL HAVE A MINIMUM SIZE REFLECTIVE SURFACE OF 6-INCH WIDTH X 0.25 INCH HEIGHT.
- "NO CENTER LINE" SIGNS SHALL BE PLACED AT THE BEGINNING OF PROJECT, AT TWO MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS.
- "DO NOT PASS" SIGNS SHALL BE INSTALLED AT THE BEGINNING OF NO PASSING ZONES. ADDITIONAL "DO NOT PASS" SIGNS SHALL BE INSTALLED AT ONE MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS WITHIN THE NO PASSING ZONE.
- "PASS WITH CARE" SIGNS SHALL BE PLACED AT THE DOWNSTREAM END OF NO PASSING ZONES.

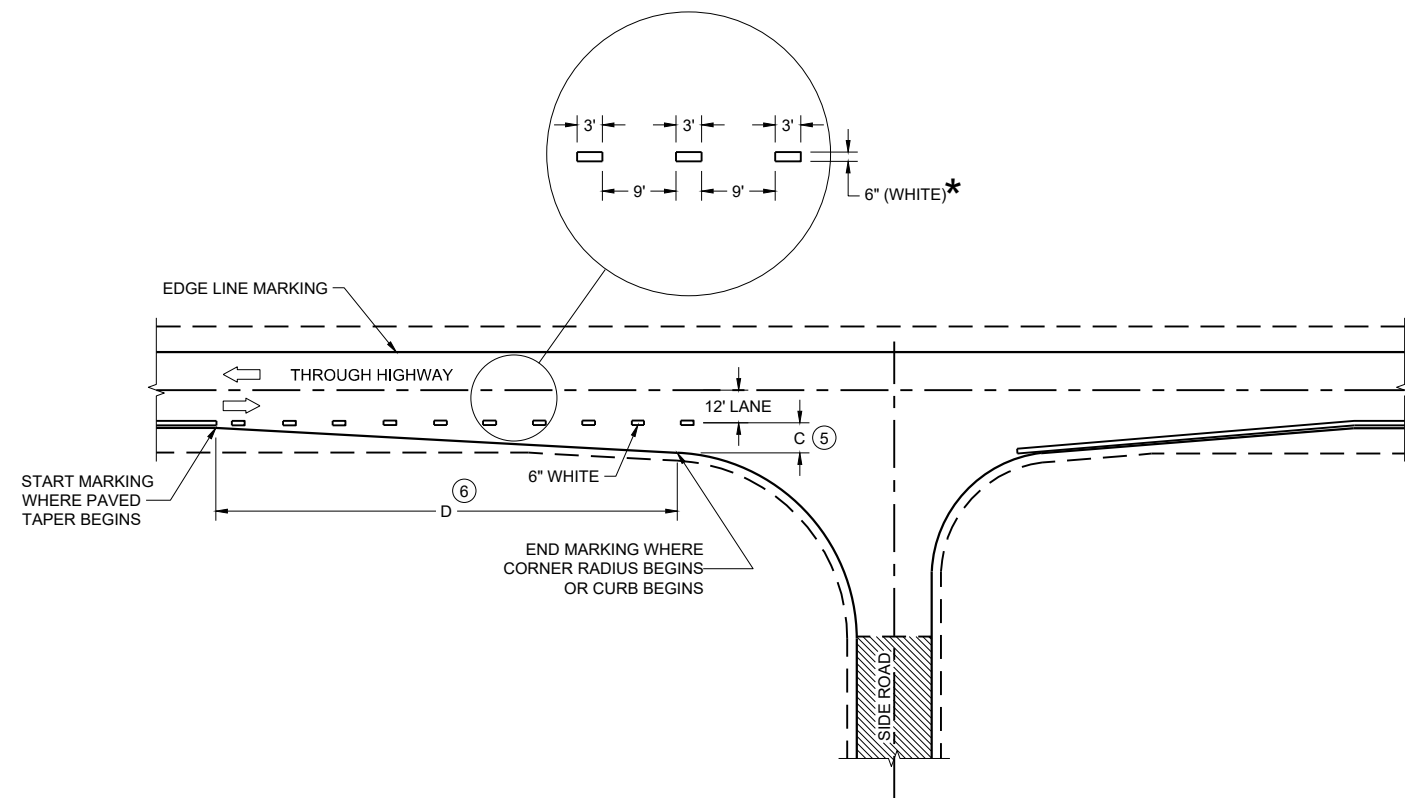
LEGEND

- TEMPORARY RAISED PAVEMENT MARKER, TYPE II
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC.

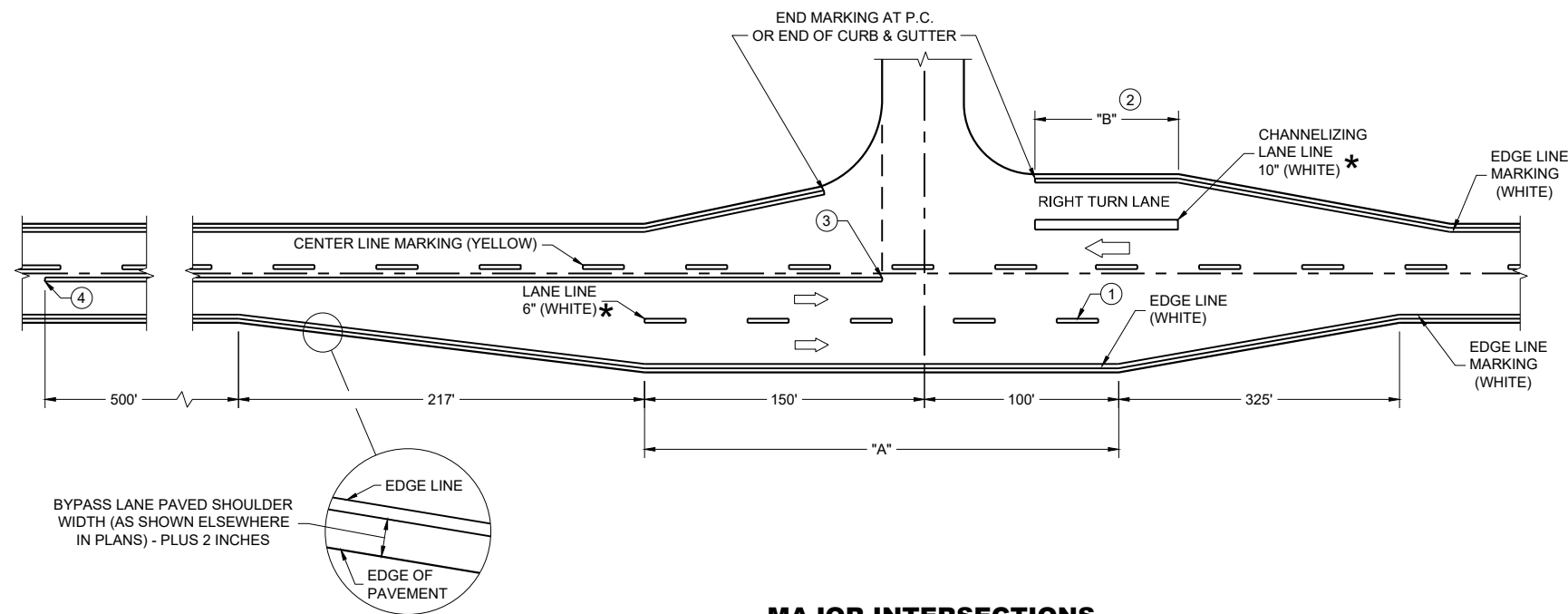
STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKERS, TYPE II

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



MINOR INTERSECTION



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

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

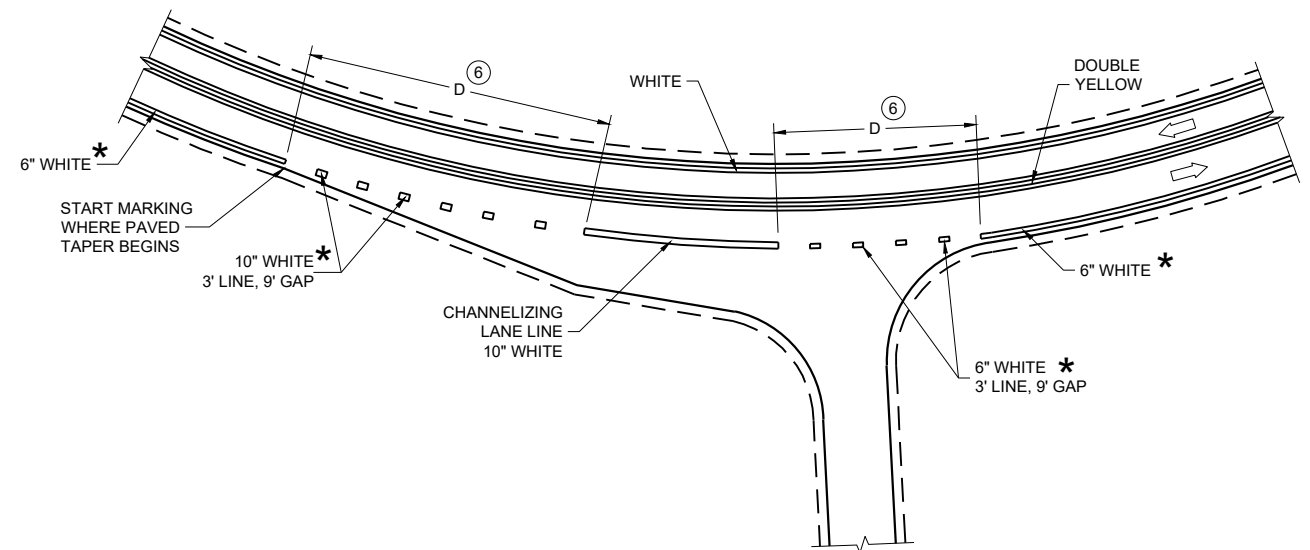
GENERAL NOTES

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

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

LEGEND

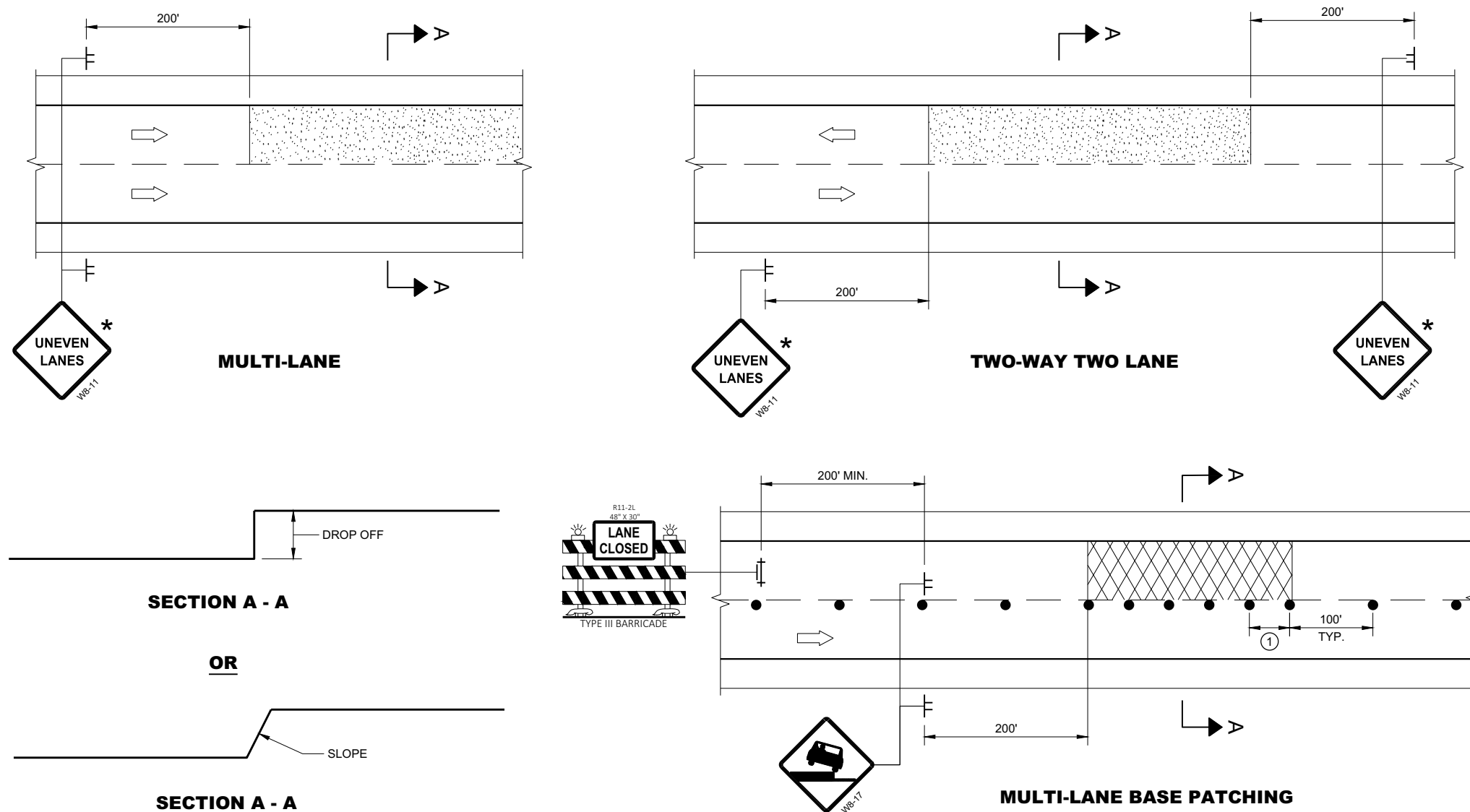
➡ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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.

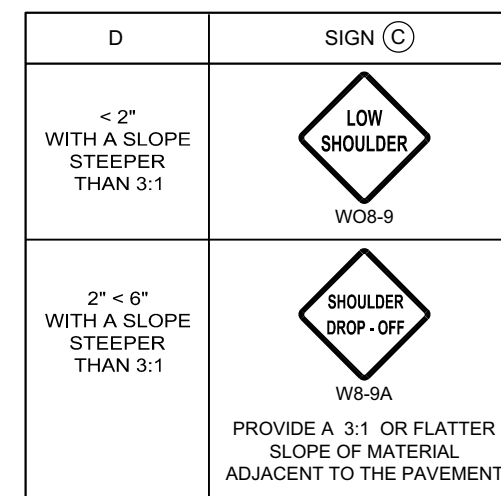
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* 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 |



TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Andrew Heidtknecht
DATE WORK ZONE ENGINEER

GENERAL NOTES

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

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

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

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



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

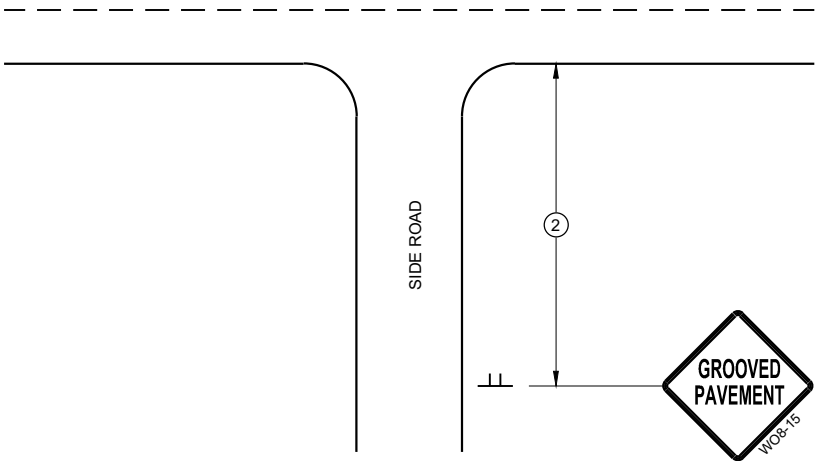
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

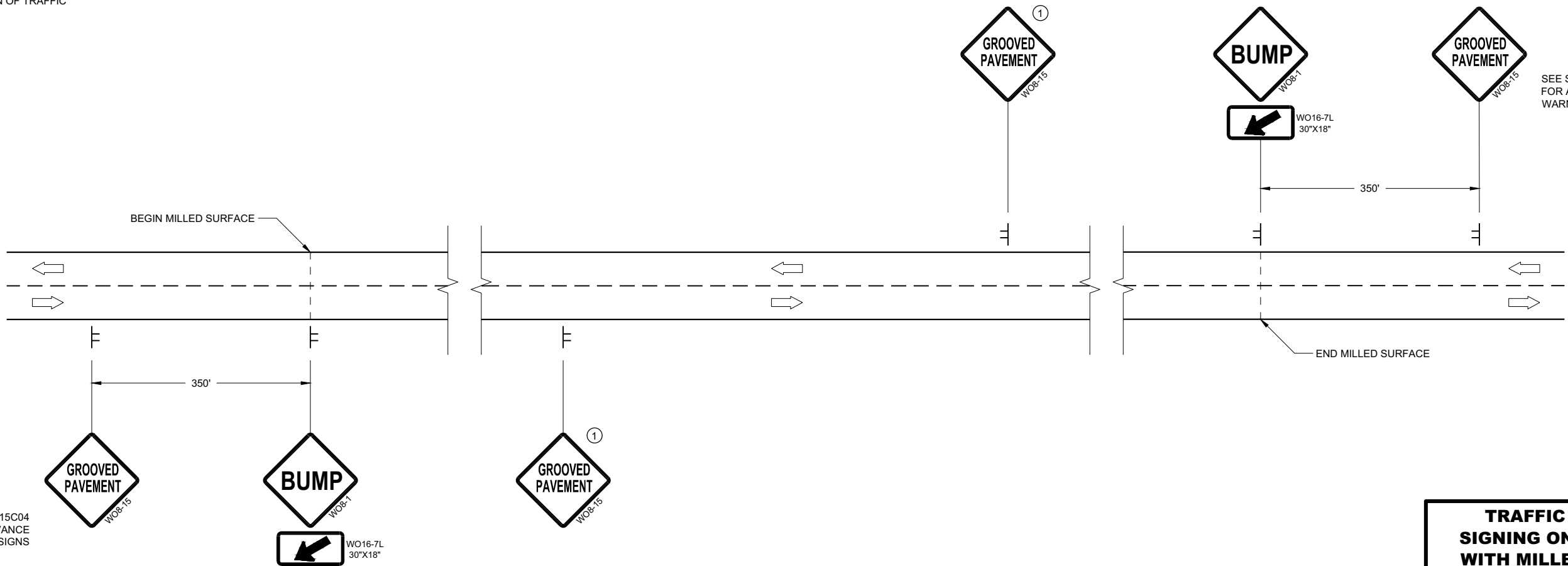
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL,
SIGNING ON ROADWAYS
WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

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

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

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



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

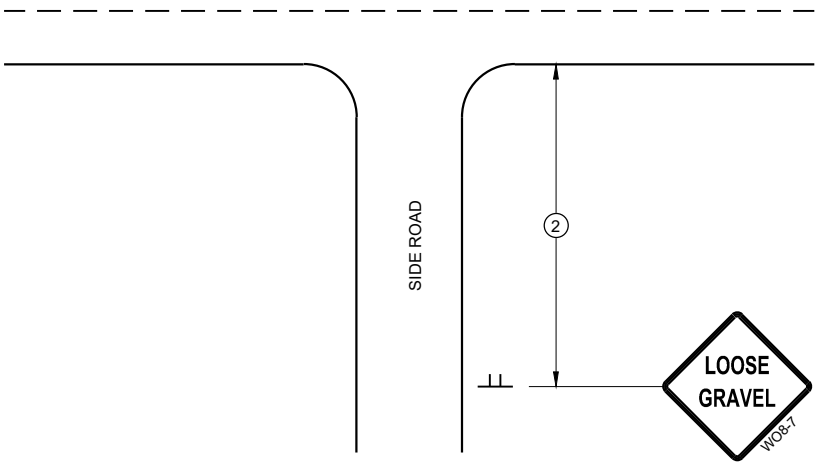
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

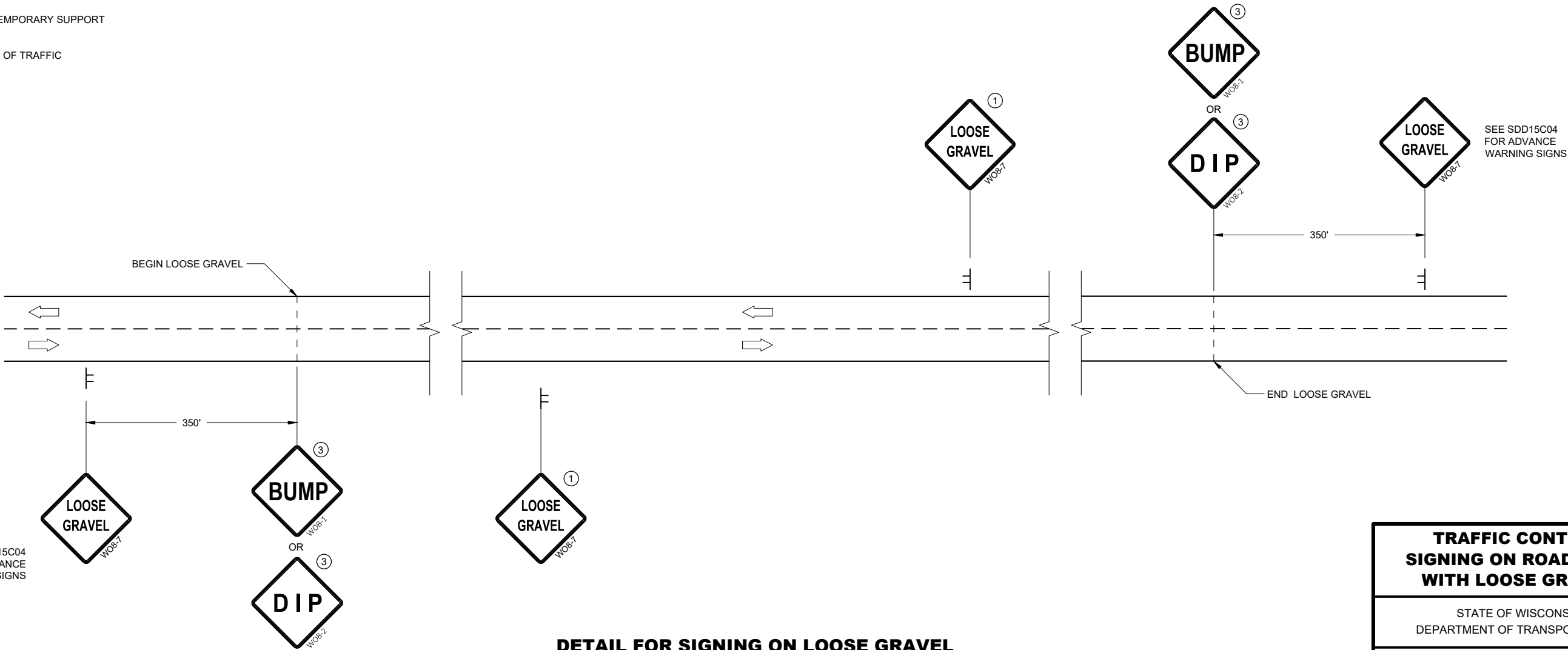
- 1 PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- 2 PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- 3 ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL
OR CHIP SEALED SURFACES

TRAFFIC CONTROL
SIGNING ON ROADWAYS
WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION


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


FHWA


LEGEND


- V1

WORK VEHICLE
- V2

SHADOW VEHICLE
- 

TRUCK MOUNTED ATTENUATOR (TMA)
- 

FLASHING ARROW PANEL (CAUTION)
- 

WORK AREA
- 

DIRECTION OF TRAFFIC

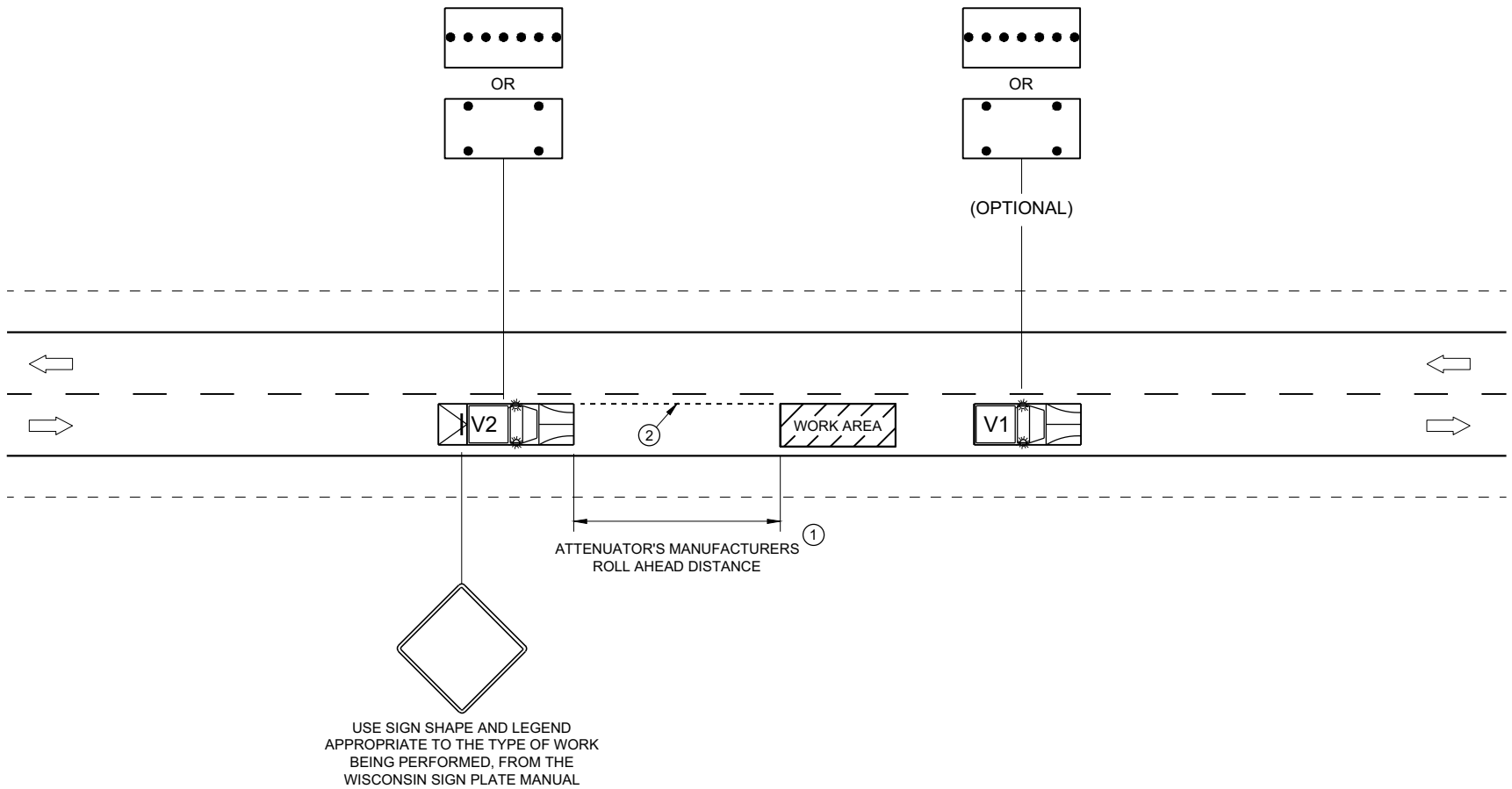
POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

- ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
- MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.
- ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.
- ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.
- USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.
- ①

DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ②

ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



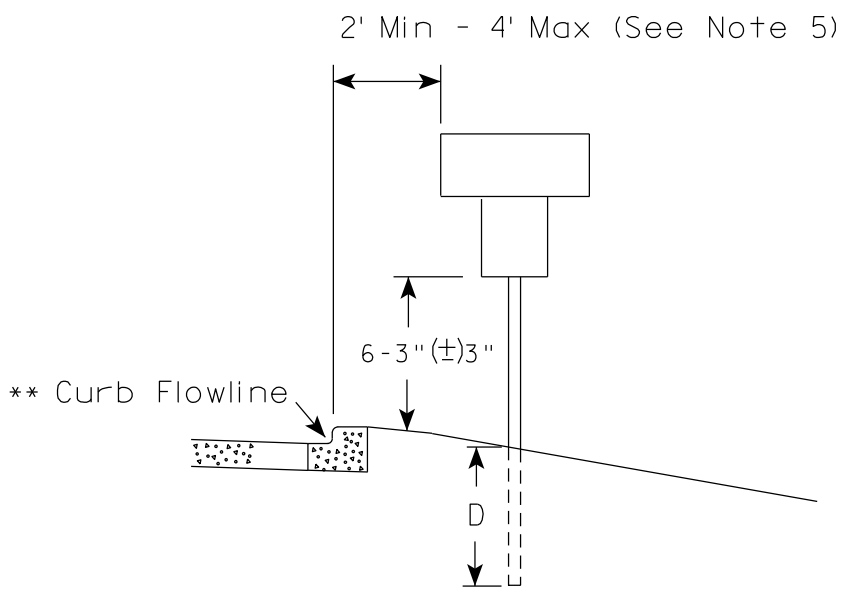
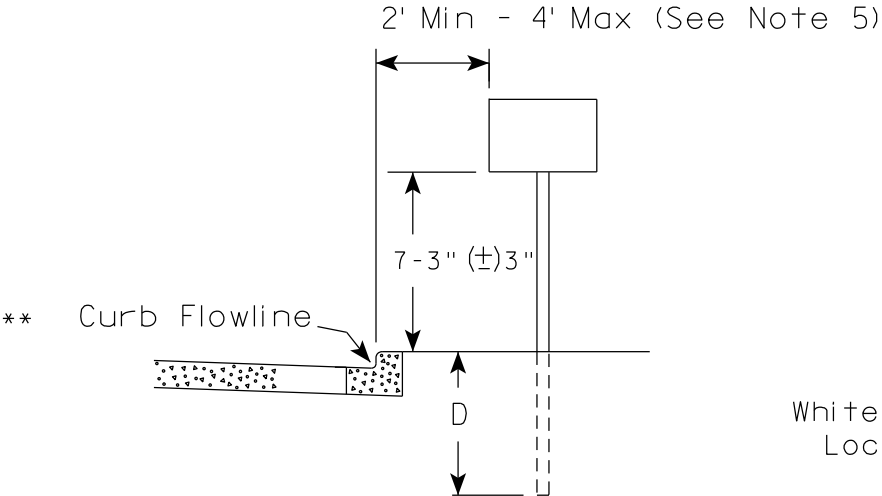
TRAFFIC CONTROL,
MOBILE OPERATIONS ON
AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

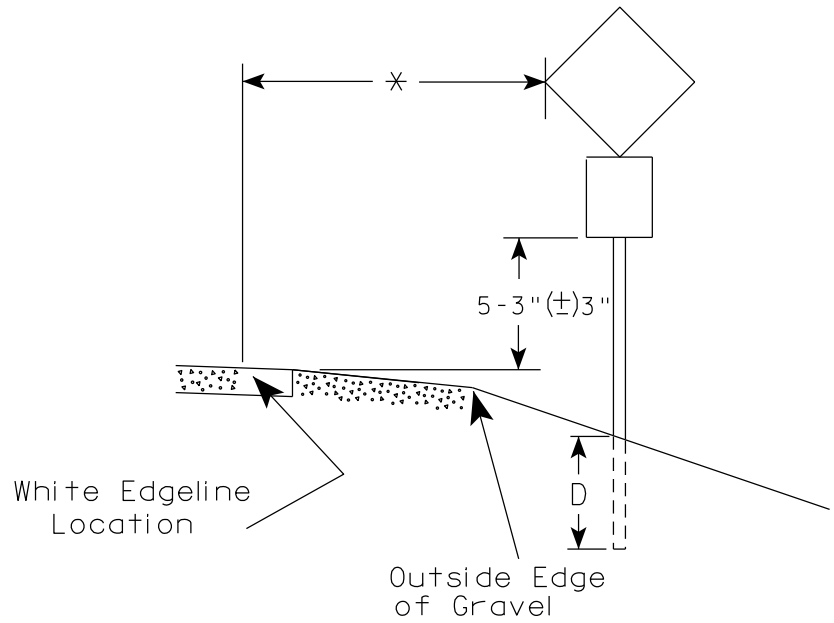
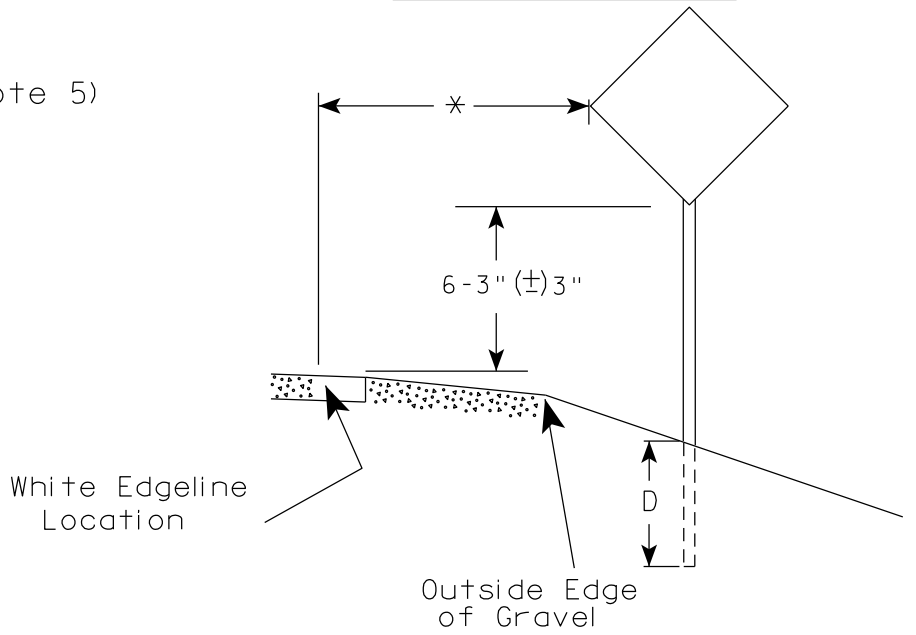
APPROVED
February 2021 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

FHWA

URBAN AREA



RURAL AREA (See Note 2)



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.

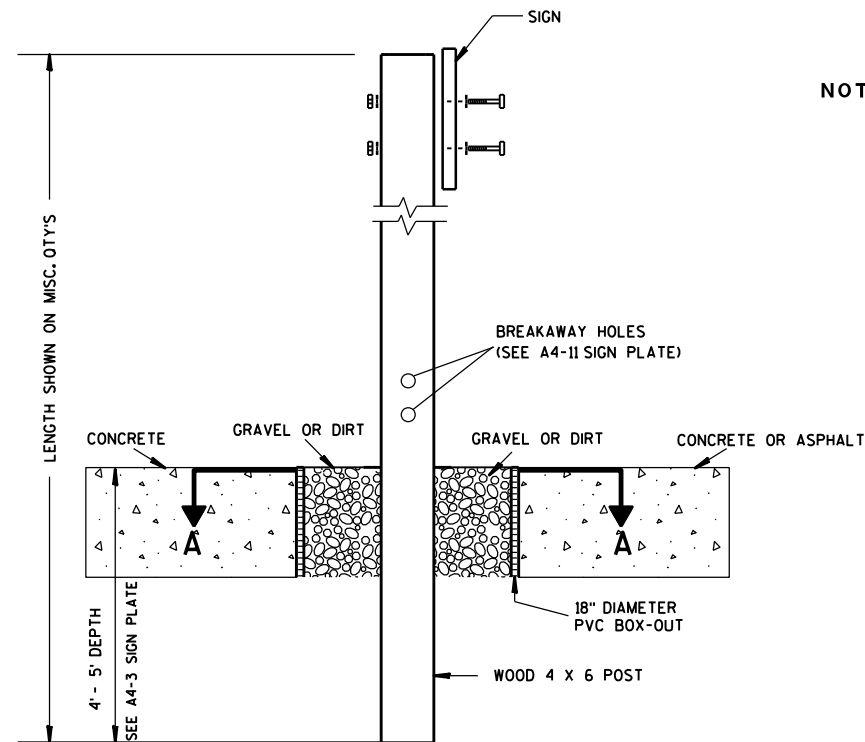
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

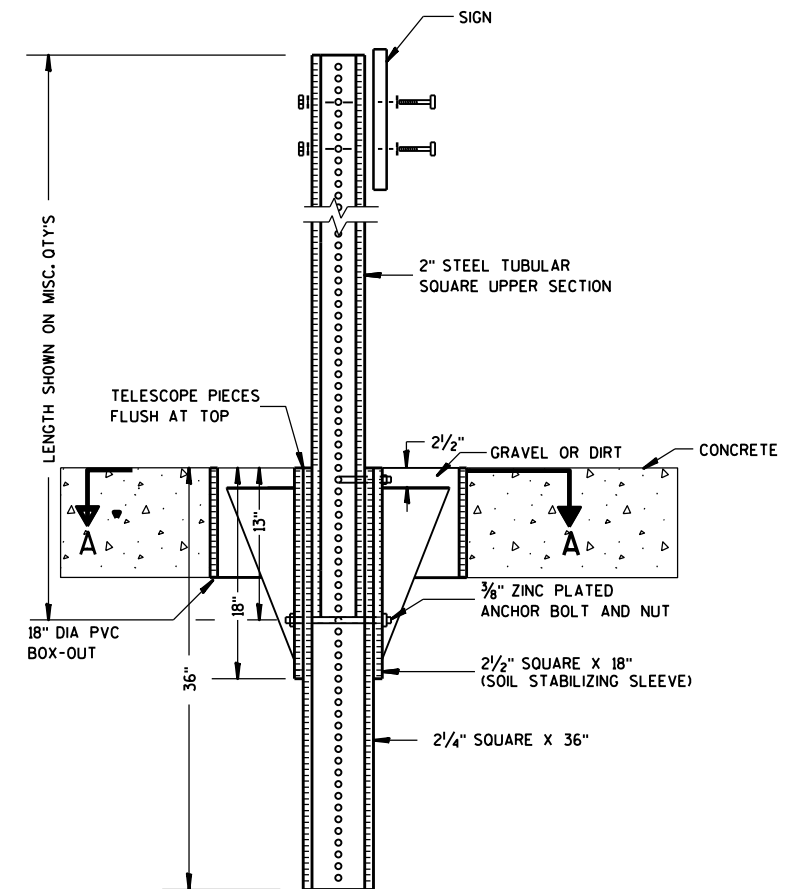
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

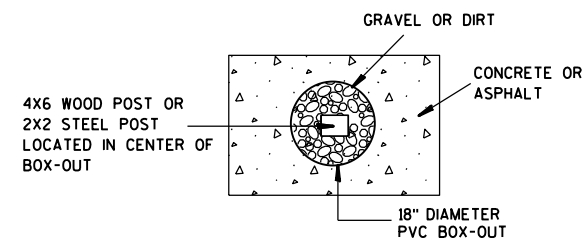
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

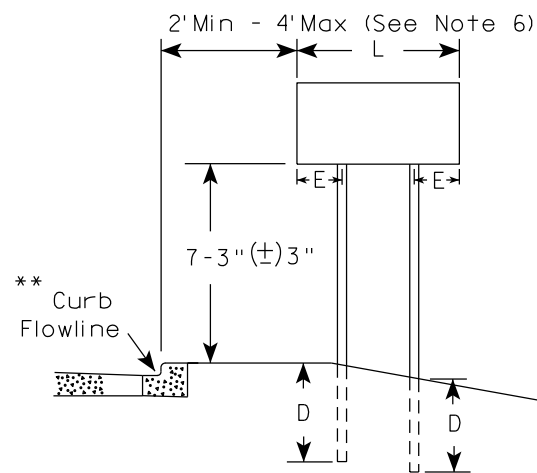
HWY:

COUNTY:

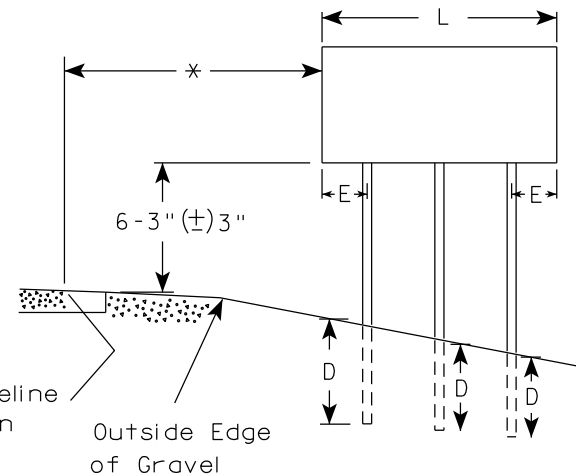
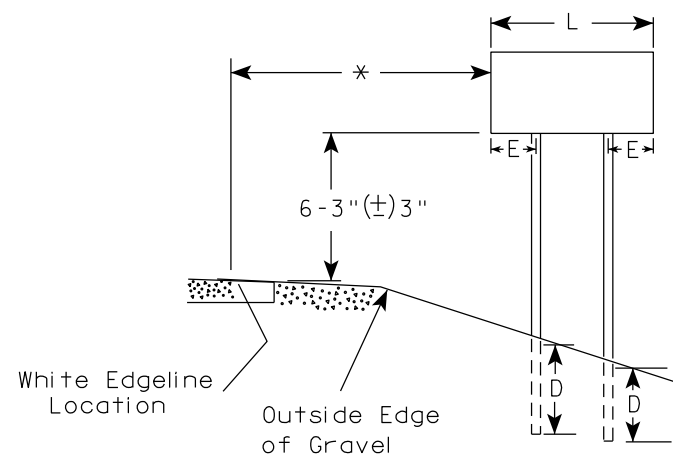
SHEET NO:

E

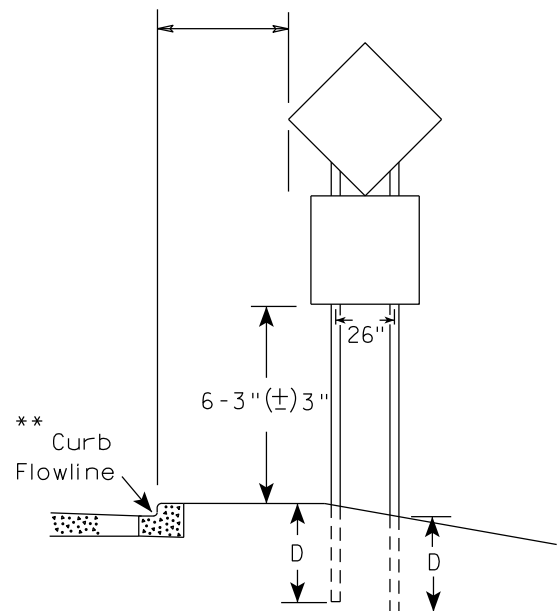
URBAN AREA



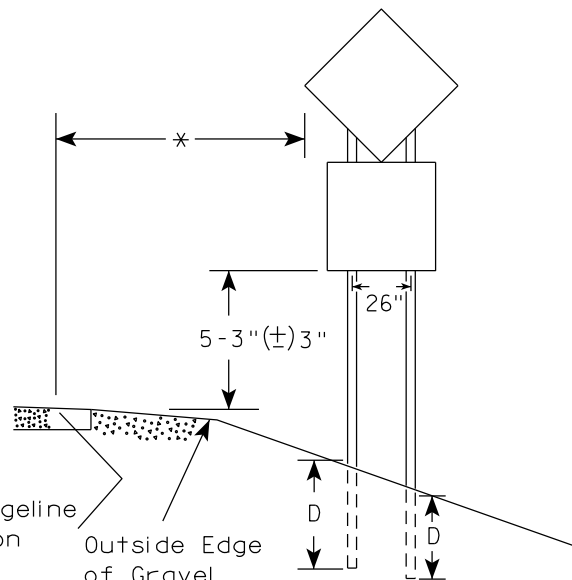
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. 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.

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

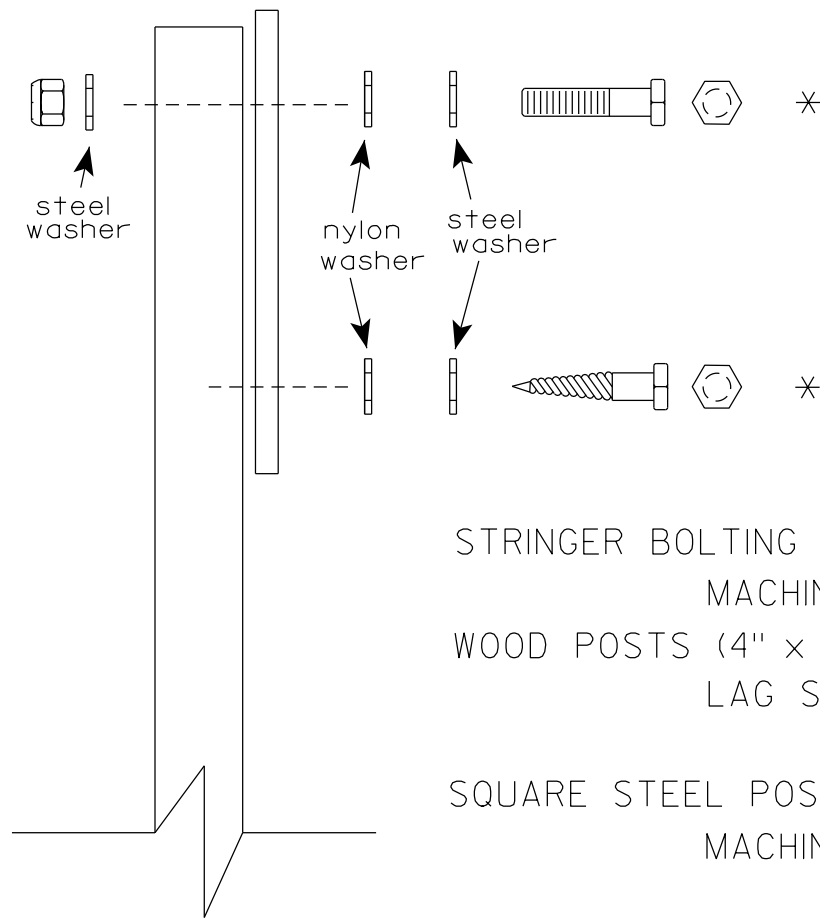
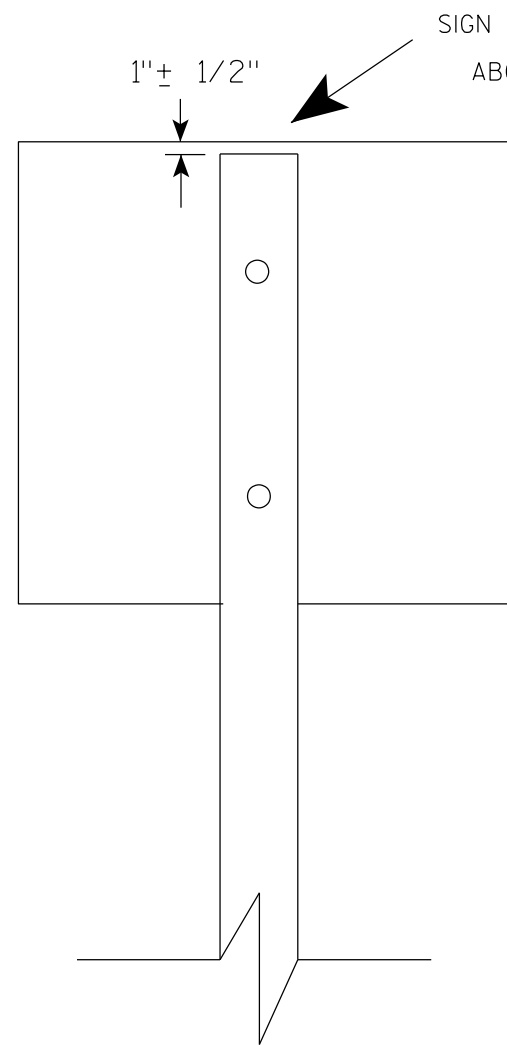
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

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.

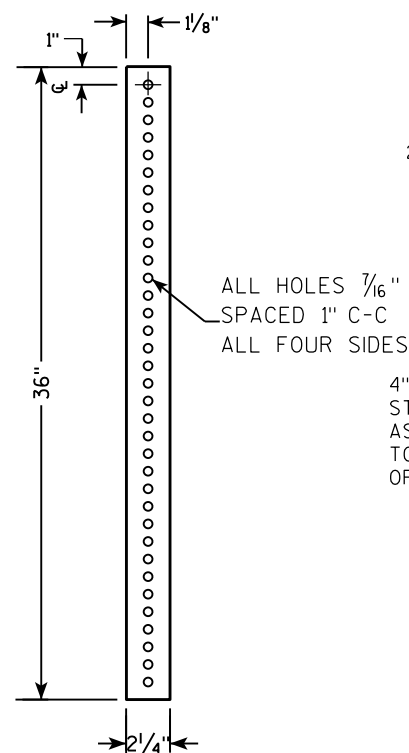
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

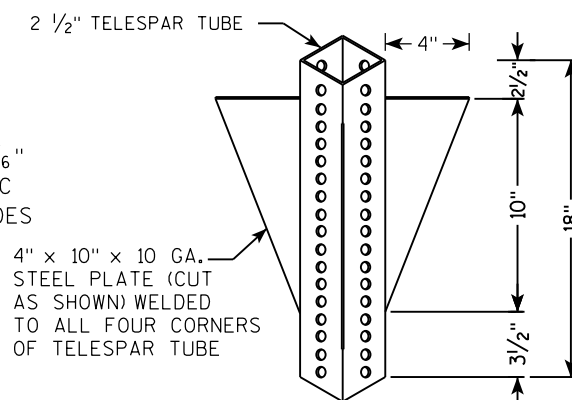
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

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

**2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



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

[illegible]

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY.

Side View Dimensions:

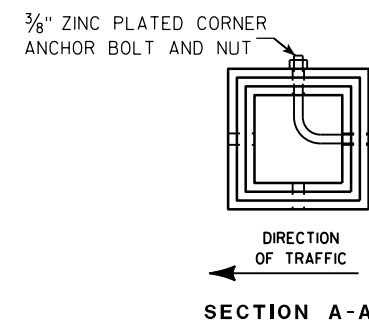
- Overall height: LENGTH SHOWN ON MISC. QTYS
- Section 1: 2" STEEL TUBULAR SQUARE UPPER SECTION
- Section 2: 2 1/4" SQUARE X 36"
- Section 3: 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
- Section 4: 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT (1" diameter)
- Section 5: 3/8" ZINC PLATED ANCHOR BOLT AND NUT
- Section 6: 2" STEEL TUBULAR SQUARE LOWER SECTION
- Section 7: 2 1/4" SQUARE X 36"

Top View Dimensions:

- Overall width: 36"
- Section 1: 18"
- Section 2: 12"

Material and Assembly Details:

- ALL HOLES 7/16" SPACED 1" C-C
- ALL FOUR SIDES
- TELESCOPE PIECES FLUSH AT TOP
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
- SIGN



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

PROJECT NO:

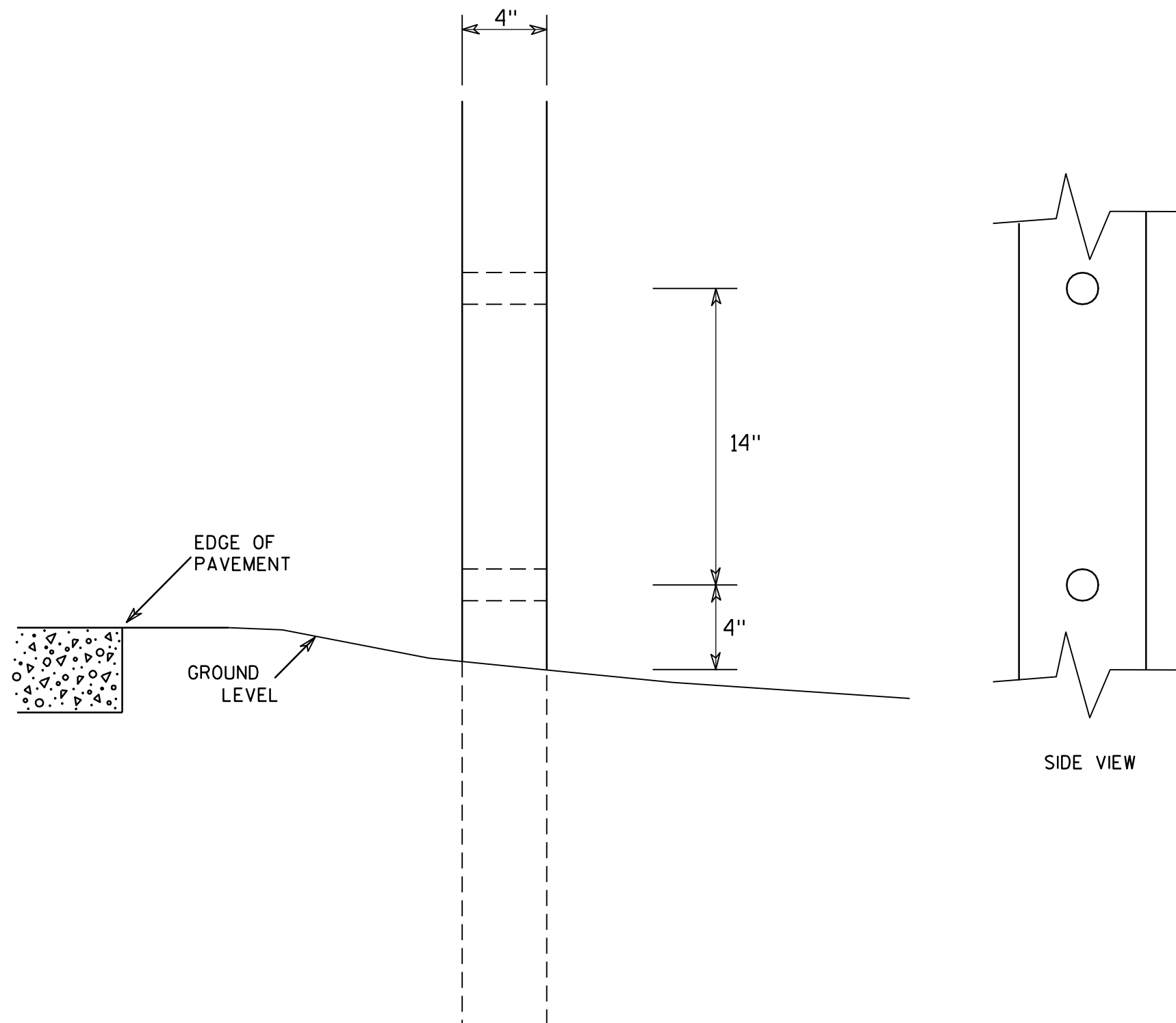
HWY:

COUNTY:

SHEET NO:

T

7



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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

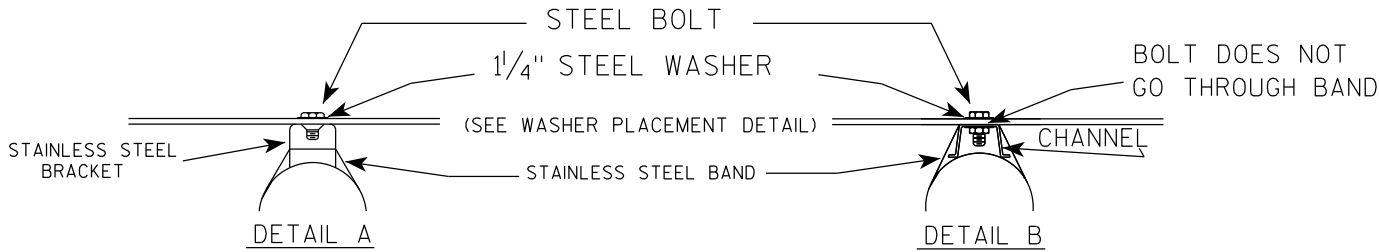
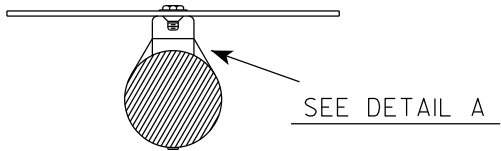
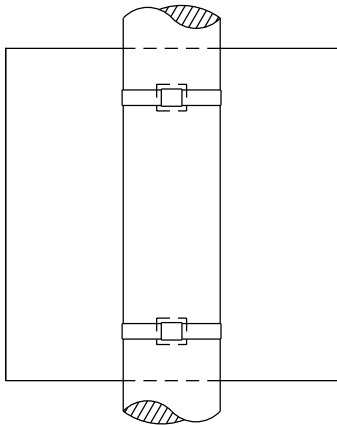
COUNTY:

SHEET NO:

E

BANDING

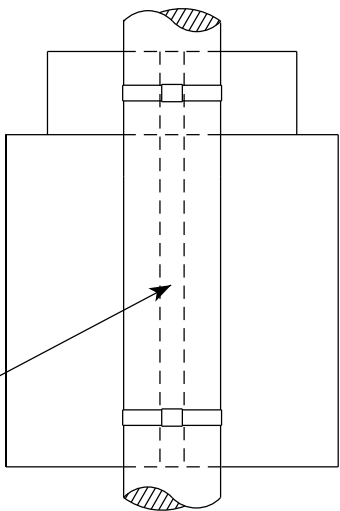
SINGLE SIGN



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

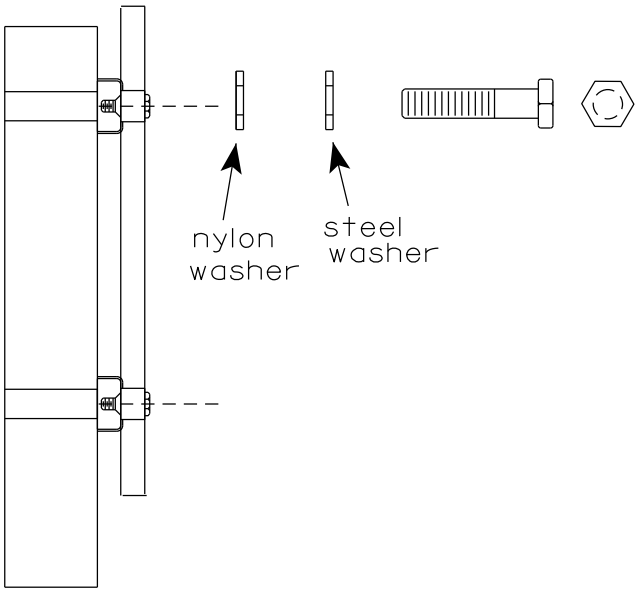
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

WASHER PLACEMENT

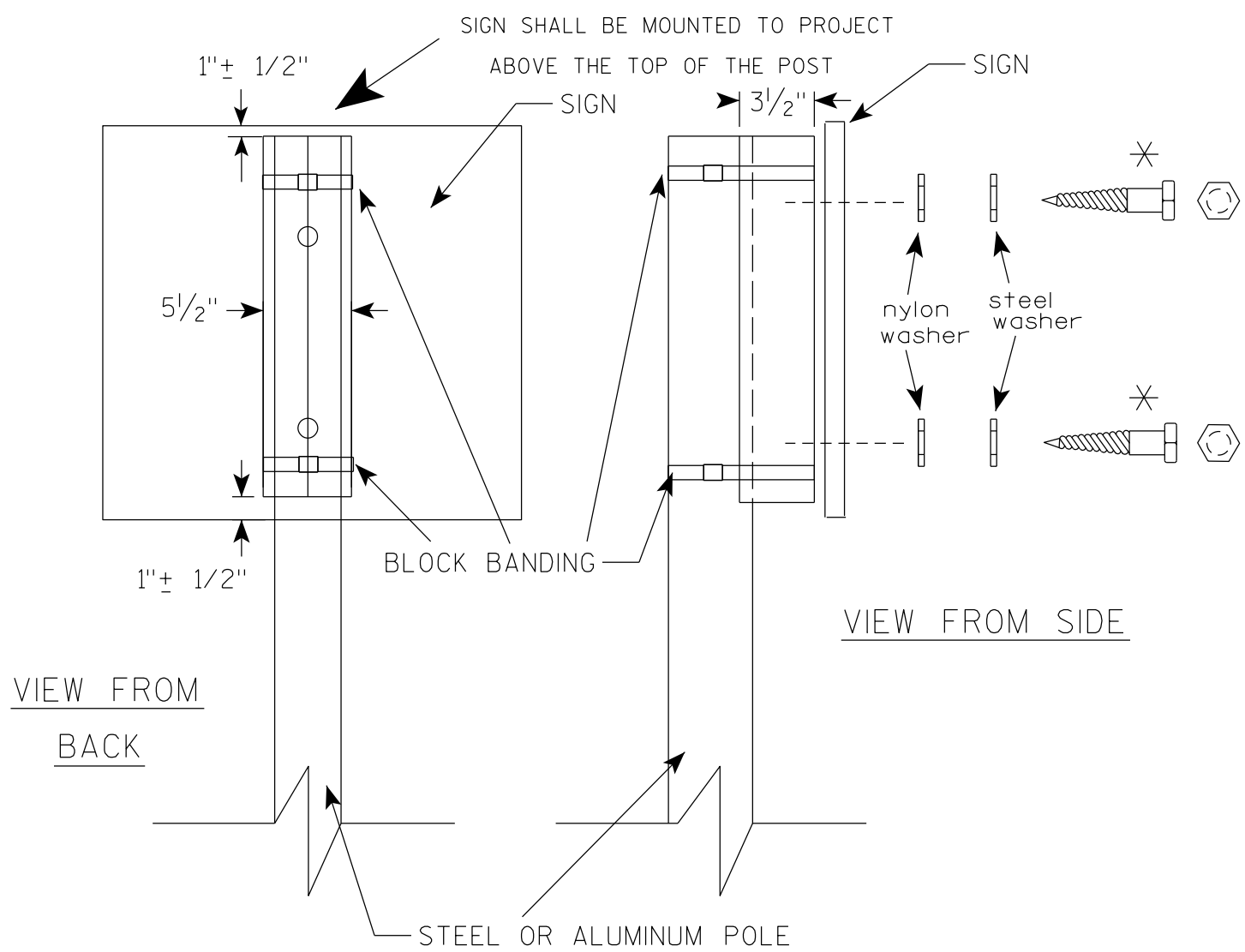


WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

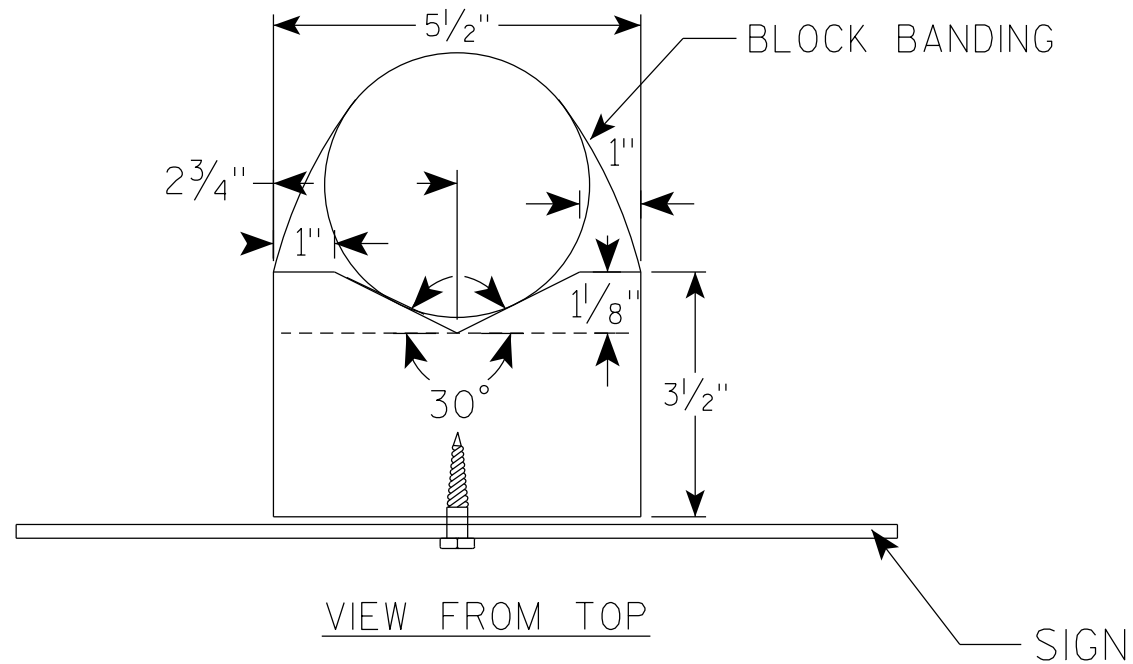
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

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, $\frac{3}{4}$ " 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 $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO:

E

Notes



Wisconsin Department of Transportation

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