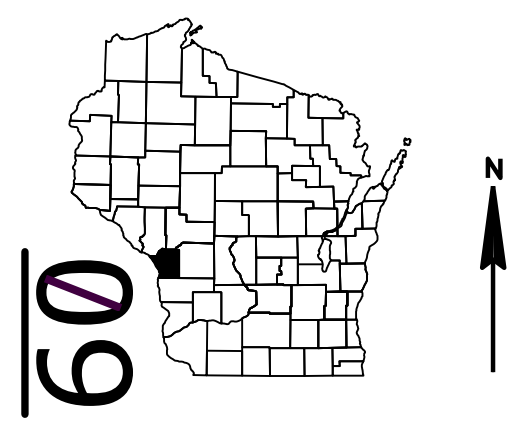


LAX WITH: PROJECT ID: 7930-08-70 COUNTY: LA CROSSE

APRIL 2020

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 =		78



DESIGN DESIGNATION	7930-08-00
A.A.D.T.	2020 = 2000
A.A.D.T.	2040 = 2200
D.H.V.	= 3.7
D.D.	= 60/40
T.	= 4.5%
DESIGN SPEED	= 60 MPH
ESALS	= 170,000

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

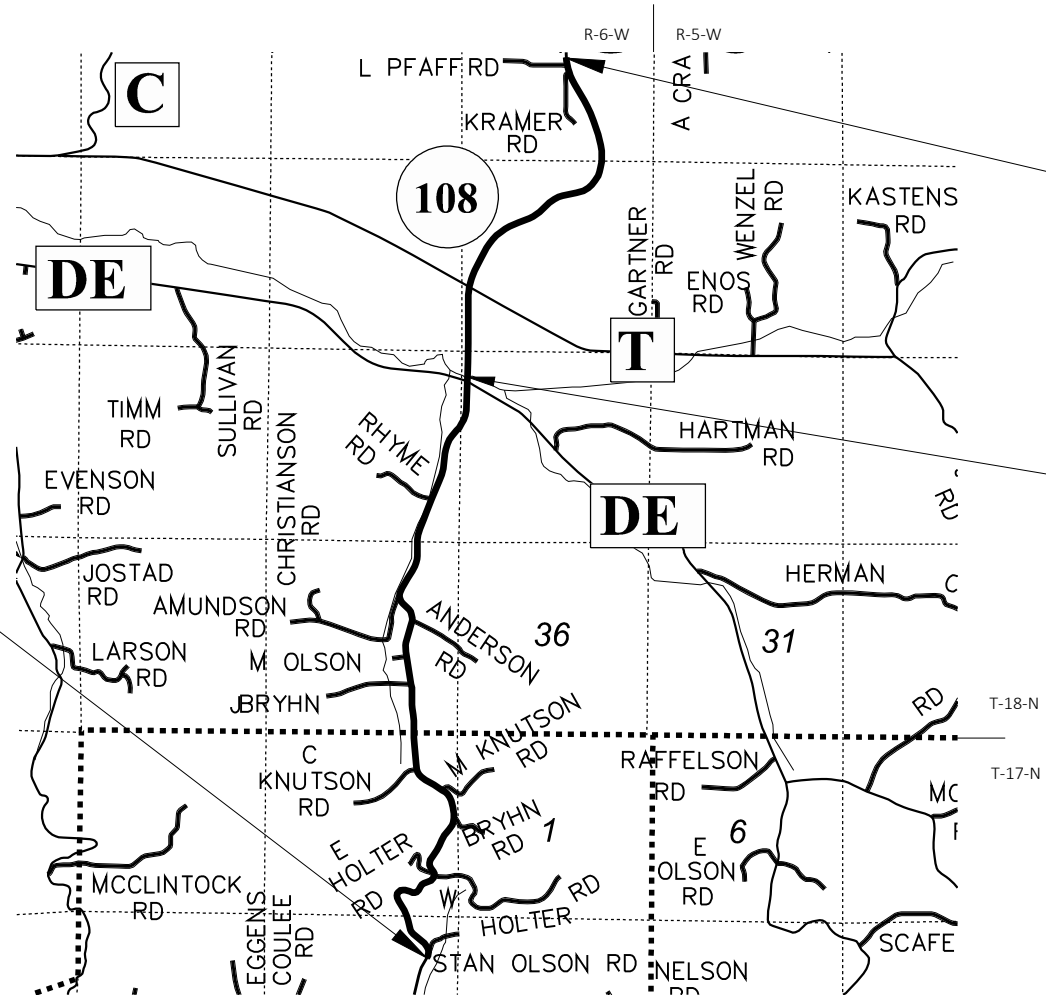
300' E

95.36

CAUTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
WEST SALEM - MELROSE
STAN OLSON ROAD TO L PFAFF ROAD
STH 108
LA CROSSE COUNTY

STATE PROJECT NUMBER
7930-08-70



LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 5.671 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), LA CROSSE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7930-08-70	WISC 2020132	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor SW REGION

Designer SHANE PETERSON

Project Manager TODD WALDO

Regional Examiner SW REGION

Regional Supervisor REINY YAHNKE

APPROVED FOR THE DEPARTMENT

DATE: 10/24/19 Todd Waldo (Signature)

E

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.
- THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
- THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH THE EXISTING UTILITY FACILITIES.
- RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.
- PRIOR TO THE PLACEMENT OF MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.
- THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, BIKE OR PARKING LANE.
- HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.
- THE RATE OF APPLICATION FOR TACK COAT IS COMPUTED AT 0.070 GAL/SY ON MILLED SURFACES AND 0.050 GAL/SY BETWEEN HMA LAYERS.
- "3.5- INCH HMA PAVEMENT TYPE 4 LT 58-28 S, SHALL BE CONSTRUCTED WITH TWO LAYERS, 1.75" LOWER AND 1.75" UPPER.
- CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.
- THE QUANTITY OF THE ITEMS FOR EROSION PROTECTION INCLUDES AN UNDISTRIBUTED AMOUNT FOR PROTECTION, CONTROL AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION. THE DISTRIBUTION AND LOCATION OF THESE MATERIALS ARE TO BE DETERMINED BY THE ENGINEER.
- DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED (SALVAGED), FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.
- (SALVAGED) TOPSOIL AND MULCH HAS BEEN COMPUTED BY DIRECT MEASUREMENTS ON THE CROSS SECTIONS PLUS 5 FT BEYOND THE TOE OF SLOPE. SEEDING AND FERTILIZER HAS BEEN COMPUTED BY DIRECT MEASUREMENTS ON THE CROSS SECTIONS PLUS 10 FT.

DESIGN CONTACTS

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PROJECT DESIGNER
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KAREN KALVELAGE
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST
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UTILITY CONTACTS

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STANDARD ABBREVIATIONS

AC	ACRE	LC.	LONG CHORD
AGG	AGGREGATE	LS	LUMP SUM
<	ANGLE	M.P.	MARKER POST
AE, AEW	APRON ENDWALL	MGAL	1000 GALLONS
ASPH.	ASPHALTIC	N.C.	NORMAL CROWN
A.D.T.	AVERAGE DAILY TRAFFIC	N	NORTH
A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC	NB	NORTHBOUND
B.F.	BACK FACE	NOR	NORMAL
BM	BENCHMARK	NO.	NUMBER
BTWN	BETWEEN	PAV'T	PAVEMENT
CTR.	CENTER	P.L.E.	PERMANENT LIMITED EASEMENT
C/L	CENTER LINE	P.C.	POINT OF CURVATURE
Δ	CENTRAL ANGLE OR DELTA	P.I.	POINT OF INTERSECTION
C.E.	COMMERCIAL ENTRANCE	P.T.	POINT OF TANGENCY
CONST.	CONSTRUCTION	PCC	PORTLAND CEMENT CONCRETE
CMCP	CORRUGATED METAL CULVERT PIPE	P.E.	PRIVATE ENTRANCE
CMP	CORRUGATED METAL PIPE	PGL	PROFILE GRADE LINE
CO.	COUNTY	P.L.	PROPERTY LINE
CTH	COUNTY TRUNK HIGHWAY	R	RADIUS OR RANGE
CR.	CREEK	R/L	REFERENCE LINE
CABC	CRUSHED AGGREGATE BASE COURSE	R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE
CY	CUBIC YARD	REQ'D	REQUIRED
CP	CONTROL POINT OR CULVERT PIPE	RT	RIGHT
C&G	CURB AND GUTTER	R.H.F.	RIGHT HAND FORWARD
D	DEGREE OF CURVE	R/W	RIGHT OF WAY
D.H.V.	DESIGN HOURLY VOLUME	RD.	ROAD
DIA.	DIAMETER	SHLD.	SHOULDER(S)
D.D.	DIRECTIONAL DISTRIBUTION	SHR.	SHRINKAGE
DISCH.	DISCHARGE	S	SOUTH
DMS	DYNAMIC MESSAGE SIGN	SB	SOUTHBOUND
EA	EACH	S.F.	SQUARE FOOT (FEET)
E	EAST	SDD	STANDARD DETAIL DRAWING(S)
EB	EASTBOUND	STH	STATE TRUNK HIGHWAY
ELEC.	ELECTRIC(AL), ELEC. CABLE	STA.	STATION
EL., ELEV.	ELEVATION	S.E.	SUPERELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS	S/L	SURVEY LINE
EXC.	EXCAVATION	SYM	SYMMETRICAL
EXIST	EXISTING	T.	PERCENT TRUCKS
F.F.	FACE TO FACE	TEL.	TELEPHONE
FERT.	FERTILIZER	TEMP.	TEMPORARY
F.E.	FIELD ENTRANCE	T.L.E.	TEMPORARY LIMITED EASEMENT
F/L, F.L.	FLOW LINE	T.O.C.	TOP OF CURB
GALV.	GALVANIZE	TYP	TYPICAL
H.S.	HIGH STRENGTH	UNCL.	UNCLASSIFIED
CWT	HUNDRED WEIGHT	U.G.	UNDERGROUND (CABLE)
INL	INLET	VAR	VARIABLE
INTER.	INTERSECTION	V.C.	VERTICAL CURVE
IH	INTERSTATE HIGHWAY	V.P.C.	VERTICAL POINT OF CURVATURE
JT.	JOINT	V.P.I.	VERTICAL POINT OF INTERSECTION
LT	LEFT	V.P.T.	VERTICAL POINT OF TANGENCY
L.H.F.	LEFT HAND FORWARD	Wt.	WEIGHT
L.	LENGTH OF CURVE	W	WEST
L.F.	LINEAR FOOT(FEET)	WB	WESTBOUND

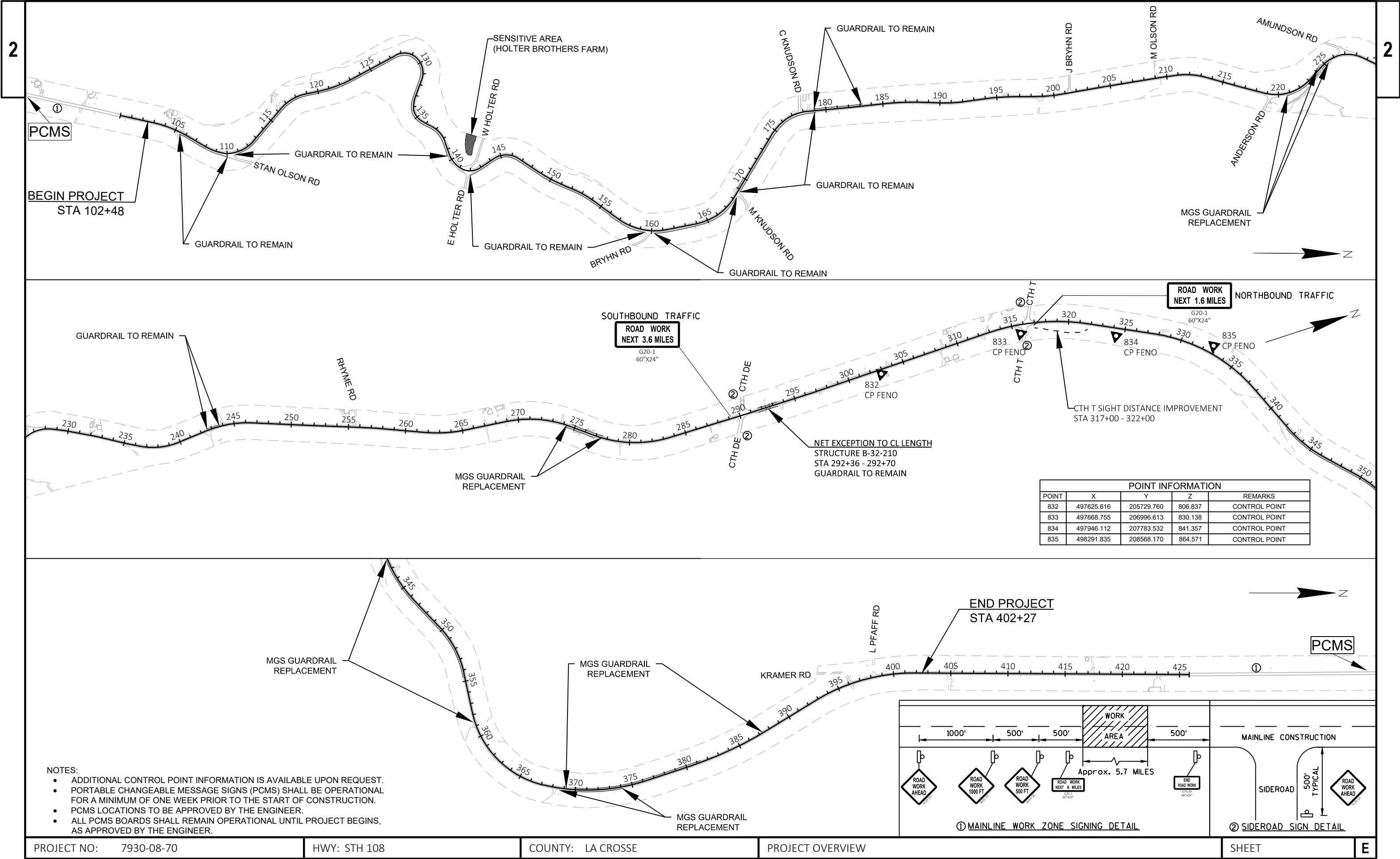
ORDER OF SECTION 2 SHEETS

GENERAL NOTES
SOIL BORINGS SUMMARY
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
EROSION CONTROL
PAVEMENT MARKINGS

ROADWAY SOIL BORINGS SUMMARY TABLE

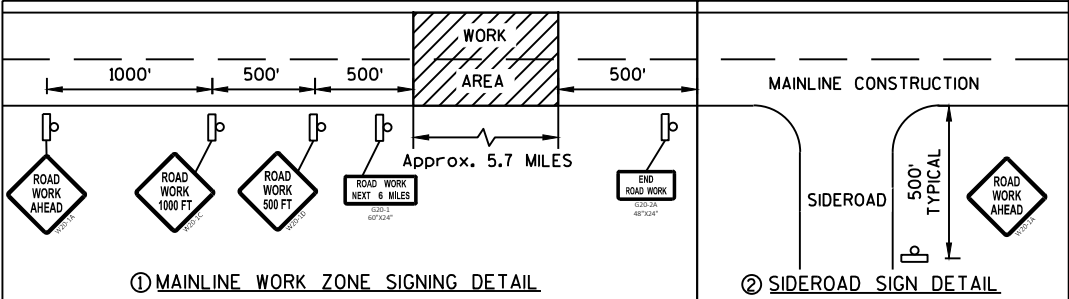
BORING #	LOG MI	APPROX. STA	OFFSET	BITUMINOUS	BASE COURSE	SUBGRADE	REMARKS
	0.00	110+50					STAN OLSON RD
B-1	0.08	114+72	6' RT	5	6	SILT	
B-2	0.32	127+40	9' RT	6	6	SILT	
B-3	0.57	140+60	6' LT	4		SAND	
B-4	0.82	153+80	5' RT	5	7	SAND	
	0.94	160+13					BRYHN RD
B-5	1.11	169+11	9' LT	7	10	SILT	
B-6	1.39	183+89	3' LT	4	7	SAND	
B-7	1.64	197+09	12' LT	5	8	SAND	
	1.73	201+84					J BRYHN RD
B-8	1.86	208+71	6' RT	3	6	SAND/SILT	
B-9	2.09	220+85	12' RT	3	6	SAND/LIMESTONE	
B-10	2.34	234+05	6' RT	3	6	SAND	
B-11	2.60	247+78	9' RT	4	5	SAND/SILT	
	2.76	256+23					RHYME RD
B-12	2.87	262+04	9' LT	5	5	SAND	
B-13	3.09	273+65	3' LT	4	18	SAND/GRAVEL	
B-14	3.33	286+32	12' LT	5	5	SAND	
	3.40	290+02					CTH DE
B-15	3.56	298+47	6' LT	5	6	SILT/SAND	
B-16	3.80	311+14	9' RT	4	8	SAND	
	3.89	315+89					CTH T
B-17	4.05	324+34	9' LT	4	8	SAND/SILT	
B-18	4.32	338+60	6' LT	3	10	SAND	
B-19	4.63	354+96	12' LT	6	9	SILT	
B-20	4.87	367+64	6' LT	6	5	SILT	
B-21	5.11	380+31	9' RT	5	6	SAND	
B-22	5.38	394+56	6' RT	6	6	SILT/SAND	
	5.45	398+26					L PFAFF RD
AVERAGE DEPTHS				4.6	7.3		

NOTES:
DATE BORINGS TAKEN: 11/8/2018, 11/12/2018, 11/13/2018
ALL DEPTHS ARE IN INCHES
FOR REFERENCE PURPOSES ONLY
ALL OFFSETS ARE FROM EXISTING CENTERLINE



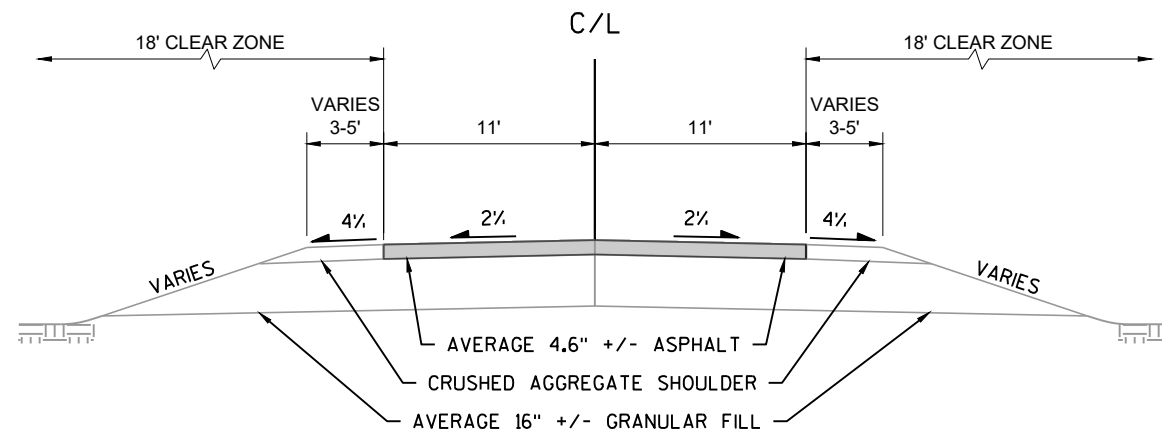
POINT INFORMATION				
POINT	X	Y	Z	REMARKS
832	497625.616	205729.760	806.837	CONTROL POINT
833	497668.755	206996.613	830.138	CONTROL POINT
834	497946.112	207783.532	841.357	CONTROL POINT
835	498291.835	208568.170	864.571	CONTROL POINT

- NOTES:
- ADDITIONAL CONTROL POINT INFORMATION IS AVAILABLE UPON REQUEST.
 - PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE OPERATIONAL FOR A MINIMUM OF ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
 - PCMS LOCATIONS TO BE APPROVED BY THE ENGINEER.
 - ALL PCMS BOARDS SHALL REMAIN OPERATIONAL UNTIL PROJECT BEGINS, AS APPROVED BY THE ENGINEER.



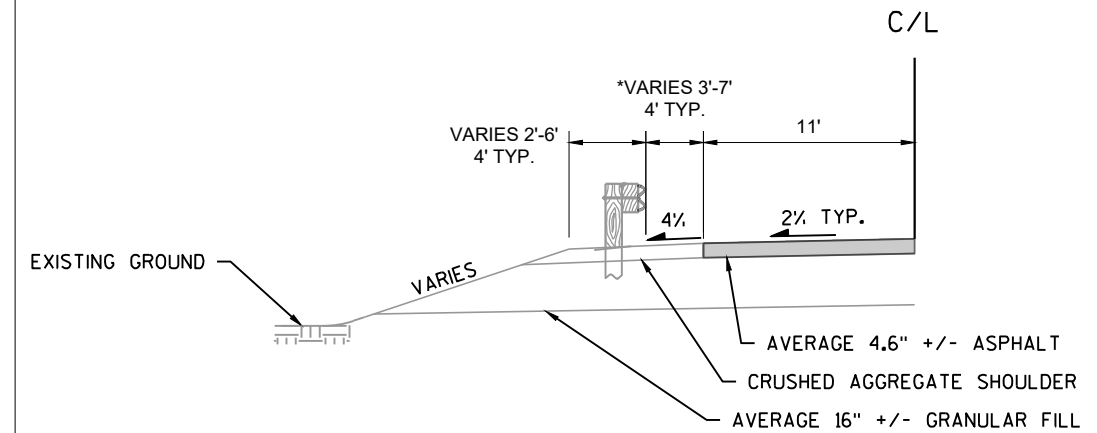
NOTES:

- SEE BORING LOG FOR MORE DETAILS
- SAFETY EDGE TO BE USED AT EDGE OF PAVEMENT
- WHERE EXISTING FULL PAVED SHOULDERS ARE LOCATED, MILL THE ENTIRE SHOULDER



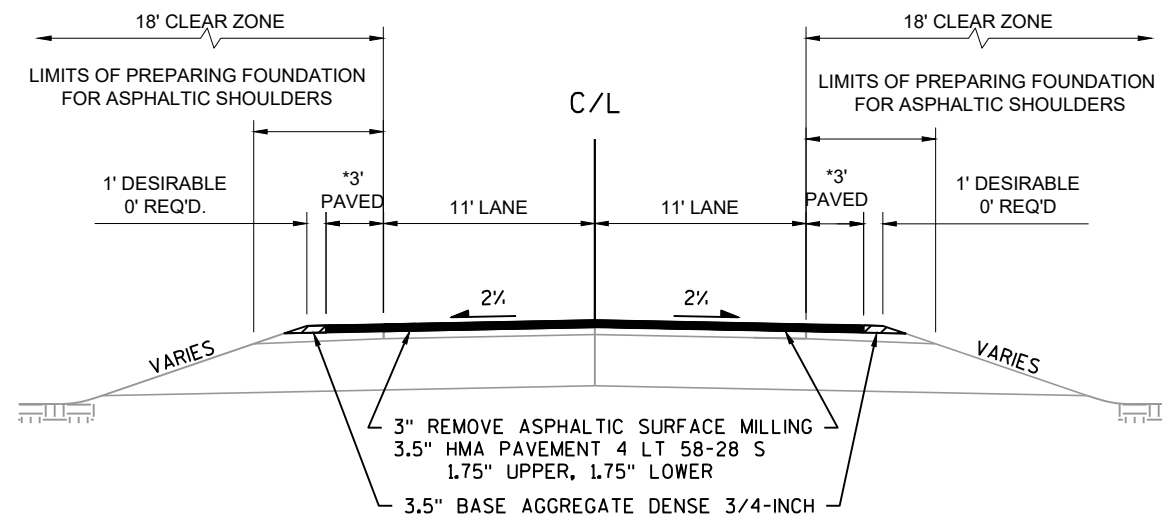
EXISTING TYPICAL SECTION STH 108

STA 102+48 - STA 292+36
STA 292+70 - STA 402+27



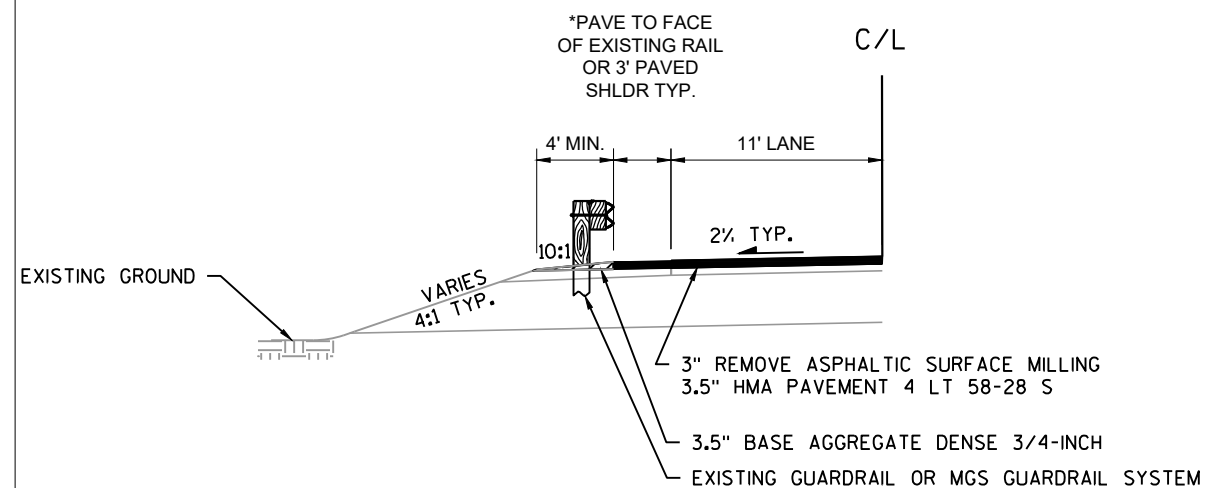
EXISTING TYPICAL GUARDRAIL HALF SECTION

STA 274+28 - STA 276+91 RT *EXISTING SHOULDER 7'
STA 274+75 - STA 277+51 LT *EXISTING SHOULDER 7'



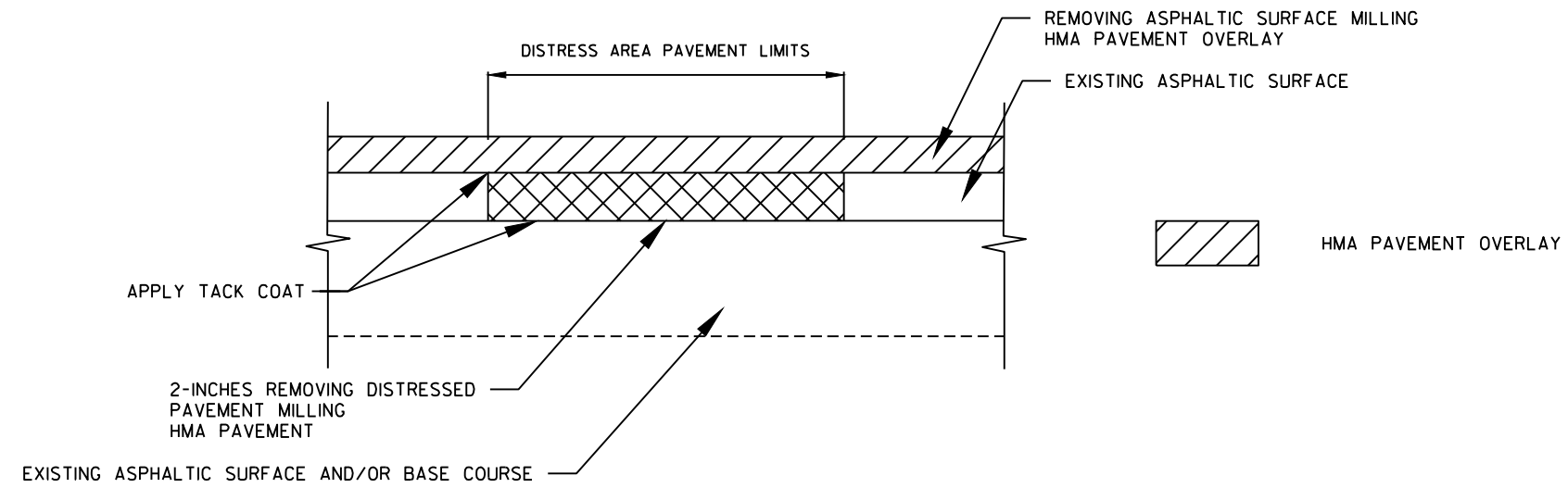
PROPOSED TYPICAL SECTION STH 108

STA 102+48 - STA 292+36
STA 292+70 - STA 402+27
STA 139+73 - STA 141+47
*11' PAVED SHOULDER RT
STA 139+37 - STA 142+92
*3' TO 5' PAVED SHOULDER LT

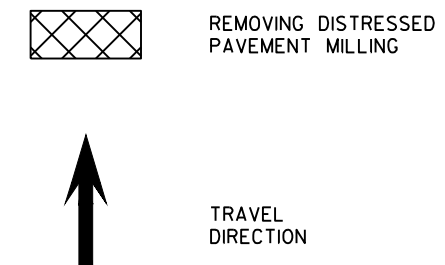
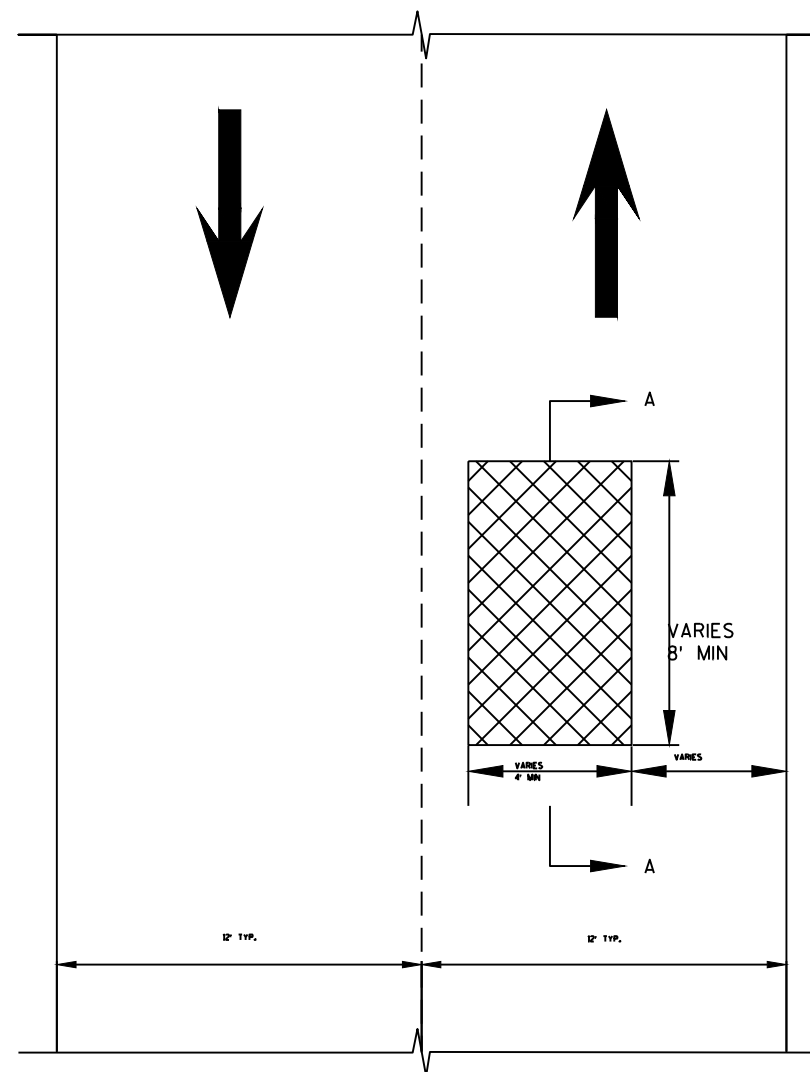


PROPOSED TYPICAL GUARDRAIL HALF SECTION

STA 274+28 - STA 276+91 RT *PAVED SHOULDER 7'
STA 274+75 - STA 277+51 LT *PAVED SHOULDER 7'

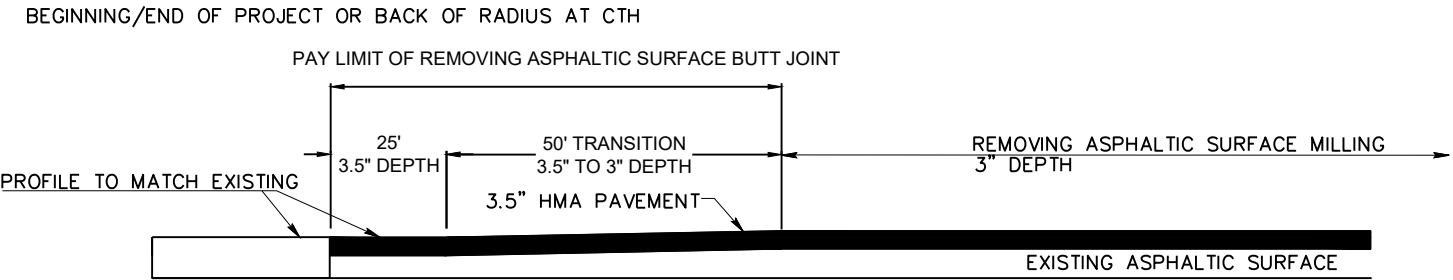


REMOVING DISTRESS PAVEMENT MILLING
SECTION A-A



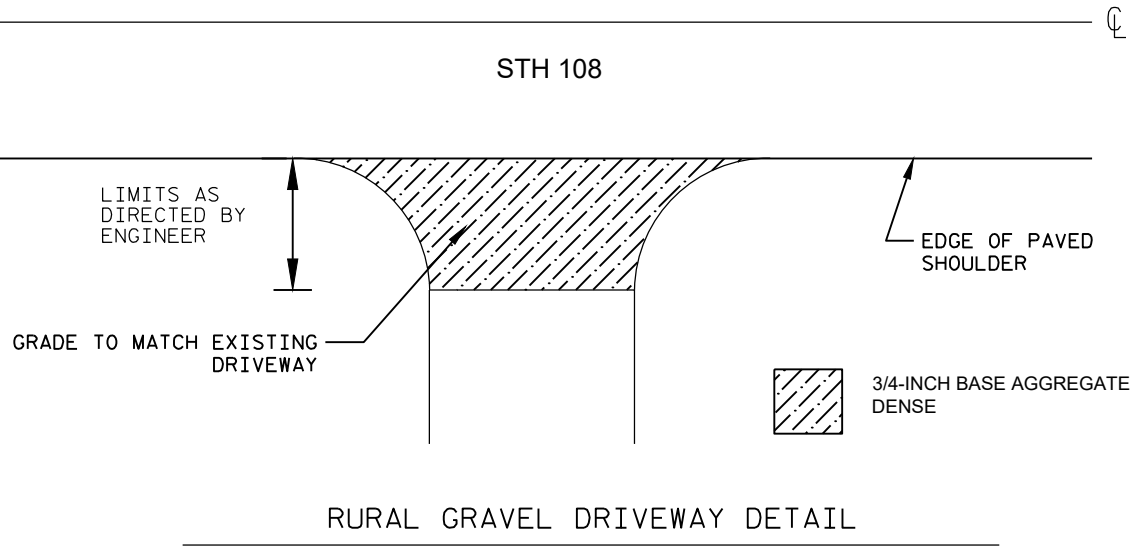
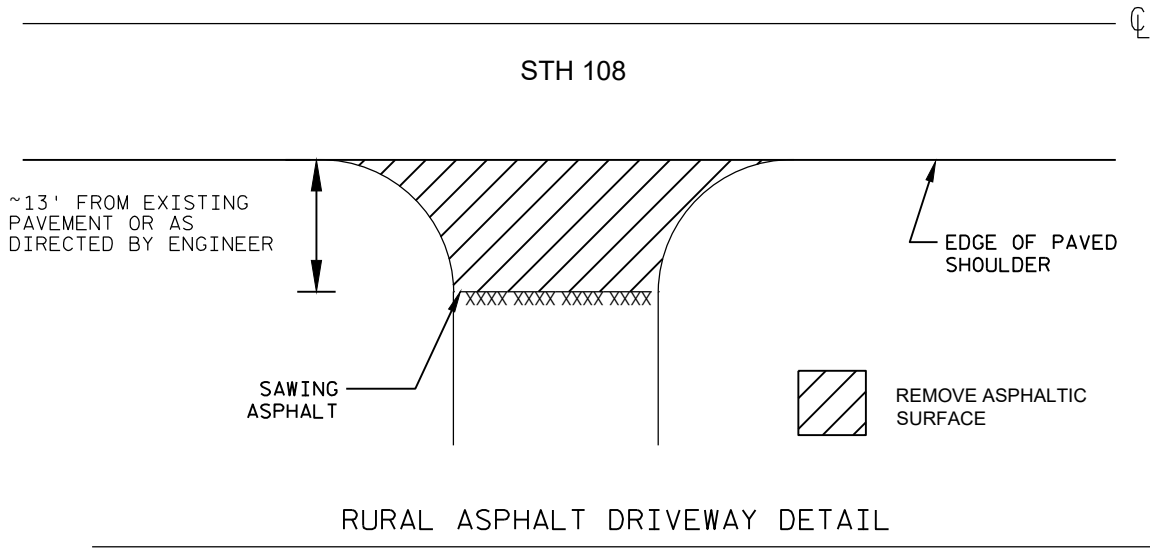
PLAN
VIEW

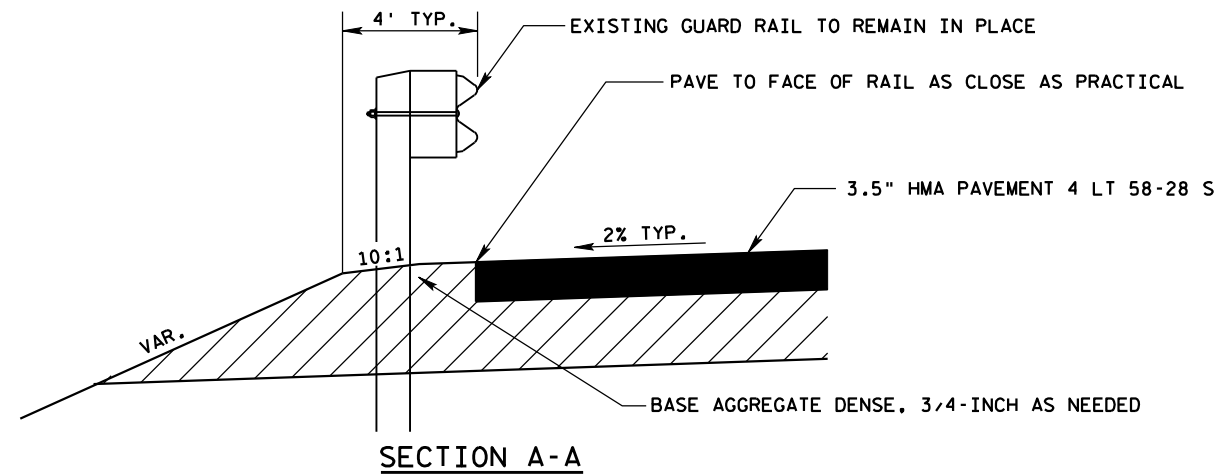
EXACT LOCATION AND LIMITS OF REMOVING DISTRESSED
PAVEMENT MILLING TO BE DETERMINED BY THE
ENGINEER IN THE FIELD



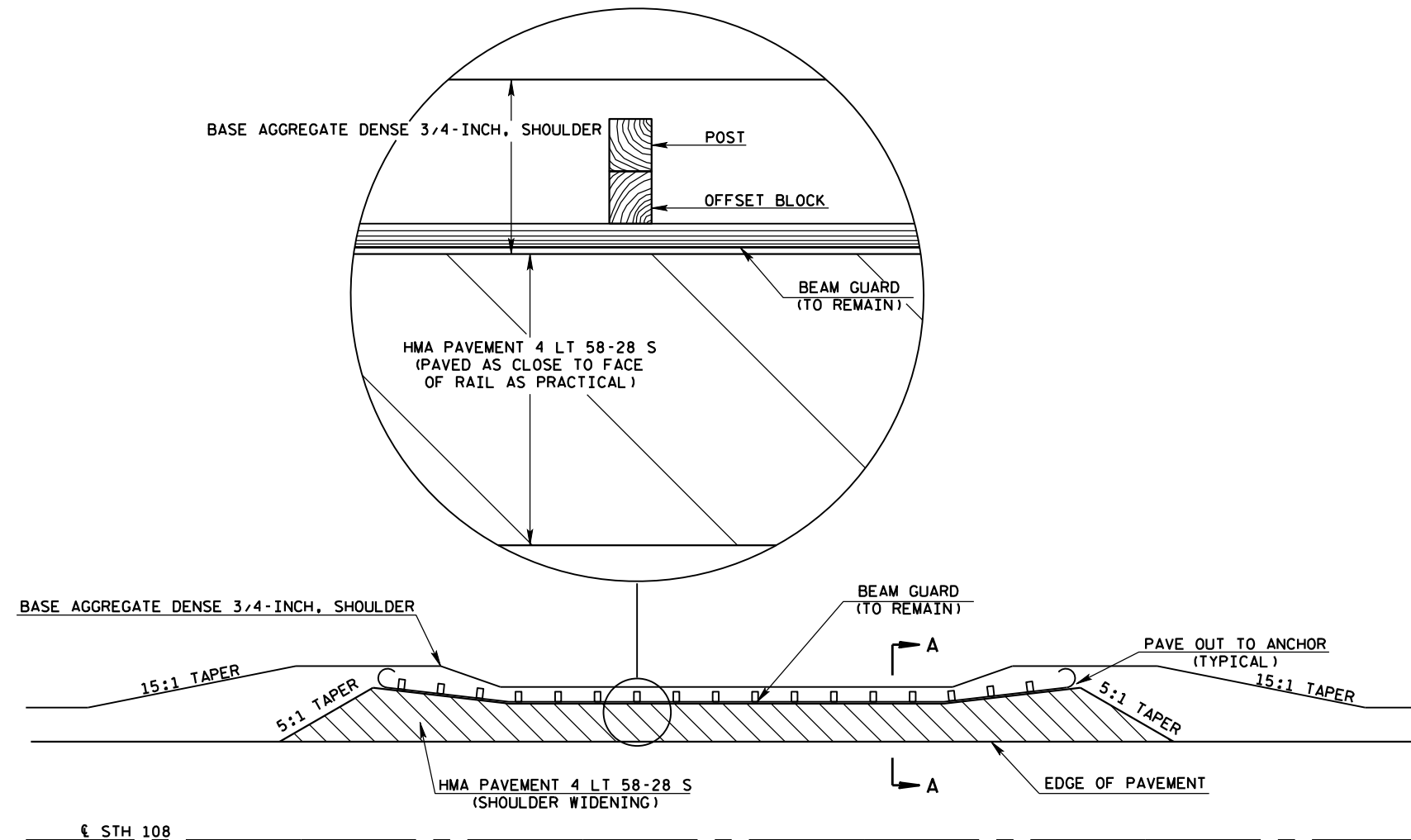
MAINLINE REMOVING ASPHALTIC SURFACE BUTT JOINTS DETAIL

- STA 102+41 - STA 103+23 - BEGINNING OF PROJECT
- STA 286+69 - STA 291+02 - CTH DE WEST LEG
- STA 286+74 - STA 290+51 - CTH DE EAST LEG
- STA 291+61 - STA 292+36 - B-32-201
- STA 292+70 - STA 293+45 - B-32-201
- STA 315+45 - STA 316+68 - CTH T EAST LEG
- STA 315+87 - STA 316+87 - CTH T WEST LEG
- STA 401+52 - STA 402+27 - END OF PROJECT

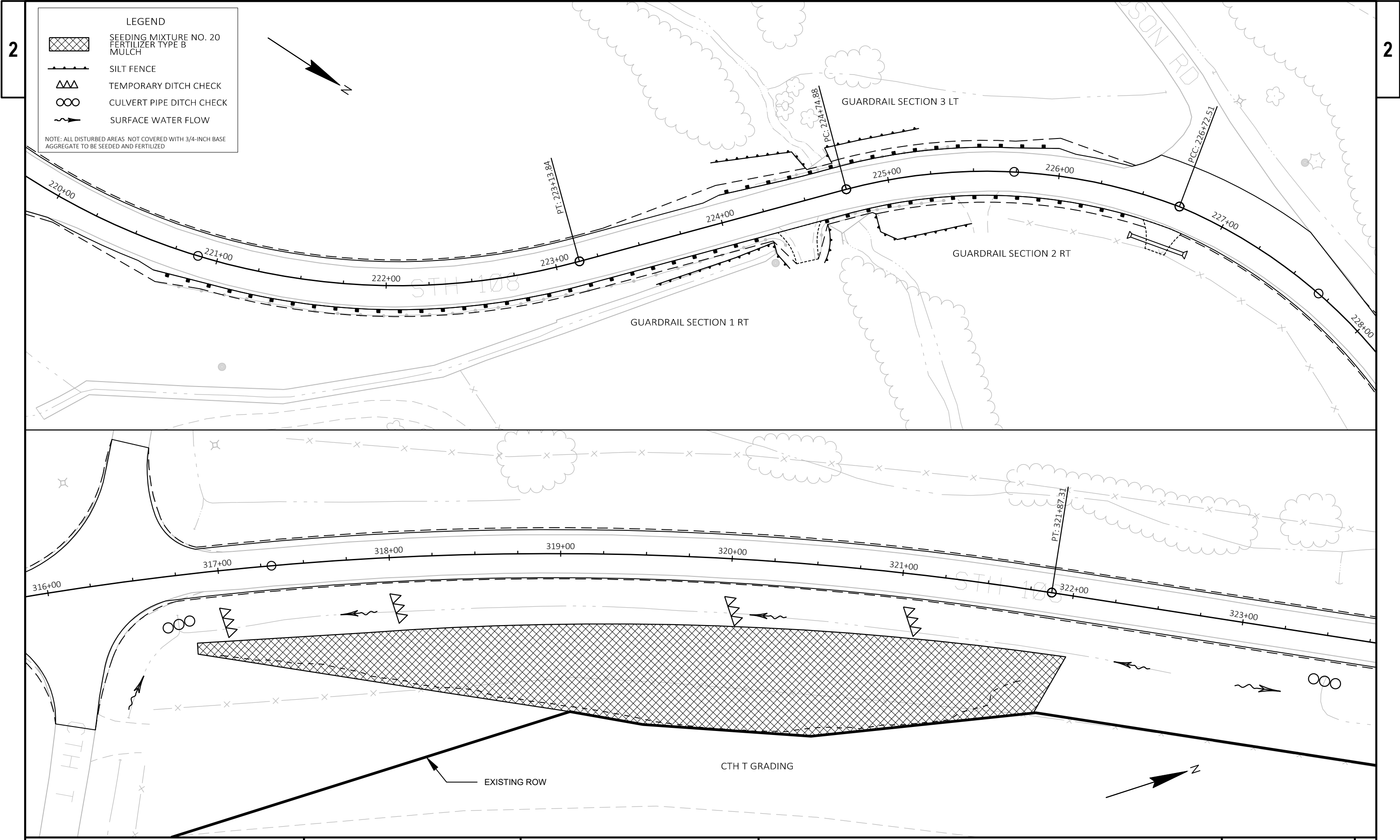


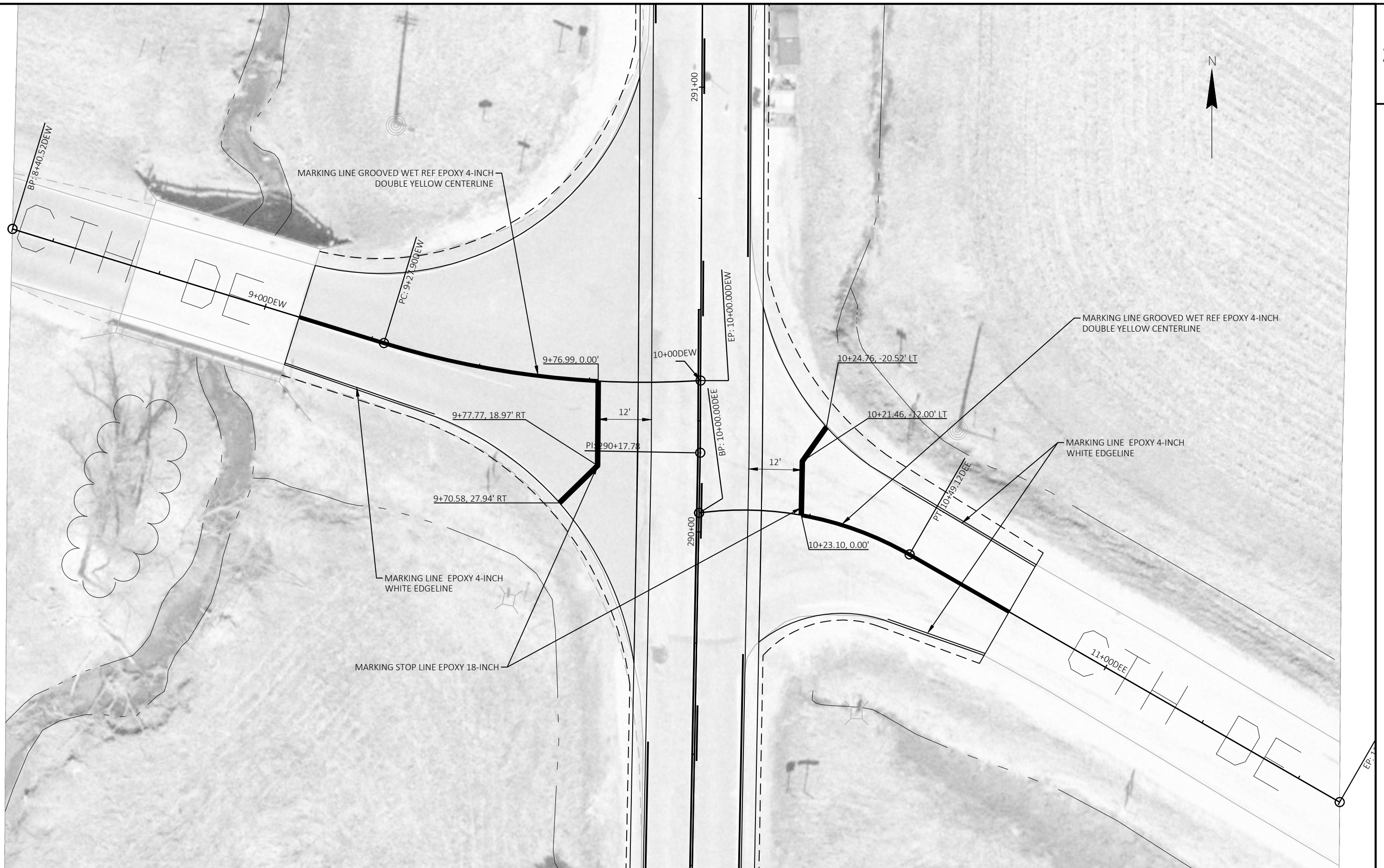


SHOULDER DETAIL AT GUARD RAIL



ASPHALTIC PAVING ALONG BEAM GUARD





PROJECT NO: 7930-08-70

HWY: STH 108

COUNTY: LA CROSSE

PAVEMENT MARKING - CTH DE

SHEET

E

FILE NAME : N:\PDS\C3D\79300800\SHEETPLAN\024501-PM.DWG
LAYOUT NAME - 024501-pm

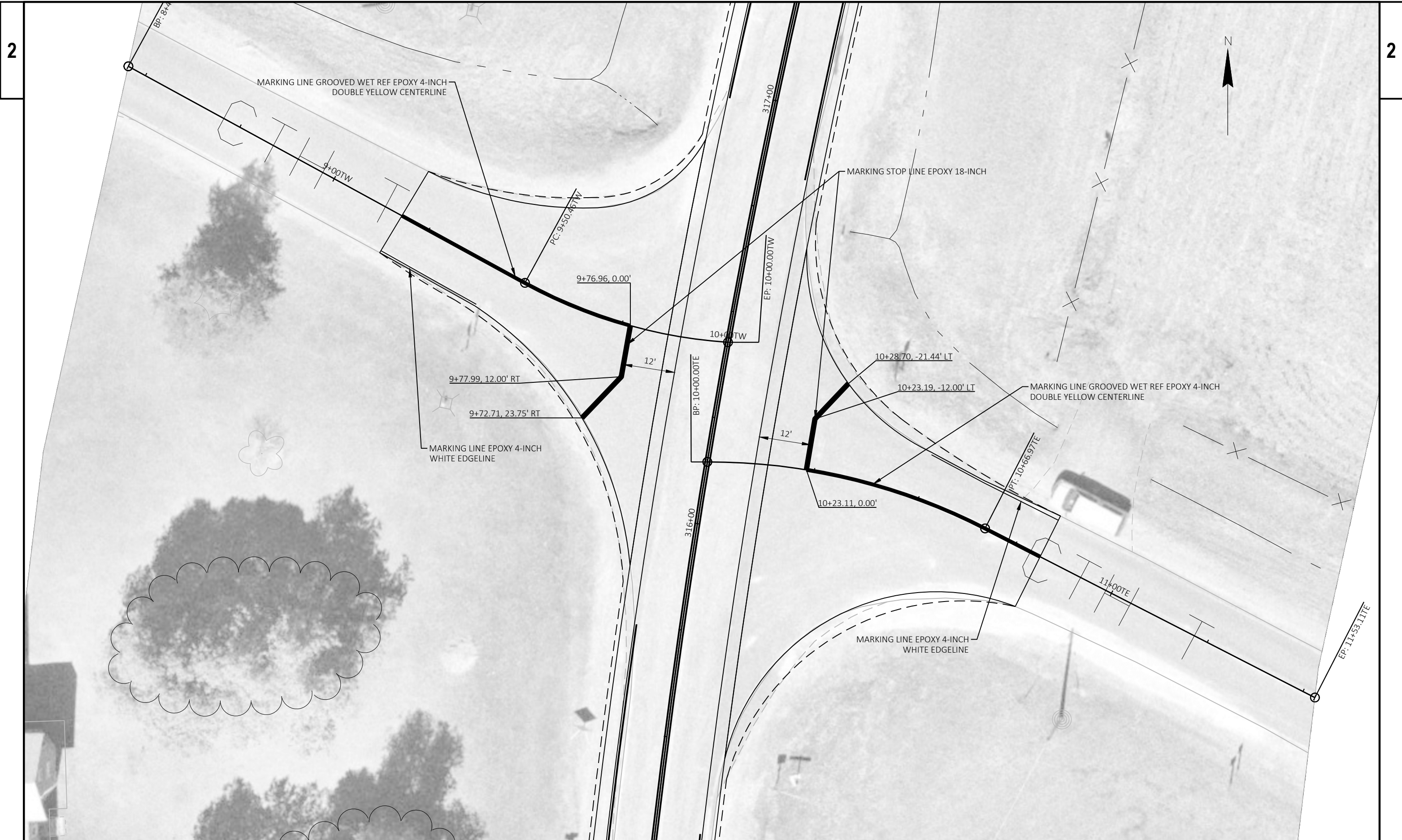
PLOT DATE : 10/25/2019 9:07 AM

PLOT BY : PETERSON, SHANE J

PLOT NAME :

PLOT SCALE : 1 IN:20 FT

WISDOT/CADDs SHEET 42



PROJECT NO: 7930-08-70	HWY: STH 108	COUNTY: LA CROSSE	PAVEMENT MARKING - CTH T	SHEET	E
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Estimate Of Quantities

7930-08-70

Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	1,314.000	1,314.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	2,321.000	2,321.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	77,575.000	77,575.000
0008	204.0165	Removing Guardrail	LF	4,062.000	4,062.000
0010	205.0100	Excavation Common	CY	1,500.000	1,500.000
0012	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	586.000	586.000
0014	213.0100	Finishing Roadway (project) 01. 7930-08-70	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,500.000	3,500.000
0018	455.0605	Tack Coat	GAL	11,766.000	11,766.000
0020	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0022	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0024	460.2005	Incentive Density PWL HMA Pavement	DOL	14,350.000	14,350.000
0026	460.2010	Incentive Air Voids HMA Pavement	DOL	19,040.000	19,040.000
0028	460.5224	HMA Pavement 4 LT 58-28 S	TON	19,215.000	19,215.000
0030	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	19.000	19.000
0032	520.1012	Apron Endwalls for Culvert Pipe 12-Inch	EACH	2.000	2.000
0034	520.3312	Culvert Pipe Class III-A 12-Inch	LF	32.000	32.000
0036	614.2300	MGS Guardrail 3	LF	4,837.500	4,837.500
0038	614.2610	MGS Guardrail Terminal EAT	EACH	16.000	16.000
0040	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7930-08-70	EACH	1.000	1.000
0042	619.1000	Mobilization	EACH	1.000	1.000
0044	624.0100	Water	MGAL	70.000	70.000
0046	625.0500	Salvaged Topsoil	SY	2,620.000	2,620.000
0048	627.0200	Mulching	SY	2,620.000	2,620.000
0050	628.1504	Silt Fence	LF	420.000	420.000
0052	628.1520	Silt Fence Maintenance	LF	420.000	420.000
0054	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0056	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0058	628.7504	Temporary Ditch Checks	LF	40.000	40.000
0060	628.7555	Culvert Pipe Checks	EACH	6.000	6.000
0062	629.0210	Fertilizer Type B	CWT	2.000	2.000
0064	630.0120	Seeding Mixture No. 20	LB	100.000	100.000
0066	630.0500	Seed Water	MGAL	55.000	55.000
0068	642.5001	Field Office Type B	EACH	1.000	1.000
0070	643.0300	Traffic Control Drums	DAY	3,445.000	3,445.000
0072	643.0705	Traffic Control Warning Lights Type A	DAY	3,445.000	3,445.000
0074	643.0900	Traffic Control Signs	DAY	480.000	480.000
0076	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0078	643.5000	Traffic Control	EACH	1.000	1.000

Estimate Of Quantities

7930-08-70

Line	Item	Item Description	Unit	Total	Qty
0080	646.1020	Marking Line Epoxy 4-Inch	LF	58,674.000	58,674.000
0082	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	482.000	482.000
0084	646.4505	Marking Line Same Day Paint 4-Inch	LF	47,662.000	47,662.000
0086	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	54,070.000	54,070.000
0088	646.6120	Marking Stop Line Epoxy 18-Inch	LF	102.000	102.000
0090	648.0100	Locating No-Passing Zones	MI	6.000	6.000
0092	650.8000	Construction Staking Resurfacing Reference	LF	29,979.000	29,979.000
0094	650.9910	Construction Staking Supplemental Control (project) 01. 7930-08-70	LS	1.000	1.000
0096	650.9920	Construction Staking Slope Stakes	LF	485.000	485.000
0098	690.0150	Sawing Asphalt	LF	480.000	480.000
0100	740.0440	Incentive IRI Ride	DOL	22,690.000	22,690.000
0102	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	600.000	600.000
0104	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0106	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	1,523.000	1,523.000

REMOVING GUARDRAIL					
204.0165 REMOVING GUARDRAIL					
CATEGORY	STATION TO	STATION	LOCATION	LF	REMARKS
0010	220+71 -	224+32	RT	376	1 TURNED DOWN END & SHORT RADIUS
0010	224+50 -	225+32	RT	91	SHORT RADIUS & 1 TURNED DOWN END
0010	224+24 -	225+36	LT	115	BLUNT END
0010	274+27 -	276+94	RT	267	TURNED DOWN ENDS
0010	274+69 -	277+61	LT	291	TURNED DOWN ENDS
0010	342+19 -	354+67	RT	1245	CABLE GUARD
0010	368+90 -	374+13	RT	528	CABLE GUARD
0010	369+81 -	381+36	LT	1149	CABLE GUARD
TOTAL 0010				4,062	

EXCAVATION COMMON					
205.0100 EXCAVATION COMMON					
CATEGORY	STATION TO	STATION	LOCATION	CY	REMARKS
0010	316+95 -	321+80	RT	1,500	CTH T GRADING
TOTAL 0010				1,500	

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS					
211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS					
CATEGORY	STATION TO	STATION	LOCATION	STA	REMARKS
0010	102+48 -	402+27	RT	296	EXCLUDES INTERSECTIONS
0010	102+48 -	402+27	LT	290	EXCLUDES INTERSECTIONS
TOTAL 0010				586	

CULVERT PIPE SUMMARY						
				520.1012 APRON ENDWALLS FOR CULVERT PIPE 12- INCH EACH	520.3312 CULVERT PIPE CLASS III-A 12- INCH LF	REMARKS
CATEGORY	STATION TO	STATION	LOCATION			
0010	226+55 -	226+79	RT	2	32	NEW FE
TOTAL 0010				2	32	

REMOVING ASPHALT SUMMARY									
204.0110 204.0115 204.0120 690.0150 SPV.0180.01 REMOVING REMOVING REMOVING SAWING ASPHALT SPECIAL (01. ASPHALTIC ASPHALTIC ASPHALTIC REMOVING SURFACE SURFACE BUTT SURFACE DISTRESSED SURFACE JOINTS MILLING PAVEMENT SY SY SY LF SY MILLING)									
CATEGORY	STATION TO	STATION	LOCATION	SY	SY	SY	LF	SY	REMARKS
0010	104+56 -	104+92	LT	38	-	-	19	-	DRIVEWAY
0010	109+51 -	110+62	RT	138	-	-	64	-	STAN OLSON RD
0010	115+88 -	116+42	LT	57	-	-	25	-	DRIVEWAY
0010	116+94 -	117+23	LT	34	-	-	17	-	DRIVEWAY
0010	139+35 -	142+50	RT	-	-	387	-	-	E HOLTER RD WIDE SHOULDER
0010	141+04 -	141+94	LT	139	-	-	24	-	W HOLTER RD
0010	159+38 -	160+08	RT	87	-	-	37	-	BRYHN RD
0010	168+27 -	168+80	RT	64	-	-	28	-	M KNUDSON RD
0010	177+47 -	177+99	LT	60	-	-	28	-	C KNUDSON RD
0010	201+08 -	201+68	LT	54	-	-	21	-	J BRYHN RD
0010	208+87 -	209+35	LT	58	-	-	27	-	M OLSON RD
0010	218+69 -	220+18	RT	223	-	-	26	-	ANDERSON RD
0010	226+34 -	228+24	LT	216	-	-	99	-	AMUNDSON RD
0010	255+46 -	256+11	LT	75	-	-	35	-	RHYME RD
0010	273+80 -	277+30	RT	-	-	208	-	-	GUARDRAIL SECTION 4
0010	274+35 -	278+10	LT	-	-	231	-	-	GUARDRAIL SECTION 5
0010	289+69 -	291+02	LT	-	420	-	-	-	CTH DE
0010	289+74 -	290+51	RT	-	235	-	-	-	CTH DE
0010	291+10 -	291+61	LT/RT	-	-	44	-	-	STRUCTURE B-32-210
0010	293+45 -	294+70	RT	-	-	68	-	-	STRUCTURE B-32-210
0010	293+45 -	303+75	LT	-	-	492	-	-	STRUCTURE B-32-210
0010	315+45 -	316+68	RT	-	374	-	-	-	CTH T
0010	315+87 -	316+87	LT	-	332	-	-	-	CTH T
0010	395+79 -	396+45	LT	71	-	-	30	-	KRAMER RD
TOTAL 0010				1,314	1,361	1,430	480	0	
0020	102+48 -	103+23	MAINLINE	-	184	-	-	-	BEGINNING OF PROJECT
0020	103+23 -	291+61	MAINLINE	-	-	48,335	-	967	BUTT JOINT TO BUTT JOINT
0020	291+61 -	292+36	MAINLINE	-	301	-	-	-	STRUCTURE B-32-210
0020	292+70 -	293+45	MAINLINE	-	291	-	-	-	STRUCTURE B-32-210
0020	293+45 -	401+52	MAINLINE	-	-	27,810	-	556	BUTT JOINT TO BUTT JOINT
0020	401+52 -	402+27	MAINLINE	-	184	-	-	-	END OF PROJECT
TOTAL 0020				0	960	76,145	0	1,523	
PROJECT TOTAL				1,314	2,321	77,575	480	1,523	

MGS GUARDRAIL							
614.2300 614.2610 MGS GUARDRAIL MGS GUARDRAIL							
3 TERMINAL EAT							
CATEGORY	STATION TO	STATION	LOCATION	LF	EACH	REMARKS	
0010	220+66 -	224+29	RT	275	2	GUARDRAIL SECTION 1	
0010	224+54 -	226+49	RT	87.5	2	GUARDRAIL SECTION 2	
0010	224+02 -	225+98	LT	100	2	GUARDRAIL SECTION 3	
0010	274+28 -	276+91	RT	162.5	2	GUARDRAIL SECTION 4	
0010	274+75 -	277+51	LT	175	2	GUARDRAIL SECTION 5	
0010	341+71 -	358+48	RT	1,575	2	GUARDRAIL SECTION 6	
0010	368+70 -	376+21	RT	662.5	2	GUARDRAIL SECTION 7	
0010	369+28 -	388+37	LT	1,800	2	GUARDRAIL SECTION 8	
TOTAL 0010				4,837.5	16		

HMA PAVEMENT									
		455.0605	460.0105.S	460.0110.S	*460.5224	465.0120			
		HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS		HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY	HMA PAVEMENT 4 LT 58-28 S	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES			
CATEGORY	STATION TO STATION	LOCATION	TACK COAT GAL	EACH	EACH	TON	TON	REMARKS	
0010	104+57 - 104+91	LT	-	-	-	-	6	DRIVEWAY	
0010	115+94 - 116+40	LT	-	-	-	-	8	DRIVEWAY	
0010	116+94 - 117+19	LT	-	-	-	-	5	DRIVEWAY	
0010	102+48 - 138+95	RT	189	-	-	309	-	SHOULDERS - BEGINNING OF PROJECT TO E HOLTER RD WIDE SHOULDER	
0010	109+13 - 111+19	RT	16	-	-	27	-	STAN OLSON RD	
0010	138+95 - 142+92	RT	68	-	-	111	-	E HOLTER RD	
0010	142+92 - 292+36	RT	671	-	-	1,095	-	SHOULDERS - E HOLTER RD TO B-32-210	
0010	159+41 - 160+05	RT	7	-	-	11	-	BRYHN RD	
0010	168+29 - 168+77	RT	5	-	-	8	-	M KNUDSON RD	
0010	218+85 - 220+00	RT	21	-	-	35	-	ANDERSON RD	
0010	289+75 - 290+51	RT	28	-	-	46	-	CTH DE	
0010	292+70 - 402+27	RT	445	-	-	727	-	SHOULDERS - B-32-210 TO END OF PROJECT	
0010	315+46 - 316+67	RT	39	-	-	64	-	CTH T	
0010	102+48 - 139+37	LT	148	-	-	242	-	SHOULDERS - BEGINNING OF PROJECT TO W HOLTER RD WIDE SHOULDER	
0010	139+37 - 142+92	LT	38	-	-	62	-	W HOLTER RD	
0010	142+92 - 292+36	LT	622	-	-	1,016	-	SHOULDERS - W HOLTER RD TO B-32-210	
0010	177+52 - 177+96	LT	5	-	-	9	-	C AMUNDSON RD	
0010	201+18 - 201+63	LT	4	-	-	7	-	J BRYHN RD	
0010	208+88 - 209+31	LT	5	-	-	8	-	M OLSON RD	
0010	226+39 - 227+99	LT	19	-	-	31	-	AMUNDSON RD	
0010	255+50 - 256+07	LT	7	-	-	11	-	RHYME RD	
0010	289+70 - 291+02	LT	51	-	-	82	-	CTH DE	
0010	315+87 - 316+87	LT	35	-	-	58	-	CTH T	
0010	395+83 - 396+39	LT	6	-	-	10	-	L PFAFF RD	
0010	292+70 - 402+27	LT	442	-	-	721	-	SHOULDERS - B-32-210 TO END OF PROJECT	
TOTAL 0010			2,871	0	0	4,690	19	*CAT 0010 ACCOUNTS FOR ALL PAVEMENT OUTSIDE THE 11' DRIVING LANES	
0020	102+48 - 292+36	MAINLINE	3,250	1	2	4,550	-	11' DRIVING LANES - 1.75" LOWER - BEGINNING OF PROJECT TO B-32-210	
0020	102+48 - 292+36	MAINLINE	2,321	-	-	4,550	-	11' DRIVING LANES - 1.75" UPPER - BEGINNING OF PROJECT TO B-32-210	
0020	292+70 - 402+27	MAINLINE	1,875	-	-	2,625	-	11' DRIVING LANES - 1.75" LOWER - B-32-210 TO END OF PROJECT	
0020	292+70 - 402+27	MAINLINE	1,340	-	-	2,625	-	11' DRIVING LANES - 1.75" UPPER - B-32-210 TO END OF PROJECT	
0020	UNDISTRIBUTED	MAINLINE	109	-	-	175	-	REMOVING DISTRESSED PAVEMENT MILLING AREAS	
TOTAL 0020			8,895	1	2	14,525	0		
PROJECT TOTAL			11,766	1	2	19,215	19		

PWL MIXTURE USE TABLE

Location	Station	Mixture Use	Underlying Surface	Bid Item	Tons	Thickness	Quality Management Program to be used for:	
							Mixture Acceptance	Density Acceptance
11 foot Driving Lane	102+48 to 292+36	Upper Layer	4 LT 58-28S	4 LT 58-28S	7,175	1 ¾ “	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
	292+70 to 402+27							
11 foot Driving Lane	102+48 to 292+36	Lower Layer	Milled Asphaltic Surface	4 LT 58-28S	7,175	1 ¾ “	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
	292+70 to 402+27							
3 foot Shoulder	102+48 to 292+36	Upper Layer	4 LT 58-28S	4 LT 58-28S	2,055	1 ¾ “	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not eligible for incentive
	292+70 to 402+27							
3 foot Shoulder	102+48 to 292+36	Lower Layer	Milled Asphaltic Surface	4 LT 58-28S	2,055	1 ¾ “	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not eligible for incentive
	292+70 to 402+27							
Side Roads	102+48 to 402+27	Upper Layer	4 LT 58-28S	4 LT 58-28S	290	1 ¾ “	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not eligible for incentive
Side Roads	102+48 to 402+27	Lower Layer	Varies	4 LT 58-28S	290	1 ¾ “	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not eligible for incentive
Driveways & Field Entrances	102+48 to 402+27	Upper Layer	Varies	Asphaltic Surface Driveways and Field Entrances	19	3 ½ “	QMP as per SS 460	Acceptance by ordinary compaction

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EROSION & RESTORATION																				
BASE AGGREGATE DENSE 3/4-INCH																				
					625.0500	627.0200	628.1504	628.1520	628.1905	628.1910	628.7504	628.7555	629.0210	630.0120	630.0500					
					MOBILIZATIONS		EROSION		TEMPORARY		CULVERT		SEEDING							
					EROSION		EROSION		DITCH		PIPE		FERTILIZER		MIXTURE NO. 20		SEED WATER			
					CONTROL		CONTROL		CHECKS		CHECKS		TYPE B		LB		MGAL			
					EACH		EACH		LF		EACH		CWT							
STATION TO	STATION	LOCATION	TON	MGAL	REMARKS	STATION TO	STATION	LOCATION	SY	SY	LF	LF	EACH	EACH	LF	EACH	CWT	LB	MGAL	REMARKS
102+48 -	402+27	RT	1,350	27	PROJECT LIMITS - SHOULDERS	222+60 -	224+30	RT			100	100	2	2						GUARDRAIL SECTION 1
102+48 -	402+27	LT	1,350	27	PROJECT LIMITS - SHOULDERS	224+50 -	226+60	RT			100	100								GUARDRAIL SECTION 2
220+66 -	224+29	RT	40		GUARDRAIL SECTION 1	223+65 -	226+20	LT			120	120								GUARDRAIL SECTION 3
224+54 -	226+49	RT	18		GUARDRAIL SECTION 2	316+75 -	322+00	RT	2,380	2,380					40	6	1.50	65	50	CTH T GRADING
224+02 -	225+98	LT	28		GUARDRAIL SECTION 3	UNDISTRIBUTED	-	-	240	240	100	100					0.50	35	5	
274+28 -	276+91	RT	30		GUARDRAIL SECTION 4															
274+75 -	277+51	LT	31		GUARDRAIL SECTION 5															
341+71 -	358+48	RT	158		GUARDRAIL SECTION 6			TOTAL 0010	2,620	2,620	420	420	2	2	40	6	2.00	100	55	
368+70 -	376+21	RT	78		GUARDRAIL SECTION 7															
369+28 -	388+37	LT	180		GUARDRAIL SECTION 8															
105+17 -	105+47	RT	5		PE															
105+49 -	105+67	LT	3		FE															
168+50 -	168+82	LT	6		FE															
169+90 -	170+07	LT	3		FE															
178+30 -	178+75	LT	9		PE															
195+56 -	195+72	LT	3		FE				643.0300	643.0705	643.0900	643.1050	643.5000							
198+35 -	199+17	RT	15		PE															
224+29 -	224+55	RT	14		FE				TRAFFIC CONTROL	TRAFFIC CONTROL	TRAFFIC CONTROL	TRAFFIC CONTROL	TRAFFIC CONTROL							
226+54 -	226+80	RT	10		CONSTRUCT NEW FE				DRUMS	WARNING LIGHTS	SIGNS	SIGNS PCMS	TRAFFIC CONTROL							
231+78 -	232+11	LT	6		PE				DAYS	TYPE A	DAY	DAY	DAY							
234+91 -	235+22	RT	8		FE															
243+74 -	244+21	LT	8		PE				7	70	70	14	1							
255+08 -	255+48	LT	9		PE				30	3,375	3,375									
266+94 -	267+24	LT	6		PE				30			480								
267+04 -	267+21	RT	4		FE															
268+90 -	269+18	LT	5		FE															
273+68 -	273+92	LT	5		FE				TOTAL 0020	3,445	3,445	480	14	1						
279+11 -	279+31	RT	4		FE															
279+42 -	279+66	LT	5		FE															
287+15 -	287+28	RT	3		FE															
293+54 -	293+88	RT	7		FE															
297+17 -	297+40	RT	5		FE															
298+22 -	298+51	LT	6		FE															
302+93 -	303+17	RT	5		FE															
303+49 -	303+73	LT	5		FE															
308+15 -	308+57	RT	8		PE															
308+58 -	308+80	LT	5		PE															
309+35 -	309+61	LT	5		PE															
312+22 -	312+46	RT	5		FE															
312+64 -	313+01	LT	7		PE															
327+96 -	328+28	LT	7		FE															
334+25 -	334+60	LT	7		PE															
341+03 -	341+42	RT	8		FE															
358+76 -	359+17	RT	7		FE															
367+99 -	368+34	RT	8		FE															
398+01 -	398+59	LT	11		L PFAFF RD															
UNDISTRIBUTED	-	-		16																
TOTAL 0010			3,500	70																
LOCATING NO PASSING ZONES																				
648.0100																				
LOCATING NO-PASSING ZONES																				
MI																				
102+48 - 402+27										CL 6										
TOTAL 0020										6										

3

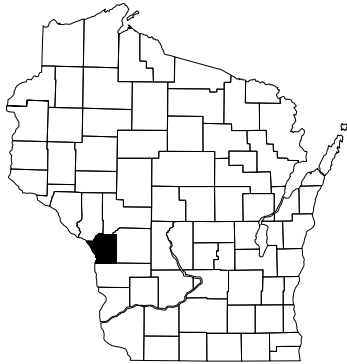
PAVEMENT MARKING											
					646.1020	646.1040	**646.4505	*646.4520	646.6120		
					MARKING LINE	MARKING LINE	MARKING LINE	MARKING LINE	MARKING STOP		
					EPOXY 4-INCH	GROOVED WET	SAME DAY PAINT	SAME DAY EPOXY	LINE EPOXY 18-		
					LF	REF EPOXY 4-INCH	4-INCH	4-INCH	INCH		
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	LF	LF	LF	REMARKS	
0010	102+48	-	109+40	RT	693					WHITE EDGELINE	
0010	109+40	-	110+67	RT	33					3' DASHES - STAN OLSON RD	
0010	110+67	-	141+44	RT	3,071					WHITE EDGELINE	
0010	141+44	-	142+55	RT	30					3' DASHES - E HOLTER RD	
0010	142+55	-	159+32	RT	1,672					WHITE EDGELINE	
0010	159+32	-	160+13	RT	21					3' DASHES - BRYHN RD	
0010	160+13	-	168+24	RT	824					WHITE EDGELINE	
0010	168+24	-	168+85	RT	15					3' DASHES - M KNUDSON RD	
0010	168+85	-	218+63	RT	4,964					WHITE EDGELINE	
0010	218+63	-	220+18	RT	39					3' DASHES - ANDERSON RD	
0010	220+18	-	289+72	RT	6,953					WHITE EDGELINE	
0010	9+08DEW	-	9+77DEW	VAR	36	138	138		31	CTH DE WEST LEG	
0010	10+23DEE	-	10+75DEE	VAR	58	104	104		22	CTH DE EAST LEG	
0010	290+61	-	315+28	RT	2,465					WHITE EDGELINE	
0010	9+18TW	-	9+77TW	VAR	25	120	120		25	CTH T WEST LEG	
0010	10+23TE	-	10+81TE	VAR	33	120	120		24	CTH T EAST LEG	
0010	316+83	-	402+27	RT	8,546					WHITE EDGELINE	
0010	102+48	-	140+98	LT	3,854					WHITE EDGELINE	
0010	140+98	-	141+99	LT	24					3' DASHES - W HOLTER RD	
0010	141+99	-	177+45	LT	3,543					WHITE EDGELINE	
0010	177+45	-	178+01	LT	15					3' DASHES - C KNUDSON RD	
0010	178+01	-	201+08	LT	2,308					WHITE EDGELINE	
0010	201+08	-	201+69	LT	15					3' DASHES - J BRYHN RD	
0010	201+69	-	208+84	LT	715					WHITE EDGELINE	
0010	208+84	-	209+38	LT	12					3' DASHES - M OLSON RD	
0010	209+38	-	226+34	LT	1,695					WHITE EDGELINE	
0010	226+34	-	228+19	LT	48					3' DASHES - AMUNDSON RD	
0010	228+19	-	255+45	LT	2,727					WHITE EDGELINE	
0010	255+45	-	256+12	LT	18					3' DASHES - RHYME RD	
0010	256+12	-	289+52	LT	3,337					WHITE EDGELINE	
0010	291+14	-	315+75	LT	2,462					WHITE EDGELINE	
0010	316+98	-	395+78	LT	7,875					WHITE EDGELINE	
0010	395+78	-	396+45	LT	15					3' DASHES - KRAMER RD	
0010	396+45	-	397+97	LT	153					WHITE EDGELINE	
0010	397+97	-	398+63	LT	15					3' DASHES - L PFAFF RD	
0010	398+63	-	402+27	LT	365					WHITE EDGELINE	
0010	102+48	-	402+27	CL			47,180	54,070		YELLOW CENTERLINE*	
TOTAL 0010					58,674	482	47,662	54,070	102		

*BASED ON EXISTING CENTERLINE MARKINGS. CENTERLINE TO BE MARKED BASED OFF LOCATING NO PASSING ZONES.
**TO BE USED FOR LOWER LAYER TEMPORARY CENTERLINE

4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
7930-08-20
WEST SALEM - MELROSE
STAN OLSON ROAD TO L PFAFF ROAD
STH 108
LA CROSSE COUNTY

4



CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	•
QUARTER LINE	----	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	o
SIXTEENTH LINE	-----	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (3/4-INCH UNLESS NOTED)	IP •
NEW REFERENCE LINE	—▲—	SIXTEENTH CORNER MONUMENT		OFF-PREMISE SIGN	
NEW R/W LINE	—▲—	SIGN			
EXISTING R/W OR HE LINE	—PL—				
PROPERTY LINE	-----				
LOT, TIE & OTHER MINOR LINES	-----				
SLOPE INTERCEPT	-----				
CORPORATE LIMITS	////				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	—W— (TYPE)				
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)					
TEMPORARY LIMITED EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)					
TRANSMISSION STRUCTURES					
BUILDING					
BRIDGE					

CONVENTIONAL ABBREVIATIONS

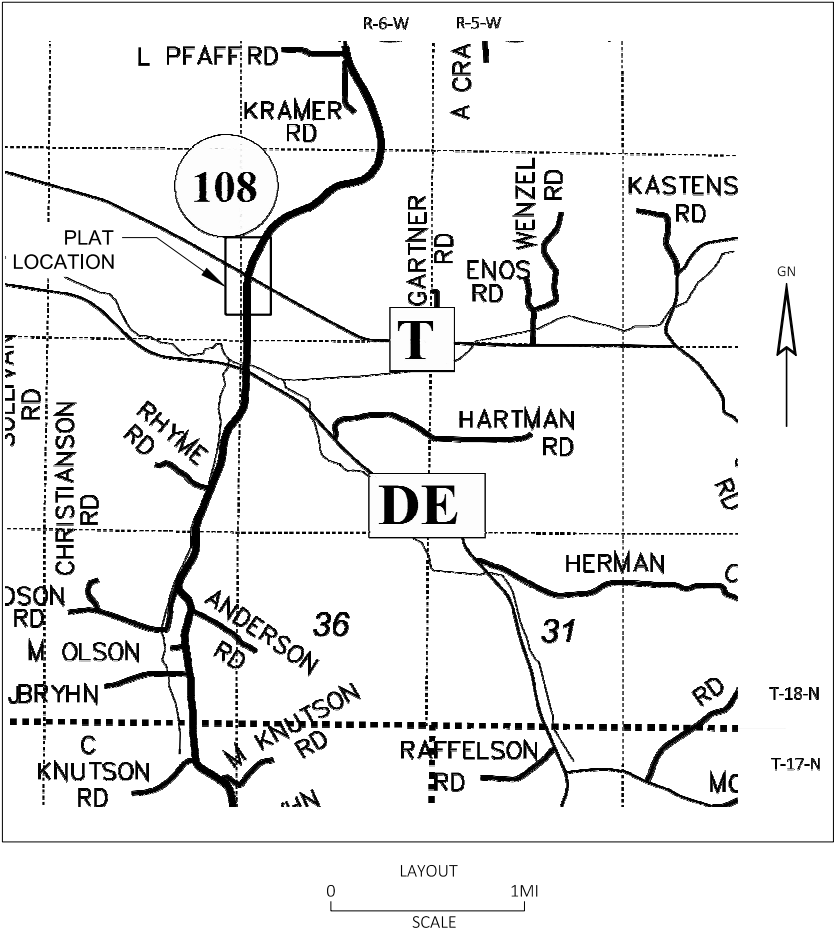
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT	RDE
CENTERLINE	C/L	EASEMENT	
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT OF WAY	R/W
COUNTY	CO	SECTION	SEC
COUNTY TRUNK HIGHWAY	CTH	SEPTIC VENT	SEPV
DISTANCE	DIST	SQUARE FEET	SF
CORNER	COR	STATE TRUNK HIGHWAY	STH
DOCUMENT NUMBER	DOC	STATION	STA
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED	TLE
GAS VALVE	GV	EASEMENT	
GRID NORTH	GN	TRANSPORTATION PROJECT	TPP
HIGHWAY EASEMENT	HE	PLAT	
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

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



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 7930-08-20

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), LA CROSSE COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

NGS CONTROL POINT UTILIZED: PID: DK5168, DESIGNATION: HERMAN COULEE GPS, LA CROSSE COUNTY, WI.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

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

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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

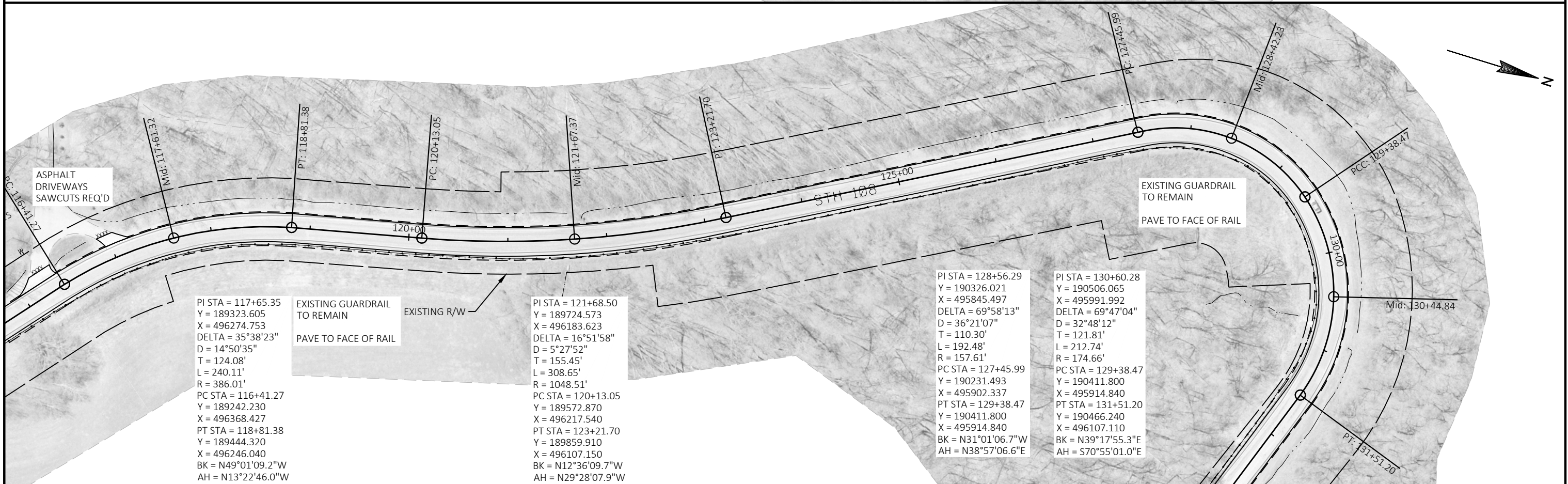
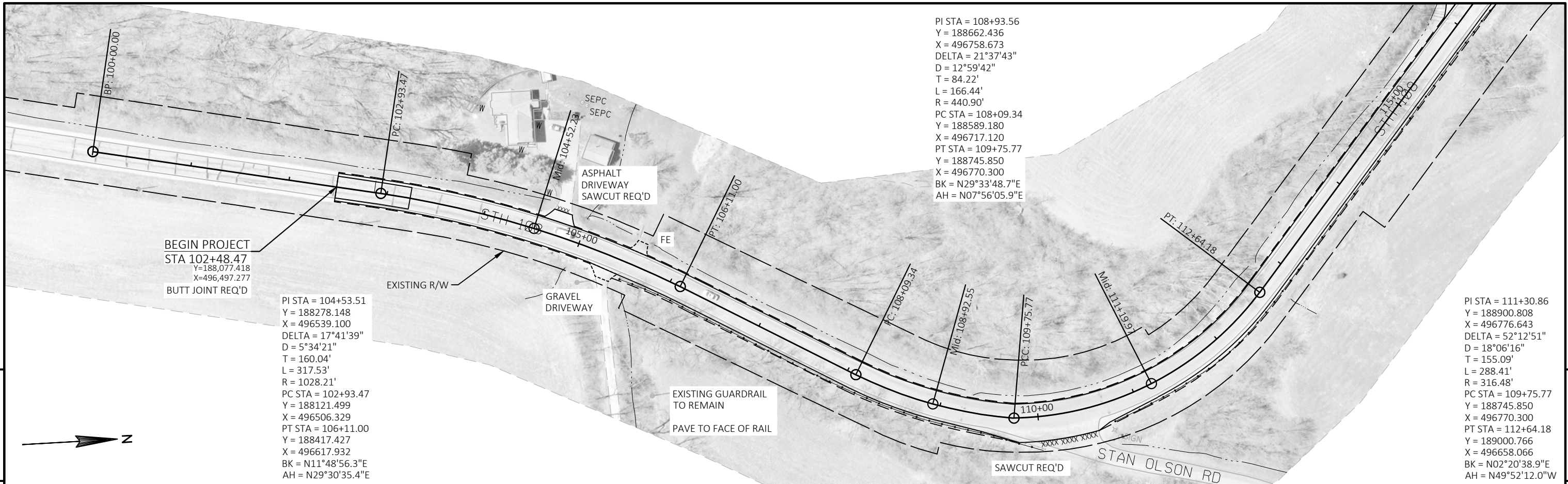
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

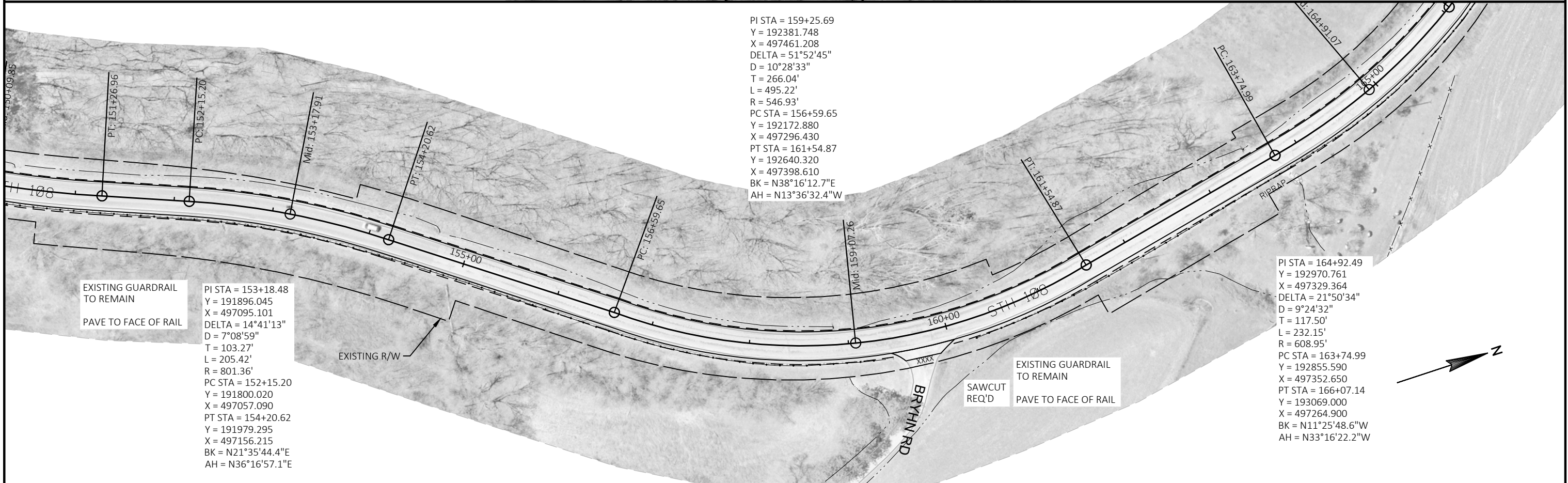
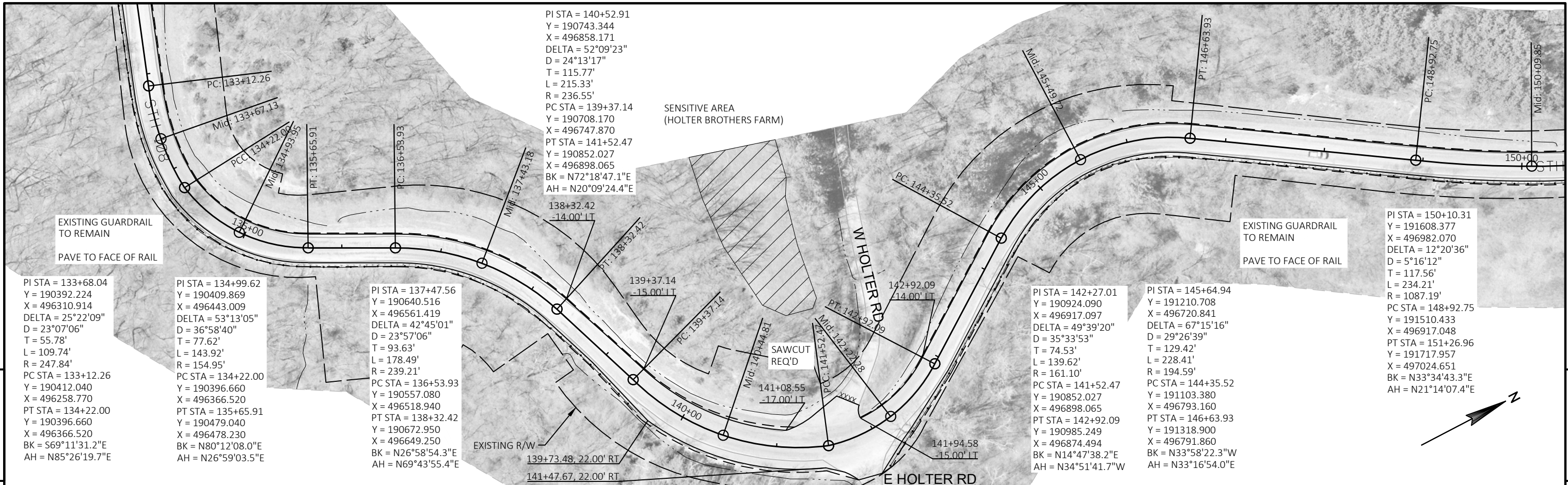
FOR EXISTING HIGHWAY RIGHT-OF-WAY AND ACCESS CONTROL POINTS OF REFERENCE SEE INDIVIDUAL TPP DETAIL PAGES

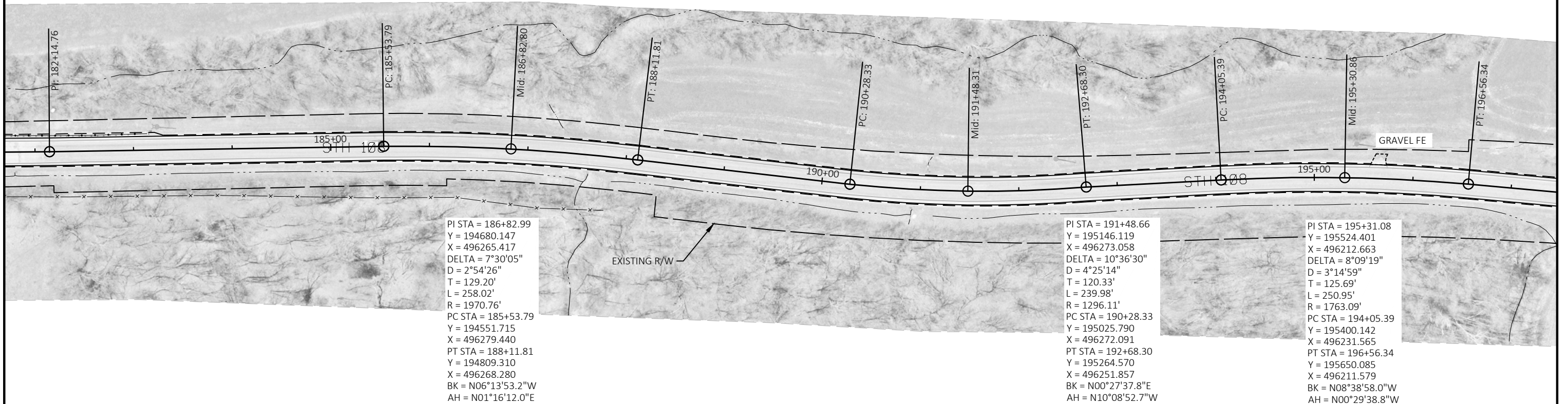
FOR CURRENT ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGIONAL OFFICE IN LA CROSSE.

PROJECT NUMBER 7930-08-20 - 4.01
SHEET 2 OF 2

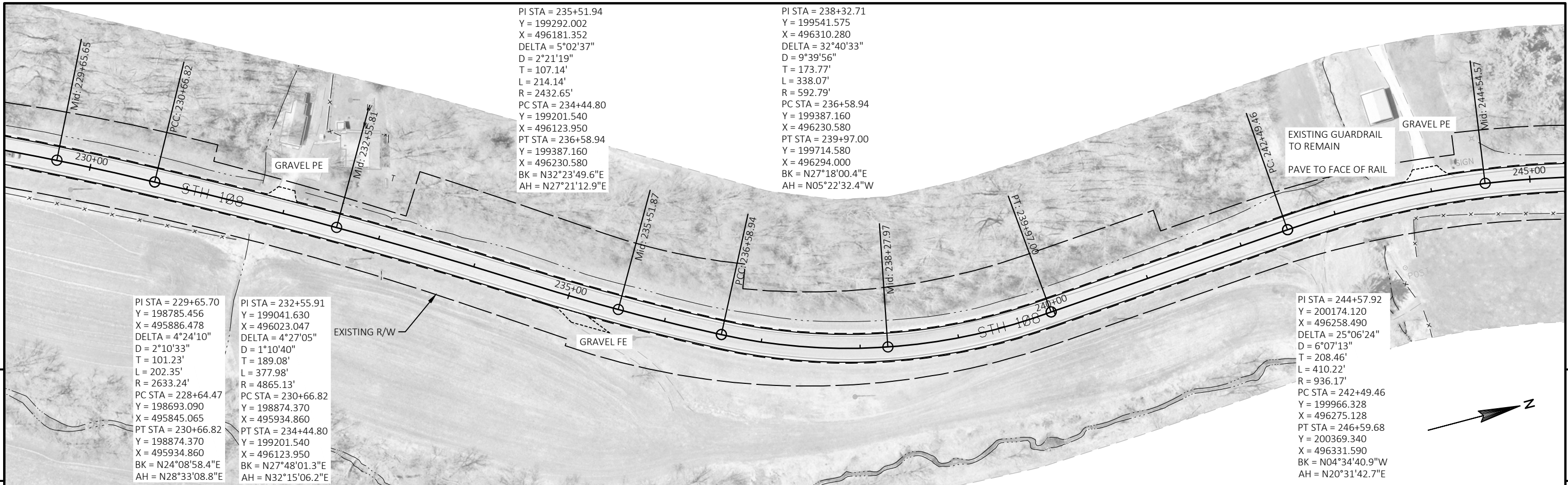


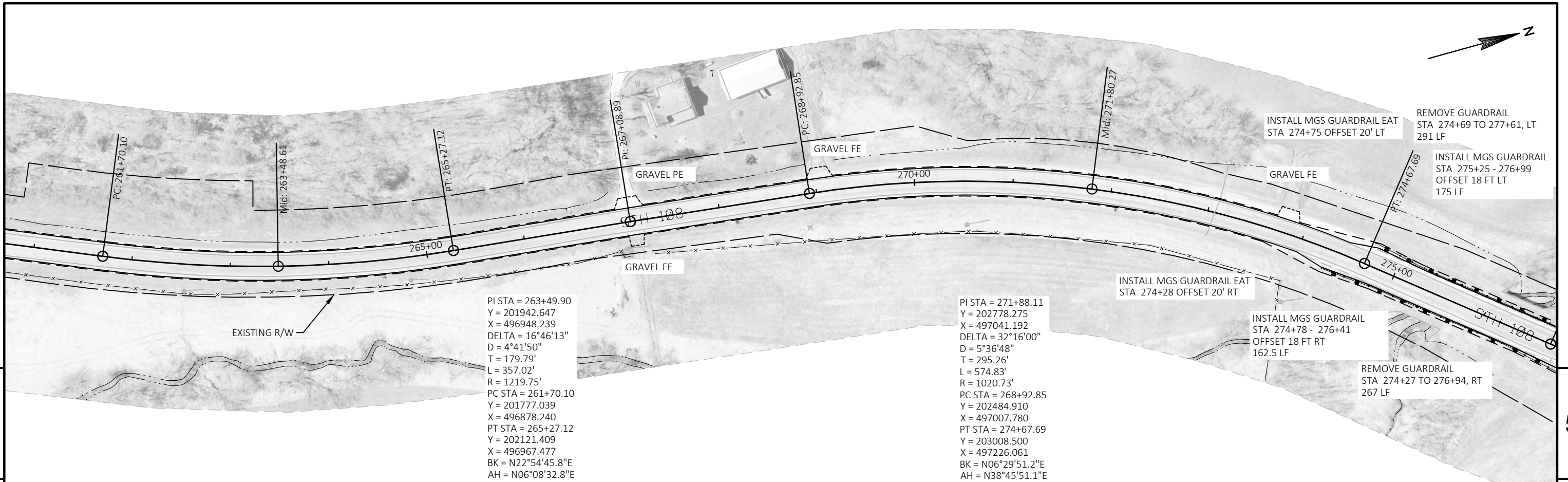
PROJECT NO: 7930-08-70	HWY: STH 108	COUNTY: LA CROSSE	PLAN	SHEET	5
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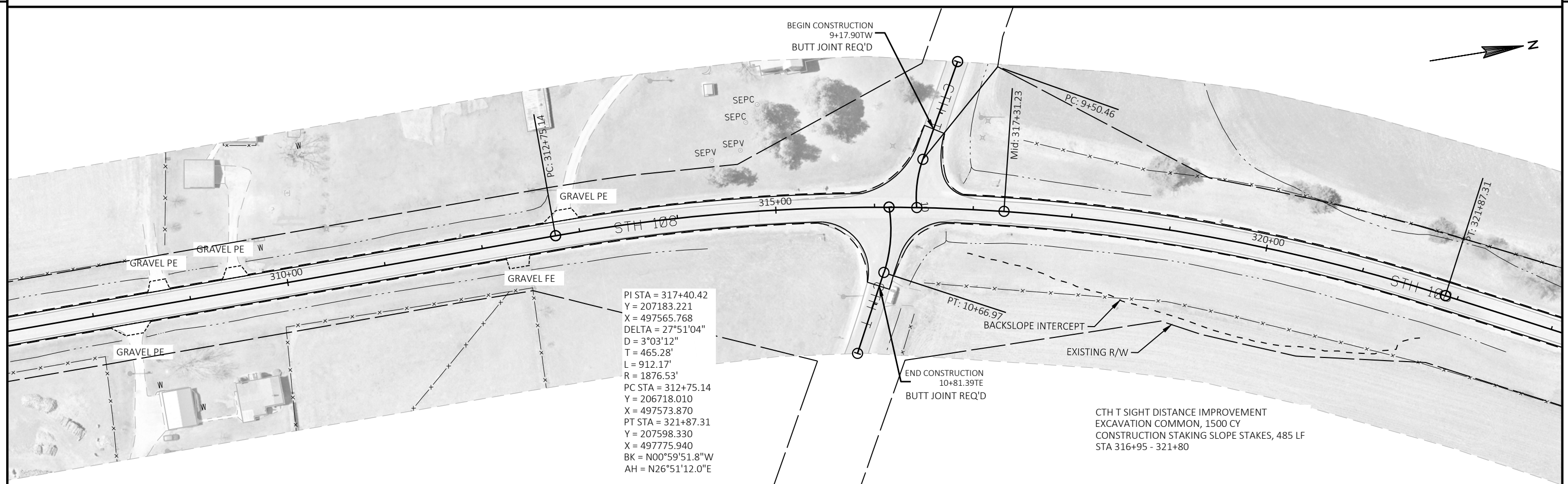
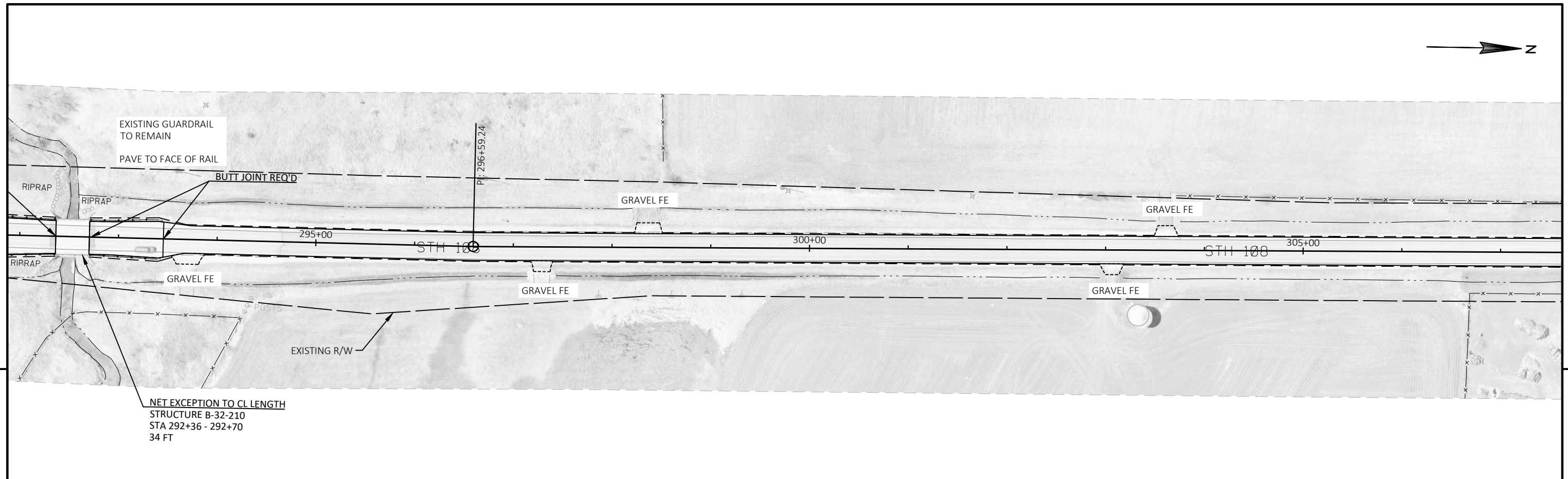


PROJECT NO: 7930-08-70	HWY: STH 108	COUNTY: LA CROSSE	PLAN	SHEET	E
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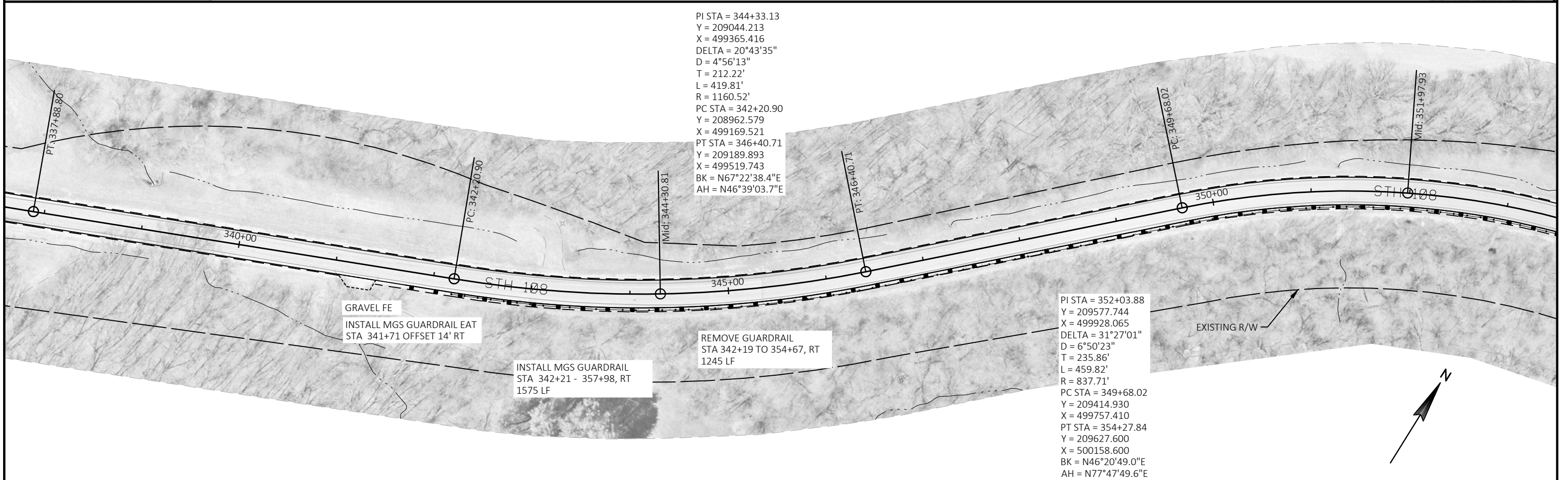
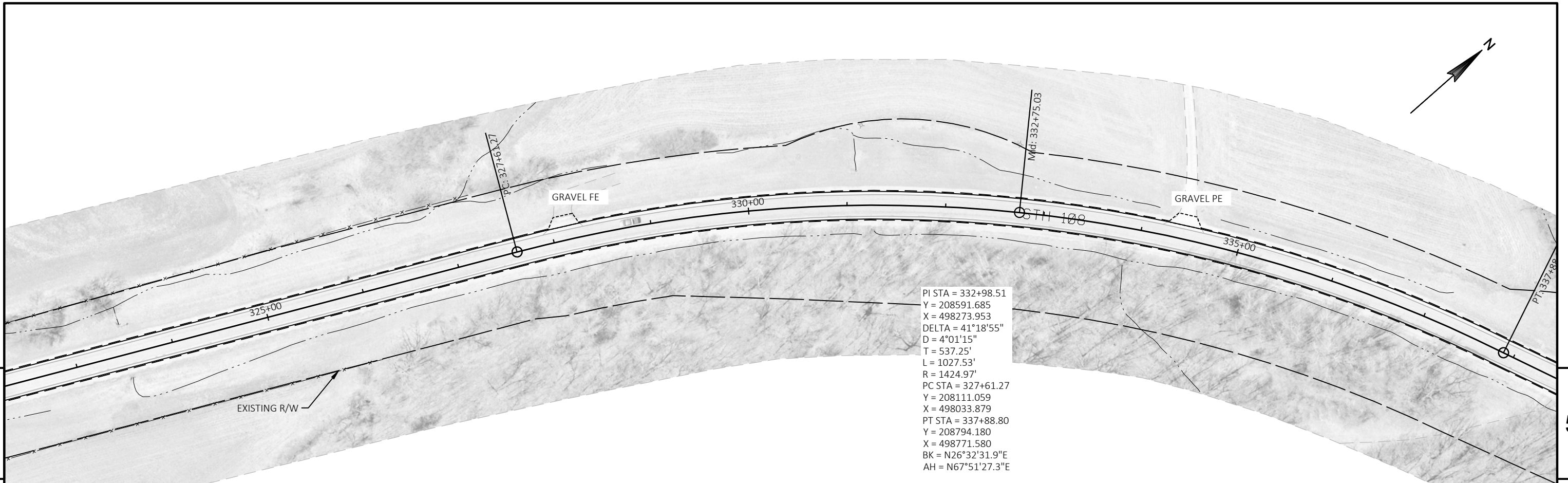




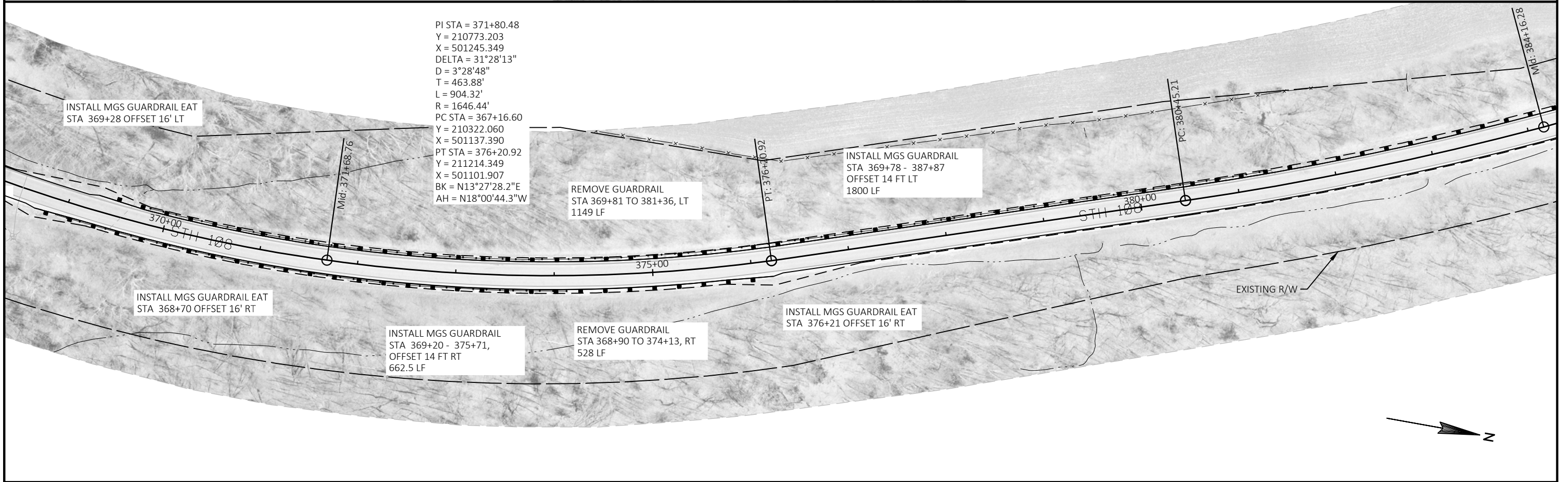
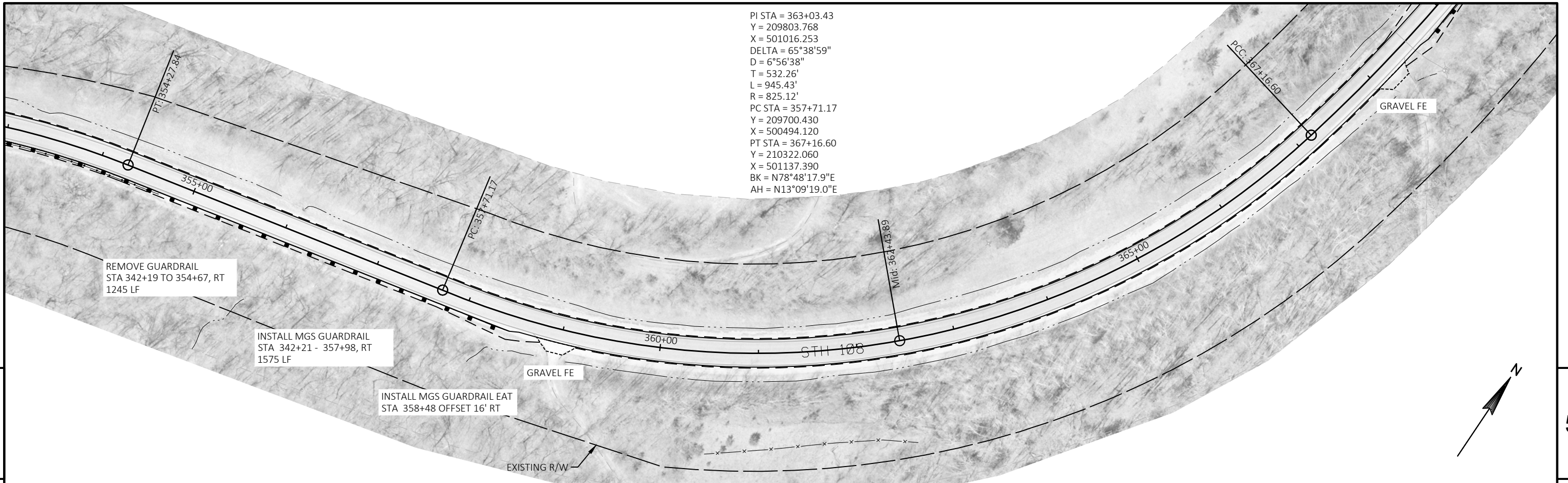
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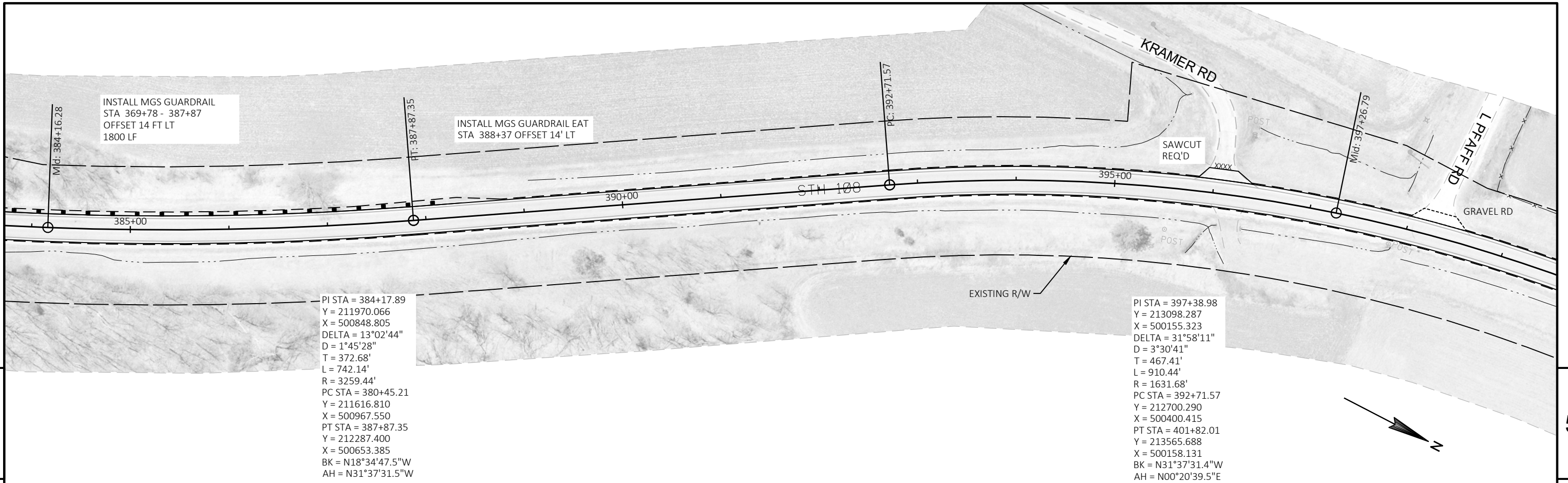


PROJECT NO: 7930-08-70	HWY: STH 108	COUNTY: LA CROSSE	PLAN	SHEET	E
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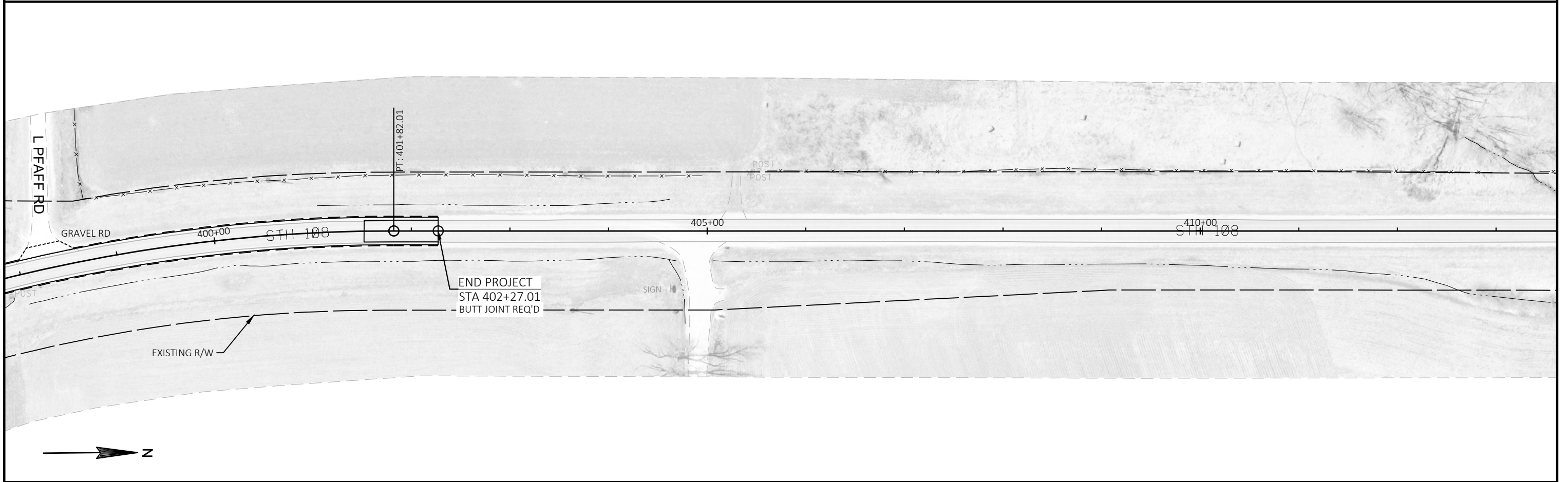
PROJECT NO: 7930-08-70	HWY: STH 108	COUNTY: LA CROSSE	PLAN	SHEET	E
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PI STA = 384+17.89
Y = 211970.066
X = 500848.805
DELTA = 13°02'44"
D = 1°45'28"
T = 372.68'
L = 742.14'
R = 3259.44'
PC STA = 380+45.21
Y = 211616.810
X = 500967.550
PT STA = 387+87.35
Y = 212287.400
X = 500653.385
BK = N18°34'47.5"W
AH = N31°37'31.5"W

PI STA = 397+38.98
Y = 213098.287
X = 500155.323
DELTA = 31°58'11"
D = 3°30'41"
T = 467.41'
L = 910.44'
R = 1631.68'
PC STA = 392+71.57
Y = 212700.290
X = 500400.415
PT STA = 401+82.01
Y = 213565.688
X = 500158.131
BK = N31°37'31.4"W
AH = N00°20'39.5"E

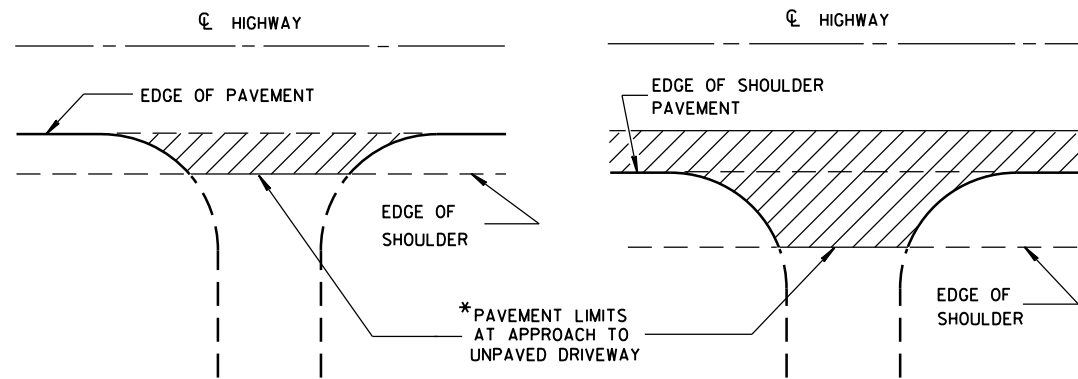


END PROJECT
STA 402+27.01
BUTT JOINT REQ'D

PROJECT NO: 7930-08-70	HWY: STH 108	COUNTY: LA CROSSE	PLAN	SHEET	E
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Standard Detail Drawing List

08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13C19-01	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-03A	PAVEMENT MARKING (INTERSECTIONS)
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-01	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

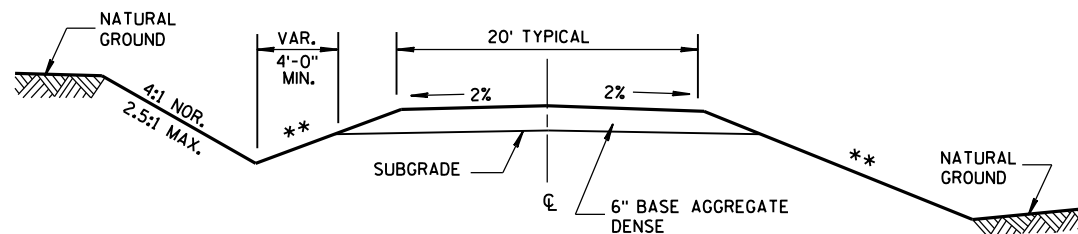


*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB & GUTTER OR SIDEWALK)



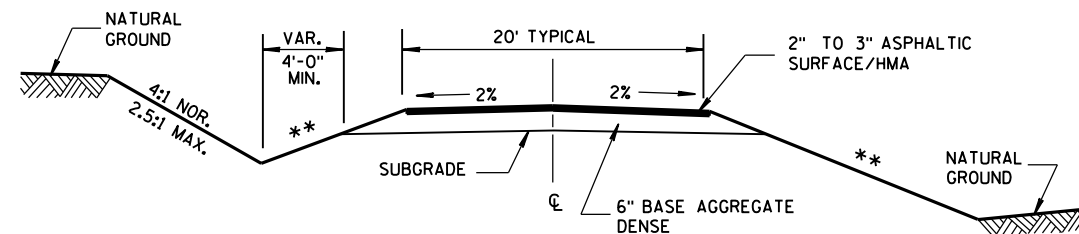
IN CUT

IN FILL

**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
AGGREGATE SURFACE**

** SLOPE CAN VARY WITH SPEED. SEE 11-45-2.6.2.

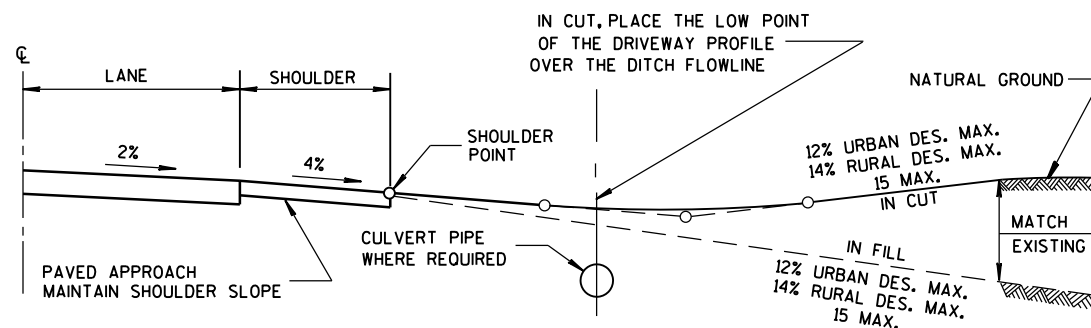
POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥35 TO <60	6:1
≥60	10:1



IN CUT

IN FILL

**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
ASPHALTIC SURFACE**

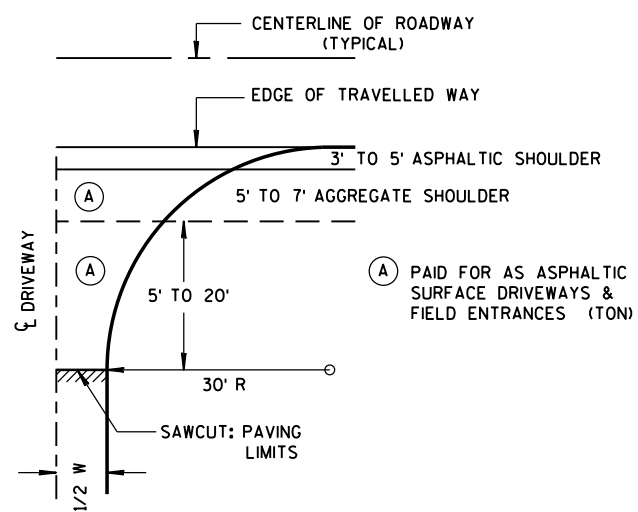


TYPICAL DRIVEWAY PROFILES

**DRIVEWAYS
WITHOUT CURB & GUTTER**

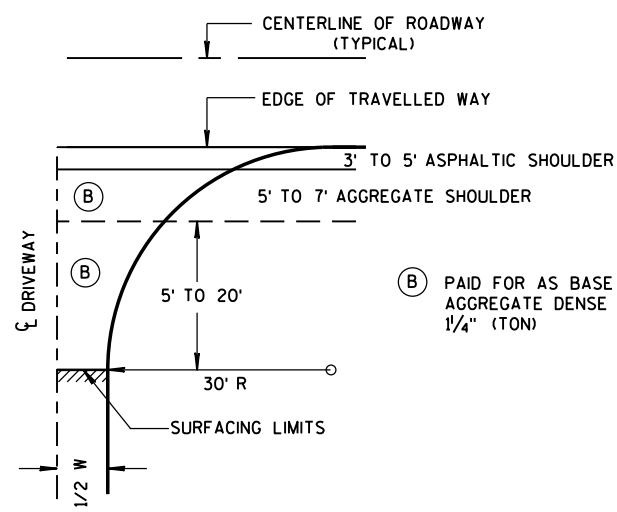
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

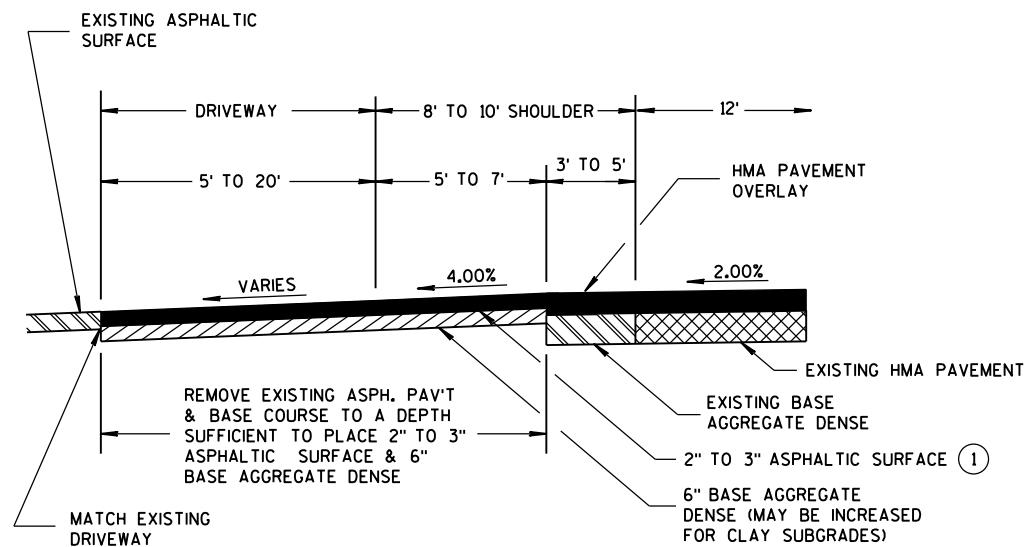


PLAN VIEW
HALF SECTION

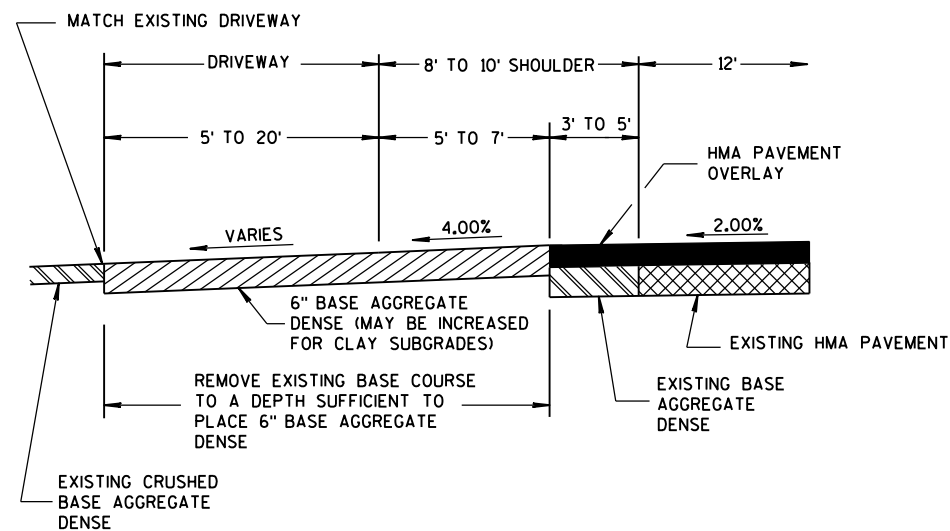
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION



PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS



PROFILE VIEW
RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

GENERAL NOTES

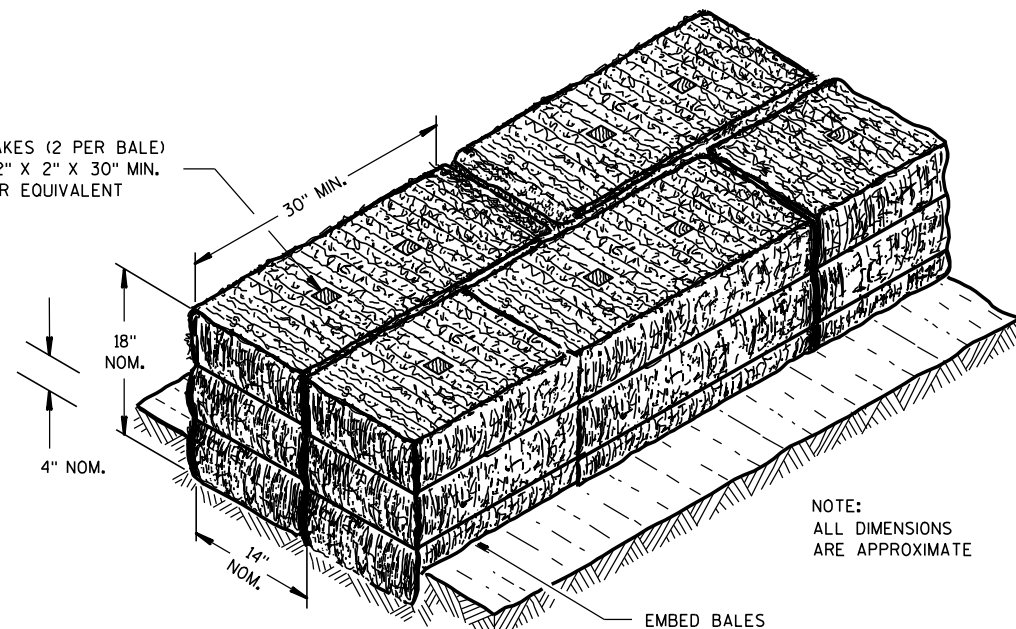
- ① DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

DRIVEWAYS WITHOUT
CURB & GUTTER
RESURFACING PROJECTS RURAL

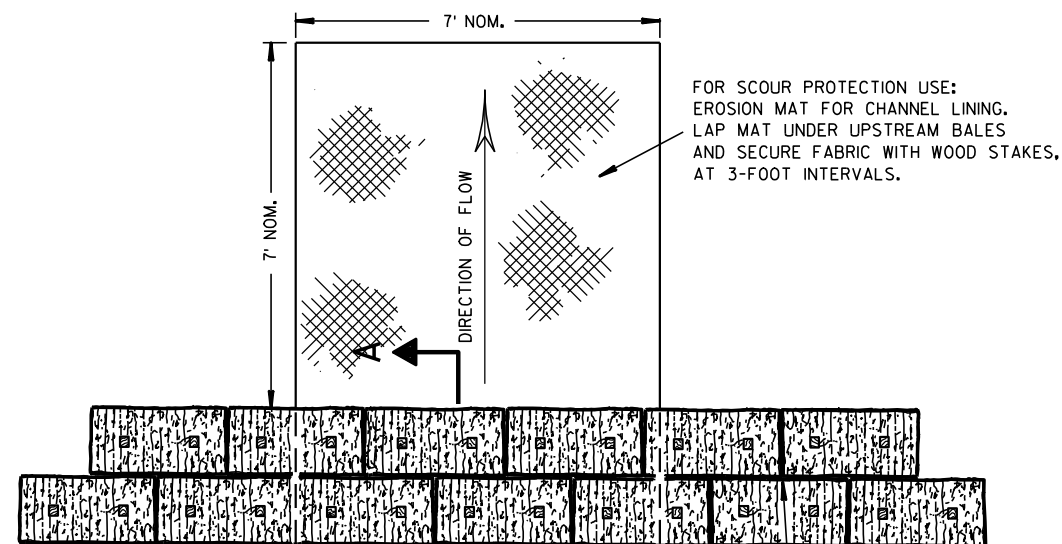
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

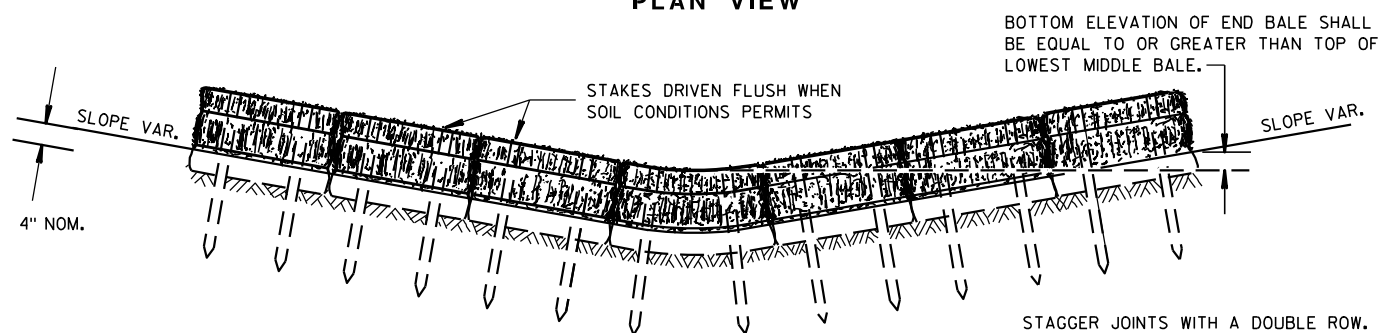
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



SECTION A-A



PLAN VIEW



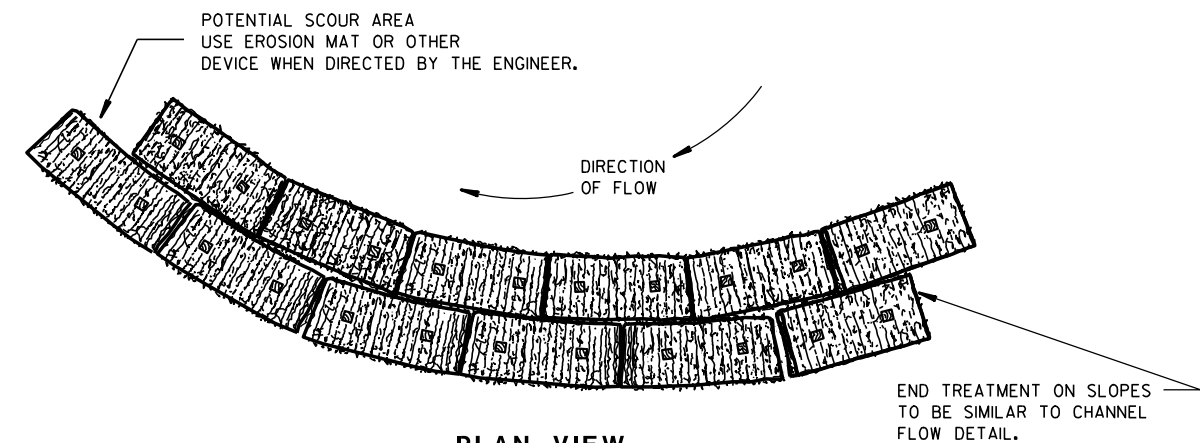
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

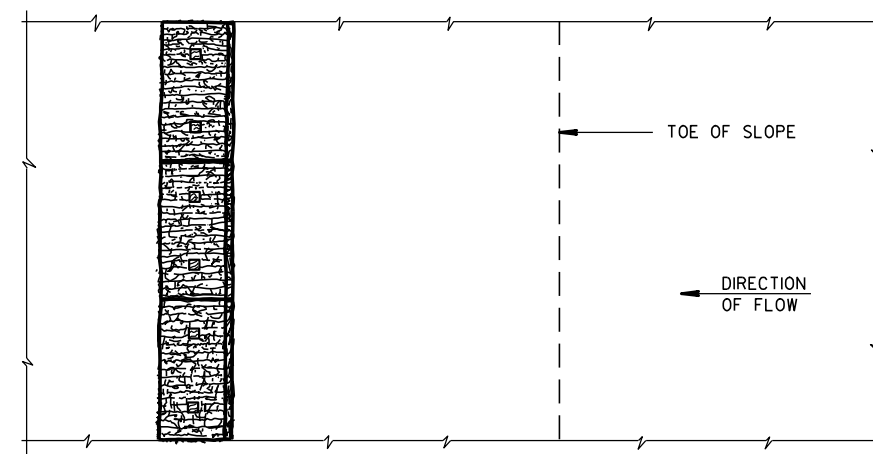
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

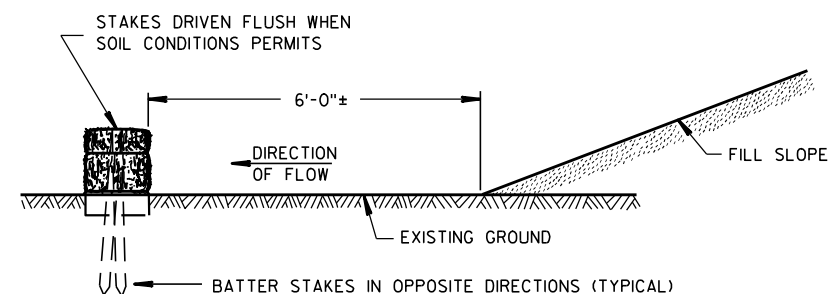


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

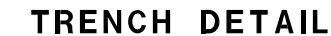
6/04/02
DATE

FHWA

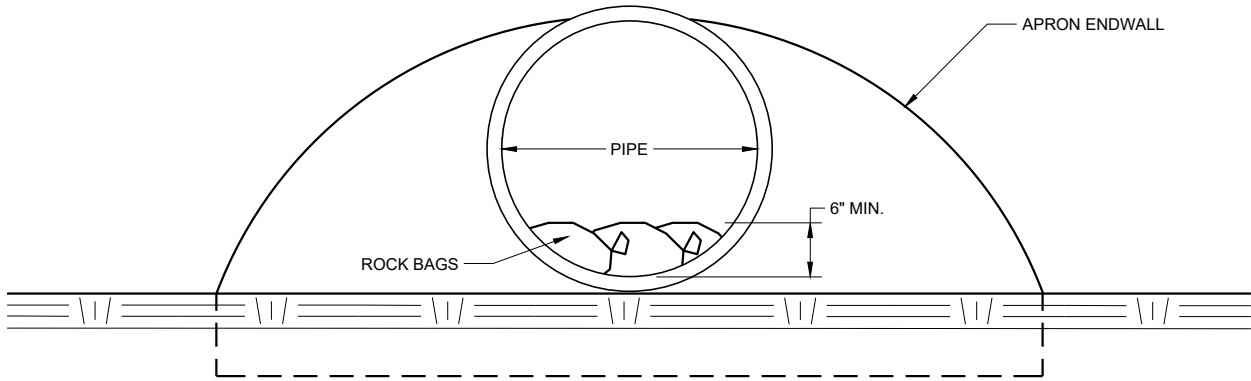
/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



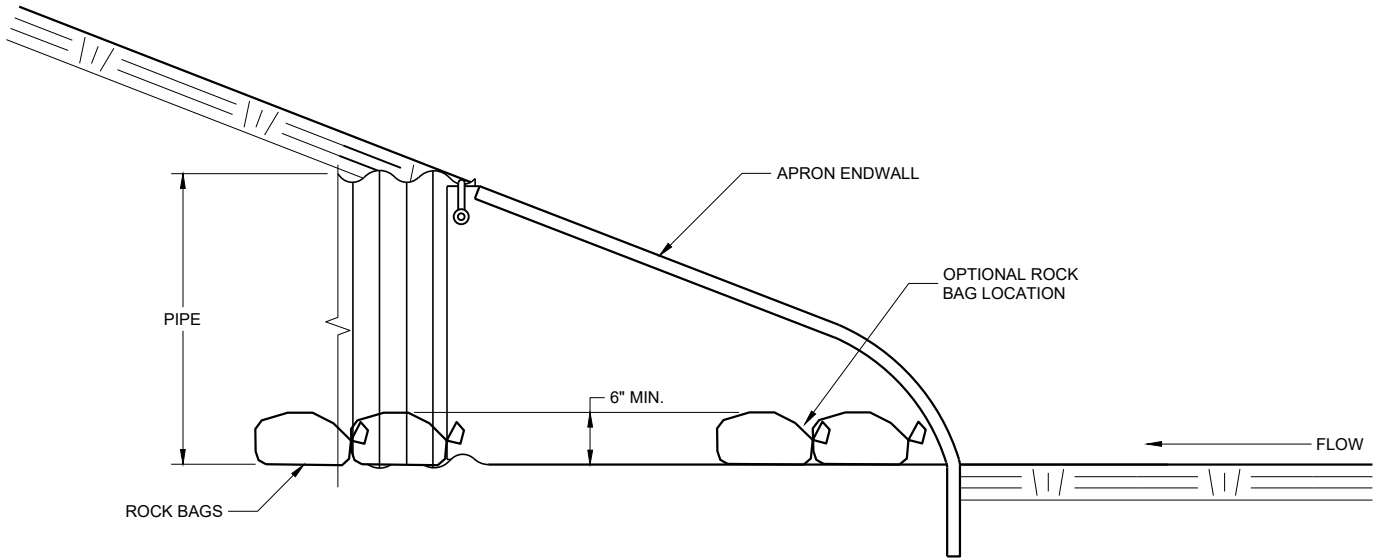
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>4-29-05</u> DATE	<u>/S/ Beth Cannestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER



END VIEW



SIDE VIEW

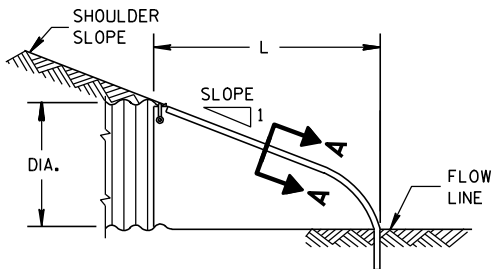
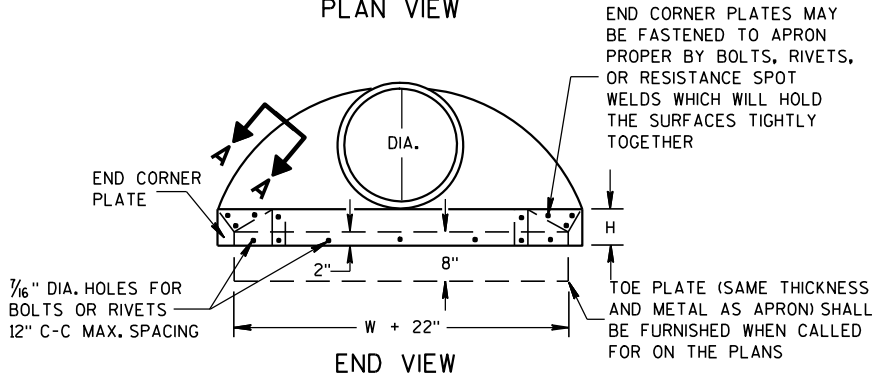
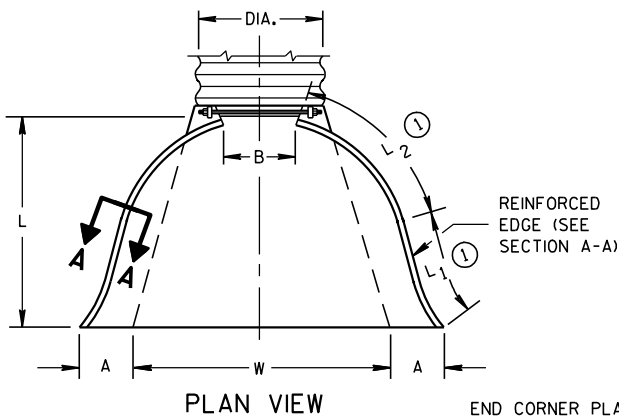
CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

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

FHWA

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

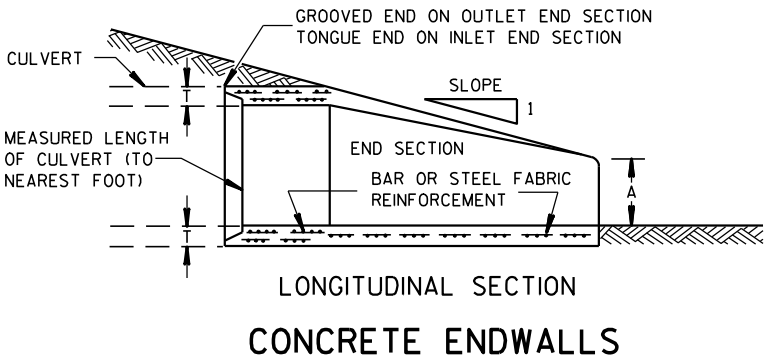
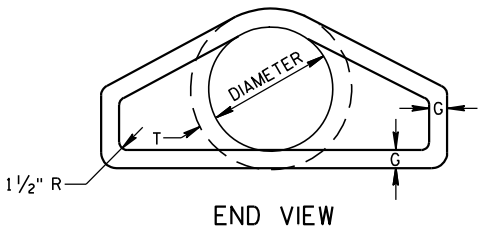
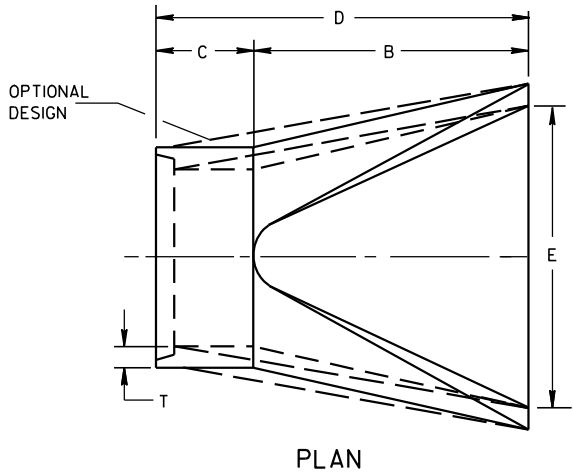
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



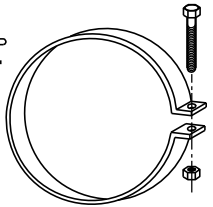
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS											
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE			
	T	A	B	C	D	E	G				
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1			
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1			
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1			
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1			
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1			
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1			
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1			
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1			
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1			
48	5	24	72	26	98	84	5	3 to 1			
54	5 1/2	27	65	33 1/4	98 1/4	90	5 1/2	2 2/5 to 1			
60	6	30-35	60	39	99	96	5	2 to 1			
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1			
72	7	24-36	78	21	99	108	6	2 to 1			
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1			
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1			
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1			

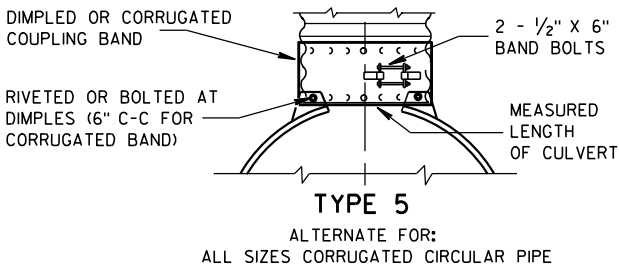
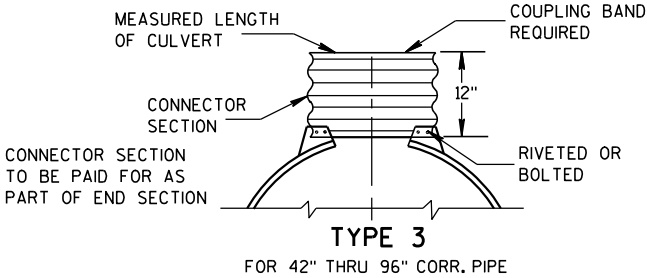
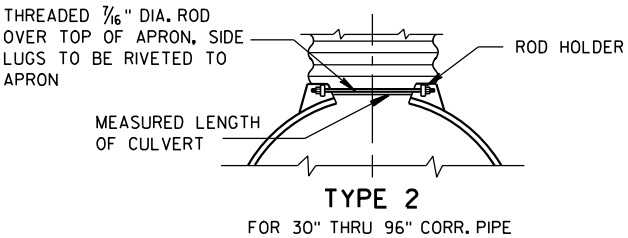
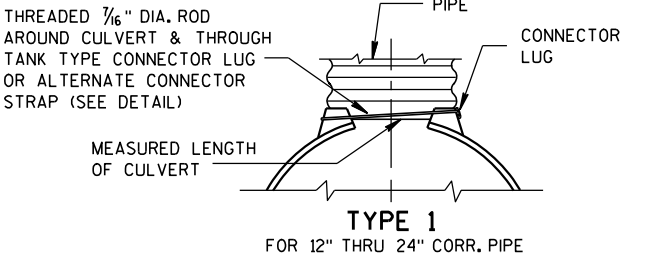
* MINIMUM
** MAXIMUM



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



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



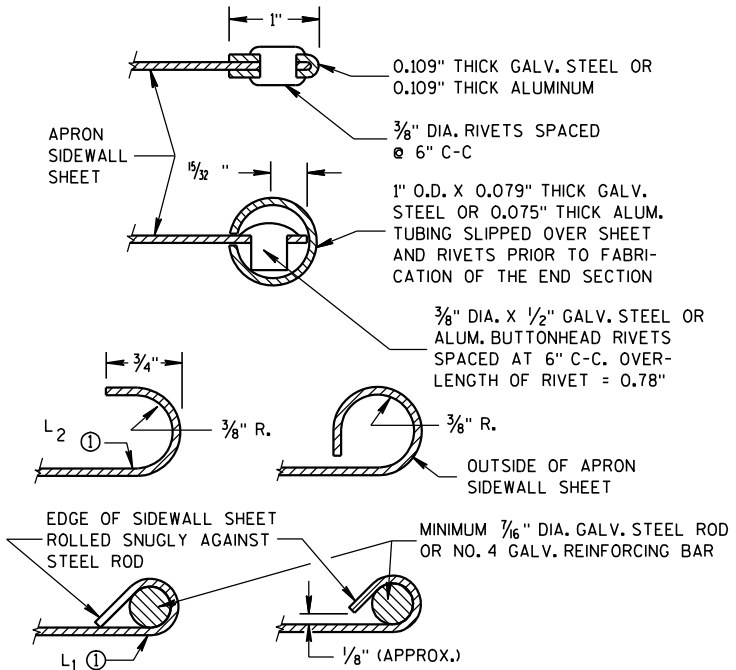
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



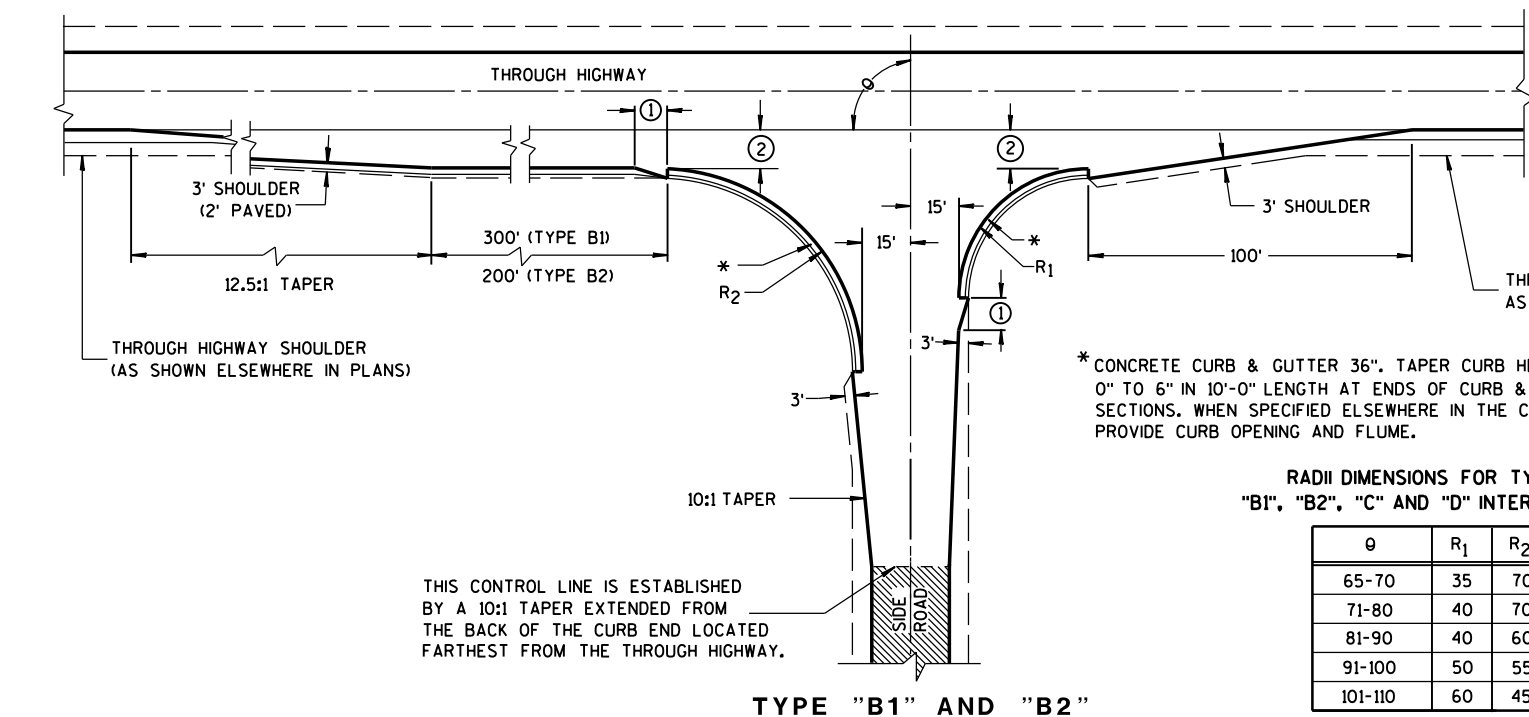
GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.
- ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.
- LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.
- WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.
- ① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

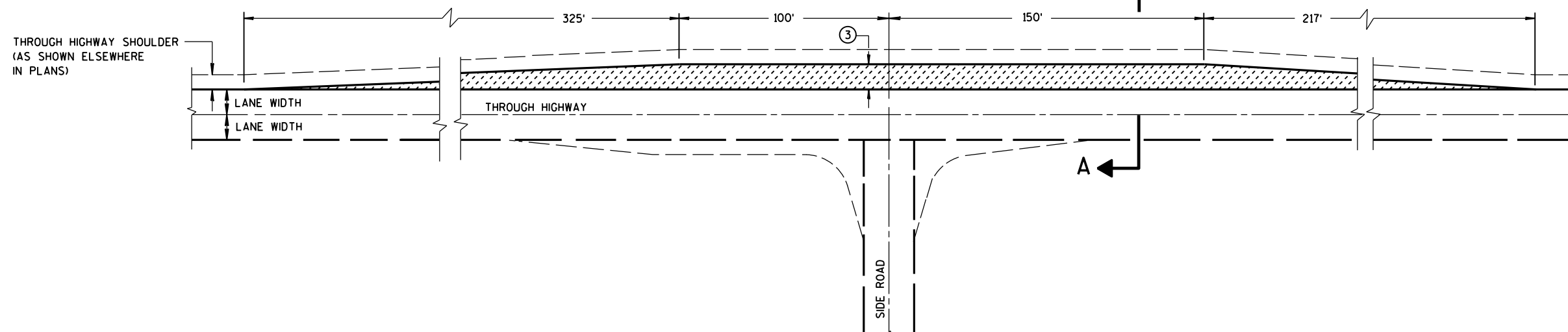
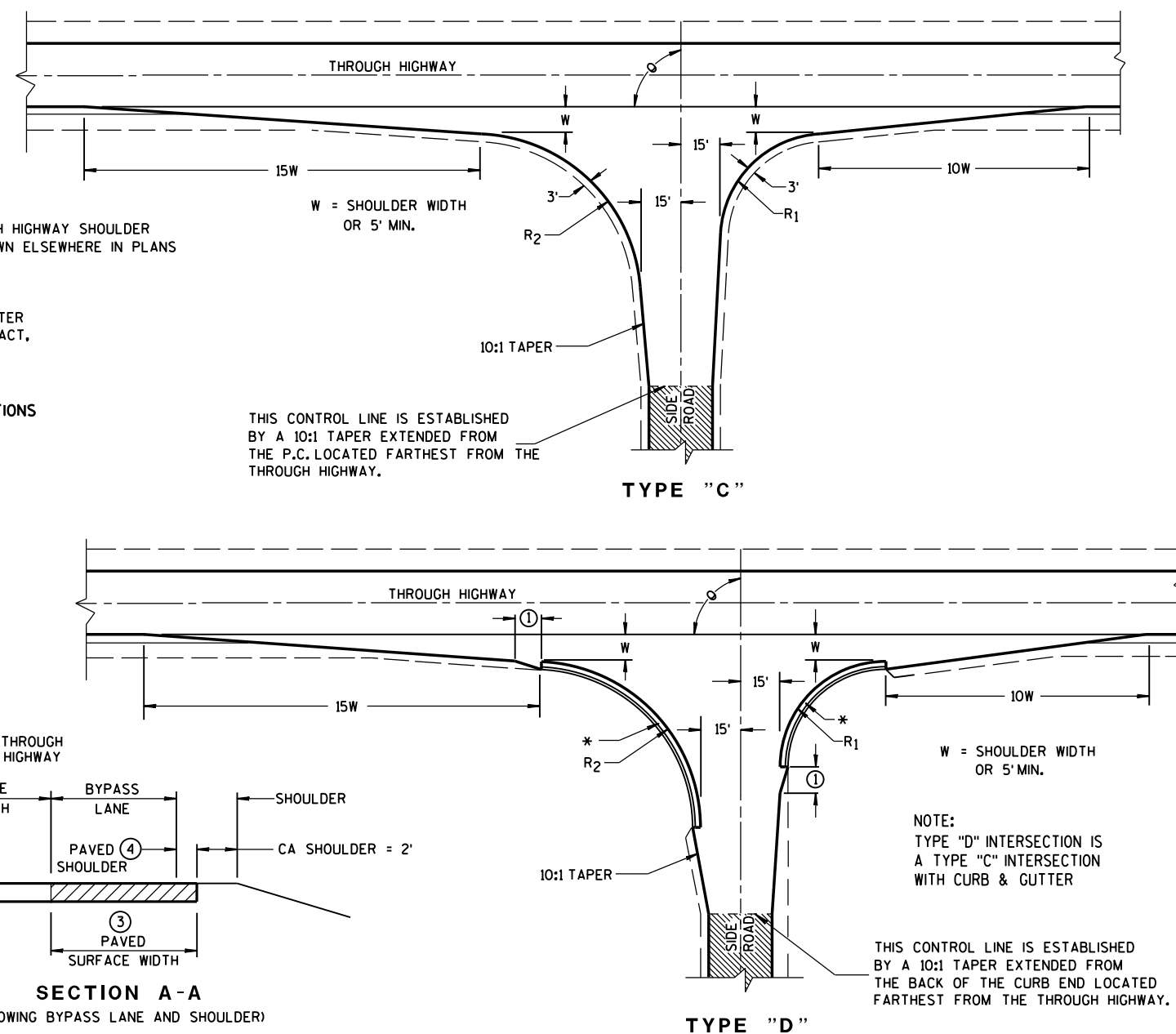
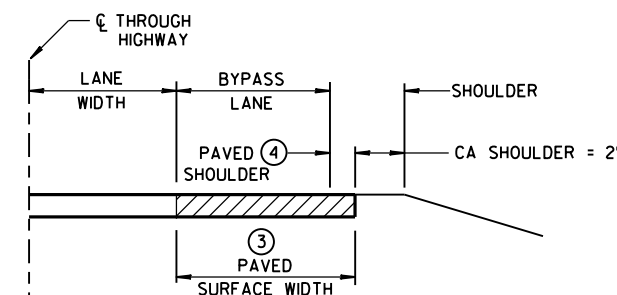
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

- ① 10-FT TYPICAL.
- ② 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.
- **10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.
- ④ BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.

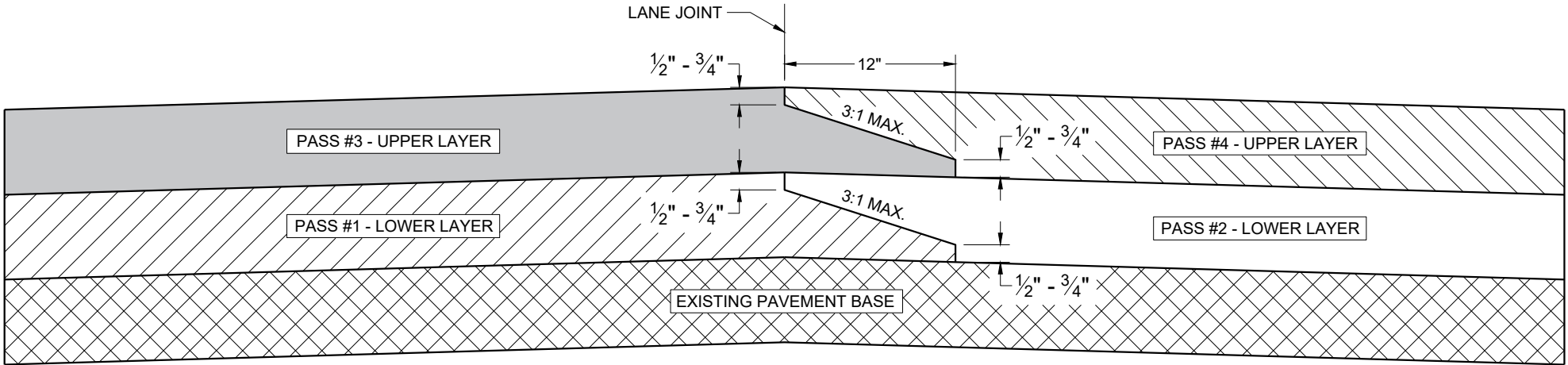


AT-GRADE SIDE ROAD
INTERSECTION, TYPES "B1", "B2",
"C" AND "D" AND TEE
INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

CONFORM TO STANDARD SPECIFICATION 450.3.2.8



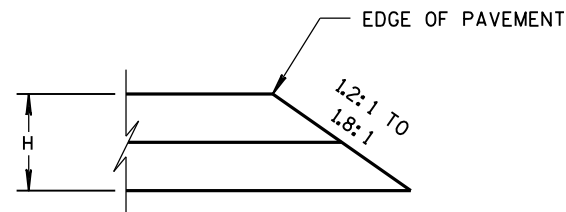
TYPICAL PAVEMENT CROSS SECTION
OF NOTCHED WEDGE LONGITUDINAL JOINTS

HMA LONGITUDINAL JOINTS

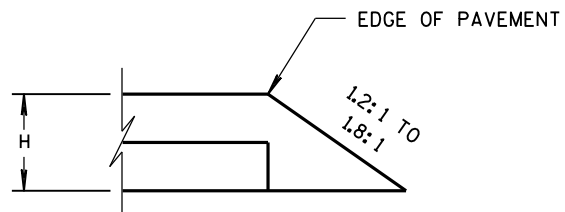
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Steven Hefel
DATE HMA PAVEMENT ENGINEER

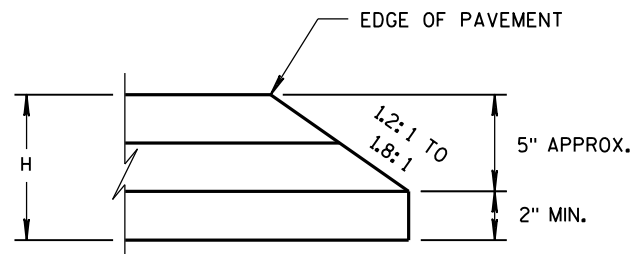
FHWA



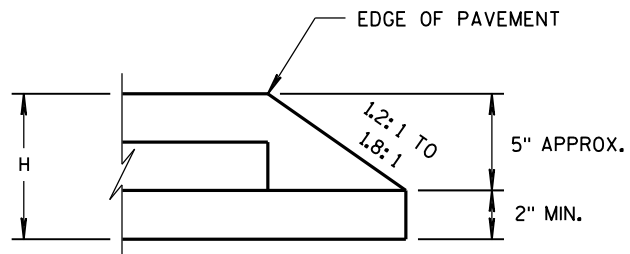
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

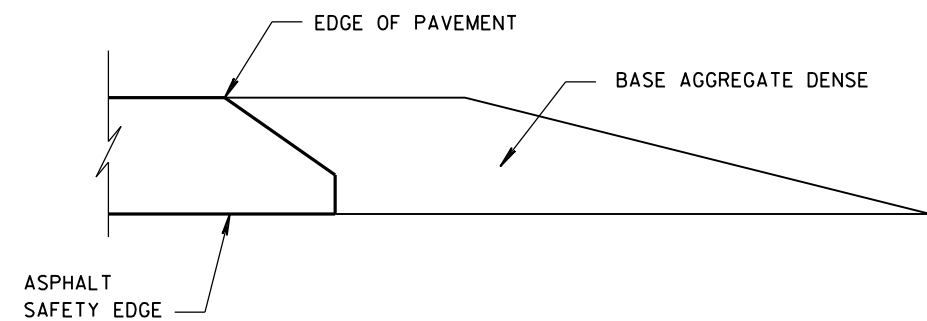


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

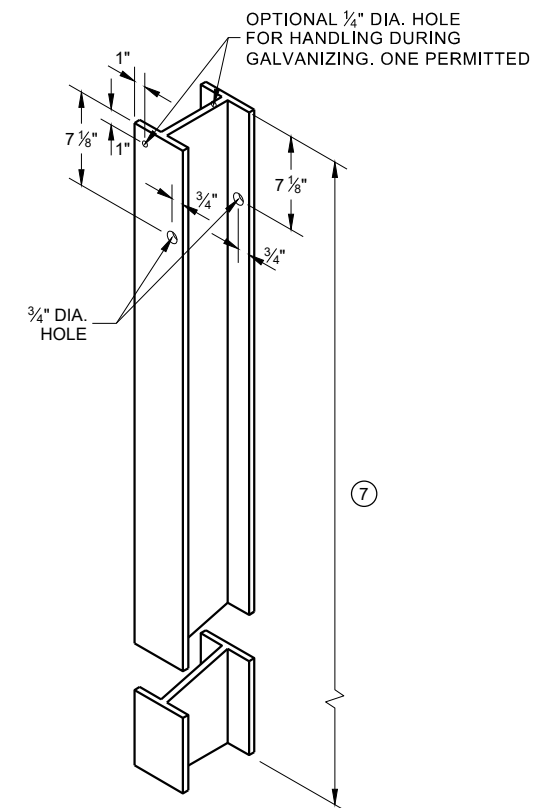
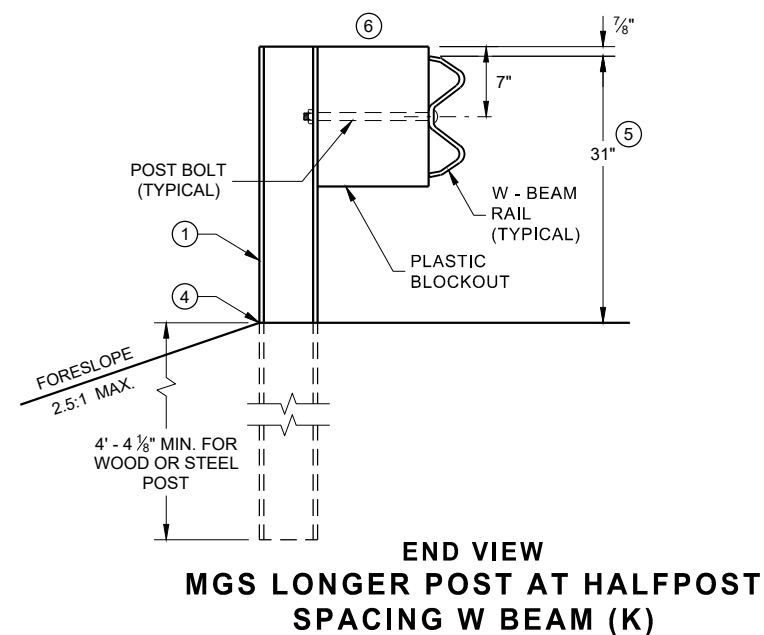
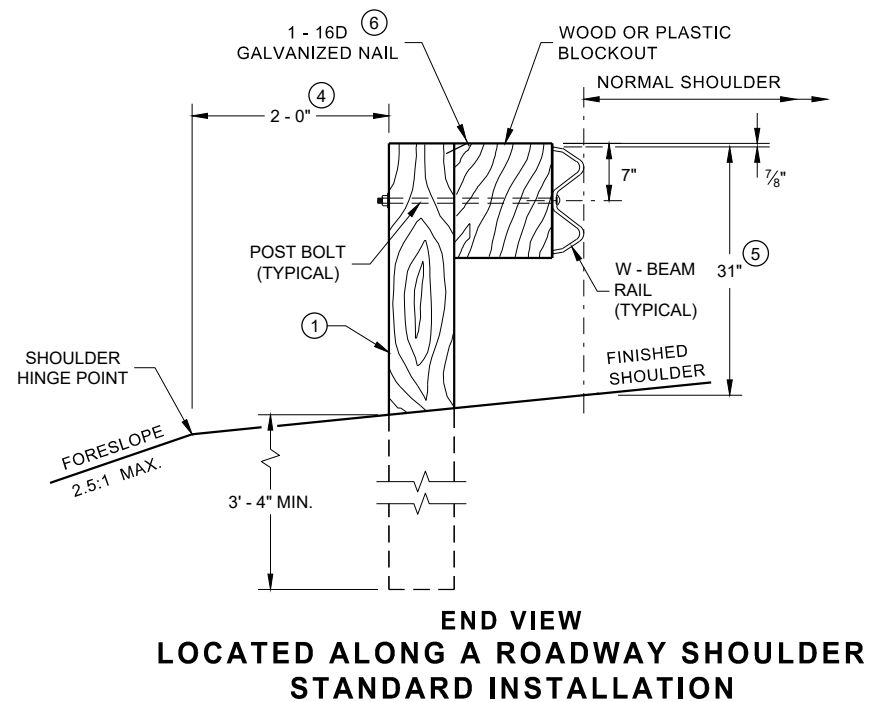
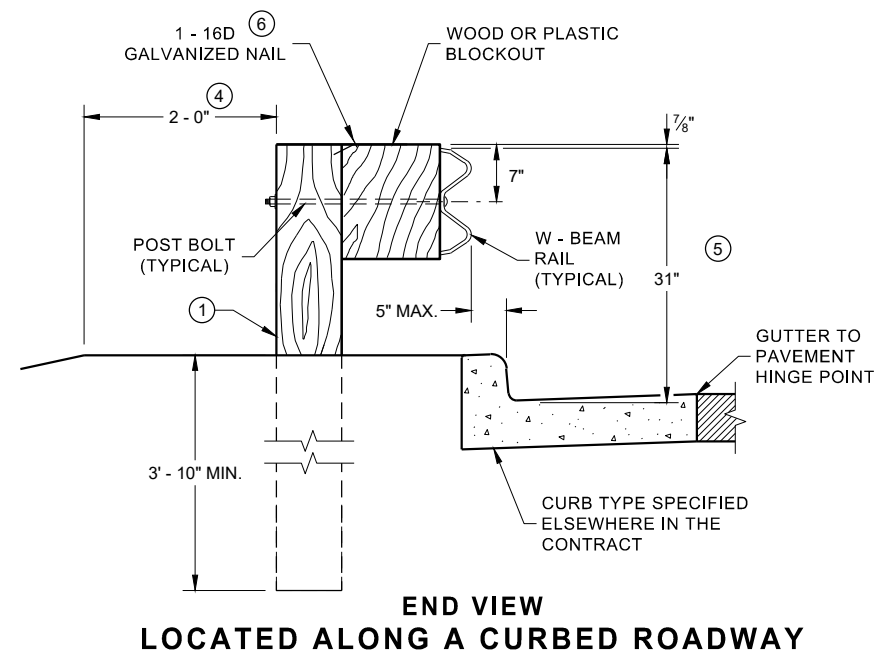
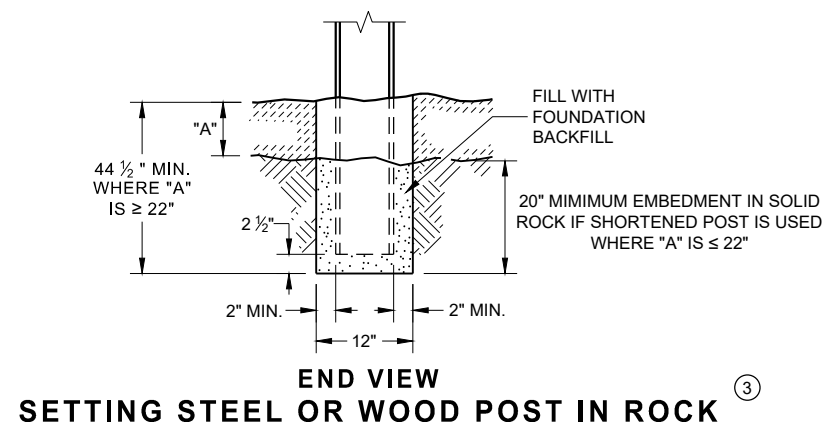
SAFETY EDGE_{SM}

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

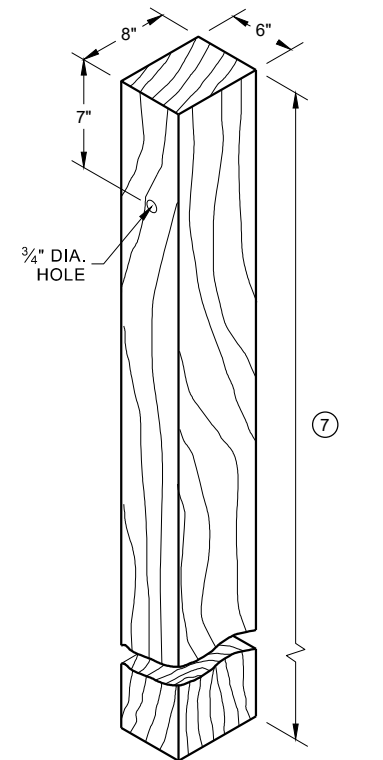
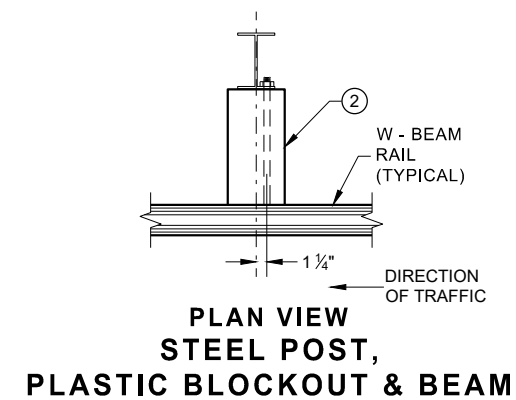
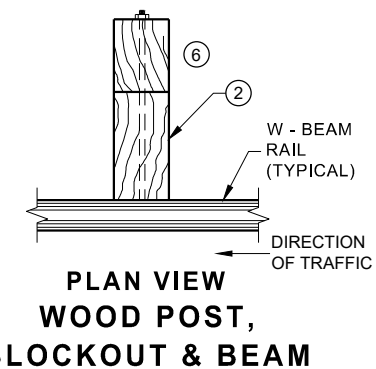
APPROVED
11/30/2012
DATE
FHWA

/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

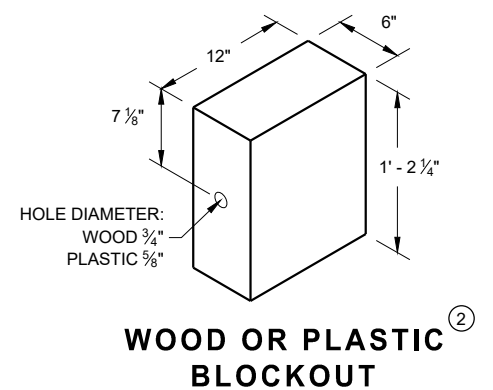
- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- ④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- ⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" TO 32".
- ⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ⑦ TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



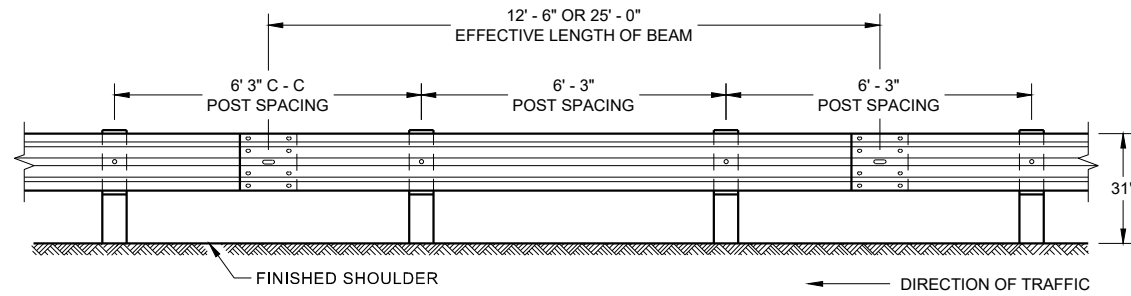
**STEEL POST & HOLE
PUNCHING DETAIL
(W 6 X 9) ①**



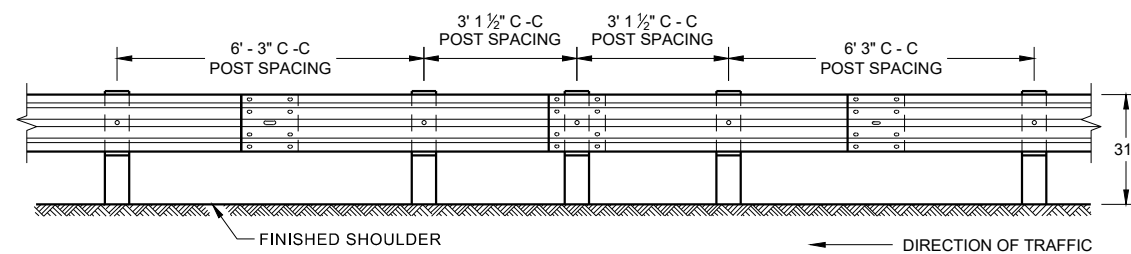
WOOD POST (6" X 8") NOMINAL ⁽¹⁾



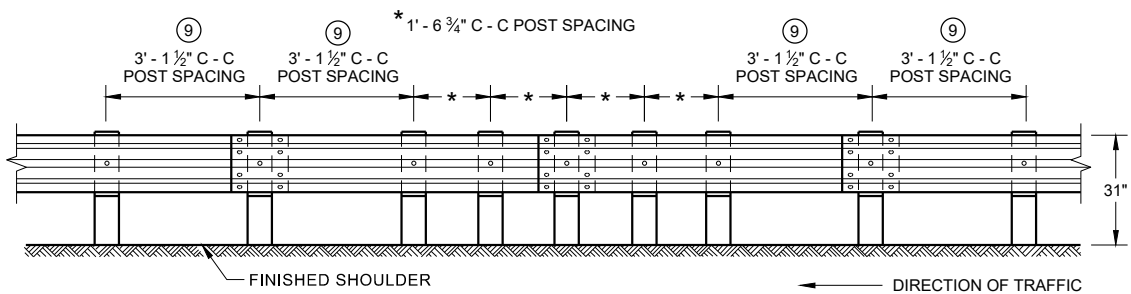
**WOOD OR PLASTIC
BLOCKOUT**



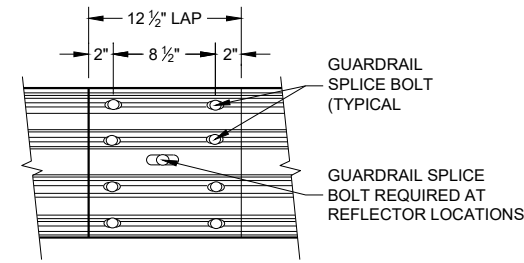
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



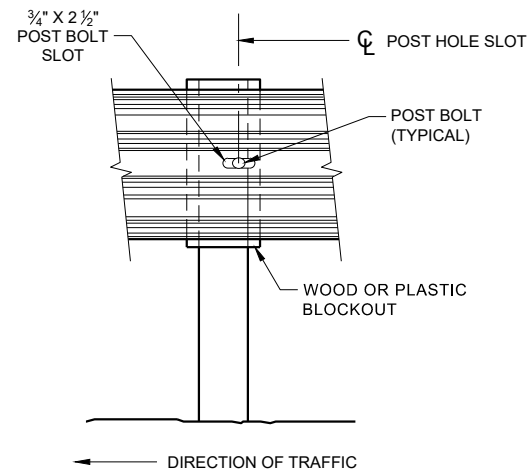
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



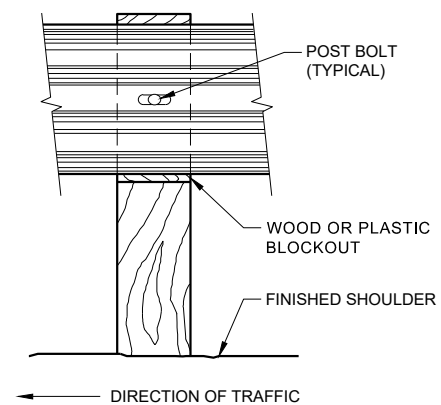
**FRONT VIEW
QUARTER POST SPACING (QS)**



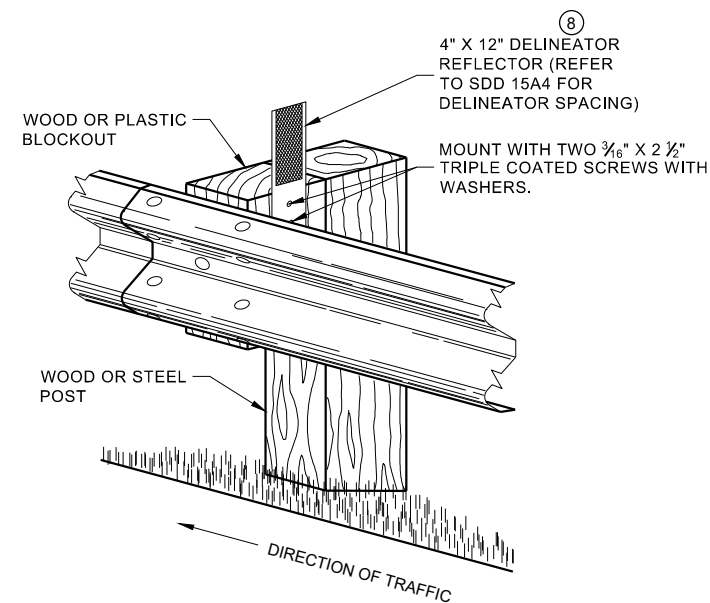
**FRONT VIEW
MID-SPAN BEAM SPLICE**



FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



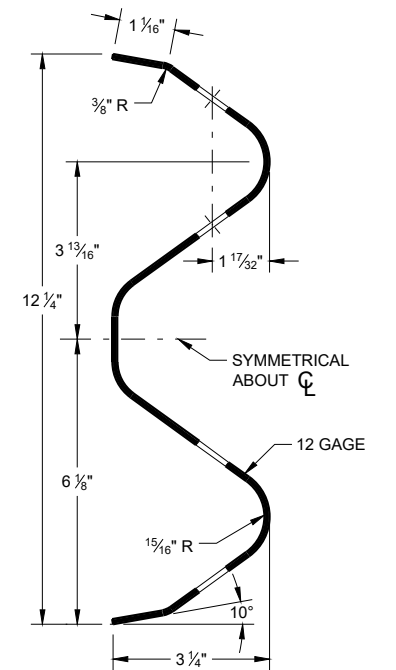
**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

GENERAL NOTES

- 8 DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
- 9 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/4" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

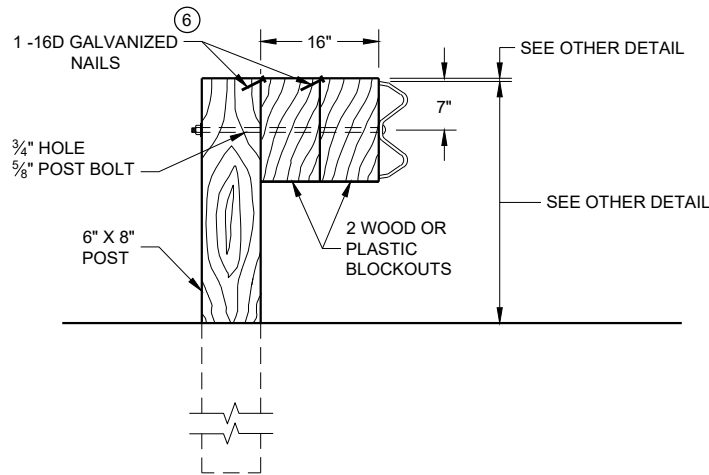
GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



SECTION THRU W-BEAM RAIL

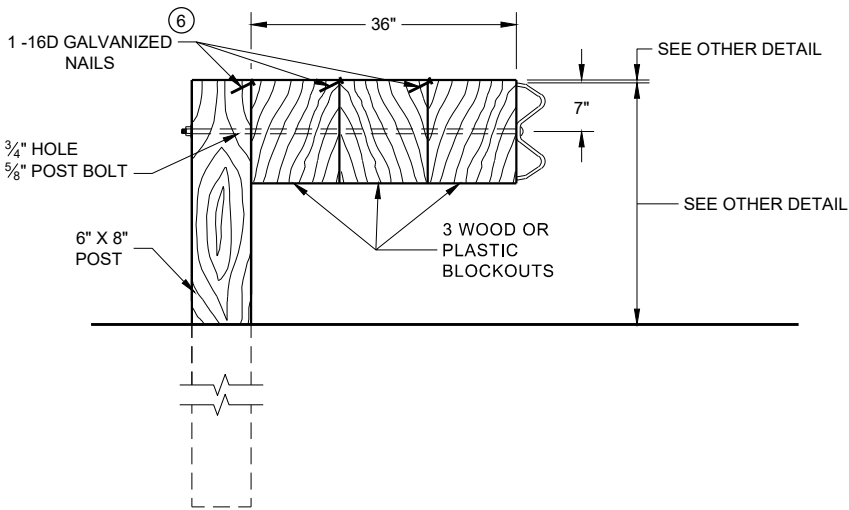
**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

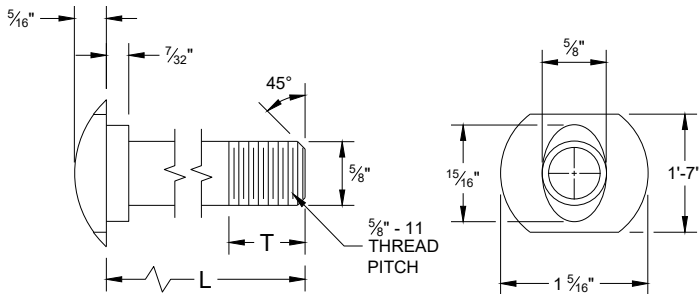
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



DETAIL FOR 36" BLOCKOUT DEPTH

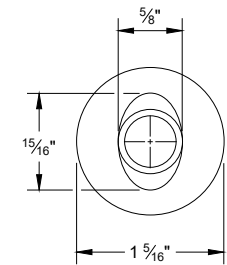
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

- NOTE:
- 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
 - 2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

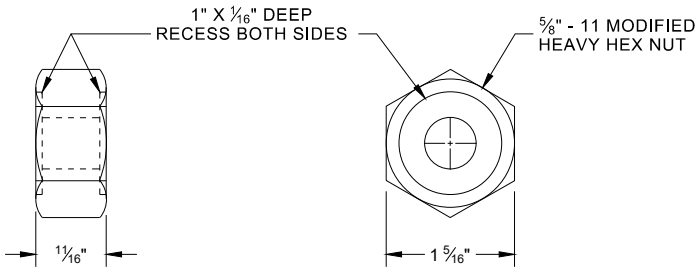


POST BOLT TABLE

L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"

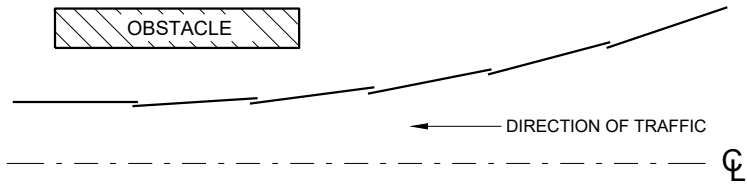


ALTERNATE BOLT HEAD

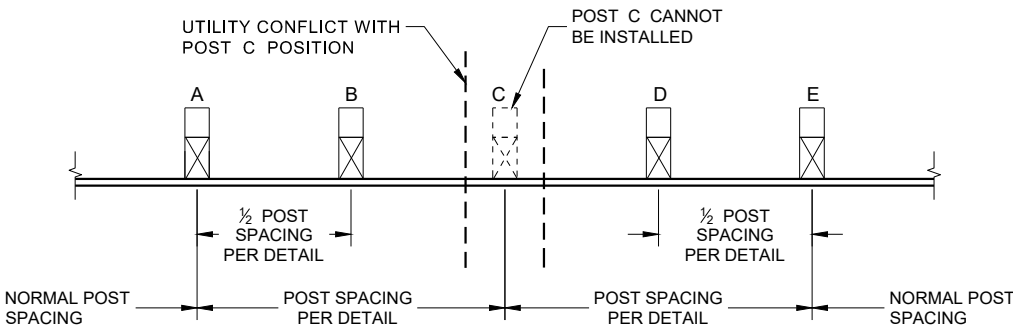


POST BOLT, SPLICE BOLT
AND RECESS NUT

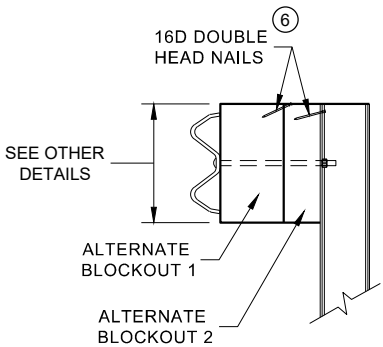
- 6 WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



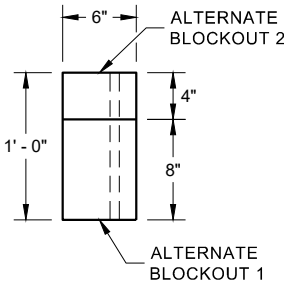
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



SIDE VIEW

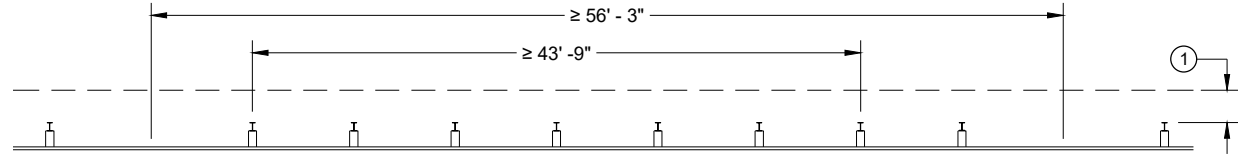


PLAN VIEW

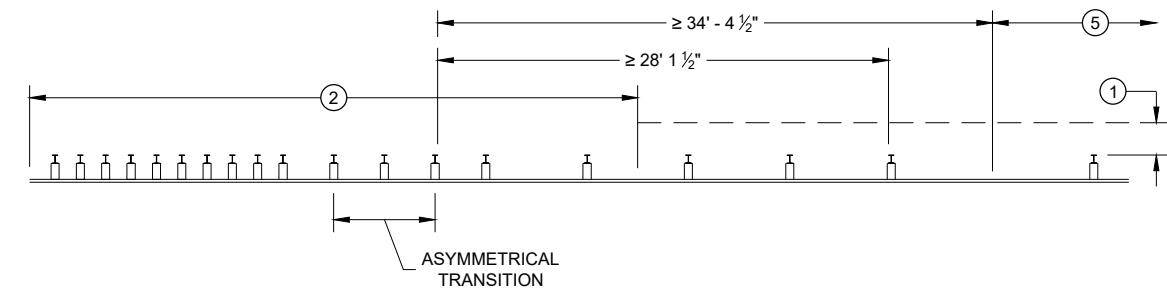
ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

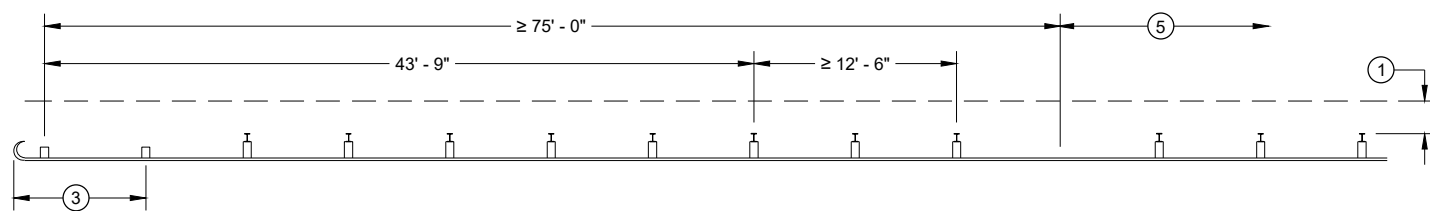
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



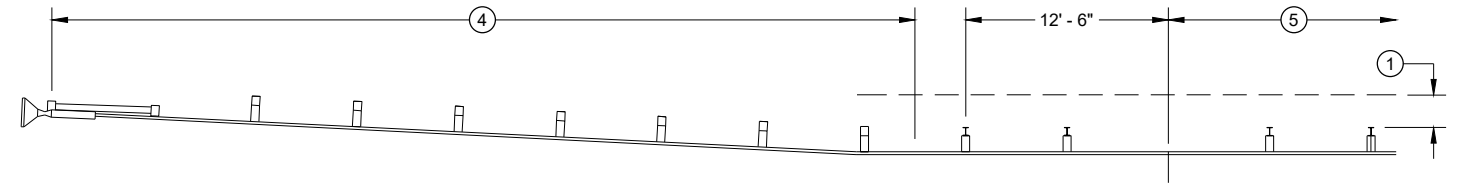
MISSING POST IN NORMAL BEAM GUARD RUN



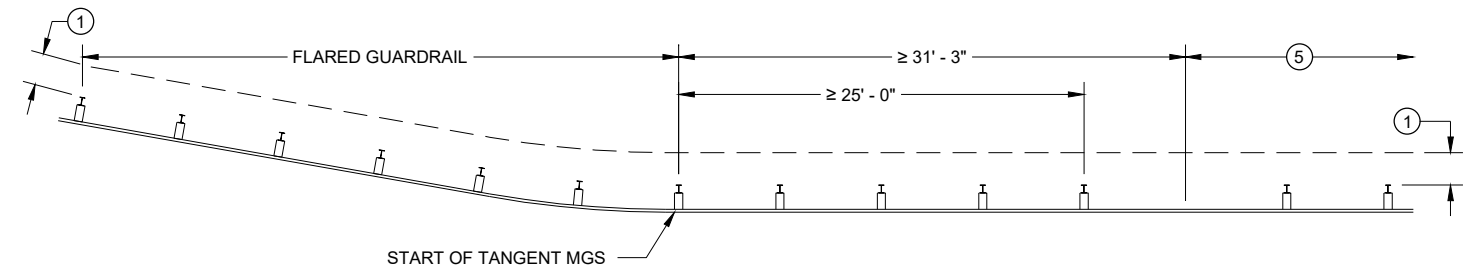
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



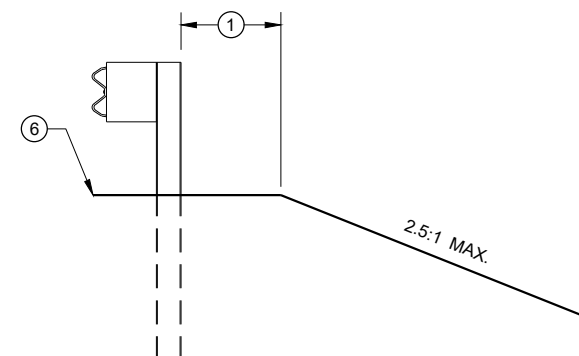
MISSING POST IN NORMAL BEAM GUARD RUN
NEAR TYPE 2 TERMINAL



MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



MISSING POST IN NORMAL BEAM GUARD RUN
NEAR FLARED BEAM GUARD



CROSS SECTION VIEW

- (1) MINIMUM OF 2 FEET OF GRADING BEHIND POST.
- (2) SEE SDD 14B45 FOR MORE DETAILS.
- (3) SEE SDD 14B47 FOR MORE DETAILS.
- (4) SEE SDD 14B44 FOR MORE DETAILS.
- (5) SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
- (6) SEE PLAN FOR SHOULDER DESIGN.

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA

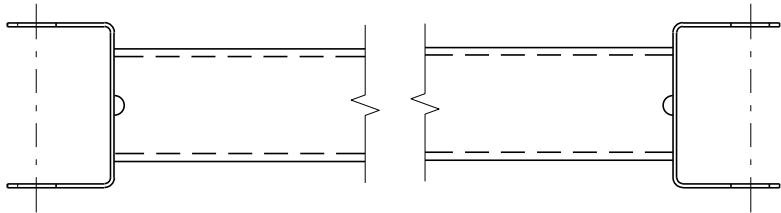
- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
- (C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.
- (D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.
- (E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

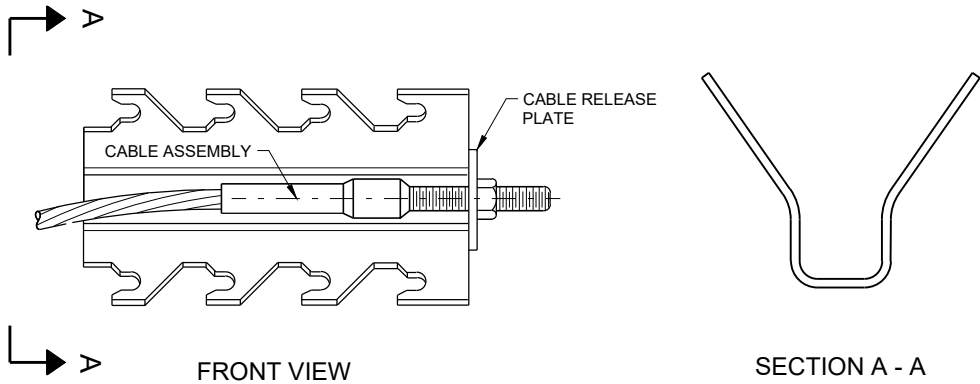


STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

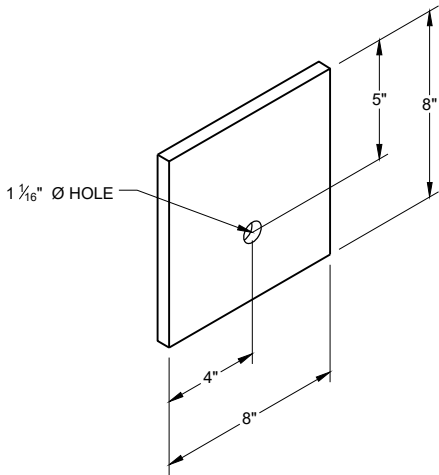


GENERIC GROUND STRUT⁹ ^E

BILL OF MATERIALS	
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



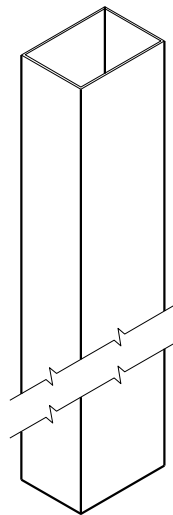
GENERIC ANCHOR CABLE BOX⁹ ^E



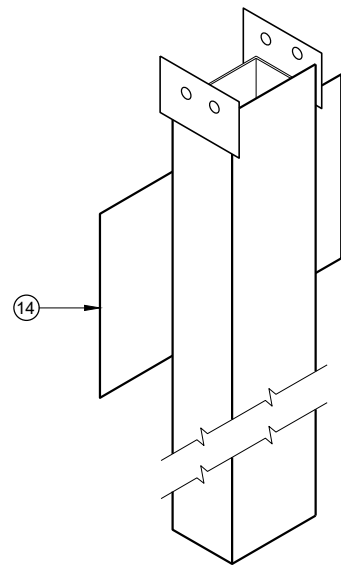
BEARING PLATE⁶ ^E

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

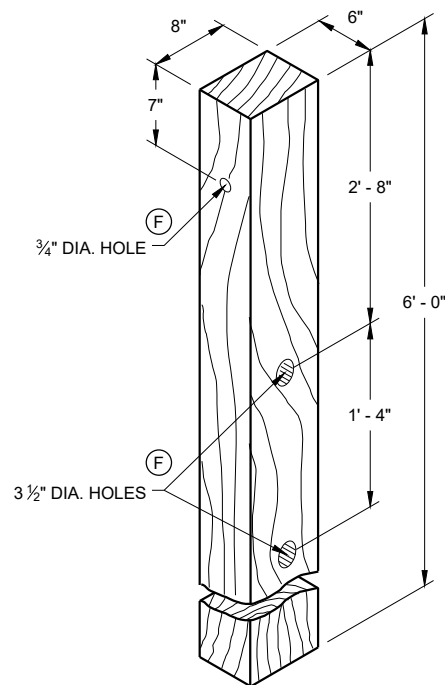
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



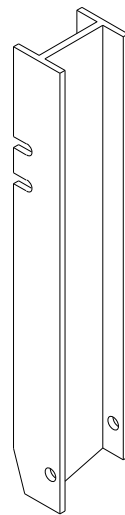
UPPER POST NO. 1 ⁽¹⁾ (E)



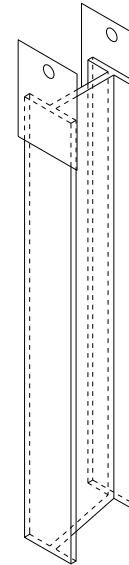
LOWER POST NO. 1 ⁽²⁾ (E)



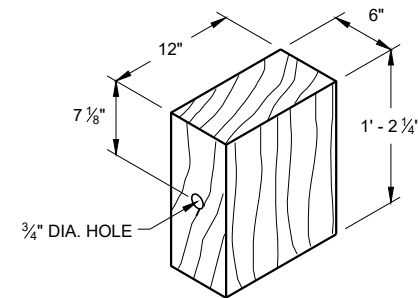
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



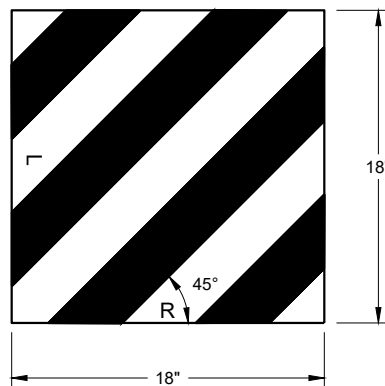
UPPER POST NO. 2 ⁽¹⁵⁾ (E)



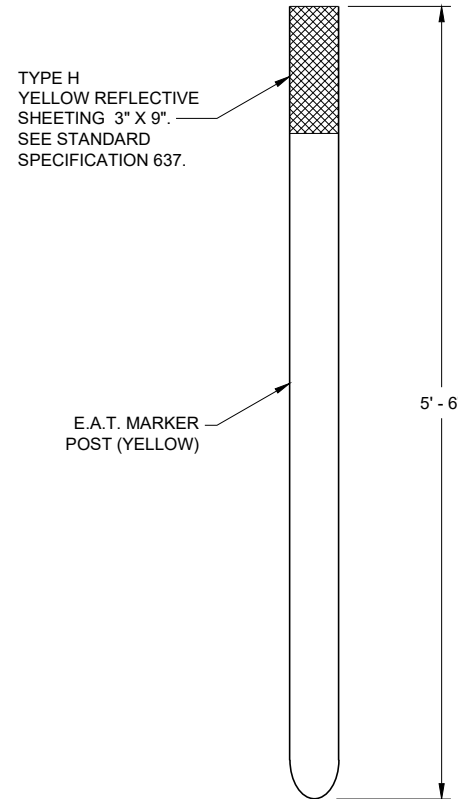
LOWER POST NO. 2 ⁽¹⁶⁾ (E)



WOOD BLOCKOUT ⁽⁴⁾
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



REFLECTIVE SHEETING DETAIL ^(E)

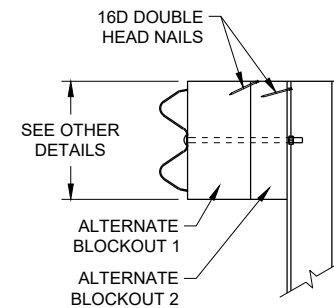


FRONT VIEW

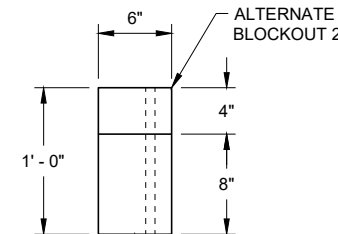


SIDE VIEW

E.A.T. MARKER POST ⁽¹³⁾



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA

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.

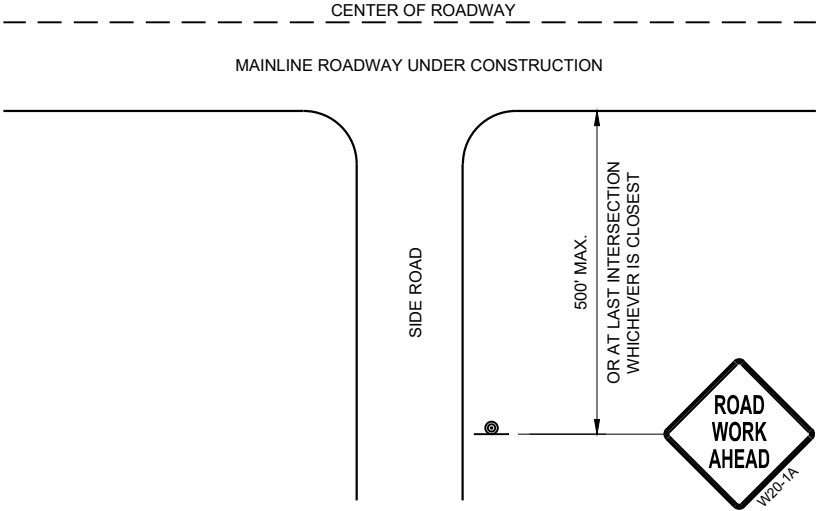
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

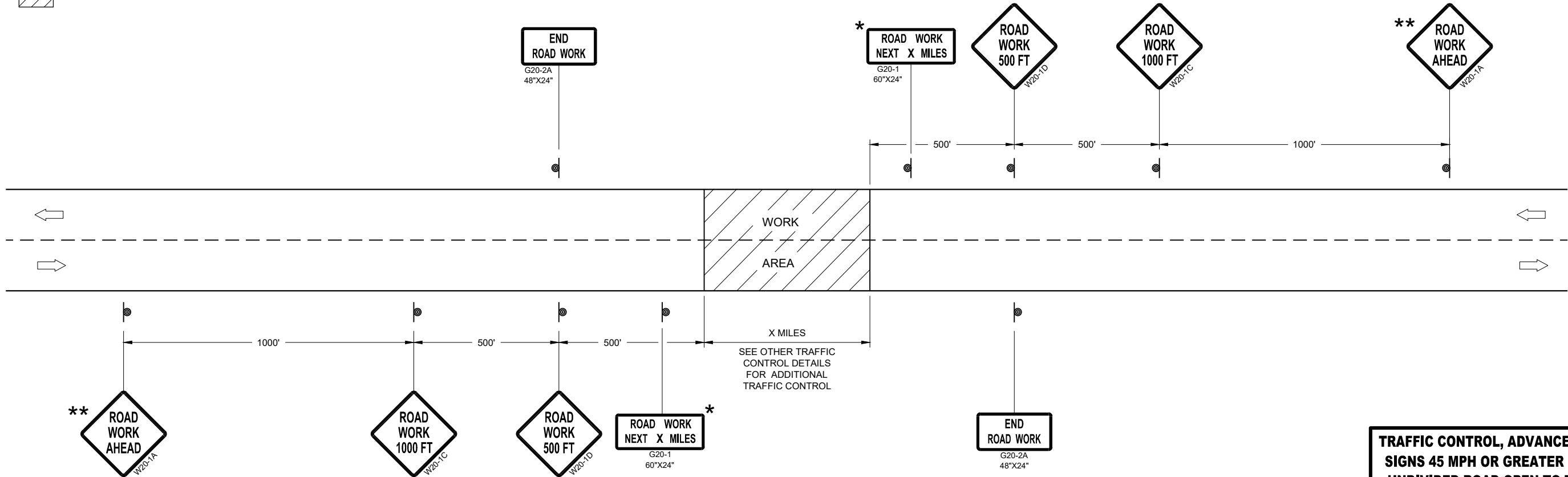
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL

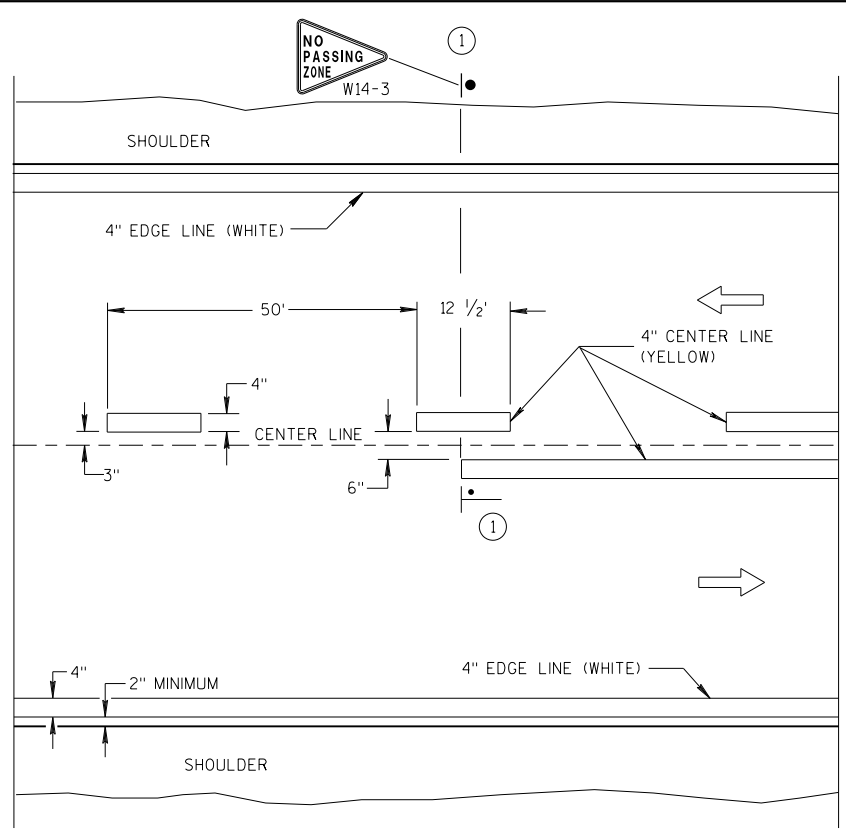


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

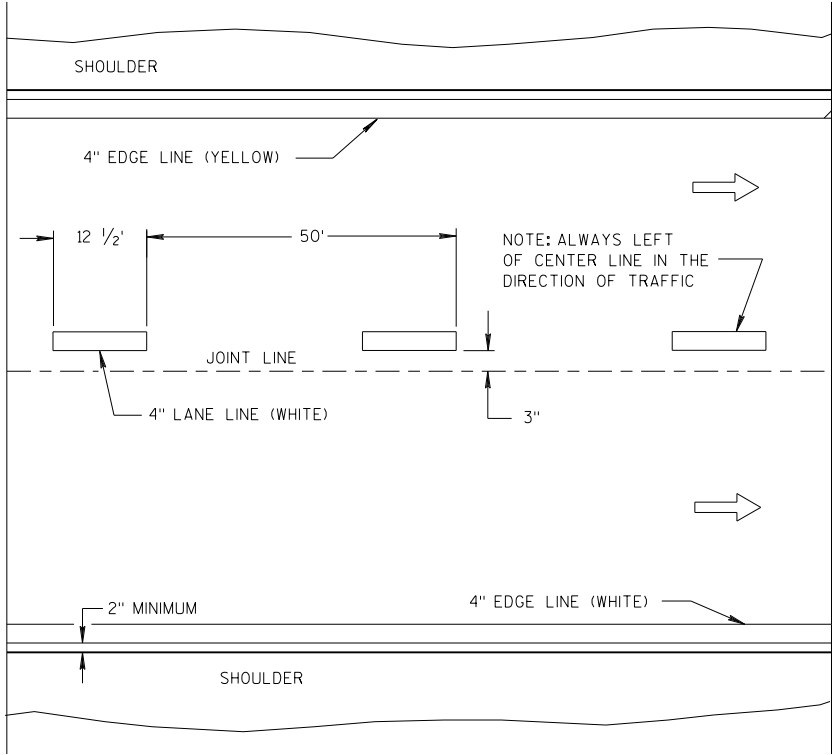
TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

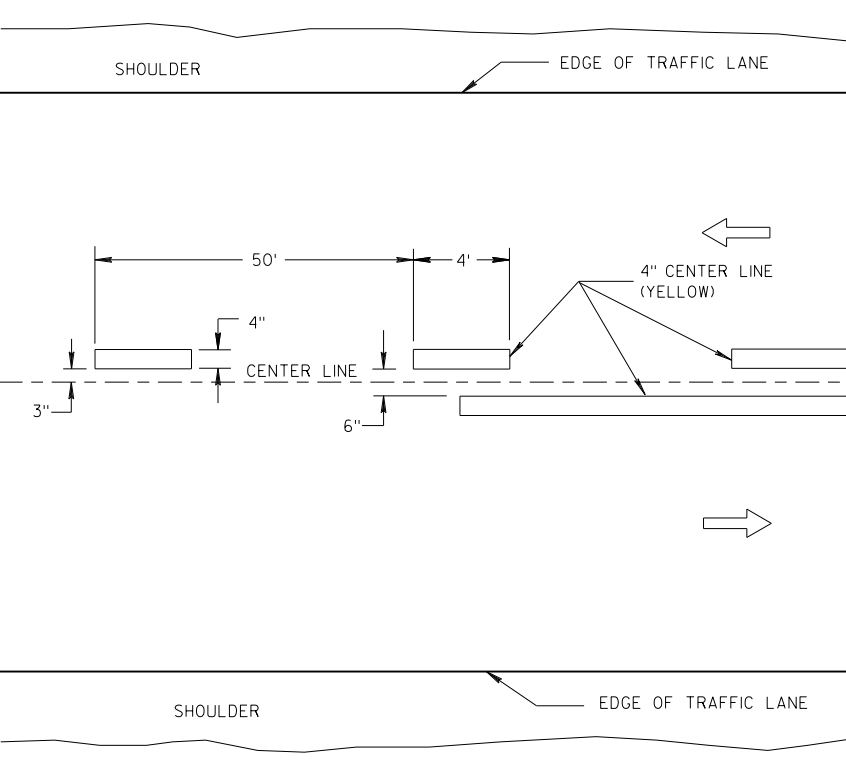


TWO WAY TRAFFIC

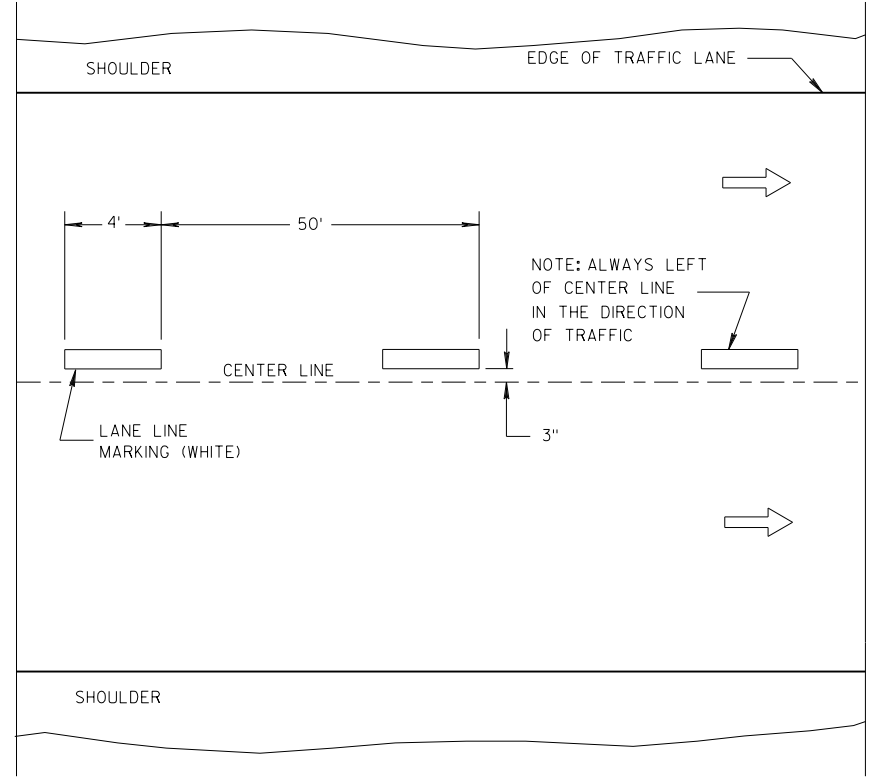


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 /S/ Matthew R. Rauch
DATE STATE SIGNING AND 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

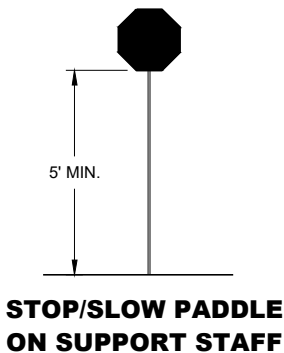
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- 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 SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR 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.

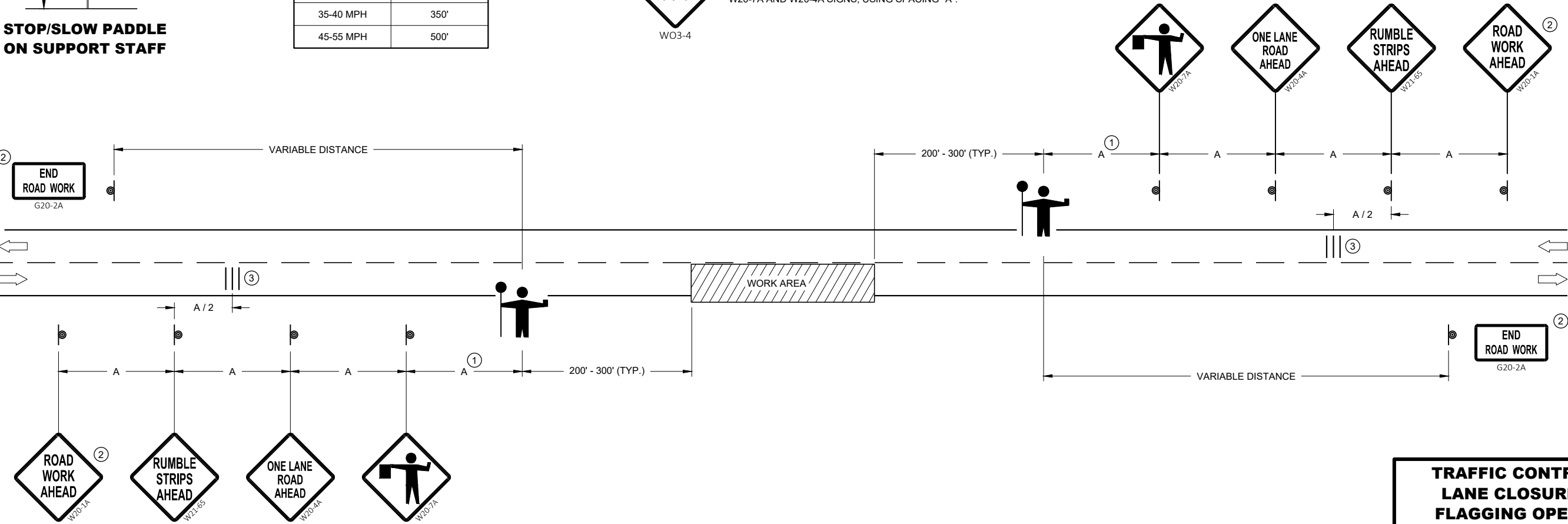


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

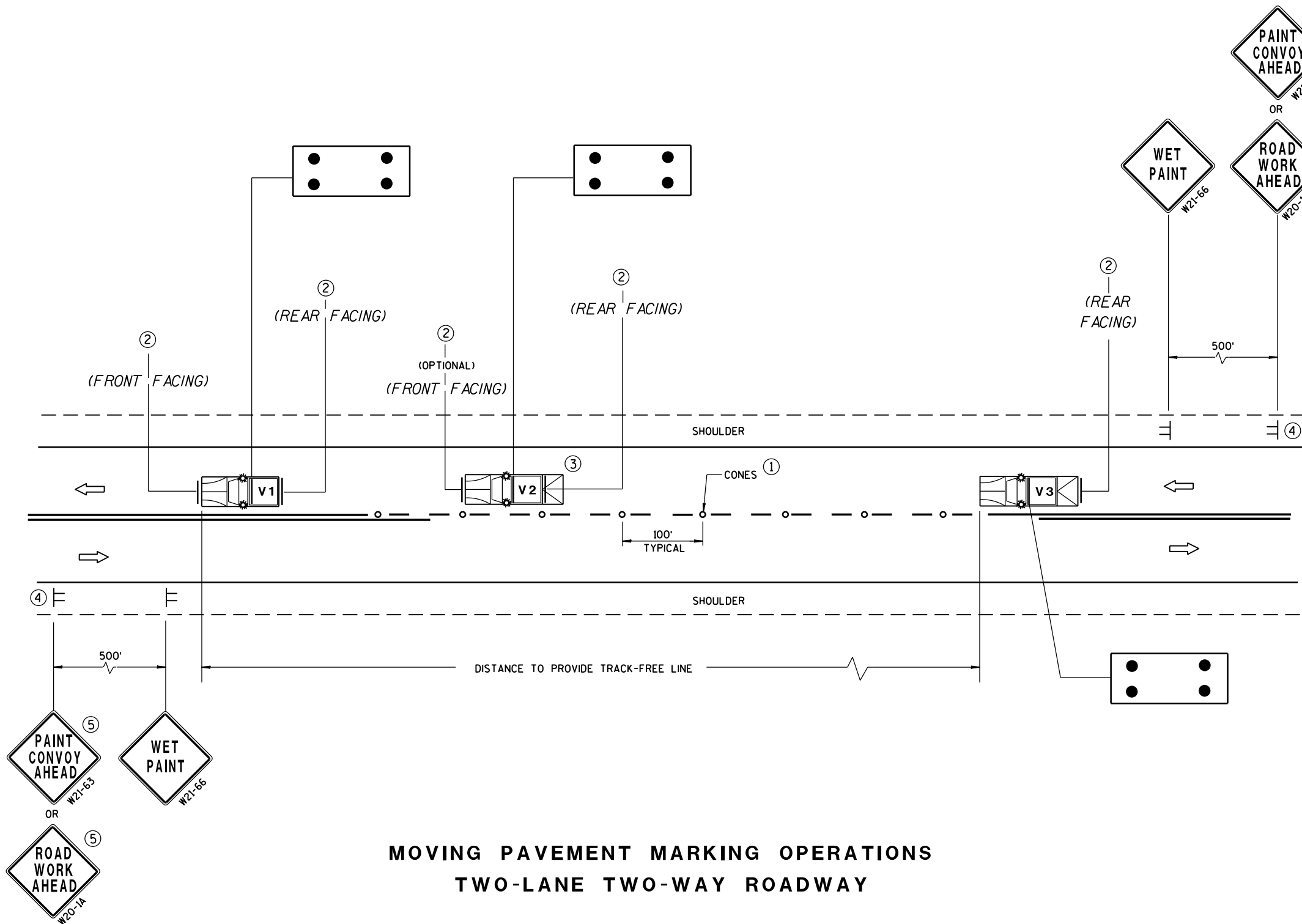


USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

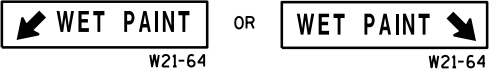
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

- ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.
- VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.
- IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.
- ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.
- DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.
- THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.
- WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.
- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.



OR



LEGEND

- V1** LEAD VEHICLE
- V2** SHADOW VEHICLE
- V3** TRAIL VEHICLE WITH TMA
- TMA** TRUCK-MOUNTED ATTENUATOR

≡ SIGN ON TEMPORARY SUPPORT

→ DIRECTION OF TRAFFIC

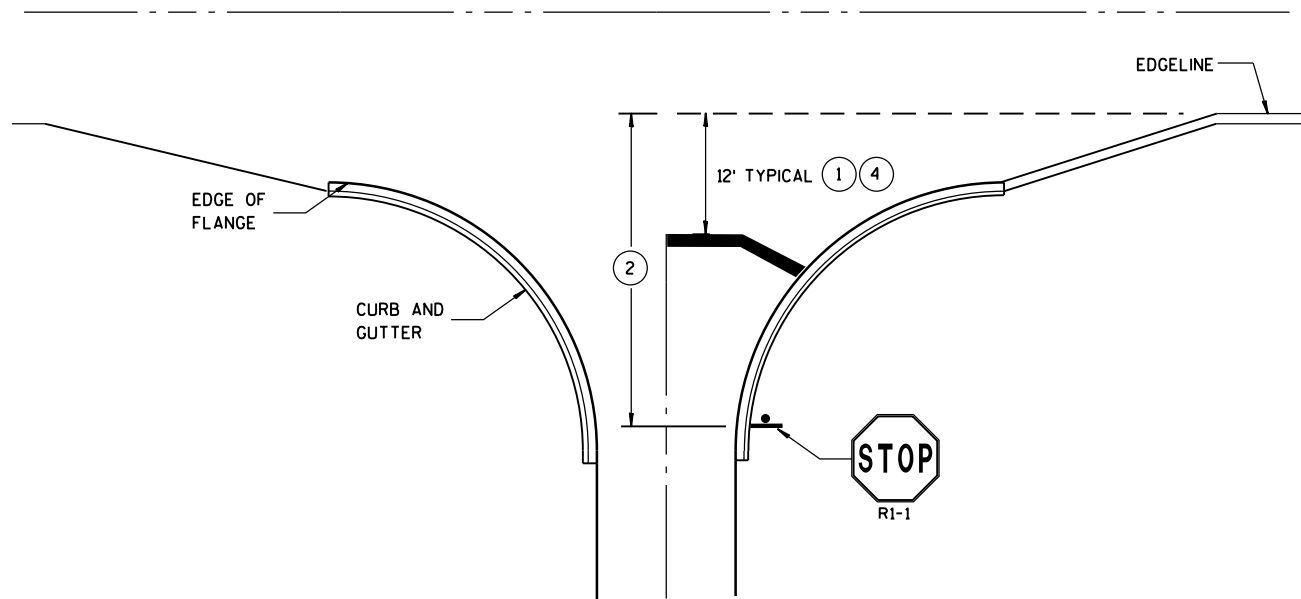
○ CONES

⬢ FLASHING ARROW PANEL (CAUTION)

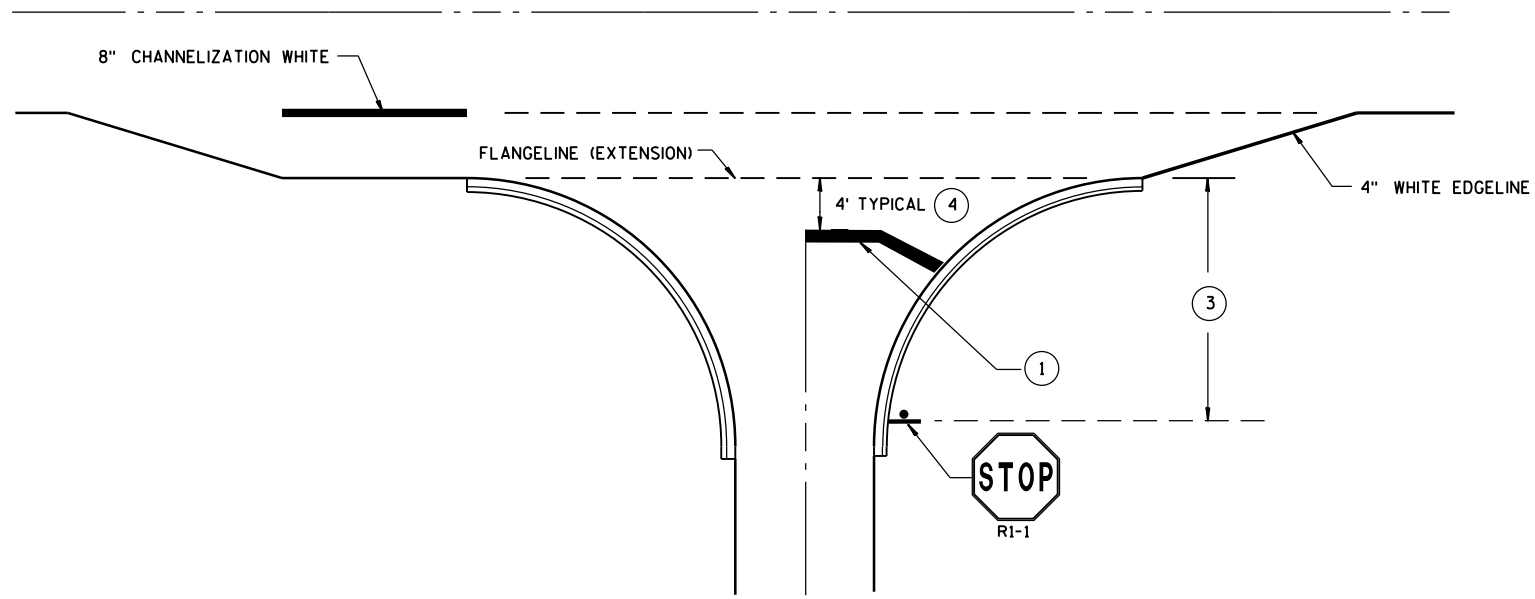
MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE Sept., 2017 /S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA



TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER

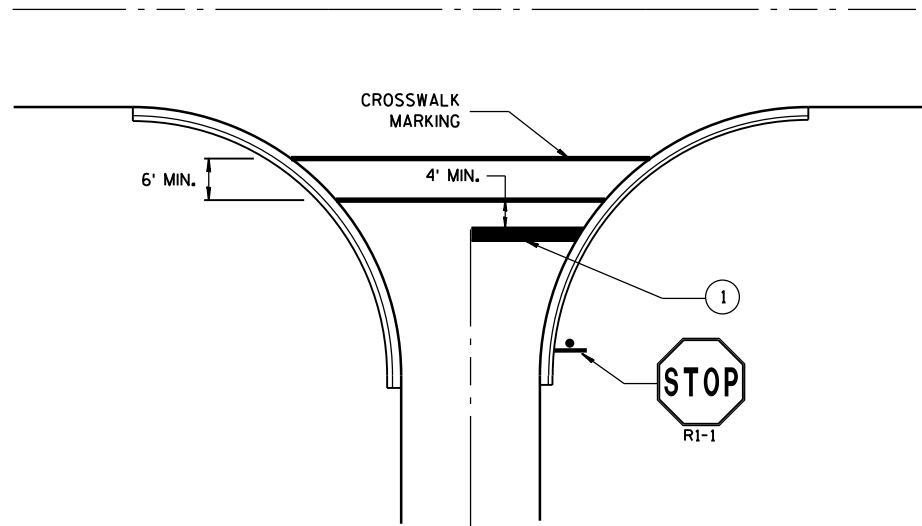


TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE

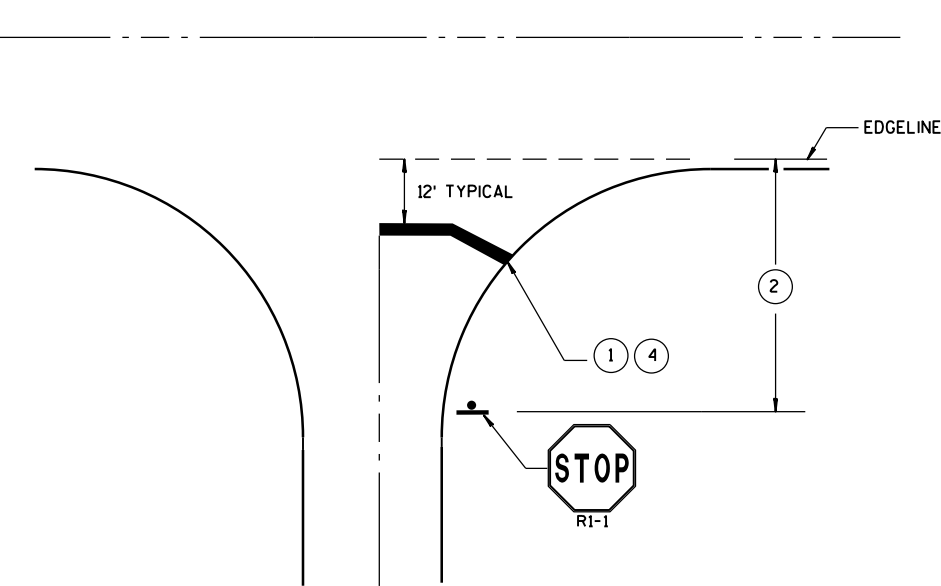
GENERAL NOTES

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 PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- 3 IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- 4 MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

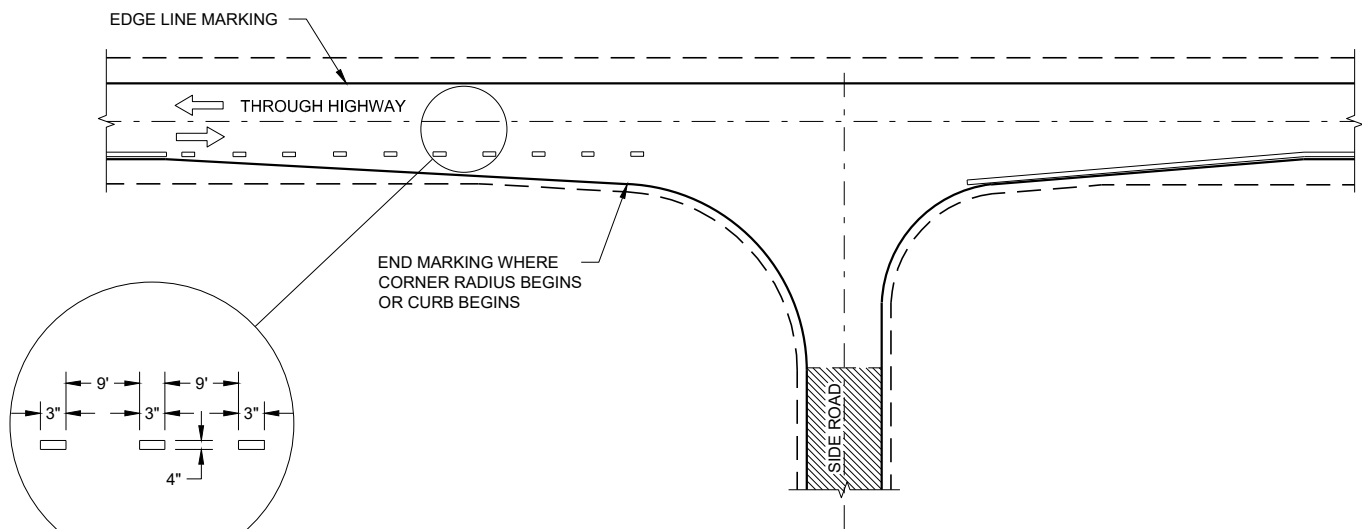


TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING

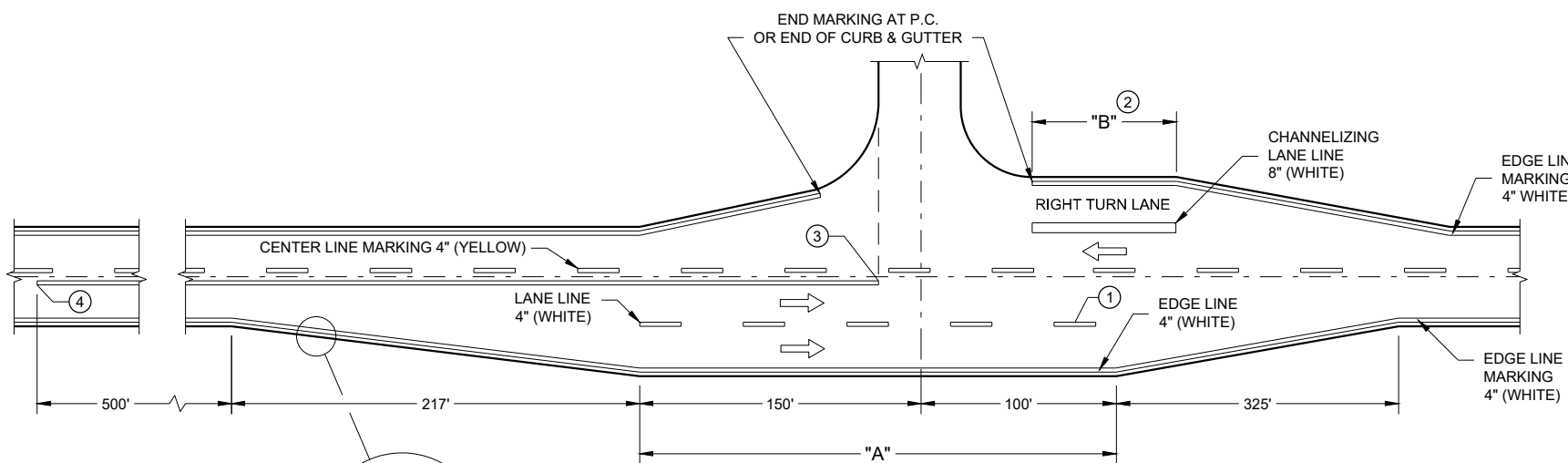


TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE Sept., 2017	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



MINOR INTERSECTION



MAJOR INTERSECTIONS

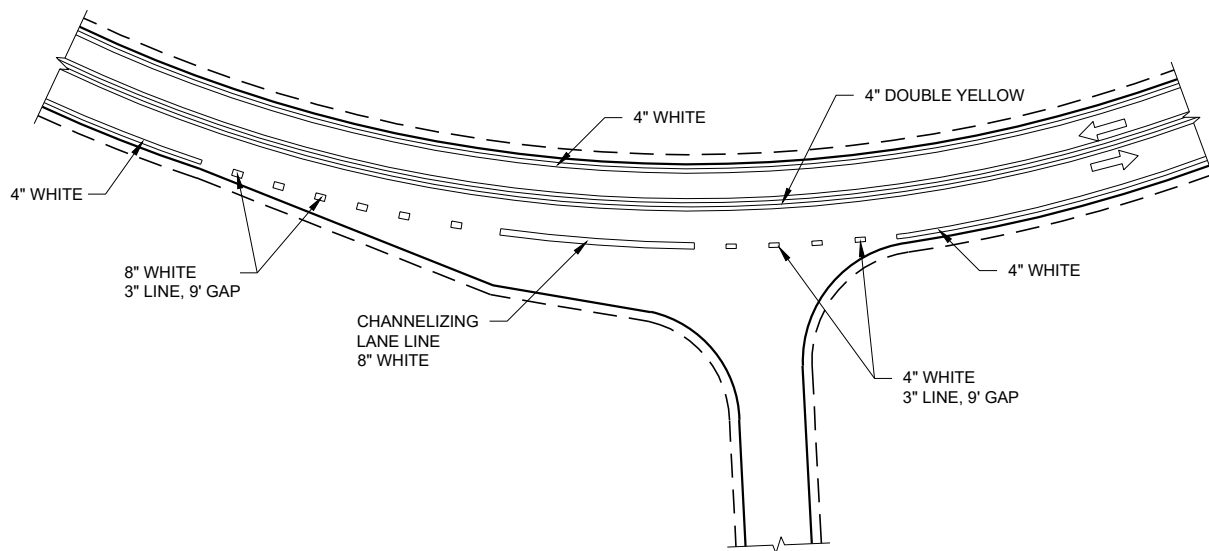
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

GENERAL NOTES

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

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

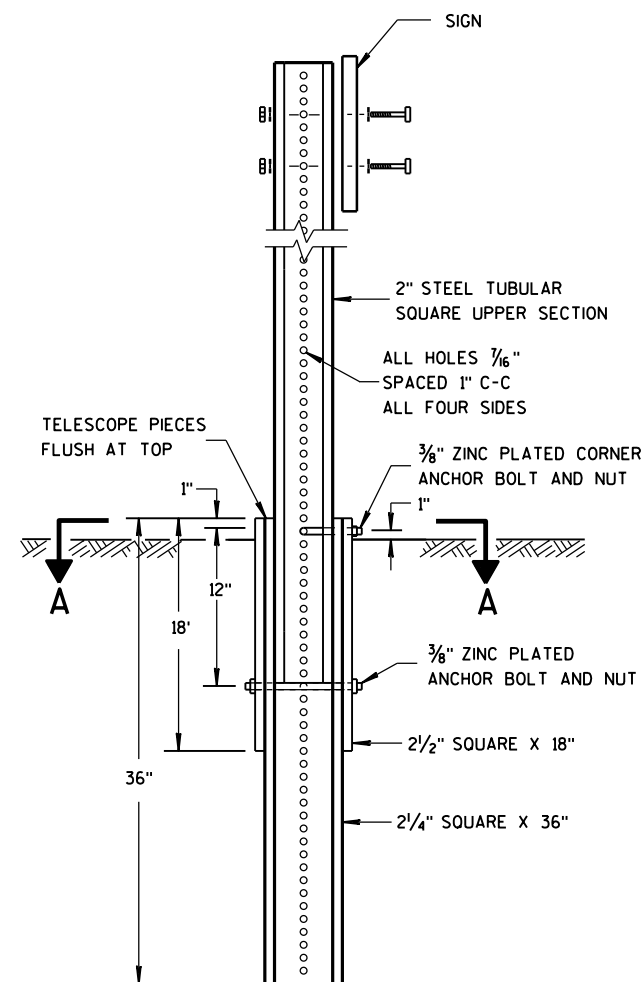
ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

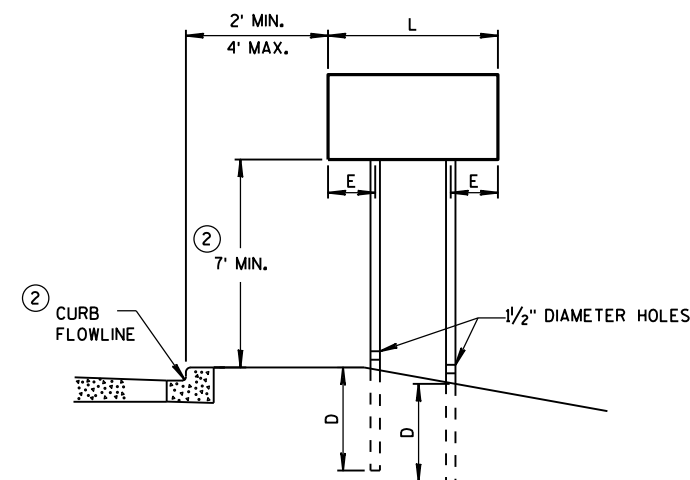
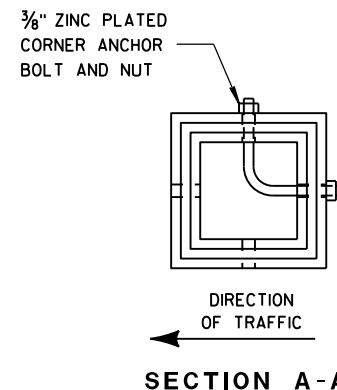


DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

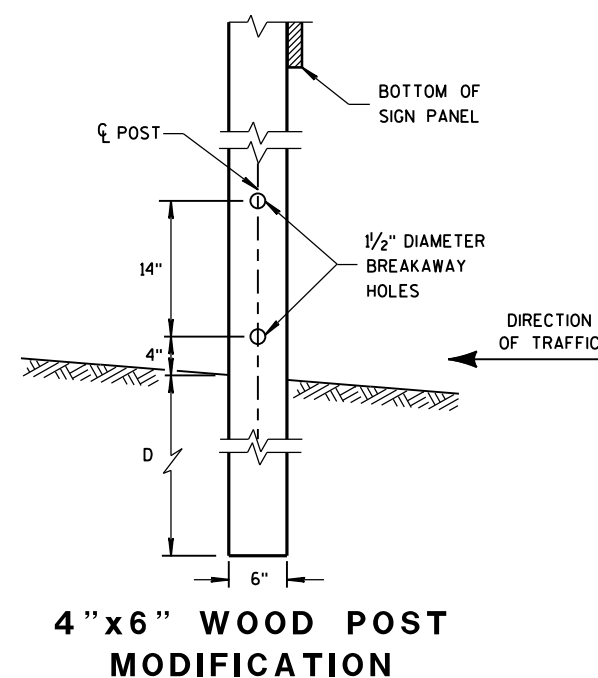
SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.



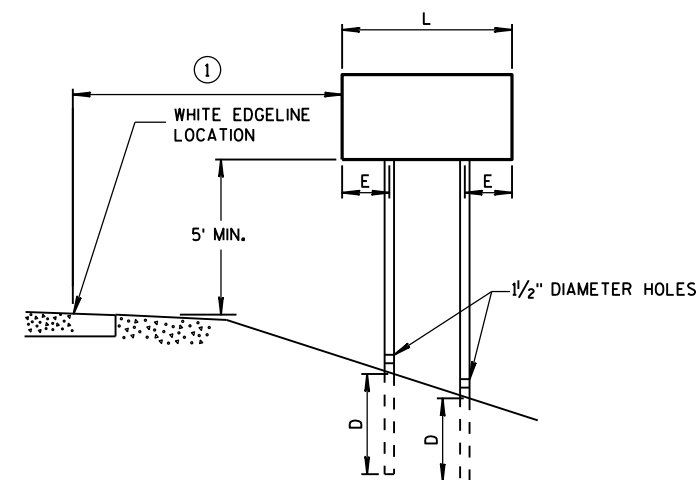
URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST EMBEDMENT DEPTH	
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4 "x6 " WOOD POST
MODIFICATION



RURAL AREA

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

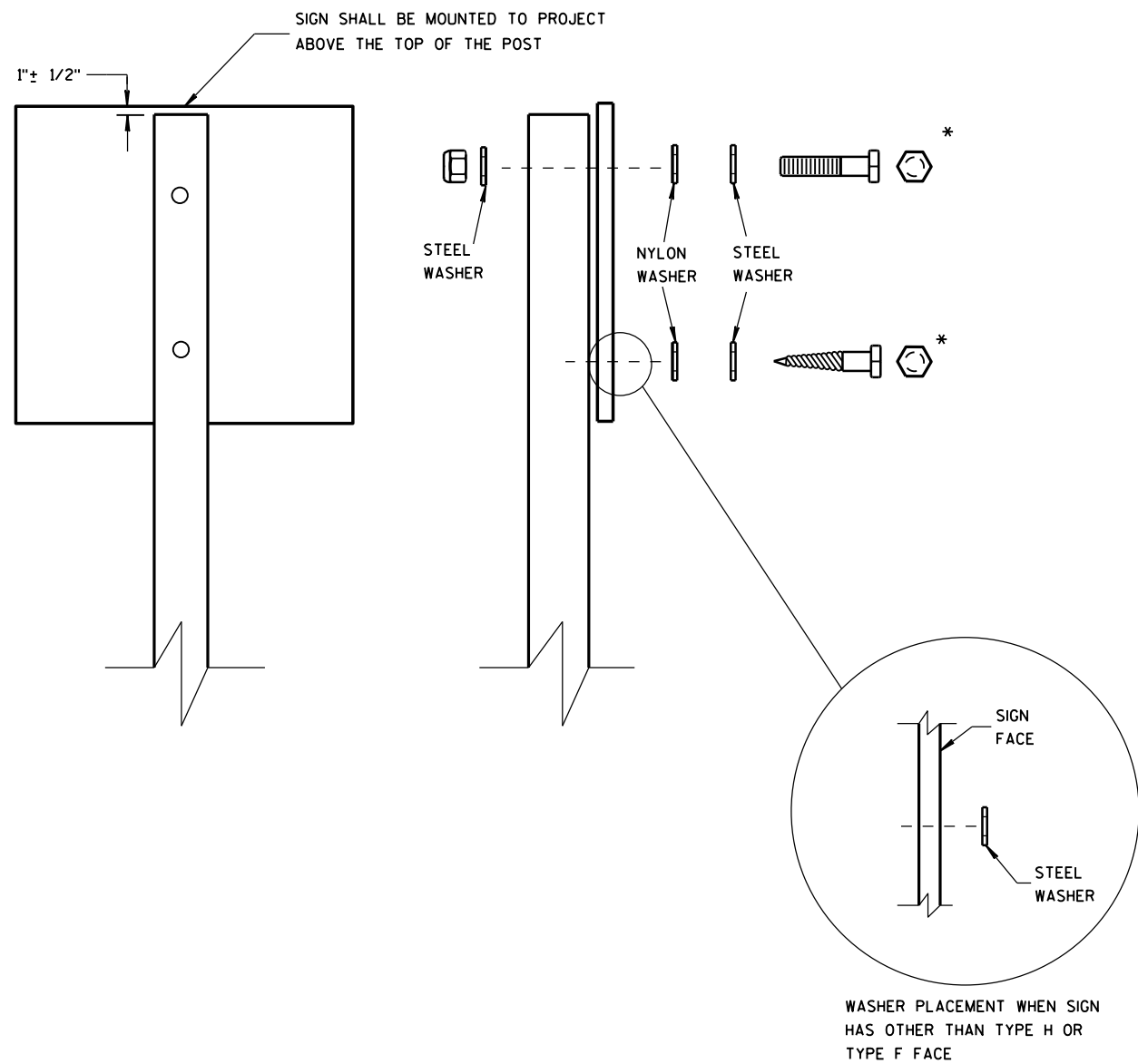
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL
SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

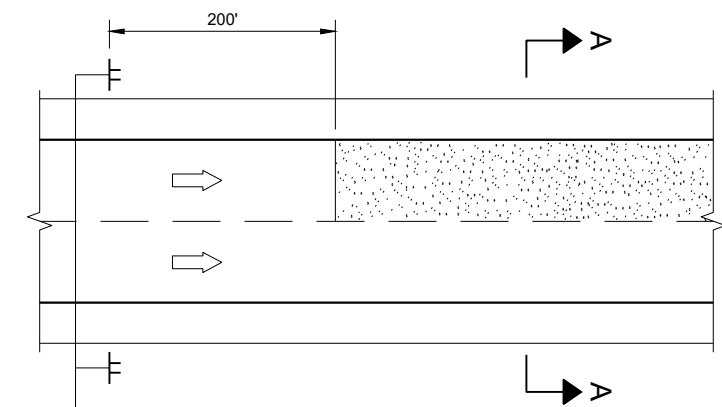
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
 - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" x 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

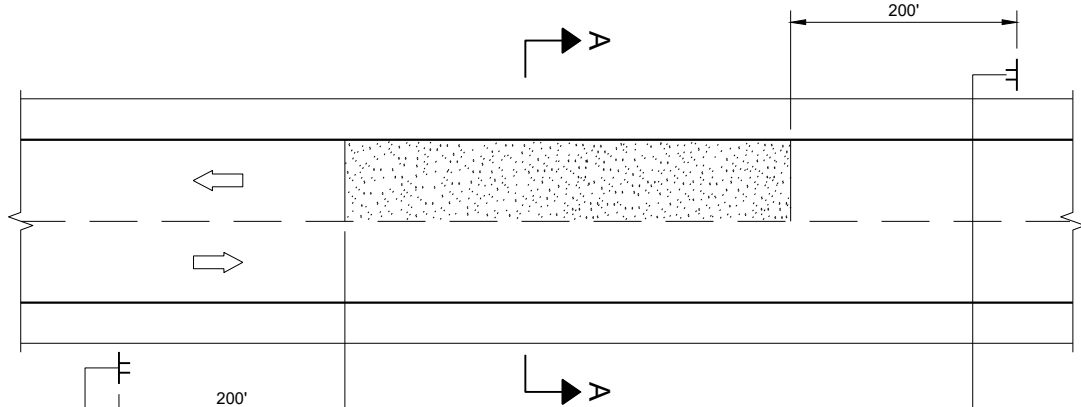
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL
 - 1-1/4" O.D. x 3/8" I.D. x .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

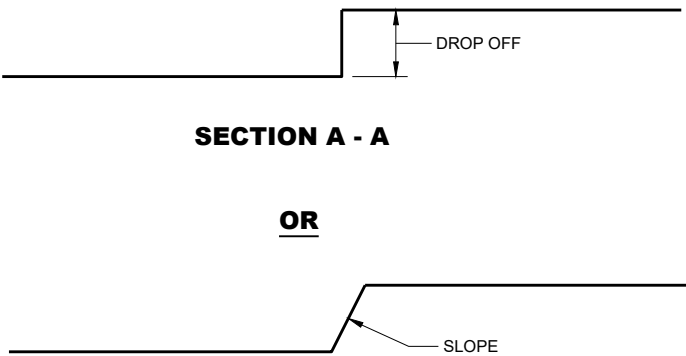
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGINEER
FHWA	



MULTI-LANE



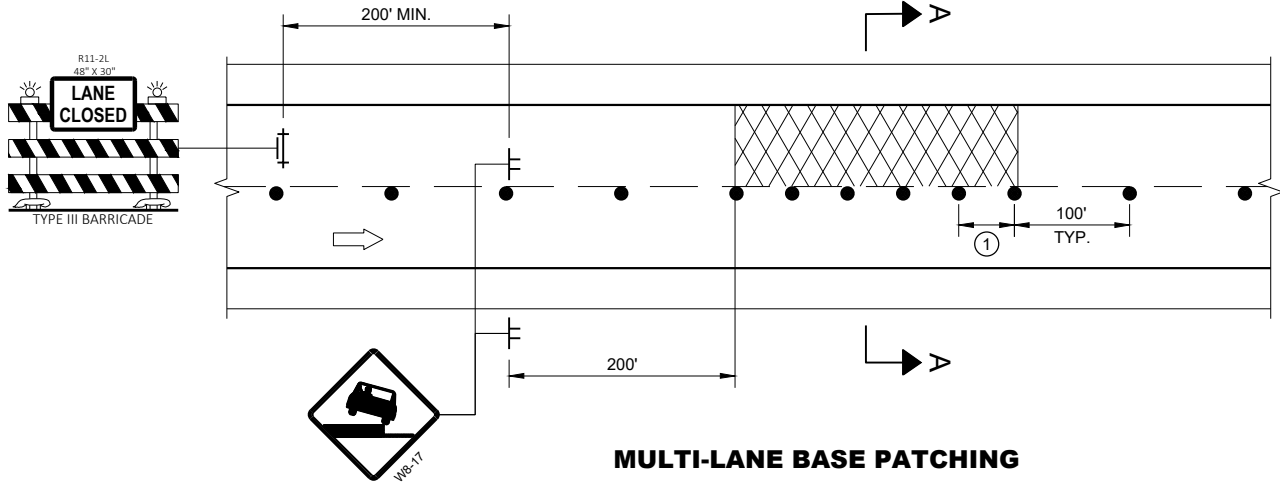
TWO-WAY TWO LANE



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.

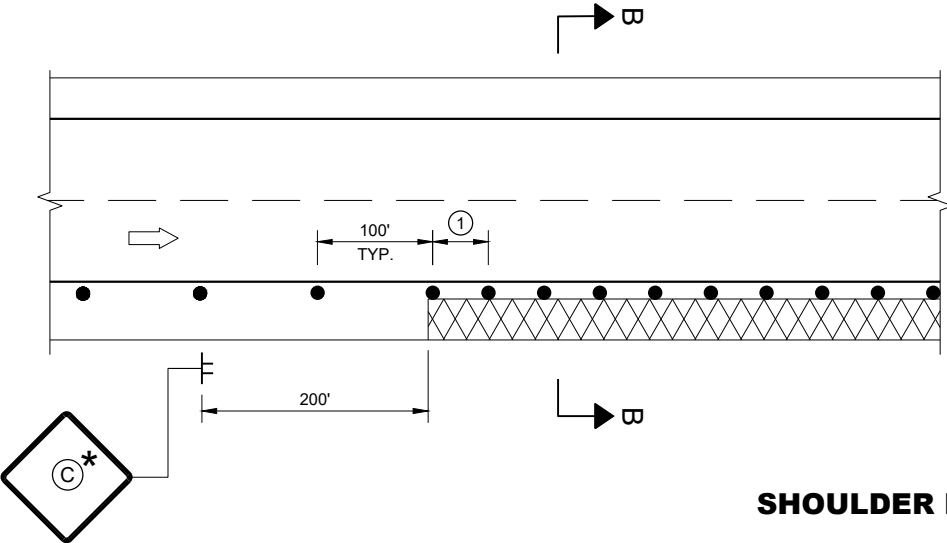
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

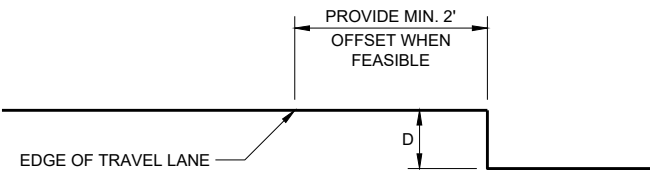
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

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



SHOULDER DROP-OFFS



SECTION B - B

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

TRAFFIC CONTROL,
DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
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.

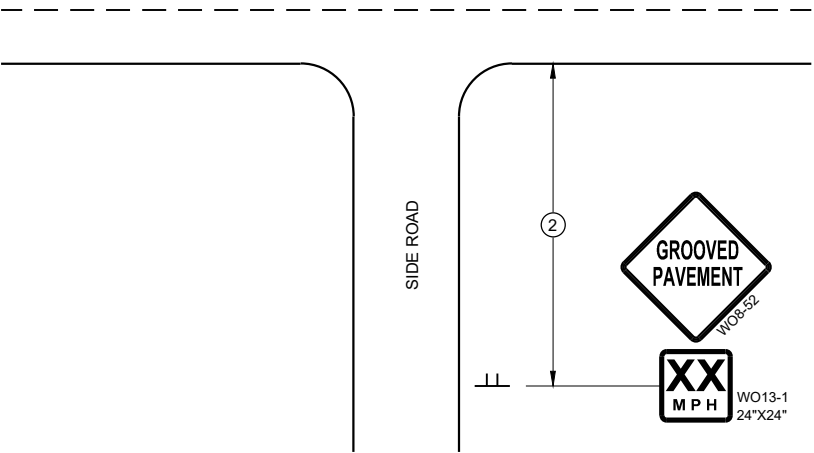
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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.

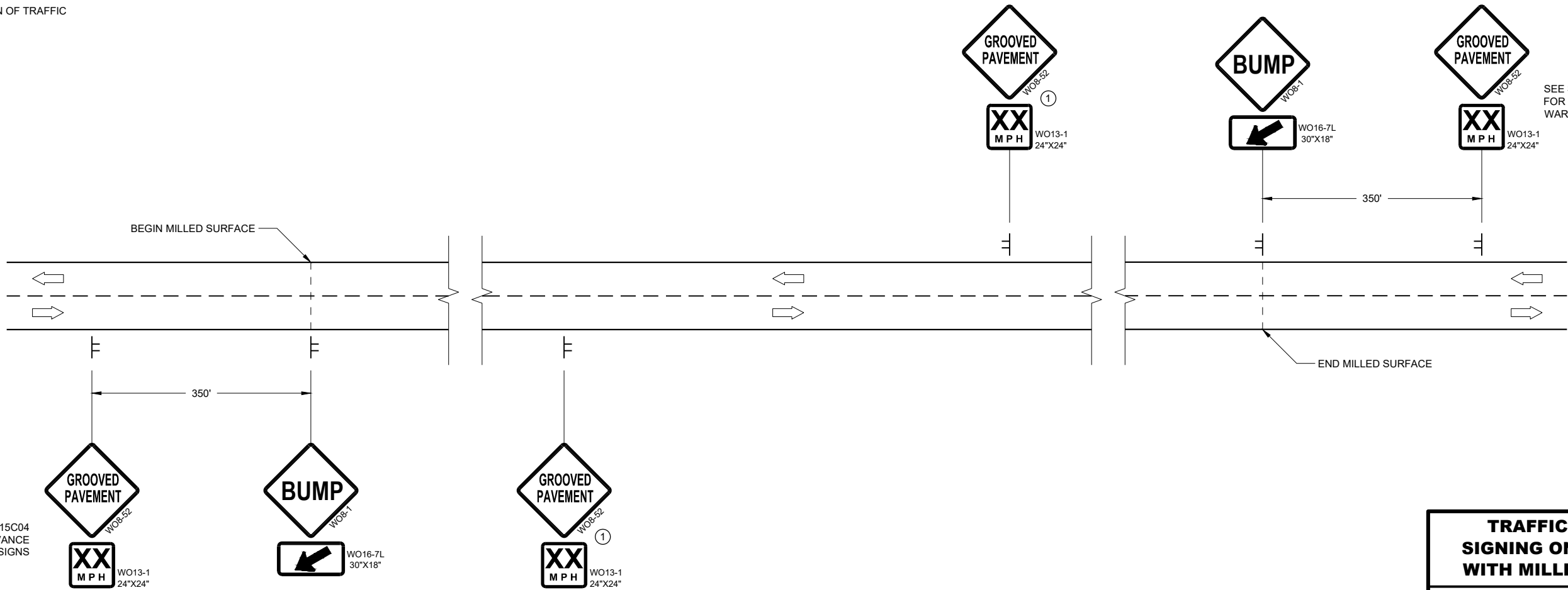
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



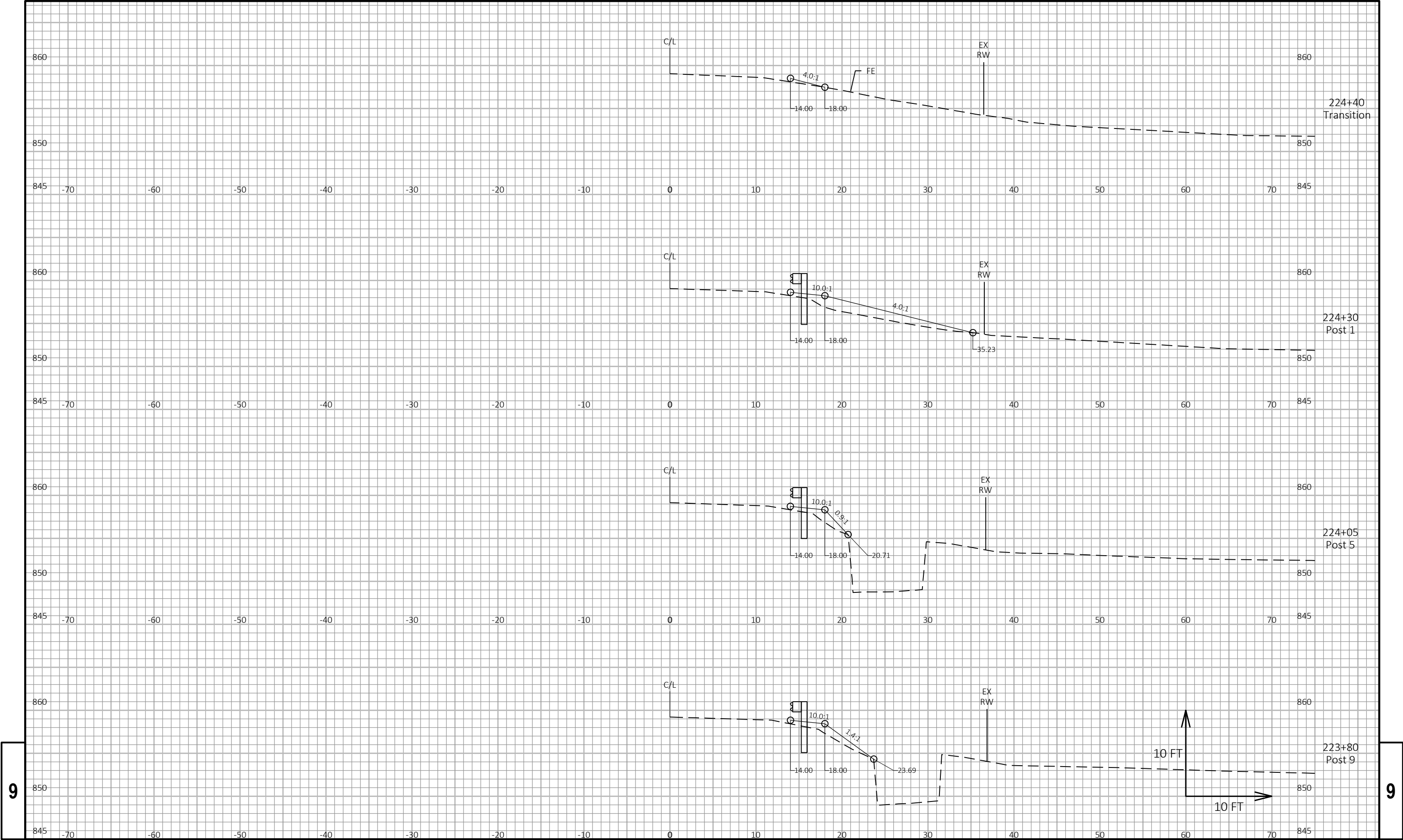
DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL,
SIGNING ON ROADWAYS
WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

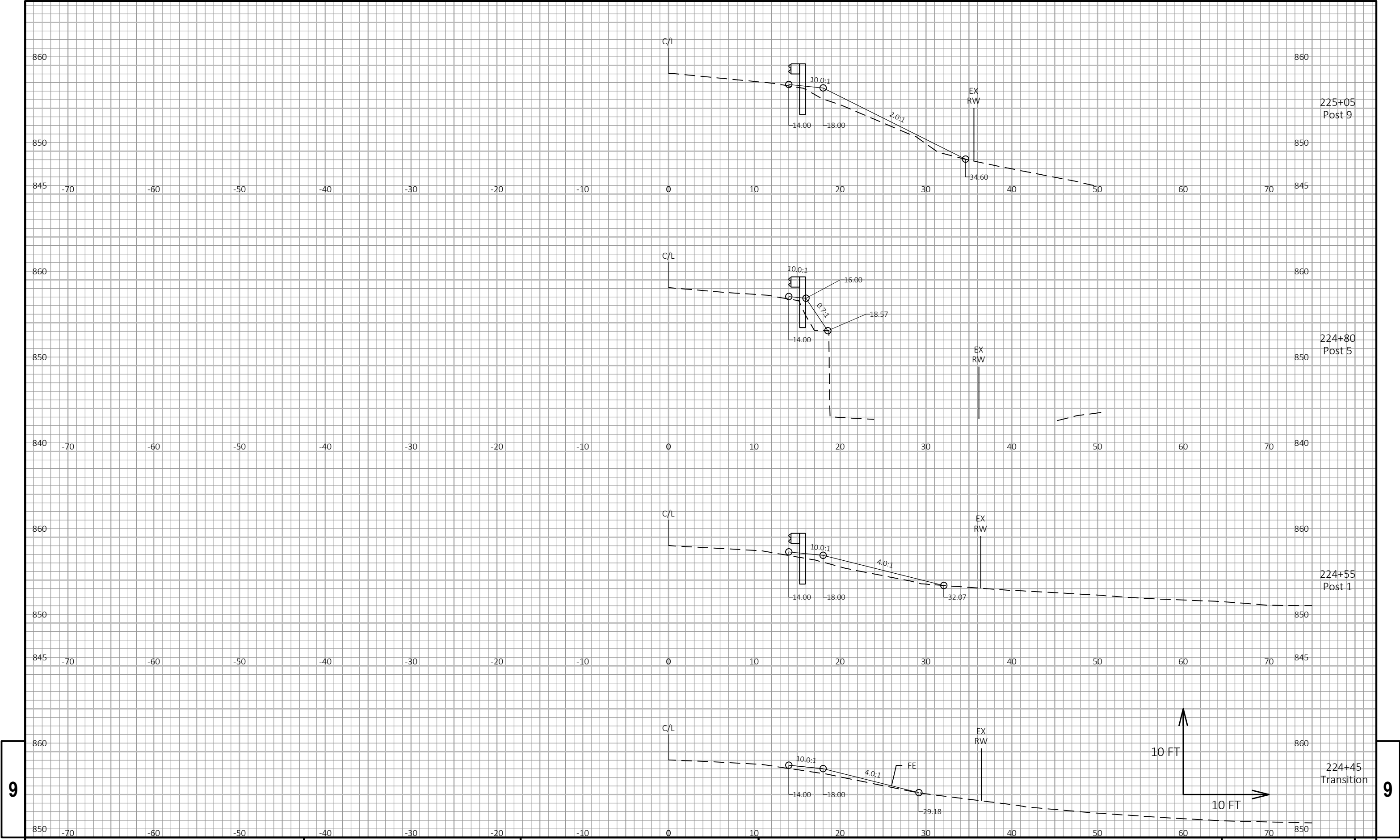
FHWA

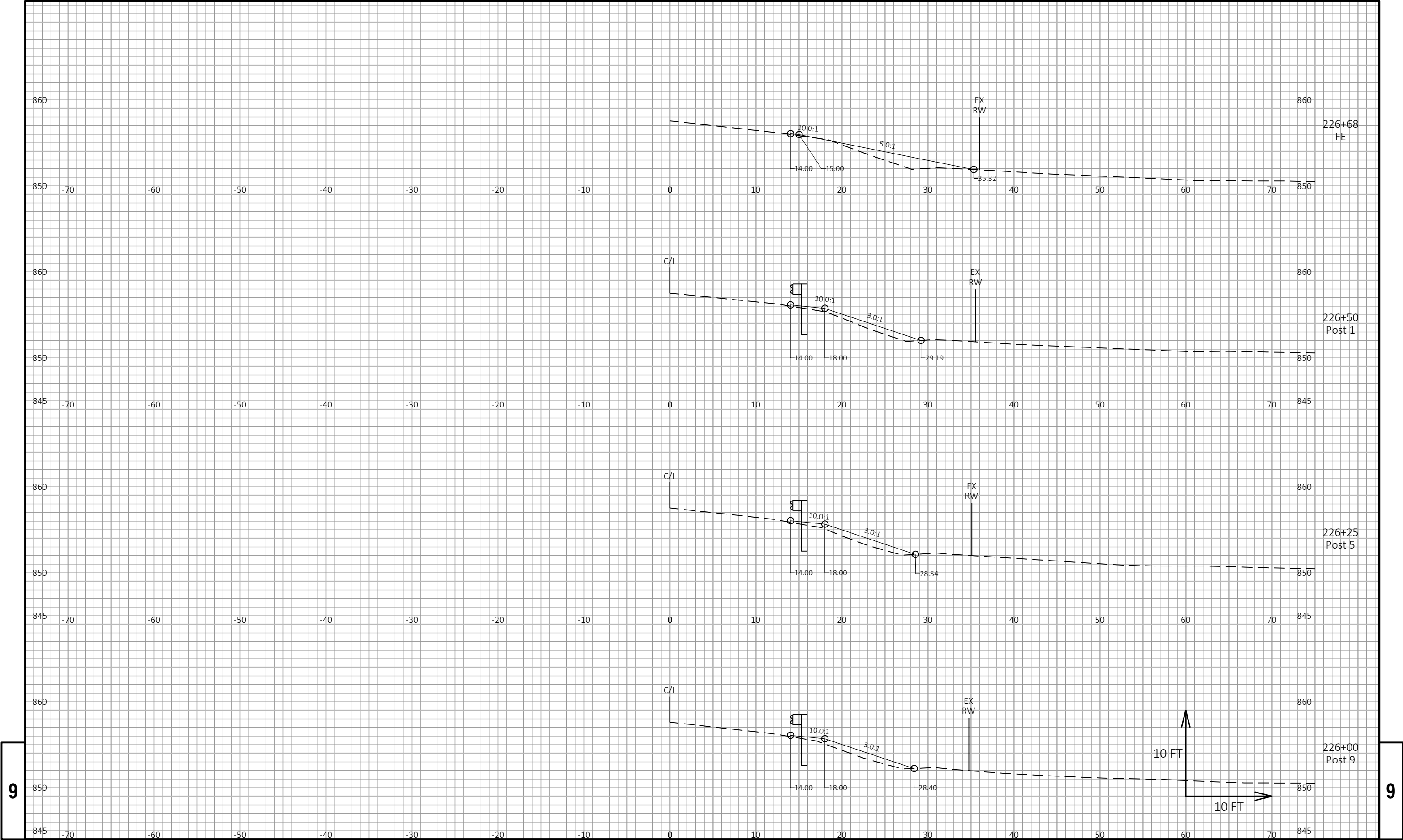


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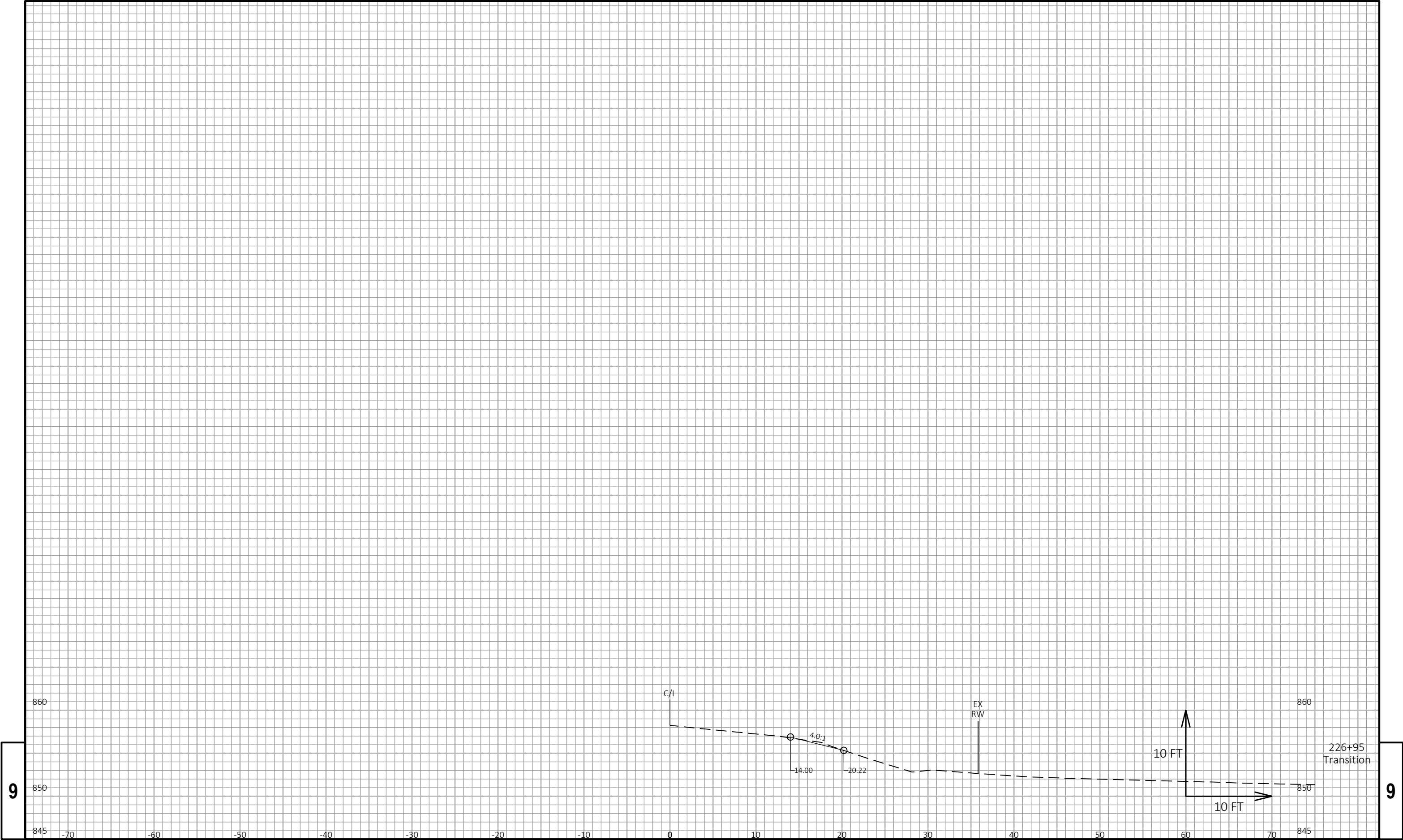
PROJECT NO: 7930-08-70	HWY: STH 108	COUNTY: LA CROSSE	CROSS SECTIONS: GUARDRAIL SECTION 1 RT - NORTH	SHEET	E
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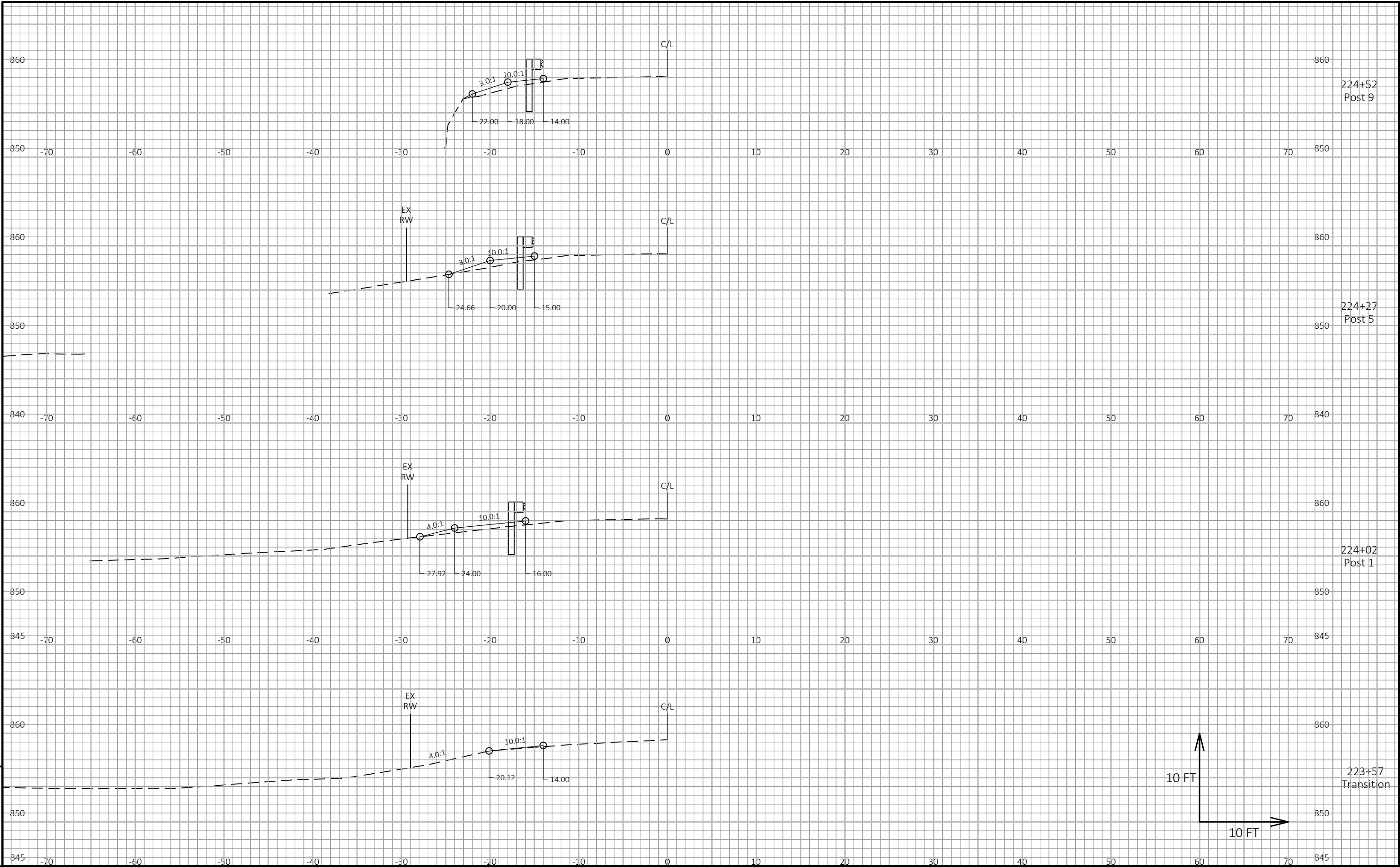


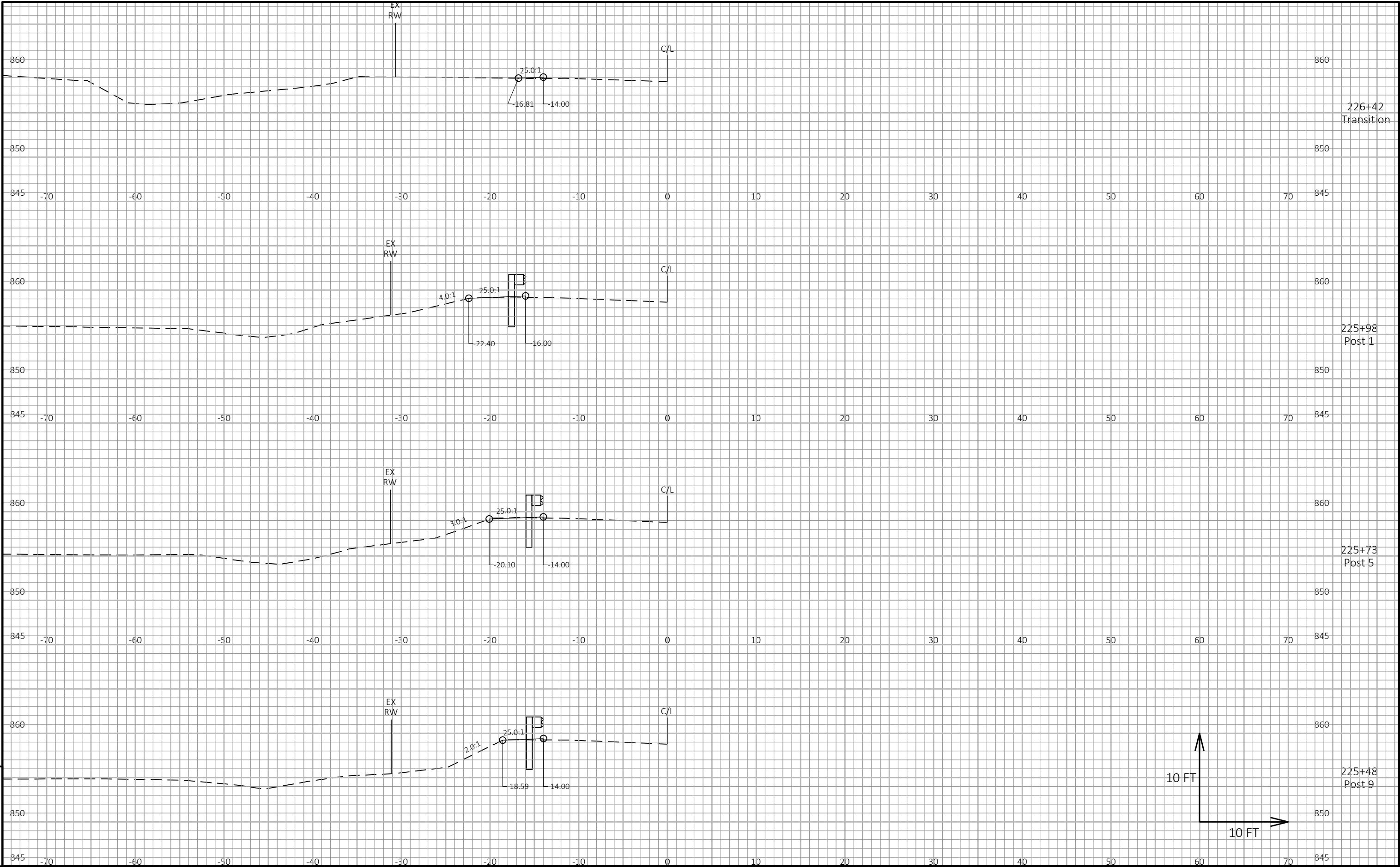
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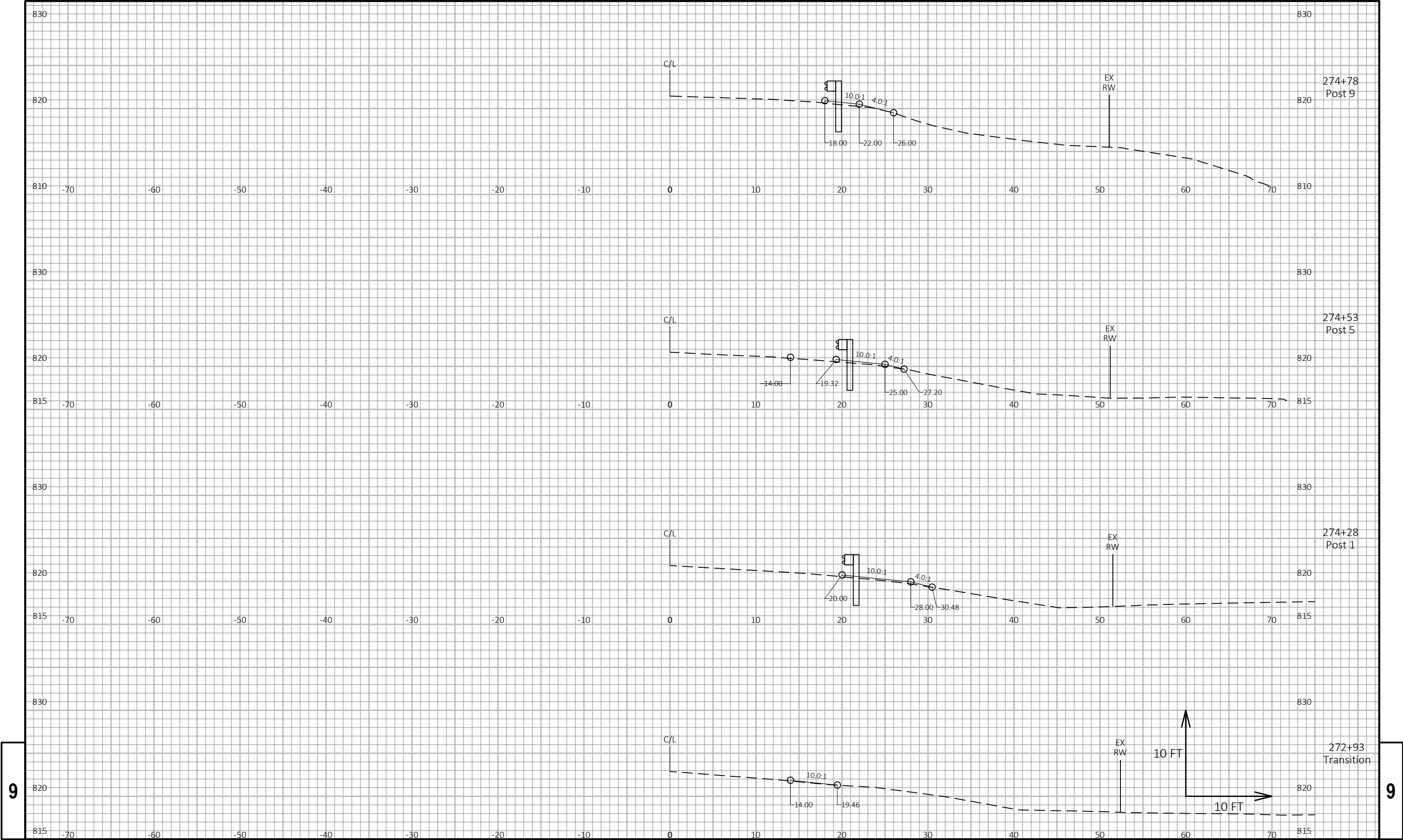
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PROJECT NO:	7930-08-70	HWY:	STH 108	COUNTY:	LA CROSSE	CROSS SECTIONS:	GUARDRAIL SECTION 2 RT - NORTH	SHEET	E
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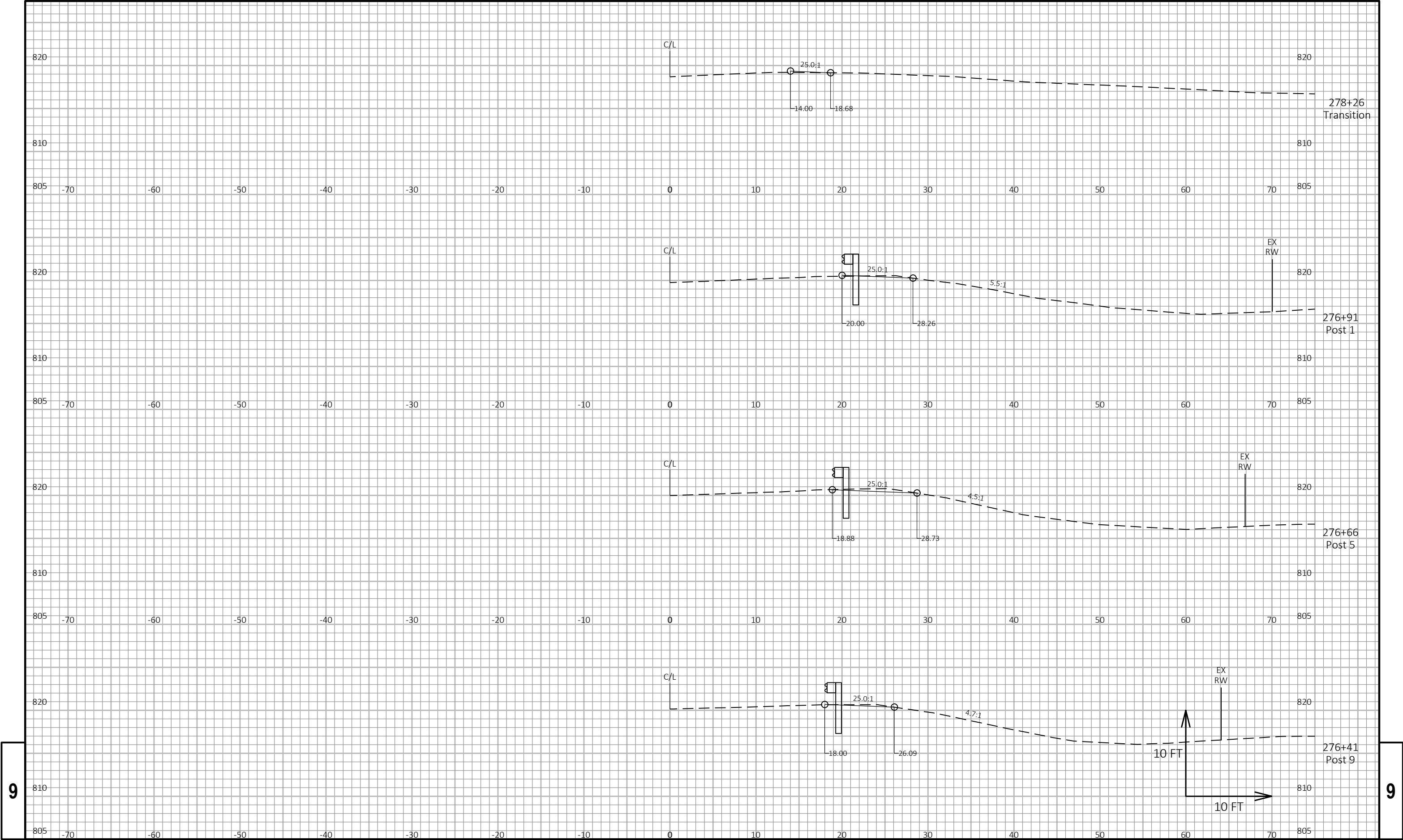




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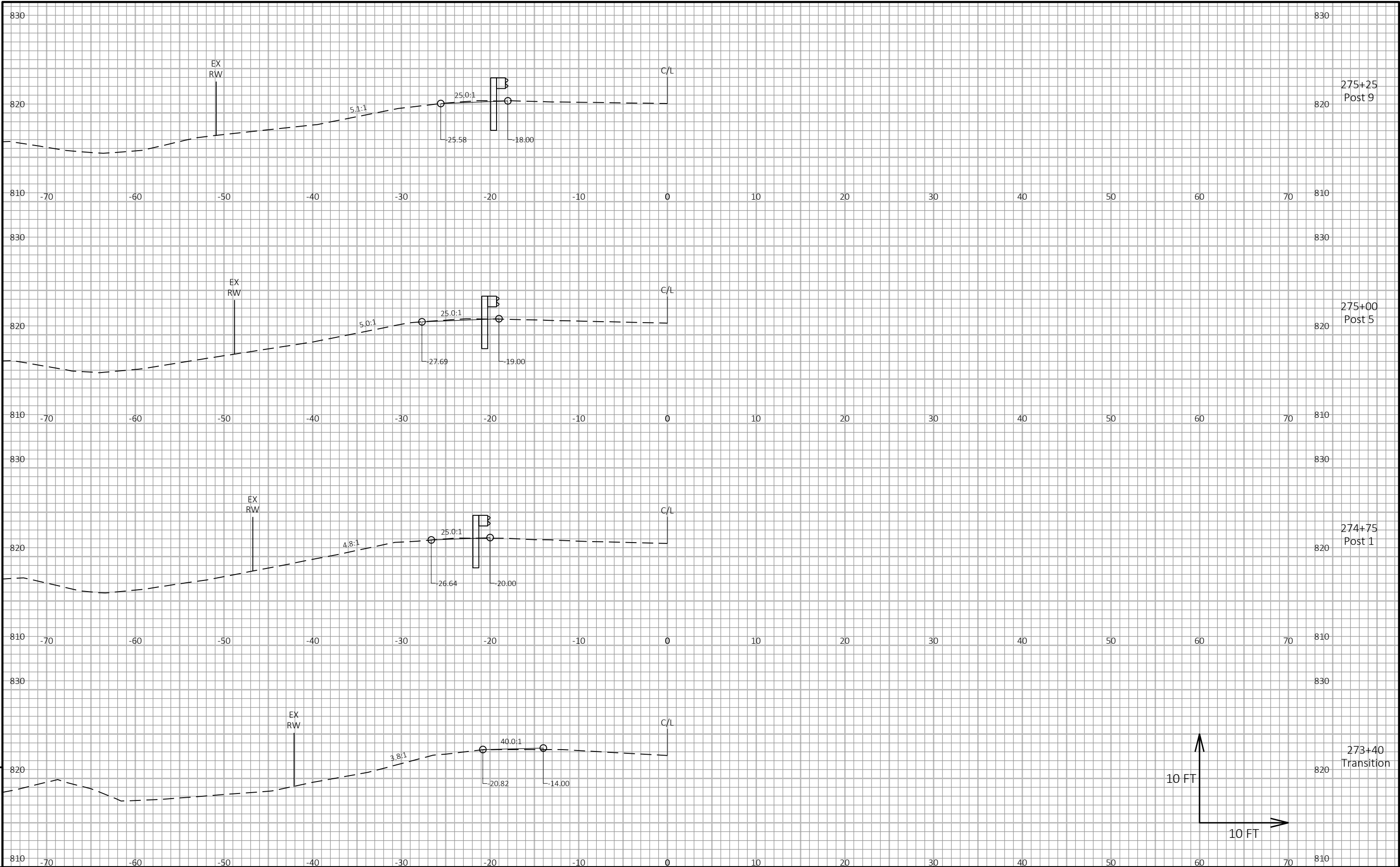
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PROJECT NO: 7930-08-70	HWY: STH 108	COUNTY: LA CROSSE	CROSS SECTIONS: GUARDRAIL SECTION 4 RT - SOUTH	SHEET	E
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9

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PROJECT NO: 7930-08-70

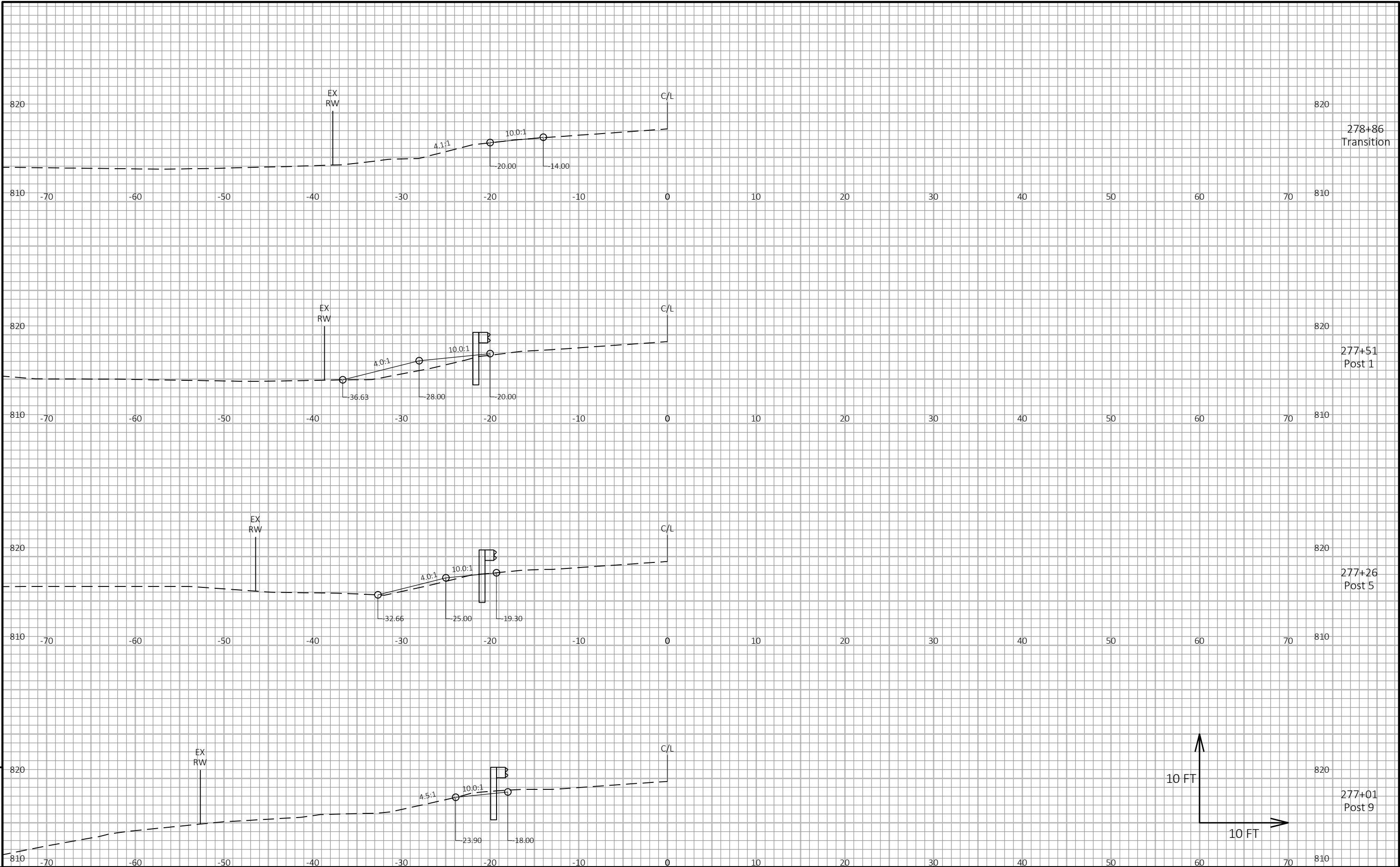
HWY: STH 108

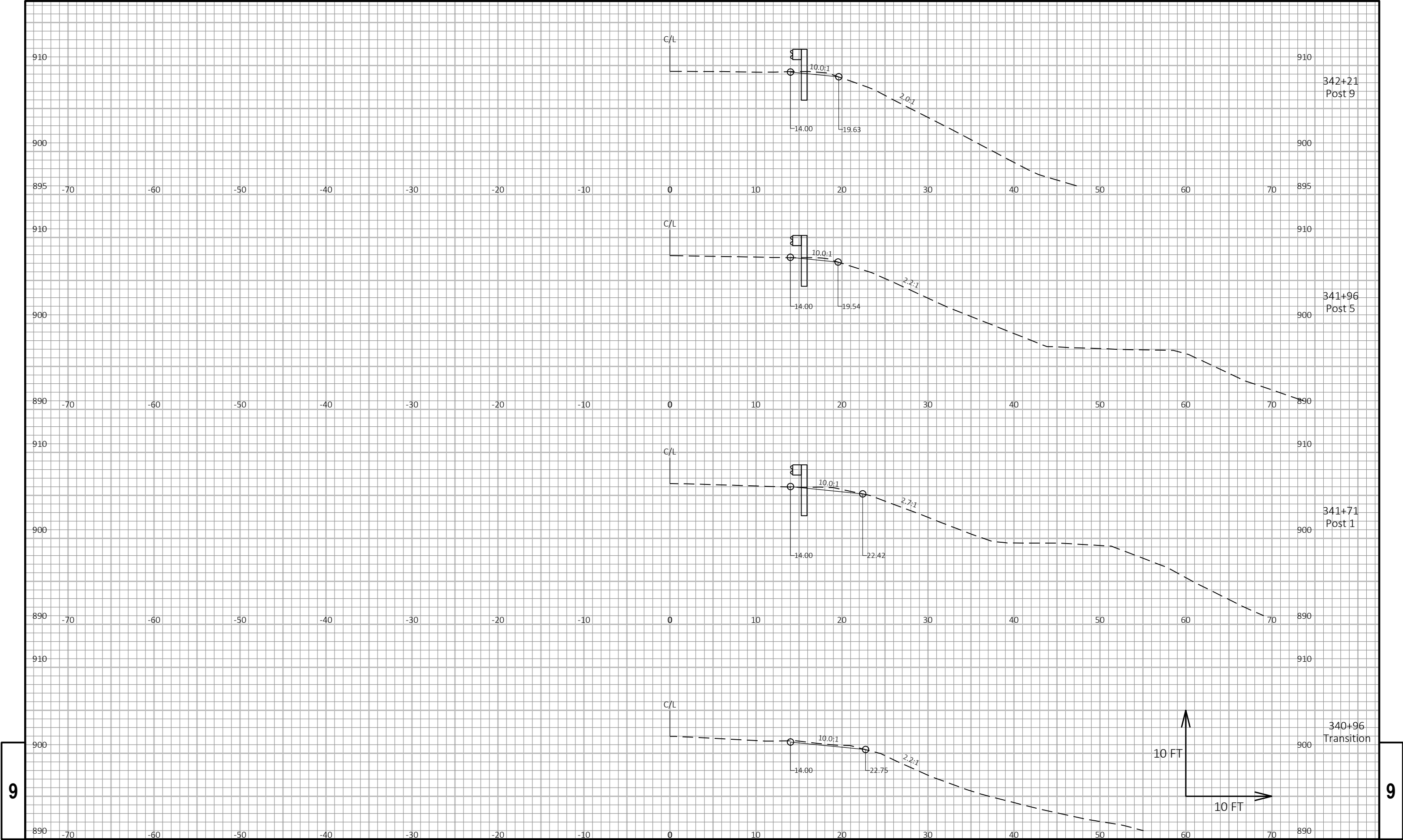
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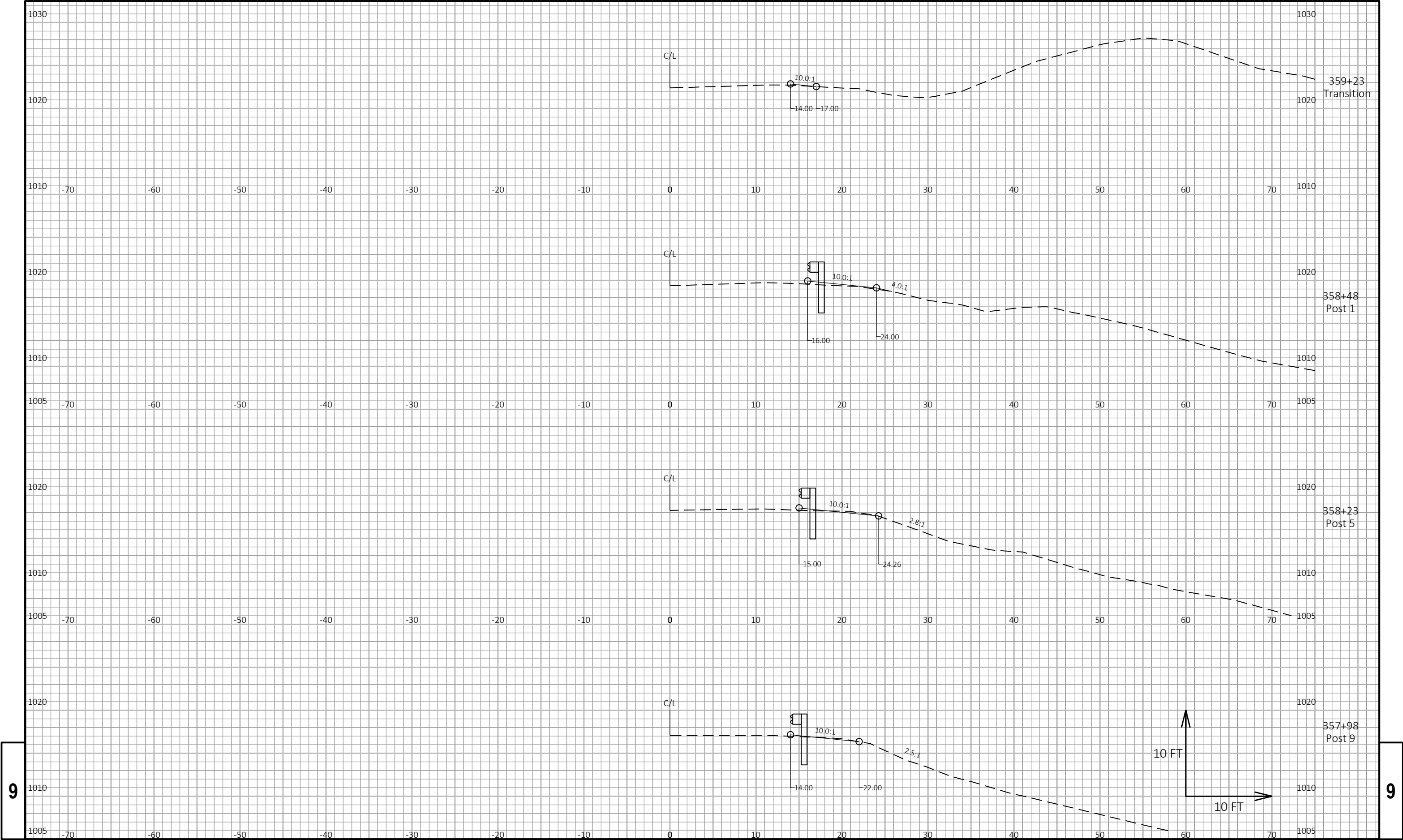
CROSS SECTIONS: GUARDRAIL SECTION 5 LT - SOUTH

SHEET

E

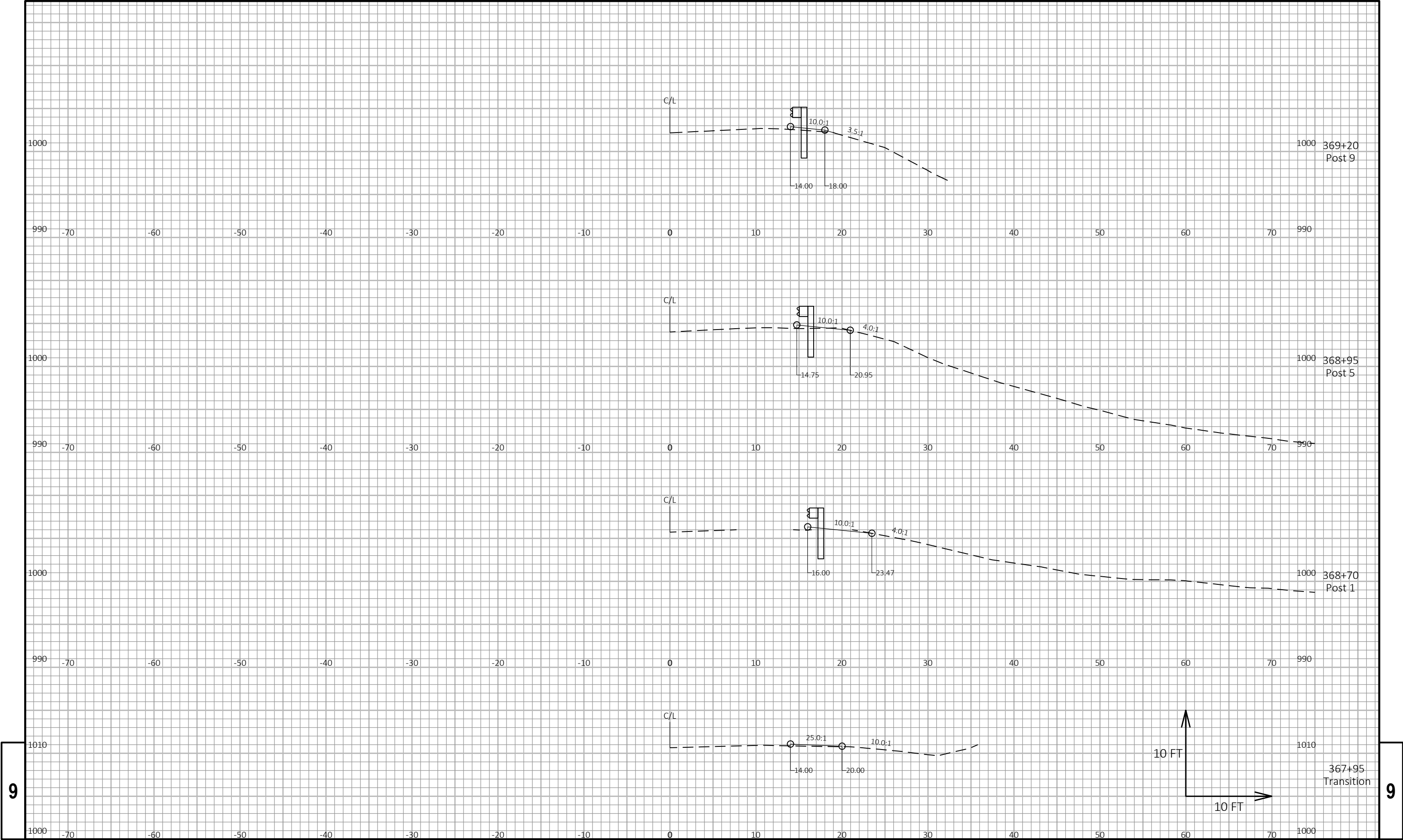


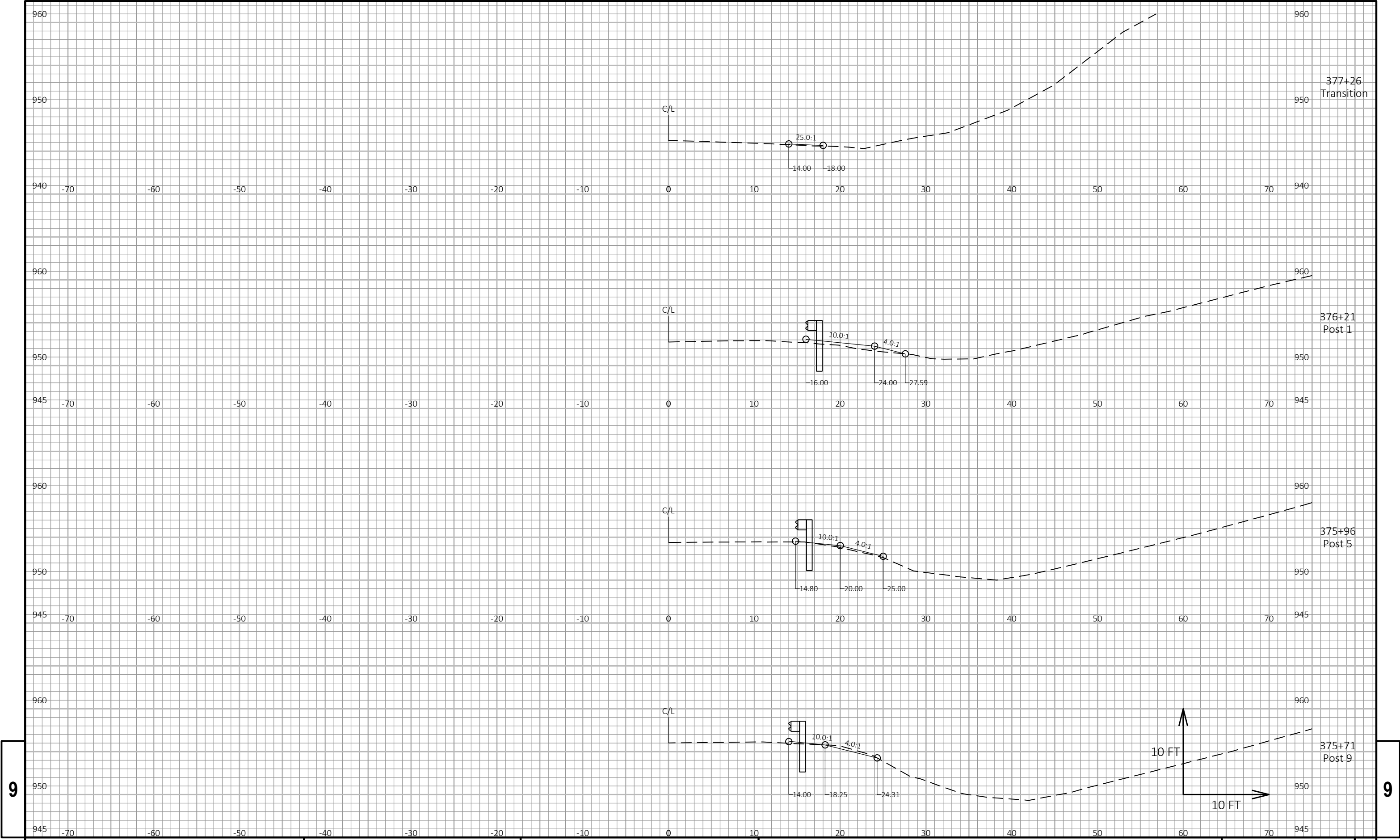




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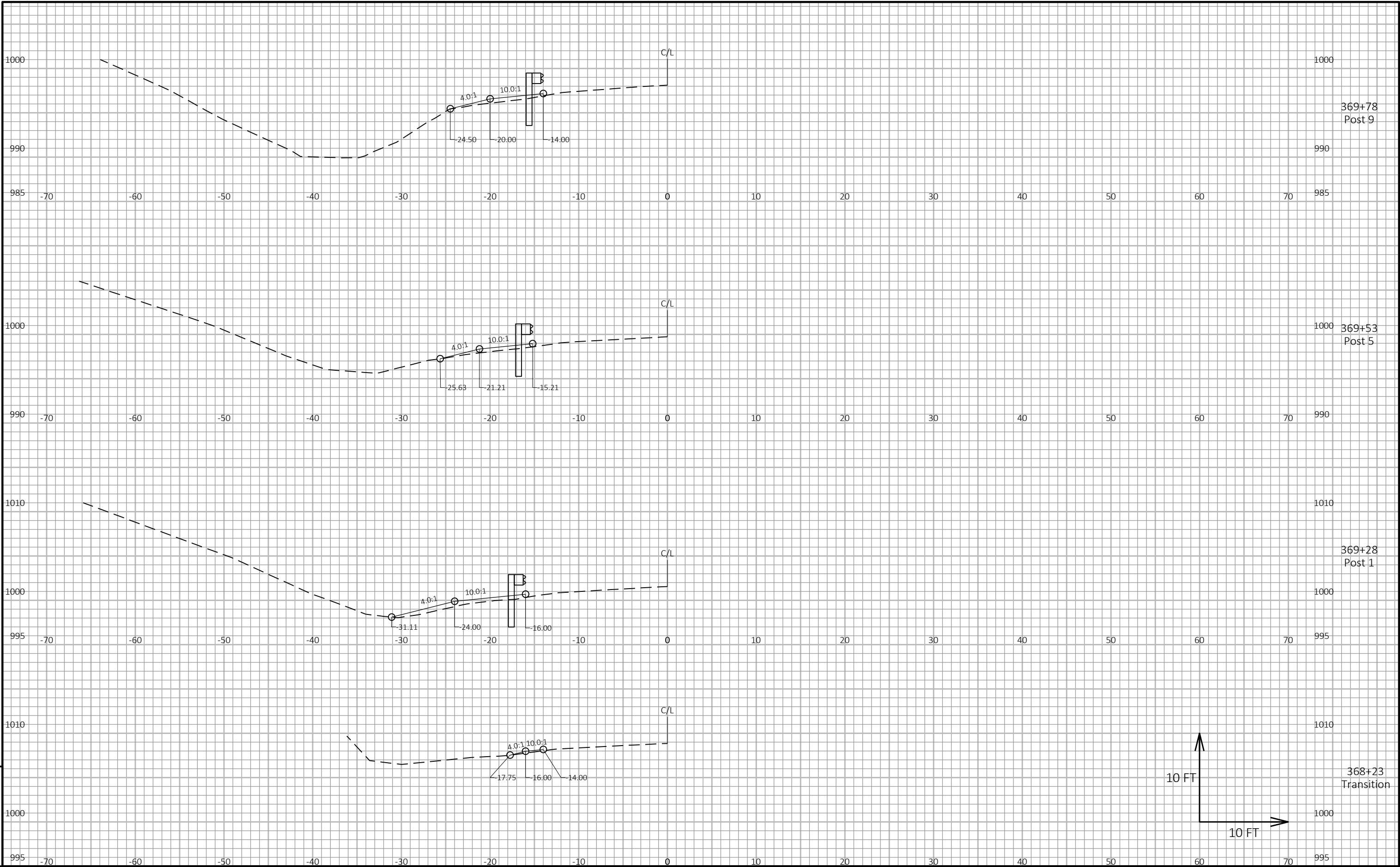
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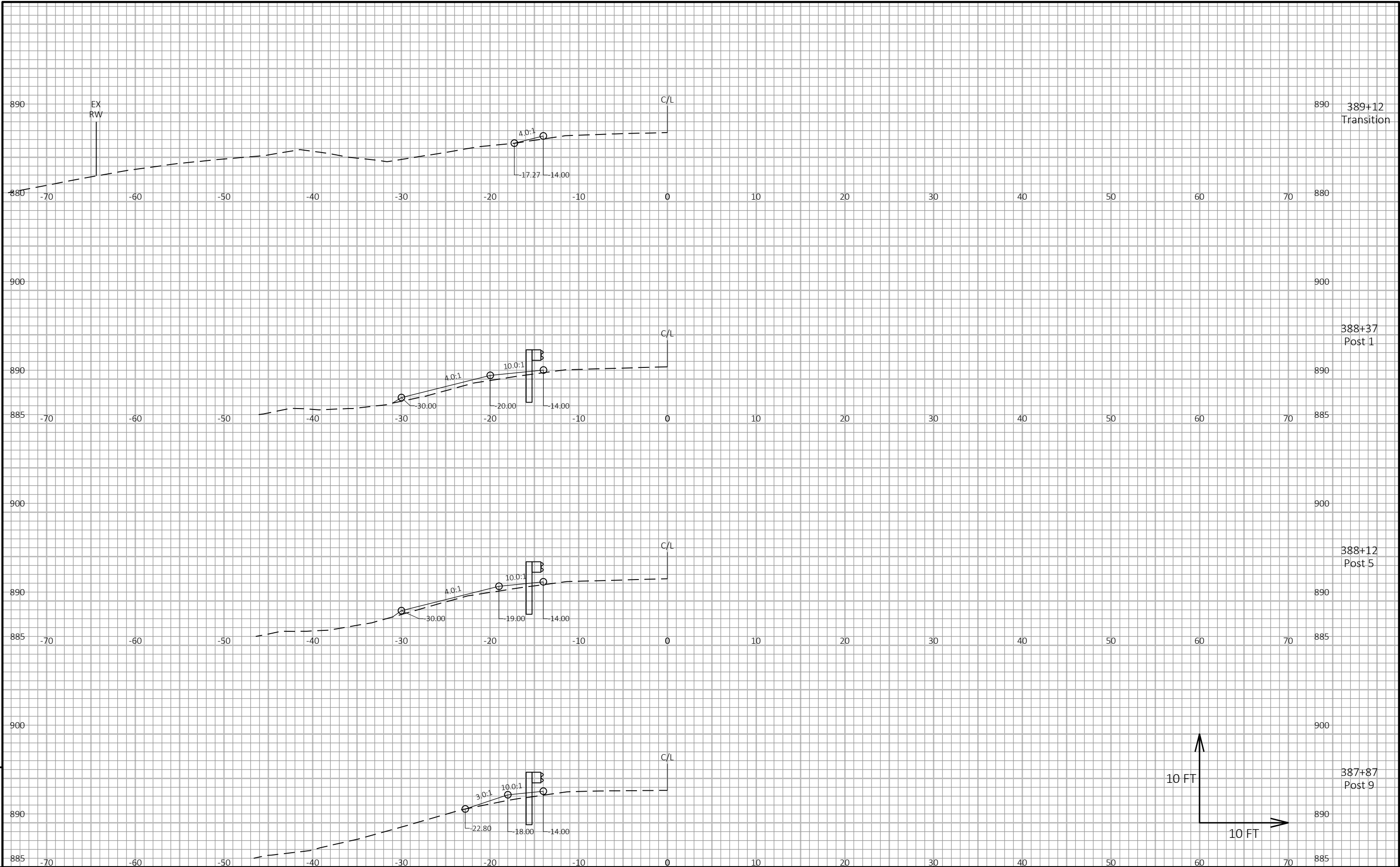


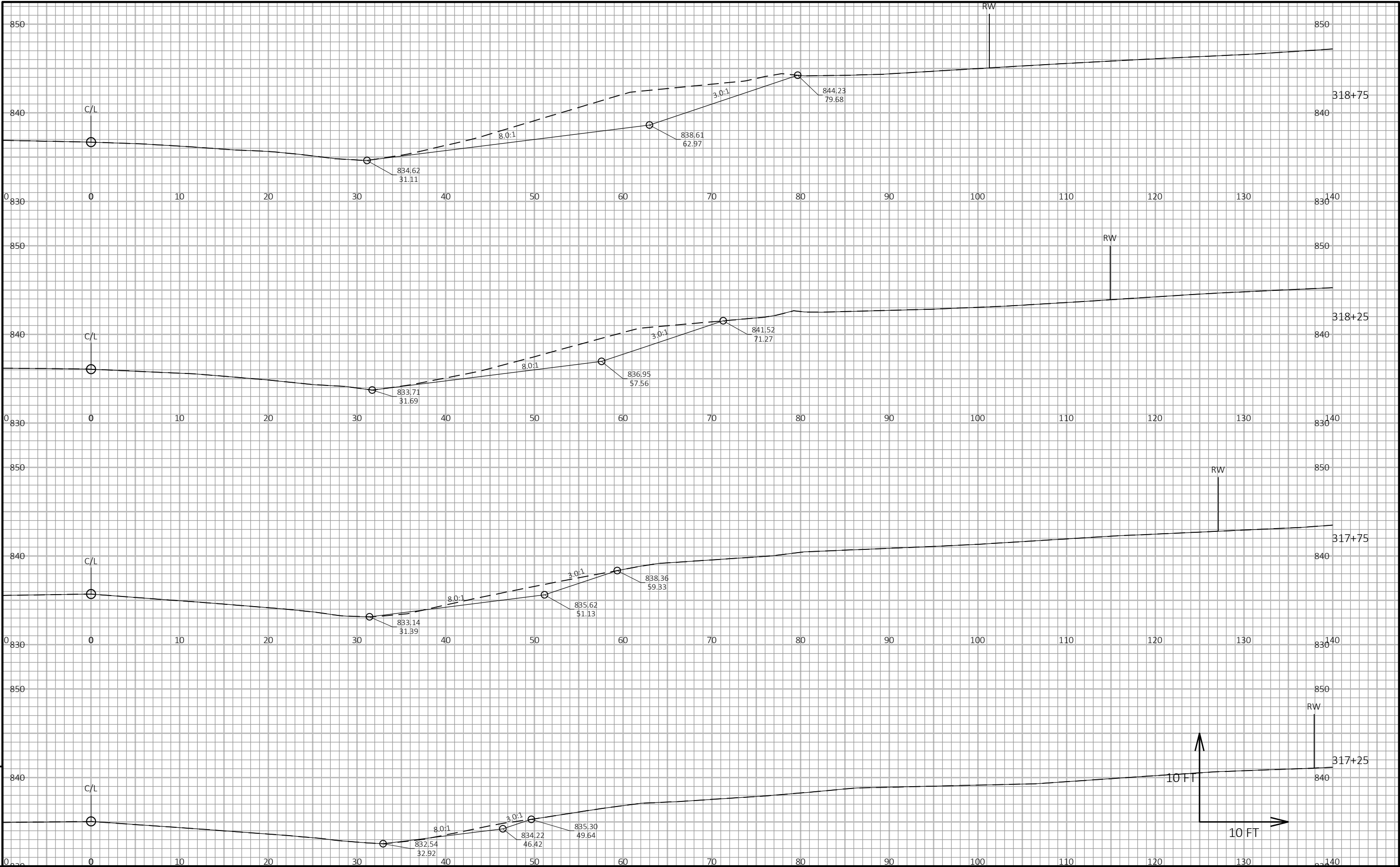


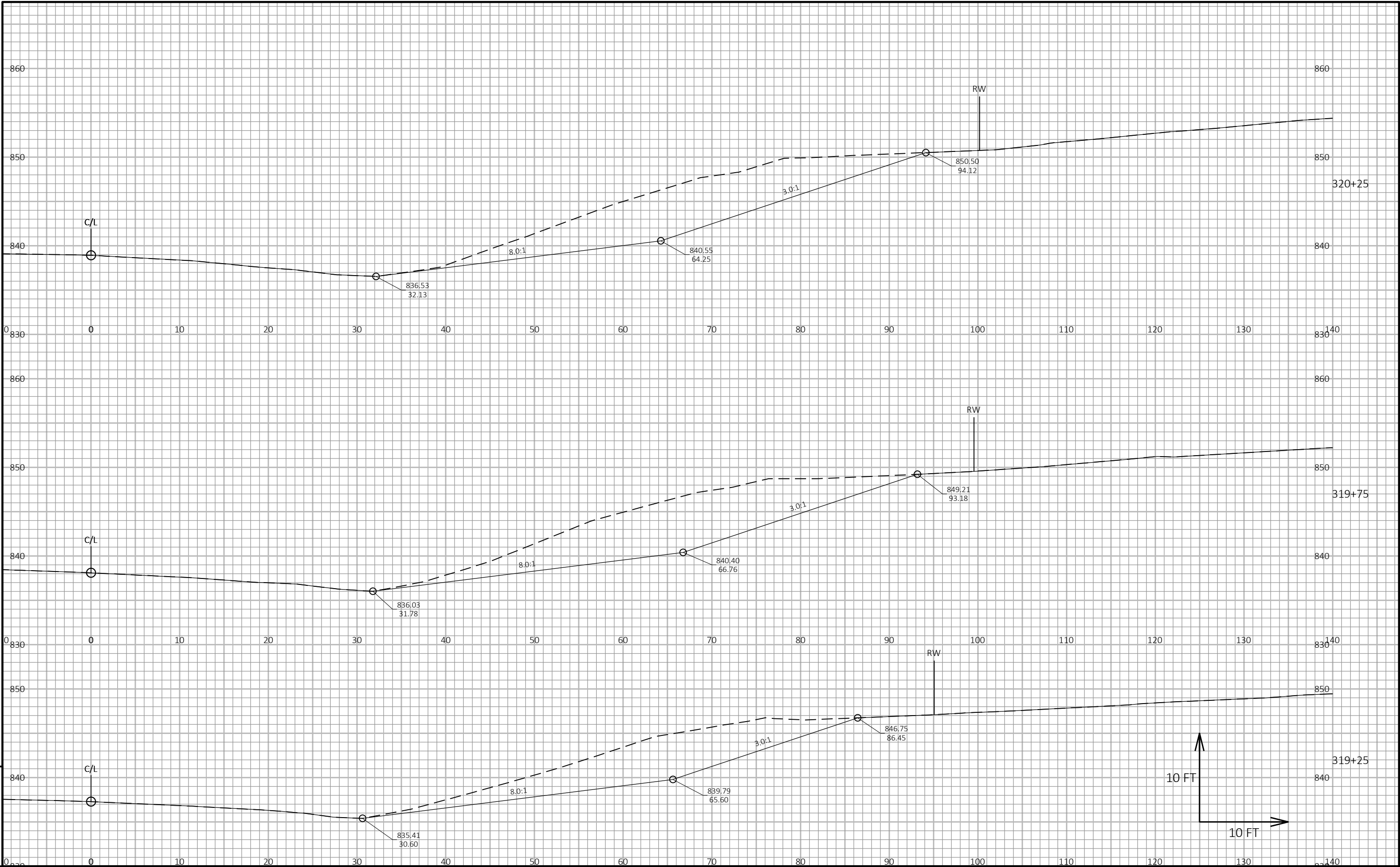
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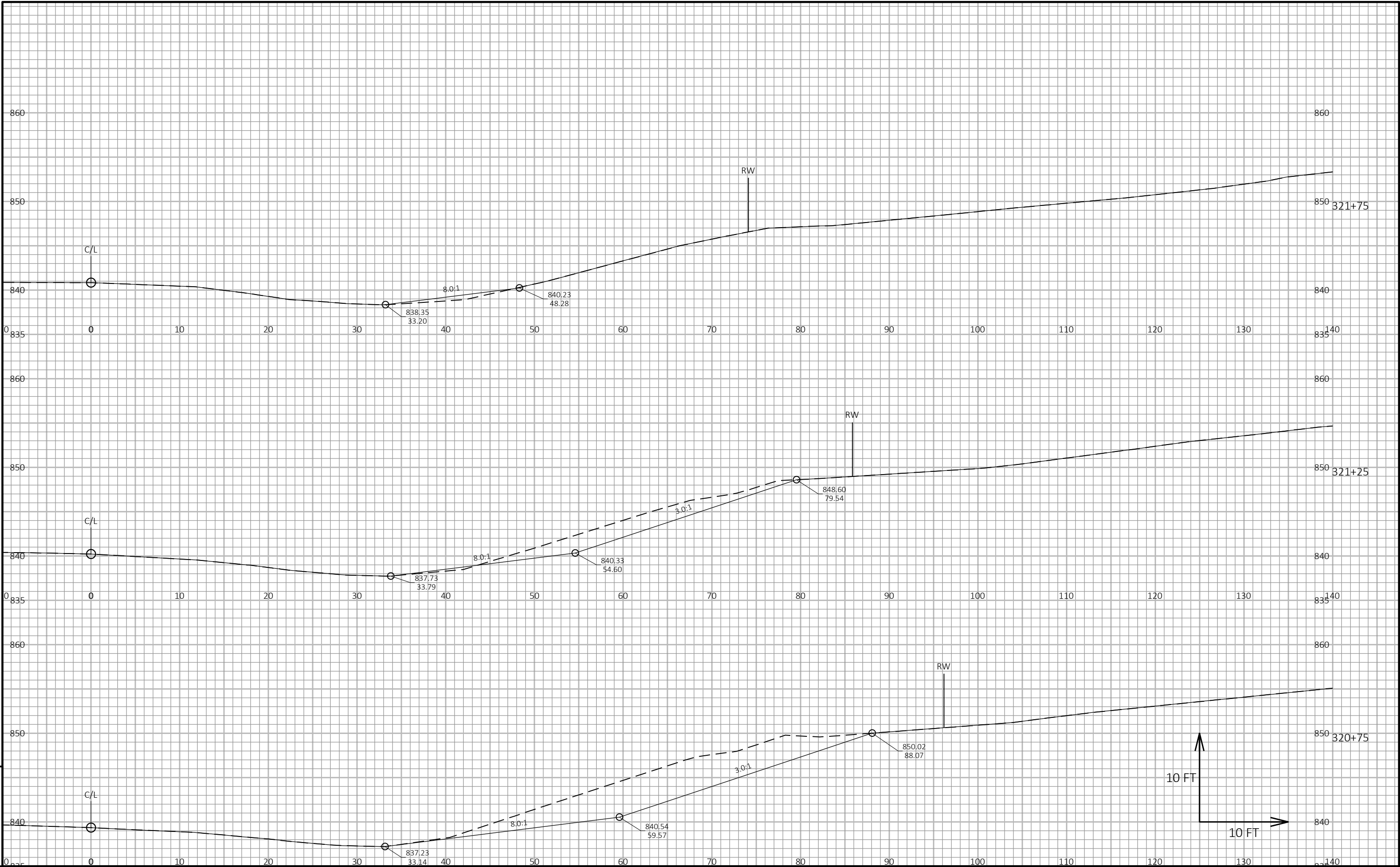
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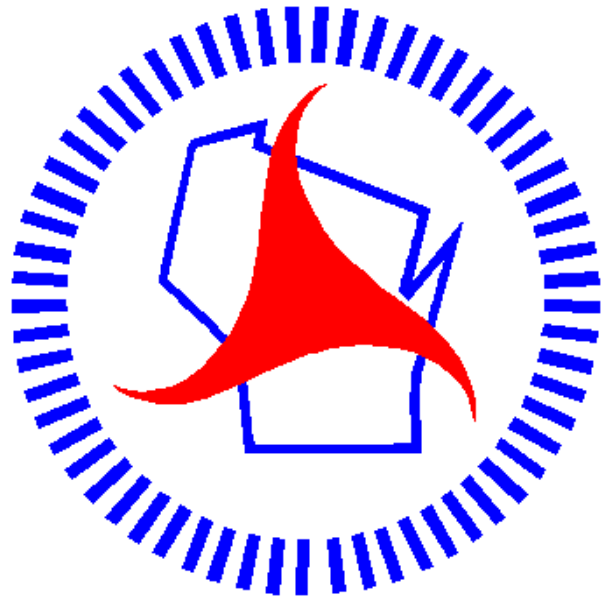








Notes



Wisconsin Department of Transportation

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