

WIS

PROJECT ID:
WITH: N/A

6694-04-71

COUNTY:

MARQUETTE

MARCH 2026

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control)
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 = 150



DESIGN DESIGNATION

A.A.D.T.	2026	=	1060
A.A.D.T.	2046	=	1070
D.H.V.		=	125
D.D.		=	52/48
T.		=	9.78%
DESIGN SPEED		=	60 MPH
ESALS		=	404,000

CONVENTIONAL SYMBOLS

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

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WESTFIELD - STH 22

7TH COURT TO CTH B

CTH E

MARQUETTE COUNTY

STATE PROJECT NUMBER

6694-04-71



STRUCTURE P-39-0903
TO REMAIN

BEGIN PROJECT
STA 16+03.22
X: 432,898.974
Y: 288,340.538

END PROJECT
STA 276+25.00

LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 4.928 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN
COORDINATE REFERENCE SYSTEM (WISCRS), MARQUETTE 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

6694-04-71

FEDERAL PROJECT

PROJECT

WISC 2026233

CONTRACT

1

ACCEPTED FOR
MARQUETTE COUNTY

Date 10/06/2025
(Signature and Title of Official)
Highway Commissioner

ORIGINAL PLANS PREPARED BY:

SA
STRAND
ASSOCIATES
955 WEST WISCONSIN DRIVE
MADISON, WISCONSIN 53715
(608) 251-4843



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	STRAND ASSOCIATES, INC.
Surveyor	STRAND ASSOCIATES, INC.
Designer	JASON SCHAEFFER
Project Manager	NC REGION
Regional Examiner	DAN ERVA
Regional Supervisor	

APPROVED FOR THE DEPARTMENT
DATE: 10/06/2025
(Signature)

E

2

UTILITIES CONTACTS

* ALLIANT ENERGY (ELECTRIC)

TESS FREDRICKSON
4902 NORTH BILTMORE LANE
MADISON, WI 53718
PHONE: (608) 458-3162
tessfredrickson@alliantenergy.com

* CHARTER (SPECTRUM) (COMMUNICATIONS)

PAUL GROVE
5024 HEFFRON STREET
STEVENS POINT, WI 54481
PHONE: (854) 683-0146
paul.grove@charter.com

* FRONTIER (COMMUNICATIONS)

CHRIS POLLACK
FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION LINE
521 4TH ST
WAUSAU, WI 54403
(715) 847-1240
christopher.pollack@ftr.com

* MARQUETTE-ADAMS TELEPHONE CO. (COMMUNICATIONS)

JOSH MACHKOVICH
113 NORTH OXFORD STREET
P.O. BOX 45
OXFORD,WI 53952
PHONE: (608) 586-7034
jmachkovich@maadtelco.com

* PIONEER POWER AND LIGHT CO (ELECTRIC)

DENNIS DAHLKE
P.O. BOX 309
WESTFIELD, WI 53964
PHONE: (608) 369-2421
pioneerpowerquote@gmail.com

* WE ENERGIES (GAS)

BEN KOSHAK
333 W EVERETT ST. A299
MILWAUKEE, WI 53203
PHONE: (414) 221-4151
ben.koshak@wecenergygroup.com

DESIGN CONSULTANT

TERA MEYER
STRAND ASSOCIATES, INC.
910 WEST WINGRA DR.
MADISON, WI 53715
PH: (608) 251-4843
tera.meyer@strand.com

WISCONSIN DNR LIAISON

MARTY DILLENBURG
NORTH CENTRAL REGION
625 E COUNTY ROAD Y, SUITE 70
OSHKOSH, WI 54901
PH: (920) 410-7428
marty.dillenburg@wisconsin.gov

MARQUETTE COUNTY

BRIAN TREBIATOWSKI
MARQUETTE COUNTY
328 UNDERWOOD AVENUE
MONTELLO, WI 53949
PH: (608) 297-3071
btrebiatowski@marquettecountywi.gov

WISDOT CONTACT

JASON SCHAEFFER
WISDOT NORTH CENTRAL REGION
1681 2ND AVENUE SOUTH
WISCONSIN RAPIDS, WI 54495
PH: (715) 421-7309
jason.schaeffer@dot.wi.gov

GENERAL NOTES

THE CENTERLINE OF CTH E IS APPROXIMATELY THE MAINLINE REFERENCE LINE.

WHEN THE QUANTITY OF BASE AGGREGATE DENSE IS MEASURED FOR PAYMENT IN TONS, THE DEPTH OR THICKNESS AS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND UPON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

EXACT LOCATIONS AND WIDTHS OF DRIVEWAYS AND PRIVATE FIELD ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN ON THE PLANS. COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THAT AREA.

ALL EXISTING SIGNS SHALL REMAIN IN PLACE UNLESS THE ENGINEER APPROVES THEIR REMOVAL.

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 OR TURNING LANE.

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

THE DETOUR FOR CTH E WILL BE PLACED AND MAINTAINED BY MARQUETTE COUNTY. COORDINATE WITH MARQUETTE COUNTY 14 DAYS IN ADVANCE OF WORK TO INSTALL DETOUR.

2

DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

*DENOTES DIGGERS HOTLINE MEMBER

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 41.12 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.57 ACRES

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS (INCLUDES WETLAND DETAILS)
GUARDRAIL DETAILS
EROSION CONTROL
DETOUR ROUTE ADVANCED WARNING
DETOUR ROUTE OVERVIEW
DETOUR ROUTE

PROJECT NO: 6694-04-71

HWY: CTH E

COUNTY: MARQUETTE

GENERAL NOTES

SHEET 2

E

FILE NAME : S:\MAD\3300--3399\3359\002\DRAWINGS\CAD\CIVIL 3D\SHEETS\020101-GN.DWG
LAYOUT NAME - 020101-gn

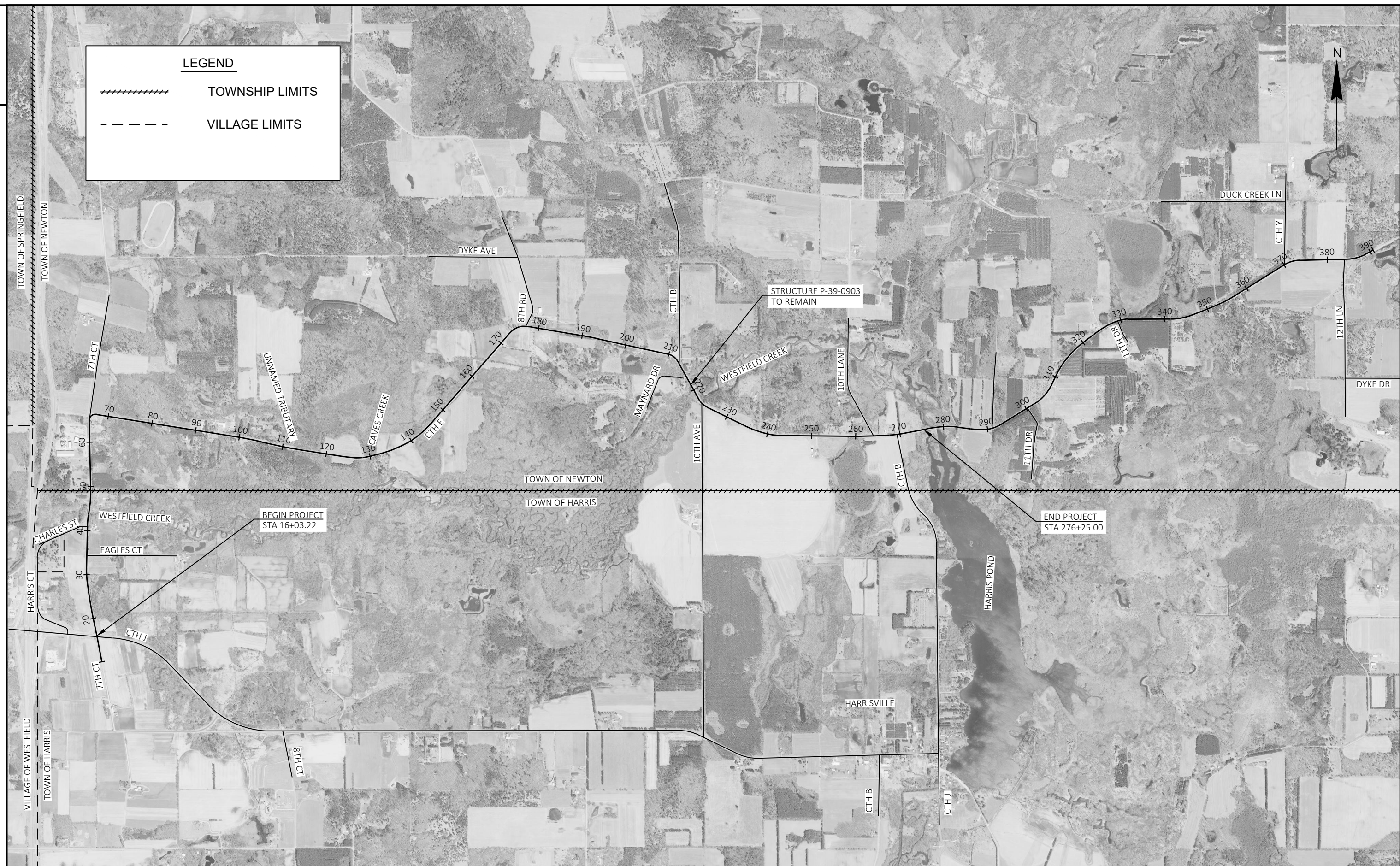
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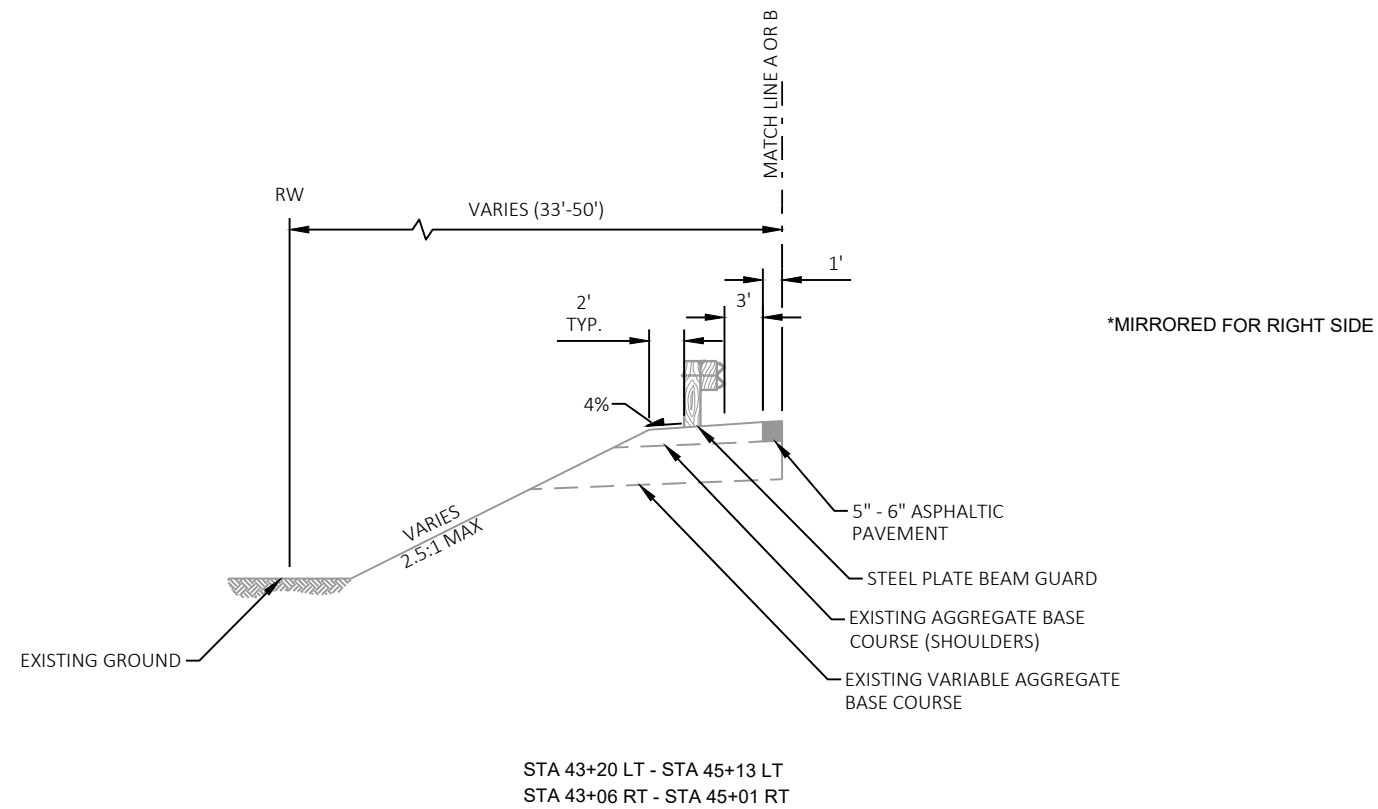
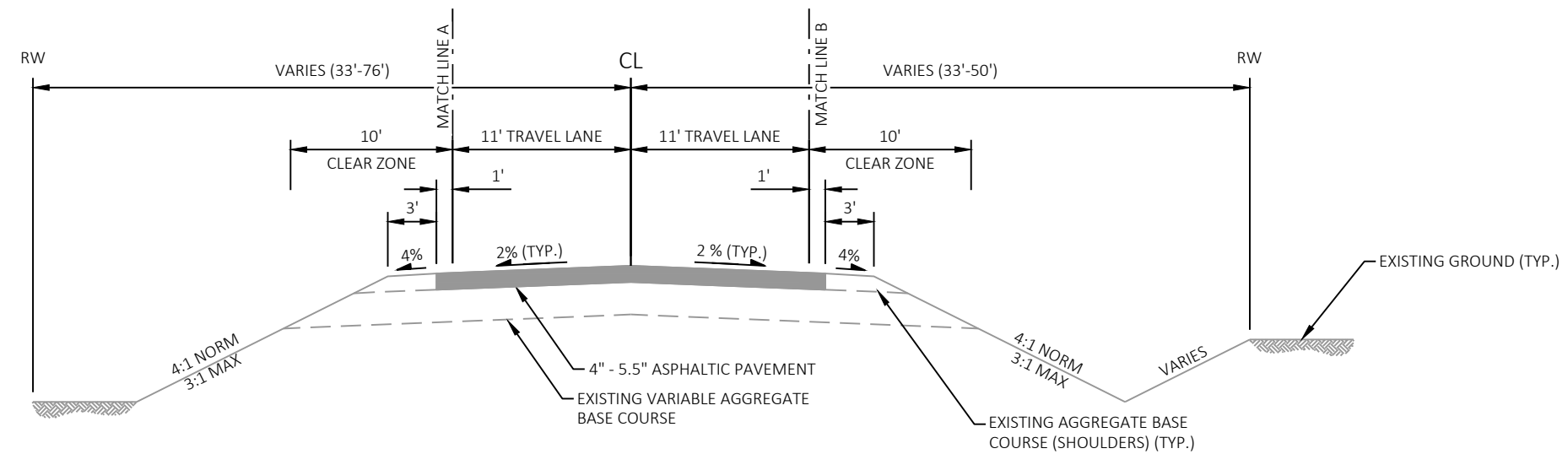
PLOT BY : STANIOCH, DREW

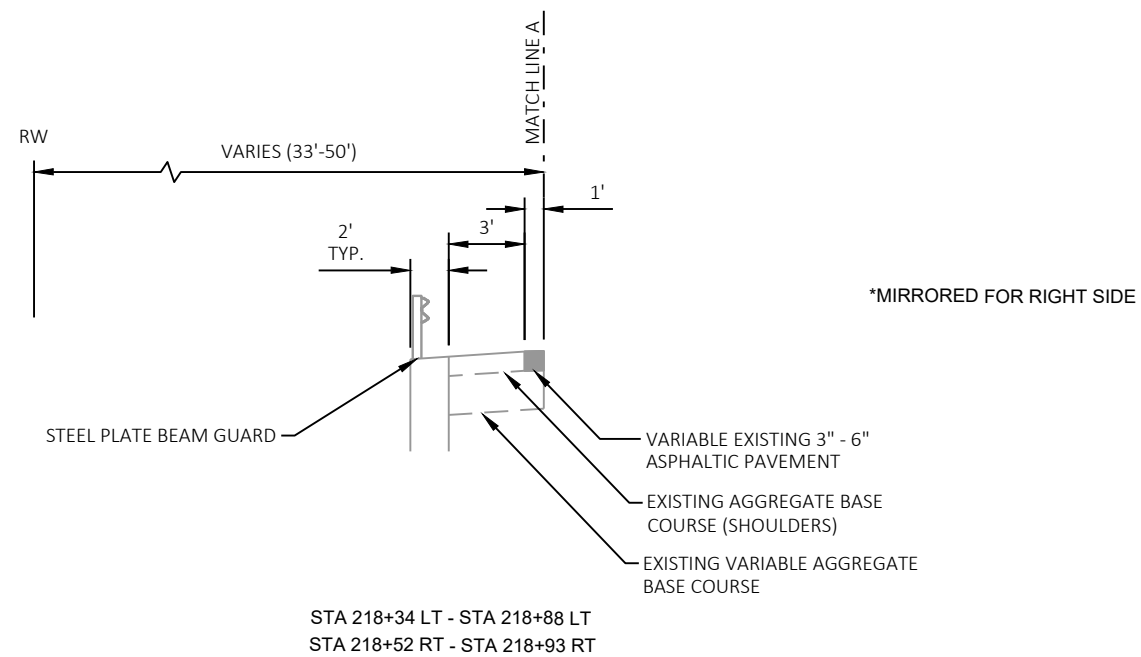
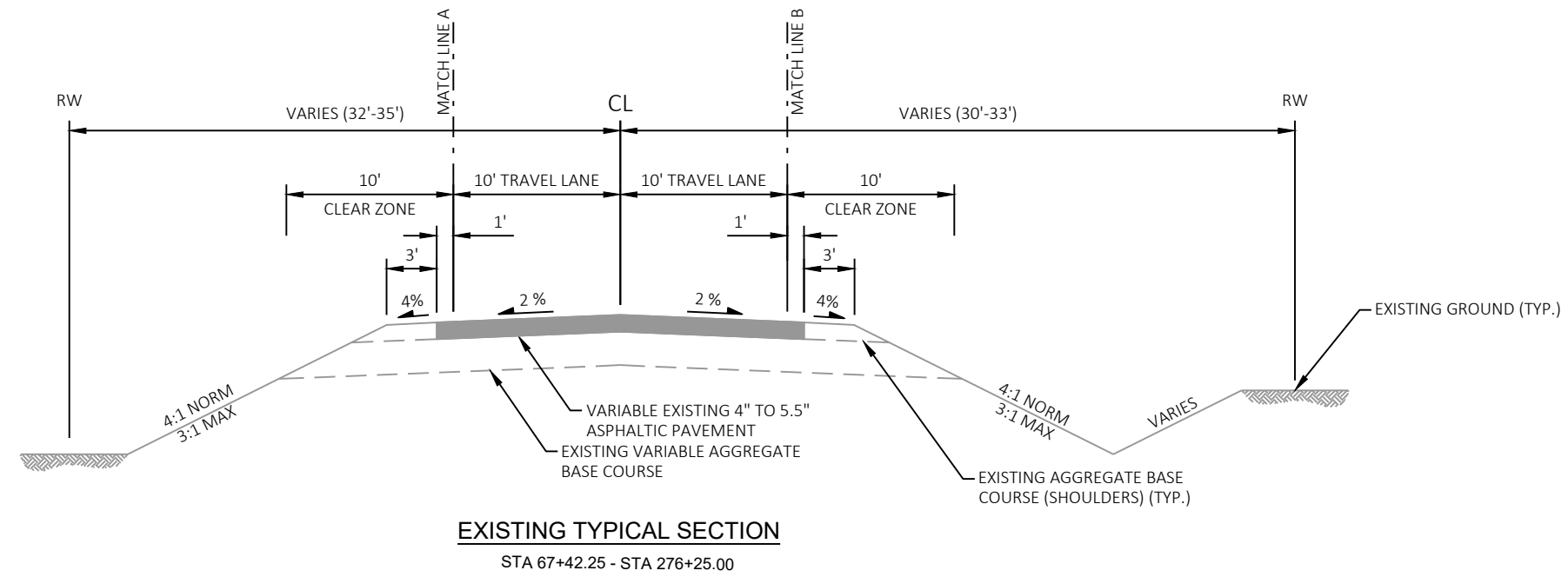
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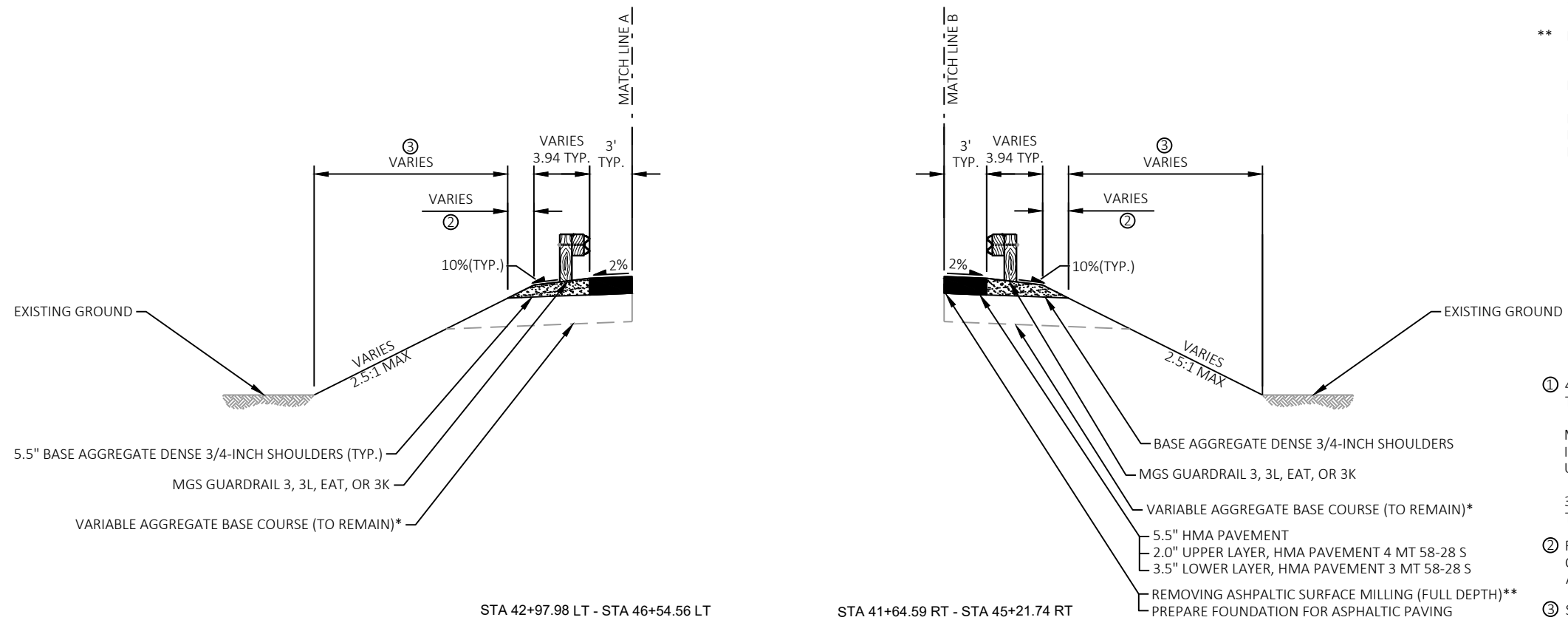
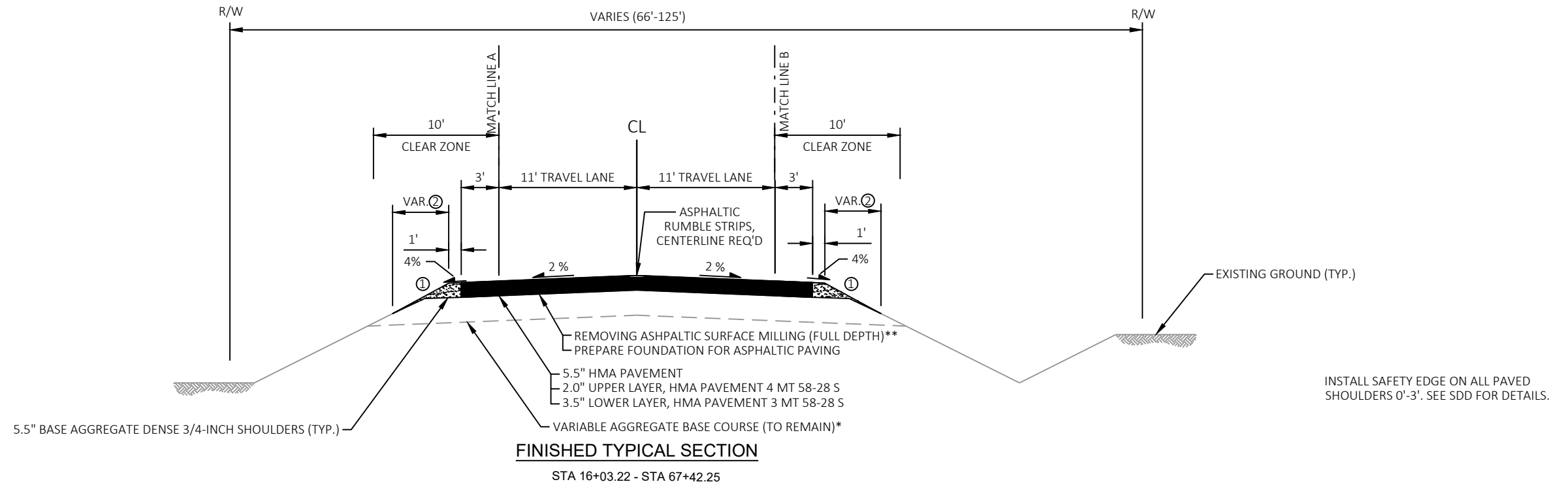
PLOT SCALE : 1" = 1'

WISDOT/CADDs SHEET 42









* SPOT EXCAVATION BELOW SUBGRADE (EBS) AS NECESSARY

** MAINTAIN EXISTING PROFILE THROUGHOUT CORRIDOR. IF LESS THAN 5.5" EXISTING ASPHALT PRESENT, REMOVE A TOTAL OF 5.5" OF MATERIAL TO FACILITATE 5.5" OF NEW HMA PAVEMENT WHILE MAINTAINING EXISTING PROFILE. ANTICIPATED REMOVAL DEPTH IS 5.5".

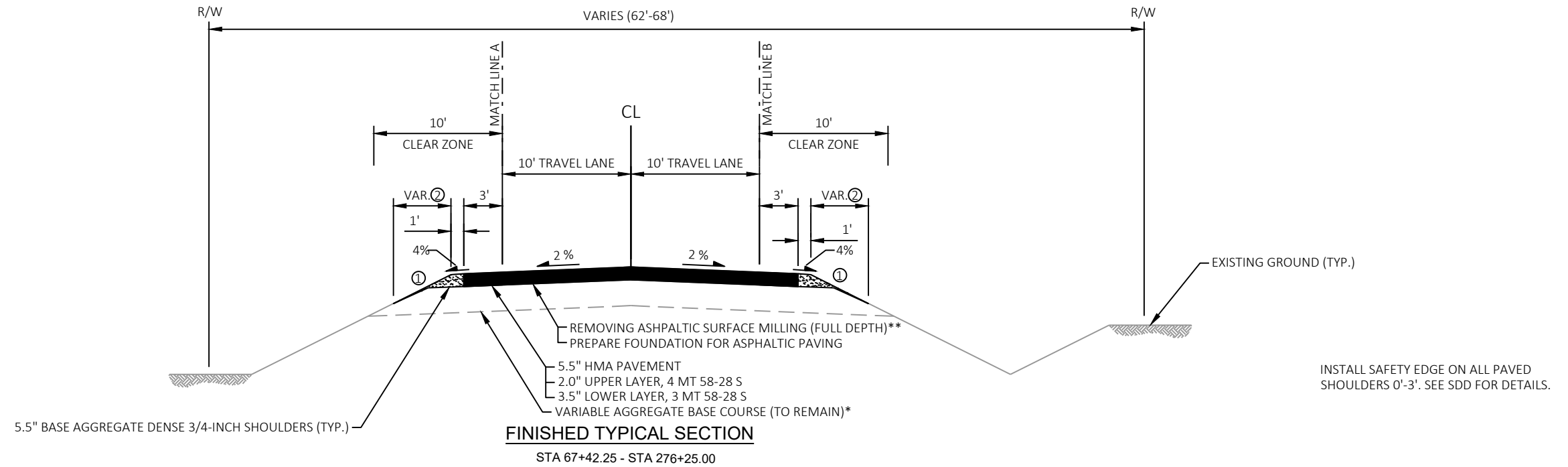
① 4:1 - WHEN EXISTING SIDE SLOPE IS FLATTER THAN OR EQUAL TO 4:1

MATCH EXISTING - WHEN EXISTING SIDE SLOPE IS STEEPER THAN 4:1, BUT FLATTER THAN 3:1 UNLESS OTHERWISE INDICATED

3:1 - WHEN EXISTING SIDE SLOPE IS STEEPER THAN 3:1 UNLESS OTHERWISE INDICATED.

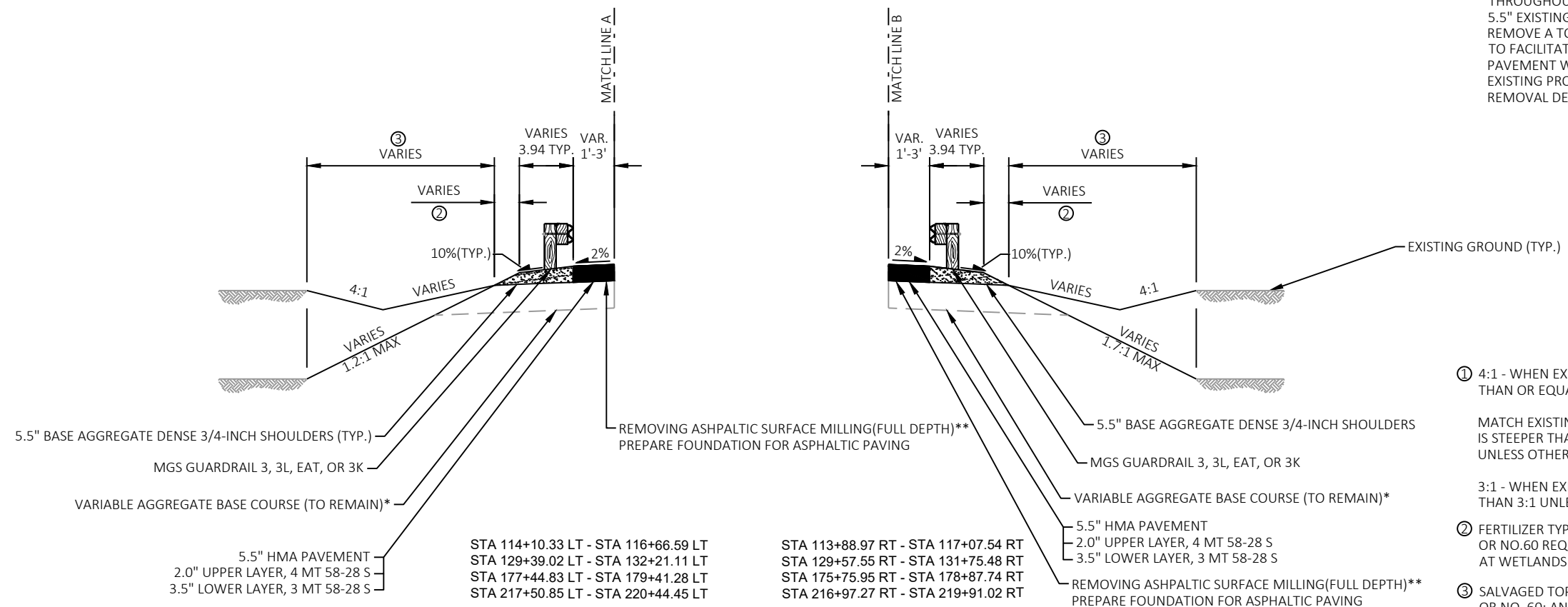
② FERTILIZER TYPE B, SEEDING MIXTURE NO. 30 OR NO. 60 REQ'D. USE SEEDING MIXTURE NO. 60 AT WETLANDS.

③ SALVAGED TOPSOIL, SEEDING MIXTURE NO. 30 OR NO. 60; AND EITHER MULCHING, EROSION MAT CLASS I TYPE A, OR EROSION MAT CLASS III TYPE D AND SOIL STABILIZER TYPE A. USE MULCHING UNLESS NOTED IN THE EROSION CONTROL SHEETS. USE SEEDING MIXTURE NO. 60 AT WETLANDS.



* SPOT EXCAVATION BELOW SUBGRADE (EBS) AS NECESSARY

** MAINTAIN EXISTING PROFILE THROUGHOUT CORRIDOR. IF LESS THAN 5.5" EXISTING ASPHALT PRESENT, REMOVE A TOTAL OF 5.5" OF MATERIAL TO FACILITATE 5.5" OF NEW HMA PAVEMENT WHILE MAINTAINING EXISTING PROFILE. ANTICIPATED REMOVAL DEPTH IS 5.5".



① 4:1 - WHEN EXISTING SIDE SLOPE IS FLATTER THAN OR EQUAL TO 4:1

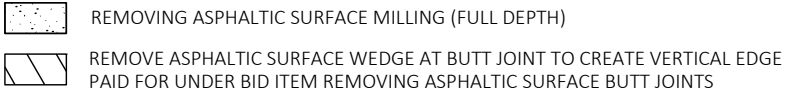
MATCH EXISTING - WHEN EXISTING SIDE SLOPE IS STEEPER THAN 4:1, BUT FLATTER THAN 3:1 UNLESS OTHERWISE INDICATED

3:1 - WHEN EXISTING SIDE SLOPE IS STEEPER THAN 3:1 UNLESS OTHERWISE INDICATED.

② FERTILIZER TYPE B, SEEDING MIXTURE NO. 30 OR NO.60 REQ'D. USE SEEDING MIXTURE NO. 60 AT WETLANDS.

③ SALVAGED TOPSOIL, SEEDING MIXTURE NO. 30 OR NO. 60; AND EITHER MULCHING, EROSION MAT CLASS I TYPE A, OR EROSION MAT CLASS III TYPE D AND SOIL STABILIZER TYPE A. USE MULCHING UNLESS NOTED IN THE EROSION CONTROL SHEETS. USE SEEDING MIXTURE NO. 60 AT WETLANDS.

2



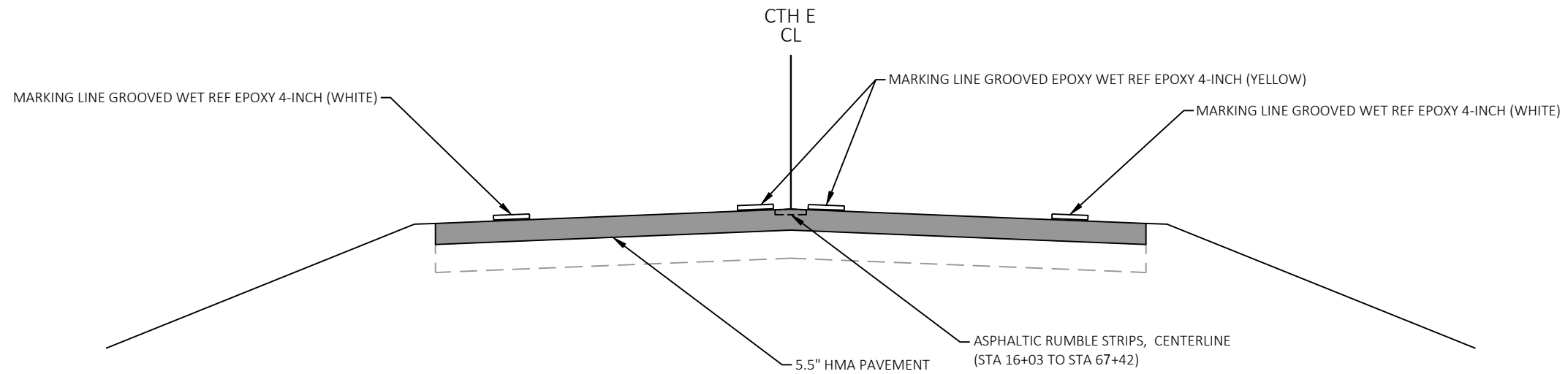
BOP: STA 15+74.29, 93.76' RT - STA 15+86.54, 97.69' RT
BOP: STA 16+55.13, 166.74' LT - STA 16+58.24, 165.79' LT
BOP: STA 15+74.29, 93.76' RT - STA 16+55.13, 166.74' LT
SIDEROAD: 8TH ROAD
EOP: (STA 276+25.00)

ASPHALT AND AGGREGATE DRIVEWAY DETAIL

8

WISDOT/CADDS SHEET 42

1001

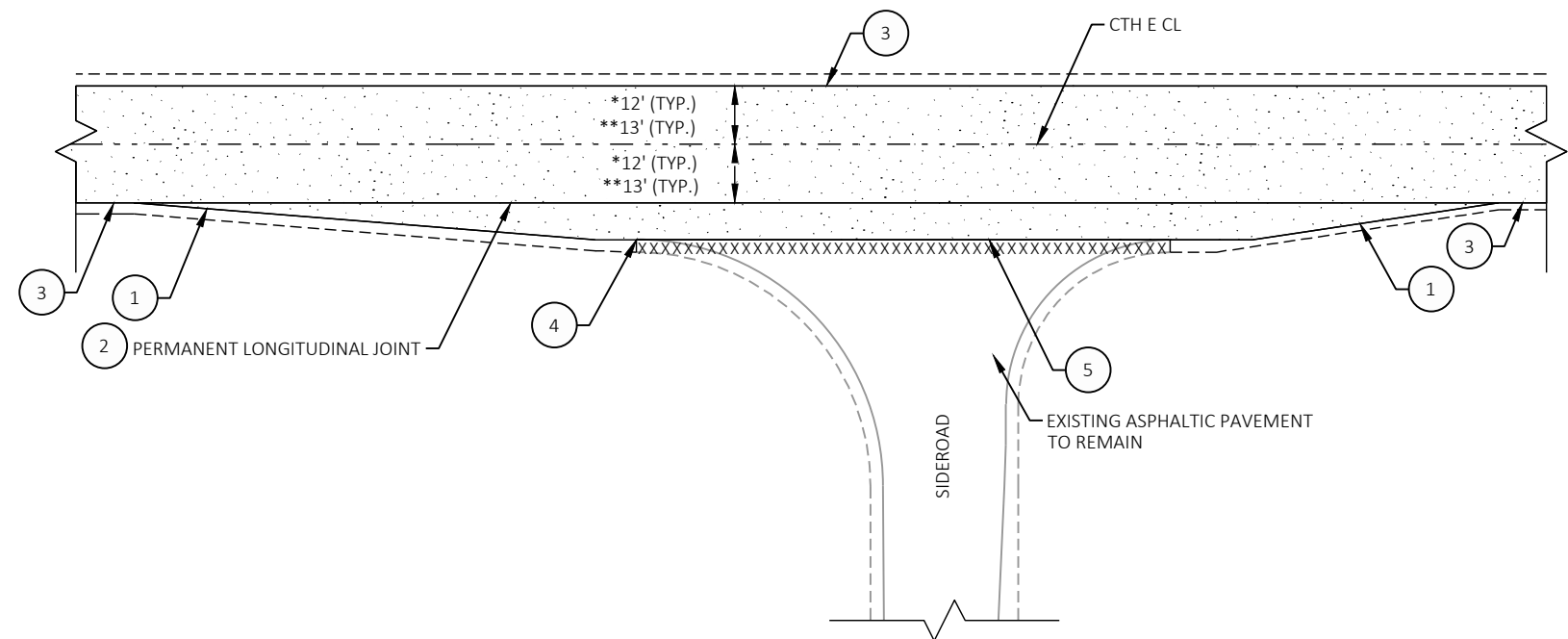


*MARKING LINE GROOVED WET REF EPOXY 4-INCH (YELLOW) TO BE INSTALLED AFTER BOTH LANES ARE PAVED WITH FINAL SURFACE HMA PAVEMENT AND IF IN THE APPLICABLE STATION RANGE SHOWN, AFTER ASPHALTIC RUMBLE STRIPS, CENTERLINE HAVE BEEN INSTALLED.

NOTE: ALL NEW CENTERLINE PASSING / NO PASSING PAVEMENT MARKING (BEGIN/END) LOCATIONS TO MATCH EXISTING PASSING / NO PASSING MARKING (BEGIN/END) LOCATIONS.

MARKING LINE APPLICATION DETAIL

-  REMOVING ASPHALTIC SURFACE MILLING (FULL DEPTH), PREPARE FOUNDATION FOR ASPHALTIC PAVING, 5.5" HMA PAVEMENT SEE TYPICAL SECTION FOR MORE INFORMATION.
-  MATCH EXISTING TAPER RATES TYING INTO PROPOSED EDGE OF WIDENED ASPHALTIC SHOULDER.
-  HMA LONGITUDINAL JOINTS TO BE USED AT ALL INTERSECTIONS. SEE S.D.D. HMA LONGITUDINAL JOINTS.
-  SEE PROPOSED TYPICAL SECTIONS FOR ASPHALTIC SURFACE MILLING (FULL DEPTH) AND PAVING WIDTHS.
-  REMOVAL LIMITS ON MAINLINE EXTEND TO MAINLINE INTERSECTION WITH SIDEROAD END OF RADIUS.
-  SAWING ASPHALT REQUIRED AT SIDEROADS, UNLESS NOTED OTHERWISE ON PLAN DETAIL SHEETS.

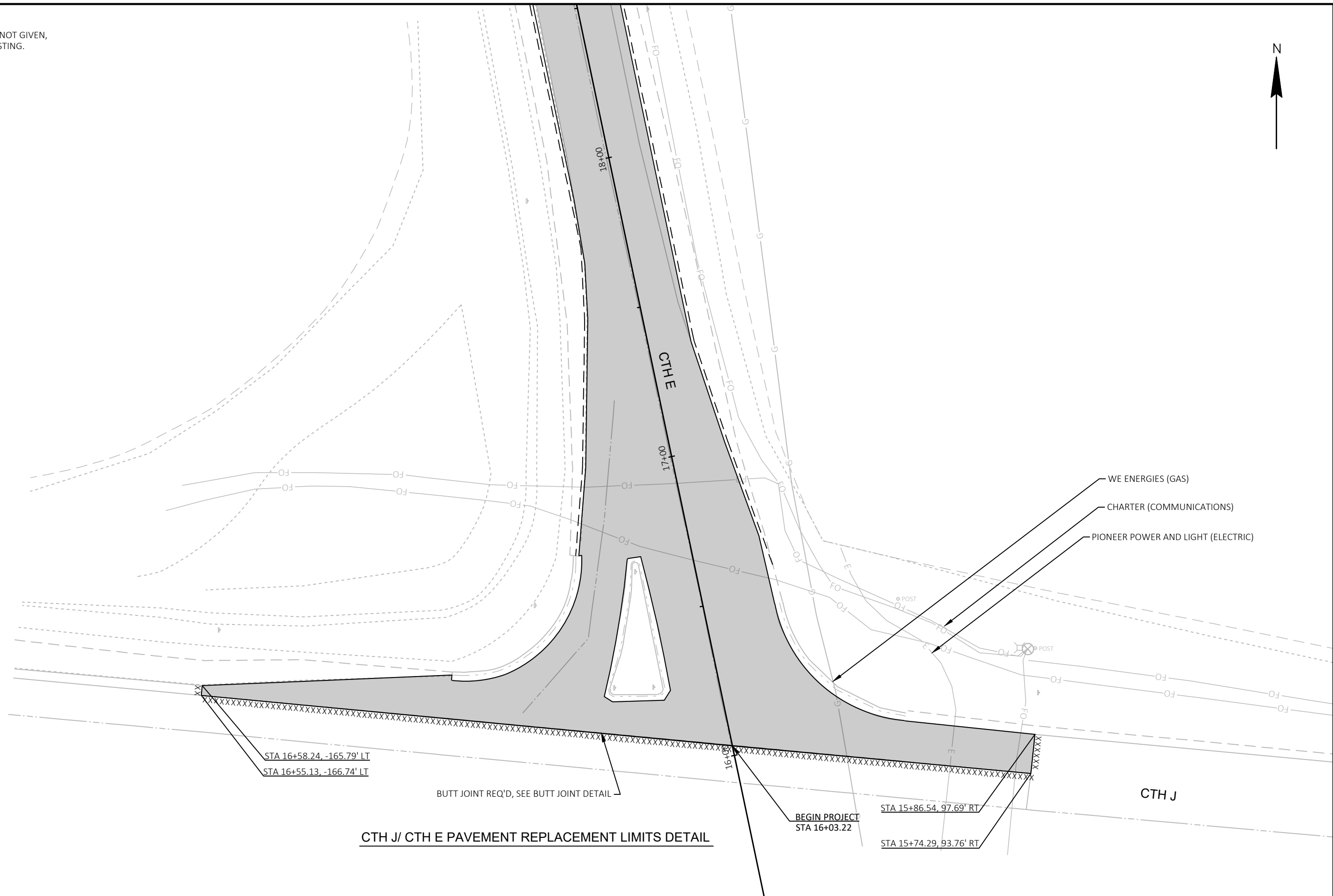


INTERSECTION PAVEMENT REMOVAL & PAVING DETAIL

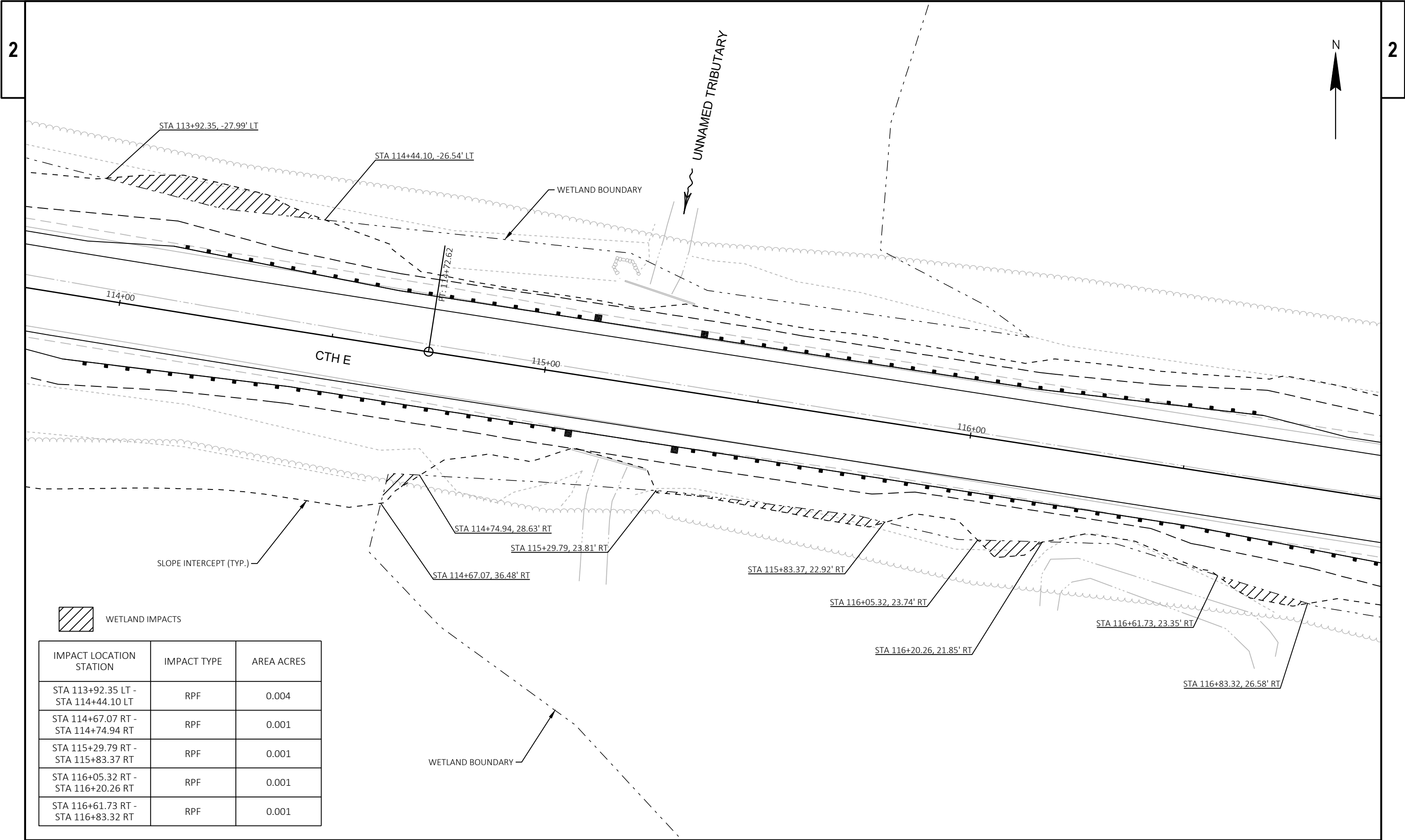
STA 16+03.22 TO STA 276+25.00

NOTE: * 12-FT, STA 16+03.22 - STA 67+42.25
** 13-FT, STA 67+42.25 - STA 276+25.00

* NOTE: IF OFFSET NOT GIVEN,
MATCH INTO EXISTING.



PROJECT NO: 6694-04-71	HWY: CTH E	COUNTY: MARQUETTE	CONSTRUCTION DETAILS	SHEET 10	E
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WETLAND IMPACTS

IMPACT LOCATION STATION	IMPACT TYPE	AREA ACRES
STA 113+92.35 LT - STA 114+44.10 LT	RPF	0.004
STA 114+67.07 RT - STA 114+74.94 RT	RPF	0.001
STA 115+29.79 RT - STA 115+83.37 RT	RPF	0.001
STA 116+05.32 RT - STA 116+20.26 RT	RPF	0.001
STA 116+61.73 RT - STA 116+83.32 RT	RPF	0.001

PROJECT NO: 6694-04-71

HWY: CTH E

COUNTY: MARQUETTE

WETLAND DETAIL

SHEET

11

E

FILE NAME : S:\MAD\3300--3399\3359\002\DRAWINGS\CAD\CIVIL 3D\SHEETS\021003-CD.DWG
LAYOUT NAME - 021008-cd

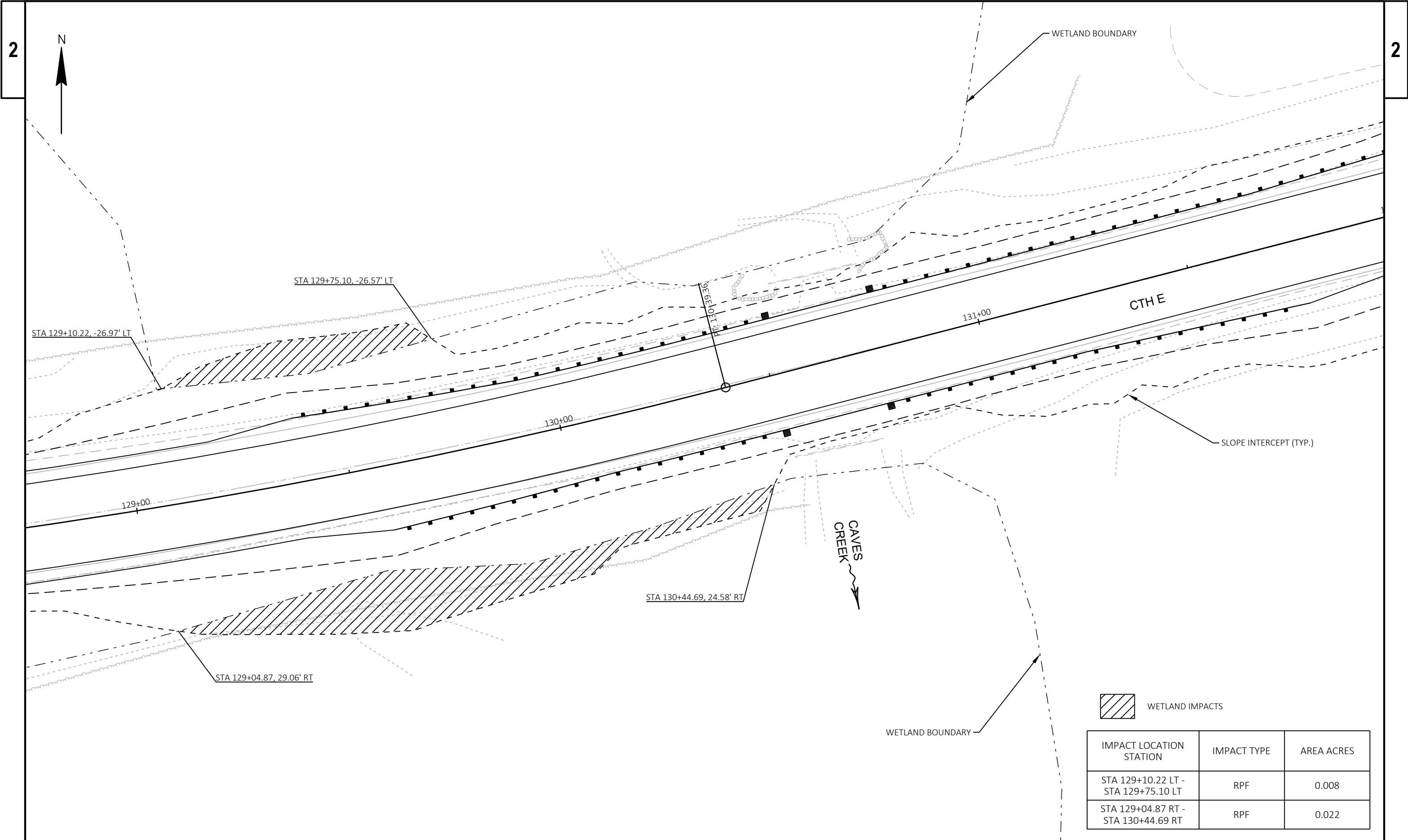
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PLOT BY : STANIOCH, DREW

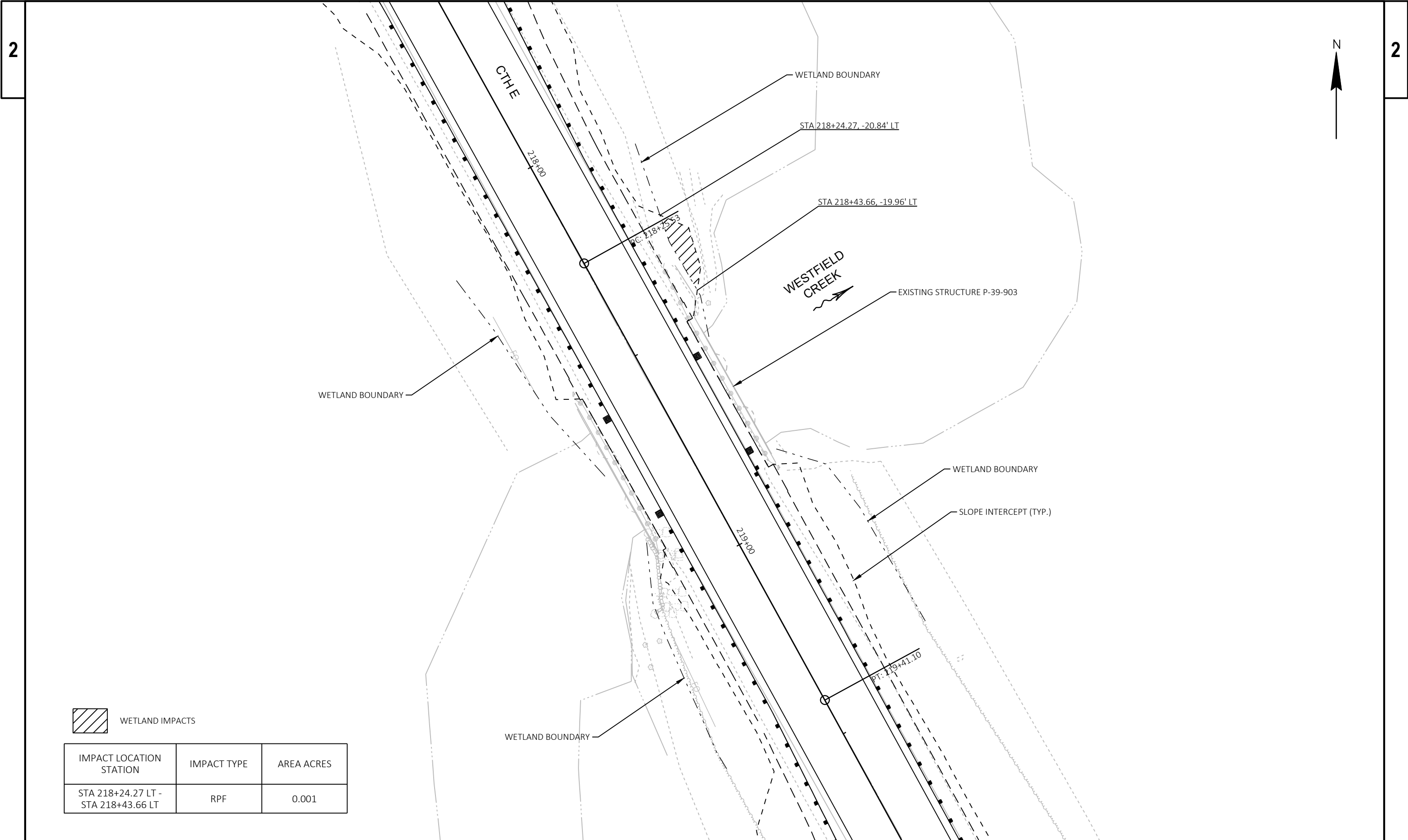
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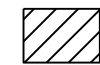
PLOT SCALE : #####

WISDOT/CADDs SHEET 42

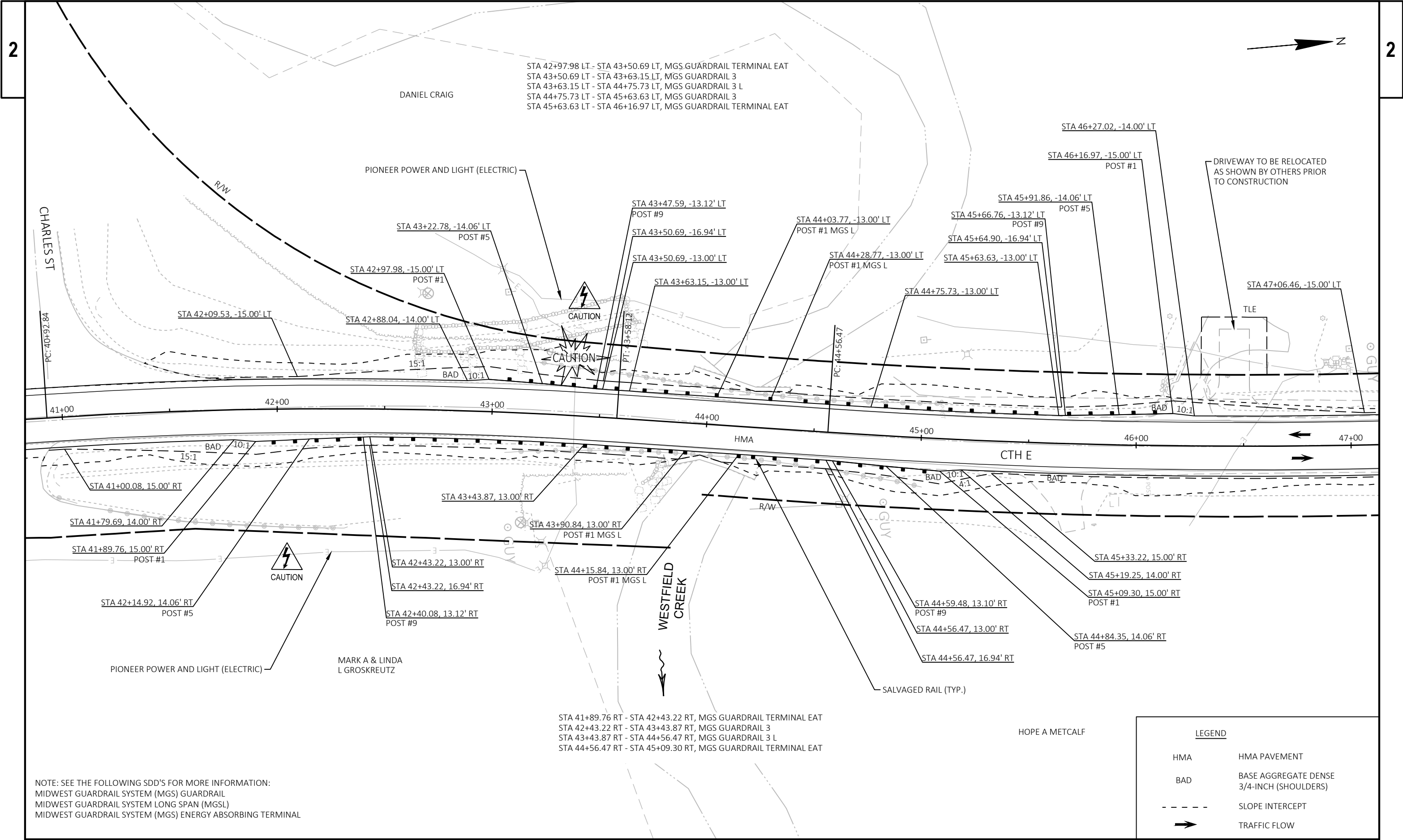


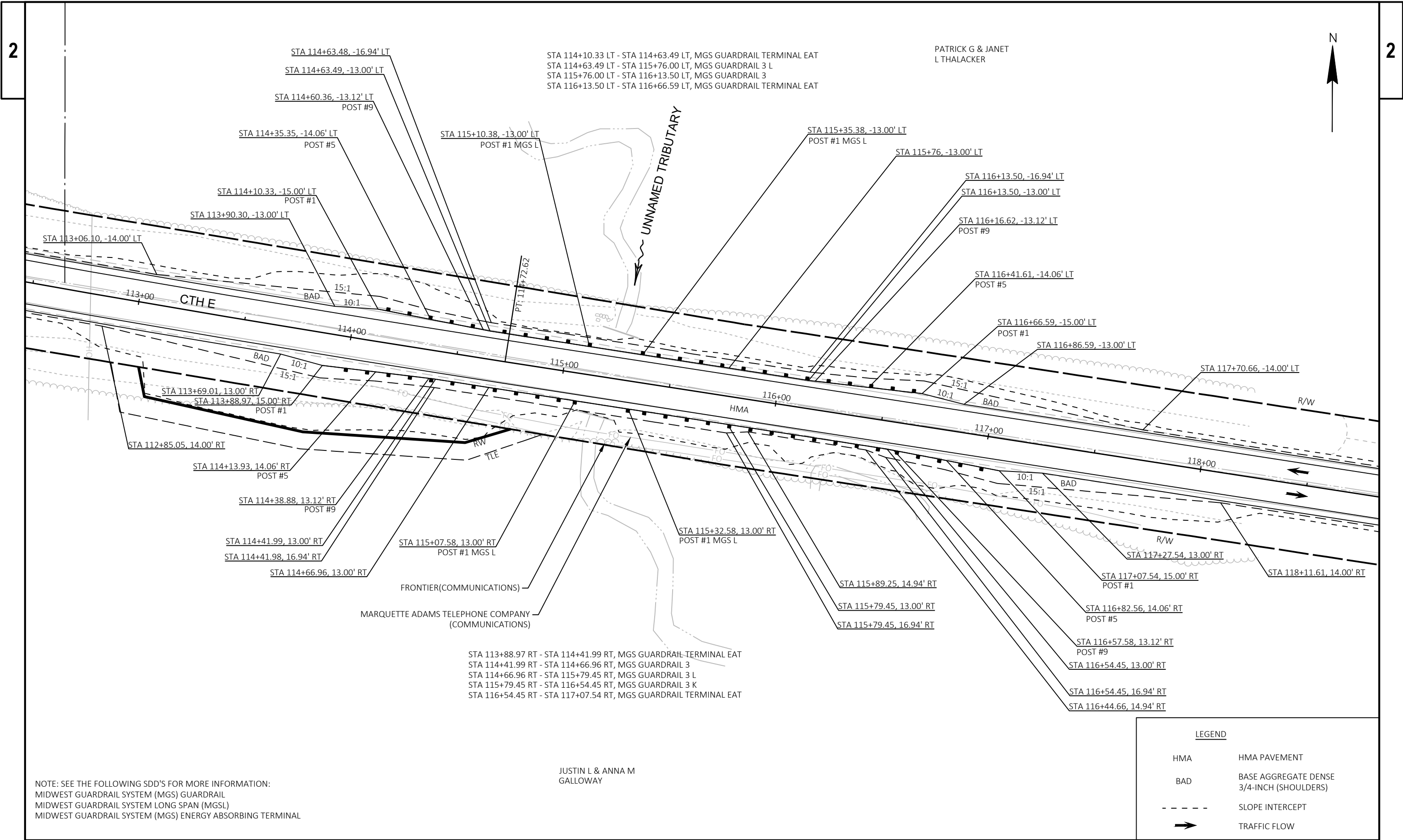
 WETLAND IMPACTS		
IMPACT LOCATION STATION	IMPACT TYPE	AREA ACRES
STA 129+10.22 LT - STA 129+75.10 LT	RPF	0.008
STA 129+04.87 RT - STA 130+44.69 RT	RPF	0.022

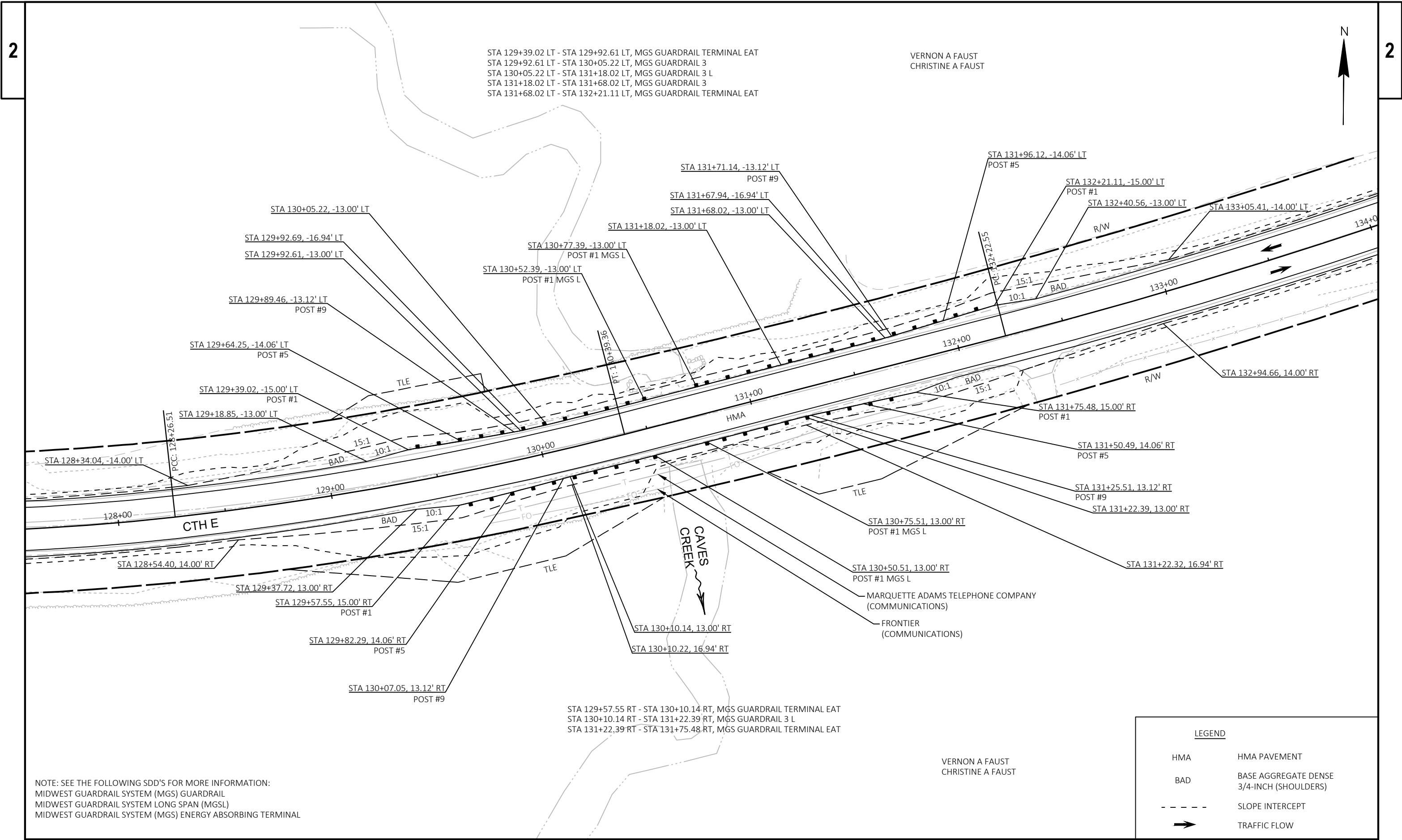


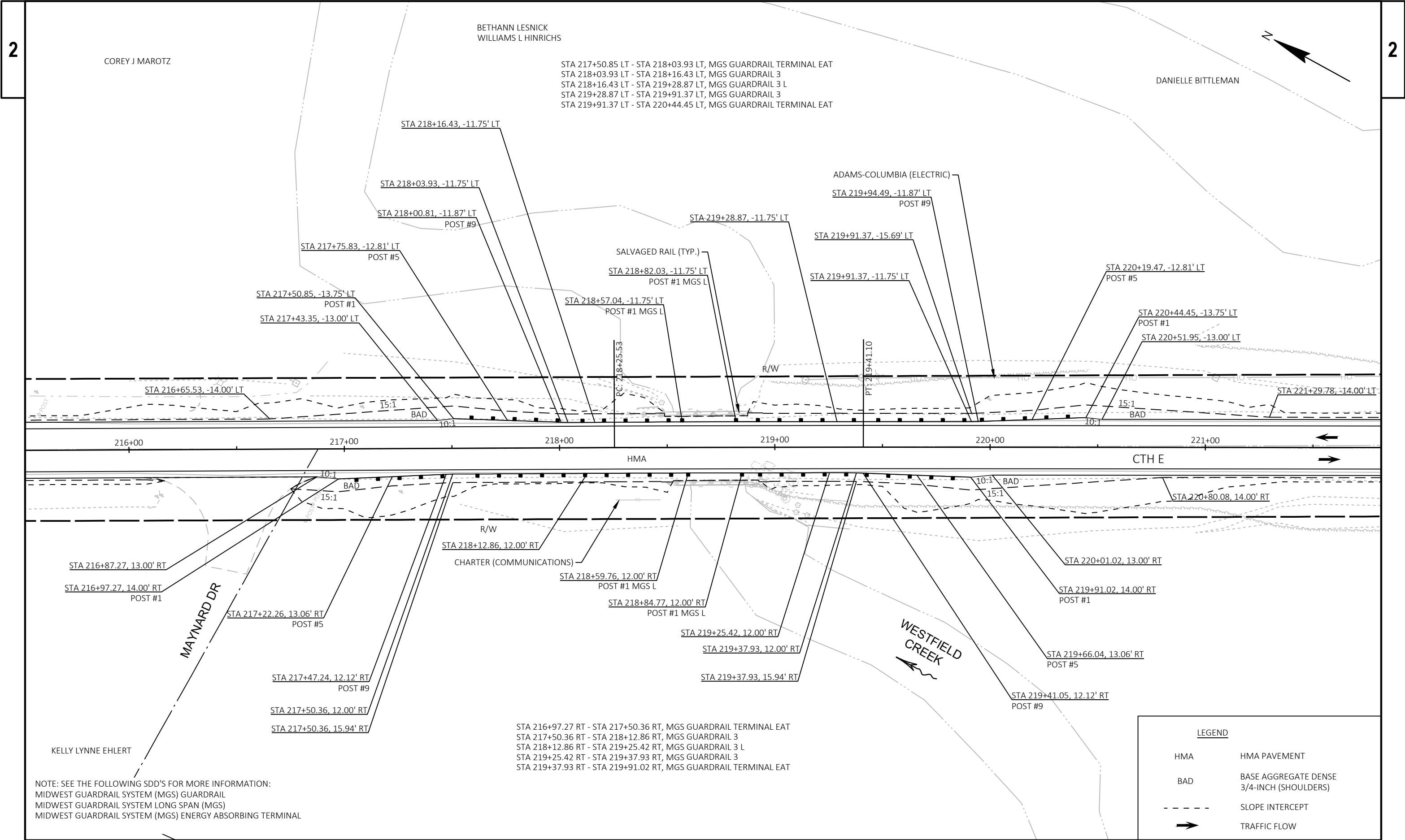
 WETLAND IMPACTS

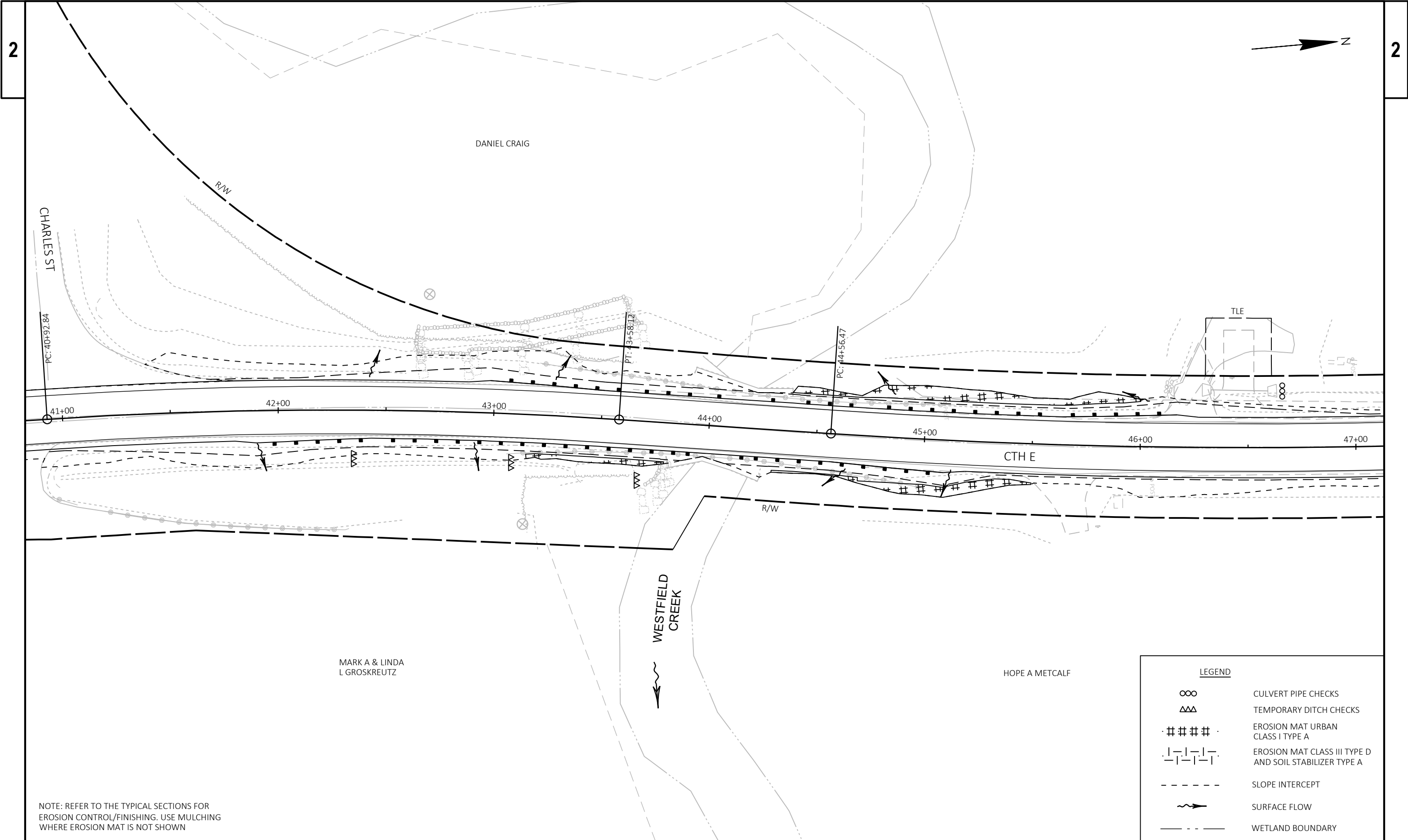
IMPACT LOCATION STATION	IMPACT TYPE	AREA ACRES
STA 218+24.27 LT - STA 218+43.66 LT	RPF	0.001







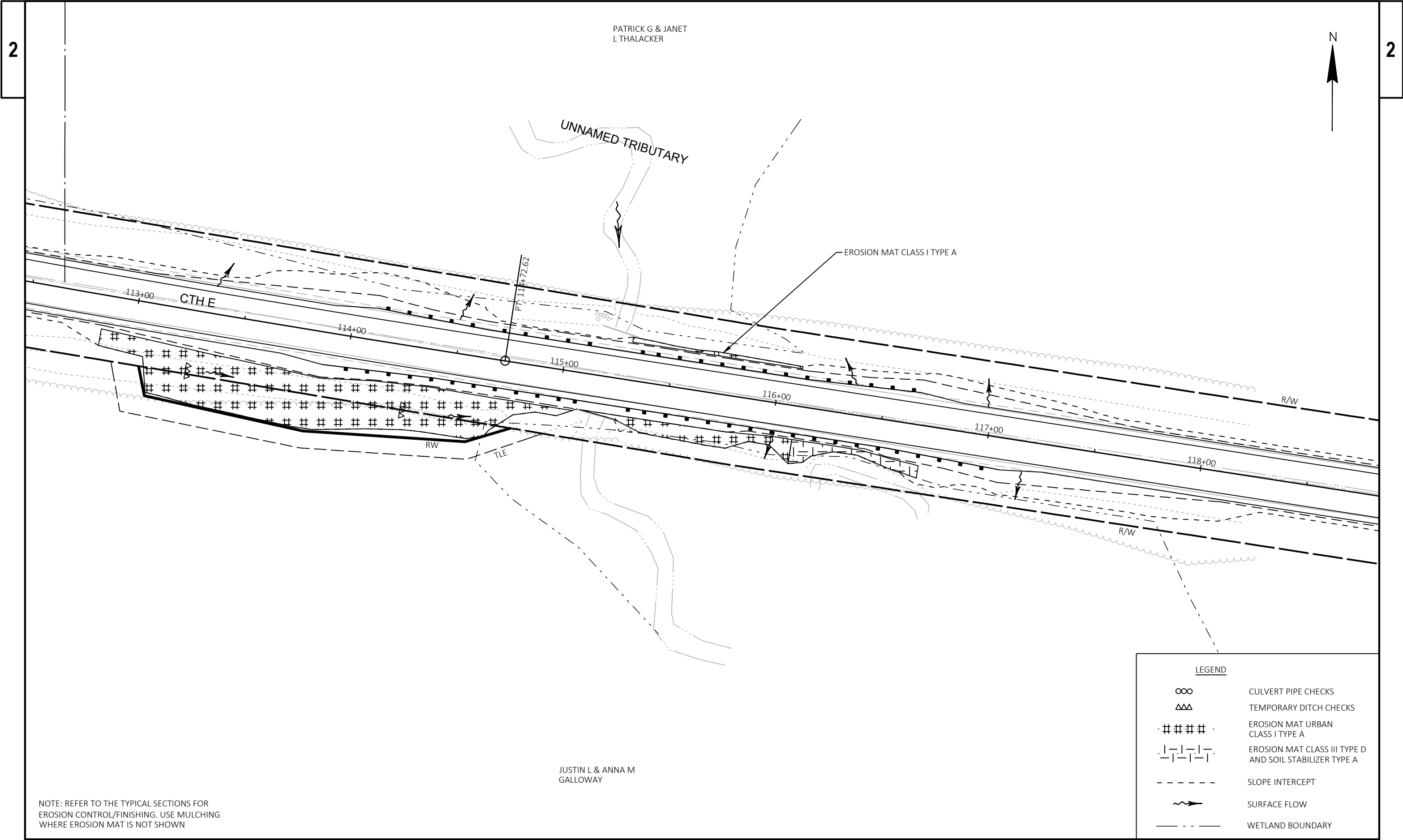


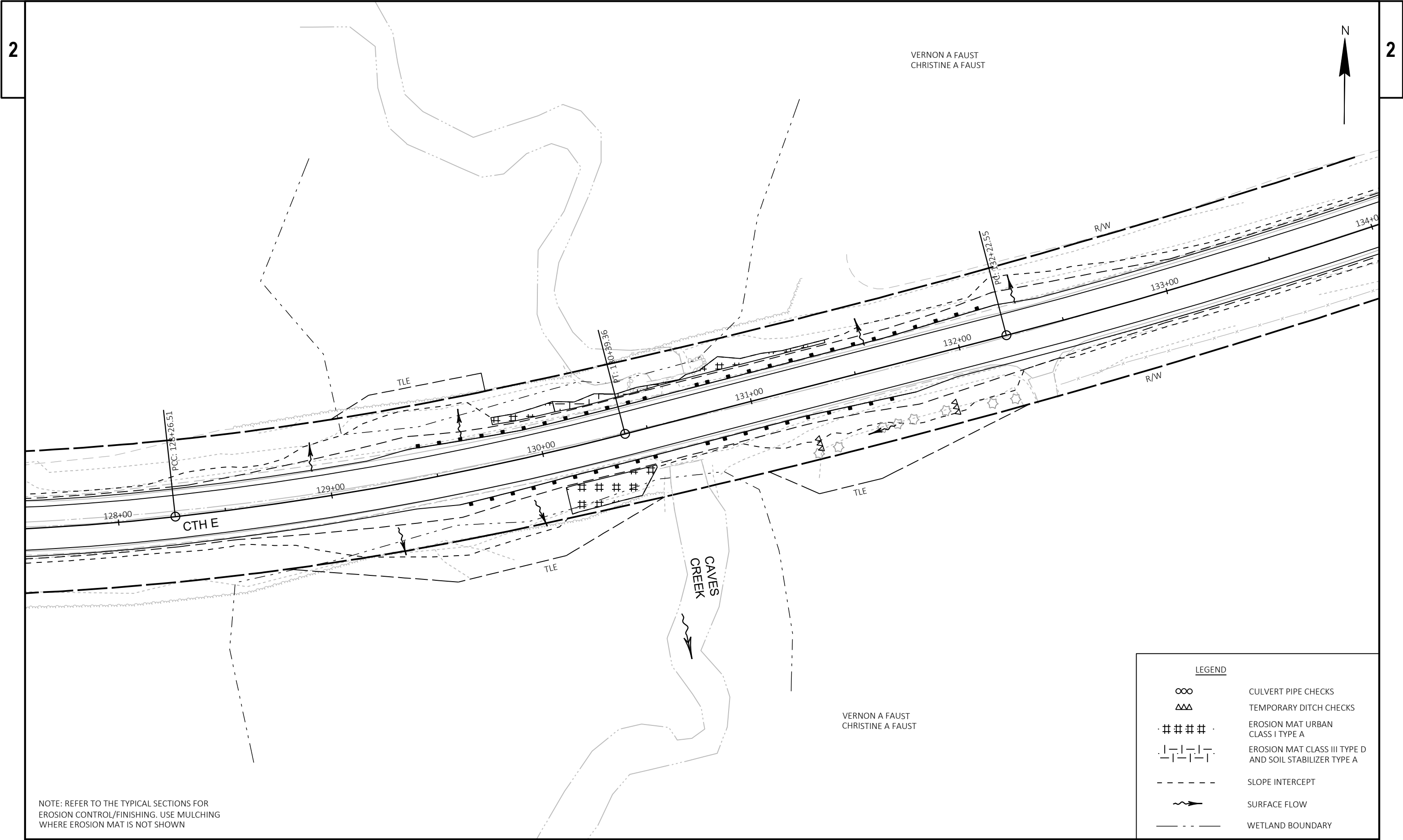


NOTE: REFER TO THE TYPICAL SECTIONS FOR
EROSION CONTROL/FINISHING. USE MULCHING
WHERE EROSION MAT IS NOT SHOWN

LEGEND

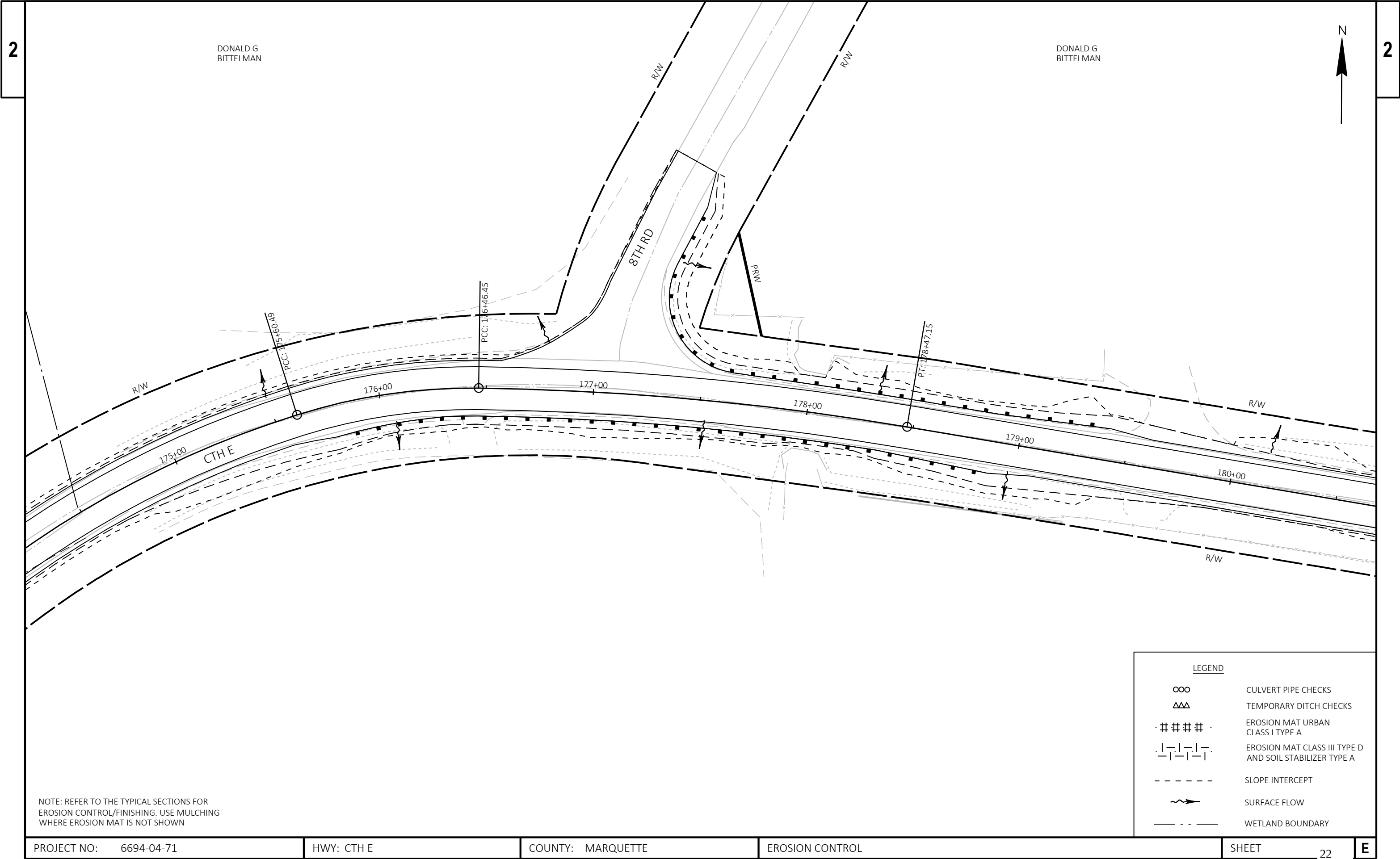
- ∞∞ CULVERT PIPE CHECKS
- ΔΔΔ TEMPORARY DITCH CHECKS
- ## ## ## · EROSION MAT URBAN
CLASS I TYPE A
- . | - | - | - | .
- | - | - | - | EROSION MAT CLASS III TYPE D
AND SOIL STABILIZER TYPE A
- - - - SLOPE INTERCEPT
- ~> SURFACE FLOW
- - - - WETLAND BOUNDARY





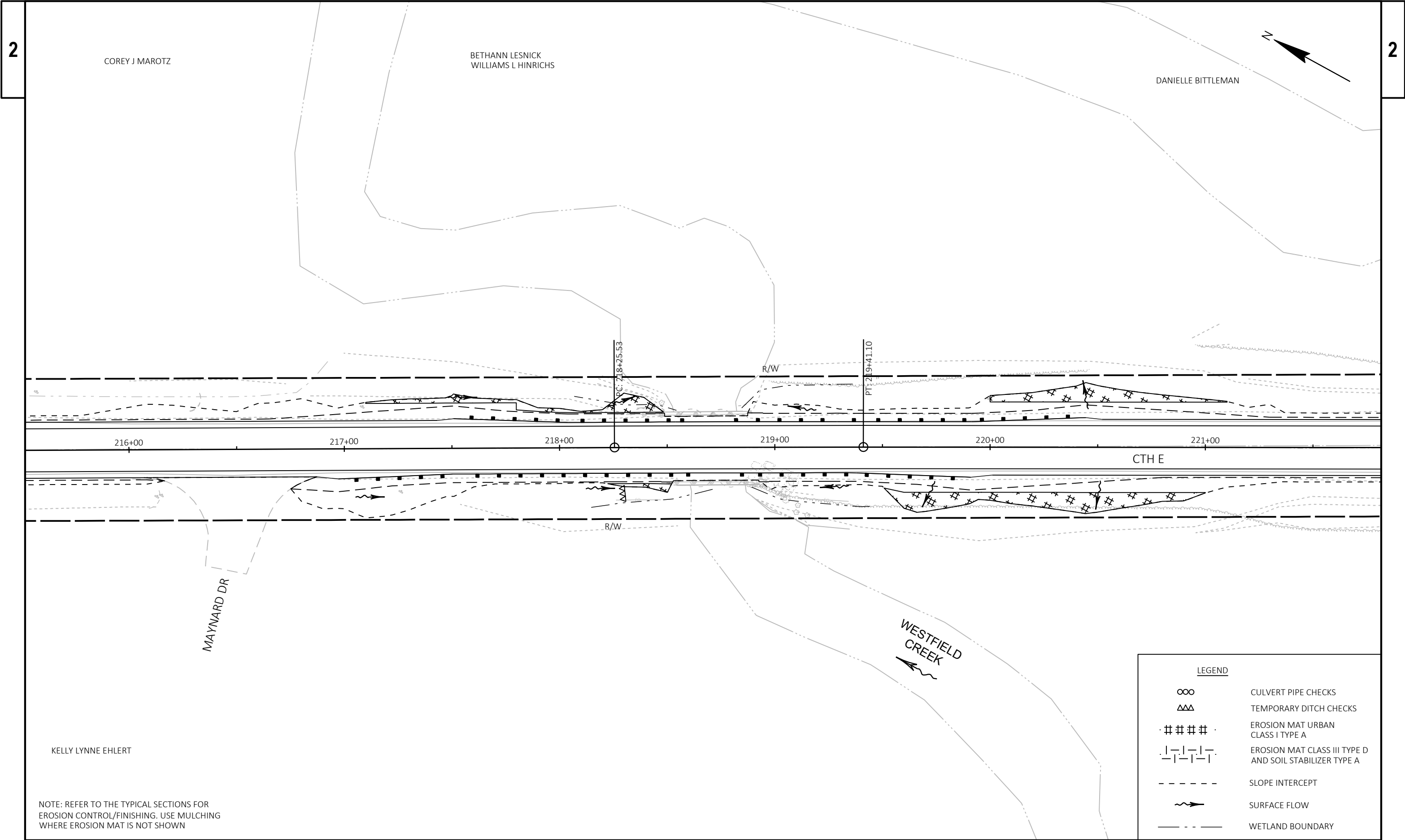
NOTE: REFER TO THE TYPICAL SECTIONS FOR
EROSION CONTROL/FINISHING. USE MULCHING
WHERE EROSION MAT IS NOT SHOWN

LEGEND	
∞∞	CULVERT PIPE CHECKS
△△	TEMPORARY DITCH CHECKS
· ## ## ·	EROSION MAT URBAN CLASS I TYPE A
· - - - · - - - -	EROSION MAT CLASS III TYPE D AND SOIL STABILIZER TYPE A
- - - - -	SLOPE INTERCEPT
~>	SURFACE FLOW
·····	WETLAND BOUNDARY



NOTE: REFER TO THE TYPICAL SECTIONS FOR
EROSION CONTROL/FINISHING. USE MULCHING
WHERE EROSION MAT IS NOT SHOWN

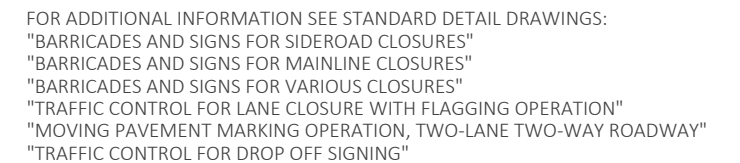
LEGEND	
∞∞	CULVERT PIPE CHECKS
ΔΔ	TEMPORARY DITCH CHECKS
· 井 井 井 井 ·	EROSION MAT URBAN CLASS I TYPE A
· - - - · - - - -	EROSION MAT CLASS III TYPE D AND SOIL STABILIZER TYPE A
- - - - -	SLOPE INTERCEPT
~>	SURFACE FLOW
- - - - -	WETLAND BOUNDARY



NOTE: REFER TO THE TYPICAL SECTIONS FOR
EROSION CONTROL/FINISHING. USE MULCHING
WHERE EROSION MAT IS NOT SHOWN

PROJECT NO: 6694-04-71	HWY: CTH E	COUNTY: MARQUETTE	EROSION CONTROL	SHEET 23	E
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SEE S.D.D. "DETOUR SIGNING FOR MAINLINE CLOSURES", "BARRICADES AND SIGNS FOR MAINLINE CLOSURES".



	TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN (TWO TYPE "A" WARNING LIGHTS)
	TRAFFIC CONTROL SIGNS
	WORK ZONE

GENERAL NOTES: DETOUR ROUTE SIGNED AND MAINTAINED BY MARQUETTE COUNTY (FOR INFORMATION ONLY)

ALL SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION WILL BE DETERMINED IN THE FIELD.

"WO" AND "W" SIGNS SHALL BE 48"X48" UNLESS OTHERWISE NOTED.

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

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

TRAFFIC CONTROL SIGNS PORTABLE CHANGEABLE MESSAGE FOR PREWARNING TO BE INSTALLED TWO WEEKS PRIOR TO MAINLINE CLOSURE AND IMPLEMENTATION OF DETOUR ROUTE.

IMMEDIATELY RE-ESTABLISH "STOP" SIGNS THAT ARE REMOVED FOR A CONSTRUCTION OPERATION.

REMOVE OR COVER ANY SIGN, TEMPORARY OR EXISTING , WHICH CONFLICTS WITH TRAFFIC CONTROL "IN USE", OR AS APPROVED BY THE ENGINEER.

SEE S.D.D. "DETOUR SIGNING FOR MAINLINE CLOSURES", "BARRICADES AND SIGNS FOR MAINLINE CLOSURES".

LEGEND

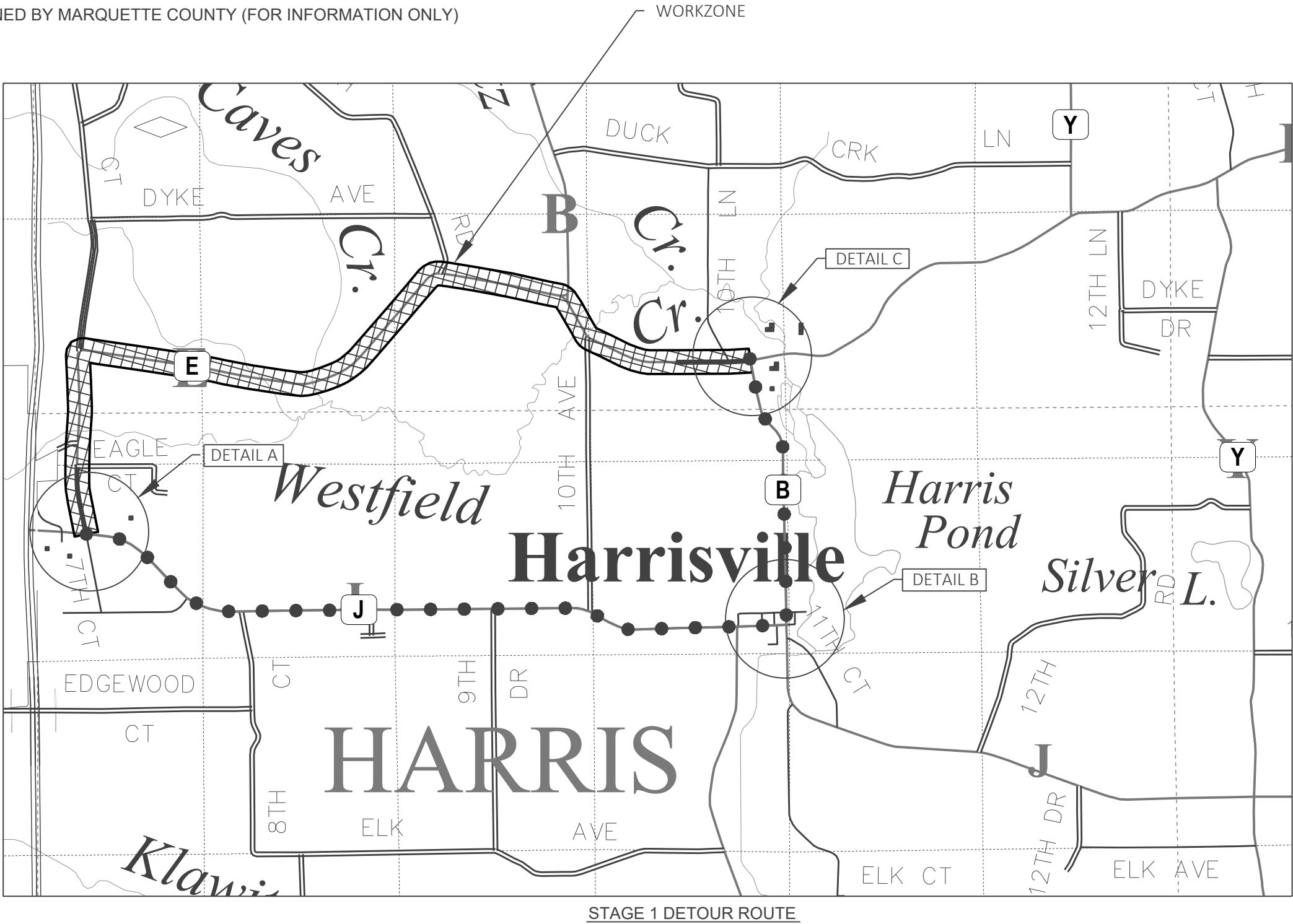
DETOUR ROUTE

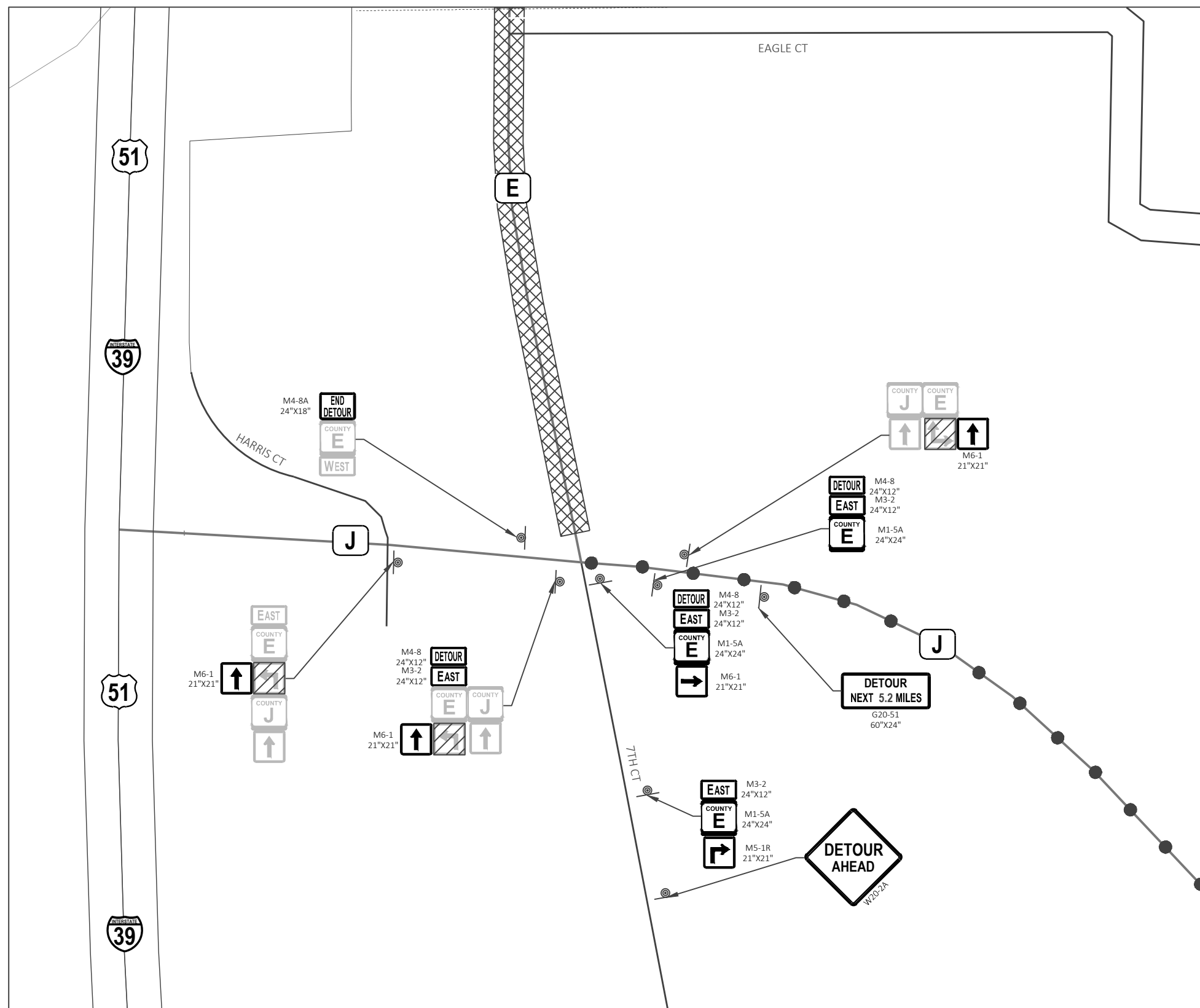
COVER EXISTING SIGN
(COVERING SIGNS TYPE 2, REQ'D)

TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED
SIGN (TWO TYPE "A" WARNING LIGHTS)

TRAFFIC CONTROL SIGNS

WORK ZONE





LEGEND

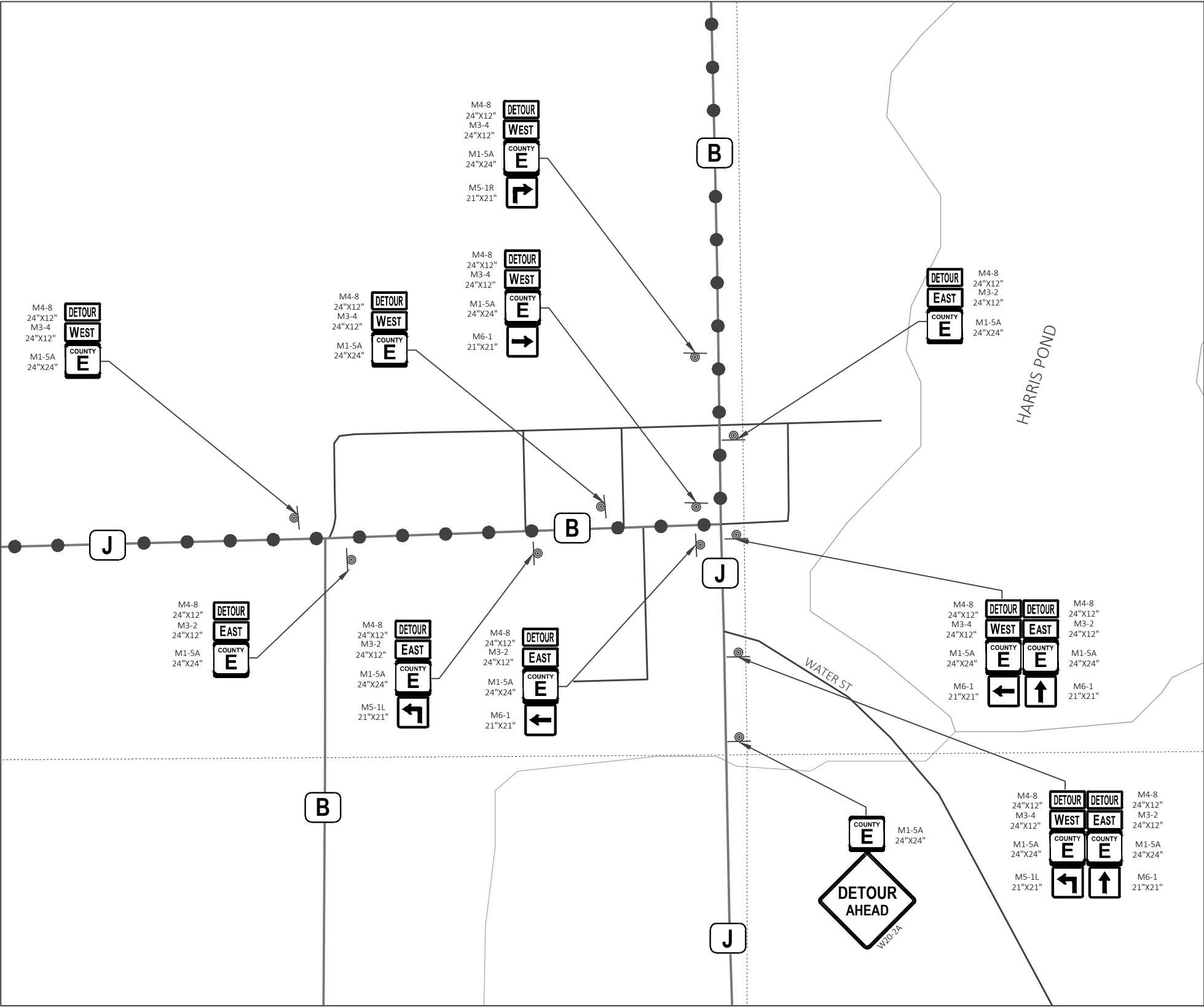
DETOUR ROUTE

COVER EXISTING SIGN
(COVERING SIGNS TYPE 2, REQ'D)

TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED
SIGN (TWO TYPE "A" WARNING LIGHTS)

TRAFFIC CONTROL SIGNS

WORK ZONE



DETAIL B

LEGEND

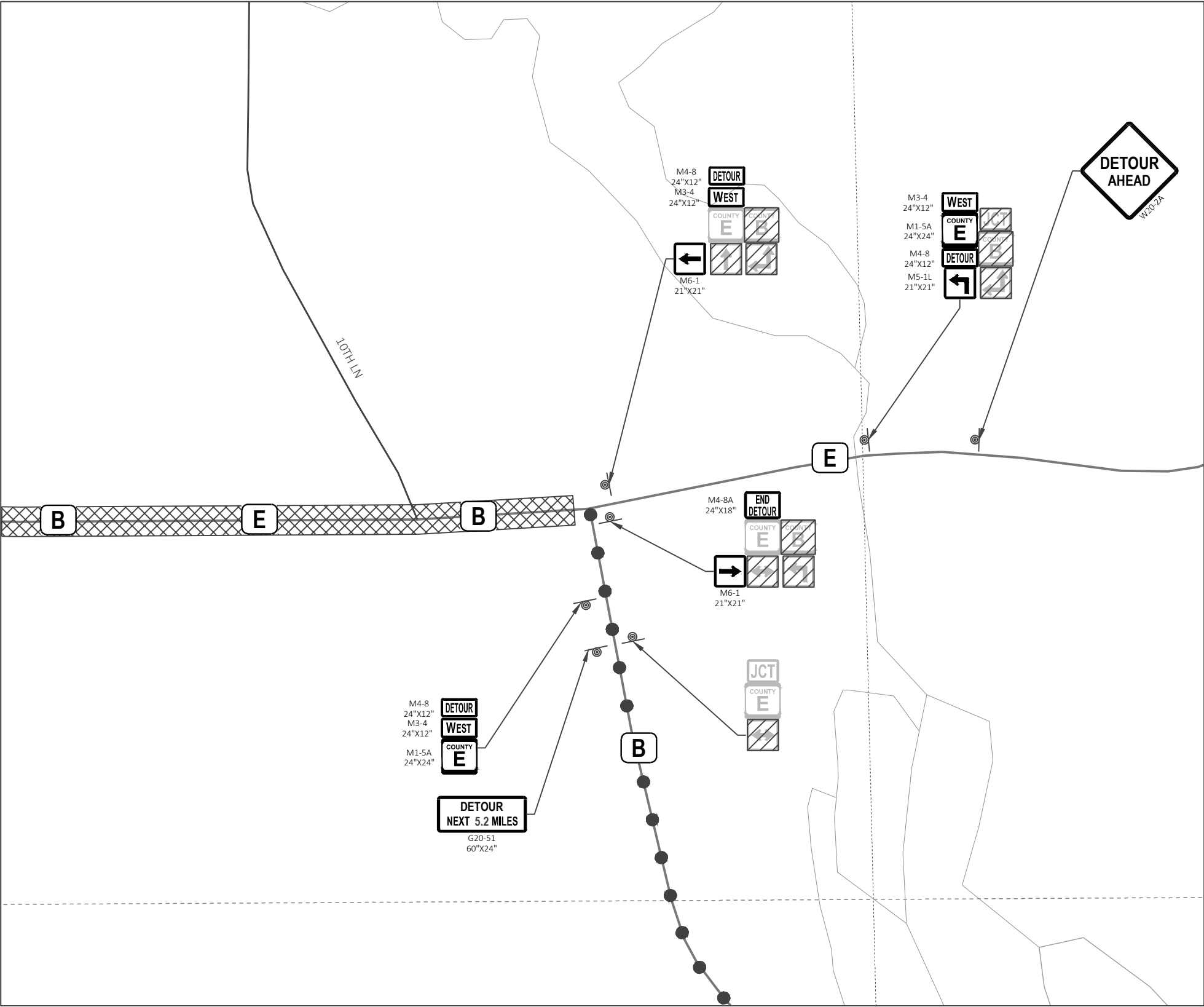
DETOUR ROUTE

COVER EXISTING SIGN
(COVERING SIGNS TYPE 2, REQ'D)

TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED
SIGN (TWO TYPE "A" WARNING LIGHTS)

TRAFFIC CONTROL SIGNS

WORK ZONE



DETAIL C

Estimate Of Quantities

6694-04-71					
Line	Item	Item Description	Unit	Total	Qty
0002	204.0115	Removing Asphaltic Surface Butt Joints	SY	73.000	73.000
0004	204.0120	Removing Asphaltic Surface Milling	SY	66,200.000	66,200.000
0006	204.0170	Removing Fence	LF	52.000	52.000
0008	205.0100	Excavation Common	CY	2,399.000	2,399.000
0010	208.0100	Borrow	CY	82.000	82.000
0012	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 6694-04-71	EACH	1.000	1.000
0014	213.0100	Finishing Roadway (project) 01. 6694-04-71	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,863.000	3,863.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,300.000	1,300.000
0020	305.0130	Base Aggregate Dense 3-Inch	TON	2,860.000	2,860.000
0022	455.0605	Tack Coat	GAL	9,300.000	9,300.000
0024	460.2000	Incentive Density HMA Pavement	DOL	15,300.000	15,300.000
0026	460.6223	HMA Pavement 3 MT 58-28 S	TON	15,150.000	15,150.000
0028	460.6224	HMA Pavement 4 MT 58-28 S	TON	8,670.000	8,670.000
0030	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	33.000	33.000
0032	465.0560	Asphaltic Rumble Strips, Centerline	LF	5,139.000	5,139.000
0034	614.0920	Salvaged Rail	LF	484.000	484.000
0036	614.2300	MGS Guardrail 3	LF	751.500	751.500
0038	614.2330	MGS Guardrail 3 K	LF	125.000	125.000
0040	614.2340	MGS Guardrail 3 L	LF	900.000	900.000
0042	614.2350	MGS Guardrail Short Radius	LF	67.000	67.000
0044	614.2610	MGS Guardrail Terminal EAT	EACH	19.000	19.000
0046	614.2630	MGS Guardrail Short Radius Terminal	EACH	1.000	1.000
0048	618.0100	Maintenance and Repair of Haul Roads (project) 01. 6694-04-71	EACH	1.000	1.000
0050	619.1000	Mobilization	EACH	1.000	1.000
0052	624.0100	Water	MGAL	66.800	66.800
0054	625.0500	Salvaged Topsoil	SY	3,521.000	3,521.000
0056	627.0200	Mulching	SY	3,503.000	3,503.000
0058	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0060	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0062	628.2006	Erosion Mat Urban Class I Type A	SY	1,191.000	1,191.000
0064	628.2039	Erosion Mat Class III Type D	SY	60.000	60.000
0066	628.6505	Soil Stabilizer Type A	ACRE	0.030	0.030
0068	628.7504	Temporary Ditch Checks	LF	60.000	60.000
0070	628.7555	Culvert Pipe Checks	EACH	1.000	1.000
0072	628.7560	Tracking Pads	EACH	1.000	1.000
0074	629.0210	Fertilizer Type B	CWT	8.560	8.560
0076	630.0130	Seeding Mixture No. 30	LB	180.000	180.000
0078	630.0160	Seeding Mixture No. 60	LB	3.310	3.310
0080	630.0300	Seeding Borrow Pit	LB	33.000	33.000
0082	630.0500	Seed Water	MGAL	96.000	96.000
0084	642.5201	Field Office Type C	EACH	1.000	1.000
0086	643.0420	Traffic Control Barricades Type III	DAY	552.000	552.000
0088	643.0705	Traffic Control Warning Lights Type A	DAY	1,104.000	1,104.000
0090	643.0900	Traffic Control Signs	DAY	1,794.000	1,794.000
0092	643.5000	Traffic Control	EACH	1.000	1.000
0094	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	88,820.000	88,820.000
0096	650.8000	Construction Staking Resurfacing Reference	LF	26,022.000	26,022.000
0098	650.9911	Construction Staking Supplemental Control (project) 01. 6694-04-71	EACH	1.000	1.000

Estimate Of Quantities

6694-04-71

Line	Item	Item Description	Unit	Total	Qty
0100	650.9920	Construction Staking Slope Stakes	LF	2,766.000	2,766.000
0102	690.0150	Sawing Asphalt	LF	1,846.000	1,846.000
0104	740.0440	Incentive IRI Ride	DOL	19,714.000	19,714.000
0106	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,000.000	2,000.000
0108	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,260.000	1,260.000
0110	SPV.0060	Special 01. Research and Locate Existing Land Parcel Monuments	EACH	7.000	7.000
0112	SPV.0060	Special 02. Verify and Replace Existing Land Parcel Monuments	EACH	7.000	7.000

REMOVING ASPHALTIC SURFACE MILLING				REMOVING ASPHALTIC SURFACE BUTT JOINTS					PREPARE FOUNDATION FOR ASPHALTIC PAVING			BASE AGGREGATE SUMMARY				
CATEGORY	STATION - STATION	LOCATION	204.0120 SY	CATEGORY	STATION - STATION	LOCATION	204.0115 SY	CATEGORY	PROJECT	211.0101 EACH	305.0110* BASE AGGREGATE DENSE 3/4-INCH TON					
0010	16+03 - 276+25	LT/RT	66,200	0010	15+74 - 16+58 177+30 - 177+48 276+23 - 276+25	LT/RT LT LT/RT	63 5 5	0010	6694-04-71	1	0010	16+03 - 41+00 41+00 - 47+06 47+06 - 112+85	LT/RT LT/RT LT/RT	332 132 874		
TOTAL				73												

DIVISION	FROM/TO STATION	LOCATION	205.0100 EXCAVATION COMMON (1)		AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5)	MASS ORDINATE +/- (6)	WASTE	208.0100 BORROW	305.0120 BASE AGGREGATE	305.0130 BASE AGGREGATE	*624.0100 WATER (FOR DUST CONTROL)
			CUT (2)	EBS EXCAVATION (3)			FACTOR 1.25				DENSE 1 1/4- INCH	DENSE 3- INCH	
DIVISION 1			CY	CY	CY	CY	CY	CY	CY	CY	TON	TON	MGAL
GURADRAIL LOCATION 1	41+00.08/47+06.46	LT/RT	54	---	54	27	34	20	20	---	---	---	0.1
GURADRAIL LOCATION 2	112+85.05/118+11.61	LT/RT	189	---	189	152	190	-1	---	1	---	---	0.4
GURADRAIL LOCATION 3	128+34.04/133+05.41	LT/RT	110	---	110	163	204	-94	---	94	---	---	0.2
GURADRAIL LOCATION 4	174+80.00/180+45.35	LT/RT	49	---	49	28	35	14	14	---	---	---	0.1
GURADRAIL LOCATION 5	216+08.20/221+29.78	LT/RT	47	---	47	55	69	-22	---	22	---	---	0.1
DIVISION 1 SUBTOTAL			449	---	449	425	531	-82	0	82	---	---	0.9
UNDISTRIBUTED	16+03.22/276+25.00	LT/RT	---	1,950	---	---	---	---	2,438	---	1,300	2,860	3.9
GRAND TOTAL			449	1,950	449	425	531	-82	2,438	82	1,300	2,860	4.8
TOTAL COMMON EXC			2,399										

NOTES:
(1) EXCAVATION COMMON IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) EBS EXCAVATION TO BE BACKFILLED WITH BASE AGGREGATE DENSE 1 1/4-INCH (305.0120) OVER BASE AGGREGATE DENSE 3-INCH (305.0130)
(4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(5) EXPANDED FILL = (UNEXPANDED FILL)* EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.25.
(6) MASS ORDINATE: MASS ORDINATE = CUT - EXPANDED FILL
THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

ASPHALTIC ITEMS						
CATEGORY	STATION - STATION	LOCATION	460.6223 HMA PAVEMENT 3 MT 58-28 S	460.6224 HMA PAVEMENT 4 MT 58-28 S	455.0605 TACK COAT	GAL
			TON	TON	TON	
0010	16+03 - 41+00	LT/RT	1,650	950	1,010	
	41+00 - 47+06	LT/RT	360	210	220	
	47+06 - 112+85	LT/RT	3,810	2,180	2,340	
	112+85 - 118+11	LT/RT	300	170	190	
	118+11 - 128+34	LT/RT	580	330	350	
	128+34 - 133+05	LT/RT	270	160	170	
	133+05 - 174+67	LT/RT	2,360	1,350	1,440	
	174+67 - 180+45	LT/RT	410	230	250	
	180+45 - 216+65	LT/RT	2,050	1,170	1,260	
	216+65 - 221+29	LT/RT	250	140	160	
	221+29 - 276+25	LT/RT	3,110	1,780	1,910	
TOTALS			15,150	8,670	9,300	

NOTE: HMA PAVEMENT WEIGHT CALCULATIONS BASED ON 112 LB/SY/IN.
TACK COAT RATE USED ONE LAYER OF 0.05 GAL/SY AND ONE LAYER
OF 0.07 GAL/SY PER STANDARD SPEC.

FINISHING ROADWAY			MAINTENANCE AND REPAIR OF HAUL ROADS		
CATEGORY	PROJECT	213.0100 EACH	CATEGORY	PROJECT	618.0100 EACH
0010	6694-04-71	1	0020	6694-04-71	1

REMOVING FENCE				204.0170
CATEGORY	STATION - STATION	LOCATION	LF	
0010	177+52 - 177+72	LT	52	
ASPHALTIC RUMBLE STRIPS, CENTERLINE				465.0560
CATEGORY	STATION - STATION	LOCATION	LF	
0010	16+03 - 67+42	LT/RT	5,139	

DRIVEWAY SUMMARY				
CATEGORY	STATION - STATION	LOCATION	305.0110* BASE AGGREGATE DENSE 3/4-INCH TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0010	16+03 - 276+25	LT/RT	170	33
TOTALS			170	33

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

GUARDRAIL SUMMARY										
					614.2300	614.2330	614.2340	614.2350	614.2610	614.2630
					MGS GUARDRAIL					
CATEGORY	STATION	-	STATION	LOCATION	3	3K	3L	SHORT RADIUS	TERMINAL	SHORT RADIUS
					LF	LF	LF	LF	EAT EACH	TERMINAL EACH
0010	41+89	-	46+17	LT/RT	200	---	225	---	4	---
	113+89	-	117+08	LT/RT	62.5	75	225	---	4	---
	129+39	-	132+21	LT/RT	62.5	---	225	---	4	---
	175+76	-	179+41	LT/RT	276.5	50	---	67	3	1
	216+97	-	220+44	LT/RT	150	---	225	---	4	---
TOTALS					751.5	125	900	67	19	1

SALVAGED RAIL			
CATEGORY	STATION - STATION	LOCATION	614.0920 LF
0010	43+06 - 45+01	RT	195
	43+20 - 45+13	LT	194
	218+34 - 218+88	LT	54
	218+52 - 218+93	RT	41
TOTAL			484

MOBILIZATION		
CATEGORY	PROJECT	619.1000 EACH
0010	6694-04-71	1

FINISHING ITEMS											
CATEGORY	STATION	-	STATION	LOCATION	625.0500	627.0200	629.0210	630.0130	630.0160	630.0300	630.0500
					SALVAGED TOPSOIL SY	MULCHING SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 30 LB	SEEDING MIXTURE NO. 60 LB	SEEDING BORROW PIT LB	SEED WATER MGAL
0010	16+03	-	41+00	LT/RT	---	---	0.63	---	---	---	---
	41+00	-	47+06	LT/RT	431	314	0.12	28	---	---	14
	47+06	-	112+85	LT/RT	---	---	1.65	---	---	---	---
	112+85	-	118+12	LT/RT	838	275	0.08	40	0.53	---	21
	118+12	-	128+34	LT/RT	---	---	0.26	---	---	---	---
	128+34	-	133+05	LT/RT	730	627	0.06	31	2.02	---	19
	133+05	-	174+80	LT/RT	---	---	1.05	---	---	---	---
	174+80	-	180+45	LT/RT	344	350	0.06	20	0.10	---	10
	180+45	-	216+08	LT/RT	---	---	0.89	---	---	---	---
	216+08	-	221+30	LT/RT	474	268	0.07	25	---	---	13
	221+30	-	276+25	LT/RT	---	---	1.38	---	---	---	---
	WASTE SITE				---	968	0.61	---	---	26	---
	UNDISTRIBUTED				704	701	1.71	36	0.66	7	19
	TOTALS					3,521	3,503	8.56	180	3.31	33

TRAFFIC CONTROL								
			643.0900		643.0420		643.0705	
CATEGORY	TRAFFIC CONTROL OPERATIONS	DURATION (DAYS)	SIGNS		BARRICADES TYPE III		WARNING LIGHTS TYPE A	
			EACH	DAY	EACH	DAY	EACH	DAY
0010	ADVANCED WARNING	69	26	1,794	8	552	16	1,104
	UNDISTRIBUTED	69	2	138	---	---	---	---
TOTALS			1,794		552		1,104	

CONSTRUCTION STAKING						
CATEGORY	STATION	-	STATION	LOCATION	650.8000 RESURFACING REFERENCE LF	650.9920 SLOPE STAKES LF
					LF	LF
0010	16+03	-	276+25	LT/RT	26,022	2,766
TOTAL					26,022	2,766

WATER					
CATEGORY	STATION - STATION		*624.0100 MGAL	REMARKS	
0010	16+03	- 276+25	7	DUST CONTROL COMPACTION	
	16+03	- 276+25	55		
TOTAL			62		

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

MOBILIZATIONS EROSION CONTROL				
CATEGORY	PROJECT	EACH	628.1905 MOBILIZATIONS EROSION CONTROL	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
			EACH	EACH
0010	6694-04-71	3		2

EROSION CONTROL									
					628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.2039 EROSION CONTROL MAT CLASS III TYPE D SY	628.6505 SOIL STABILIZER TYPE A ACRE	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
CATEGORY	STATION	-	STATION	LOCATION					
0010	41+45	-	46+36	LT/RT	130	---	---	18	1
	112+55	-	118+37	LT/RT	534	33	0.01	12	---
	128+08	-	133+35	LT/RT	85	15	0.01	12	---
	174+79	-	180+65	LT/RT	---	---	---	---	---
	215+68	-	221+48	LT/RT	204	---	---	6	---
	UNDISTRIBUTED				238	12	0.01	12	---
TOTALS					1,191	60	0.03	60	1

TRACKING PADS		
CATEGORY	LOCATION	628.7560 EACH
0010	UNDISTRIBUTED	1

FIELD OFFICE TYPE C		
CATEGORY	PROJECT	642.5201 EACH
0010	6694-04-71	1

SAWING ASPHALT					
CATEGORY	STATION	-	STATION	LOCATION	690.0150 LF
0010	15+74	-	16+58	LT/RT	289
	29+20	-	29+38	RT	18
	33+85	-	34+92	RT	107
	40+17	-	41+69	LT	153
	40+60	-	40+91	RT	31
	59+18	-	59+82	LT	65
	60+28	-	60+97	LT	69
	63+64	-	63+93	RT	30
	65+09	-	65+32	RT	21
	65+24	-	66+99	LT	195
	80+85	-	81+09	RT	23
	82+46	-	82+61	RT	15
	132+25	-	132+43	RT	18
	177+31	-	177+48	LT	20
	210+89	-	211+94	LT	110
	215+27	-	215+46	LT	19
	216+06	-	216+87	RT	81
	223+02	-	224+44	RT	146
	237+64	-	238+31	LT	66
	262+92	-	264+64	LT	172
	268+63	-	270+38	RT	176
	276+25	-	276+25	LT/RT	22
TOTAL					1,846

MARKING LINE ITEMS							
					646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH		
					12.5' SEG 37.5' GAP	SOLID	SOLID
CATEGORY	STATION	-	STATION	LOCATION	(YELLOW) LF	(YELLOW) LF	(WHITE) LF
					LF	LF	LF
0010	16+03	-	276+25	LT/RT	3,090	33,686	52,044
TOTALS					88,820		

TRAFFIC CONTROL		
CATEGORY	PROJECT	643.5000 EACH
0010	6694-04-71	1

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT)		
CATEGORY	PROJECT	650.9911 EACH
0010	6694-04-71	1

PROPERTY CORNERS				
CATEGORY	STATION - STATION	LOCATION	SPV.0060.01 RESEARCH AND LOCATE EXISTING LAND PARCEL MONUMENTS EACH	SPV.0060.02 VERIFY AND REPLACE EXISTING LAND PARCEL MONUMENTS EACH
			EACH	EACH
0010	16+03 - 276+25	LT/RT	7	7
TOTALS			7	7

STATE OF WISCONSIN
MARQUETTE COUNTY
TRANSPORTATION PROJECT PLAT TITLE SHEET
6694-04-01
WESTFIELD-STH 22
7TH COURT TO STH 22
CTH E
MARQUETTE COUNTY



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 CAPPED REBAR UNLESS NOTED)	IP •
NEW REFERENCE LINE	-----	SIXTEENTH CORNER MONUMENT		OFF-PREMISE SIGN	
NEW R/W LINE	-----	SIGN			
EXISTING R/W OR HE LINE	-----				
PROPERTY LINE	-----				
LOT, TIE & OTHER MINOR LINES	-----				
SLOPE INTERCEPT	-----				
CORPORATE LIMITS	-----				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	-----				
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	-----				
TEMPORARY LIMITED EASEMENT AREA	-----				
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	-----				
TRANSMISSION STRUCTURES	-----				
BUILDING	-----				
BRIDGE	-----				
CULVERT	-----				
TO BE REMOVED	-----				
PARALLEL OFFSETS	-----				
UTILITY NUMBER	-----				

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		
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POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

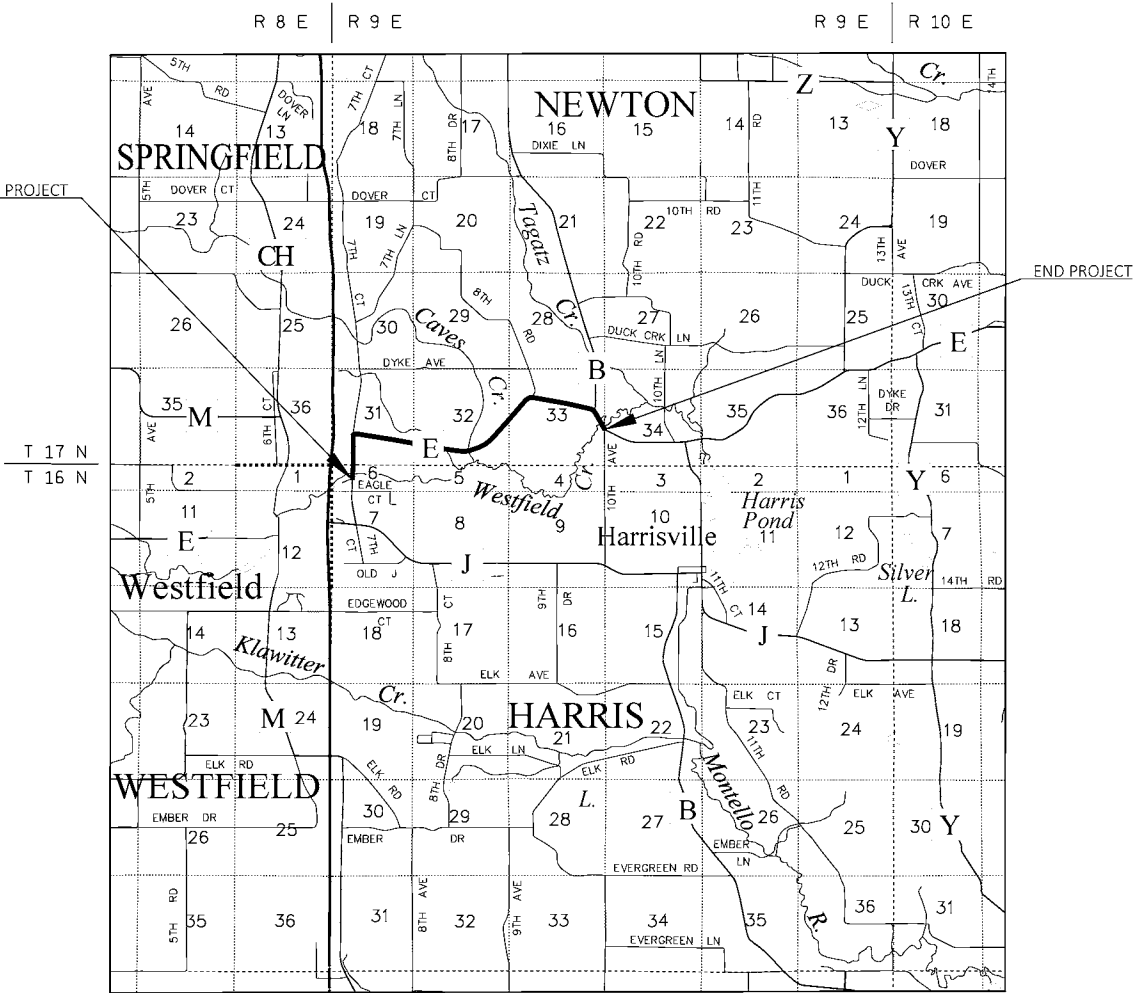
CURVE DATA

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	ELECTRIC
TV	CABLE TELEVISION
FO	FIBER OPTIC
FM	FORCE MAIN
SS	SANITARY SEWER
SS	STORM SEWER

BEGIN PROJECT



END PROJECT

THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 6694-04-01.

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

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, CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPATIONAL LINES.

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 FOR PROPERTIES BEING IMPACTED ARE DRAWN FROM DATA DERIVED FROM FILED/RECORDED MAPS AND DOCUMENTS OF PUBLIC RECORD. 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.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE MARQUETTE COUNTY HIGHWAY DEPARTMENT.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

PROJECT NUMBER 6694-04-01-4.01
SHEET 2 OF 2

33

TRANSPORTATION PROJECT PLAT NO: 6694-04-01-4.01

THAT PART OF THE FRACTIONAL WEST 1/2, SECTION 6, TOWNSHIP 19 NORTH, RANGE 9 EAST, TOWN OF HARRIS, MARQUETTE COUNTY, WISCONSIN

RELOCATION ORDER CTH E WESTFIELD-STH 22 (7TH COURT TO STH 22) MARQUETTE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, MARQUETTE COUNTY DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 83.07 AND 83.08, WISCONSIN STATUTES, MARQUETTE COUNTY HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE COUNTY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF MARQUETTE COUNTY, PURSUANT TO THE PROVISIONS OF SUBSECTION 83.07 AND 83.08, WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	FEE NEW	R/W EXISTING	S.F. REQUIRED TOTAL	TLE S.F.
1	ROBERT B. & JULIANN MC FAUL	TLE	---	---	---	818

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTERESTS REQUIRED
100	SPECTRUM	RELEASE OF RIGHTS
101	MARQUETTE ADAMS TELEPHONE	RELEASE OF RIGHTS
102	PIONEER POWER & LIGHT	RELEASE OF RIGHTS

THE PURPOSE OF ALL TLE'S ARE FOR SLOPE GRADING UNLESS OTHERWISE NOTED.

(100) SPECTRUM
NO RECORDED EASEMENT
PARCEL 1

(101) MARQUETTE ADAMS TELEPHONE
NO RECORDED EASEMENT
PARCEL 1

(102) PIONEER POWER & LIGHT
NO RECORDED EASEMENT
PARCEL 1



STRAND ASSOCIATES, INC. ®
910 WEST WINGRA DRIVE, MADISON, WI 53715
(608) 251-4843

I, HEATHER S. BARTELT PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF MARQUETTE COUNTY I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

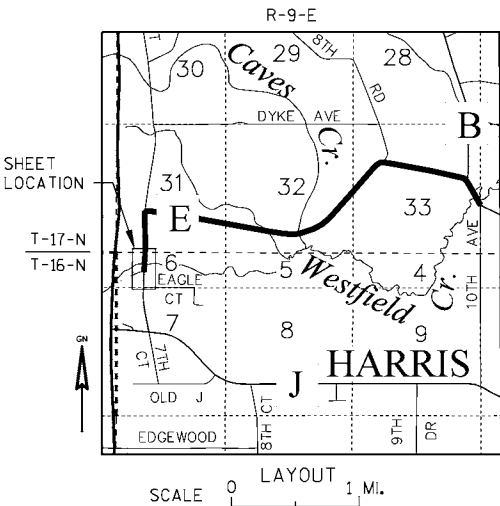
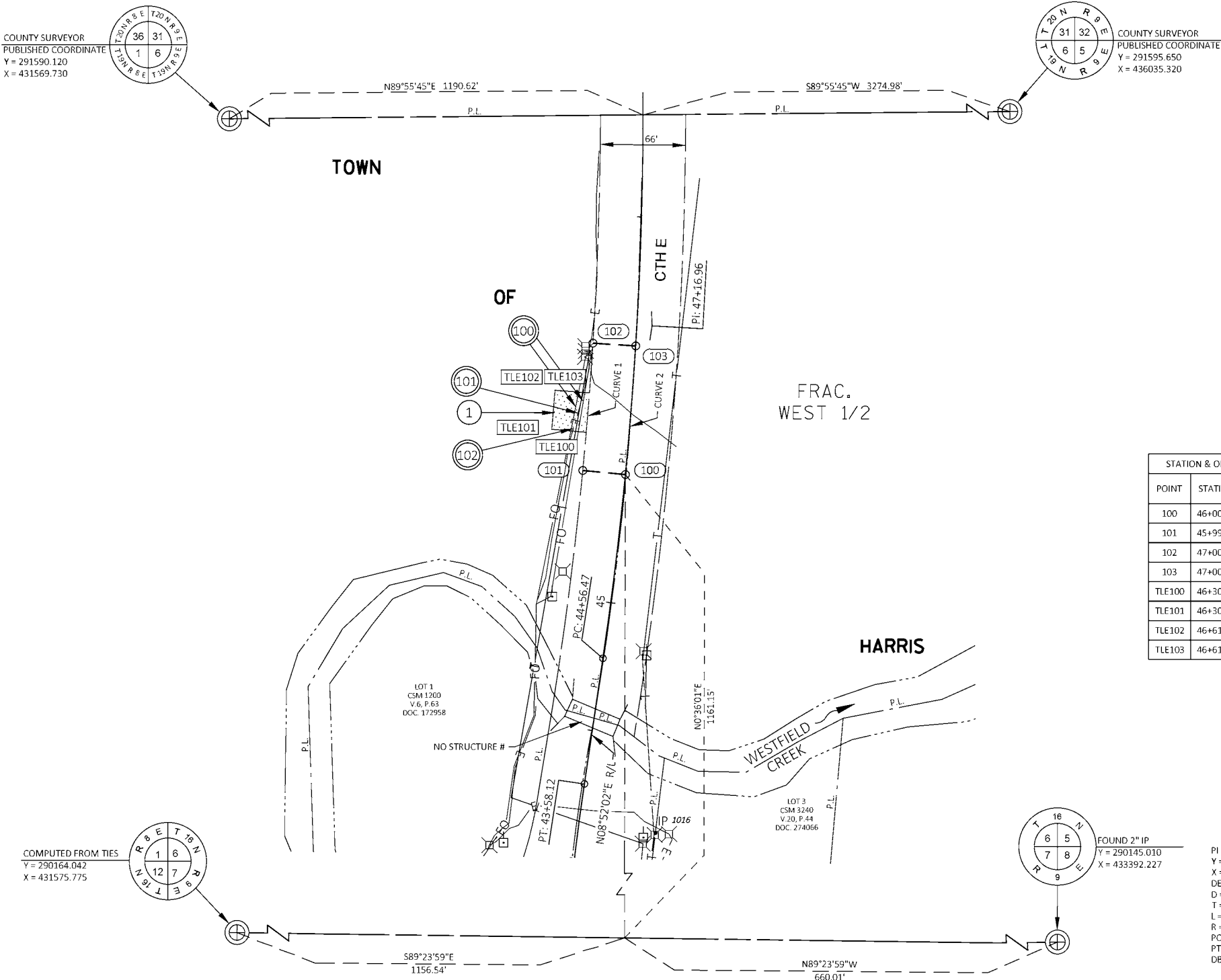
SIGNATURE: *Heather Bartelt* DATE: 4/23/25
PRINT NAME: HEATHER S. BARTELT
REGISTRATION NUMBER: S-2797



THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR MARQUETTE COUNTY
SIGNATURE: *Brian Trebiatowski* DATE: 4/23/25
PRINT NAME: BRIAN TREBIATOWSKI

338662
MARQUETTE COUNTY
NICOLE ZIEBELL
REGISTER OF DEEDS OFFICE
RECORDED 04/24/2025 09:18 AM
E-RECORDED

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6694-04-01-4.01
SHEET 1 OF 2



FOUND MONUMENT TABLE			
POINT	Y COORDS	X COORDS	IP TYPE
1016	291035.165	432765.356	1.25" IP

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

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.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF REGISTER OF DEEDS IN MARQUETTE COUNTY AS SHEET 2 OF 2 OF THIS DOCUMENT.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE MARQUETTE COUNTY HIGHWAY DEPARTMENT.

FOUND MONUMENT INFORMATION SHOWN REPRESENTS TYPE AND LOCATION OF EXISTING MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY AND USE AS A PROPERTY CORNER.

EXISTING HIGHWAY RIGHT-OF-WAY ON CTH E BASED ON: CSM 1200, CSM 3240, AND EXISTING CENTERLINE.

STATION & OFFSET TABLE		
POINT	STATION	OFFSET
100	46+00.00	0.00'
101	45+99.97	-33.17'
102	47+00.01	-33.20'
103	47+00.00	0.00'
TLE100	46+30.00	-33.19'
TLE101	46+30.00	-60.00'
TLE102	46+61.00	-60.00'
TLE103	46+61.00	-33.20'

COURSE TABLE		
COURSE	BEARING	DISTANCE
100 - 101	N84° 01' 39"W	33.17'
101 - 102	SEE CURVE 1 DATA	
102 - 103	S85° 55' 38"E	33.20'
103 - 100	SEE CURVE 2 DATA	

CURVE 1	CURVE 2
R=2982.95'	R=2900.00'
L=98.90'	L=100.00'
LCH=98.89'	LCH=100.00'
LCB=N05°01'22"E	LCB=S05°02'37"W

PI STA = 42+25.68
Y = 290942.289
X = 432690.172
DELTA = 7°35'59" RT
D = 2°51'53"
T = 132.83'
L = 265.28'
R = 2000.00'
PC STA = 40+92.84
PT STA = 43+58.12
DB = N01°16'03"E

PI STA = 47+16.96
Y = 291428.091
X = 432765.962
DELTA = 10°15'57" LT
D = 1°58'33"
T = 260.50'
L = 519.60'
R = 2900.00'
PC STA = 44+56.47
PT STA = 49+76.07
DA = N01°23'55"W

ALIGNMENT SUB-CURVE
PC TO STA. 46+00.00
R=2900.00'
L=143.53'
LCH=143.52'
LCB=N07°26'57"E

ALIGNMENT SUB-CURVE
STA. 47+00.00 TO PT
R=2900.00'
L=276.07'
LCB=N01°19'42"E

TRANSPORTATION PROJECT PLAT NO: 6694-04-01-4.02

THAT PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4, SECTION 32, TOWNSHIP 17 NORTH, RANGE 9 EAST,
TOWN OF NEWTON, MARQUETTE COUNTY, WISCONSIN

RELOCATION ORDER CTH E WESTFIELD-STH 22 (7TH COURT TO STH 22) MARQUETTE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, MARQUETTE COUNTY DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 83.07 AND 83.08, WISCONSIN STATUTES, MARQUETTE COUNTY HEREBY ORDERS THAT:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE COUNTY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF MARQUETTE COUNTY, PURSUANT TO THE PROVISIONS OF SUBSECTION 83.07 AND 83.08, WISCONSIN STATUTES.

SCHEDULE OF LANDS
& INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE
PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO
THE TRANSFER OF LAND INTERESTS TO THE COUNTY

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	FEE NEW	R/W EXISTING	S.F. REQUIRED TOTAL	TLE S.F.
2	JUSTAN L. & ANNA M. GALLOWAY	FEE, TLE	2284	5792	8076	1772

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTERESTS REQUIRED
101	MARQUETTE ADAMS TELEPHONE	RELEASE OF RIGHTS
104	FRONTIER	RELEASE OF RIGHTS

THE PURPOSE OF ALL TLE'S
ARE FOR SLOPE GRADING
UNLESS OTHERWISE NOTED.



MARQUETTE ADAMS TELEPHONE
NO RECORDED EASEMENT
PARCEL 2



FRONTIER
NO RECORDED EASEMENT
PARCEL 2



STRAND ASSOCIATES, INC. ®
910 WEST WINGRA DRIVE, MADISON, WI 53715
(608) 251-4843

I, HEATHER S. BARTELT PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT
IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN
STATUTES AND UNDER THE DIRECTION OF MARQUETTE COUNTY
I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH
PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE: *Heather S. Bartelt* DATE: 4/24/25
PRINT NAME: HEATHER S. BARTELT
REGISTRATION NUMBER: S-2797

THIS PLAT AND RELOCATION ORDER ARE APPROVED
FOR MARQUETTE COUNTY
SIGNATURE: *Brian Trebiatowski* DATE: 4/24/25
PRINT NAME: BRIAN TREBIATOWSKI

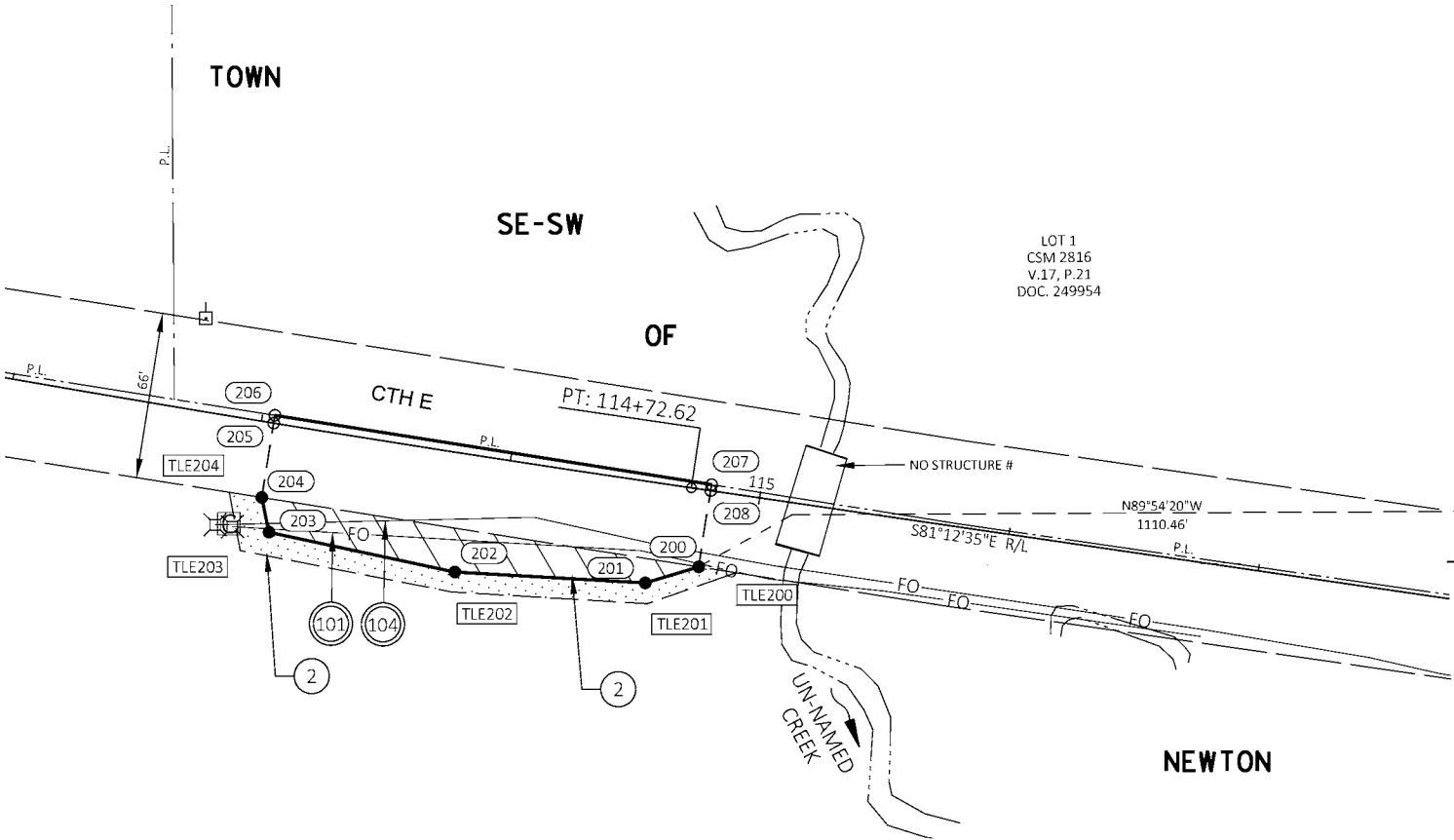
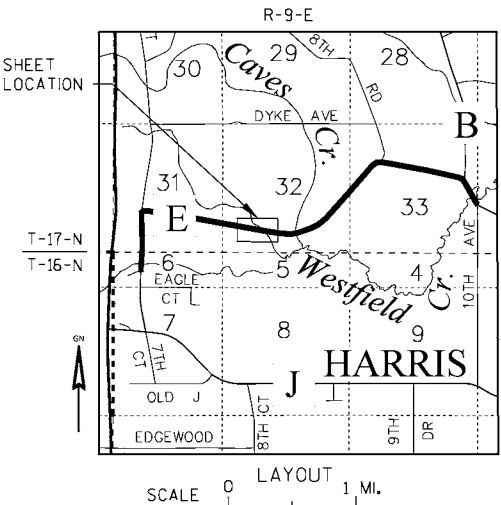
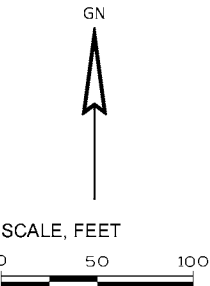
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6694-04-01-4.02

338685
MARQUETTE COUNTY
NICOLE ZIEBEL
REGISTER OF DEEDS OFFICE
RECORDED 04/28/2025 08:48 AM
E-RECORDED

PISTA = 110+78.65
Y = 292586.867
X = 437170.844
DELTA = 4°31'01" LT
D = 0°34'23"
T = 394.38'
L = 788.35'
R = 10000.00'
PC STA = 106+84.27
PT STA = 114+72.62
DB = 576°41'34"E

ALIGNMENT SUB-CURVE
PC TO STA. 113+04.87
R=10000.00'
L=620.60'
LCH=620.50'
LCB=578°28'14"E

ALIGNMENT SUB-CURVE
STA. 113+04.87 TO PT
R=10000.00'
L=167.75'
LCH=167.75'
LCB=580°43'45"E



STATION & OFFSET TABLE		
POINT	STATION	OFFSET
200	114+80.00	30.58'
201	114+60.00	40.00'
202	113+85.00	47.00'
203	113+10.00	43.00'
204	113+05.01	29.85'
205	113+04.87	0.00'
206	113+04.86	-3.15'
207	114+80.40	-2.42'
208	114+80.37	0.00'
TLE200	114+95.00	30.76'
TLE201	114+62.00	48.00'
TLE202	113+85.00	55.00'
TLE203	113+00.00	52.00'
TLE204	112+92.00	29.92'

COURSE TABLE		
COURSE	BEARING	DISTANCE
200 - 201	S73° 38' 04"W	22.15'
201 - 202	N86° 13' 56"W	75.64'
202 - 203	N77° 27' 13"W	75.44'
203 - 204	N11° 08' 07"W	14.07'
204 - 205	N09° 29' 19"E	29.85'
205 - 206	N09° 29' 19"E	3.15'
206 - 207	S80° 30' 41"E	175.50'
207 - 208	S09° 29' 19"W	2.42'
208 - 200	S09° 29' 25"W	30.58'

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

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.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE
SHEET, RECORDED IN THE OFFICE OF REGISTER OF
DEEDS IN MARQUETTE COUNTY AS SHEET 2 OF 2 OF
DOCUMENT 338662.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION,
CONTACT THE MARQUETTE COUNTY HIGHWAY
DEPARTMENT.

FOUND MONUMENT INFORMATION SHOWN
REPRESENTS TYPE AND LOCATION OF EXISTING
MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY
AND USE AS A PROPERTY CORNER.

EXISTING HIGHWAY RIGHT-OF-WAY ON CTH E BASED ON :
CSM 2816 AND EXISTING CENTERLINE.

TRANSPORTATION PROJECT PLAT NO: 6694-04-01-4.03

THAT PART OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4, SECTION 32, TOWNSHIP 17 NORTH, RANGE 9 EAST,
TOWN OF NEWTON, MARQUETTE COUNTY, WISCONSIN

RELOCATION ORDER CTH E WESTFIELD-STH 22 (7TH COURT TO STH 22) MARQUETTE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, MARQUETTE COUNTY DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 83.07 AND 83.08, WISCONSIN STATUTES, MARQUETTE COUNTY HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE COUNTY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF MARQUETTE COUNTY, PURSUANT TO THE PROVISIONS OF SUBSECTION 83.07 AND 83.08, WISCONSIN STATUTES.

PI STA = 125+25.58 Y = 292365.688 X = 438601.178 DELTA = 5°36'04" LT D = 2°23'14" T = 117.41' L = 234.62' R = 2400.00' PC STA = 124+08.17 PT STA = 126+42.80 DB = S81°12'35"E DA = S86°48'39"E

PI STA = 127+34.86 Y = 292354.035 X = 438810.328 DELTA = 9°34'08" LT D = 5°12'31" T = 92.07' L = 183.71' R = 1100.00' PC STA = 126+42.80 PT STA = 128+26.51 DB = S86°48'39"E DA = N83°37'12"E

PI STA = 129+33.11 Y = 292376.112 X = 439007.775 DELTA = 8°07'50" LT D = 3°49'11" T = 106.61' L = 212.86' R = 1500.00' PC STA = 128+26.51 PT STA = 130+39.36 DB = N83°37'12"E DA = N75°29'22"E

ALIGNMENT SUB-CURVE
PCC TO STA. 128+88.72
R=1500.00'
L=62.21'
D = 5°12'31"
LCB=N82°25'55"E

ALIGNMENT SUB-CURVE
STA. 128+88.72 TO STA. PT
R=1500.00'
L=150.65'
LCB=N82°25'55"E

PI STA = 133+91.28 Y = 292490.998 X = 439451.673 DELTA = 7°37'52" LT D = 2°15'53" T = 168.73' L = 336.96' R = 2530.00' PC STA = 132+22.55 PT STA = 135+59.51 DB = N67°51'30"E DA = N67°51'30"E

SCHEDULE OF LANDS
& INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE
PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO
THE TRANSFER OF LAND INTERESTS TO THE COUNTY

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	FEE NEW	R/W EXISTING	S.F. REQUIRED TOTAL	TLE S.F.
3	VERNON A. & CHRISTINE A. FAUST	TLE	---	---	---	3752

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTERESTS REQUIRED
N/A	N/A	N/A

THE PURPOSE OF ALL TLE'S
ARE FOR SLOPE GRADING
UNLESS OTHERWISE NOTED.



STRAND ASSOCIATES, INC. ®
910 WEST WINGRA DRIVE, MADISON, WI 53715
(608) 251-4843

I, HEATHER S. BARTELT PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT
IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN
STATUTES AND UNDER THE DIRECTION OF MARQUETTE COUNTY
I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH
PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE: *Heather S. Bartelt* DATE: 4/24/25
PRINT NAME: HEATHER S. BARTELT
REGISTRATION NUMBER: S-2797

THIS PLAT AND RELOCATION ORDER ARE APPROVED
FOR MARQUETTE COUNTY

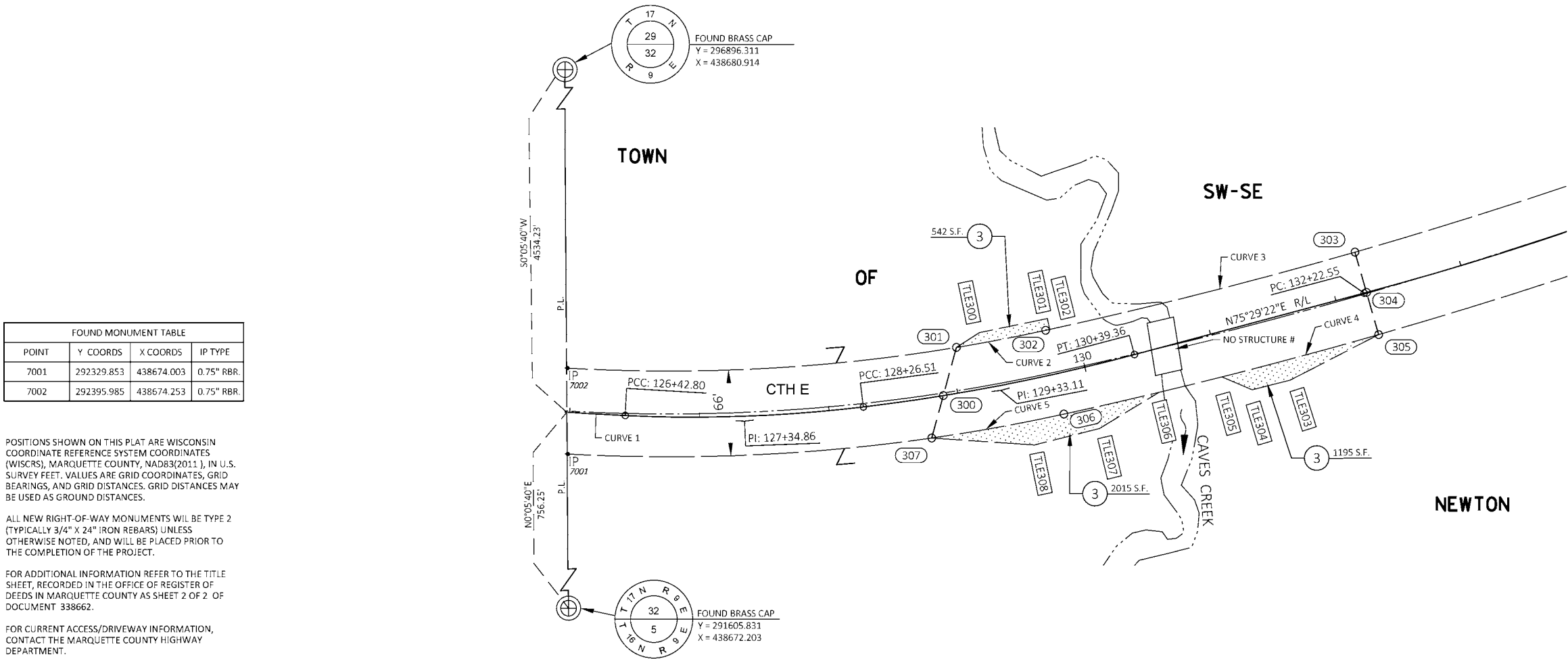
SIGNATURE: *Brian Trebiatowski* DATE: 4/24/25
PRINT NAME: BRIAN TREBIATOWSKI

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6694-04-01-4.03

338686
MARQUETTE COUNTY
NICOLE ZIEBELL
REGISTER OF DEEDS OFFICE
RECORDED 04/28/2025 08:48 AM
E-RECORDED

4

4



FOUND MONUMENT TABLE			
POINT	Y COORDS	X COORDS	IP TYPE
7001	292329.853	438674.003	0.75" RBR.
7002	292395.985	438674.253	0.75" RBR.

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

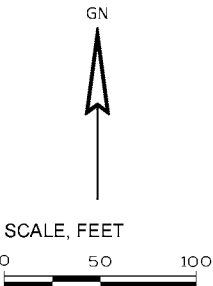
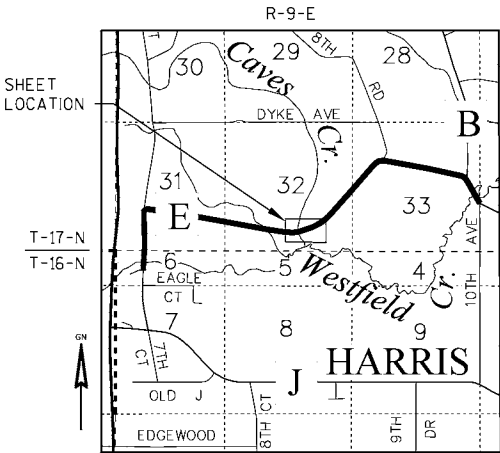
ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2
(TYPICALLY 3/4" X 24" IRON REBARS) UNLESS
OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO
THE COMPLETION OF THE PROJECT.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE
SHEET, RECORDED IN THE OFFICE OF REGISTER OF
DEEDS IN MARQUETTE COUNTY AS SHEET 2 OF 2 OF
DOCUMENT 338662.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION,
CONTACT THE MARQUETTE COUNTY HIGHWAY
DEPARTMENT.

FOUND MONUMENT INFORMATION SHOWN
REPRESENTS TYPE AND LOCATION OF EXISTING
MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY
AND USE AS A PROPERTY CORNER.

EXISTING HIGHWAY RIGHT-OF-WAY ON CTH E BASED ON:
EXISTING CENTERLINE.



LAYOUT
SCALE 0 1 MI.

STATION & OFFSET TABLE		
POINT	STATION	OFFSET
300	128+88.72	0.00'
301	129+05.00	-34.88'
302	129+76.58	-34.44'
303	132+23.85	-32.25'
304	132+24.42	0.00'
305	132+25.00	33.74'
306	129+76.29	31.56'
307	128+75.00	30.85'
TLE300	129+25.00	-43.00'
TLE301	129+80.00	-43.00'
TLE302	129+80.00	-34.42'
TLE303	131+50.00	50.00'
TLE304	131+20.00	49.59'
TLE305	131+00.00	33.99'
TLE306	130+50.00	32.96'
TLE307	130+00.00	48.48'
TLE308	129+50.00	50.00'

COURSE TABLE		
COURSE	BEARING	DISTANCE
300 - 301	N15° 41' 36"E	38.42'
301 - 302	SEE CURVE 2 DATA	
302 - 303	SEE CURVE 3 DATA	
303 - 304	S15° 32' 54"E	32.25'
304 - 305	S15° 32' 54"E	33.75'
305 - 306	SEE CURVE 4 DATA	
306 - 307	SEE CURVE 5 DATA	
307 - 300	N15° 41' 36"E	33.82'

CURVE 1
R=2400.00'
L=45.05'
LCB=N86°16'24"E

CURVE 2
R=1359.57'
L=69.93'
LCB=N79°37'16"E

CURVE 3
R=3811.46'
L=245.86'
LCB=N76°17'58"E

CURVE 4
R=3877.46'
L=250.12'
LCB=N76°17'58"W

CURVE 5
R=1425.57'
L=103.40'
LCB=N80°13'32"W

TRANSPORTATION PROJECT PLAT NO: 6694-04-01-4.04

THAT PART OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4, AND PART OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4, ALL IN SECTION 33, TOWNSHIP 17 NORTH, RANGE 9 EAST, TOWN OF NEWTON, MARQUETTE COUNTY, WISCONSIN

RELOCATION ORDER CTH E WESTFIELD-STH 22 (7TH COURT TO STH 22) MARQUETTE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, MARQUETTE COUNTY DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 83.07 AND 83.08, WISCONSIN STATUTES, MARQUETTE COUNTY HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE COUNTY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF MARQUETTE COUNTY, PURSUANT TO THE PROVISIONS OF SUBSECTION 83.07 AND 83.08, WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	FEE NEW	R/W EXISTING	S.F. REQUIRED TOTAL	TLE S.F.
4	DONALD G. BITTELMAN	FEE	716	---	716	---

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTERESTS REQUIRED
101	MARQUETTE ADAMS TELEPHONE	RELEASE OF RIGHTS
103	ALLIANT ENERGY - ELECTRIC	RELEASE OF RIGHTS

THE PURPOSE OF ALL TLE'S ARE FOR SLOPE GRADING UNLESS OTHERWISE NOTED.

101 MARQUETTE ADAMS TELEPHONE NO RECORDED EASEMENT PARCEL 4

103 ALLIANT ENERGY - ELECTRIC (WP&L) BLANKET EASEMENT NW 1/4 SEC. 33 DOC. 59782 PARCEL 4

103 ALLIANT ENERGY - ELECTRIC (WP&L) BLANKET EASEMENT NORTH SIDE OF HIGHWAY EAST 1/2-NW 1/4 SEC. 33 DOC. 59772 PARCEL 4



STRAND ASSOCIATES, INC. ®
910 WEST WINGRA DRIVE, MADISON, WI 53715
(608) 251-4843

I, HEATHER S. BARTELT PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF MARQUETTE COUNTY I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE: *Heather S. Bartelt* DATE: 4/24/25
PRINT NAME: HEATHER S. BARTELT
REGISTRATION NUMBER: S-2797

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR MARQUETTE COUNTY

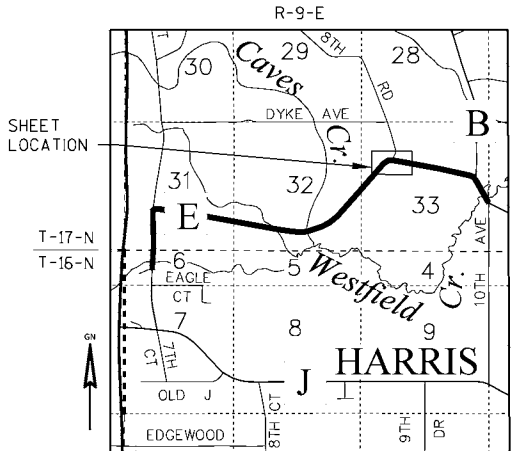
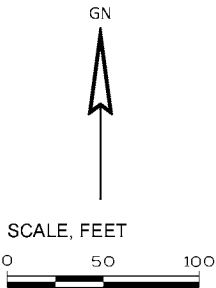
SIGNATURE: *Brian Trebatiowski* DATE: 4/24/25
PRINT NAME: BRIAN TREBIATOWSKI

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6694-04-01-4.04

338687
MARQUETTE COUNTY
NICOLE ZIEBELL
REGISTER OF DEEDS OFFICE
RECORDED 04/28/2025 08:48 AM
E-RECORDED

4

4



SCALE 0 LAYOUT 1 MI.

PI STA = 174+47.20 Y = 295280.388 X = 442332.781 DELTA = 28°12'19" RT D = 12°11'26" T = 118.08' L = 231.37' R = 470.00' PC STA = 173+29.12 PT STA = 175+60.49 DB = N44°18'13"E DA = N72°30'32"E	PI STA = 176+03.84 Y = 295328.906 X = 442486.745 DELTA = 18°14'33" RT D = 21°13'14" T = 43.35' L = 85.97' R = 270.00' PC STA = 175+60.49 PT STA = 176+46.45 DB = N72°30'32"E DA = S89°14'56"E	PI STA = 177+47.00 Y = 295327.020 X = 442630.630 DELTA = 8°50'43" RT D = 4°24'27" T = 100.55' L = 200.69' R = 1300.00' PC STA = 176+46.45 PT STA = 178+47.15 DB = S89°14'56"E
--	--	---

STATION & OFFSET TABLE		
POINT	STATION	OFFSET
400	177+60.00	-79.39'
401	177+75.00	-32.40'
402	177+46.55	-33.39'

COURSE TABLE		
COURSE	BEARING	DISTANCE
400 - 401	S12° 19' 41"E	49.53'
401 - 402	N82° 16' 11"W	29.19'
402 - 400	SEE CURVE 1 DATA	

CURVE 1
R=248.89'
L=48.17'
LCH=48.10'
LCB=S22°25'33"W

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

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.

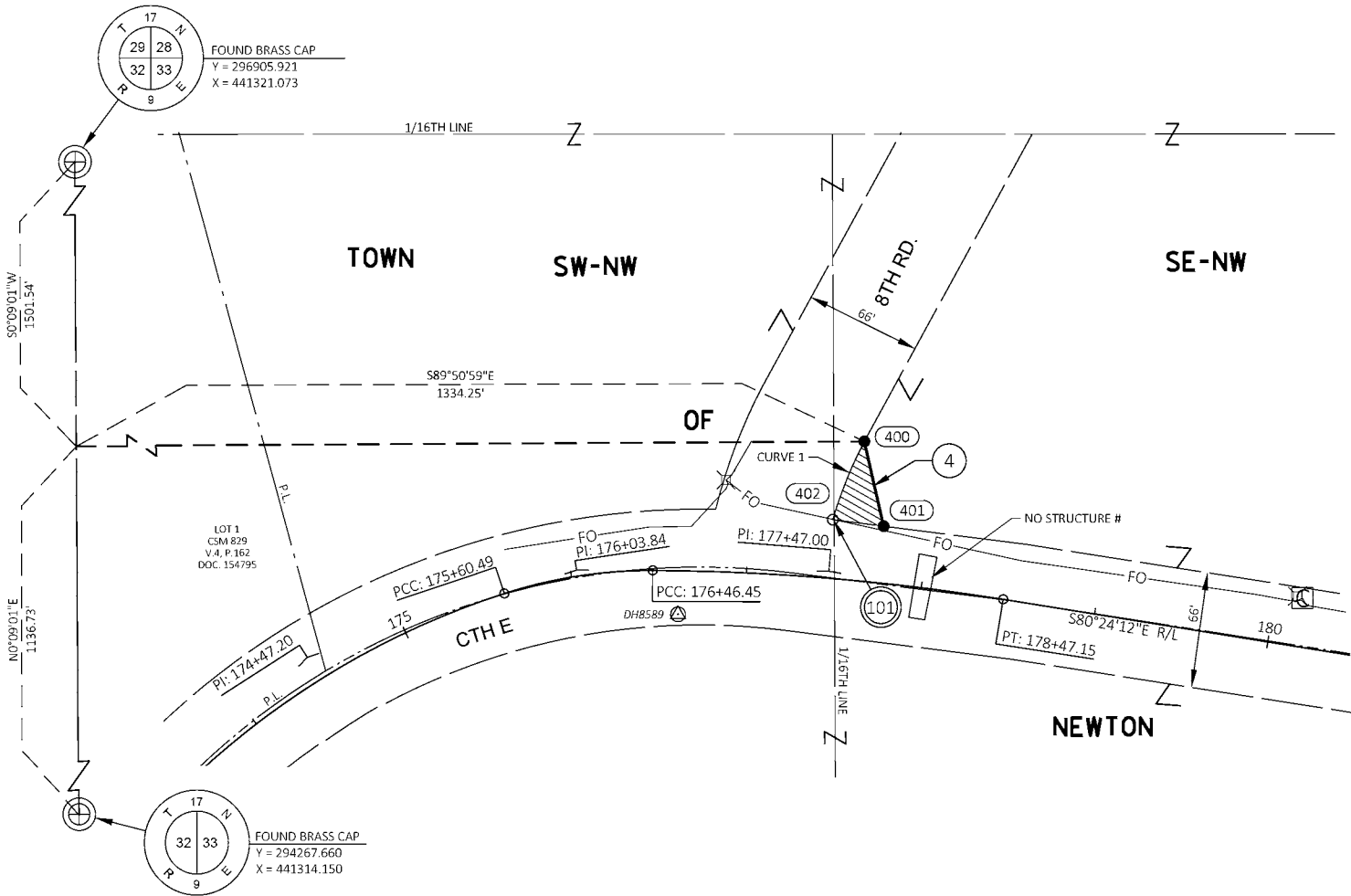
FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF REGISTER OF DEEDS IN MARQUETTE COUNTY AS SHEET 2 OF 2 OF DOCUMENT 338662.

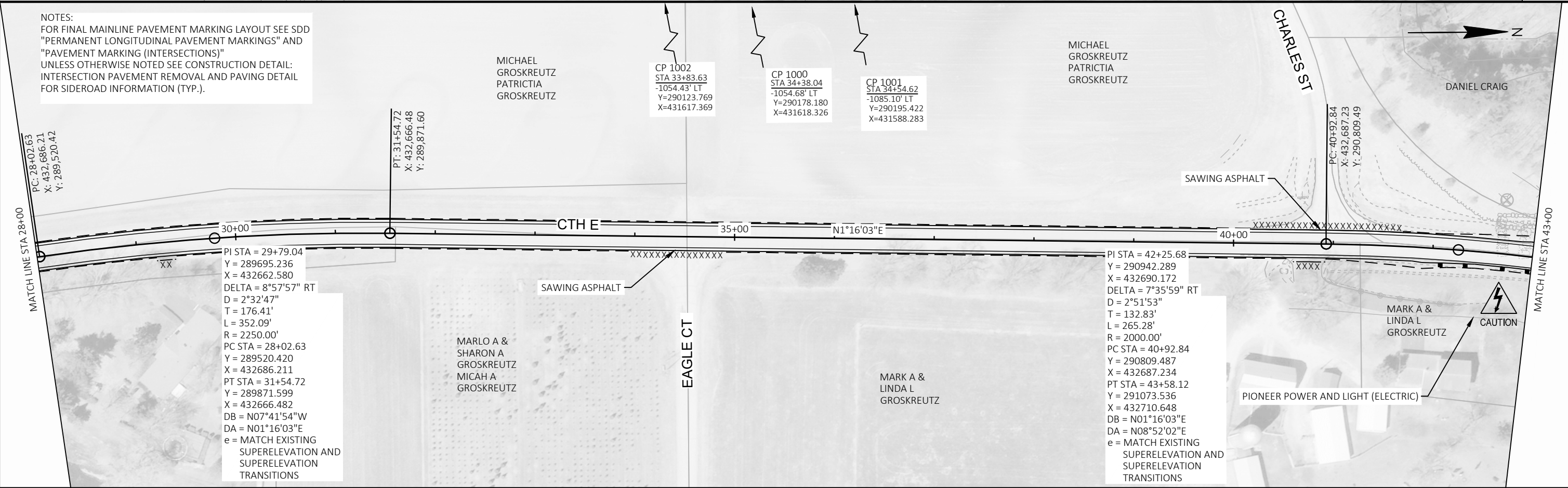
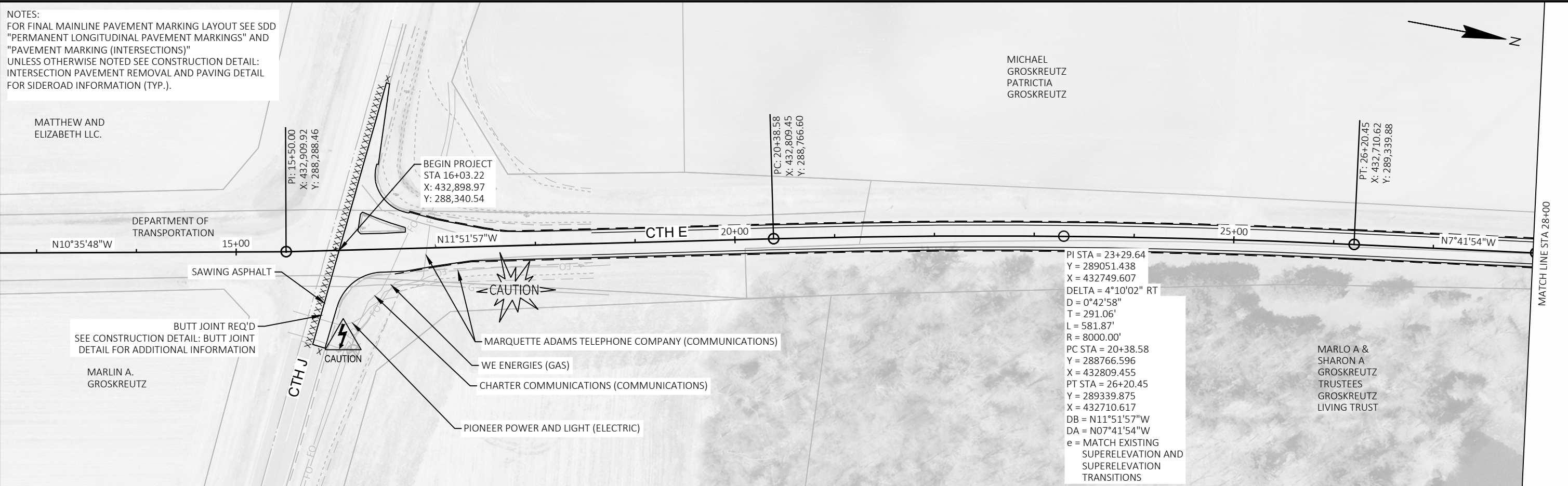
FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE MARQUETTE COUNTY HIGHWAY DEPARTMENT.

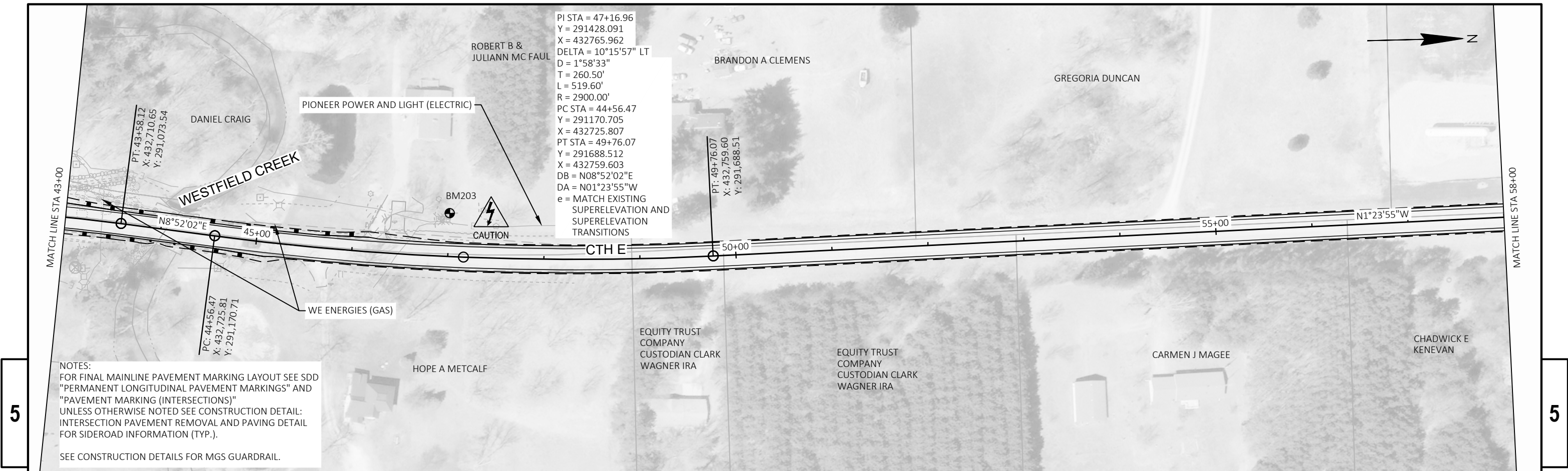
FOUND MONUMENT INFORMATION SHOWN REPRESENTS TYPE AND LOCATION OF EXISTING MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY AND USE AS A PROPERTY CORNER.

EXISTING HIGHWAY RIGHT-OF-WAY ON CTH E BASED ON: CSM 829 AND AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY ON 8TH RD. BASED ON: EXISTING CENTERLINE







BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
203	STA 46+99.89, 45.04' LT	855.44	RAIL ROAD SPIKE

NOTES:
FOR FINAL MAINLINE PAVEMENT MARKING LAYOUT SEE SDD
"PERMANENT LONGITUDINAL PAVEMENT MARKINGS" AND
"PAVEMENT MARKING (INTERSECTIONS)"
UNLESS OTHERWISE NOTED SEE CONSTRUCTION DETAIL:
INTERSECTION PAVEMENT REMOVAL AND PAVING DETAIL
FOR SIDEROAD INFORMATION (TYP.).



5

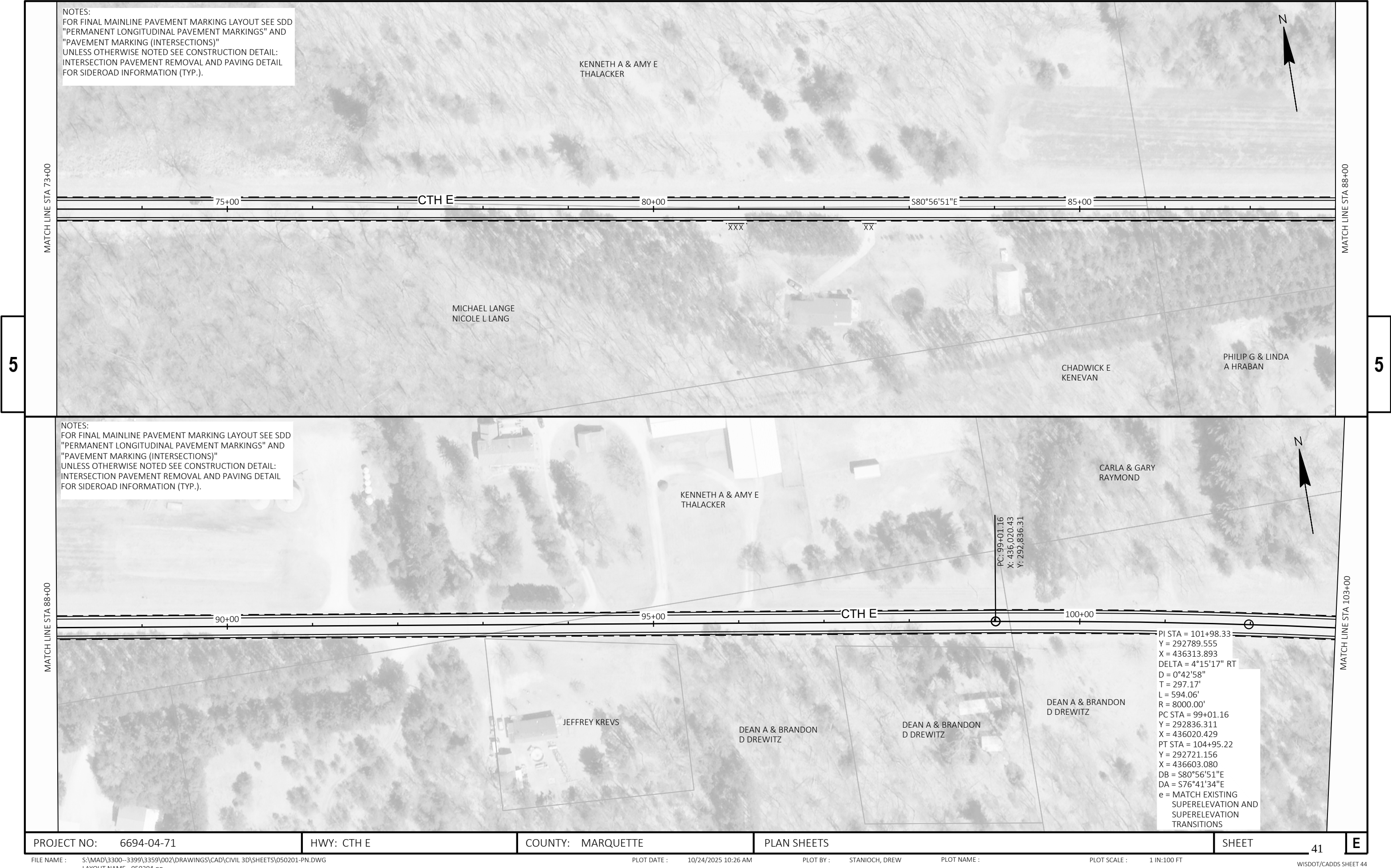
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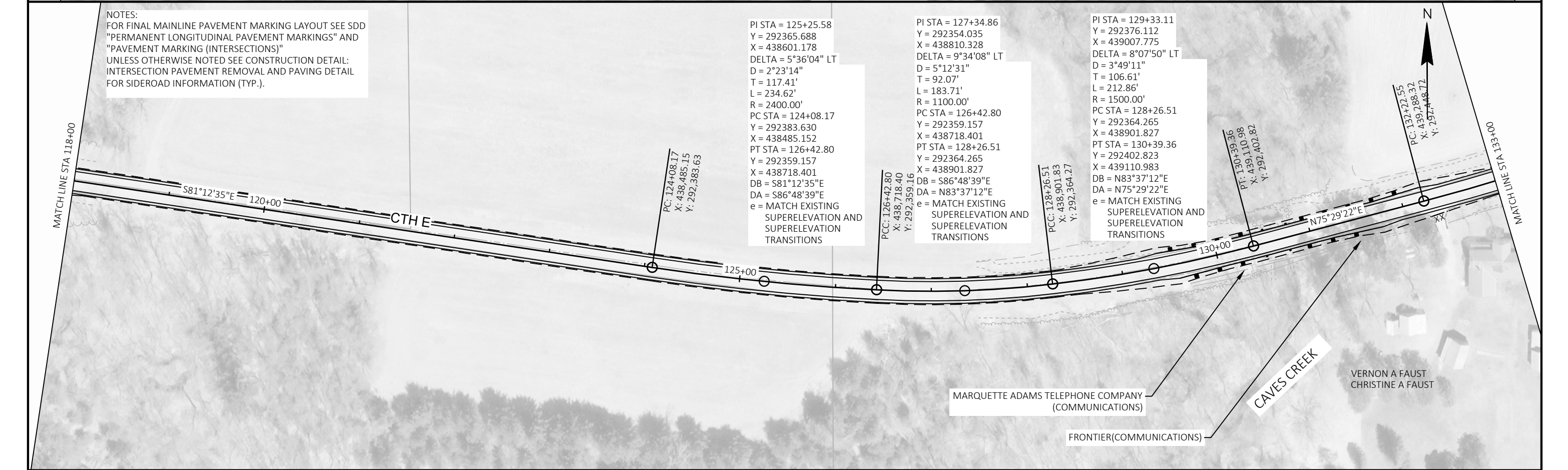
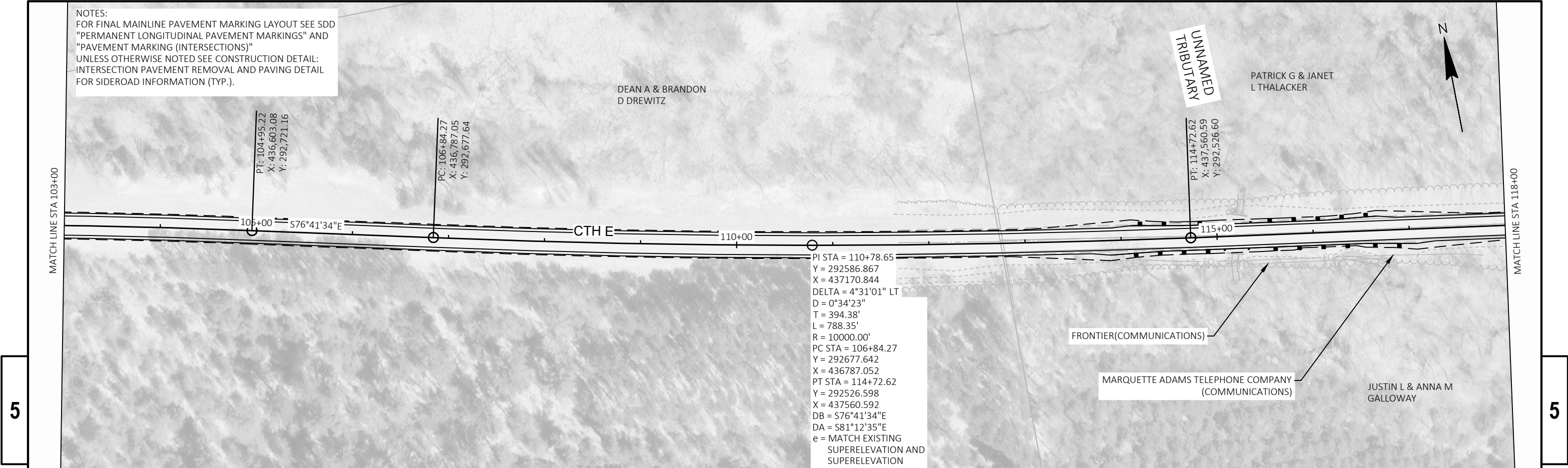


PI STA = 64+82.09
Y = 293194.080
X = 432722.842
DELTA = 13°35'19" RT
D = 14°41'28"
T = 46.46'
L = 92.49'
R = 390.00'
PC STA = 64+35.62
Y = 293147.628
X = 432723.976
PT STA = 65+28.11
Y = 293239.497
X = 432732.653
DB = N01°23'55"W
DA = N12°11'23"E
e = MATCH EXISTING
SUPERELEVATION AND
SUPERELEVATION
TRANSITIONS

PI STA = 66+06.57
Y = 293316.187
X = 432749.220
DELTA = 66°21'19" RT
D = 47°44'47"
T = 78.46'
L = 138.97'
R = 120.00'
PC STA = 65+28.11
Y = 293239.497
X = 432732.653
PT STA = 66+67.09
Y = 293331.769
X = 432826.116
DB = N12°11'23"E
DA = N78°32'42"E
e = MATCH EXISTING
SUPERELEVATION AND
SUPERELEVATION
TRANSITIONS

PI STA = 67+05.08
Y = 293339.313
X = 432863.347
DELTA = 20°30'27" RT
D = 27°17'01"
T = 37.99'
L = 75.16'
R = 210.00'
PC STA = 66+67.09
Y = 293331.769
X = 432826.116
PT STA = 67+42.25
Y = 293333.336
X = 432900.863
DB = N78°32'42"E
DA = S80°56'51"E
e = MATCH EXISTING
SUPERELEVATION AND
SUPERELEVATION
TRANSITIONS





NOTES:
FOR FINAL MAINLINE PAVEMENT MARKING LAYOUT SEE SDD
"PERMANENT LONGITUDINAL PAVEMENT MARKINGS" AND
"PAVEMENT MARKING (INTERSECTIONS)"
UNLESS OTHERWISE NOTED SEE CONSTRUCTION DETAIL:
INTERSECTION PAVEMENT REMOVAL AND PAVING DETAIL
FOR SIDEROAD INFORMATION (TYP.).

PI STA = 136+87.19
Y = 292602.715
X = 439726.228
DELTA = 3°45'01" LT
D = 1°28'09"
T = 127.68'
L = 255.27'
R = 3900.00'
PC STA = 135+59.51
Y = 292554.593
X = 439607.962
PT STA = 138+14.79
Y = 292658.470
X = 439841.093
DB = N67°51'30"E
DA = N64°06'29"E
e = MATCH EXISTING
SUPERELEVATION AND
SUPERELEVATION
TRANSITIONS

PI STA = 140+46.39
Y = 292759.605
X = 440049.447
DELTA = 15°44'41" LT
D = 3°25'14"
T = 231.60'
L = 460.29'
R = 1675.00'
PC STA = 138+14.79
Y = 292658.470
X = 439841.093
PT STA = 142+75.07
Y = 292913.484
X = 440222.542
DB = N64°06'29"E
DA = N48°21'48"E
e = MATCH EXISTING
SUPERELEVATION AND
SUPERELEVATION
TRANSITIONS

PI STA = 144+68.46
Y = 293041.974
X = 440367.077
DELTA = 7°17'05" LT
D = 1°53'09"
T = 193.39'
L = 386.26'
R = 3038.00'
PC STA = 142+75.07
Y = 292913.484
X = 440222.542
PT STA = 146+61.34
Y = 293187.755
X = 440494.154
DB = N48°21'48"E
DA = N41°04'43"E
e = MATCH EXISTING
SUPERELEVATION AND
SUPERELEVATION
TRANSITIONS

PI STA = 133+91.28
Y = 292490.998
X = 439451.673
DELTA = 7°37'52" LT
D = 2°15'53"
T = 168.73'
L = 336.96'
R = 2530.00'
PC STA = 132+22.55
Y = 292448.721
X = 439288.323
PT STA = 135+59.51
Y = 292554.593
X = 439607.962
DB = N75°29'22"E
DA = N67°51'30"E
e = MATCH EXISTING
SUPERELEVATION AND
SUPERELEVATION
TRANSITIONS

PCC: 138+14.79
X: 439,841.09
Y: 292,658.47

PCC: 142+75.07
X: 440,222.54
Y: 292,913.48

PT: 146+61.34
X: 440,494.15
Y: 293,187.75

DEPARTMENT OF
NATURAL RESOURCES

DONALD W TITUS, JR.
TERESA J TITUS

DONALD G
BITTELMAN

DONALD G
BITTELMAN

DONALD G
BITTELMAN

DONALD G
BITTELMAN

MATCH LINE STA 133+00

MATCH LINE STA 148+00

MATCH LINE STA 148+00

MATCH LINE STA 163+00

PROJECT NO: 6694-04-71

HWY: CTH E

COUNTY: MARQUETTE

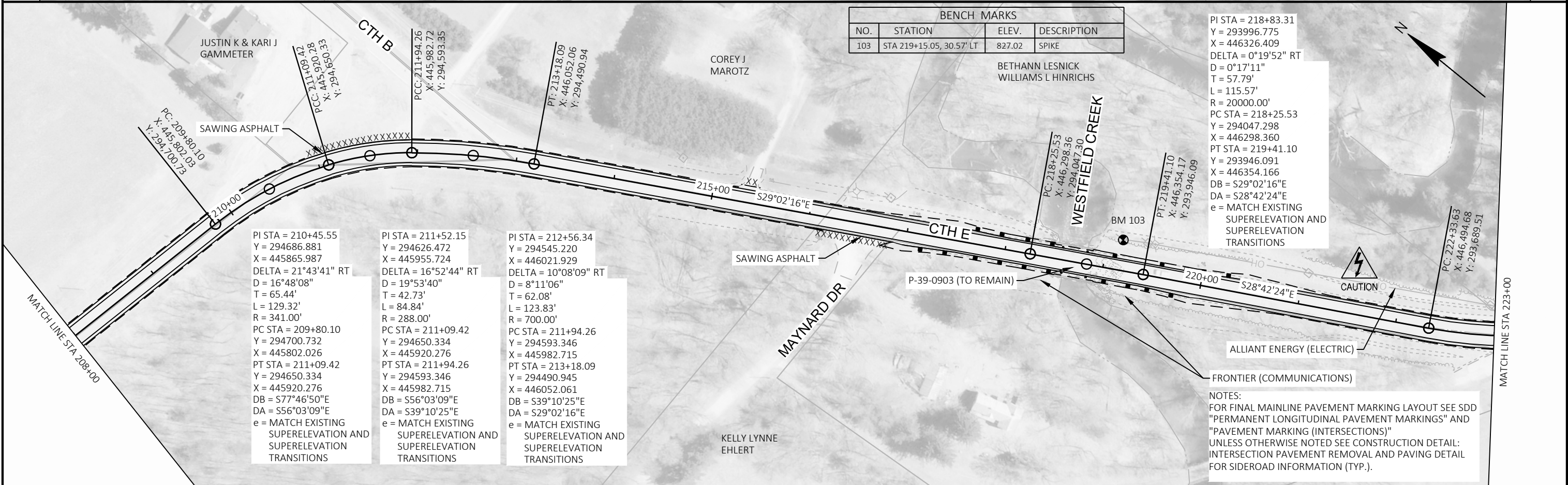
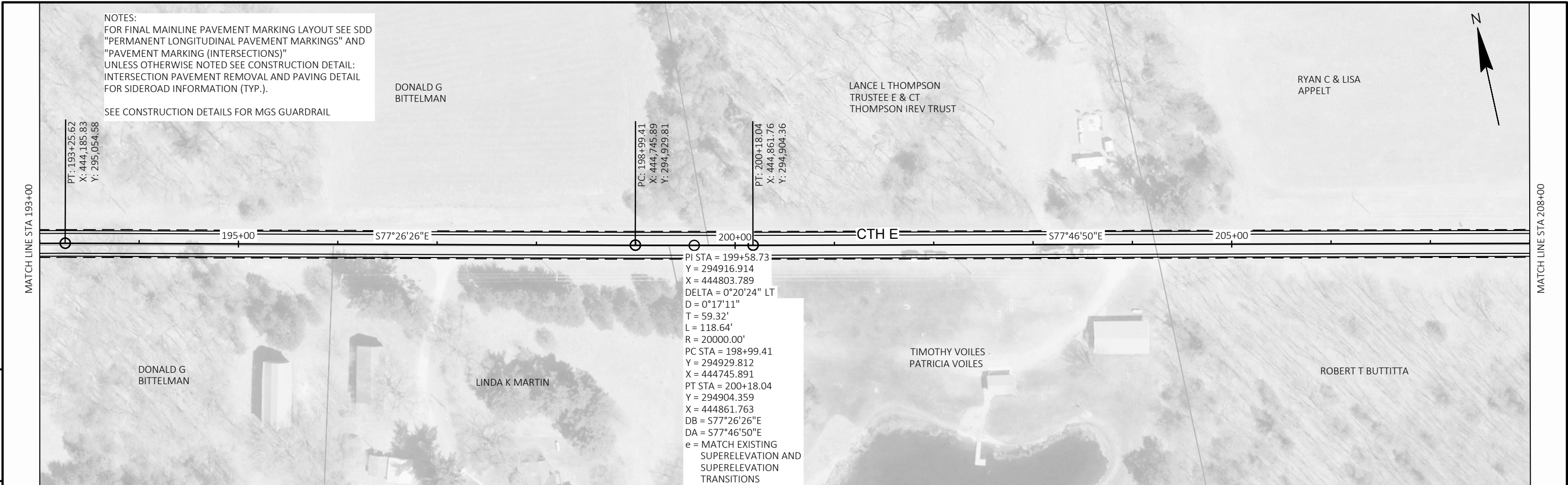
PLAN SHEETS

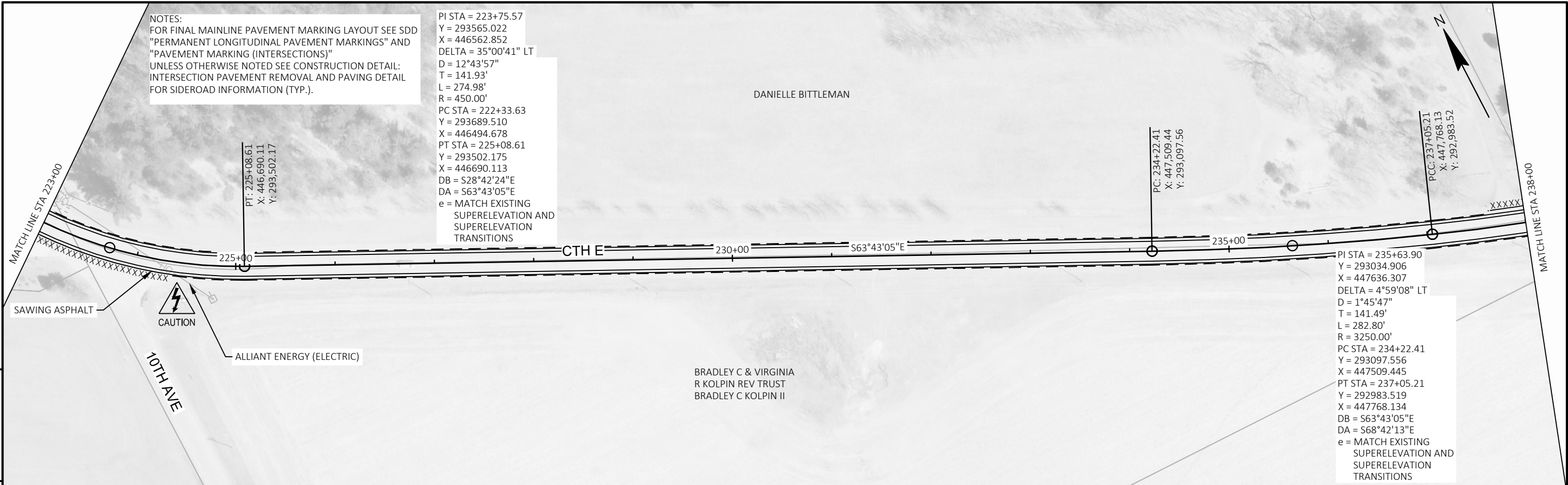
SHEET

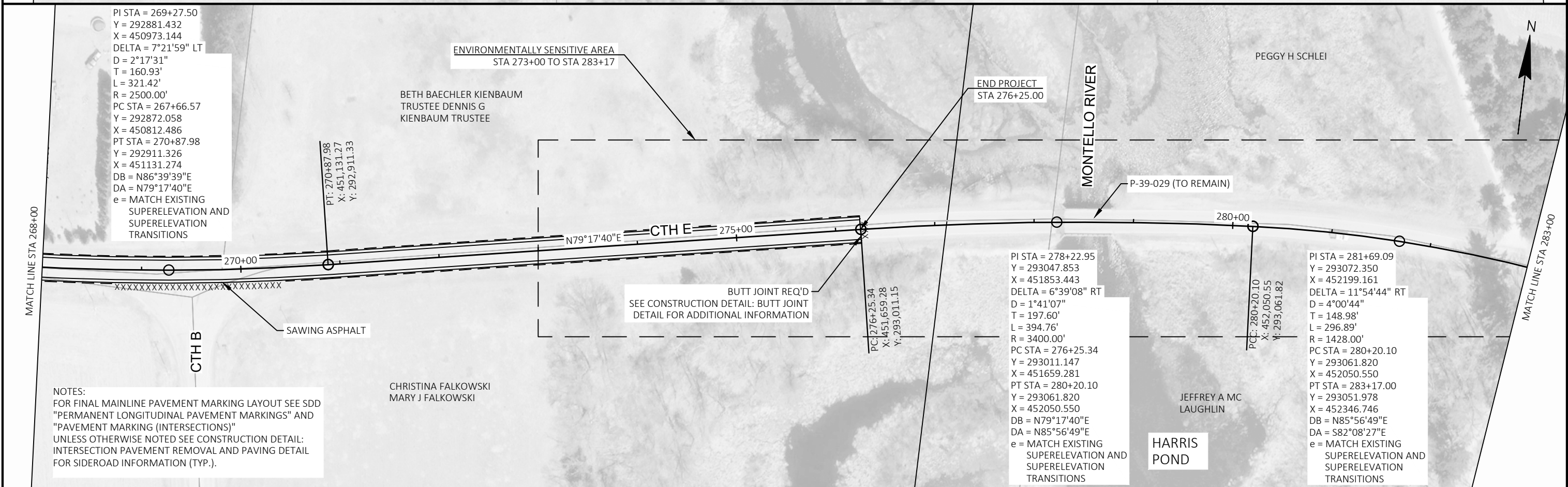
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E







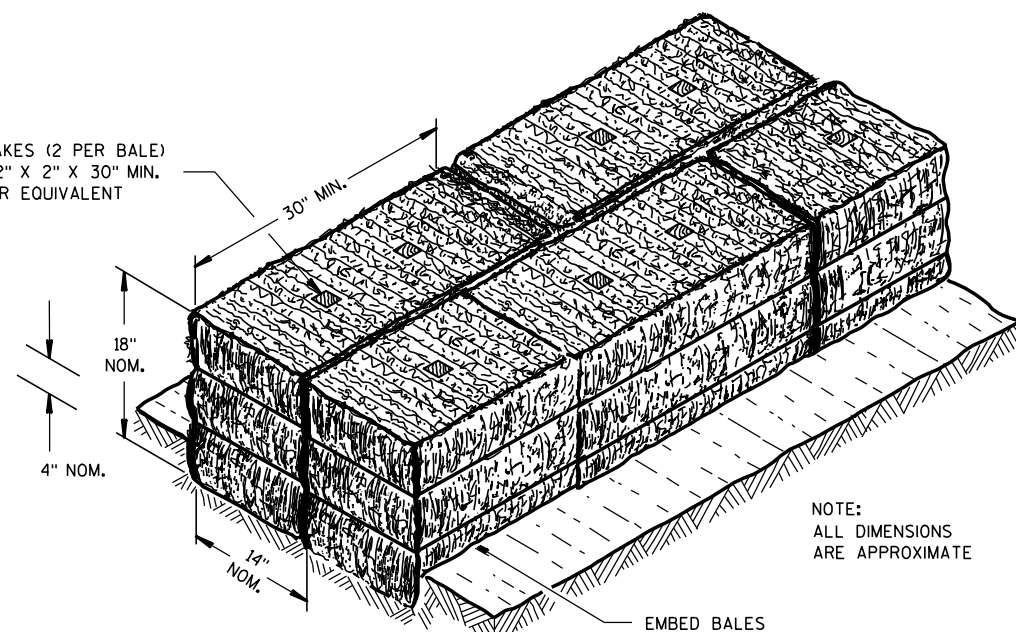


PROJECT NO: 6694-04-71	HWY: CTH E	COUNTY: MARQUETTE	PLAN SHEETS	SHEET 47	E
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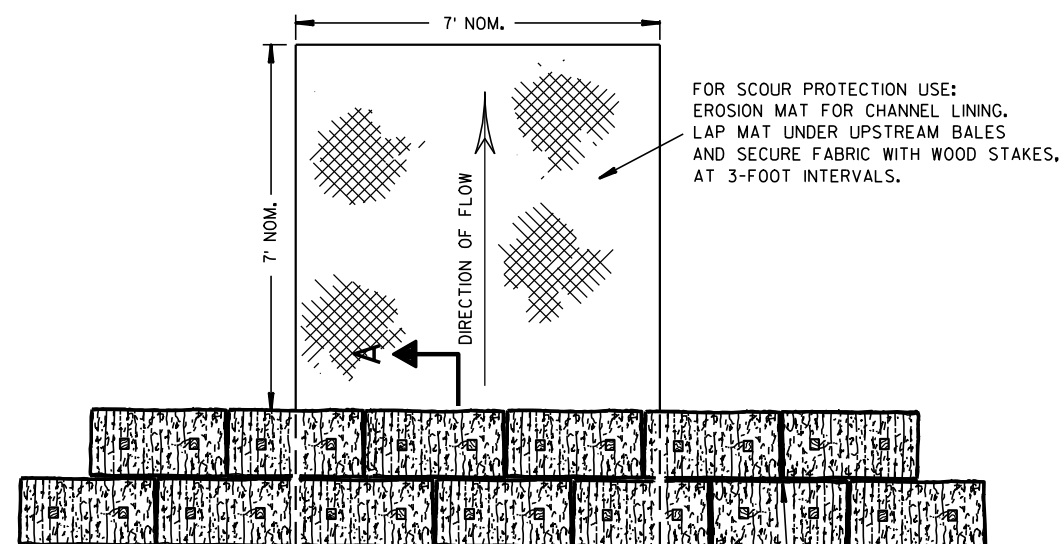
Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-04A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
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)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B53-03A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-10A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D39-03	TRAFFIC CONTROL, DROP-OFF SIGNING
16A02-01	GEODETIC SURVEY MONUMENT

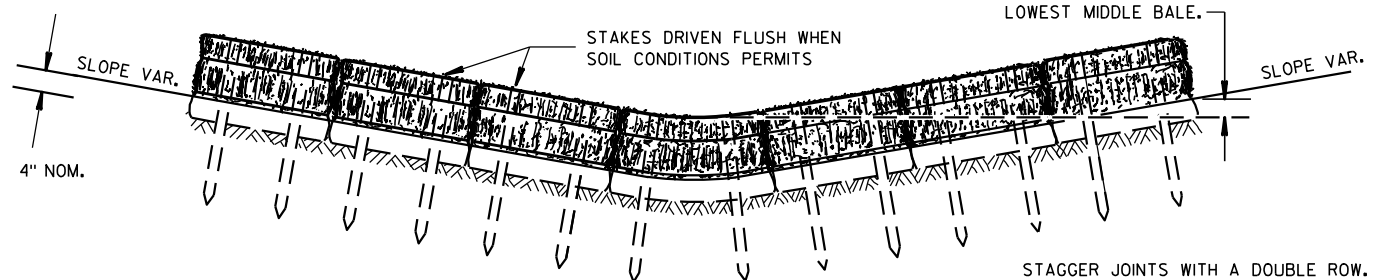
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



SECTION A-A



PLAN VIEW



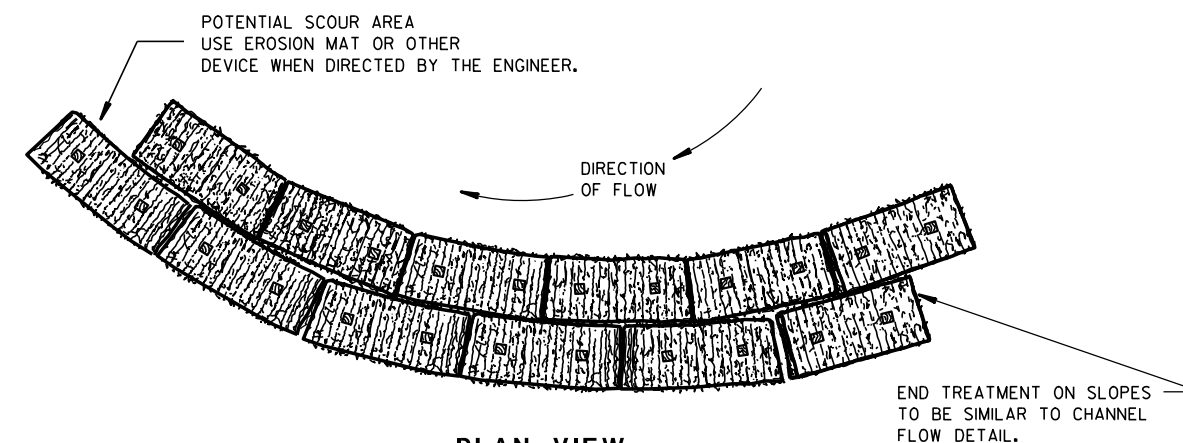
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

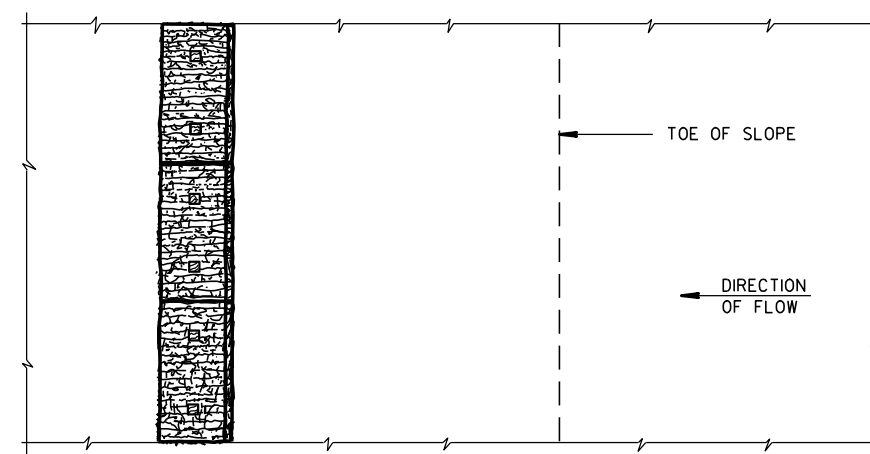
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

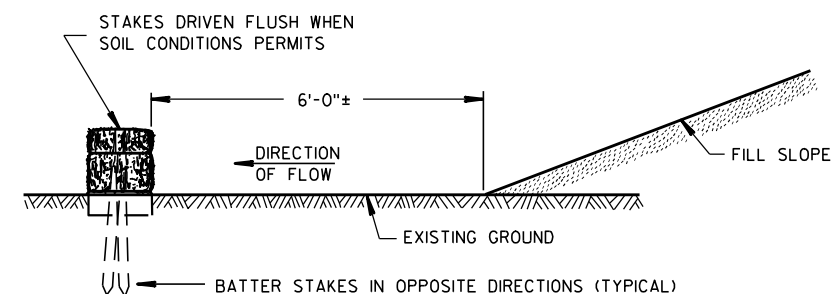


PLAN VIEW

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

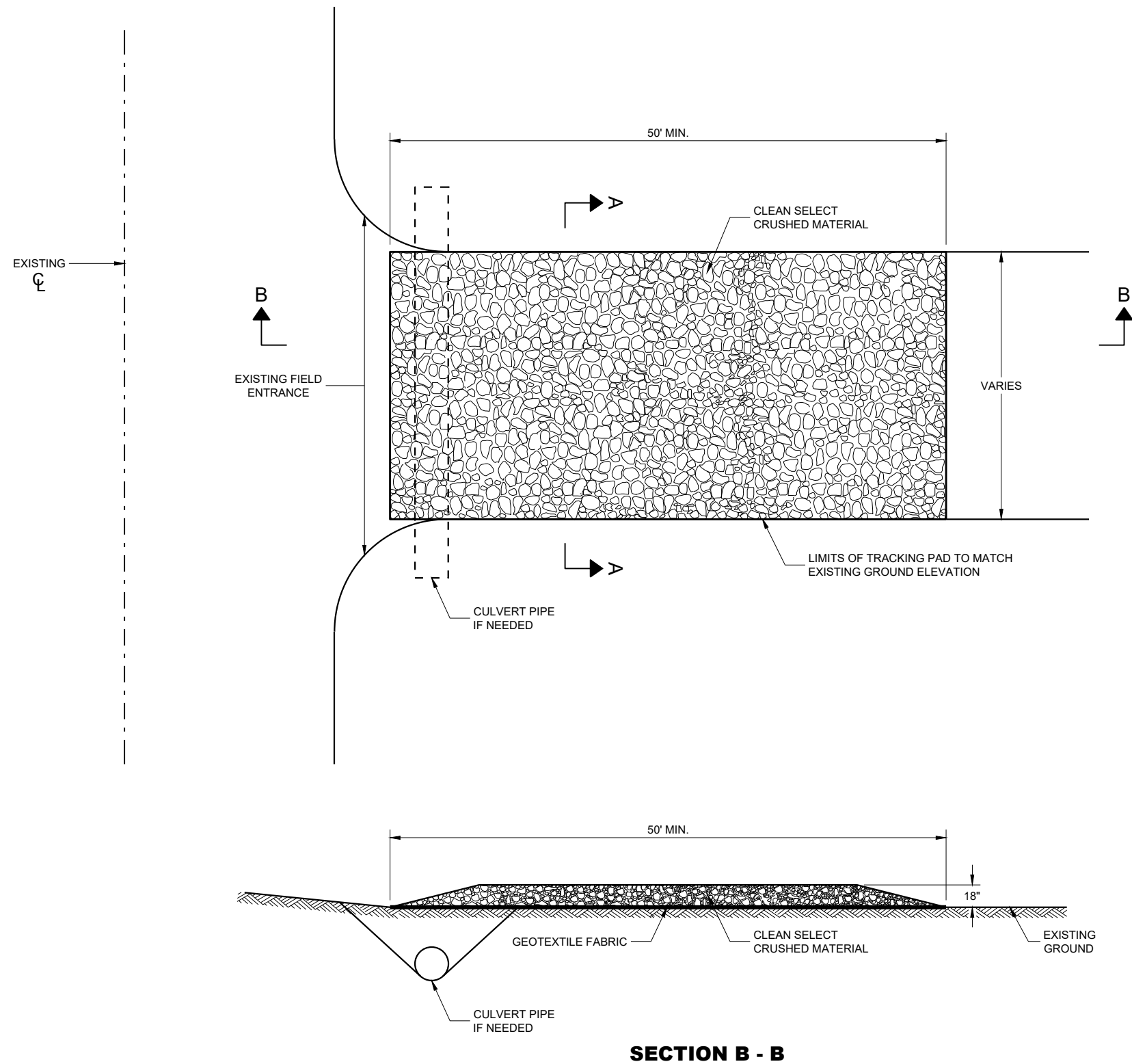
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

FHWA

/S/ Beth Conn-----
CHIEF ROADWAY DEVELOPER 49 ENGINEER



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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

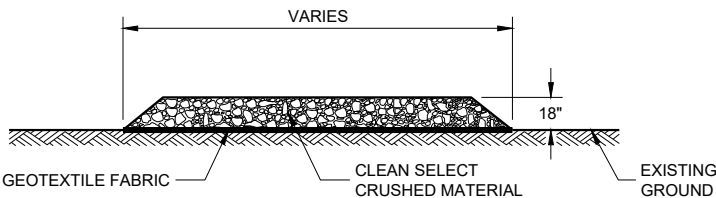
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

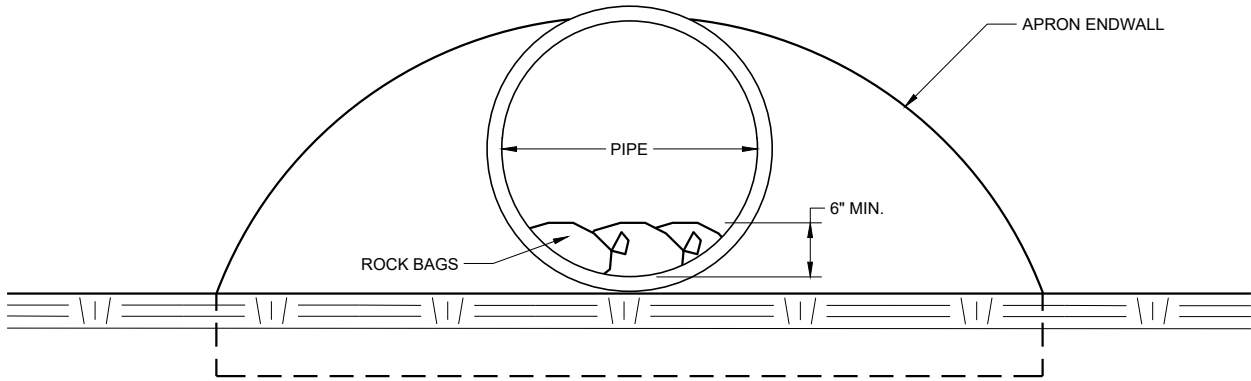
DATE

FHWA

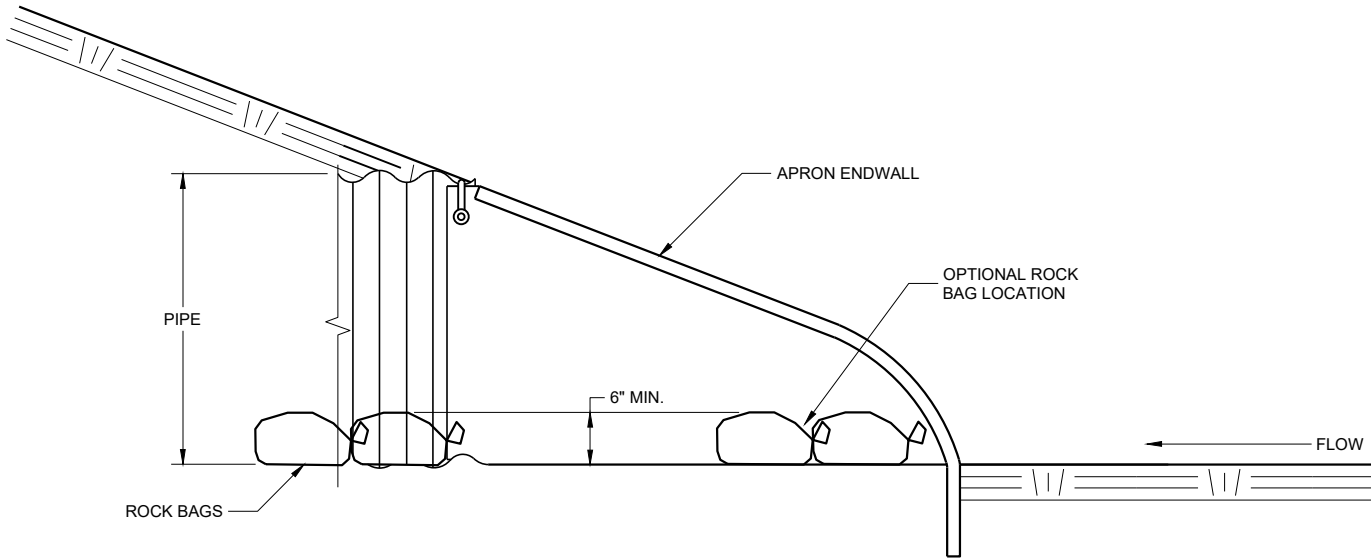
/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT ENGINEER

50



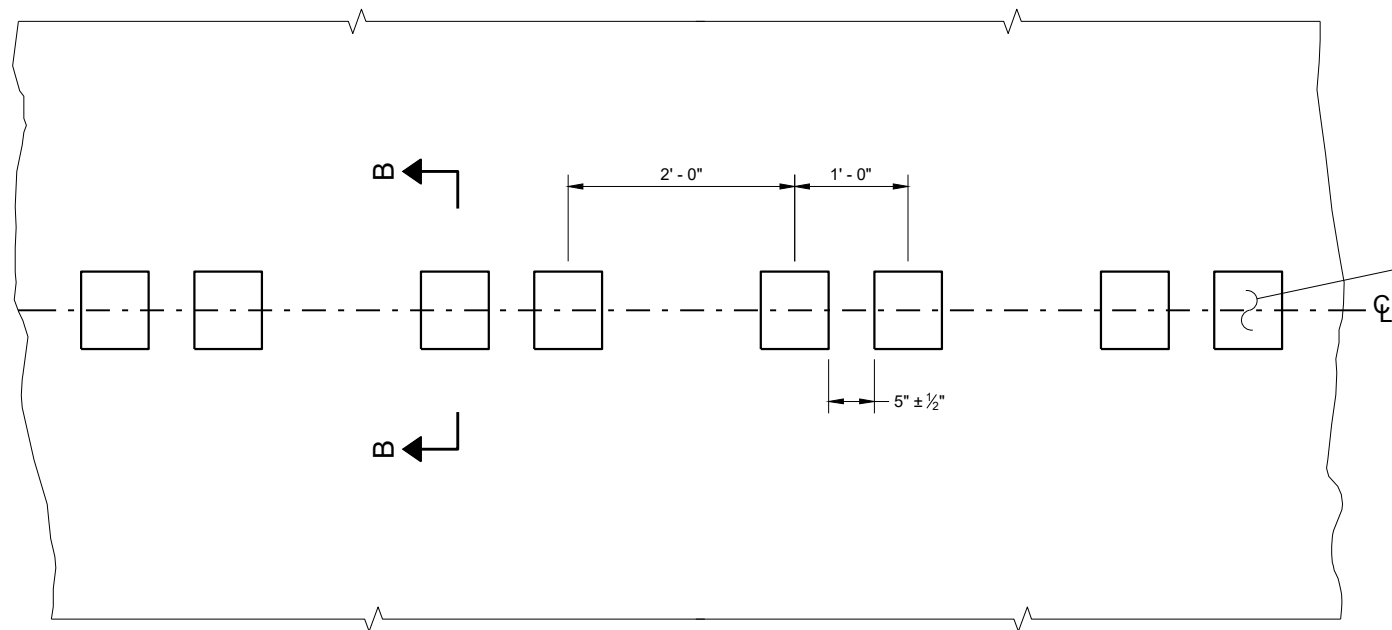
END VIEW



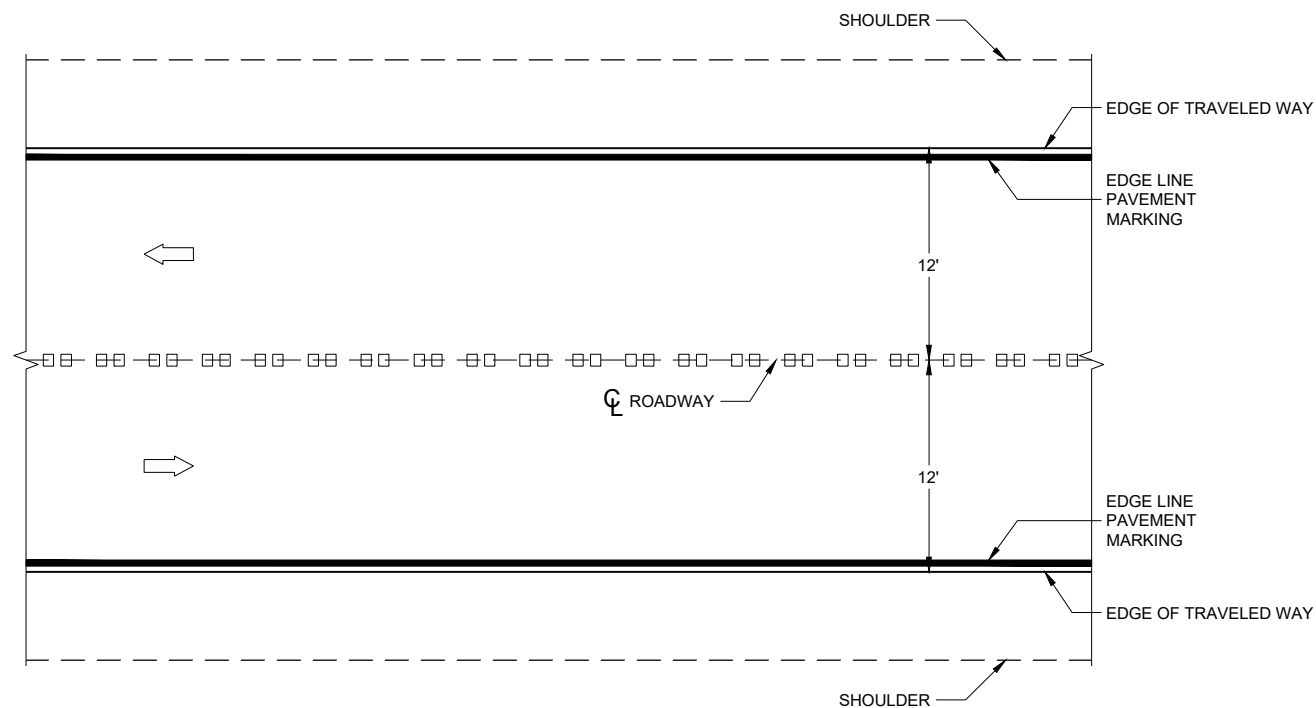
SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED May 2019 DATE	/S/ Daniel Schave	-
FHWA	EROSION CONTROL ENGI 51	

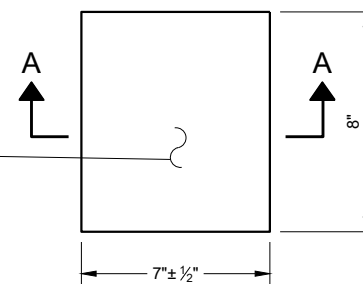


PLAN DETAIL VIEW

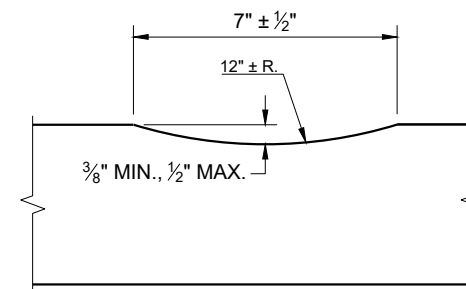


PLAN VIEW

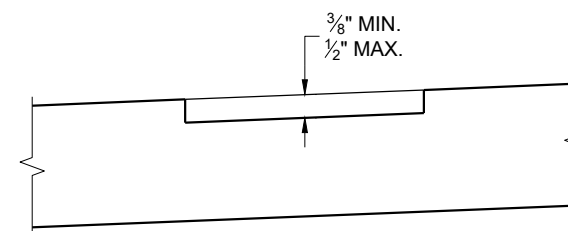
CENTERLINE RUMBLE STRIPS - ASPHALT



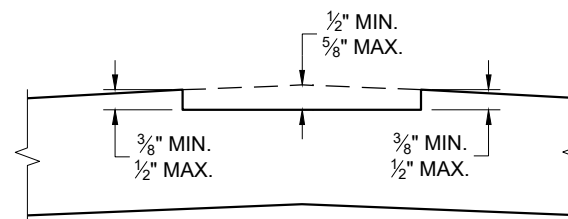
PLAN VIEW
(SINGLE GROOVE)



SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY

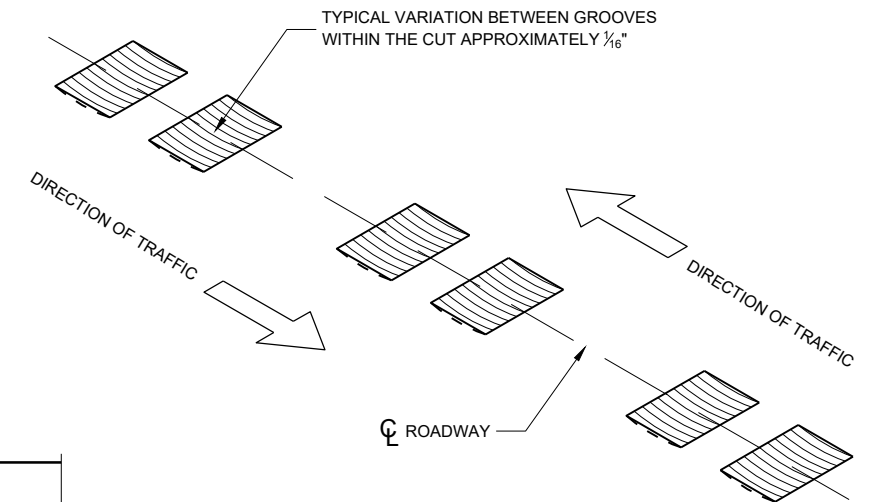


SECTION B - B
CROWNED ROADWAY

GENERAL NOTES

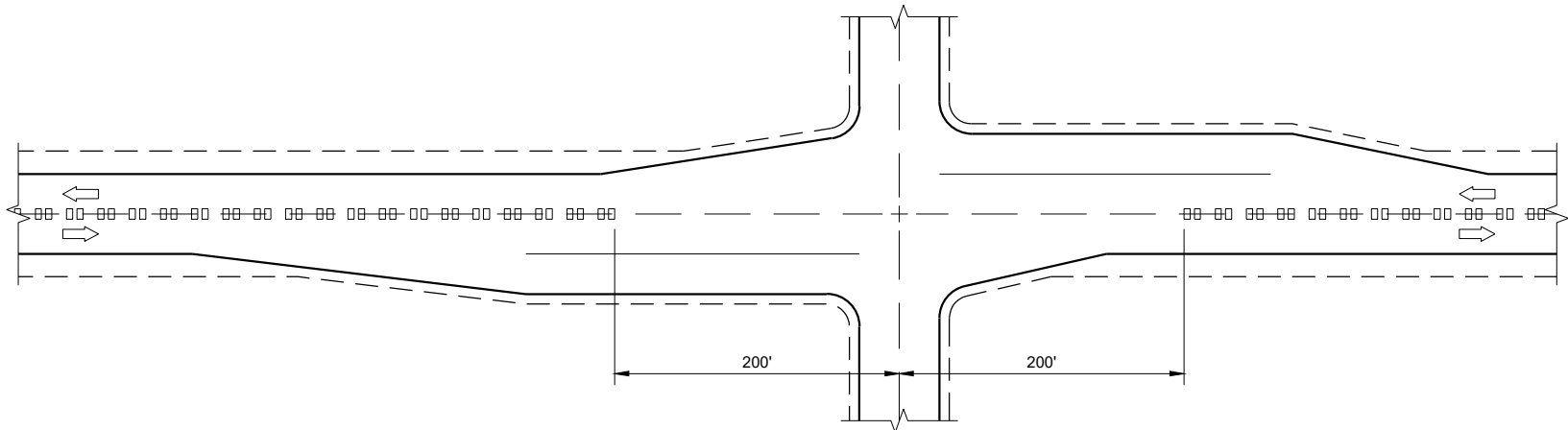
DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

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

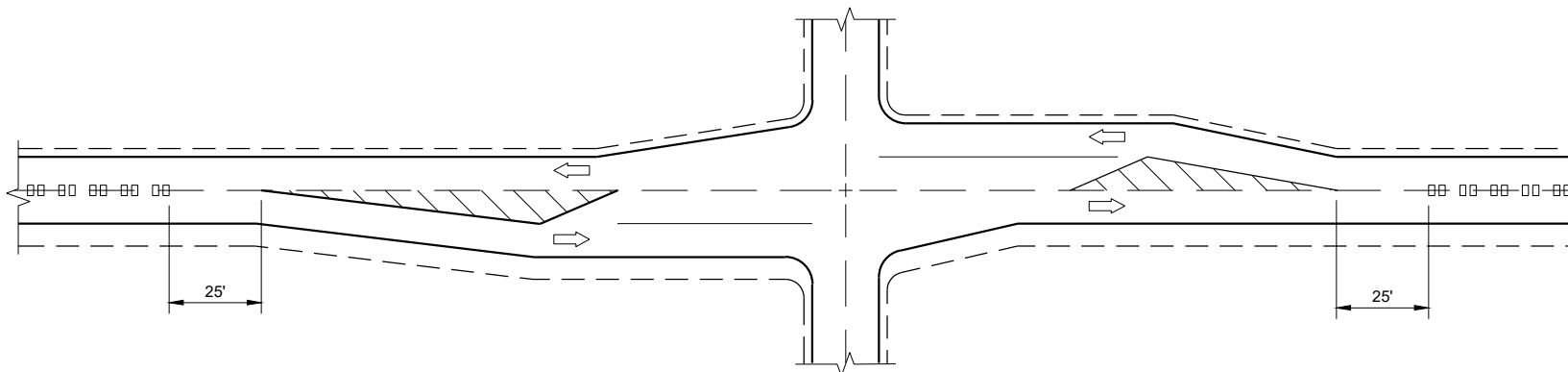


CENTERLINE RUMBLE
STRIPS - ASPHALT

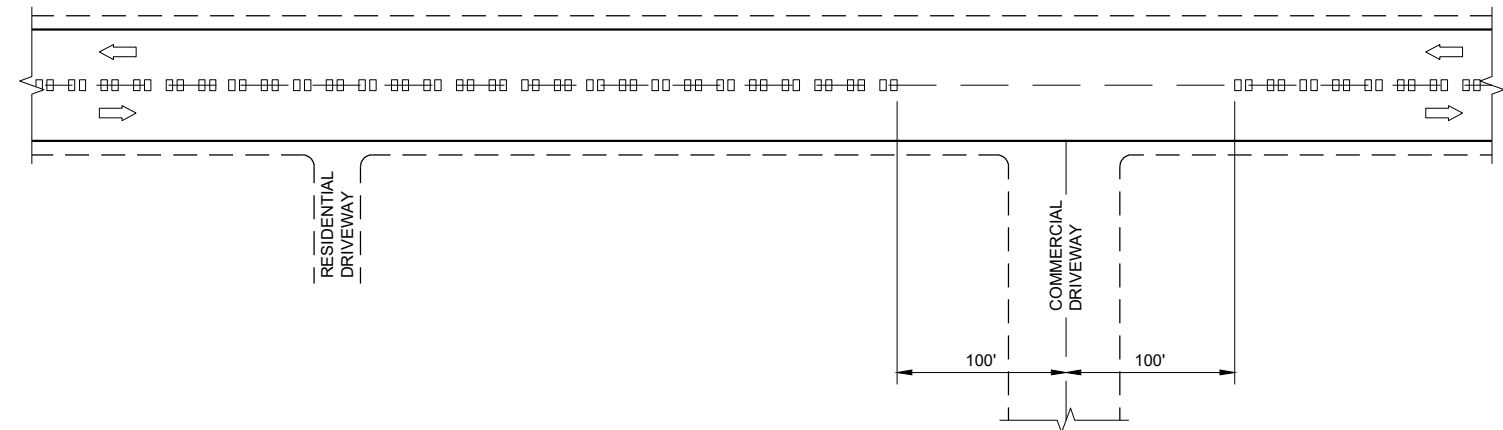
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



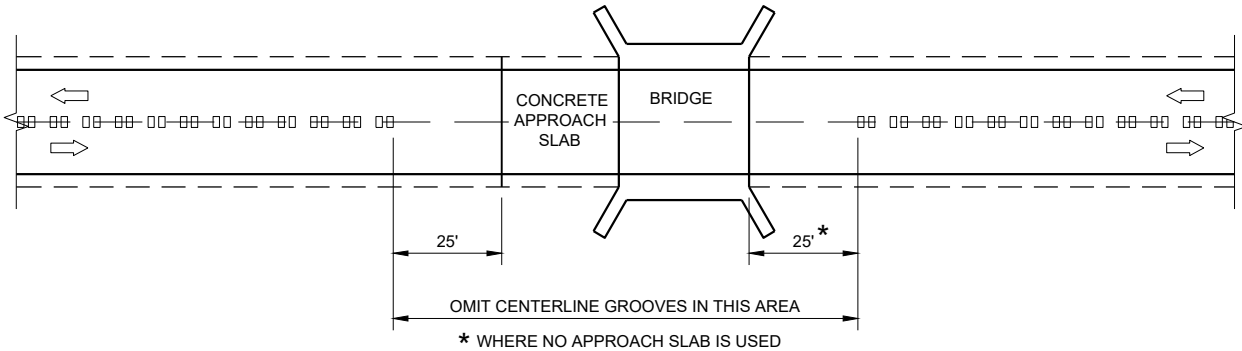
CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)



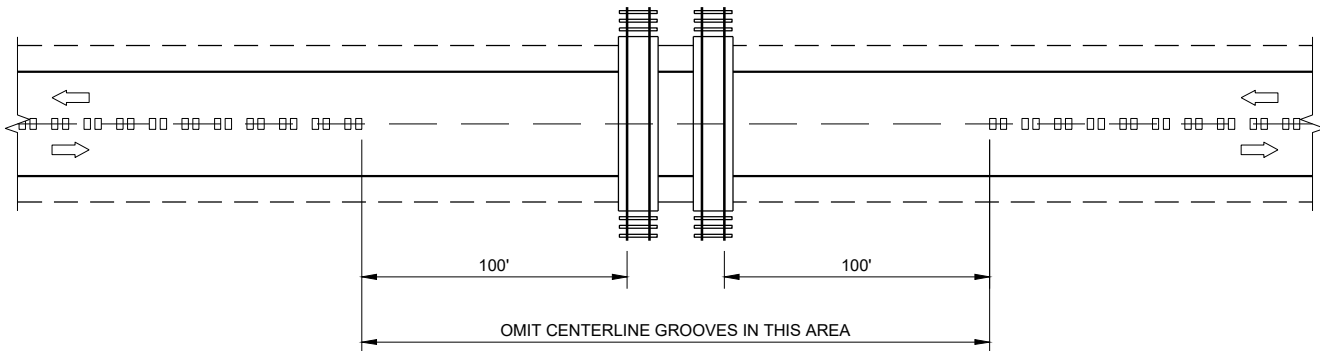
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES

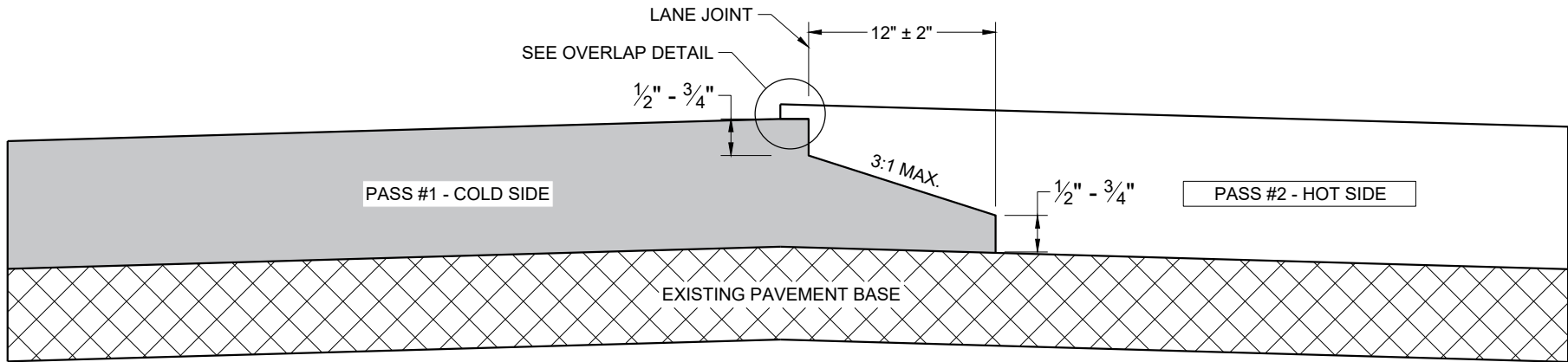


CENTERLINE GROOVES AT RAILROADS

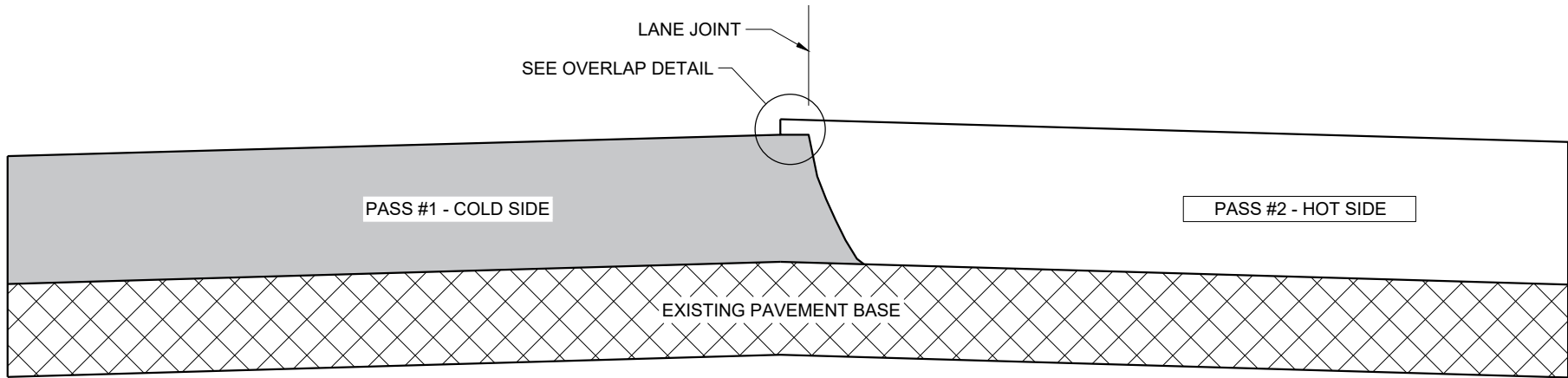
CENTER LINE
RUMBLE STRIPS -
INTERSECTIONS, DRIVEWAYS,
BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

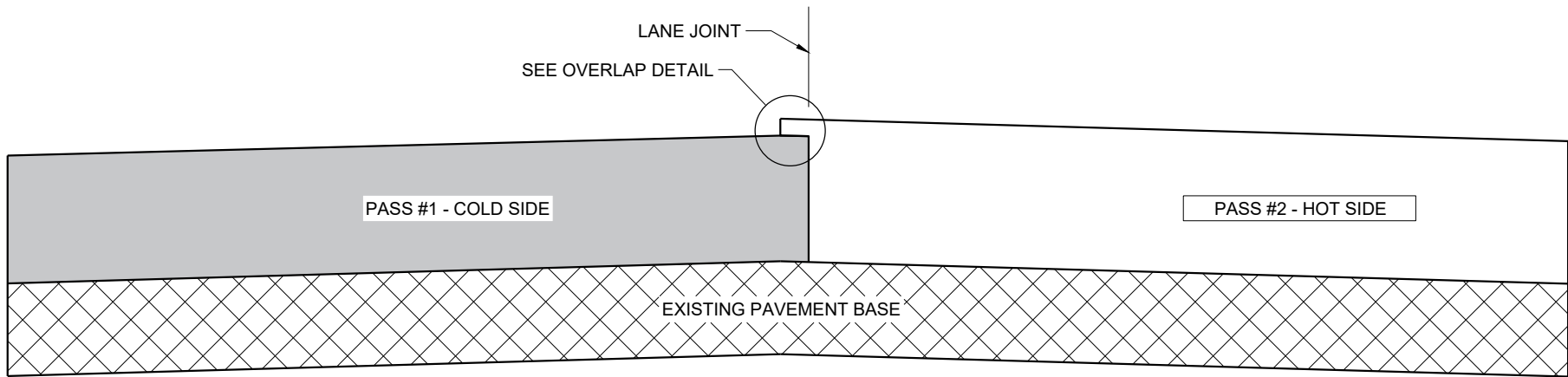
APPROVED
May 2023
DATE
/S/ John Jenkins
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
53
FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

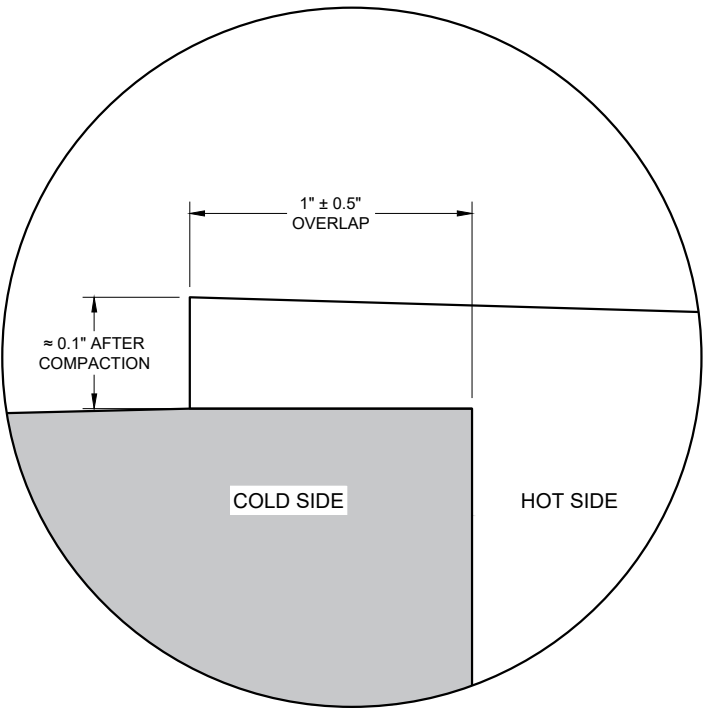
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



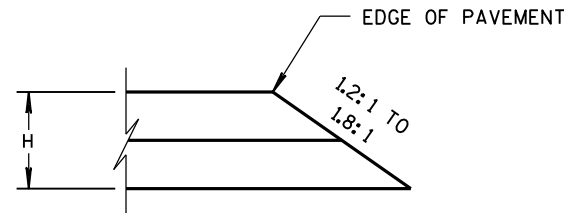
OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

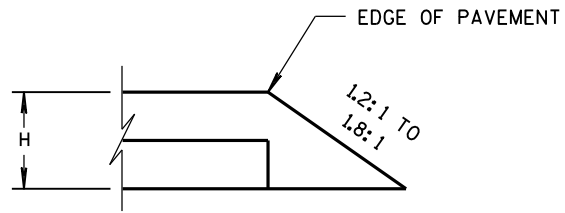
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 54

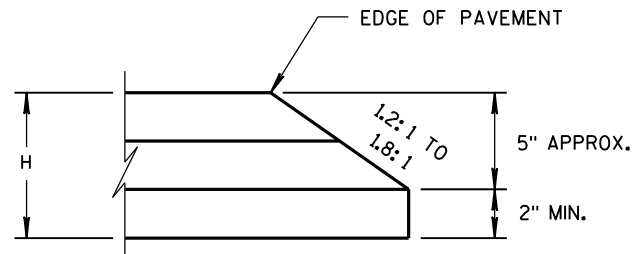
FHWA



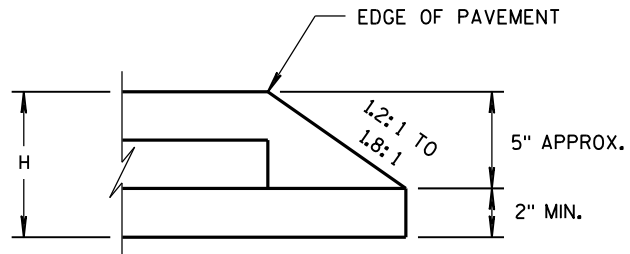
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

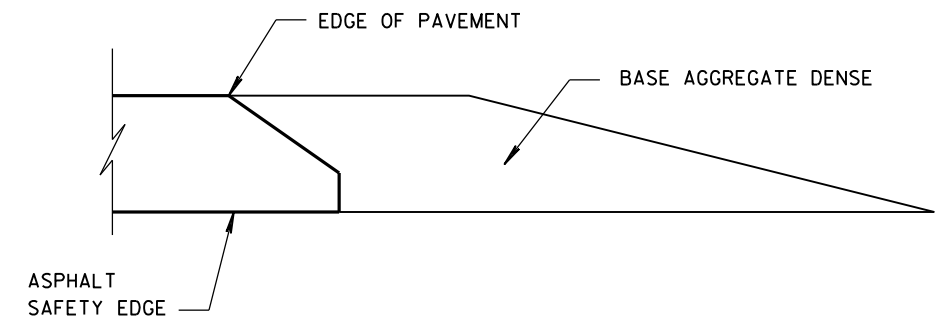


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



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

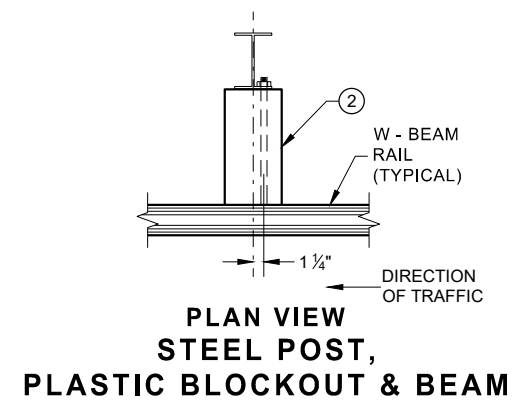
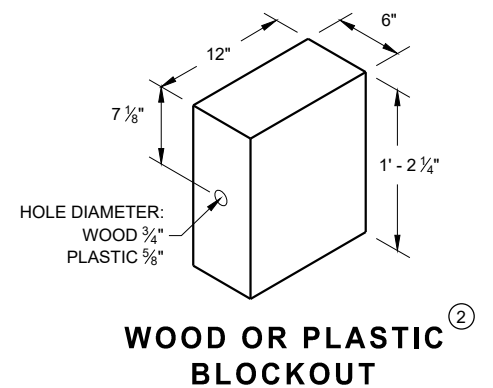
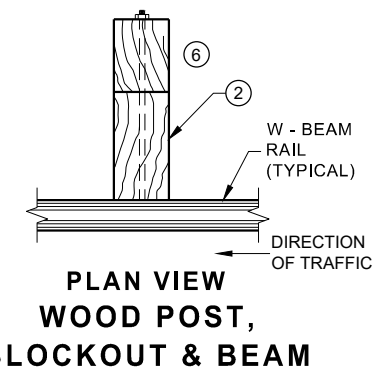
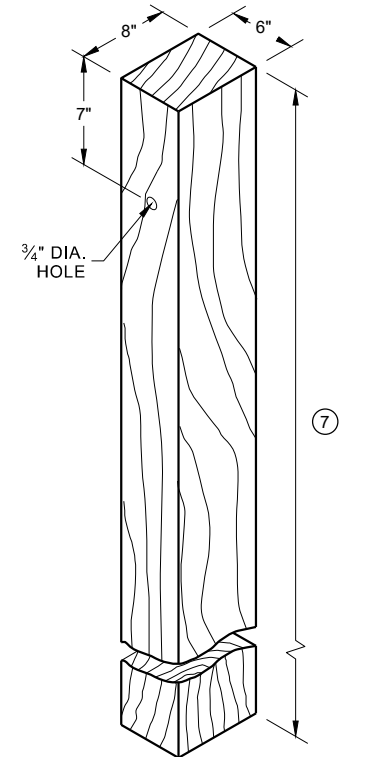
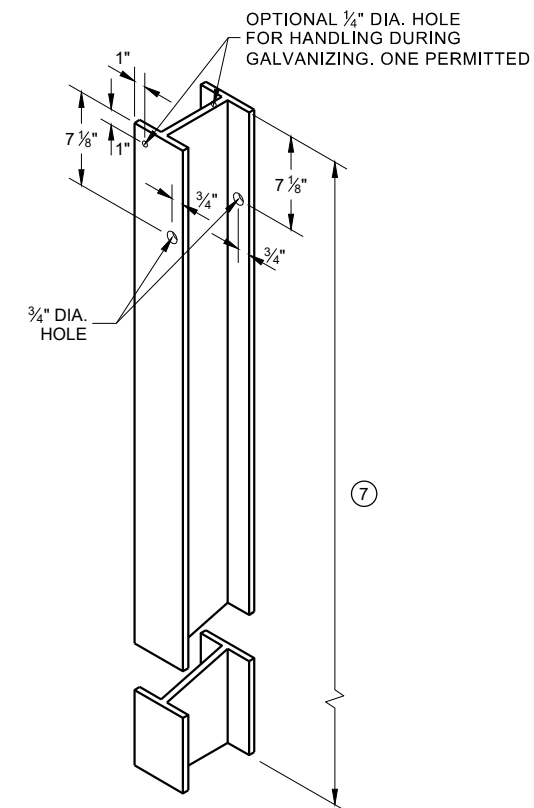
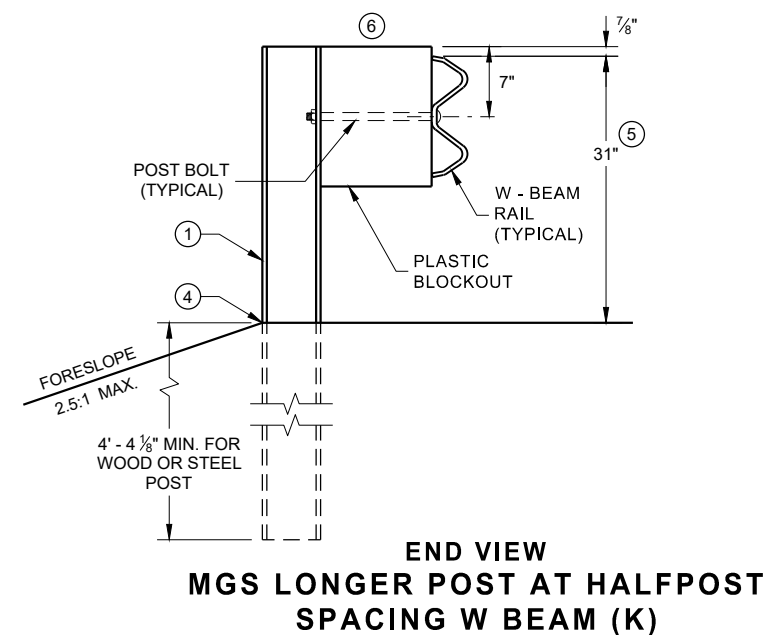
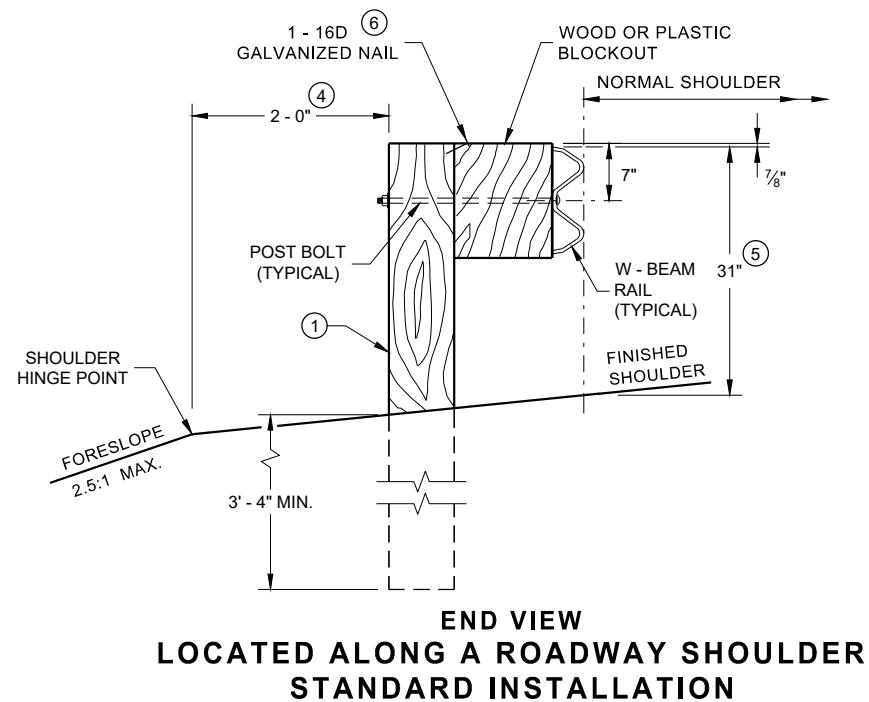
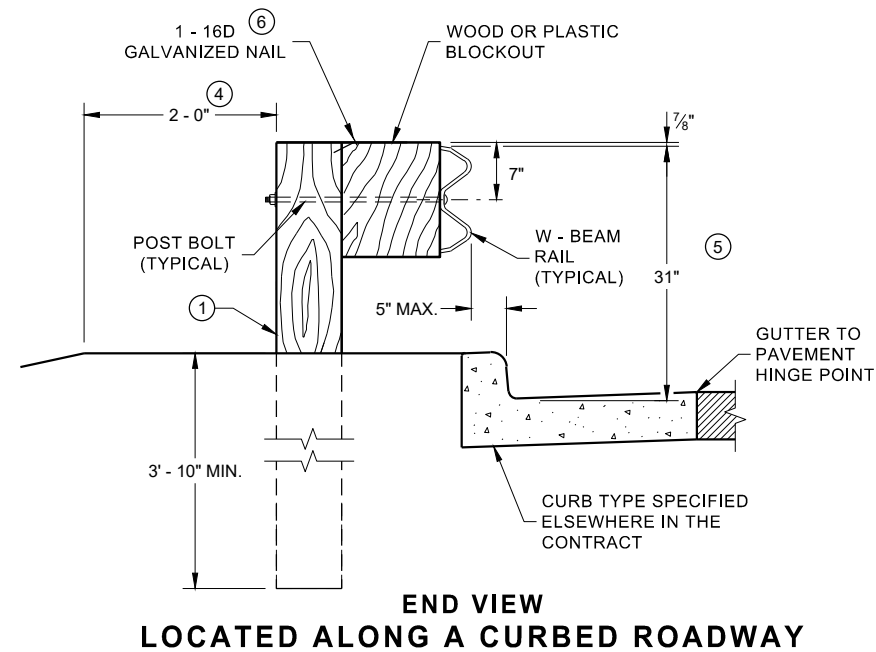
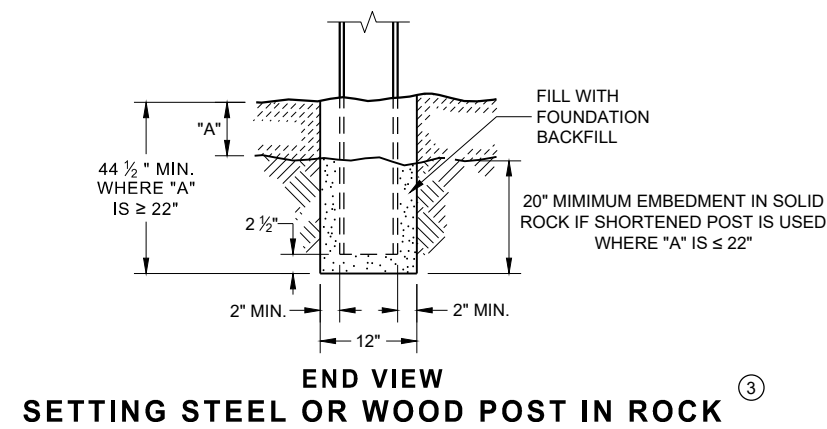
11/30/2012
DATE

FHWA

/s/ Jerry H. Zoaga
ROADWAY STANDARDS
ENGINEER

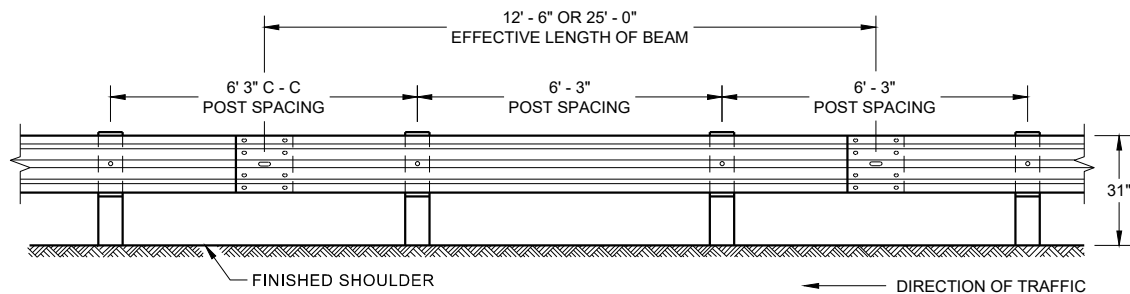
ENT

- 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 $\pm 1"$. 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".

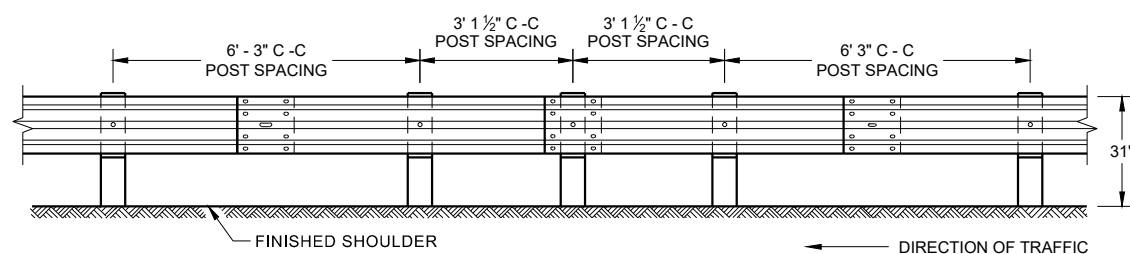


**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

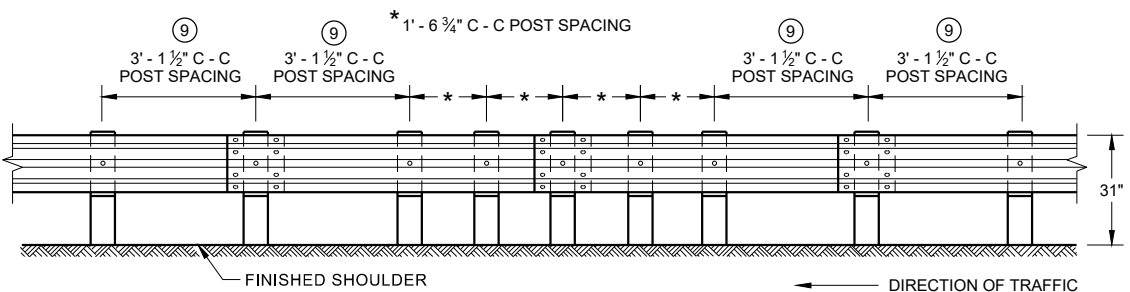
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 56



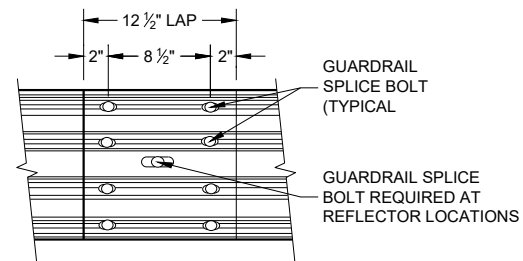
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



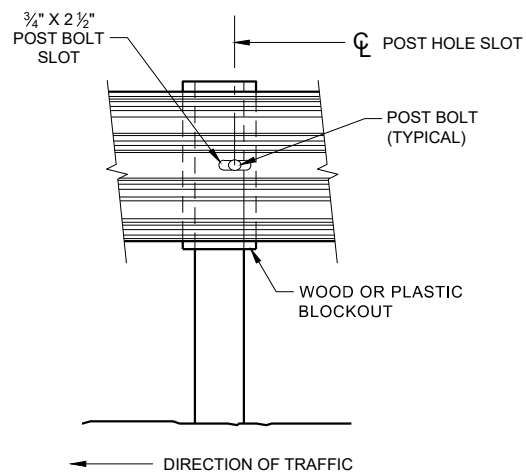
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



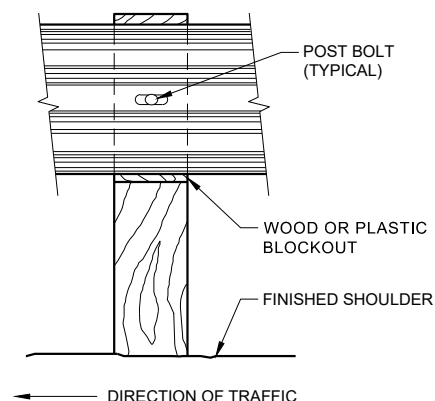
**FRONT VIEW
QUARTER POST SPACING (QS)**



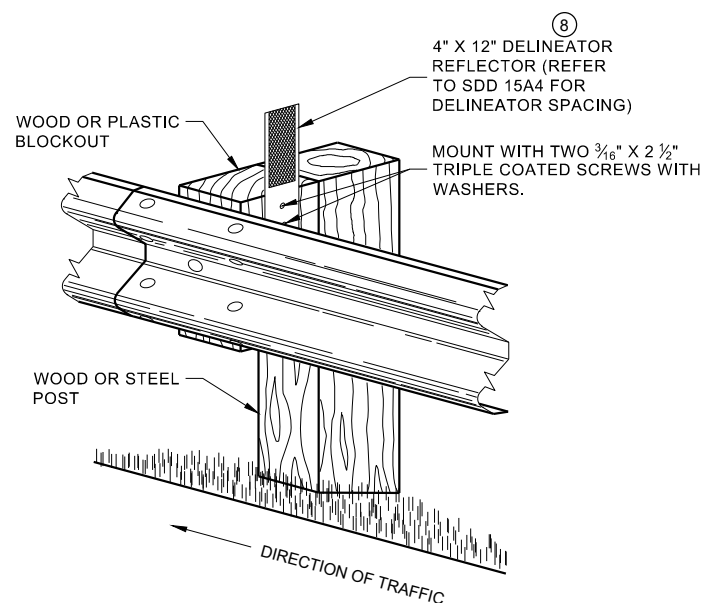
**FRONT VIEW
MID-SPAN BEAM SPLICE**



FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



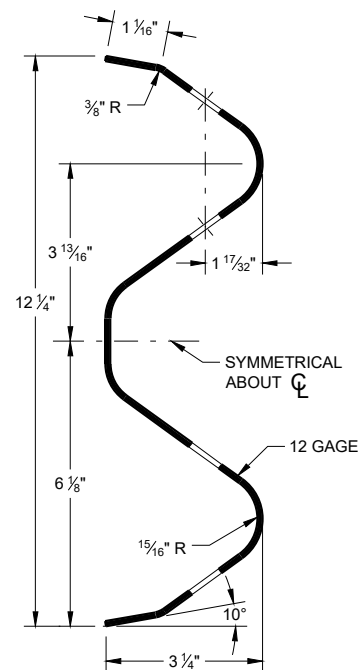
**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

GENERAL NOTES

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

POST BOLTS ARE A 3/4" 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.

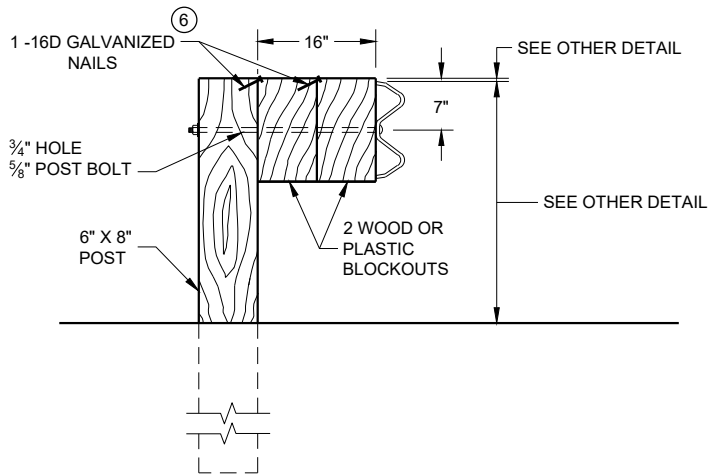
GUARD RAIL SPLICE BOLTS ARE A 3/4" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



SECTION THRU W-BEAM RAIL

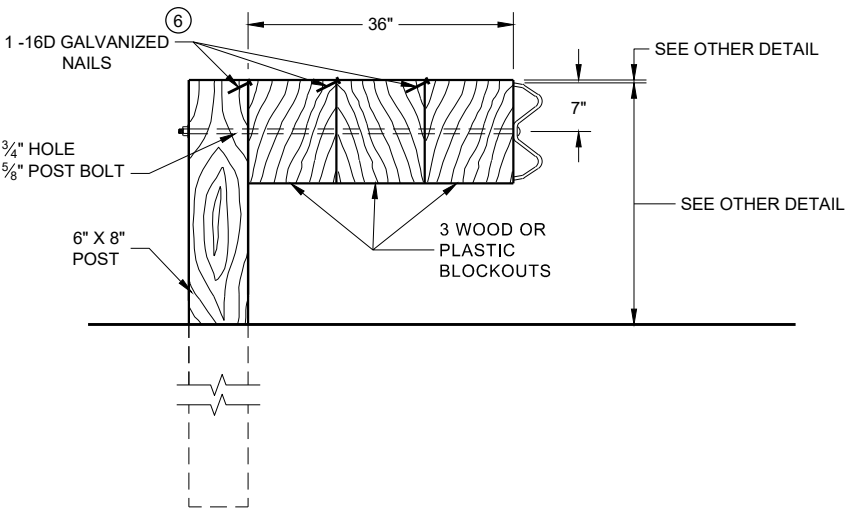
**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

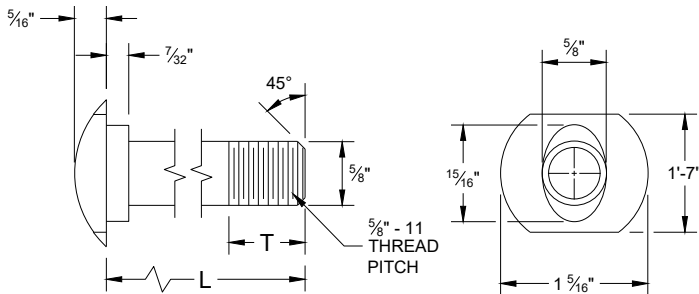
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



DETAIL FOR 36" BLOCKOUT DEPTH

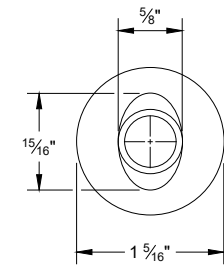
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT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

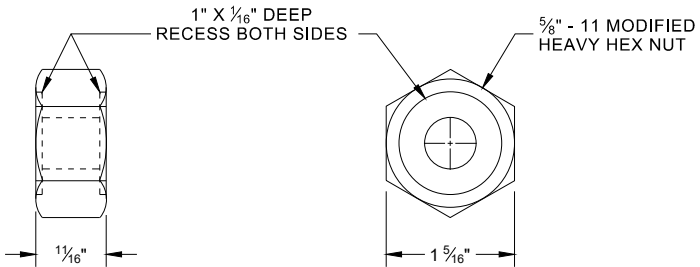


POST BOLT TABLE

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"

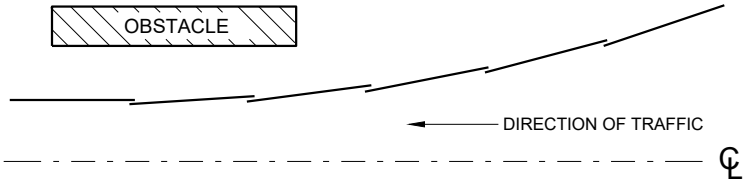


ALTERNATE BOLT HEAD

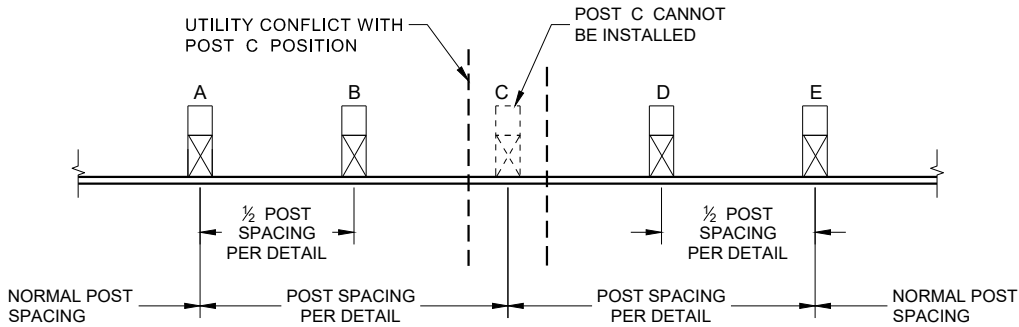


POST BOLT, SPLICE BOLT AND RECESS NUT

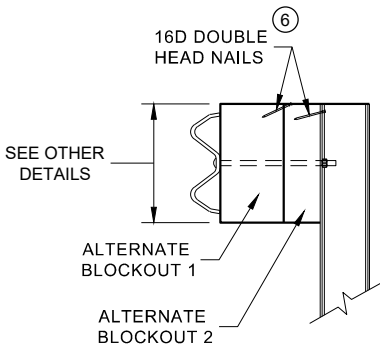
- 6 WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



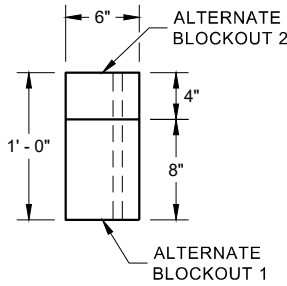
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



SIDE VIEW

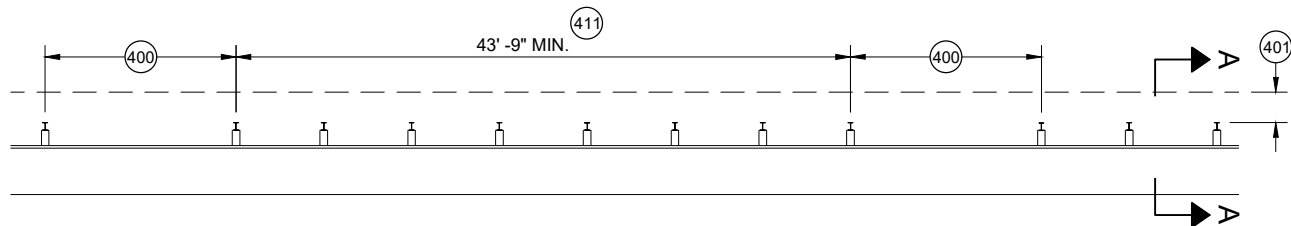


PLAN VIEW

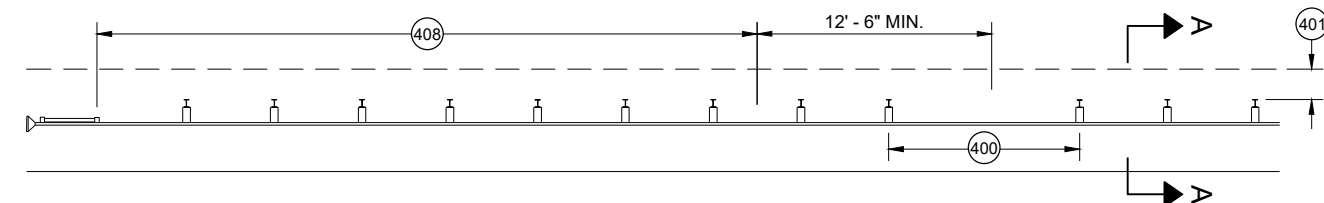
ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

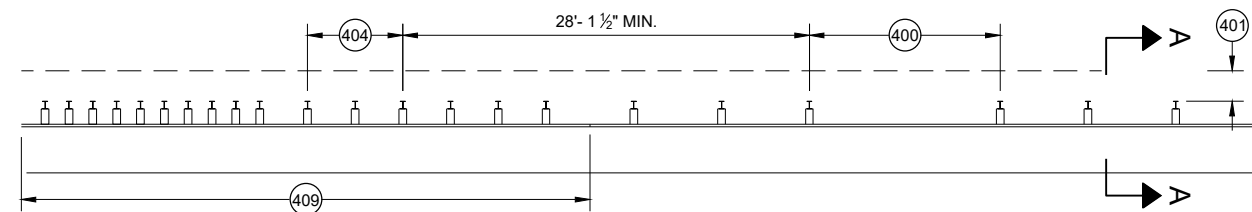
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



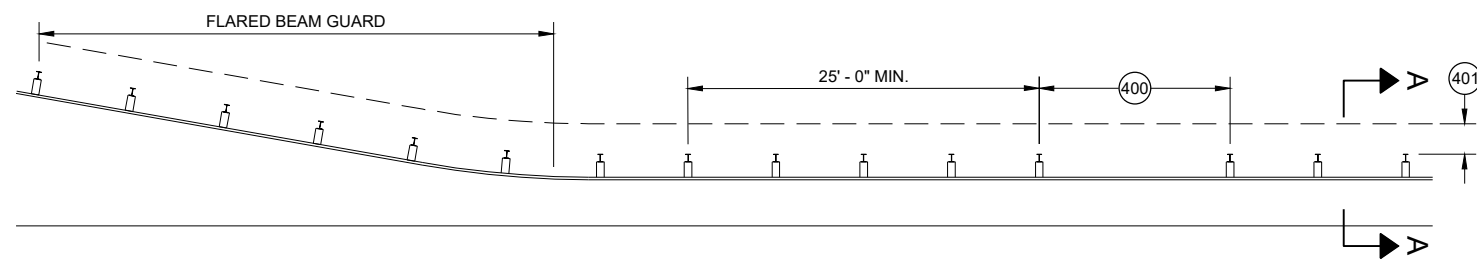
MISSING POST IN MGS GUARDRAIL



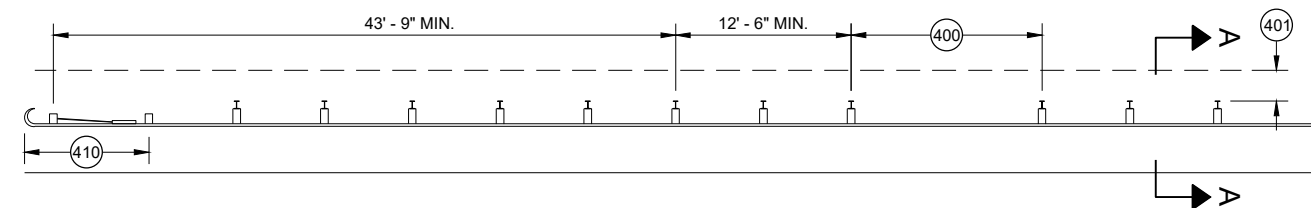
MISSING POST IN MGS GUARDRAIL NEAR EAT



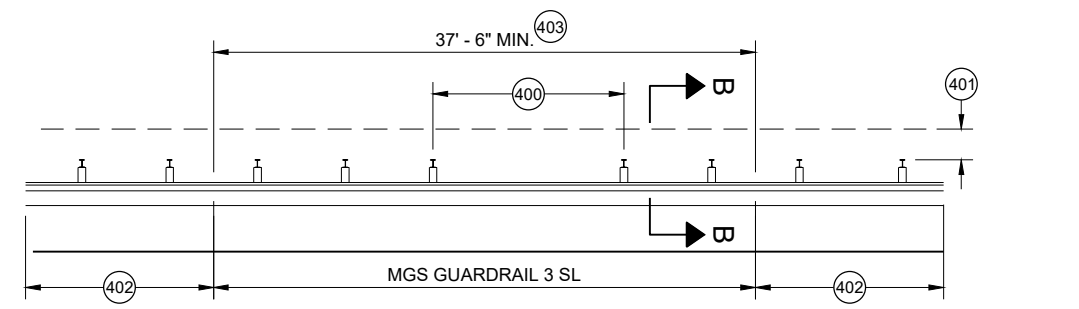
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

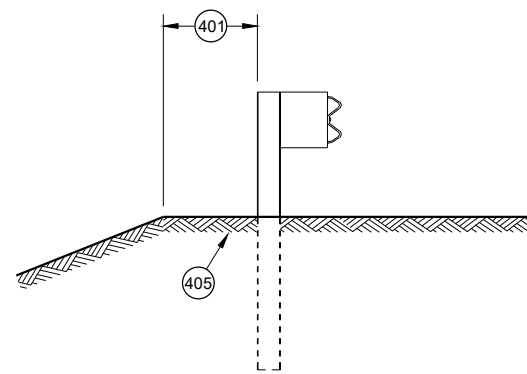


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

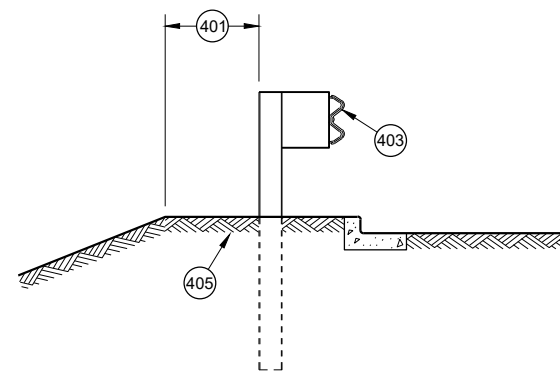


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

- (400) MAX SPAN 12' - 6"
- (401) 2' MIN.
- (402) MGS GUARDRAIL 3
- (403) NESTING BEAM GUARD
- (404) ASYMMETRIC TRANSITION
- (405) SOIL WELL DRAINED AND COMPACTED
- (406) SEE OTHER DRAWINGS IN THIS SDD
- (407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
- (408) SEE SDD 14B44
- (409) SEE SDD 14B45
- (410) SEE SDD 14B47
- (411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A



SECTION B - B

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

FHWA

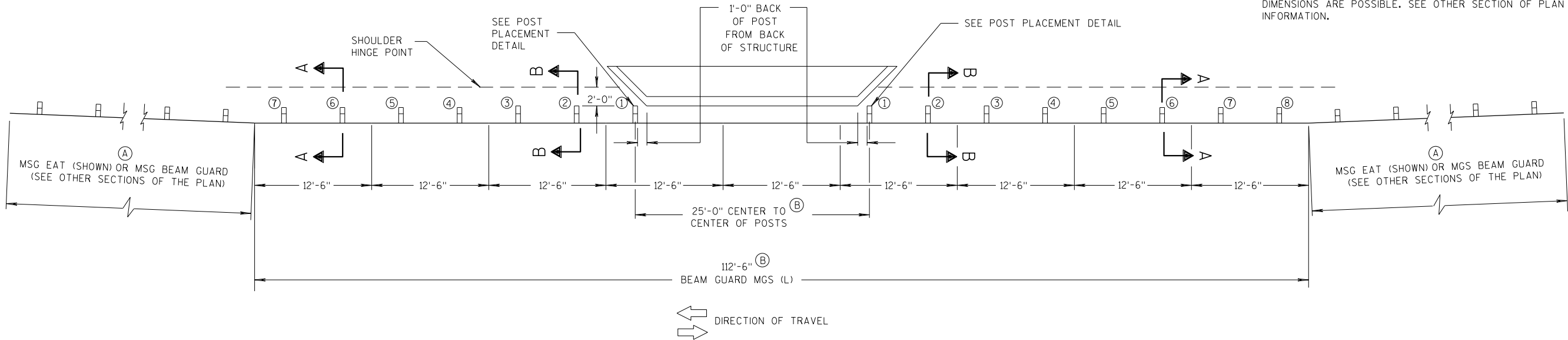
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

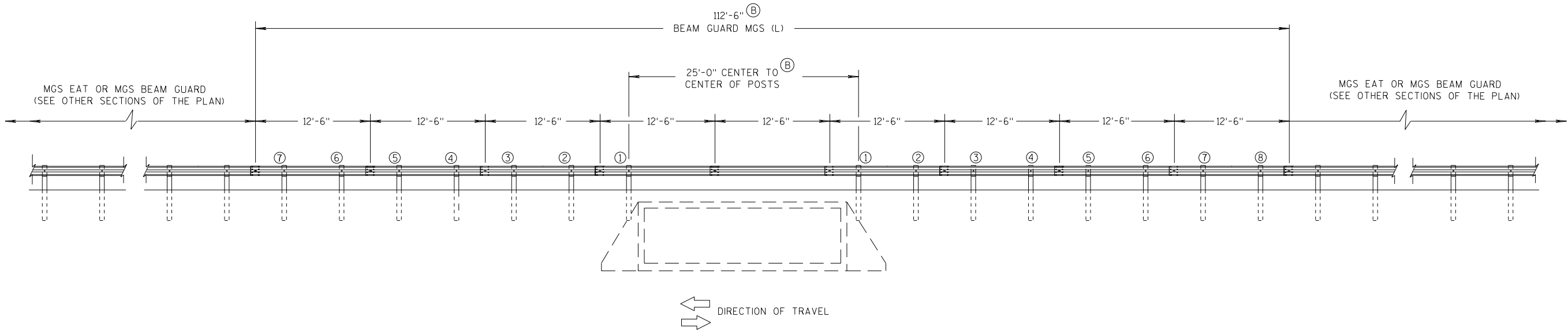
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN, IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW

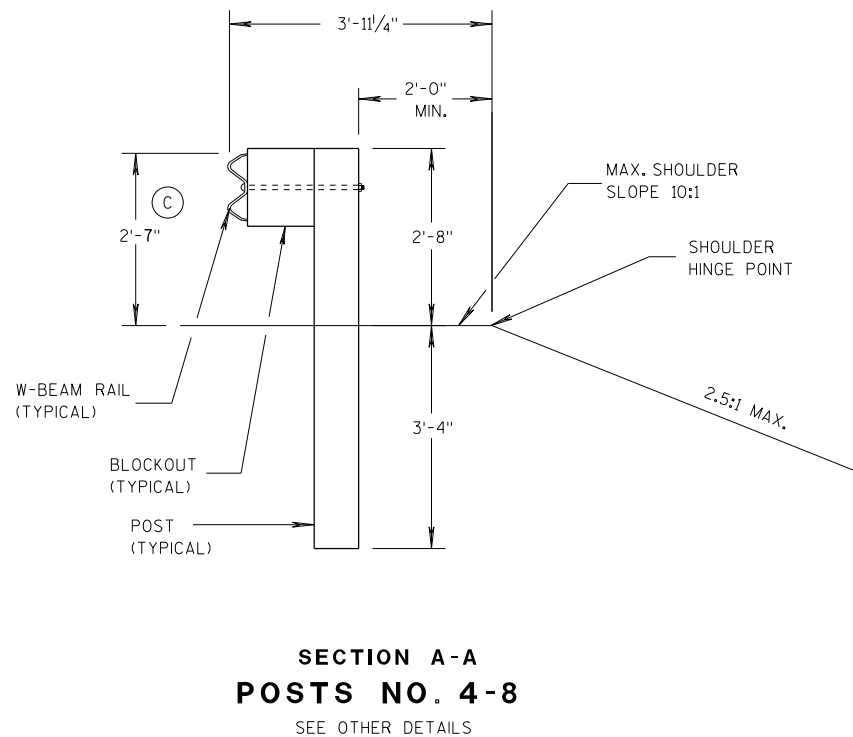
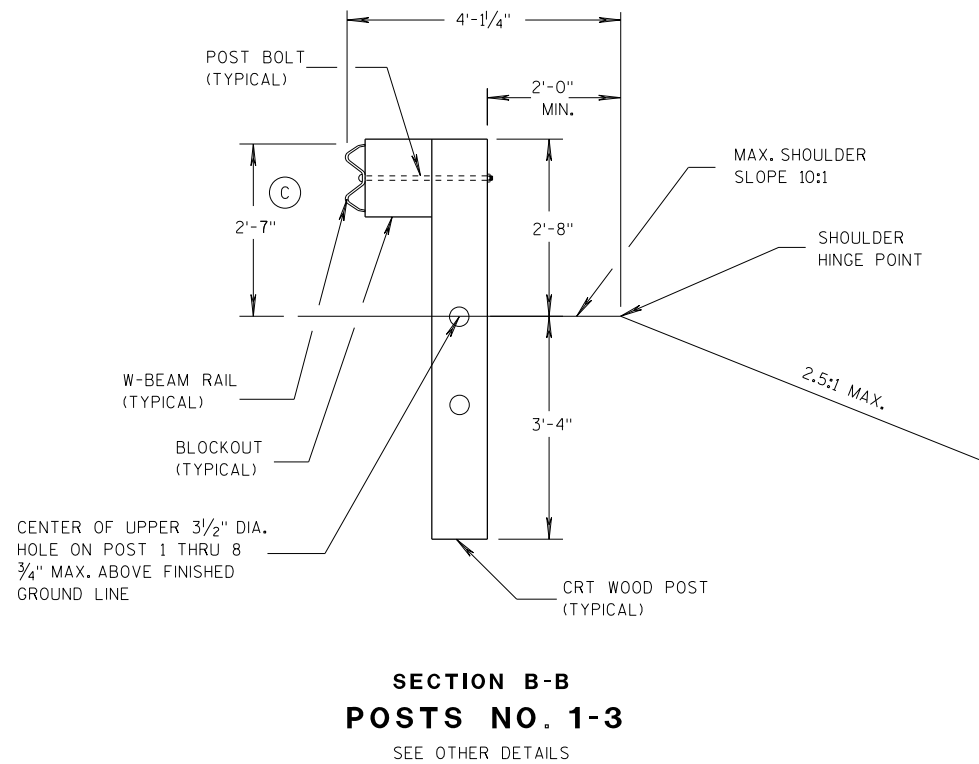
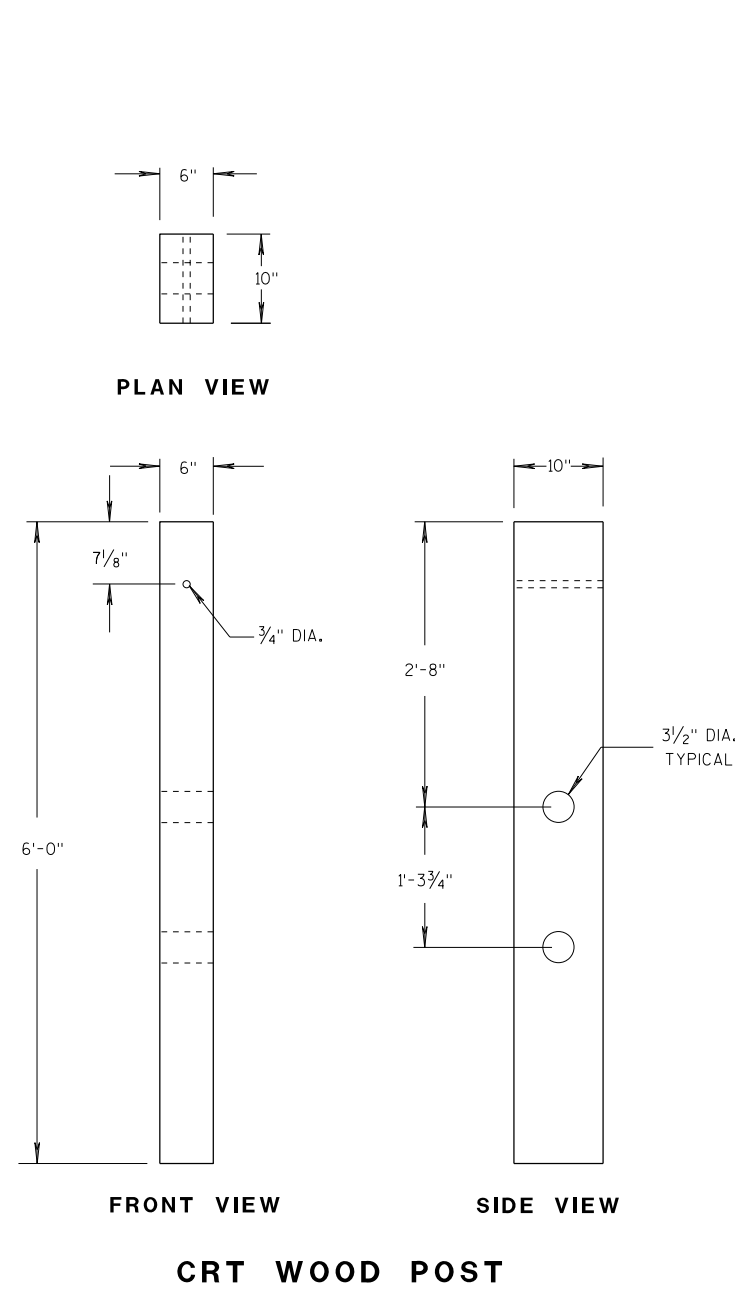


ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) TWO-WAY TRAFFIC

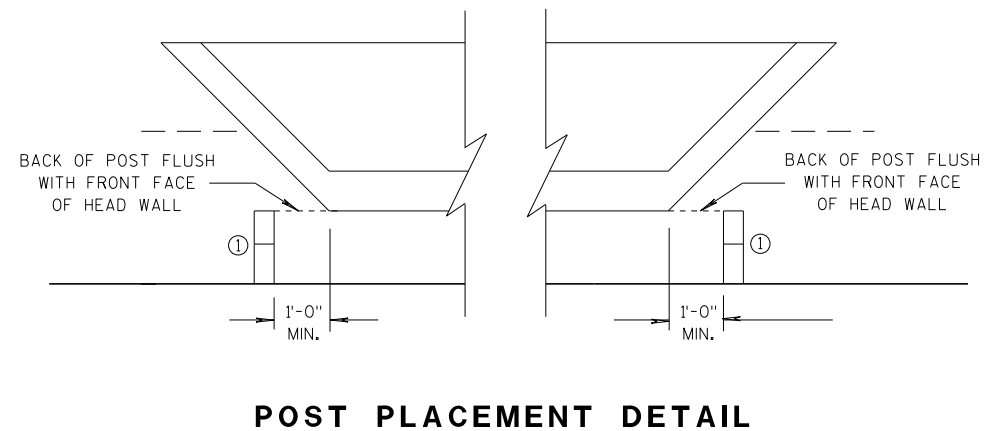
MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

(C) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED DATE 07/2018 FHWA	/S/ Rodney Taylor ROADWAY STANDARDS B 61 ENGINEER	NT

GENERAL NOTES

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

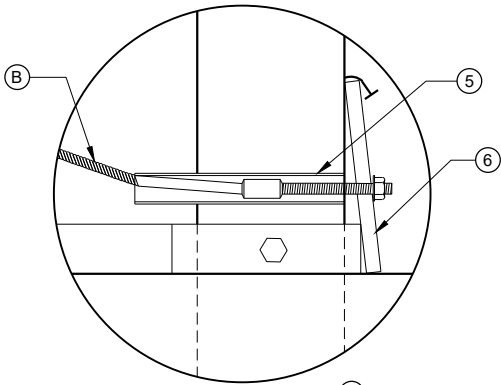
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

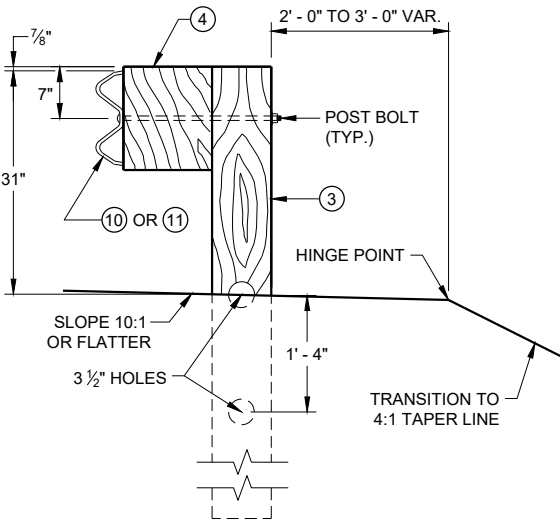
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

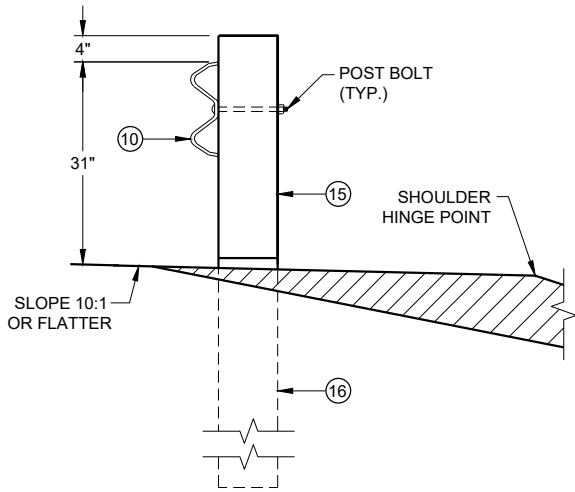
THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



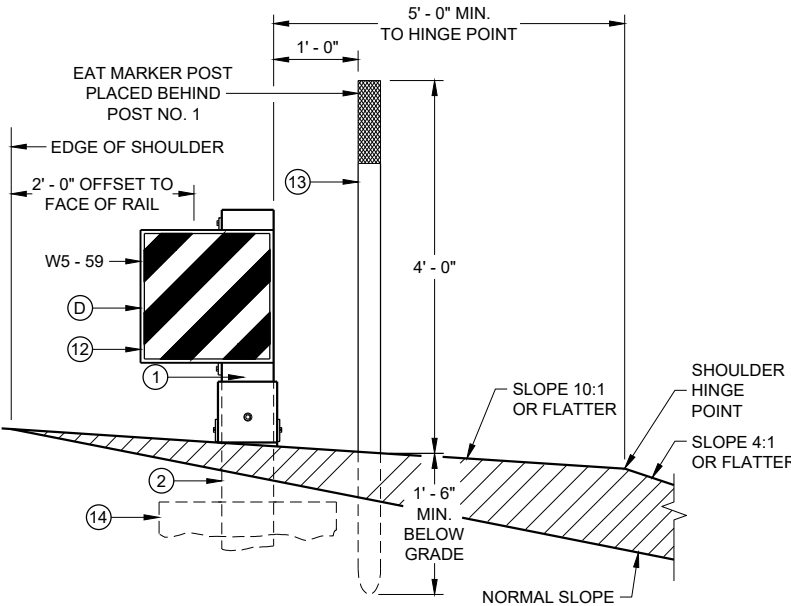
DETAIL "A"



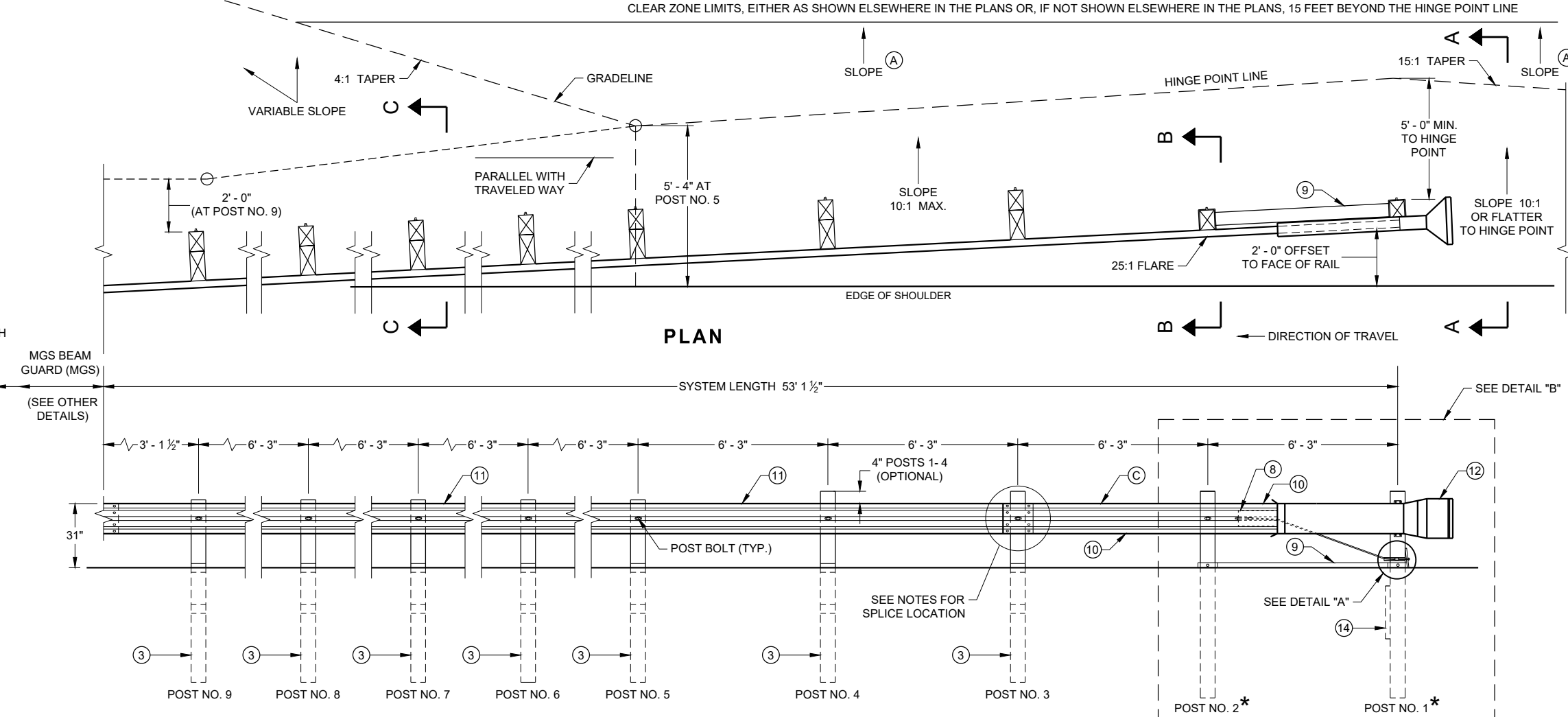
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*

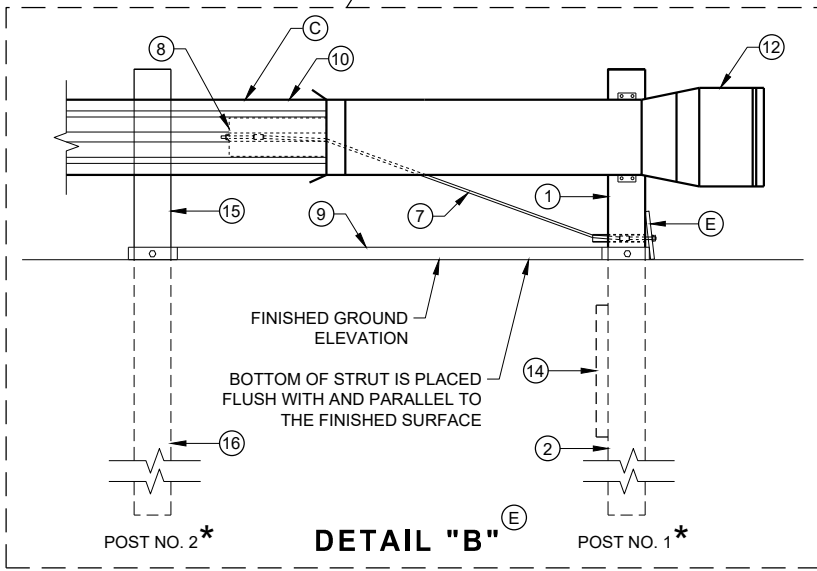


SECTION A - A
TYPICAL AT POST NO. 1*



PLAN

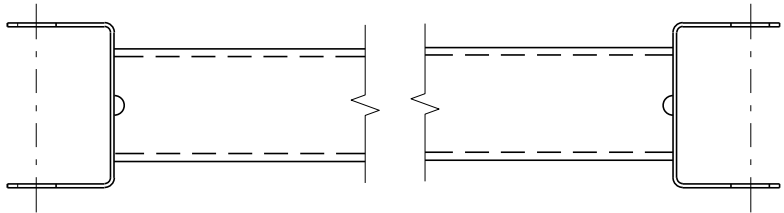
ELEVATION



DETAIL "B"

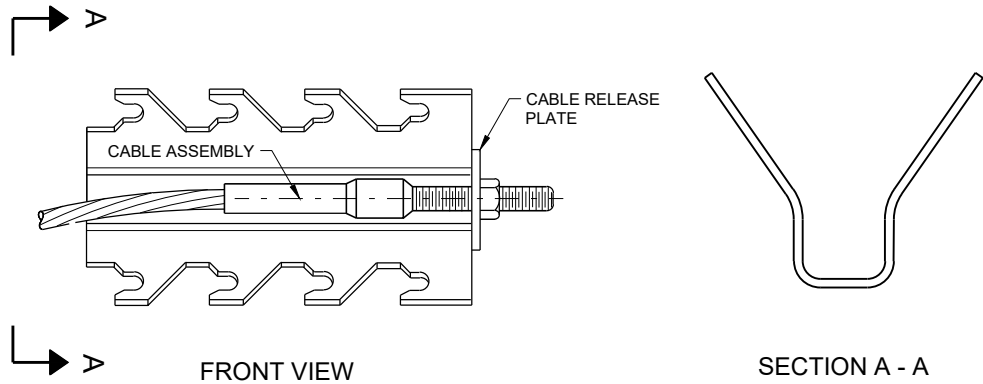
**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

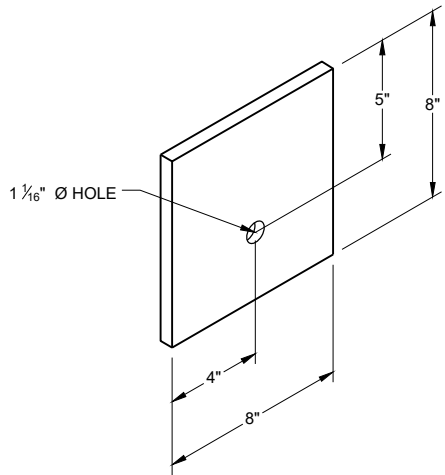


GENERIC GROUND STRUT⁹ E

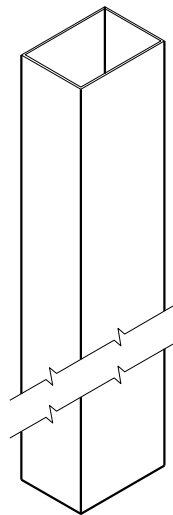
BILL OF MATERIALS	
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED 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



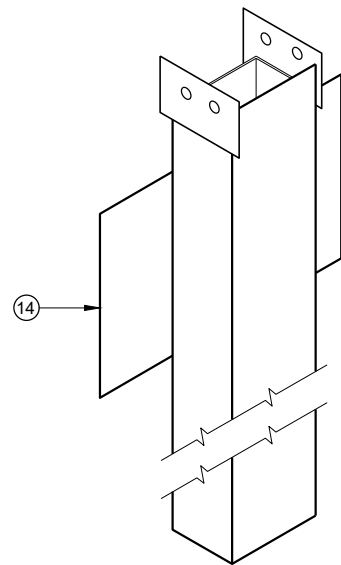
GENERIC ANCHOR CABLE BOX⁹ E



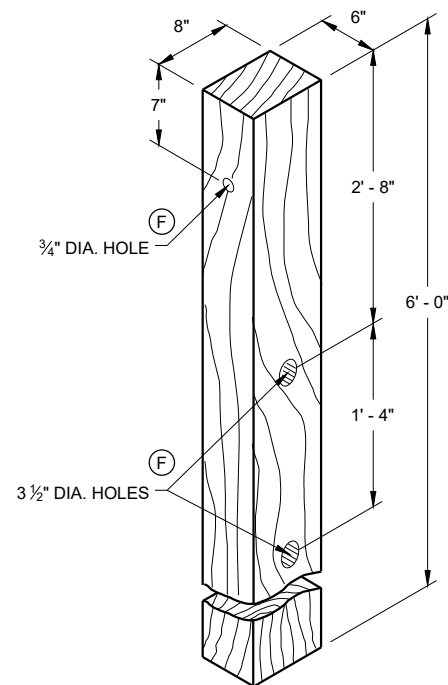
BEARING PLATE⁶ E



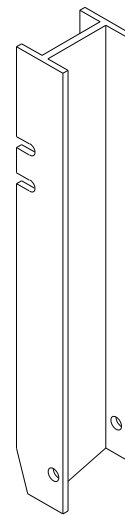
UPPER POST NO. 1 ⁽¹⁾ (E)



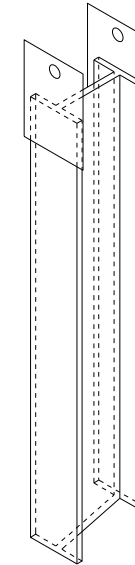
LOWER POST NO. 1 ⁽²⁾ (E)



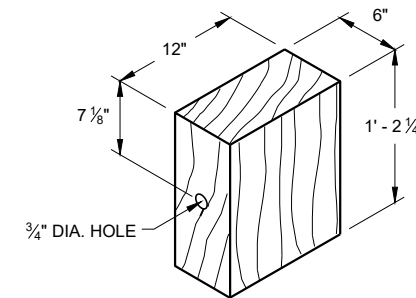
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



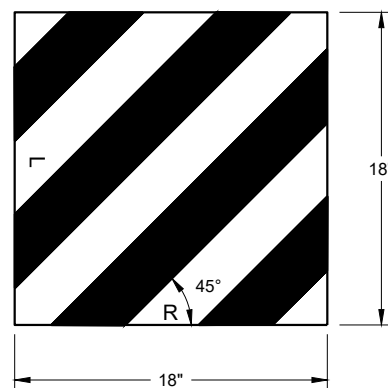
UPPER POST NO. 2 ⁽¹⁵⁾ (E)



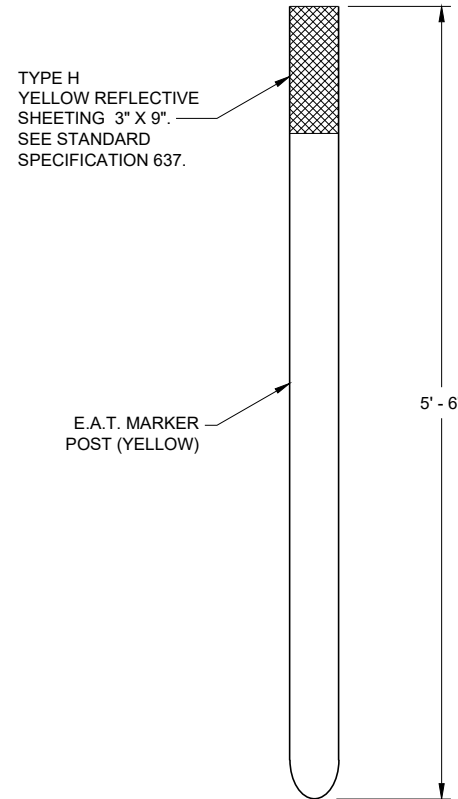
LOWER POST NO. 2 ⁽¹⁶⁾ (E)



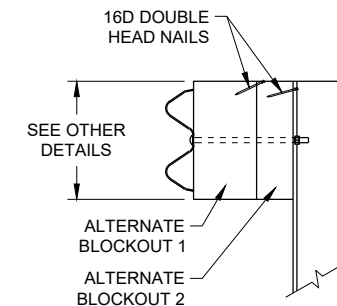
WOOD BLOCKOUT ⁽⁴⁾
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



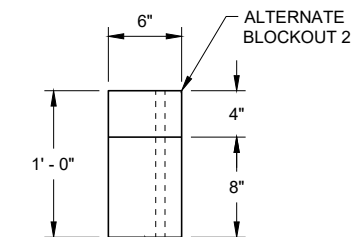
W5 - 59
REFLECTIVE SHEETING DETAIL ^(E)



FRONT VIEW
SIDE VIEW
E.A.T. MARKER POST ⁽¹³⁾



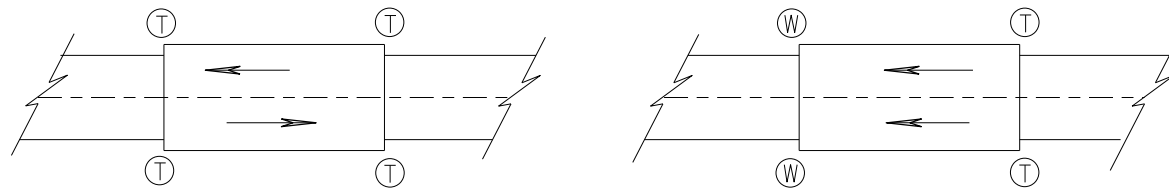
SIDE VIEW



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 64
FHWA	



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

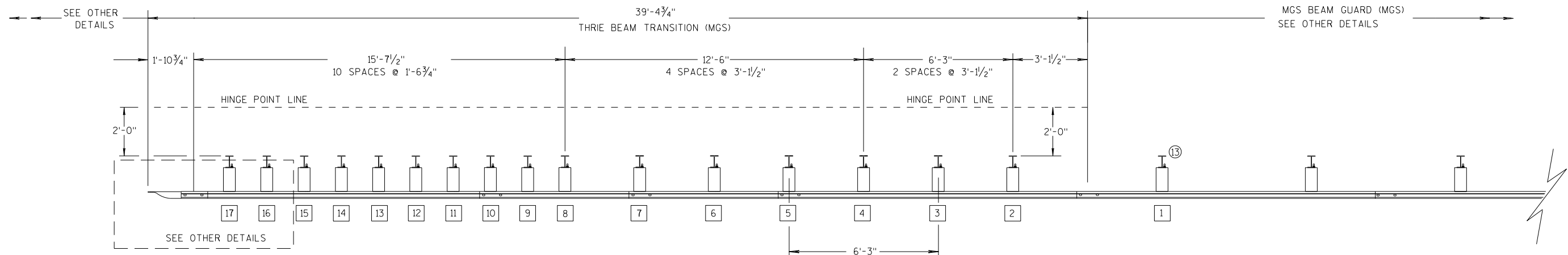
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

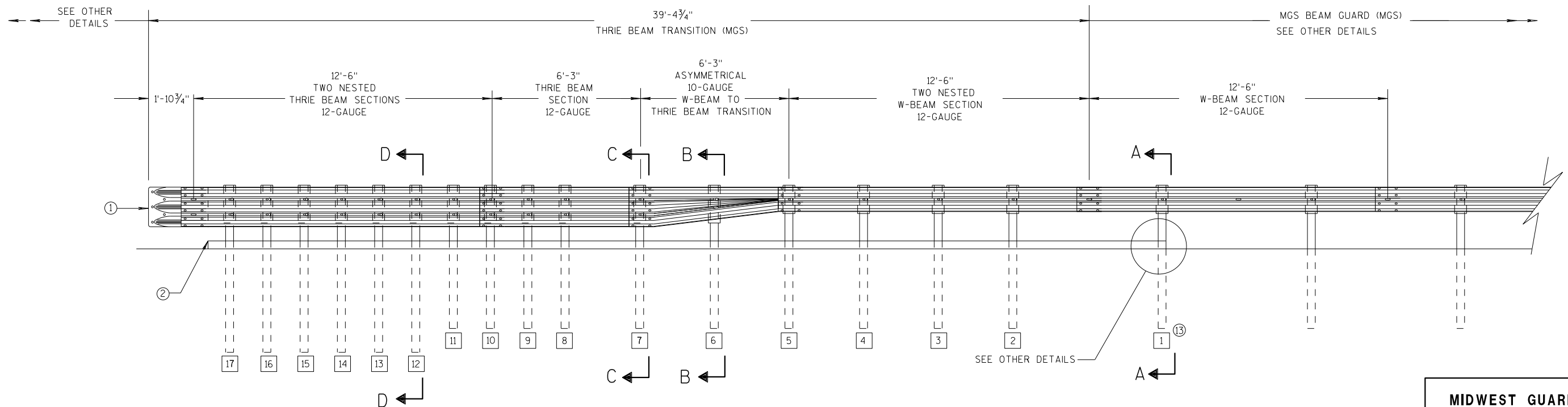
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

- ① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW

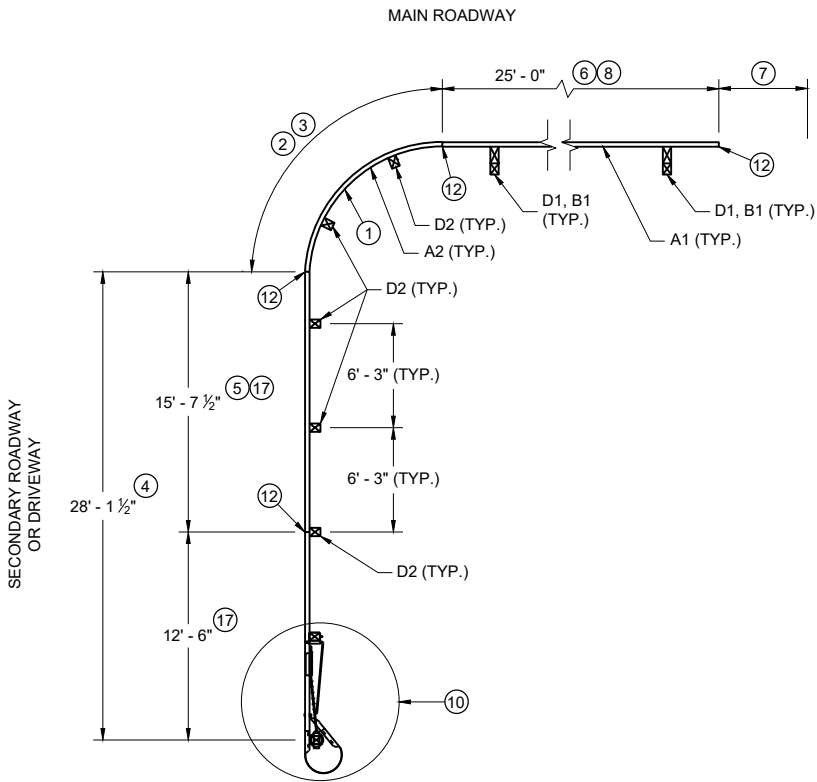


ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

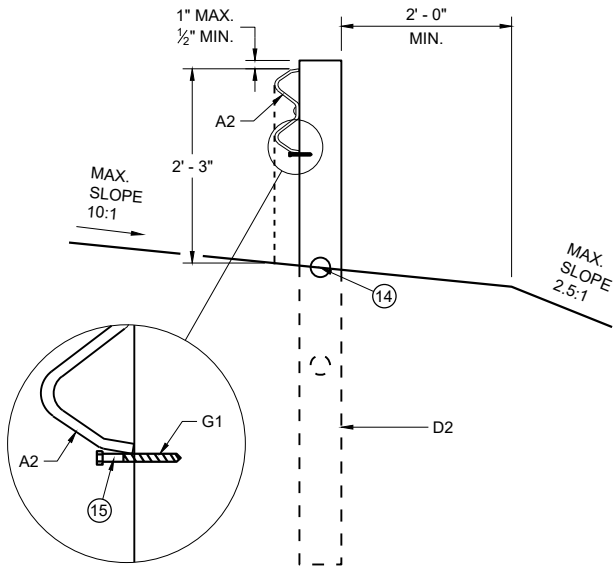
**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

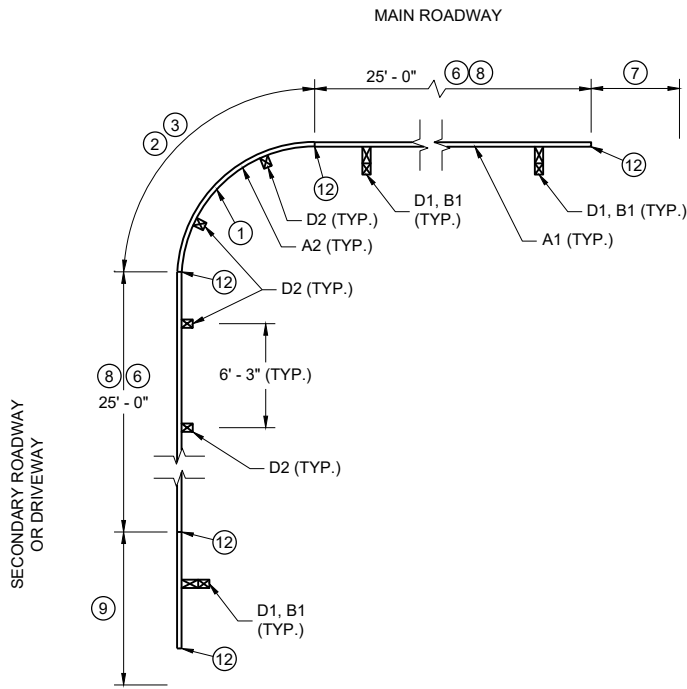


PLAN VIEW

**SHORT RADIUS BEAM GUARD WITH
SHORT RADIUS TERMINAL ON
SECONDARY ROAD OR DRIVEWAY**

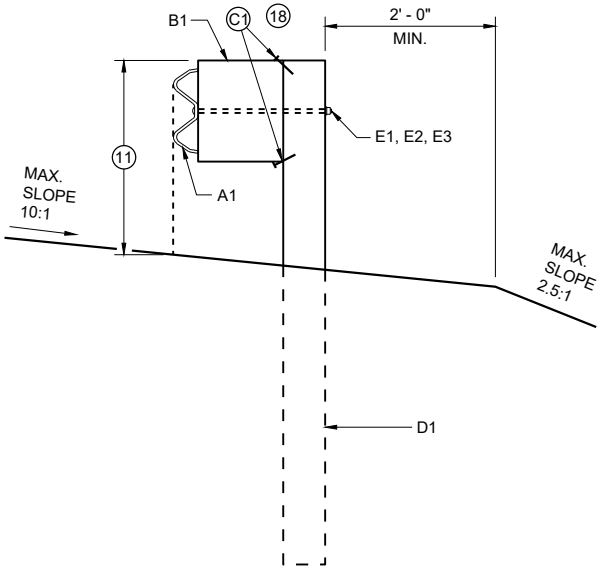


**CONTROLLED RELEASE
TERMINAL POST (CRT) IN RADIUS**



PLAN VIEW

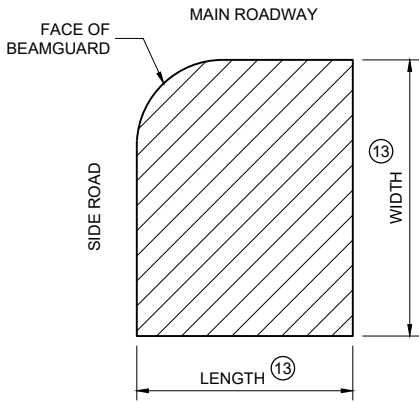
**SHORT RADIUS BEAM GUARD WITH
EAT, ADDITIONAL BEAM GUARD
OR
TRANSITION TO RIGID BARRIER ON
SECONDARY ROAD OR DRIVEWAY**



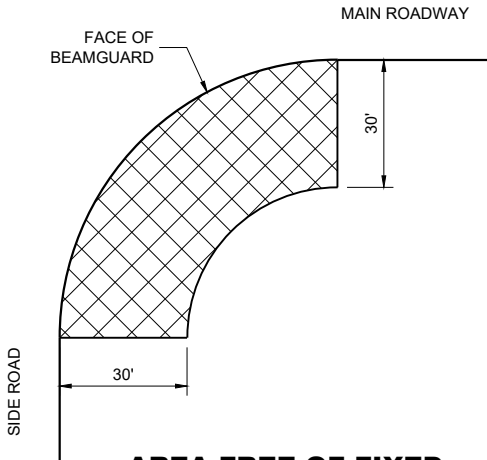
**BEAM GUARD POSTS
IN HEIGHT TRANSITION**

TABLE FOR RADIUS OF 32' AND LESS

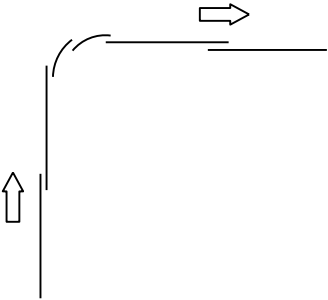
RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30



**AREA FREE OF FIXED
OBJECTS FOR RADIUS
32' AND LESS**



**AREA FREE OF FIXED
OBJECTS FOR RADIUS
GREATER THAN 32'**



LAP SPLICE DETAIL

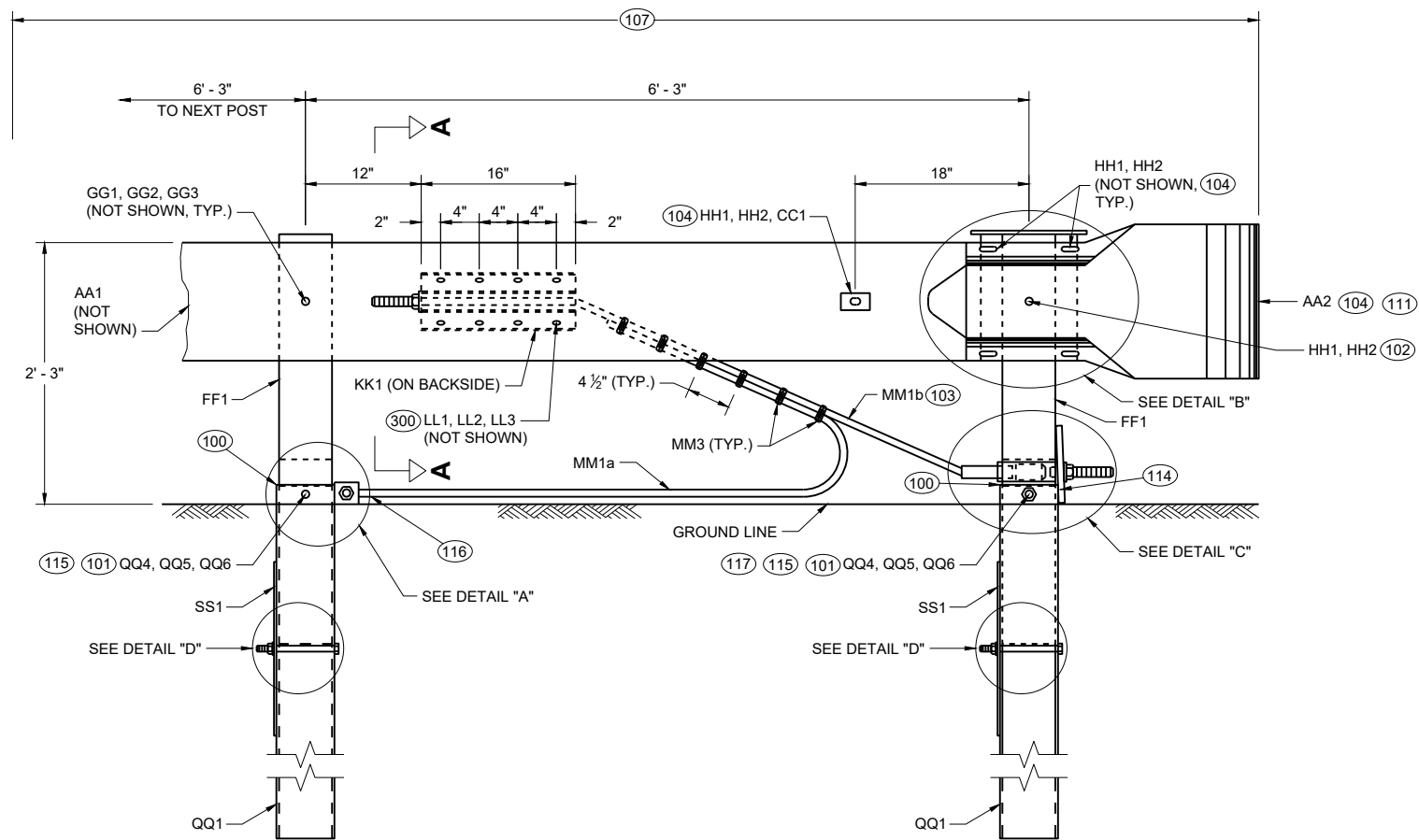
GENERAL NOTES

- SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.
- SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.
- GALVANIZE PARTS AFTER FABRICATION.
- WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.
- UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.
- UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.
- ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.
- UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE 1/4" TO 1/2" BEYOND THE NUT.
- DRAWINGS ARE NOT TO SCALE.

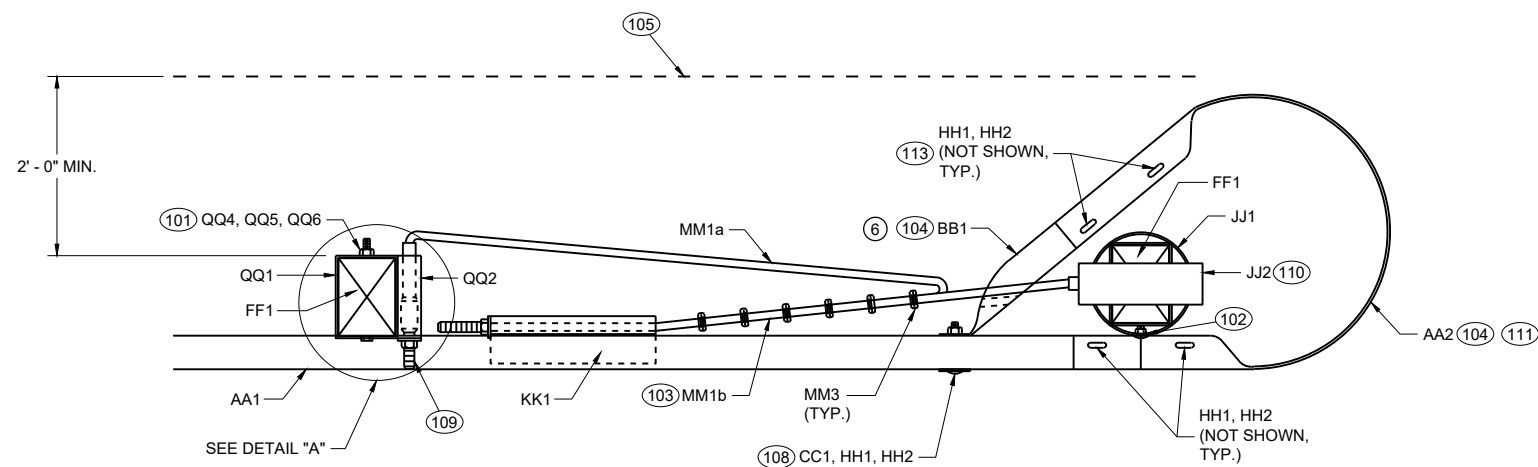
- ① RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.
- ② CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.
- ③ WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.
- ④ MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.
- ⑤ ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.
- ⑥ MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.
- ⑦ BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.
- ⑧ TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.
- ⑨ ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.
- ⑩ SHORT RADIUS TERMINAL (SEE OTHER DETAILS).
- ⑪ HEIGHT VARIES. SEE NOTE ⑧ AND ⑪.
- ⑫ BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.
- ⑬ SEE TABLE FOR VALUES.
- ⑭ MAXIMUM HEIGHT FOR CENTER OF HOLE IS 3/4" ABOVE FINISHED GROUND ±1".
- ⑮ DRILL POST 15/64" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.
- ⑯ SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.
- ⑰ TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).
- ⑱ INITIAL 1 NAIL AT EACH CORNER OF THE BLOCK TO CONNECT BLOCKS.

**SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)**

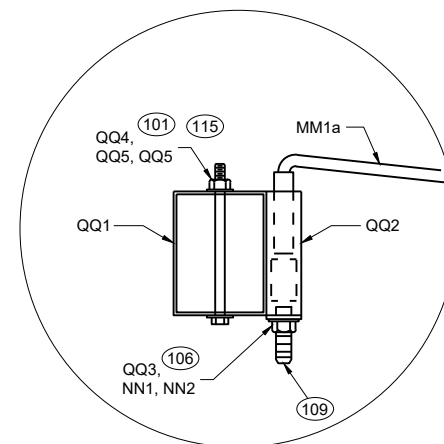
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



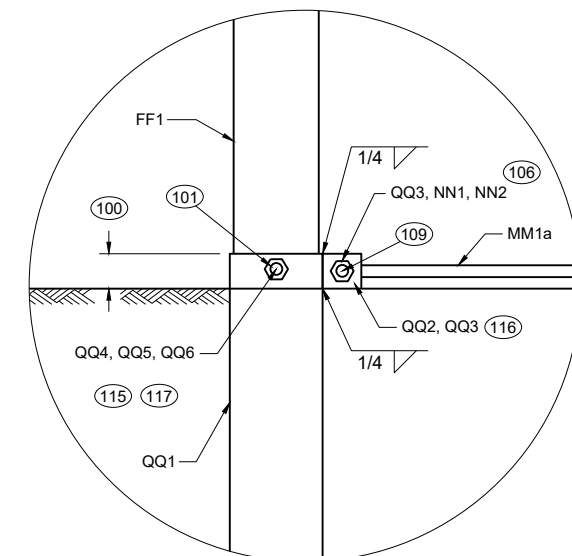
**PROFILE VIEW
SHORT RADIUS TERMINAL**



**TOP VIEW
SHORT RADIUS TERMINAL**



**TOP VIEW
DETAIL "A"
(WOOD BREAKAWAY AND BEAM
GUARD RAIL POSTS NOT SHOWN)**



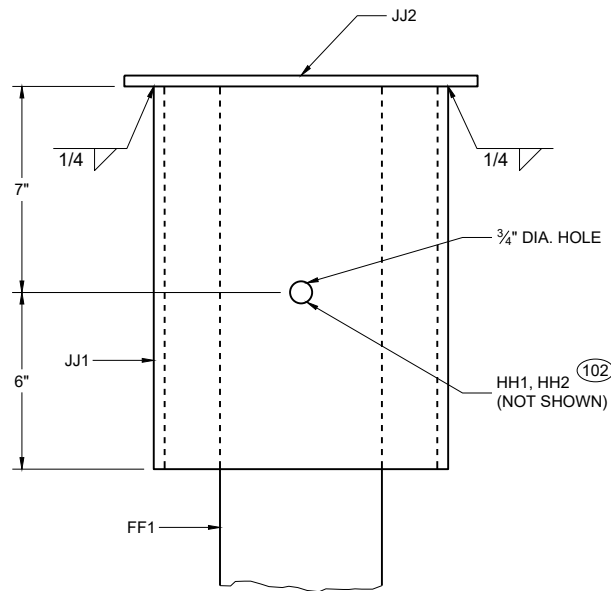
**PROFILE VIEW
DETAIL "A"**

GENERAL NOTES

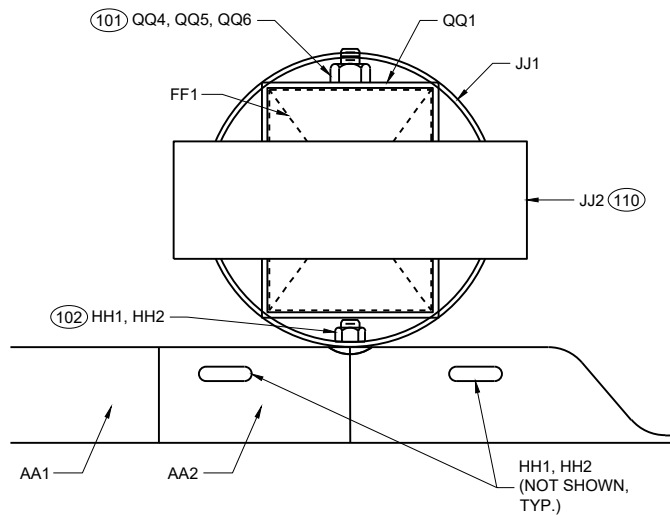
- (100) TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.
- (101) WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.
- (102) SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".
- (103) CABLE IS TAUT.
- (104) ADJUST AA2 AND BB1 TO FIT.
- (105) BREAK POINT OF SHOULDER.
- (106) TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.
- (107) PAY LIMIT FOR BEAM GUARD.
- (108) SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.
- (109) CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS 1/2" TOLERANCE). DEBURR AFTER CUTTING.
- (110) SEE STEEL PIPE ASSEMBLY DETAILS.
- (111) ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.
- (112) FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.
- (113) FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.
- (114) NO MATERIAL IS TO BE PLACED AGAINST THE VERTICAL FACES OF BEARING PLATE.
- (115) PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLTS FOR POST AND SOIL TUBE.
- (116) PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLT. PLACE CABLE ON TOP OF MATERIAL.
- (117) ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

**SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)**

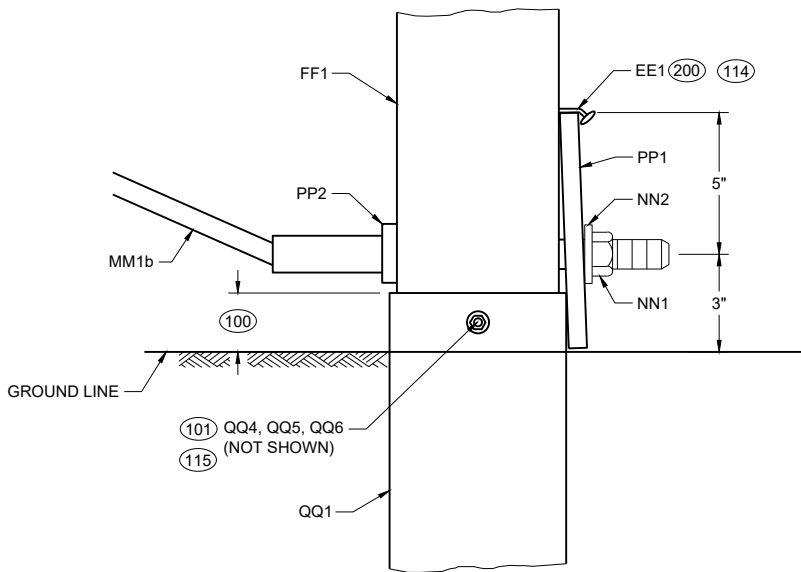
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



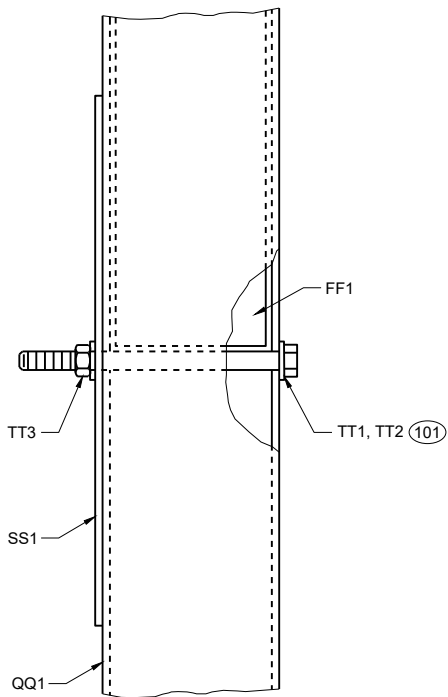
**PROFILE VIEW
DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM
END SECTION NOT SHOWN)**



**PLAN VIEW
DETAIL "B"
STEEL PIPE ASSEMBLY**



**PROFILE VIEW
DETAIL "C"**



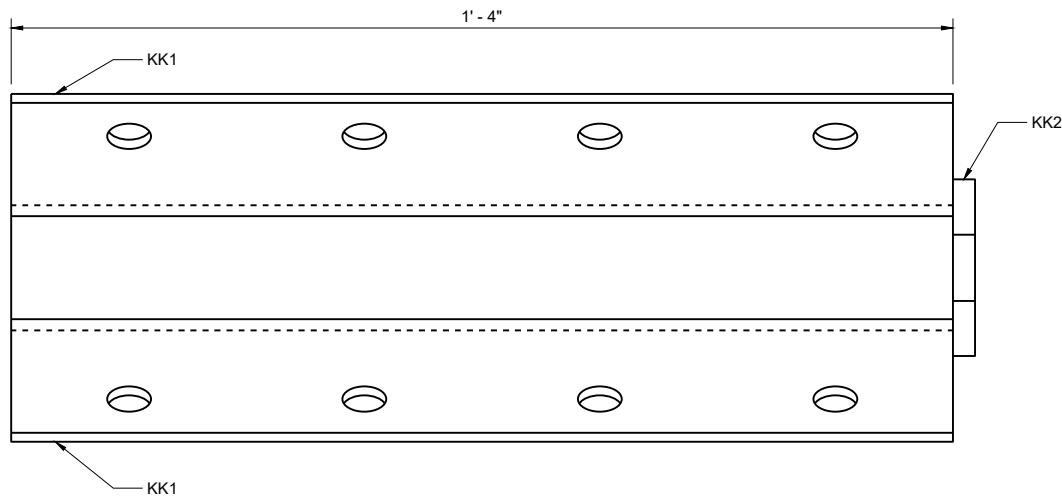
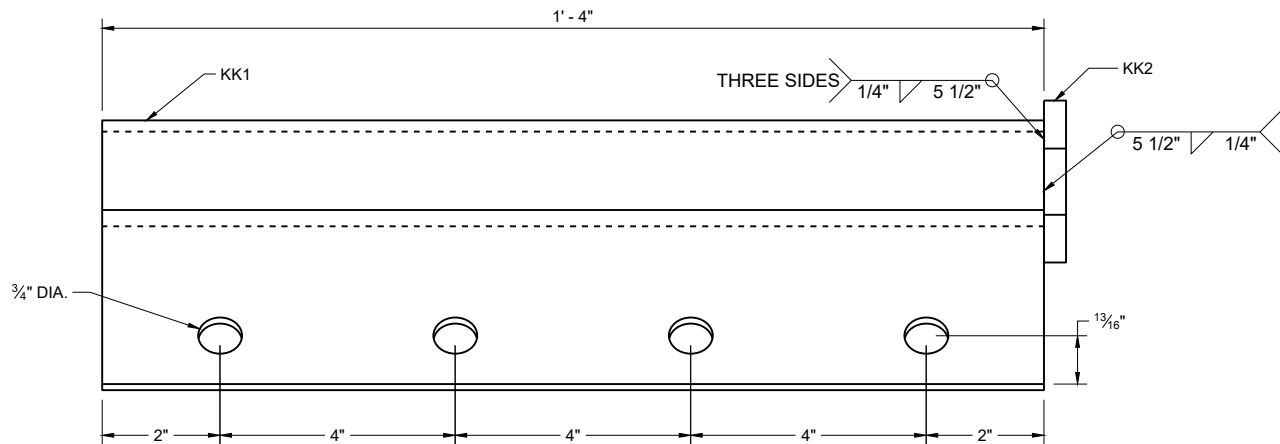
**PROFILE VIEW
DETAIL "D"**

GENERAL NOTES

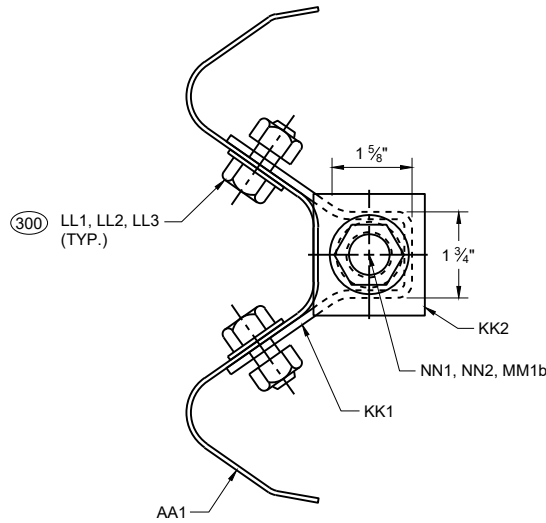
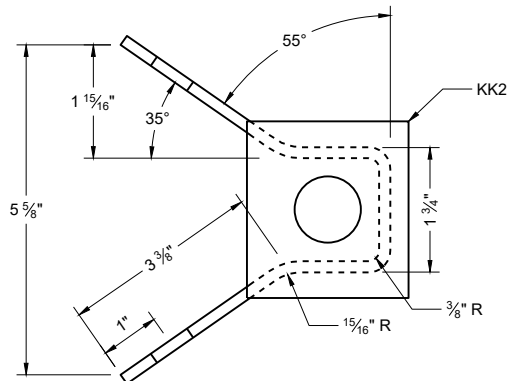
(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.

**SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



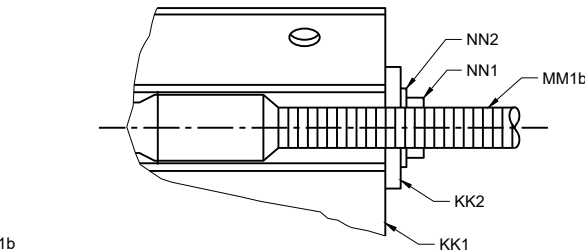
ANCHOR BRACKET (KK1, KK2)



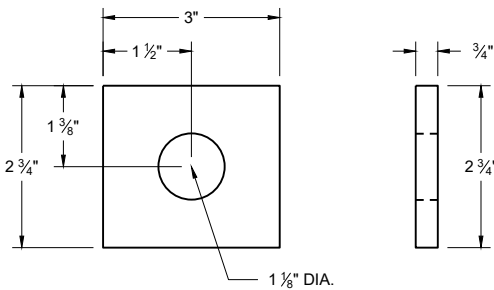
SECTION A - A

GENERAL NOTES

(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

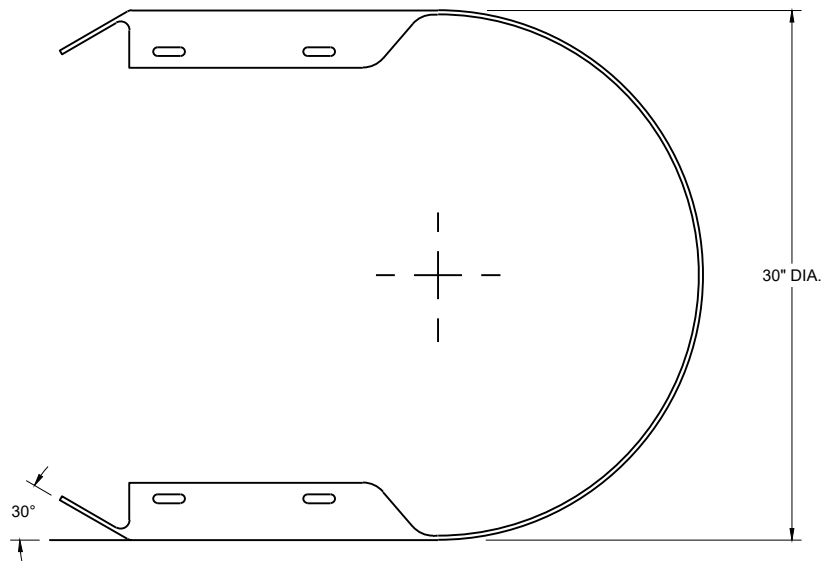


ANCHOR BRACKET BEARING PLATE (KK2)

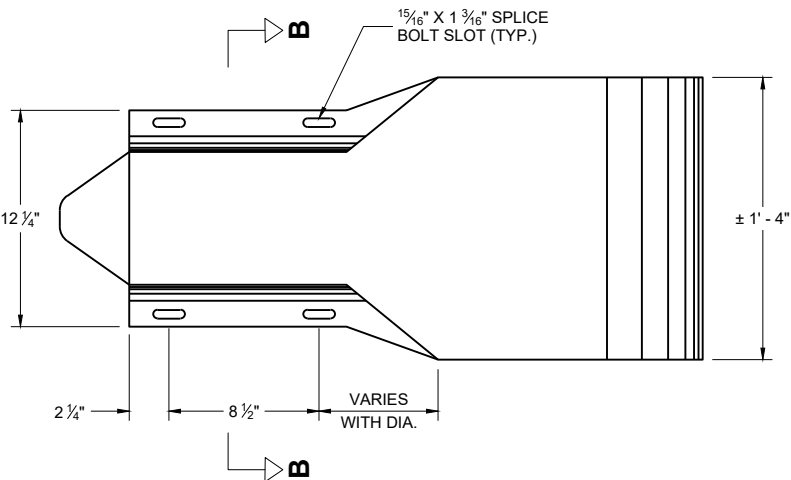


SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)

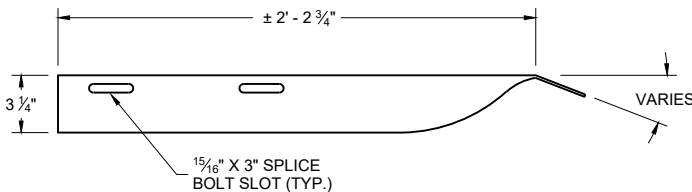
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



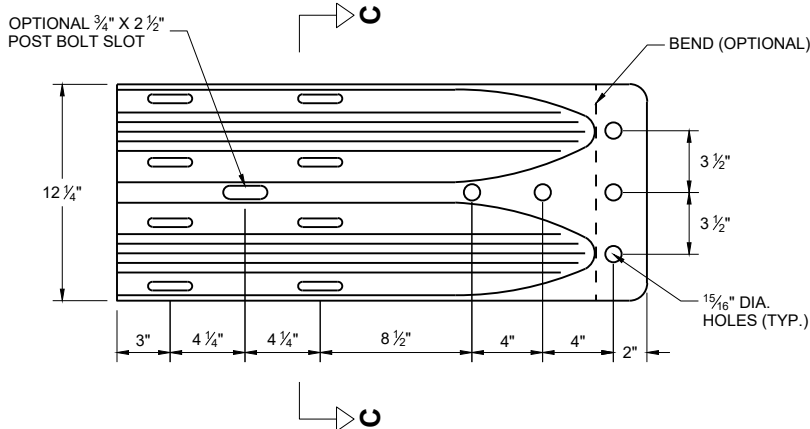
TOP VIEW



PROFILE VIEW
W BEAM
END SECTION BUFFER (AA2)



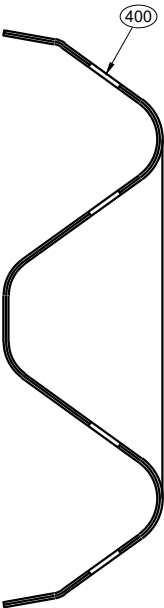
TOP VIEW



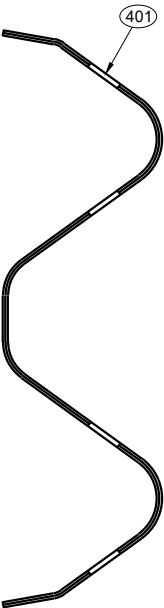
PROFILE VIEW
W BEAM
TERMINAL CONNECTOR (BB1)

GENERAL NOTES

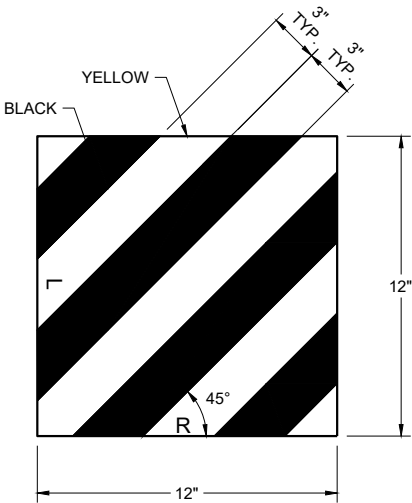
- (400) CROSS SECTION OF PART IS TO FIT OVER AA1 .
- (401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



SECTION B -B



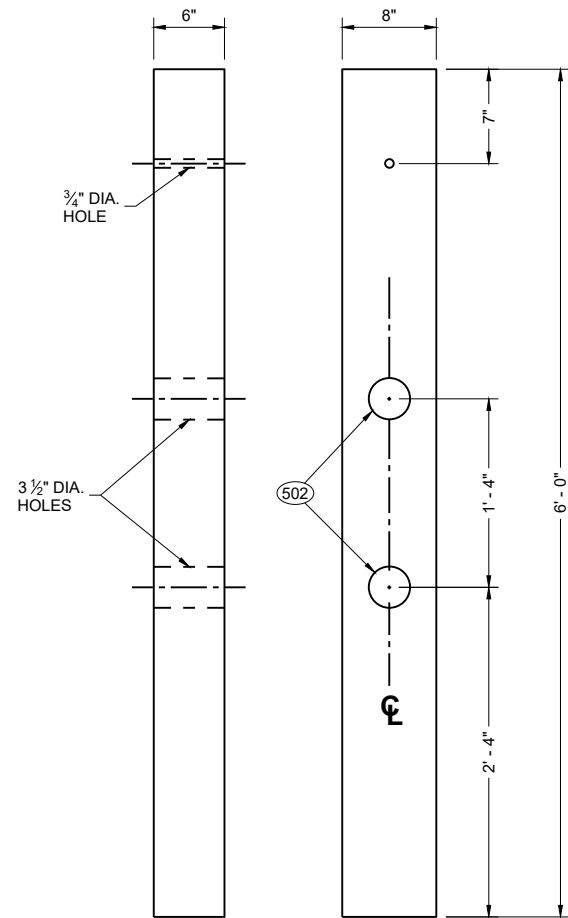
SECTION C -C



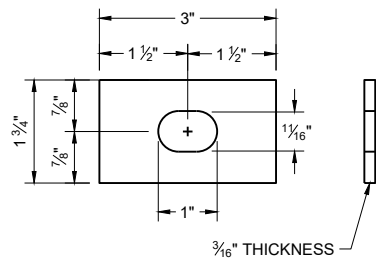
REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)

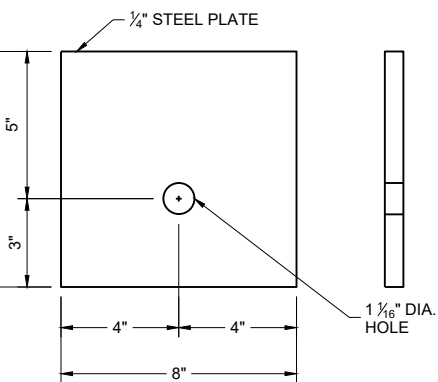
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



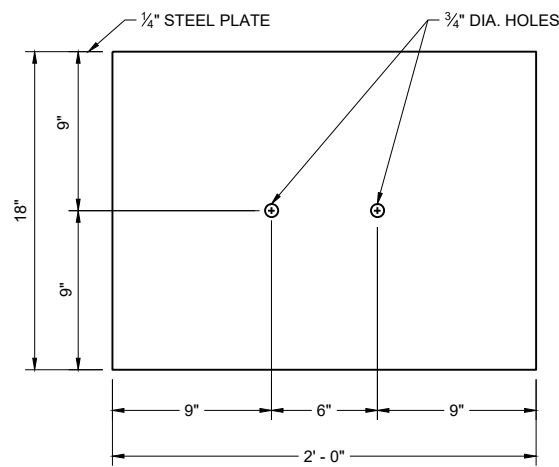
FRONT VIEW SIDE VIEW
CONTROLLED RELEASE POST (CRT) (DD2)



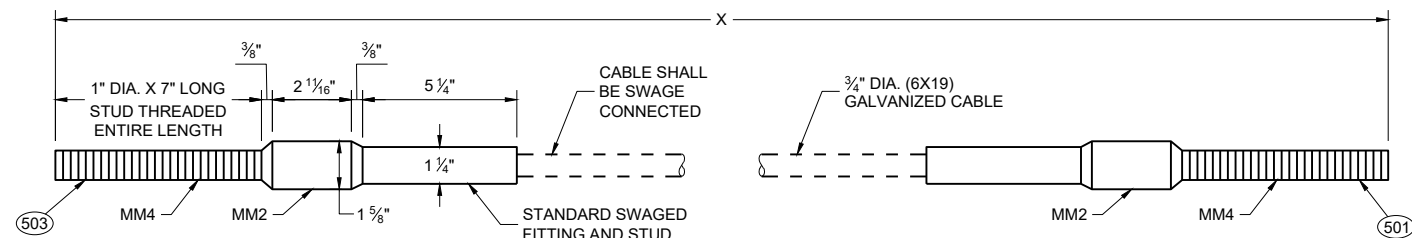
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



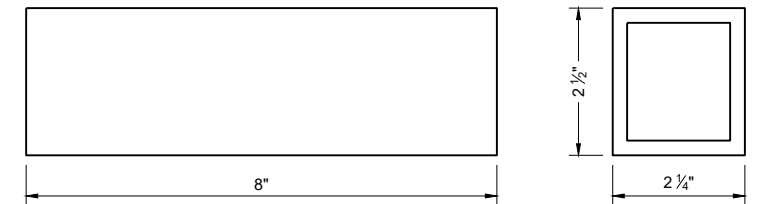
CABLE ASSEMBLY (MM1a, MM11b)

"X" LENGTH

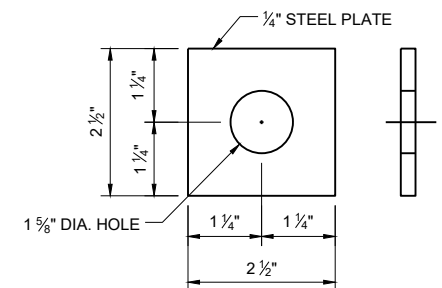
MM1b	9' - 0"
MM1b	6' - 8"

GENERAL NOTES

- (500) SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.
- (501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.
- (502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.
- (503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109)



FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



ANCHOR CABLE TUBE END PLATE (QQ3)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	3/8" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 3/8" X 4" X 1" - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	5/8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	3/4"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
NN2	ANCHOR CABLE - NUT - WASHER	UNC	1" DIA.
		ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 1/2" X 2 1/2" X 1/4"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	5/8 DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8 DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

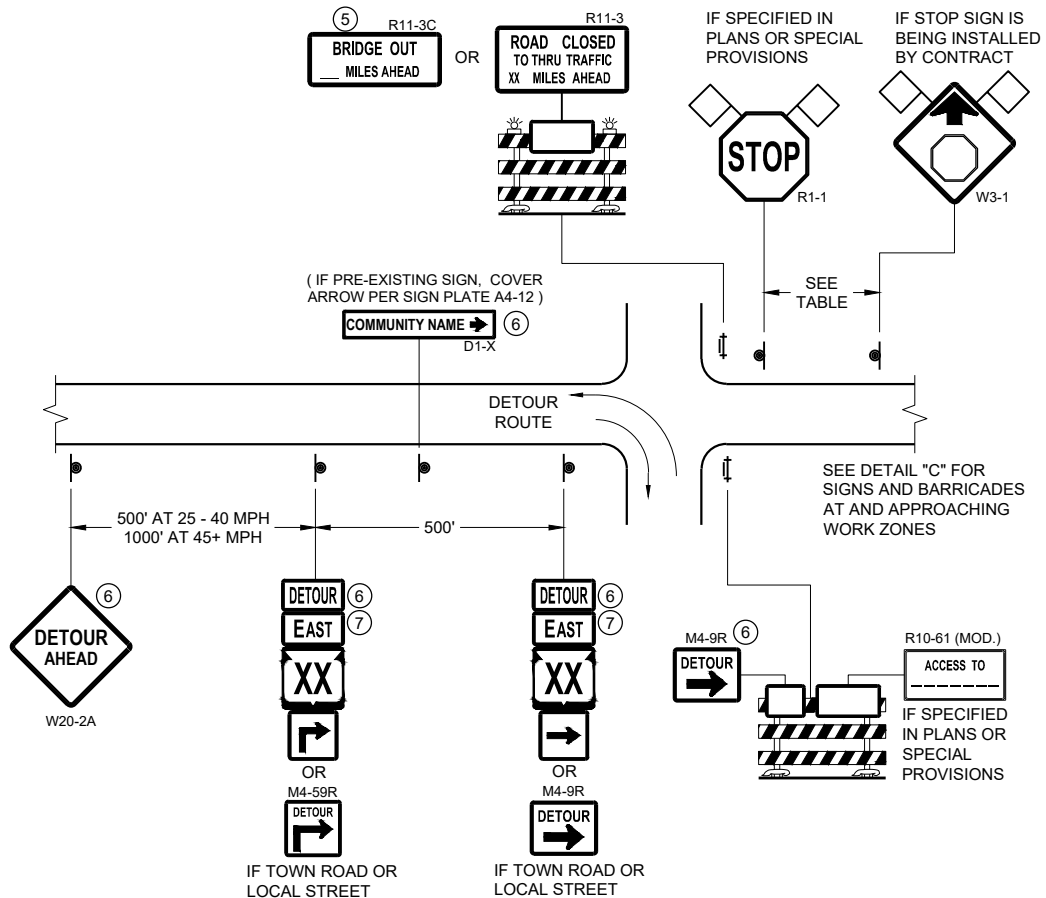
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

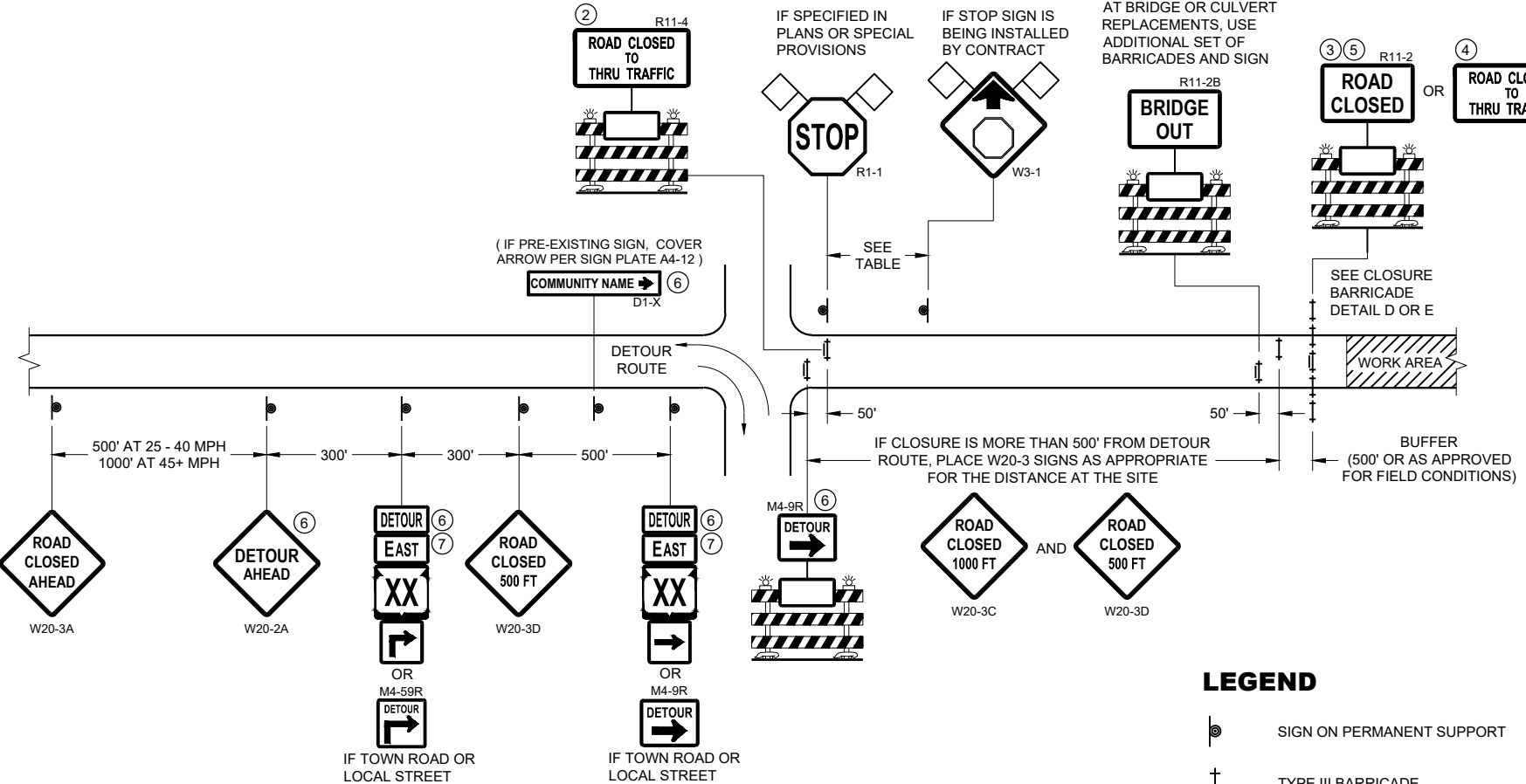
APPROVED
December 2024
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



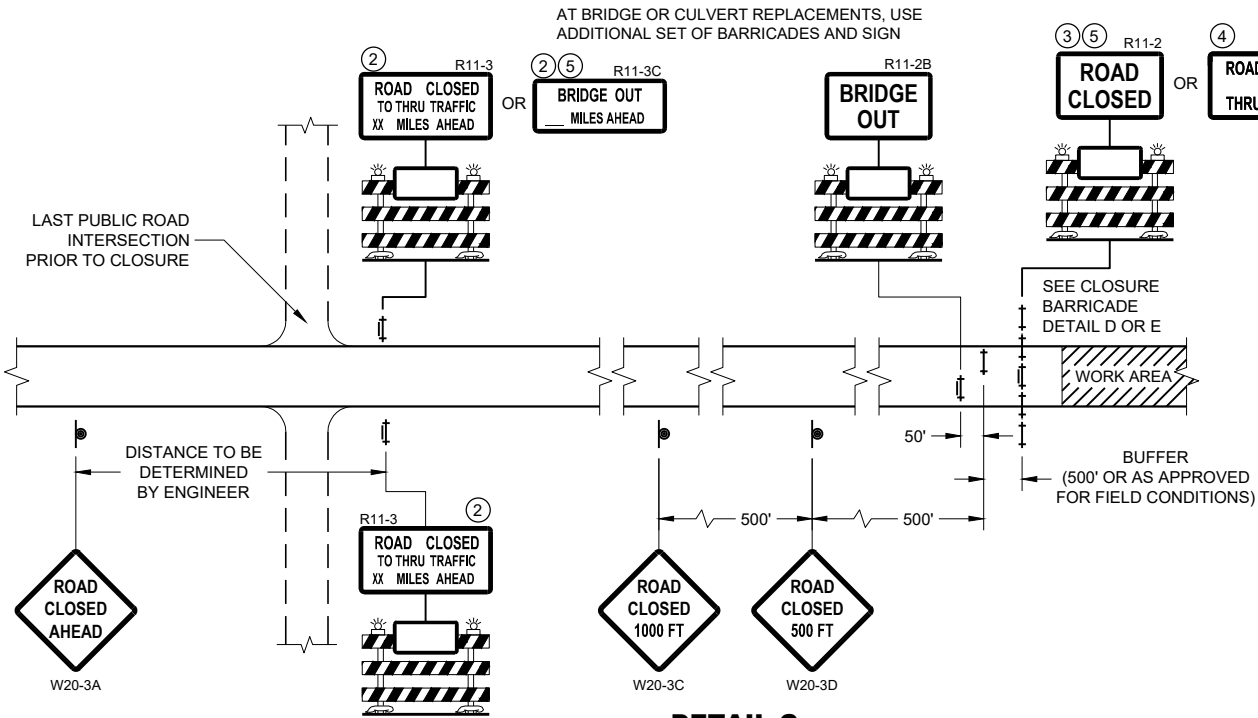
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

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

- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
- OR M05 - 1 OR M06 - 1

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

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



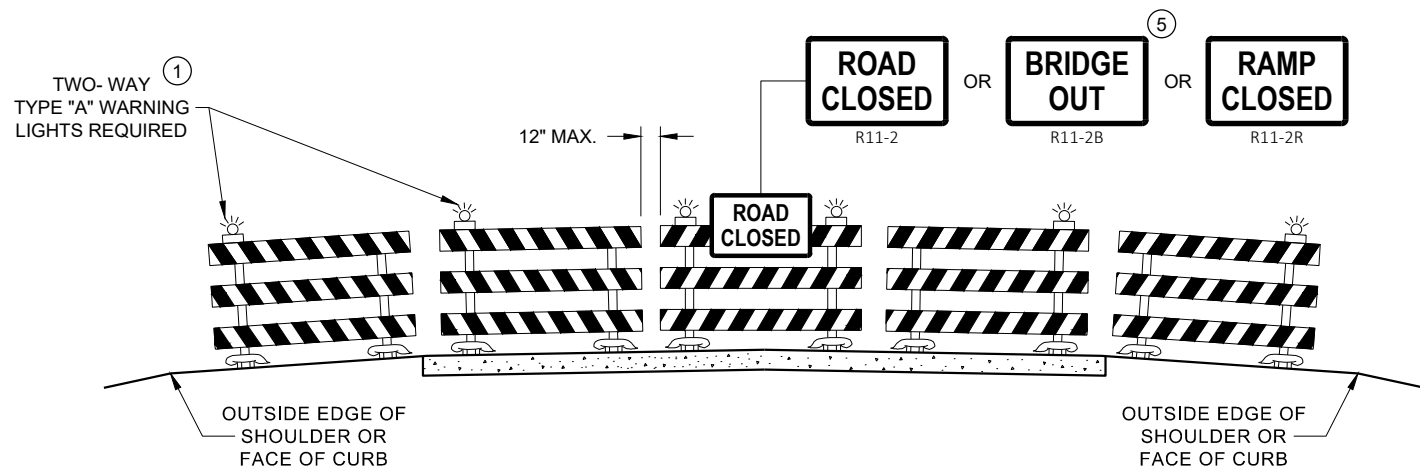
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

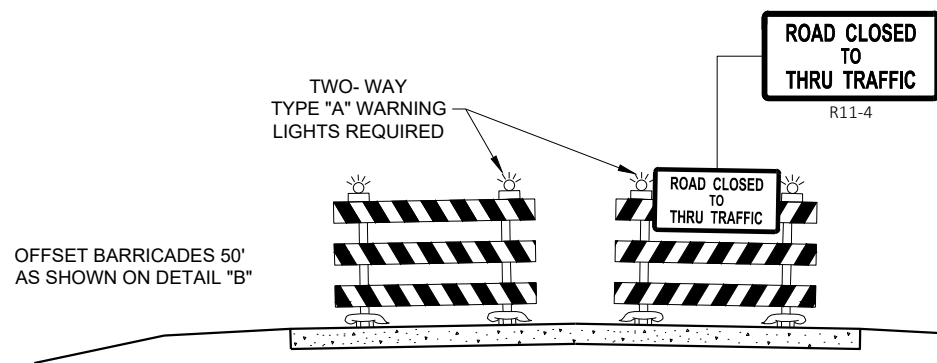
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 75

FHWA



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

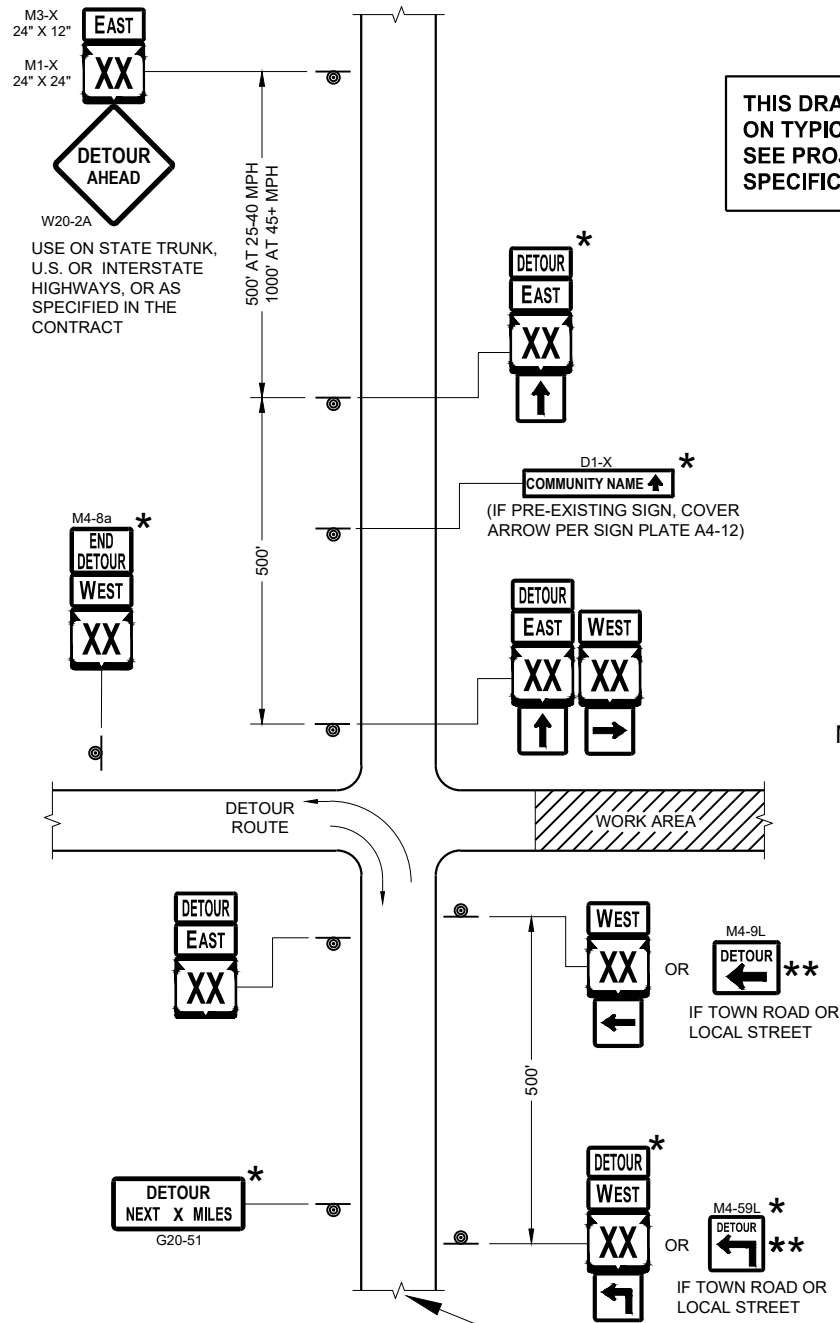
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

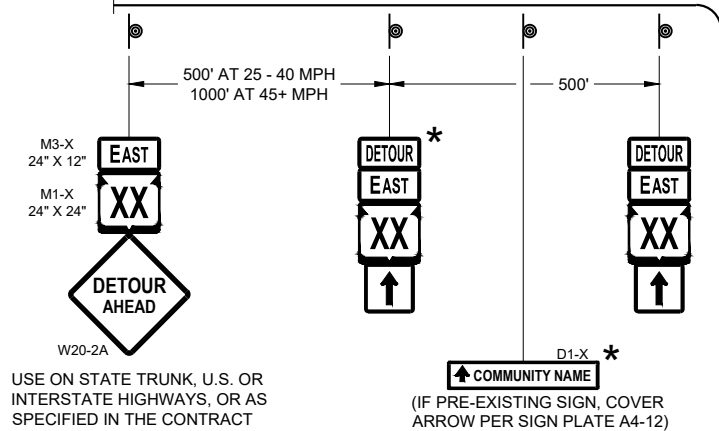
APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 76
FHWA



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

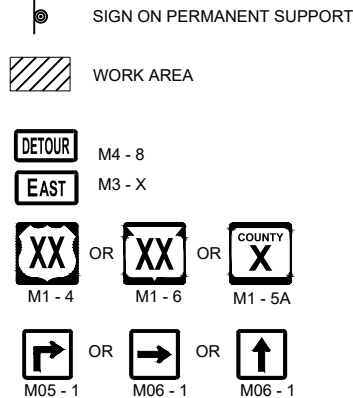
THIS DRAWING PROVIDES GENERAL GUIDANCE
ON TYPICAL DETOUR SIGN LAYOUT AND SPACING.
SEE PROJECT DETOUR SIGNING SHEETS FOR
SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT



DETAIL F
DETOUR SIGNING

LEGEND



GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

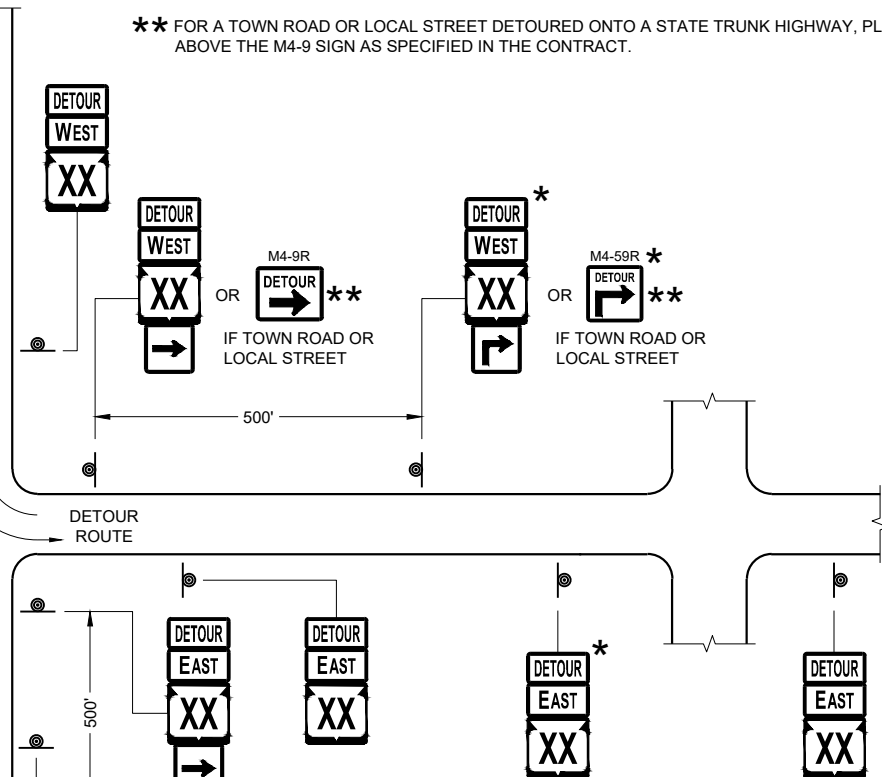
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

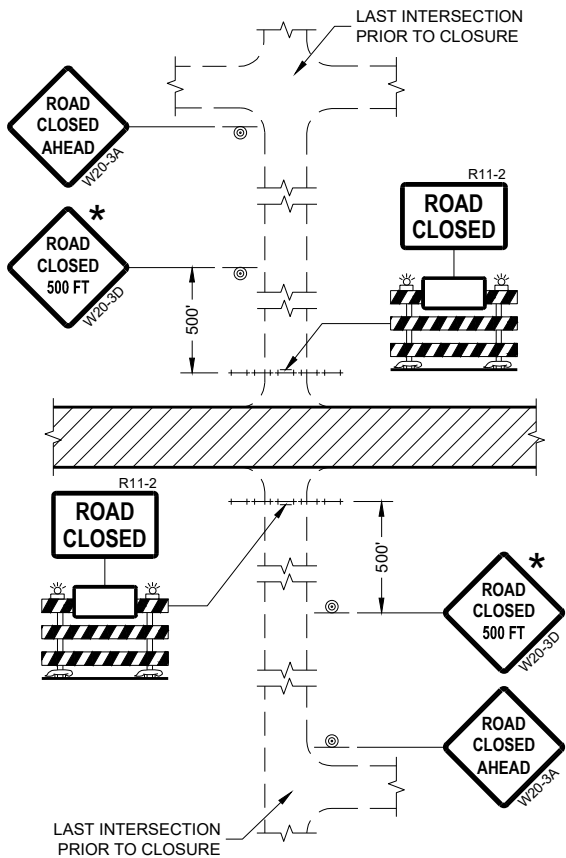


PLACE SIGNS BEYOND INTERSECTIONS
WITH STATE OR COUNTY TRUNK
HIGHWAYS OR AT 4 MILE MAXIMUM
SPACING (4 BLOCKS IF URBAN AREA)

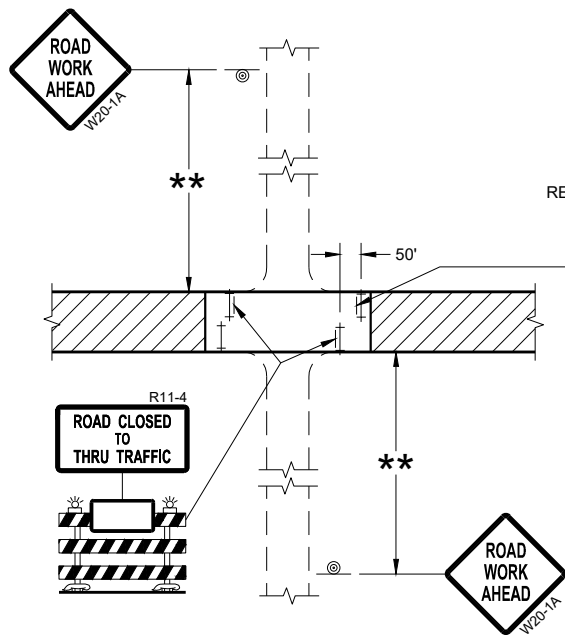
DETOUR SIGNING
FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

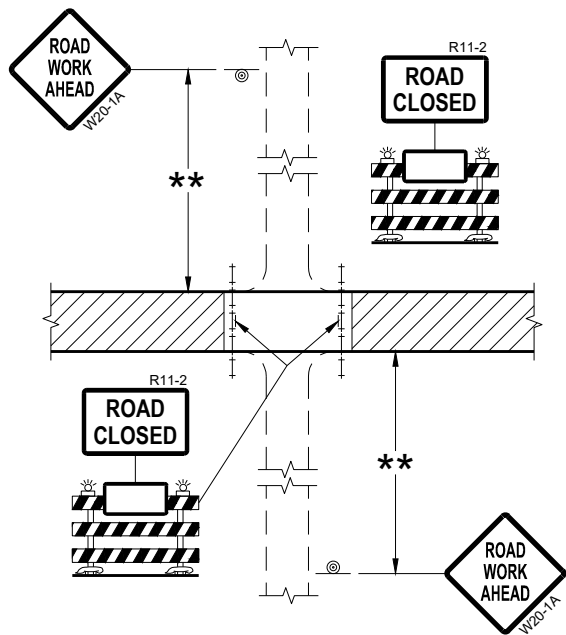
APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 77
FHWA



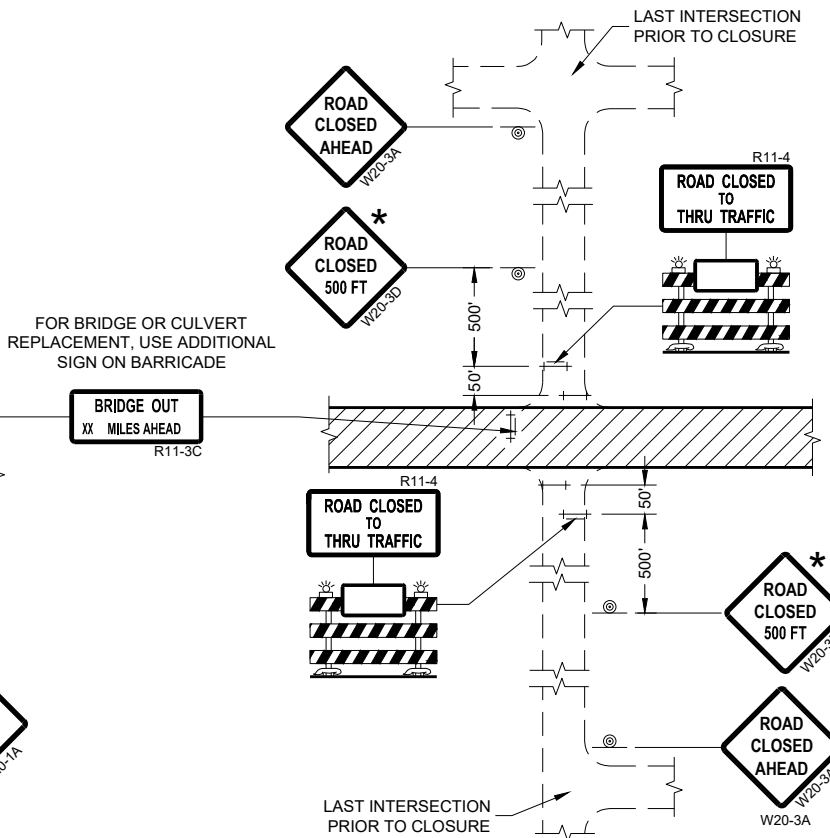
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

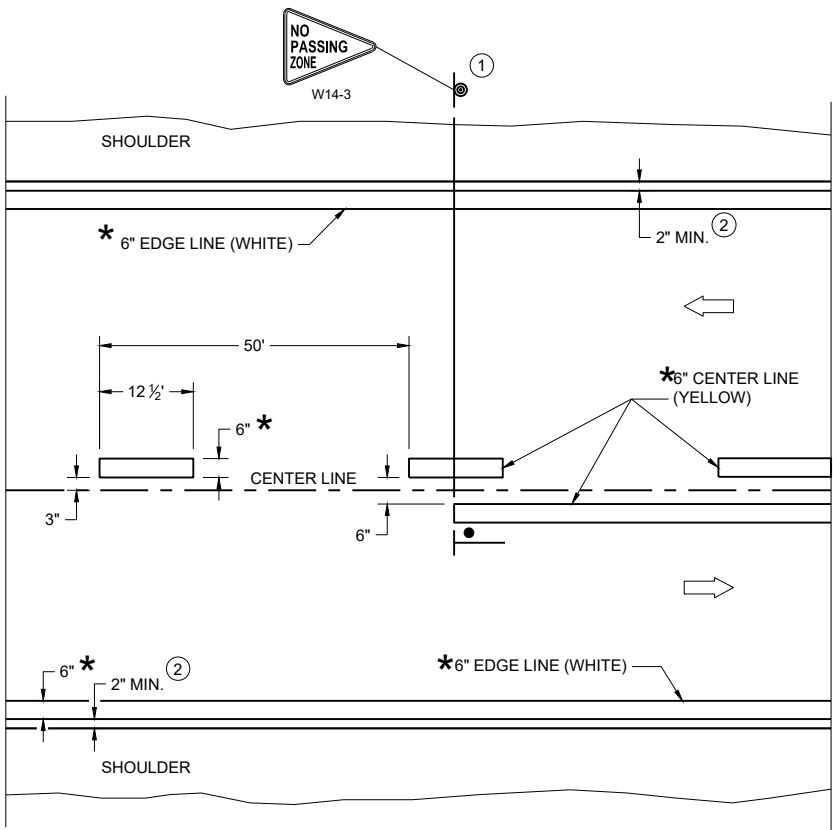
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

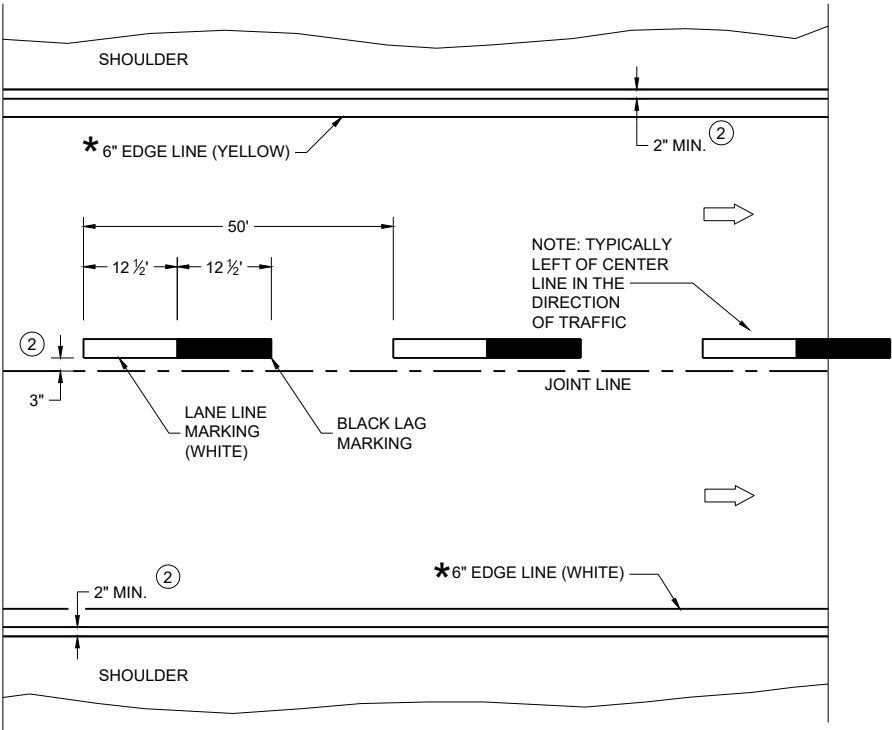
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 78

FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

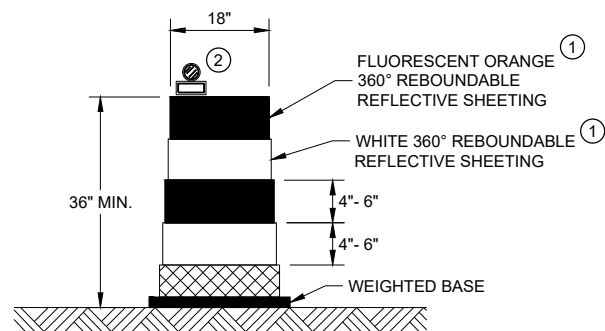
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

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

LEGEND

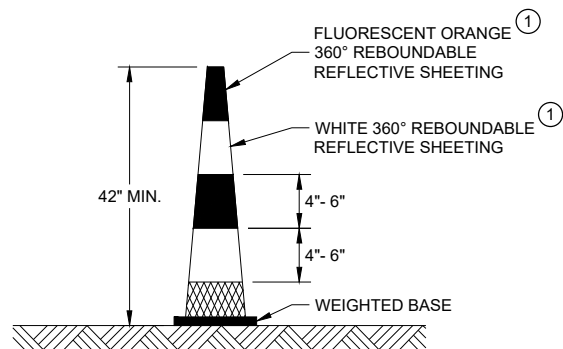
- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA 79	



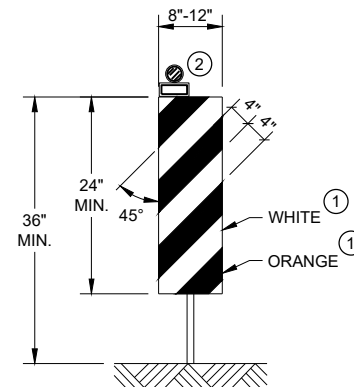
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



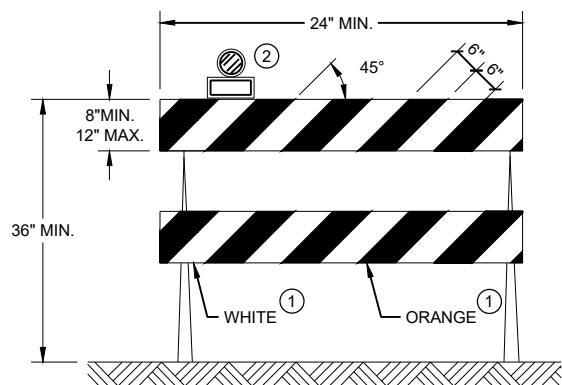
42" CONE

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



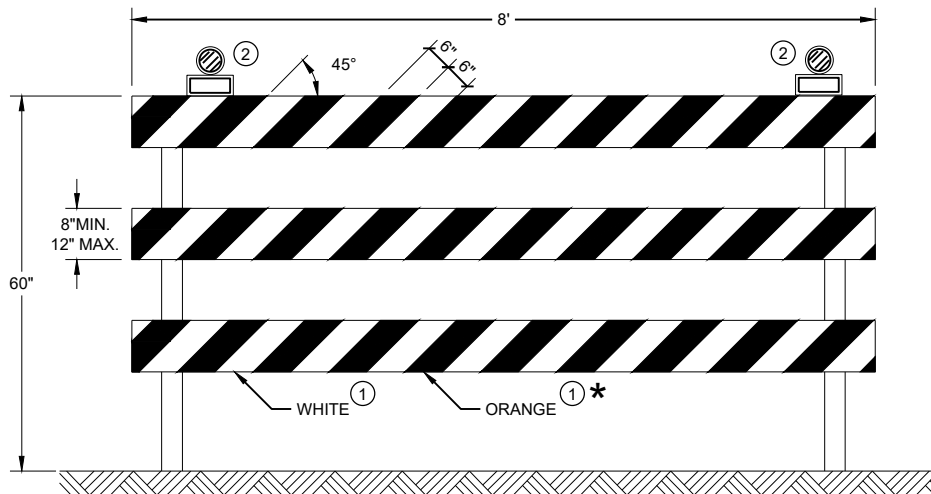
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

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

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 80
FHWA	

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

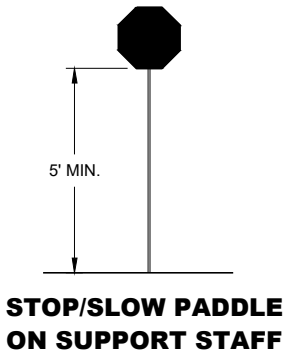
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

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

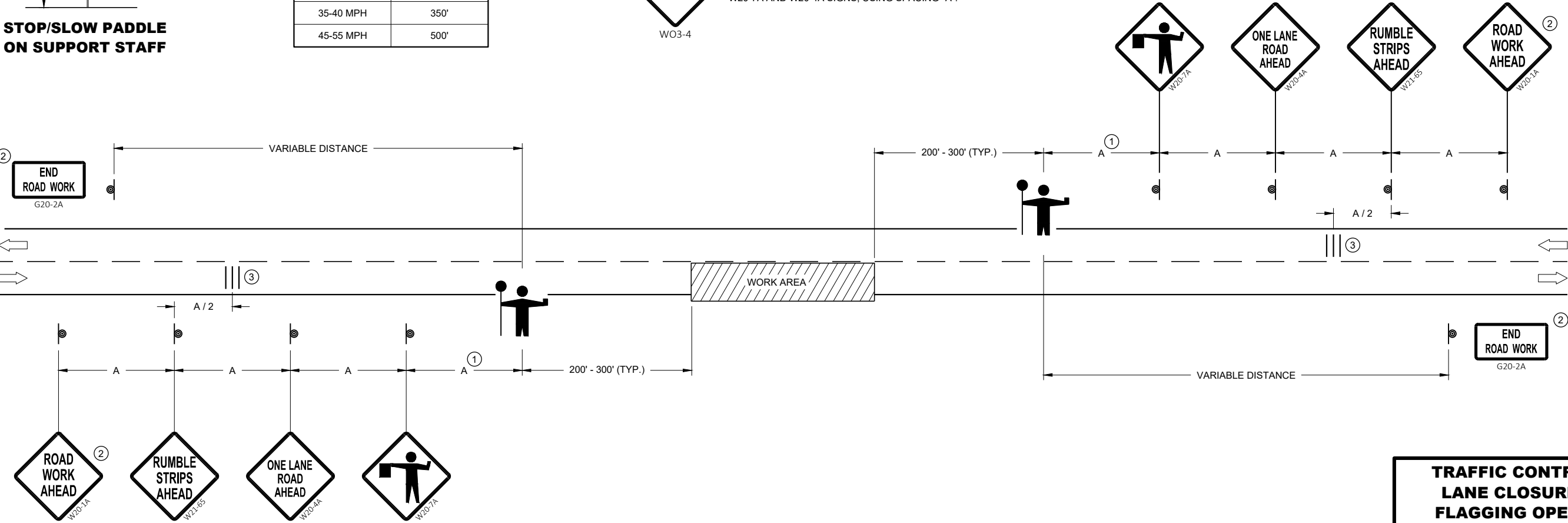


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 81

FHWA

LEGEND

- V1

LEAD VEHICLE
- V2

MARKING VEHICLE
- V3

SHADOW VEHICLE
- 

TRUCK MOUNTED ATTENUATOR (TMA)
- 

SIGN ON TEMPORARY SUPPORT
- 

DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

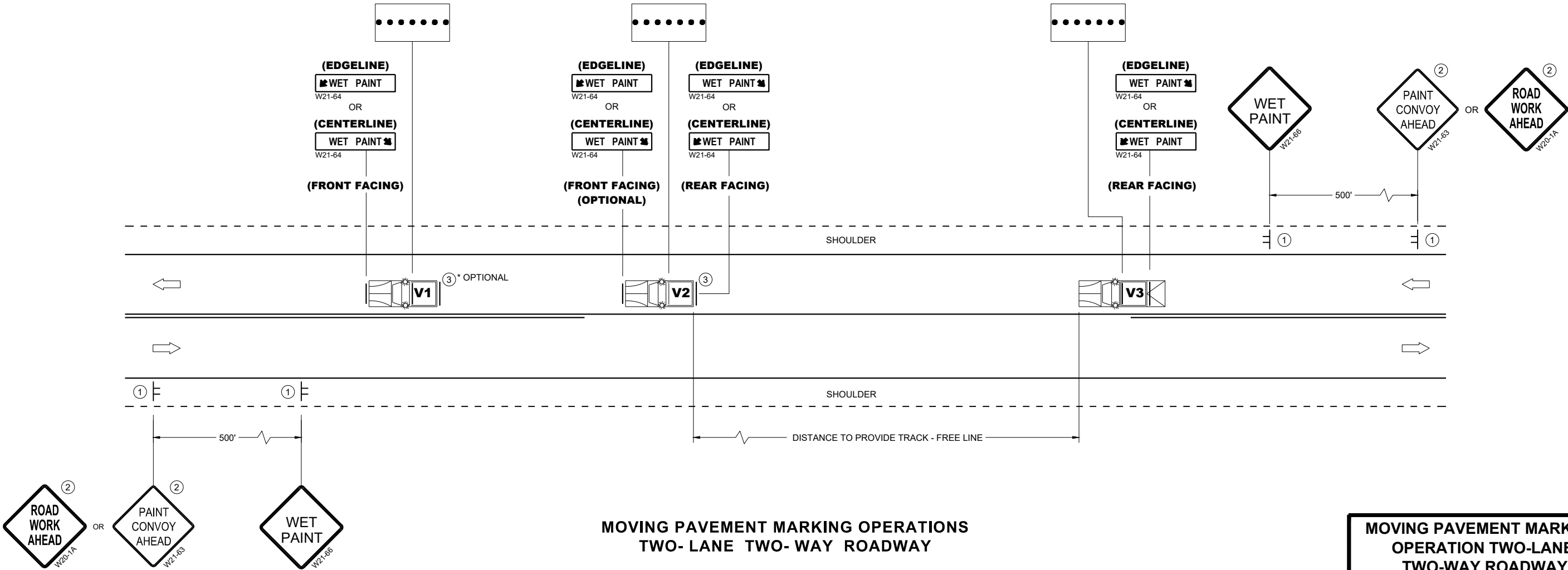
WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

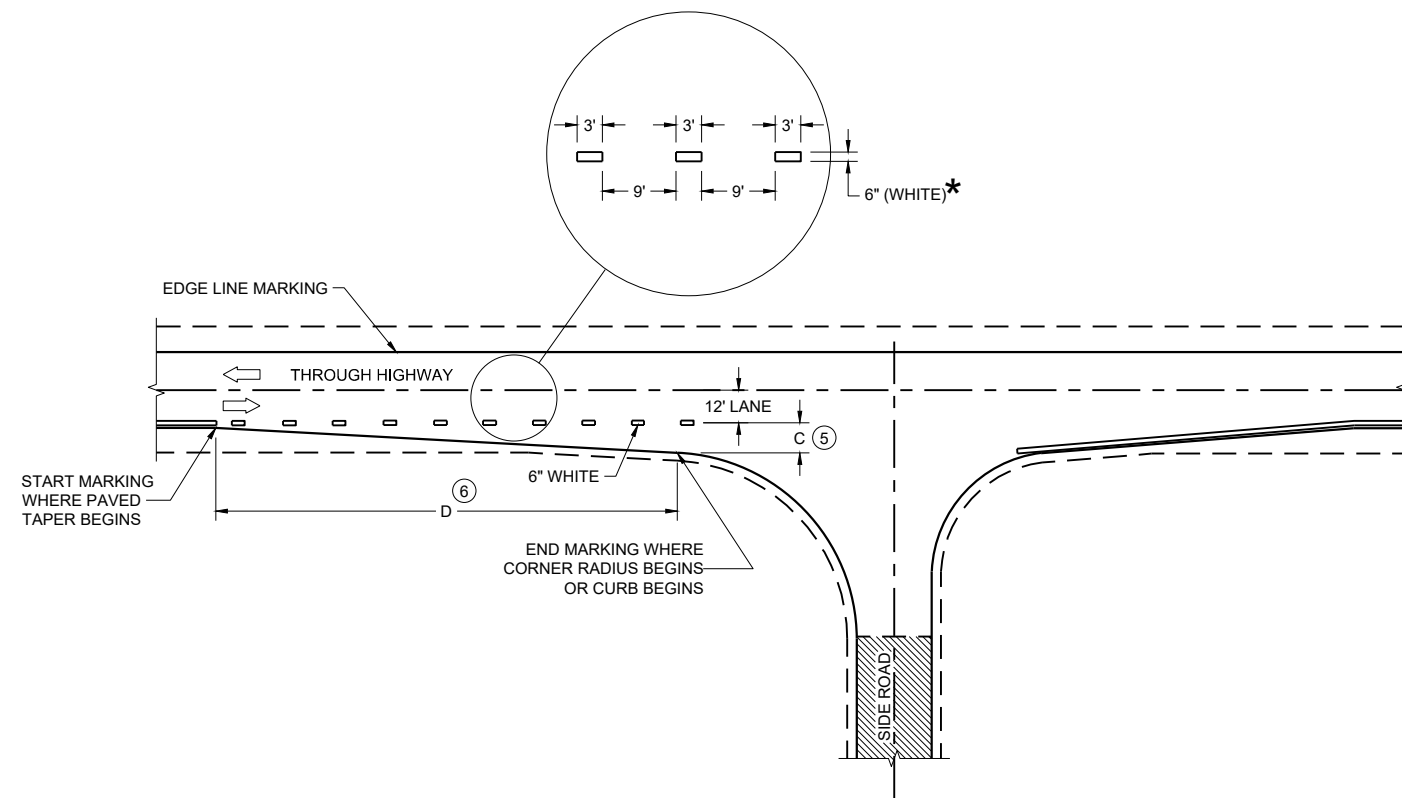
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

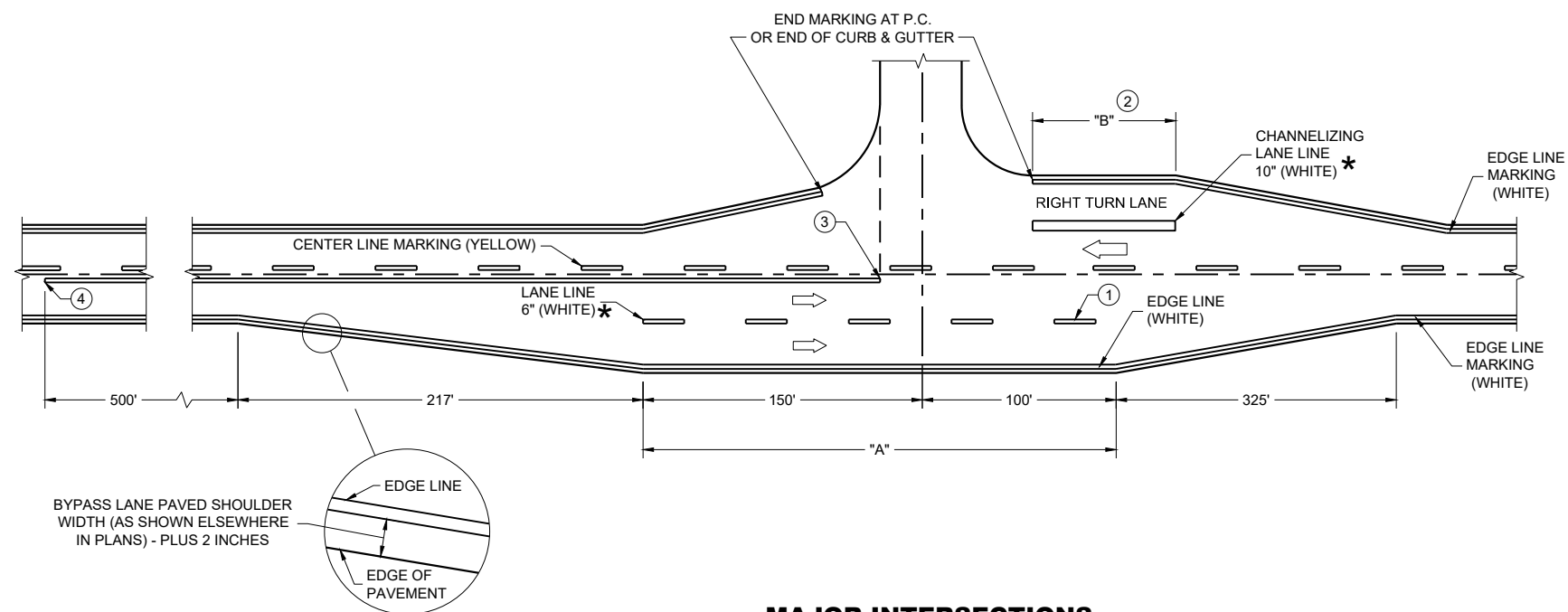
- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.



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



MINOR INTERSECTION

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

*CONFIRM MARKING LINE WIDTH WITH
THE MISCELLANEOUS QUANTITIES

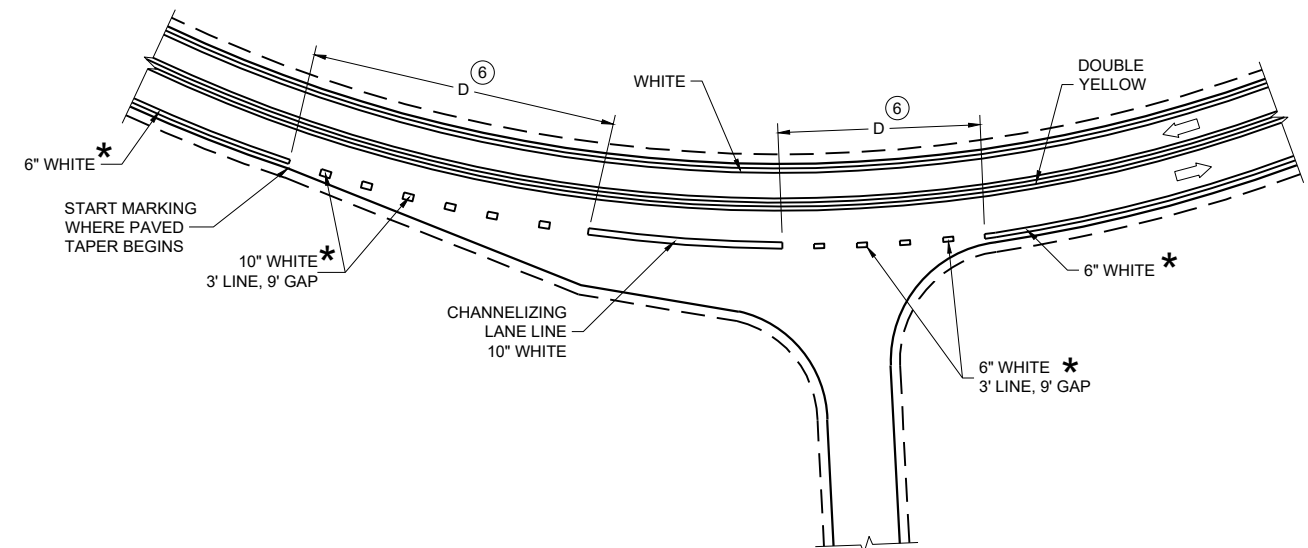
GENERAL NOTES

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

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

LEGEND

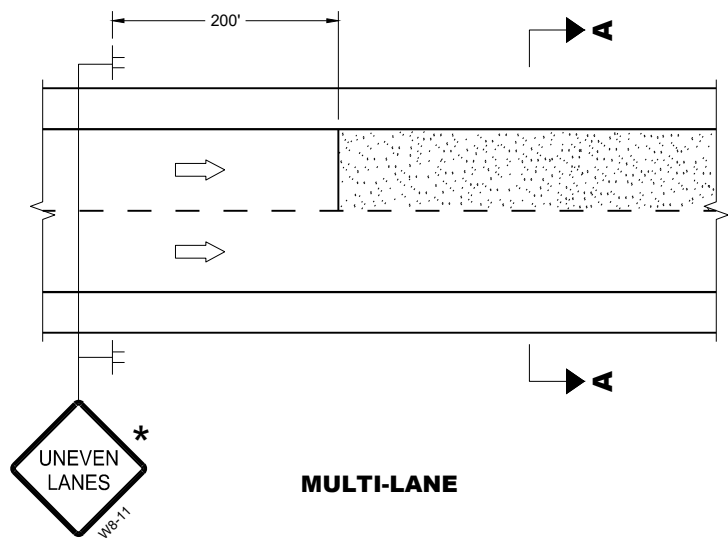
➡ DIRECTION OF TRAVEL



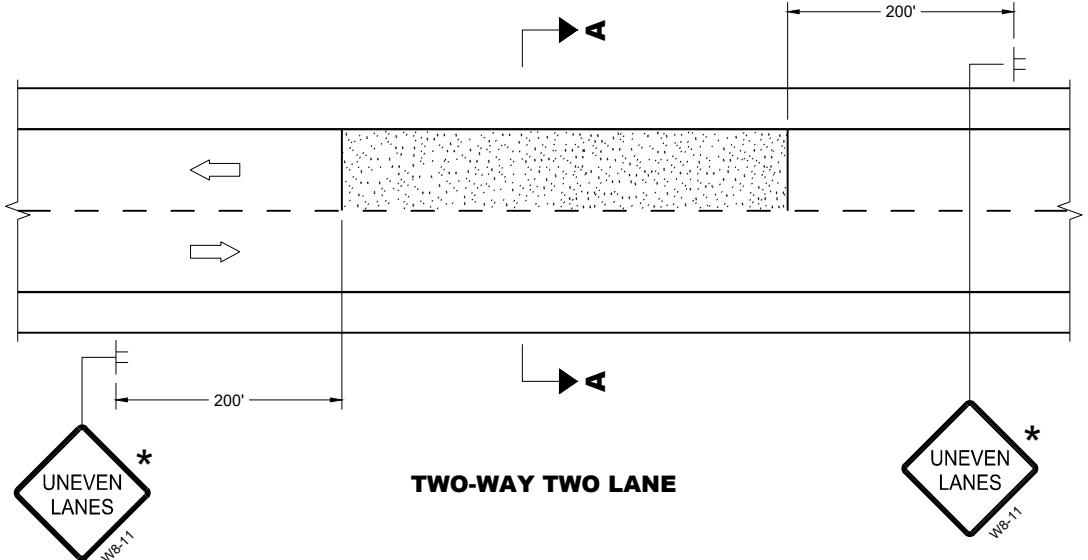
INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING
(INTERSECTIONS)

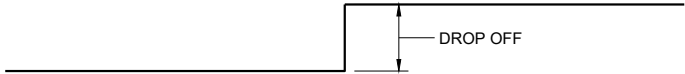
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MULTI-LANE

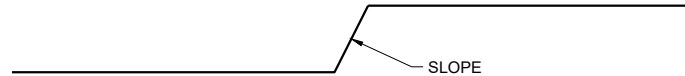


TWO-WAY TWO LANE

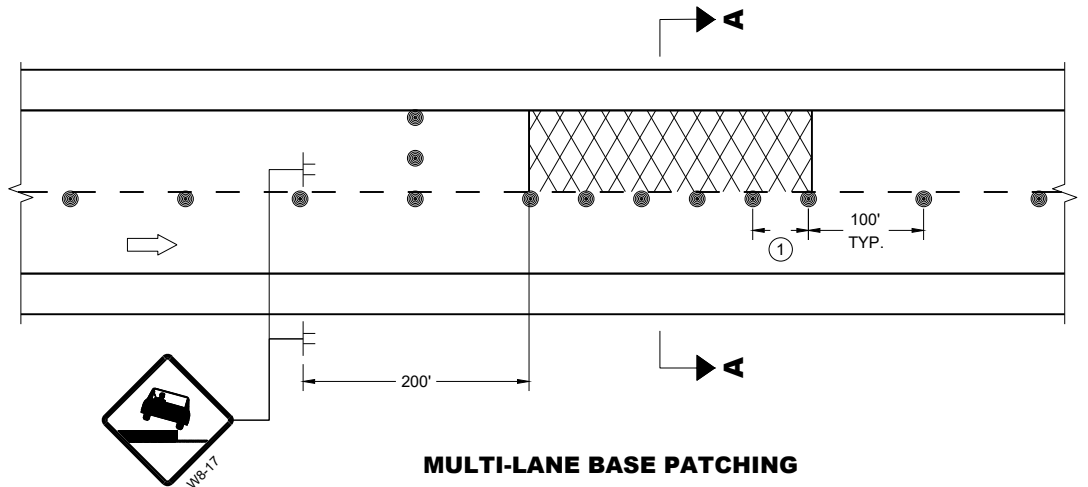


SECTION A - A

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.

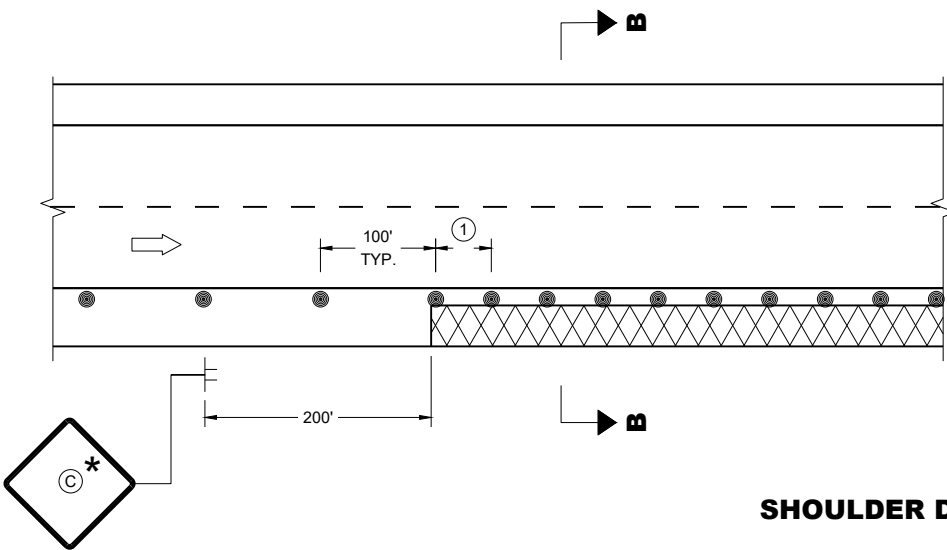
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

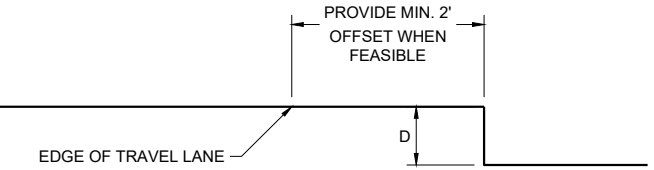
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

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 ③
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER W08-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A
PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT	

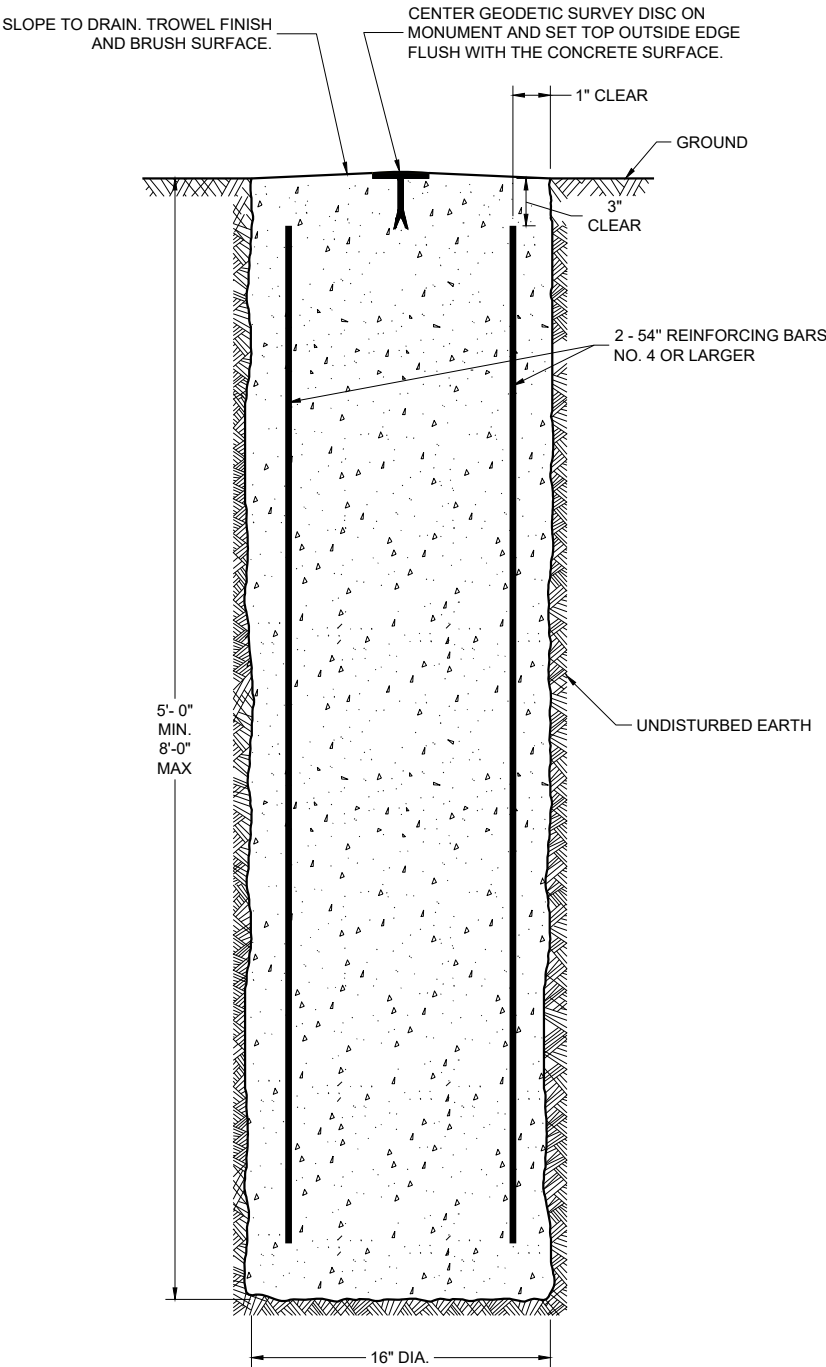
TRAFFIC CONTROL,
DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

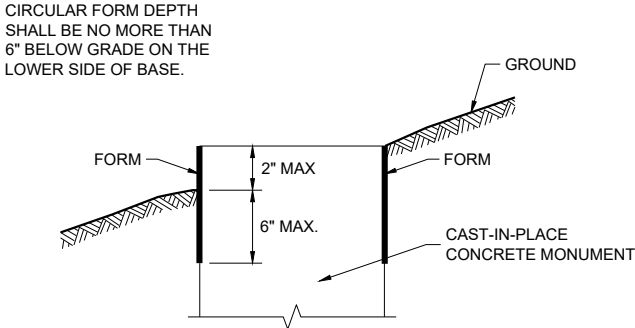
APPROVED
February 2025
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA



**CAST-IN-PLACE
CONCRETE MONUMENT**



FORMING DETAIL



GEODETIC SURVEY DISC
FURNISHED BY WISDOT

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.

SURVEY MONUMENT SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

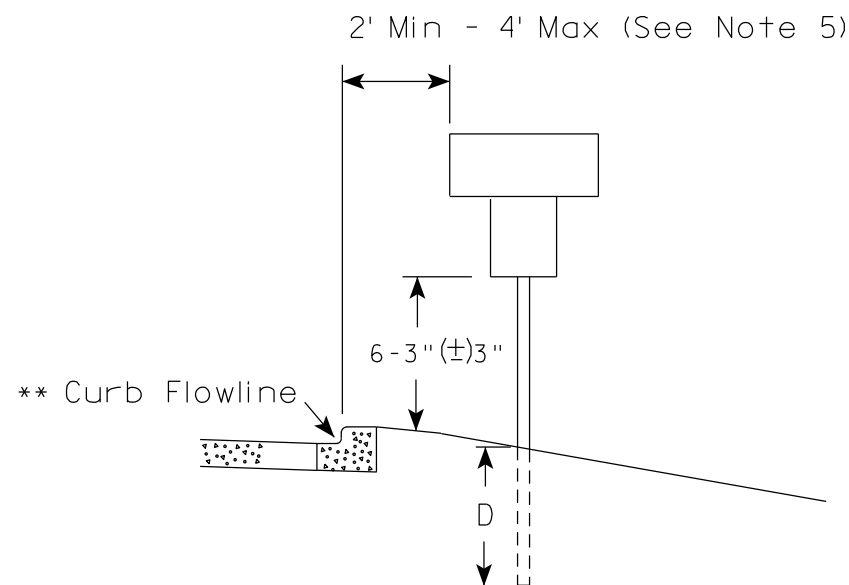
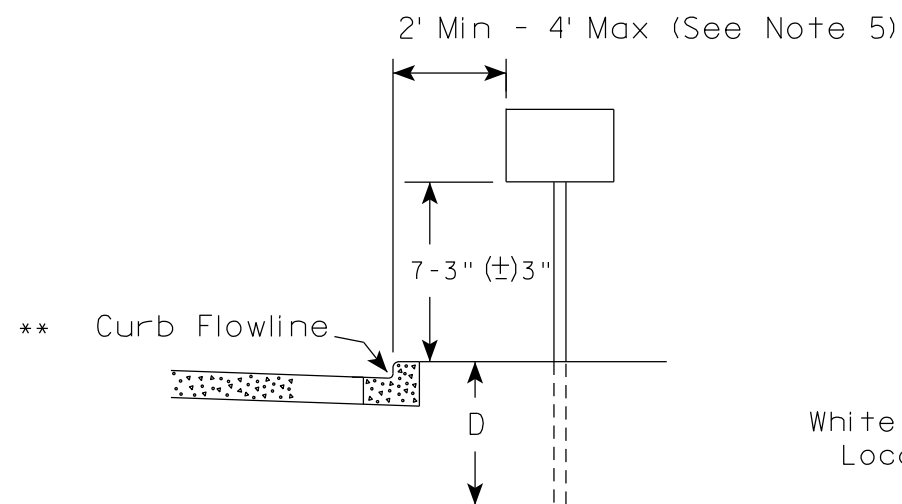
IF A SURVEY MONUMENT REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

**GEODETIC SURVEY
MONUMENT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

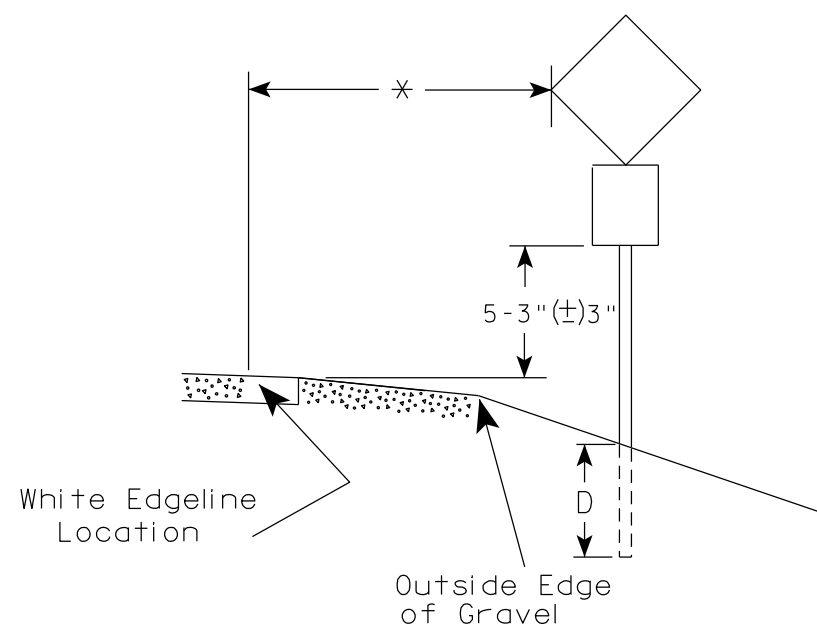
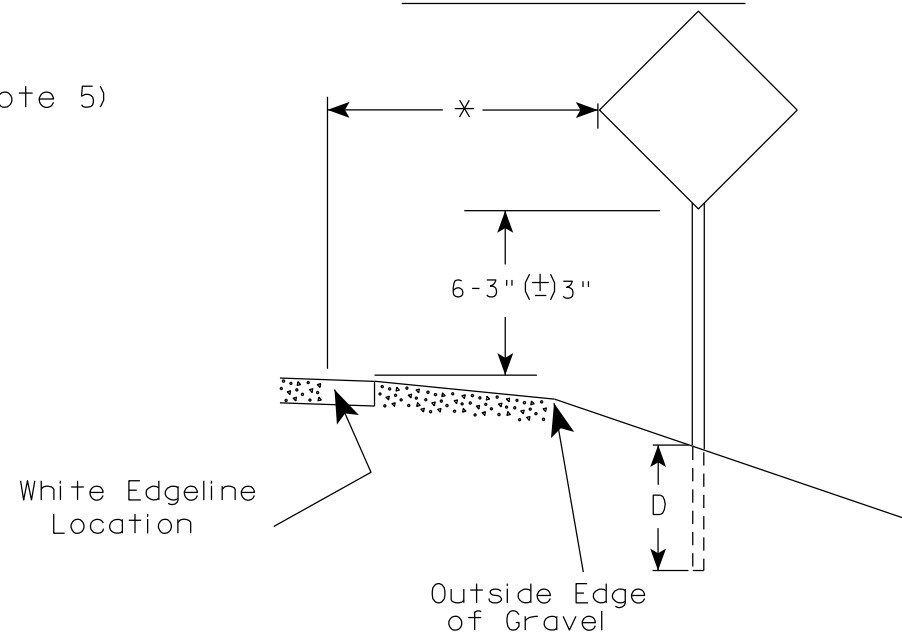
APPROVED
August 2025 /S/ DAVID J. LAYTON
DATE CHIEF SURVEY AND MAPPING ENGINEER

URBAN AREA



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

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the Engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 12/6/23

PLATE NO. A4-3.23

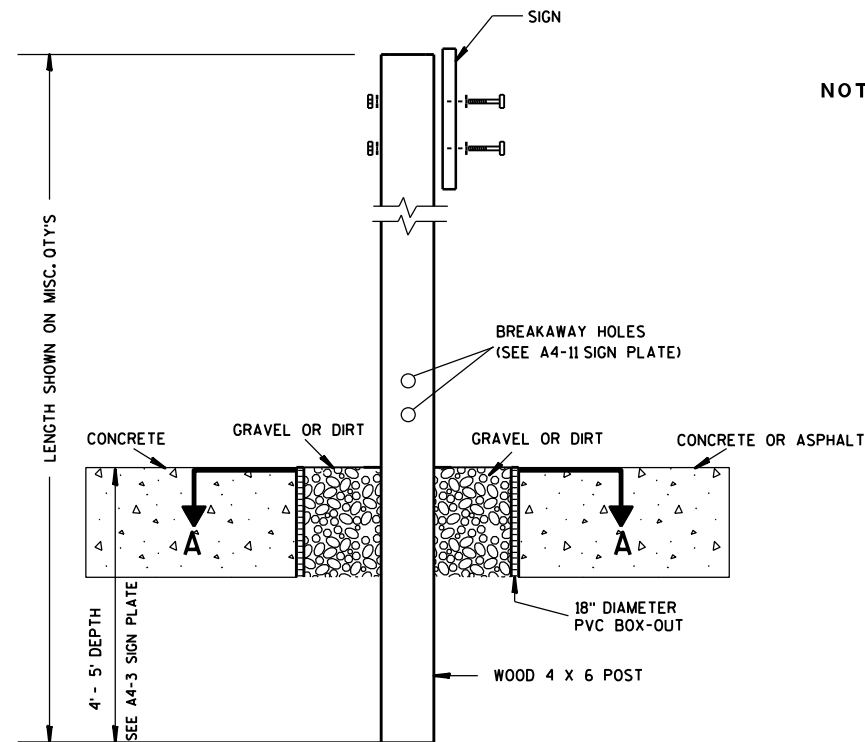
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 86

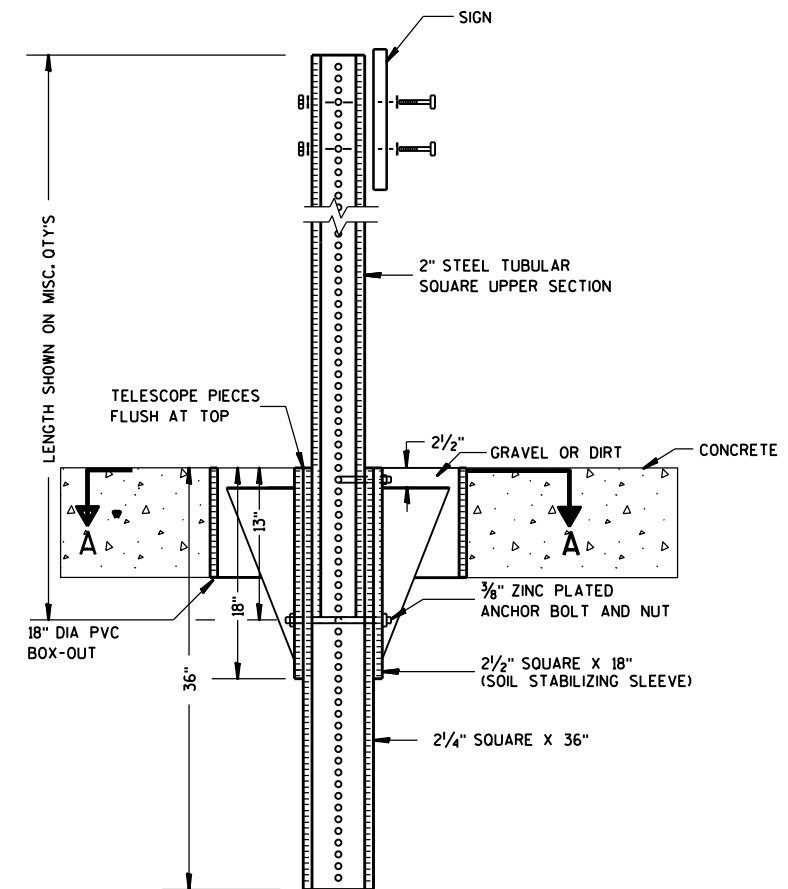
E



ELEVATION VIEW

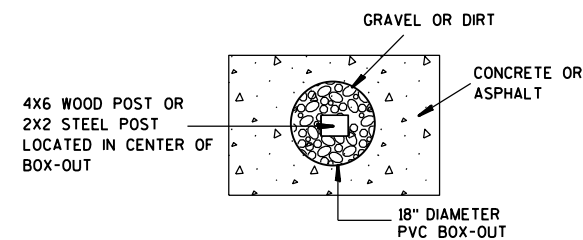
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 87 A4-3B.1

PROJECT NO:

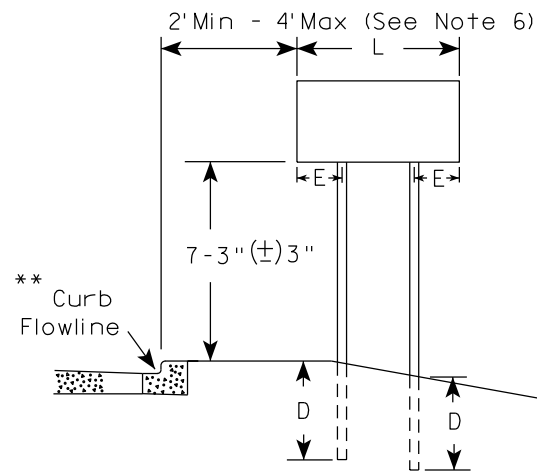
HWY:

COUNTY:

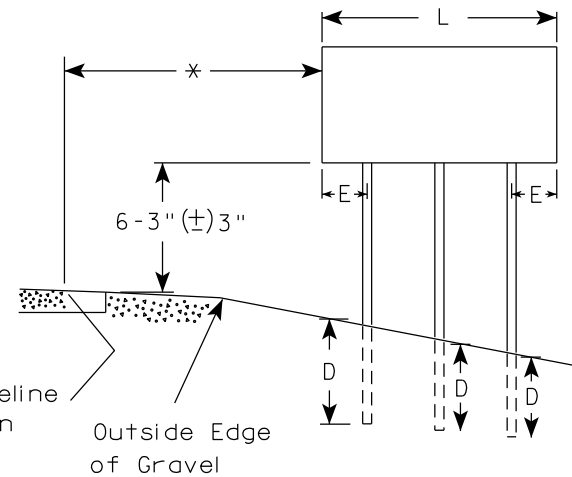
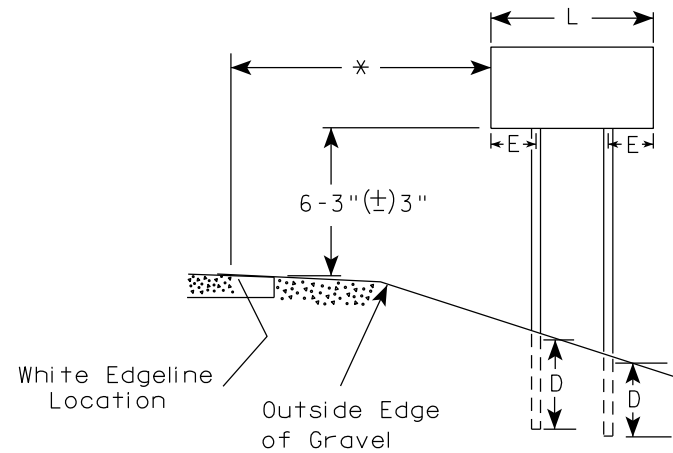
SHEET NO:

E

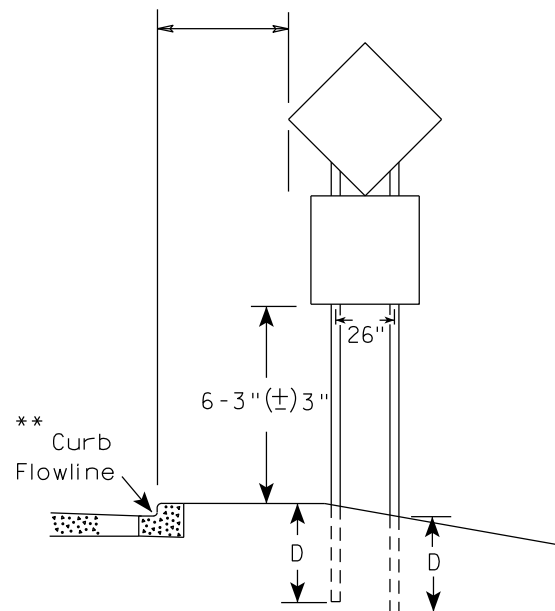
URBAN AREA



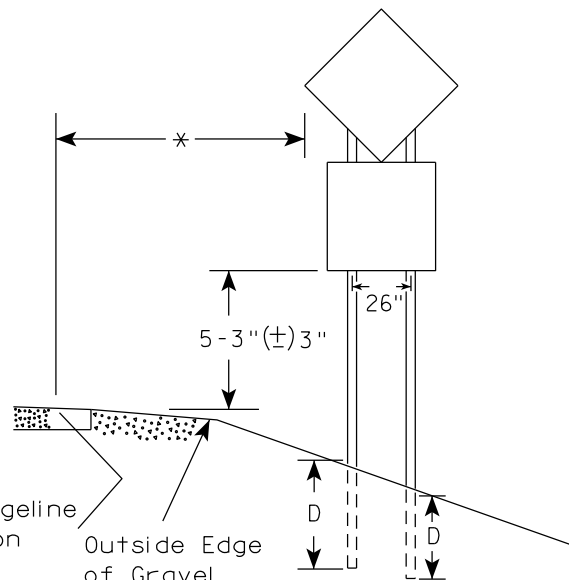
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

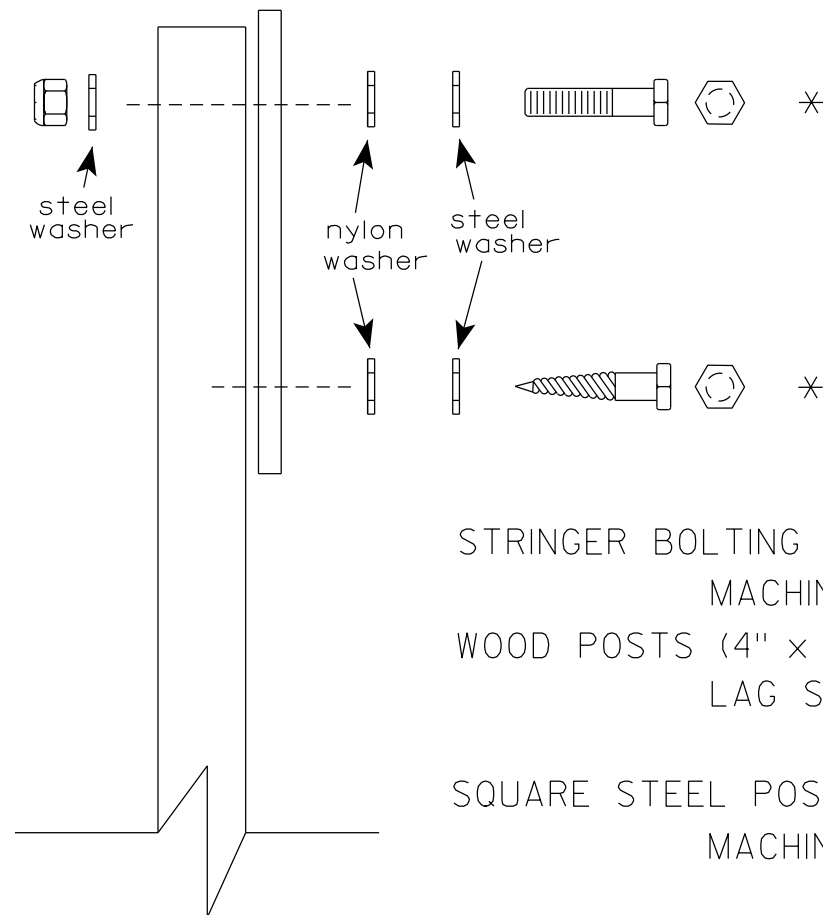
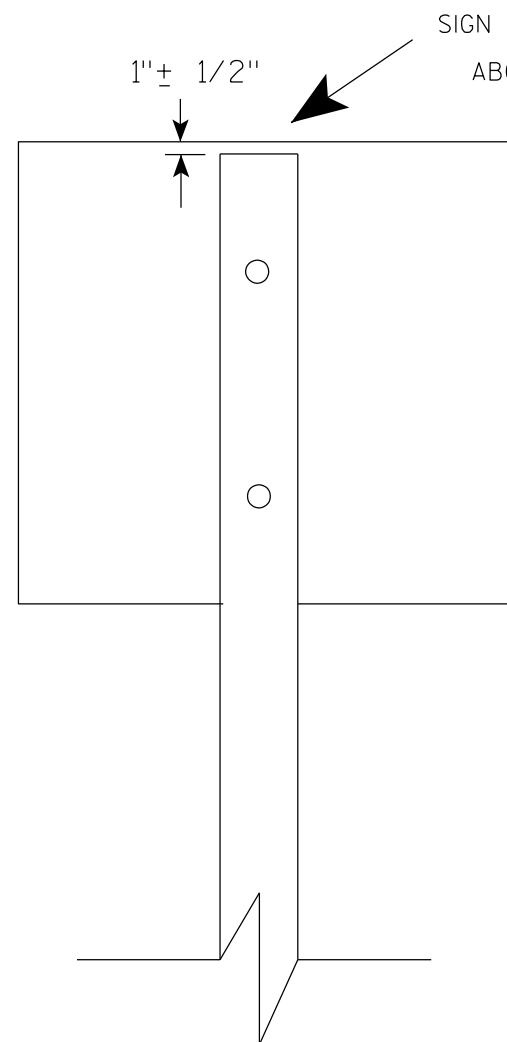
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 88

E



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

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

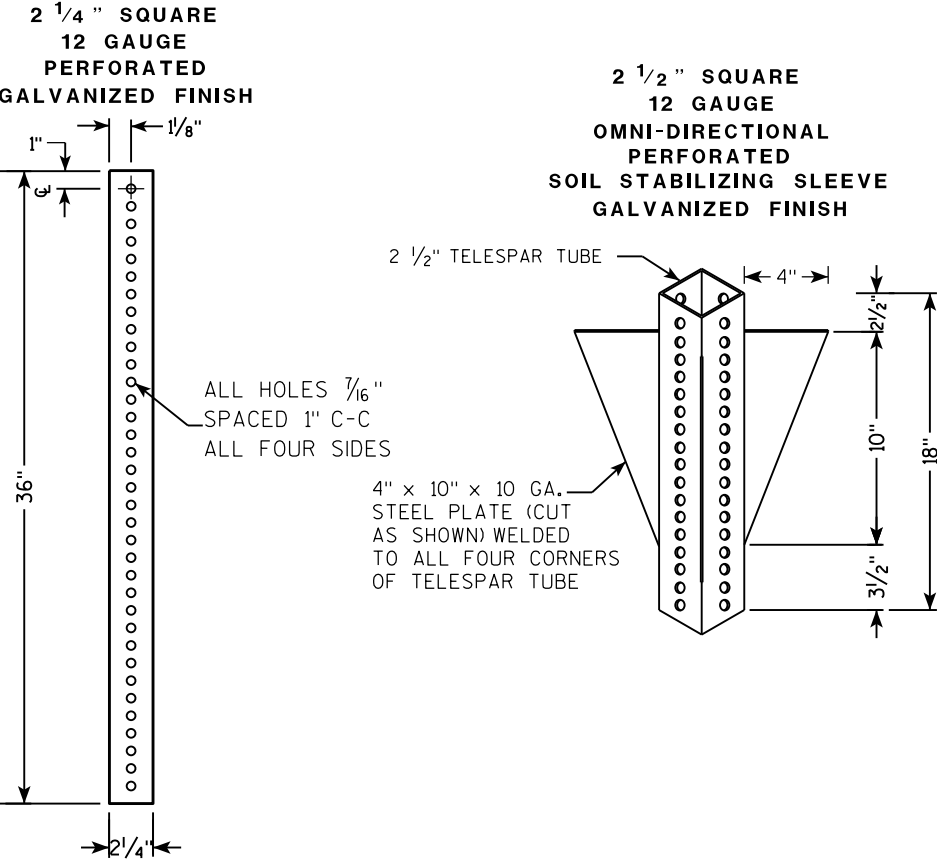
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

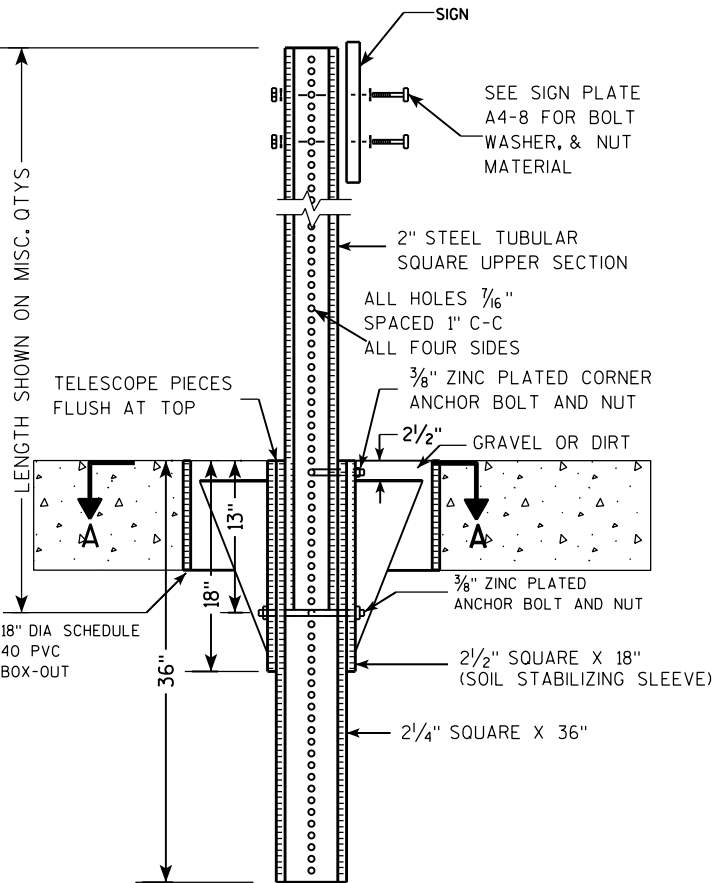
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

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

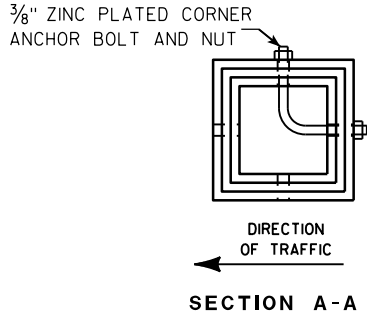
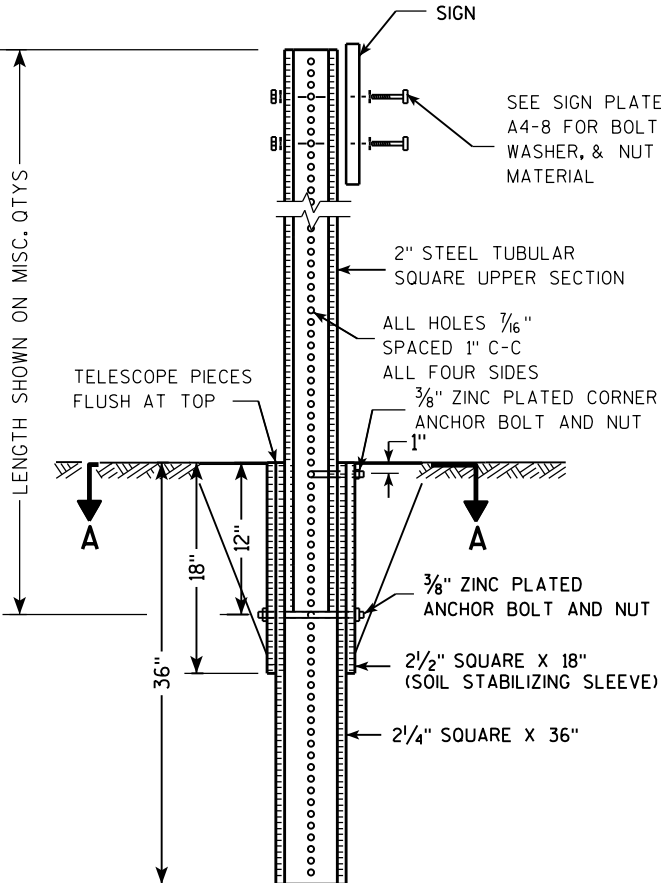
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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



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



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

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

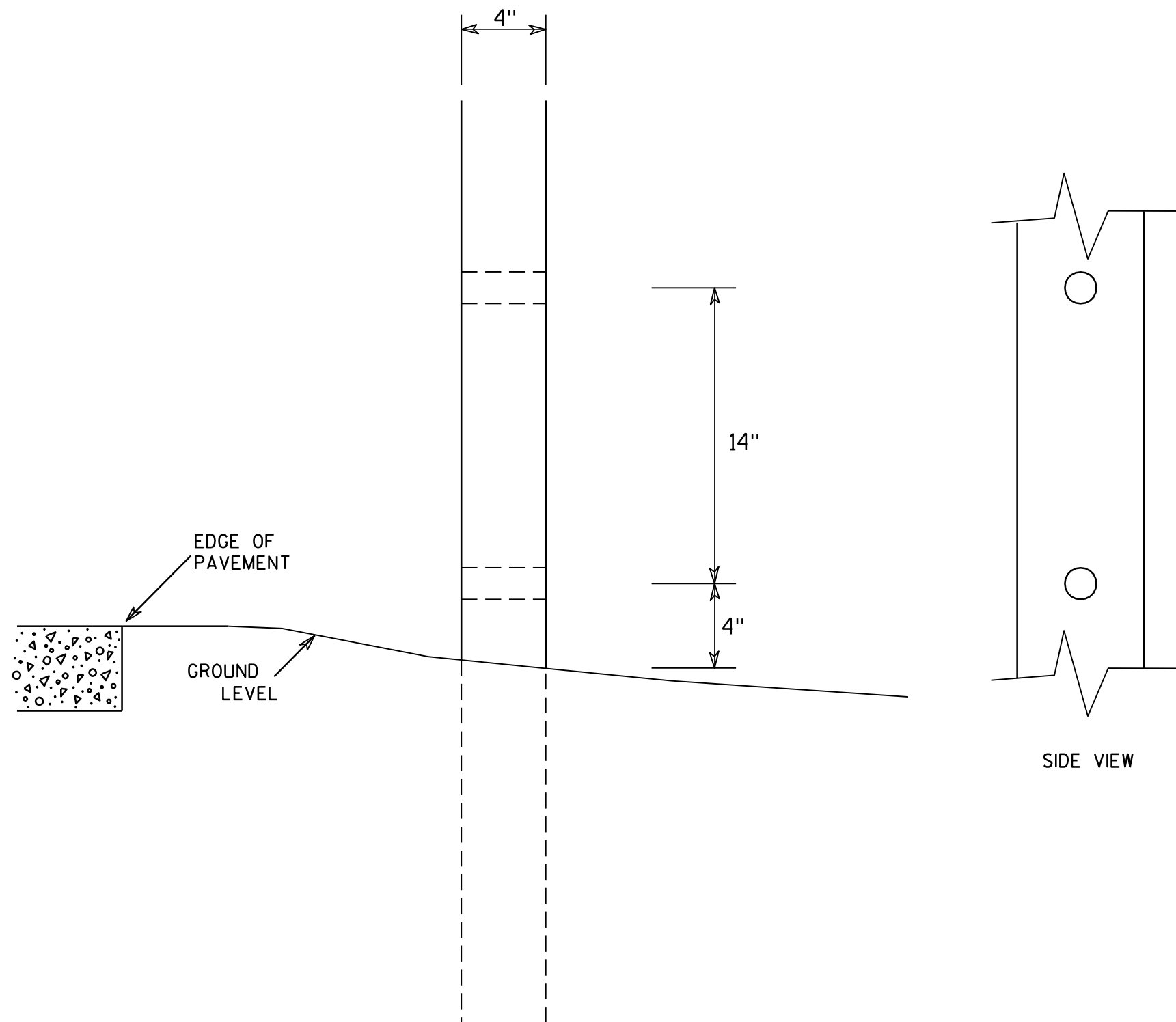
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 90 14-9.9

7

GENERAL NOTES

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

7

**4 X 6 WOOD POST
MODIFICATIONS**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

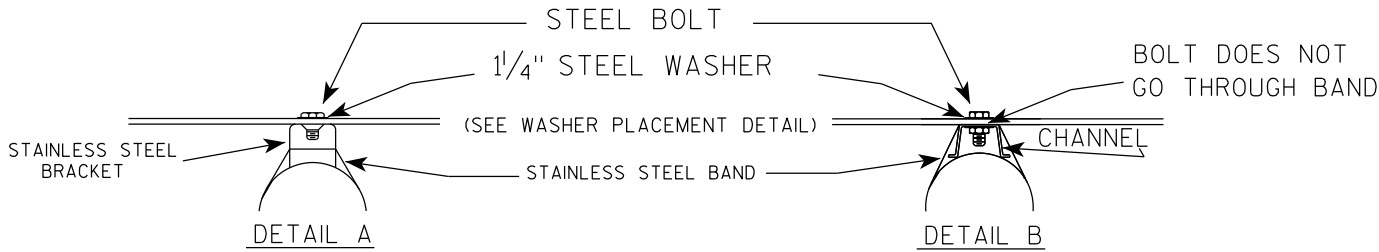
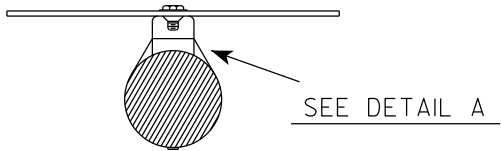
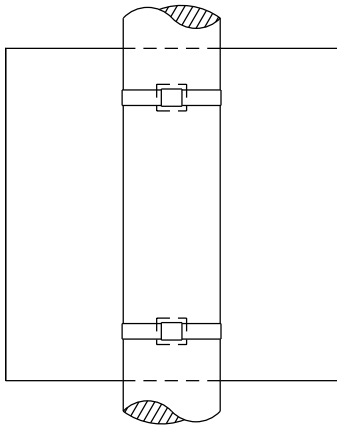
COUNTY:

SHEET NO: 91

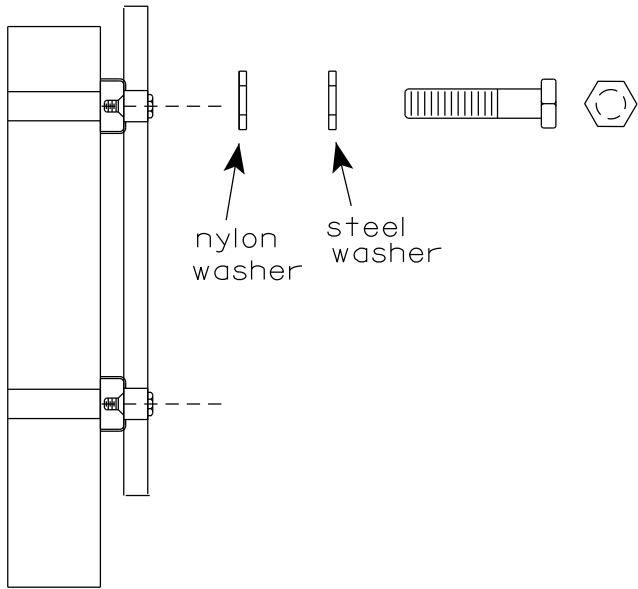
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

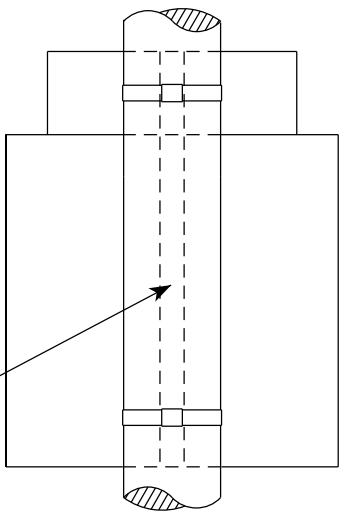


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

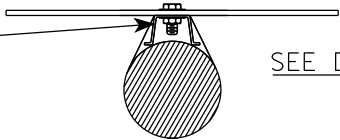
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



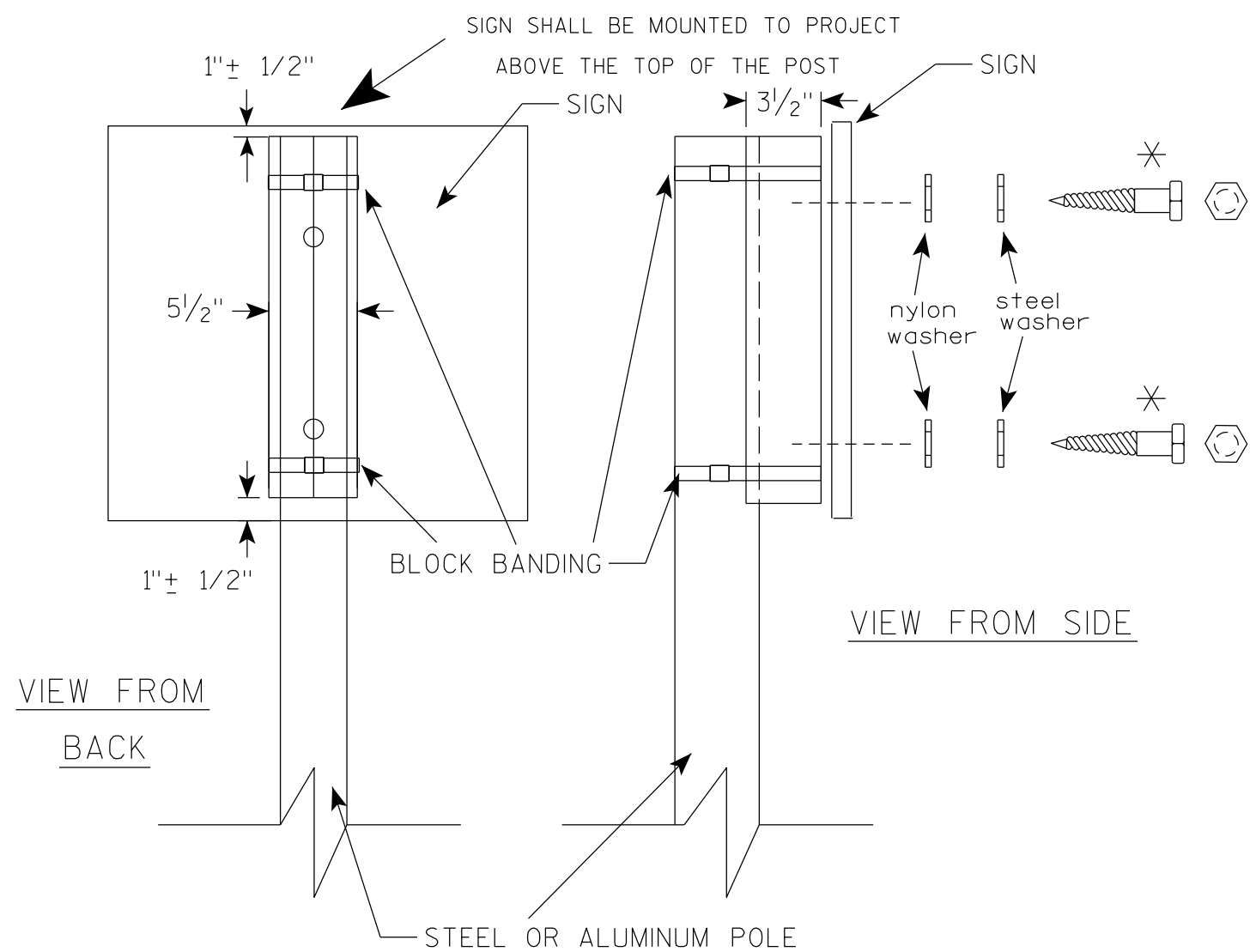
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

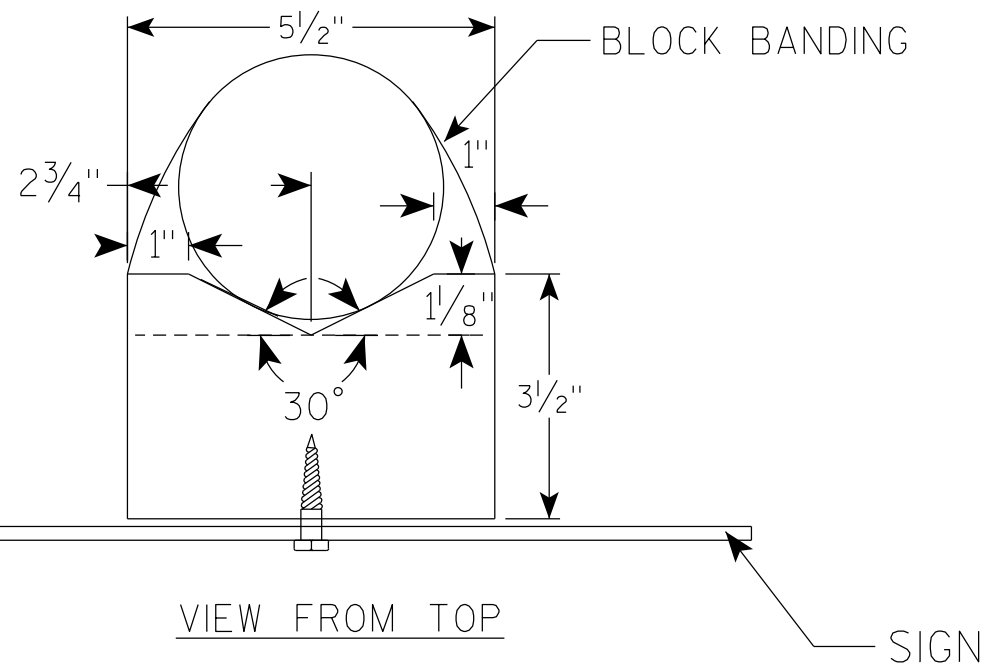
WISCONSIN DEPT OF TRANSPORTATION

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



VIEW FROM
BACK

VIEW FROM SIDE



GENERAL NOTES

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

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

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 93

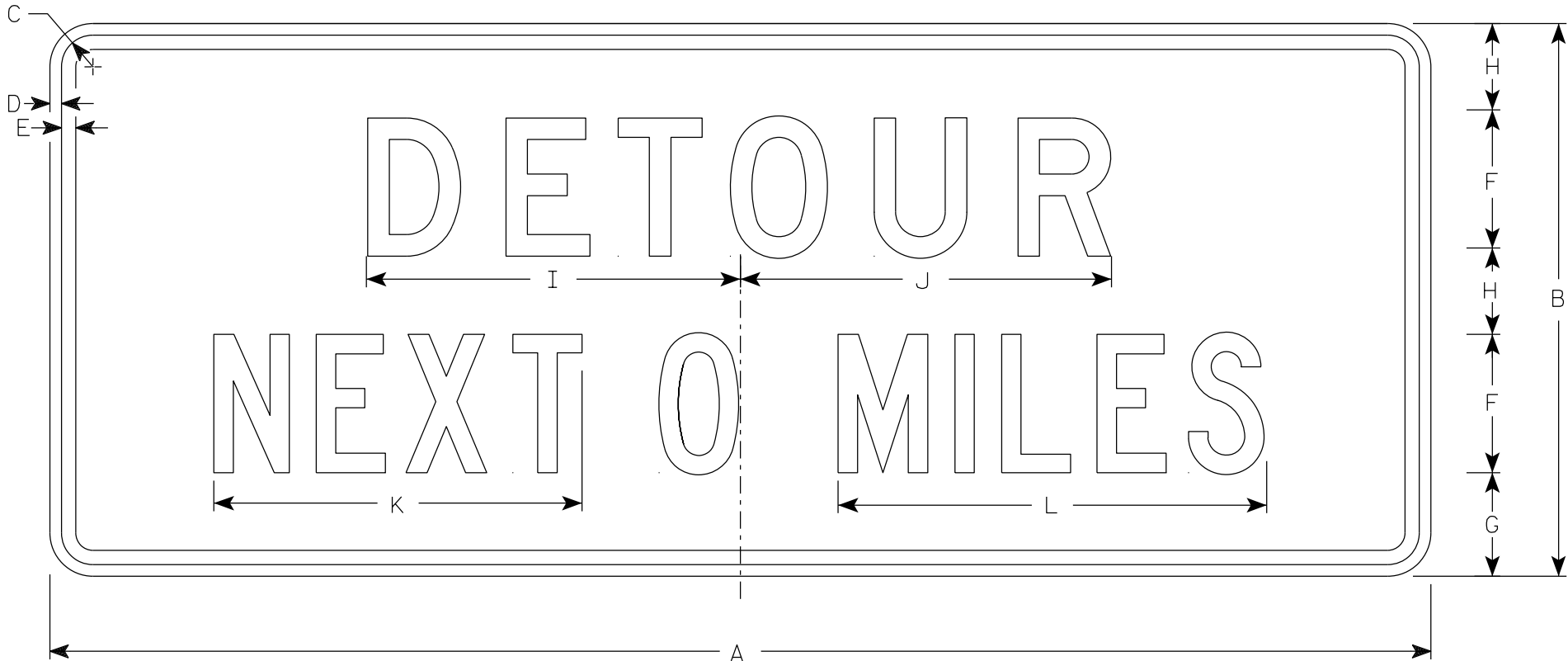
E

7

7

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - Line 1 is D and Line 2 is C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance



G20-51

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4	16 1⁄4	16 1⁄8	16	18 5⁄8															10.0
2M	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4	16 1⁄4	16 1⁄8	16	18 5⁄8															10.0
3	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4	16 1⁄4	16 1⁄8	16	18 5⁄8															10.0
4	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4	16 1⁄4	16 1⁄8	16	18 5⁄8															10.0
5	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4	16 1⁄4	16 1⁄8	16	18 5⁄8															10.0

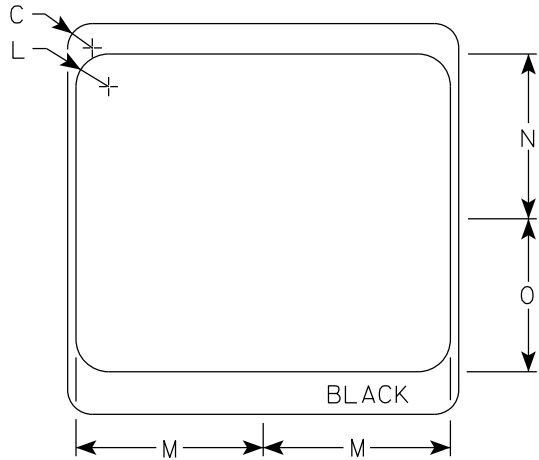
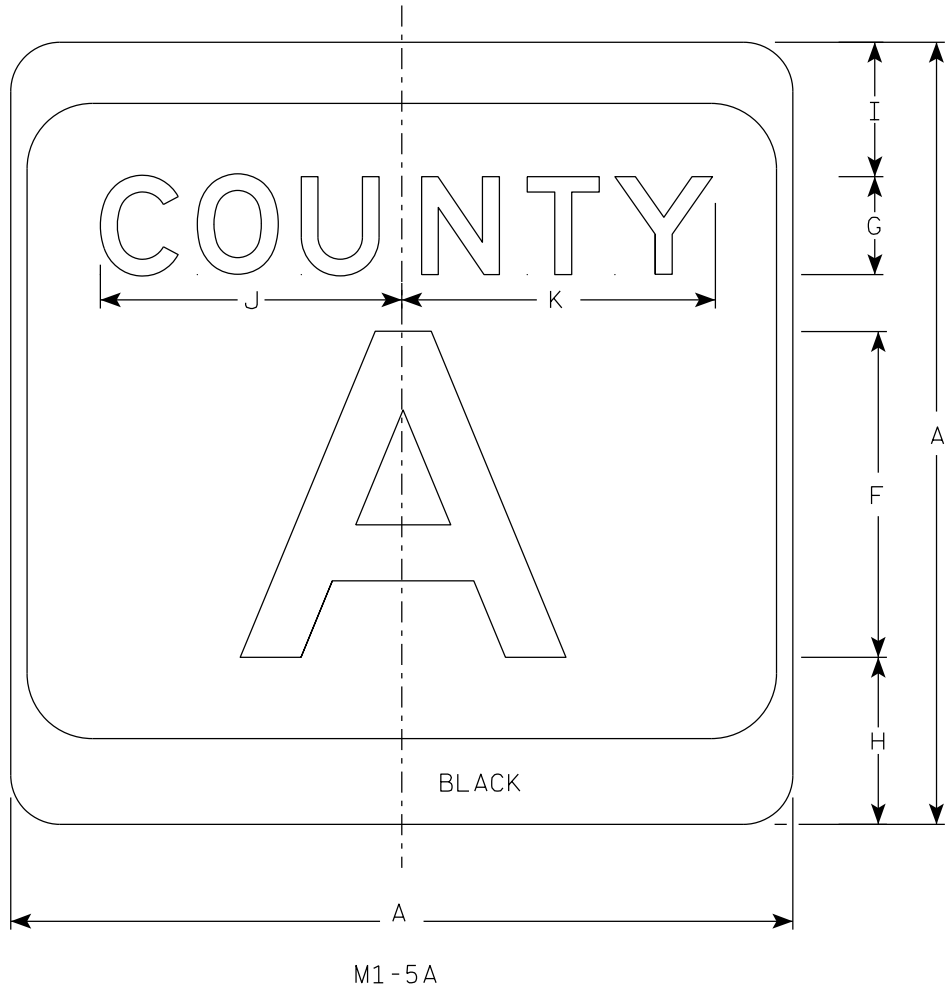
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
State Traffic Engineer

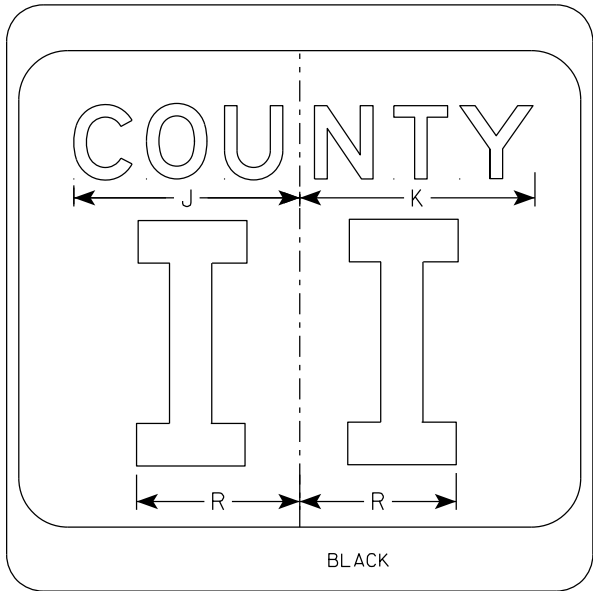
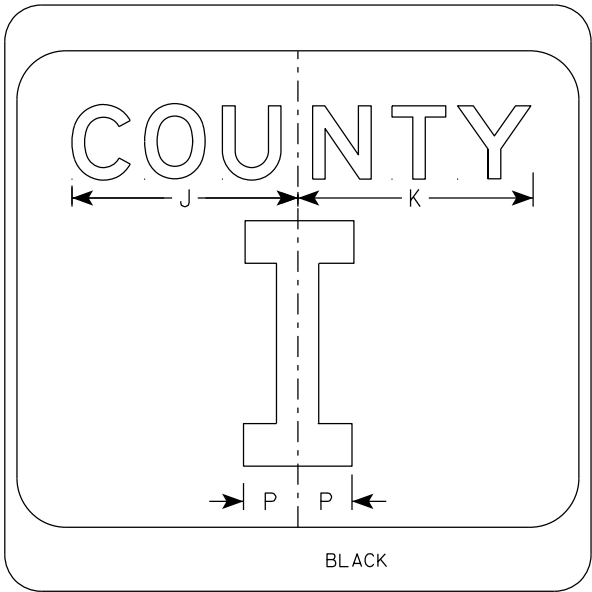
DATE 1/26/2023 PLATE NO. G20-51.3

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White & Black
Message - Black
3. Message Series - see Note 4
4. Message Series E for 1 letter.
Message Series D for 2 letters unless
message is too big then Series C.
Message Series C for 3 letters unless
message is too big then Series B.
5. Substitute appropriate letters & optically
center to achieve proper balance.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
2M	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

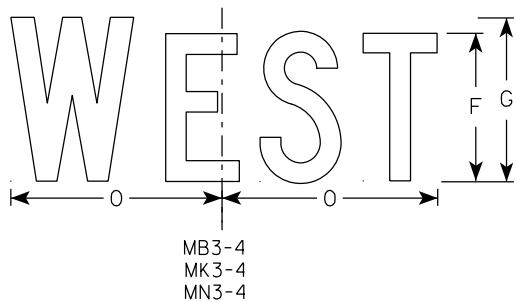
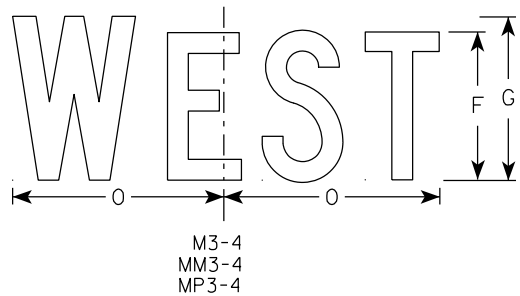
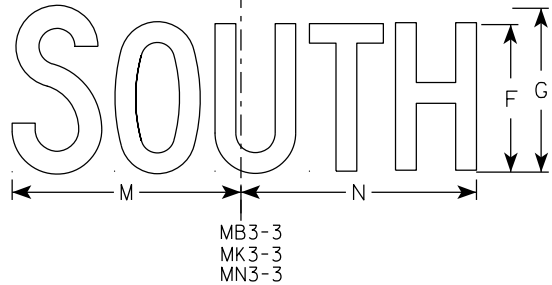
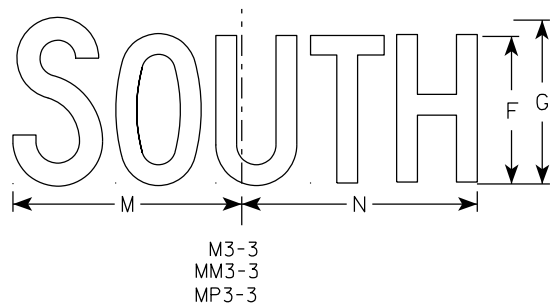
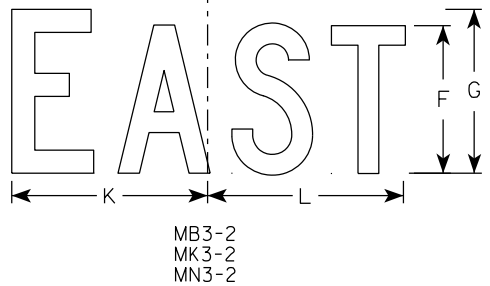
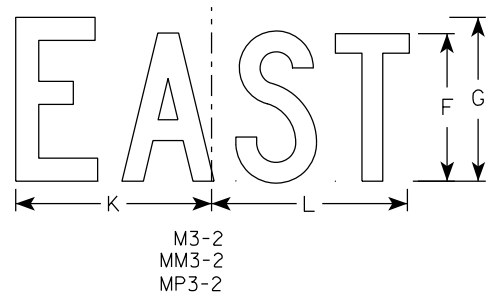
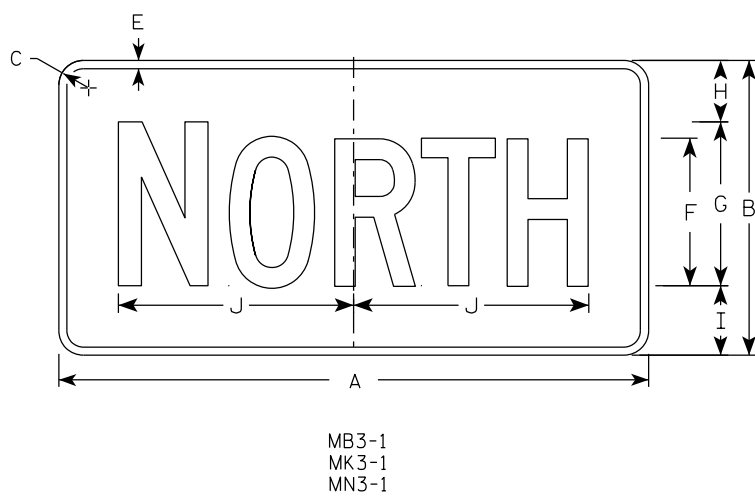
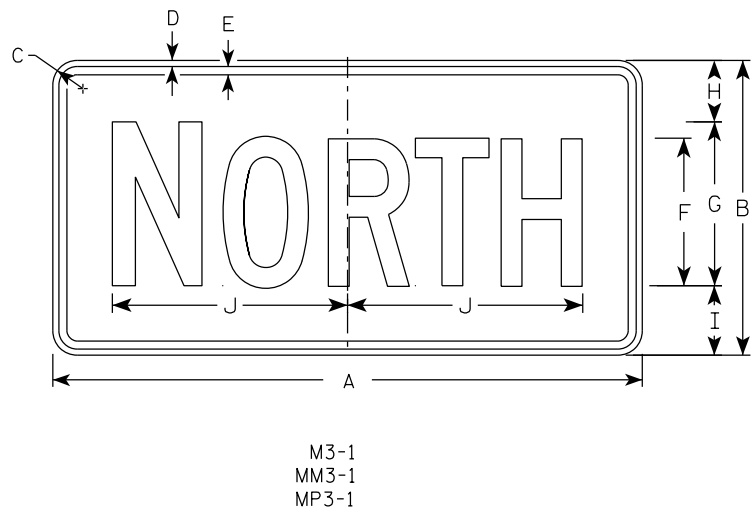
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-5A.9

7



NOTES

1. All Signs Type II - Type H Reflective
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
2M	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 96	E
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STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

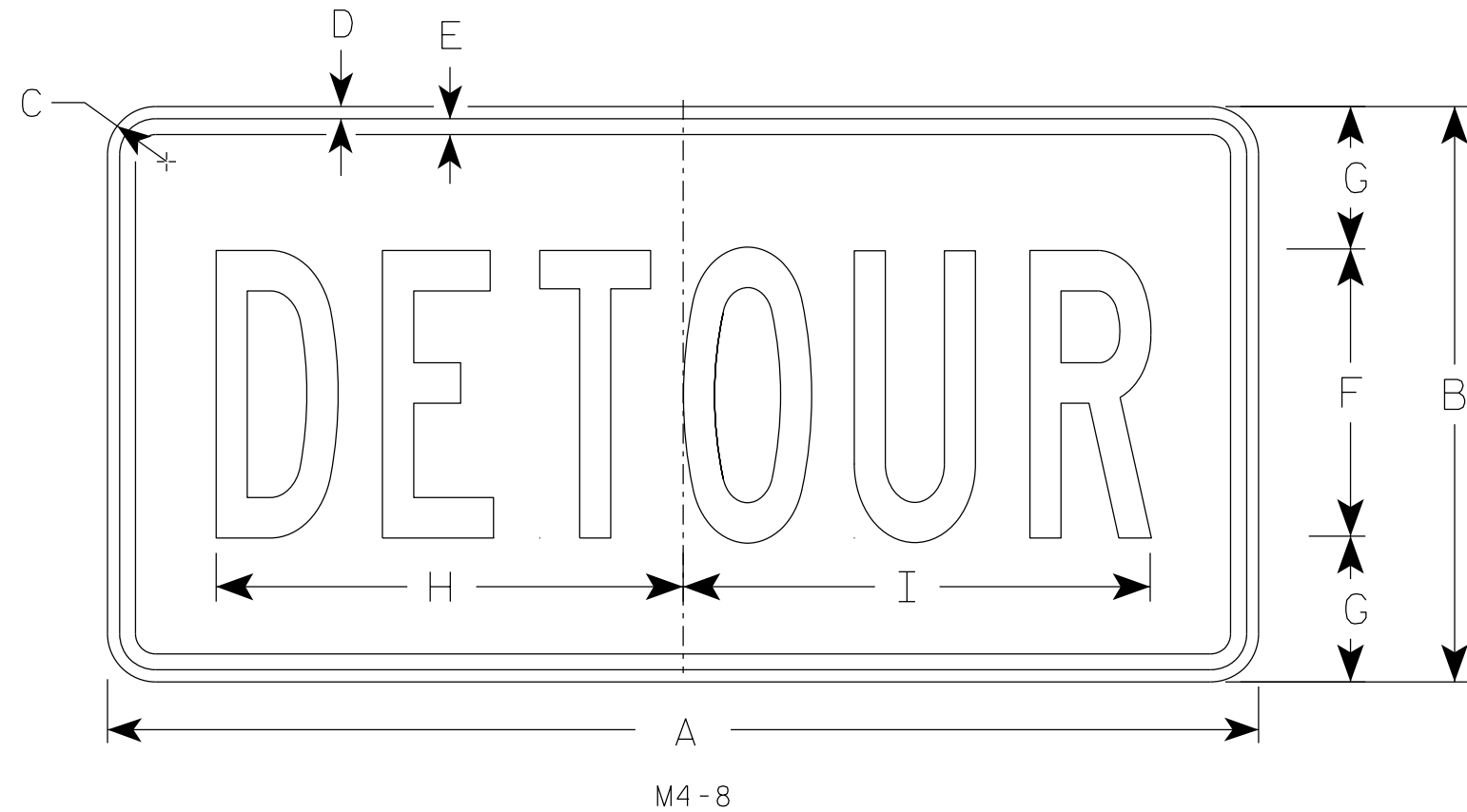
DATE 2/8/2023 PLATE NO. M3-1.15

7

7

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

STANDARD SIGN

M4 - 8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

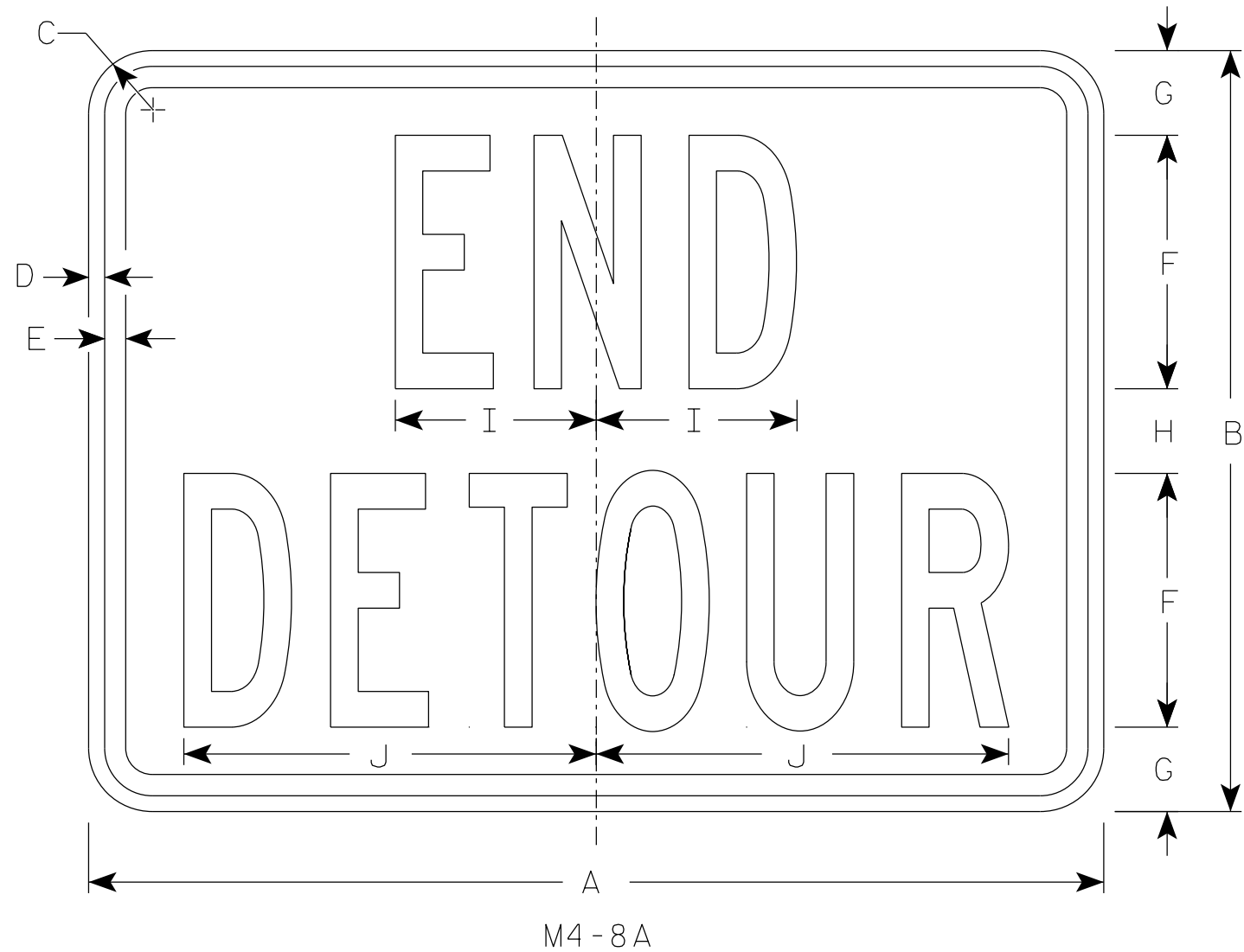
HWY:

COUNTY:

SHEET NO: 97

E

7



NOTES

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

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
2M	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
5	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0

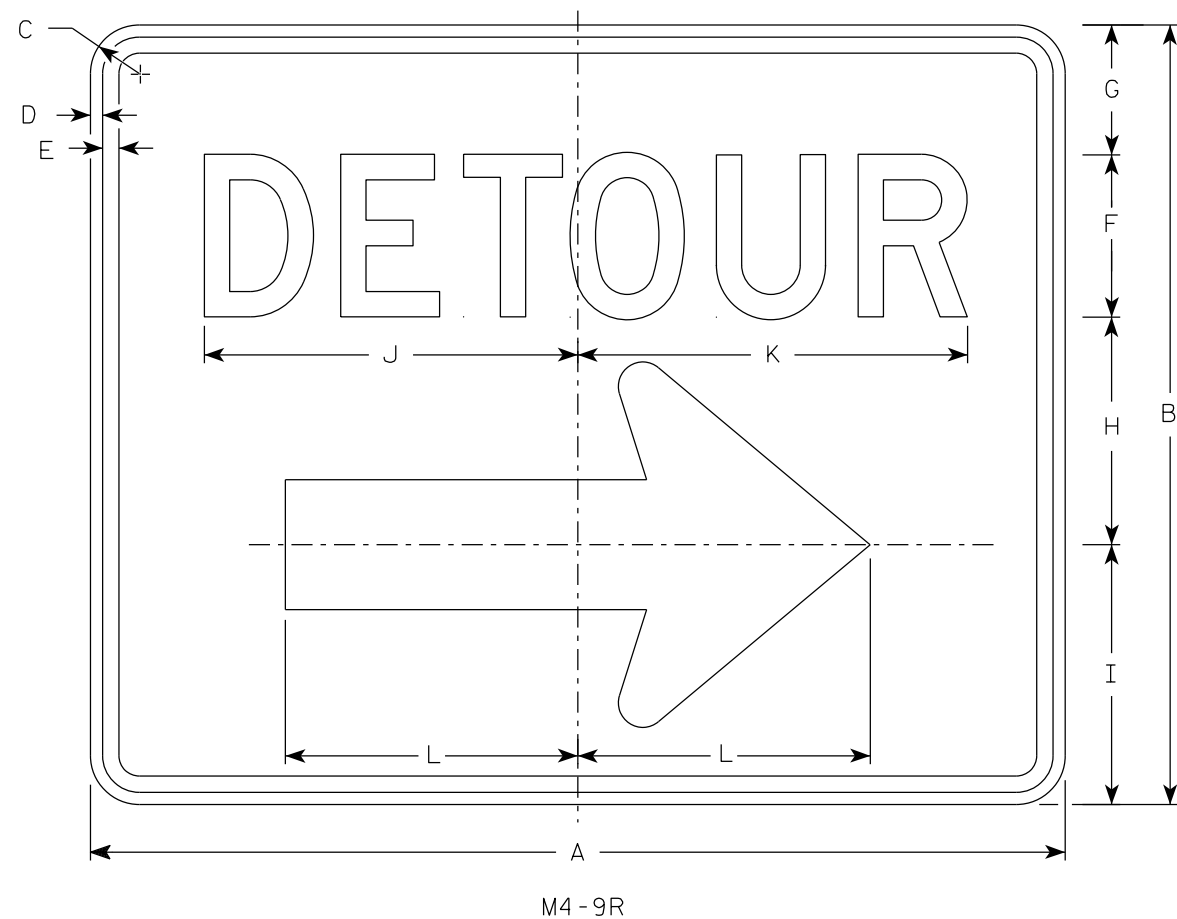
STANDARD SIGN

M4-8A

WISCONSIN DEPT OF TRANSPORTATION

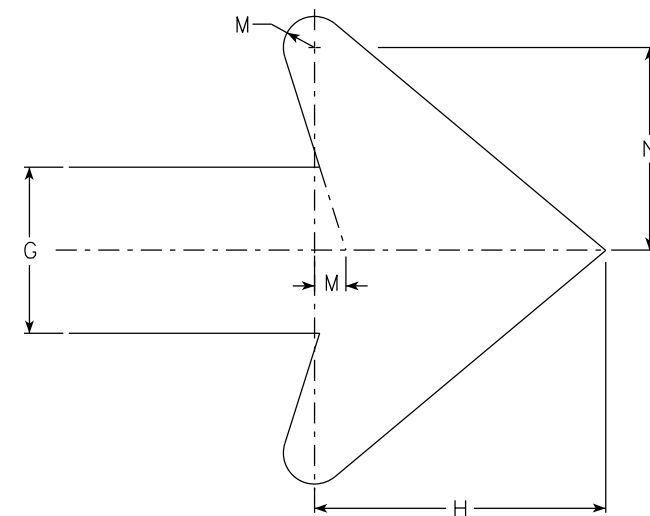
APPROVED *Matthew R Rauch*
For State Traffic Engineer

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



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
2M	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

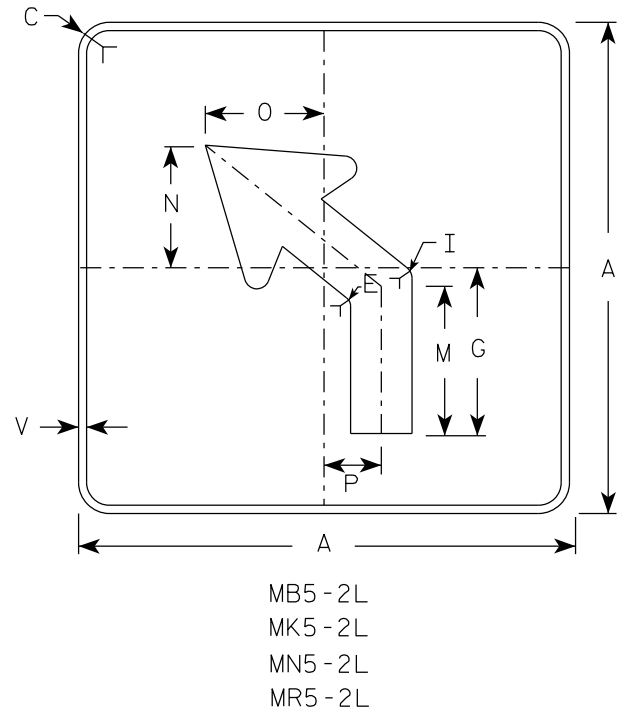
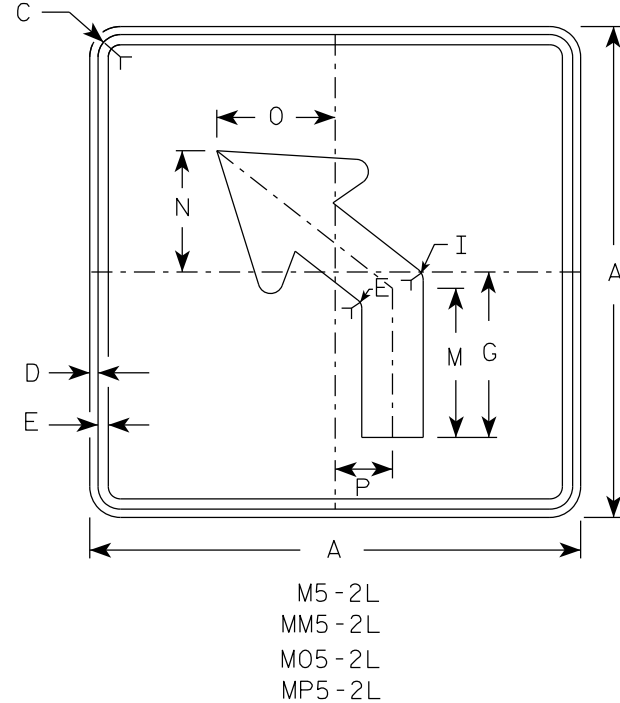
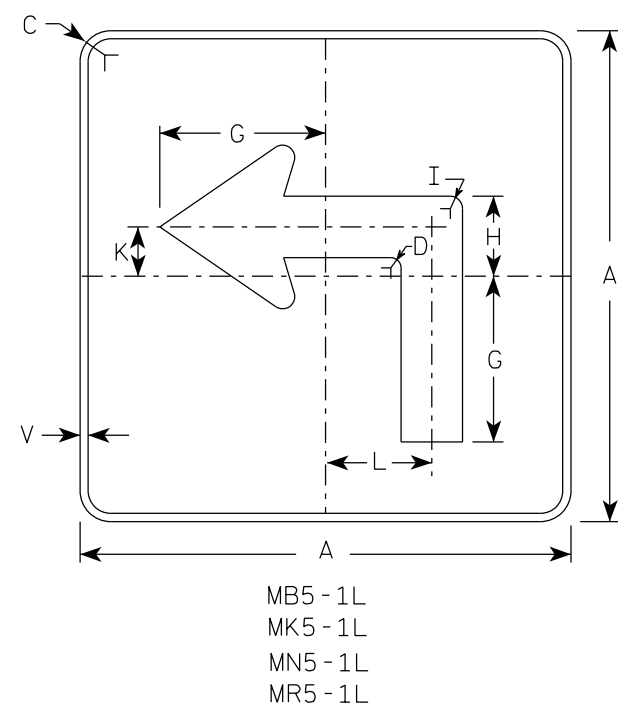
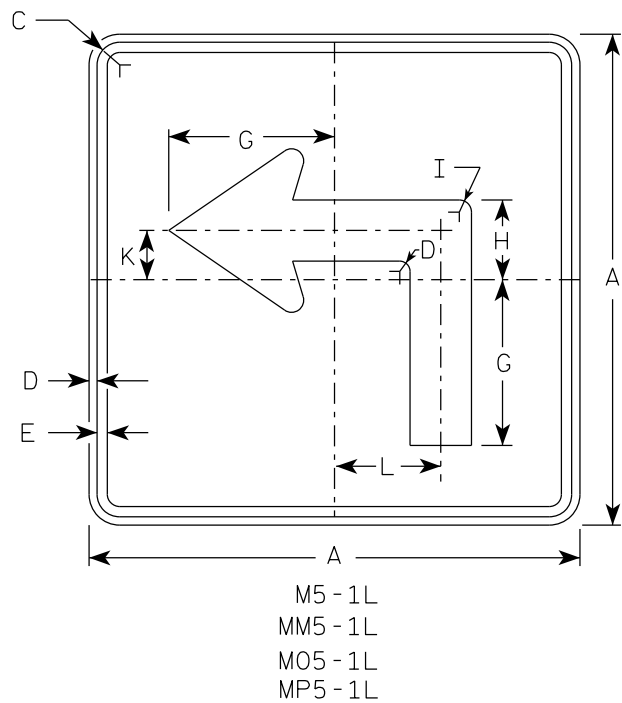
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9R.6

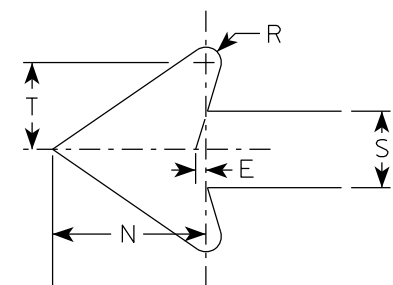
PROJECT NO: HWY: COUNTY: SHEET NO: 99 E



NOTES

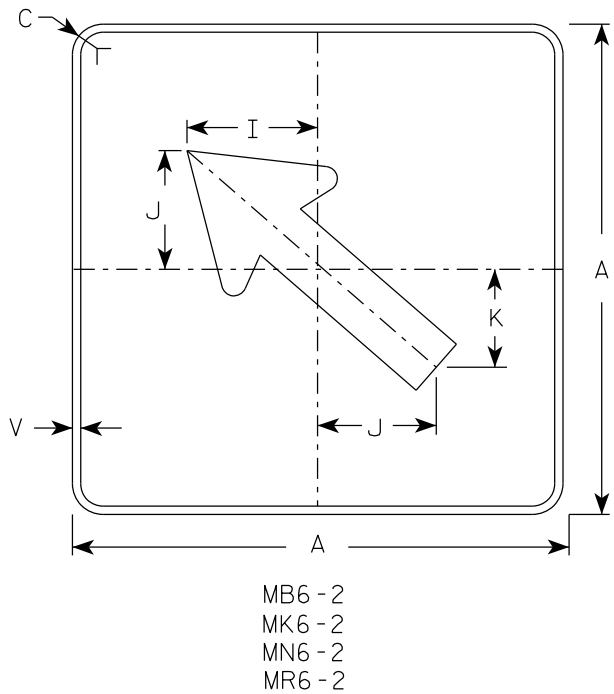
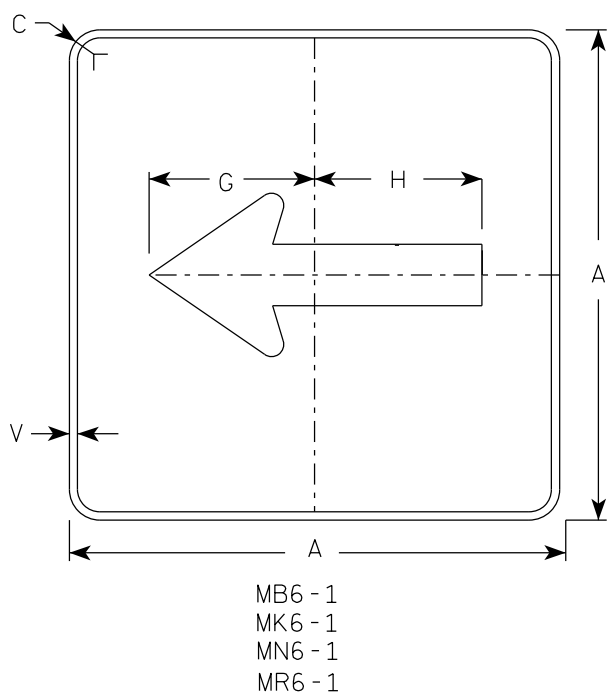
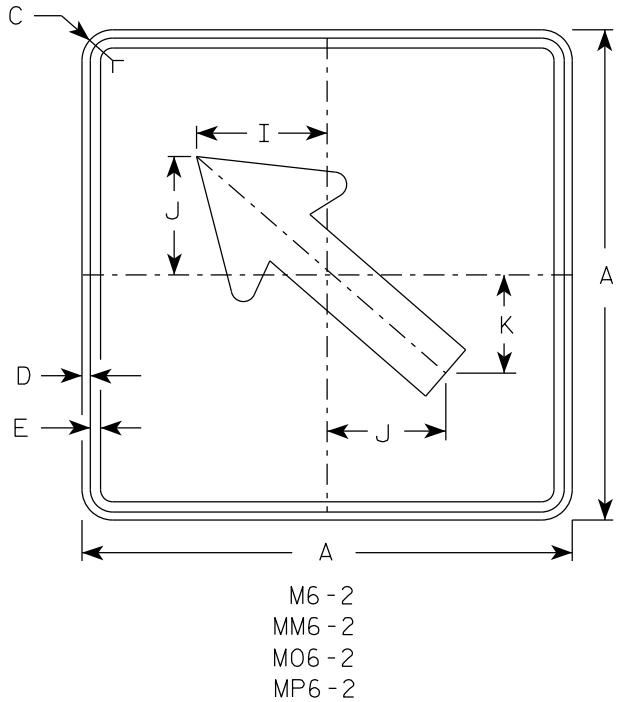
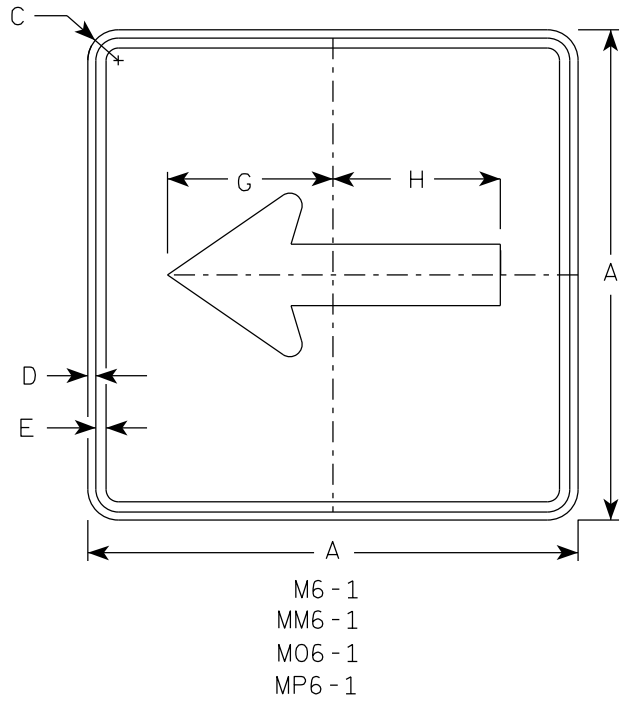
- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- | | | |
|-----------|-------|---|
| M5-1 and | M5-2 | Background - White |
| | | Message - Black |
| MB5-1 and | MB5-2 | Background - Blue |
| | | Message - White |
| MK5-1 and | MK5-2 | Background - Green |
| | | Message - White |
| MM5-1 and | MM5-2 | Background - White |
| | | Message - Green |
| MN5-1 and | MN5-2 | Background - Brown |
| | | Message - White |
| M05-1 and | M05-2 | Background - Orange - Type F Reflective |
| | | Message - Black |
| MP5-1 and | MP5-2 | Background - White |
| | | Message - Blue |
| MR5-1 and | MR5-2 | Background - Brown |
| | | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL

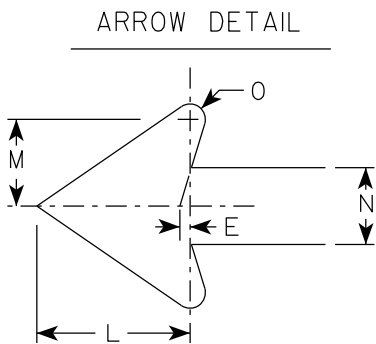


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
4	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
5	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 100	E
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- NOTES
- Signs are Type II - Type H Reflective except as Shown
 - Color:
Background - See note 4
Message - See note 4
 - Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 - M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

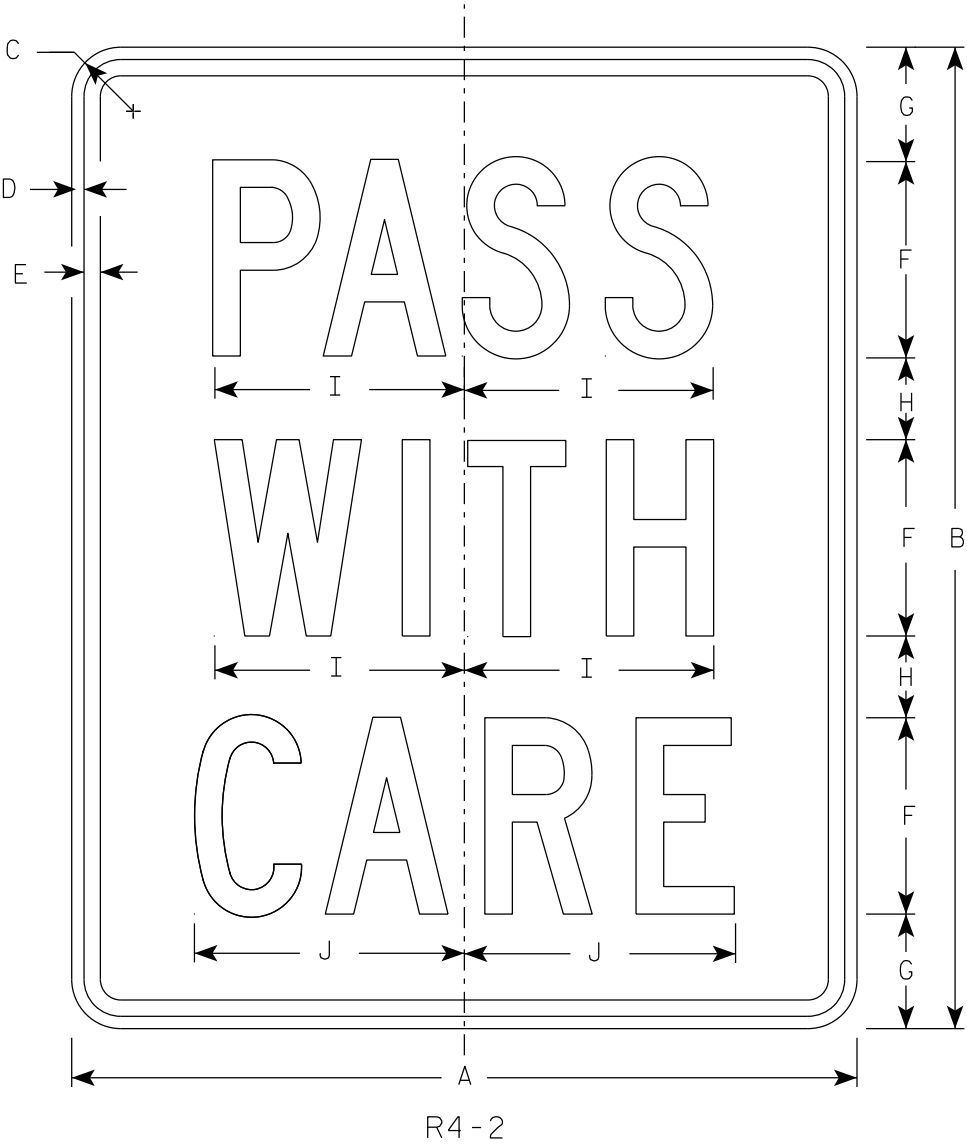
STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

7



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	5	2 3/4	1 3/4	6 3/8	6 7/8																	3.0
2S	24	30	1 1/2	3/8	1/2	6	3 1/2	2 1/2	7 5/8	8 1/4																	5.0
2M	24	30	1 1/2	3/8	1/2	6	3 1/2	2 1/2	7 5/8	8 1/4																	5.0
3	36	48	1 7/8	1/2	5/8	10	5 1/2	3 1/2	12 3/4	13 3/4																	12.0
4																											
5																											

PROJECT NO:

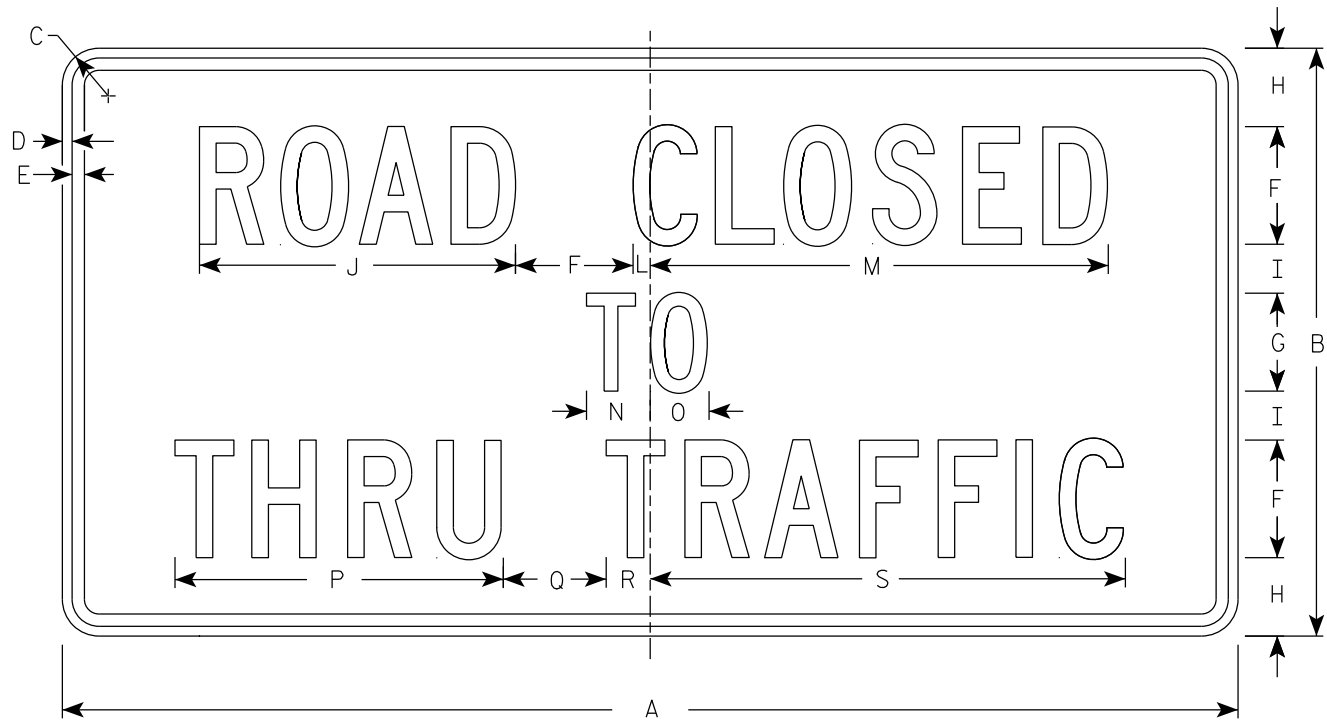
HWY:

COUNTY:

SHEET NO: 102

E

7



R11-4

NOTES

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

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 103

E

STANDARD SIGN

R11 - 4

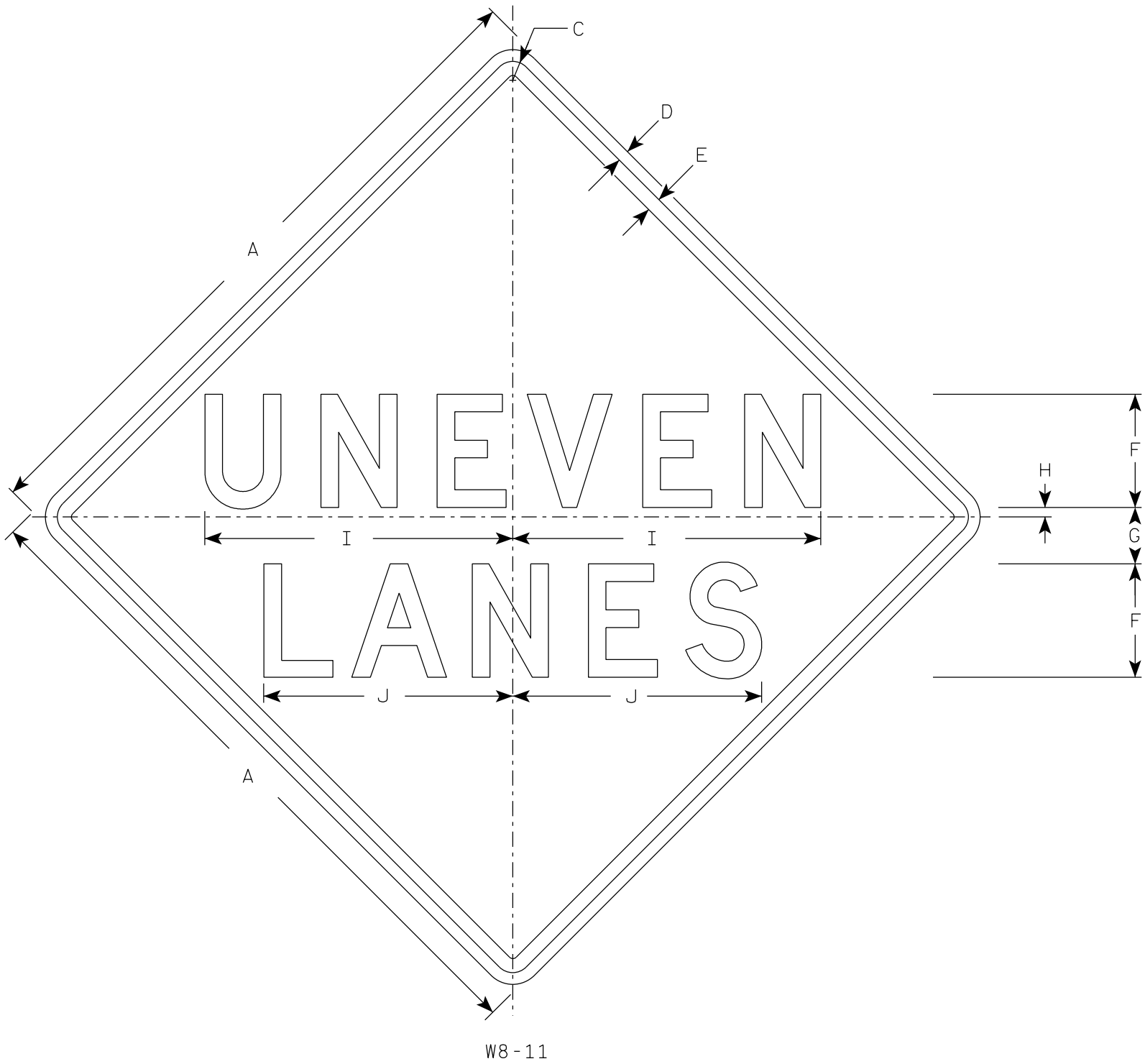
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 2/5/24

PLATE NO. R11-4.4



NOTES

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

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	3	1/2	16 3/8	13 1/4																	9.0
2S	48		3	3/4	1	8	4	1	21 3/4	17 5/8																	16.0
2M	48		3	3/4	1	8	4	1	21 3/4	17 5/8																	16.0
3	48		3	3/4	1	8	4	1	21 3/4	17 5/8																	16.0
4	48		3	3/4	1	8	4	1	21 3/4	17 5/8																	16.0
5	48		3	3/4	1	8	4	1	21 3/4	17 5/8																	16.0

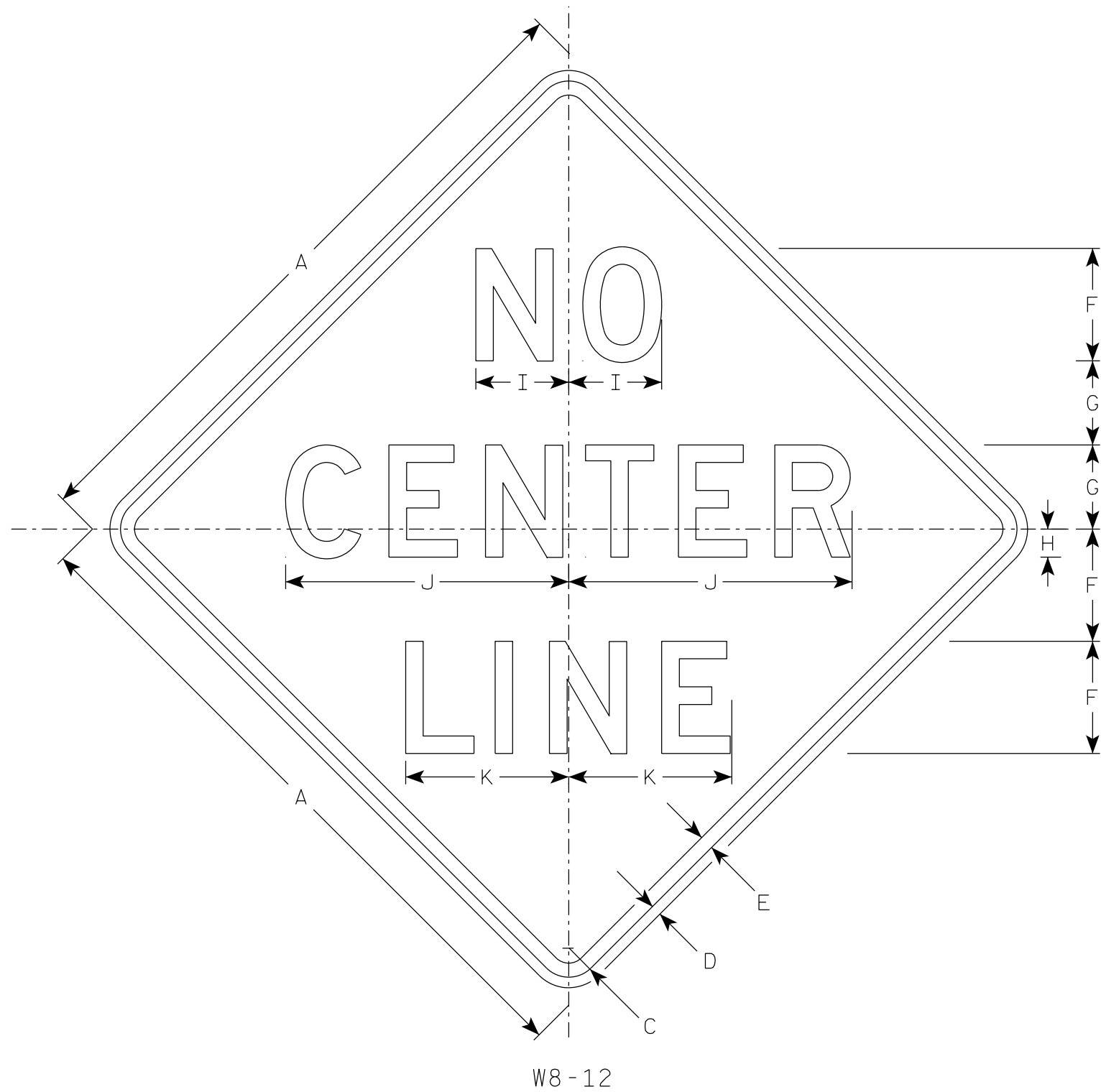
STANDARD SIGN

W8-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/26/2023 PLATE NO. W8-11.6



NOTES

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

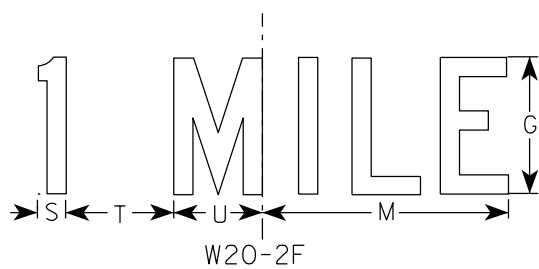
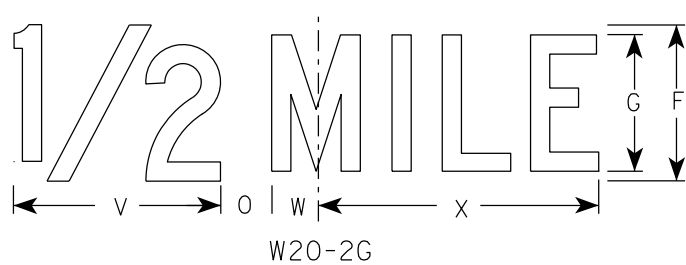
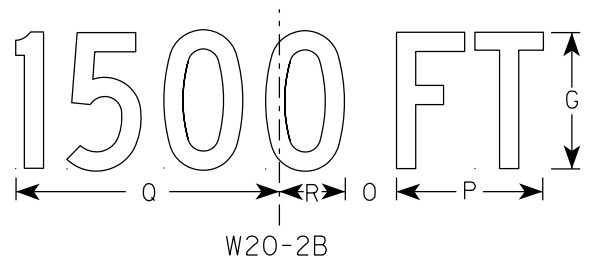
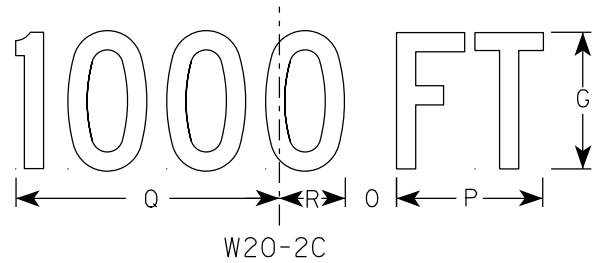
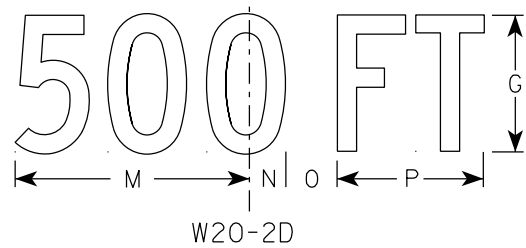
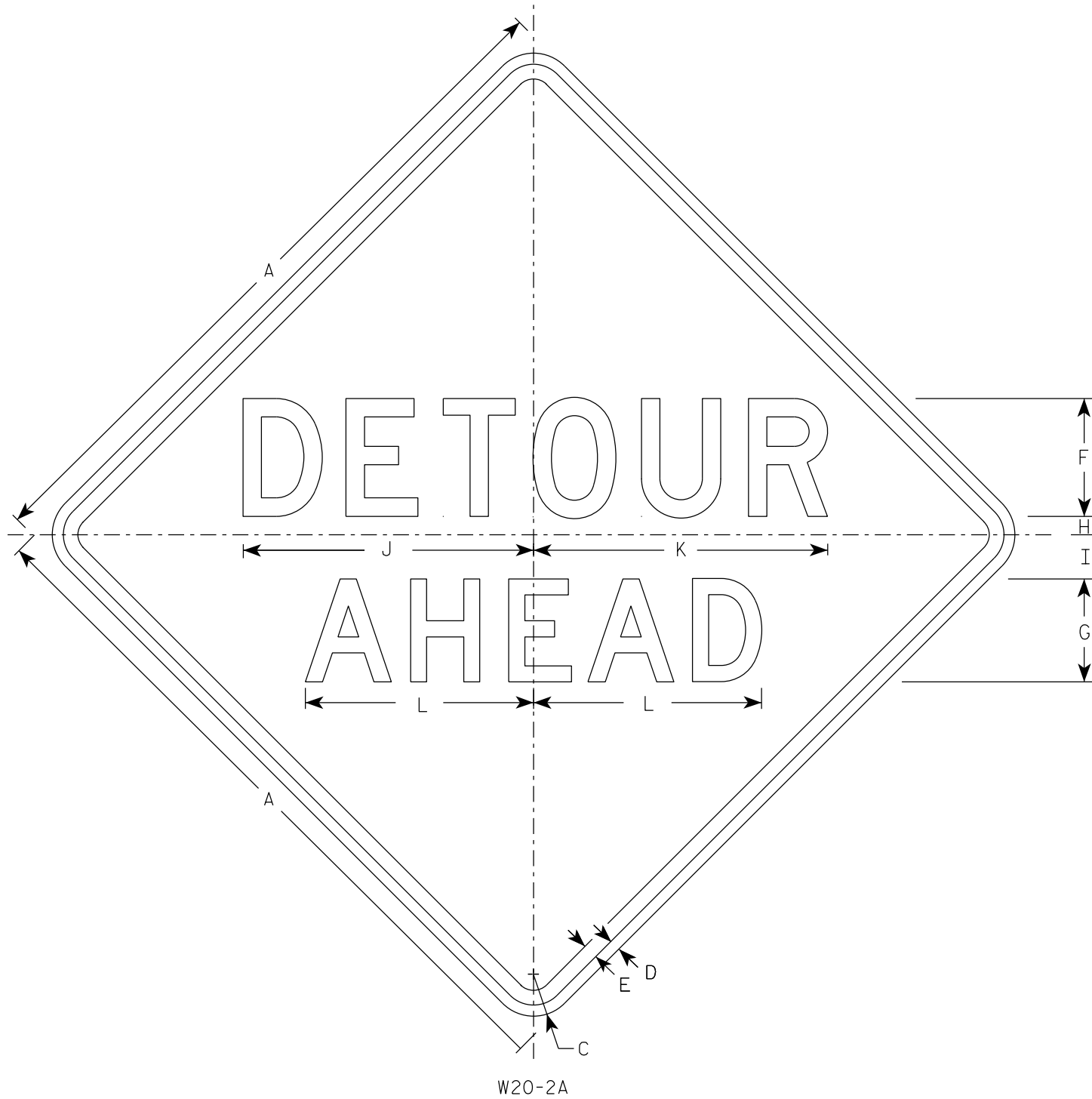
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	4 1/2	1 1/2	5 1/8	16	9																9.0
2S	48		3	3/4	1	8	6	2	6 5/8	20 1/4	11 5/8																16.0
2M	48		3	3/4	1	8	6	2	6 5/8	20 1/4	11 5/8																16.0
3	48		3	3/4	1	8	6	2	6 5/8	20 1/4	11 5/8																16.0
4	48		3	3/4	1	8	6	2	6 5/8	20 1/4	11 5/8																16.0
5	48		3	3/4	1	8	6	2	6 5/8	20 1/4	11 5/8																16.0

STANDARD SIGN
W8-12

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/26/2023 PLATE NO. W8-12.5



NOTES

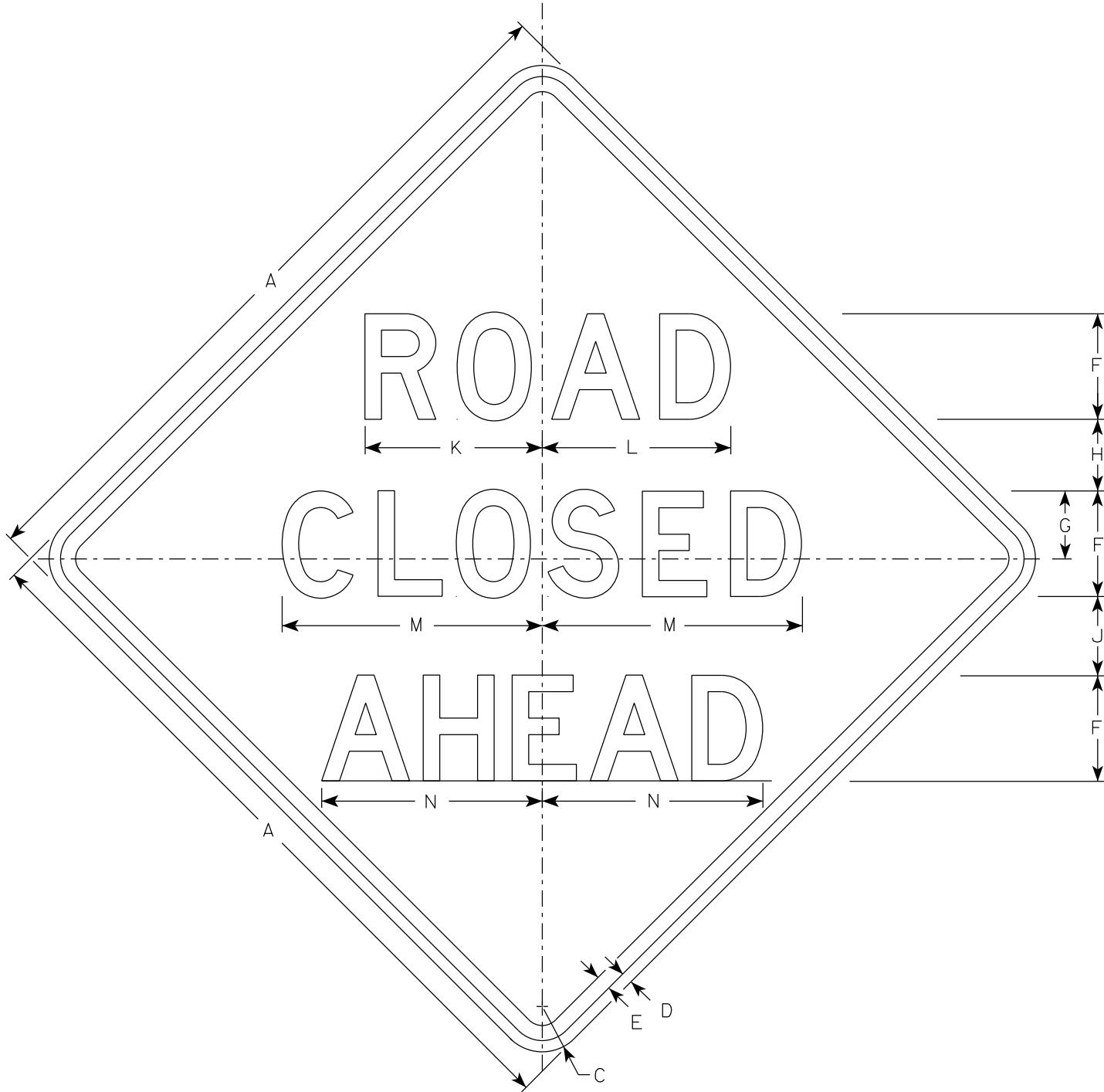
- Sign is Type II - Type F Reflective
- Color:
Background - Orange
Message - Black
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Line 1 is Series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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	w	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

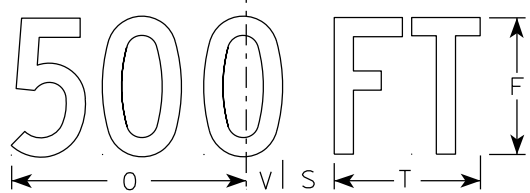
STANDARD SIGN W20-2A,B,C,D,F & G	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 1/10/2024	PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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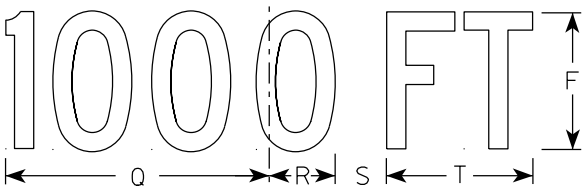
7



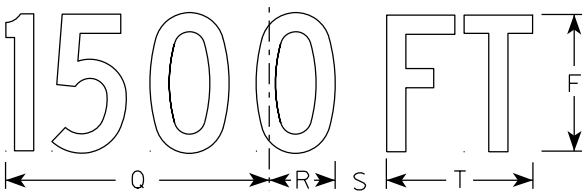
W20-3A



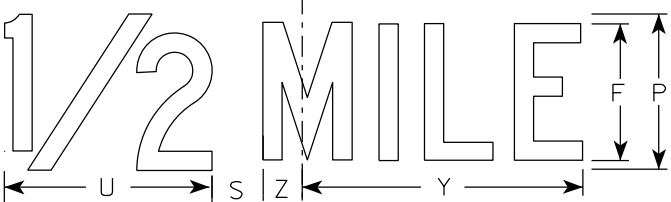
W20-3D



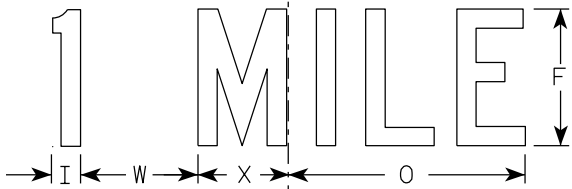
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

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

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

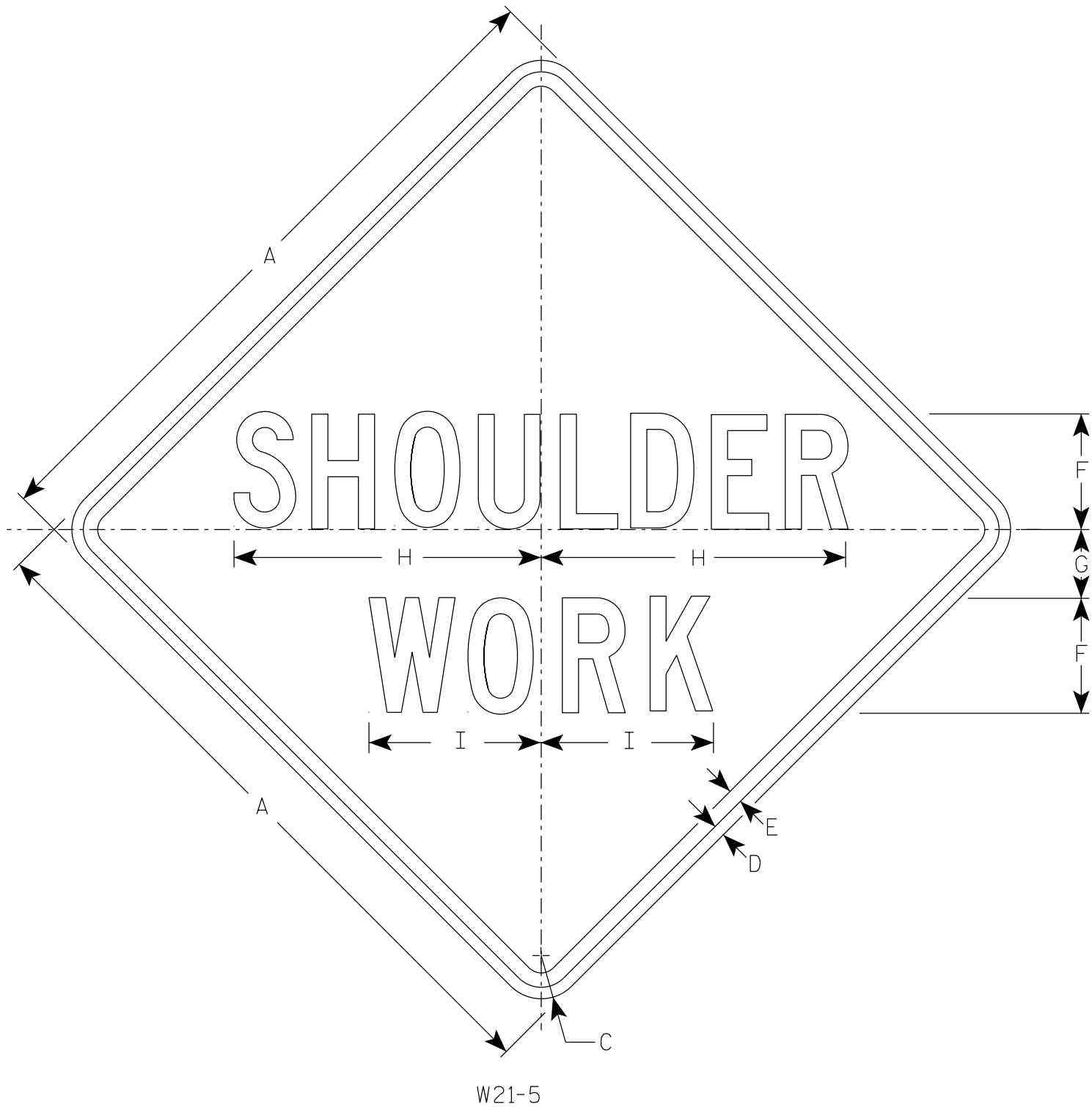
STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

7



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - C

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	3 1/2	16	9																		9.0
2S	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0
2M	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0
3	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0
4	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0

STANDARD SIGN

W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/11/2024 PLATE NO. W21-5.7

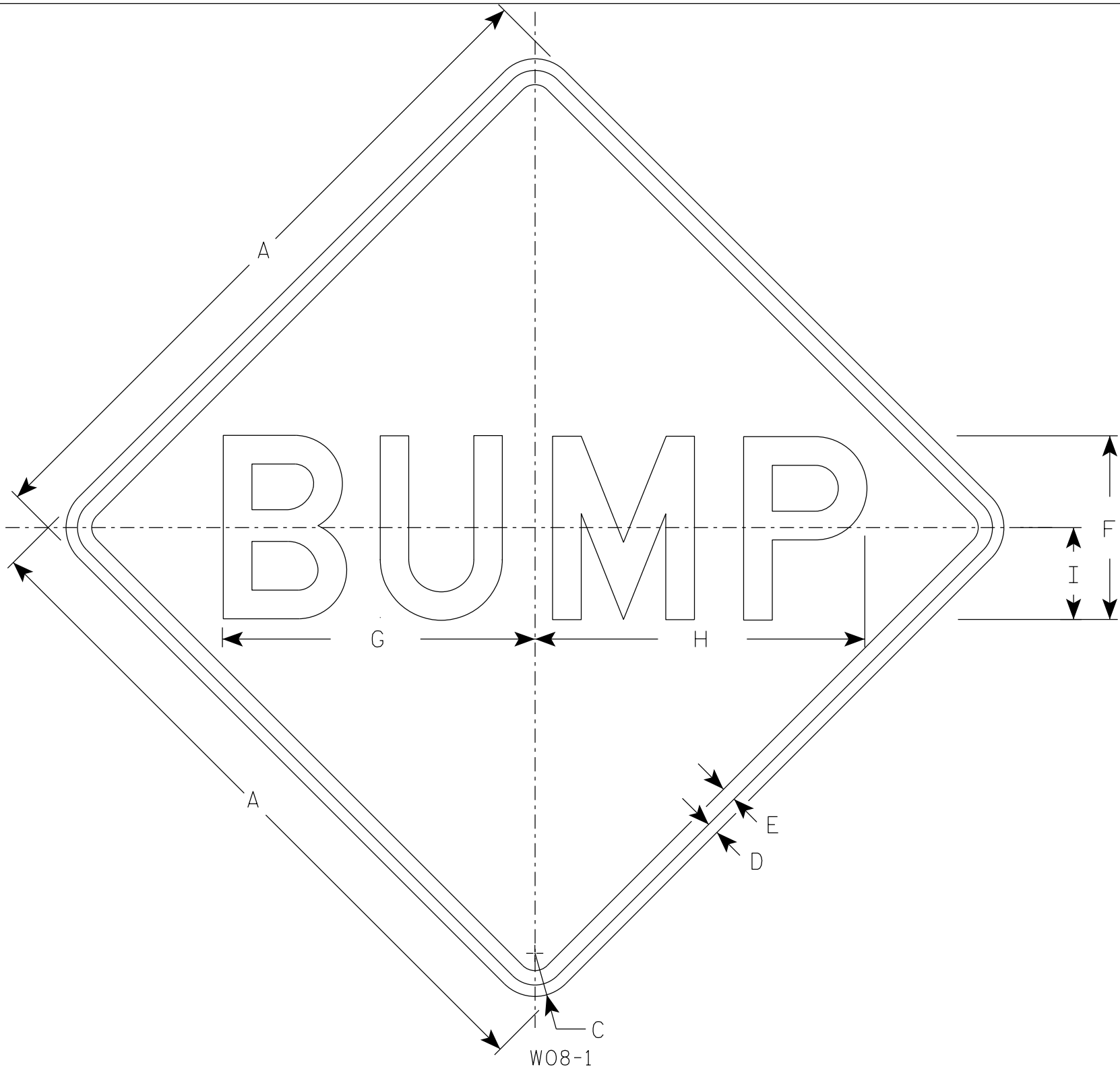
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 108

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	10	16 7/8	17 7/8	5																		9.0
2S	48		3	3/4	1	12	20 3/8	21 5/8	6																		16.0
2M	48		3	3/4	1	12	20 3/8	21 5/8	6																		16.0
3	48		3	3/4	1	12	20 3/8	21 5/8	6																		16.0
4	48		3	3/4	1	12	20 3/8	21 5/8	6																		16.0
5	48		3	3/4	1	12	20 3/8	21 5/8	6																		16.0

STANDARD SIGN
W08-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/30/2024 PLATE NO. W08-1.2

PROJECT NO:

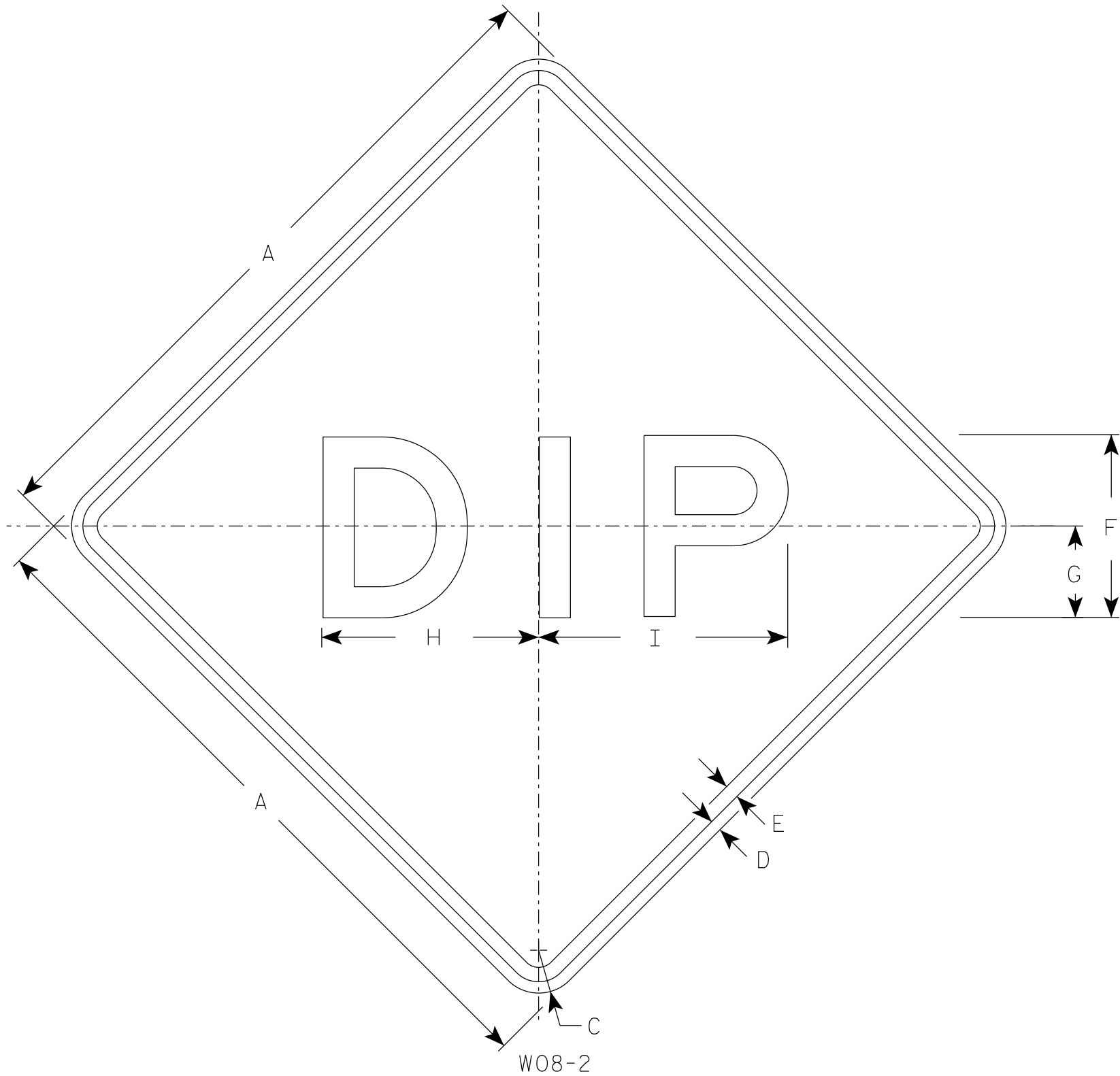
HWY:

COUNTY:

SHEET NO: 109

E

7



NOTES

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

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

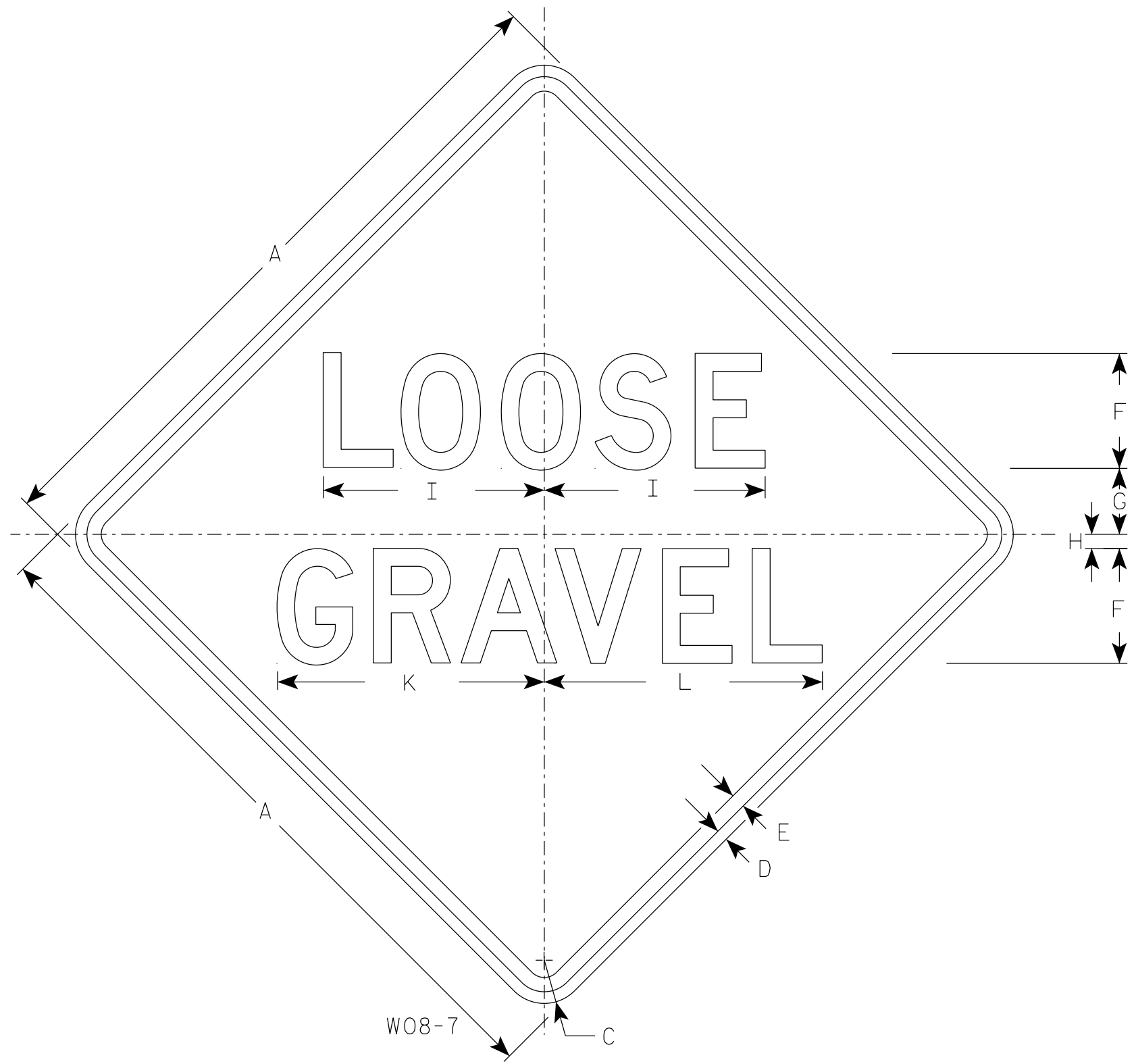
STANDARD SIGN
W08-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 1/30/2024 PLATE NO. W08-2.3

PROJECT NO: HWY: COUNTY: SHEET NO: 110 E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
2S	48		3	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0
2M	48		3	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0
3	48		3	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0
4	48		3	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0
5	48		3	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0

STANDARD SIGN

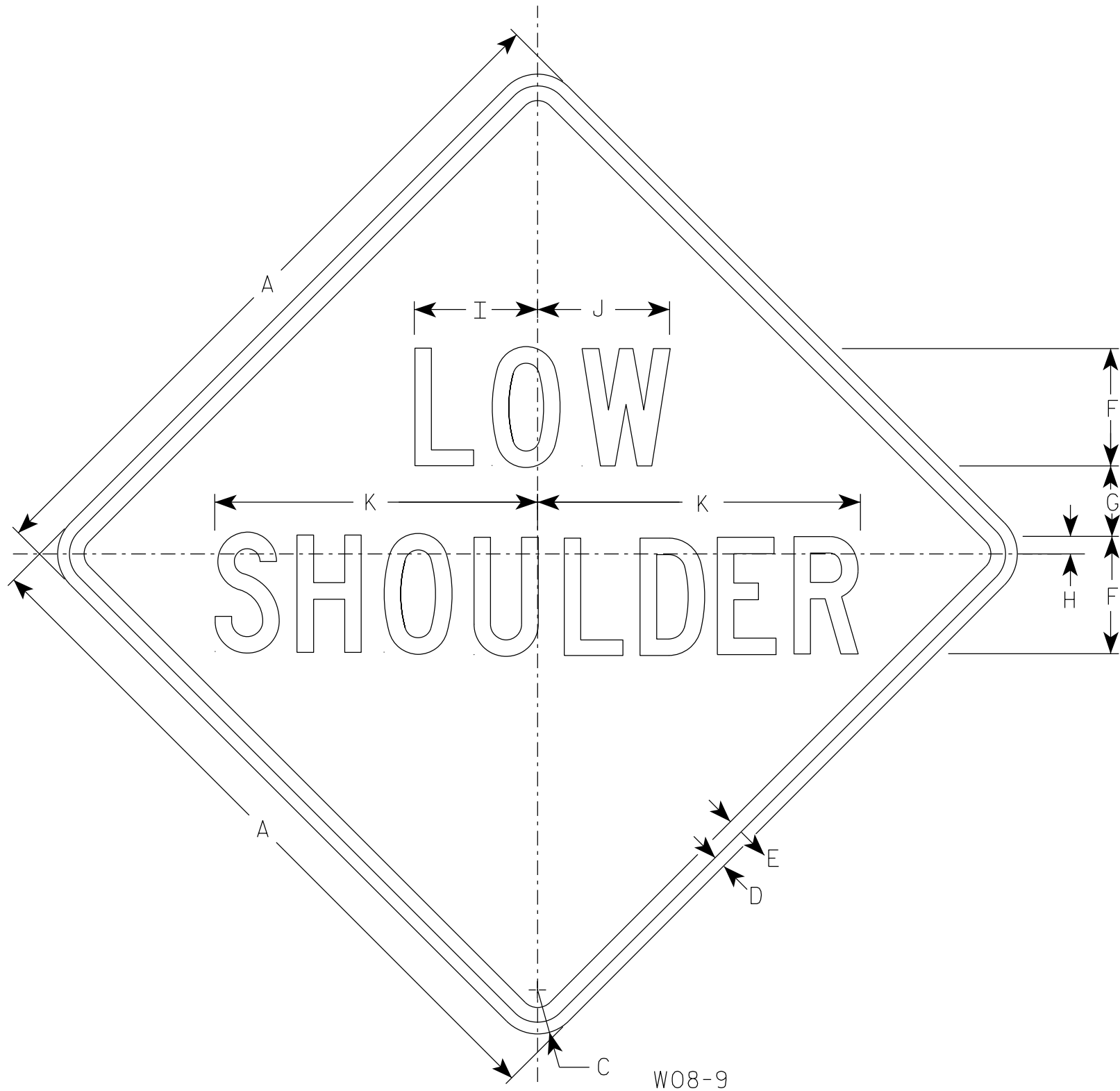
W08-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/31/2024 PLATE NO. W08-7.9

7



NOTES

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

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	3 1/2	1	6 1/4	6 3/4	16 1/2																9.0
2S	48		3	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
2M	48		3	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
3	48		3	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
4	48		3	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
5	48		3	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 112

E

STANDARD SIGN
W08-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/31/2024 PLATE NO. W08-9.2

GUARDRAIL LOCATION 1 (WESTFIELD CREEK)

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
41+00.08	0.00	2.85	0.00	0	0	0	0	0
41+50.00	49.92	1.32	0.70	4	1	4	1	3
41+89.76	39.76	4.05	2.54	4	2	8	4	4
42+00.00	10.24	3.47	1.89	1	1	9	5	4
42+09.53	9.53	3.29	1.16	1	1	10	6	4
42+14.92	5.39	3.28	0.67	1	0	11	6	5
42+50.00	35.08	3.17	0.09	4	0	15	6	9
42+97.98	47.98	5.03	0.77	7	1	22	8	15
43+00.00	2.02	5.42	0.82	0	0	22	8	15
43+22.78	22.78	4.75	1.23	4	1	26	9	17
43+47.59	24.81	2.34	1.39	3	1	29	10	19
43+50.00	2.41	2.40	1.43	0	0	29	10	19
44+00.00	50.00	0.00	0.00	2	1	31	11	20
44+10.00	10.00	0.00	0.00	0	0	31	11	20
44+50.00	40.00	2.31	0.86	2	1	33	13	21
44+59.57	9.57	2.43	0.39	1	0	34	13	22
44+84.44	24.87	1.24	2.47	2	1	36	14	22
45+00.00	15.56	1.03	4.16	1	2	37	16	21
45+09.30	9.30	1.05	5.87	0	2	37	19	18
45+33.22	23.92	2.19	1.16	1	3	38	23	16
45+50.00	16.78	3.13	0.95	2	1	40	24	16
45+66.76	16.76	0.93	0.81	1	1	41	25	16
45+91.86	25.10	1.53	2.16	1	1	42	26	16
46+00.00	8.14	1.66	2.10	0	1	42	28	15
46+16.97	16.97	7.52	2.66	3	1	45	29	16
46+45.72	28.75	0.56	2.00	4	2	49	31	18
46+50.00	4.28	0.80	1.64	0	0	49	31	18
47+00.00	50.00	3.61	0.25	4	2	53	34	19
47+06.46	6.46	3.09	0.36	1	0	54	34	20
COLUMN TOTALS				54	27			

GUARDRAIL LOCATION 2 (UNNAMED TRIBUTARY)

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
112+85.05	0.00	1.51	4.31	0	0	0	0	0
113+00.00	14.95	1.44	4.64	1	2	1	3	-2
113+06.10	6.10	1.40	4.78	0	1	1	4	-3
113+40.00	33.90	31.34	9.55	21	9	22	15	7
113+50.00	10.00	36.99	10.65	13	4	35	20	15
113+88.98	38.98	45.67	17.03	60	20	95	45	50
114+00.00	11.02	40.48	18.00	18	7	113	54	59
114+10.33	10.33	34.86	19.79	14	7	127	63	65
114+13.93	3.60	32.96	19.16	5	3	132	66	66
114+35.35	21.42	20.34	14.13	21	13	153	83	71
114+38.88	3.53	19.32	13.51	3	2	156	85	71
114+50.00	11.12	17.16	12.41	8	5	164	91	73
114+60.36	10.36	15.57	11.75	6	5	170	98	73
115+00.00	39.64	0.86	3.11	12	11	182	111	71
115+50.00	50.00	0.73	6.25	1	9	183	123	61
116+00.00	50.00	0.72	2.19	1	8	184	133	52
116+16.62	16.62	0.69	5.19	0	2	184	135	49
116+41.61	24.99	0.40	2.75	1	4	185	140	45
116+50.00	8.39	0.35	4.70	0	1	185	141	44
116+57.58	7.58	0.29	7.25	0	2	185	144	41
116+66.59	9.01	0.19	8.91	0	3	185	148	38
116+82.56	15.97	0.63	7.76	0	5	185	154	31
117+00.00	17.44	0.70	4.59	0	4	185	159	26
117+07.54	7.54	0.67	5.90	0	1	185	160	25
117+50.00	42.46	1.28	6.18	2	10	187	173	15
117+70.66	20.66	1.37	6.92	1	5	188	179	9
118+00.00	29.34	0.66	5.93	1	7	189	188	2
118+11.61	11.61	0.68	3.77	0	2	189	190	-1
COLUMN TOTALS				189	152			

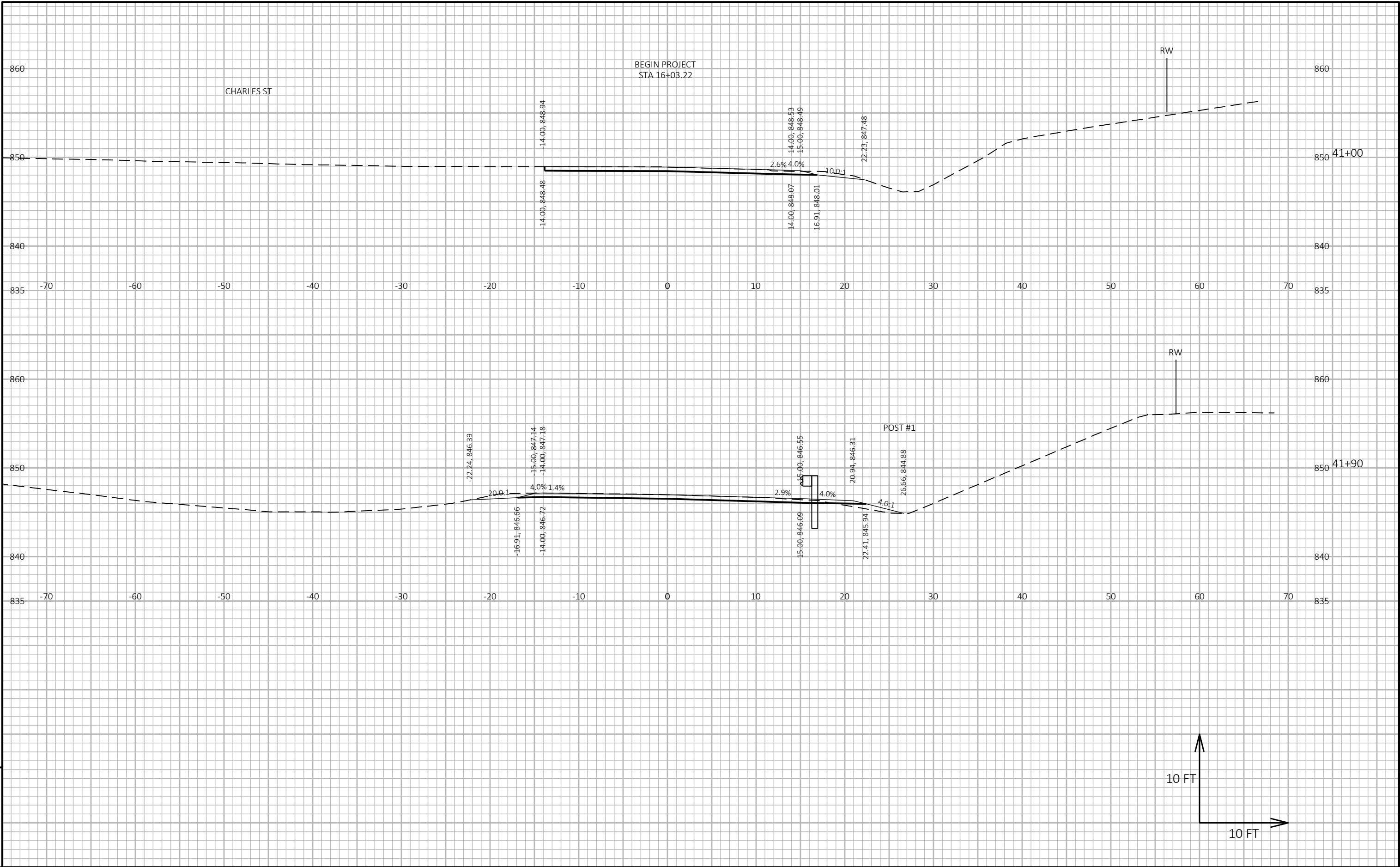
GUARDRAIL LOCATION 3 (CAVES CREEK)

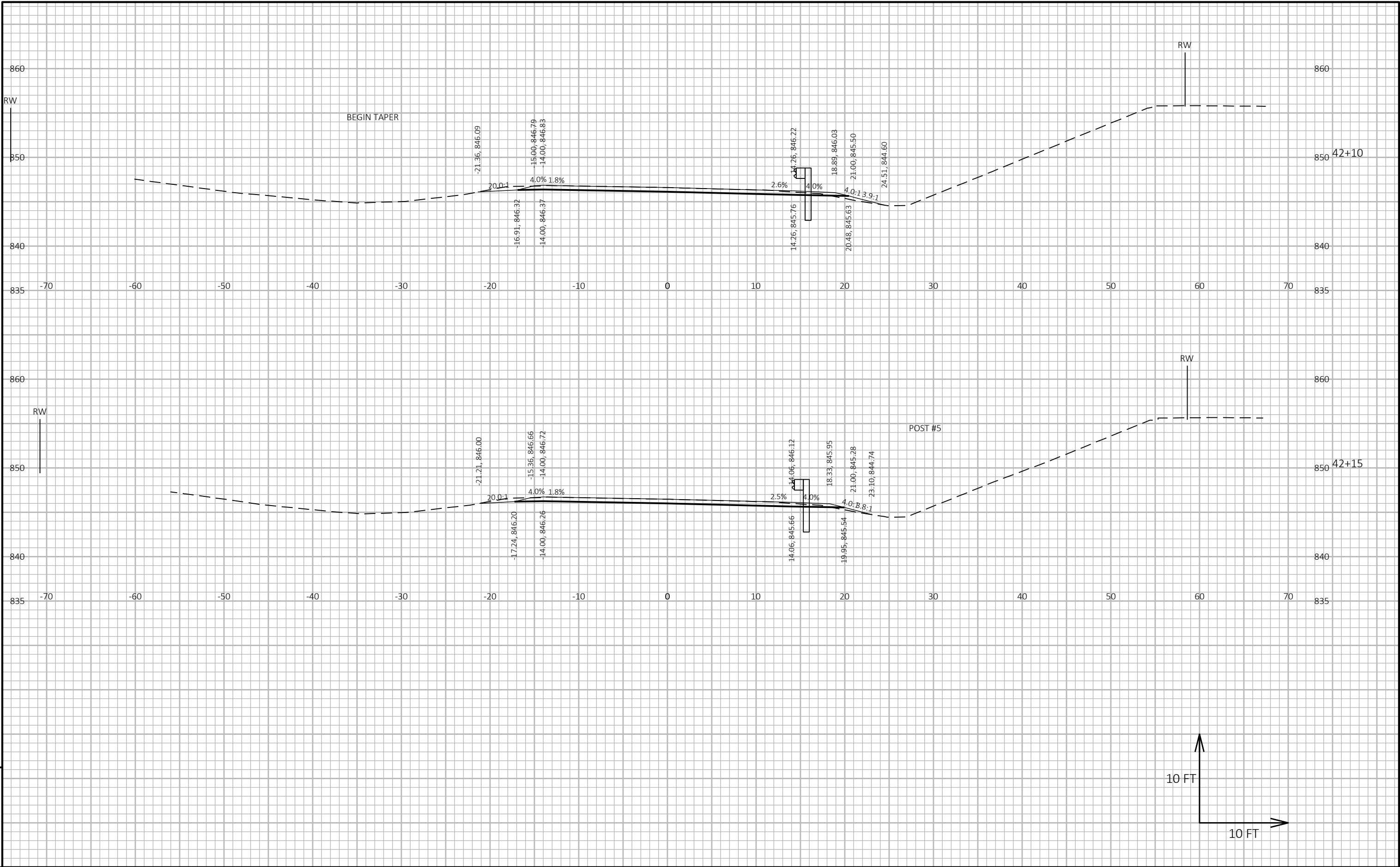
STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						1.00	1.25	
128+34.04	0.00	2.18	0.09	0	0	0	0	0
128+50.00	15.96	2.16	0.11	1	0	1	0	1
128+54.40	4.40	2.18	0.05	0	0	1	0	1
129+00.00	45.60	1.18	10.44	3	9	4	11	-7
129+39.02	39.02	0.24	42.82	1	38	5	59	-54
129+50.00	10.98	0.28	52.31	0	19	5	83	-78
129+57.55	7.55	0.31	48.77	0	14	5	100	-95
129+64.25	6.70	0.36	39.75	0	11	5	114	-109
129+82.29	18.04	0.49	27.56	0	22	5	141	-136
129+89.46	7.17	0.54	27.80	0	7	5	150	-145
130+00.00	10.54	0.53	29.36	0	11	5	164	-159
130+07.05	7.05	0.48	19.44	0	6	5	171	-166
130+50.00	42.95	0.46	2.81	1	18	6	194	-188
131+00.00	50.00	1.27	1.51	2	4	8	199	-191
131+25.51	25.51	25.26	1.64	13	1	21	200	-179
131+50.00	24.49	26.45	1.47	23	1	44	201	-157
131+71.14	21.14	21.71	1.57	19	1	63	203	-140
131+75.48	4.34	20.85	1.46	3	0	66	203	-137
131+96.12	20.64	16.73	0.71	14	1	80	204	-124
132+00.00	3.88	16.26	0.65	2	0	82	204	-122
132+21.11	21.11	9.69	0.24	10	0	92	204	-112
132+50.00	28.89	6.57	0.00	9	0	101	204	-103
132+94.66	44.66	2.70	0.00	8	0	109	204	-95
133+00.00	5.34	2.37	0.00	1	0	110	204	-94
133+05.41	5.41	2.12	0.00	0	0	110	204	-94
COLUMN TOTALS				110	163			

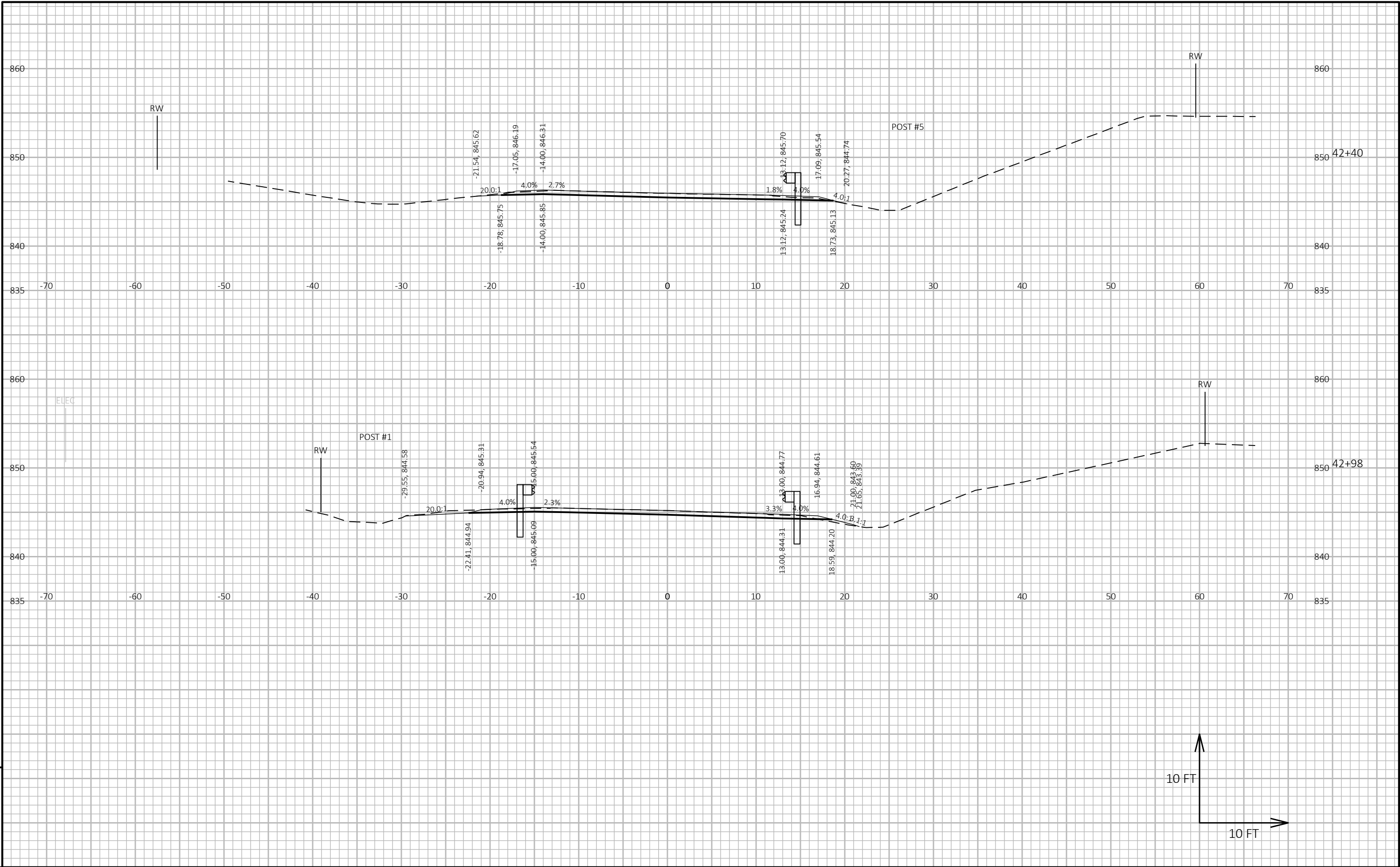
GUARDRAIL LOCATION 4 (CATTLE PASS)

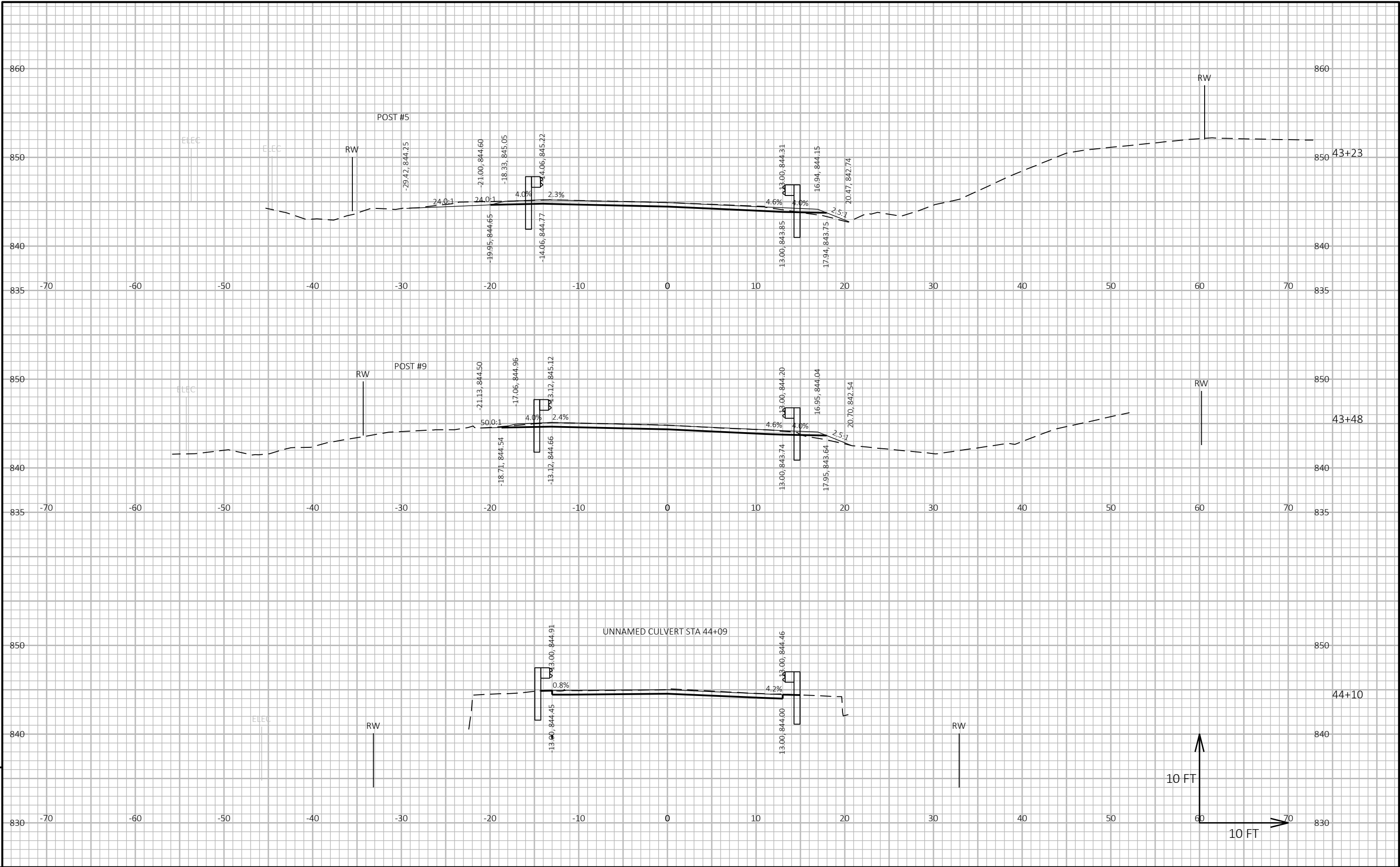
STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						1.00	1.25	
174+80.00	0.00	3.12	0.03	0	0	0	0	0
175+00.00	20.00	2.80	0.77	2	0	2	0	2
175+50.00	50.00	2.69	0.97	5	2	7	3	5
175+75.95	25.95	3.13	0.26	3	1	10	4	6
176+00.00	24.05	3.97	0.00	3	0	13	4	9
176+02.36	2.36	4.00	0.00	0	0	13	4	9
176+28.66	26.30	5.31	0.00	5	0	18	4	14
176+50.00	21.34	4.57	0.03	4	0	22	4	18
177+00.00	50.00	0.49	1.68	5	2	27	6	21
177+20.00	20.00	0.86	0.89	1	1	28	8	21
177+50.00	30.00	1.37	2.22	1	2	29	10	19
178+00.00	50.00	2.19	0.20	3	2	32	13	20
178+37.68	37.68	1.04	2.07	2	2	34	15	19
178+50.00	12.32	0.83	1.18	0	1	34	16	18
178+62.76	12.76	1.66	0.96	1	1	35	18	18
178+87.74	24.98	1.33	2.26	1	1	36	19	17
178+91.32	3.58	1.35	2.12	0	0	36	19	17
179+00.00	8.68	1.32	2.12	0	1	36	20	16
179+16.30	16.30	1.84	2.67	1	1	37	21	16
179+41.28	24.98	1.21	3.81	1	3	38	25	13
179+50.00	8.72	0.88	2.18	0	1	38	26	12
179+90.05	40.05	2.54	0.87	3	2	41	29	12
180+00.00	9.95	2.24	1.97	1	1	42	30	12
180+45.35	45.35	5.53	2.69	7	4	49	35	14
COLUMN TOTALS				49	28			

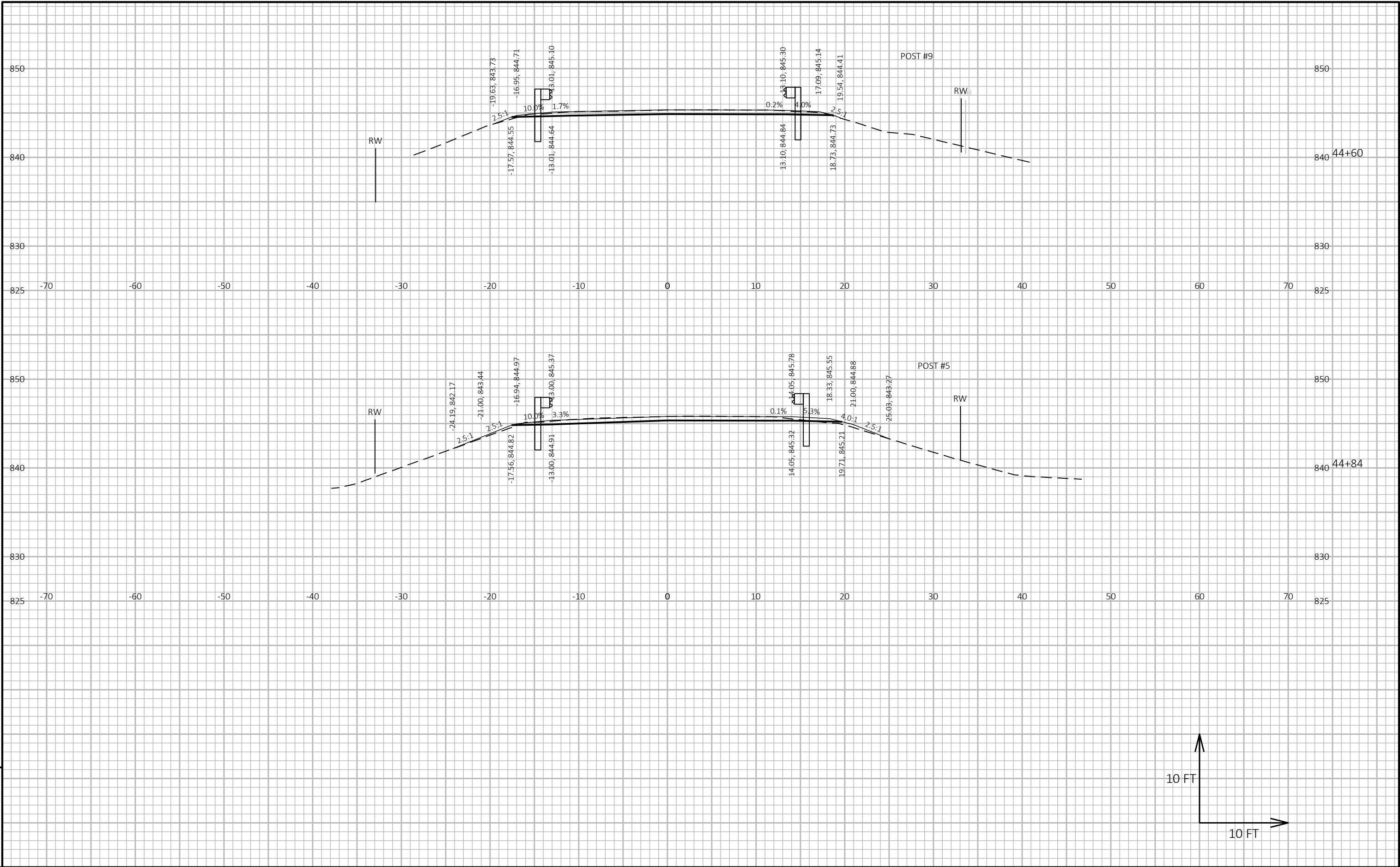
GUARDRAIL LOCATION 5 (WESTFIELD CREEK)								
STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
216+08.20	0.00	5.75	0.00	0	0	0	0	0
216+50.00	41.80	0.87	0.00	5	0	5	0	5
216+65.53	15.53	1.60	0.00	1	0	6	0	6
216+97.27	31.74	4.30	0.08	3	0	9	0	9
217+00.00	2.73	4.95	0.36	0	0	9	0	9
217+22.26	22.26	14.60	1.86	8	1	17	1	16
217+47.24	24.98	4.20	1.64	9	2	26	4	22
217+50.00	2.76	4.15	1.74	0	0	26	4	22
217+50.85	0.85	4.13	1.82	0	0	26	4	22
217+75.83	24.98	1.60	1.53	3	2	29	6	23
218+00.00	24.17	1.69	0.70	1	1	30	8	23
218+00.81	0.81	1.69	0.70	0	0	30	8	23
218+50.00	49.19	1.07	0.46	3	1	33	9	24
219+00.00	50.00	1.81	0.56	3	1	36	10	26
219+41.05	41.05	1.96	0.29	3	1	39	11	28
219+50.00	8.95	1.72	0.51	1	0	40	11	29
219+66.04	16.04	1.49	8.03	1	3	41	15	26
219+91.02	24.98	1.13	4.33	1	6	42	23	20
219+94.49	3.47	1.15	4.08	0	1	42	24	18
220+00.00	5.51	1.18	5.78	0	1	42	25	17
220+19.47	19.47	0.87	10.20	1	6	43	33	11
220+44.45	24.98	0.52	14.53	1	11	44	46	-2
220+50.00	5.55	0.72	13.09	0	3	44	50	-6
220+80.08	30.08	0.87	5.90	1	11	45	64	-19
221+00.00	19.92	0.89	2.00	1	3	46	68	-22
221+29.78	29.78	1.32	0.08	1	1	47	69	-22
COLUMN TOTALS				47	55			

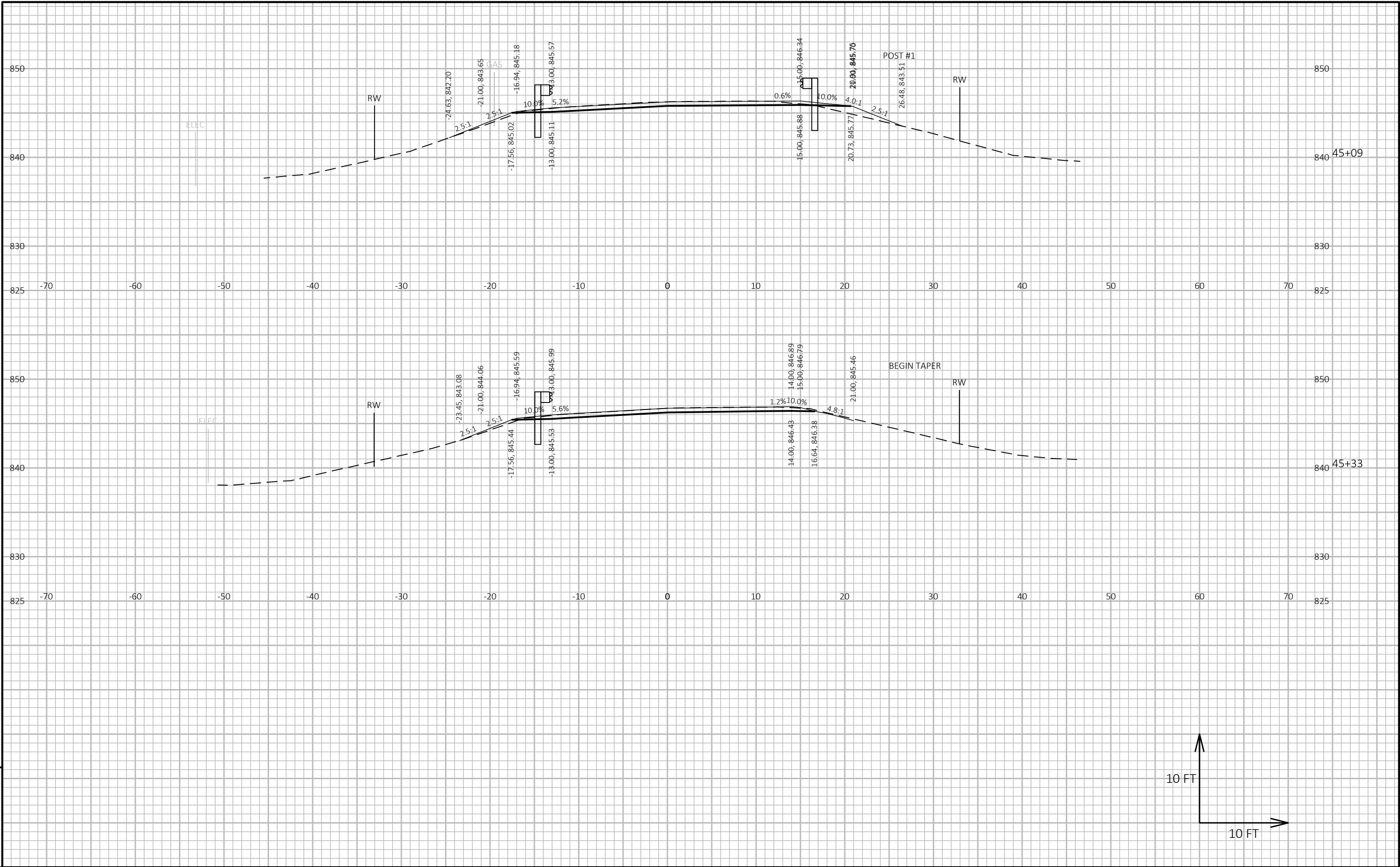


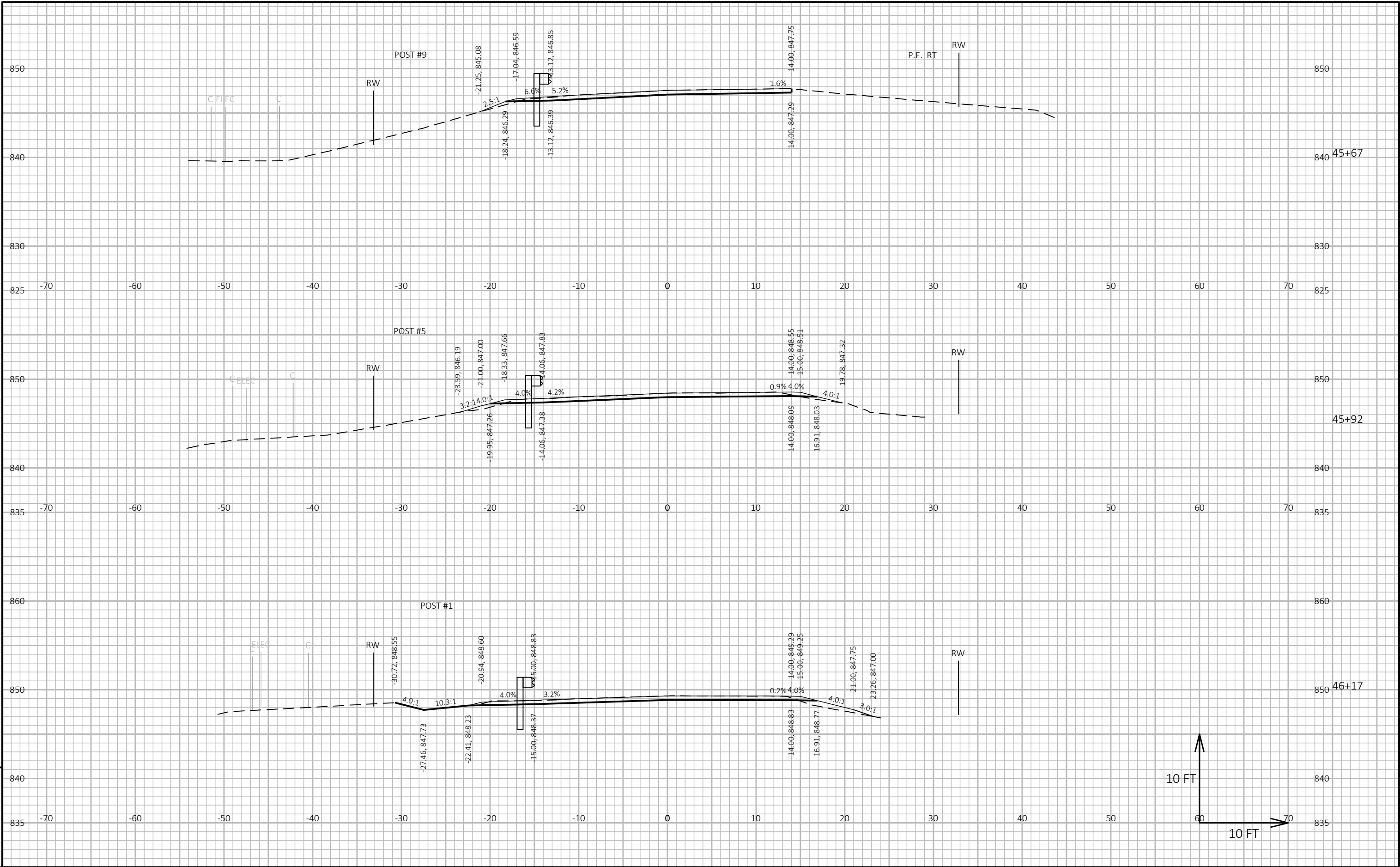


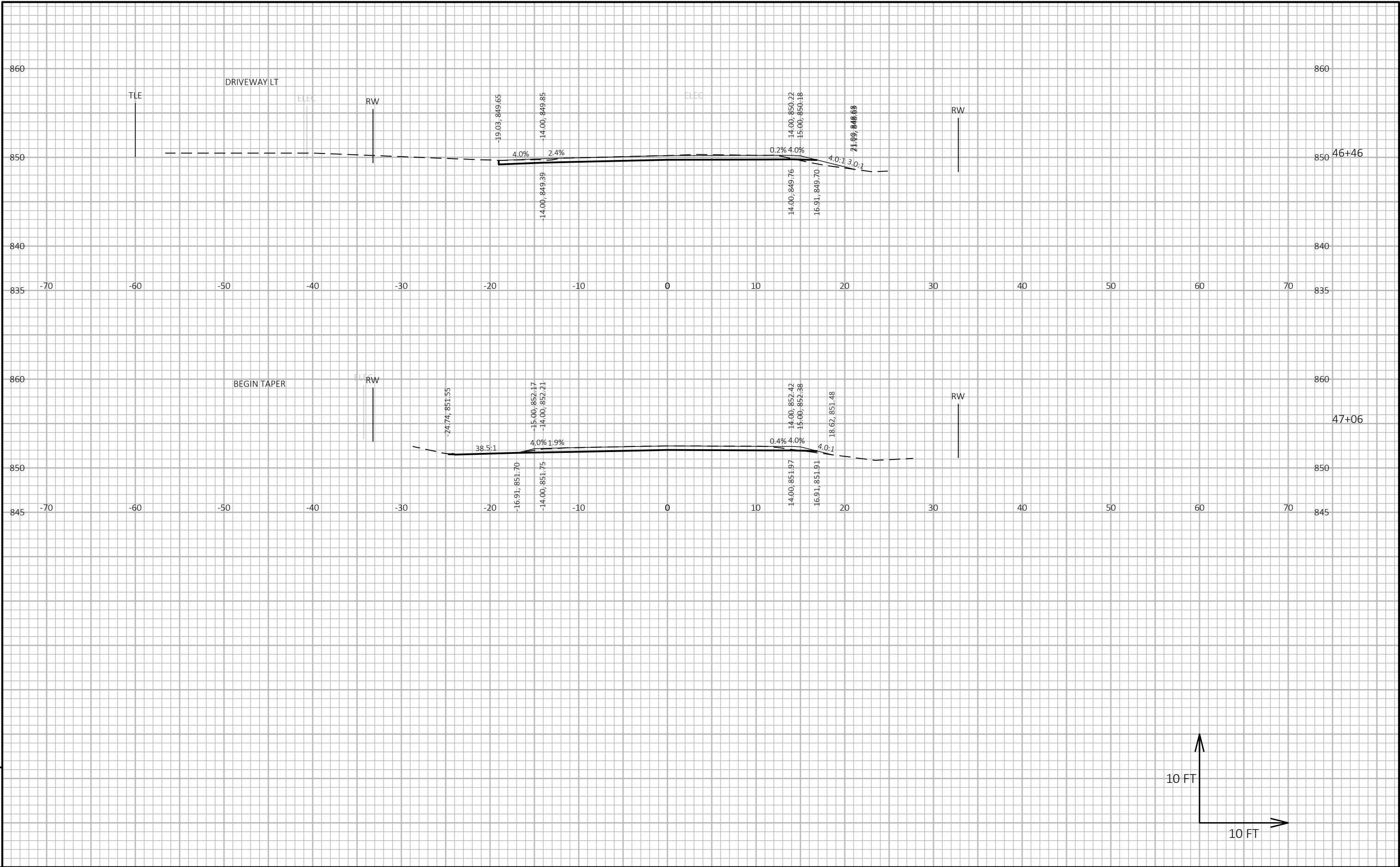


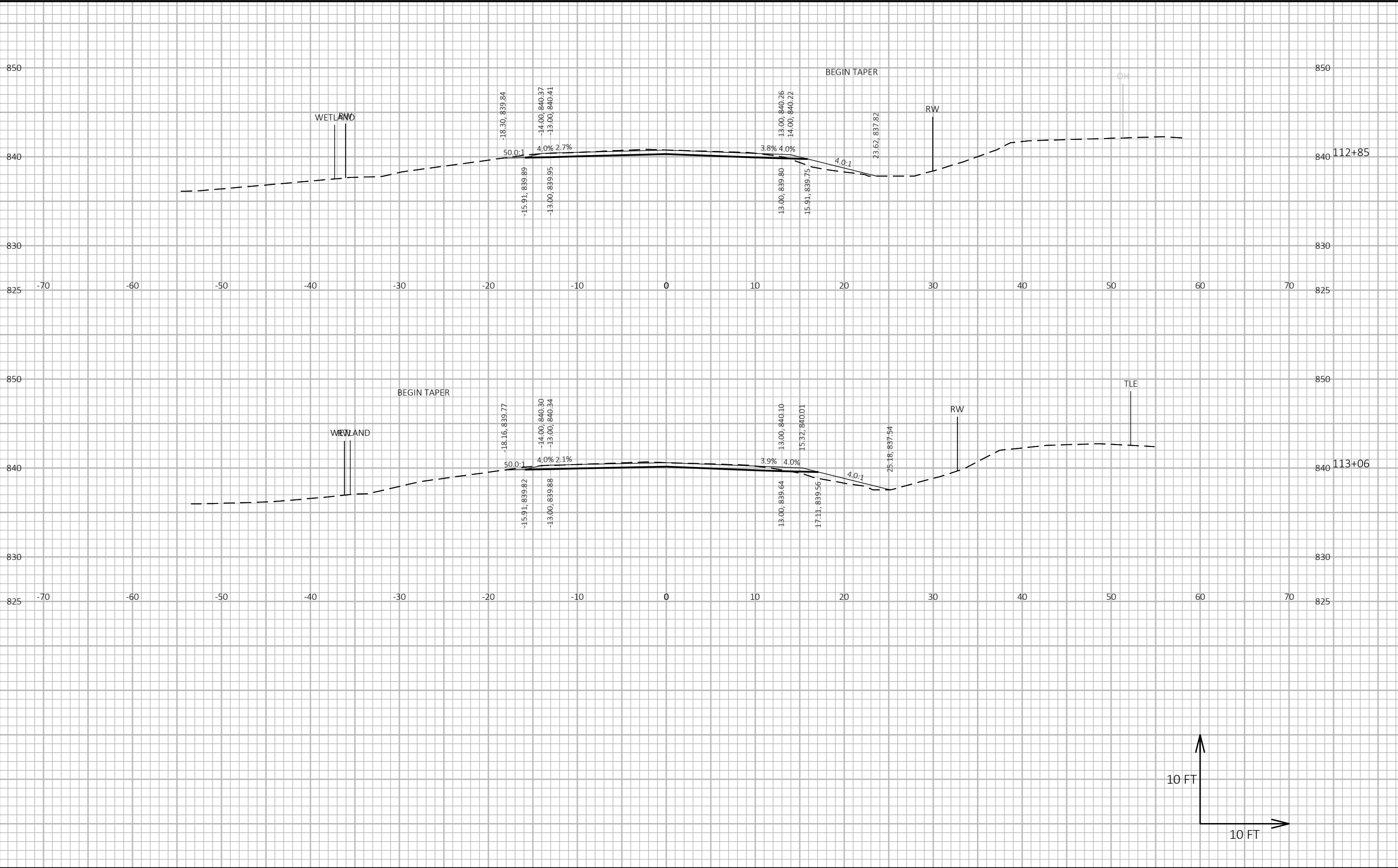


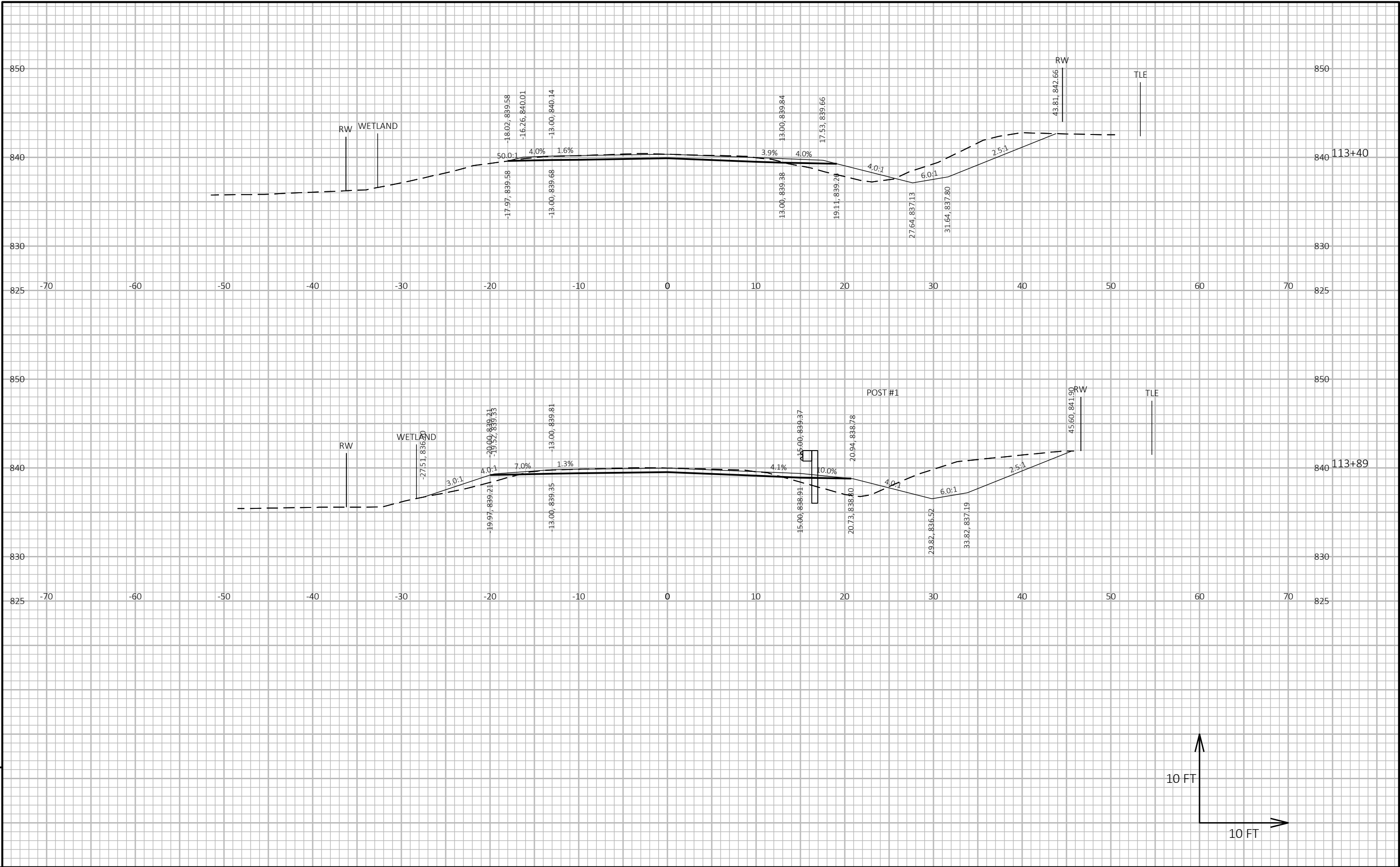


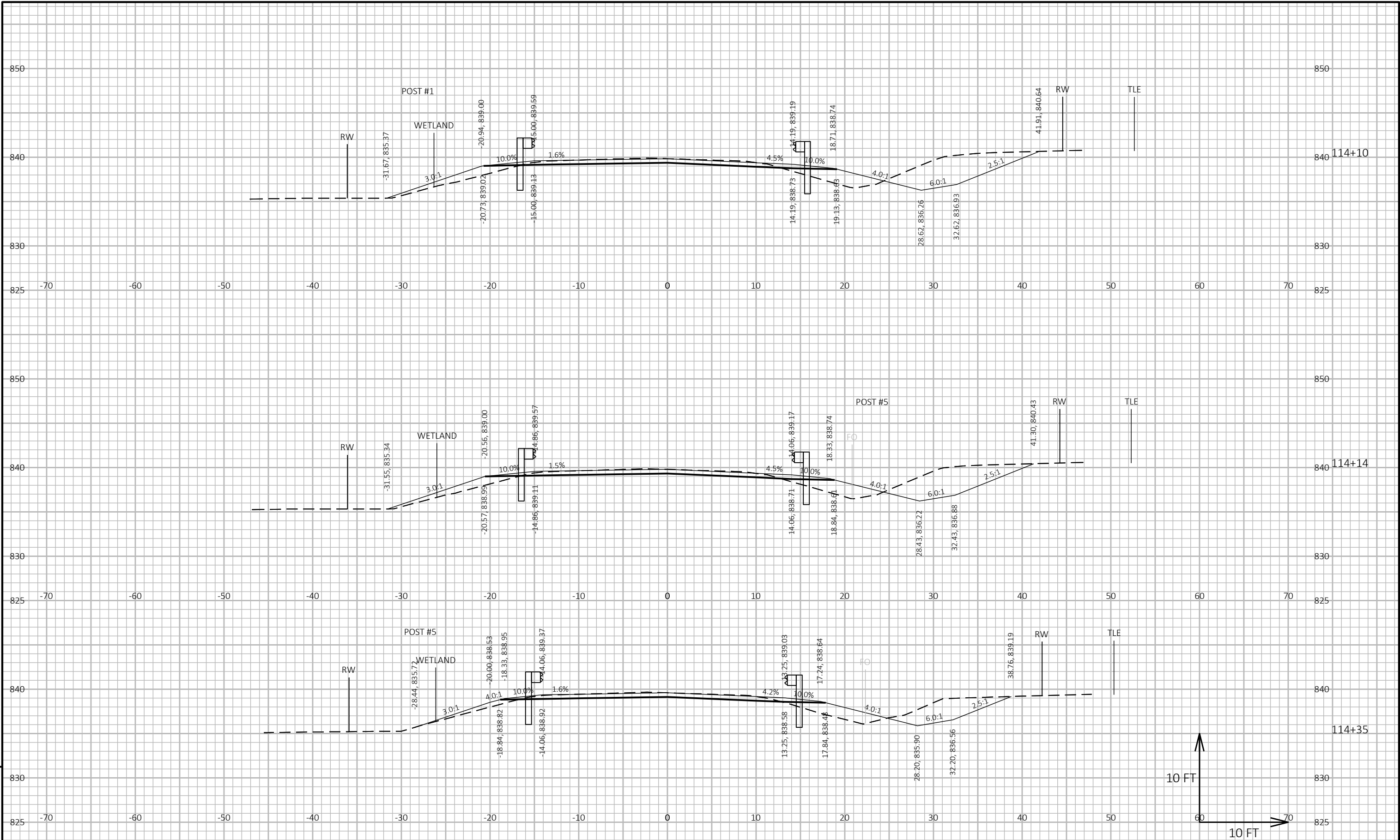


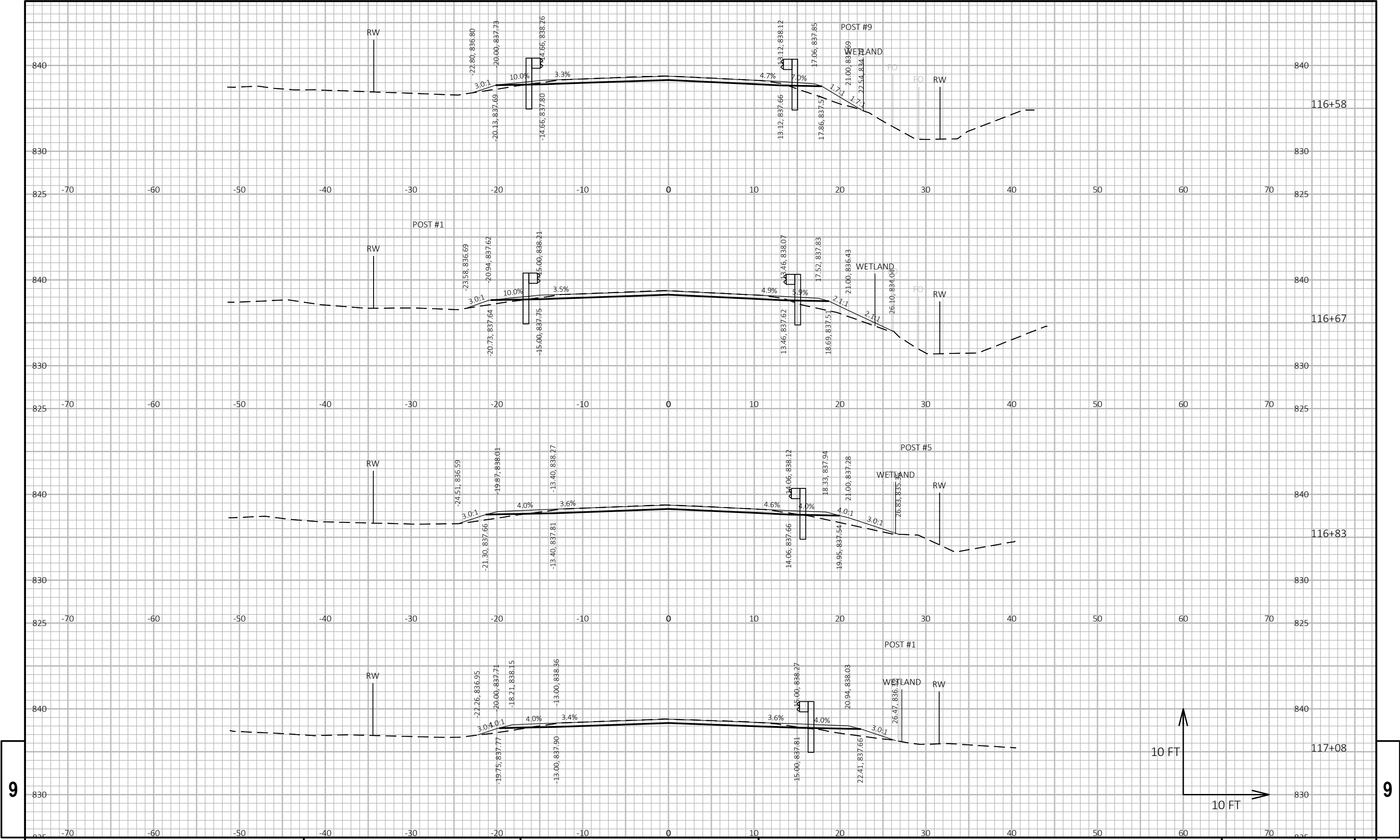








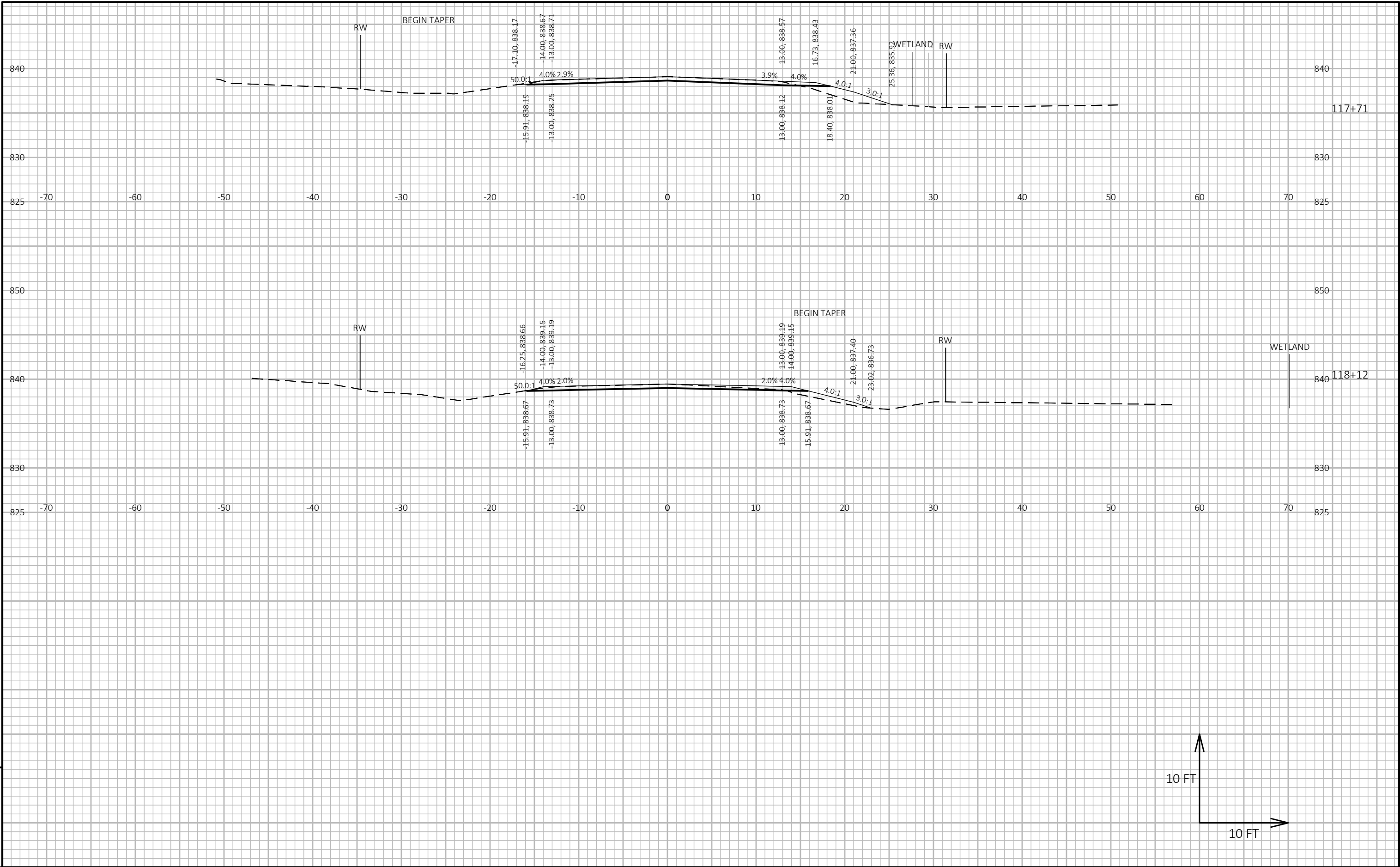




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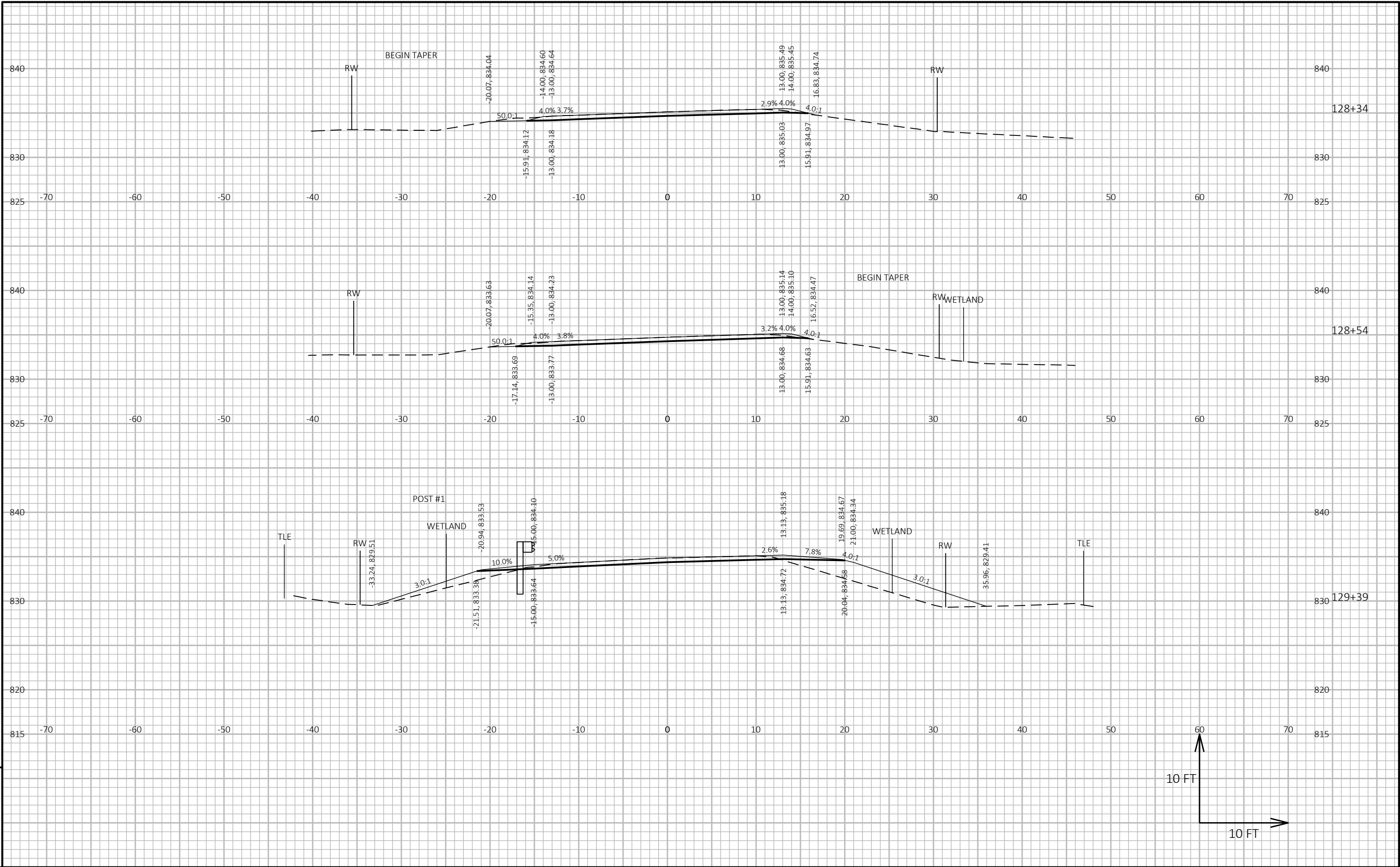
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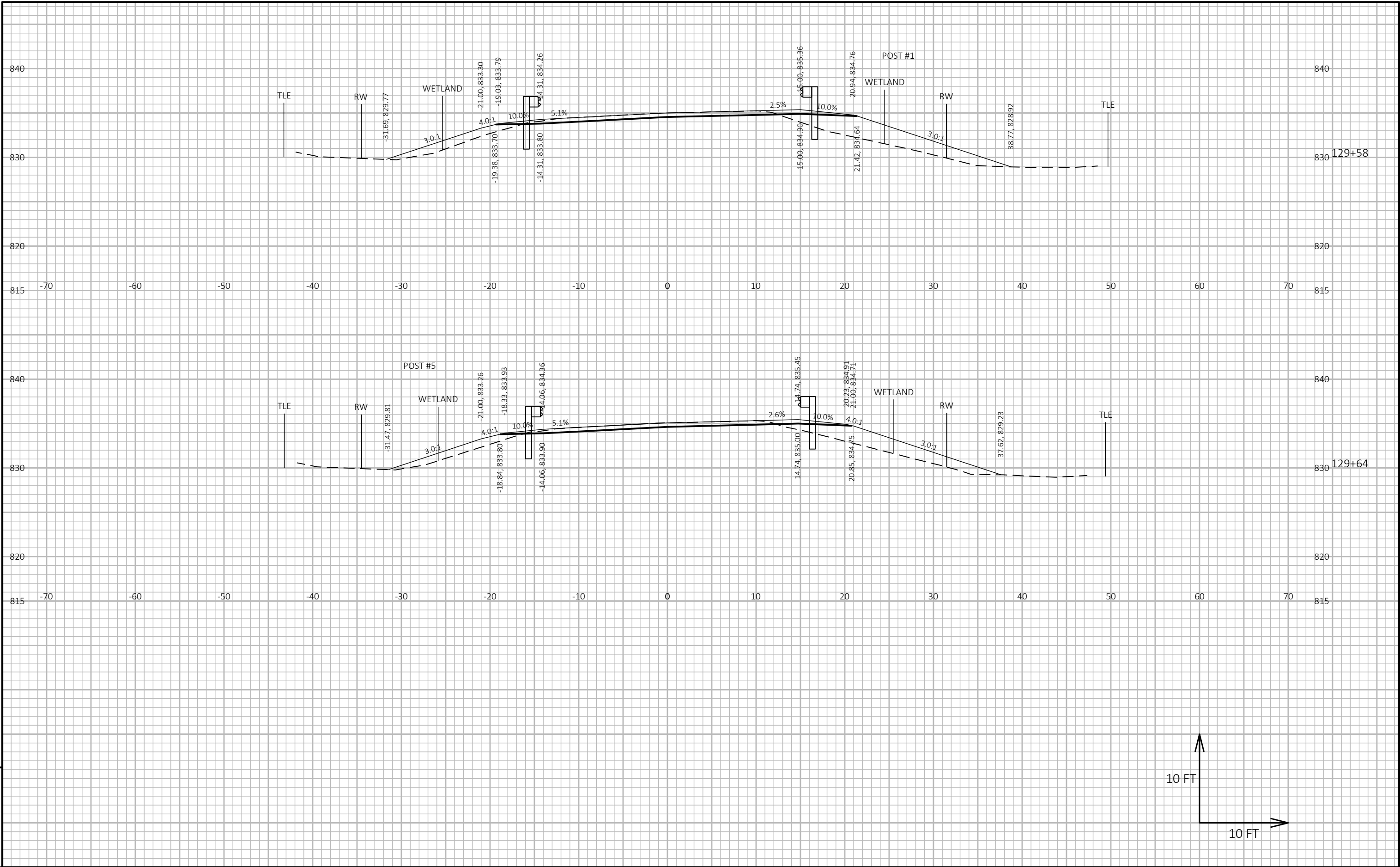


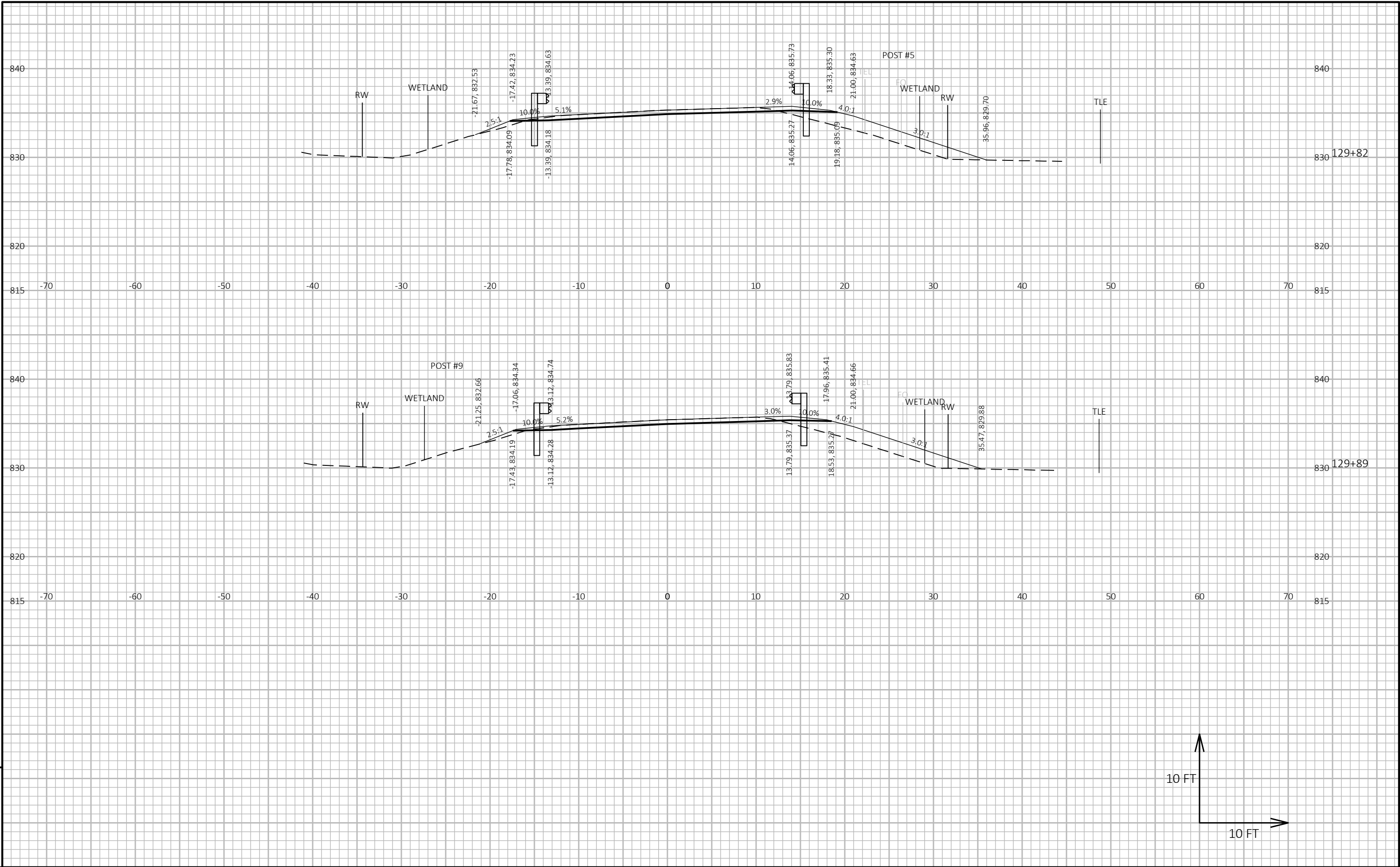
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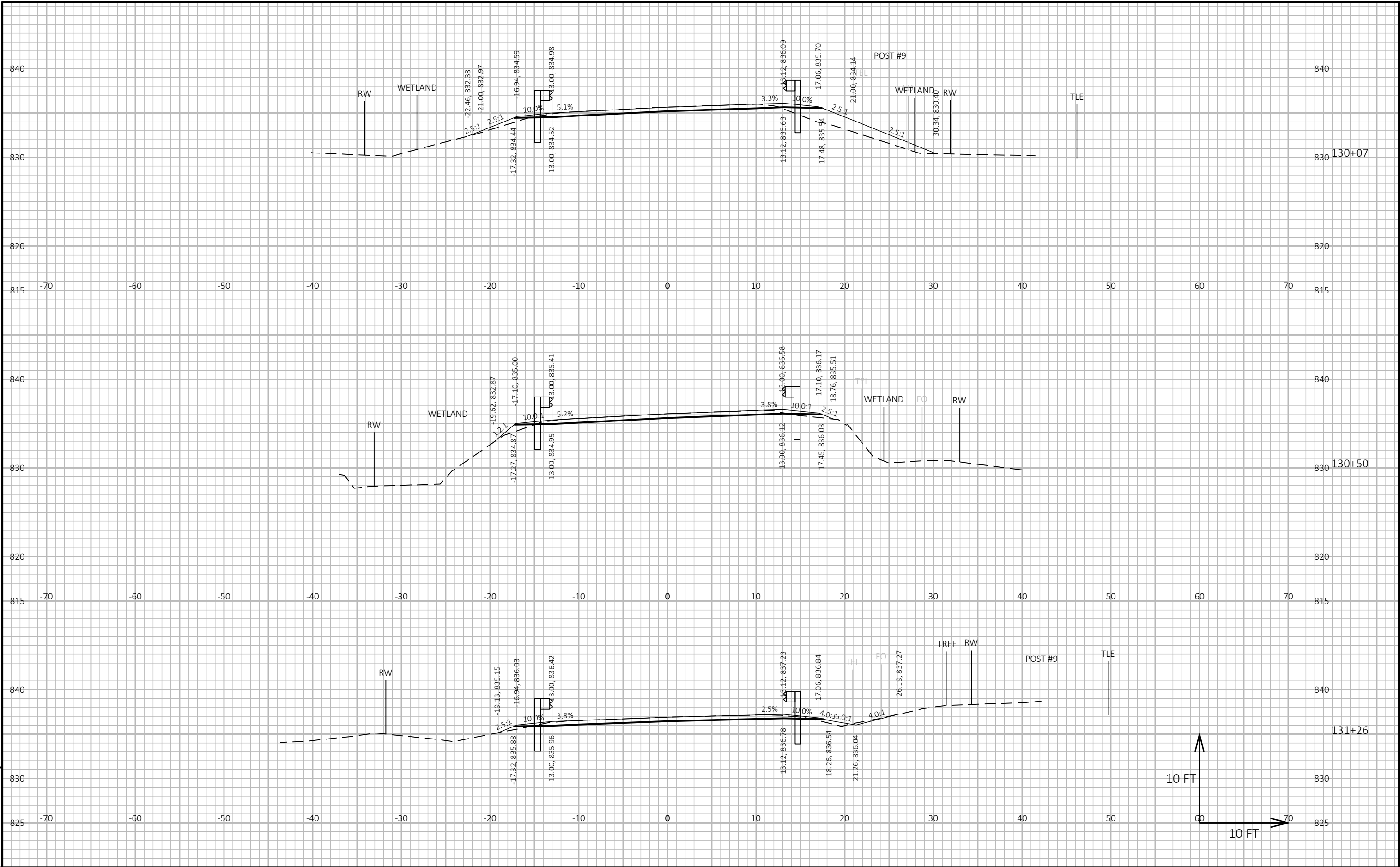
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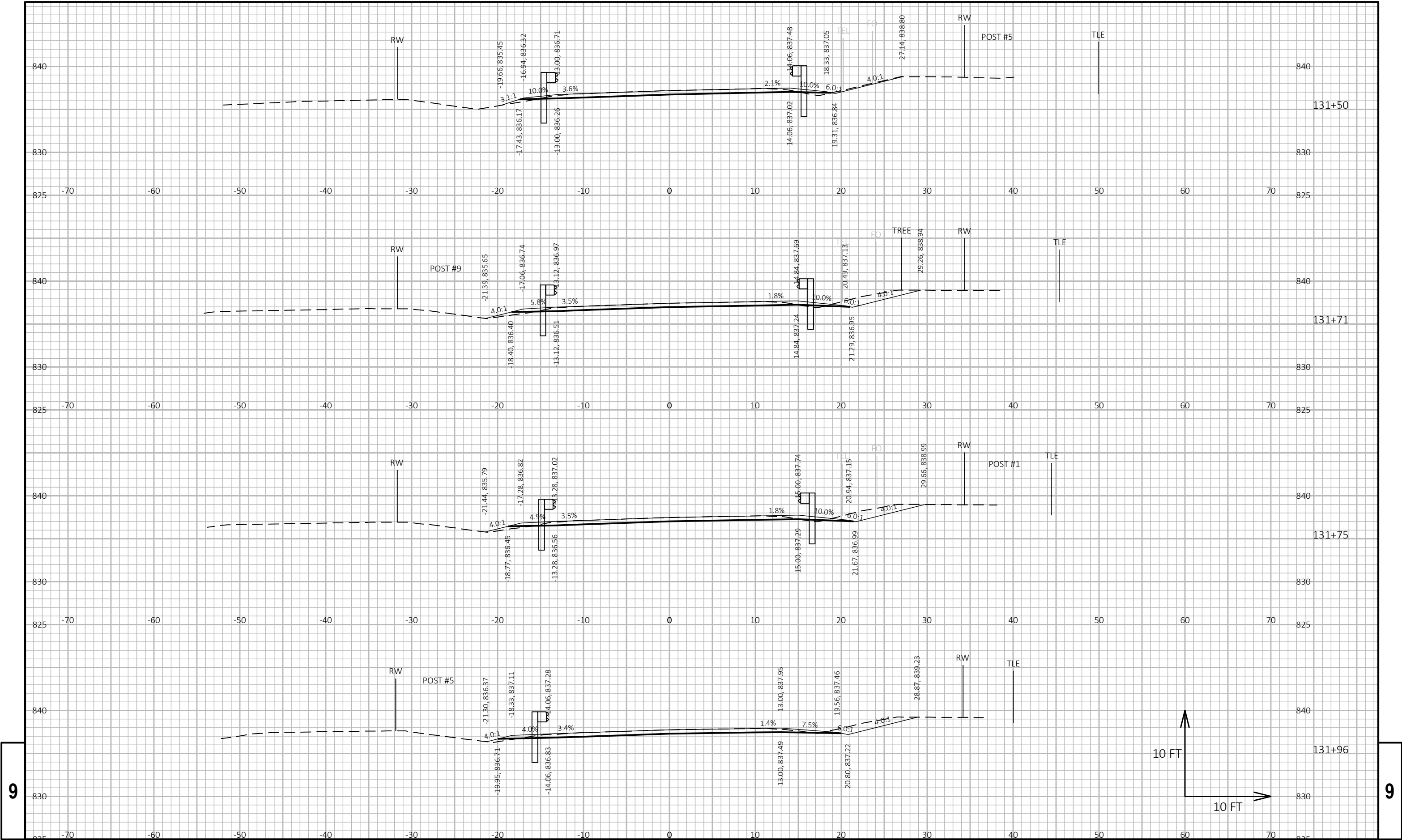
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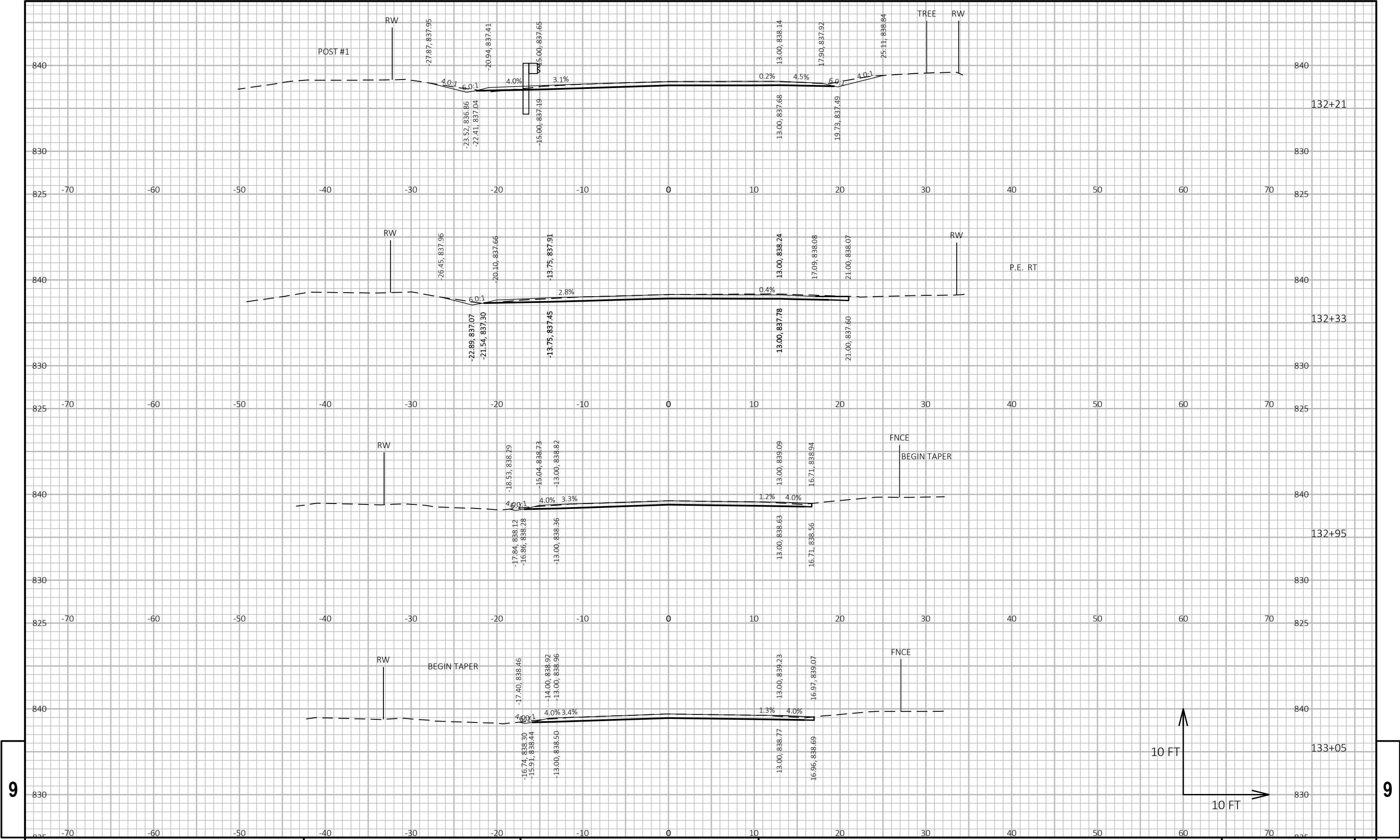






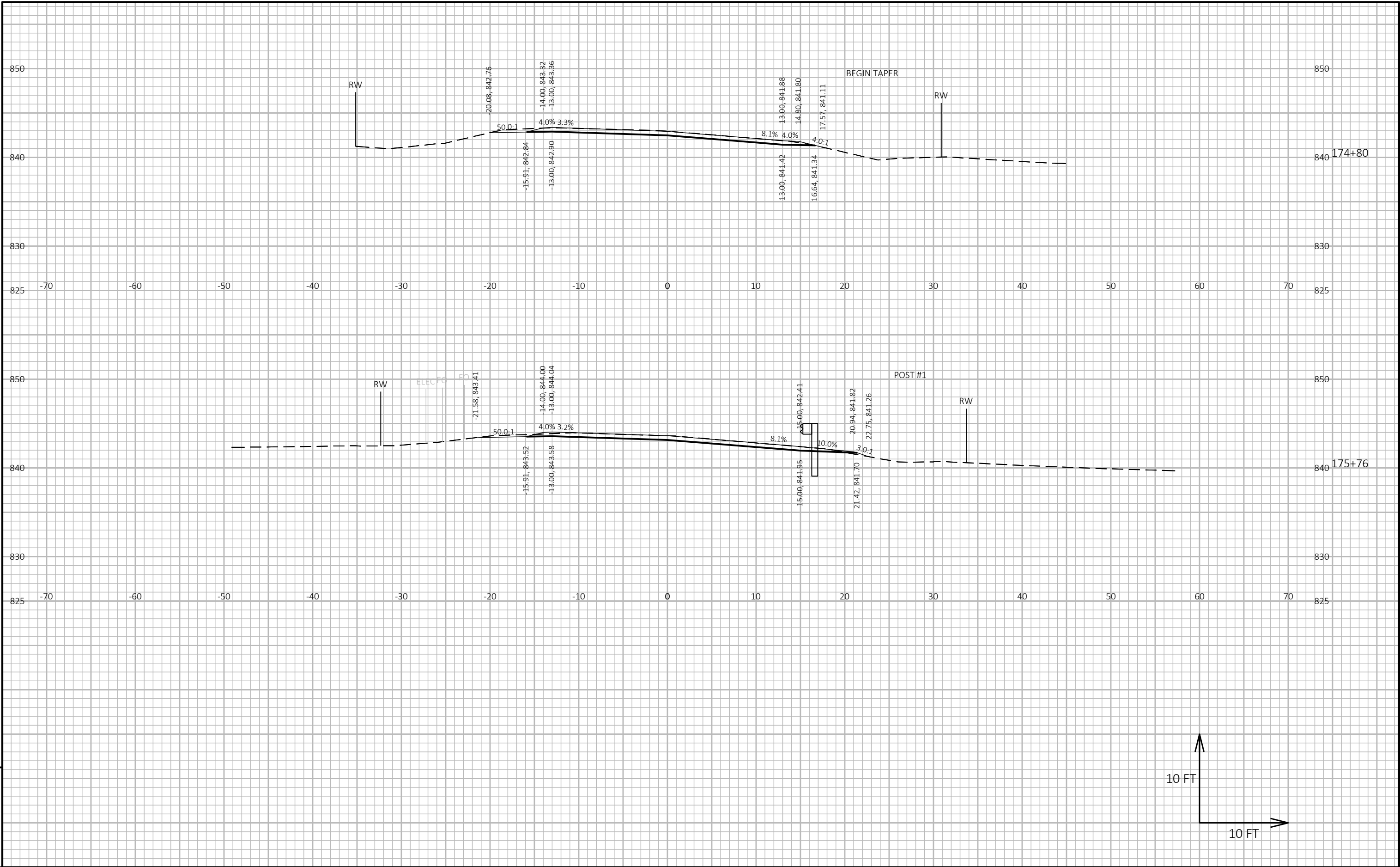
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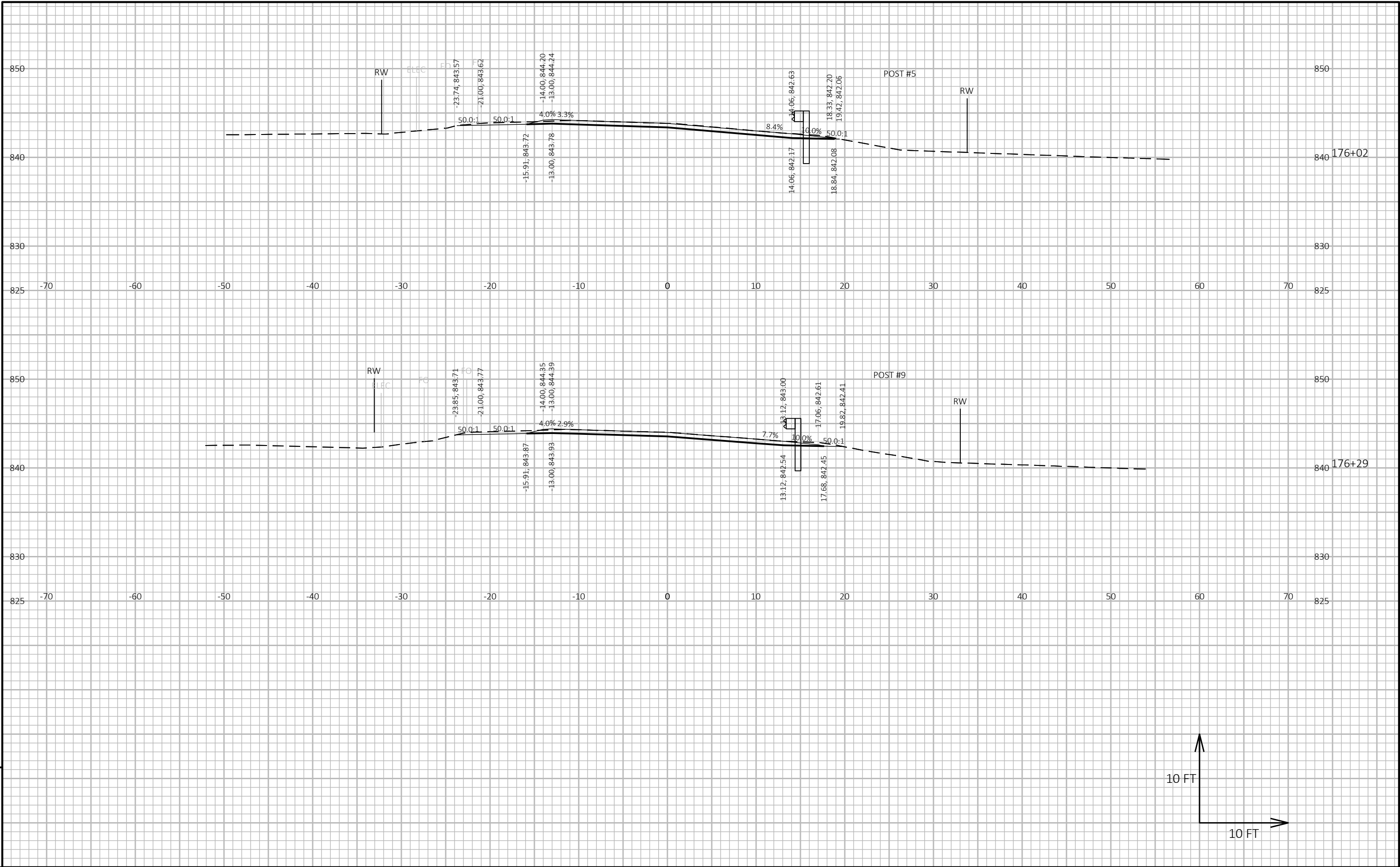
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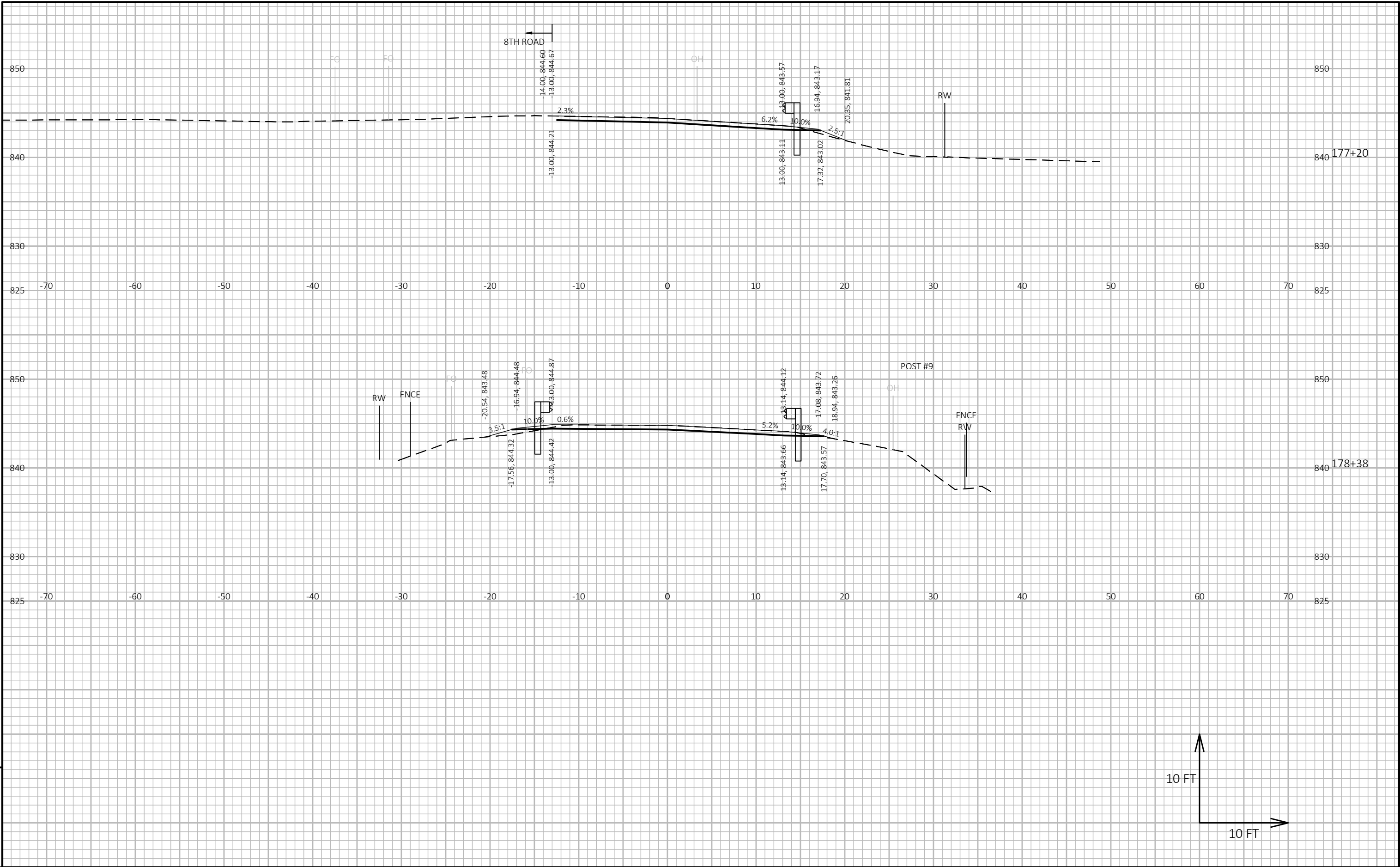


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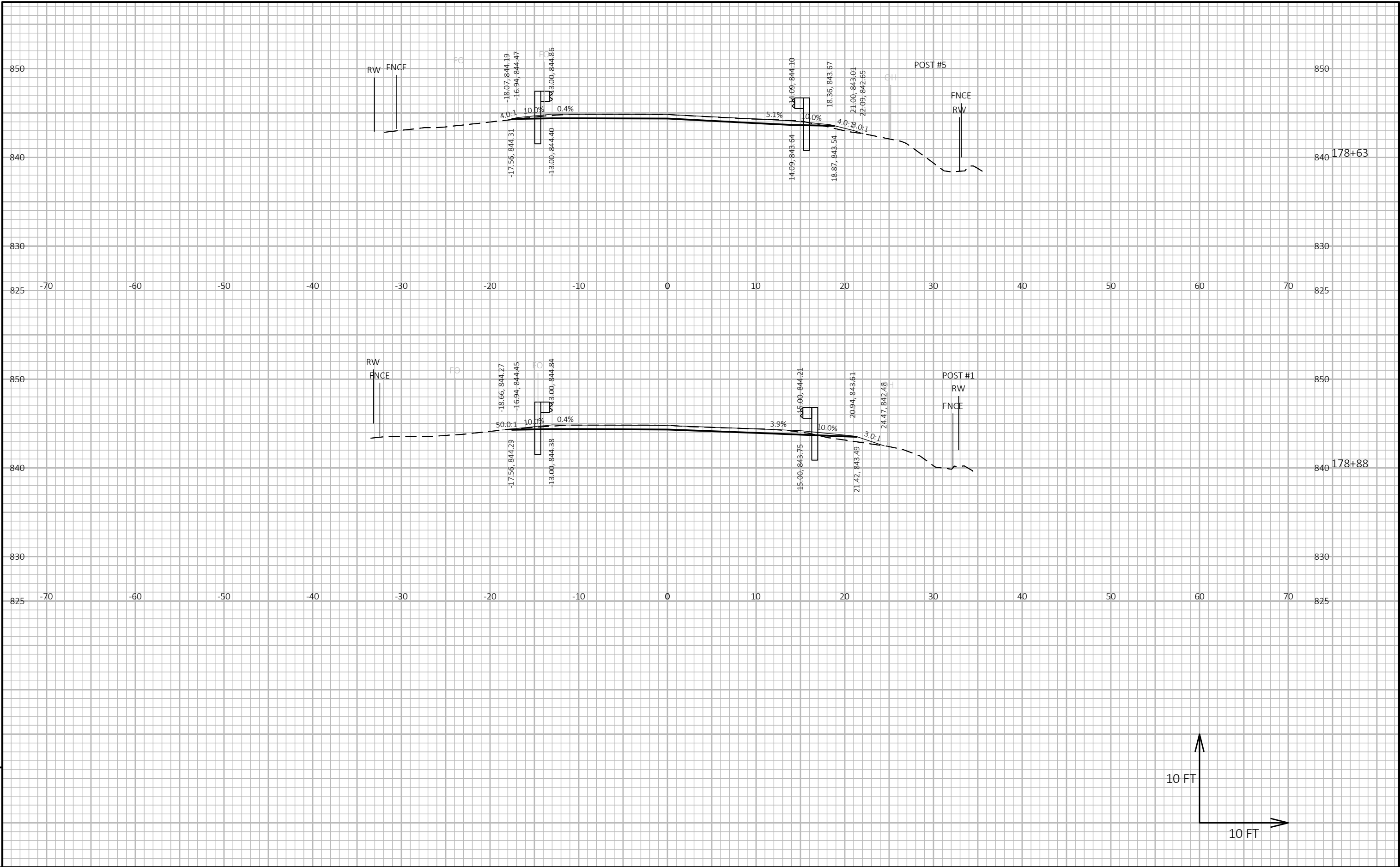


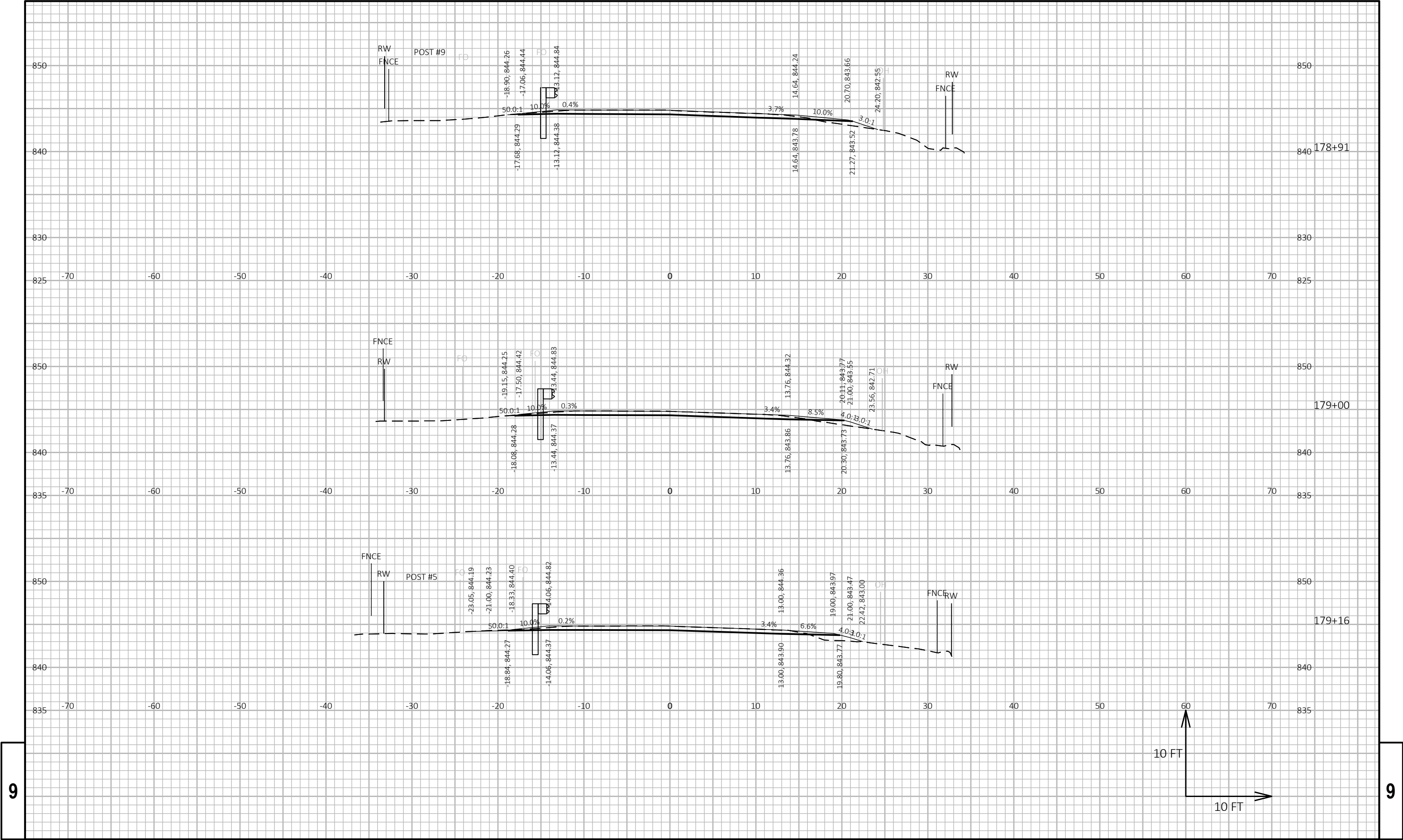




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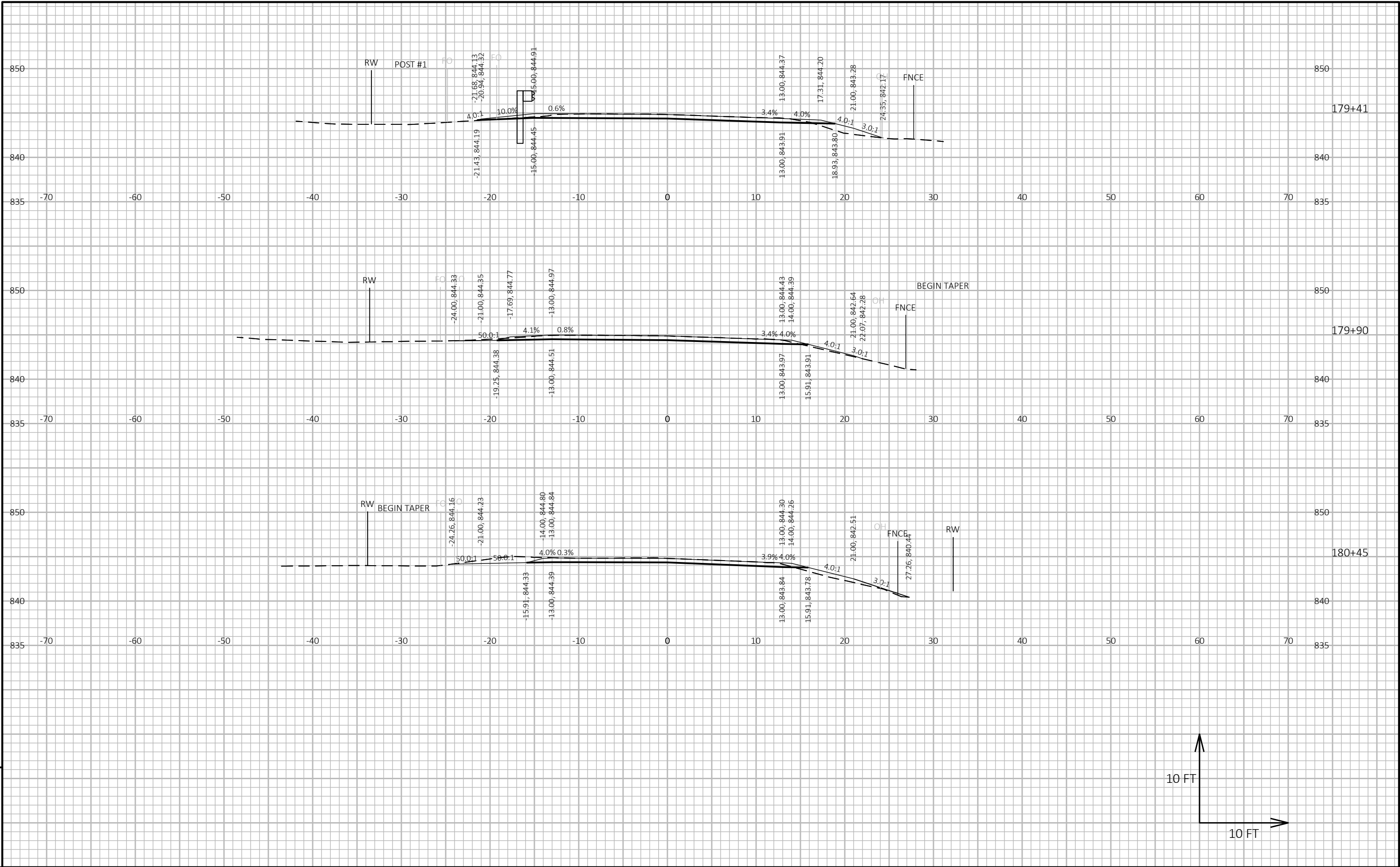
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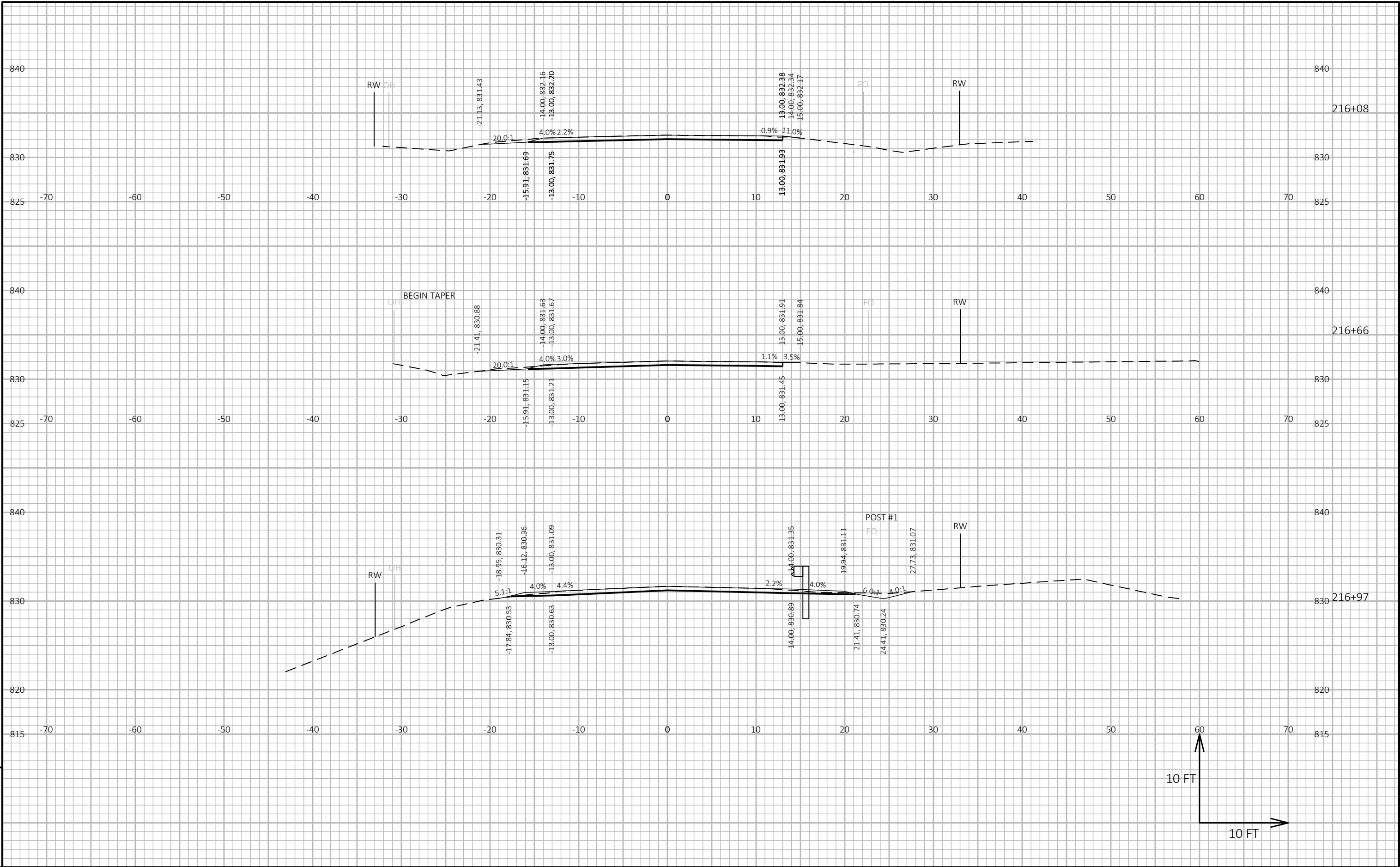


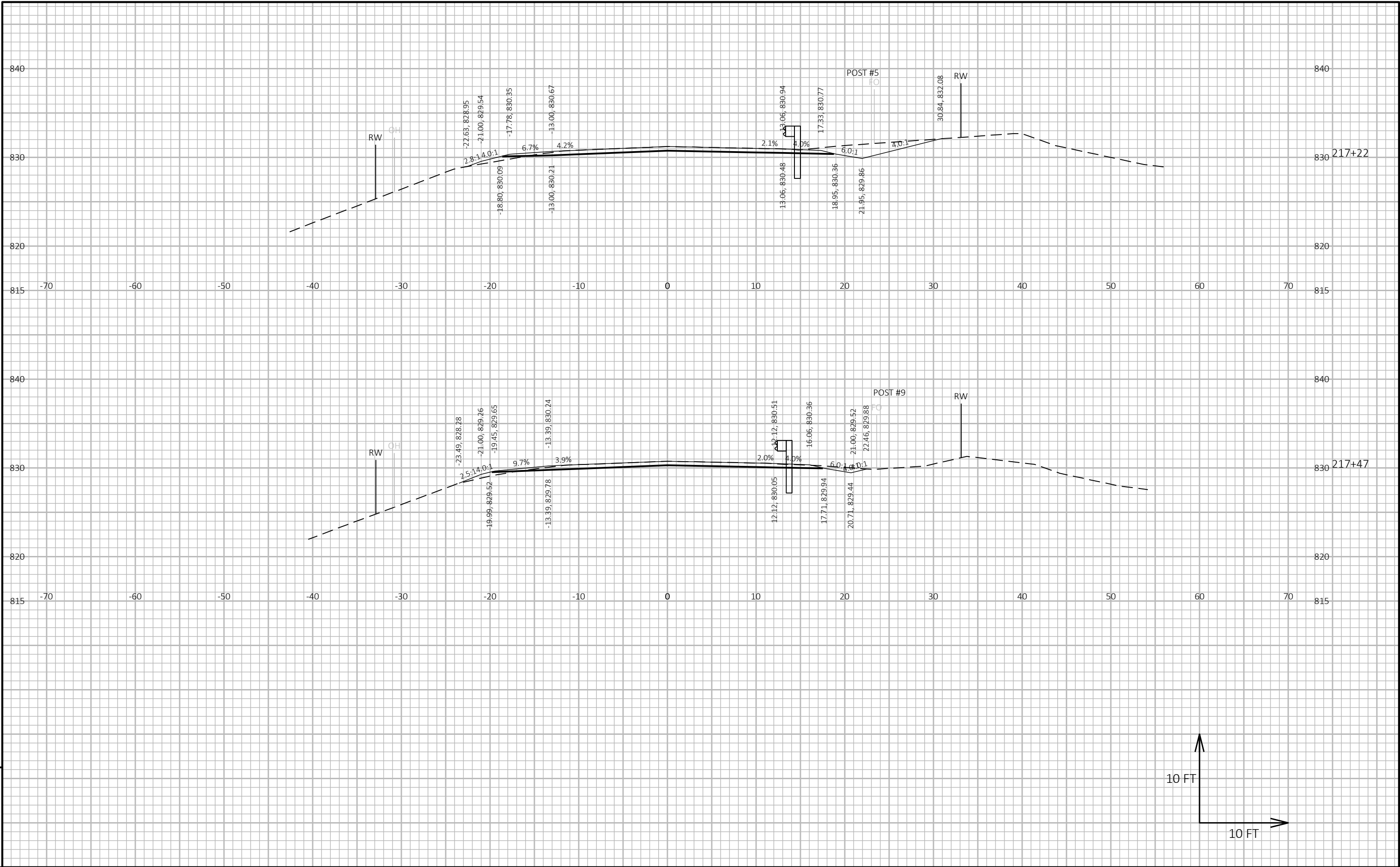


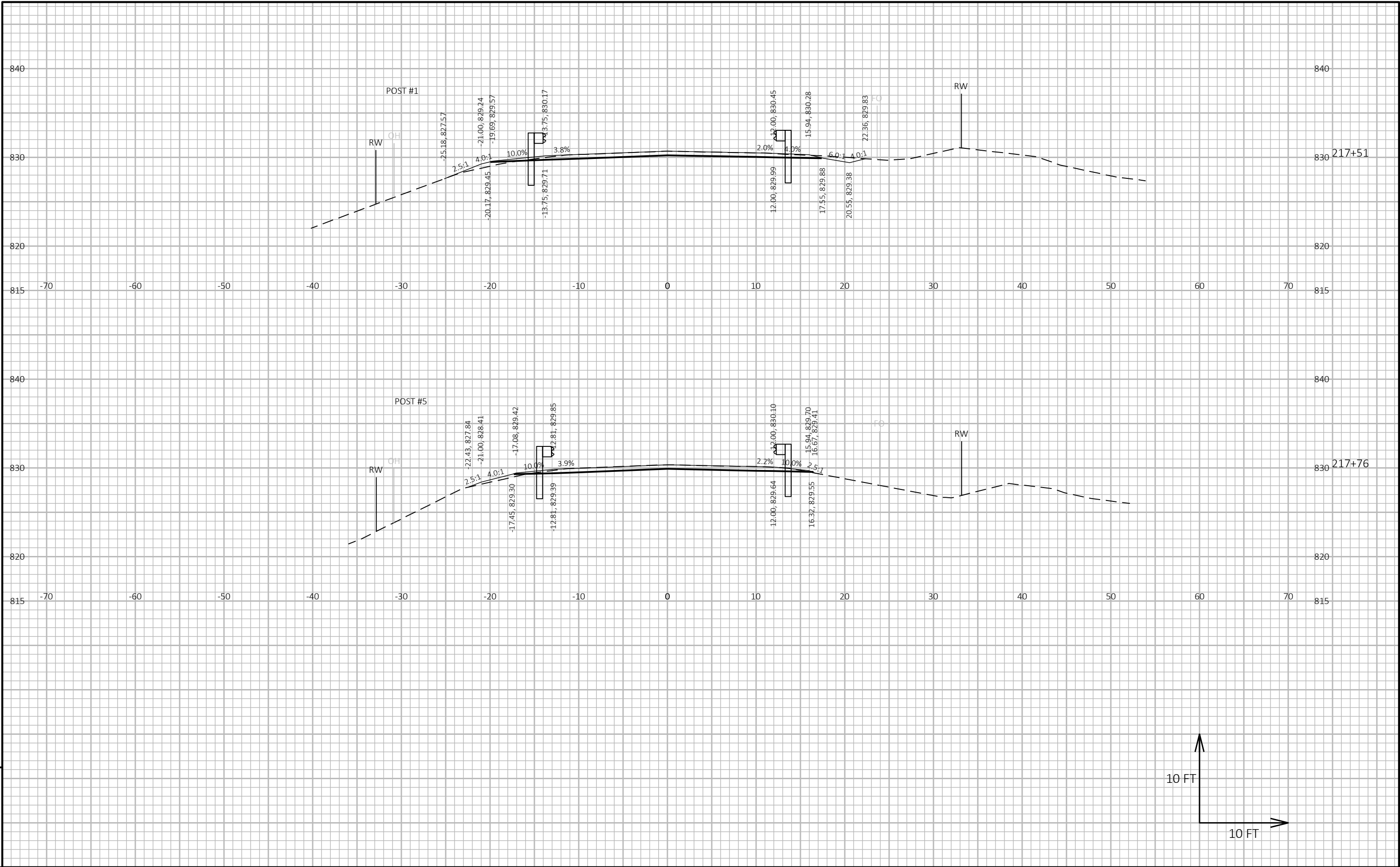
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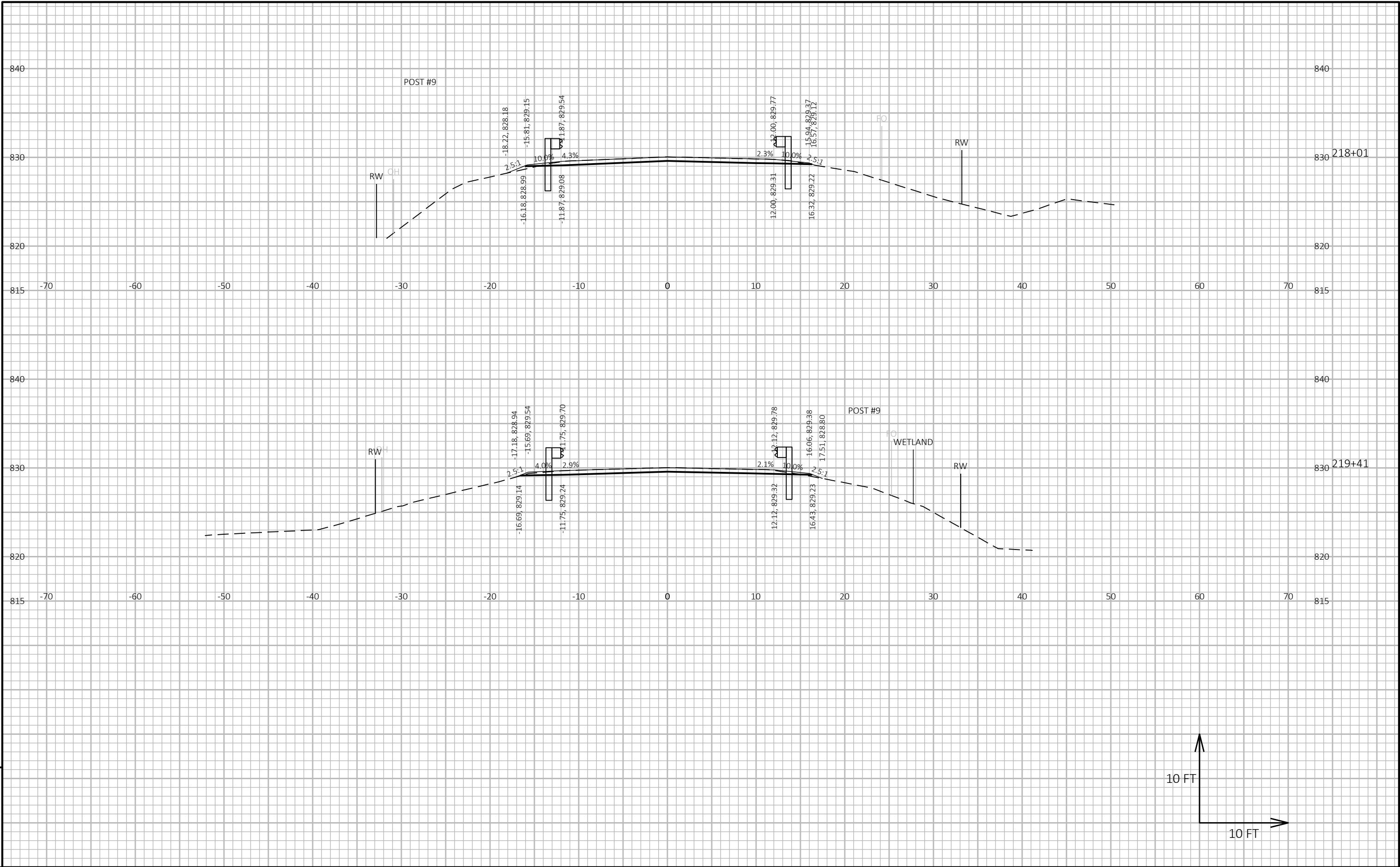
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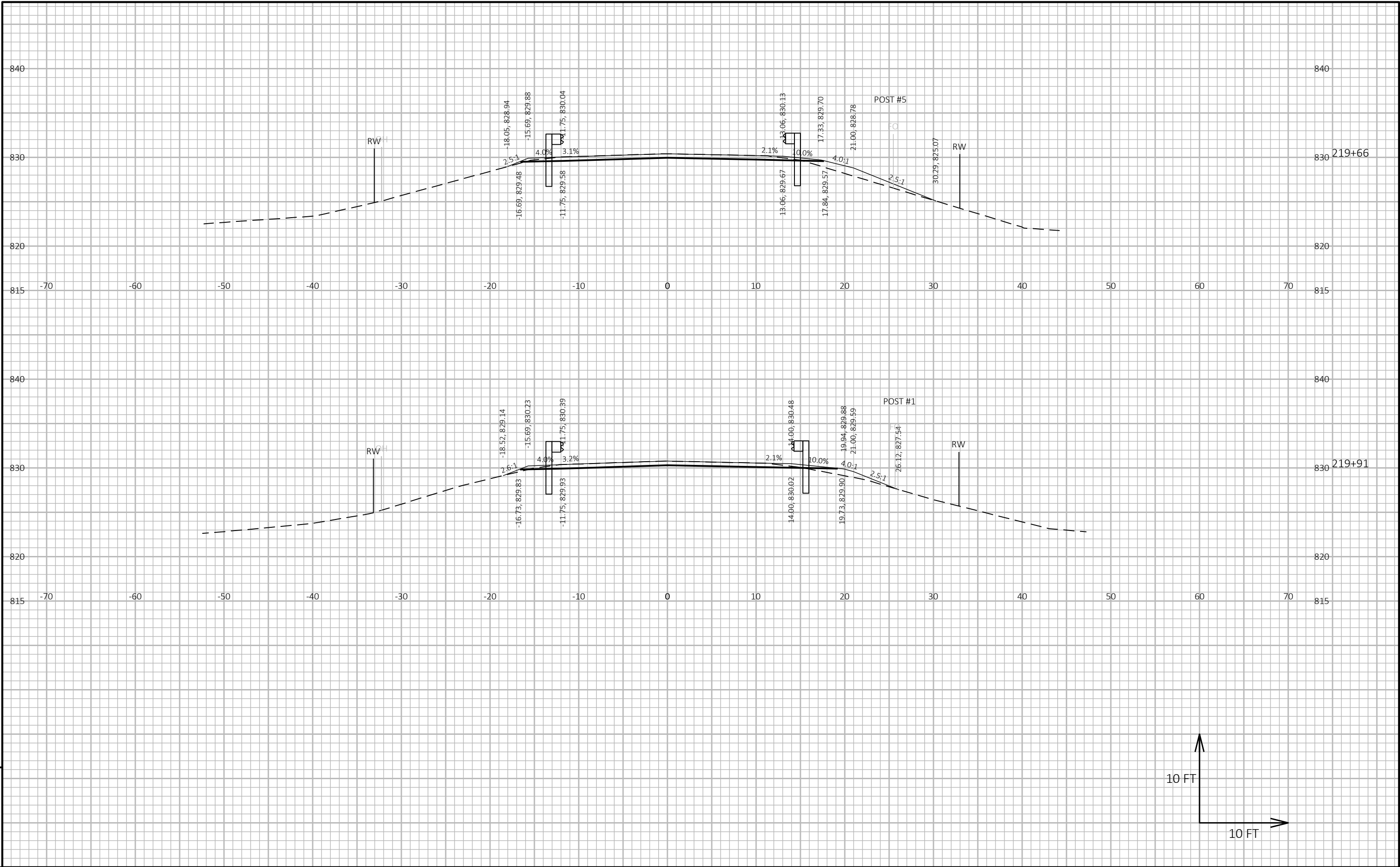


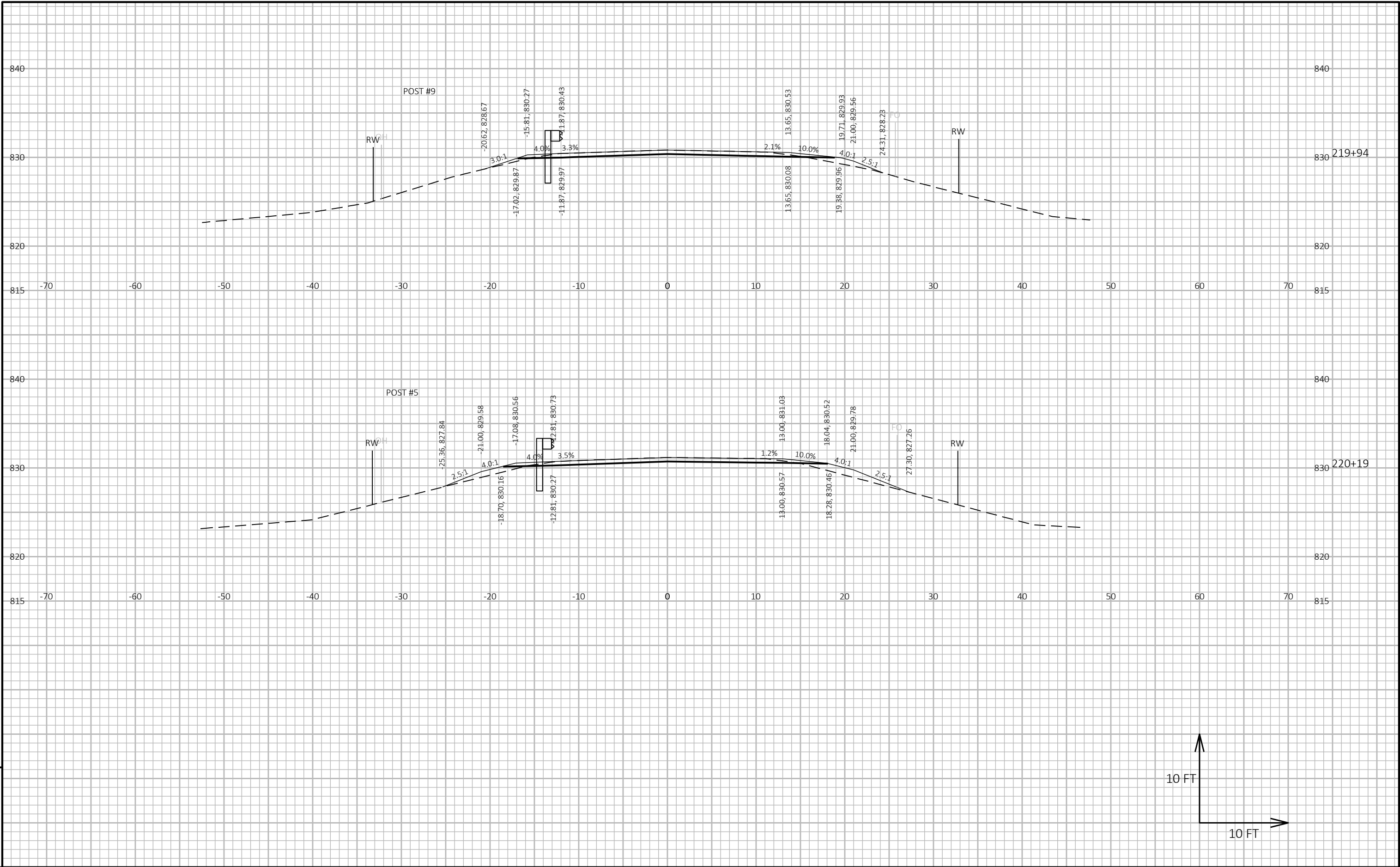


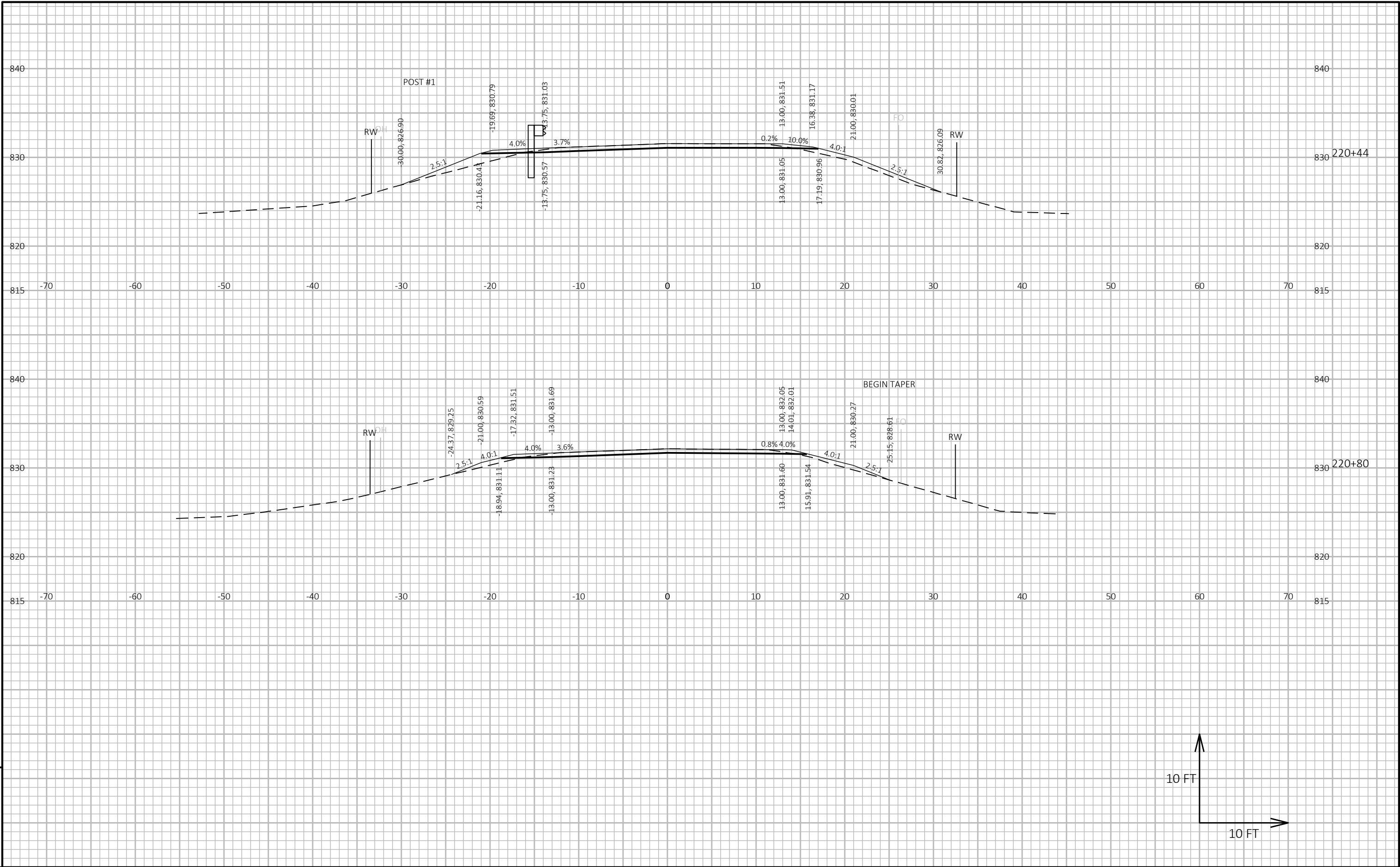


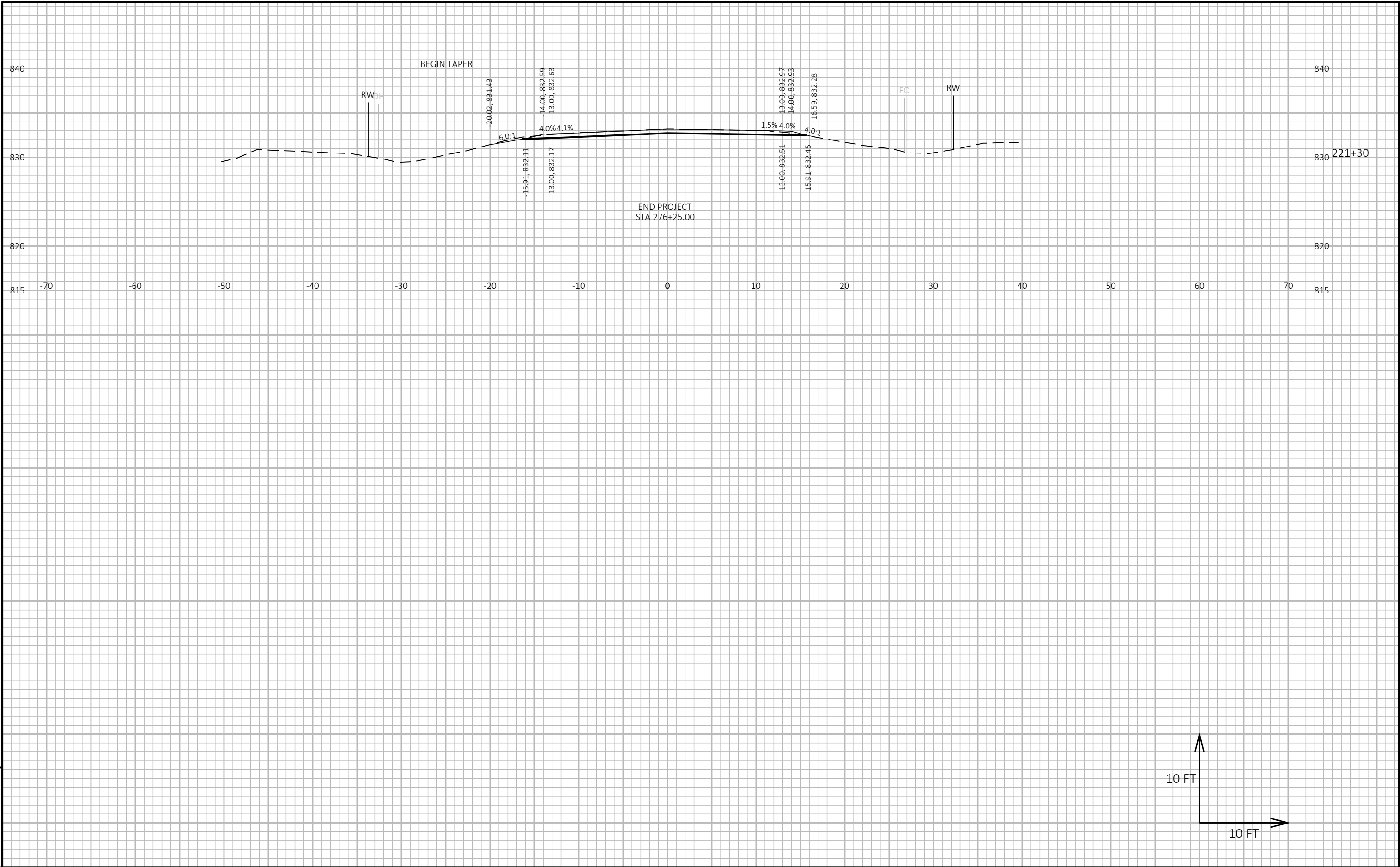






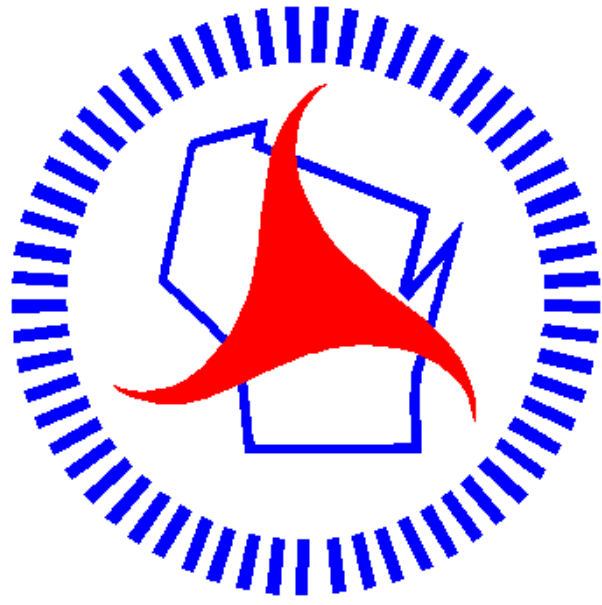






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