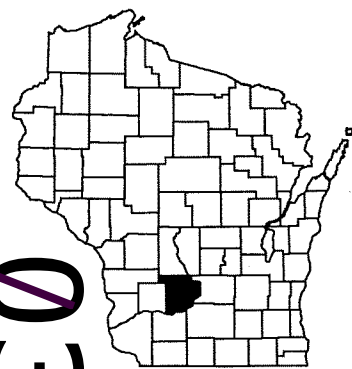


ORDER OF SHEETS

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

TOTAL SHEETS = 144



DESIGN DESIGNATION 5060-00-07

A.A.D.T.	2025	=	3,800
A.A.D.T.	2045	=	4,400
D.H.V.		=	10.2
D.D.		=	61/39
T.		=	10.9%
DESIGN SPEED		=	60 MPH
ESALS		=	970,000

CONVENTIONAL SYMBOLS

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

PROFILE

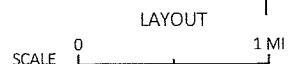
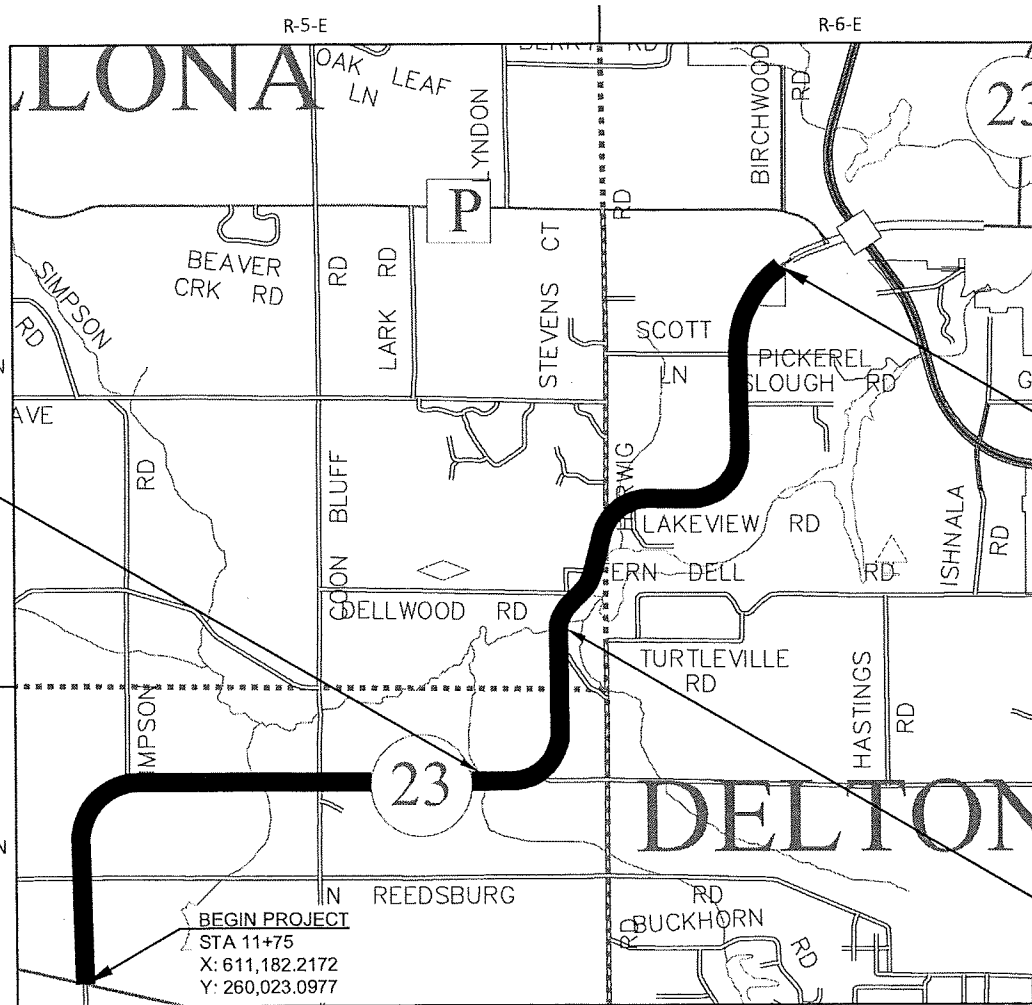
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

NET EXCEPTION TO CL LENGTH  
 STRUCTURE B-56-179  
 STA 169+39 - STA 170+16

END PROJECT  
 STA 361+22  
 X: 630,539.9851  
 Y: 279,543.7622

NET EXCEPTION TO CL LENGTH  
 STRUCTURE B-56-160  
 STA 226+58 - STA 227+91

BEGIN PROJECT  
 STA 11+75  
 X: 611,182.2172  
 Y: 260,023.0977



TOTAL NET LENGTH OF CENTERLINE = 6.579 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), SAUK 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 OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

REEDSBURG - WISCONSIN DELLS

STH 33 TO IH 90 RAMP

STH 23

SAUK COUNTY

STATE PROJECT NUMBER

5060-00-77

STATE PROJECT

5060-00-77

FEDERAL PROJECT

PROJECT

CONTRACT

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WisDOT
Designer	EMILY KENDALL
Project Manager	MARC SCHWEIGER, PE
Regional Examiner	SW REGION
Regional Supervisor	MARC SCHWEIGER, PE

APPROVED FOR THE DEPARTMENT

DATE: 1/23/2024 *Marc Schweiger*  
 (Signature)

E

PROJECT ID: 5060-00-77

COUNTY: SAUK

03

WITH: N/A

STANDARD ABBREVIATIONS

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

GENERAL NOTES

- NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
- DO NOT STORE EQUIPMENT OR MATERIAL IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.
- THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
- APPLY TACK COAT AT A RATE OF 0.05 GAL/SY BETWEEN LAYERS OF NEW HMA PAVEMENT.
- HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN..
- PAVING LIMITS AT INTERSECTIONS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.
- EXACT LOCATIONS AND WIDTHS OF DRIVEWAYS AND PRIVATE FIELD ENTRANCES SHALL BE REVIEWED AND APPROVED BY THE ENGINEER IN THE FIELD.
- THE LOCATION OF STOP LINES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 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.
- TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

UTILITY CONTACTS

AT&T WISCONSIN - COMMUNICATION LINE  
 RICK PODOLAK  
 4TH FLOOR  
 304 S DEWEY ST  
 EAU CLAIRE, WI 54701  
 PHONE: (715) 839-5565  
 EMAIL: RP4514@ATT.COM

ALLIANT ENERGY - ELECTRICTY  
 MIKE LONG  
 520 COMMERCE AVE  
 BARABOO, WI 53913  
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ALLIANT ENERGY - GAS/PETROLEUM  
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 BARABOO, WI 53913  
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 EMAIL: MICHAELLONG@ALLIANTENERGY.COM

FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION LINE  
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 PHONE: (715) 847-1240  
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NORTHERN NATURAL GAS COMPANY - GAS/PETROLEUM  
 BILL MILLER  
 8101 BIRCHWOOD COURT SUITE F  
 JOHNSTON, IA 50131  
 PHONE: (402) 530-2026  
 EMAIL: WILLIAM.MILLER@NNGCO.COM

REEDSBURG UTILITY COMMISSION - COMMUNICATION LINE  
 KEN LAS  
 501 UTILITY COURT  
 P.O. BOX 230  
 REEDSBURG, WI 53959  
 PHONE: (608) 768-6450  
 EMAIL: KLAS@RUCLS.NET

SAUK COUNTY BUILDING SERVICES - COMMUNICATION LINE  
 IAN CRAMMOND  
 510 BROADWAY  
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SPECTRUM - COMMUNICATION LINE  
 JUSTIN MONROE-JIMENEZ  
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 MADISON, WI 53718  
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 EMAIL: CHTR\_WI\_CONST@CHARTER.COM

DNR LIAISON

ANDY BARTA  
 ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST  
 WISCONSIN DEPT. OF NATURAL RESOURCES  
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 FITCHBURG, WI 53711  
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 EMAIL: ANDREW.BARTA@WISCONSIN.GOV

WISDOT DESIGN CONTACTS

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 EMAIL: MARC.SHWEIGER@DOT.WI.GOV

EMILY KENDALL, PE  
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 WISDOT SW REGION  
 2101 WRIGHT ST  
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 PHONE: (608) 246-3881  
 EMAIL: EMILY.KENDALL@DOT.WI.GOV

SECTION 2 ORDER OF SHEETS

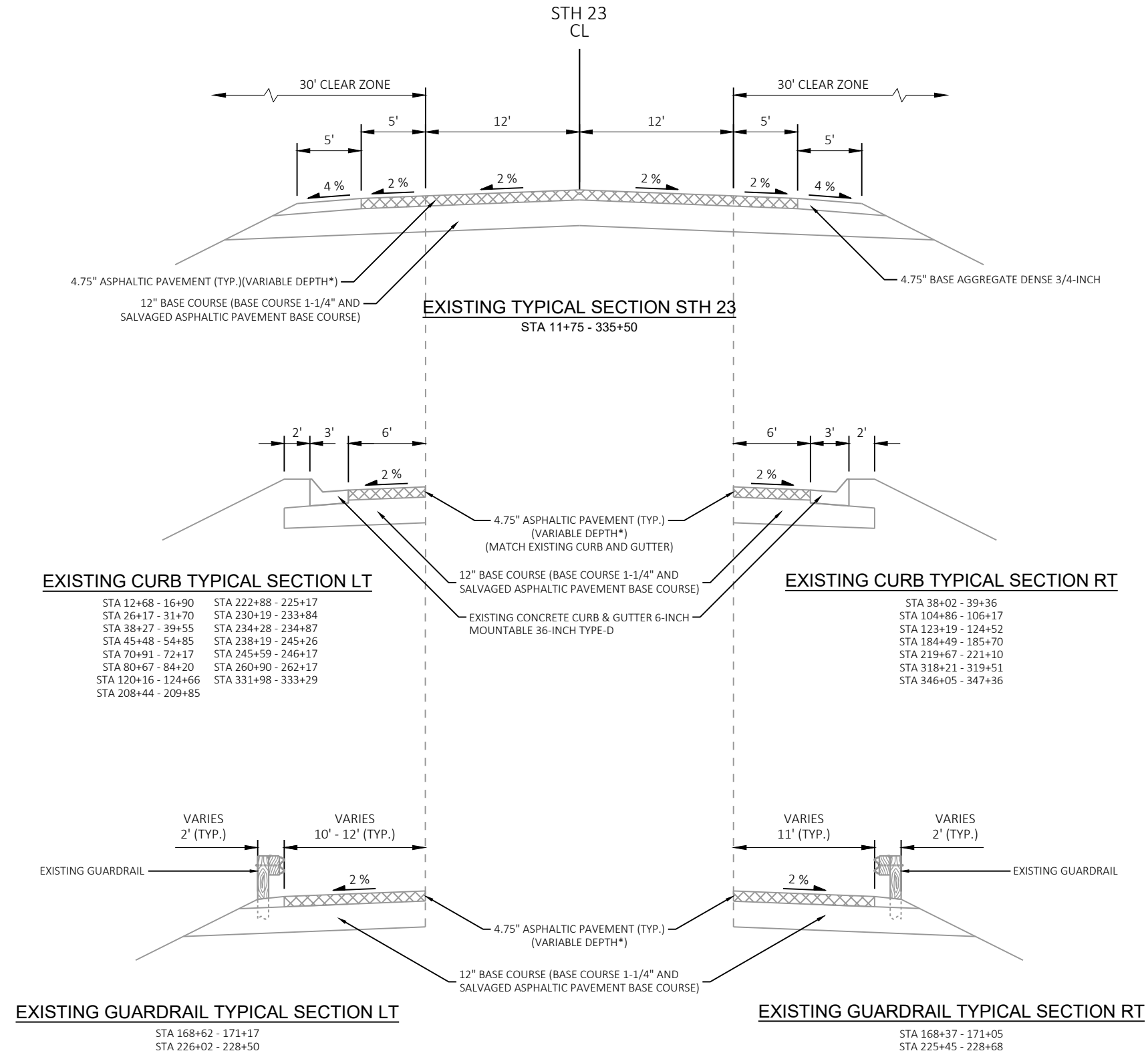
GENERAL NOTES  
 PROJECT OVERVIEW  
 TYPICAL SECTIONS  
 CONSTRUCTION DETAILS  
 EROSION CONTROL  
 DETOUR PLANS



Dial 811 or (800)242-8511

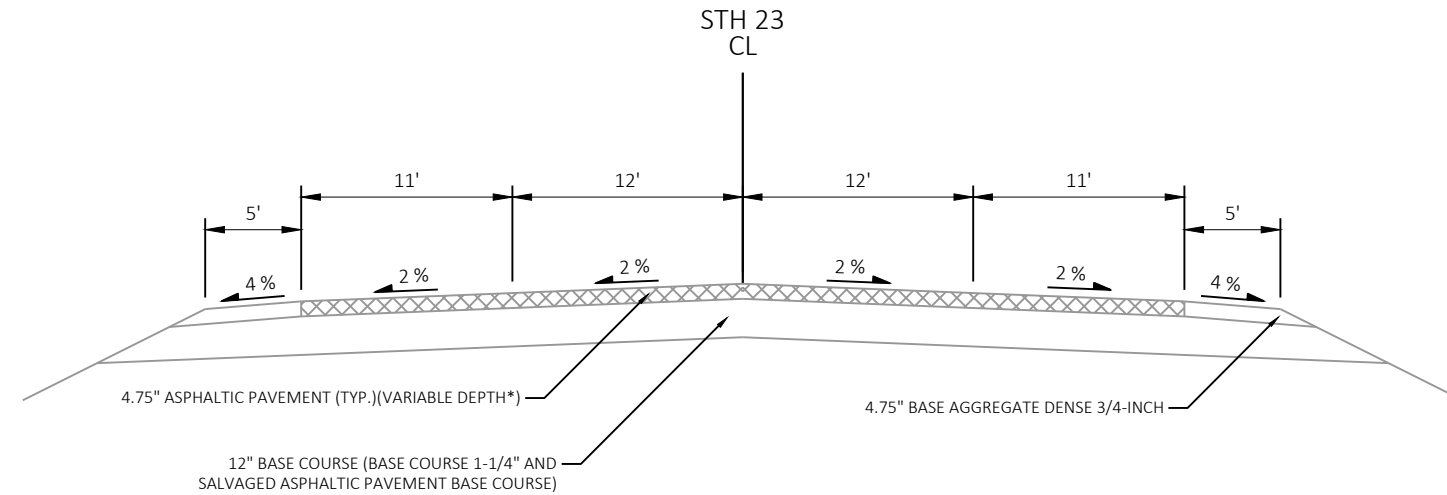
www.DiggersHotline.com





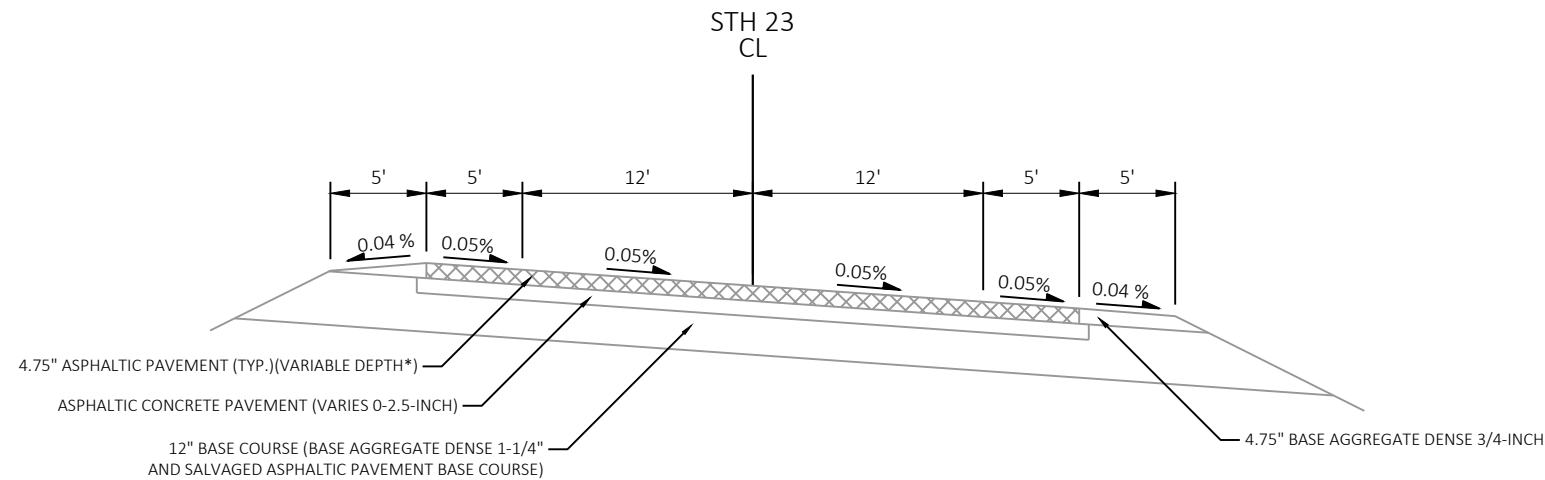
\* SEE THE BORING SUMMARY TABLE FOR EXISTING PAVEMENT DEPTH





**EXISTING TURN LANES LT**  
STA 39+55 - 42+83

**EXISTING TURN LANES RT**  
STA 34+55 - 38+03  
STA 181+11 - 184+50  
STA 215+23 - 219+67

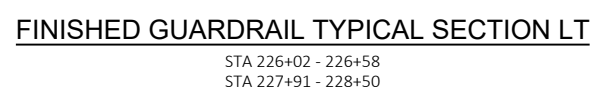
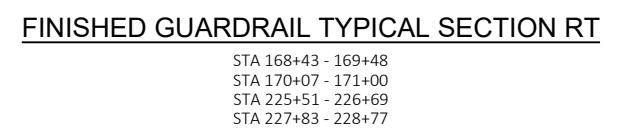
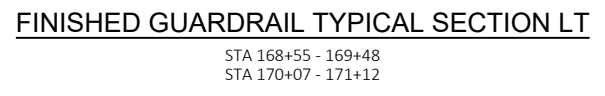
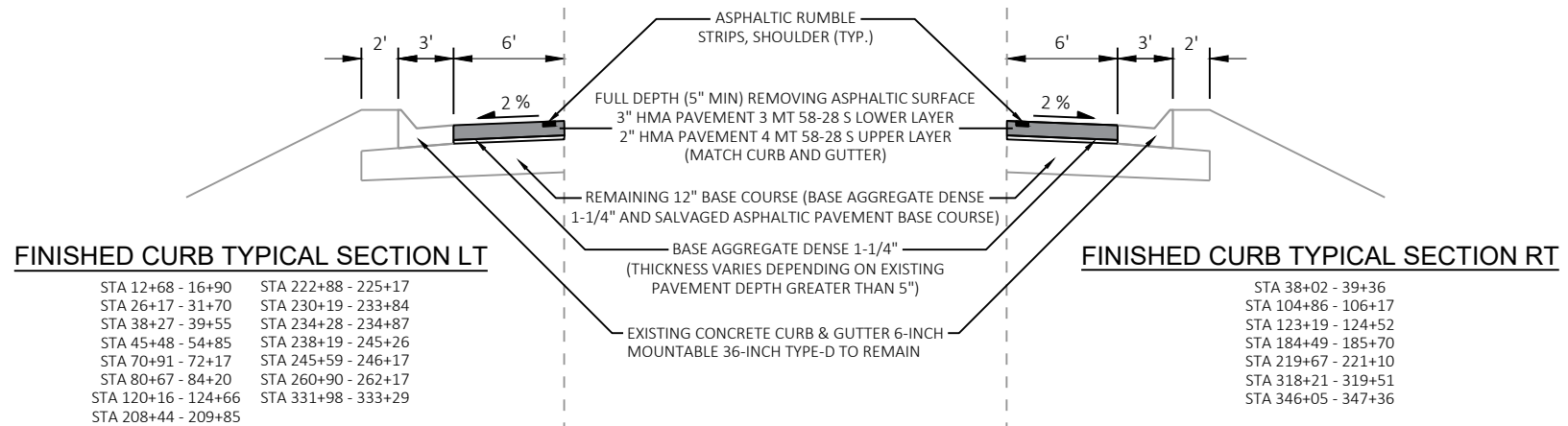
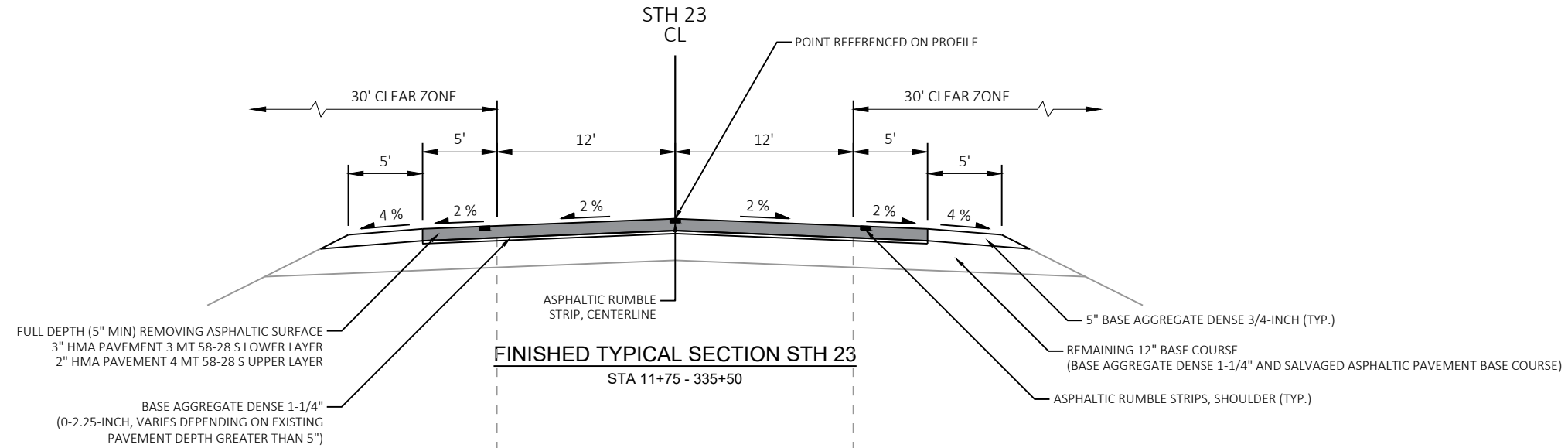


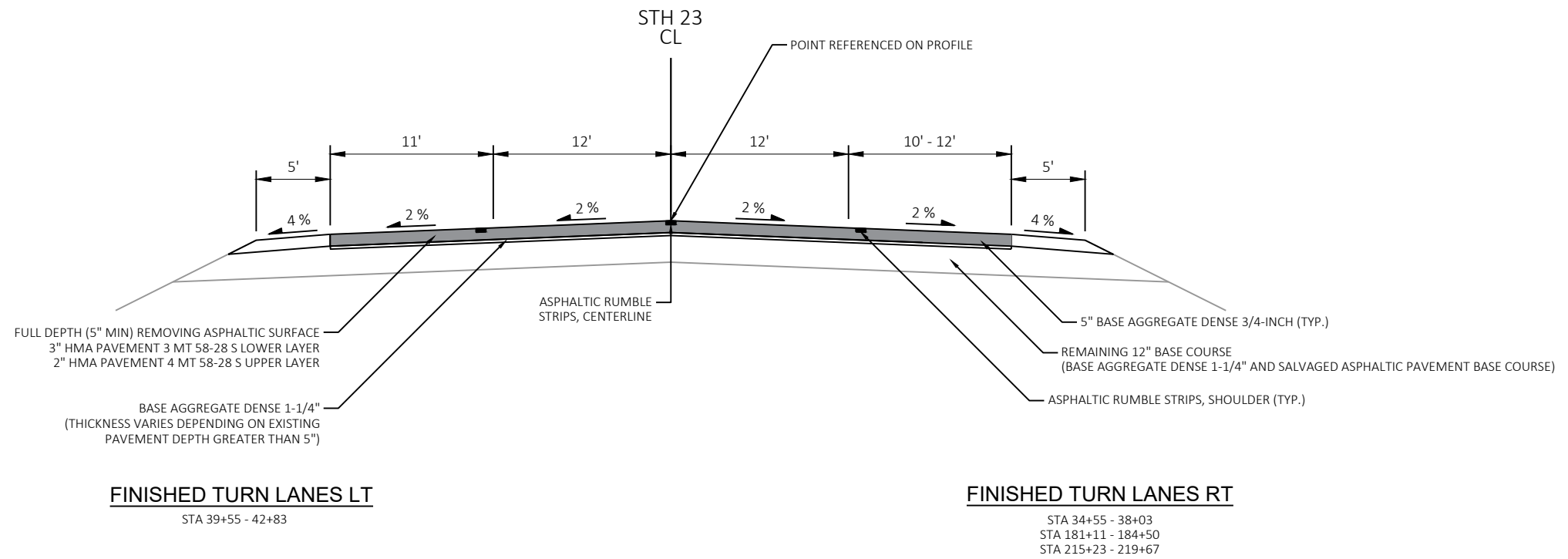
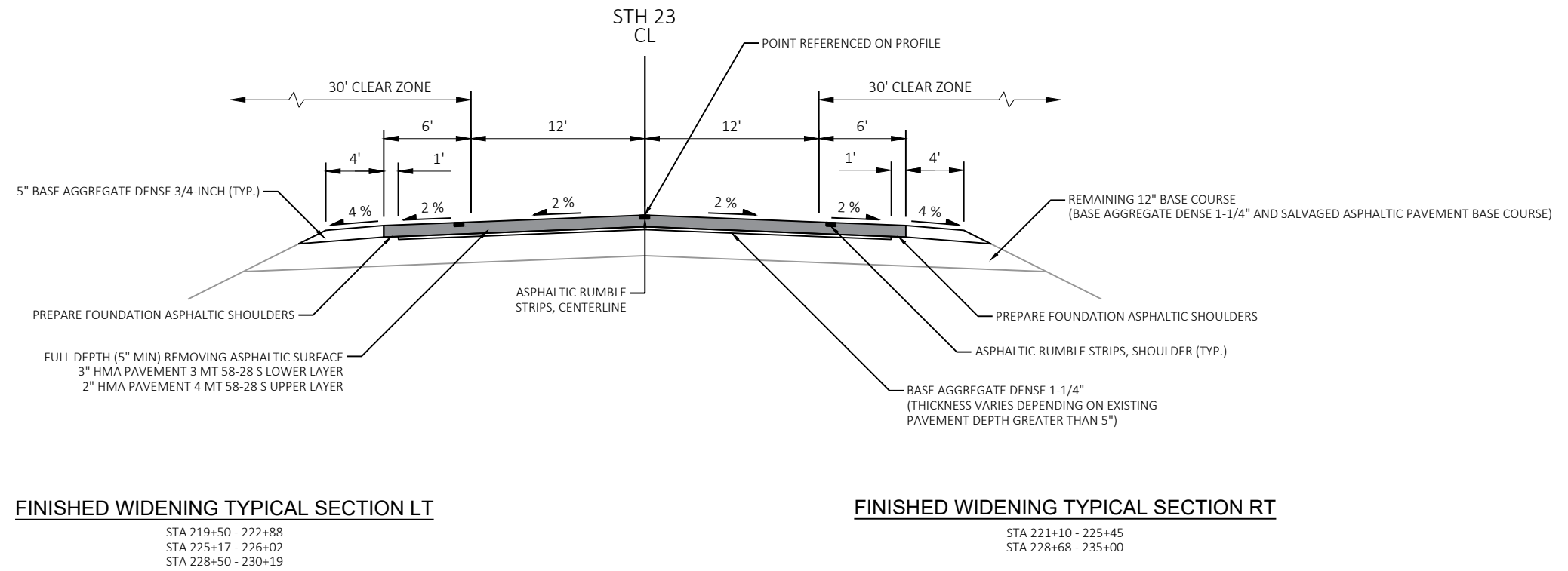
**EXISTING TYPICAL SECTION STH 23**  
STA 335+50 - 361+22

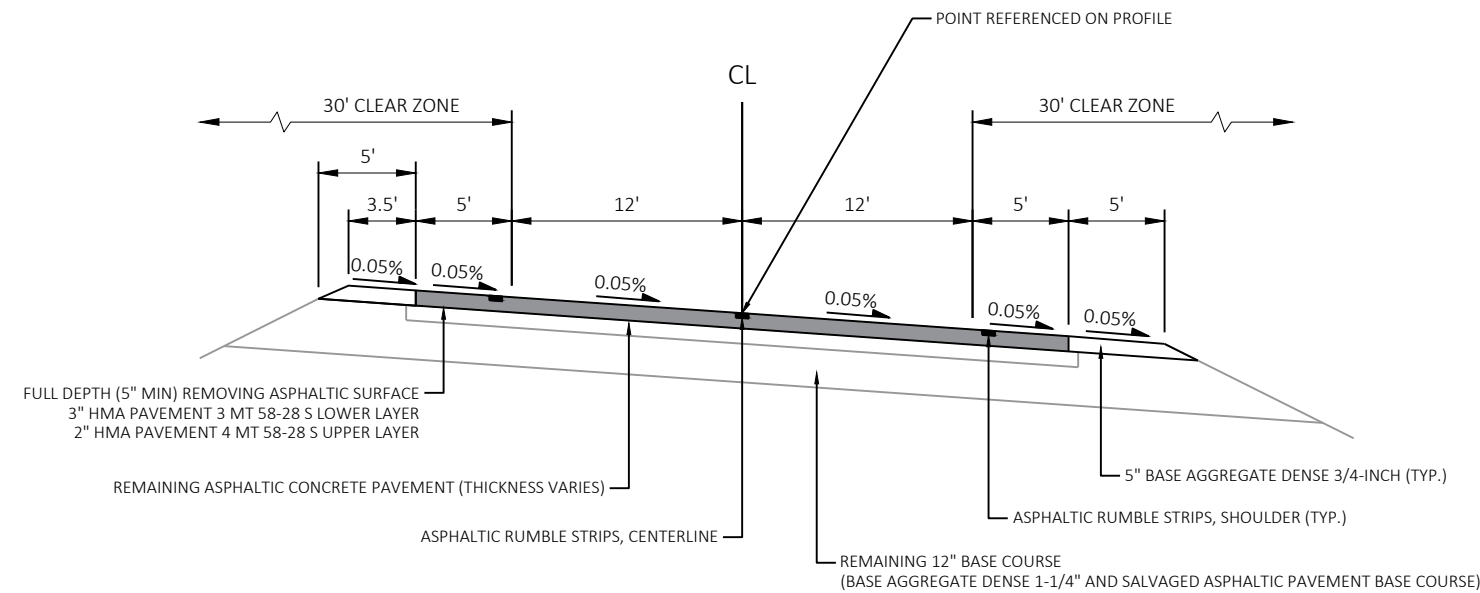
\* SEE THE BORING SUMMARY TABLE FOR EXISTING PAVEMENT DEPTH

BORING SUMMARY TABLE								
BORING NUMBER	LOG MILE	STA	OFFSET	EXISTING ASPHALT DEPTH	BASE AGGREGATE DEPTH	PAVEMENT STRUCTURE DEPTH	SUBGRADE TYPE	COMMENT
	0.00	9+62						STH 23/STH 33 INTERSECTION
B-1	0.07	13+31	12' RT	6.5"	15.5"	22"	SAND	
B-2	0.30	25+46	6' RT	5.5"	14"	19.5"	SAND	
B-3	0.60	41+30	3' RT	6"	13.5"	19.5"	SAND	
B-4	0.77	50+27	9' RT	5.75"	10.5"	16.25"	SAND	
B-5	1.02	63+47	3' LT	5.75"	3.5" BAD/7" RAP	16.25"	SAND	
	1.16	70+87						SIMPSON ROAD
B-6	1.28	77+20	9' LT	5.5"	4" BAD/8" RAP	17.5"	SAND	
B-7	1.55	91+46	6' LT	5.25"	13.5"	18.75"	SAND	
B-8	1.84	106+77	12' LT	5.25"	13"	18.25"	SAND	
B-9	2.05	117+86	3' RT	4.25"	13"	17.25"	SAND	
	2.16	123+67						COON BLUFF ROAD
B-10	2.30	131+06	9' RT	5.5"	14"	19.5"	SAND	
B-11	2.55	144+26	6' RT	5.5"	4" BAD/9" RAP	18.5"	SAND	
B-12	2.80	157+46	12' RT	5"	14"	19"	SAND	
B-13	3.07	171+71	3' LT	4.25"	4" BAD/11" RAP	19.25"	SAND	
B-14	3.29	183+33	18' RT	6"	5" BAD/7.5" RAP	18.5"	SAND	
	3.32	184+91						SHADY LANE ROAD
B-15	3.60	199+70	9' LT	4.25"	3" BAD/9.5" RAP	16.75"	SAND	
B-16	3.81	210+79	6' LT	4.75"	3" BAD/6" RAP	13.75"	SAND	
B-17	4.03	222+40	12' LT	4"	12"	16"	SAND	
B-18	4.30	236+66	15' RT	4.5"	5" BAD/6" RAP	15.5"	SAND	
	4.47	245+63						LAKE STREET
B-19	4.55	249+86	3' RT	4"	8" BAD/7.5" RAP	19.5"	SAND	
B-20	4.88	267+28	9' RT	5.5"	4" BAD/7.5" RAP	17"	SAND	
B-21	5.08	277+84	6' RT	4.75"	2" BAD/9" RAP	15.75"	SAND	
B-22	5.36	292+63	12' RT	5.5"	2.5" BAD/7" RAP	15"	SAND	
B-23	5.64	307+41	15' LT	7.25"	3" BAD/6" RAP	16.25"	SAND	
B-24	5.79	315+33	3' LT	5.5"	3" BAD/7" RAP	15.5"	SAND	
	5.86	319+03						PICKEREL ROAD
B-25	6.07	330+11	9' LT	4.5"	4" BAD/8.5" RAP	17"	SAND	
B-26	6.29	341+73	6' LT	5.5"	7" RAP/9" BAD	21.5"	SAND	
B-27	6.61	358+63	12' LT	6"	7" RAP/12" BAD	25"	SAND	
B-28	7.07	382+91	6' LT	6.25"	20"	26.25"	SAND	
	7.09	383+97						IH 90/94 EB LANE
B-29	7.12	385+55	6' RT	5.5"	17"	22.5"	SAND	
B-30	7.22	390+83	23' RT	5.75"	17"	22.75"	SAND	

NOTE: THE BORING SUMMARY TABLE IS FOR REFERENCE ONLY.

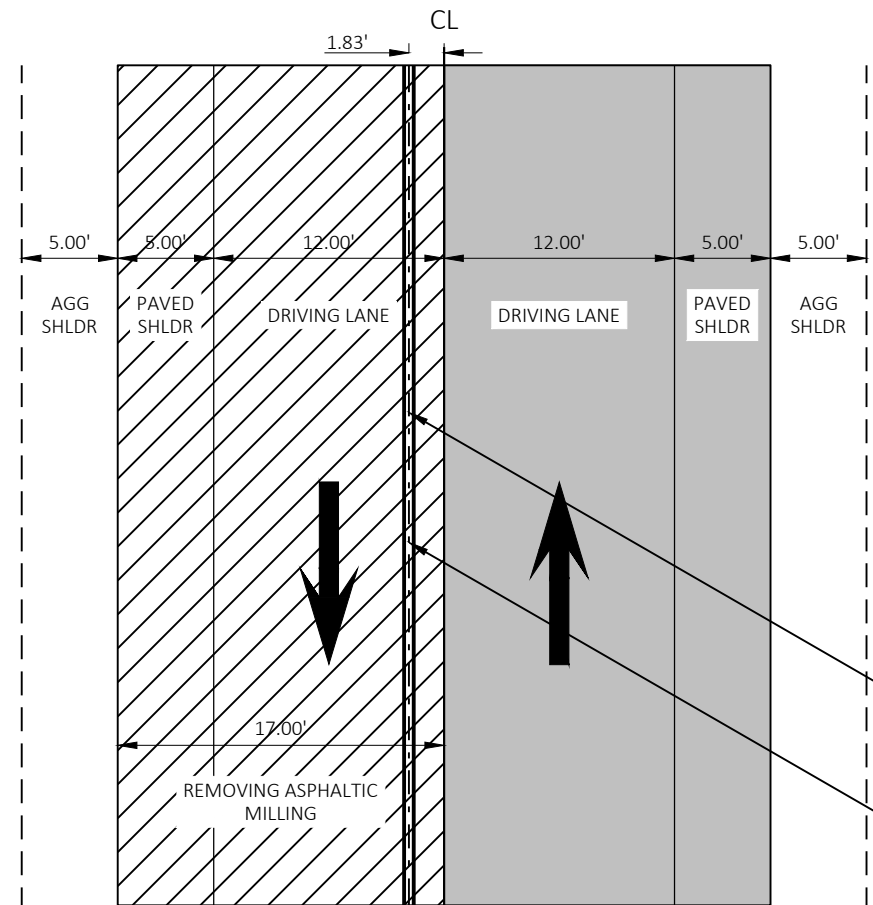








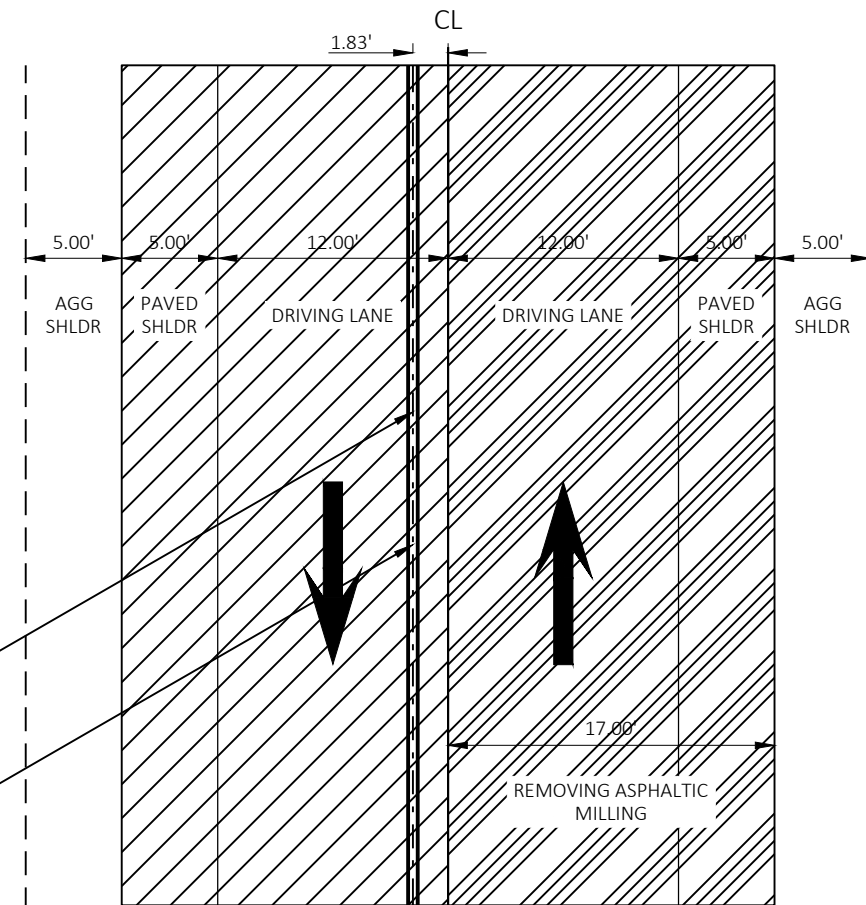
**FINISHED TYPICAL SECTION STH 23**  
STA 335+50 - 361+22

STATION		LEFT LANE	RIGHT LANE
11+75.00	NORMAL CROWN	MATCH EXISTING	MATCH EXISTING
47+11.01	END NORMAL CROWN	-0.02	-0.02
47+62.01	TRANSITION	0.02	-0.02
49+15.01	BEGIN FULL SUPER	0.06	-0.06
74+03.45	END FULL SUPER	0.06	-0.06
75+56.45	TRANSITION	0.02	-0.02
76+07.45	BEGIN NORMAL CROWN	-0.02	-0.02
175+62.56	END NORMAL CROWN	-0.02	-0.02
176+13.56	TRANSITION	0.02	-0.02
177+66.56	BEGIN FULL SUPER	-0.06	0.06
197+68.18	END FULL SUPER	-0.06	0.06
199+21.18	TRANSITION	0.02	-0.02
199+72.18	BEGIN NORMAL CROWN	-0.02	-0.02
224+12.36	END NORMAL CROWN	-0.02	-0.02
224+60.36	TRANSITION	0.02	-0.02
226+06.36	BEGIN FULL SUPER	0.057	-0.057
226+58.00	B-156-160	MATCH EXISTING	MATCH EXISTING
227+91.00	B-156-160	MATCH EXISTING	MATCH EXISTING
234+05.11	END FULL SUPER	0.057	-0.057
235+51.11	TRANSITION	0.02	-0.02
235+99.11	BEGIN NORMAL CROWN	-0.02	-0.02
236+59.90	END NORMAL CROWN	-0.02	-0.02
237+10.90	TRANSITION	0.02	-0.02
238+63.90	BEGIN FULL SUPER	-0.06	0.06
245+12.89	END FULL SUPER	-0.06	0.06
246+65.89	TRANSITION	0.02	-0.02
247+16.89	BEGIN NORMAL CROWN	-0.02	-0.02
254+08.91	END NORMAL CROWN	-0.02	-0.02
254+59.91	TRANSITION	0.02	-0.02
256+12.91	BEGIN FULL SUPER	0.06	-0.06
273+06.26	END FULL SUPER	0.06	-0.06
274+59.26	TRANSITION	0.02	-0.02
275+10.26	BEGIN NORMAL CROWN	-0.02	-0.02
283+54.92	END NORMAL CROWN	-0.02	-0.02
284+05.92	TRANSITION	0.02	-0.02
285+58.92	BEGIN FULL SUPER	-0.06	0.06
306+05.97	END FULL SUPER	-0.06	0.06
307+58.97	TRANSITION	0.02	-0.02
308+09.97	BEGIN NORMAL CROWN	-0.02	-0.02
332+15.51	END NORMAL CROWN	-0.02	-0.02
332+66.51	TRANSITION	0.02	-0.02
333+68.51	BEGIN FULL SUPER	0.04	-0.04
361+22.00	FULL SUPER	MATCH EXISTING	MATCH EXISTING





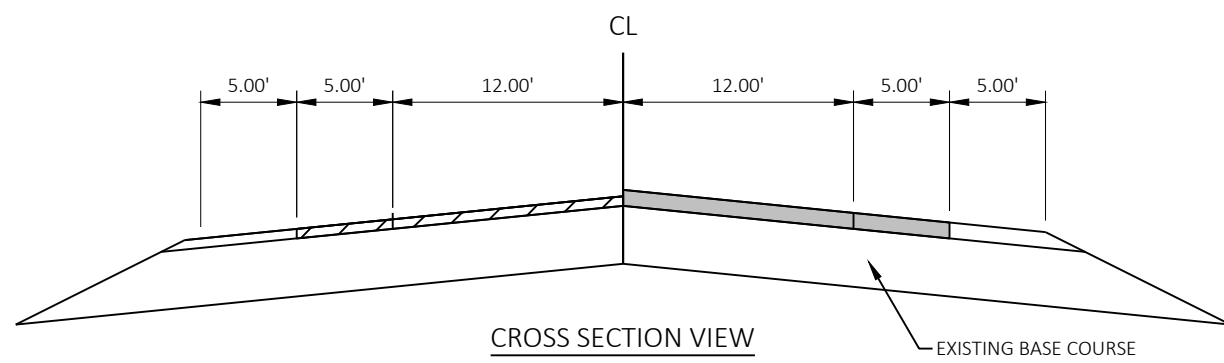
PLAN VIEW

-  EXISTING ASPHALTIC SURFACE
-  FIRST PASS 3" HMA PAVEMENT 3 MT 58-28 S (LOWER LAYER)



PLAN VIEW

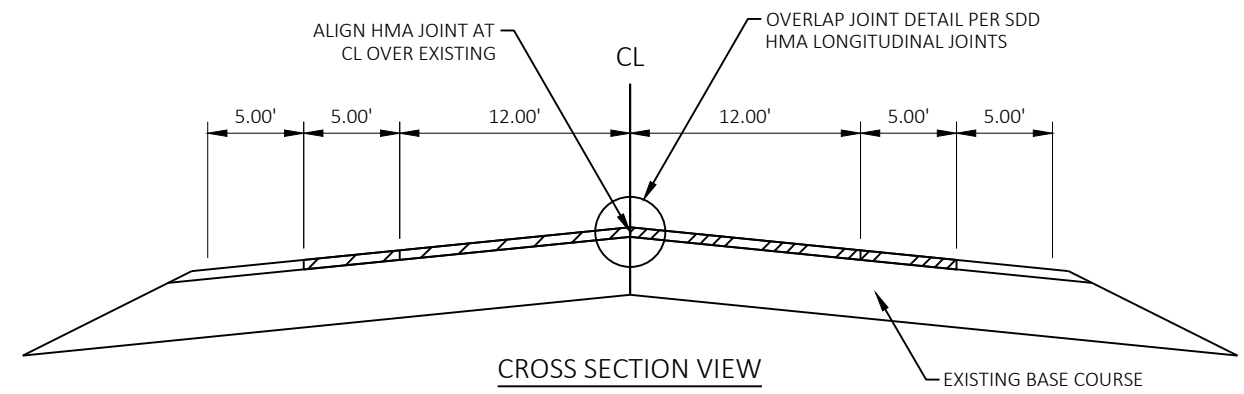
-  FIRST PASS 3" HMA PAVEMENT 3 MT 58-28 S (LOWER LAYER)
-  SECOND PASS 3" HMA PAVEMENT 3 MT 58-28 S (LOWER LAYER)



CROSS SECTION VIEW

FIRST PASS DETAIL

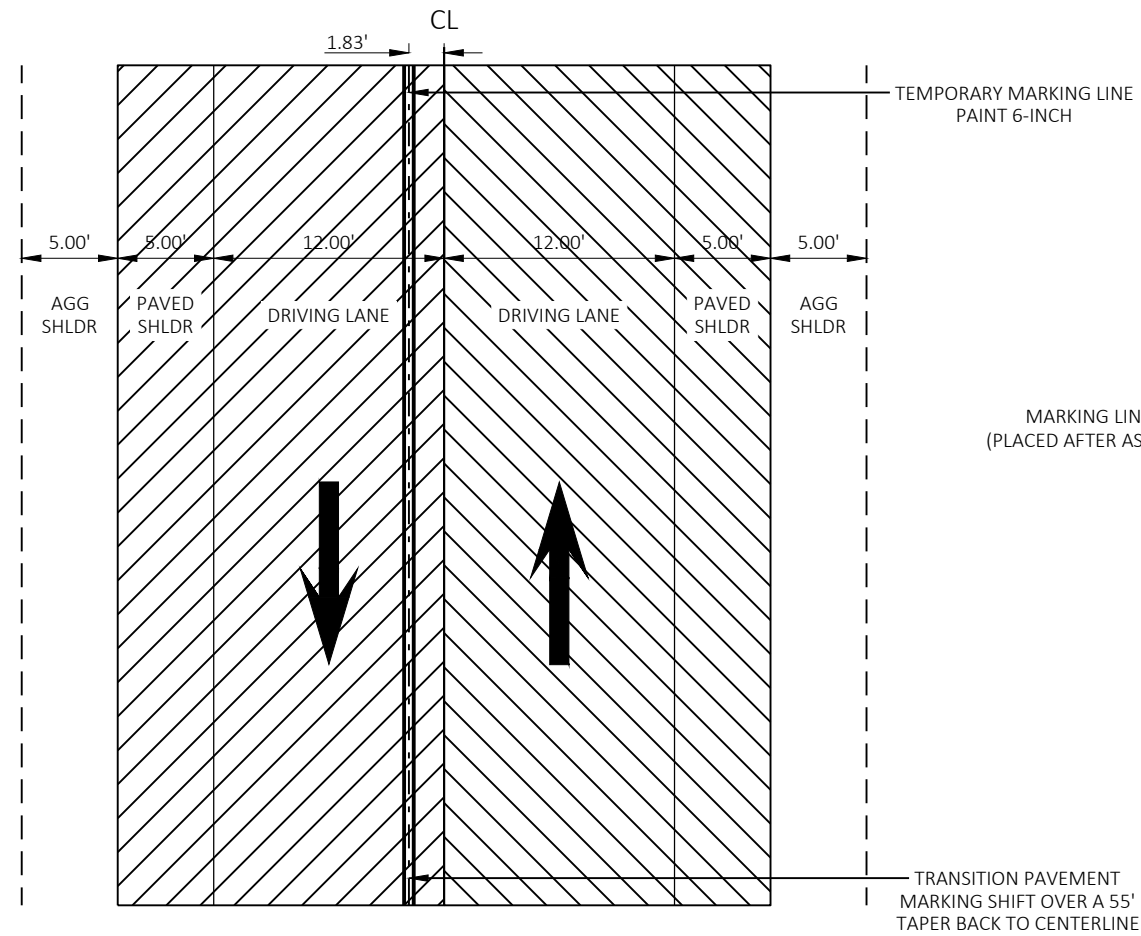
EXISTING BASE COURSE



CROSS SECTION VIEW

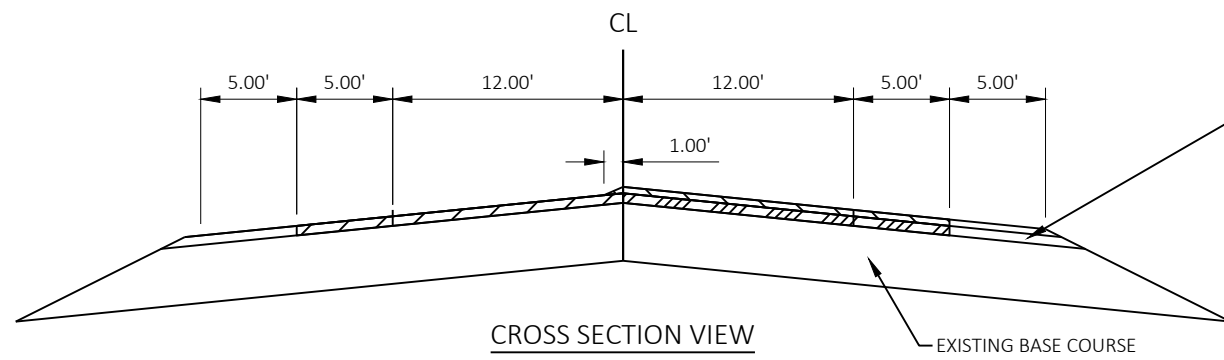
SECOND PASS DETAIL

EXISTING BASE COURSE



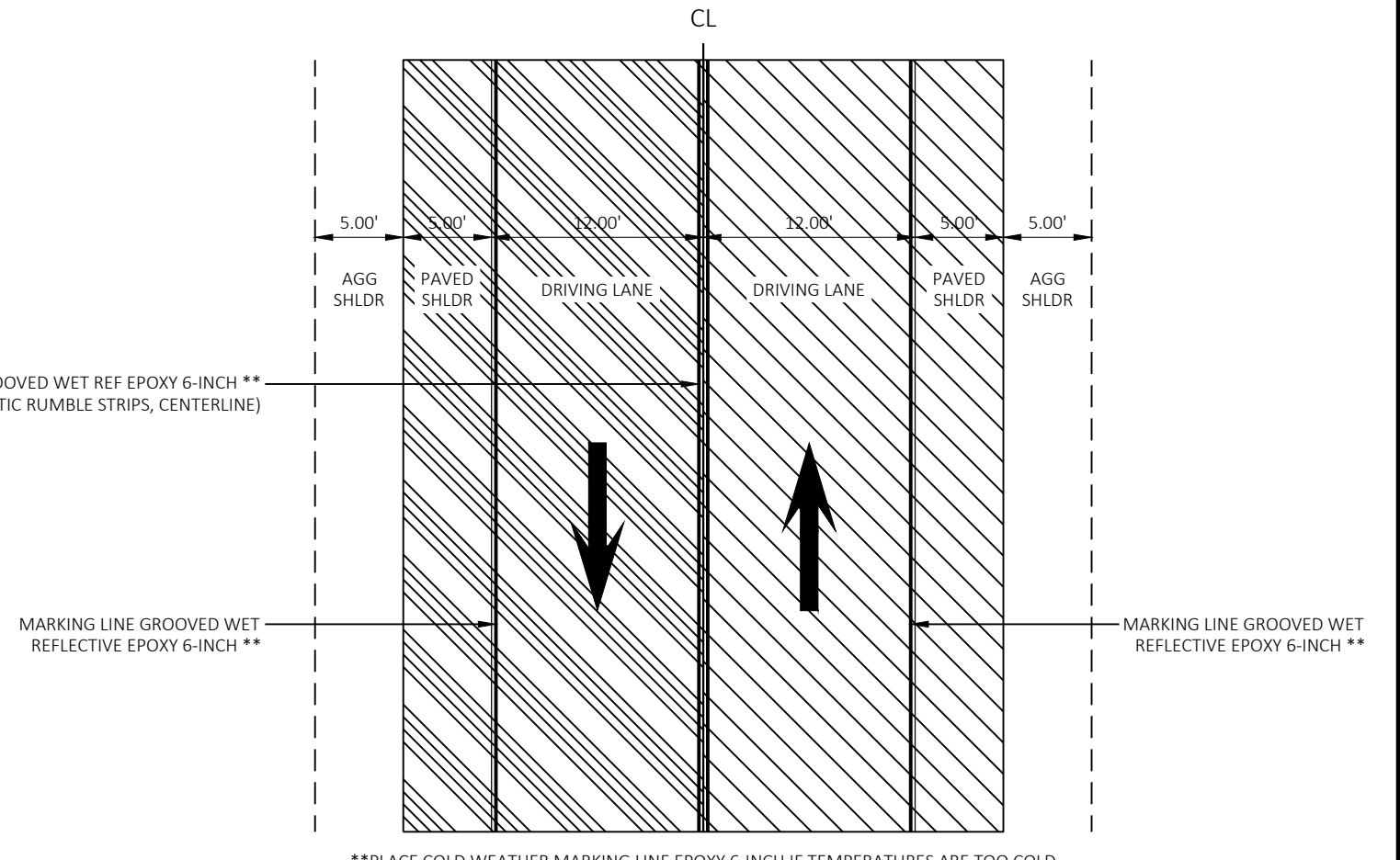
PLAN VIEW

- FIRST PASS 3" HMA PAVEMENT 3 MT 58-28 S (LOWER LAYER)
- SECOND PASS 3" HMA PAVEMENT 3 MT 58-28 S (LOWER LAYER)
- THIRD PASS 2" HMA PAVEMENT 4 MT 58-28 S (UPPER LAYER)



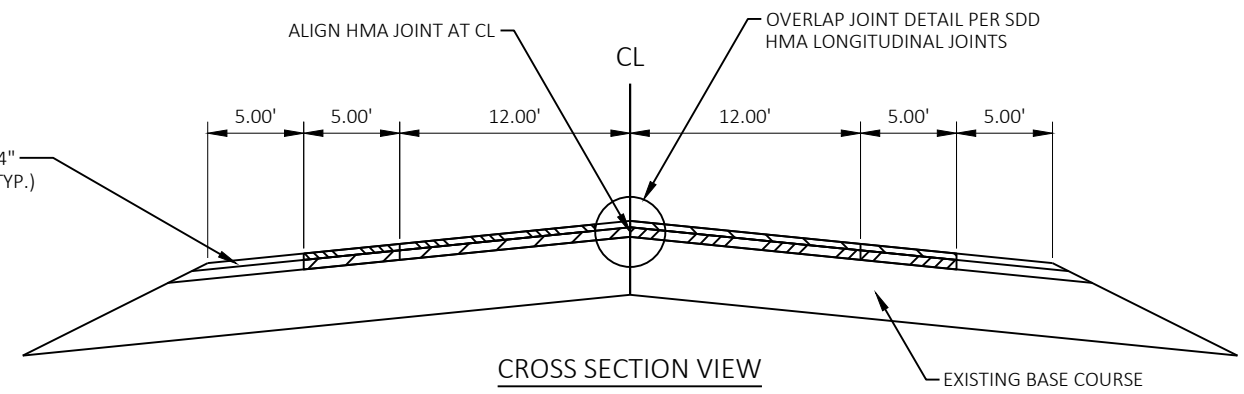
CROSS SECTION VIEW

THIRD PASS DETAIL



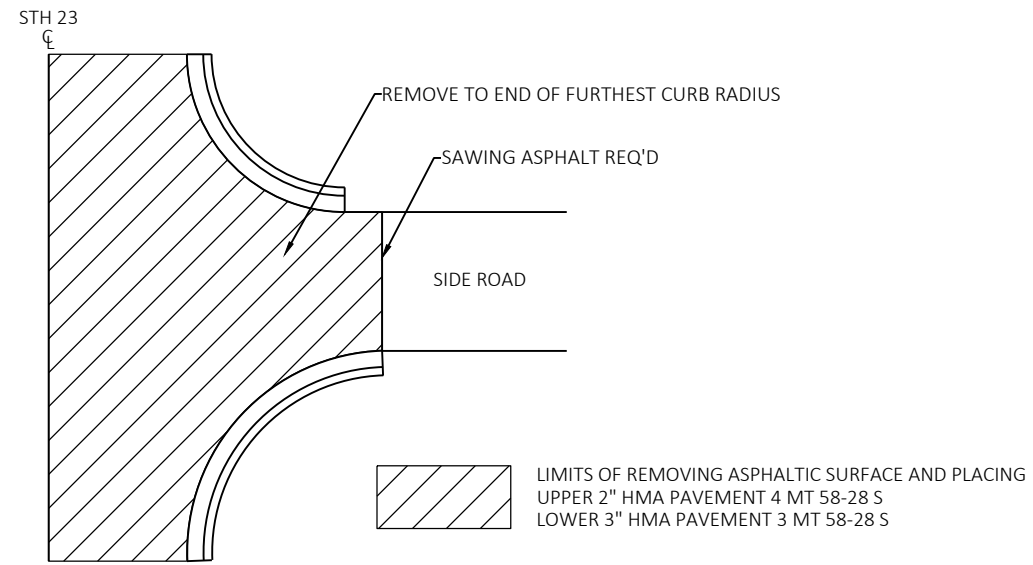
PLAN VIEW

- SECOND PASS 3" HMA PAVEMENT 3 MT 58-28 S (LOWER LAYER)
- THIRD PASS 2" HMA PAVEMENT 4 MT 58-28 S (UPPER LAYER)
- FOURTH PASS 2" HMA PAVEMENT 4 MT 58-28 S (UPPER LAYER)



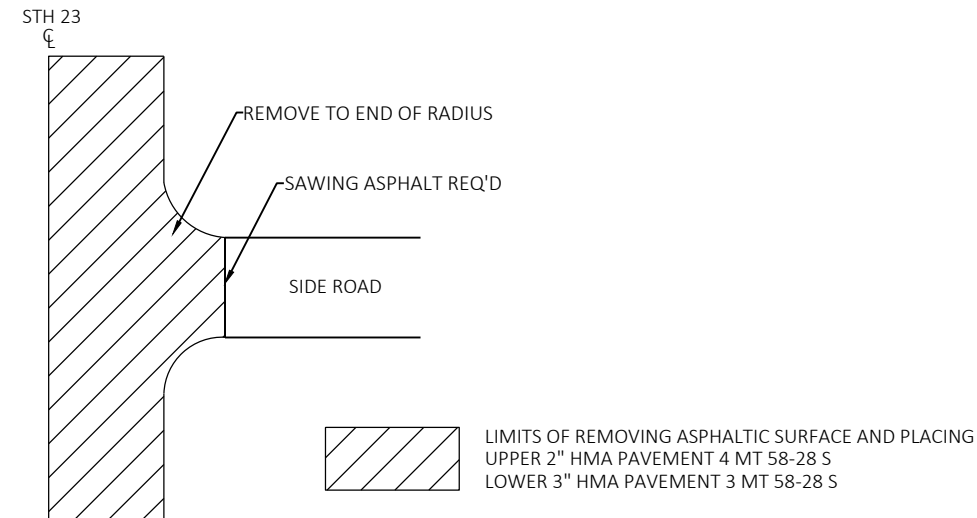
CROSS SECTION VIEW

FOURTH PASS DETAIL

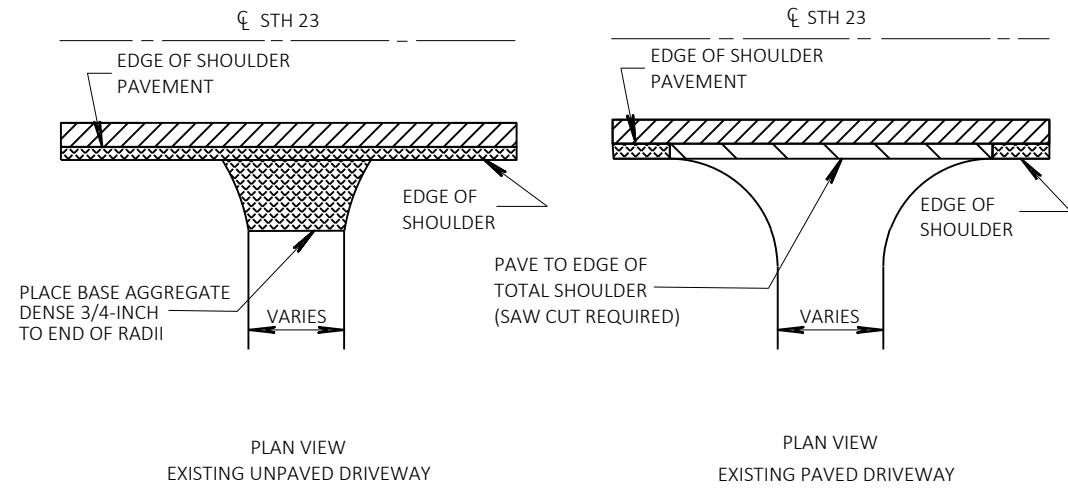


SIDEROAD DETAIL - CURB & GUTTER TO REMAIN

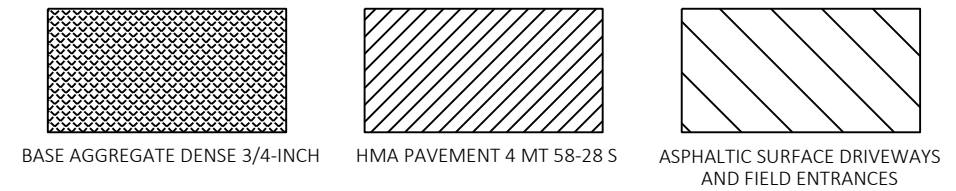
- N REEDSBURG RD
- SIMPSON ST
- COON BLUFF RD
- SHADY LANE RD
- TURTLE RD
- WATER ST
- LAKE ST
- HERWIG RD
- PICKEREL SLOUGH RD
- SCOTT LN
- XANADU RD

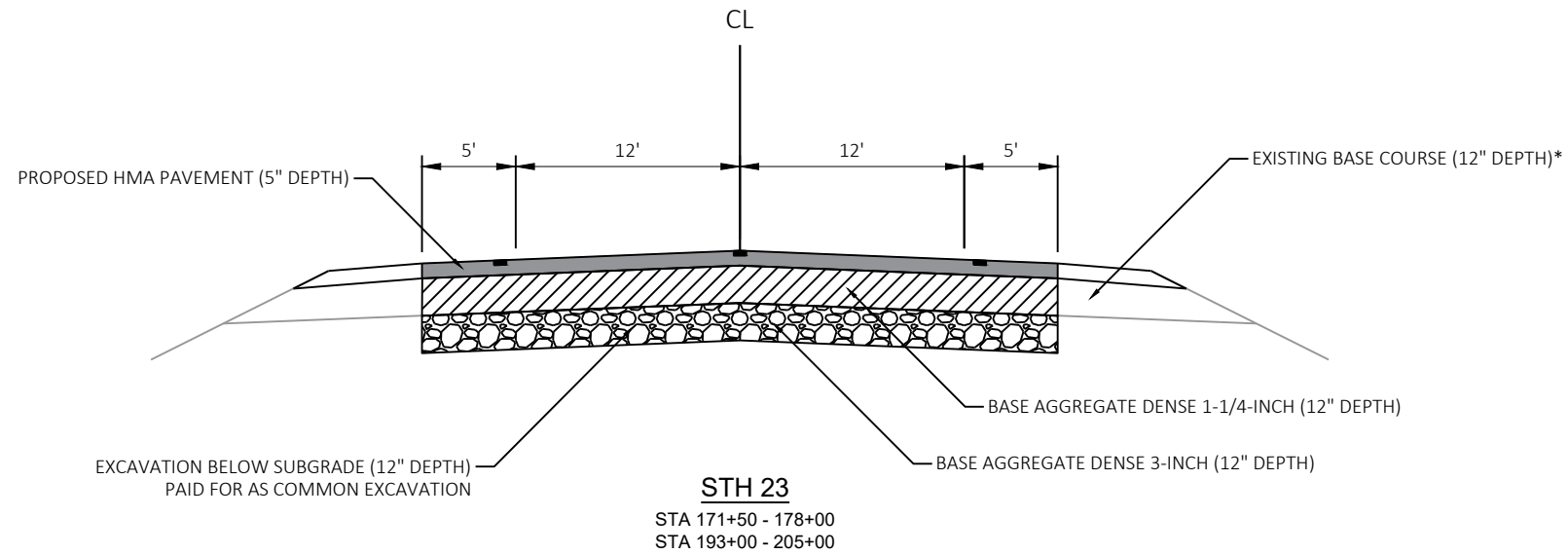


SIDEROAD DETAIL - NO CURB & GUTTER  
LAKEVIEW RD



RURAL DRIVEWAY INTERSECTION DETAIL





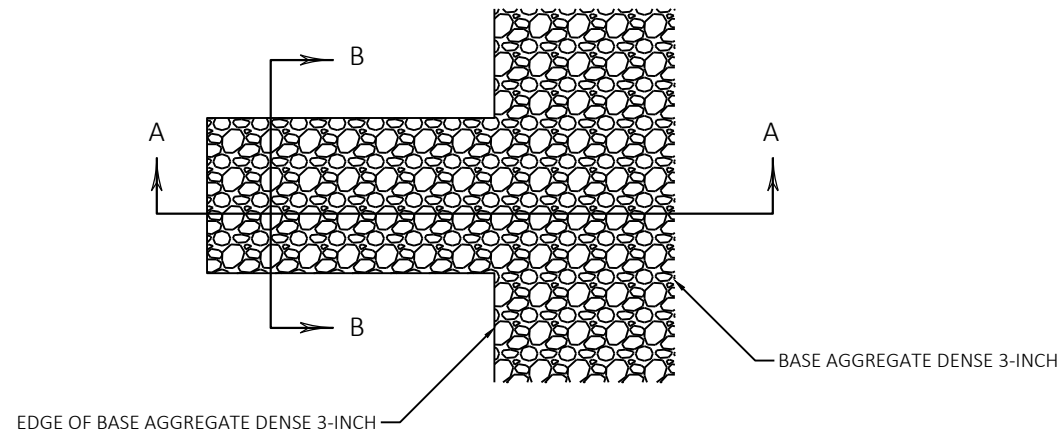
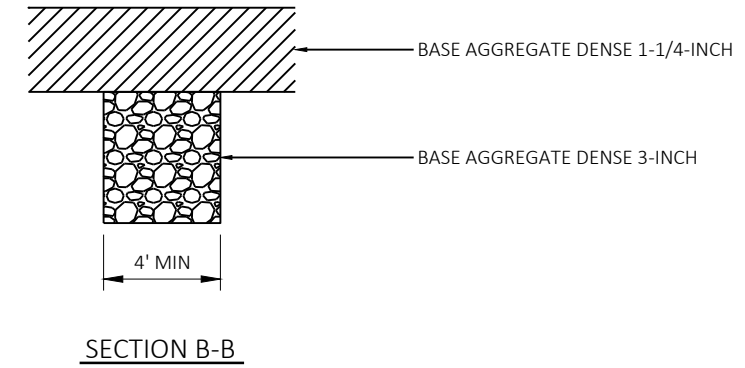
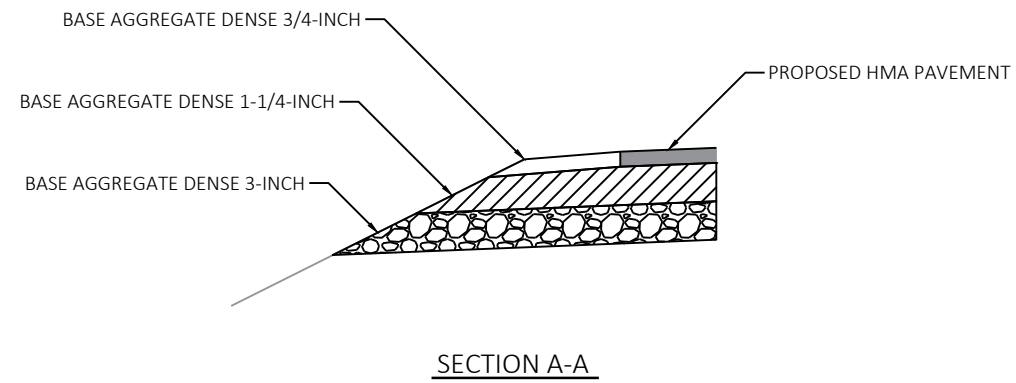
### EXCAVATION BELOW SUBGRADE (EBS) DETAIL

**NOTES:**

1. LIMITS OF EBS SHALL EXTEND FROM PAVED SHOULDER EDGE TO PAVED SHOULDER EDGE OR AS DIRECTED BY THE ENGINEER.
2. DEPTH OF EBS SHALL BE 12" OR AS DIRECTED BY THE ENGINEER.
3. SEE PLAN AND PROFILE SHEETS FOR EBS LOCATION.

\*SEE THE BORING SUMMARY TABLE IN THE TYPICAL SECTIONS FOR EXISTING AGGREGATE DEPTH





STH 23

STA 171+50 - 178+00  
STA 193+00 - 205+00

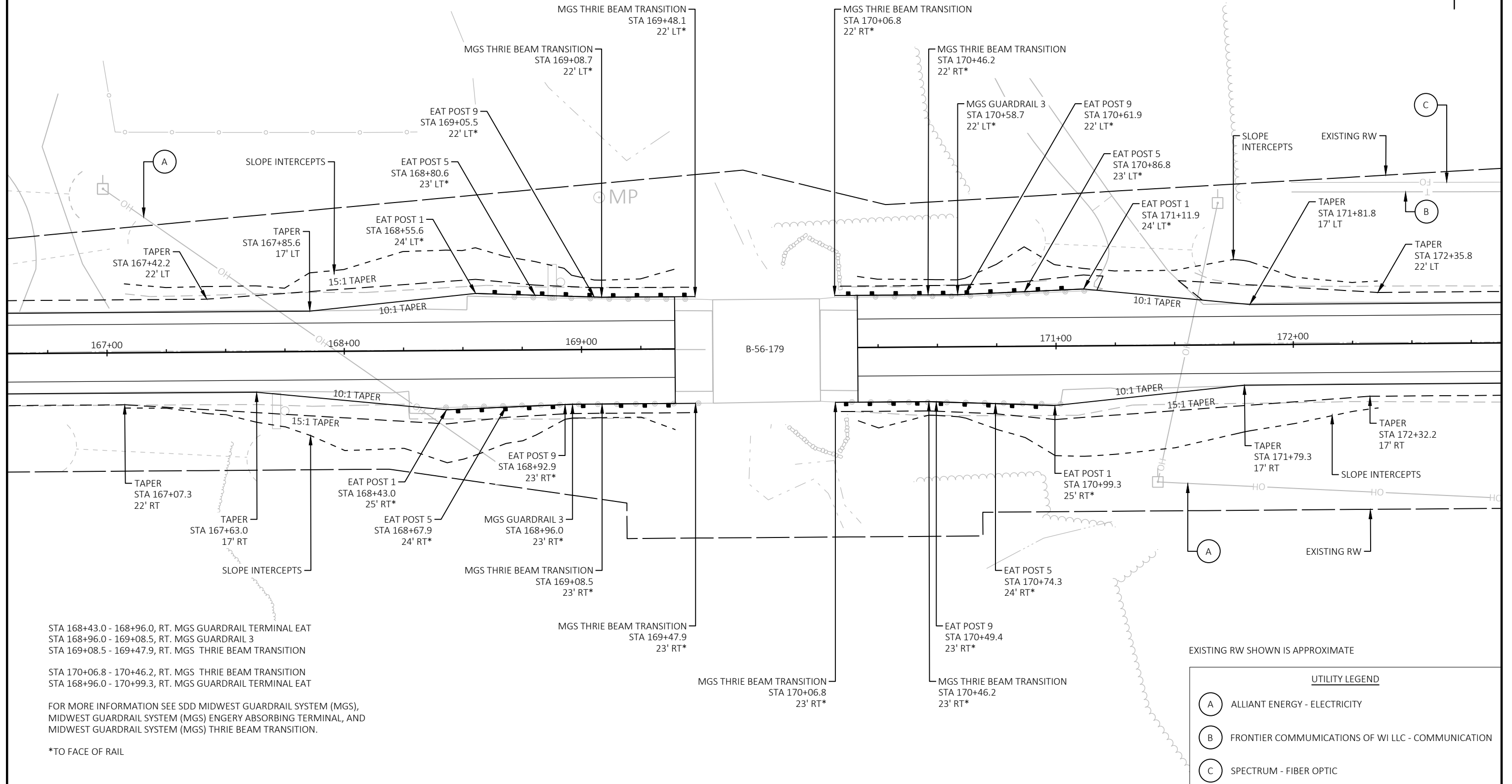
FRENCH DRAIN DETAIL

NOTES:

1. DRAINS TO BE CONSTRUCTED AT THE LOWEST POINT FOR EACH REGION LISTED ABOVE  
(LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER)
2. DO NOT COVER WITH TOPSOIL
3. EXCAVATION REQUIRED TO CONSTRUCT FRENCH DRAINS SHALL BE CONSIDERED INCIDENTAL TO THE ITEM

STA 168+55.6 - 169+08.7, LT. MGS GUARDRAIL TERMINAL EAT  
 STA 169+08.7 - 169+48.1, LT. MGS THRIE BEAM TRANSITION

STA 170+06.8 - 170+46.2, LT. MGS THRIE BEAM TRANSITION  
 STA 170+46.2 - 170+58.7, LT. MGS GUARDRAIL 3  
 STA 170+58.7 - 171+11.9, LT. MGS GUARDRAIL TERMINAL EAT



STA 168+43.0 - 168+96.0, RT. MGS GUARDRAIL TERMINAL EAT  
 STA 168+96.0 - 169+08.5, RT. MGS GUARDRAIL 3  
 STA 169+08.5 - 169+47.9, RT. MGS THRIE BEAM TRANSITION

STA 170+06.8 - 170+46.2, RT. MGS THRIE BEAM TRANSITION  
 STA 168+96.0 - 170+99.3, RT. MGS GUARDRAIL TERMINAL EAT

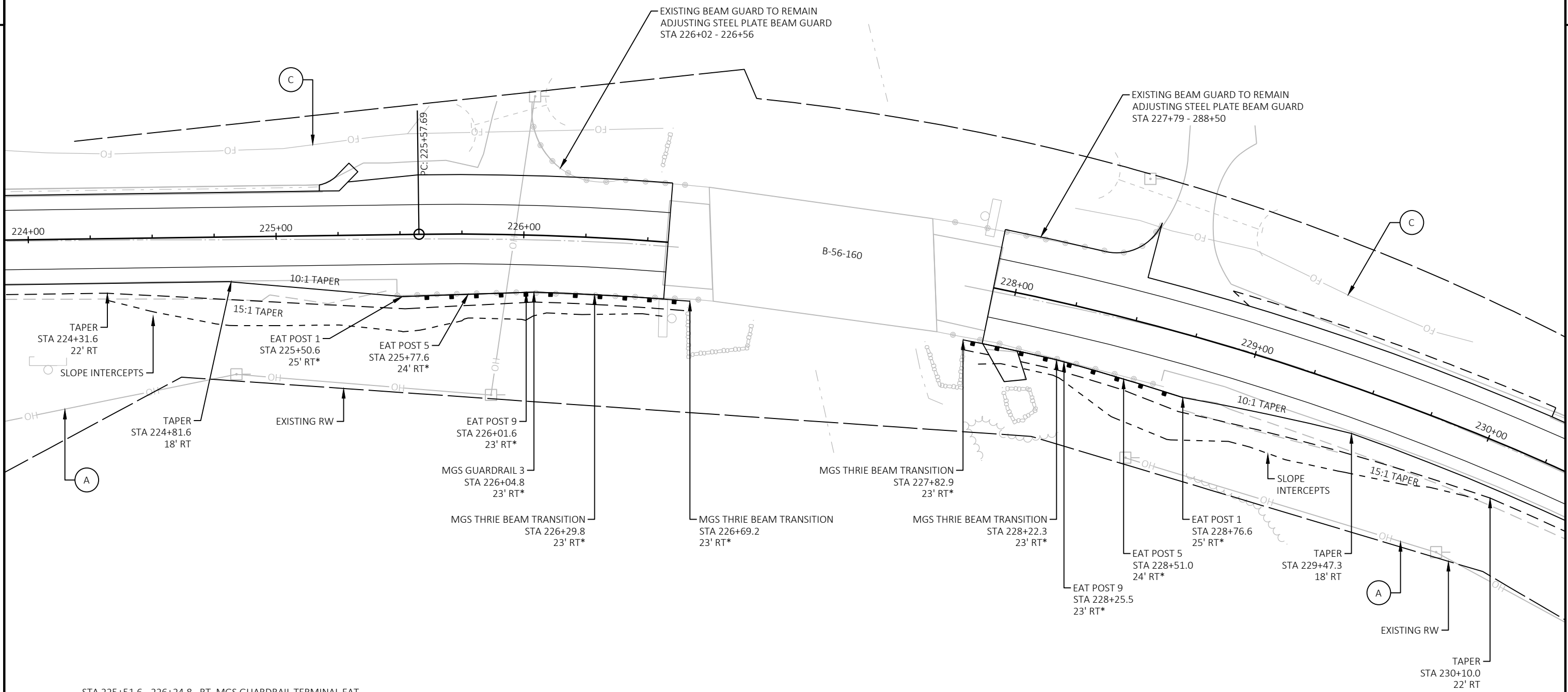
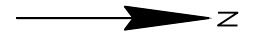
FOR MORE INFORMATION SEE SDD MIDWEST GUARDRAIL SYSTEM (MGS),  
 MIDWEST GUARDRAIL SYSTEM (MGS) ENGERY ABSORBING TERMINAL, AND  
 MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION.

\*TO FACE OF RAIL

EXISTING RW SHOWN IS APPROXIMATE

**UTILITY LEGEND**

- (A) ALLIANT ENERGY - ELECTRICITY
- (B) FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION
- (C) SPECTRUM - FIBER OPTIC



STA 225+51.6 - 226+24.8 , RT. MGS GUARDRAIL TERMINAL EAT  
 STA 226+24.8 - 226+29.8, RT. MGS GUARDRAIL 3  
 STA 226+29.8 - 226+69.2, RT. MGS THRIE BEAM TRANSITION

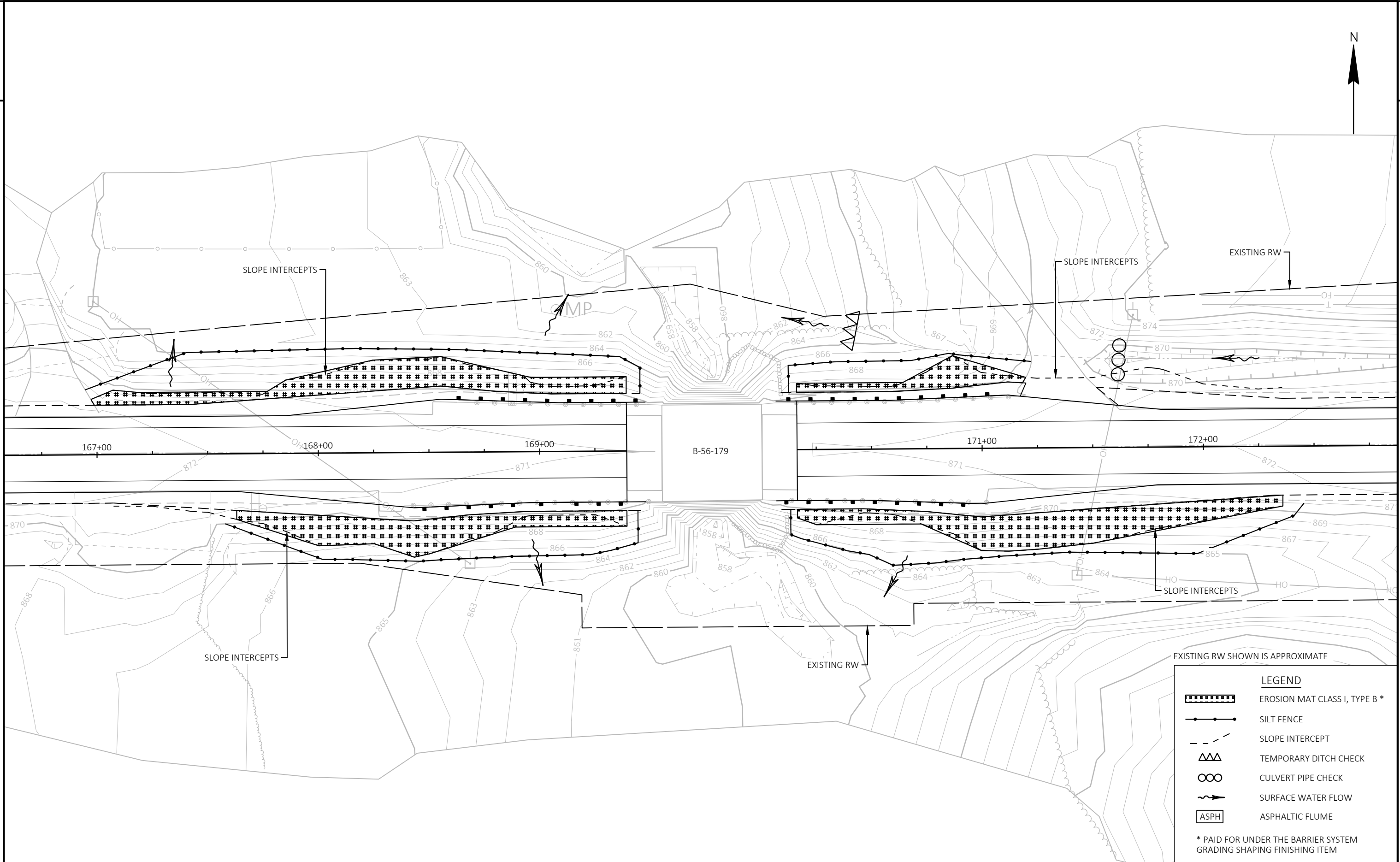
STA 227+82.9 - 228+22.3, RT. MGS THRIE BEAM TRANSITION  
 STA 228+22.3 - 228+76.6, RT. MGS GUARDRAIL TERMINAL EAT

FOR MORE INFORMATION SEE SDD MIDWEST GUARDRAIL SYSTEM (MGS), MIDWEST GUARDRAIL SYSTEM (MGS) ENGERY ABSORBING TERMINAL, AND MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION.

\*TO FACE OF RAIL








EXISTING RW SHOWN IS APPROXIMATE

UTILITY LEGEND	
(A)	ALLIANT ENERGY - ELECTRICITY
(B)	FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION
(C)	SPECTRUM - FIBER OPTIC

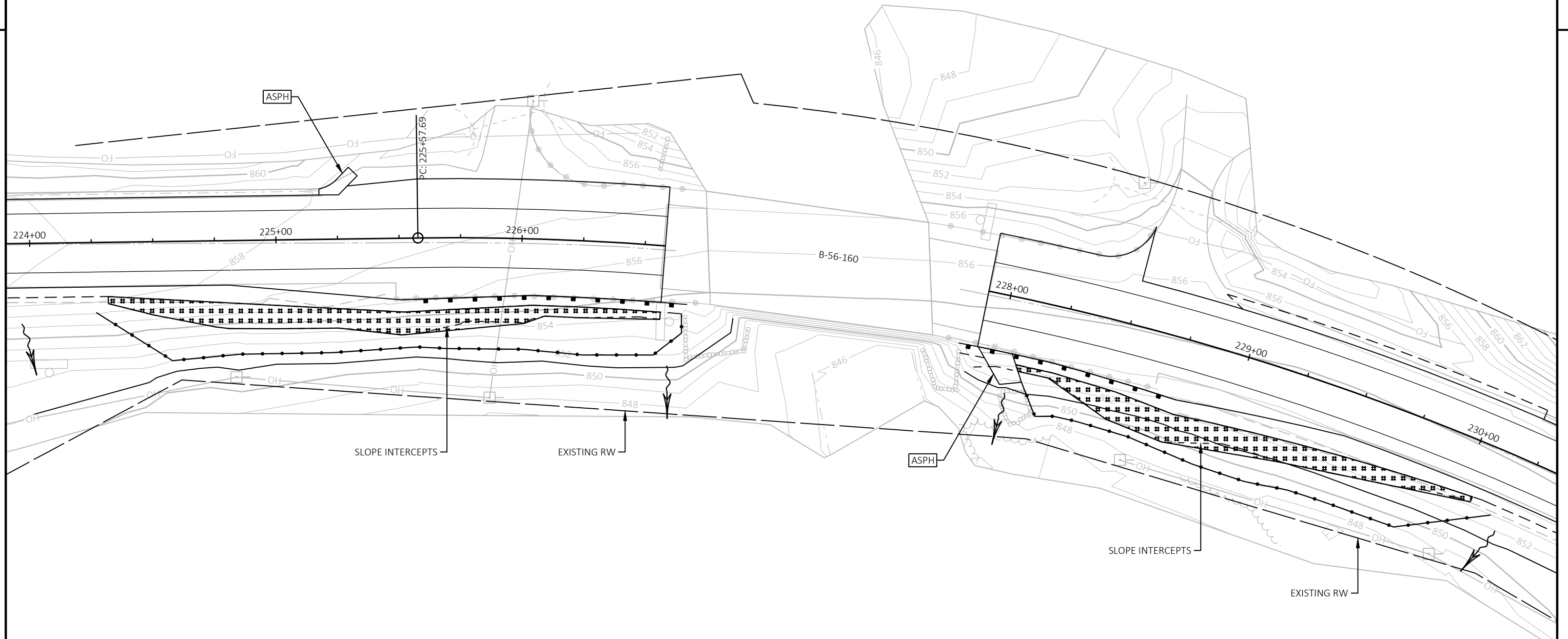
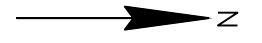


EXISTING RW SHOWN IS APPROXIMATE

**LEGEND**

-  EROSION MAT CLASS I, TYPE B \*
-  SILT FENCE
-  SLOPE INTERCEPT
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  ASPHALTIC FLUME

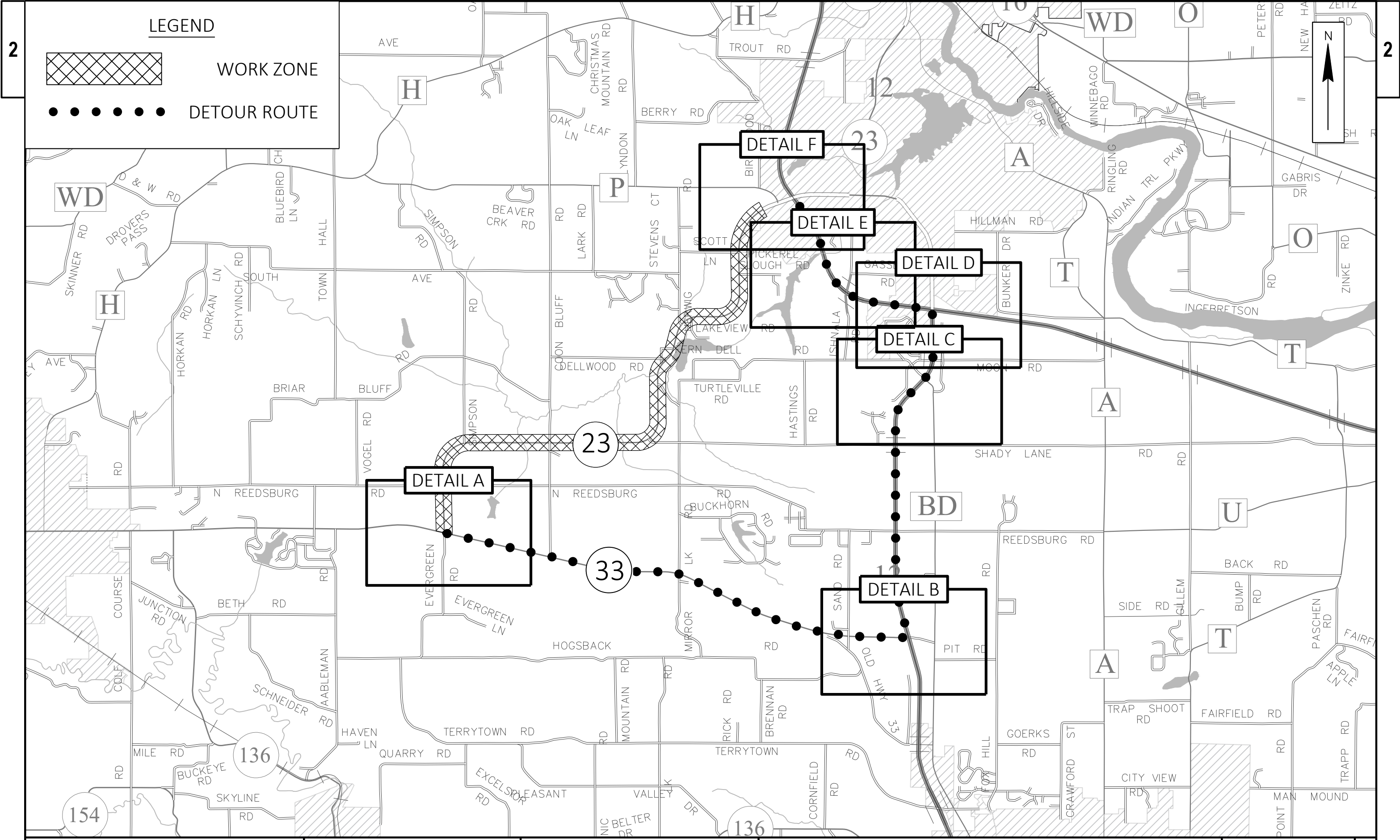
\* PAID FOR UNDER THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM



EXISTING RW SHOWN IS APPROXIMATE

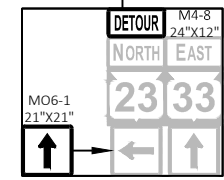
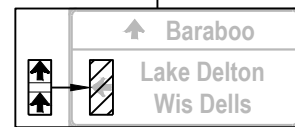
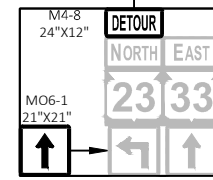
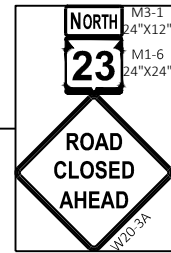
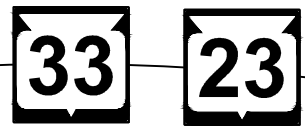
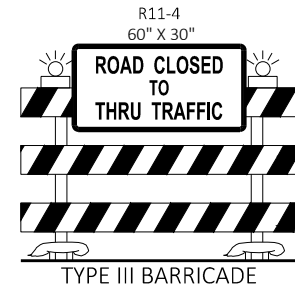
LEGEND	
	EROSION MAT CLASS I, TYPE B *
	SILT FENCE
	SLOPE INTERCEPT
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	SURFACE WATER FLOW
	ASPHALTIC FLUME

\* PAID FOR UNDER THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM



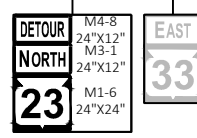
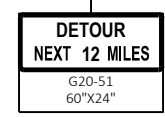
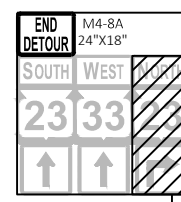
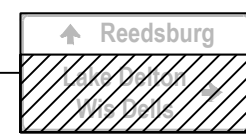
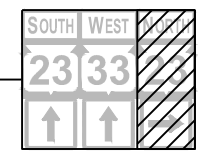
PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      DETOUR      SHEET      E

FILE NAME : \\LAX31FP2.DOT.STATE.WI.US\N3PUBLIC\PD\CS3D\50600007\SHEETSPLAN\027001-DT.DWG      PLOT DATE : 1/19/2024 7:49 AM      PLOT BY : KENDALL, EMILY ANN      PLOT NAME :      PLOT SCALE : 1 IN:1 MI      WISDOT/CADD SHEET 42



EVERGREEN RD

PCMS



**LEGEND**

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- PROPOSED SIGN
- EXISTING SIGN
- PLACE 7 CALENDAR DAYS PRIOR TO CONSTRUCTION
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- PORTABLE CHANGEABLE MESSAGE SIGN
- COVERING SIGN TYPE I
- COVERING SIGN TYPE II

**GENERAL NOTES**

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

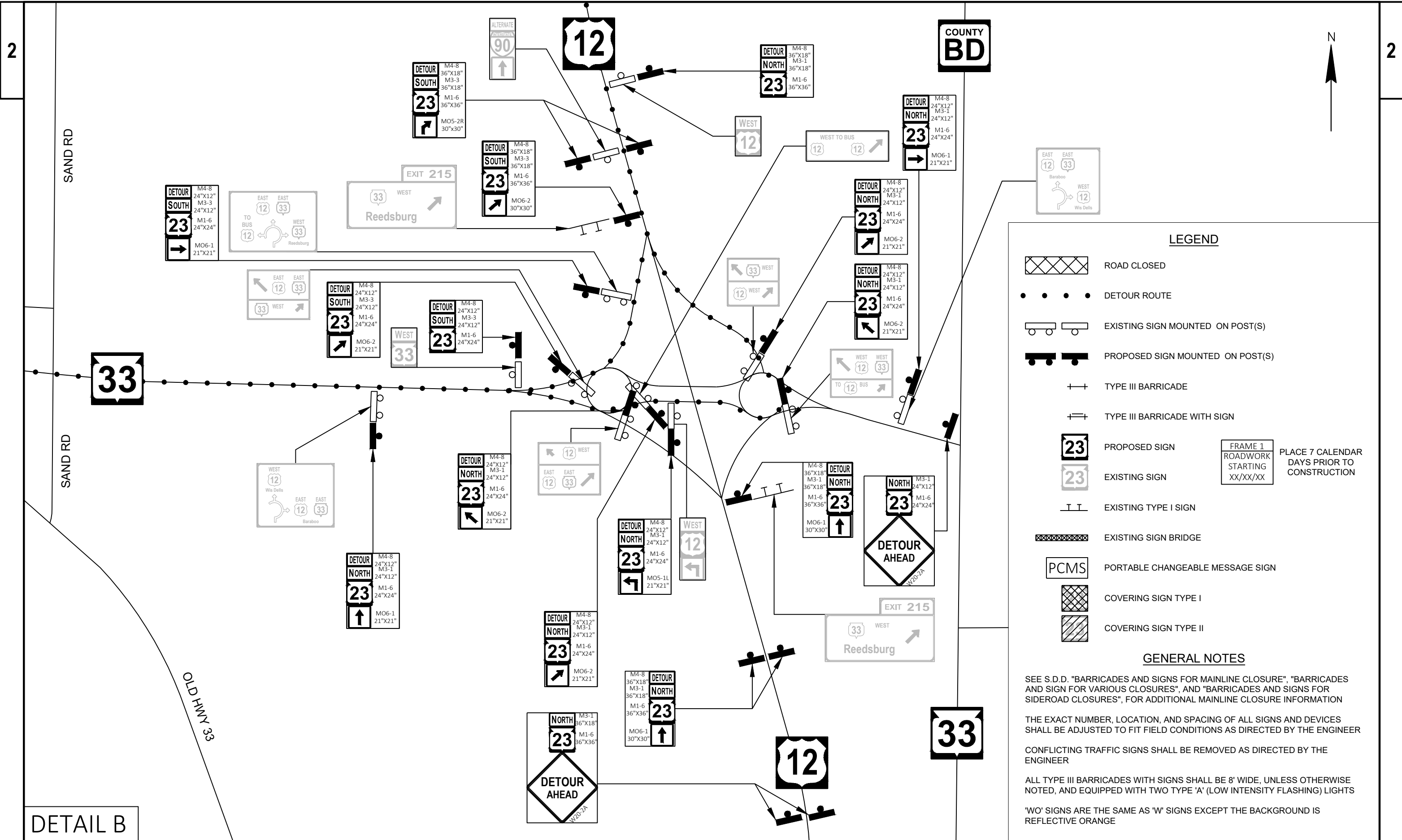
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER

CONFLICTING TRAFFIC SIGNS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER

ALL TYPE III BARRICADES WITH SIGNS SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE 'A' (LOW INTENSITY FLASHING) LIGHTS

'WO' SIGNS ARE THE SAME AS 'W' SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE

DETAIL A



**LEGEND**

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- PROPOSED SIGN
- EXISTING SIGN
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- PORTABLE CHANGEABLE MESSAGE SIGN
- COVERING SIGN TYPE I
- COVERING SIGN TYPE II

**FRAME 1**  
ROADWORK  
STARTING  
XX/XX/XX  
PLACE 7 CALENDAR  
DAYS PRIOR TO  
CONSTRUCTION

**GENERAL NOTES**

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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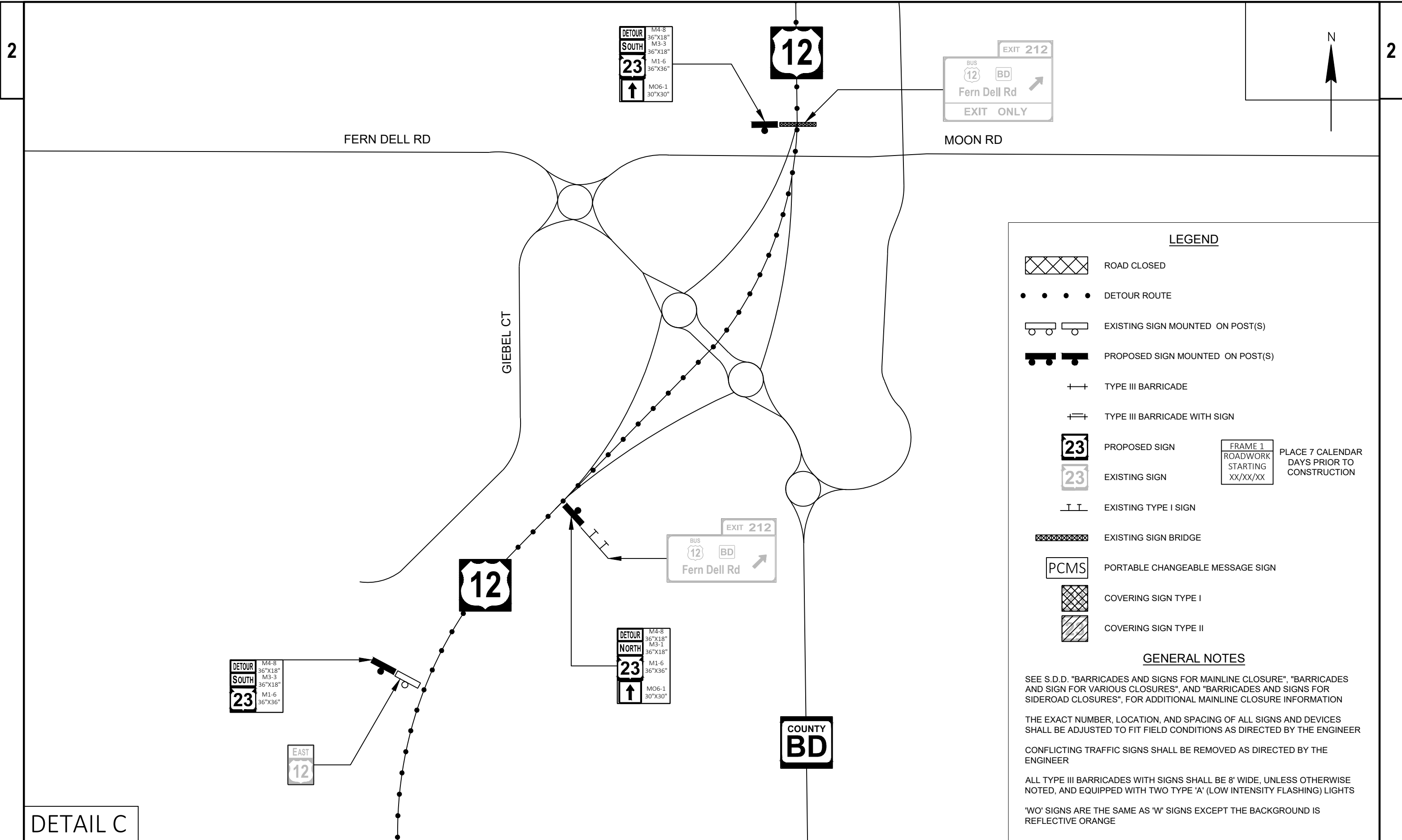
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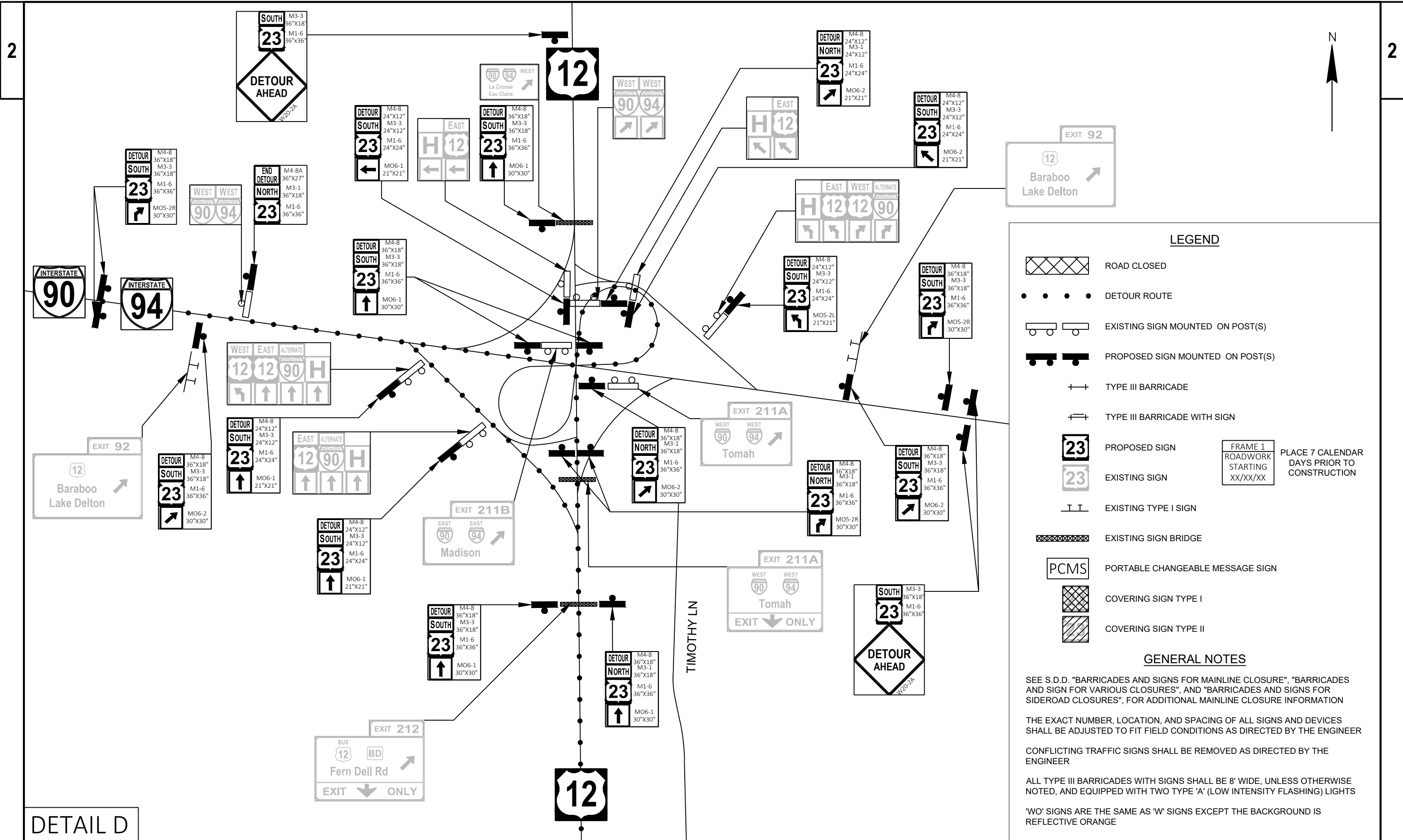
**DETAIL B**





**DETAIL C**

PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	DETOUR	SHEET	<b>E</b>
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PROJECT NO: 5060-00-77

HWY: STH 23



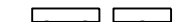










COUNTY: SAUK

DETOUR

SHEET

E

**LEGEND**

-  ROAD CLOSED
-  DETOUR ROUTE
-  EXISTING SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON POST(S)
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH SIGN
-  PROPOSED SIGN
-  EXISTING SIGN
-  EXISTING TYPE I SIGN
-  EXISTING SIGN BRIDGE
-  PORTABLE CHANGEABLE MESSAGE SIGN
-  COVERING SIGN TYPE I
-  COVERING SIGN TYPE II

FRAME 1  
ROADWORK  
STARTING  
XX/XX/XX  
PLACE 7 CALENDAR  
DAYS PRIOR TO  
CONSTRUCTION

**GENERAL NOTES**

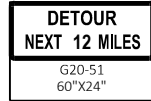
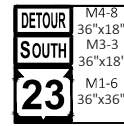
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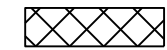














DELL CREEK

MIRROR LAKE



**LEGEND**

-  ROAD CLOSED
  -  DETOUR ROUTE
  -  EXISTING SIGN MOUNTED ON POST(S)
  -  PROPOSED SIGN MOUNTED ON POST(S)
  -  TYPE III BARRICADE
  -  TYPE III BARRICADE WITH SIGN
  -  PROPOSED SIGN
  -  EXISTING SIGN
  -  EXISTING TYPE I SIGN
  -  EXISTING SIGN BRIDGE
  -  PORTABLE CHANGEABLE MESSAGE SIGN
  -  COVERING SIGN TYPE I
  -  COVERING SIGN TYPE II
- FRAME 1  
ROADWORK  
STARTING  
XX/XX/XX

PLACE 7 CALENDAR  
DAYS PRIOR TO  
CONSTRUCTION

**GENERAL NOTES**

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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DETAIL E

PROJECT NO: 5060-00-77

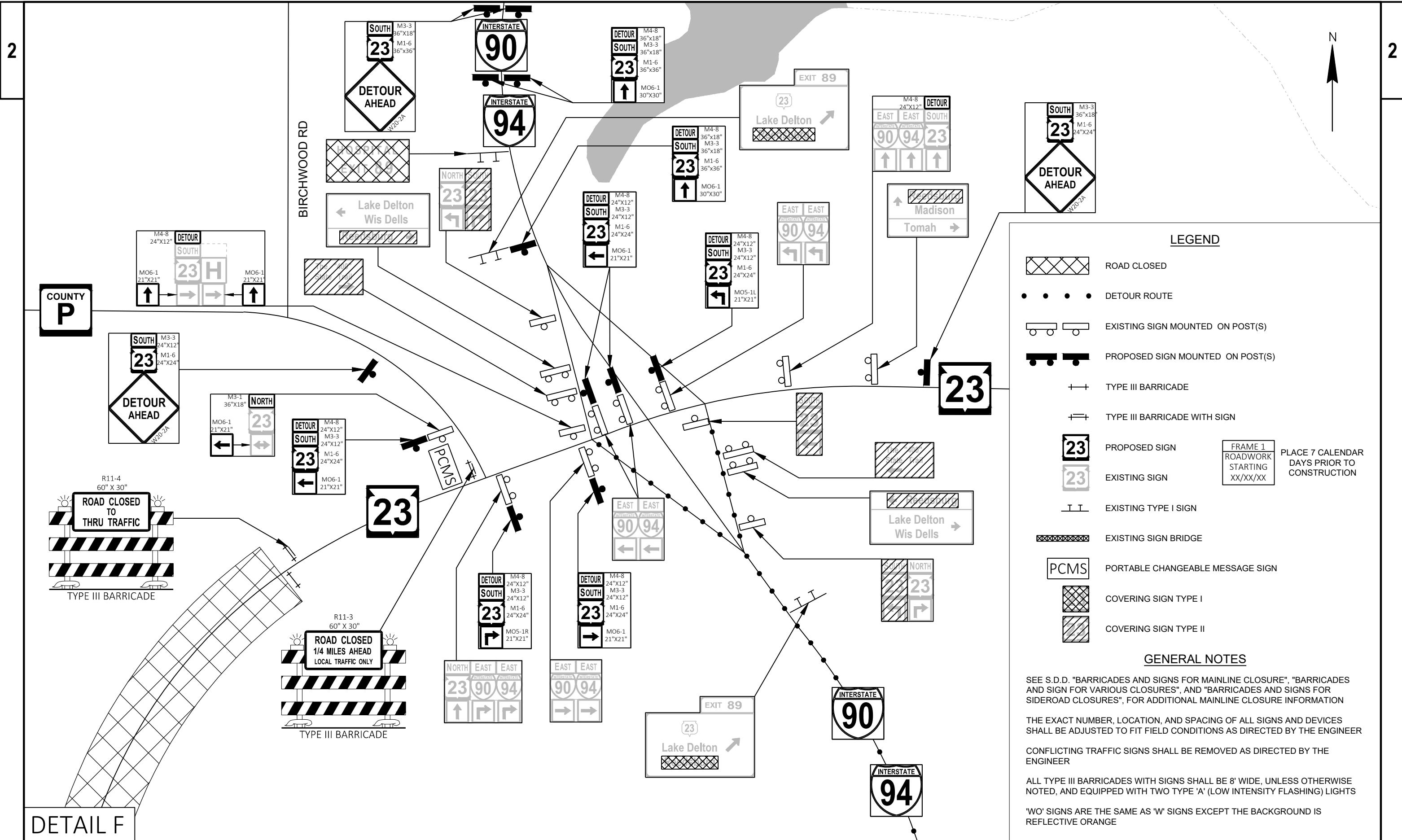
HWY: STH 23

COUNTY: SAUK

DETOUR

SHEET

E



DETAIL F

PROJECT NO: 5060-00-77

HWY: STH 23

COUNTY: SAUK

DETOUR

SHEET

E

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- PROPOSED SIGN
- EXISTING SIGN
- FRAME 1 ROADWORK STARTING XX/XX/XX
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- PORTABLE CHANGEABLE MESSAGE SIGN
- COVERING SIGN TYPE I
- COVERING SIGN TYPE II

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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Estimate Of Quantities

5060-00-77

Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	141,400.000	141,400.000
0004	204.0165	Removing Guardrail	LF	630.000	630.000
0006	205.0100	Excavation Common	CY	4,910.000	4,910.000
0008	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	18.000	18.000
0010	213.0100	Finishing Roadway (project) 01. 5060-00-77	EACH	1.000	1.000
0012	305.0110	Base Aggregate Dense 3/4-Inch	TON	13,600.000	13,600.000
0014	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	9,030.000	9,030.000
0016	305.0130	Base Aggregate Dense 3-Inch	TON	5,420.000	5,420.000
0018	305.0502.S	Shaping Roadway	STA	350.000	350.000
0020	450.4000	HMA Cold Weather Paving	TON	850.000	850.000
0022	455.0605	Tack Coat	GAL	7,100.000	7,100.000
0024	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0026	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0028	460.2005	Incentive Density PWL HMA Pavement	DOL	26,400.000	26,400.000
0030	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	28,200.000	28,200.000
0032	460.2010	Incentive Air Voids HMA Pavement	DOL	39,800.000	39,800.000
0034	460.6223	HMA Pavement 3 MT 58-28 S	TON	23,730.000	23,730.000
0036	460.6224	HMA Pavement 4 MT 58-28 S	TON	15,850.000	15,850.000
0038	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	206.000	206.000
0040	465.0315	Asphaltic Flumes	SY	438.000	438.000
0042	465.0520	Asphaltic Rumble Strips, Shoulder	LF	59,770.000	59,770.000
0044	465.0560	Asphaltic Rumble Strips, Centerline	LF	29,100.000	29,100.000
0046	614.0010	Barrier System Grading Shaping Finishing	EACH	6.000	6.000
0048	614.0400	Adjusting Steel Plate Beam Guard	LF	190.000	190.000
0050	614.2300	MGS Guardrail 3	LF	50.000	50.000
0052	614.2500	MGS Thrie Beam Transition	LF	240.000	240.000
0054	614.2610	MGS Guardrail Terminal EAT	EACH	6.000	6.000
0056	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5060-00-77	EACH	1.000	1.000
0058	619.1000	Mobilization	EACH	1.000	1.000
0060	624.0100	Water	MGAL	570.000	570.000
0062	628.1504	Silt Fence	LF	1,460.000	1,460.000
0064	628.1520	Silt Fence Maintenance	LF	1,460.000	1,460.000
0066	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0068	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
0070	628.2004	Erosion Mat Class I Type B	SY	1,620.000	1,620.000
0072	628.7504	Temporary Ditch Checks	LF	20.000	20.000
0074	628.7555	Culvert Pipe Checks	EACH	10.000	10.000
0076	628.7570	Rock Bags	EACH	6.000	6.000
0078	630.0120	Seeding Mixture No. 20	LB	50.000	50.000
0080	630.0500	Seed Water	MGAL	38.000	38.000
0082	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	4.000	4.000
0084	638.2102	Moving Signs Type II	EACH	8.000	8.000
0086	642.5001	Field Office Type B	EACH	1.000	1.000
0088	643.0300	Traffic Control Drums	DAY	70.000	70.000
0090	643.0420	Traffic Control Barricades Type III	DAY	1,000.000	1,000.000
0092	643.0705	Traffic Control Warning Lights Type A	DAY	2,000.000	2,000.000
0094	643.0900	Traffic Control Signs	DAY	24,500.000	24,500.000
0096	643.0910	Traffic Control Covering Signs Type I	EACH	4.000	4.000
0098	643.0920	Traffic Control Covering Signs Type II	EACH	12.000	12.000

Estimate Of Quantities

5060-00-77

Line	Item	Item Description	Unit	Total	Qty
0100	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0102	643.3165	Temporary Marking Line Paint 6-Inch	LF	70,100.000	70,100.000
0104	643.5000	Traffic Control	EACH	1.000	1.000
0106	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	110,100.000	110,100.000
0108	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	840.000	840.000
0110	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	110,100.000	110,100.000
0112	646.6468	Cold Weather Marking Epoxy 8-Inch	LF	840.000	840.000
0114	648.0100	Locating No-Passing Zones	MI	6.700	6.700
0116	650.4500	Construction Staking Subgrade	LF	1,850.000	1,850.000
0118	650.5000	Construction Staking Base	LF	35,000.000	35,000.000
0120	650.8000	Construction Staking Resurfacing Reference	LF	35,000.000	35,000.000
0122	650.9911	Construction Staking Supplemental Control (project) 01. 5060-00-77	EACH	1.000	1.000
0124	650.9920	Construction Staking Slope Stakes	LF	1,000.000	1,000.000
0126	690.0150	Sawing Asphalt	LF	1,070.000	1,070.000
0128	740.0440	Incentive IRI Ride	DOL	26,500.000	26,500.000
0130	SPV.0060	Special 01. Verify Landmark Reference Monument	EACH	6.000	6.000

REMOVALS

CATEGORY	STATION	TO	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0165 REMOVING GUARDRAIL LF	205.0100 EXCAVATION COMMON CY	690.0150 SAWING ASPHALT LF	REMARKS
0010	11+75	-		STH 23	-	-	-	36	PROJECT START
0010	11+75	-	38+02	STH 23	10,200	-	-	35	
0010	38+02	-		RT/LT	-	-	-	50	REEDSBURG RD
0010	38+02	-	70+03	STH 23	13,500	-	-	47	
0010	70+03	-		LT	-	-	-	29	SIMPSON ST
0010	70+03	-	122+72	STH 23	20,600	-	-	37	
0010	122+72	-		RT/LT	-	-	-	50	COON BLUFF RD
0010	122+72	-	169+39	STH 23	18,800	-	-	32	
0010	169+39	-	170+17	STH 23	-	400	-	90	B-56-179
0010	170+17	-	184+49	STH 23	5,800	-	1,640	27	
0010	184+49	-		RT	-	-	-	31	SHADY LN
0010	184+49	-	219+67	STH 23	14,100	-	3,030	15	
0010	219+67	-		RT	-	-	-	32	TURTLE RD
0010	219+67	-	226+57	STH 23	3,600	-	-	18	
0010	226+57	-	227+91		-	230	-	94	B-56-160
0010	227+91	-	233+19	STH 23	2,300	-	-	17	
0010	233+19	-		LT	-	-	-	25	WATER ST
0010	233+19	-	244+41	STH 23	5,000	-	-	-	
0010	244+41	-		LT	-	-	-	28	LAKE ST
0010	244+41	-	260+55	STH 23	6,600	-	-	87	
0010	260+55	-		LT	-	-	-	26	HERWIG RD
0010	260+55	-	318+21	STH 23	22,500	-	-	-	
0010	269+00	-		RT	-	-	-	24	LAKEVIEW RD
0010	318+21	-		LT	-	-	-	46	PICKEREL SLOUGH RD
0010	318+21	-	331+54	STH 23	5,500	-	-	-	
0010	331+54	-		LT	-	-	-	26	SCOTT LN
0010	331+54	-	343+46	STH 23	5,000	-	-	57	
0010	343+46	-		RT	-	-	-	29	XANADU RD
0010	343+46	-	361+22	STH 23	7,900	-	-	45	
0010	361+22	-		STH 23	-	-	-	37	PROJECT END
0010	11+75	-	361+22	UNDISTRIBUTED	-	-	240	-	
TOTAL 0010					141,400	630	4,910	1,070	

ROADWAY ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) (01. 5060-00-77) EACH	619.1000 MOBILIZATION EACH	642.5001 FIELD OFFICE TYPE B EACH	648.0100 LOCATING NO- PASSING ZONES MI	REMARKS
0010	11+75	-	361+22	LT/RT	-	1	1	1	6.70	
0010	219+50	-	222+28	LT	3	-	-	-	-	
0010	225+17	-	226+02	LT	1	-	-	-	-	
0010	228+50	-	230+19	LT	2	-	-	-	-	
0010	221+10	-	225+45	RT	5	-	-	-	-	
0010	228+68	-	235+00	RT	7	-	-	-	-	
TOTAL 0010					18	1	1	1	6.70	

305-BASE AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0130 BASE AGGREGATE DENSE 3-INCH TON	305.0502.S SHAPING ROADWAY STA	REMARKS
0010	11+75	-	38+02		900	490	-	26	PROJECT BEGIN TO REEDSBURG RD
0010	38+02	-	70+03		1,000	550	-	32	REEDSBURG RD TO SIMPSON ST
0010	70+03	-	122+72		1,900	300	-	53	SIMPSON ST TO COON BLUFF RD
0010	122+72	-	169+39		1,700	300	-	47	COON BLUFF RD TO B-56-179
0010	169+39	-	184+49		600	1,950	1,810	15	B-56-179 TO SHADY LANE RD
0010	184+49	-	219+67		1,300	3,190	3,350	35	SHADY LANE RD TO TURTLE RD
0010	219+67	-	226+57		200	-	-	7	TURTLE RD TO B-56-160
0010	226+57	-	233+19		200	-	-	7	B-56-160 TO WATER ST
0010	233+19	-	244+41		300	-	-	11	WATER ST TO LAKE ST
0010	244+41	-	260+55		600	170	-	16	LAKE ST TO HERWIG RD
0010	260+55	-	318+21		2,200	900	-	58	HERWIG RD TO PICKEREL SLOUGH RD
0010	318+21	-	331+54		500	50	-	13	PICKEREL SLOUGH RD TO SCOTT LN
0010	331+54	-	343+46		400	130	-	12	SCOTT LN TO XANADU RD
0010	343+46	-	361+22		500	380	-	18	XANADU RD TO PROJECT END
0010	11+75	-	361+22	UNDISTRIBUTED	1,300	620	260	-	
TOTAL 0010					13,600	9,030	5,420	350	



460-ASPHALT

CATEGORY	STATION	TO	STATION	LOCATION	450.4000	455.0605	460.6223	460.6224	465.0120	465.0315	REMARKS
					HMA COLD WEATHER PAVING TON	TACK COAT GAL	HMA PAVEMENT 3 MT 58-28 S TON	HMA PAVEMENT 4 MT 58-28 S TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	ASPHALTIC FLUMES SY	
0010	11+75	-	38+02	STH 23	60	510	1,720	1,150	14	91	PROJECT BEGIN TO REEDSBURG RD
0010	38+02	-	70+03	STH 23	80	680	2,270	1,520	31	32	REEDSBURG RD TO SIMPSON ST
0010	70+03	-	122+72	STH 23	120	1,030	3,450	2,300	16	62	SIMPSON ST TO COON BLUFF RD
0010	122+72	-	169+39	STH 23	110	940	3,160	2,110	17	-	COON BLUFF RD TO B-56-179
0010	169+39	-	184+49	STH 23	40	290	970	650	25	-	B-56-179 TO SHADY LANE RD
0010	184+49	-	219+67	STH 23	80	710	2,360	1,570	-	61	SHADY LANE RD TO TURTLE RD
0010	219+67	-	226+57	STH 23	20	180	600	400	8	-	TURTLE RD TO B-56-160
0010	226+57	-	233+19	STH 23	20	120	380	260	11	44	B-56-160 TO WATER ST
0010	233+19	-	244+41	STH 23	30	250	840	560	-	43	WATER ST TO LAKE ST
0010	244+41	-	260+55	STH 23	40	330	1,100	740	46	29	LAKE ST TO HERWIG RD
0010	260+55	-	318+21	STH 23	130	1,130	3,780	2,520	7	28	HERWIG RD TO PICKEREL SLOUGH RD
0010	318+21	-	331+54	STH 23	40	280	930	620	-	24	PICKEREL SLOUGH RD TO SCOTT LN
0010	331+54	-	343+46	STH 23	30	250	840	560	18	24	SCOTT LN TO XANADU RD
0010	343+46	-	361+22	STH 23	50	400	1,330	890	13	-	XANADU RD TO PROJECT END
TOTAL 0010					850	7,100	23,730	15,850	206	438	

460-PWL

CATEGORY	STATION	TO	STATION	LOCATION	460.0105.S	460.0110.S	REMARKS
					HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH	
0010	11+75	-	361+22	STH 23	1	1	LOWER HMA LAYER
0010	11+75	-	361+22	STH 23	1	1	UPPER HMA LAYER
TOTAL 0010					2	2	

PWL MIXTURE US TABLE

THE FOLLOWING ACCEPTANCE CRITERIA ARE APPLICABLE FOR THIS PROJECT:

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TON	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
							MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12 FOOT DRIVING LANE	11+75 TO 361+23	UPPER LAYER	4 MT 58-28 S	3 MT 58-28 S	10,450	2"	Incentive Air Voids HMA Pavement, 460.2010	Incentive Density PWL HMA Pavement, 460.2005
12 FOOT DRIVING LANE	11+75 TO 361+23	LOWER LAYER	3 MT 58-28 S	BASE AGGREGATE	15,640	3"	Incentive Air Voids HMA Pavement, 460.2010	Incentive Density PWL HMA Pavement, 460.2005
5 FOOT SHOULDER	11+75 TO 361+23	UPPER LAYER	4 MT 58-28 S	3 MT 58-28 S	5,380	2"	Incentive Air Voids HMA Pavement, 460.2010	Acceptant testing by the department; Not eligible for incentive or disincentive
5 FOOT SHOULDER	11+75 TO 361+23	LOWER LAYER	3 MT 58-28 S	BASE AGGREGATE	8,060	3"	Incentive Air Voids HMA Pavement, 460.2010	Acceptant testing by the department; Not eligible for incentive or disincentive

465-RUMBLE STRIPS

CATEGORY	STATION	TO	STATION	LOCATION	465.0520	465.0560	REMARKS
					ASPHALTIC RUMBLE STRIPS, SHOULDER LF	ASPHALTIC RUMBLE STRIPS, CENTERLINE LF	
0010	11+75	-	38+02	LT/RT	4,330	2,510	BEGIN TO REEDSBURG
0010	38+02	-	70+03	LT/RT	5,140	2,870	REEDSBURG TO SIMPSON
0010	70+03	-	122+72	LT/RT	9,800	4,850	SIMPSON TO COON BLUFF
0010	122+72	-	169+39	LT/RT	8,560	4,330	COON BLUFF TO B-56-179
0010	169+39	-	184+49	LT/RT	2,300	1,280	B-56-179 TO SHADY LN
0010	184+49	-	219+67	LT/RT	6,140	3,120	SHADY LN TO TURTLE RD
0010	219+67	-	226+57	LT/RT	950	400	TURTLE RD TO B-56-160
0010	226+57	-	233+19	LT/RT	830	420	B-56-160 TO WATER ST
0010	233+19	-	244+41	LT/RT	1,840	720	WATER ST TO LAKE ST
0010	244+41	-	260+55	LT/RT	2,420	1,000	LAKE ST TO HERWIG RD
0010	260+55	-	269+00	LT/RT	1,280	340	HERWIG RD TO LAKEVIEW RD
0010	269+00	-	318+21	LT/RT	9,430	4,410	LAKEVIEW RD TO PICKEREL SLOUGH RD
0010	318+21	-	331+54	LT/RT	2,380	970	PICKEREL SLOUGH RD TO SCOTT LN
0010	331+54	-	343+46	LT/RT	1,900	830	SCOTT LN TO XANADU RD
0010	343+46	-	361+23	LT/RT	2,470	1,050	XANADU RD TO END
TOTAL 0010					59,770	29,100	

614.0010

614.0010 BARRIER SYSTEM FOR BID INFORMATION ONLY

CATEGORY	STATION	TO	STATION	LOCATION	GRADING SHAPING FINISHING EACH	BORROW CY	TOPSOIL SY	EROSION MAT CLASS I TYPE B SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 20 LB	SEED WATER MGAL	CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
0010	168+43	-	169+48	RT	1	30	210	210	0.13	6	5	240	
0010	170+07	-	170+99	RT	1	30	260	260	0.17	8	6	220	
0010	168+56	-	169+48	LT	1	50	230	230	0.15	7	6	240	
0010	170+07	-	171+12	LT	1	50	80	80	0.05	3	2	220	
0010	225+51	-	226+69	RT	1	30	190	190	0.12	5	5	230	
0010	227+83	-	228+77	RT	1	60	170	170	0.11	5	4	220	
TOTAL 0010					6	250	1,140	1,140	0.73	34	28	1,370	

614-GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	REMARKS
0010	168+43	-	169+48	RT	--	12.5	40	1	
0010	170+07	-	170+99	RT	--	--	40	1	
0010	168+56	-	169+48	LT	--	--	40	1	
0010	170+07	-	171+12	LT	--	12.5	40	1	
0010	225+51	-	226+69	RT	--	25	40	1	
0010	227+83	-	228+77	RT	--	--	40	1	
0010	226+02	-	226+56	LT	90	--	--	--	
0010	227+79	-	288+50	LT	100	--	--	--	
TOTAL 0010					190	50	240	6	

624.0100

CATEGORY	STATION	TO	STATION	LOCATION	624.0100 WATER MGAL	REMARKS
0010	11+75	-	361+22	STH 23	570	
TOTAL 0010					570	

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	630.0120 SEEDING MIXTURE NO. 20 LB	630.0500 SEED WATER MGAL	REMARKS
0010	11+75	-	38+80	ASPHALTIC FLUME	--	--	250	--	--	--	7	6	PROJECT BEGIN TO REEDSBURG RD
0010	38+80	-	71+50	ASPHALTIC FLUME	--	--	130	--	--	--	4	3	REEDSBURG RD TO SIMPSON ST
0010	71+50	-	124+00	ASPHALTIC FLUME	--	--	250	--	--	--	7	6	SIMPSON ST TO COON BLUFF RD
0010	124+00	-	185+00	ASPHALTIC FLUME	--	--	90	--	--	--	3	2	COON BLUFF RD TO SHADY LANE RD
0010	166+75	-	172+50	GUARDRAIL	850	850	--	10	9	--	--	--	B-56-179
0010	185+00	-	220+50	ASPHALTIC FLUME	--	--	130	--	--	--	4	3	SHADY LANE RD TO TURTLE RD
0010	220+50	-	234+00	ASPHALTIC FLUME	--	--	130	--	--	--	4	3	TURTLE RD TO WATER ST
0010	224+25	-	230+25	GUARDRAIL	470	470	--	--	--	--	--	--	B-56-160
0010	234+00	-	245+50	ASPHALTIC FLUME	--	--	130	--	--	--	4	3	WATER ST TO LAKE ST
0010	245+50	-	261+50	ASPHALTIC FLUME	--	--	90	--	--	--	3	2	LAKE ST TO HERWIG RD
0010	261+50	-	319+00	ASPHALTIC FLUME	--	--	90	--	--	--	3	2	HERWIG RD TO PICKEREL SLOUGH RD
0010	319+00	-	332+50	ASPHALTIC FLUME	--	--	90	--	--	--	3	2	PICKEREL SLOUGH RD TO SCOTT LN
0010	332+50	-	361+22	ASPHALTIC FLUME	--	--	90	--	--	--	3	2	SCOTT LN TO PROJECT END
0010	11+75	-	361+22	UNDISTRIBUTED	140	140	150	10	1	6	5	4	
TOTAL 0010					1,460	1,460	1,620	20	10	6	50	38	

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638-SIGNS

CATEGORY	STATION	LOCATION	634.0616	638.2102	REMARKS
			POSTS WOOD 4X6-INCH X 16- FT EACH	MOVING SIGNS TYPE II EACH	
0010	24+00	RT	--	1	NO PASSING ZONE SIGN
0010	41+00	LT	--	1	NO PASSING ZONE SIGN
0010	82+50	RT	--	1	NO PASSING ZONE SIGN
0010	169+00	LT	--	1	NO PASSING ZONE SIGN
0010	206+90	RT	--	1	NO PASSING ZONE SIGN
0010	217+00	LT	--	1	NO PASSING ZONE SIGN
0010	315+00	RT	--	1	NO PASSING ZONE SIGN
0010	326+00	LT	--	1	NO PASSING ZONE SIGN
0010	361+25	RT	1	--	NO PASSING ZONE SIGN
0010	UNDISTRIBUTED		3	--	
TOTAL 0010			4	8	

643-TRAFFIC CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	643.0300	643.0420	643.0705	643.0900	643.0910	FOR BID INFORMATION		643.0920	FOR BID INFORMATION		643.1050	643.5000
					TRAFFIC CONTROL DRUMS DAY	TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL SIGNS DAY	TRAFFIC CONTROL COVERING SIGNS TYPE I EACH	TRAFFIC CONTROL COVERING SIGNS TYPE I CYCLES	SIGNS	TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	TRAFFIC CONTROL COVERING SIGNS TYPE II CYCLES	SIGNS	TRAFFIC CONTROL SIGNS PCMS DAY	TRAFFIC CONTROL EACH
0010	11+75	-	361+25	PRE-CONSTRUCTION (7 DAYS)	70	-	-	-	-	-	-	-	-	-	14	-
0010	11+75	-	361+25	DETOUR (100 DAYS) - STAGE 1	-	1,000	2,000	24,500	4	1	4	12	1	12	-	-
0010	11+75	-	361+25	PROJECT DURATION	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL 0010					70	1,000	2,000	24,500	4	-	-	12	-	-	14	1



646-FDGELINE PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.2040	646.3040	646.6466	646.6468	REMARKS
					MARKING LINE GROOVED WET REF EPOXY 6- INCH WHITE LF	MARKING LINE GROOVED WET REF EPOXY 8- INCH WHITE LF	* COLD WEATHER MARKING EPOXY 6-INCH WHITE LF	* COLD WEATHER MARKING EPOXY 8-INCH WHITE LF	
0010	11+75	-	38+80	PROJECT BEGIN TO REEDSBURG RD	5,300	200	5,300	200	
0010	38+80	-	71+50	REEDSBURG RD TO SIMPSON ST	6,400	220	6,400	220	
0010	71+50	-	124+00	SIMPSON ST TO COON BLUFF RD	10,300	-	10,300	-	
0010	124+00	-	185+00	COON BLUFF RD TO SHADY LANE RD	12,100	200	12,100	200	
0010	185+00	-	220+50	SHADY LANE RD TO TURTLE RD	7,000	220	7,000	220	
0010	220+50	-	234+00	TURTLE RD TO WATER ST	2,700	-	2,700	-	
0010	234+00	-	245+50	WATER ST TO LAKE ST	2,200	-	2,200	-	
0010	245+50	-	261+50	LAKE ST TO HERWIG RD	3,100	-	3,100	-	
0010	261+50	-	269+00	HERWIG RD TO LAKEVIEW RD	1,400	-	1,400	-	
0010	269+00	-	319+00	LAKEVIEW RD TO PICKEREL SLOUGH RD	9,900	-	9,900	-	
0010	319+00	-	332+50	PICKEREL SLOUGH RD TO SCOTT LN	2,600	-	2,600	-	
0010	332+50	-	347+00	SCOTT LN TO XANADU RD	2,600	-	2,600	-	
0010	347+00	-	361+22	XANADU RD TO PROJECT END	2,600	-	2,600	-	
TOTAL 0010					68,200	840	68,200	840	

646-CENTERLINE PAVEMENT MARKING

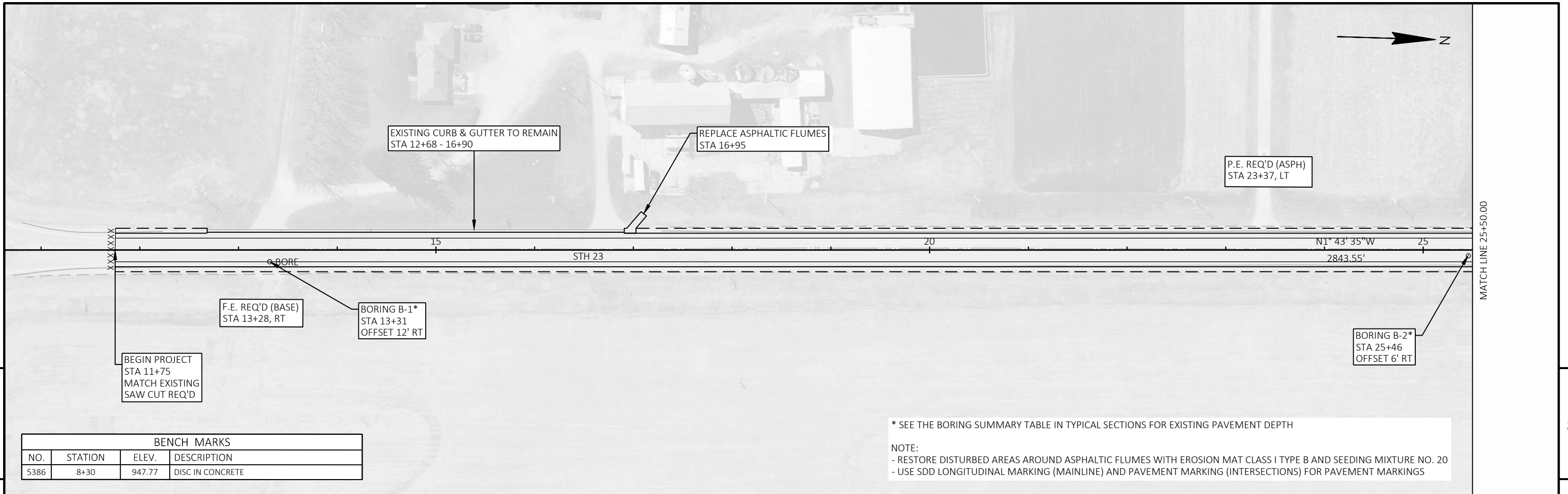
CATEGORY	STATION	TO	STATION	LOCATION	643.3165	646.2040	646.6466	REMARKS
					TEMPORARY MARKING LINE PAINT 6-INCH YELLOW LF	* MARKING LINE GROOVED WET REF EPOXY 6-INCH YELLOW LF	* COLD WEATHER MARKING EPOXY 6- INCH YELLOW LF	
0010	11+75	-	38+80	PROJECT BEGIN TO REEDSBURG RD	5,500	2,000	2,000	
0010	38+80	-	71+50	REEDSBURG RD TO SIMPSON ST	6,600	5,400	5,400	
0010	71+50	-	124+00	SIMPSON ST TO COON BLUFF RD	10,500	2,400	2,400	
0010	124+00	-	185+00	COON BLUFF RD TO SHADY LANE RD	12,200	3,600	3,600	
0010	185+00	-	220+50	SHADY LANE RD TO TURTLE RD	7,100	4,300	4,300	
0010	220+50	-	234+00	TURTLE RD TO WATER ST	2,700	2,200	2,200	
0010	234+00	-	245+50	WATER ST TO LAKE ST	2,300	2,300	2,300	
0010	245+50	-	261+50	LAKE ST TO HERWIG RD	3,200	3,200	3,200	
0010	261+50	-	269+00	HERWIG RD TO LAKEVIEW RD	1,500	1,500	1,500	
0010	269+00	-	319+00	LAKEVIEW RD TO PICKEREL SLOUGH RD	10,000	8,500	8,500	
0010	319+00	-	332+50	PICKEREL SLOUGH RD TO SCOTT LN	2,700	1,000	1,000	
0010	332+50	-	347+00	SCOTT LN TO XANADU RD	2,900	2,600	2,600	
0010	347+00	-	361+22	XANADU RD TO PROJECT END	2,900	2,900	2,900	
TOTAL 0010					70,100	41,900	41,900	

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 5060-00-77) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	11+75	-	361+22	STH 23	--	35,000	35,000	1	
0010	167+07	-	172+36	B-56-179	--	--	--	--	530
0010	171+50	-	178+00		650	--	--	--	--
0010	193+00	-	205+00		1,200	--	--	--	--
0010	224+32	-	226+70	B-56-160	--	--	--	--	240
0010	227+83	-	230+10	B-56-160	--	--	--	--	230
TOTAL 0010					1,850	35,000	35,000	1	1,000

SPV-LANDMARKS

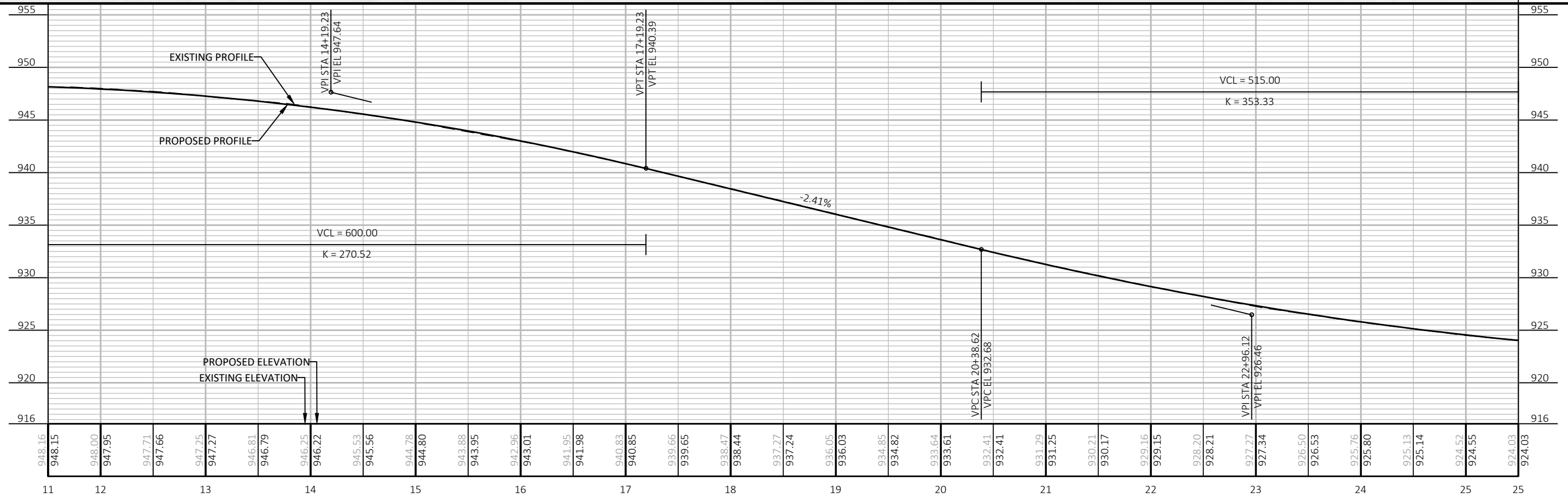
CATEGORY	STATION	LOCATION	SPV.0060.01 SPECIAL (01. VERIFY LANDMARK REFERENCE MONUMENT) EACH	REMARKS
0010	71+40	STH 23	1	SECTION CORNER
0010	97+45	STH 23	1	SECTION CORNER
0010	123+94	STH 23	1	SECTION CORNER
0010	150+23	STH 23	1	SECTION CORNER
0010	176+89	STH 23	1	SECTION CORNER
0010	285+75	STH 23	1	SECTION CORNER
TOTAL 0010			6	



BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
5386	8+30	947.77	DISC IN CONCRETE

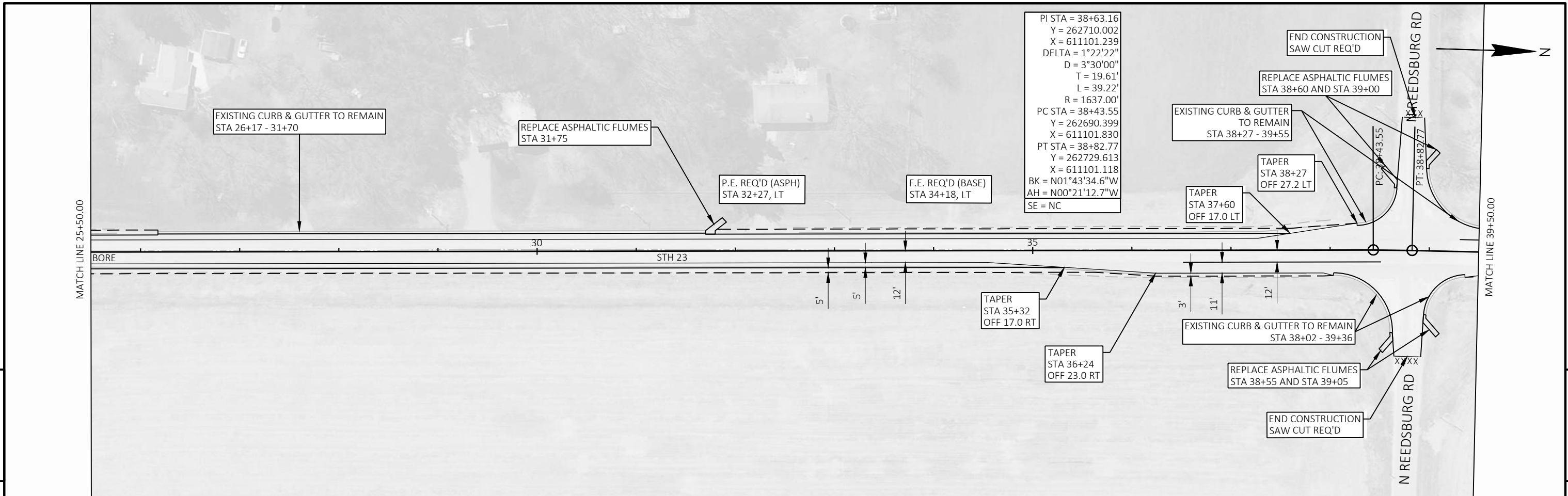
\* SEE THE BORING SUMMARY TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

NOTE:  
 - RESTORE DISTURBED AREAS AROUND ASPHALTIC FLUMES WITH EROSION MAT CLASS I TYPE B AND SEEDING MIXTURE NO. 20  
 - USE SDD LONGITUDINAL MARKING (MAINLINE) AND PAVEMENT MARKING (INTERSECTIONS) FOR PAVEMENT MARKINGS

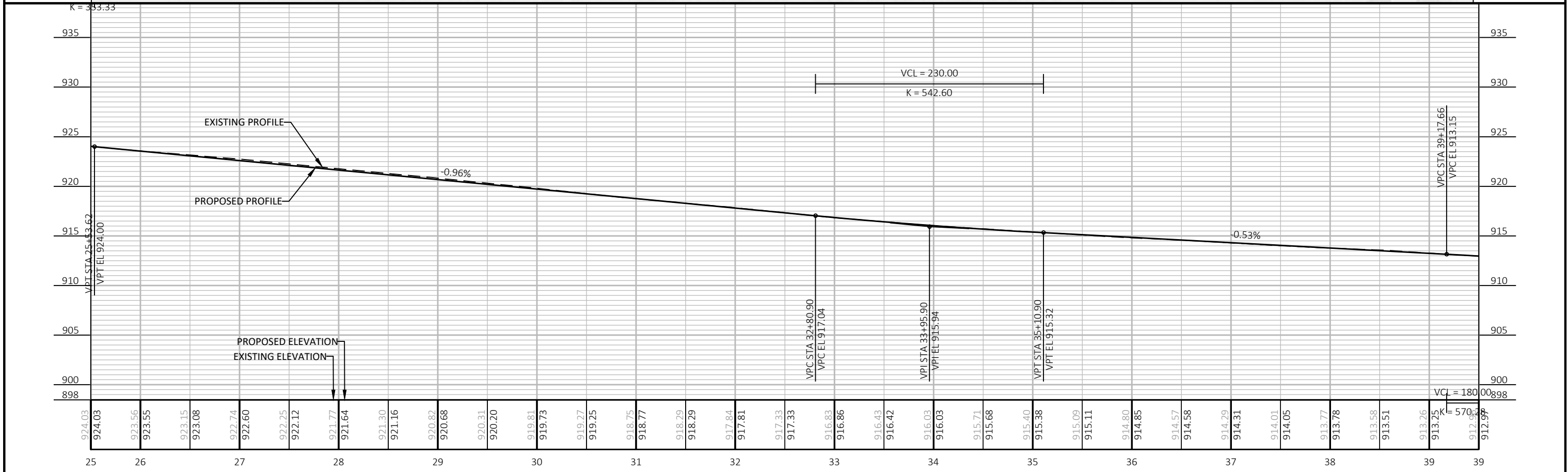


PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET	<b>E</b>
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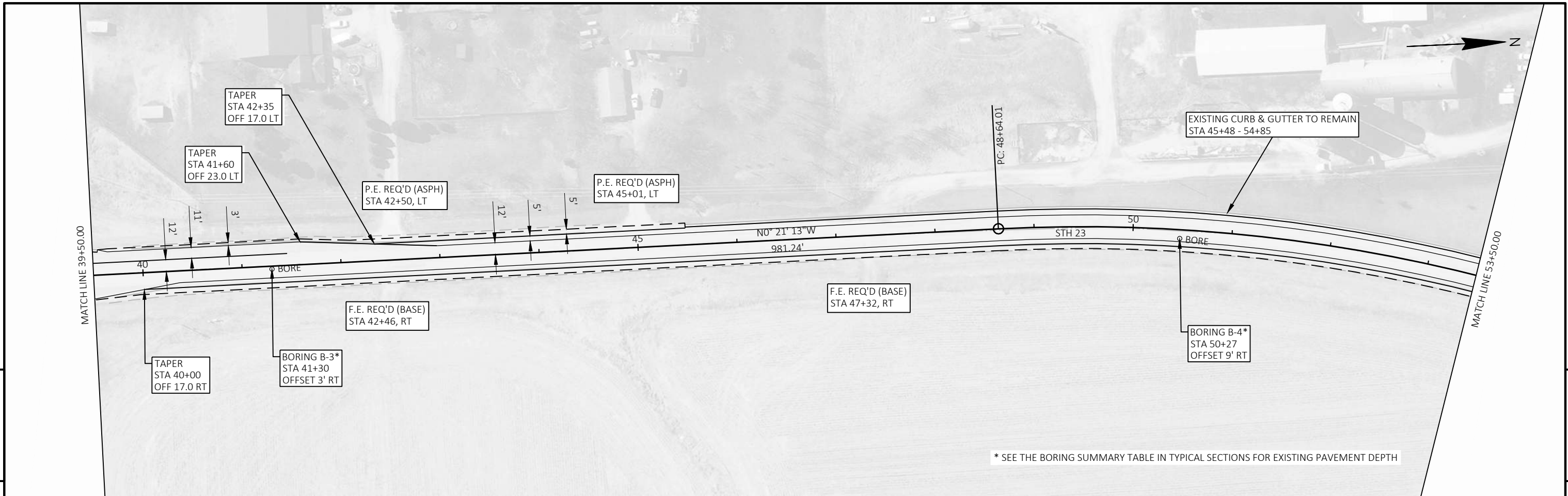




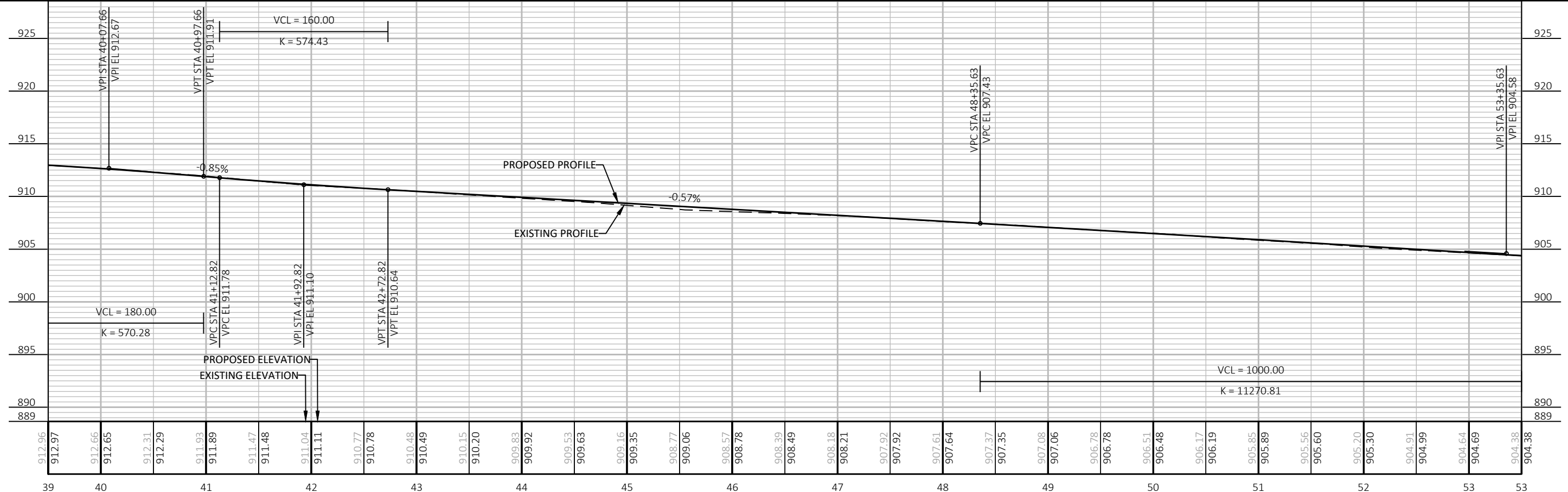
PI STA = 38+63.16  
 Y = 262710.002  
 X = 611101.239  
 DELTA = 1°22'22"  
 D = 3°30'00"  
 T = 19.61'  
 L = 39.22'  
 R = 1637.00'  
 PC STA = 38+43.55  
 Y = 262690.399  
 X = 611101.830  
 PT STA = 38+82.77  
 Y = 262729.613  
 X = 611101.118  
 BK = N01°43'34.6"W  
 AH = N00°21'12.7"W  
 SE = NC



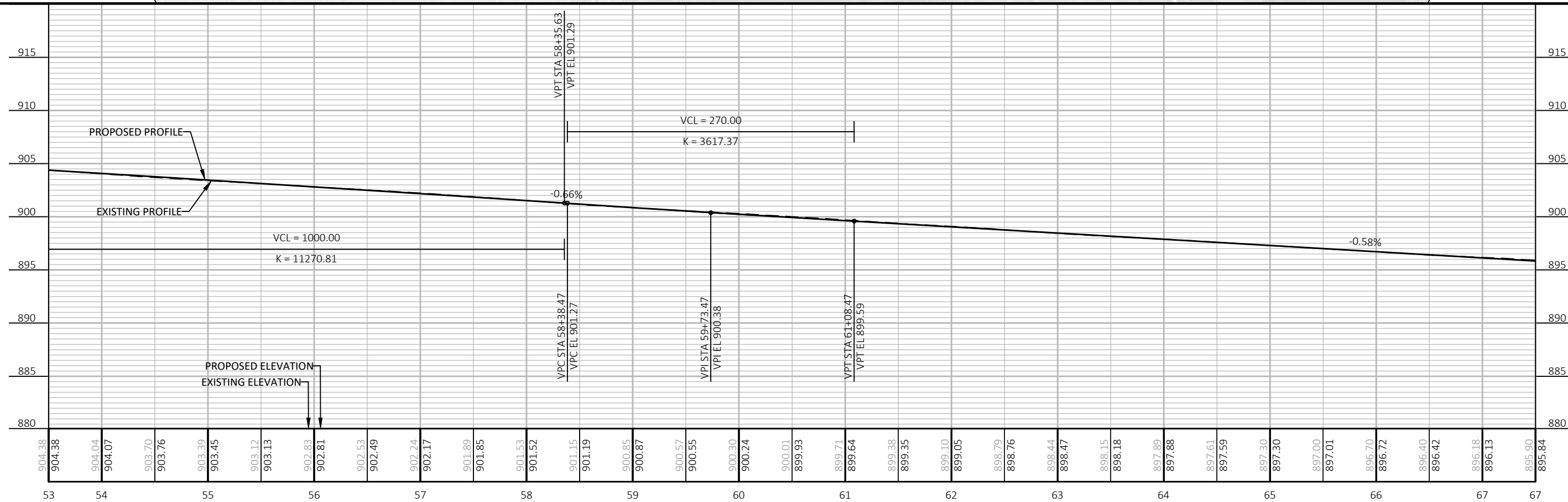
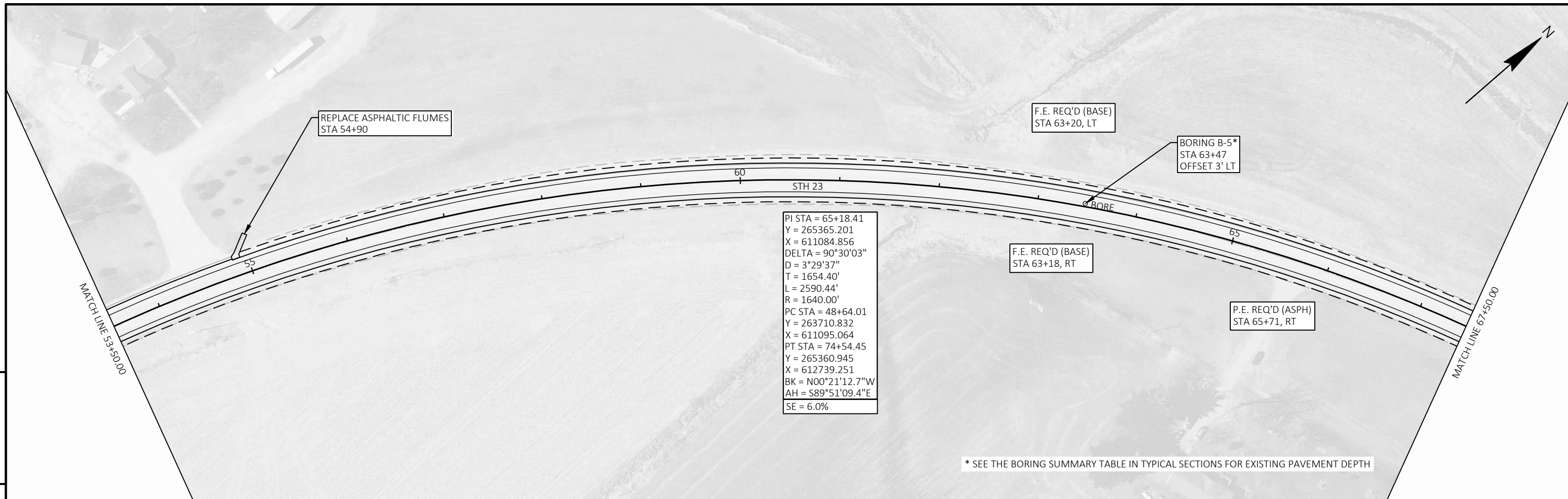
PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET	E
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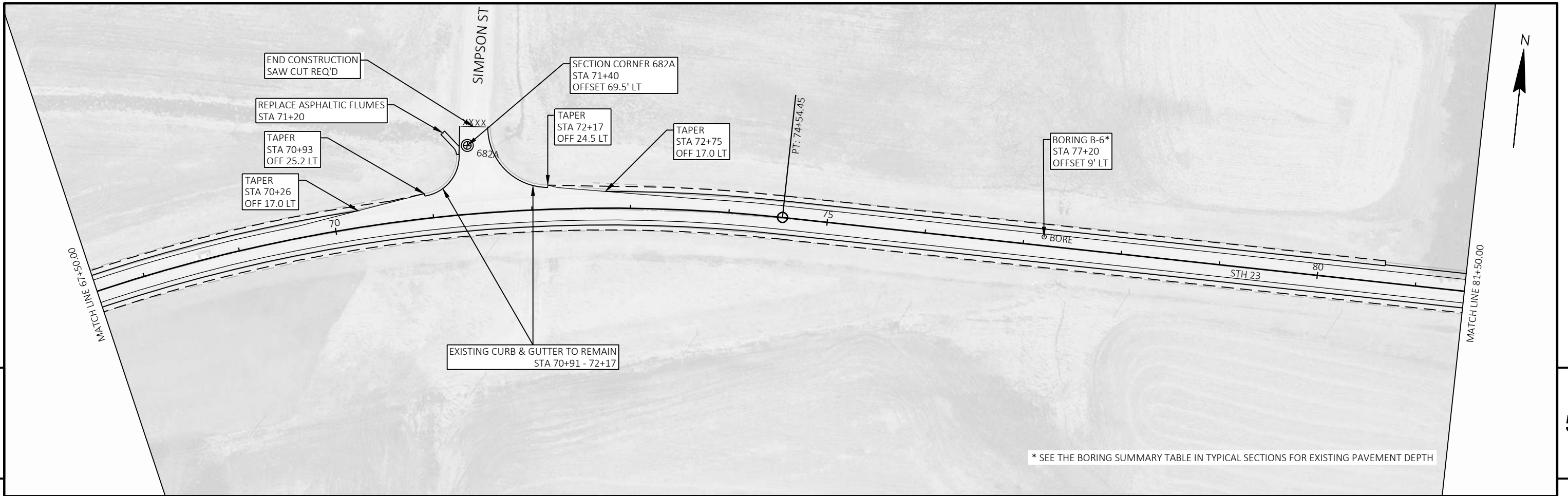
\* SEE THE BORING SUMMARY TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH



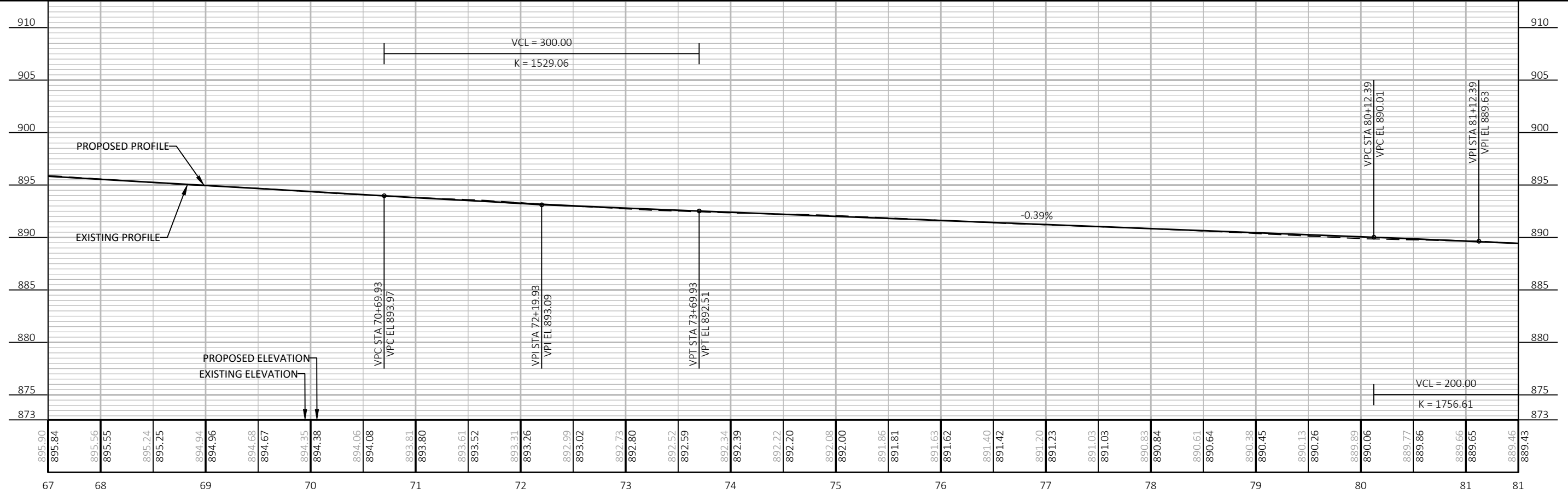
PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET	<b>E</b>
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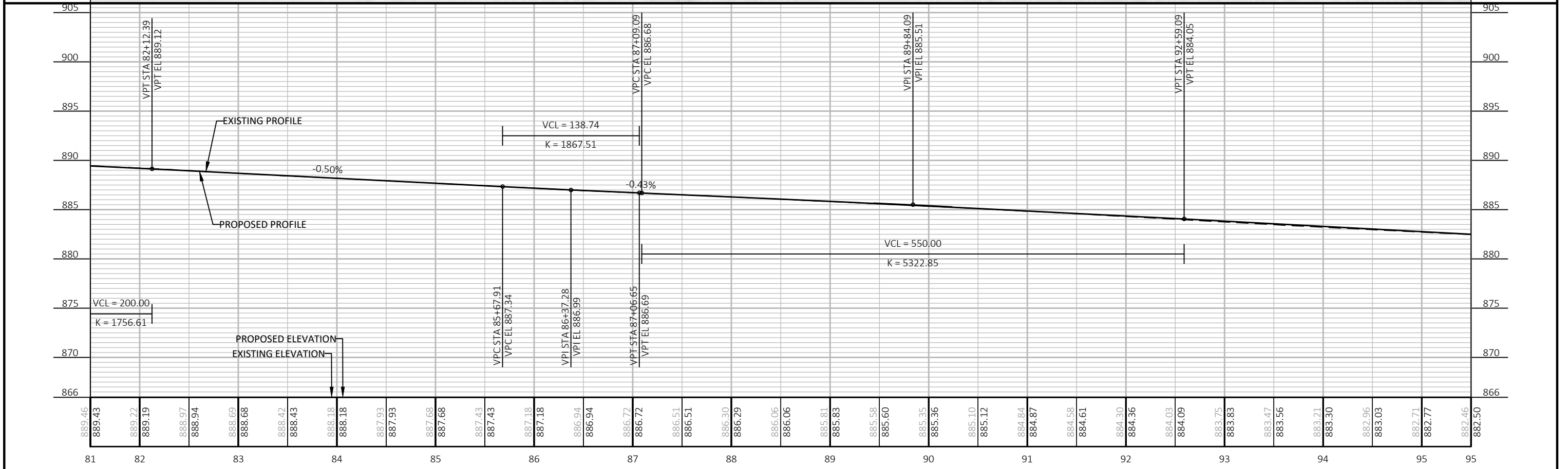
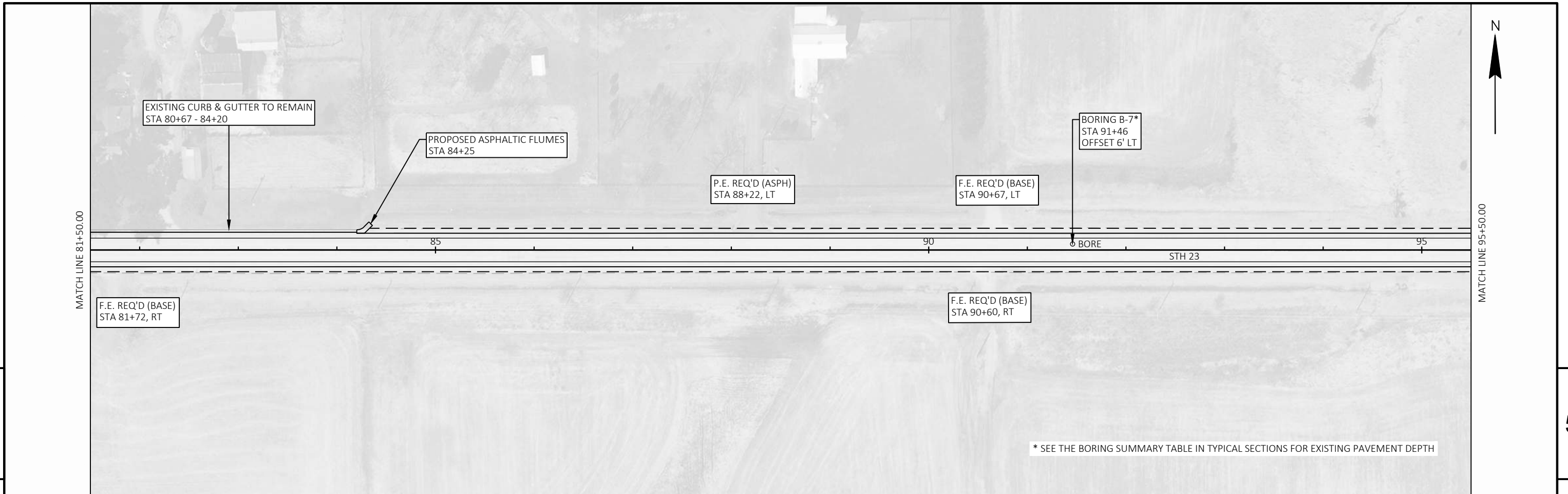
PROJECT NO: 5060-00-77 HWY: STH 23 COUNTY: SAUK PLAN AND PROFILE: STH 23 SHEET E



\* SEE THE BORING SUMMARY TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

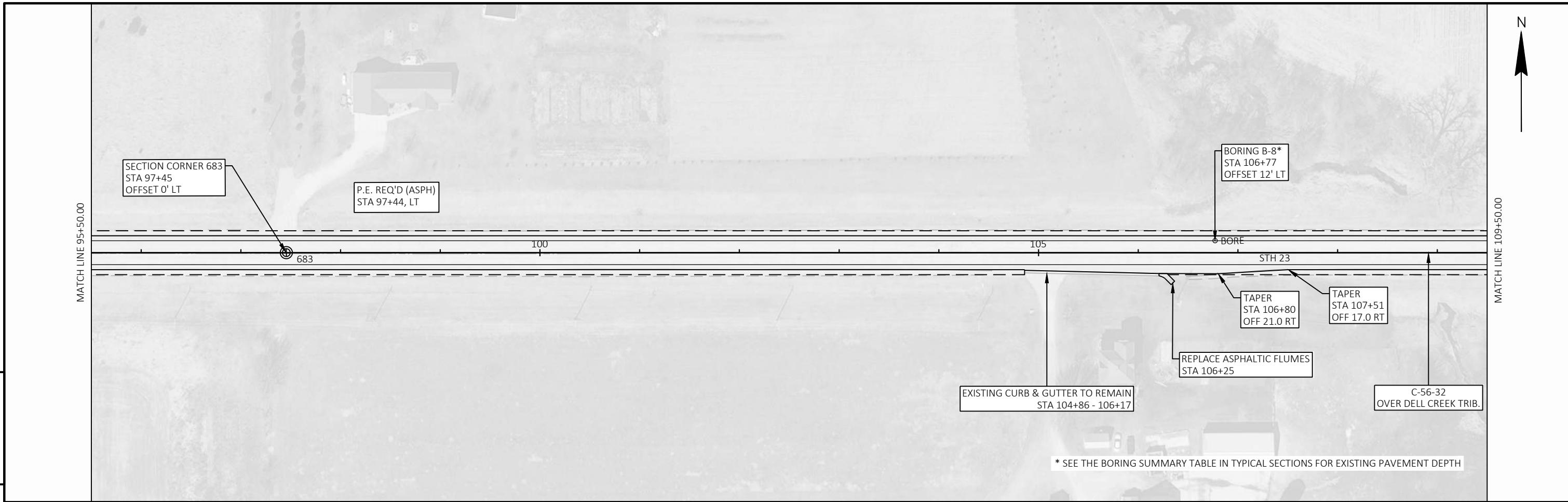


PROJECT NO: 5060-00-77 HWY: STH 23 COUNTY: SAUK PLAN AND PROFILE: STH 23 SHEET 5



PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      PLAN AND PROFILE: STH 23      SHEET      E

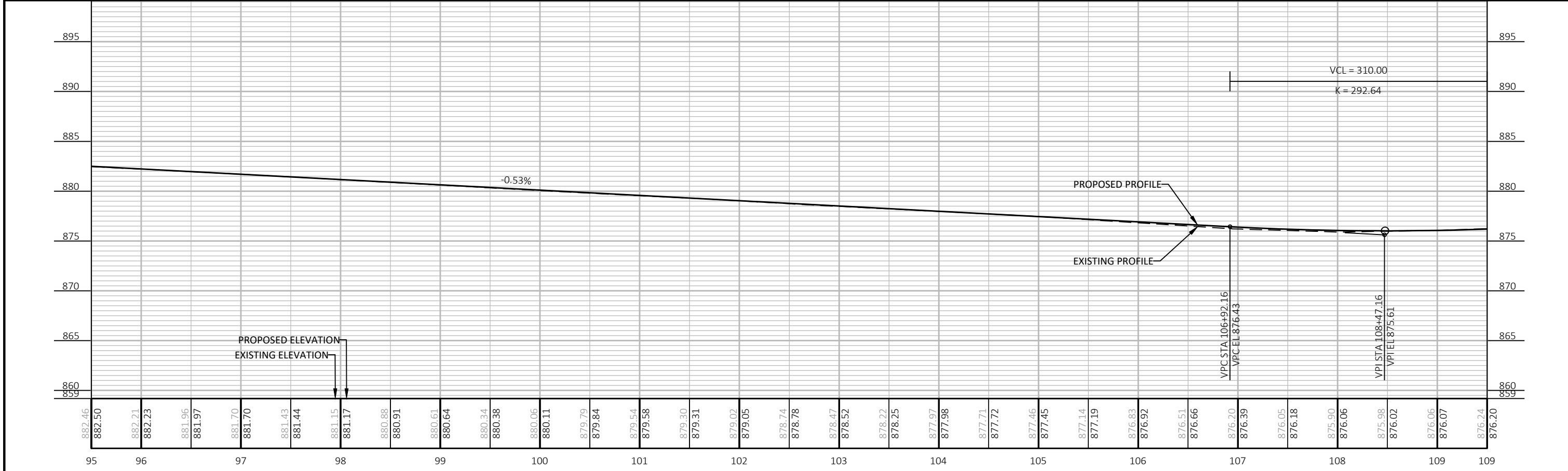




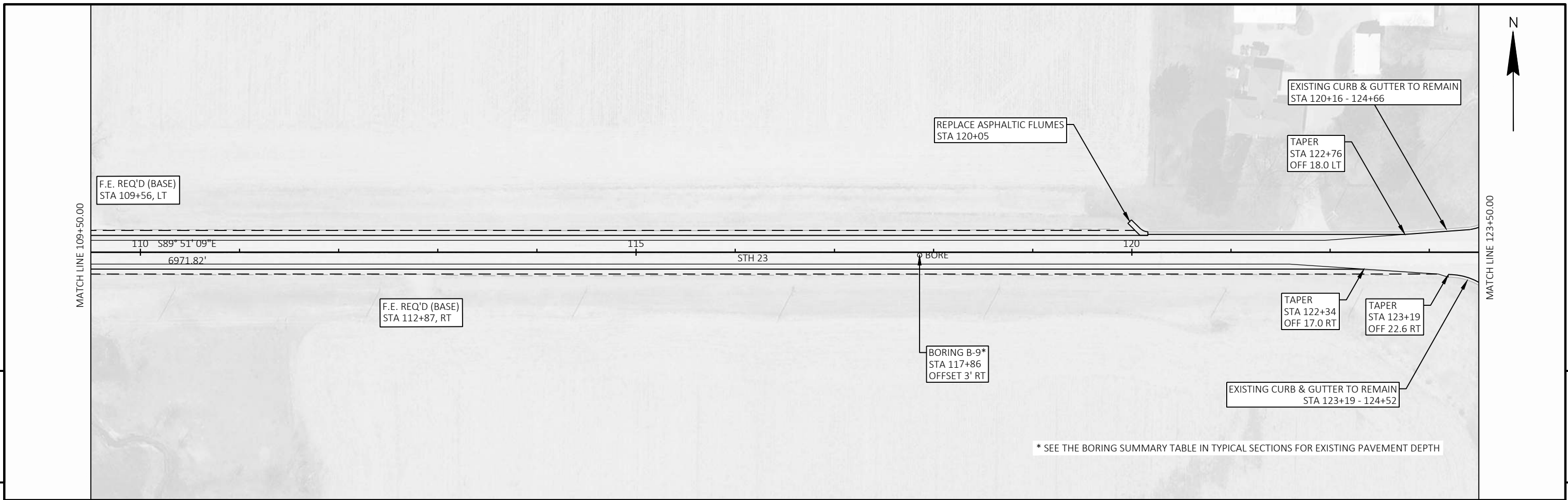
5

5

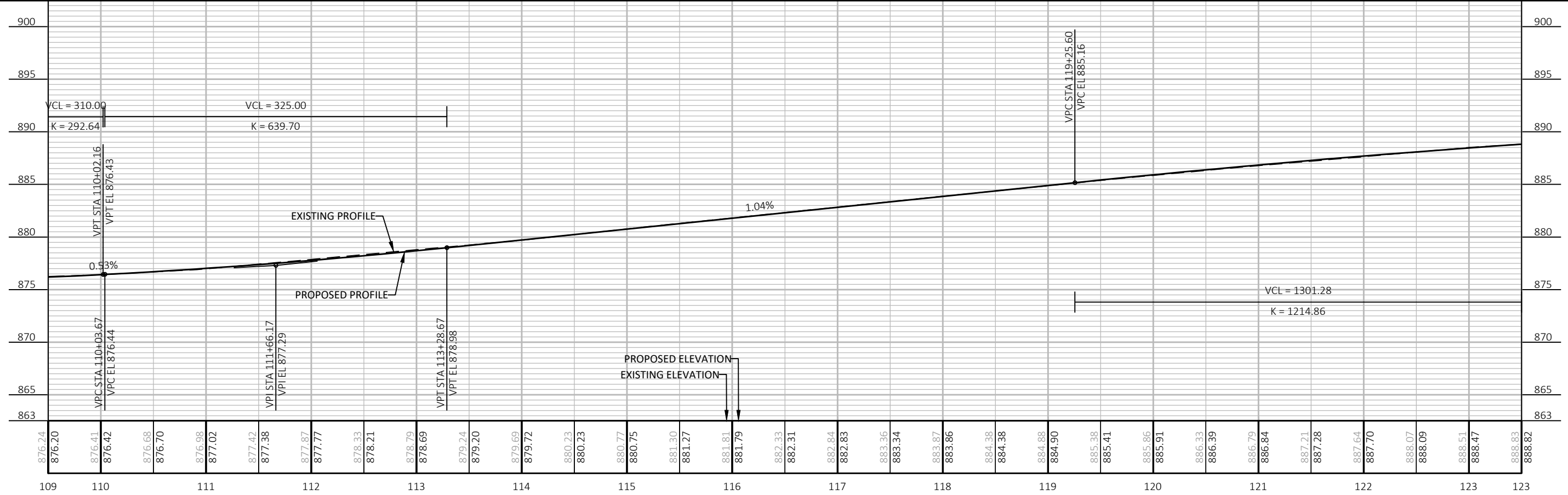
\* SEE THE BORING SUMMARY TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH



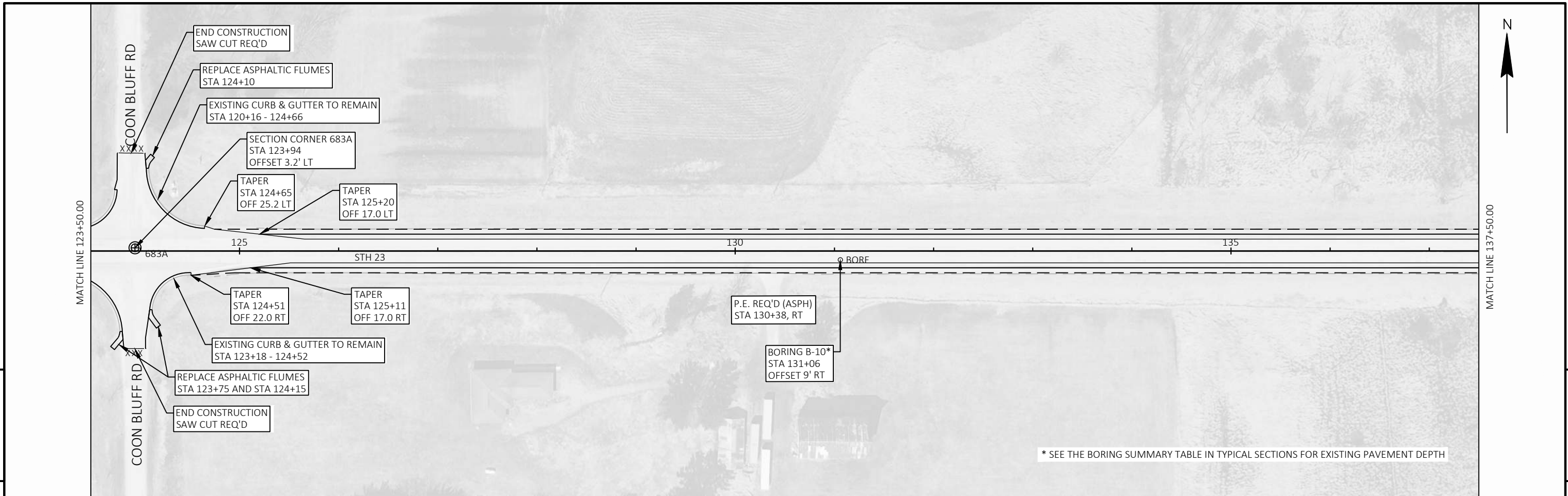
PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET	<b>E</b>
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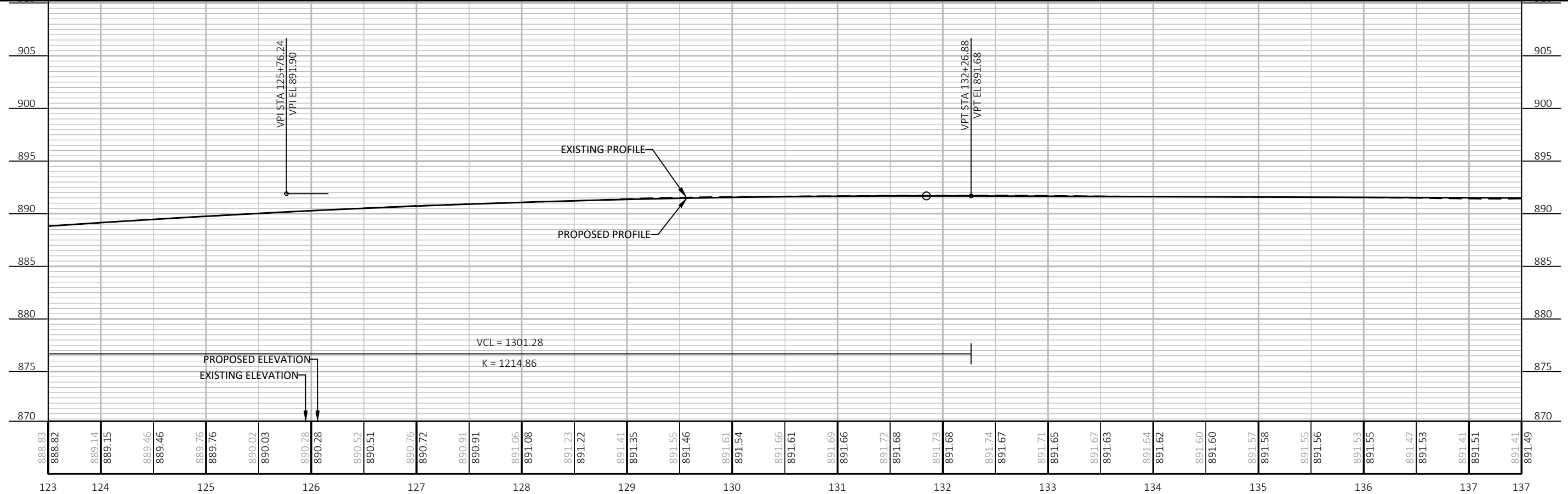
\* SEE THE BORING SUMMARY TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH



PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      PLAN AND PROFILE: STH 23      SHEET      E

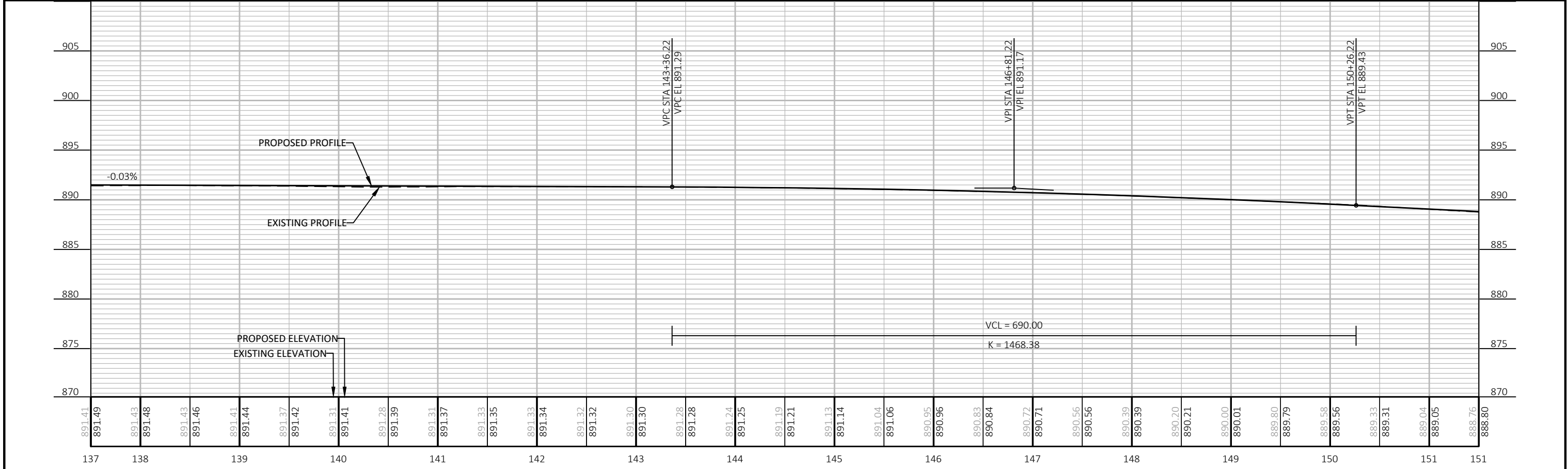
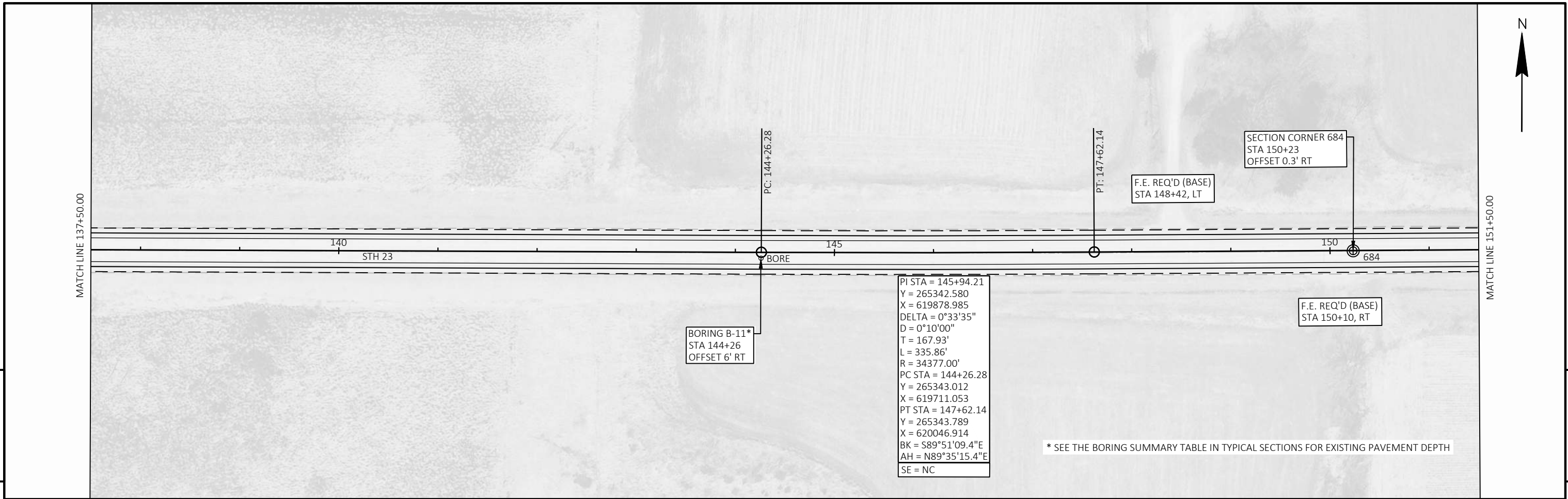


\* SEE THE BORING SUMMARY TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

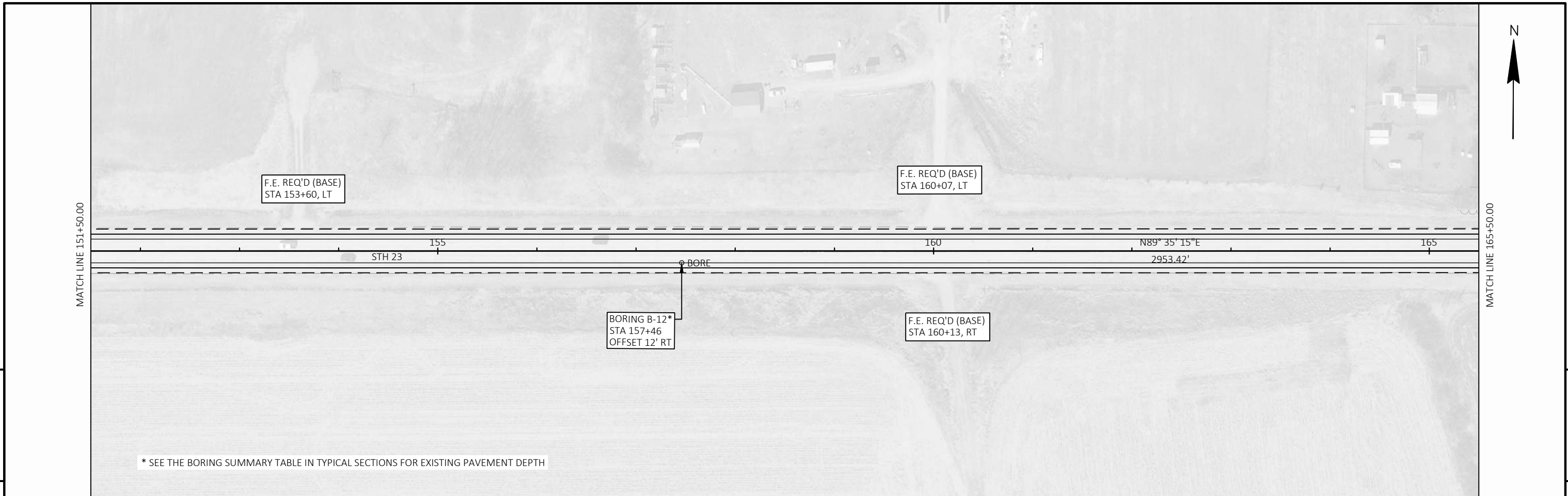


PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET	<b>E</b>
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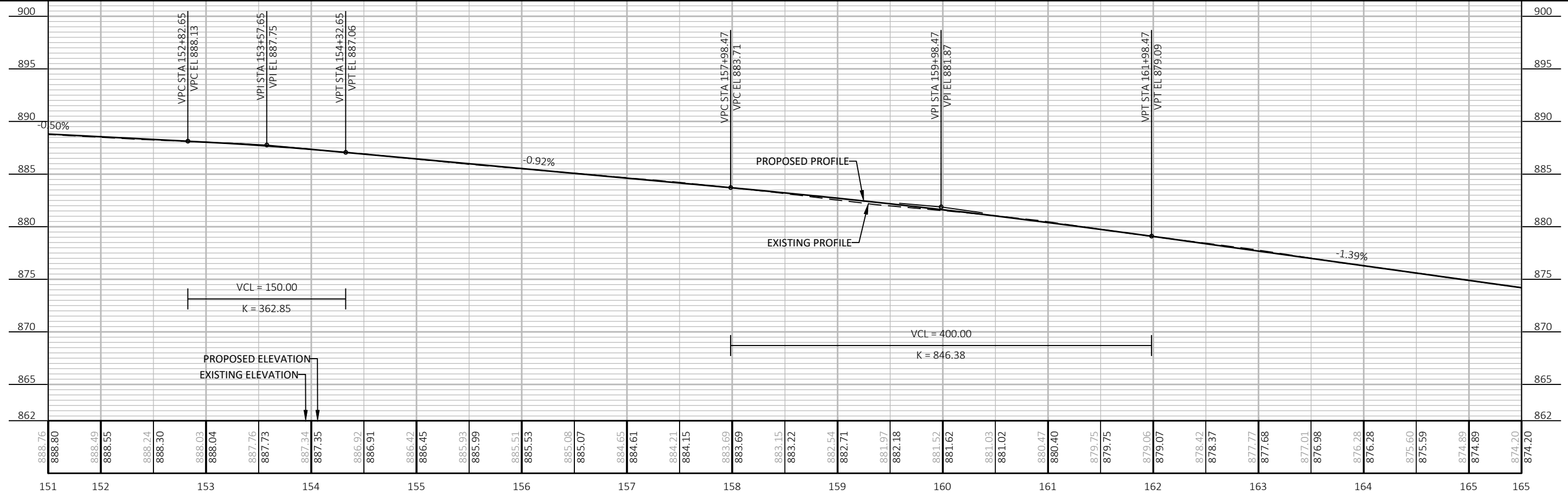




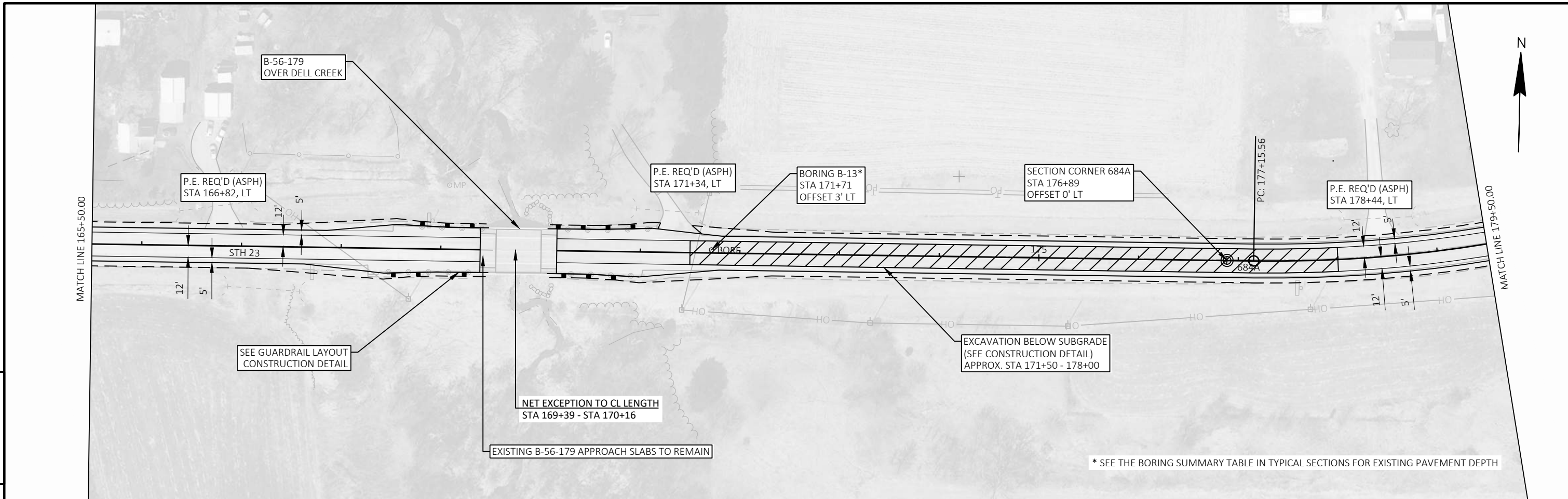
PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET E
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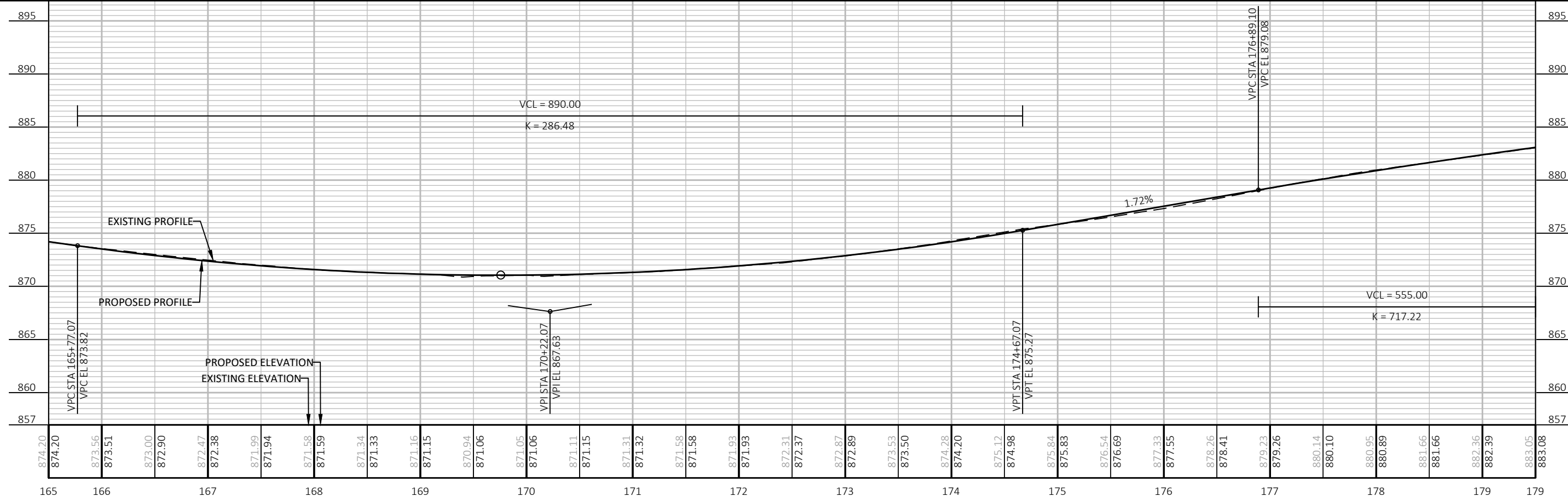
\* SEE THE BORING SUMMARY TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH



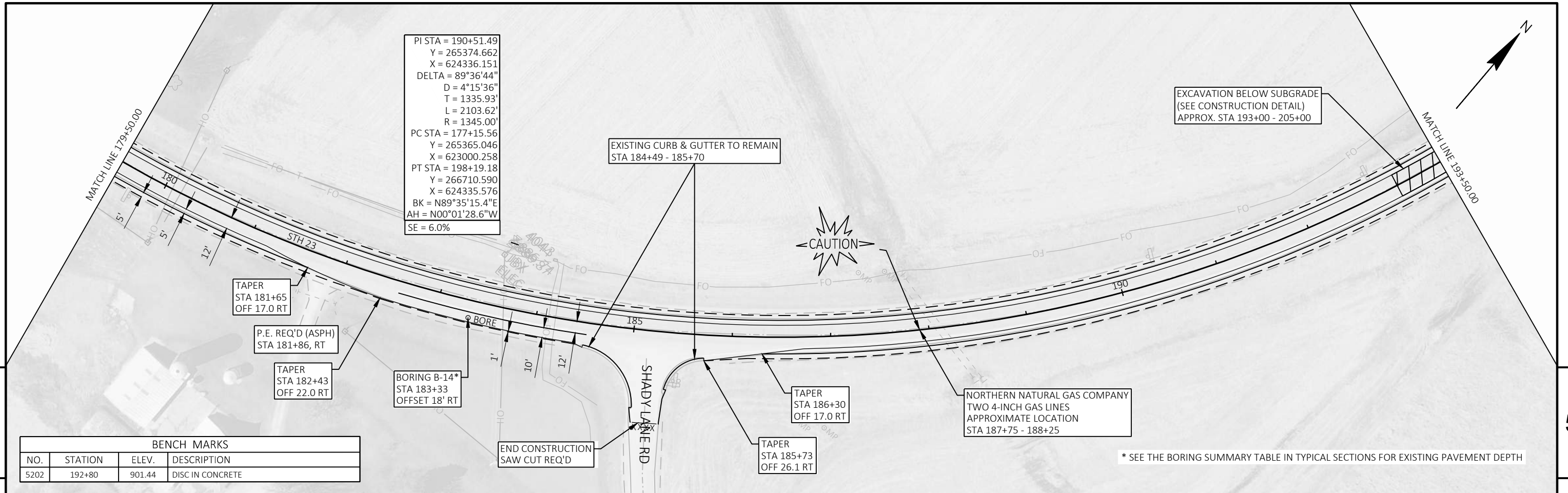
PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET	<b>E</b>
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\* SEE THE BORING SUMMARY TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH



PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      PLAN AND PROFILE: STH 23      SHEET      E



PI STA = 190+51.49  
 Y = 265374.662  
 X = 624336.151  
 DELTA = 89°36'44"  
 D = 4°15'36"  
 T = 1335.93'  
 L = 2103.62'  
 R = 1345.00'  
 PC STA = 177+15.56  
 Y = 265365.046  
 X = 623000.258  
 PT STA = 198+19.18  
 Y = 266710.590  
 X = 624335.576  
 BK = N89°35'15.4"E  
 AH = N00°01'28.6"W  
 SE = 6.0%

EXCAVATION BELOW SUBGRADE  
 (SEE CONSTRUCTION DETAIL)  
 APPROX. STA 193+00 - 205+00

TAPER  
 STA 181+65  
 OFF 17.0 RT

P.E. REQ'D (ASPH)  
 STA 181+86, RT

TAPER  
 STA 182+43  
 OFF 22.0 RT

BORING B-14\*  
 STA 183+33  
 OFFSET 18' RT

EXISTING CURB & GUTTER TO REMAIN  
 STA 184+49 - 185+70

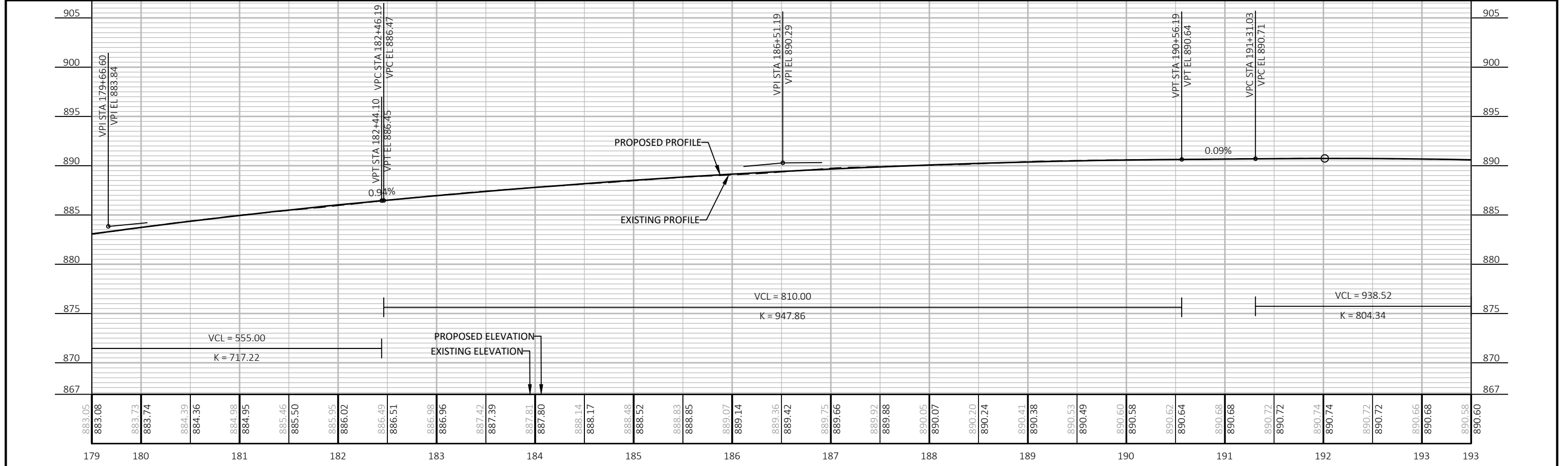


TAPER  
 STA 186+30  
 OFF 17.0 RT

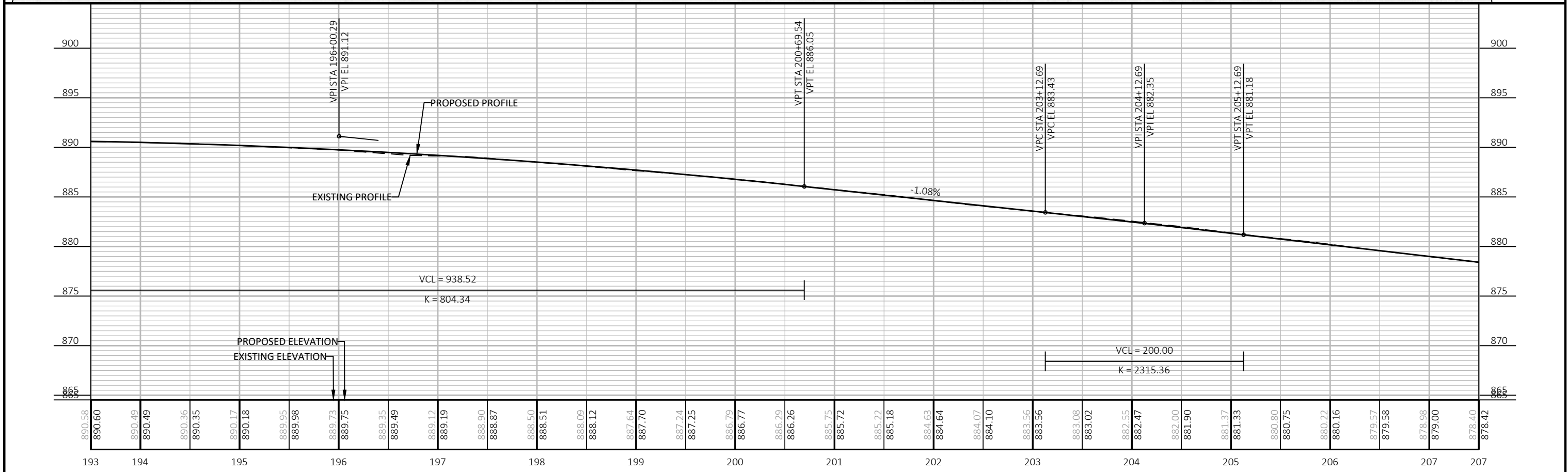
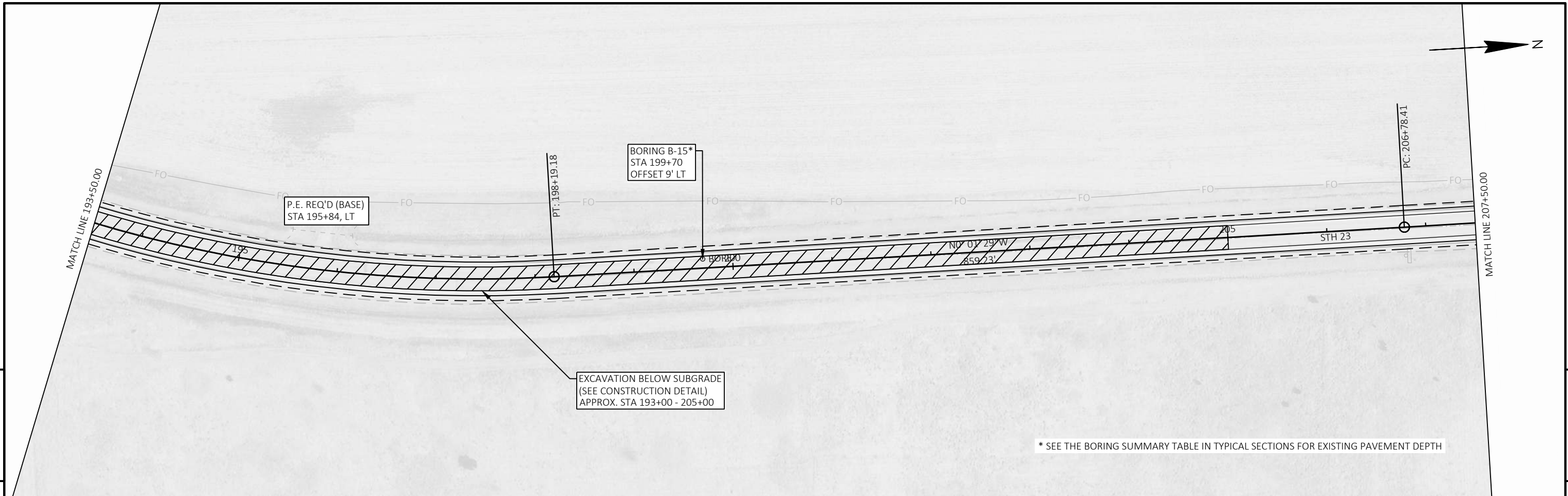
NORTHERN NATURAL GAS COMPANY  
 TWO 4-INCH GAS LINES  
 APPROXIMATE LOCATION  
 STA 187+75 - 188+25

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
5202	192+80	901.44	DISC IN CONCRETE

\* SEE THE BORING SUMMARY TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

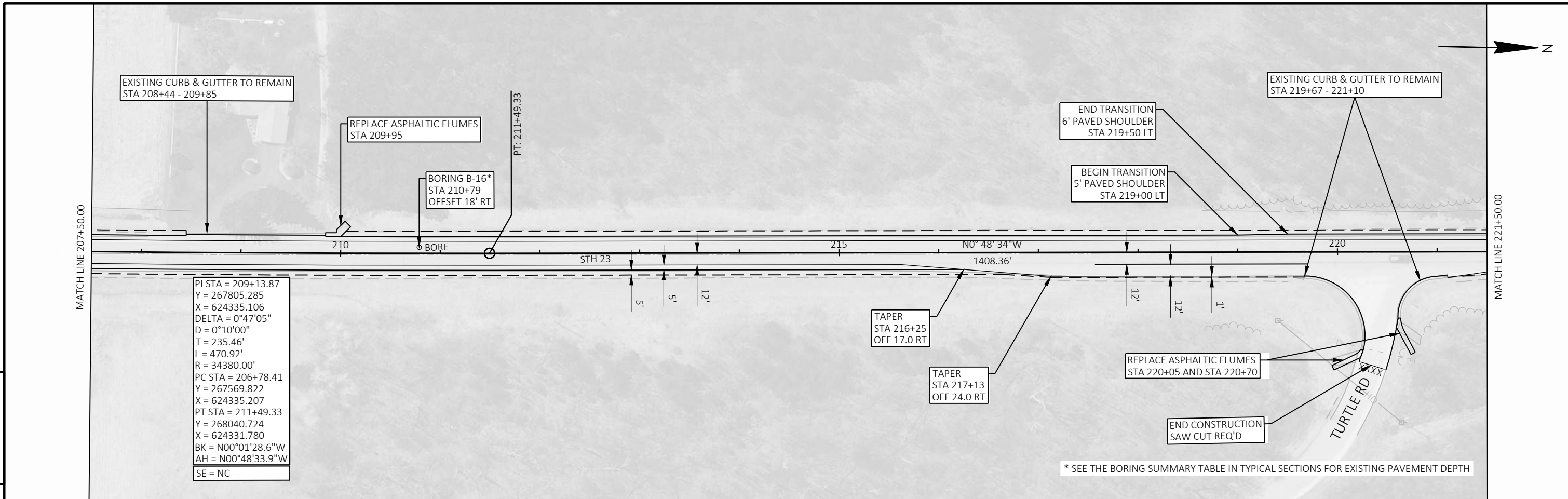


PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET	<b>E</b>
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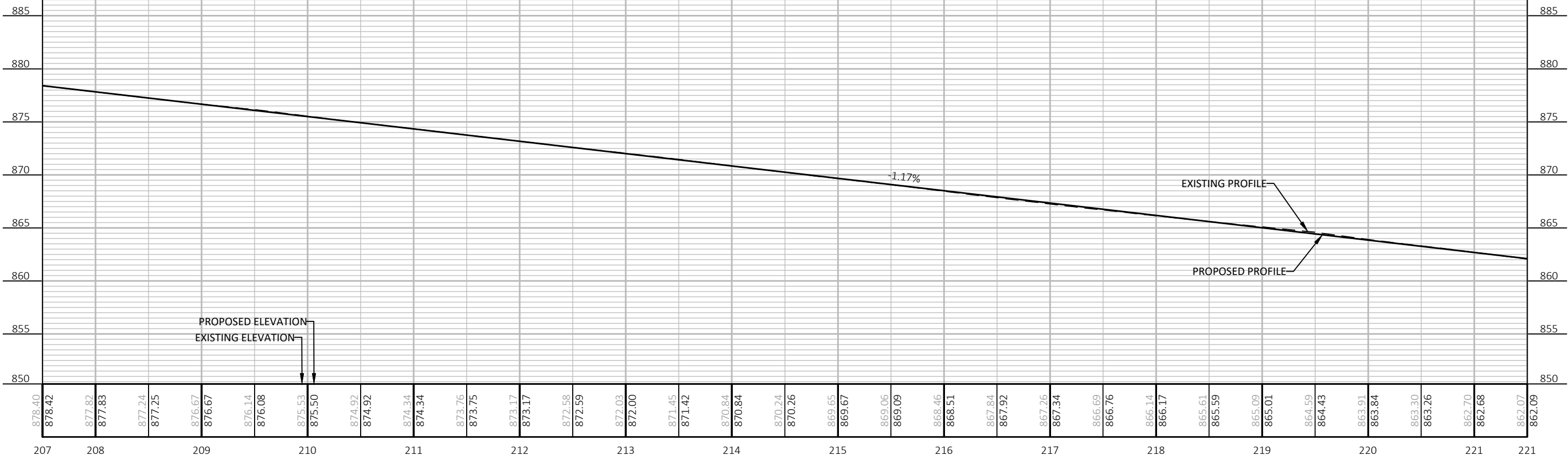


PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET	<b>E</b>
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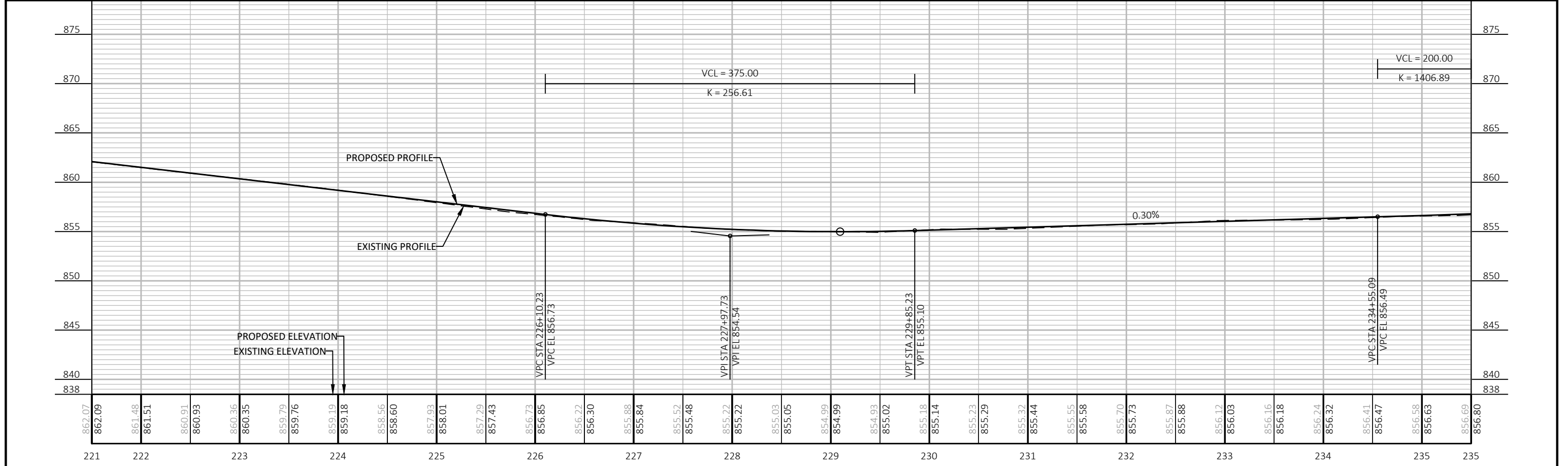
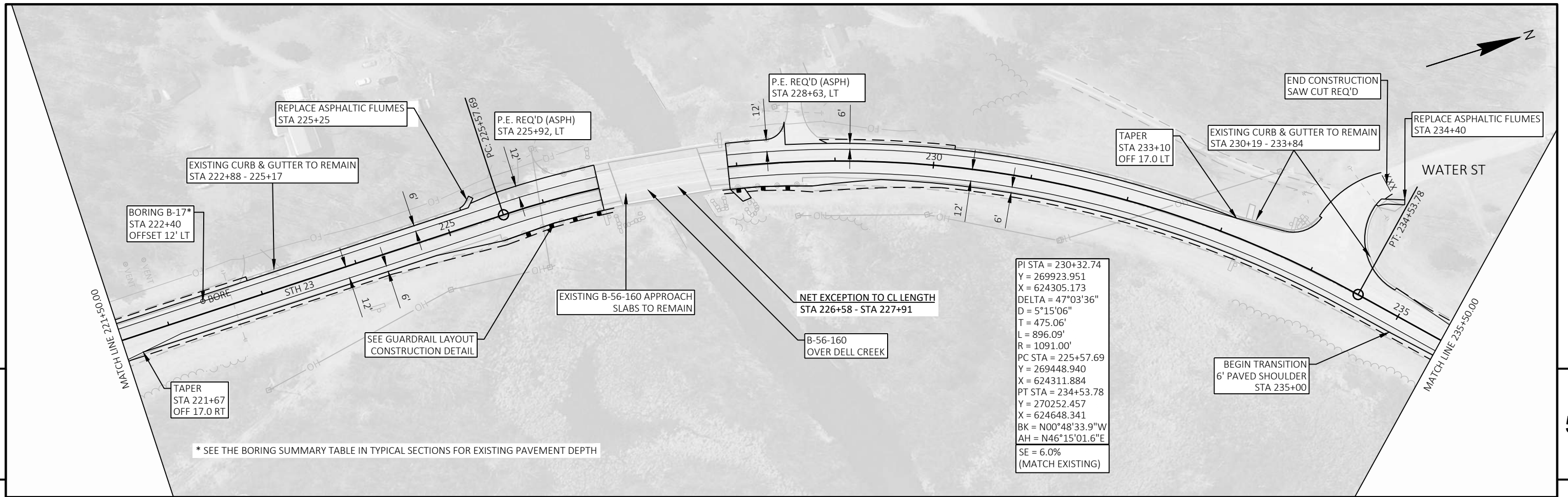




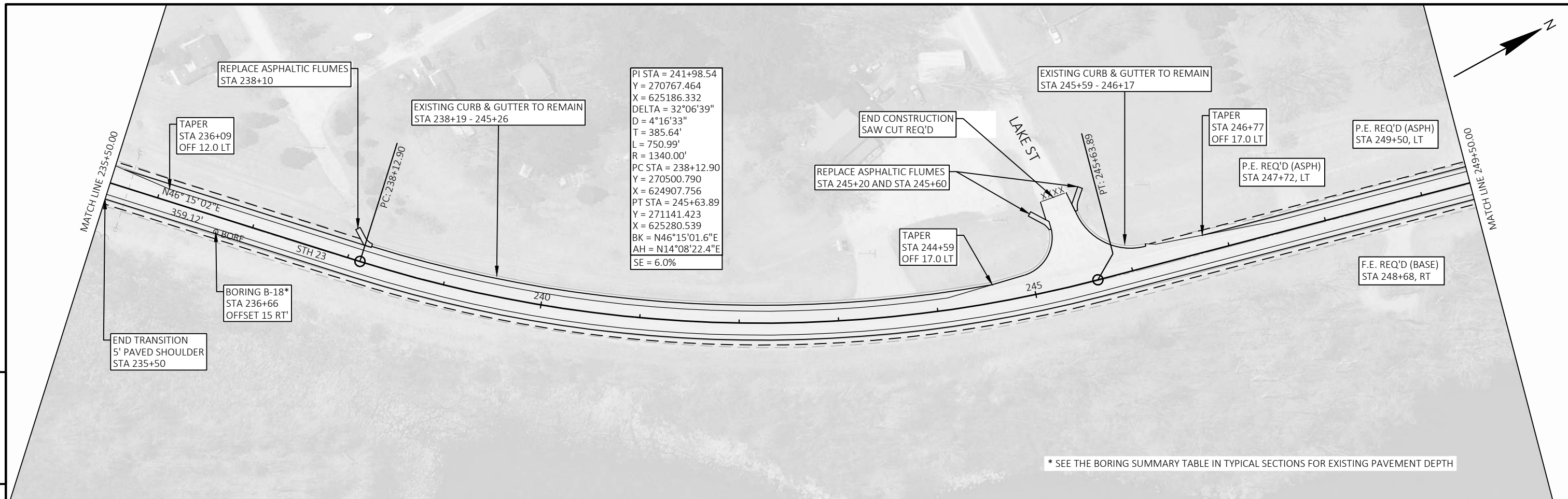
PI STA = 209+13.87  
 Y = 267805.285  
 X = 624335.106  
 DELTA = 0°47'05"  
 D = 0°10'00"  
 T = 235.46'  
 L = 470.92'  
 R = 34380.00'  
 PC STA = 206+78.41  
 Y = 267569.822  
 X = 624335.207  
 PT STA = 211+49.33  
 Y = 268040.724  
 X = 624331.780  
 BK = N00°01'28.6"W  
 AH = N00°48'33.9"W  
 SE = NC



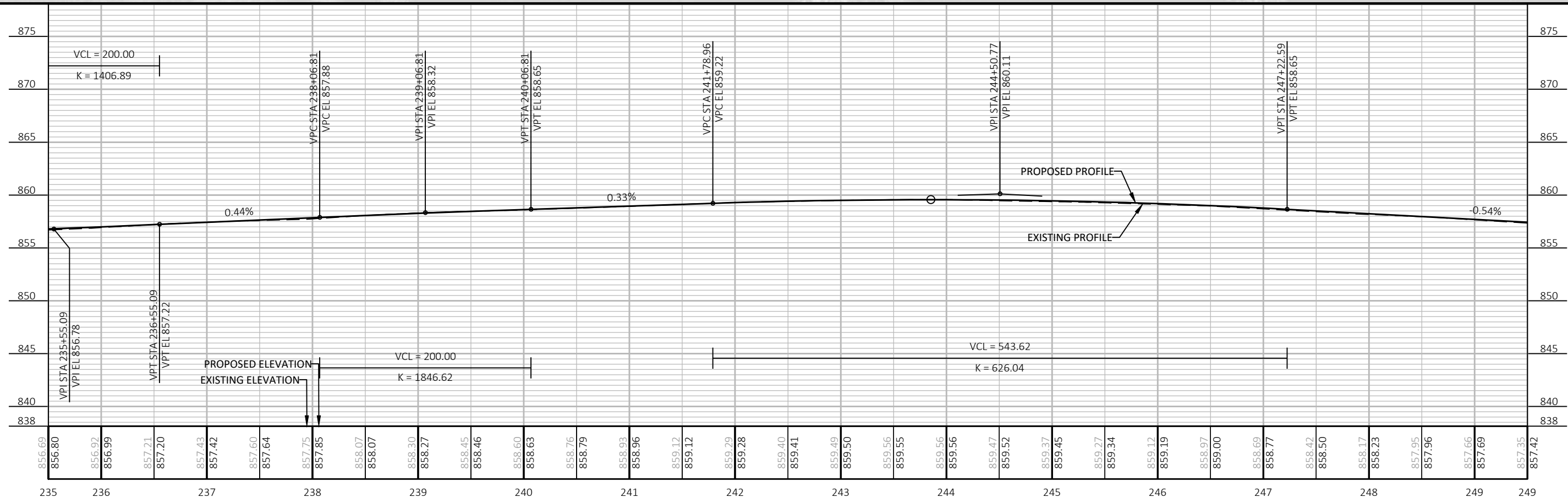
PROJECT NO: 5060-00-77 HWY: STH 23 COUNTY: SAUK PLAN AND PROFILE: STH 23 SHEET E



PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET	<b>E</b>
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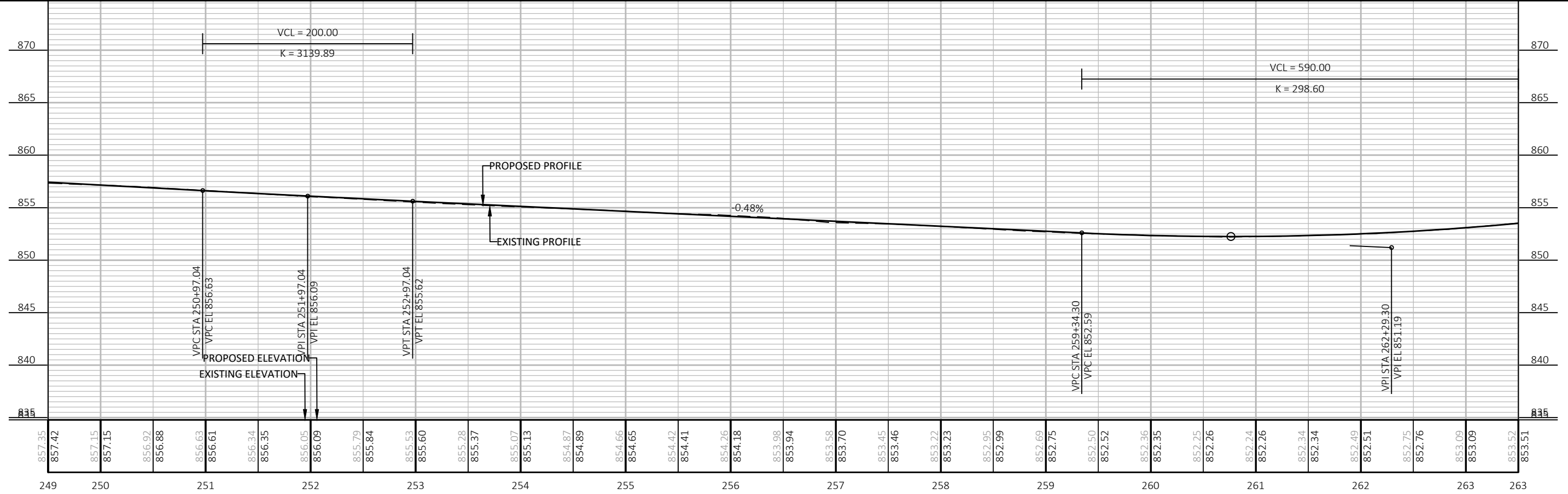
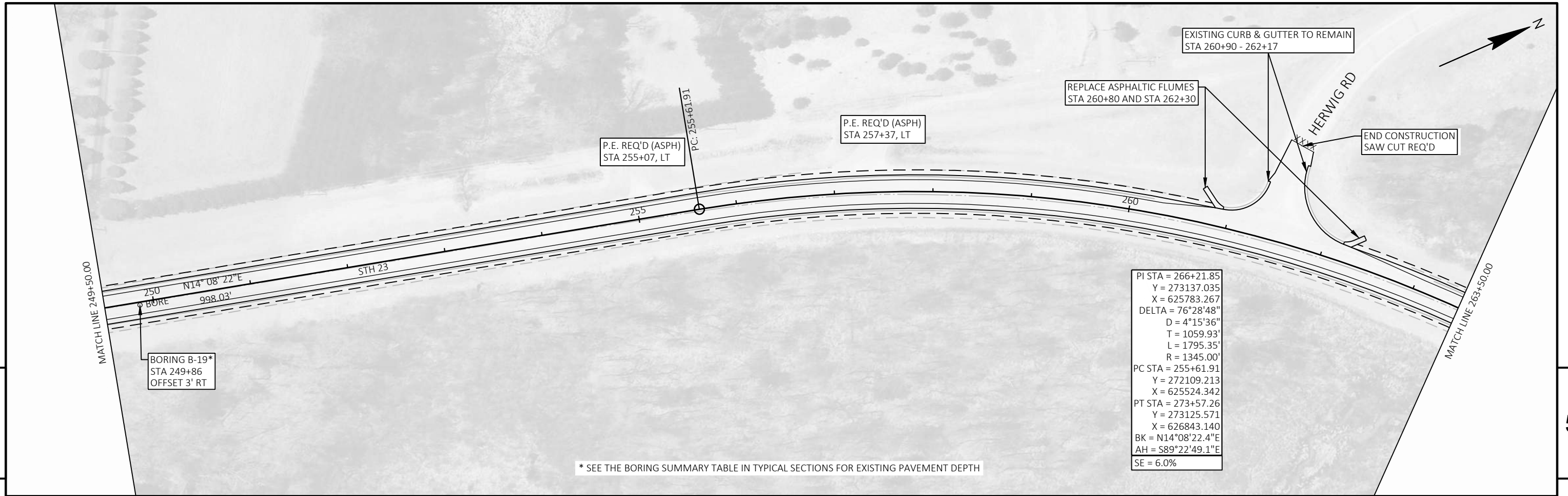


\* SEE THE BORING SUMMARY TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

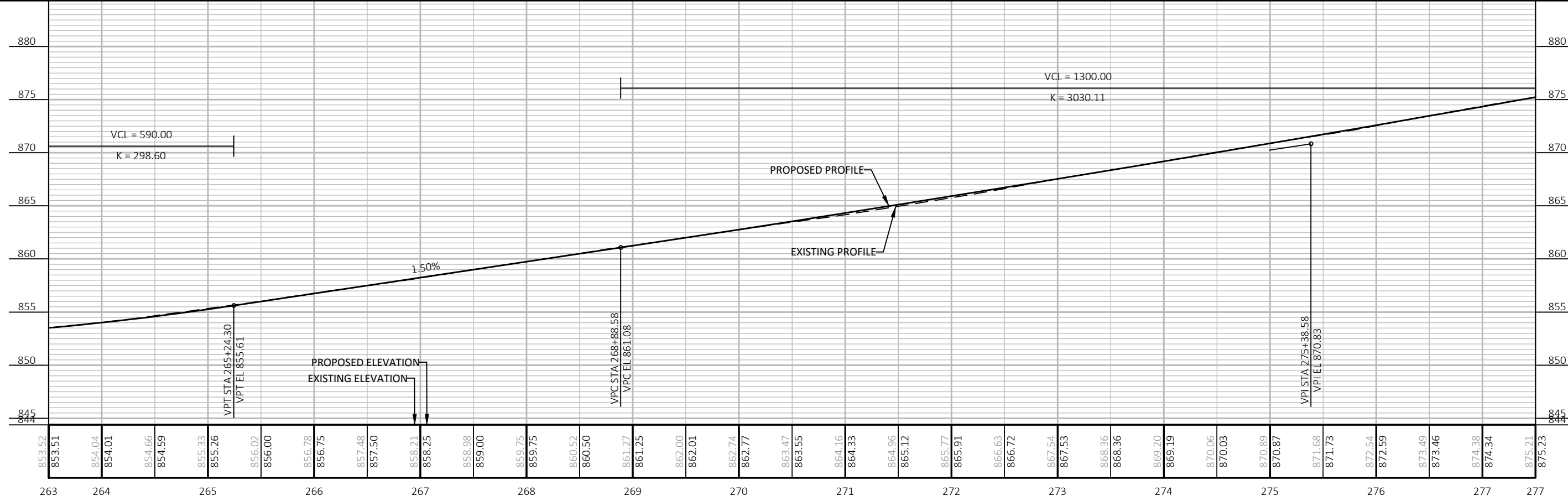
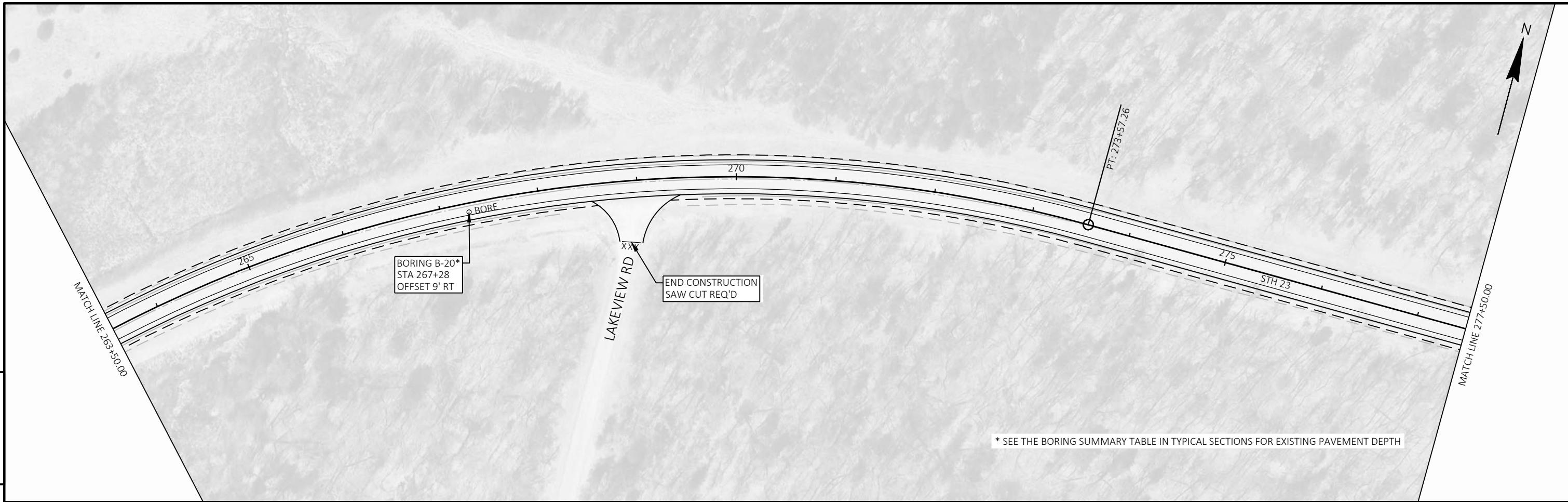


PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      PLAN AND PROFILE: STH 23      SHEET: E

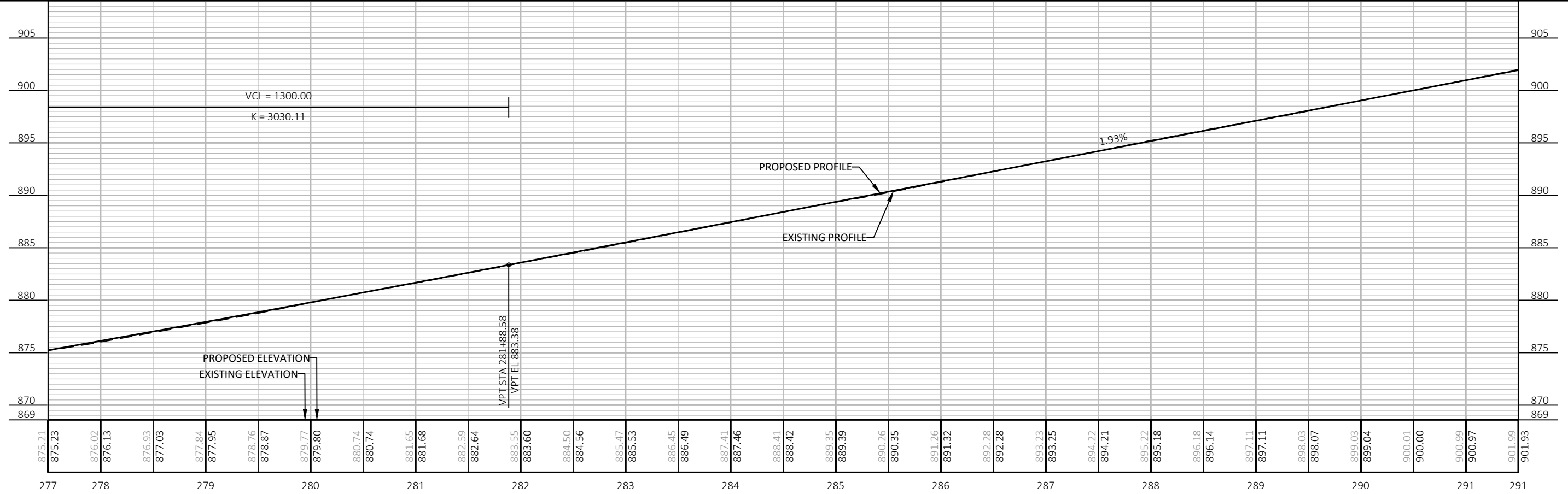
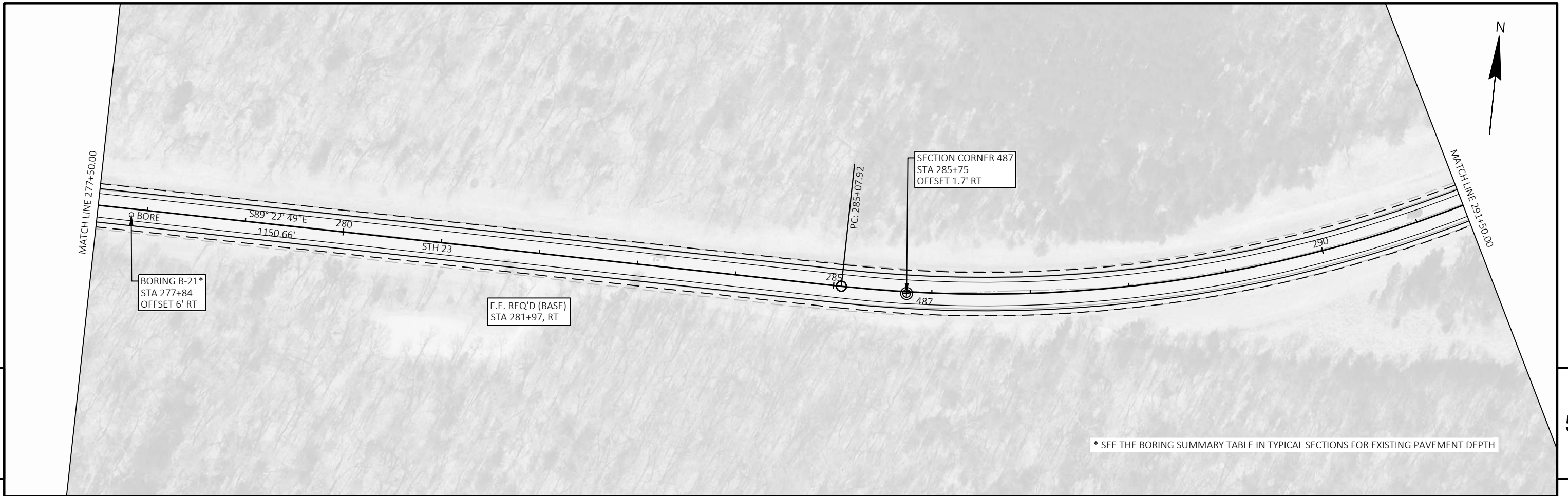




PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      PLAN AND PROFILE: STH 23      SHEET: 5



PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET	<b>E</b>
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PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      PLAN AND PROFILE: STH 23      SHEET      E

PI STA = 298+87.92  
 Y = 273098.201  
 X = 629373.650  
 DELTA = 91°20'38"  
 D = 4°15'02"  
 T = 1380.00'  
 L = 2149.05'  
 R = 1348.00'  
 PC STA = 285+07.92  
 Y = 273113.127  
 X = 627993.735  
 PT STA = 306+56.97  
 Y = 274478.086  
 X = 629356.207  
 BK = S89°22'49.1"E  
 AH = N00°43'27.3"W  
 SE = 6.0%

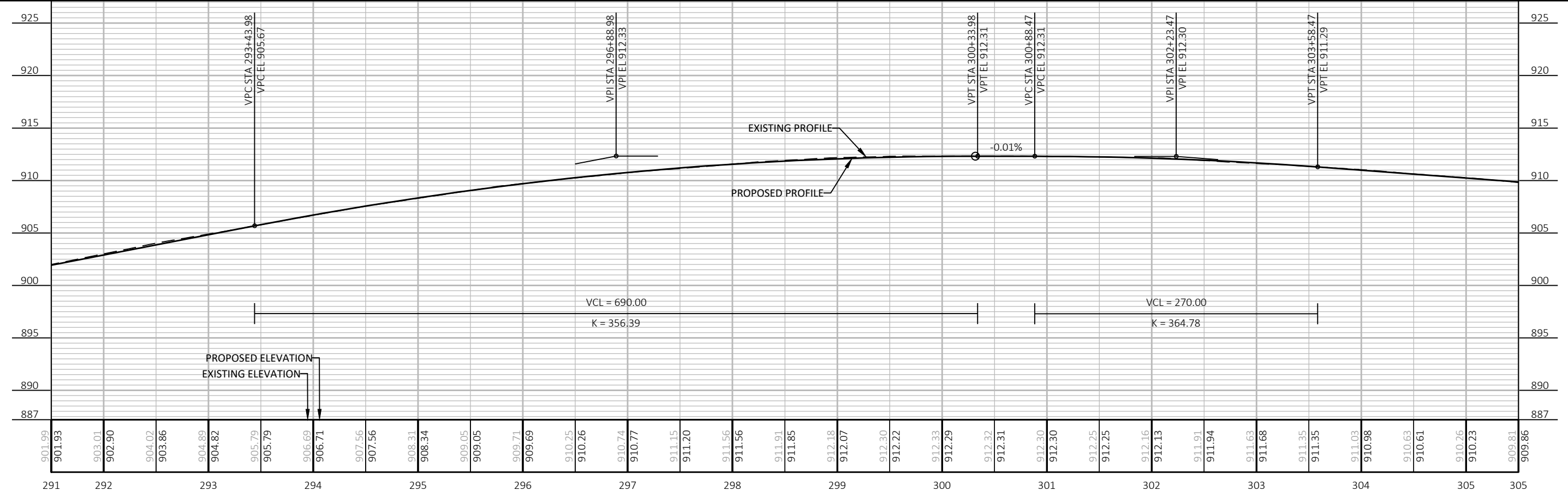
MATCH LINE 291+50.00

MATCH LINE 305+50.00

BORING B-22\*  
STA 292+63  
OFFSET 12' RT

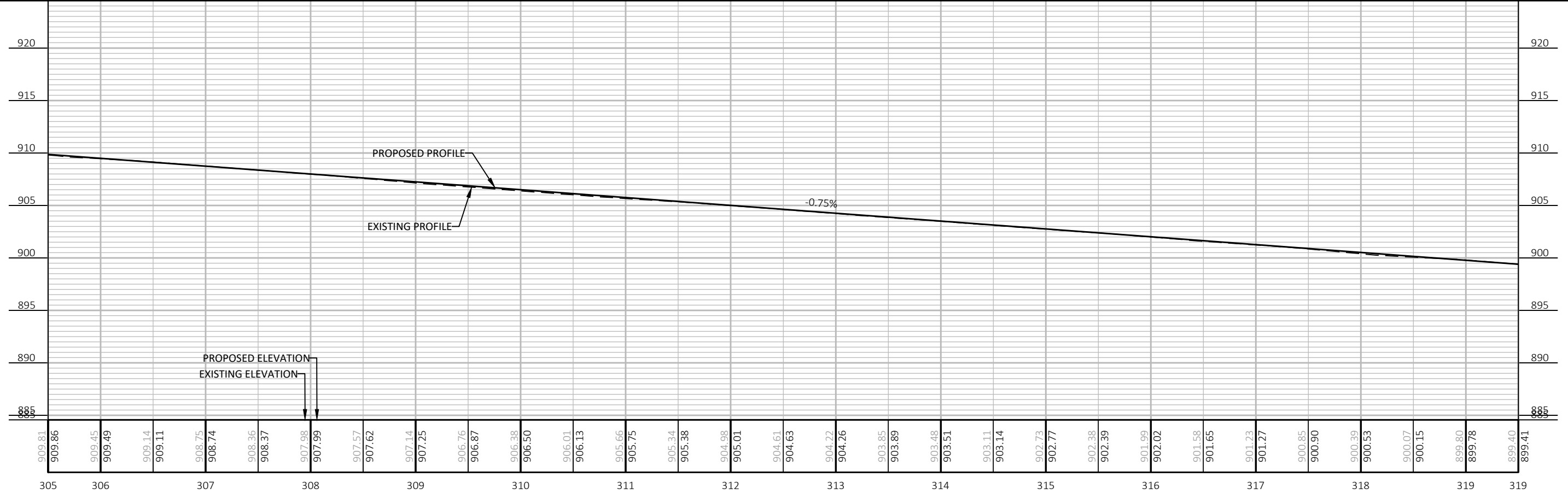
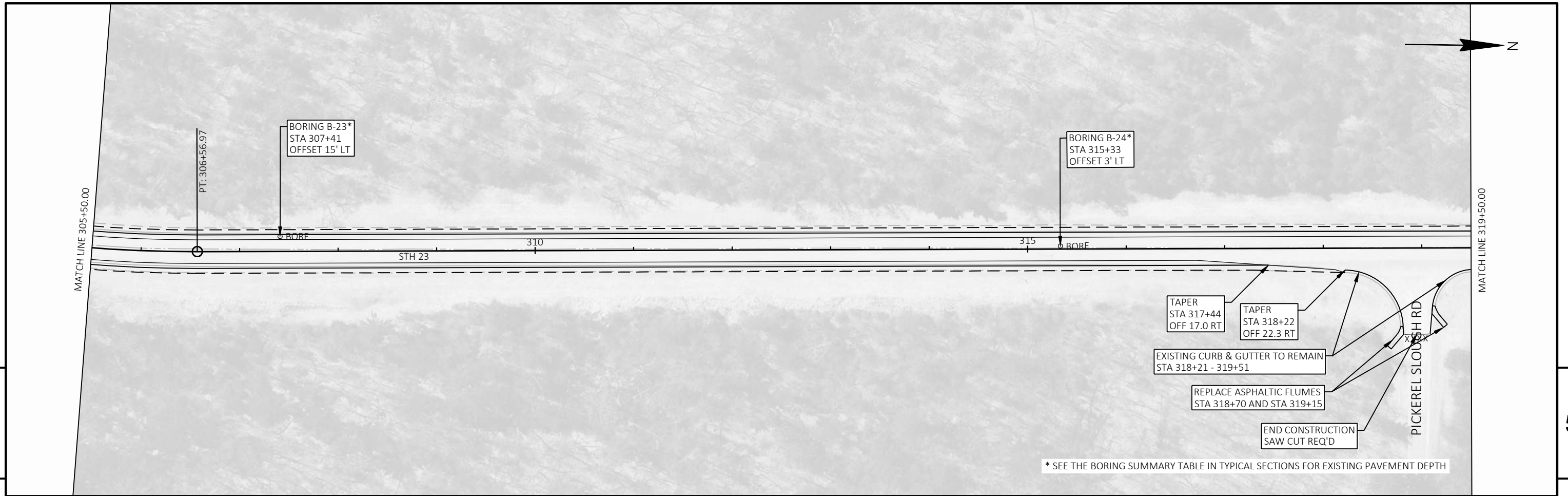
P.E. REQ'D (ASPH)  
STA 304+00, RT

\* SEE THE BORING SUMMARY TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

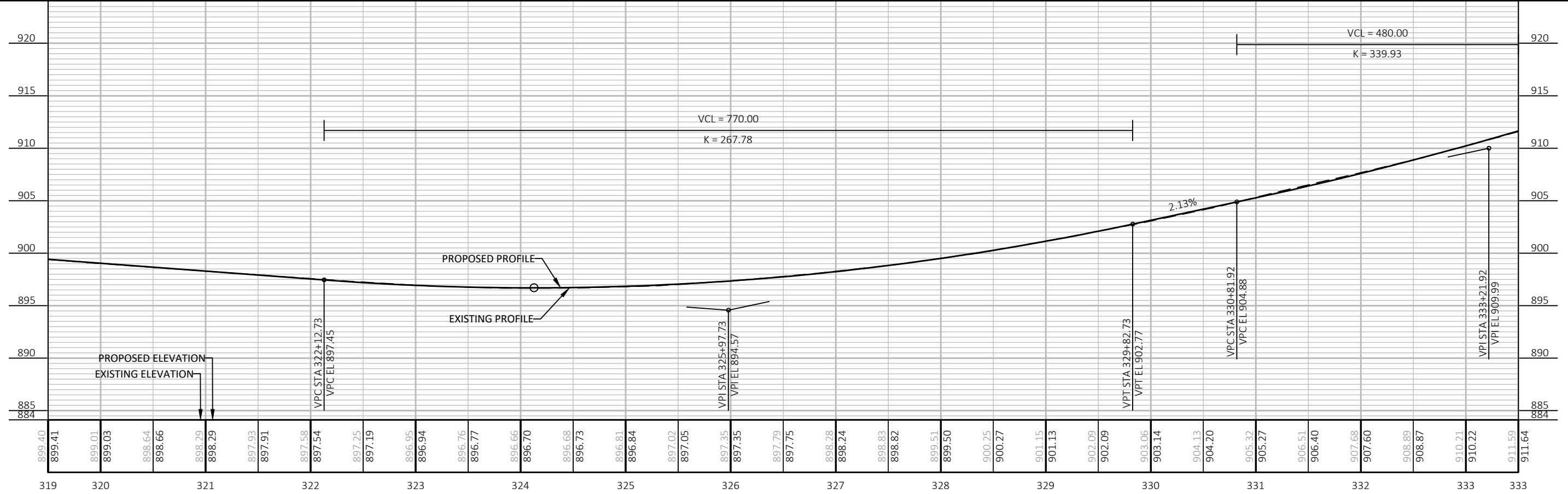
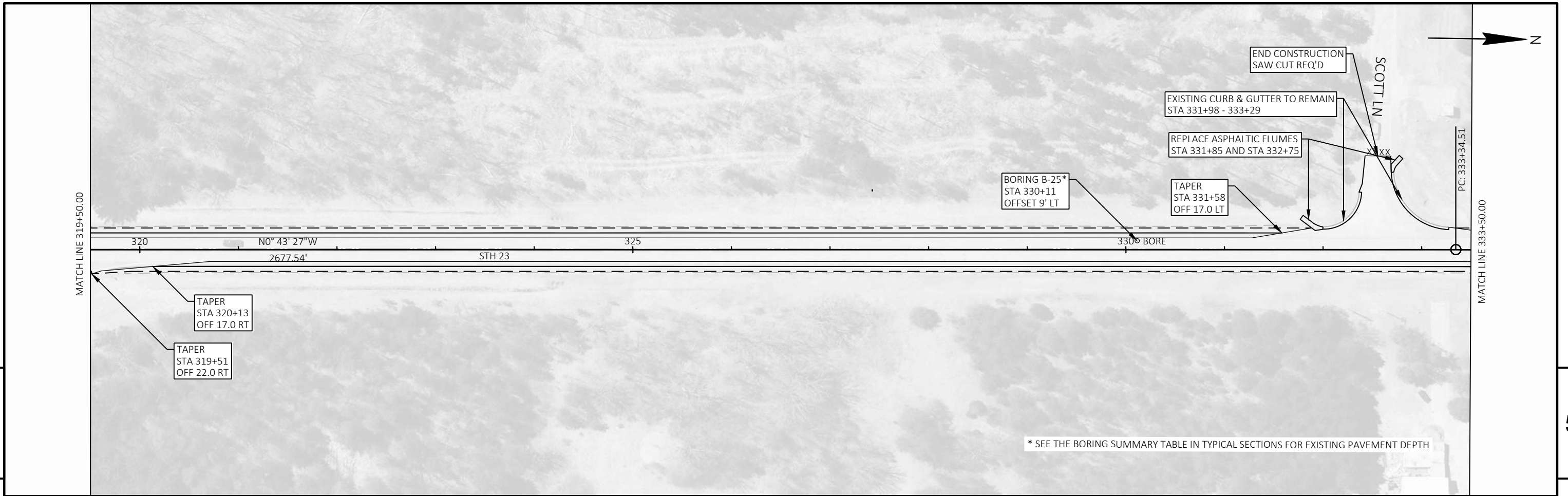


PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      PLAN AND PROFILE: STH 23      SHEET: 5

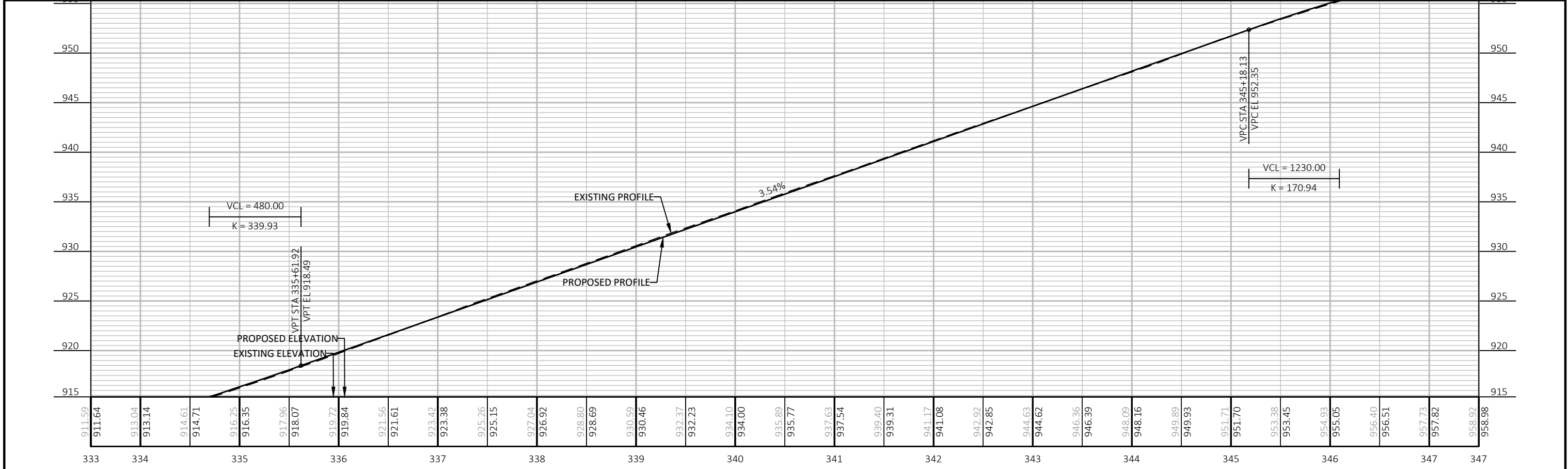
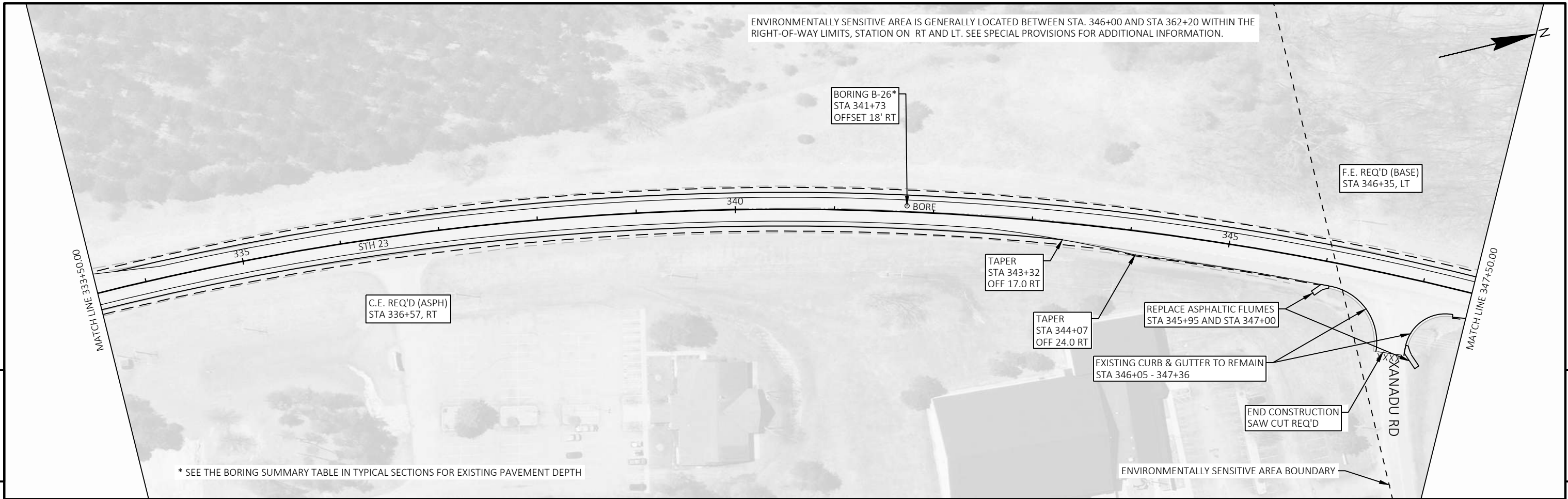




PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET	<b>E</b>
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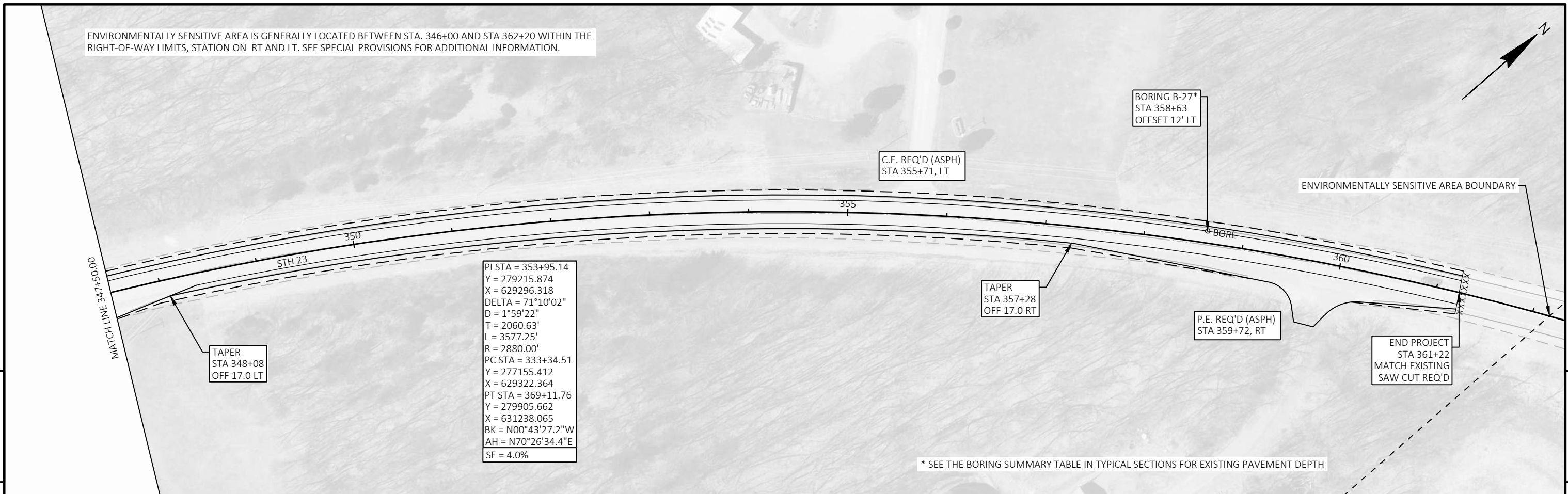


PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      PLAN AND PROFILE: STH 23      SHEET: 5



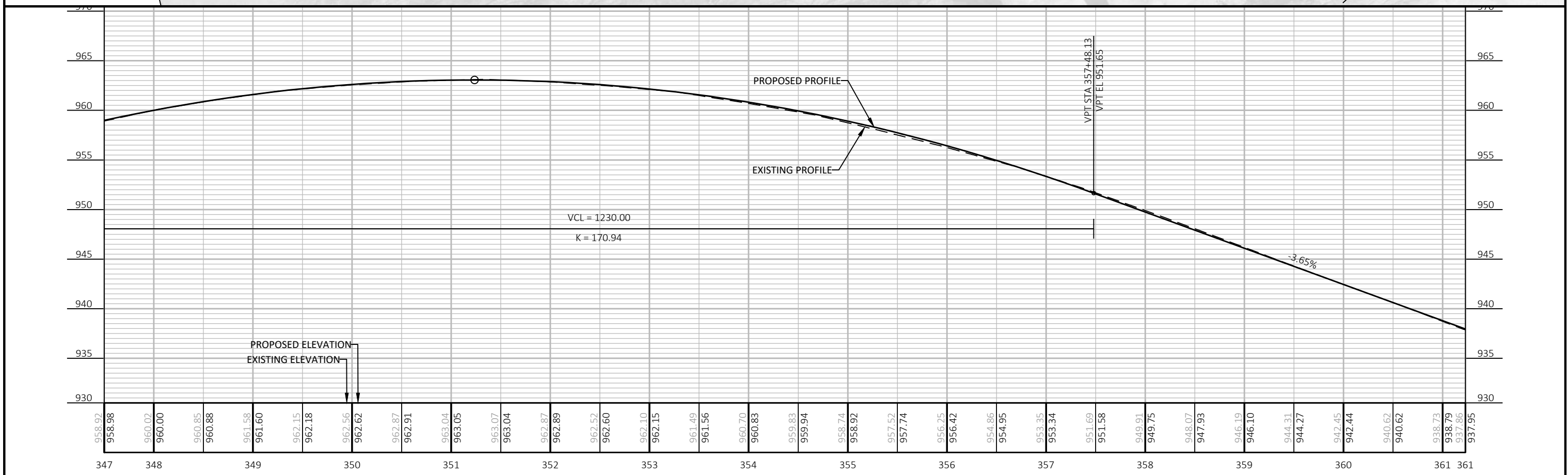
PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	PLAN AND PROFILE: STH 23	SHEET	<b>E</b>
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ENVIRONMENTALLY SENSITIVE AREA IS GENERALLY LOCATED BETWEEN STA. 346+00 AND STA 362+20 WITHIN THE RIGHT-OF-WAY LIMITS, STATION ON RT AND LT. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.



PI STA = 353+95.14  
 Y = 279215.874  
 X = 629296.318  
 DELTA = 71°10'02"  
 D = 1°59'22"  
 T = 2060.63'  
 L = 3577.25'  
 R = 2880.00'  
 PC STA = 333+34.51  
 Y = 277155.412  
 X = 629322.364  
 PT STA = 369+11.76  
 Y = 279905.662  
 X = 631238.065  
 BK = N00°43'27.2"W  
 AH = N70°26'34.4"E  
 SE = 4.0%

\* SEE THE BORING SUMMARY TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH



PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      PLAN AND PROFILE: STH 23      SHEET      E

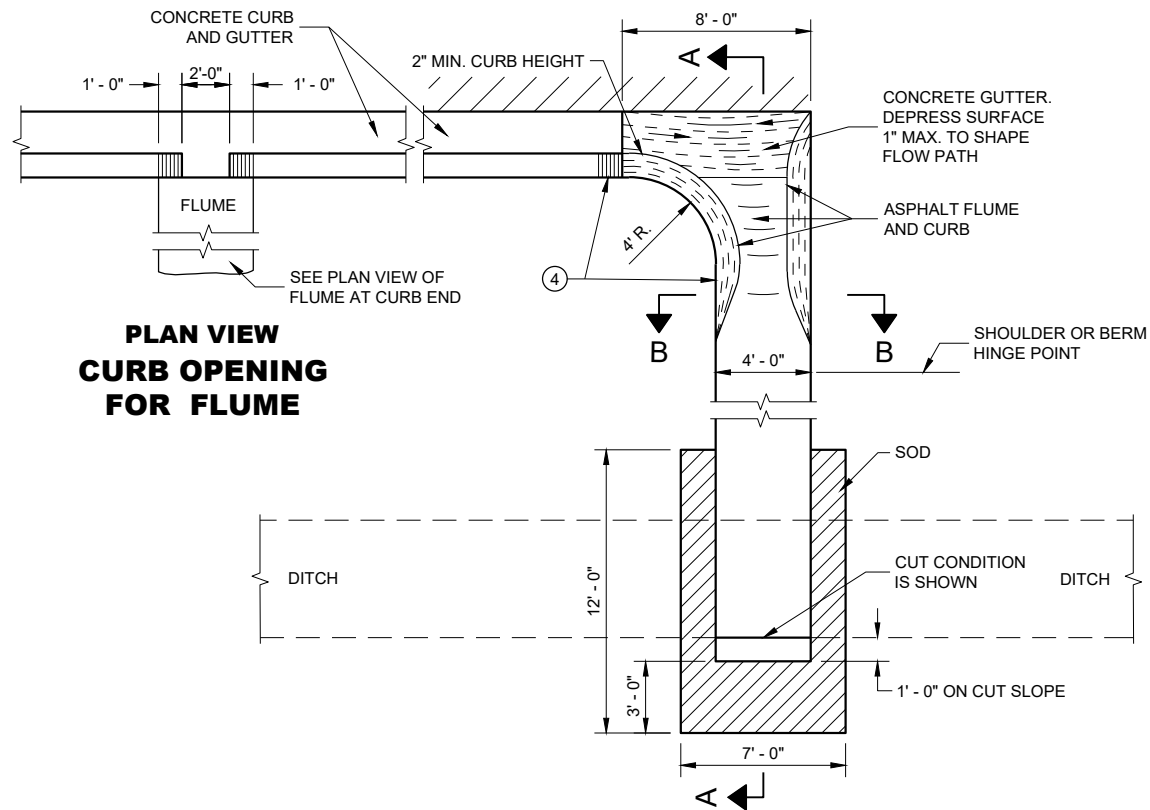


## Standard Detail Drawing List

08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13A10-03H	SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
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
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)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (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
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

### ASPHALTIC FLUME



**PLAN VIEW  
CURB OPENING  
FOR FLUME**

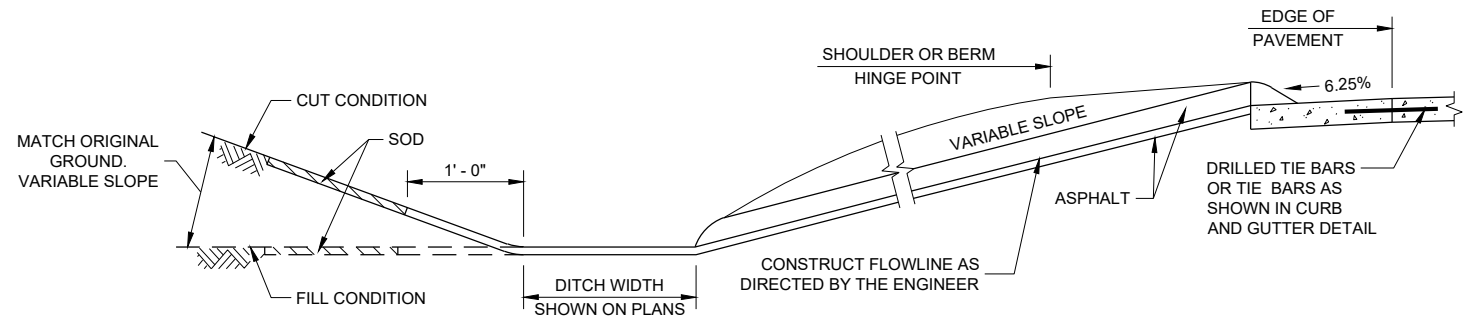
**PLAN VIEW  
FLUME AT CURB END**

### GENERAL NOTES

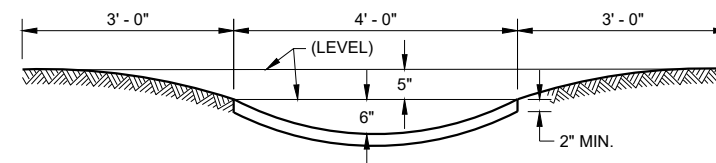
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

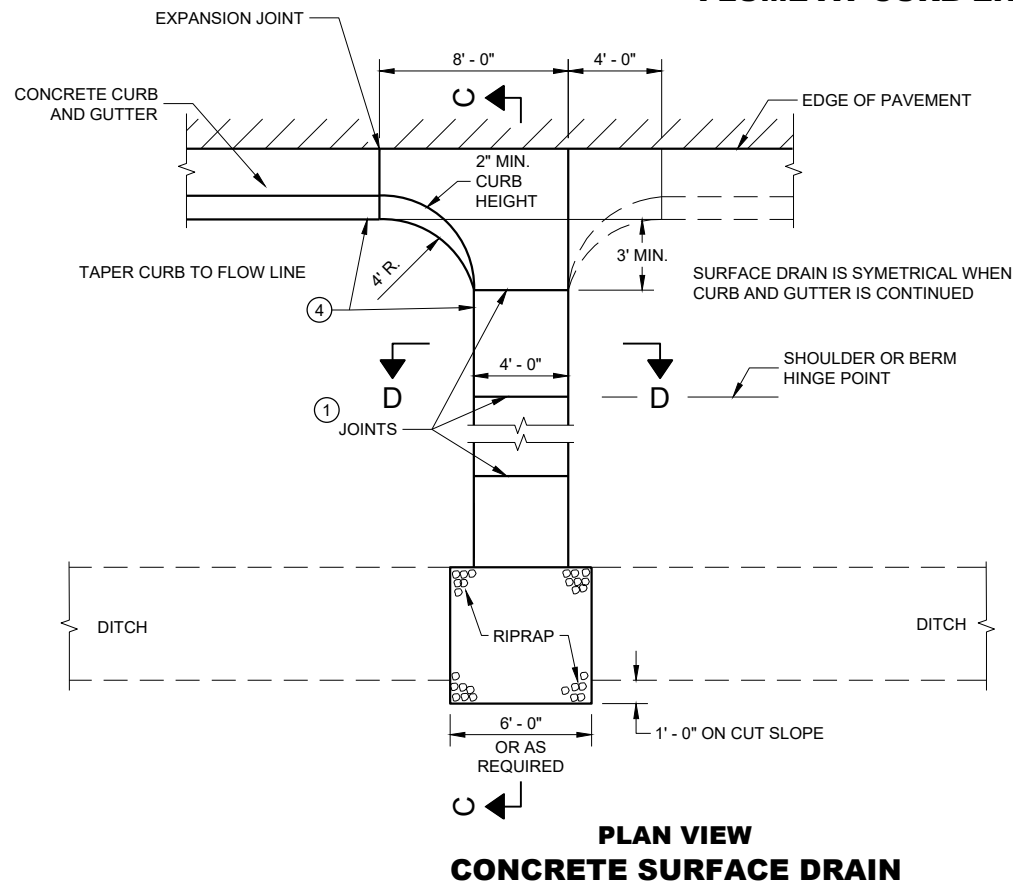
- ① JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ④ ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



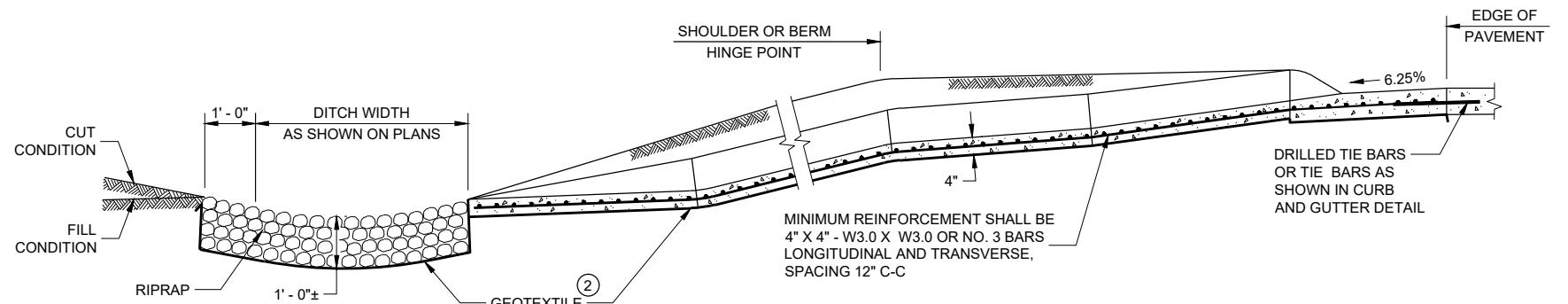
**SECTION A - A**



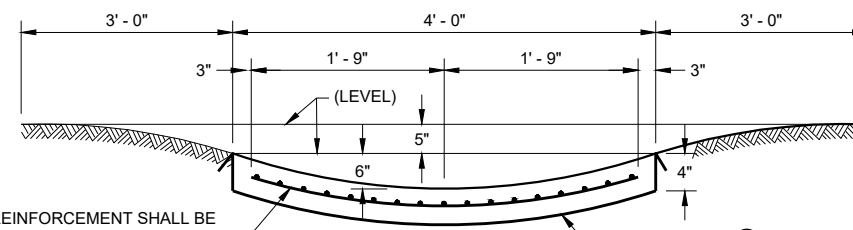
**SECTION B - B**



**PLAN VIEW  
CONCRETE SURFACE DRAIN**



**SECTION C - C**



**SECTION D - D**

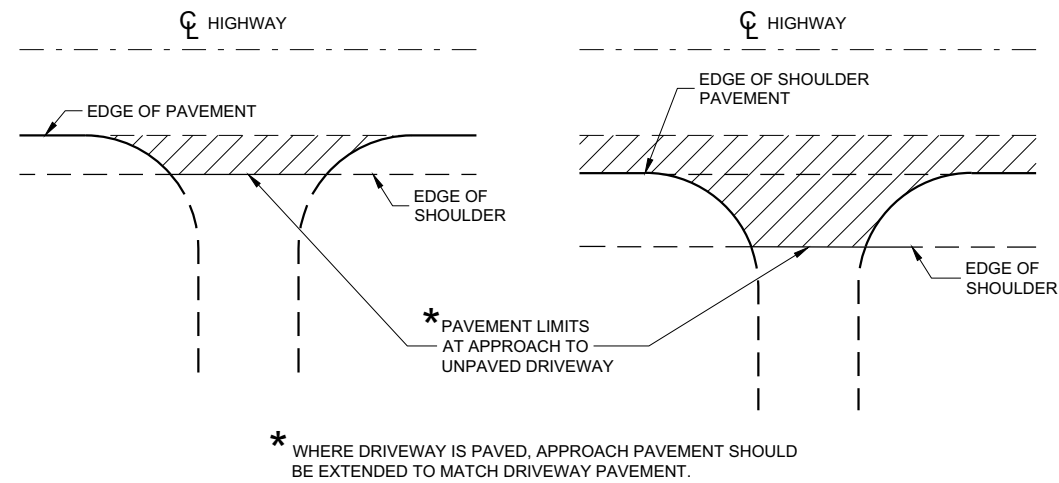
MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE, SPACING 12" C-C

### CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

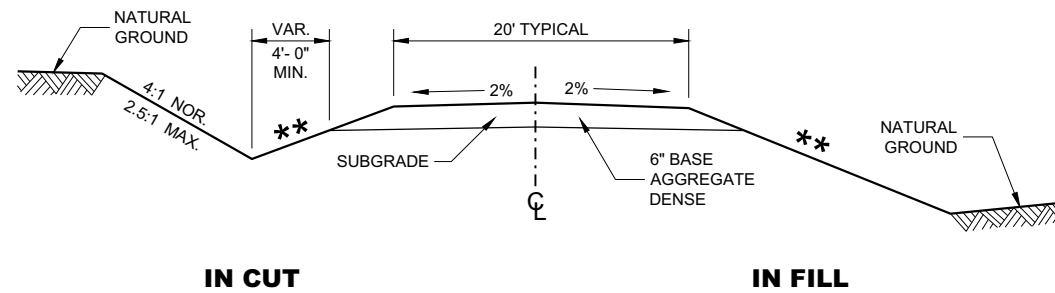
FHWA



**PLAN VIEW**  
(UNPAVED SHOULDER ON HIGHWAY)

**PLAN VIEW**  
(PAVED SHOULDER ON HIGHWAY)

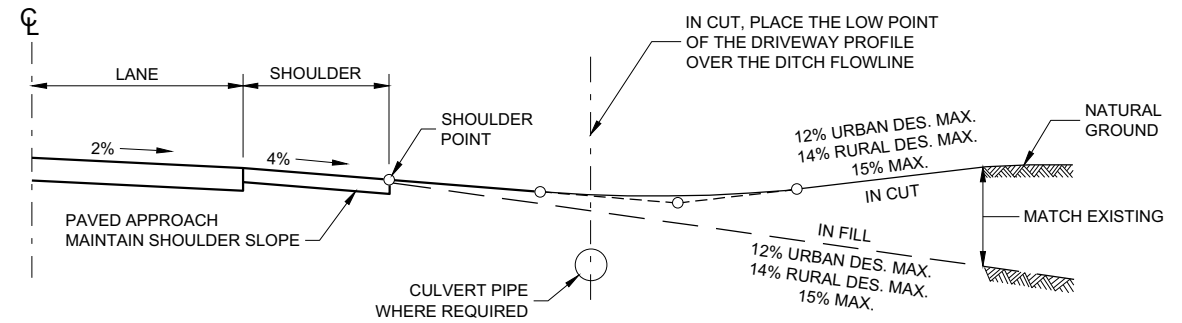
**RURAL DRIVEWAY INTERSECTION DETAIL  
(NO CURB AND GUTTER OR SIDEWALK)**



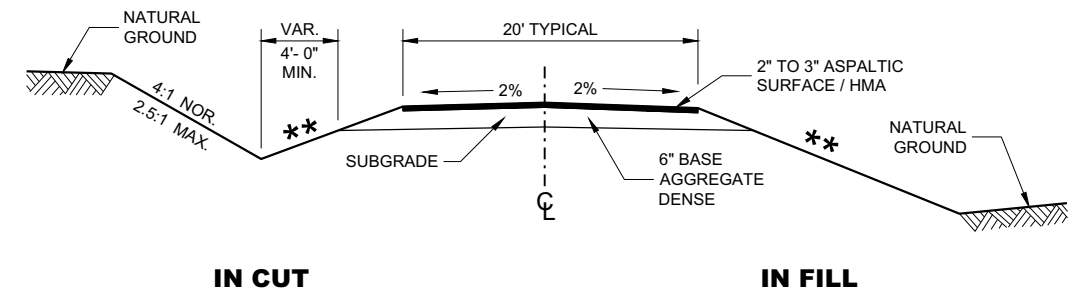
**TYPICAL CROSS SECTION FOR  
PRIVATE DRIVE OR FIELD ENTRANCE  
AGGREGATE SURFACE**

\*\* SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

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



**TYPICAL DRIVEWAY PROFILES**

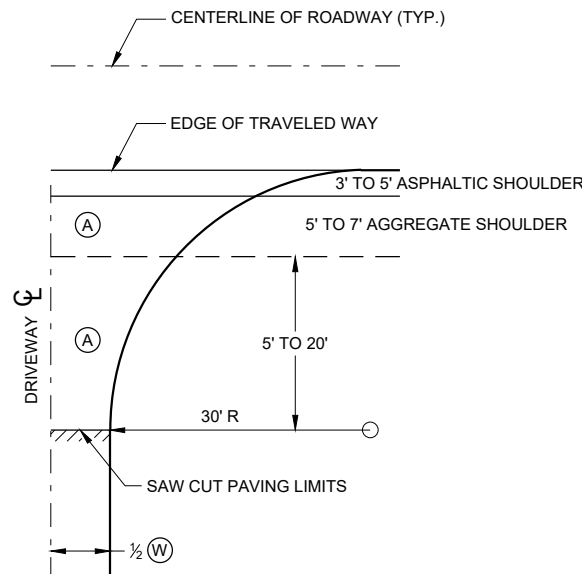


**TYPICAL CROSS SECTION FOR  
PRIVATE DRIVE OR FIELD ENTRANCE  
ASPHALTIC SURFACE**

<b>DRIVEWAYS WITHOUT CURB AND GUTTER</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December 2017 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

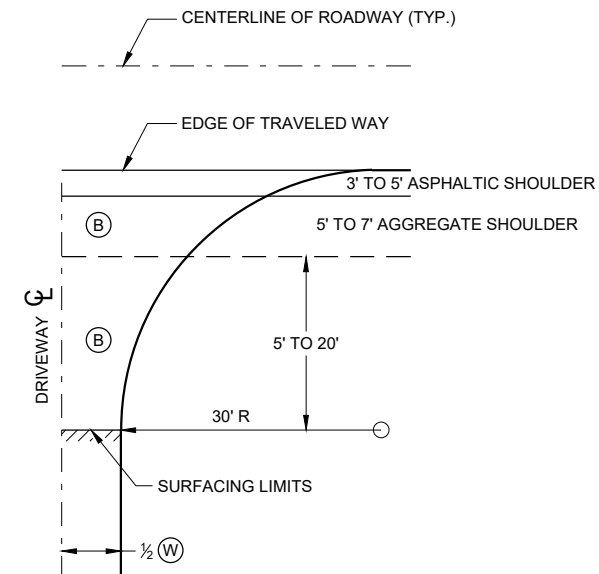
**GENERAL NOTES**

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

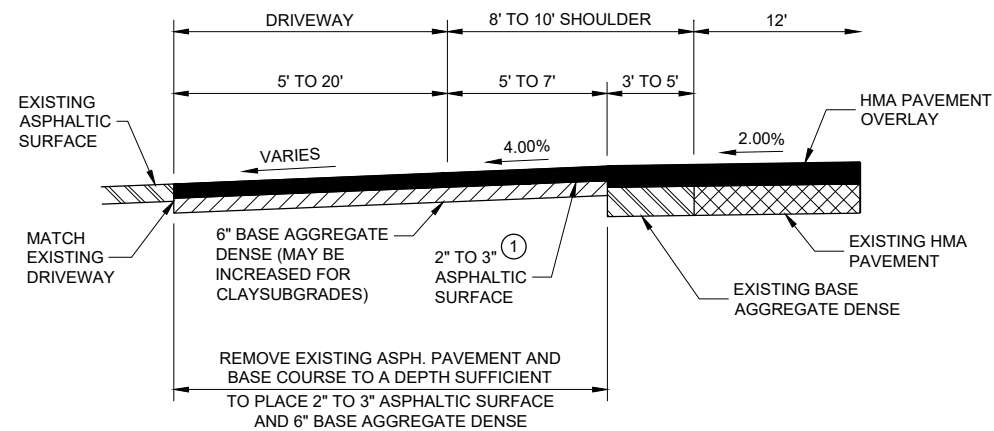


- (A) : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)
- (B) : PAID FOR AS BASE AGGREGATE DENSE 1 1/4" (TON)
- (W) : DRIVEWAY WIDTH 16' MIN. - 24' MAX.

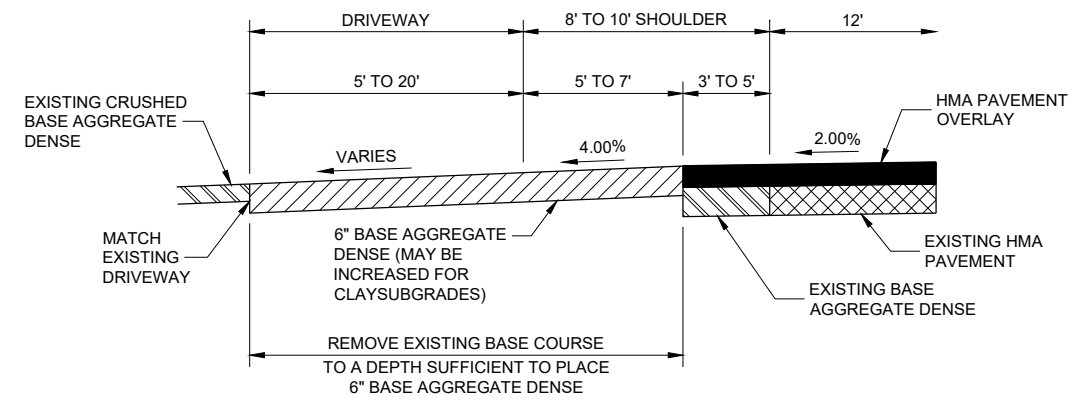
**PLAN VIEW  
HALF SECTION**



**PLAN VIEW  
HALF SECTION**



**PROFILE VIEW  
RURAL ENTRANCE  
WITH ASPHALTIC SURFACE  
RESURFACING PROJECTS**



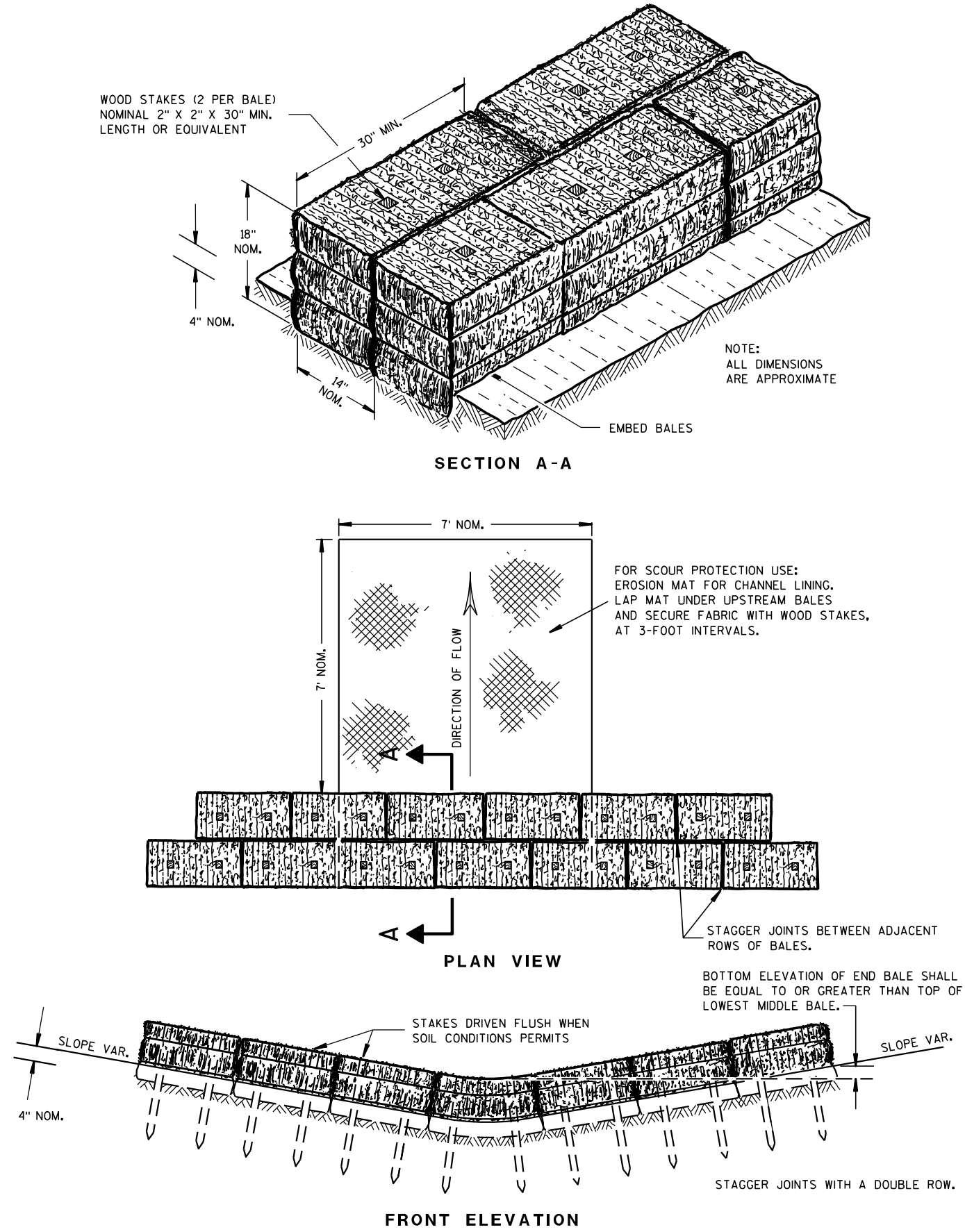
**PROFILE VIEW  
RURAL ENTRANCE  
WITH AGGREGATE SURFACE  
6" BASE AGGREGATE DENSE  
RESURFACING PROJECTS**

**DRIVEWAYS WITHOUT CURB  
AND GUTTER RESURFACING  
PROJECTS RURAL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
December 2016 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA

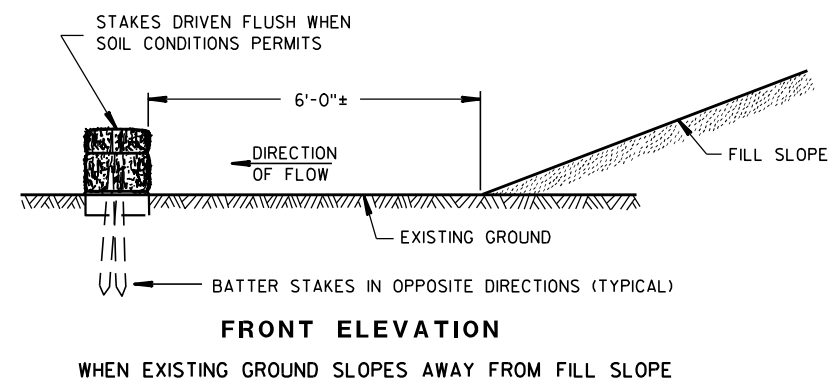
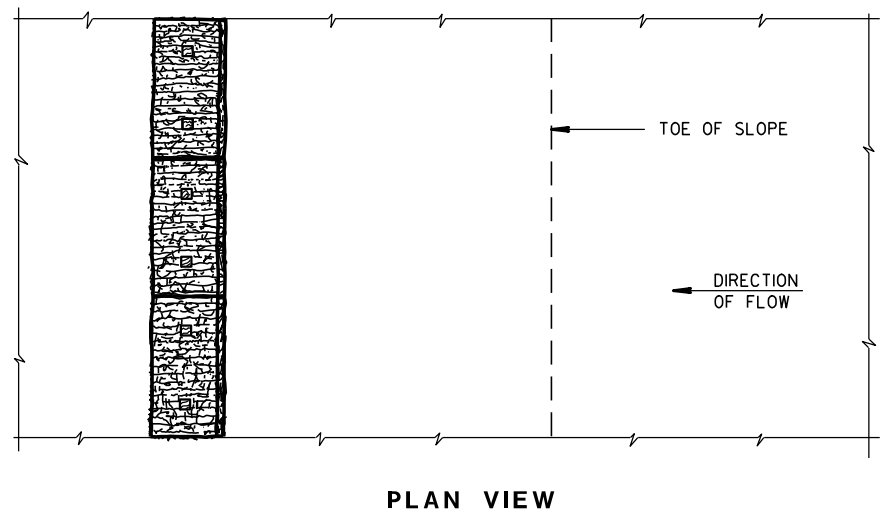
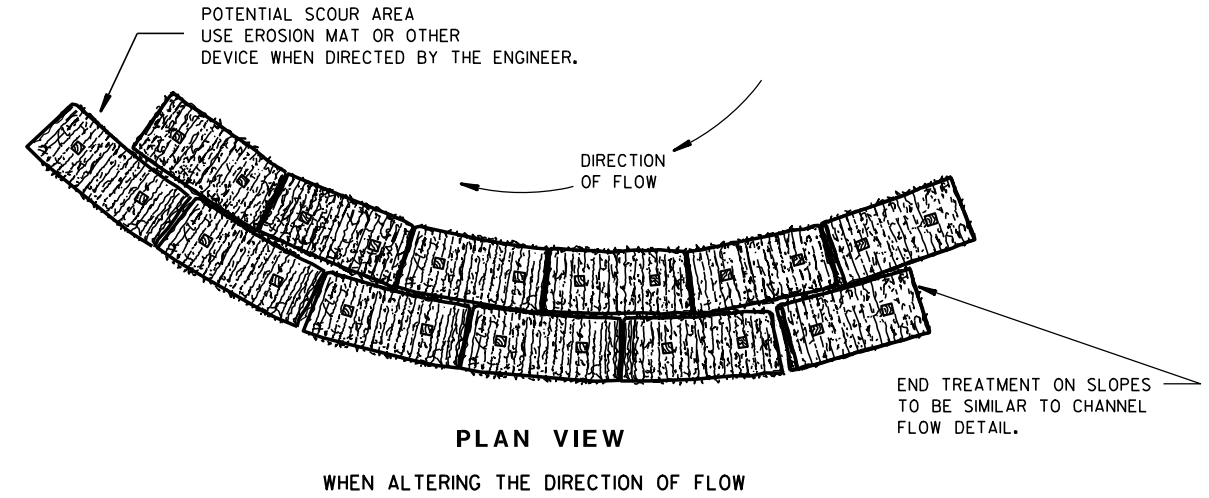


**TEMPORARY DITCH CHECK USING EROSION BALES ①**

**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.

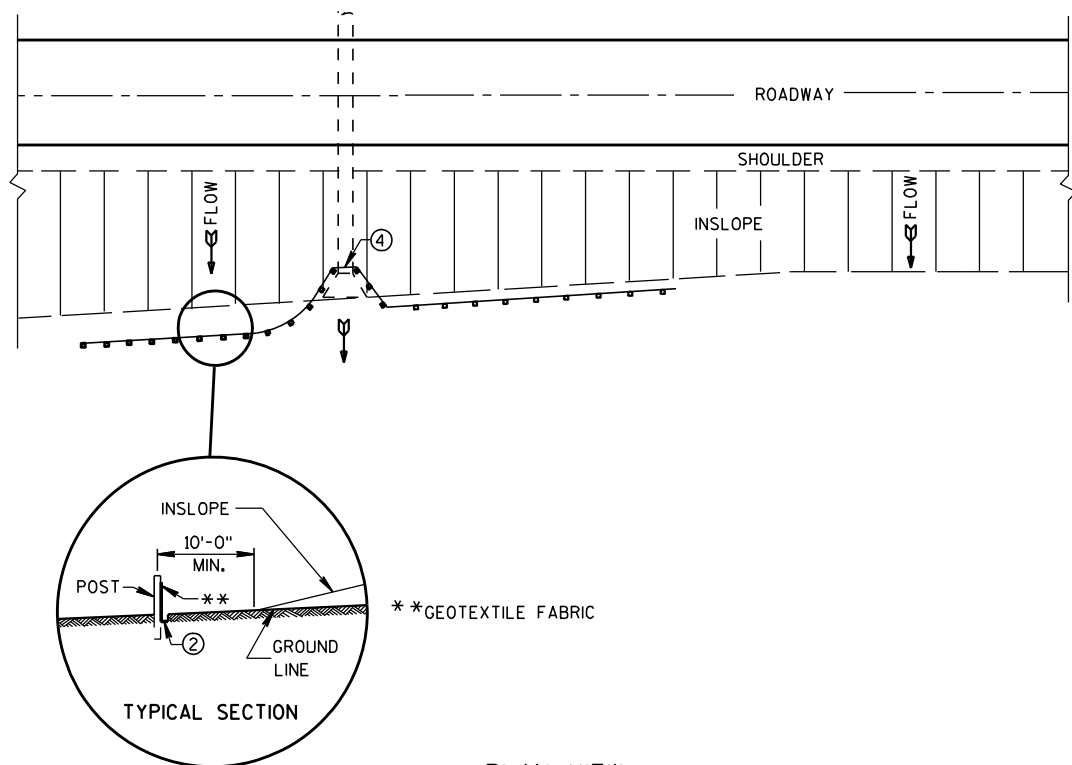


**EROSION BALES FOR SHEET FLOW**

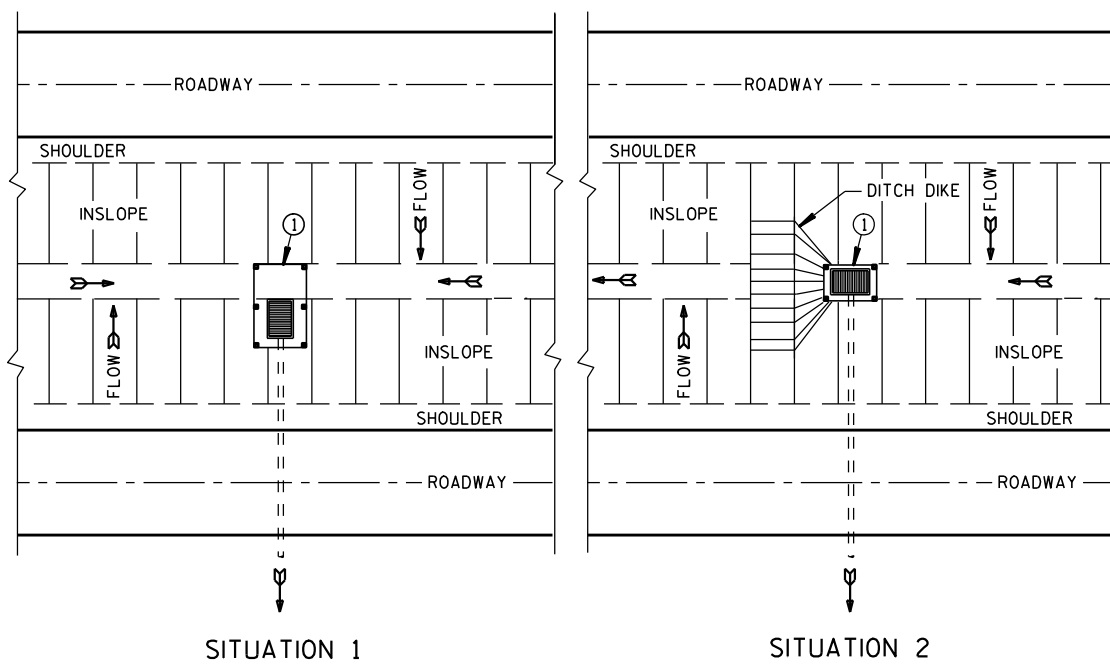
**TYPICAL INSTALLATIONS OF  
EROSION BALES / TEMPORARY  
DITCH CHECKS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE

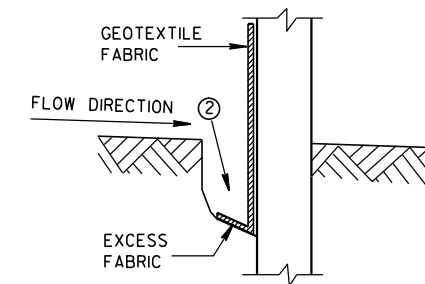


SITUATION 1 SITUATION 2  
PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

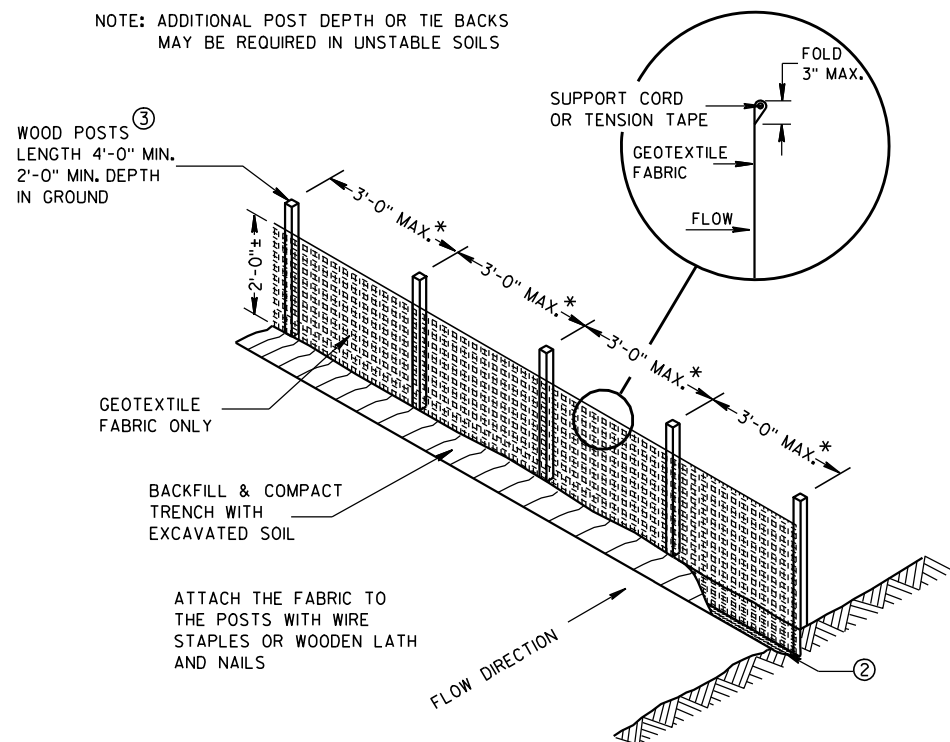
**GENERAL NOTES**

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

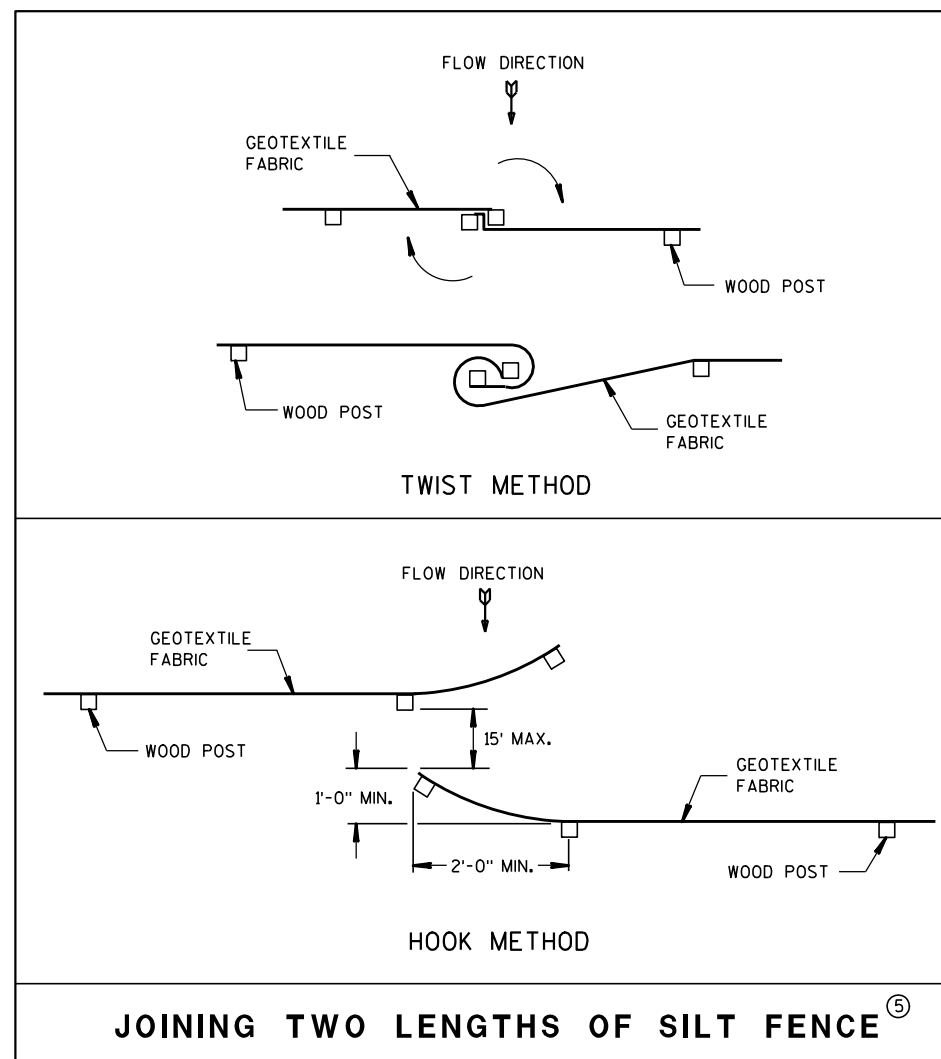
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



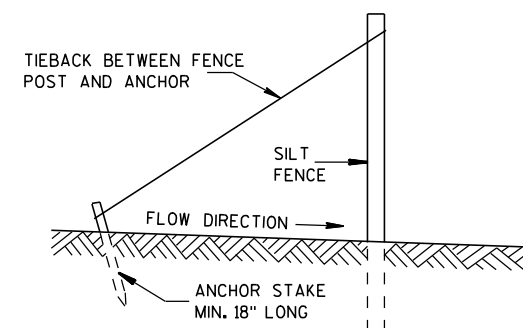
TRENCH DETAIL



SILT FENCE

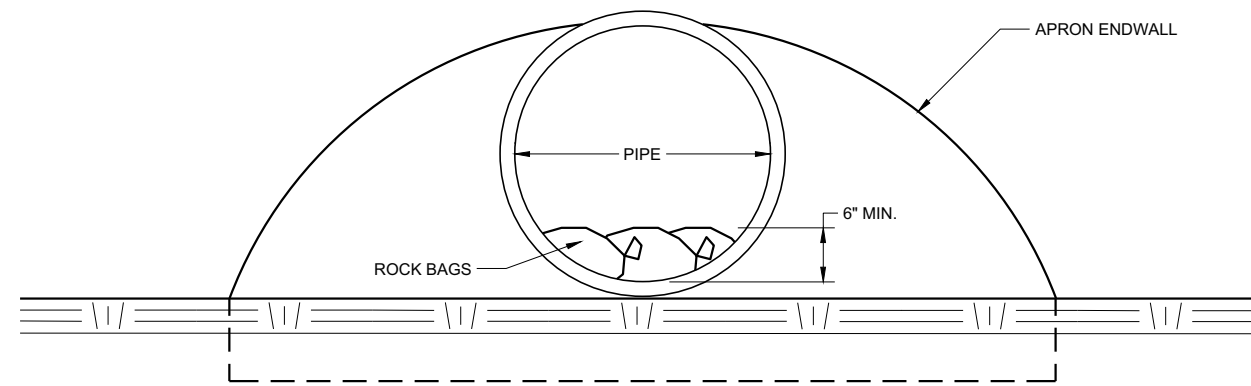


JOINING TWO LENGTHS OF SILT FENCE ⑤

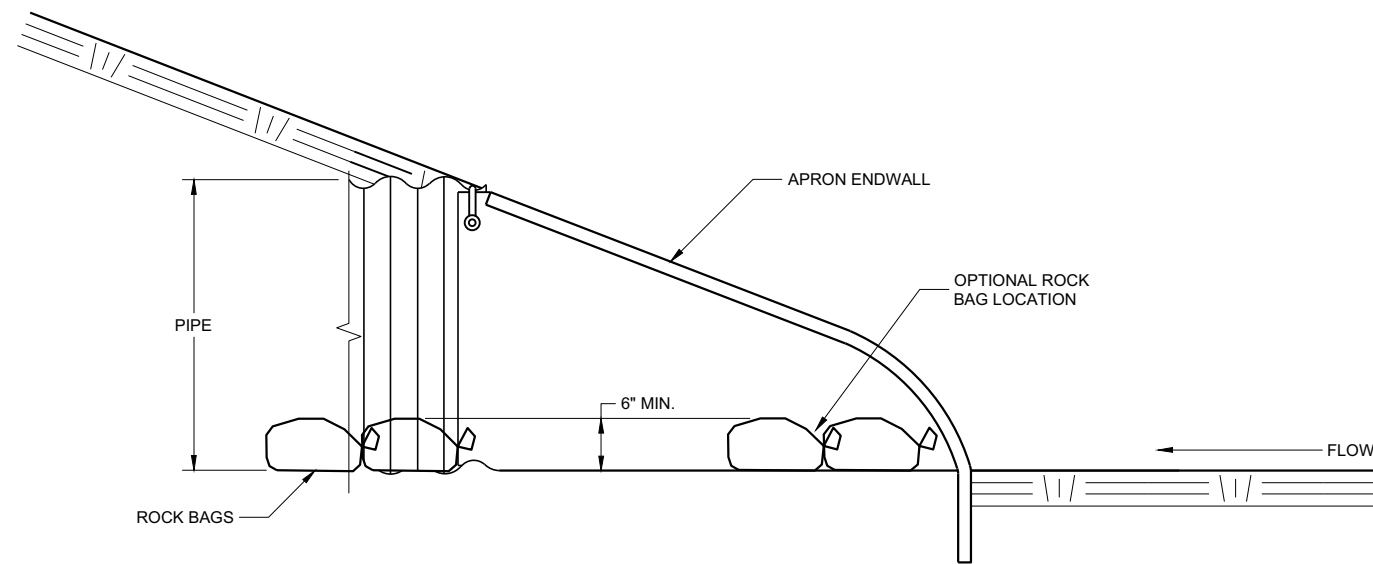


SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

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



**END VIEW**



**SIDE VIEW**

**CULVERT PIPE CHECK**  
(INSTALL ON INLET END ONLY)

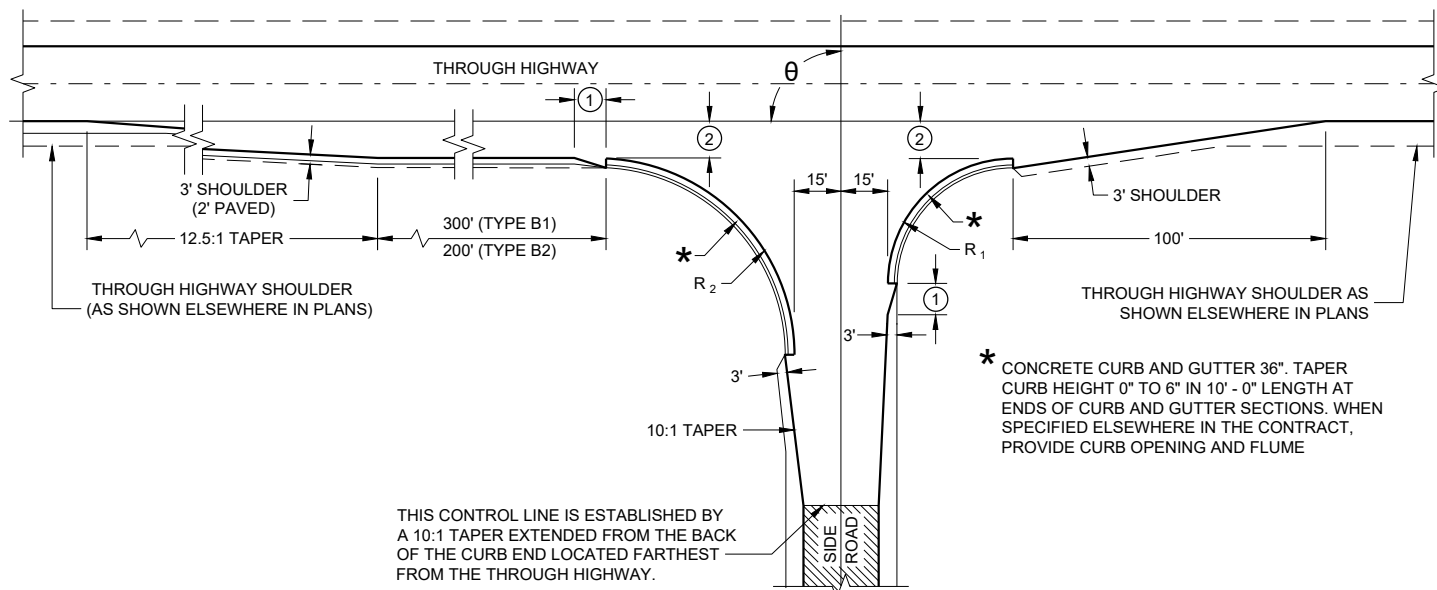
**CULVERT PIPE CHECK**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2019 /S/ Daniel Schave  
DATE EROSION CONTROL ENGINEER

FHWA





**TYPE "B1" AND "B2"**

**RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS**

$\theta$	$R_1$	$R_2$
65 - 70	35	70
71 - 80	40	70
81 - 90	40	60
91 - 100	50	55
101 - 110	60	45

**GENERAL NOTES**

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

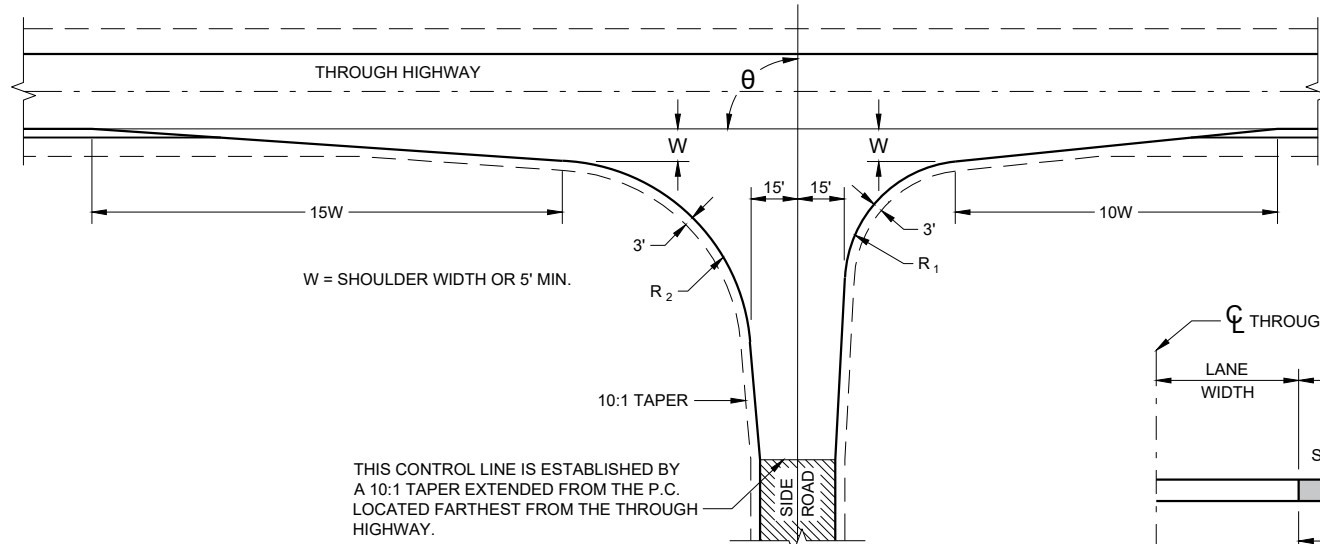
**SIDE ROAD SURFACING NOTE**

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

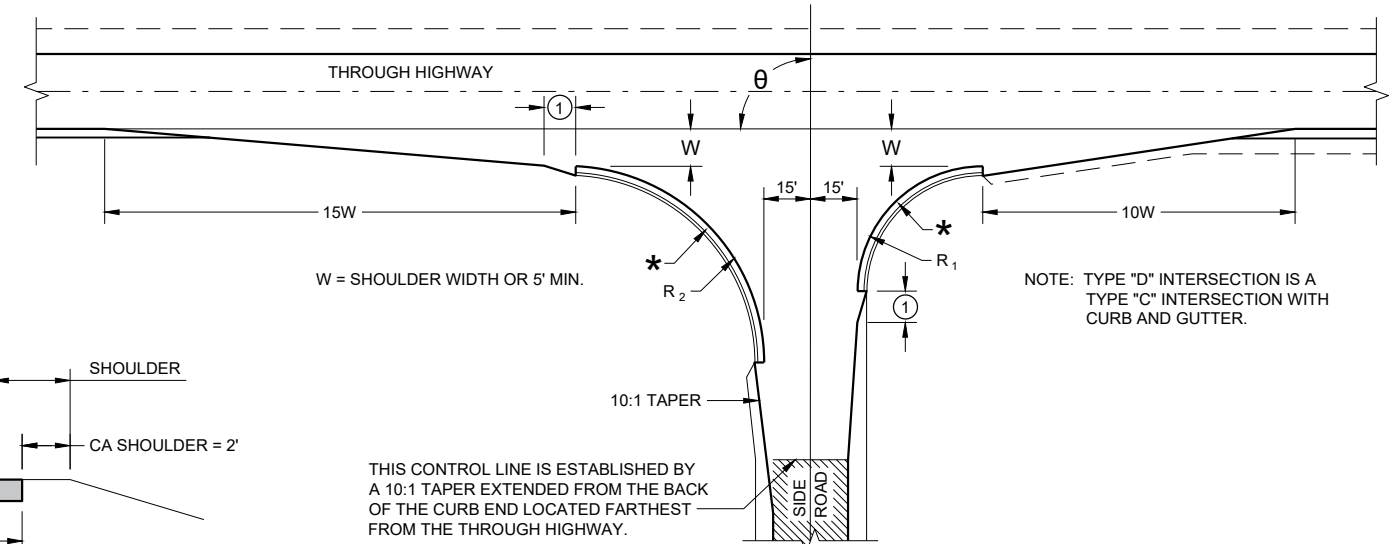
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

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

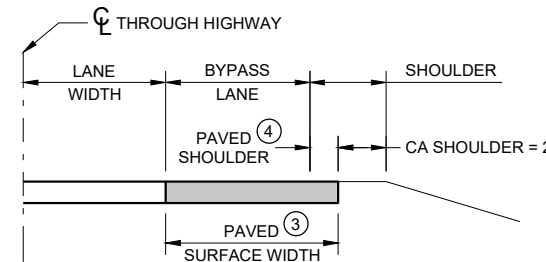
- ① 10-FT TYPICAL.
- ② 12-FT\*\* PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.  
\*\*10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE  
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH  
- PC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



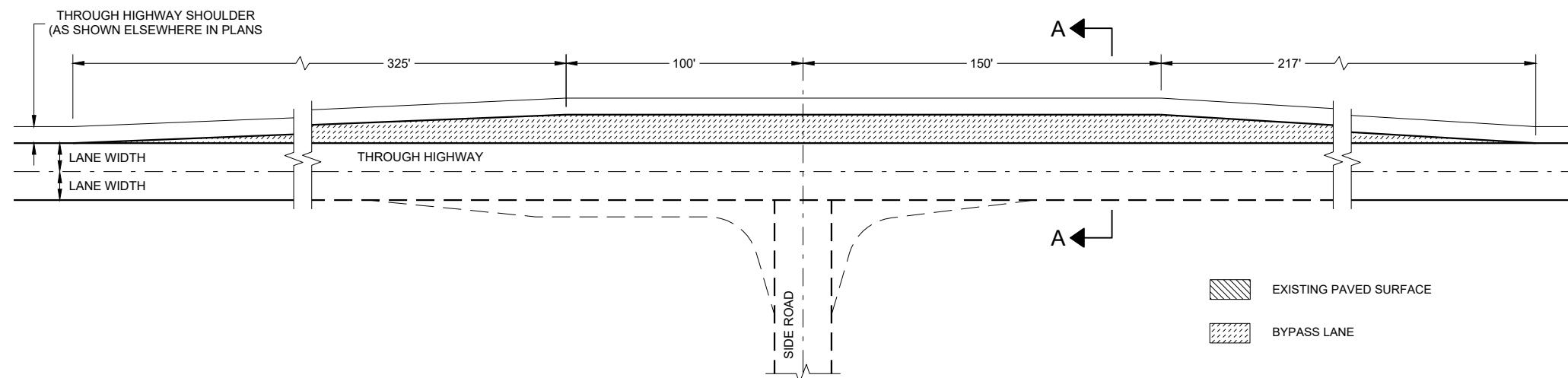
**TYPE "C"**



**TYPE "D"**



**SECTION A - A**  
(SHOWING BYPASS LANE AND SHOULDER)



**TEE INTERSECTION BYPASS LANE DETAIL**

EXISTING PAVED SURFACE  
 BYPASS LANE

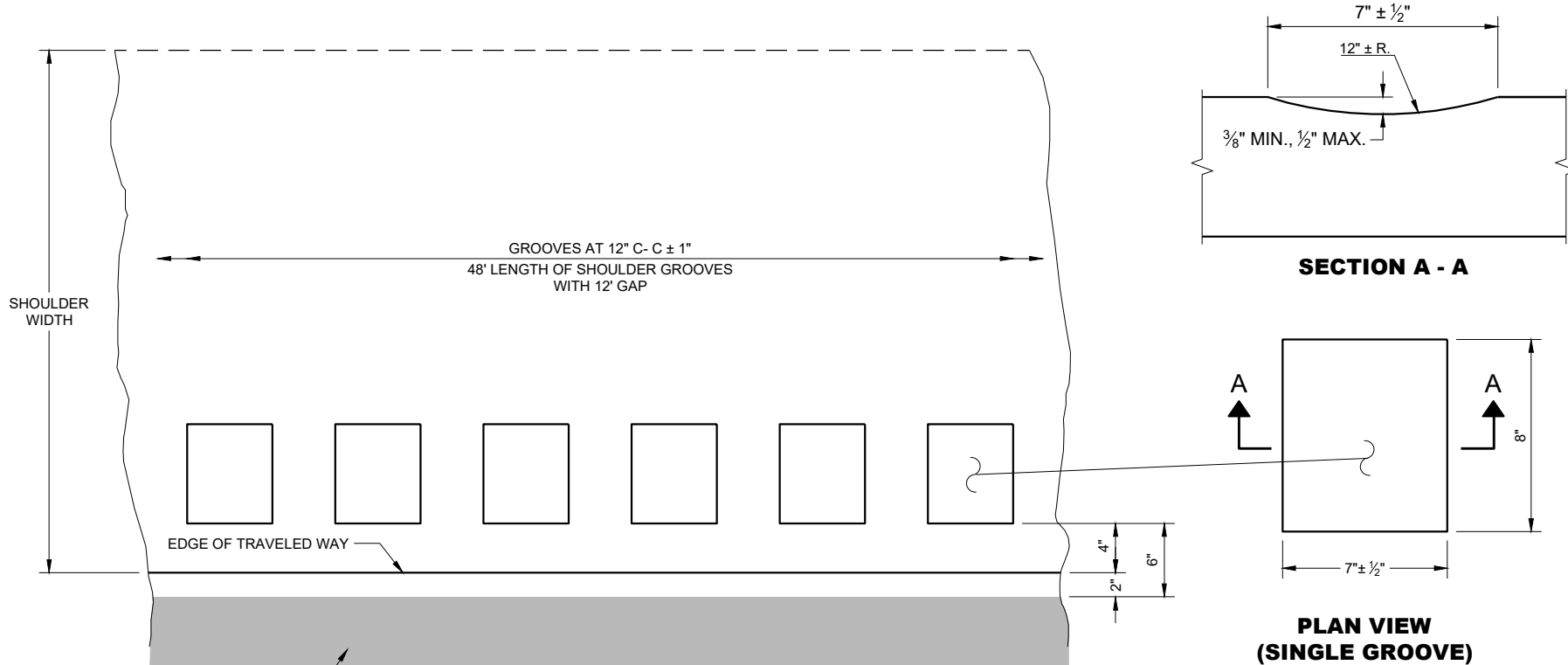
**AT GRADE SIDE ROAD INTERSECTION TYPES "B1", "B2", "C", "D" AND TEE INTERSECTION BYPASS LANE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

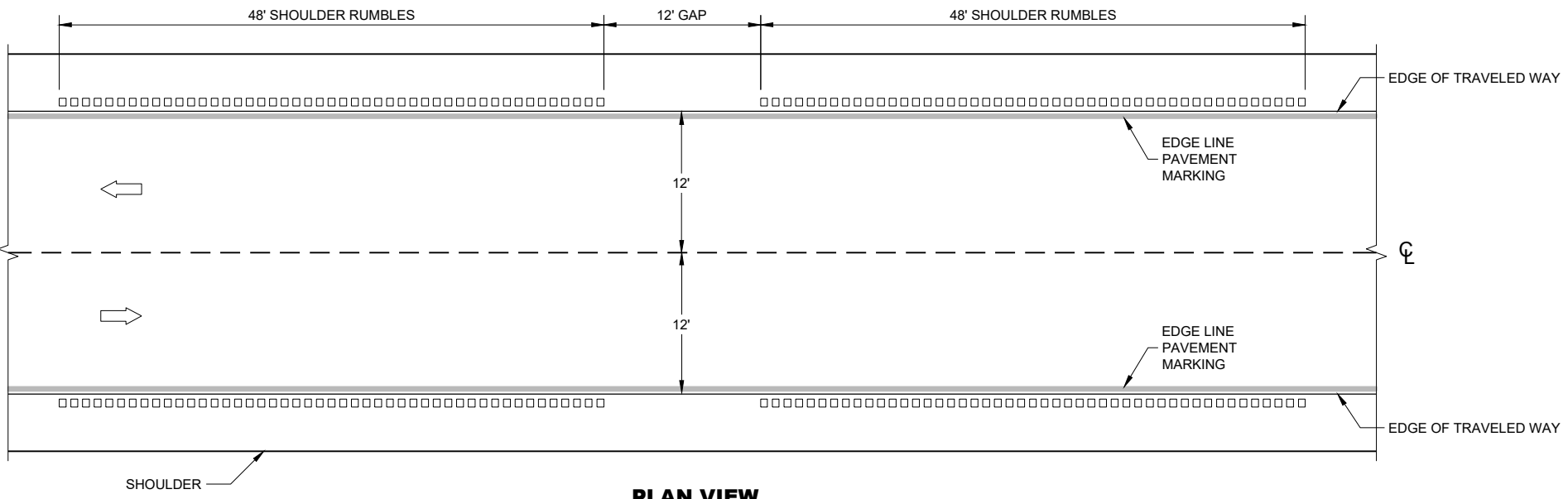
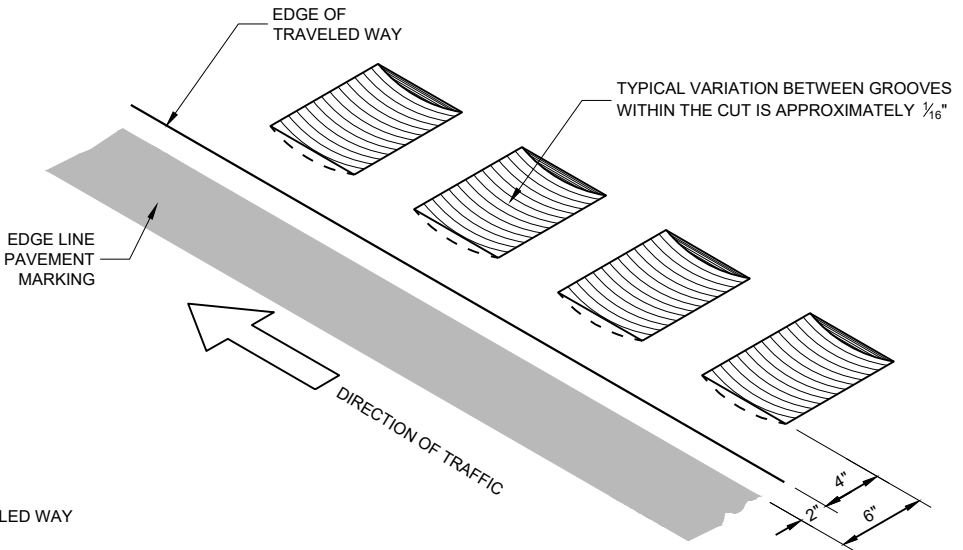
**GENERAL NOTES**

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

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

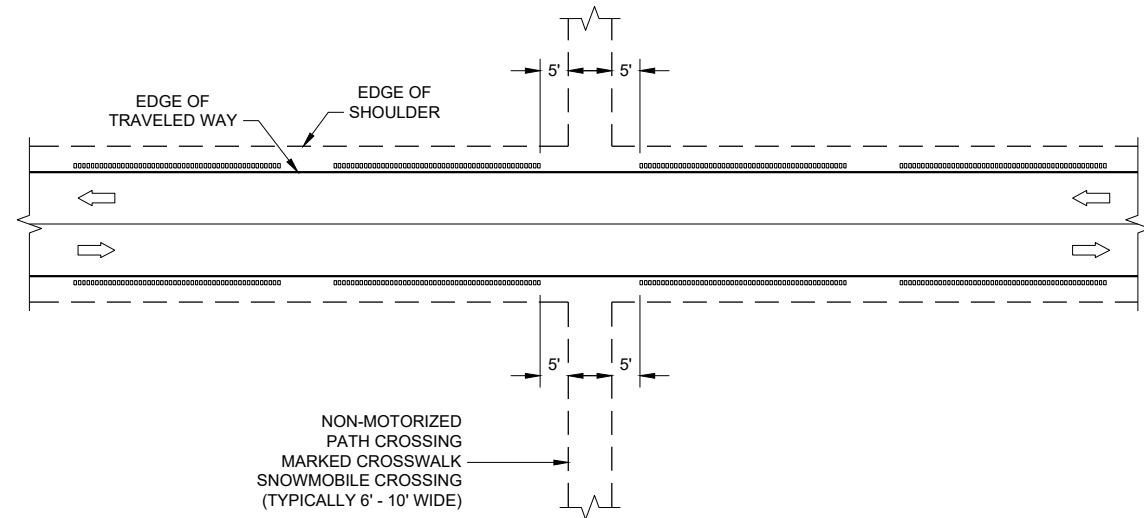


**PLAN DETAIL VIEW SHOULDER WITH GROOVES**

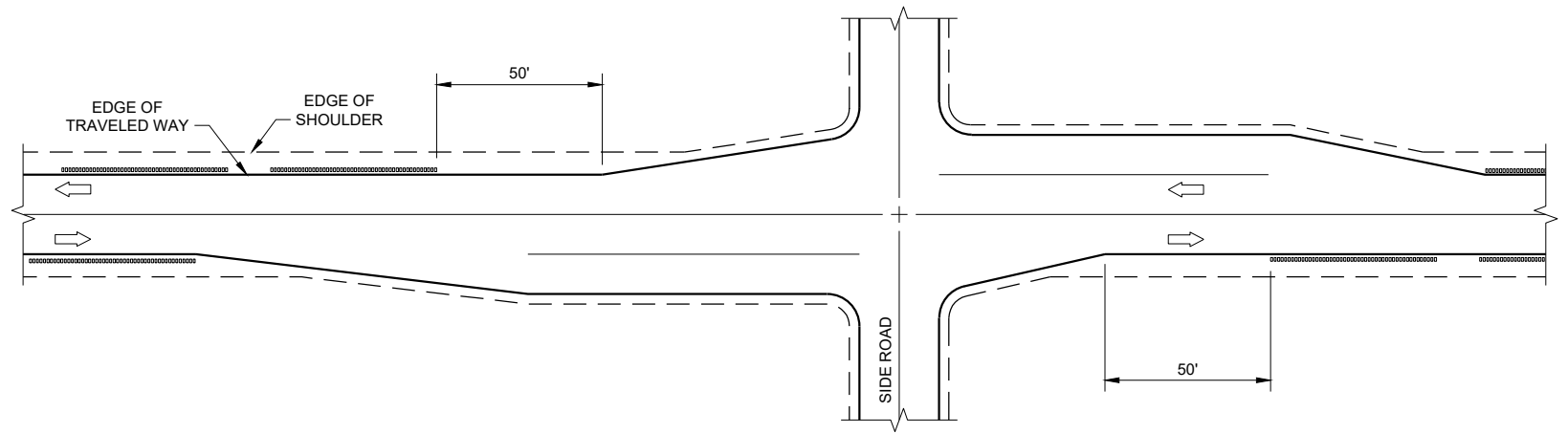


**PLAN VIEW SHOULDER RUMBLE STRIPS - ASPHALT**

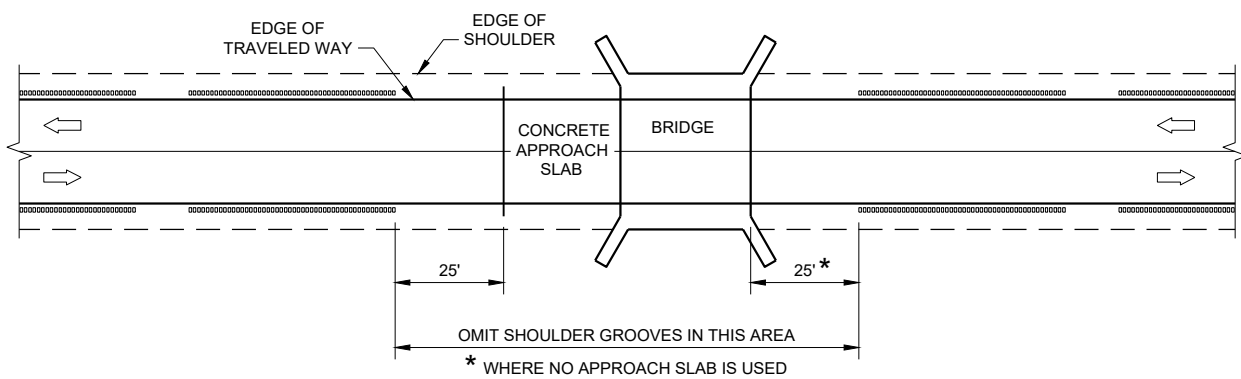
<b>SHOULDER RUMBLE STRIPS ASPHALT</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



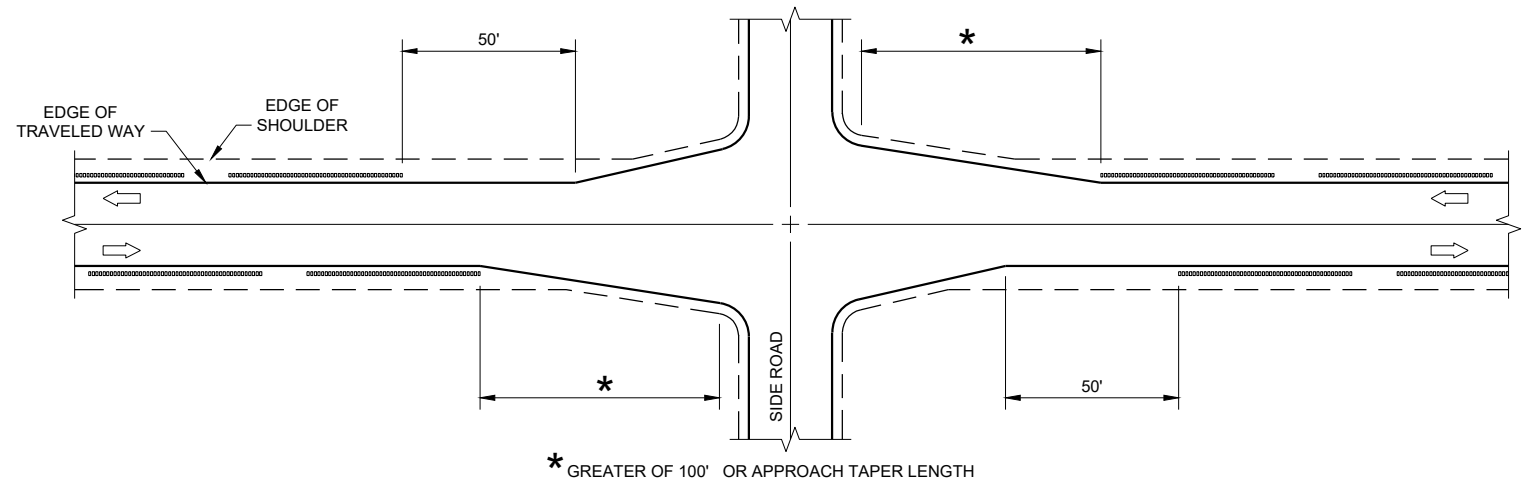
**GROOVES AT MISCELLANEOUS CROSSINGS**



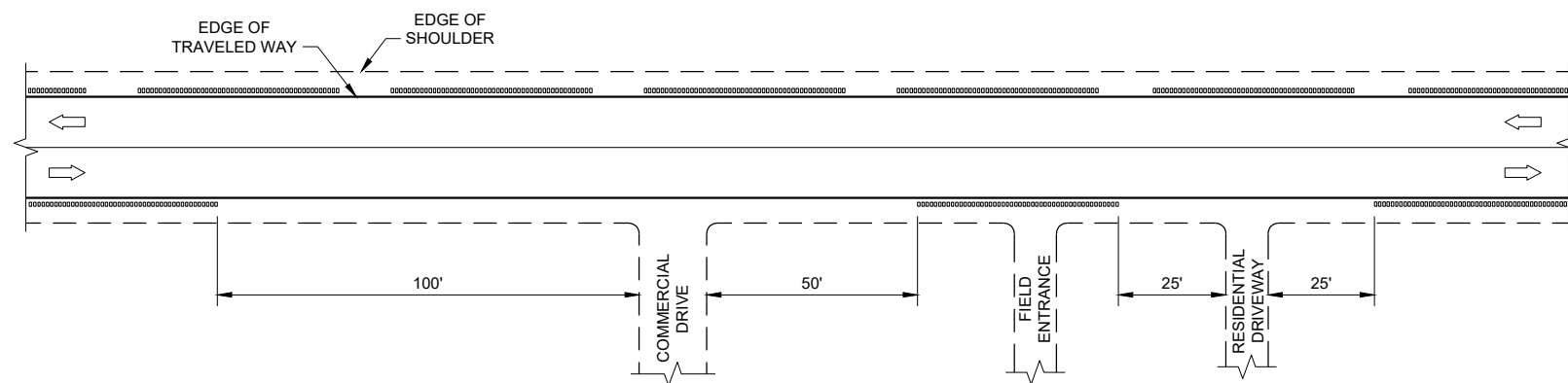
**GROOVES AT RIGHT TURN LANE**



**GROOVES AT BRIDGES**



**GROOVES AT INTERSECTIONS WITH APPROACH TAPER**



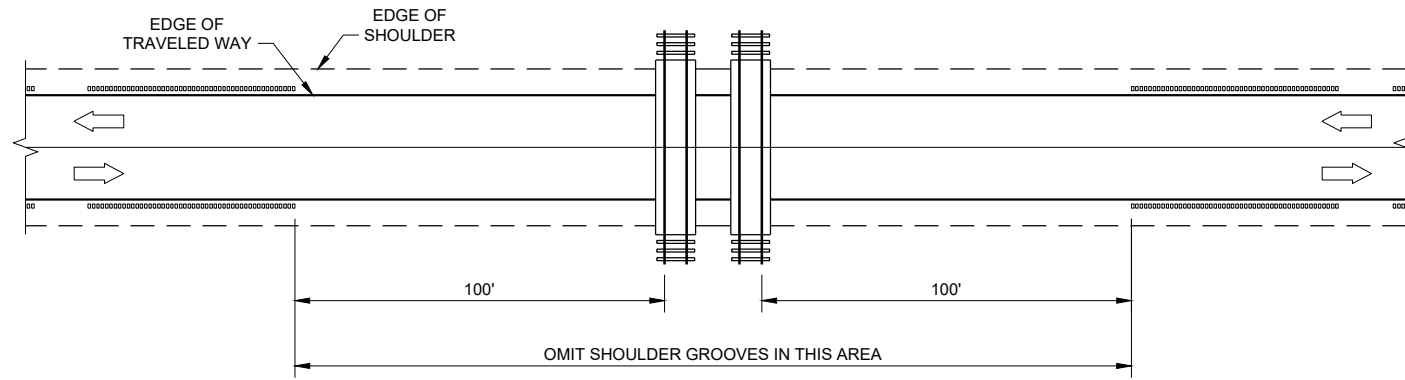
**GROOVES AT DRIVEWAYS**

**GENERAL NOTES**

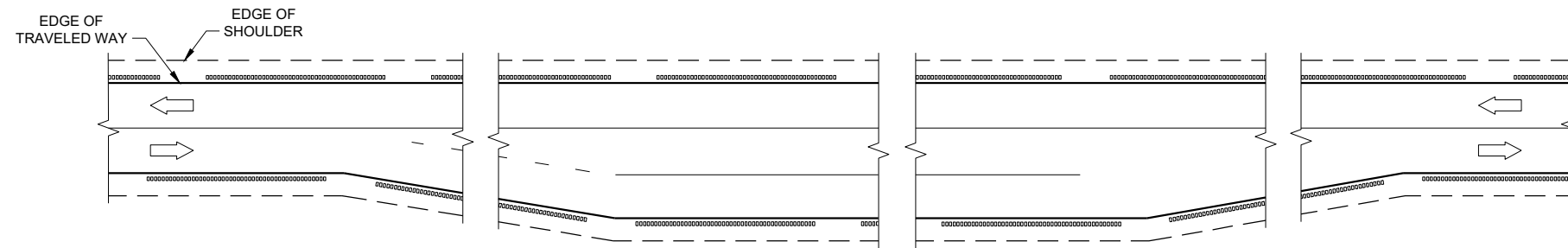
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

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

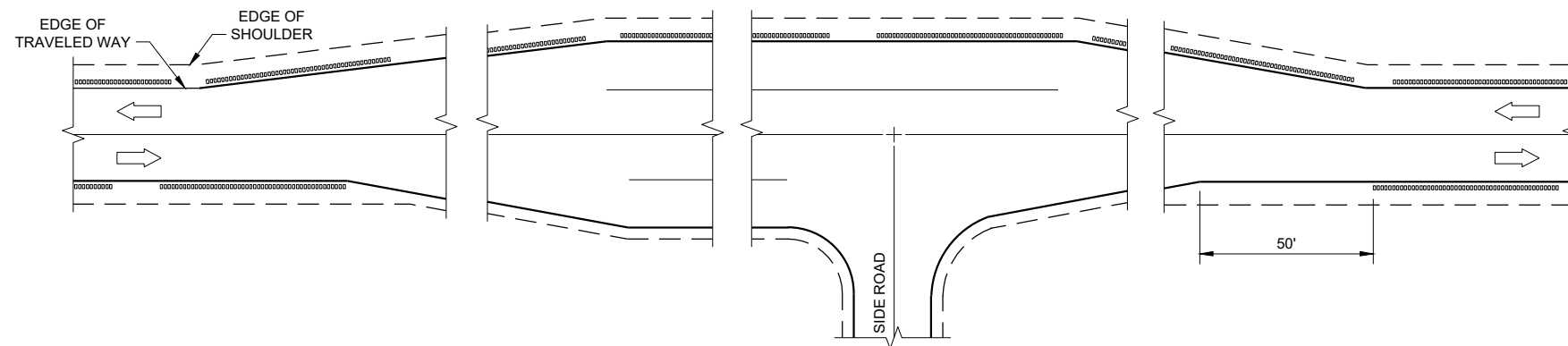
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**GROOVES AT RAILROADS**



**GROOVES AT PASSING AND CLIMBING LANES**



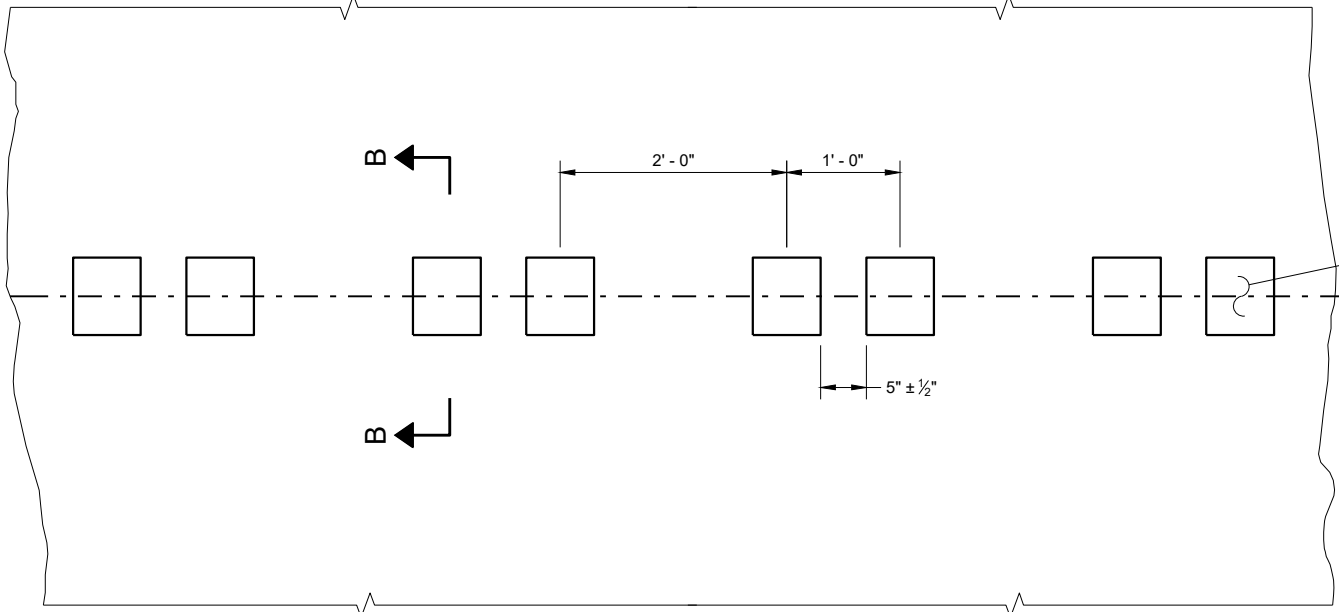
**GROOVES AT BYPASS LANES**

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

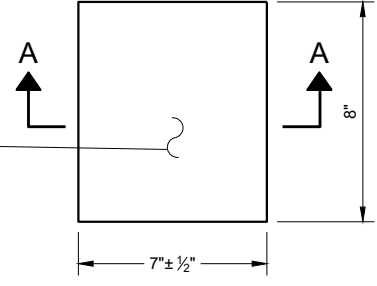
**GENERAL NOTES**

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

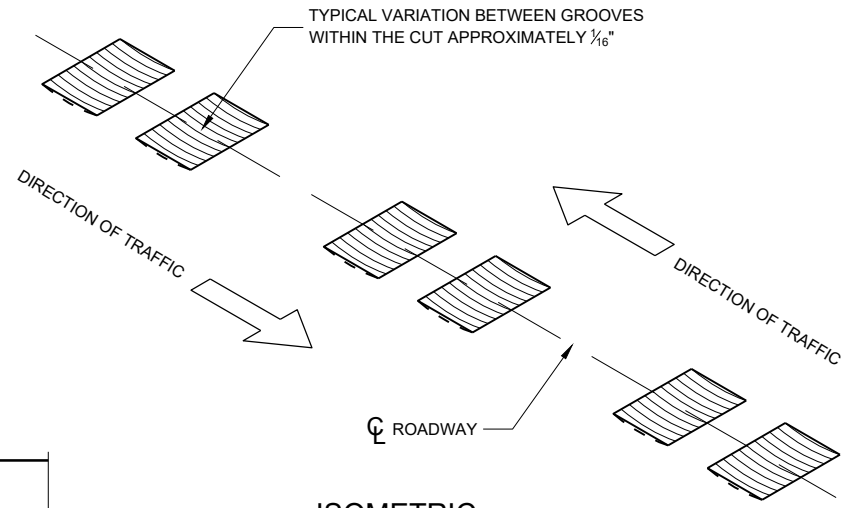
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



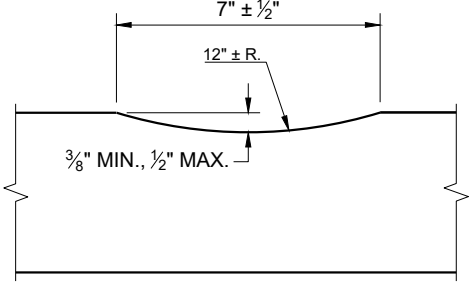
**PLAN DETAIL VIEW**



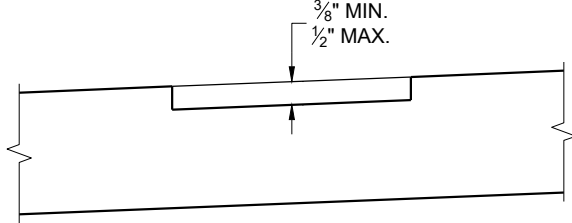
**PLAN VIEW (SINGLE GROOVE)**



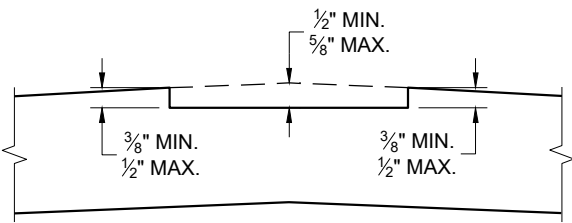
**ISOMETRIC**



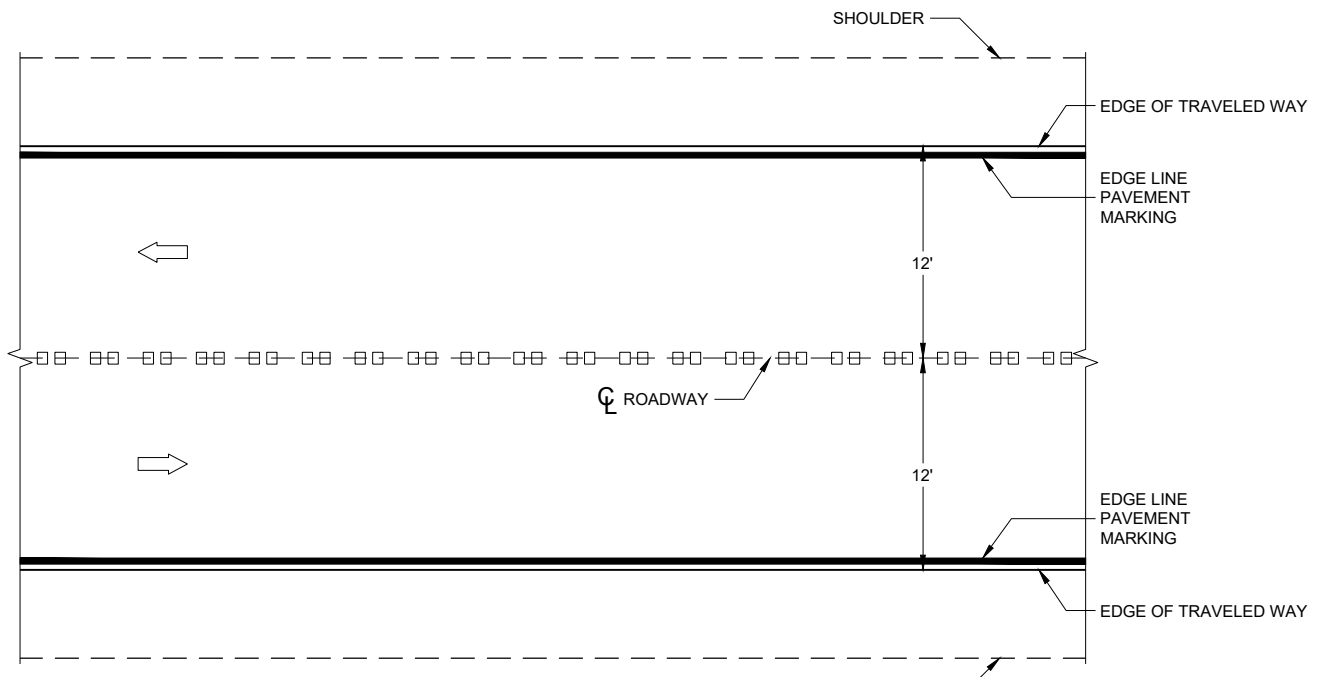
**SECTION A - A**



**SECTION B - B SUPERELEVATED ROADWAY**



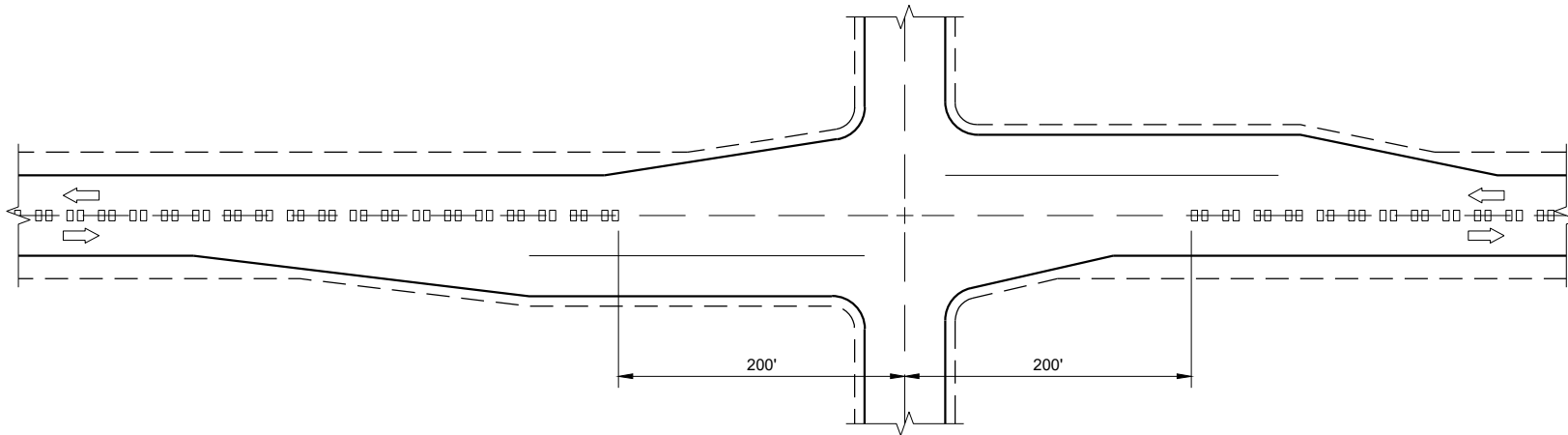
**SECTION B - B CROWNED ROADWAY**



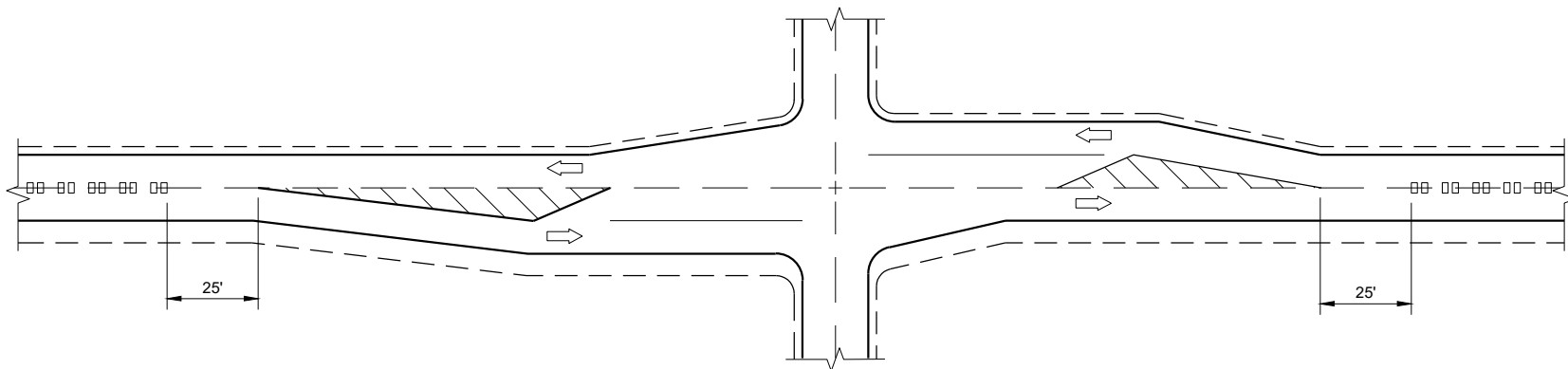
**PLAN VIEW**

**CENTERLINE RUMBLE STRIPS - ASPHALT**

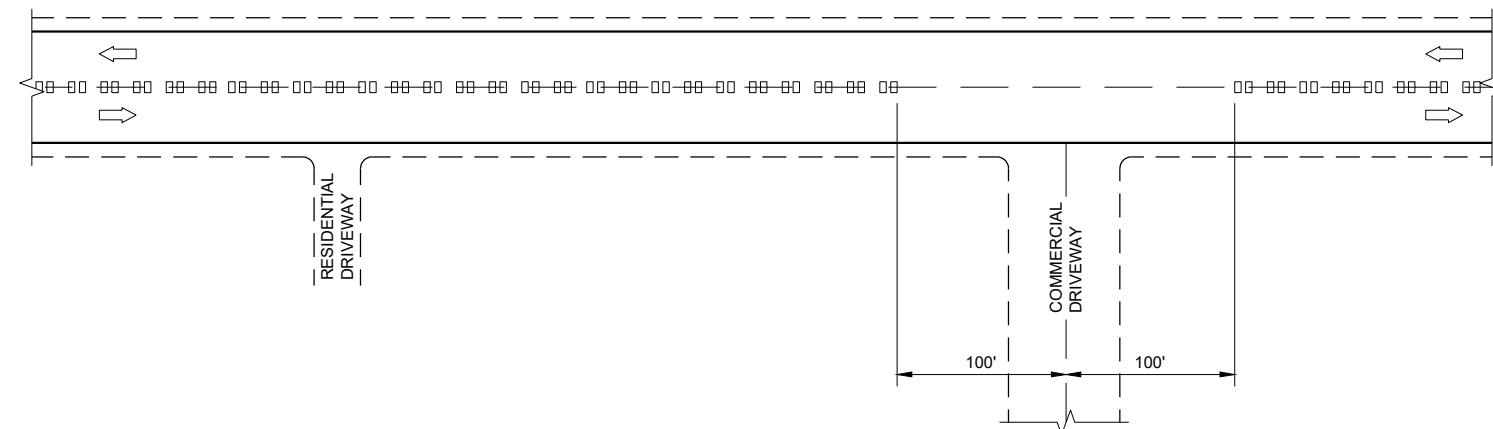
<b>CENTERLINE RUMBLE STRIPS - ASPHALT</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



**CENTERLINE GROOVES AT INTERSECTIONS**



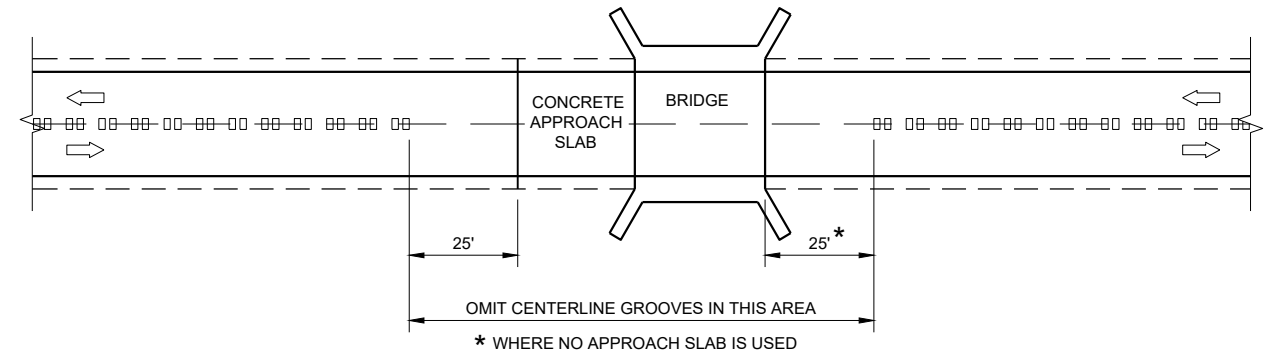
**CENTERLINE GROOVES AT INTERSECTIONS  
(WITH LEFT TURN LANES)**



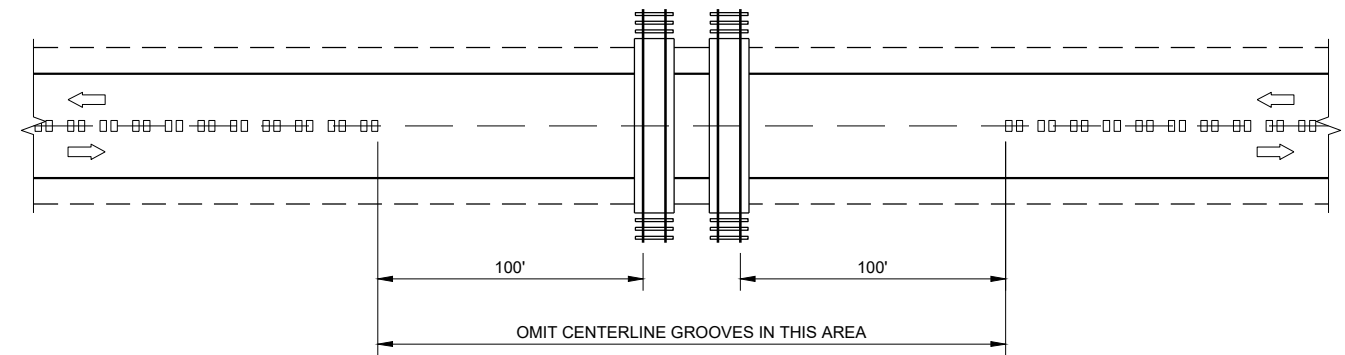
**CENTERLINE GROOVES AT DRIVEWAYS<sup>①</sup>**

**GENERAL NOTES**

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



**CENTERLINE GROOVES AT BRIDGES**



**CENTERLINE GROOVES AT RAILROADS**

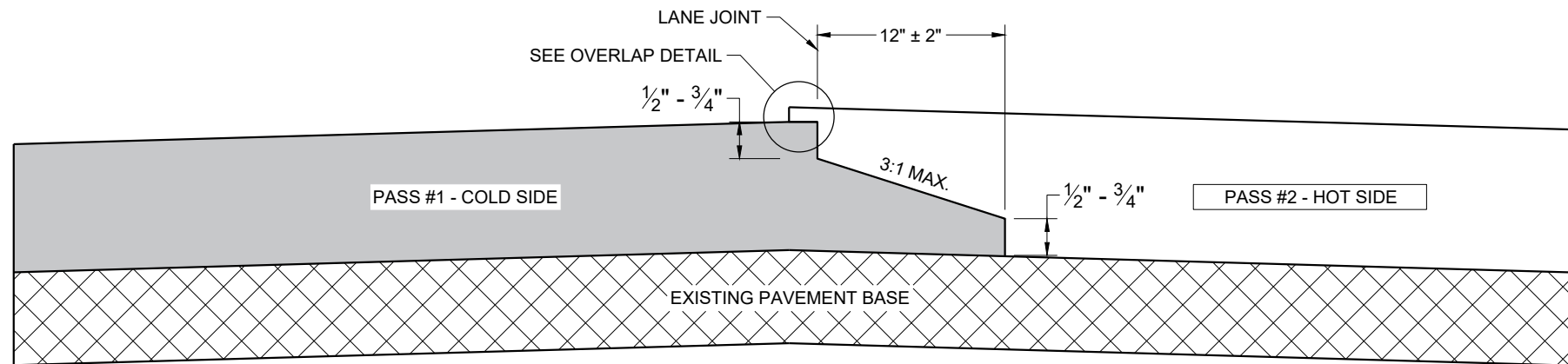
6

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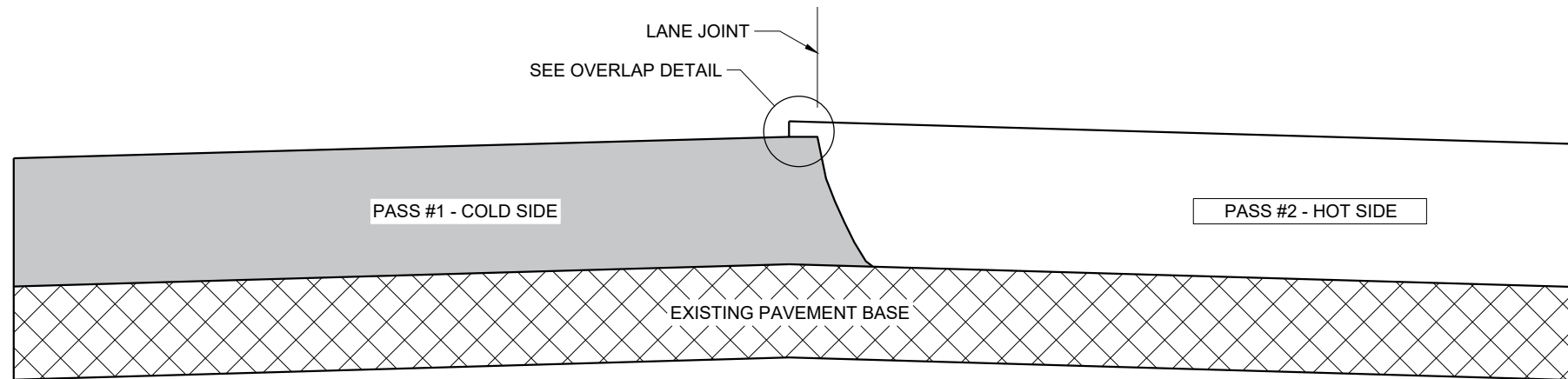
SDD 13A11 - 04d

SDD 13A11 - 04d

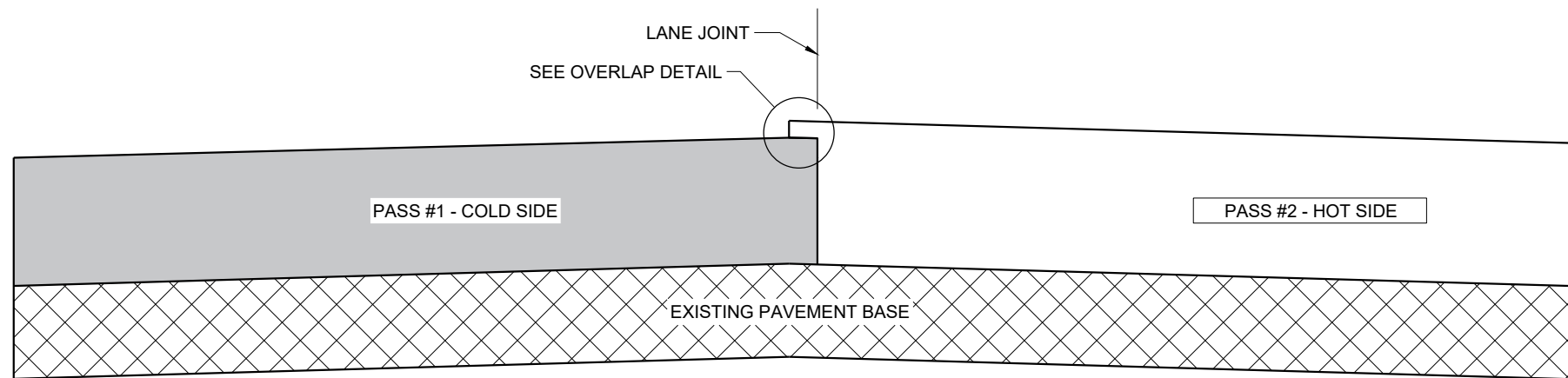
<b>CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ John Jenkins ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION  
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION  
VERTICAL JOINT**



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

**GENERAL NOTES**

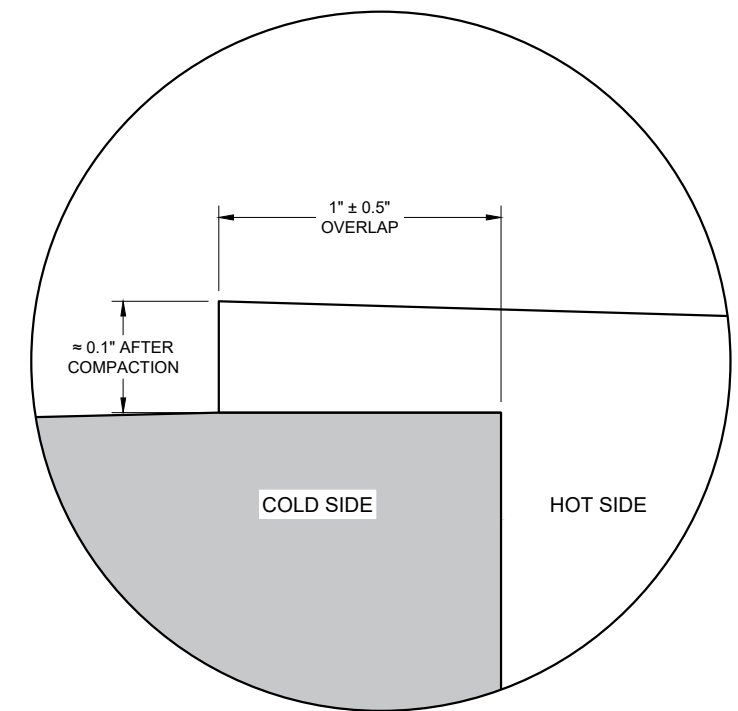
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



**OVERLAP DETAIL (TYPICAL)**

6

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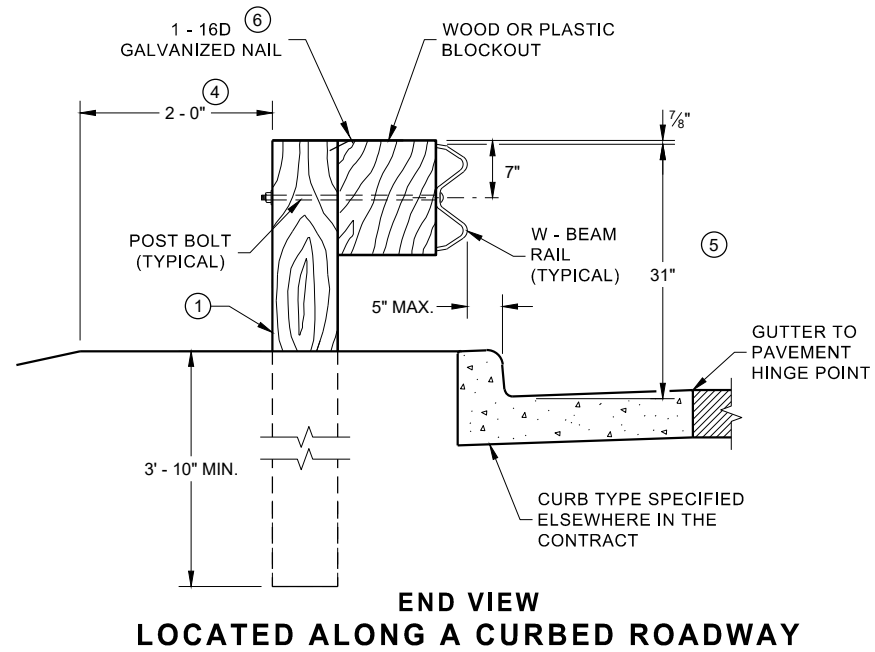
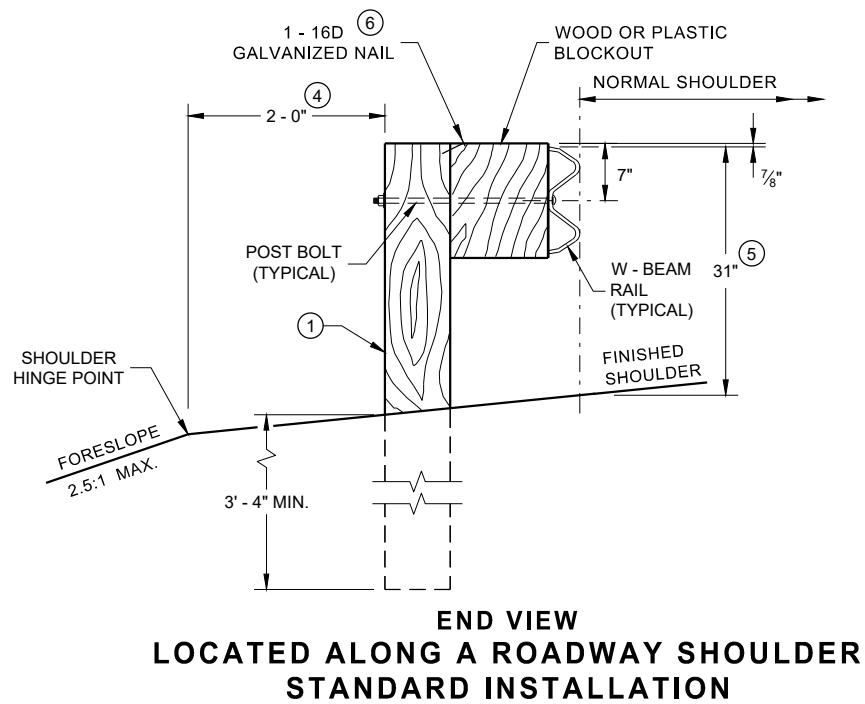
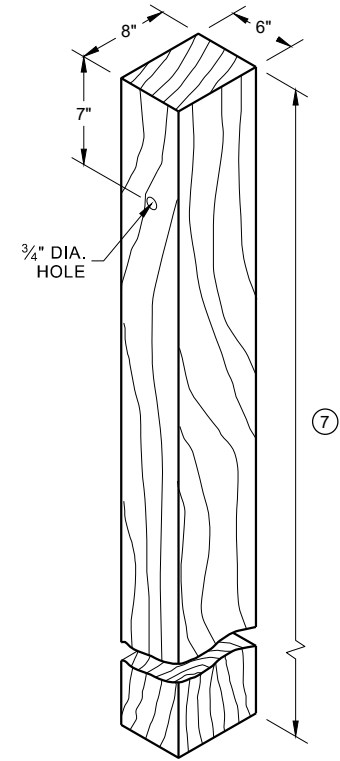
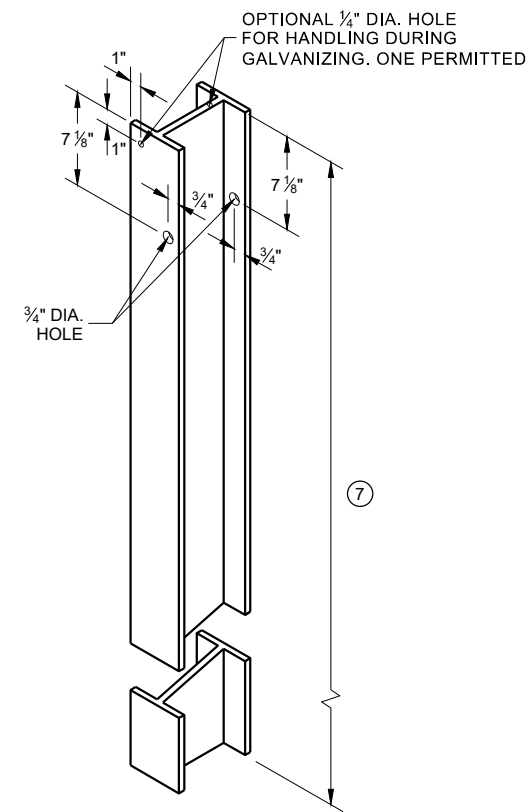
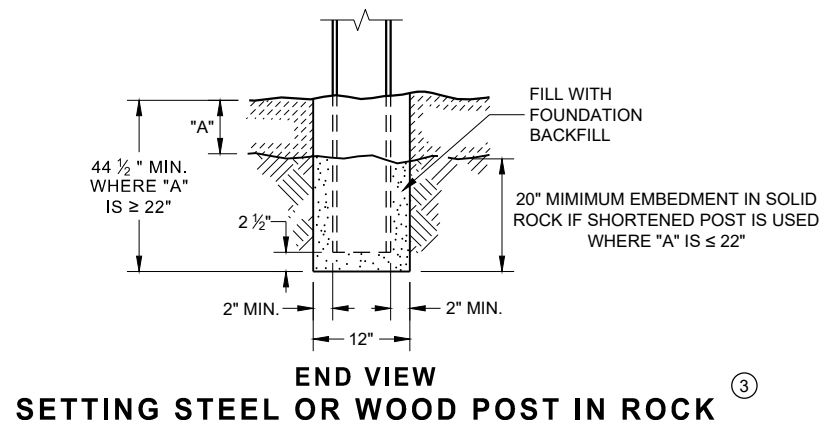
SDD 13C19 - 03

SDD 13C19 - 03

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

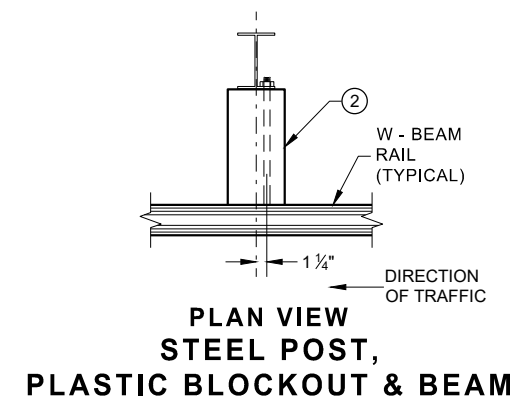
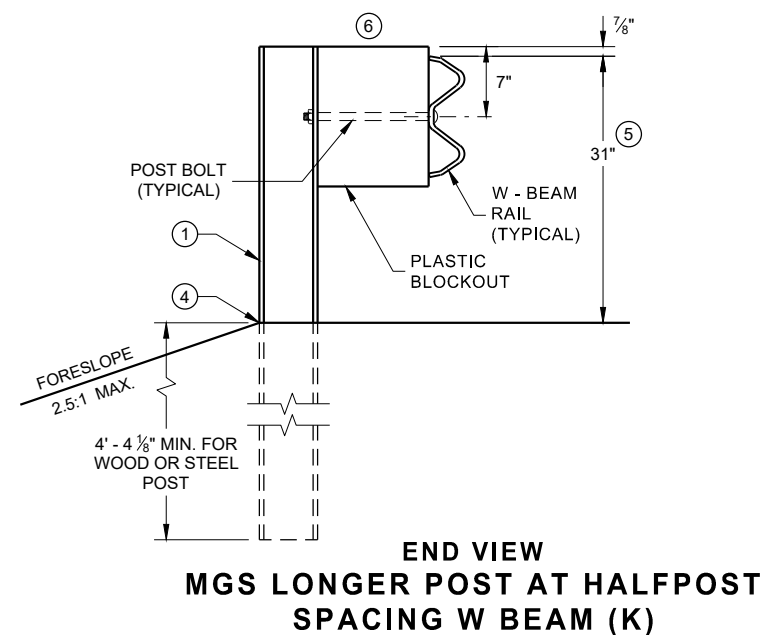
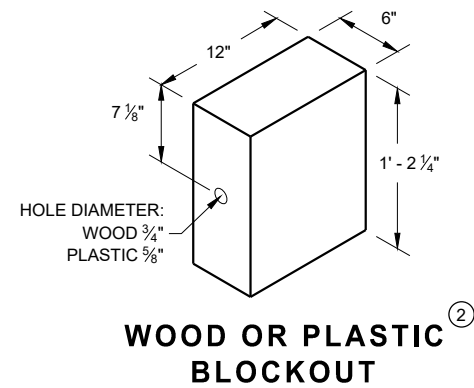
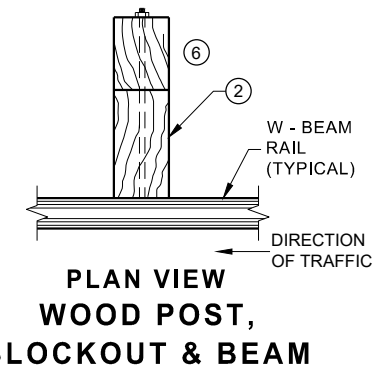


- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. 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".



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

**WOOD POST (6" X 8") NOMINAL**

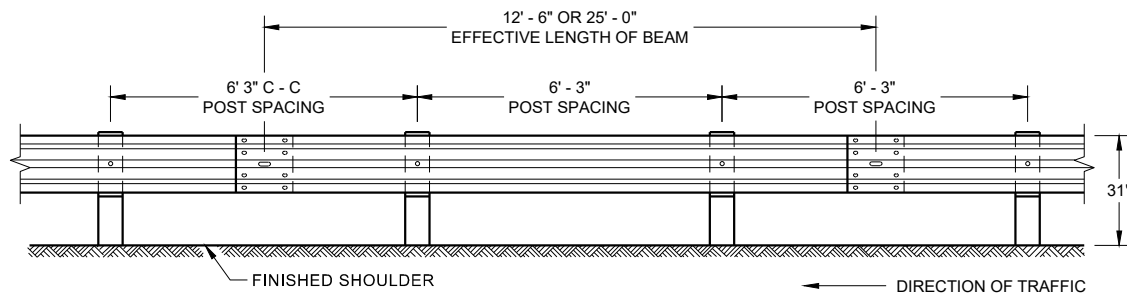


**END VIEW MGS LONGER POST AT HALFPST SPACING W BEAM (K)**

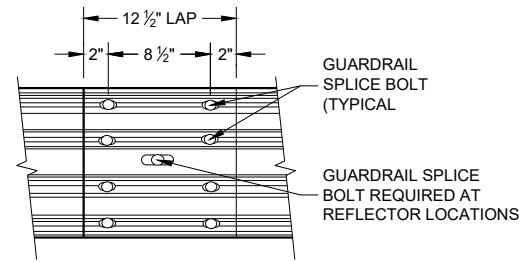
**PLAN VIEW STEEL POST, PLASTIC BLOCKOUT & BEAM**

**MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



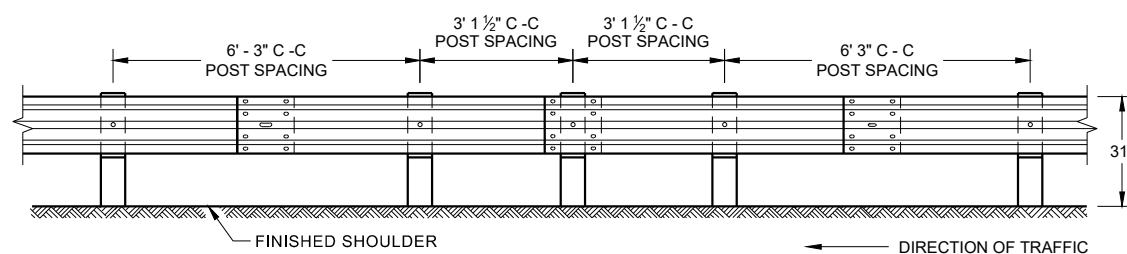
**FRONT VIEW  
POST SPACING STANDARD INSTALLATION**



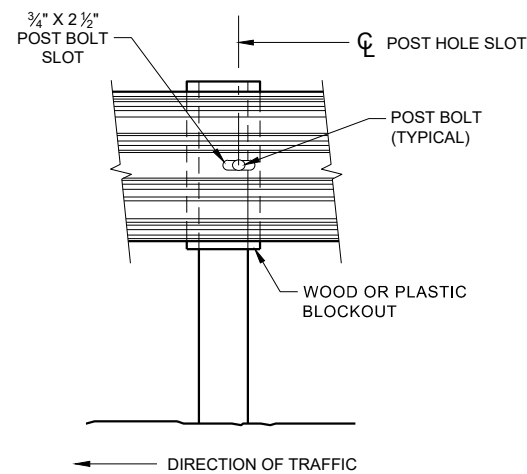
**FRONT VIEW  
MID-SPAN BEAM SPLICE**

**GENERAL NOTES**

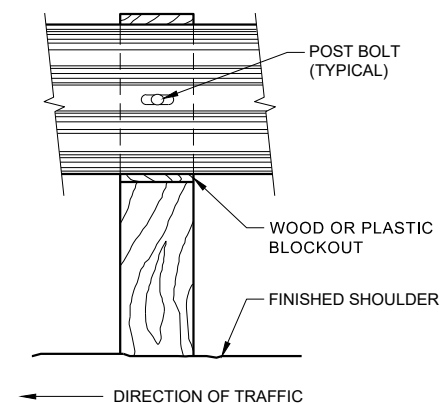
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
  - ⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



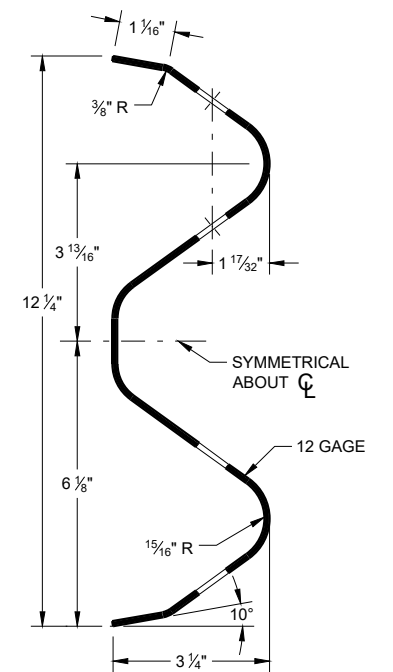
**FRONT VIEW  
HALF POST SPACING (HS) AND  
HALF POST SPACING WITH LONGER POSTS (K)**



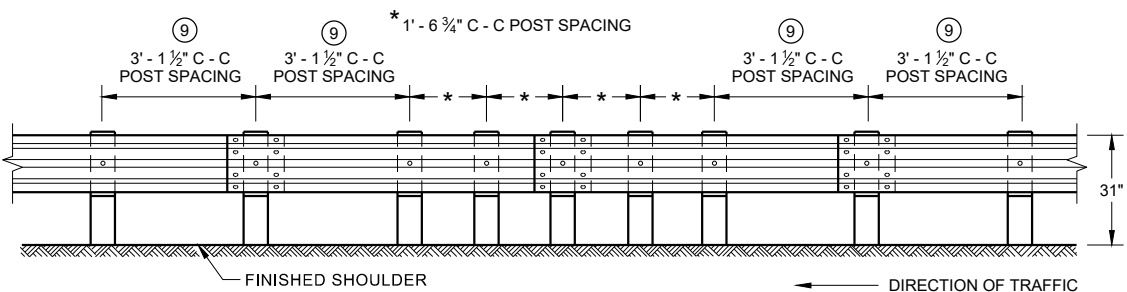
**FRONT VIEW AT STEEL POST**



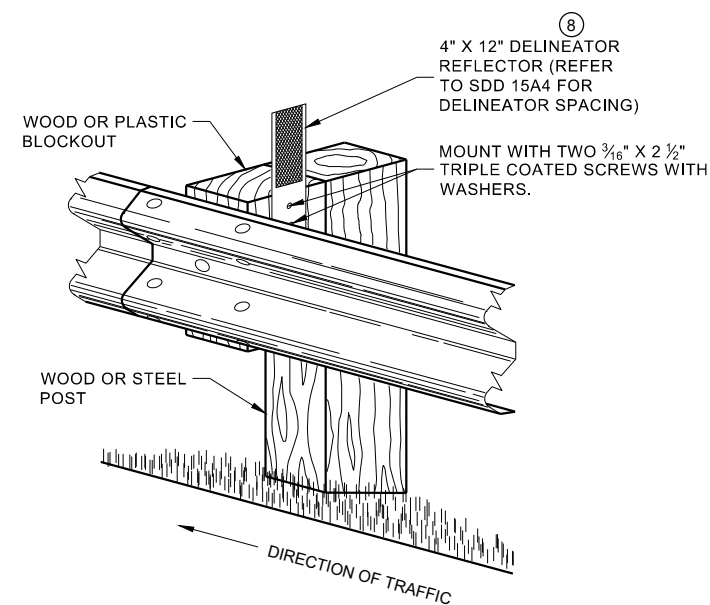
**FRONT VIEW AT WOOD POST**



**SECTION THRU W-BEAM RAIL**



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



**ONE SIDED REFLECTOR DETAIL  
AND TYPICAL INSTALLATION**

**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

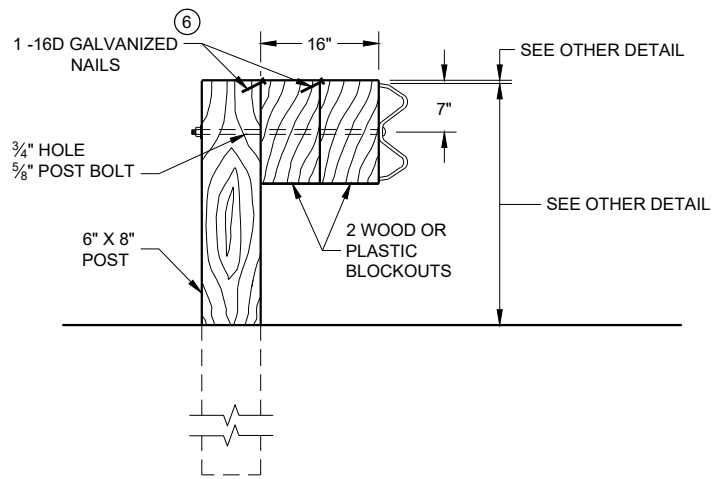
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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SDD 14B42 - 07b

SDD 14B42 - 07b

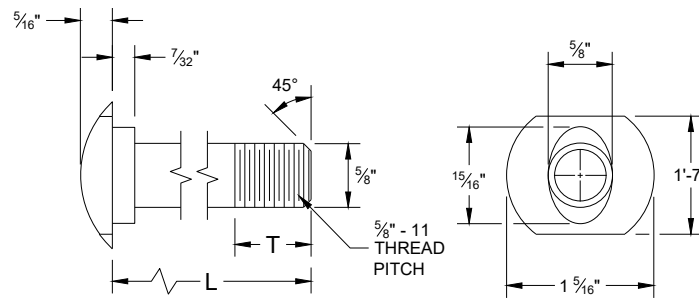


**DETAIL FOR 16" BLOCKOUT DEPTH**

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.

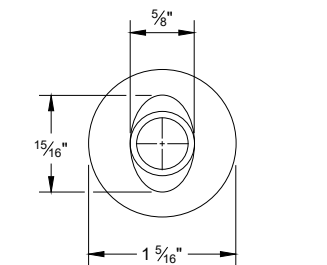
**NOTE:**

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.

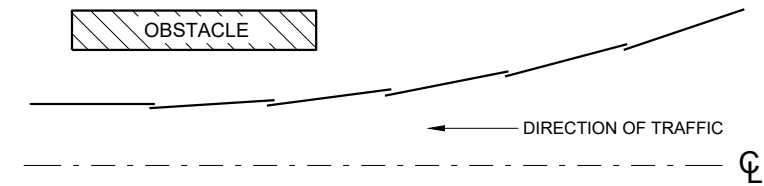


**POST BOLT TABLE**

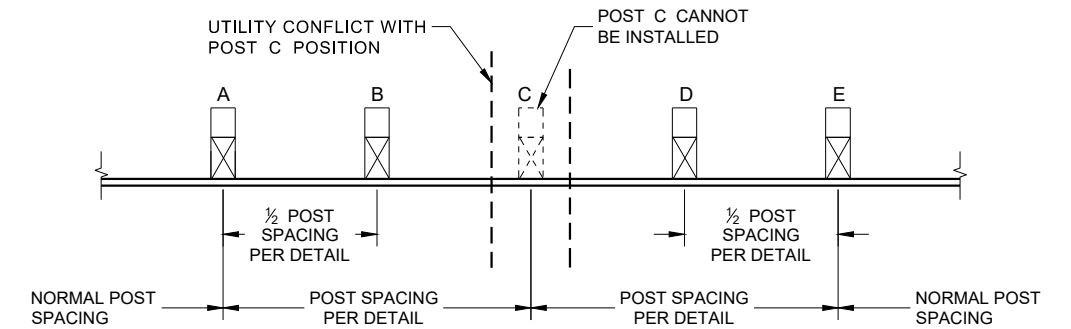
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



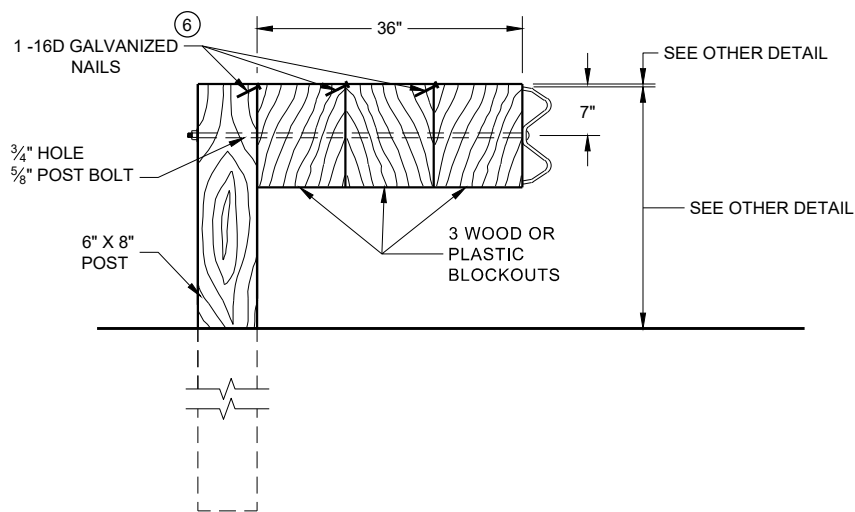
**ALTERNATE BOLT HEAD**



**PLAN VIEW  
BEAM LAPPING DETAIL**

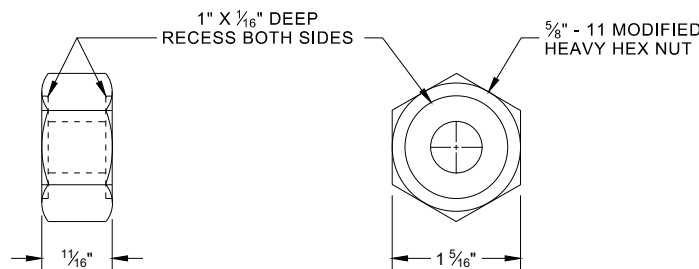


**POST DRIVING FOR CONTINUOUS  
UNDERGROUND OBSTRUCTION**

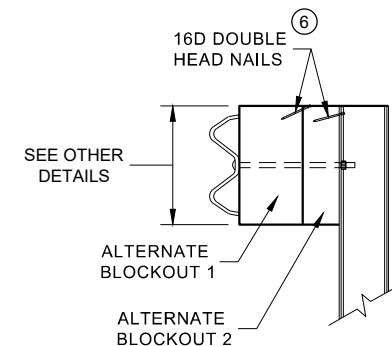


**DETAIL FOR 36" BLOCKOUT DEPTH**

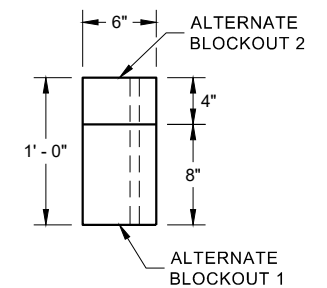
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.  
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE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



**POST BOLT, SPLICE BOLT  
AND RECESS NUT**



**SIDE VIEW**



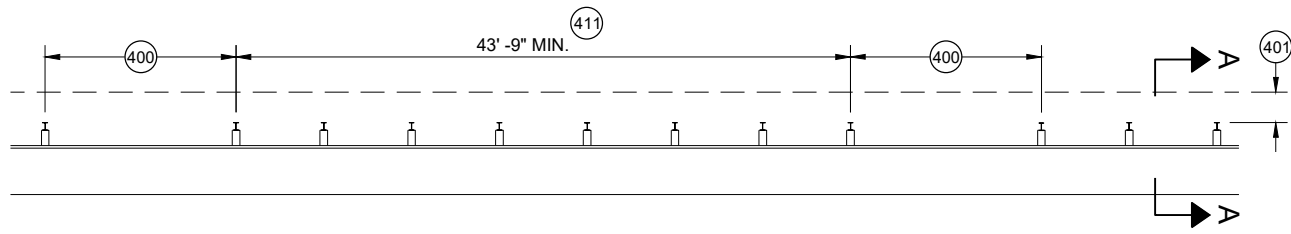
**PLAN VIEW**

**ALTERNATE WOOD  
BLOCKOUT DETAIL**

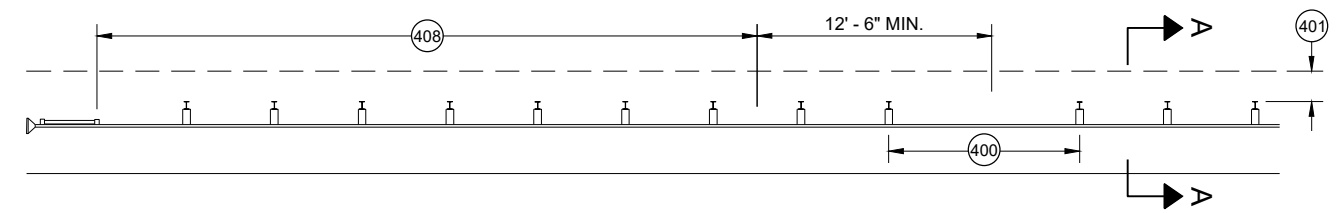
6 WHEN USING STEEL POST AND WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

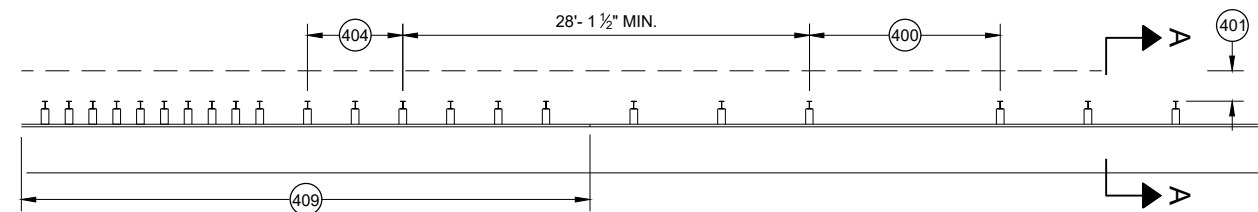
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



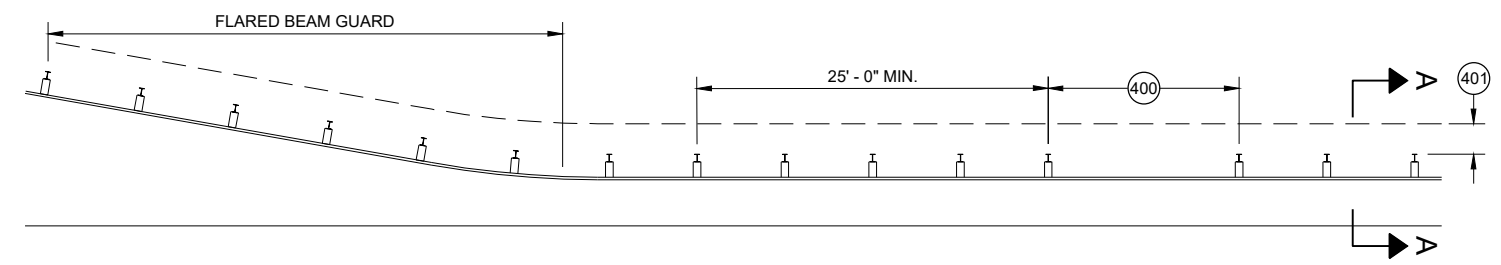
**MISSING POST IN MGS GUARDRAIL**



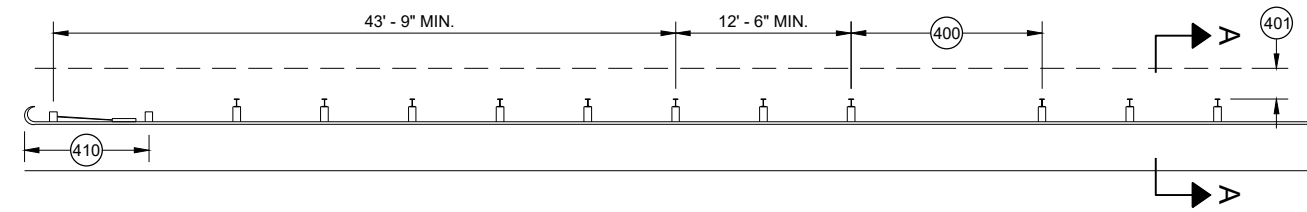
**MISSING POST IN MGS GUARDRAIL NEAR EAT**



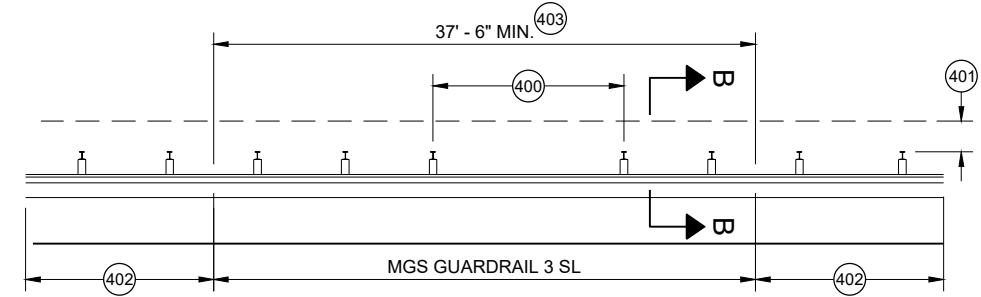
**MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION**



**MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD**

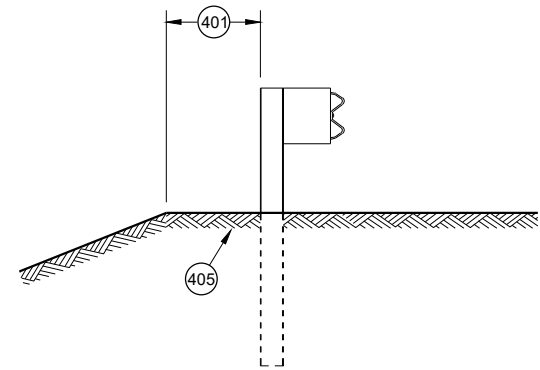


**MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL**

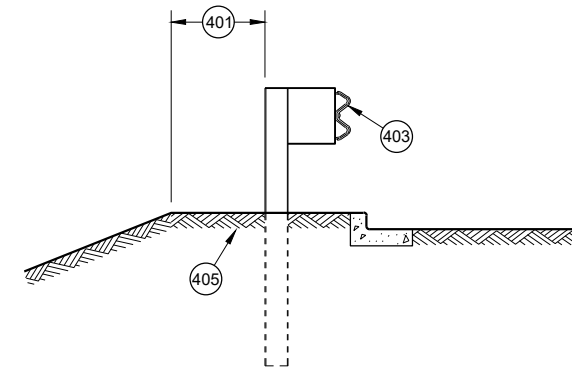


**MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)**

- 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**

<b>MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/s/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	

**GENERAL NOTES**

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE 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.

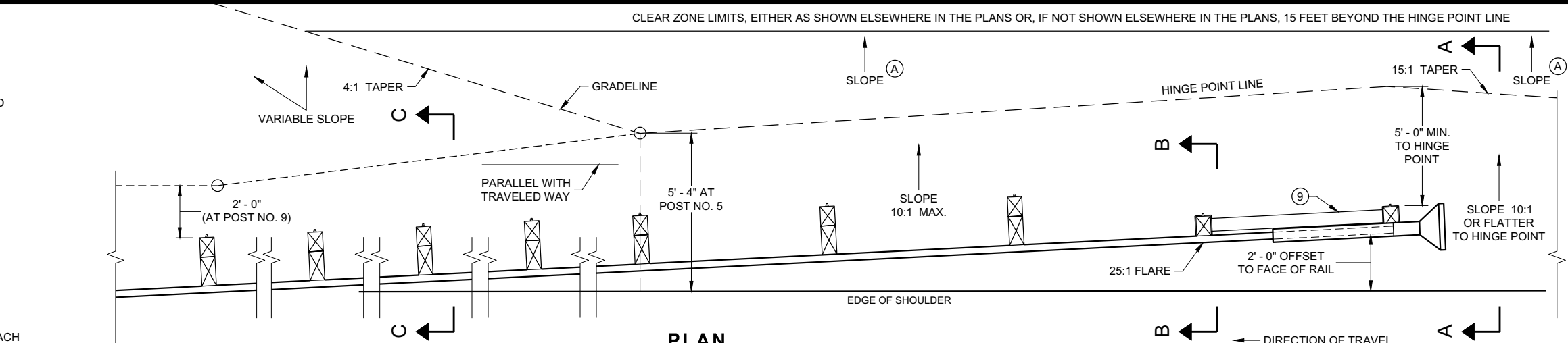
SEE SDD 14B42 FOR MORE INFORMATION.

\* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

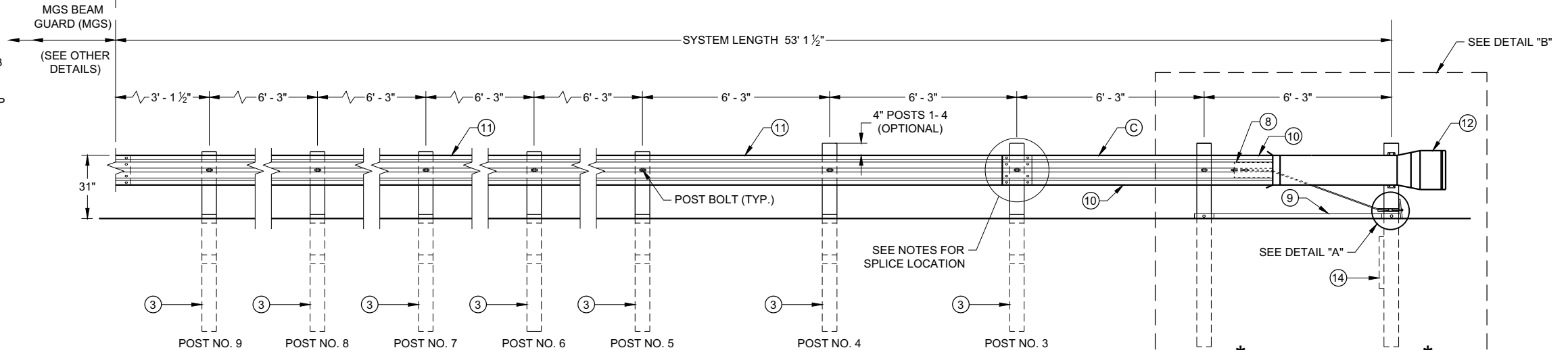
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

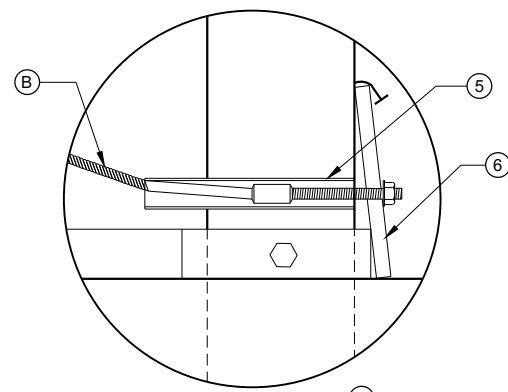
THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



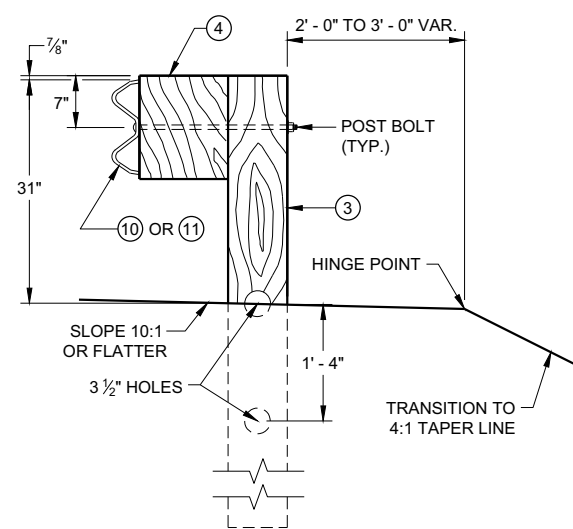
**PLAN**



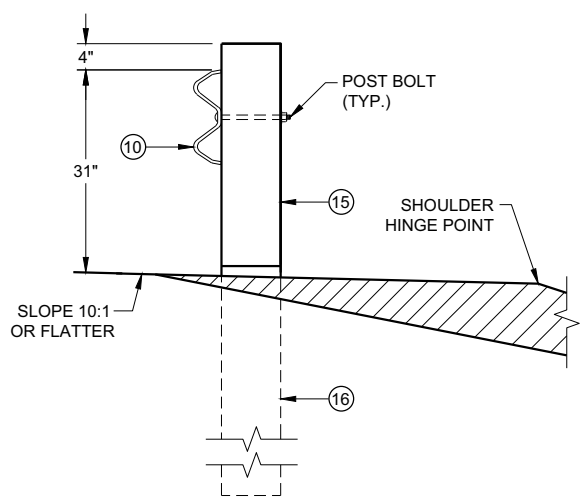
**ELEVATION**



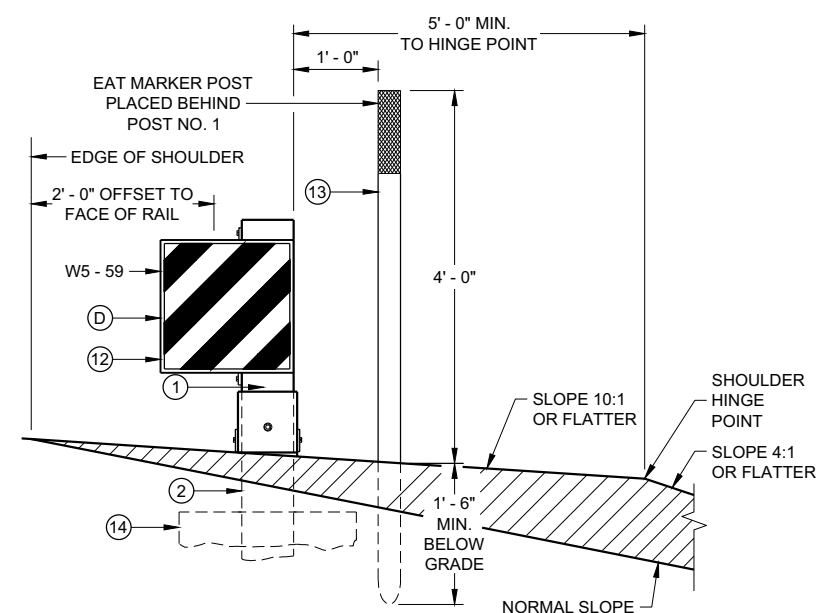
**DETAIL "A"**



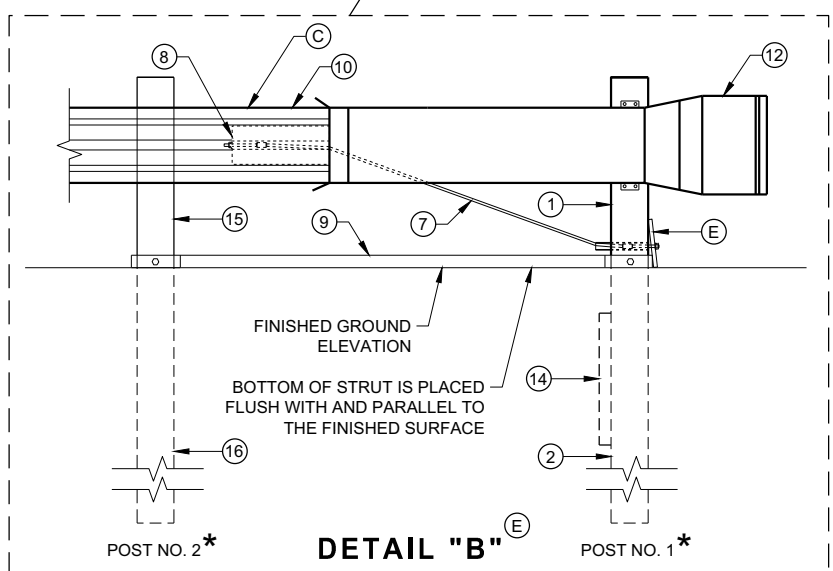
**SECTION C - C  
TYPICAL AT POST NOS. 3 - 9**



**SECTION B - B  
TYPICAL AT POST NO. 2\***



**SECTION A - A  
TYPICAL AT POST NO. 1\***



**DETAIL "B"**

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

6

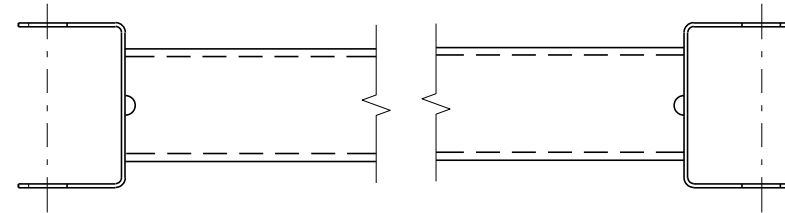
6

SDD 14B44 - 04a

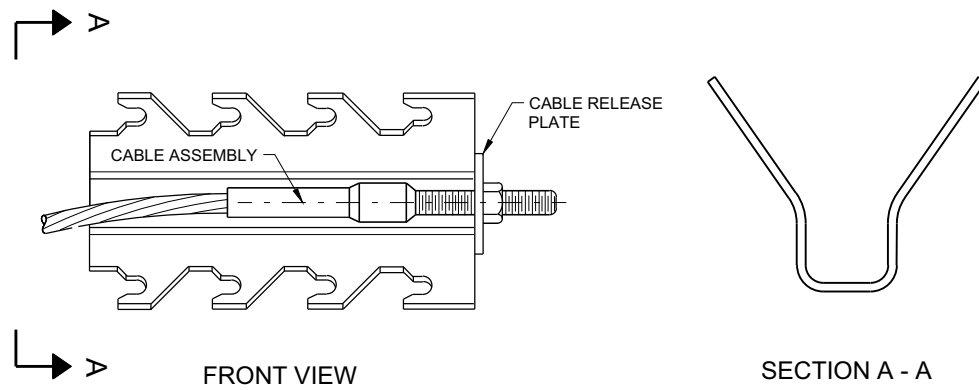
SDD 14B44 - 04a

**BILL OF MATERIALS**

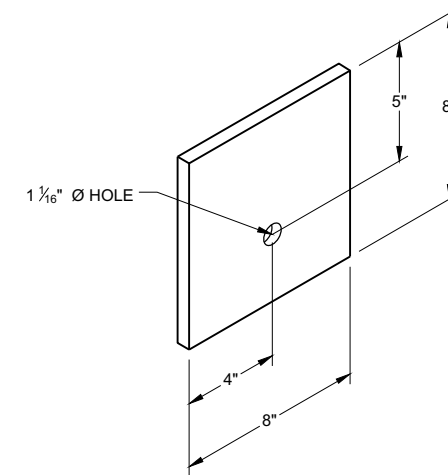
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL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



**GENERIC ANCHOR CABLE BOX** ⑨ ⑤



**BEARING PLATE** ⑥ ⑤

6

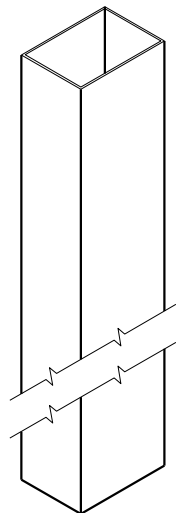
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SDD 14B44 - 04b

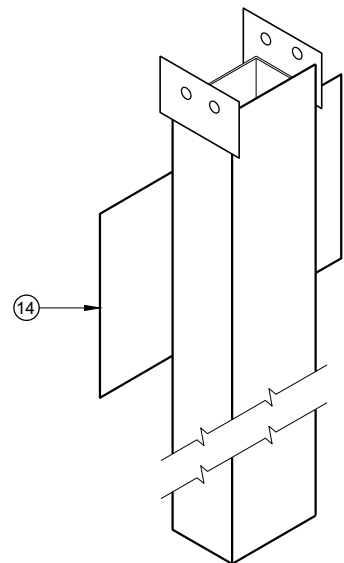
SDD 14B44 - 04b

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

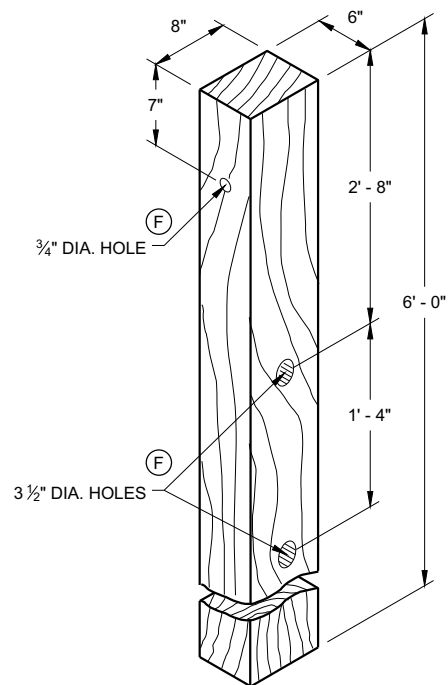
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



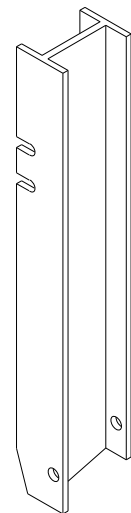
UPPER POST NO. 1 <sup>(1)</sup> (E)



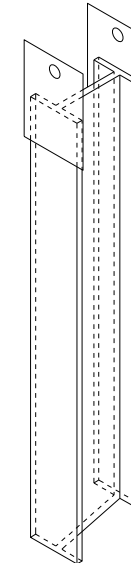
LOWER POST NO. 1 <sup>(2)</sup> (E)



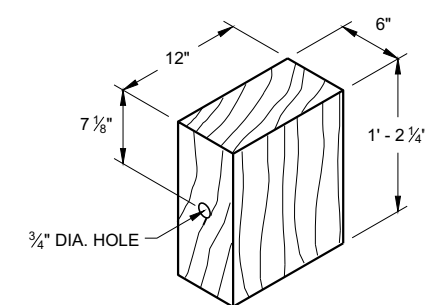
WOOD CRT POST <sup>(3)</sup> (E)  
POSTS NUMBER 3-9



UPPER POST NO. 2 <sup>(15)</sup> (E)

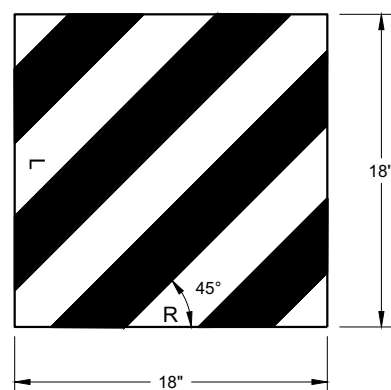


LOWER POST NO. 2 <sup>(16)</sup> (E)



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

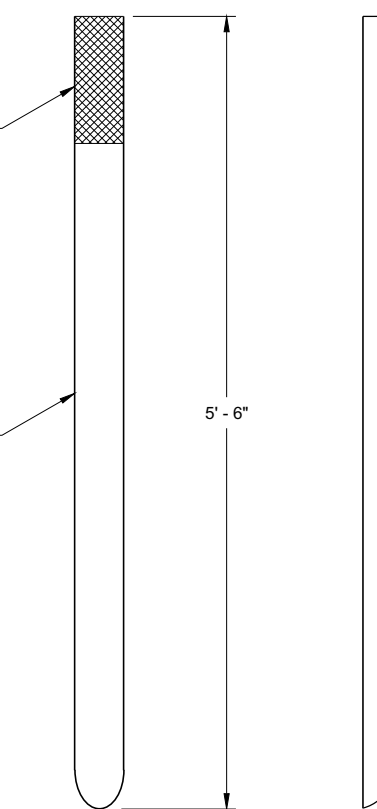
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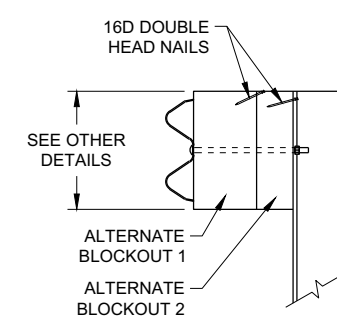
W5 - 59  
REFLECTIVE SHEETING DETAIL <sup>(E)</sup>

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

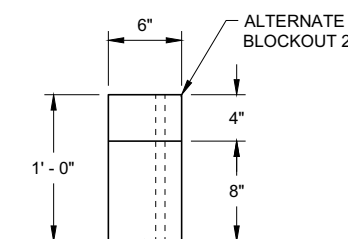
E.A.T. MARKER  
POST (YELLOW)



FRONT VIEW SIDE VIEW  
E.A.T. MARKER POST <sup>(13)</sup>



SIDE VIEW



TOP VIEW

ALTERNATE WOOD  
BLOCKOUT DETAIL

6

SDD 14B44 - 04c

SDD 14B44 - 04c

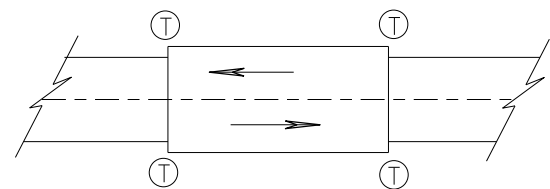
**MIDWEST GUARDRAIL SYSTEM  
ENERGY ABSORBING TERMINAL  
(MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

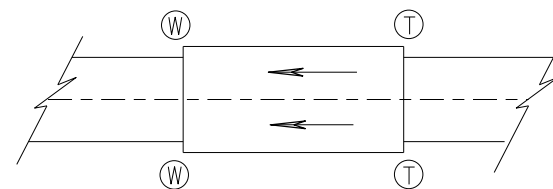
APPROVED  
7/2018 DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR

FHWA





**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**

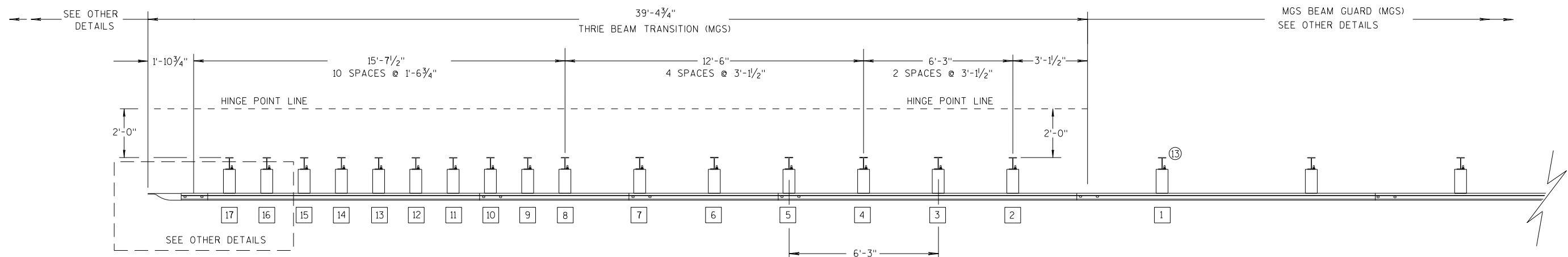
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

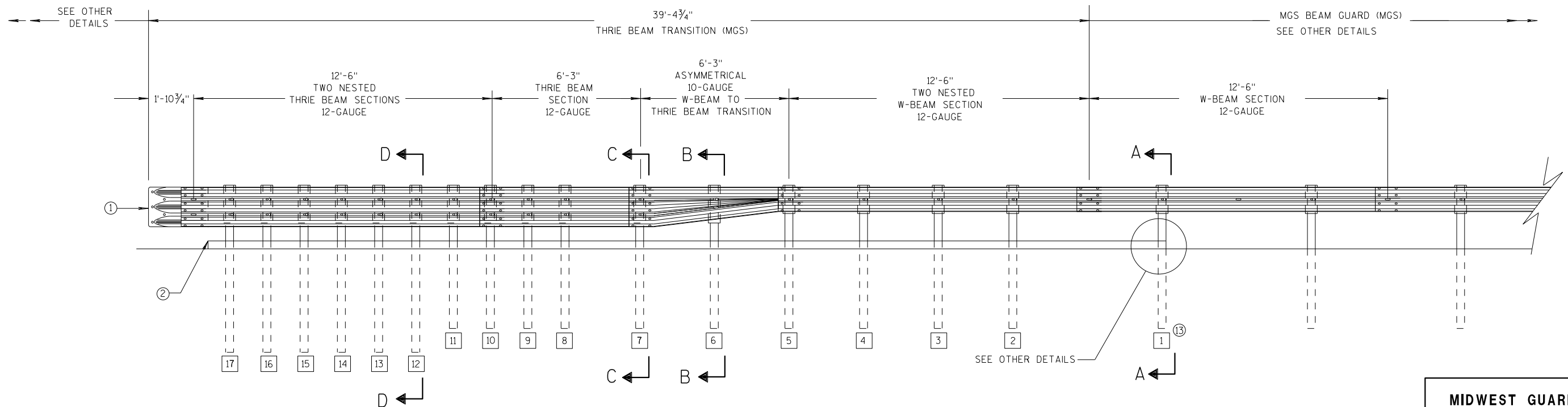
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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**

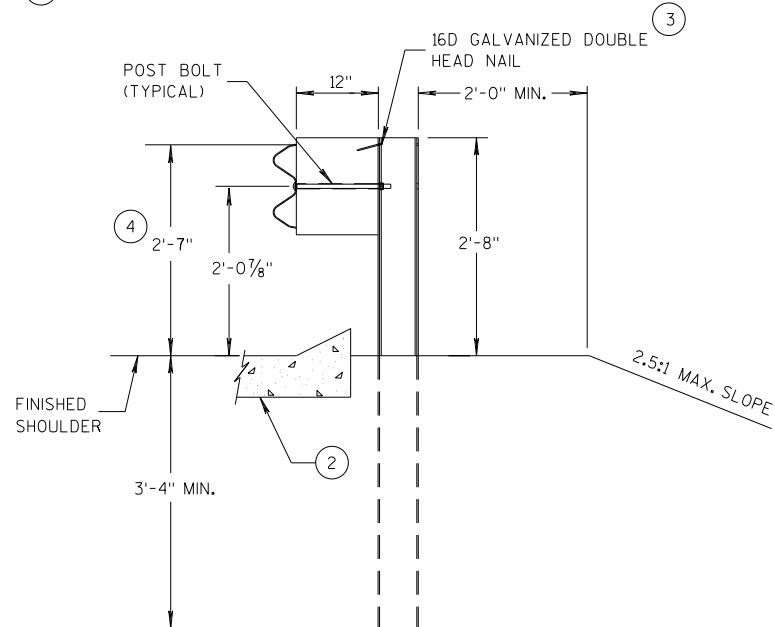
**MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION**

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

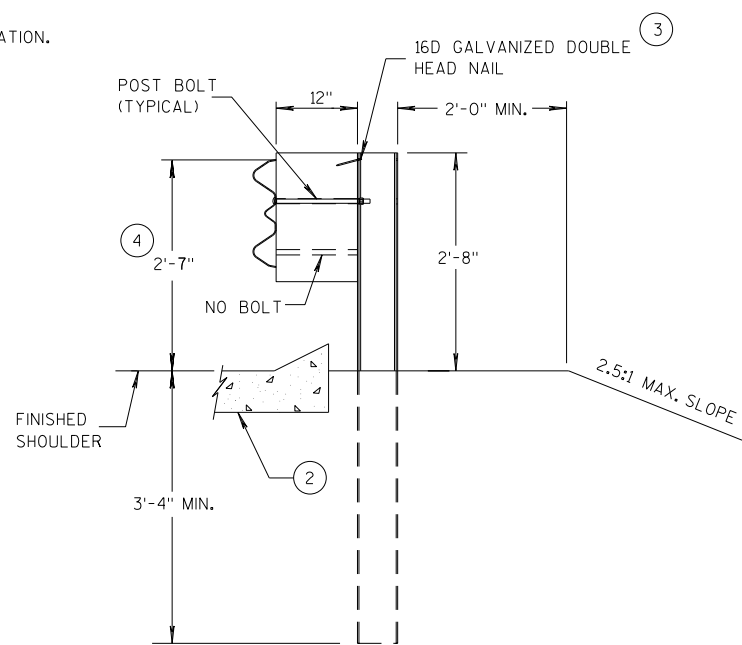
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

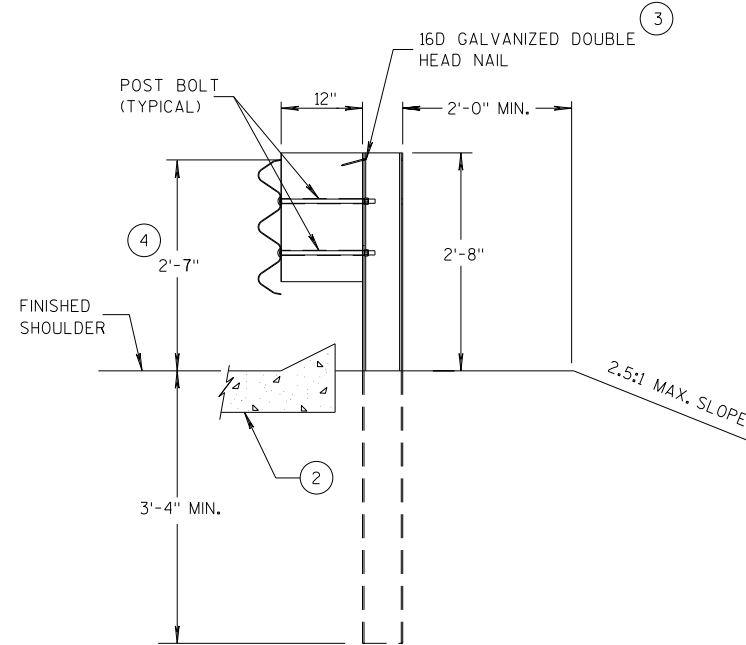
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ③ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ④ TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".
- ⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



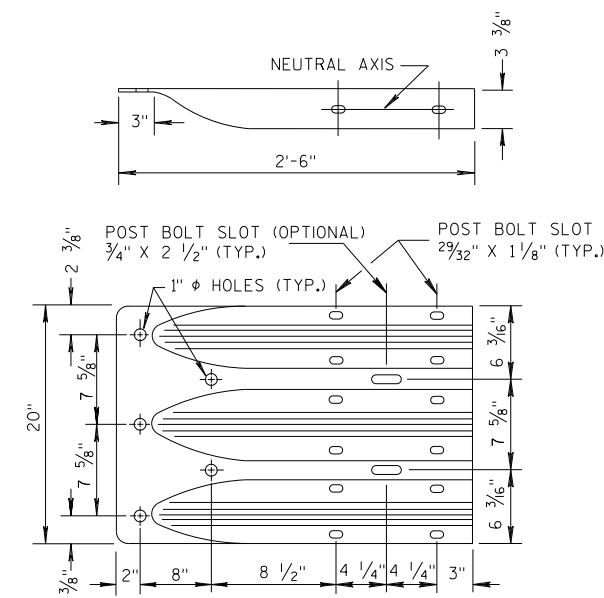
**SECTION A-A  
POSTS 1-5**



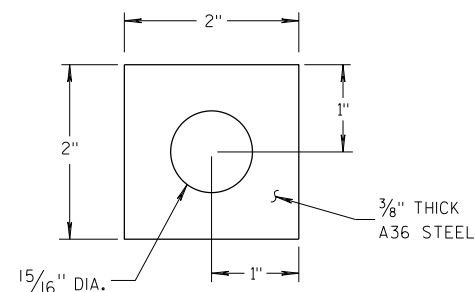
**SECTION B-B  
POST 6**



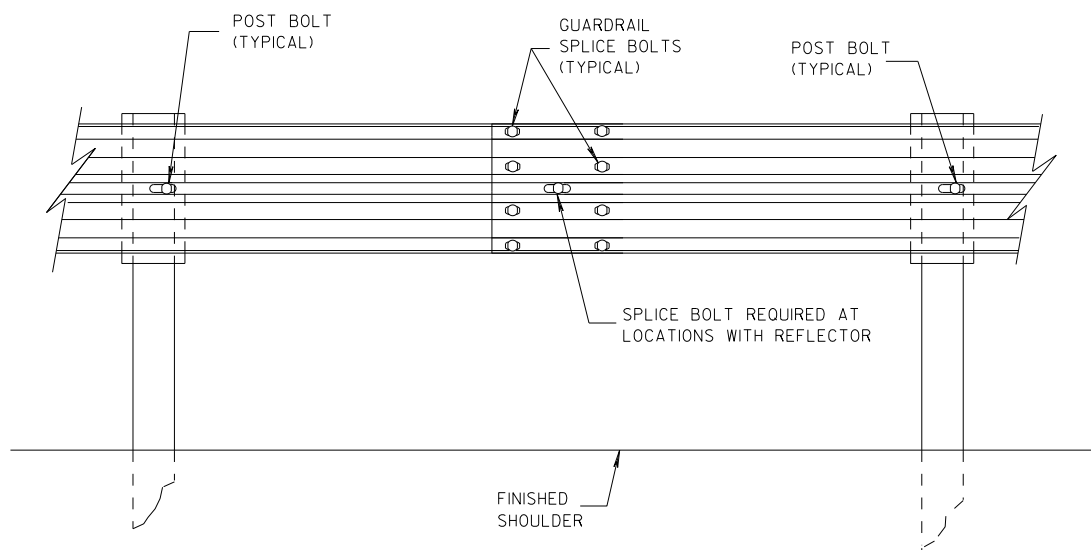
**SECTION C-C  
POSTS 7-11**



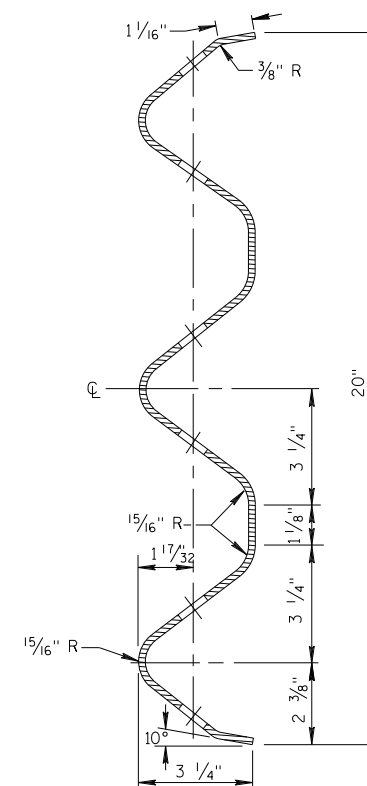
**THRIE BEAM  
TERMINAL CONNECTOR**



**PLATE WASHER DETAIL**



**SPLICE DETAIL**

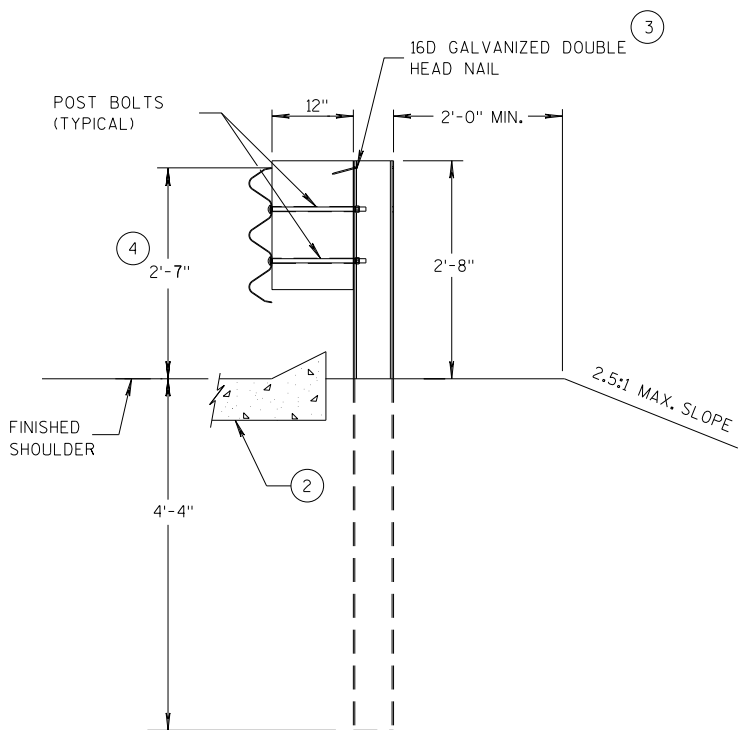


**SECTION THRU THRIE  
BEAM RAIL ELEMENT**

6

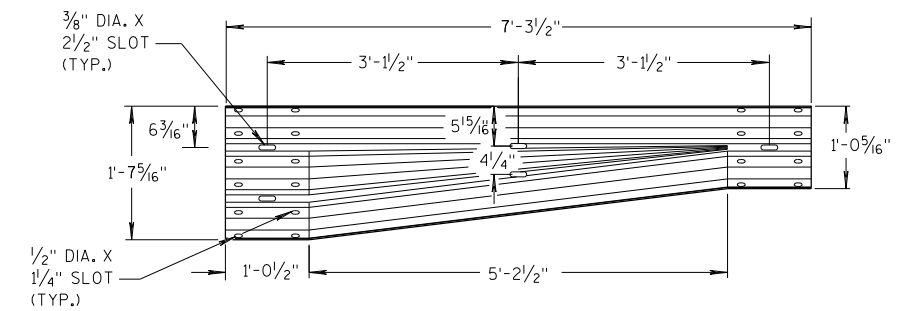
6

**SECTION D-D  
POSTS 12-17**

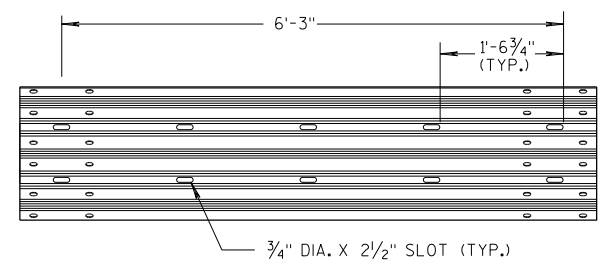


**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

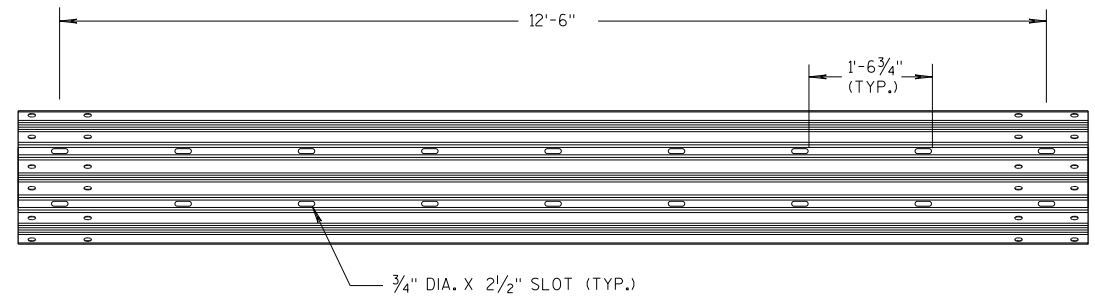
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



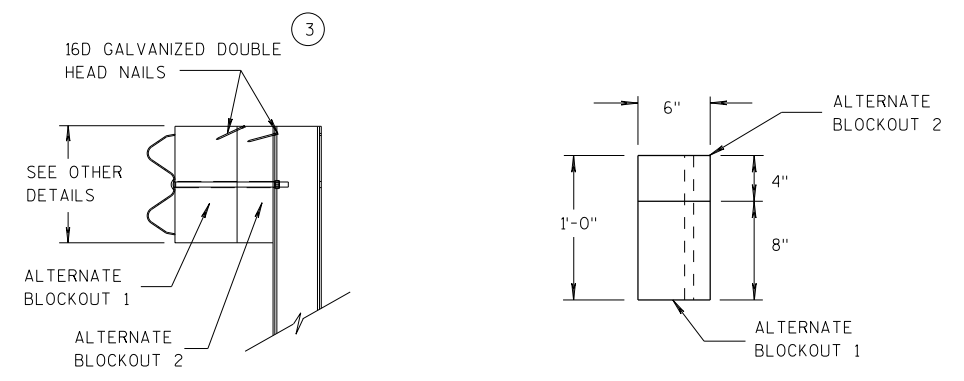
**W-BEAM TO THRIE BEAM TRANSITION SECTION**



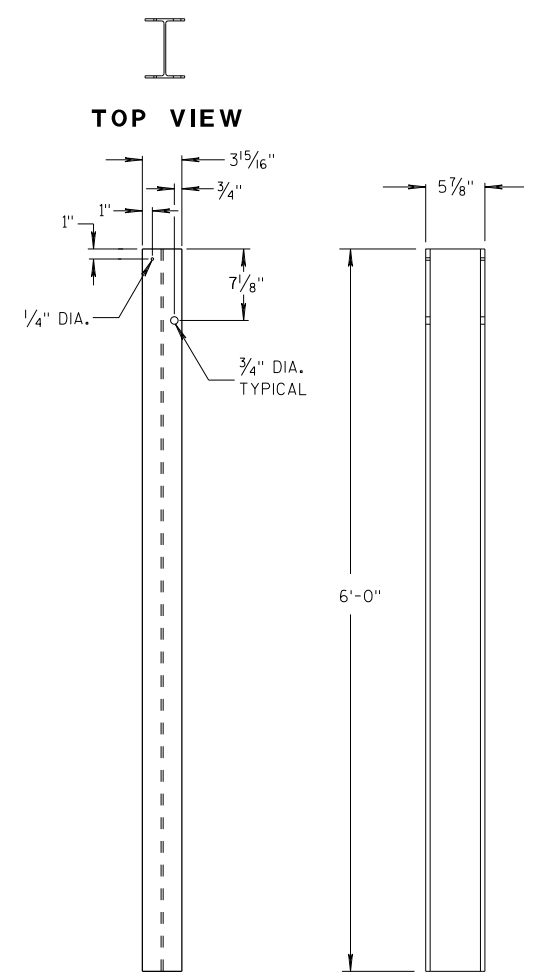
**6'-3" THRIE BEAM SECTION**



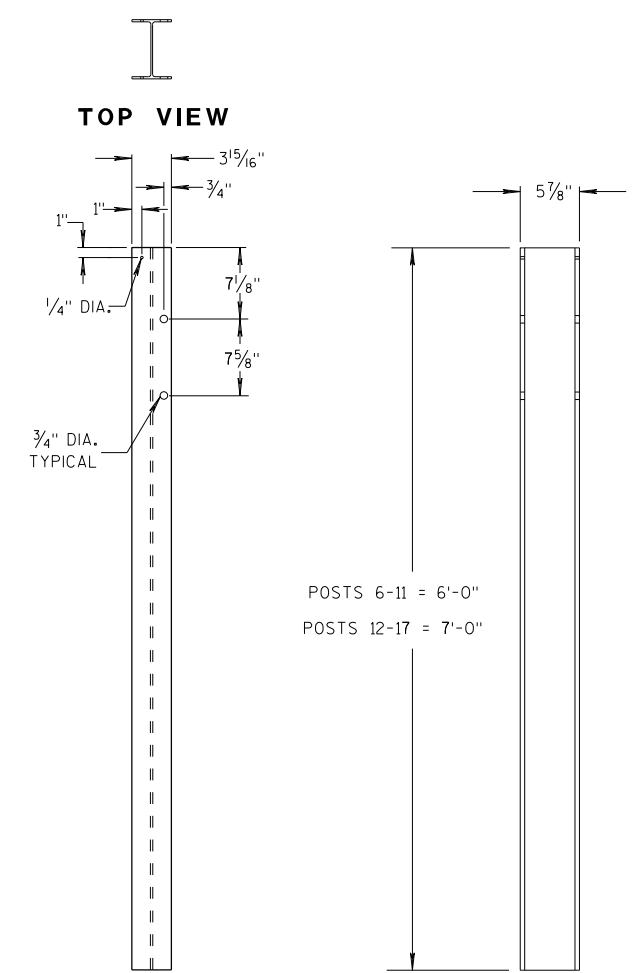
**12'-6" THRIE BEAM SECTION**



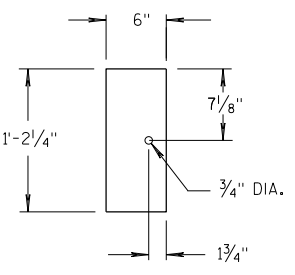
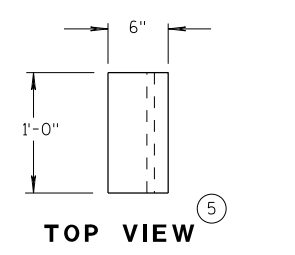
**ALTERNATE WOOD BLOCKOUT DETAIL**



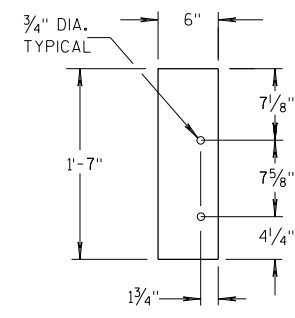
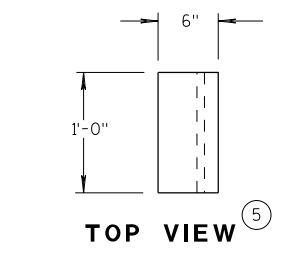
**STEEL POSTS 1-5**



**STEEL POSTS 6-17**



**BLOCKOUT POSTS 1-5**



**BLOCKOUT POSTS 6-17**

**GENERAL NOTES**

- STEEL POSTS ARE W6X9 OR W6X8.5.
- BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.
- (3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- (5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.
- (13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

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

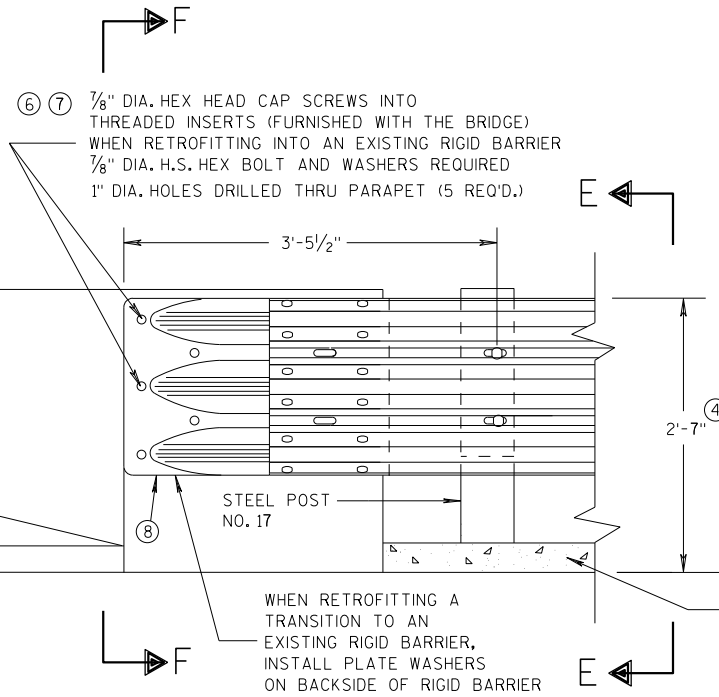
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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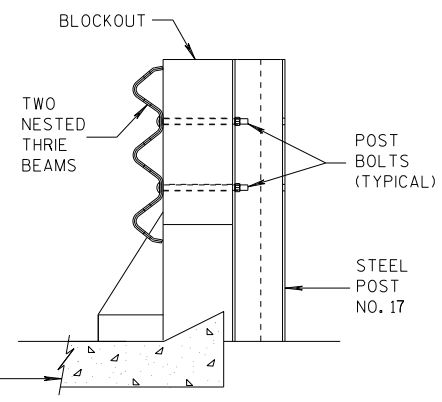
S.D.D. 14 B 45-5c

S.D.D. 14 B 45-5c



FRONT VIEW

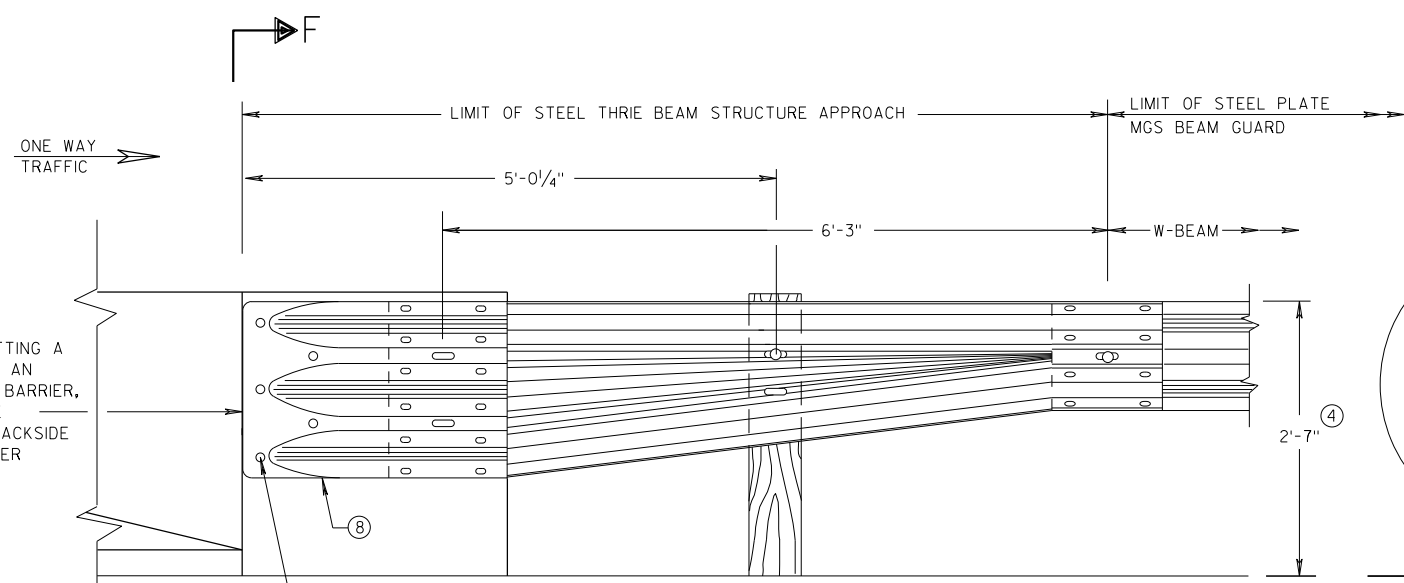
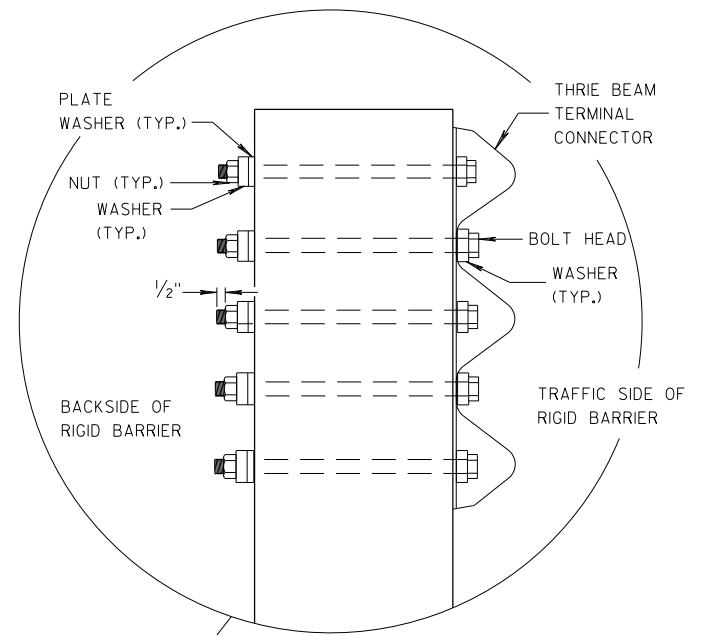
**THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS**



SECTION E-E

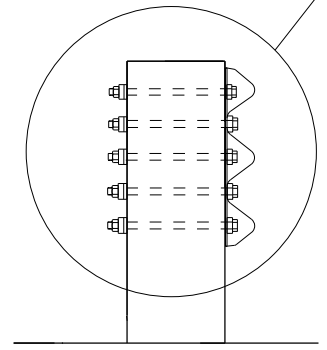
**GENERAL NOTES**

- THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.
- (2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- (4) TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- (6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- (7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- (8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

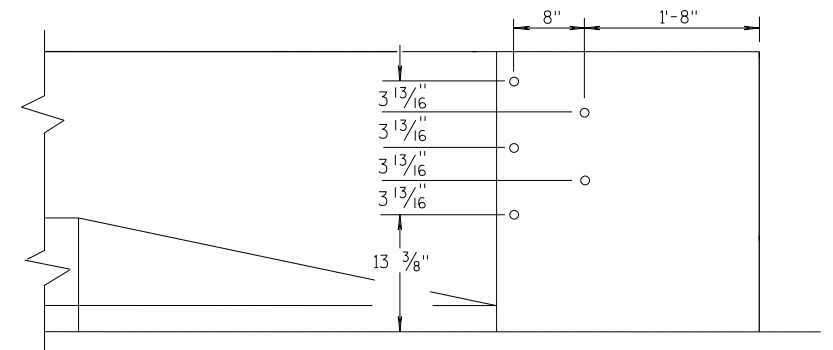


FRONT VIEW

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



SECTION F-F



DRILL HOLE LOCATION

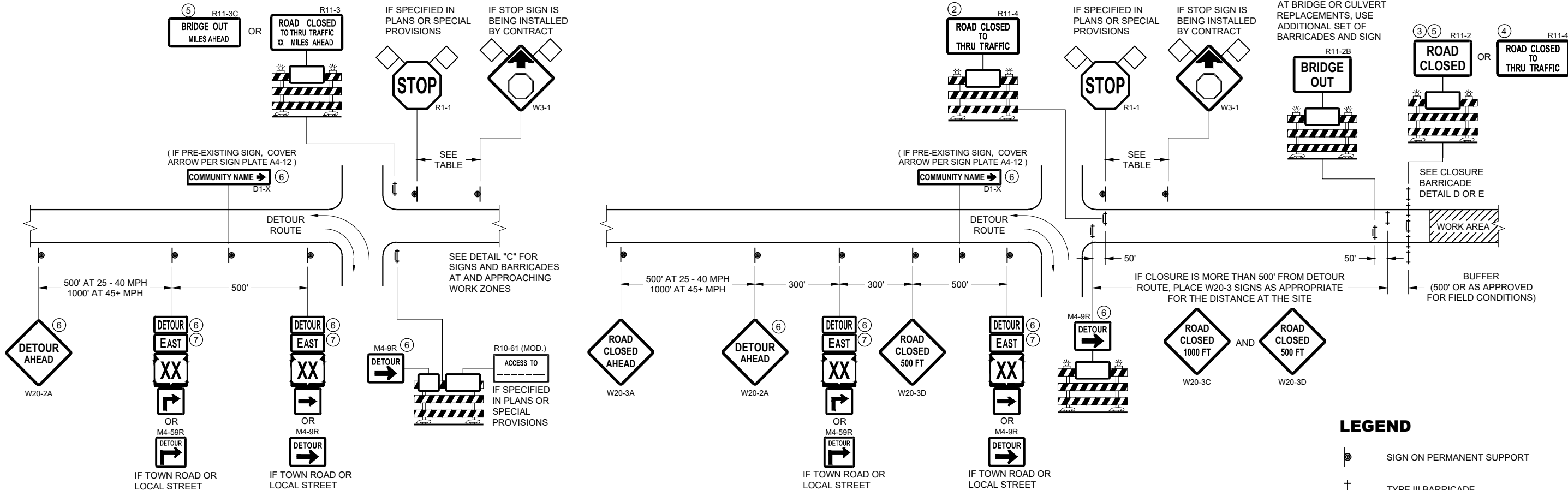
<b>MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 07/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

6

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S.D.D. 14 B 45-5d

S.D.D. 14 B 45-5d



**DETAIL A  
MAINLINE CLOSURE WITH POSTED DETOUR**

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

**DETAIL B  
MAINLINE CLOSURE WITH POSTED DETOUR**

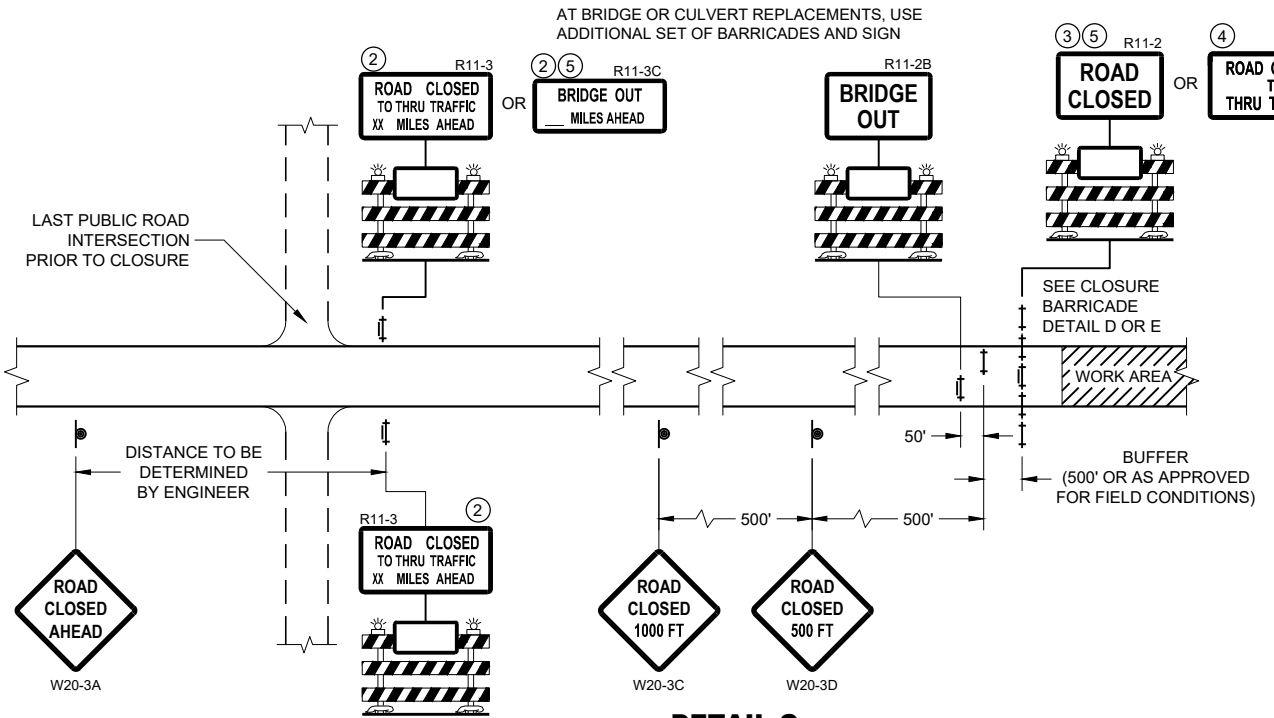
WORK ZONE LESS THAN 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**LEGEND**

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

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

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



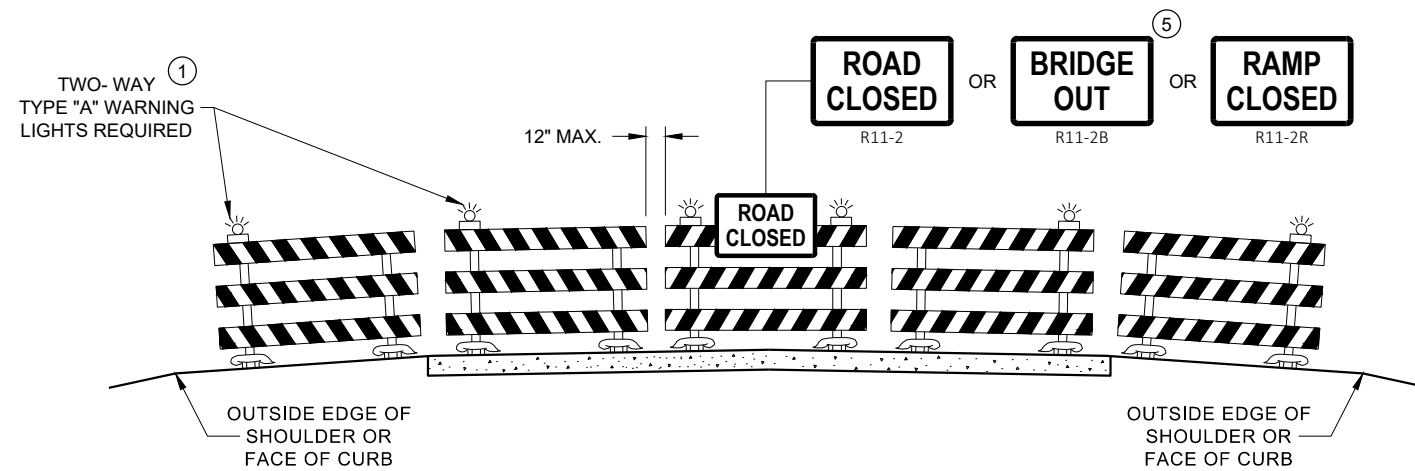
**DETAIL C  
MAINLINE CLOSURE, NO POSTED DETOUR**

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

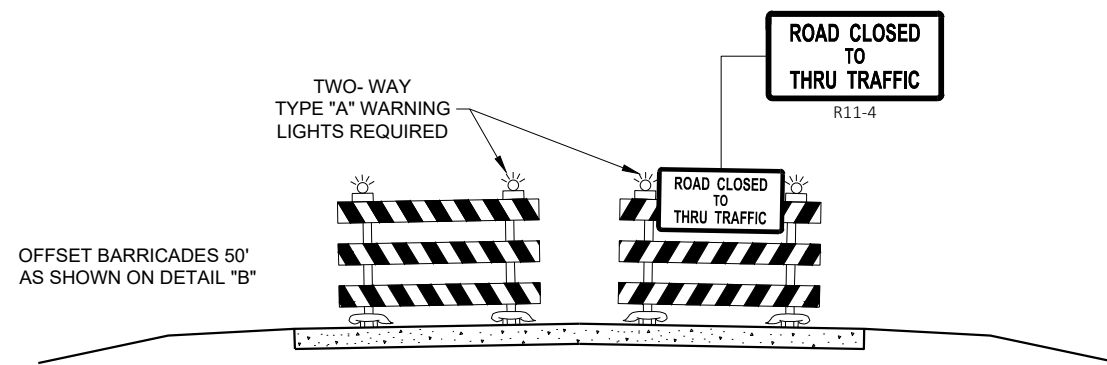
**BARRICADES AND SIGNS  
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



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



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

SEE SDD 15C2 - SHEET "a" FOR LEGEND

**GENERAL NOTES**

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

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

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

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

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

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

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

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

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

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

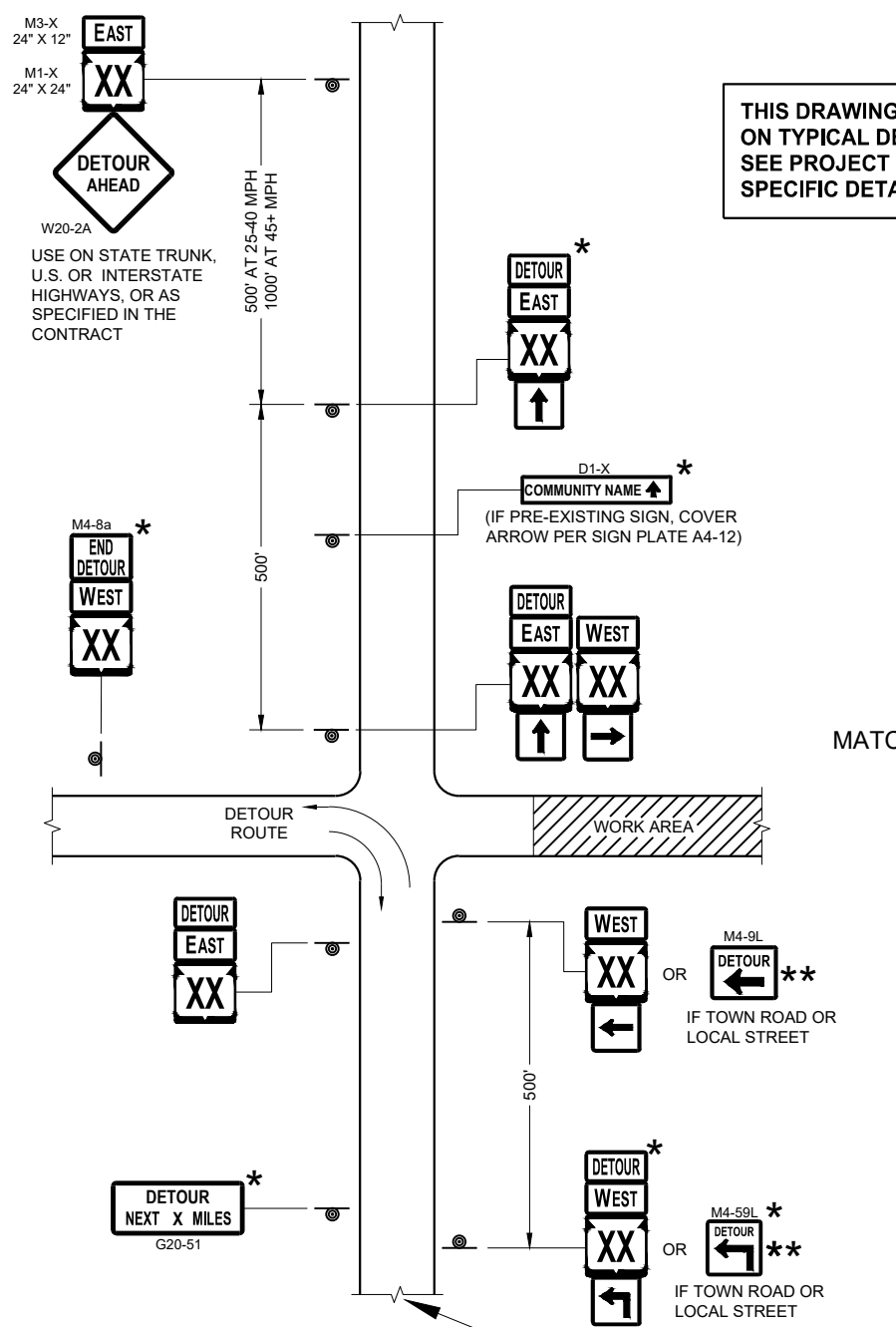
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24"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

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

**BARRICADES AND SIGNS  
FOR  
VARIOUS CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



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

**LEGEND**

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

**GENERAL NOTES**

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

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

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

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

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

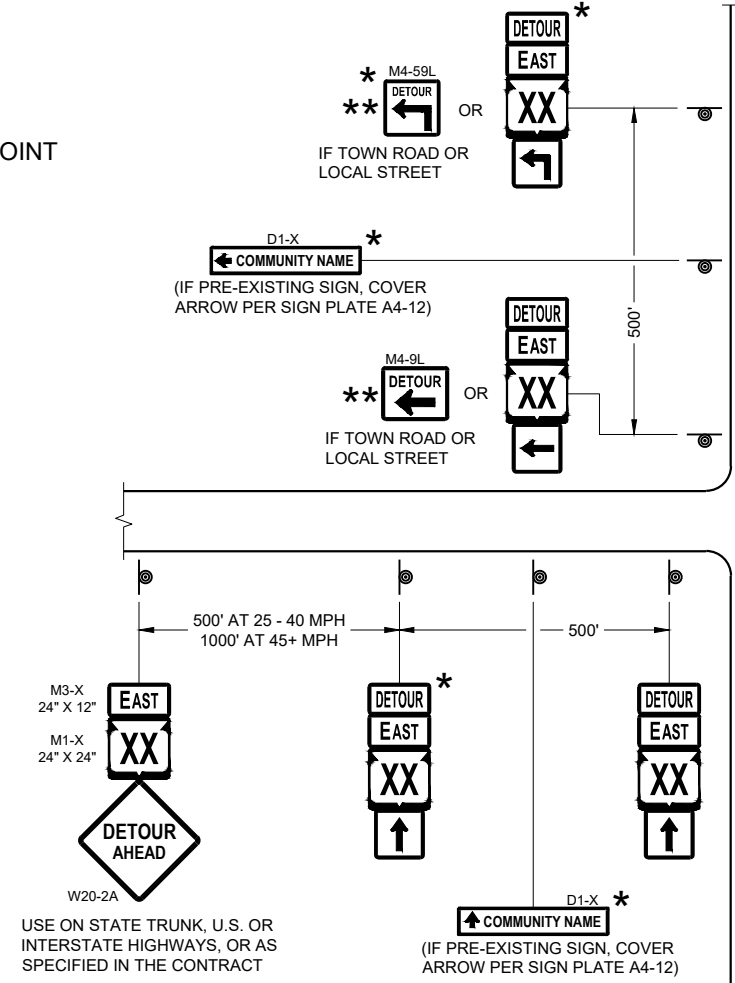
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

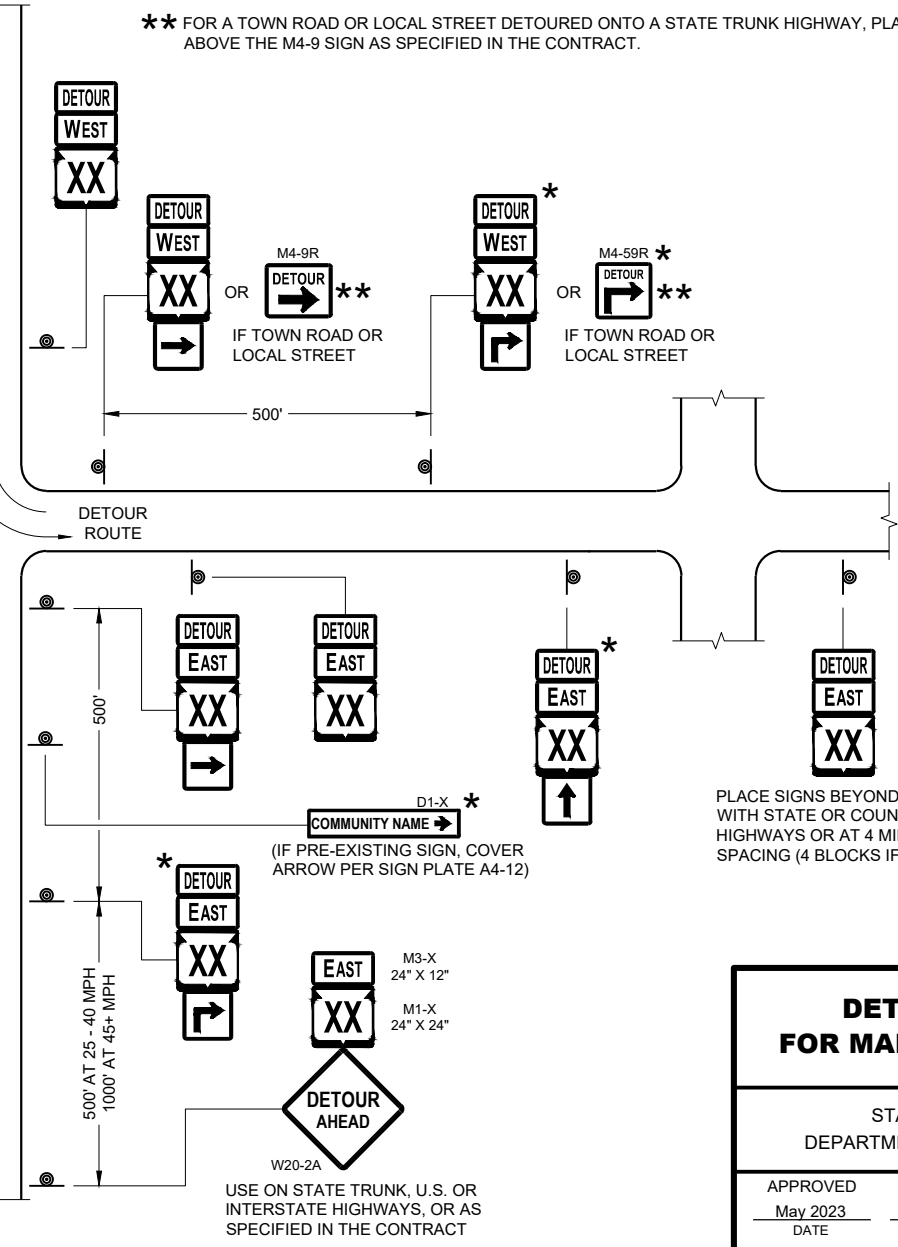
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 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.

MATCH POINT



**DETAIL F  
DETOUR SIGNING**



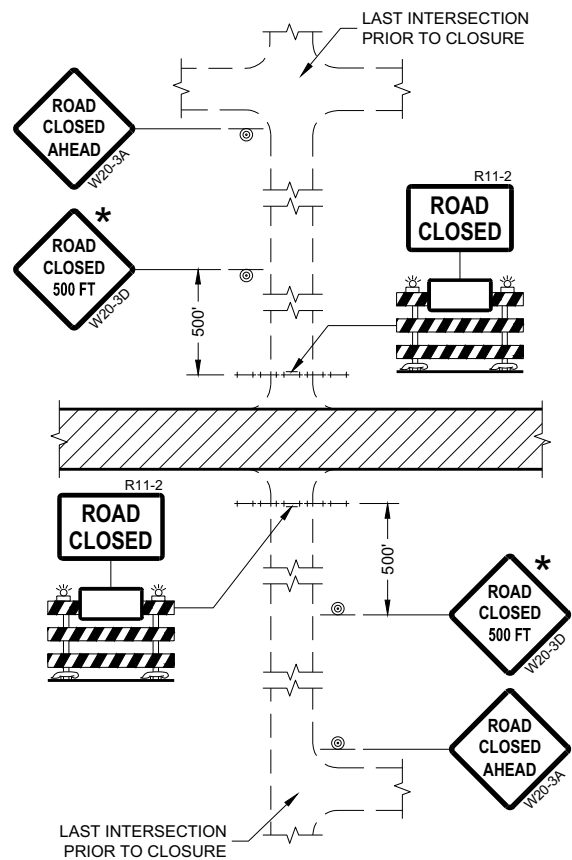
**DETOUR SIGNING  
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

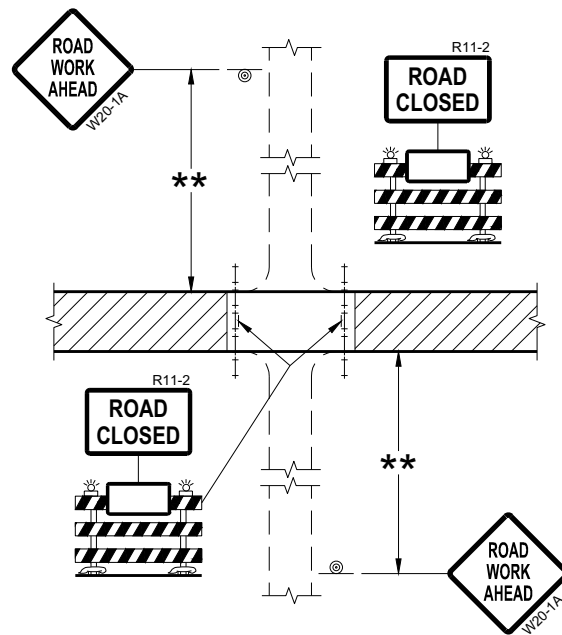
APPROVED  
May 2023 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA

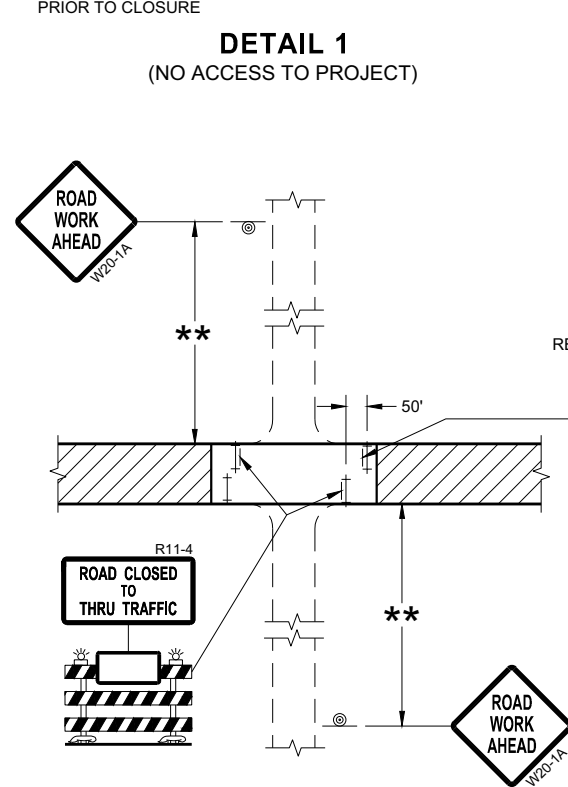




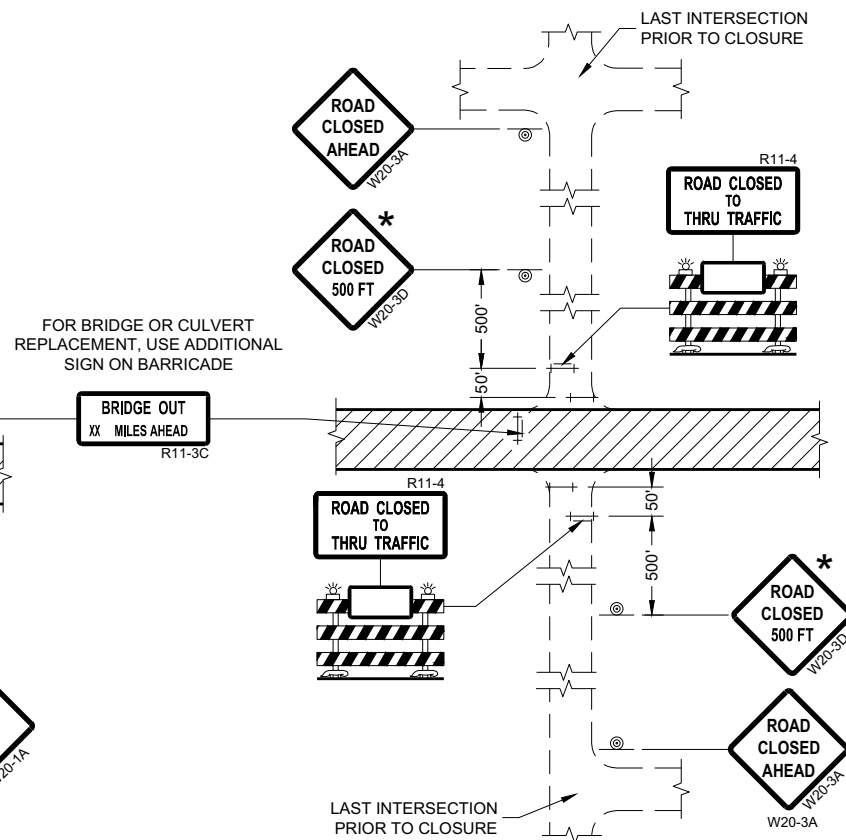
**DETAIL 1**  
(NO ACCESS TO PROJECT)



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



**DETAIL 3**  
(PUBLIC CROSS-TRAFFIC MAINTAINED.  
CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT 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

**GENERAL NOTES**

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

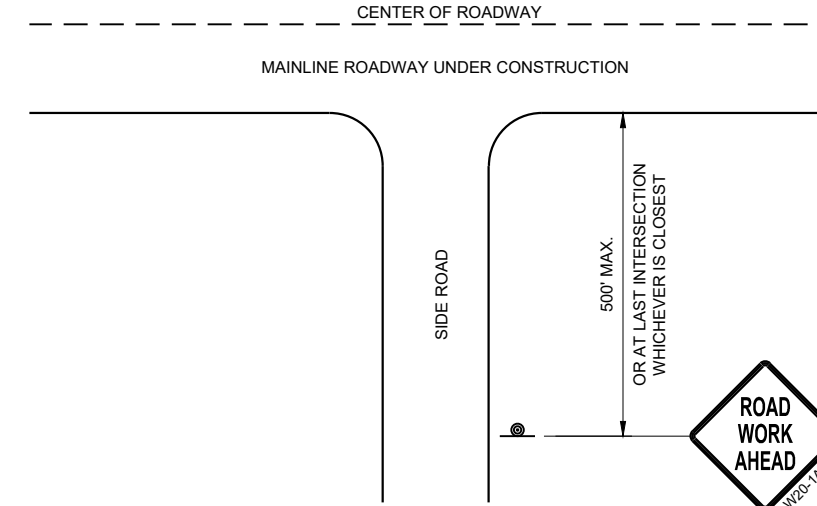
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

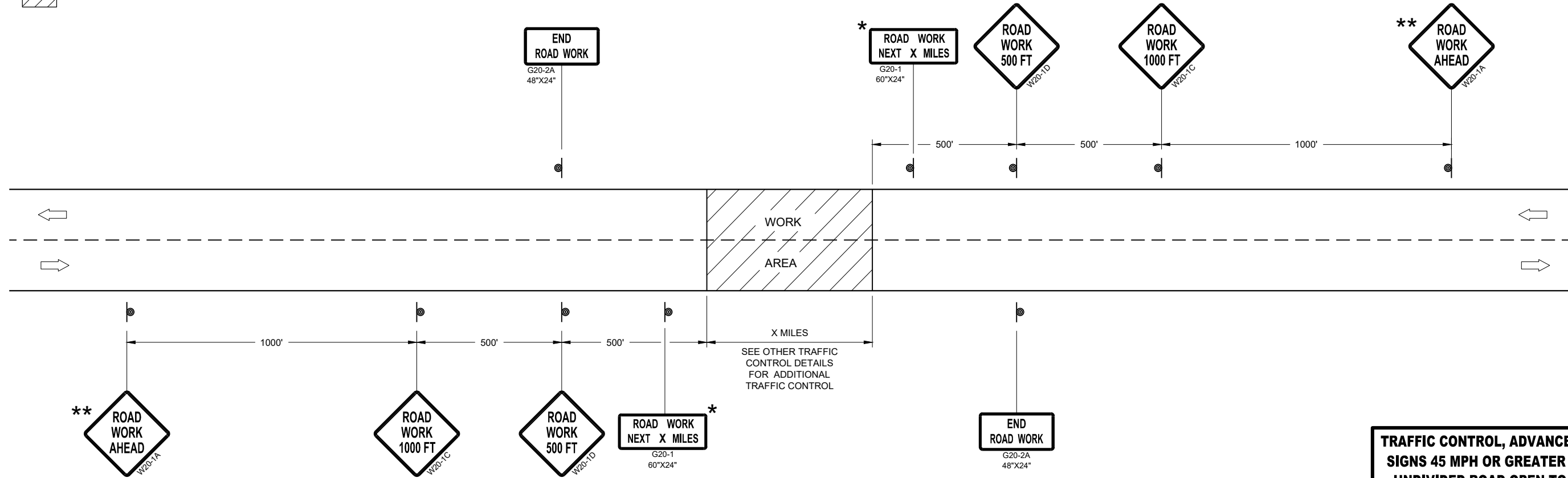
- \* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- \*\* PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



**TYPICAL SIDE ROAD APPROACH  
WARNING SIGN DETAIL**

**LEGEND**

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



**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER**




<b>TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

**GENERAL NOTES**

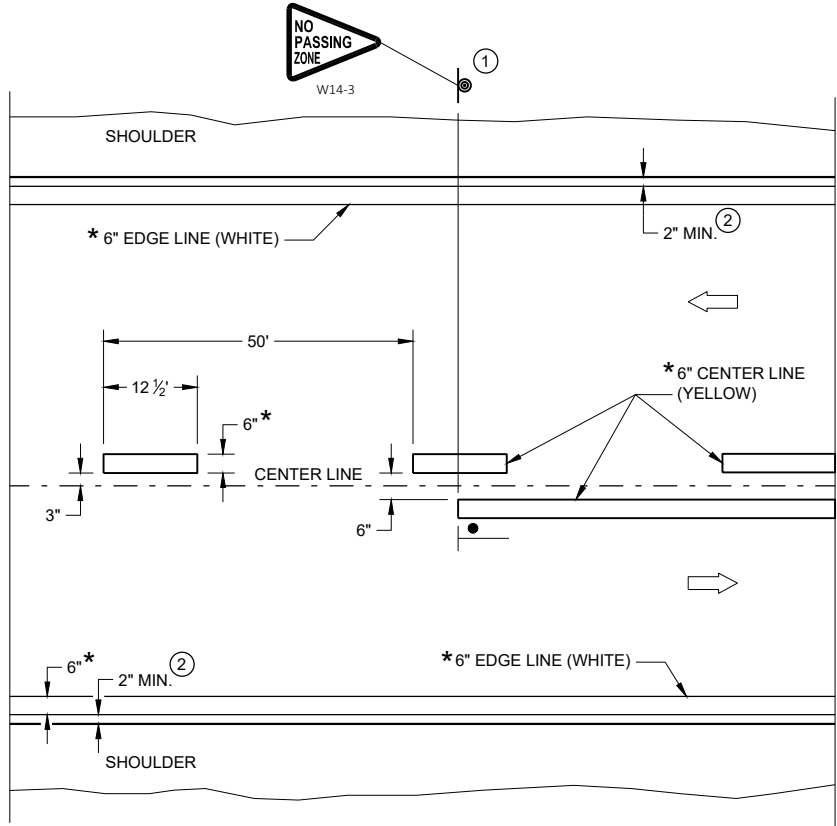
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

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

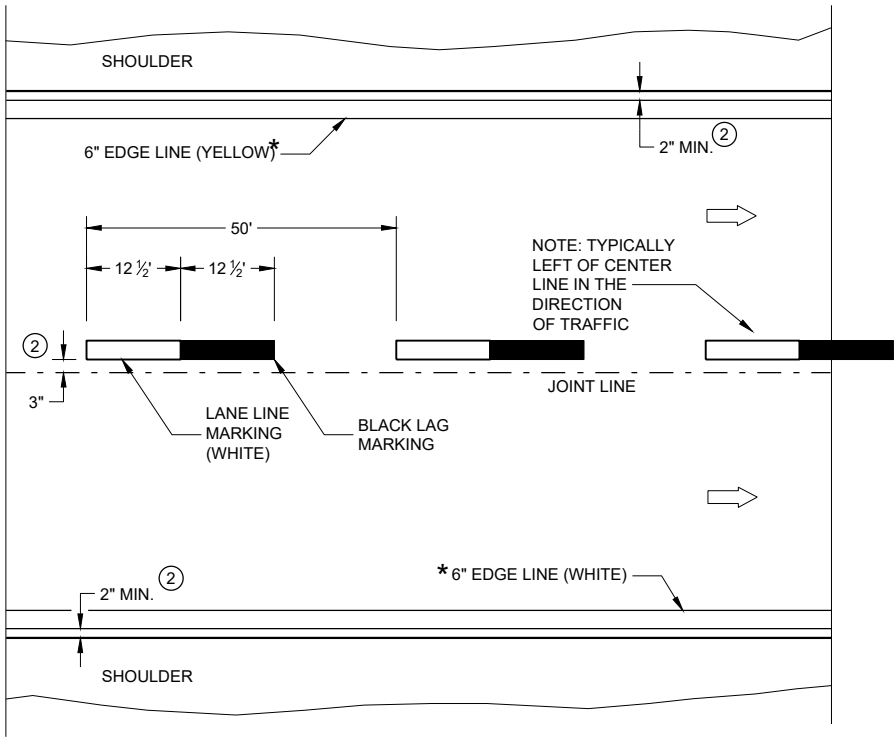
**LEGEND**

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

\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**

**PERMANENT PAVEMENT MARKING**

6

6

SDD 15C08-23a

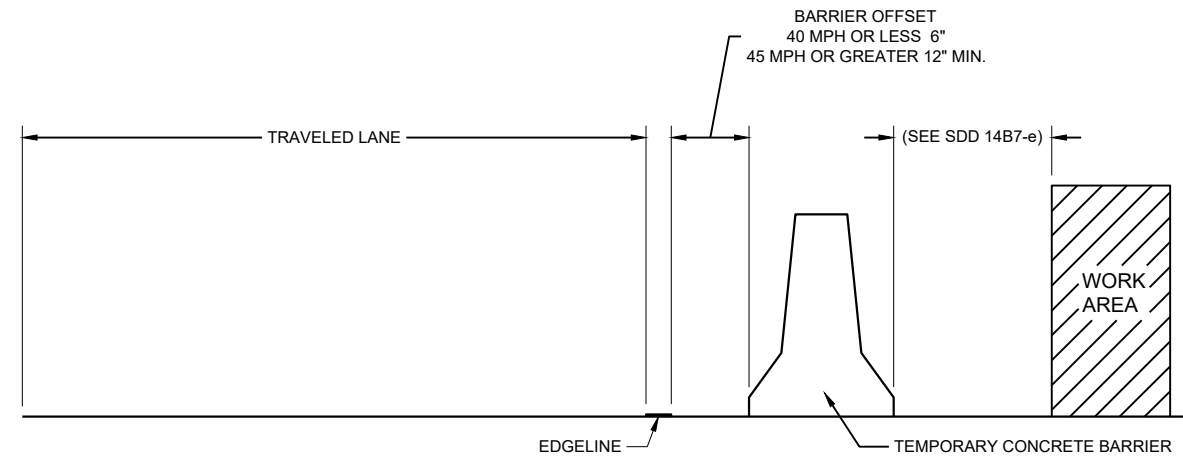
SDD 15C08-23a

**PERMANENT LONGITUDINAL PAVEMENT MARKINGS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023 /S/ Jeannie Silver  
DATE STATEWIDE SIGNING AND MARKING ENGINEER

FHWA



**TEMPORARY BARRIER OFFSET FROM EDGELINE**

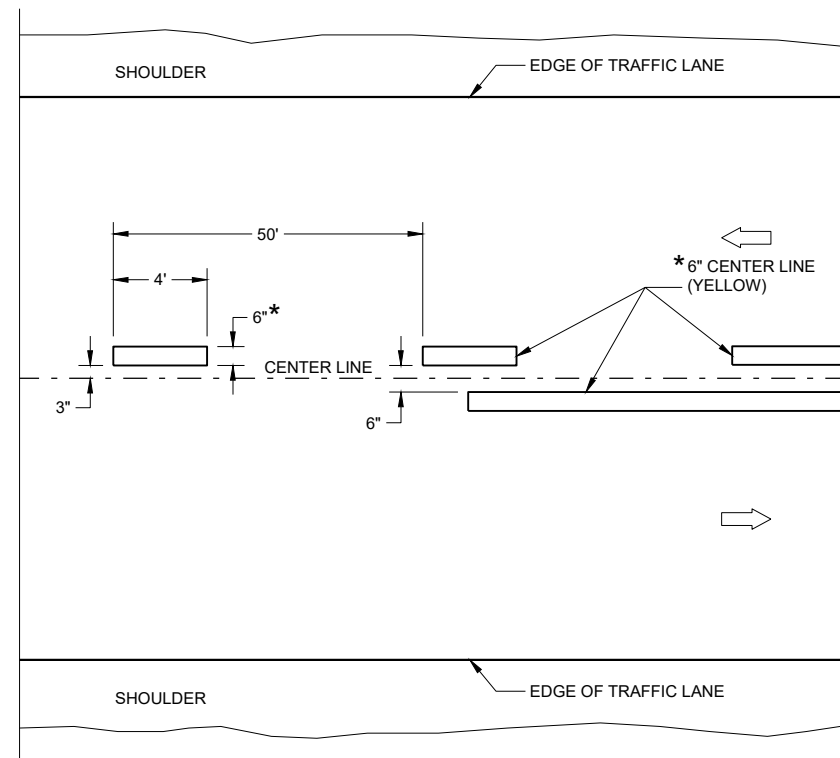
**GENERAL NOTES**

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

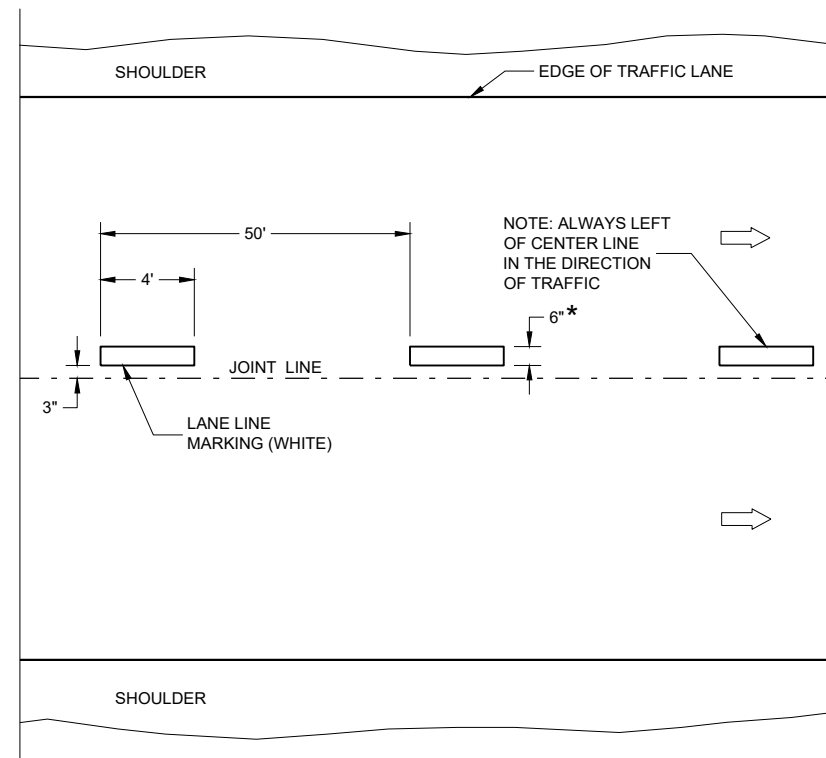
**LEGEND**

➔ DIRECTION OF TRAFFIC

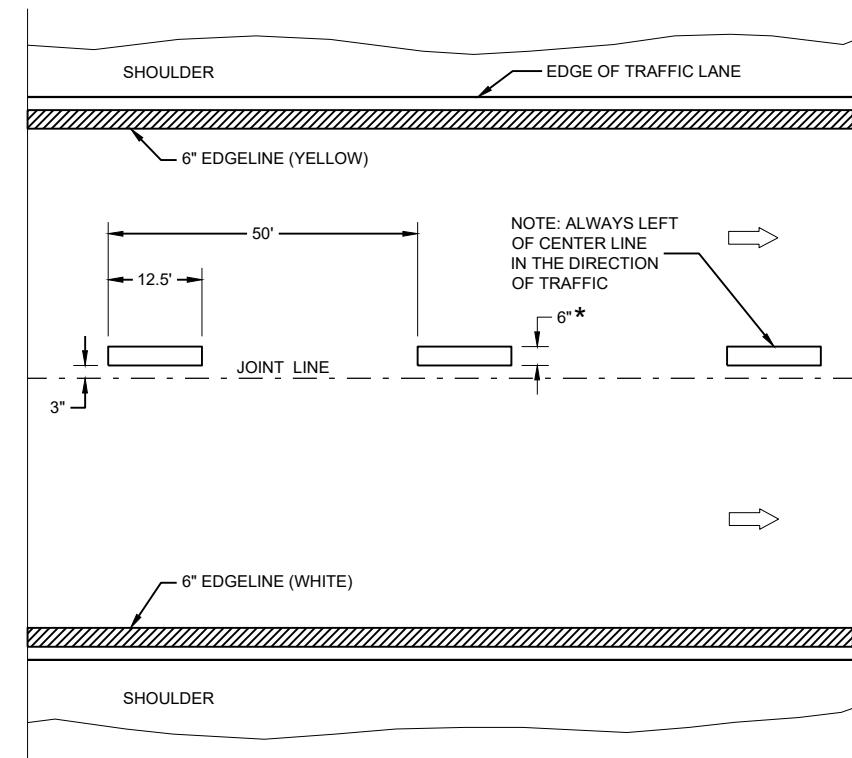
\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**



**FREEWAYS AND EXPRESSWAYS**

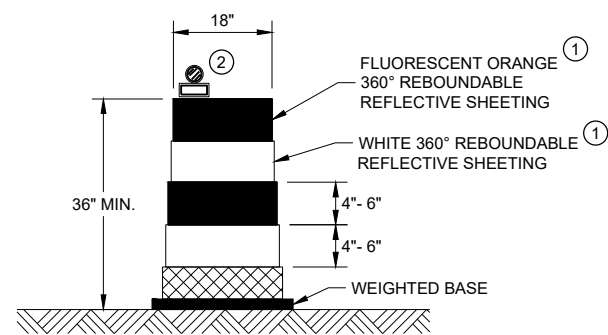
**TEMPORARY PAVEMENT MARKING**

**TEMPORARY LONGITUDINAL PAVEMENT MARKING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

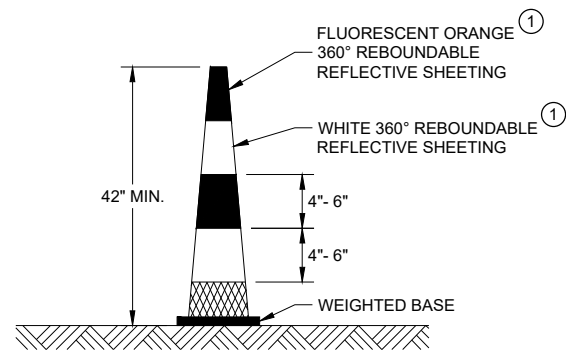
APPROVED  
May 2023 /S/ Jeannie Silver  
DATE STATEWIDE SIGNING AND MARKING ENGINEER

FHWA



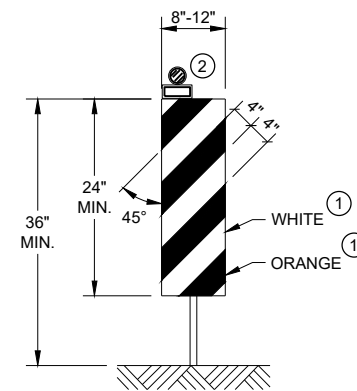
**DRUM**

BALLAST WIDTHS  
RANGE FROM 24"-36"



**42" CONE**

DO NOT USE IN TAPERS  
1/2 SPACING OF DRUMS  
BALLAST WIDTHS  
RANGE FROM 14"-20"

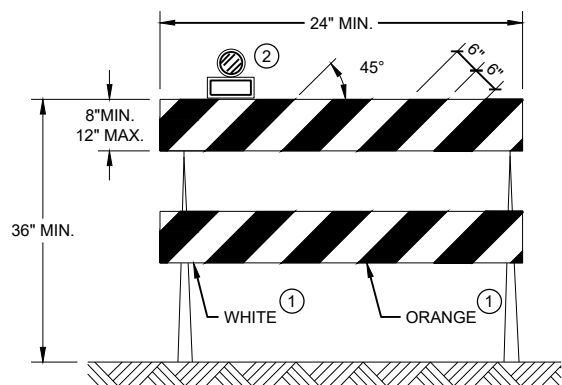


**VERTICAL PANEL**

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

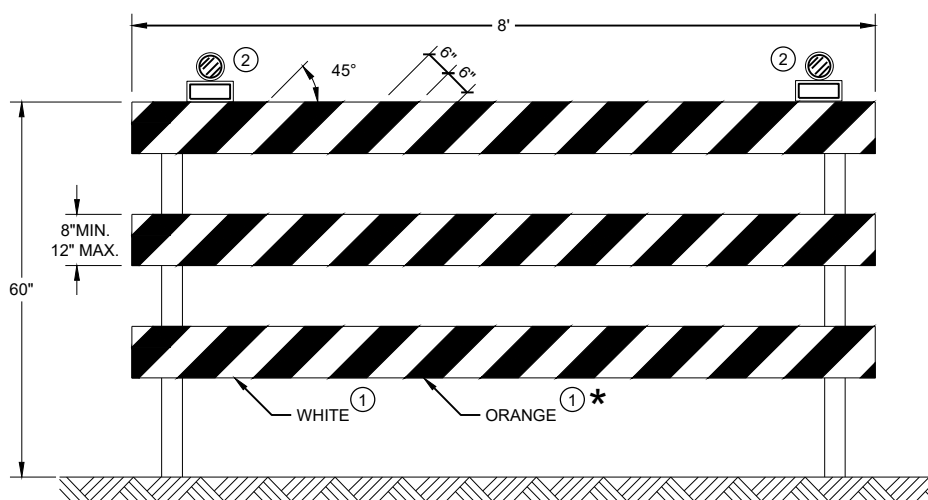
**GENERAL NOTES**

- 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.



**TYPE II BARRICADE**

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



**TYPE III BARRICADE**

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






\* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**CHANNELIZING DEVICES  
DRUMS, CONES, BARRICADES  
AND VERTICAL PANELS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
 November 2022 /S/ Andrew Heidtke  
 DATE WORK ZONE ENGINEER  
 FHWA

**LEGEND**

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

**GENERAL NOTES**

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

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

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

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

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

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

**FLAGGING**

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

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

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

**TEMPORARY PORTABLE RUMBLE STRIPS**

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

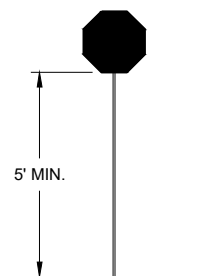
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



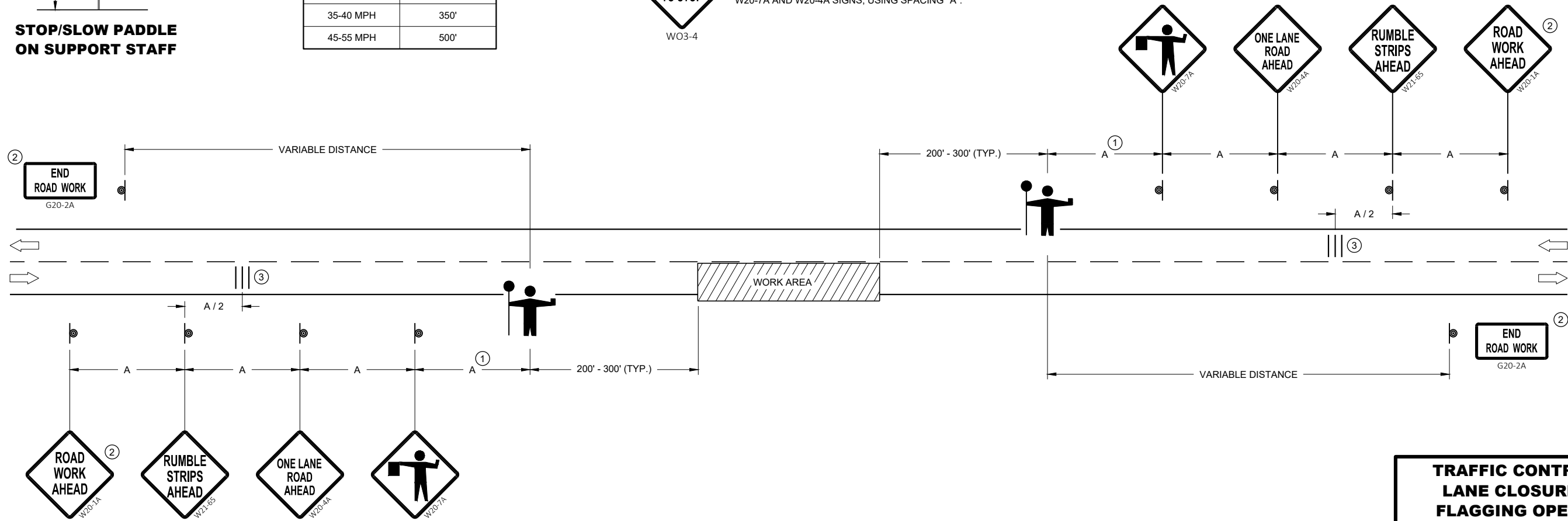
**STOP/SLOW PADDLE ON SUPPORT STAFF**

**SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE**

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



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







**TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

**LEGEND**

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

**GENERAL NOTES**

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

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

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

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

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

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

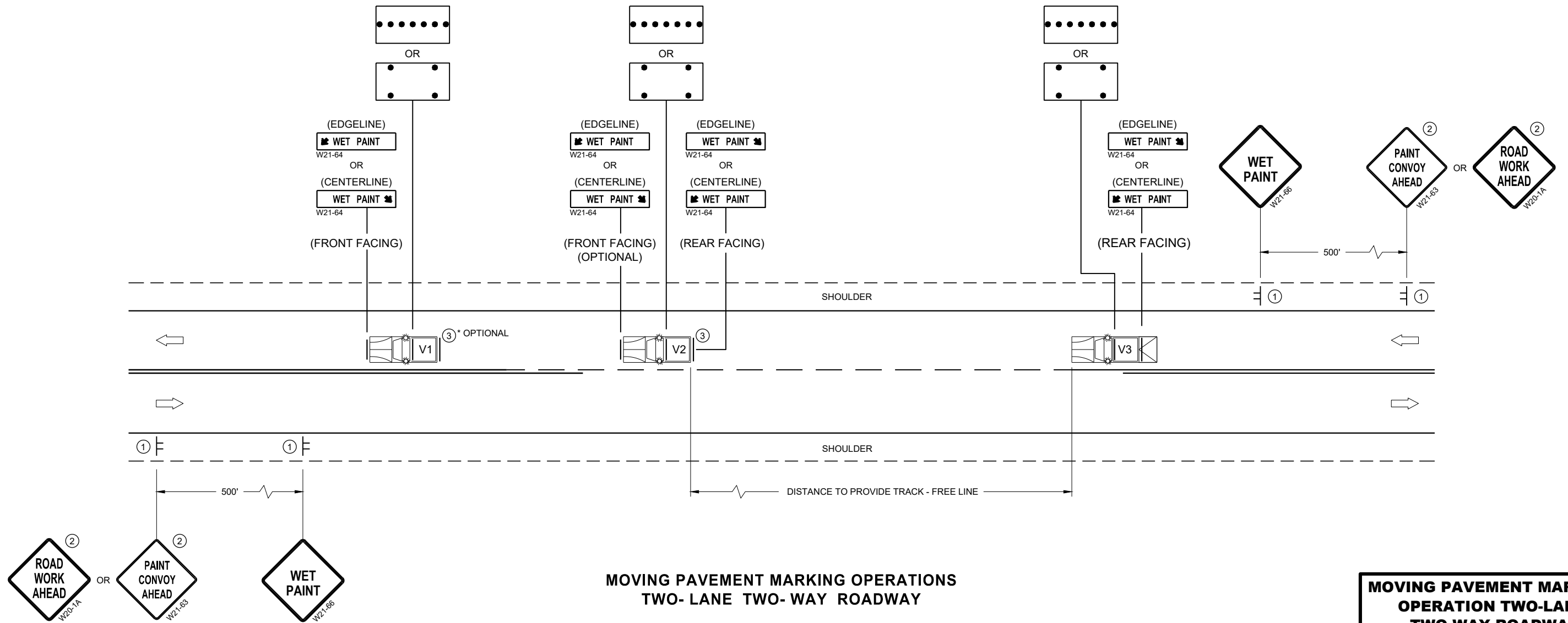
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

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

6

6



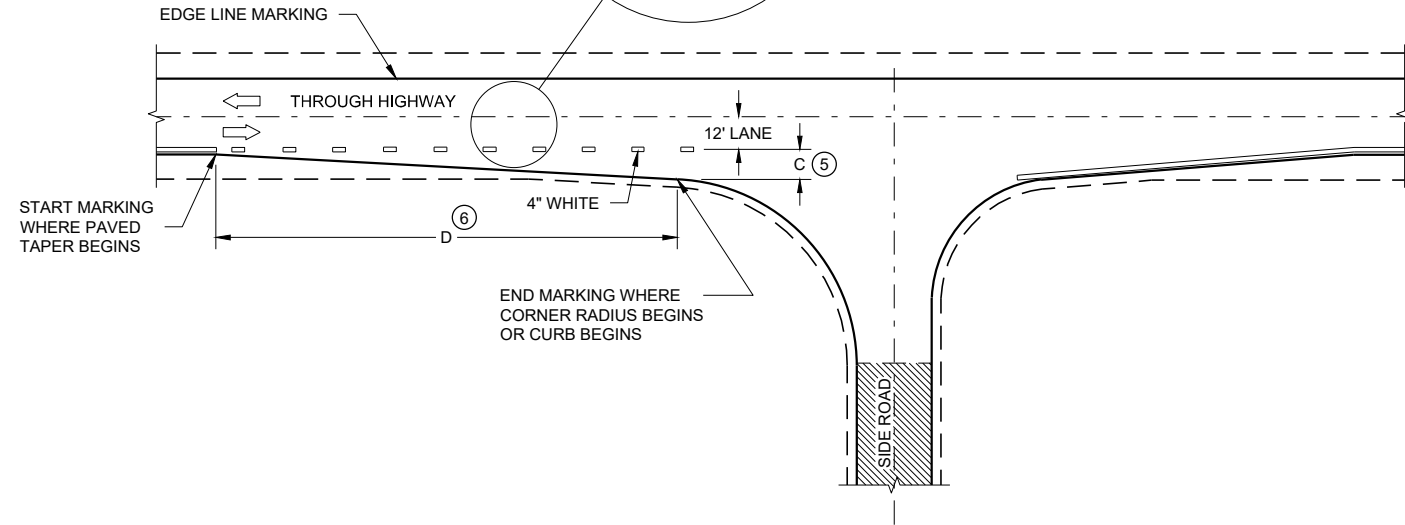
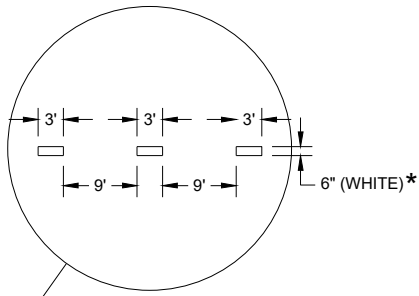
**MOVING PAVEMENT MARKING OPERATIONS  
TWO-LANE TWO-WAY ROADWAY**

SDD 15C19-08a

SDD 15C19-08a

<b>MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	





**MINOR INTERSECTION**

\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

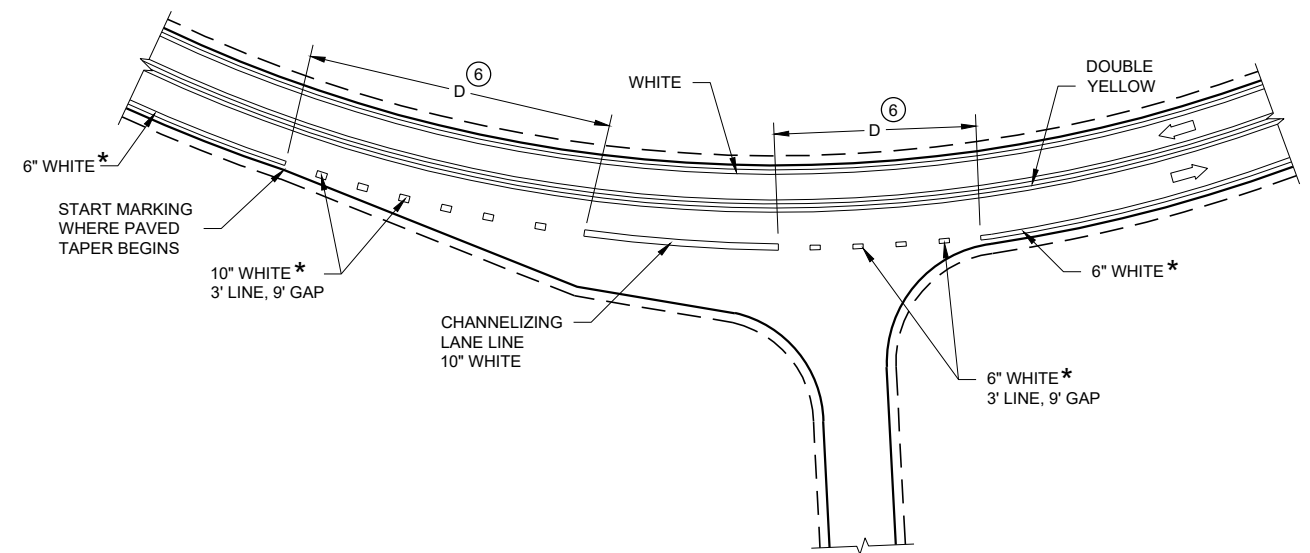
**GENERAL NOTES**

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

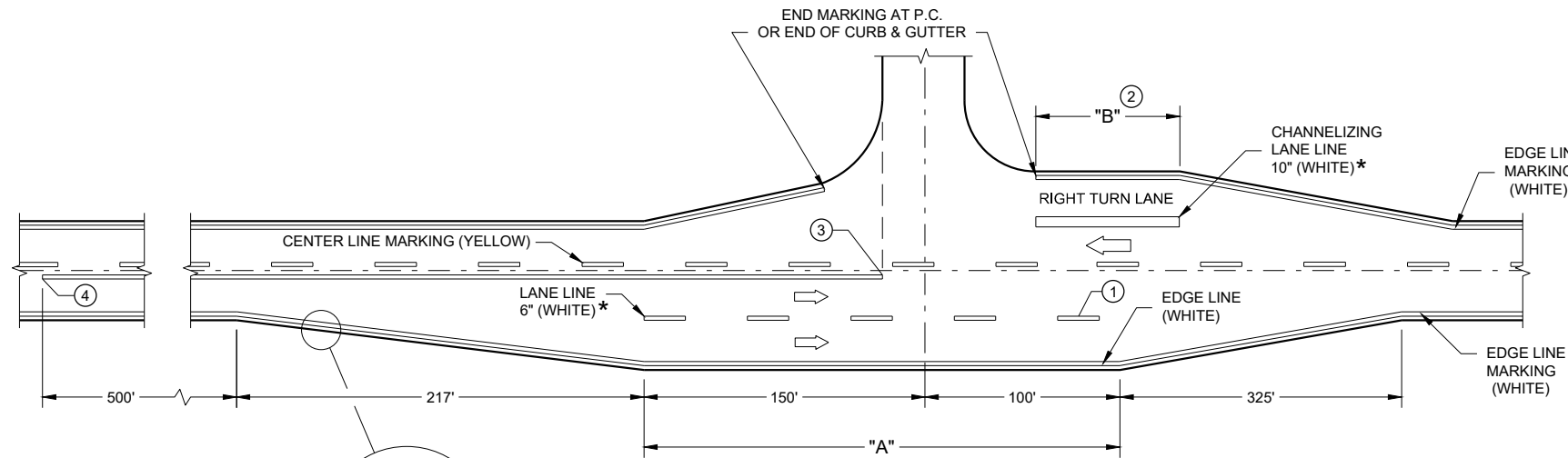
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4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

**LEGEND**

➔ DIRECTION OF TRAVEL

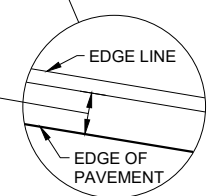


**INTERSECTION ON OUTSIDE OF CURVE**



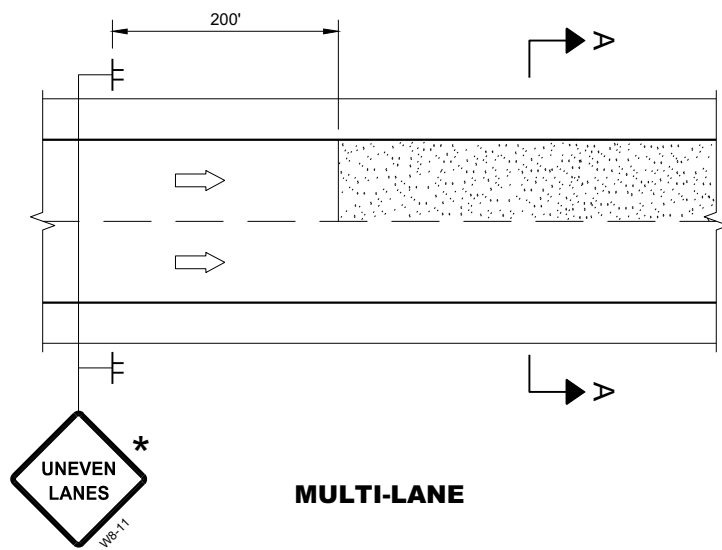
**MAJOR INTERSECTIONS  
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**

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

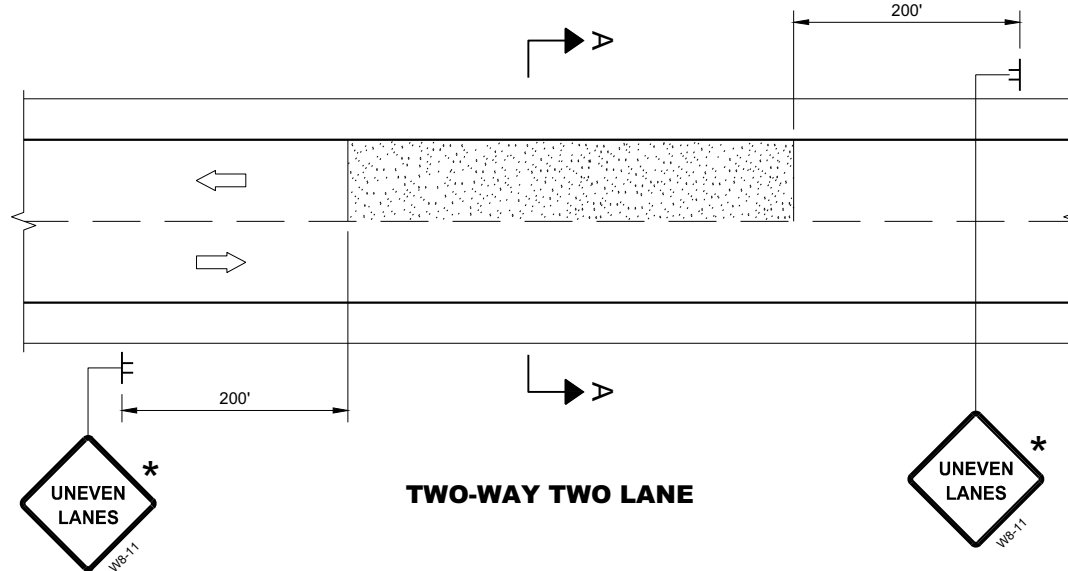


**PAVEMENT MARKING  
(INTERSECTIONS)**

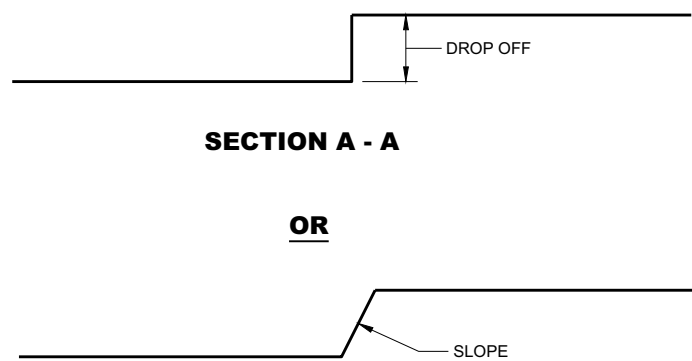
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**MULTI-LANE**



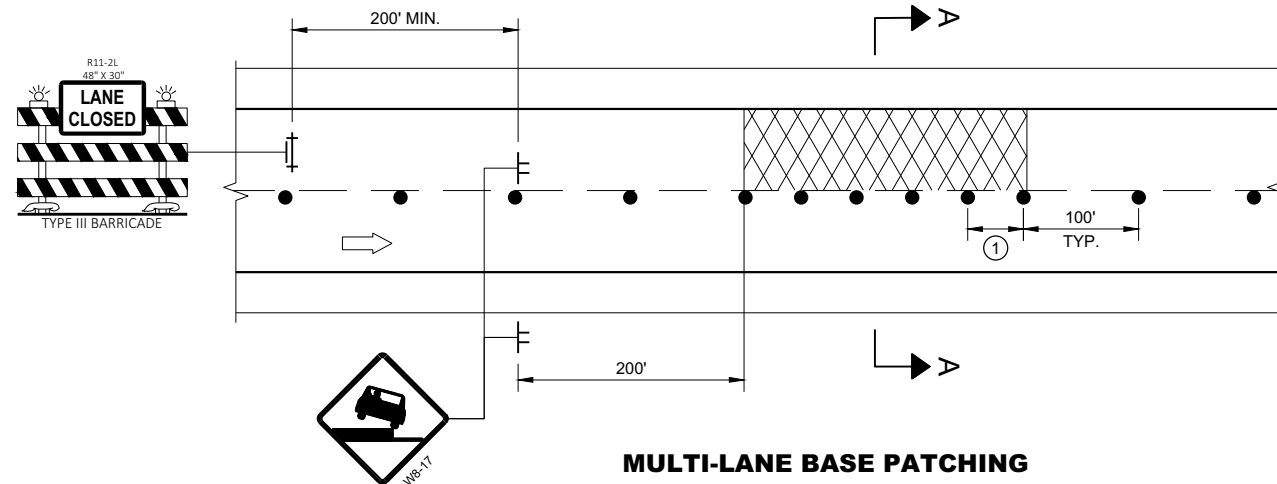
**TWO-WAY TWO LANE**



**SECTION A - A**

**OR**

**SECTION A - A**



**MULTI-LANE BASE PATCHING**

**ADJACENT LANE DROP-OFFS**

**GENERAL NOTES**

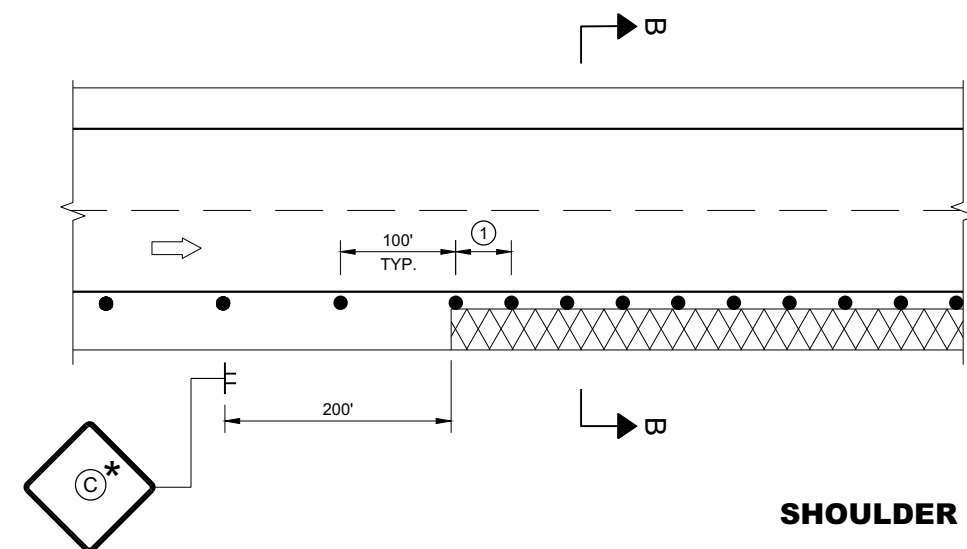
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- \* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.
- ① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

**LEGEND**

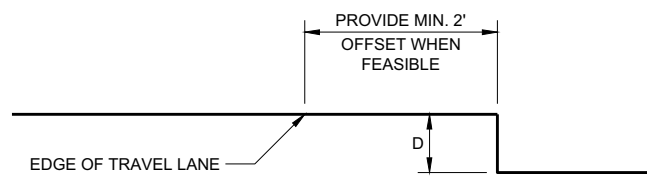
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

6



**SHOULDER DROP-OFFS**



**SECTION B - B**

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

SDD 15D39 - 02

SDD 15D39 - 02

**TRAFFIC CONTROL,  
DROP-OFF SIGNING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA

**GENERAL NOTES**

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

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

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

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

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

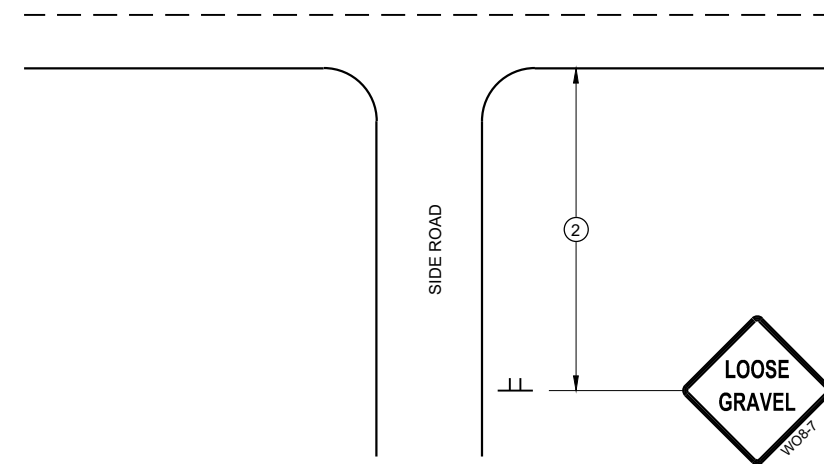
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

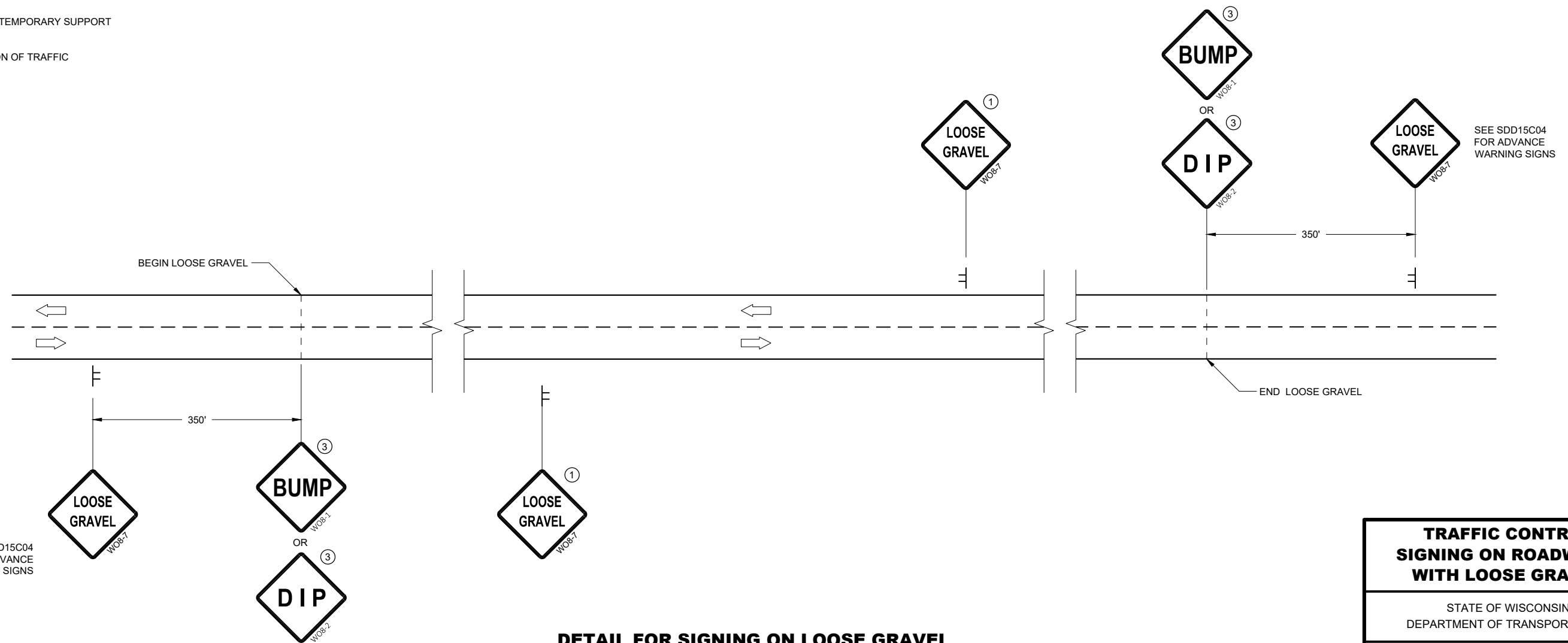
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

**LEGEND**

- ⊥ SIGN ON TEMPORARY SUPPORT
- ➡ DIRECTION OF TRAFFIC



**TYPICAL SIDE ROAD APPROACH SIGN DETAIL**



**DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES**

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

**TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA

### 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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

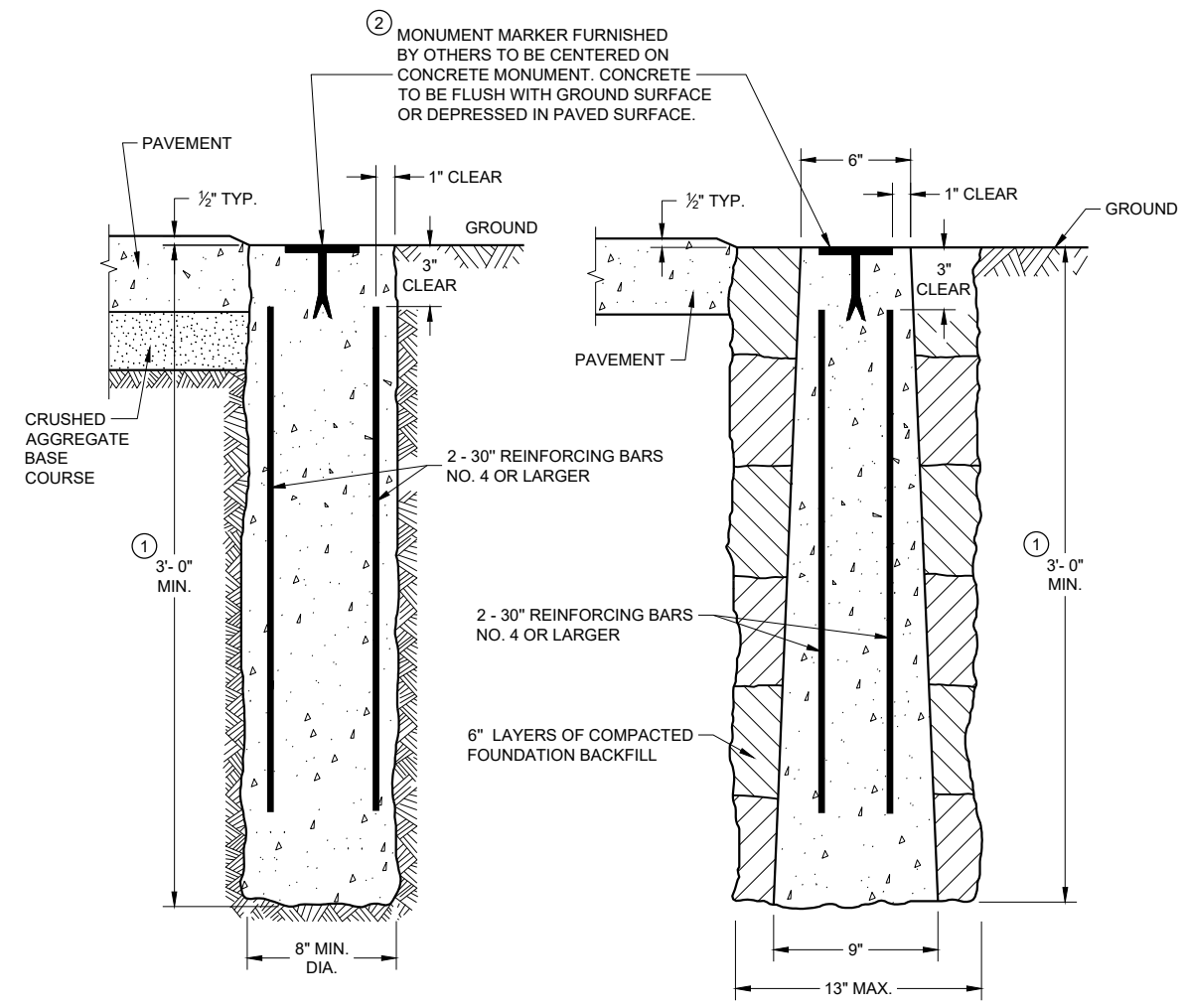
MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

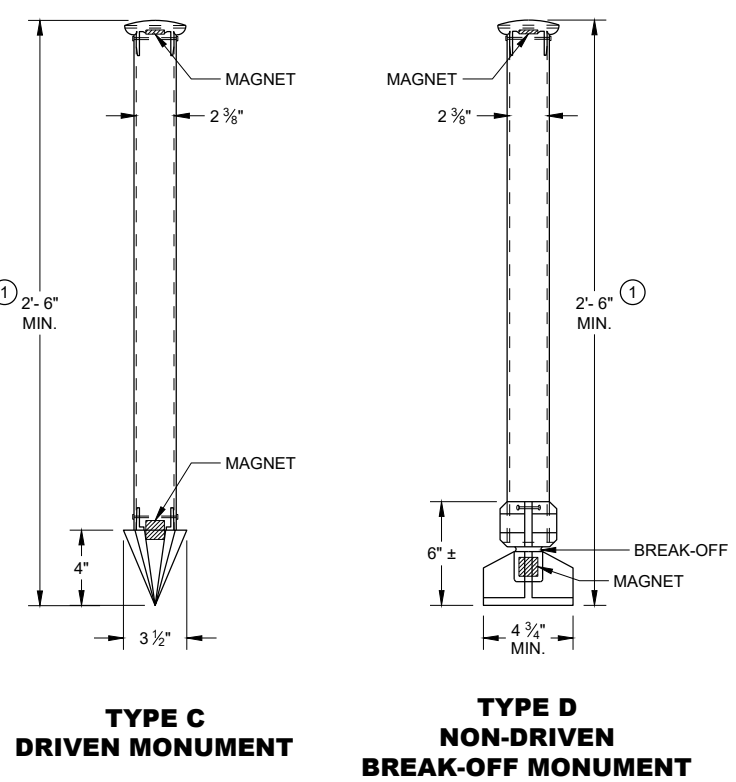
THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

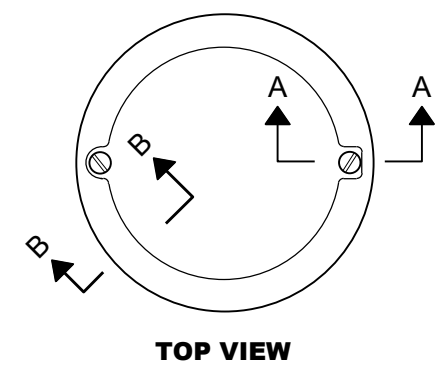
- ① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.
- ② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WISDOT MARKER.



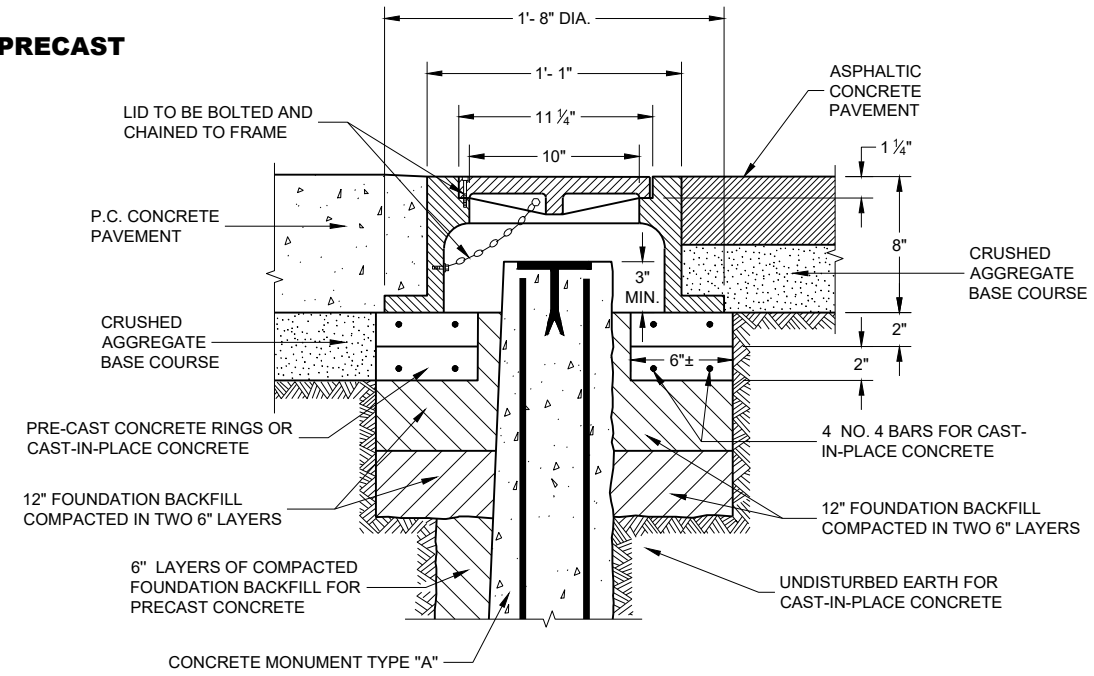
**CAST-IN-PLACE  
CONCRETE MONUMENTS  
TYPE A**



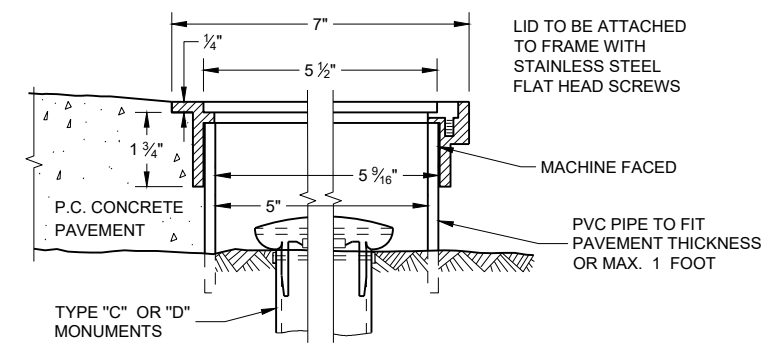
**TYPE C  
DRIVEN MONUMENT**  
**TYPE D  
NON-DRIVEN  
BREAK-OFF MONUMENT**  
**ALUMINUM MONUMENTS  
(INCLUDES MARKER)**



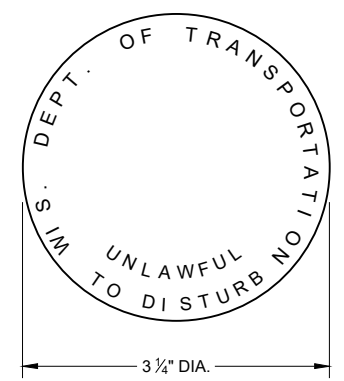
**TOP VIEW**



**CAST IRON MONUMENT COVER**  
(APPROXIMATE WEIGHT 95 LBS)



**SECTION B-B SECTION A-A  
ALUMINUM MONUMENT COVER**  
(APPROXIMATE WEIGHT 2 LBS)  
(FOR CONCRETE PAVEMENT ONLY)



② **WIS DOT MONUMENT MARKER LOGO**  
FOR TYPES "A", "C" & "D"

### LANDMARK REFERENCE MONUMENTS AND COVERS

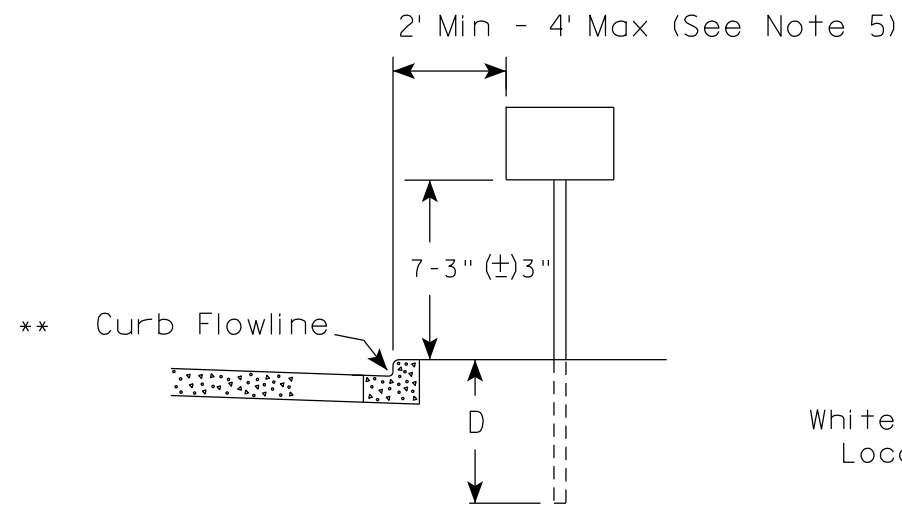
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March 2018 /S/ Raymond A. Kumapayil  
DATE CHIEF SURVEYING AND MAPPING ENGINEER

FHWA

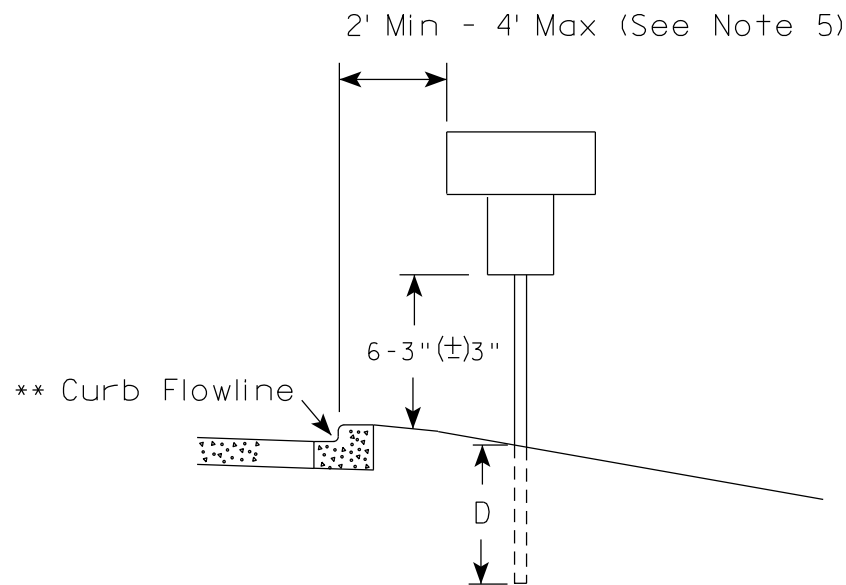
URBAN AREA

RURAL AREA (See Note 2)



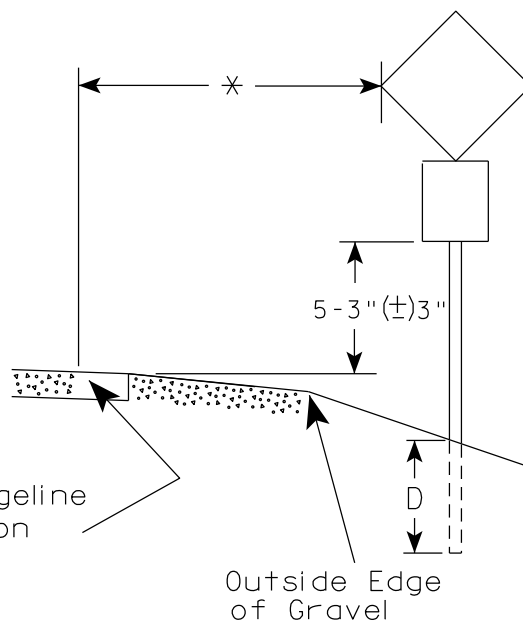
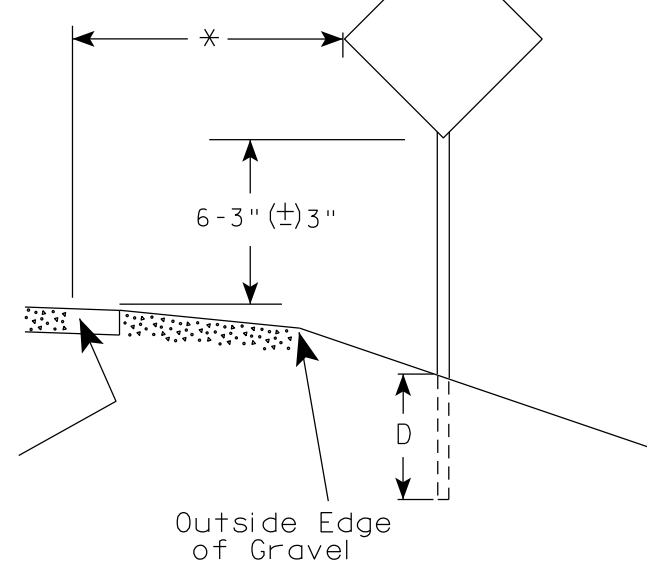
White Edgeline Location

Outside Edge of Gravel



White Edgeline Location

Outside Edge of Gravel



POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

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

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Matthew R. Raub*  
for State Traffic Engineer

DATE 12/6/23

PLATE NO. A4-3.23



**ELEVATION VIEW**

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

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



**ELEVATION VIEW**

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



**PLAN VIEW**

**FOR NEW CONCRETE/ ASPHALT INSTALLATIONS**

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

GENERAL NOTES

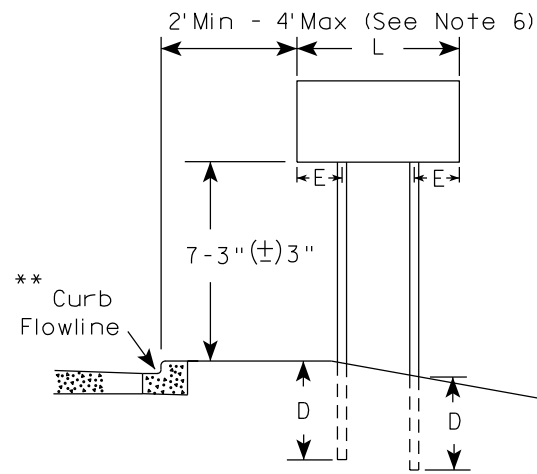
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- J-Assemblies are considered to be one sign for mounting height.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".

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

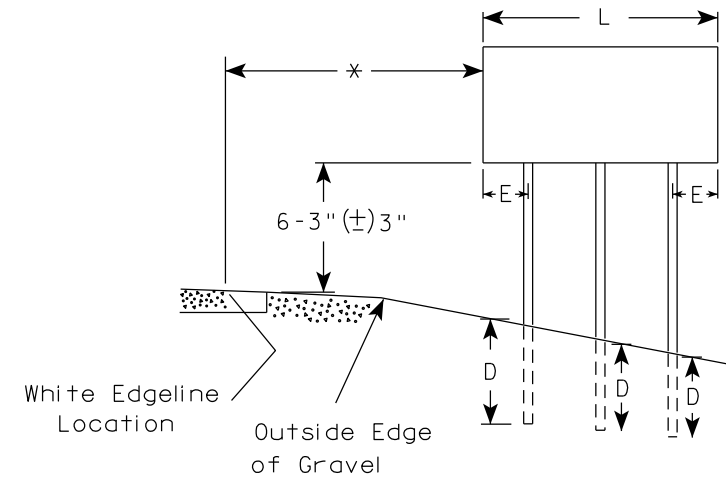
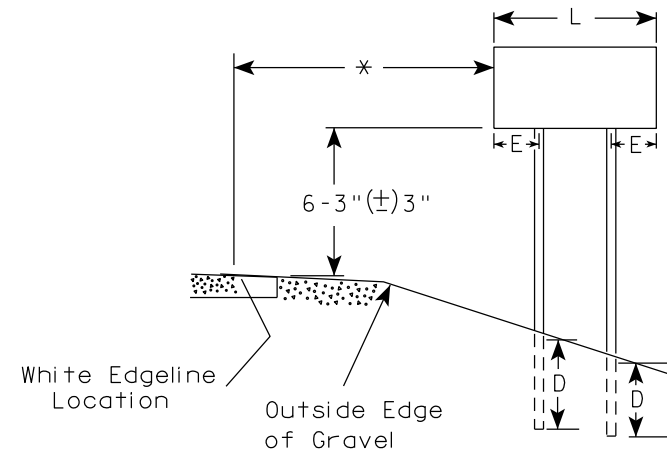
\*\* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of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

\*\*\* See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

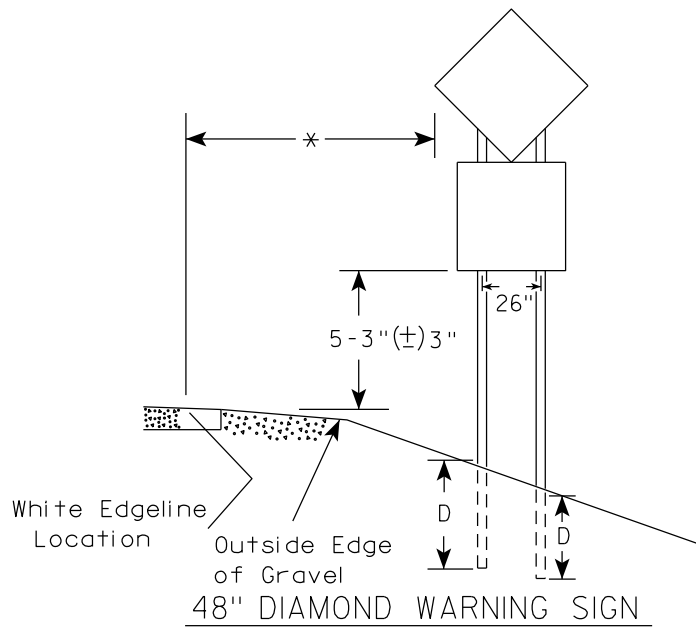
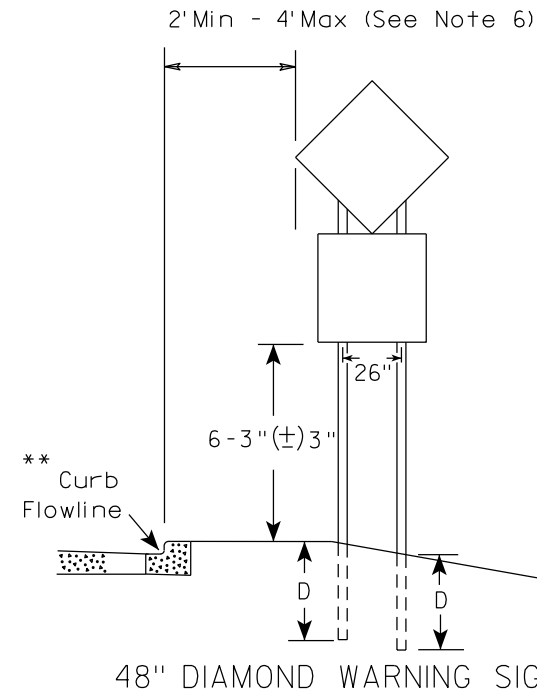
URBAN AREA



RURAL AREA (See Note 3)



URBAN AREA



\*\*\*

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

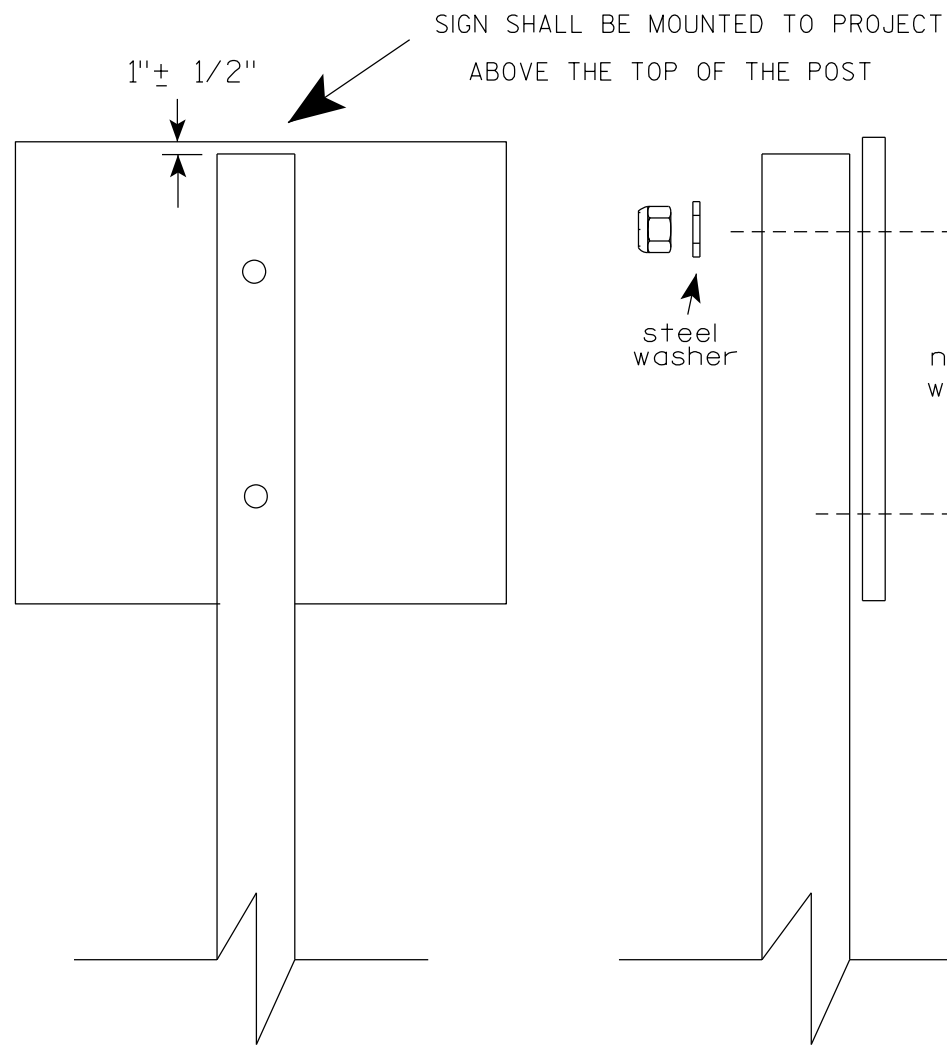
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION  
 APPROVED *Matthew R. Rauch*  
 For State Traffic Engineer  
 DATE 12/6/23 PLATE NO. A4-4.16



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

- Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- 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

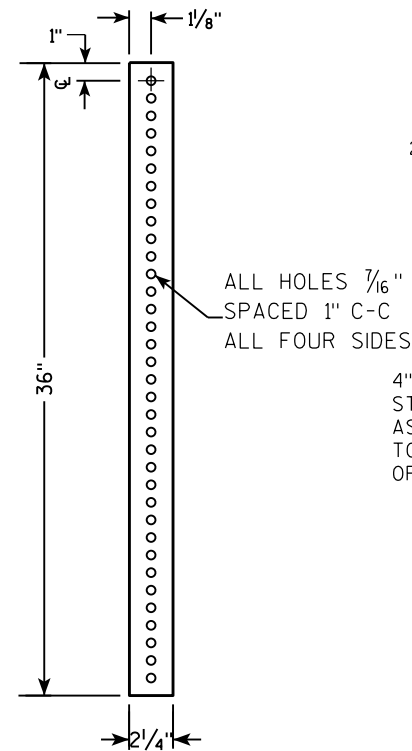
\* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

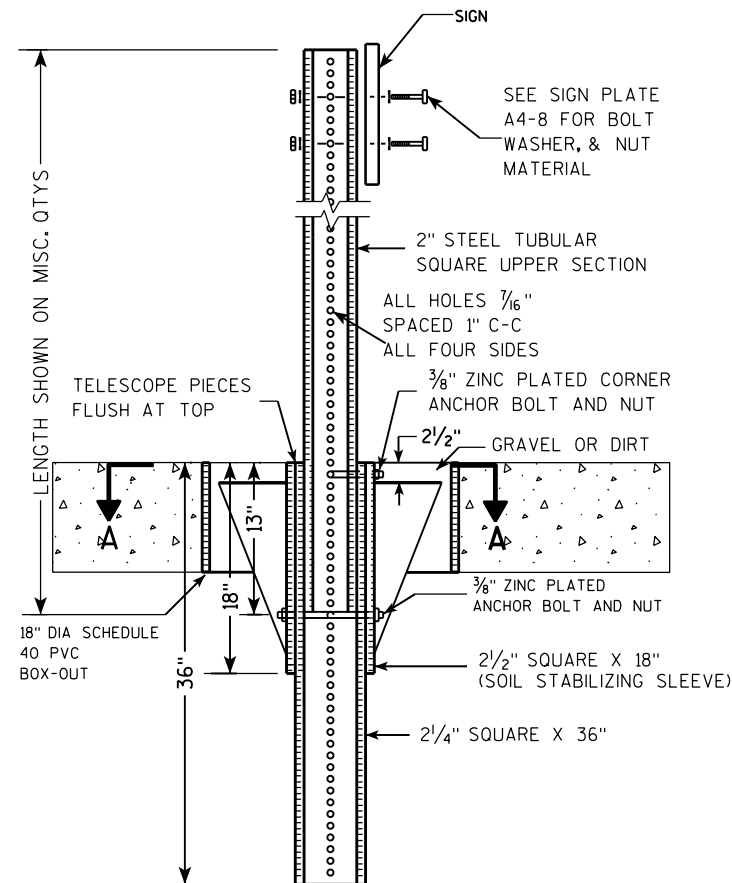
2 1/4" SQUARE  
12 GAUGE  
PERFORATED  
GALVANIZED FINISH



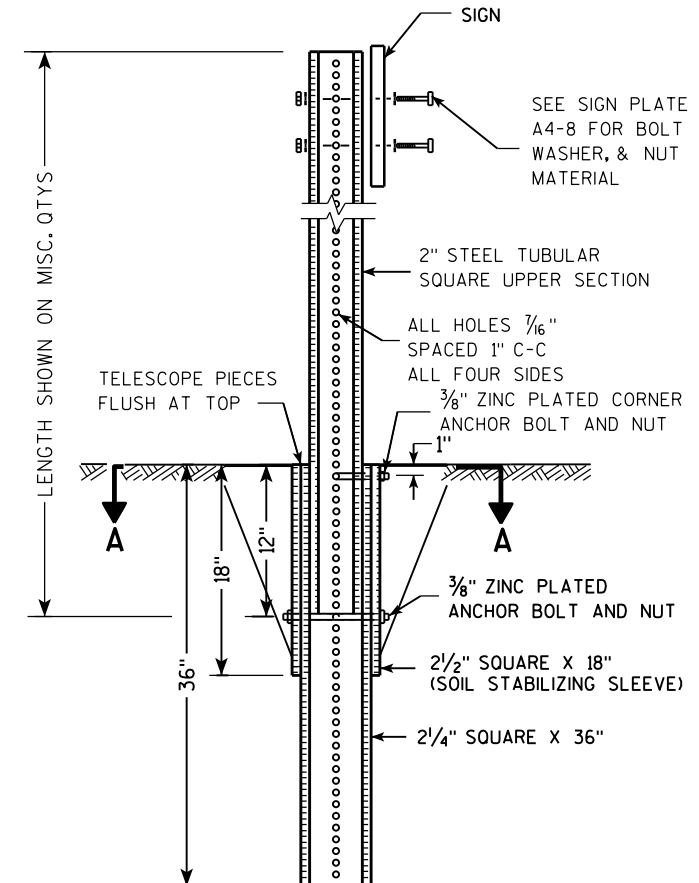
2 1/2" SQUARE  
12 GAUGE  
OMNI-DIRECTIONAL  
PERFORATED  
SOIL STABILIZING SLEEVE  
GALVANIZED FINISH



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



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



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

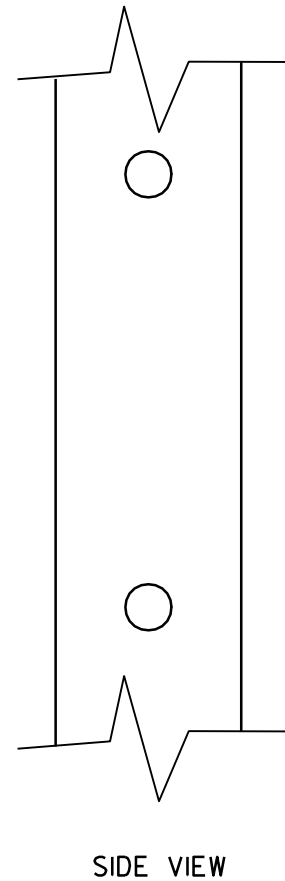
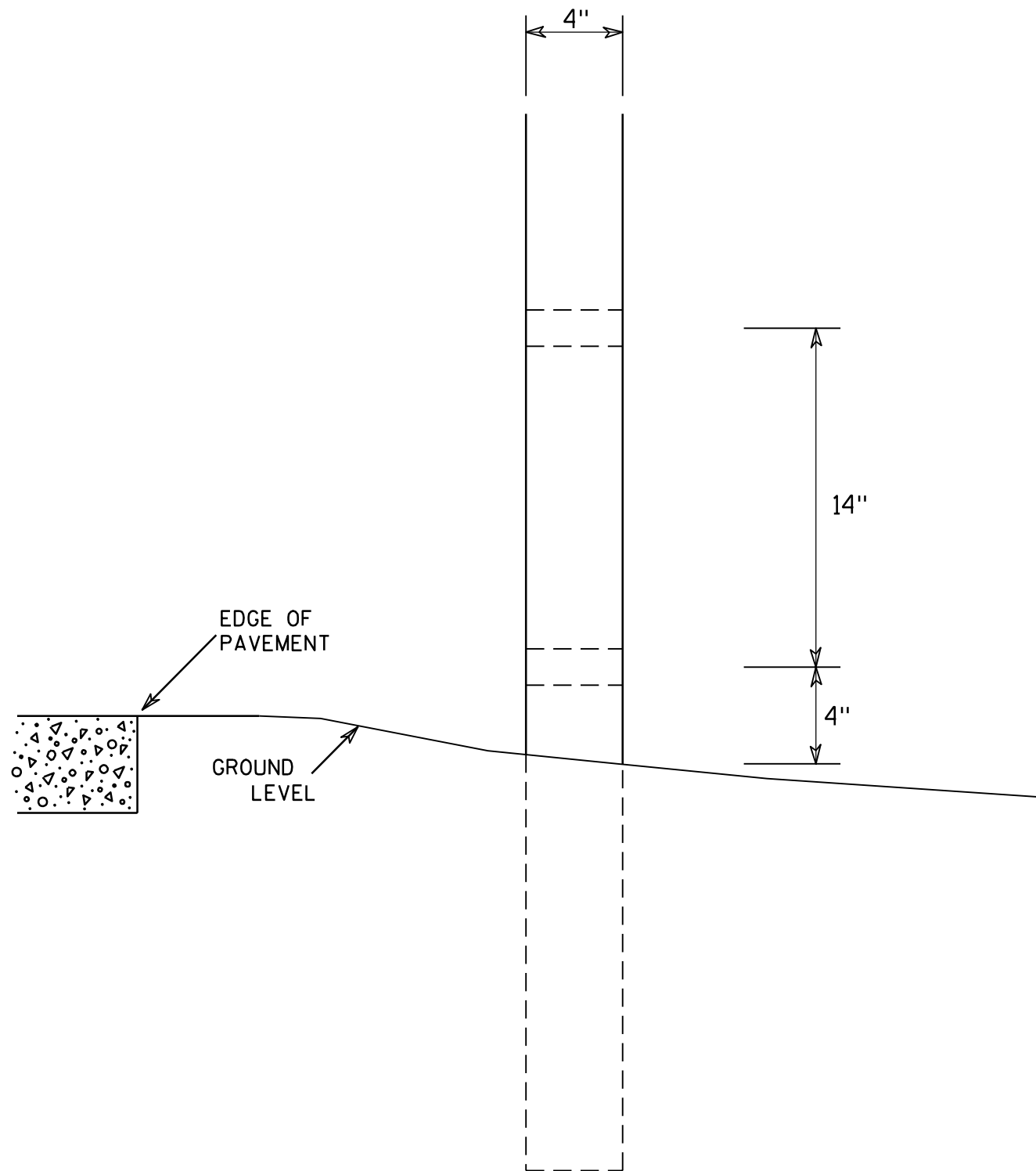
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL  
SIGN POST  
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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



GENERAL NOTES

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

7

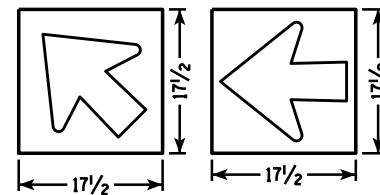
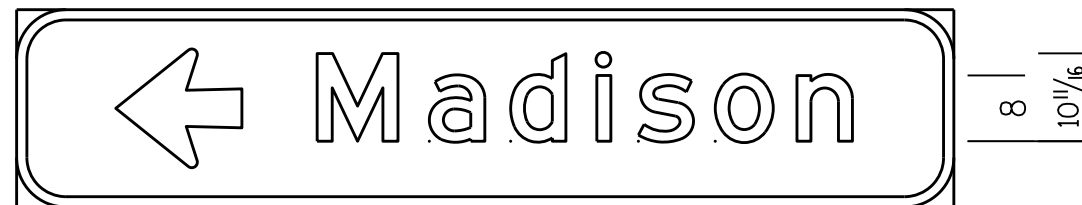
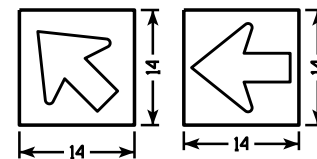
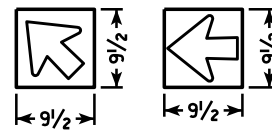
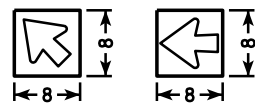
7

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

# SIGN LAYOUT WITH VARIOUS SIZED MESSAGES

## GENERAL NOTES

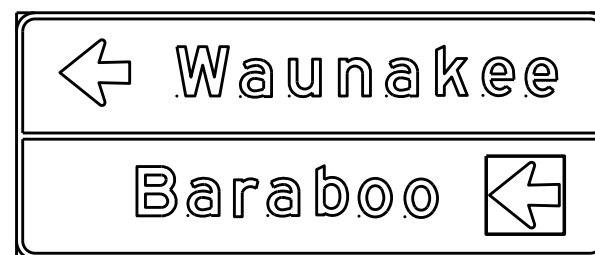
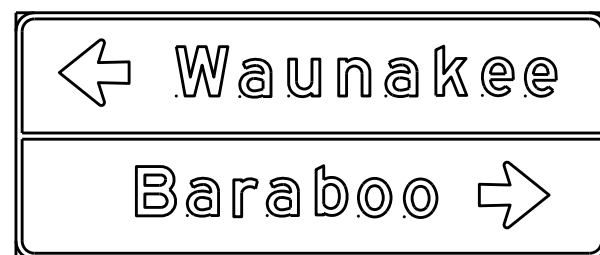
- Materials shall conform to Standard Specification Section 637.  
Base - Sheet Aluminum 0.040" Thickness  
Sheeting - Orange Type F Reflective  
Arrow - Black Non-Reflective
- Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws. There shall be a minimum of 2 fasteners used per arrow sign.
- There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
- Arrows are per standard plate A1-2
- Use separate arrow sign for each destination
- Tilt arrow is always at 45 degrees
- Arrow is centered on arrow sign



Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3 3/4" Series C	8	9 1/2	14 1/2	8
4 1/2" Series D & E	9 1/2	10	15	9 1/2
6" Series D & E	14	16	20 1/2	14
8" Series E	17 1/2	20 1/2	25	17 1/2

## BEFORE

## AFTER



## DESTINATION DIRECTIONAL ARROW FOR DETOUR SIGNS

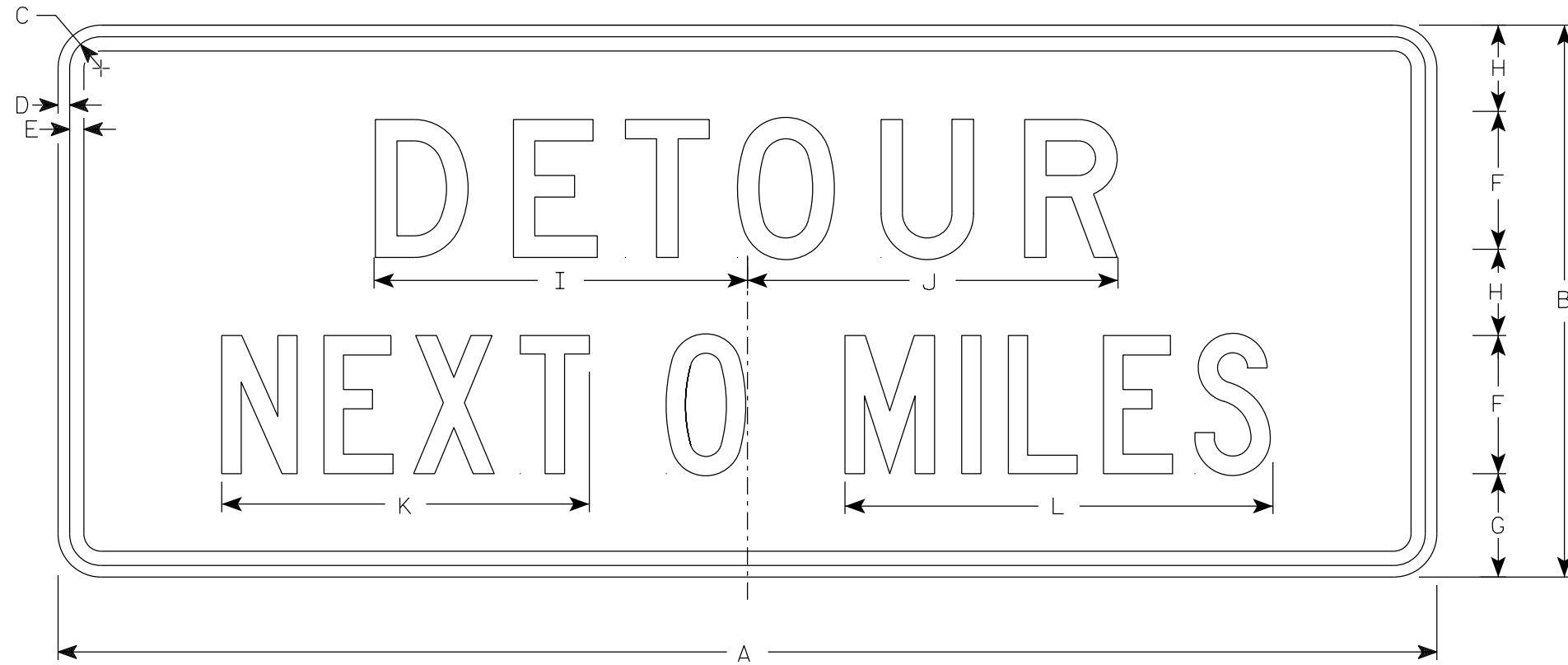
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 10/08/14 PLATE NO. A4-12.2

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

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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

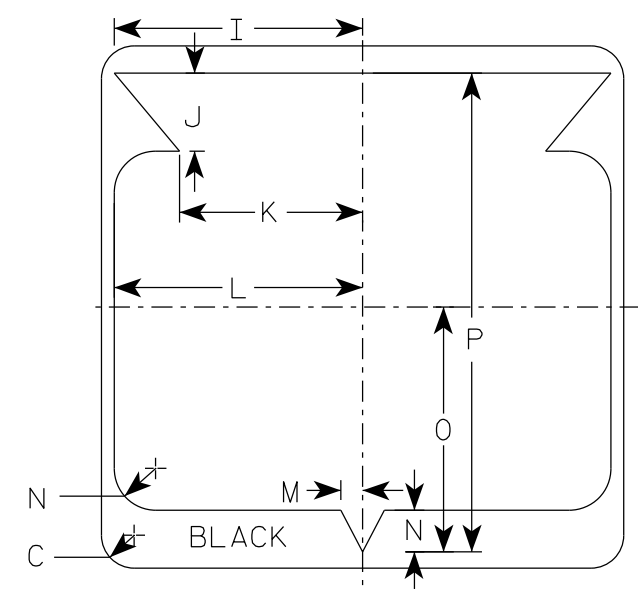
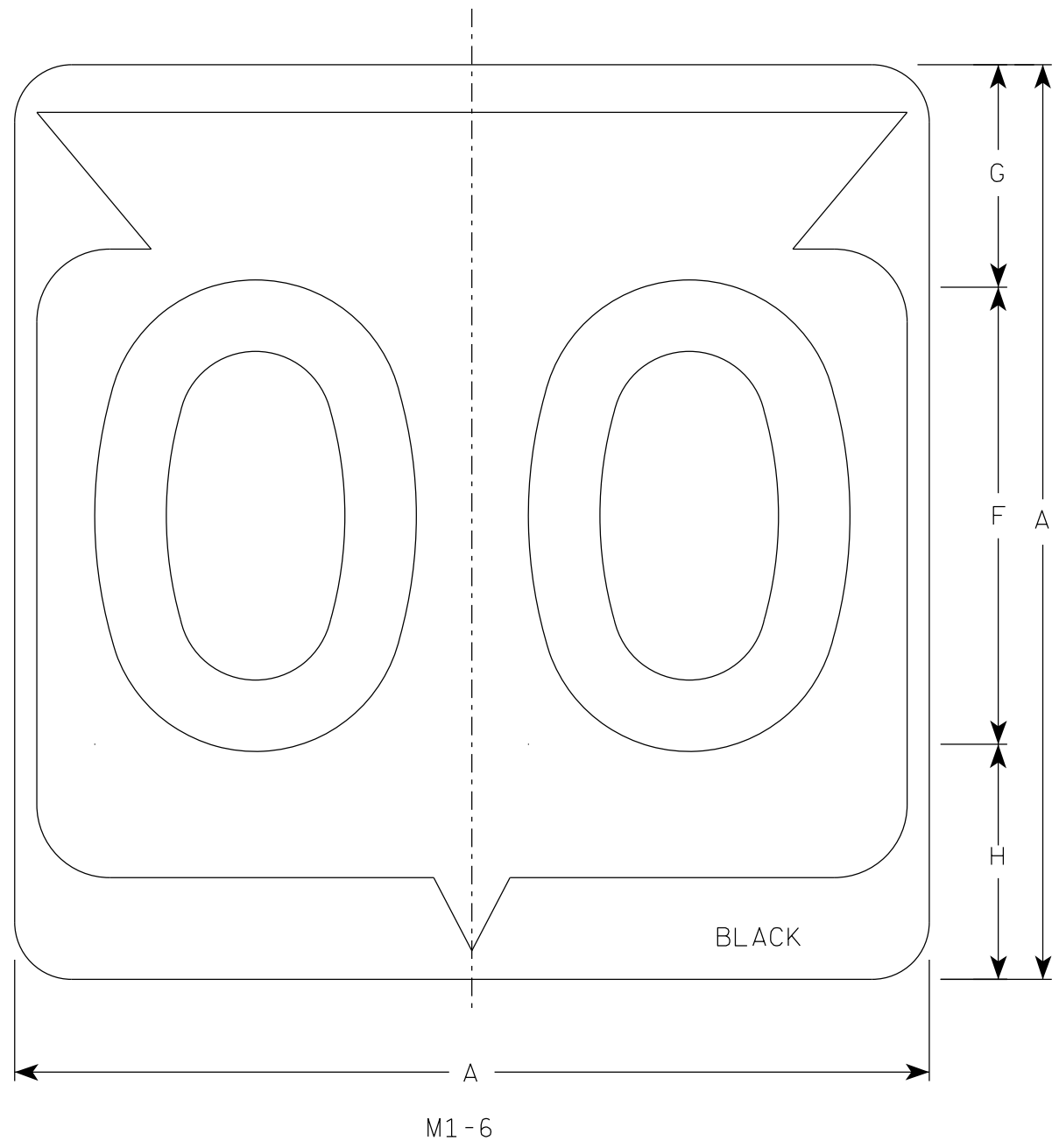
APPROVED *Matthew R. Rauch*  
State Traffic Engineer

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

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ **E**

NOTES

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



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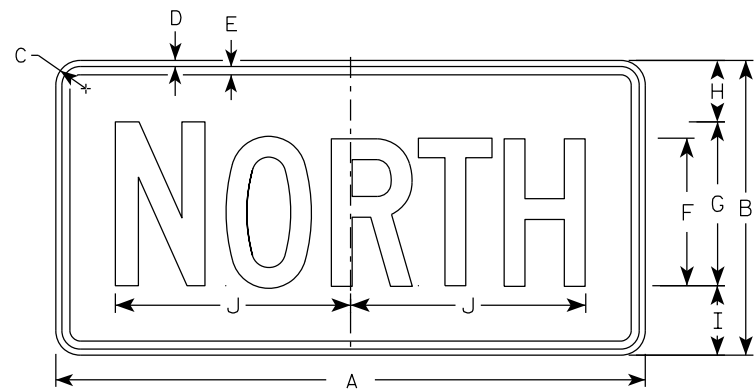
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
2M	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33										9.0	
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33										9.0	
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33										9.0	

STATE ROUTE MARKER  
M1-6 FOR ASSEMBLIES

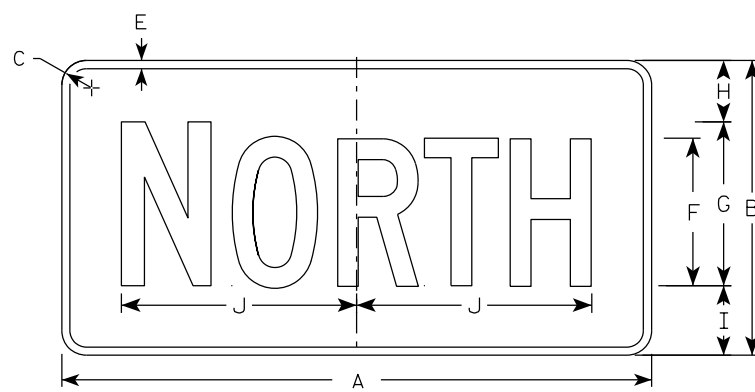
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raub*  
for State Traffic Engineer

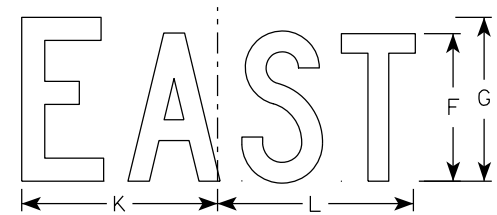
DATE 11/8/2022 PLATE NO. M1-6.11



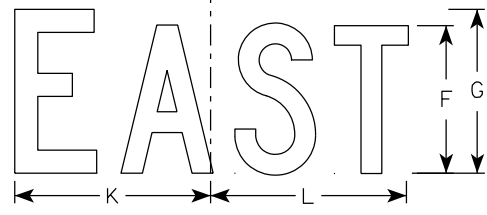
M3-1  
MM3-1  
MP3-1



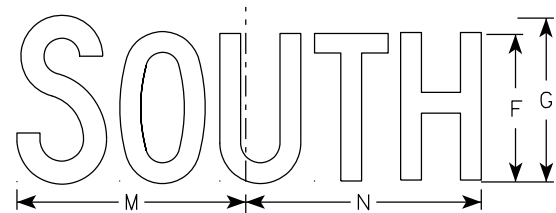
MB3-1  
MK3-1  
MN3-1



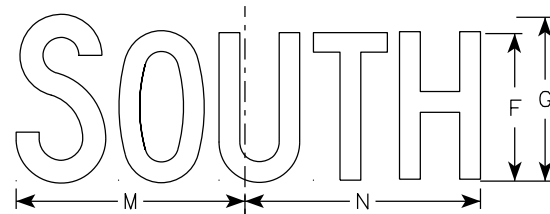
M3-2  
MM3-2  
MP3-2



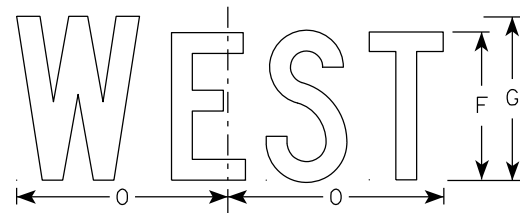
MB3-2  
MK3-2  
MN3-2



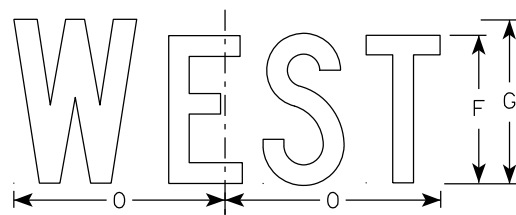
M3-3  
MM3-3  
MP3-3



MB3-3  
MK3-3  
MN3-3



M3-4  
MM3-4  
MP3-4



MB3-4  
MK3-4  
MN3-4

NOTES

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

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

STANDARD SIGNS  
M3-1 THRU M3-4  
SERIES

WISCONSIN DEPT OF TRANSPORTATION

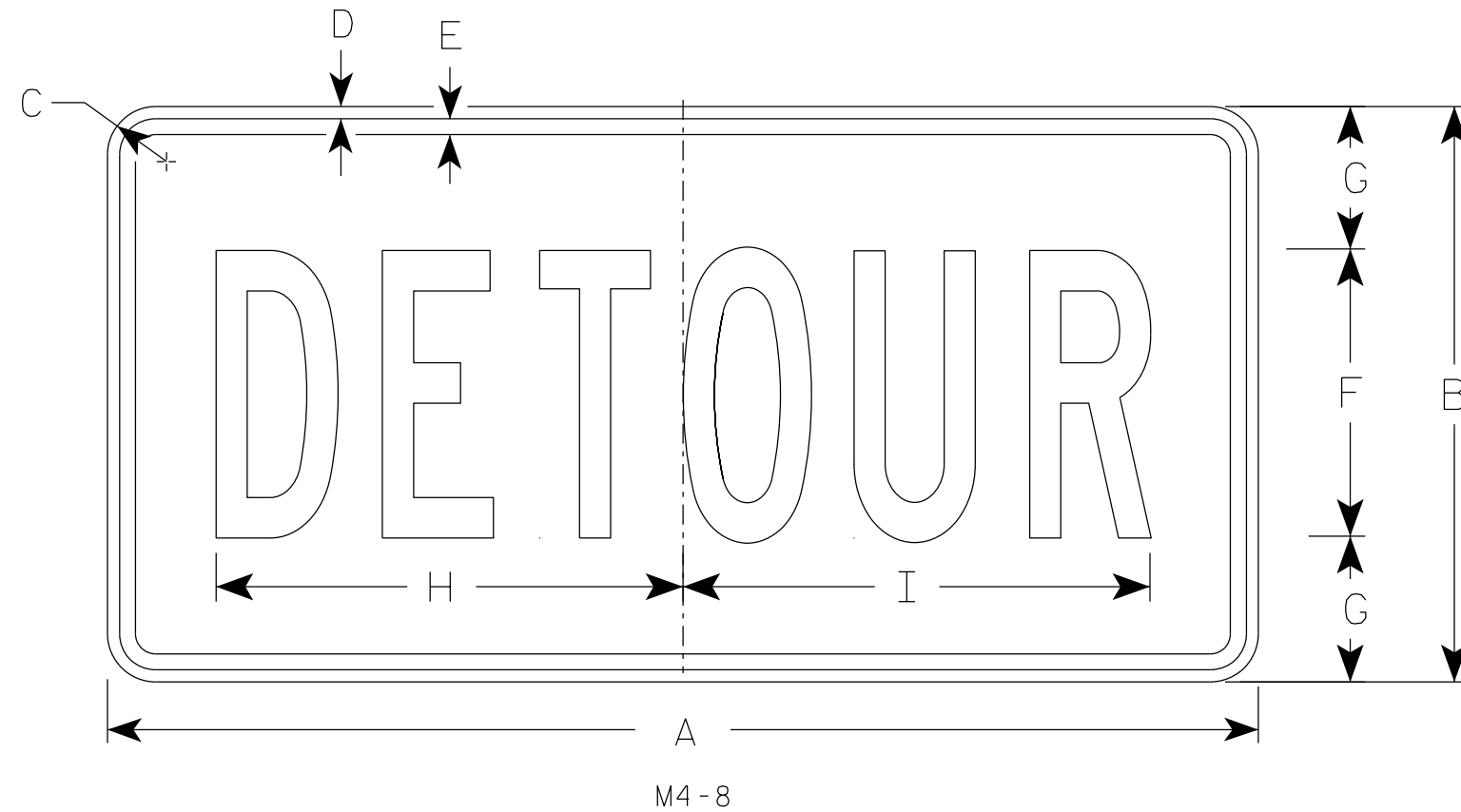
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

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

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

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



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

STANDARD SIGN  
M4-8

*WISCONSIN DEPT OF TRANSPORTATION*

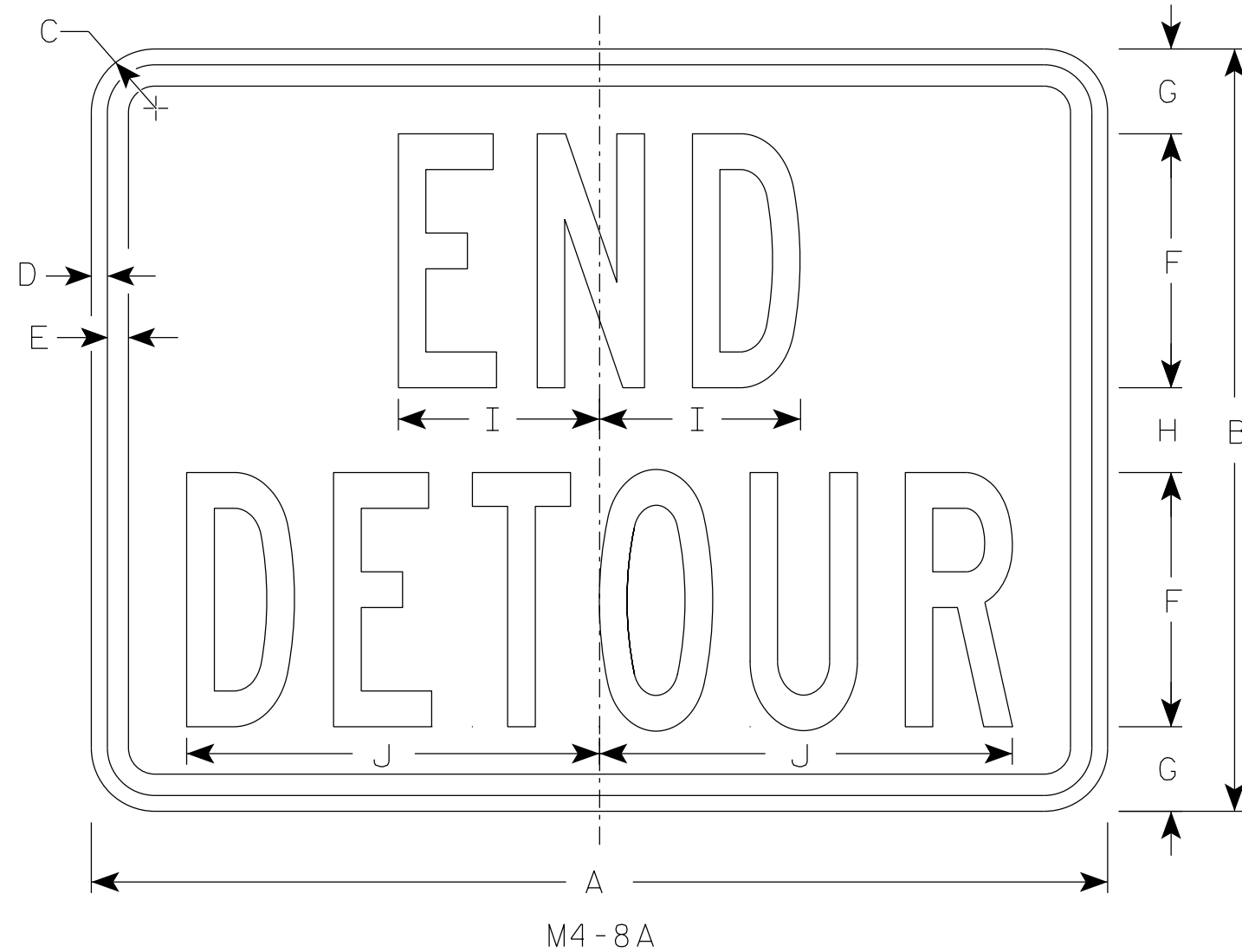
APPROVED *Matthew R Rauch*  
For State Traffic Engineer

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

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ **E**

NOTES

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



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

STANDARD SIGN  
M4-8A

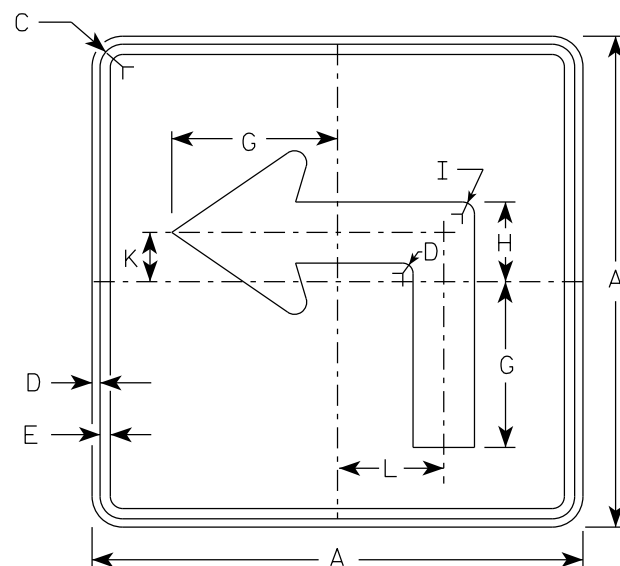
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
For State Traffic Engineer

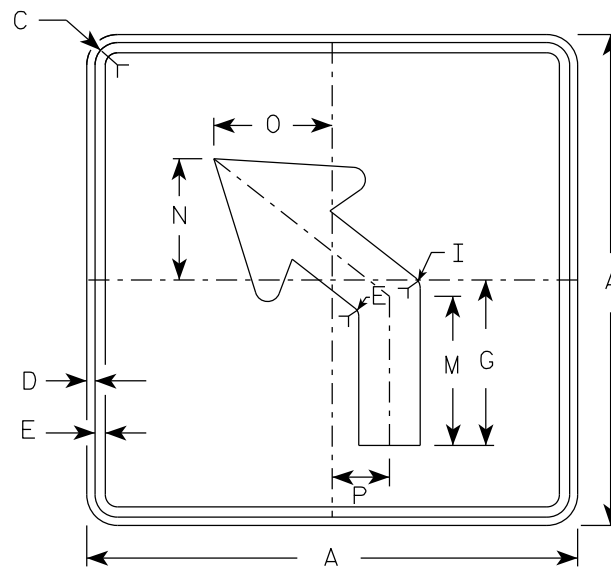
DATE 2/9/2023 PLATE NO. M4-8A.4

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ **E**

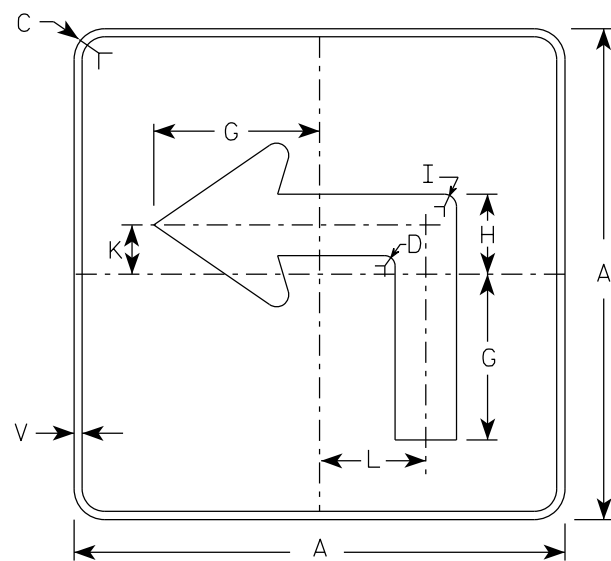




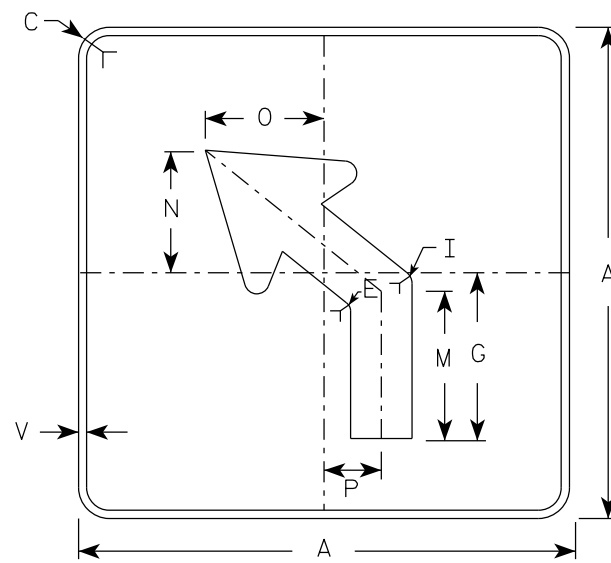
M5-1L  
MM5-1L  
M05-1L  
MP5-1L



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

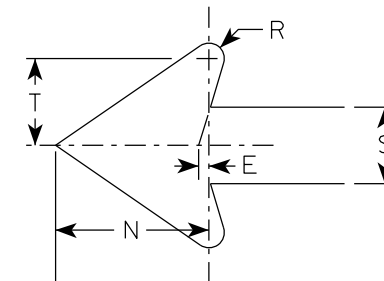


MB5-1L  
MK5-1L  
MN5-1L  
MR5-1L



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

ARROW DETAIL



NOTES

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

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

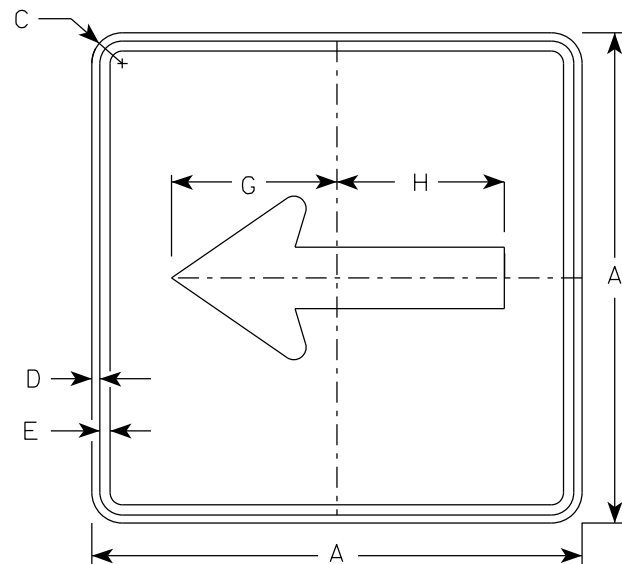
STANDARD SIGN  
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

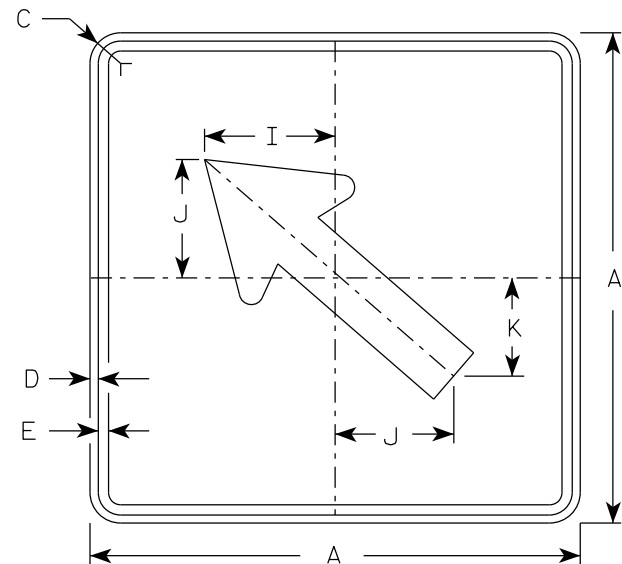
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

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

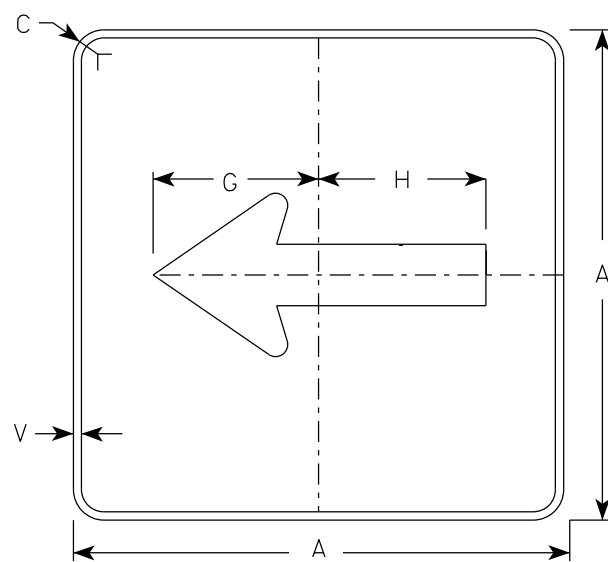
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**



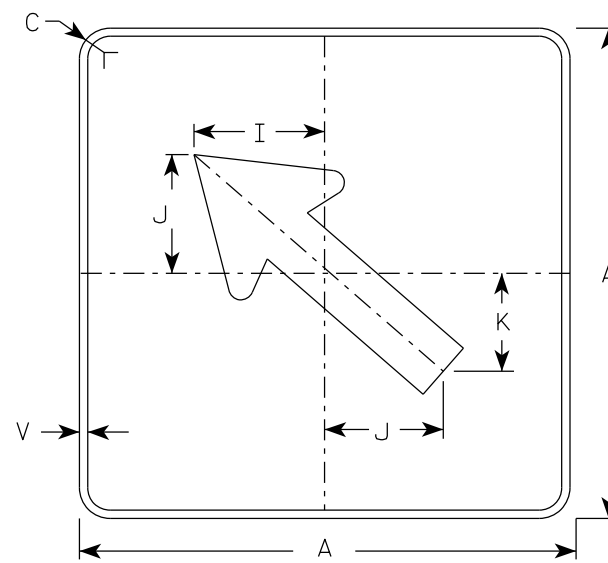
M6-1  
MM6-1  
M06-1  
MP6-1



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

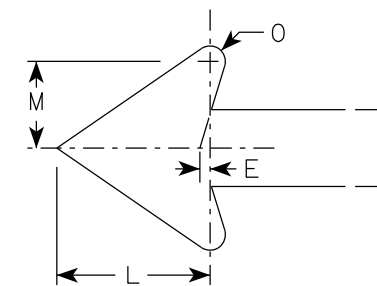


MB6-1  
MK6-1  
MN6-1  
MR6-1



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

ARROW DETAIL



NOTES

- Signs are Type II - Type H Reflective except as Shown
- Color:
  - Background - See note 4
  - Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 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

7

7

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

STANDARD SIGN  
M6-1 & M6-2  
SERIES

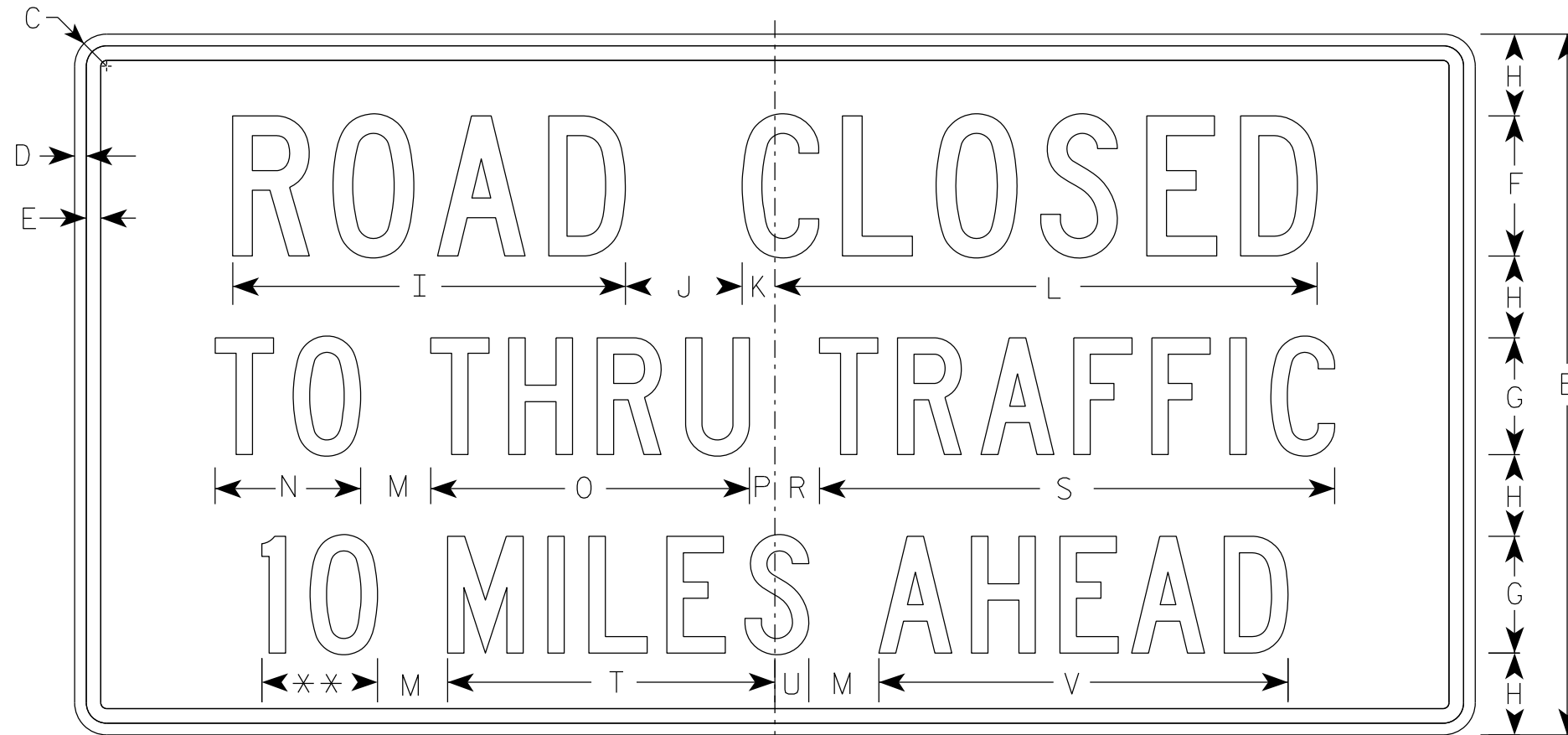
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
For State Traffic Engineer

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

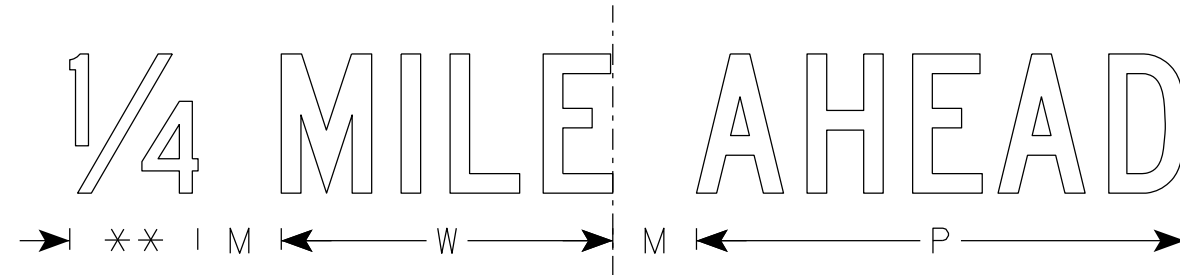
NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

\*\* See Note 5



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	18	1 1/2	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8			4.5	
2S	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8			12.5	
2M	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8			12.5	
3																											
4																											
5																											

STANDARD SIGN  
R11-3

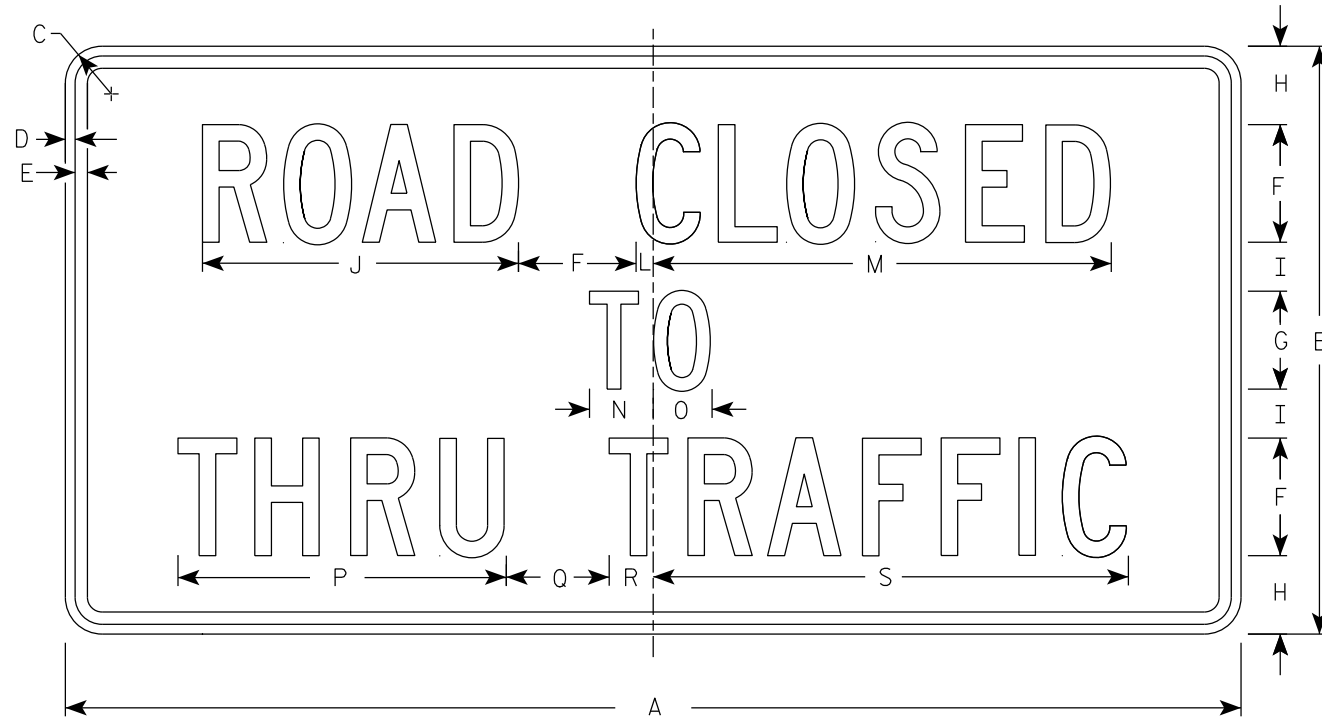
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3.10

NOTES

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



R11-4

7

7

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

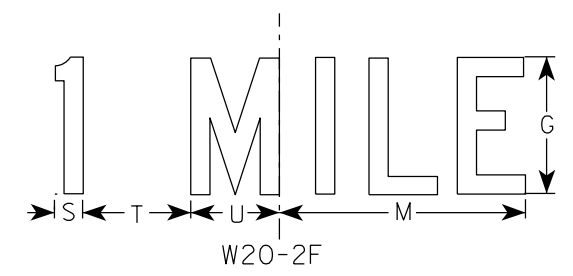
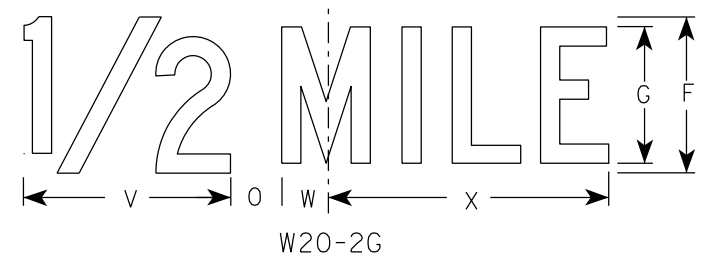
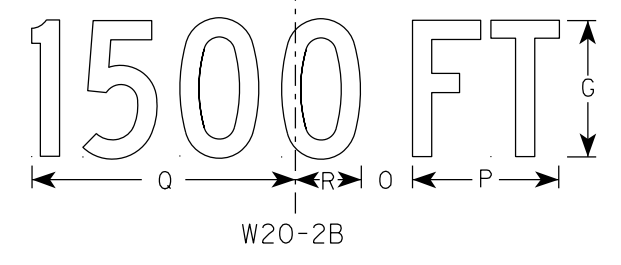
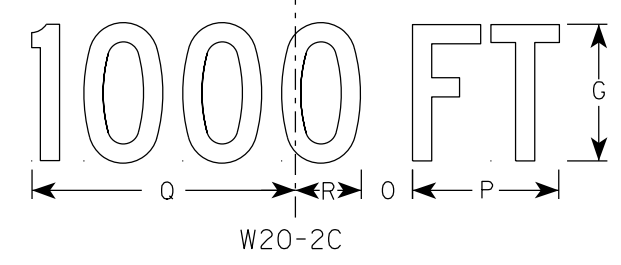
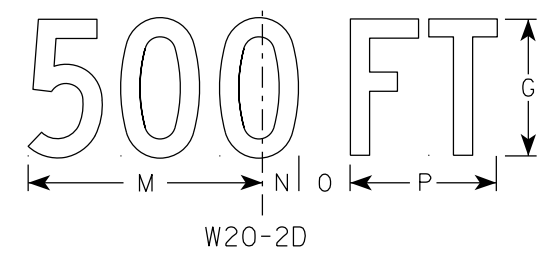
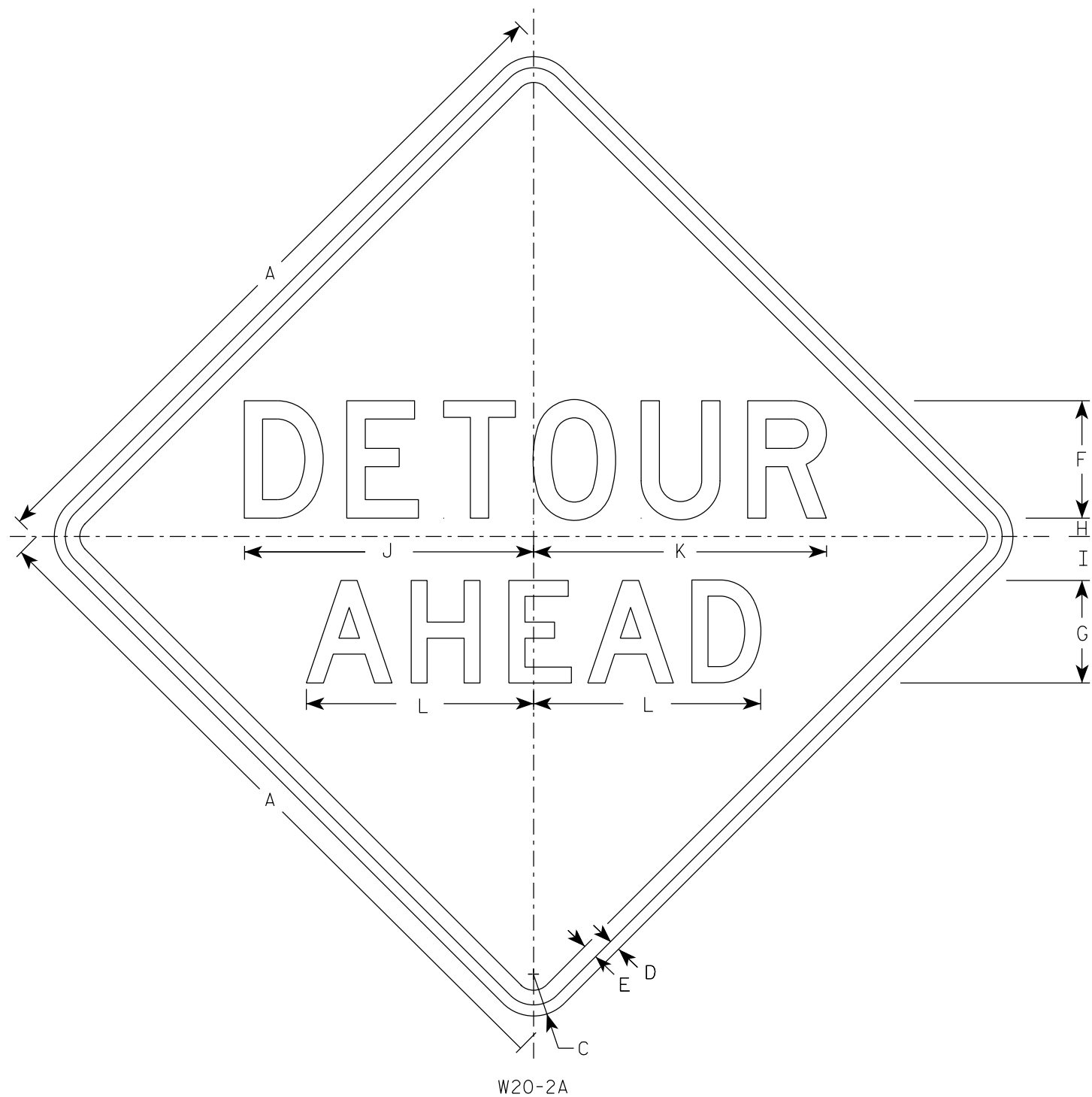
STANDARD SIGN  
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**



NOTES

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

7

7

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

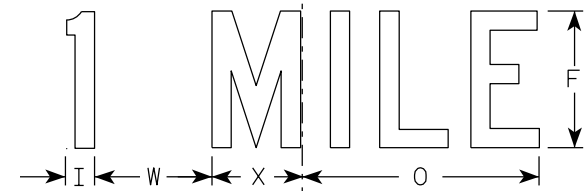
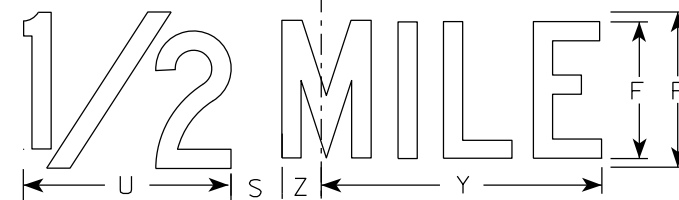
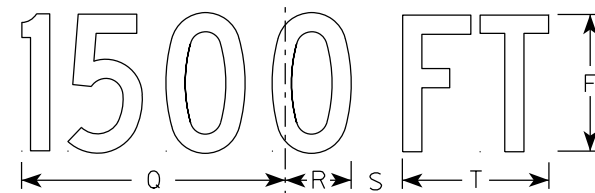
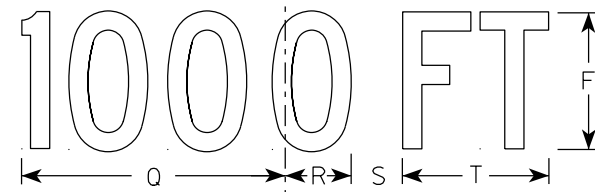
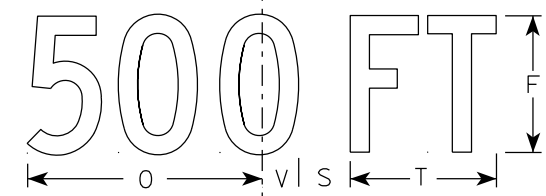
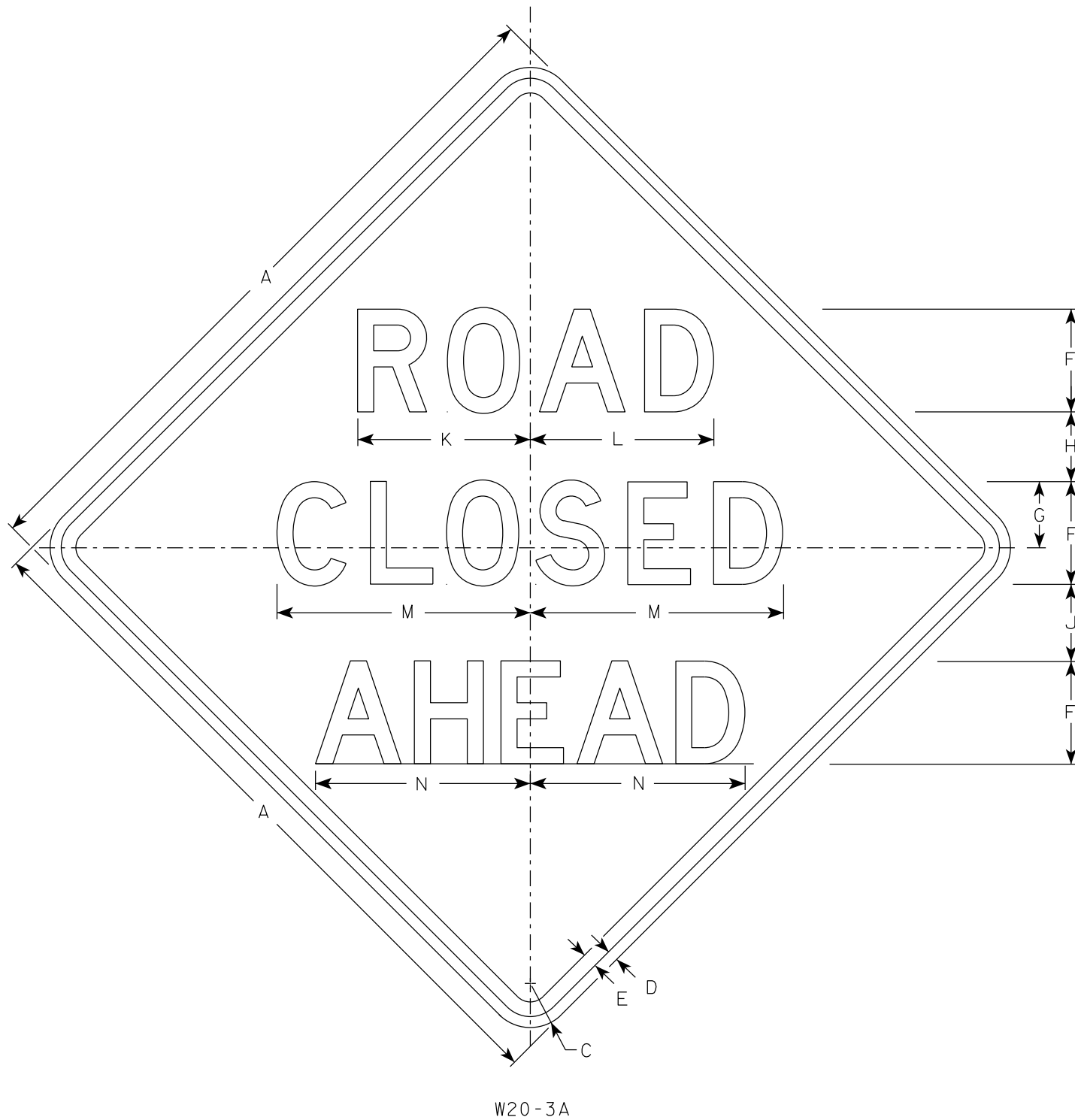
STANDARD SIGN  
W20-2A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
For State Traffic Engineer

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

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ **E**



**NOTES**

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

7

7

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

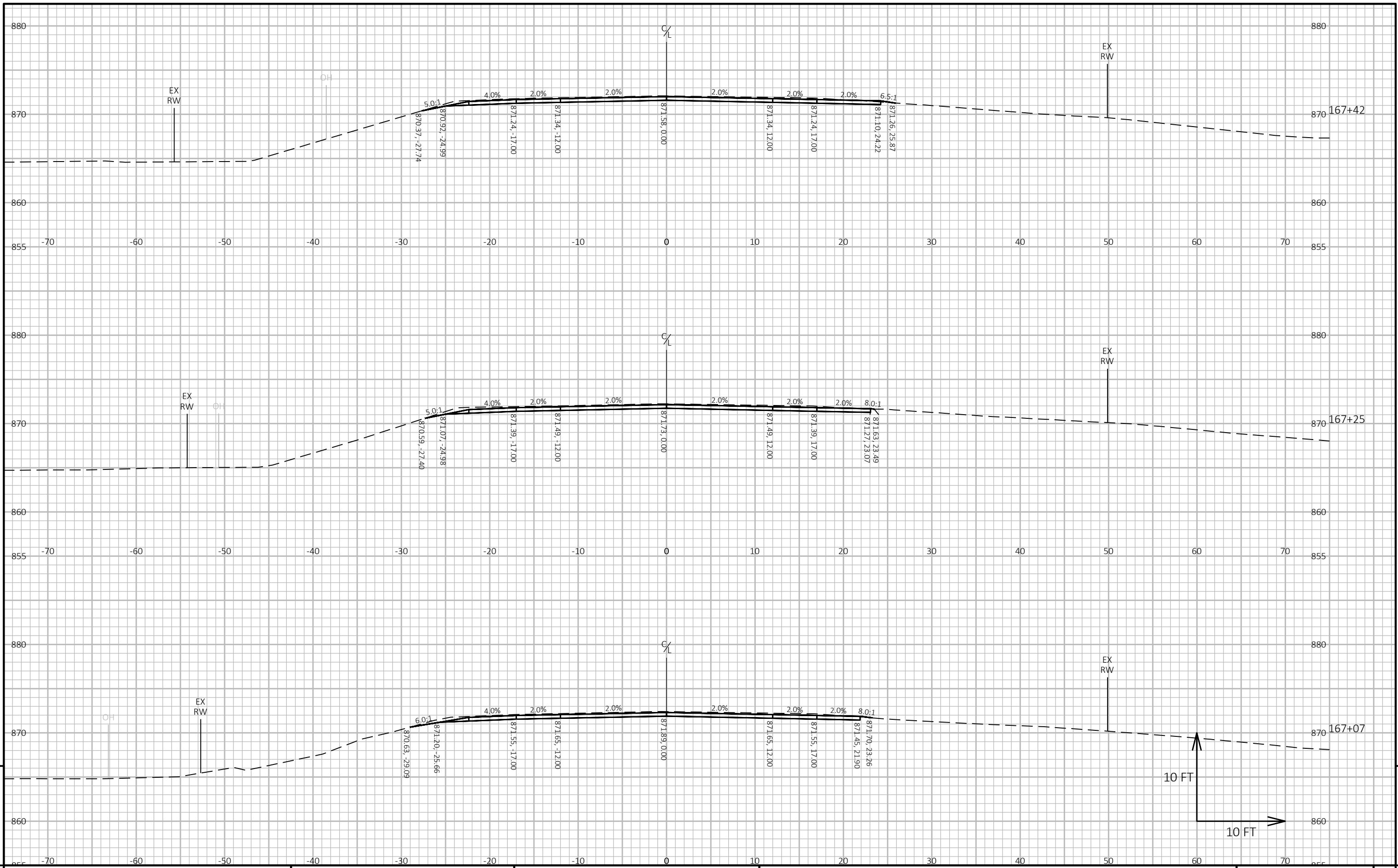
STANDARD SIGN  
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**



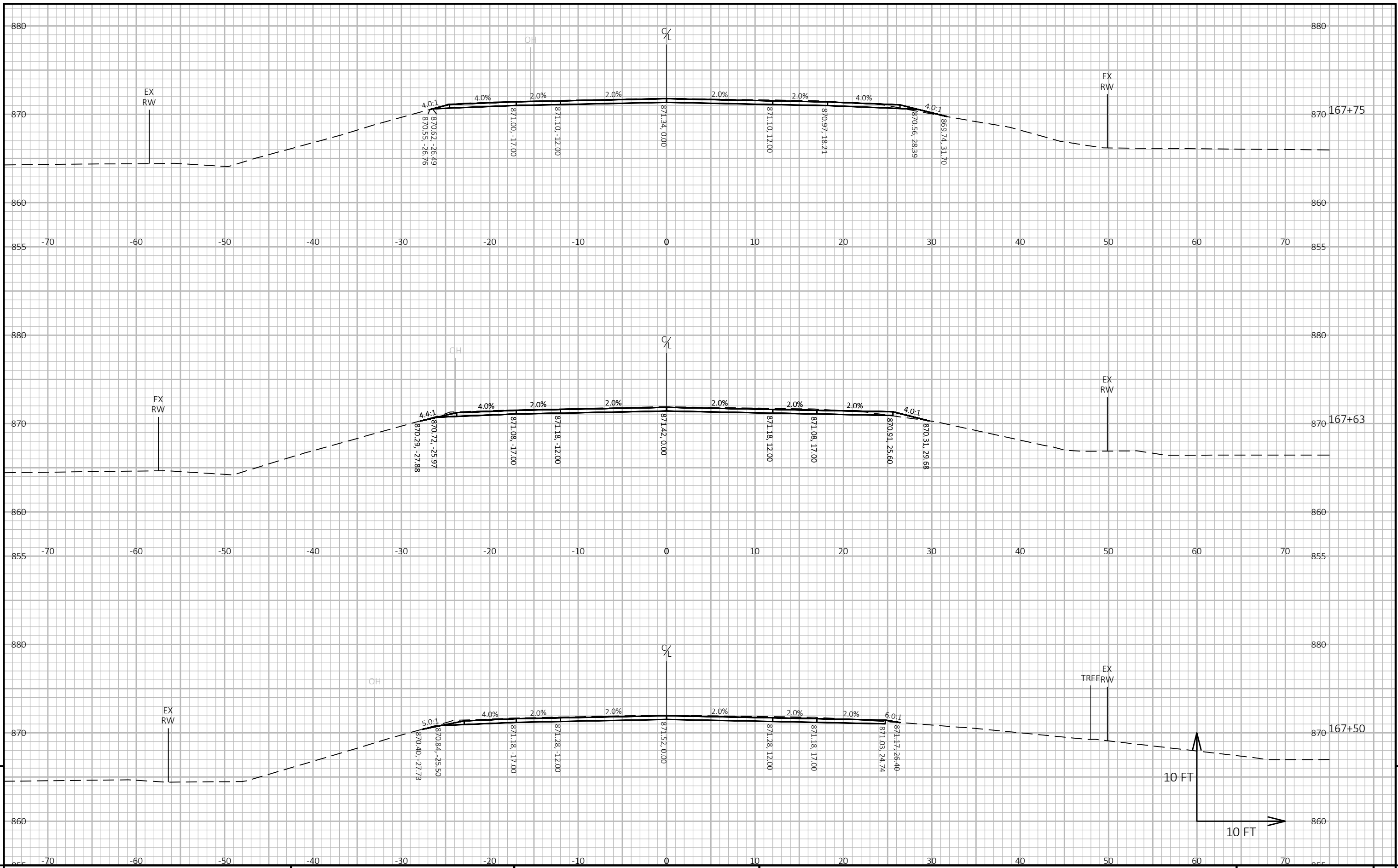
9

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PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-179      SHEET      E

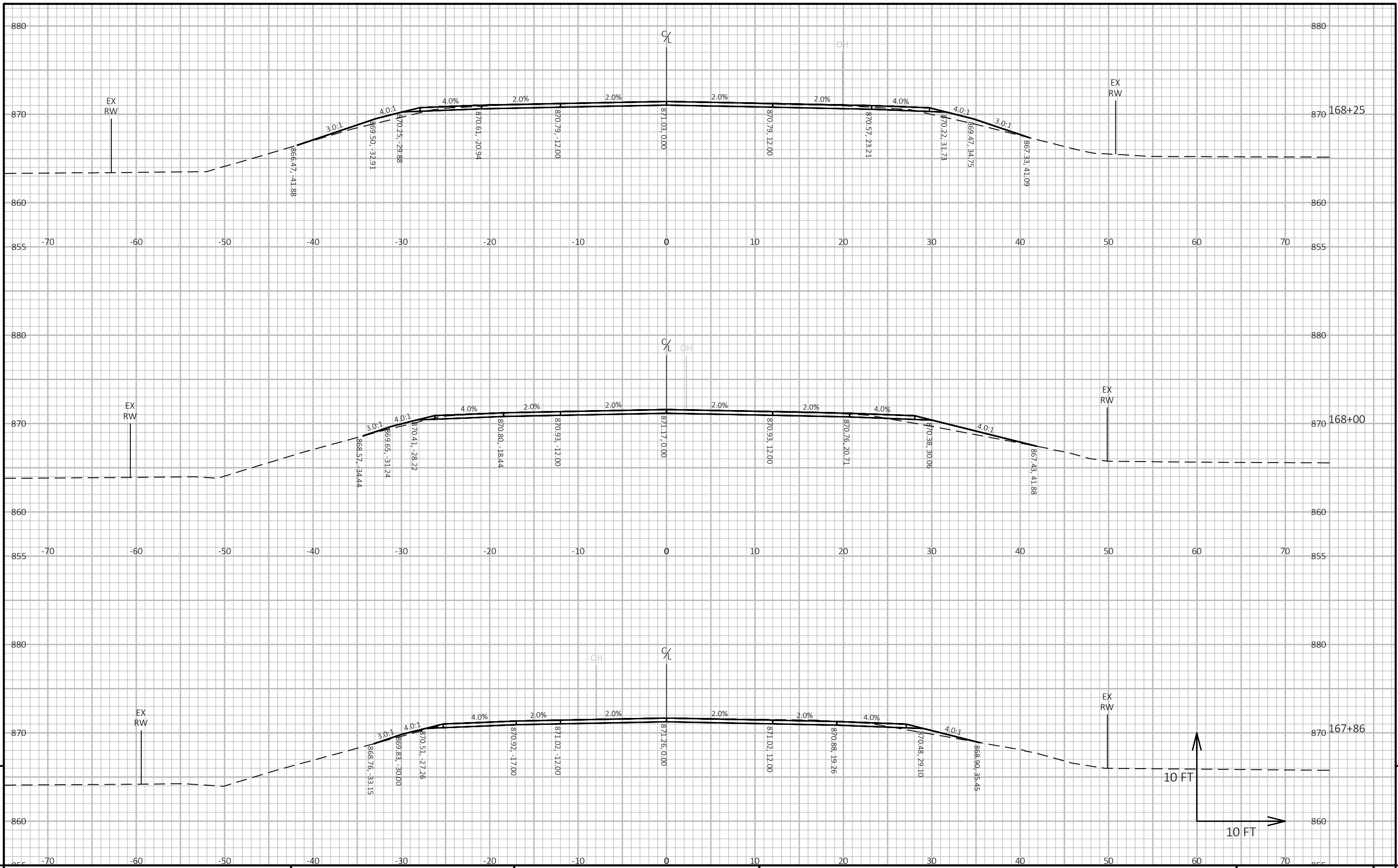
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LAYOUT NAME - 01

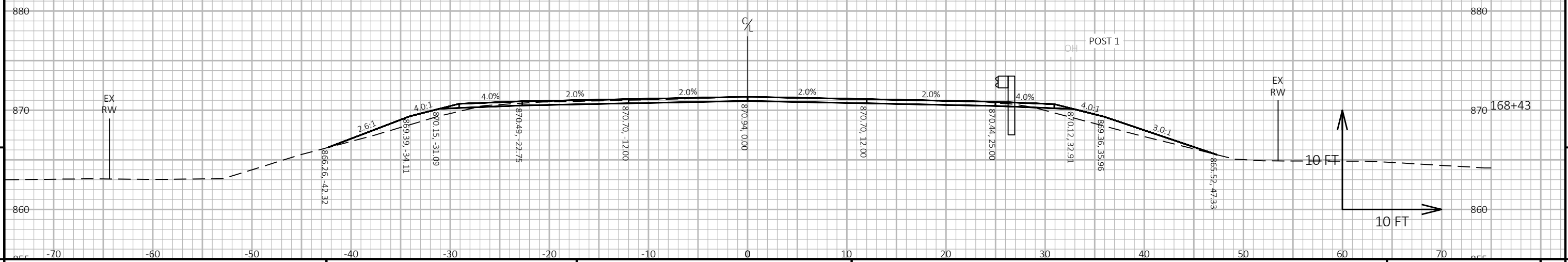
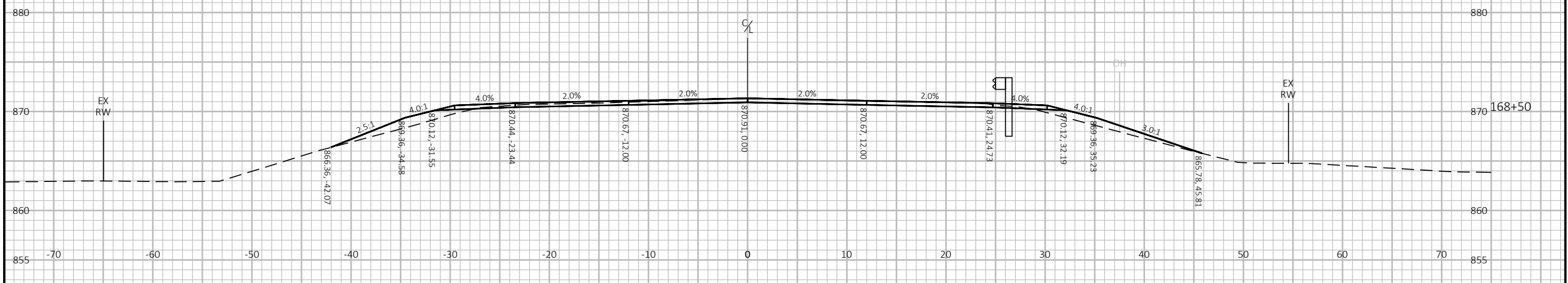
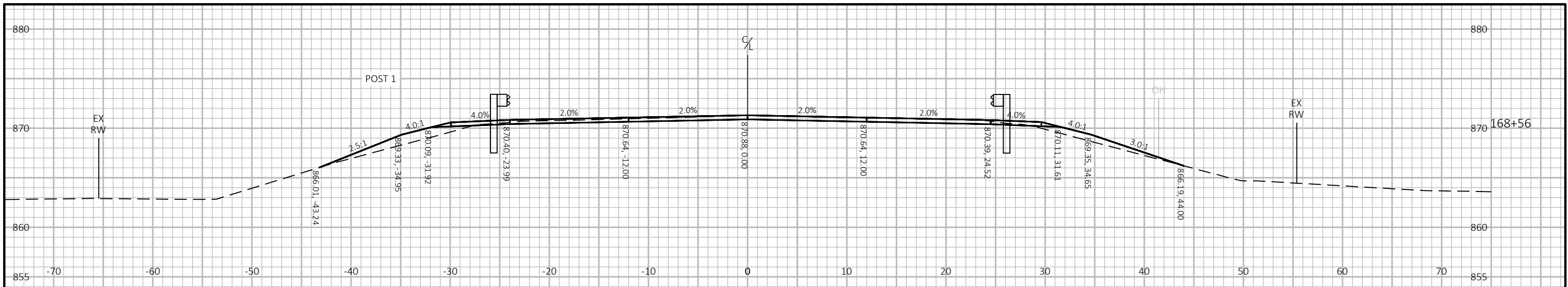


PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-179      SHEET 9

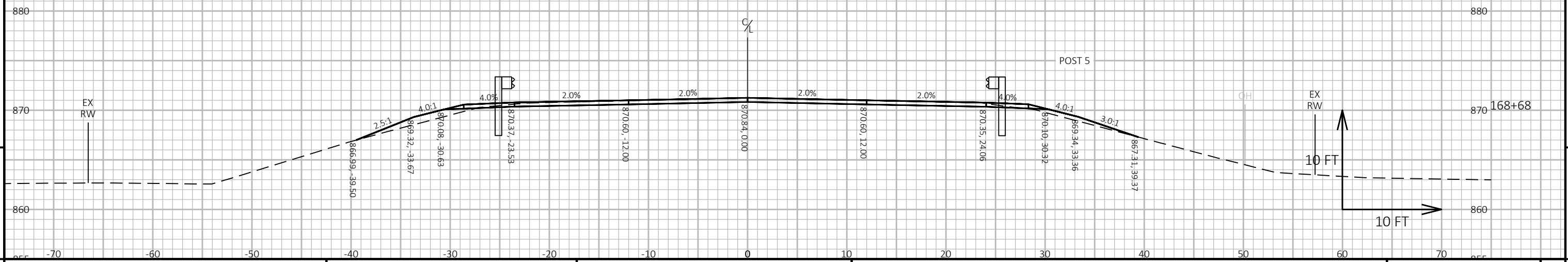
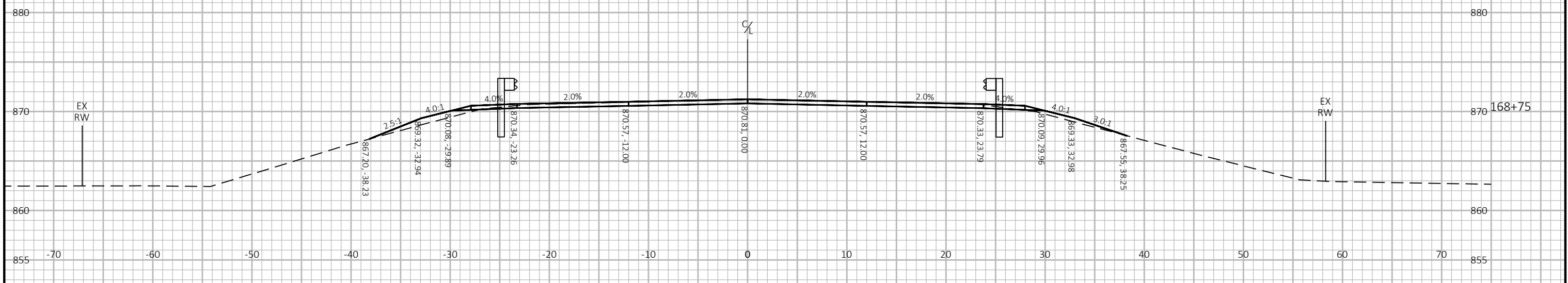
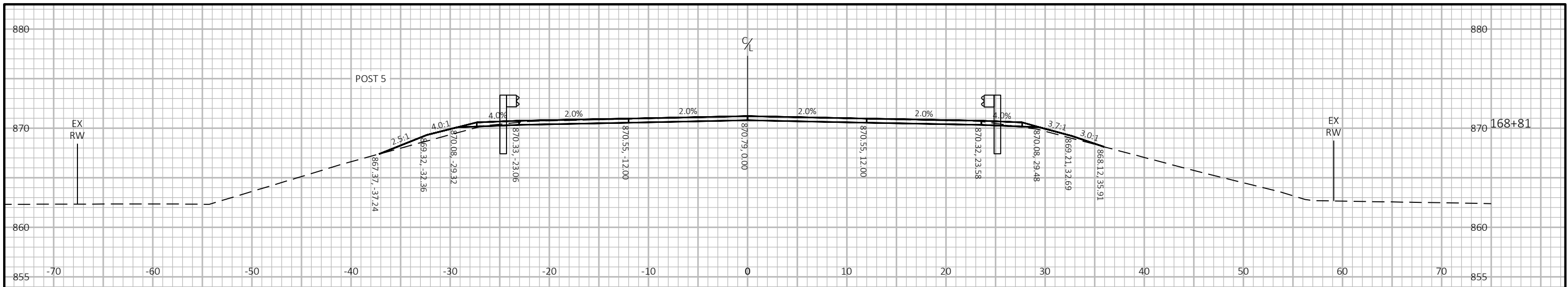




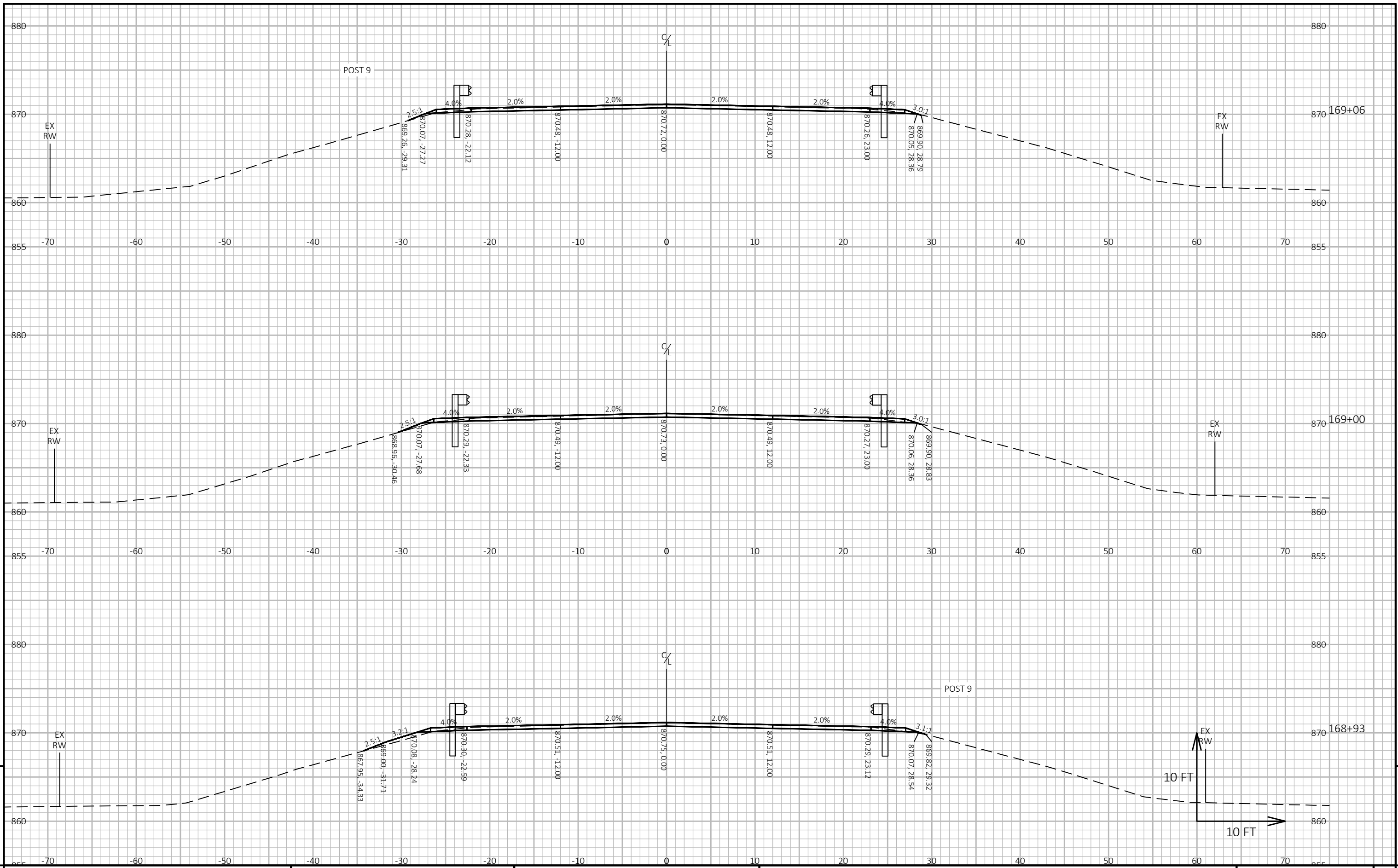
PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-179      SHEET 9



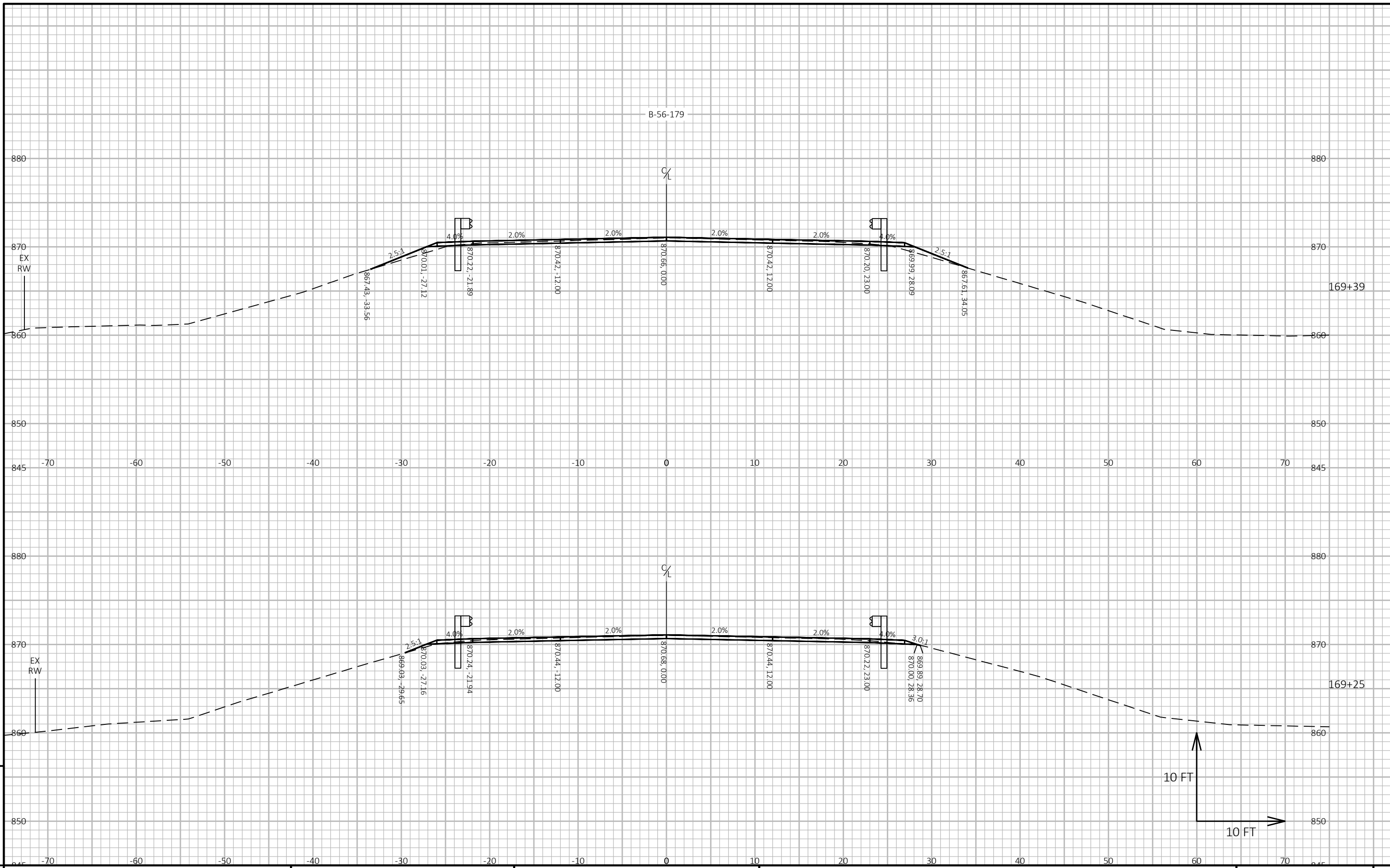
PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-179      SHEET 9



PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-179      SHEET 9



PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-179      SHEET 9



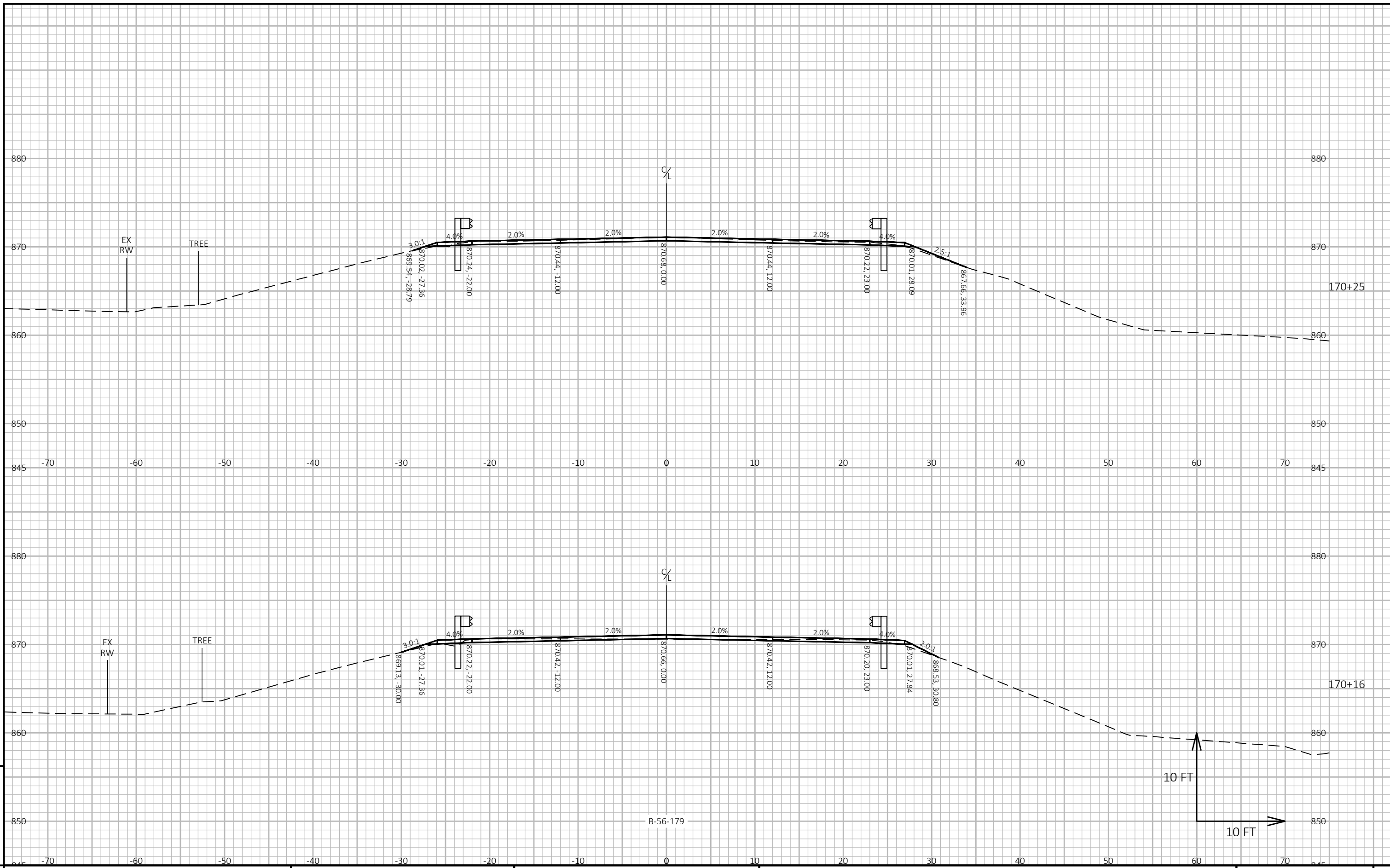
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9

PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-179      SHEET E

FILE NAME: \\LAX31FP2.DOT.STATE.WI.US\N3PUBLIC\PDSC3D\50600007\090201-XS.DWG      PLOT DATE: 1/24/2024 8:46 AM      PLOT BY: KENDALL, EMILY ANN      PLOT NAME:      PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 07



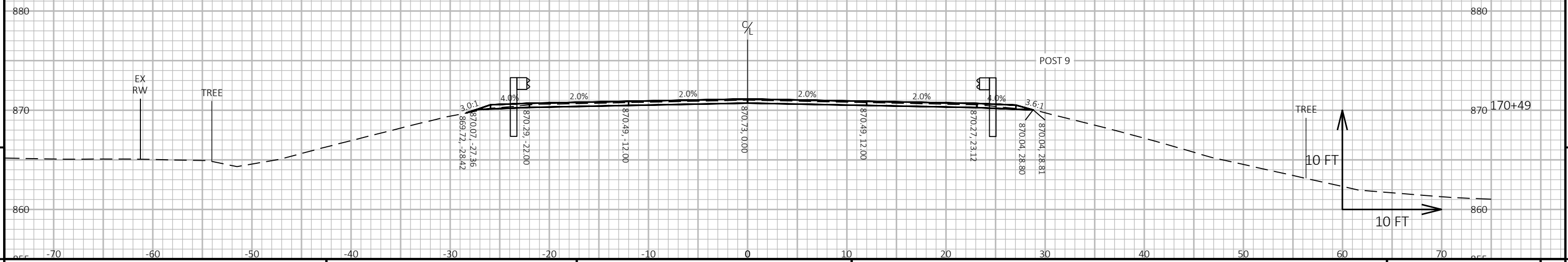
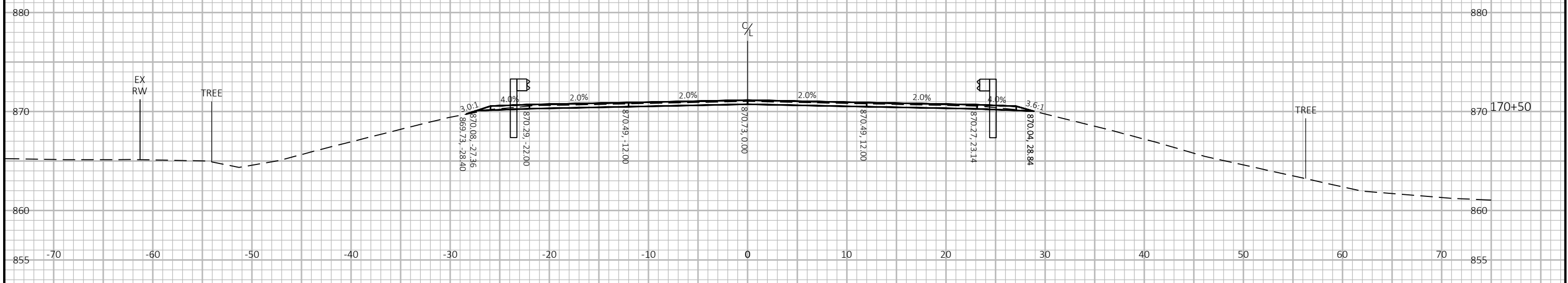
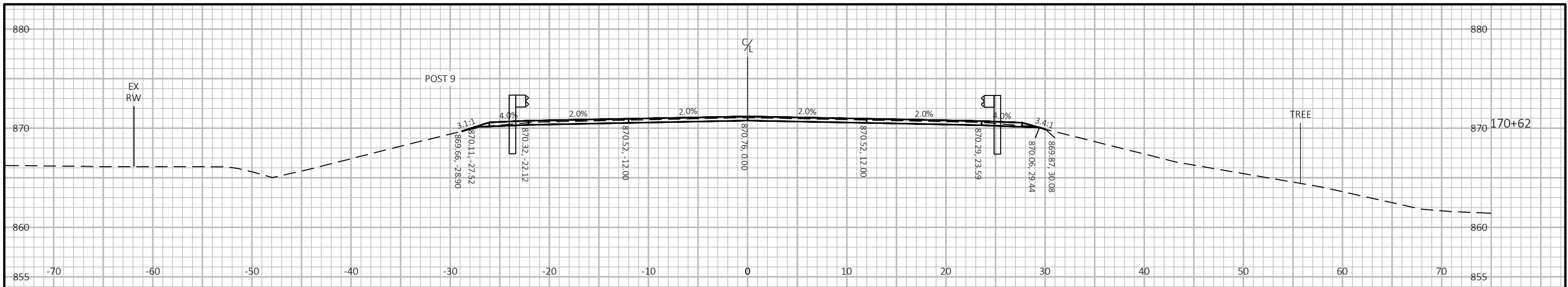
B-56-179

10 FT

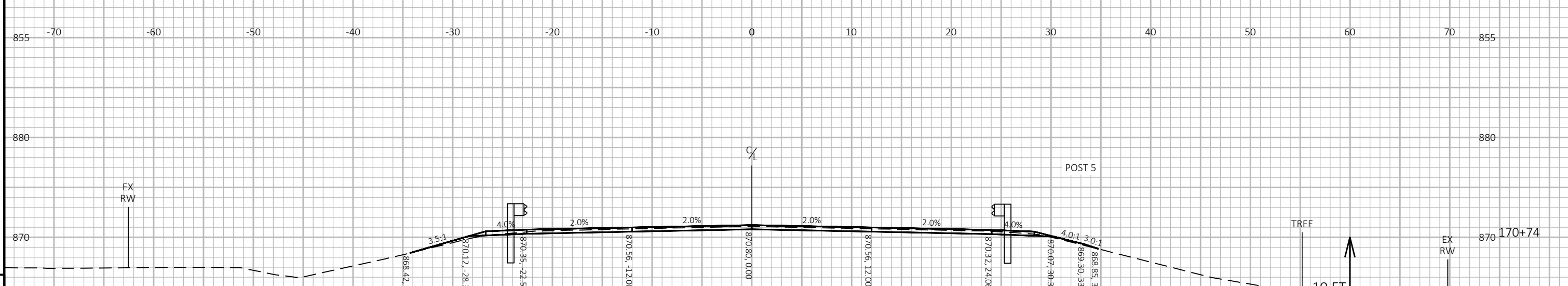
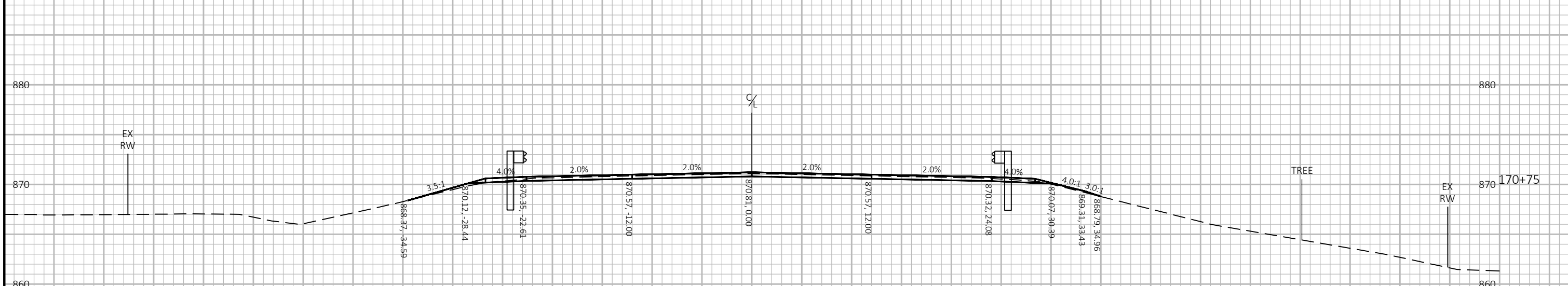
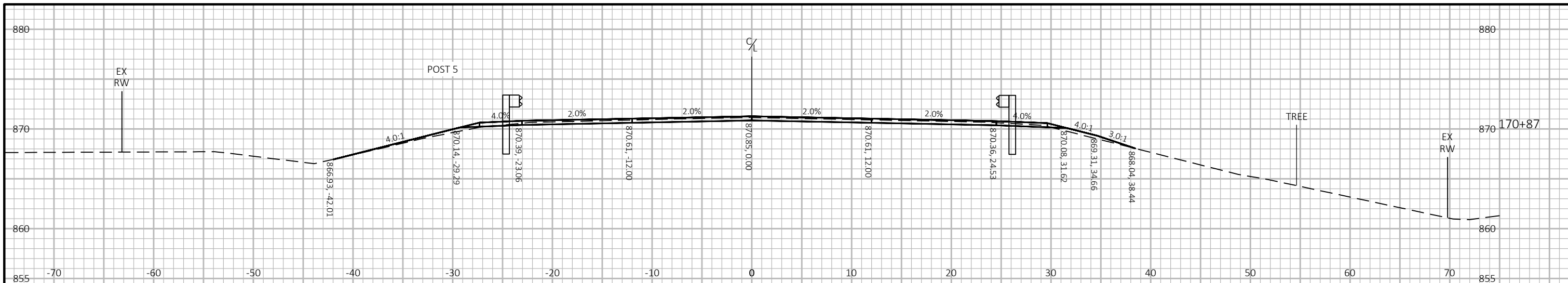
10 FT

PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-179      SHEET 9

FILE NAME: \\LAX31FP2.DOT.STATE.WI.US\N3PUBLIC\PD\50600007\090201-XS.DWG      PLOT DATE: 1/24/2024 8:47 AM      PLOT BY: KENDALL, EMILY ANN      PLOT NAME:      PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

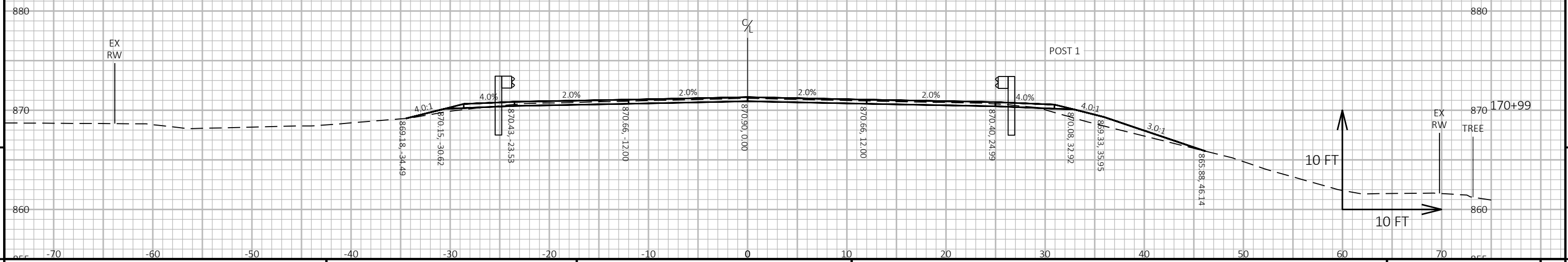
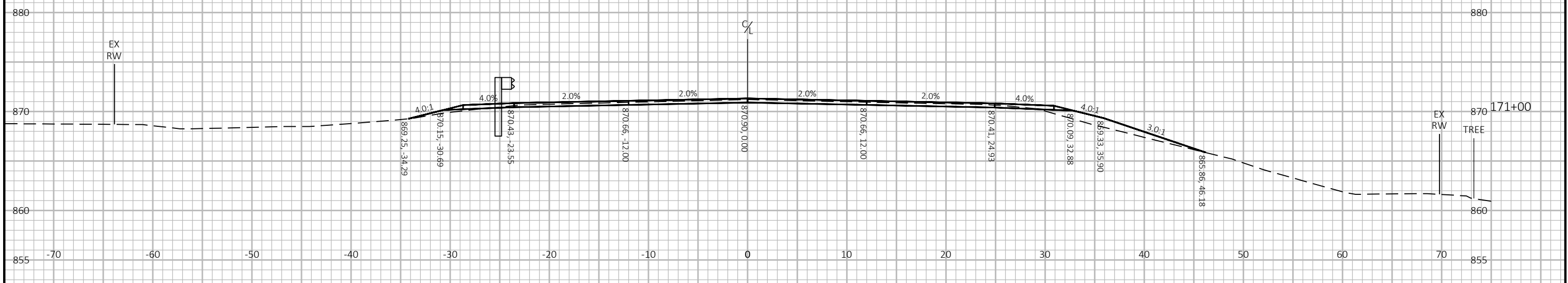
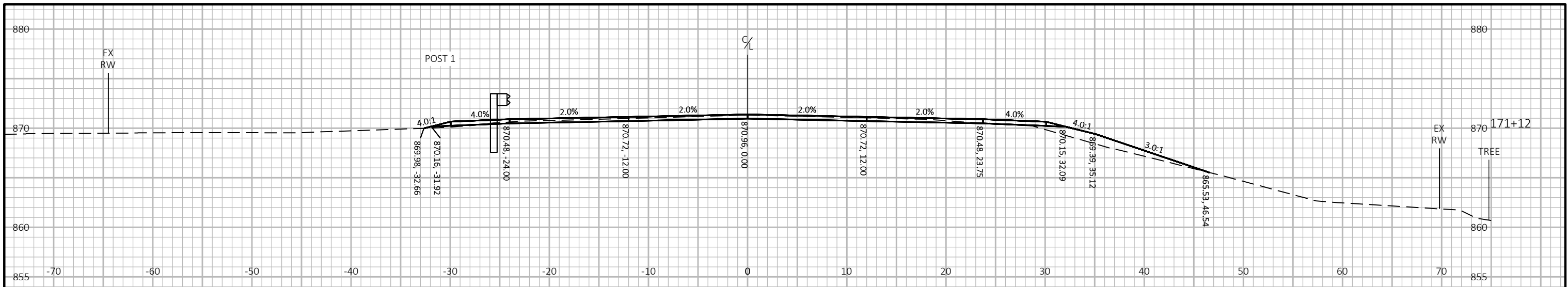


PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-179      SHEET 9

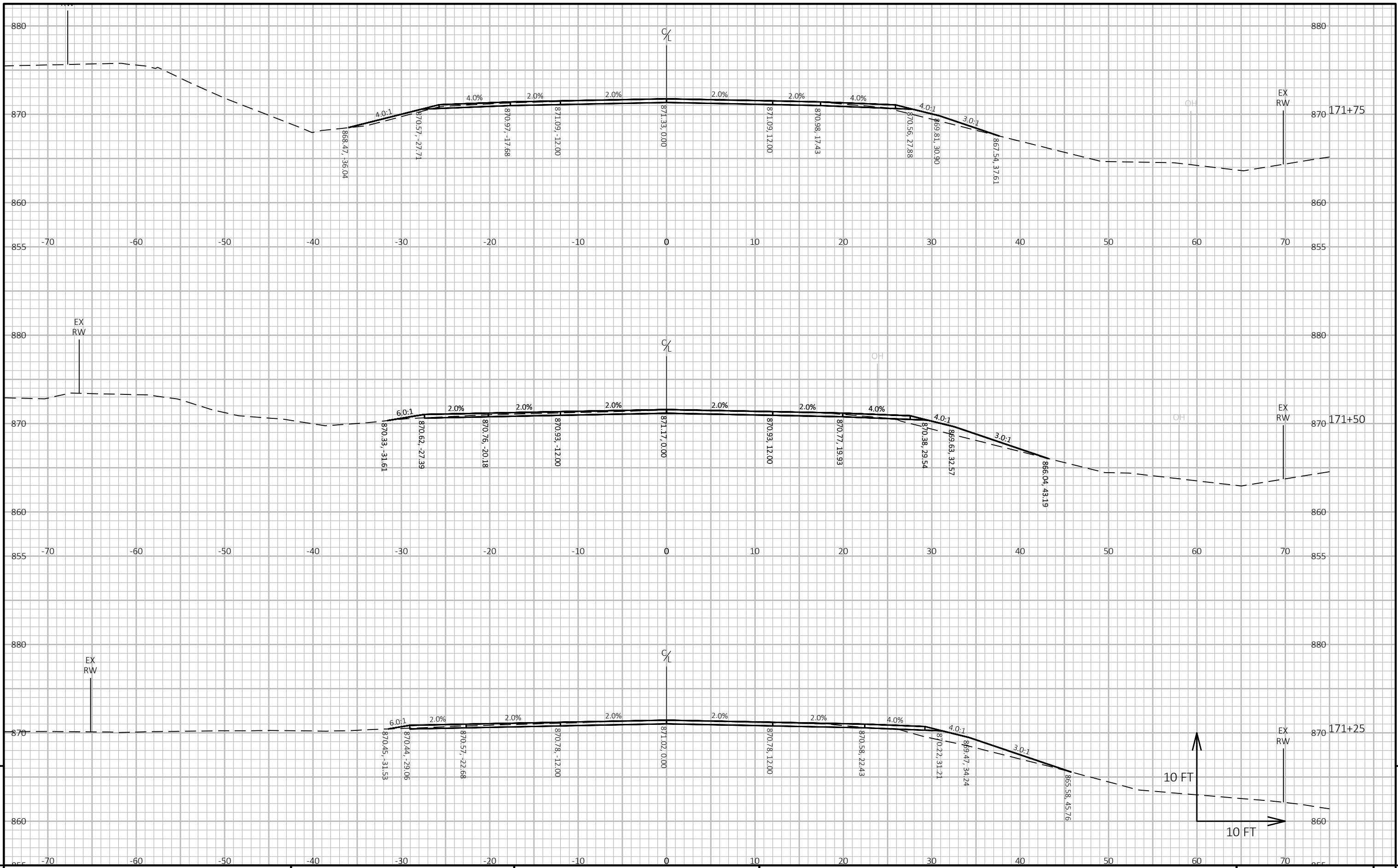


PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: B-56-179	SHEET 9
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PROJECT NO: 5060-00-77	HWY: STH 23	COUNTY: SAUK	CROSS SECTIONS: B-56-179	SHEET 9
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PROJECT NO: 5060-00-77

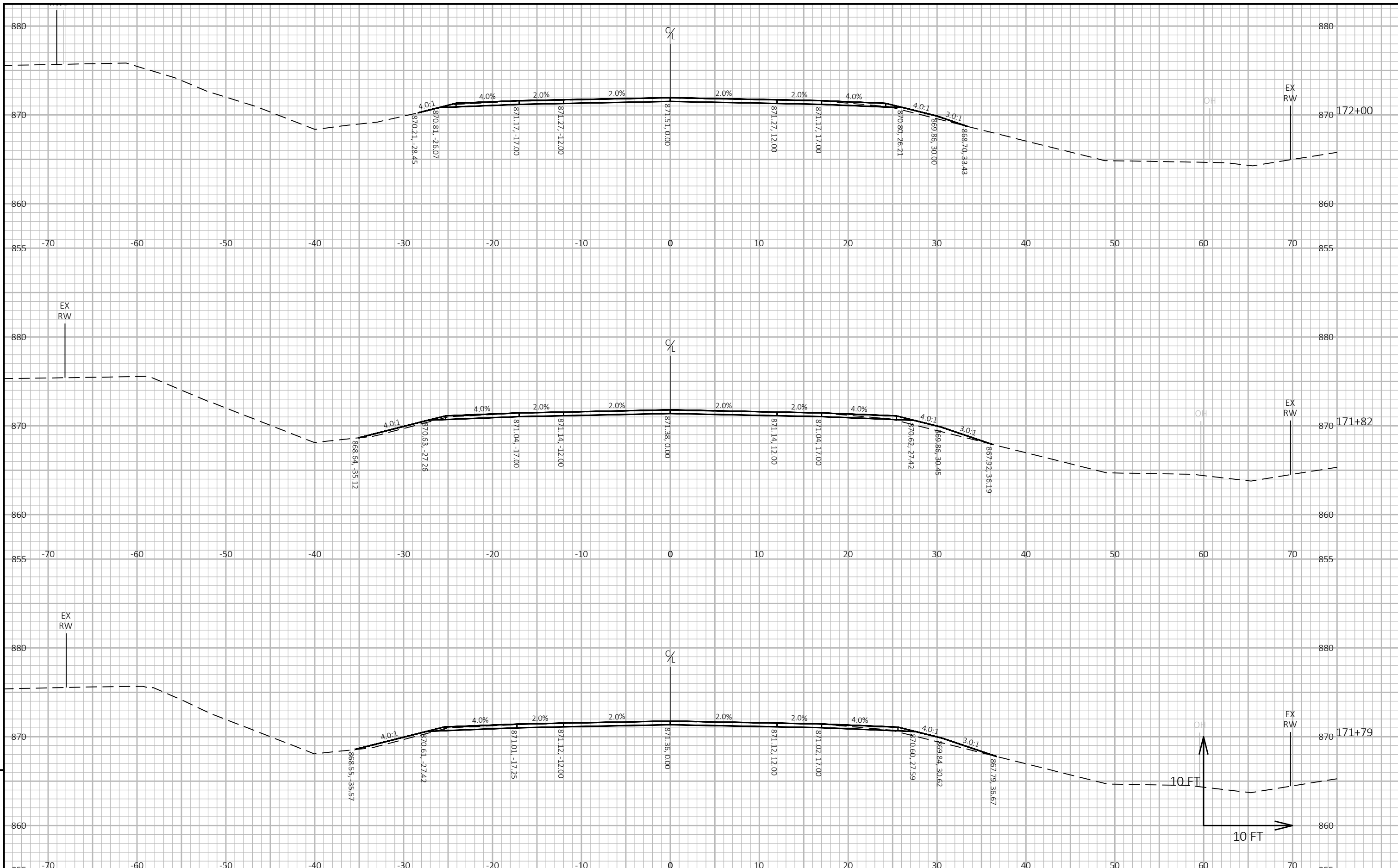
HWY: STH 23

COUNTY: SAUK

CROSS SECTIONS: B-56-179

SHEET

E



PROJECT NO: 5060-00-77

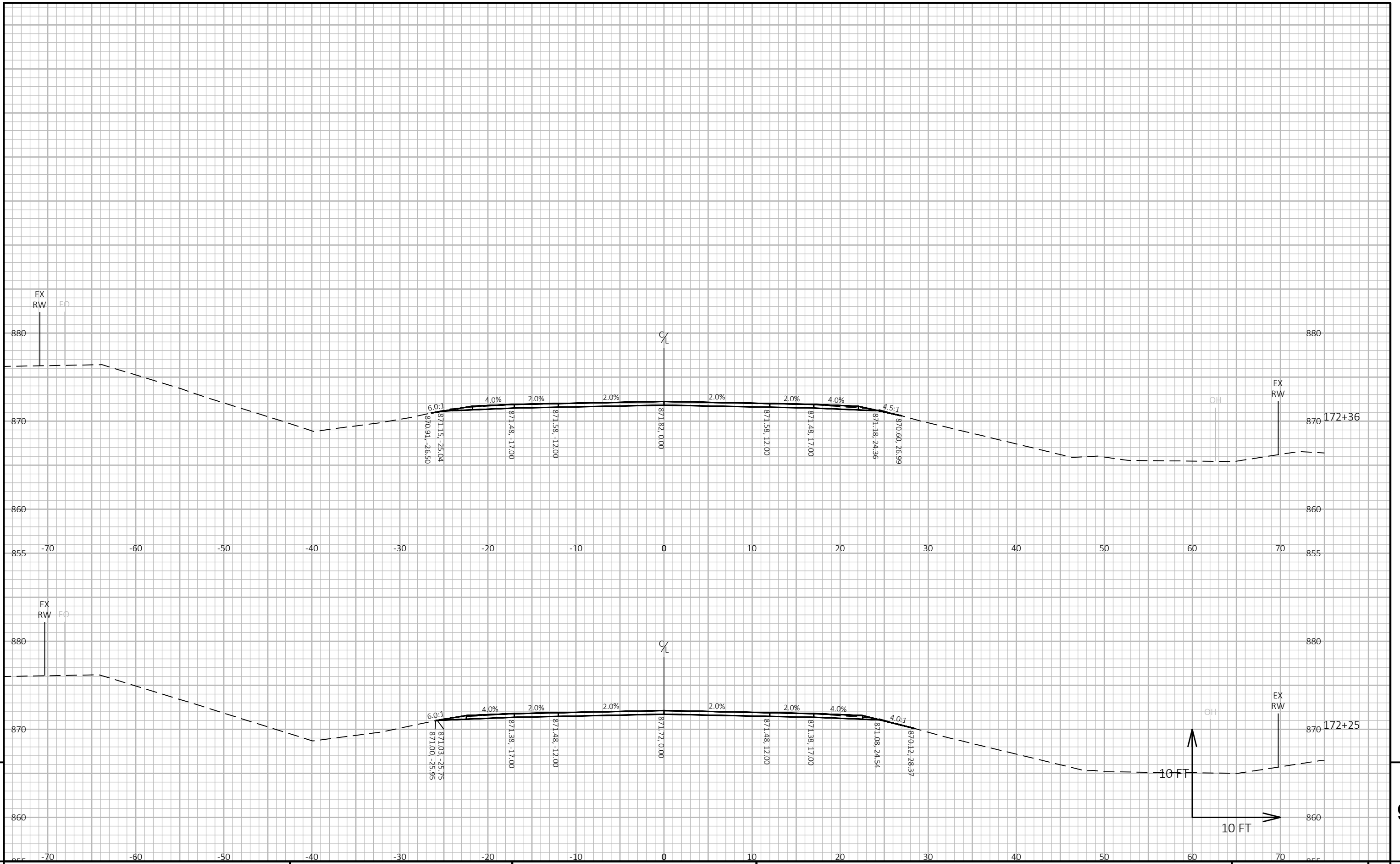
HWY: STH 23

COUNTY: SAUK

CROSS SECTIONS: B-56-179

SHEET

E



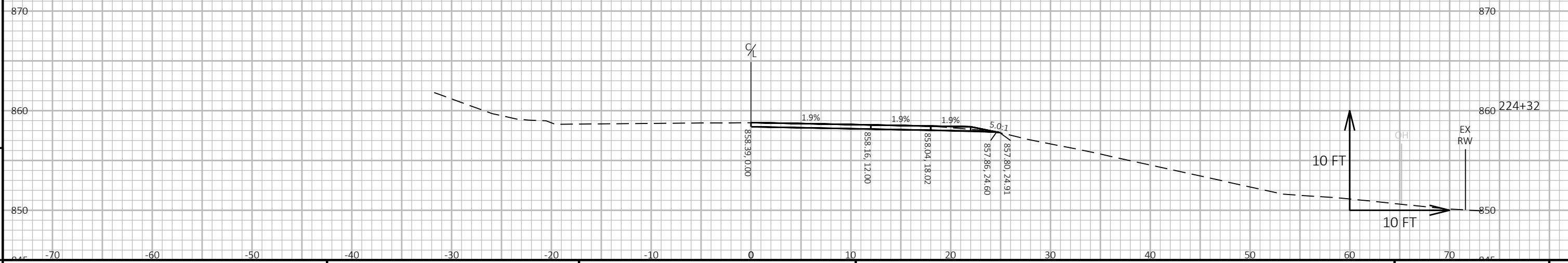
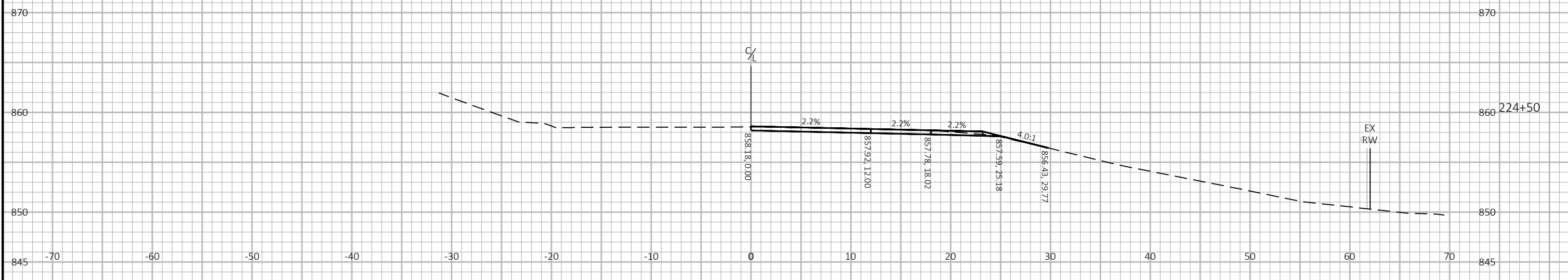
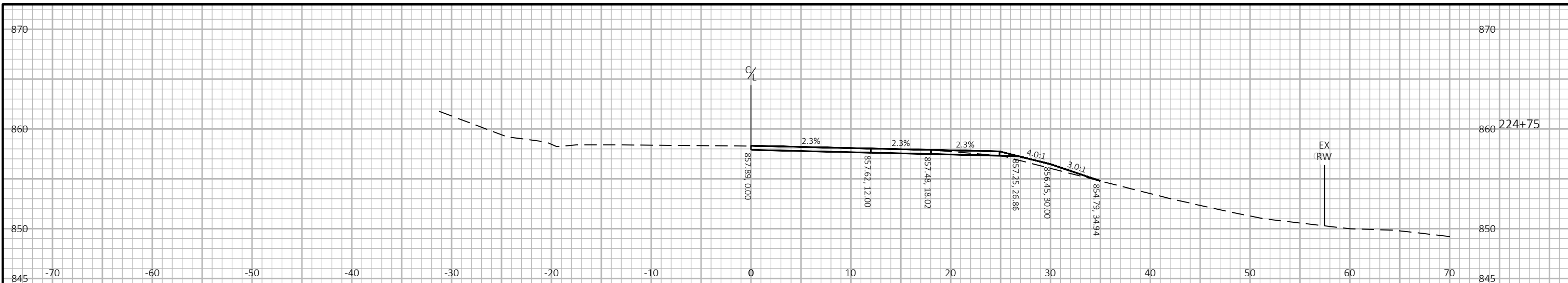
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9

PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-179      SHEET      E

FILE NAME: \\LAX31FP2.DOT.STATE.WI.US\N3PUBLIC\PDSC3D\50600007\090201-XS.DWG      PLOT DATE: 1/24/2024 8:47 AM      PLOT BY: KENDALL, EMILY ANN      PLOT NAME:      PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 14



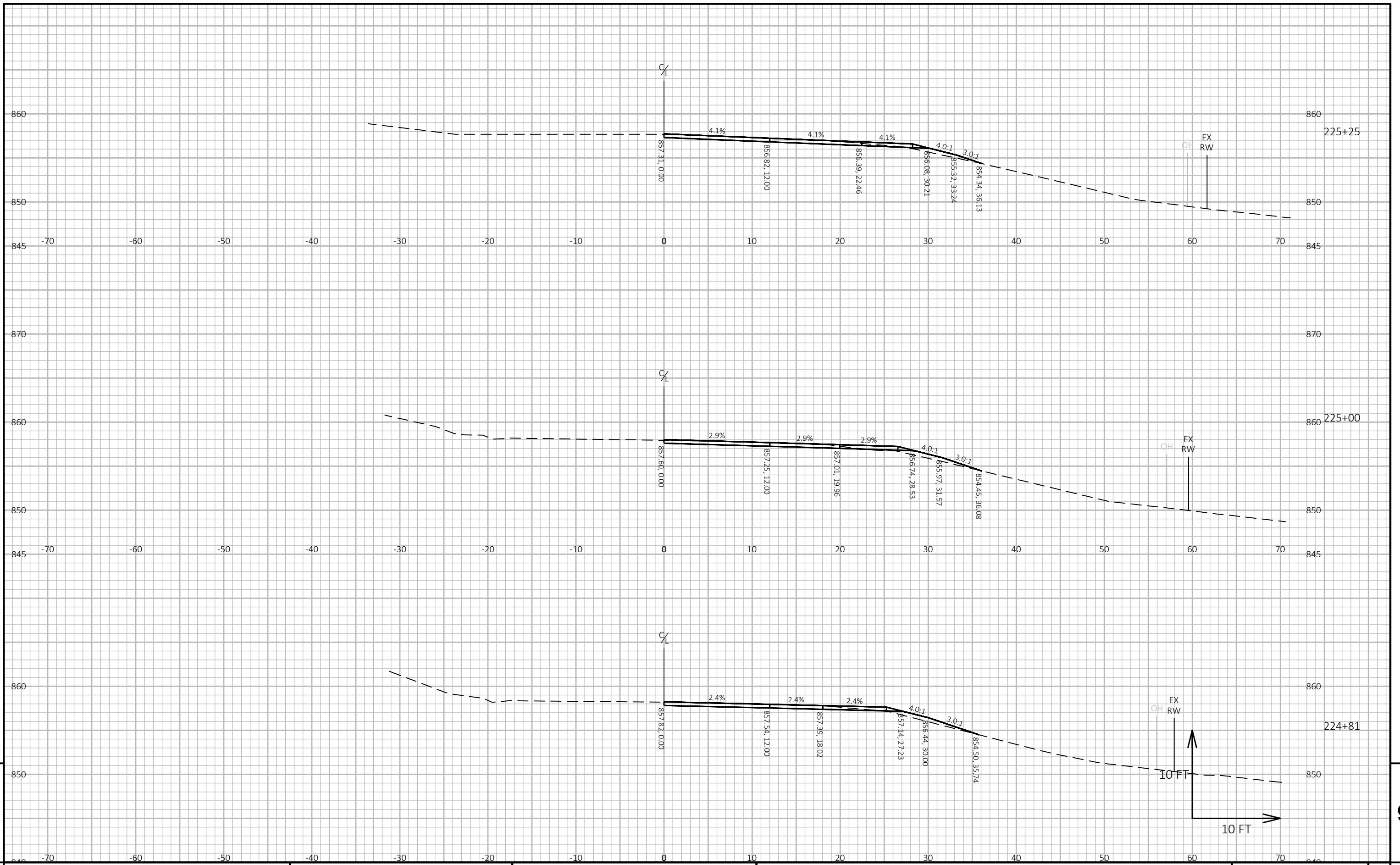
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9

PROJECT NO: 5060-00-77 HWY: STH 23 COUNTY: SAUK CROSS SECTIONS: B-56-160 SHEET E

FILE NAME: \\LAX31FP2.DOT.STATE.WI.US\N3PUBLIC\PD\50600007\090201-XS.DWG PLOT DATE: 1/24/2024 8:47 AM PLOT BY: KENDALL, EMILY ANN PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 15



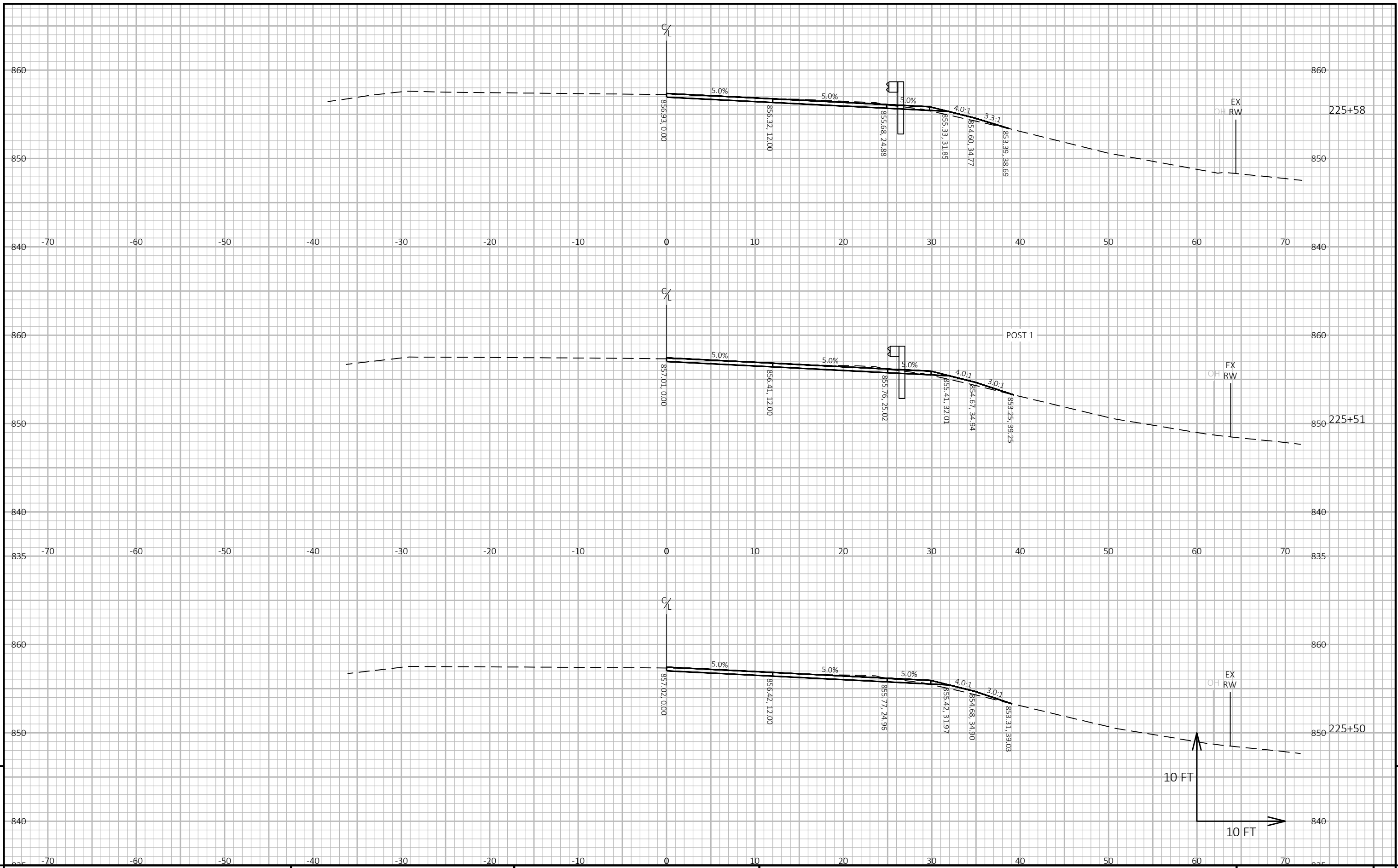
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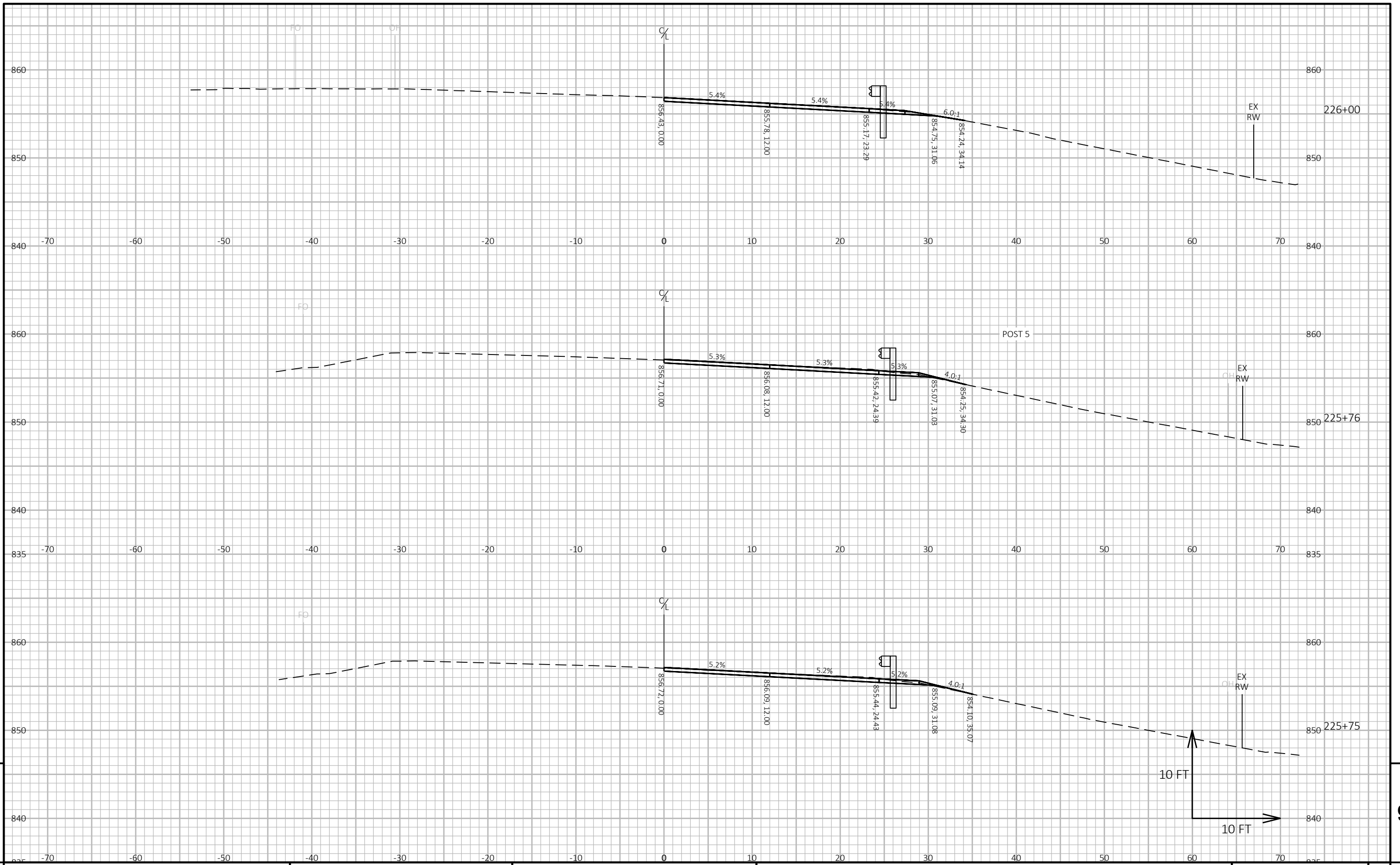
PROJECT NO: 5060-00-77 HWY: STH 23 COUNTY: SAUK CROSS SECTIONS: B-56-160 SHEET E

FILE NAME: \\LAX31FP2.DOT.STATE.WI.US\N3PUBLIC\PD5\C3D\50600007\50600007\090201-XS.DWG PLOT DATE: 1/24/2024 8:47 AM PLOT BY: KENDALL, EMILY ANN PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD5 SHEET 49

LAYOUT NAME - 16



PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-160      SHEET E



9

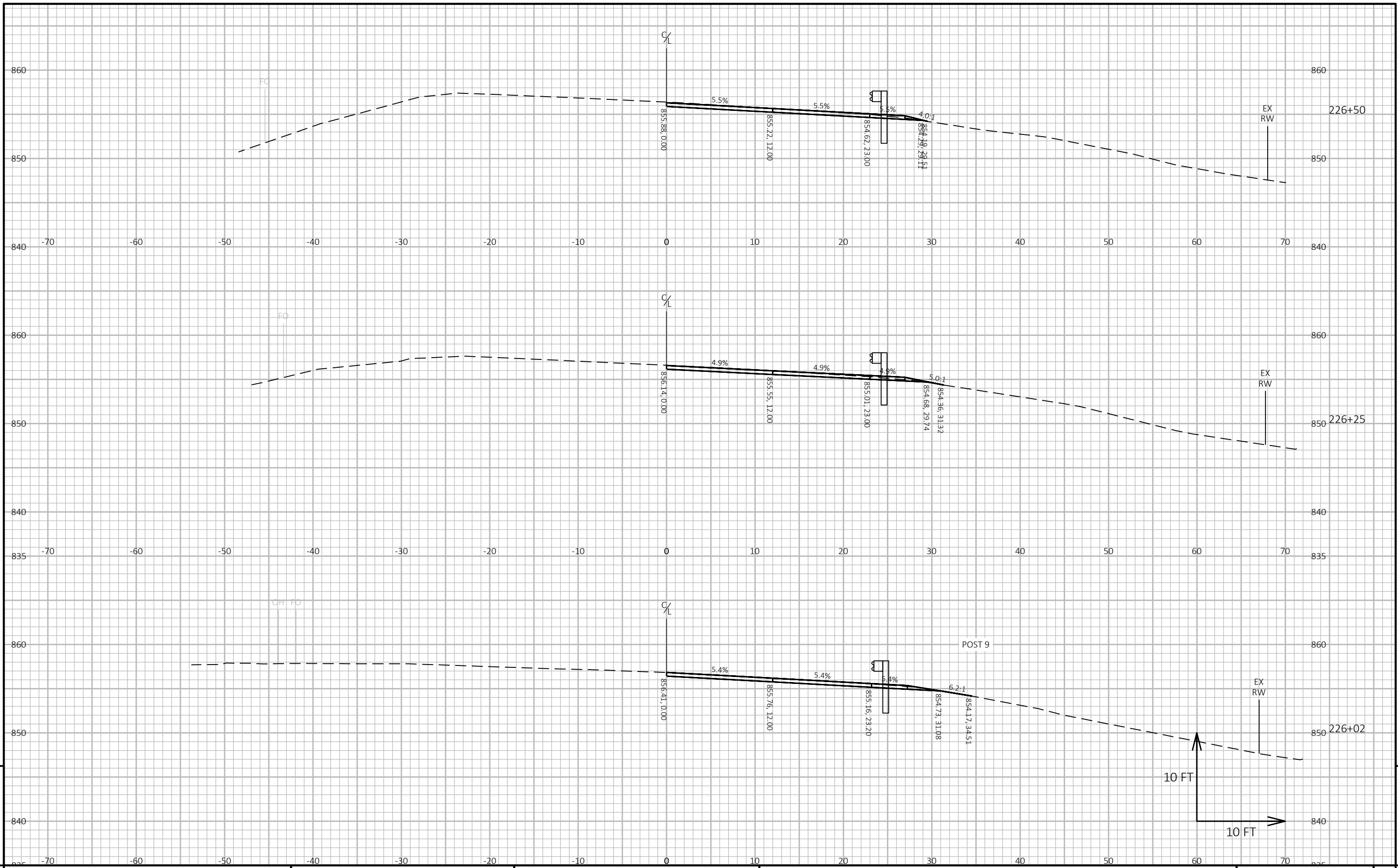
9

PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-160      SHEET E

FILE NAME: \\LAX31FP2.DOT.STATE.WI.US\N3PUBLIC\PD\50600007\090201-XS.DWG      PLOT DATE: 1/24/2024 8:47 AM      PLOT BY: KENDALL, EMILY ANN      PLOT NAME:      PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 18





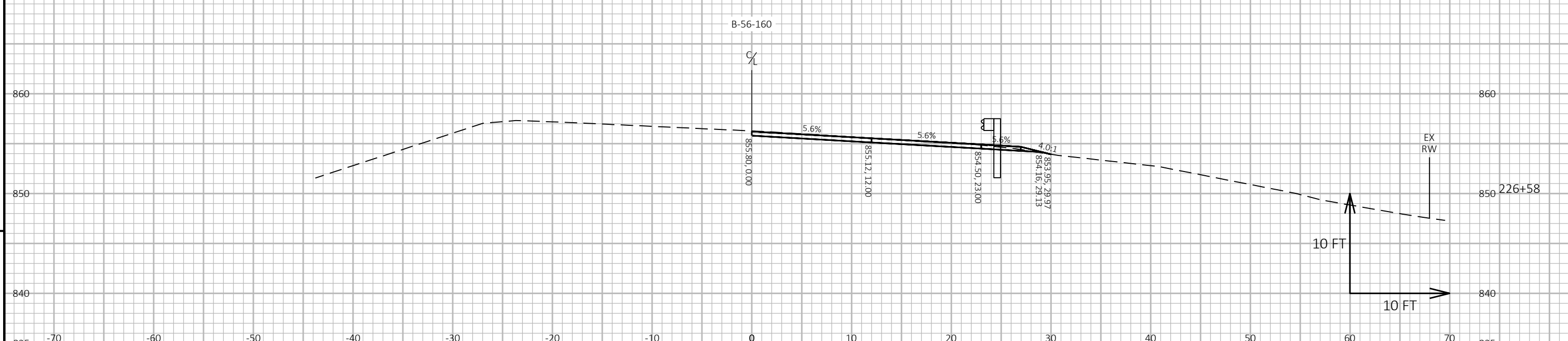
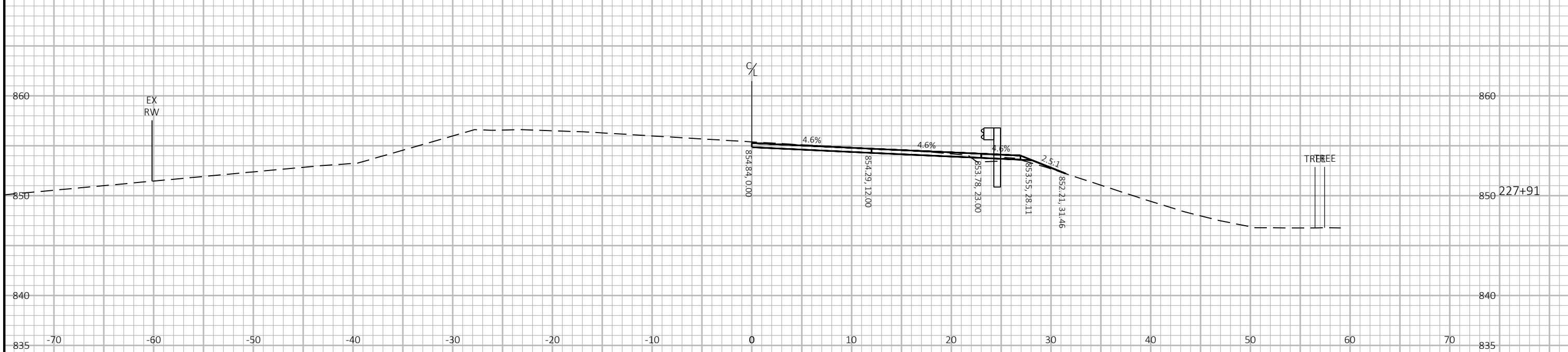
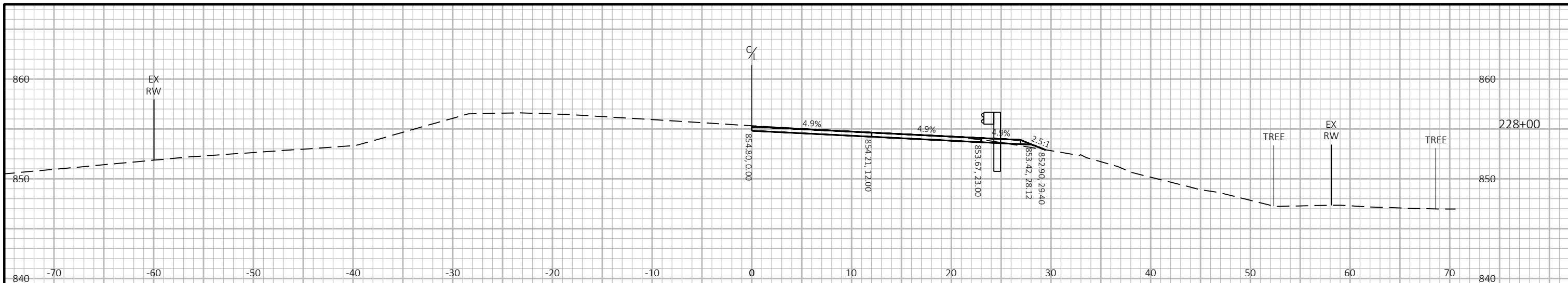
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9

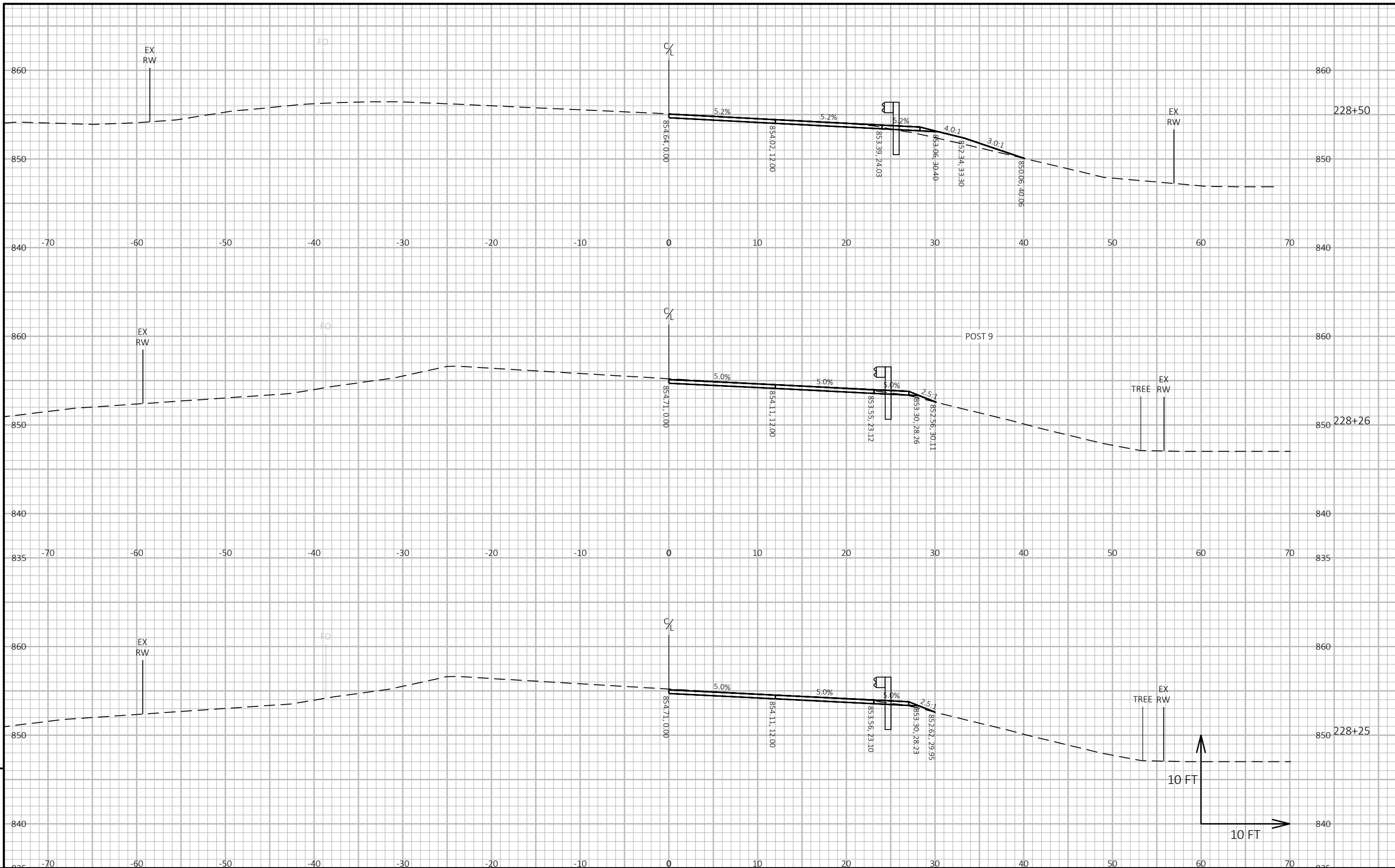
PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-160      SHEET      E

FILE NAME: \\LAX31FP2.DOT.STATE.WI.US\N3PUBLIC\PD\50600007\090201-XS.DWG      PLOT DATE: 1/24/2024 8:47 AM      PLOT BY: KENDALL, EMILY ANN      PLOT NAME:      PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 19



PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-160      SHEET: 9



PROJECT NO: 5060-00-77

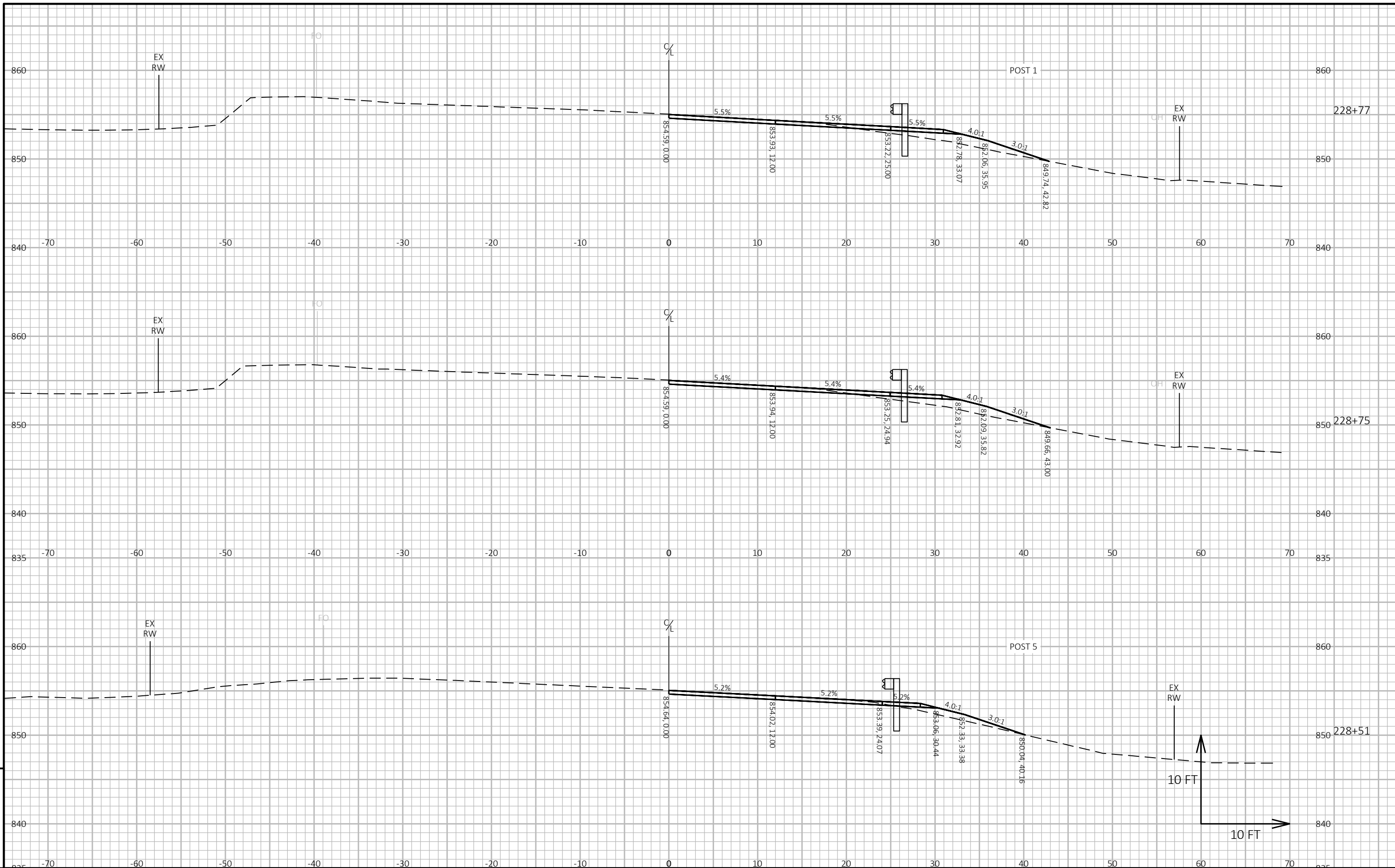
HWY: STH 23

COUNTY: SAUK

CROSS SECTIONS: B-56-160

SHEET

E



9

9

PROJECT NO: 5060-00-77

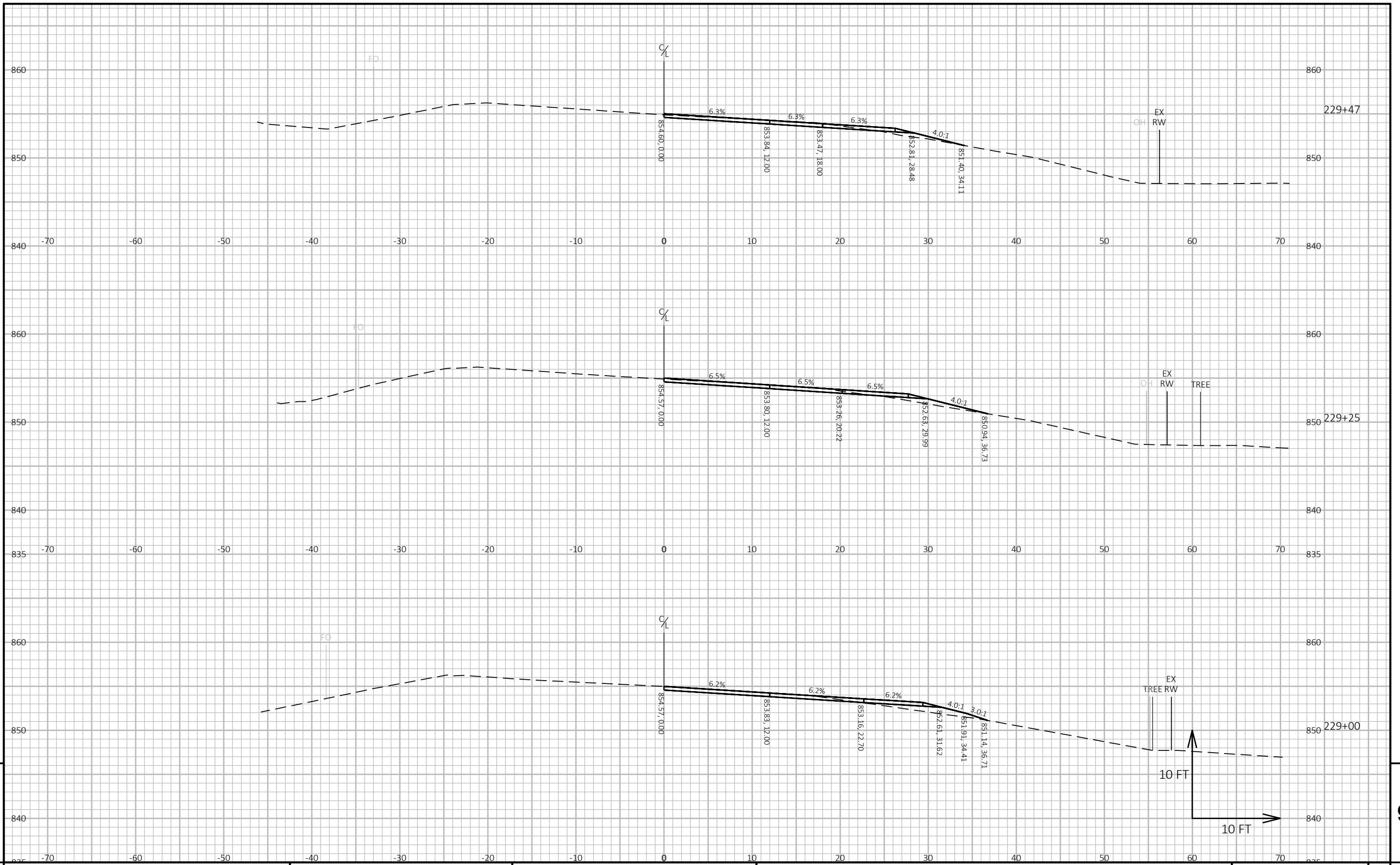
HWY: STH 23

COUNTY: SAUK

CROSS SECTIONS: B-56-160

SHEET

E



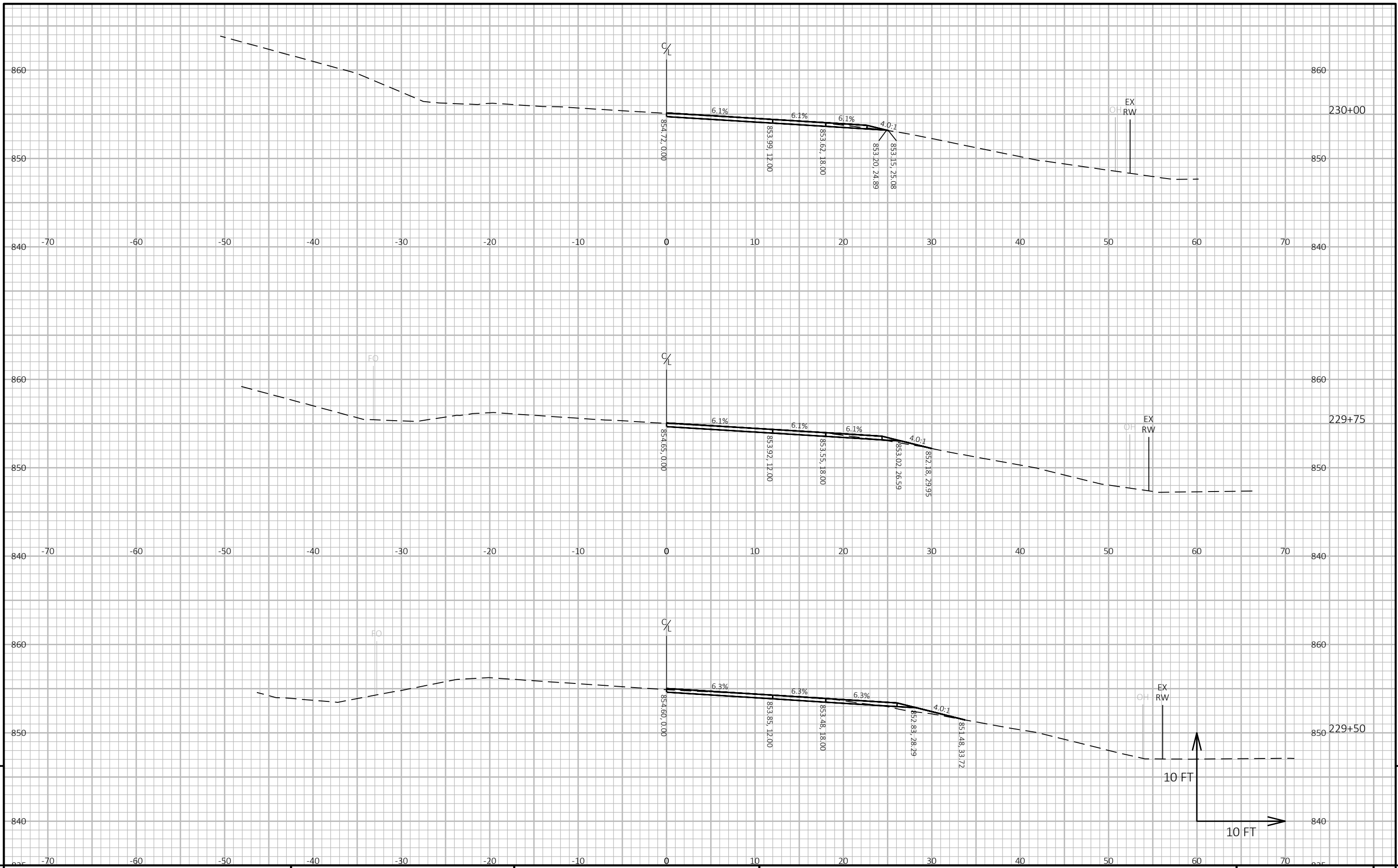
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PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-160      SHEET      E

FILE NAME: \\LAX31FP2.DOT.STATE.WI.US\N3PUBLIC\PD5\C3D\50600007\50600007\090201-XS.DWG      PLOT DATE: 1/24/2024 8:47 AM      PLOT BY: KENDALL, EMILY ANN      PLOT NAME:      PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 23



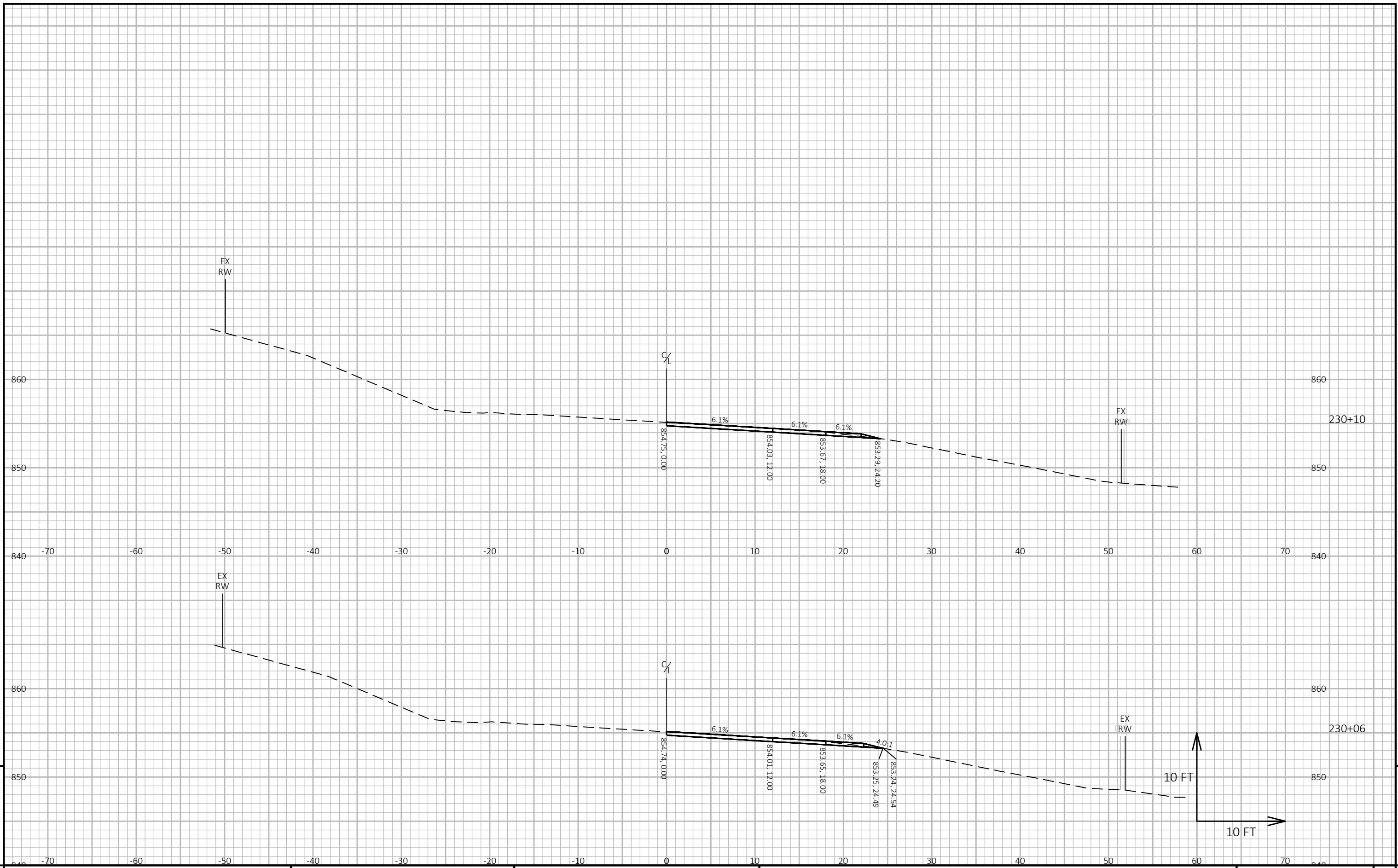
9

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PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-160      SHEET E

FILE NAME: \\LAX31FP2.DOT.STATE.WI.US\N3PUBLIC\PD\50600007\090201-XS.DWG      PLOT DATE: 1/24/2024 8:47 AM      PLOT BY: KENDALL, EMILY ANN      PLOT NAME:      PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 24



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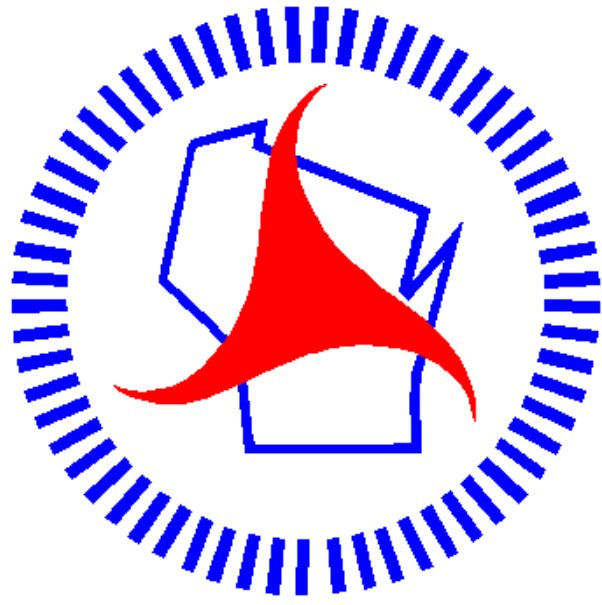
PROJECT NO: 5060-00-77      HWY: STH 23      COUNTY: SAUK      CROSS SECTIONS: B-56-160      SHEET E

FILE NAME: \\LAX31FP2.DOT.STATE.WI.US\N3PUBLIC\PDSC3D\50600007\090201-XS.DWG      PLOT DATE: 1/24/2024 8:47 AM      PLOT BY: KENDALL, EMILY ANN      PLOT NAME:      PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 25

# Notes





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