PROJECT ID: 5710-00-72
WITH: 5710-00-73
COUNTY: VERNON

LAX | APRIL 2026

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 = 324

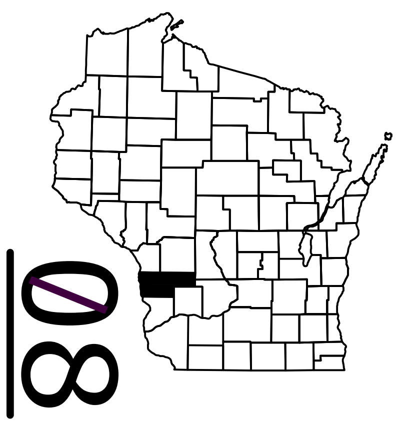
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

LA FARGE - HILLSBORO

KICKAPOO RIVER TO STH 33	KICKAPOO RIVER TO MAPLE ST
STH 82	STH 82
VERNON COUNTY	VERNON COUNTY
STATE PROJECT NUMBER 5710-00-72	STATE PROJECT NUMBER 5710-00-73

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5710-00-72		
5710-00-73		



N

DESIGN DESIGNATION 5710-00-02

A.A.D.T.	2027	=	930
A.A.D.T.	2047	=	930
D.H.V.		=	127
D.D.		=	60/40
T.		=	14.3%
DESIGN SPEED		=	55 MPH
ESALS		=	280,000

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 (300'EB')
EXISTING CULVERT
PROPOSED CULVERT (Box or Pipe)
COMBUSTIBLE FLUIDS (CAUTION)
MARSH AREA
WOODED OR SHRUB AREA

PROFILE
GRADE LINE
ORIGINAL GROUND
MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
GRADE ELEVATION (95.36)
CULVERT (Profile View)

UTILITIES
ELECTRIC — E —
FIBER OPTIC — FO —
GAS — G —
SANITARY SEWER — SAN —
STORM SEWER — SS —
TELEPHONE — T —
WATER — W —
UTILITY PEDESTAL
POWER POLE
TELEPHONE POLE
COMMUNICATIONS MANHOLE (TEL)

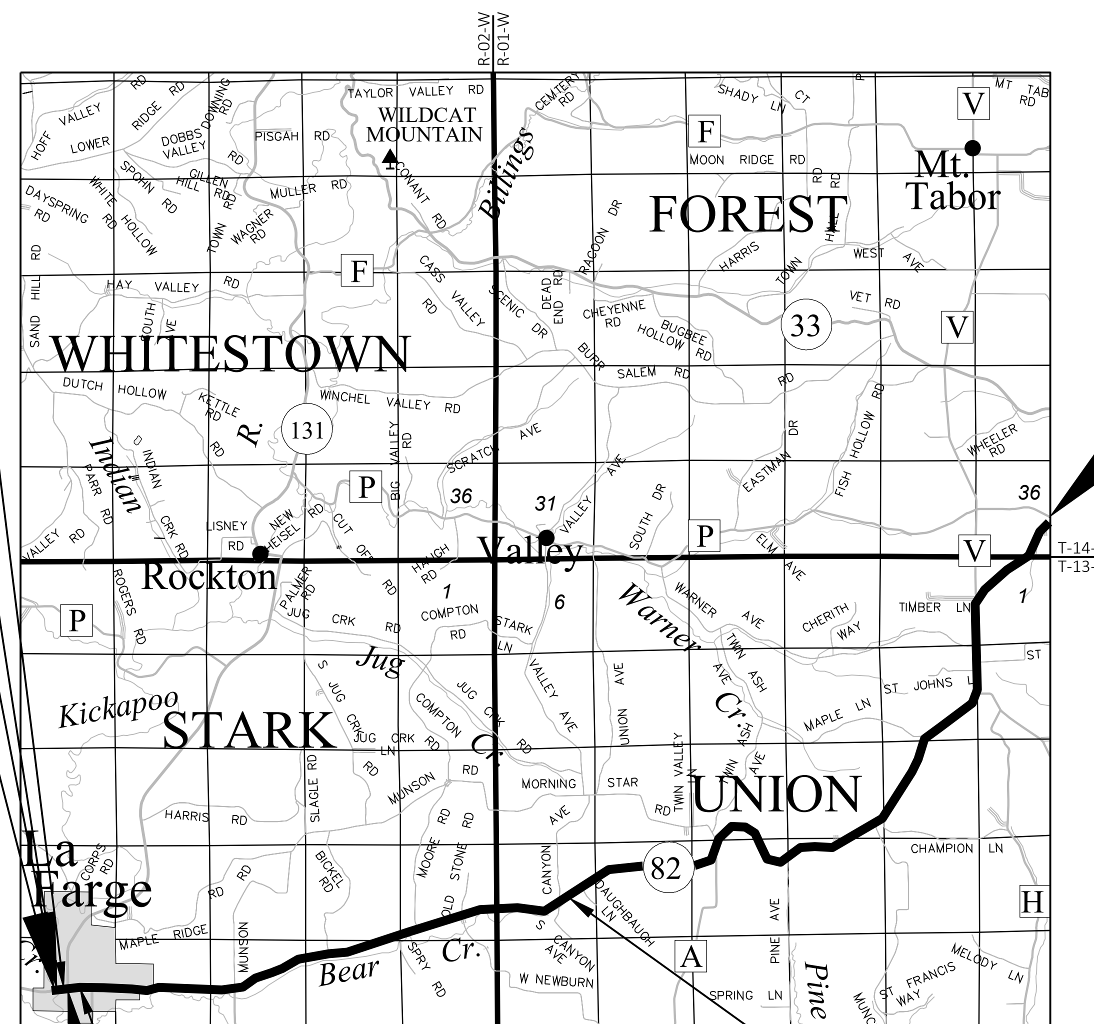
NET EXCEPTION TO CL LENGTH 5710-00-72
STA 82+96 - STA 103+86

STRUCTURE B-62-0051

BEGIN PROJECT 5710-00-73
STA 82+96
Y = 155,736.64
X = 767,181.75

BEGIN PROJECT 5710-00-72
STA 77+38.78
Y = 155,547.53
X = 766,658.32

END PROJECT 5710-00-72
STA 924+23



STRUCTURE C-62-327

END PROJECT 5710-00-73
STA 103+86

LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 16.039 MILES
5710-00-72 = 15.643 MILES
5710-00-73 = 0.396 MILES

STRUCTURE B-62-238

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), VERNON 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 18.

emcs
1600 Aspen Commons, Suite 230
Middleton, WI 53562
608.827.8810 Fax 608.833.3198

WISCONSIN
CORY T. INMAN
E-44346-6
MADISON, WI
PROFESSIONAL ENGINEER

10/17/2025 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC
Designer	EMCS, INC
Project Manager	JOHN BAINTER
Regional Examiner	SW REGION
Regional Supervisor	JOHN BAINTER

APPROVED FOR THE DEPARTMENT
DATE: 10/20/2025 (Signature)

E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\010101-TI.DWG PLOT DATE : 10/7/2025 4:27 PM PLOT BY : JORDYN BENN PLOT NAME :

ORDER OF SECTION 2 SHEETS

GENERAL NOTES

- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN..
- CONTRACTOR TO PROTECT GPS MONUMENTS WHICH ARE IDENTIFIED IN THE PLANS AS DH(####) GPS AND KEEP EQUIPMENT AT LEAST 10 FEET AWAY. ENSURE MONUMENTS ARE NOT DISTURBED OR MOVED DURING THE DURATION OF THE PROJECT. NOTIFY JACOB ROCKWEILER IMMEDIATELY IF MONUMENTS ARE DISTURBED, BUMPED OR MOVED DURING CONSTRUCTION OPERATIONS. JACOB ROCKWEILER, P.E., WISONSIN HEIGHT MODERNIZATION PROGRAM MANAGER WITH WISCONSIN DEPARTMENT OF TRANSPORTATION.
- PRIOR TO THE PLACEMENT OF MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED.
- CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.
- THE QUANTITY OF THE ITEMS FOR EROSION PROTECTION INCLUDES AN UNDISTRIBUTED AMOUNT FOR PROTECTION, CONTROL AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION. THE DISTRIBUTION AND LOCATION OF THESE MATERIALS ARE TO BE DETERMINED BY THE ENGINEER.
- DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED (SALVAGED), FERTILIZED, AND SEEDED OR EROSION MATTED AS DIRECTED BY THE ENGINEER.
- (SALVAGED) TOPSOIL HAS BEEN COMPUTED BY DIRECT MEASUREMENTS ON THE CROSS SECTIONS PLUS 5 FT BEYOND THE TOE OF SLOPE. SEEDING AND FERTILIZER HAS BEEN COMPUTED BY DIRECT MEASUREMENTS ON THE CROSS SECTIONS PLUS 10 FT.
- FERTILIZER SHALL NOT BE USED WITHIN 20' OF NAVIGABLE WATERWAYS OR WETLANDS.
- APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO MILLED PAVEMENT SURFACES AND 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.
- A CONVERSION FACTOR OF 2.10 TONS/CY IS USED TO ESTIMATE QUANTITIES FOR BASE AGGREGATE DENSE 3/4-INCH.
- A CONVERSION FACTOR OF 2.00 TONS/CY IS USED TO ESTIMATE QUANTITIES FOR BASE AGGREGATE DENSE 1 1/4-INCH.
- A CONVERSION FACTOR OF 112 LB/SY/IN. IS USED TO ESTIMATE QUANTITIES FOR HMA PAVEMENT.
- THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.
- NO TREE REMOVAL UNLESS DIRECTED BY THE ENGINEER.

UTILITIES

COMMUNICATIONS

HILLSBORO TELEPHONE COMPANY
CHAD SCHMIDT
121 MILL ST
PO BOX 427
HILLSBORO, WI 54634
PHONE: (608) 489-4415
EMAIL: CSCHMIDT@HILLSBOROTEL.COM

MEDIACOM WISCONSIN LLC
CRAIG EGGERT
1240 HIGHWAY 52 SOUTH
CHATFIELD, MN 55923
PHONE: (563) 419-5160
EMAIL: CEGGERT@MEDIACOMCC.COM

VERNON COMMUNICATIONS COOPERATIVE
SCOTT FREDERICK
103 N MAIN ST
WESTBY, WI 54667
PHONE: (608) 634-3136
EMAIL: SFREDERICK@VERNONCOM.COOP

ELECTRICITY

DAIRYLAND POWER COOPERATIVE
MICHAEL LYDON
3200 EAST AVE S
P.O. BOX 817
LA CROSSE, WI 54602
PHONE: (608) 787-1381
EMAIL: MICHAEL.LYDON@DAIRYLANDPOWER.COM

VERNON ELECTRIC COOPERATIVE
MARK SEE
110 SAUGSTAD ROAD
WESTBY, WI 54667
PHONE: (608) 634-3121
EMAIL: MSEE@VERNONELECTRIC.ORG

ELECTRICITY/SEWER/WATER

LA FARGE MUNICIPAL UTILITIES
WAYNE HAUGRUD
105 W MAIN ST
P.O. BOX 39
LA FARGE, WI 54639
PHONE: (608) 606-3872
EMAIL: WAYNELAF@MWT.NET

GAS

MIDWEST NATURAL GAS
NICHOLAS MAIER
3600 STATE HIGHWAY 157
LA CROSSE, WI 54602
PHONE: (608) 781-1011
EMAIL: NICKM@MIDWESTNATURALGAS.COM

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

OTHER AGENCIES

WDNR LIAISON

DNR LA CROSSE SERVICE CENTER
KAREN KALVELAGE
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
PHONE: (608)785-9115
EMAIL: KAREN.KALVELAGE@WISCONSIN.GOV

WISDOT DESIGN

PROJECT MANAGER
WISDOT SW REGION
JOHN BAINTER
3550 MORMON COULEE RD
LA CROSSE, WI 54601
PHONE: (608) 785-9279
EMAIL: JOHN.BAINTER@DOT.WI.GOV

WISDOT SURVEYING AND MAPPING

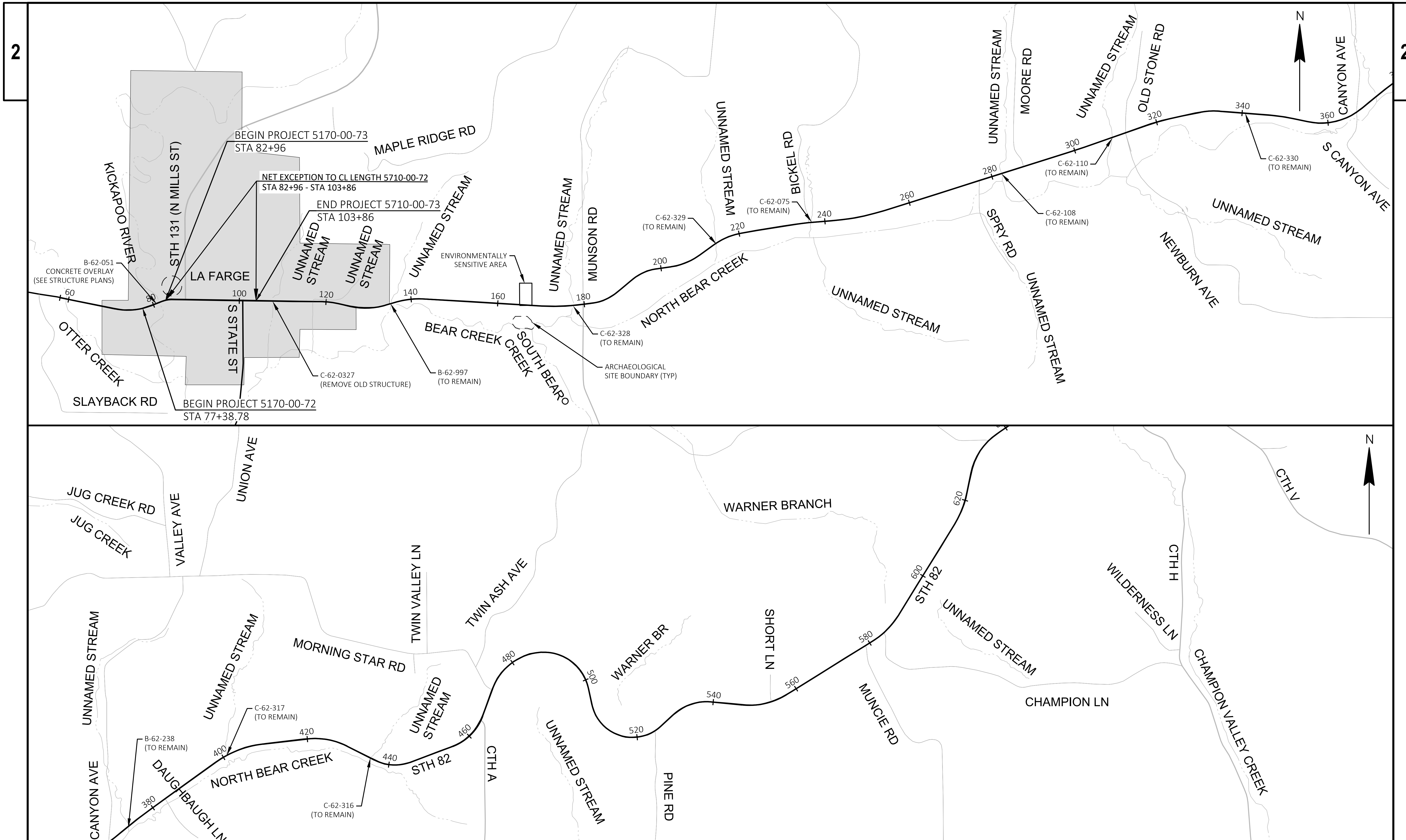
WISCONSIN HEIGHT MODERNIZATION
PROGRAM MANAGER
JACOB ROCKWEILER
3502 KINGSMAN BLVD
MADISON, WI 53704
PHONE: (608)516-6362
EMAIL: JACOB.ROCKWEILER@DOT.WI.GOV

CONSULTANT DESIGN

EMCS, INC.
CORY INMAN
1600 ASPEN COMMONS, SUITE 230
MIDDLETON, WI 53562
PHONE: (608)665-9819
EMAIL: CINMAN@EMCSINC.COM

STANDARD ABBREVIATIONS

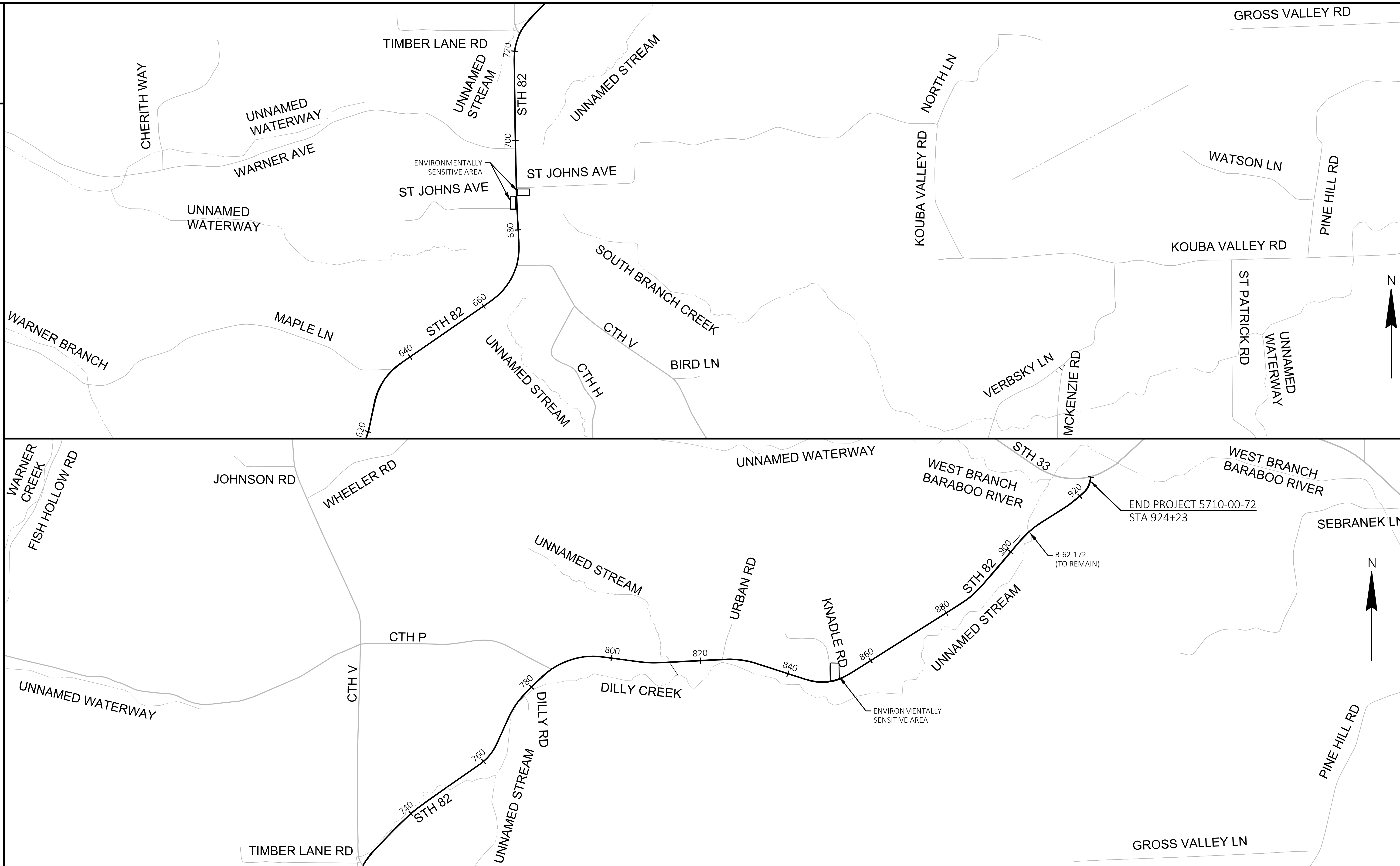
AGG	AGGREGATE	MGAL	1000 GALLONS
<	ANGLE	N	NORTH
AE,AEW	APRON ENDWALL	NB	NORTHBOUND
ASPH.	ASPHALTIC	NOR.	NORMAL
A.D.T.	AVERAGE DAILY TRAFFIC	PAV'T	PAVEMENT
A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC	P.L.E.	PERMANENT LIMITED EASEMENT
C/L	CENTER LINE	P.C.	POINT OF CURVATURE
Δ	CENTRAL ANGLE OR DELTA	P.I.	POINT OF INTERSECTION
CMCP	CORRUGATED METAL CULVERT PIPE	P.T.	POINT OF TANGENCY
CMP	CORRUGATED METAL PIPE	P.E.	PRIVATE ENTRANCE
CO.	COUNTY	R	RADIUS OR RANGE
CTH	COUNTY TRUNK HIGHWAY	R/L	REFERENCE LINE
CR.	CREEK	R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE
CY	CUBIC YARD	REQ'D	REQUIRED
C&G	CURB AND GUTTER	RT	RIGHT
D	DEGREE OF CURVE	R/W	RIGHT OF WAY
D.H.V.	DESIGN HOURLY VOLUME	RD.	ROAD
D.D.	DIRECTIONAL DISTRIBUTION	SHLD.	SHOULDER(S)
EA	EACH	S	SOUTH
E	EAST	SB	SOUTHBOUND
EB	EASTBOUND	S.F.	SQUARE FOOT (FEET)
ELEC.	ELECTRIC(AL), ELEC. CABLE	SDD	STANDARD DETAIL DRAWING(S)
EL., ELEV.	ELEVATION	STH	STATE TRUNK HIGHWAY
ESALS	EQUIVALENT SINGLE AXLE LOADS	STA.	STATION
EXC.	EXCAVATION	S.E.	SUPERELEVATION
EXIST	EXISTING	S.I.	SLOPE INTERCEPT
F.E.	FIELD ENTRANCE	T.	PERCENT TRUCKS
CWT	HUNDRED WEIGHT	TEL.	TELEPHONE
IH	INTERSTATE HIGHWAY	T.L.E.	TEMPORARY LIMITED EASEMENT
LT	LEFT	TYP	TYPICAL
L.	LENGTH OF CURVE	VAR	VARIABLE
L.F.	LINEAR FOOT(FEET)	W	WEST
LC.	LONG CHORD	WB	WESTBOUND
LS	LUMP SUM		



PROJECT NO: 5710-00-72/73	HWY: STH 82	COUNTY: VERNON	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201-po
PLOT DATE : 10/7/2025 4:30 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 42

2



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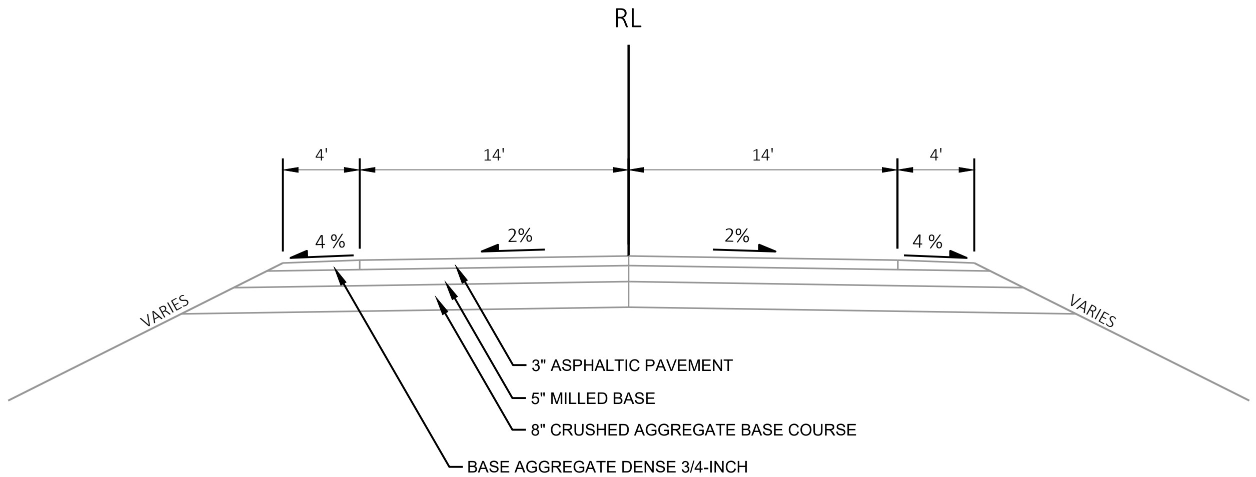
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	PROJECT OVERVIEW	SHEET 4	E

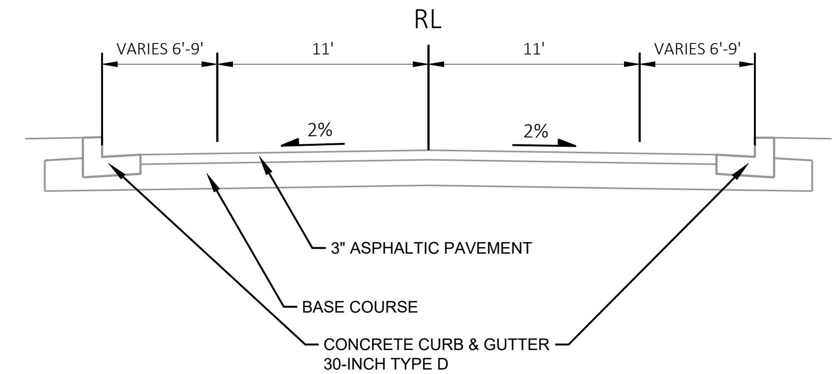
FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020202-po

PLOT DATE : 10/7/2025 4:30 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:2000 FT

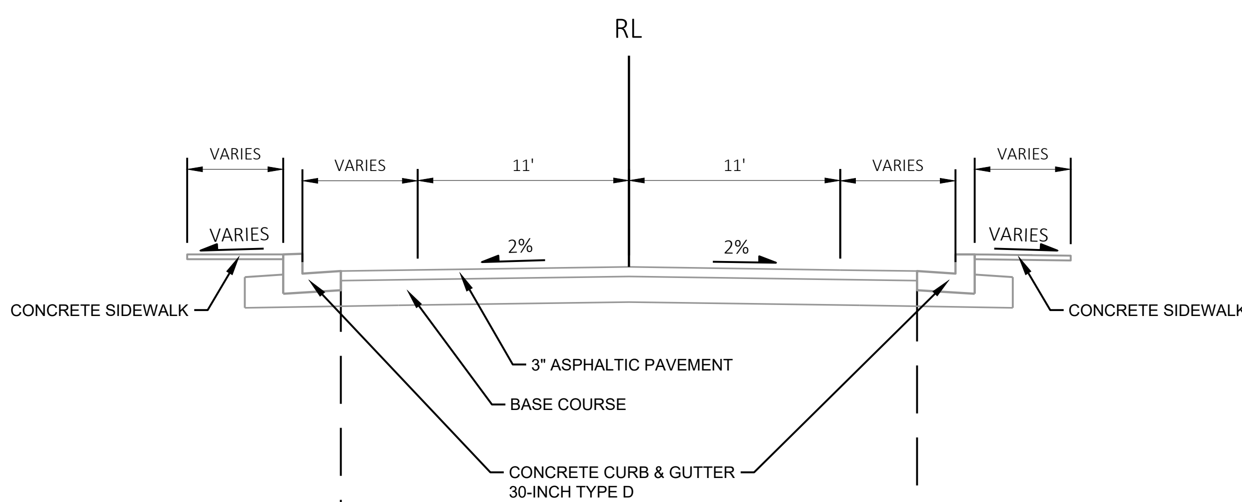
WISDOT/CADDS SHEET 42



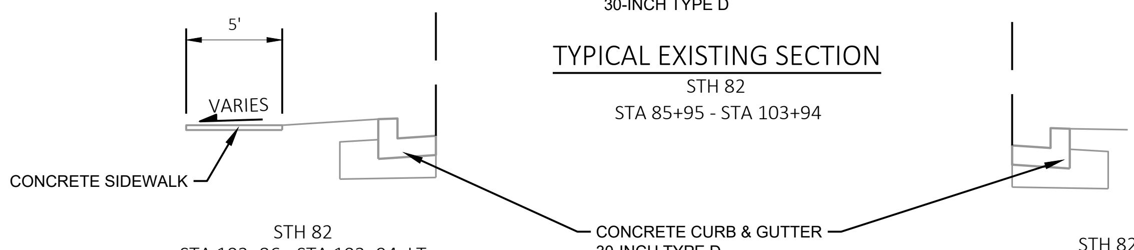
TYPICAL EXISTING SECTION
STH 82
STA 77+38.78 - STA 79+94



TYPICAL EXISTING SECTION
STH 82
STA 82+18 - STA 85+95

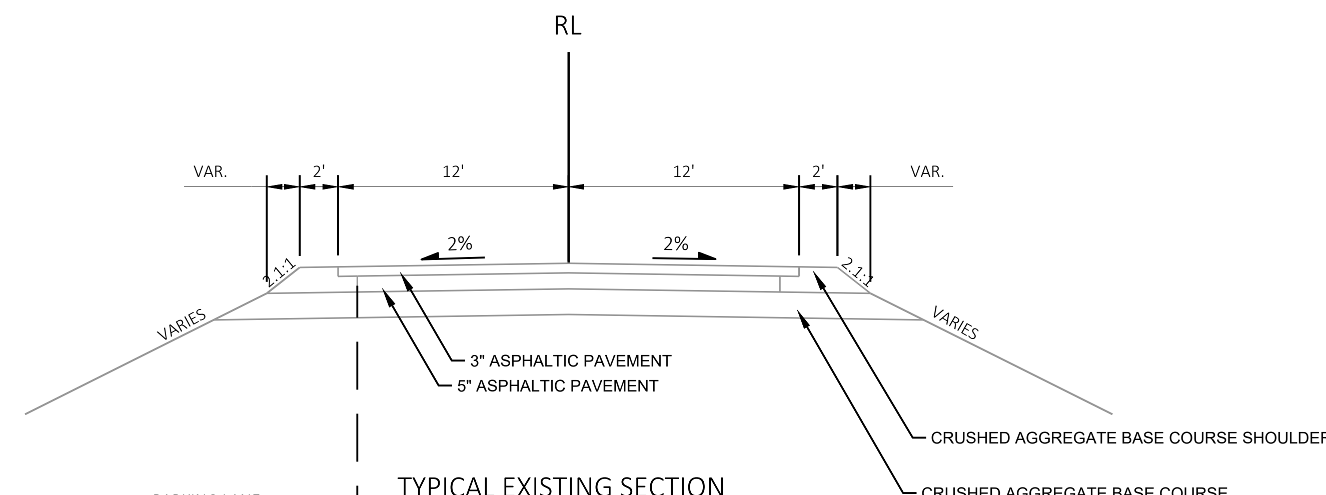


TYPICAL EXISTING SECTION
STH 82
STA 85+95 - STA 103+94

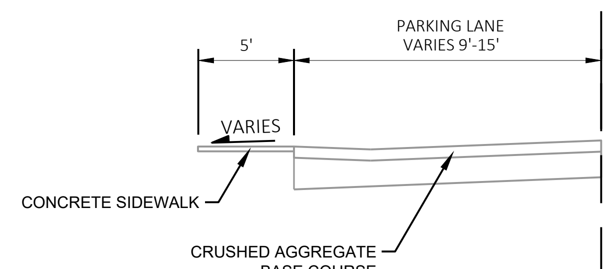


STH 82
STA 103+86 - STA 103+94, LT

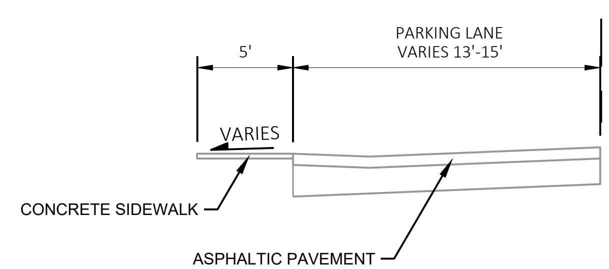
STH 82
STA 95+95 - STA 86+68, RT
STA 103+86 - STA 103+94, RT



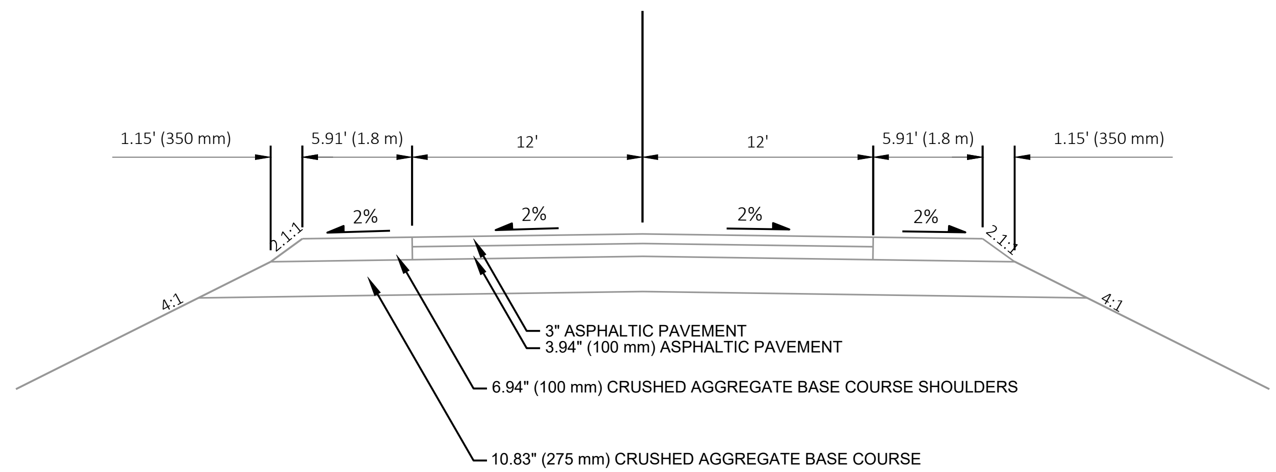
TYPICAL EXISTING SECTION
STH 82
STA 103+94 - STA 899+76
STA 913+54 - STA 924+23



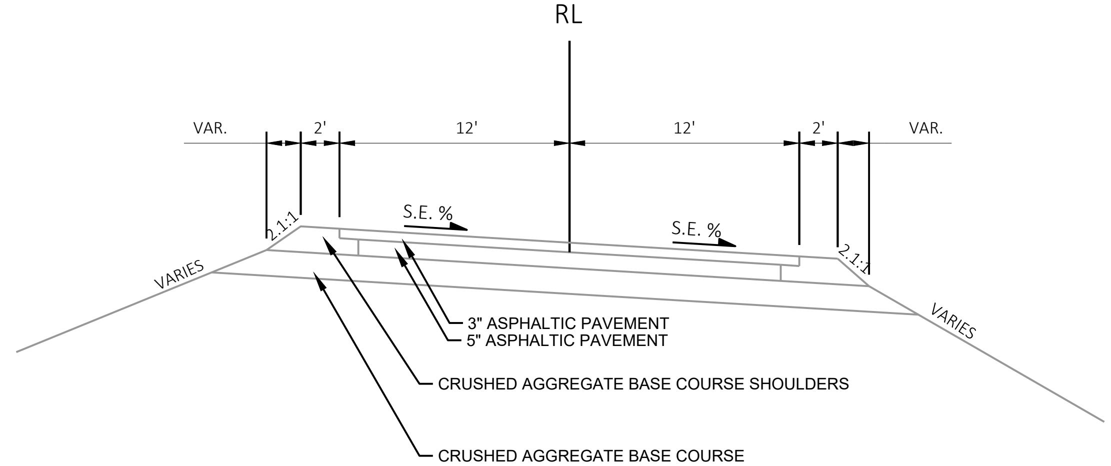
STH 82
STA. 103+94 TO STA. 107+40
STA 110+58 TO STA 113+80



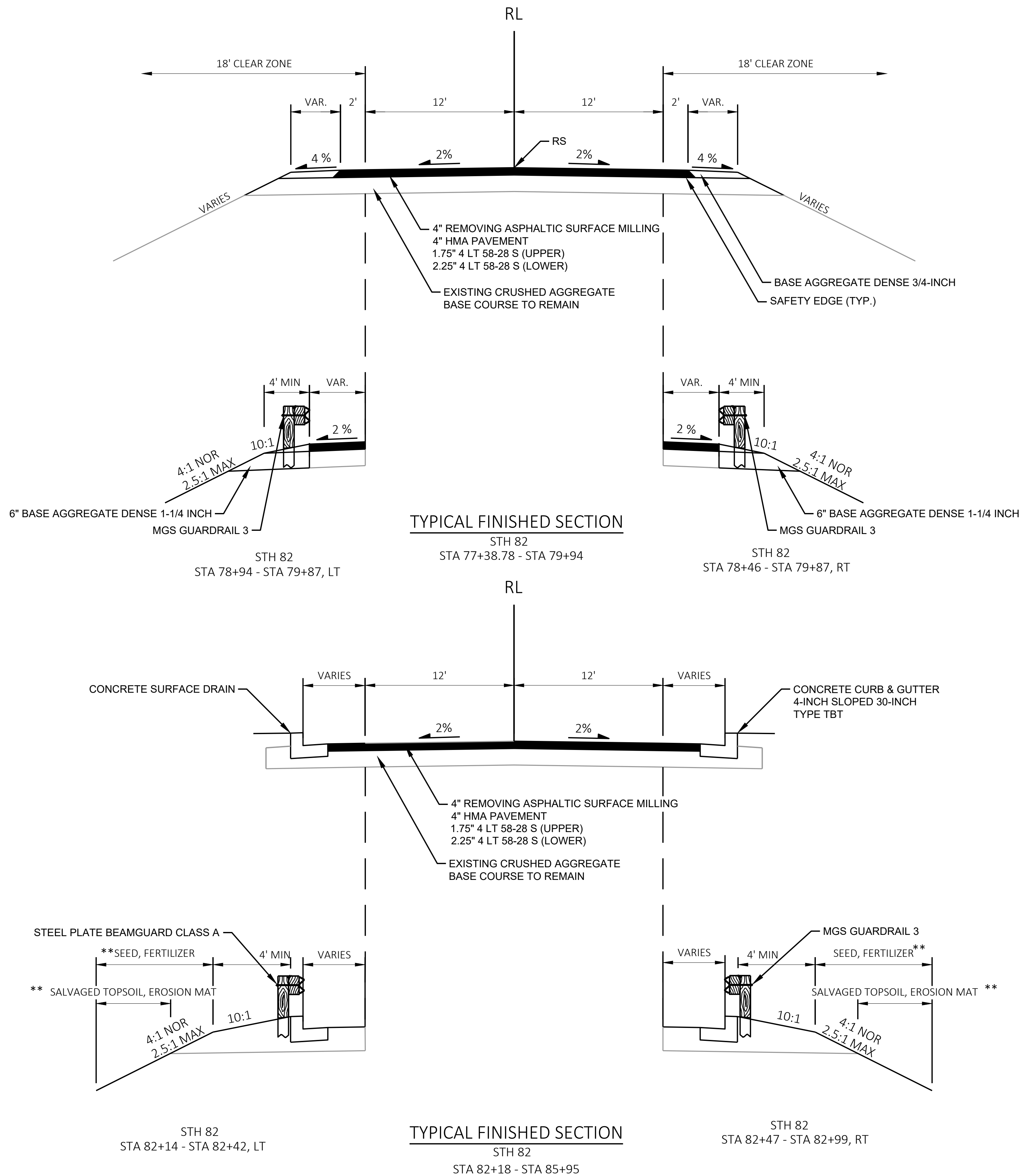
STH 82
STA 107+40 TO STA 110+58



TYPICAL EXISTING SECTION
STH 82
STA 899+76 - STA 913+54



TYPICAL EXISTING SECTION
STH 82
SUPER ELEVATED SECTION



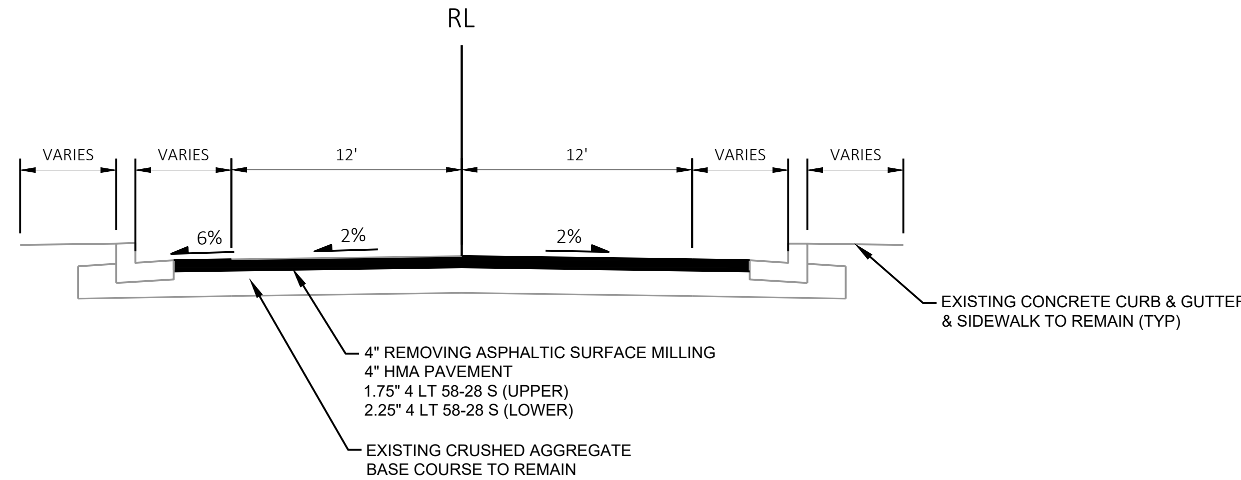
LEGEND

RS=ASPHALTIC RUMBLE STRIPS, CENTERLINE

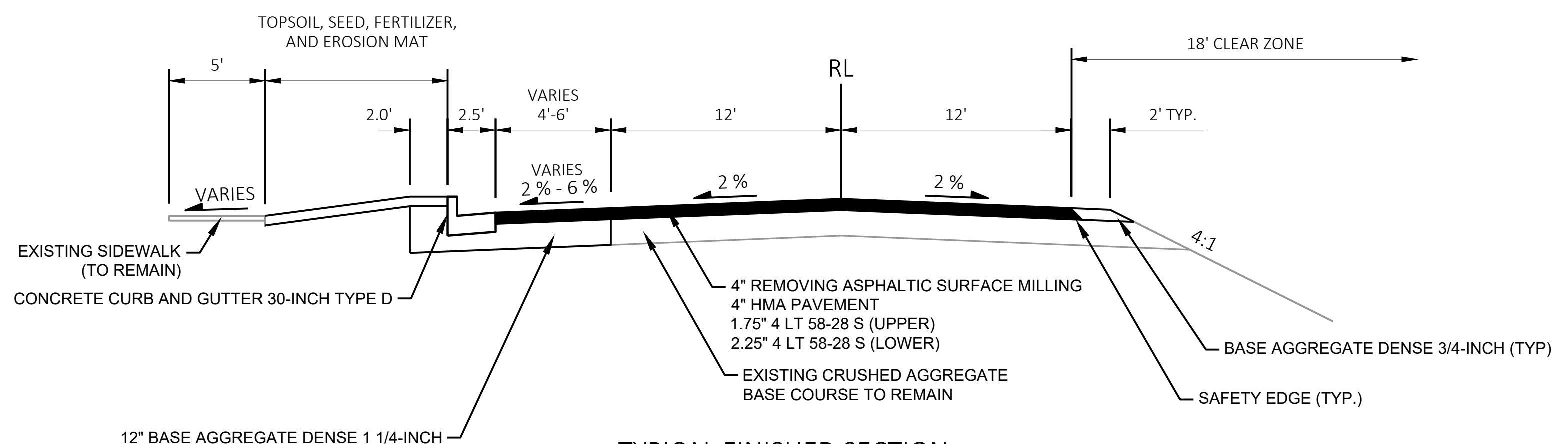
**=PAID AS BARRIER SYSTEM GRADING SHAPING FINISHING

PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TYPICAL SECTIONS	SHEET 7	E

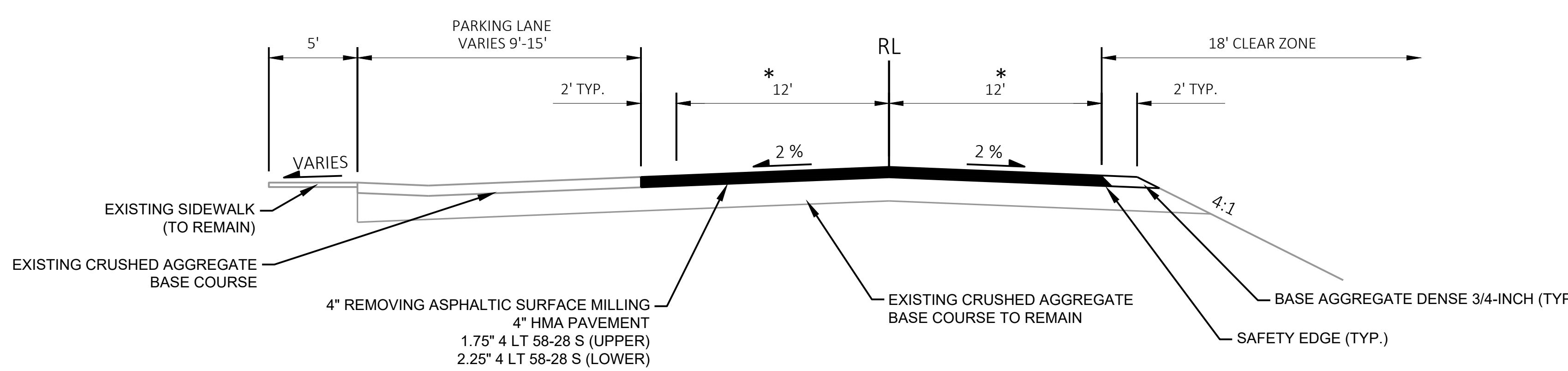
2



TYPICAL FINISHED SECTION
STH 82
STA 85+95 - STA 103+86



TYPICAL FINISHED SECTION
STH 82
STA 103+86 - STA 107+90
STA 111+23 - STA 113+80



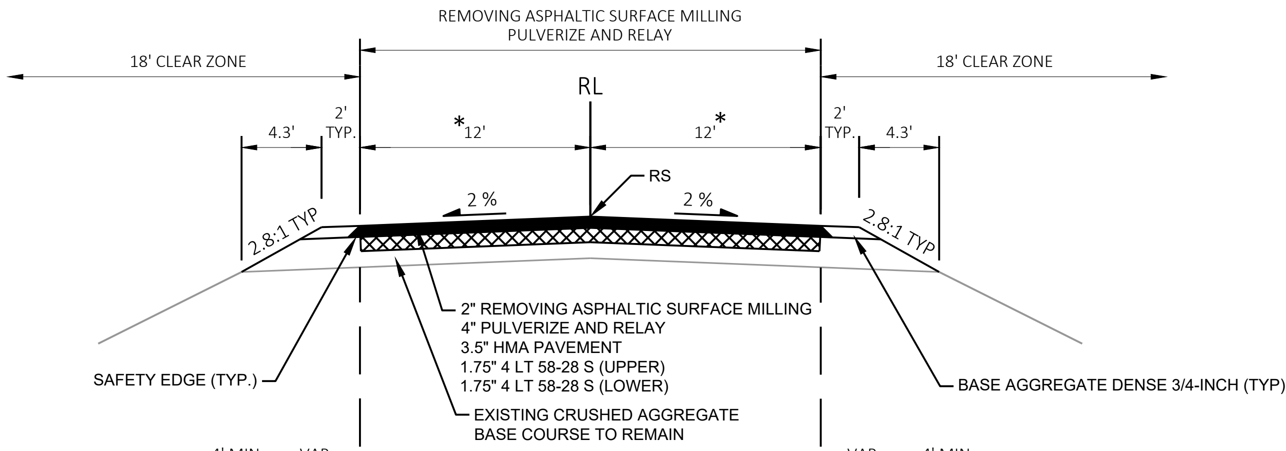
TYPICAL FINISHED SECTION
STH 82
STA. 107+90 TO STA. 111+23

LEGEND

RS=ASPHALTIC RUMBLE STRIPS,
CENTERLINE

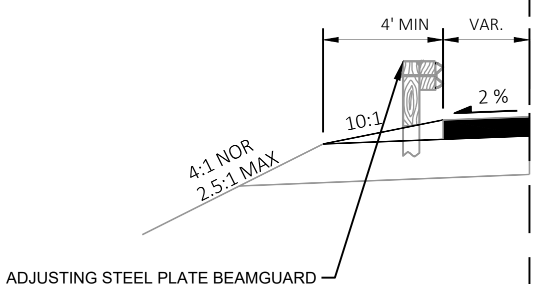
*=MATCH EXISTING WHERE
PAVEMENT IS WIDER THAN 12'

PROJECT NO: 5710-00-72/73	HWY: STH 82	COUNTY: VERNON	TYPICAL SECTIONS	SHEET 8	E

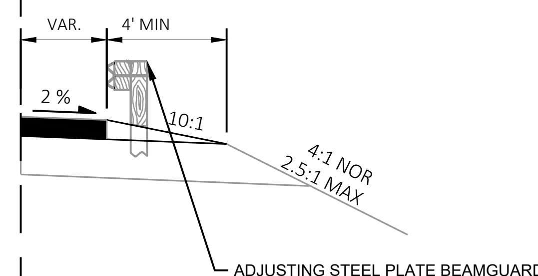


TYPICAL FINISHED SECTION

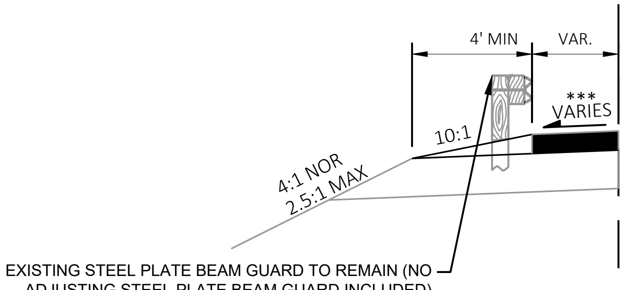
STH 82
STA. 113+80 TO STA. 259+65
STA. 259+88 TO STA. 263+07
STA. 263+38 TO STA. 924+23



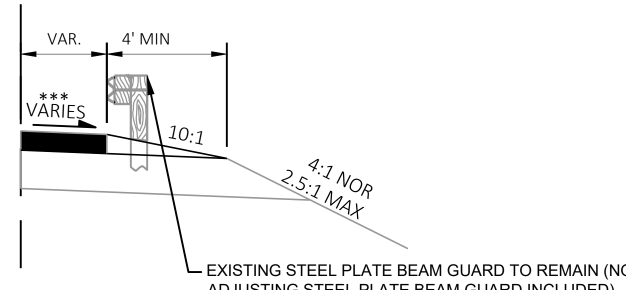
STH 82
BEAMGUARD TO REMAIN
STA 236+51 - STA 238+24, LT
STA 450+89 - STA 456+32, LT



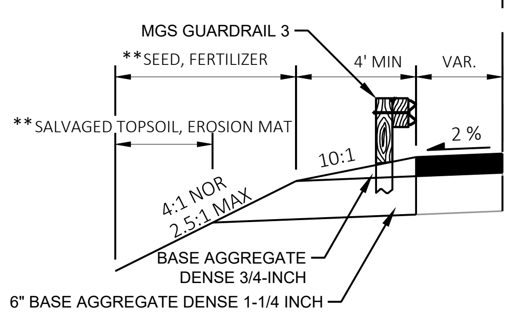
STH 82
BEAMGUARD TO REMAIN
STA 236+56 - STA 238+24, RT
STA 442+69 - STA 447+43, RT



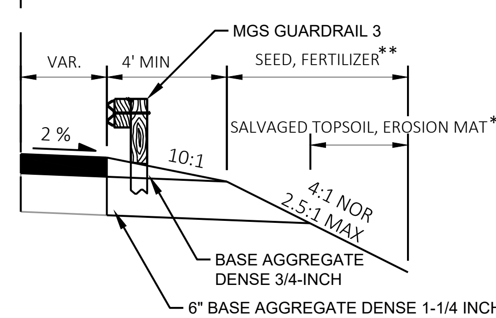
STH 82
BEAMGUARD TO REMAIN
STA 309+14 - STA 310+44, LT



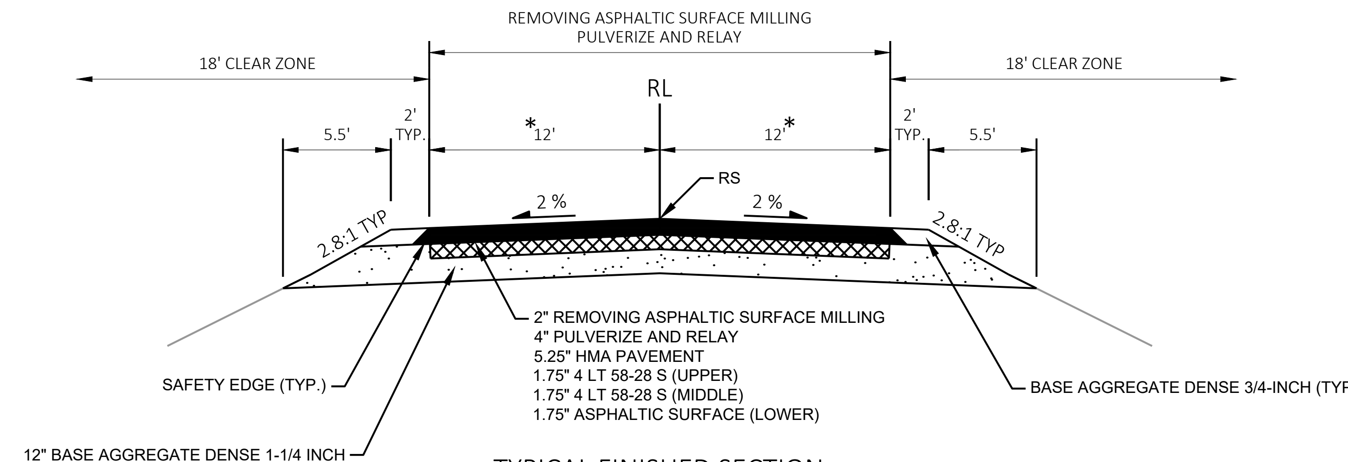
STH 82
BEAMGUARD TO REMAIN
STA 308+94 - STA 310+23, RT



STH 82
PROPOSED BEAMGUARD
STA 176+24 - STA 179+18, LT
STA 213+75 - STA 215+46, LT

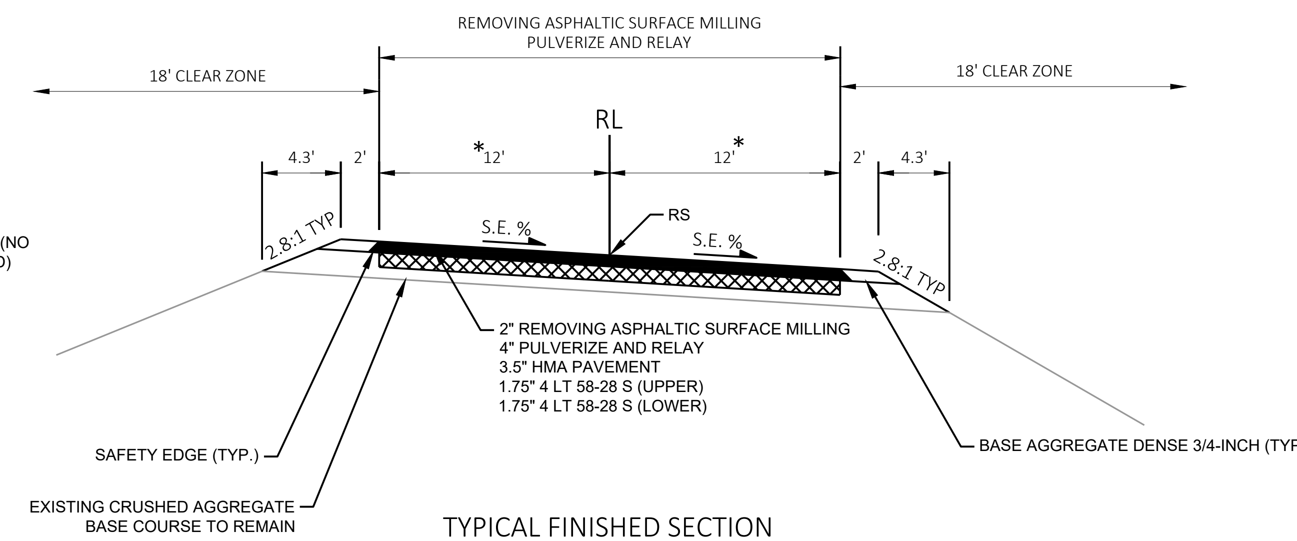


STH 82
PROPOSED BEAMGUARD
STA 175+59 - STA 178+40, RT



TYPICAL FINISHED SECTION

STH 82
STA. 259+65 TO STA. 259+88 (CULVERT REPLACEMENT)
STA. 263+07 TO STA. 263+38 (CULVERT REPLACEMENT)



TYPICAL FINISHED SECTION

STH 82
SUPER ELEVATION SECTIONS

LEGEND

RS=ASPHALTIC RUMBLE STRIPS, CENTERLINE

*=MATCH EXISTING WHERE PAVEMENT IS WIDER THAN 12'

**=PAID AS BARRIER SYSTEM GRADING SHAPING FINISHING

***=ADJUST PAVED SHOULDER TO MATCH HEIGHT REQUIREMENTS FROM PAVED SHOULDER TO TOP OF RAIL BASED ON EXISTING BEAM GUARD HEIGHT

2

CORE #	APPROX. STATION	OFFSET	ASPHALTIC PAVEMENT THICKNESS (IN)
1	85+78	15' RT	3.25
2	104+26	6' RT	3
3	135+94	9' RT	4
4	162+68	6' LT	4.5
5	187+68	3' RT	3
6	214+61	12' RT	6
7	239+42	6' RT	3.5
8	265+82	9' LT	3.5
9	286+94	3' LT	4
10	313+87	6' RT	4.25
11	340+80	12' RT	2.75
12	364+03	9' RT	3.5
13	386+21	3' RT	2.5
14	412+61	6' LT	3
15	437+95	3' RT	3.25
16	456+43	12' RT	3.5
17	482+30	6' RT	2.75
18	508+18	12' RT	3
19	535+63	9' RT	3.75
20	564+14	6' LT	4
21	591+60	6' RT	3
22	615+36	3' RT	4.75
23	641+23	12' RT	3
24	667+63	6' LT	2.75
25	693+50	5' RT	3.5
26	724+13	9' RT	3.25
27	750+00	9' LT	2.5
28	776+40	12' RT	4.75
29	801+21	6' LT	2.5
30	828+14	3' RT	3.5
31	854+54	9' RT	3.25
32	888+34	6' LT	4
33	908+93	6' RT	3.25

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STH 82 SUPERELEVATION TABLE

TRANSITION EVENT POINTS		LEFT OF CROWNLINE			RIGHT OF CROWNLINE		
Station	Description	Left Gravel Shoulder	Left Paved Shoulder	Left Outside Lane	Right Outside Lane	Right Paved Shoulder	Right Gravel Shoulder
77+38.78'	Begin Project		-5.70%	-5.70%	5.70%	5.70%	-2.30%
78+00.00'	STA 78+00		-5.32%	-5.32%	5.20%	5.20%	-2.80%
78+36.04'	Begin Shoulder Widening Lt	-10.00%	-5.10%	-5.10%	3.80%	3.80%	-4.20%
79+18.00'	End Curve	-10.00%	-2.00%	-2.00%	0.50%	0.50%	-10.00%
79+44.78'	EAT Post 9 LT	-10.00%	-2.00%	-2.00%	-0.50%	-0.50%	-10.00%
79+82.91'	B-62-0051 Parapet	-10.00%	-2.00%	-2.00%	-2.00%	-2.00%	-10.00%
79+93.62'	B-62-0051	-10.00%	-2.00%	-2.00%	-2.00%	-2.00%	-10.00%
117+28.12'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
117+28.12'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
117+79.15'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
118+30.17'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
118+81.19'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
119+04.15'	Begin Full Super		4.90%	4.90%	-4.90%	-4.90%	
123+00.04'	End Full Super		4.90%	4.90%	-4.90%	-4.90%	
123+22.96'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
123+73.98'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
123+83.82'	End Normal Crown Rt		1.61%	1.61%	-2.00%	-4.00%	
124+25.00'	Level Crown Lt		0.00%	0.00%	-0.39%	-0.77%	
124+34.84'	Level Crown Rt		-0.78%	-0.39%	0.00%	0.00%	
124+76.02'	Begin Normal Crown Lt		-4.00%	-2.00%	1.61%	1.61%	
124+85.86'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
125+36.88'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
125+74.21'	Begin Full Super		-5.40%	-5.40%	5.40%	5.40%	
133+36.04'	End Full Super		-5.40%	-5.40%	5.40%	5.40%	
133+71.82'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
134+22.84'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
134+73.86'	Level Crown Rt		-4.00%	-2.00%	0.00%	0.00%	
134+75.94'	End Normal Shoulder		-4.00%	-2.00%	-0.08%	-0.16%	
134+75.94'	End Normal Crown		-4.00%	-2.00%	-0.08%	-0.16%	
135+24.88'	Begin Normal Crown Rt		-0.33%	-0.16%	-2.00%	-4.00%	
135+29.28'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
135+82.61'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
136+35.94'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
136+73.28'	Begin Full Super		5.40%	5.40%	-5.40%	-5.40%	
142+65.11'	End Full Super		5.40%	5.40%	-5.40%	-5.40%	
143+02.44'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
143+55.77'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
144+09.11'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
144+62.44'	Begin Normal Crown		-2.00%	-2.00%	-2.00%	-4.00%	
144+62.44'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
168+94.00'	End Normal Crown		-2.00%	-2.00%	-2.00%	-2.00%	
169+47.00'	Level Crown		-2.00%	-2.00%	0.00%	0.00%	
170+00.00'	Reverse Crown		-2.00%	-2.00%	2.00%	2.00%	
170+53.63'	Begin Full Super		-4.00%	-4.00%	3.30%	3.30%	
175+04.85'	Begin Paved Shld Transition Rt		-4.00%	-4.00%	3.30%	3.30%	
175+59.44'	EAT Post 1 Rt		-4.00%	-4.00%	3.30%	-0.70%	
175+91.41'	Begin Paved Shld Transition Lt		-4.00%	-4.00%	3.30%	-3.11%	
176+03.20'	Begin 4% Paved Shld Rt		-4.89%	-4.00%	3.30%	-4.00%	
176+23.50'	EAT Post 1 Lt	-10.00%	-6.44%	-4.00%	3.30%	-4.00%	-10.00%
176+73.50'	EAT Post 9 Lt	-10.00%	-10.00%	-4.00%	3.30%	-4.00%	-10.00%
177+00.00'	End Paved Shld Transition Lt	-10.00%	-10.00%	-4.00%	2.31%	-4.83%	-10.00%
177+17.59'	Match Existing Wing Lt	-10.00%	-10.00%	-4.00%	1.65%	-5.38%	-10.00%
177+21.52'	Match Exist Wing Rt	-10.00%	-10.00%	-4.00%	1.50%	-5.50%	-10.00%
177+39.54'	Match Exist Wing Rt(2)	-10.00%	-10.00%	-4.00%	1.50%	-5.50%	-10.00%
177+42.25'	Match Exist Wing Lt	-10.00%	-10.00%	-4.00%	1.50%	-5.50%	-10.00%
178+04.28'	End Full Super		-5.32%	-4.00%	1.50%	-5.50%	
178+30.78'	Reverse Crown		-3.00%	-3.00%	1.50%	-5.50%	
179+10.28'	Level Crown		-3.00%	-3.00%	0.00%	-4.00%	
179+63.28'	Begin Normal Crown		-3.00%	-3.00%	-2.00%	-4.00%	
180+02.24'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
180+02.24'	End Normal Crown		-4.00%	-2.00%	-2.00%	-2.00%	
180+55.57'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
181+08.91'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
181+62.24'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
182+15.57'	Begin Full Super		-6.00%	-6.00%	6.00%	6.00%	
187+75.17'	End Full Super		-6.00%	-6.00%	6.00%	6.00%	
188+28.50'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
188+81.84'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
189+35.17'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
189+88.50'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-2.00%	

STH 82 SUPERELEVATION TABLE

TRANSITION EVENT POINTS		LEFT OF CROWNLINE			RIGHT OF CROWNLINE		
Station	Description	Left Gravel Shoulder	Left Paved Shoulder	Left Outside Lane	Right Outside Lane	Right Paved Shoulder	Right Gravel Shoulder
189+88.50'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
191+02.52'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
191+02.52'	End Normal Crown		-2.00%	-2.00%	-2.00%	-4.00%	
191+55.85'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
192+09.18'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
192+62.52'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
193+15.85'	Begin Full Super		6.00%	6.00%	-6.00%	-6.00%	
198+50.68'	End Full Super		6.00%	6.00%	-6.00%	-6.00%	
199+04.01'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
199+57.34'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
200+10.68'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
200+64.01'	Begin Normal Crown		-2.00%	-2.00%	-2.00%	-4.00%	
200+64.01'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
200+77.96'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
200+77.96'	End Normal Crown		-4.00%	-2.00%	-2.00%	-2.00%	
201+31.29'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
201+84.62'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
202+37.96'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
202+91.29'	Begin Full Super		-6.00%	-6.00%	6.00%	6.00%	
208+89.15'	End Full Super		-6.00%	-6.00%	6.00%	6.00%	
209+42.48'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
209+95.81'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
210+49.15'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
211+02.48'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-2.00%	
211+02.48'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
211+85.11'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
211+85.11'	End Normal Crown		-2.00%	-2.00%	-2.00%	-4.00%	
212+38.33'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
212+91.55'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
213+44.77'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
213+95.33'	Begin Full Super		5.90%	5.90%	-5.90%	-5.90%	
220+08.31'	End Full Super		5.90%	5.90%	-5.90%	-5.90%	
220+58.87'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
221+12.09'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
221+65.31'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
222+18.53'	Begin Normal Crown		-2.00%	-2.00%	-2.00%	-4.00%	
222+18.53'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
232+72.32'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
232+72.32'	End Normal Crown		-2.00%	-2.00%	-2.00%	-4.00%	
233+25.83'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
233+79.34'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
234+24.83'	Begin Full Super		3.70%	3.70%	-3.70%	-4.00%	
236+50.08'	End Full Super		3.70%	3.70%	-3.70%	-4.00%	
236+95.57'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
237+49.08'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
238+02.60'	Begin Normal Crown		-2.00%	-2.00%	-2.00%	-4.00%	
238+02.60'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
240+39.95'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
240+39.95'	End Normal Crown		-4.00%	-2.00%	-2.00%	-2.00%	
240+93.28'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
241+46.62'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
241+65.28'	Begin Full Super		-4.00%	-2.70%	2.70%	2.70%	
254+07.63'	End Full Super		-4.00%	-2.70%	2.70%	2.70%	
254+26.29'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
254+79.63'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
255+32.96'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-2.00%	
255+32.96'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
316+64.12'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
316+64.12'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
317+17.46'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
317+70.79'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
317+89.46'	Begin Full Super		2.70%	2.70%	-2.70%	-4.00%	
325+64.70'	End Full Super		2.70%	2.70%	-2.70%	-4.00%	
325+83.36'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
326+36.70'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
326+90.03'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
326+90.03'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
328+84.22'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
328+84.22'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
329+37.44'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	

STH 82 SUPERELEVATION TABLE

TRANSITION EVENT POINTS		LEFT OF CROWNLINE			RIGHT OF CROWNLINE		
Station	Description	Left Gravel Shoulder	Left Paved Shoulder	Left Outside Lane	Right Outside Lane	Right Paved Shoulder	Right Gravel Shoulder
329+90.66'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
330+43.88'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
330+94.44'	Begin Full Super		5.90%	5.90%	-5.90%	-5.90%	
334+33.74'	End Full Super		5.90%	5.90%	-5.90%	-5.90%	
334+84.30'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
335+37.52'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
335+90.74'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
336+43.96'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
336+43.96'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
345+63.24'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
345+63.24'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
346+16.75'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
346+70.26'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
347+15.75'	Begin Full Super		3.70%	3.70%	-3.70%	-4.00%	
351+52.58'	End Full Super		3.70%	3.70%	-3.70%	-4.00%	
351+98.06'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
352+51.58'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
353+05.09'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
353+05.09'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
353+63.58'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
353+63.58'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
354+16.91'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
354+70.24'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
355+23.58'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
355+76.91'	Begin Full Super		-6.00%	-6.00%	6.00%	6.00%	
365+81.05'	Begin Transition Rt		-6.00%	-6.00%	6.00%	6.00%	
366+87.05'	Begin S Canyon Ave		-6.00%	-6.00%	2.00%	2.00%	
367+00.82'	End S Canyon Ave		-6.00%	-6.00%	2.00%	2.00%	
367+53.82'	Manual station		-6.00%	-6.00%	4.00%	4.00%	
368+07.13'	End Full Super		-6.00%	-6.00%	4.00%	4.00%	
368+60.46'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
369+13.80'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
369+67.13'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
370+20.46'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
370+20.46'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
396+51.15'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
396+51.15'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
397+04.48'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
397+57.81'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
398+11.15'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
398+40.48'	Begin Full Super		5.10%	5.10%	-5.10%	-5.10%	
409+22.90'	End Full Super		5.10%	5.10%	-5.10%	-5.10%	
409+52.24'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
410+05.57'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
410+58.90'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
411+12.24'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
411+12.24'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
418+38.10'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
418+38.10'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
418+91.32'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
419+44.54'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
419+97.76'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
420+48.32'	Begin Full Super		5.90%	5.90%	-5.90%	-5.90%	
428+93.69'	End Full Super		5.90%	5.90%	-5.90%	-5.90%	
429+44.25'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
429+97.47'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
430+50.69'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
431+03.91'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
431+03.91'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
434+95.08'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
434+95.08'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
435+48.41'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
436+01.75'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
436+55.08'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
437+08.41'	Begin Full Super		-6.00%	-6.00%	6.00%	6.00%	
444+61.87'	End Full Super		-6.00%	-6.00%	6.00%	6.00%	
445+15.20'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
445+68.53'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
446+21.87'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
446+75.20'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	

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STH 82 SUPERELEVATION TABLE							
TRANSITION EVENT POINTS		LEFT OF CROWNLINE			RIGHT OF CROWNLINE		
Station	Description	Left Gravel Shoulder	Left Paved Shoulder	Left Outside Lane	Right Outside Lane	Right Paved Shoulder	Right Gravel Shoulder
446+75.20'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
453+74.27'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
453+74.27'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
454+27.60'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
454+80.93'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
455+34.27'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
455+87.60'	Begin Full Super		-6.00%	-6.00%	6.00%	6.00%	
462+77.00'	Begin Transition Rt		-6.00%	-6.00%	6.00%	6.00%	
463+83.00'	Begin CTH A South		-6.00%	-6.00%	2.00%	2.00%	
465+09.89'	End Full Super		-6.00%	-6.00%	2.00%	2.00%	
465+10.00'	End CTH A South		-6.00%	-6.00%	2.00%	2.00%	
465+63.22'	Low Shoulder Match		-4.00%	-4.00%	2.00%	2.00%	
466+16.56'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
466+69.89'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
467+23.22'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
467+23.22'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
470+77.68'	End Normal Shoulder		-2.00%	-2.00%	-2.00%	-4.00%	
470+77.68'	End Normal Crown		-2.00%	-2.00%	-2.00%	-4.00%	
471+31.01'	Level Crown		-2.00%	-2.00%	-2.00%	-4.00%	
471+69.00'	End Normal Crown Morning Star R		-2.00%	-2.00%	-2.00%	-4.00%	
471+84.35'	Reverse Crown		-1.42%	-1.42%	-2.00%	-4.00%	
472+22.00'	Morining Star Rd Level Lt		0.00%	0.00%	-3.41%	-4.00%	
472+37.68'	Low Shoulder Match		0.59%	0.59%	-4.00%	-4.00%	
472+75.00'	Reverse Crown Lt		2.00%	2.00%	-5.40%	-5.40%	
472+91.01'	Begin Full Super		2.60%	2.60%	-6.00%	-6.00%	
473+28.00'	End Morning Star Rd Lt		4.00%	4.00%	-6.00%	-6.00%	
473+81.00'	Begin Full Super Lt		6.00%	6.00%	-6.00%	-6.00%	
486+80.81'	End Full Super		6.00%	6.00%	-6.00%	-6.00%	
487+34.14'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
487+87.47'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
488+40.81'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
488+94.14'	Begin Normal Crown		-2.00%	-2.00%	-2.00%	-4.00%	
488+94.14'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
501+39.66'	End Full Super		6.00%	6.00%	-6.00%	-6.00%	
501+92.99'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
502+46.32'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
502+99.66'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
503+52.99'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
503+52.99'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
504+07.09'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
504+07.09'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
504+60.42'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
505+13.75'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
505+67.09'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
506+64.42'	Begin Full Super		-8.00%	-8.00%	8.00%	8.00%	
521+91.00'	End Full Super Rt		-8.00%	-8.00%	8.00%	8.00%	
522+83.75'	End Full Super		-8.00%	-8.00%	4.50%	4.50%	
523+50.00'	Begin Pine River Rd Rt		-6.00%	-6.00%	2.00%	2.00%	
524+80.00'	End Pine River Rd		-6.00%	-6.00%	2.00%	2.00%	
525+52.92'	End Pine River Rd Super		-6.00%	-6.00%	2.00%	2.00%	
526+05.92'	Low Shoulder Match		-4.00%	-4.00%	2.00%	2.00%	
526+58.92'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
527+11.92'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
527+64.92'	Manual station		-4.00%	-2.00%	-2.00%	-4.00%	
528+31.74'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
528+31.74'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
528+85.07'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
529+38.41'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
529+91.74'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
530+45.07'	Begin Full Super		6.00%	6.00%	-6.00%	-6.00%	
539+05.88'	End Full Super		6.00%	6.00%	-6.00%	-6.00%	
539+59.21'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
540+12.54'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
540+65.88'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
541+19.21'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
541+19.21'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
545+19.48'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
545+19.48'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
545+72.70'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
546+25.93'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	

STH 82 SUPERELEVATION TABLE							
TRANSITION EVENT POINTS		LEFT OF CROWNLINE			RIGHT OF CROWNLINE		
Station	Description	Left Gravel Shoulder	Left Paved Shoulder	Left Outside Lane	Right Outside Lane	Right Paved Shoulder	Right Gravel Shoulder
546+79.15'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
547+29.70'	Begin Full Super		-5.90%	-5.90%	5.90%	5.90%	
556+91.08'	End Full Super		-5.90%	-5.90%	5.90%	5.90%	
557+41.64'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
557+94.86'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
558+48.08'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
559+01.30'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
559+01.30'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
579+13.57'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
579+13.57'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
579+67.02'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
580+20.48'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
580+73.93'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
581+14.02'	Begin Full Super		-5.50%	-5.50%	5.50%	5.50%	
582+69.00'	Begin Champion Ln Transition Rt		-5.50%	-5.50%	5.50%	5.50%	
583+75.00'	Begin Champion Ln Rt		-5.50%	-5.50%	1.50%	1.50%	
584+25.00'	End Champion Ln Rt		-5.50%	-5.50%	1.50%	1.50%	
585+31.00'	End Champion Ln Transition Rt		-5.50%	-5.50%	5.50%	5.50%	
588+99.61'	End Full Super		-5.50%	-5.50%	5.50%	5.50%	
589+39.70'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
589+93.15'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
590+46.61'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
591+00.06'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
591+00.06'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
612+25.79'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
612+25.79'	End Normal Crown		-4.00%	-2.00%	-2.00%	-2.00%	
612+79.12'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
613+32.45'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
613+85.79'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
614+15.12'	Begin Full Super		-5.10%	-5.10%	5.10%	5.10%	
621+32.40'	End Full Super		-5.10%	-5.10%	5.10%	5.10%	
621+61.73'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
622+15.07'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
622+68.40'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
623+21.73'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-2.00%	
623+21.73'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
624+81.13'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
624+81.13'	End Normal Crown		-2.00%	-2.00%	-2.00%	-4.00%	
625+34.46'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
625+87.80'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
626+41.13'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
626+94.46'	Begin Full Super		6.00%	6.00%	-6.00%	-6.00%	
633+69.00'	Begin Maple Lane Transition Lt		6.00%	6.00%	-6.00%	-6.00%	
634+75.00'	Begin Maple Lane Lt		2.00%	2.00%	-6.00%	-6.00%	
635+25.00'	End Maple Lane Lt		2.00%	2.00%	-6.00%	-6.00%	
636+31.00'	End Maple Lane Transition Lt		4.00%	4.00%	-6.00%	-6.00%	
636+96.42'	End Full Super		4.00%	4.00%	-6.00%	-6.00%	
637+49.76'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
638+03.09'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
638+56.42'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
639+09.76'	Begin Normal Crown		-2.00%	-2.00%	-2.00%	-4.00%	
639+09.76'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
660+53.62'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
660+53.62'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
661+06.95'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
661+60.28'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
662+13.62'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
662+66.95'	Begin Full Super		-6.00%	-6.00%	6.00%	6.00%	
670+97.00'	Begin CTH V Transition Rt		-6.00%	-6.00%	6.00%	6.00%	
671+75.00'	Begin CTH V Rt		-6.00%	-6.00%	3.00%	3.00%	
672+50.00'	End CTH V Rt		-6.00%	-6.00%	3.00%	3.00%	
673+28.00'	End CTH V Transition Rt		-6.00%	-6.00%	6.00%	6.00%	
676+21.95'	End Full Super		-6.00%	-6.00%	6.00%	6.00%	
676+75.28'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
677+28.62'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
677+81.95'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
678+35.28'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
678+35.28'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
685+22.11'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
685+22.11'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	

STH 82 SUPERELEVATION TABLE							
TRANSITION EVENT POINTS		LEFT OF CROWNLINE			RIGHT OF CROWNLINE		
Station	Description	Left Gravel Shoulder	Left Paved Shoulder	Left Outside Lane	Right Outside Lane	Right Paved Shoulder	Right Gravel Shoulder
685+73.02'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
686+23.93'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
686+29.02'	Begin Full Super		2.20%	2.20%	-2.20%	-4.00%	
688+32.64'	End Full Super		2.20%	2.20%	-2.20%	-4.00%	
688+37.73'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
688+88.64'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
689+39.54'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
689+39.54'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
716+74.71'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
716+74.71'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
717+25.89'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
717+77.08'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
718+28.27'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
718+76.89'	Begin Full Super		5.90%	5.90%	-5.90%	-5.90%	
722+94.00'	Begin CTH V Transition Lt		5.90%	5.90%	-5.90%	-5.90%	
724+00.00'	Begin CTH V Lt		1.90%	1.90%	-5.90%	-5.90%	
724+75.00'	End CTH V Lt		1.90%	1.90%	-5.90%	-5.90%	
725+81.00'	End CTH V Transiiton Lt		5.90%	5.90%	-5.90%	-5.90%	
727+84.81'	End Full Super		5.90%	5.90%	-5.90%	-5.90%	
728+33.44'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
728+84.63'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
729+35.81'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
729+87.00'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
729+87.00'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
735+10.89'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
735+10.89'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
735+64.23'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
736+17.56'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
736+52.23'	Begin Full Super		3.30%	3.30%	-3.30%	-4.00%	
744+47.97'	End Full Super		3.30%	3.30%	-3.30%	-4.00%	
744+82.64'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
745+35.97'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
745+89.30'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
745+89.30'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
757+23.10'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
757+23.10'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
757+74.10'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
758+25.10'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
758+76.10'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
759+27.10'	Begin Full Super		-6.00%	-6.00%	6.00%	6.00%	
764+63.02'	End Full Super		-6.00%	-6.00%	6.00%	6.00%	
765+14.02'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
765+65.02'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
766+16.02'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
766+67.02'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
766+67.02'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
769+78.22'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
769+78.22'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
770+31.67'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
770+85.13'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
771+38.58'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
771+78.67'	Begin Full Super		5.50%	5.50%	-5.50%	-5.50%	
777+85.68'	End Full Super		5.50%	5.50%	-5.50%	-5.50%	
778+25.78'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
778+79.23'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
779+32.68'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
779+86.14'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
779+86.14'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
781+34.48'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
781+34.48'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
781+87.93'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
782+41.38'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
782+94.83'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
783+42.93'	Begin Full Super		5.80%	5.80%	-5.80%	-5.80%	
784+44.00'	Begin CTH P Transition Lt		5.80%	5.80%	-5.80%	-5.80%	
785+50.00'	Begin CTH P Lt		1.80%	1.80%	-5.80%	-5.80%	
786+00.00'	End CTH P Lt		1.80%	1.80%	-5.80%	-5.80%	
787+06.00'	End CTH P Transition Lt		5.80%	5.80%	-5.80%	-5.80%	
797+67.82'	End Full Super		5.80%	5.80%	-5.80%	-5.80%	
798+15.93'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	

2

2

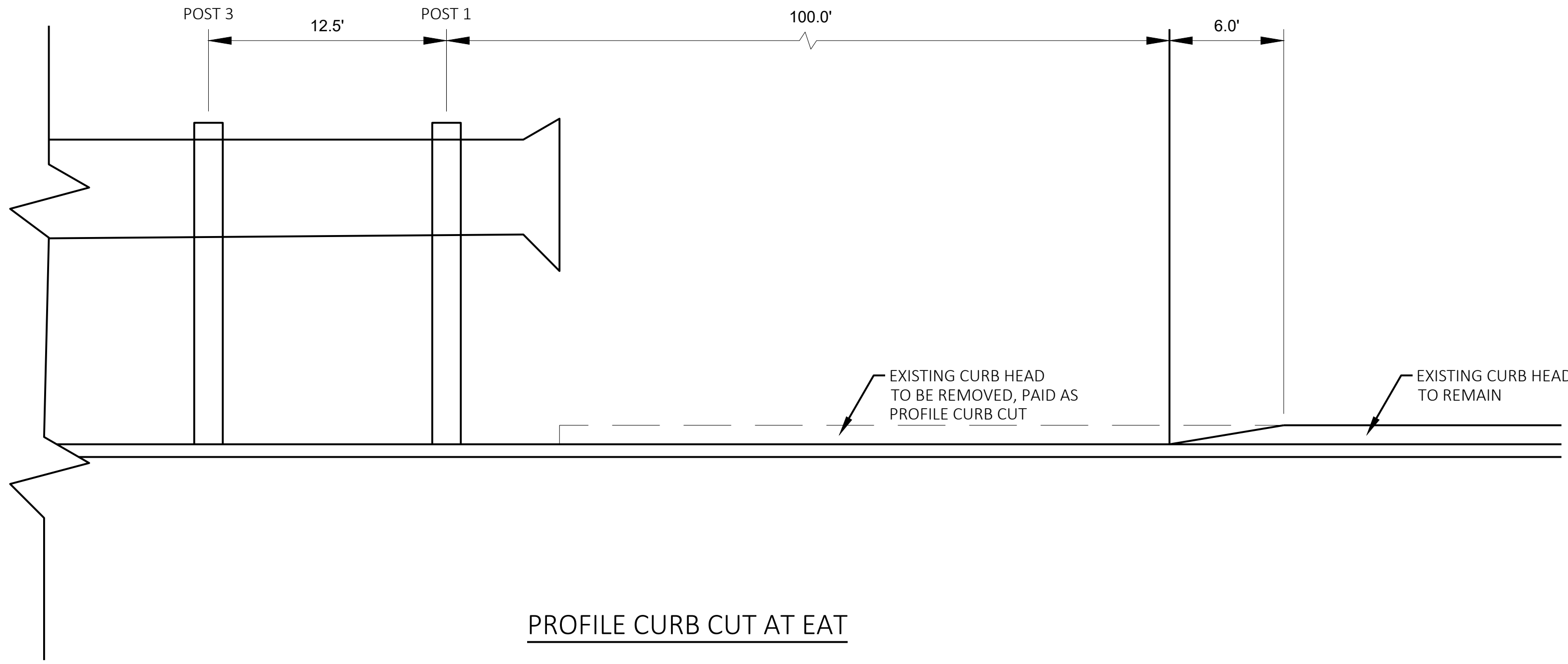
STH 82 SUPERELEVATION TABLE

TRANSITION EVENT POINTS		LEFT OF CROWNLINE			RIGHT OF CROWNLINE		
Station	Description	Left Gravel Shoulder	Left Paved Shoulder	Left Outside Lane	Right Outside Lane	Right Paved Shoulder	Right Gravel Shoulder
798+69.38'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
799+22.82'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
799+76.27'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
799+76.27'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
804+81.26'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
804+81.26'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
805+34.60'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
805+87.93'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
806+41.26'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
806+54.60'	Begin Full Super		-4.50%	-4.50%	4.50%	4.50%	
810+98.32'	End Full Super		-4.50%	-4.50%	4.50%	4.50%	
811+11.66'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
811+64.99'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
812+18.32'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
812+71.66'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
812+71.66'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
824+10.03'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
824+10.03'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
824+63.48'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
825+16.93'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
825+70.39'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
826+10.48'	Begin Full Super		5.50%	5.50%	-5.50%	-5.50%	
832+03.22'	End Full Super		5.50%	5.50%	-5.50%	-5.50%	
832+43.31'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
832+96.77'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
833+50.22'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
834+03.68'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
834+03.68'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
842+79.31'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
842+79.31'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
843+30.31'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
843+81.31'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
844+32.31'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
844+83.31'	Begin Full Super		-6.00%	-6.00%	6.00%	6.00%	
853+82.78'	End Full Super		-6.00%	-6.00%	6.00%	6.00%	
854+33.78'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
854+84.78'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
855+35.78'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
855+86.78'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
855+86.78'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
882+13.48'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
882+13.48'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
882+66.81'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
883+20.15'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
883+73.48'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
884+02.81'	Begin Full Super		-5.10%	-5.10%	5.10%	5.10%	
890+05.66'	End Full Super		-5.10%	-5.10%	5.10%	5.10%	
890+34.99'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
890+88.32'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
891+41.66'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
891+94.99'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
891+94.99'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
901+46.45'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
901+46.45'	End Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
901+99.65'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
902+52.85'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
903+06.05'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
903+32.65'	Begin Full Super		5.00%	5.00%	-5.00%	-5.00%	
909+96.10'	End Full Super		5.00%	5.00%	-5.00%	-5.00%	
910+22.70'	Low Shoulder Match		4.00%	4.00%	-4.00%	-4.00%	
910+75.90'	Reverse Crown		2.00%	2.00%	-2.00%	-4.00%	
911+29.10'	Level Crown		0.00%	0.00%	-2.00%	-4.00%	
911+82.30'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
911+82.30'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
913+26.84'	End Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
913+26.84'	End Normal Crown		-4.00%	-2.00%	-2.00%	-2.00%	
913+80.18'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
914+33.51'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
914+86.84'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
915+00.18'	Begin Full Super		-4.50%	-4.50%	4.50%	4.50%	

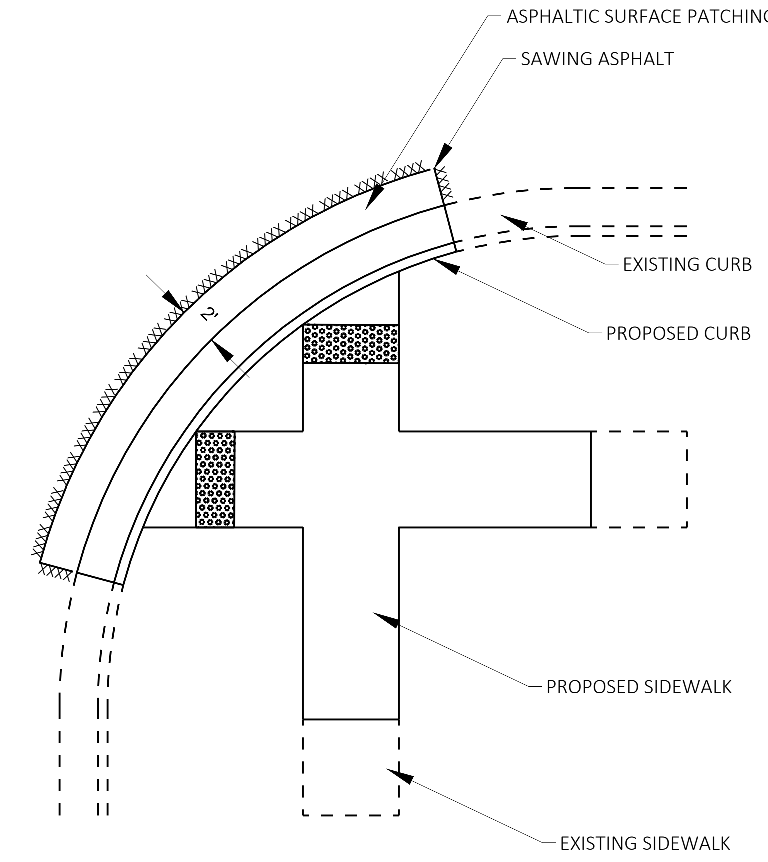
STH 82 SUPERELEVATION TABLE

TRANSITION EVENT POINTS		LEFT OF CROWNLINE			RIGHT OF CROWNLINE		
Station	Description	Left Gravel Shoulder	Left Paved Shoulder	Left Outside Lane	Right Outside Lane	Right Paved Shoulder	Right Gravel Shoulder
918+70.01'	End Full Super		-4.50%	-4.50%	4.50%	4.50%	
918+83.34'	Low Shoulder Match		-4.00%	-4.00%	4.00%	4.00%	
919+36.67'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
919+90.01'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
920+43.34'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-2.00%	
920+43.34'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
921+59.84'	Begin Full Super		-4.00%	-4.00%	4.00%	4.00%	
923+90.22'	End Full Super		-4.00%	-4.00%	4.00%	4.00%	
924+28.84'	Reverse Crown		-4.00%	-2.00%	2.00%	2.00%	
924+67.46'	Level Crown		-4.00%	-2.00%	0.00%	0.00%	
925+06.08'	Begin Normal Crown		-4.00%	-2.00%	-2.00%	-4.00%	
925+06.08'	Begin Normal Shoulder		-4.00%	-2.00%	-2.00%	-4.00%	
925+10.77'	End Alignment		-4.00%	-2.00%	-2.00%	-4.00%	

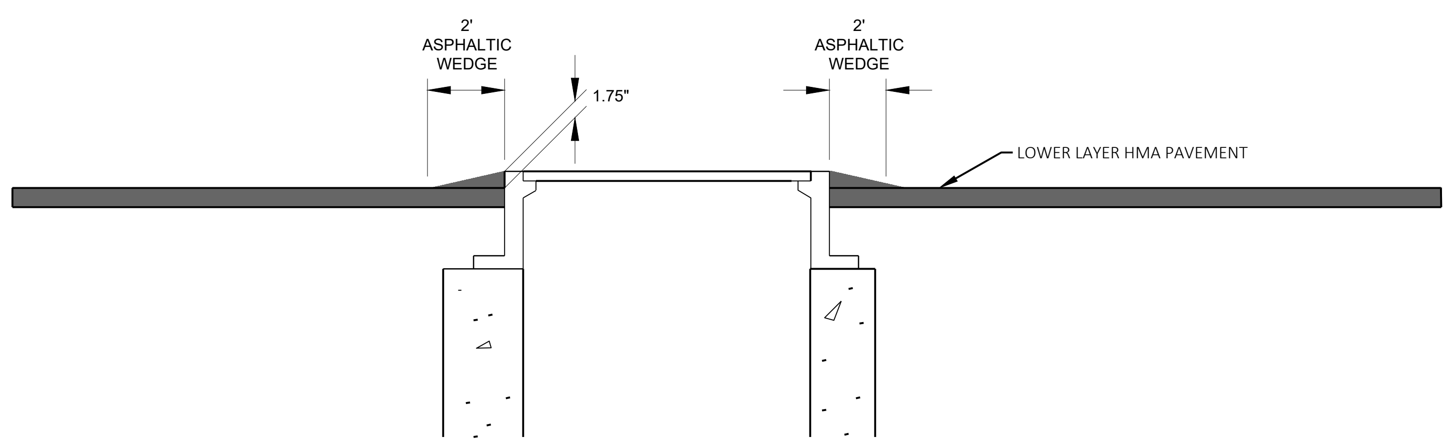
2



PROFILE CURB CUT AT EAT



ASPHALT REMOVAL AT CURB RAMPS

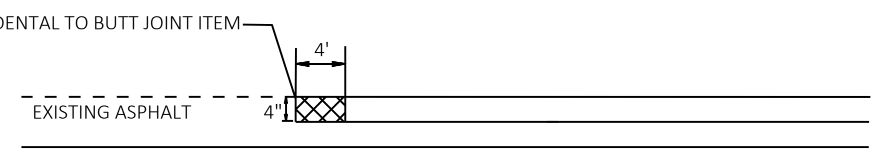


TEMPORARY WEDGES DETAIL (MANHOLES)

NOTES

PROVIDE ASPHALTIC WEDGES PRIOR TO OPENING LANE TO TRAFFIC

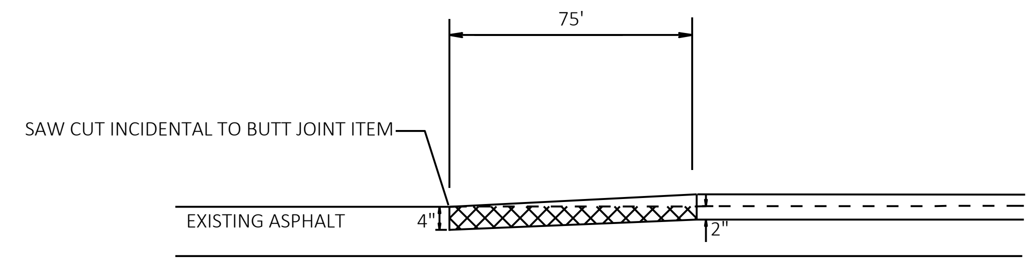
REMOVAL OF ASPHALTIC WEDGES WILL BE PAID FOR AS "REMOVING ASPHALTIC SURFACE BUTT JOINTS"



REQUIRED AT BEGINNING OF PROJECT

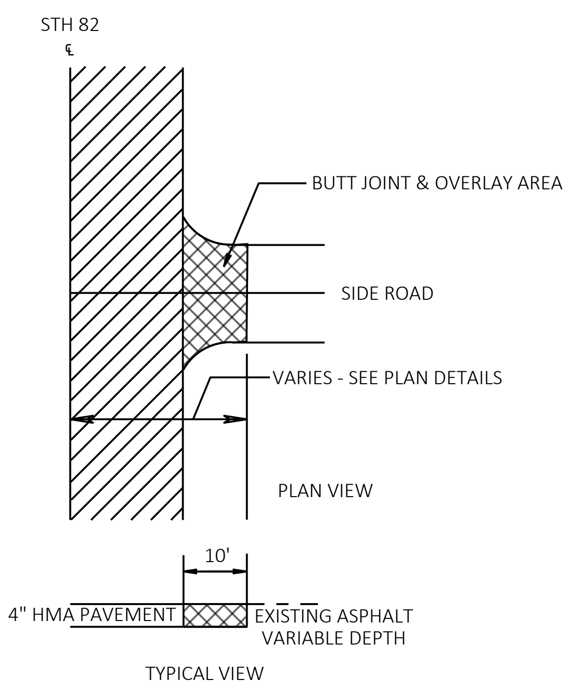
STH 82 BUTT JOINT DETAIL - NO PROFILE RAISE

PAID FOR AS REMOVING ASPHALTIC SURFACE BUTT JOINTS



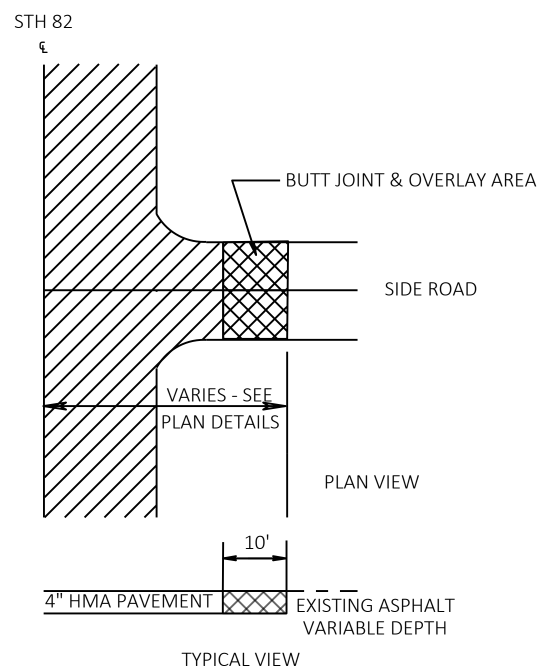
STH 82 BUTT JOINT DETAIL - PROFILE RAISE

PAID FOR AS REMOVING ASPHALTIC SURFACE BUTT JOINTS



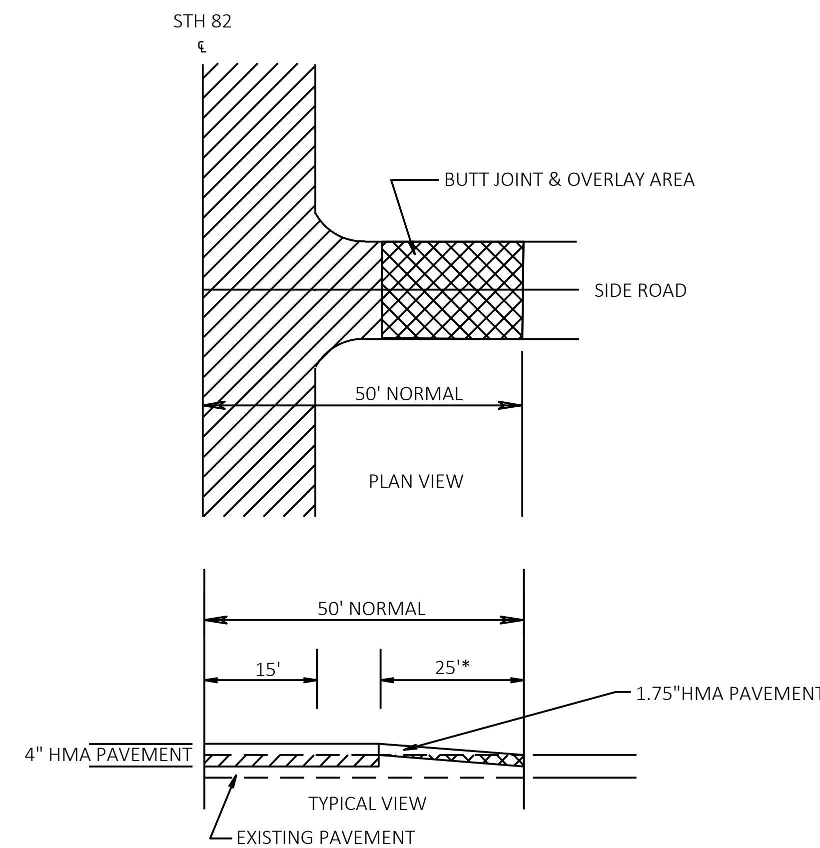
SIDE ROAD DETAIL - PROJECT NO. 5710-00-73

MILL ST
GOLD ST
SILVER ST
BIRD ST
STATE ST

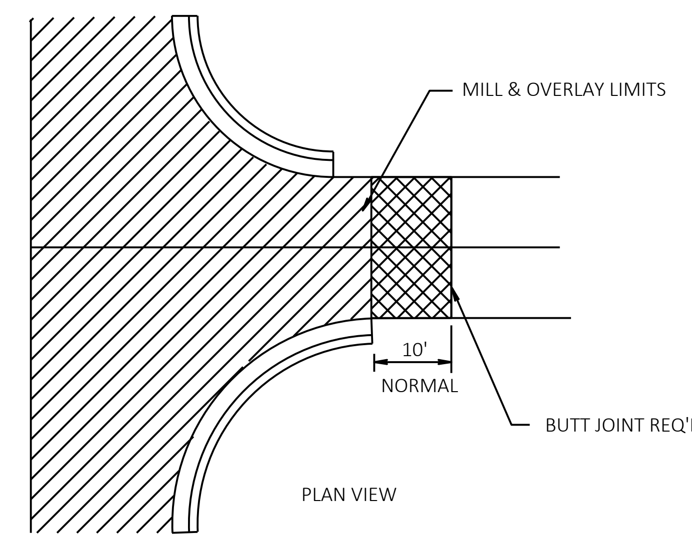


SIDE ROAD DETAIL - VILLAGE OF LA FARGE

MAPLE ST
ELM ST
OAK ST
CHERRY ST



SIDE ROAD DETAIL - NO CURB & GUTTER



SIDE ROAD DETAIL - CURB & GUTTER TO REMAIN

BUTT JOINT DETAILS

REMOVE MATERIAL UNDER ITEM 'REMOVING ASPHALT SURFACE MILLING '

REMOVE MATERIAL UNDER ITEM 'REMOVING ASPHALT SURFACE , BUTT JOINTS' MATERIAL SHALL NOT BE REMOVED UNDER THIS ITEM UNTIL 24 HOURS BEFORE SIDE ROAD PAVING.

SIDE ROAD PAVEMENT DEPTH SHALL MATCH AT MAINLINE PAVEMENT EDGE AND BE TAPERED TO 1.75" MINIMUM AT JOINT

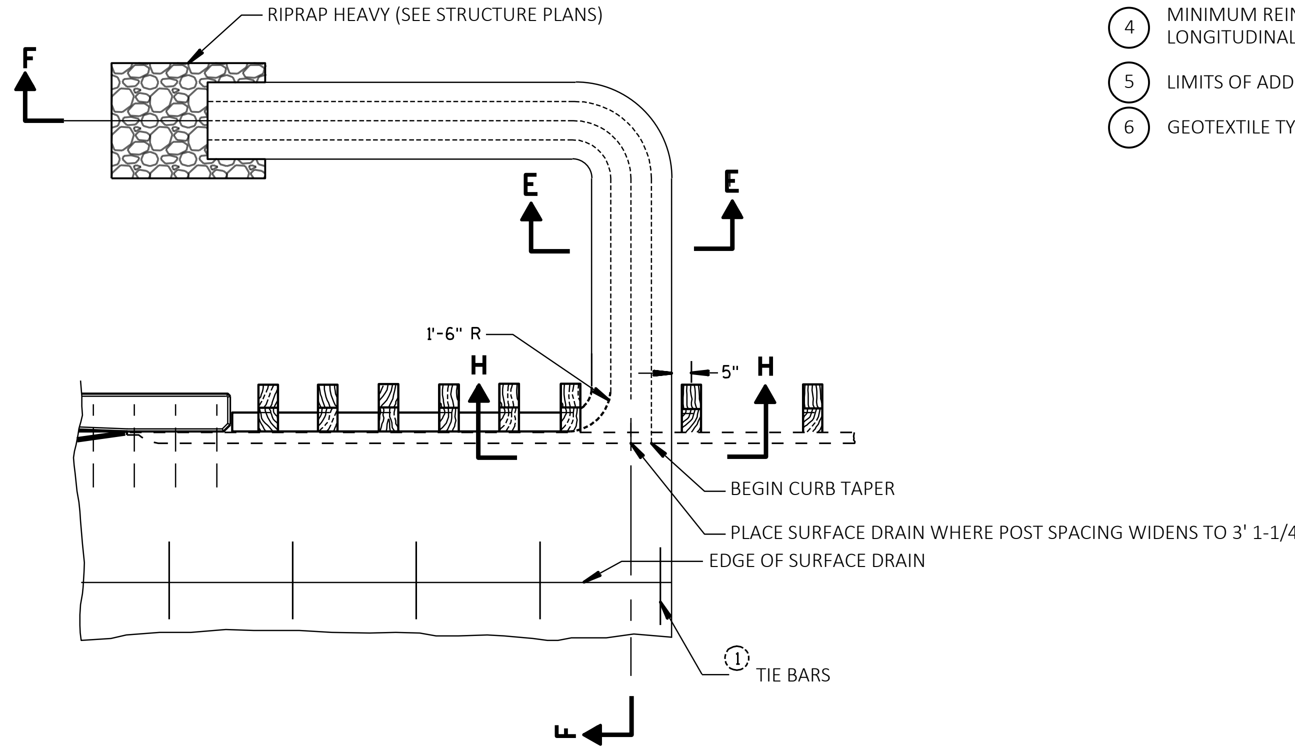
*REMOVING ASPHALTIC SURFACE BUTT JOINT LENGTH EQUALS 25-FEET ON SIDE ROADS WITH NO CURB AND GUTTER AND 10-FEET ON SIDE ROADS WITH CURB AND GUTTER

GENERAL NOTES

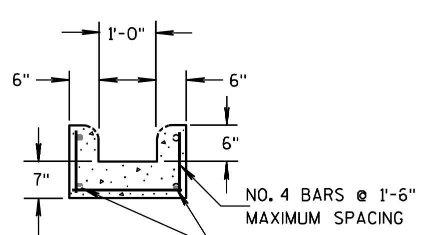
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

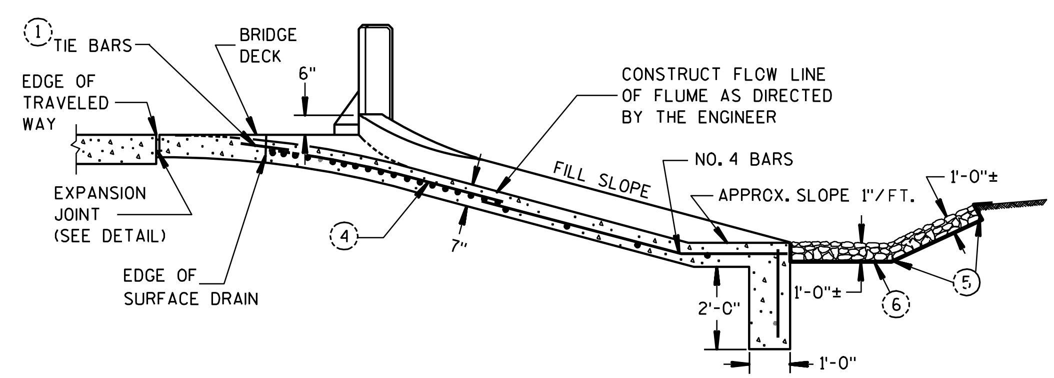
1. NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.
4. MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" CENTER TO CENTER
5. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED
6. GEOTEXTILE TYPE HR



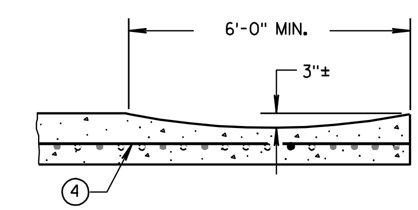
CONCRETE SURFACE DRAIN STA 82+26.6 LT



SECTION E - E

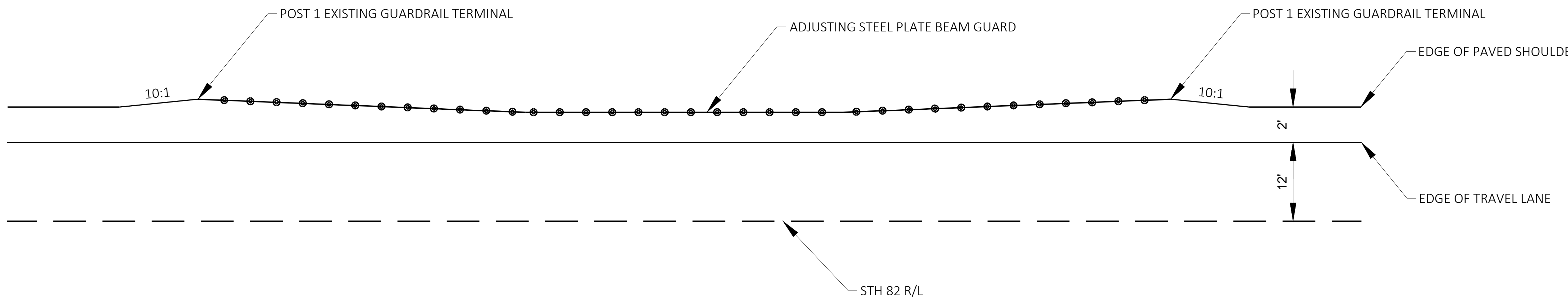


SECTION F - F



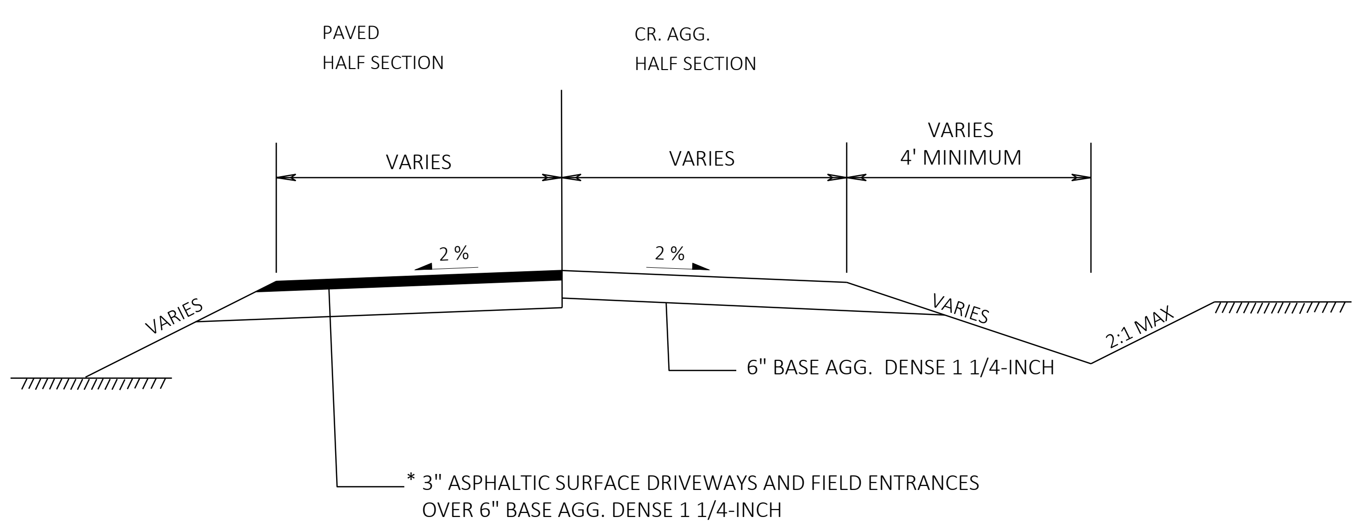
SECTION H - H

PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CONSTRUCTION DETAILS	SHEET 16



SHOULDER PAVING AT EXISTING GUARDRAIL

STA 236+51 - STA 238+24, LT
STA 236+56 - STA 238+24, RT
STA 308+94 - STA 310+23, RT
STA 309+14 - STA 310+44, LT

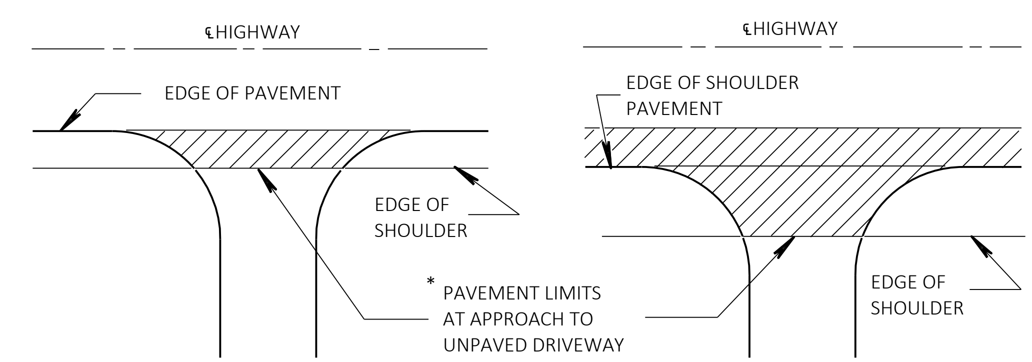


* OR MATCH EXIST.
ASPH. DEPTH

NOTE:

DRIVEWAY PROFILES NOT EXPECTED TO EXCEED 15%. PLACE LOW POINT OF DRIVEWAY PROFILE OVER DITCH FLOW LINE.

TYPICAL SECTION
FOR PRIVATE ENTRANCES



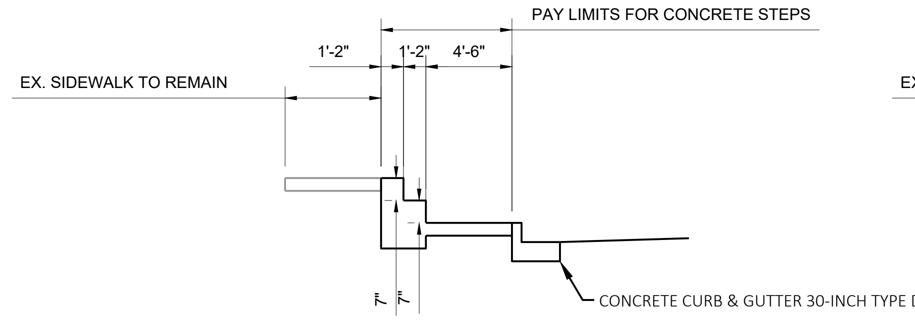
*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW

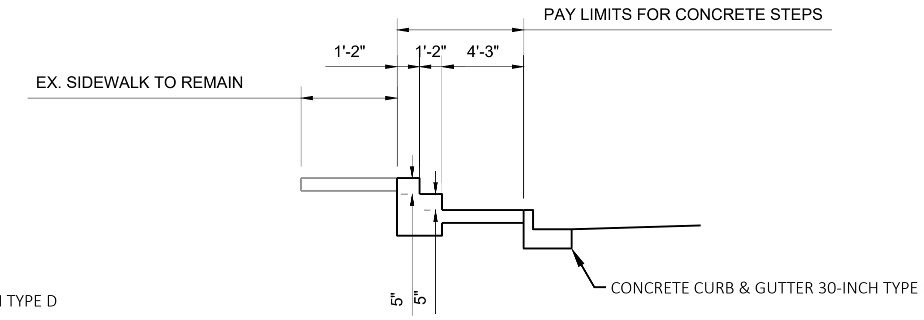
PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL

NOTE:
CONCRETE STEPS WIDTH SHALL MATCH EXISTING STEP WIDTH

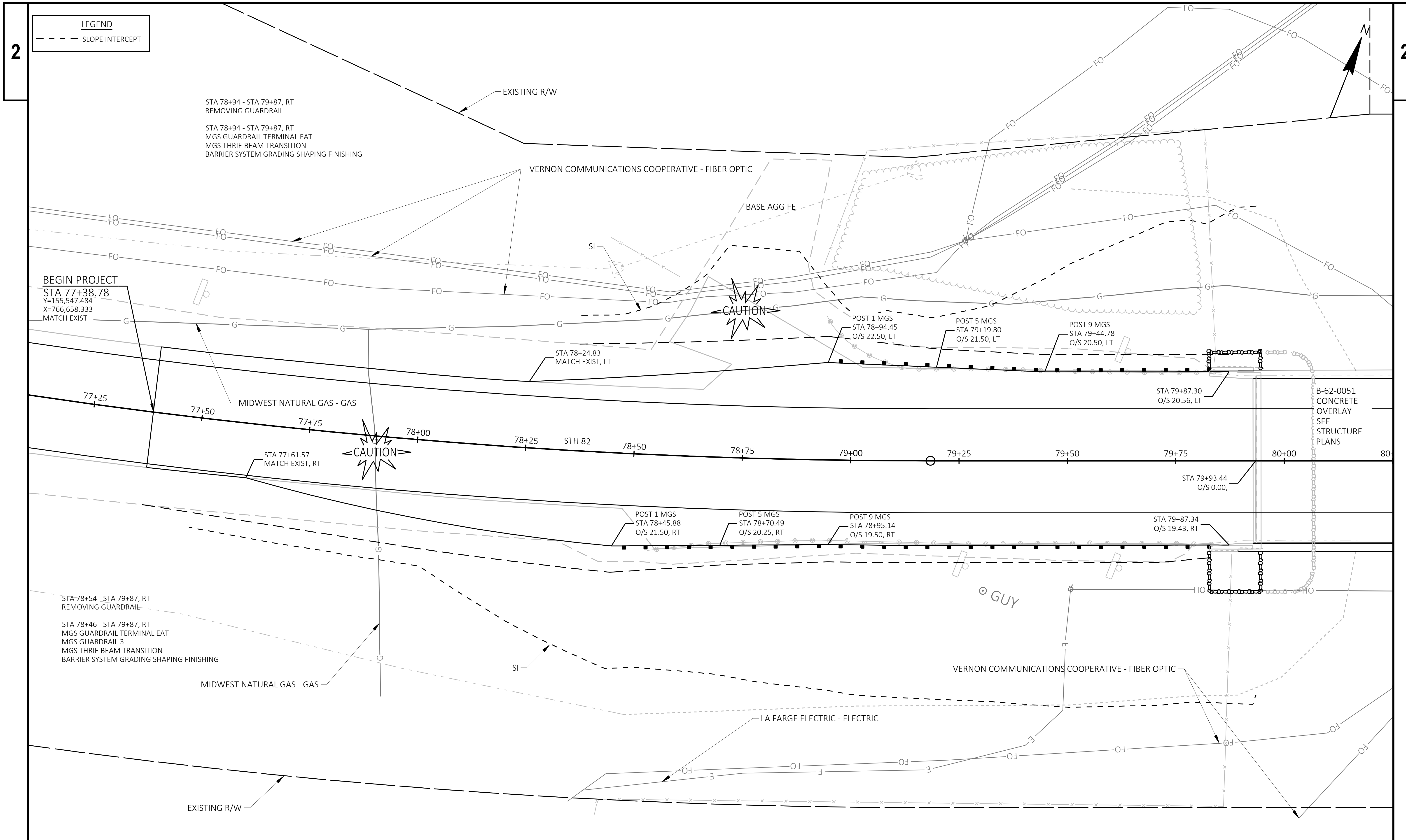


STA 112+11



STA 112+52

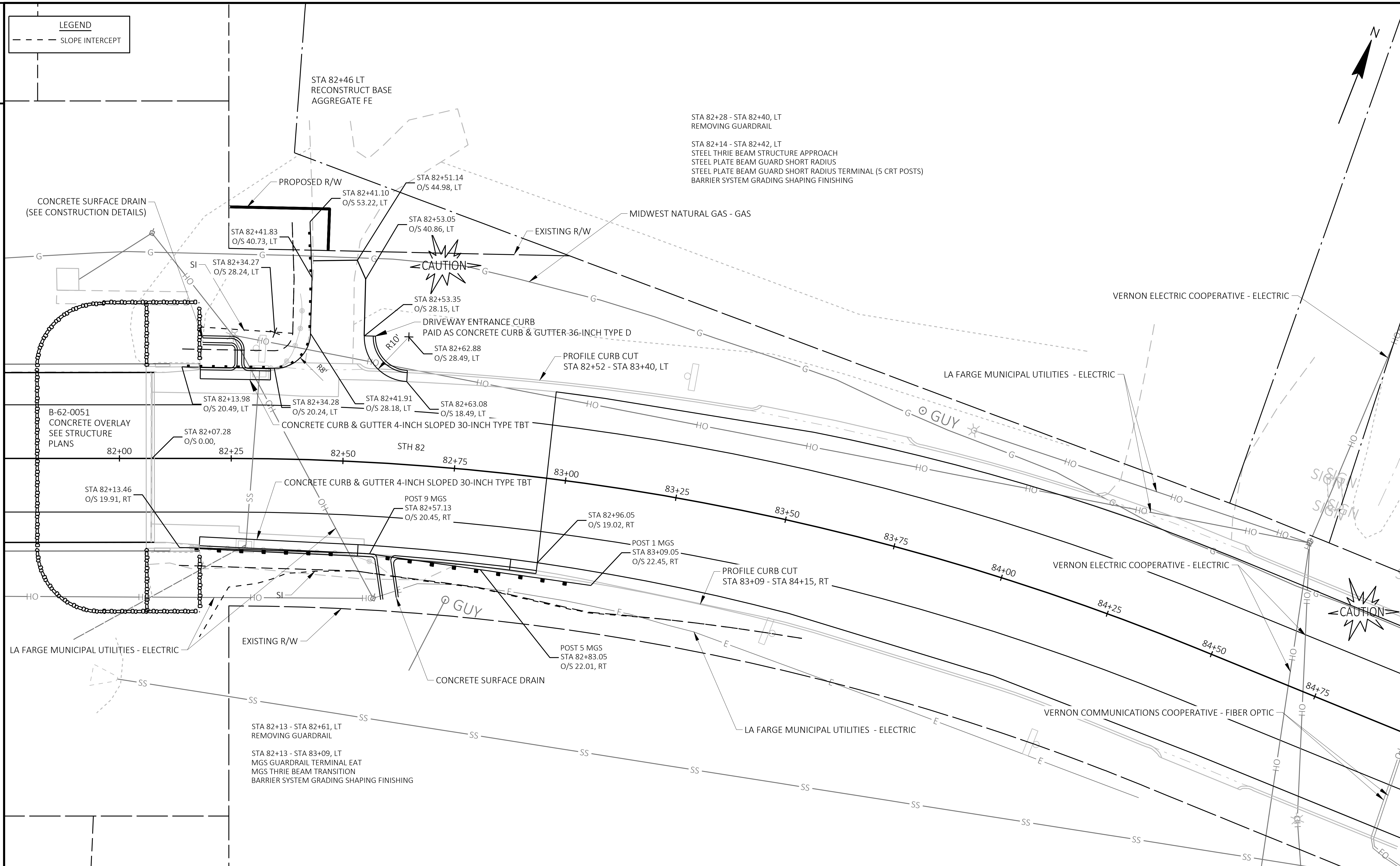
CONCRETE STEPS DETAIL



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CONSTRUCTION DETAILS - GUARDRAIL REPLACEMENT	SHEET 19	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 021001-CD-Guardrail-B620051 West
PLOT DATE : 2/13/2026 5:01 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

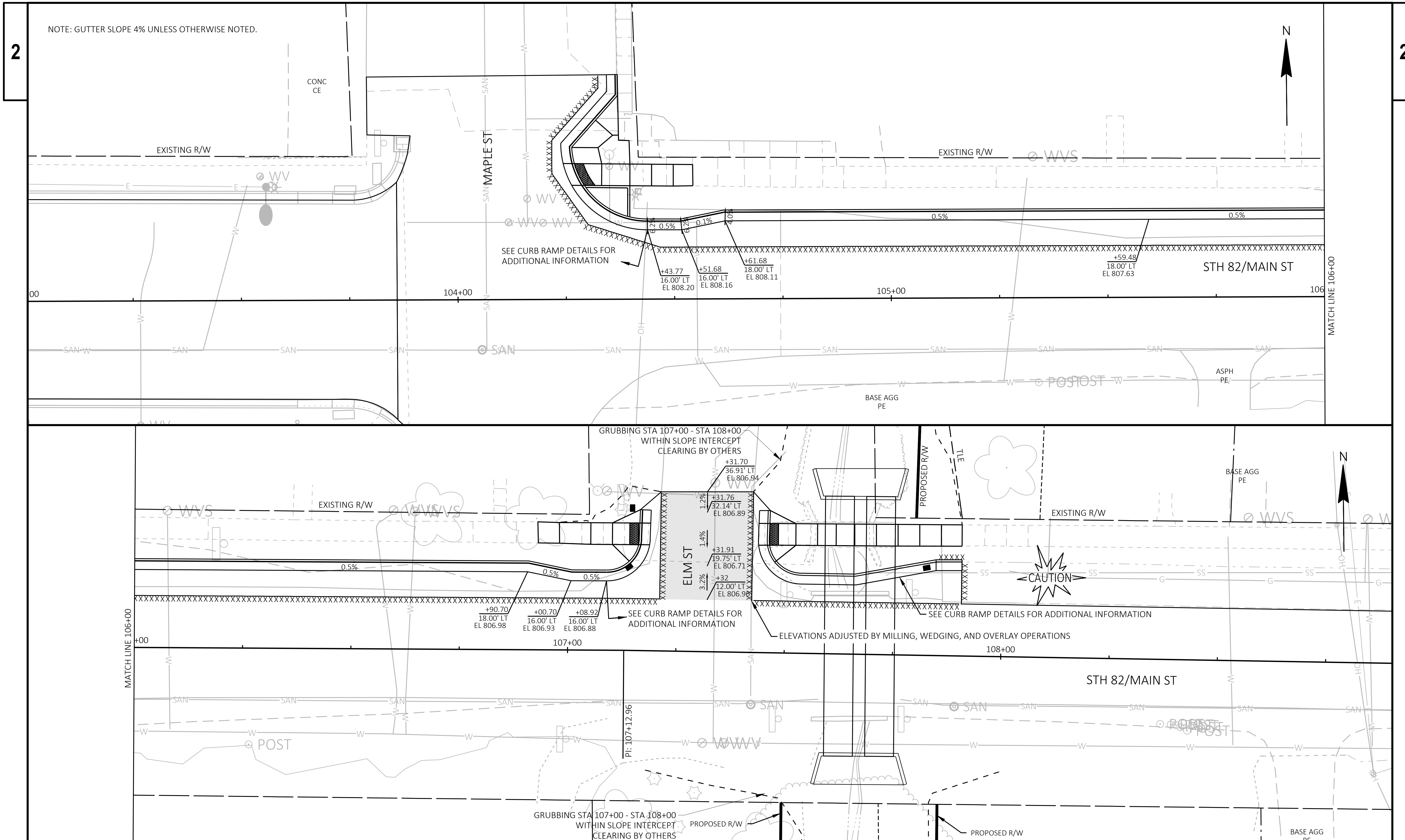
2



2

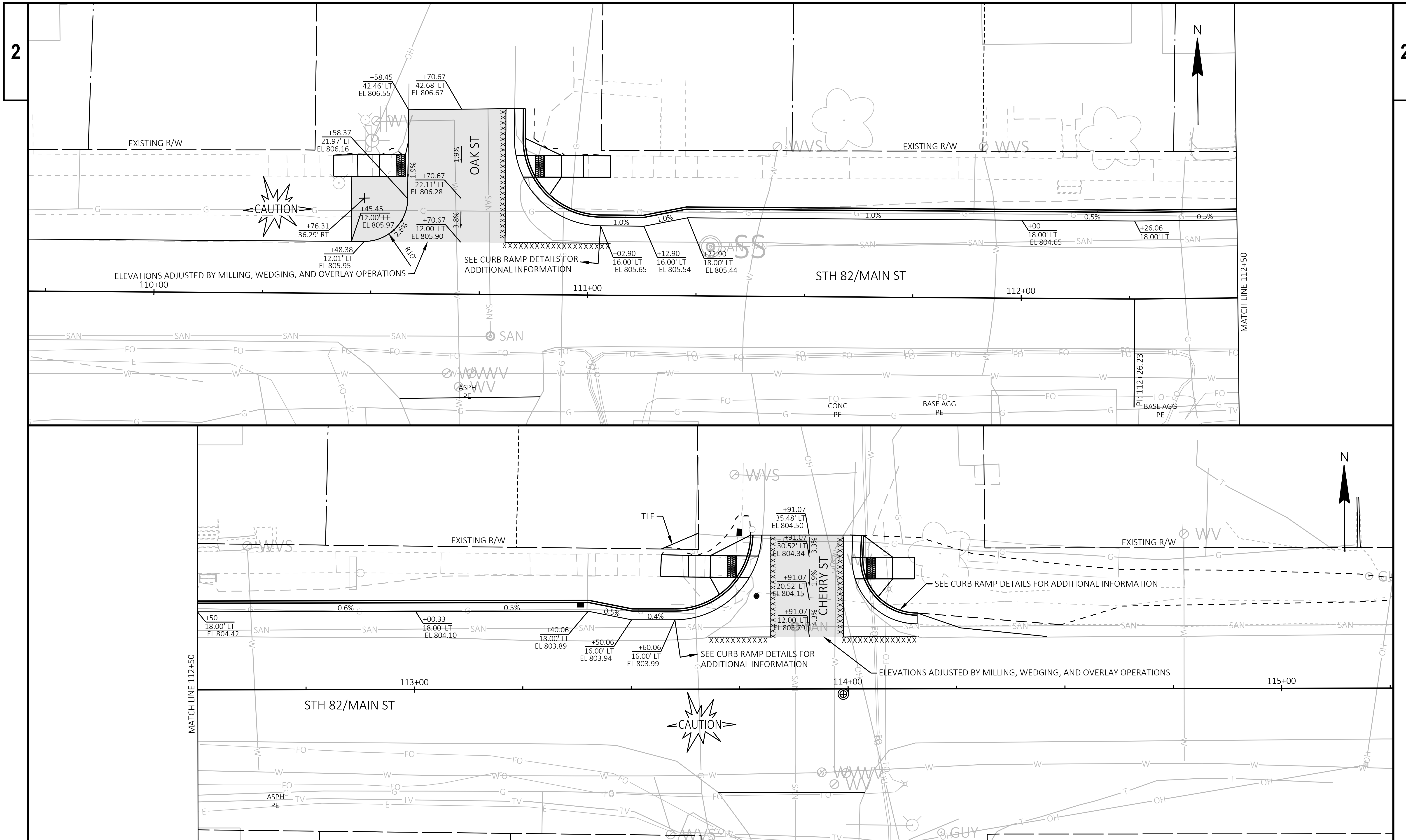
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CONSTRUCTION DETAILS - GUARDRAIL REPLACEMENT	SHEET 20	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 021001-CD-Guardrail-B620051 East
PLOT DATE : 2/13/2026 5:01 PM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CONSTRUCTION DETAILS - CURB & GUTTER AND INTERSECTION DETAILS	SHEET 21	E

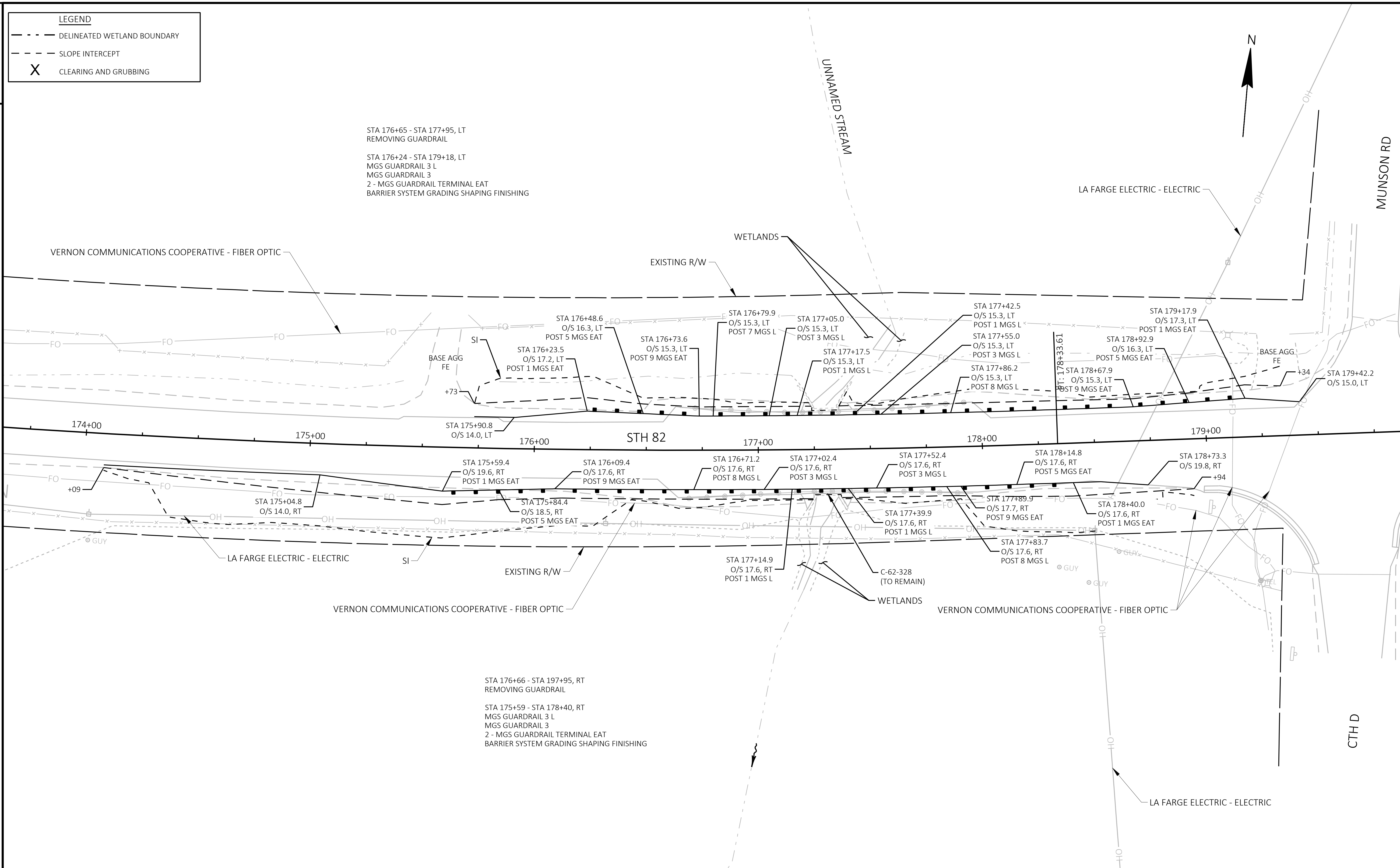
FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 021002-cd Curb and Gutter 01
PLOT DATE : 2/13/2026 5:01 PM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CONSTRUCTION DETAILS - CURB & GUTTER AND INTERSECTION DETAILS	SHEET 22	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 021002-cd Curb and Gutter 02
PLOT DATE : 2/13/2026 5:01 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 44

2



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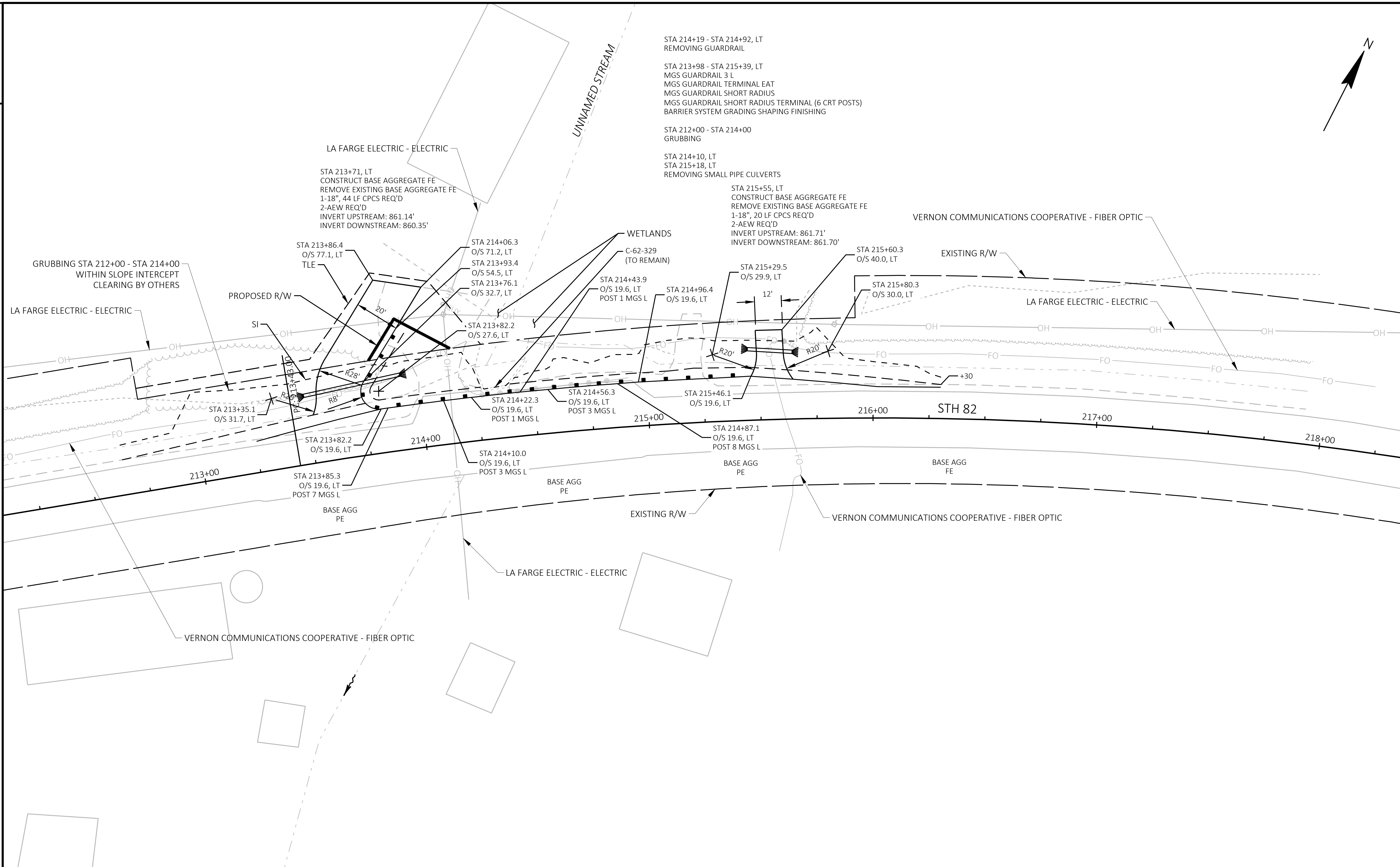
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CONSTRUCTION DETAILS - GUARDRAIL REPLACEMENT	SHEET 23	E

2



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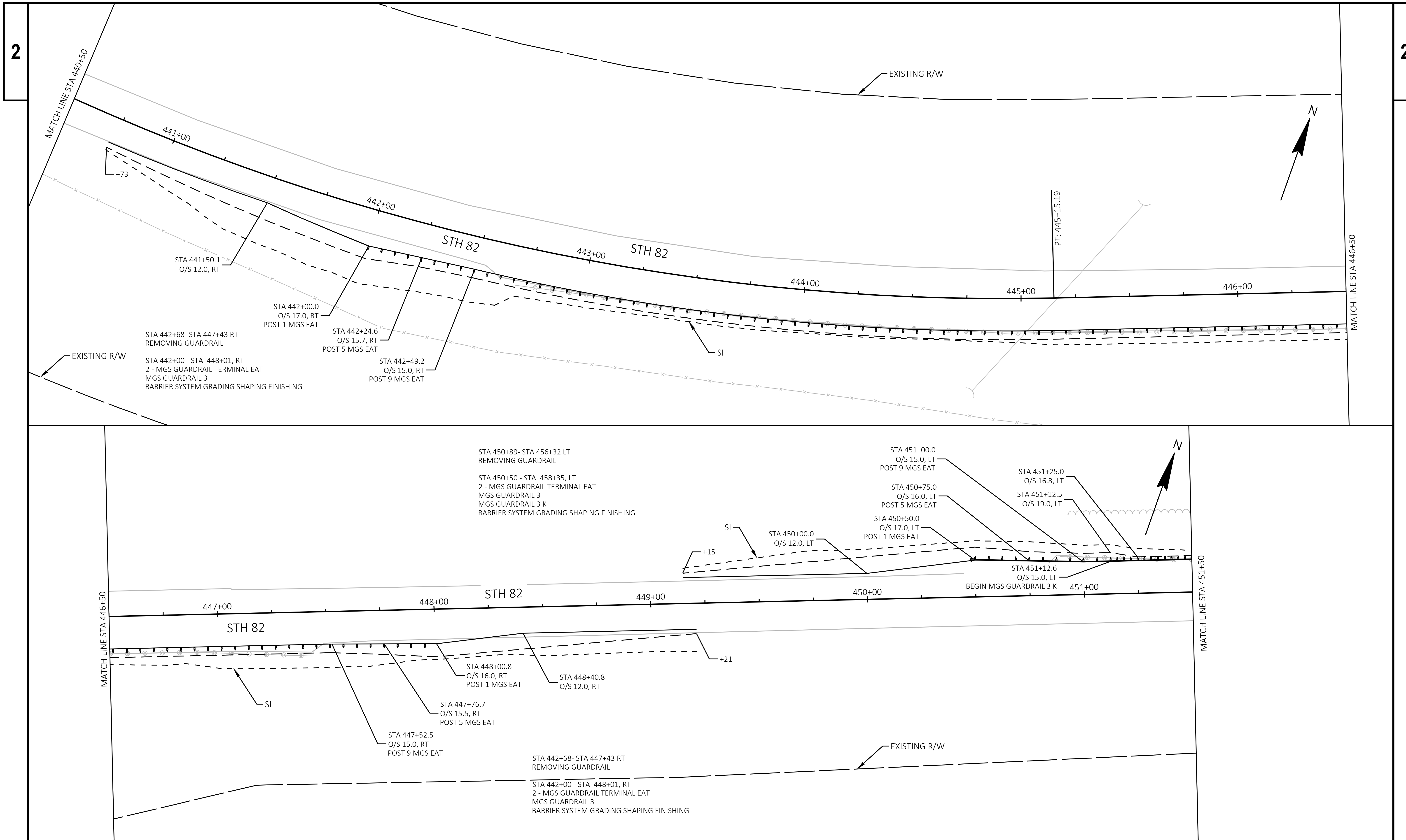
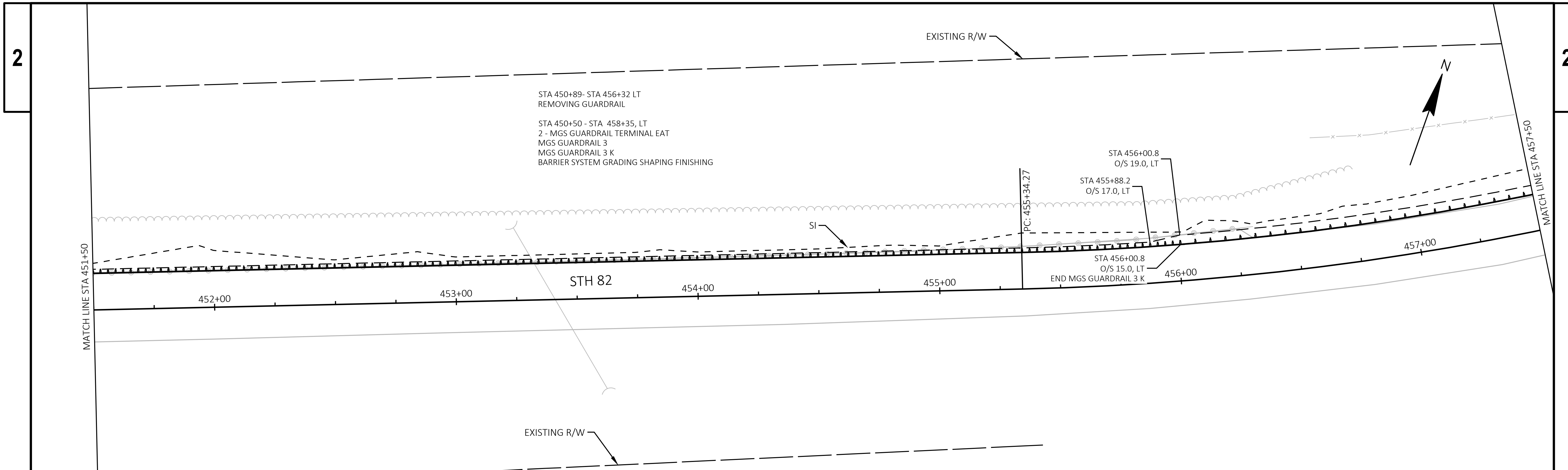
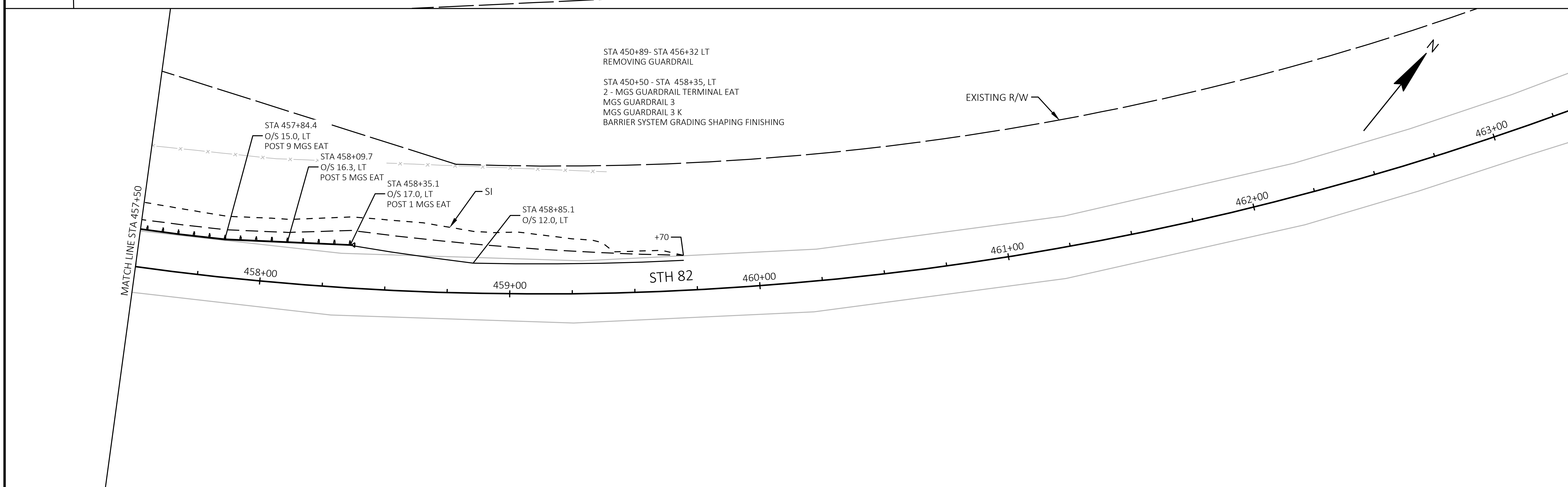
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CONSTRUCTION DETAILS - GUARDRAIL REPLACEMENT	SHEET 24	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 021002-cd Guardrail 04
PLOT DATE : 2/13/2026 5:01 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



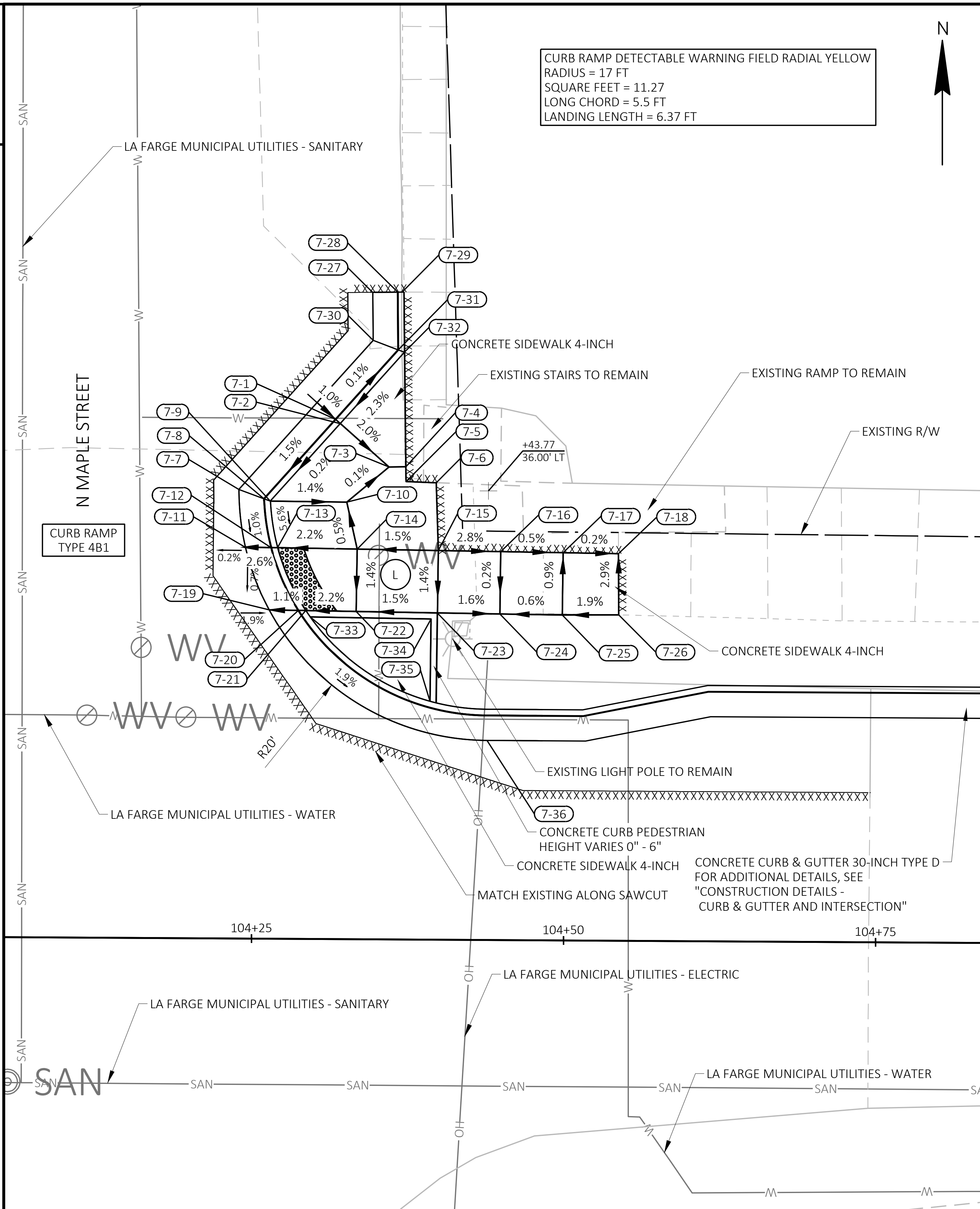
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CONSTRUCTION DETAILS - GUARDRAIL REPLACEMENT	SHEET 25	E





PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CONSTRUCTION DETAILS - GUARDRAIL REPLACEMENT	SHEET 26	E

2



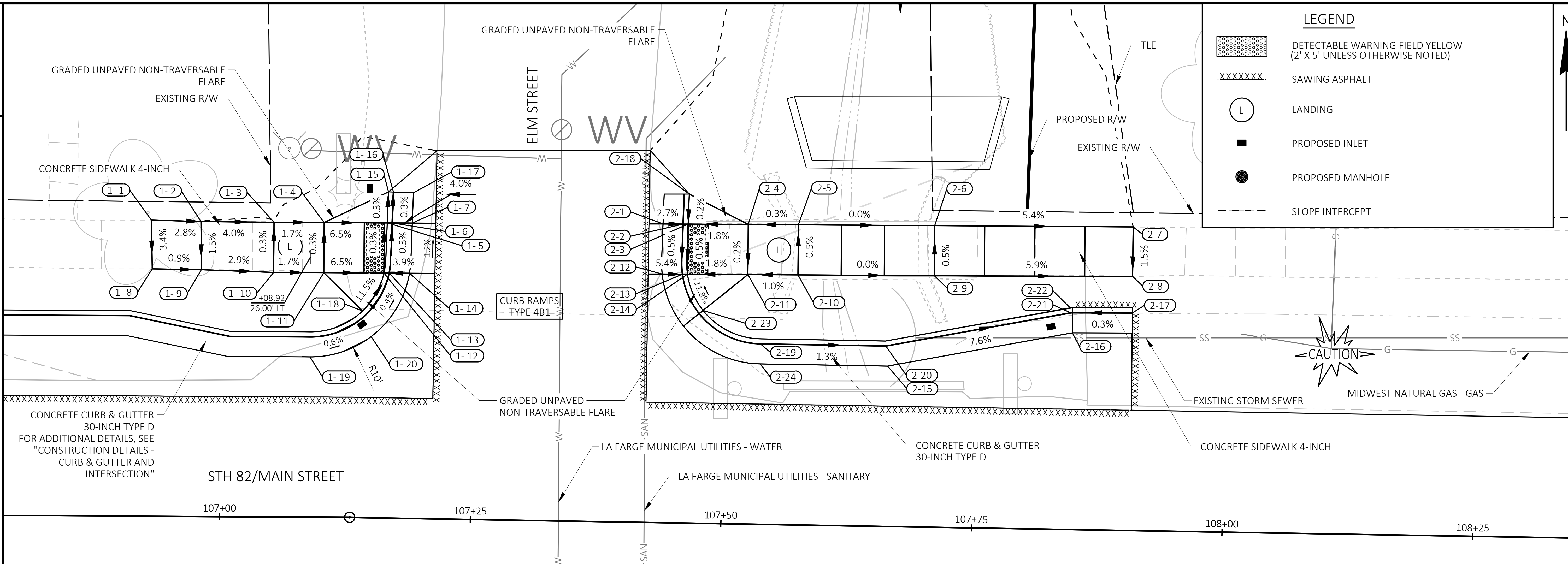
Maple St-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
7-1	104+31.49	41.66' LT	808.65	155773.26	769316.09
7-2	104+31.89	41.31' LT	808.71	155772.90	769316.49
7-3	104+35.79	37.87' LT	808.60	155769.44	769320.37
7-4	104+37.14	37.89' LT	808.60	155769.46	769321.72
7-5	104+37.16	36.70' LT	808.60	155768.26	769321.73
7-6	104+39.58	36.62' LT	808.48	155768.18	769324.15
7-7	104+23.77	36.00' LT	808.48	155767.64	769308.34
7-8	104+25.79	35.26' LT	808.52	155766.89	769310.35
7-9	104+26.30	35.08' LT	808.69	155766.71	769310.86
7-10	104+32.42	35.03' LT	808.61	155766.63	769316.99
7-11	104+24.32	31.37' LT	808.43	155763.01	769308.86
7-12	104+26.38	31.35' LT	808.48	155762.98	769310.93
7-13	104+26.90	31.35' LT	808.48	155762.97	769311.45
7-14	104+33.28	31.26' LT	808.63	155762.85	769317.82
7-15	104+39.78	31.20' LT	808.72	155762.75	769324.32
7-16	104+44.78	31.14' LT	808.58	155762.66	769329.32
7-17	104+49.78	31.08' LT	808.56	155762.57	769334.32
7-18	104+54.22	31.03' LT	808.55	155762.50	769338.76
7-19	104+26.25	26.35' LT	808.45	155757.98	769310.77
7-20	104+28.59	26.33' LT	808.47	155757.94	769313.11
7-21	104+29.19	26.32' LT	808.47	155757.93	769313.71
7-22	104+33.22	26.27' LT	808.56	155757.86	769317.73

Maple St-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
7-23	104+39.73	26.19' LT	808.67	155757.74	769324.24
7-24	104+44.74	26.14' LT	808.57	155757.66	769329.25
7-25	104+49.74	26.08' LT	808.60	155757.57	769334.25
7-26	104+54.27	26.12' LT	808.69	155757.59	769338.78
7-27	104+34.41	51.84' LT	808.85	155783.42	769319.07
7-28	104+36.41	51.88' LT	808.86	155783.45	769321.07
7-29	104+36.73	51.86' LT	809.00	155783.42	769321.39
7-30	104+34.46	48.01' LT	808.74	155779.59	769319.10
7-31	104+36.47	47.26' LT	808.65	155778.83	769321.11
7-32	104+36.97	47.07' LT	808.89	155778.63	769321.61
7-33	104+29.54	25.82' LT	808.75	155757.43	769314.05
7-34	104+39.24	25.71' LT	808.62	155757.26	769323.75
7-35	104+39.19	19.11' LT	808.65	155750.66	769323.66
7-36	104+43.77	16.00' LT	808.20	155747.53	769328.22

2

LEGEND

- DETECTABLE WARNING FIELD YELLOW (2' X 5' UNLESS OTHERWISE NOTED)
- SAWING ASPHALT
- LANDING
- PROPOSED INLET
- PROPOSED MANHOLE
- SLOPE INTERCEPT



Elm St-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1- 1	106+93.01	29.55' LT	807.64	155759.60	769577.54
1- 2	106+97.96	29.43' LT	807.50	155759.45	769582.48
1- 3	107+05.25	29.41' LT	807.21	155759.39	769589.78
1- 4	107+10.25	29.41' LT	807.12	155759.35	769594.78
1- 5	107+16.22	29.46' LT	806.73	155759.33	769601.06
1- 6	107+16.72	29.45' LT	806.73	155759.31	769601.56
1- 7	107+18.72	29.47' LT	806.81	155759.30	769603.56
1- 8	106+93.12	24.68' LT	807.48	155754.72	769577.62
1- 9	106+98.02	24.63' LT	807.43	155754.65	769582.52
1- 10	107+05.25	24.41' LT	807.22	155754.39	769589.74
1- 11	107+10.25	24.41' LT	807.14	155754.35	769594.74
1- 12	107+15.98	24.44' LT	806.75	155754.31	769600.74
1- 13	107+16.49	24.44' LT	806.75	155754.31	769601.25

Elm St-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1- 14	107+18.53	24.46' LT	806.83	155754.30	769603.29
1- 15	107+16.29	32.53' LT	807.22	155762.40	769601.18
1- 16	107+16.79	32.52' LT	806.72	155762.38	769601.68
1- 17	107+18.79	32.48' LT	806.80	155762.31	769603.68
1- 18	107+13.91	20.62' LT	807.26	155750.53	769598.61
1- 19	107+08.92	16.00' LT	806.88	155745.95	769593.37
1- 20	107+14.81	18.09' LT	806.85	155747.98	769599.46

Elm St-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2-1	107+43.73	29.79' LT	806.42	155759.21	769628.58
2-2	107+45.73	29.82' LT	806.37	155759.20	769630.58
2-3	107+46.23	29.83' LT	806.38	155759.20	769631.08
2-4	107+52.23	29.89' LT	806.49	155759.16	769637.08
2-5	107+57.23	29.94' LT	806.50	155759.13	769642.08
2-6	107+70.83	30.09' LT	806.50	155759.04	769655.68
2-7	107+90.62	30.29' LT	805.42	155758.91	769675.47
2-8	107+90.66	25.35' LT	805.35	155753.97	769675.43
2-9	107+70.88	25.09' LT	806.52	155754.04	769655.65
2-10	107+57.29	24.94' LT	806.52	155754.13	769642.05
2-11	107+52.29	24.89' LT	806.48	155754.16	769637.05
2-12	107+43.72	24.80' LT	806.46	155754.21	769628.49
2-13	107+45.75	24.82' LT	806.34	155754.20	769630.51
2-14	107+46.24	24.83' LT	806.35	155754.20	769631.01
2-15	107+66.36	16.00' LT	806.25	155745.03	769650.97
2-16	107+84.74	19.62' LT	805.05	155748.35	769669.41

Elm St-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2-17	107+90.68	21.71' LT	804.72	155750.33	769675.39
2-18	107+46.30	32.82' LT	806.34	155762.19	769631.20
2-19	107+53.65	18.00' LT	806.28	155747.25	769638.30
2-20	107+66.16	18.00' LT	806.12	155747.04	769650.81
2-21	107+84.53	21.62' LT	804.70	155750.35	769669.24
2-22	107+84.48	22.12' LT	805.20	155750.85	769669.19
2-23	107+47.86	21.23' LT	806.82	155750.58	769632.56
2-24	107+53.65	16.00' LT	806.40	155745.25	769638.26

2

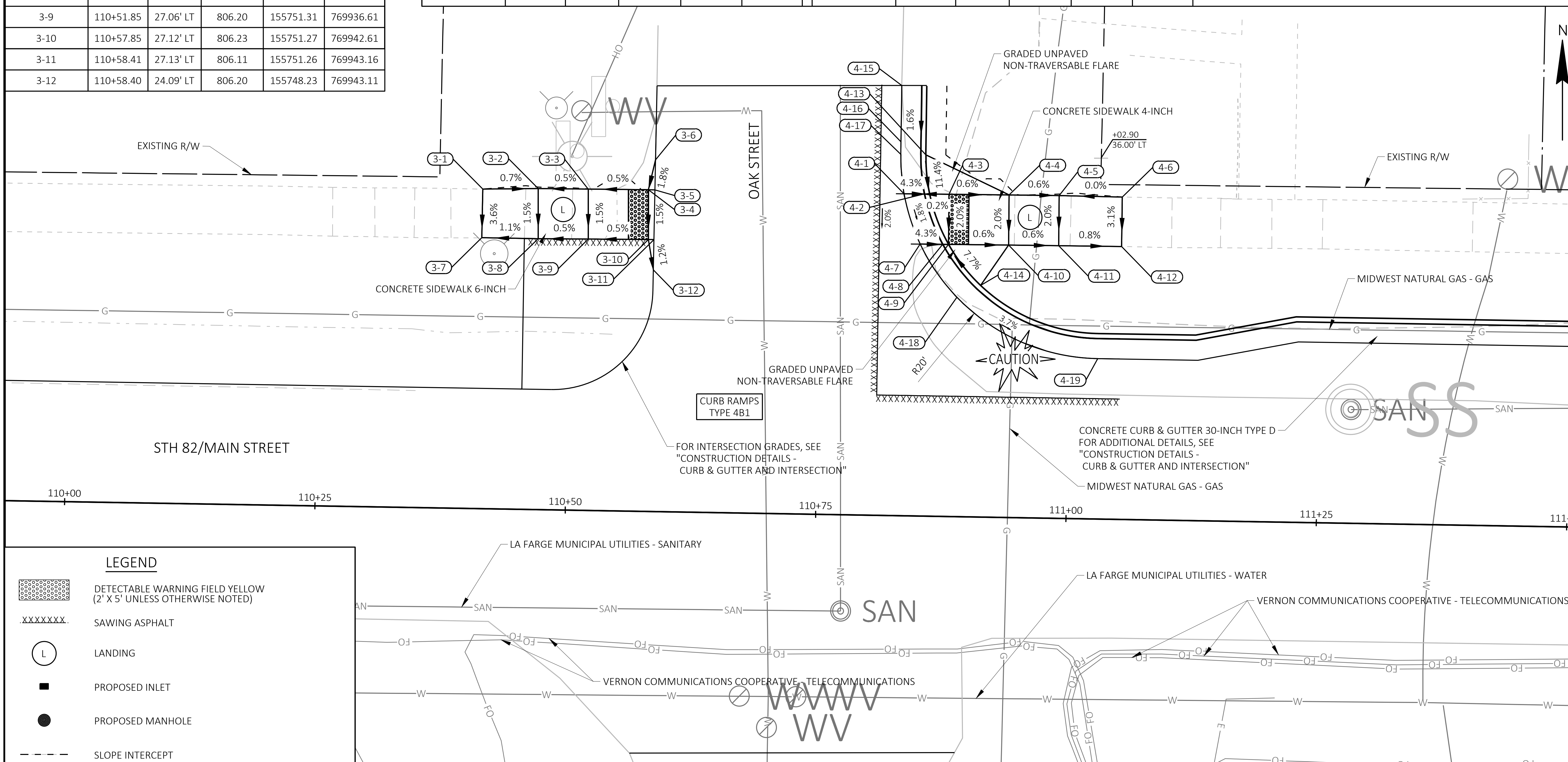
Oak St-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
3-1	110+41.24	31.87' LT	806.29	155756.29	769926.08
3-2	110+46.77	32.02' LT	806.25	155756.35	769931.61
3-3	110+51.77	32.03' LT	806.28	155756.28	769936.61
3-4	110+57.77	32.09' LT	806.31	155756.23	769942.61
3-5	110+58.42	32.09' LT	806.24	155756.22	769943.26
3-6	110+58.42	35.08' LT	806.36	155759.22	769943.31
3-7	110+41.21	27.02' LT	806.12	155751.44	769925.96
3-8	110+46.85	27.01' LT	806.18	155751.34	769931.61
3-9	110+51.85	27.06' LT	806.20	155751.31	769936.61
3-10	110+57.85	27.12' LT	806.23	155751.27	769942.61
3-11	110+58.41	27.13' LT	806.11	155751.26	769943.16
3-12	110+58.40	24.09' LT	806.20	155748.23	769943.11

Oak St-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
4-1	110+83.28	32.11' LT	806.36	155755.83	769968.12
4-2	110+85.32	32.13' LT	806.28	155755.81	769970.16
4-3	110+87.79	32.13' LT	806.28	155755.77	769972.62
4-4	110+93.78	32.17' LT	806.25	155755.71	769978.62
4-5	110+98.78	32.19' LT	806.22	155755.65	769983.62
4-6	111+05.09	32.15' LT	806.22	155755.50	769989.92
4-7	110+84.98	27.12' LT	806.23	155750.81	769969.73
4-8	110+87.24	27.13' LT	806.13	155750.78	769971.99

Oak St-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
4-9	110+87.81	27.13' LT	806.18	155750.78	769972.57
4-10	110+93.81	27.17' LT	806.14	155750.71	769978.57
4-11	110+98.81	27.19' LT	806.11	155750.65	769983.57
4-12	111+05.11	27.22' LT	806.06	155750.57	769989.86
4-13	110+85.40	36.04' LT	806.71	155759.72	769970.30
4-14	110+91.08	23.10' LT	806.56	155746.69	769975.76
4-15	110+82.89	42.90' LT	806.54	155766.62	769967.91
4-16	110+82.90	37.29' LT	806.45	155761.01	769967.82

Oak St-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
4-17	110+82.90	36.04' LT	806.43	155759.76	769967.80
4-18	110+88.74	21.87' LT	806.17	155745.50	769973.41
4-19	111+02.90	16.00' LT	805.65	155739.39	769987.47

2



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Cherry St-NW

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
5-1	113+56.99	30.99' LT	804.22	155752.51	770241.23
5-2	113+63.29	30.85' LT	804.25	155752.38	770247.52
5-3	113+68.29	30.79' LT	804.26	155752.33	770252.52
5-4	113+74.29	30.72' LT	804.27	155752.26	770258.52
5-5	113+77.26	30.69' LT	804.30	155752.23	770261.49
5-6	113+79.34	30.66' LT	804.39	155752.21	770263.57
5-7	113+56.75	26.03' LT	804.29	155747.55	770240.99
5-8	113+63.23	25.85' LT	804.17	155747.38	770247.47
5-9	113+68.23	25.79' LT	804.18	155747.33	770252.47
5-10	113+74.23	25.72' LT	804.20	155747.26	770258.47
5-11	113+74.83	25.72' LT	804.20	155747.26	770259.07
5-12	113+77.19	25.68' LT	804.30	155747.23	770261.44

Cherry St-NW

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
5-13	113+77.55	35.51' LT	804.38	155757.06	770261.78
5-14	113+70.35	21.85' LT	804.60	155743.38	770254.60
5-16	113+60.06	16.00' LT	803.99	155737.52	770244.32
5-17	113+80.06	35.51' LT	804.46	155757.06	770264.28

Cherry St-NE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
6-1	114+00.94	30.39' LT	804.29	155751.97	770285.17
6-2	114+02.94	30.38' LT	804.21	155751.96	770287.17
6-3	114+04.33	30.38' LT	804.22	155751.96	770288.56
6-4	114+10.33	30.36' LT	804.23	155751.96	770294.56
6-5	114+15.33	30.36' LT	804.25	155751.96	770299.56
6-6	114+01.66	25.38' LT	804.21	155746.97	770285.90
6-7	114+03.78	25.38' LT	804.12	155746.96	770288.02
6-8	114+04.32	25.38' LT	804.12	155746.96	770288.56

Cherry St-NE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
6-9	114+10.32	25.36' LT	804.13	155746.96	770294.56
6-10	114+15.32	25.35' LT	804.15	155746.95	770299.56
6-11	114+06.98	21.27' LT	804.50	155742.86	770291.23
6-12	114+03.62	35.30' LT	804.29	155756.88	770287.85
6-13	114+01.12	35.39' LT	804.37	155756.97	770285.35
6-14	114+04.44	20.36' LT	804.12	155741.94	770288.69
6-15	114+15.93	15.00' LT	803.73	155736.60	770300.18

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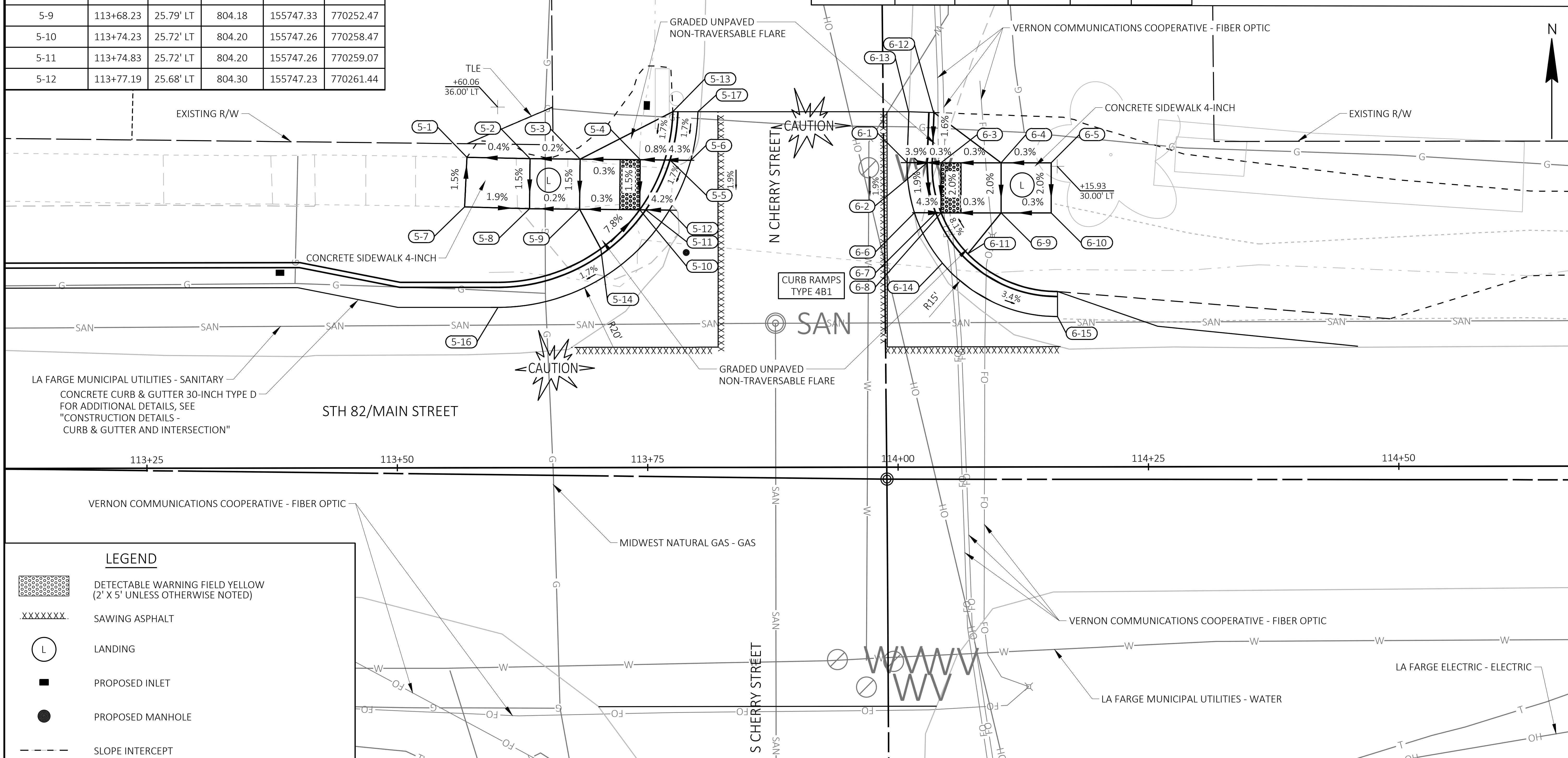

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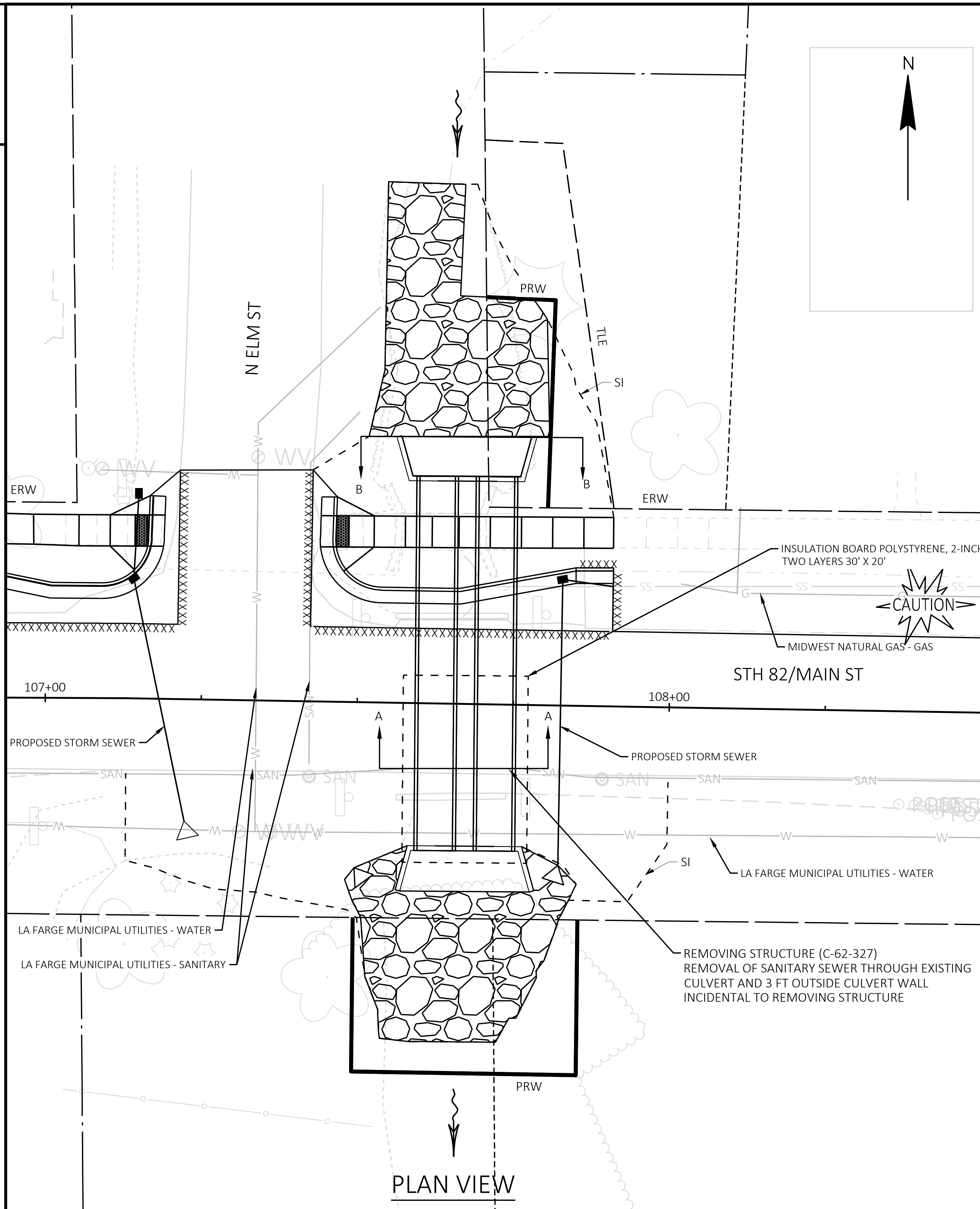

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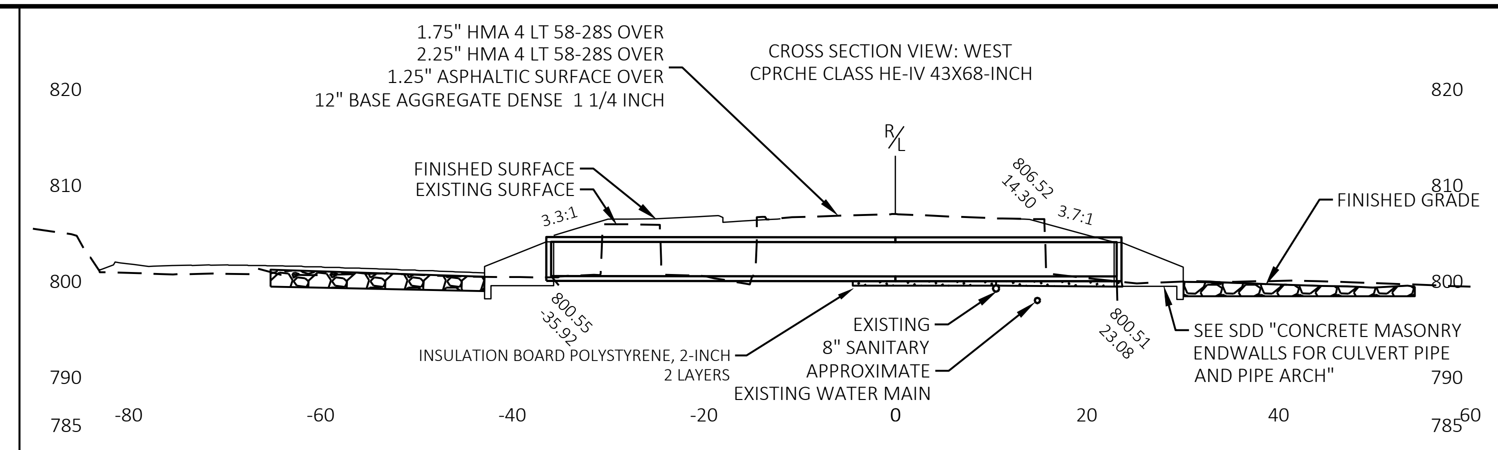
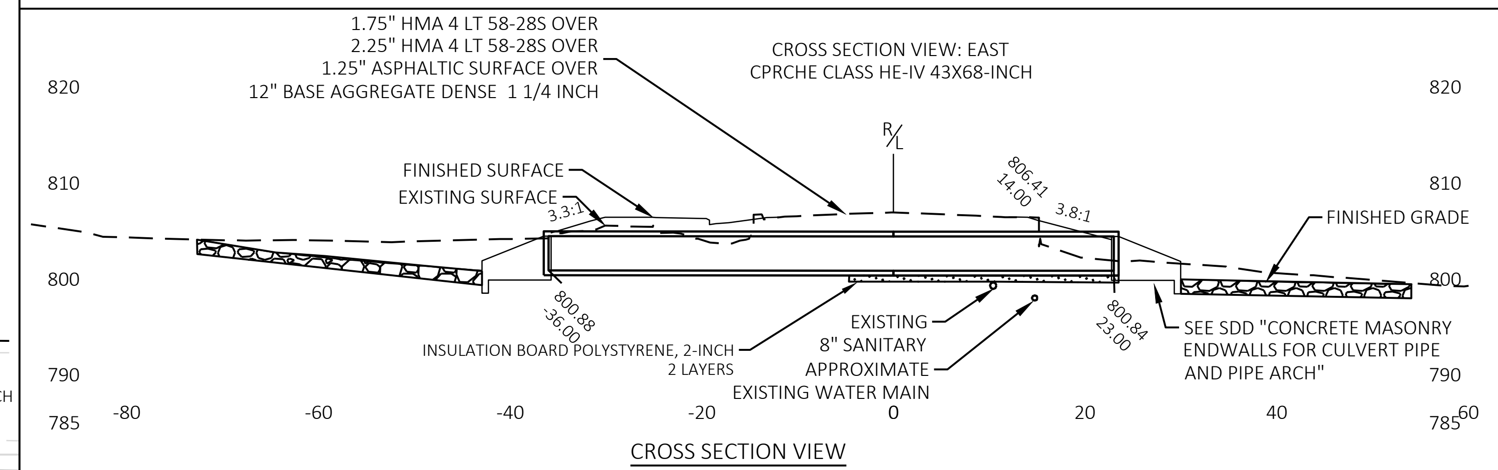
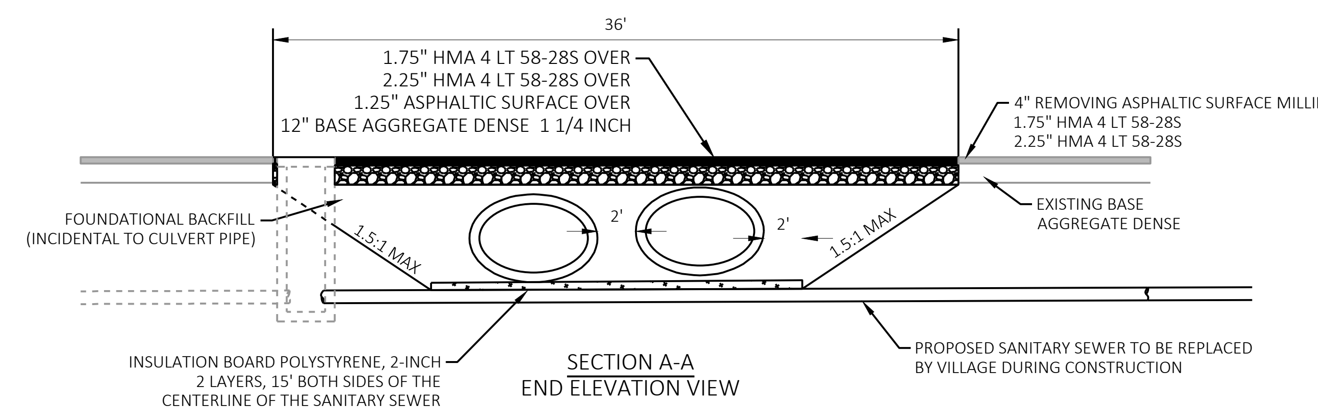
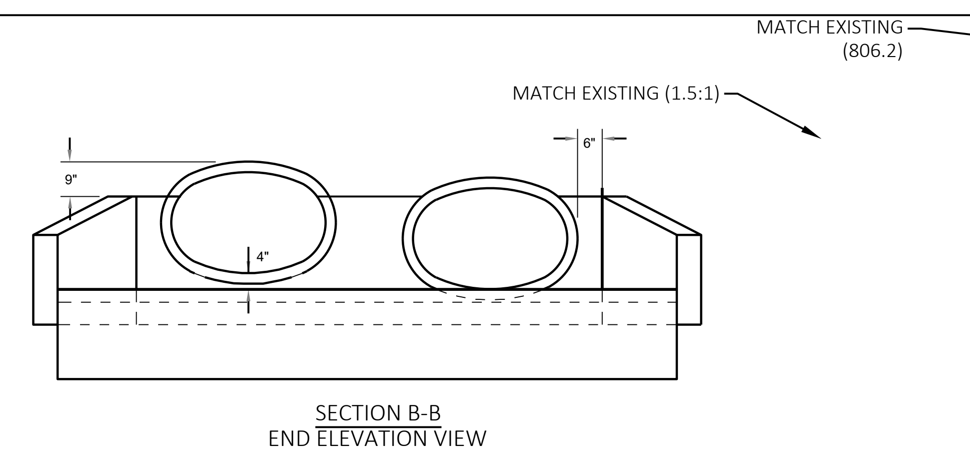




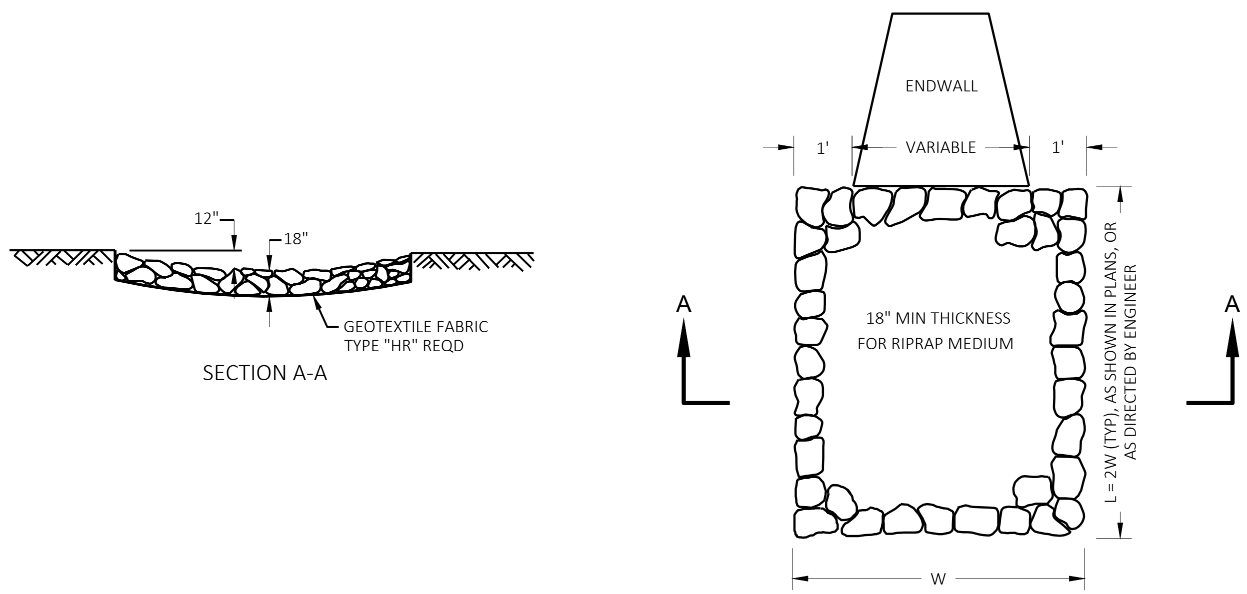


FOR ADDITIONAL DETAILS NOT SHOWN SEE SDD "CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH"

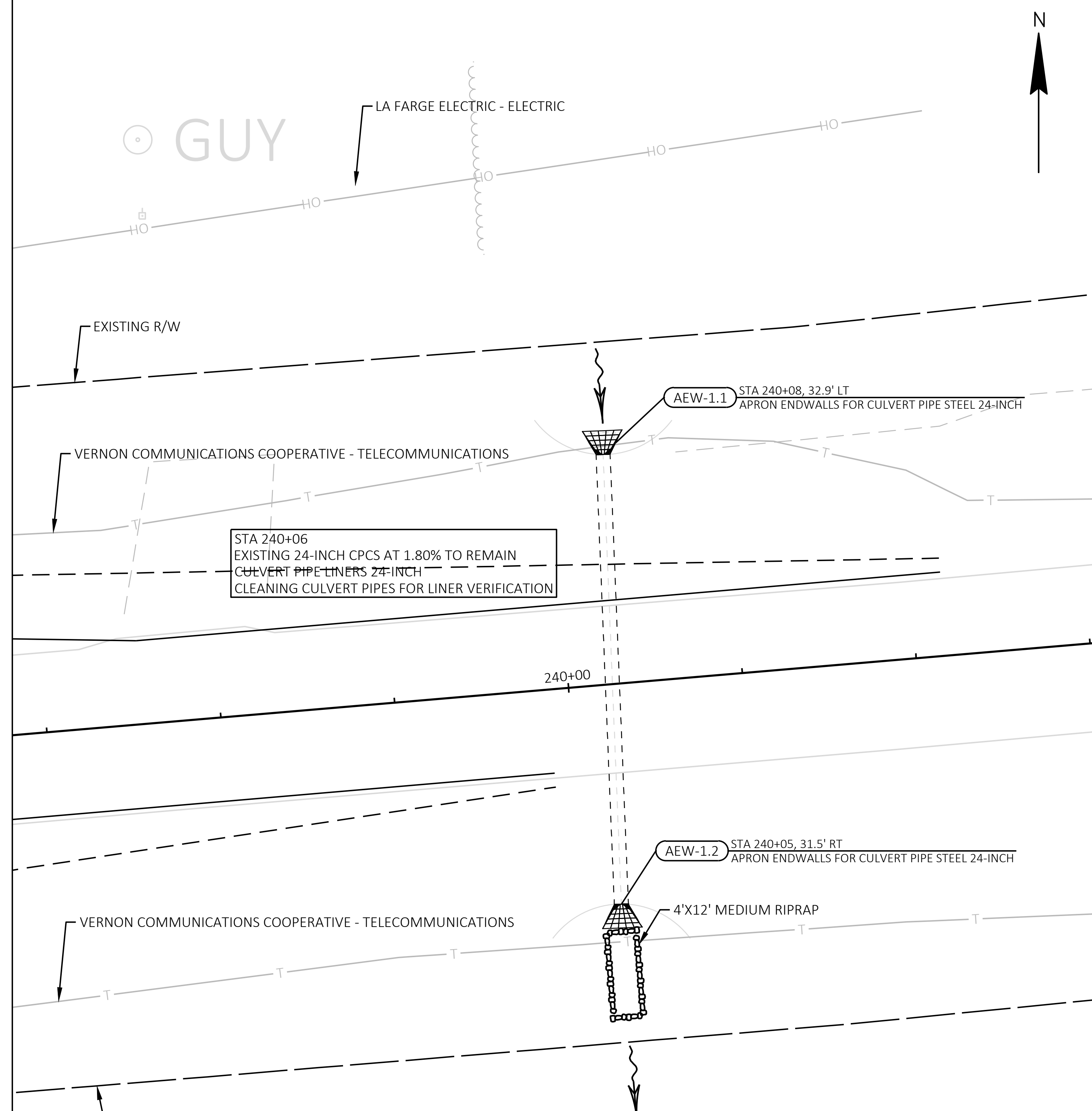


PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CONSTRUCTION DETAILS - CULVERT	SHEET 31	E

2



RIPRAP MEDIUM TREATMENT AT CULVERTS

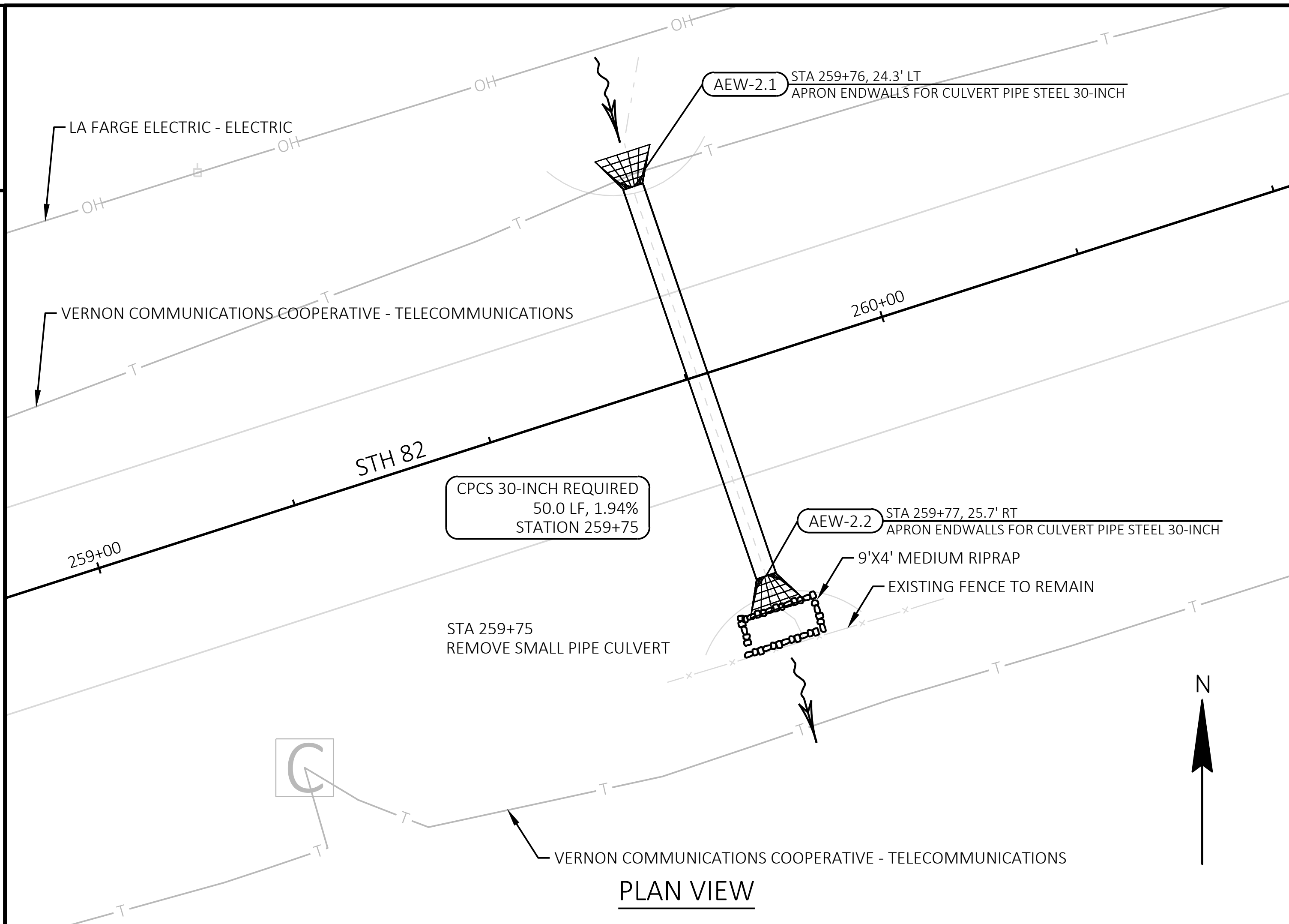


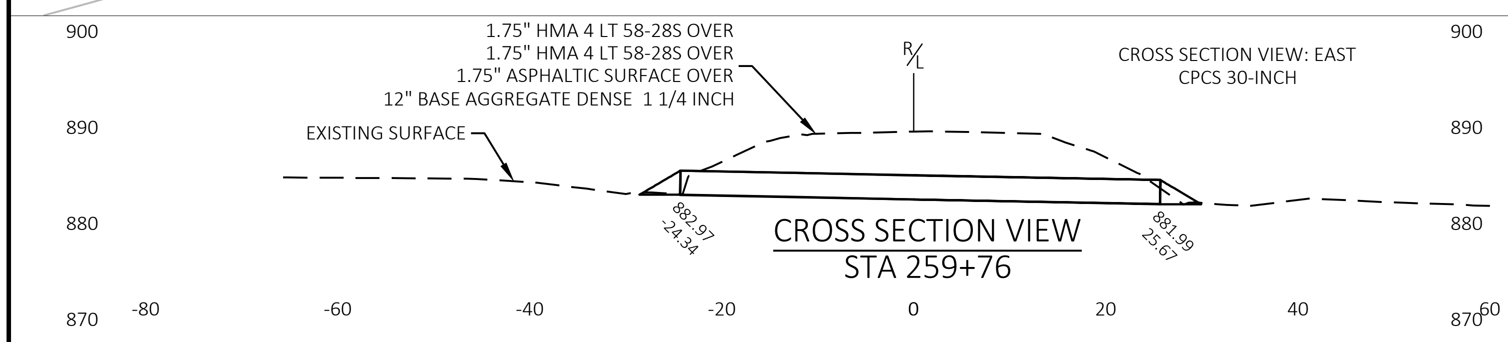
PLAN VIEW

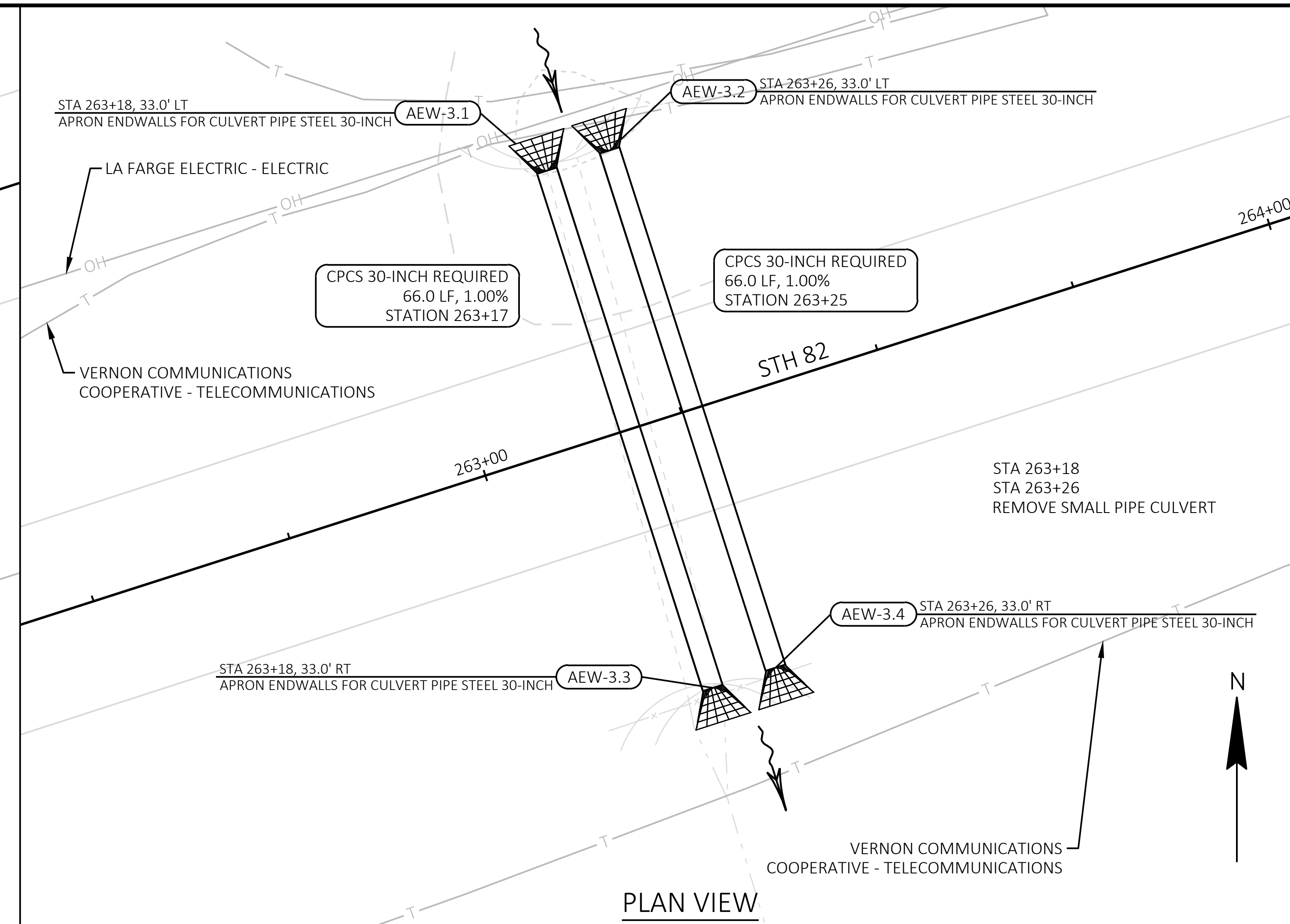
2

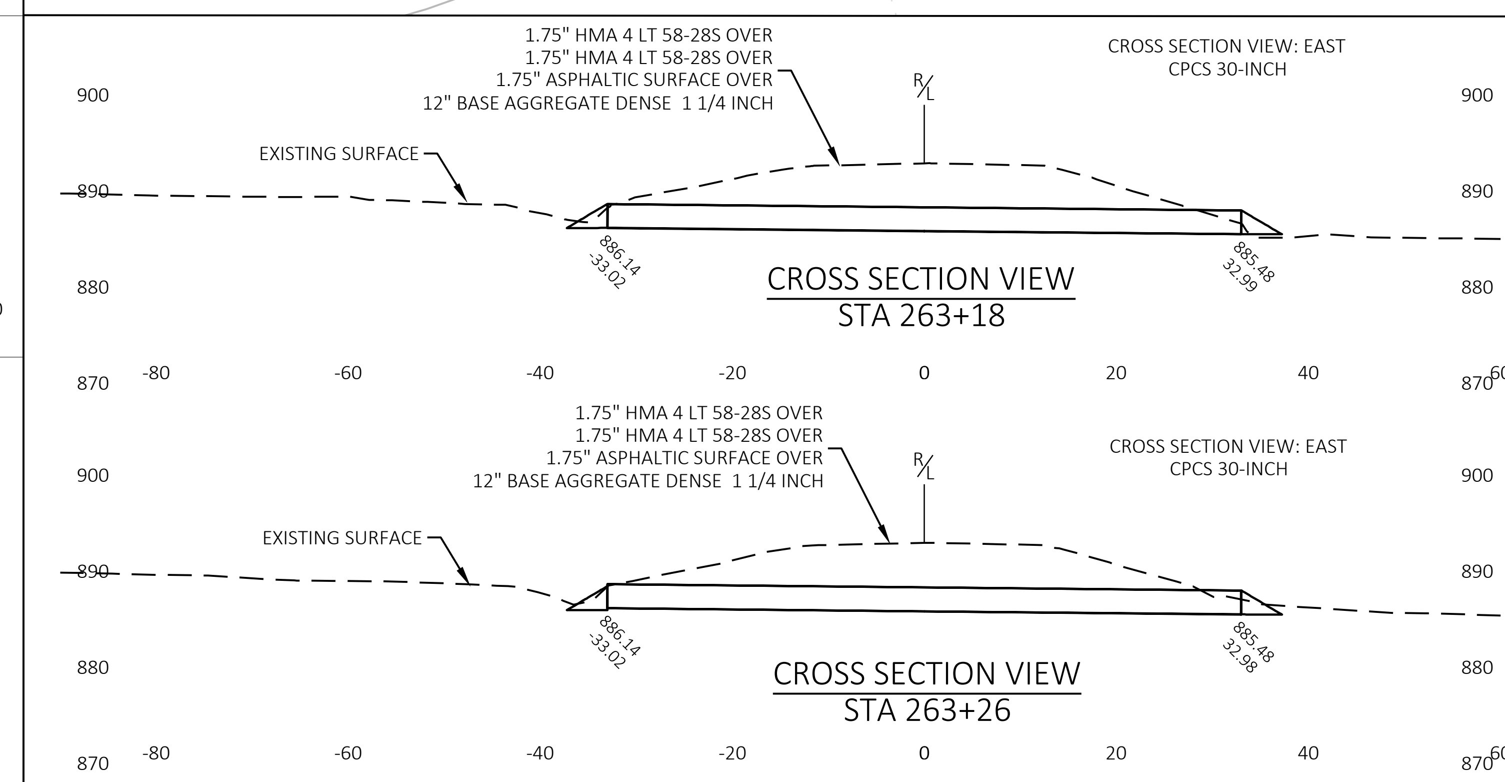
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CONSTRUCTION DETAILS - CULVERT	SHEET 32	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\021004-CD.DWG
LAYOUT NAME - 02
PLOT DATE : 2/13/2026 9:17 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42









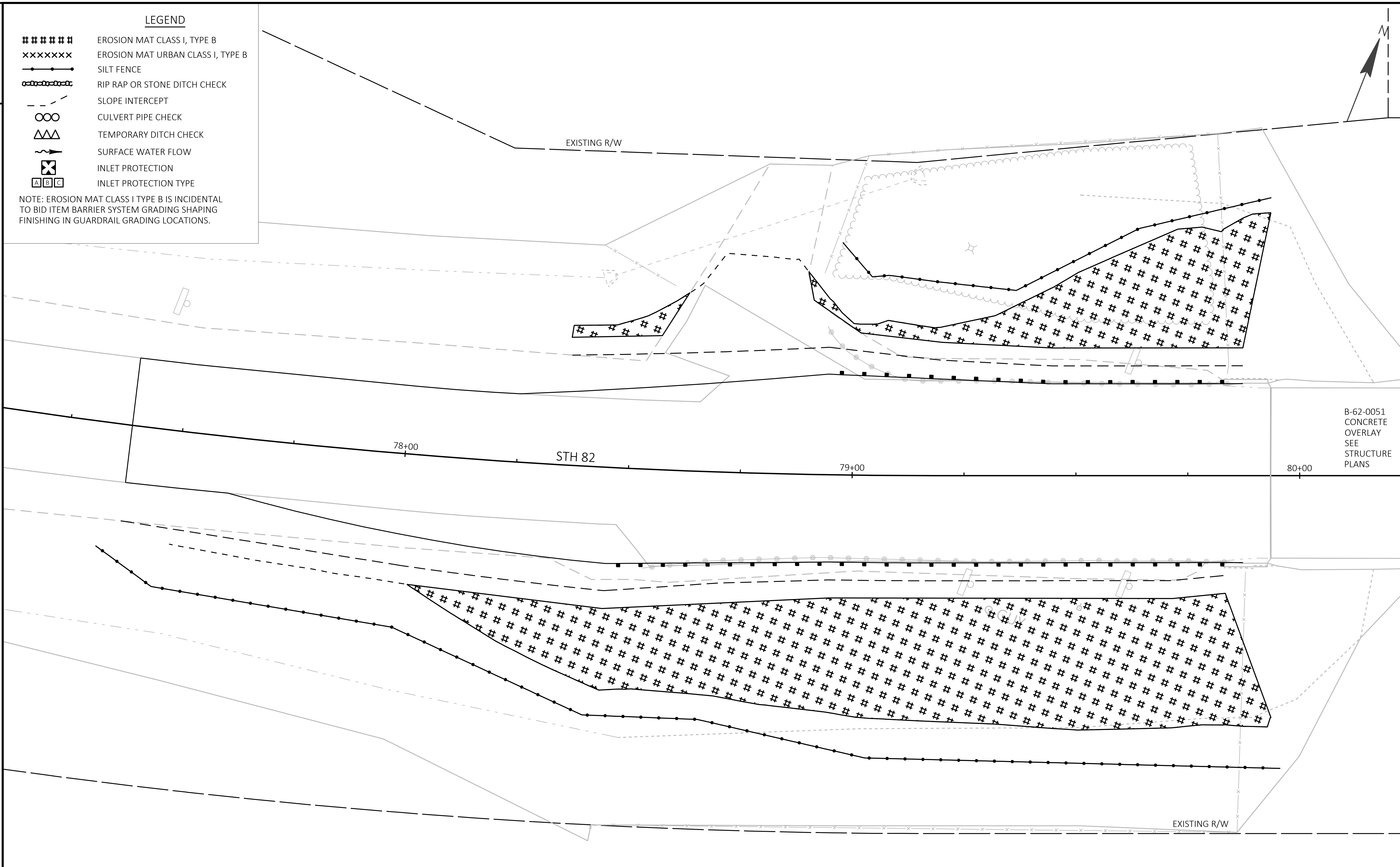
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CONSTRUCTION DETAILS - CULVERT	SHEET 33 E

2

LEGEND

⌗⌗⌗⌗⌗⌗	EROSION MAT CLASS I, TYPE B
×××××××	EROSION MAT URBAN CLASS I, TYPE B
	SILT FENCE
	RIP RAP OR STONE DITCH CHECK
	SLOPE INTERCEPT
○○○	CULVERT PIPE CHECK
△△△	TEMPORARY DITCH CHECK
	SURFACE WATER FLOW
	INLET PROTECTION
A B C	INLET PROTECTION TYPE

NOTE: EROSION MAT CLASS I TYPE B IS INCIDENTAL TO BID ITEM BARRIER SYSTEM GRADING SHAPING FINISHING IN GUARDRAIL GRADING LOCATIONS.



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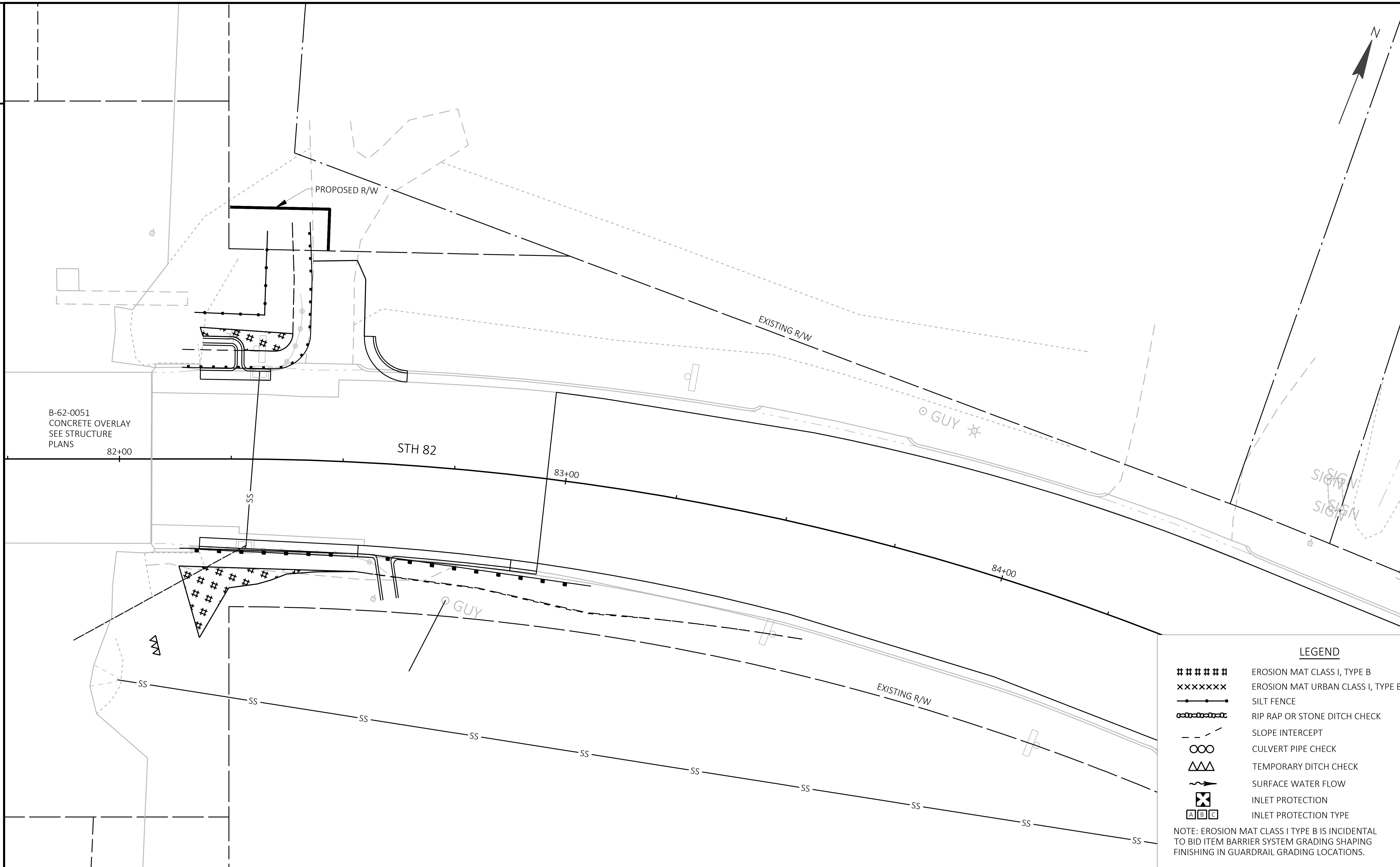
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	EROSION CONTROL	SHEET 34	E

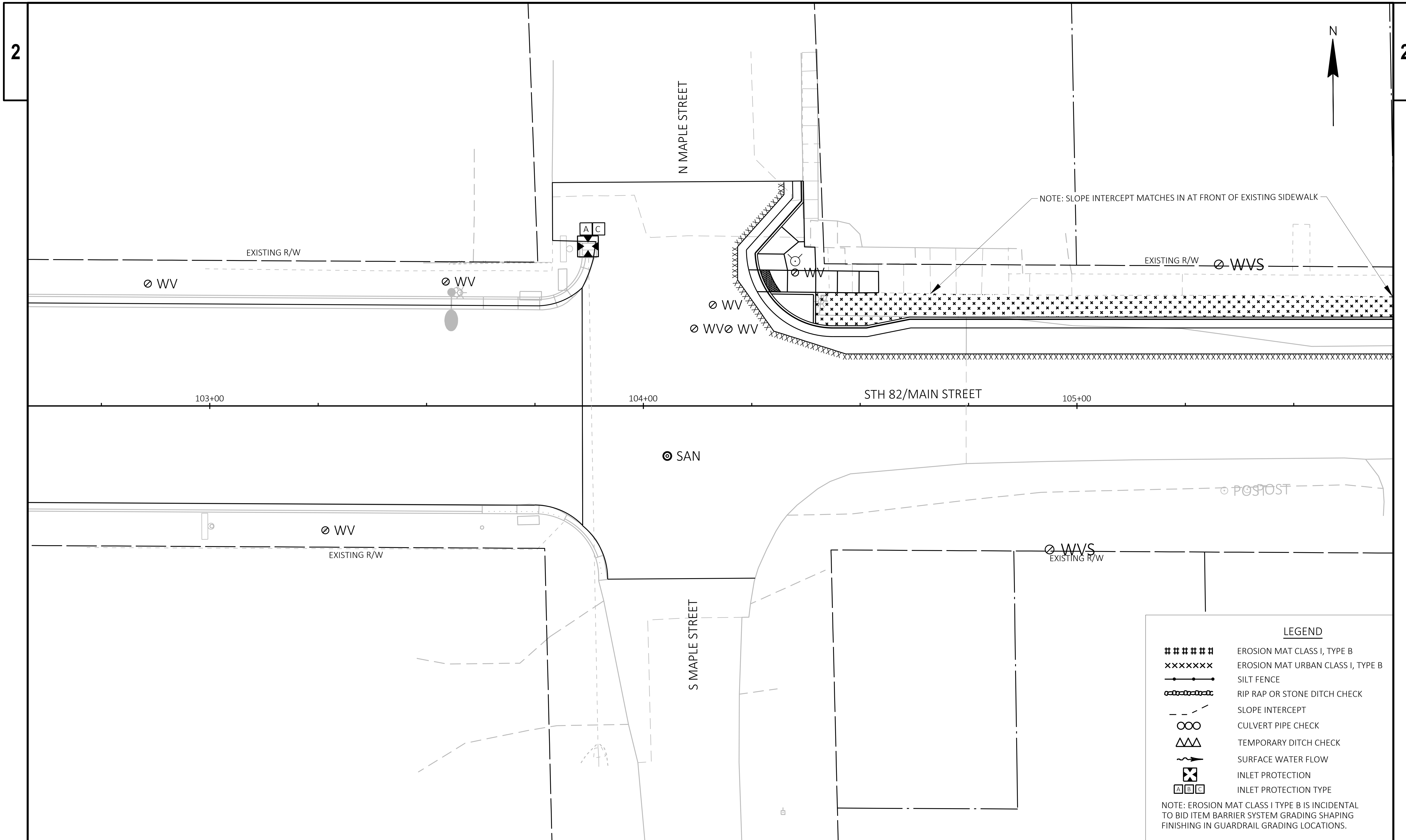
2

2

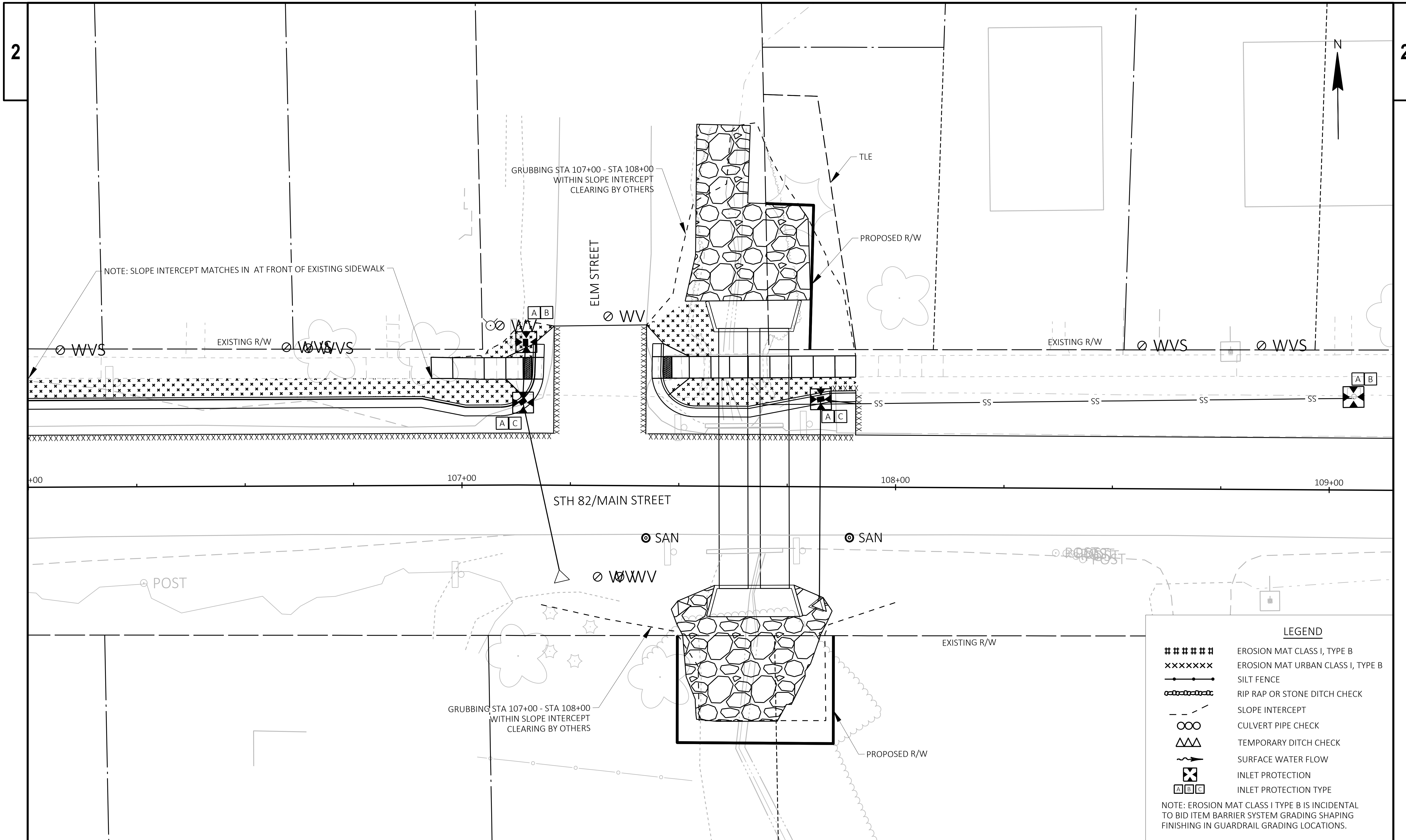


PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	EROSION CONTROL	SHEET 35	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022002-ec
PLOT DATE : 2/15/2026 10:27 AM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

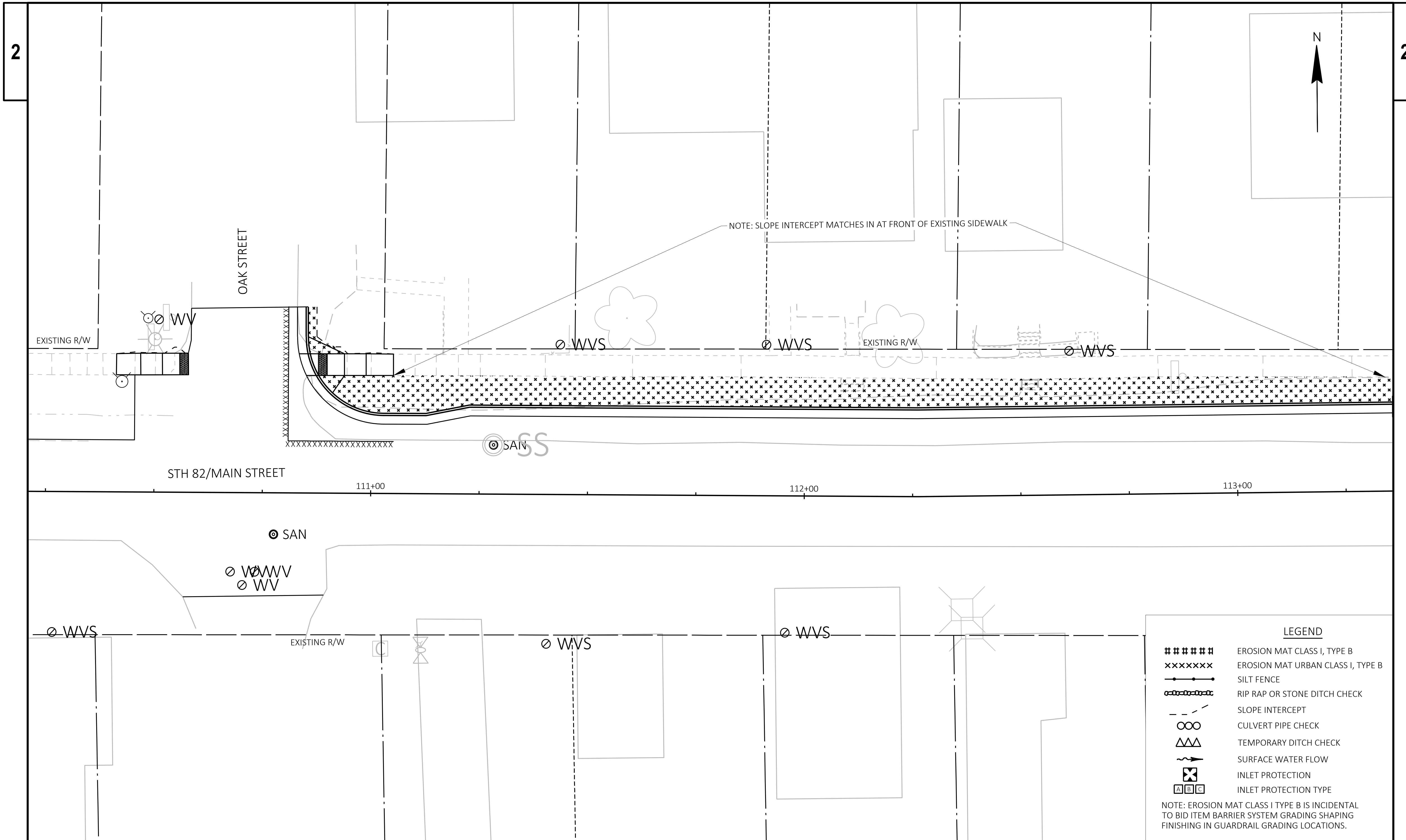


PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	EROSION CONTROL	SHEET 36	E



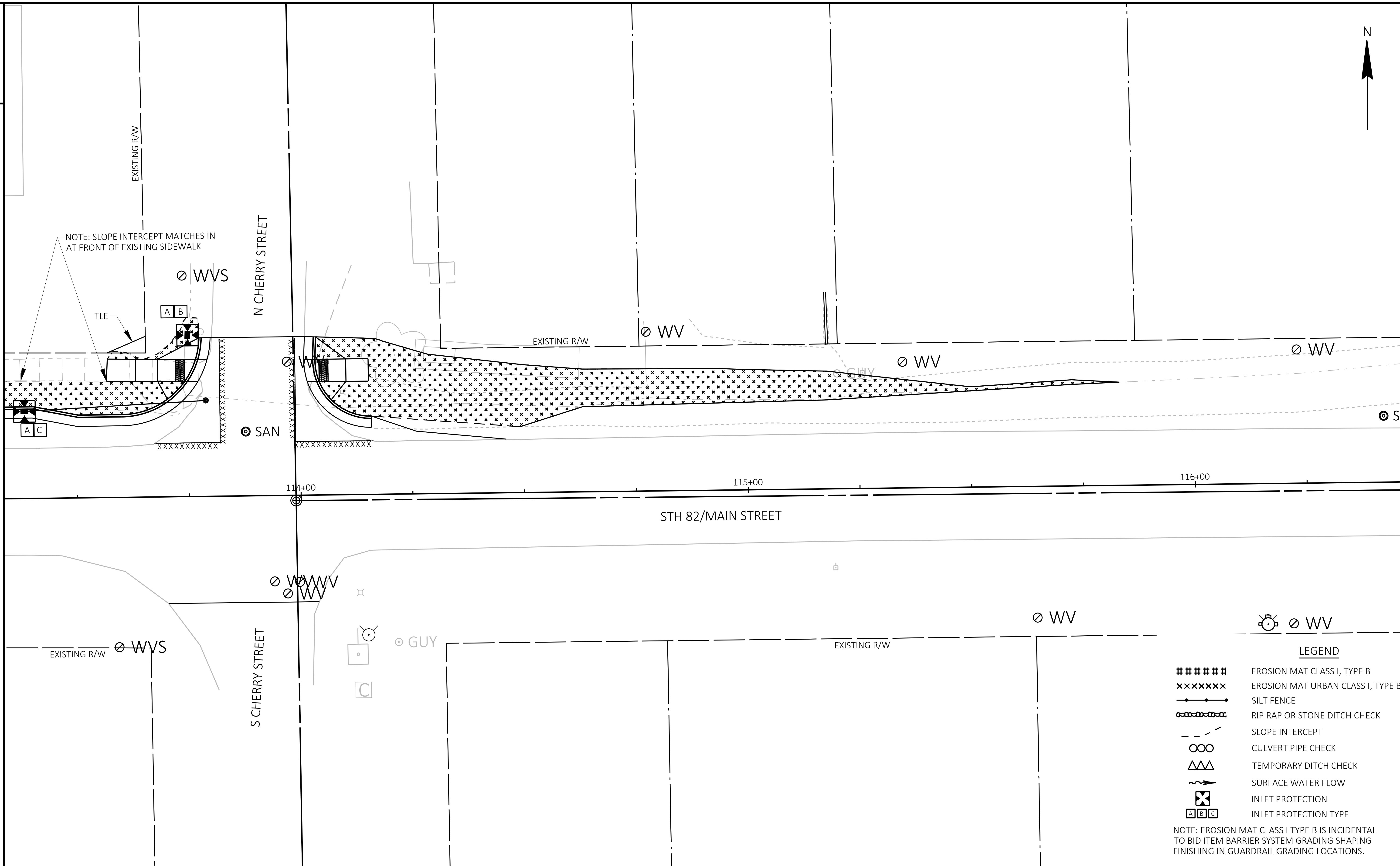
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	EROSION CONTROL	SHEET 37	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022004-ec
PLOT DATE : 2/15/2026 10:27 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	EROSION CONTROL	SHEET 38	E

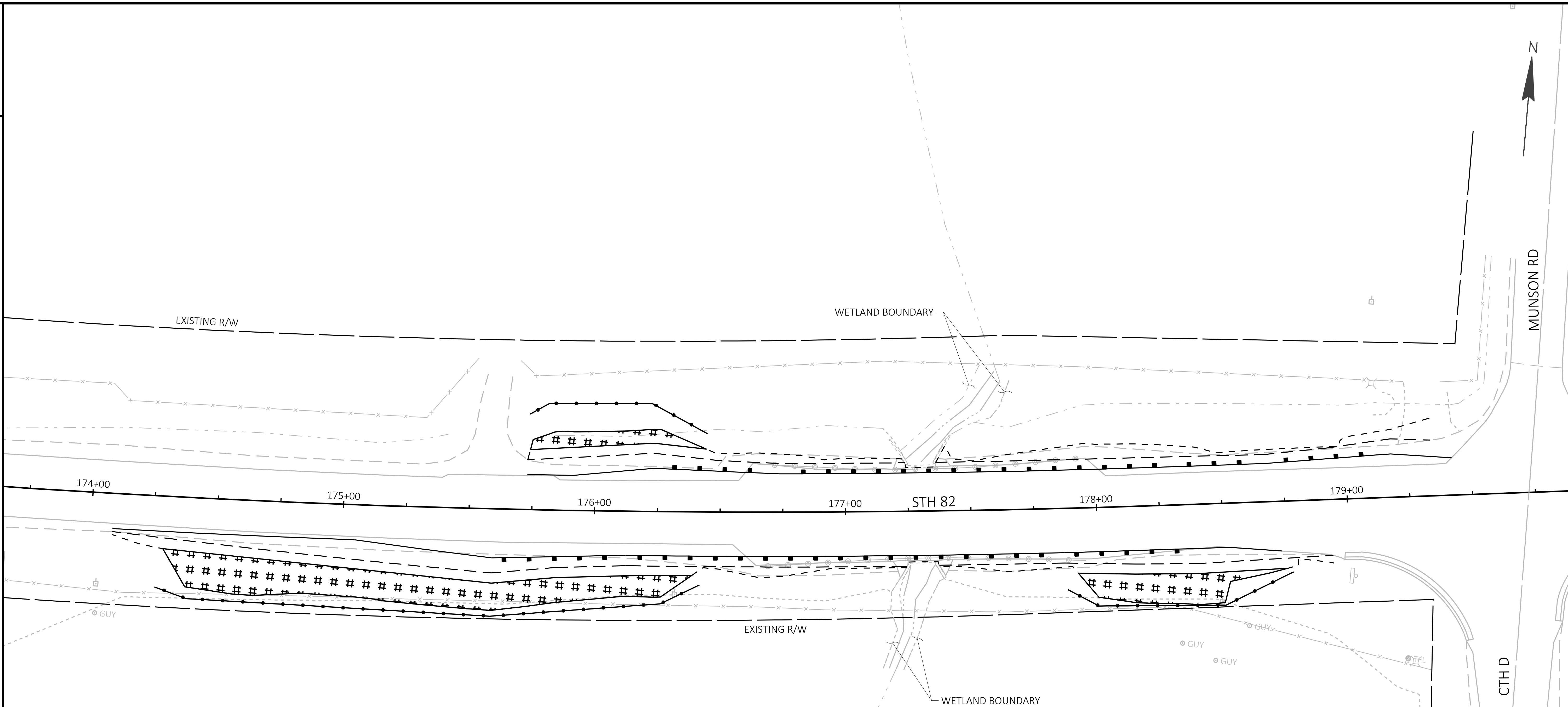
2



2

PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	EROSION CONTROL	SHEET 39	E

2



LEGEND

ERROSION MAT CLASS I, TYPE B

EROSION MAT URBAN CLASS I, TYPE B

SILT FENCE

RIP RAP OR STONE DITCH CHECK

SLOPE INTERCEPT

CULVERT PIPE CHECK

TEMPORARY DITCH CHECK

SURFACE WATER FLOW

INLET PROTECTION

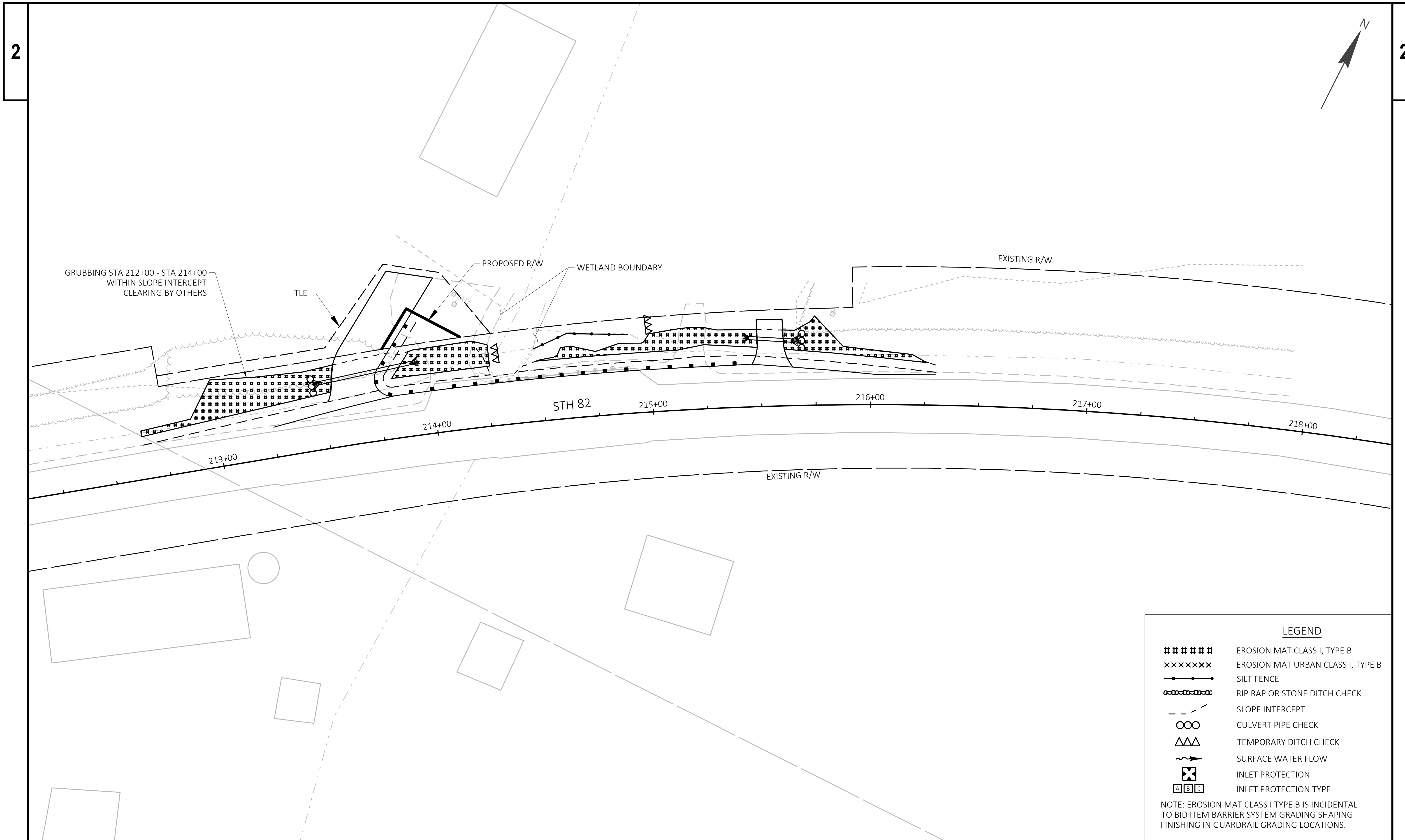
A B C INLET PROTECTION TYPE

NOTE: EROSION MAT CLASS I TYPE B IS INCIDENTAL
TO BID ITEM BARRIER SYSTEM GRADING SHAPING
FINISHING IN GUARDRAIL GRADING LOCATIONS.

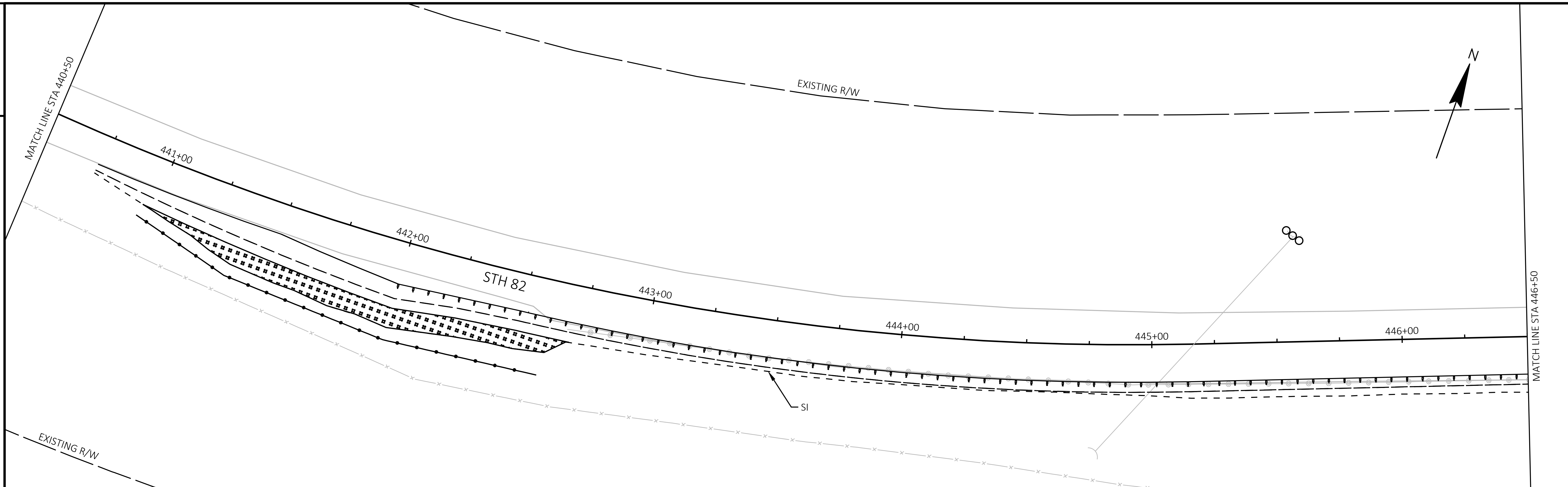
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	EROSION CONTROL	SHEET 40	E

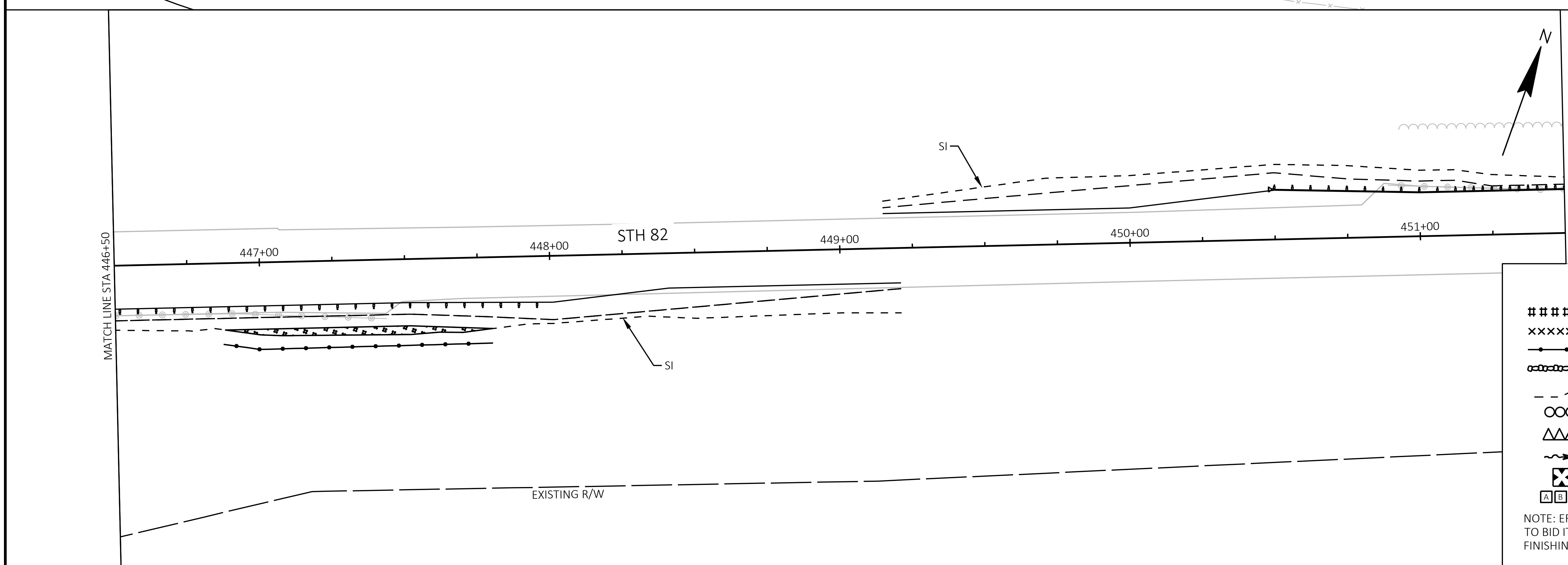
FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022007-ec
PLOT DATE : 2/15/2026 10:27 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	EROSION CONTROL	SHEET 41	E



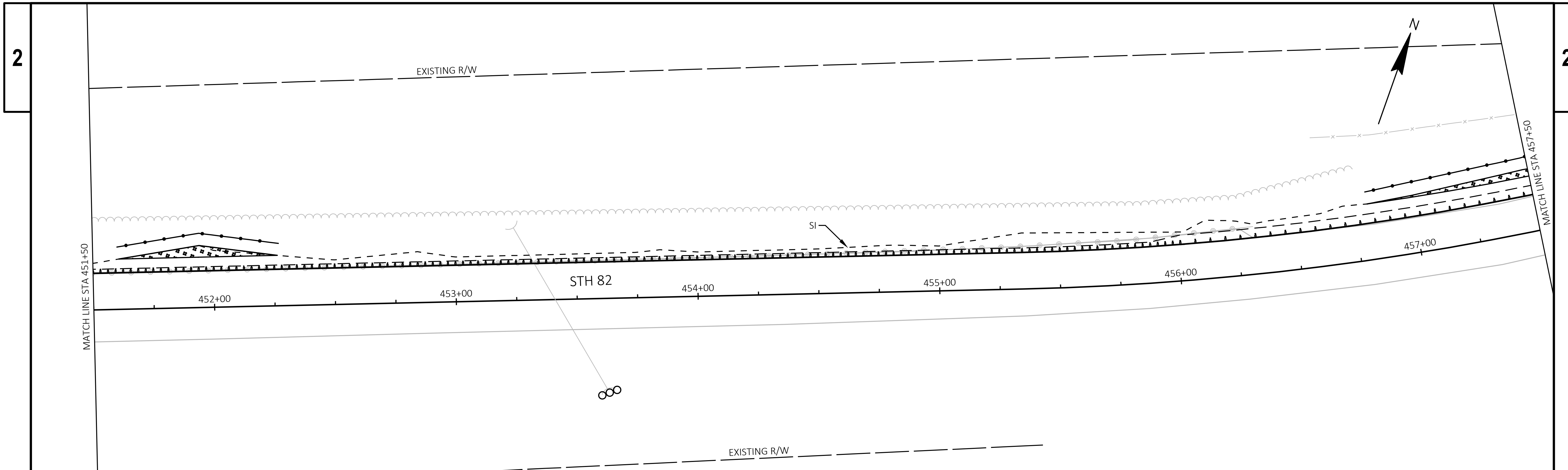


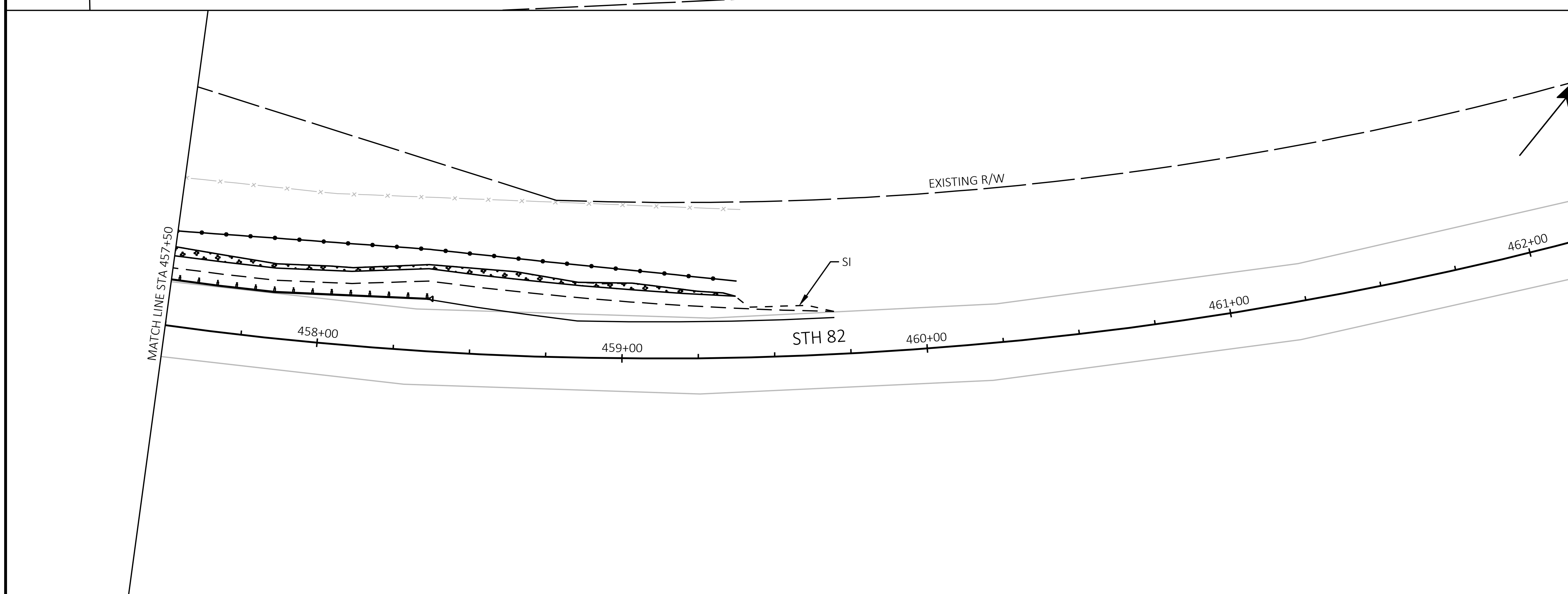
LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- INLET PROTECTION
- A B C INLET PROTECTION TYPE

NOTE: EROSION MAT CLASS I TYPE B IS INCIDENTAL TO BID ITEM BARRIER SYSTEM GRADING SHAPING FINISHING IN GUARDRAIL GRADING LOCATIONS.

PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	EROSION CONTROL	SHEET 42	E



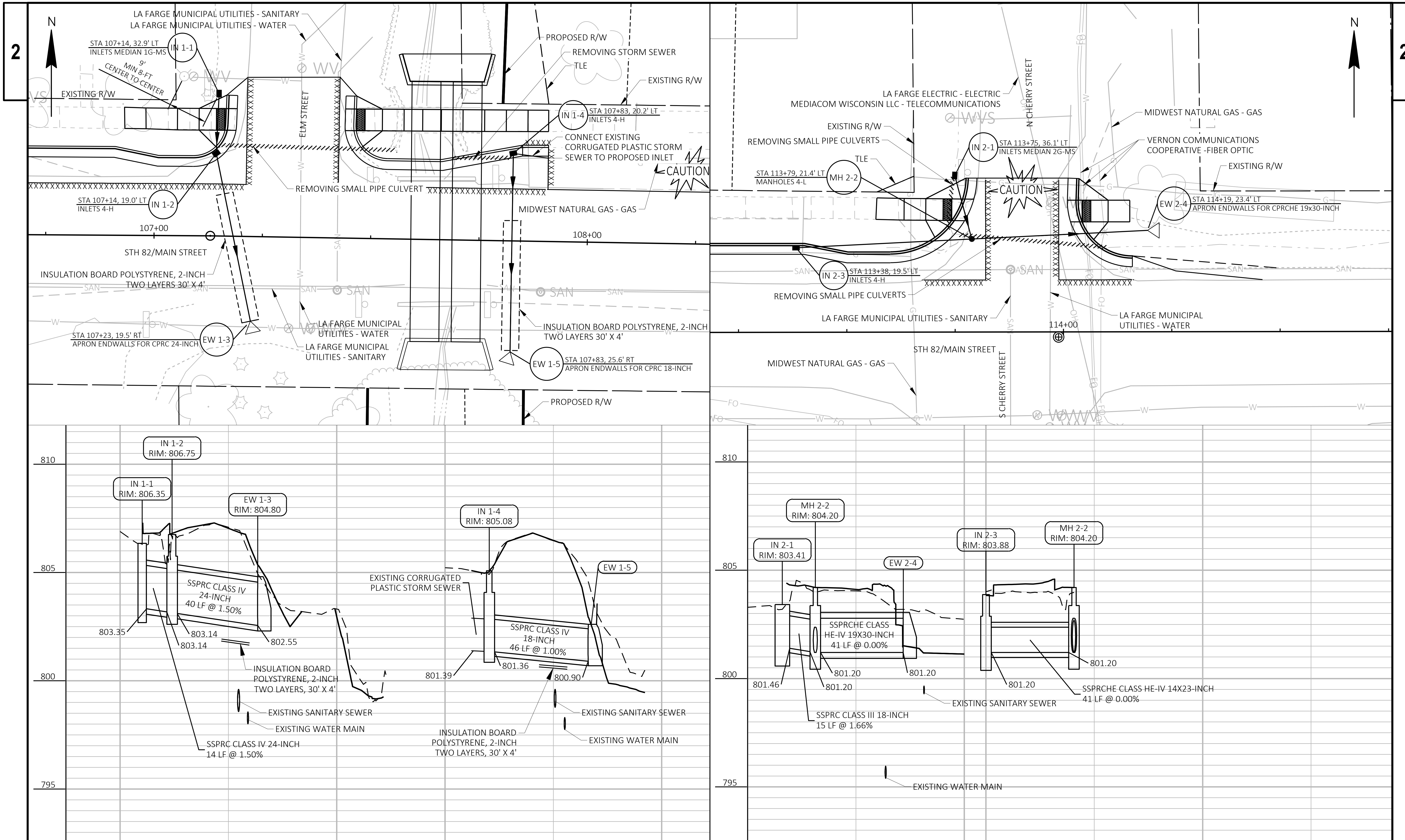


LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- INLET PROTECTION
- A B C INLET PROTECTION TYPE

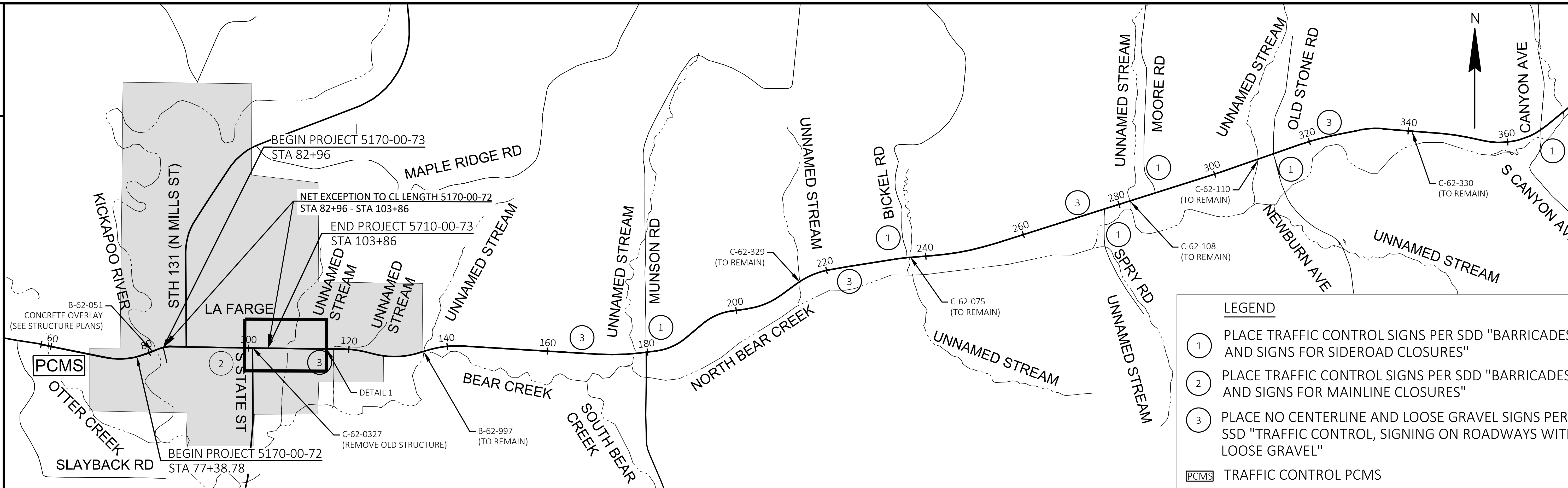
NOTE: EROSION MAT CLASS I TYPE B IS INCIDENTAL TO BID ITEM BARRIER SYSTEM GRADING SHAPING FINISHING IN GUARDRAIL GRADING LOCATIONS.

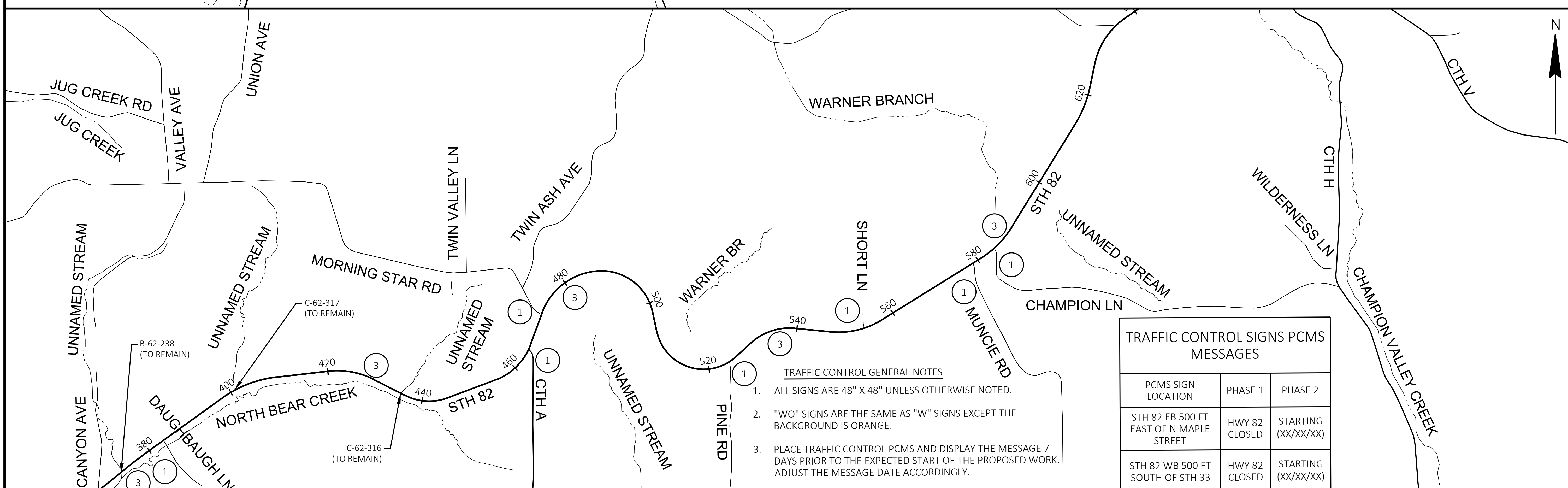
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	EROSION CONTROL	SHEET 43	E



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	STORM SEWER	SHEET 44	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - STH 82 - Storm Sewer
PLOT DATE : 10/28/2025 9:34 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42





LEGEND

1. PLACE TRAFFIC CONTROL SIGNS PER SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"
2. PLACE TRAFFIC CONTROL SIGNS PER SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
3. PLACE NO CENTERLINE AND LOOSE GRAVEL SIGNS PER SSD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

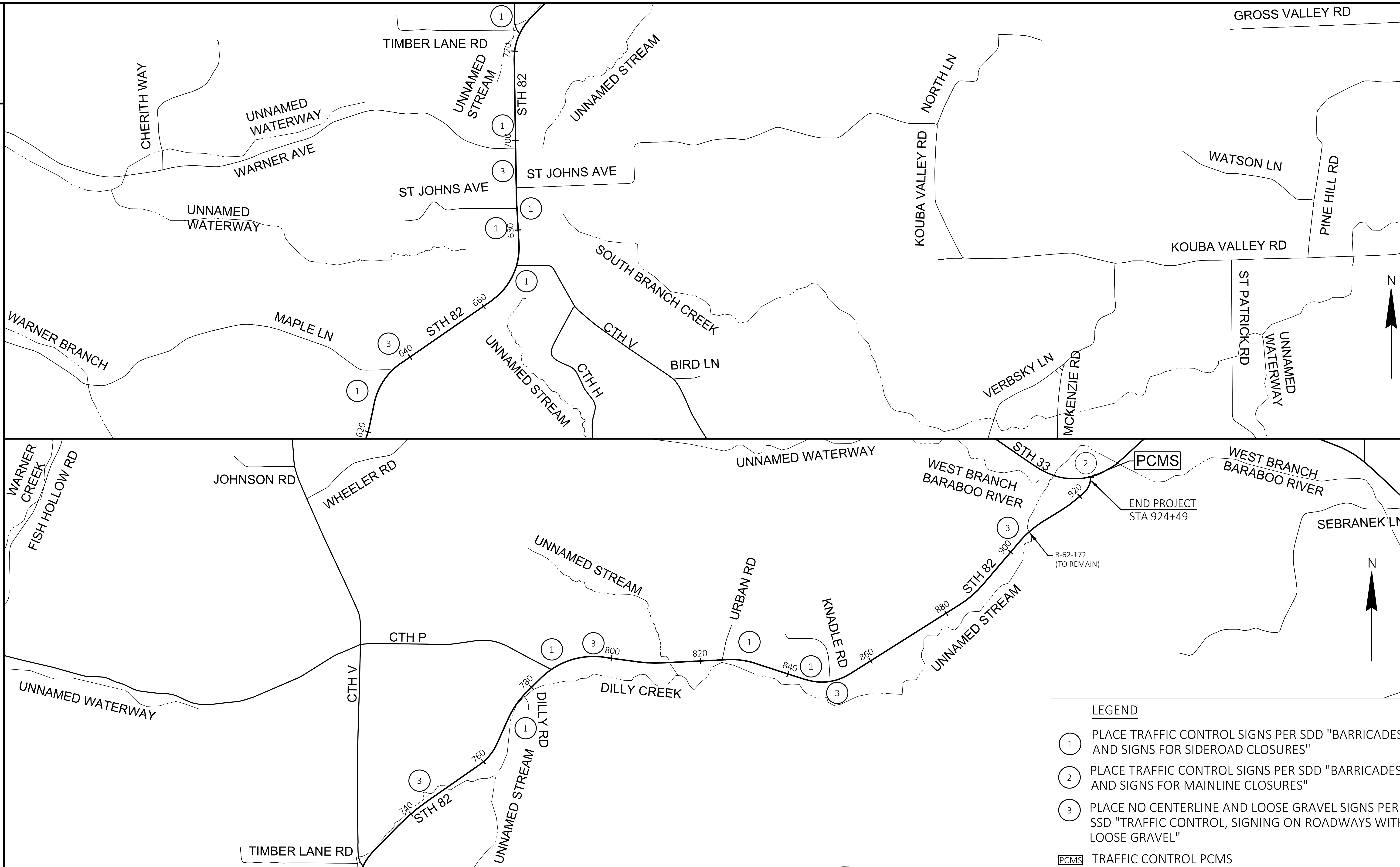
PCMS TRAFFIC CONTROL PCMS

TRAFFIC CONTROL GENERAL NOTES

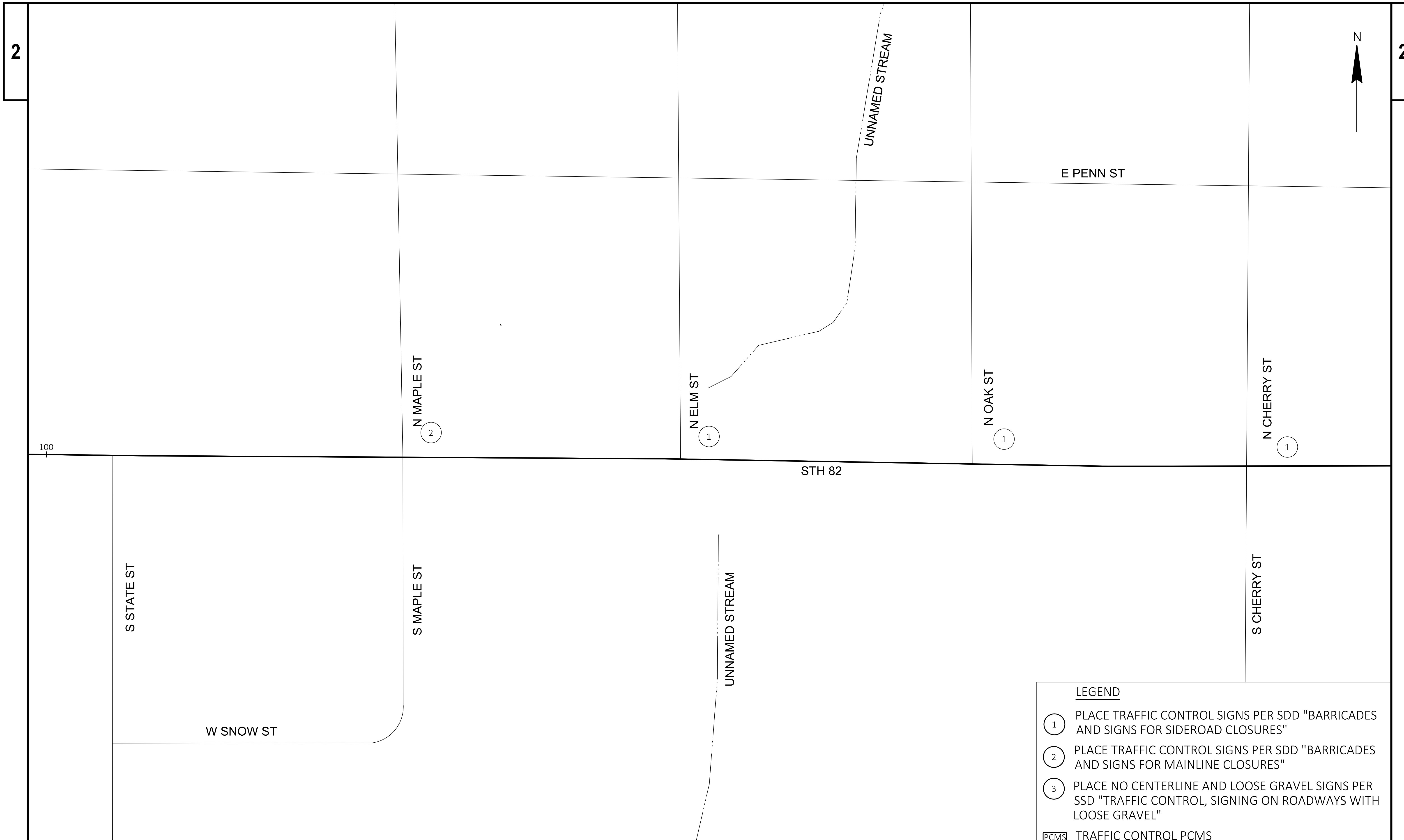
1. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
2. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
3. PLACE TRAFFIC CONTROL PCMS AND DISPLAY THE MESSAGE 7 DAYS PRIOR TO THE EXPECTED START OF THE PROPOSED WORK. ADJUST THE MESSAGE DATE ACCORDINGLY.

TRAFFIC CONTROL SIGNS PCMS MESSAGES

PCMS SIGN LOCATION	PHASE 1	PHASE 2
STH 82 EB 500 FT EAST OF N MAPLE STREET	HWY 82 CLOSED	STARTING (XX/XX/XX)
STH 82 WB 500 FT SOUTH OF STH 33	HWY 82 CLOSED	STARTING (XX/XX/XX)



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL	SHEET 46	E

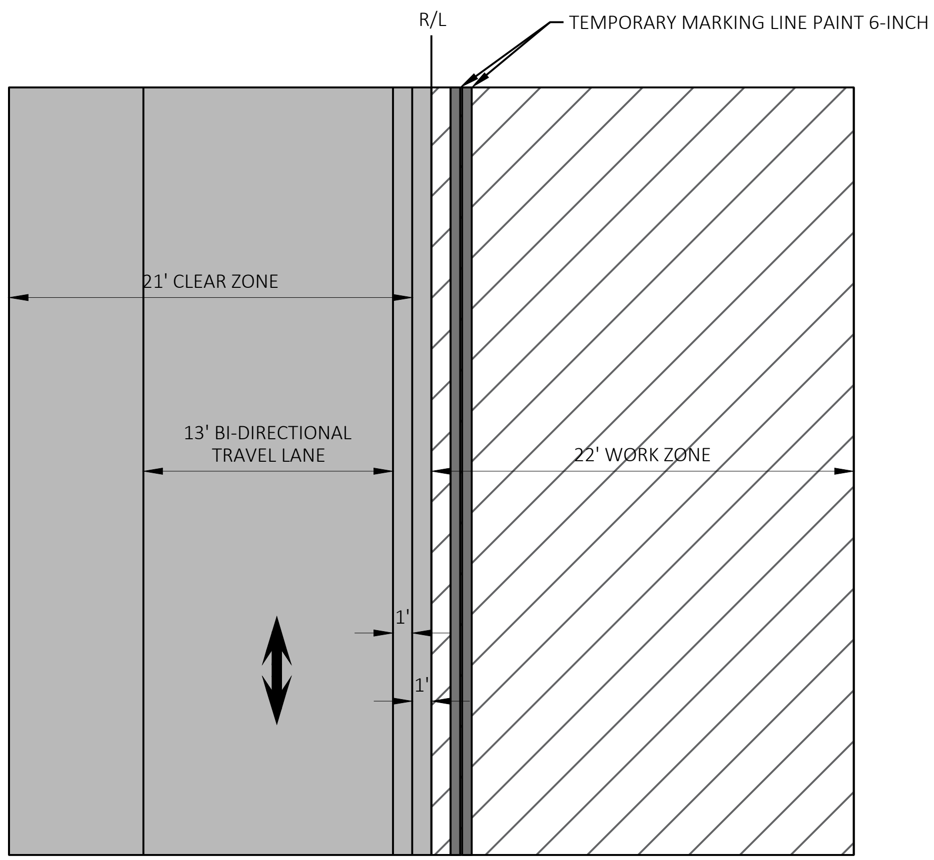


LEGEND

1. PLACE TRAFFIC CONTROL SIGNS PER SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"
2. PLACE TRAFFIC CONTROL SIGNS PER SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
3. PLACE NO CENTERLINE AND LOOSE GRAVEL SIGNS PER SSD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

PCMS TRAFFIC CONTROL PCMS

PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - DETAIL 1	SHEET 47	E

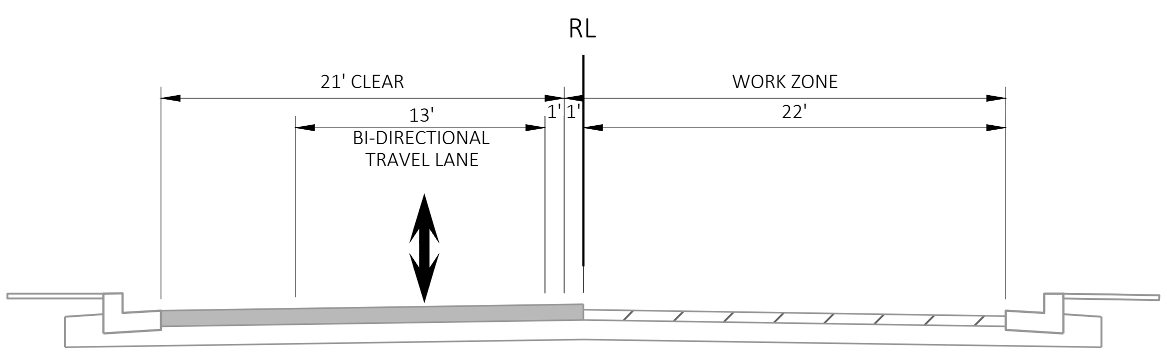


PLAN VIEW

EXISTING ASPHALTIC SURFACE

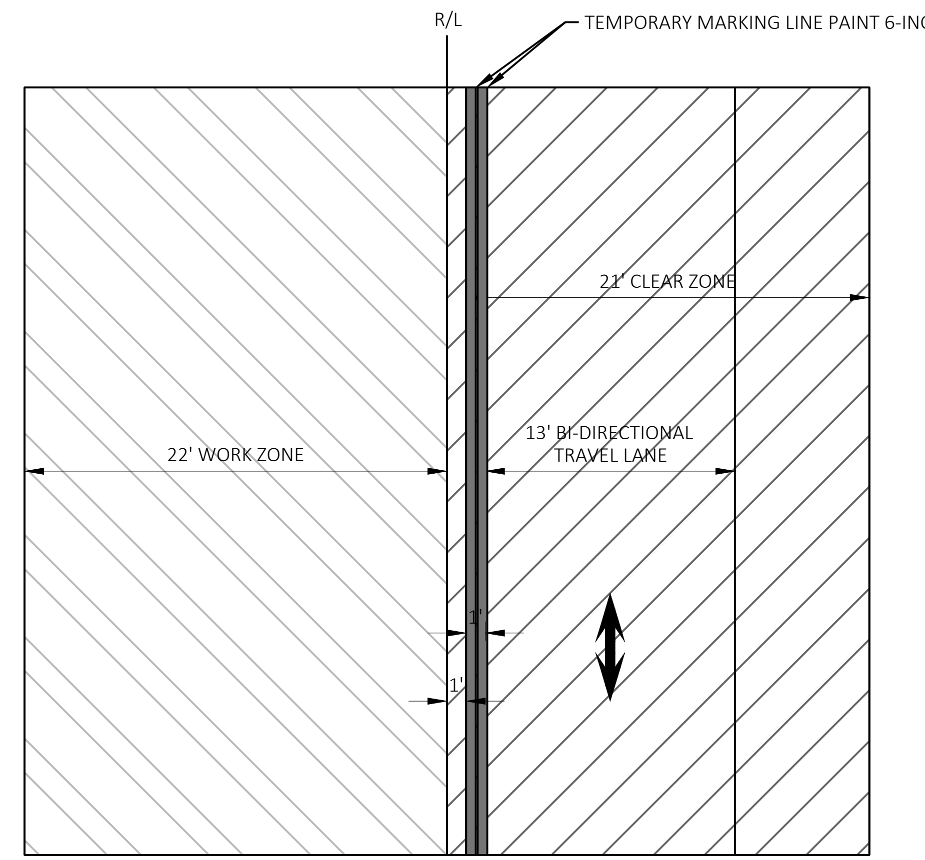
FIRST PASS: 2.25" HMA PAVEMENT 4 LT 58-28 S (LOWER LAYER)*

*FIRST PASS MUST BE PAVED SAME DAY AS MILLING OPERATION



CROSS SECTION VIEW

FIRST PASS DETAIL

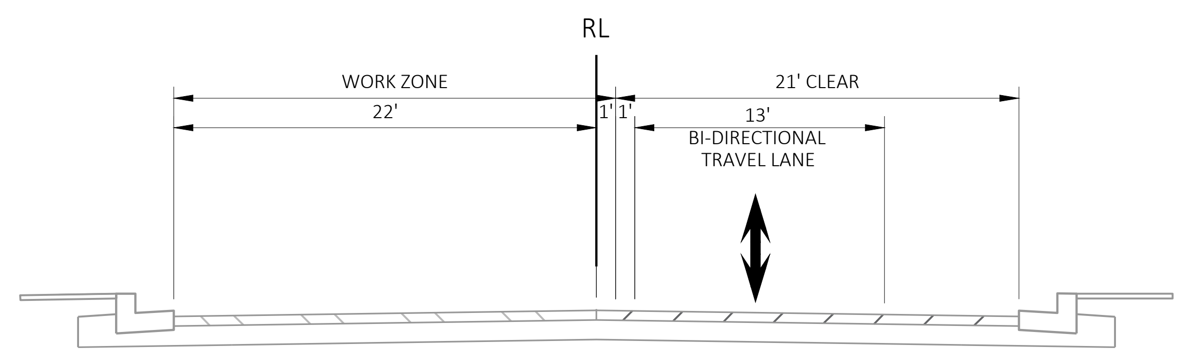


PLAN VIEW

FIRST PASS: 2.25" HMA PAVEMENT 4 LT 58-28 S (LOWER LAYER)

SECOND PASS: 2.25" HMA PAVEMENT 4 LT 58-28 S (LOWER LAYER)**

**SECOND PASS MUST BE PAVED SAME DAY AS MILLING OPERATION

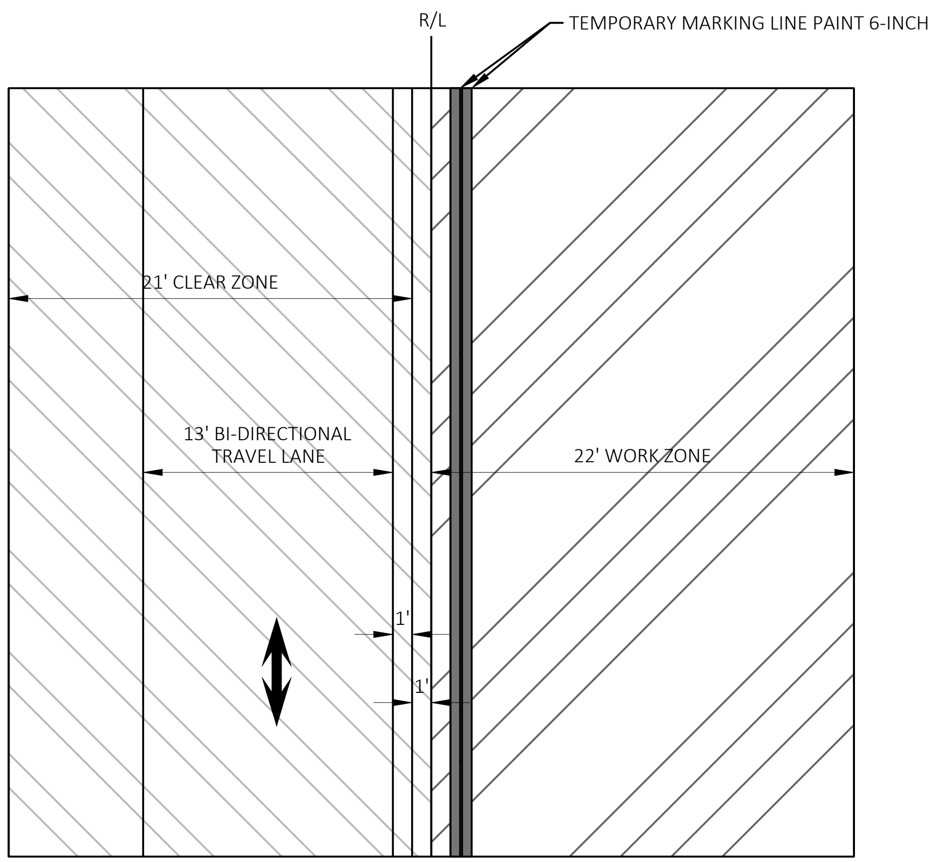


CROSS SECTION VIEW

SECOND PASS DETAIL

PROJECT NO: 5710-00-73	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - MILL AND OVERLAY DETAIL	SHEET 48 E

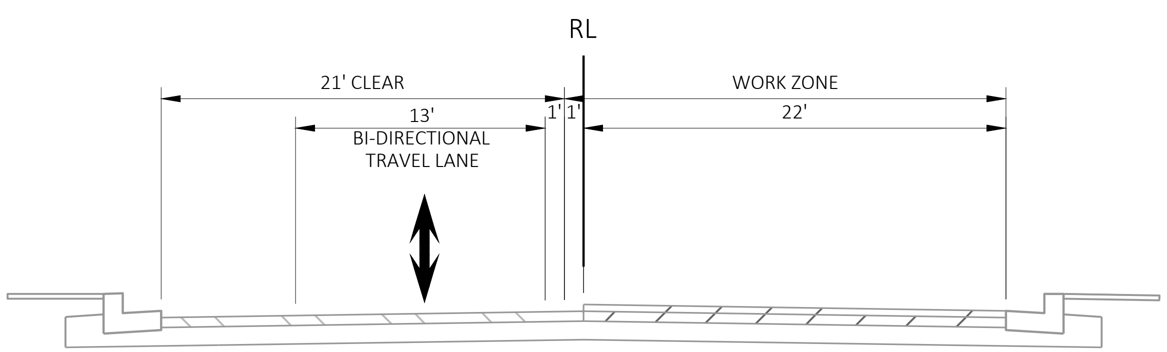
2



PLAN VIEW

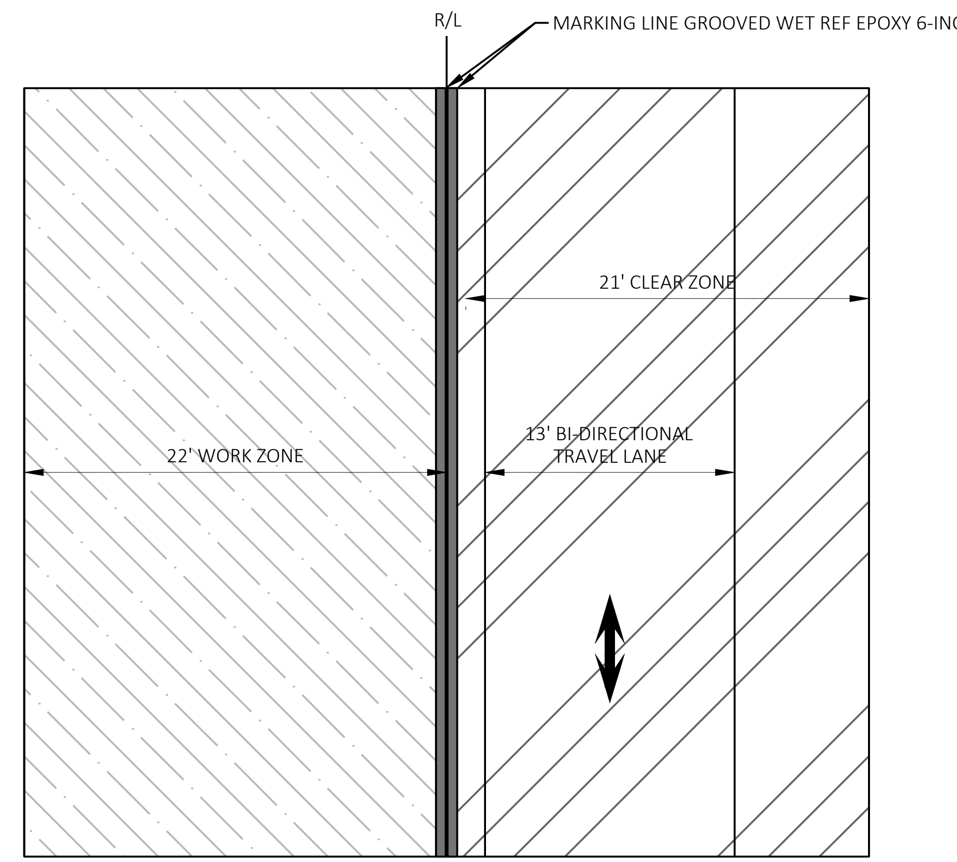
SECOND PASS: 2.25" HMA PAVEMENT 4 LT 58-28 S (LOWER LAYER)

THIRD PASS: 1.75" HMA PAVEMENT 4 LT 58-28 S (UPPER LAYER)



CROSS SECTION VIEW

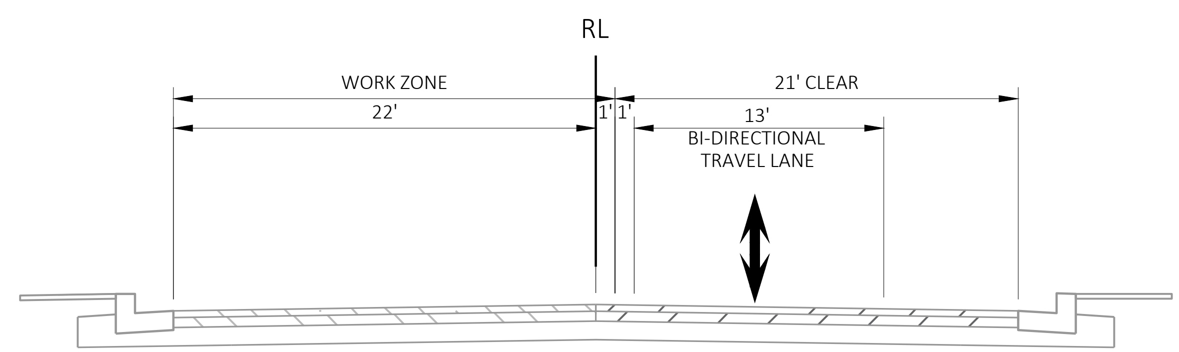
THIRD PASS DETAIL



PLAN VIEW

THIRD PASS: 1.75" HMA PAVEMENT 4 LT 58-28 S (UPPER LAYER)

FOURTH PASS: 1.75" HMA PAVEMENT 4 LT 58-28 S (UPPER LAYER)



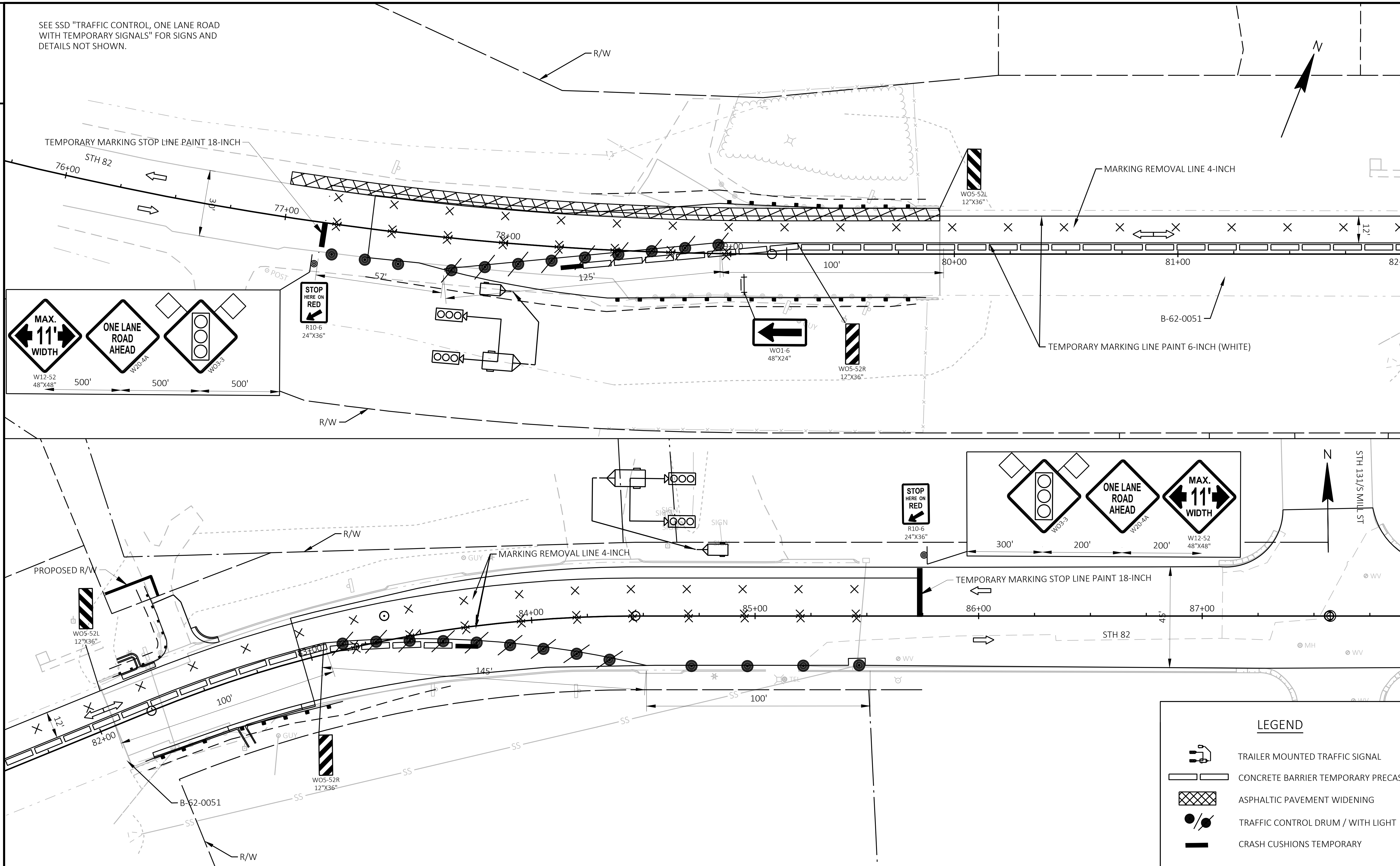
CROSS SECTION VIEW

FOURTH PASS DETAIL

2

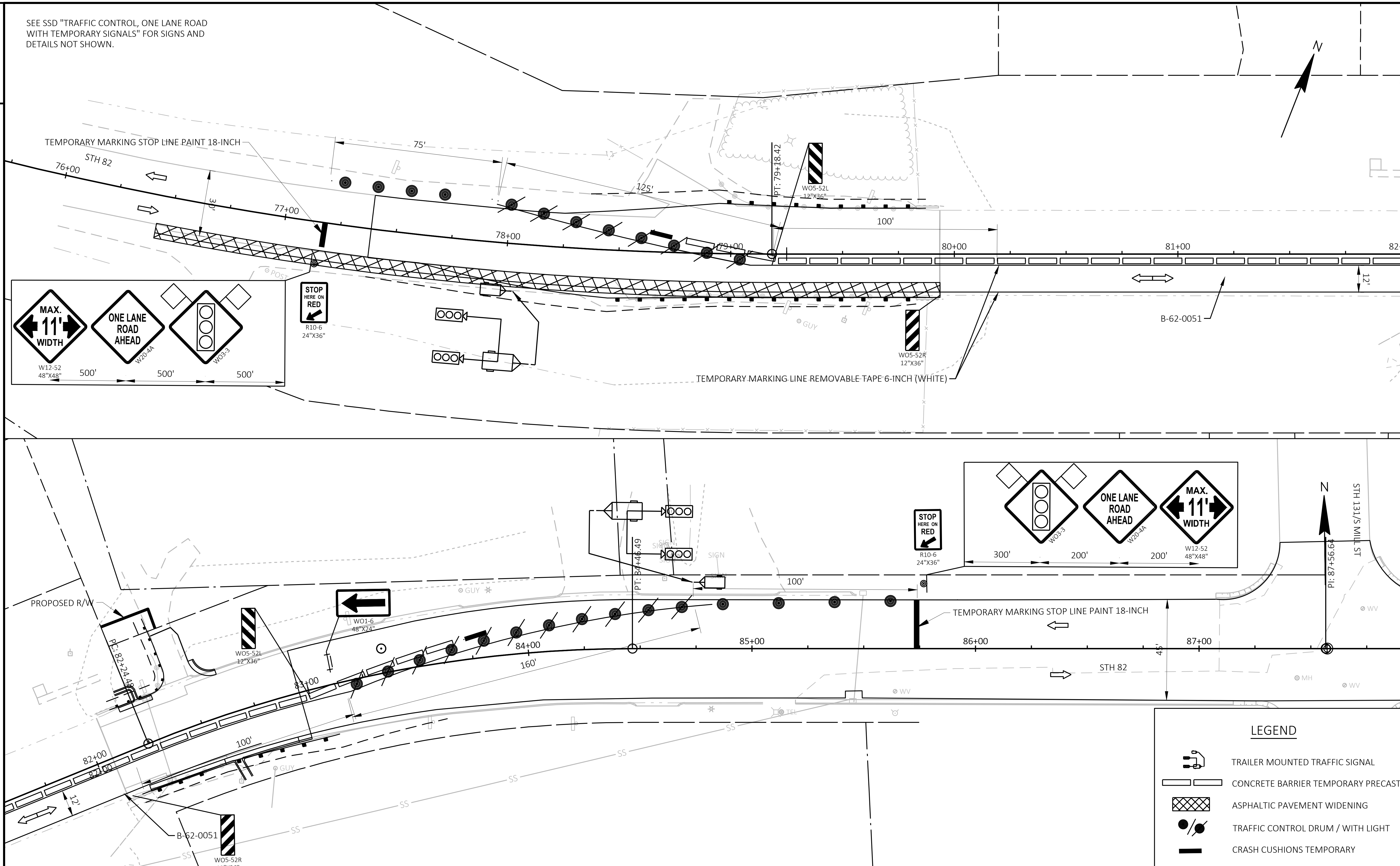
PROJECT NO: 5710-00-73	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - MILL AND OVERLAY DETAIL	SHEET 49	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\025102-TC.DWG
LAYOUT NAME - 025105-tc-Mill and Overlay Detail
PLOT DATE : 10/27/2025 11:56 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - B-62-0051 STAGE 1	SHEET 50 E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\025102-TC.DWG
LAYOUT NAME - 025106-tc-B620051 Stage1
PLOT DATE : 10/27/2025 11:56 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - B-62-0051 STAGE 2	SHEET 51	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\025102-TC.DWG PLOT DATE : 10/27/2025 11:56 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:40 FT

LAYOUT NAME - 025107-tc-B620051 Stage2

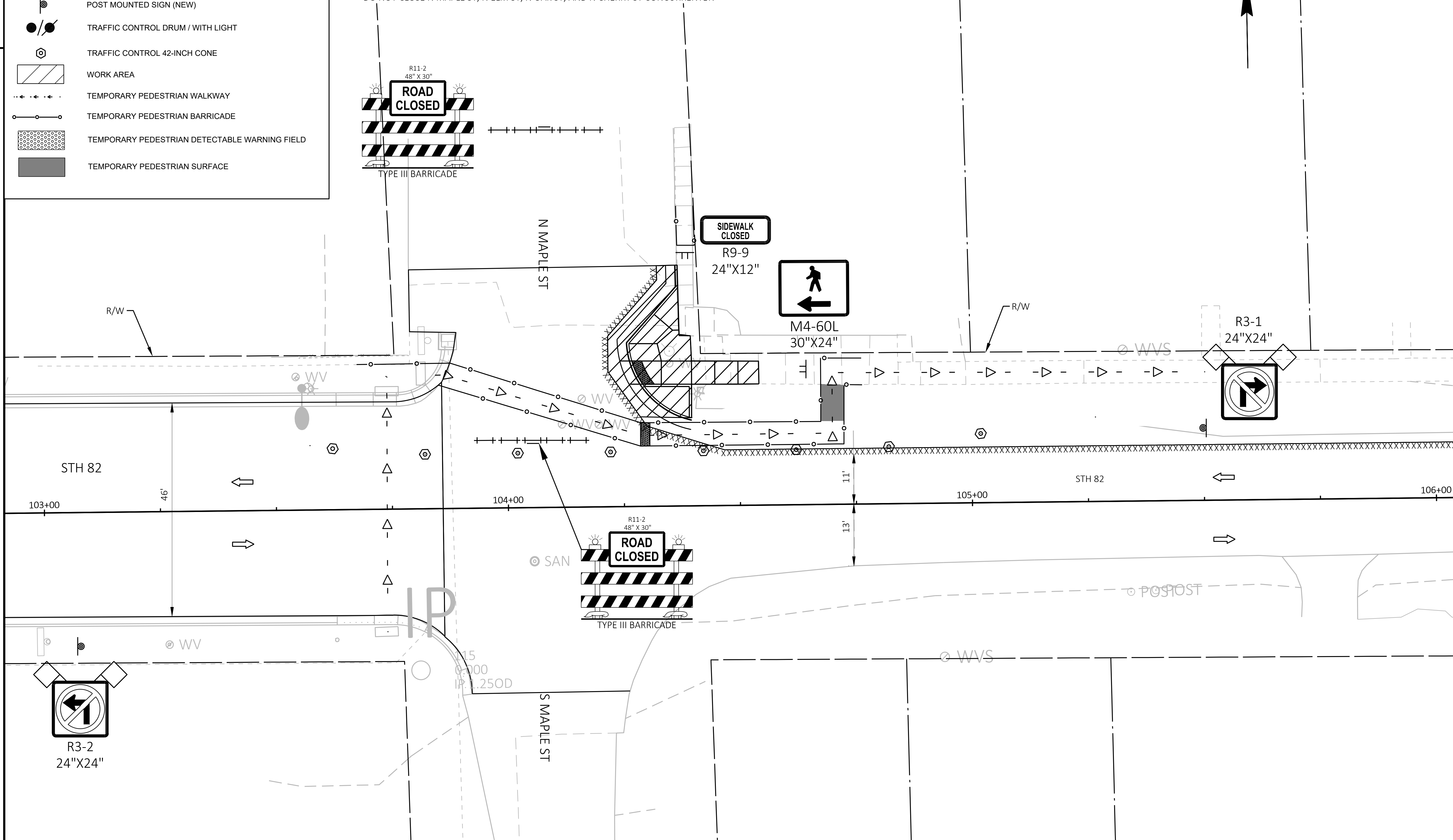
2

LEGEND

	TYPE III / III BARRICADE WITH ATTACHED SIGN
	POST MOUNTED SIGN (NEW)
	TRAFFIC CONTROL DRUM / WITH LIGHT
	TRAFFIC CONTROL 42-INCH CONE
	WORK AREA
	TEMPORARY PEDESTRIAN WALKWAY
	TEMPORARY PEDESTRIAN BARRICADE
	TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
	TEMPORARY PEDESTRIAN SURFACE

NOTES:

- SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR TRAFFIC CONTROL DRUM LAYOUT
- DO NOT CLOSE N MAPLE ST, N ELM ST, N OAK ST, AND N CHERRY ST CONCURRENTLY.



2

PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - TEMPORARY PEDESTRIAN ACCOMODATIONS: MAPLE ST STAGE 1	SHEET 52	E

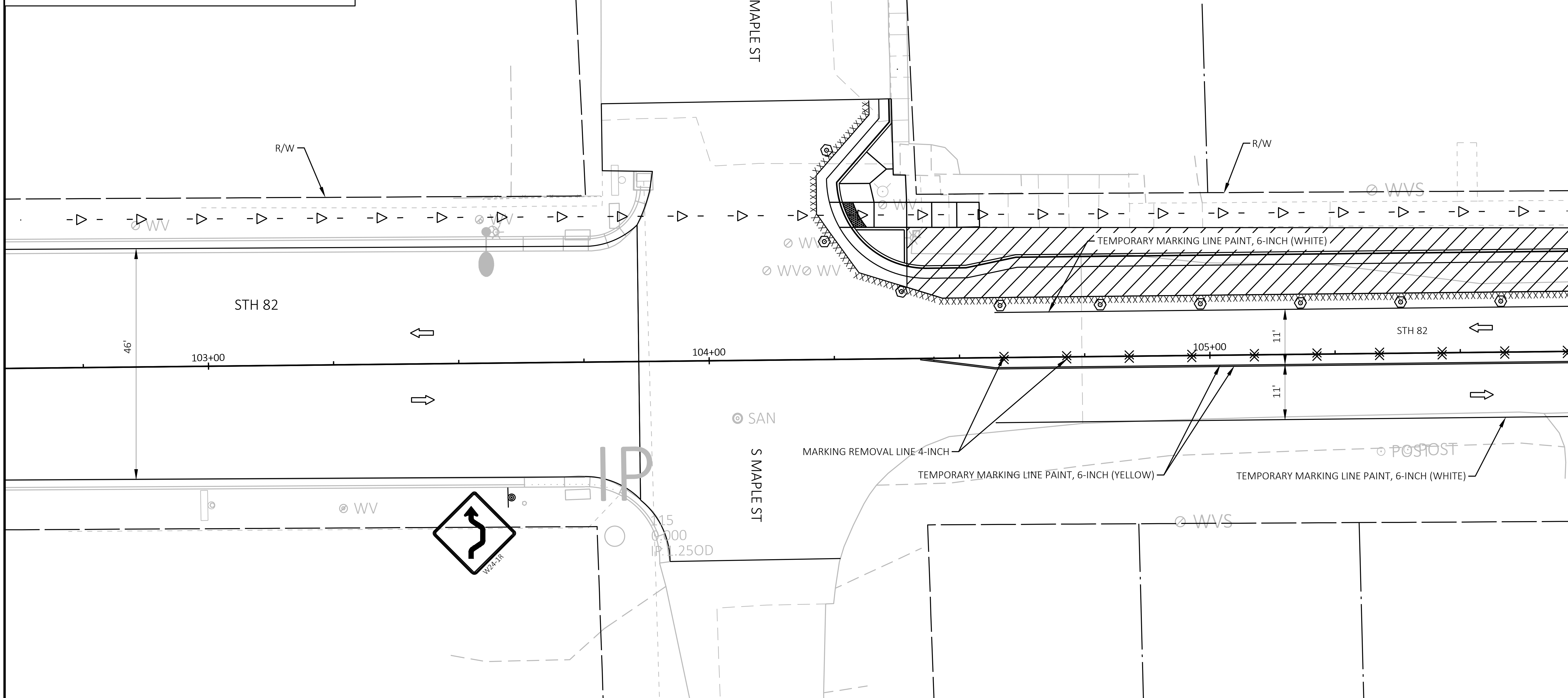
2

LEGEND

	TYPE III / III BARRICADE WITH ATTACHED SIGN
	POST MOUNTED SIGN (NEW)
	TRAFFIC CONTROL DRUM / WITH LIGHT
	TRAFFIC CONTROL 42-INCH CONE
	WORK AREA
	TEMPORARY PEDESTRIAN WALKWAY
	TEMPORARY PEDESTRIAN BARRICADE
	TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
	TEMPORARY PEDESTRIAN SURFACE

NOTES:

- SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR TRAFFIC CONTROL DRUM LAYOUT
- DO NOT CLOSE N MAPLE ST, N ELM ST, N OAK ST, AND N CHERRY ST CONCURRENTLY.



2

PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - TEMPORARY PEDESTRIAN ACCOMODATIONS: MAPLE ST STAGE 2	SHEET 53	E

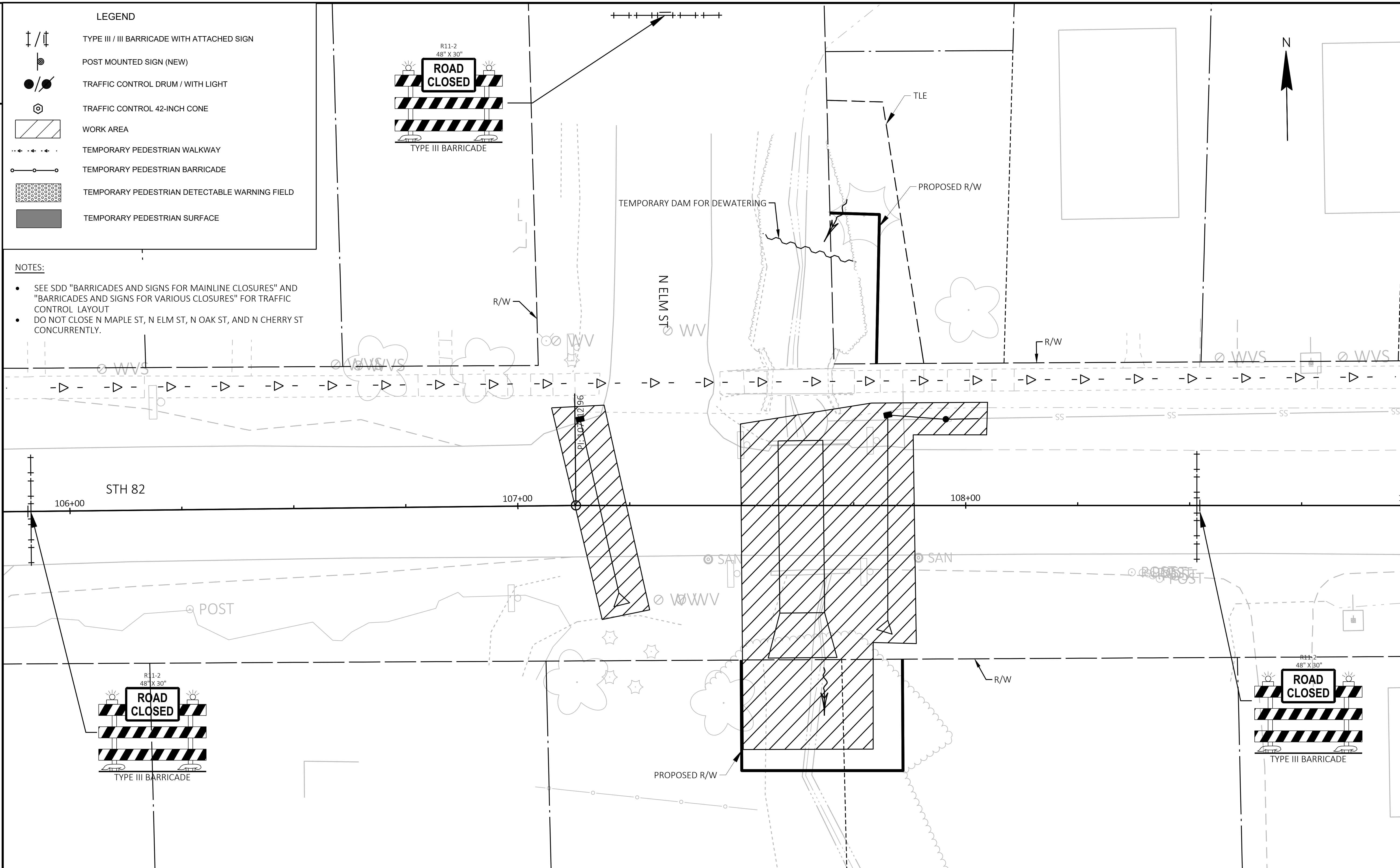
2

LEGEND

	TYPE III / III BARRICADE WITH ATTACHED SIGN
	POST MOUNTED SIGN (NEW)
	TRAFFIC CONTROL DRUM / WITH LIGHT
	TRAFFIC CONTROL 42-INCH CONE
	WORK AREA
	TEMPORARY PEDESTRIAN WALKWAY
	TEMPORARY PEDESTRIAN BARRICADE
	TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
	TEMPORARY PEDESTRIAN SURFACE

NOTES:

- SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND "BARRICADES AND SIGNS FOR VARIOUS CLOSURES" FOR TRAFFIC CONTROL LAYOUT
- DO NOT CLOSE N MAPLE ST, N ELM ST, N OAK ST, AND N CHERRY ST CONCURRENTLY.



2

PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - C-62-0327: ELM ST STAGE 1	SHEET 54	E

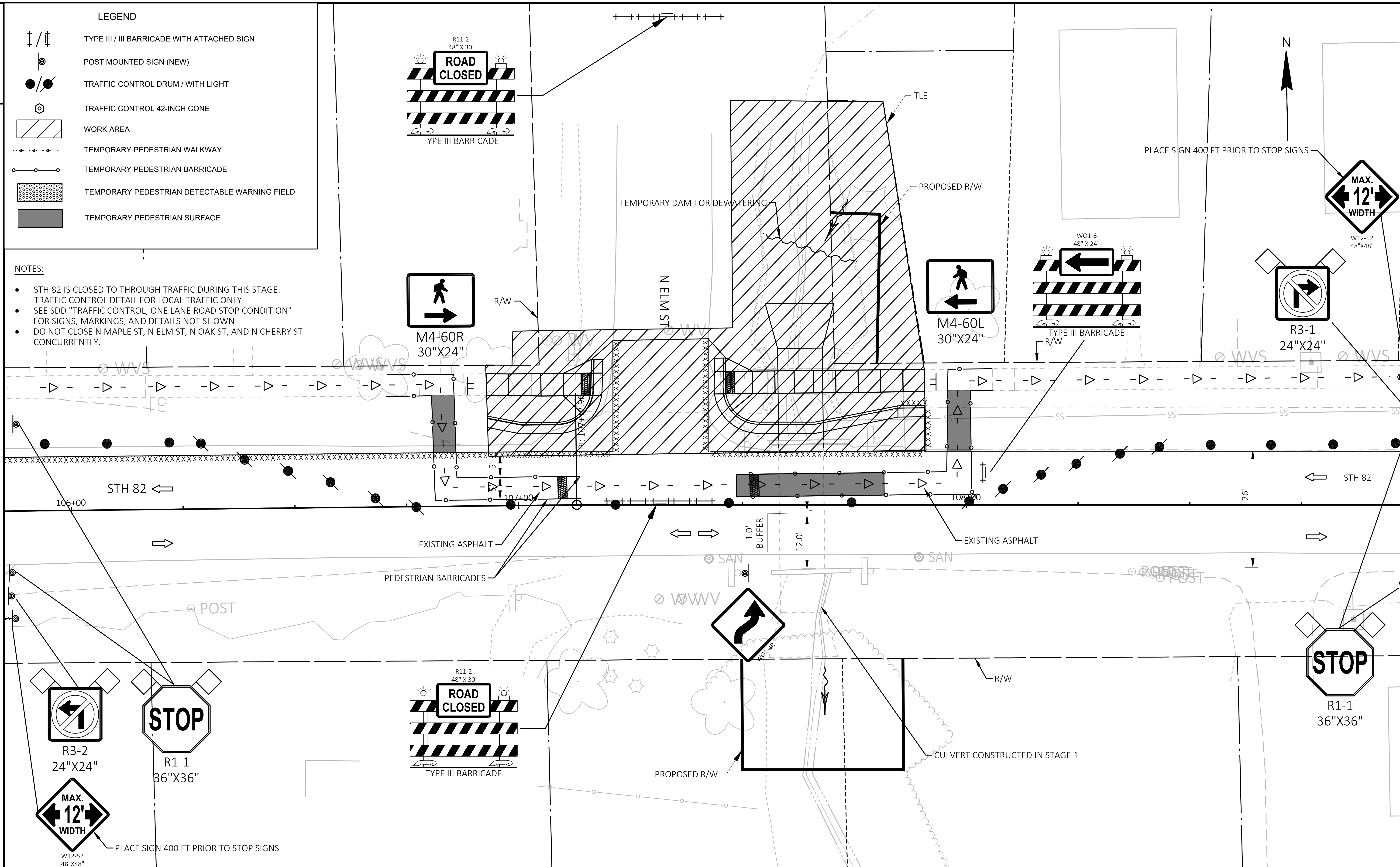
2

LEGEND

	TYPE III / III BARRICADE WITH ATTACHED SIGN
	POST MOUNTED SIGN (NEW)
	TRAFFIC CONTROL DRUM / WITH LIGHT
	TRAFFIC CONTROL 42-INCH CONE
	WORK AREA
	TEMPORARY PEDESTRIAN WALKWAY
	TEMPORARY PEDESTRIAN BARRICADE
	TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
	TEMPORARY PEDESTRIAN SURFACE

NOTES:

- STH 82 IS CLOSED TO THROUGH TRAFFIC DURING THIS STAGE. TRAFFIC CONTROL DETAIL FOR LOCAL TRAFFIC ONLY
- SEE SDD "TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION" FOR SIGNS, MARKINGS, AND DETAILS NOT SHOWN
- DO NOT CLOSE N MAPLE ST, N ELM ST, N OAK ST, AND N CHERRY ST CONCURRENTLY.



2

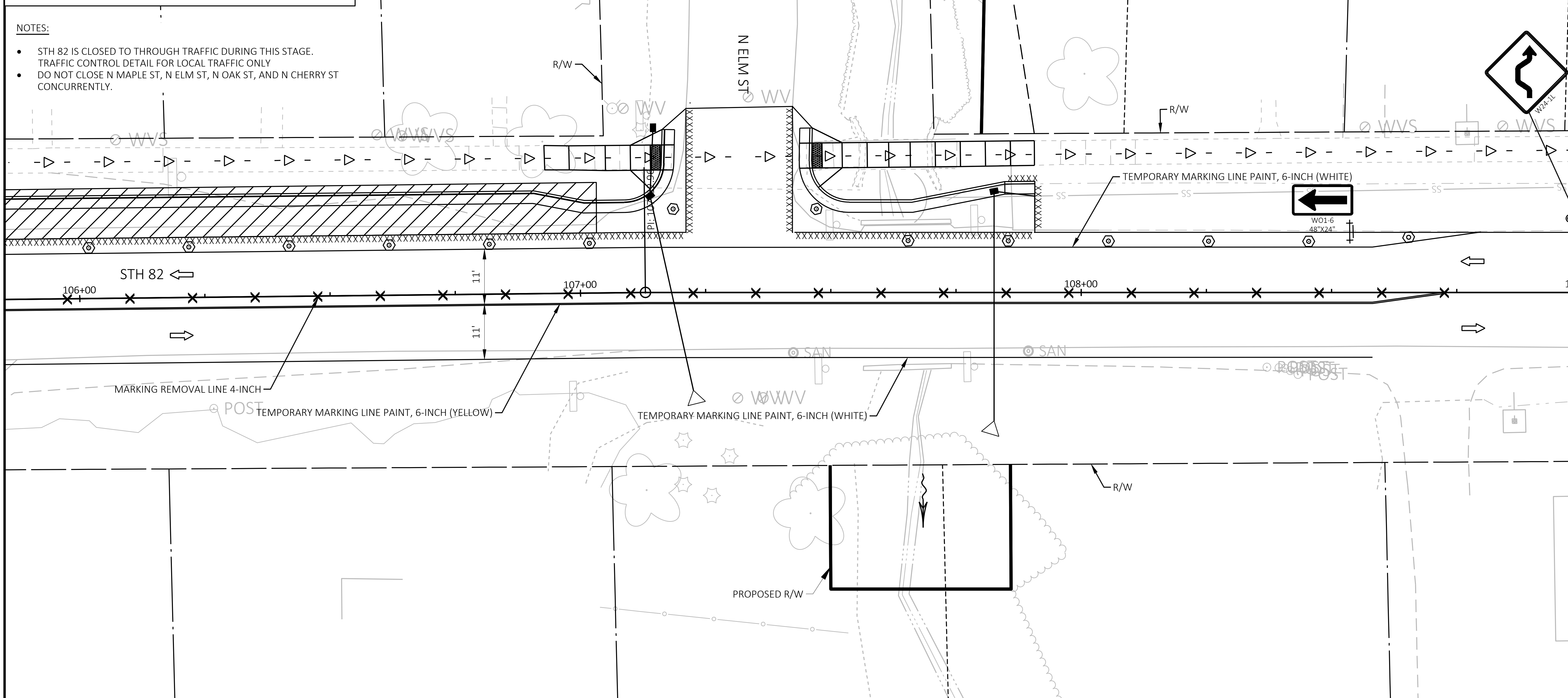
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - C-62-0327: ELM ST STAGE 2	SHEET 55	E

LEGEND

- TYPE III / III BARRICADE WITH ATTACHED SIGN
- POST MOUNTED SIGN (NEW)
- TRAFFIC CONTROL DRUM / WITH LIGHT
- TRAFFIC CONTROL 42-INCH CONE
- WORK AREA
- TEMPORARY PEDESTRIAN WALKWAY
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN SURFACE

NOTES:

- STH 82 IS CLOSED TO THROUGH TRAFFIC DURING THIS STAGE. TRAFFIC CONTROL DETAIL FOR LOCAL TRAFFIC ONLY
- DO NOT CLOSE N MAPLE ST, N ELM ST, N OAK ST, AND N CHERRY ST CONCURRENTLY.



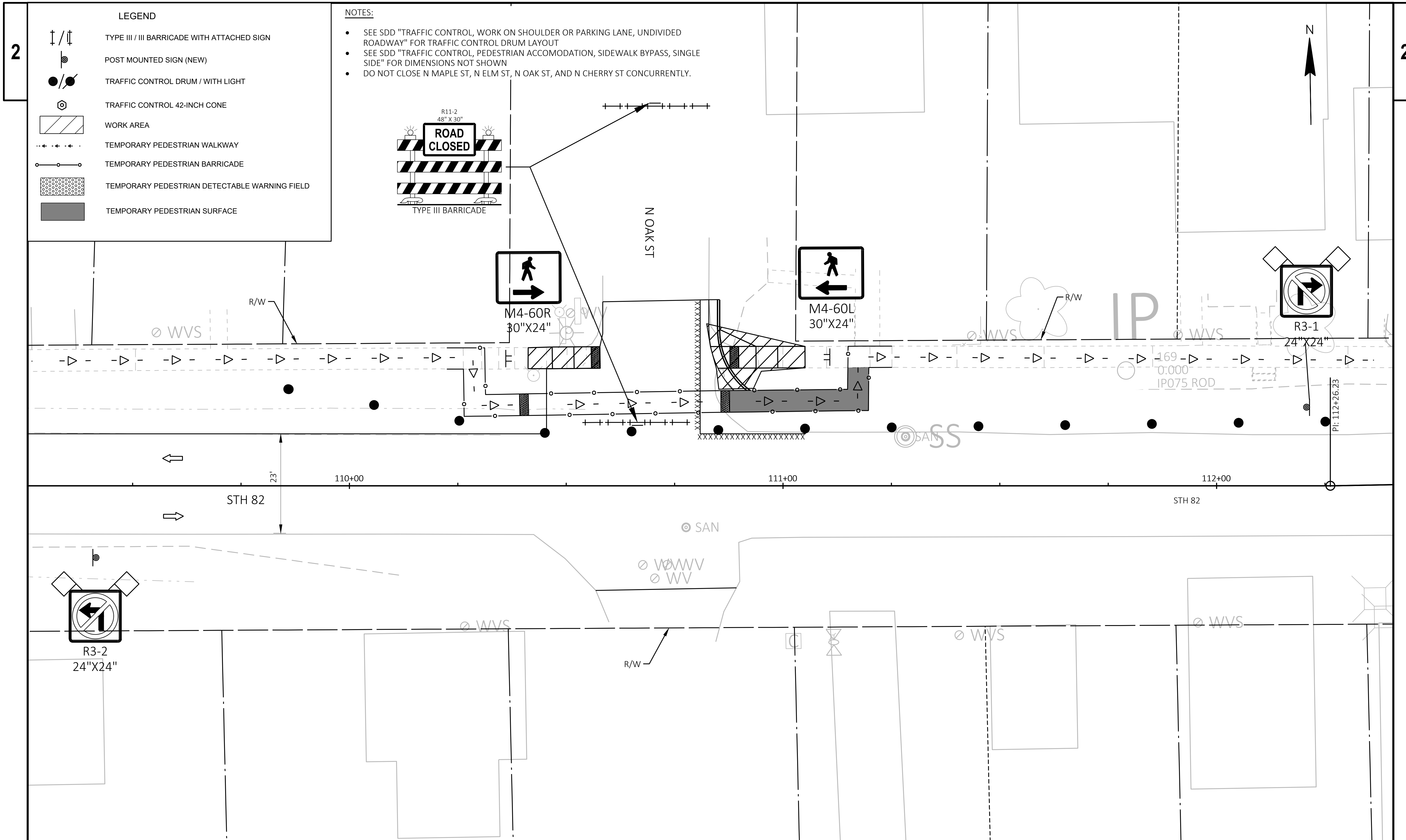
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - C-62-0327: ELM ST STAGE 3	SHEET 56	E

LEGEND

	TYPE III / III BARRICADE WITH ATTACHED SIGN
	POST MOUNTED SIGN (NEW)
	TRAFFIC CONTROL DRUM / WITH LIGHT
	TRAFFIC CONTROL 42-INCH CONE
	WORK AREA
	TEMPORARY PEDESTRIAN WALKWAY
	TEMPORARY PEDESTRIAN BARRICADE
	TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
	TEMPORARY PEDESTRIAN SURFACE

NOTES:

- SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR TRAFFIC CONTROL DRUM LAYOUT
- SEE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION, SIDEWALK BYPASS, SINGLE SIDE" FOR DIMENSIONS NOT SHOWN
- DO NOT CLOSE N MAPLE ST, N ELM ST, N OAK ST, AND N CHERRY ST CONCURRENTLY.



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - TEMPORARY PEDESTRIAN ACCOMODATIONS: OAK ST STAGE 1	SHEET 57	E

2

LEGEND

TYPE III / III BARRICADE WITH ATTACHED SIGN

POST MOUNTED SIGN (NEW)

TRAFFIC CONTROL DRUM / WITH LIGHT

TRAFFIC CONTROL 42-INCH CONE

WORK AREA

TEMPORARY PEDESTRIAN WALKWAY

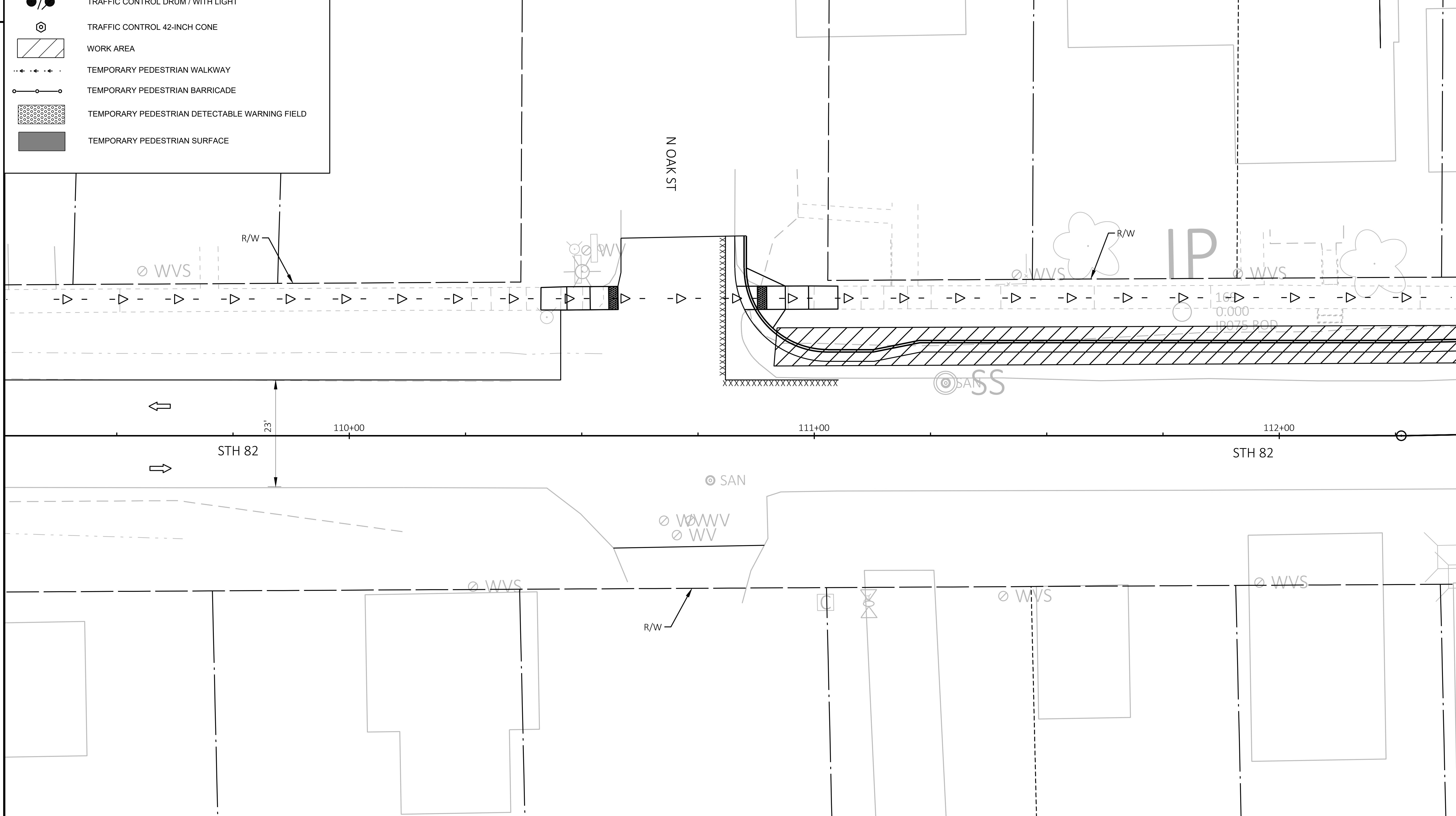
TEMPORARY PEDESTRIAN BARRICADE

TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD

TEMPORARY PEDESTRIAN SURFACE

NOTES:

- SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR TRAFFIC CONTROL DRUM LAYOUT
- SEE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION, SIDEWALK BYPASS, SINGLE SIDE" FOR DIMENSIONS NOT SHOWN
- DO NOT CLOSE N MAPLE ST, N ELM ST, N OAK ST, AND N CHERRY ST CONCURRENTLY.



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - TEMPORARY PEDESTRIAN ACCOMODATIONS: OAK ST STAGE 2	SHEET 58	E

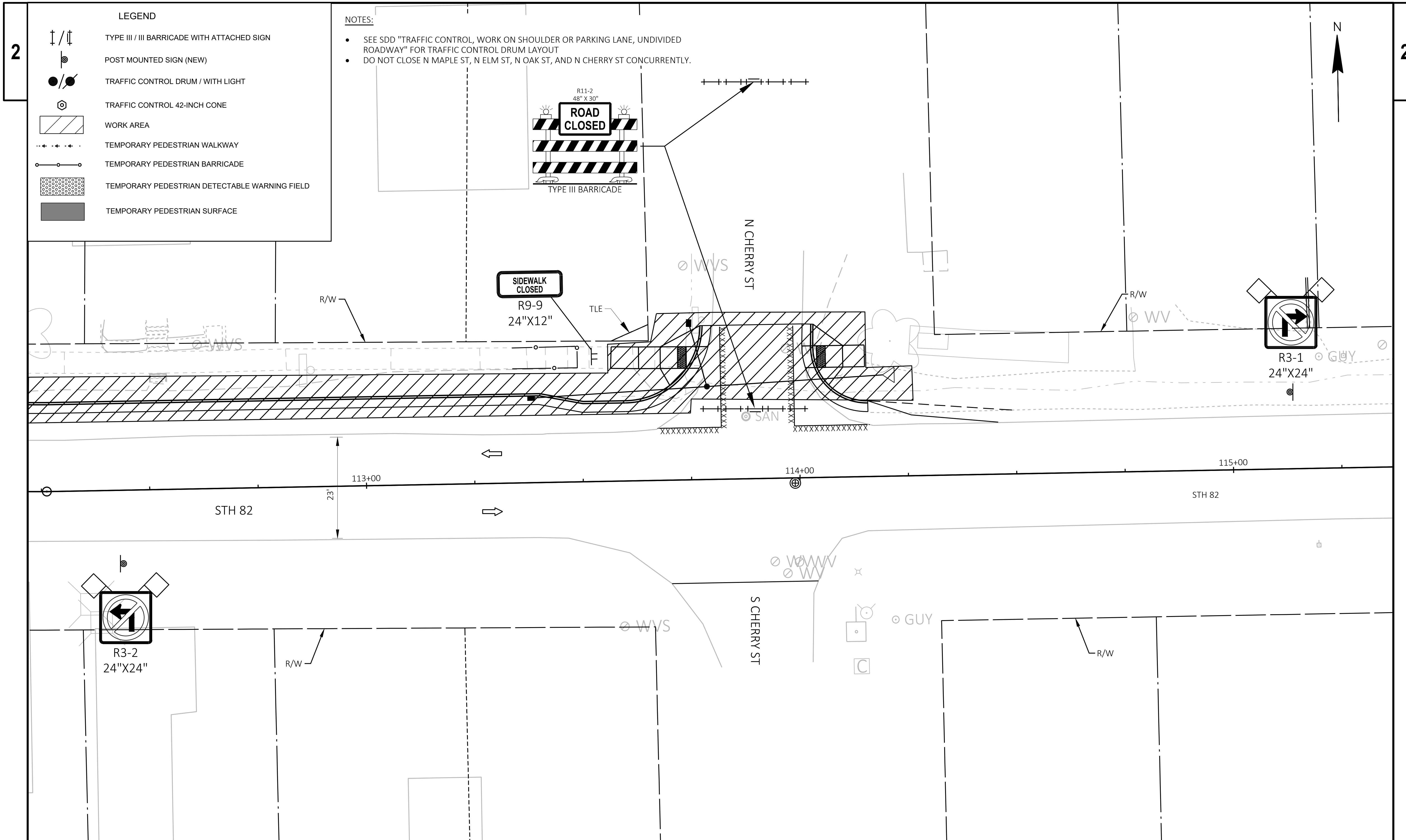
2

LEGEND

	TYPE III / III BARRICADE WITH ATTACHED SIGN
	POST MOUNTED SIGN (NEW)
	TRAFFIC CONTROL DRUM / WITH LIGHT
	TRAFFIC CONTROL 42-INCH CONE
	WORK AREA
	TEMPORARY PEDESTRIAN WALKWAY
	TEMPORARY PEDESTRIAN BARRICADE
	TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
	TEMPORARY PEDESTRIAN SURFACE

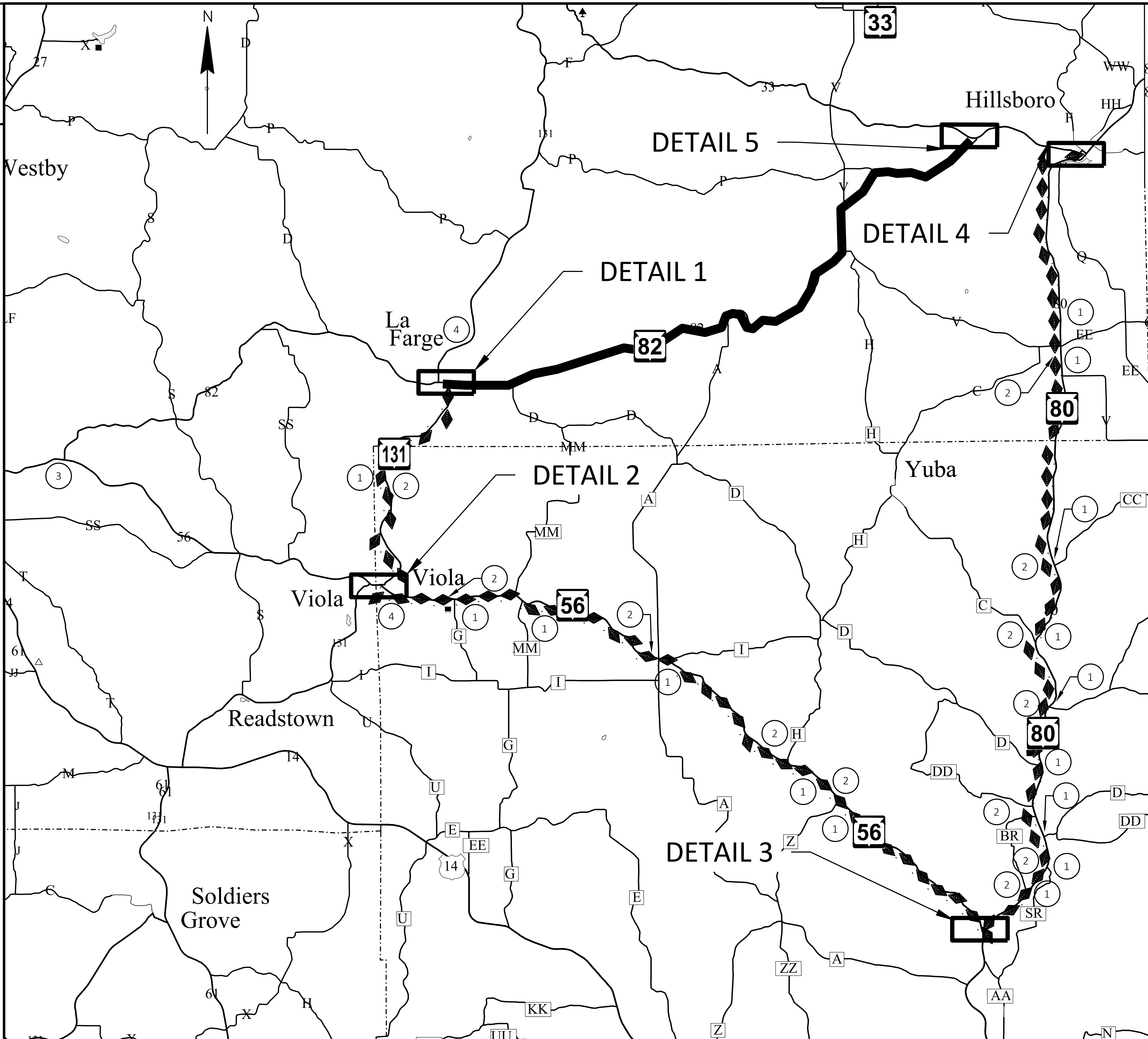
NOTES:

- SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR TRAFFIC CONTROL DRUM LAYOUT
- DO NOT CLOSE N MAPLE ST, N ELM ST, N OAK ST, AND N CHERRY ST CONCURRENTLY.



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	TRAFFIC CONTROL - TEMPORARY PEDESTRIAN ACCOMODATIONS: CHERRY ST	SHEET 59	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\025102-TC.DWG
LAYOUT NAME - 025115-tc-Cherry St
PLOT DATE : 10/27/2025 11:57 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42



DETOUR GENERAL NOTES

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE TRAFFIC CONTROL PLAN, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLAN AND/OR AS DIRECTED BY THE ENGINEER.

ALL "W" and "WO" SIGNS SHALL BE 48"X48" UNLESS OTHERWISE NOTED AND SHALL HAVE REFLECTIVE FLORESCENT DIAMOND GRADE SHEETING.

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

ALL M3 SERIES SIGNS (NORTH, EAST, SOUTH, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.

ALL M05 AND M06 ARROW SIGNS SHALL BE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

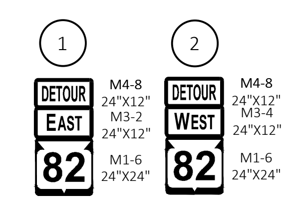
SIGNS SHALL BE PLACED A MINIMUM OF 7 CALENDAR DAYS PRIOR TO CONSTRUCTION AND COVERED UNTIL NEEDED. COVERED SIGNS IS INCIDENTAL TO ITEM DETOUR SIGNS PAID AS COVERING SIGNS TYPE1/TYPE 2.

REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND SDD "DETOUR SIGNING FOR MAINLINE CLOSURES" FOR SIGN SPACING NOT SHOWN IN DETAILS.

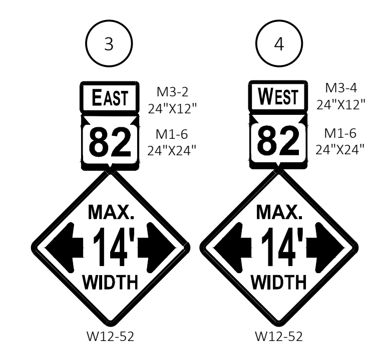
LEGEND

STH 82 DETOUR

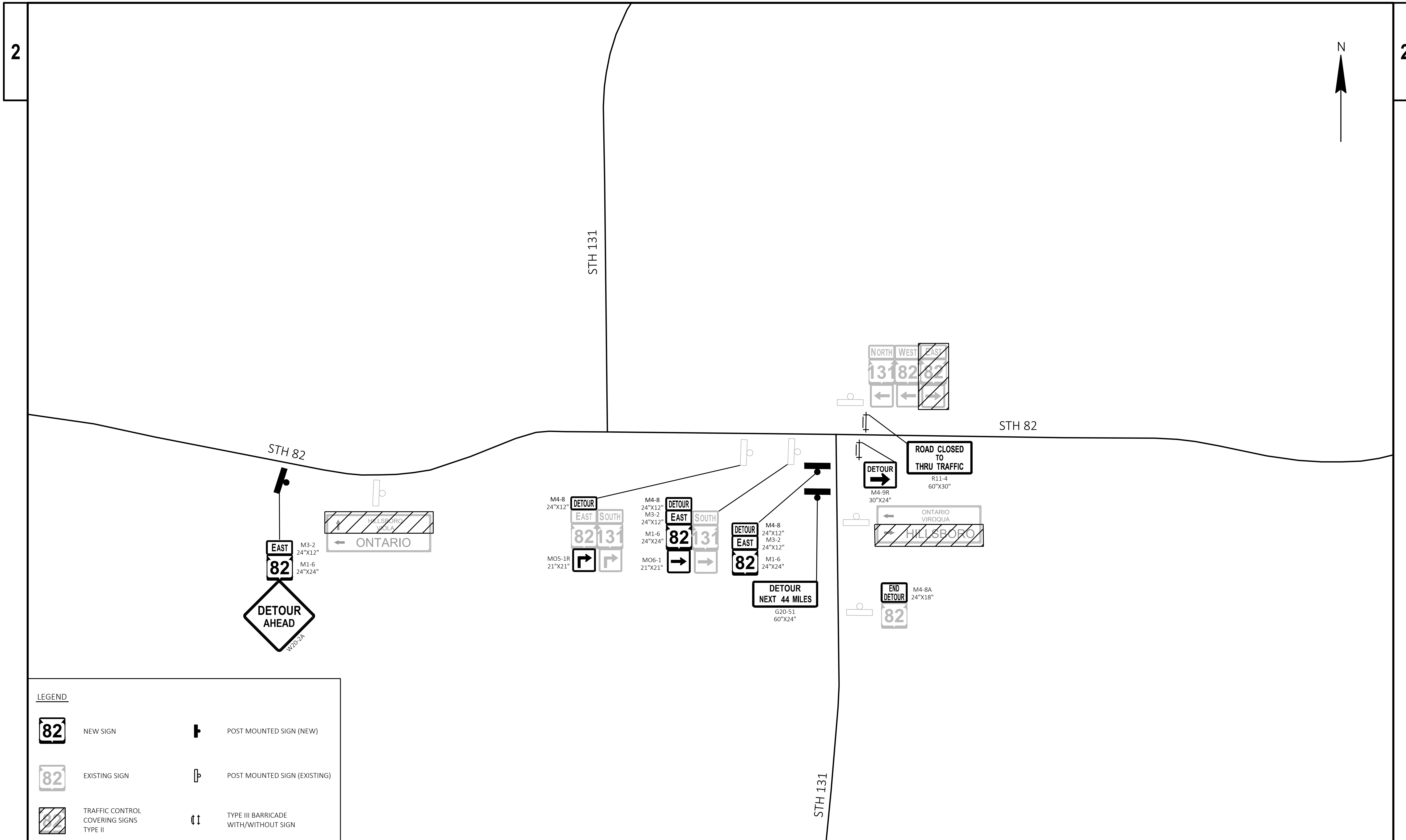
PROJECT LOCATION



DETOUR REASSURANCE SIGNS LOCATED ALONG ROUTE AFTER INTERSECTION WITH CTH.



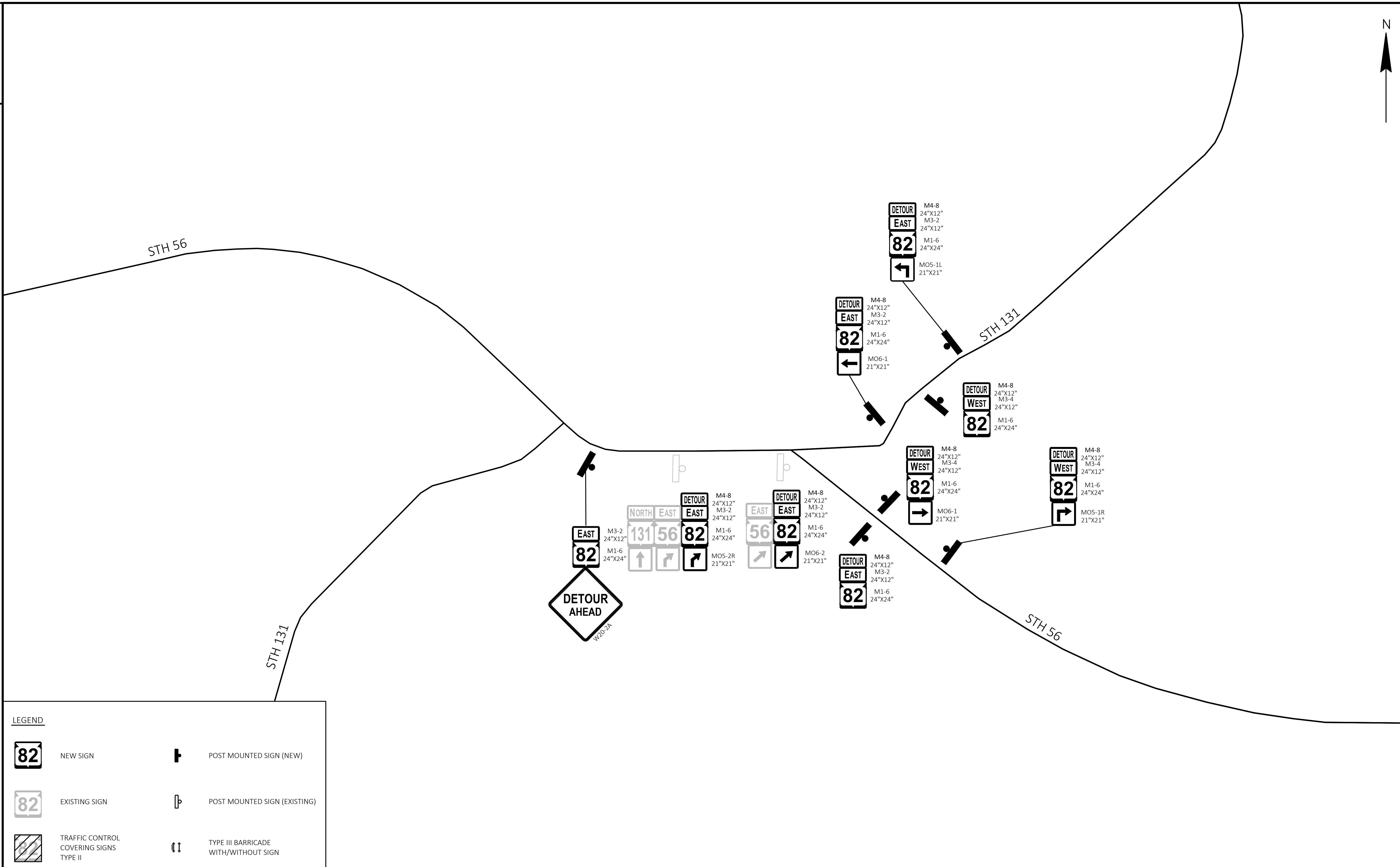
SEE SDD "ADVANCED WIDTH RESTRICTION SIGNING".



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	DETOUR - DETAIL 1	SHEET 61	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 027002-dt
PLOT DATE : 10/15/2025 8:48 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

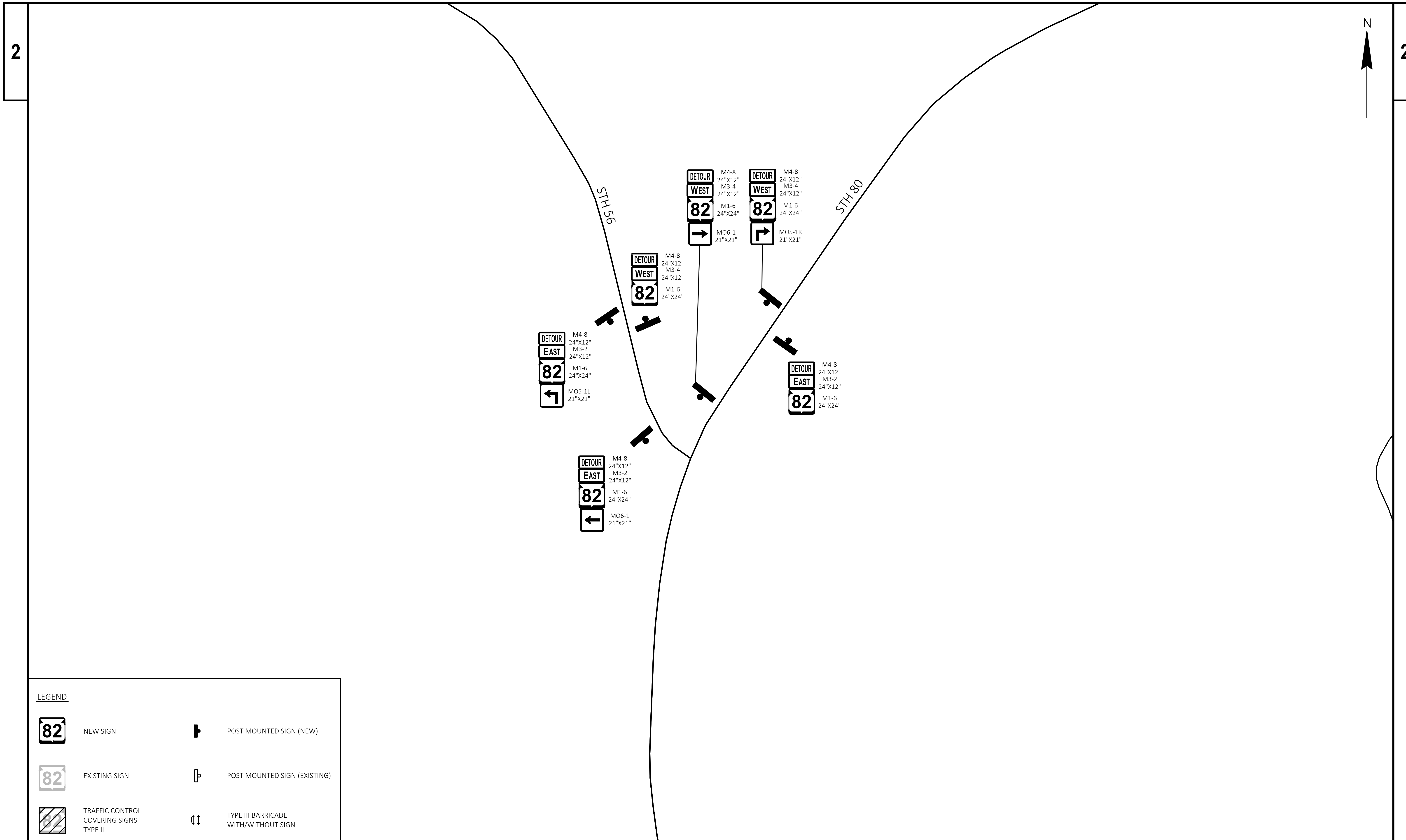
2



2

PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	DETOUR - DETAIL 2	SHEET 62	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 027003-dt
PLOT DATE : 10/15/2025 8:48 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42



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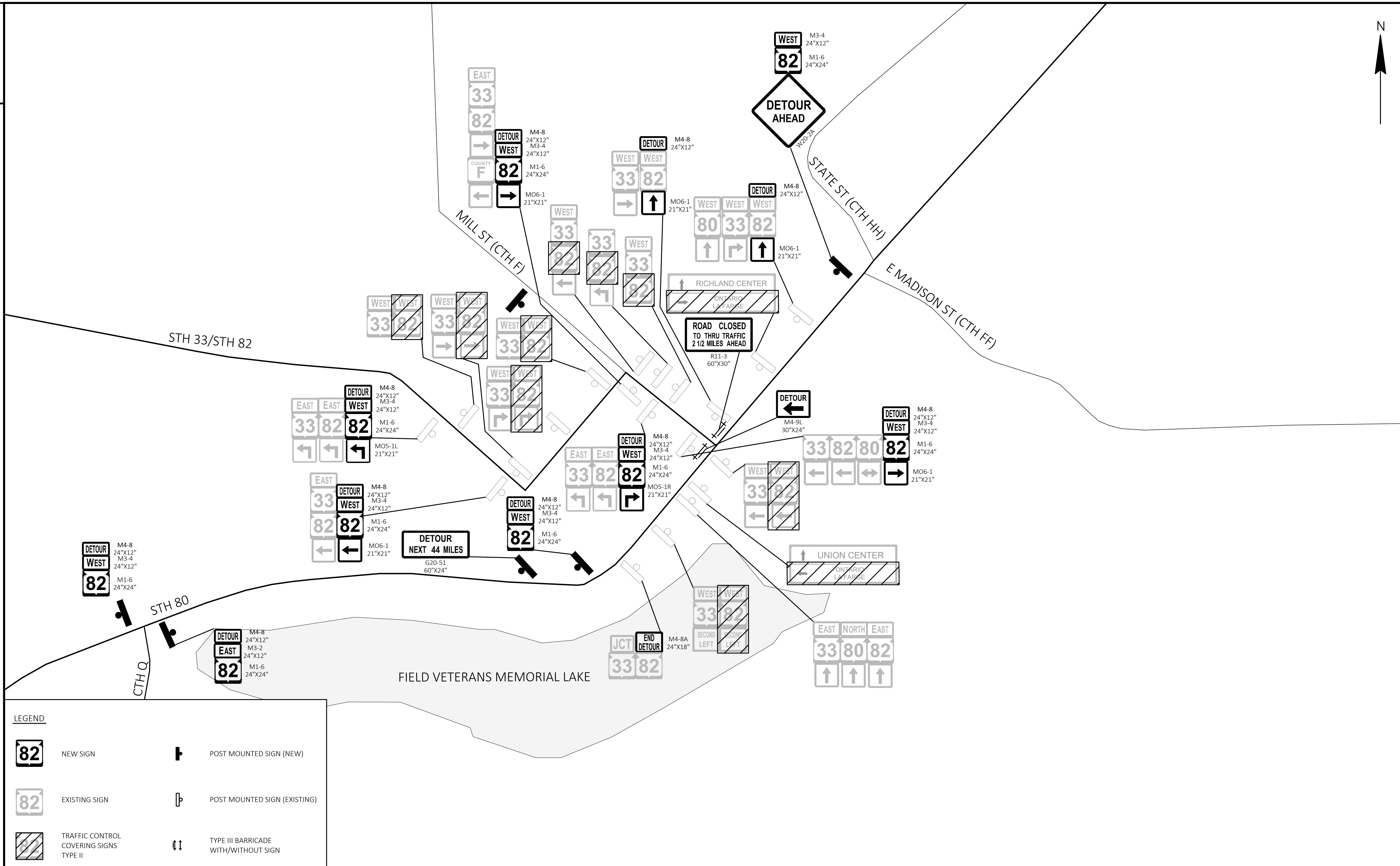
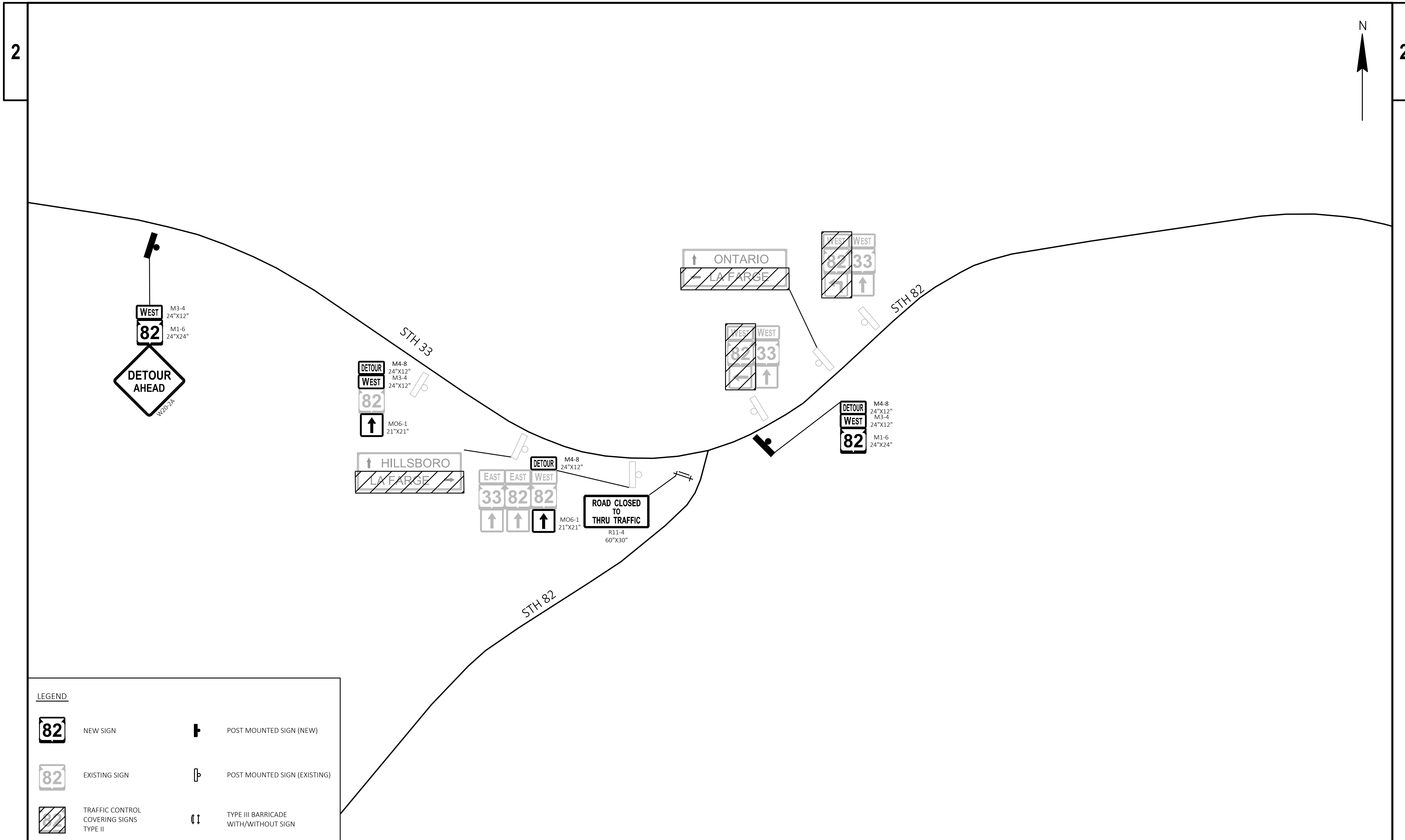


PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	DETOUR - DETAIL 4	SHEET 64 E



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	DETOUR - DETAIL 5	SHEET 65	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 027006-dt
PLOT DATE : 10/15/2025 8:48 AM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

Estimate Of Quantities

Line	Item	Item Description	Unit	Total	5710-00-72 Qty	5710-00-73 Qty
0002	201.0205	Grubbing	STA	3.000	3.000	
0004	203.0100	Removing Small Pipe Culverts	EACH	8.000	8.000	
0006	203.0220	Removing Structure (structure) 01. C-62-327	EACH	1.000	1.000	
0008	203.0220	Removing Structure (structure) 02. Pedestrian Bridge	EACH	1.000	1.000	
0010	203.0260	Removing Structure Over Waterway Minimal Debris (structure) B-62-238	EACH	1.000	1.000	
0012	203.0330	Debris Containment (structure) 01. B-62-51	EACH	1.000	1.000	
0014	204.0100	Removing Concrete Pavement	SY	3.000	3.000	
0016	204.0115	Removing Asphaltic Surface Butt Joints	SY	3,452.000	2,797.000	655.000
0018	204.0120	Removing Asphaltic Surface Milling	SY	240,450.000	229,890.000	10,560.000
0020	204.0150	Removing Curb & Gutter	LF	104.000	104.000	
0022	204.0155	Removing Concrete Sidewalk	SY	64.000	64.000	
0024	204.0165	Removing Guardrail	LF	1,665.000	1,665.000	
0026	204.0220	Removing Inlets	EACH	1.000	1.000	
0028	204.0245	Removing Storm Sewer (size) 01. 18-Inch	LF	98.000	98.000	
0030	204.0260	Abandoning Inlets	EACH	1.000	1.000	
0032	205.0100	Excavation Common	CY	882.000	882.000	
0034	206.2001	Excavation for Structures Culverts (structure) B-62-238	EACH	1.000	1.000	
0036	206.5001	Cofferdams (structure) 01. B-62-238	EACH	1.000	1.000	
0038	210.2500	Backfill Structure Type B	TON	13.000	13.000	
0040	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 5710-00-72	EACH	1.000	1.000	
0042	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 5710-00-73	EACH	1.000		1.000
0044	213.0100	Finishing Roadway (project) 01. 5710-00-72	EACH	1.000	1.000	
0046	213.0100	Finishing Roadway (project) 01. 5710-00-73	EACH	1.000		1.000
0048	305.0110	Base Aggregate Dense 3/4-Inch	TON	13,295.000	13,295.000	
0050	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	950.000	950.000	
0052	311.0110	Breaker Run	TON	4.000	4.000	
0054	325.0100	Pulverize and Relay	SY	223,560.000	223,560.000	
0056	455.0605	Tack Coat	GAL	16,897.000	16,113.000	784.000
0058	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000	
0060	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000	
0062	460.2000	Incentive Density HMA Pavement	DOL	1,960.000		1,960.000
0064	460.2005	Incentive Density PWL HMA Pavement	DOL	42,660.000	42,660.000	
0066	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	16,500.000	16,500.000	
0068	460.2010	Incentive Air Voids HMA Pavement	DOL	45,310.000	45,310.000	
0070	460.5224	HMA Pavement 4 LT 58-28 S	TON	47,830.000	45,310.000	2,520.000
0072	465.0105	Asphaltic Surface	TON	17.000	17.000	
0074	465.0110	Asphaltic Surface Patching	TON	38.000	38.000	
0076	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	480.000	480.000	
0078	465.0125	Asphaltic Surface Temporary	TON	75.000	75.000	
0080	465.0560	Asphaltic Rumble Strips, Centerline	LF	81,352.000	81,352.000	
0082	502.3200	Protective Surface Treatment	SY	903.000	903.000	
0084	502.3210	Pigmented Surface Sealer	SY	209.000	209.000	
0086	504.0100	Concrete Masonry Culverts	CY	4.000	4.000	
0088	504.0900	Concrete Masonry Endwalls	CY	10.000	10.000	
0090	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	440.000	440.000	
0092	509.0301	Preparation Decks Type 1	SY	64.000	64.000	
0094	509.0302	Preparation Decks Type 2	SY	28.000	28.000	
0096	509.0500	Cleaning Decks	SY	903.000	903.000	
0098	509.1500	Concrete Surface Repair	SF	102.000	102.000	

Line	Item	Item Description	Unit	Total	5710-00-72 Qty	5710-00-73 Qty
0100	509.2000	Full-Depth Deck Repair	SY	5.000	5.000	
0102	509.2500	Concrete Masonry Overlay Decks	CY	71.000	71.000	
0104	509.9025.S	Epoxy Injection Crack Repair	LF	12.000	12.000	
0106	509.9026.S	Cored Holes 2-Inch Diameter	EACH	2.000	2.000	
0108	511.1200	Temporary Shoring (structure) 01. B-62-238	SF	65.000	65.000	
0110	516.0500	Rubberized Membrane Waterproofing	SY	3.000	3.000	
0112	520.8700	Cleaning Culvert Pipes	EACH	4.000	4.000	
0114	520.9700.S	Culvert Pipe Liners (size) 01. 24-Inch	LF	64.000	64.000	
0116	520.9750.S	Cleaning Culvert Pipes for Liner Verification	EACH	1.000	1.000	
0118	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	4.000	4.000	
0120	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	2.000	2.000	
0122	521.1030	Apron Endwalls for Culvert Pipe Steel 30-Inch	EACH	6.000	6.000	
0124	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	66.000	66.000	
0126	521.3130	Culvert Pipe Corrugated Steel 30-Inch	LF	182.000	182.000	
0128	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	1.000	1.000	
0130	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000	
0132	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	1.000	1.000	
0134	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	737.000	737.000	
0136	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	16.000	16.000	
0138	601.0584	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type TBT	LF	92.000	92.000	
0140	601.0600	Concrete Curb Pedestrian	LF	16.000	16.000	
0142	602.0405	Concrete Sidewalk 4-Inch	SF	829.000	829.000	
0144	602.0415	Concrete Sidewalk 6-Inch	SF	81.000	81.000	
0146	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	60.000	60.000	
0148	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	11.000	11.000	
0150	602.1500	Concrete Steps	SF	60.000	60.000	
0152	602.3010	Concrete Surface Drains	CY	2.000	2.000	
0154	603.8000	Concrete Barrier Temporary Precast Delivered	LF	532.000	532.000	
0156	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,032.000	1,032.000	
0158	606.0200	Riprap Medium	CY	90.000	90.000	
0160	606.0300	Riprap Heavy	CY	224.000	224.000	
0162	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	61.000	61.000	
0164	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	54.000	54.000	
0166	608.2414	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 14x23-Inch	LF	41.000	41.000	
0168	608.2419	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	41.000	41.000	
0170	611.0545	Manhole Covers Type L	EACH	1.000	1.000	
0172	611.0624	Inlet Covers Type H	EACH	3.000	3.000	
0174	611.0642	Inlet Covers Type MS	EACH	3.000	3.000	
0176	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000	
0178	611.3004	Inlets 4-FT Diameter	EACH	3.000	3.000	
0180	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000	
0182	611.3902	Inlets Median 2 Grate	EACH	1.000	1.000	
0184	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-Inch	SY	194.000	194.000	
0186	614.0010	Barrier System Grading Shaping Finishing	EACH	9.000	9.000	
0188	614.0200	Steel Thrie Beam Structure Approach	LF	21.000	21.000	
0190	614.0345	Steel Plate Beam Guard Short Radius	LF	25.000	25.000	
0192	614.0390	Steel Plate Beam Guard Short Radius Terminal	EACH	1.000	1.000	
0194	614.0400	Adjusting Steel Plate Beam Guard	LF	607.000	607.000	
0196	614.0905	Crash Cushions Temporary	EACH	4.000	4.000	

Line	Item	Item Description	Unit	Total	5710-00-72 Qty	5710-00-73 Qty
0198	614.0950	Replacing Guardrail Posts and Blocks	EACH	10.000	10.000	
0200	614.0951	Replacing Guardrail Rail and Hardware	LF	100.000	100.000	
0202	614.0952	Replacing Guardrail Reflectors	EACH	6.000	6.000	
0204	614.2300	MGS Guardrail 3	LF	875.000	875.000	
0206	614.2330	MGS Guardrail 3 K	LF	488.000	488.000	
0208	614.2340	MGS Guardrail 3 L	LF	339.000	339.000	
0210	614.2350	MGS Guardrail Short Radius	LF	34.000	34.000	
0212	614.2500	MGS Thrie Beam Transition	LF	118.000	118.000	
0214	614.2610	MGS Guardrail Terminal EAT	EACH	12.000	12.000	
0216	614.2630	MGS Guardrail Short Radius Terminal	EACH	1.000	1.000	
0218	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5710-00-72	EACH	1.000	1.000	
0220	619.1000	Mobilization	EACH	1.000	0.900	0.100
0222	624.0100	Water	MGAL	639.000	639.000	
0224	625.0500	Salvaged Topsoil	SY	769.000	769.000	
0226	628.1504	Silt Fence	LF	1,794.000	1,794.000	
0228	628.1520	Silt Fence Maintenance	LF	1,794.000	1,794.000	
0230	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000	
0232	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000	
0234	628.2008	Erosion Mat Urban Class I Type B	SY	769.000	769.000	
0236	628.7005	Inlet Protection Type A	EACH	7.000	7.000	
0238	628.7010	Inlet Protection Type B	EACH	5.000	5.000	
0240	628.7015	Inlet Protection Type C	EACH	19.000	2.000	17.000
0242	628.7504	Temporary Ditch Checks	LF	38.000	38.000	
0244	628.7555	Culvert Pipe Checks	EACH	81.000	81.000	
0246	629.0210	Fertilizer Type B	CWT	0.600	0.600	
0248	630.0120	Seeding Mixture No. 20	LB	21.000	21.000	
0250	630.0200	Seeding Temporary	LB	22.000	22.000	
0252	630.0500	Seed Water	MGAL	17.000	17.000	
0254	633.5200	Markers Culvert End	EACH	12.000	12.000	
0256	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	14.000	14.000	
0258	634.0808	Posts Tubular Steel 2x2-Inch X 8-FT	EACH	2.000	2.000	
0260	637.2210	Signs Type II Reflective H	SF	11.000	11.000	
0262	638.2102	Moving Signs Type II	EACH	15.000	15.000	
0264	638.2602	Removing Signs Type II	EACH	4.000	4.000	
0266	638.3000	Removing Small Sign Supports	EACH	18.000	18.000	
0268	642.5001	Field Office Type B	EACH	1.000	0.900	0.100
0270	643.0300	Traffic Control Drums	DAY	2,260.000	2,260.000	
0272	643.0420	Traffic Control Barricades Type III	DAY	21,997.000	21,997.000	
0274	643.0705	Traffic Control Warning Lights Type A	DAY	43,994.000	43,994.000	
0276	643.0715	Traffic Control Warning Lights Type C	DAY	750.000	750.000	
0278	643.0900	Traffic Control Signs	DAY	43,106.000	43,106.000	
0280	643.0920	Traffic Control Covering Signs Type II	EACH	34.000	34.000	
0282	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000	
0284	643.1070	Traffic Control Cones 42-Inch	DAY	360.000	360.000	
0286	643.3165	Temporary Marking Line Paint 6-Inch	LF	209,746.000	202,750.000	6,996.000
0288	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	1,323.000	1,323.000	
0290	643.3805	Temporary Marking Stop Line Paint 18-Inch	LF	66.000	66.000	
0292	643.5000	Traffic Control	EACH	1.000	0.900	0.100
0294	644.1430	Temporary Pedestrian Surface Plate	SF	525.000	525.000	

Estimate Of Quantities

Line	Item	Item Description	Unit	Total	5710-00-72 Qty	5710-00-73 Qty
0296	644.1605	Temporary Pedestrian Detectable Warning Field	SF	50.000	50.000	
0298	644.1810	Temporary Pedestrian Barricade	LF	802.000	802.000	
0300	645.0120	Geotextile Type HR	SY	404.000	404.000	
0302	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	275,130.000	268,134.000	6,996.000
0304	646.6120	Marking Stop Line Epoxy 18-Inch	LF	118.000	76.000	42.000
0306	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	2,120.000	328.000	1,792.000
0308	646.9000	Marking Removal Line 4-Inch	LF	2,624.000	2,624.000	
0310	648.0100	Locating No-Passing Zones	MI	15.620	15.620	
0312	650.4000	Construction Staking Storm Sewer	EACH	9.000	9.000	
0314	650.5000	Construction Staking Base	LF	84,471.000	82,381.000	2,090.000
0316	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	845.000	845.000	
0318	650.6000	Construction Staking Pipe Culverts	EACH	5.000	5.000	
0320	650.6501	Construction Staking Structure Layout (structure) 01. B-62-51	EACH	1.000	1.000	
0322	650.8000	Construction Staking Resurfacing Reference	LF	84,471.000	82,381.000	2,090.000
0324	650.9000	Construction Staking Curb Ramps	EACH	7.000	7.000	
0326	650.9500	Construction Staking Sidewalk (project) 01. 5710-00-72	EACH	1.000	1.000	
0328	650.9911	Construction Staking Supplemental Control (project) 01. 5710-00-72	EACH	1.000	1.000	
0330	661.0101	Temporary Traffic Signals for Bridges (structure) 01. B-62-51	EACH	1.000	1.000	
0332	680.0100	Public Land Reference Monument Verify and Reset	EACH	4.000	3.000	1.000
0334	690.0150	Sawing Asphalt	LF	766.000	766.000	
0336	690.0250	Sawing Concrete	LF	53.000	53.000	
0338	740.0440	Incentive IRI Ride	DOL	31,075.000	31,075.000	
0340	740.0440	Incentive IRI Ride	DOL	791.670		791.670
0342	999.2005.S	Maintaining Bird Deterrent System (station) 01. 81+00	EACH	1.000	1.000	
0344	999.2005.S	Maintaining Bird Deterrent System (station) 02. 107+65 Left	EACH	1.000	1.000	
0346	SPV.0060	Special 01. Adjusting Water Valve Boxes	EACH	28.000	13.000	15.000
0348	SPV.0060	Special 02. Adjusting Sanitary Manhole Covers	EACH	12.000	7.000	5.000
0350	SPV.0060	Special 03. Utility Line Opening	EACH	1.000	1.000	
0352	SPV.0060	Special 04. Foam Void Filling	EACH	1.000	1.000	
0354	SPV.0090	Special 01. Profile Curb Cut	LF	88.000	88.000	
0356	SPV.0090	Special 02.Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 43x68-Inch	LF	120.000	120.000	

3

GRUBBING ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	TO	STATION	201.0205 GRUBBING STA
5710-00-72	0010	STH 82	107+00	-	108+00	1
		STH 82	212+00	-	214+00	2
		TOTAL				3

REMOVING OLD STRUCTURE

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET	203.0220 REMOVING STRUCTURE EACH	COMMENTS
5710-00-72	0010	STH 82	107+61	30' LT	1	PEDESTRIAN BRIDGE
		STH 82	107+61	30' LT	1	CULVERT C-62-327 (NOTE 1)
		TOTAL			2	

NOTE 1: REMOVAL OF CULVERT INCLUDES REMOVAL OF SANITARY SEWER WITHIN EXCAVATION LIMITS FOR THE CULVERT PIPE.

3

REMOVING SMALL PIPE CULVERTS

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET	203.0100 REMOVING SMALL PIPE CULVERTS EACH	COMMENTS
5710-00-72	0010	STH 82	107+32	LT	1	16" CMCP
		STH 82	113+74	LT	1	18" CMCP
		STH 82	113+91	LT	1	16" CMCP
		STH 82	214+10	LT	1	18" CMCP
		STH 82	215+18	LT	1	18" CMCP
		STH 82	259+75		1	24" CMCP
		STH 82	263+17		1	24" CMCP
		STH 82	263+21		1	24" CMCP
		TOTAL			8	

REMOVING DRAINAGE ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	ALIGNMENT	204.0220 REMOVING INLETS EACH	204.0245 REMOVING STORM SEWER LF	204.0260 ABANDONING INLETS EACH	COMMENTS
5710-00-72	0010	STH 82	82+07		-	82+96		STH 82	1	84	1	18-INCH
		STH 82	107+50		-	108+00		STH 82	--	14	--	18-INCH
		TOTAL							1	98	1	

REMOVAL ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	TO	STATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0165 REMOVING GUARDRAIL LF
5170-00-72	0010	STH 82	77+38	-	79+93	--	13	970	--	--	232
		STH 82	82+07	-	82+96	--	--	340	104	--	73
		STH 82	103+86	-	114+16	3	281	3,210	--	64	--
		STH 82	114+16	-	180+30	--	119	19,000	--	--	260
		STH 82	180+30	-	465+07	--	673	79,000	--	--	1,100
		STH 82	465+07	-	672+67	--	737	57,230	--	--	--
		STH 82	672+67	-	786+29	--	638	32,530	--	--	--
		STH 82	786+29	-	924+23	--	336	37,610	--	--	--
		TOTAL				3	2,797	229,890	104	64	1,665
5170-00-73	0010	STH 82	82+96	-	103+86	--	655	8,080			
		CATEGORY TOTAL				--	655	8,080	--	--	--
	0020	STH 82	82+96	-	103+86	--	--	2,480			
		CATEGORY TOTAL				--	--	2,480	--	--	--
		TOTAL				--	655	10,560	--	--	--

3

DIVISION	FROM/TO STATION	205.0100 COMMON EXCAVATION (1) CUT (2)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.25	MASS ORDINATE +/- (14)	WASTE
DIVISION 1							
STH 82	104+23.77/115+83.23	882	882	86	108	775	
DIVISION 1 SUBTOTAL		882	882	86	108	775	775
GRAND TOTAL		882	882	86	108	775	775
	TOTAL COMMON EXC	882					

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.25
EXPANDED FILL = (UNEXPANDED FILL) * FILL FACTOR
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

PULVERIZE AND RELAY ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	TO	STATION	325.0100* PULVERIZE AND RELAY SY	624.0100* WATER MGAL
5710-00-72	0010	STH 82	114+16	-	180+30	18,710	42
		STH 82	180+30	-	259+65	22,230	49
		STH 82	259+65	-	259+88	70	1
		STH 82	259+88	-	263+07	860	3
		STH 82	263+07	-	263+38	90	1
		STH 82	263+38	-	465+07	55,240	123
		STH 82	465+07	-	672+67	56,540	126
		STH 82	672+67	-	786+29	32,260	72
		STH 82	786+29	-	924+23	37,560	83
		TOTAL				223,560	500

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

BASE AGGREGATE ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	TO	STATION	ALIGNMENT	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100* WATER MGAL	COMMENTS
5710-00-72	0010	STH 82	77+38	-	79+93	STH 82	60	--	1	
		STH 82	103+86	-	107+49	STH 82	30	10	--	
		STH 82	107+49	-	107+86	STH 82	5	100	1	CULVERT
		STH 82	107+86	-	114+16	STH 82	50	30	1	
		STH 82	114+16	-	175+72	STH 82	560	--	6	
		STH 82	175+72	-	179+50	STH 82	50	--	1	GUARDRAIL
		STH 82	179+50	-	212+65	STH 82	290	--	3	
		STH 82	212+65	-	216+44	STH 82	30	--	--	GUARDRAIL
		STH 82	216+44	-	259+65	STH 82	250	--	3	
		STH 82	259+65	-	259+88	STH 82	--	50	1	CULVERT
		STH 82	259+88	-	263+07	STH 82	30	--	--	
		STH 82	263+07	-	263+38	STH 82	--	70	1	CULVERT
		STH 82	263+38	-	442+00	STH 82	1,630	--	--	
		STH 82	442+00		458+35	STH 82	190	240	--	GUARDRAIL
		STH 82	458+35	-	465+07	STH 82	90	--	1	
		STH 82	465+07	-	672+67	STH 82	1,860	--	19	
		STH 82	672+67	-	786+29	STH 82	1,010	--	10	
		STH 82	786+29	-	924+23	STH 82	1,250	--	13	
		DRIVEWAYS					450	--	5	120 TOTAL
		SHOULDERS					5,460		56	FORESLOPES
		CATEGORY TOTAL					13,295	500	122	
	0050	STH 82	104+45	-	107+10		--	230	--	
		STH 82	111+00	-	113+60		--	220	--	
		CATEGORY TOTAL					--	450	--	
		TOTAL					13,295	950	122	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ASPHALTIC ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	TO	STATION	ALIGNMENT	211.0100.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) EACH	455.0605 TACK COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	COMMENTS
5170-00-72	0010	STH 82	77+38	-	79+93	STH 82	1	74	240	--	--	--	
		STH 82	82+07	-	82+96	STH 82	--	24	80	--	--	--	
		STH 82	103+86	-	107+49	STH 82	--	98	320	--	17	--	
		STH 82	107+49	-	107+86	STH 82	--	15	30	7	3	--	CULVERT
		STH 82	107+86	-	114+16	STH 82	--	141	460	--	18	--	
		STH 82	114+16	-	180+30	STH 82	--	1,343	3,760	--	--	--	
		STH 82	180+30	-	259+65	STH 82	--	1,538	4,310	--	--	--	
		STH 82	259+65	-	259+88	STH 82	--	8	20	4	--	--	CULVERT
		STH 82	259+88	-	263+07	STH 82	--	60	170	--	--	--	
		STH 82	263+07	-	263+38	STH 82	--	11	20	6	--	--	CULVERT
		STH 82	263+38	-	465+07	STH 82	--	3,896	10,910	--	--	--	
		STH 82	465+07	-	672+67	STH 82	--	3,973	11,130	--	--	--	
		STH 82	672+67	-	786+29	STH 82	--	2,317	6,490	--	--	--	
		STH 82	786+29	-	924+23	STH 82	--	2,591	7,260	--	--	--	
		ELM ST					--	--	10	--	--	--	WEDGING
		OAK ST					--	--	10	--	--	--	WEDGING
		CHERRY ST					--	--	10	--	--	--	WEDGING
		DRIVEWAYS					--	--	--	--	--	480	88 TOTAL
		CATEGORY TOTAL					1	16,089	45,230	17	38	480	
	0050	STH 82	104+45	-	107+10	STH 82	--	12	40	--	--	--	
		STH 82	111+00	-	113+60	STH 82	--	12	40	--	--	--	
		CATEGORY TOTAL					--	24	80	--	--	--	
		TOTAL					1	16,113	45,310	17	38	480	
5170-00-73	0010	STH 82	82+96	-	103+86	STH 82	1	611	1,960	--	--	--	
		CATEGORY TOTAL					1	611	1,960	--	--	--	
	0020	STH 82	82+96	-	103+86	STH 82	--	173	560	--	--	--	PARKING LANES
		CATEGORY TOTAL					--	173	560	--	--	--	
		TOTAL					1	784	2,520	--	--	--	

3

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: MIXTURE ACCEPTANCE	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: DENSITY ACCEPTANCE
12 FOOT DRIVING LANES (NB AND SB)	77+38.78 - 79+94, 82+04 - 924+23	UPPER LAYER	HMA PAVEMENT 4 LT 58-28 S	HMA PAVEMENT 4 LT 58-28 S	22,080	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANES (NB AND SB)	77+38.78 - 79+94, 82+04 - 113+80	LOWER LAYER	MILLED EXISTING HMA SURFACE	HMA PAVEMENT 4 LT 58-28 S	1,160	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
12 FOOT DRIVING LANES (NB AND SB)	113+80 - 924+23	LOWER LAYER	PULVERIZED AND RELAYED SURFACE	HMA PAVEMENT 4 LT 58-28 S	21,180	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
SHOULDERS, TURN LANES, INTERSECTIONS, PARKING LANES	77+38.78 - 79+94, 82+04 - 924+23	UPPER LAYER	HMA PAVEMENT 4 LT 58-28 S	HMA PAVEMENT 4 LT 58-28 S	1,550	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
SHOULDERS, TURN LANES, INTERSECTIONS, PARKING LANES	77+38.78 - 79+94, 82+04 - 113+80	LOWER LAYER	MILLED EXISTING HMA SURFACE	HMA PAVEMENT 4 LT 58-28 S	940	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
SHOULDERS, TURN LANES, INTERSECTIONS, PARKING LANES	113+80 - 924+23	LOWER LAYER	PULVERIZED AND RELAYED SURFACE	HMA PAVEMENT 4 LT 58-28 S	840	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
CULVERT AND STORM SEWER REPLACEMENTS	77+38.78 - 924+23	UPPER LAYER	BASE AGGREGATE	ASPHALTIC SURFACE	17	1.75	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION
CURB RAMP ADJUSTMENTS	77+38.78 - 924+23	UPPER LAYER	HMA PAVEMENT 4 LT 58-28 S	ASPHALTIC SURFACE PATCHING	38	4.00	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION
ASPHALT DRIVEWAYS	77+38.78 - 924+23	UPPER LAYER	HMA PAVEMENT 4 LT 58-28 S	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	480	3.00	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION

PWL ITEMS

PROJECT ID	CATEGORY	LOCATION	460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH
5710-00-72	0010	STH 82	1	2
		TOTAL	1	2

ASPHALTIC RUMBLE STRIP ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	TO	STATION	465.0560 ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
5710-00-72	0010	STH 82	77+38	-	79+93	255
		STH 82	82+07	-	82+96	89
		STH 82	103+86	-	114+16	--
		STH 82	114+16	-	180+30	6,615
		STH 82	180+30	-	465+07	28,476
		STH 82	465+07	-	672+67	20,759
		STH 82	672+67	-	786+29	11,363
		STH 82	786+29	-	924+23	13,795
		TOTAL				81,352

CROSS DRAINS

PROJECT ID	CATEGORY	STATION	OFFSET	TO STATION	OFFSET	**INLET ELEVATION	**DISCHARGE ELEVATION	SLOPE	MIN REQ. WALL THICKNESS	504.0900 CONCRETE MASONRY ENDWALLS CY	520.8700 CLEANING CULVERT PIPES EACH	520.9700.S CULVERT PIPE LINERS 24-INCH LF	520.9750.S CLEANING CULVERT PIPES FOR LINER VERIFICATION EACH	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH EACH	521.1030 APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH EACH	521.3118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	521.3130 CULVERT PIPE CORRUGATED STEEL 30-INCH LF	SPV.0090.02 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 43X68-INCH LF	628.7555 CULVERT PIPE CHECKS EACH	612.0902.S* INSULATION BOARD POLYSTYRENE, 2-INCH SY	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	COMMENTS
5710-00-72	0010	213+49	30.6 LT	213+92	33.6 LT	861.14	860.35	--	0.064	--	--	--	--	2	--	--	44	--	--	8	--	2	1	
		215+45	31.8 LT	215+65	30 LT	861.7	--	--	0.064	--	--	--	--	2	--	--	22	--	--	3	--	2	1	
		240+08	32.9 LT	240+05	31.5 RT	869.48 (869.23)	868.320 (868.068)	1.80%	--	--	--	64	1	--	2	--	--	--	--	15	--	2	--	PIPE LINER
		259+76	24.3 LT	259+77	25.7 RT	882.96	881.99	1.94%	0.079	--	--	--	--	--	--	2	--	50	--	5	--	2	1	
		263+18	33 LT	263+18	33 RT	886.14	885.48	1.00%	0.079	--	--	--	--	--	--	2	--	66	--	5	--	2	1	
		263+26	33 LT	263+26	33 RT	886.14	885.48	1.00%	0.079	--	--	--	--	--	--	2	--	66	--	5	--	2	1	
				UNDISTRIBUTED						--	4	--	--	--	--	--	--	--	--	40	--	--	--	
		CATEGORY TOTAL								--	4	64	1	4	2	6	66	182	--	81	--	12	5	
	0030	107+62	36 LT	107+72	24 RT	800.55	800.51	0.07%		5	--	--	--	--	--	--	--	--	60	--	70	--	--	
		107+62	36 LT	107+72	24 RT	800.88	800.84	0.07%		5	--	--	--	--	--	--	--	--	60	--	70	--	--	
		CATEGORY TOTAL								10	--	--	--	--	--	--	--	--	120	--	140	--	--	
	TOTAL									10	4	64	1	4	2	6	66	182	120	81	140	12	5	

** ASSUMED 3-INCH INVERT CHANGE DUE TO LINER: PROPOSED ELEVATION (EXISTING ELEVATION)

3

STORM SEWER STRUCTURES

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET*	STRUCTURE NUMBER	RIM ELEVATION**	INVERT ELEVATION***	DEPTH****	522.1018 APRON ENDWALLS: APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS: APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.2619 APRON ENDWALLS: APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	611.0545 MANHOLE COVERS TYPE L EACH	611.0624 INLET COVERS: INLET COVERS TYPE H EACH	611.0642 INLET COVERS: INLET COVERS TYPE MS EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.3004 INLETS: INLETS 4-FT DIAMETER EACH	611.3901 INLET MEDIAN: INLETS MEDIAN 1 GRATE EACH	611.3902 INLET MEDIAN: INLETS MEDIAN 2 GRATE EACH	650.4000 STAKING: CONSTRUCTION STAKING STORM SEWER EACH	COMMENTS
5710-00-72	0010	STH 82	107+14.47	32.86' LT	IN 1-1	806.35	803.35	3.24	--	--	--	--	--	1	--	--	1	--	1	
		STH 82	107+13.88	19.27' LT	IN 1-2	806.75	803.14	2.86	--	--	--	--	1	--	--	1	--	--	1	
		STH 82	107+22.56	19.53' RT	EW 1-3	--	802.55	--	--	1	--	--	--	--	--	--	--	--	1	
		STH 82	107+82.59	20.21' LT	IN 1-4	805.08	801.35	2.94	--	--	--	--	1	--	--	1	--	--	1	
		STH 82	107+82.59	25.63' RT	EW 1-5	--	800.90	--	1	--	--	--	--	--	--	--	--	--	1	
		STH 82	113+74.96	36.13' LT	IN 2-1	803.41	801.46	2.17	--	--	--	--	--	2	--	--	--	1	1	
		STH 82	113+78.87	21.44' LT	MH 2-2	804.20	800.93	2.44	--	--	--	1	--	--	1	--	--	--	1	
		STH 82	113+38.31	19.50' LT	IN 2-3	803.88	800.88	2.00	--	--	--	--	1	--	--	1	--	--	1	
		STH 82	114+19.43	23.39' LT	EW 2-4	--	801.20	--	--	--	1	--	--	--	--	--	--	--	1	
		TOTAL							1	1	1	1	3	3	1	3	1	1	9	

*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
**RIM ELEV IS AT THE INLET COVER FLANGE LOCATION
***FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE
****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

CONCRETE CURB & GUTTER

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET		TO STATION	OFFSET	ALIGNMENT	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	601.0584 CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE TBT LF	601.0600 CONCRETE CURB PEDESTRIAN LF	SPV.0090.01 PROFILE CURB CUT LF	COMMENTS
5710-00-72	0010	STH 82	82+18	LT	-	82+33	LT	STH 82	--	--	16	--	--	
		STH 82	82+52	LT	-	83+40	LT	STH 82	--	--	--	--	88	
		STH 82	82+52	LT	-	82+63	LT	STH 82	--	16	--	--	--	
		STH 82	82+18	RT	-	82+96	RT	STH 82	--	--	76	--	--	
		STH 82	104+29	LT	-	106+88	LT	STH 82	--	--	--	16	--	MAPLE ST
		STH 82	107+44	LT	-	107+91	LT	STH 82	57	--	--	--	--	ELM ST
		STH 82	114+02	LT	-	114+15	LT	STH 82	27	--	--	--	--	CHERRY ST
		CATEGORY TOTAL							84	16	92	16	88	
	0050	STH 82	104+29	LT	-	107+18	LT	STH 82	333	--	--	--	--	MAPLE ST TO ELM ST
		STH 82	110+83	LT	-	113+80	LT	STH 82	320	--	--	--	--	OAK ST TO CHERRY ST
		CATEGORY TOTAL							653	--	--	--	--	
		TOTAL							737	16	92	16	88	

CONCRETE SIDEWALK

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET		TO STATION	OFFSET	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF	COMMENTS
5710-00-72	0010	STH 82	104+29	LT	-	104+68	LT	250	--	MAPLE ST
		STH 82	106+88	LT	-	107+91	LT	336	--	ELM ST
		STH 82	110+45	LT	-	111+00	LT	92	81	OAK S T
		STH 82	113+67	LT	-	114+13	LT	151	--	CHERRY ST
		TOTAL						829	81	

CURB RAMP DETECTABLE WARNING FIELDS

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET		TO STATION	OFFSET	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW SF	COMMENTS
5710-00-72	0010	STH 82	104+29	LT	-	104+75	LT	--	11	MAPLE ST
		STH 82	106+88	LT		107+91	LT	20	--	ELM ST
		STH 82	110+45	LT		111+00	LT	20	--	OAK ST
		STH 82	113+67	LT		114+13	LT	20	--	CHERRY ST
		TOTAL						60	11	

CONCRETE STEPS

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET	602.1500 CONCRETE STEPS SF
5710-00-72	0010	STH 82	112+11	LT	35
		STH 82	112+52	LT	25
		TOTAL			60

CONCRETE SURFACE DRAINS

PROJECT ID	CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	602.3010 CONCRETE SURFACE DRAINS CY
5710-00-72	0010	STH 82	82+25	-	82+32	LT	1
		STH 82	82+60	-	82+96	RT	1
		TOTAL					2

3

STORM SEWER ITEMS

PROJECT ID	CATEGORY	LOCATION	FROM STRUCTURE	TO STRUCTURE	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	608.0424 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	608.2414 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 14X23-INCH LF	608.2419 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH LF	612.0902.S* INSULATION BOARD POLYSTYRENE, 2-INCH SY
5710-00-72	0010	STH 82	IN 1-1	IN 1-2	803.35	803.14	1.50%	--	14	--	--	27
		STH 82	IN 1-2	EW 1-3	803.14	802.55	1.50%	--	40	--	--	--
		STH 82	IN 1-4	EW 1-5	801.35	800.90	1.00%	46	--	--	--	27
		STH 82	IN 2-1	MH 2-2	801.46	801.20	1.66%	15	--	--	--	--
		STH 82	IN 2-3	MH 2-2	801.20	801.20	0.00%	--	--	41	--	--
		STH 82	MH 2-2	EW 2-4	801.20	801.20	0.00%	--	--	--	41	--
		TOTAL						61	54	41	41	54

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ADJUSTING MANHOLE & INLET COVERS

PROJECT ID	CATEGORY	LOCATION	STATION	TO	STATION	SPV.0060.01 ADJUSTING WATER VALVE BOXES EACH	SPV.0060.02 ADJUSTING SANITARY MANHOLE COVERS EACH
5710-00-72	0060	STH 82	103+86	-	107+96	13	7
		TOTAL				13	7
5710-00-73	0030	STH 82	82+96	-	103+86	15	5
		TOTAL				15	5

RIPRAP ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
5710-00-72	0010	STH 82	240+06	RT	3	11
		STH 82	259+77	RT	2	8
		SUBTOTAL			5	19
	0030	STH 82	107+67	LT	41	98
		STH 82	107+67	RT	41	98
		SUBTOTAL			82	196
		TOTAL			87	215

BARRIER SYSTEM GRADING, SHAPING, FINISHING

PROJECT ID	CATEGORY	LOCATION	STATION	TO	STATION	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	205.0100** EXCAVATION COMMON CY	208.0100** BORROW CY	625.0500** SALVAGED TOPSOIL SY	628.2004** EROSION MAT CLASS I TYPE B SY	629.0210** FERTILIZER TYPE B CWT	630.0120** SEEDING MIXTURE NO. 20 LB	630.0500** SEED WATER MGAL
5710-00-72	0010	STH 82	78+46	-	79+87	2	53	--	751	751	0.5	20	17
		STH 82	82+13	-	83+09	2	13	1	27	27	--	1	1
		STH 82	175+59	-	178+40	2	53	--	525	525	0.3	14	12
		STH 82	213+75	-	215+46	1	23	46	394	394	0.2	11	9
		STH 82	442+00		448+01	1	15	39	148	148	0.1	4	3
		STH 82	450+50		458+35	1	88	21	64	64	--	2	1
		TOTAL				9	245	107	1,909	1,909	1.1	52	43

**FOR INFORMATION ONLY. ITEMS INCIDENTAL TO BID ITEM BARRIER SYSTEM GRADING SHAPING FINISHING.

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GUARDRAIL ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET	TO STATION	OFFSET	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0345 STEEL PLATE BEAM GUARD SHORT RADIUS LF	614.0390 STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL EACH	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2340 MGS GUARDRAIL 3 L LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
5710-00-72	0010	STH 82	78+46	RT	79+87	RT	--	--	--	50	--	--	--	39	1
		STH 82	78+94	LT	79+87	LT	--	--	--	--	--	--	--	39	1
		STH 82	82+13	RT	83+09	RT	--	--	--	--	--	--	--	39	1
		STH 82	82+14	LT	82+42	LT	21	25	1	--	--	--	--	--	--
		STH 82	175+59	RT	178+40	RT	--	--	--	63	--	113	--	--	2
		STH 82	176+24	LT	179+18	LT	--	--	--	75	--	113	--	--	2
		STH 82	213+75	LT	215+46	LT	--	--	--	--	--	113	34	--	1
		STH 82	442+00	RT	448+01	RT	--	--	--	500	--	--	--	--	2
		STH 82	450+50	LT	458+35	LT	--	--	--	188	488	--	--	--	2
		TOTAL					21	25	1	875	488	339	34	118	12

GUARDRAIL ITEMS, CONTINUED

PROJECT ID	CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF	614.0950 REPLACING GUARDRAIL POSTS AND BLOCKS EACH	614.0951 REPLACING GUARDRAIL RAIL AND HARDWARE LF	614.0952 REPLACING GUARDRAIL REFLECTORS EACH	COMMENTS
5710-00-72	0010	STH 82	236+51	-	238+24	LT	179	3	25	2	
		STH 82	236+56	-	238+24	LT	168	3	25	2	
		STH 82	308+94	-	310+23	RT	130	2	25	1	
		STH 82	309+14	-	310+44	LT	130	2	25	1	
		TOTAL					607	10	100	6	

NOTE: REPLACING GUARDRAIL POSTS AND BLOCKS, REPLACING GUARDRAIL RAIL AND HARDWARE, AND REPLACING GUARDRAIL REFLECTORS ESTIMATED AT 10% UNDISTRIBUTED

RESTORATION

PROJECT ID	CATEGORY	LOCATION	STATION	TO STATION	625.0500 SALVAGED TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	COMMENTS
5710-00-72	0010	STH 82	104+00	108+00	190	190	0.1	5	5	4	ELM ST
		STH 82	110+45	111+05	--	--	--	--	1	--	OAK ST
		STH 82	111+05	114+15	210	210	0.2	6	6	5	CHERRY ST
		STH 82	114+25	115+75	150	150	0.1	4	4	3	CHERRY ST DITCH
		STH 82	114+25	115+75	150	150	0.1	4	4	3	CHERRY ST DITCH
		UNDISTRIBUTED			70	70	0.1	2	2	2	
		TOTAL			769	769	0.6	21	22	17	

EROSION CONTROL ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	TO STATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7504 TEMPORARY DITCH CHECKS LF
5710-00-72	0010	STH 82	78+46	79+87	378	378	--
		STH 82	82+13	83+09	35	35	13
		STH 82	175+59	178+40	390	390	--
		STH 82	213+75	215+46	46	46	25
		STH 82	442+00	448+01	267	267	--
		STH 82	450+50	458+35	320	320	--
		UNDISTRIBUTED			359	359	--
		TOTAL			1,794	1,794	38

EROSION CONTROL MOBILIZATION

PROJECT ID	CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
5710-00-72	0010	UNDISTRIBUTED	4	2
		TOTAL	4	2

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INLET PROTECTION

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	ALIGNMENT	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH
5710-00-72	0010	STH 82	103+86	LT/RT	-	114+16	LT/RT	STH 82	7	5	2
		TOTAL							7	5	2
5710-00-73	0010	STH 82	82+96	LT/RT	-	103+86	LT/RT	STH 82	--	--	17
		TOTAL							--	--	17

REMOVING AND MOVING SIGNS

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET	SIGN MESSAGE	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
5710-00-72	0010	STH 82	79+25	RT	SPEED LIMIT 30	1	1	--	1
		STH 82	79+60	RT	KICKAPOO RIVER	1	1	--	1
		STH 82	79+65	LT	SPEED LIMIT 55	1	1	--	1
		STH 82	82+30	LT	KICKAPOO RIVER	1	1	--	1
		STH 82	106+15	LT	PEDESTRIAN CROSSING	1	2	--	1
		STH 82	107+15	LT	STOP	1	1	--	1
		STH 82	107+50	RT	BRIDGE HASH MARKS	--	--	1	1
		STH 82	107+50	LT	BRIDGE HASH MARKS	--	--	1	1
		STH 82	107+80	RT	BRIDGE HASH MARKS	--	--	1	1
		STH 82	107+80	LT	BRIDGE HASH MARKS	--	--	1	1
		STH 82	112+85	LT	SPEED LIMIT 30	1	1	--	1
		STH 82	113+75	LT	STOP	1	1	--	1
		STH 82	180+25	LT	STH 82 WEST	1	1	--	1
		STH 82	UNDISTRIBUTED		NO PASSING ZONE	5	5	--	5
		TOTAL				14	15	4	18

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TYPE II SIGNS AND SUPPORTS

PROJECT ID	CATEGORY	SIGN NUMBER	SIGN CODE	SIGN SIZE	SIGN TYPE	SIGN DIMENSION W X H IN	X	IN	DESCRIPTION	634.0808 POSTS TUBULAR STEEL 2X2-INCH X 8-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	SIGN MOUNTED ON SAME POST AS SIGN NO.	COMMENTS
5710-00-72	0010	1A	R9-3A	2S	II	24	X	24	NO PED CROSSING (SYMBOL)	1	4.0		SW MAPLE ST
		1B	R9-3BL	2S	II	18	X	12	USE CROSSWALK (LEFT)	--	1.5	1A	SW MAPLE ST
		2A	R9-3A	2S	II	24	X	24	NO PED CROSSING (SYMBOL)	1	4.0		NE MAPLE ST
		2B	R9-3BR	2S	II	18	X	12	USE CROSSWALK (RIGHT)	--	1.5	2A	NE MAPLE ST
		TOTAL								2	11		

TRAFFIC CONTROL

PROJECT ID	CATEGORY	LOCATION	643.5000 TRAFFIC CONTROL EACH
5710-00-72	0010	PROJECT	0.9
		TOTAL	0.9
5710-00-73	0010	PROJECT	0.1
		TOTAL	0.1

TRAFFIC CONTROL ITEMS

PROJECT ID	CATEGORY	LOCATION	DURATION DAYS	643.0300* TRAFFIC CONTROL DRUMS NO.	DAY	643.0420* TRAFFIC CONTROL BARRICADES TYPE III NO.	DAY	643.0705* TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	DAY	643.0900* TRAFFIC CONTROL SIGNS NO.	DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS NO.	DAY	COMMENTS
5710-00-72	0010	STH 82	7	10	1,080	--	--	--	--	--	--	2	14	ADVANCE WARNING PCMS
		STH 82	108	--	--	39	4,212	78	8,424	108	11,664	--	--	TRAFFIC CONTROL SHEET 1
		STH 82	108	--	--	140	15,120	280	30,240	72	7,776	--	--	TRAFFIC CONTROL SHEET 2
		STH 82	108	--	--	15	1,620	30	3,240	8	864	--	--	TRAFFIC CONTROL-DETAIL 1
		TOTAL			1,080		20,952		41,904		20,304		14	

*ADDITIONAL QUANTITIES SHOWN ELSEWEHRE

TEMPORARY PEDESTRIAN DETOUR

PROJECT ID	CATEGORY	STAGE	DURATION	CYCLES	465.0125 ASPHALTIC SURFACE TEMPORARY	643.0300* TRAFFIC CONTROL DRUMS		643.0420* TRAFFIC CONTROL BARRICADES TYPE III		643.0705* TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C		643.0900* TRAFFIC CONTROL SIGNS		643.1070 TRAFFIC CONTROL CONES 42-INCH		644.1430 TEMPORARY PEDESTRIAN SURFACE PLATE	644.1810 TEMPORARY PEDESTRIAN BARRICADE	661.0101 TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (STRUCTURE)	COMMENTS
			DAY	NO.	TON	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	SF	LF	EACH	
5710-00-72	0010																				
		1	15	1	31	25	375	1	15	2	30	18	270	13	195	--	--	--	--	1	B-62-051 STAGE 1
			10	1	--	--	--	10	100	20	200	--	--	6	60	10	100	40	230	--	N MAPLE ST
			10	1	--	--	--	15	150	30	300	--	--	3	30	--	--	--	--	--	N ELM ST
			5	1	--	13	65	10	50	20	100	--	--	6	30	--	--	185	245	--	N OAK ST
			5	1	--	--	--	10	50	20	100	--	--	5	25	--	--	--	35	--	N CHERRY ST
		STAGE 1 SUBTOTAL			31		440		365		730		270		340		100	225	510	1	
		2	20	1	44	27	540	1	20	2	40	18	360	13	260	--	--	--	--	--	B-62-051 STAGE 2
			10	1	--	--	--	--	--	--	--	--	--	1	10	10	100	--	--	--	N MAPLE ST
			10	1	--	20	200	11	110	22	220	12	120	14	140	--	--	300	362	--	N ELM ST
		STAGE 2 SUBTOTAL			44		740		130		260		480		410		100	300	362	--	
		3	10	1	--	--	--	1	10	2	20	--	--	2	20	16	160	--	--	--	N ELM ST
		STAGE 3 SUBTOTAL			--		--		10		20	--	--		20		160	--	--	--	
		TOTAL			75		1,180		505		1,010		750		770		360	525	872	1	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL ITEMS-DETOUR

PROJECT ID	CATEGORY	LOCATION	DURATION	CYCLES	643.0420* TRAFFIC CONTROL BARRICADES TYPE III		643.0705* TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0900* TRAFFIC CONTROL SIGNS		643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II			COMMENTS
			DAY	NO.	NO.	DAY	NO.	DAY	NO.	DAY	NO.	CYCLES	EACH	
5710-00-72	0010	STH 82	108	1	--	--	--	--	81	8,748	--	--	--	DETOUR OVERVIEW
		STH 82 & STH 131	108	1	2	216	4	432	16	1,728	5	1	5	DETOUR-DETAIL 1
		STH 56 & STH 131	108	1	--	--	--	--	33	3,564	--	--	--	DETOUR-DETAIL 2
		STH 56 & STH 80	108	1	--	--	--	--	22	2,376	--	--	--	DETOUR-DETAIL 3
		STH 82/STH 33 & STH 80	108	1	2	216	4	432	40	4,320	21	1	21	DETOUR-DETAIL 4
		STH 82 & STH 33	108	1	1	108	2	216	12	1,296	8	1	8	DETOUR-DETAIL 5
		TOTAL				540		1,080		22,032			34	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY BARRIER ITEMS

PROJECT ID	CATEGORY	STAGE	LOCATION	STATION	OFFSET	TO STATION	OFFSET	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS	COMMENTS
5710-00-72	0010	1															
			STH 82	78+34	RT	83+65	RT	532	532	2	6	OM-3C	TL-3	UNIDIRECTIONAL	R/L	TEMPORARY CONCRETE BARRIER	B-62-0051 STAGE 1
			STAGE 1 SUBTOTAL					532	532	2							
		2	STH 82	78+74	LT	83+73	LT	--	500	2	6	OM-3C	TL-3	UNIDIRECTIONAL	R/L	TEMPORARY CONCRETE BARRIER	B-62-0051 STAGE 2
			STAGE 2 SUBTOTAL					--	500	2							
			TOTAL					532	1,032	4							

TEMPORARY PAVEMENT MARKING ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	TO STATION	643.3165* TEMPORARY MARKING LINE PAINT 6-INCH SOLID WHITE LF	643.3165* TEMPORARY MARKING LINE PAINT 6-INCH SOLID YELLOW LF	643.3180 TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH SOLID WHITE LF	643.3805 TEMPORARY MARKING STOP LINE PAINT 18-INCH LF	646.9000 MARKING REMOVAL LINE 4-INCH LF	COMMENTS
5710-00-72	0010	STH 82	76+44	84+82	1,541	--	--	33	1,793	B-62-0051 STAGE 1
		STAGE 1 SUBTOTAL			1,541	--		33	1,793	
		STH 82	76+44	84+82	--	--	1,323	33	--	B-62-0051 STAGE 2
		STH 82	104+00	105+75	256	572	--	--	256	N MAPLE ST
		STAGE 2 SUBTOTAL			256	572	1,323	33	256	
		STH 82	105+75	108+75	568	1,150	--	--	575	N ELM ST
		STAGE 3 SUBTOTAL			568	1,150	--	--	575	
		SUBTOTAL			2,365	1,722	1,323	66	2,624	
		TOTAL			4,087		1,323	66	2,624	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

MISCELLANEOUS PAVEMENT MARKING ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	ALIGNMENT	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.6120 MARKING STOP LINE EPOXY 18-INCH LF
5710-00-72	0010	MAPLE ST	104+00	STH 82	178	40
		ELM ST	107+30	STH 82	50	12
		OAK ST	110+75	STH 82	54	12
		CHERRY ST	113+90	STH 82	46	12
		SUBTOTAL			328	76
5710-00-73	0010	MILL ST	87+50	STH 82	400	23
		GOLD ST	90+75	STH 82	172	--
		SILVER ST	94+00	STH 82	404	--
		BIRD ST	97+50	STH 82	404	--
		STATE ST	100+75	STH 82	412	19
		SUBTOTAL			1,792	42

LONG LINE PAVEMENT MARKING ITEMS

PROJECT ID	CATEGORY	LOCATION	STATION	TO STATION	643.3165* TEMPORARY MARKING LINE PAINT 6-INCH 12.5' LINE 37.5' SKIP YELLOW LF	643.3165* TEMPORARY MARKING LINE PAINT 6-INCH SOLID YELLOW LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH 12.5' LINE 37.5' SKIP YELLOW LF	646.2040 SOLID YELLOW LF	646.2040 SOLID WHITE LF	COMMENTS
5710-00-72	0010	STH 82	77+40	82+08	--	1,868	--	934	934	SOLID (LT/RT)
			103+76	925+01	--	--	--	--	164,298	SOLID (LT/RT)
			103+76	118+88	--	6,048	--	3,024	--	SOLID (LT/RT)
			118+88	124+09	262	1,048	131	524	--	SKIPS (LT), SOLID (RT)
			124+09	139+80	--	--	--	--	3,140	SOLID (LT/RT)
			139+80	146+35	328	1,312	164	656	--	SOLID (LT), SKIPS (RT)
			146+35	175+36	1,450	--	725	--	--	SKIPS
			175+36	183+79	422	1,688	211	844	--	SKIP (LT), SOLID (RT)
			183+79	217+55	--	13,500	--	6,750	--	SOLID (LT/RT)
			217+55	227+15	480	1,920	240	960	--	SOLID (LT), SKIP (RT)
			227+15	313+71	4,328	--	2,164	--	--	SKIP
			313+71	324+79	554	2,216	277	1,108	--	SKIP (LT), SOLID (RT)
			324+79	331+84	--	2,816	--	1,408	--	SOLID (LT/RT)
			331+84	340+45	432	1,728	216	864	--	SOLID (LT), SKIP (RT)
			340+45	350+84	--	2,078	--	1,039	--	SKIP
			350+84	358+61	390	1,560	195	780	--	SKIP (LT), SOLID (RT)
			358+61	365+22	--	2,648	--	1,324	--	SOLID (LT/RT)
			365+22	373+95	436	1,744	218	872	--	SOLID (LT), SKIP (RT)
			373+95	392+31	918	--	459	--	--	SKIP
			392+31	400+95	434	1,736	217	868	--	SKIP (LT), SOLID (RT)
			400+95	406+12	--	2,068	--	1,034	--	SOLID (LT/RT)
			406+12	414+93	442	1,768	221	884	--	SOLID (LT), SKIP (RT)
			414+93	416+91	100	--	50	--	--	SKIP
			416+91	423+90	350	1,400	175	700	--	SKIP (LT), SOLID (RT)
			423+90	553+54	--	51,856	--	25,928	--	SOLID (LT/RT)
			553+54	561+32	390	1,560	195	780	--	SOLID (LT), SKIP (RT)
			561+32	568+75	372	--	186	--	--	SKIP
			568+75	577+47	436	1,744	218	872	--	SKIP (LT), SOLID (RT)
			577+47	585+85	--	3,352	--	1,676	--	SOLID (LT/RT)
			585+85	593+48	382	1,528	191	764	--	SOLID (LT), SKIP (RT)
			593+48	609+85	818	--	409	--	--	SKIP
			609+85	618+38	428	1,712	214	856	--	SKIP (LT), SOLID (RT)
			618+38	634+58	--	6,484	--	3,242	--	SOLID (LT/RT)
			634+58	642+28	386	1,544	193	772	--	SOLID (LT), SKIP (RT)
			642+28	648+44	308	--	154	--	--	SKIP
			648+44	656+87	422	1,688	211	844	--	SKIP (LT), SOLID (RT)
			656+87	690+90	--	13,612	--	6,806	--	SOLID (LT/RT)
			690+90	699+08	410	1,640	205	820	--	SOLID (LT), SKIP (RT)
			699+08	708+44	468	--	234	--	--	SKIP
			708+44	716+22	390	780	195	390	--	SKIP (LT), SOLID (RT)
			716+22	739+08	--	9,144	--	4,572	--	SOLID (LT/RT)
			748+85	754+26	272	--	136	--	--	SKIP
			754+26	760+94	334	1,336	167	668	--	SKIP (LT), SOLID (RT)
			760+94	791+90	--	12,384	--	6,192	--	SOLID (LT/RT)
			791+90	800+01	406	1,624	203	812	--	SOLID (LT), SKIP (RT)
			800+01	802+00	100	--	50	--	--	SKIP
			802+00	807+48	274	1,096	137	548	--	SKIP (LT), SOLID (RT)
			807+48	810+00	126	--	63	--	--	SKIP
			810+00	815+67	284	1,136	142	568	--	SOLID (LT), SKIP (RT)
			815+67	821+67	300	--	150	--	--	SKIP
			821+67	829+76	406	1,624	203	812	--	SKIP (LT), SOLID (RT)
			829+76	836+36	330	1,320	165	660	--	SOLID (LT), SKIP (RT)
			836+36	838+96	130	--	65	--	--	SKIP
			838+96	846+50	378	1,512	189	756	--	SKIP (LT), SOLID (RT)
			846+50	852+75	--	2,496	--	1,248	--	SOLID (LT/RT)
			852+75	860+30	378	756	189	378	--	SOLID (LT), SKIP (RT)
			860+30	862+51	110	--	55	--	--	SKIP
			862+51	867+52	252	1,008	126	504	--	SKIP (LT), SOLID (RT)
			867+52	870+54	152	--	76	--	--	SKIP
			870+54	876+55	302	1,208	151	604	--	SOLID (LT), SKIP (RT)
			876+55	913+82	1,864	--	932	--	--	SKIP
			913+82	921+72	396	1,584	198	792	--	SKIP (LT), SOLID (RT)
			921+72	925+02	--	1,320	--	660	--	SOLID (LT/RT)
		SUBTOTAL			23,330	176,194	11,665	88,097	168,372	
		TOTAL			199,524		268,134			

3

3

3

LONG LINE PAVEMENT MARKING ITEMS, CONTINUED

PROJECT ID	CATEGORY	LOCATION	STATION	TO STATION	643.3165* TEMPORARY MARKING LINE PAINT 6-INCH: 12.5' LINE 37.5' SKIP YELLOW LF	643.3165* TEMPORARY MARKING LINE PAINT 6-INCH: SOLID YELLOW LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH: 12.5' LINE 37.5' SKIP YELLOW LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH: SOLID YELLOW LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH: SOLID WHITE LF	COMMENTS
5710-00-73	0010	STH 82	82+07	87+06	--	2012	--	1006	1,006	STRUCTURE TO MILL ST
			88+01	90+45	--	900	--	450	450	MILL ST TO GOLD ST
			91+07	93+70	--	1048	--	524	524	GOLD ST TO SILVER ST
			94+56	97+11	--	1020	--	510	510	SILVER ST TO BIRD ST
			97+88	100+41	--	1008	--	504	504	BIRD ST TO STATE ST
			101+19	103+76	--	1008	--	504	504	STATE ST TO MAPLE ST
		SUBTOTAL			--	6,996	--	3,498	3,498	
		TOTAL			6,996		6,996			

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

NO PASSING ZONES

PROJECT ID	CATEGORY	LOCATION	648.0100 LOCATING NO-PASSING ZONES MI	COMMENTS
5710-00-72	0010	PROJECT	15.62	55 MPH
		TOTAL	15.62	

3

LANDMARK REFERENCE MONUMENTS

PROJECT ID	CATEGORY	STATION	680.0100 PUBLIC LAND SURVEY MONUMENT VERIFY AND RESET EACH
5710-00-72	0010	113+99	1
		671+98	1
		698+25	1
		TOTAL	3
5710-00-73	0010	87+57	1
		TOTAL	1

CONSTRUCTION STAKING

PROJECT ID	CATEGORY	LOCATION	STATION	TO	STATION	ALIGNMENT	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9500 CONSTRUCTION STAKING SIDEWALK (5710-00-72) EACH	650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (5710-00-72) EACH
5710-00-72	0010	STH 82	PROJECT				--	--	--	--	1	1
		STH 82	77+38	-	79+93	STH 82	255	--	255	--	--	--
		STH 82	82+07	-	82+96	STH 82	89	108	89	--	--	--
		STH 82	103+86	-	114+16	STH 82	1,030	737	1,030	7	--	--
		STH 82	114+16	-	180+30	STH 82	6,614	--	6,614	--	--	--
		STH 82	180+30	-	465+07	STH 82	28,477	--	28,477	--	--	--
		STH 82	465+07	-	672+67	STH 82	20,760	--	20,760	--	--	--
		STH 82	672+67	-	786+29	STH 82	11,362	--	11,362	--	--	--
		STH 82	786+29	-	924+23	STH 82	13,794	--	13,794	--	--	--
		TOTAL					82,381	845	82,381	7	1	1
5710-00-73	0010	STH 82	82+96	-	103+86		2,090	--	2,090	--	--	--
		TOTAL					2,090	--	2,090	--	--	--

SAWING

PROJECT ID	CATEGORY	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
5710-00-72	0010	STH 82	82+18	LT	-	82+33	LT	--	16
		STH 82	82+18	RT	-	82+60	RT	--	37
		STH 82	82+56	RT	-	82+96	RT	39	--
		STH 82	104+22	LT	-	107+25	LT	358	--
		STH 82	107+45	LT	-	107+90	LT	90	--
		STH 82	107+49					24	--
		STH 82	107+85					24	--
		STH 82	110+81	LT	-	111+10	LT	55	--
		STH 82	113+87	LT	-	114+16	LT	80	--
		STH 82	259+65					24	--
		STH 82	259+88					24	--
		STH 82	263+07					24	--
		STH 82	263+38					24	--
		TOTAL						766	53

COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE VERNON COUNTY REGISTER OF DEEDS OFFICE

Document Number: 532523
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Lindsey Formanek, Register of Deeds
Vernon County, WI
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TRANSPORTATION PROJECT PLAT NO: 5710-00-22 - 4.01

THAT PART OF THE SE1/4 OF THE NW1/4 OF SECTION 29, TOWNSHIP 13 NORTH, RANGE 2 WEST, VILLAGE OF LA FARGE, VERNON COUNTY, WISCONSIN.

RELOCATION ORDER - STH 82, LA FARGE - HILLSBORO (KICKAPOO RIVER TO STH 33), VERNON COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

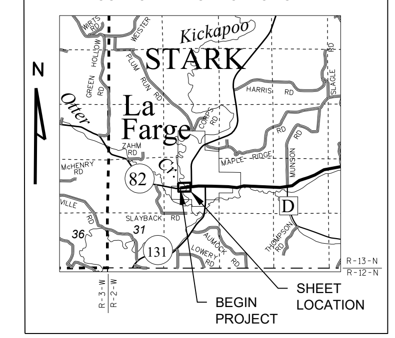
PROPERTY LINES SHOWN ON THIS PLAT FOR PROPERTIES BEING IMPACTED ARE DRAWN FROM DATA DERIVED FROM FILED/RECORDED MAPS AND DOCUMENTS OF PUBLIC RECORD. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS SUBSTITUTE FOR AN ACCURATE FIELD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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR STH 82: STATE PROJECT 5712-1-71, STATE PROJECT 5712-01-21, PLAT OF SURVEY BY S-1199, AND EXISTING CENTERLINE.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE, WI.

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

LOCATION SKETCH NOT TO SCALE



RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5710-00-22-4.01

SCALE, FEET
0 50 100

GN

4

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) (TYPE)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
TO BE REMOVED
BRIDGE
CULVERT
SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN
COMPENSABLE NON-COMPENSABLE
ELECTRIC POLE
TELEPHONE POLE
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)
ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER 25
UTILITY NUMBER 40
PARALLEL OFFSETS

CONVENTIONAL UTILITY SYMBOLS

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

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA ABBREVIATIONS

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

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
202	NORTHERN NATURAL GAS COMPANY (GAS)	RELEASE OF RIGHTS

STATION & OFFSET TABLE

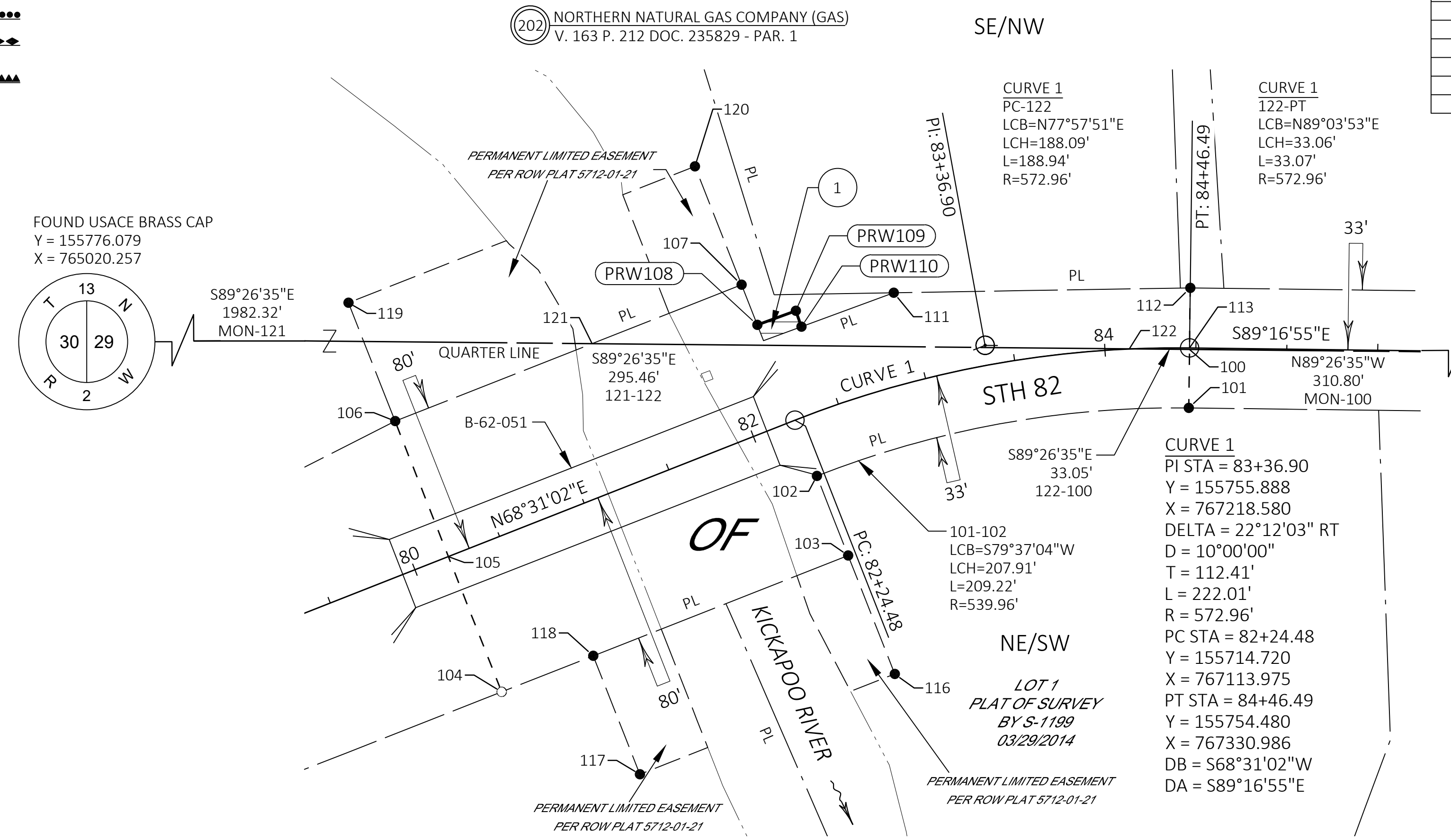
POINT NO.	STATION	OFFSET
100	84+46.49	0.86'
101	84+46.49	33.00'
102	82+24.49	33.00'
103	82+24.49	80.00'
104	80+19.77	80.00'
105	80+19.77	0.00'
106	80+19.77	80.00'
107	82+24.49	80.00'
PRW108	82+24.49	56.31'
PRW109	82+45.00	56.22'
PRW110	82+45.00	46.91'
111	82+94.77	50.00'
112	84+46.49	33.00'
113	84+46.49	0.00'
116	82+24.49	150.00'
117	80+73.89	150.00'
118	80+73.89	80.00'
119	80+19.76	150.00'
120	82+24.48	150.00'
121	81+36.15	80.00'
122	84+13.43	0.00'

PLE COURSE TABLE

COURSE	BEARING	DISTANCE
106-119	N21° 29' 11"W	70.00'
119-120	N68° 31' 02"E	204.72'
120-107	S21° 29' 11"E	70.00'
107-106	S68° 31' 02"W	204.72'
104-118	N68° 31' 02"E	54.12'
118-103	N68° 31' 02"E	150.60'
103-116	S21° 28' 57"E	70.00'
116-117	S68° 31' 02"W	150.60'
117-118	N21° 28' 57"W	70.00'

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
100-101	S00° 43' 05"W	32.14'
101-102	SEE CURVE DATA	
102-103	S21° 28' 57"E	47.00'
103-104	S68° 31' 02"W	204.72'
104-105	N21° 28' 58"W	80.00'
105-106	N21° 28' 58"W	80.00'
106-107	N68° 31' 02"E	204.72'
107-PRW108	S21° 28' 57"E	23.69'
PRW108-PRW109	N69° 46' 50"E	22.53'
PRW109-PRW110	S19° 25' 52"E	9.31'
PRW110-111	N69° 46' 50"E	54.05'
111-112	N89° 03' 42"E	163.11'
112-113	S00° 43' 05"W	33.00'
113-100	S00° 43' 05"W	0.86'



SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	R/W SF REQUIRED NEW	EXISTING	TOTAL	TLE SF
1	ERNEST KELLEY ANDREW & THOMAS J ANDREW	FEE	208	---	208	---

emcs inc

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

WISCONSIN LAND SURVEYOR KEVIN C. BOYER S-2675 HEWITT WI

SIGNATURE: Kevin C. Boyer DATE: 7/14/2023
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISDOT SOUTHWEST - MADISON

SIGNATURE: Cory Schlagel DATE: 7/14/2023
PRINT NAME: CORY SCHLAGEL

COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE VERNON COUNTY REGISTER OF DEEDS OFFICE

Document Number: 532511
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Lindsey Formanek, Register of Deeds
Vernon County, WI
Recorded: 07/17/2023 09:54:04 AM
Recording Fee Paid: 25.00
Number of Pages: 1
ELECTRONICALLY RECORDED

TRANSPORTATION PROJECT PLAT NO: 5710-00-22 - 4.02

THAT PART OF LOT 7 BLOCK 8 AND LOT 12 BLOCK 9 OF J.A. HAYES PLAT VILLAGE OF LA FARGE IN PART OF THE SE1/4 OF THE NE1/4, AND PART OF THE NE1/4 OF THE SE1/4, AND PART OF VACATED ELM STREET IN PART OF THE NE1/4 OF THE SE1/4, ALL LOCATED IN SECTION 29, TOWNSHIP 13 NORTH, RANGE 2 WEST, VILLAGE OF LA FARGE, VERNON COUNTY, WISCONSIN.

RELOCATION ORDER - STH 82, LA FARGE - HILLSBORO (KICKAPOO RIVER TO STH 33), VERNON COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

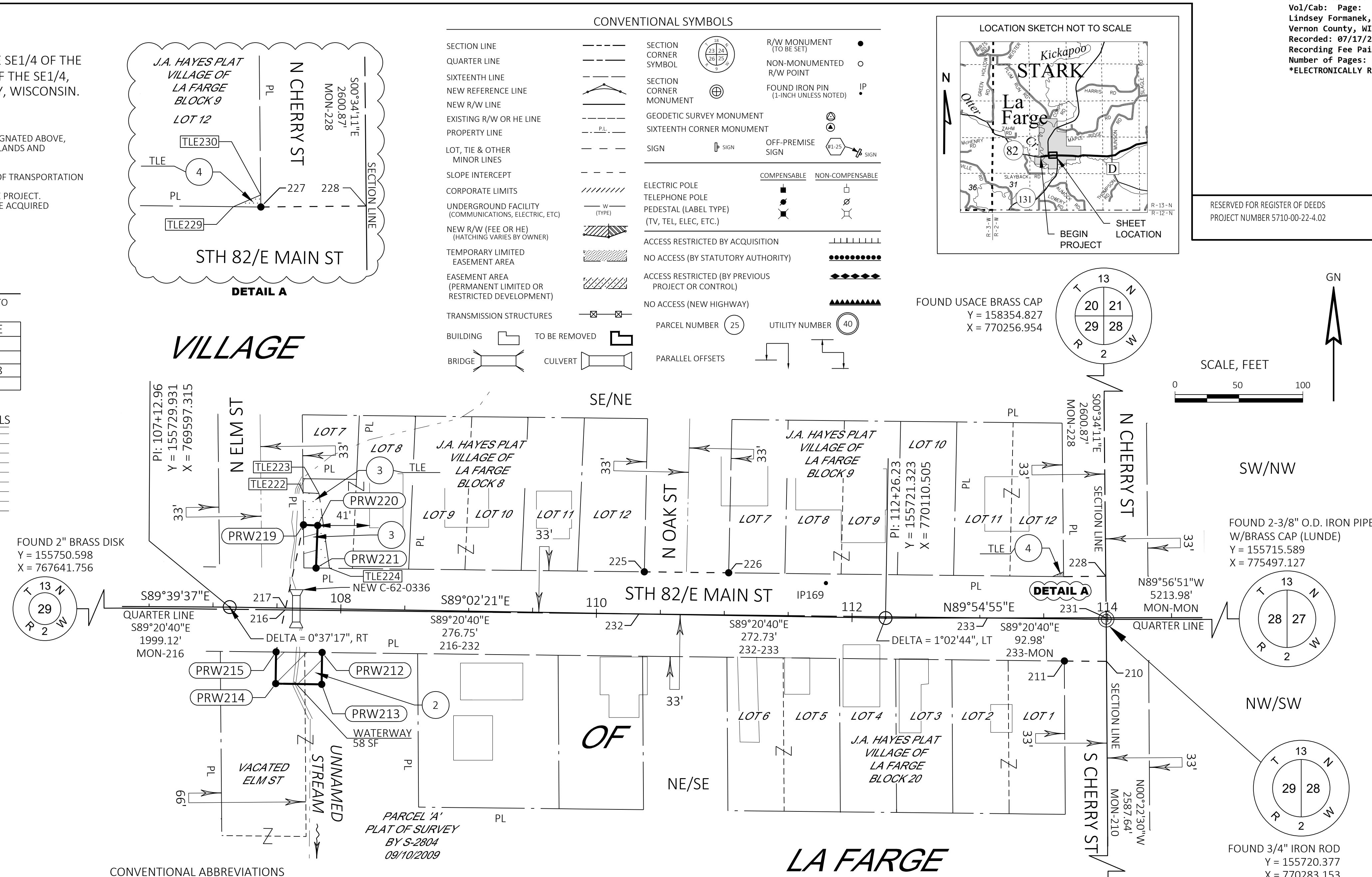
SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	R/W SF REQUIRED NEW	EXISTING	TOTAL	TLE SF
2	VILLAGE OF LAFARGE	FEE	893	---	893	---
3	TIMOTHY P BOUDREAU & CYNTHIA A BOUDREAU	FEE/TLE	343	---	343	608
4	JAMES E COGGINS	TLE	---	---	---	16

EXISTING MONUMENTS

POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP169	155748.688	770063.830	3/4" IRON ROD



NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

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

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR STH 82: J.A. HAYES PLAT VILLAGE OF LA FARGE, PLAT OF SURVEY BY S-2804, AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR N ELM ST: J.A. HAYES PLAT VILLAGE OF LA FARGE, AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR N OAK ST: J.A. HAYES PLAT VILLAGE OF LA FARGE, AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR N CHERRY ST: J.A. HAYES PLAT VILLAGE OF LA FARGE, AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR S CHERRY ST: J.A. HAYES PLAT VILLAGE OF LA FARGE, PLAT OF SURVEY BY S-2804, AND EXISTING CENTERLINE.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE, WI.

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

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA ABBREVIATIONS

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

COURSE TABLE

COURSE	BEARING	DISTANCE
E1/4 COR. SEC. 29-210	S00° 22' 30"E	32.88'
210-211	N89° 33' 53"W	33.00'
211-PRW212	N89° 20' 40"W	580.77'
PRW212-PRW213	S00° 39' 20"W	24.88'
PRW213-PRW214	N89° 02' 21"W	36.00'
PRW214-PRW215	N00° 39' 20"E	24.69'
PRW215-216	N12° 10' 43"E	33.68'
216-217	N12° 10' 43"E	1.50'
217-PRW219	N12° 10' 43"E	66.54'
PRW219-PRW220	S87° 24' 13"E	11.06'
PRW220-PRW221	S02° 06' 15"W	33.31'
PRW221-225	S89° 20' 40"E	256.87'
225-226	S89° 20' 40"E	66.00'
226-227	S89° 20' 40"E	262.06'
227-228	N89° 25' 49"E	33.00'
228-231	S00° 34' 11"E	32.51'
231-E1/4 COR. SEC. 29	S00° 34' 11"E	1.20'

TLE STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE222	107+68.97	90.44'
TLE223	107+81.43	90.08'
TLE224	107+90.61	31.71'
TLE229	113+57.00	32.34'
TLE230	113+65.50	35.99'

STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
210	113+99.04	34.08'
211	113+66.04	33.78'
PRW212	107+85.87	34.32'
PRW213	107+86.00	59.20'
PRW214	107+50.00	59.20'
PRW215	107+49.87	34.51'
216	107+56.42	1.48'
217	107+56.71	0.00'
PRW219	107+69.66	65.27'
PRW220	107+80.71	64.96'
PRW221	107+80.05	31.65'
225	110+36.91	33.02'
226	111+02.92	33.37'
227	113+65.59	32.23'
228	113+98.59	32.51'
231	113+98.86	0.00'
232	110+33.16	0.00'
233	113+05.90	0.00'
E1/4 COR. SEC. 29	113+98.87	1.20'

ALL TLES ARE FOR SLOPE GRADING PURPOSES

emcs inc

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

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

SIGNATURE: Kevin C. Boyer DATE: 7/7/2023
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISDOT SOUTHWEST - MADISON

SIGNATURE: Cory Schlagel DATE: 7/15/2023
PRINT NAME: CORY SCHLAGEL

COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE VERNON COUNTY REGISTER OF DEEDS OFFICE

Document Number: 532525
Vol/Cab: Page:
Lindsey Formanek, Register of Deeds
Vernon County, WI
Recorded: 07/17/2023 02:29:02 PM
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TRANSPORTATION PROJECT PLAT NO: 5710-00-22 - 4.03

THAT PART OF THE NE1/4 OF THE NE1/4 OF SECTION 27, TOWNSHIP 13 NORTH, RANGE 2 WEST, TOWN OF STARK, VERNON COUNTY, WISCONSIN.

RELOCATION ORDER - STH 82, LA FARGE - HILLSBORO (KICKAPOO RIVER TO STH 33), VERNON COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA ABBREVIATIONS

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

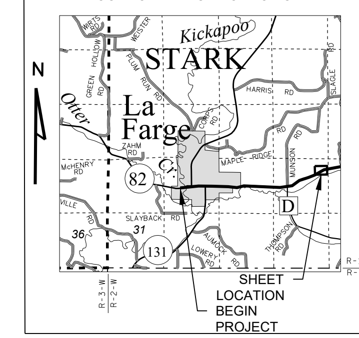
COURSE TABLE

COURSE	BEARING	DISTANCE
240-241	N36° 24' 01"W	29.63'
241-252	N53° 35' 59"E	99.92'
252-PRW242	SEE CURVE DATA	
PRW242-PRW243	N04° 21' 44"E	21.91'
PRW243-PRW244	S89° 09' 18"E	28.38'
PRW244-245	SEE CURVE DATA	
245-246	S27° 43' 22"E	44.82'
246-247	S27° 43' 22"E	29.43'
247-248	SEE CURVE DATA	
248-249	S53° 35' 59"W	99.92'
249-250	N36° 24' 01"W	33.00'
250-240	N36° 24' 01"W	11.62'

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
TO BE REMOVED
BRIDGE
CULVERT
SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN
COMPENSABLE / NON-COMPENSABLE
ELECTRIC POLE
TELEPHONE POLE
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)
ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER 25
UTILITY NUMBER 40
PARALLEL OFFSETS

LOCATION SKETCH NOT TO SCALE

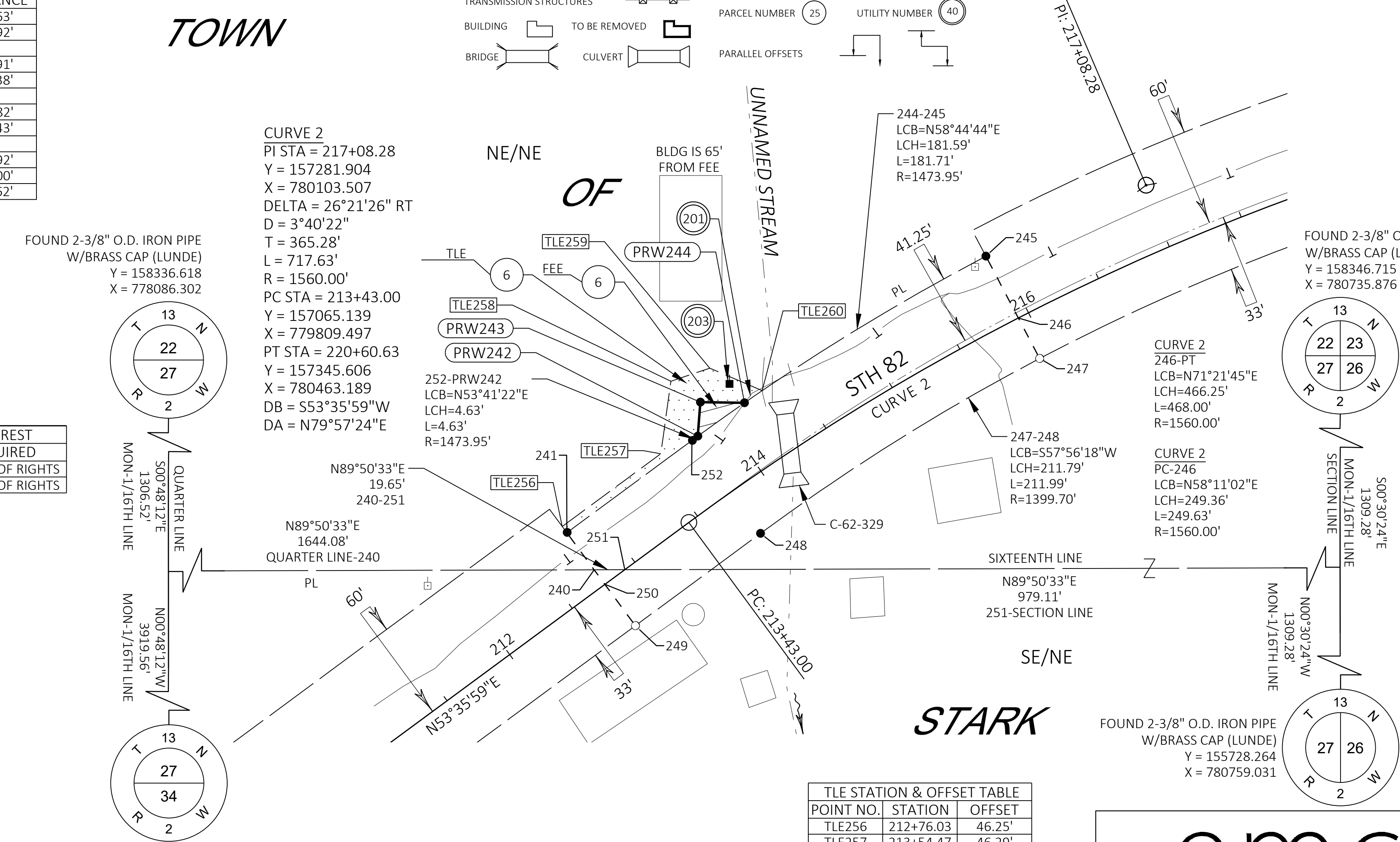


RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5710-00-22-4.03

SCALE, FEET
0 50 100

GN

4



UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
201	VERNON COMMUNICATIONS COOPERATIVE (COMMUNICATION)	RELEASE OF RIGHTS
203	LA FARGE ELECTRIC (ELECTRIC)	RELEASE OF RIGHTS

(201) VERNON COMMUNICATIONS COOPERATIVE (COMMUNICATION)
V. 192 P. 246 DOC. 249279 - PAR. 6

(203) LA FARGE ELECTRIC (ELECTRIC)
PRESCRIPTIVE RIGHTS INSTALLED 1979 - PAR. 6

CONVENTIONAL UTILITY SYMBOLS

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

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

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

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR STH 82: STATE AID PROJECT NO. 5477 AND EXISTING CENTERLINE.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE, WI.

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

TLE IS FOR SLOPE GRADING PURPOSES

TLE STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE256	212+76.03	46.25'
TLE257	213+54.47	46.29'
TLE258	213+85.44	80.49'
TLE259	214+09.66	73.33'
TLE260	214+29.00	42.65'

STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
240	212+76.03	11.62'
241	212+76.03	41.25'
PRW242	213+79.60	41.68'
PRW243	213+93.01	58.67'
PRW244	214+15.53	42.40'
245	215+92.26	44.82'
246	215+92.63	0.00'
247	215+92.89	29.43'
248	213+76.66	32.65'
249	212+76.03	33.00'
250	212+76.03	0.00'
251	212+91.88	0.00'
252	213+75.10	41.59'

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	R/W SF REQUIRED NEW	EXISTING	TOTAL	TLE SF
6	DONALD L KLEVEN JR REVOCABLE TRUST	FEE/TLE	307	---	307	1965

emcs inc

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

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

SIGNATURE: Kevin C. Boyer DATE: 7/14/2023
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISDOT SOUTHWEST - MADISON

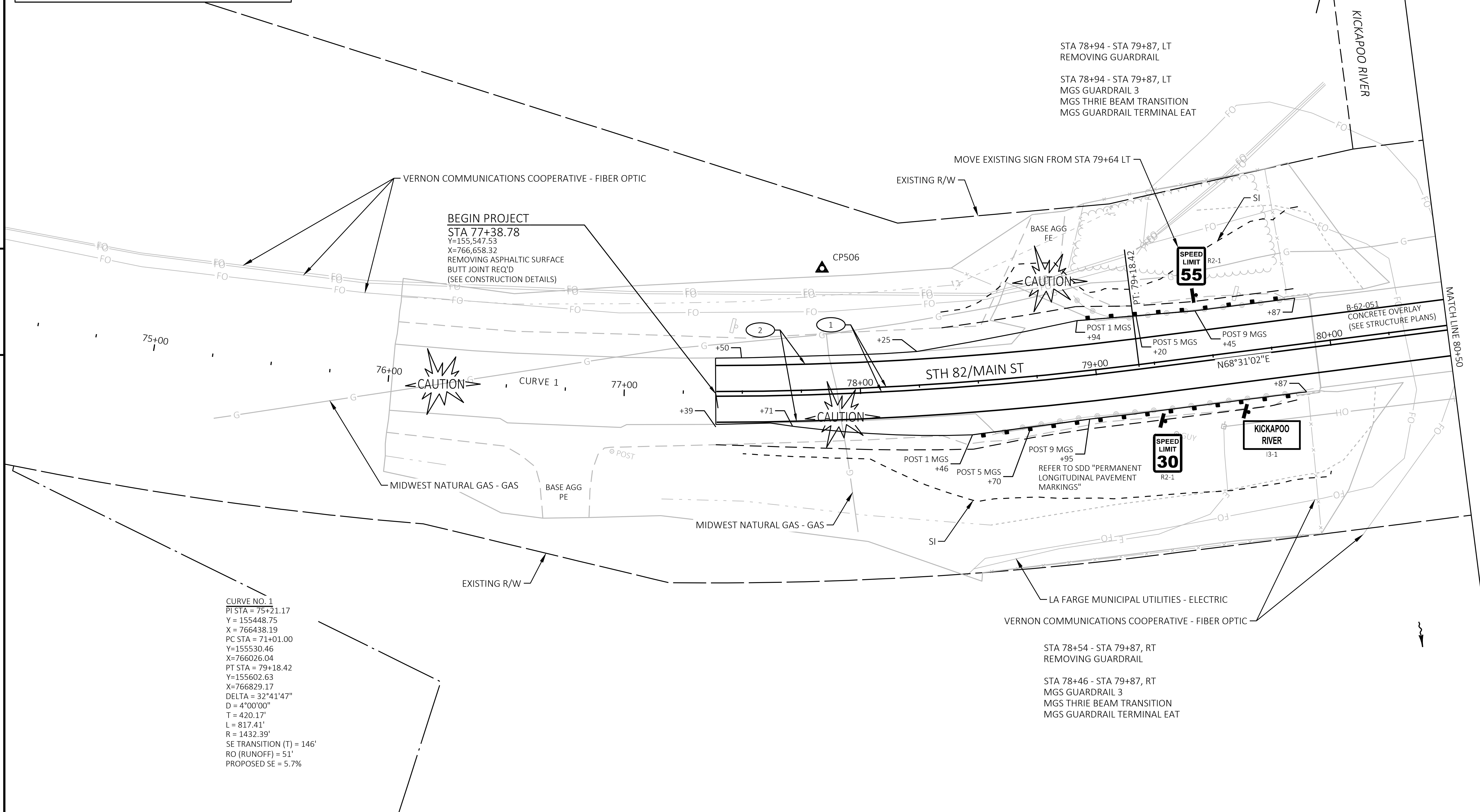
SIGNATURE: Cory Schlagel DATE: 7/14/2023
PRINT NAME: CORY SCHLAGEL

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\TPP\040101-RP.DWG
APPRAISAL PLAT DATE : 07/14/2023
PLOT DATE : 7/14/2023 11:21 AM
PLOT BY : DREW NELSON
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

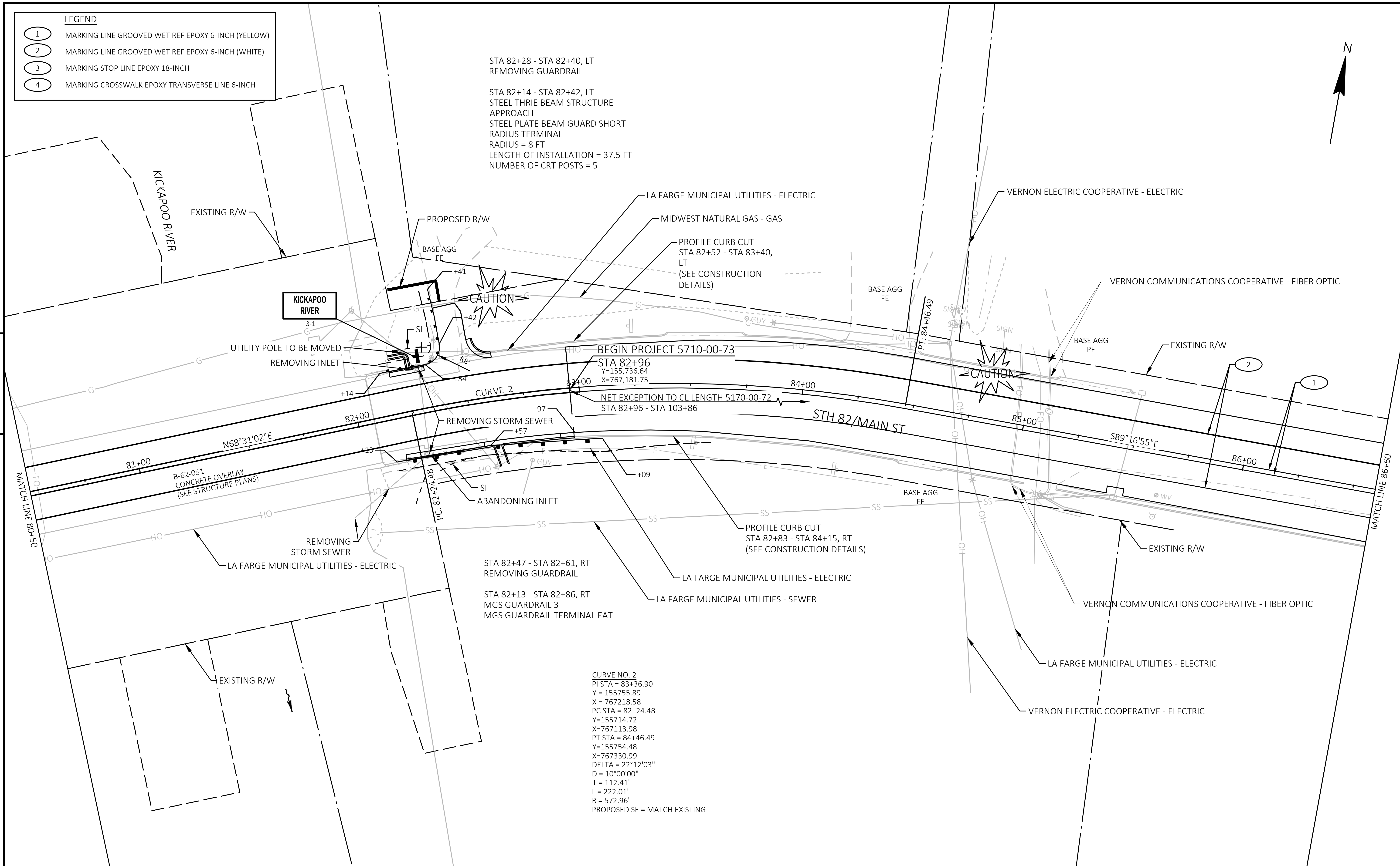
LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
2. MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
3. MARKING STOP LINE EPOXY 18-INCH
4. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH

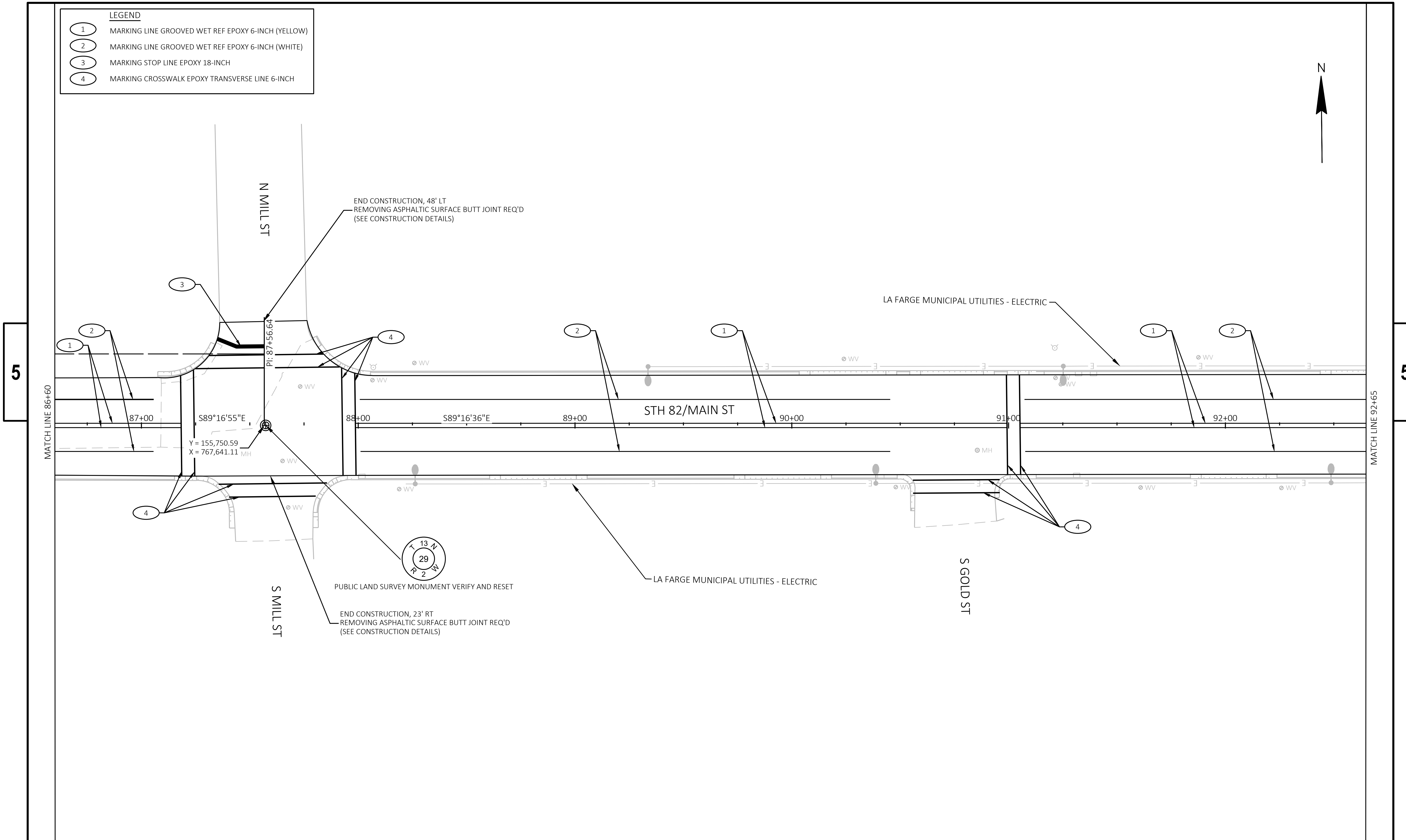
BENCHMARKS				
POINT	Y	X	ELEV.	DESCRIPTION
CP506	155609.995	766688.809	806.26	CP 3/4X24 REBAR SET W/EMCS CAP



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	PLAN	SHEET 83	E



PROJECT NO: 5710-00-72/73	HWY: STH 82	COUNTY: VERNON	PLAN	SHEET 84	E

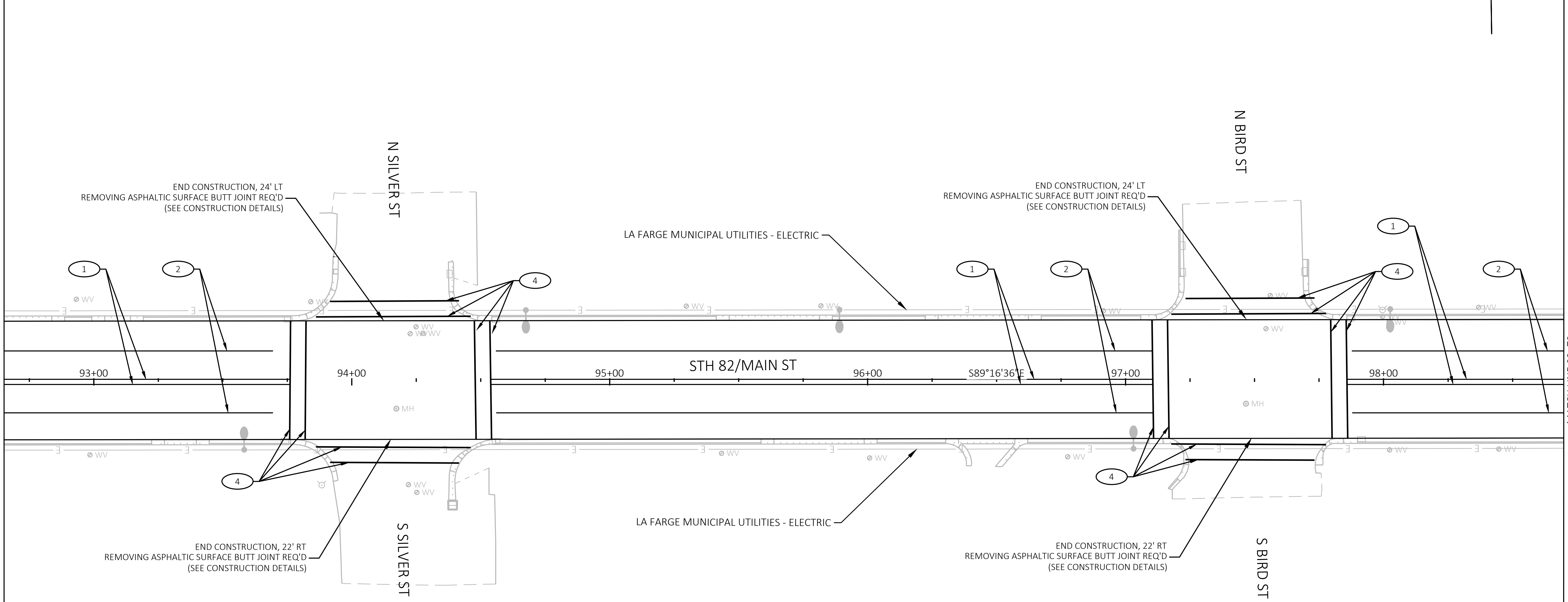


PROJECT NO: 5710-00-73	HWY: STH 82	COUNTY: VERNON	PLAN	SHEET 85	E

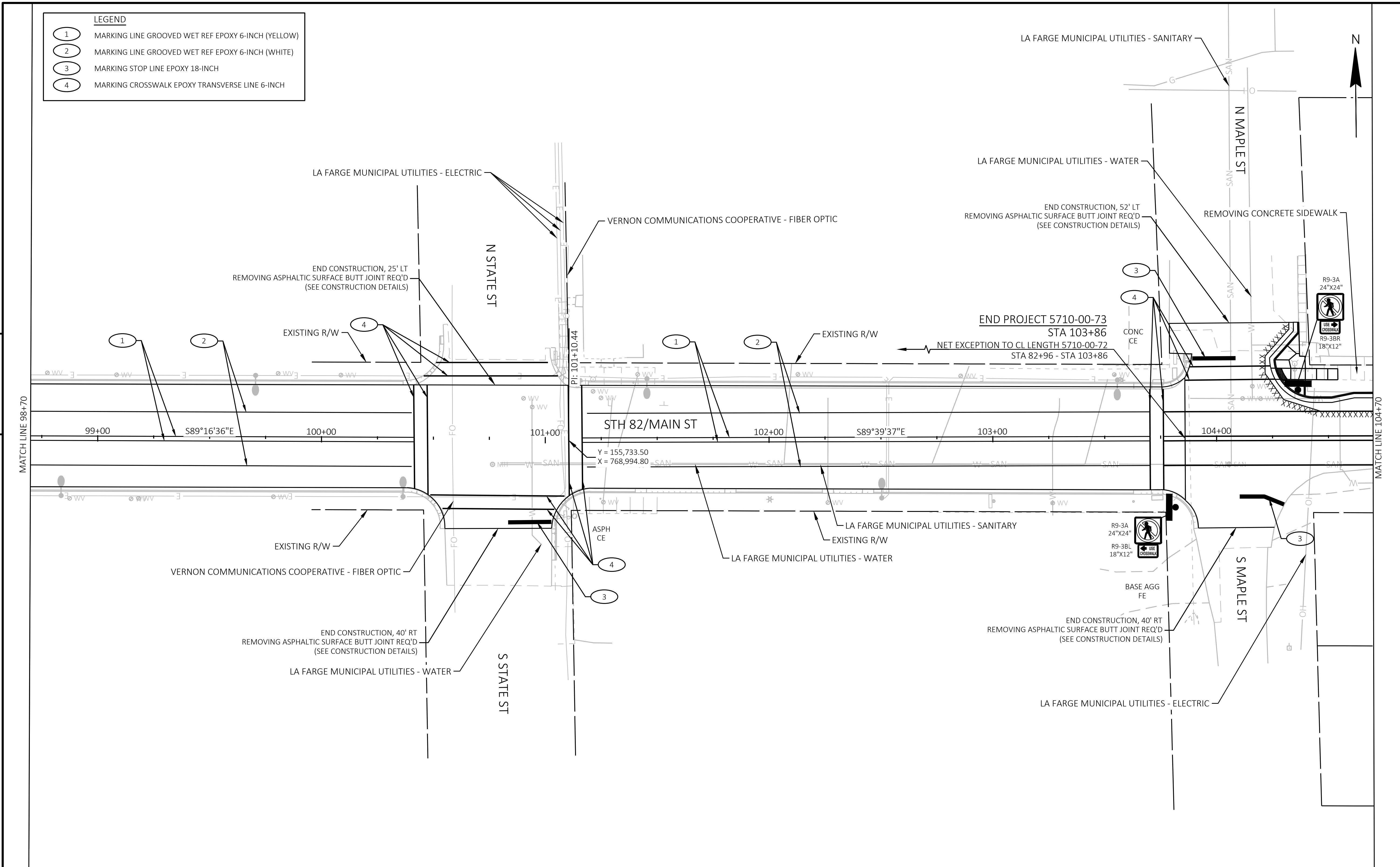
FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 03
PLOT DATE : 2/16/2026 7:18 AM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

LEGEND

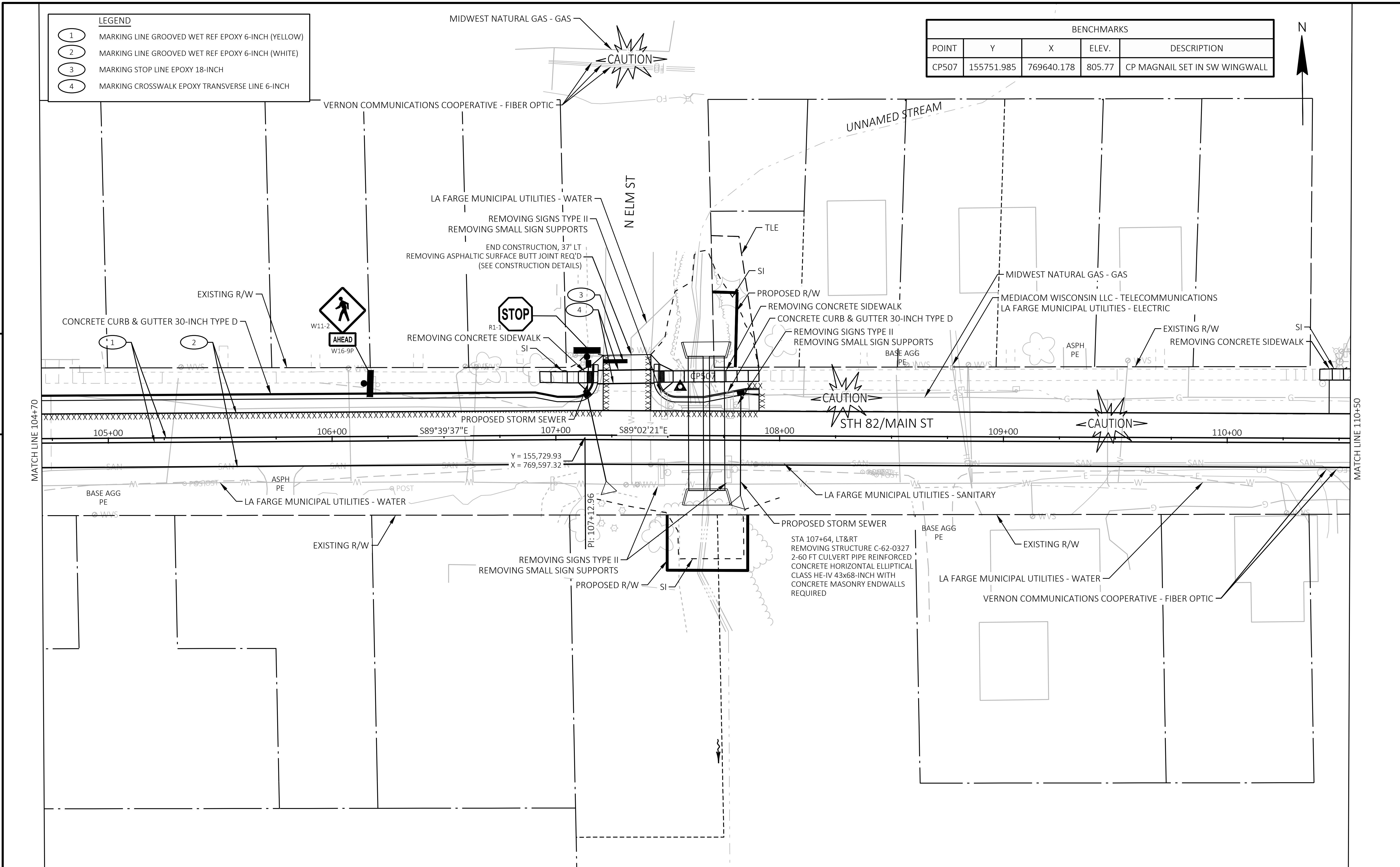
1. MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
2. MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
3. MARKING STOP LINE EPOXY 18-INCH
4. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH



PROJECT NO: 5710-00-73	HWY: STH 82	COUNTY: VERNON	PLAN	SHEET 86	E



PROJECT NO: 5710-00-72/73	HWY: STH 82	COUNTY: VERNON	PLAN	SHEET 87	E



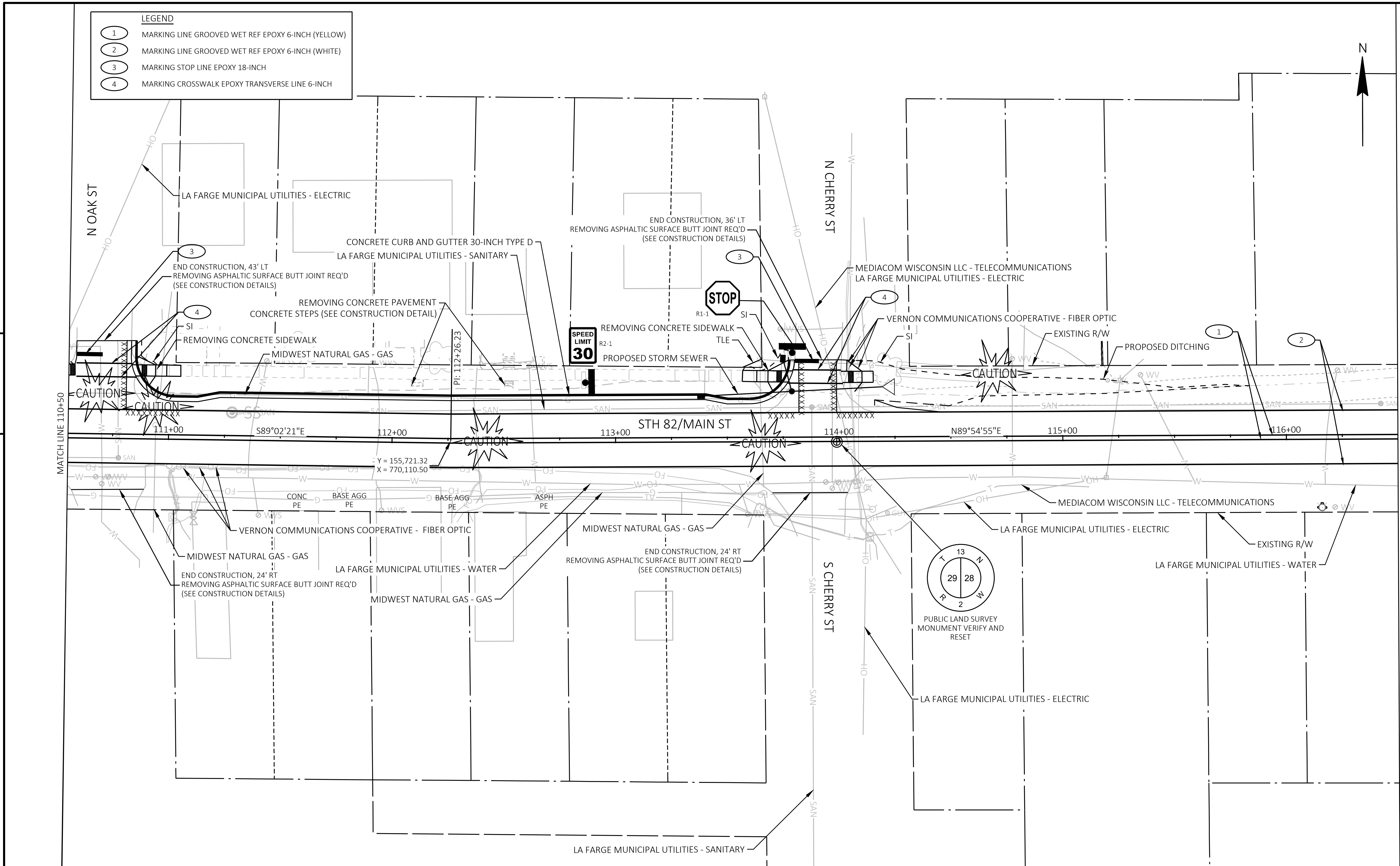
LEGEND

1	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
2	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
3	MARKING STOP LINE EPOXY 18-INCH
4	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH

BENCHMARKS

POINT	Y	X	ELEV.	DESCRIPTION
CP507	155751.985	769640.178	805.77	CP MAGNAIL SET IN SW WINGWALL

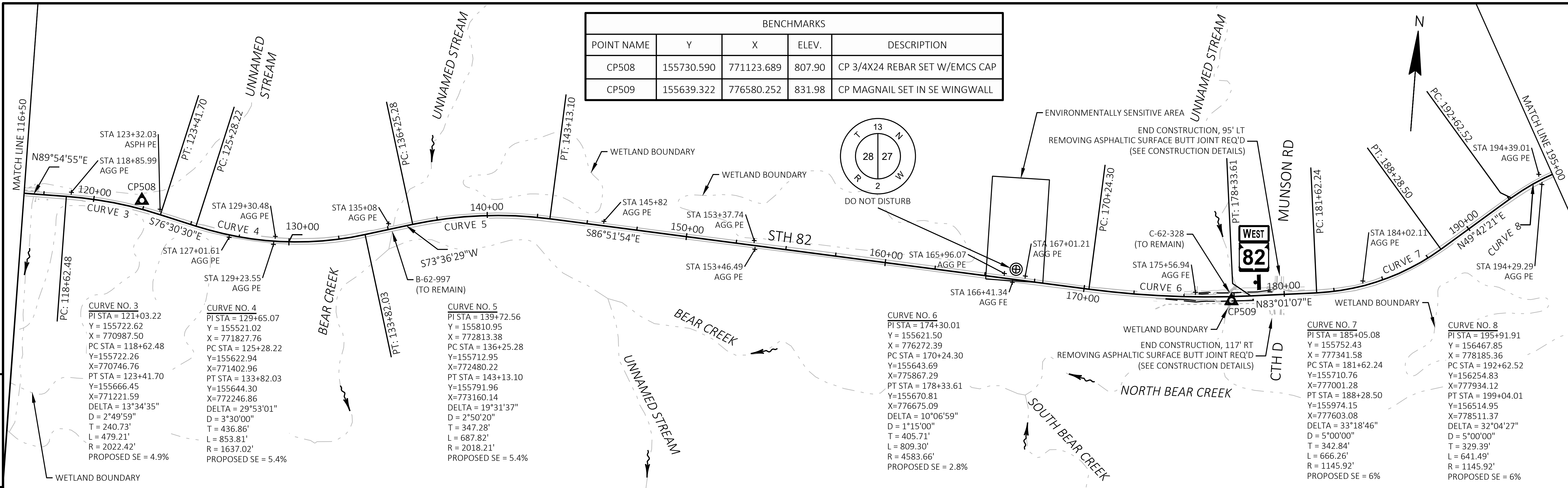
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	PLAN	SHEET 88 E



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	PLAN	SHEET 89	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 07
PLOT DATE : 2/16/2026 7:18 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

BENCHMARKS				
POINT NAME	Y	X	ELEV.	DESCRIPTION
CP508	155730.590	771123.689	807.90	CP 3/4X24 REBAR SET W/EMCS CAP
CP509	155639.322	776580.252	831.98	CP MAGNAIL SET IN SE WINGWALL



CURVE NO. 3
PI STA = 121+03.22
Y = 155722.62
X = 770987.50
PC STA = 118+62.48
Y=155722.26
X=770746.76
PT STA = 123+41.70
Y=155666.45
X=771221.59
DELTA = 13°34'35"
D = 2°49'59"
T = 240.73'
L = 479.21'
R = 2022.42'
PROPOSED SE = 4.9%

CURVE NO. 4
PI STA = 129+65.07
Y = 155521.02
X = 771827.76
PC STA = 125+28.22
Y=155622.94
X=771402.96
PT STA = 133+82.03
Y=155644.30
X=772246.86
DELTA = 29°53'01"
D = 3°30'00"
T = 436.86'
L = 853.81'
R = 1637.02'
PROPOSED SE = 5.4%

CURVE NO. 5
PI STA = 139+72.56
Y = 155810.95
X = 772813.38
PC STA = 136+25.28
Y=155712.95
X=772480.22
PT STA = 143+13.10
Y=155791.96
X=773160.14
DELTA = 19°31'37"
D = 2°50'20"
T = 347.28'
L = 687.82'
R = 2018.21'
PROPOSED SE = 5.4%

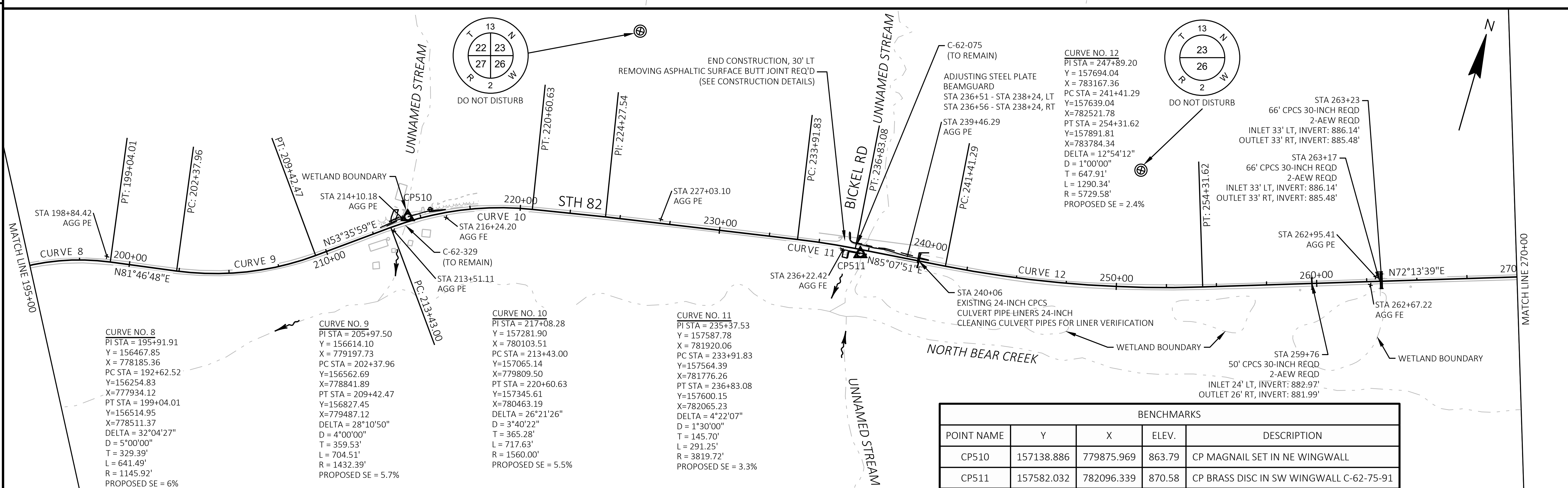
CURVE NO. 6
PI STA = 174+30.01
Y = 155621.50
X = 776272.39
PC STA = 170+24.30
Y=155643.69
X=775867.29
PT STA = 178+33.61
Y=155670.81
X=776675.09
DELTA = 10°06'59"
D = 1°15'00"
T = 405.71'
L = 809.30'
R = 4583.66'
PROPOSED SE = 2.8%

CURVE NO. 7
PI STA = 185+05.08
Y = 155752.43
X = 777341.58
PC STA = 181+62.24
Y=155710.76
X=777001.28
PT STA = 188+28.50
Y=155974.15
X=777603.08
DELTA = 33°18'46"
D = 5°00'00"
T = 342.84'
L = 666.26'
R = 1145.92'
PROPOSED SE = 6%

CURVE NO. 8
PI STA = 195+91.91
Y = 156467.85
X = 778185.36
PC STA = 192+62.52
Y=156254.83
X=777934.12
PT STA = 199+04.01
Y=156514.95
X=778511.37
DELTA = 32°04'27"
D = 5°00'00"
T = 329.39'
L = 641.49'
R = 1145.92'
PROPOSED SE = 6%

5

5



CURVE NO. 8
PI STA = 195+91.91
Y = 156467.85
X = 778185.36
PC STA = 192+62.52
Y=156254.83
X=777934.12
PT STA = 199+04.01
Y=156514.95
X=778511.37
DELTA = 32°04'27"
D = 5°00'00"
T = 329.39'
L = 641.49'
R = 1145.92'
PROPOSED SE = 6%

CURVE NO. 9
PI STA = 205+97.50
Y = 156614.10
X = 779197.73
PC STA = 202+37.96
Y=156562.69
X=778841.89
PT STA = 209+42.47
Y=156827.45
X=779487.12
DELTA = 28°10'50"
D = 4°00'00"
T = 359.53'
L = 704.51'
R = 1432.39'
PROPOSED SE = 5.7%

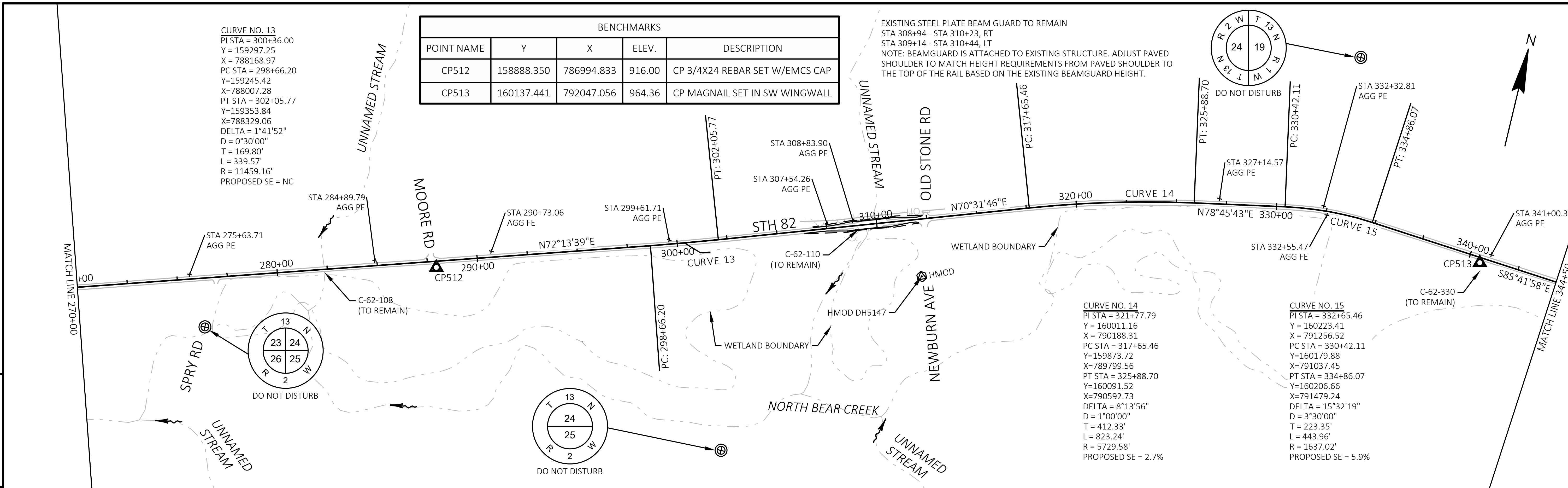
CURVE NO. 10
PI STA = 217+08.28
Y = 157281.90
X = 780103.51
PC STA = 213+43.00
Y=157065.14
X=779809.50
PT STA = 220+60.63
Y=157345.61
X=780463.19
DELTA = 26°21'26"
D = 3°40'22"
T = 365.28'
L = 717.63'
R = 1560.00'
PROPOSED SE = 5.5%

CURVE NO. 11
PI STA = 235+37.53
Y = 157587.78
X = 781920.06
PC STA = 233+91.83
Y=157564.39
X=781776.26
PT STA = 236+83.08
Y=157600.15
X=782065.23
DELTA = 4°22'07"
D = 1°30'00"
T = 145.70'
L = 291.25'
R = 3819.72'
PROPOSED SE = 3.3%

CURVE NO. 12
PI STA = 247+89.20
Y = 157694.04
X = 783167.36
PC STA = 241+41.29
Y=157639.04
X=782521.78
PT STA = 254+31.62
Y=157891.81
X=783784.34
DELTA = 12°54'12"
D = 1°00'00"
T = 647.91'
L = 1290.34'
R = 5729.58'
PROPOSED SE = 2.4%

BENCHMARKS				
POINT NAME	Y	X	ELEV.	DESCRIPTION
CP510	157138.886	779875.969	863.79	CP MAGNAIL SET IN NE WINGWALL
CP511	157582.032	782096.339	870.58	CP BRASS DISC IN SW WINGWALL C-62-75-91

PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	PLAN	SHEET 90	E



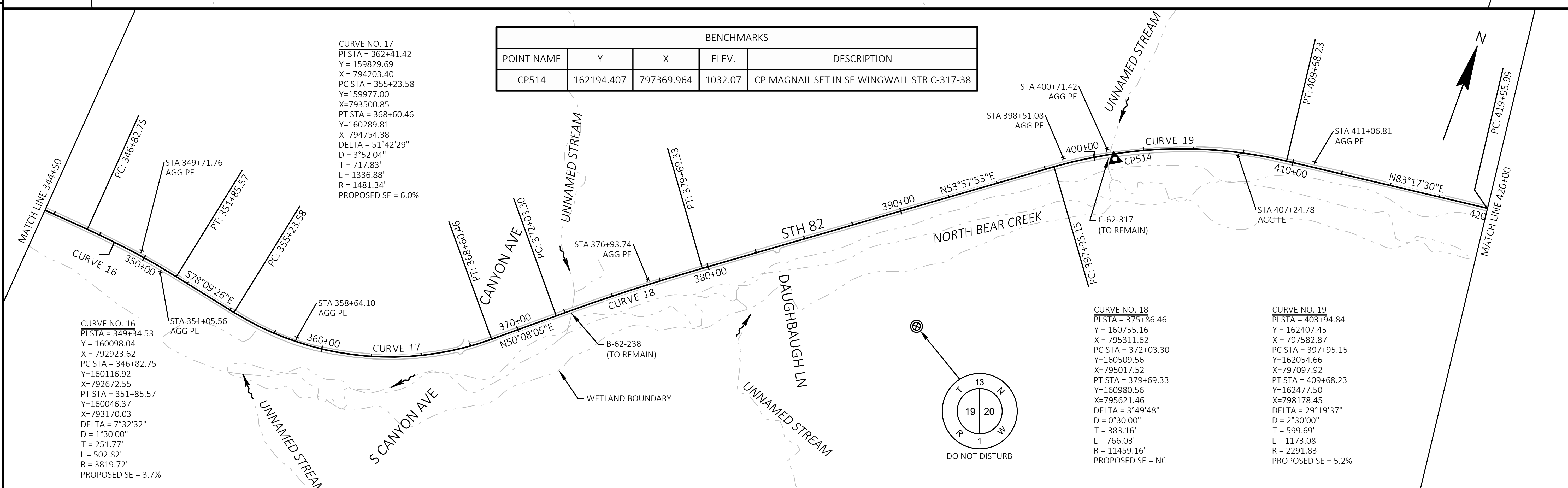
BENCHMARKS				
POINT NAME	Y	X	ELEV.	DESCRIPTION
CP512	158888.350	786994.833	916.00	CP 3/4X24 REBAR SET W/EMCS CAP
CP513	160137.441	792047.056	964.36	CP MAGNAIL SET IN SW WINGWALL

CURVE NO. 13
PI STA = 300+36.00
Y = 159297.25
X = 788168.97
PC STA = 298+66.20
Y=159245.42
X=788007.28
PT STA = 302+05.77
Y=159353.84
X=788329.06
DELTA = 1°41'52"
D = 0°30'00"
T = 169.80'
L = 339.57'
R = 11459.16'
PROPOSED SE = NC

CURVE NO. 14
PI STA = 321+77.79
Y = 160011.16
X = 790188.31
PC STA = 317+65.46
Y=159873.72
X=789799.56
PT STA = 325+88.70
Y=160091.52
X=790592.73
DELTA = 8°13'56"
D = 1°00'00"
T = 412.33'
L = 823.24'
R = 5729.58'
PROPOSED SE = 2.7%

CURVE NO. 15
PI STA = 332+65.46
Y = 160223.41
X = 791256.52
PC STA = 330+42.11
Y=160179.88
X=791037.45
PT STA = 334+86.07
Y=160206.66
X=791479.24
DELTA = 15°32'19"
D = 3°30'00"
T = 223.35'
L = 443.96'
R = 1637.02'
PROPOSED SE = 5.9%

5



BENCHMARKS				
POINT NAME	Y	X	ELEV.	DESCRIPTION
CP514	162194.407	797369.964	1032.07	CP MAGNAIL SET IN SE WINGWALL STR C-317-38

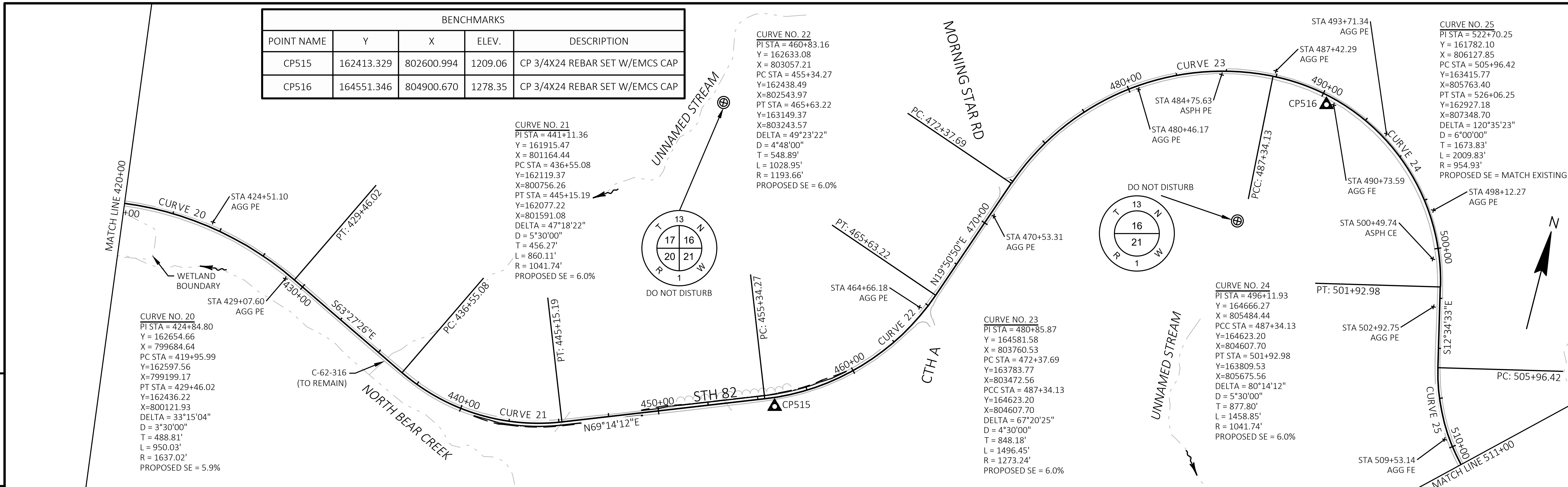
CURVE NO. 17
PI STA = 362+41.42
Y = 159829.69
X = 794203.40
PC STA = 355+23.58
Y=159977.00
X=793500.85
PT STA = 368+60.46
Y=160289.81
X=794754.38
DELTA = 51°42'29"
D = 3°52'04"
T = 717.83'
L = 1336.88'
R = 1481.34'
PROPOSED SE = 6.0%

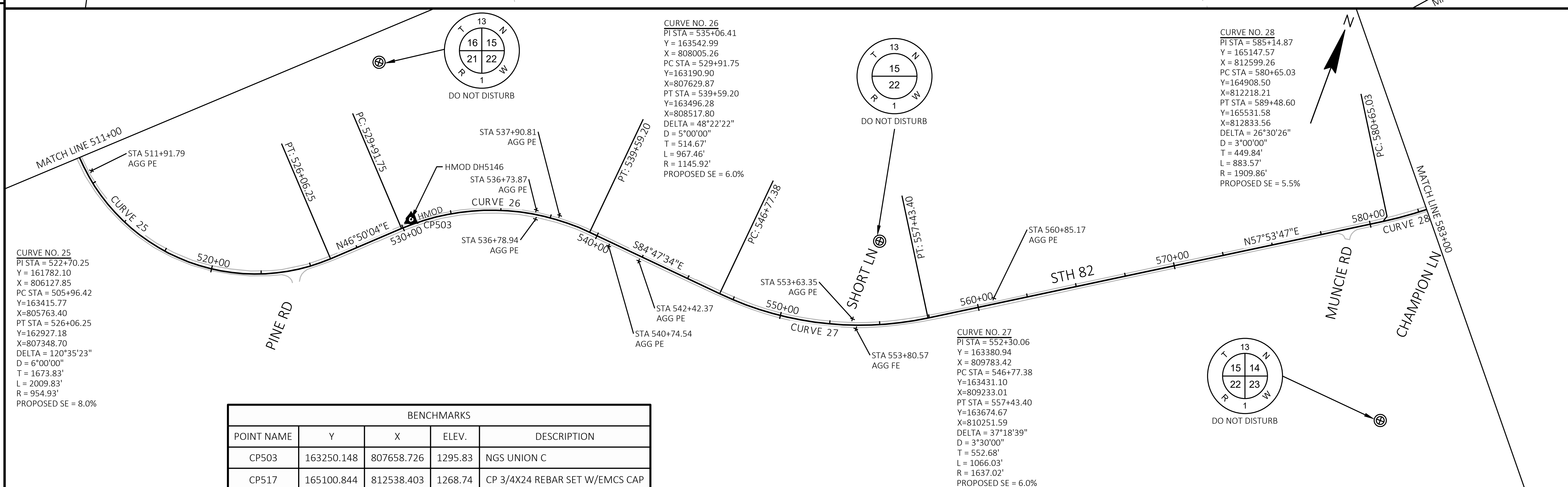
CURVE NO. 16
PI STA = 349+34.53
Y = 160098.04
X = 792923.62
PC STA = 346+82.75
Y=160116.92
X=792672.55
PT STA = 351+85.57
Y=160046.37
X=793170.03
DELTA = 7°32'32"
D = 1°30'00"
T = 251.77'
L = 502.82'
R = 3819.72'
PROPOSED SE = 3.7%

CURVE NO. 18
PI STA = 375+86.46
Y = 160755.16
X = 795311.62
PC STA = 372+03.30
Y=160509.56
X=795017.52
PT STA = 379+69.33
Y=160980.56
X=795621.46
DELTA = 3°49'48"
D = 0°30'00"
T = 383.16'
L = 766.03'
R = 11459.16'
PROPOSED SE = NC

CURVE NO. 19
PI STA = 403+94.84
Y = 162407.45
X = 797582.87
PC STA = 397+95.15
Y=162054.66
X=797097.92
PT STA = 409+68.23
Y=162477.50
X=798178.45
DELTA = 29°19'37"
D = 2°30'00"
T = 599.69'
L = 1173.08'
R = 2291.83'
PROPOSED SE = 5.2%

BENCHMARKS				
POINT NAME	Y	X	ELEV.	DESCRIPTION
CP515	162413.329	802600.994	1209.06	CP 3/4X24 REBAR SET W/EMCS CAP
CP516	164551.346	804900.670	1278.35	CP 3/4X24 REBAR SET W/EMCS CAP

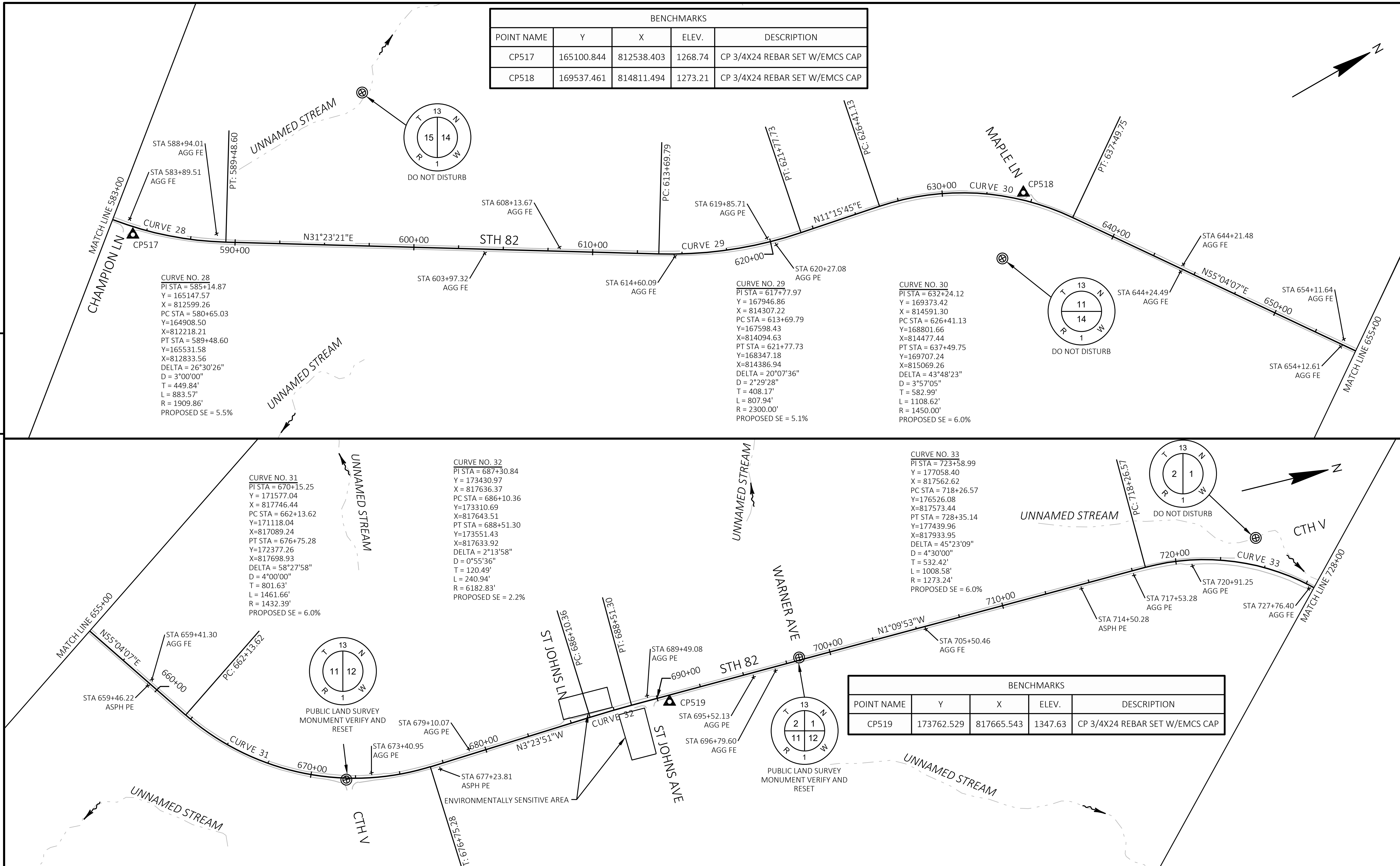




BENCHMARKS				
POINT NAME	Y	X	ELEV.	DESCRIPTION
CP503	163250.148	807658.726	1295.83	NGS UNION C
CP517	165100.844	812538.403	1268.74	CP 3/4X24 REBAR SET W/EMCS CAP

5

5



BENCHMARKS				
POINT NAME	Y	X	ELEV.	DESCRIPTION
CP517	165100.844	812538.403	1268.74	CP 3/4X24 REBAR SET W/EMCS CAP
CP518	169537.461	814811.494	1273.21	CP 3/4X24 REBAR SET W/EMCS CAP

CURVE NO. 28
PI STA = 585+14.87
Y = 165147.57
X = 812599.26
PC STA = 580+65.03
Y=164908.50
X=812218.21
PT STA = 589+48.60
Y=165531.58
X=812833.56
DELTA = 26°30'26"
D = 3°00'00"
T = 449.84'
L = 883.57'
R = 1909.86'
PROPOSED SE = 5.5%

CURVE NO. 29
PI STA = 617+77.97
Y = 167946.86
X = 814307.22
PC STA = 613+69.79
Y=167598.43
X=814094.63
PT STA = 621+77.73
Y=168347.18
X=814386.94
DELTA = 20°07'36"
D = 2°29'28"
T = 408.17'
L = 807.94'
R = 2300.00'
PROPOSED SE = 5.1%

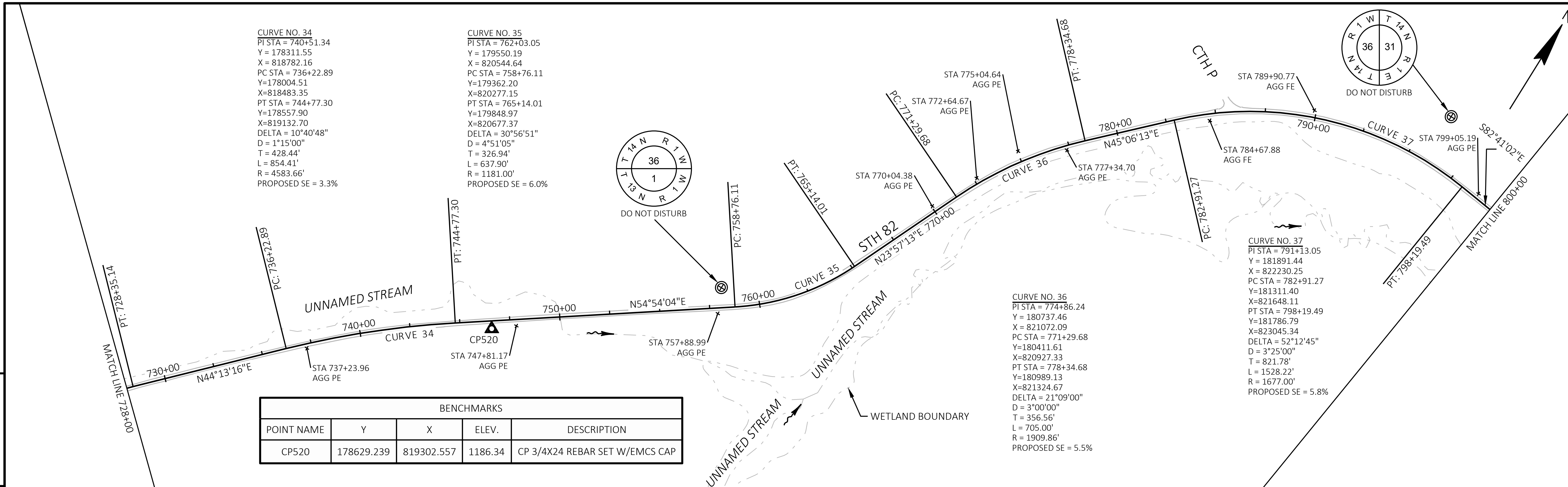
CURVE NO. 30
PI STA = 632+24.12
Y = 169373.42
X = 814591.30
PC STA = 626+41.13
Y=168801.66
X=814477.44
PT STA = 637+49.75
Y=169707.24
X=815069.26
DELTA = 43°48'23"
D = 3°57'05"
T = 582.99'
L = 1108.62'
R = 1450.00'
PROPOSED SE = 6.0%

CURVE NO. 31
PI STA = 670+15.25
Y = 171577.04
X = 817746.44
PC STA = 662+13.62
Y=171118.04
X=817089.24
PT STA = 676+75.28
Y=172377.26
X=817698.93
DELTA = 58°27'58"
D = 4°00'00"
T = 801.63'
L = 1461.66'
R = 1432.39'
PROPOSED SE = 6.0%

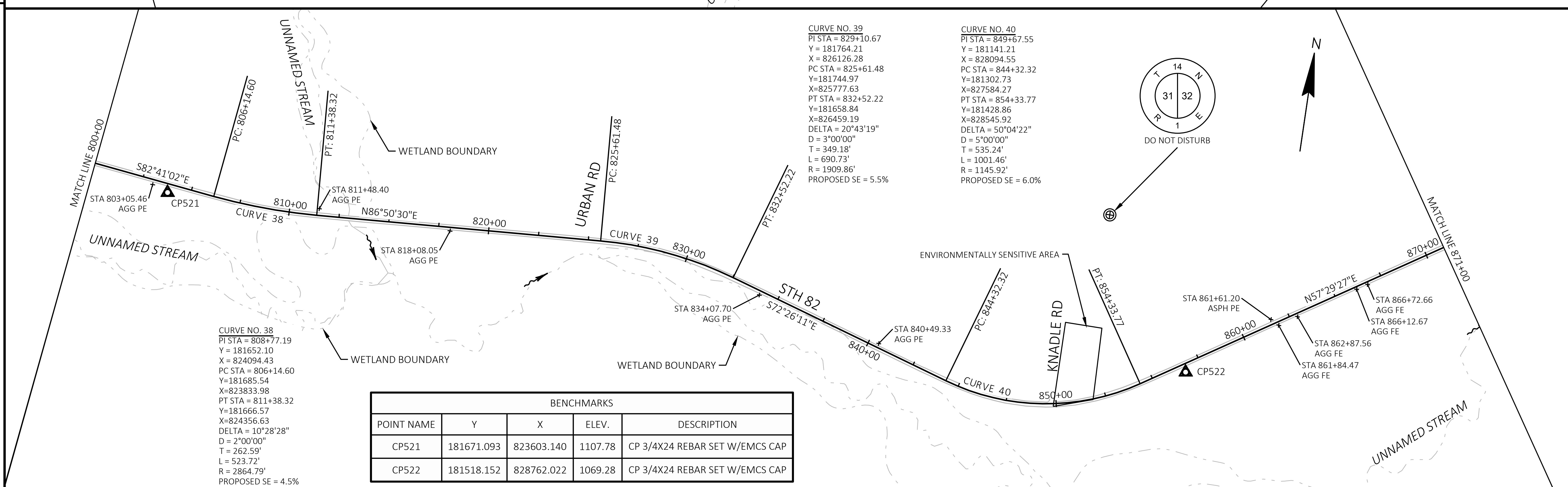
CURVE NO. 32
PI STA = 687+30.84
Y = 173430.97
X = 817636.37
PC STA = 686+10.36
Y=173310.69
X=817643.51
PT STA = 688+51.30
Y=173551.43
X=817633.92
DELTA = 2°13'58"
D = 0°55'36"
T = 120.49'
L = 240.94'
R = 6182.83'
PROPOSED SE = 2.2%

CURVE NO. 33
PI STA = 723+58.99
Y = 177058.40
X = 817562.62
PC STA = 718+26.57
Y=176526.08
X=817573.44
PT STA = 728+35.14
Y=177439.96
X=817933.95
DELTA = 45°23'09"
D = 4°30'00"
T = 532.42'
L = 1008.58'
R = 1273.24'
PROPOSED SE = 6.0%

BENCHMARKS				
POINT NAME	Y	X	ELEV.	DESCRIPTION
CP519	173762.529	817665.543	1347.63	CP 3/4X24 REBAR SET W/EMCS CAP

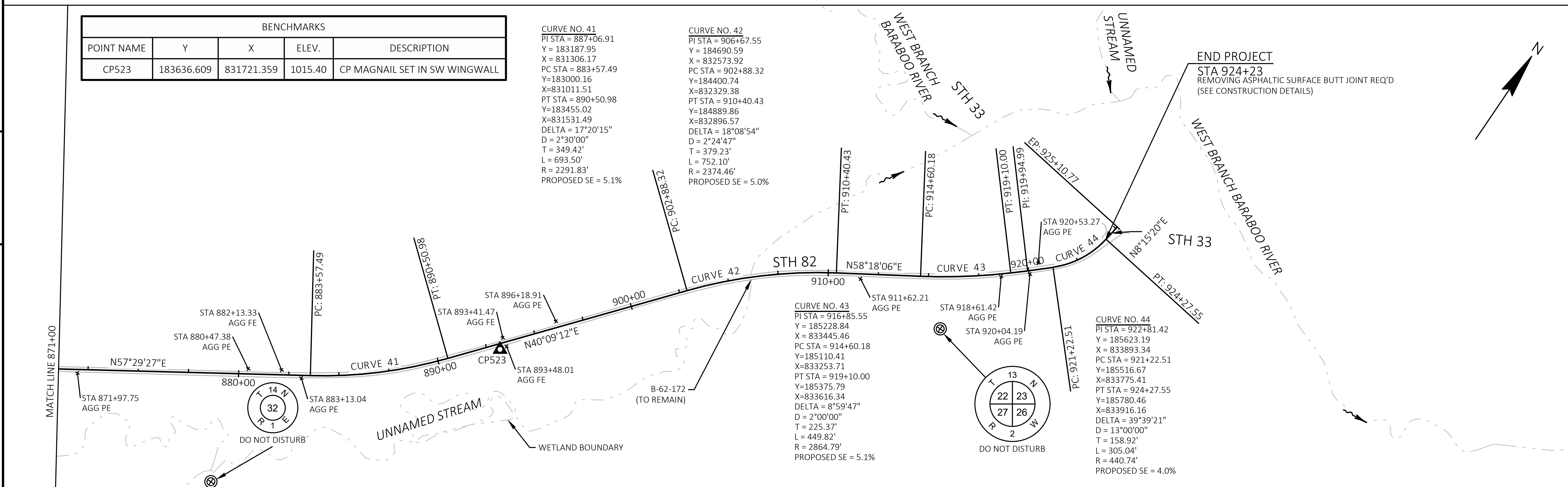


BENCHMARKS				
POINT NAME	Y	X	ELEV.	DESCRIPTION
CP520	178629.239	819302.557	1186.34	CP 3/4X24 REBAR SET W/EMCS CAP



BENCHMARKS				
POINT NAME	Y	X	ELEV.	DESCRIPTION
CP521	181671.093	823603.140	1107.78	CP 3/4X24 REBAR SET W/EMCS CAP
CP522	181518.152	828762.022	1069.28	CP 3/4X24 REBAR SET W/EMCS CAP

BENCHMARKS				
POINT NAME	Y	X	ELEV.	DESCRIPTION
CP523	183636.609	831721.359	1015.40	CP MAGNAIL SET IN SW WINGWALL



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	PLAN	SHEET 95	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\050202-PN.DWG
LAYOUT NAME - 13
PLOT DATE : 2/16/2026 7:19 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08A05-22A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-22B	INLET COVERS TYPE B, B-A, C, MS, MS-A, DW & WM
08A05-22E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08C06-03	INLETS 3-FT AND 4-FT DIAMETER
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08D01-24A	CONCRETE CURB & GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-08A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-22D	CURB RAMPS TYPES 4B AND 4B1
08D05-22F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-22G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F10-02	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
09G02-05A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
12A03-10	NAME PLATE (STRUCTURES)
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B20-12A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-12D	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-04A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04B	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

6

Standard Detail Drawing List

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)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B53-03A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
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
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-10A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-11A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D32-07	TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION
15D33-09	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL

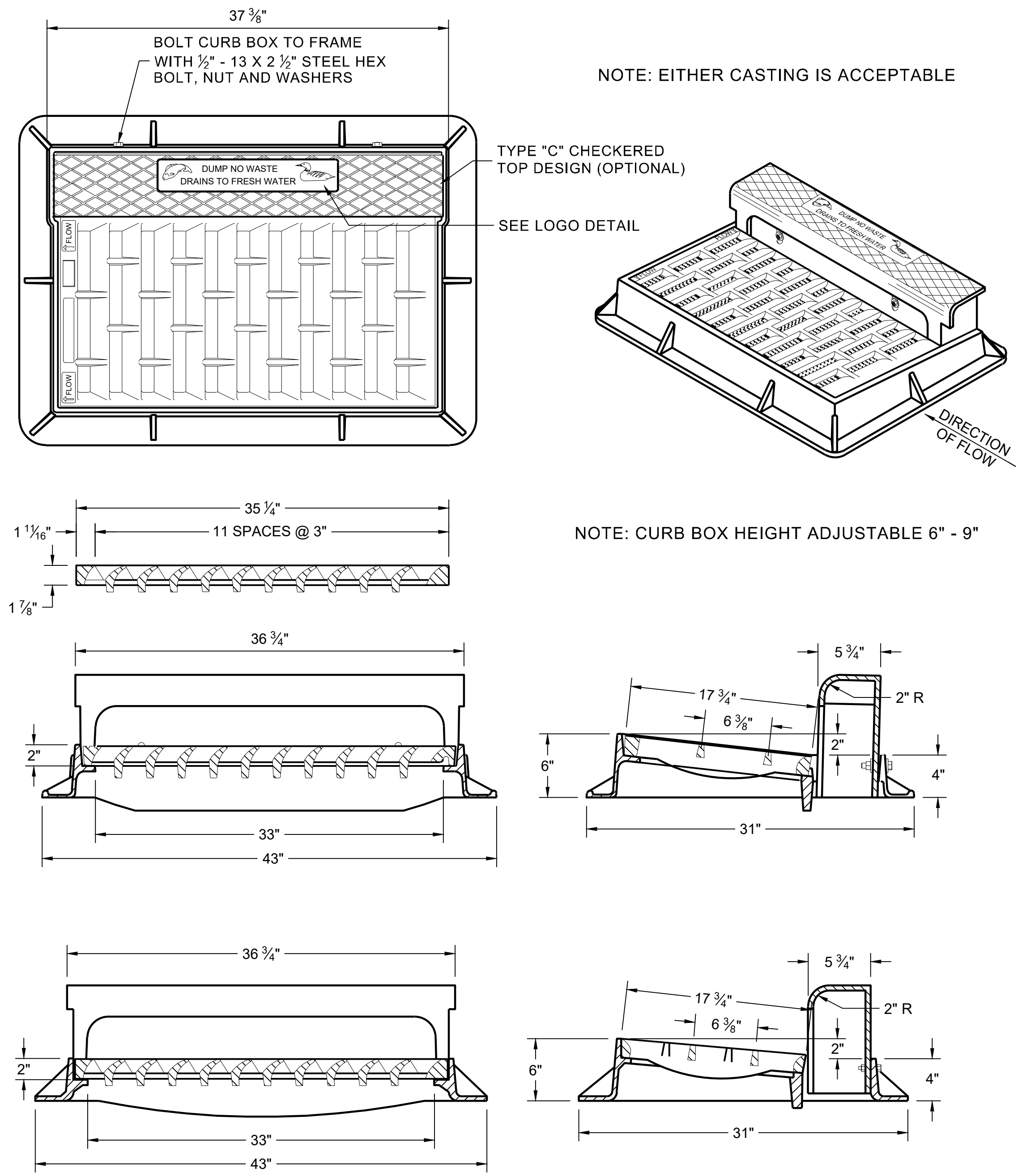
6

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

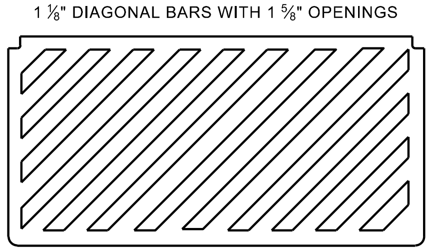
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

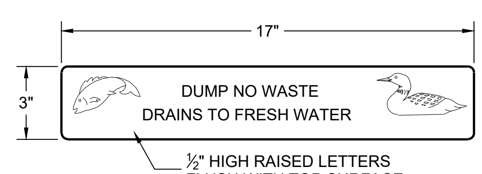
1 ⅛" DIAGONAL BARS WITH 1 ⅝" OPENINGS



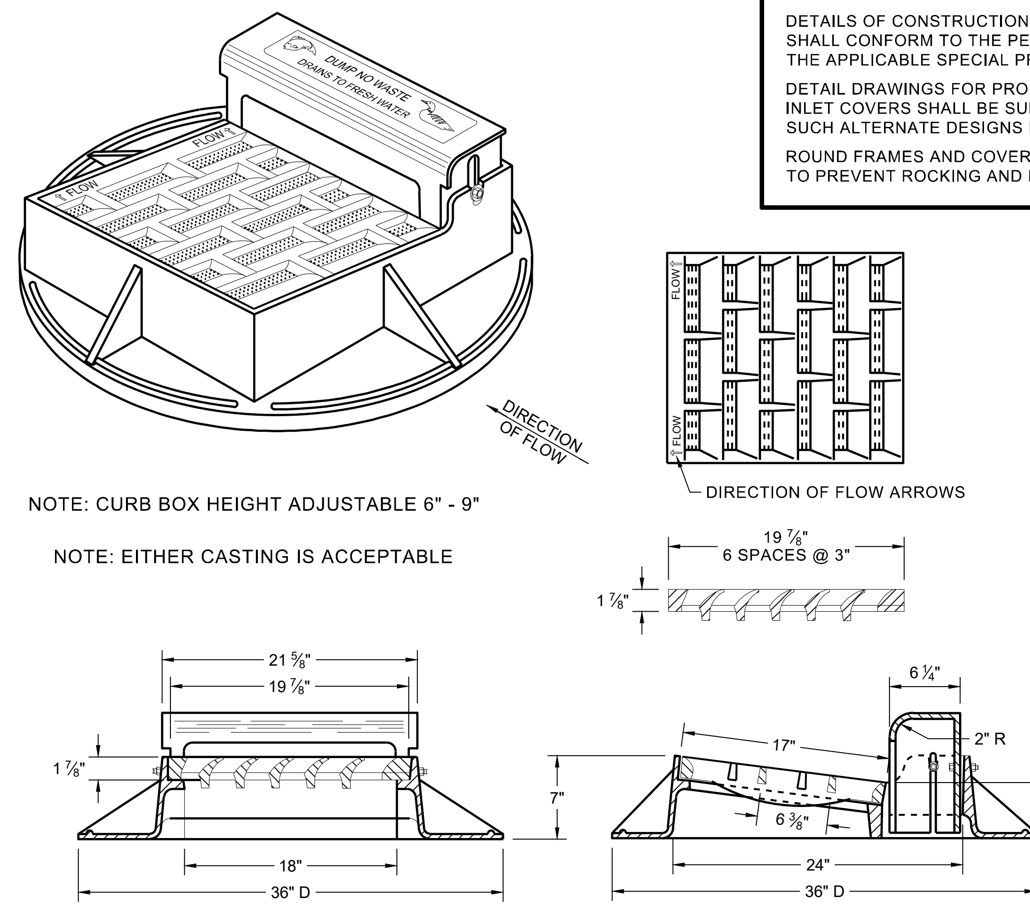
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35" X 17 ¾" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

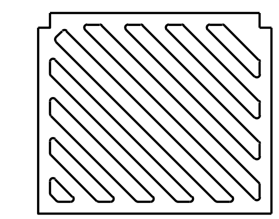


LOGO DETAIL



TYPE "A"

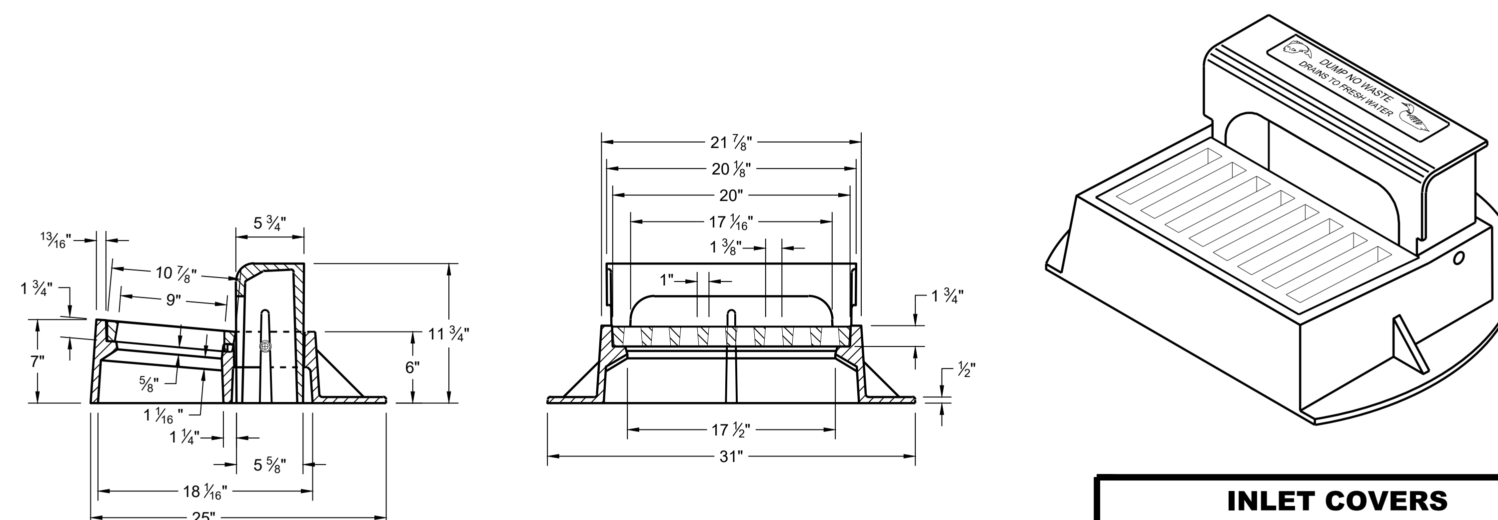
1" DIAGONAL BARS WITH 1 ½" OPENINGS



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 ¾" X 17" X 1 ⅞")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "Z"

6

6

INLET COVERS TYPES A, H, A-S, H-S AND Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

SDD 08A05-22a

SDD 08A05-22a

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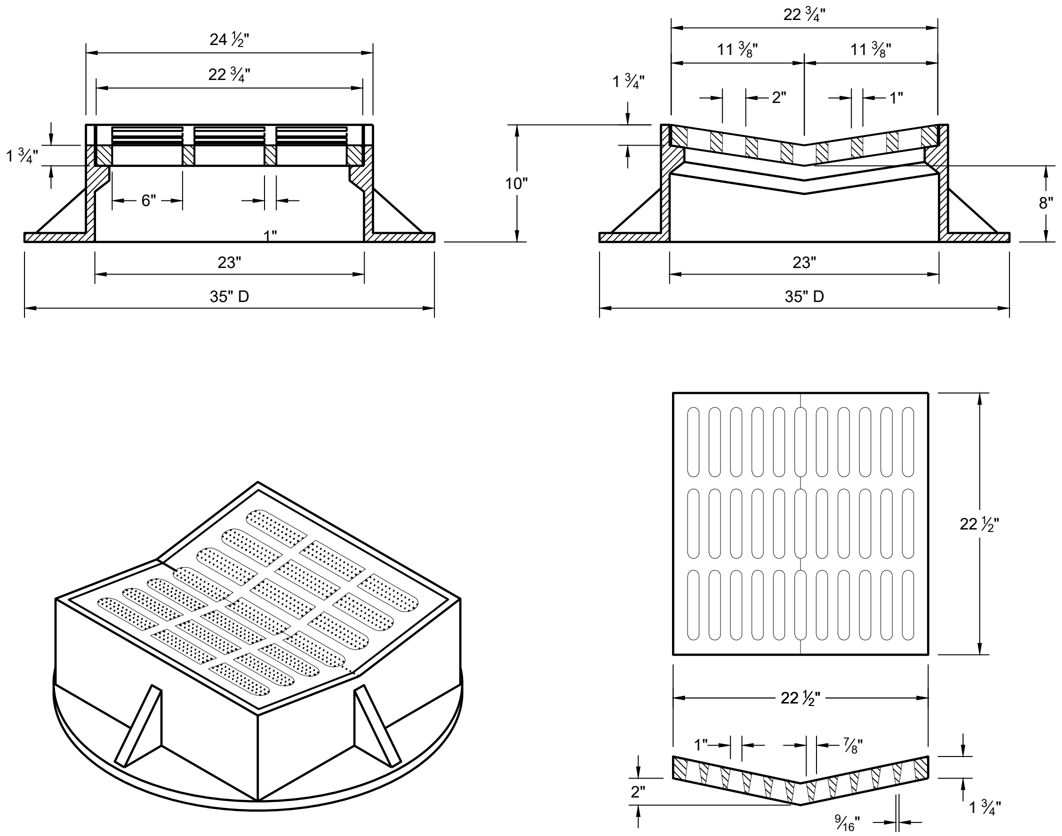
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

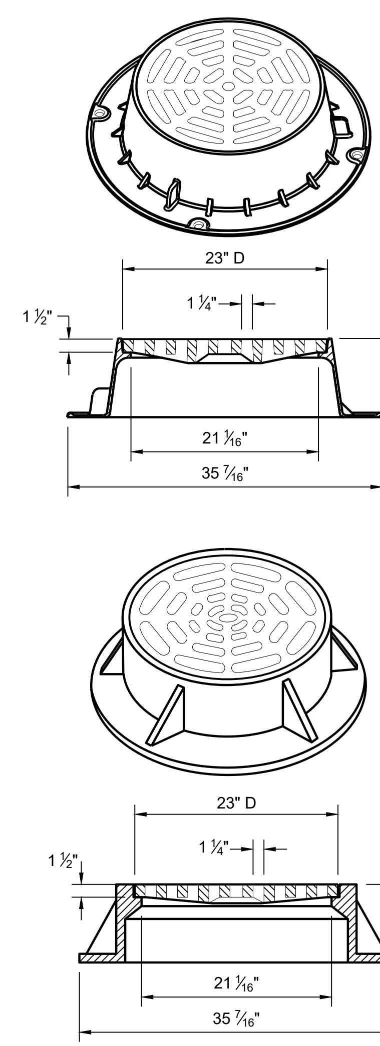


TYPE "B"

ALTERNATIVE GRATE FOR TYPE "B" COVER

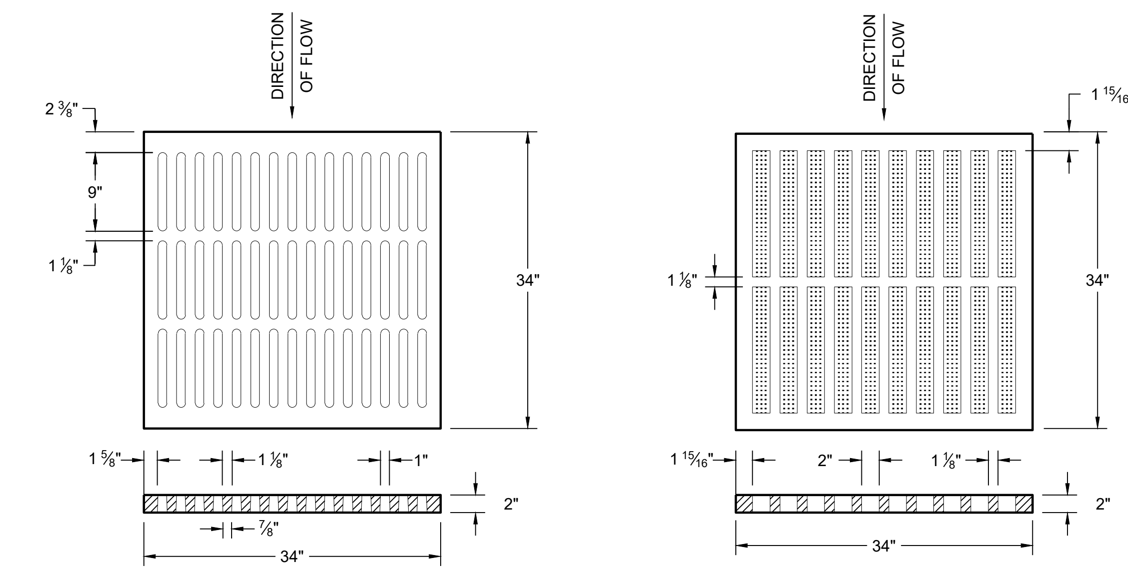
USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE

NOTED AS TYPE B - A ON THE DRAINAGE TABLE



TYPE "C"

NOTE: EITHER CASTING IS ACCEPTABLE



ALTERNATIVE TYPE "MS"

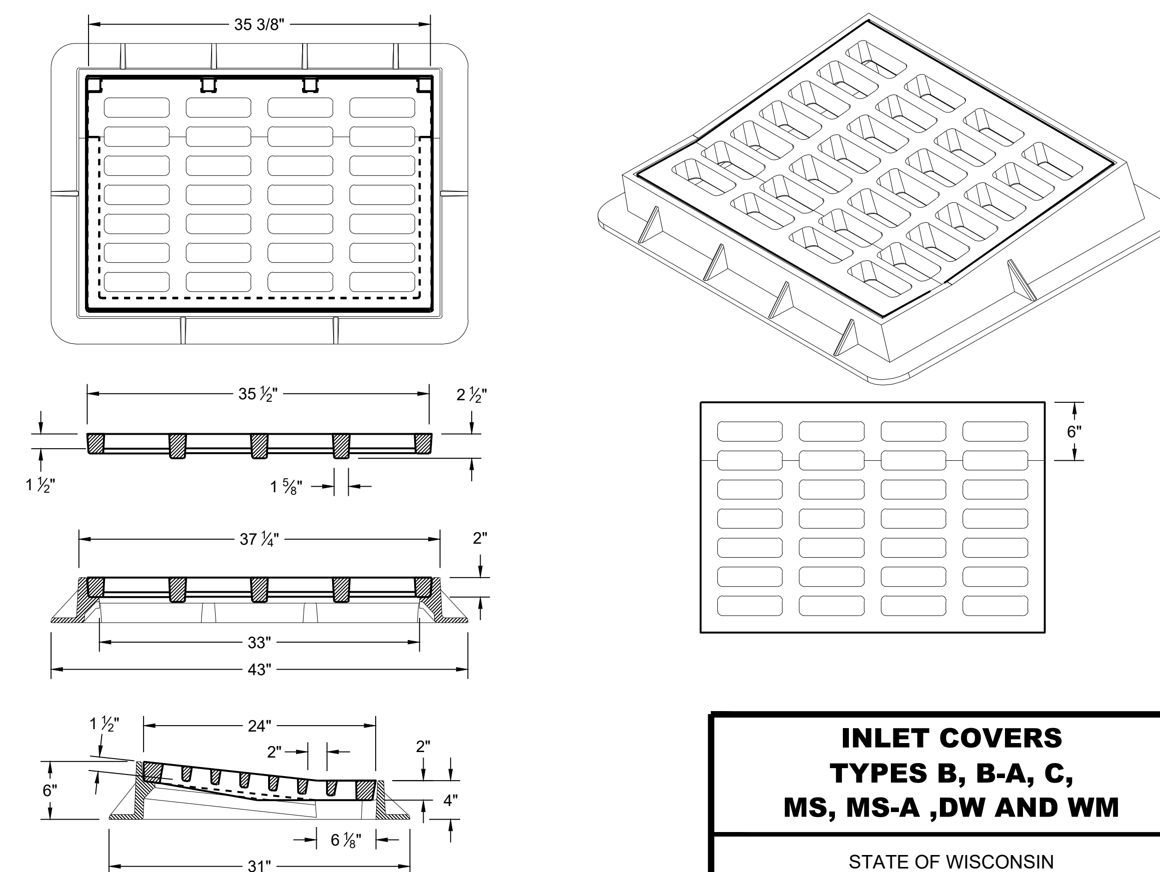
USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

TYPE "MS"

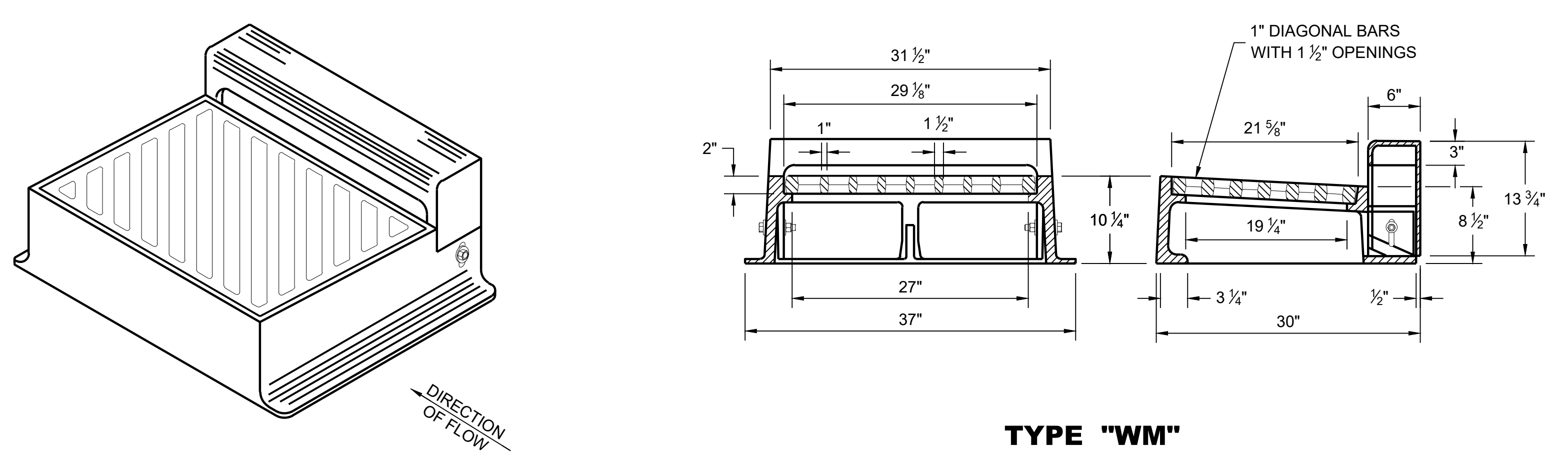
USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON THE DRAINAGE TABLE



TYPE "DW"

NOTES: FOR USE IN A SUMP CONDITION. THIS OPTION IS ONLY TO BE USED IF NO OTHER INLETS ARE APPLICABLE.



DIAGONAL SLOTS SHALL BE ORIENTEDTO THE DIRECTION OF FLOW AS ILLUSTRATED.
GRATES ARE MANUFACTURED TO BE REVERSIBLE.

TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

6

6

INLET COVERS TYPES B, B-A, C, MS, MS-A ,DW AND WM

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ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

SDD 08A05-22b

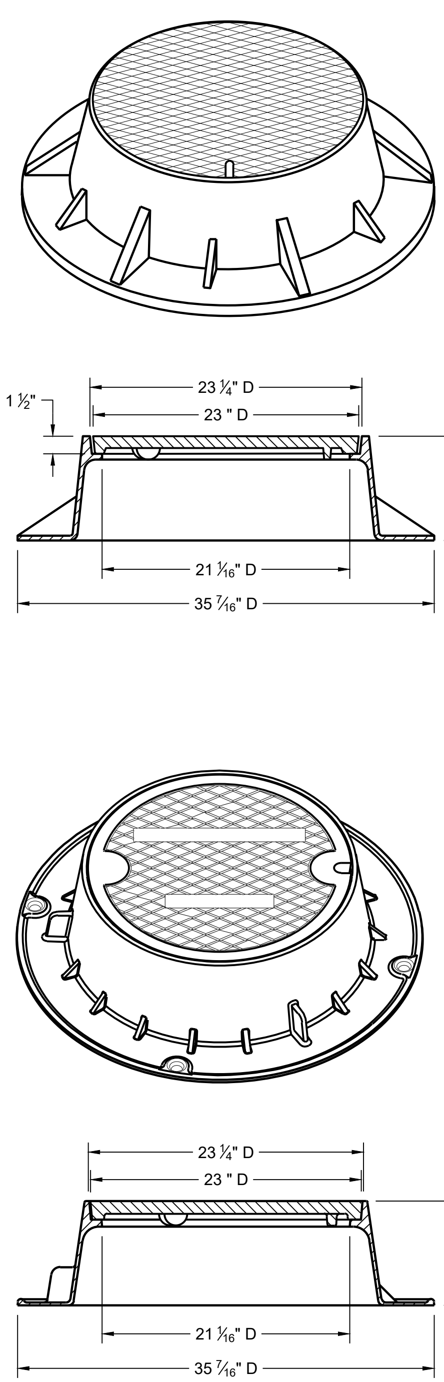
SDD 08A05-22b

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.

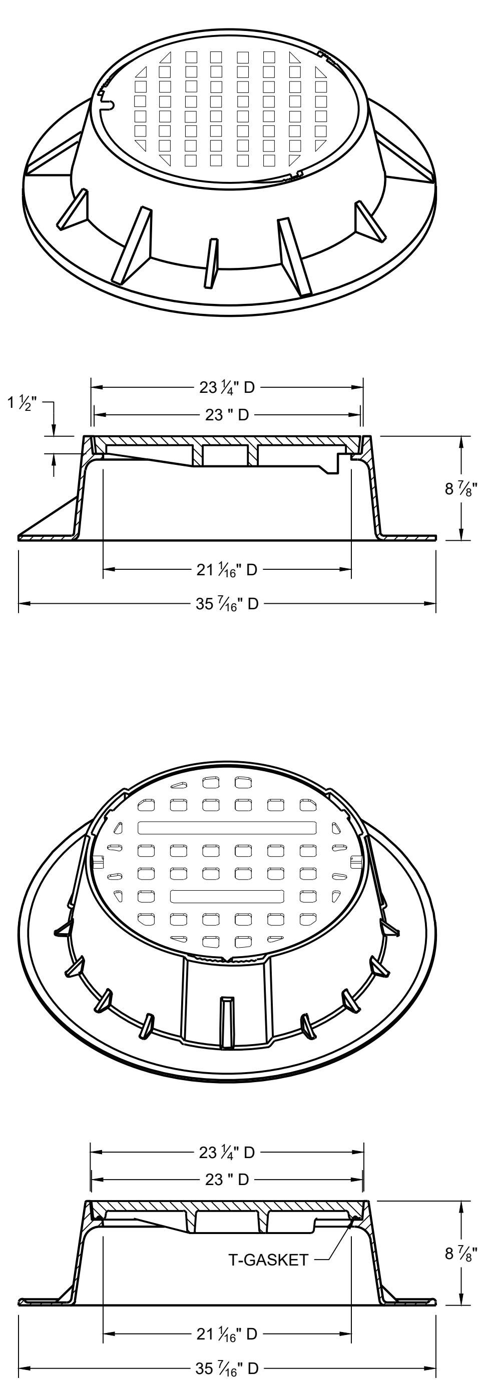
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



TYPE "J"

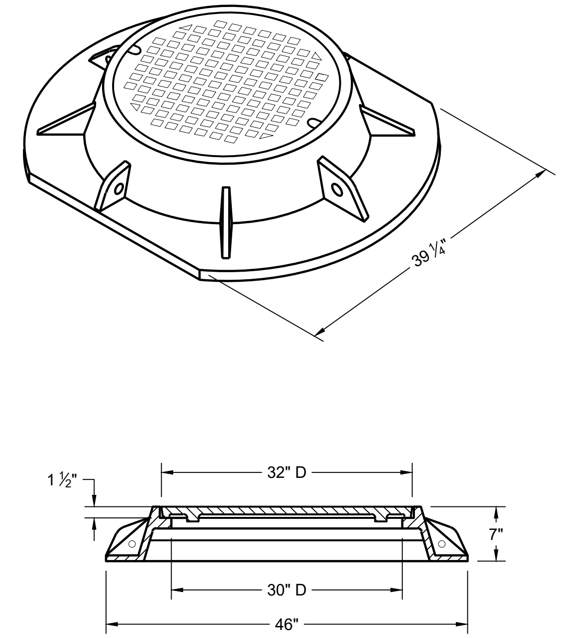
NOTE: EITHER CASTING IS ACCEPTABLE



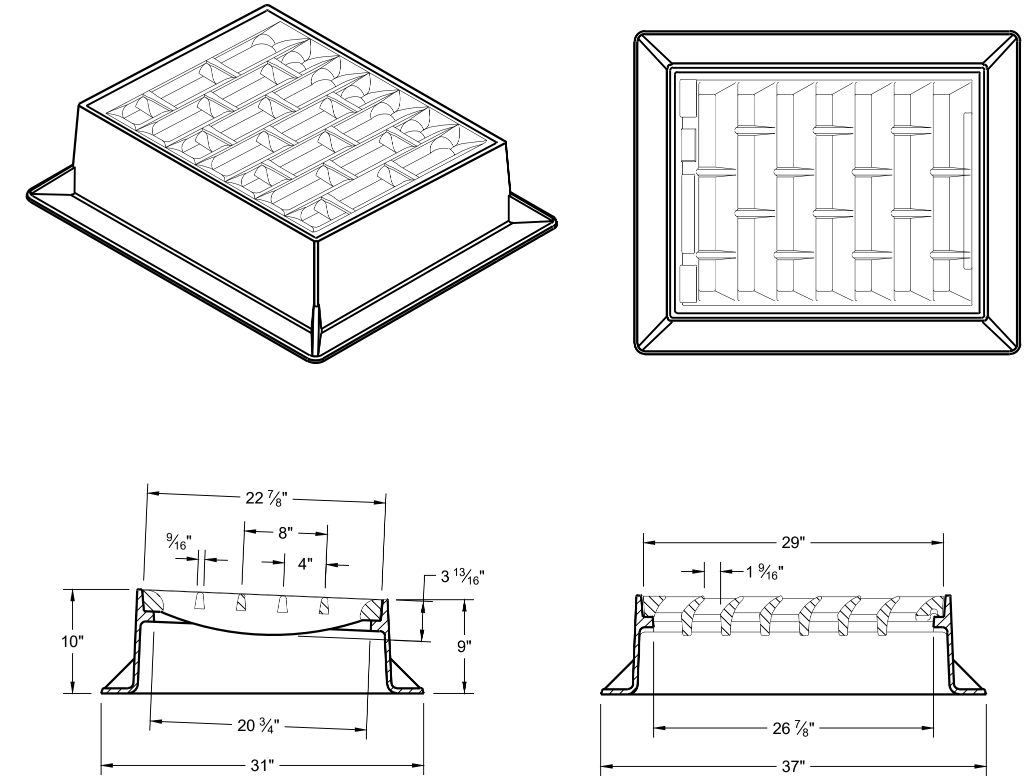
TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

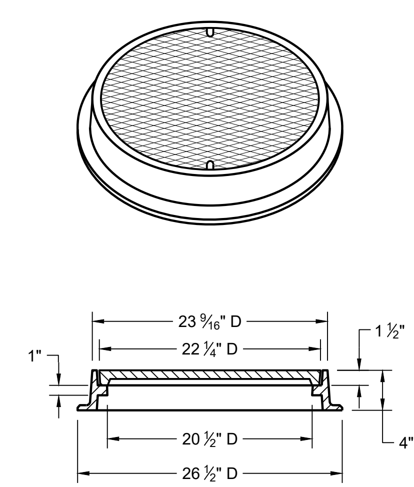
NOTE: EITHER CASTING IS ACCEPTABLE



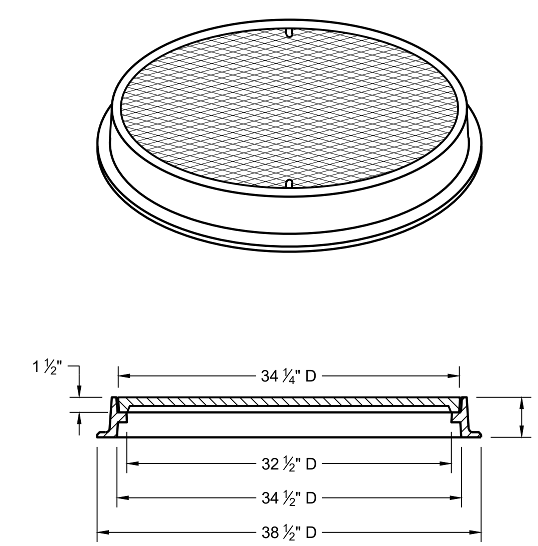
TYPE "K"



INLET COVER TYPE "BW"



TYPE "L"



TYPE "M"

INLET COVERS TYPES BW MANHOLE COVERS TYPES K, J, J-S, L, AND M

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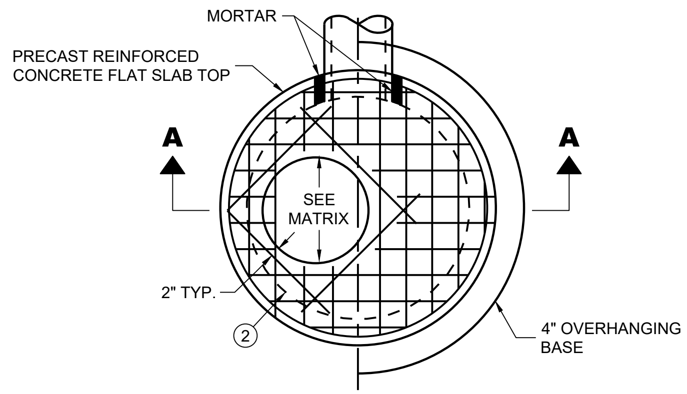
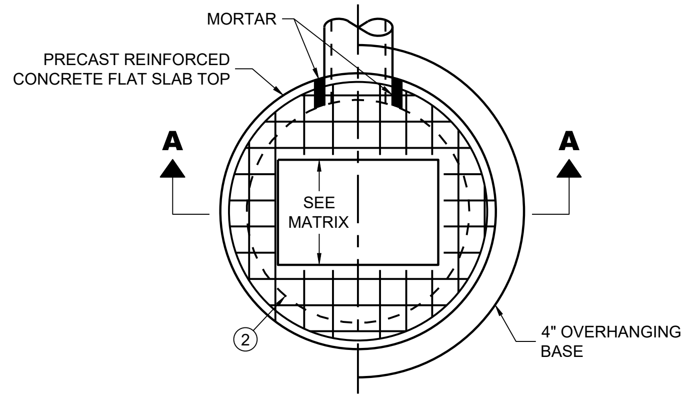
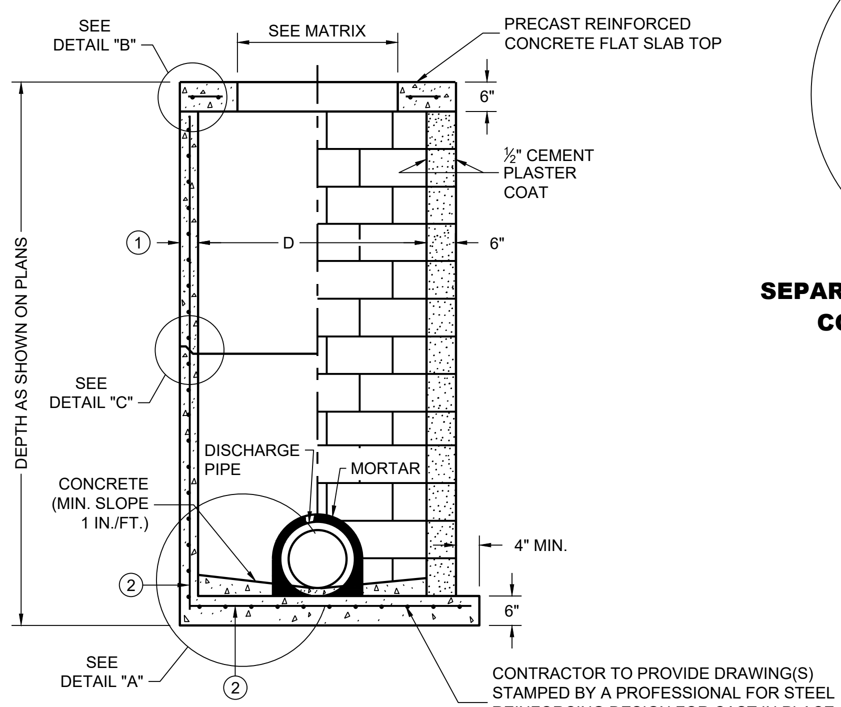
FHWA



PLAN VIEW CIRCULAR OPENING



PLAN VIEW RECTANGULAR OPENING



SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE ②

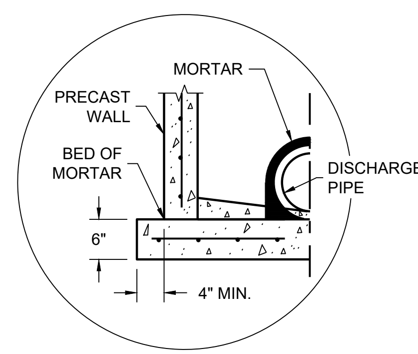
CIRCULAR INLETS WITH FLAT TOP

CATCH BASIN COVER OPENING MATRIX

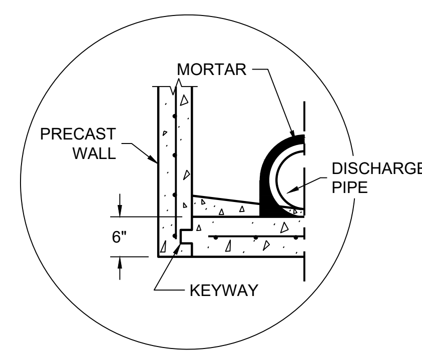
INLET SIZE	INLET COVER TYPE / OPENING SIZE (FT.)	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V V-B	WM	Z
3-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
4-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
	2 X 2.5			X				X	X	X	X	
	2 X 3						X					
	2.5 X 3					X						

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

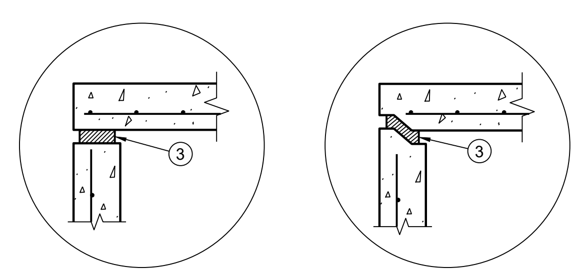


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

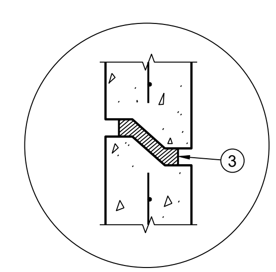
DETAIL "A"



TOP WITH PLAIN END JOINT

TOP WITH TONGUE AND GROOVE JOINT

DETAIL "B"



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "C"

INLETS 3-FT AND 4-FT DIAMETER

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

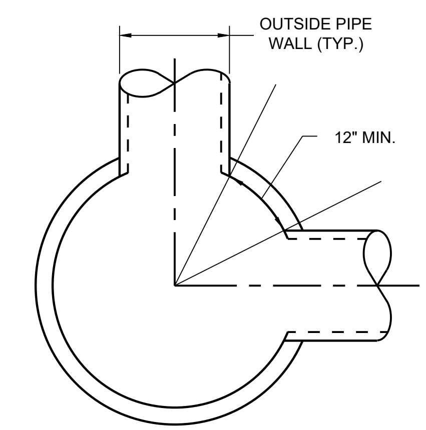
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT DIAMETER AND 5 INCHES FOR 4-FT DIAMTER PRECAST INLETS.

② FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

INLETS 3-FT AND 4-FT DIAMETER

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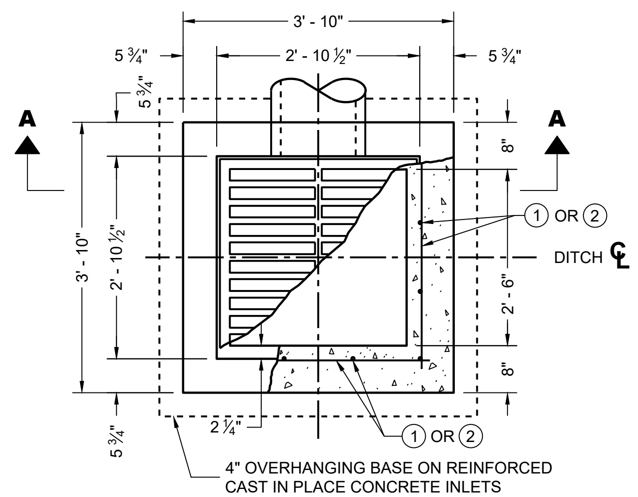
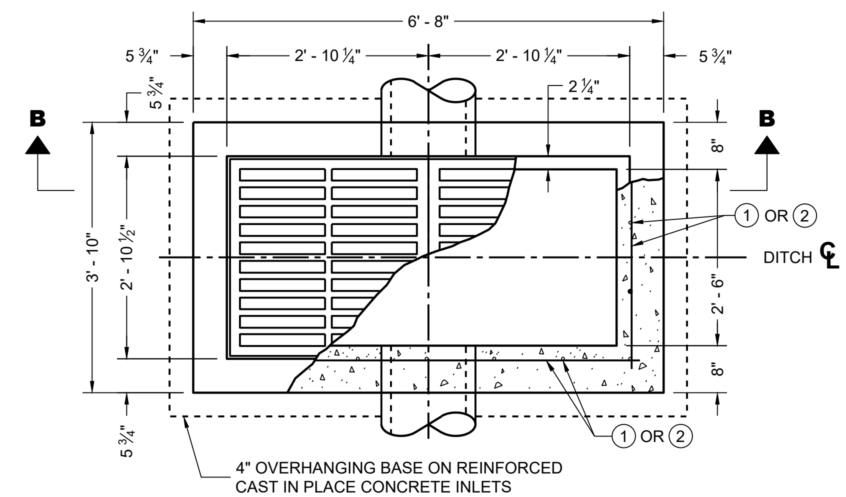
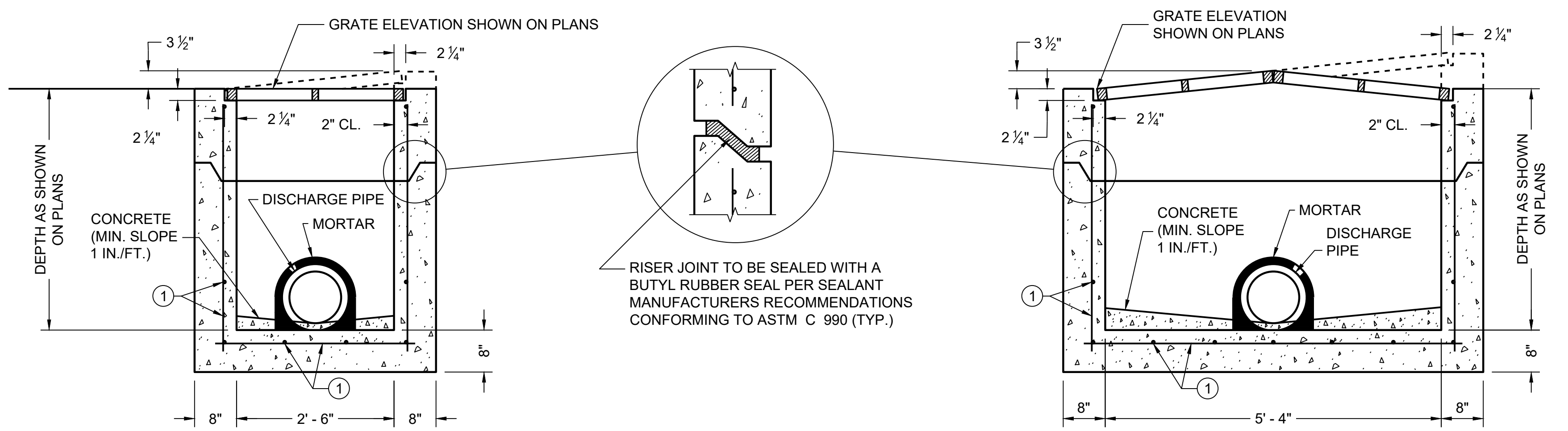
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA



PLAN VIEW

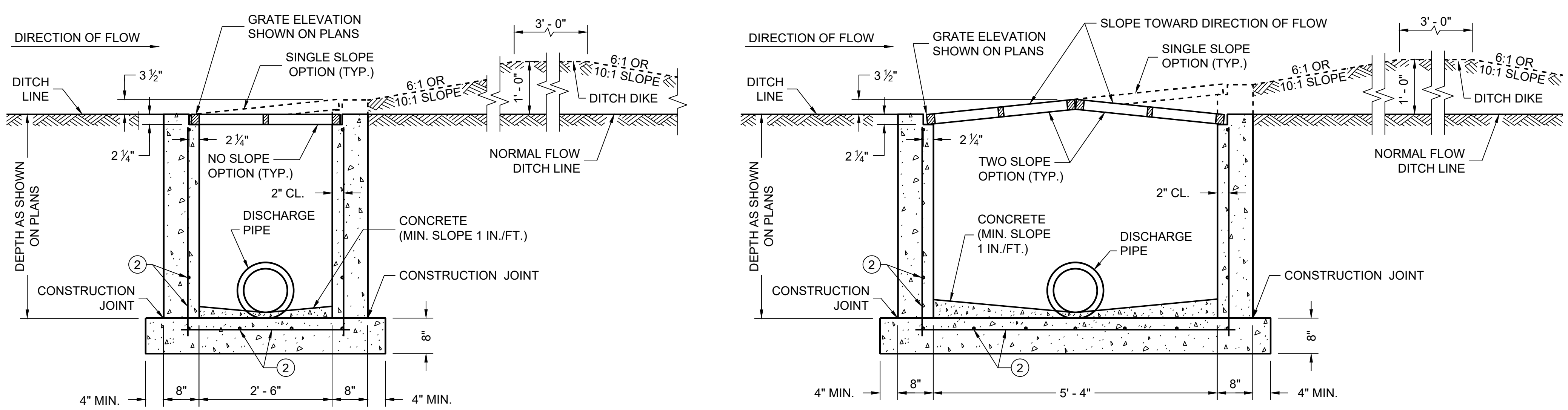


PLAN VIEW



PRECAST REINFORCED CONCRETE
SECTION A - A

PRECAST REINFORCED CONCRETE
SECTION B - B



REINFORCED CAST IN PLACE CONCRETE
SECTION A - A

INLETS MEDIAN 1 GRATE

REINFORCED CAST IN PLACE CONCRETE
SECTION B - B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP N0T SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

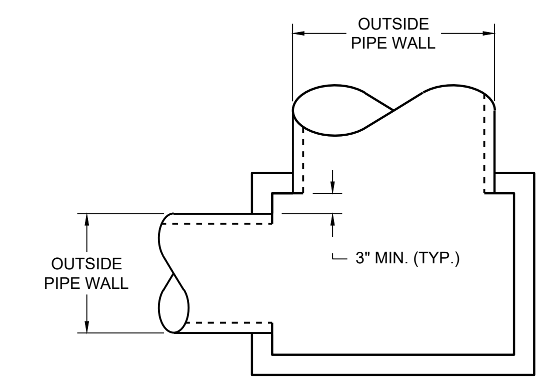
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

1 FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

2 CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.



DETAIL "A"

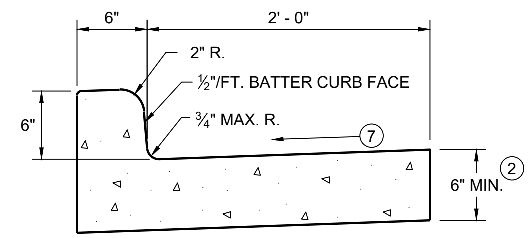
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42

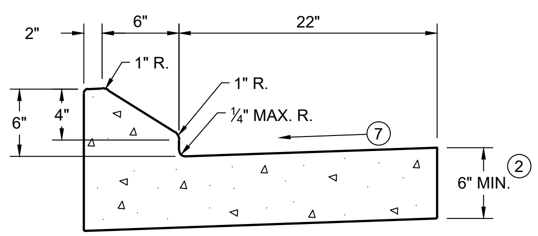
INLETS
MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

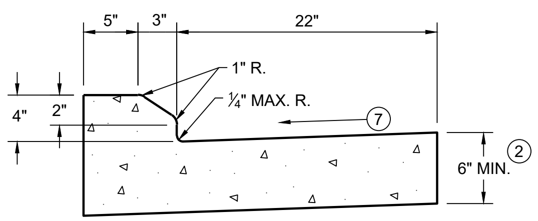
APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA



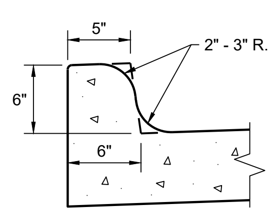
TYPES A 1 & D



6" SLOPED CURB TYPES G 1 & J

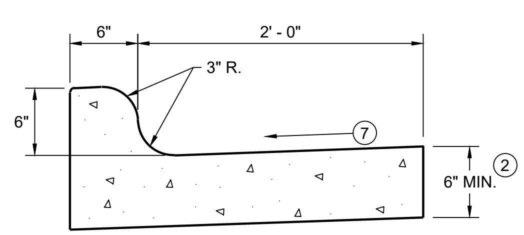


4" SLOPED CURB TYPES G 1 & J



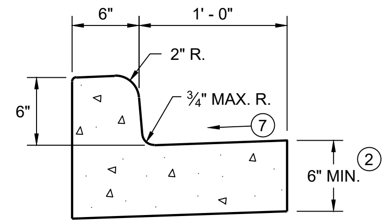
TYPES K 1 & L

(OPTIONAL CURB SHAPE)



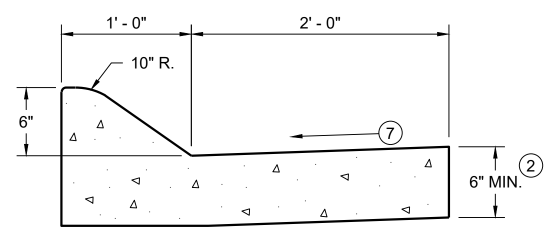
TYPES K 1 & L

CONCRETE CURB AND GUTTER 30"

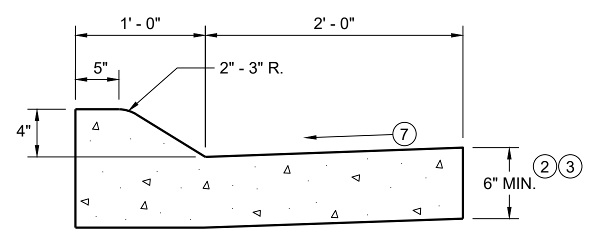


TYPES A 1 & D

CONCRETE CURB AND GUTTER 18"

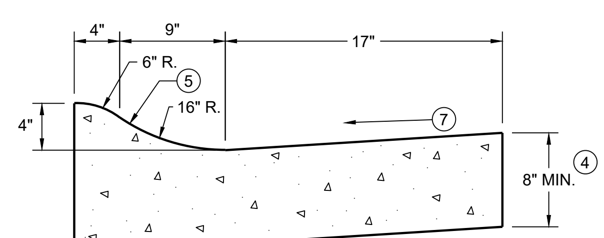


6" SLOPED CURB TYPES A 1 & D



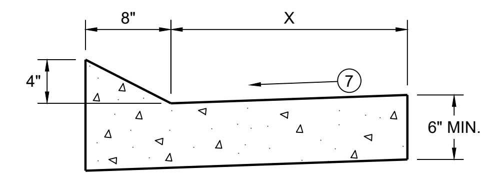
4" SLOPED CURB TYPES A 1 & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R 1 & T
CONCRETE CURB AND GUTTER 30"

TBT & TBTT	X
30"	22"
36"	28"



TYPES TBT & TBTT 1

CONCRETE CURB AND GUTTER

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

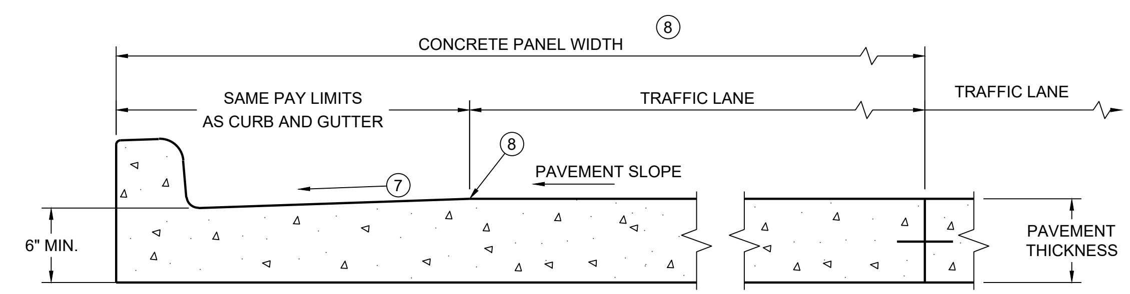
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

1. TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
3. USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
4. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
5. UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
6. WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
7. USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
8. INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
9. SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY

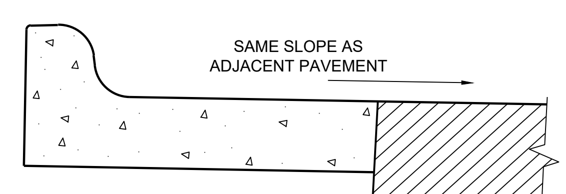
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



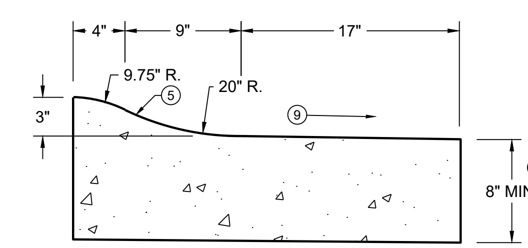
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER 6

(TYPICAL FOR ALL CURB & GUTTER TYPES)



3" SLOPED CURB TYPES R 1 & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 08D01-24a

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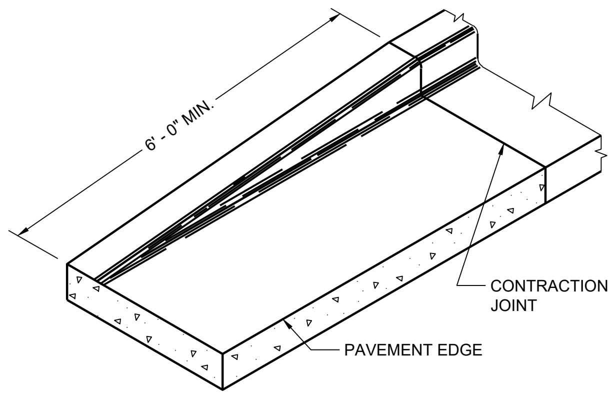
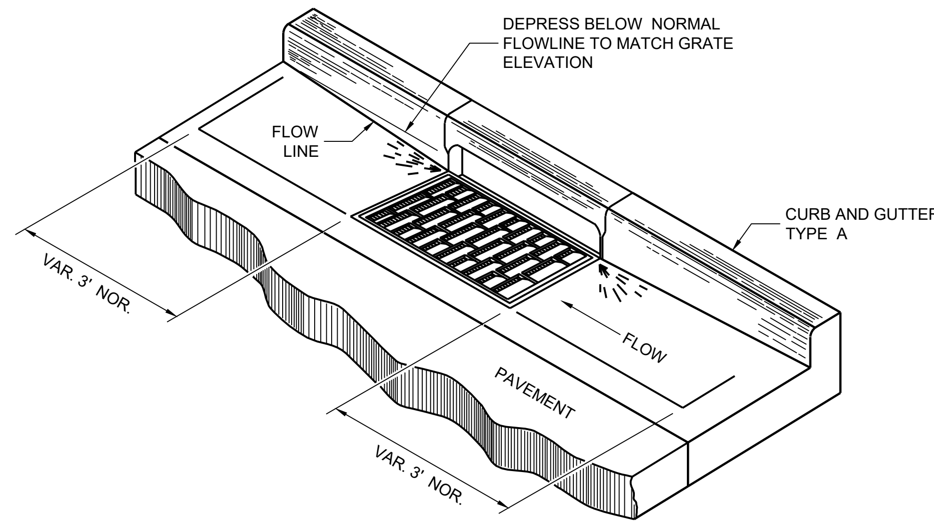
SDD 08D01-24a



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

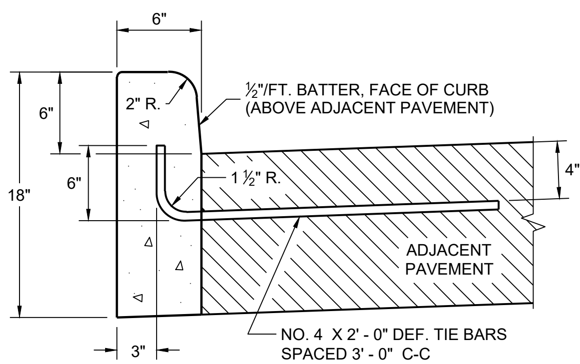
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

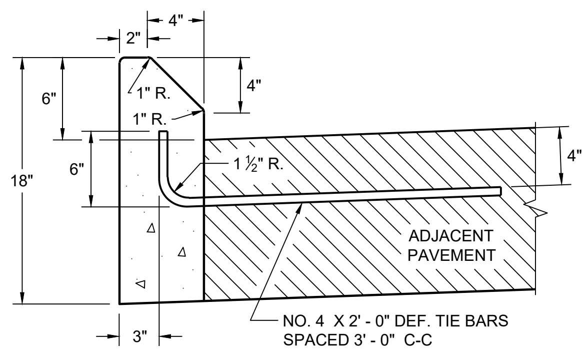
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(10) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

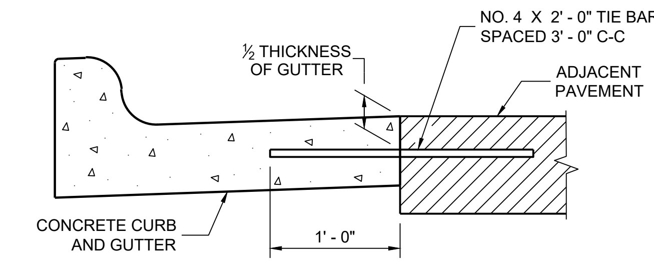


TYPES A (1) & D

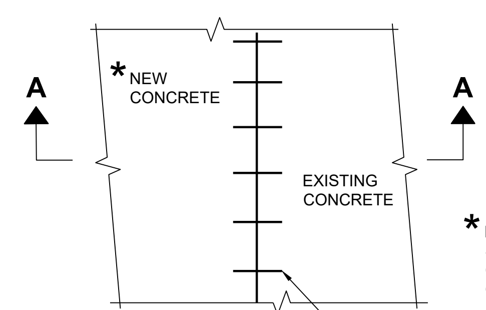


TYPES G (1) & J

CONCRETE CURB

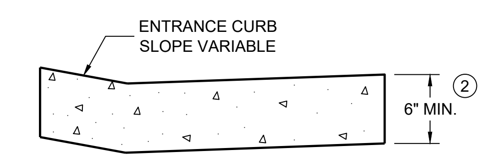


TYPICAL TIE BAR LOCATION (1)



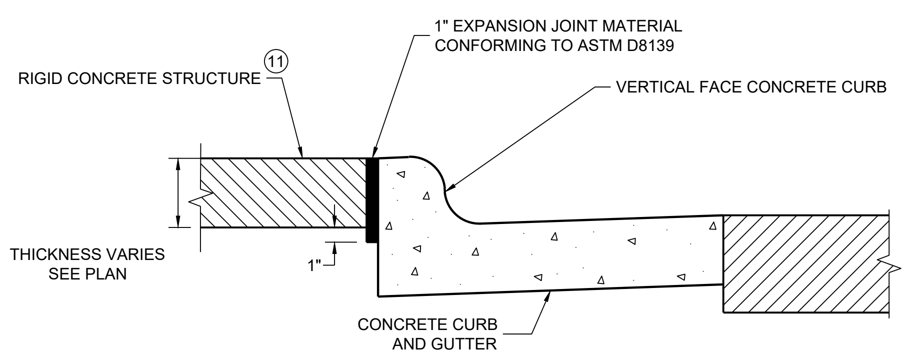
* NEW CURB AND GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW

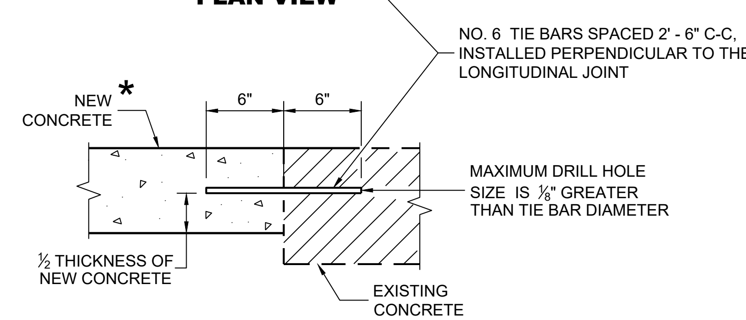


DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT

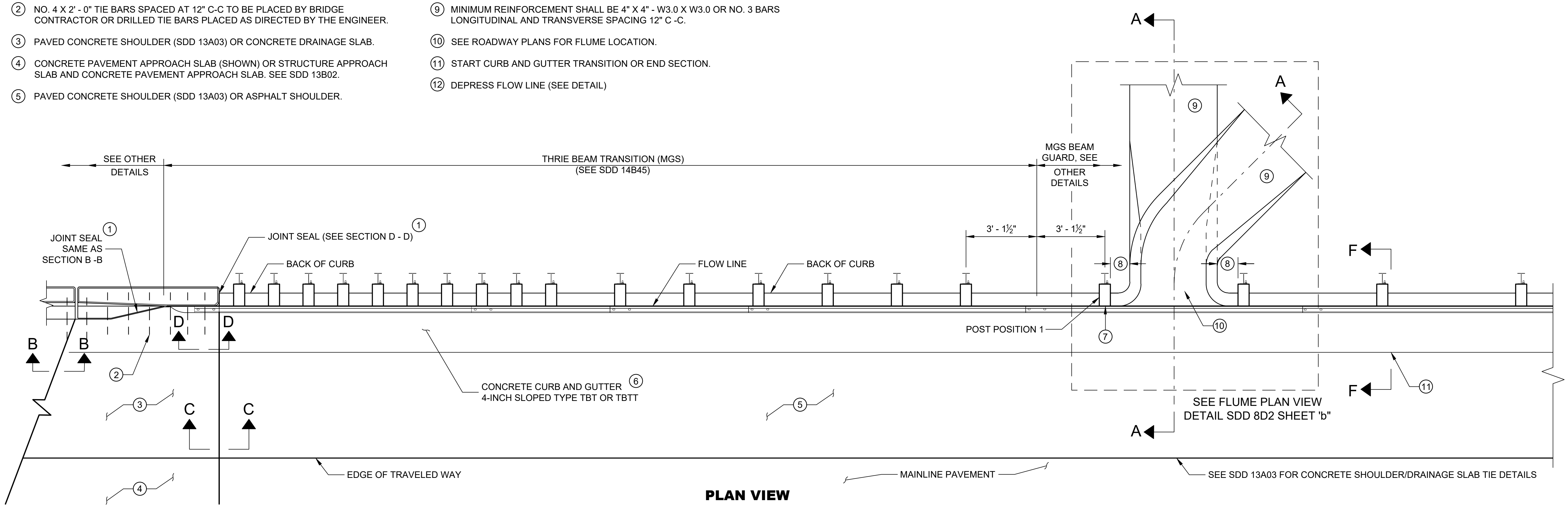
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED February 2025 DATE — /S/ Rodnery Taylor, ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

GENERAL NOTES

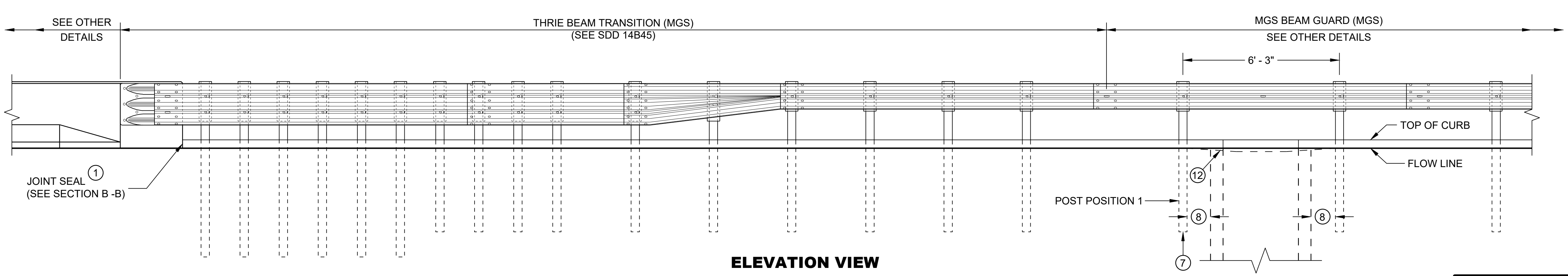
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

1. USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
2. NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
9. MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
10. SEE ROADWAY PLANS FOR FLUME LOCATION.
11. START CURB AND GUTTER TRANSITION OR END SECTION.
12. DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



ELEVATION VIEW

6

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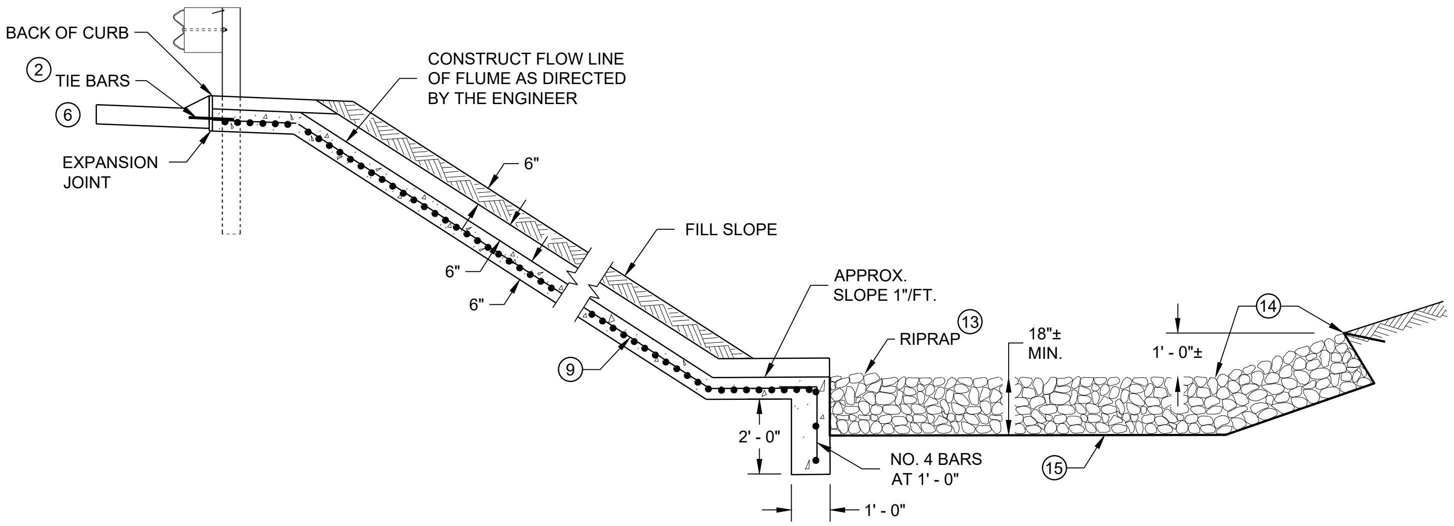
SDD 08D02 - 08a

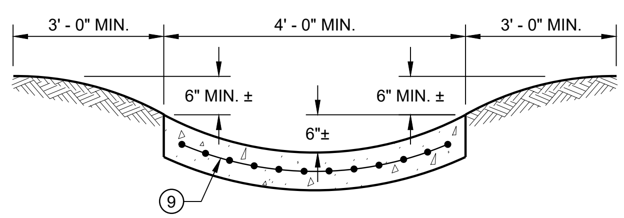
SDD 08D02 - 08a

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

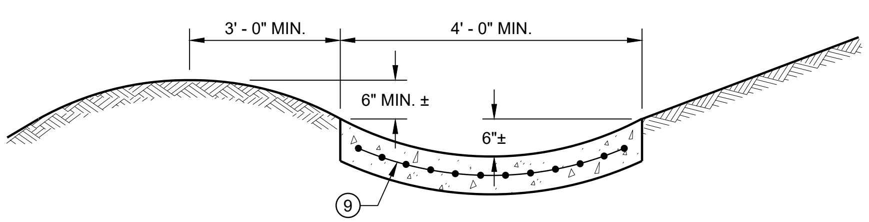
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



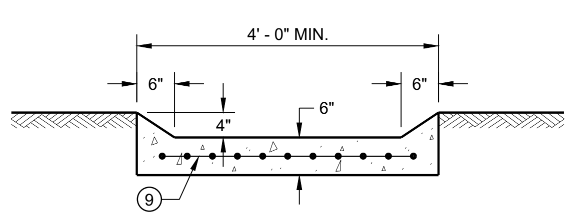
SECTION A - A



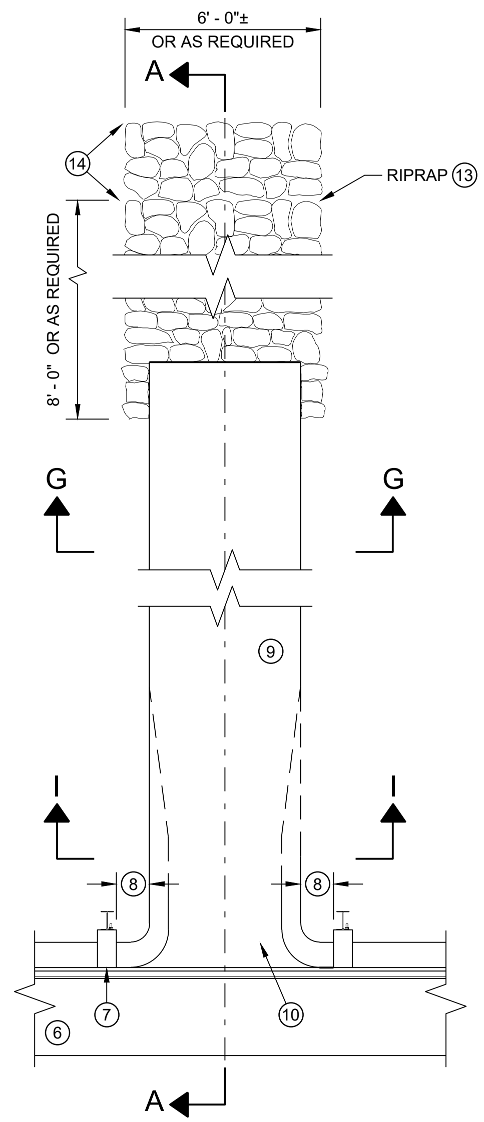
SECTION G - G



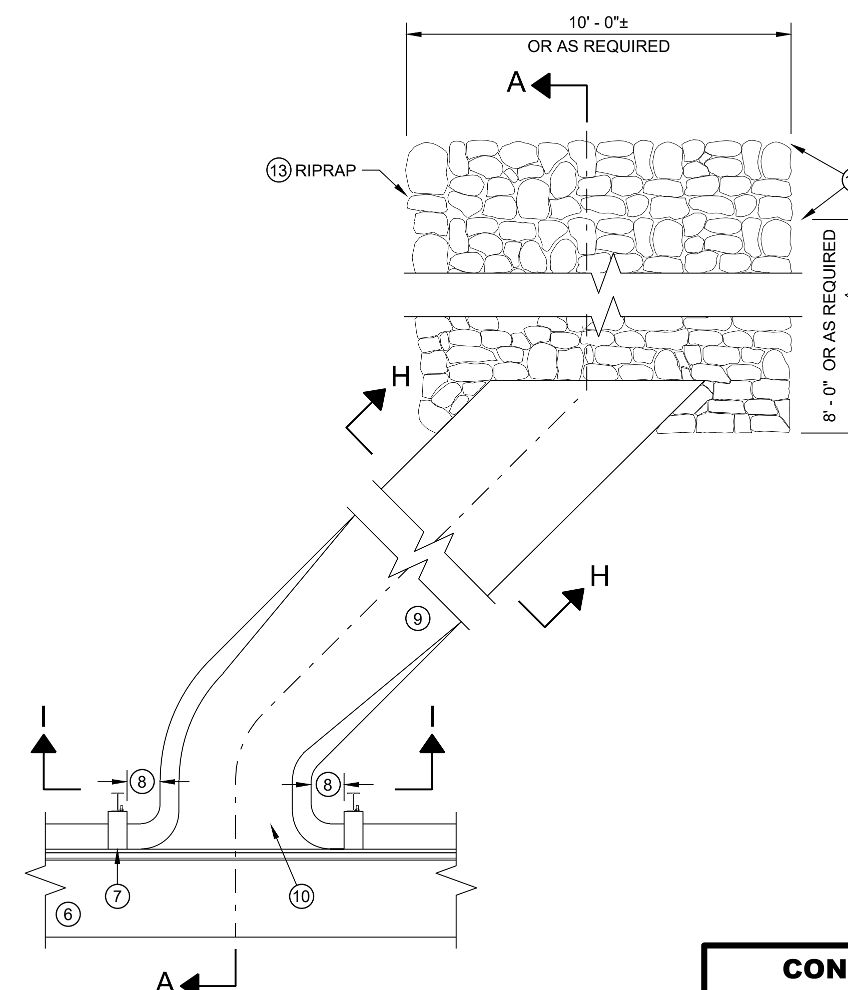
SECTION H - H



SECTION I - I



PLAN VIEW
PERPENDICULAR FLUME



PLAN VIEW
SKEWED FLUME

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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

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

(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.

(15) GEOTEXTILE TYPE HR.

6

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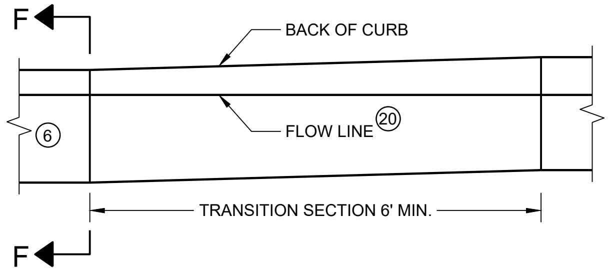
SDD 08D02 - 08b

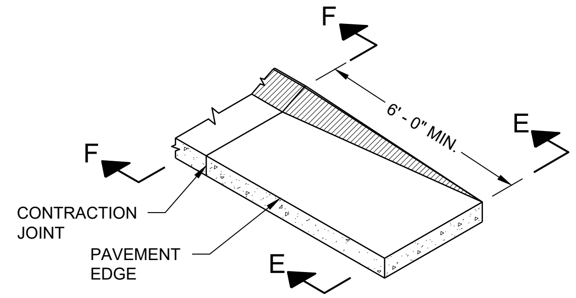
SDD 08D02 - 08b

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

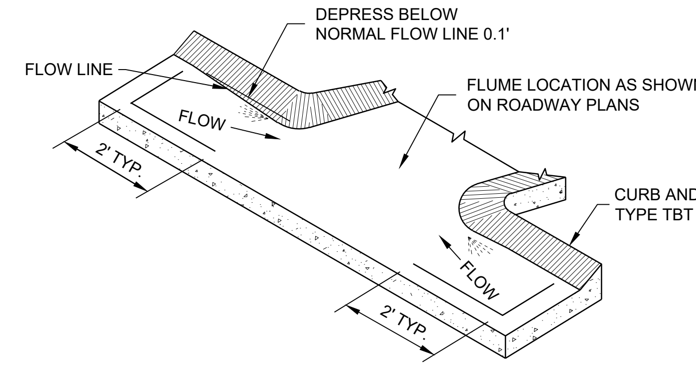
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT



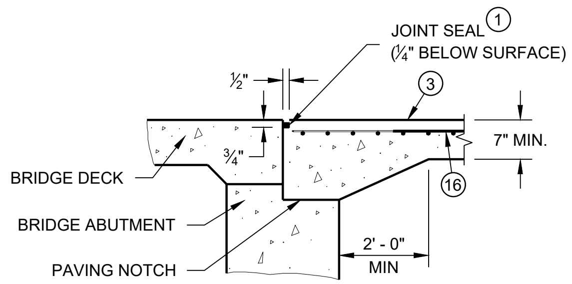
CURB AND GUTTER TRANSITION SECTION CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT



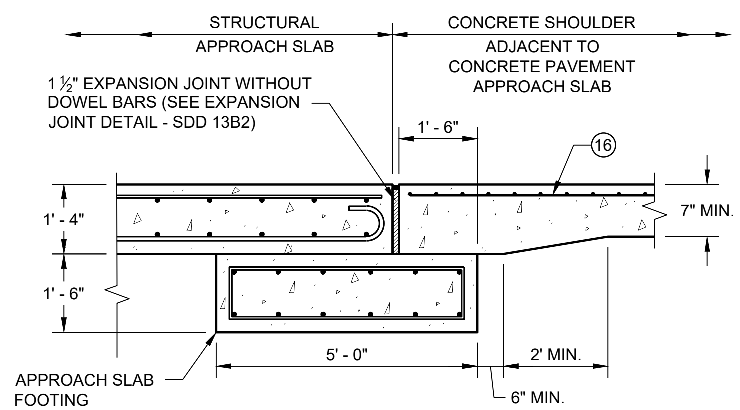
CURB AND GUTTER END SECTION CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT



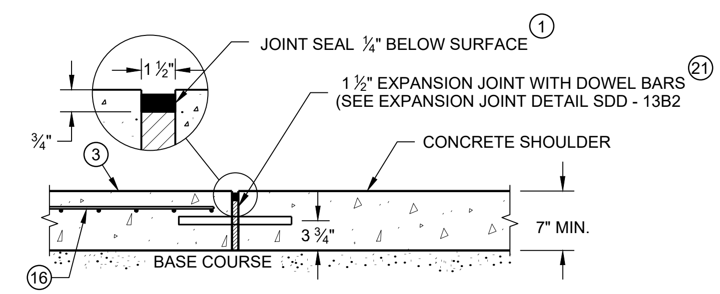
CURB AND GUTTER FLOW LINE DEPRESSION AT FLUMES CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT



SECTION B-B 4



SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS

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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

1. USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
2. NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
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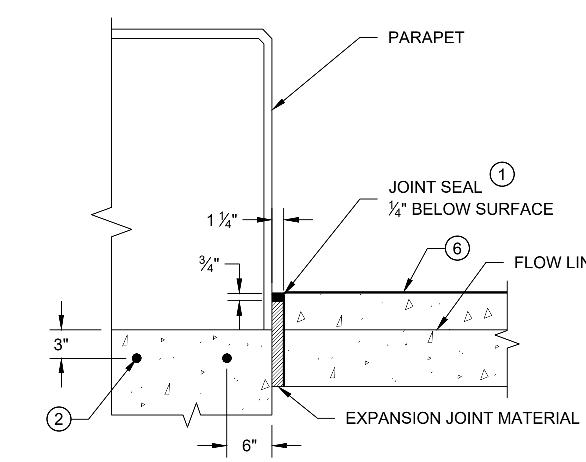
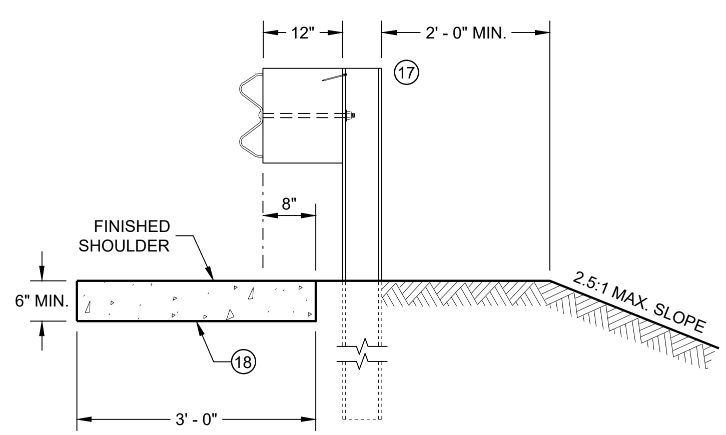
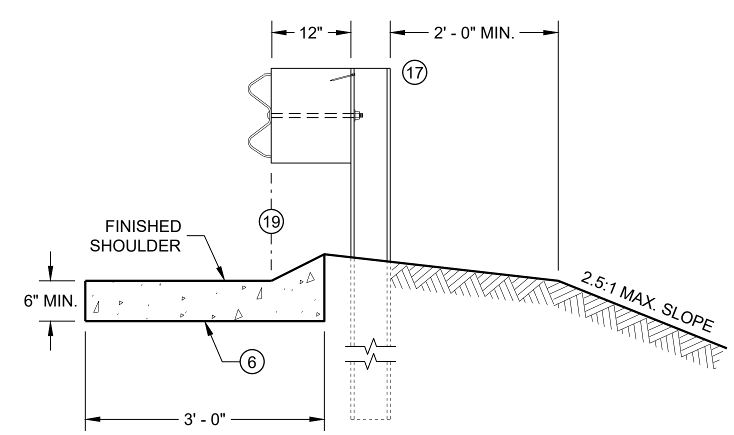
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
9. MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
10. SEE ROADWAY PLANS FOR FLUME LOCATION.
11. START CURB AND GUTTER TRANSITION OR END SECTION.
12. DEPRESS FLOW LINE (SEE DETAIL)
13. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
14. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
15. GEOTEXTILE TYPE HR.
16. MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.
17. MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.
18. MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.
19. ALIGN FACE OF POST BLOCK WITH FLOW LINE.
20. MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.
21. DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



SECTION D - D



SECTION E - E



SECTION F - F

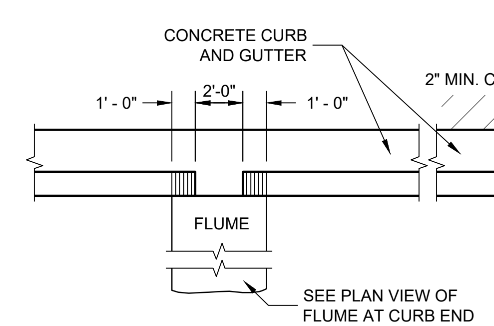
CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

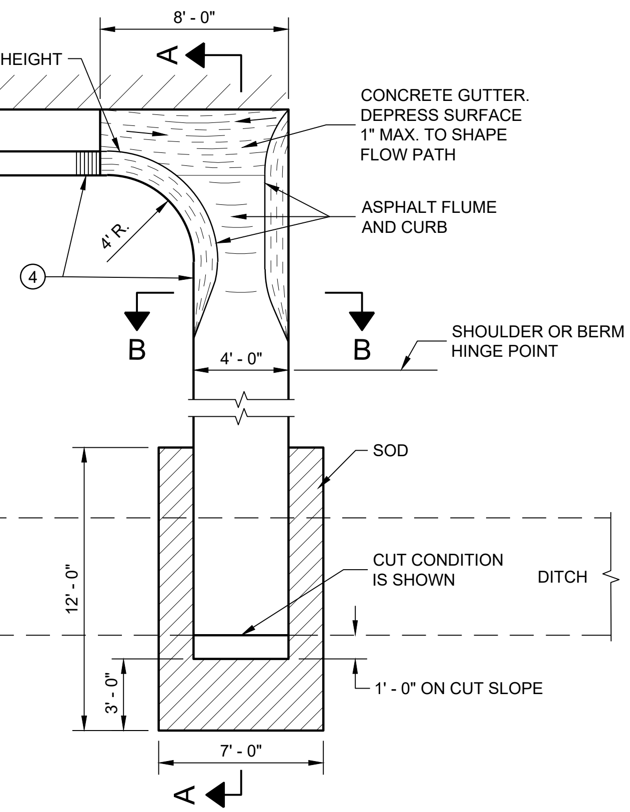
APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME



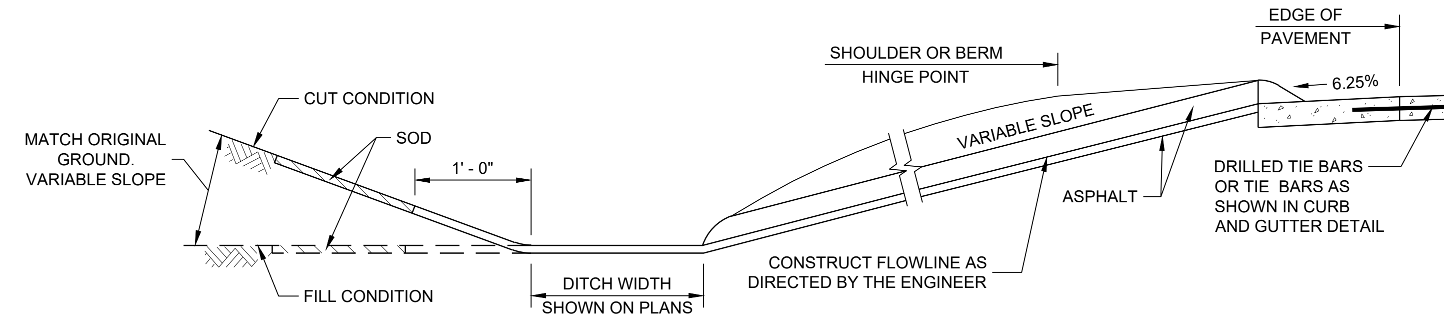
PLAN VIEW
FLUME AT CURB END

GENERAL NOTES

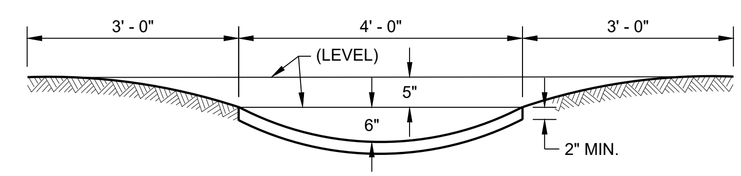
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

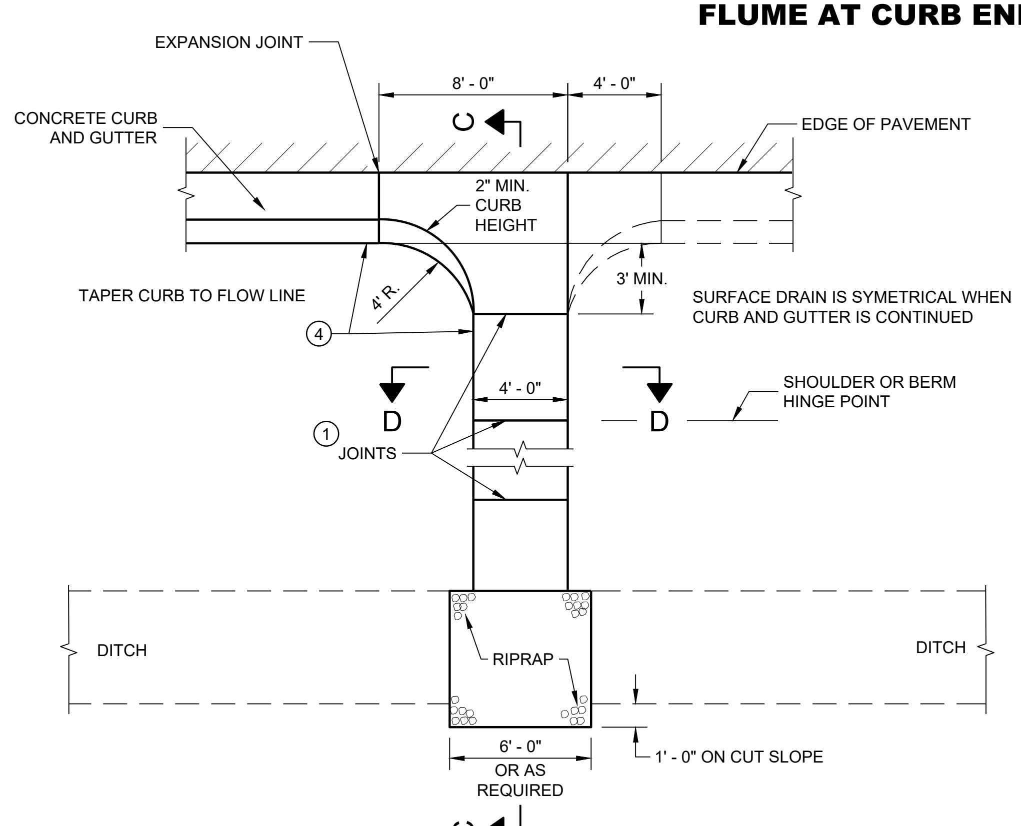
1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. 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.



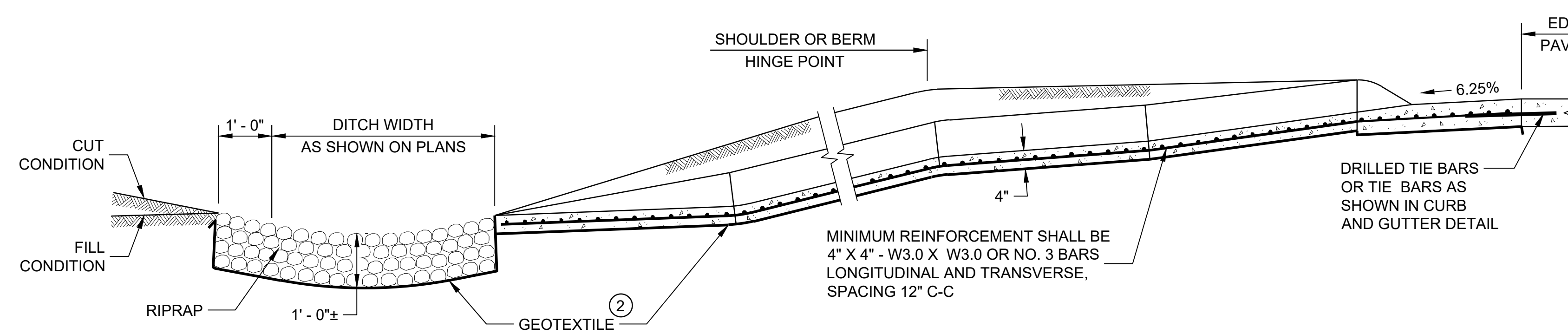
SECTION A - A



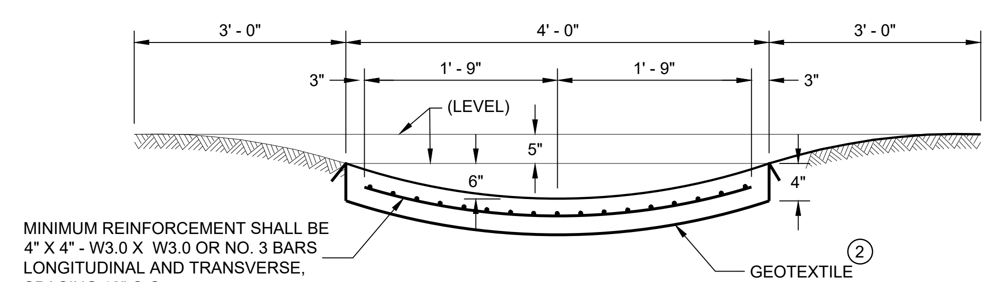
SECTION B - B



PLAN VIEW
CONCRETE SURFACE DRAIN



SECTION C - C

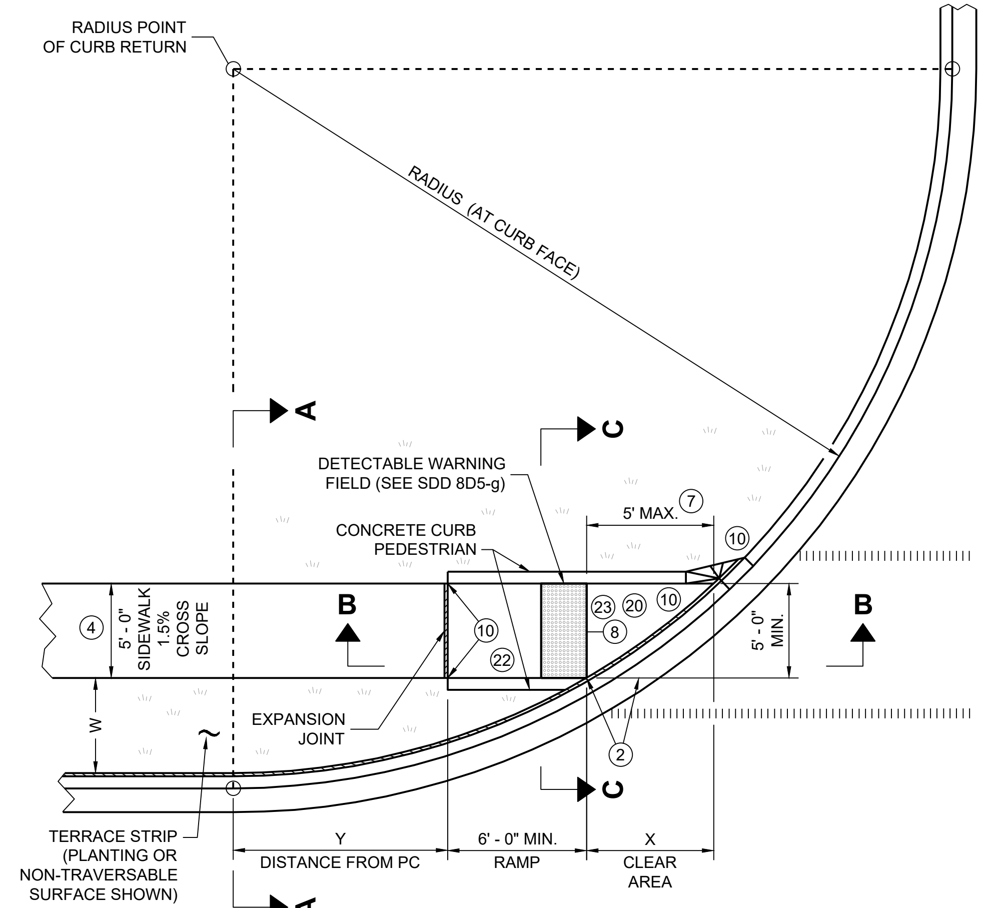


SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET			4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET									4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET															4' - 10 ¾"	19' - 8 ¼"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

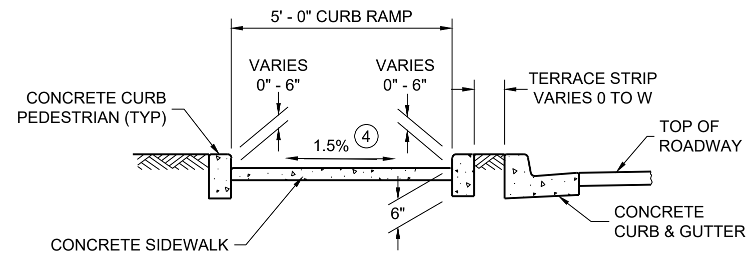
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

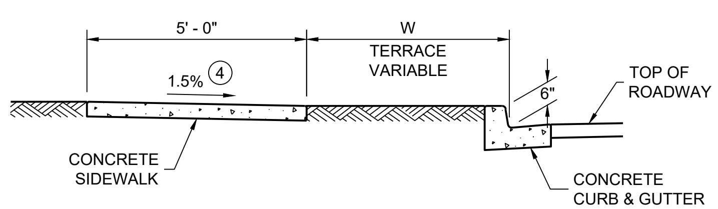
(20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.

(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

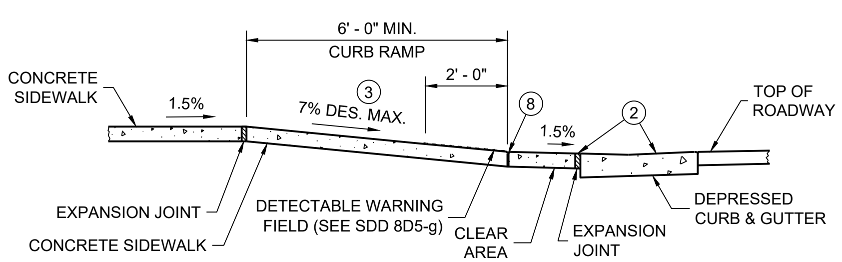
(23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



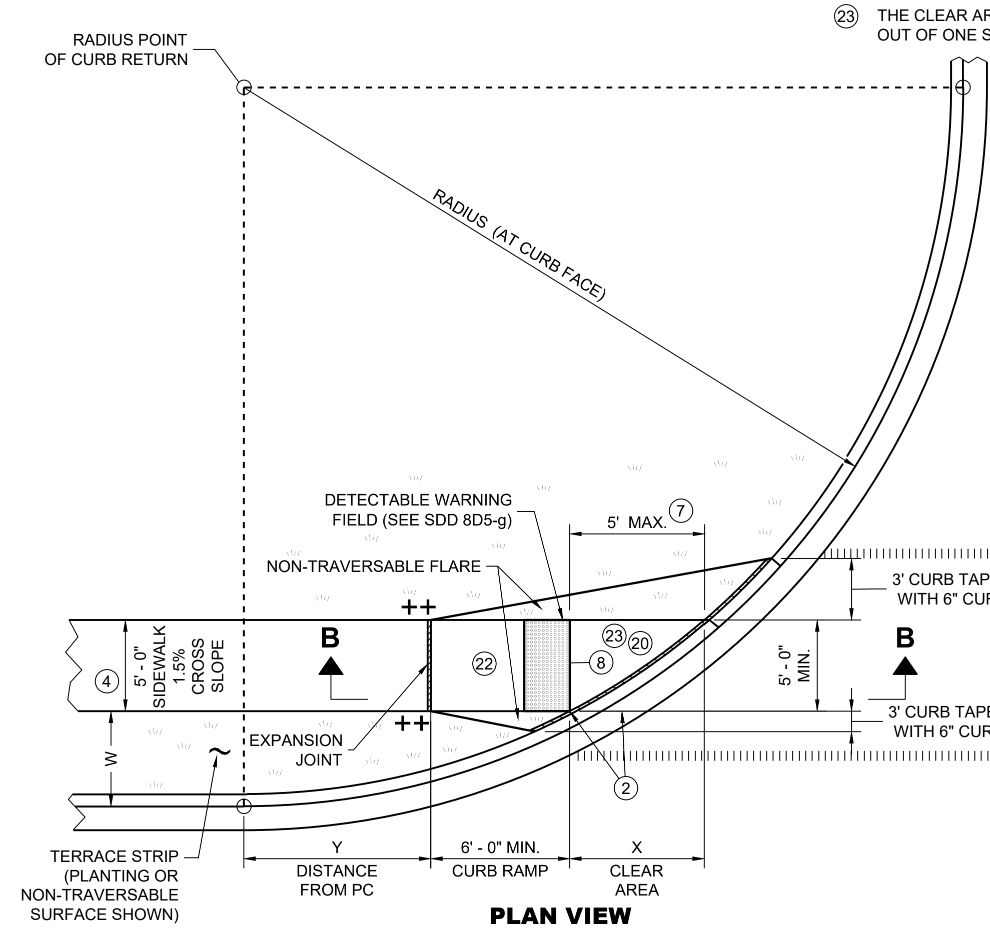
SECTION C - C FOR TYPE 4B



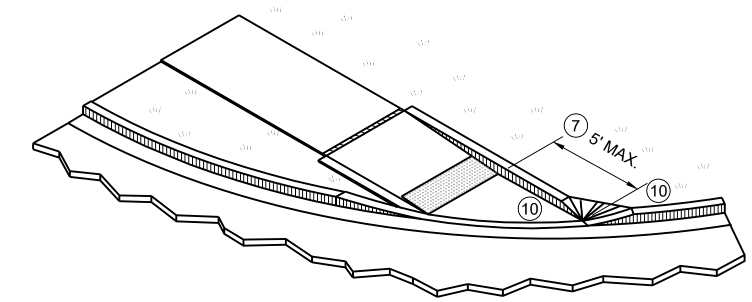
SECTION A - A FOR TYPE 4B



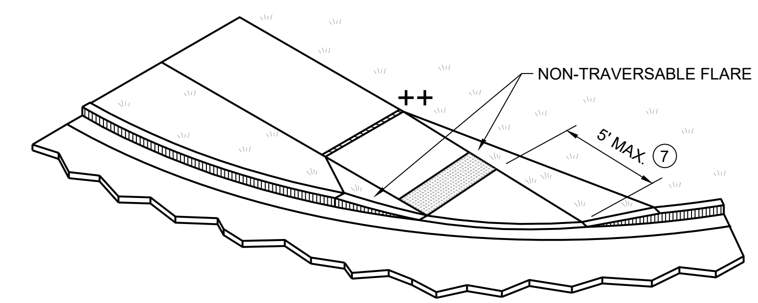
SECTION B - B FOR TYPE 4B AND TYPE 4B1



PLAN VIEW
CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

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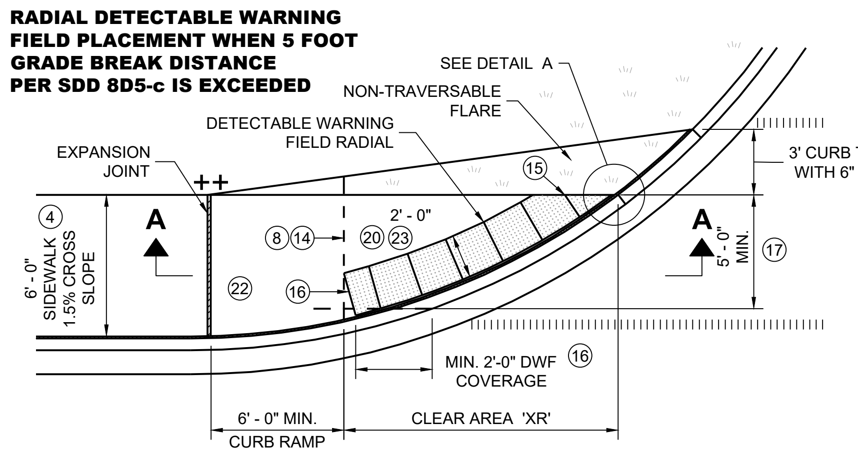
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05-22d

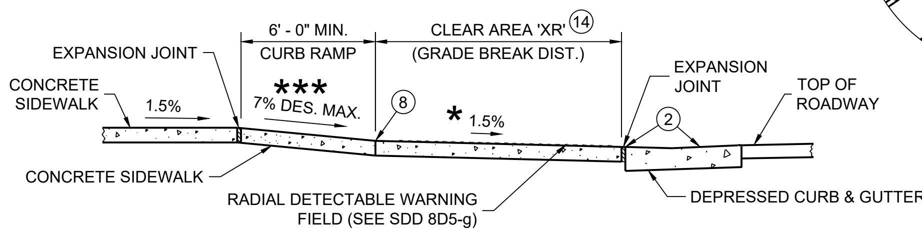
SDD 08D05-22d



PLAN VIEW

CURB RAMP TYPE 4A1

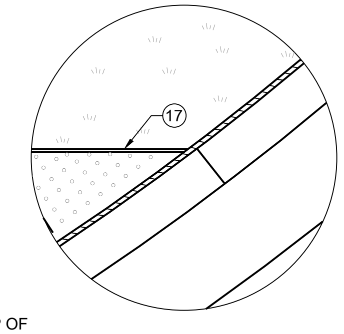
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



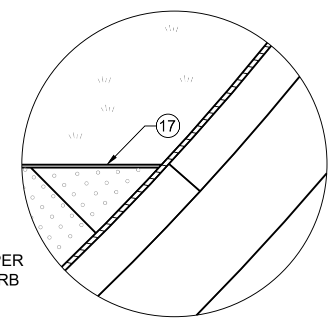
SECTION A - A FOR TYPE 4A1

LEGEND

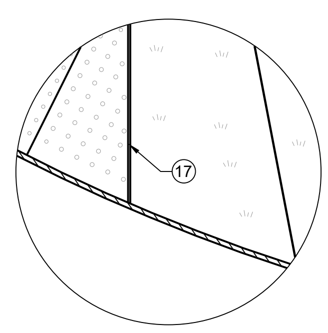
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS
- *** MAXIMUM 8.3%
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



DETAIL A



DETAIL B



DETAIL C

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

2 GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

3 MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

6 PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.

8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

16 USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

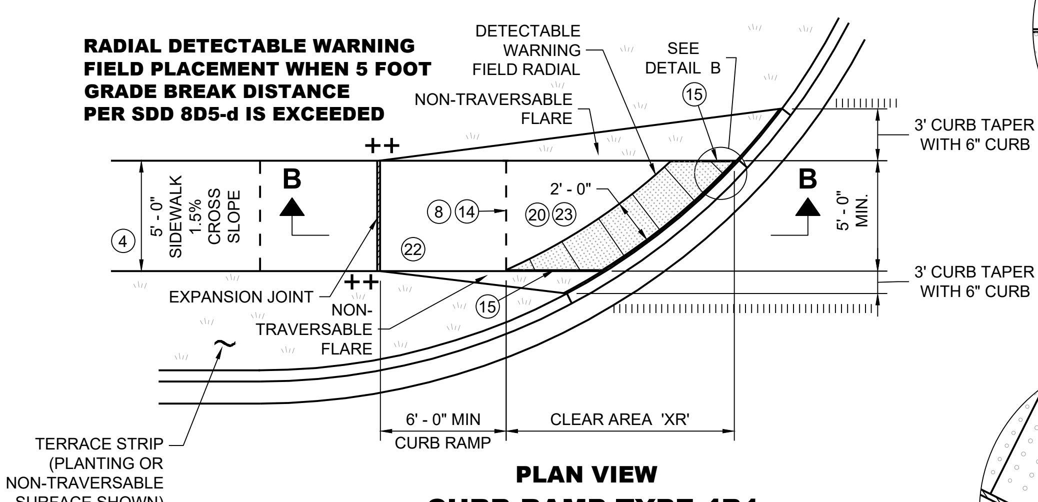
17 A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

19 WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.

20 MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.

22 THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

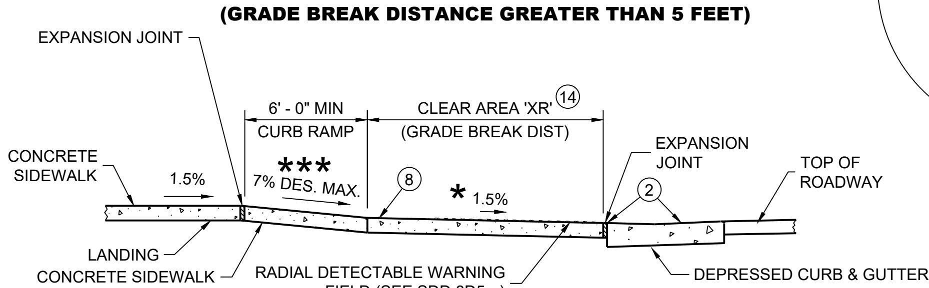
23 THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



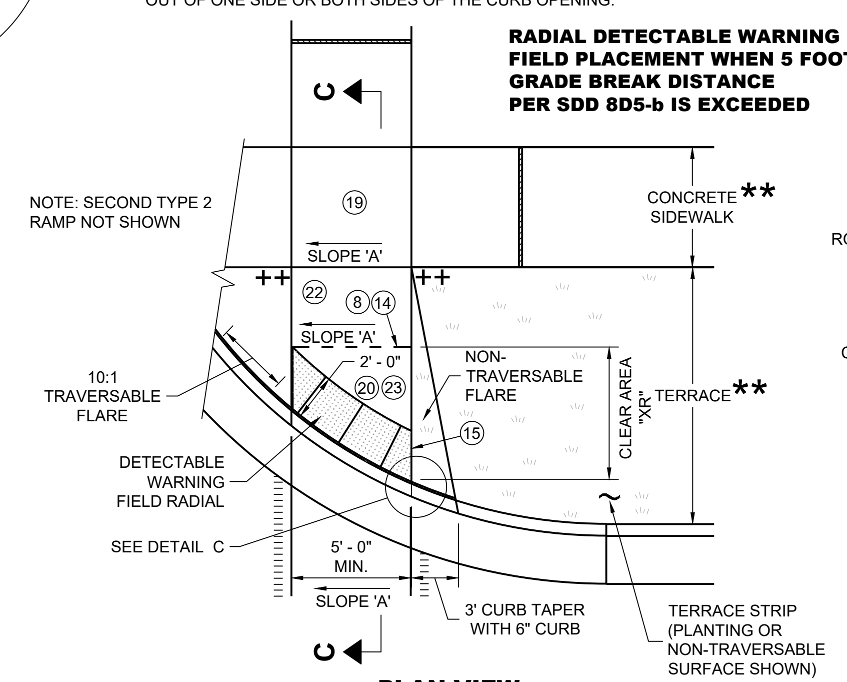
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



SECTION B - B FOR TYPE 4B1

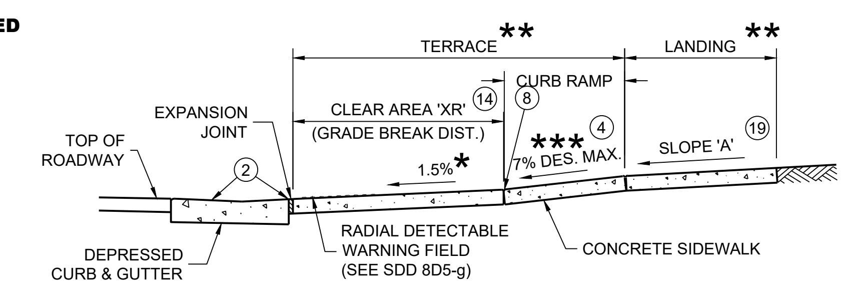


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)



SECTION C - C FOR TYPE 2

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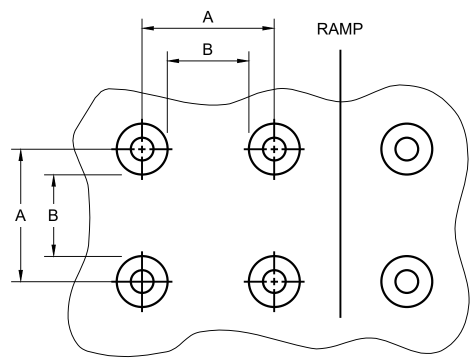
CURB RAMPS
RADIAL DETECTABLE WARNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05-22f

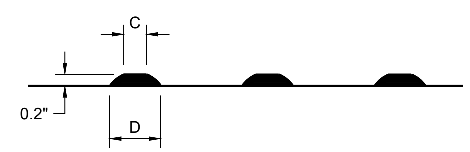
SDD 08D05-22f



PLAN VIEW

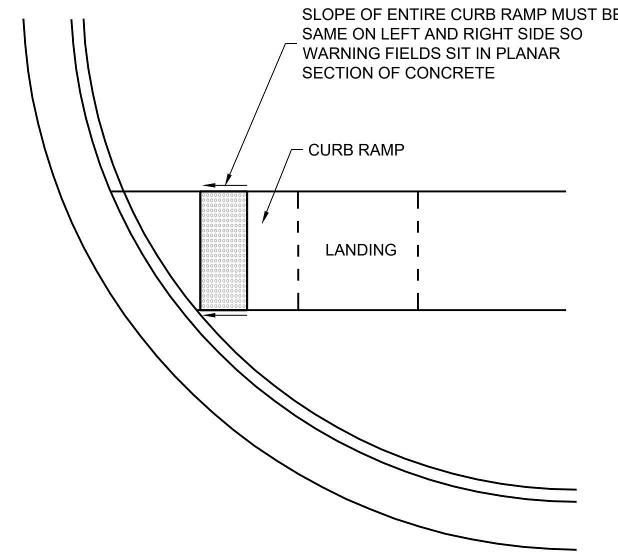
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

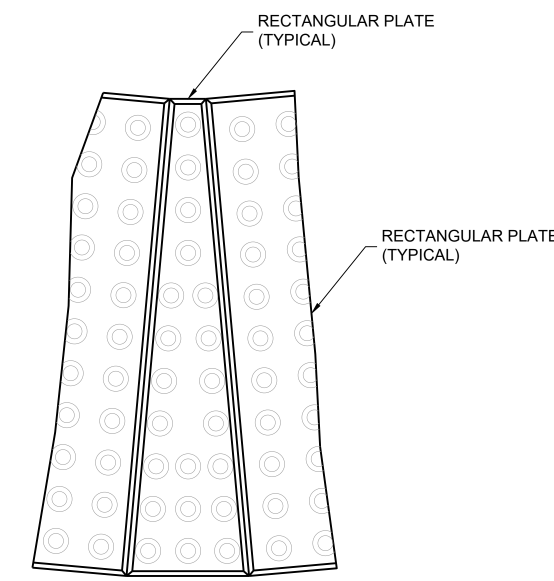
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

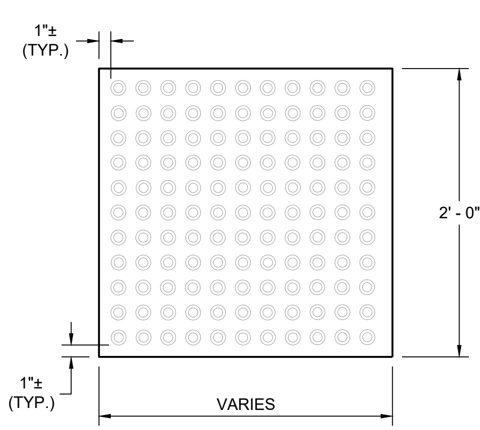
DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

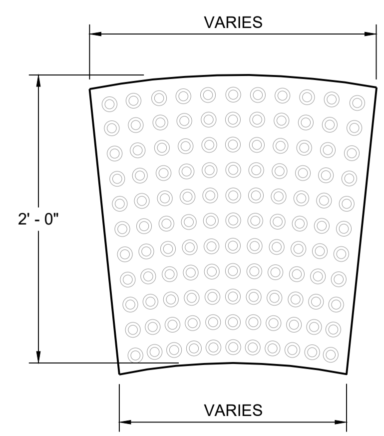


PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

6

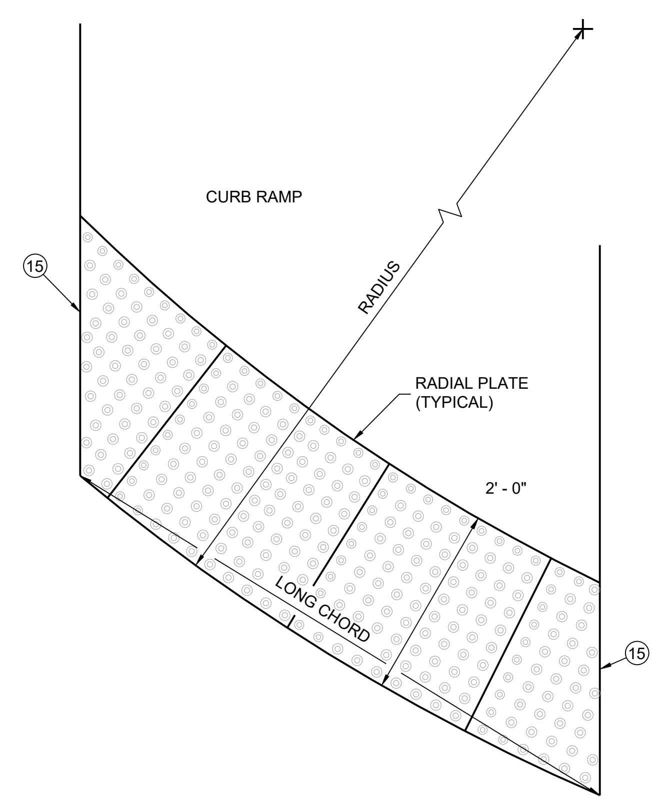


RECTANGULAR PLATES



RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



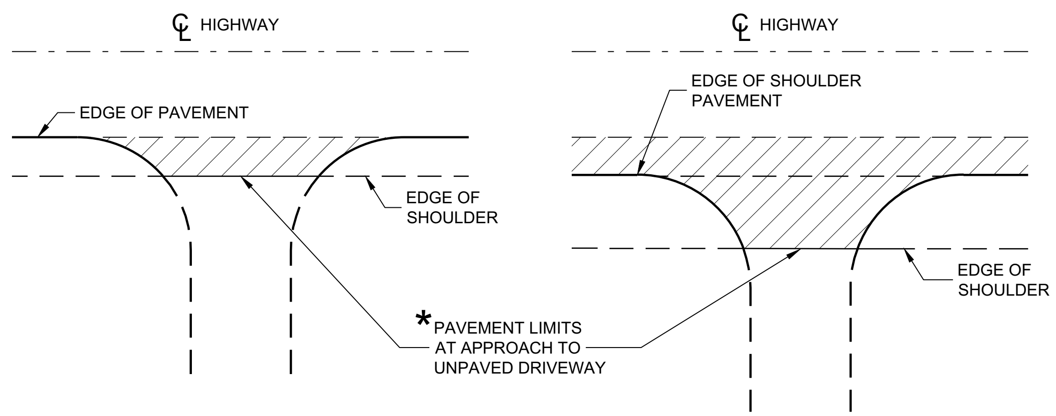
PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES

6

SDD 08D05-22g

CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED February 2025 DATE /S/ Rodney Taylor <position>
FHWA

SDD 08D05-22g

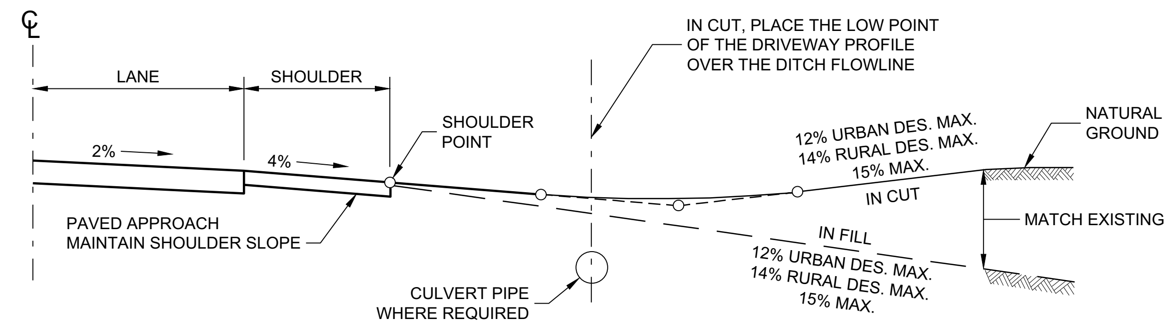


* WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

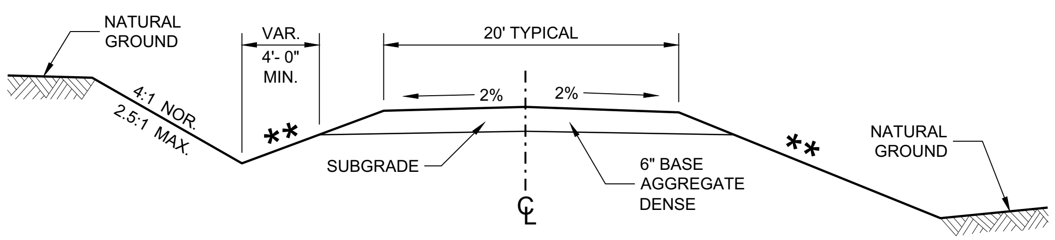
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

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



TYPICAL DRIVEWAY PROFILES

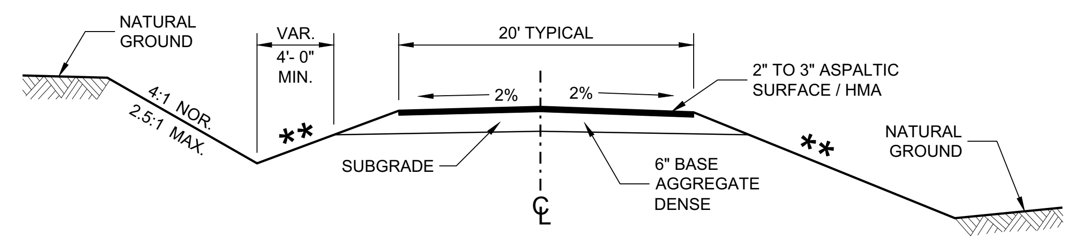


IN CUT **IN FILL**

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



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

6

DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

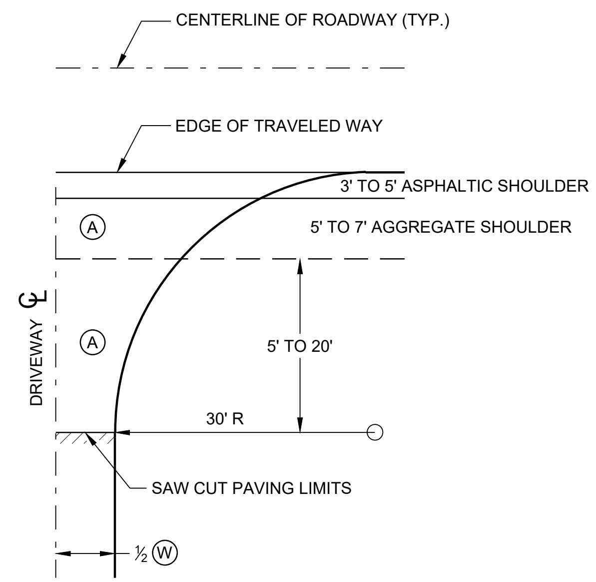
APPROVED
December 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVE UNIT SUPERVISOR 112
FHWA

SDD 08D21 - 01

SDD 08D21 - 01

GENERAL NOTES

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

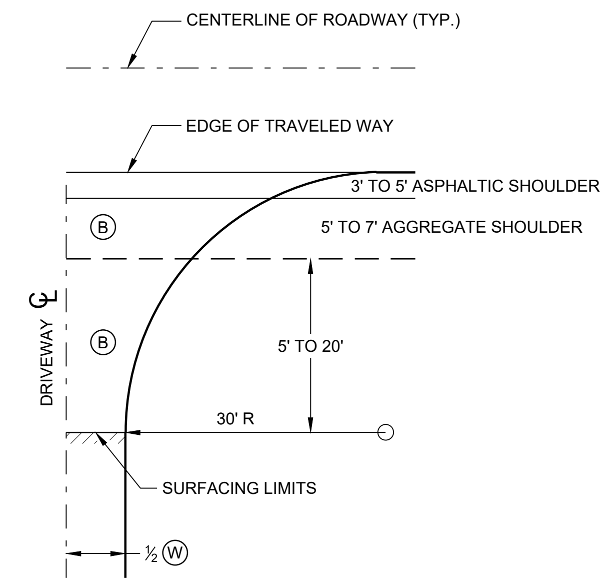


PLAN VIEW
HALF SECTION

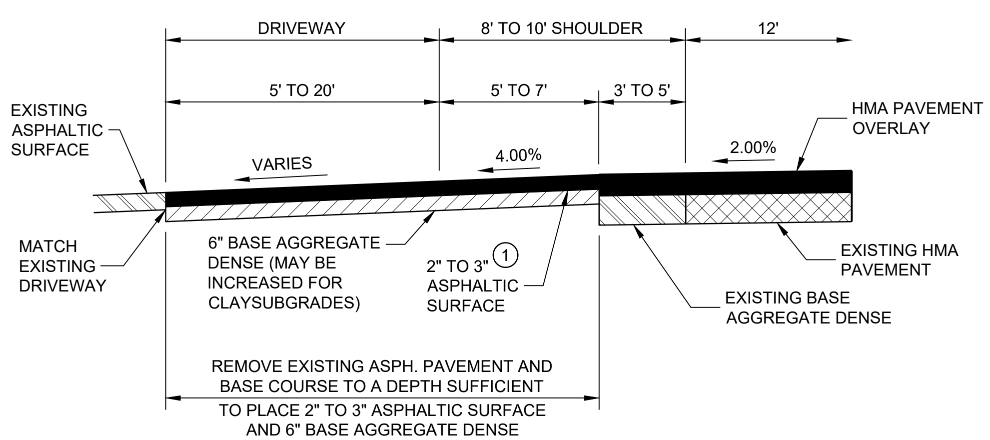
A : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)

B : PAID FOR AS BASE AGGREGATE DENSE 1 ¼" (TON)

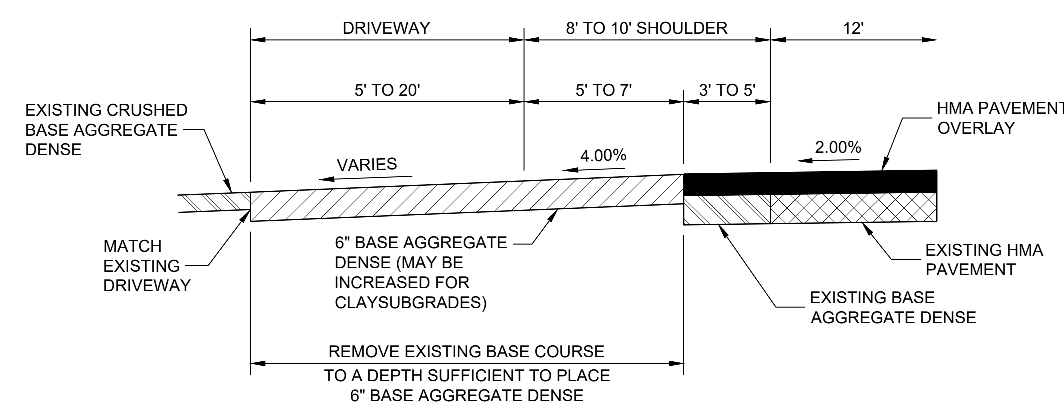
W : DRIVEWAY WIDTH 16' MIN. - 24' MAX.



PLAN VIEW
HALF SECTION



PROFILE VIEW
RURAL ENTRANCE WITH ASPHALTIC SURFACE
RESURFACING PROJECTS

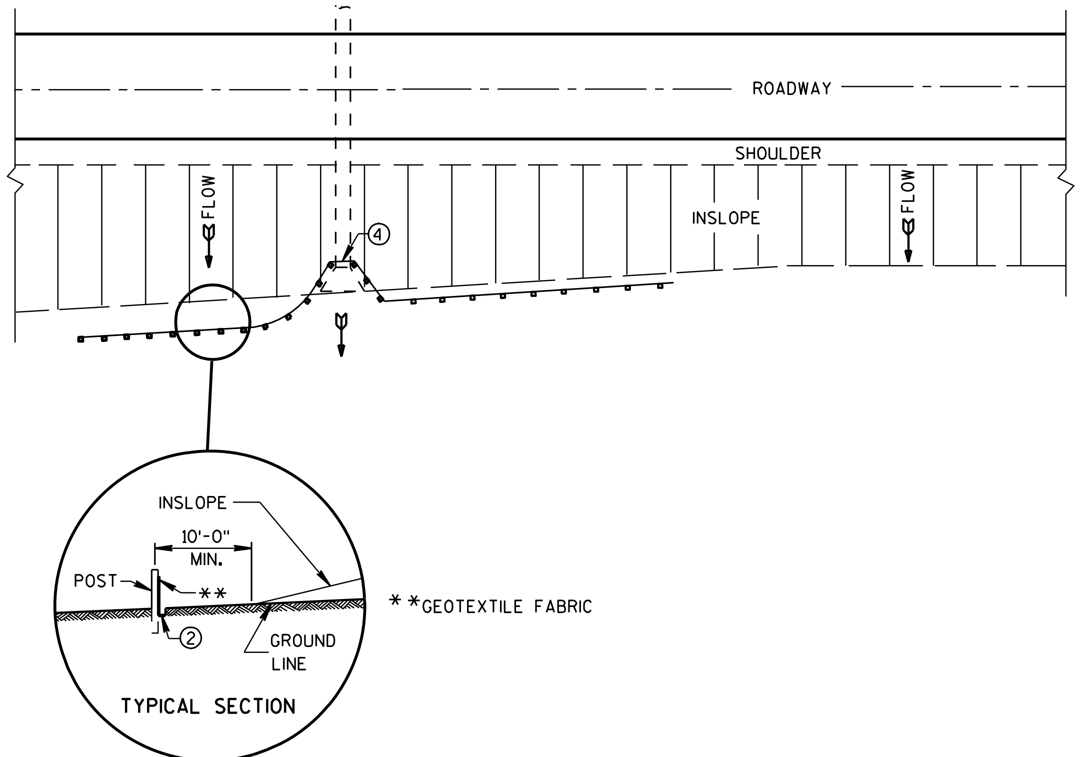


PROFILE VIEW
RURAL ENTRANCE WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB AND GUTTER RESURFACING PROJECTS RURAL

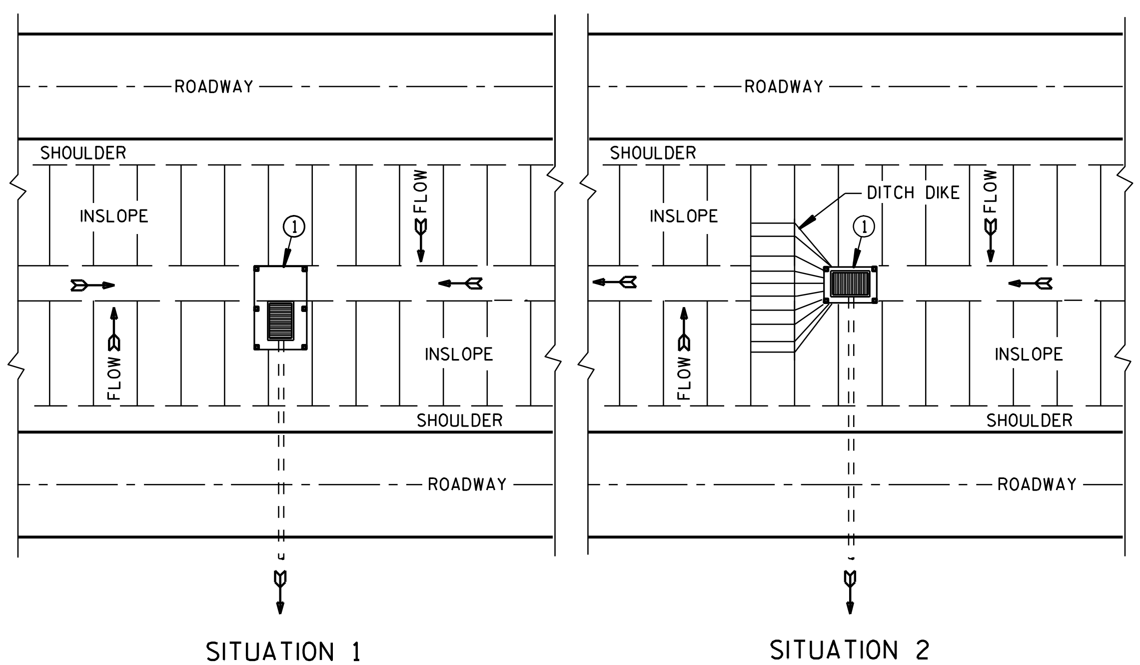
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



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.

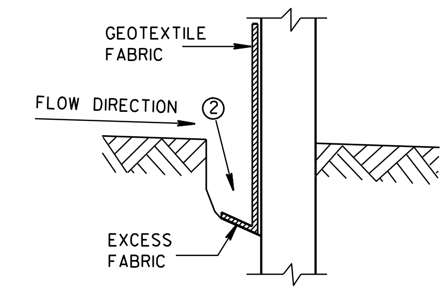
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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 $1\frac{1}{8}$" X $1\frac{1}{8}$" OF OAK OR HICKORY.

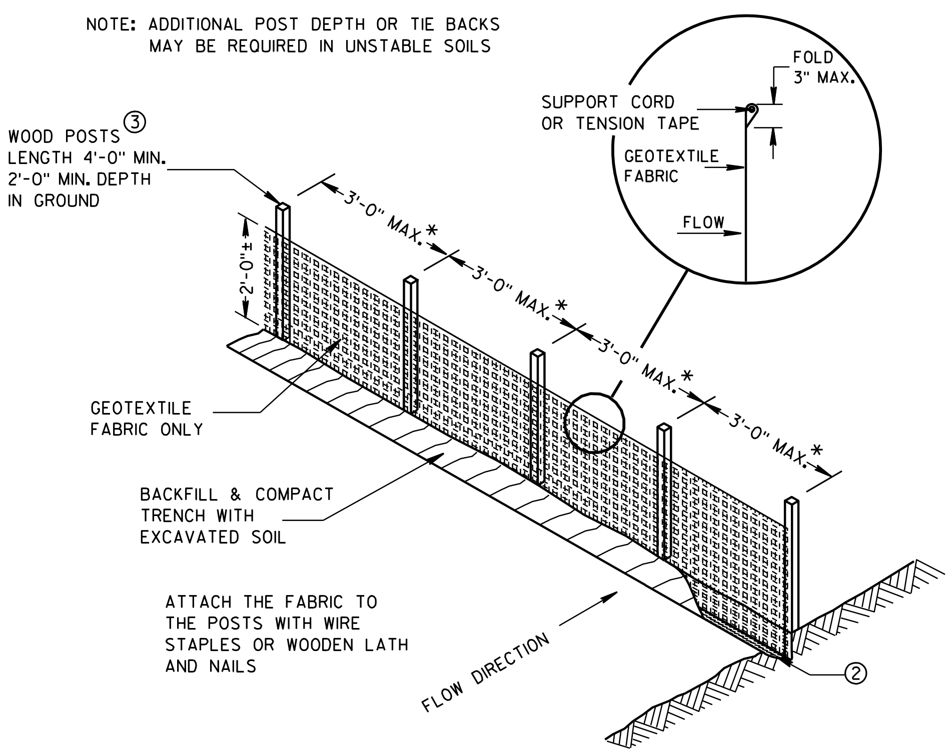
④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

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.



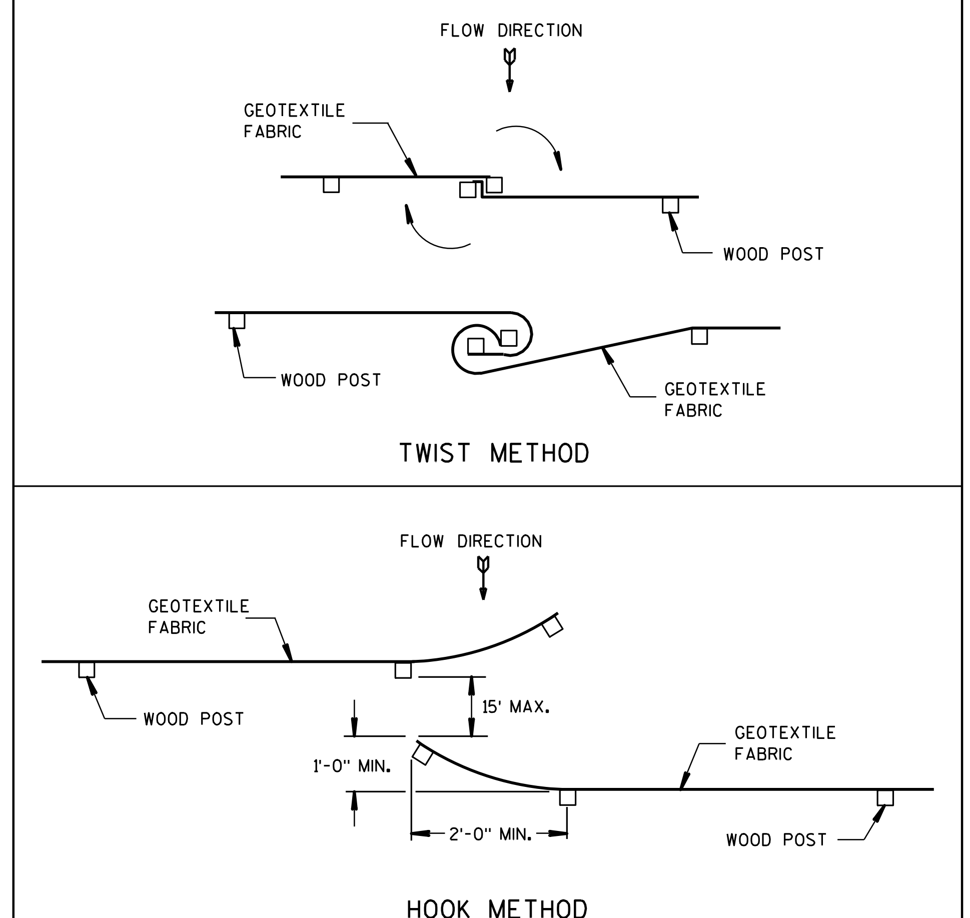
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

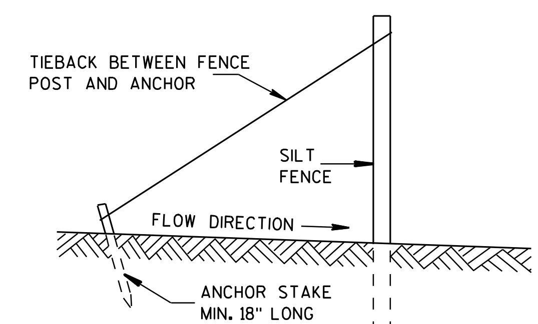


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤



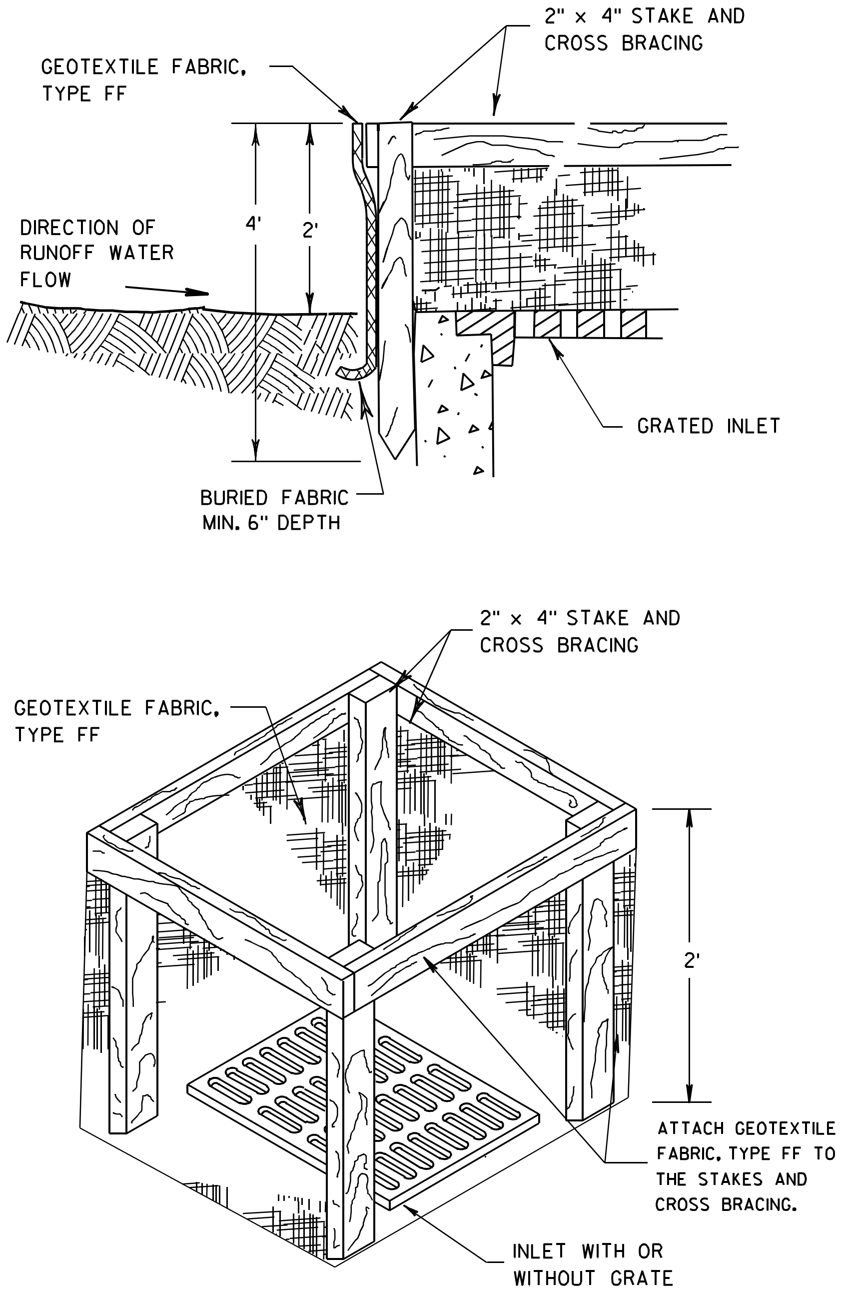
SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

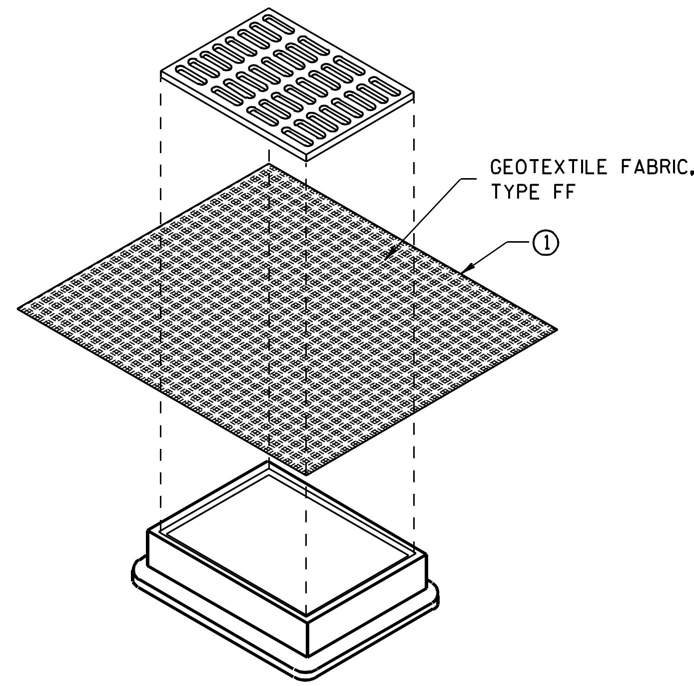
SILT FENCE
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 4-29-05 DATE   /S/ Beth Cann... CHIEF ROADWAY DEVELOP... ENGINEER FHWA

6

S.D.D. 8 E 9-6

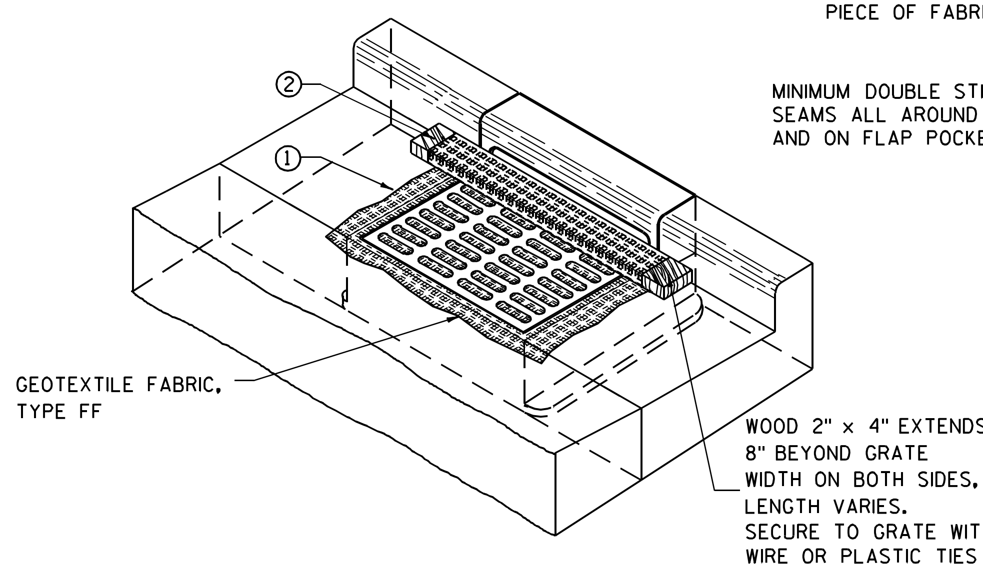


INLET PROTECTION, TYPE A

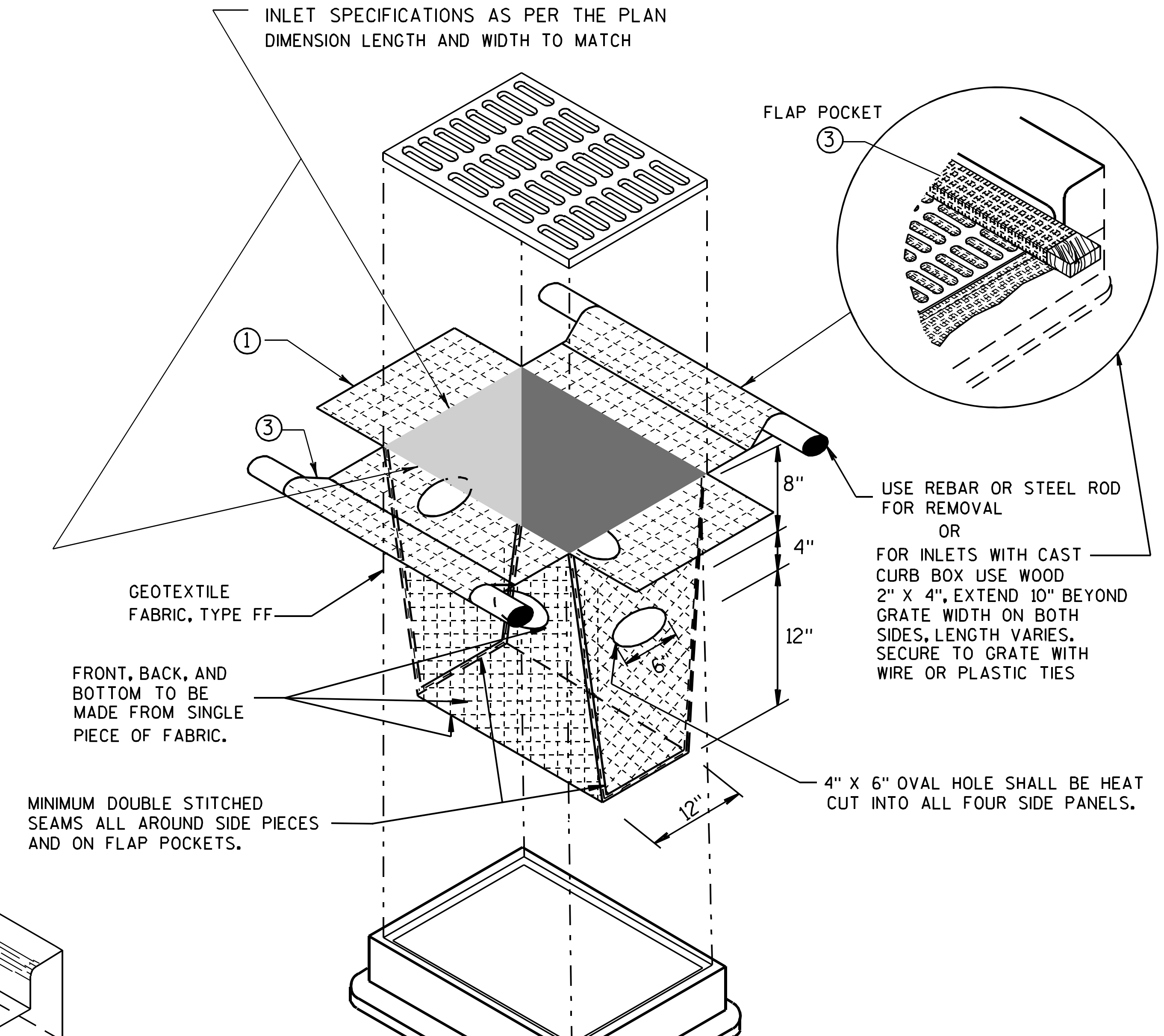


INLET PROTECTION, TYPE B (WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

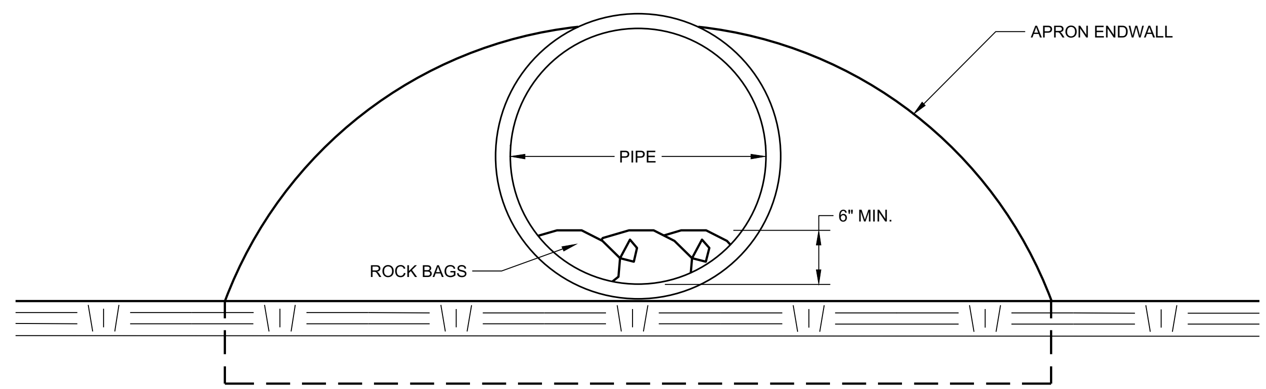
TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

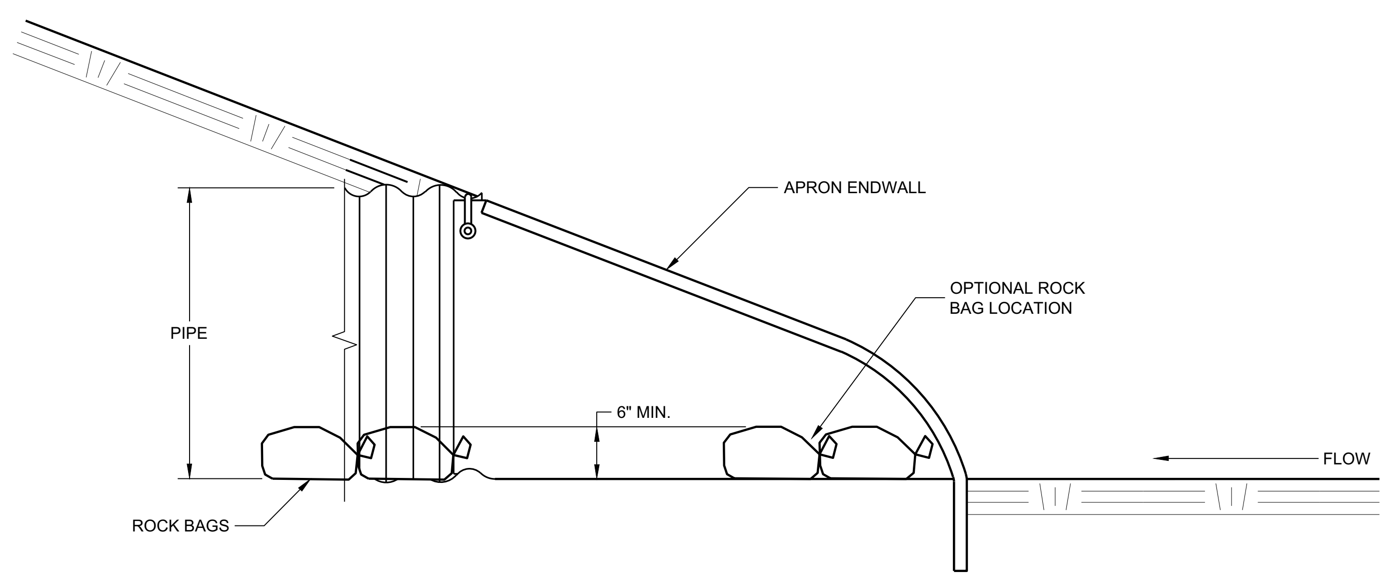
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION TYPE A, B, C, AND D
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 10/16/02 /S/ Beth Cann DATE CHIEF ROADWAY DEVELOPM 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 DATE /S/ Daniel Schave EROSION CONTROL ENGI 116 FHWA

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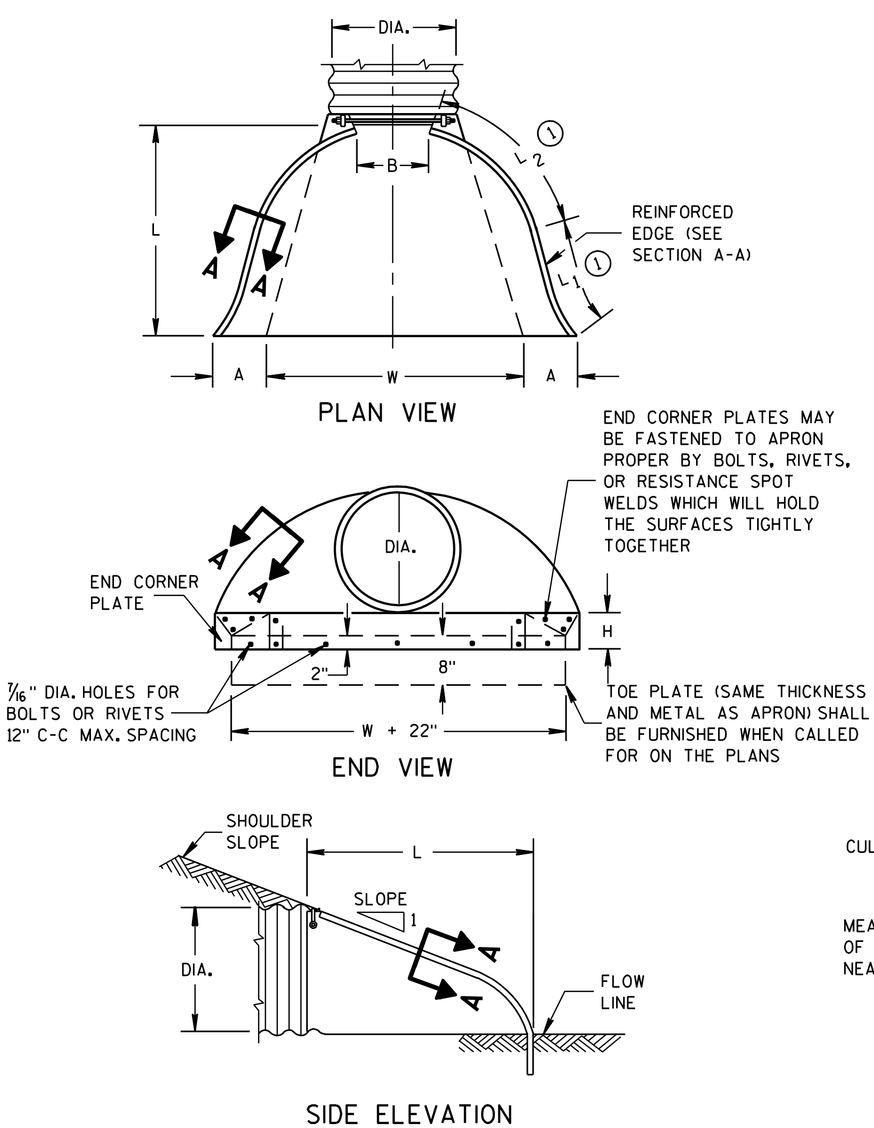
SDD 08E15 - 01

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L_1 ①	L_2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

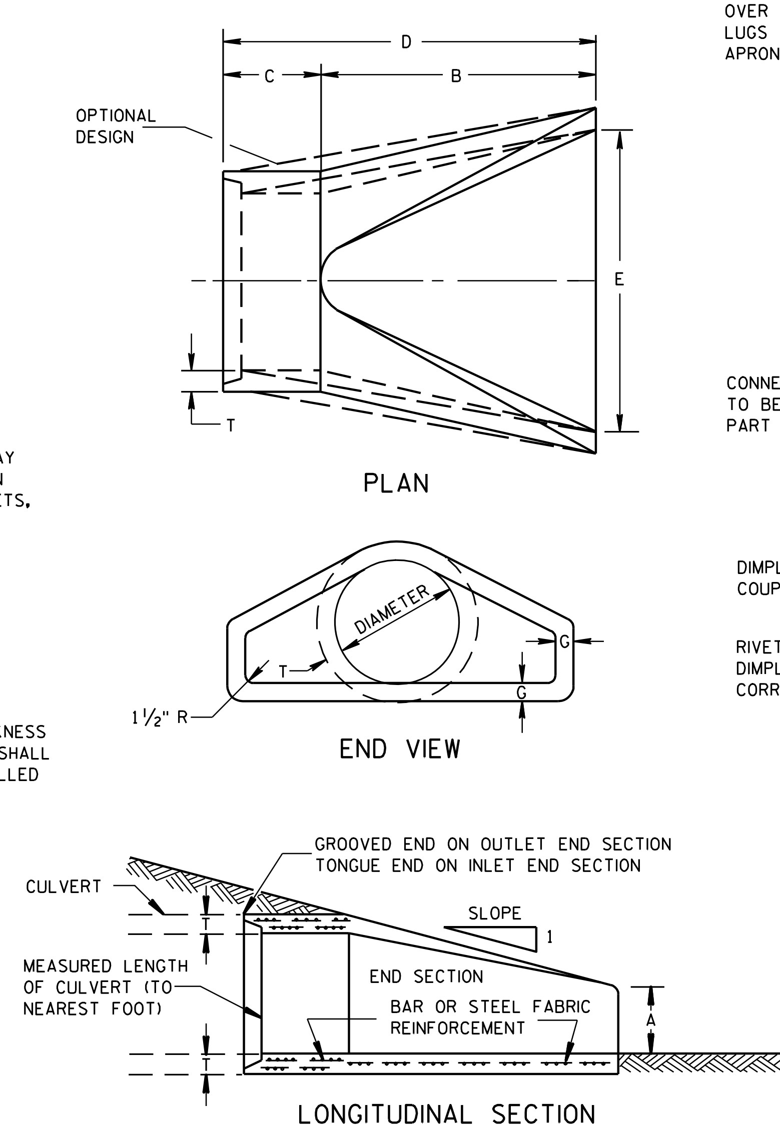
× EXCEPT CENTER PANEL
SEE GENERAL NOTES

REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	*33 1/4-35**	*98 1/4-100**	90	5 1/2	2 2/5 to 1
60	6	*30-35**	60	39	99	96	5	2 to 1
66	6 1/2	*24-30**	*72-78**	*21-27**	99	102	5 1/2	2 to 1
72	7	*24-36**	78	21	99	108	6	2 to 1
78	7 1/2	*24-36**	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

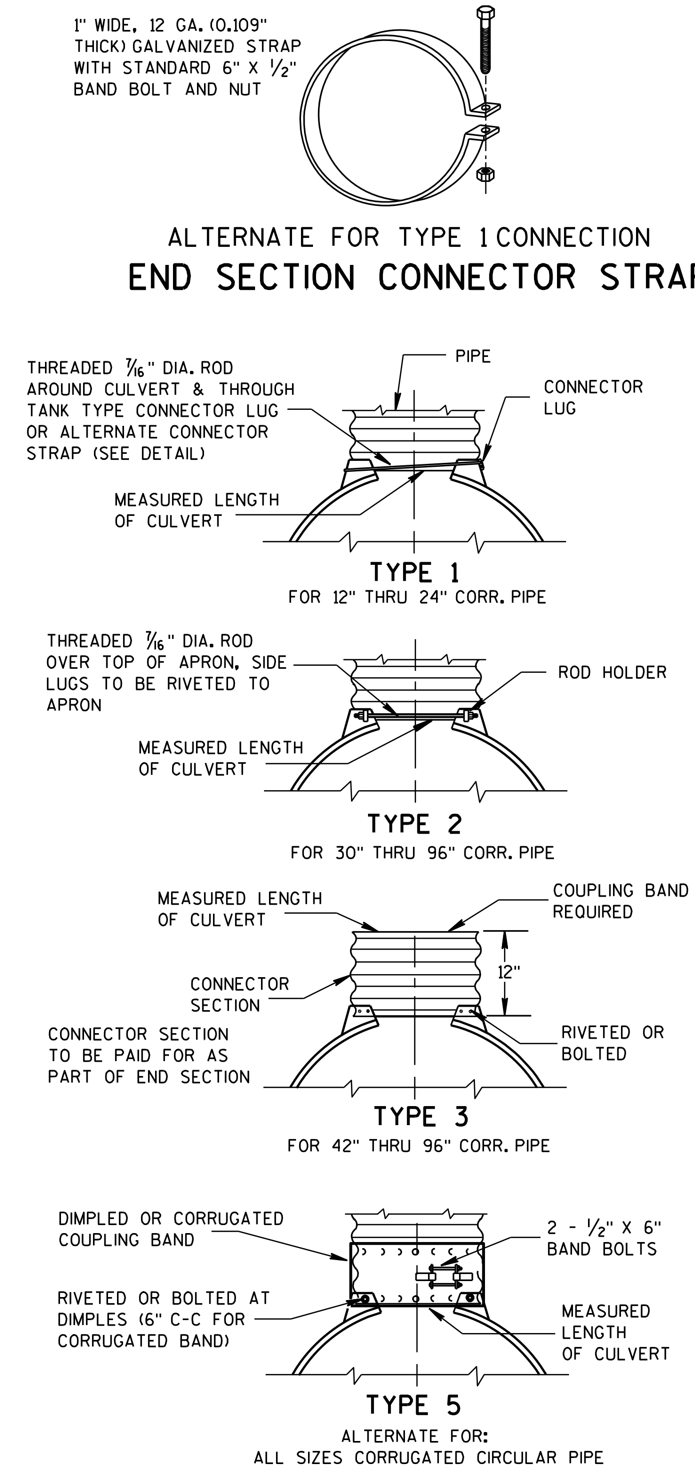
*MINIMUM
**MAXIMUM



METAL ENDWALLS



CONCRETE ENDWALLS



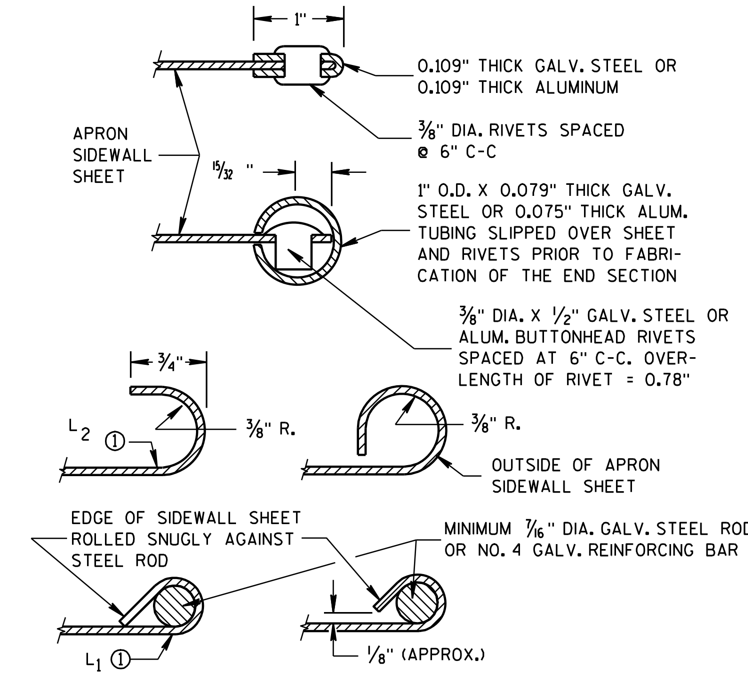
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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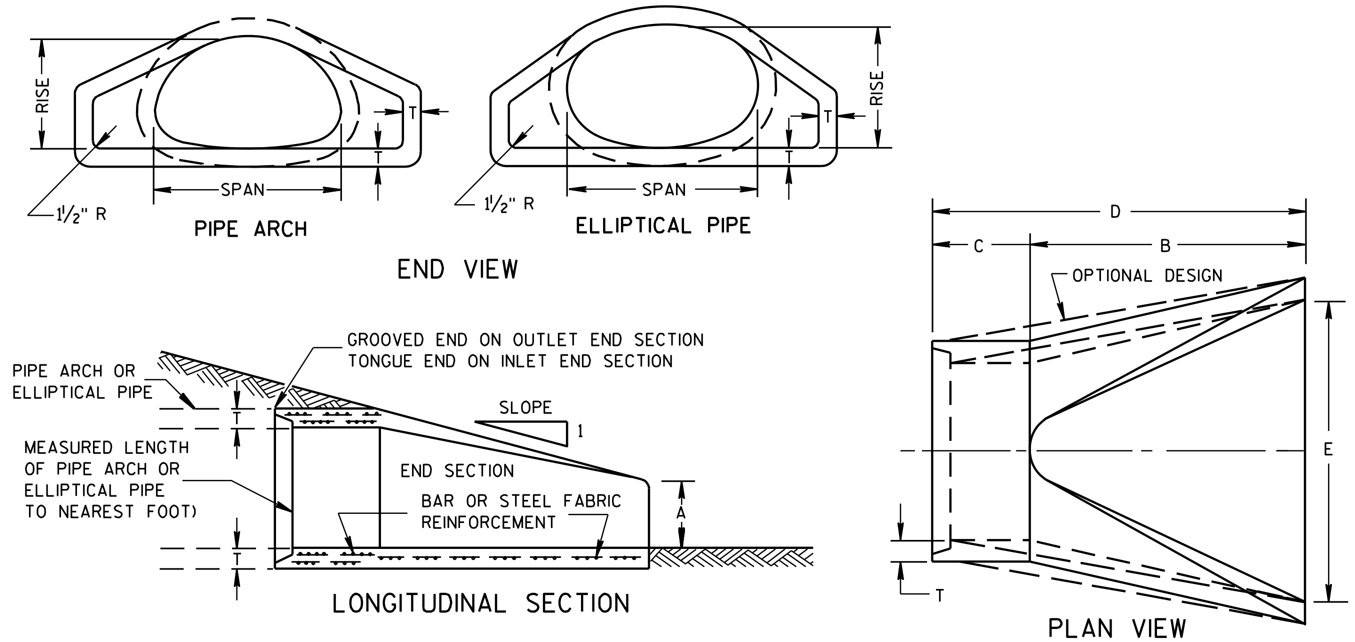
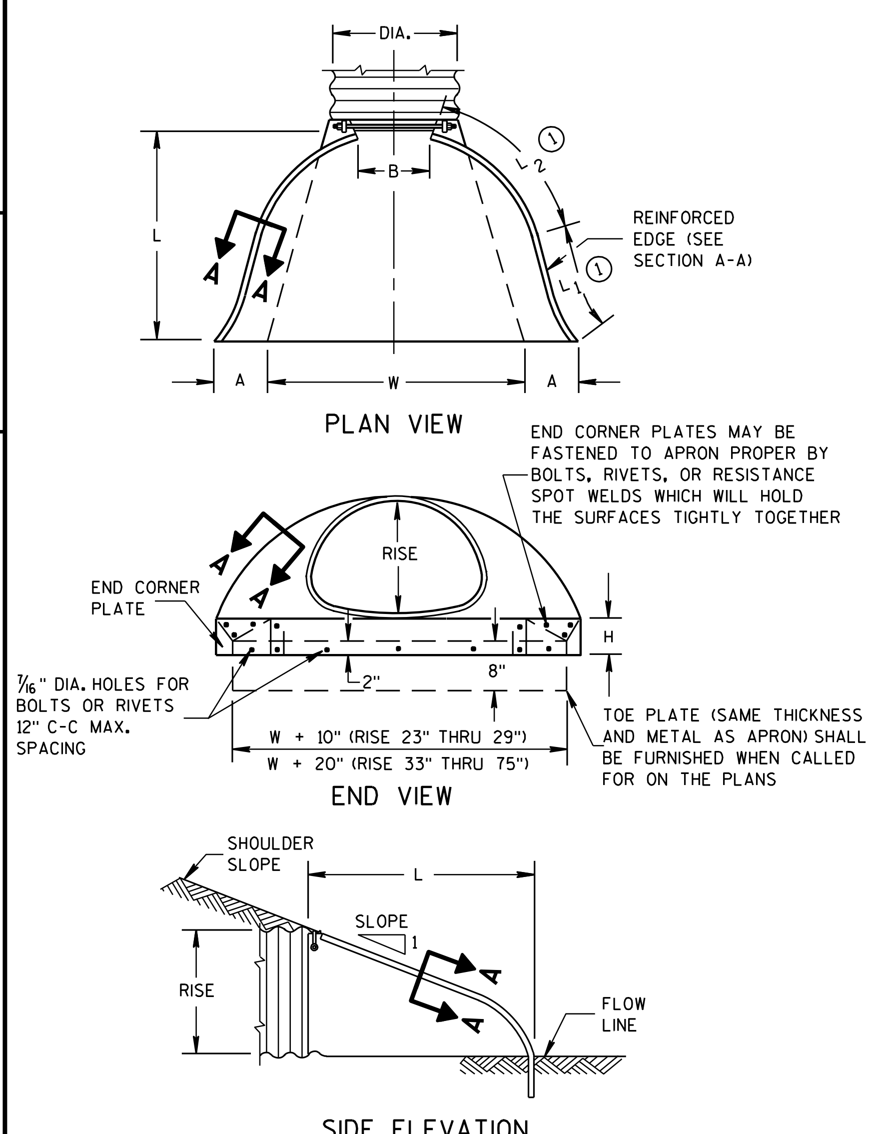
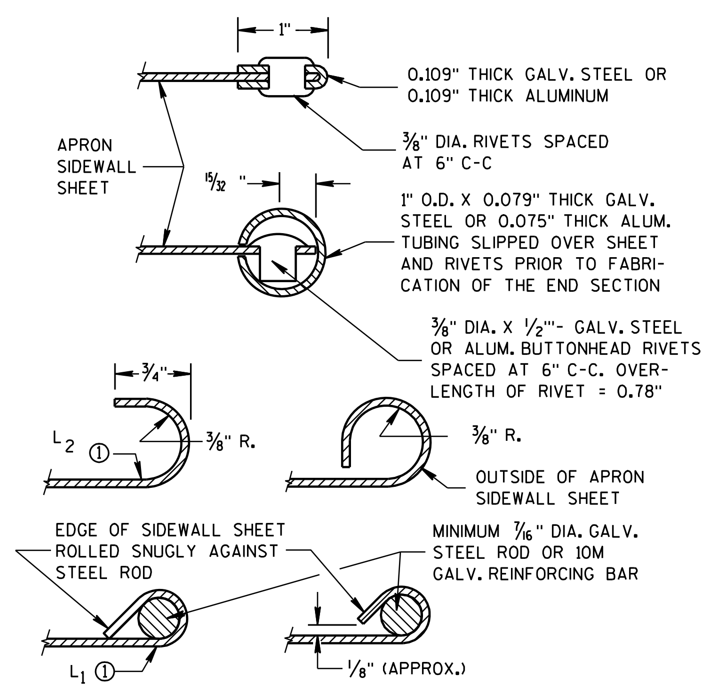
S.D.D. 8 F 1-11



CONCRETE ENDWALLS



METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

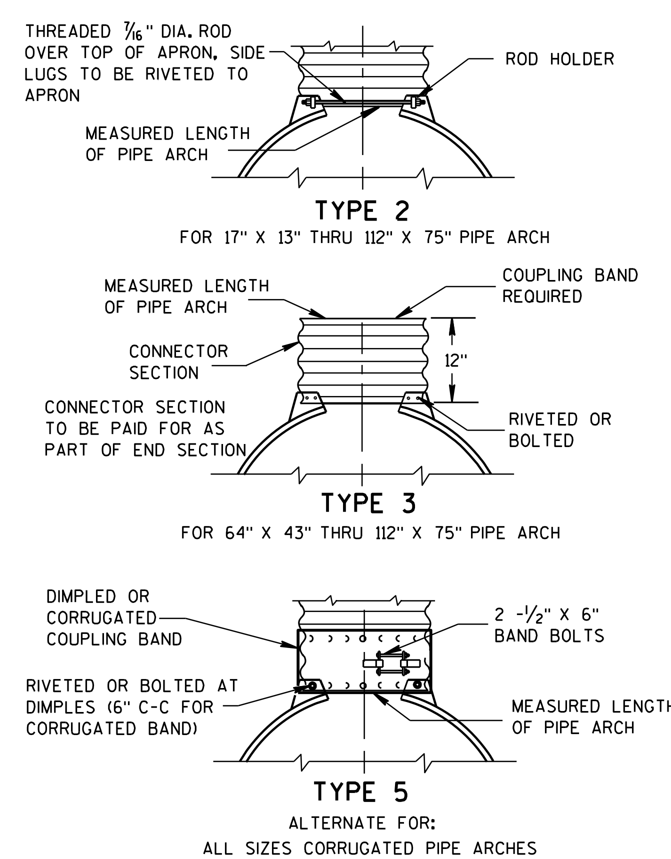
NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE PIPE ARCH									
EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE									
EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

** NOMINAL SIZE



NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

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

CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

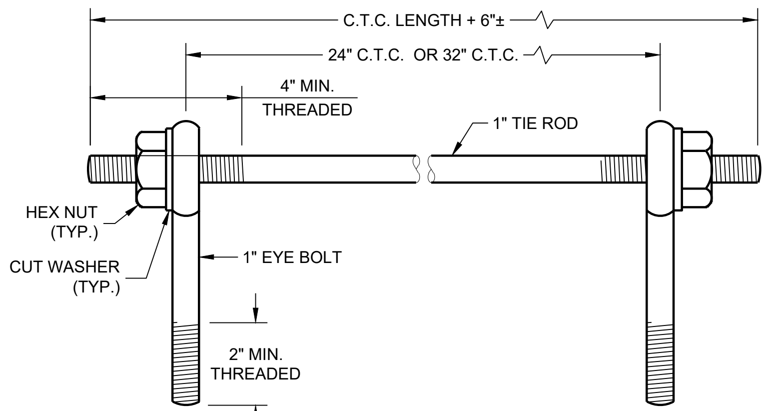
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

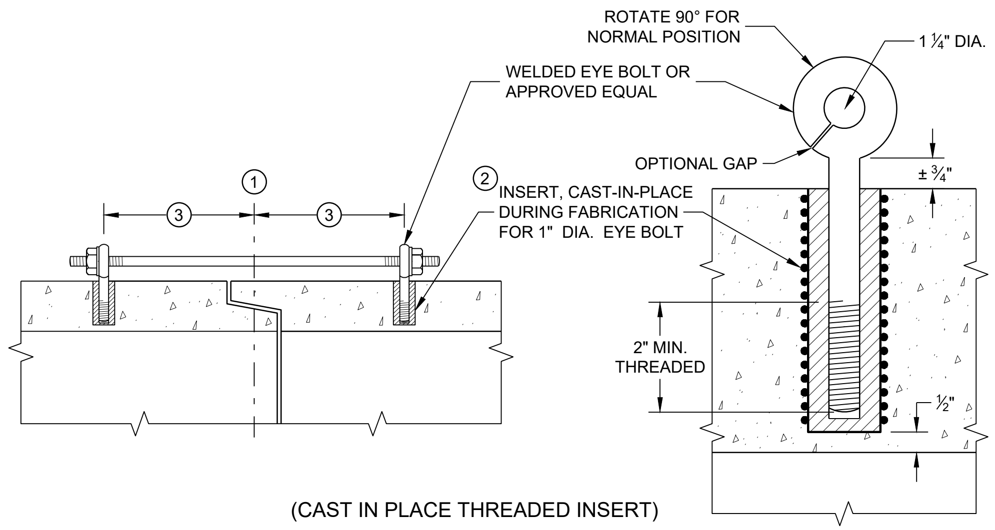
APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 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 APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

1 CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

2 THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

3 HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

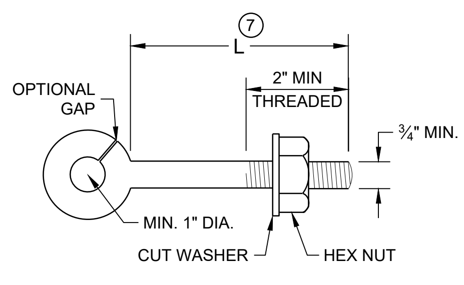
4 BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

5 OPENING TO BE ROD DIAMETER PLUS 1 INCH.

6 LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

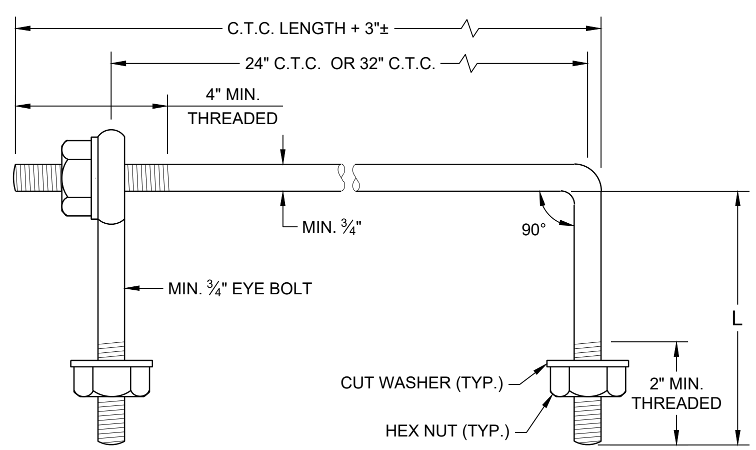
7 EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

6

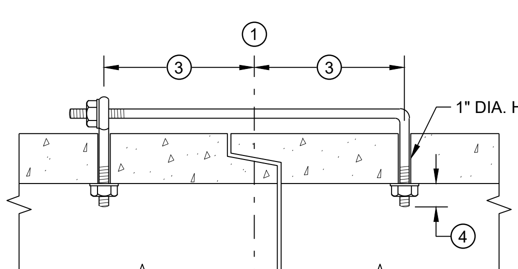


EYE BOLT 7

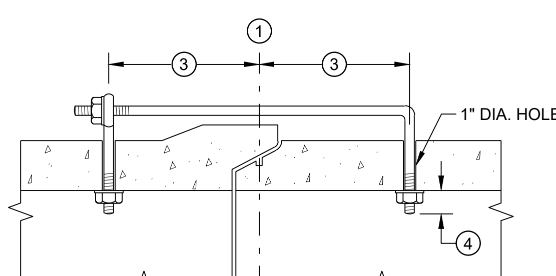
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

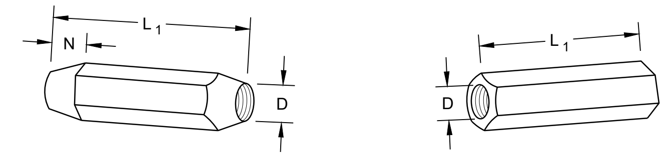
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

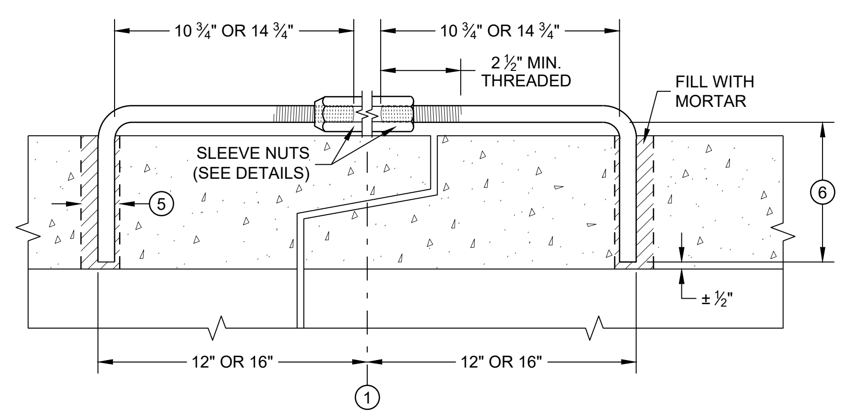
PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



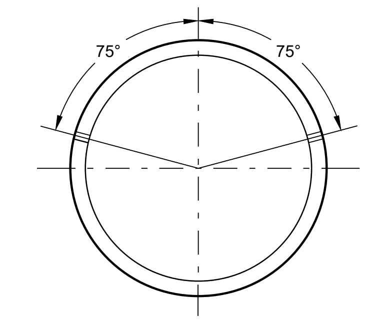
RIGHT AND LEFT THREADS

SLEEVE NUTS



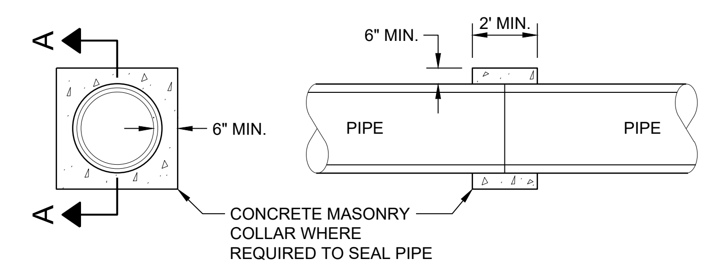
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

6

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

SDD 08F04 - 08

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.

FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

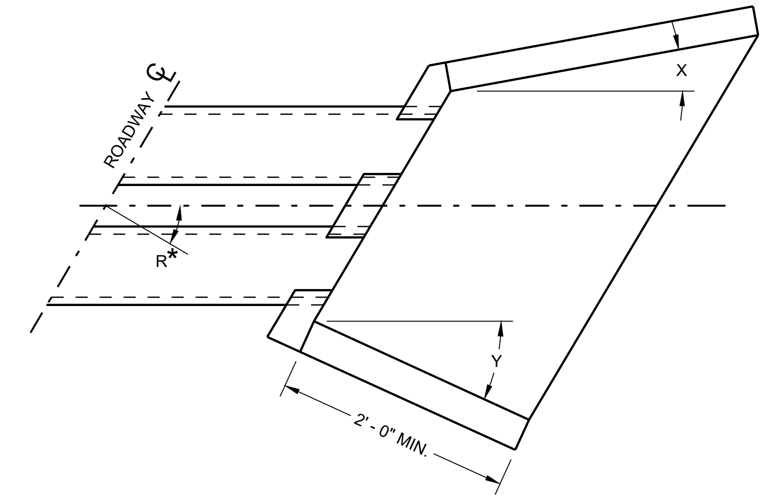
1. MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.
2. THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2' - 0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3' - 0"

3. LIMITS OF TRENCH BACKFILL
4. LIMITS OF FOUNDATION BACKFILL
5. FOUNDATION AND TRENCH BACKFILL ARE MATERIALS INCLUDED IN PAYMENT FOR CULVERT PIPE, PIPE ARCH, CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPSE OR CONCRETE MASONRY ENDWALLS.
6. DO NOT PLACE FOUNDATION BACK FILL OR ANY OTHER GRANULAR BACKFILL AROUND OR BELOW CUT OFF WALL. POUR CUT OFF WALL AGAINST NATIVE SOIL
7. MINIMUM HEIGHT SHALL BE THE GREATER OF 1'- 0" OR ¼ HEIGHT OF CULVERT PIPE.

TRENCH BACKFILL

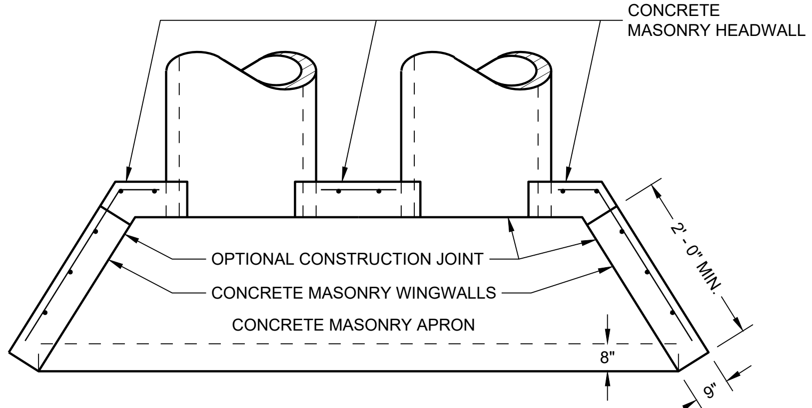
FOUNDATION BACKFILL



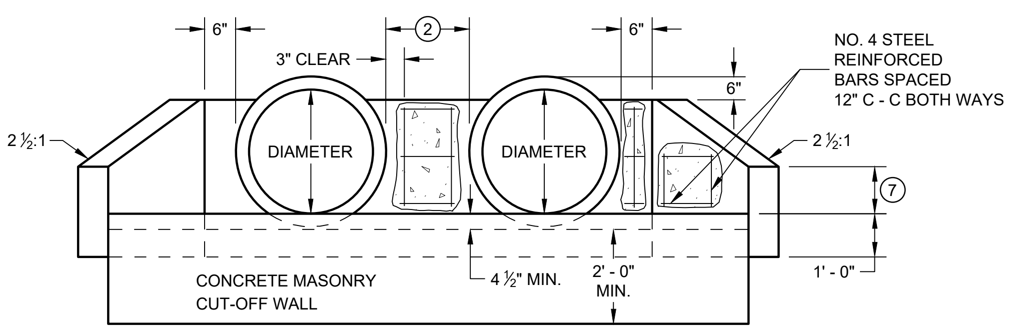
WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	30°	16 - 45°	10°	15°
23 - 37°	20°	30°	46 - 75°	5°	15°
38 - 52°	15°	30°	OVER 75°	0°	15°
53 - 67°	10°	30°			
68 - 82°	5°	30°			
OVER 82°	0°	30°			

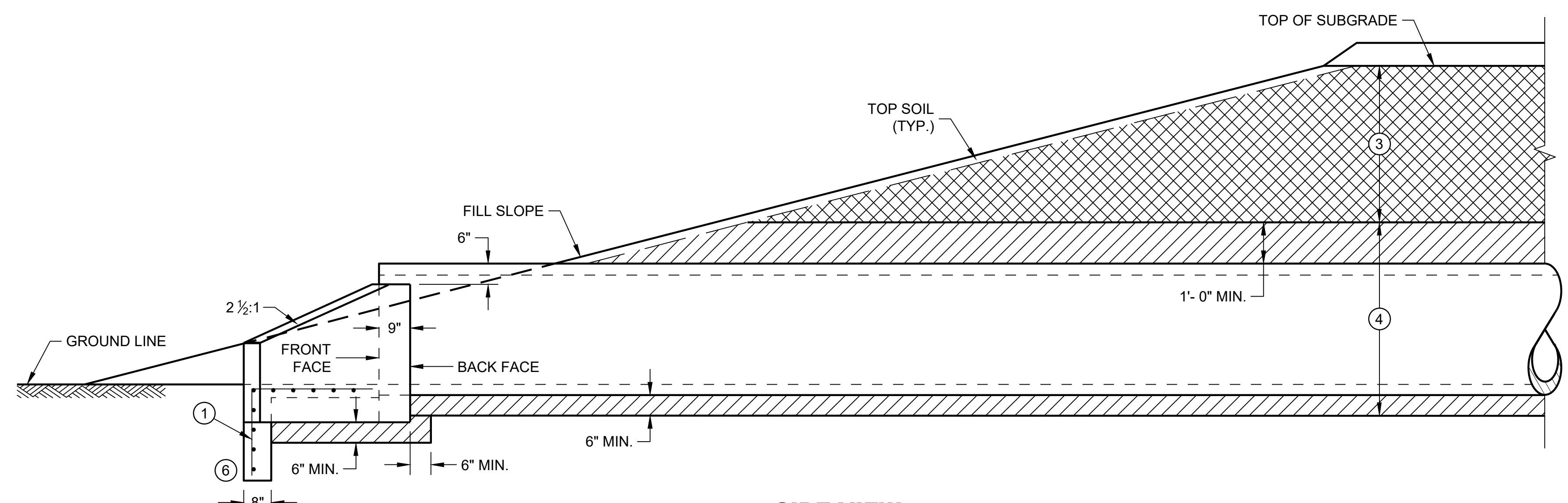
R* = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD



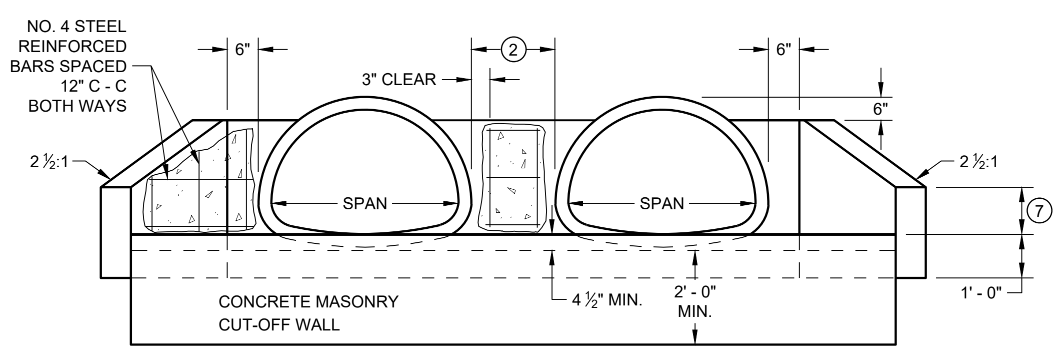
PLAN VIEW



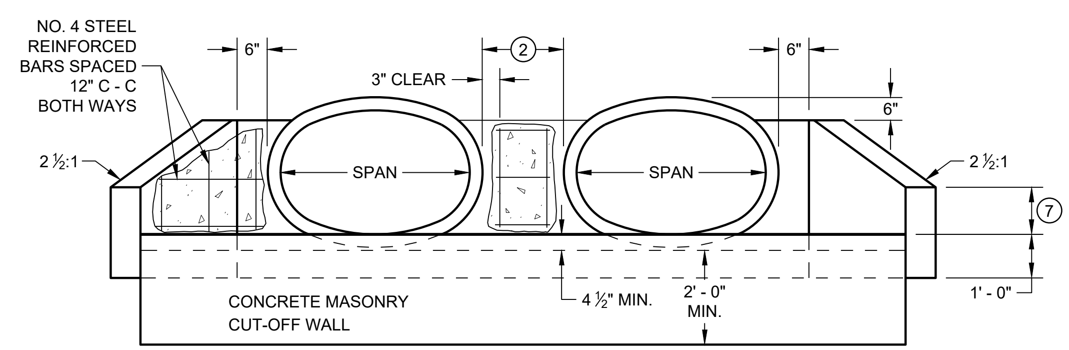
END VIEW
CIRCULAR PIPE



SIDE VIEW
CIRCULAR PIPE, PIPE ARCH OR HORIZONTAL ELLIPSE



END VIEW
PIPE ARCH



END VIEW
HORIZONTAL ELLIPSE

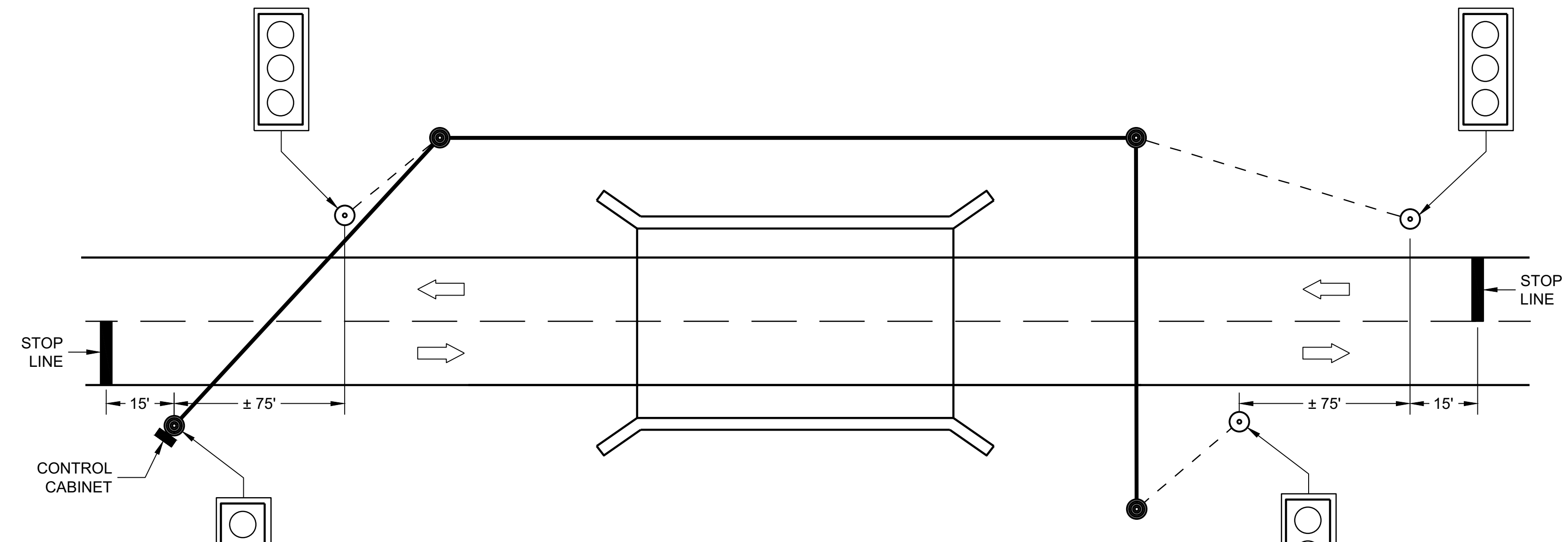
CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

SDD 08F10 - 02



TYPICAL BRIDGE TEMPORARY
TRAFFIC SIGNAL LOCATION

LEGEND

- WOOD POLE (NON-BREAKAWAY)
- WOOD POST (BREADAWAY)
- SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- DIRECTION OF TRAFFIC
- LED TRAFFIC SIGNAL WITH BACKPLATE
- 3-12"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAY BE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY POLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

WOOD POLES (NON-BREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAM GUARD, ETC.).

WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

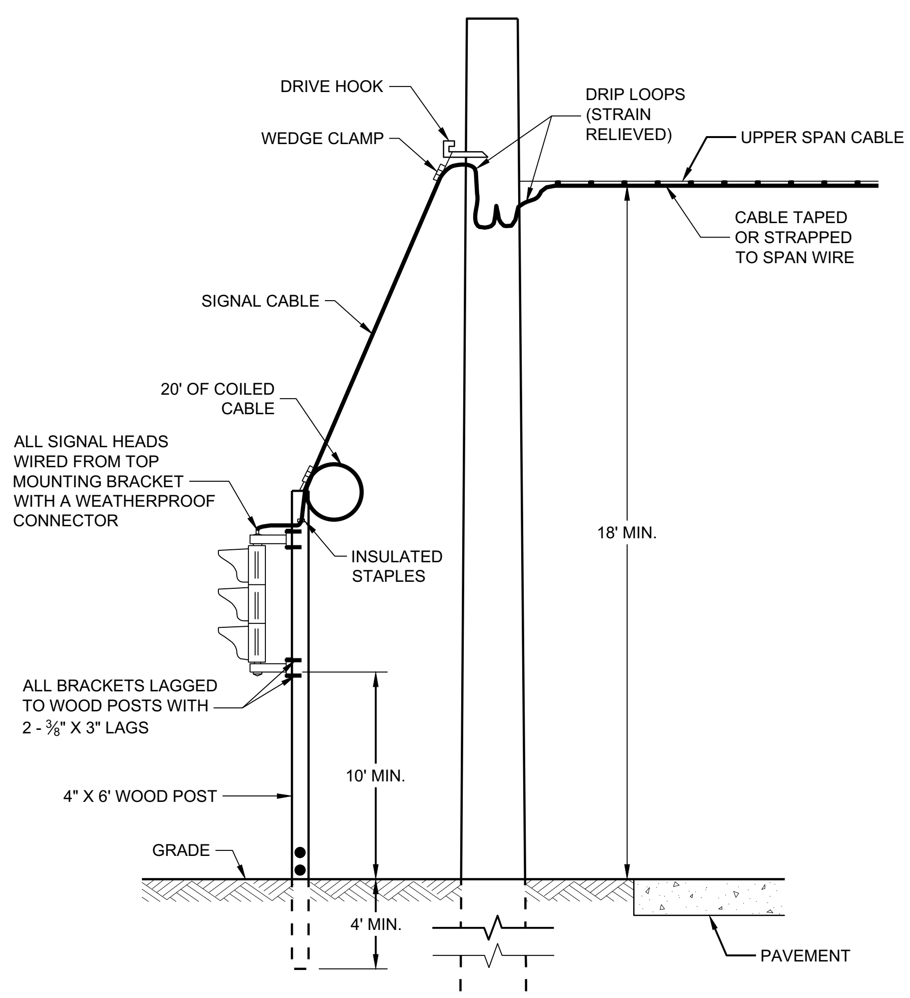
EACH TRAFFIC SIGNAL SHALL HAVE A BACKPLATE.

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.

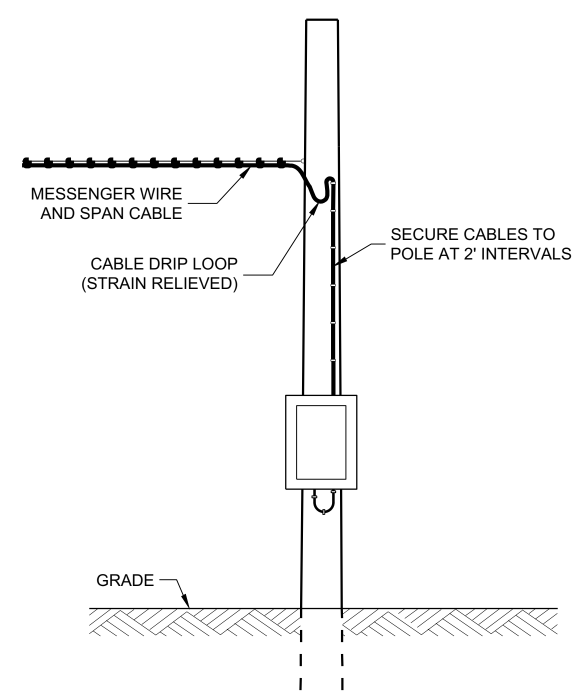
MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE*
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/CURBS	2 FT

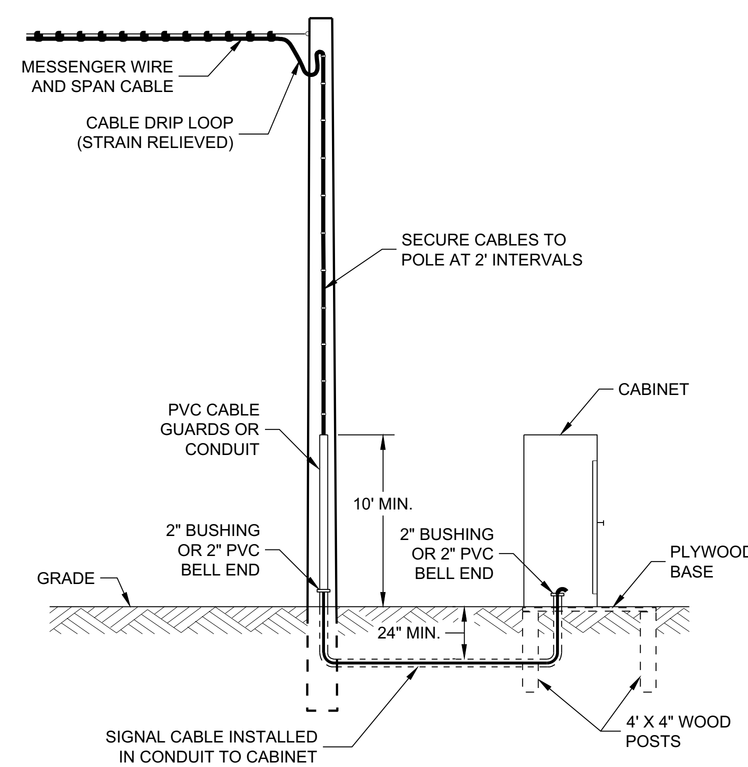
* NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.



TYPICAL DROP TO
TRAFFIC SIGNAL FACE



POLE MOUNT
CABINET INSTALLATION



GROUND MOUNT
CABINET INSTALLATION

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

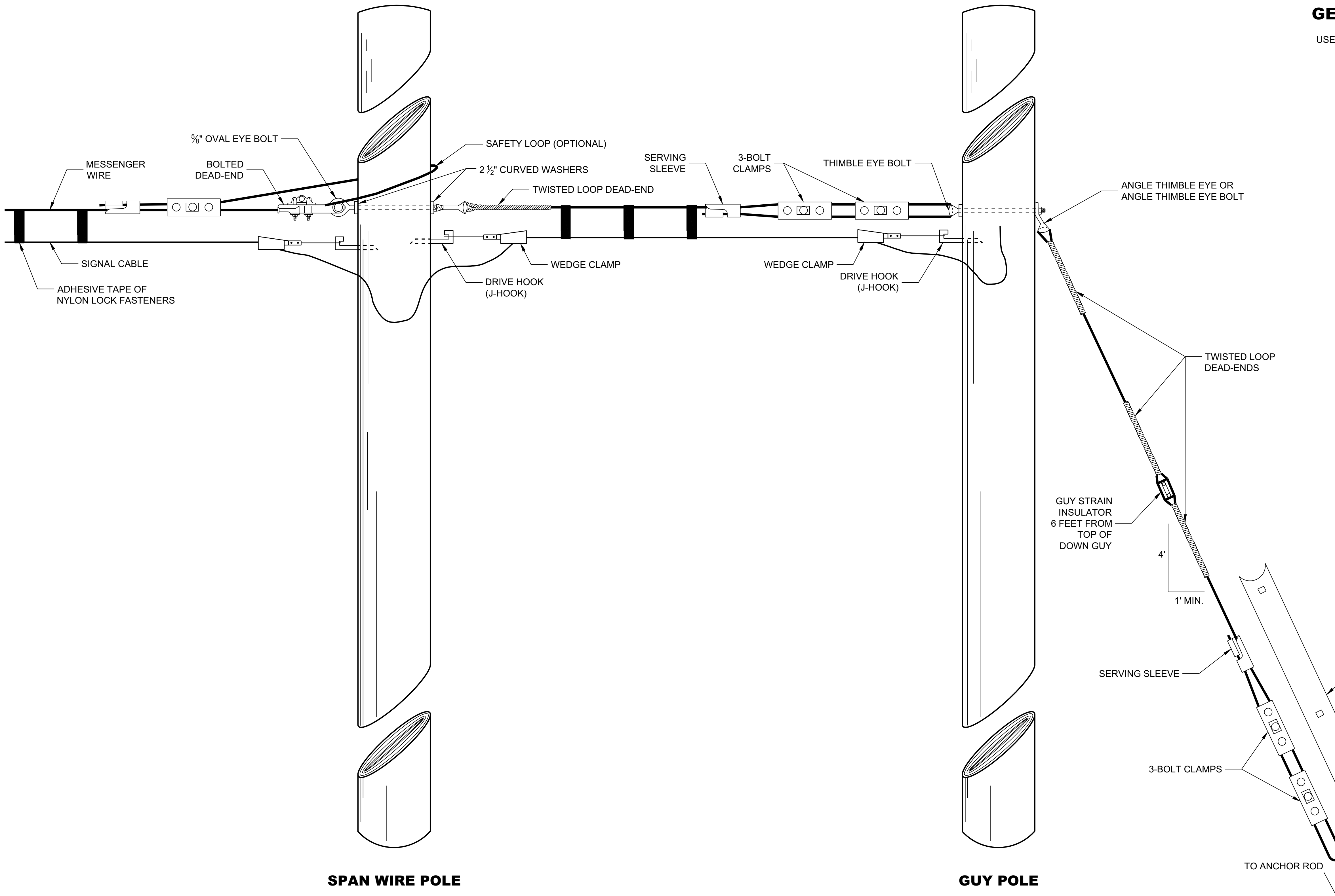
APPROVED
March 2018 — DATE
/S/ Ahmet Demirbilek — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

SDD09G02 - 05a

GENERAL NOTES

USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.



TYPICAL DEAD-ENDINGS OR GUYING

6

6

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

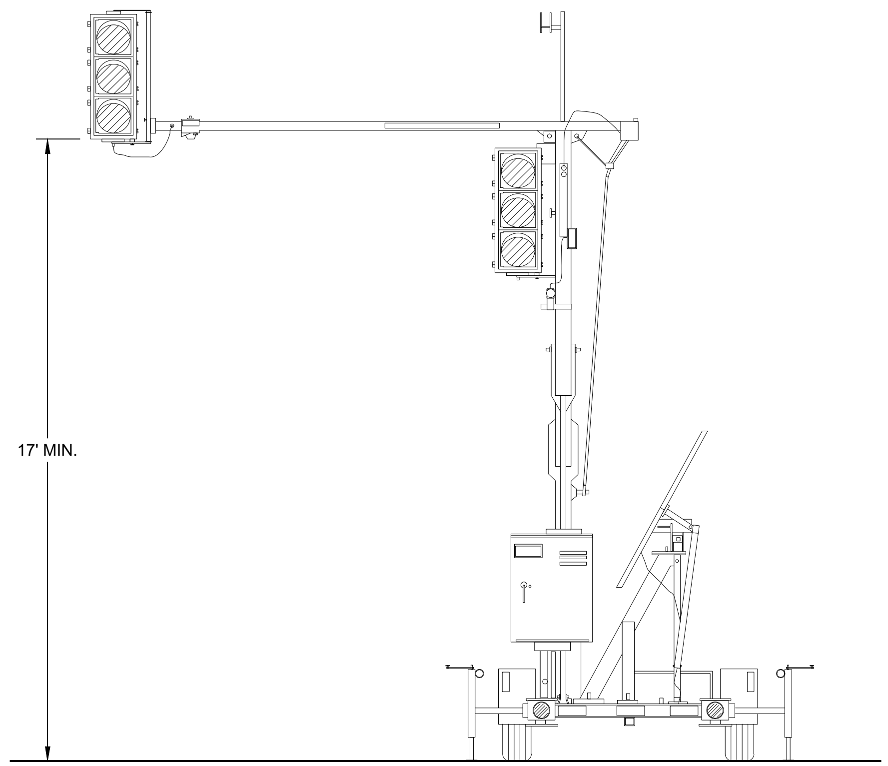
June 2015 — DATE

/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD09G02 - 05b

SDD09G02 - 05b

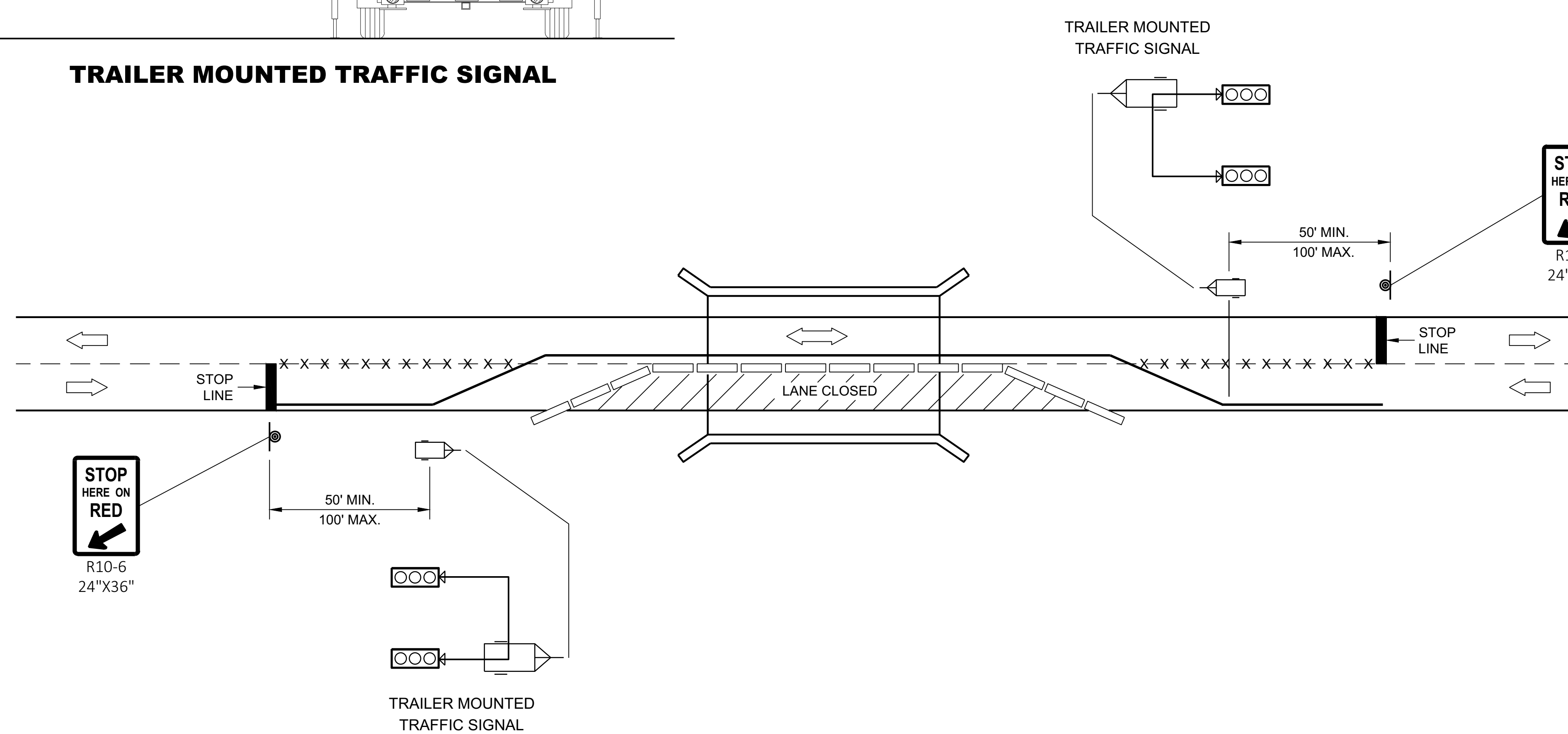


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

DETAIL OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- POST MOUNTED SIGN
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

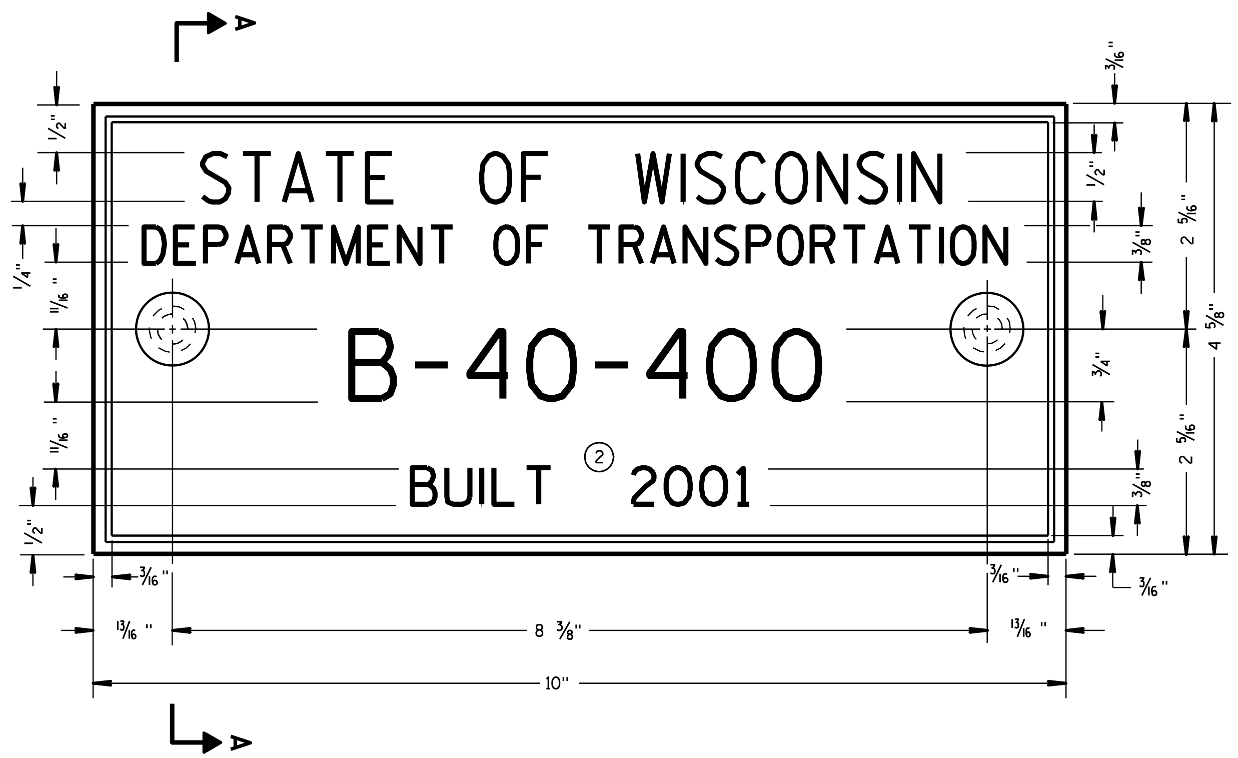
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

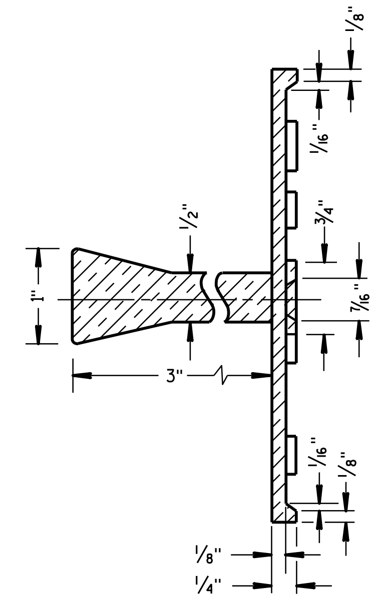
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

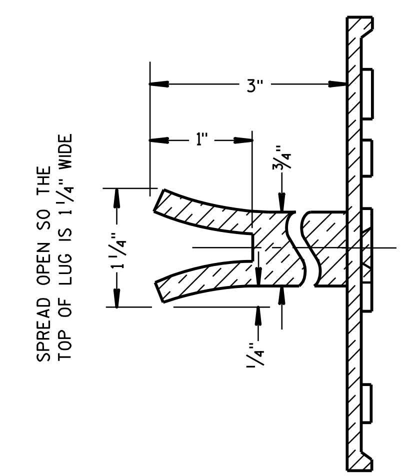
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

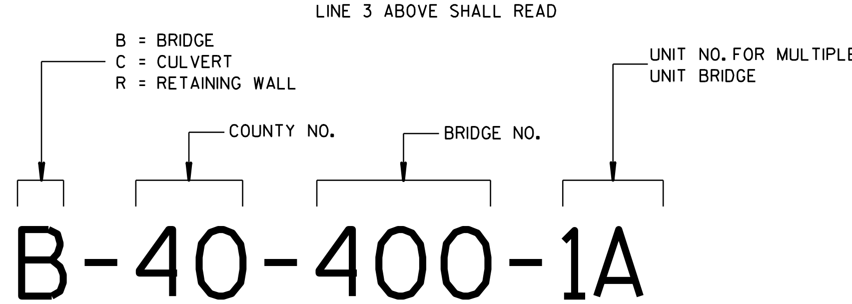


SECTION A-A

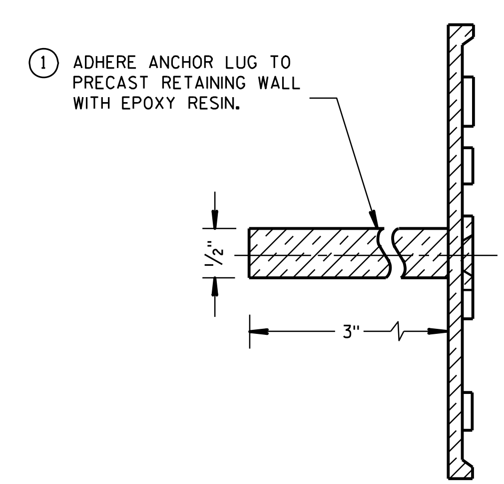


ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES LINE 3 ABOVE SHALL READ



NUMBERING DESIGNATION MULTI-UNIT STRUCTURES



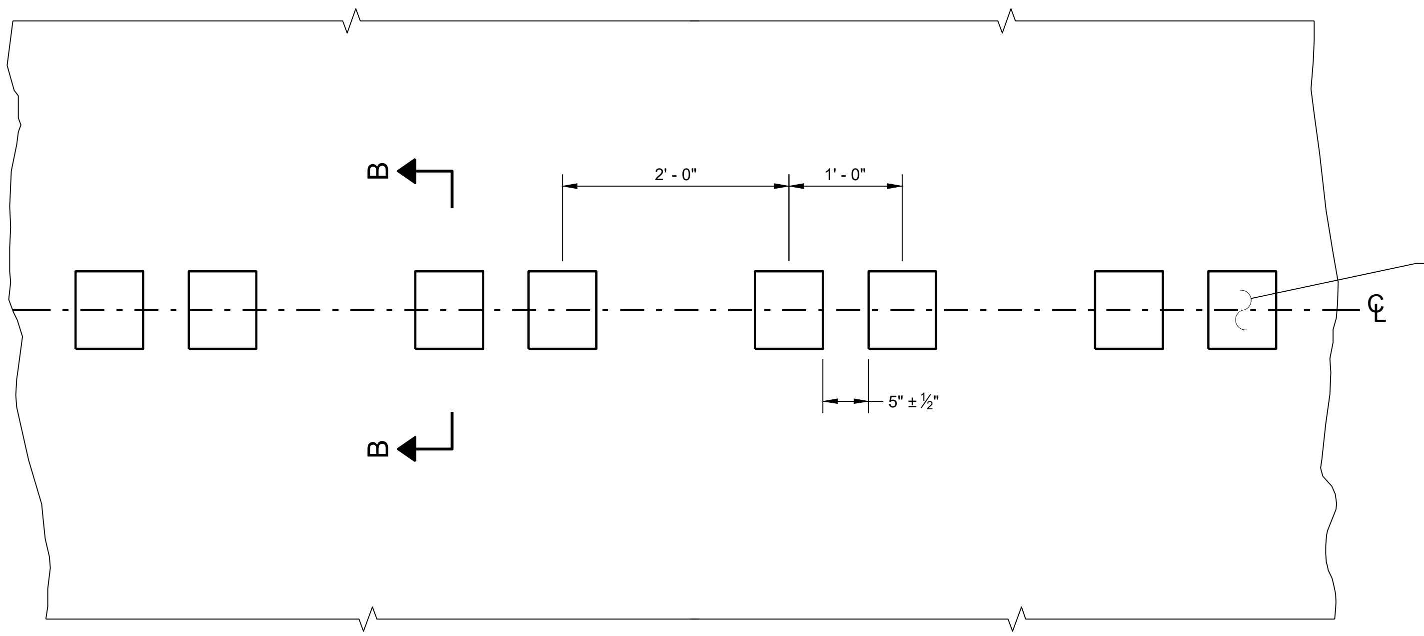
ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 3/26/10 DATE /S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER FHWA

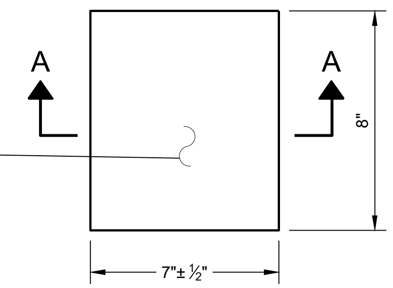
GENERAL NOTES

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

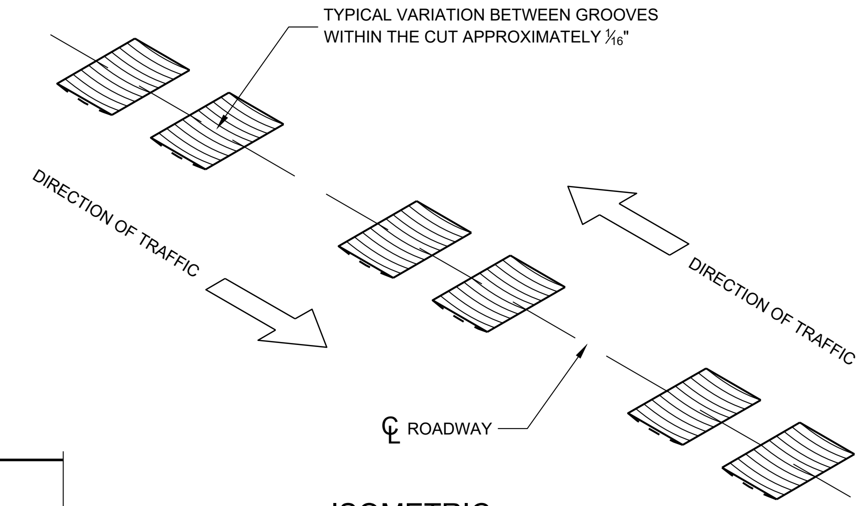
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



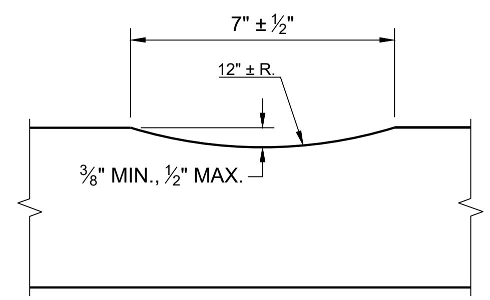
PLAN DETAIL VIEW



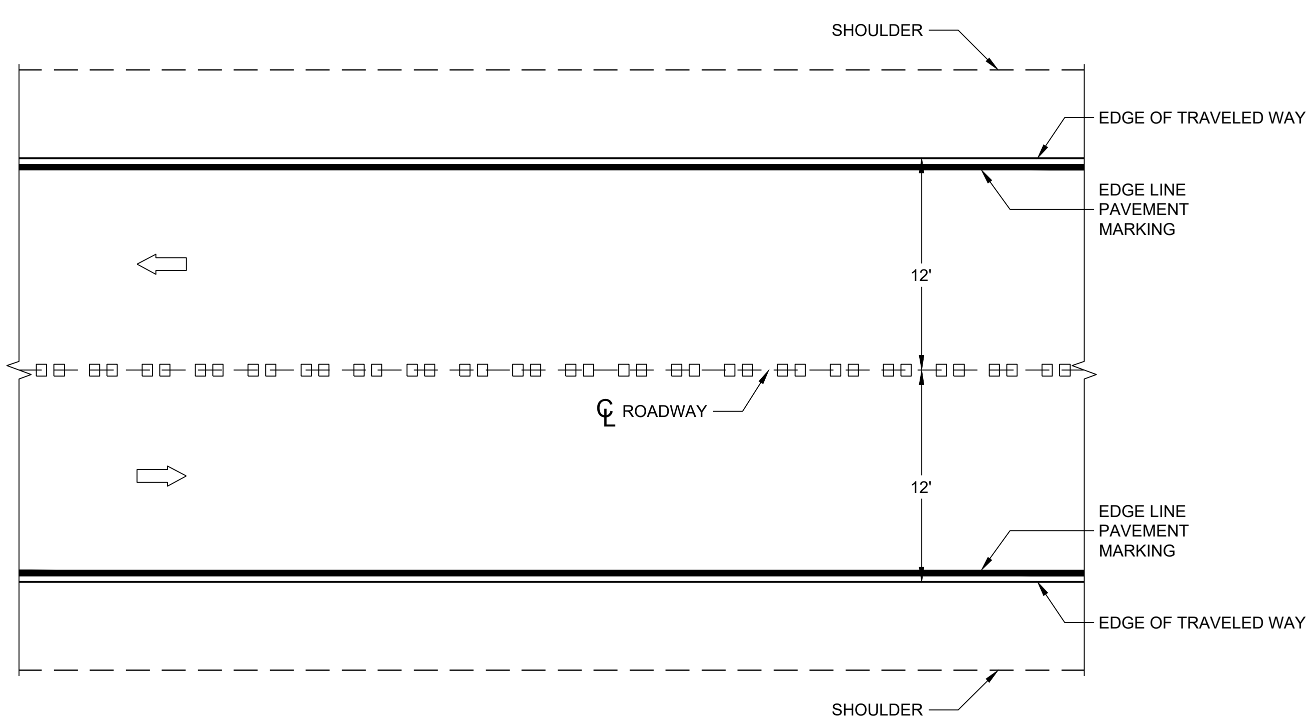
PLAN VIEW (SINGLE GROOVE)



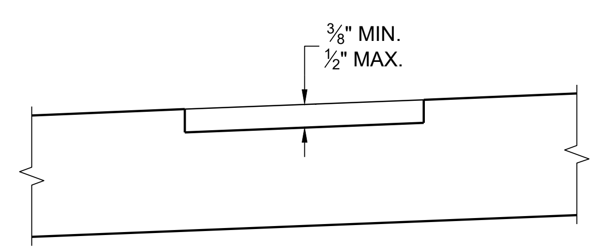
ISOMETRIC



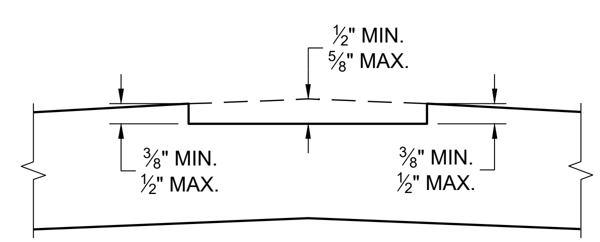
SECTION A - A



PLAN VIEW



SECTION B - B
SUPERELEVATED ROADWAY



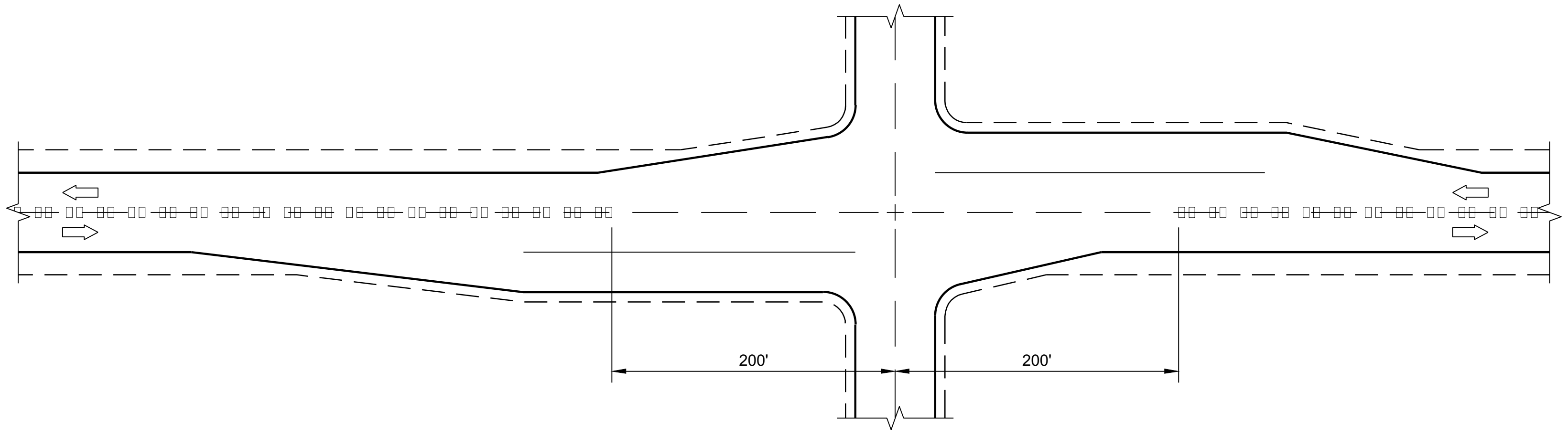
SECTION B - B
CROWNED ROADWAY

CENTERLINE RUMBLE STRIPS - ASPHALT

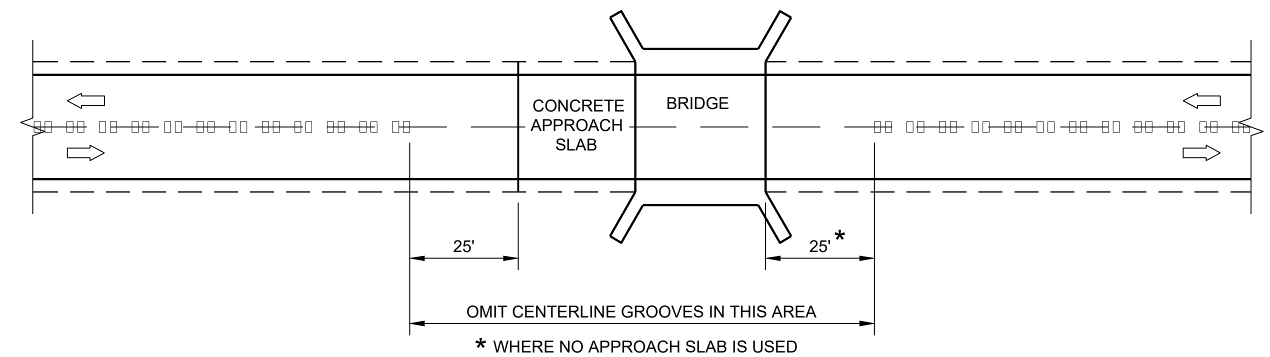
CENTERLINE RUMBLE STRIPS - ASPHALT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

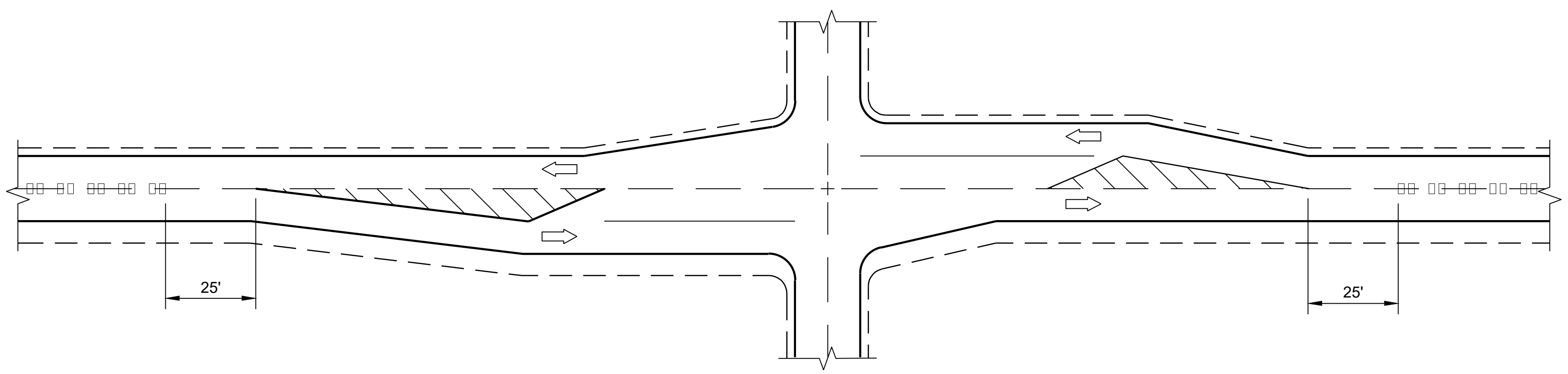
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



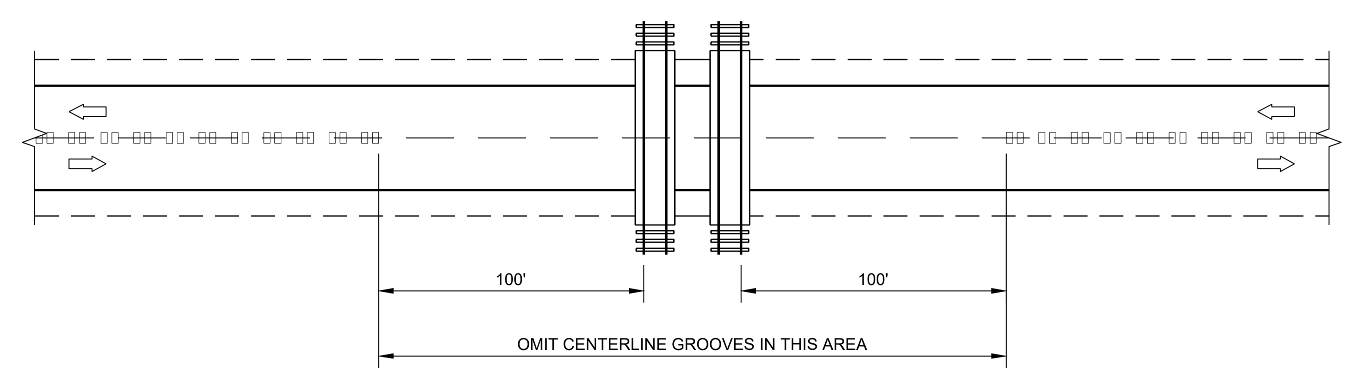
CENTERLINE GROOVES AT INTERSECTIONS



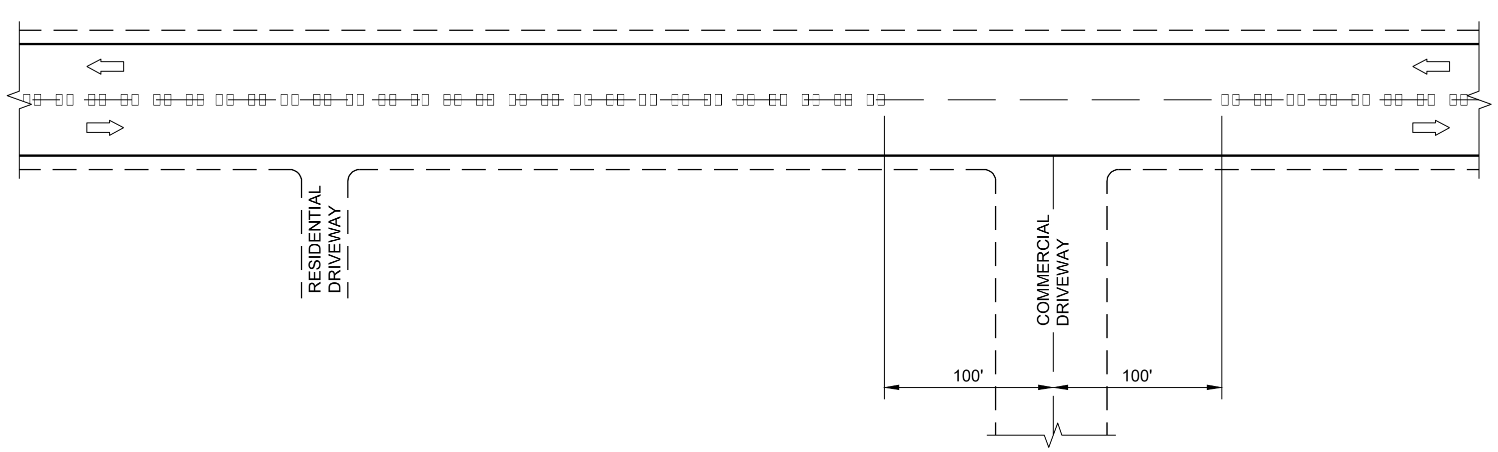
CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



CENTERLINE GROOVES AT RAILROADS



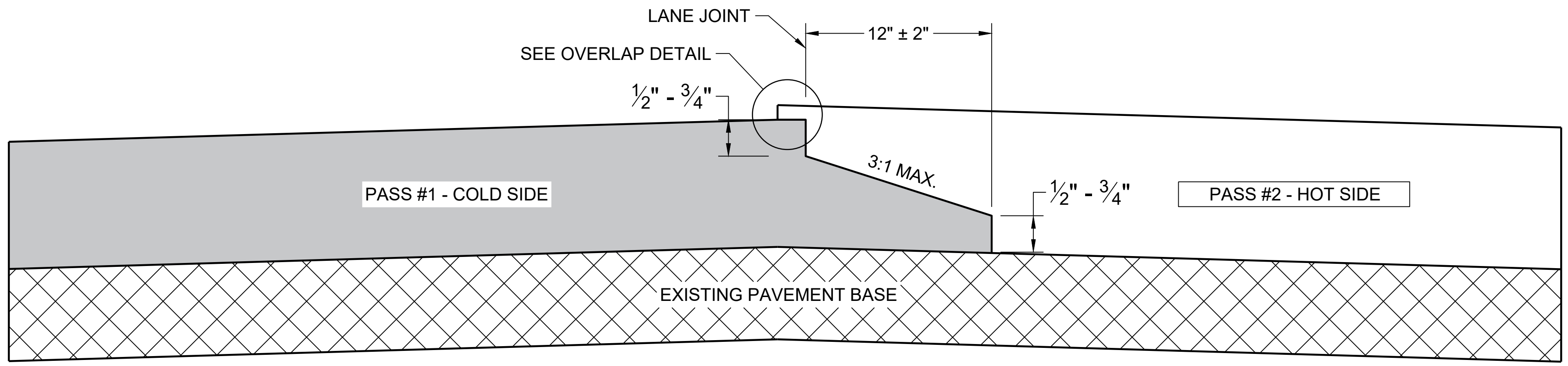
CENTERLINE GROOVES AT DRIVEWAYS (1)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT

GENERAL NOTES

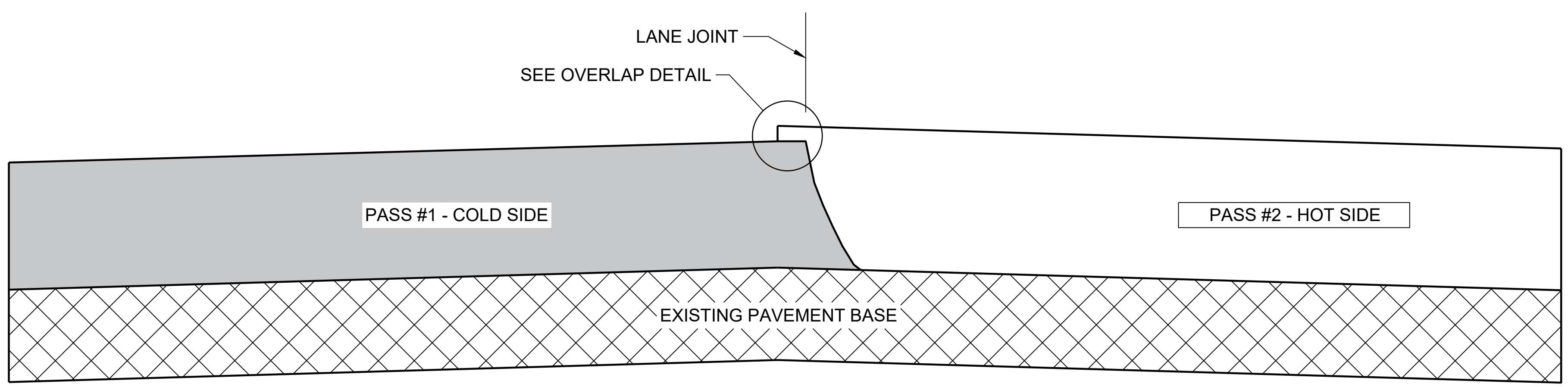
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 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.)

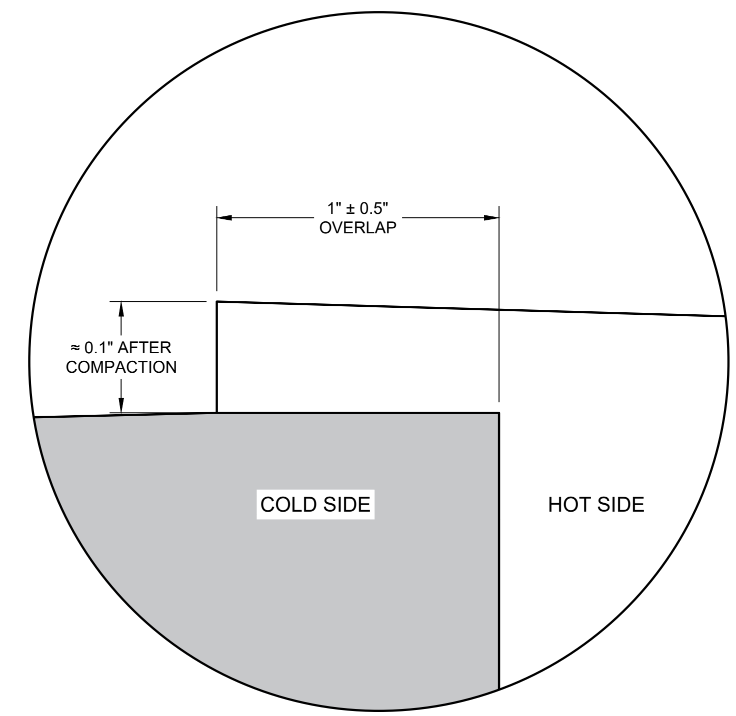
ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

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.

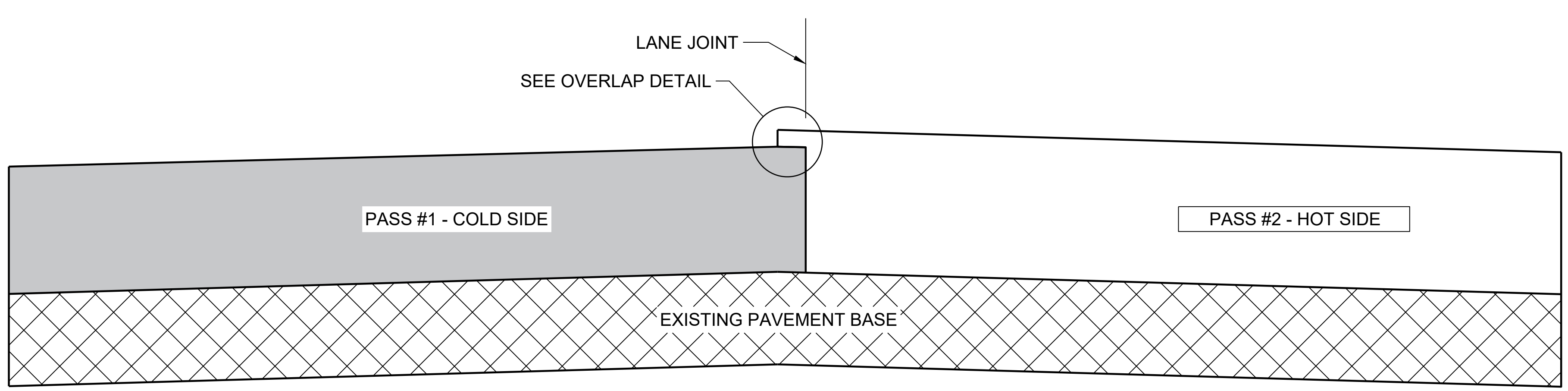
USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



OVERLAP DETAIL (TYPICAL)

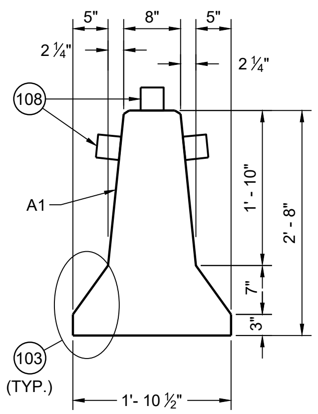


TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

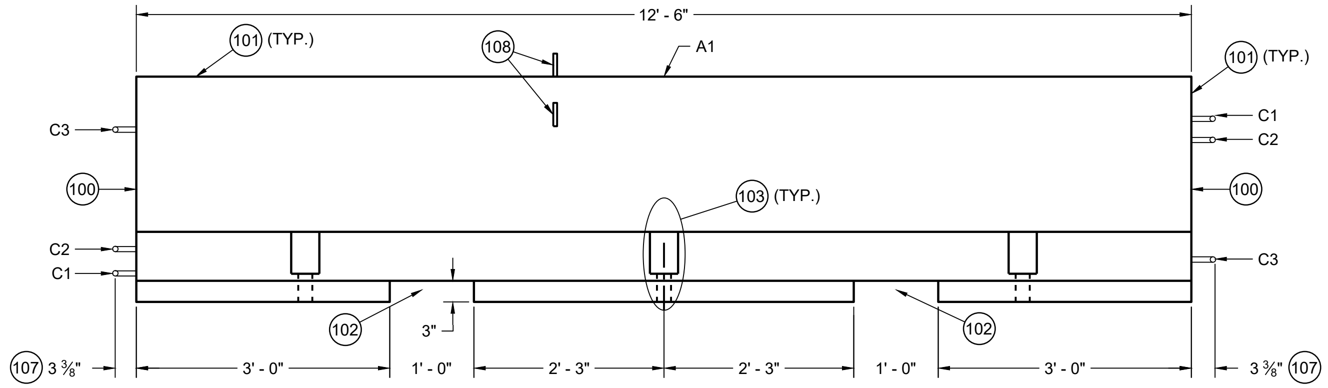
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
A. TYPE OF BARRIER: WI-CBTP
B. MANUFACTURER
C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

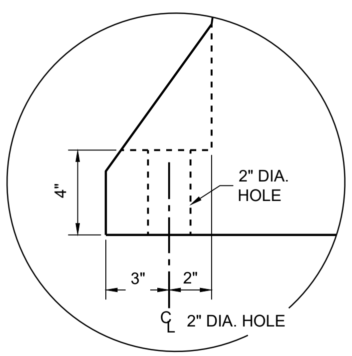
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

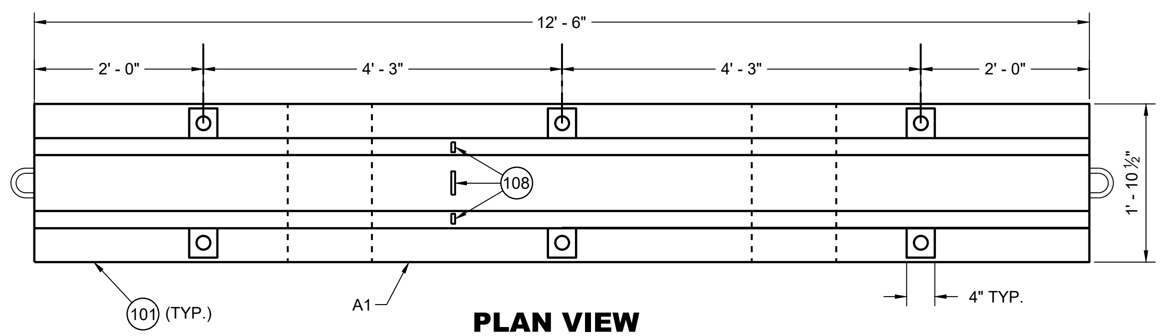
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

(108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURERS INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED LEFT OF TRAFFIC AND WHITE WHEN BARRIER IS LOCATED RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART, PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAT 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

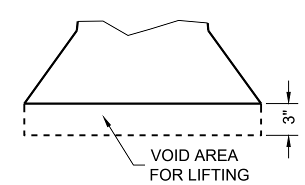


ANCHOR BLOCK DETAIL

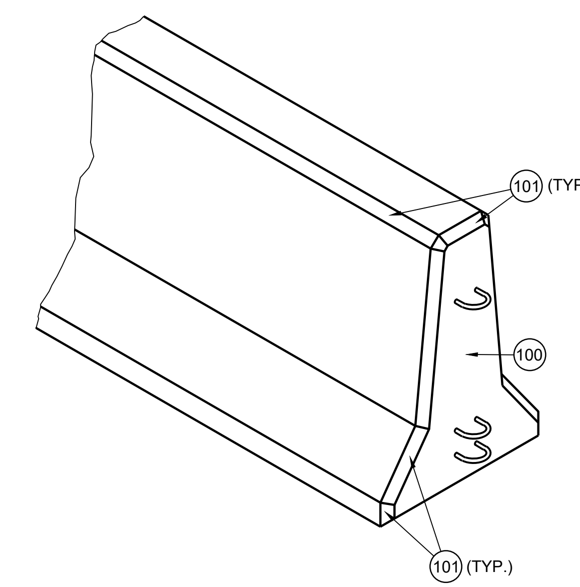


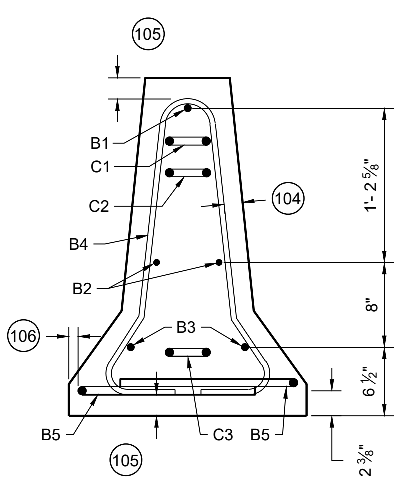
PLAN VIEW

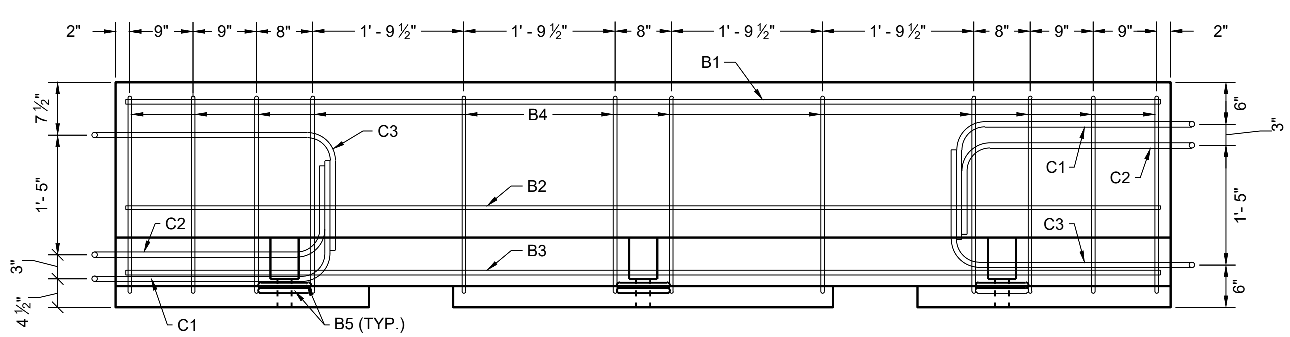
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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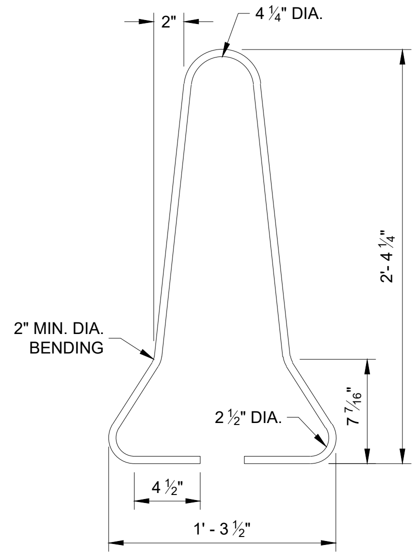
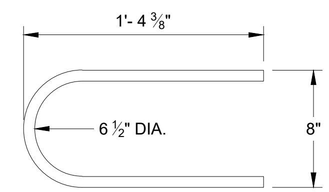
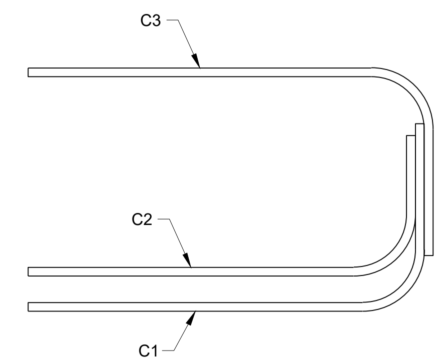


B4 BAR DETAIL

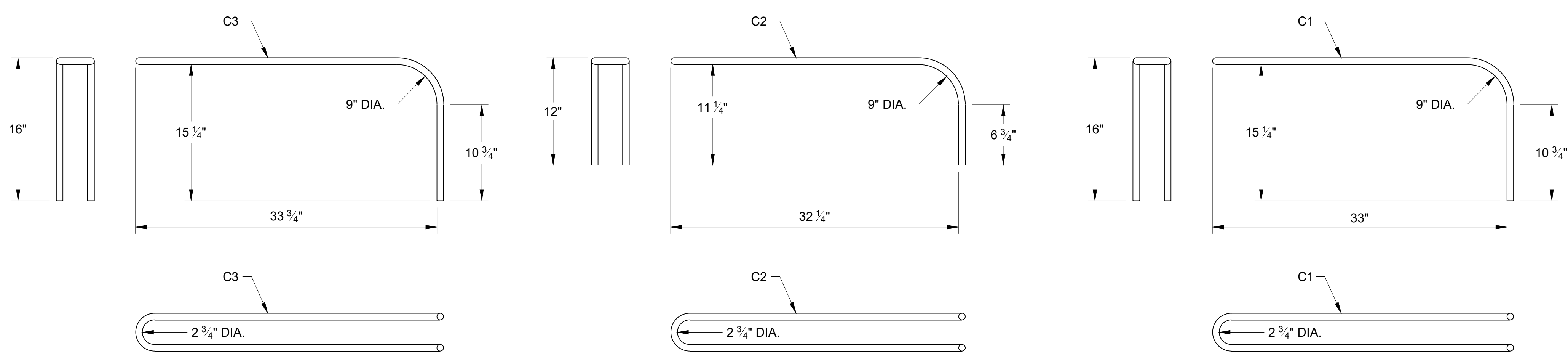


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



C BAR DETAILS

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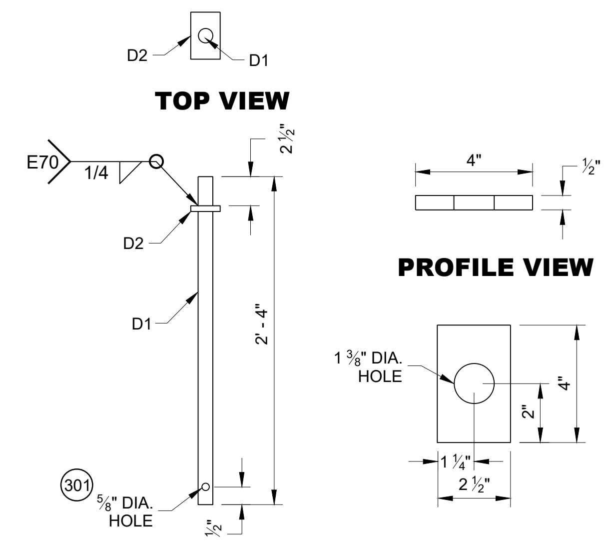
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

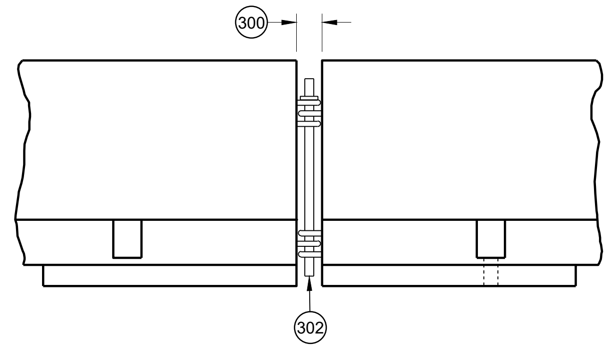
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PROFILE VIEW

TOP VIEW D2

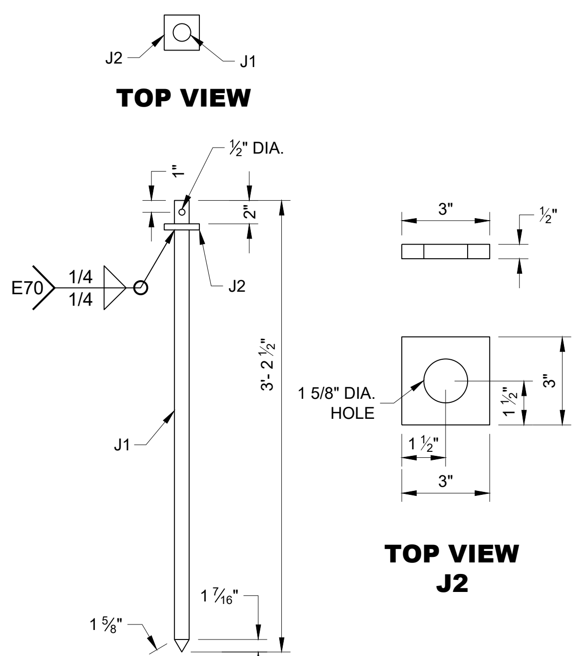
CONNECTOR PIN ASSEMBLY



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

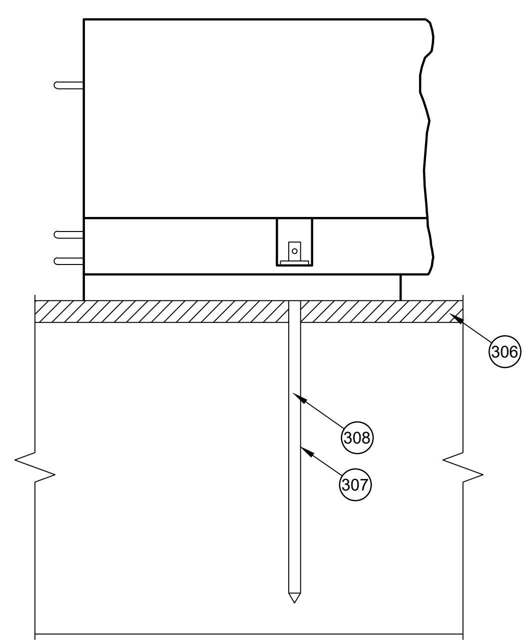
- (300) SET WITH 3 ⅝" WOOD BLOCK.
- (301) HOLE IS OPTIONAL.
- (302) CONNECTOR PIN ASSEMBLY.
- (303) CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.
- (304) CONCRETE DECK.
- (305) DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.
- (306) MINIMUM OF 2" OF ASPHALT.
- (307) ASPHALT ANCHOR PIN ASSEMBLY
- (308) IF DRILLING A PILOT HOLE, THE MAX, DIA. OF THE HOLE IS 3/4"
- (309) WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.



TOP VIEW J2

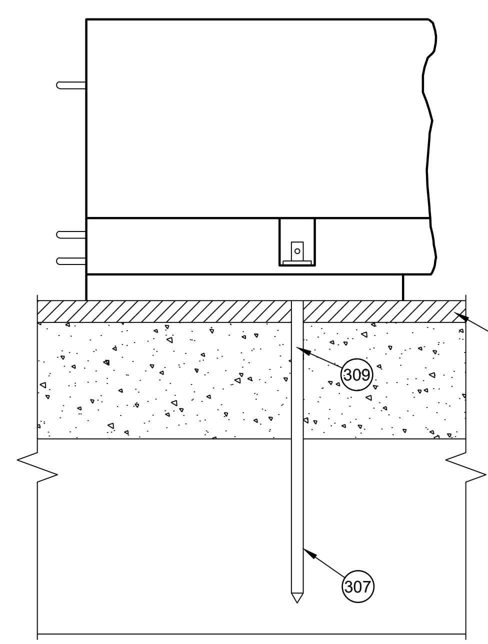
PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY



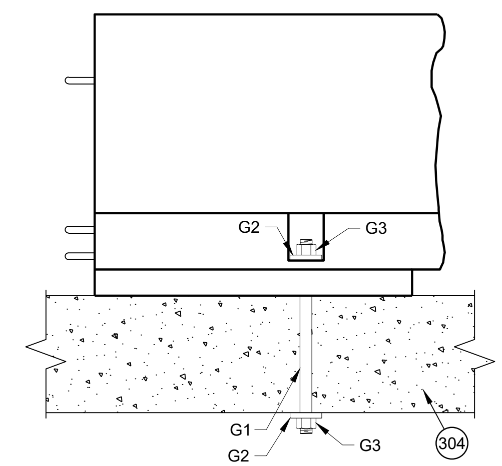
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



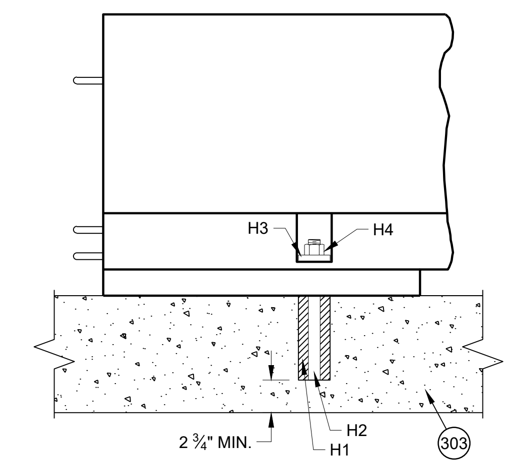
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT OVERLAY ON TOP OF CONCRETE PAVEMENT



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION (305)



SIDE VIEW

ADHESIVE ANCHOR INSTALLATION (305)

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CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
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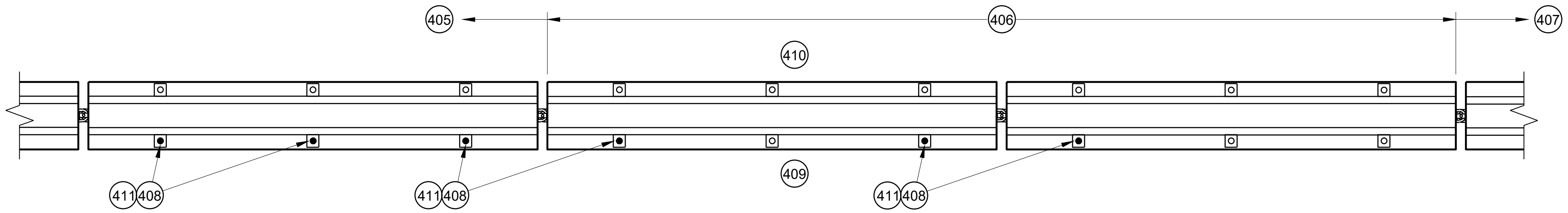
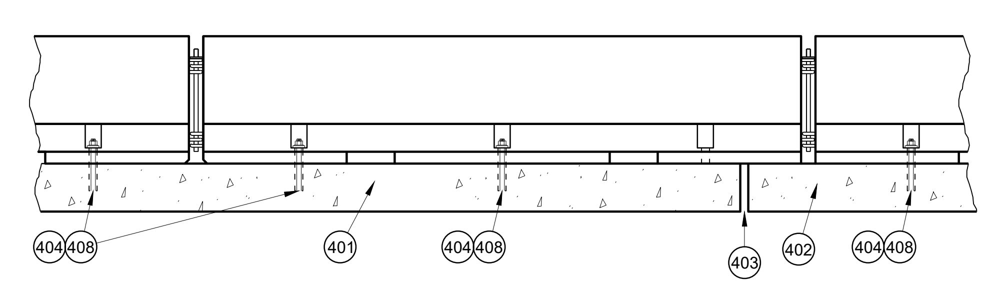


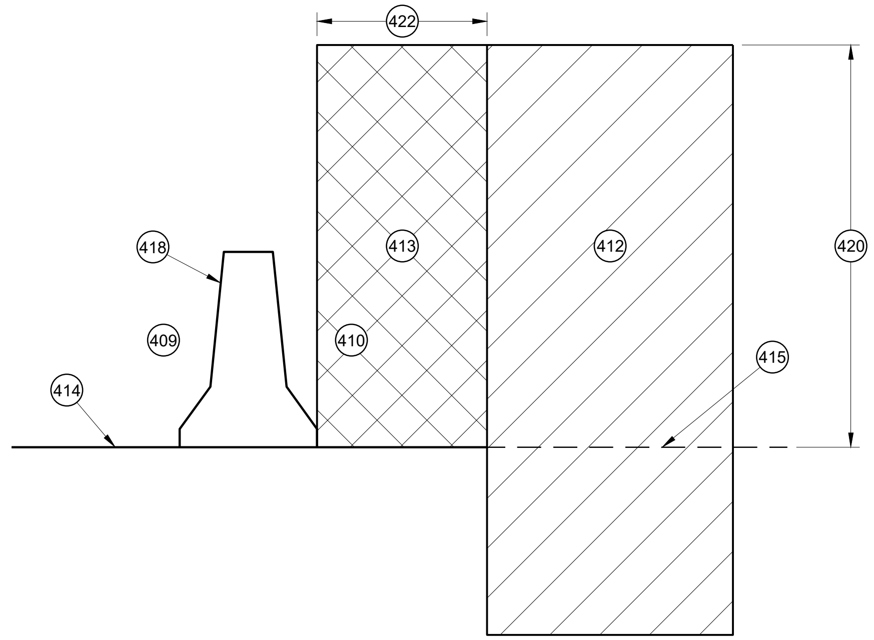
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



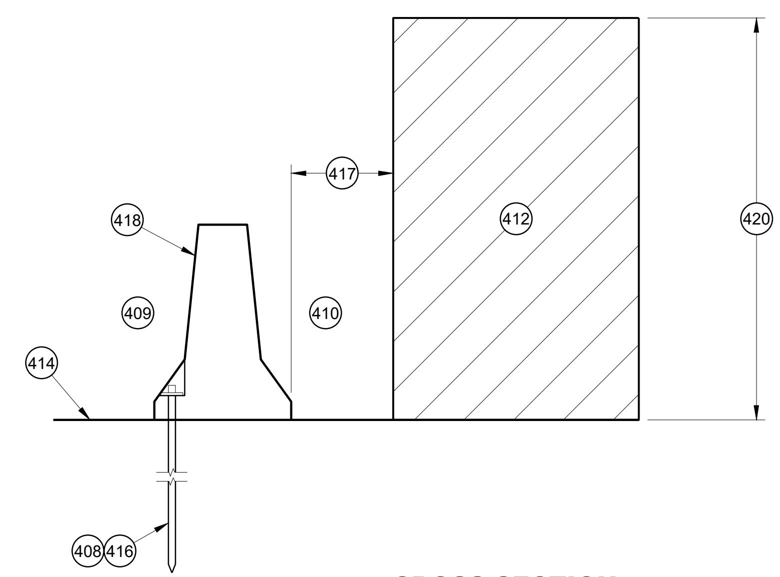
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



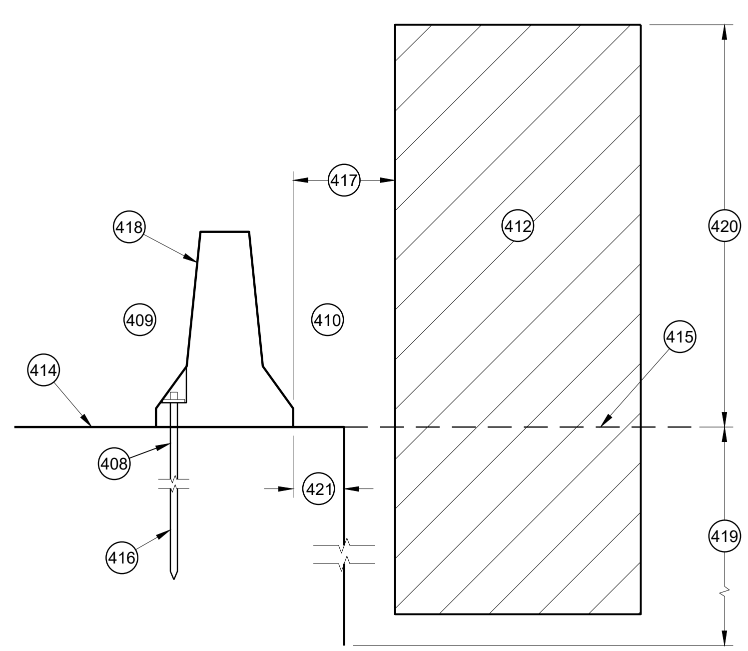
CROSS SECTION

FREE STANDING BARRIER



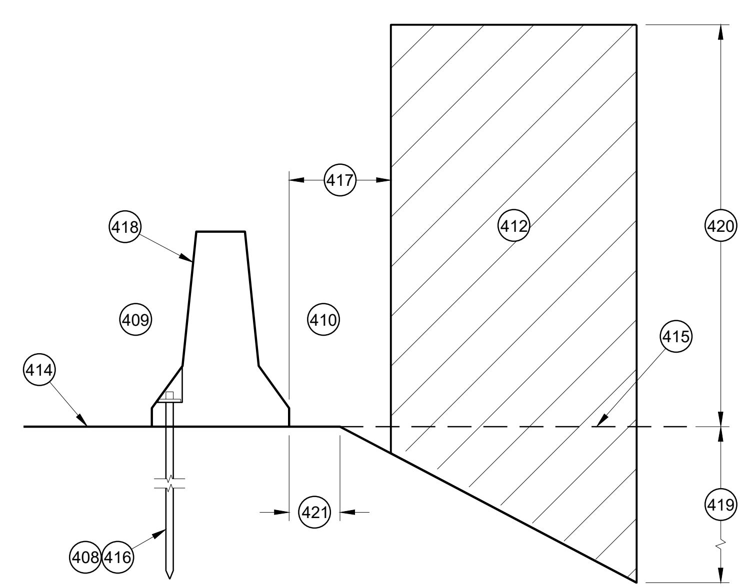
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

(400) NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

(408) REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI

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GENERAL NOTES

(500) EXISTING RIGID BARRIERS (VARIES)

(501) TEMPORARY BARRIER

(502) SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).

(503) ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.

(504) NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

(505) TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

(506) TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

(507) VERTICAL BARRIER

(508) SAFETY SHAPE BARRIER

(509) SINGLE SLOPE BARRIER

(510) CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.

(511) BENT THRIE BEAM TO FIT.

(512) THRIE BEAM PIECES ARE OFFSET 15 ¾" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.

(513) TWO (2) P1, P2 AND P3 ARE REQUIRED

(514) FIVE (5) N1, N2 AND N3 ARE REQUIRED

(515) TWO (2) R1, R2 AND R3 ARE REQUIRED

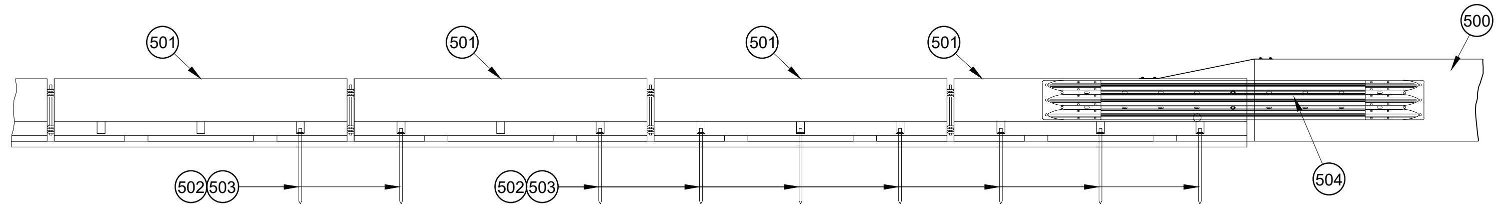
(516) CUT WOOD BLOCK TO FIT.

(517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

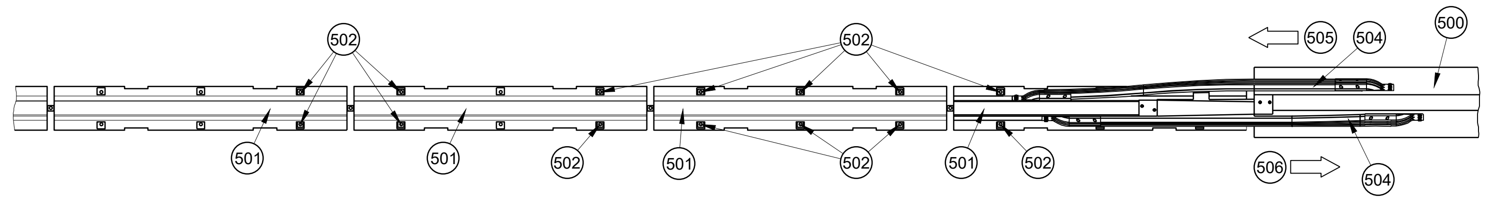
(518) CAP ASSEMBLY

(519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

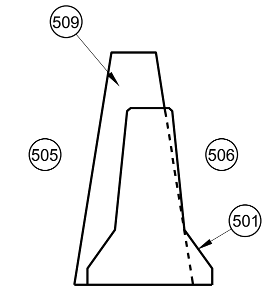
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



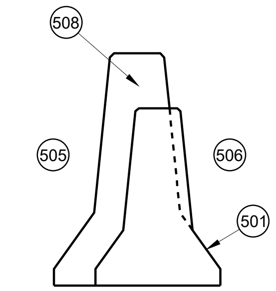
PROFILE VIEW



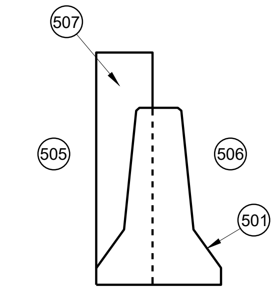
PLAN VIEW
TRANSITION TO RIGID BARRIER



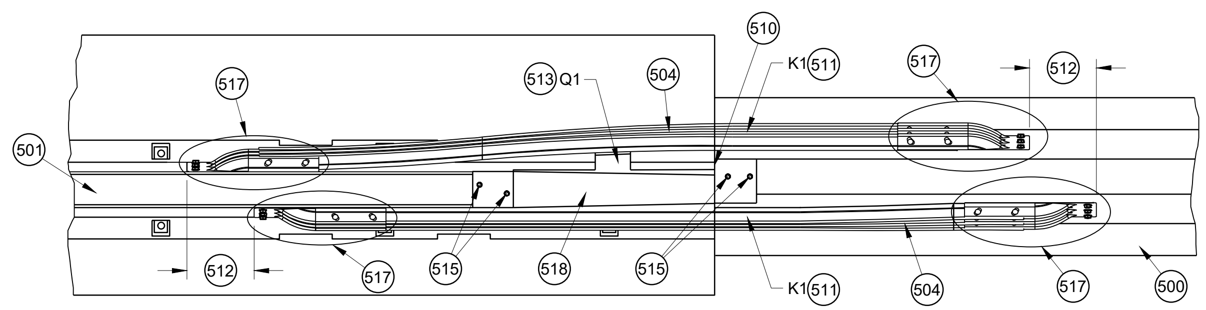
CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE



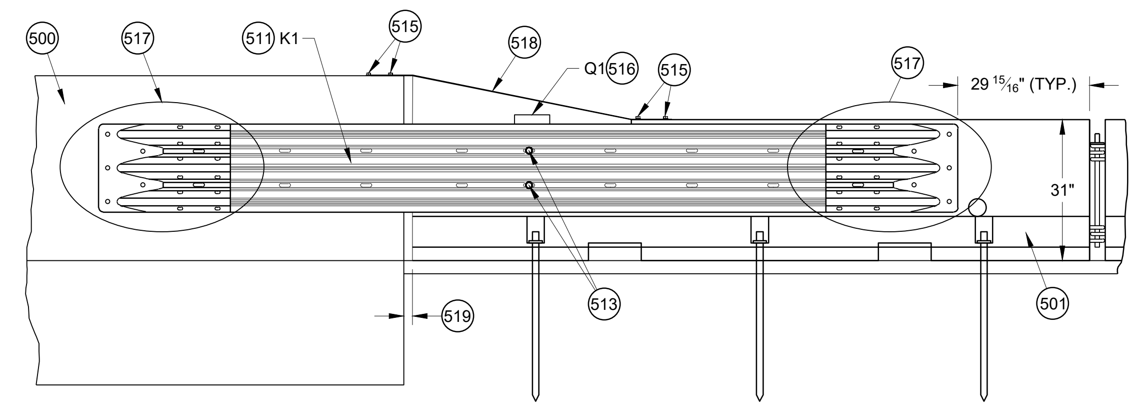
CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE



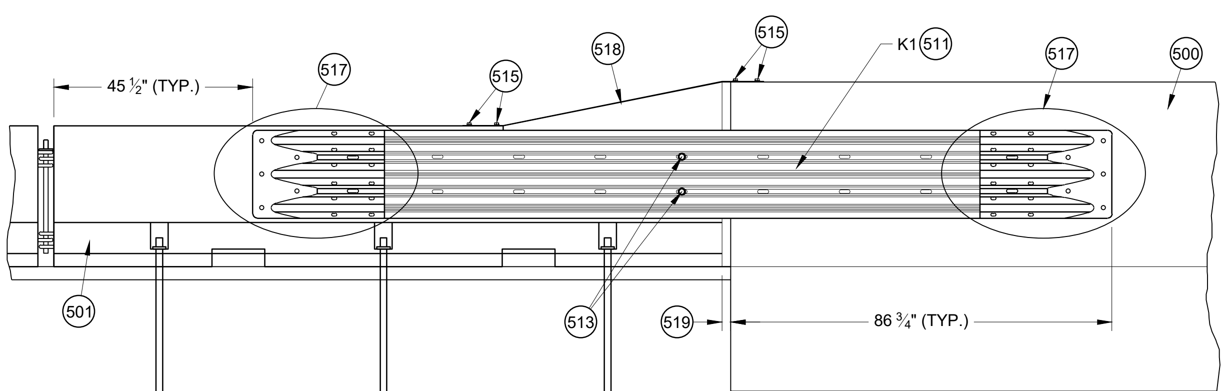
CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL



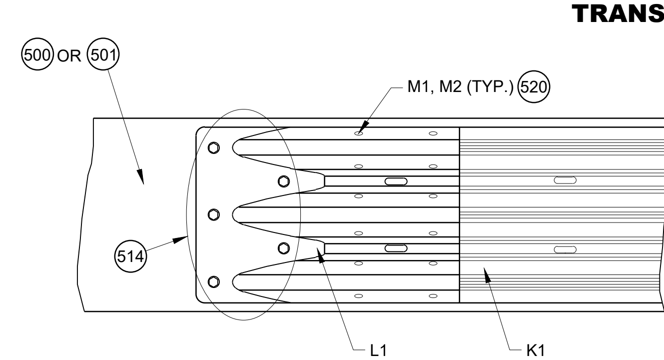
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



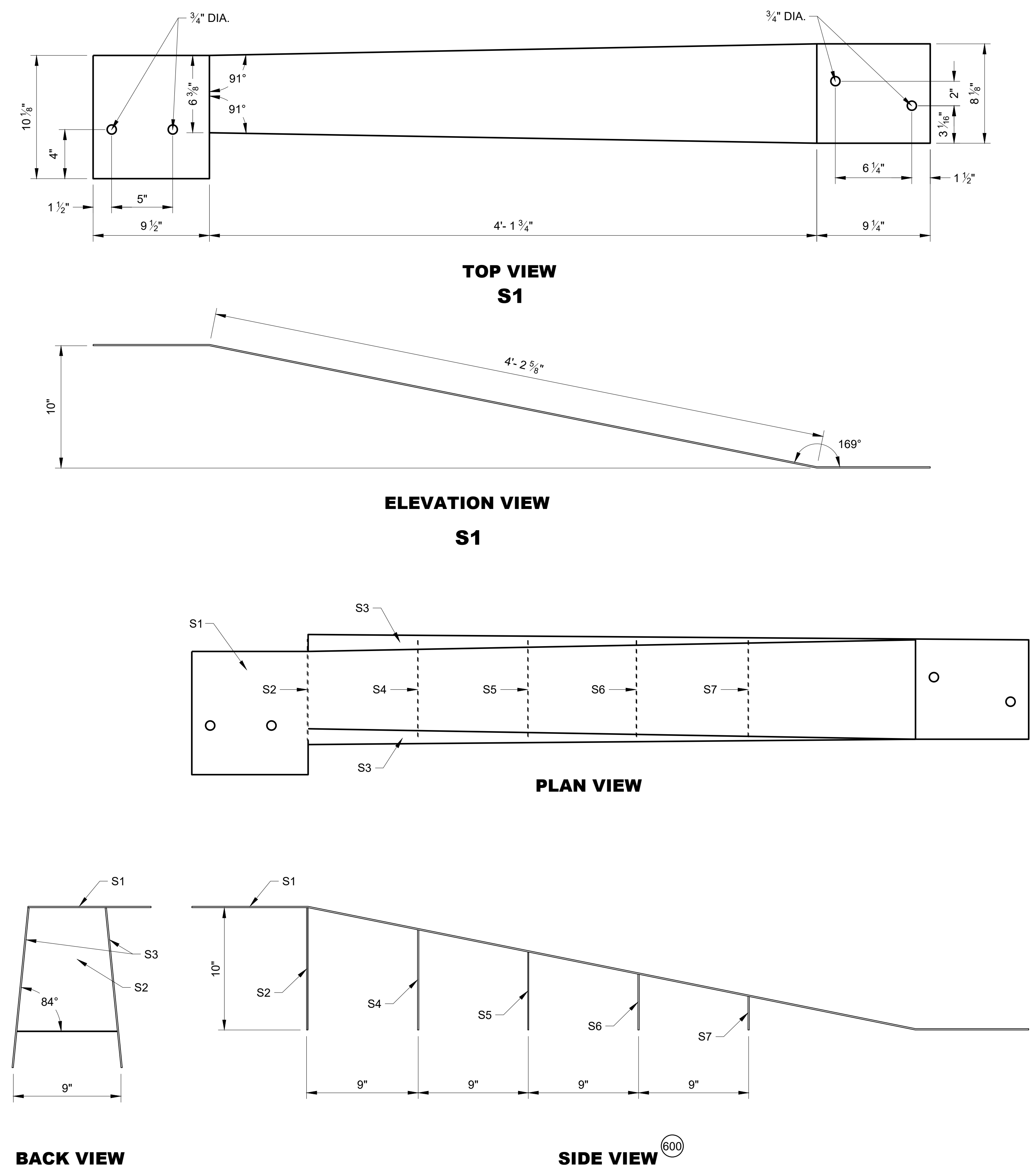
FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER



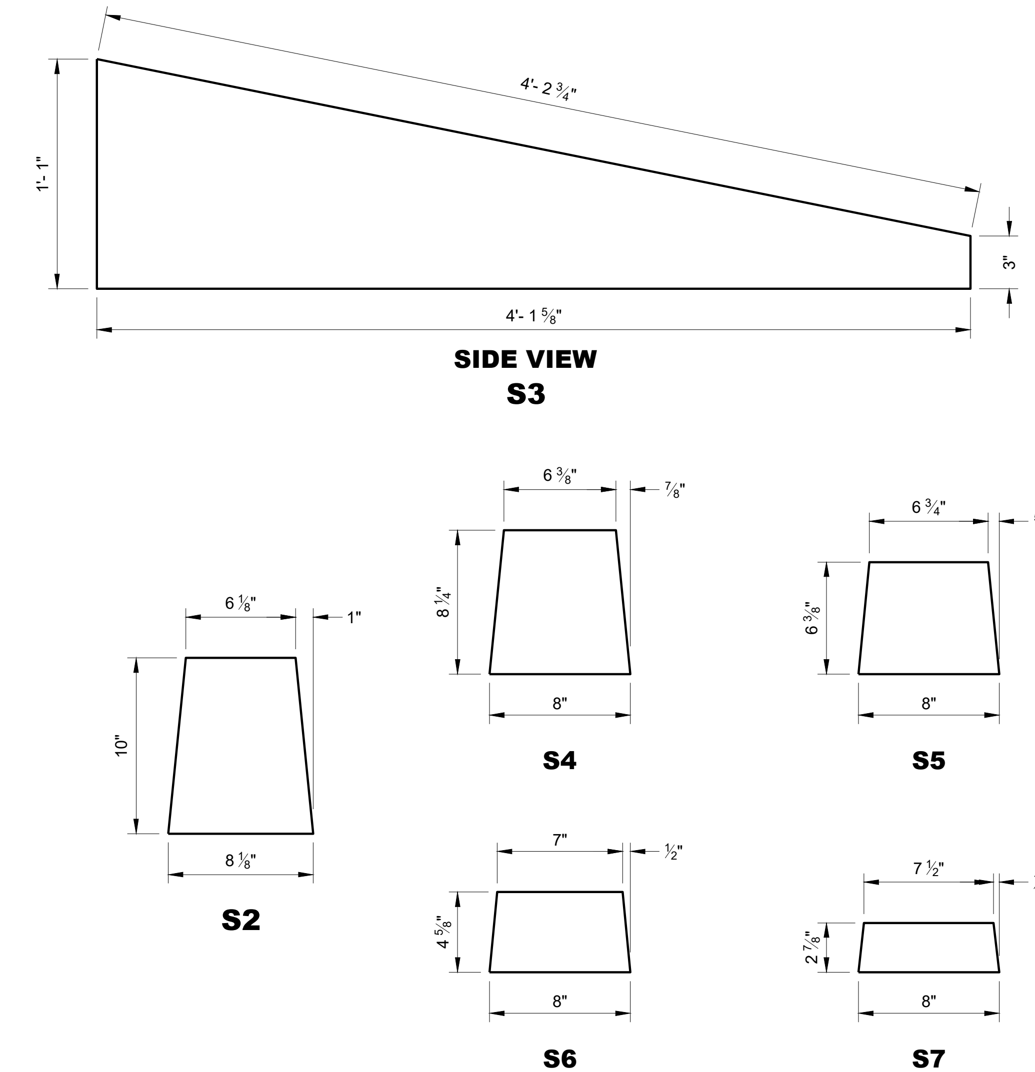
(517) **DETAIL PLAN VIEW**
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT



42" TOP CAP ASSEMBLY



GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

600 SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

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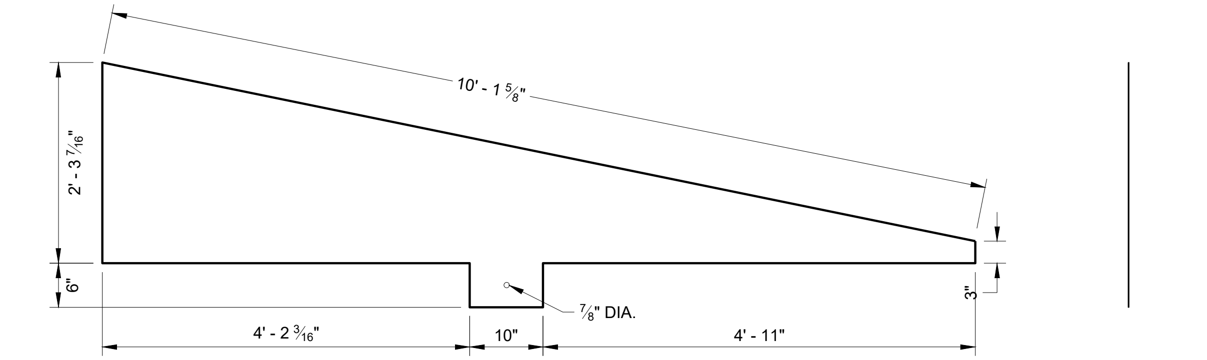
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

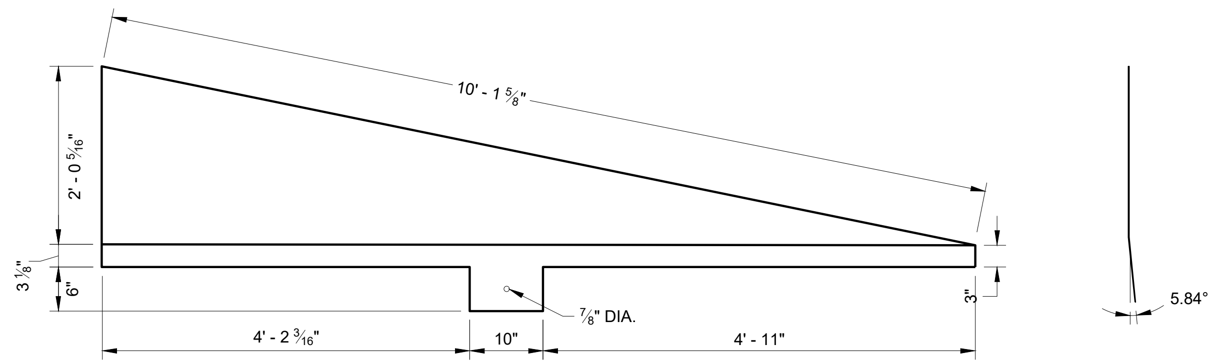
SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



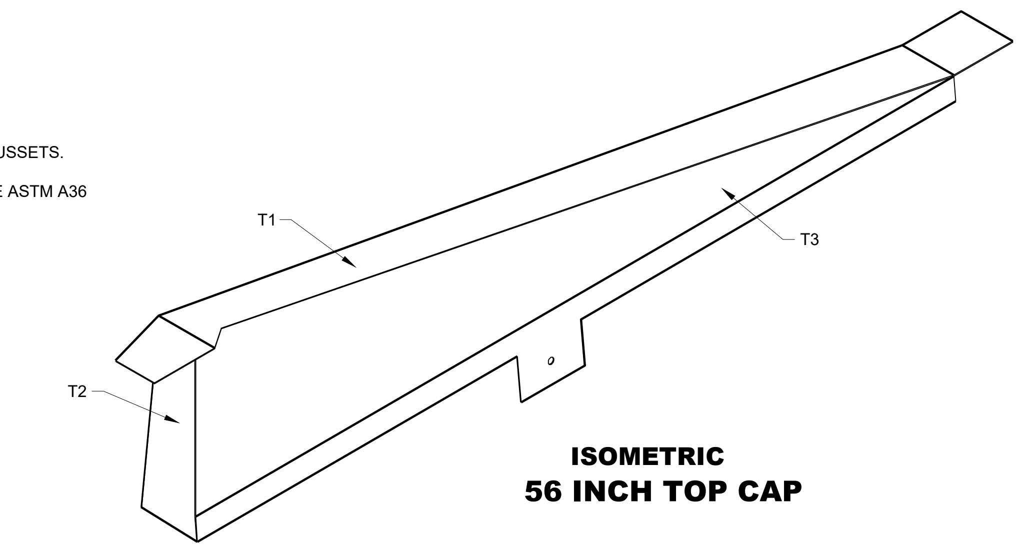
SIDE VIEW
T4

END VIEW

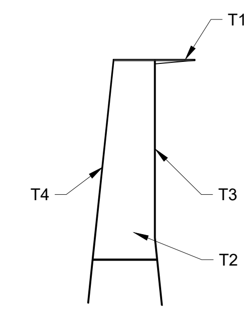


SIDE VIEW
T3

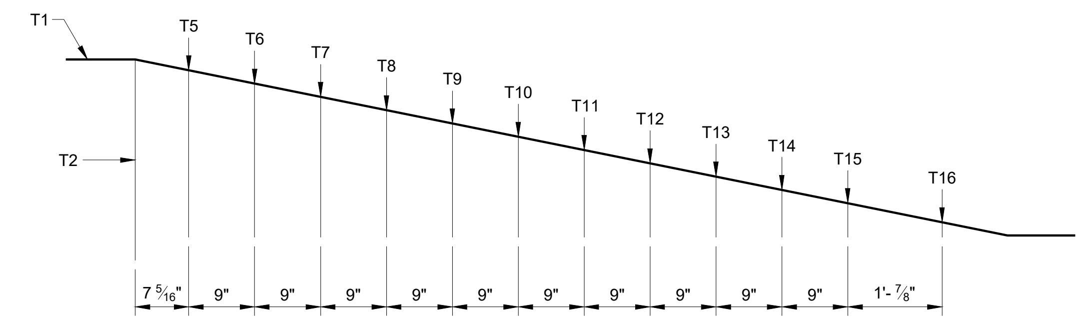
END VIEW



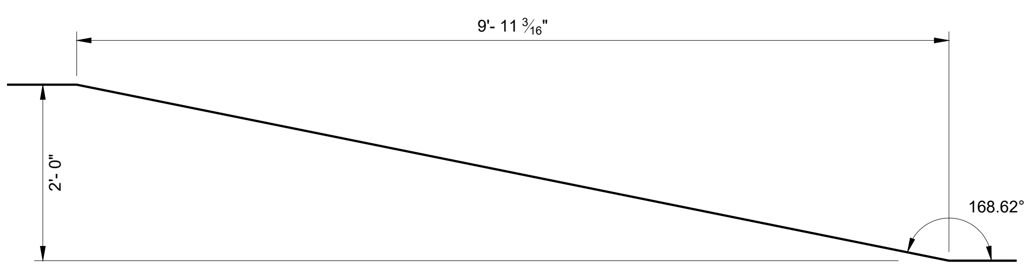
ISOMETRIC
56 INCH TOP CAP



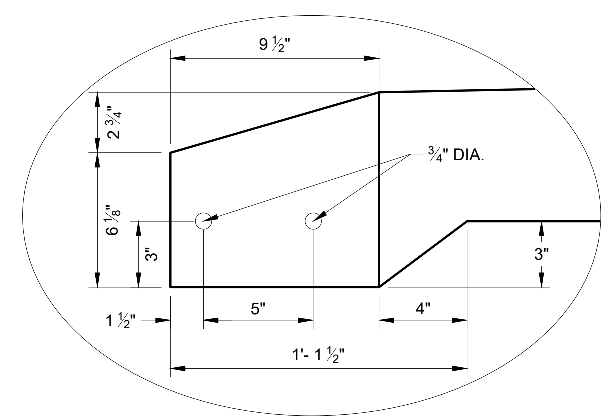
END VIEW
56 INCH TOP CAP



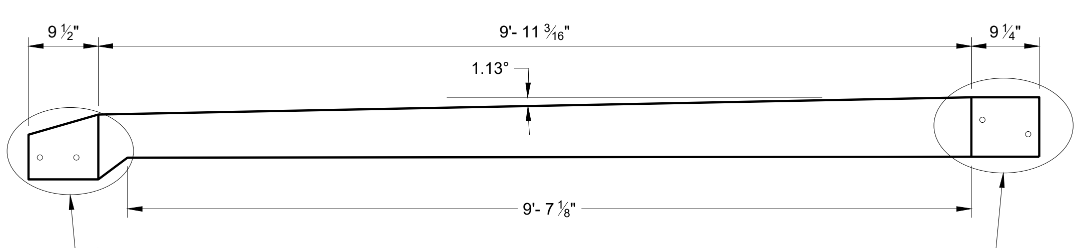
SIDE VIEW
56 INCH TOP CAP (700)



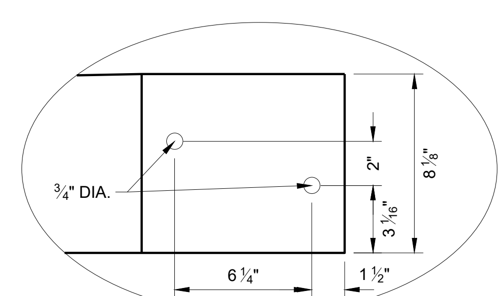
SIDE VIEW
TOP PLATE T1



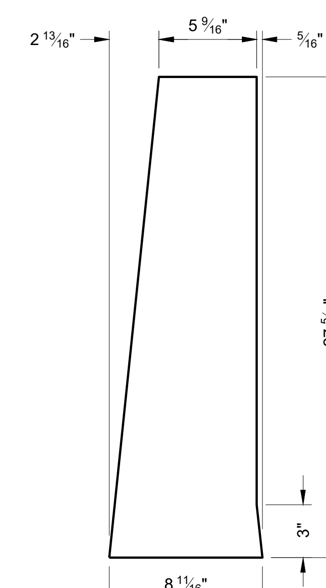
DETAIL "A"



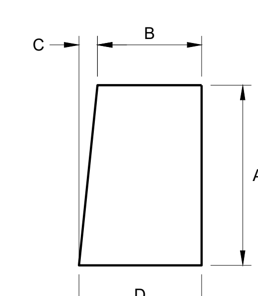
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 11/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 9/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	11/16"	8 1/16"
T15	4 11/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

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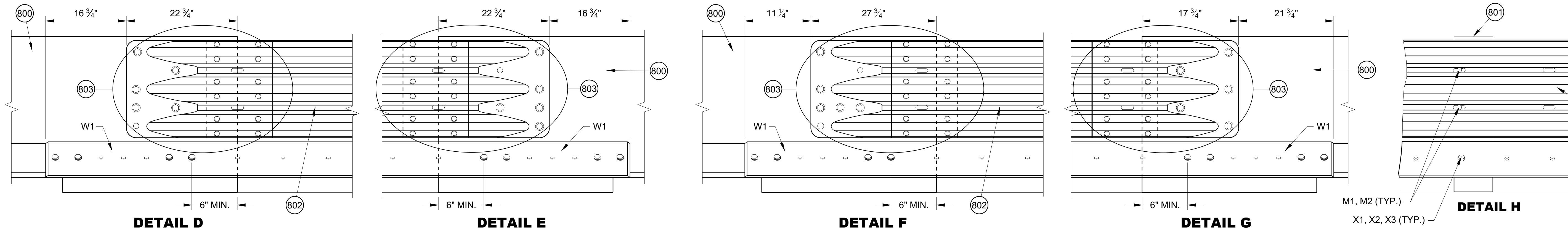
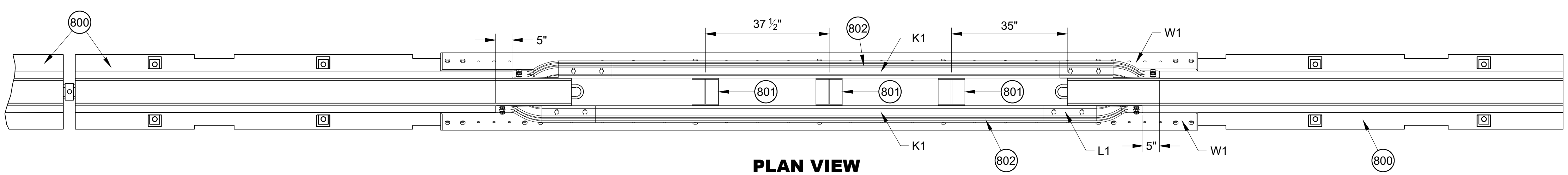
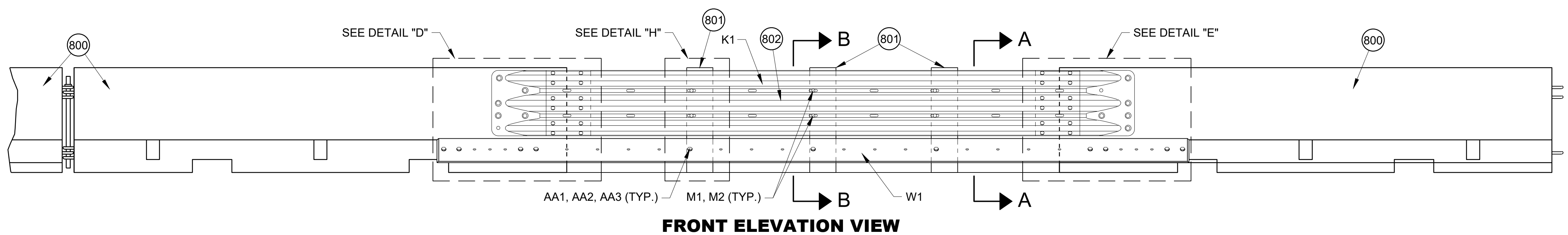
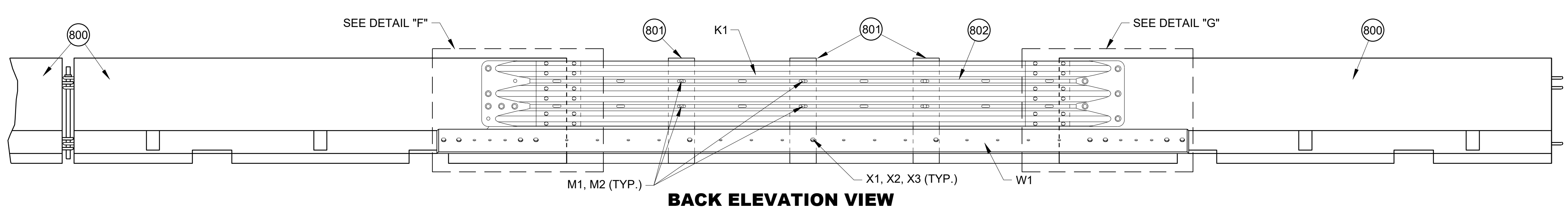




GENERAL NOTES

- (800) FREE STANDING TEMPORARY BARRIER
- (801) GAP STIFFENER ASSEMBLY
- (802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.
- (803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL





PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

6

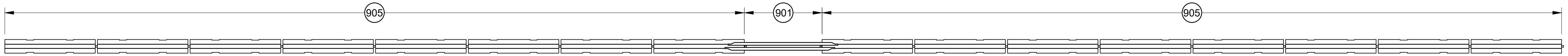
6

SDD 14B07-16h

SDD 14B07-16h

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
GAP WITHIN SPACING

GENERAL NOTES

(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)

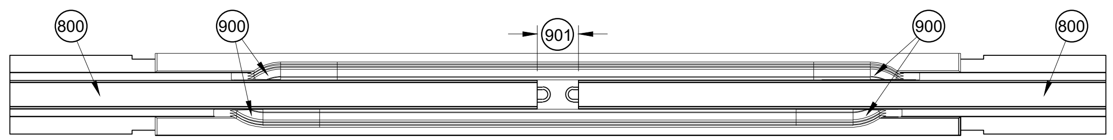
(901) TEMPORARY BARRIER GAP

(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.

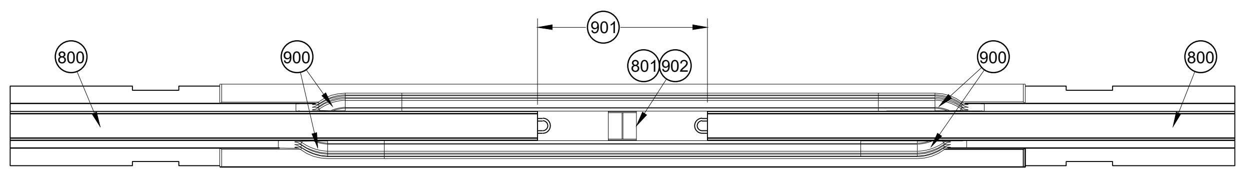
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER

(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.

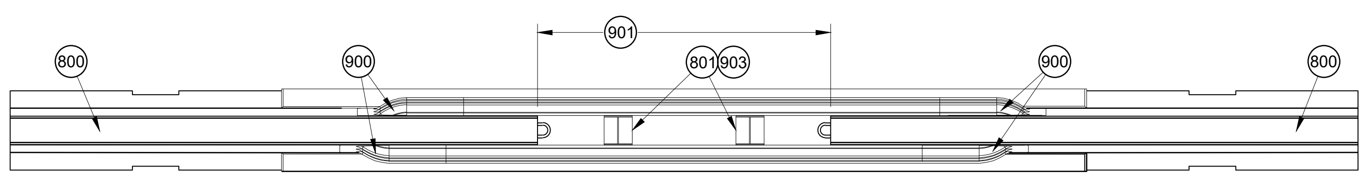
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



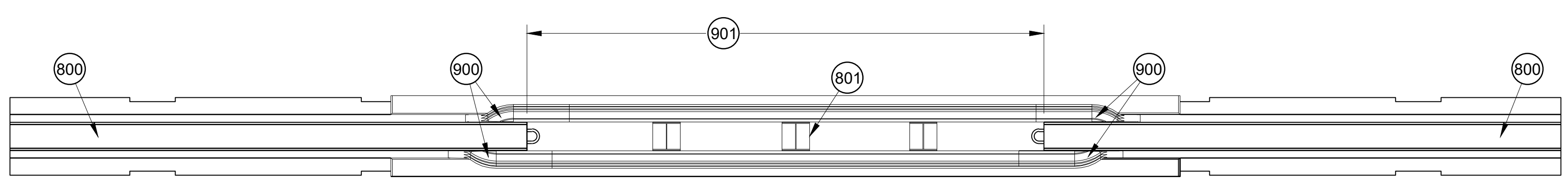
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

6

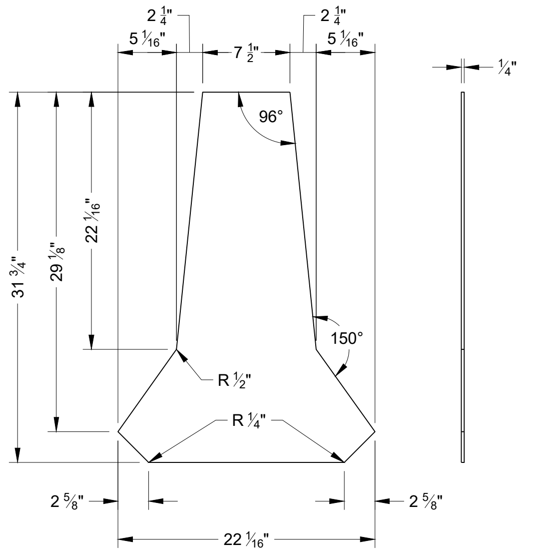
6

SDD 14B07-16i

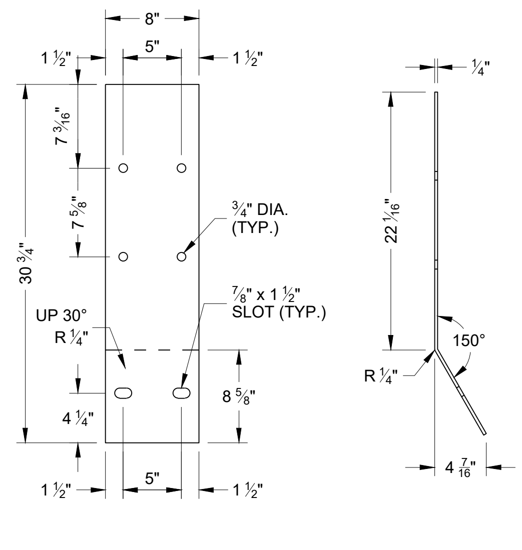
SDD 14B07-16i

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

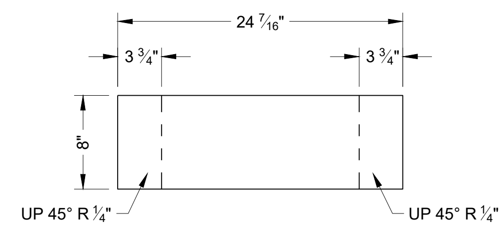
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT



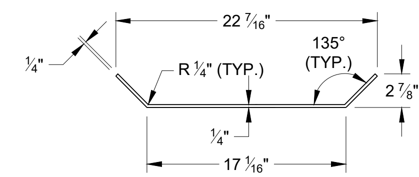
PROFILE VIEW SIDE VIEW



FLAT PATTERN SIDE VIEW



FLAT PATTERN

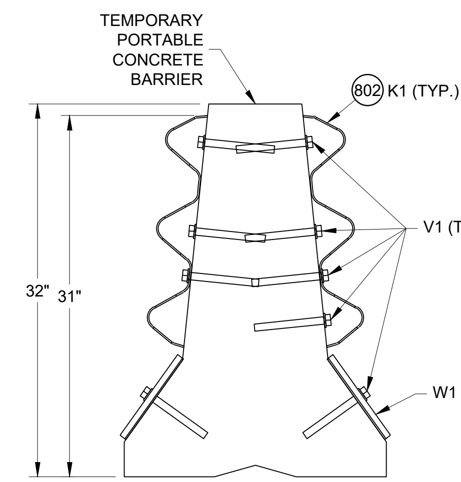


PROFILE VIEW

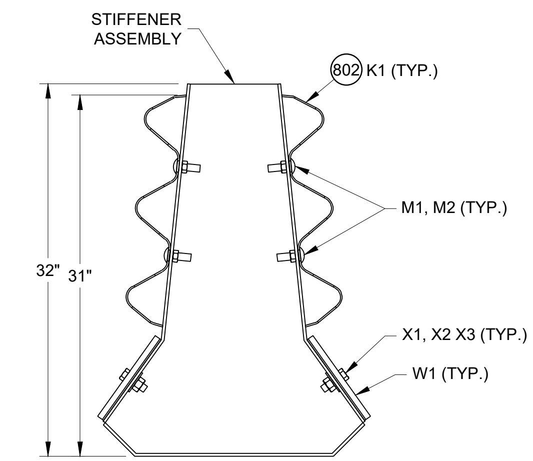
STIFFENER ASSEMBLY CENTER PANEL U1

STIFFENER ASSEMBLY SIDE PANEL U2

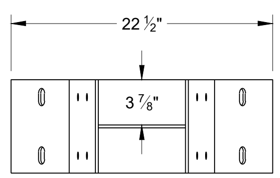
STIFFENER ASSEMBLY BOTTOM PANEL U3



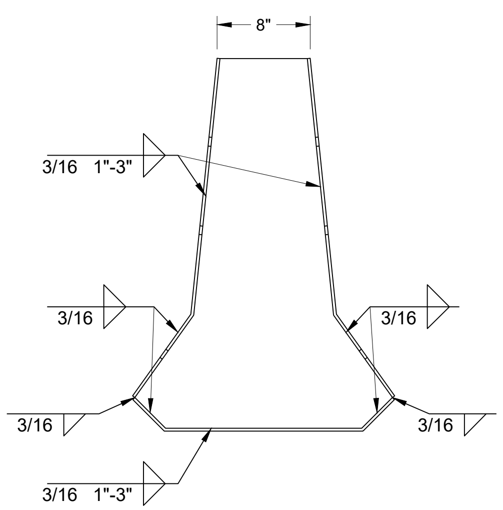
SECTION A - A



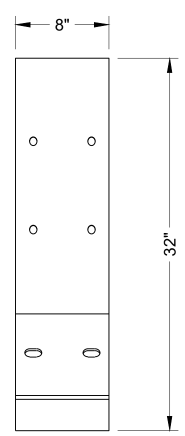
SECTION B - B



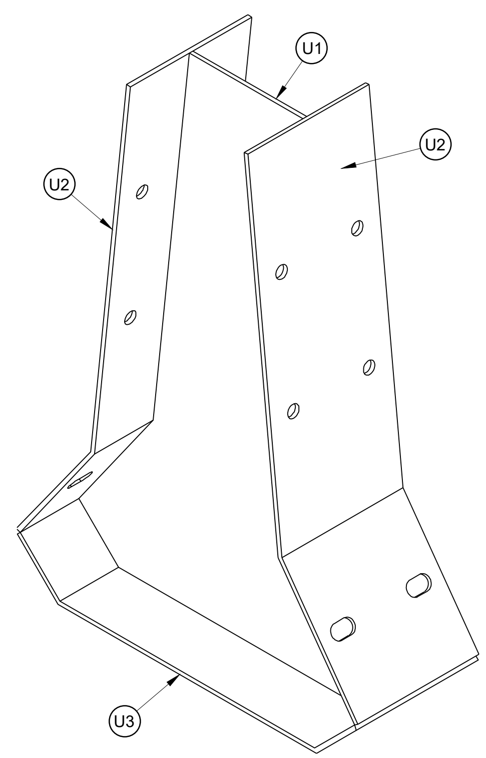
PLAN VIEW



PROFILE VIEW

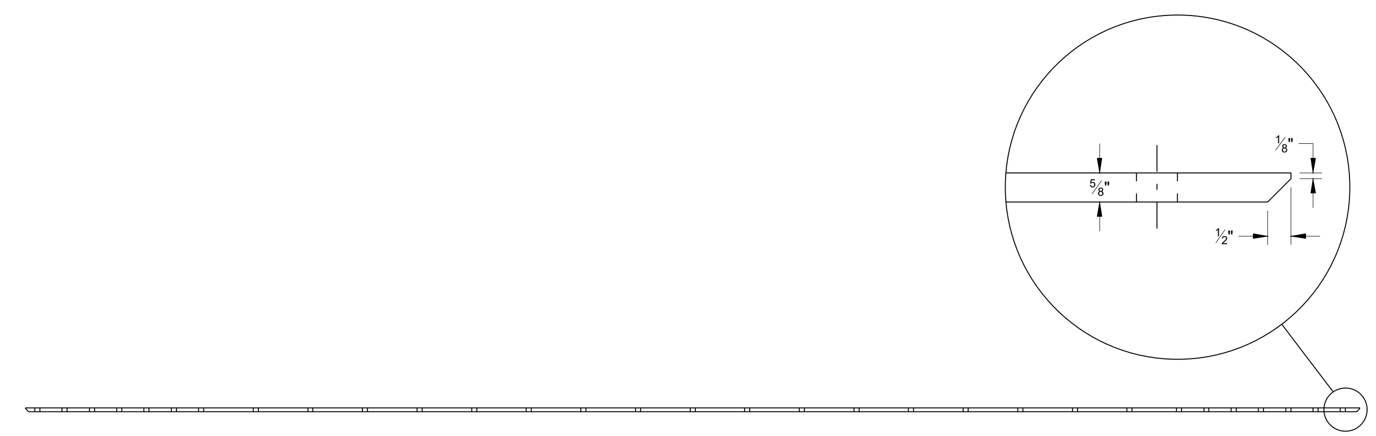


SIDE VIEW

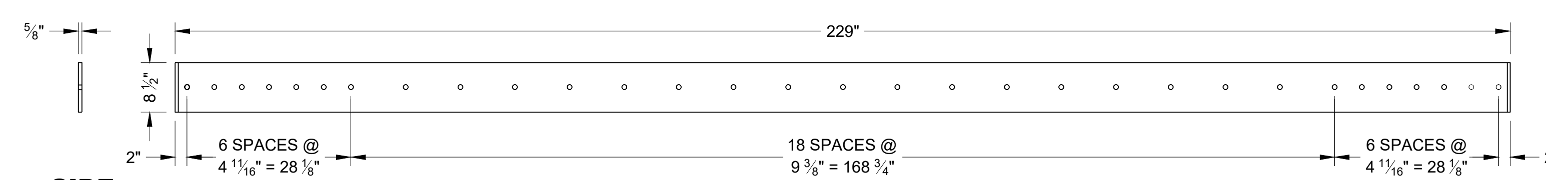


ISOMETRIC

GAP STIFFENER ASSEMBLY



PLAN VIEW



SIDE VIEW

ELEVATION VIEW

W1 TOE PLATE

6

SDD 14B07-16j

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

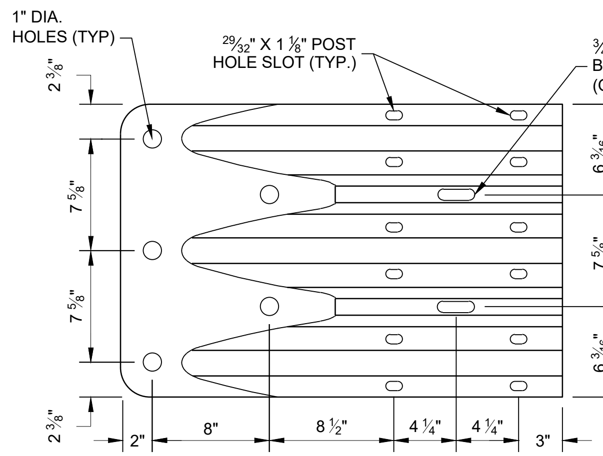
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI

GENERAL NOTES

1100 1" DIA. HOLE

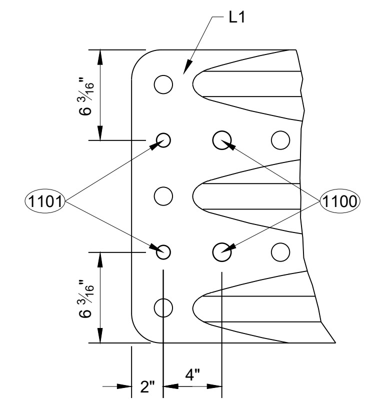
1101 ¾" DIA. HOLE

1102 PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM 1102 TERMINAL CONNECTOR HOLE DETAIL

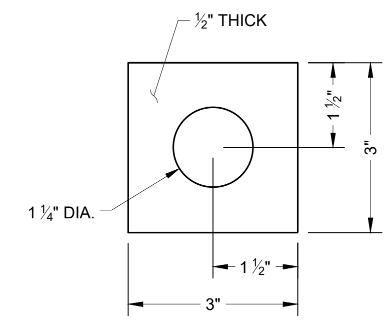
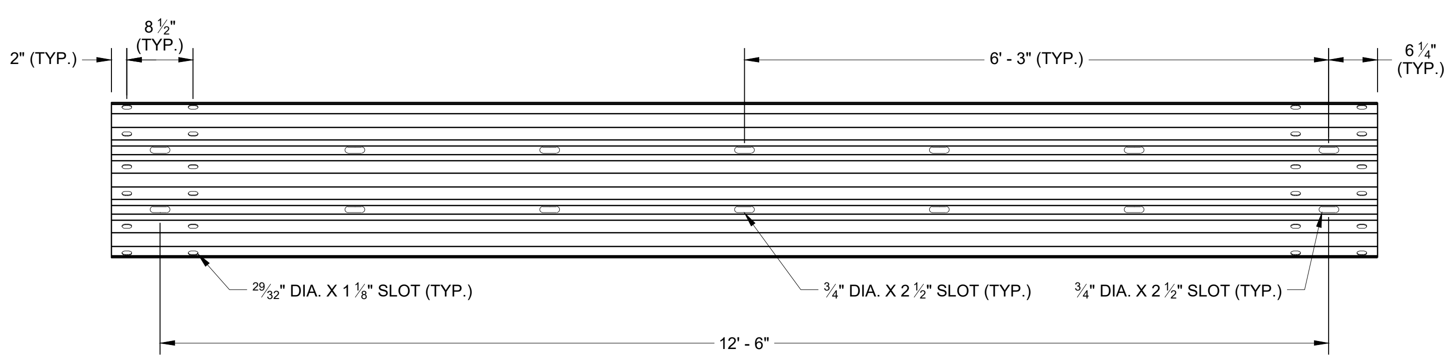
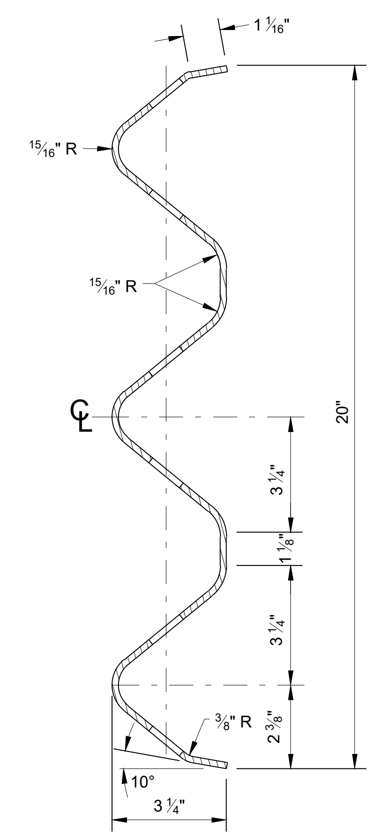


PLATE WASHER DETAIL G2, H3



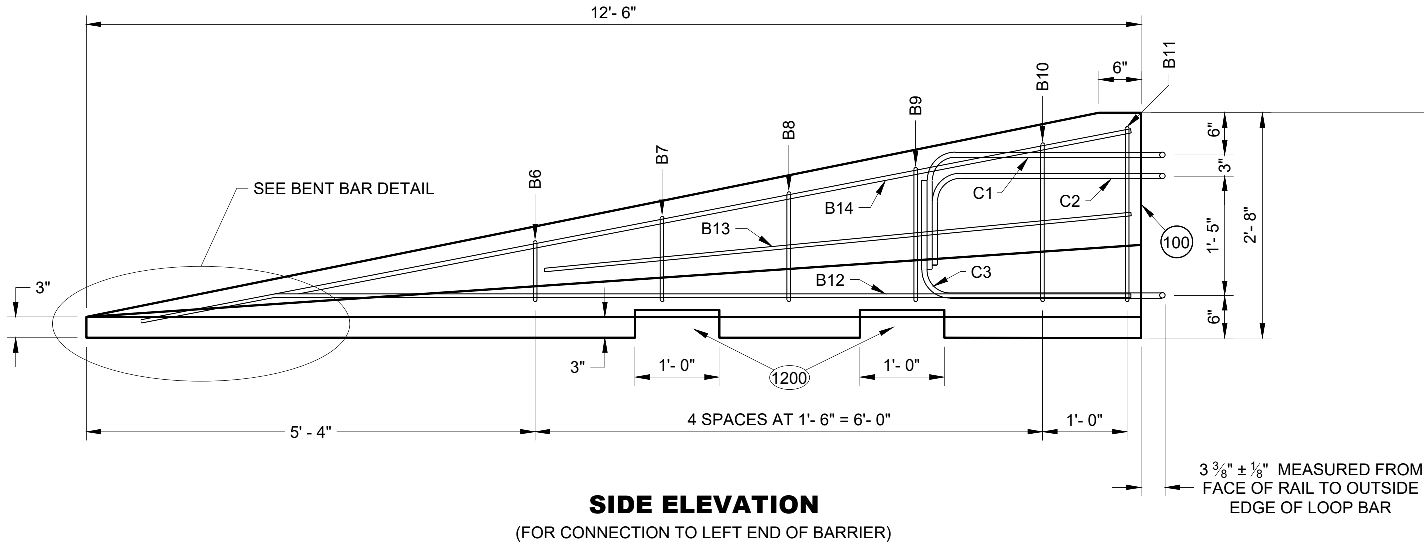
SLOTTED THRIE BEAM RAIL K1



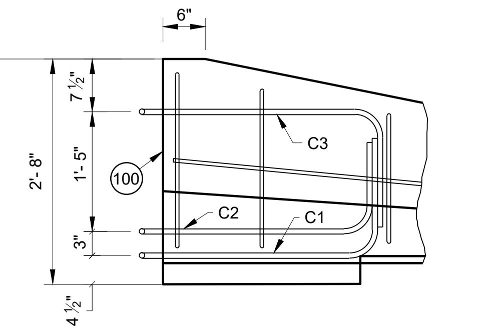
SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



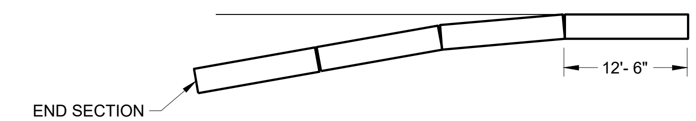
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END
(FOR CONNECTION TO RIGHT END OF BARRIER)

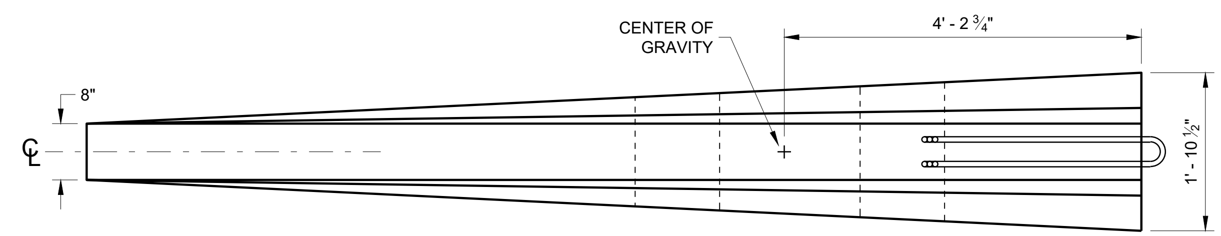
GENERAL NOTES

1200 SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

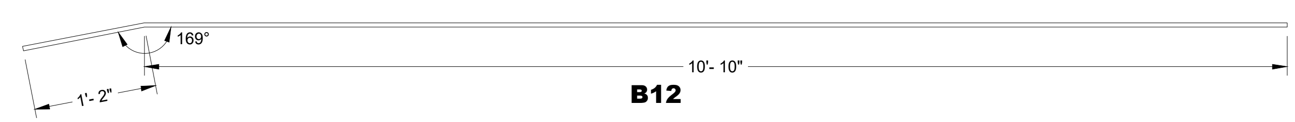


FLARE AT BARRIER END

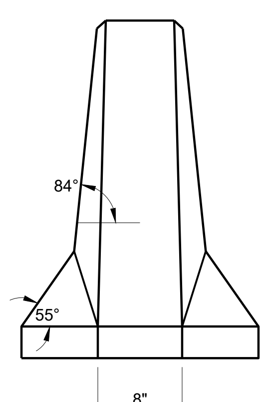
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



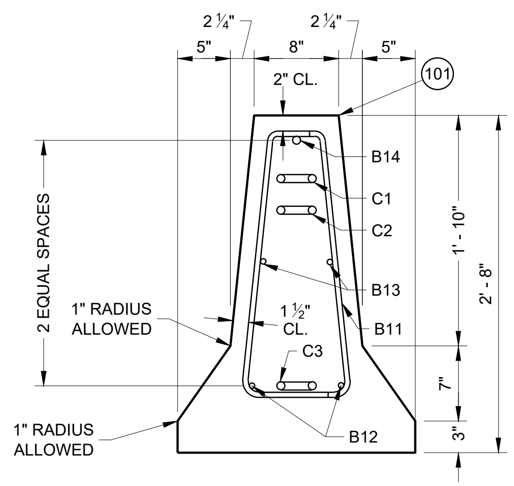
PLAN VIEW



B12

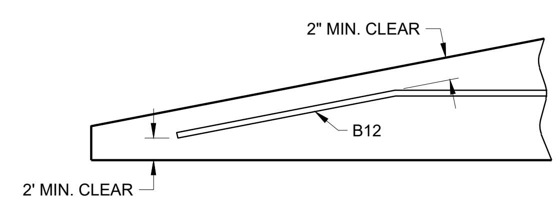


FRONT ELEVATION

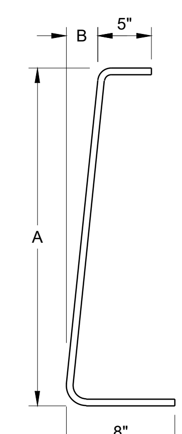


END SECTION

DETAILS OF BARRIER TAPER SECTION



BENT BAR DETAIL



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 1/4"
B8	1'- 5"	1 5/8"
B9	1'- 8"	1 7/8"
B10	2'- 0 1/2"	2 3/8"
B11	2'- 3"	2 3/4"

B BARS
2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	3/4" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	3/4" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	3/4" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 1/4" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 1/8" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 1/4" EMBEDMENT WITH A MIN. BOND STRENGTH OF 1,650 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 1/8" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 1/2" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	3/4" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	3/4" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	5/8" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE

6

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI

SDD 14B07-16m

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
T1	CAP 56-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T2	CAP 56-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T3	CAP 56-INCH SIDE PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T4	CAP 56-INCH SIDE PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T5	CAP 56-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T6	CAP 56-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T7	CAP 56-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T8	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T9	CAP 42-INCH GUSSET 5	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T10	CAP 42-INCH GUSSET 6	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T11	CAP 42-INCH GUSSET 7	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T12	CAP 42-INCH GUSSET 8	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T13	CAP 42-INCH GUSSET 9	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T14	CAP 42-INCH GUSSET 10	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T15	CAP 42-INCH GUSSET 11	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T16	CAP 42-INCH GUSSET 12	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
U1	GAP STIFFENER	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U2	GAP STIFFENER - CONNECTOR PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U3	GAP STIFFENER - CONNECTOR PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	

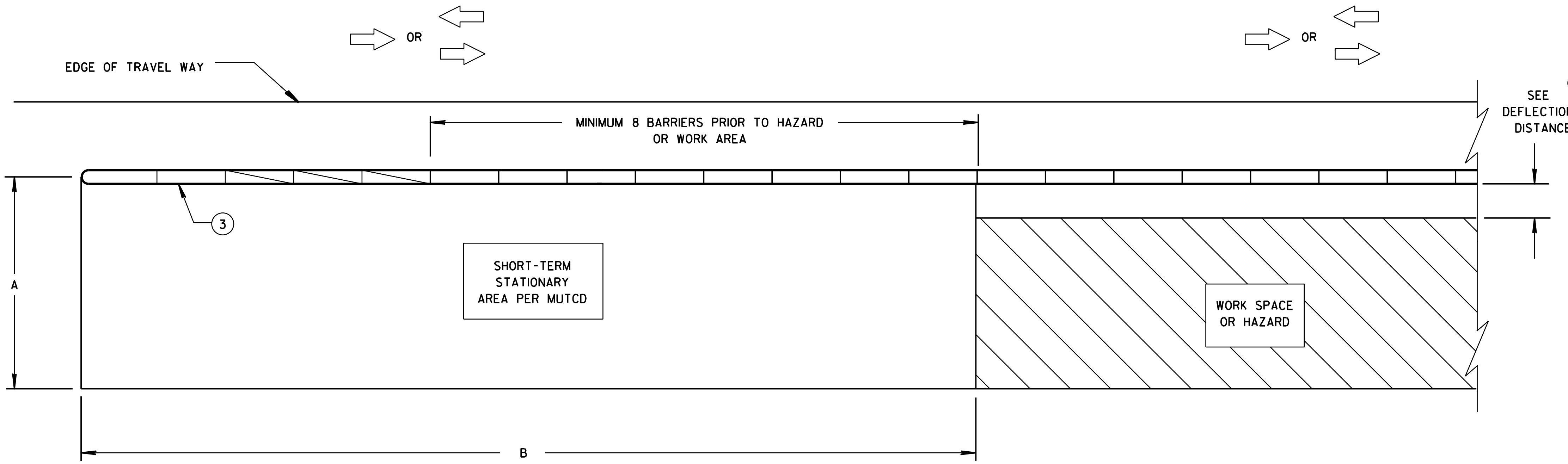
PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
V1	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 24.0 KIPS AND ULTIMATE SHEAR LOAD 21.5 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	¾" DIA.
V2	GAP STIFFENER - BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C O R MECHANICAL GALVANIZE TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
W1	TOE PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
X1	TOE PLATE - CONNECTION BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC HEAVY HEX HEAD OR AASTHO M180 HEAD, ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	¾" DIA.
X2	TOE PLATE - CONNECTION BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1 (HARDEN WASHER ONLY)	
X3	TOE PLATE - CONNECTION BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

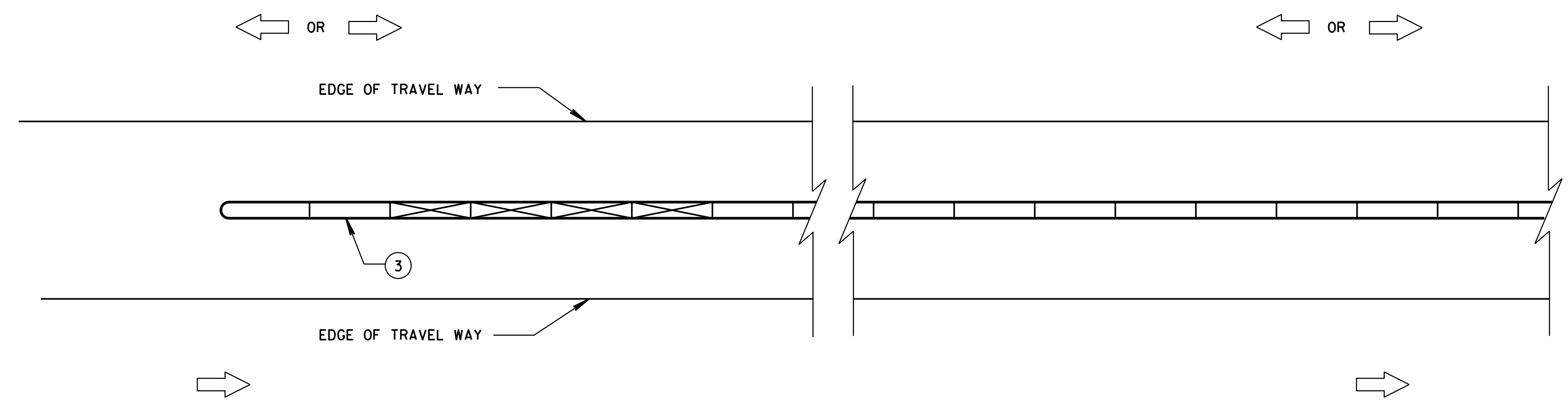
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
SDD 14B07-16n



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

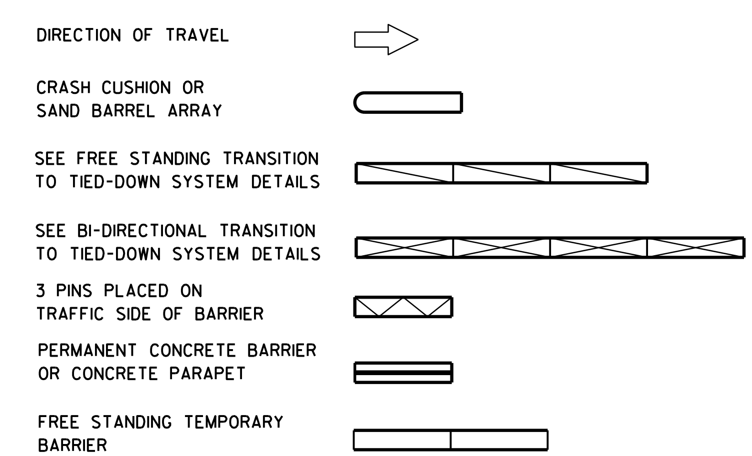
DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A MIN. FT	DIMENSION A MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

LEGEND



GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

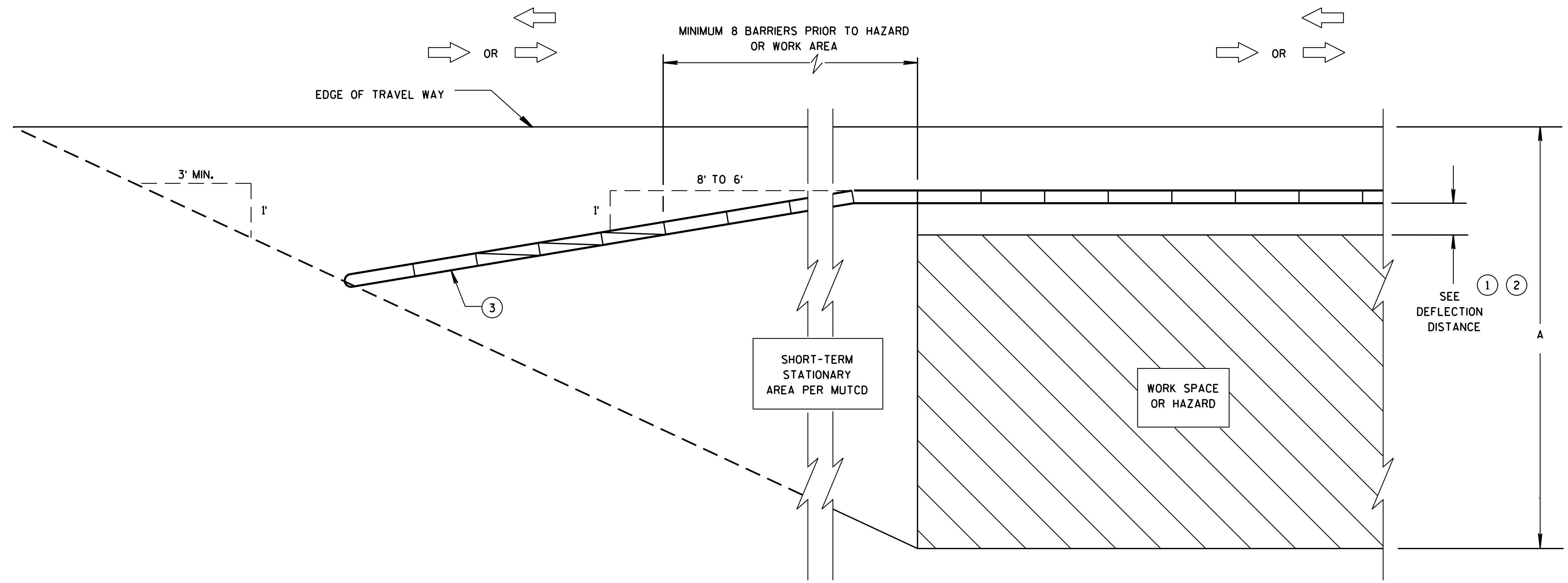
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

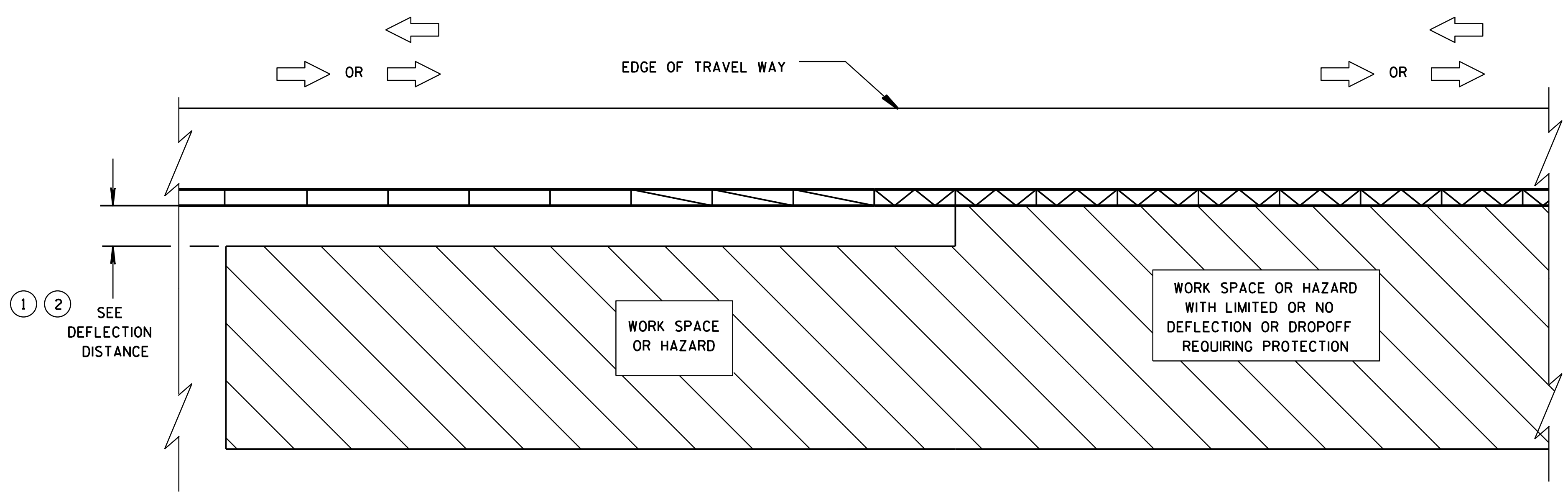
S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION

6

6



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

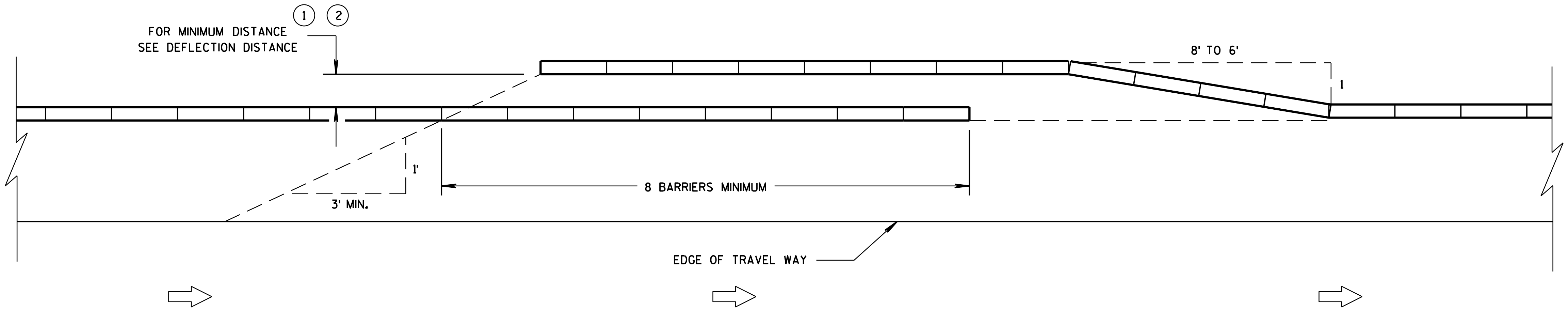
LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

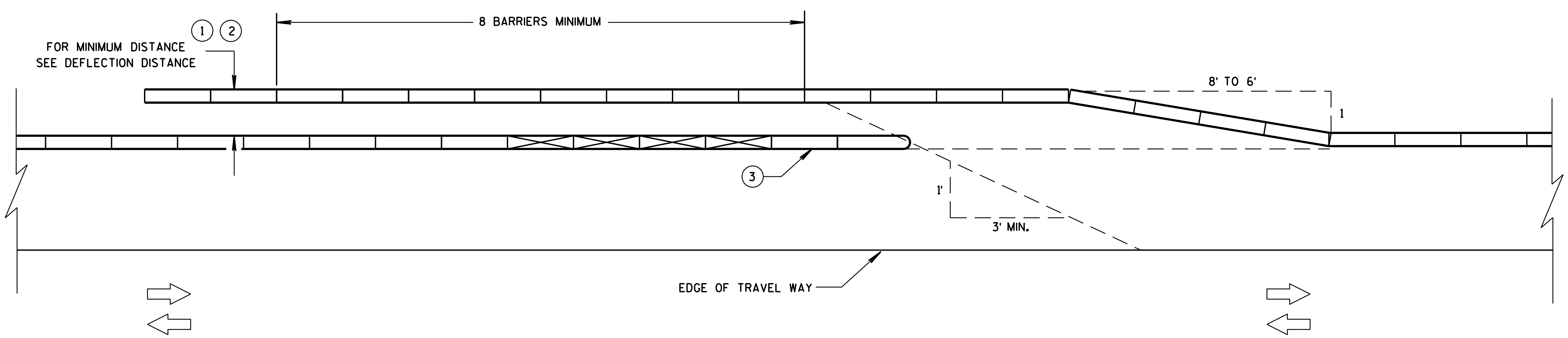
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO[illegible]

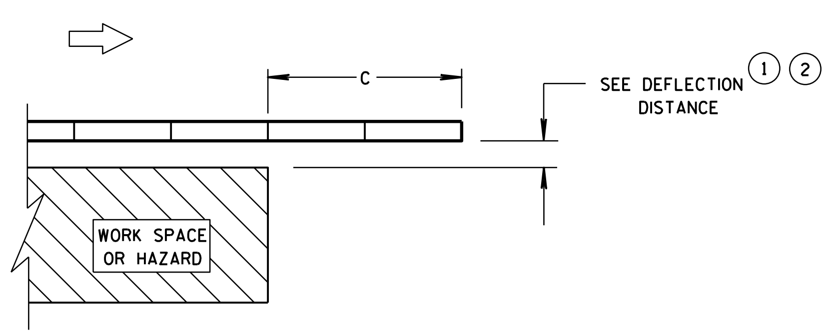
S.D.D. 14 B 8-2b



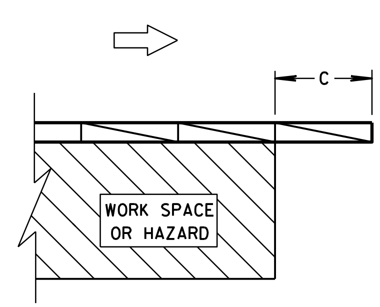
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC

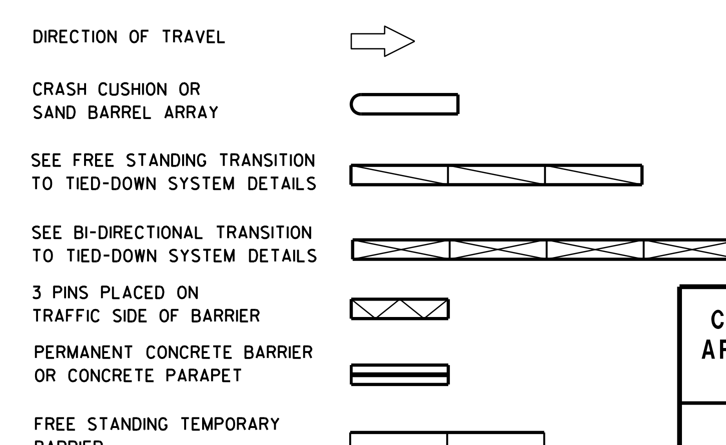


ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

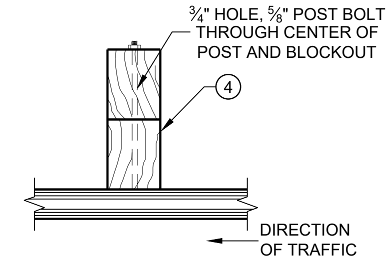
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

GENERAL NOTES

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6"X8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL AND WOOD POSTS IN A SINGLE INSTALLATION.
2. USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGE SPELTER COATING ON GALVANIZED POSTS.
3. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
4. USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
5. IF THE DISTACE FROM BACK OF POST TO SHOULDER HIGHE POINT IS LESS THAN 2 FEET, INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
6. IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCHES IN DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT ADEQUATELY.
7. WHEN USING STEEL POSTS AND WOOD BLOCKOUTS, INSTALL FOUR 16d GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

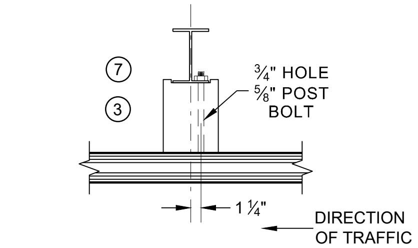
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

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



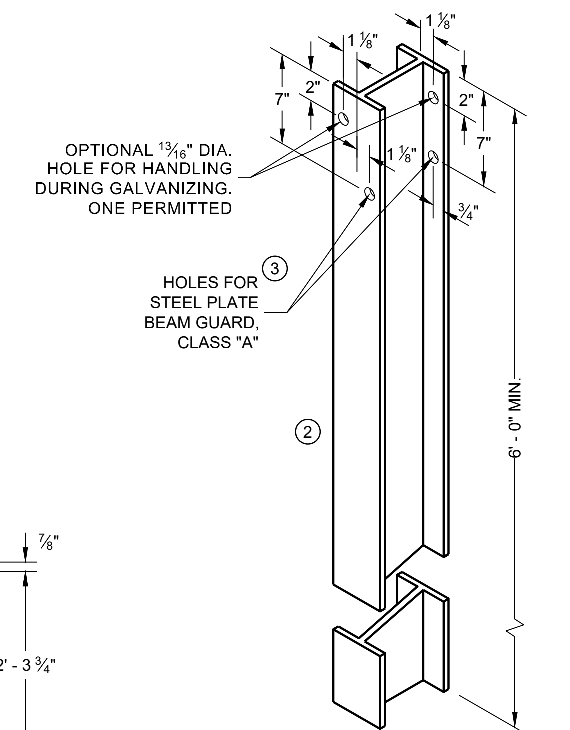
PLAN VIEW

WOOD POST, BLOCKOUT AND BEAM



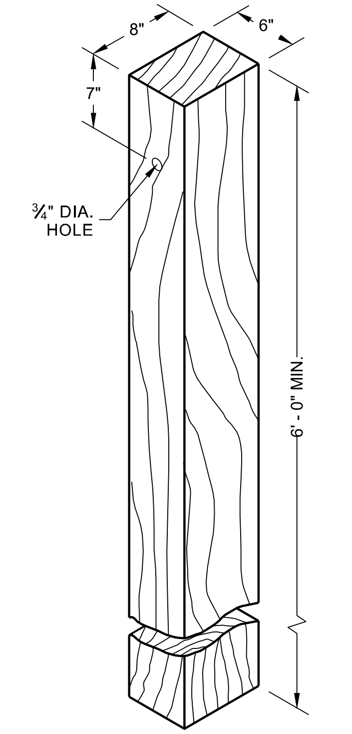
PLAN VIEW

WOOD POST, BLOCKOUT AND BEAM

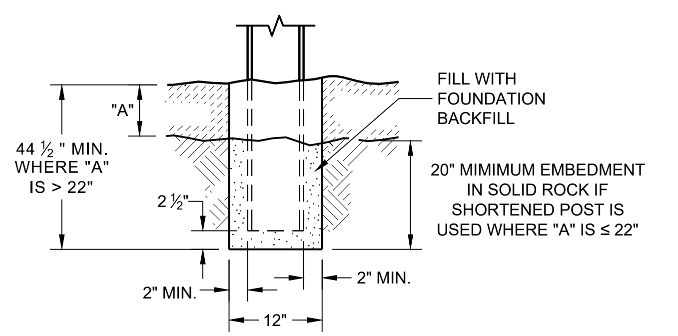


STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) 1

ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

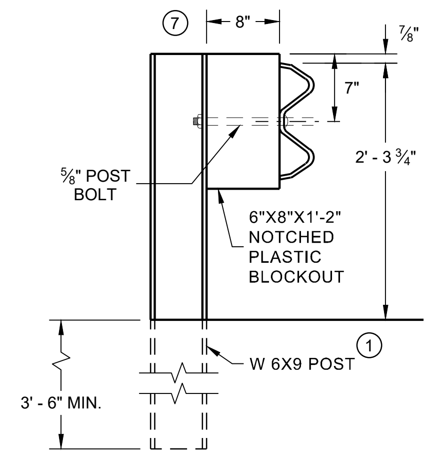


WOOD POST (6" X 8") NOMINAL 1



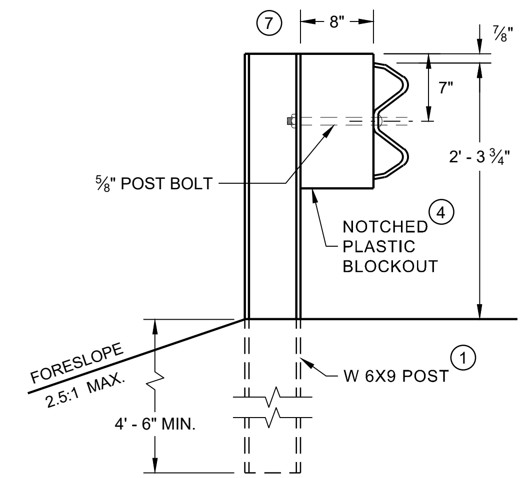
END VIEW

SETTING STEEL OR WOOD POST IN ROCK 6



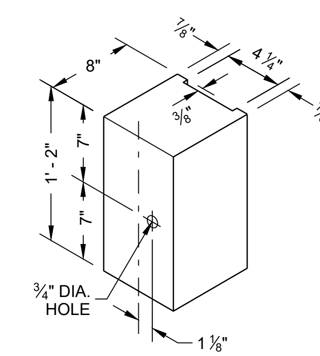
END VIEW

STEEL POST AND NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION

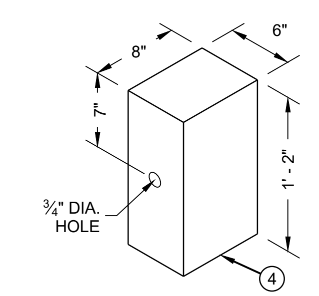


END VIEW

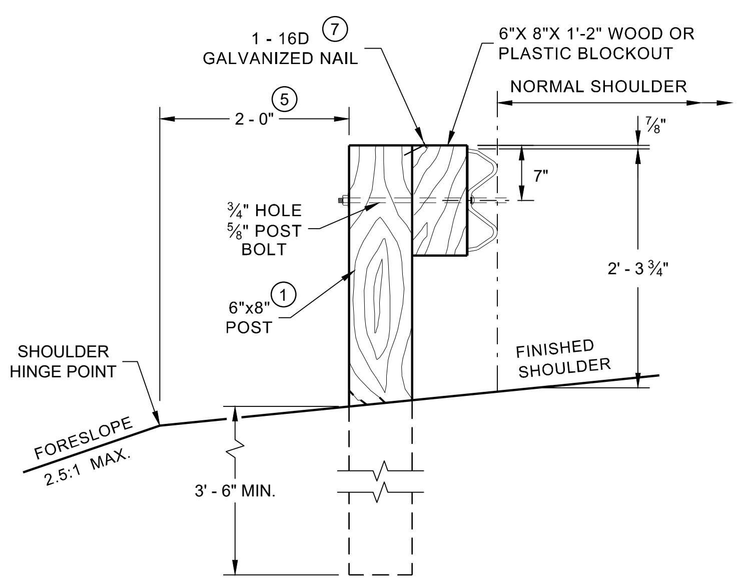
LONGER POST AT HALF POST SPACING W BEAM (LHW)



TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS

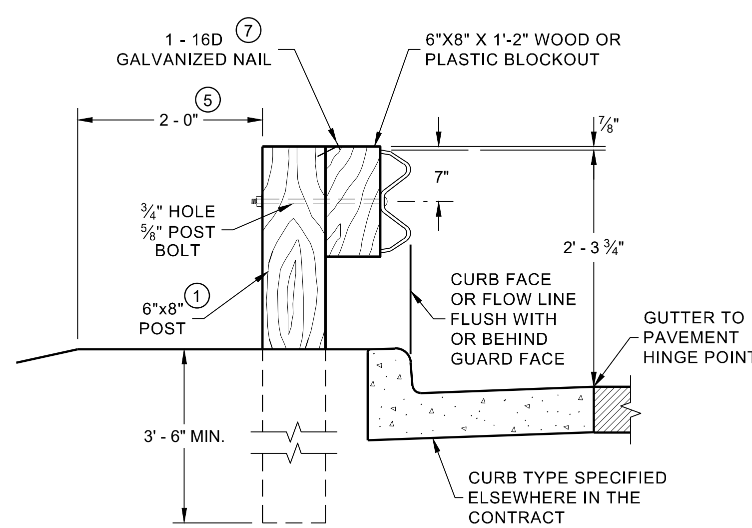


WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



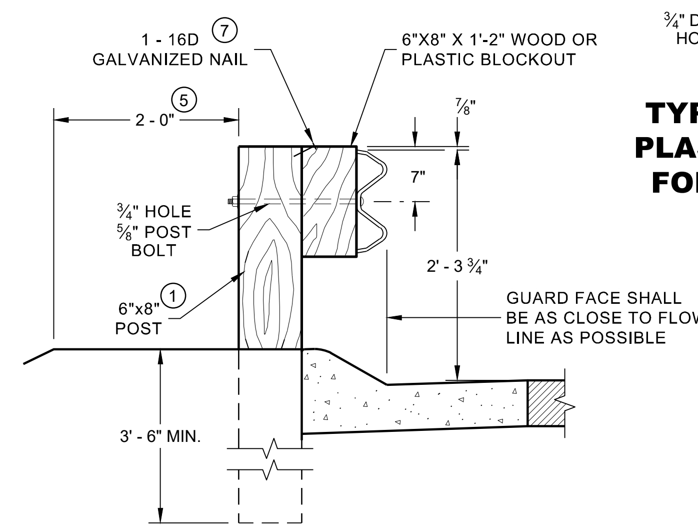
END VIEW

LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



END VIEW

LOCATED ALONG A CURBED ROADWAY

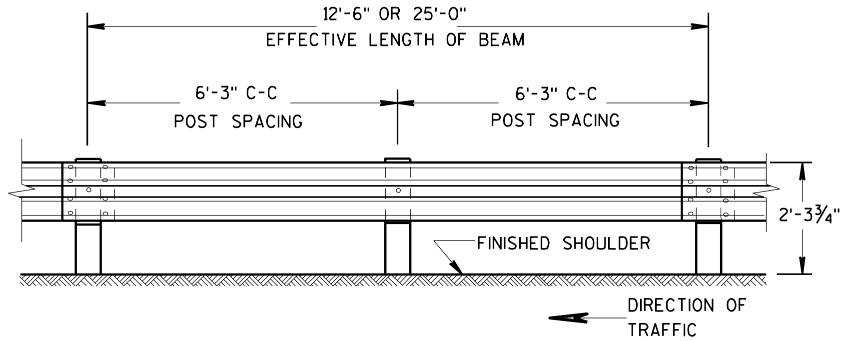


END VIEW

LOCATED ALONG A MOUNTABLE CURBED ROADWAY

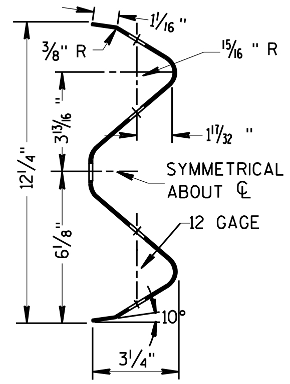
STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION AND ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

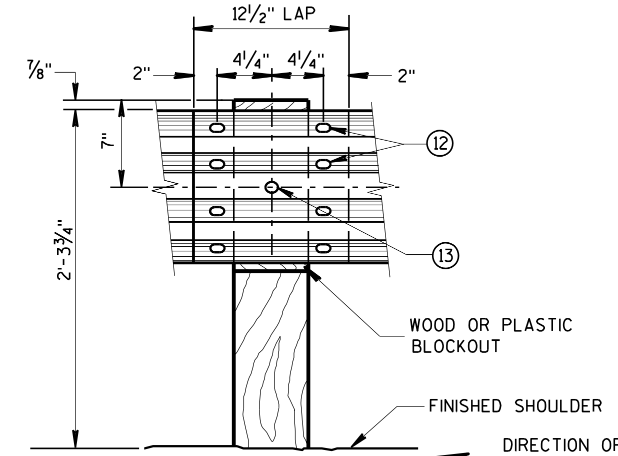


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL

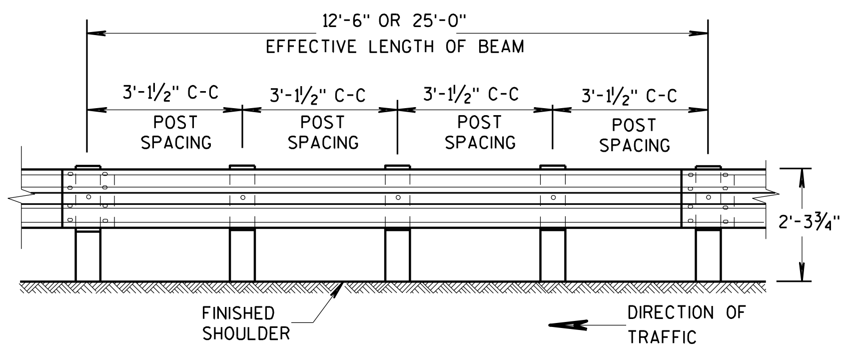
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

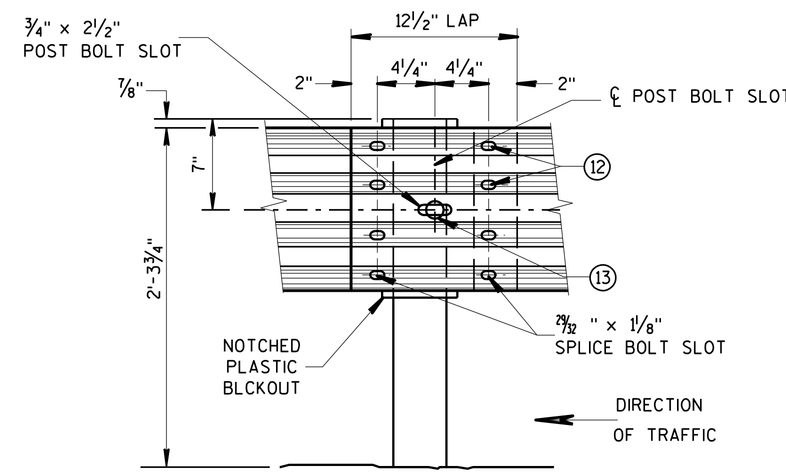
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



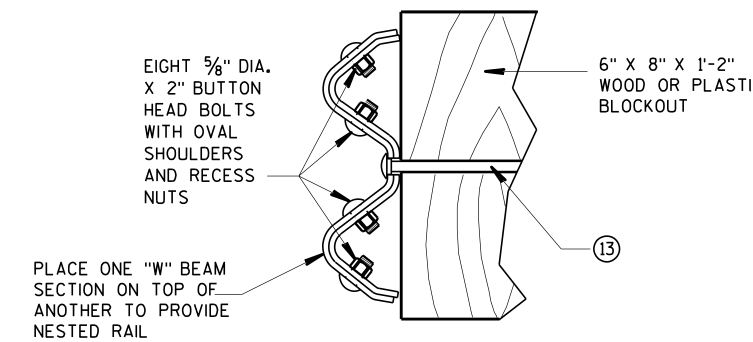
FRONT VIEW

POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW
BEAM SPLICE AT STEEL POST

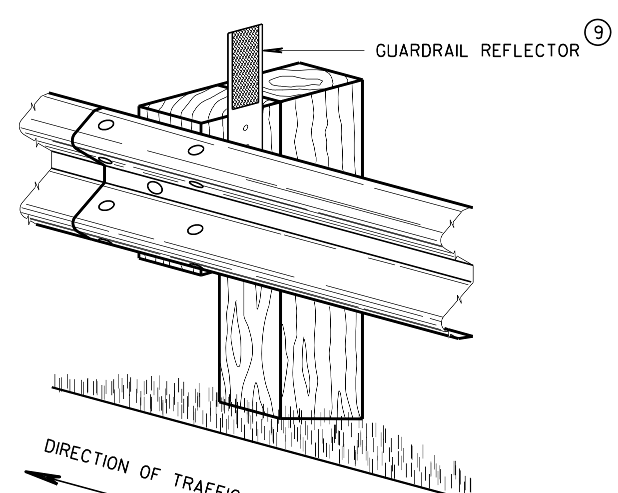
TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD



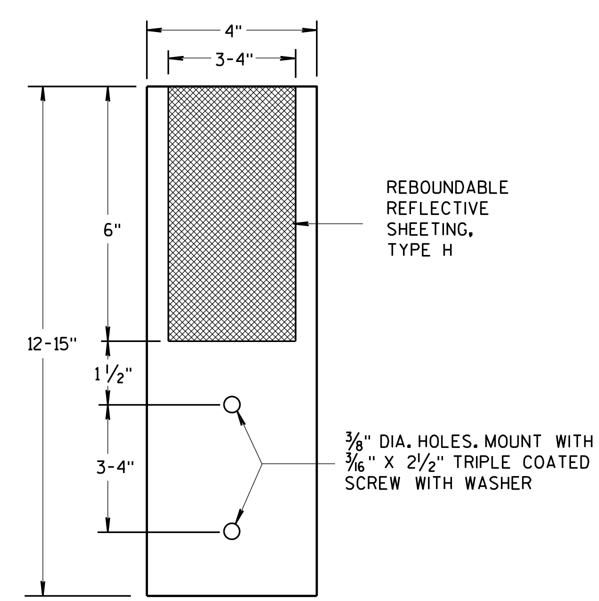
NESTED W BEAM (NW)

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

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



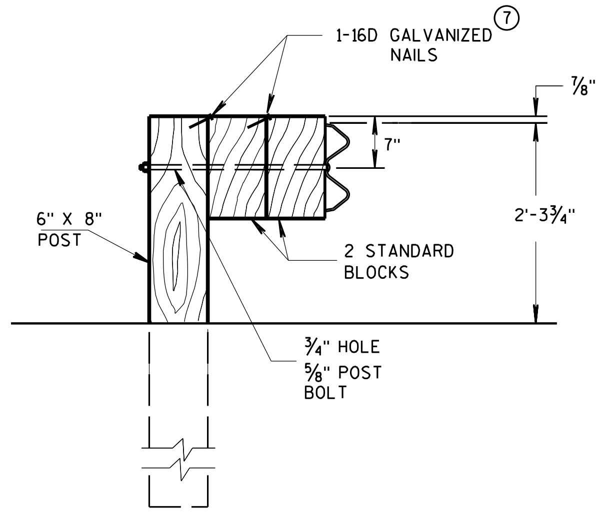
4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

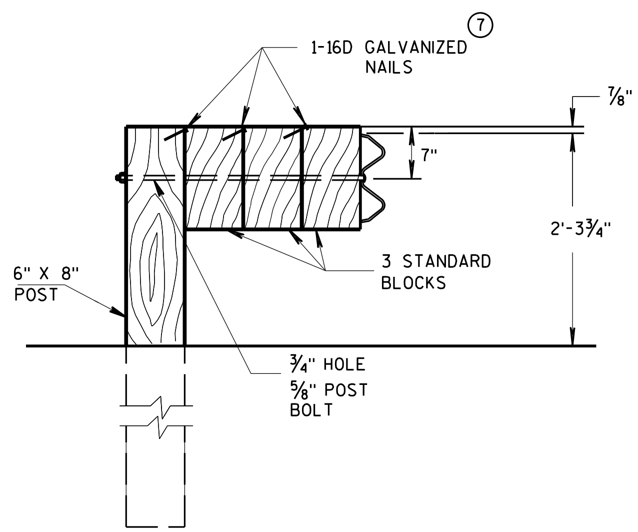
STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCO 146
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

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

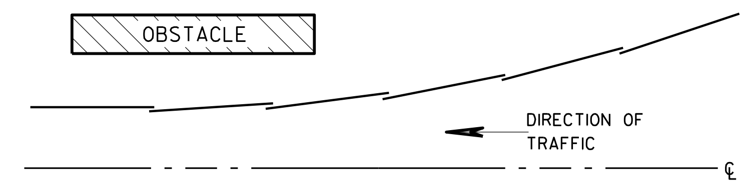


DETAIL FOR TRIPLE BLOCKS

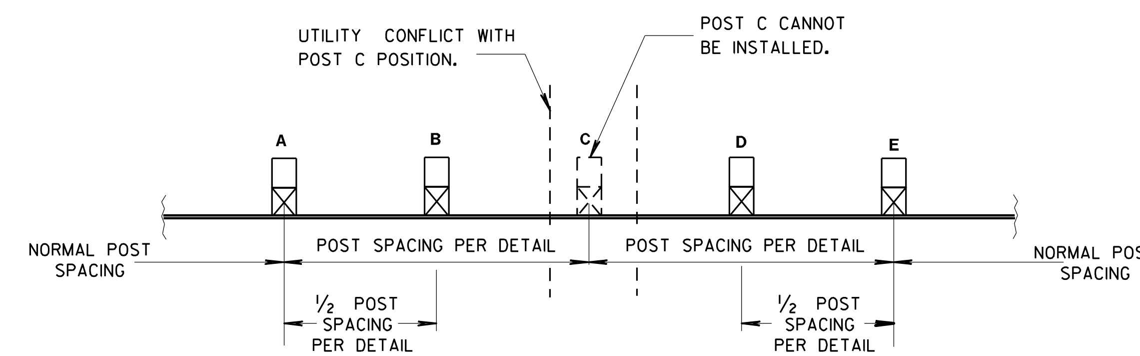
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

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

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



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED June 2017 DATE /S/ Rodney Taylor ROADWAY STANDARDS 147 MENT UNIT SUPERVISOR FHWA

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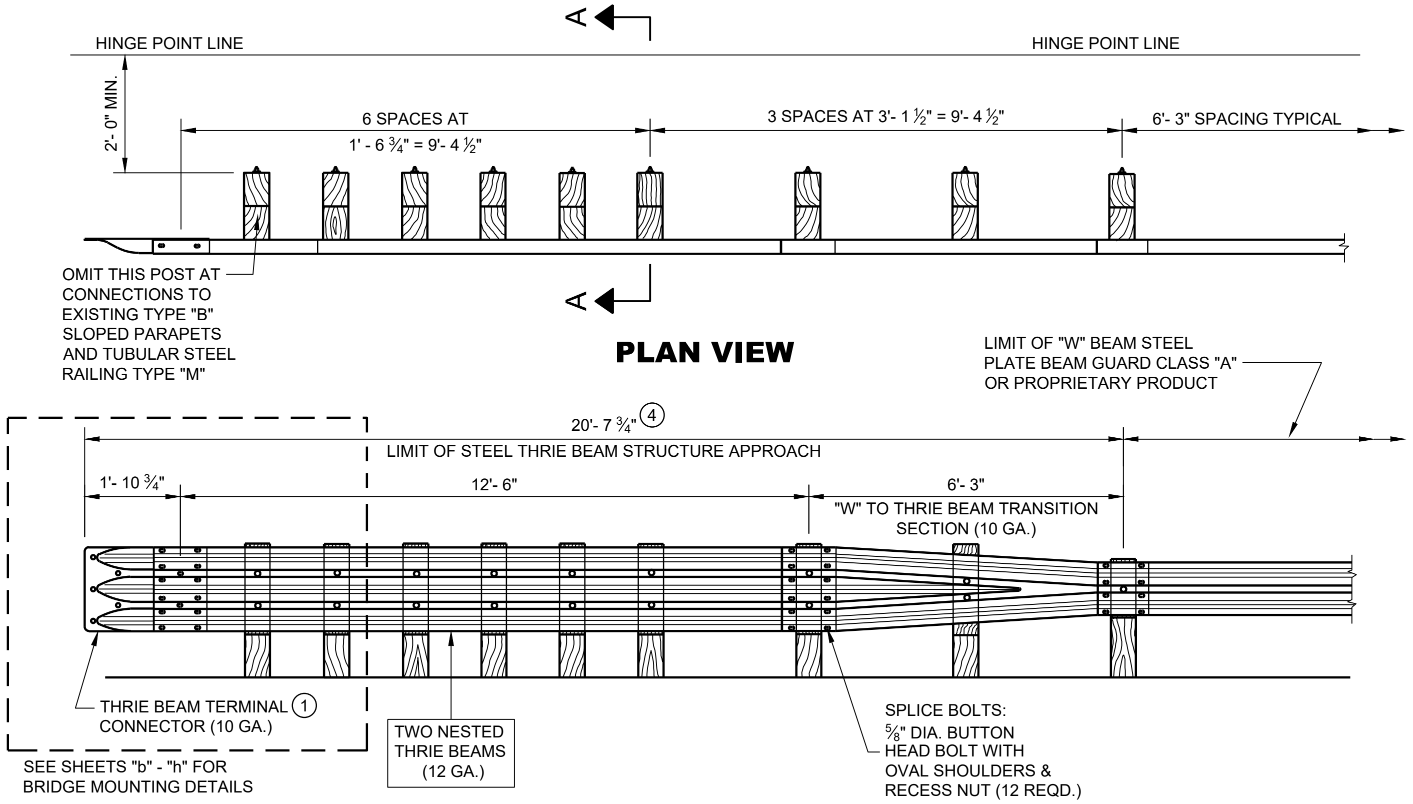
S.D.D. 14 B 15-11c



PLAN VIEW

FRONT VIEW

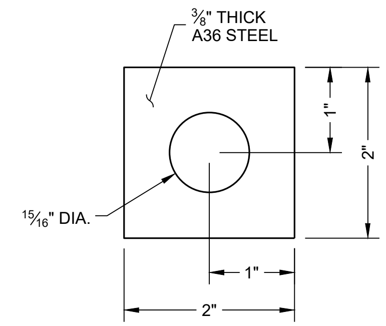


PLATE WASHER DETAIL

GENERAL NOTES

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

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

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

(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) MINIMUM EMBEDMENT SHALL BE 4'- 0".

(3) POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

(4) ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.

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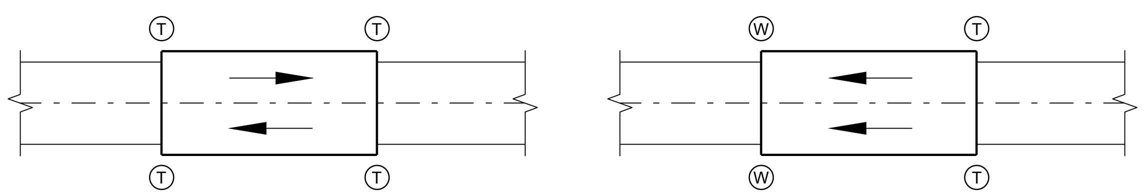
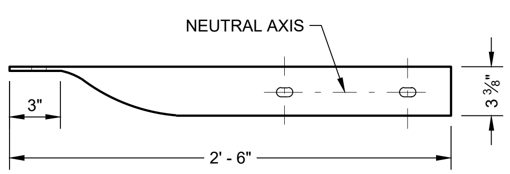


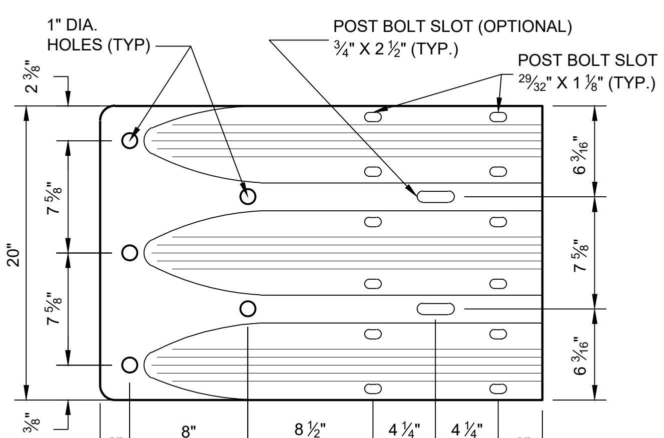
TWO WAY TRAFFIC **ONE WAY TRAFFIC**

(T) THRIE BEAM CONNECTION

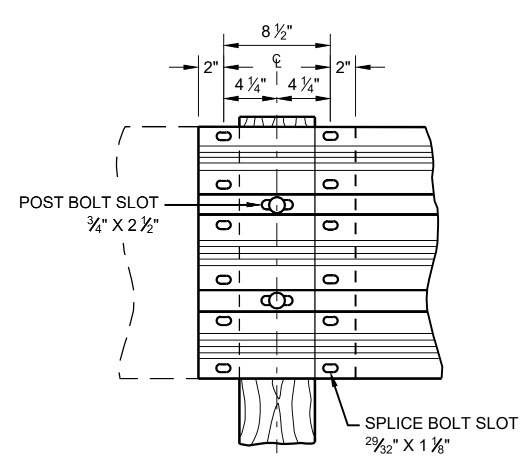
(W) W-BEAM CONNECTION WHEN REQUIRED

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

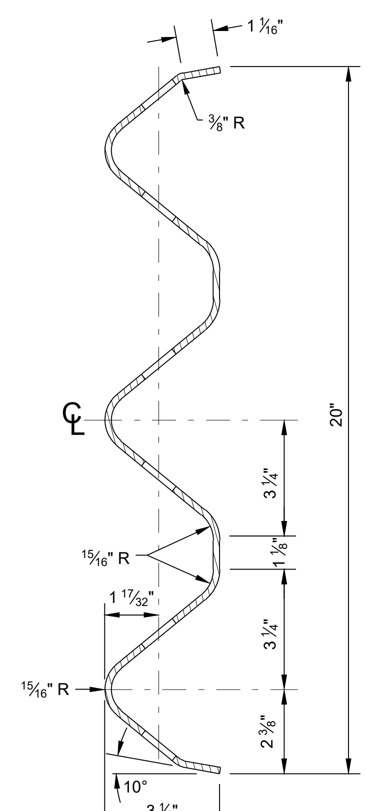




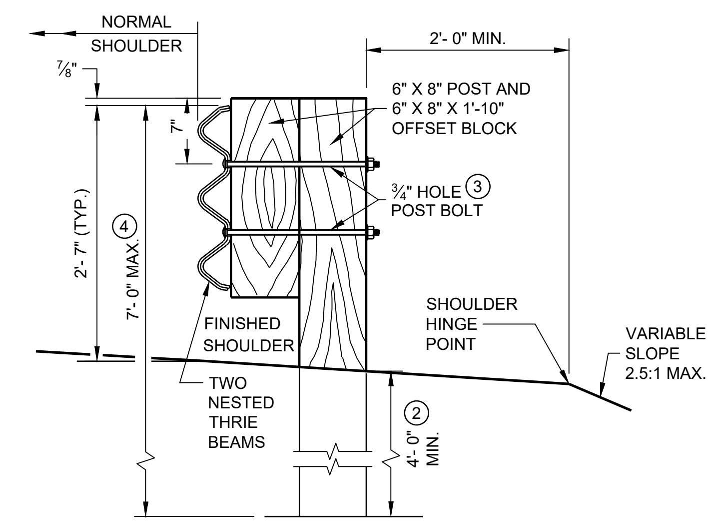
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU BEAM RAIL ELEMENT

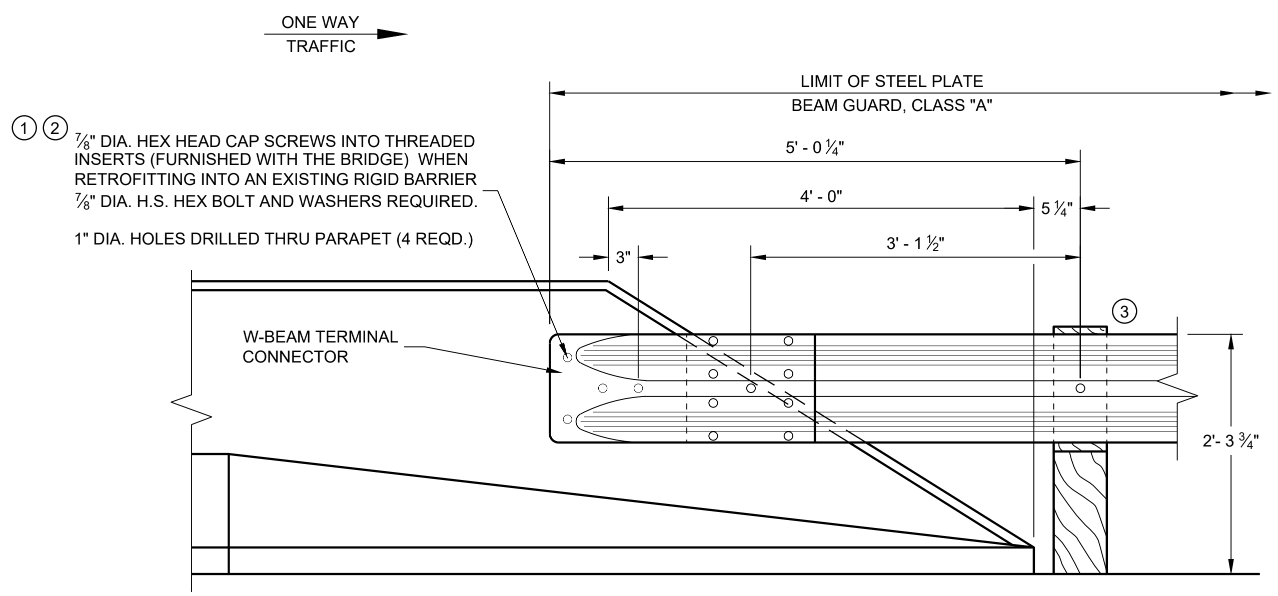


SECTION A-A

6

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

SDD 14B20 - 12a



FRONT VIEW

W BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

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

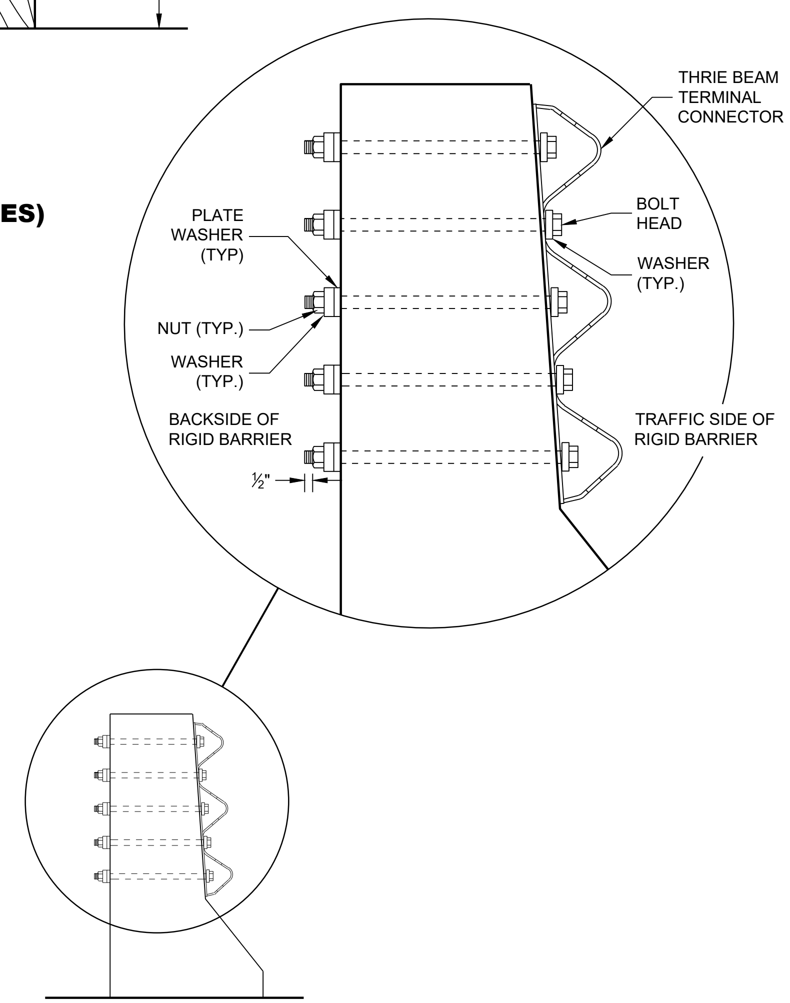
BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

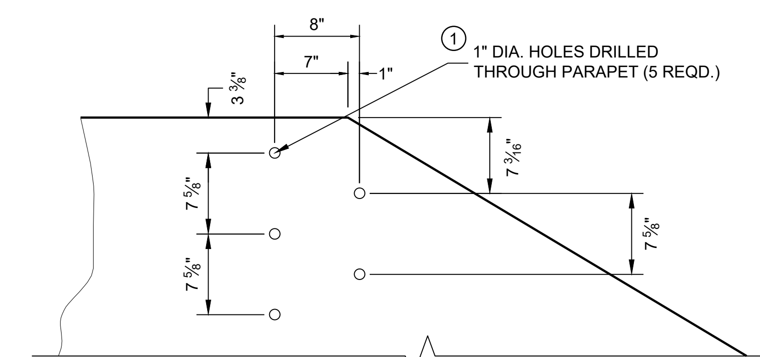
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

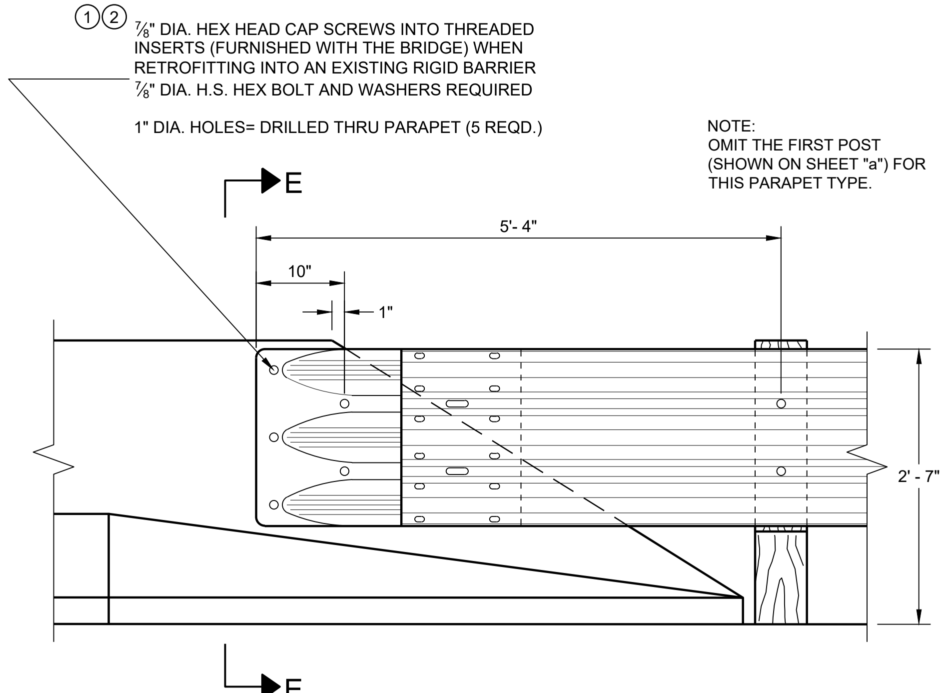
DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



SECTION E - E



DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

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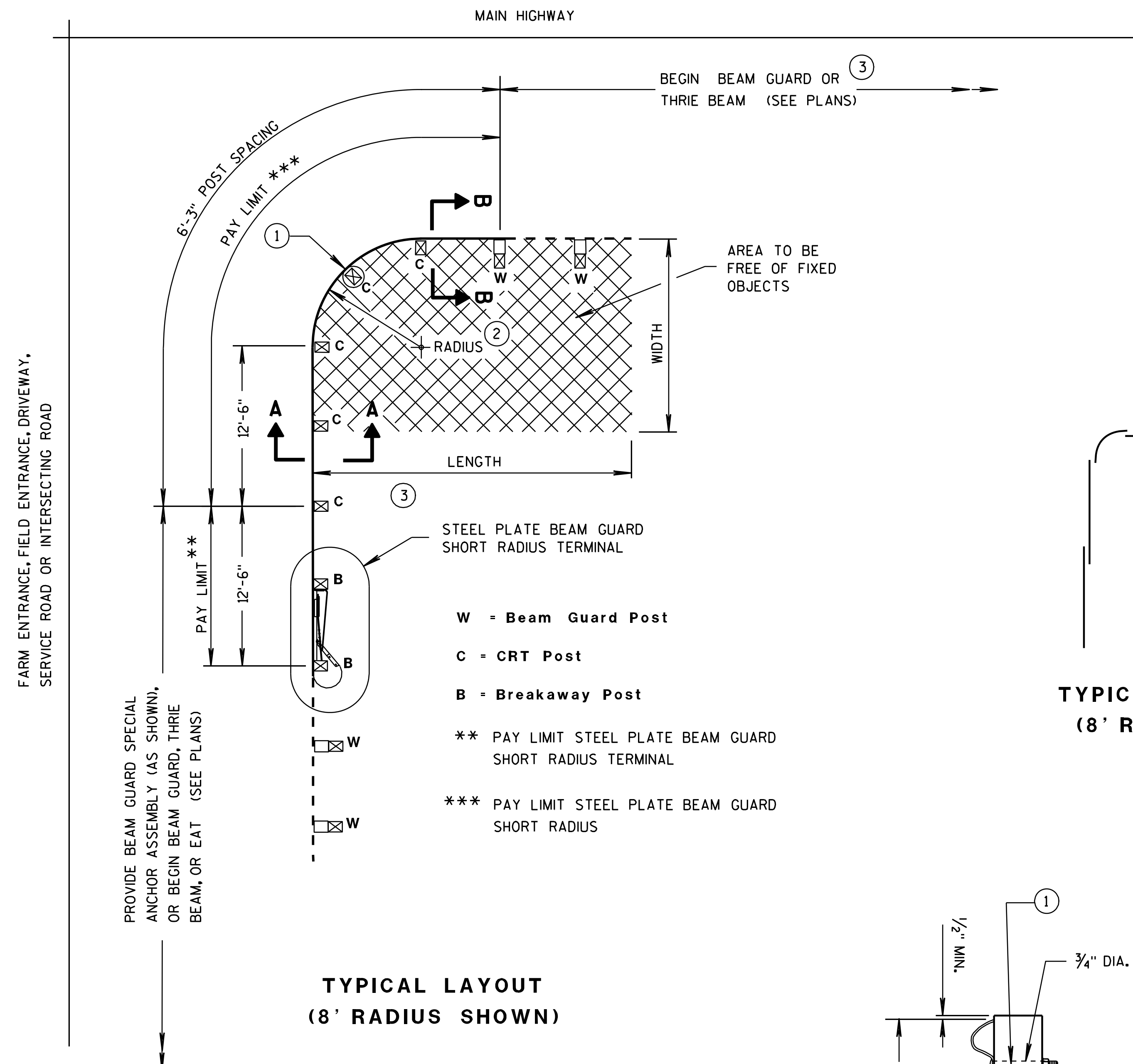
SDD 14B20 - 12d

SDD 14B20 - 12d

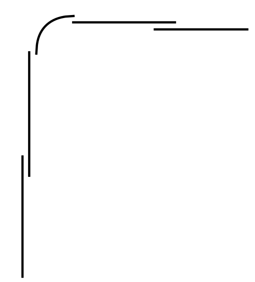
STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

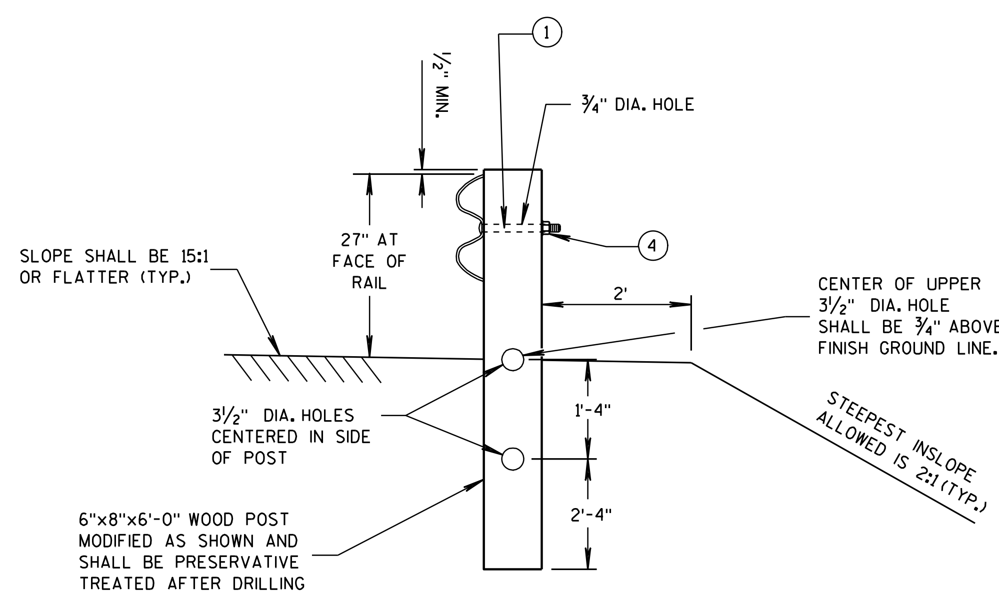
SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

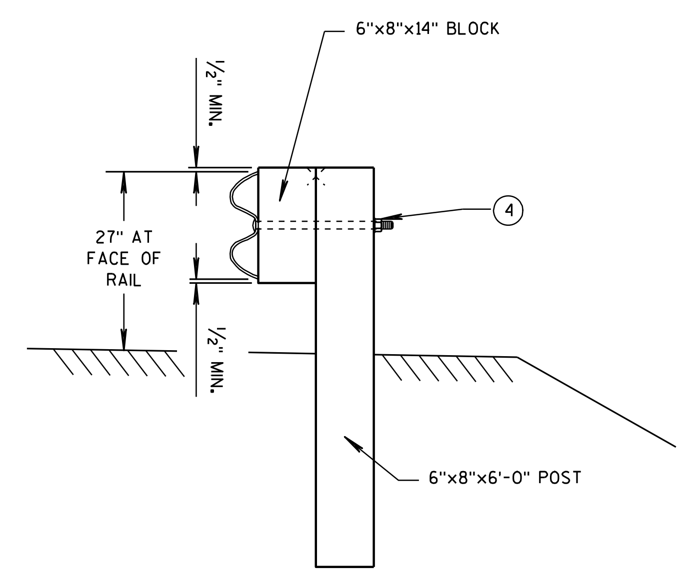
1. ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.
2. RADIUS FROM 8' - 36'. SEE PLAN.
3. HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.
4. ⅝" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	* NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



SECTION A-A
(CRT POST)



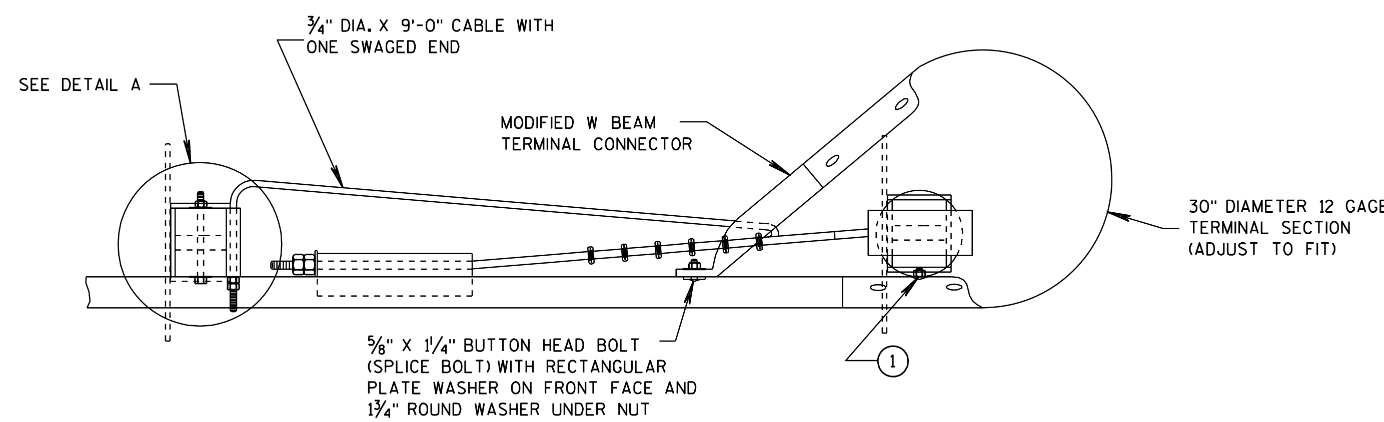
SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

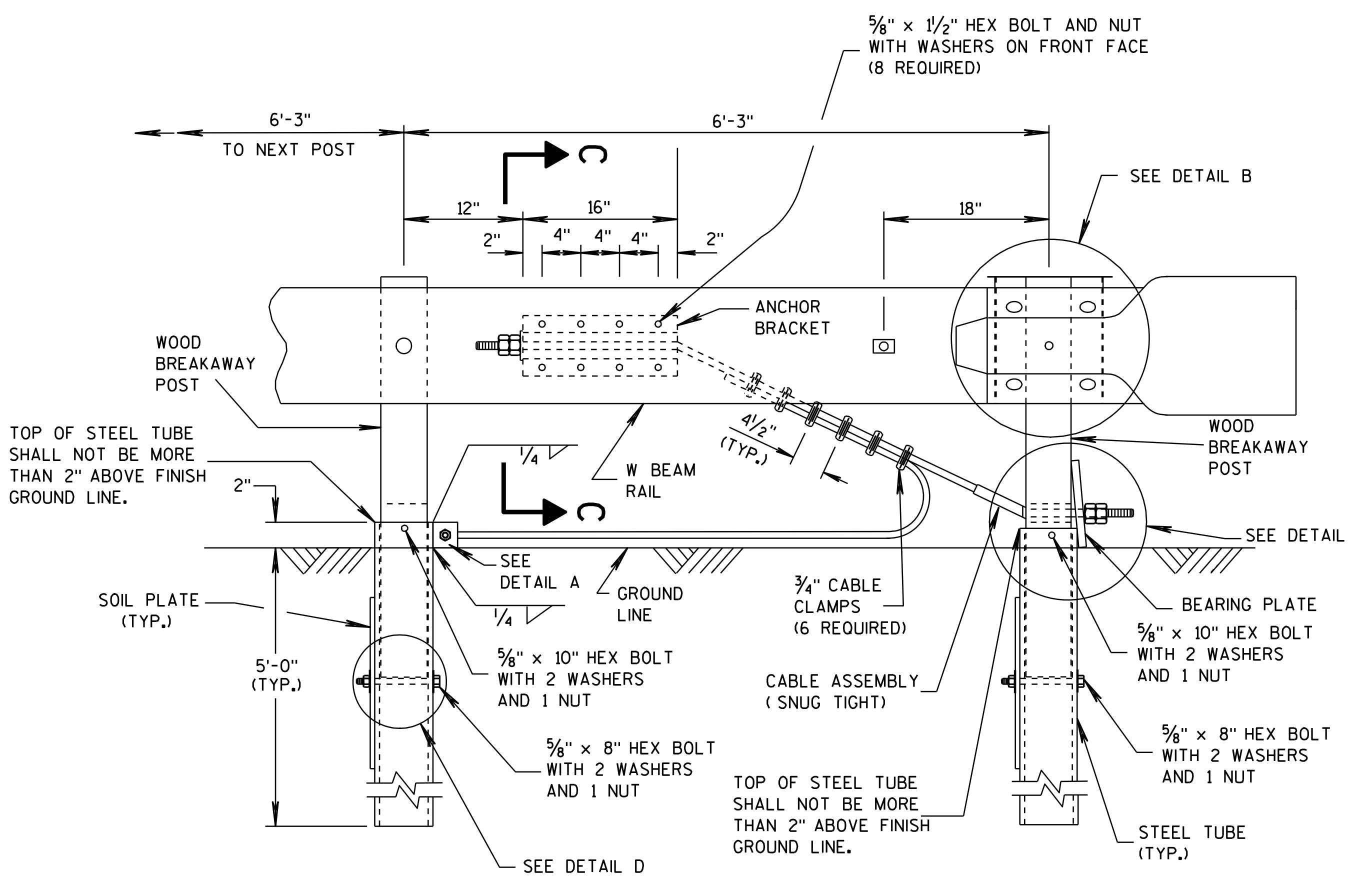
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A 5/8" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

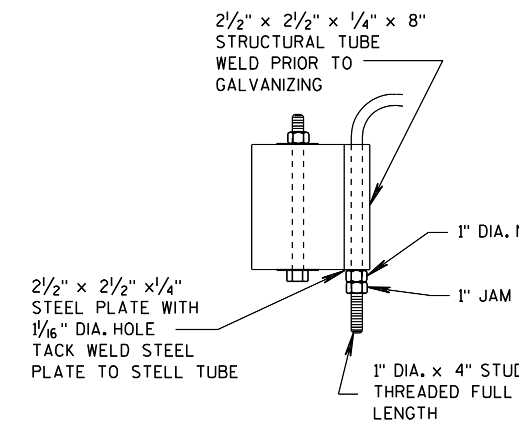
INSTALL GALVANIZED 3/4" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



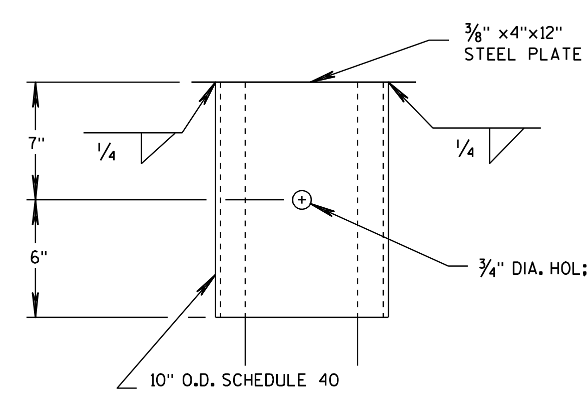
PLAN VIEW



ELEVATION VIEW



DETAIL A

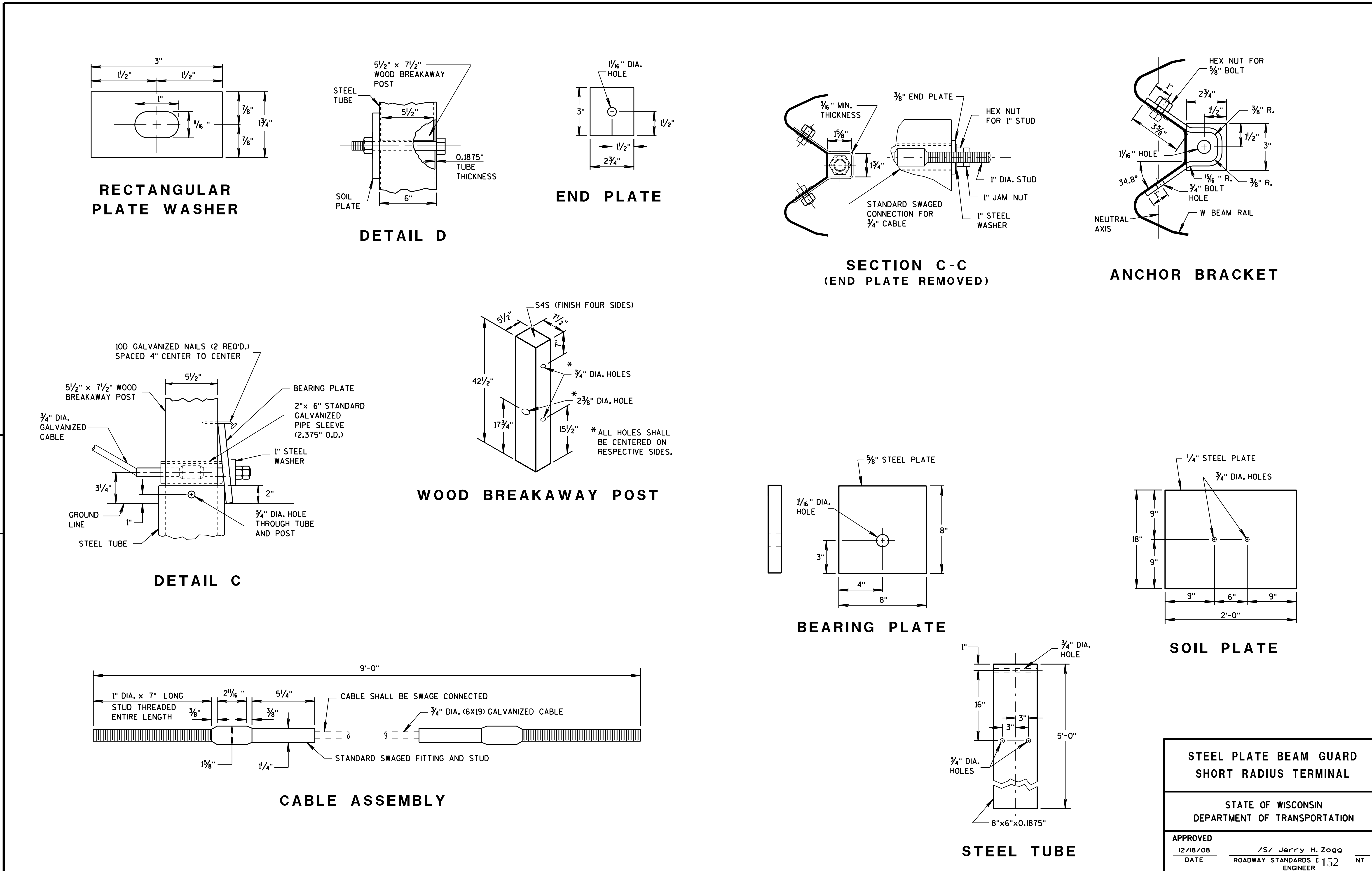


DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



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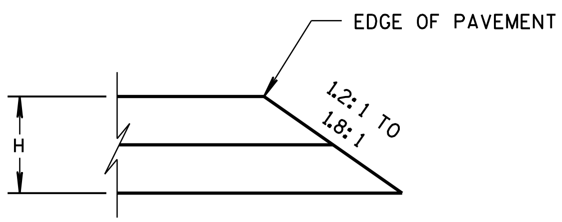
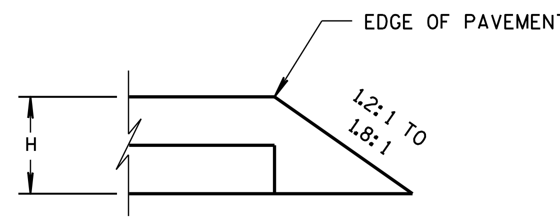
S.D.D. 14 B 27-1c

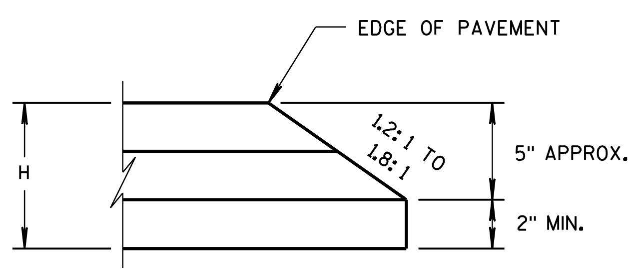
S.D.D. 14 B 27-1c



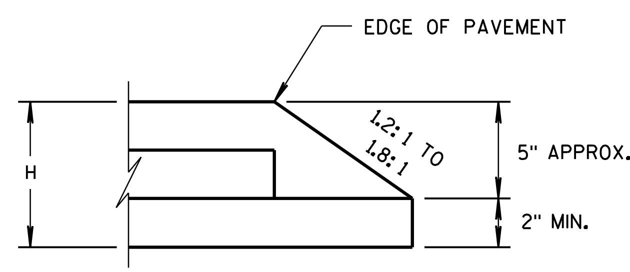
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

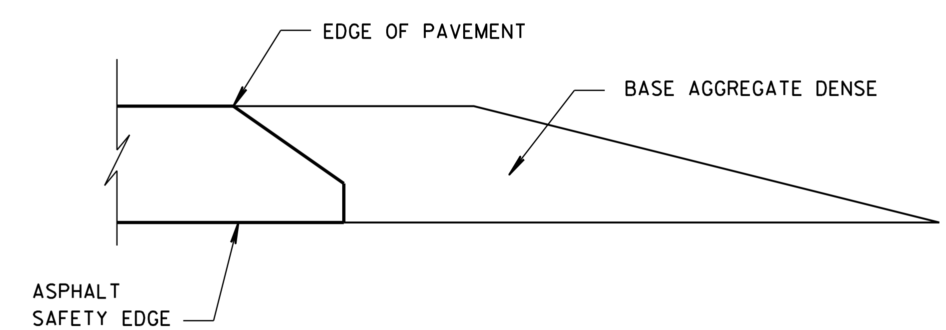


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



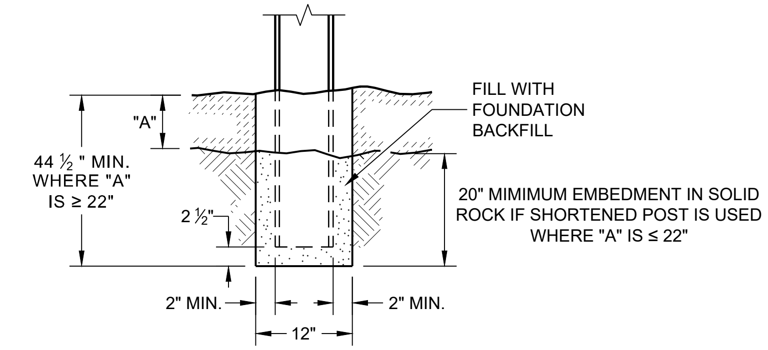
FINISHED SHOULDER AGGREGATE PLACEMENT

6

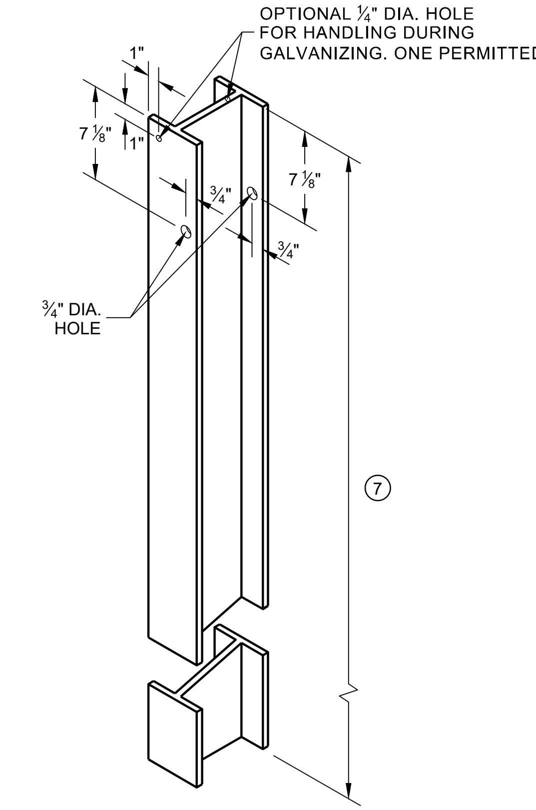
6

SAFETY EDGE SM
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 11/30/2012 DATE /S/ Jerry H. Zogg ROADWAY STANDARDS [illegible]ENT ENGINEER FHWA

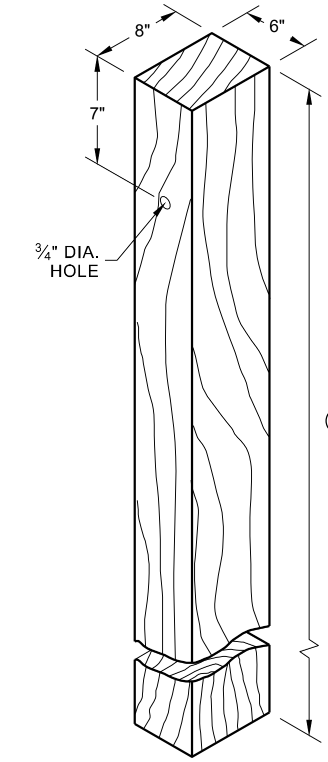
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS 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 AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" 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".



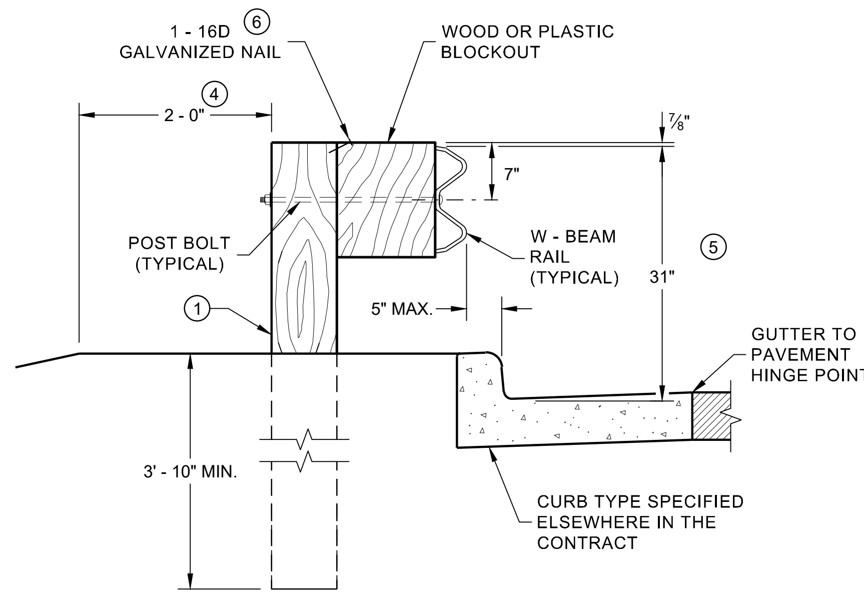
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



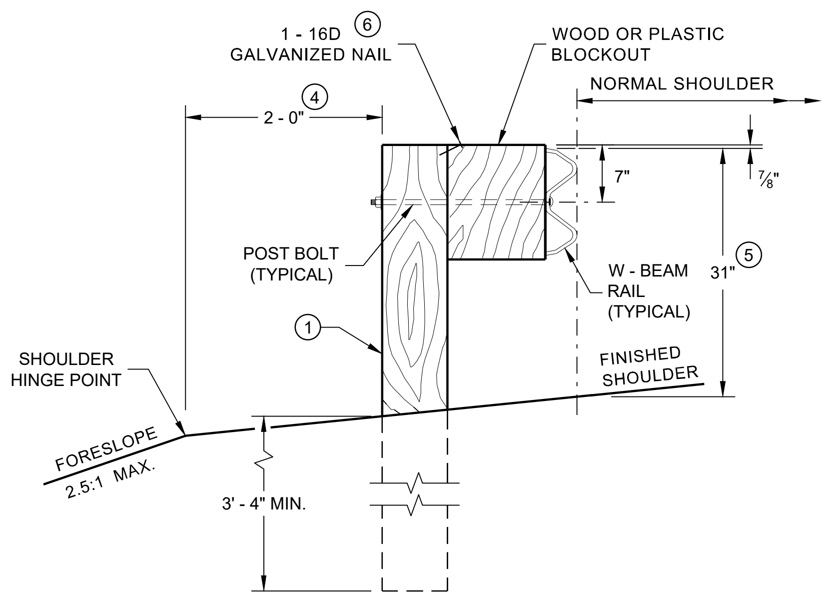
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



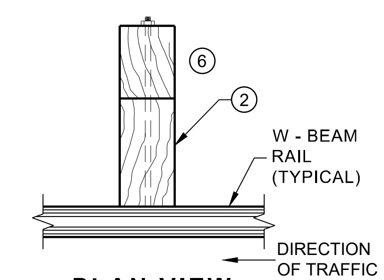
WOOD POST (6" X 8") NOMINAL (1)



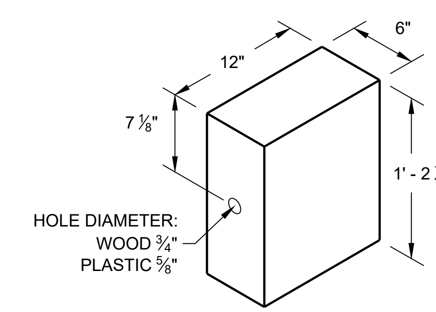
END VIEW
LOCATED ALONG A CURBED ROADWAY



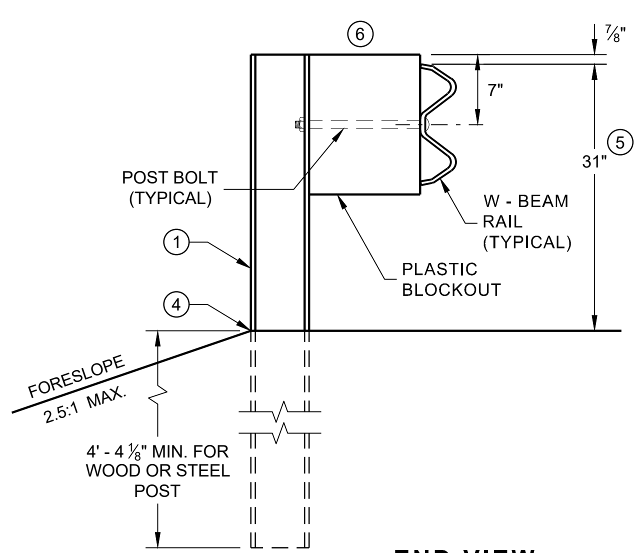
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



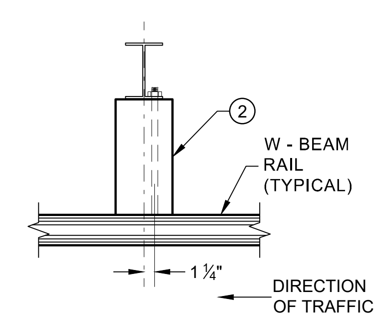
PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)



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



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI

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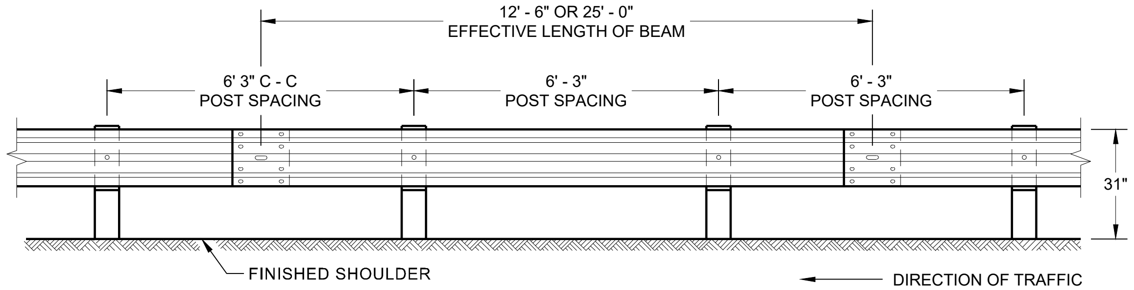
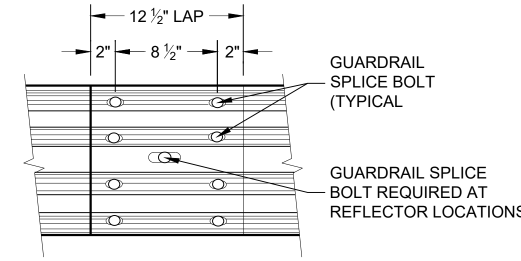
SDD 14B42 - 07a

SDD 14B42 - 07a



FRONT VIEW
POST SPACING STANDARD INSTALLATION



FRONT VIEW
MID-SPAN BEAM SPLICE

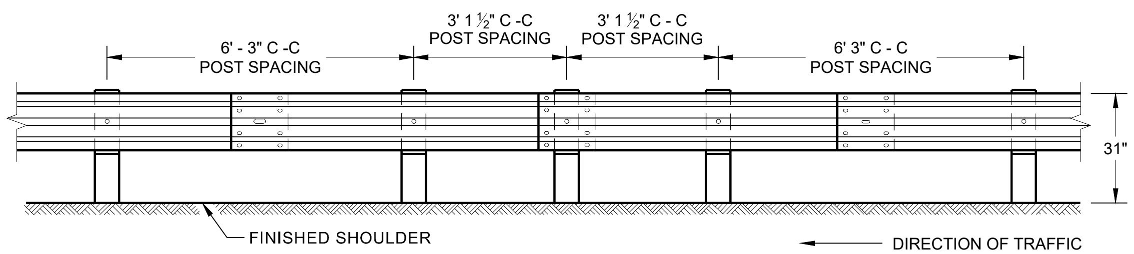
GENERAL NOTES

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

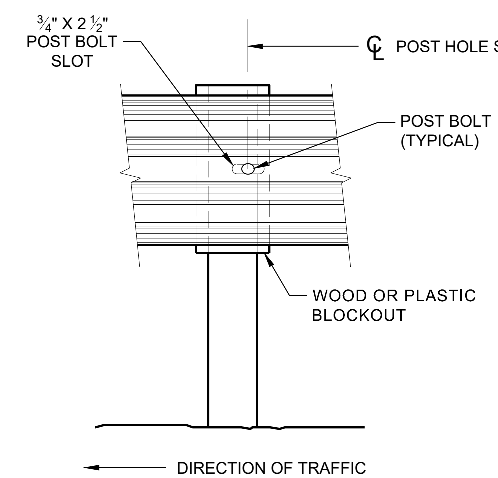
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

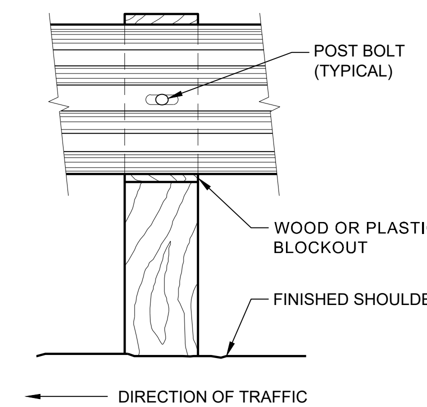
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



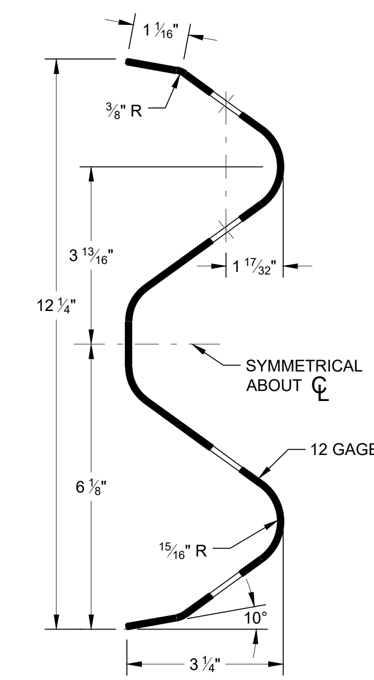
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



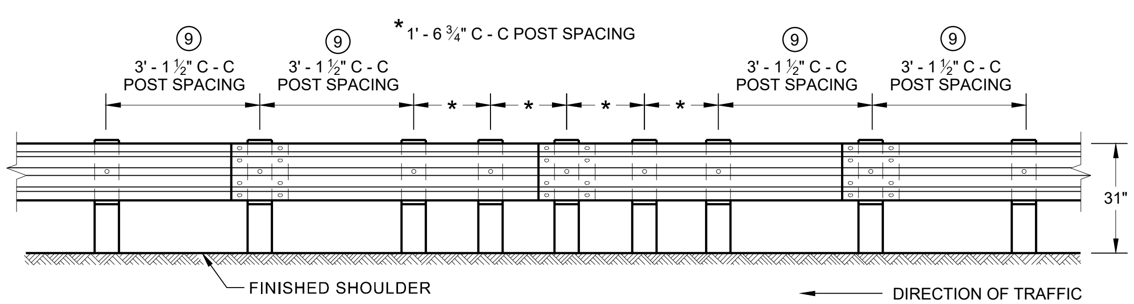
FRONT VIEW AT STEEL POST



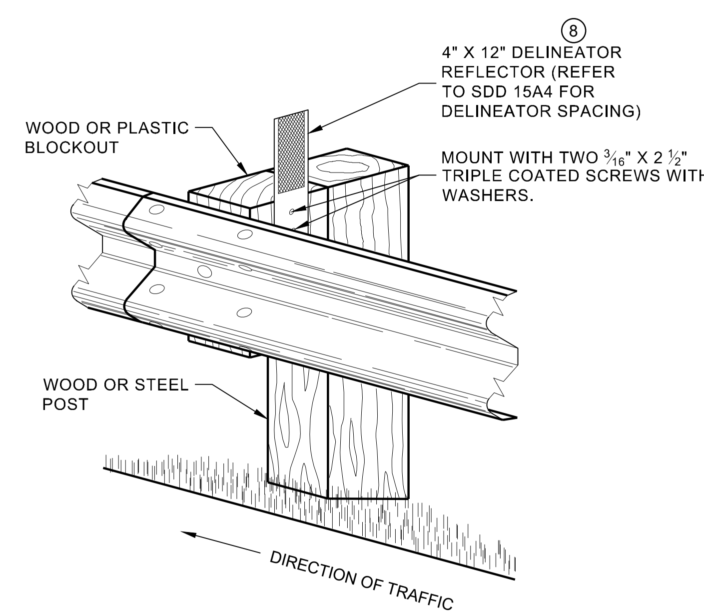
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



FRONT VIEW
QUARTER POST SPACING (QS)



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

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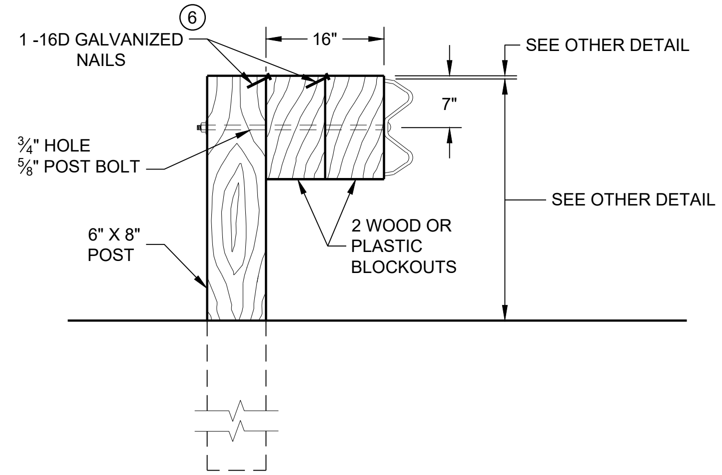
SDD 14B42 - 07b

SDD 14B42 - 07b

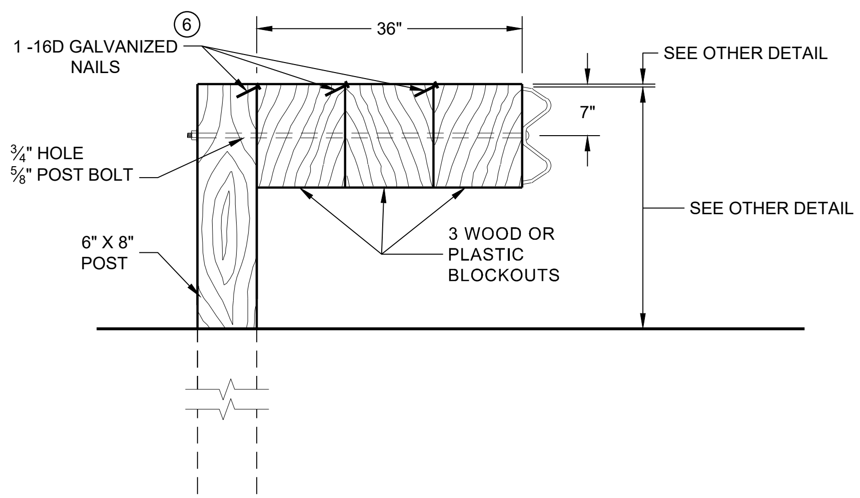
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI



DETAIL FOR 16" BLOCKOUT DEPTH

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



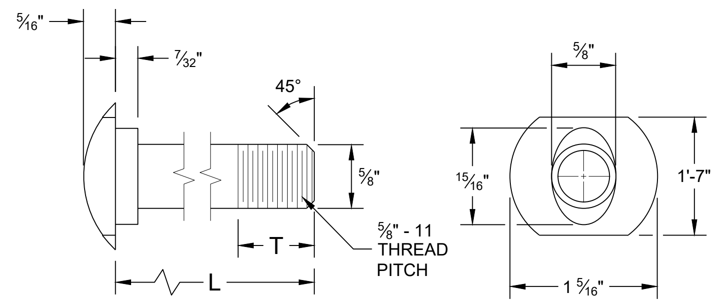
DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

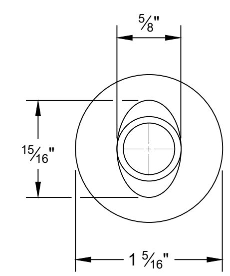
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF $\frac{3}{16}$".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

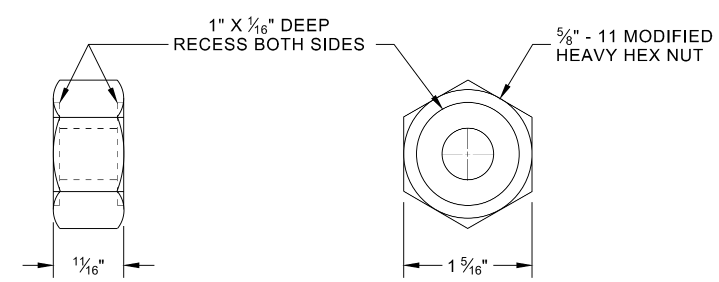


POST BOLT TABLE

L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 $\frac{1}{16}$"
18"	4"
21"	4 $\frac{1}{16}$"
25"	4"

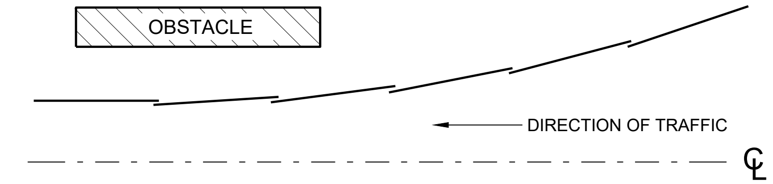


ALTERNATE BOLT HEAD

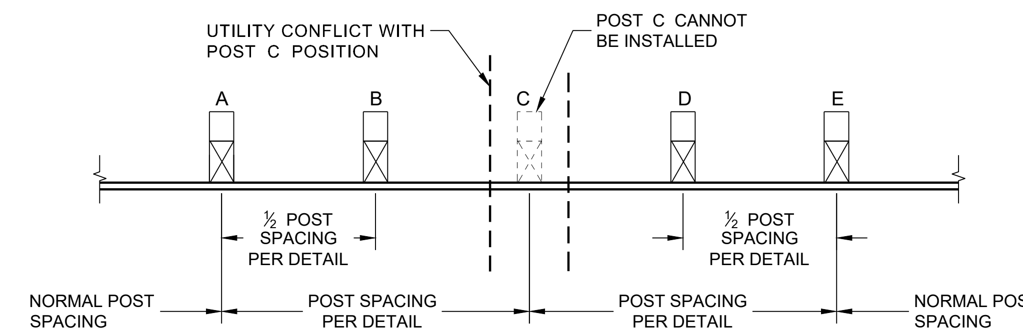


POST BOLT, SPLICE BOLT AND RECESS NUT

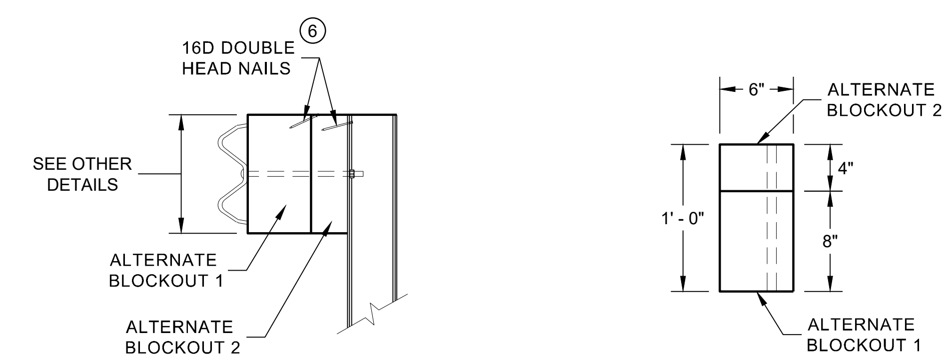
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



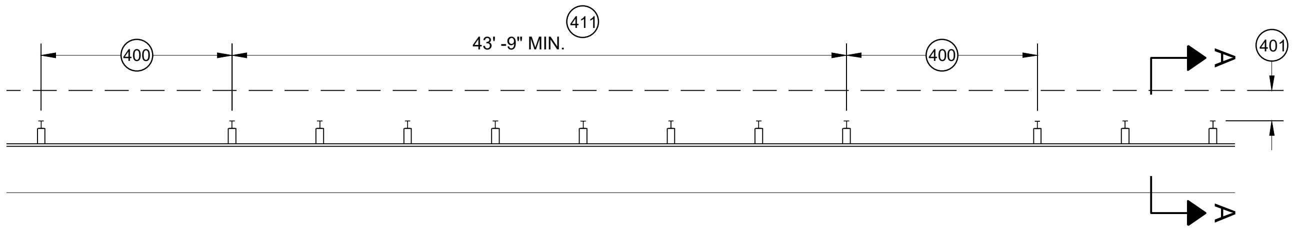
SIDE VIEW

PLAN VIEW

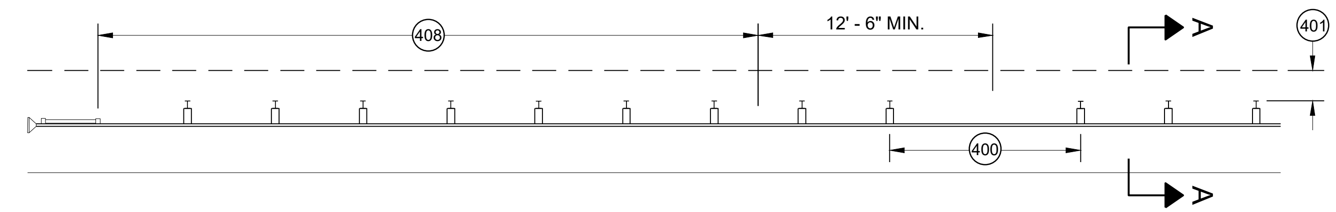
ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

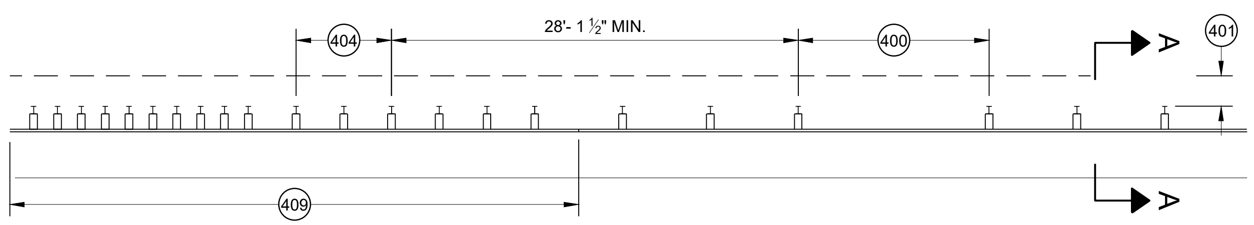
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT



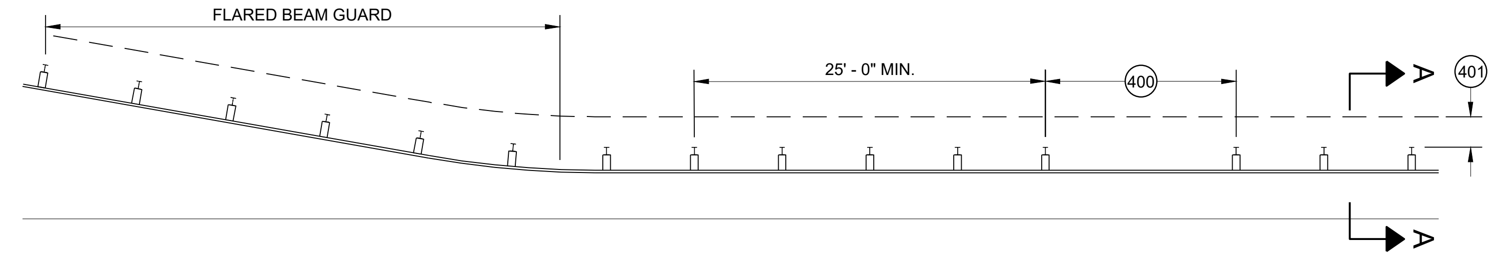
MISSING POST IN MGS GUARDRAIL



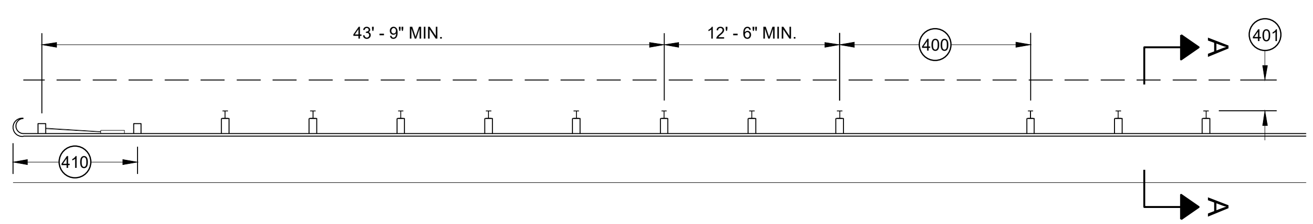
MISSING POST IN MGS GUARDRAIL NEAR EAT



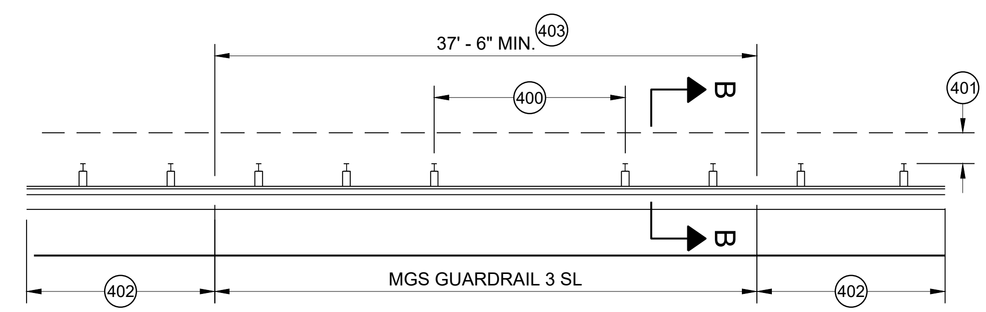
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

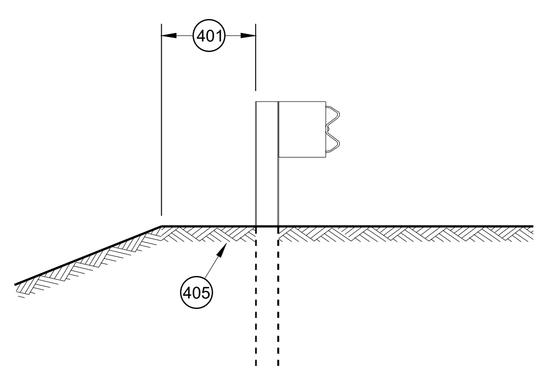


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

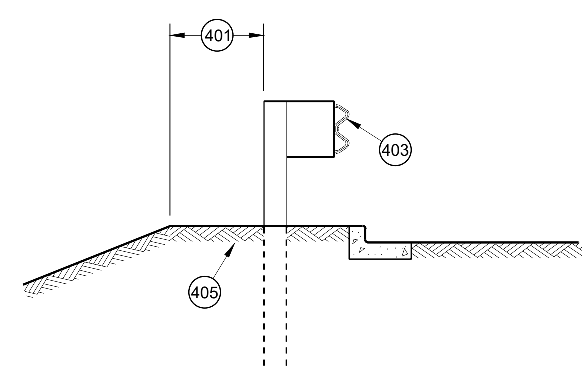


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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 406



SECTION B - B 406

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MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 14B42 - 07d

SDD 14B42 - 07d

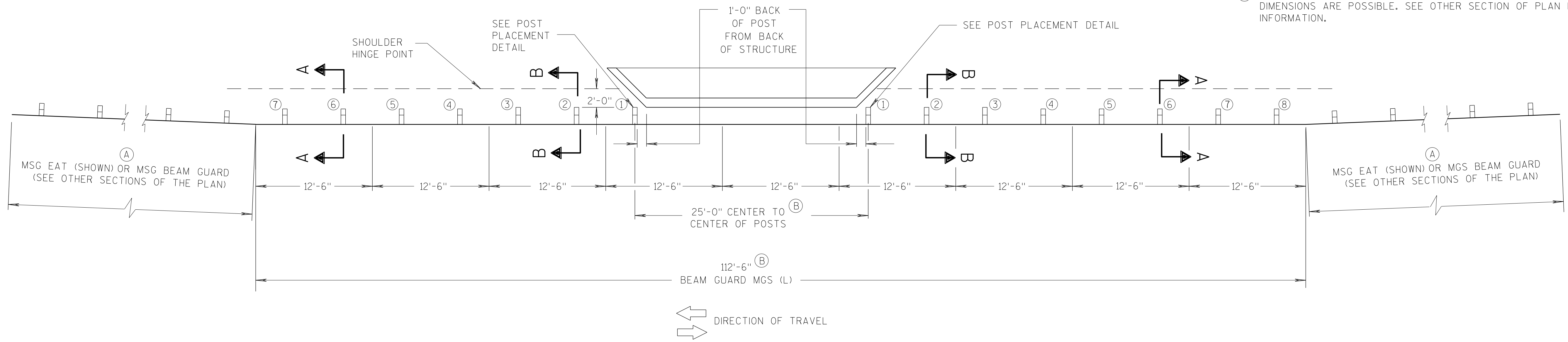
GENERAL NOTES

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

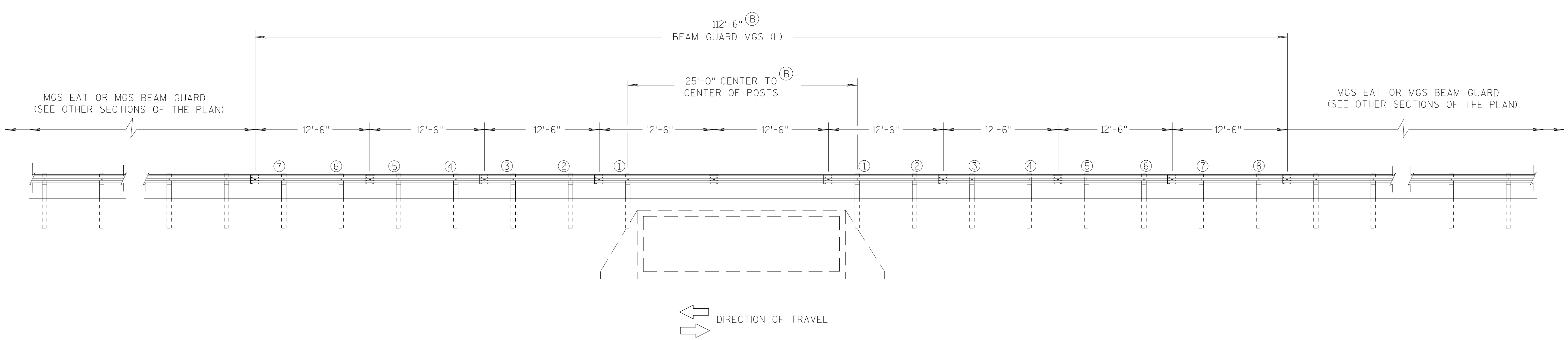
SEE SDD 14 B 42 FOR MORE DETAILS.

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

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



PLAN VIEW



ELEVATION VIEW

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

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

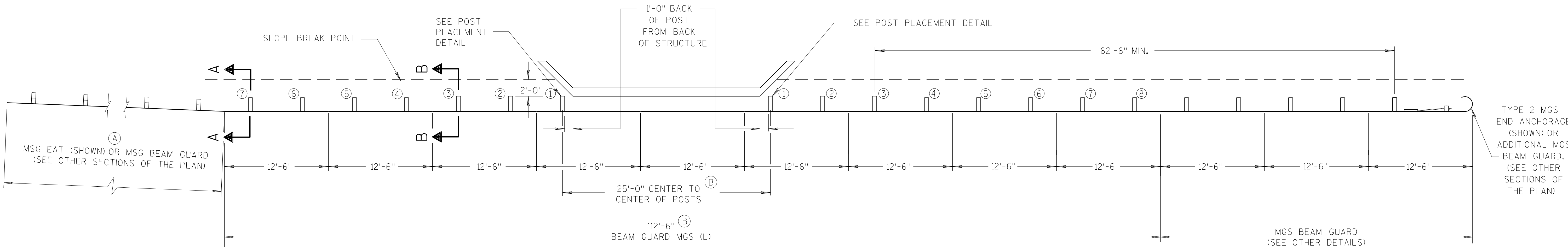
GENERAL NOTES

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

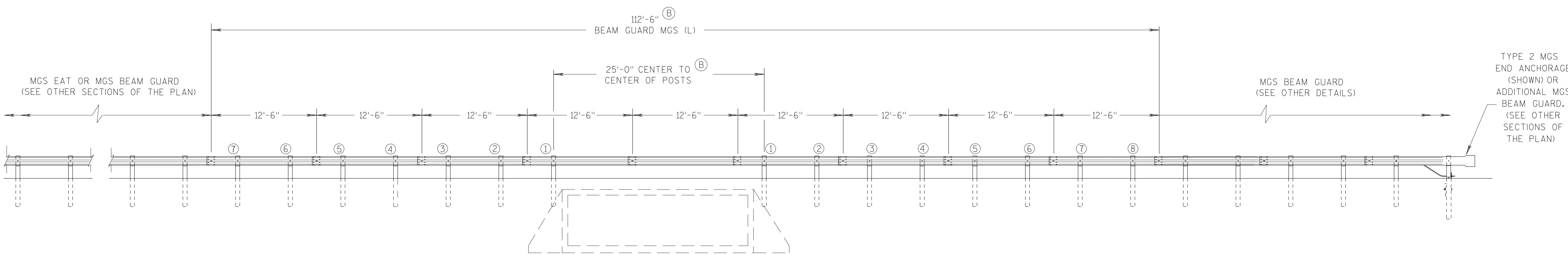
SEE SDD 14 B 42 FOR MORE DETAILS.

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

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



PLAN VIEW



ELEVATION VIEW

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

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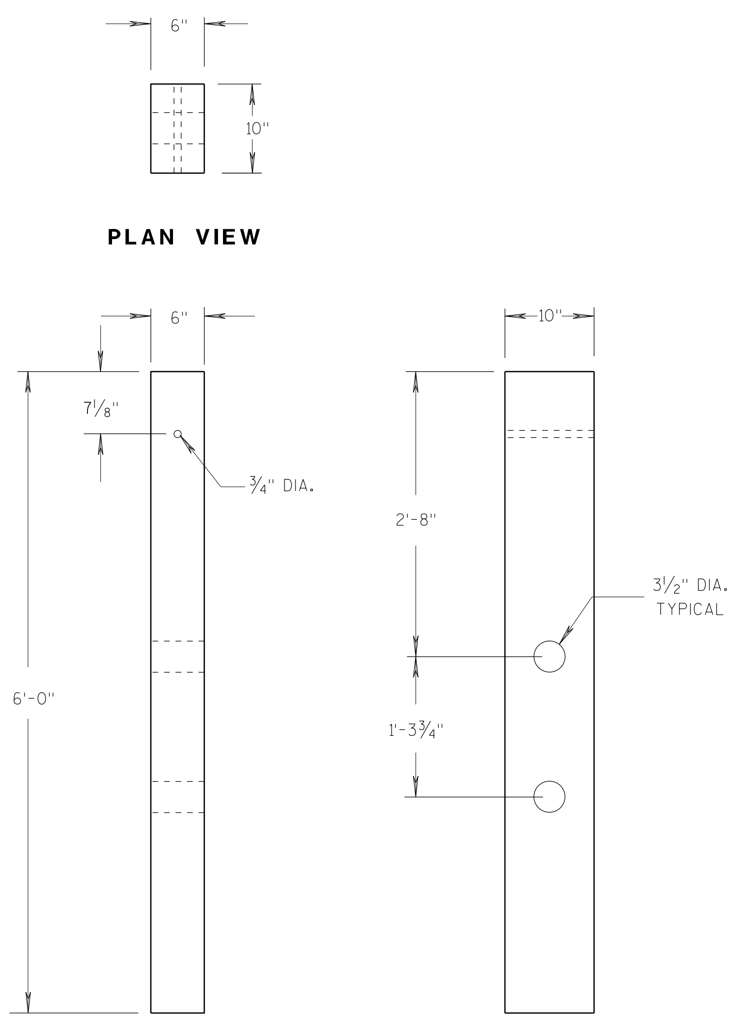
S.D.D. 14 B 43-4b

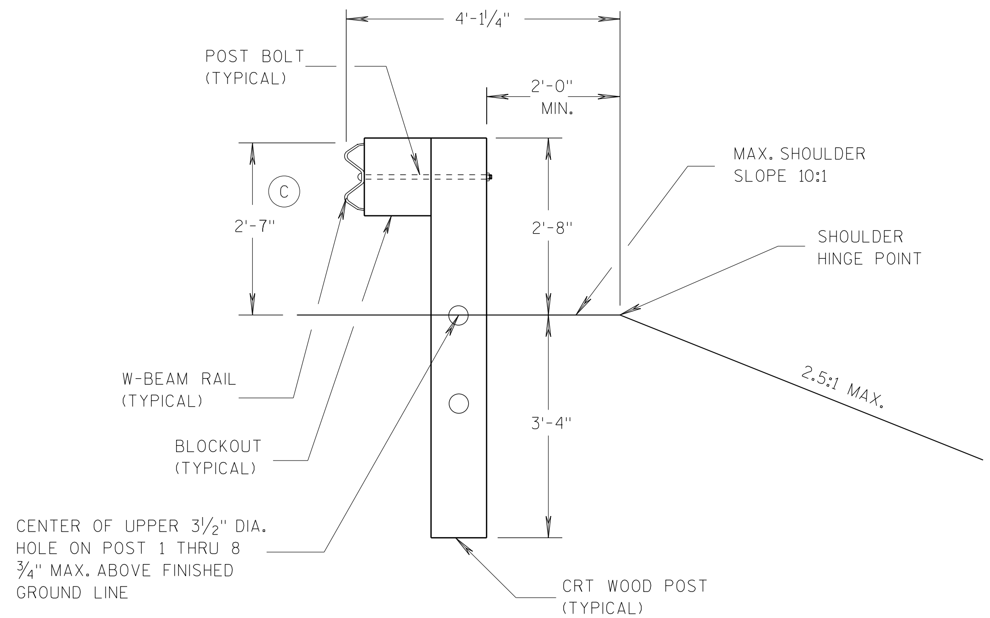
S.D.D. 14 B 43-4b

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR...



CRT WOOD POST



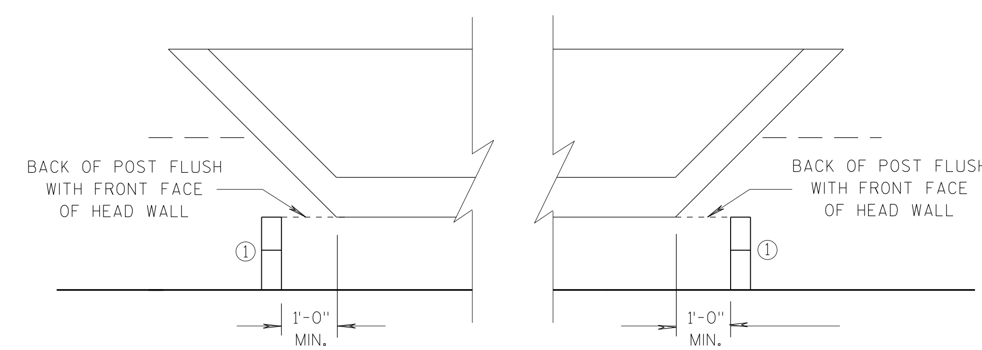
SECTION B-B

POSTS NO. 1-3

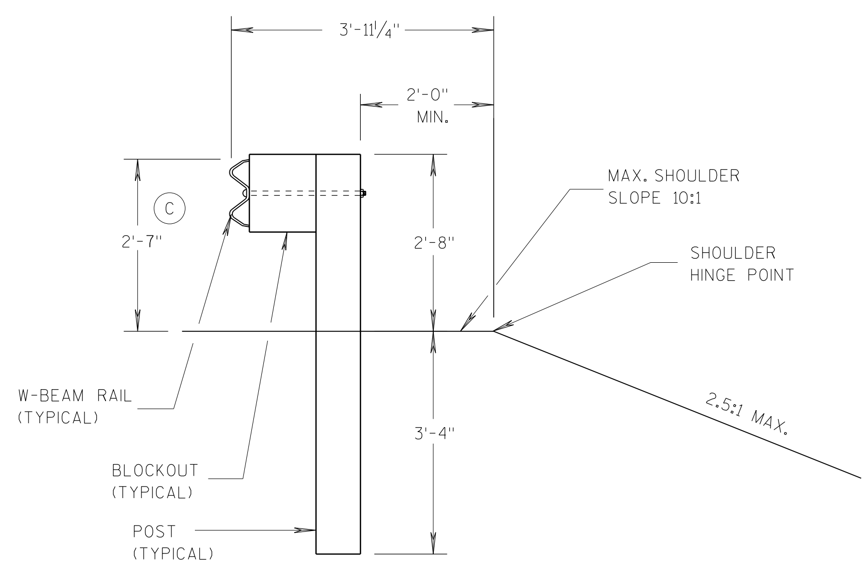
SEE OTHER DETAILS

GENERAL NOTES

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



POST PLACEMENT DETAIL



SECTION A-A

POSTS NO. 4-8

SEE OTHER DETAILS

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

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

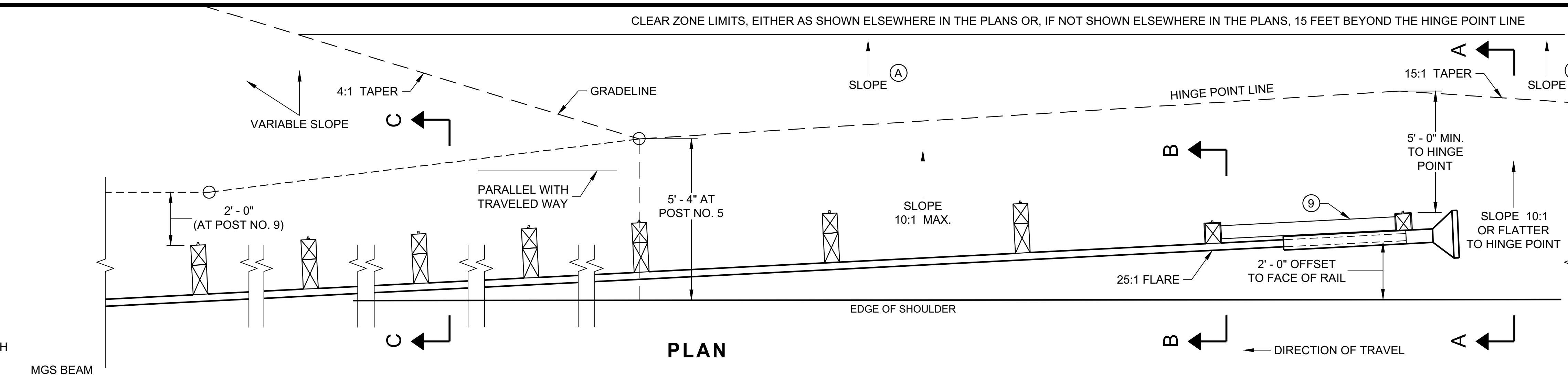
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

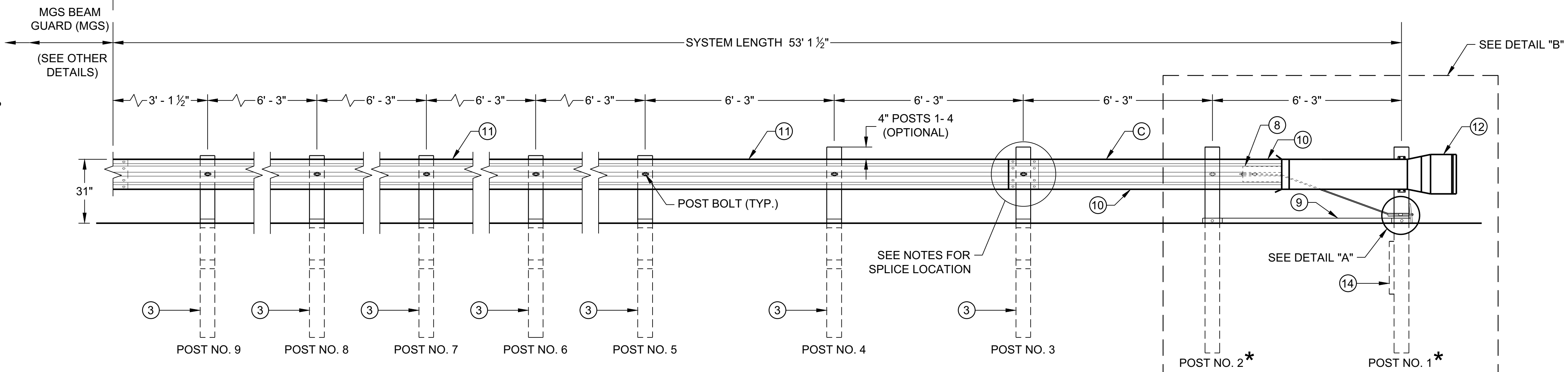
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

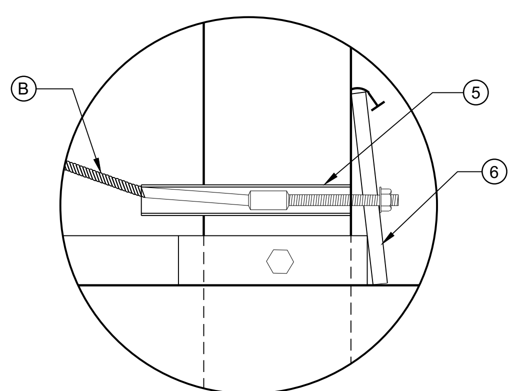
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



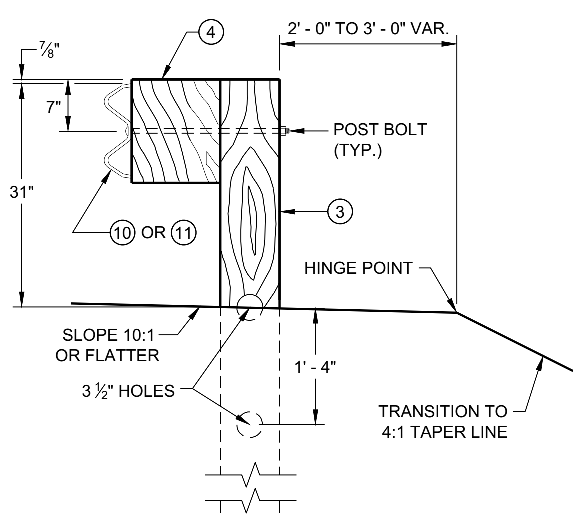
PLAN



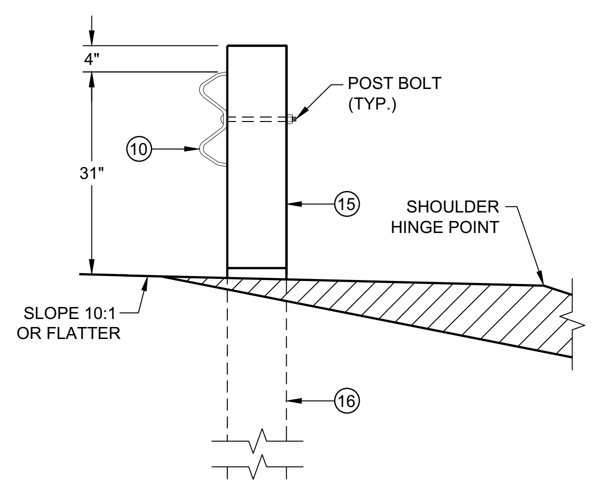
ELEVATION



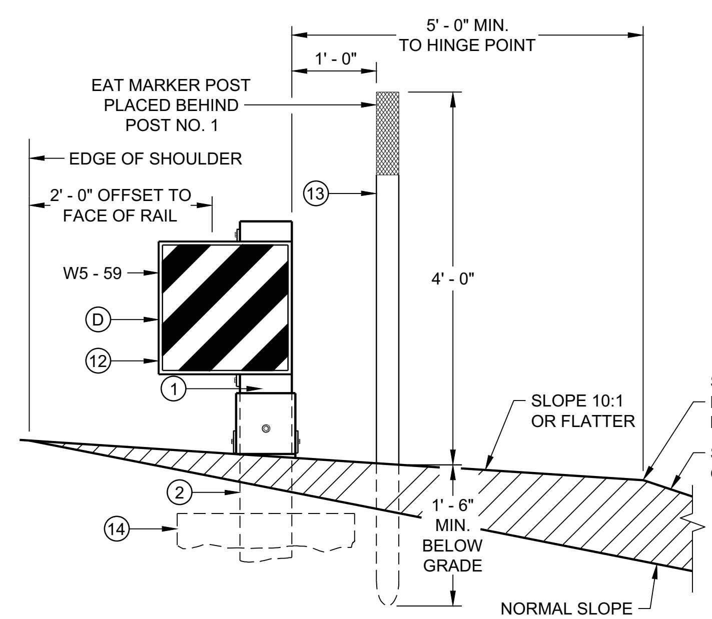
DETAIL "A" (E)



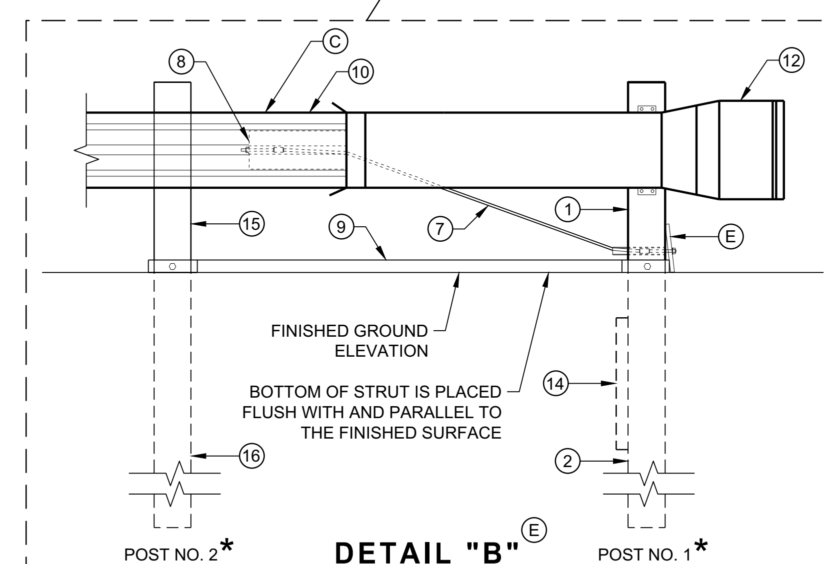
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

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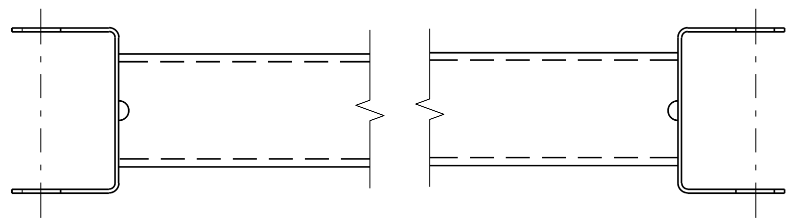
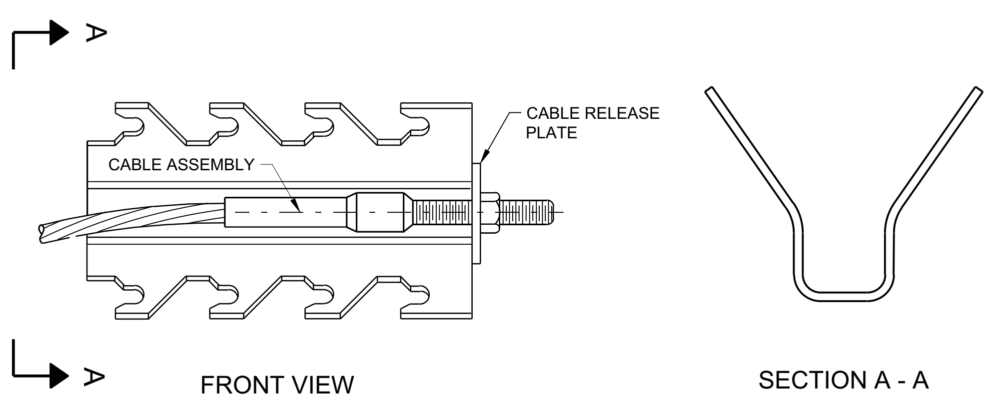
BILL OF MATERIALS

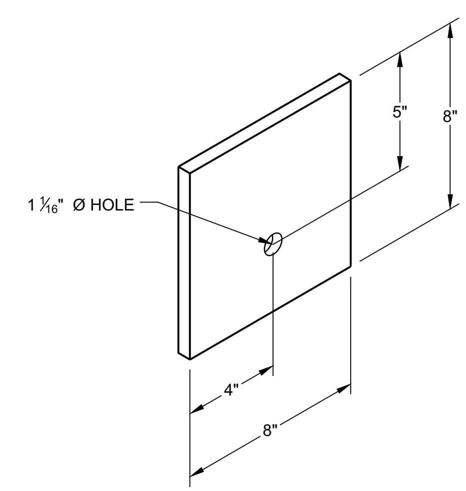
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
1	UPPER POST NO. 1 6" X 6" TUBE
2	LOWER POST NO. 1
3	WOOD CRT
4	WOOD BLOCKOUT
5	PIPE SLEEVE
6	BEARING PLATE
7	BCT CABLE ASSEMBLY
8	ANCHOR CABLE BOX
9	GROUND STRUT
10	PERFORATED W-BEAM RAIL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



GENERIC ANCHOR CABLE BOX 9 E



BEARING PLATE 6 E

6

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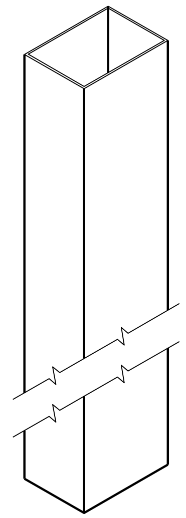
SDD 14B44 - 04b

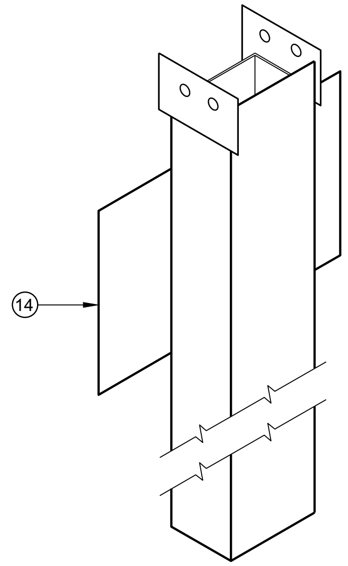
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

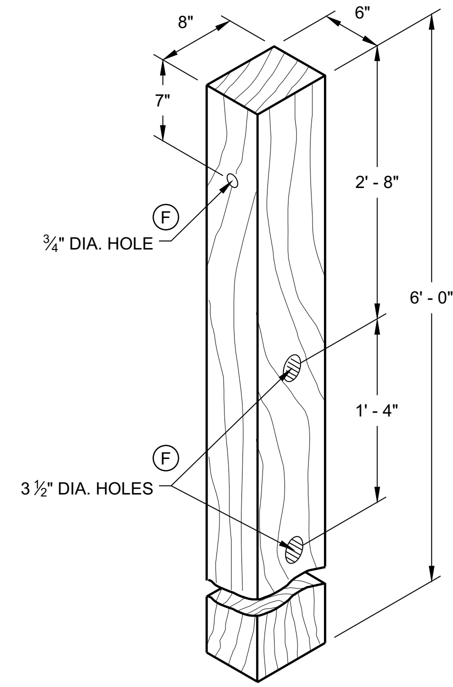
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



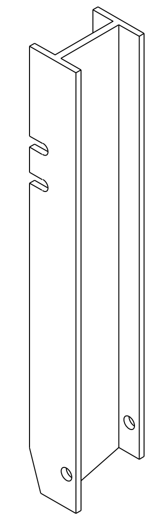
UPPER POST NO. 1 ① Ⓔ



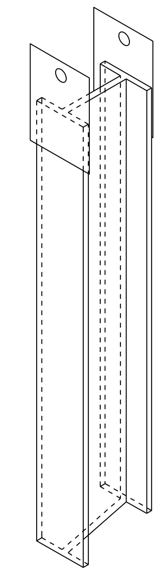
LOWER POST NO. 1 ② Ⓔ



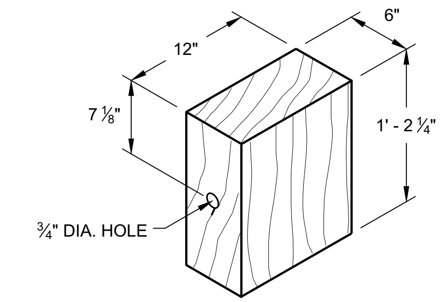
WOOD CRT POST ③ Ⓔ
POSTS NUMBER 3-9



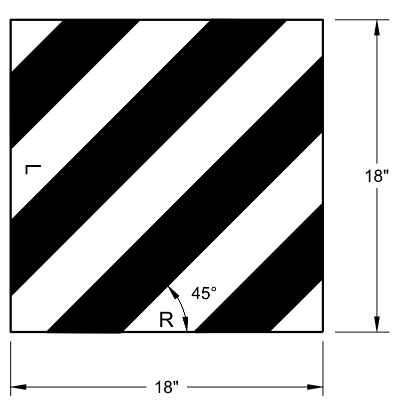
UPPER POST NO. 2 ⑮ Ⓔ



LOWER POST NO. 2 ⑯ Ⓔ

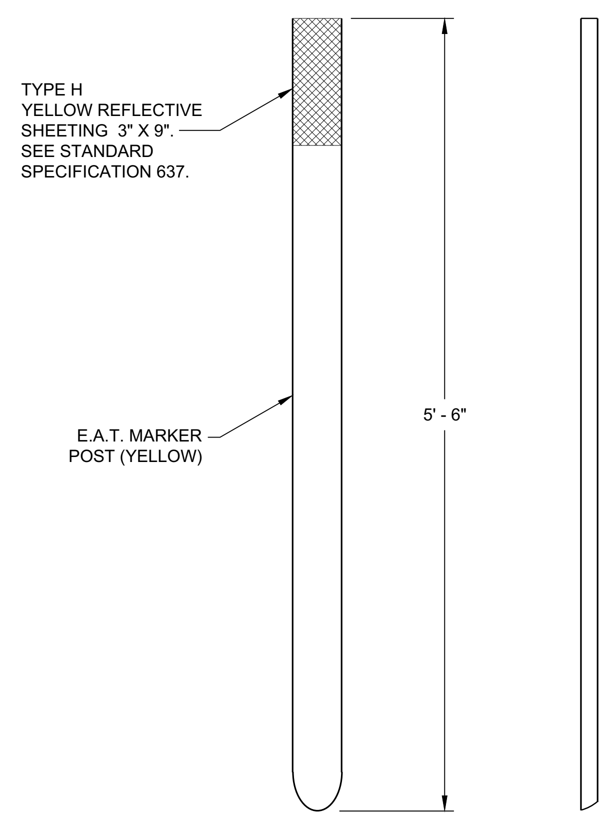


WOOD BLOCKOUT ④
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



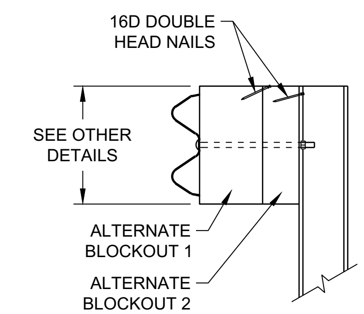
W5 - 59

REFLECTIVE SHEETING DETAIL Ⓔ

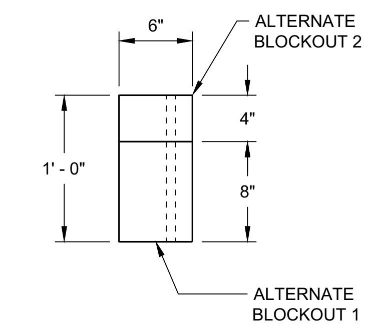


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST ⑬



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 14B44 - 04c
6

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

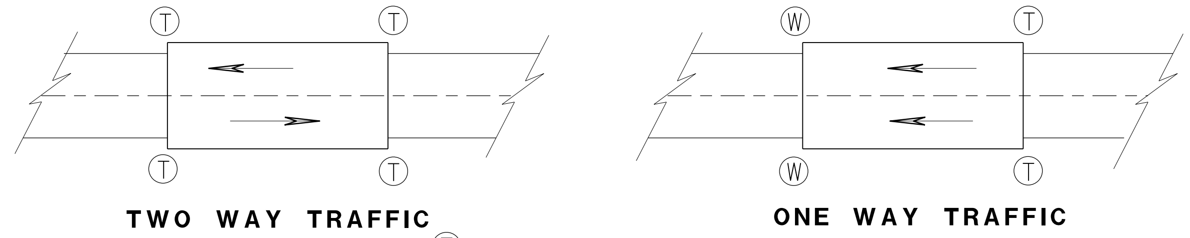
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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.

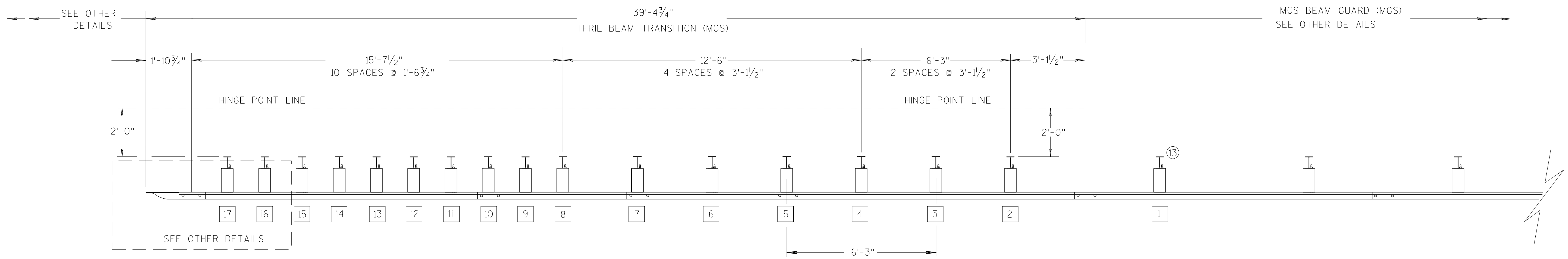
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



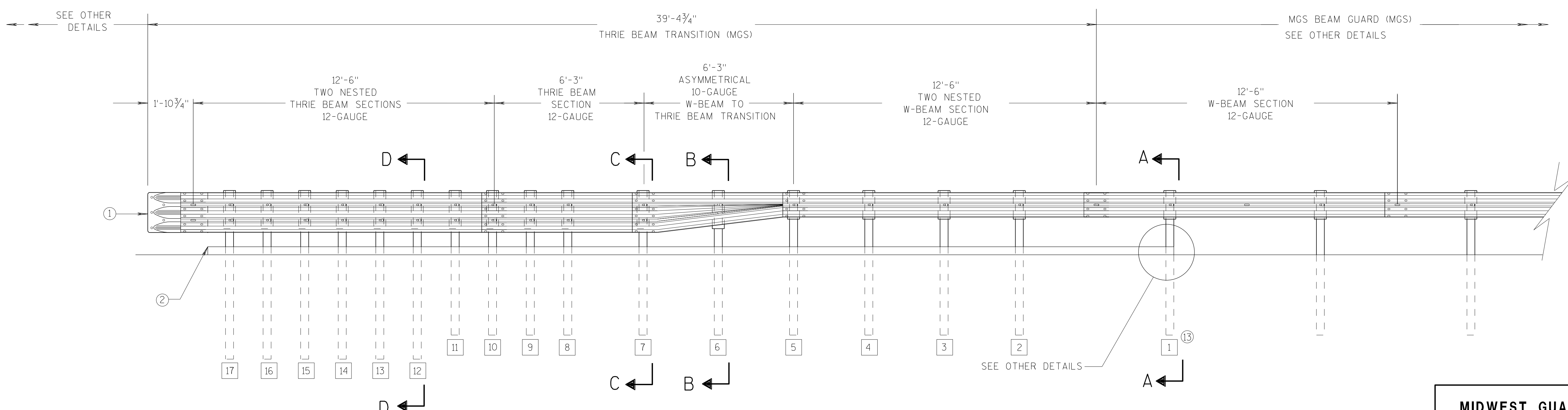
(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
STATE OF WISCONSIN DEPARTMENT OF TRANSPOR

6

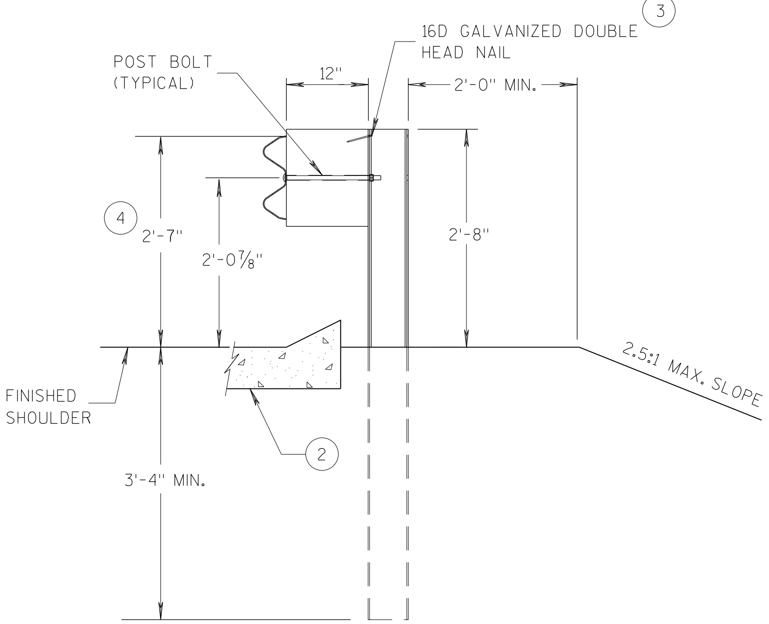
GENERAL NOTES

(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.

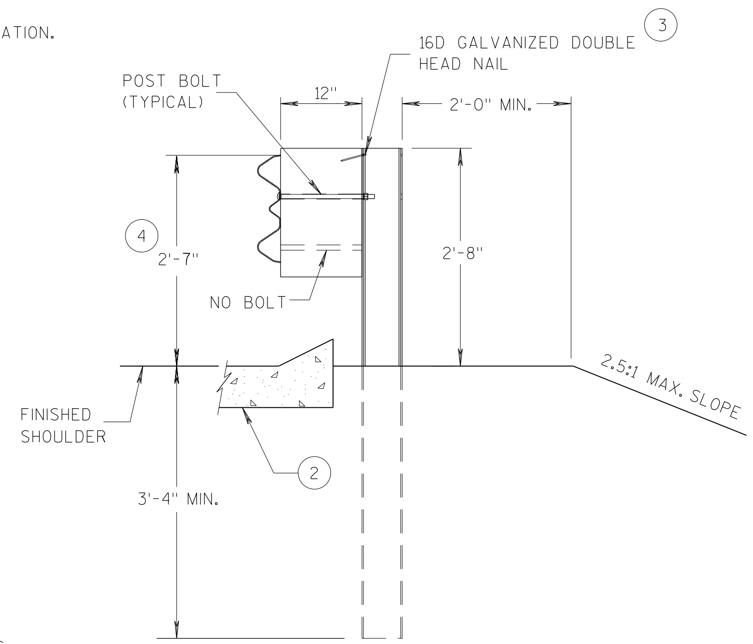
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



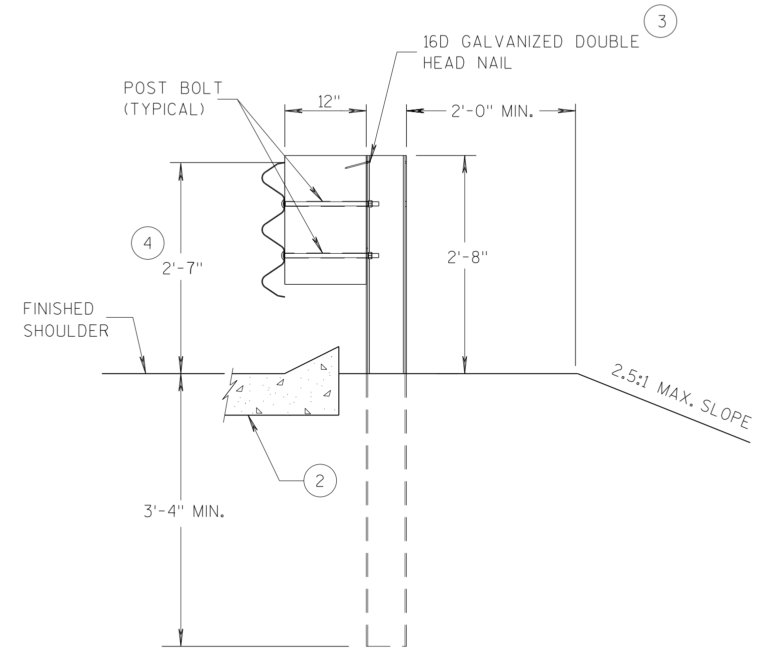
SECTION A-A (13)

POSTS 1-5



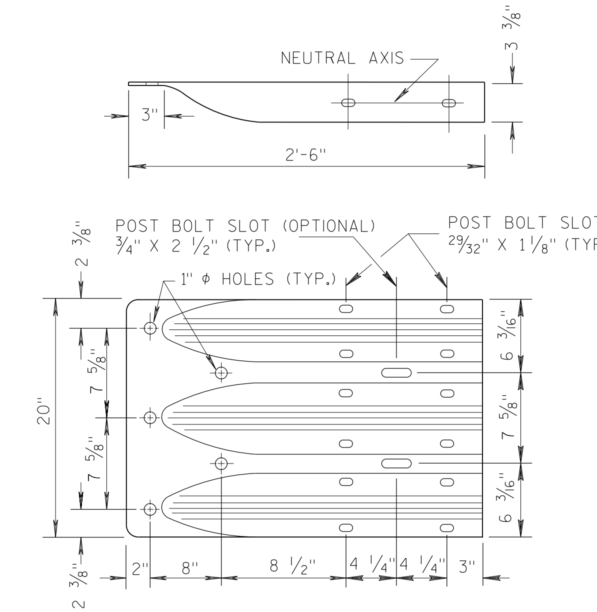
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

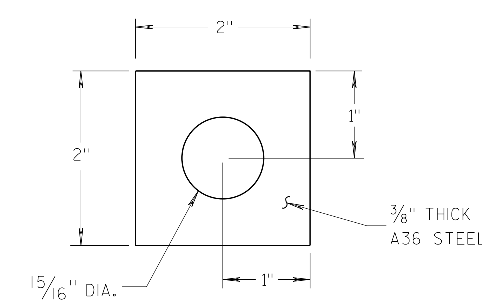
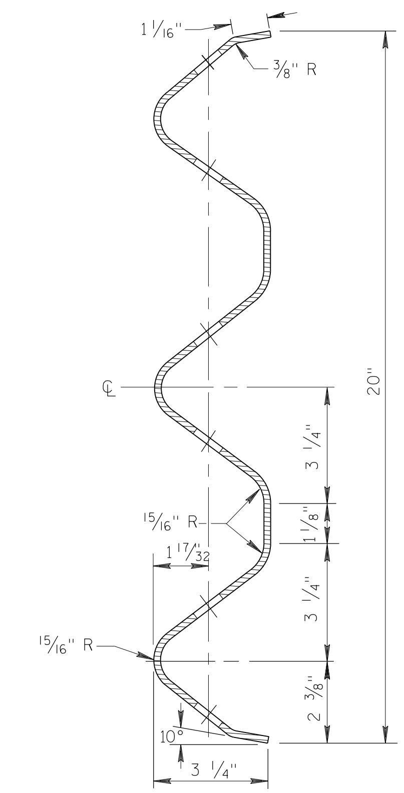
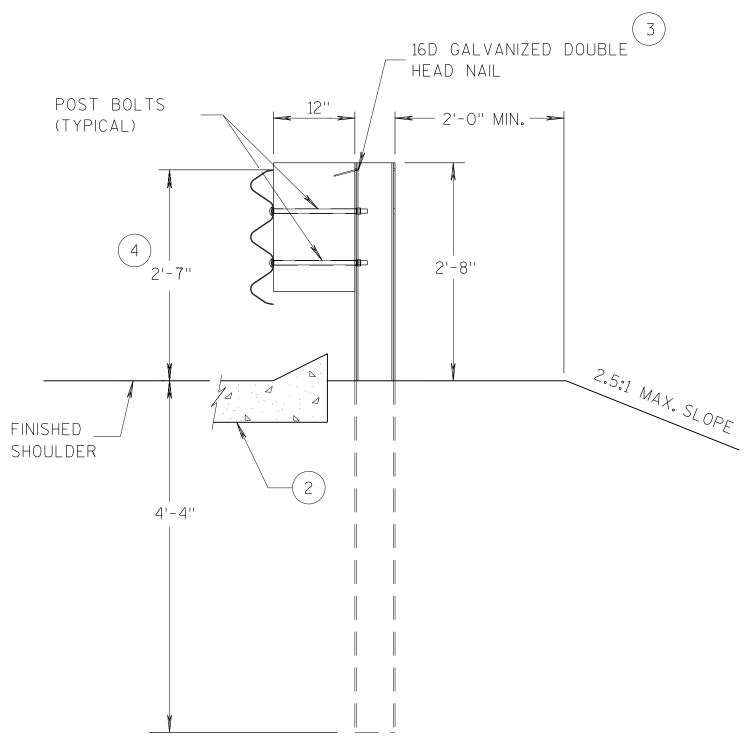


PLATE WASHER DETAIL

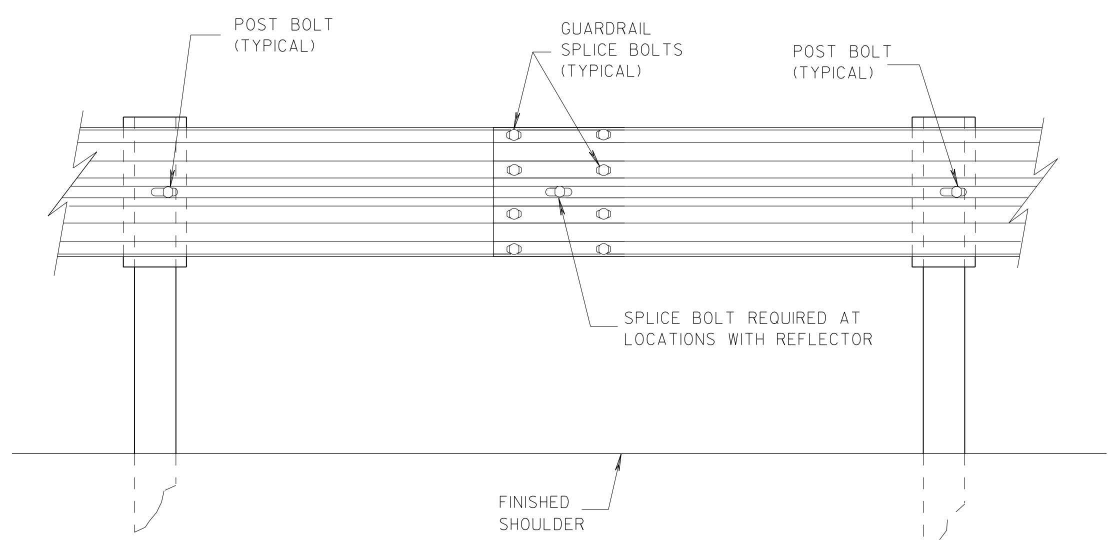


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



SPLICE DETAIL

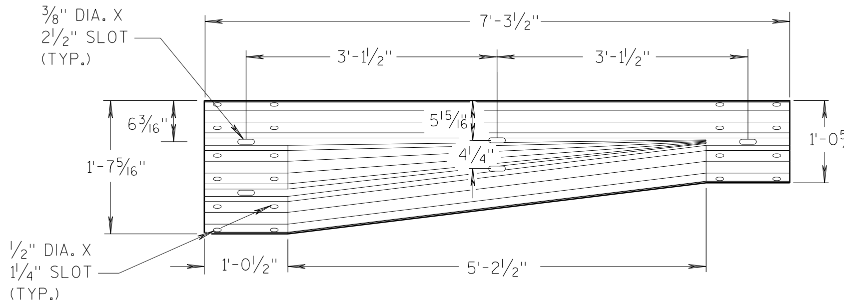
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN DEPARTMENT OF TRANSPOR

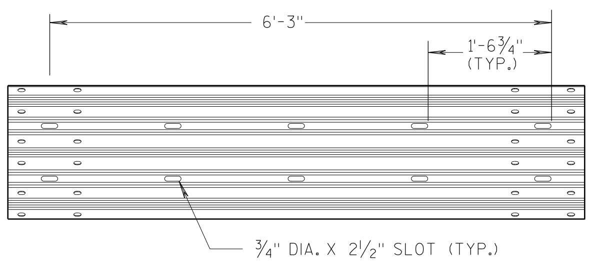
6

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

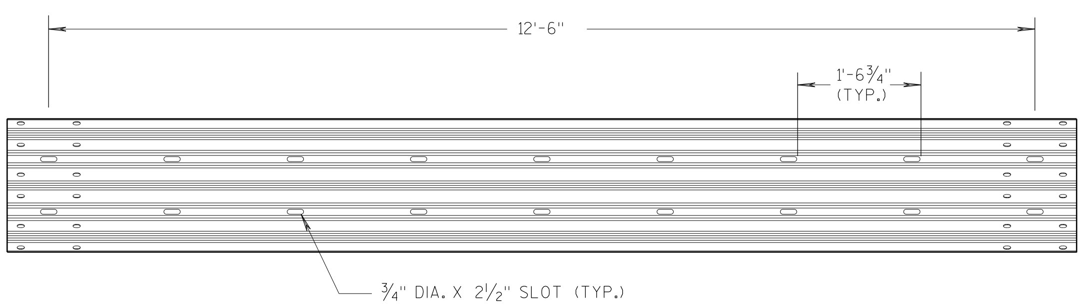
S.D.D. 14 B 45-5b



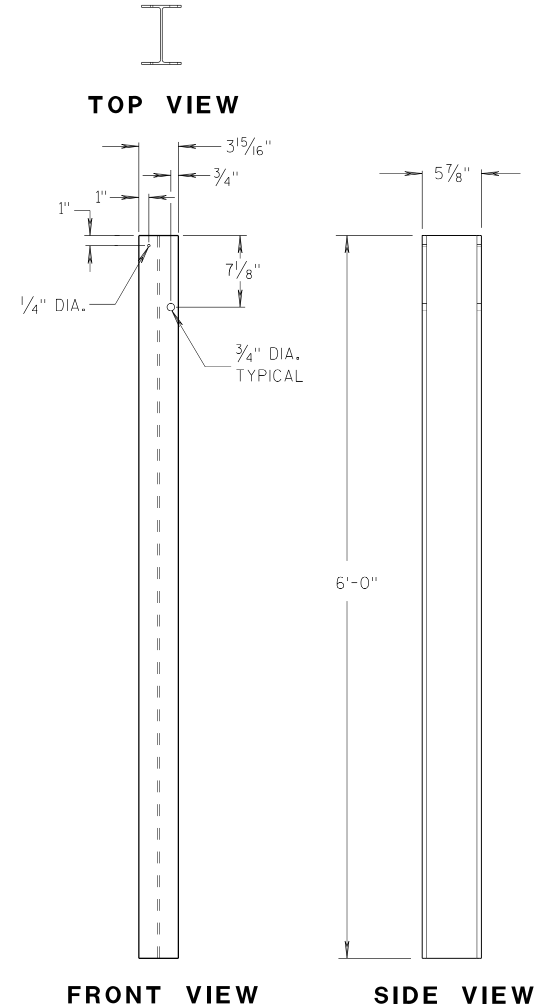
W-BEAM TO THRIE BEAM TRANSITION SECTION



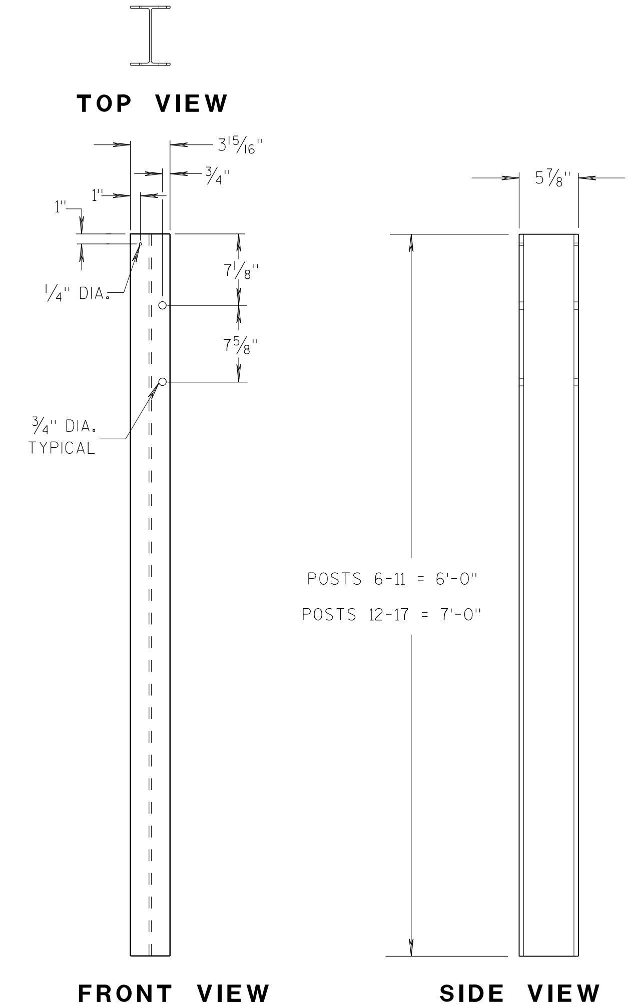
6'-3" THRIE BEAM SECTION



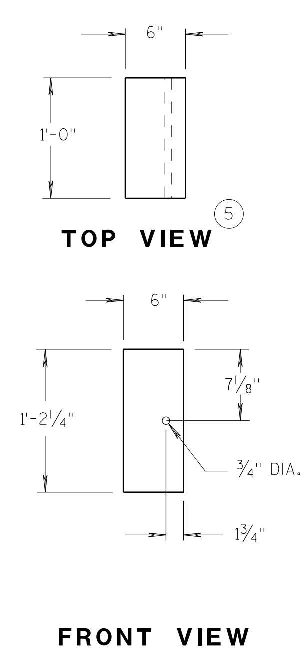
12'-6" THRIE BEAM SECTION



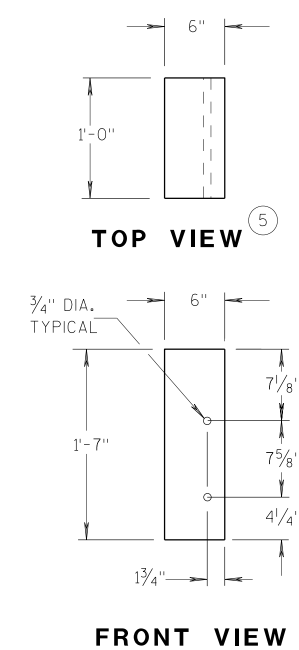
STEEL POSTS 1-5 (13)



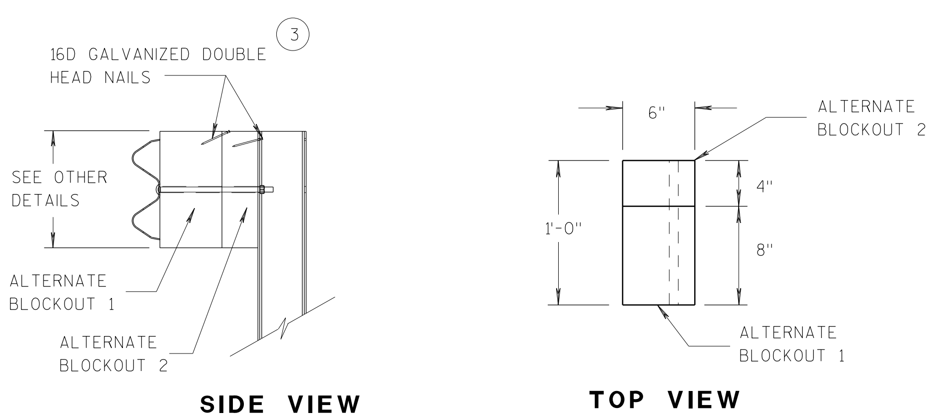
STEEL POSTS 6-17



BLOCKOUT POSTS 1-5



BLOCKOUT POSTS 6-17



ALTERNATE WOOD BLOCKOUT DETAIL

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 TRANSPOR 166

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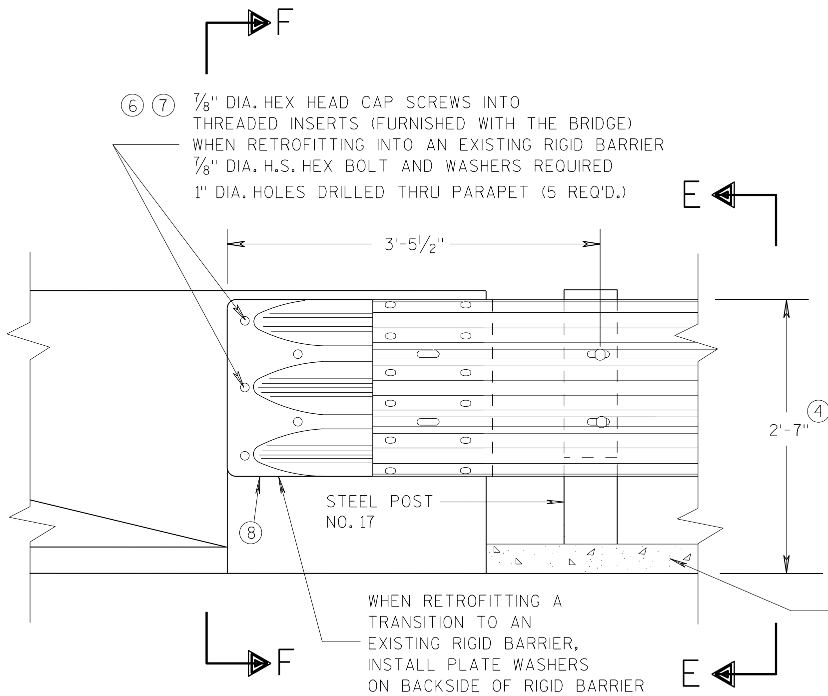
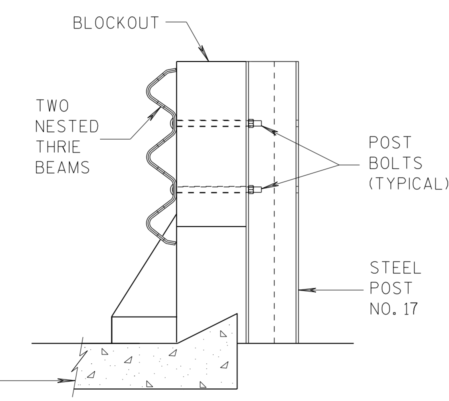
6

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

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



FRONT VIEW



SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

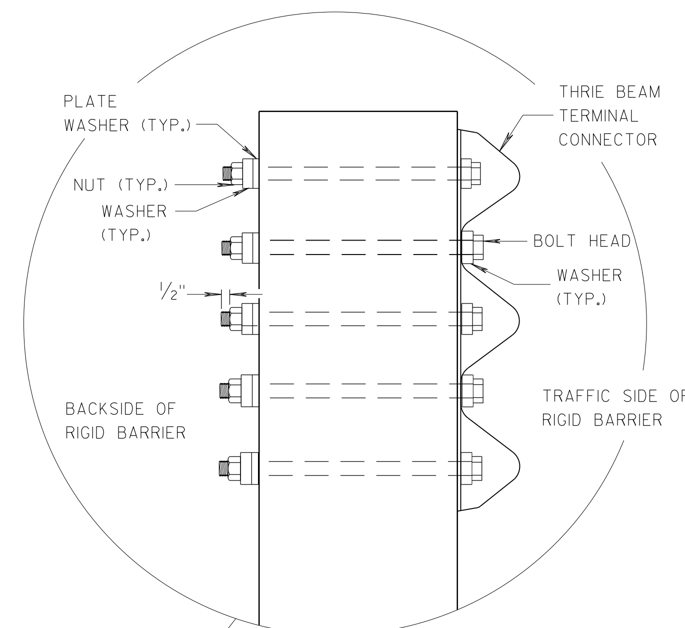
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

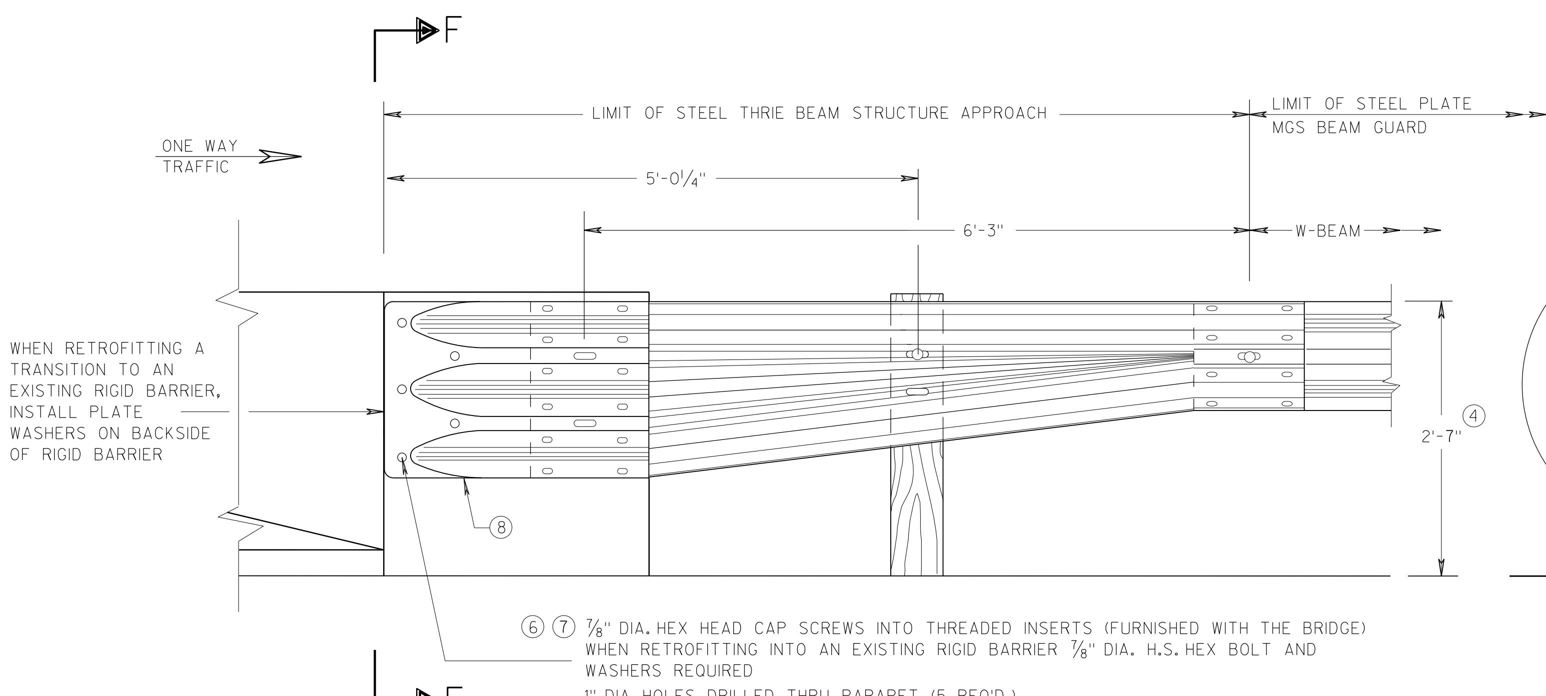
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

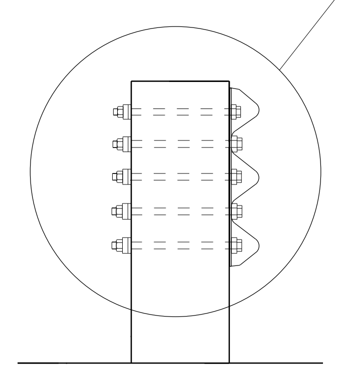
⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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.

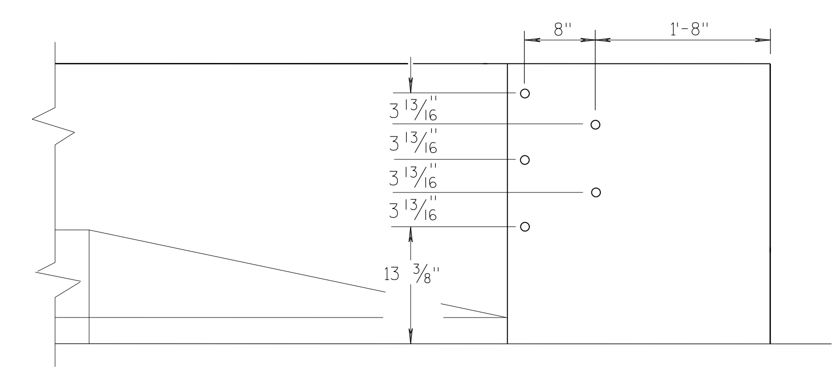
⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".







SECTION F-F



DRILL HOLE LOCATION

FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

6

6

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION 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.

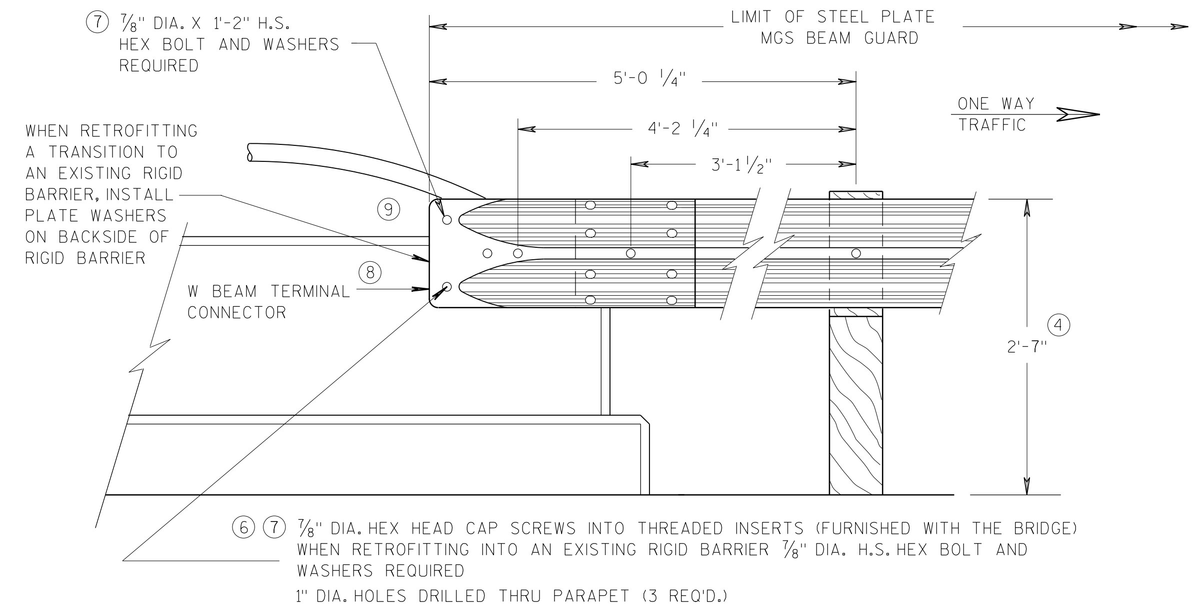
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(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".

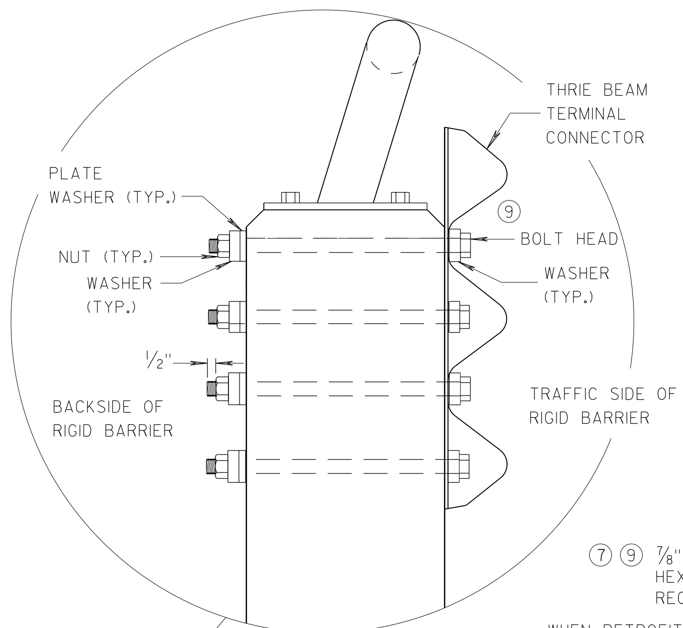
(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

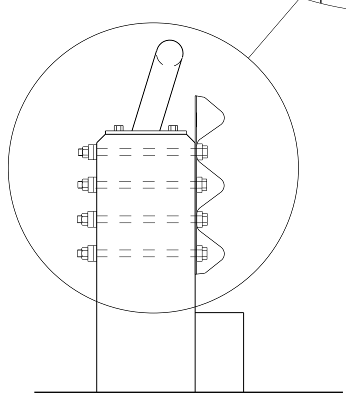


FRONT VIEW

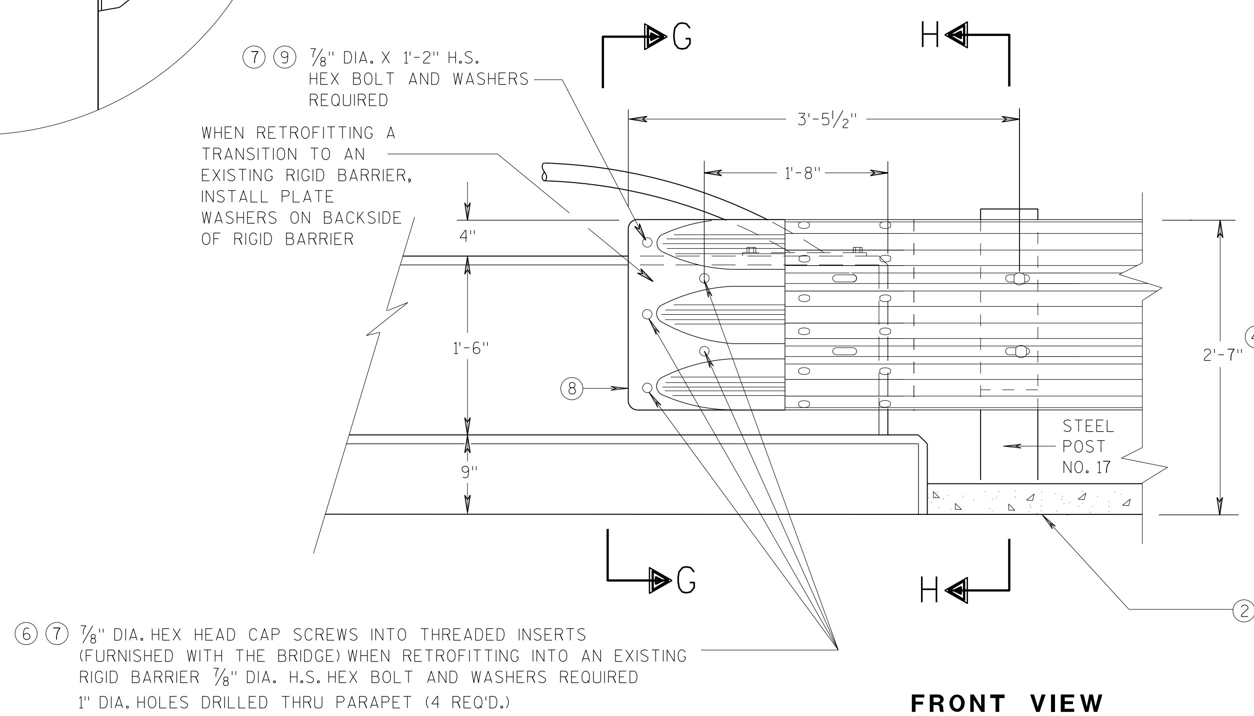
W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

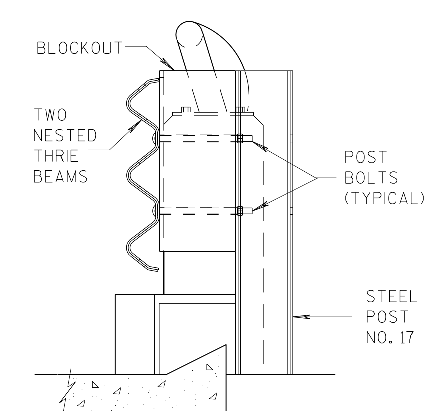




SECTION G-G



FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

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

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

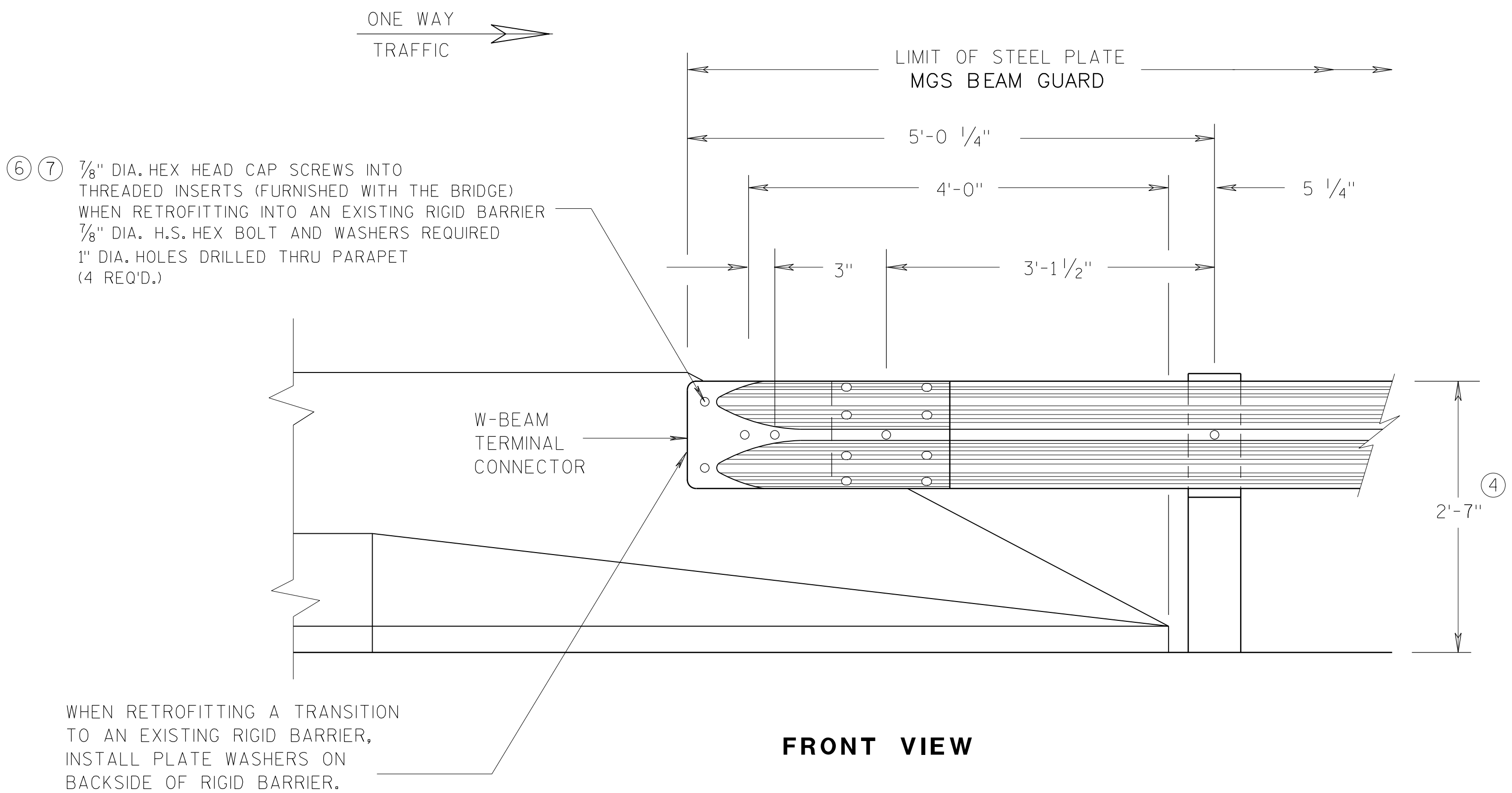
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

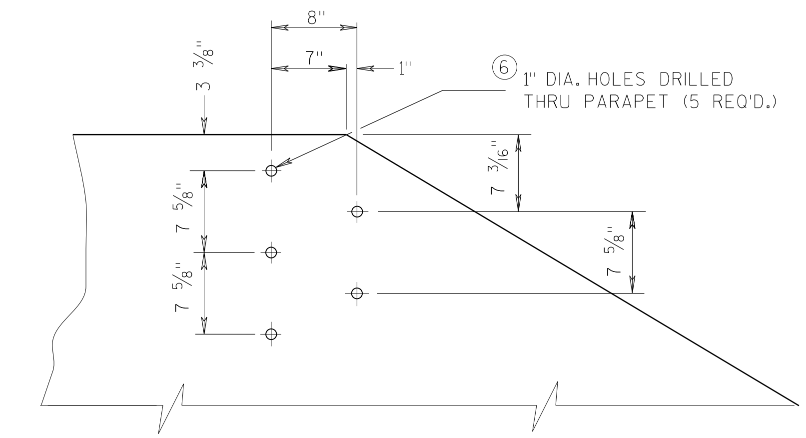
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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.

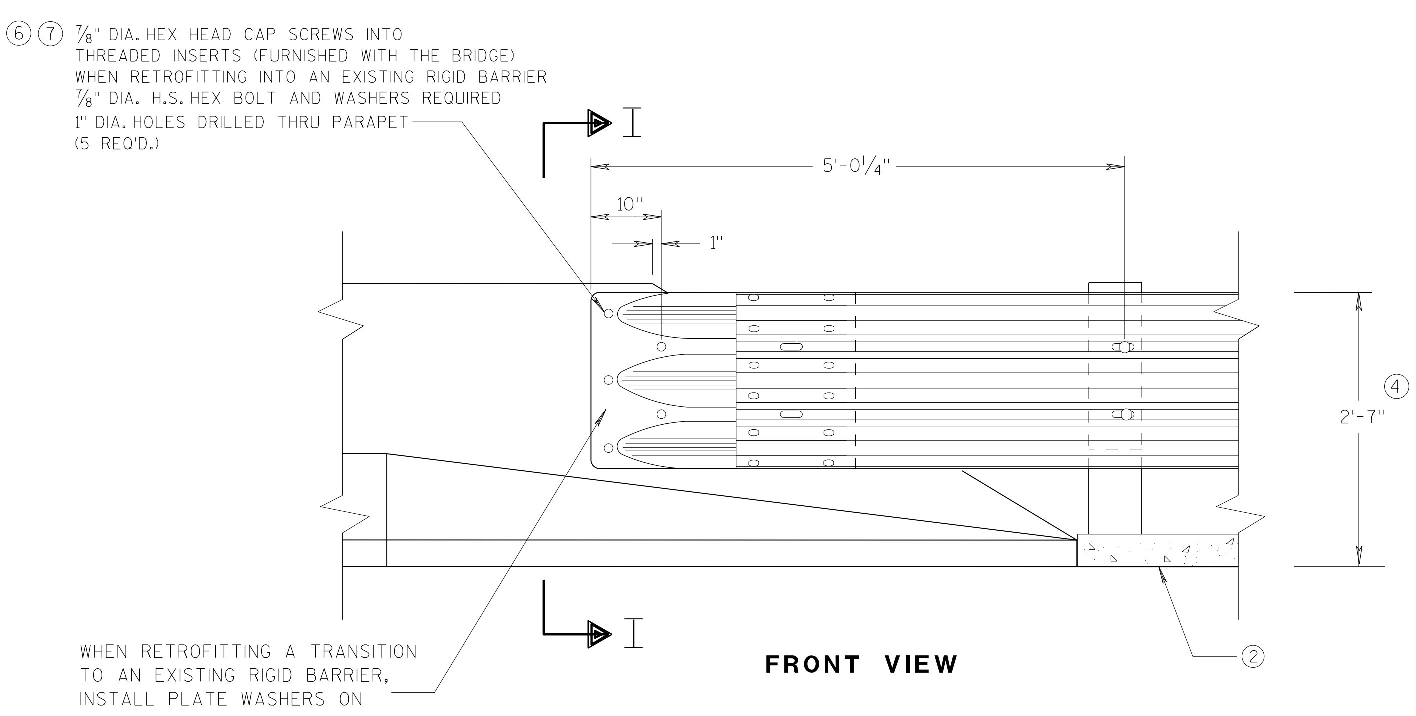


FRONT VIEW

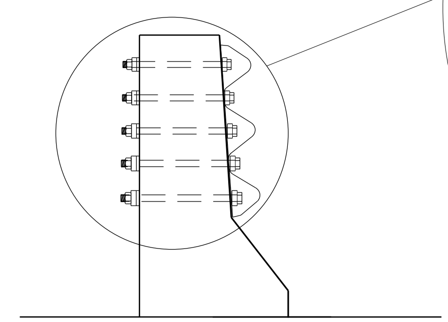
W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)



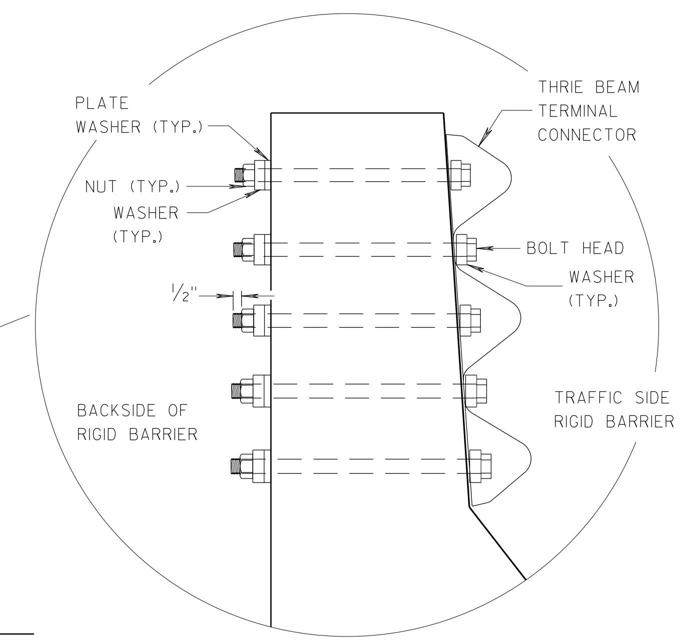
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

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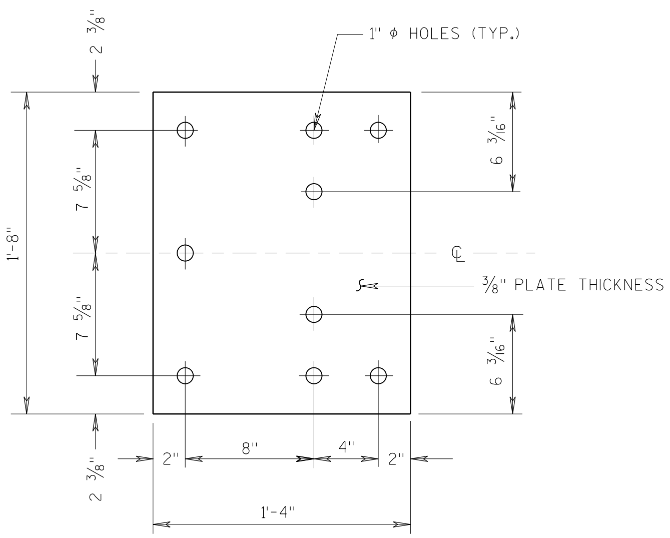
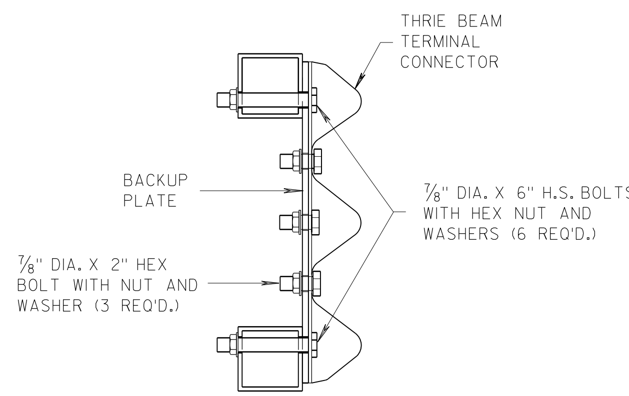
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL

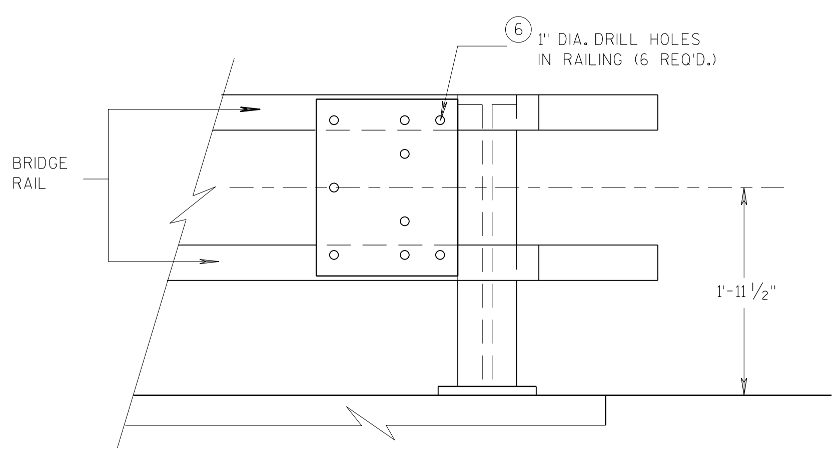


SECTION J-J

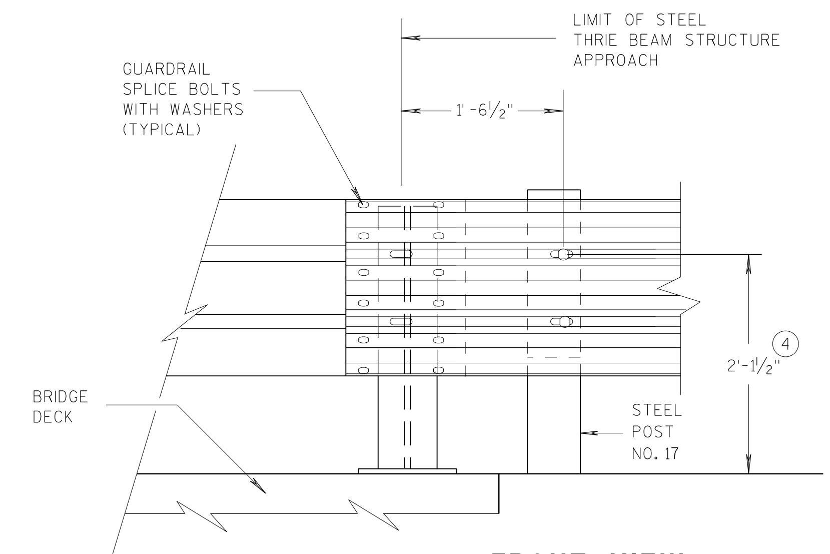
GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(6) DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

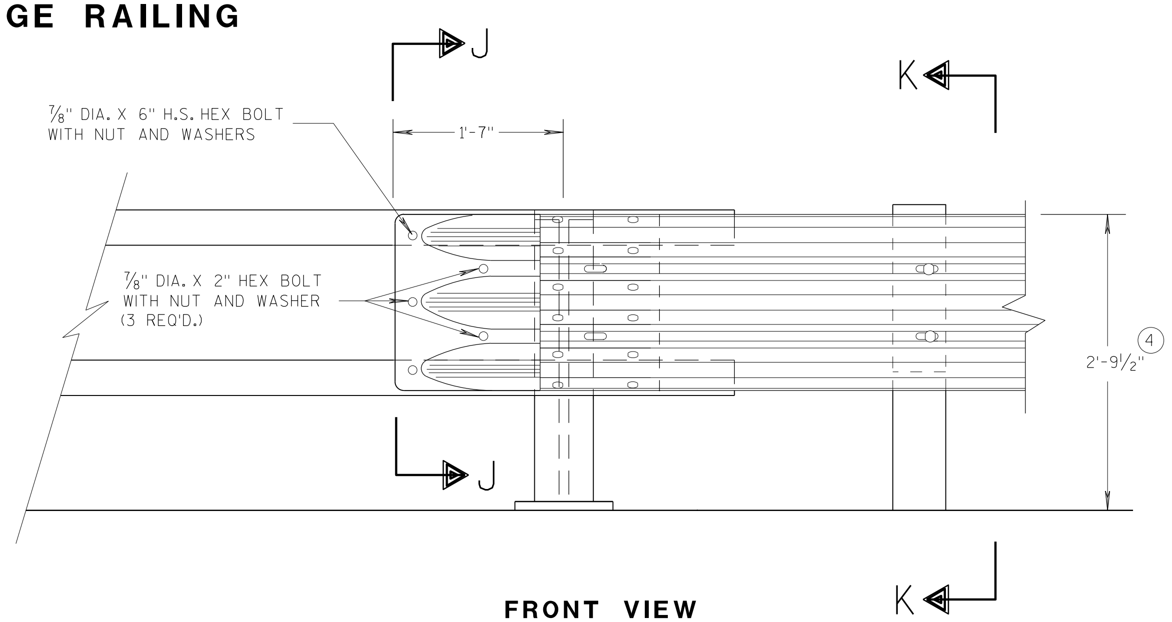


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

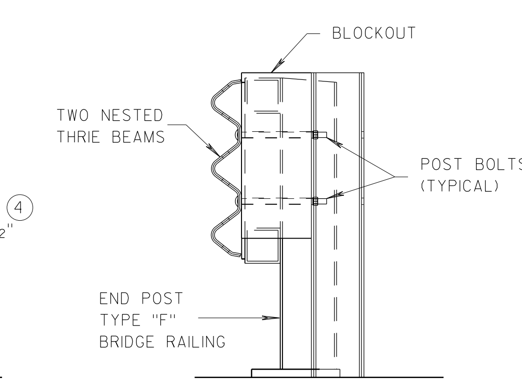


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 07/2018 DATE	/S/ Rodney Taylor 170 ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

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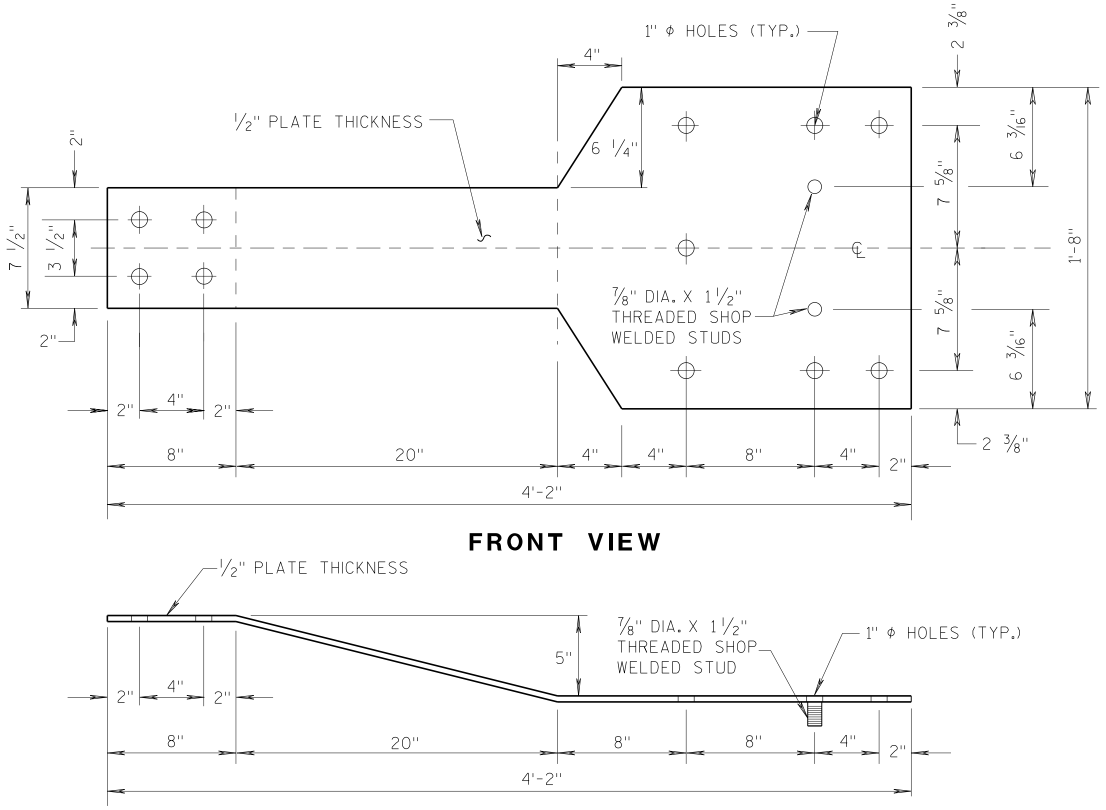
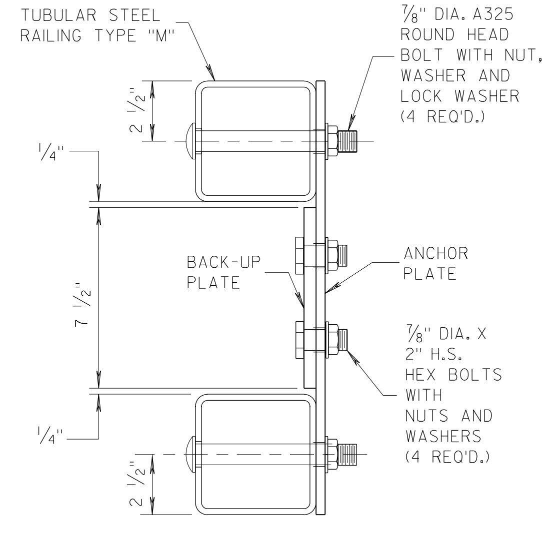
S.D.D. 14 B 45-5g

GENERAL NOTES

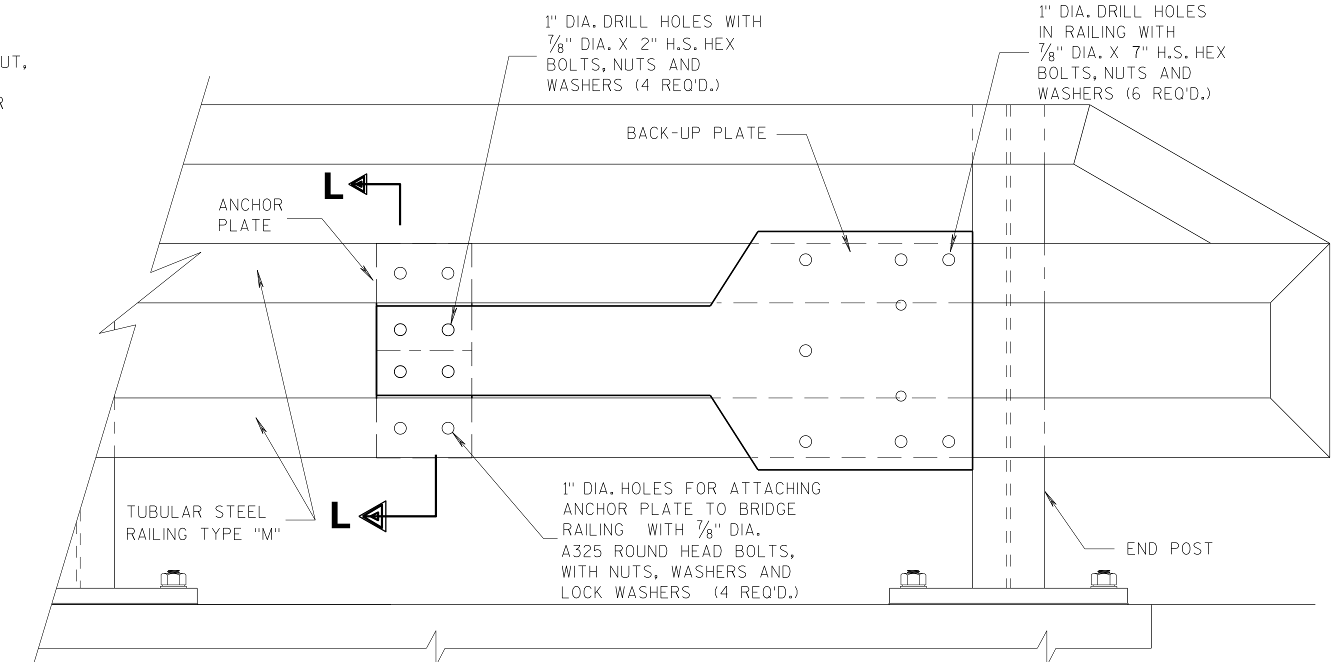
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



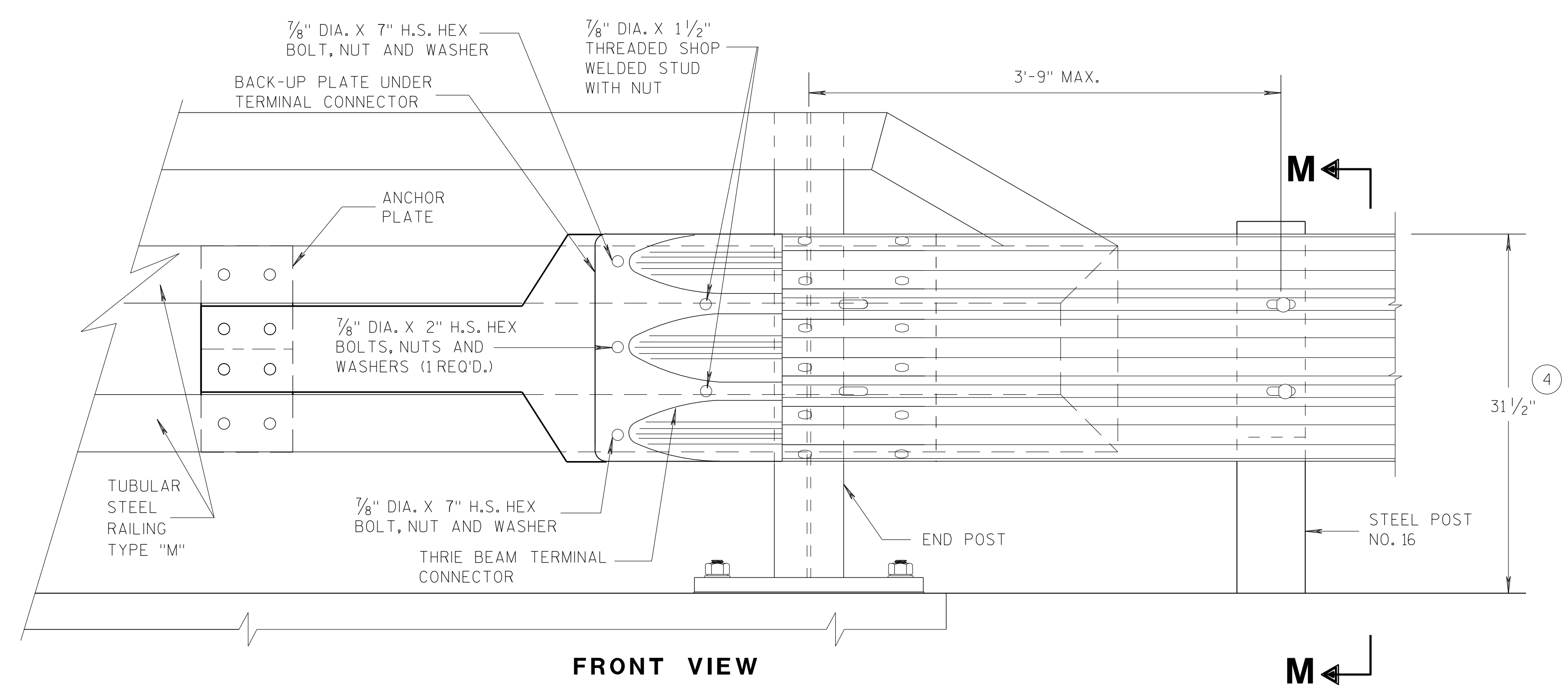
BACK-UP PLATE DETAIL, TYPE "M"

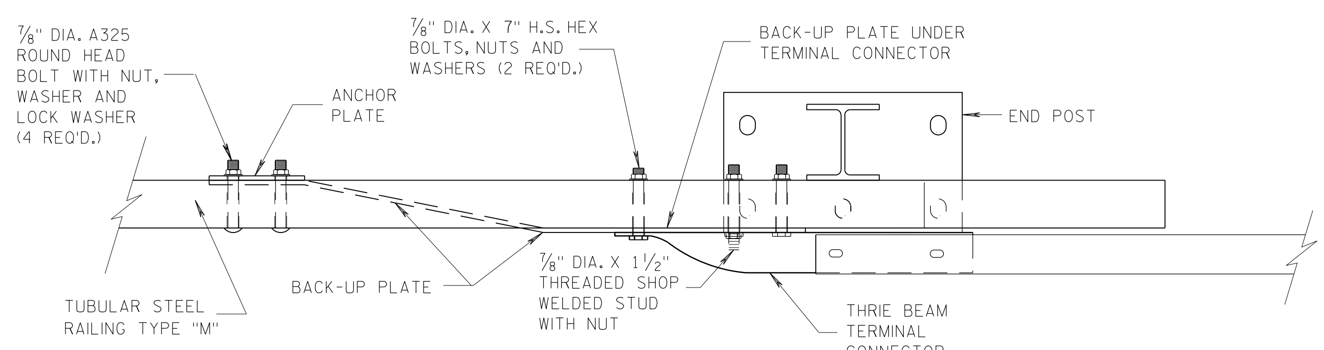


SECTION L-L

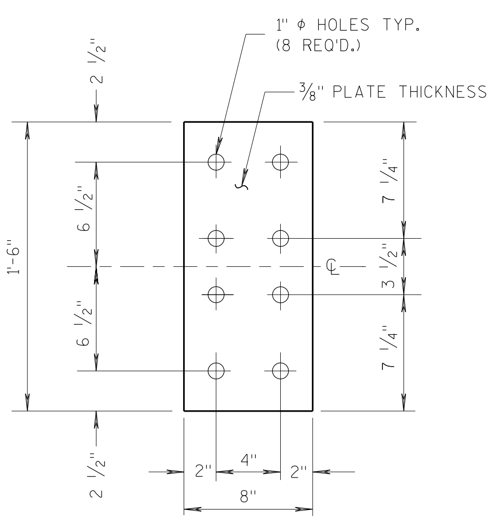


ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

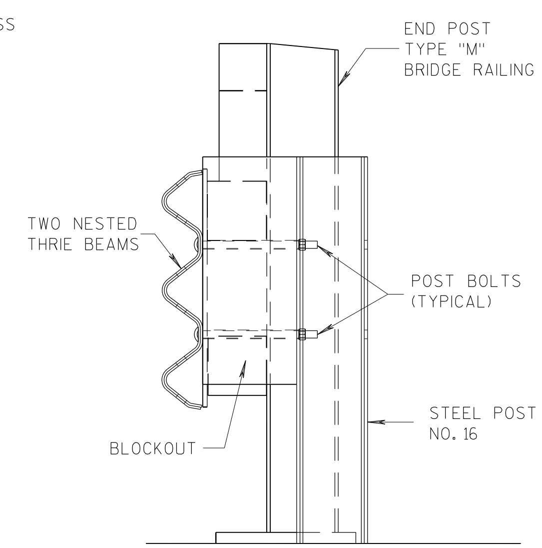




THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"



ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

6

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

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

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

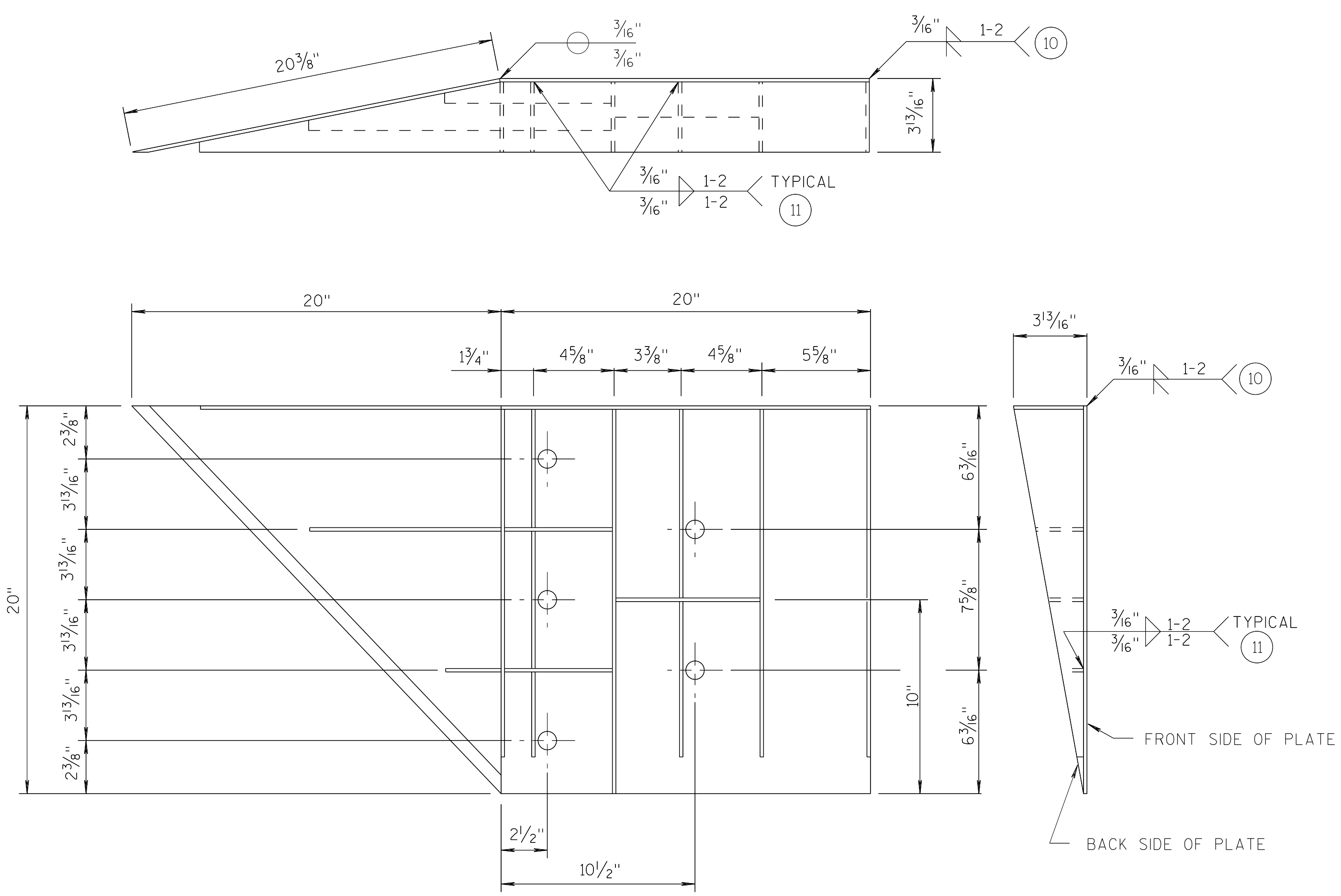
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS: SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS: 3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

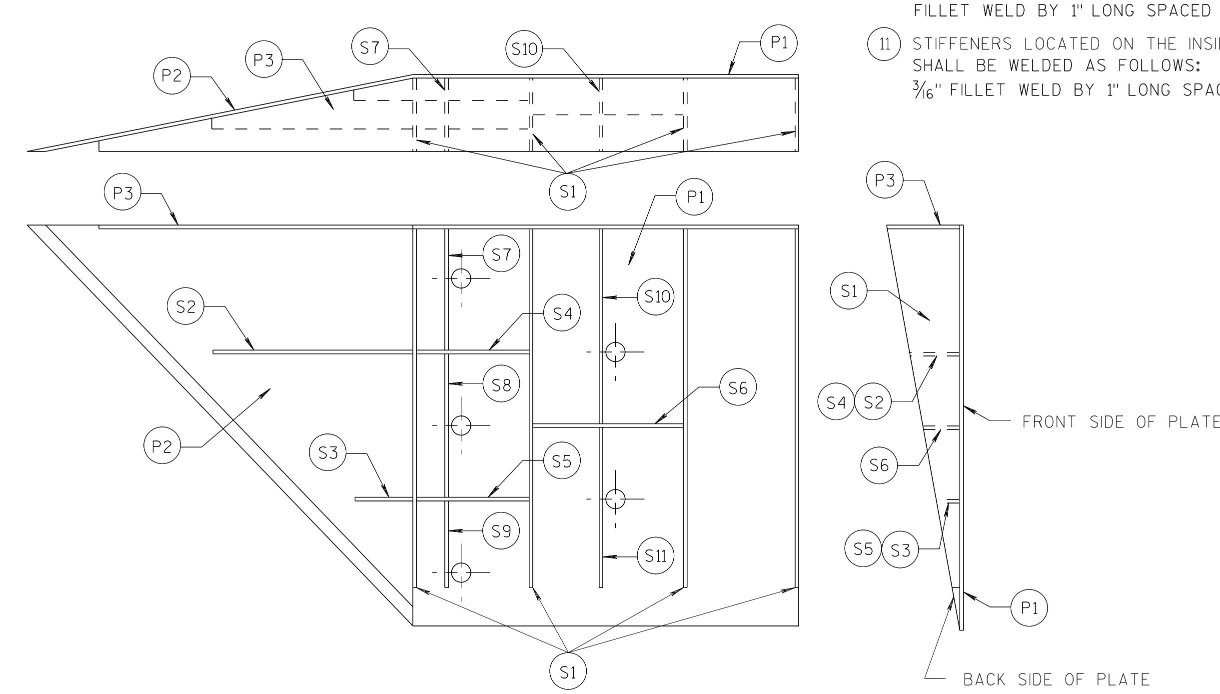


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)				
PLATE	QUANTITY	SHAPE	SIZE (A × B × C × D)	THICKNESS
P1	1		20" × 20"	3/16"
P2	1		20" × 20" × 28 9/16"	3/16"
P3	1		39" × 3 5/8" × 20" × 19 5/16"	3/16"
S1	4		18 7/16" × 3 5/8" × 18 3/4"	1/4"
S2	1		10 1/4" × 2 7/16" × 10 3/8" × 1/2"	1/4"
S3	1		3" × 1 1/16" × 3 1/8" × 1/2"	1/4"
S4	1		6 1/8" × 2 7/16"	1/4"
S5	1		6 1/8" × 1 1/16"	1/4"
S6	1		7 3/4" × 1 3/4"	1/4"
S7	1		2 9/16" × 6" × 3 5/8" × 5 7/8"	1/4"
S8	1		1 5/32" × 7 1/2" × 2 1/2" × 7 3/8"	1/4"
S9	1		6 1/16" × 6 3/16" × 1 3/32"	1/4"
S10	1		1 7/8" × 9 7/8" × 3 5/8" × 9 11/16"	1/4"
S11	1		8 1/2" × 8 3/4" × 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

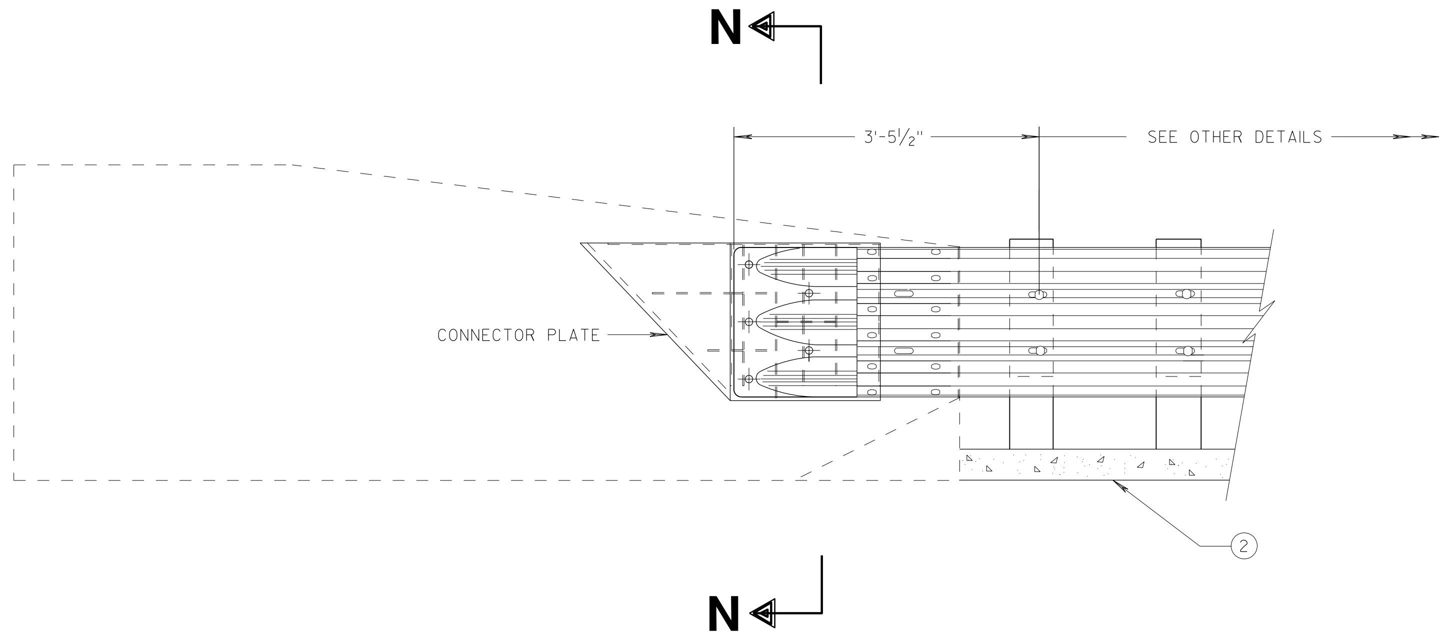
APPROVED
7/2018 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

GENERAL NOTES

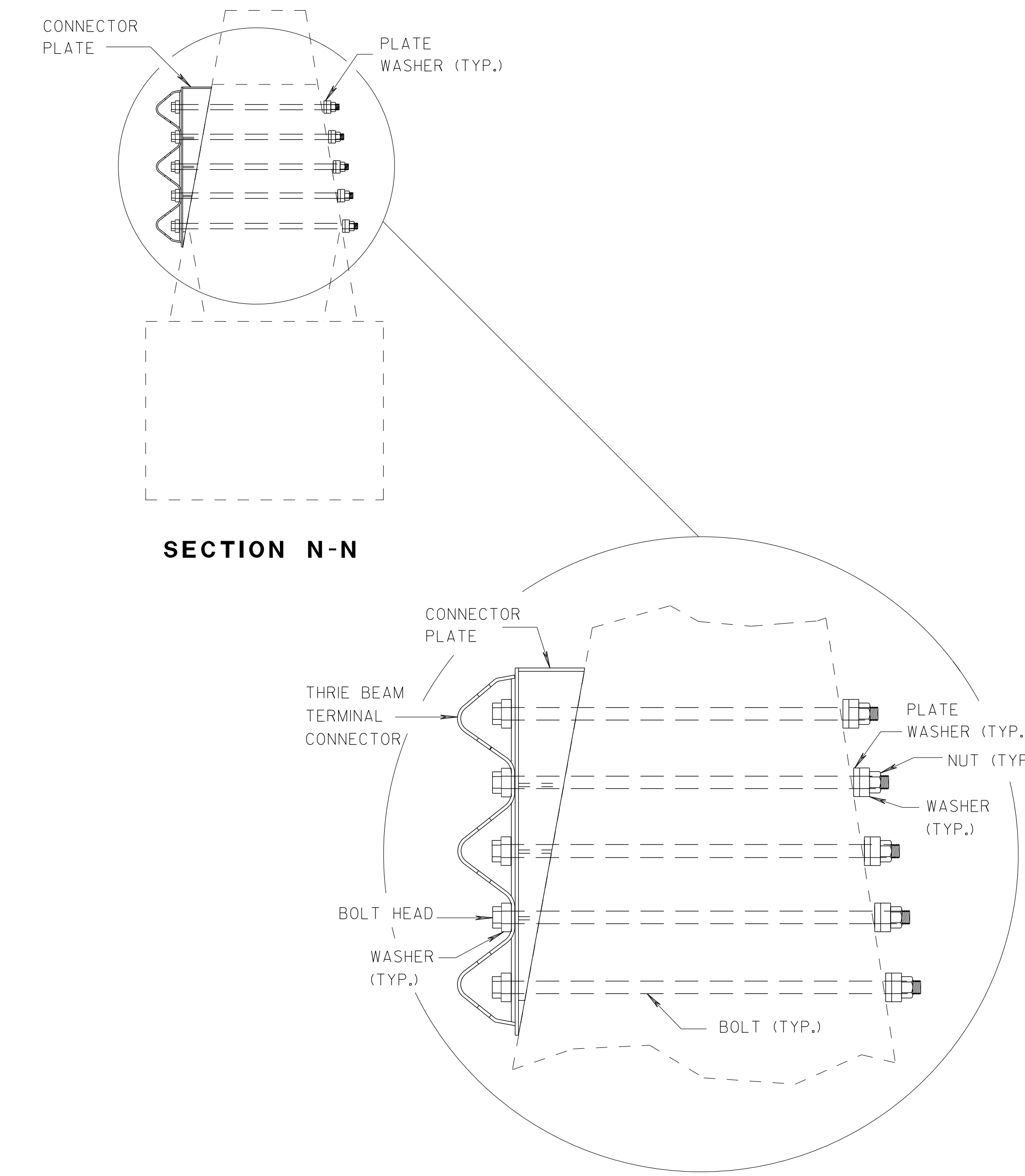
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

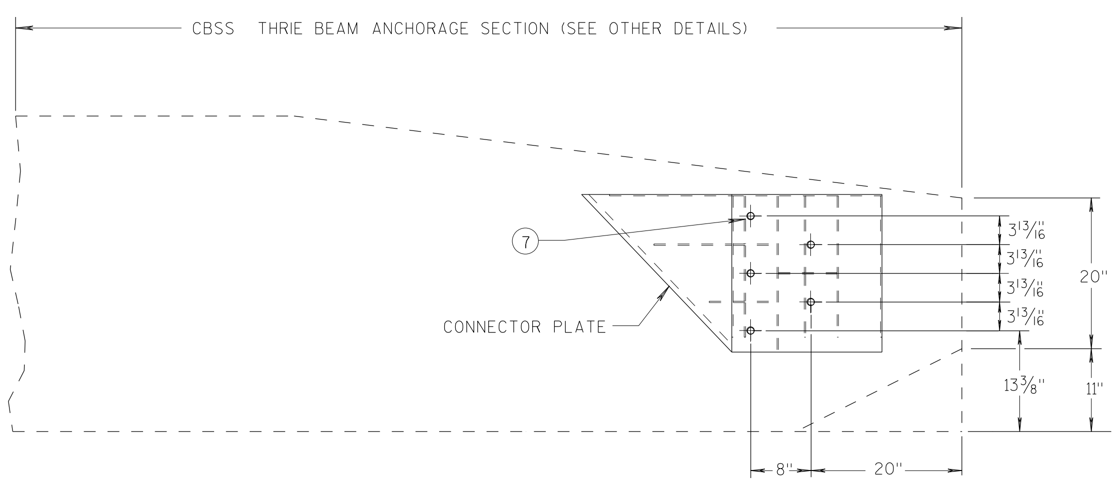
(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



SECTION N-N



SINGLE SLOPE CONNECTION PLATE PLACEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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7/2018 — DATE

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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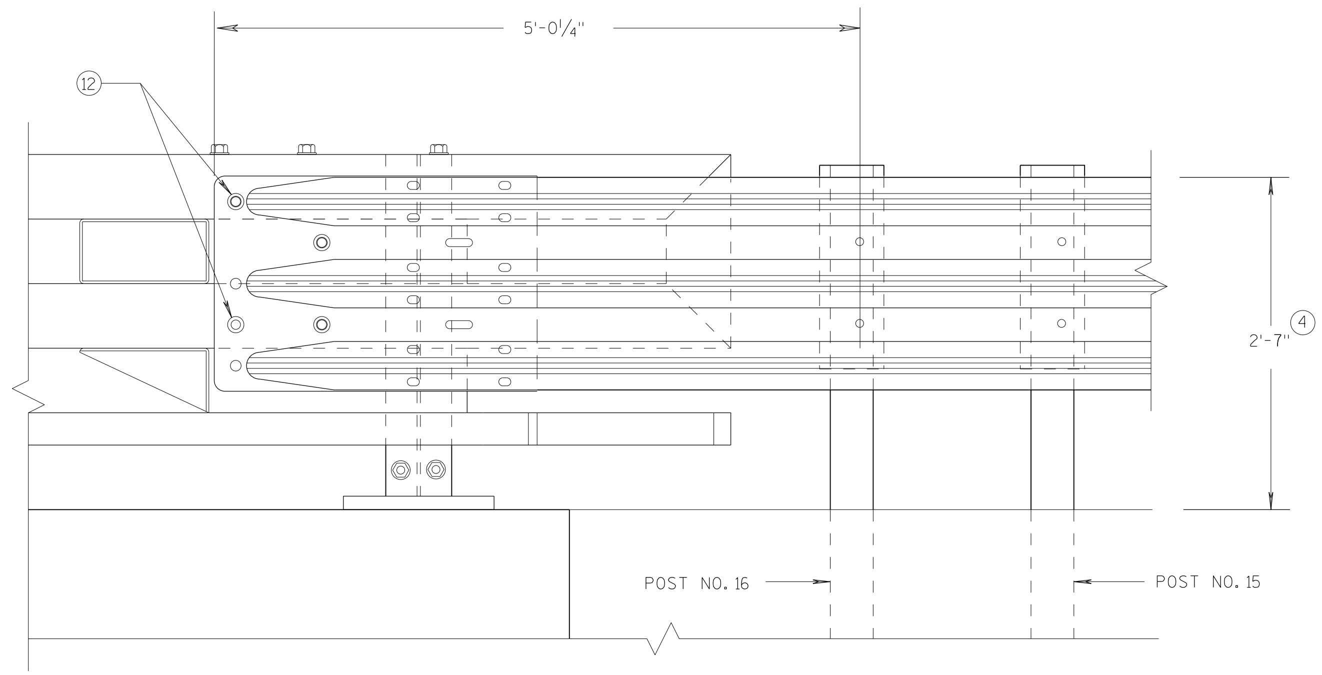
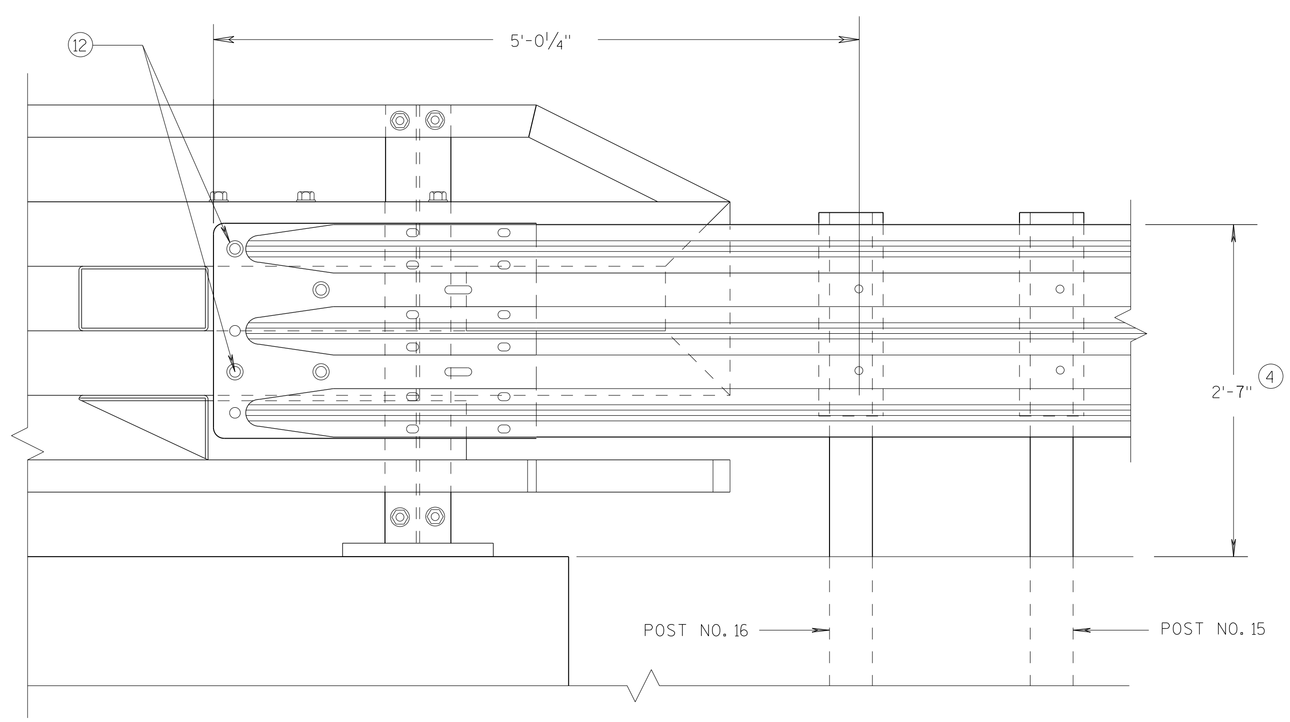


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.

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MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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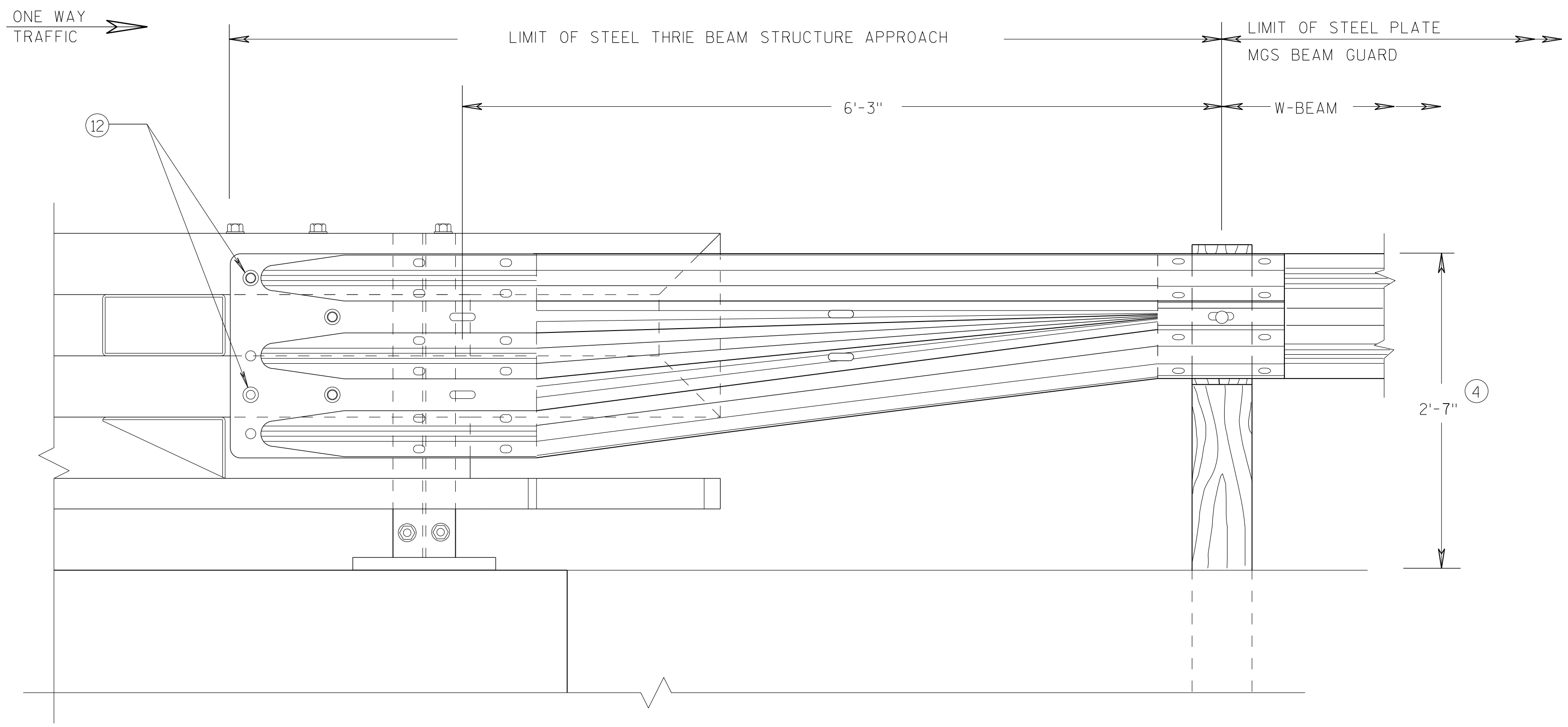
FHWA

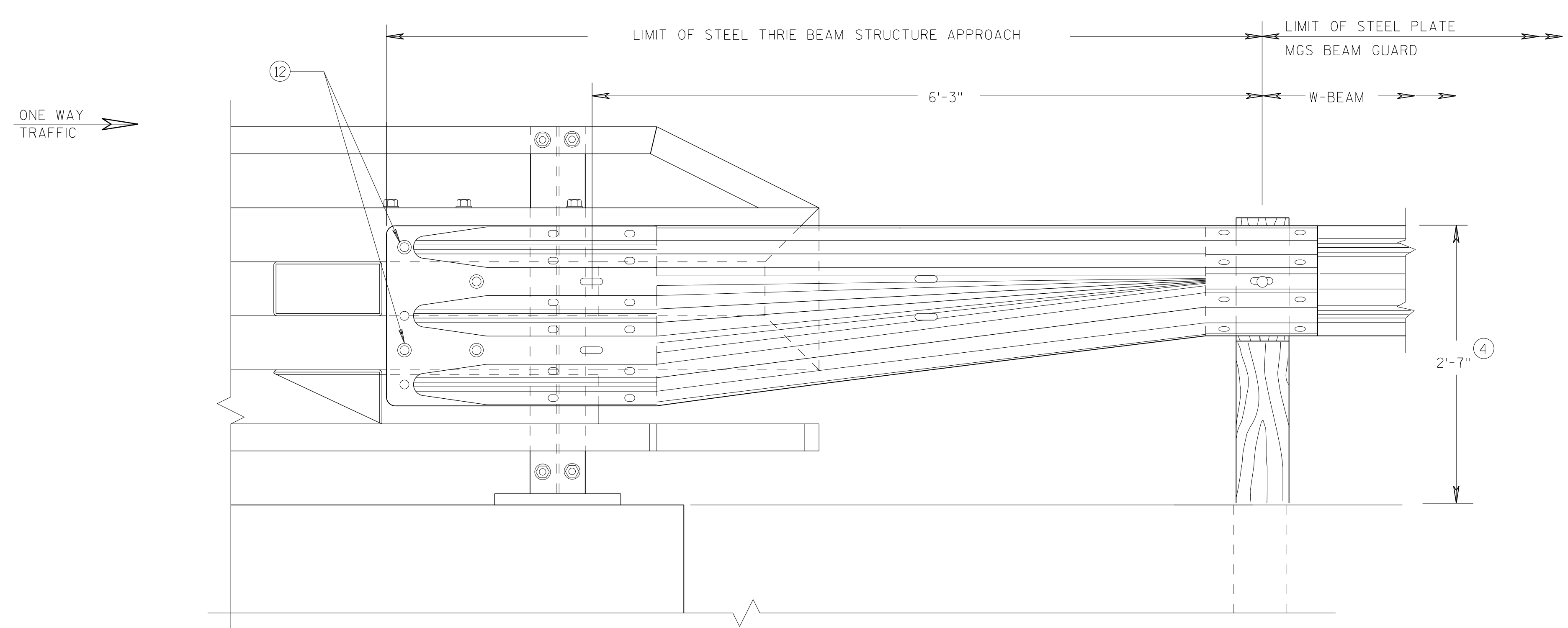
S.D.D. 14 B 45-5k



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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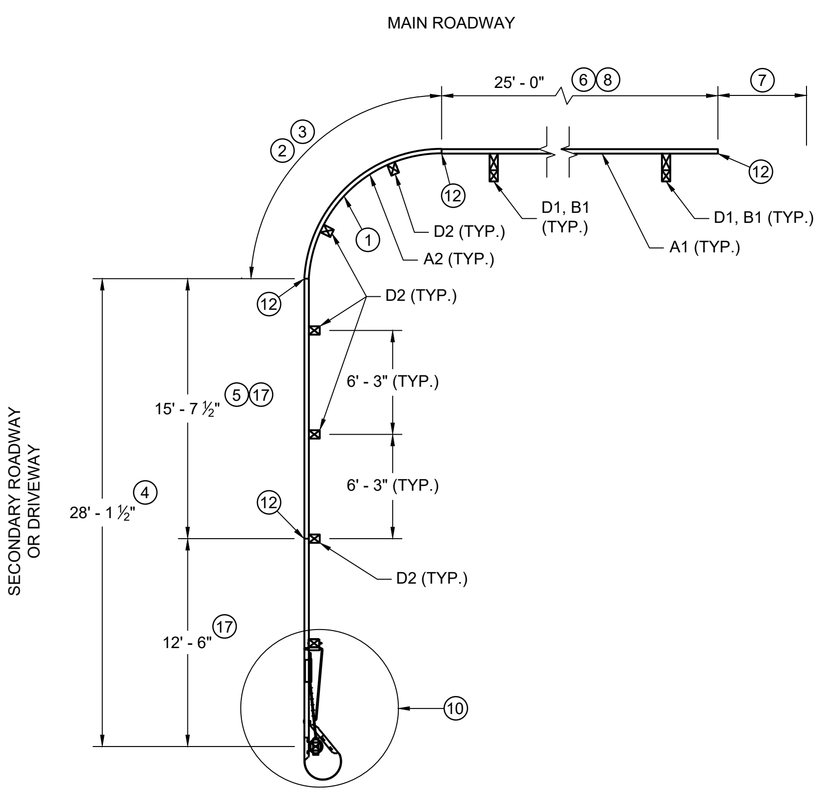
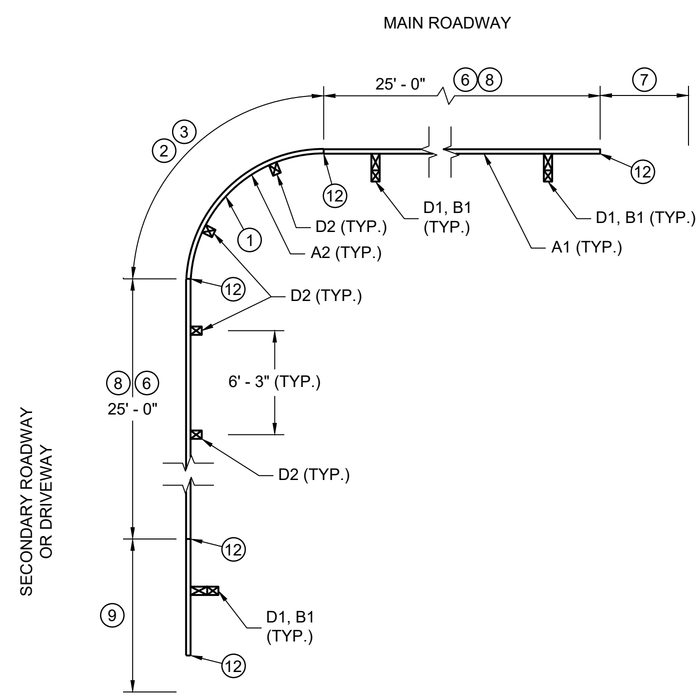


PLAN VIEW

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

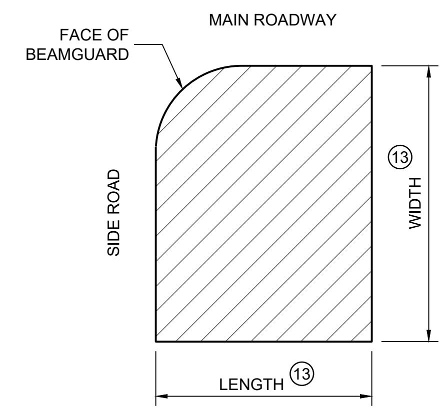


PLAN VIEW

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

TABLE FOR RADIUS OF 32' AND LESS

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



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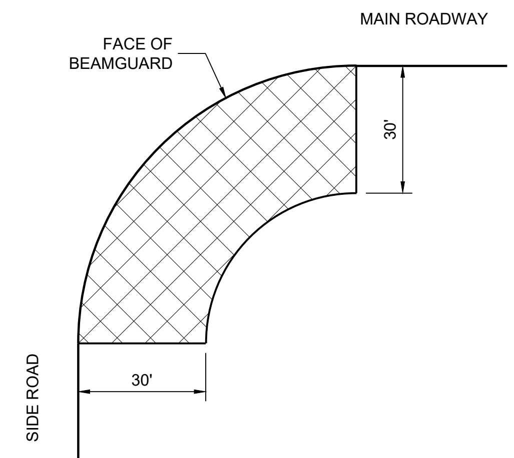
AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS



AREA FREE OF FIXED OBJECTS FOR RADIUS GREATER THAN 32'

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

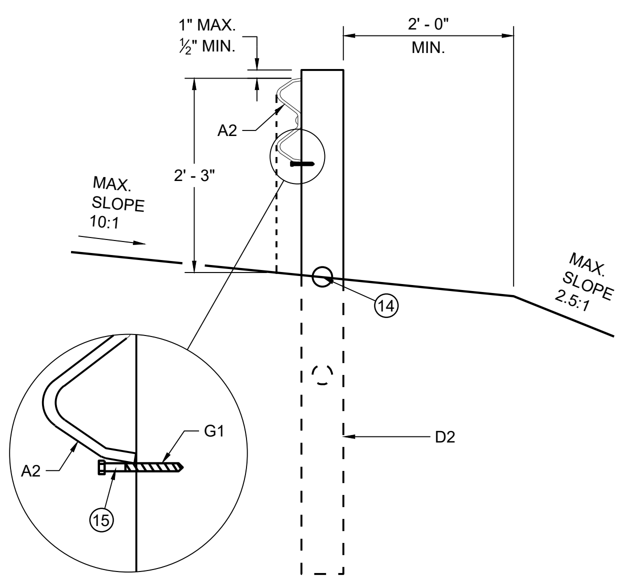
UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

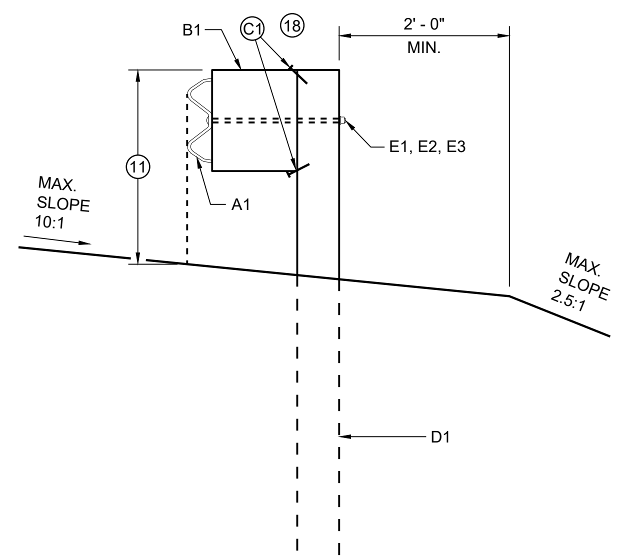
UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE 1/4" TO 1/2" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

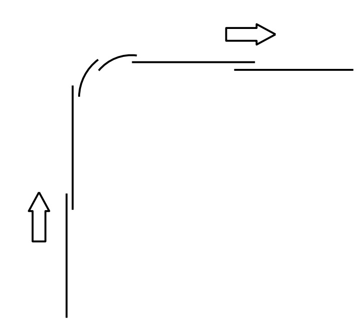
1. RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.
2. CONTROLLED RELEASE TERMINAL (CRT)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



CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



BEAM GUARD POSTS IN HEIGHT TRANSITION



LAP SPLICE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53-04a

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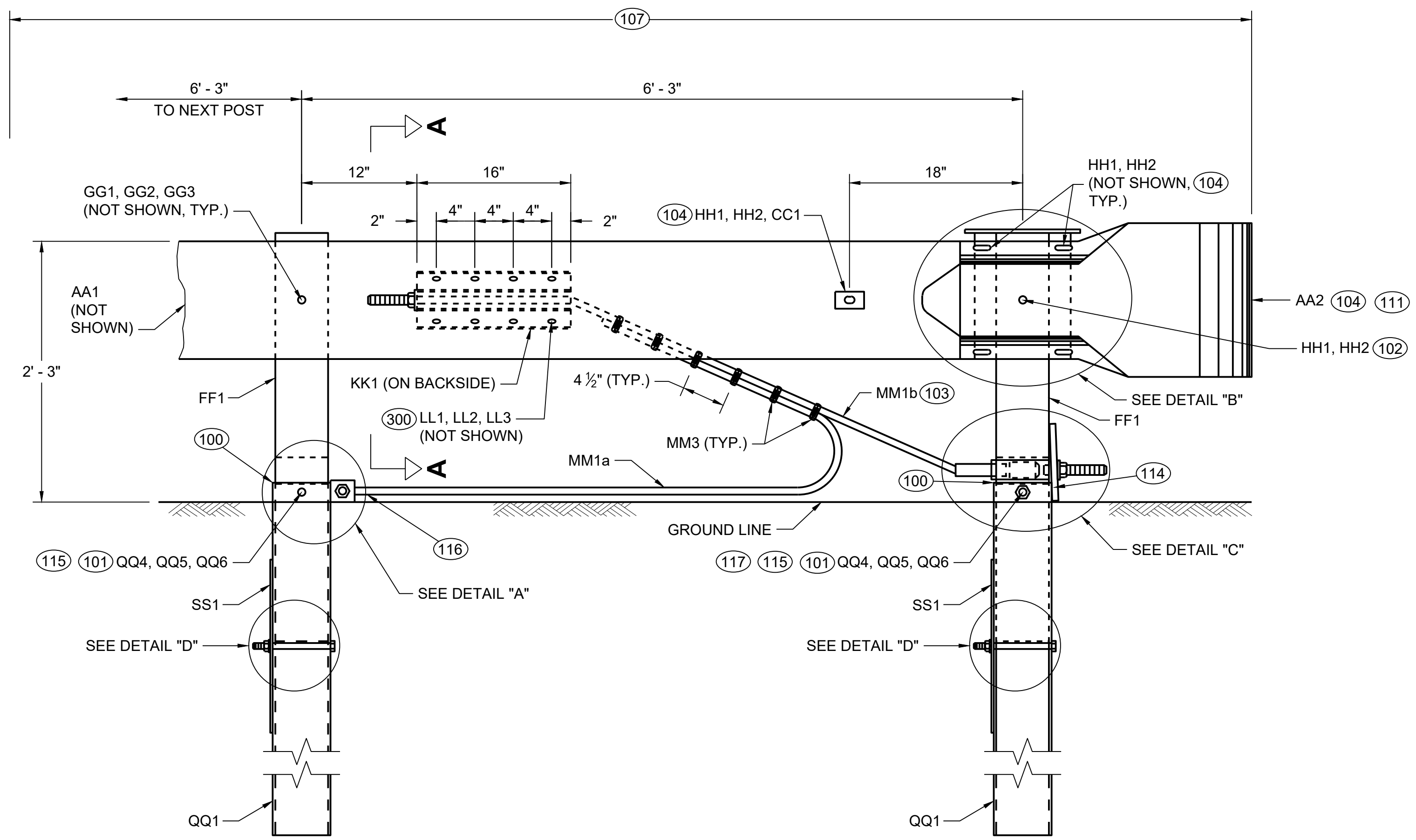
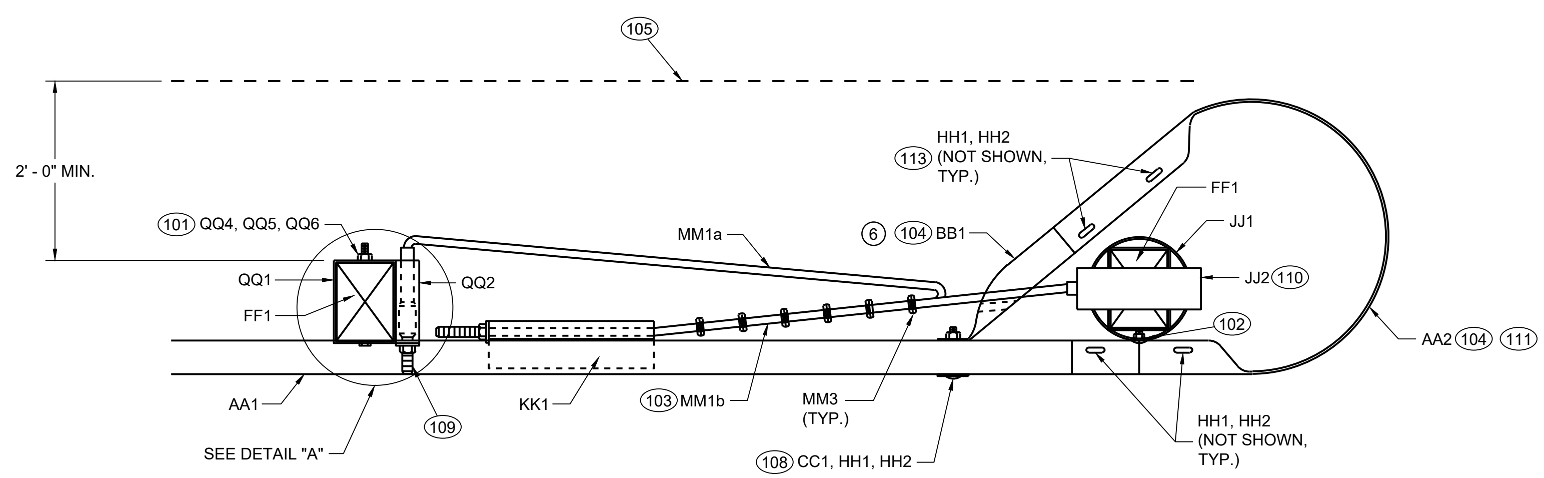


PROFILE VIEW

SHORT RADIUS TERMINAL



TOP VIEW

SHORT RADIUS TERMINAL

GENERAL NOTES

(100) TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

(101) WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

(102) SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".

(103) CABLE IS TAUT.

(104) ADJUST AA2 AND BB1 TO FIT.

(105) BREAK POINT OF SHOULDER.

(106) TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.

(107) PAY LIMIT FOR BEAM GUARD.

(108) SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

(109) CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS 1/2" TOLERANCE). DEBURR AFTER CUTTING.

(110) SEE STEEL PIPE ASSEMBLY DETAILS.

(111) ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

(112) FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

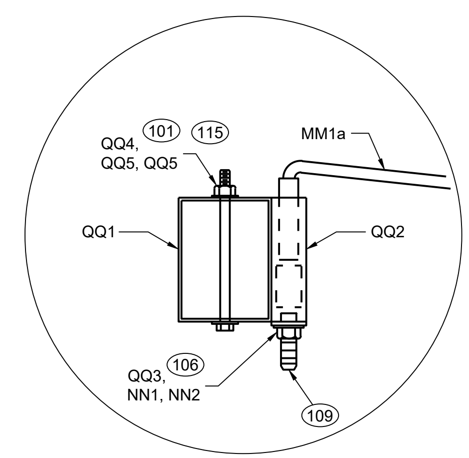
(113) FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.

(114) NO MATERIAL IS TO BE PLACED AGAINST THE VERTICAL FACES OF BEARING PLATE.

(115) PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLTS FOR POST AND SOIL TUBE.

(116) PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLT. PLACE CABLE ON TOP OF MATERIAL.

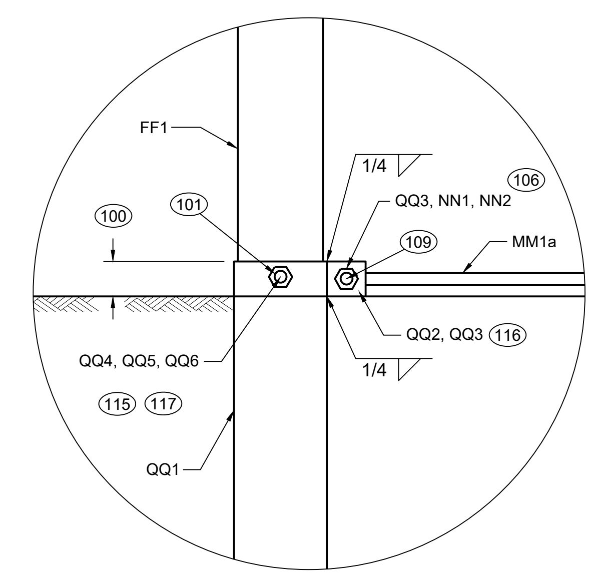
(117) ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

DETAIL "A"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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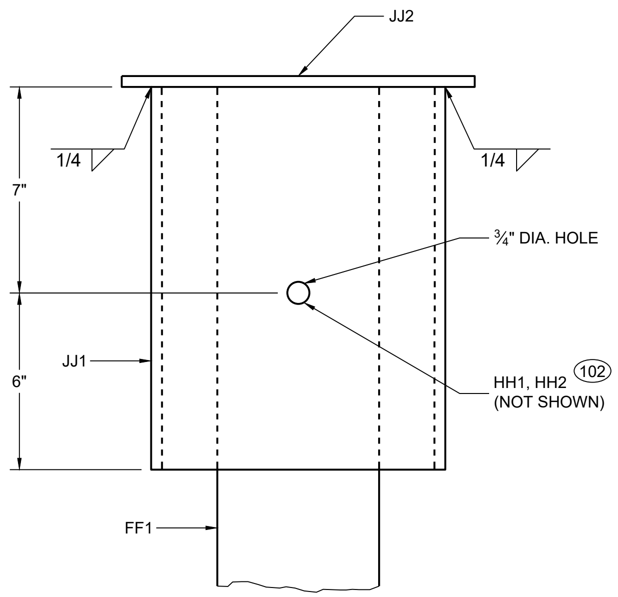
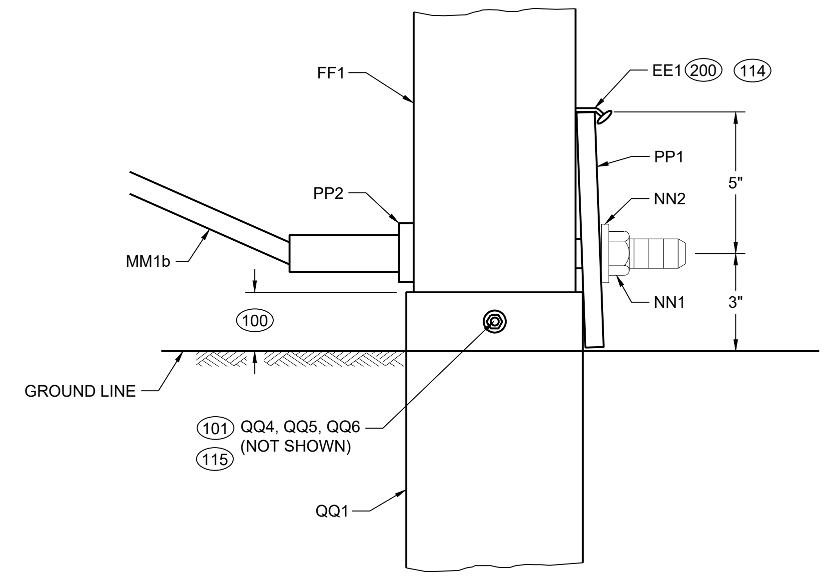
GENERAL NOTES

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



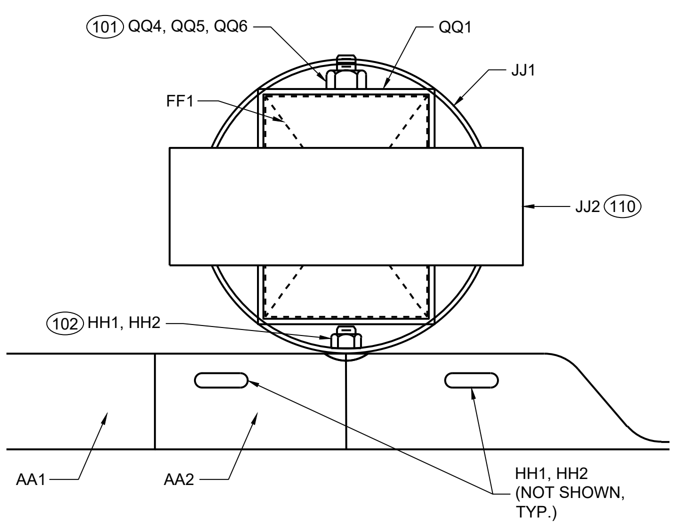
PROFILE VIEW

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



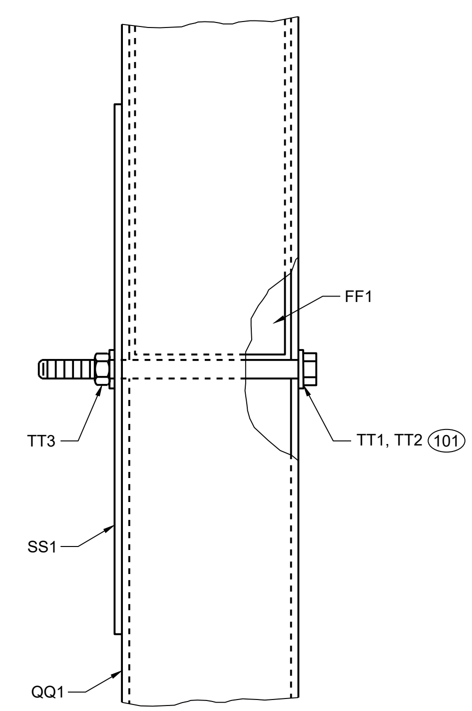
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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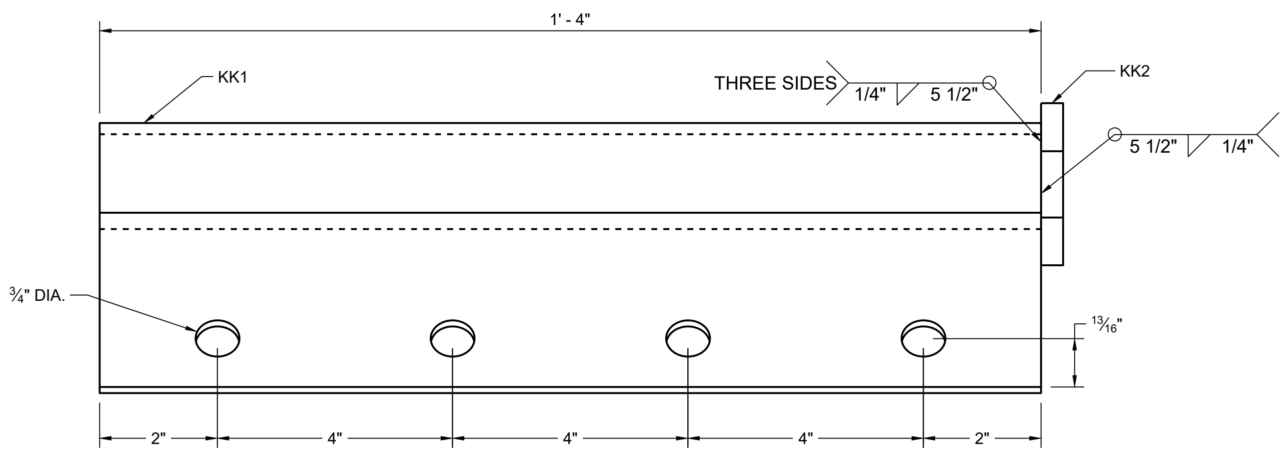
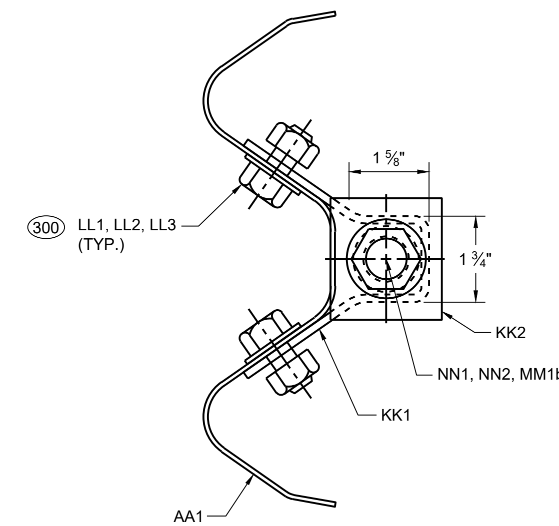
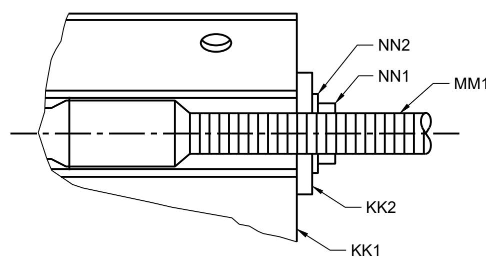
GENERAL NOTES

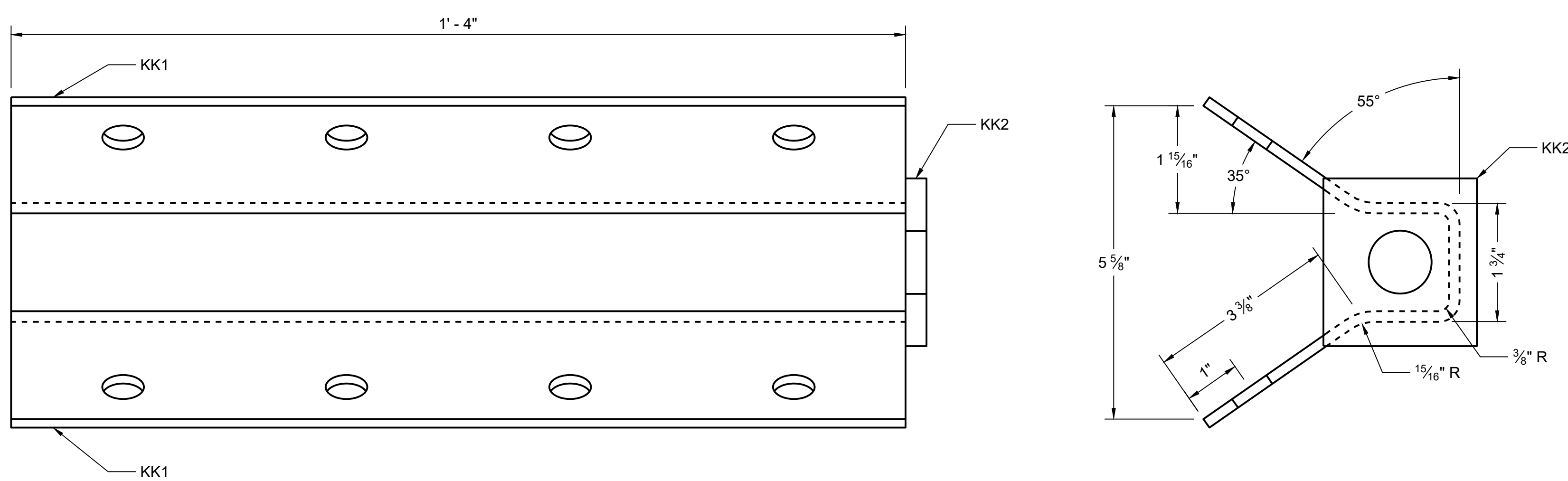
(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

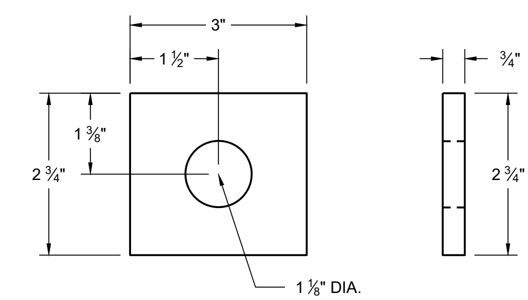






SECTION A - A





ANCHOR BRACKET BEARING PLATE (KK2)

ANCHOR BRACKET (KK1, KK2)

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SDD 14B53-04d

SDD 14B53-04d

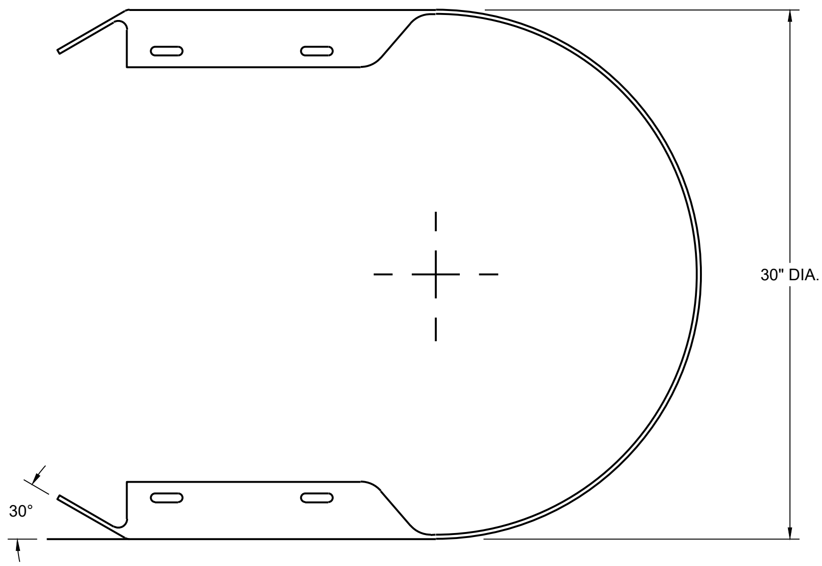
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

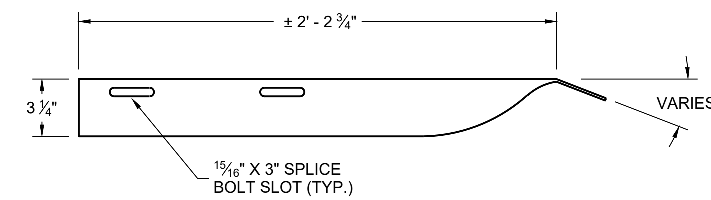
GENERAL NOTES

(400) CROSS SECTION OF PART IS TO FIT OVER AA1 .

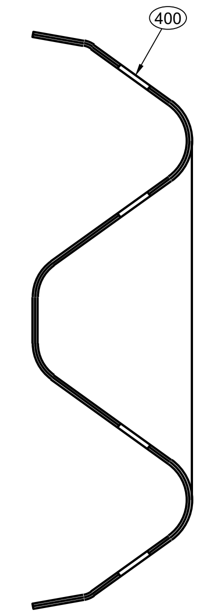
(401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



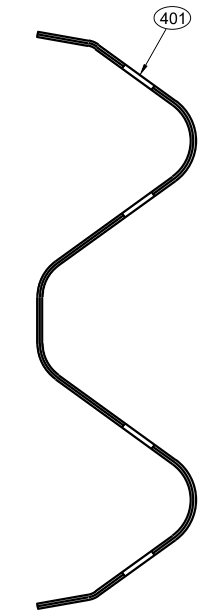
TOP VIEW



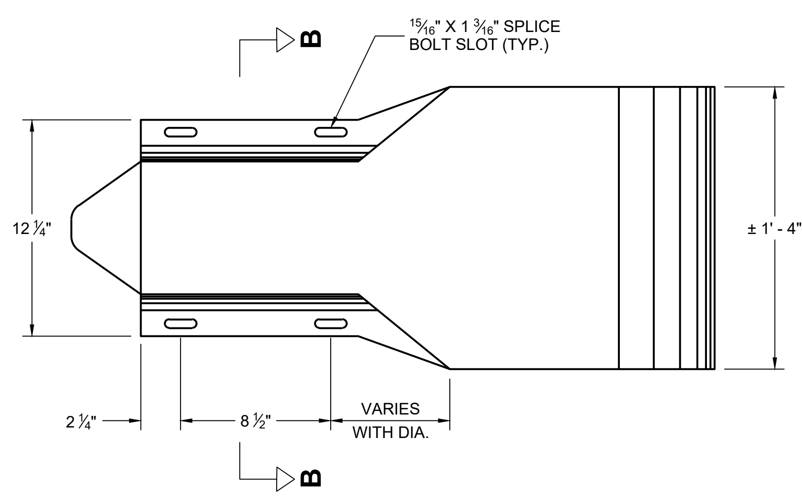
TOP VIEW



SECTION B -B

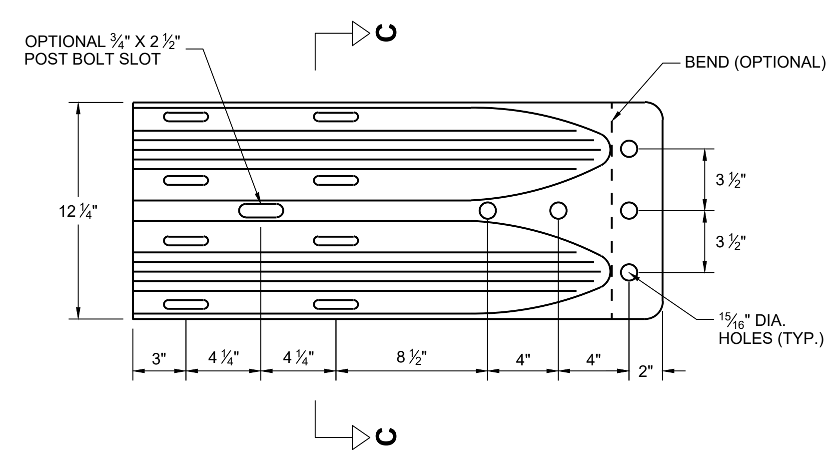


SECTION C -C



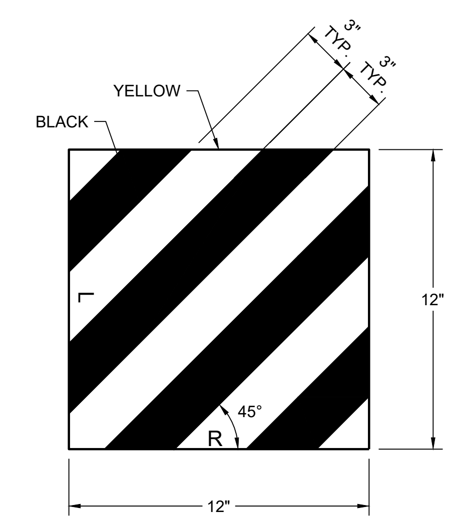
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)



REFLECTIVE SHEETING (UU1, UU2)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

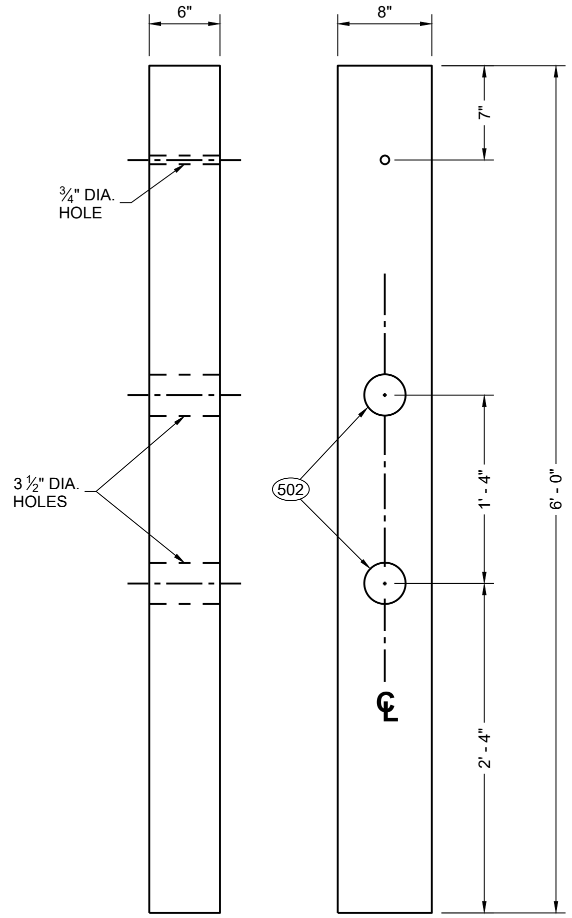
GENERAL NOTES

(500) SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.

(501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

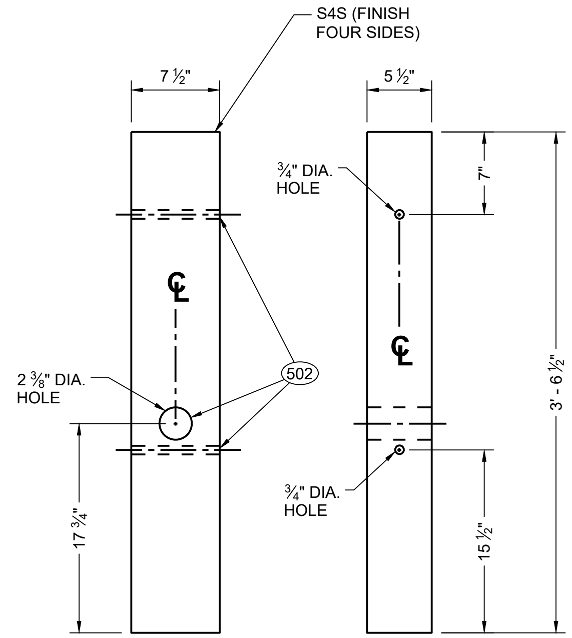
(502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

(503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109)



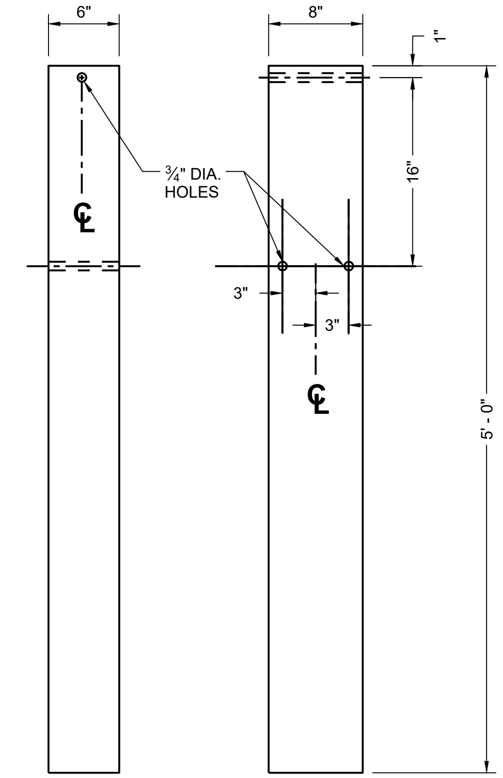
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



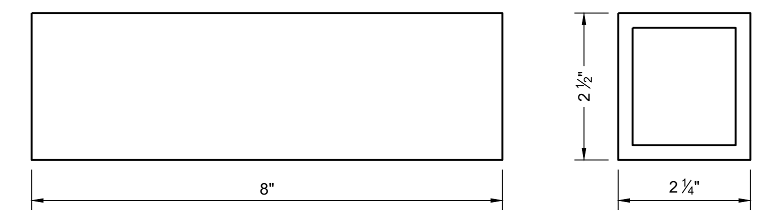
FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)

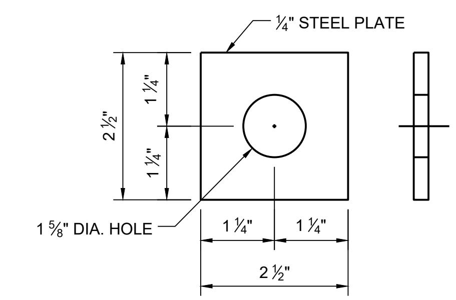


FRONT VIEW SIDE VIEW

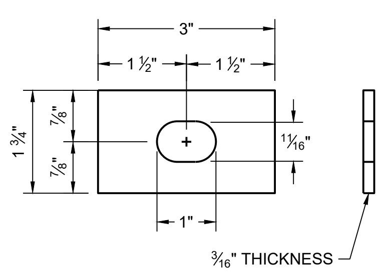
FOUNDATION TUBE (QQ1) (500)



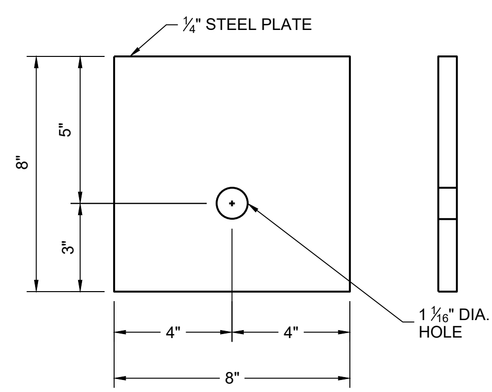
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



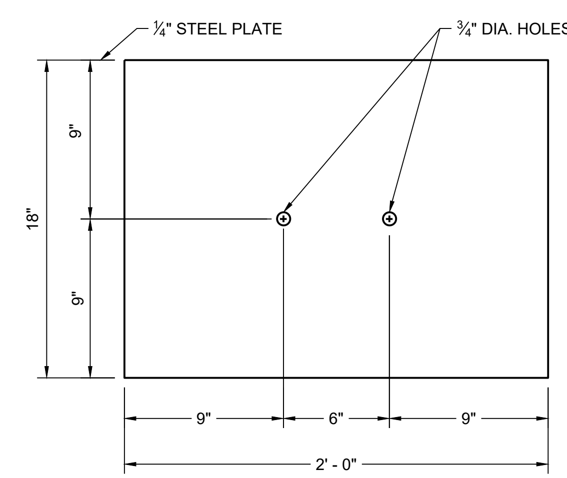
ANCHOR CABLE TUBE END PLATE (QQ3)



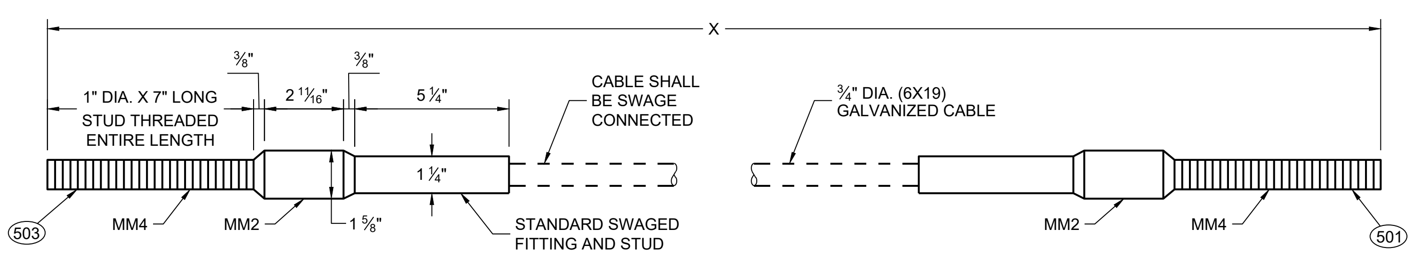
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53-04f

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53-04g

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1 UNC OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563 ASTM A563 GRADE A HEAVY HEX HEAD	⅜" DIA. SEE 14B42 FOR GEOMETRY
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1 ASTM A307 GRADE A OR SAE J429 GRADE 2 UNC AASHTO M180 HEAD GEOMETRY	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1 OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563 UNC	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI GALV. AASHTO M111 / ASTM A123	DIMENSIONS ⅜" X 4" X 1' - 0"
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1 UNC	⅝" DIA.

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY) GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	⅝" DIA.
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1 OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563 UNC	⅝" DIA.
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035 SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS. GALV. AASHTO M111 / ASTM A123 ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1 ASTM A153 HOT DIP CLASS D	¾"
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1 UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1 OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563 UNC	1" DIA.
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY) GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	1" DIA.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53-04h

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SDD 14B53-04h

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3⁄16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 ½" X 2 ¼" X ¼" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 ½" X 2 ½" X ¼"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅝ DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝ DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	⅝ DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	⅝ DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝ DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅝ DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

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

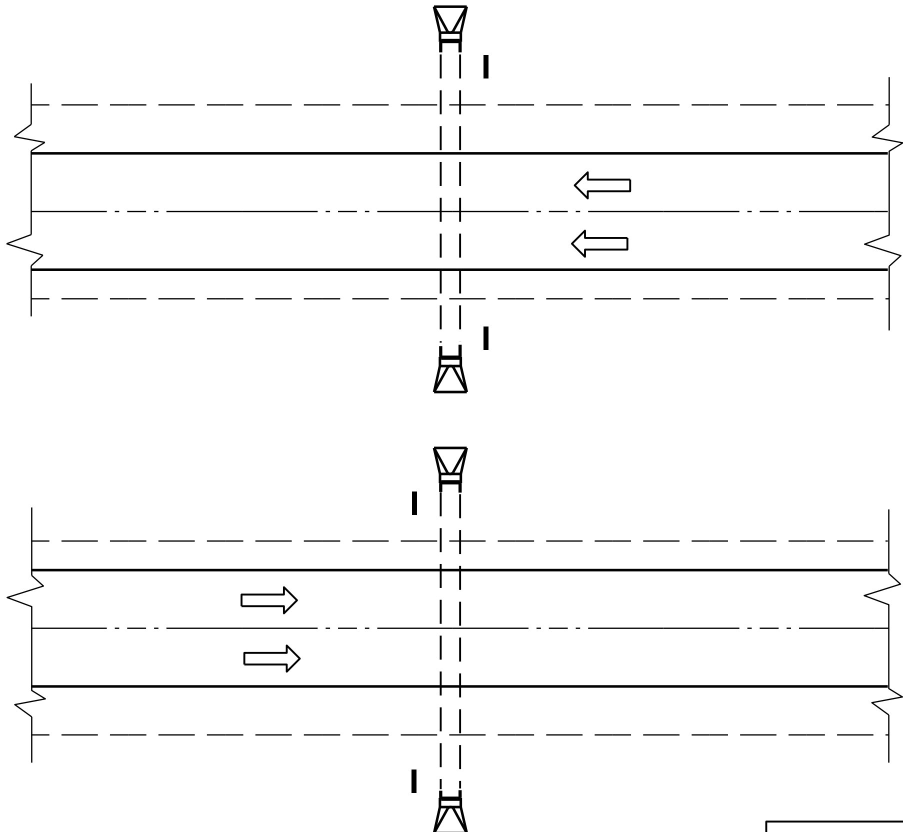
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

SDD 14B53-04i

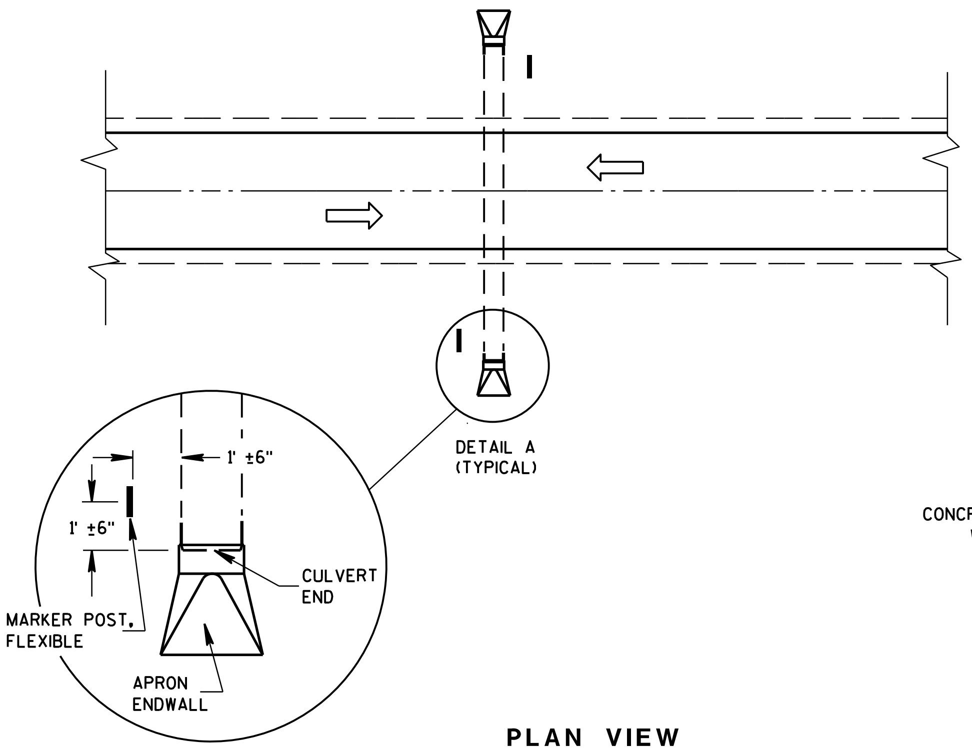
GENERAL NOTES

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.



PLAN VIEW

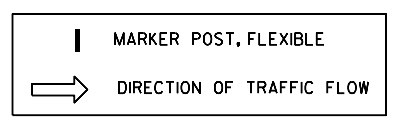
DIVIDED HIGHWAY

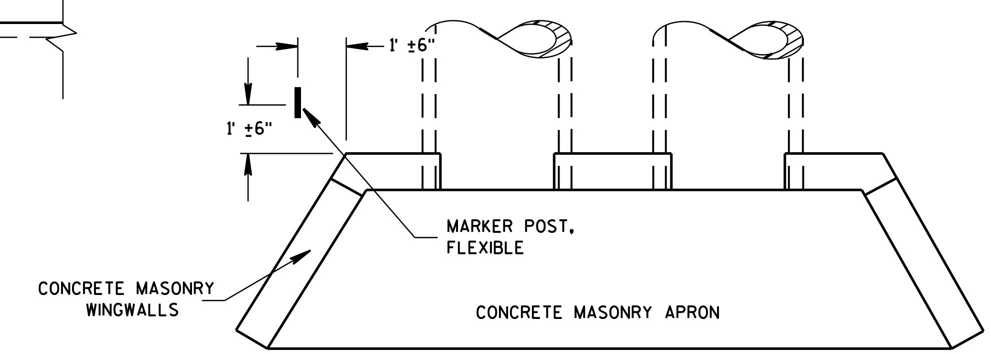


DETAIL A
(TYPICAL)

PLAN VIEW

UNDIVIDED HIGHWAY

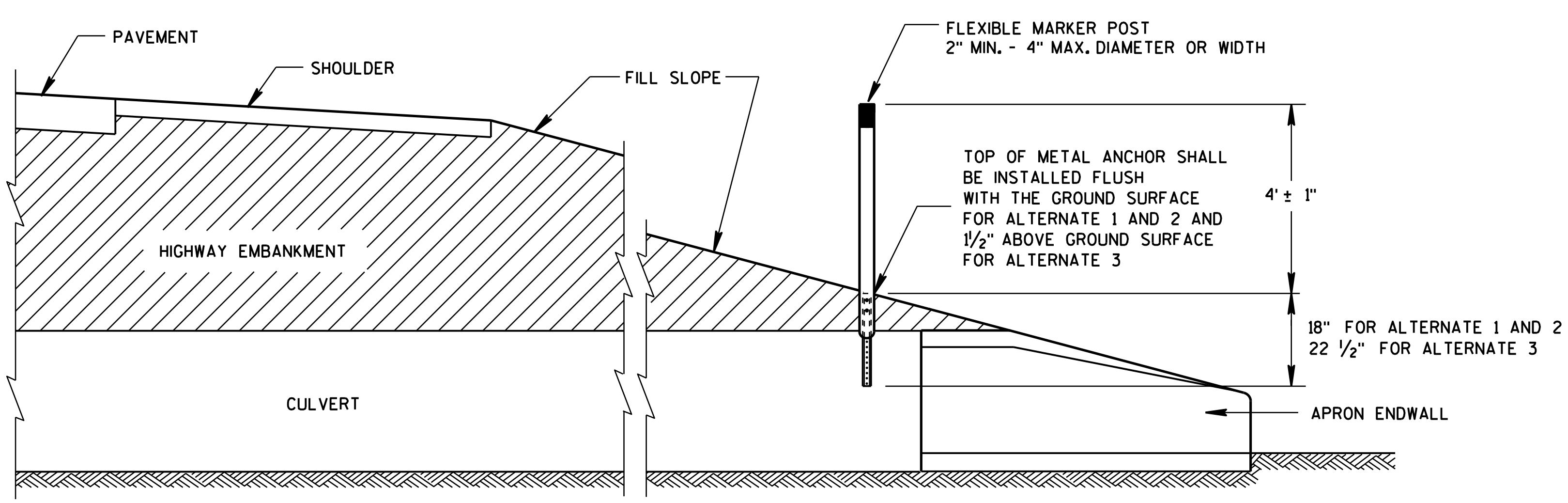




PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

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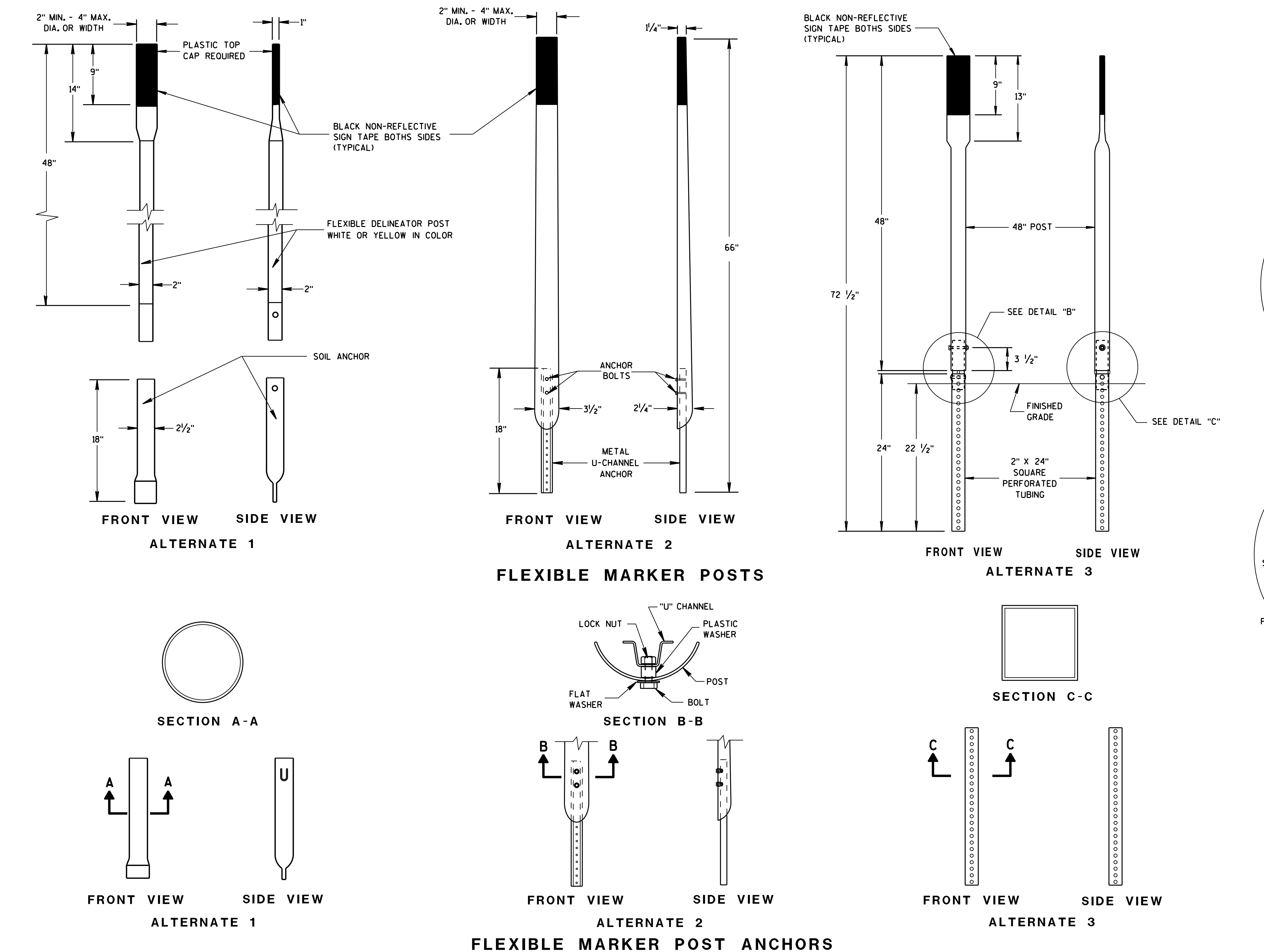
FLEXIBLE MARKER POST FOR CULVERT END
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

S.D.D. 15 A 3-2a

S.D.D. 15 A 3-2a



FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER IGN
FHWA

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S.D.D. 15 A 3-2b

S.D.D. 15 A 3-2b

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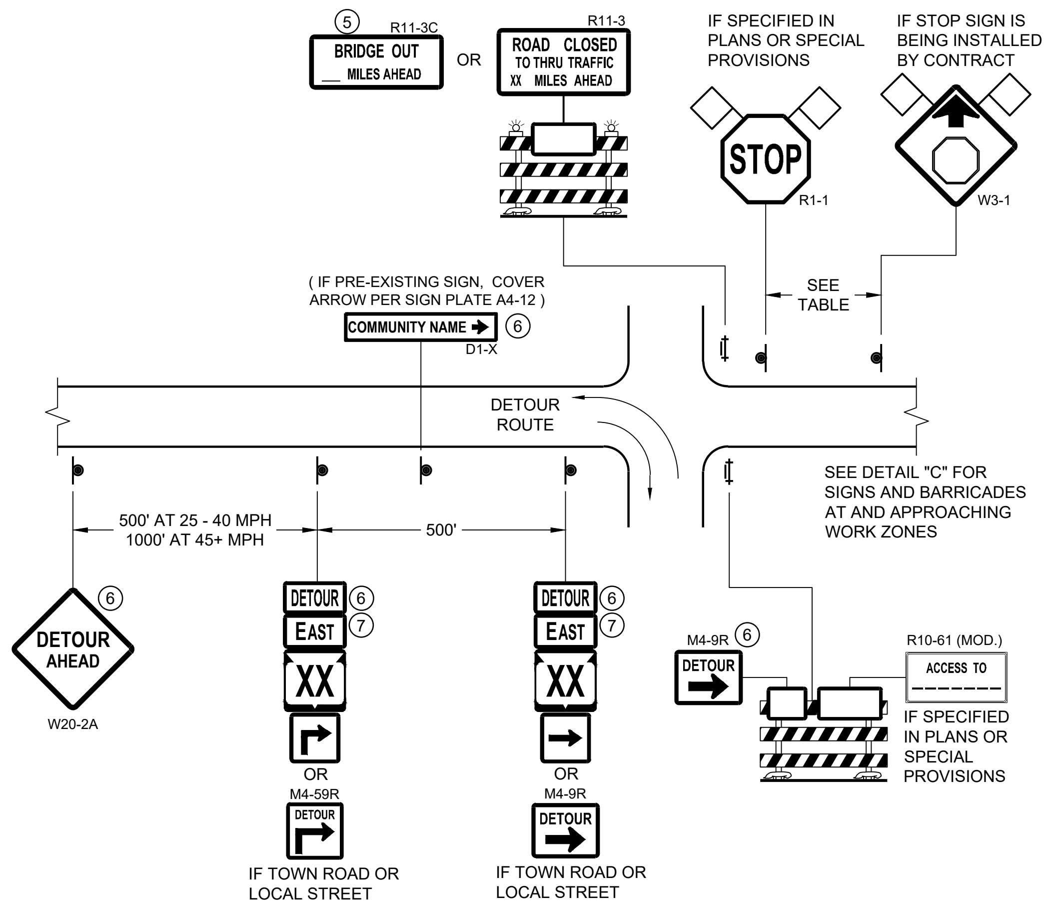
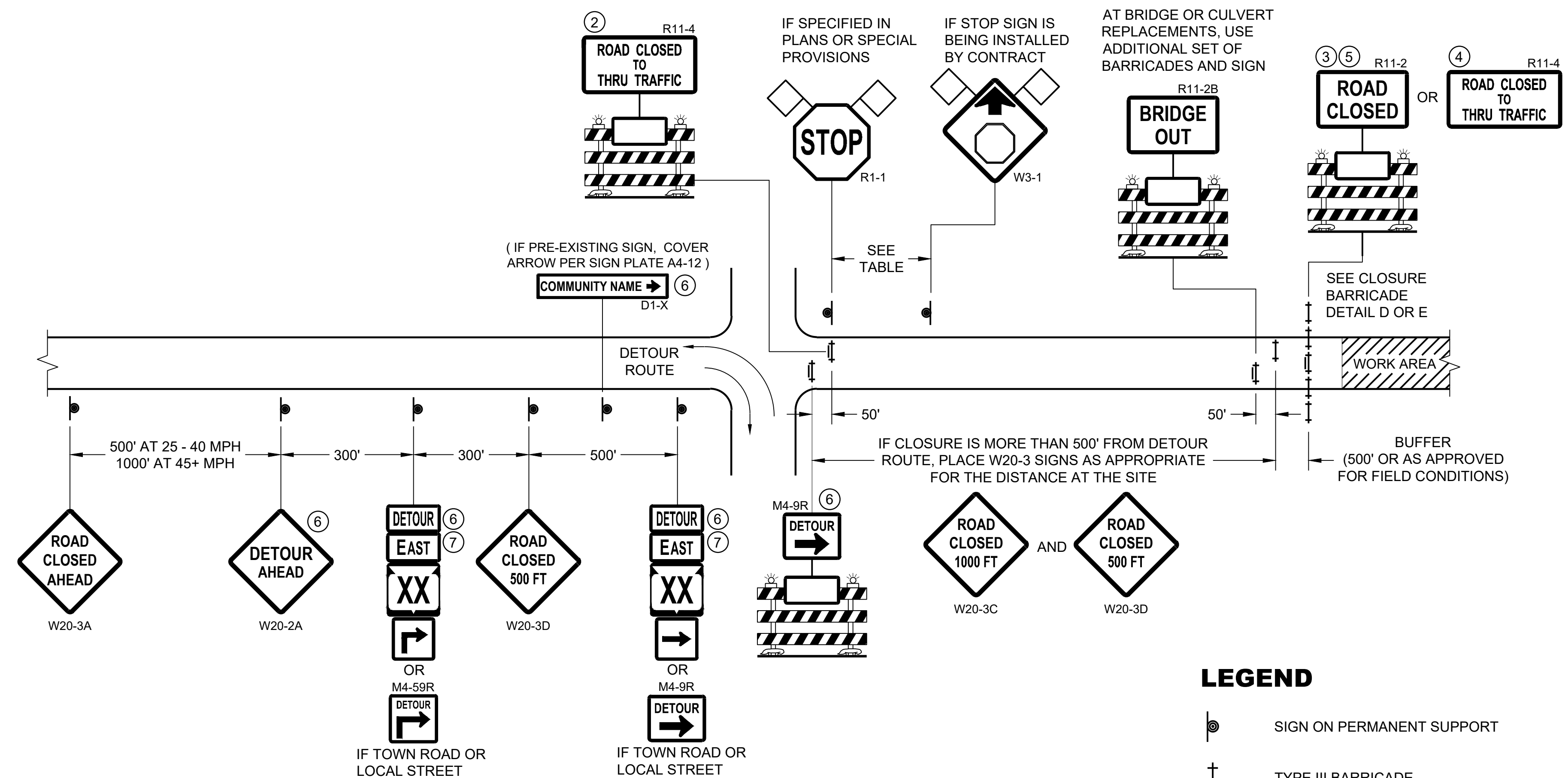


DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

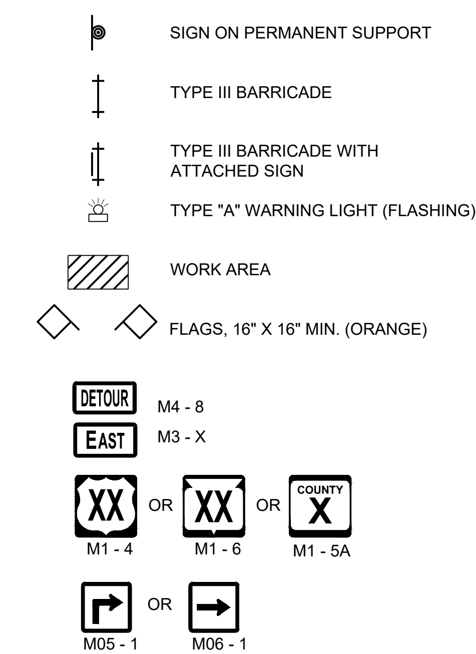


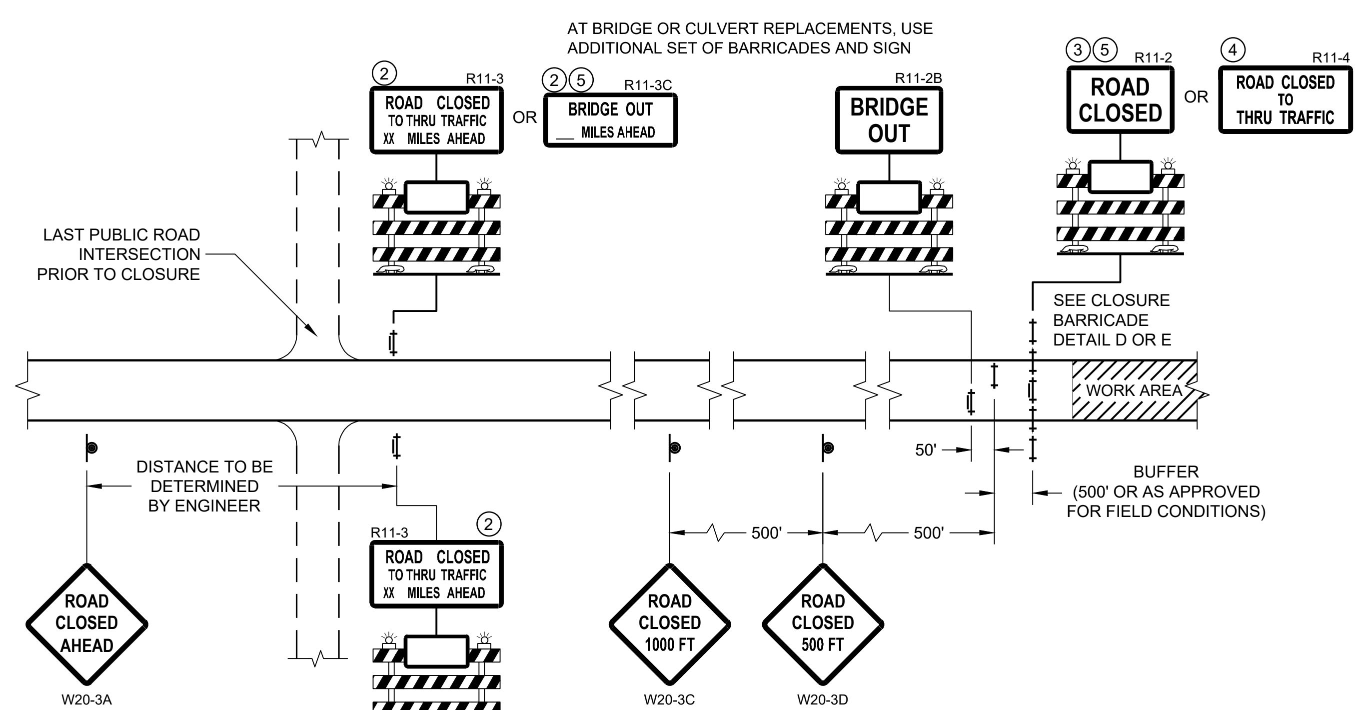
DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND





DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C02 - 09a

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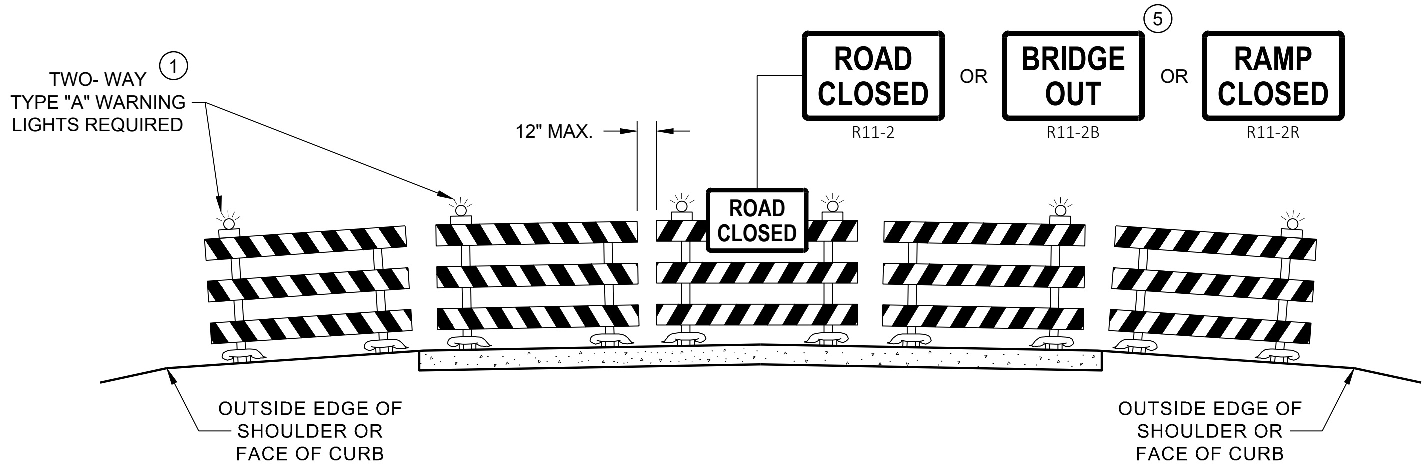
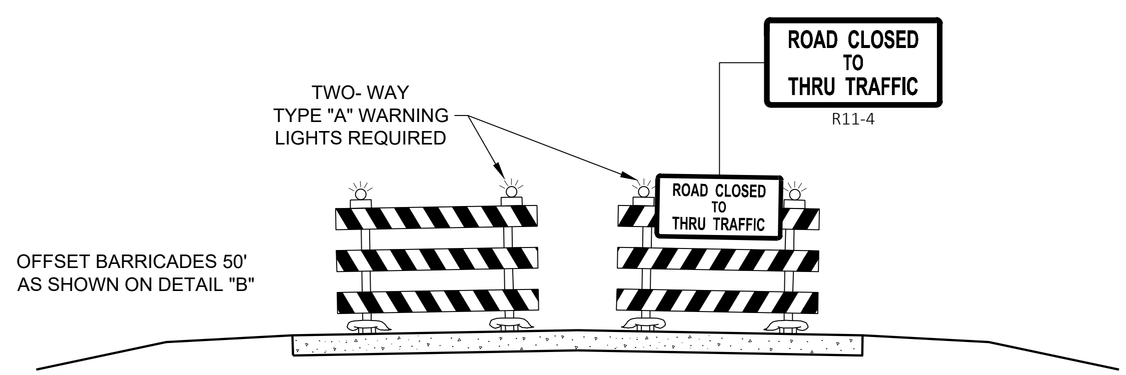


DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



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 <u>WITHOUT</u> LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

4. FOR ROAD CLOSURE <u>WITH</u> 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
FHWA

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SDD 15C02 - 09b

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

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.

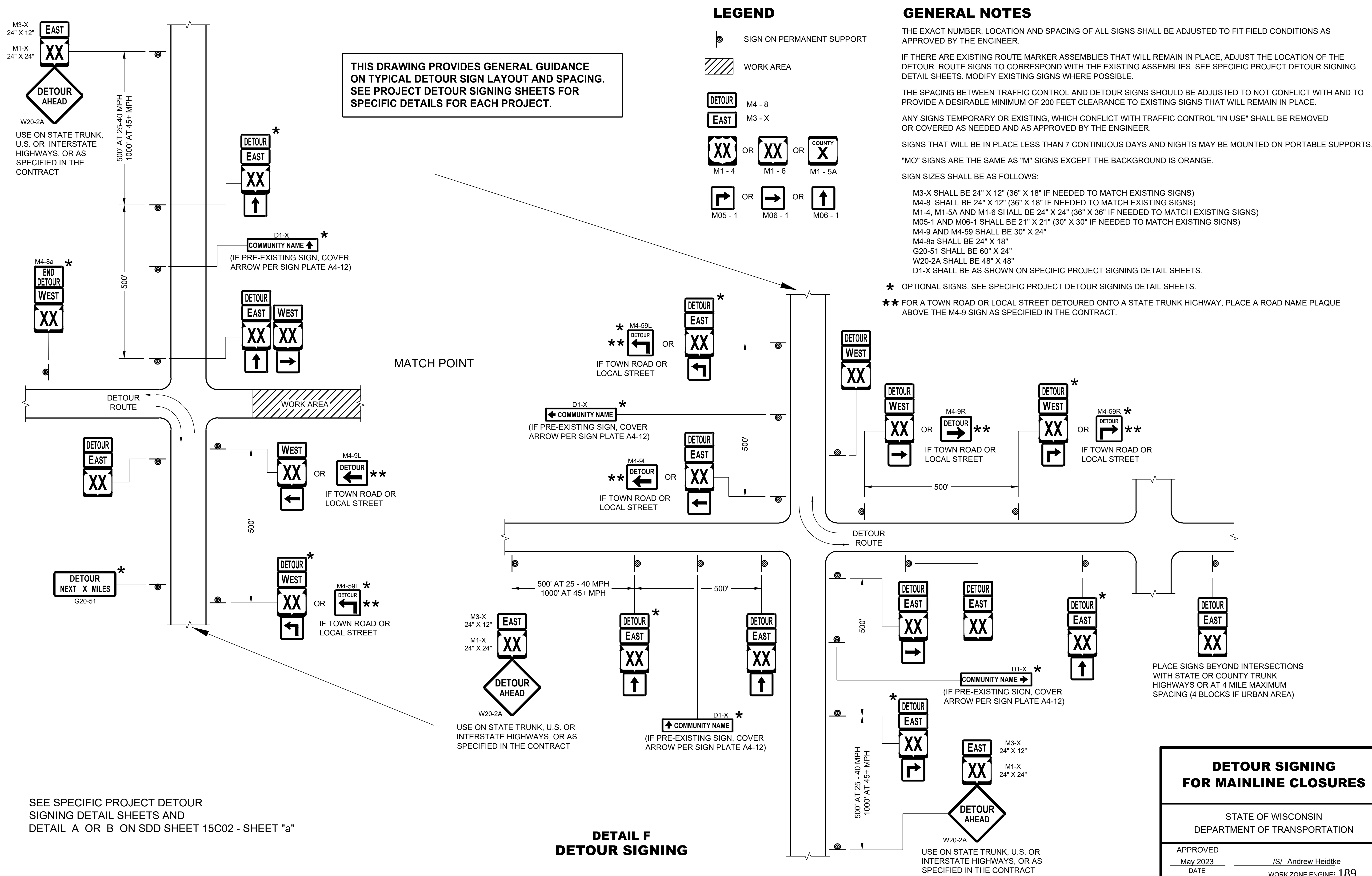
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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.



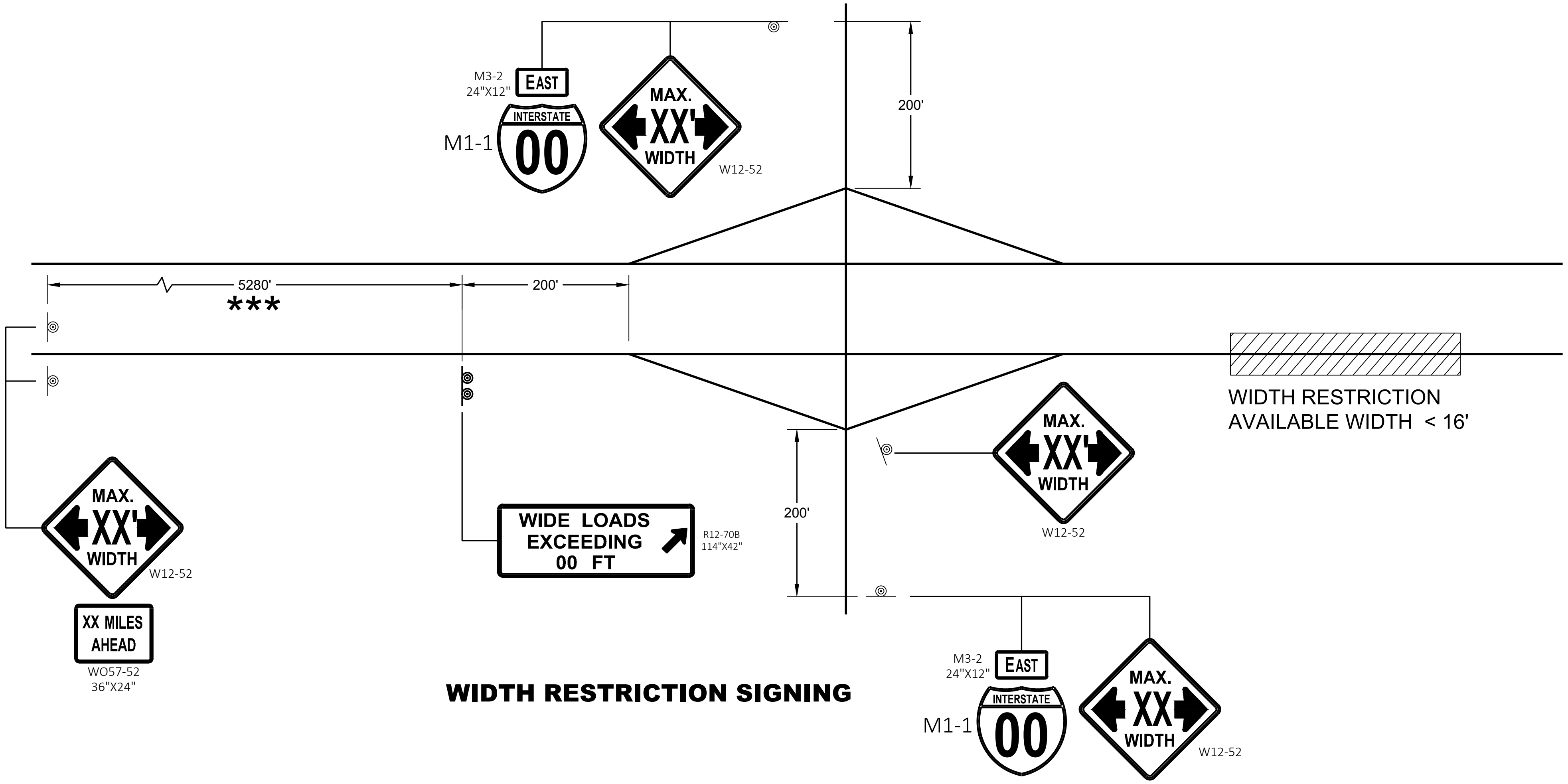
SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

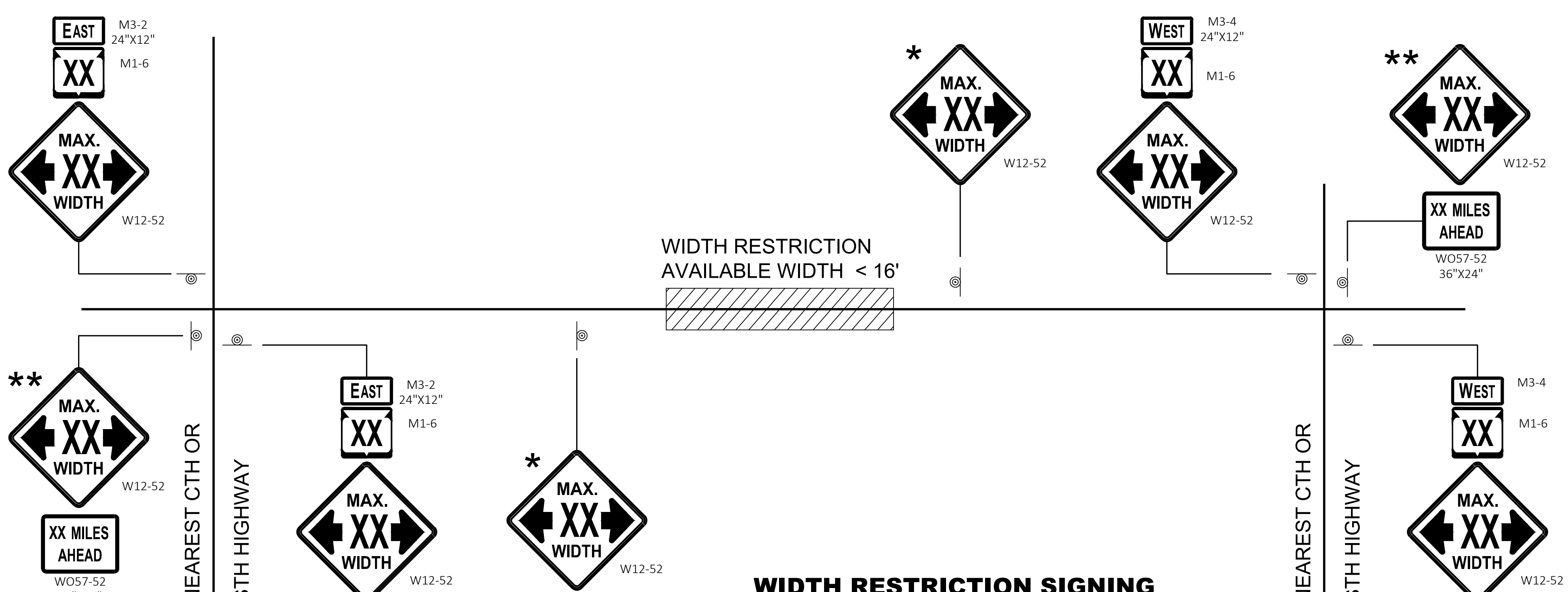
DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

THE SPACING BETWEEN 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.

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

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ADVANCED WIDTH RESTRICTION SIGNING

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FHWA

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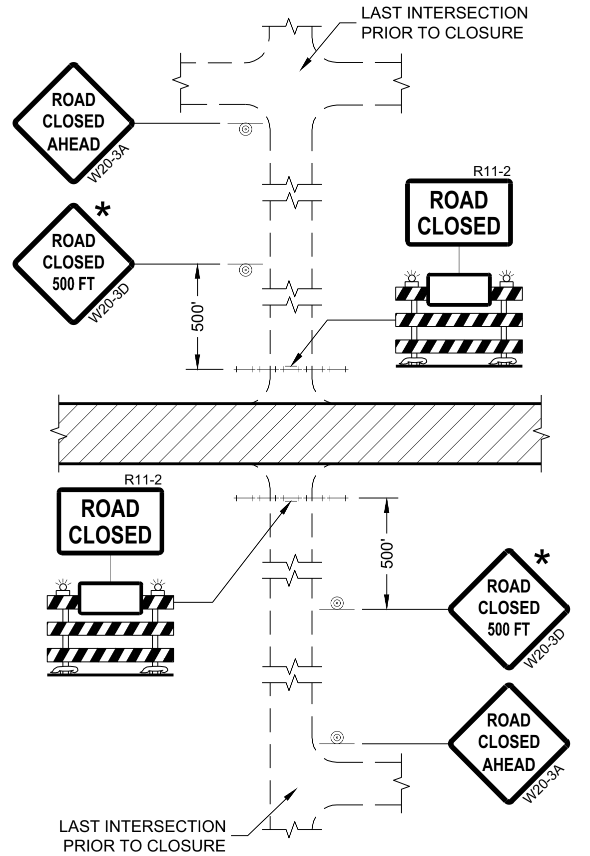
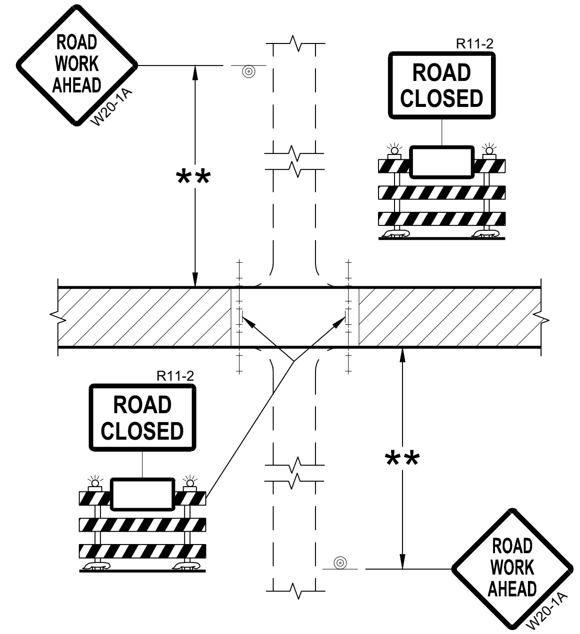


DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO 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

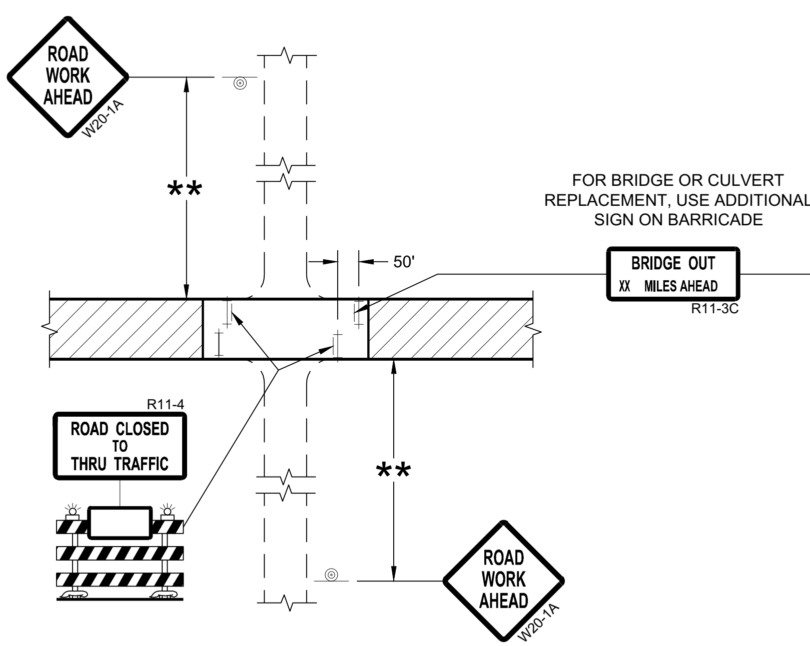
SIGN ON PERMANENT SUPPORT

TYPE III BARRICADE

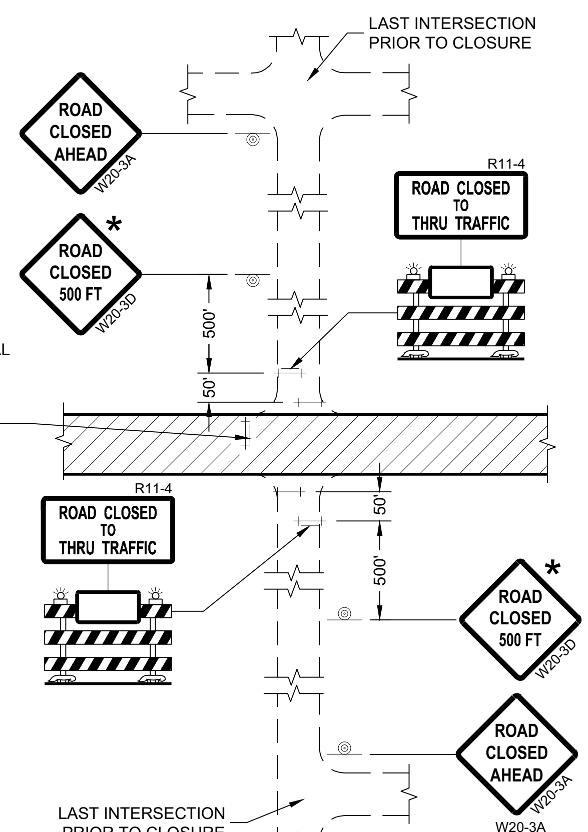
TYPE III BARRICADE WITH ATTACHED SIGN

TYPE "A" WARNING LIGHT (FLASHING)

WORK AREA



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



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

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BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15C03 - 05

SDD 15C03 - 05

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.

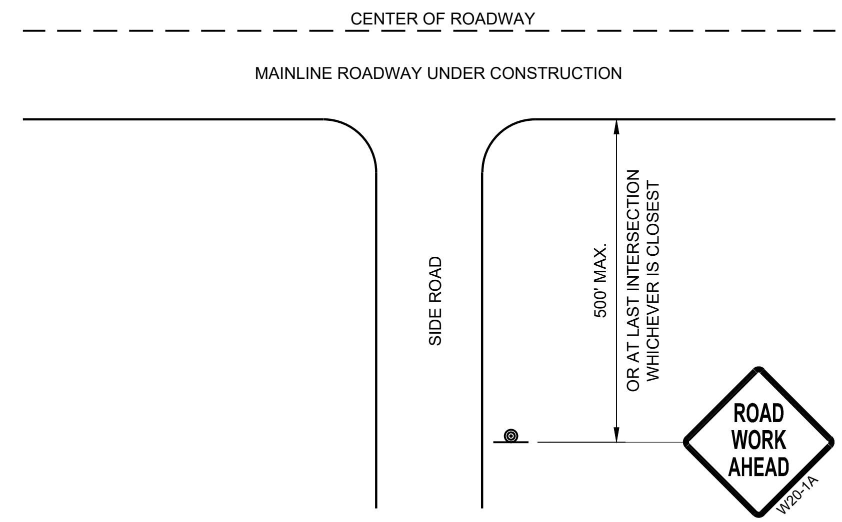
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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.



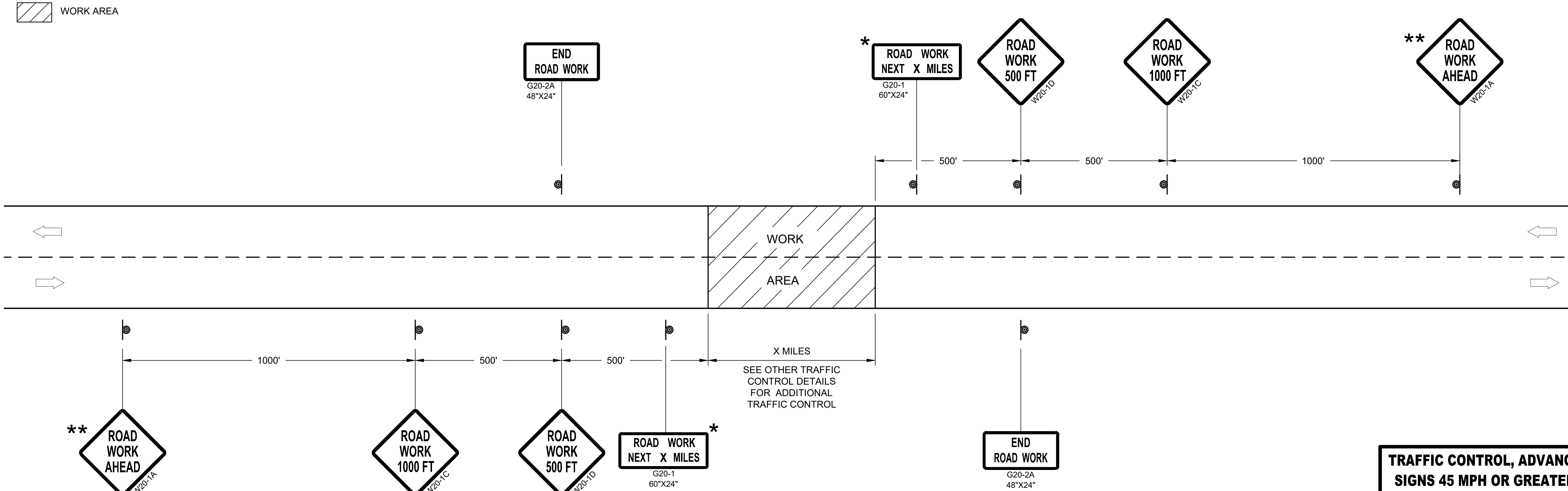
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE

FHWA

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SDD 15C04 - 05

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.

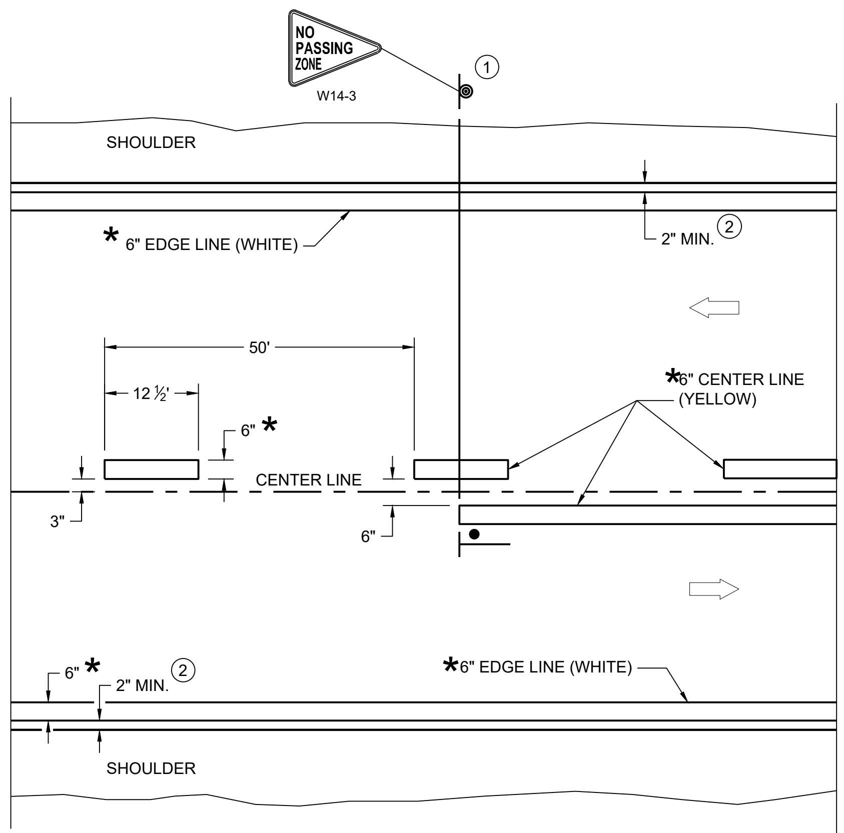
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

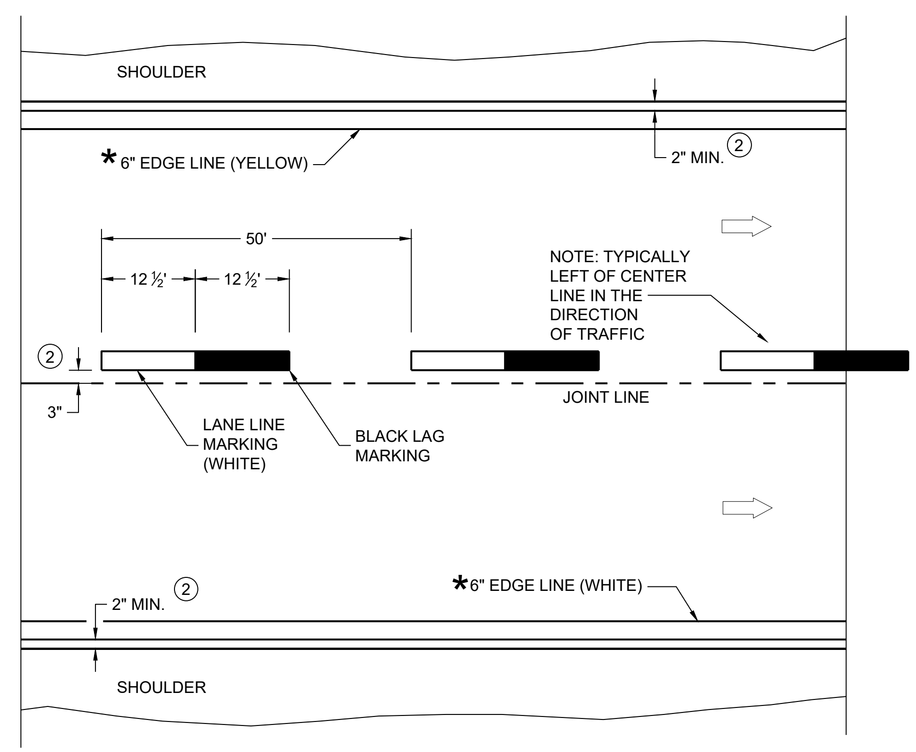
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

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SDD 15C08-24a

SDD 15C08-24a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

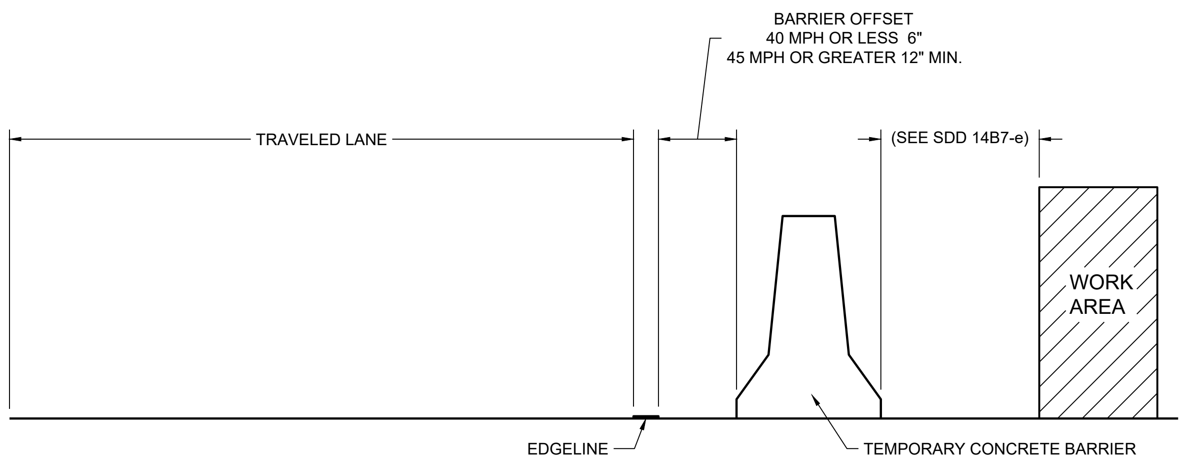
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

December 2024 — DATE

/S/ Jeannie Silver — Statewide Pavement Marking Engineer

FHWA



TEMPORARY BARRIER OFFSET FROM EDGELINE

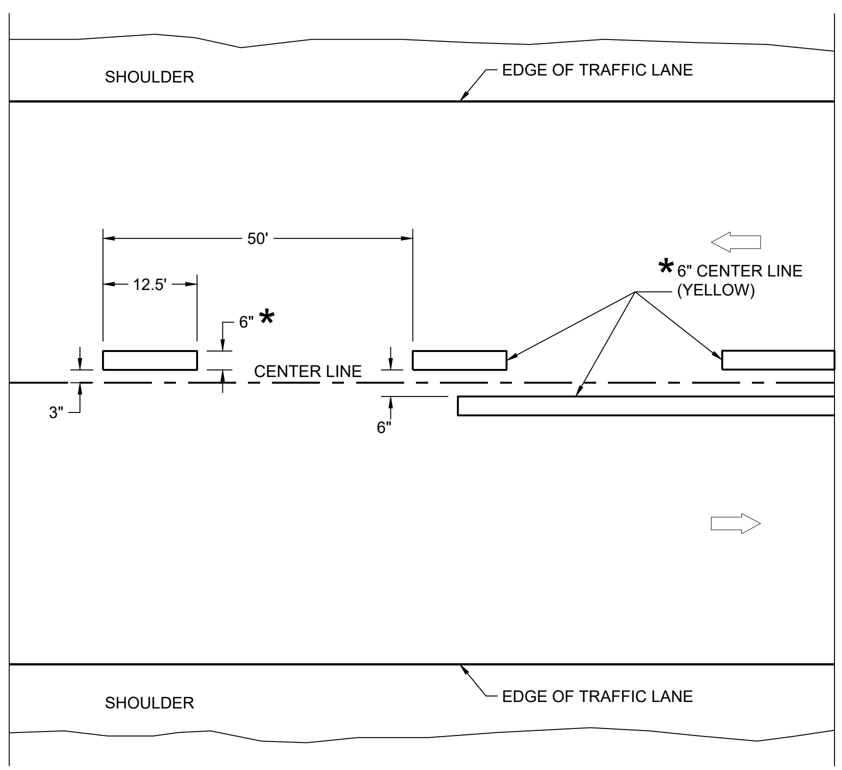
GENERAL NOTES

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

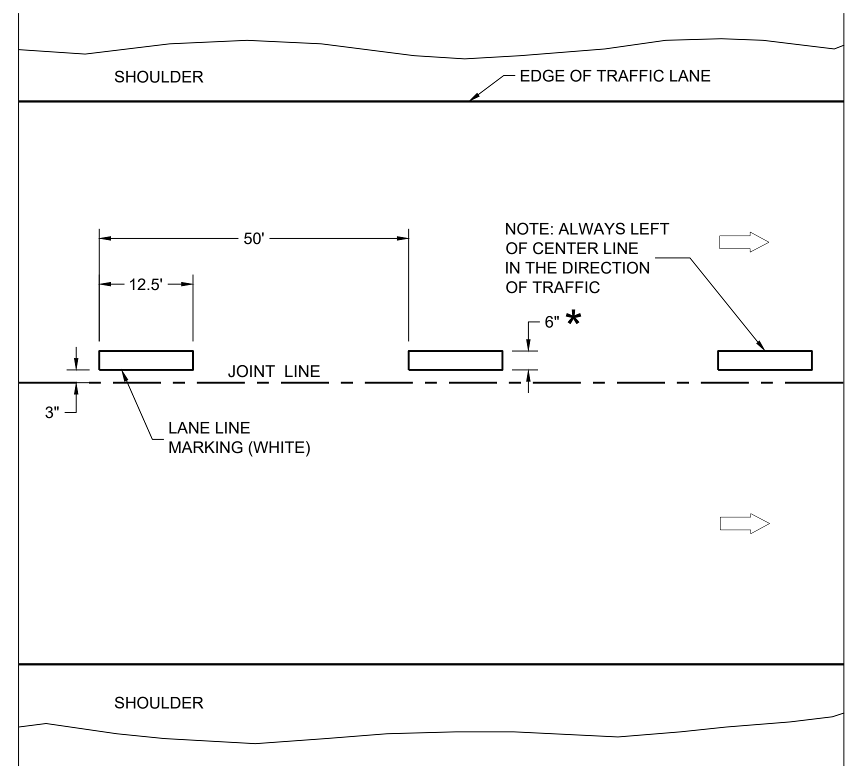
LEGEND

DIRECTION OF TRAFFIC

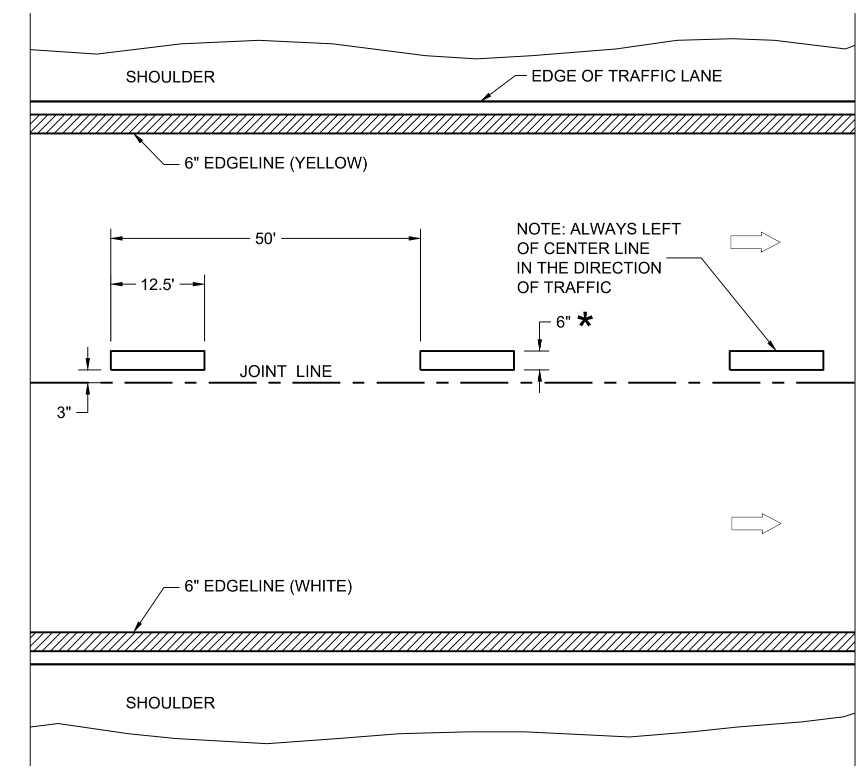
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

6

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TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

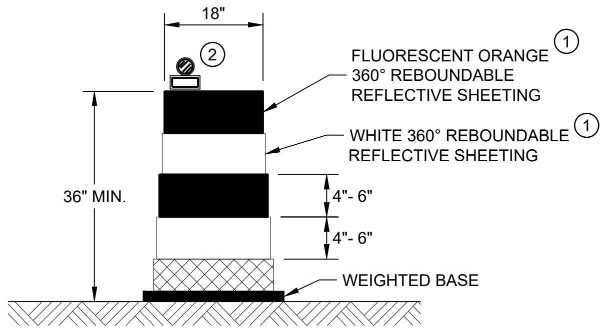
SDD 15C08-24b

SDD 15C08-24b

GENERAL NOTES

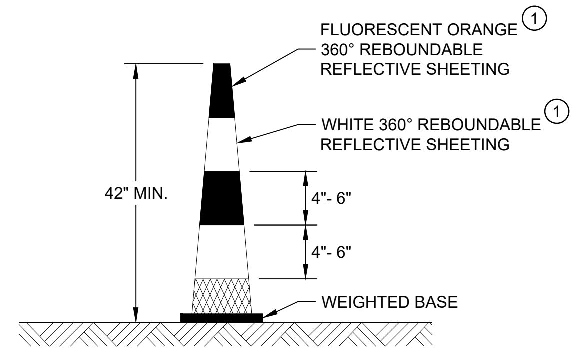
(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

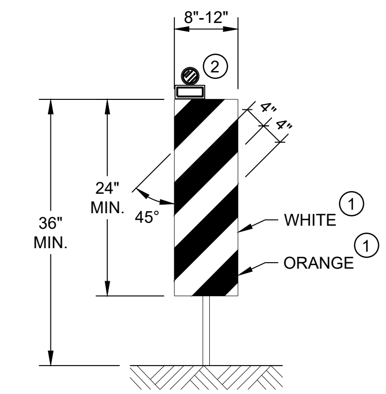
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



VERTICAL PANEL

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

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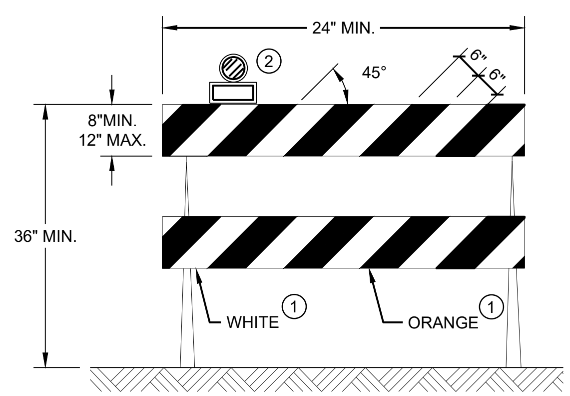
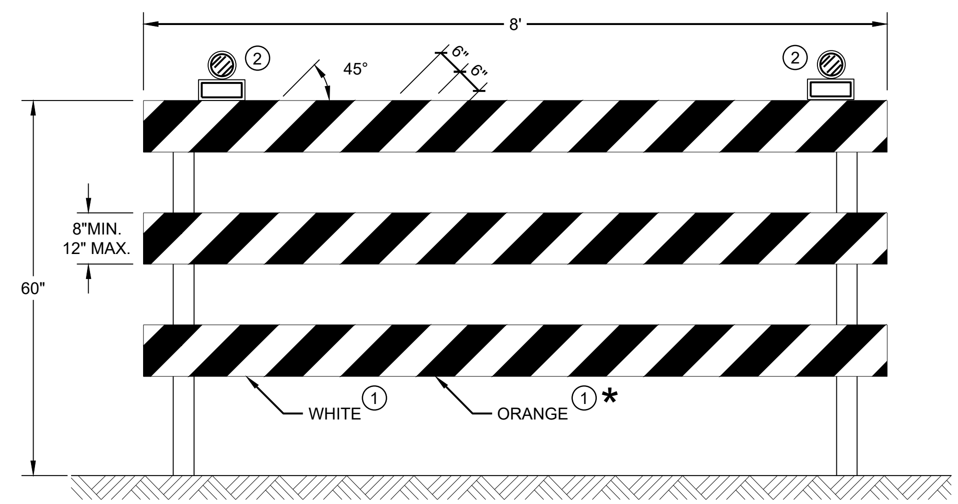


TYPE II BARRICADE

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

SDD 15C11 - 10b

SDD 15C11 - 10b

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.

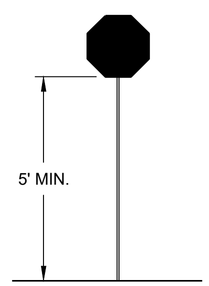
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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.

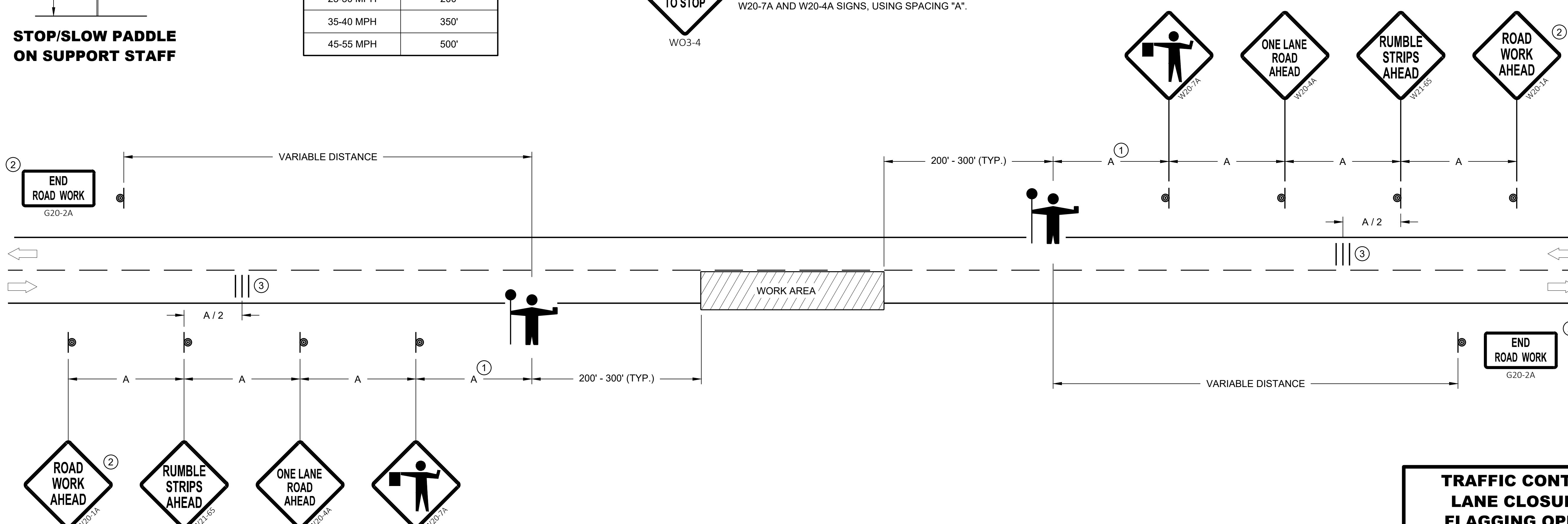


STOP/SLOW PADDLE ON SUPPORT STAFF

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 WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



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TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED May 2022 DATE /S/ Andrew Heidtke WORK ZONE ENGINEER

FHWA

SDD 15C12 - 09a

SDD 15C12 - 09a

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

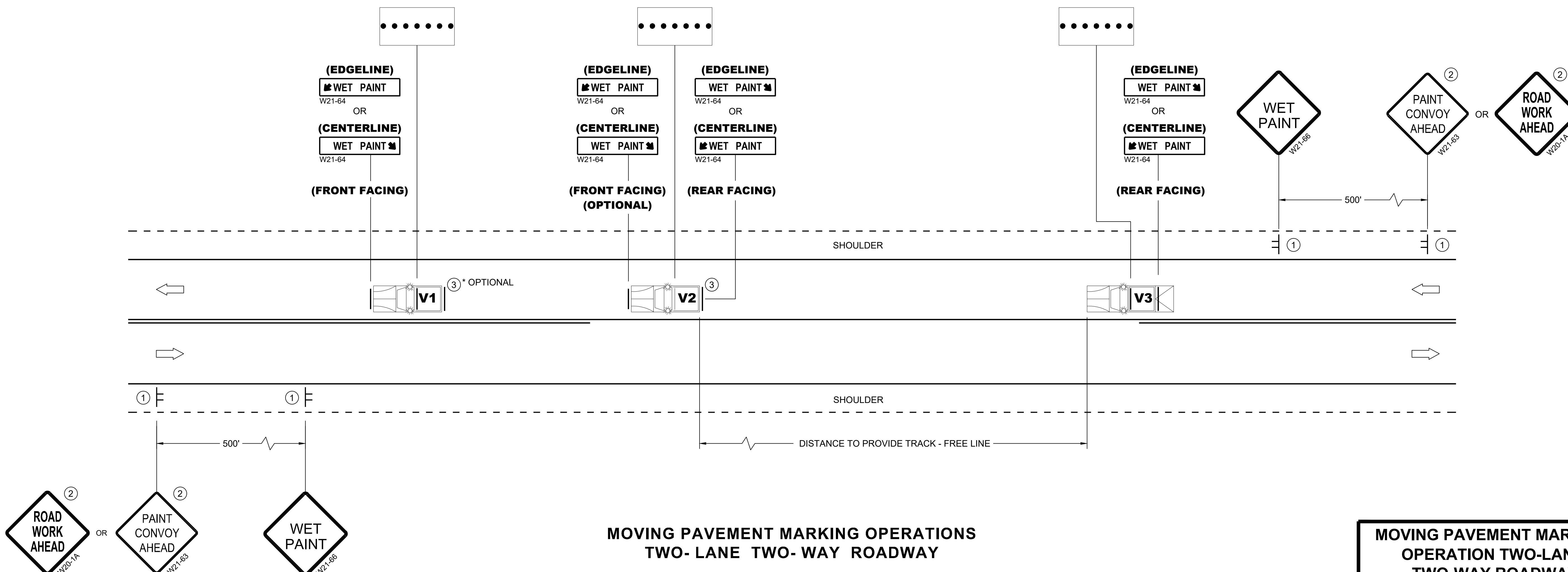
WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

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

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



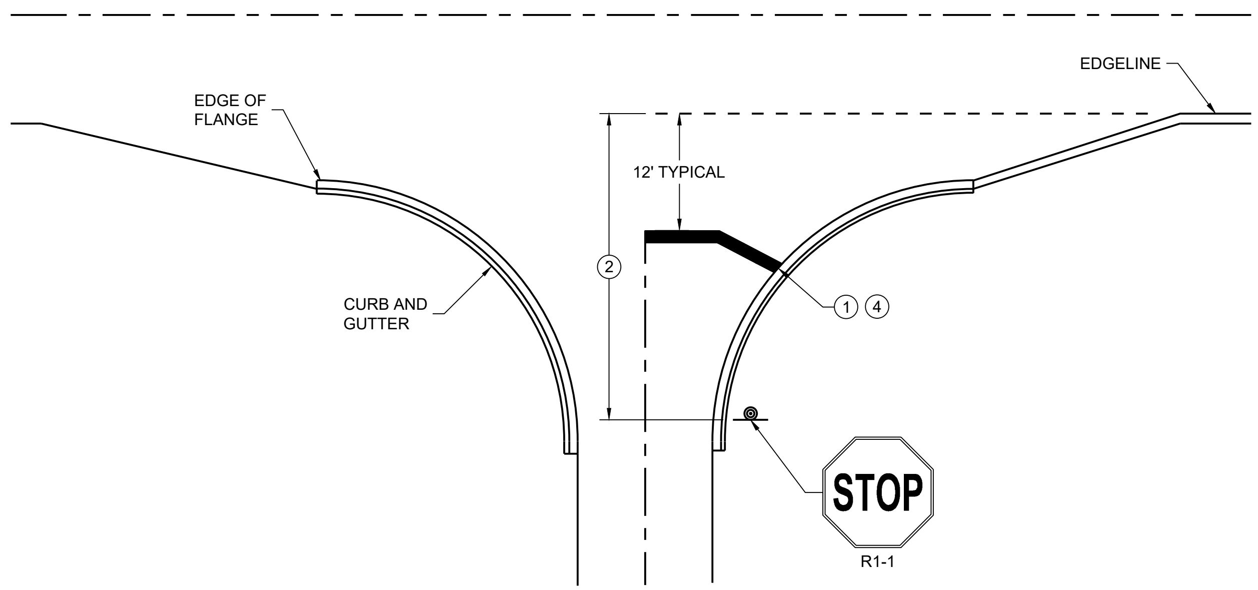
MOVING PAVEMENT MARKING OPERATIONS
TWO- LANE TWO- WAY ROADWAY

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

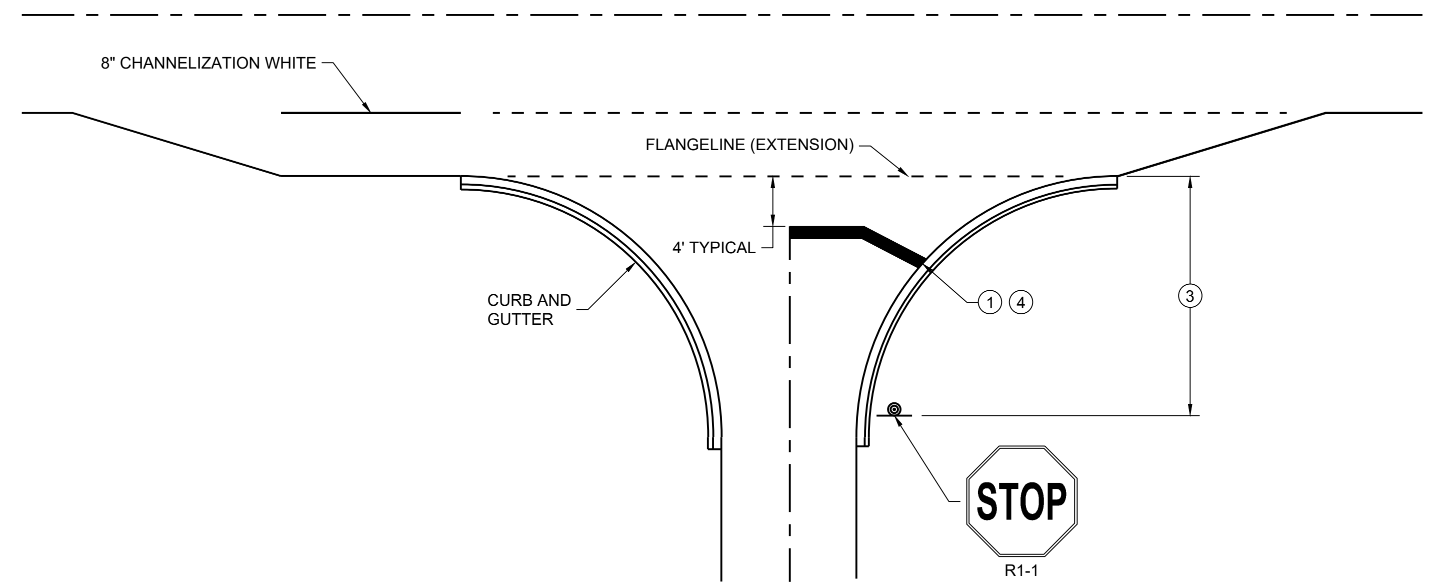
GENERAL NOTES

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

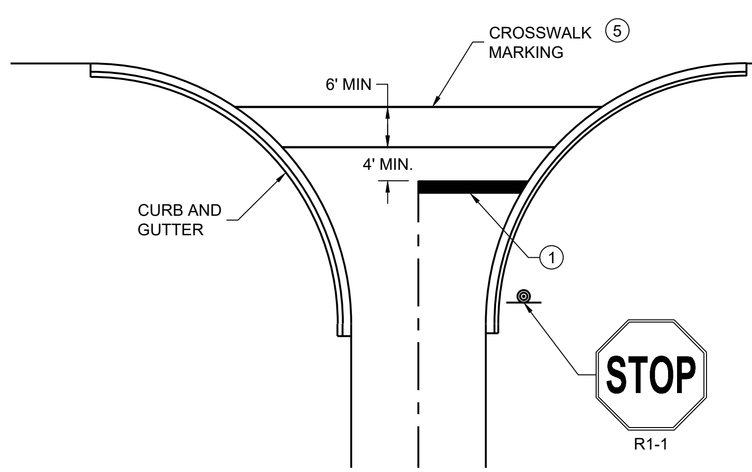
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
6. POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



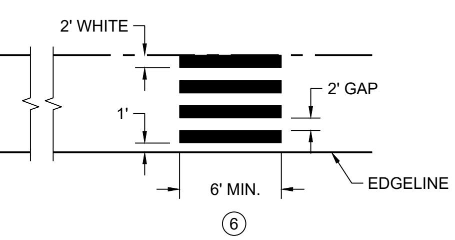
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



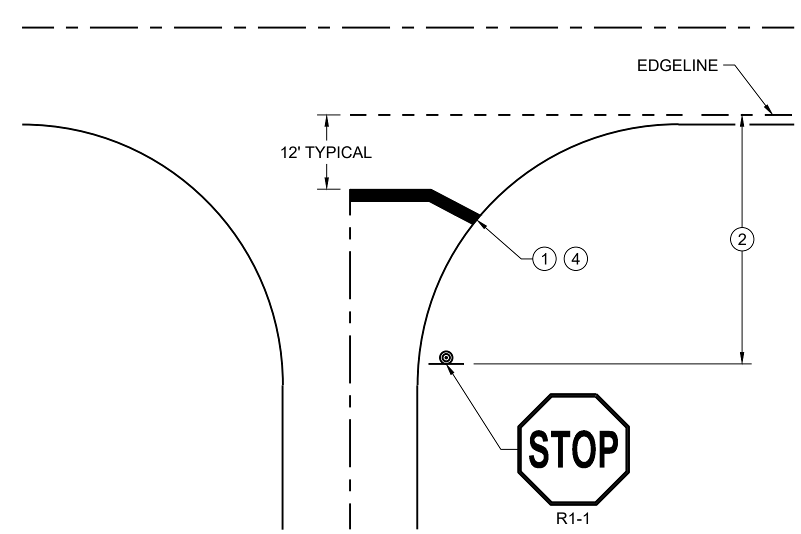
TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

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STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA

SDD 15C33-05

SDD 15C33-05

GENERAL NOTES

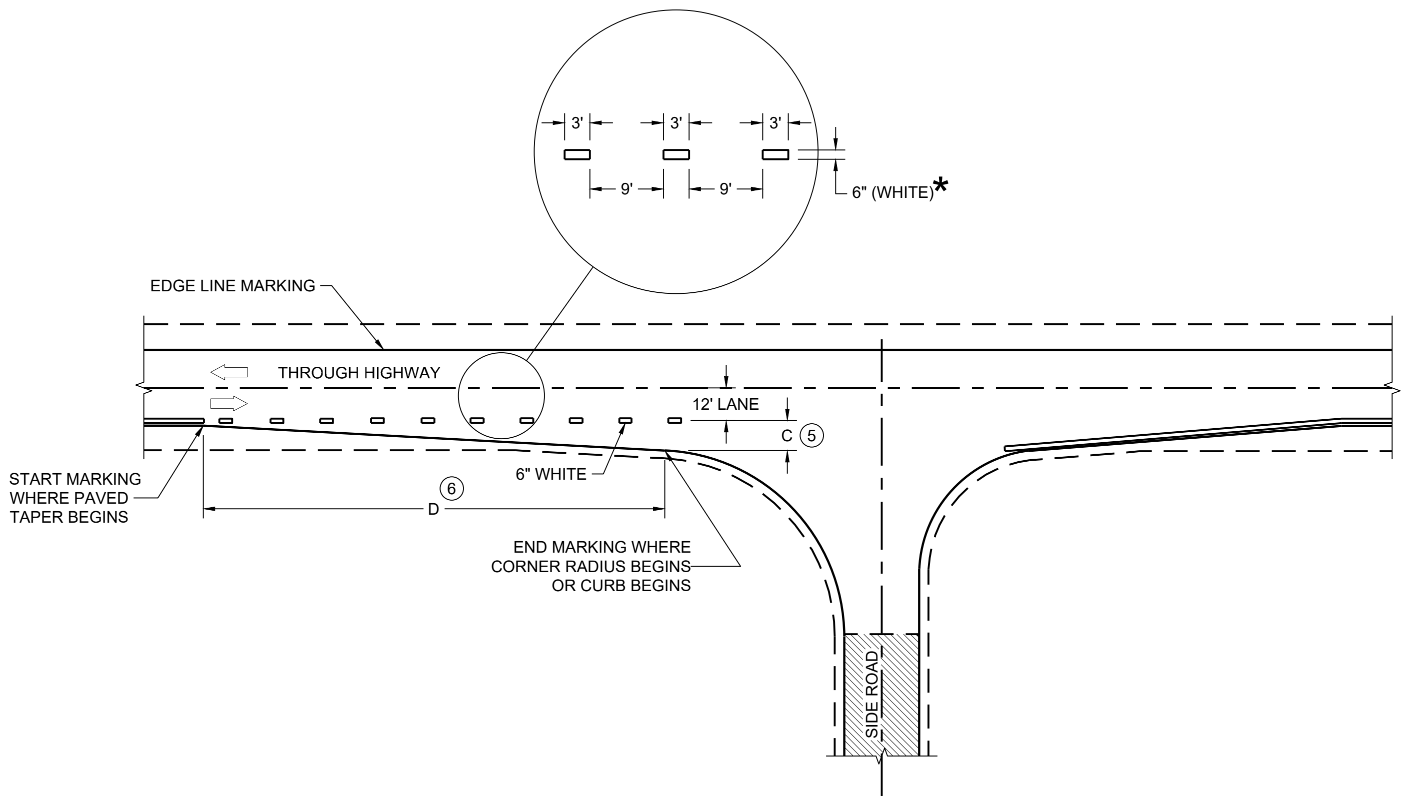
OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

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.

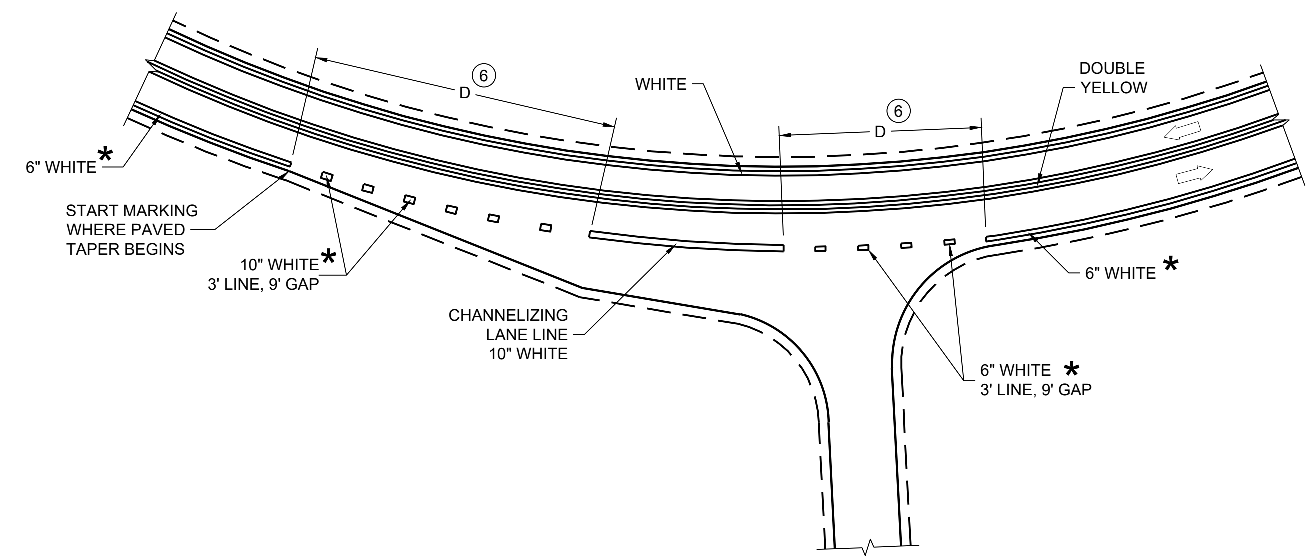
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

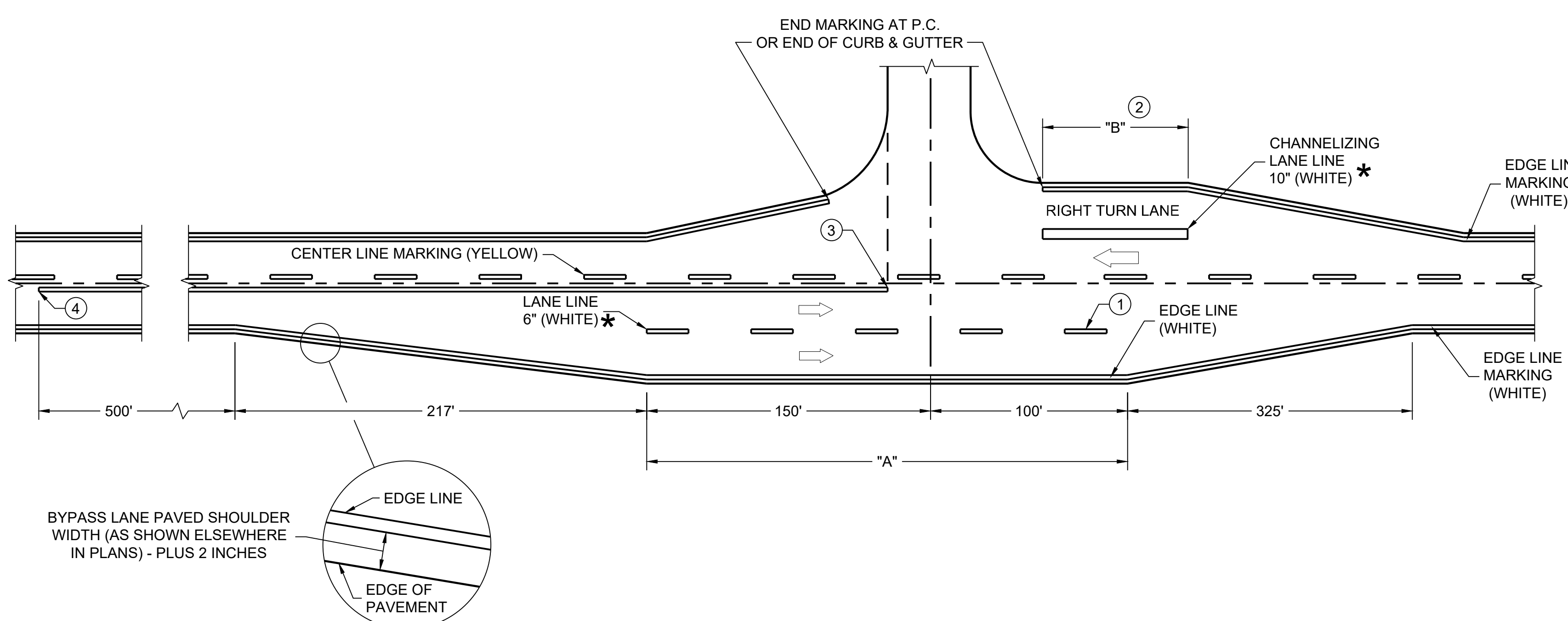
DIRECTION OF TRAVEL



MINOR INTERSECTION



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

6

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SDD 15C35-06a

SDD 15C35-06a

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

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

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

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

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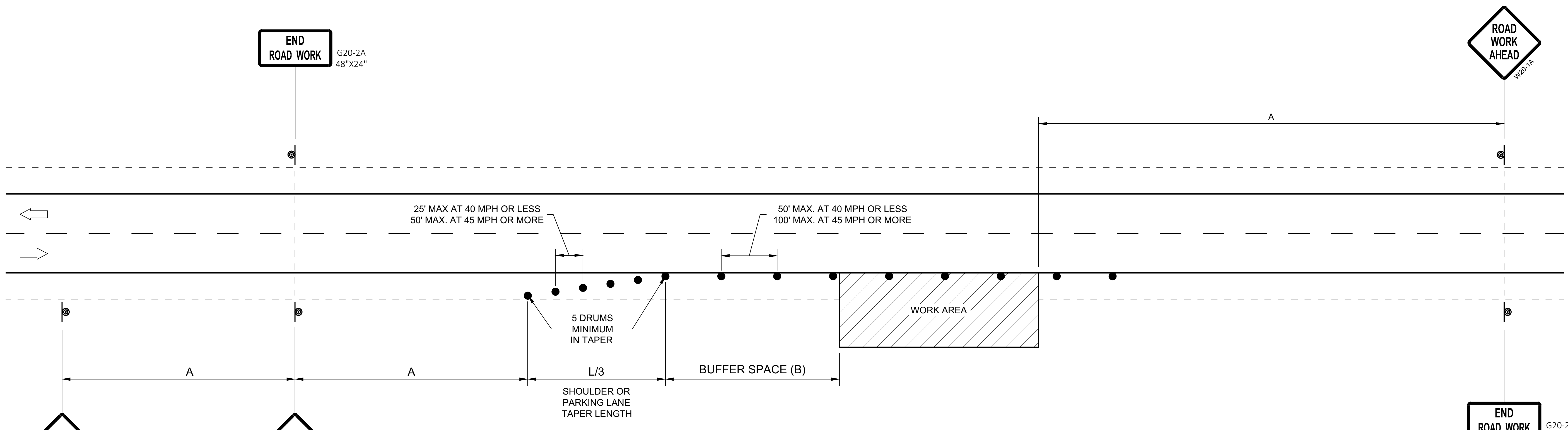
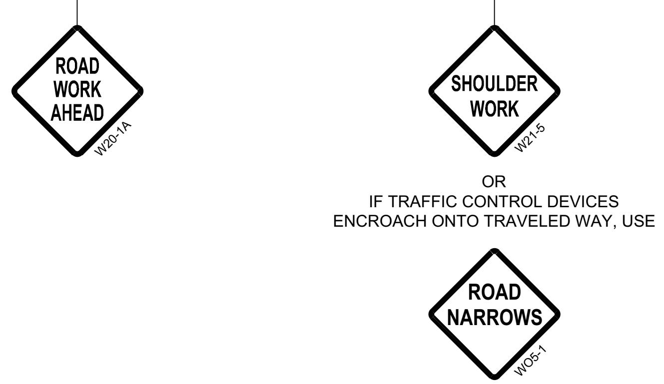




POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

SDD 15D28 - 04
6

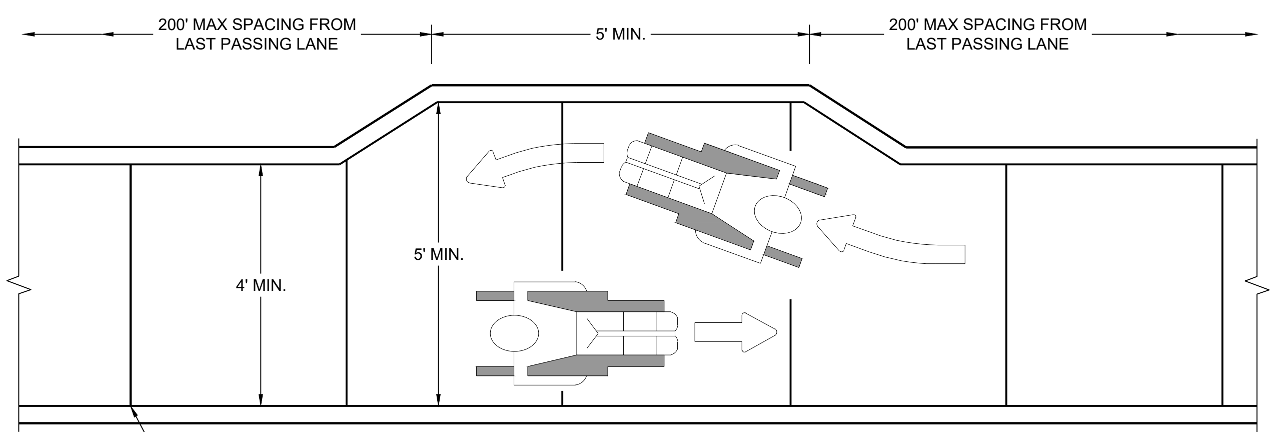
GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
3. PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

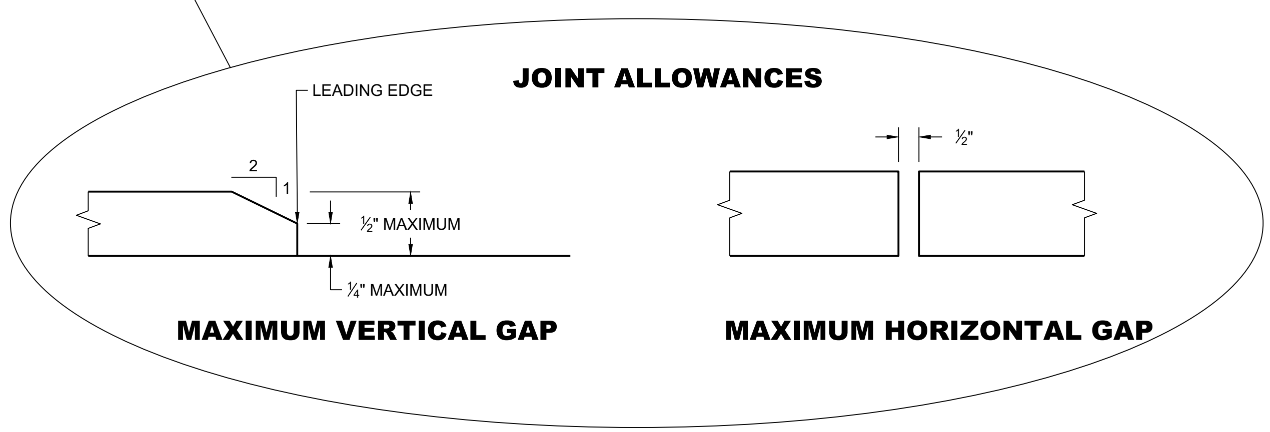
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

4. WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.
5. WHERE SIGNS FOR TEMPORARY PEDESTRIAN ACCOMMODATIONS ARE SHOWN BEING PLACED BEHIND TEMPORARY PEDESTRIAN BARRICADE, THE SIGNS MAY BE MOUNTED ON THE TEMPORARY PEDESTRIAN BARRICADE INSTEAD. A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE SHALL BE USED IF MOUNTED ON THE BARRICADE. THE TOP OF THE SIGN SHALL BE MOUNTED BELOW THE TOP OF THE BARRICADE TO ALLOW A CONTINUOUS HAND-TRAILING EDGE.

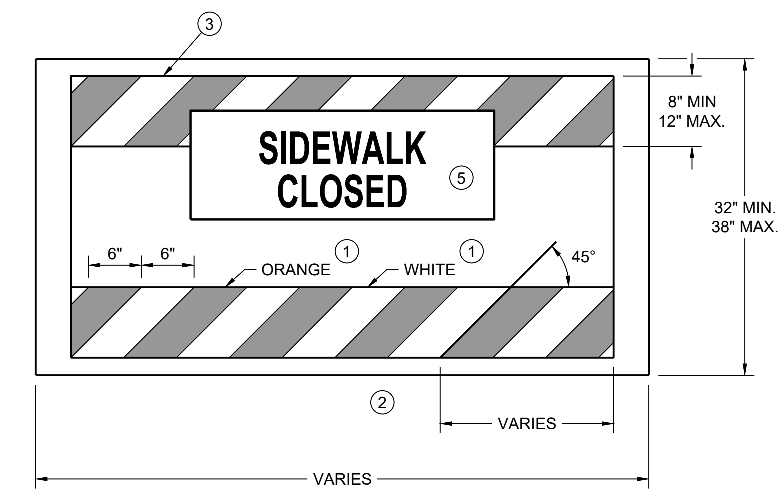


NARROW SIDEWALK PASSING DETAIL

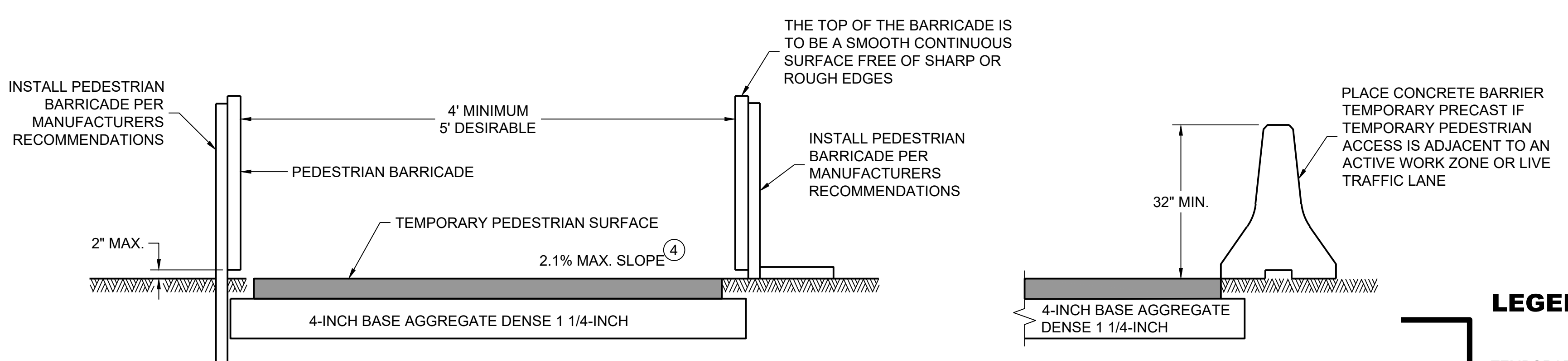
JOINT ALLOWANCES



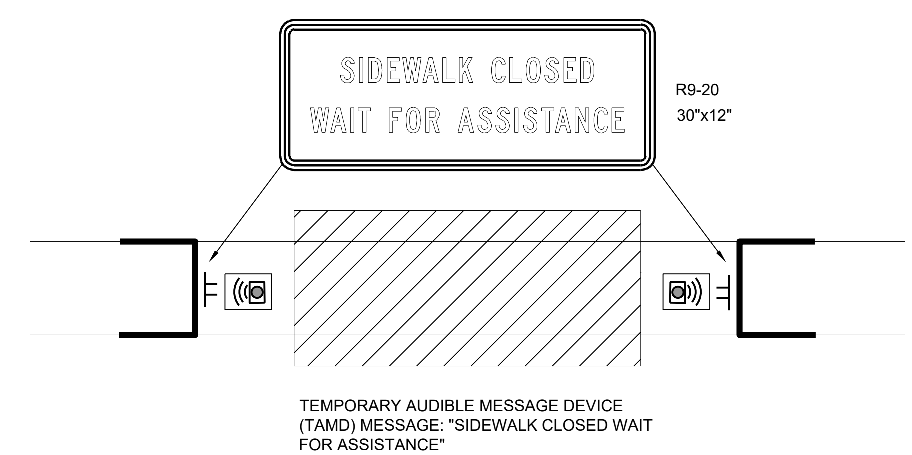
MAXIMUM VERTICAL GAP **MAXIMUM HORIZONTAL GAP**



TEMPORARY PEDESTRIAN BARRICADE *



TEMPORARY PEDESTRIAN ACCESS



TEMPORARY PEDESTRIAN FLAGGING

LEGEND

TEMPORARY PEDESTRIAN BARRICADE

AUDIBLE MESSAGE DEVICE

TEMPORARY SIGN SUPPORT

WORK AREA

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-12a

GENERAL NOTES

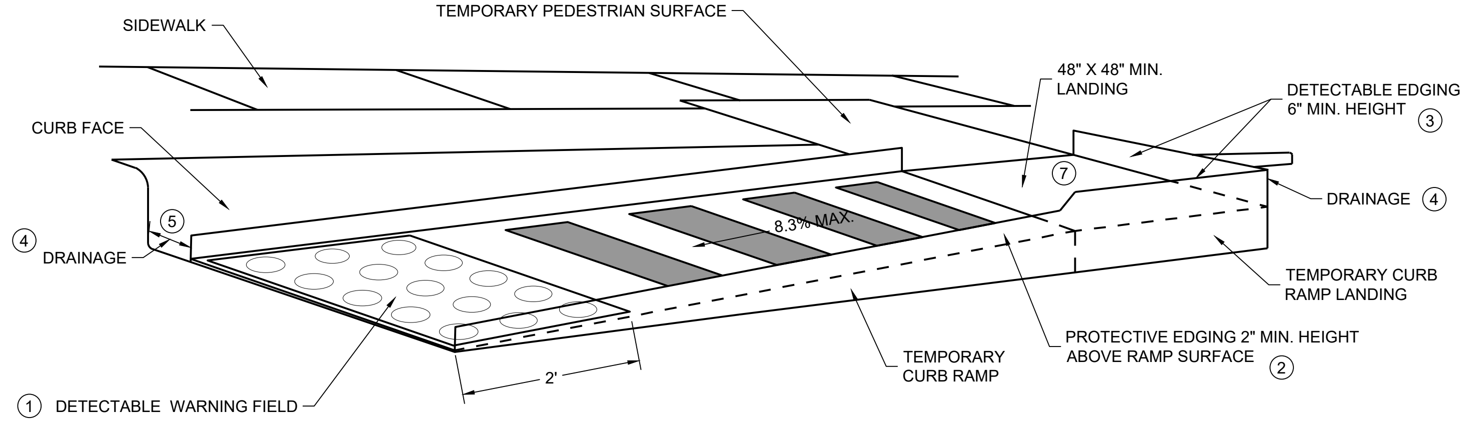
CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

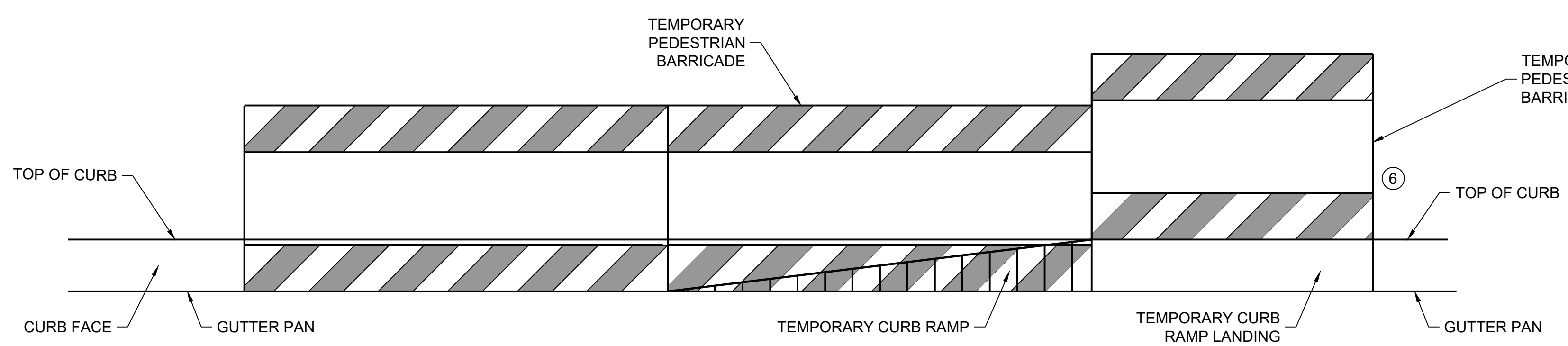
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

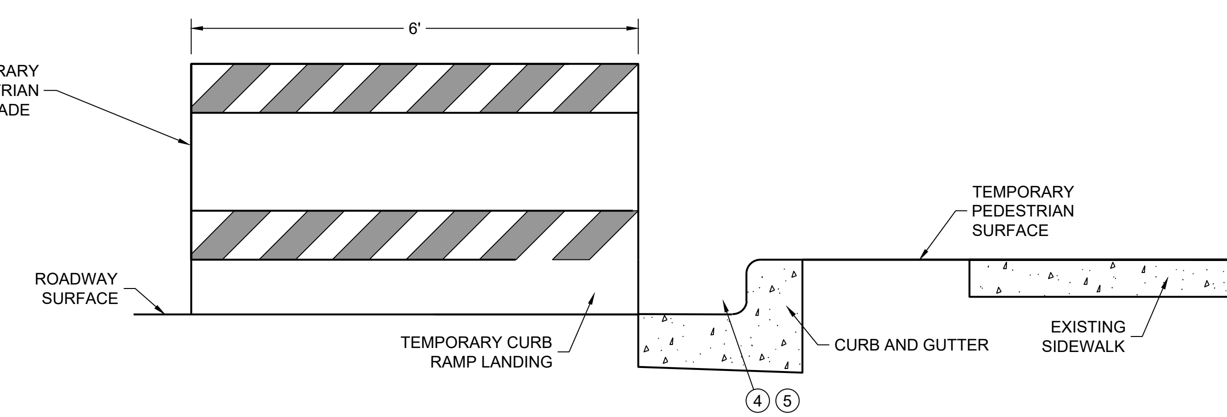
1. INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
5. ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
6. IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.
7. LANDING TO BE SLOPED A MAXIMUM OF 2.1% IN ALL DIRECTIONS OF PEDESTRIAN TRAVEL.



PERSPECTIVE VIEW



FRONT VIEW

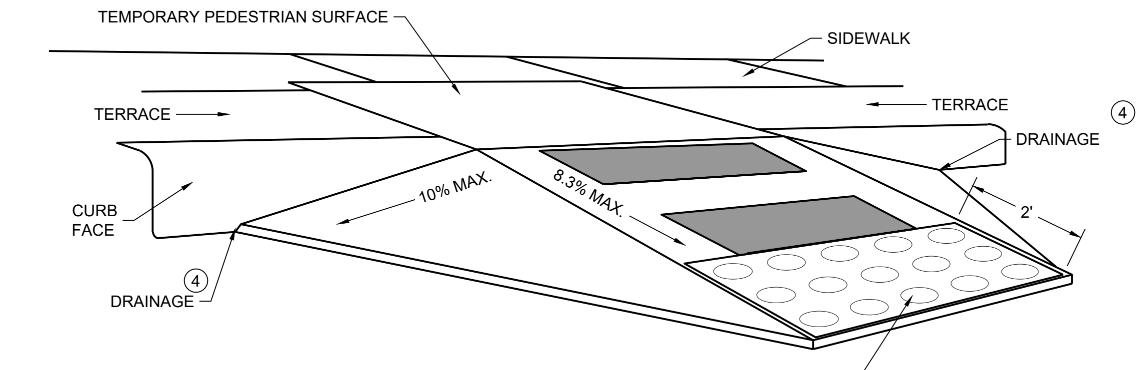


SIDE VIEW

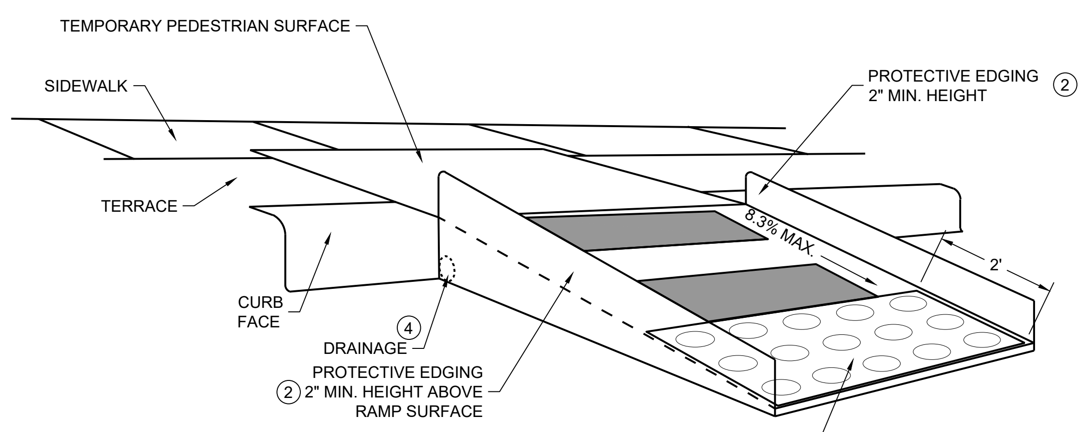
TEMPORARY CURB RAMP PARALLEL TO CURB

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



WITH SIDE APRON 5



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

1. INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
5. CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

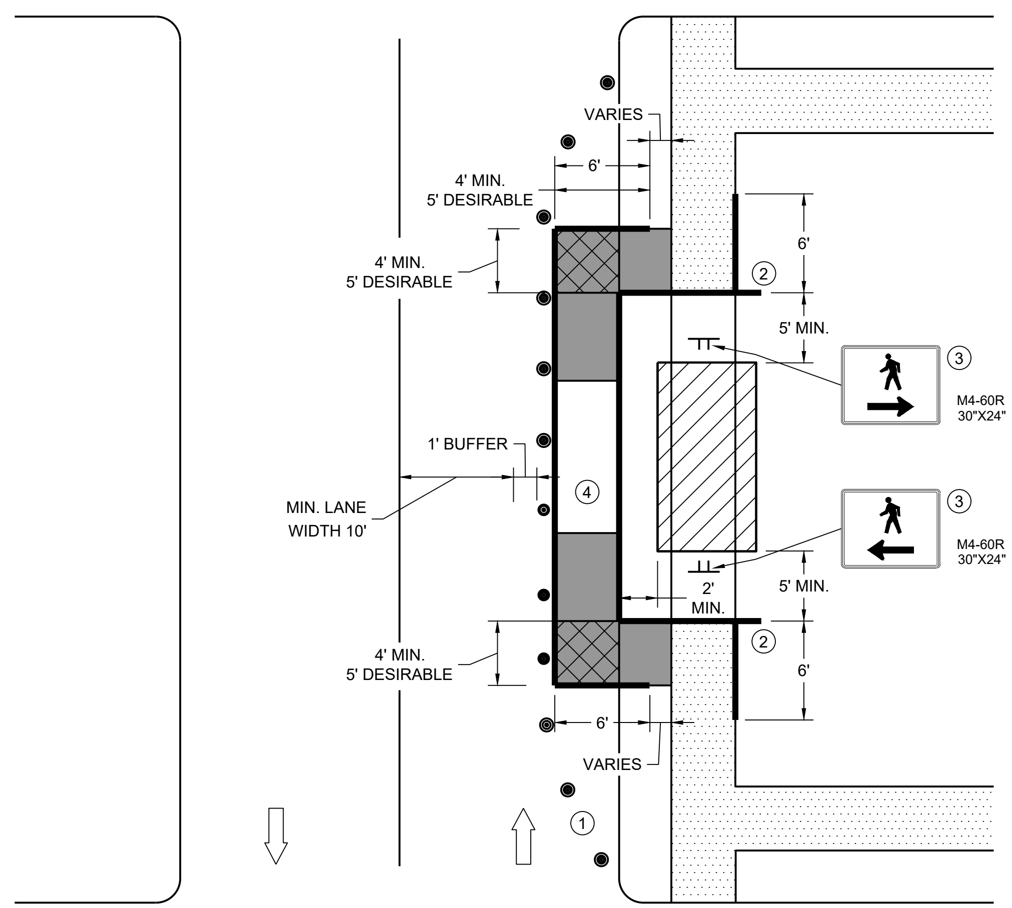
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
2. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
3. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
4. USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURFACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE. WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.



SIDEWALK BYPASS, SINGLE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-12h

GENERAL NOTES

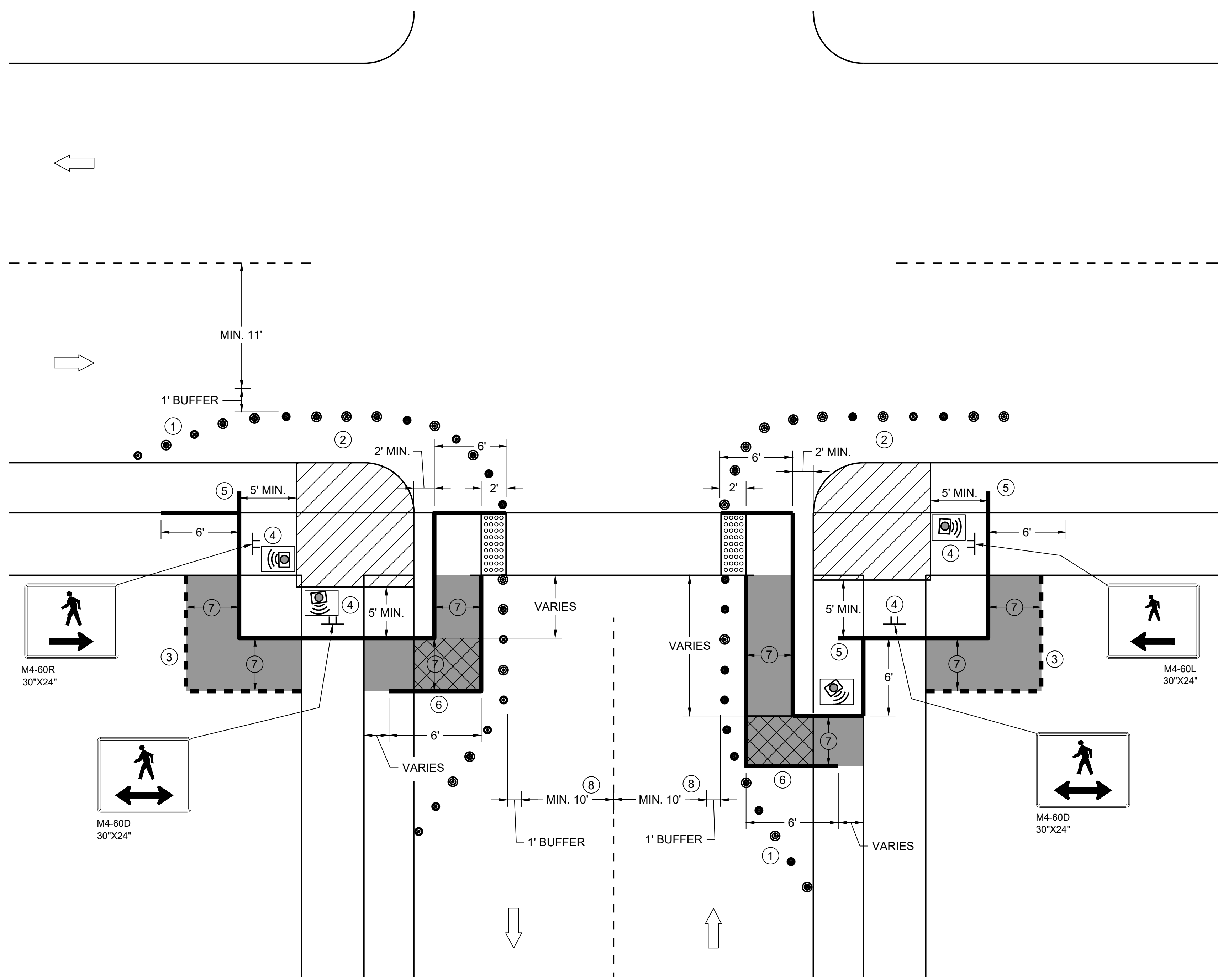
IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
7. 4 FEET MINIMUM, 5 FEET DESIRABLE
8. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.



CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLAGS, 16" X 16" MIN. (ORANGE)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- ASPHALTIC PAVEMENT WIDENING
- CONCRETE BARRIER TEMPORARY PRECAST

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

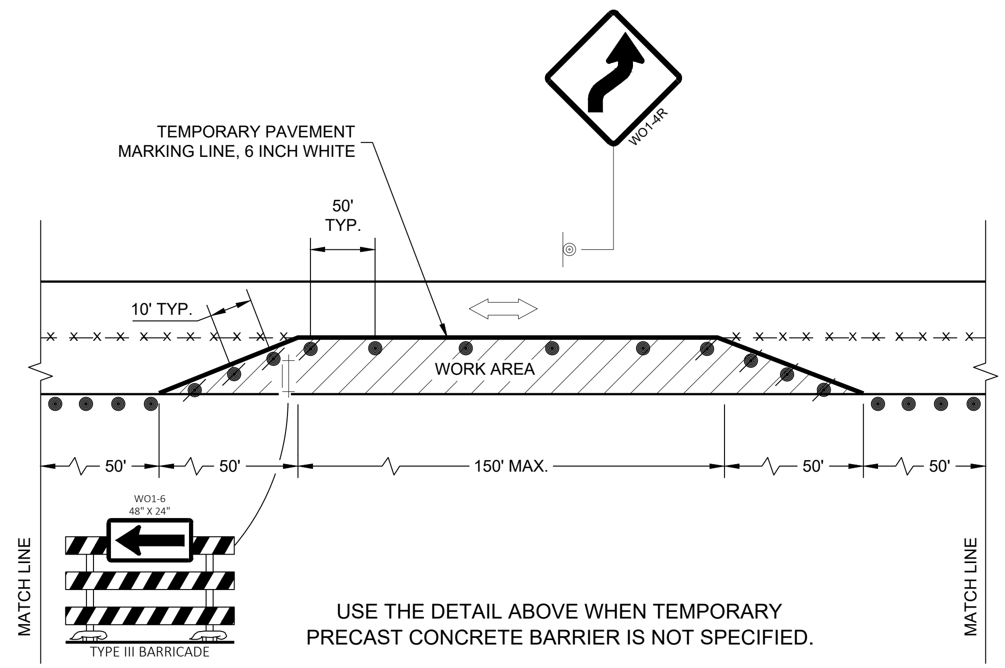
ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

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

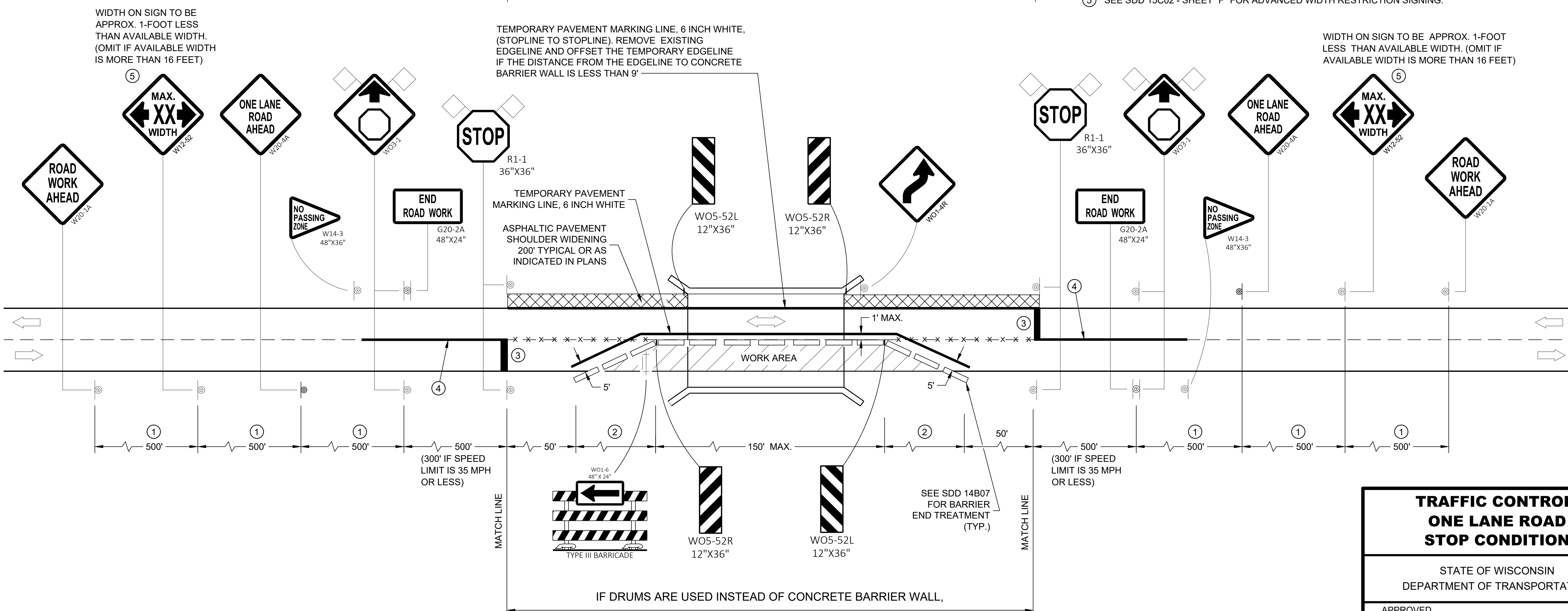
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

1. 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.
2. DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
3. TEMPORARY PAVEMENT MARKING LINE, 18 INCH WHITE STOP LINE.
4. 700 FOOT TEMPORARY PAVEMENT MARKING LINE, 6 INCH DOUBLE YELLOW. WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
5. SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



USE THE DETAIL ABOVE WHEN TEMPORARY PRECAST CONCRETE BARRIER IS NOT SPECIFIED.



IF DRUMS ARE USED INSTEAD OF CONCRETE BARRIER WALL, SEE DETAIL ABOVE

TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

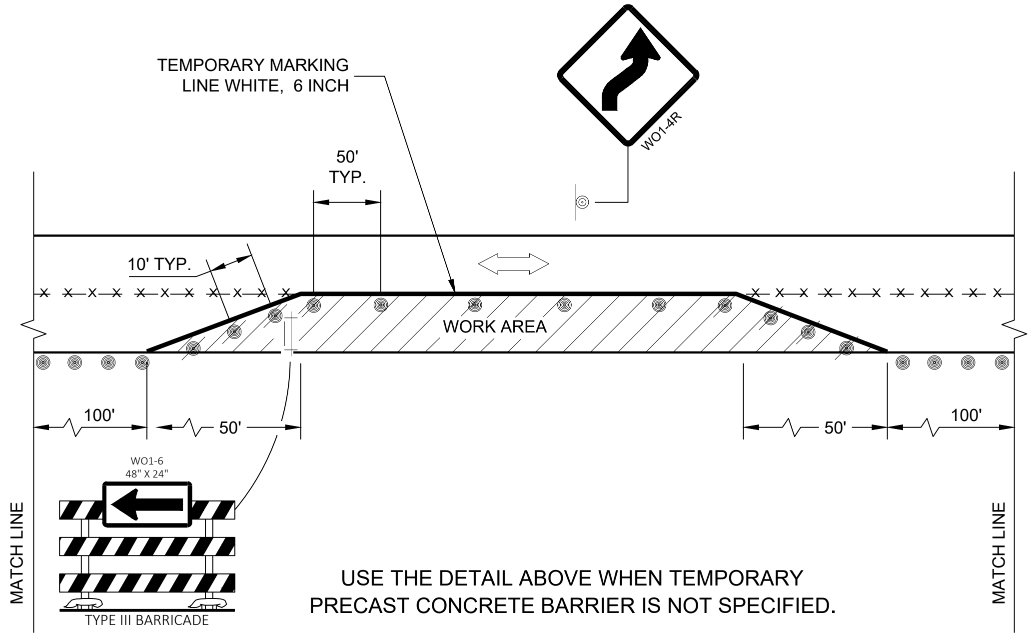
APPROVED
May 2023 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA

6

SDD 15D32-07

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLAGS, 16" X 16" MIN. (ORANGE)
- X X X REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- ASPHALTIC PAVEMENT WIDENING
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY SIGNAL. SEE SDD 09G02 FOR EXACT PLACEMENT



GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

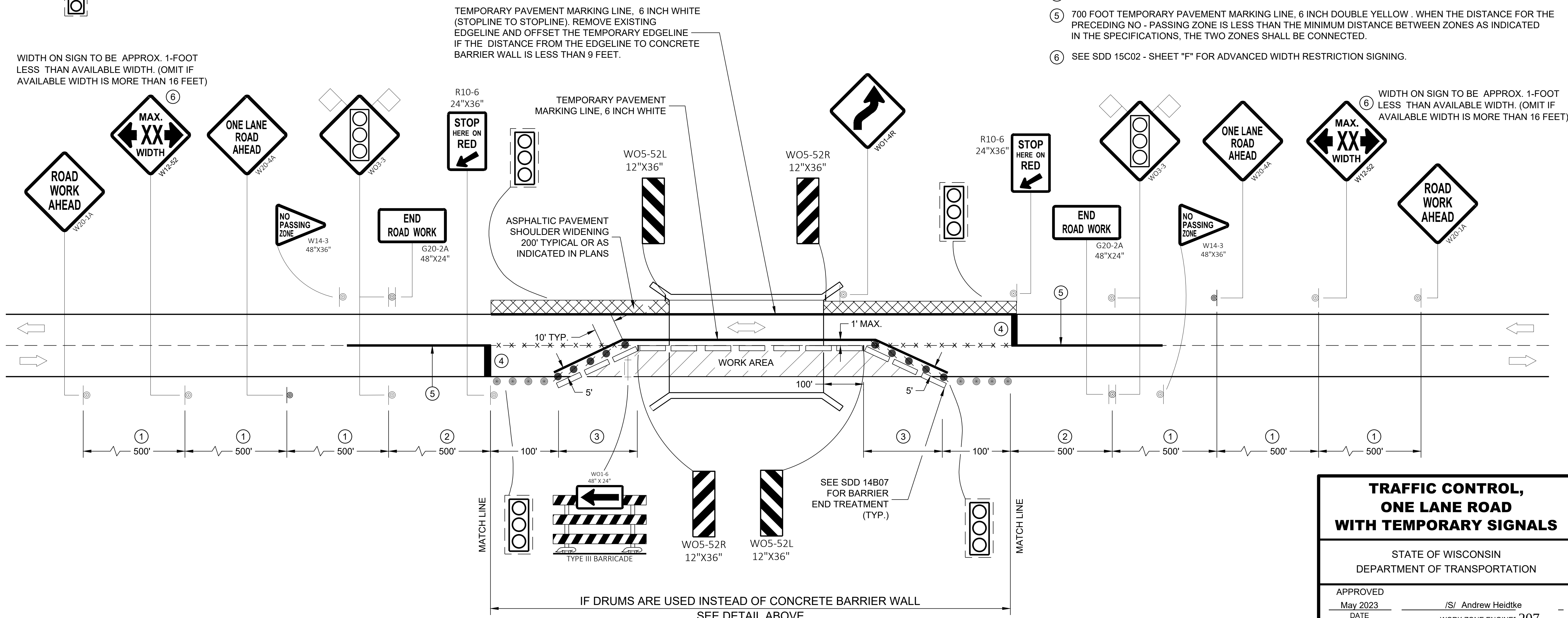
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

REMOVE PAVEMENT MARKING AND PLACE TEMPORARY PAVEMENT MARKING LINES IF THE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

INSTALL OVERHEAD TEMPORARY SIGNAL HEADS ABOVE THE MIDDLE OF THE TRAVEL LANE THEY ARE CONTROLLING.

1. 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.
2. USE 300 FOOT SPACING IF THE PRE - CONSTRUCTION REGULATORY SPEED IS 35 MPH OR LESS.
3. DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
4. TEMPORARY PAVEMENT MARKING LINE, 18 INCH WHITE STOP LINE.
5. 700 FOOT TEMPORARY PAVEMENT MARKING LINE, 6 INCH DOUBLE YELLOW . WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
6. SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

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

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

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

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

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

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

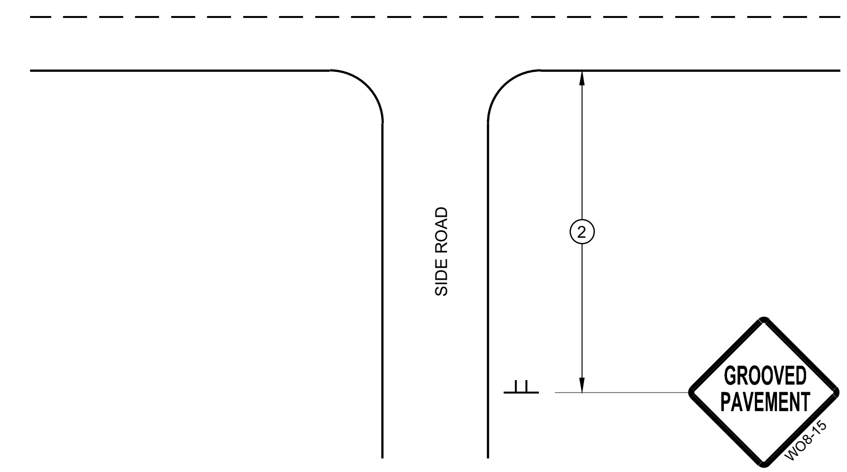
1 PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

2 PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

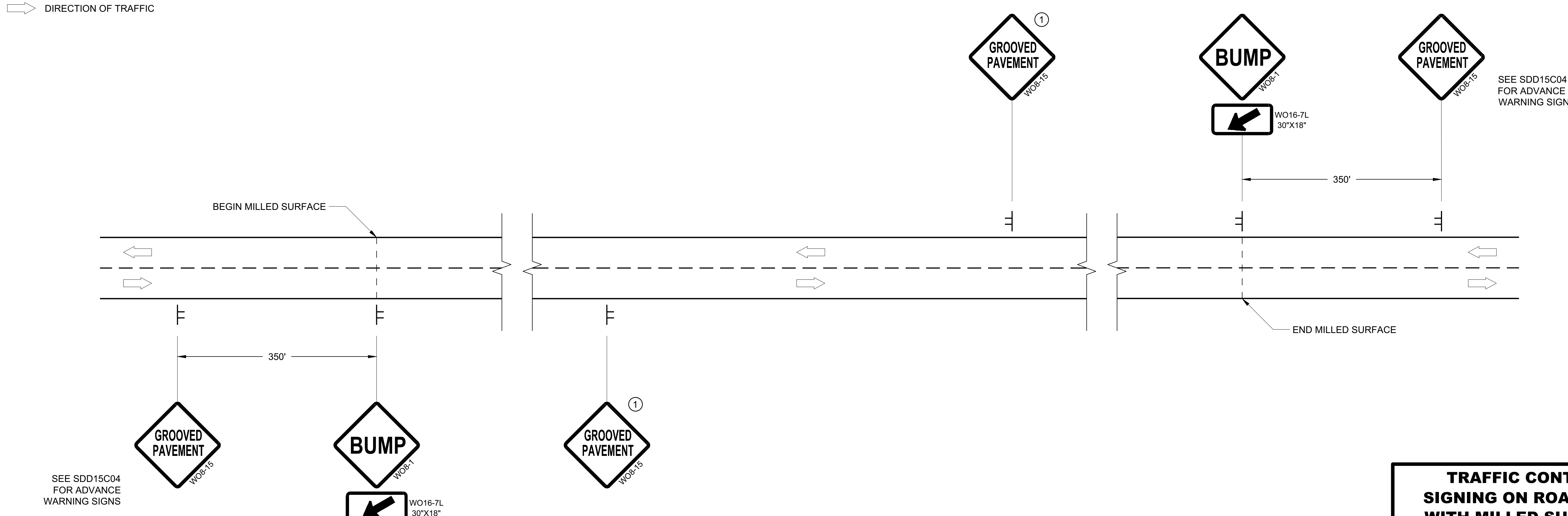
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

6

6

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15D44 - 02

GENERAL NOTES

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

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

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

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

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

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

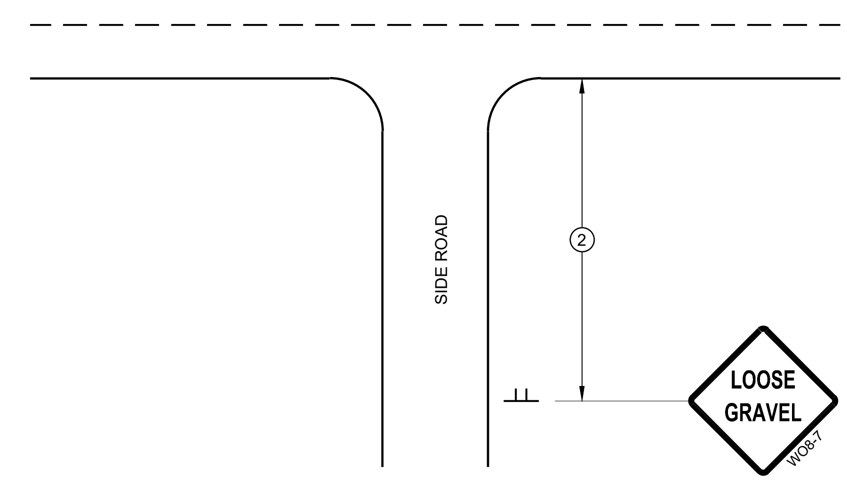
SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

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

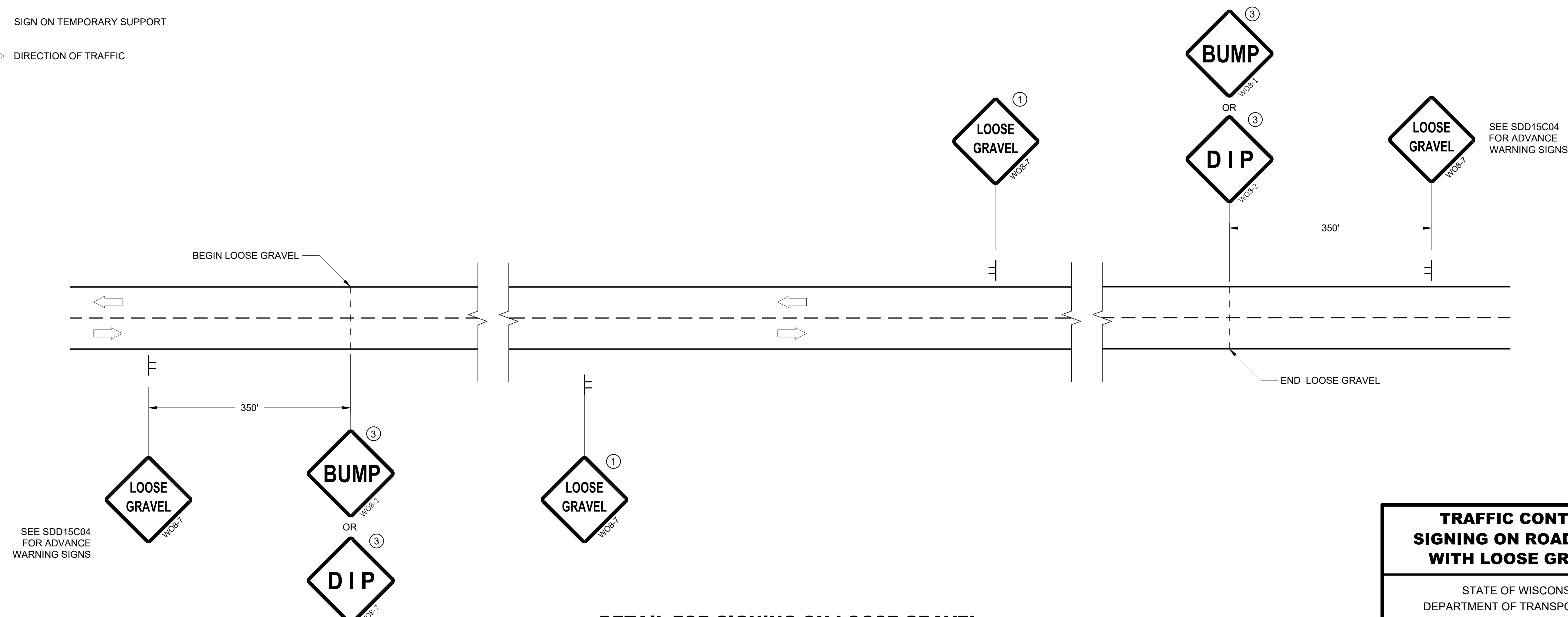
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

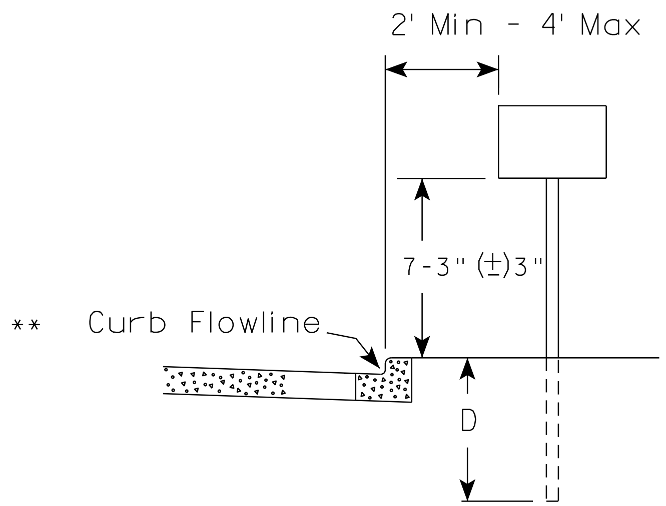
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

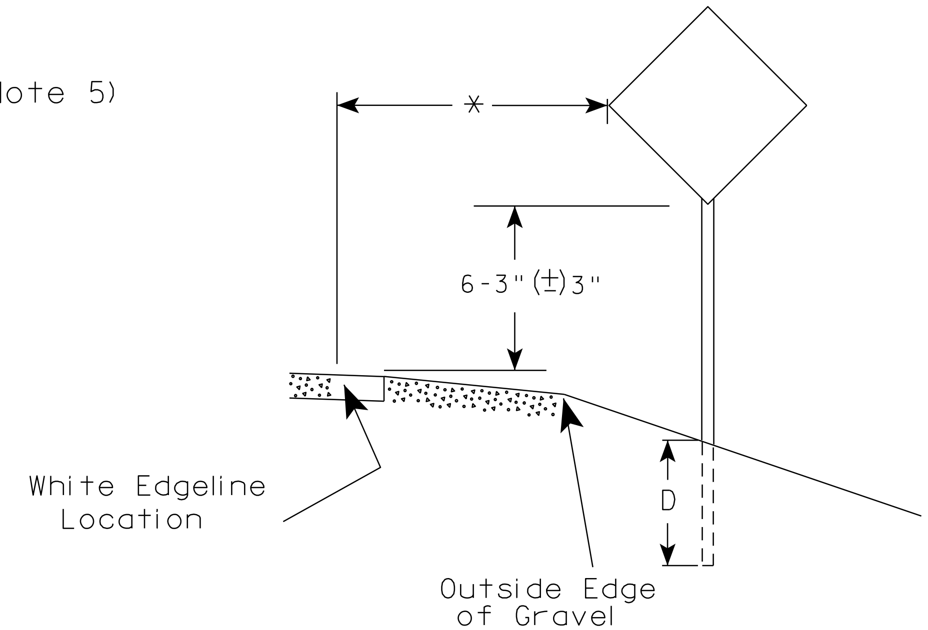
6

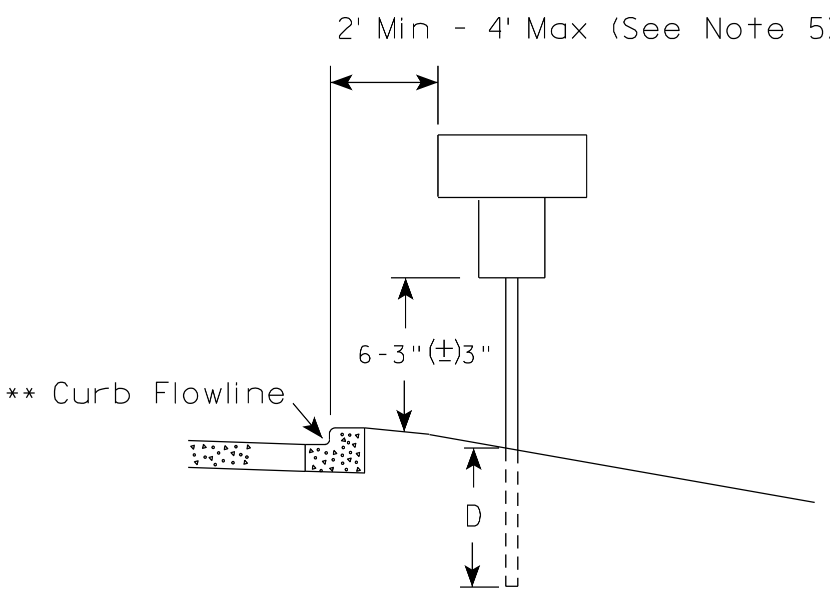
SDD 15D45 - 03
SDD 15D45 - 03

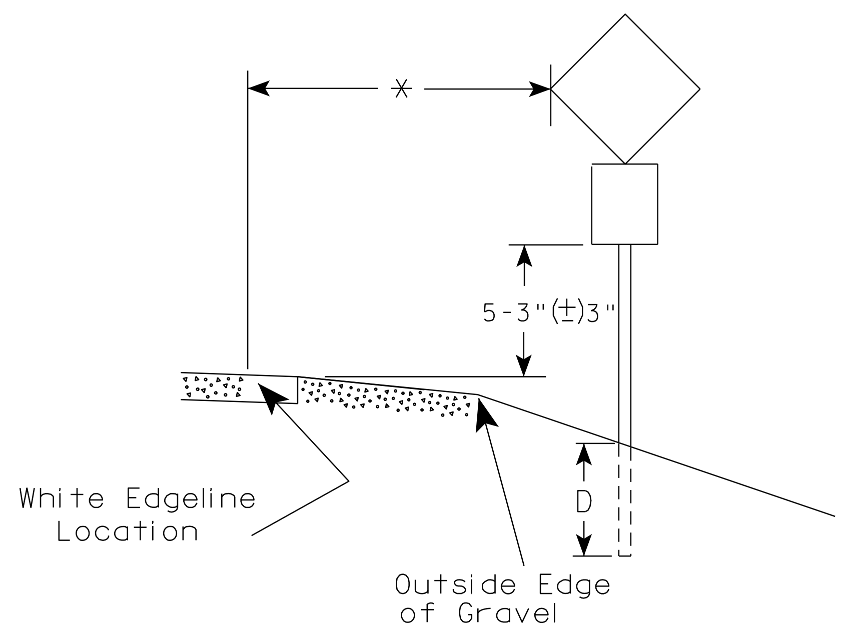
URBAN AREA



RURAL AREA (See Note 2)







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 directd by the Engineer.

POST EMBEDMENT DEPTH

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

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

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

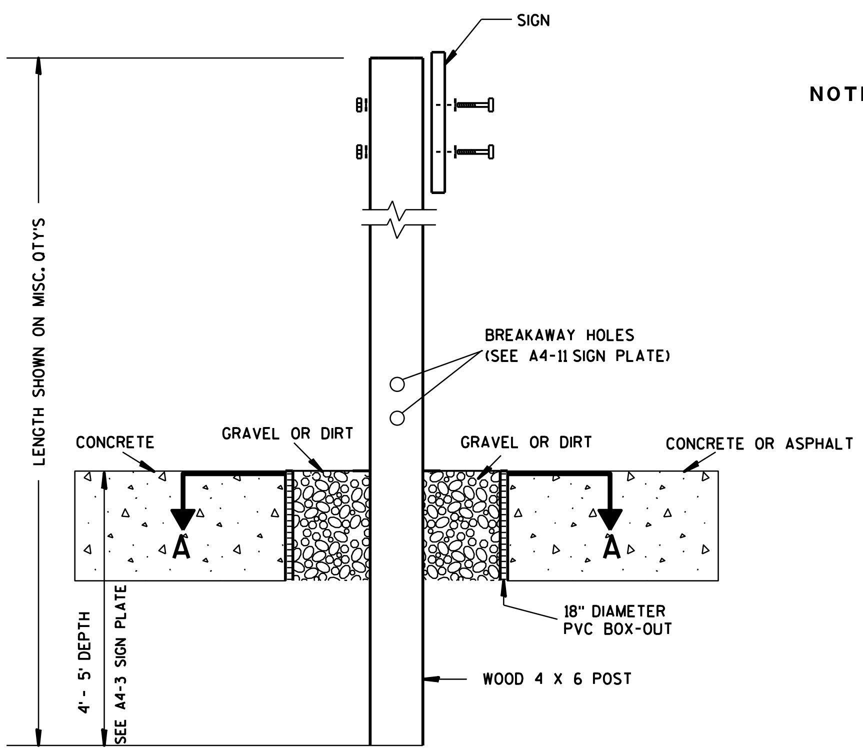
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

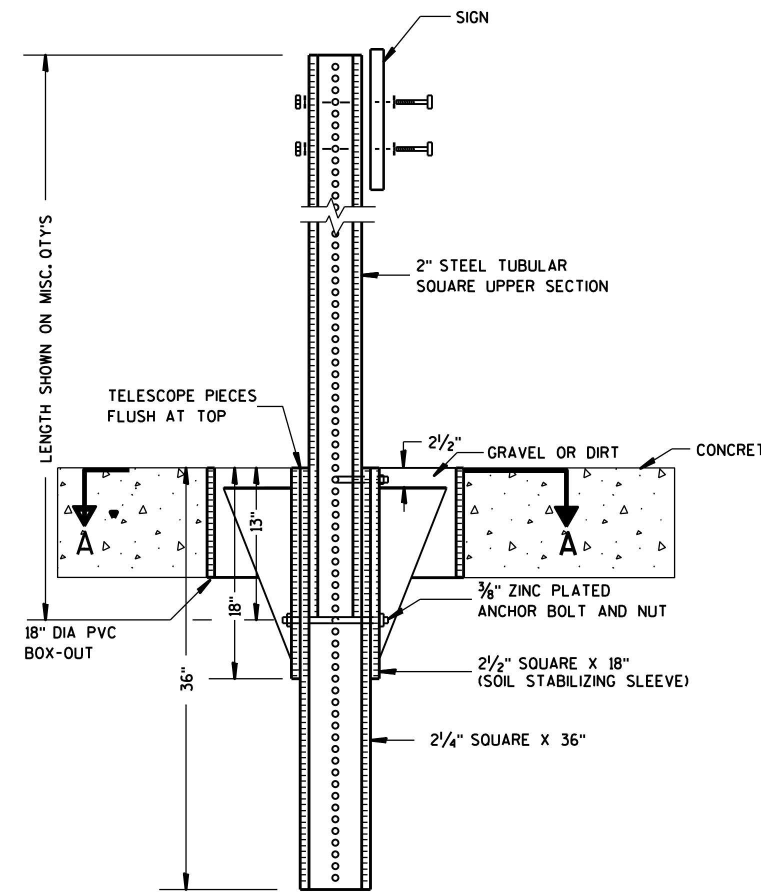
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 210 | E



ELEVATION VIEW

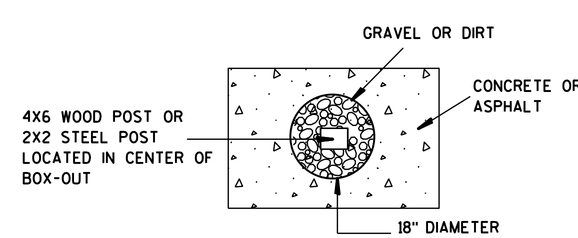
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

7

7

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

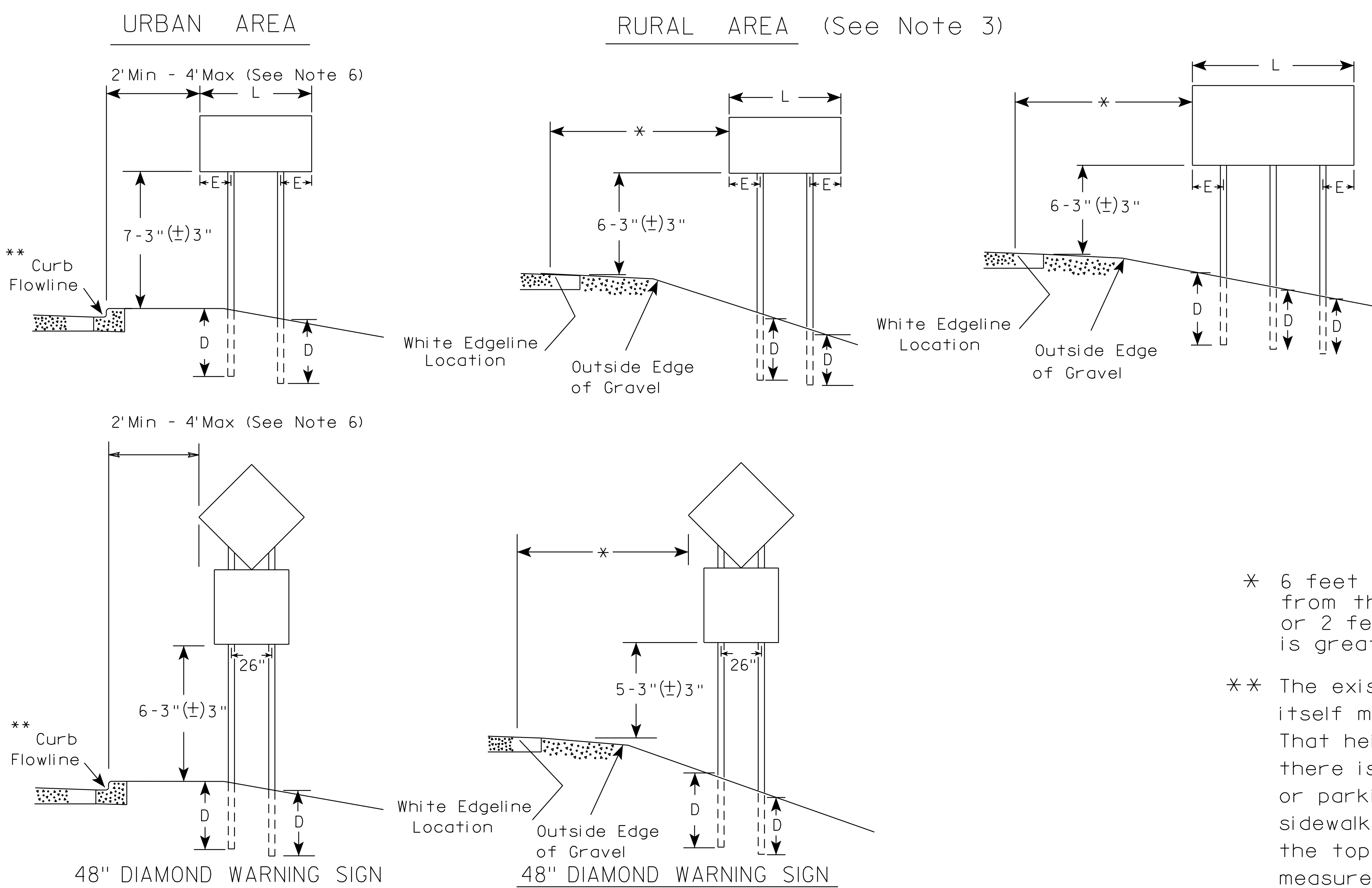
APPROVED Matthew R Rauch

for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



GENERAL NOTES

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

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)

	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)

L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

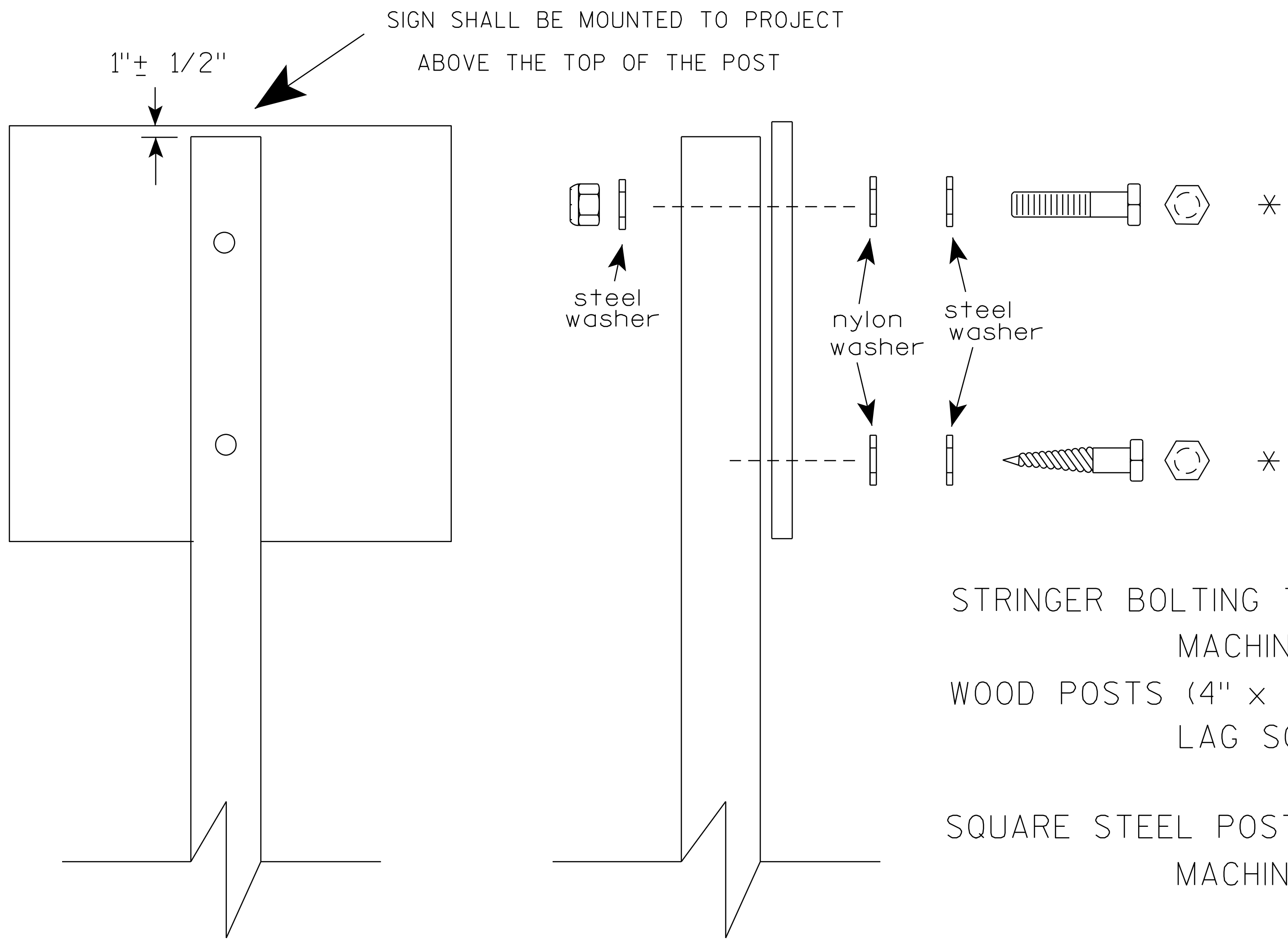
APPROVED Matthew R Rauch
for State Traffic Engineer

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

7

7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 212	E



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

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

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

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

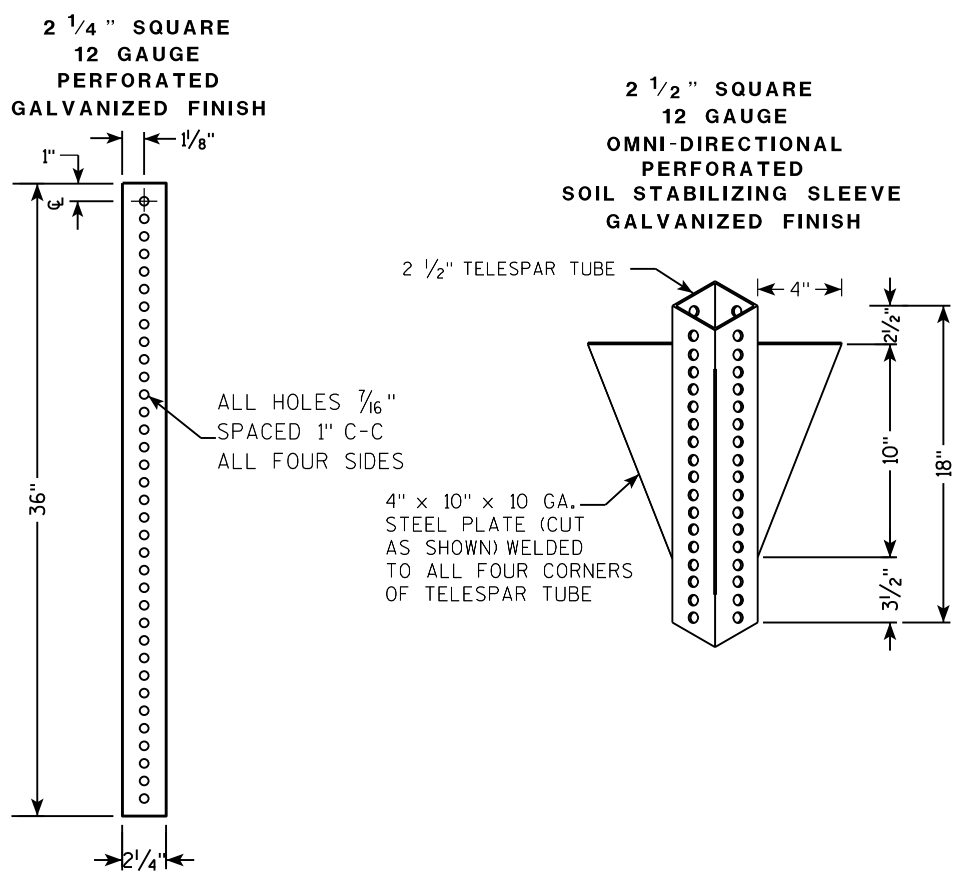
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

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

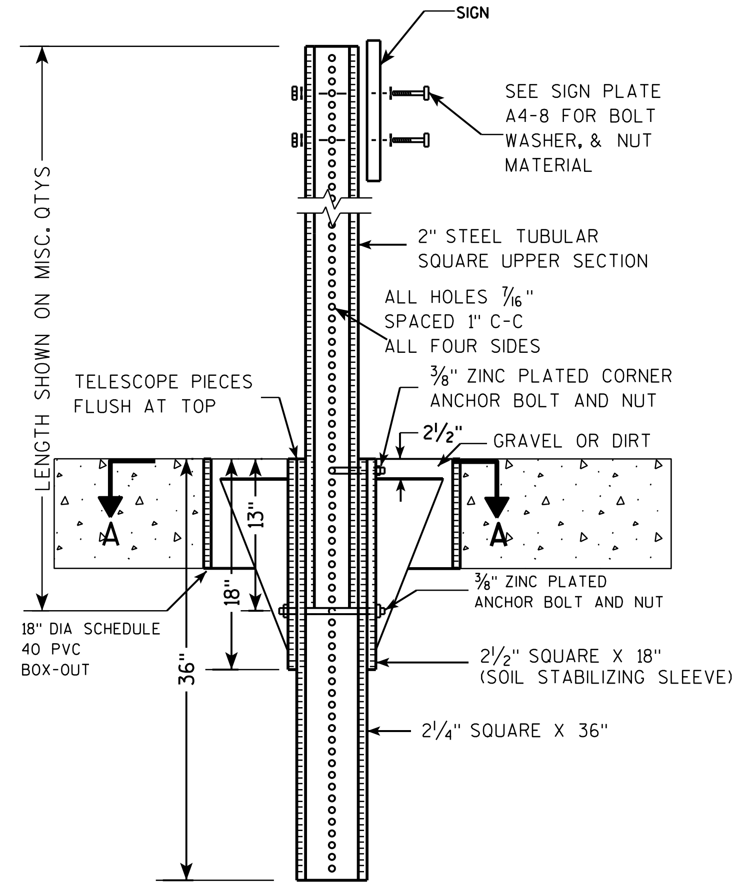
PROJECT NO: | SHEET NO: 213 | E

7

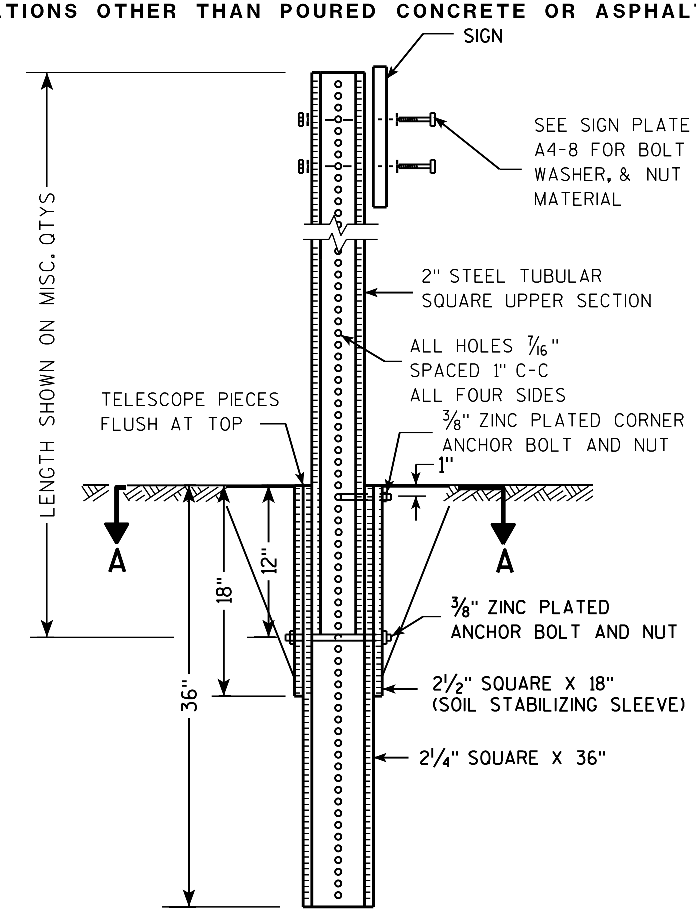
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

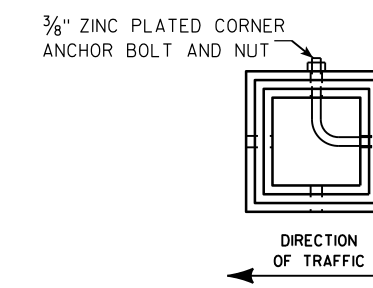


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

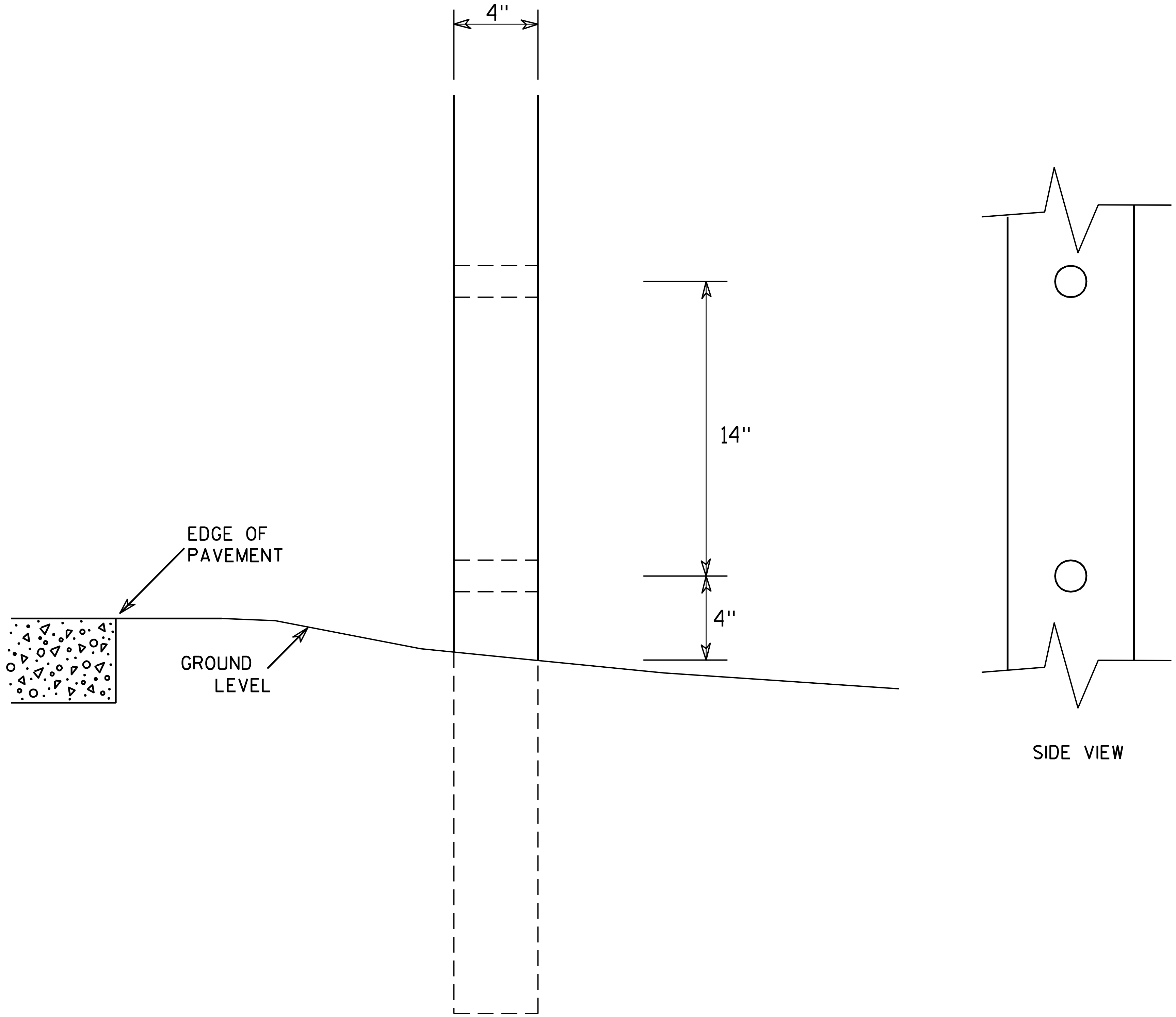
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

7

7

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

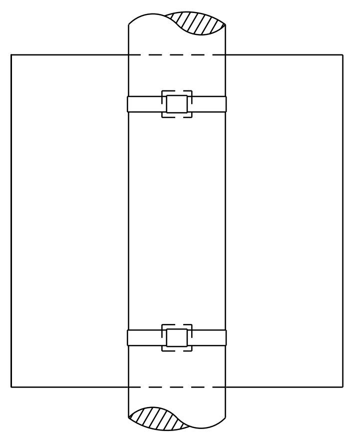
APPROVED Chester J Spang
for State Traffic Engineer

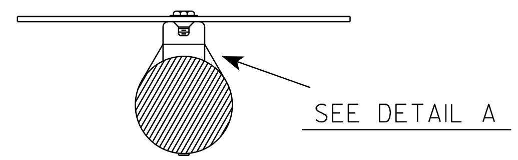
DATE 3/27/97 PLATE NO. A4-11.2

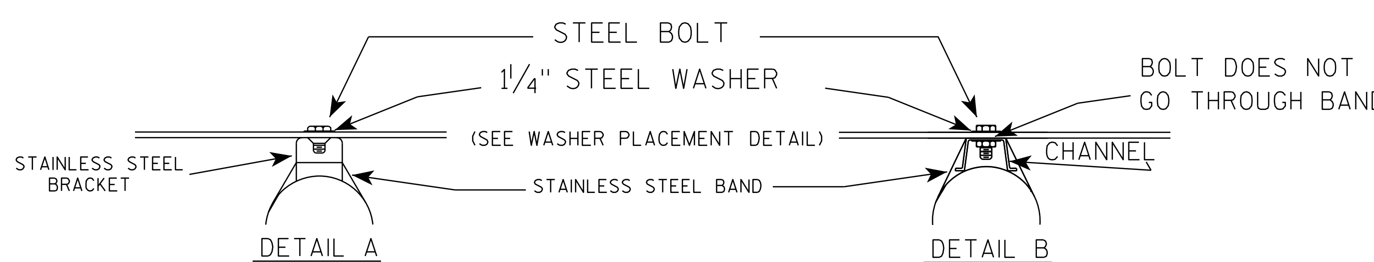
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 215	E

BANDING

SINGLE SIGN



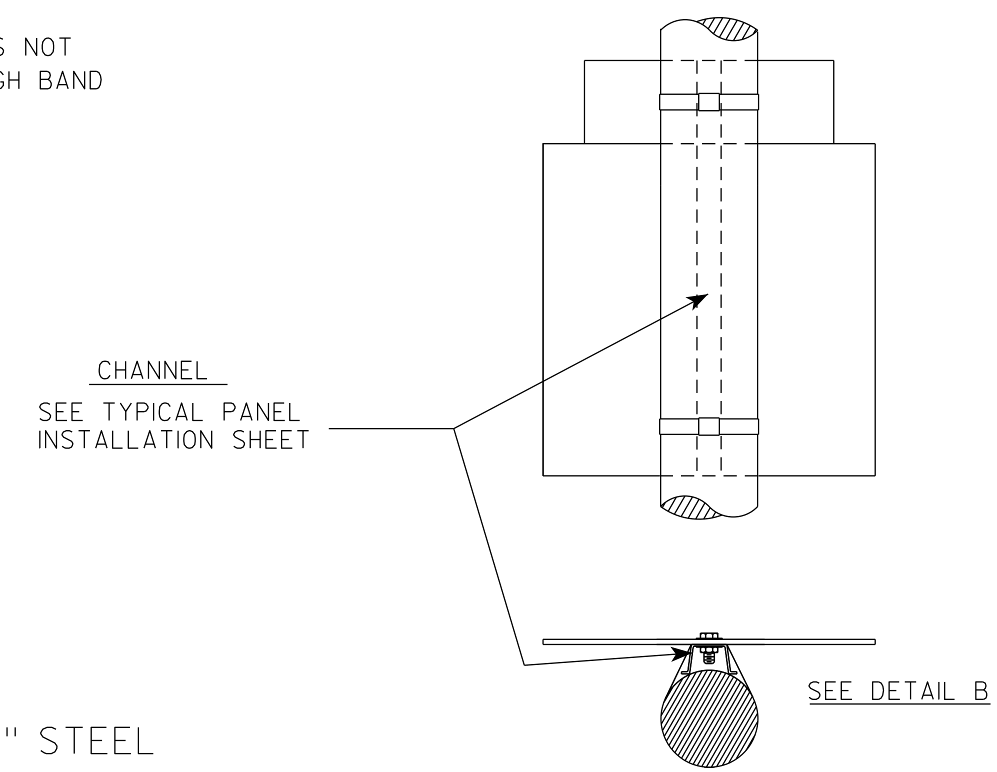




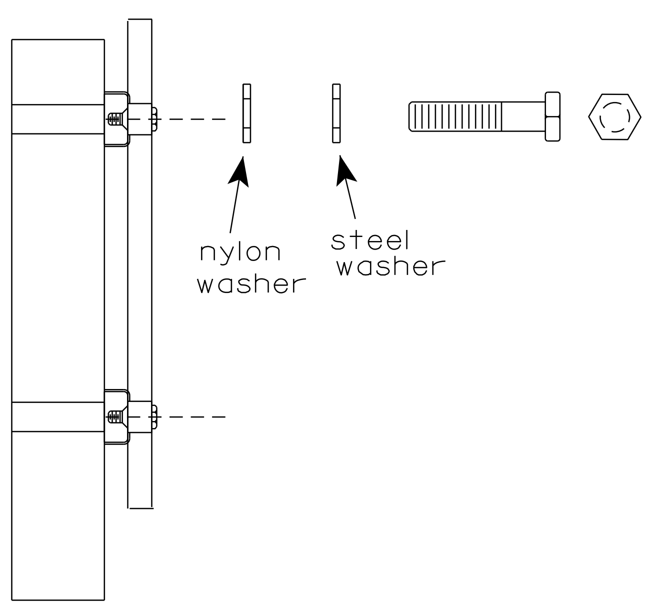
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



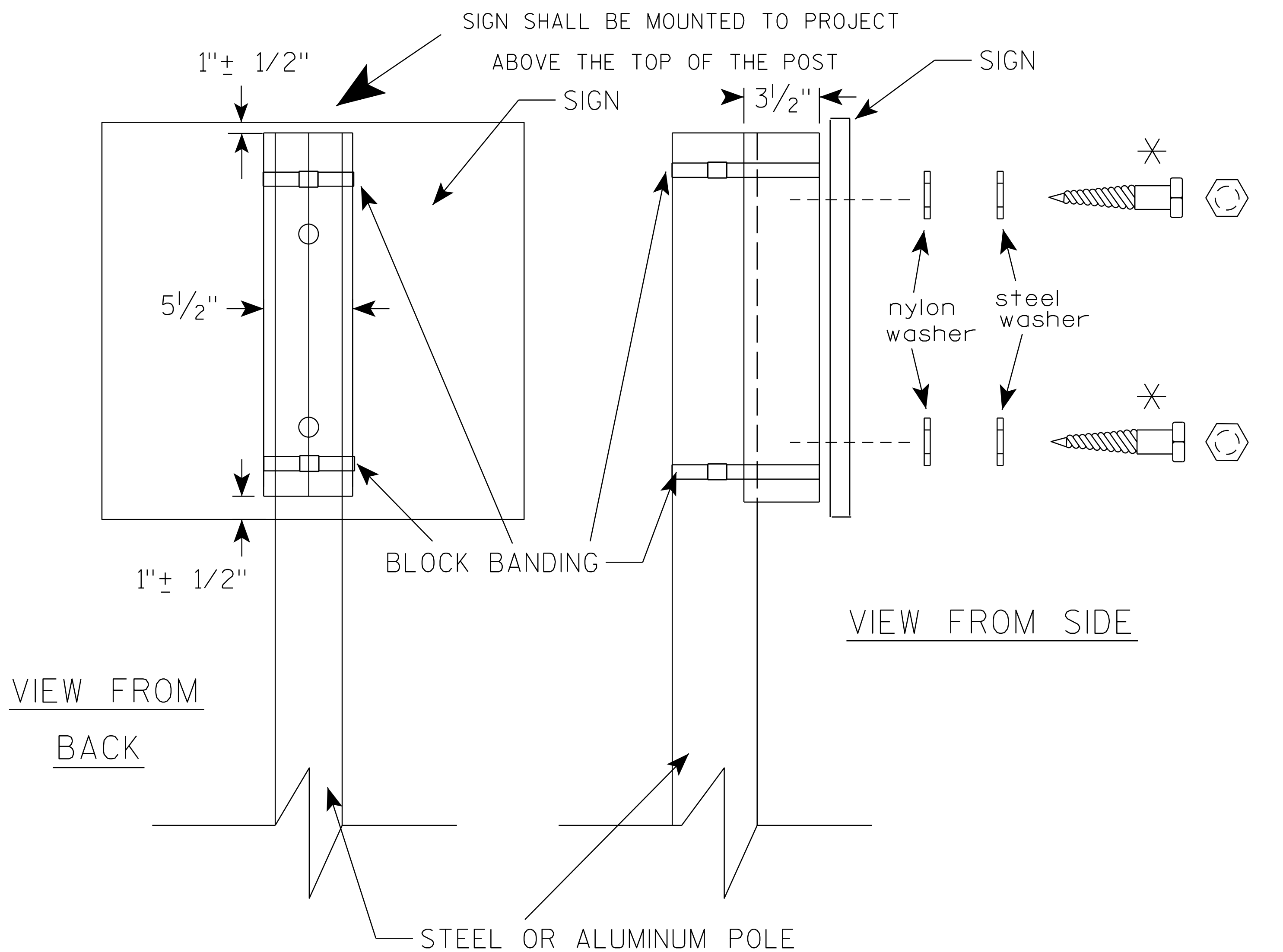
WASHERS (ALL POSTS) -
1-1/4" O.D. X⅜" I.D. X$^1/_{16}$" STEEL
1-1/4" O.D. X⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

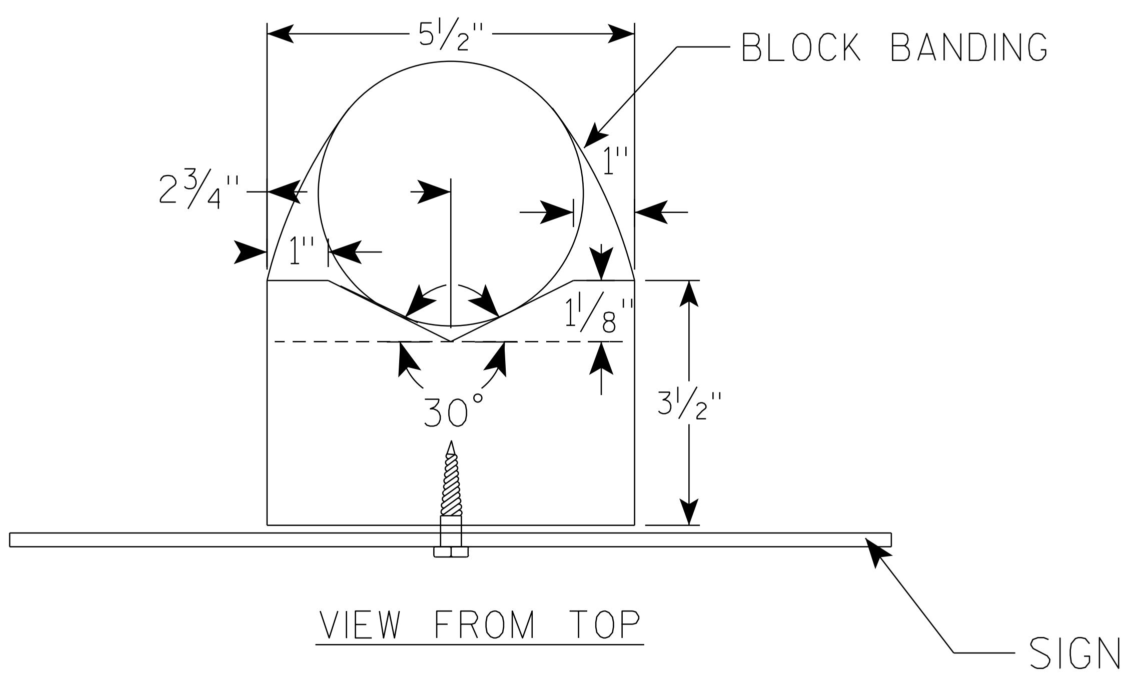
STANDARD SIGN SIGN BANDING DETAILS
WISCONSIN DEPT OF TRANSPORTATION
APPROVED Matthew R Rauch for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4

7

7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 216	E





GENERAL NOTES

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

✳ LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

7

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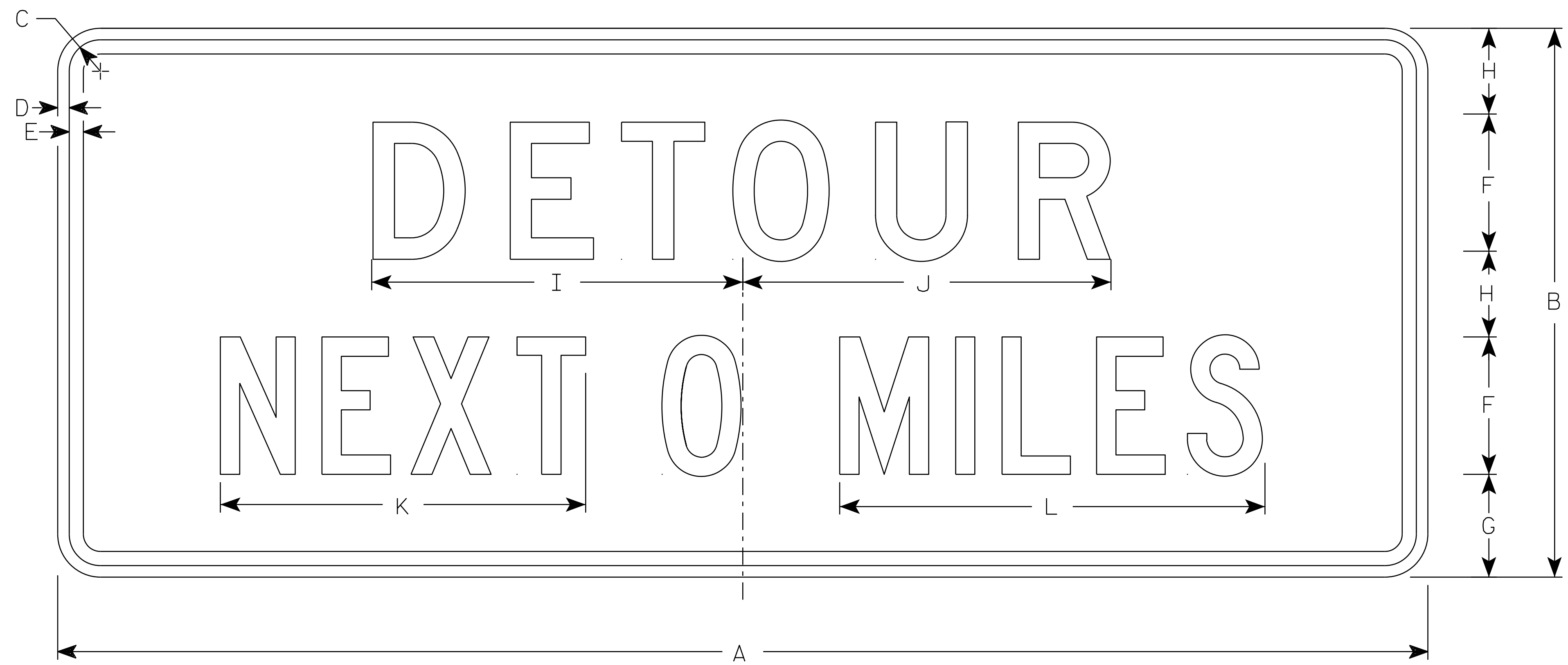
NOTES

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



G20-51

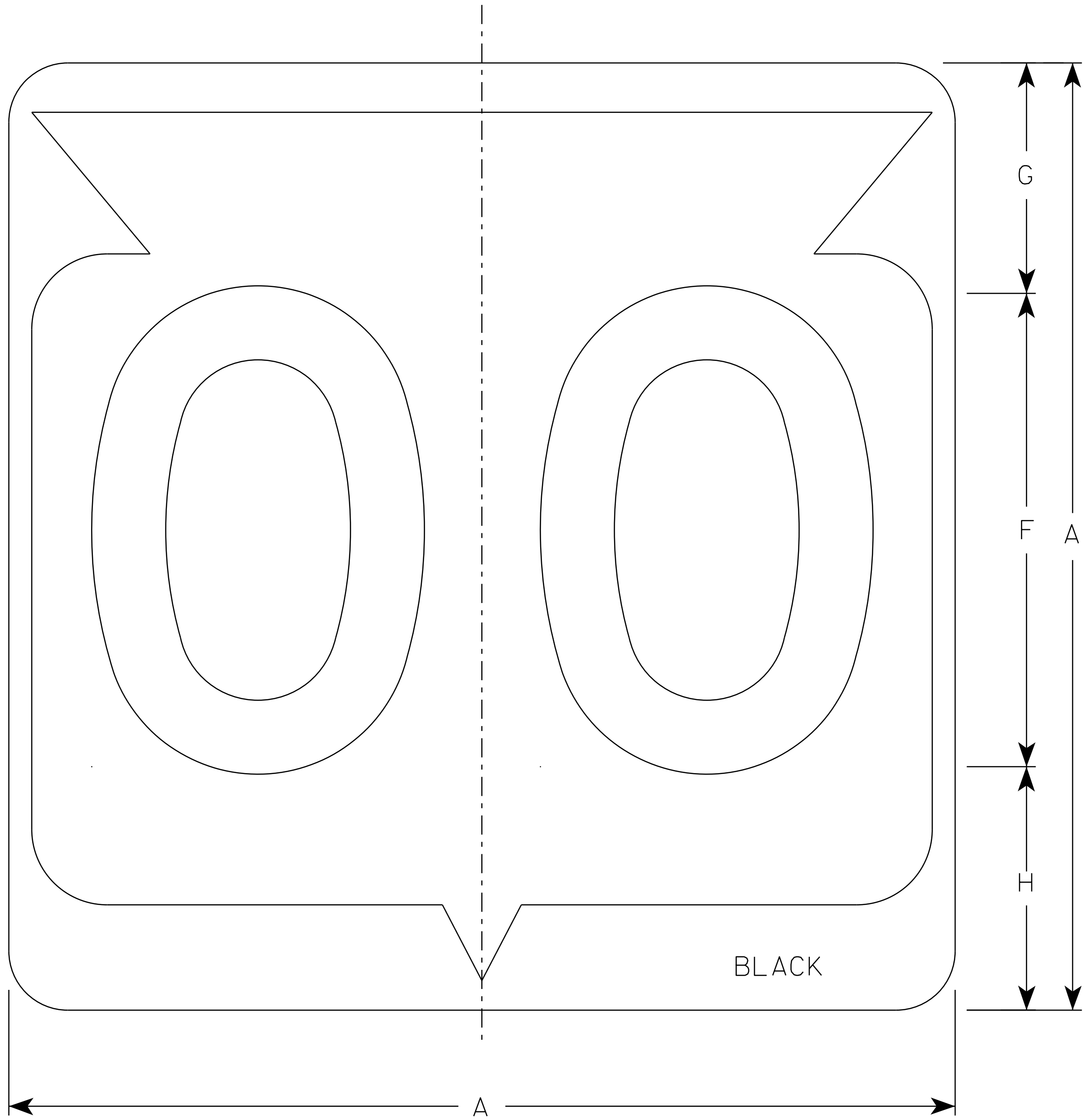
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
2M	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
3	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4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

STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

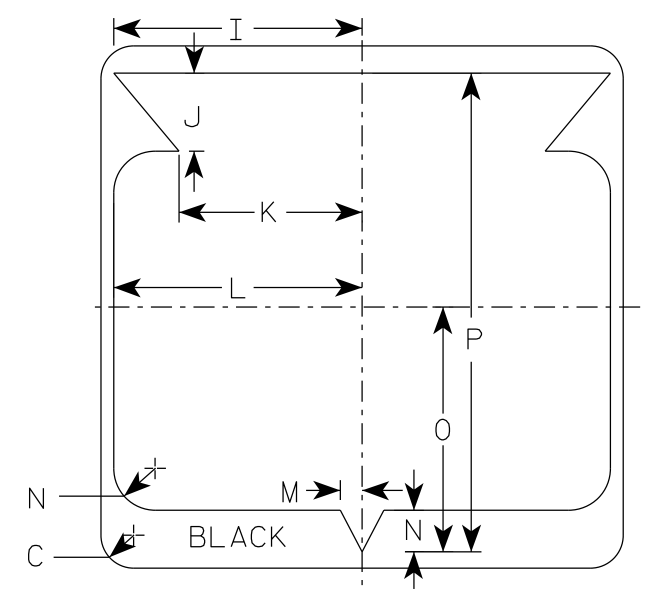
DATE 1/26/2023 PLATE NO. G20-51.3



M1-6

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



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 Rauch
For State Traffic Engineer

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

PROJECT NO: HWY: COUNTY: SHEET NO: 219 E

7

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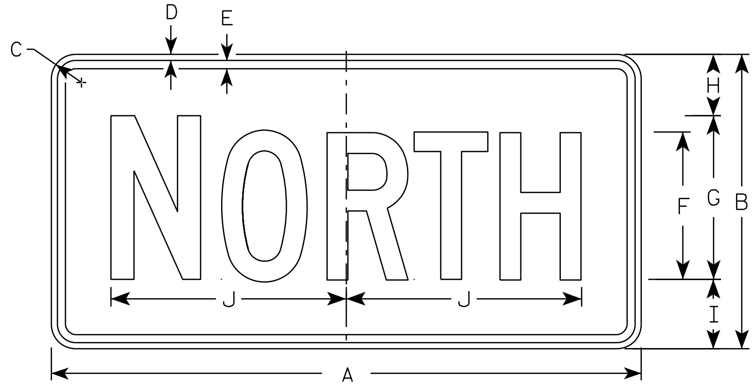
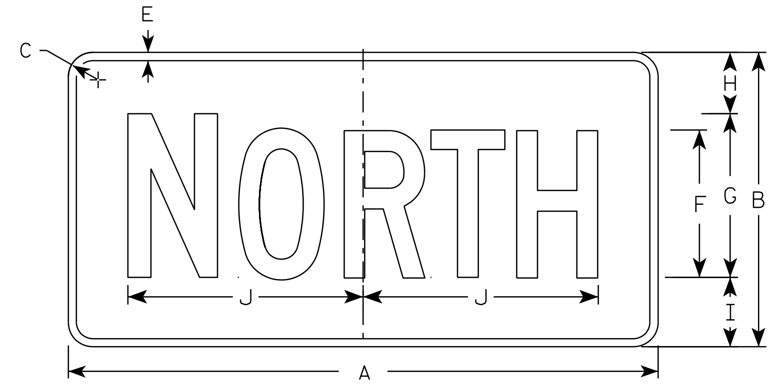
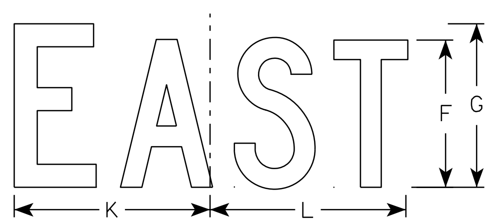


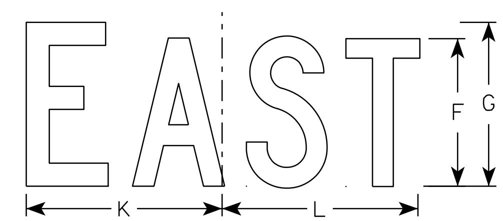
M3-1
MM3-1
MP3-1



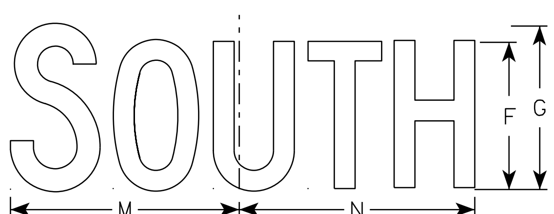
MB3-1
MK3-1
MN3-1



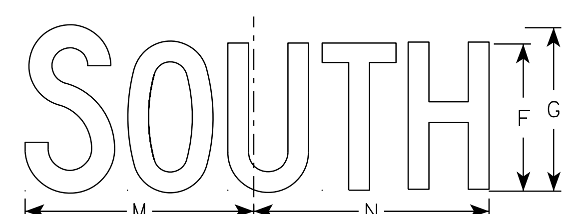
M3-2
MM3-2
MP3-2



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

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

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

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: 220 E

7

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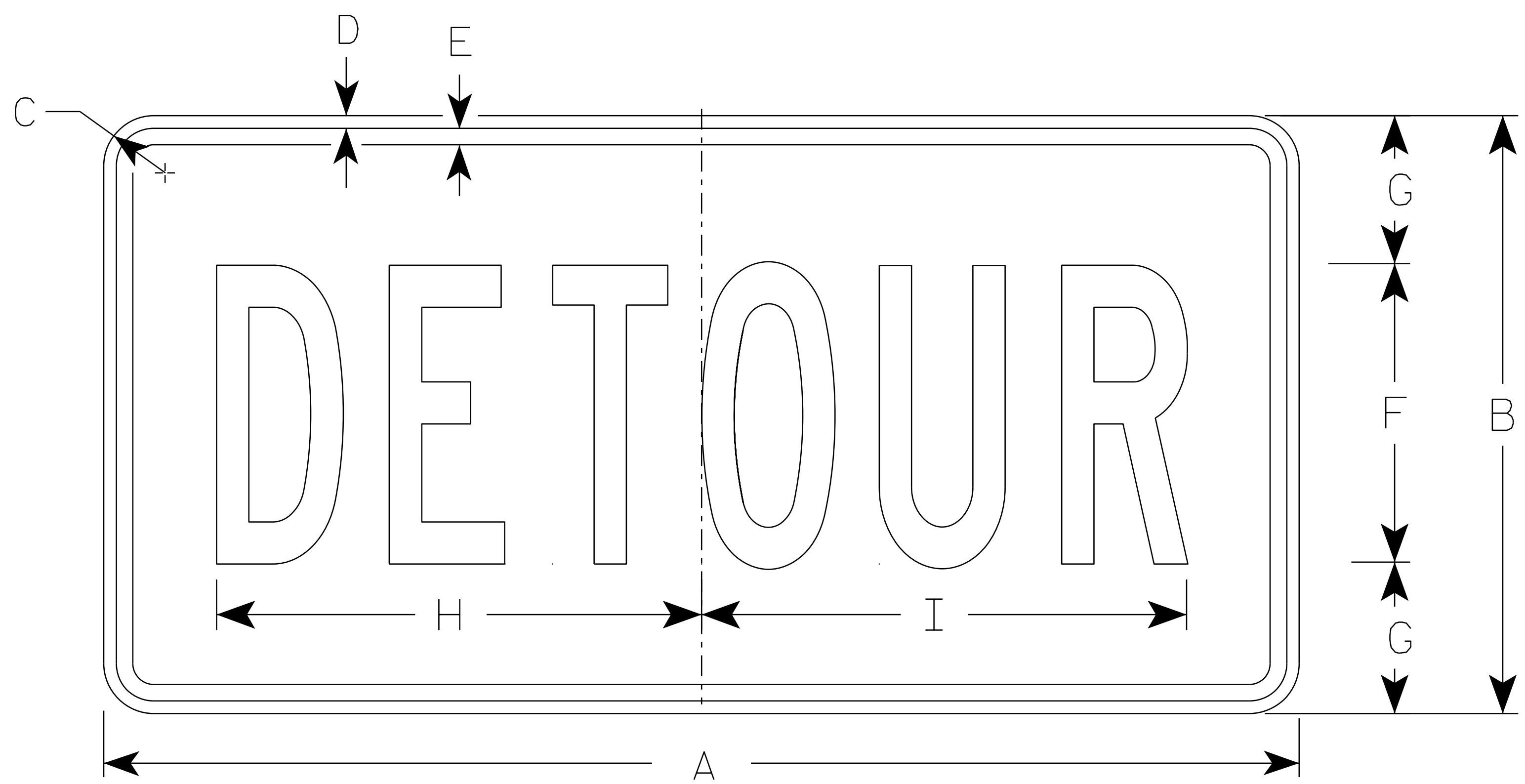
FILE NAME : C:\CAEfiles\Projects\tr_stdplate_M31.dgn PLOT DATE : 8-FEB 2023 11:00 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



M4-8

NOTES

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

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

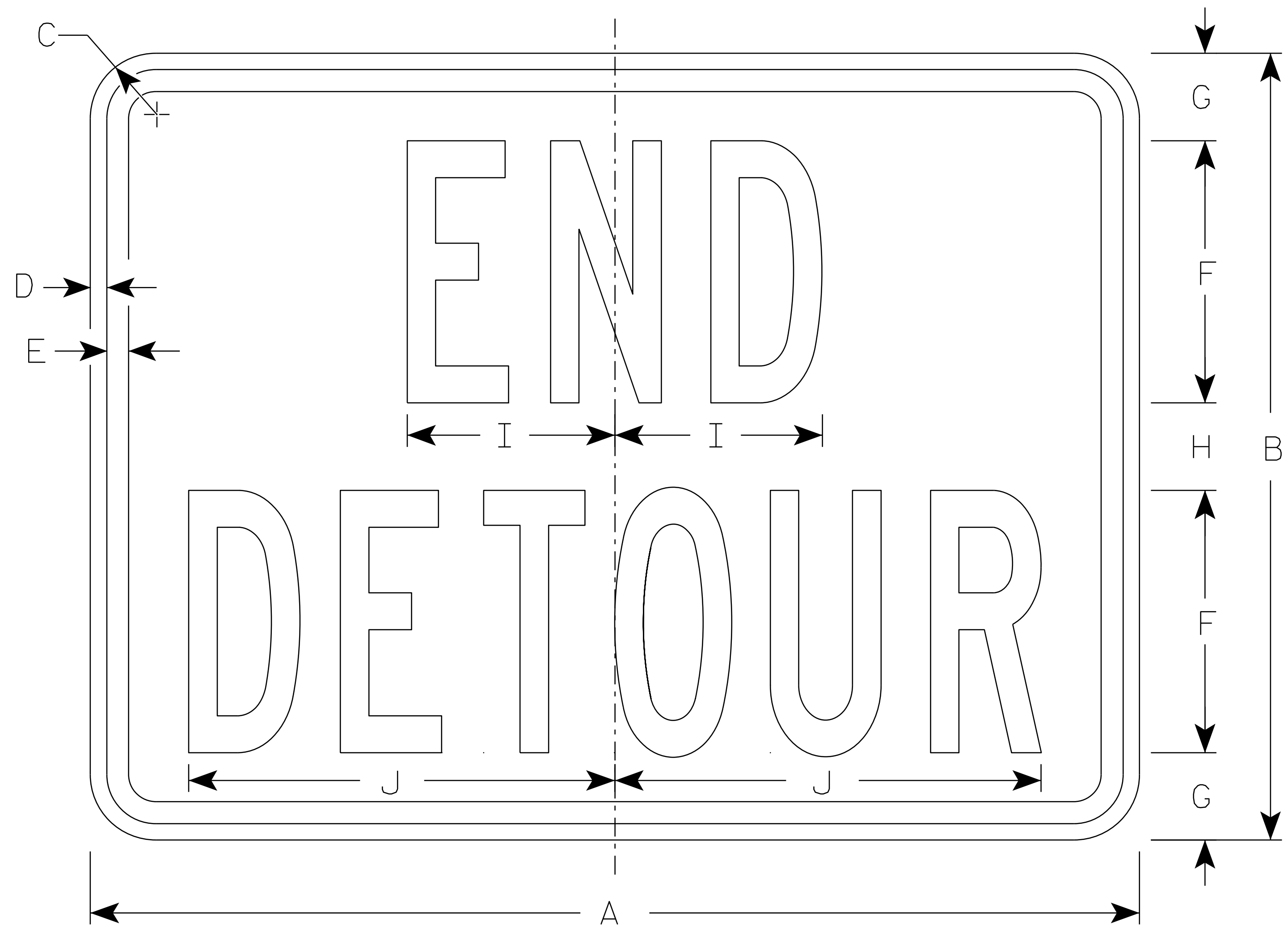
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: HWY: COUNTY: SHEET NO: E



M4-8A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	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

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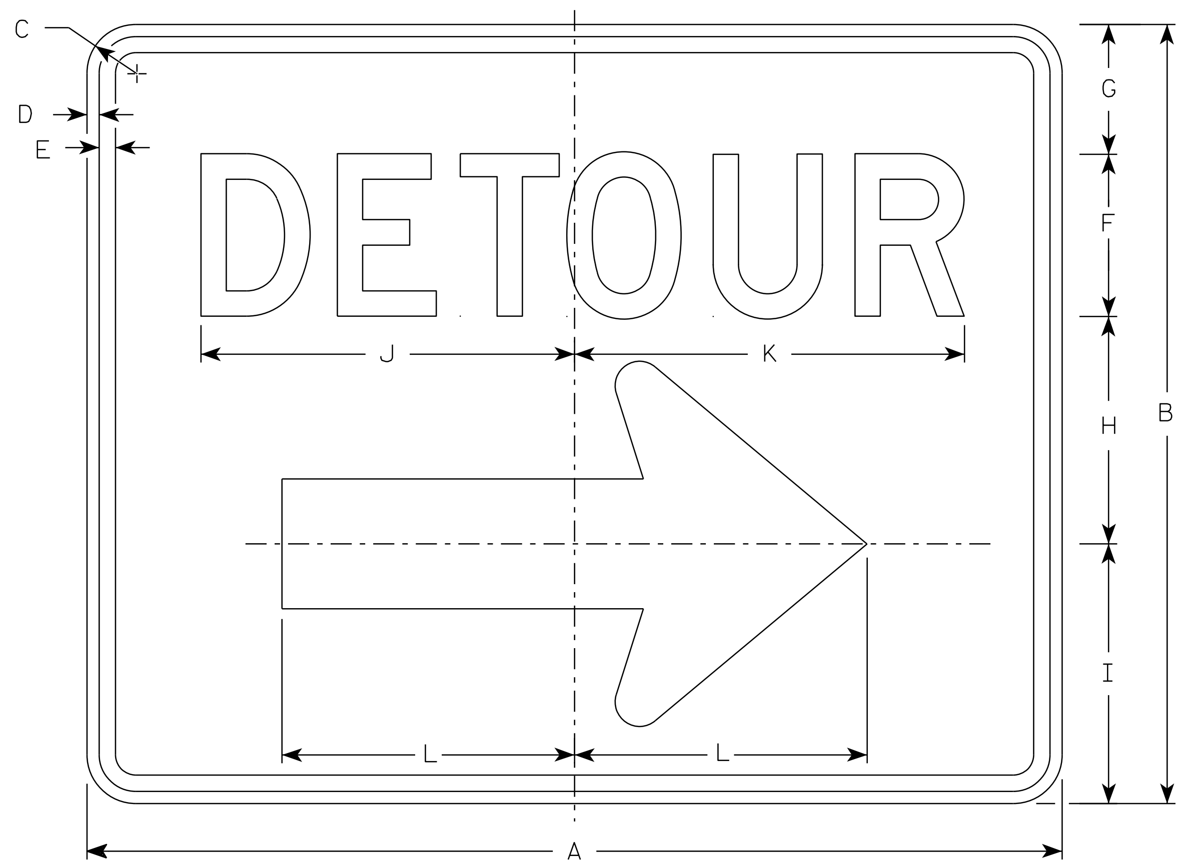
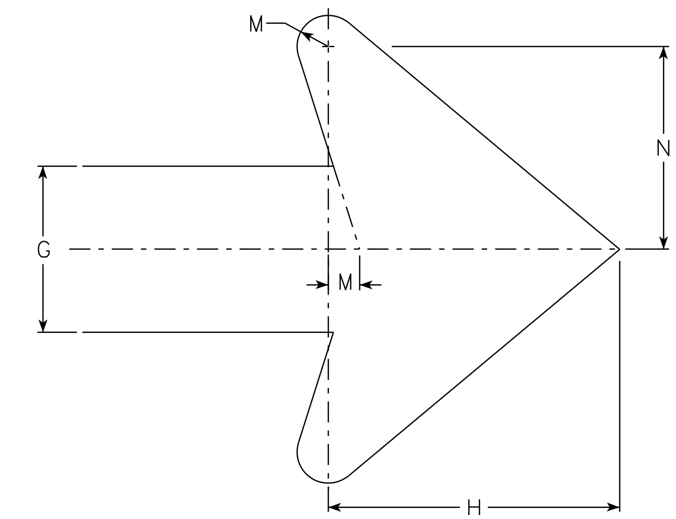
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 222 | E



M4-9R

NOTES

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



Arrow Detail

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

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

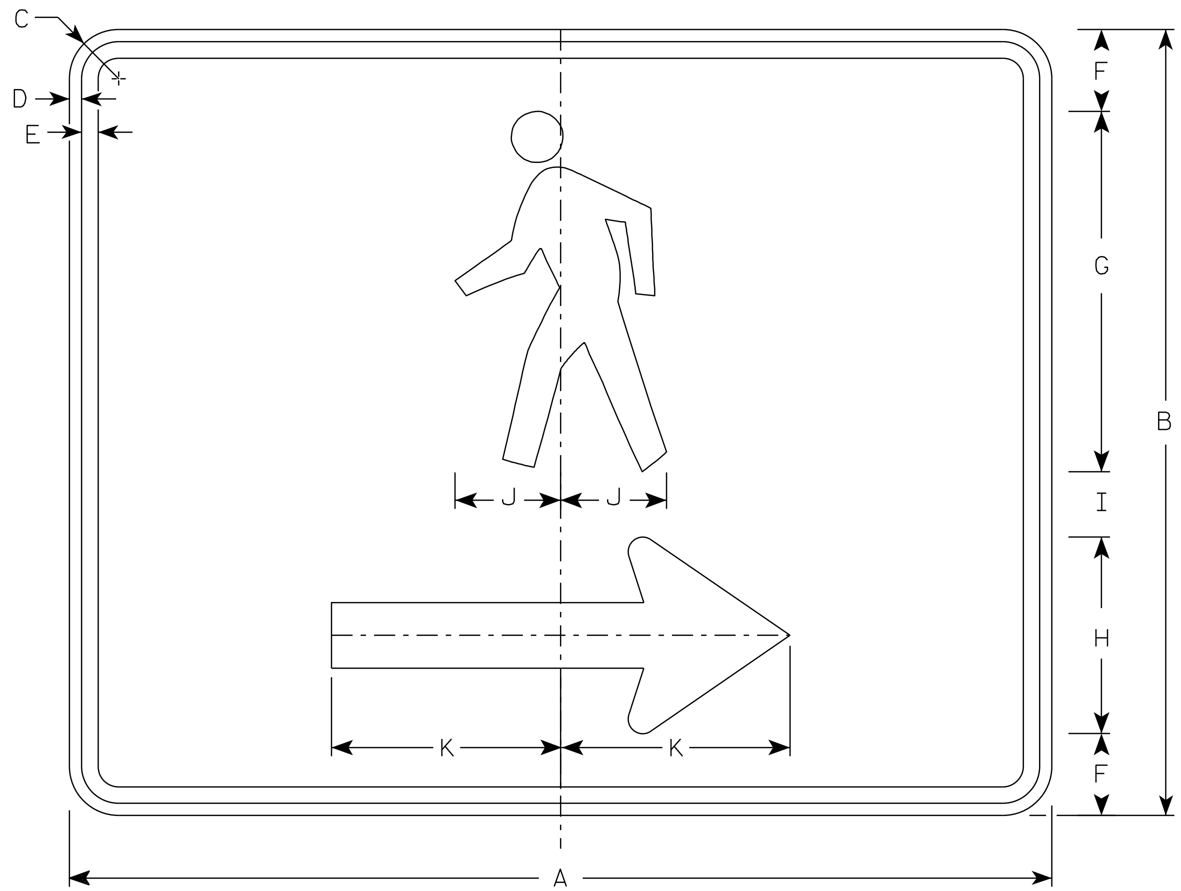
DATE 2/9/2023 PLATE NO. M4-9R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: | E

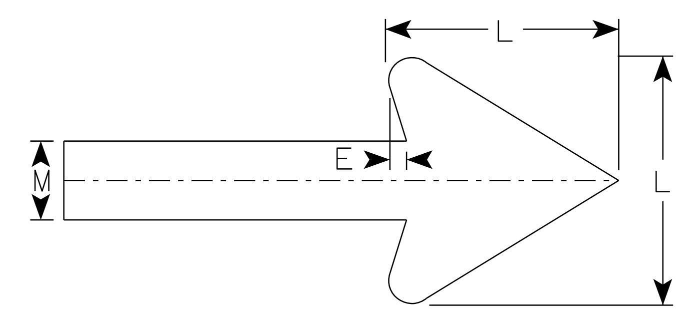
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M49R.dgn PLOT DATE : 21-MARCH 2023 1:40 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-60L is the same as M4-60R except the arrow is reversed.



M4-60R



Arrow Detail

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

STANDARD SIGN
M4-60 L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/2023 PLATE NO. M4-60.2

PROJECT NO: HWY: COUNTY:

SHEET NO: 224 E

7

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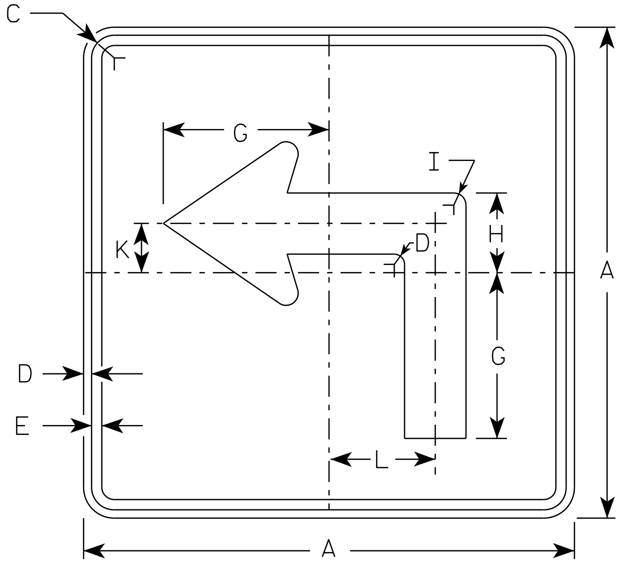
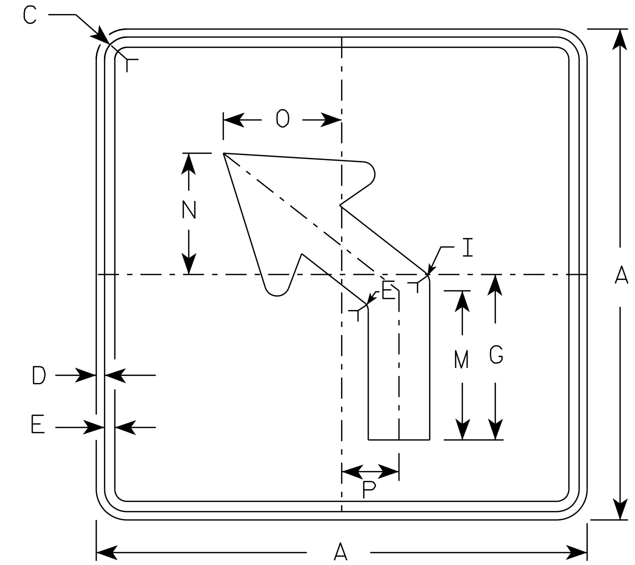
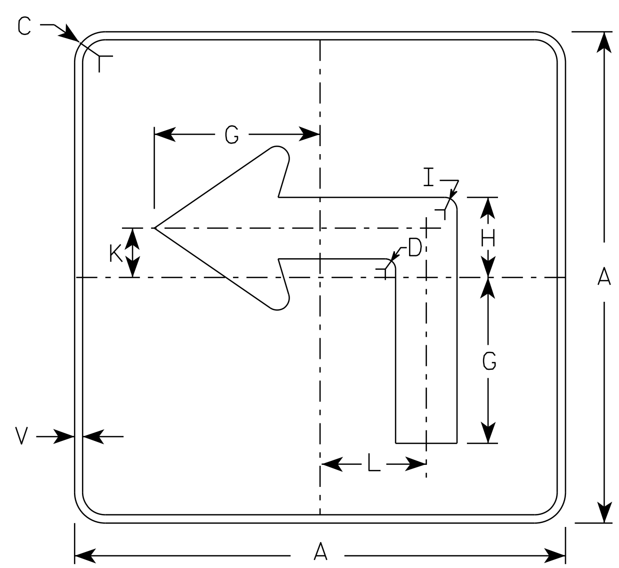


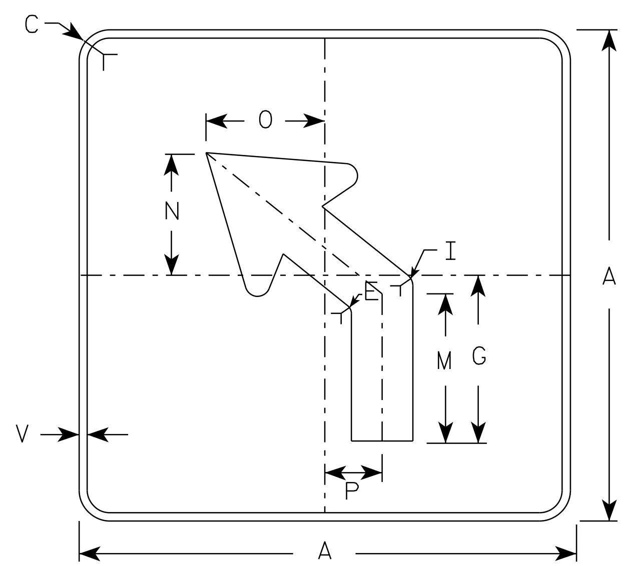
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



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

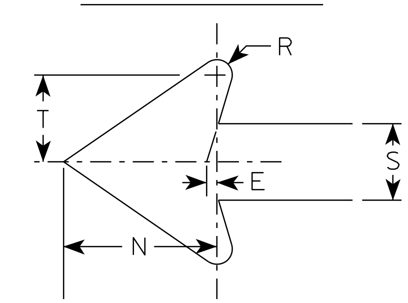


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. 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
   MO5-1 and MO5-2 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
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL



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

STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

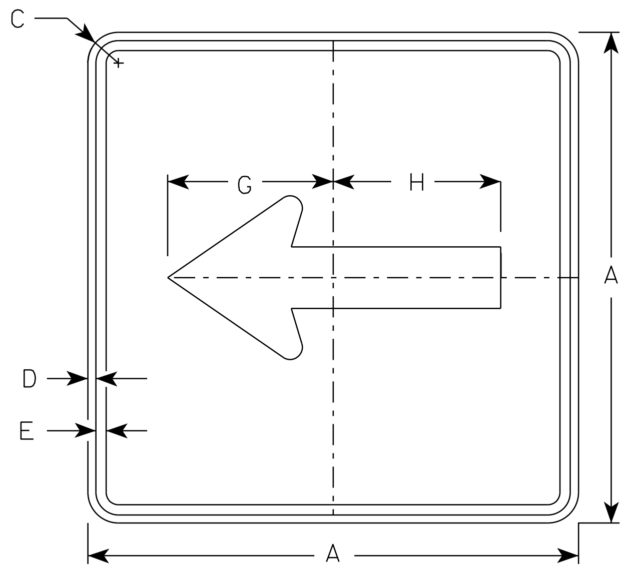
APPROVED Matthew R Rauch
for State Traffic Engineer

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

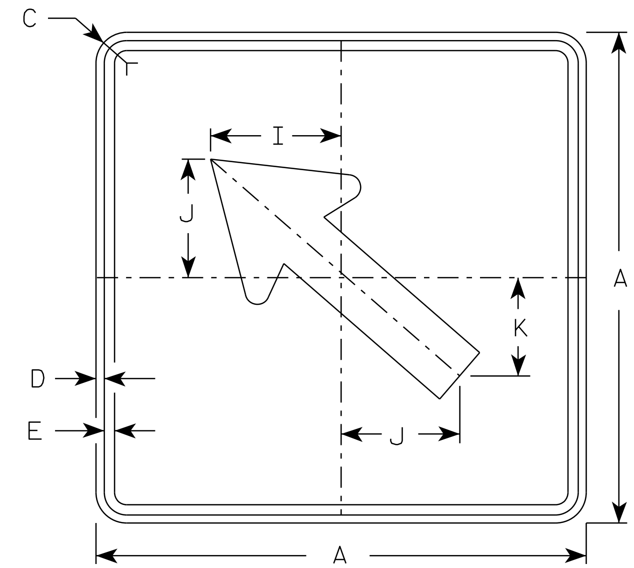
PROJECT NO: HWY: COUNTY: SHEET NO: 225 E

7

7



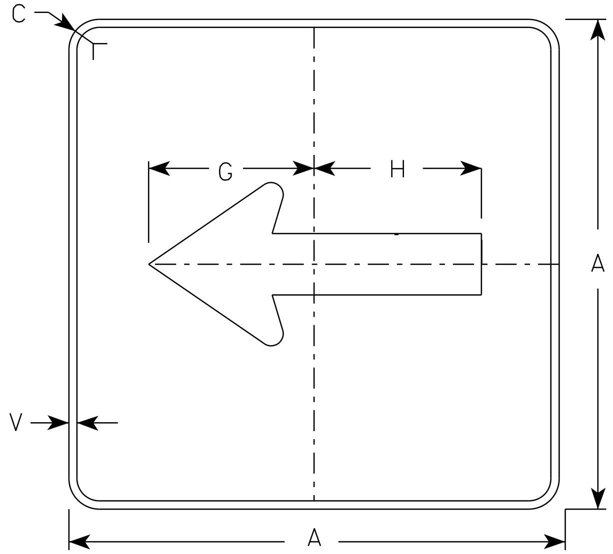
M6-1
MM6-1
MO6-1
MP6-1



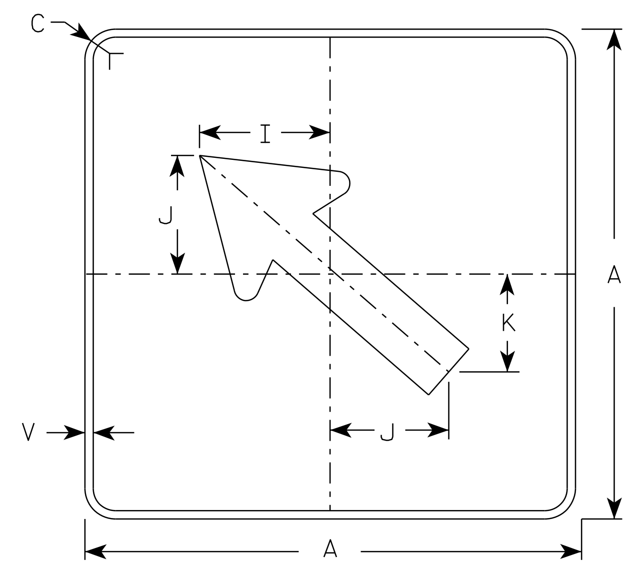
M6-2
MM6-2
MO6-2
MP6-2

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. 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
   MO6-1 and MO6-2 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

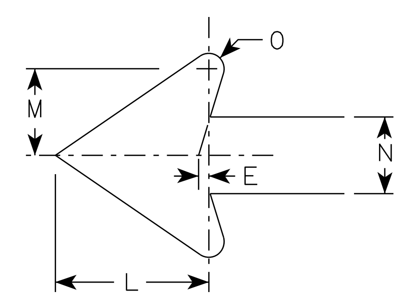


MB6-1
MK6-1
MN6-1
MR6-1



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

ARROW DETAIL



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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 226 | E

7

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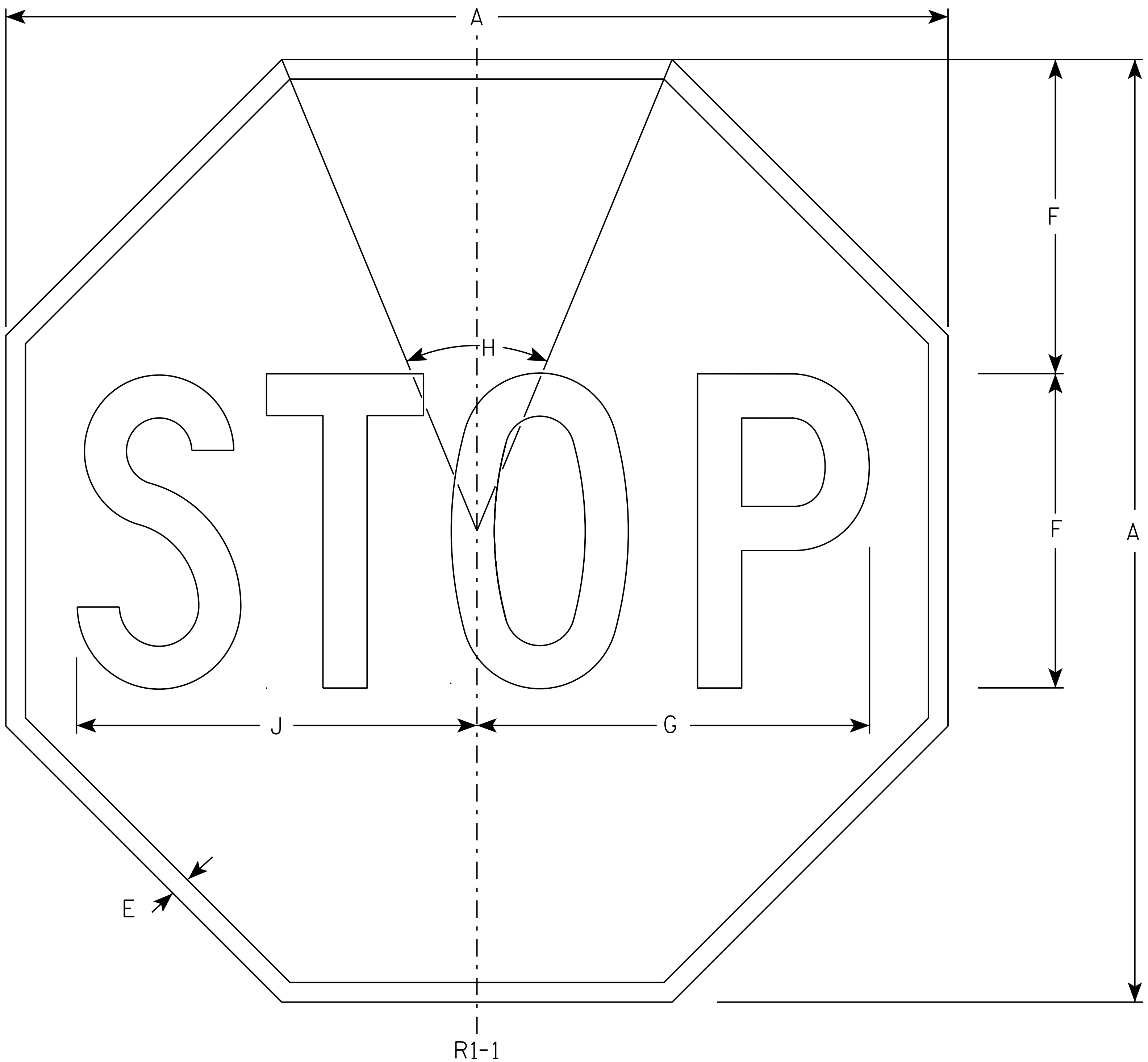


NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

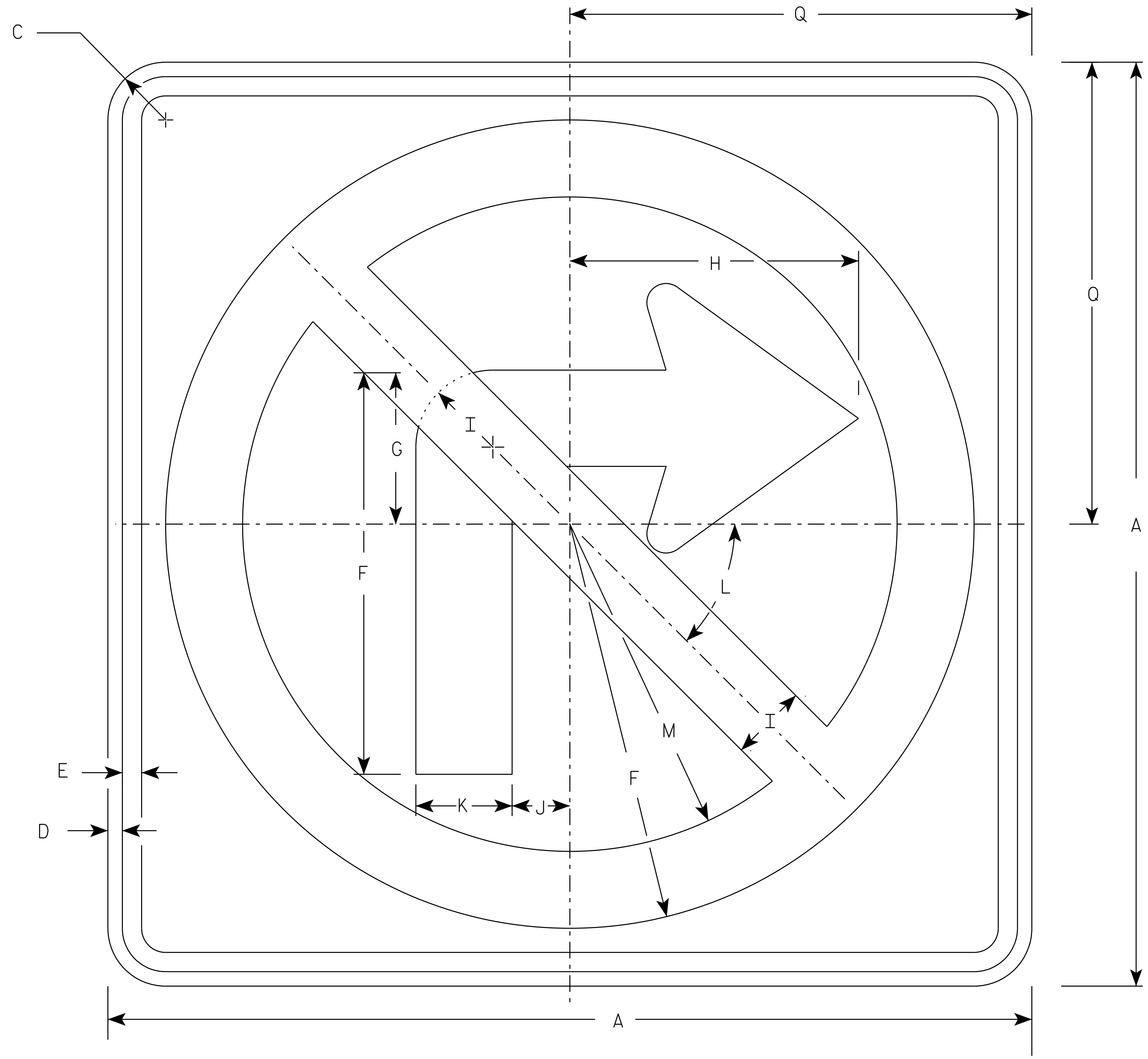
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

7

7

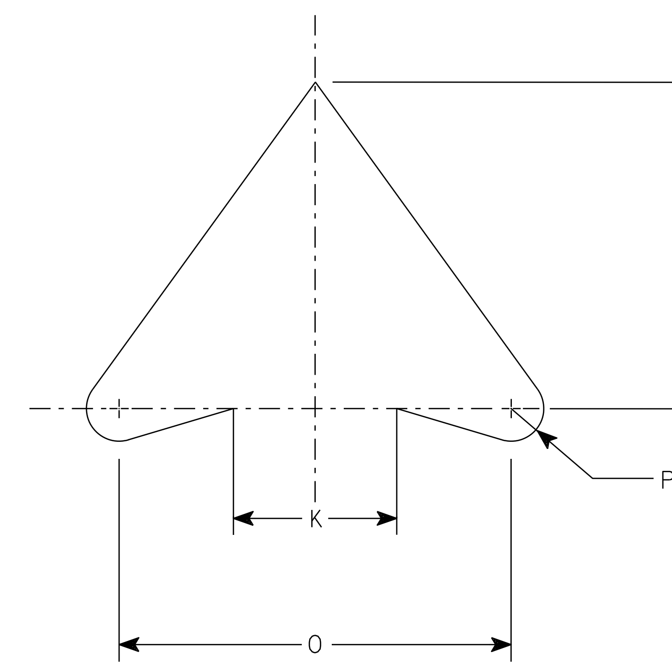
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 227 | E



R3-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

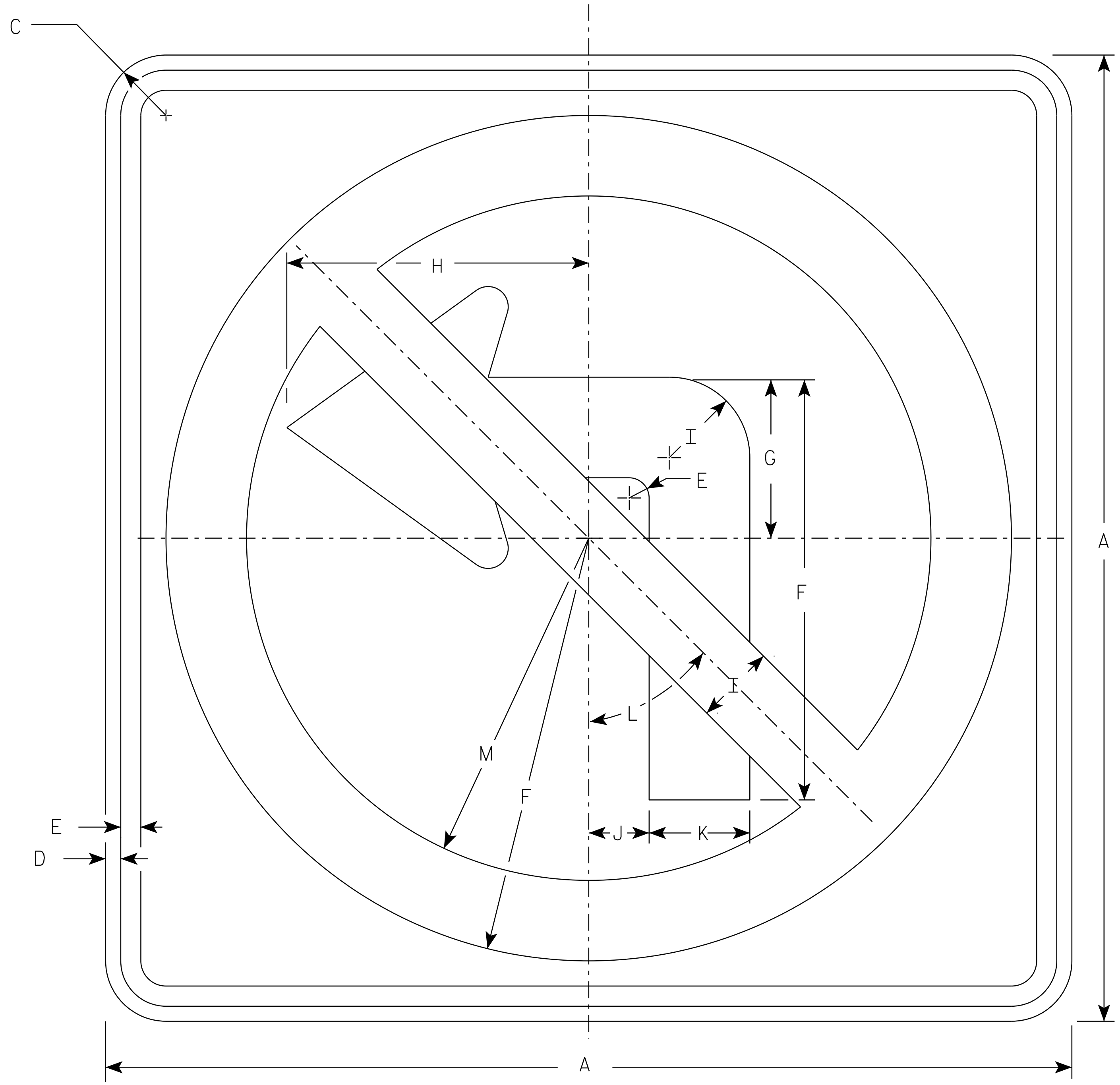
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/2/23 PLATE NO. R3-1.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 228 | E

7

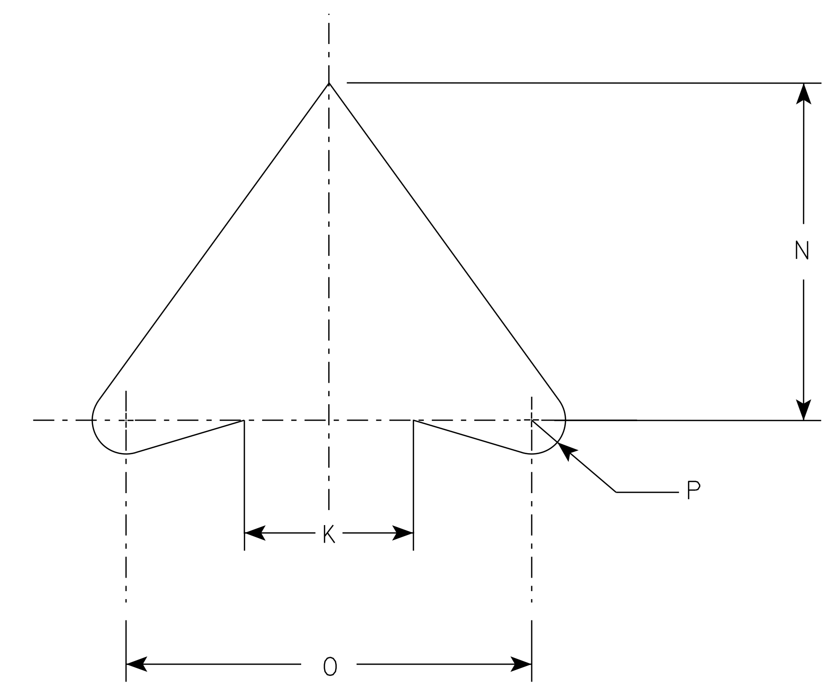
7



R3-2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

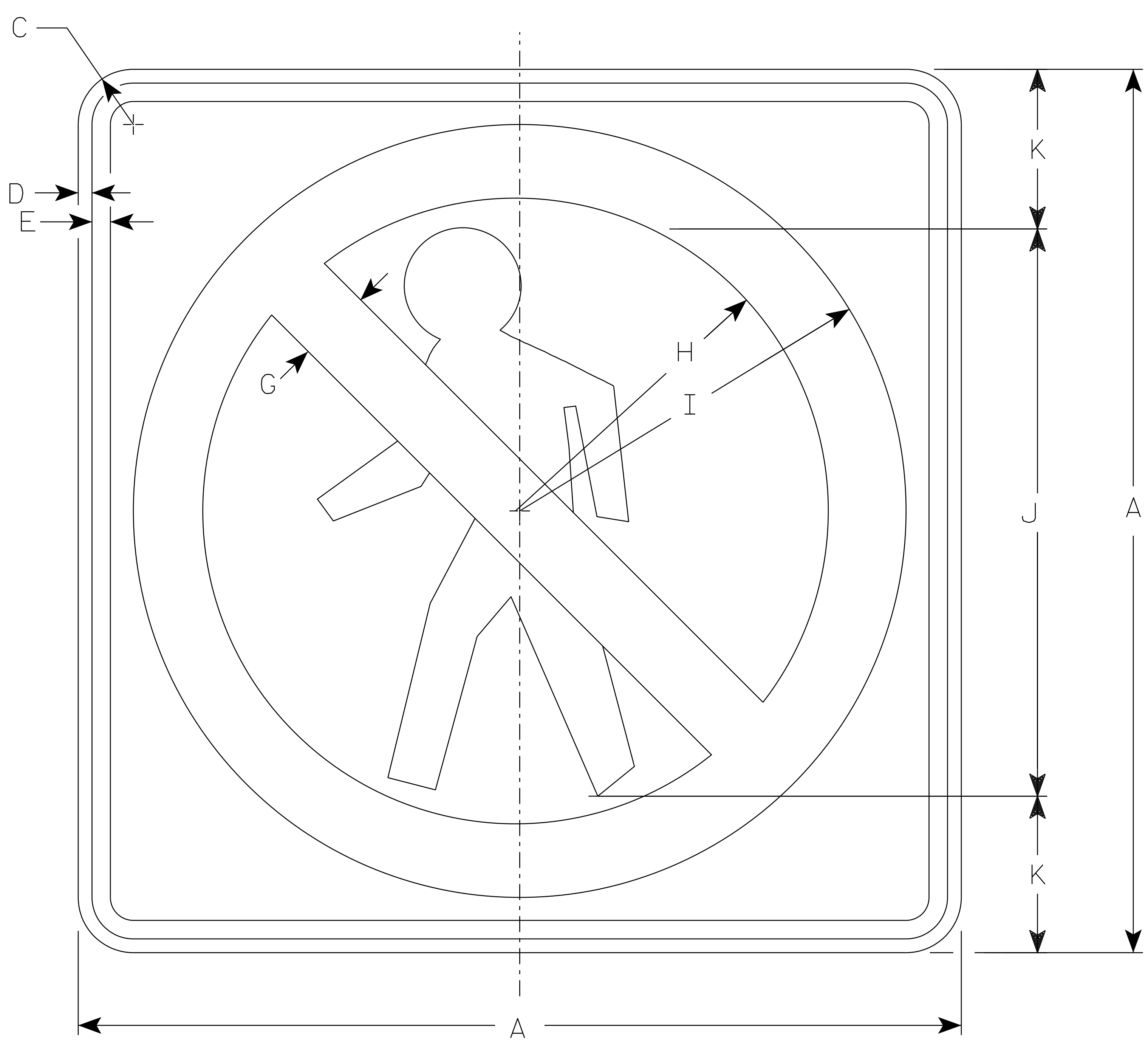
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/2/23 PLATE NO. R3-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 229 | E



R9-3A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. Border & Pedestrian are non-reflective black.
   Circle with diagonal bar is reflective red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/2	3/8	3/8		1 1/2	6 1/4	7 7/8	12	3																2.25
2S	24		1 1/2	3/8	1/2		2	8 1/2	10 1/2	15	4																4.00
2M	24		1 1/2	3/8	1/2		2	8 1/2	10 1/2	15	4																4.00
3																											
4																											
5																											

STANDARD SIGN
R9-3A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/23/24 PLATE NO. R9-3A.4

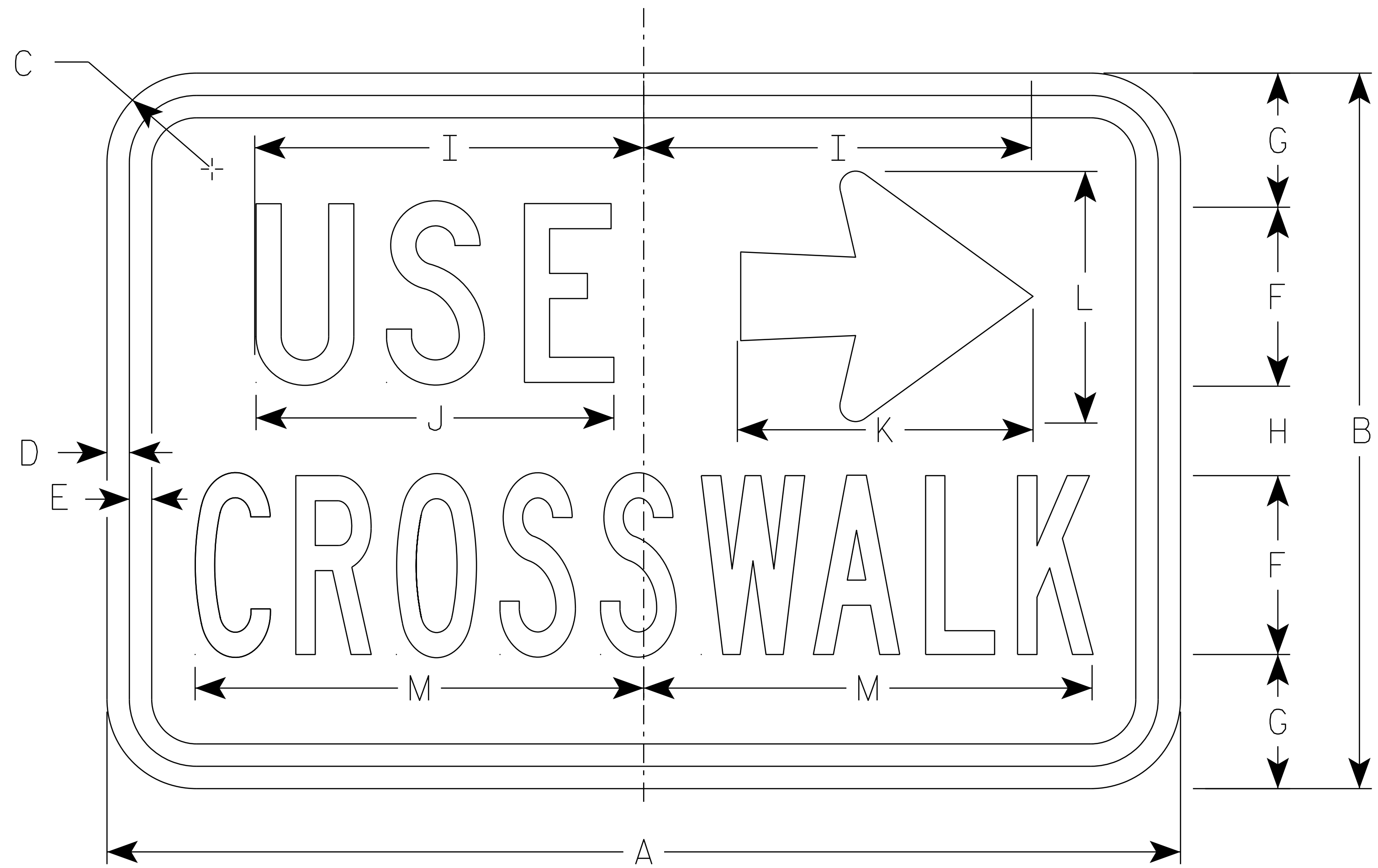
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 230 | E

7

7

NOTES

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



R9-3B

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	18	12	1 1/2	3/8	3/8	3	2 1/4	1 1/2	6 1/2	6	5	4 1/4	7 1/2														1.5
2M	18	12	1 1/2	3/8	3/8	3	2 1/4	1 1/2	6 1/2	6	5	4 1/4	7 1/2														1.5
3																											
4																											
5																											

STANDARD SIGN
R9-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/23/24 PLATE NO. R9-3B.3

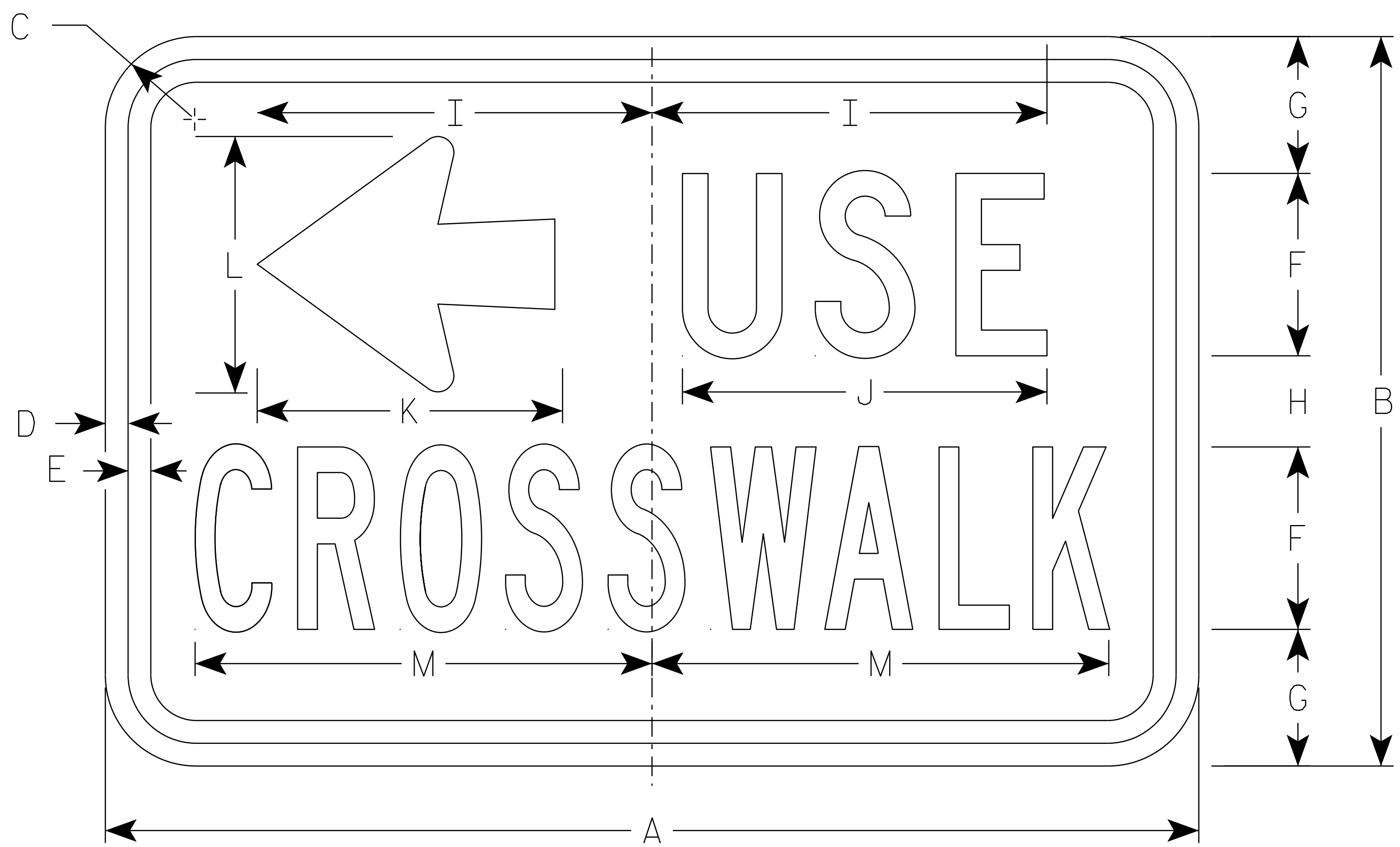
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 231 | E

7

7

NOTES

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



R9-3BL

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	18	12	1 1/2	3/8	3/8	3	2 1/4	1 1/2	6 1/2	6	5	4 1/4	7 1/2														1.5
2M	18	12	1 1/2	3/8	3/8	3	2 1/4	1 1/2	6 1/2	6	5	4 1/4	7 1/2														1.5
3																											
4																											
5																											

STANDARD SIGN
R9-3BL

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

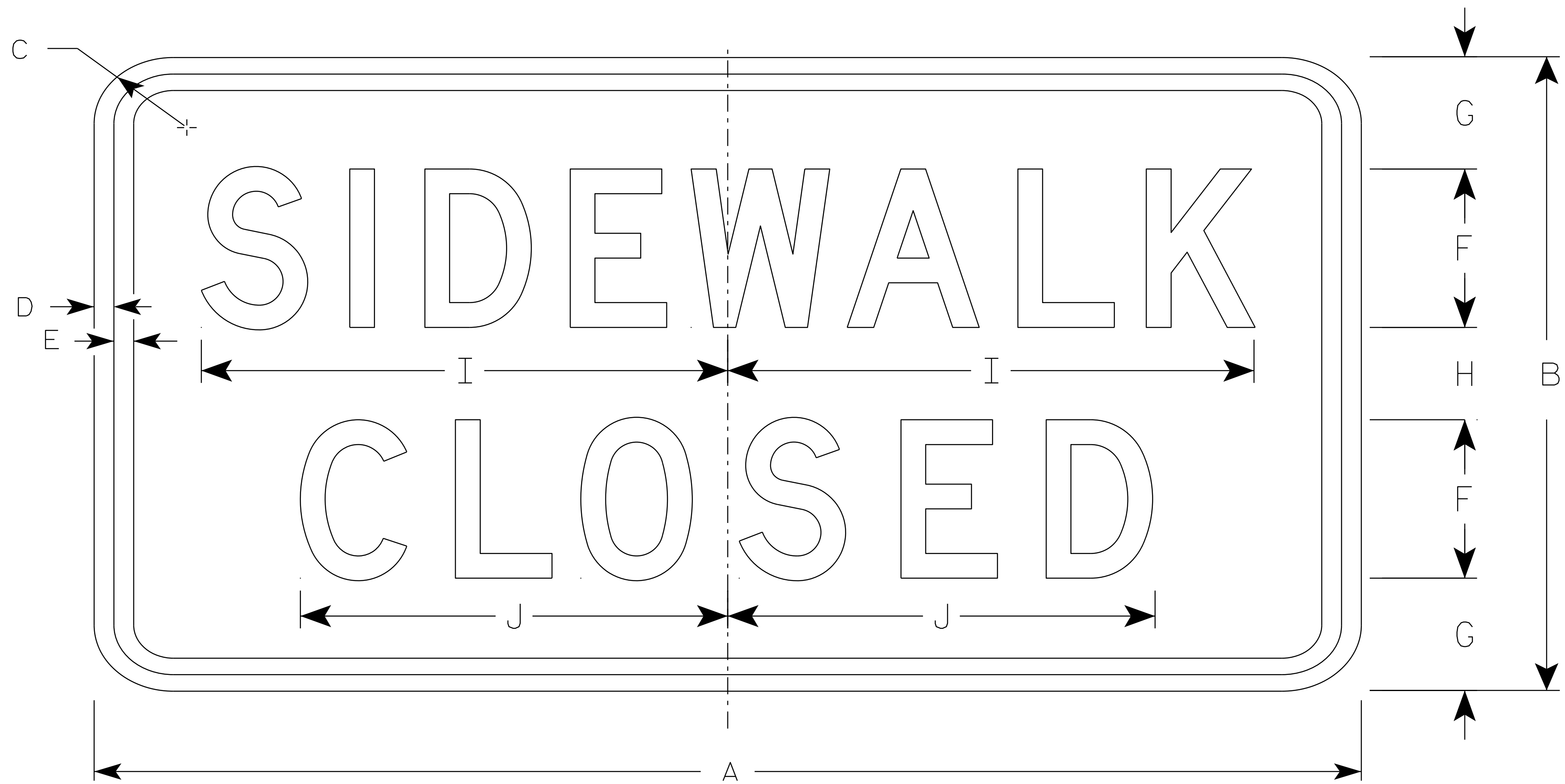
DATE 1/23/24 PLATE NO. R9-3BL.2

PROJECT NO: HWY: COUNTY: SHEET NO: 232 E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R39BL.dgn PLOT DATE : 23-JAN 2024 1:57 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7



R9-9

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

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	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 1/2	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

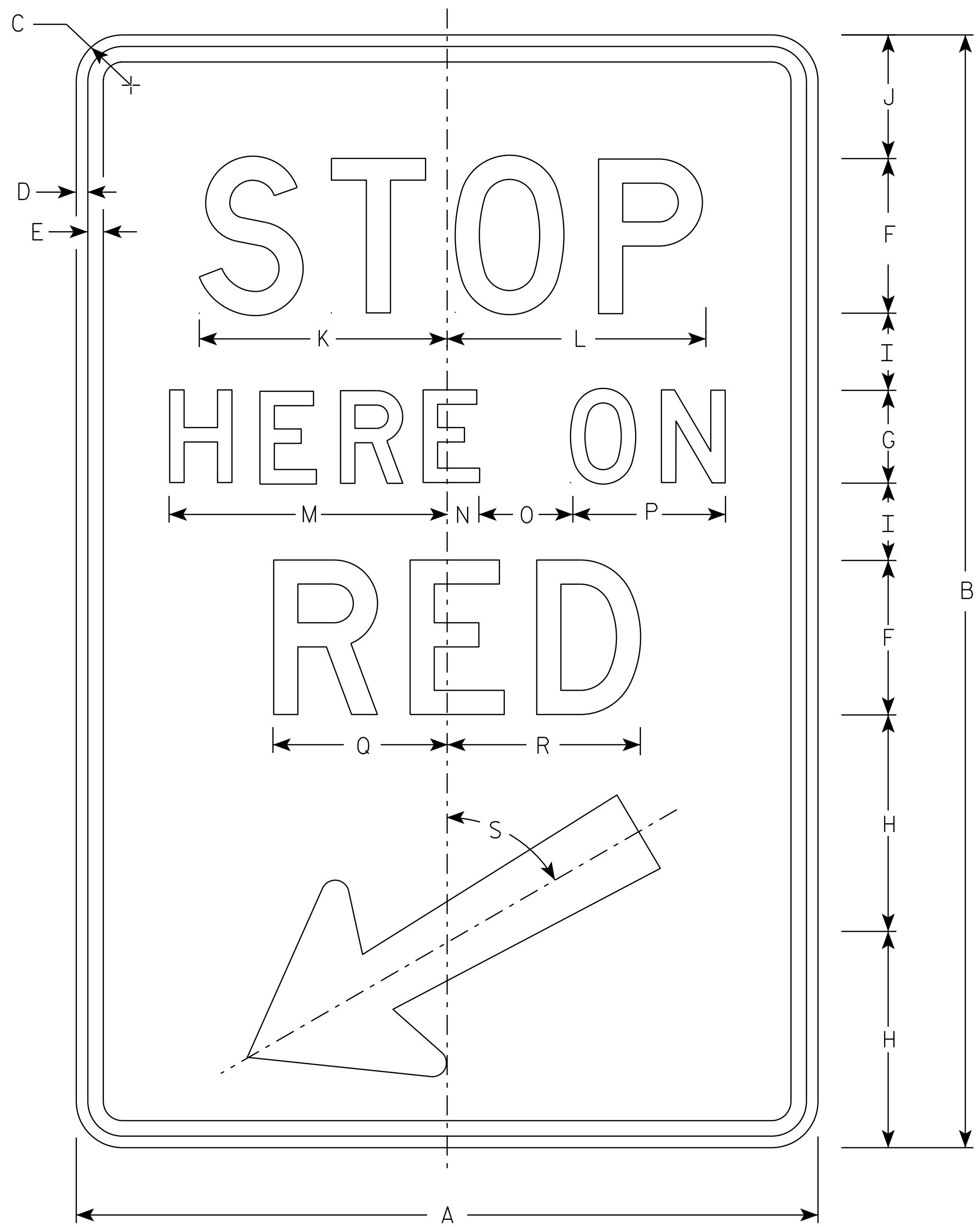
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9.7

PROJECT NO: HWY: COUNTY: SHEET NO: 233 E

7

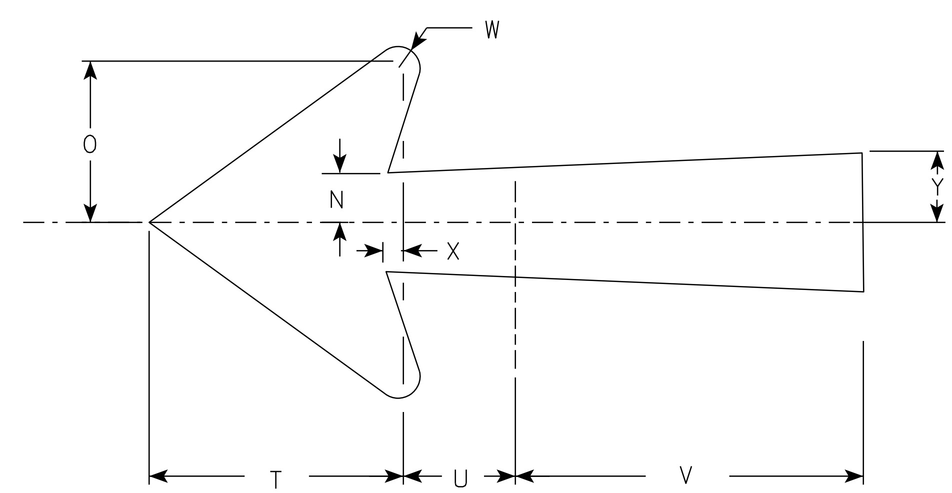
7



R10-6

NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/2	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
2M	24	36	1 1/2	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
3																											
4																											
5																											

STANDARD SIGN R10-6

WISCONSIN DEPT OF TRANSPORTATION

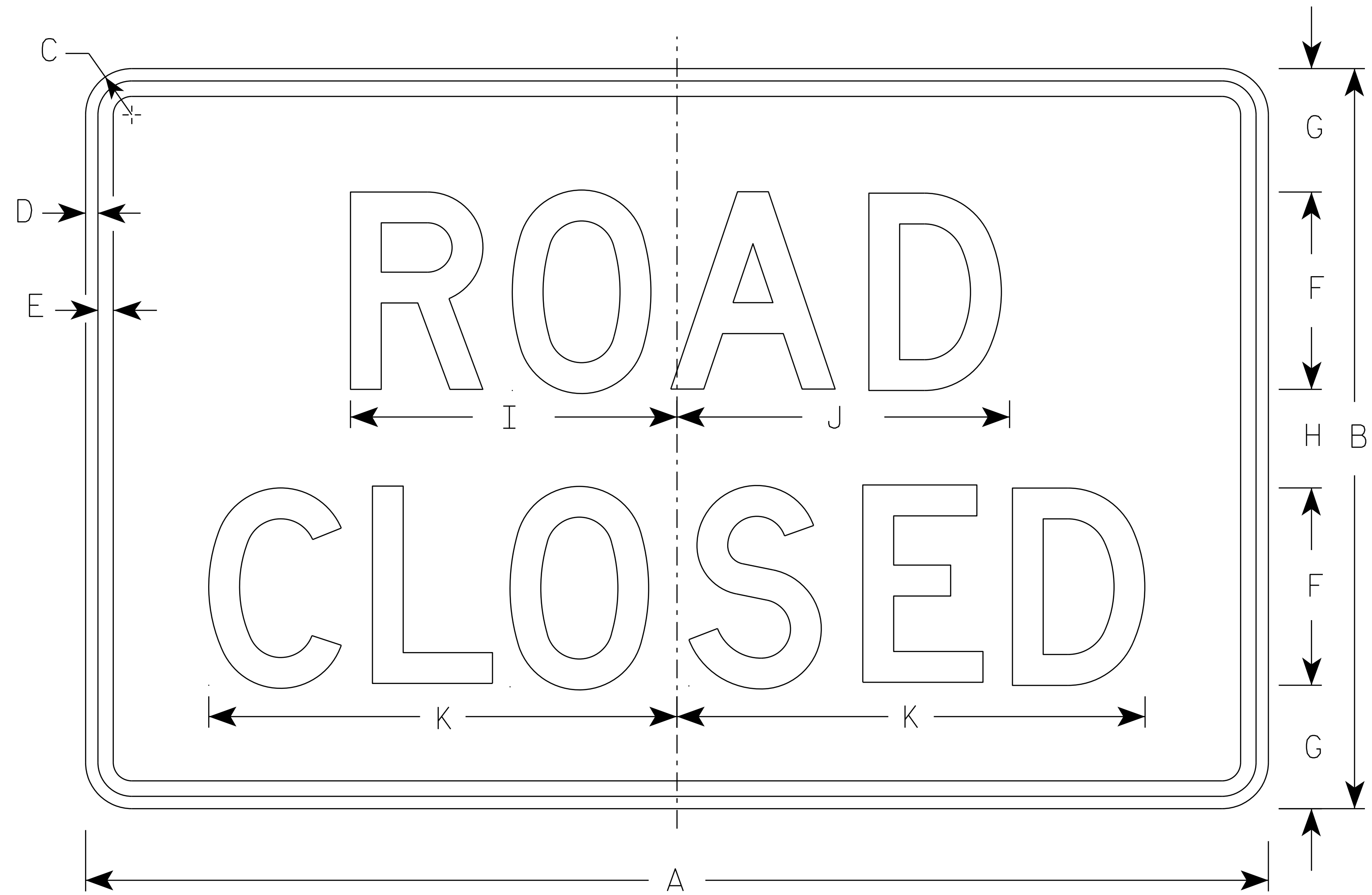
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 1/25/24 PLATE NO. R10-6.7

PROJECT NO: HWY: COUNTY: SHEET NO: 234 E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R106.dgn PLOT DATE : 25-JAN 2024 11:01 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

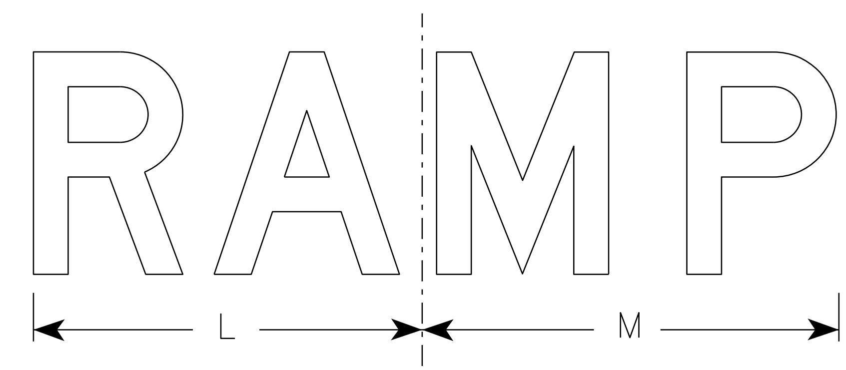
7



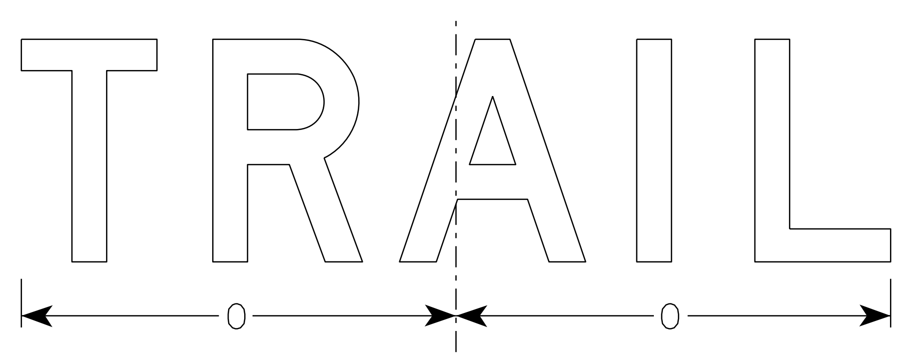
R11-2

NOTES

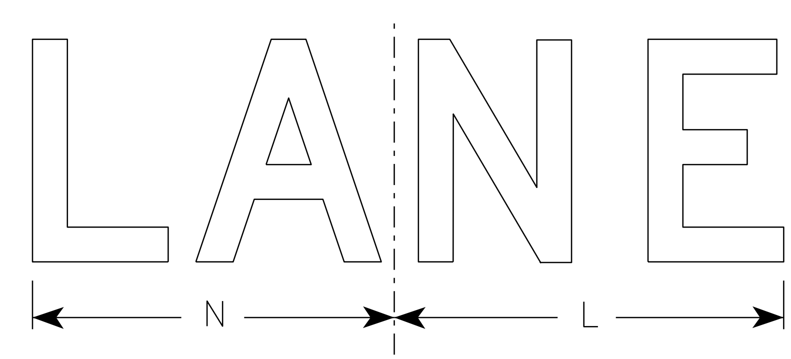
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



R11-2L

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	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2.12

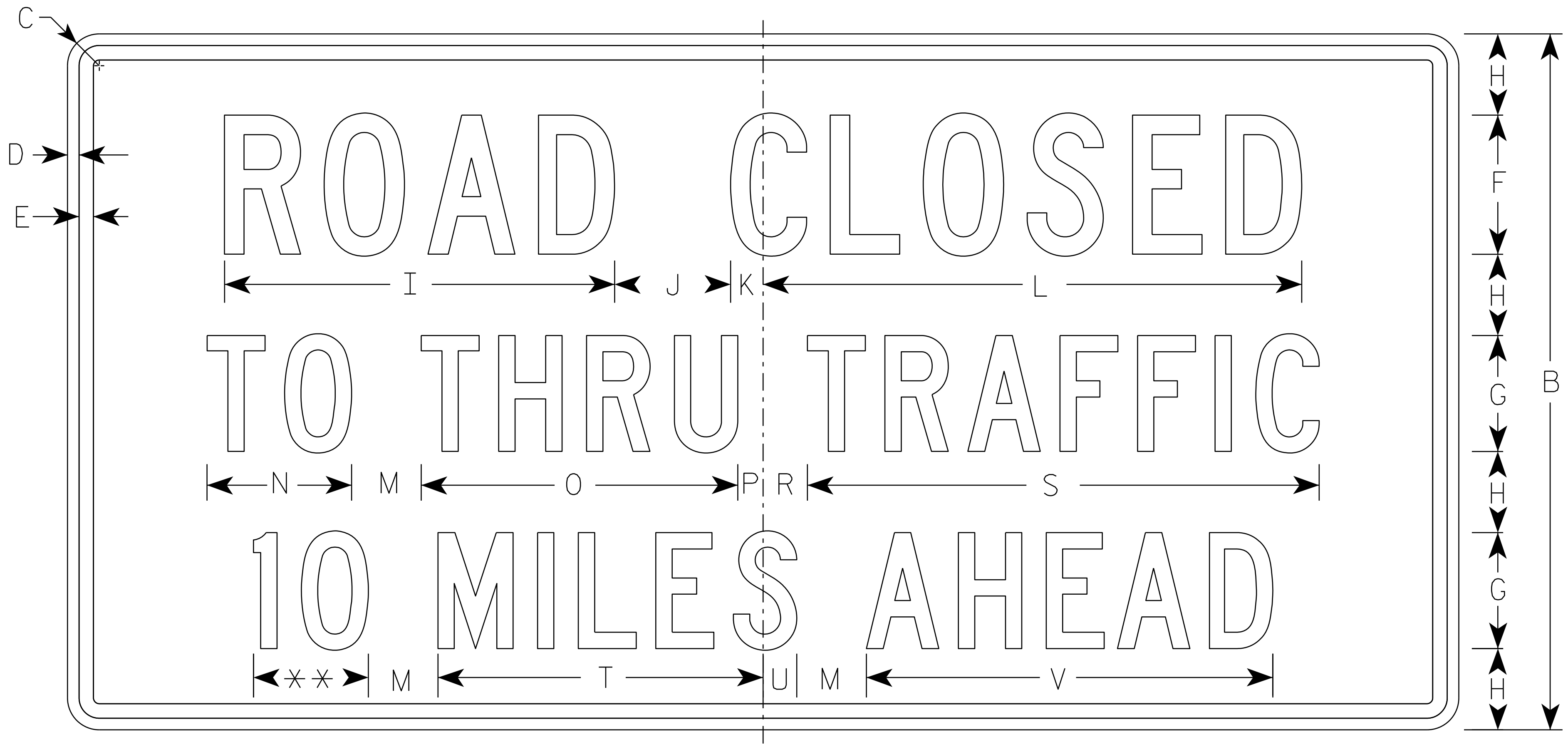
7

7

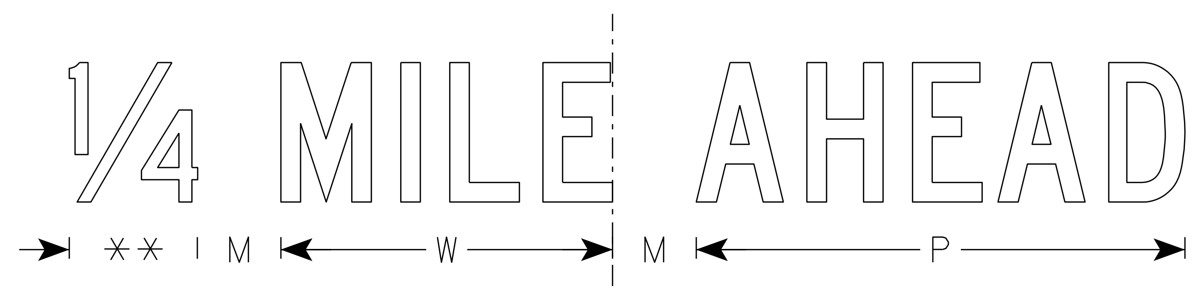
PROJECT NO: HWY: COUNTY: SHEET NO: E

NOTES

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

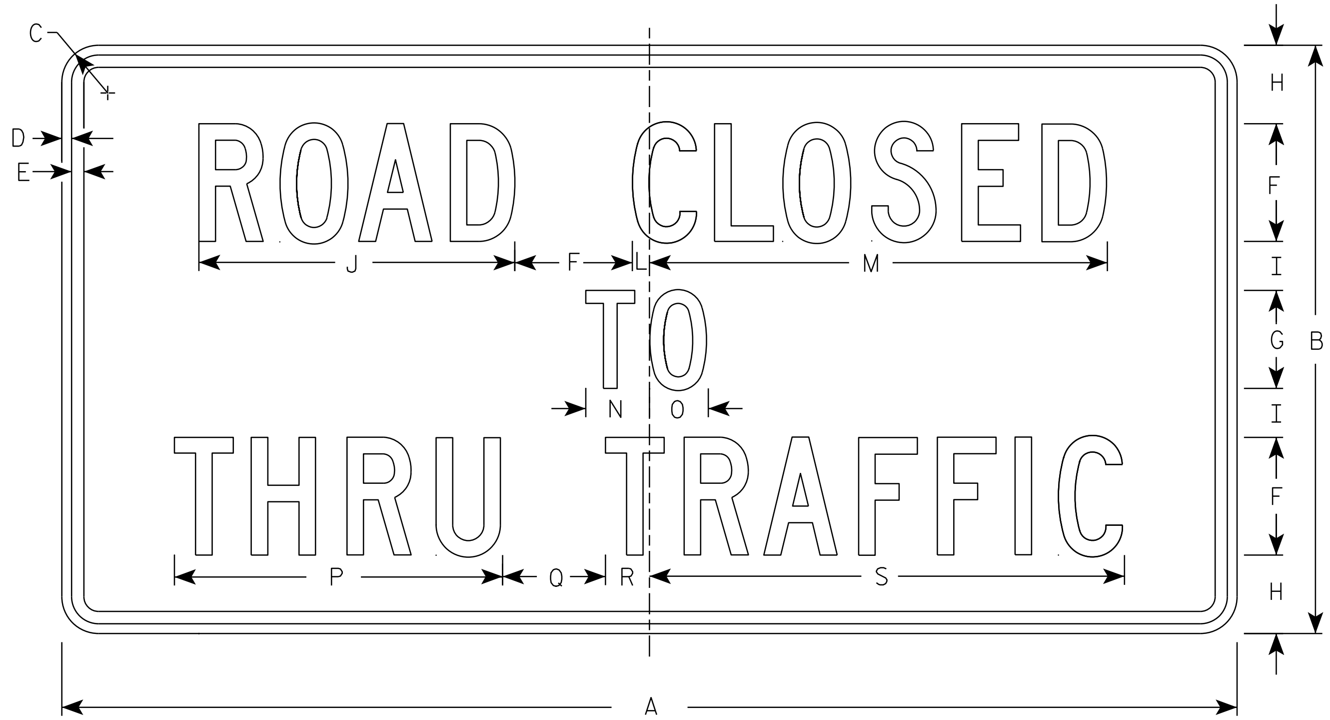
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: HWY: COUNTY: SHEET NO: 236 E

7

7



R11-4

NOTES

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

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

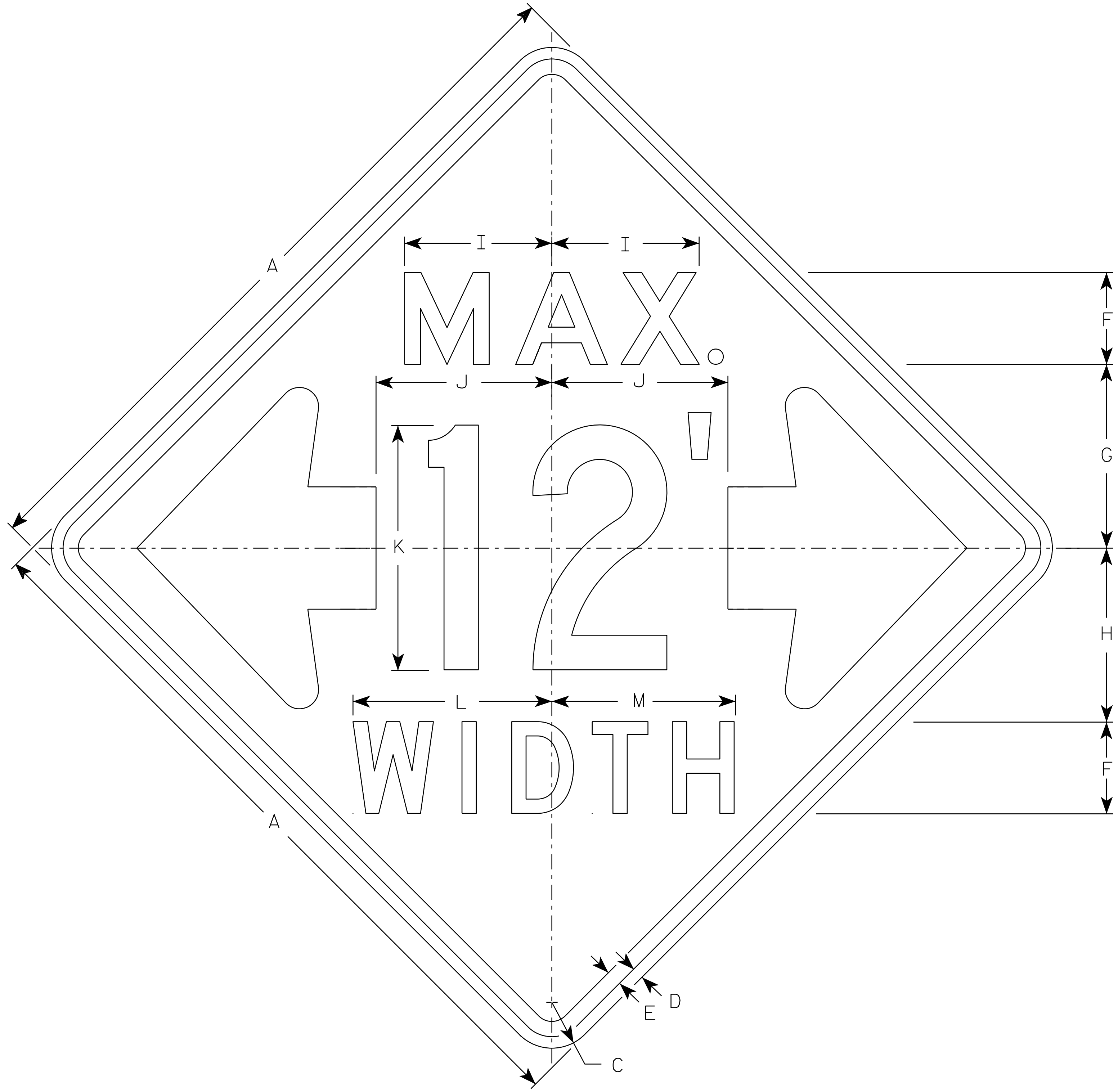
DATE 2/5/24 PLATE NO. R11-4.4

PROJECT NO: HWY: COUNTY:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R114.dgn PLOT DATE : 5-FEB 2024 2:54 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

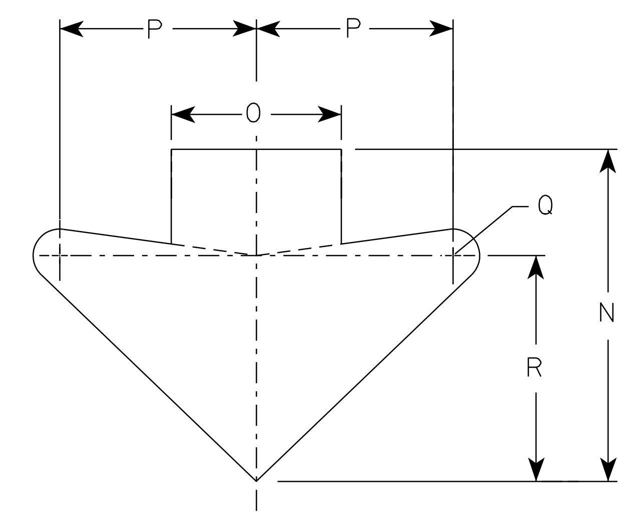
7



W12-52

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. The top line is series E, the numerals are series C, and the bottom line is series D.
5. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

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

STANDARD SIGN
W12-52

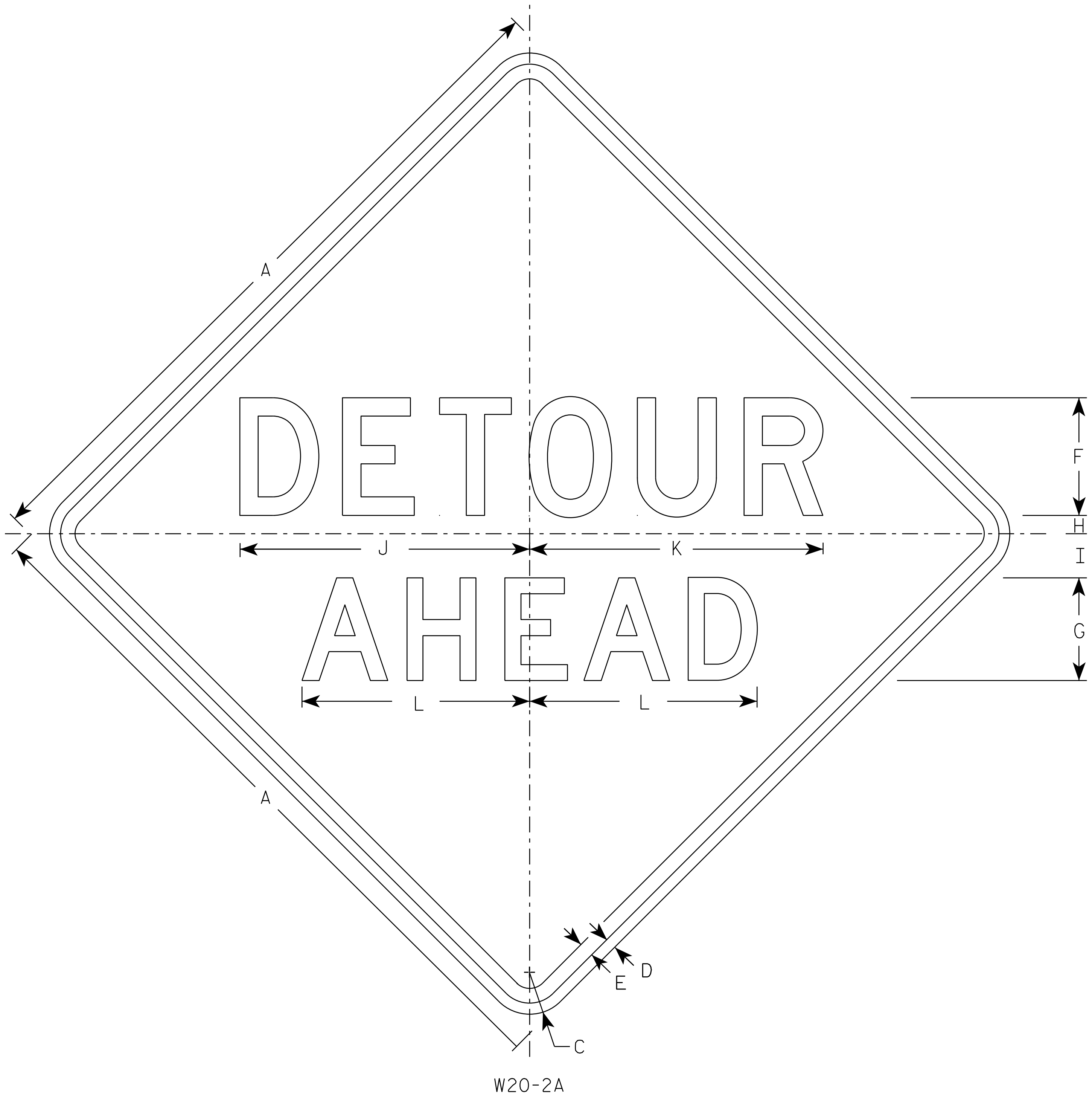
WISCONSIN DEPT OF TRANSPORTATION

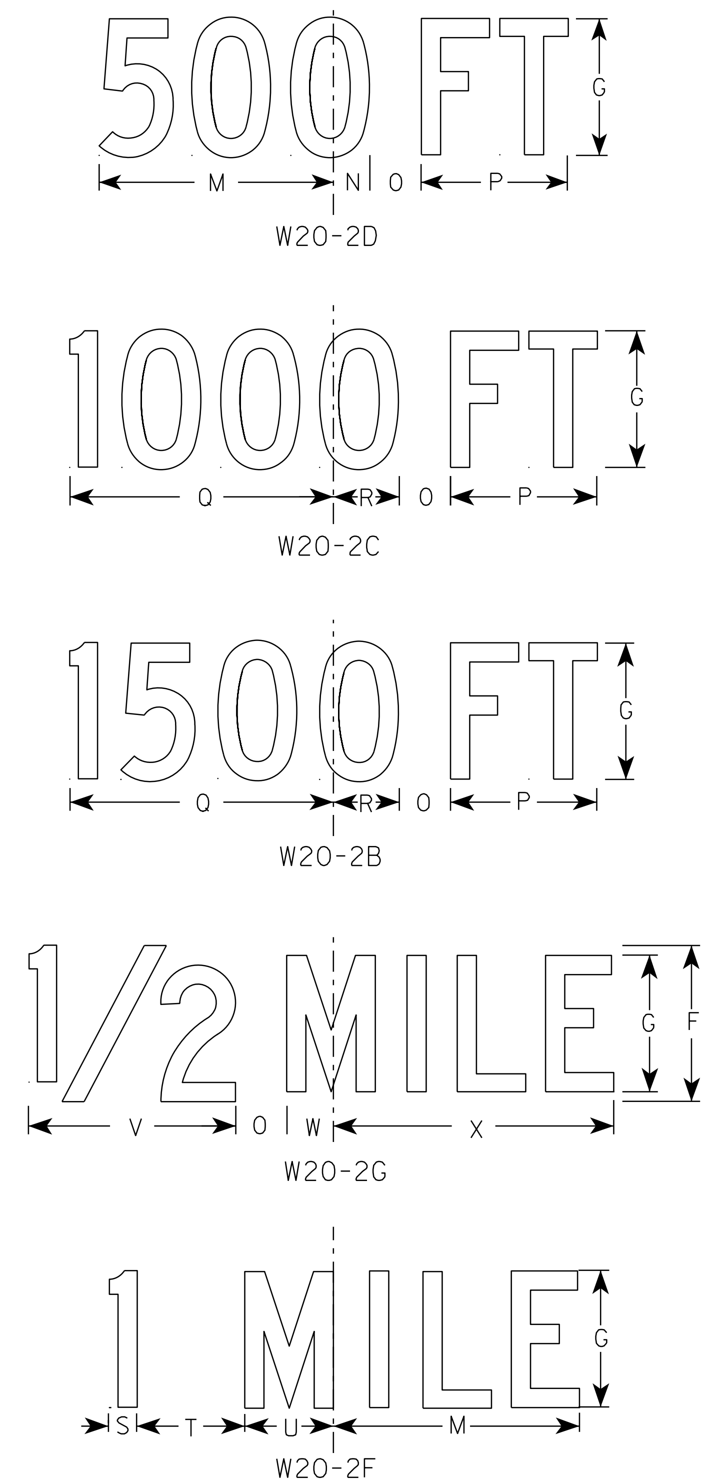
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/2024 PLATE NO. W12-52.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 238 | E

7 7





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.

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

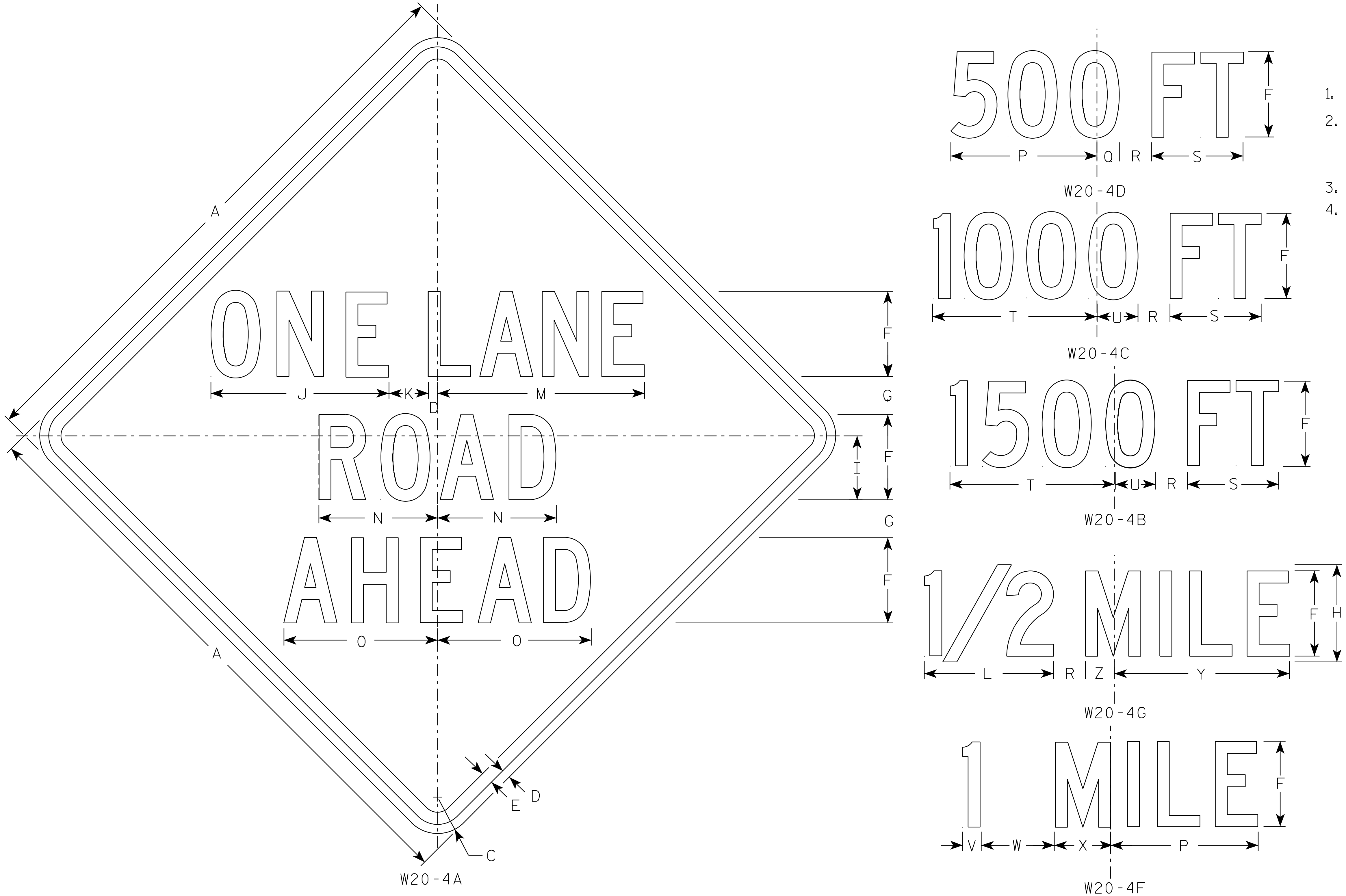
APPROVED Matthew R Rauch
for State Traffic Engineer

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

7

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 - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

STANDARD SIGN
W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

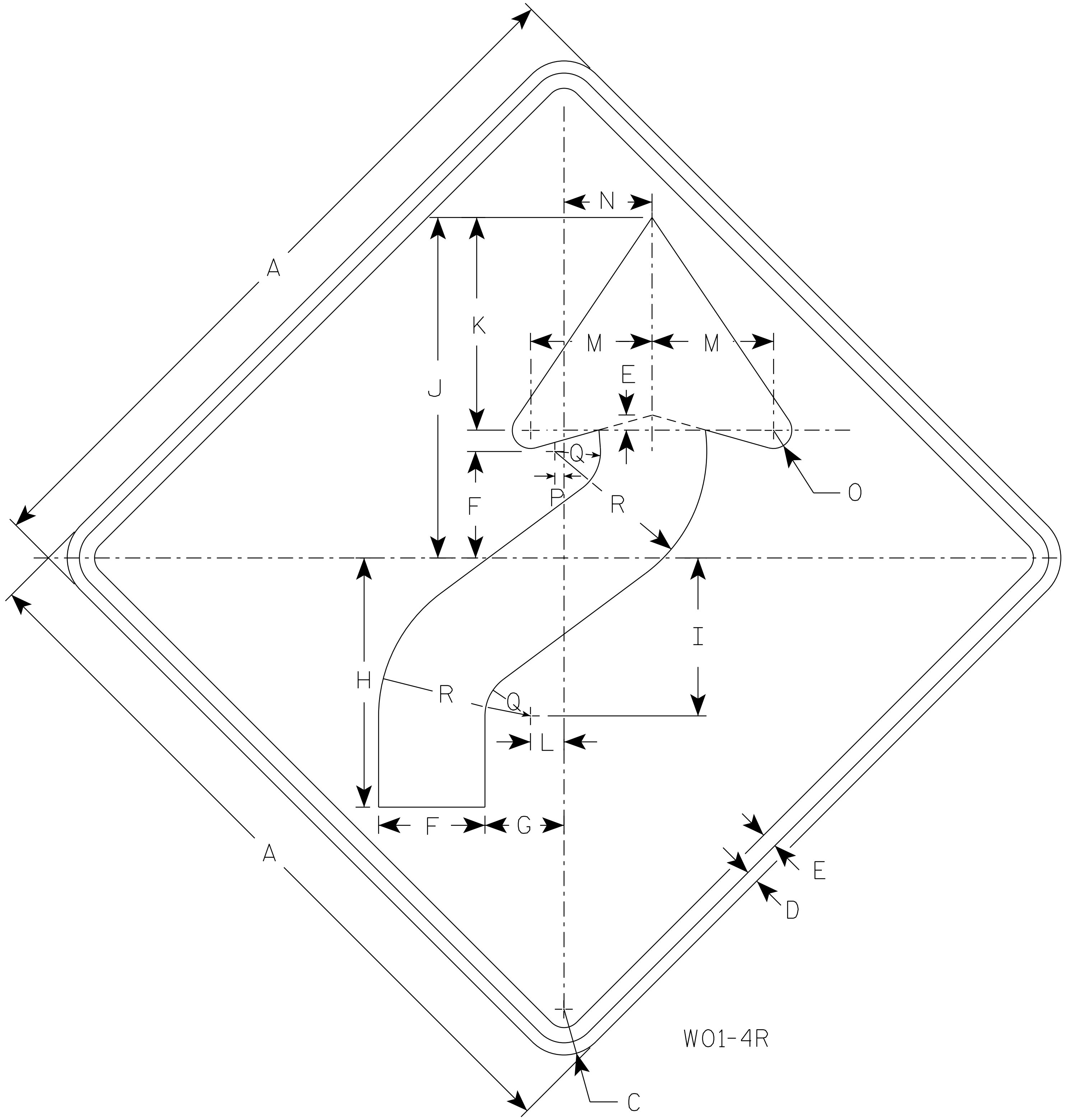
DATE 1/10/2024 PLATE NO. W20-4.10

7

7

PROJECT NO:

SHEET NO: E



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

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 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

WISCONSIN DEPT OF TRANSPORTATION

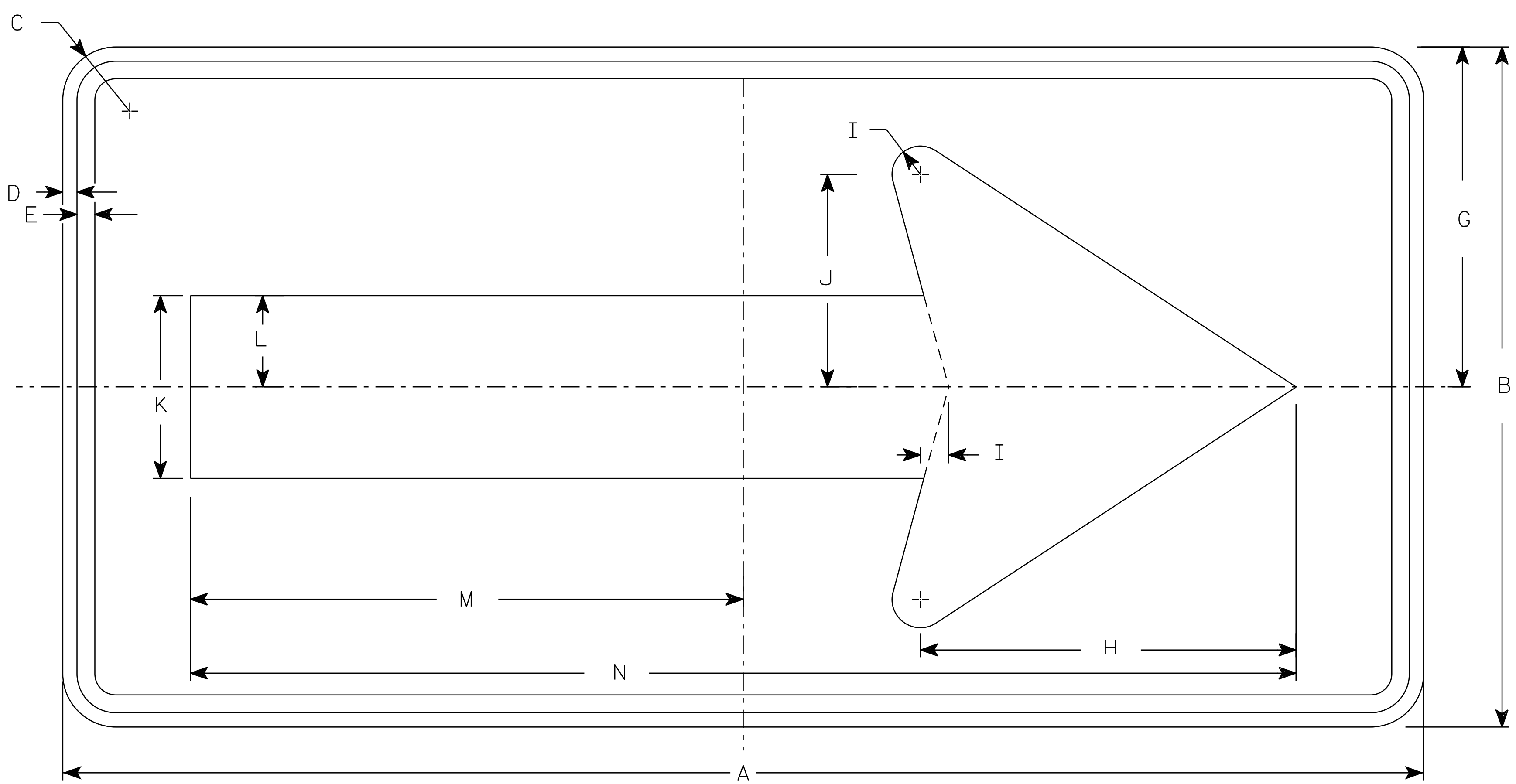
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-4.2

7

7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 241 | E



W01-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

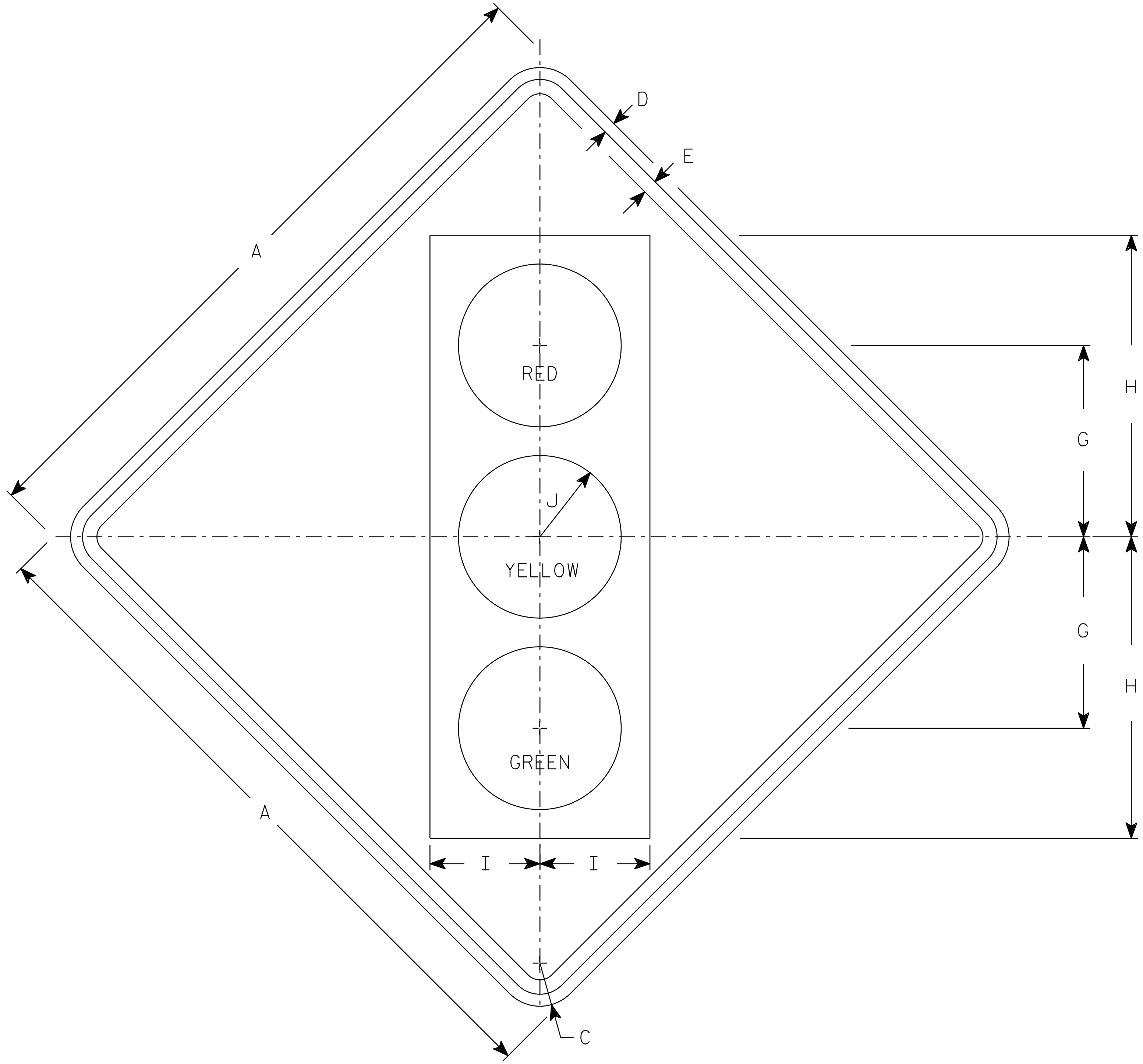
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-6.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 242 | E

7

7



W03-3

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

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

STANDARD SIGN
W03-3

WISCONSIN DEPT OF TRANSPORTATION

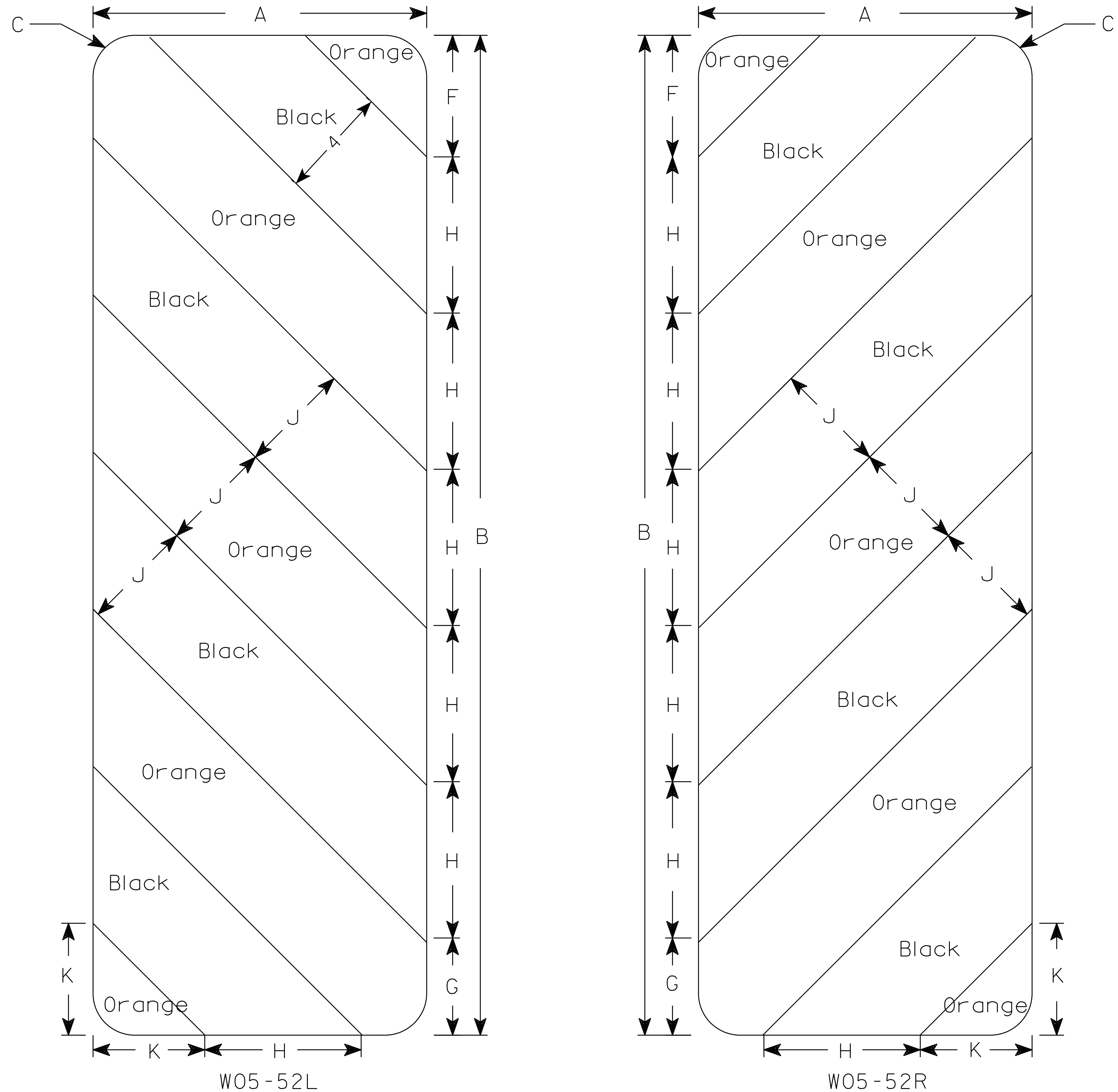
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W03-3.2

PROJECT NO: HWY: COUNTY: SHEET NO: 243 E

7

7



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
4. Alternate colors of stripes as shown.

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	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

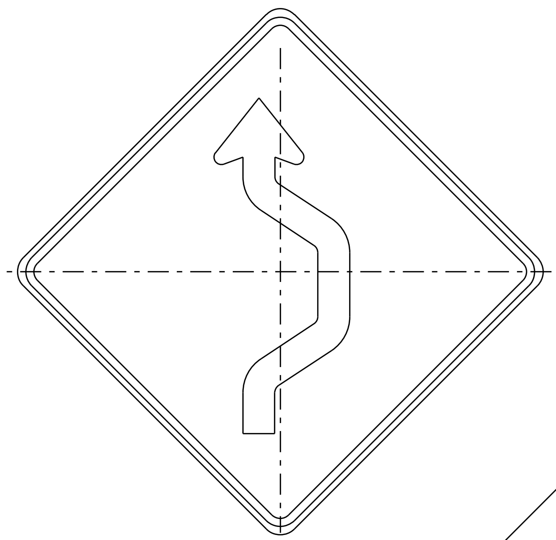
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 3/13/2024 PLATE NO. W05-52.2

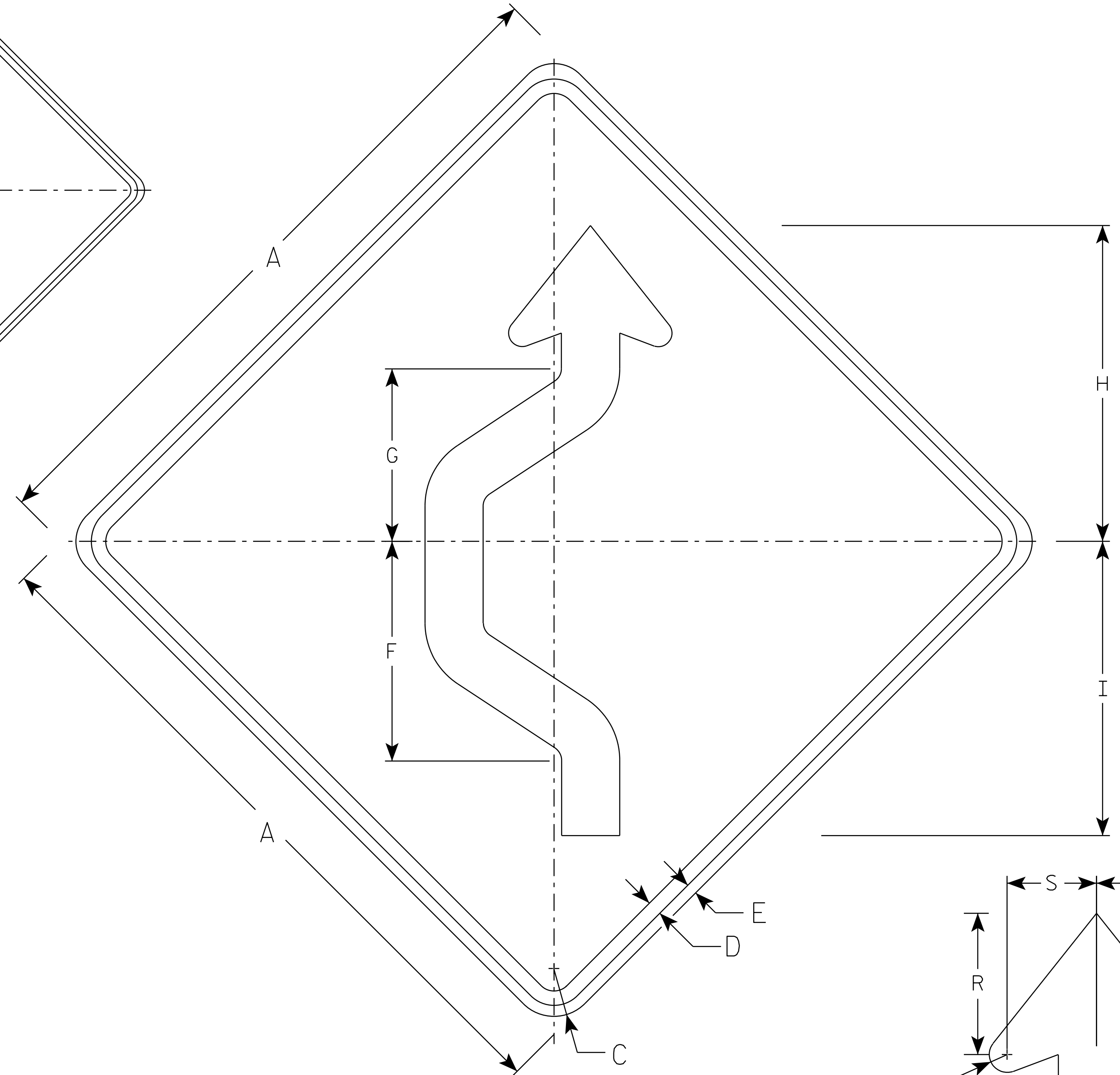
PROJECT NO: HWY: COUNTY: SHEET NO: 244 E

7

7



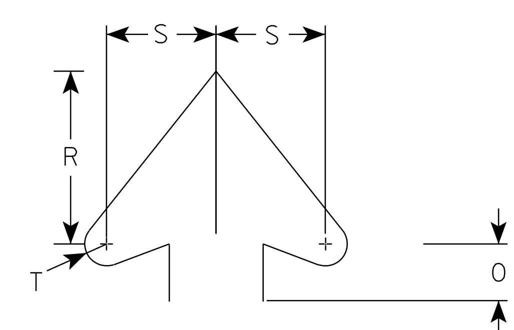
W024-1R



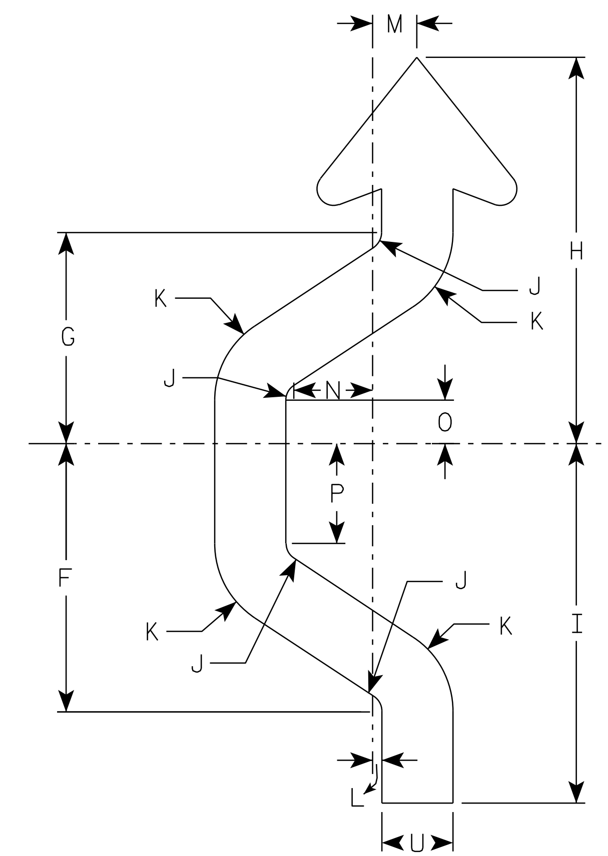
W024-1L

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W024-1R is the same as W024-1L except reversed along the vertical centerline.



Arrowhead Detail



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	1/2	11 3/8	8 7/8	16 3/8	15 1/4	3/4	3 3/4	3/8	2	3 3/8	1 7/8	4 1/4		5 1/2	3 1/2	5/8	3						9.0
2S	48		3	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16.0
2M	48		3	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16.0
3	48		3	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16.0
4	48		3	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16.0
5	48		3	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16.0

STANDARD SIGN
W024-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W024-1.2

PROJECT NO: HWY: COUNTY: SHEET NO: E

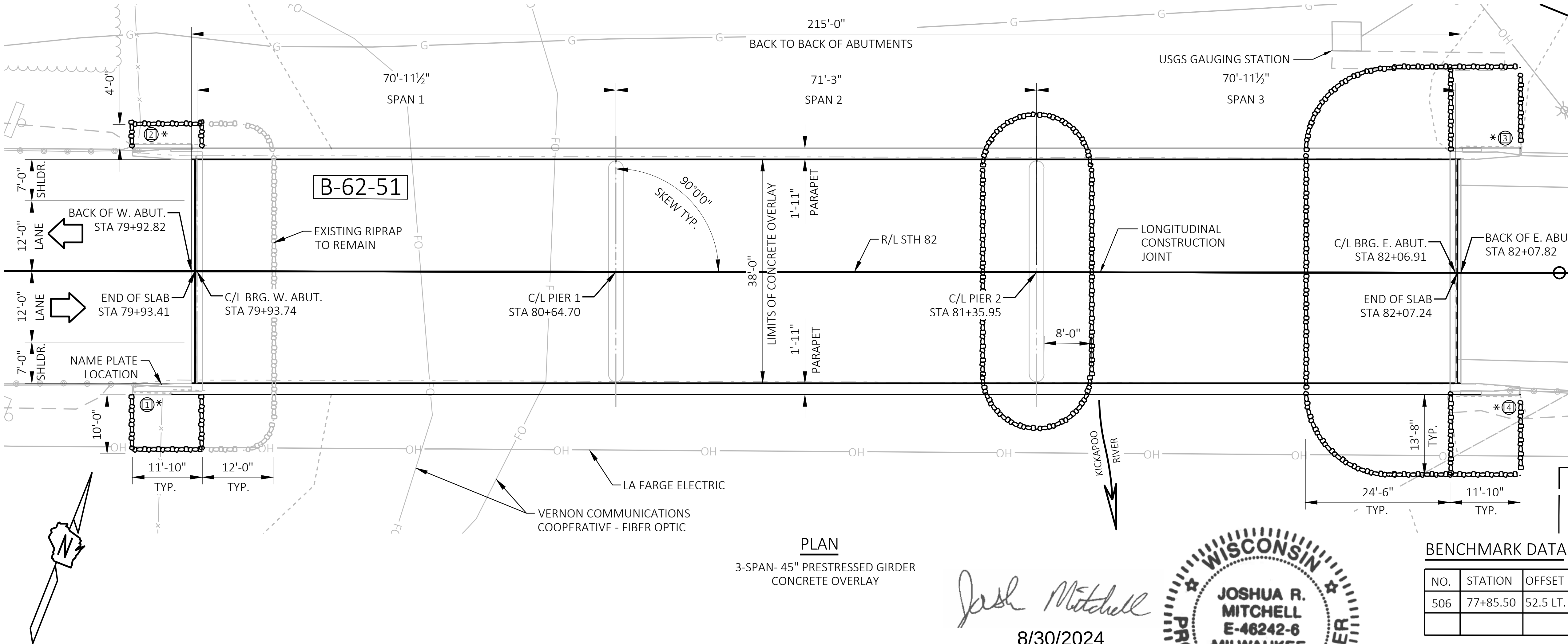
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W0241.dgn PLOT DATE : 1-FEB 2024 10:32 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7

STATE PROJECT NUMBER

5710-00-72



PLAN

3-SPAN- 45" PRESTRESSED GIRDER CONCRETE OVERLAY

Josh Mitchell
8/30/2024

WISCONSIN JOSHUA R. MITCHELL E-46242-6 MILWAUKEE, WI PROFESSIONAL ENGINEER

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-20
INVENTORY RATING: HS-20
OPERATING RATING: HS-33
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)= 200 kips

MATERIAL PROPERTIES:
CONCRETE MASONRY OVERLAY DECKS ____________ f'c = 4,000 psi
CONCRETE SURFACE REPAIR ____________ f'c = 4,000 psi

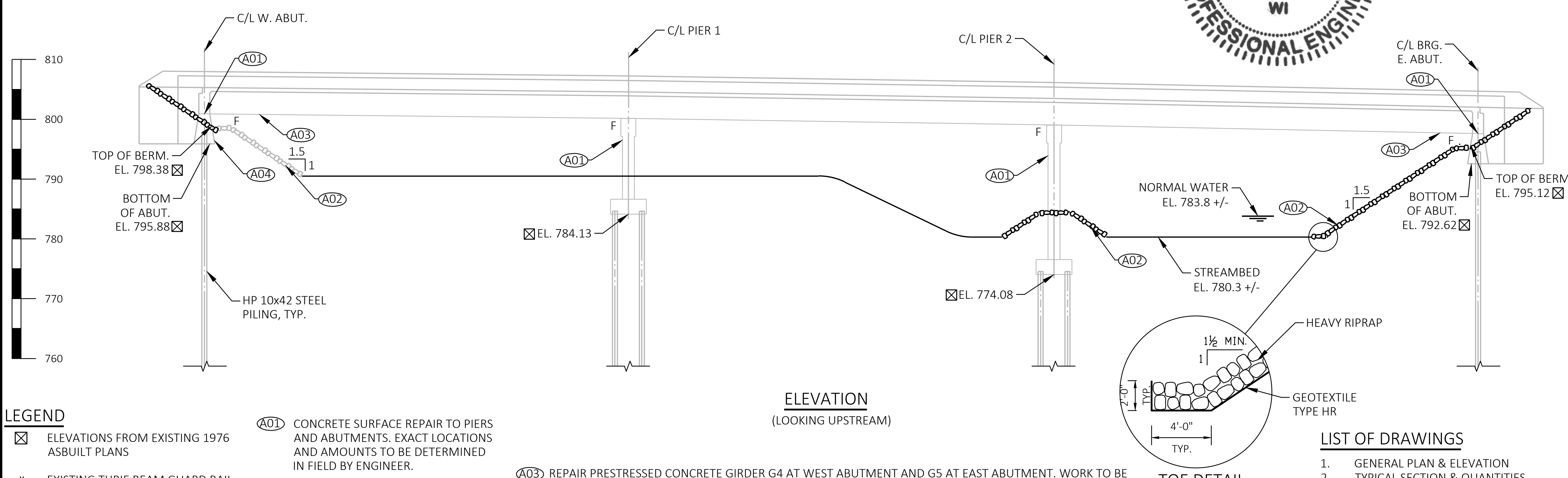
TRAFFIC DATA

STH 82

ADT = 930 (2027)
ADT = 930 (2047)
RDS = 35 MPH

BENCHMARK DATA

NO.	STATION	OFFSET	DESCRIPTION	ELEVATION
506	77+85.50	52.5 LT.	CP3/4X24 REBAR SET W/ EMCS CAP	806.26



ELEVATION

(LOOKING UPSTREAM)

TOE DETAIL

LEGEND

☒ ELEVATIONS FROM EXISTING 1976 ASBUILT PLANS

* EXISTING THRIE BEAM GUARD RAIL ATTACHMENT. NEW GUARDRAIL WILL BE ATTACHED USING EXISTING THRIE BEAM GUARDRAIL ATTACHMENT. SEE ROADWAY PLANS FOR DETAILS.

(1) INDICATES WING NUMBER

A01 CONCRETE SURFACE REPAIR TO PIERS AND ABUTMENTS. EXACT LOCATIONS AND AMOUNTS TO BE DETERMINED IN FIELD BY ENGINEER.

A02 REPLACE MISSING RIPRAP AT PIER 2, NEXT TO THE WEST ABUTMENT WINGWALLS ONLY, AND AROUND THE ENTIRE EAST ABUTMENT. PLACE GEOTEXTILE TYPE HR UNDER RIPRAP AT ALL LOCATIONS. RIPRAP TO BE PLACED 2 FEET THICK, TYP.

A03 REPAIR PRESTRESSED CONCRETE GIRDER G4 AT WEST ABUTMENT AND G5 AT EAST ABUTMENT. WORK TO BE INCLUDED IN BID ITEM "CONCRETE SURFACE REPAIR". EXACT LOCATIONS AND AMOUNTS TO BE DETERMINED IN FIELD BY ENGINEER.

A04 FILL VOID AT WEST ABUTMENT WITH FOAM FILLING. WORK TO BE INCLUDED IN BID ITEM "FOAM VOID FILLING". PER FIELD INSPECTION 07/21/2021, VOID DIMENSIONS ARE 10' LONG X 1' DEEP. EXACT LOCATION AND AMOUNT OF FILLING TO BE DETERMINED IN FIELD BY ENGINEER. FIELD ENGINEER TO CONFIRM IF ANY FOAM FILLING IS REQUIRED AT EAST ABUTMENT. "FOAM VOID FILLING" BIT ITEM ASSUMES NO FILLING AT EAST ABUTMENT FOR ESTIMATE PURPOSES.

LIST OF DRAWINGS

STRUCTURES DESIGN CONTACTS

JOSH MITCHELL (EMCS) 414-939-7023
AARON BONK (WISDOT) 608-261-0261

NO.	DATE	REVISION	BY

emcs

STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 11/26/24
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-62-51

STH 82 OVER KICKAPOO RIVER

COUNTY VERNON | VILLAGE LAFARGE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY AMR | DESIGNED CK'D JRM | DRAWN BY AMR | PLANS CK'D AJC

GENERAL PLAN & ELEVATION

SHEET 1 OF 2

8

8

NOTES

DRAWINGS SHALL NOT BE SCALED

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. EXISTING DIMENSIONS ARE BASED ON THE 1976 ORIGINAL STRUCTURE PLANS.

PIGMENTED SURFACE SEALER RESEAL TO BE APPLIED TO THE TOP AND INSIDE FACES OF PARAPETS.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY.

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATION. COST IS CONSIDERED INCLUDED IN BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

A MINIMUM OF 1" OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER BID ITEM "CLEANING DECKS". NOTIFY STRUCTURES SECTION IF MORE THAN 1" CONCRETE REMOVAL IS ANTICIPATED.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1-½" AT THE CURBS AND 2-⅝" AT THE ℄ STH 82 PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2-9⁄16". THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUM OVERLAY THICKNESS PLUS ½" TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS TO BE CONSIDERED INCLUDED IN THE COST OF BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PREPARATION DECKS TYPE 1, TYPE 2, AND FULL DEPTH DECK REPAIR ARE BASED ON THE PLANS AND AS DETERMINED BY THE FIELD ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

SEE ROADWAY PLANS FOR TRAFFIC STAGING AND TRAFFIC CONTROL DEVICES.

CONTAIN ANY DEBRIS FROM CONCRETE SURFACE REPAIR AREAS ON THE PIERS AND ANY FULL DEPTH DECK REPAIR AREAS UNDER BID ITEM "DEBRIS CONTAINMENT B-62-51".

CONCRETE SURFACE REPAIR QUANTITIES ARE AN ESTIMATE ONLY. ACTUAL QUANTITIES TO BE DETERMINED IN THE FIELD AT THE DIRECTION OF THE FIELD ENGINEER.

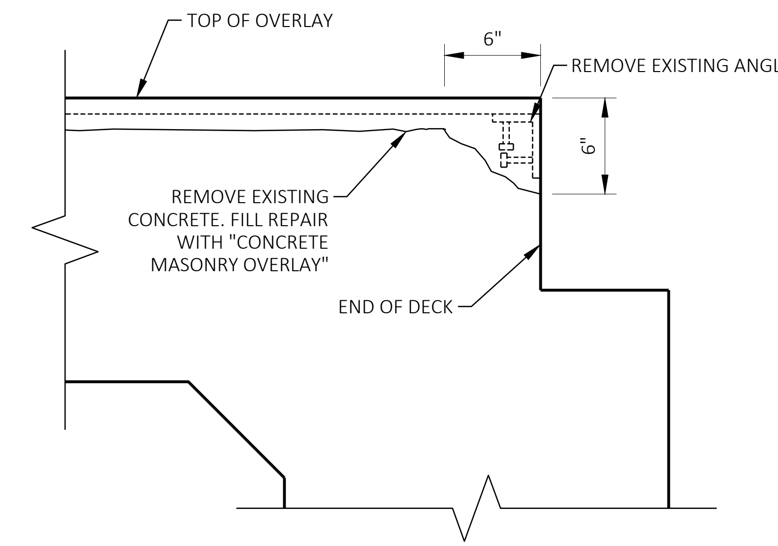
ALL CONCRETE REMOVAL SHALL BE DEFINED BY A ½-INCH DEEP SAW CUT. SAW CUTS ARE CONSIDERED INCLUDED IN BID ITEM "CONCRETE SURFACE REPAIR".

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS AND AROUND THE PIERS SHALL BE COVERED WITH HEAVY RIPRAP TO THE EXTENT SHOWN ON THE GENERAL PLAN AND ELEVATION SHEET.

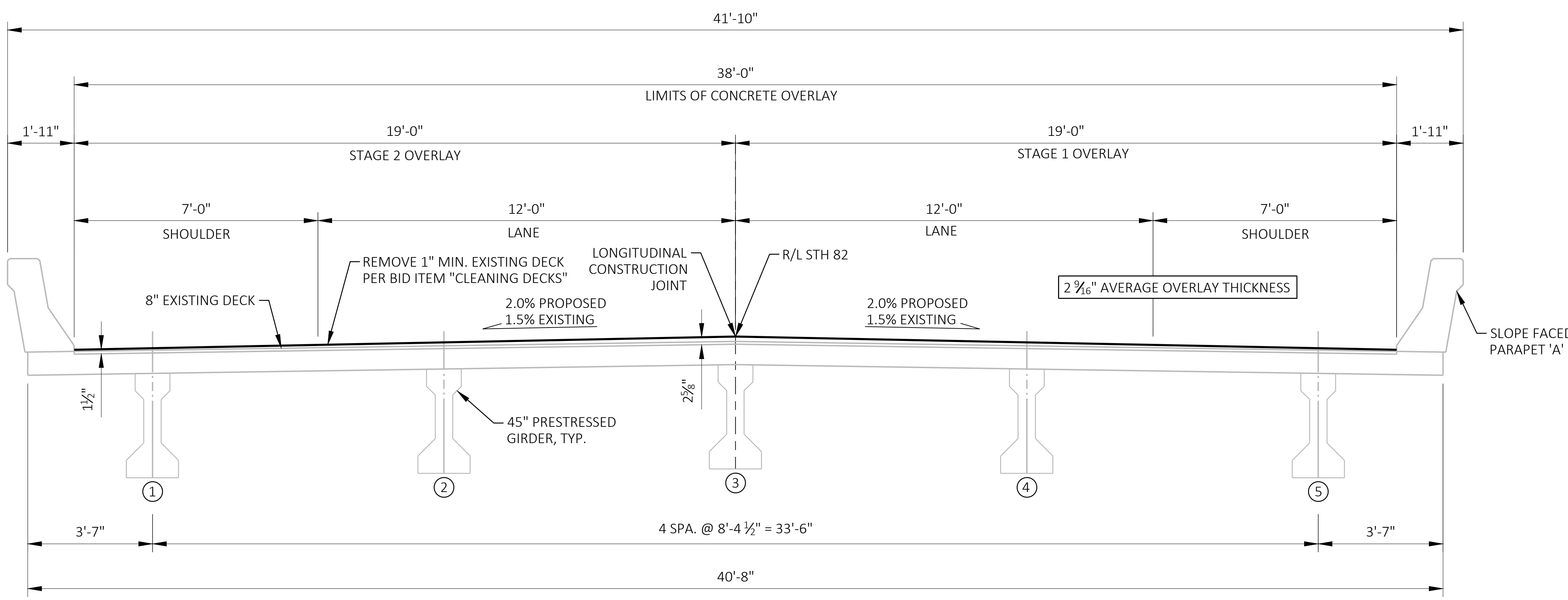
TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
203.0330	DEBRIS CONTAINMENT B-62-51	EACH	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	903
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	209
509.0301	PREPARATION DECKS TYPE 1	SY	64
509.0302	PREPARATION DECKS TYPE 2	SY	28
509.0500	CLEANING DECKS	SY	903
509.1500	CONCRETE SURFACE REPAIR	SF	66
509.2000	FULL-DEPTH DECK REPAIR	SY	5
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	71
606.0300	RIPRAP HEAVY	CY	224
645.0120	GEOTEXTILE TYPE HR	SY	179
SPV.0060	FOAM VOID FILLING	EACH	1

STATE PROJECT NUMBER
5710-00-72



SECTION AT END OF SLAB



TYPICAL SECTION
(LOOKING EAST)

NO.	DATE	REVISION	BY

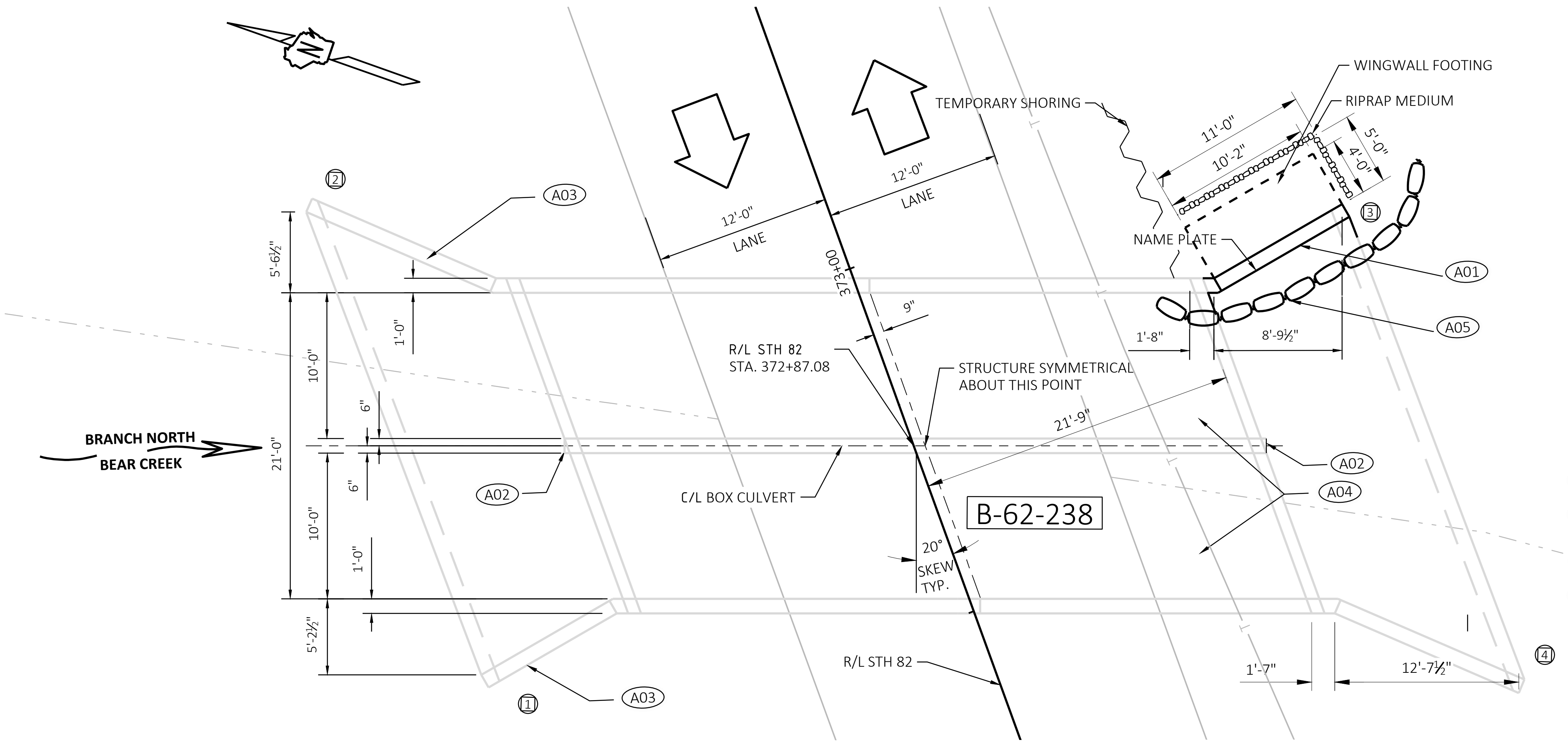
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-51

DRAWN BY AMR | PLANS CK'D AJC

TYPICAL SECTION & QUANTITIES

SHEET 2 OF 2



PLAN

2-CELL BOX CULVERT

DESIGN DATA

EARTH LOAD:
LIVE LOAD SURCHARGE = 100 PSF
TOTAL UNIT WEIGHT OF SOIL (SATURATED) = 120 PCF
AT REST EARTH PRESSURE COEFFICIENT (Ka) = 0.5

MATERIAL PROPERTIES:
CONCRETE MASONRY CULVERTS ________ f'c = 3,500 psi
CONCRETE SURFACE REPAIR ________ f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) ____ fy = 60,000 psi

TRAFFIC DATA

STH 82
ADT = 930 (2027)
ADT = 930 (2047)
RDS = 55 MPH

Josh Mitchell
2/20/2026

WISCONSIN
JOSHUA R. MITCHELL
E-46242-6
MILWAUKEE, WI
PROFESSIONAL ENGINEER

LEGEND

(X) INDICATES WING NUMBER
A01 REPLACE SOUTHEAST WINGWALL.
A02 REPAIR CENTER WALL NOSE WITH "CONCRETE SURFACE REPAIR", BOTH ENDS. SEE SHEET 2 FOR DETAILS
A03 REPAIR WINGWALL CRACKS WITH "EPOXY CRACK INJECTION"
A04 REMOVE STREAM SEDIMENT TO A DEPTH 6" ABOVE CULVERT FLOOR IN BOTH BARRELS. REMOVE SEDIMENT BUILD-UP UNDER BID ITEM "EXCAVATION FOR STRUCTURES CULVERTS B-62-238"
A05 SANDBAGS OR OTHER TECHNIQUE TO DIVERT WATER FROM WING REPLACEMENT, PAID FOR UNDER BID ITEM, "COFFERDAMS B-62-238"

LIST OF DRAWINGS

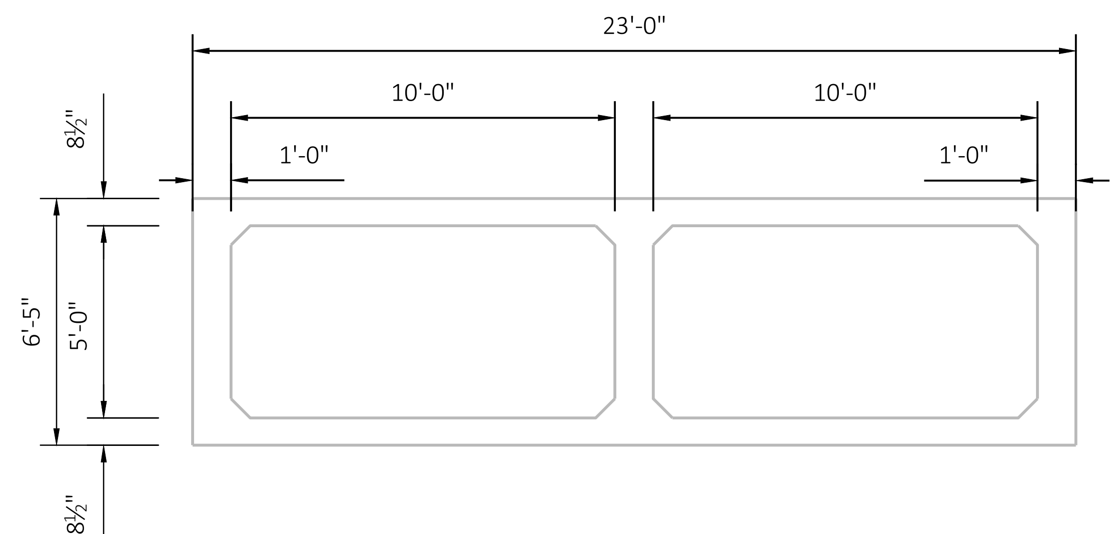
STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261

CONSULTANT CONTACT:
JOSH MITCHELL (414) 939-7023

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-62-238	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS B-62-239	EACH	1
206.5001	COFFERDAMS B-62-238	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	13
311.0110	BREAKER RUN	TON	4
504.0100	CONCRETE MASONRY CULVERTS	CY	4
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	440
509.1500	CONCRETE SURFACE REPAIR	SF	36
509.9025.S	EPOXY INJECTION CRACK REPAIR	LF	12
509.9026.S	CORED HOLES 2-INCH DIAMETER	EACH	2
511.1200	TEMPORARY SHORING B-62-238	SF	65
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	3
606.0200	RIPRAP MEDIUM	CY	3
645.0120	GEOTEXTILE TYPE HR	SY	10
	NON-BID ITEMS		
	NAME PLATE		



SECTION

(LOOKING UPSTREAM)

8

NO.	DATE	REVISION	BY

emcs

STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION

ACCEPTED JLR 02/20/26
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-62-238

STH 82 OVER BRANCH NORTH BEAR CREEK

COUNTY VERNON TOWN UNION
DESIGN SPEC.
REHABILITATION N/A
DESIGNED BY JRM DESIGNED CK'D AJC DRAWN BY JRM PLANS CK'D AJC

GENERAL PLAN

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS NOTED OTHERWISE. THE FIRST DIGIT OF A THREE DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. EXISTING BOX DIMENSIONS ARE BASED ON ORIGINAL 1939 STRUCTURE PLANS.

THE EXISTING STRUCTURE, B-62-238, IS A DOUBLE CELL CONCRETE BOX CULVERT. THE CELLS HAVE A CLEAR WIDTH OF 10'-0" AND A CLEAR HEIGHT OF 5'-0". THE FILL ON TOP OF THE BOX IS 4'-0" MAX.

SEE ROADWAY PLANS FOR TRAFFIC STAGING AND TRAFFIC CONTROL DEVICES.

ALL CONCRETE REMOVAL FOR CONCRETE SURFACE REPAIR AND FOR WINGWALL REPLACEMENT SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT. THE COST FOR SAWCUTS ARE CONSIDERED INCLUDED IN BID ITEMS "CONCRETE SURFACE REPAIR" AND "CONCRETE MASONRY CULVERTS".

CONCRETE SURFACE REPAIR AREAS AND EPOXY INJECTION CRACK REPAIRS TO BE DETERMINED IN THE FIELD BY THE FIELD ENGINEER. QUANTITIES SHOWN ARE AN ESTIMATE ONLY AND WILL BE VERIFIED BY THE ENGINEER.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR, 1939.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT WING AND FOOTING CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE ELEMENTS SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON VERTICAL AND HORIZONTAL WING CONSTRUCTION JOINTS.

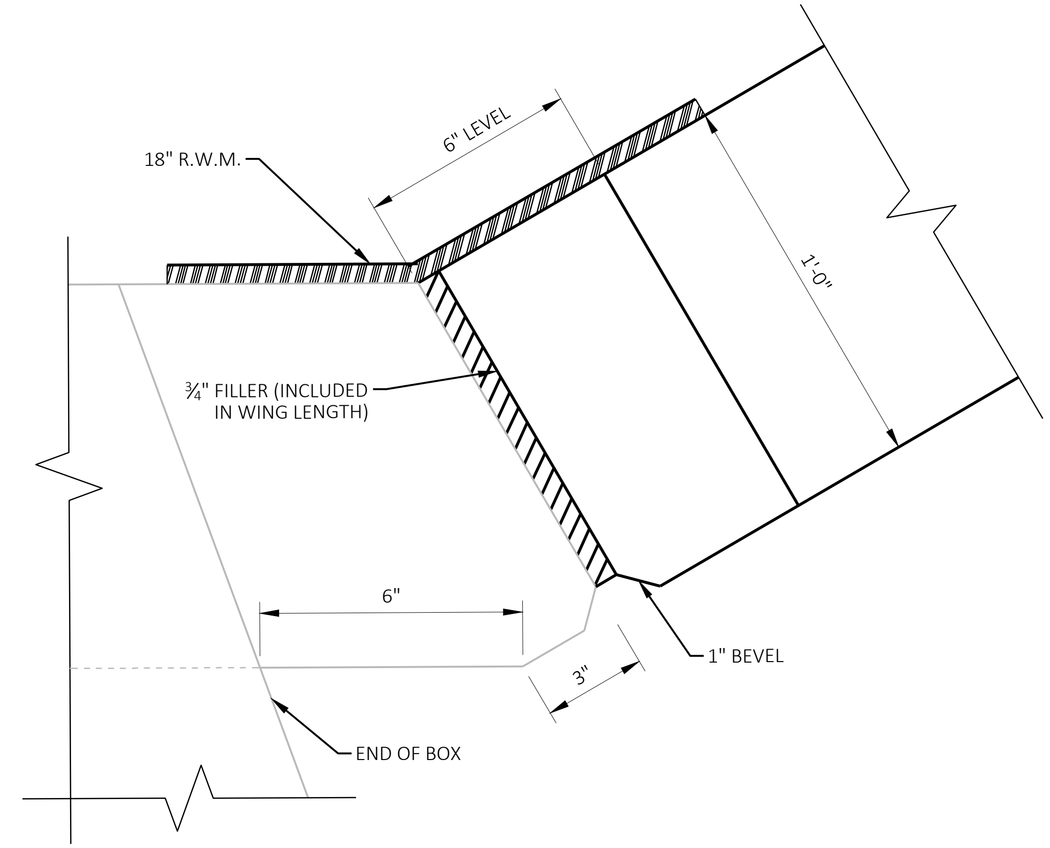
UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-62-238" SHALL BE THE EXISTING GROUNDLINE.

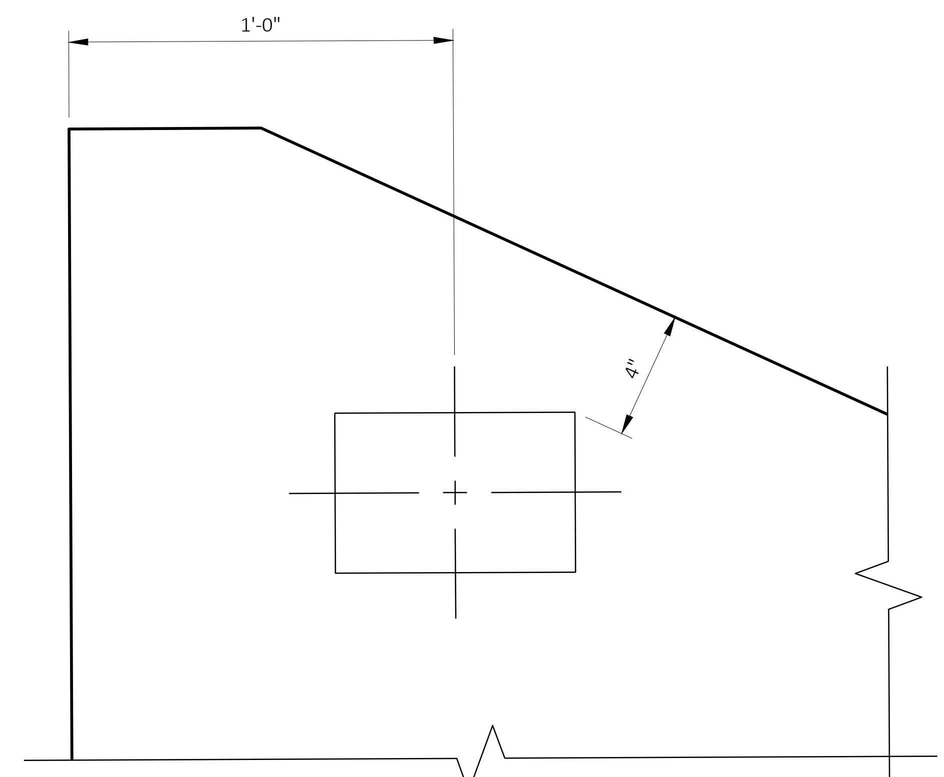
STREAM DIVERSION AND DEWATERING IS CONSIDERED INCLUDED IN COST OF BID ITEM "COFFERDAMS B-62-238."

SEALANT FOR CULVERT CONSTRUCTION JOINTS IS CONSIDERED INCLUDED IN BID ITEM "CONCRETE MASONRY CULVERTS".

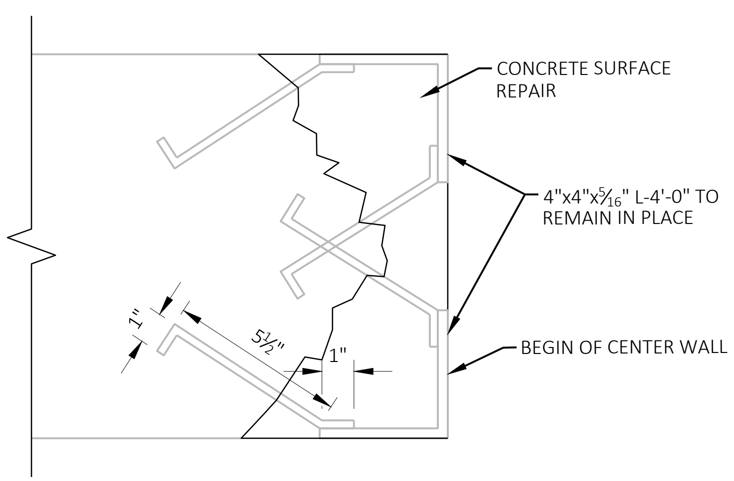
THE CONTRACTOR MUST PROTECT THE EXISTING REINFORCEMENT STEEL THAT REMAINS DURING DEMOLITION. REPLACEMENT OF CULVERT COMPONENTS DAMAGED DURING THE REMOVAL OF THE EXISTING WINGWALL WILL BE THE CONTRACTORS RESPONSIBILITY AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
THE SLOPE OF THE FILL AT THE BACK FACE OF THE WINGWALL SHALL BE COVERED WITH RIPRAP MEDIUM TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET.



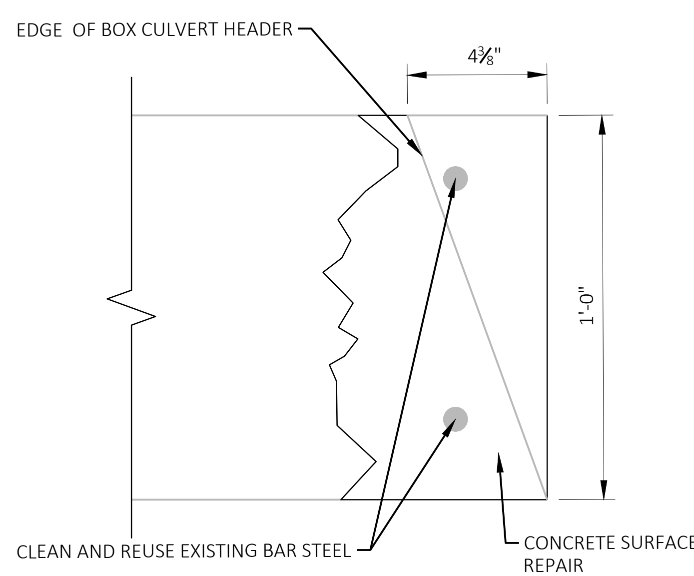
WING 3 CORNER



NAME PLATE LOCATION WING 3



DETAIL OF INLET NOSE



DETAIL OF OULET NOSE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-238

DRAWN BY JRM | PLANS CK'D AJC

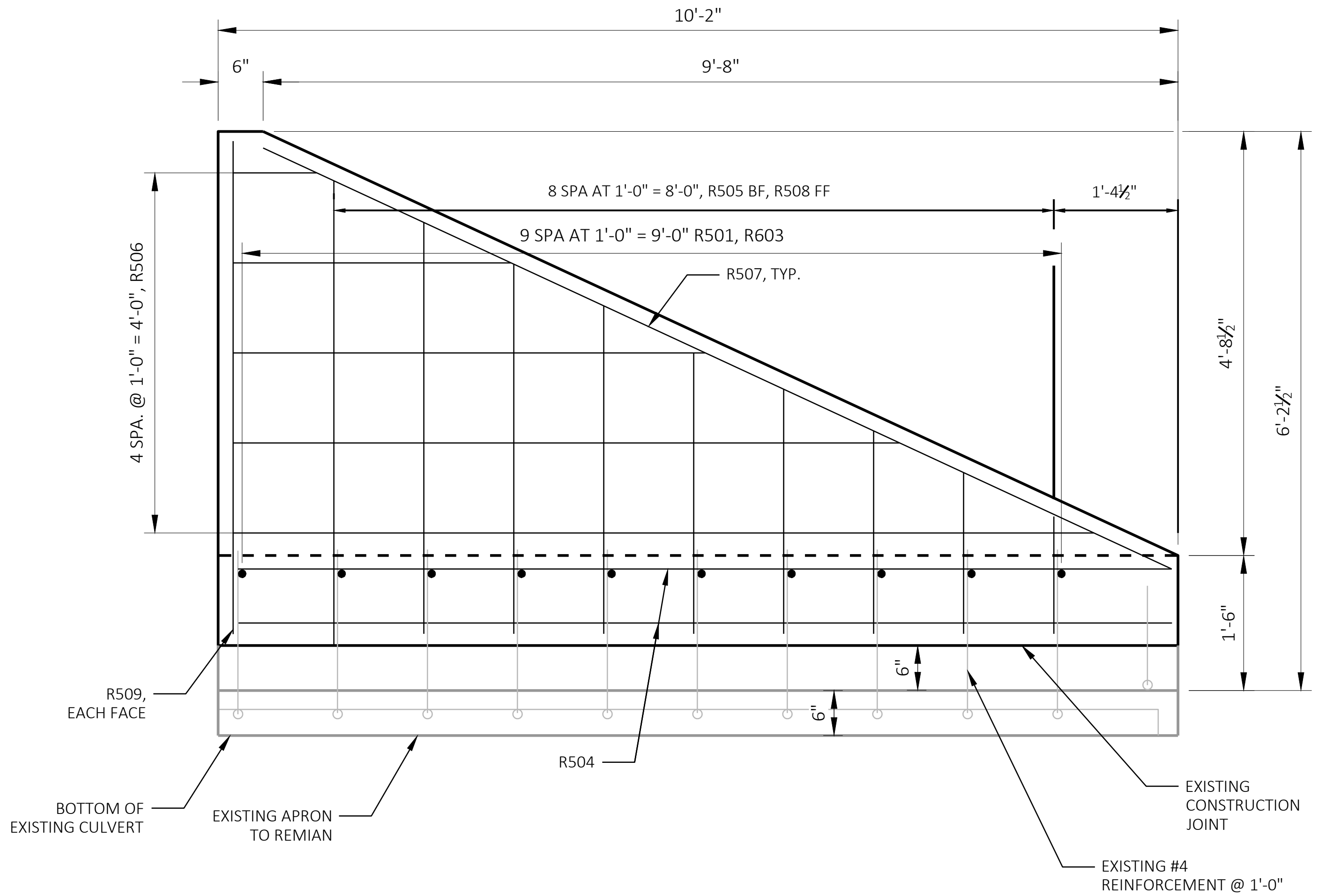
GENERAL NOTES & DETAILS

SHEET 2 OF 3

8

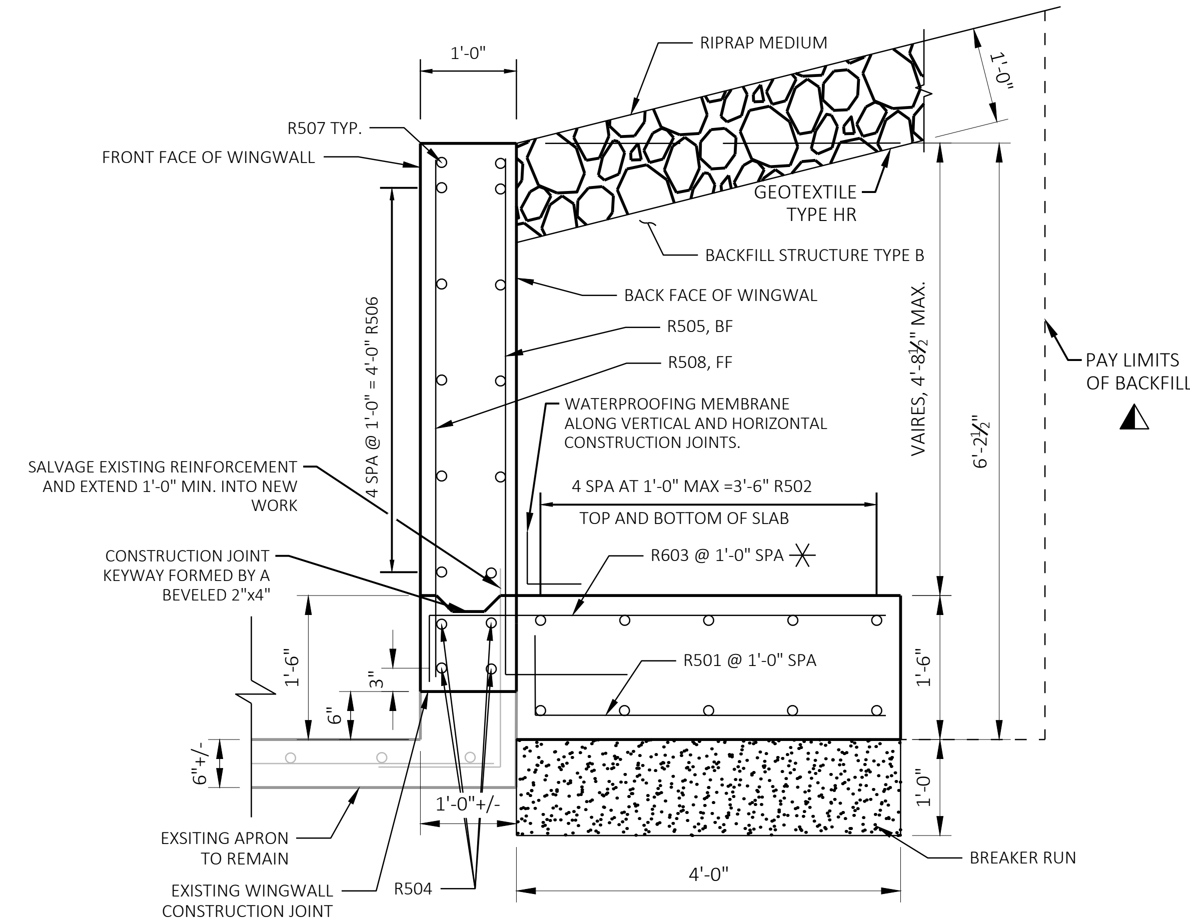
STATE PROJECT NUMBER

5710-00-72



PART ELEVATION

LOOKING EAST AT SE WING REPLACEMENT



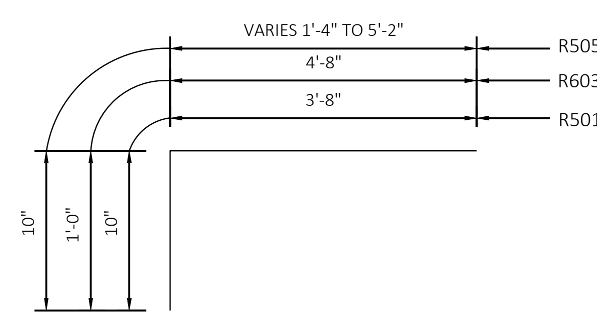
SE WINGWALL SECTION

BILL OF BARS

BAR MARK	NO.	LENGTH	BENT	LOCATION
R501	10	4'–5"	X	BOT FTG TRANS.
R502	10	9'–10"		TOP & BOT FTG LONG.
R603	10	5'–6"	X	TOP FTG TRANS.
R504	4	9'–10"		WALL HORIZ.
● R505	9	4'–0"	X	WALL VERT. BF
● R506	10	5'–4"		WALL HORIZ.
R507	2	11'–2"		WALL HORIZ. TOP
● R508	9	3'–3"		WALL VERT. FF
R509	2	5'–4"		WALL VERTICAL

BAR SERIES ●

BAR MARK	NO. REQ'D.	LENGTHS FOR EACH SERIES
R505	1 SERIES OF 9	2'–1" TO 5'–11"
R506	2 SERIES OF 5	1'–0" TO 9'–7"
R508	1 SERIES OF 9	1'–4" TO 5'–2"



R501, R603, R505

BAR BEND DETAILS

NOTES

✳ TURN BAR TO FIT AT END OF FOOTING.

◭ THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WING FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

IN LIEU OF USING BREAKER RUN FOR THE WINGWALL FOOTING PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE COARSE AGGREGATE AASHTO NO. 67 OR AASHTO NO. 4 IN ACCORDANCE WITH STANDARD SPEC 310 AND 604, RESPECTIVELY, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTABLE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-238

DRAWN BY JRM | PLANS CK'D AJC

PARTIAL ELEVATION & SECTION

SHEET 3 OF 3

8 8

STH 82 EARTHWORK DETAILS

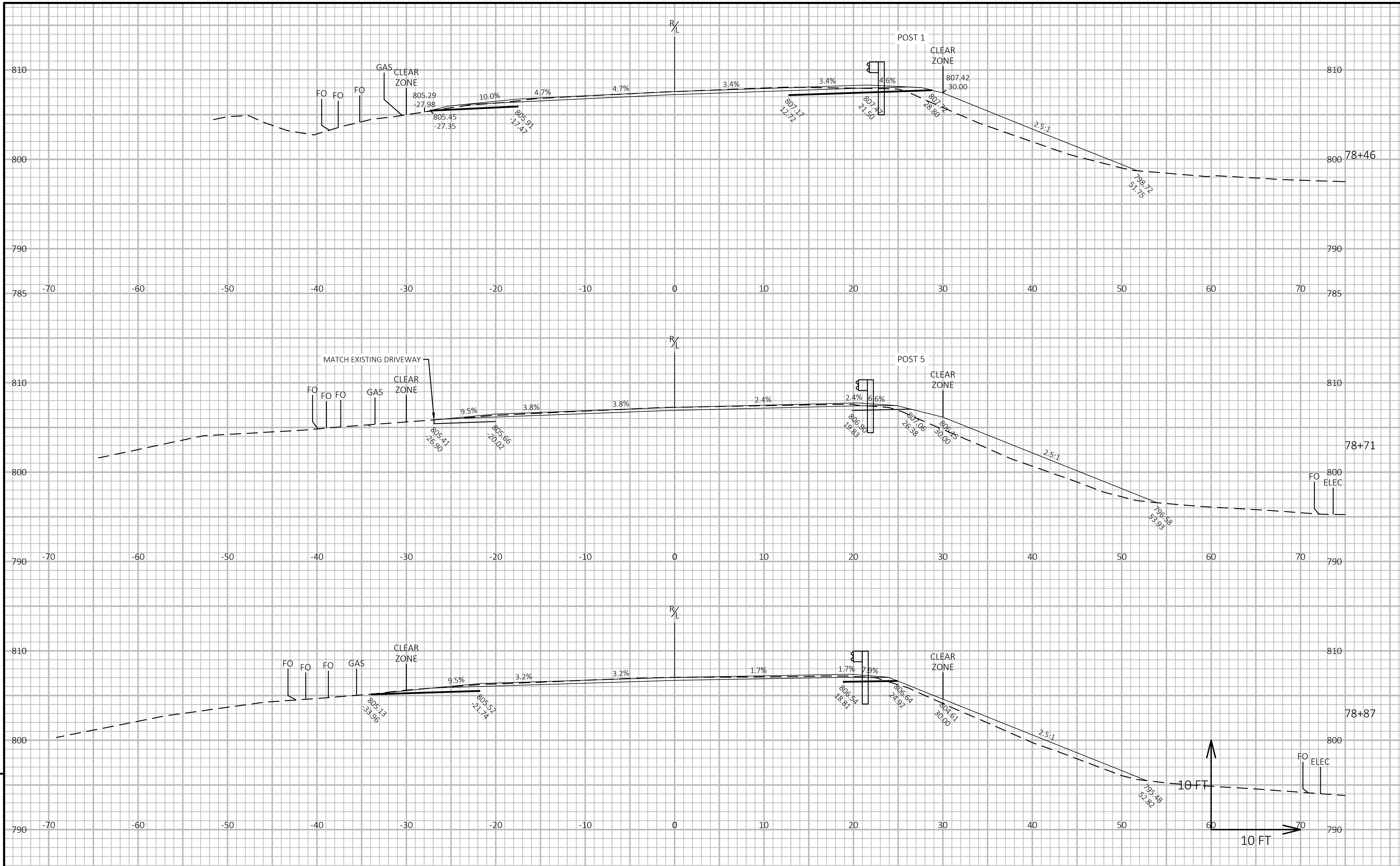
STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)				
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	REDUCED MARSH IN FILL	REDUCED EBS IN FILL	MASS ORDINATE
							1.00	1.25	1.00	1.00	
					NOTE 1	NOTE 3	NOTE 1		NOTE 6	NOTE 7	NOTE 8
104+23.77	10423.77	0.00	11.83	0.00	0	0	0	0	0	0	0
104+43.77	10443.77	20.00	11.96	0.76	9	0	9	0	0	0	9
104+51.68	10451.68	7.91	13.62	0.64	4	0	13	0	0	0	13
104+61.68	10461.68	10.00	16.78	0.33	6	0	19	0	0	0	19
104+75.00	10475.00	13.32	17.41	0.36	8	0	27	0	0	0	27
105+00.00	10500.00	25.00	17.44	0.15	16	0	43	0	0	0	43
105+25.00	10525.00	25.00	17.47	0.09	16	0	59	0	0	0	59
105+50.00	10550.00	25.00	16.81	0.12	16	0	75	0	0	0	75
105+75.00	10575.00	25.00	16.20	0.32	15	0	90	0	0	0	90
106+00.00	10600.00	25.00	16.17	0.03	15	0	105	0	0	0	105
106+25.00	10625.00	25.00	16.09	0.02	15	0	120	0	0	0	120
106+50.00	10650.00	25.00	16.65	0.00	15	0	135	0	0	0	135
106+75.00	10675.00	25.00	16.61	0.01	15	0	150	0	0	0	150
106+90.70	10690.70	15.70	16.63	0.10	10	0	160	0	0	0	160
107+00.70	10700.70	10.00	13.34	0.82	6	0	166	0	0	0	166
107+08.92	10708.92	8.22	11.21	3.98	4	1	170	1	0	0	169
107+13.88	10713.88	4.96	10.48	3.03	2	1	172	3	0	0	170
107+21.07	10721.07	7.19	24.02	5.42	5	1	177	4	0	0	173
107+31.70	10731.70	10.63	2.77	2.39	5	2	182	6	0	0	176
107+42.00	10742.00	10.30	12.93	0.00	3	0	185	6	0	0	179
107+50.00	10750.00	8.00	68.73	5.17	12	1	197	8	0	0	190
107+57.86	10757.86	7.86	112.21	83.88	26	13	223	24	0	0	199
107+62.86	10762.86	5.00	51.00	132.62	15	20	238	49	0	0	189
107+72.32	10772.32	9.46	147.69	32.20	35	29	273	85	0	0	188
107+82.59	10782.59	10.27	99.28	3.31	47	7	320	94	0	0	226
107+84.53	10784.53	1.94	82.15	2.43	7	0	327	94	0	0	233
107+90.71	10790.71	6.18	17.96	0.12	11	0	338	94	0	0	244
110+80.90	11080.90	290.19	40.17	0.00	312	1	650	95	0	0	555
111+02.90	11102.90	22.00	10.77	1.59	21	1	671	96	0	0	575
111+12.90	11112.90	10.00	11.55	1.27	4	1	675	98	0	0	578
111+22.90	11122.90	10.00	15.10	0.29	5	0	680	98	0	0	583
111+25.00	11125.00	2.10	15.18	0.25	1	0	681	98	0	0	584
111+50.00	11150.00	25.00	15.98	0.00	14	0	695	98	0	0	598
111+75.00	11175.00	25.00	16.40	0.08	15	0	710	98	0	0	613
112+00.00	11200.00	25.00	16.79	0.78	15	0	725	98	0	0	628
112+25.00	11225.00	25.00	17.09	1.26	16	1	741	99	0	0	642
112+50.00	11250.00	25.00	16.78	1.56	16	1	757	100	0	0	657
112+75.00	11275.00	25.00	17.16	0.16	16	1	773	101	0	0	672
113+00.00	11300.00	25.00	16.53	1.08	16	1	789	103	0	0	687
113+25.00	11325.00	25.00	14.21	1.38	14	1	803	104	0	0	699
113+40.06	11340.06	15.06	16.27	0.53	9	1	812	105	0	0	707
113+50.00	11350.00	9.94	12.15	1.04	5	0	817	105	0	0	712
113+60.12	11360.12	10.12	11.96	1.06	5	0	822	105	0	0	717
113+82.05	11382.05	21.93	29.75	0.00	17	0	839	105	0	0	734
113+91.07	11391.07	9.02	0.00	0.00	5	0	844	105	0	0	739
113+98.94	11398.94	7.87	30.11	0.00	4	0	848	105	0	0	743
114+15.93	11415.93	16.99	6.13	2.85	11	1	859	106	0	0	753
114+28.60	11428.60	12.67	15.41	0.19	5	1	864	108	0	0	757
114+50.00	11450.00	21.40	7.16	0.00	9	0	873	108	0	0	766
114+75.00	11475.00	25.00	3.12	0.13	5	0	878	108	0	0	771
115+00.00	11500.00	25.00	2.32	0.00	3	0	881	108	0	0	774
115+25.00	11525.00	25.00	0.38	0.10	1	0	882	108	0	0	775
115+50.00	11550.00	25.00	0.08	0.00	0	0	882	108	0	0	775
115+75.00	11575.00	25.00	0.01	0.00	0	0	882	108	0	0	775
115+83.23	11583.23	8.23	0.00	0.00	0	0	882	108	0	0	775

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	[CUT - (FILL * FILL FACTOR)]

9

9

PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 B-62-0051	SHEET 252 E

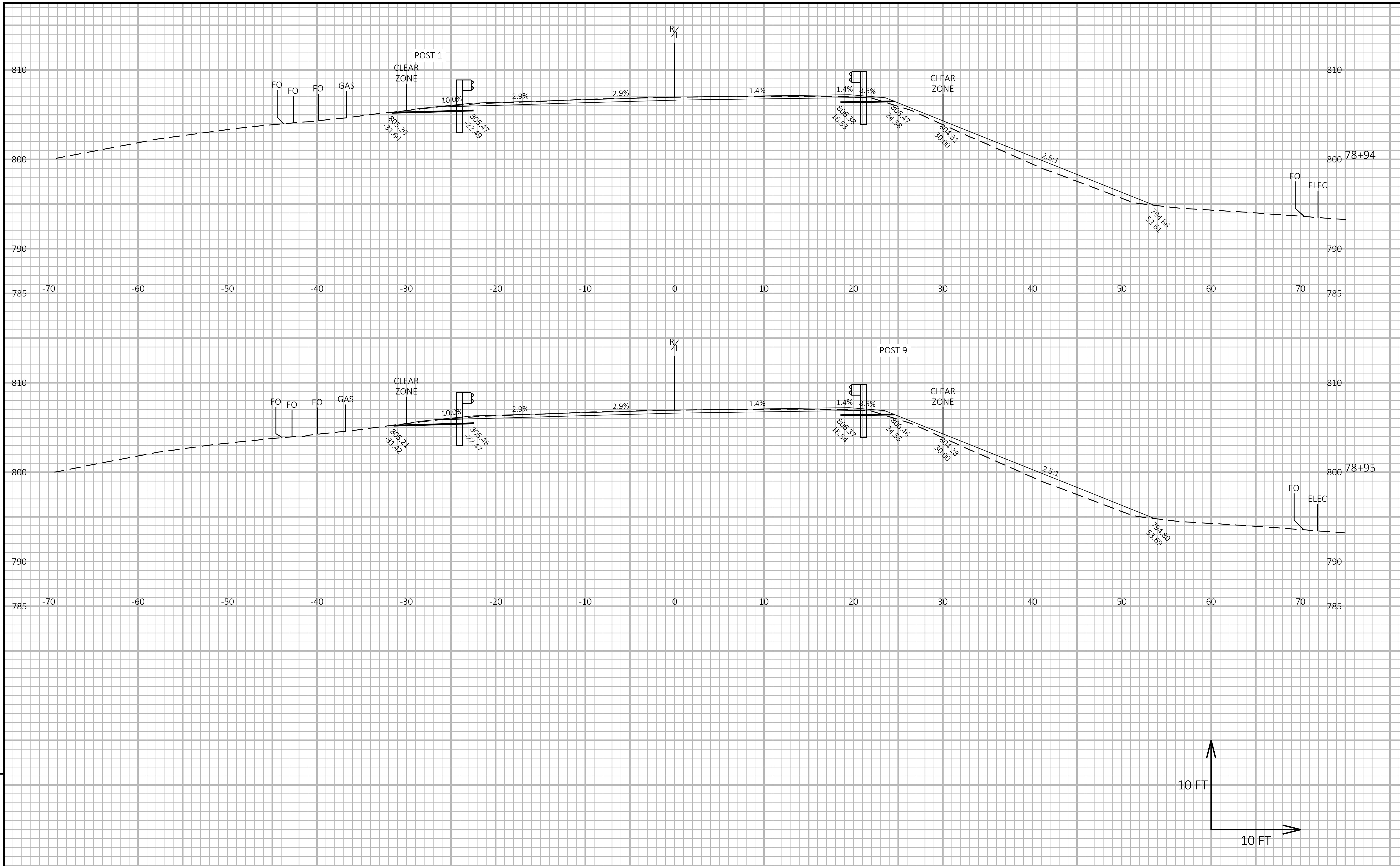


PROJECT NO: 5710-00-72 | HWY: STH 82 | COUNTY: VERNON | CROSS SECTIONS: STH 82 B-62-0051 | SHEET 253 | E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090202-xs

PLOT DATE : 10/27/2025 12:57 PM PLOT BY : JORDYN BENN PLOT NAME :

WISDOT/CADDS SHEET 49



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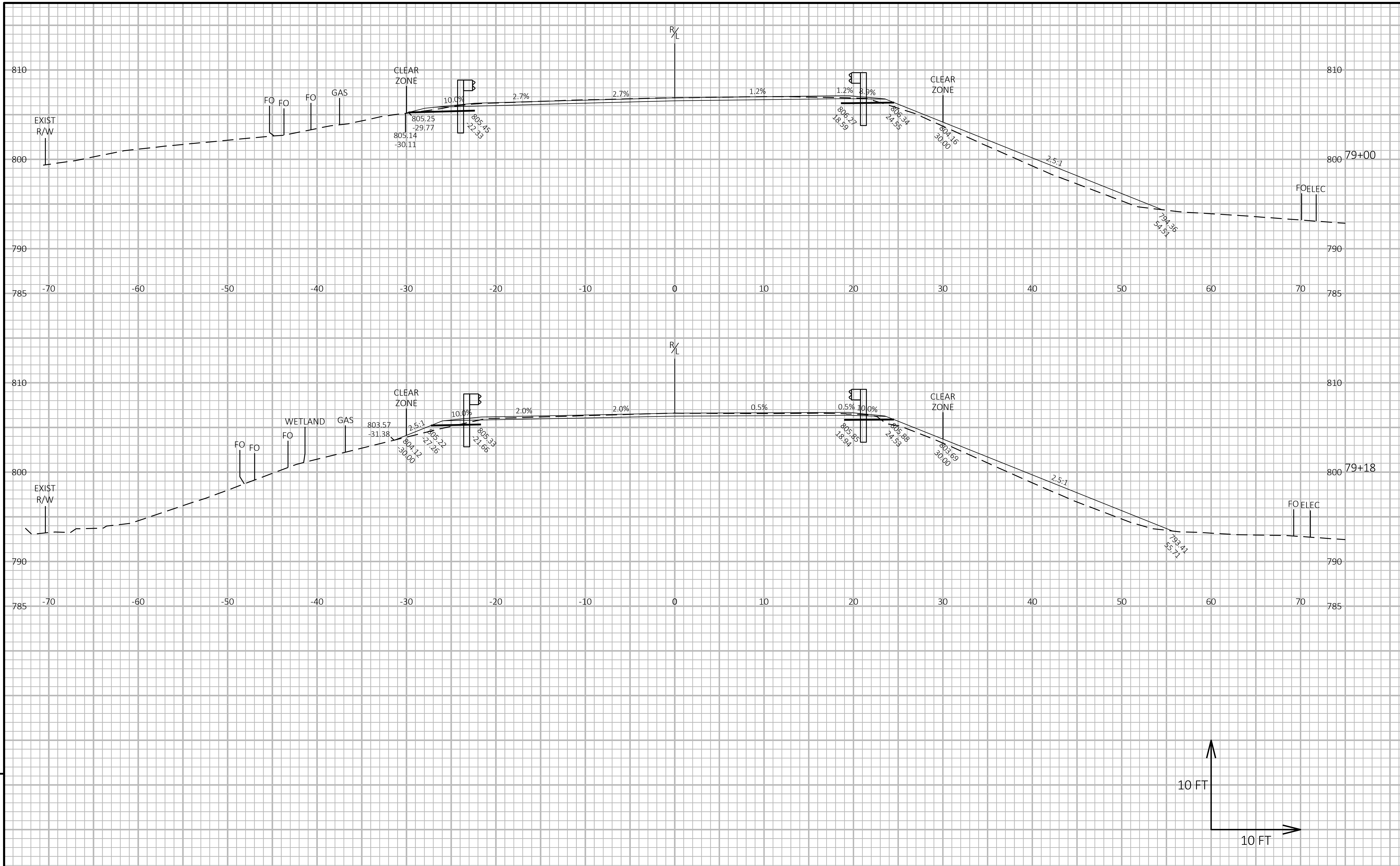
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 B-62-0051	SHEET 254	E



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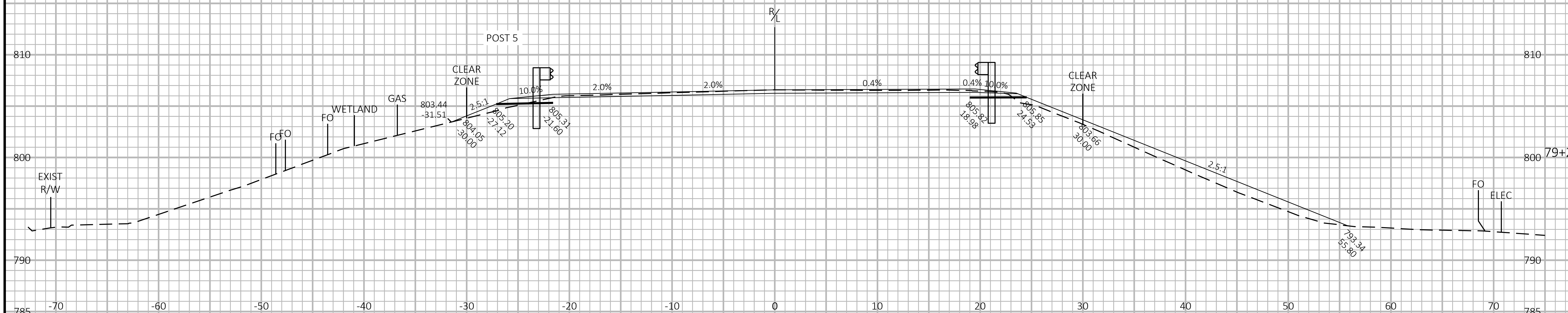
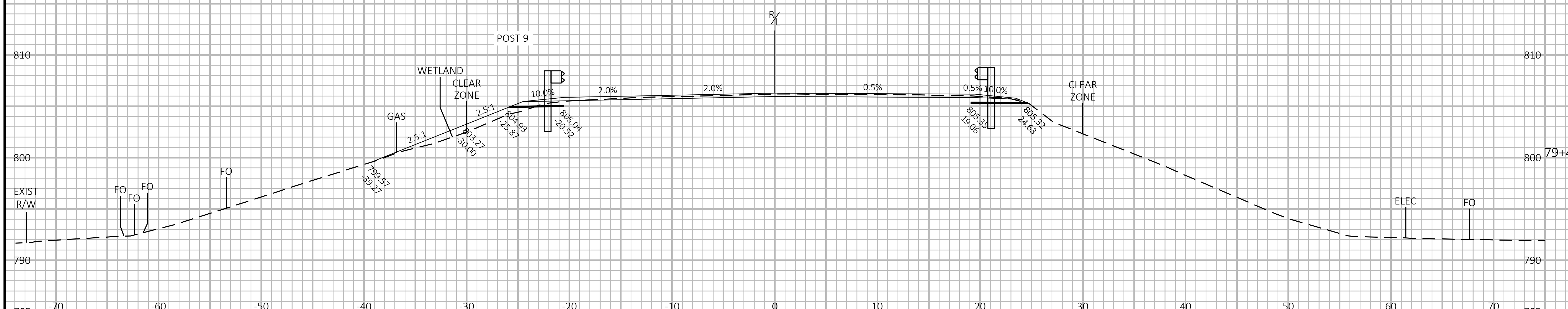
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 B-62-0051	SHEET 255	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090204-xs
PLOT DATE : 10/27/2025 12:57 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49





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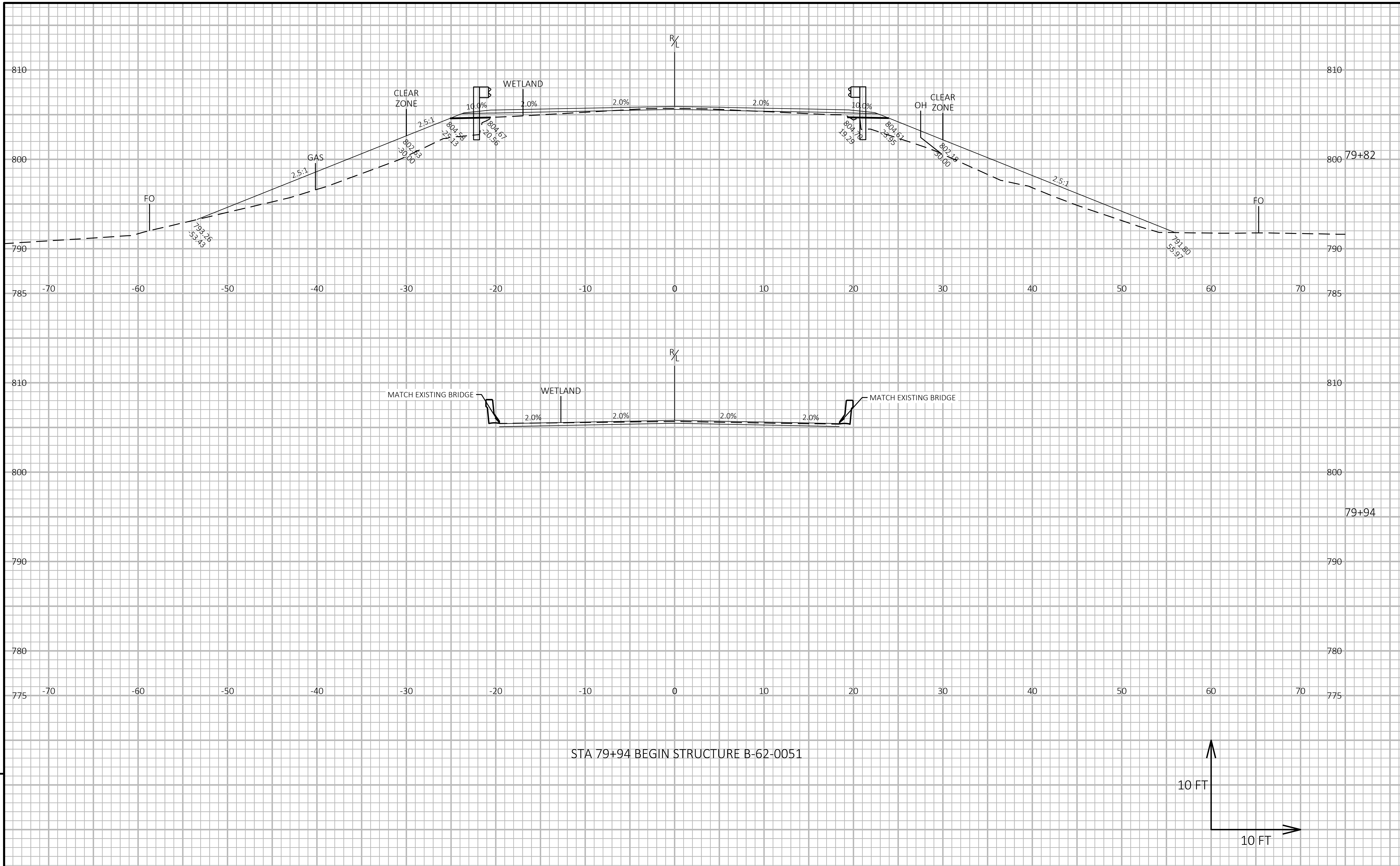
PROJECT NO: 5710-00-72 | HWY: STH 82 | COUNTY: VERNON | CROSS SECTIONS: STH 82 B-62-0051 | SHEET 256 | E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090205-xs
PLOT DATE : 10/27/2025 12:57 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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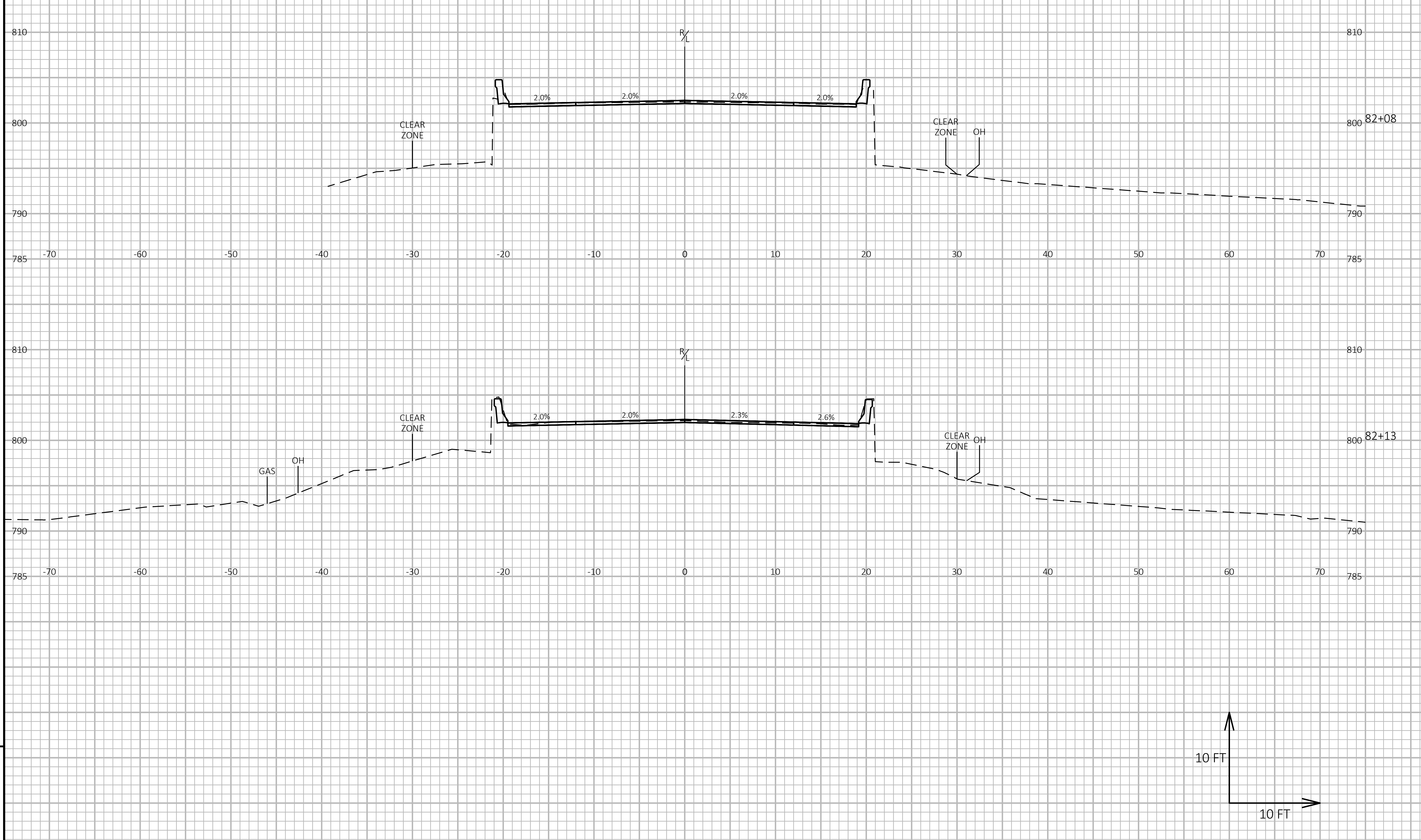
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 B-62-0051	SHEET 257	E

STA 82+07 END STRUCTURE B-62-0051



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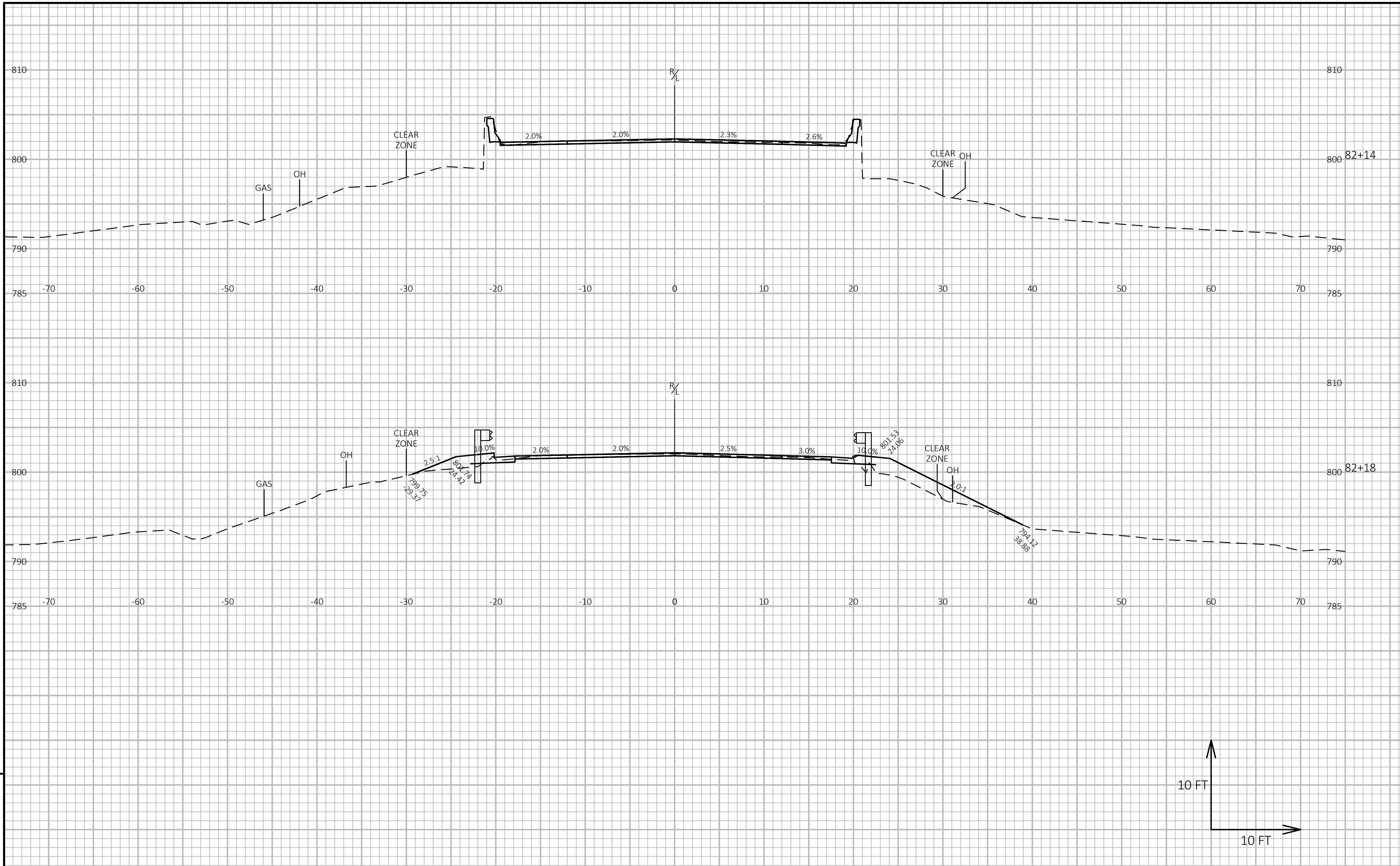
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 B-62-0051	SHEET 258	E



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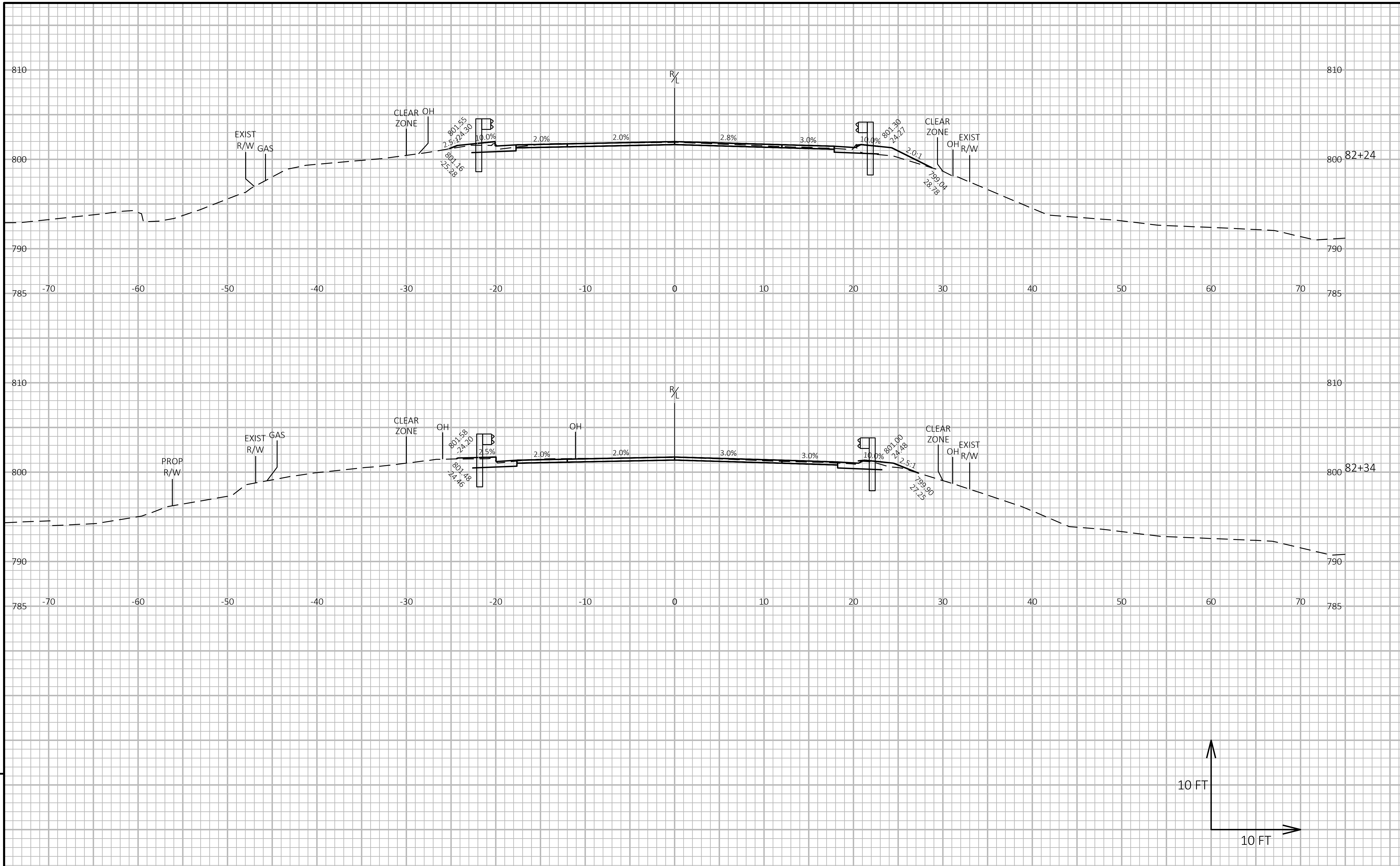
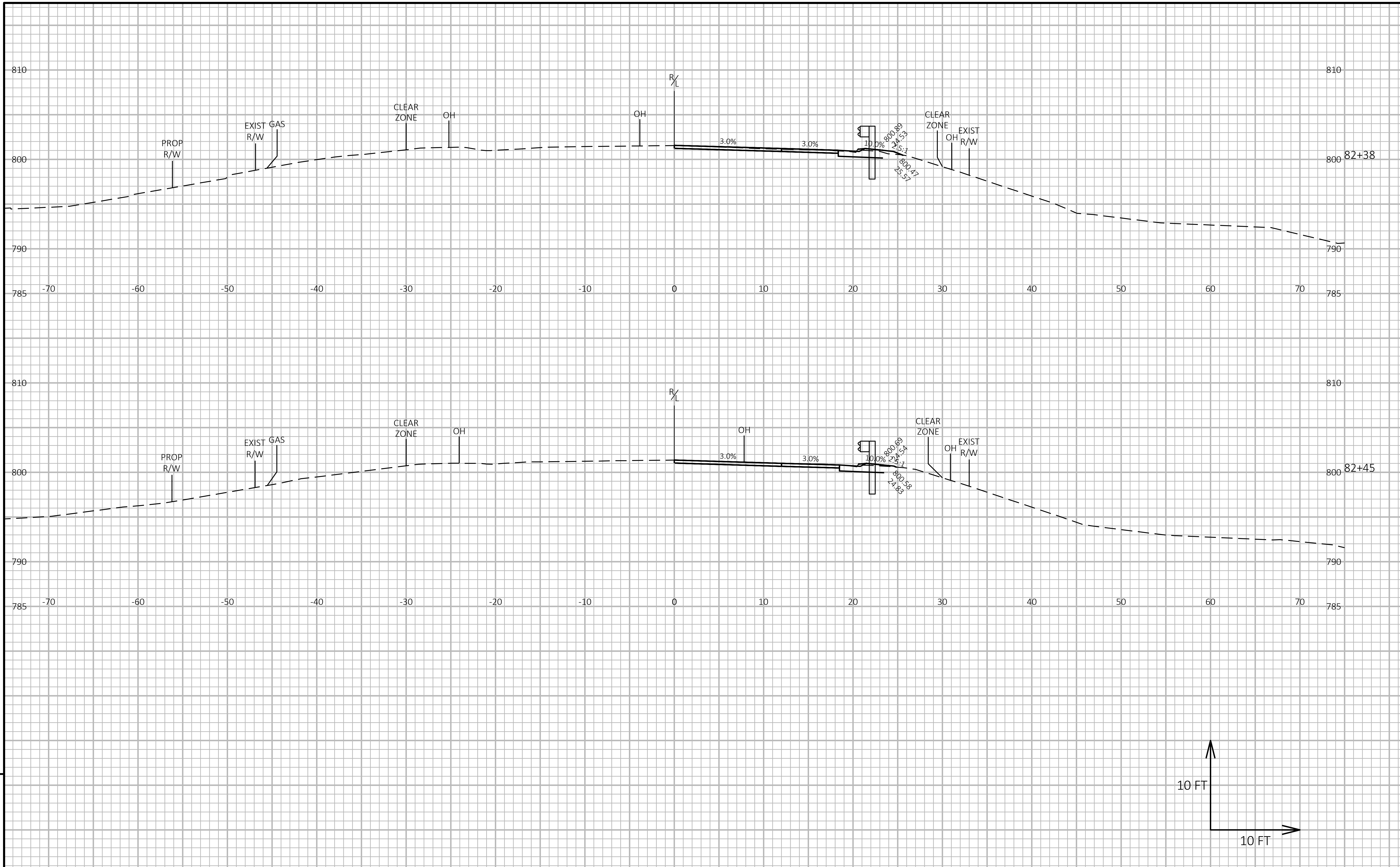
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 B-62-0051	SHEET 259	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090208-xs
PLOT DATE : 10/27/2025 12:57 PM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 B-62-0051	SHEET 260	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090209-xs
PLOT DATE : 10/27/2025 12:57 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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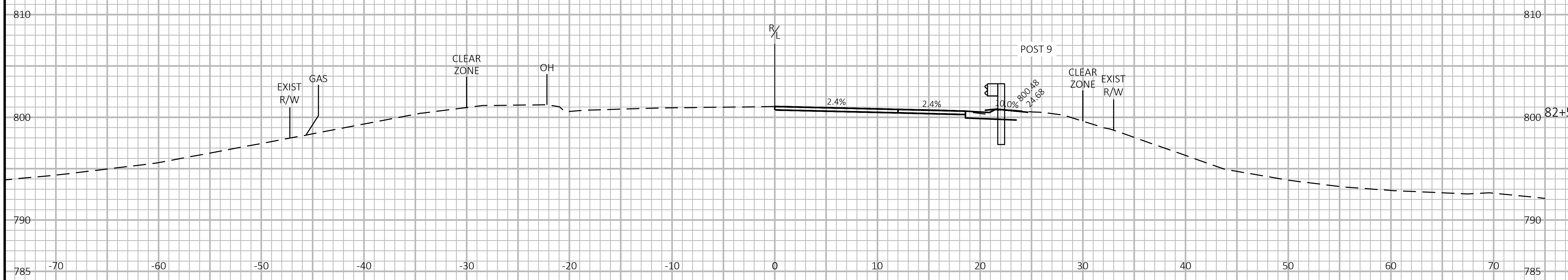
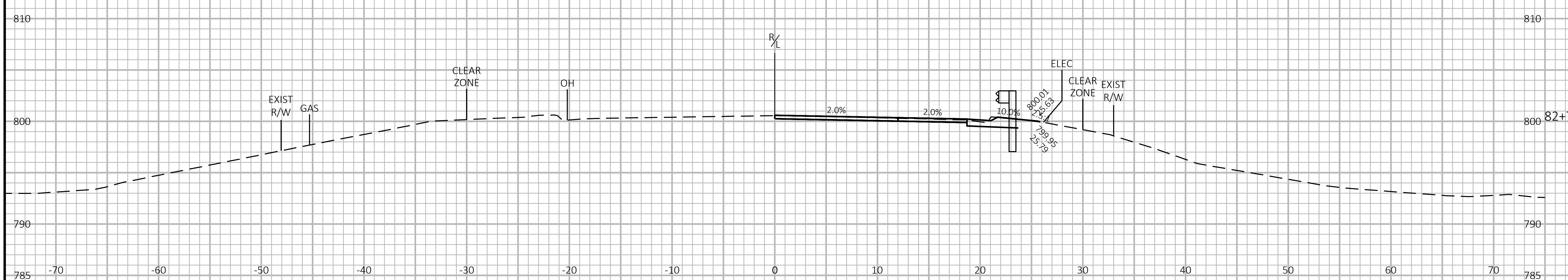
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 B-62-0051	SHEET 261	E

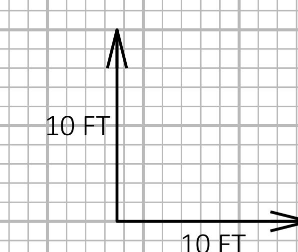
FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090210-xs

PLOT DATE : 10/27/2025 12:57 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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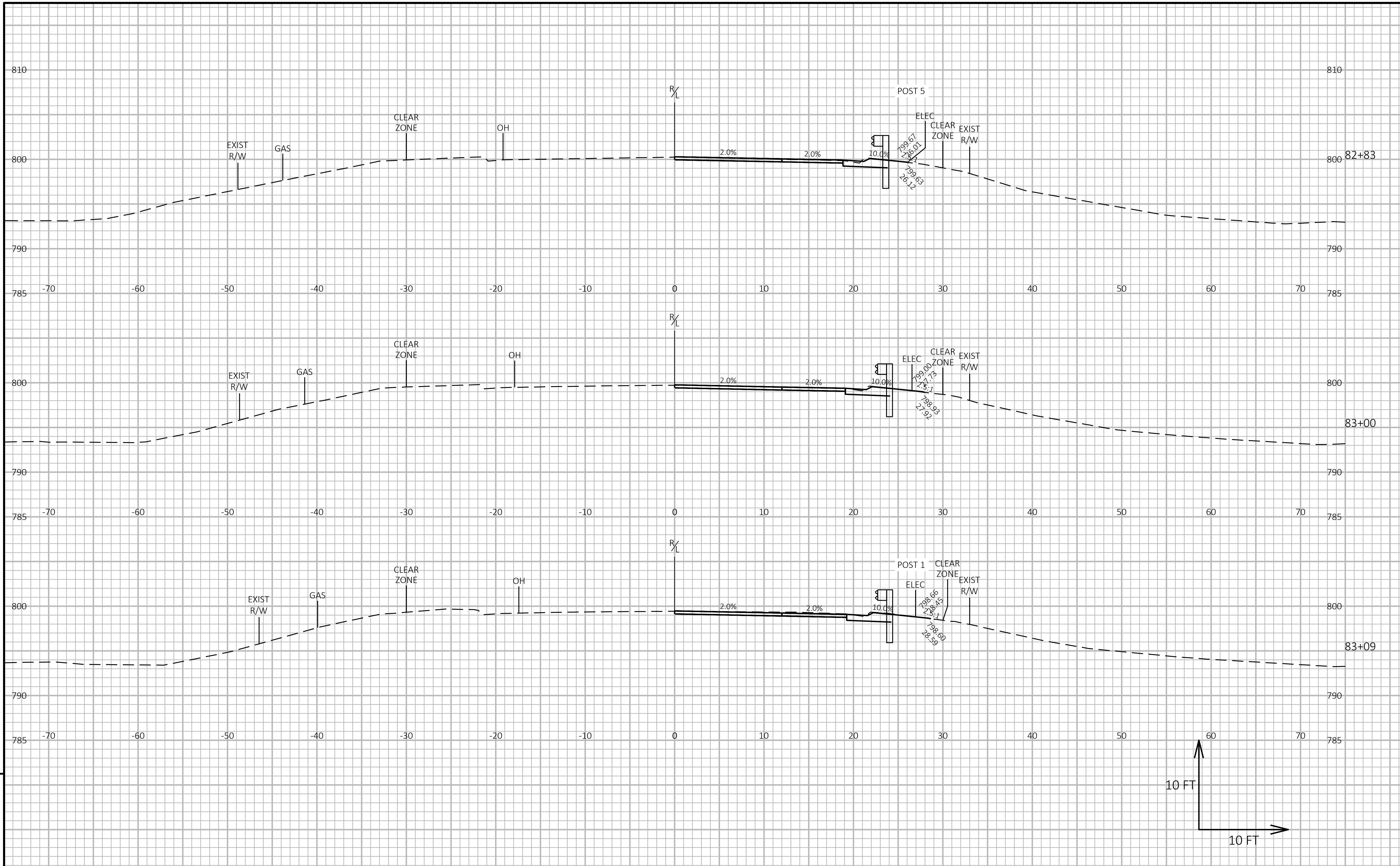
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 B-62-0051	SHEET 262	E



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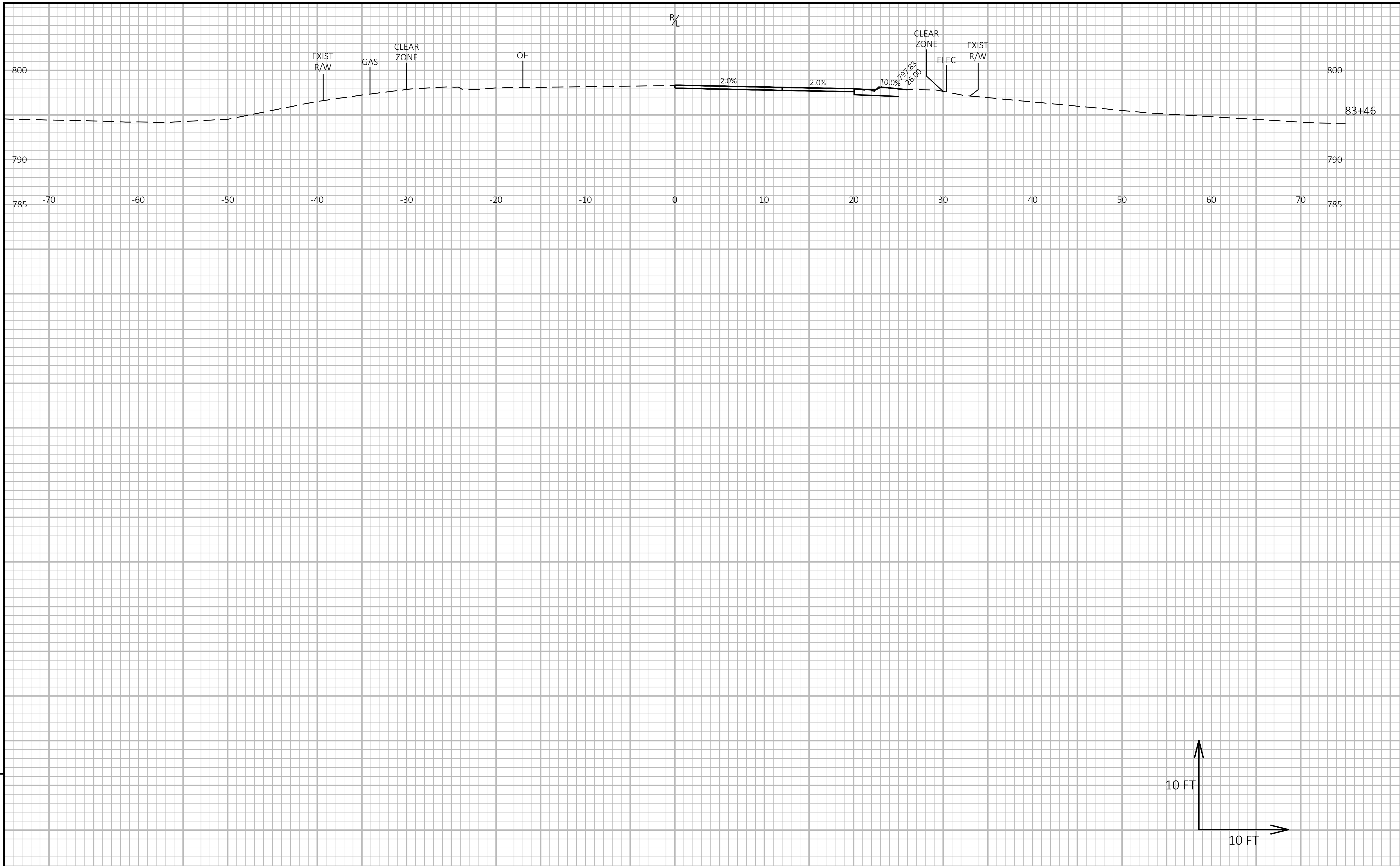
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 B-62-0051	SHEET 263	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090212-xs
PLOT DATE : 10/27/2025 12:57 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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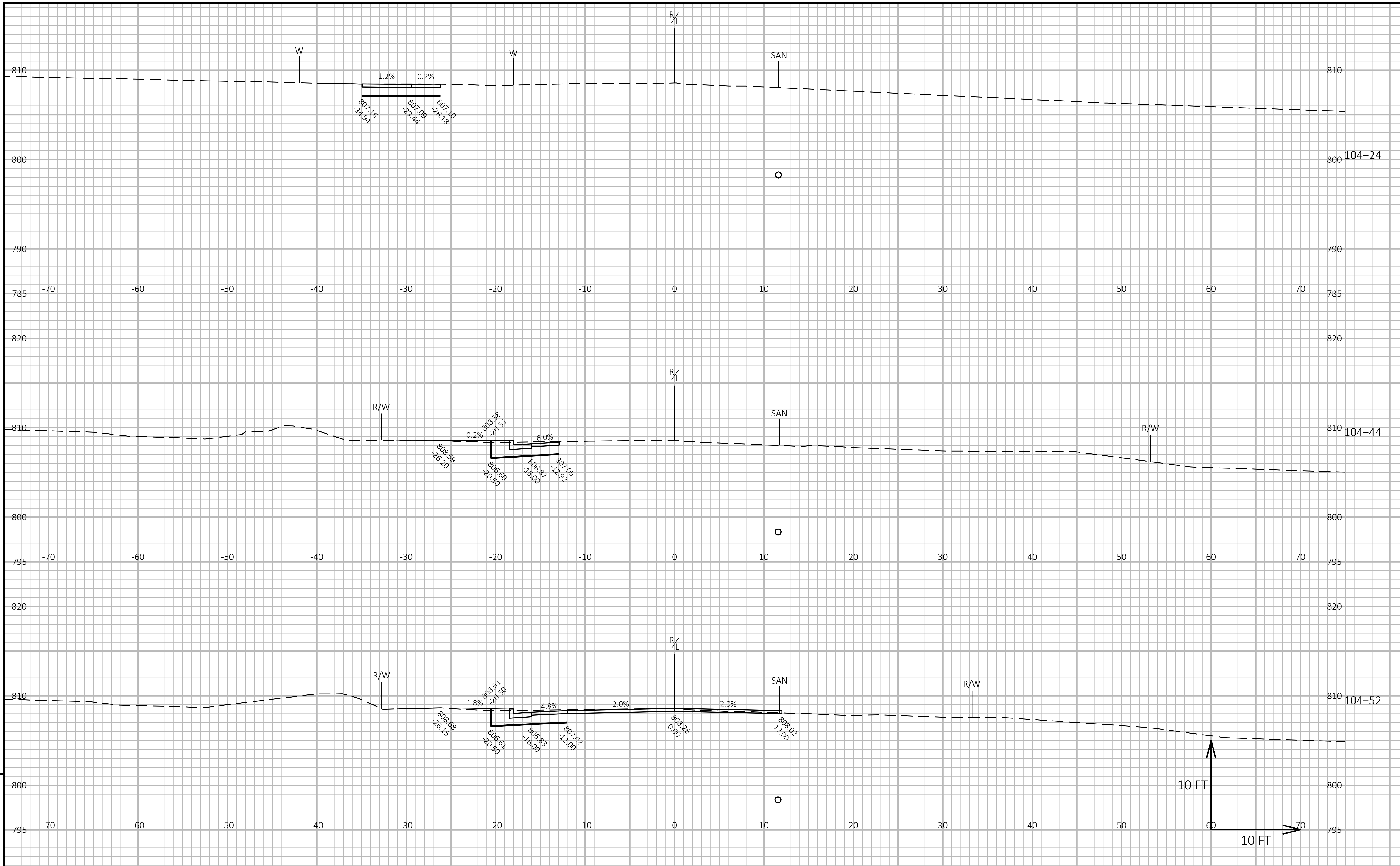
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 B-62-0051	SHEET 264	E



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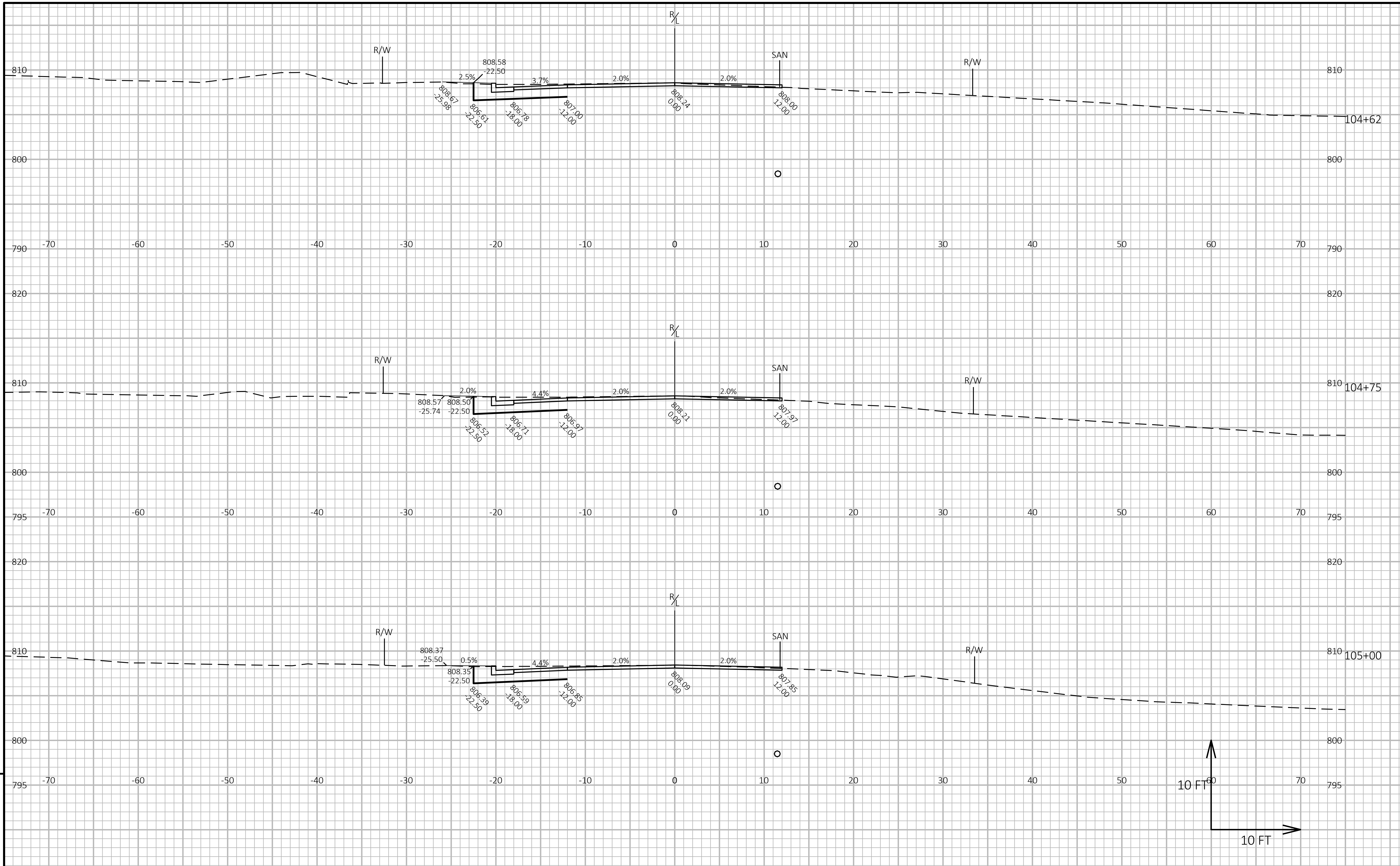
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 265	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 020301-xs

PLOT DATE : 10/29/2025 11:35 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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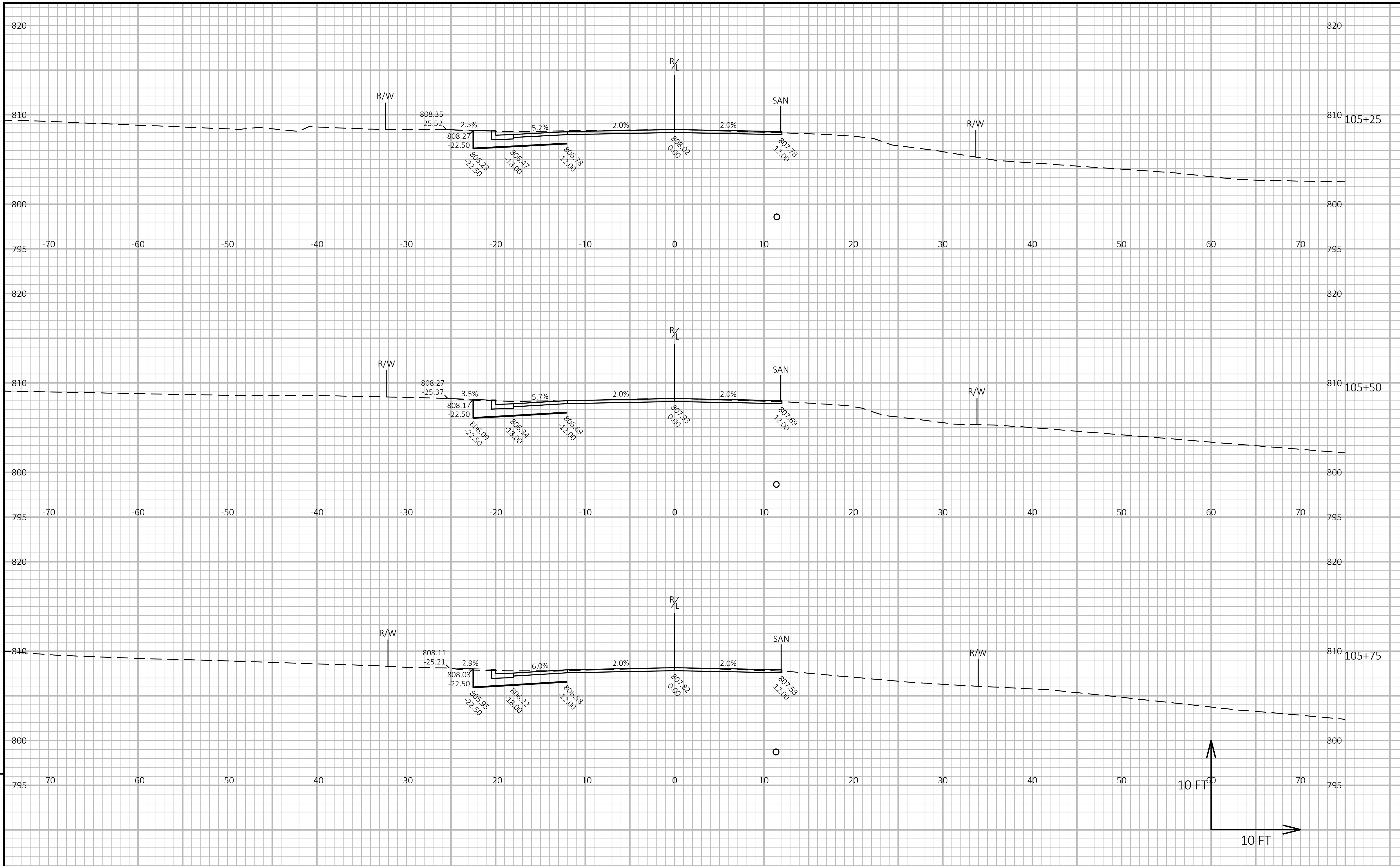
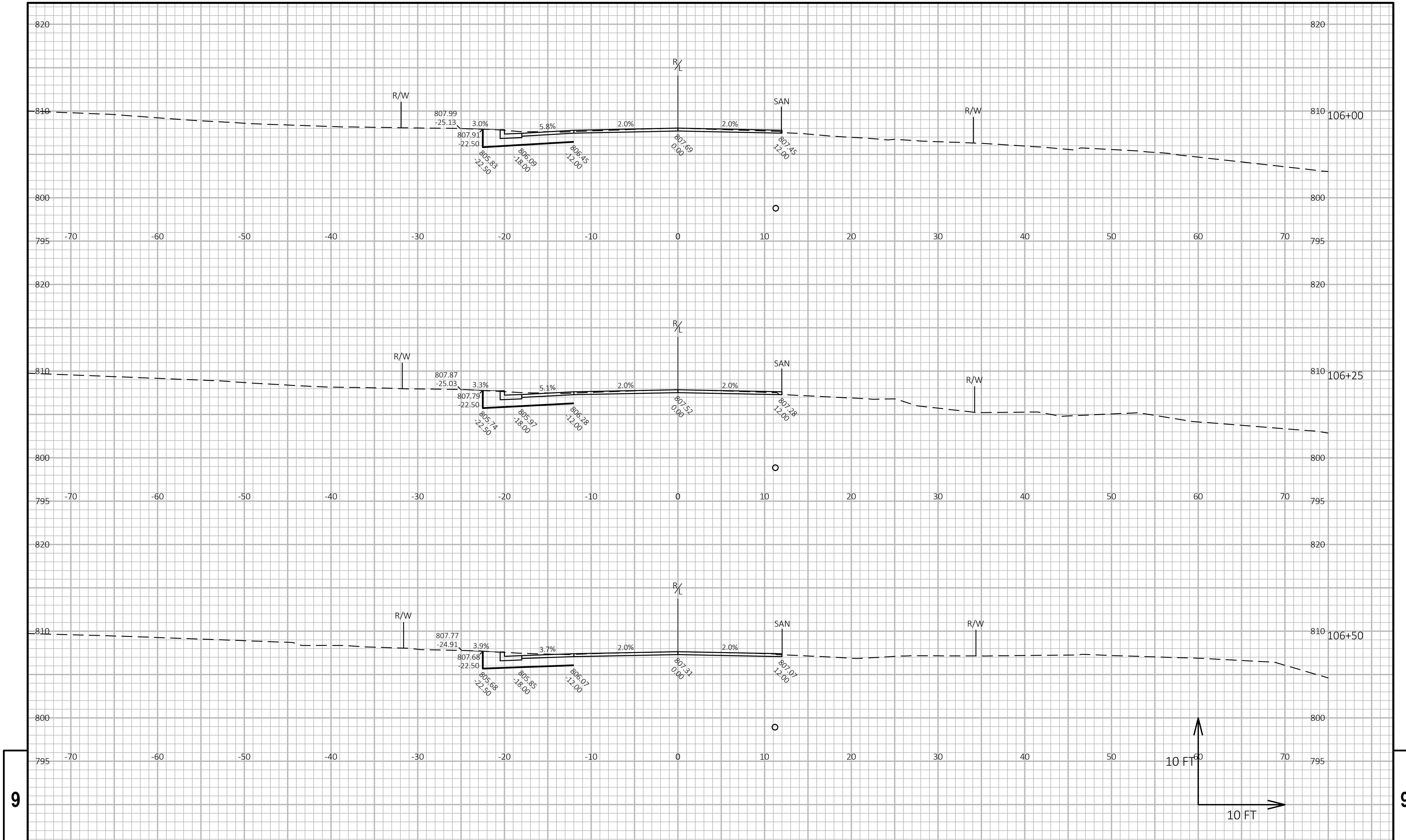
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 266	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 020302-xs
PLOT DATE : 10/29/2025 11:35 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



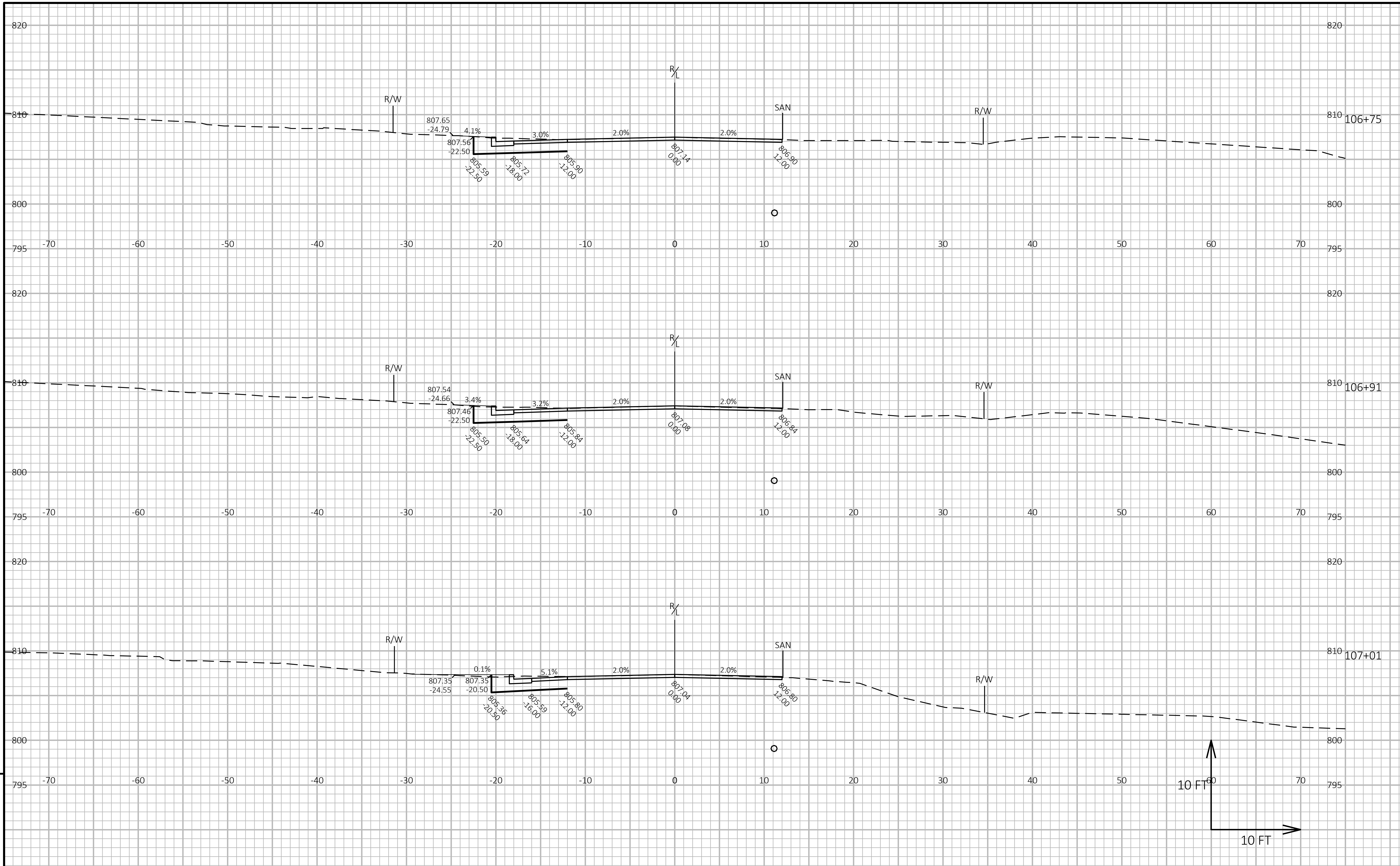
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 267 E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 020303-xs
PLOT DATE : 10/29/2025 11:35 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 268	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 020304-xs
PLOT DATE : 10/29/2025 11:35 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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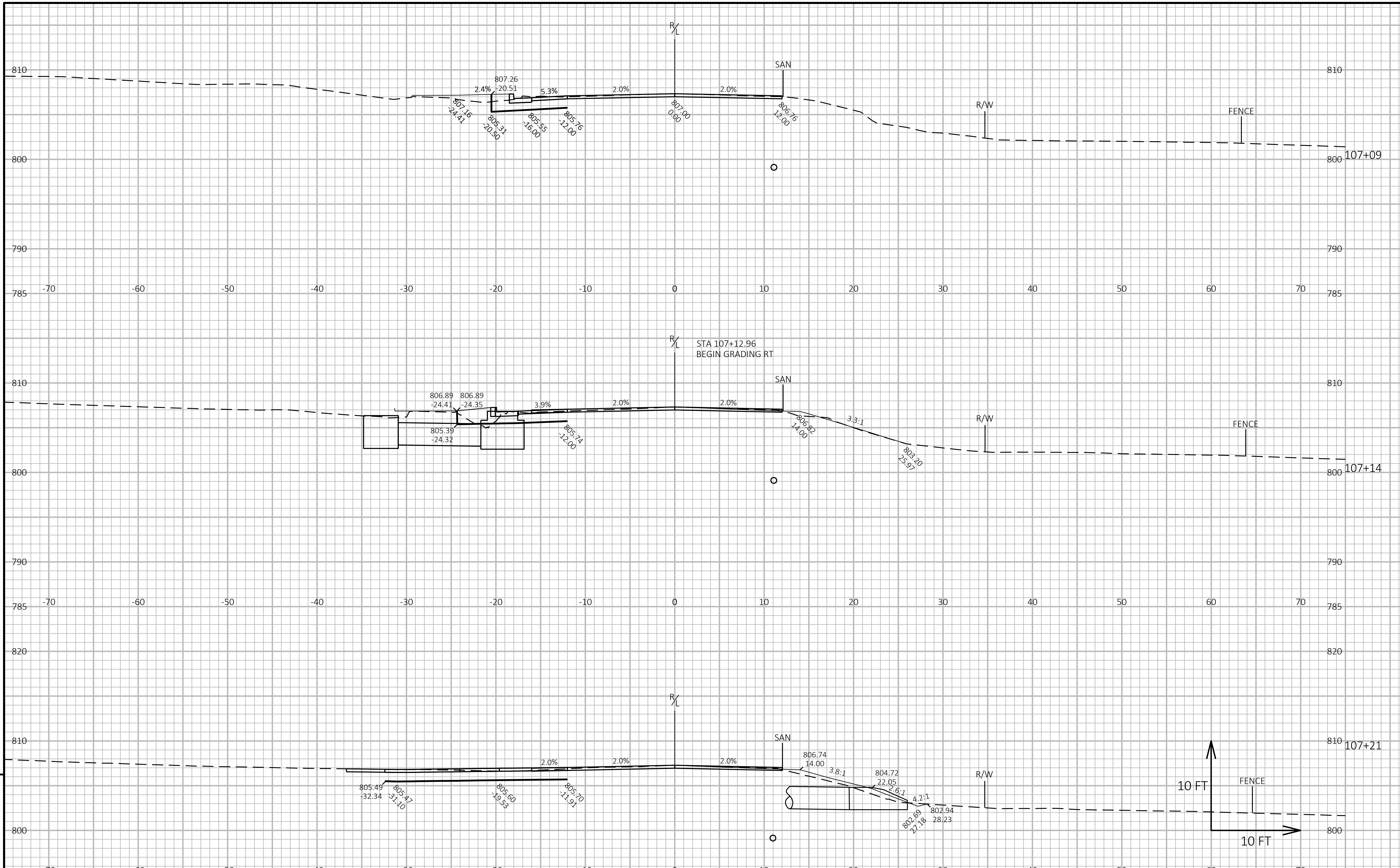
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 269	E



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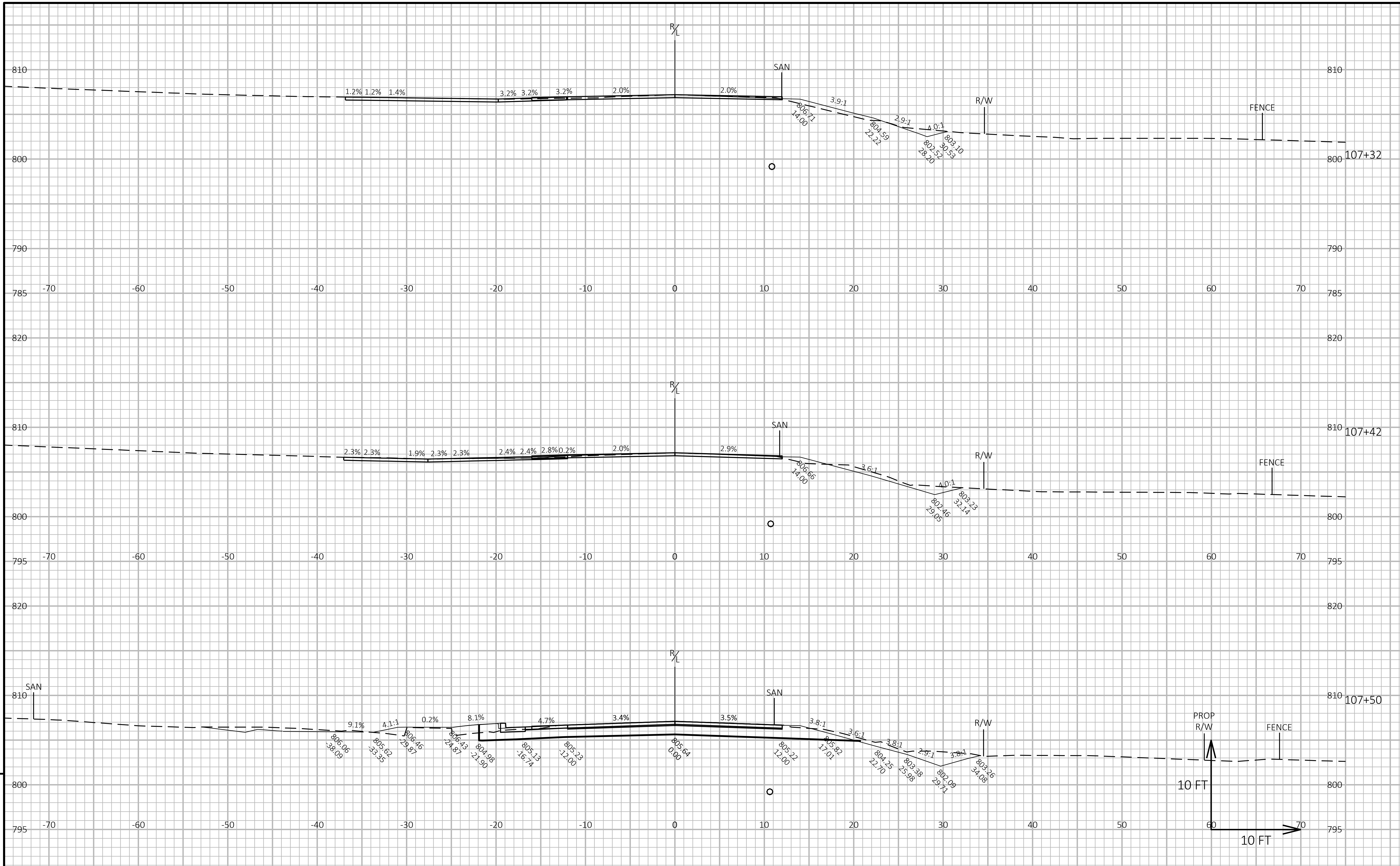
PROJECT NO: 5710-00-72 | HWY: STH 82 | COUNTY: VERNON | CROSS SECTIONS: STH 82 | SHEET 270 | E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 020306-xs
PLOT DATE : 10/29/2025 11:35 AM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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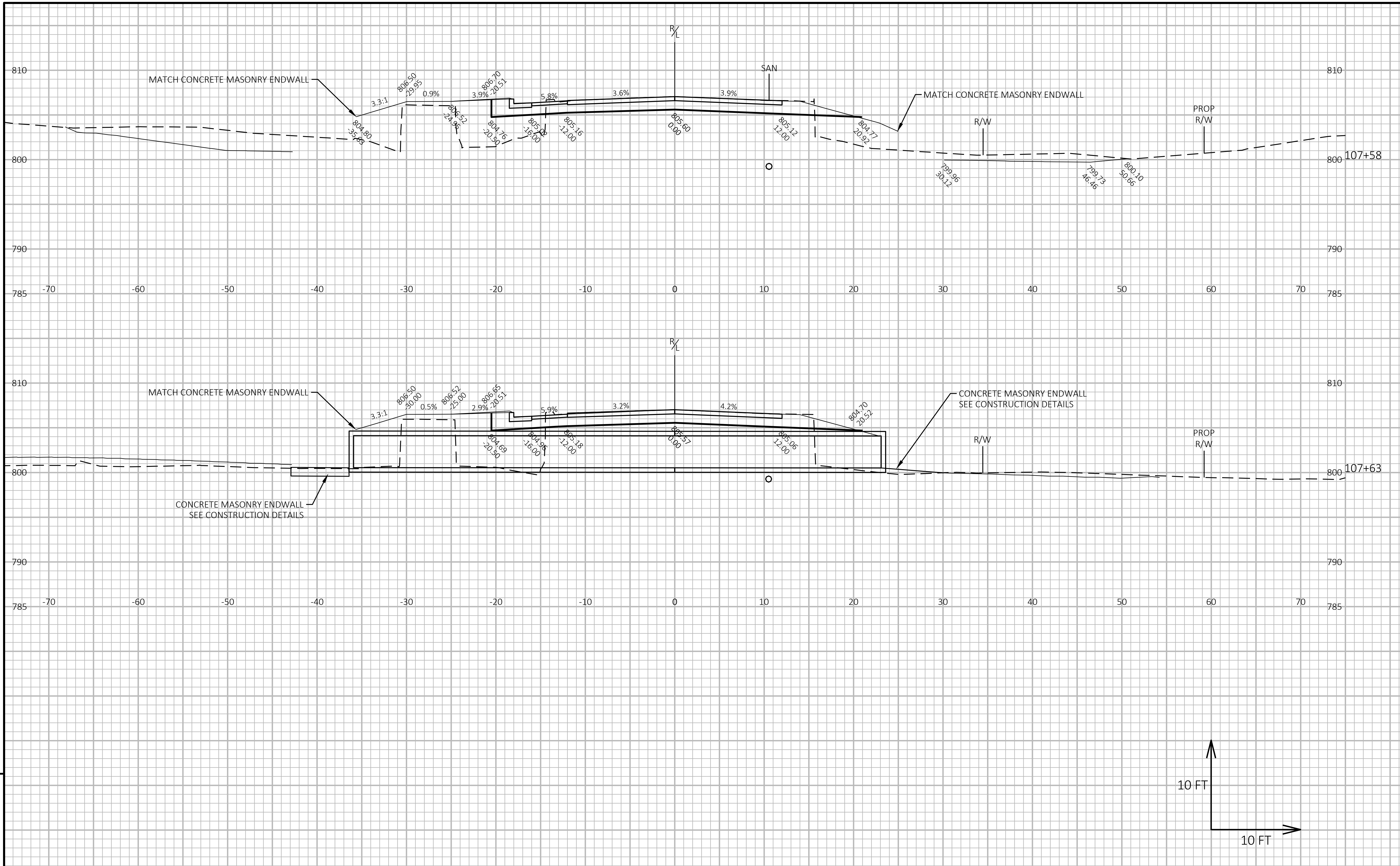
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 271	E



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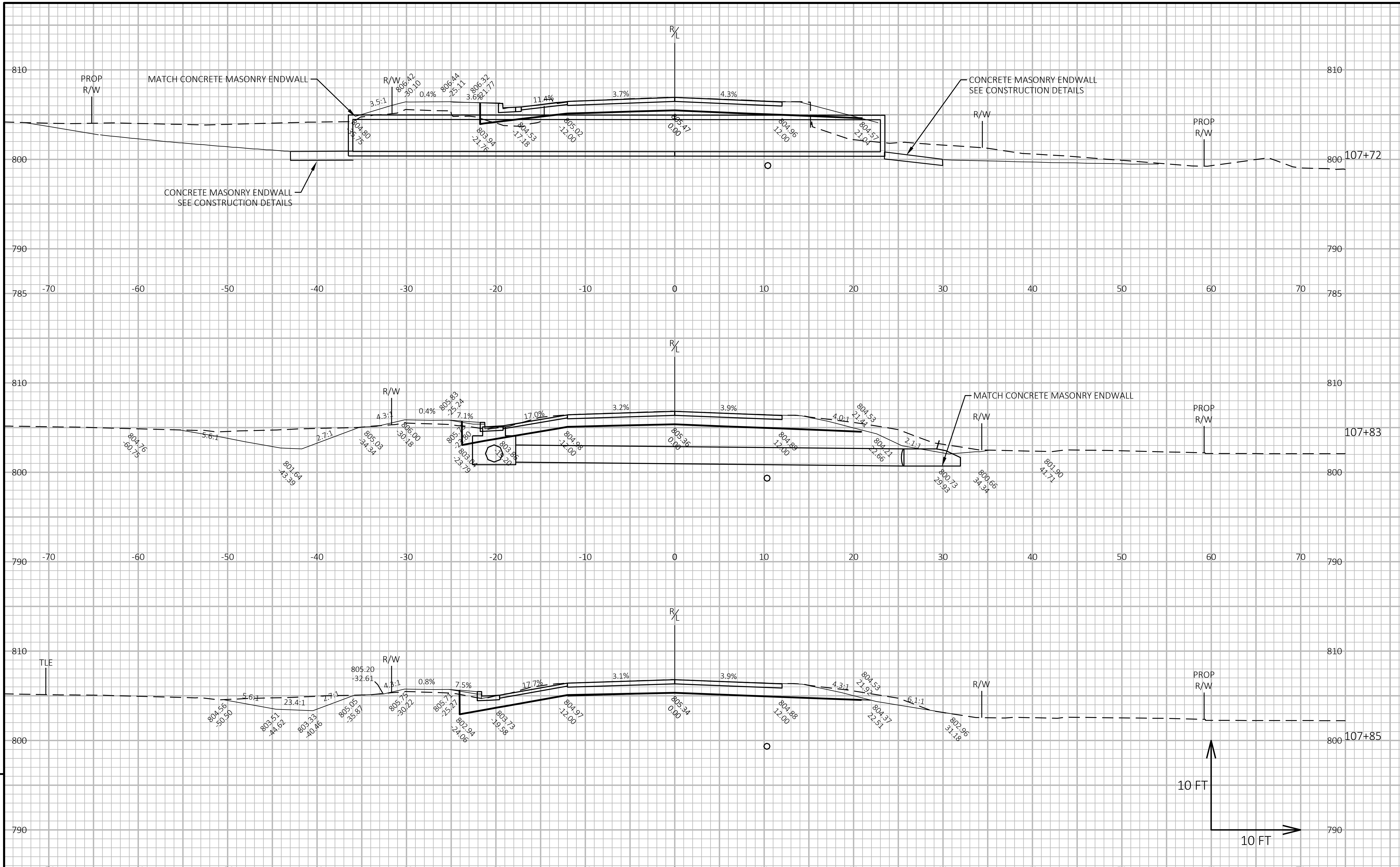
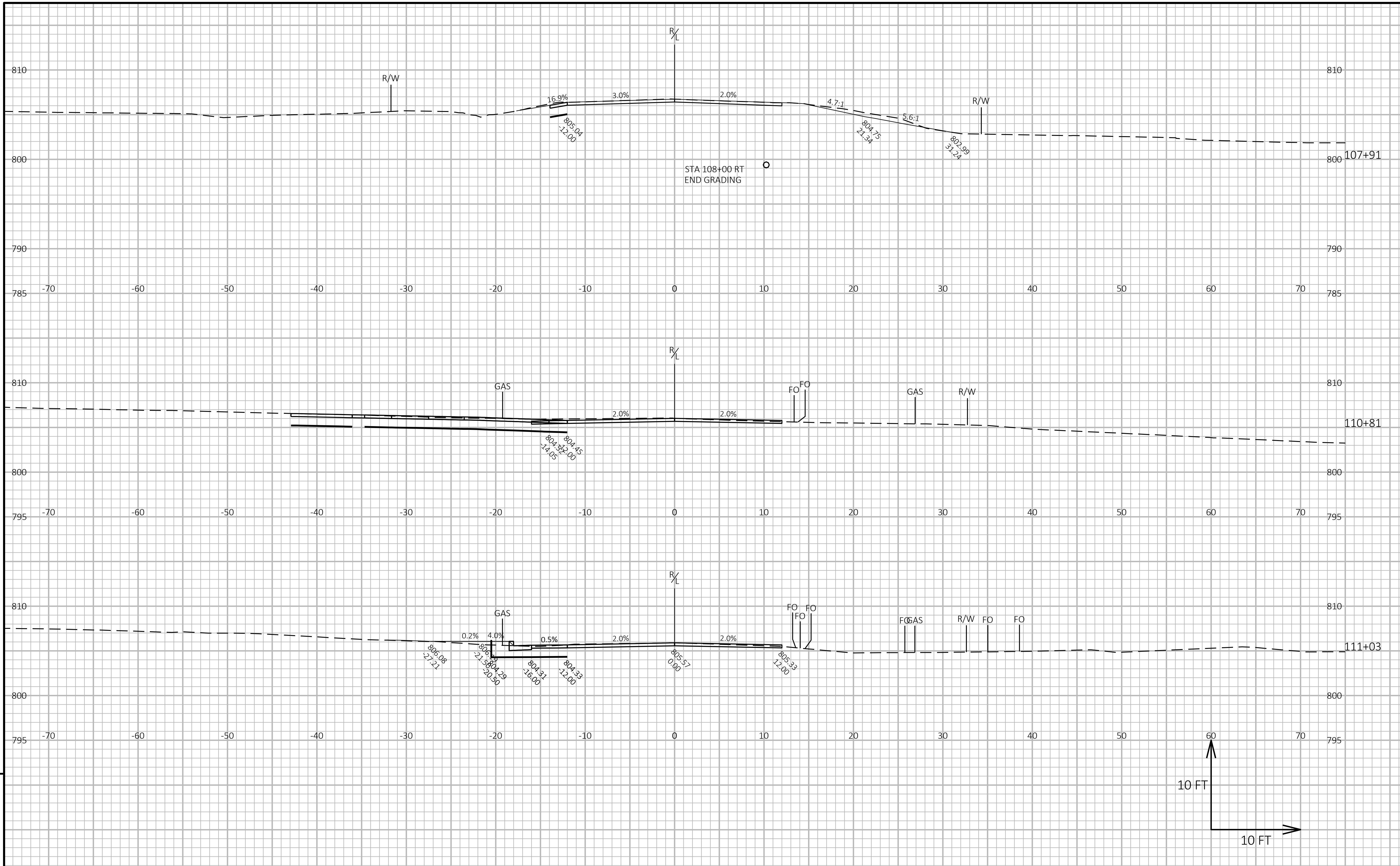
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 272	E



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 273 E



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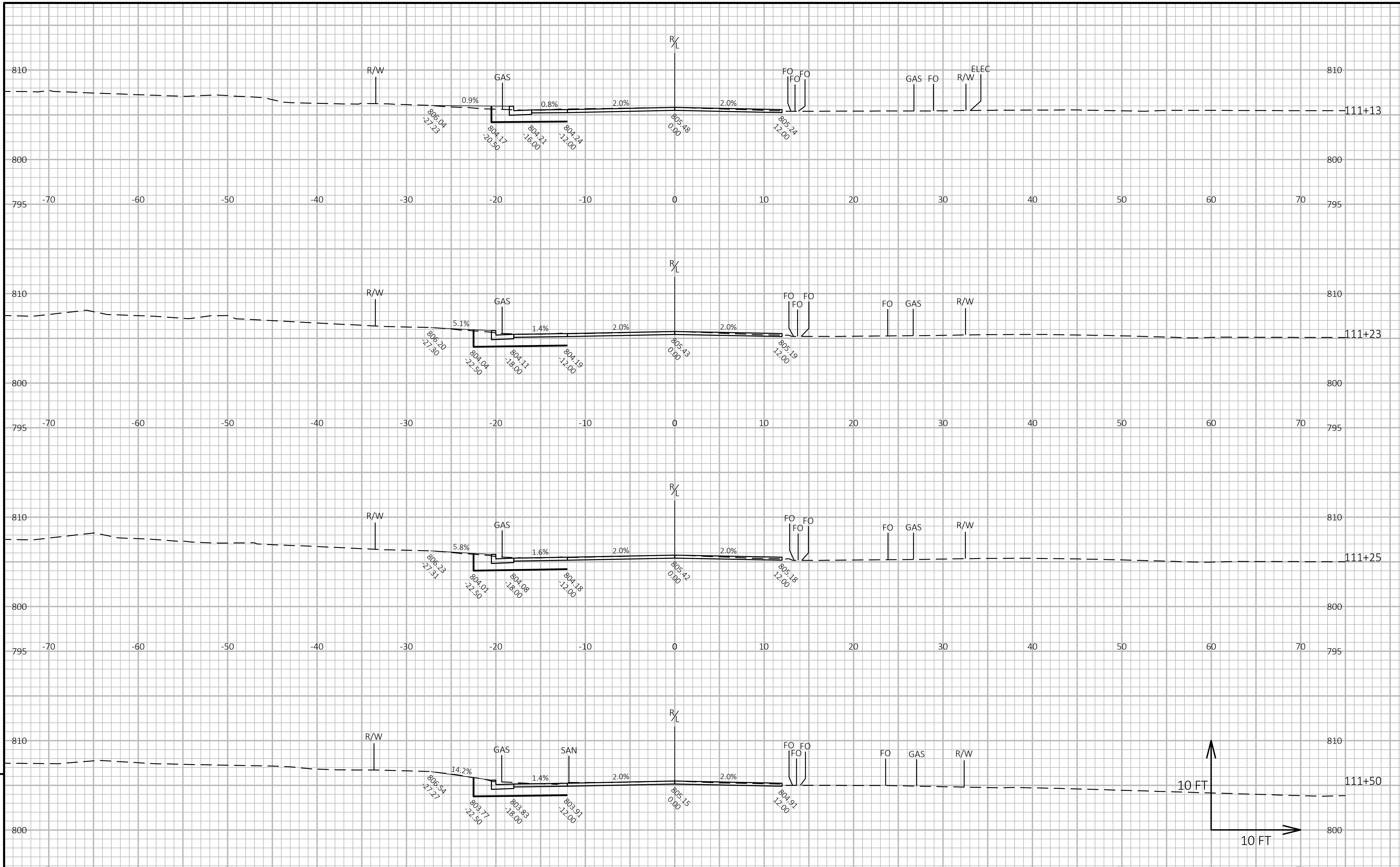
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 274	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 020310-xs
PLOT DATE : 10/29/2025 11:36 AM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 275 E

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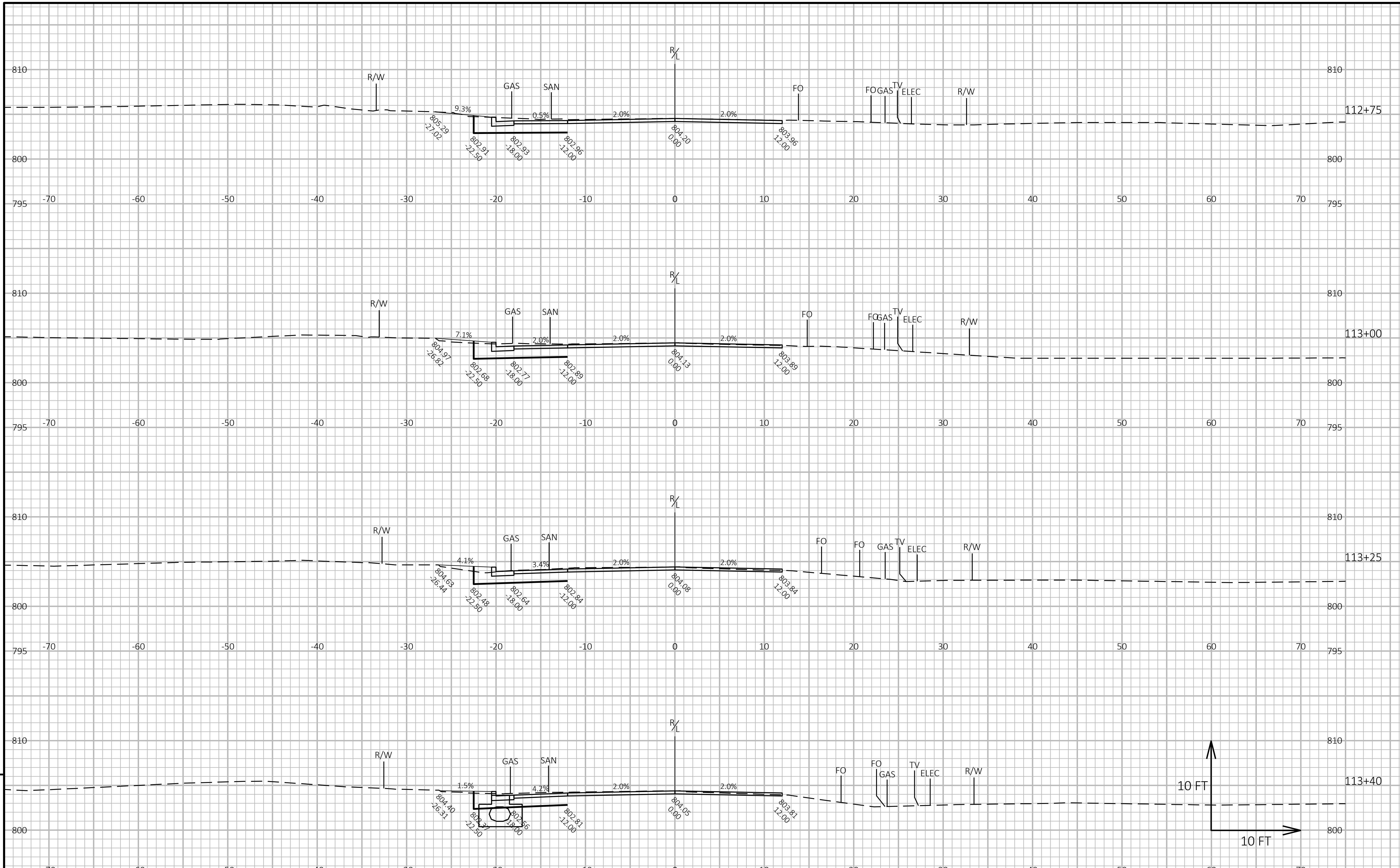
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 276	E



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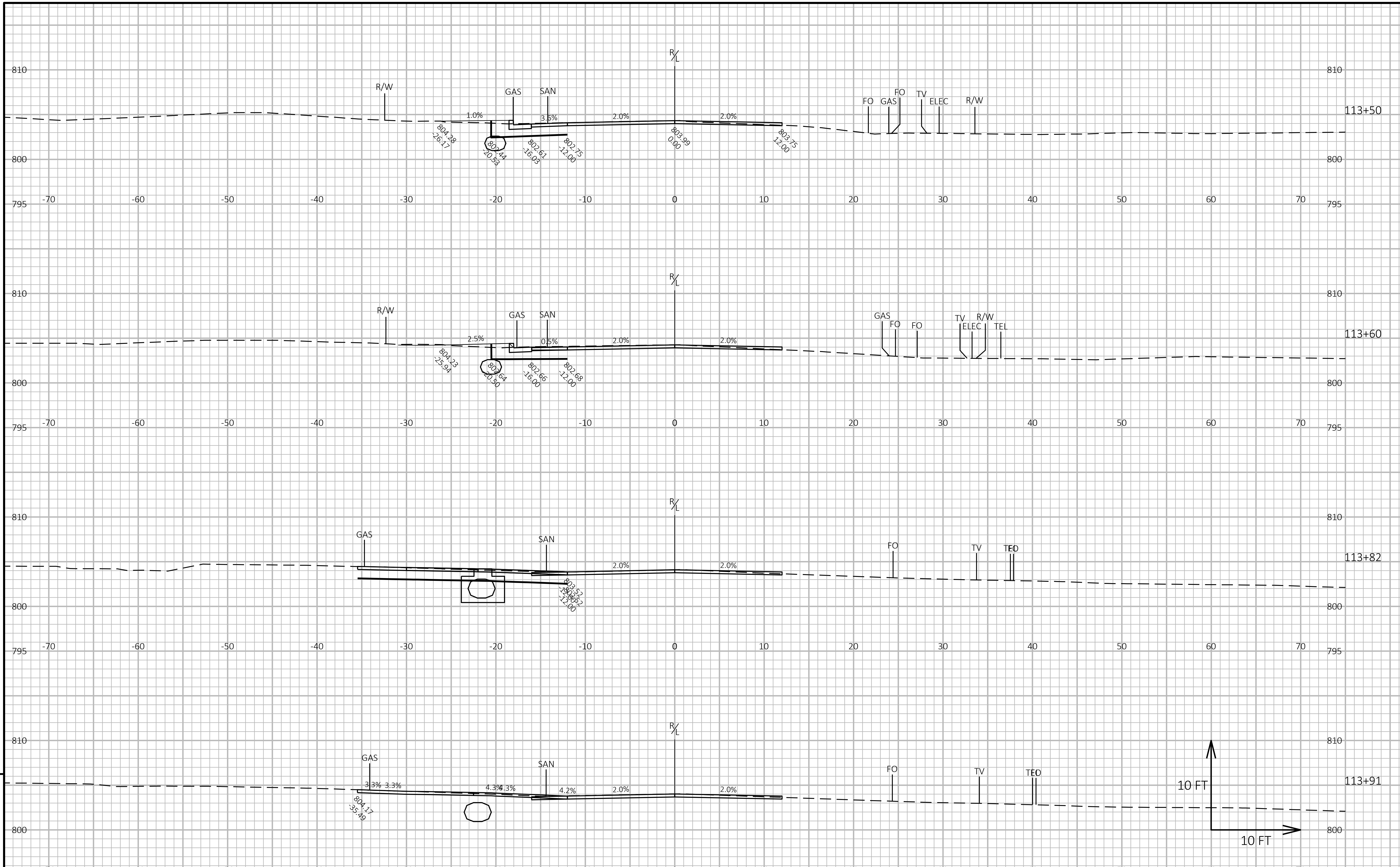
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 277	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 020313-xs
PLOT DATE : 10/29/2025 11:36 AM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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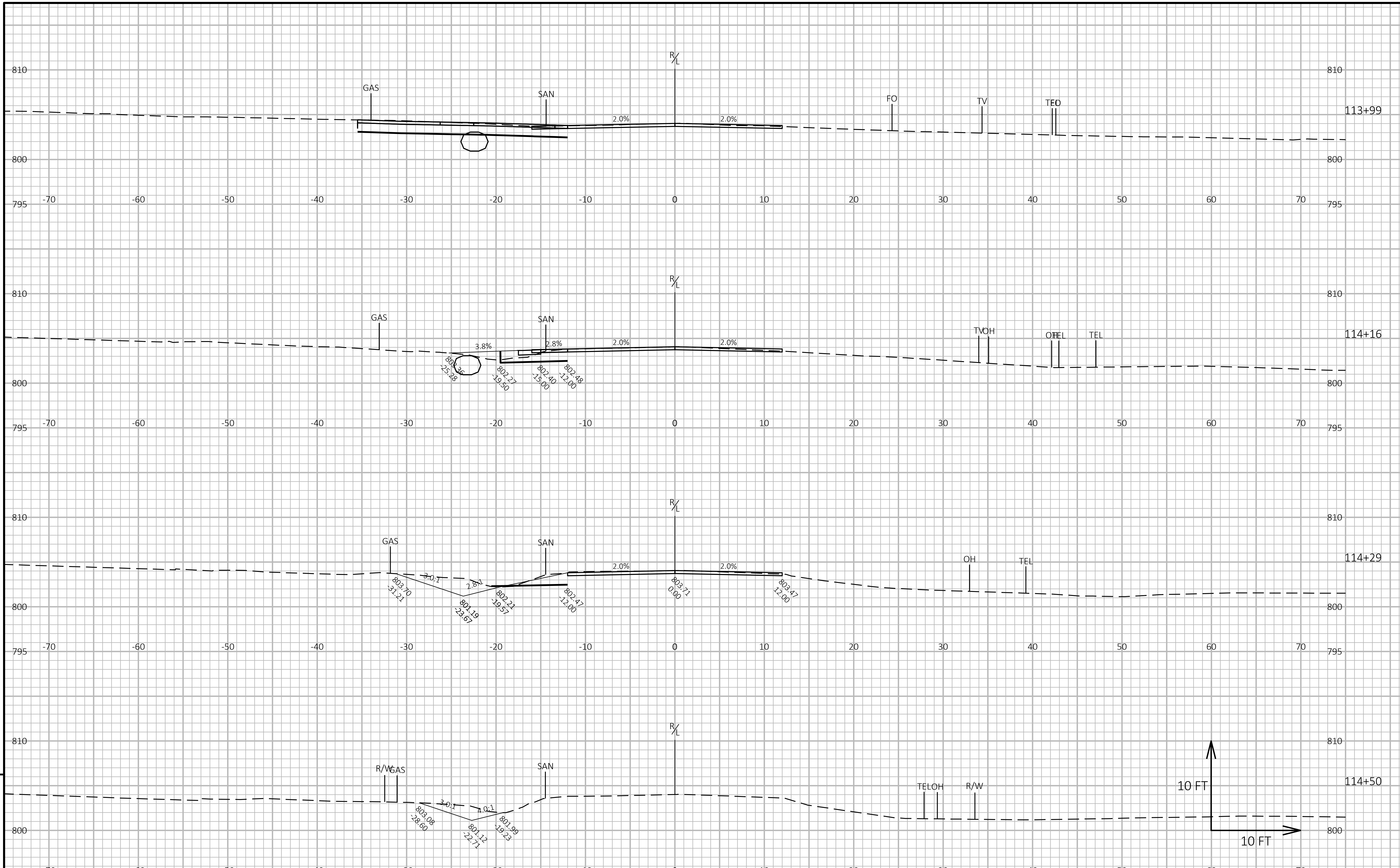
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 278	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 020314-xs

PLOT DATE : 10/29/2025 11:36 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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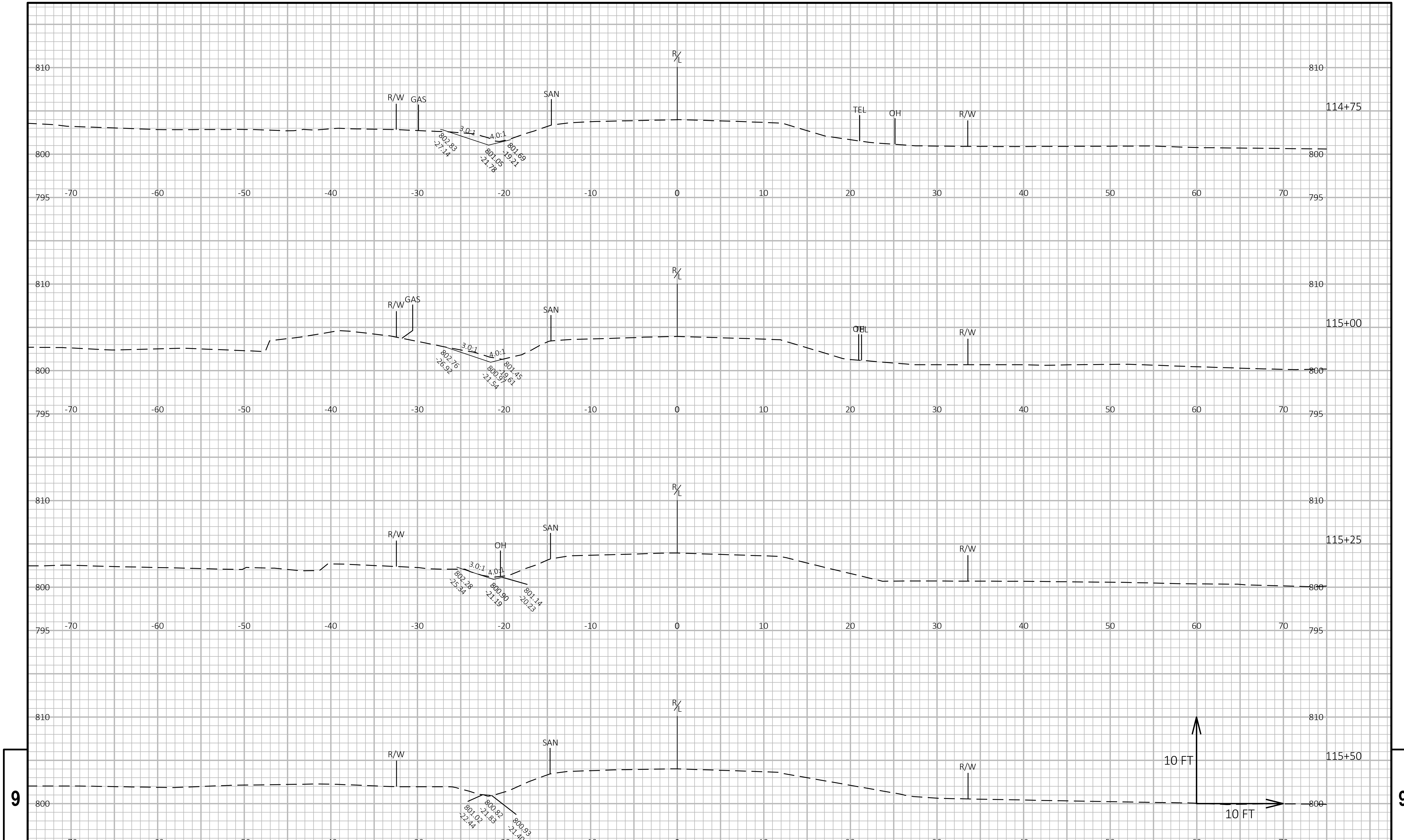
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 279	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 020315-xs

PLOT DATE : 10/29/2025 11:36 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 020316-xs
PLOT DATE : 10/29/2025 11:36 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

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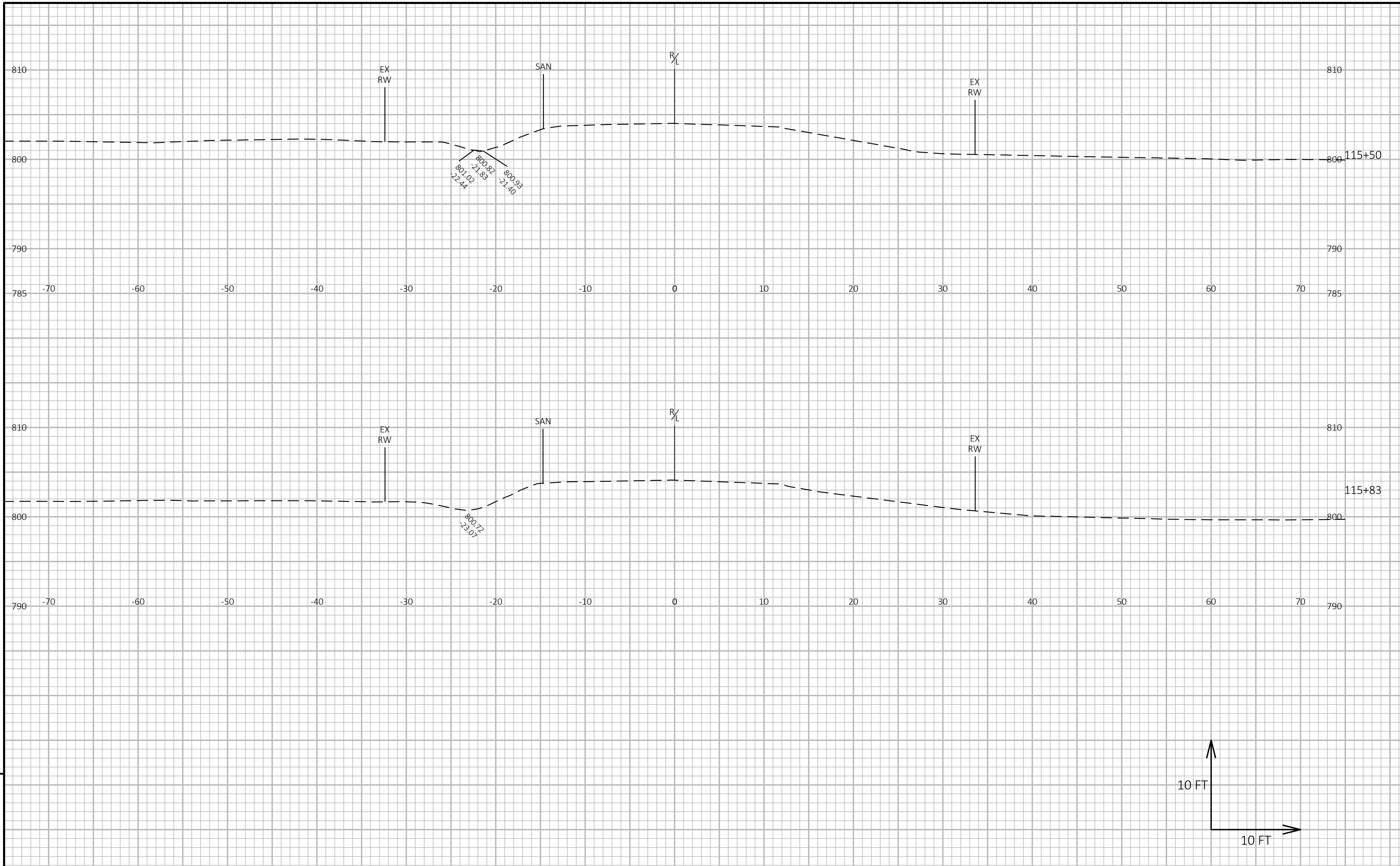

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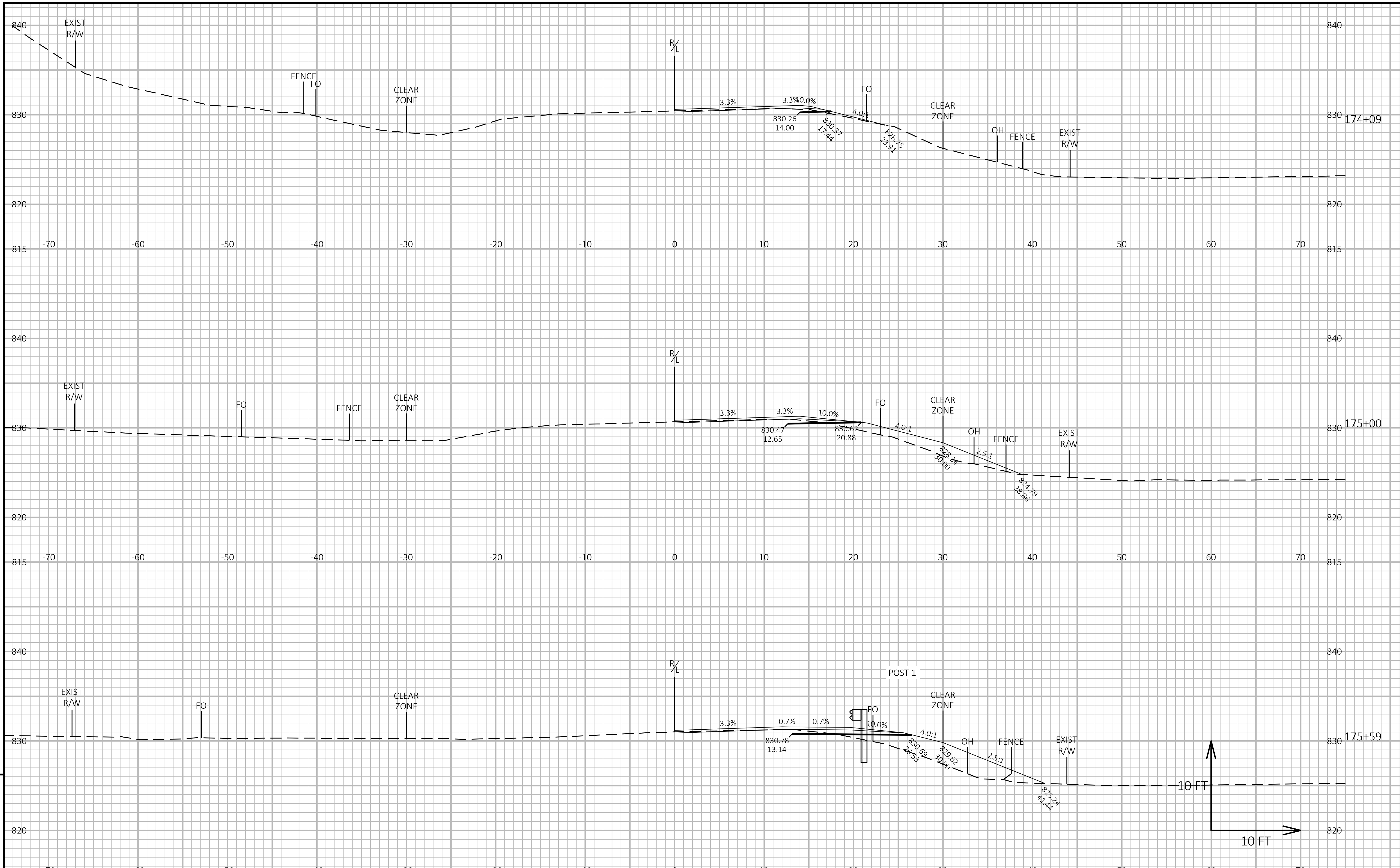
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 281	E



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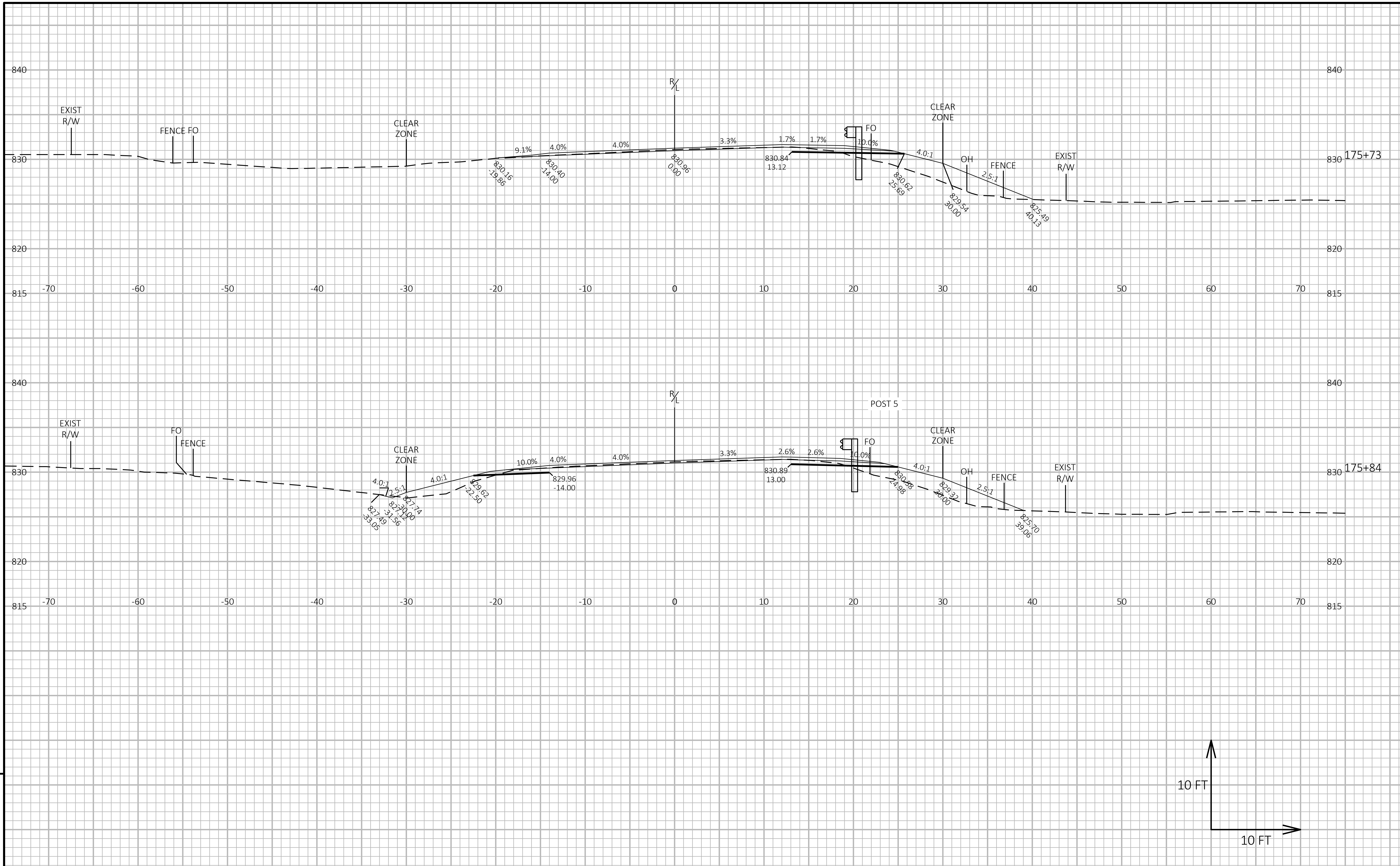
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0328	SHEET 282	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 020301-xs

PLOT DATE : 10/27/2025 1:03 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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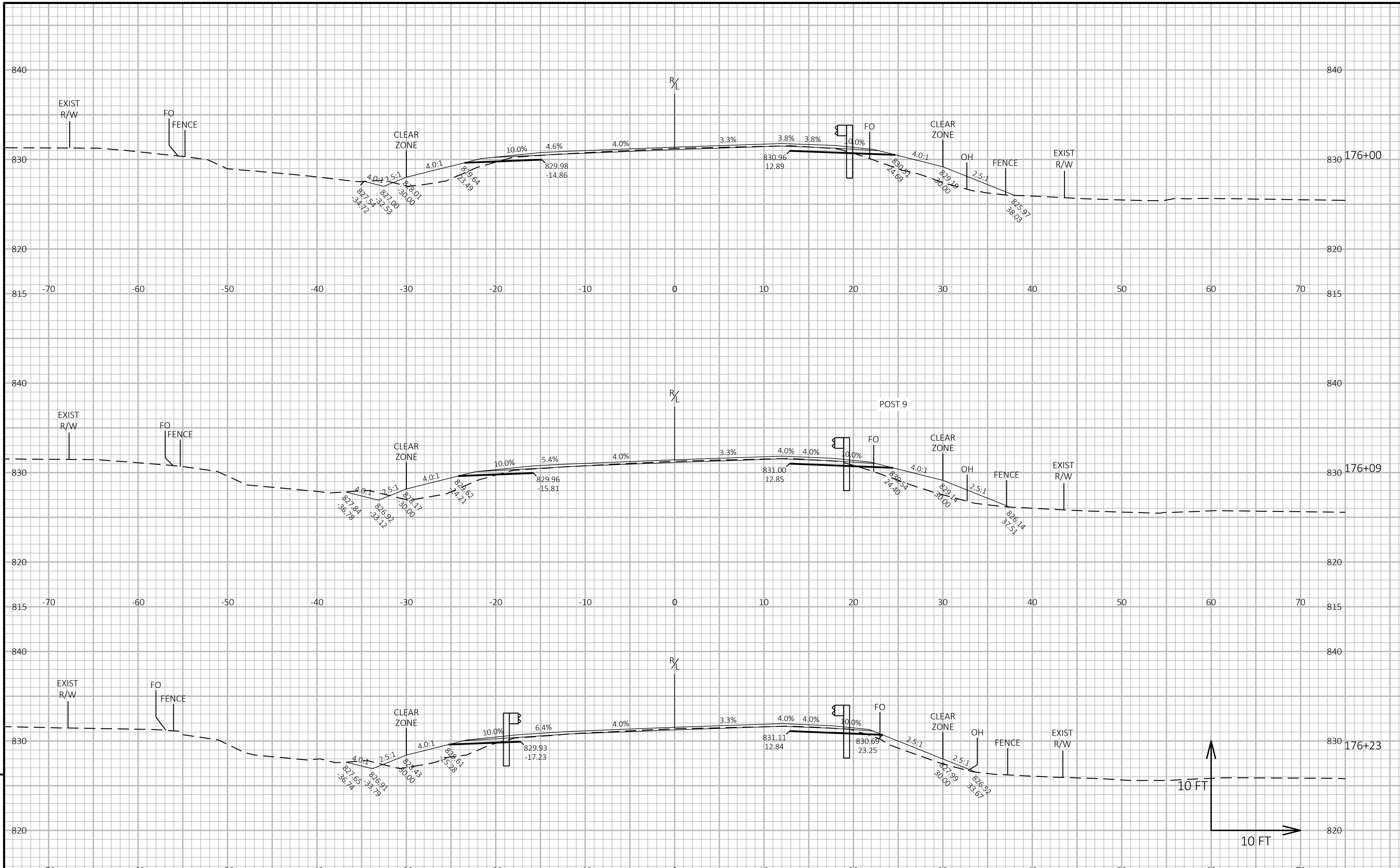
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0328	SHEET 283	E

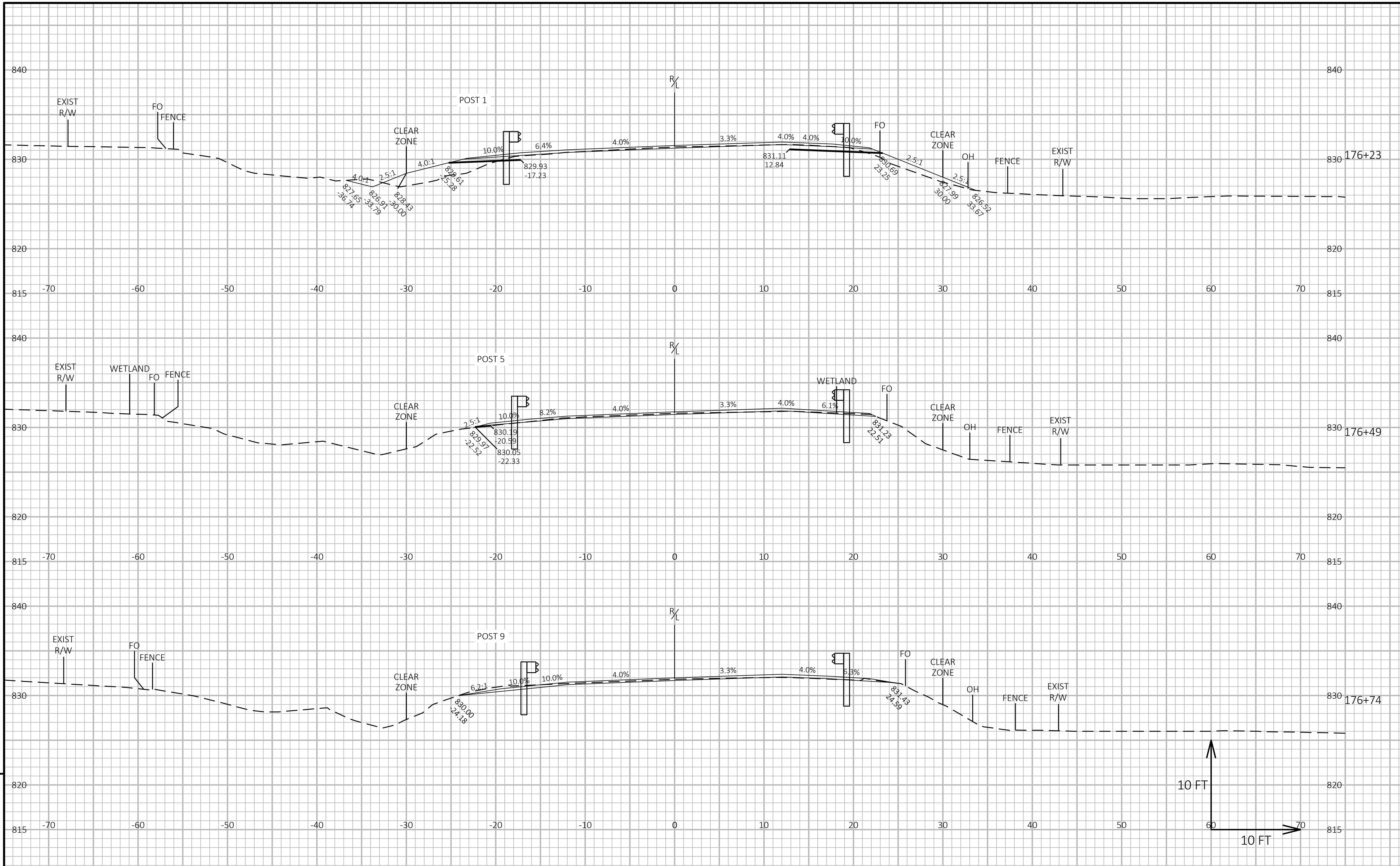
FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 020302-xs

PLOT DATE : 10/27/2025 1:03 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0328	SHEET 284	E



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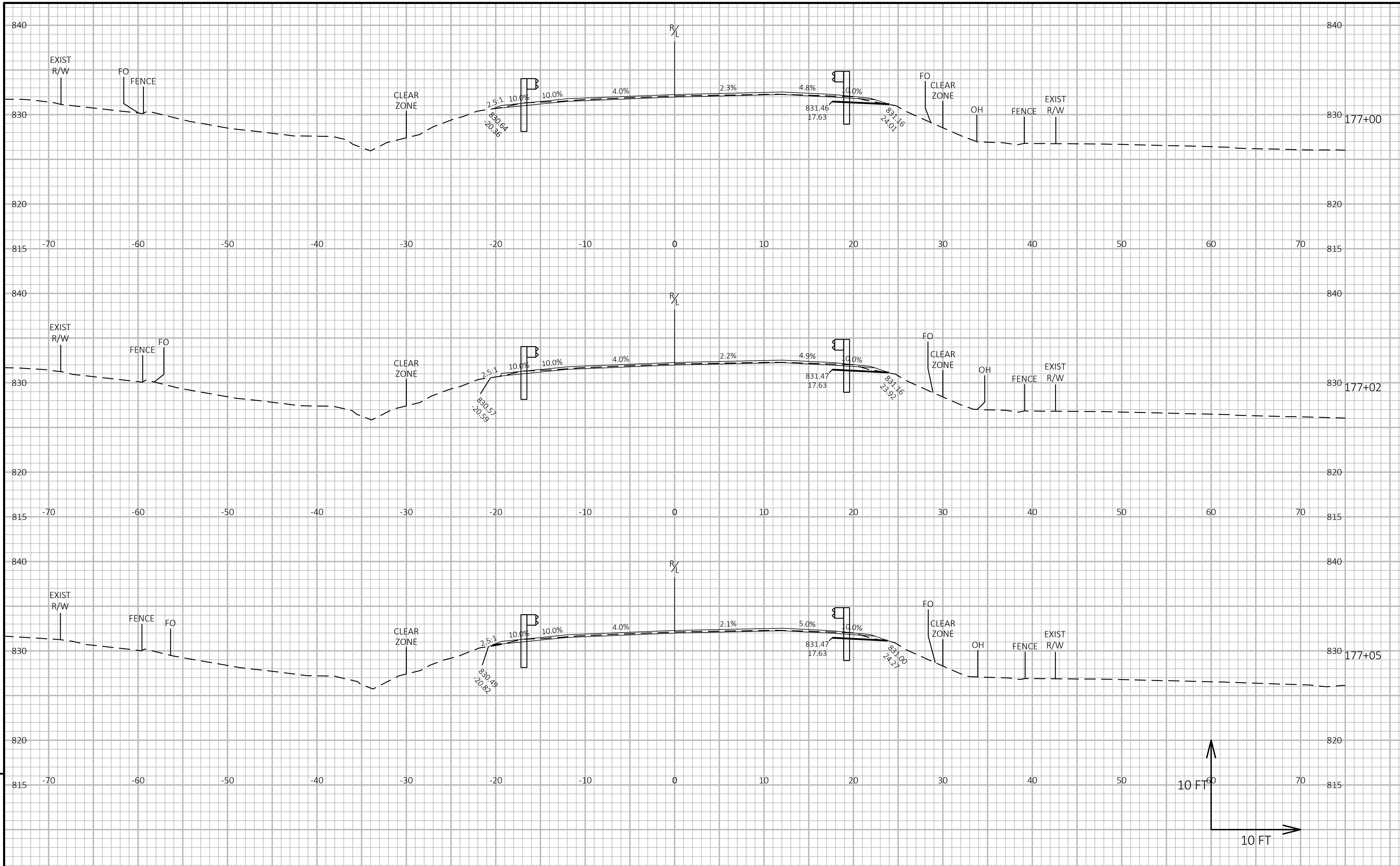
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0328	SHEET 285	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 020304-xs

PLOT DATE : 10/27/2025 1:03 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

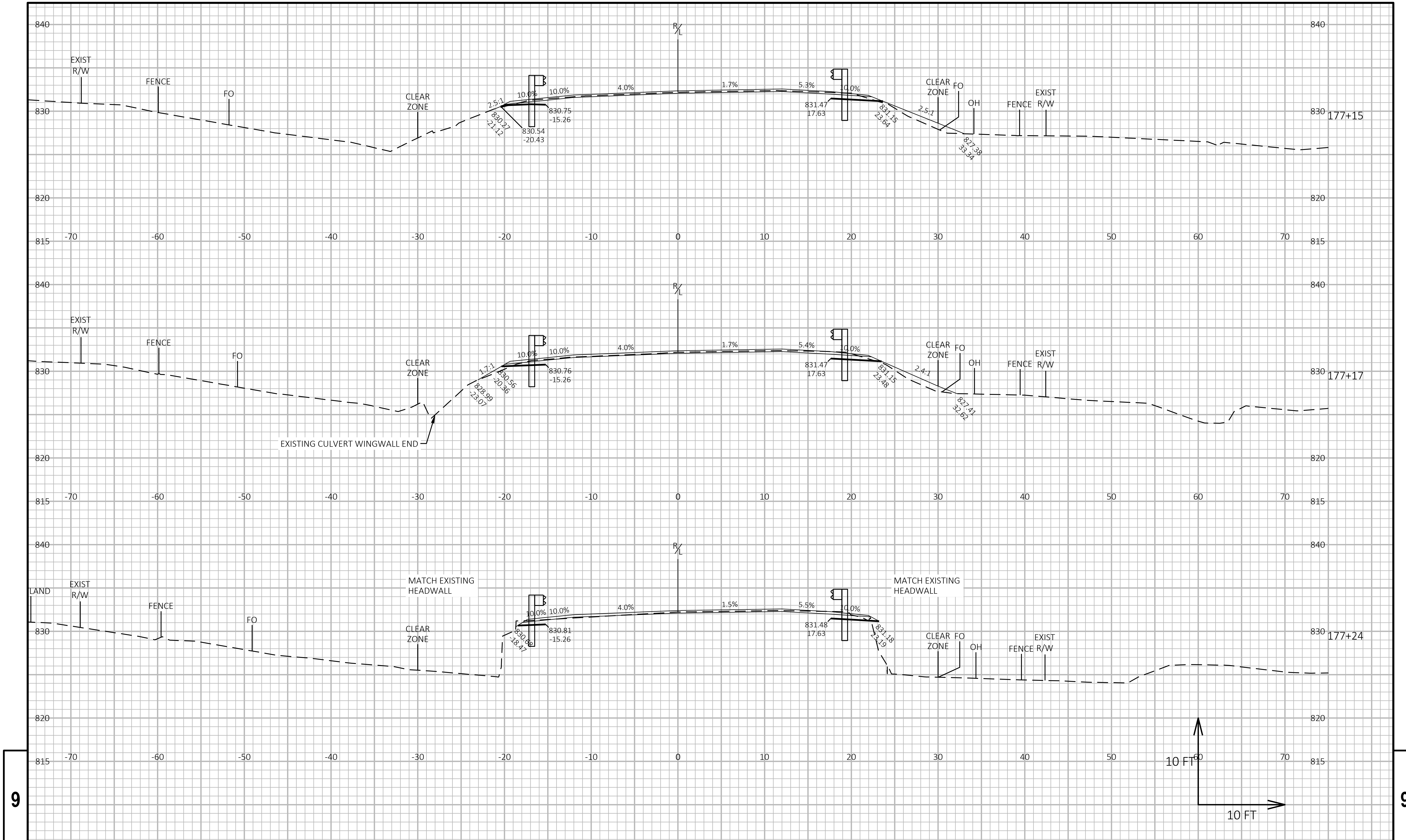
WISDOT/CADDS SHEET 49



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0328	SHEET 286	E

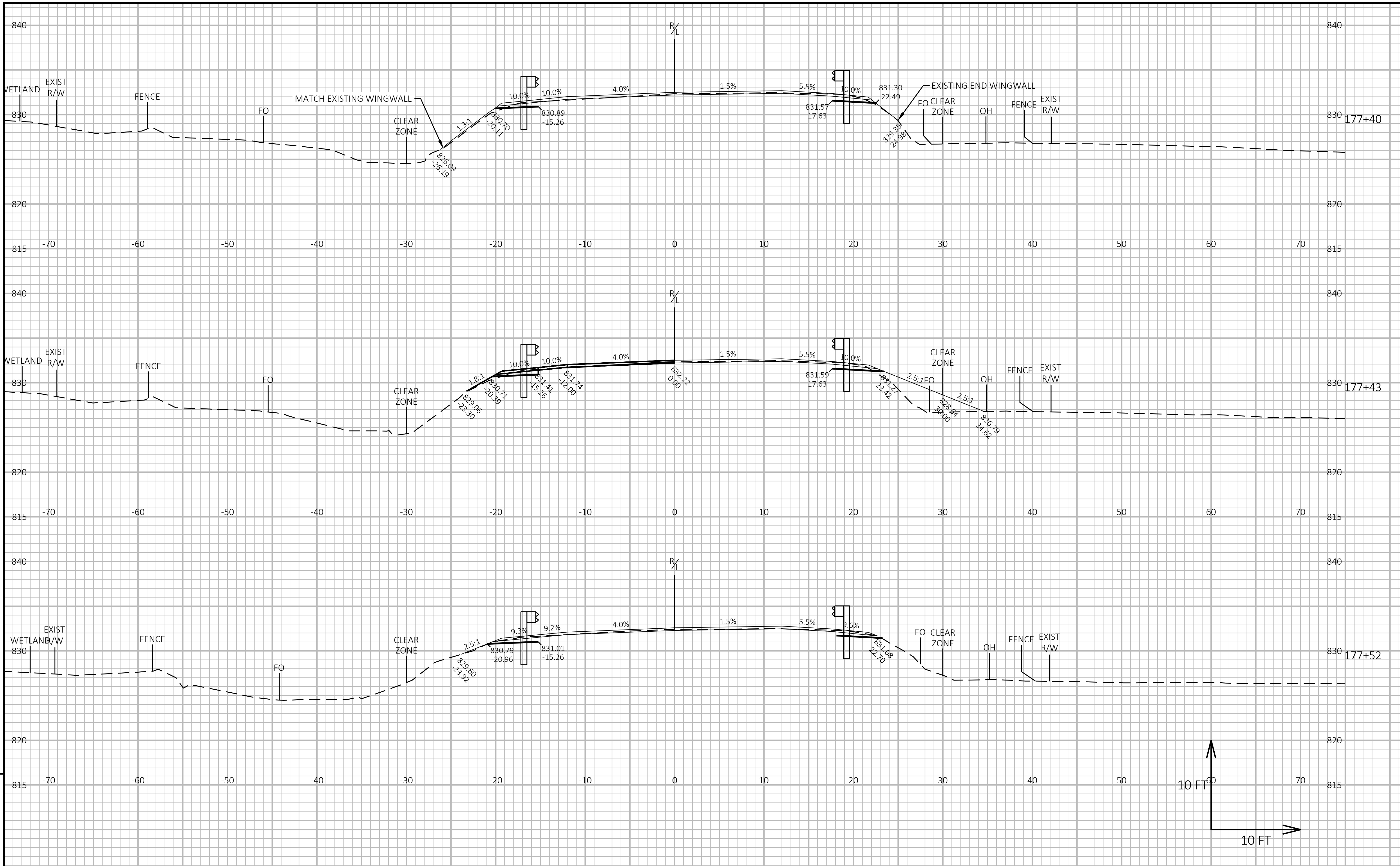
9

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 020305-xs
PLOT DATE : 10/27/2025 1:03 PM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



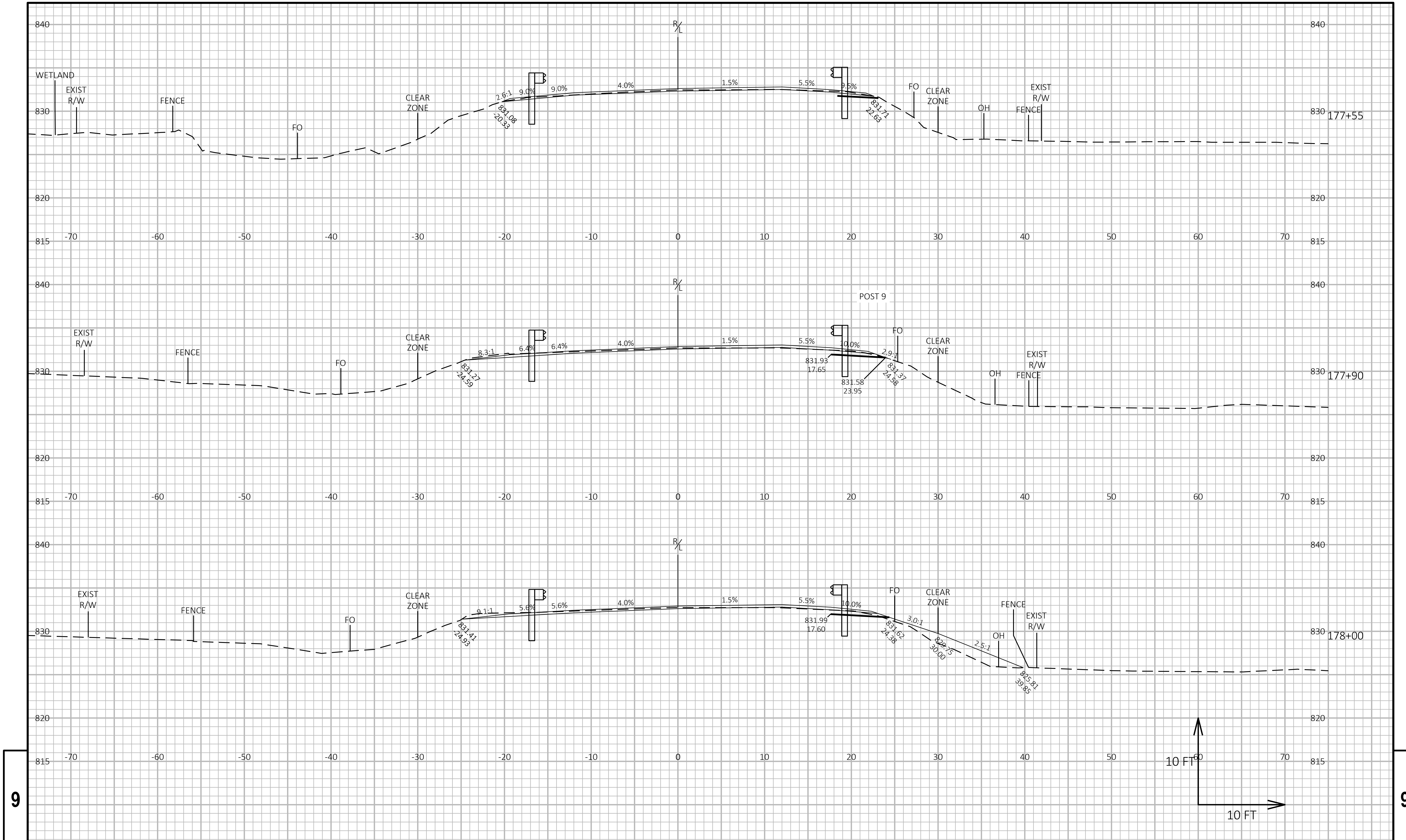
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0328	SHEET 287	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 020306-xs
PLOT DATE : 10/27/2025 1:03 PM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

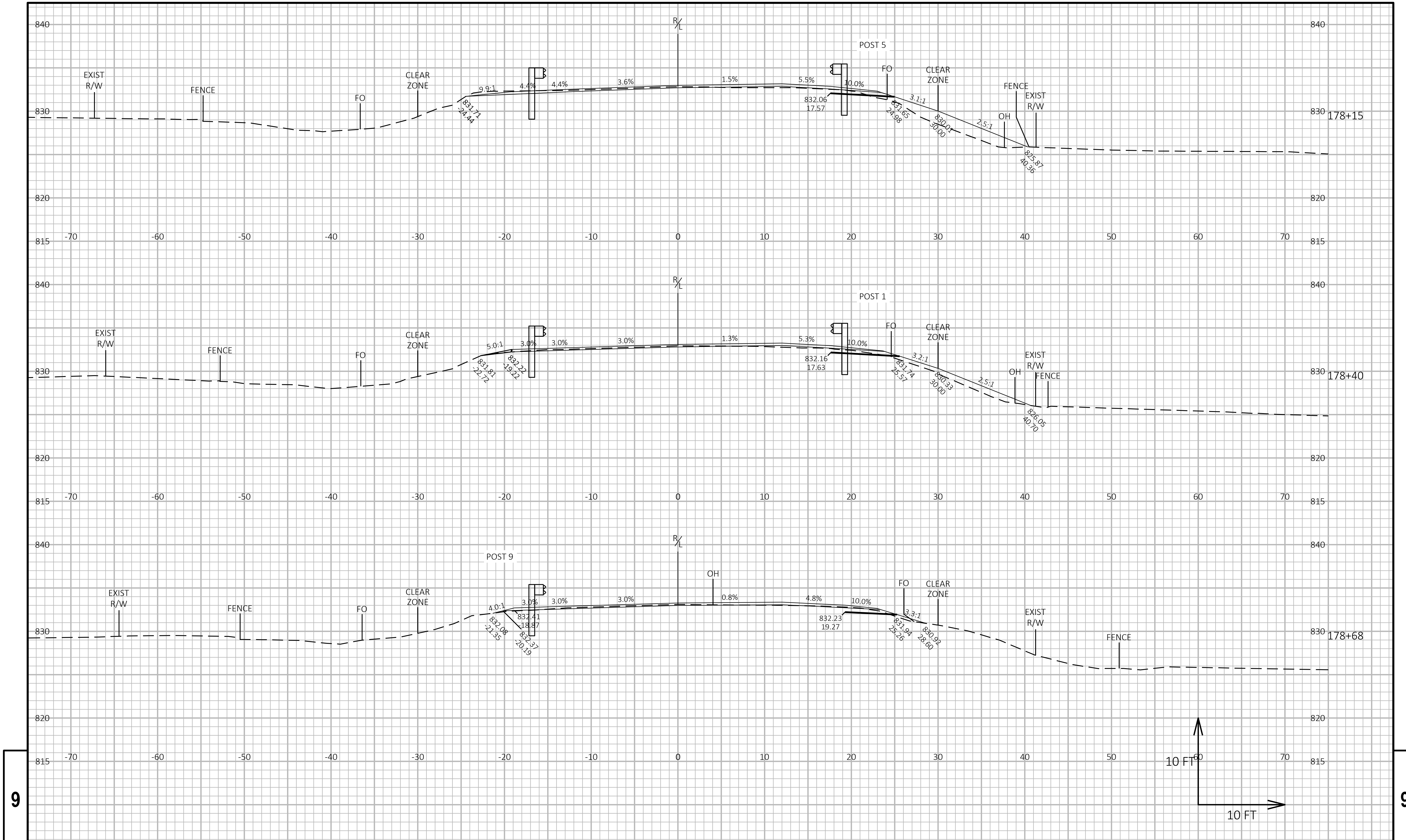


PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0328	SHEET 288	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 020307-xs
PLOT DATE : 10/27/2025 1:03 PM PLOT BY : JORDYN BENN PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0328	SHEET 289	E



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0328	SHEET 290 E

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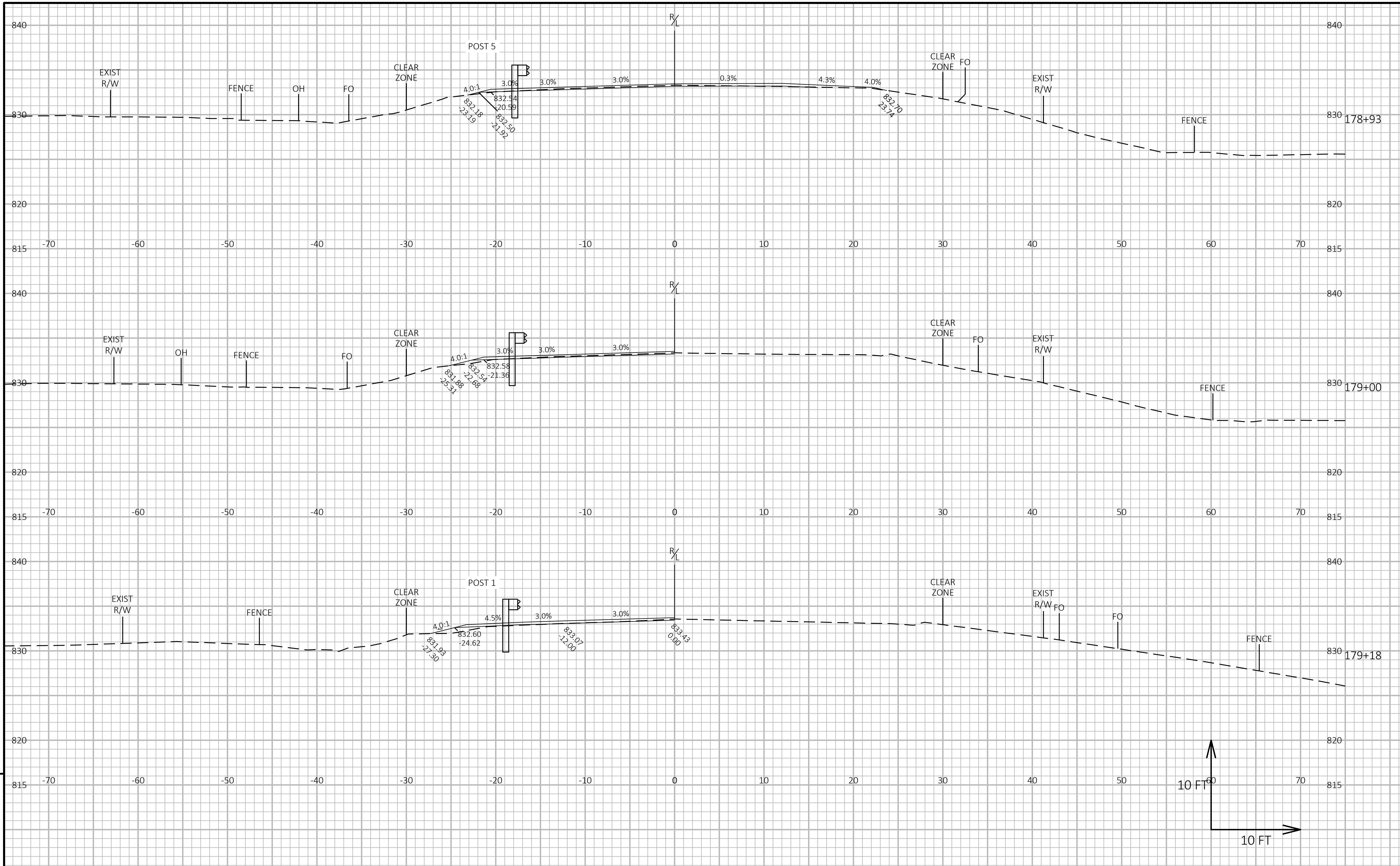
LAYOUT NAME - 020309-xs
PLOT DATE : 10/27/2025 1:03 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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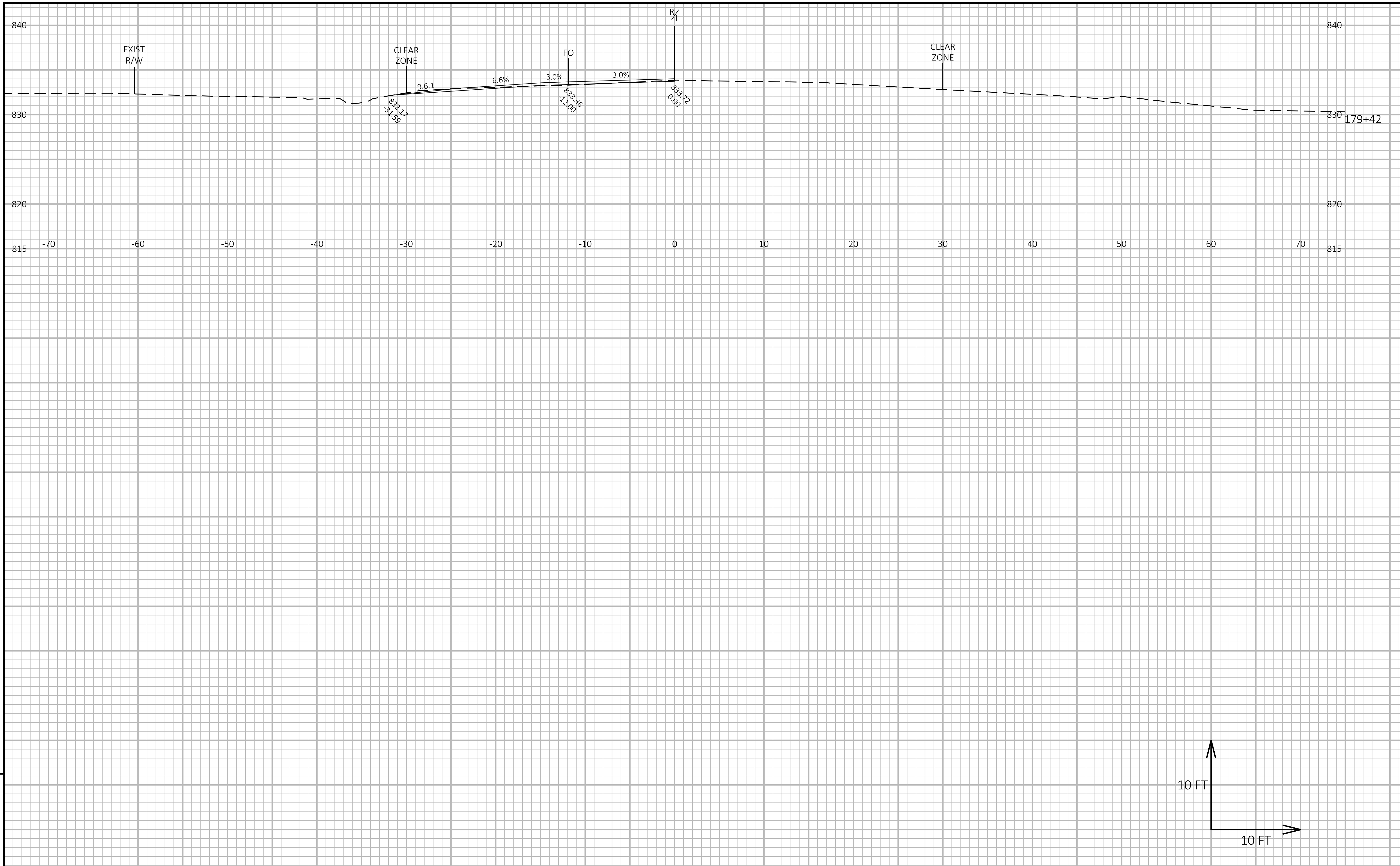
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0328	SHEET 291	E



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PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0328	SHEET 292	E

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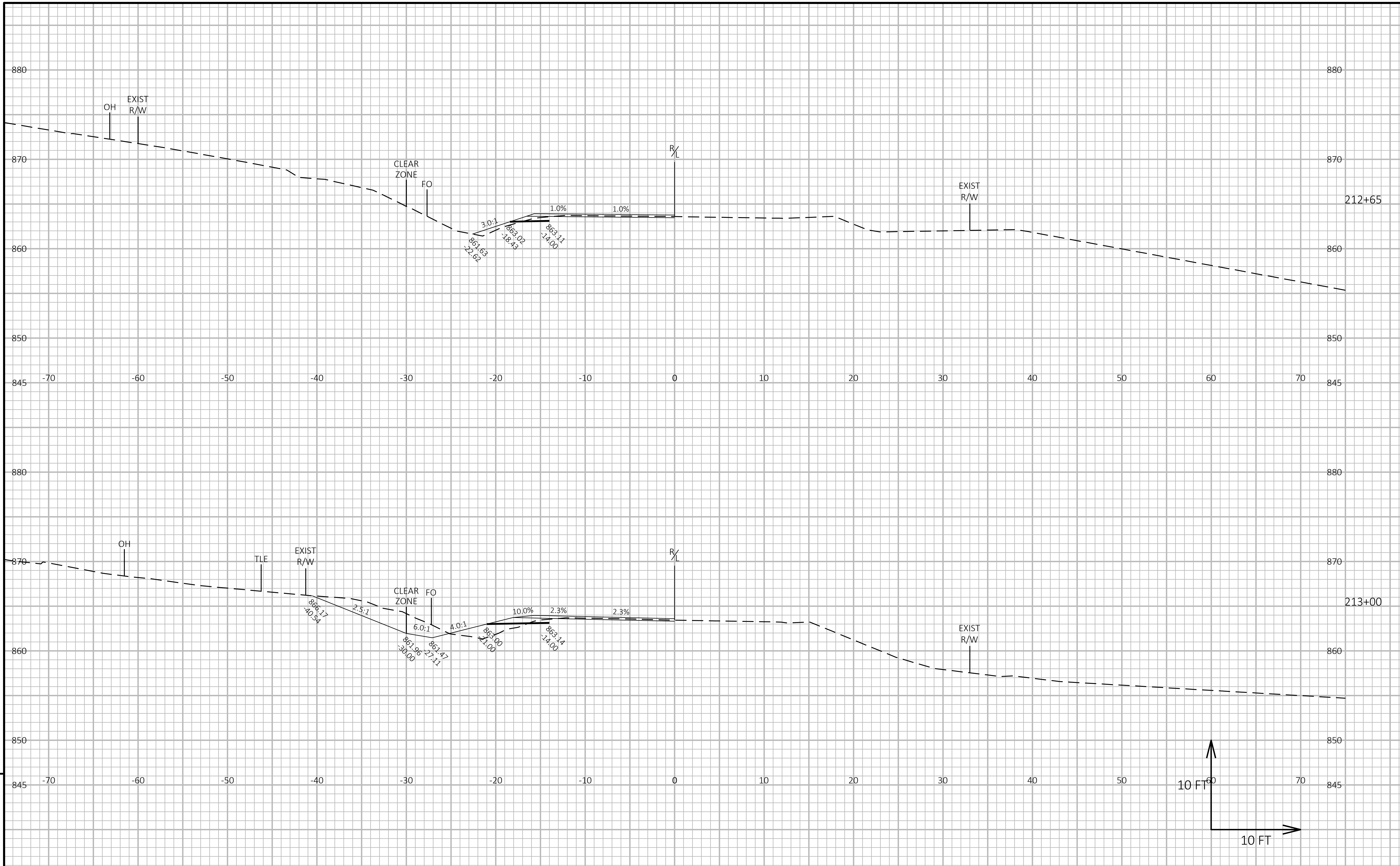
LAYOUT NAME - 020311-xs

PLOT DATE : 10/27/2025 1:04 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0329	SHEET 293	E

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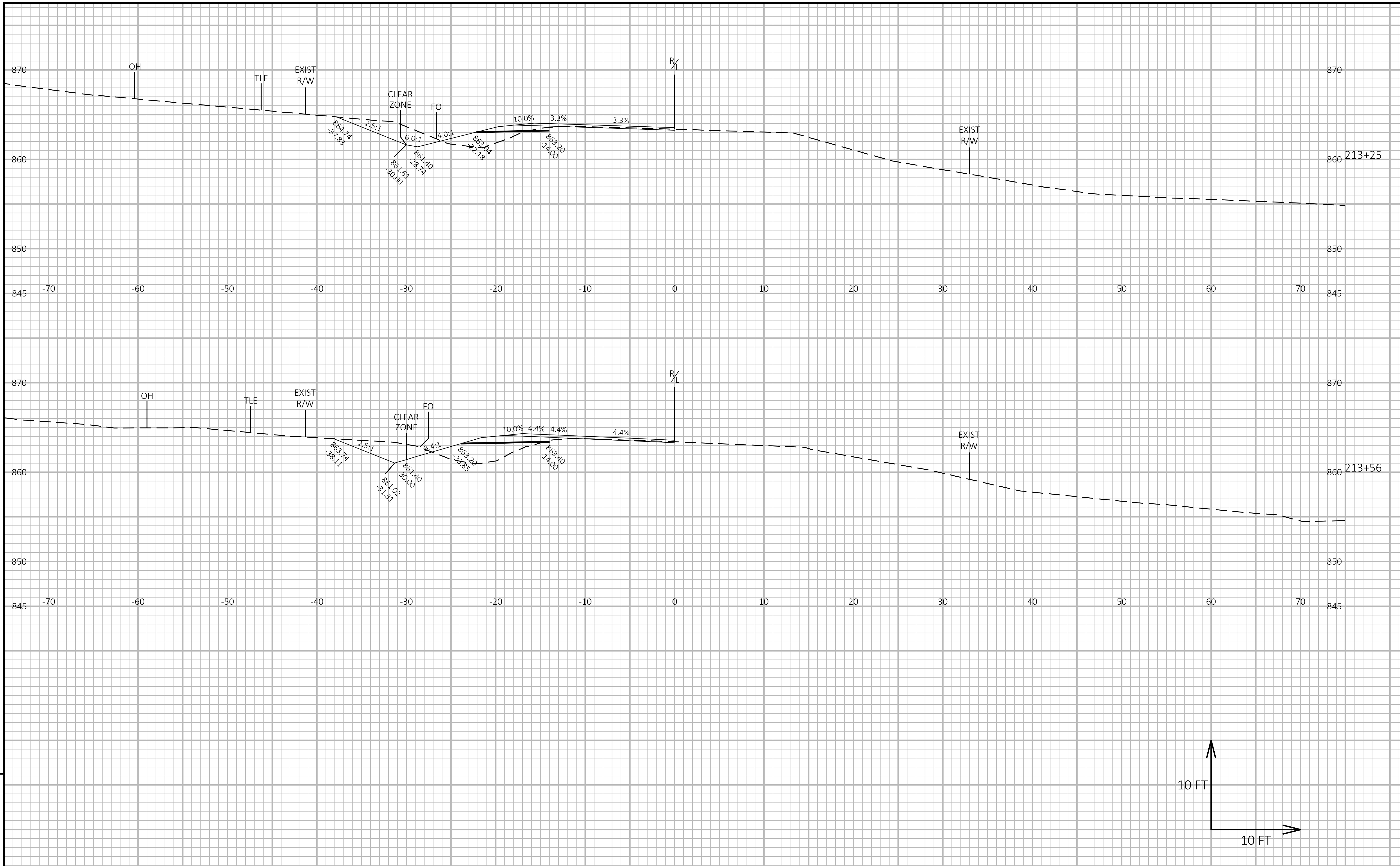
LAYOUT NAME - 020301-xs
PLOT DATE : 10/27/2025 1:06 PM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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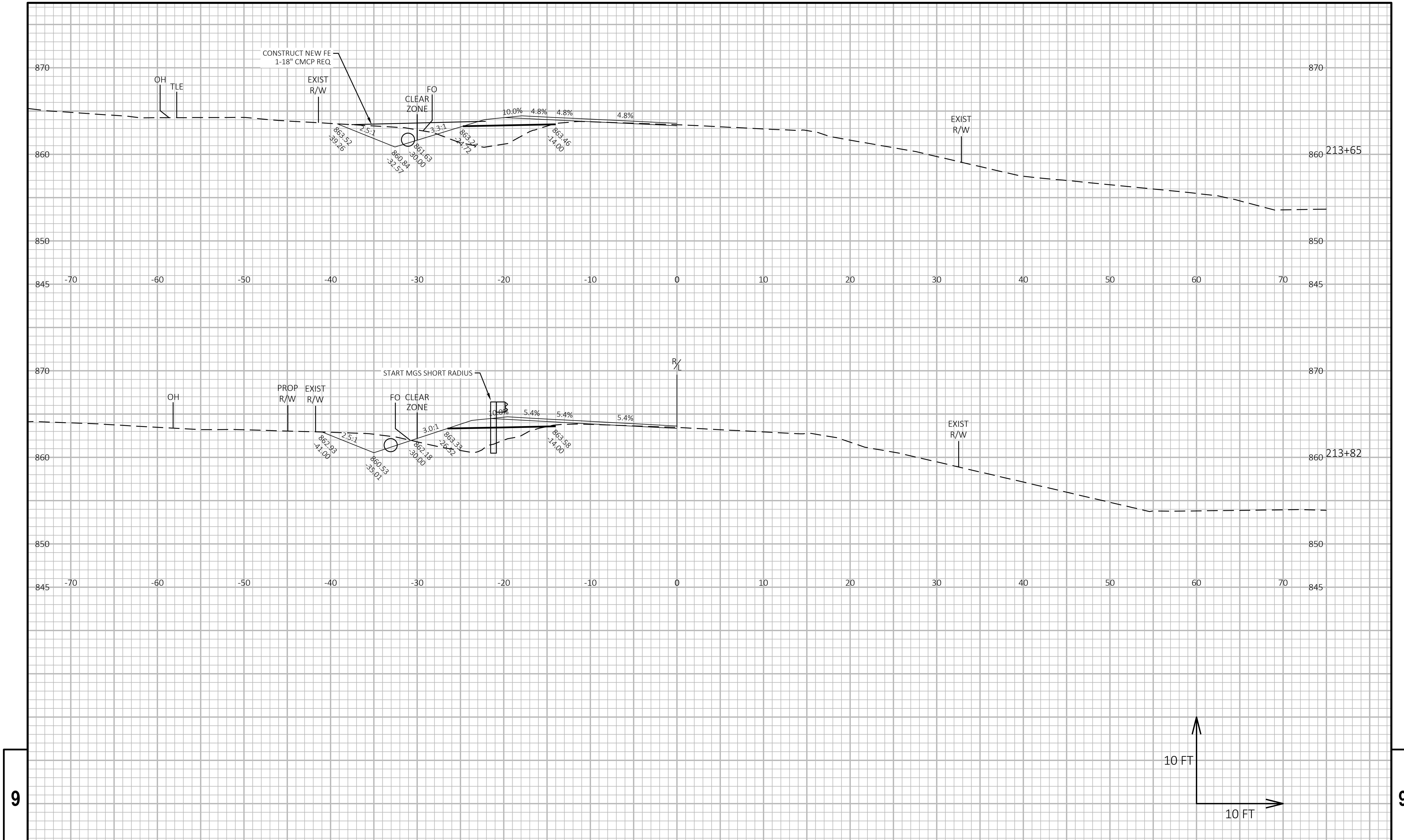
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0329	SHEET 294	E



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0329	SHEET 295	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 020303-xs
PLOT DATE : 10/27/2025 1:06 PM
PLOT BY : JORDYN BENN
PLOT NAME :
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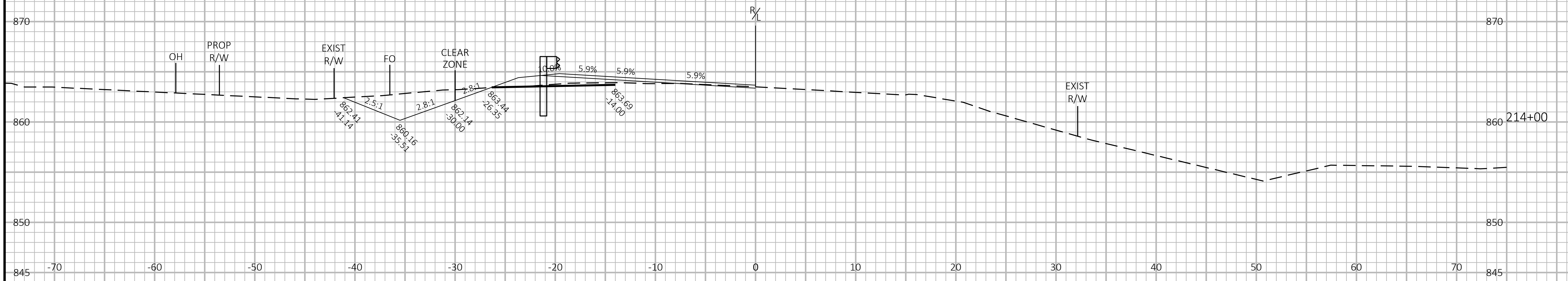
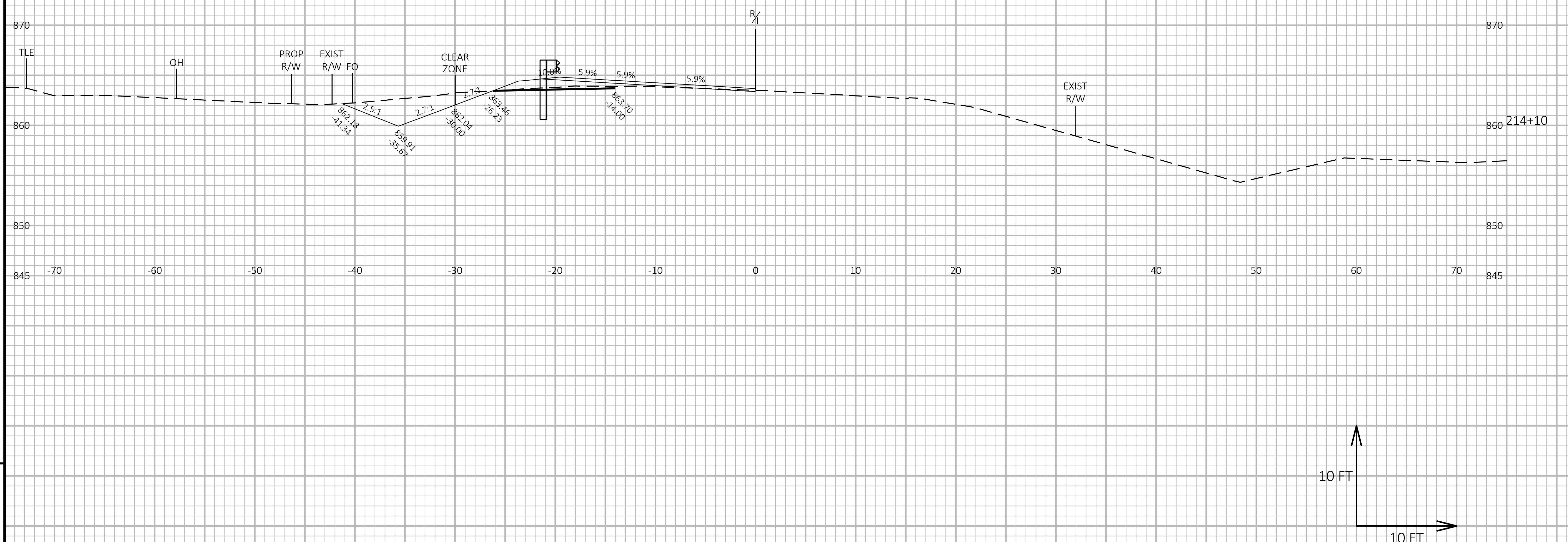
WISDOT/CADDS SHEET 49





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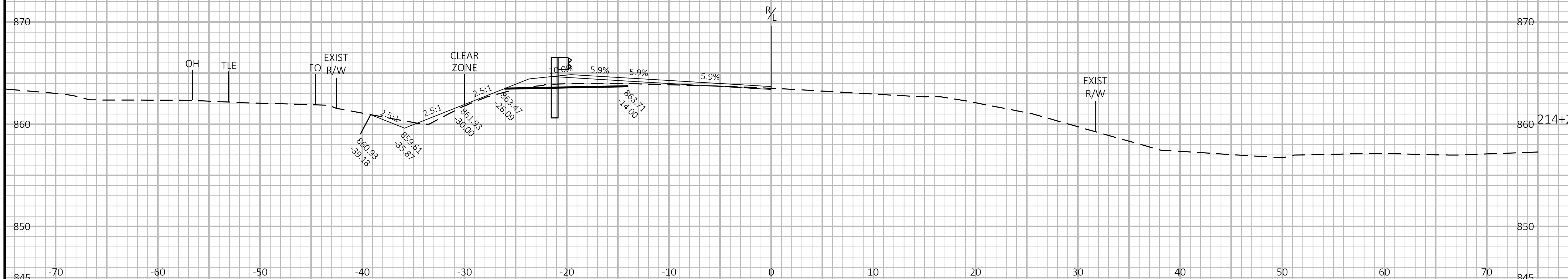
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0329	SHEET 296	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 020304-xs
PLOT DATE : 10/27/2025 1:06 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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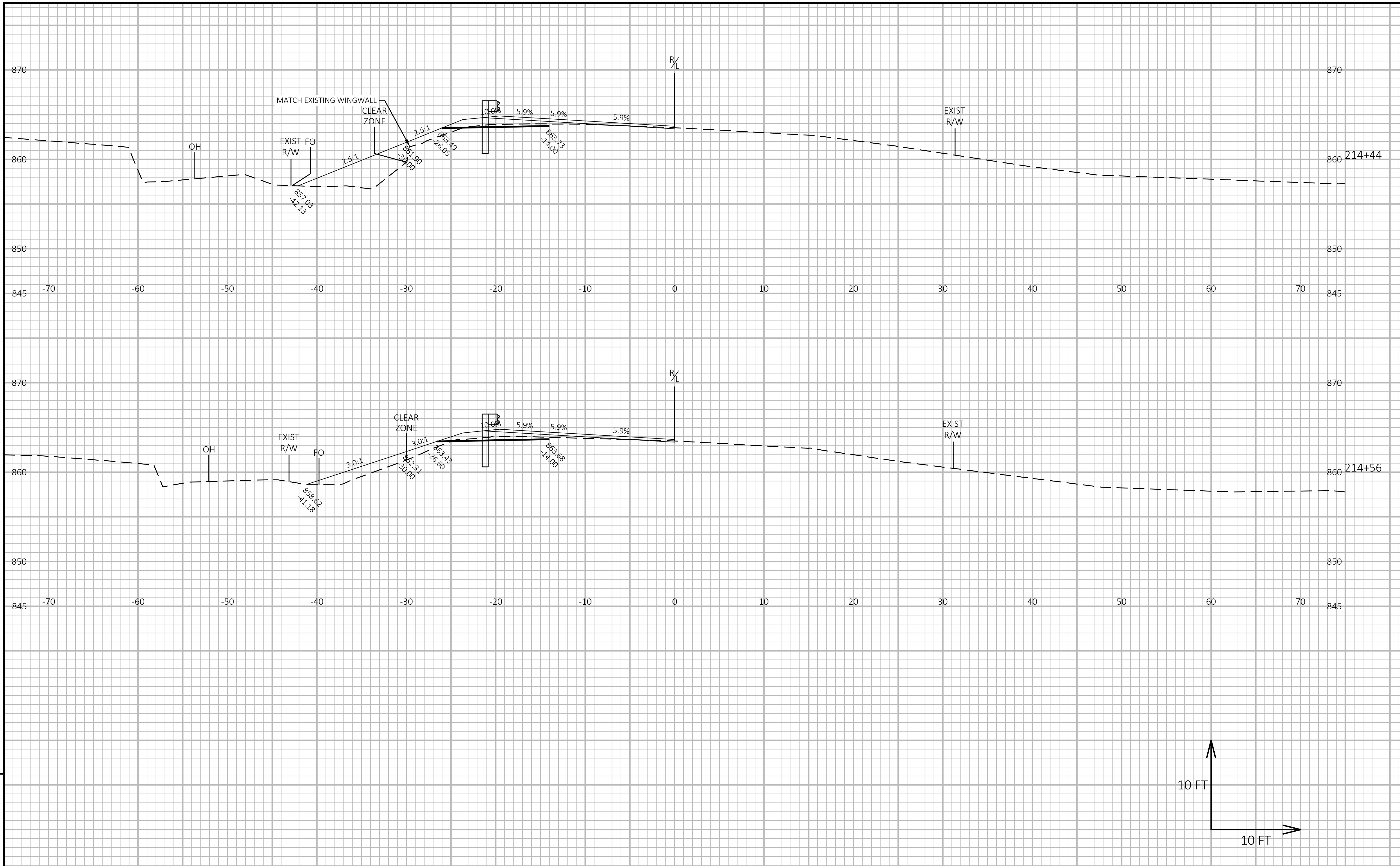
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0329	SHEET 297	E



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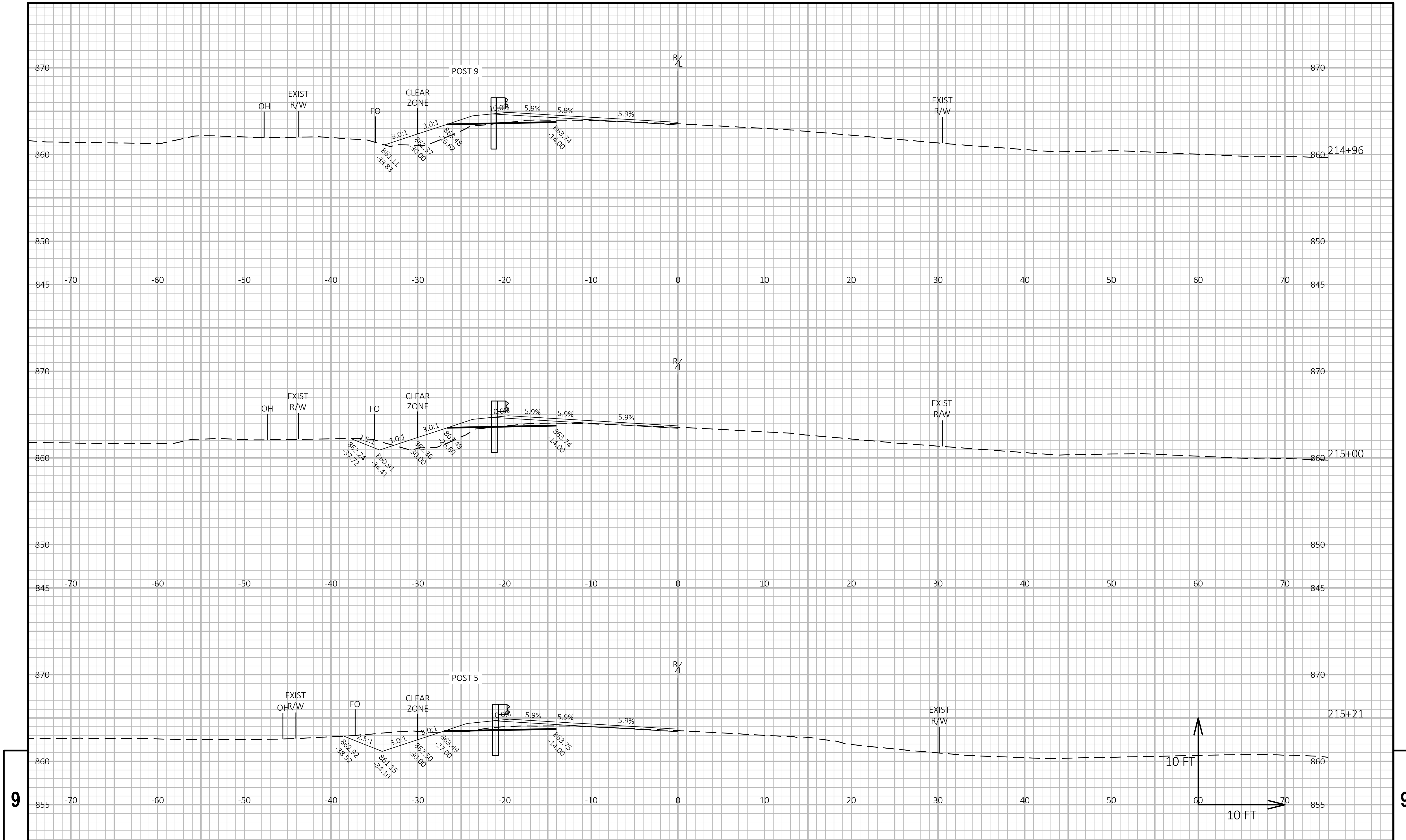
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0329	SHEET 298	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 020306-xs

PLOT DATE : 10/27/2025 1:06 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



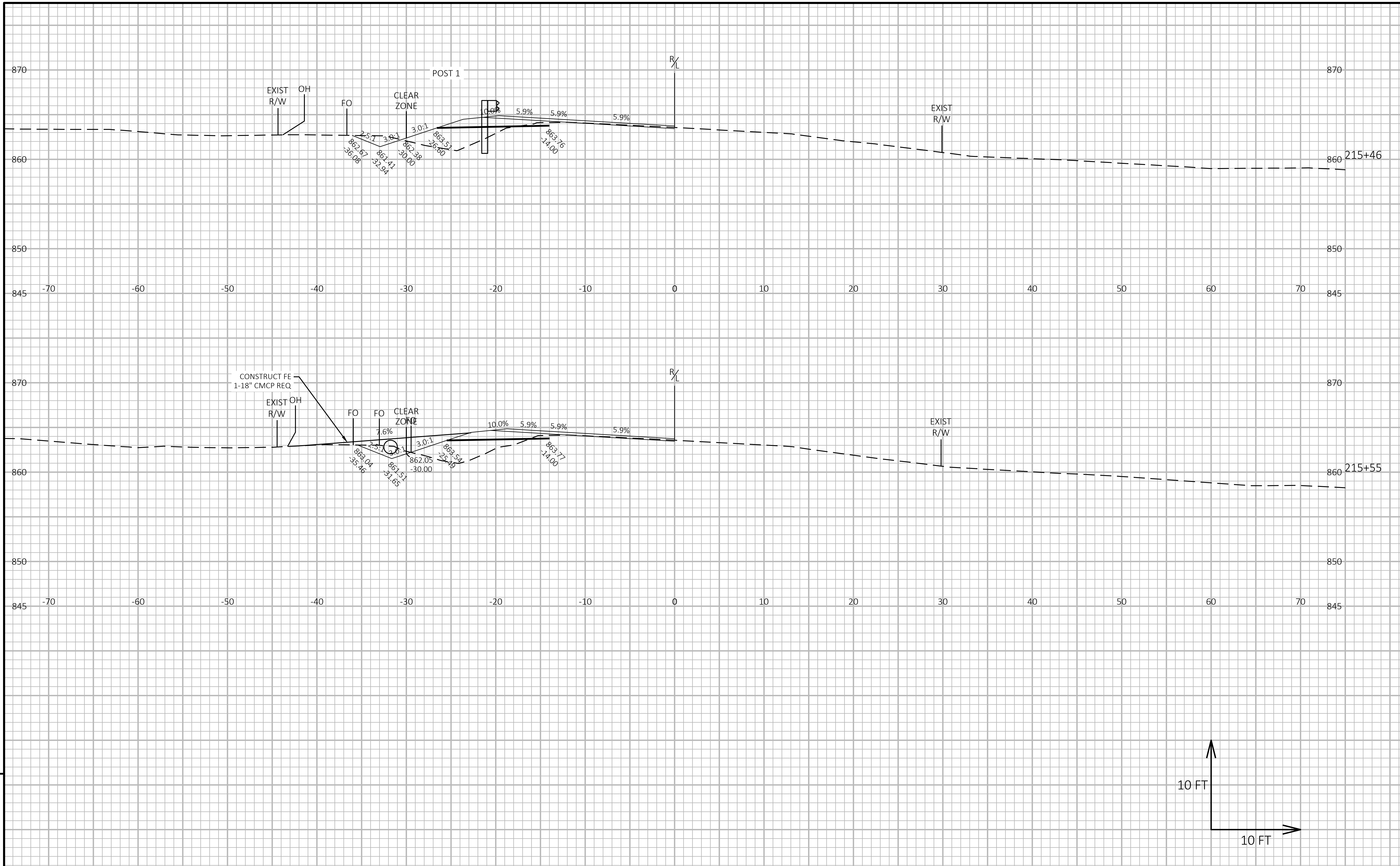
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0329	SHEET 299	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 020307-xs

PLOT DATE : 10/27/2025 1:06 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9



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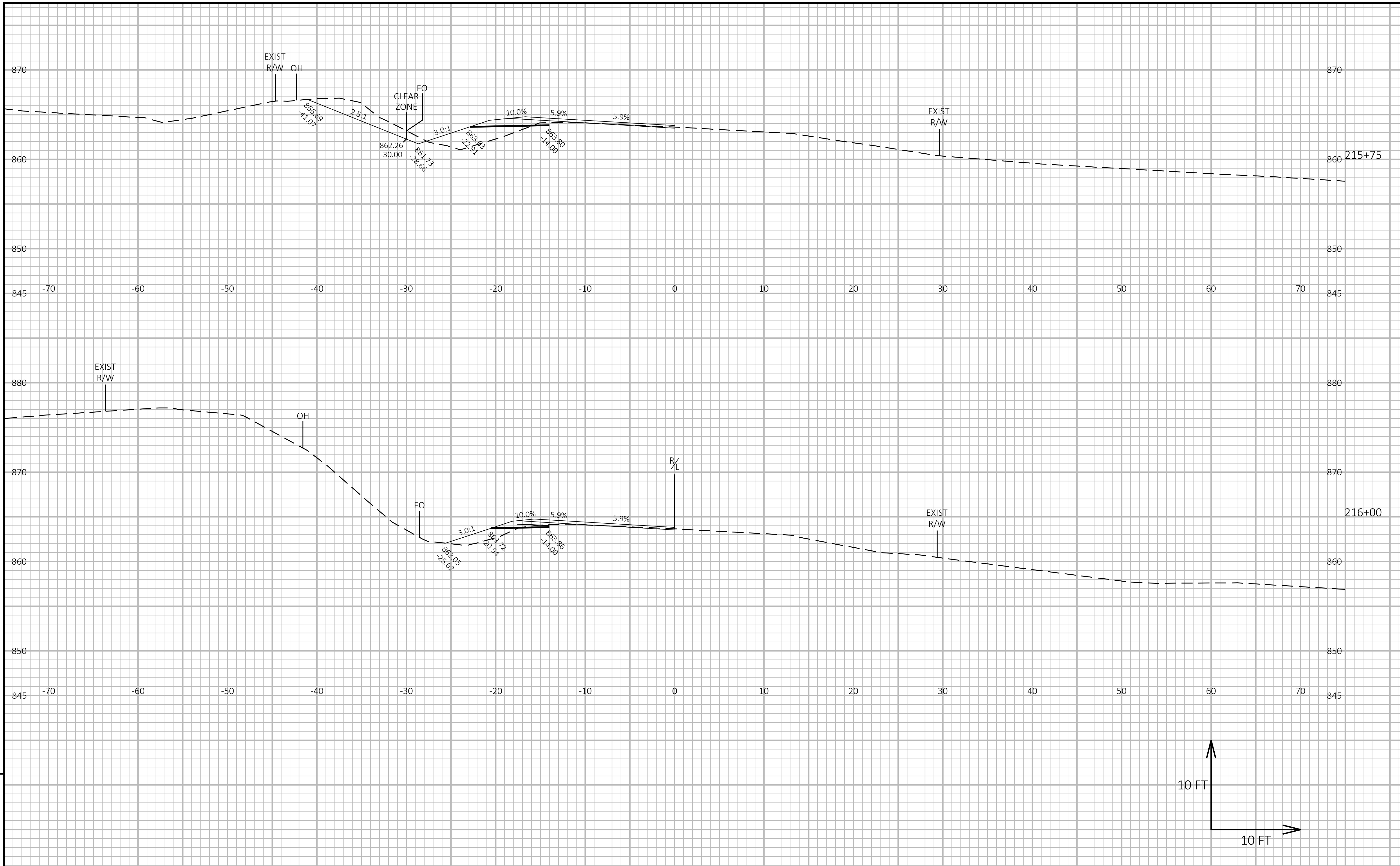
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0329	SHEET 300	E



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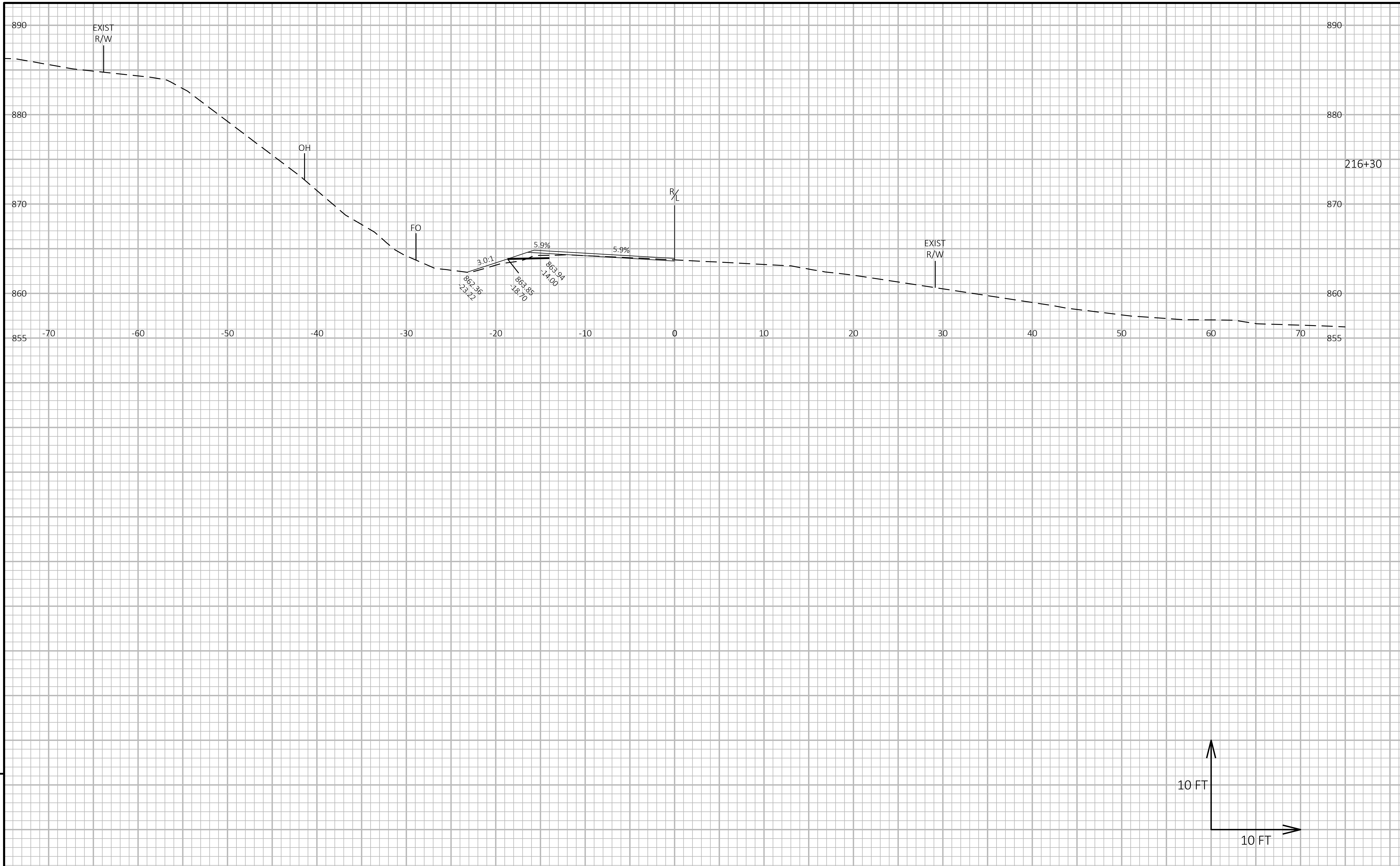
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 C-62-0329	SHEET 301	E



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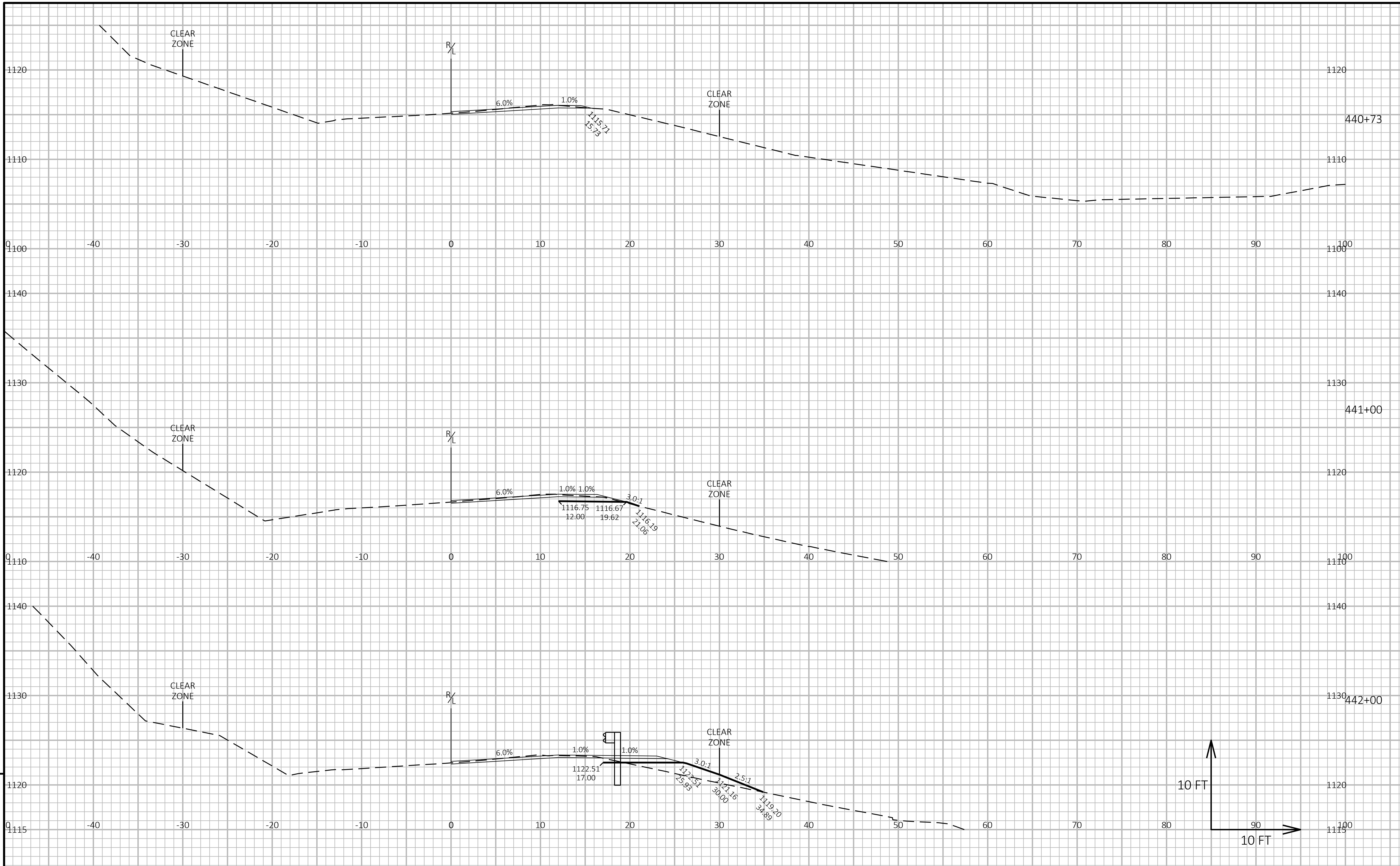
PROJECT NO: 5710-00-72 | HWY: STH 82 | COUNTY: VERNON | CROSS SECTIONS: STH 82 C-62-0329 | SHEET 302 | E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 020310-xs
PLOT DATE : 10/27/2025 1:06 PM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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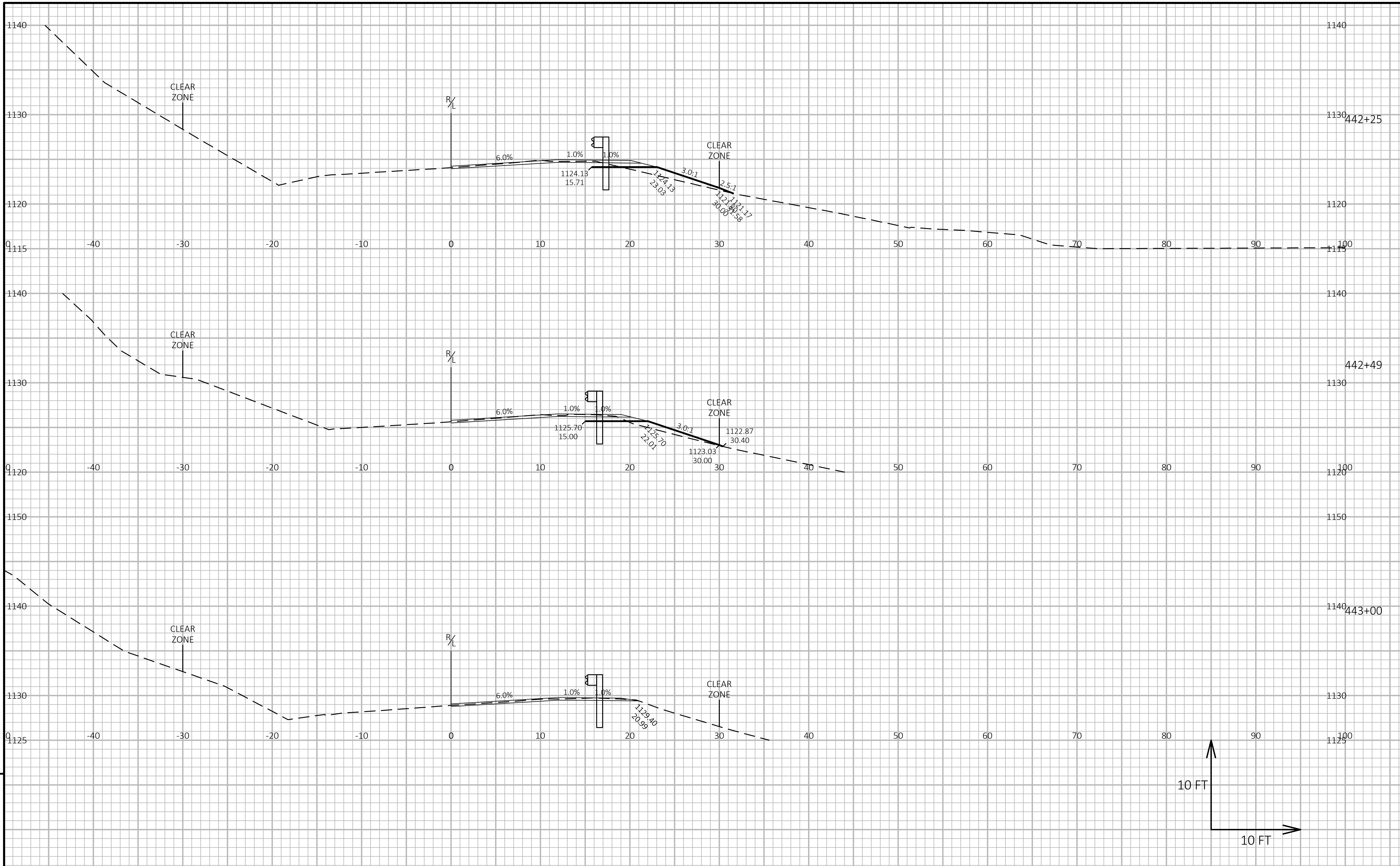
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 442+00 - STA 448+01 PROPOSED GUARDRAIL	SHEET 303	E



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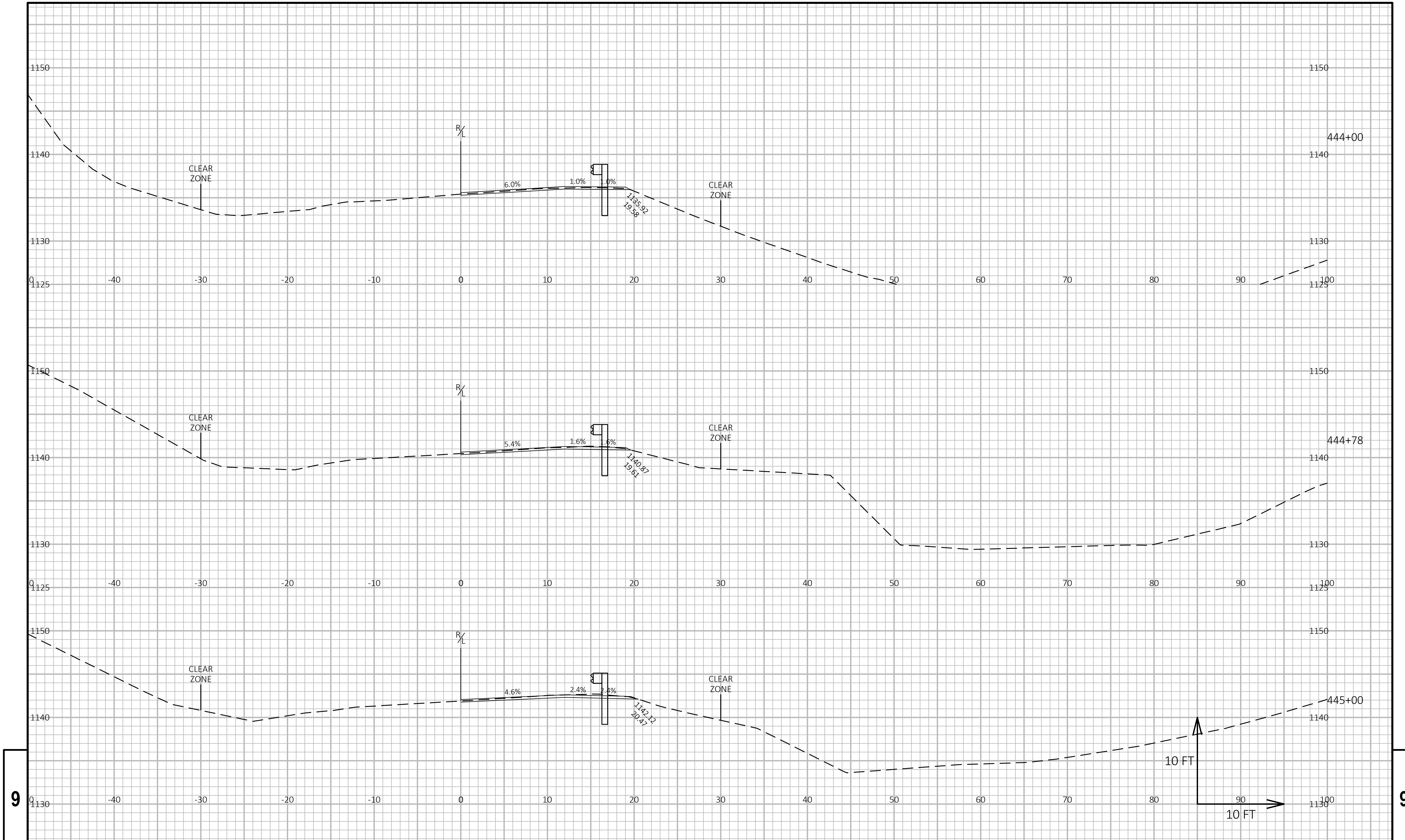
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 442+00 - STA 448+01 PROPOSED GUARDRAIL	SHEET 304	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090207-XS.DWG
LAYOUT NAME - 020302-xs
PLOT DATE : 2/16/2026 11:07 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 442+00 - STA 448+01 PROPOSED GUARDRAIL	SHEET 305	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090207-XS.DWG
LAYOUT NAME - 020303-xs

PLOT DATE : 2/16/2026 11:07 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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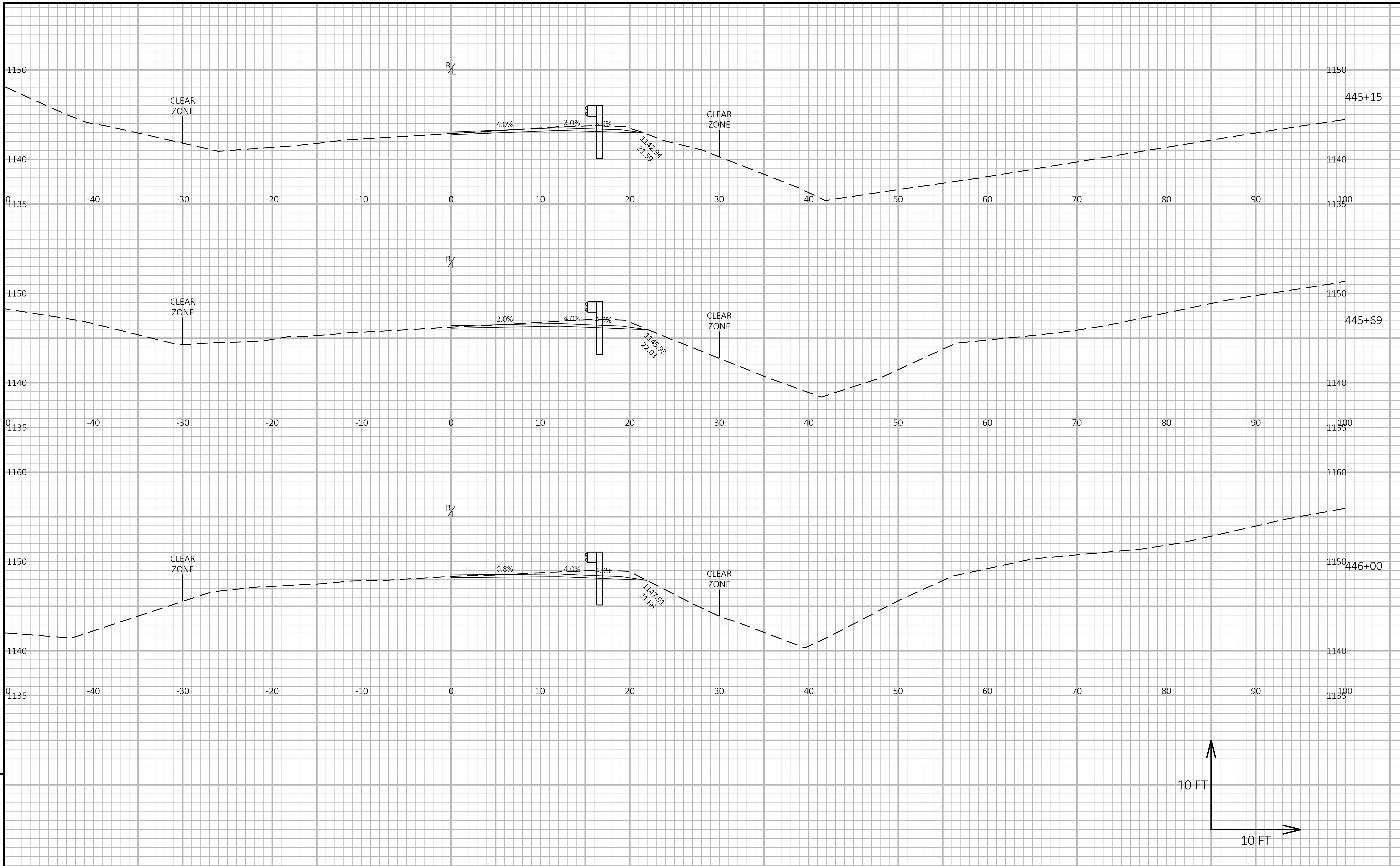

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PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 442+00 - STA 448+01 PROPOSED GUARDRAIL	SHEET 306	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090207-XS.DWG
LAYOUT NAME - 020304-xs
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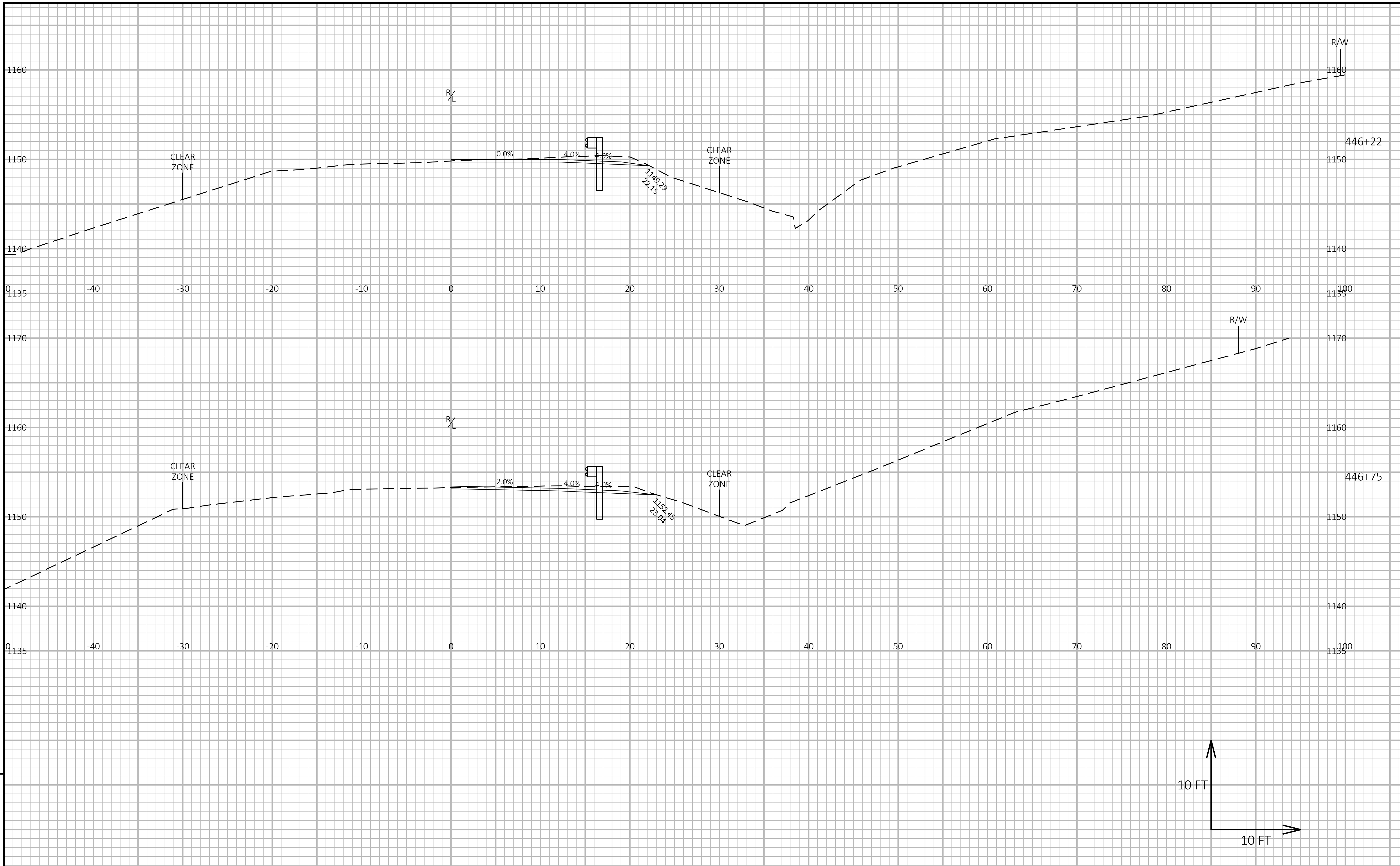

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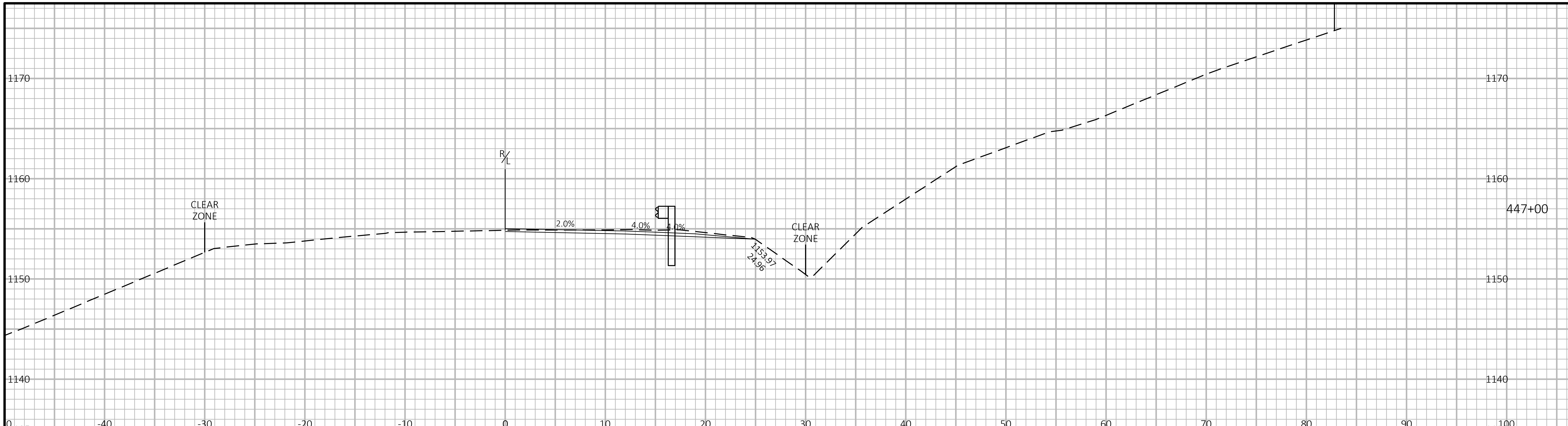
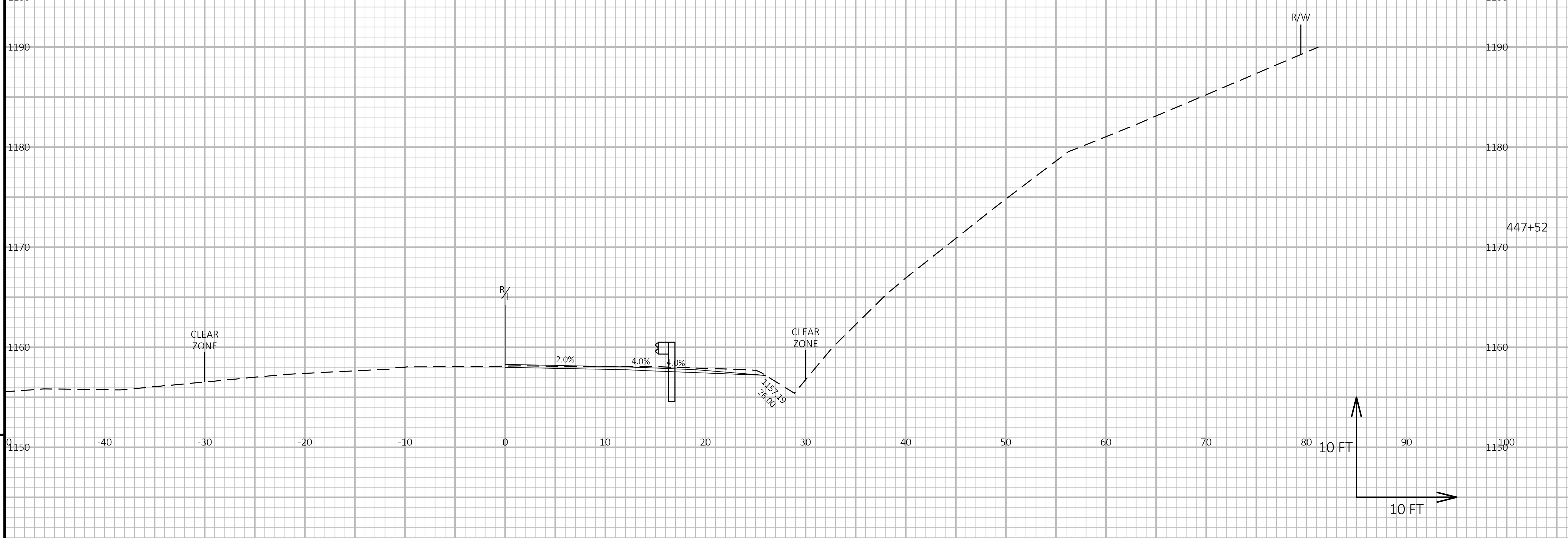
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 442+00 - STA 448+01 PROPOSED GUARDRAIL	SHEET 307	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090207-XS.DWG
LAYOUT NAME - 020305-xs

PLOT DATE : 2/16/2026 11:07 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





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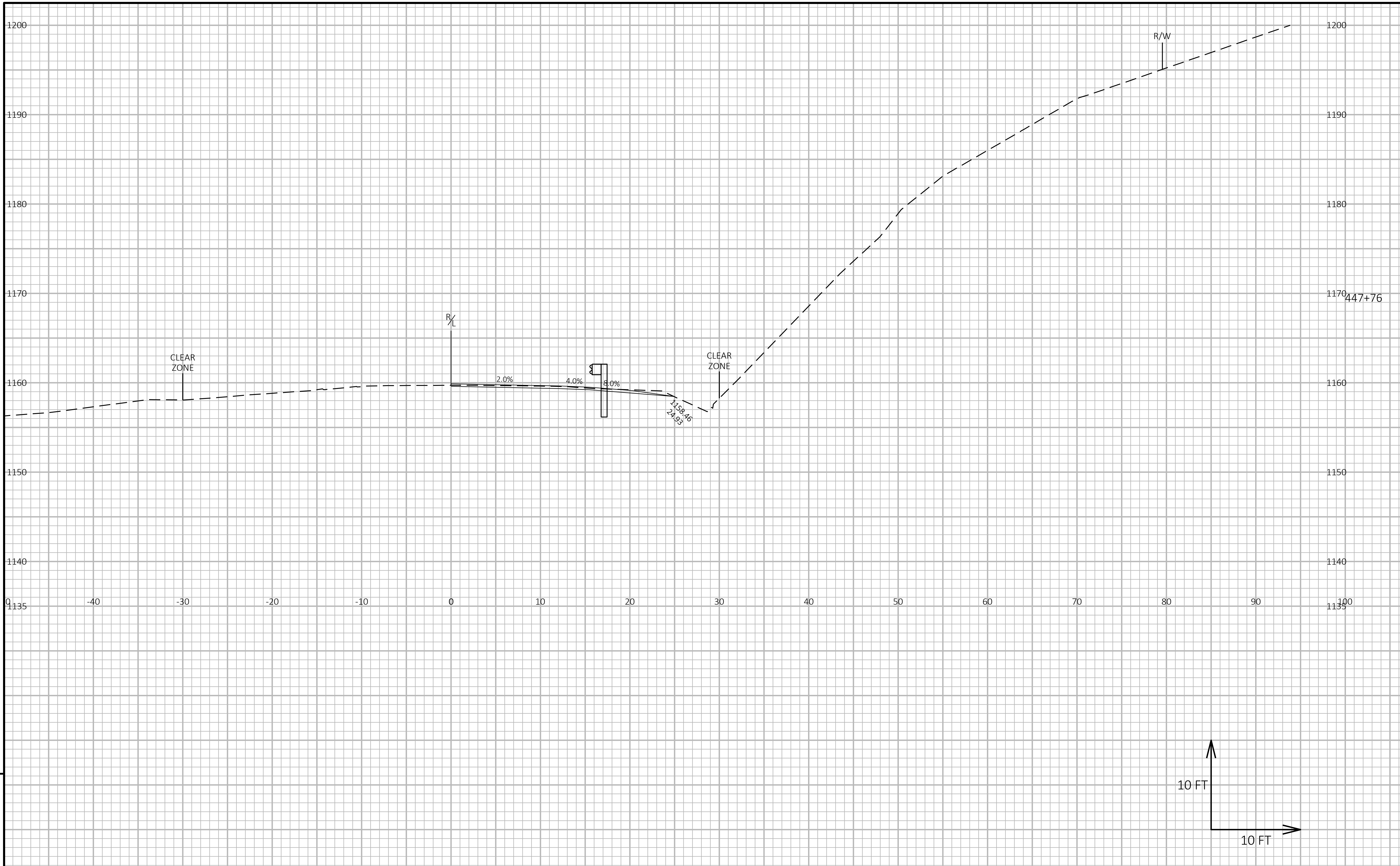
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 442+00 - STA 448+01 PROPOSED GUARDRAIL	SHEET 308	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090207-XS.DWG
LAYOUT NAME - 020306-xs
PLOT DATE : 2/16/2026 11:07 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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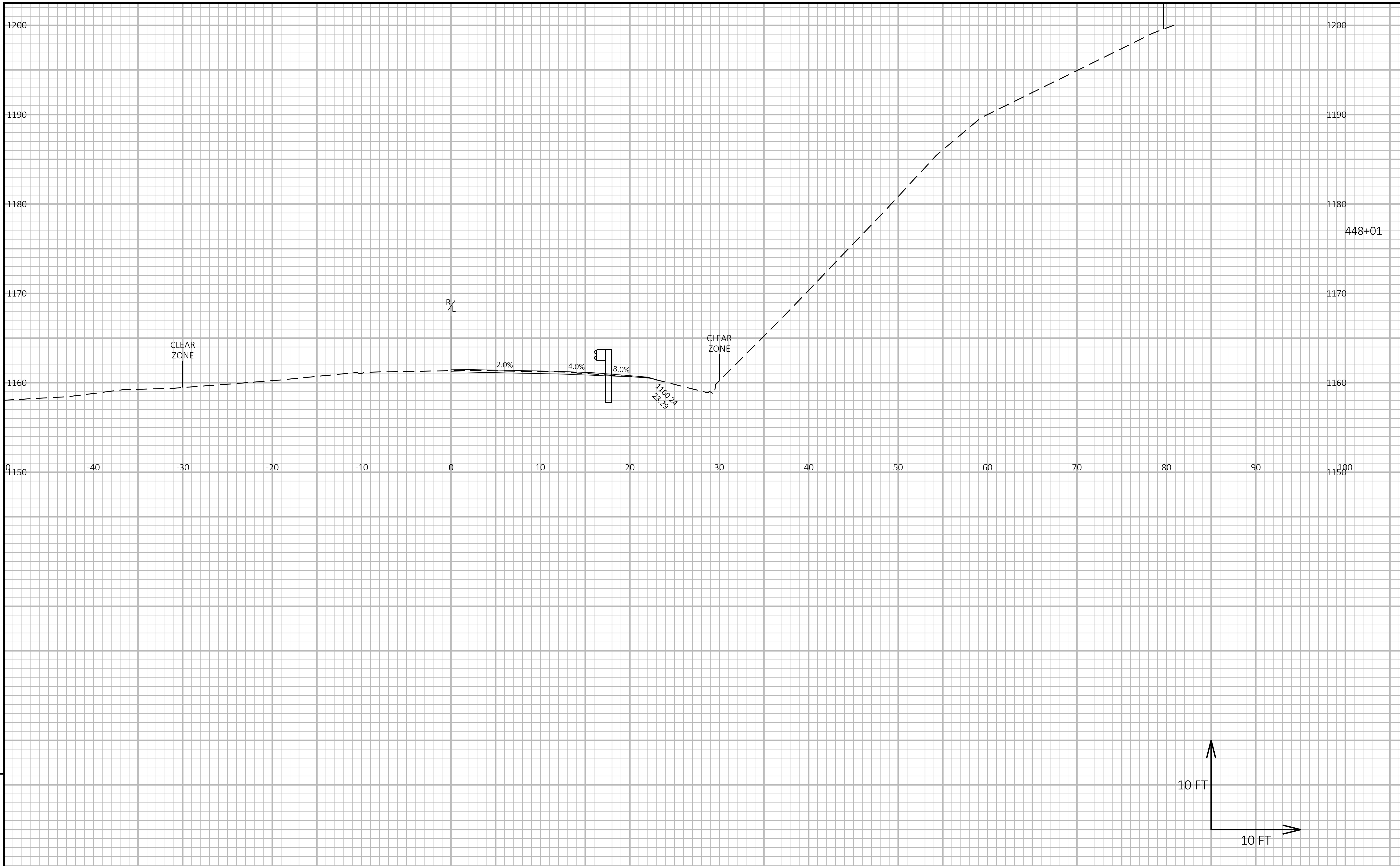
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 442+00 - STA 448+01 PROPOSED GUARDRAIL	SHEET 309	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090207-XS.DWG
LAYOUT NAME - 020307-xs
PLOT DATE : 2/16/2026 11:07 AM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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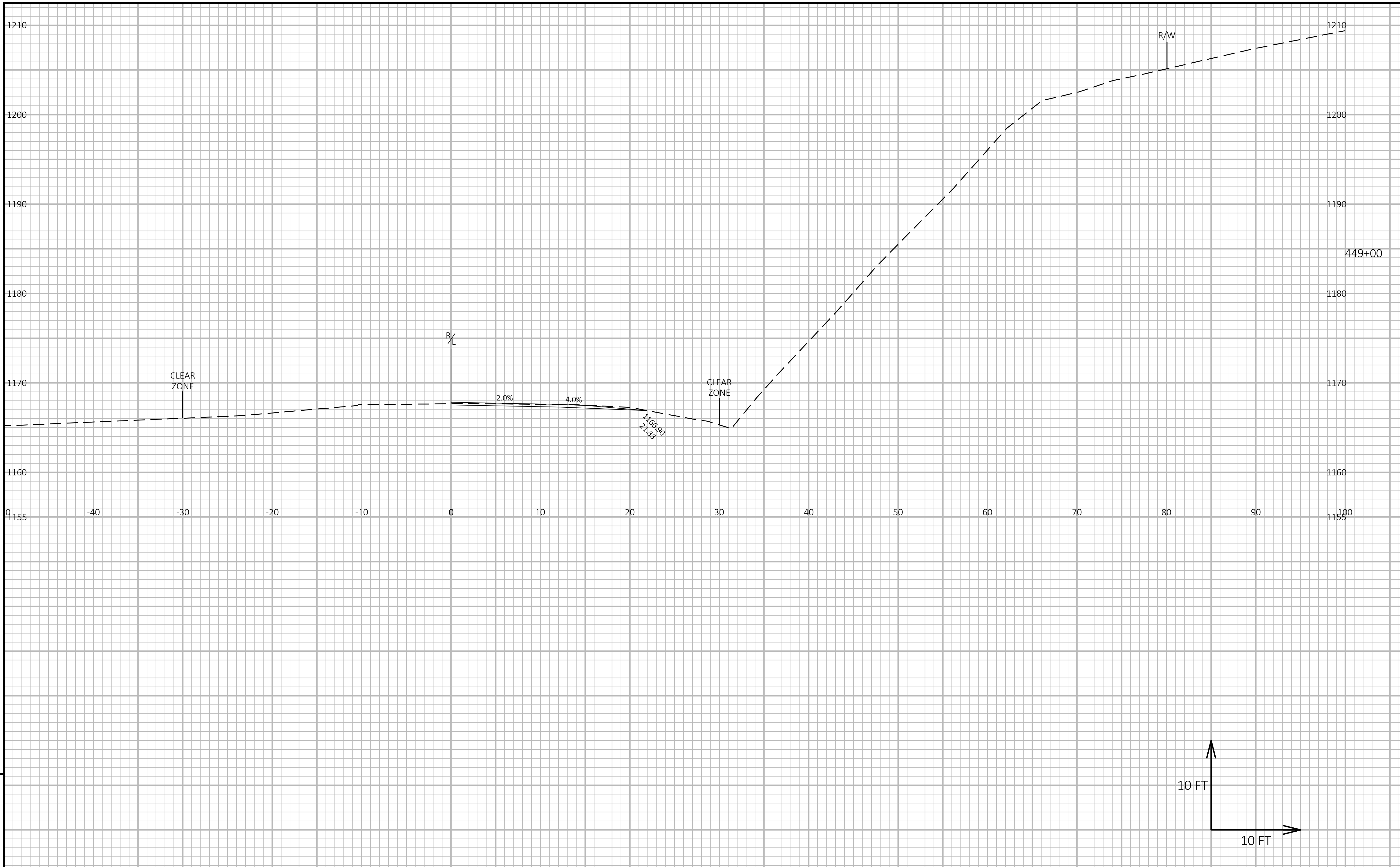
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 442+00 - STA 448+01 PROPOSED GUARDRAIL	SHEET	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090207-XS.DWG
LAYOUT NAME - 020308-xs

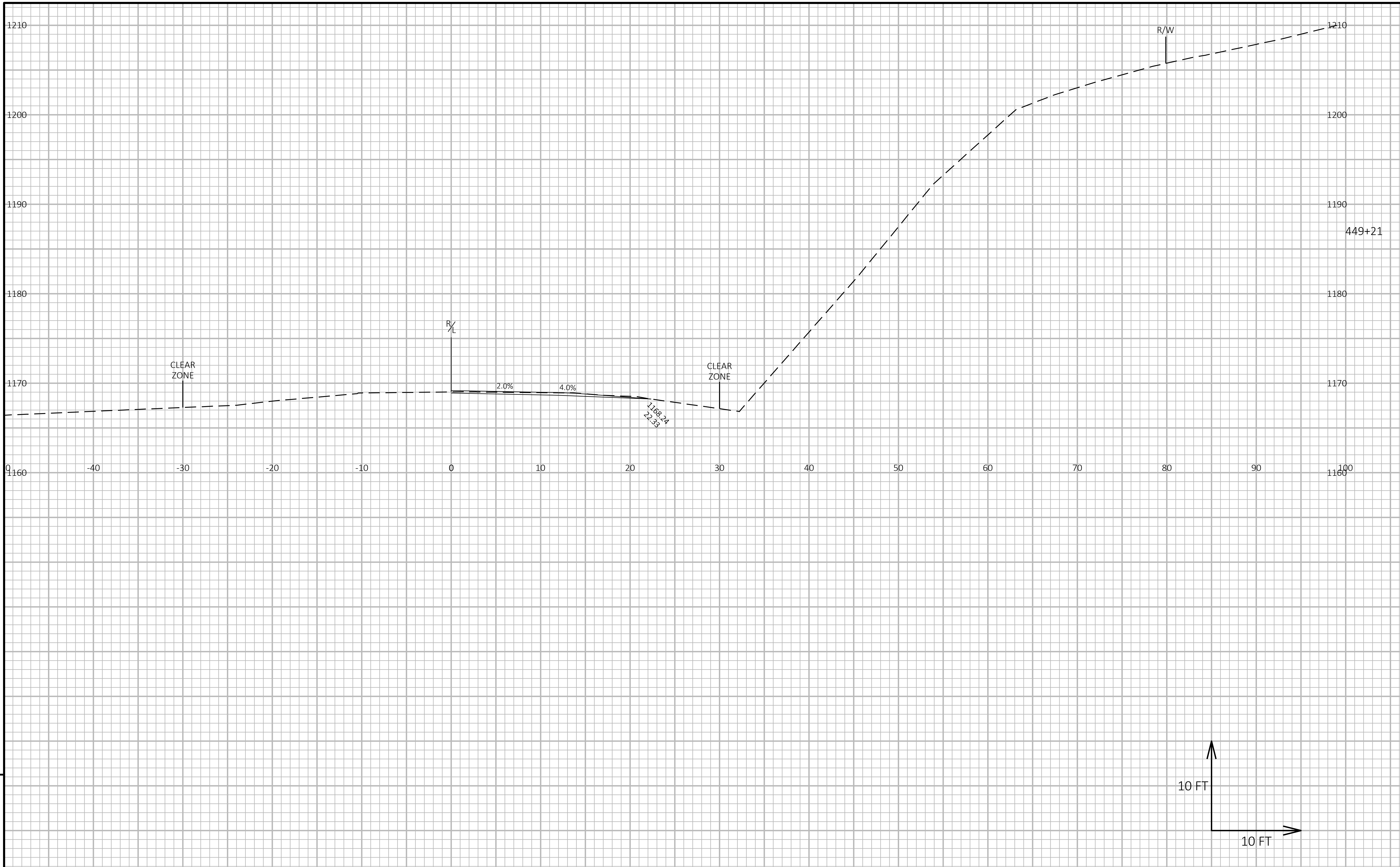
PLOT DATE : 2/16/2026 11:07 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 442+00 - STA 448+01 PROPOSED GUARDRAIL	SHEET	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090207-XS.DWG
LAYOUT NAME - 020309-xs
PLOT DATE : 2/16/2026 11:07 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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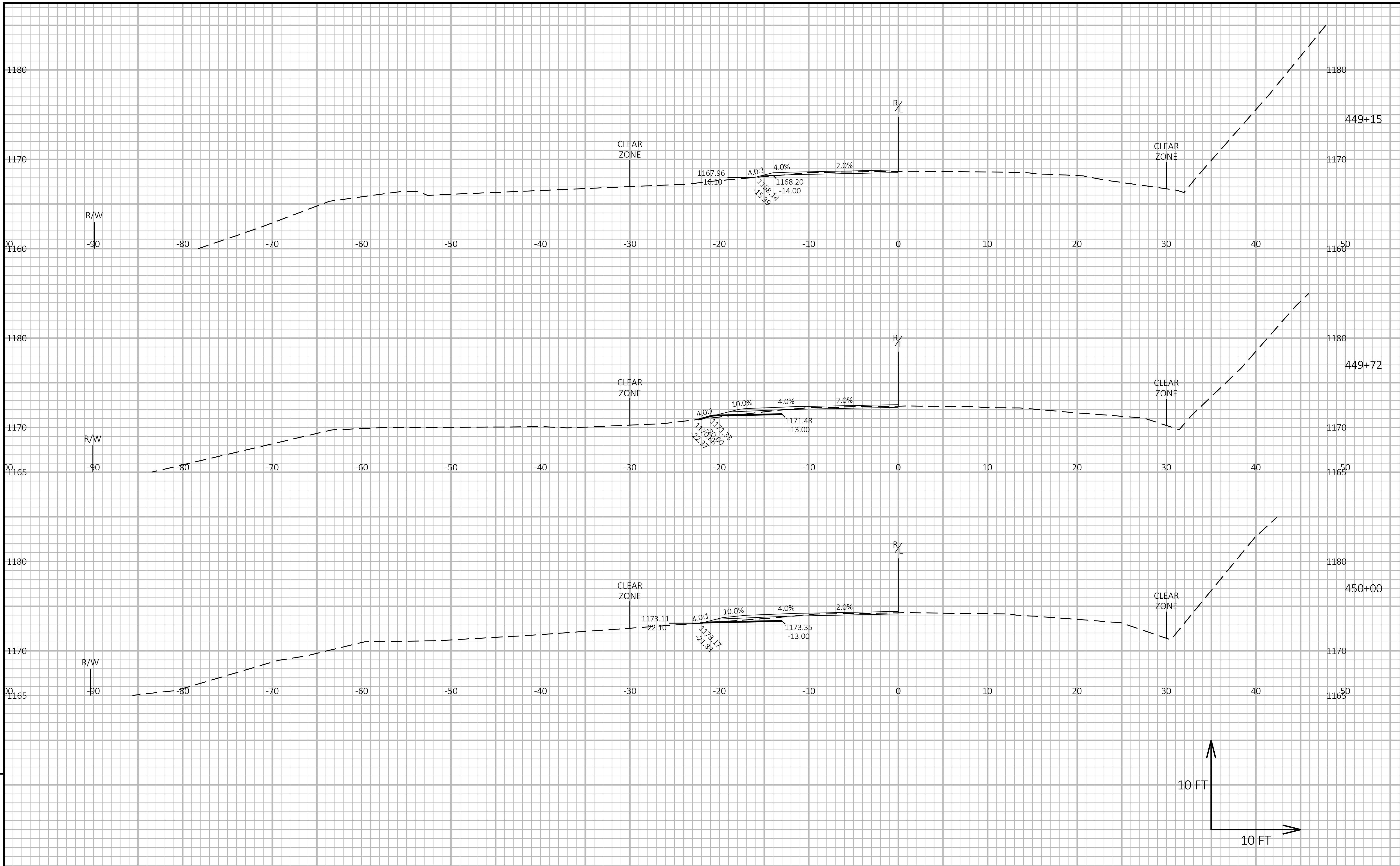
PROJECT NO: 5710-00-72 | HWY: STH 82 | COUNTY: VERNON | CROSS SECTIONS: STH 82 STA 442+00 - STA 448+01 PROPOSED GUARDRAIL | SHEET 312 | E



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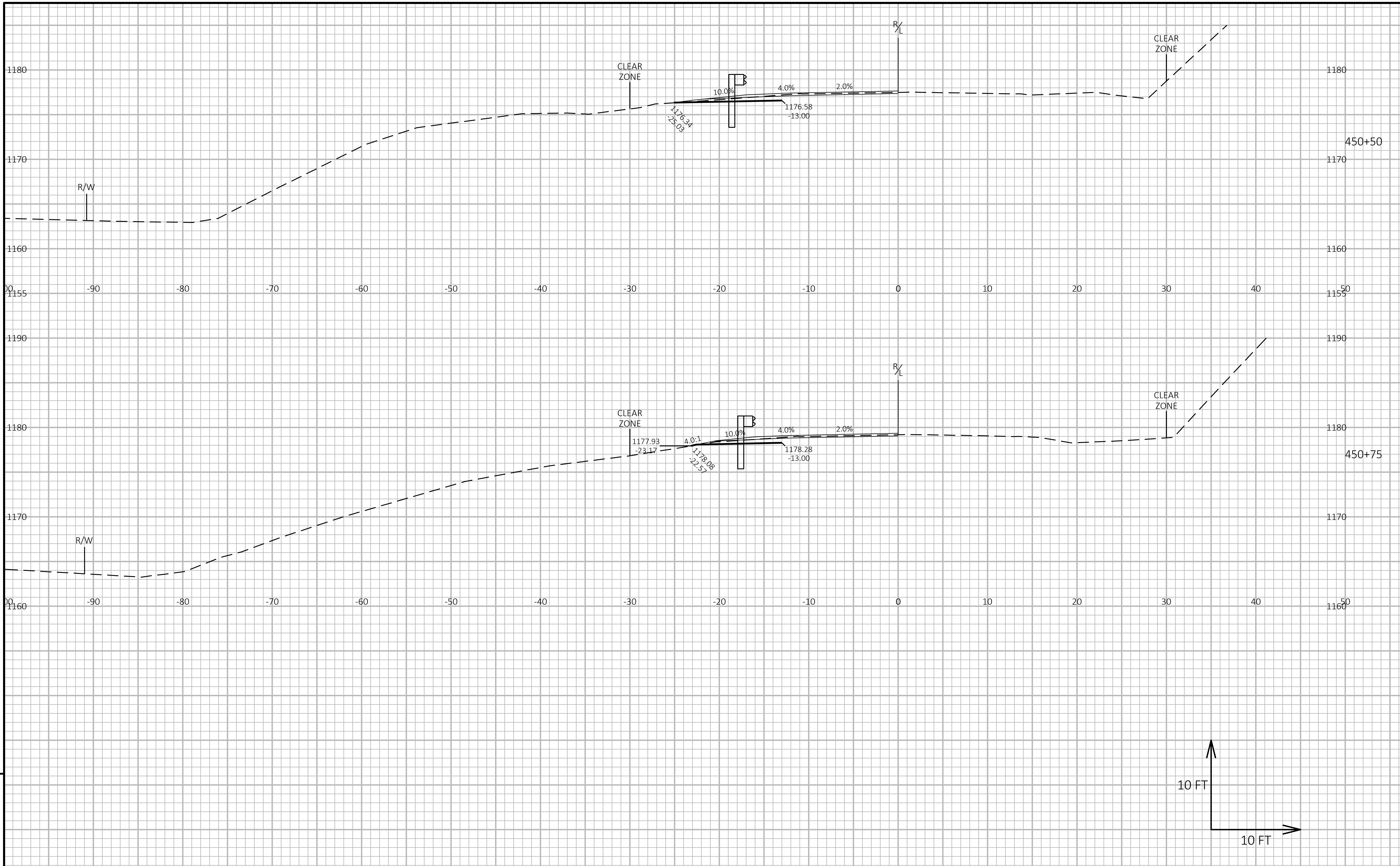
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 450+50 - STA 458+35 PROPOSED GUARDRAIL	SHEET 313	E



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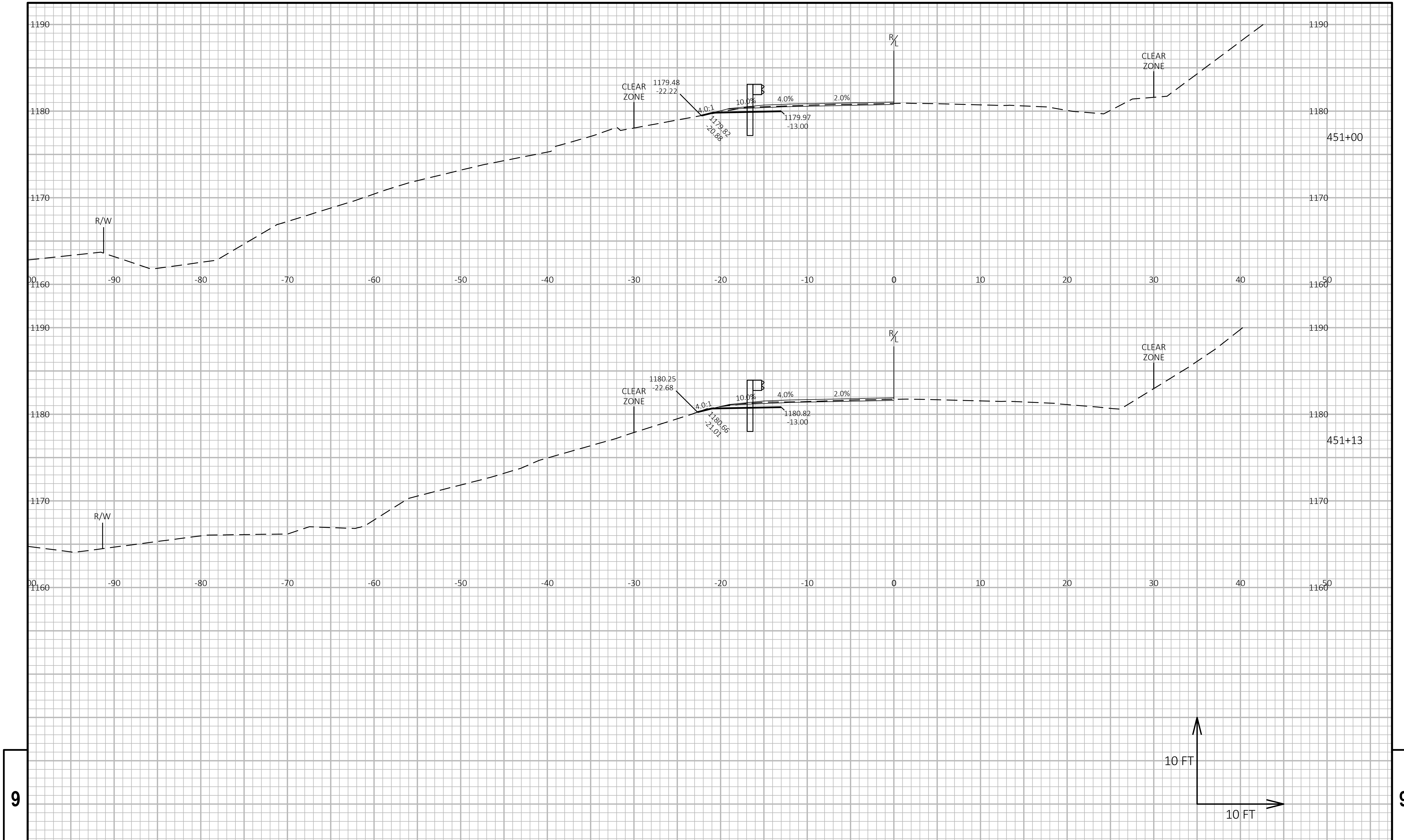
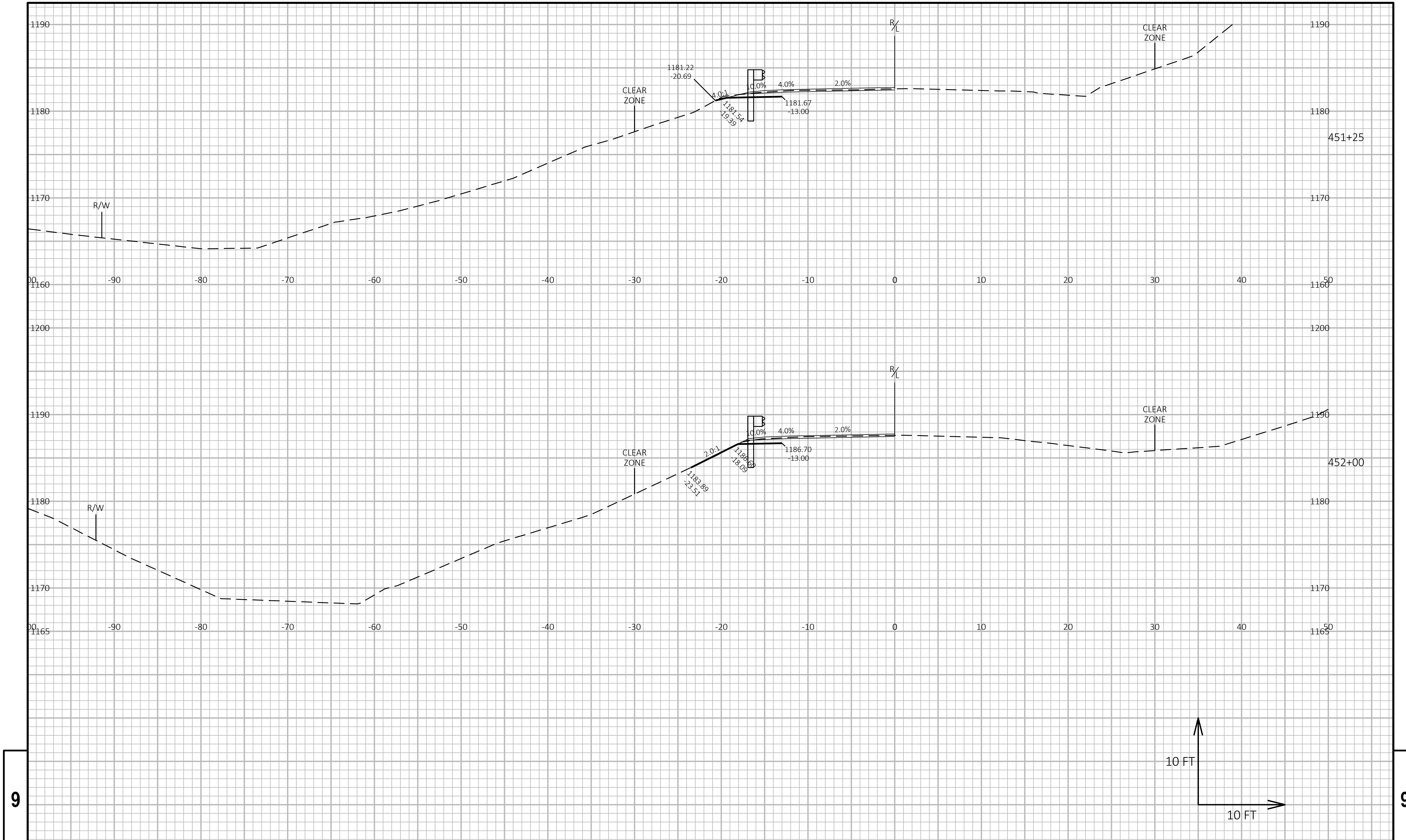
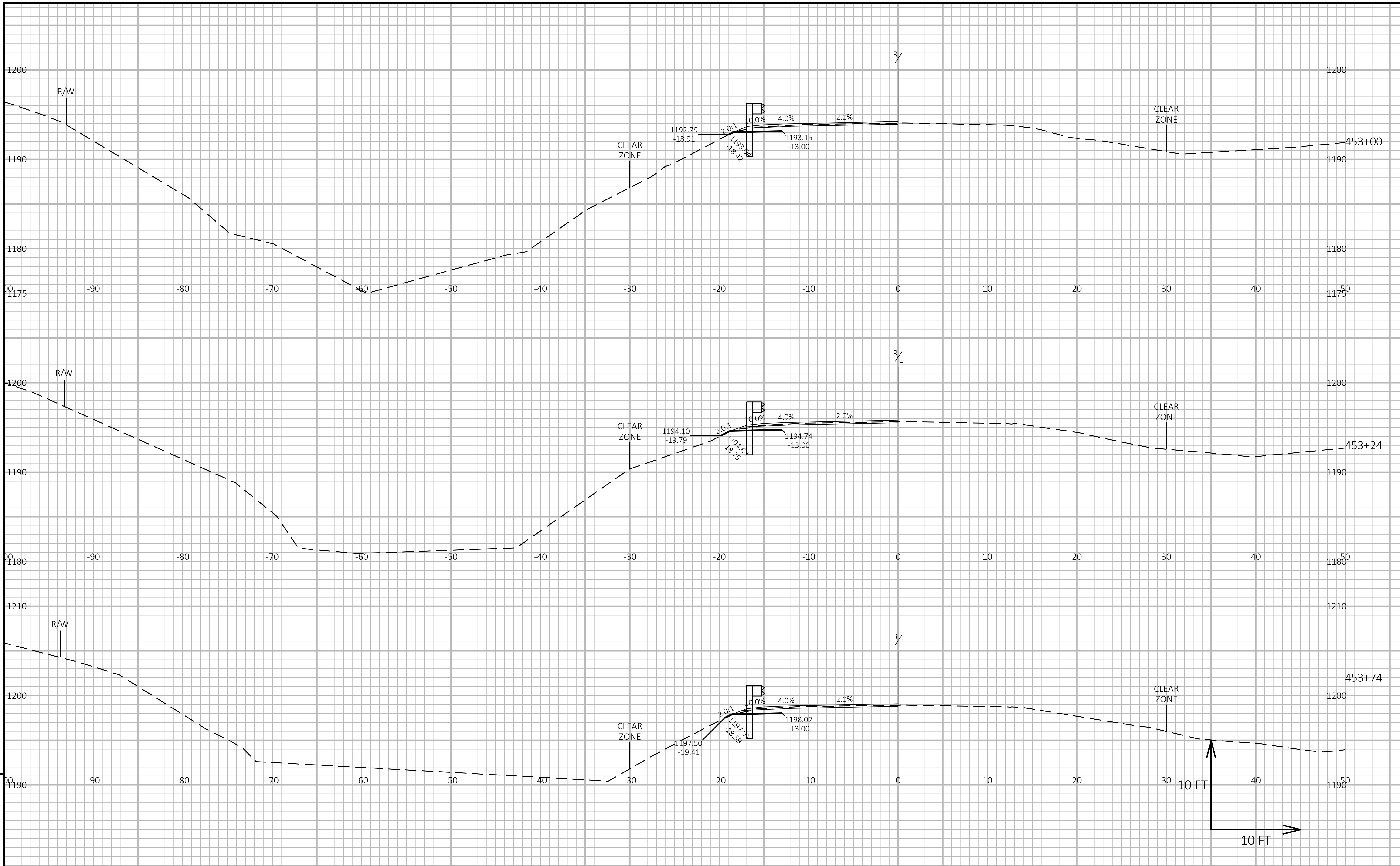
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 450+50 - STA 458+35 PROPOSED GUARDRAIL	SHEET 314	E



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 450+50 - STA 458+35 PROPOSED GUARDRAIL	SHEET 315	E



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 450+50 - STA 458+35 PROPOSED GUARDRAIL	SHEET 316	E



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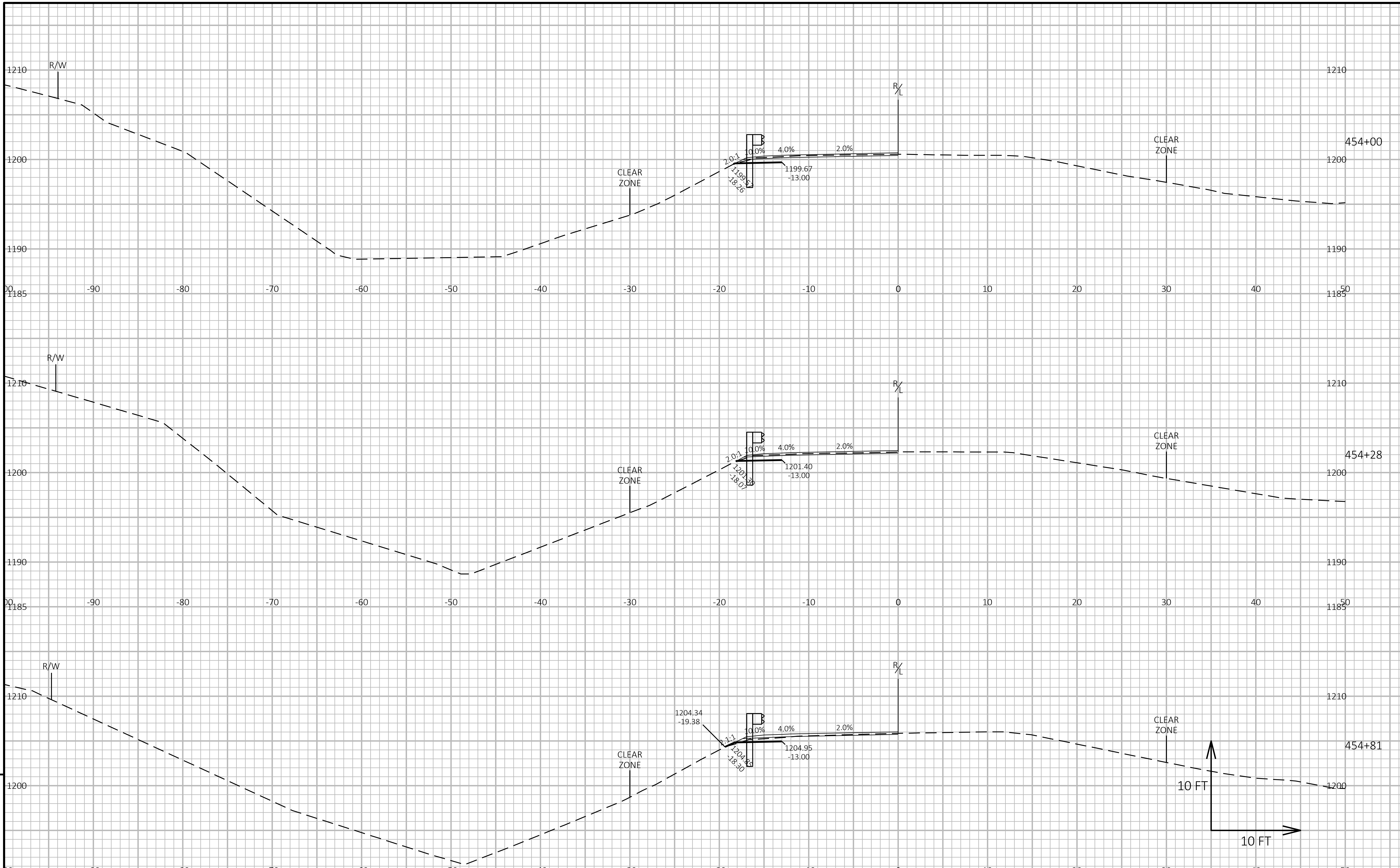
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 450+50 - STA 458+35 PROPOSED GUARDRAIL	SHEET 317	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090208-XS.DWG
LAYOUT NAME - 020305-xs

PLOT DATE : 2/16/2026 11:31 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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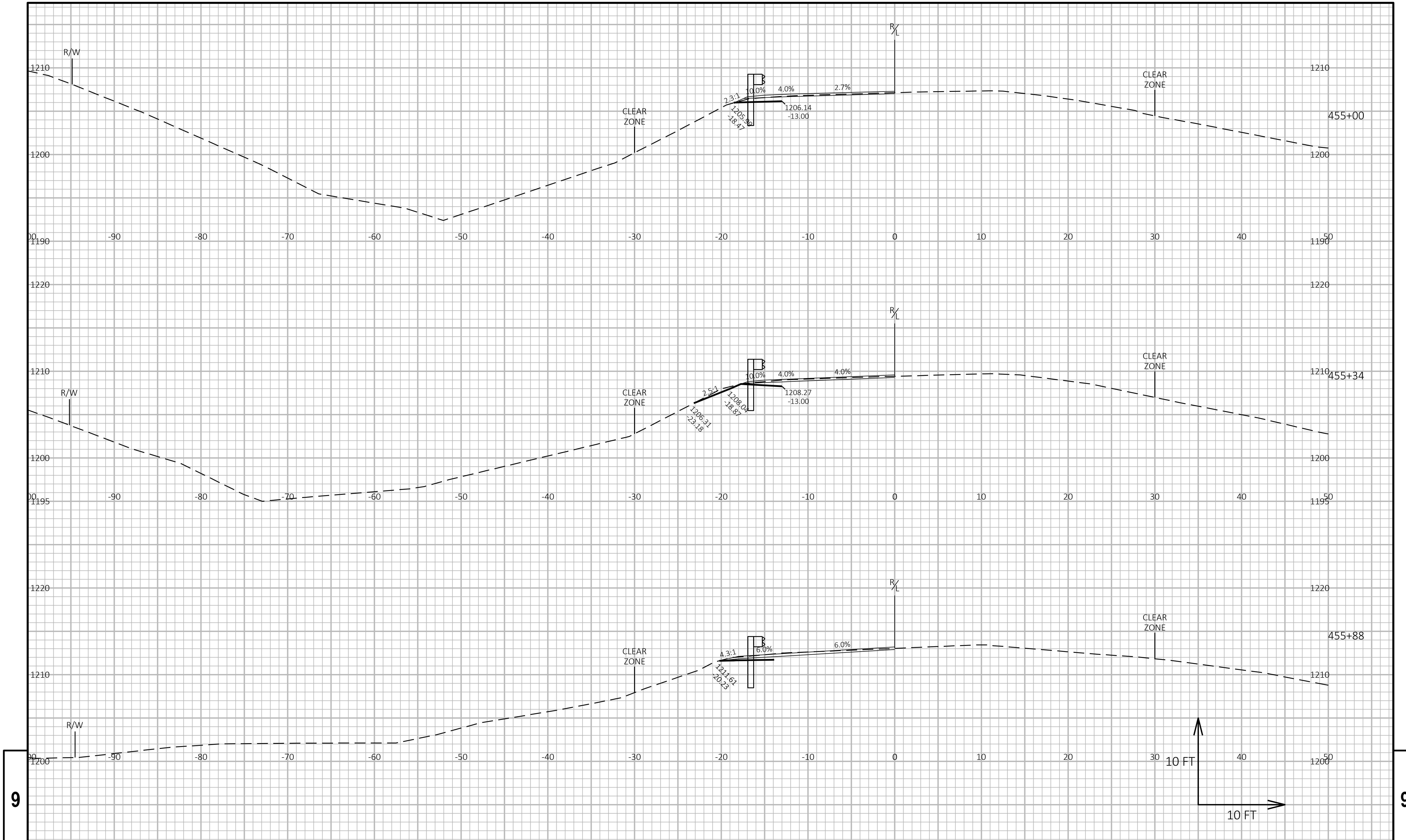
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 450+50 - STA 458+35 PROPOSED GUARDRAIL	SHEET 318	E

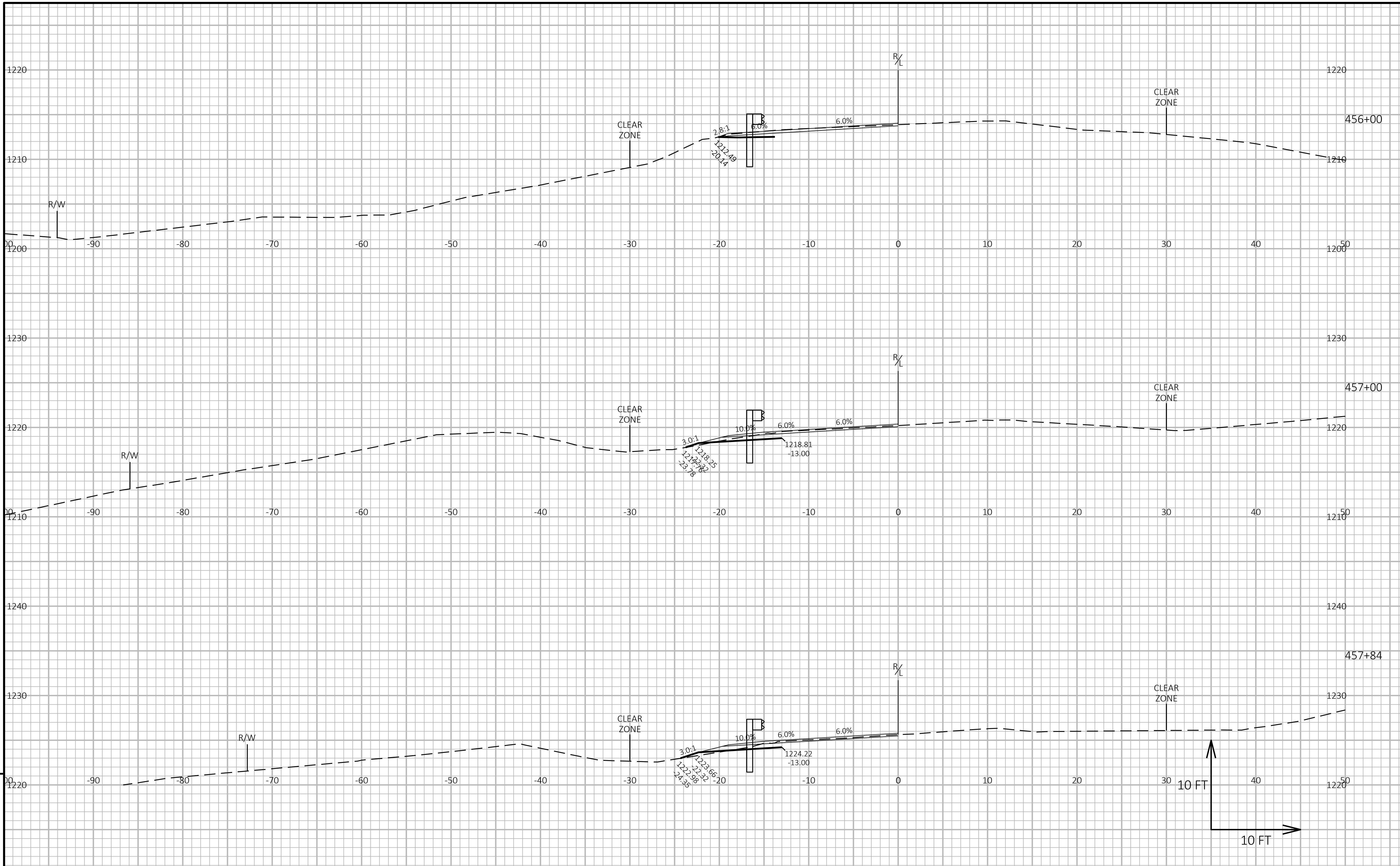
FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090208-XS.DWG
LAYOUT NAME - 020306-xs
PLOT DATE : 2/16/2026 11:31 AM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 450+50 - STA 458+35 PROPOSED GUARDRAIL	SHEET 319	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090208-XS.DWG
LAYOUT NAME - 020307-xs
PLOT DATE : 2/16/2026 11:31 AM
PLOT BY : JORDYN BENN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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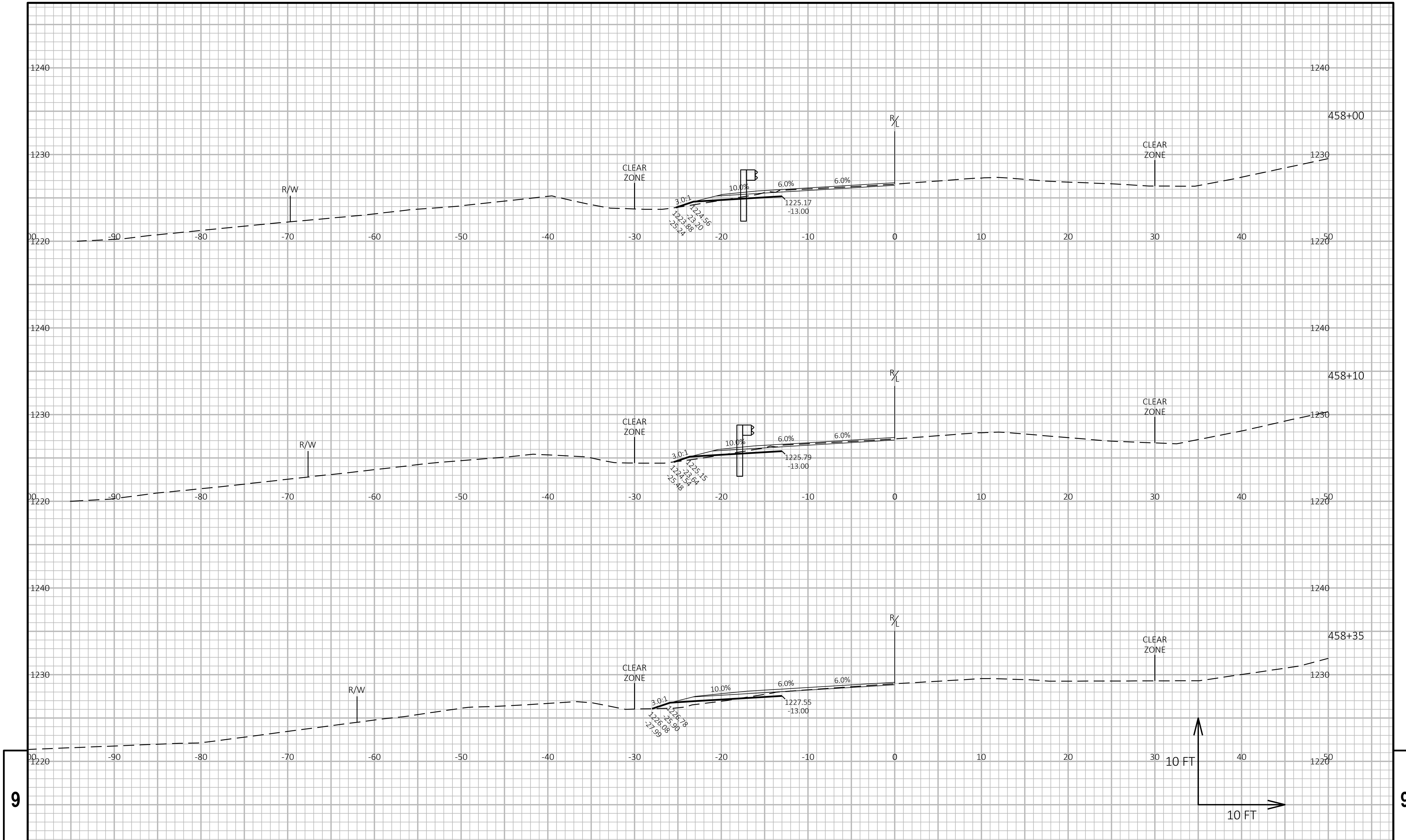
PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 450+50 - STA 458+35 PROPOSED GUARDRAIL	SHEET 320	E

FILE NAME : Y:\53XX\5339 STH 82 VERNON COUNTY\CADDS\57100002\SHEETSPLAN\090208-XS.DWG
LAYOUT NAME - 020308-xs
PLOT DATE : 2/16/2026 11:31 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 450+50 - STA 458+35 PROPOSED GUARDRAIL	SHEET 321 E

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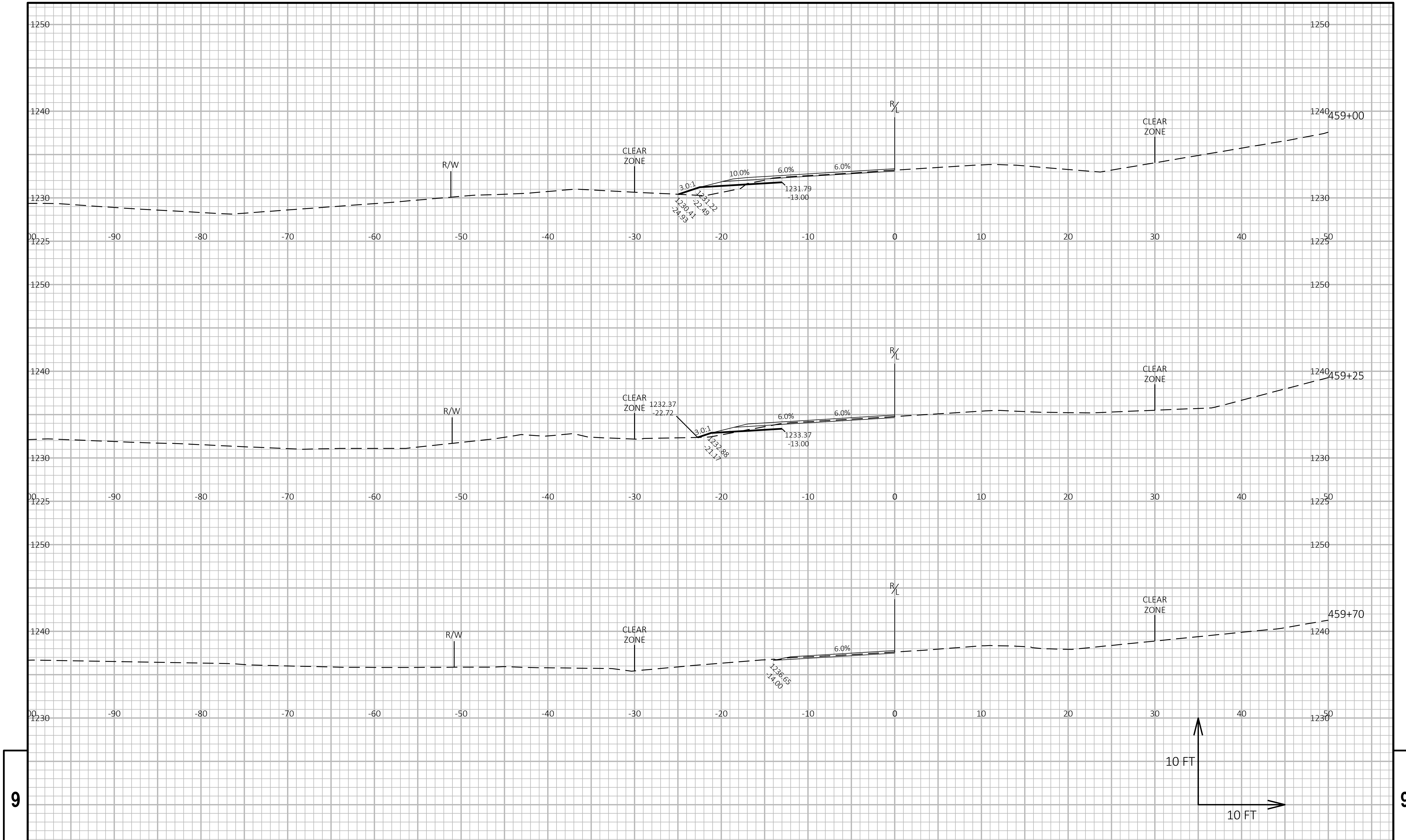
LAYOUT NAME - 020309-xs
PLOT DATE : 2/16/2026 11:31 AM PLOT BY : JORDYN BENN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 5710-00-72	HWY: STH 82	COUNTY: VERNON	CROSS SECTIONS: STH 82 STA 450+50 - STA 458+35 PROPOSED GUARDRAIL	SHEET 322 E

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WISDOT/CADDS SHEET 49

Notes

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