

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

## PLAN OF PROPOSED IMPROVEMENT

### BLAIR - MERRILLAN

TREMPEALEAU/JACKSON CO LN TO IH 94

### STH 95

### JACKSON COUNTY

STATE PROJECT NUMBER

**7560-05-74**

STATE PROJECT

7560-05-74

FEDERAL PROJECT

PROJECT

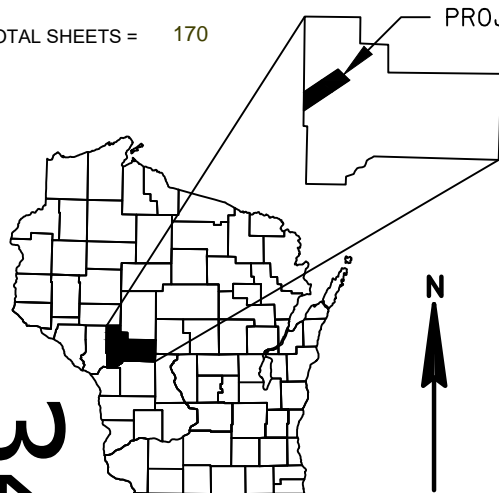
CONTRACT

#### 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 (Includes Erosion Control)
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 = 170

PROJECT LOCATION



# 34

#### DESIGN DESIGNATION

A.A.D.T.	(2023)	=	3,960
A.A.D.T.	(2043)	=	4,470
D.H.V.	(2043)	=	225
D.D.	(%)	=	50/50
T.		=	18.40%
DESIGN SPEED		=	55 MPH (RURAL), 30 MPH (URBAN)
ESALS		=	2,050,000

#### CONVENTIONAL SYMBOLS

PLAN	PROFILE
CORPORATE LIMITS	GRADE LINE
PROPERTY LINE	ORIGINAL GROUND
LOT LINE	MARSH OR ROCK PROFILE (To be noted as such)
LIMITED HIGHWAY EASEMENT	SPECIAL DITCH
EXISTING RIGHT OF WAY	GRADE ELEVATION
PROPOSED OR NEW R/W LINE	CULVERT (Profile View)
SLOPE INTERCEPT	UTILITIES
REFERENCE LINE	ELECTRIC
EXISTING CULVERT	FIBER OPTIC
PROPOSED CULVERT (Box or Pipe)	GAS
COMBUSTIBLE FLUIDS	SANITARY SEWER
MARSH AREA	STORM SEWER
	TELEPHONE
	WATER
	UTILITY PEDESTAL
	POWER POLE
WOODED OR SHRUB AREA	TELEPHONE POLE

NET EXCEPTION TO CL LENGTH  
STA 511+95 - STA 512+84  
BRIDGE B-27-108

NET EXCEPTION TO CL LENGTH  
STA 397+65 - STA 398+07  
BRIDGE B-27-107

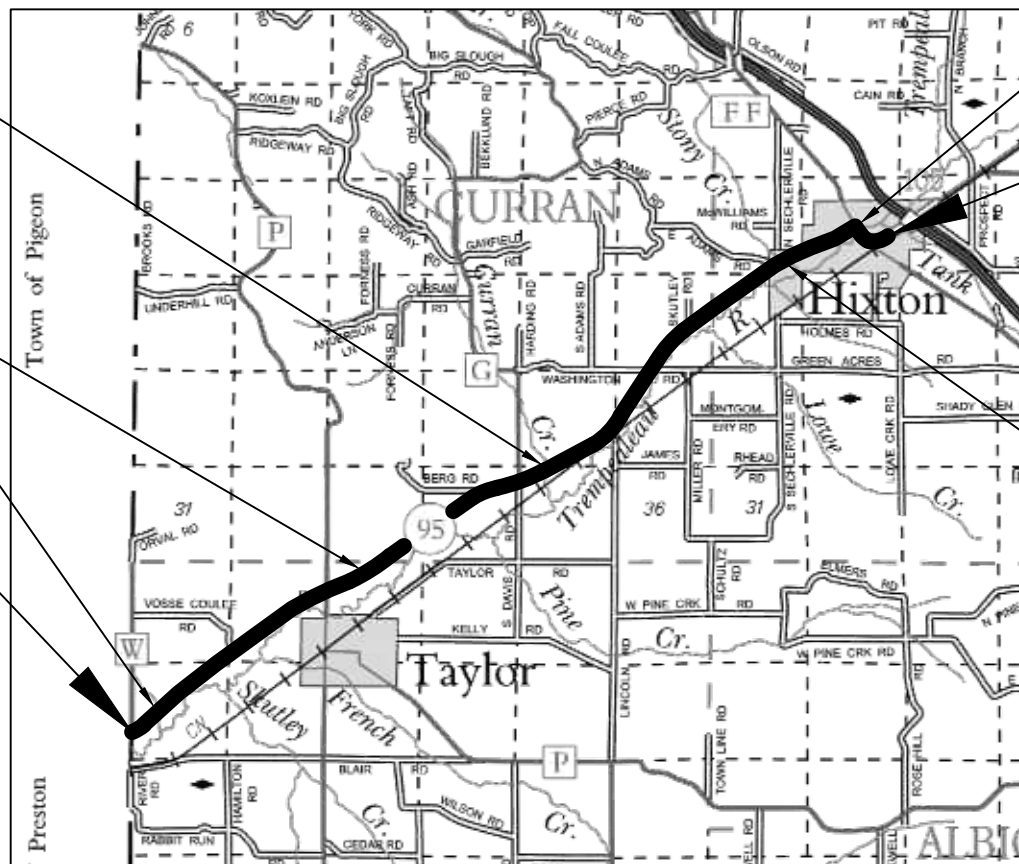
NET EXCEPTION TO CL LENGTH  
STA 260+41 - STA 260+96  
BRIDGE B-27-106

BEGIN PROJECT  
STA 243+08  
Y: 188114.799  
X: 301343.468

NET EXCEPTION TO CL LENGTH  
STA 735+89 - STA 737+80  
BRIDGE B-27-126

END PROJECT  
STA 756+52

NET EXCEPTION TO CL LENGTH  
STA 690+38 - STA 690+93  
BRIDGE B-27-114

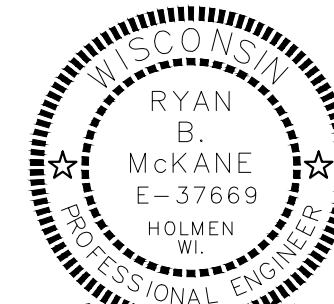


TOTAL NET LENGTH OF CENTERLINE = 9.642 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, JACKSON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88(2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ORIGINAL PLANS PREPARED BY

**WSP** 831 Critter Court  
Suite 400  
Onalaska, WI 54650  
Phone: (608) 519-1455



*Ryan B. McKane*

1/23/2023 (Date) \_\_\_\_\_ (Signature)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY	Surveyor	KNIGHT E/A
Designer	WSP USA	
Project Manager	BRETT HOLLISTER	
Regional Examiner	TOU YANG	
Regional Supervisor	JIM KOENIG	

APPROVED FOR THE DEPARTMENT  
DATE: 1/23/2023 *James Koening*  
(Signature)

E

**STANDARD ABBREVIATIONS**

AC	ACRE	INL	INLET
AGG	AGGREGATE	INV	INVERT
AH	AHEAD	JCT	JUNCTION
AADT	ANNUAL AVERAGE DAILY TRAFFIC	LT	LEFT
ASPH	ASPHALTIC	L	LENGTH OF CURVE
AVG	AVERAGE	LIN FT or LF	LINEAR FOOT
BK	BACK	LS	LUMP SUM
BAD	BASE AGGREGATE DENSE	NC	NORMAL CROWN
BM	BENCH MARK	N	NORTH
BR	BRIDGE	NB	NORTHBOUND
CL or C/L	CENTER LINE	NO	NUMBER
CE	COMMERCIAL ENTRANCE	PT	POINT
CONC	CONCRETE	PC	POINT OF CURVATURE
CO	COUNTY	PI	POINT OF INTERSECTION
CTH	COUNTY TRUNK HIGHWAY	PT	POINT OF TANGENCY
CR	CREEK	PCC	PORTLAND CEMENT CONCRETE
CABC	CRUSHED AGGREGATE BASE COURSE	LB	POUND
CSD	COMMUNITY SENSITIVE DESIGN	PE	PRIVATE ENTRANCE
CY or CUYD	CUBIC YARD	R	RADIUS
CULV	CULVERT	RL or R/L	REFERENCE LINE
CP	CULVERT PIPE	RT	RIGHT
C & G	CURB AND GUTTER	R/W	RIGHT-OF-WAY
D	DEGREE OF CURVE	RD	ROAD
DIA	DIAMETER	SHLDR	SHOULDER
DISCH	DISCHARGE	SB	SOUTHBOUND
E	EAST	SF or SQ FT	SQUARE FEET
EB	EASTBOUND	SY or SQ YD	SQUARE YARD
EL or ELEV	ELEVATION	SDD	STANDARD DETAIL DRAWINGS
EW	ENDWALL	STH	STATE TRUNK HIGHWAYS
ENT	ENTRANCE	SE	SUPERELEVATION
EXC	EXCAVATION	T	TANGENT
EX	EXISTING	TEMP	TEMPORARY
FERT	FERTILIZER	TWLTL	TWO-WAY LEFT-TURN LANE
FE	FIELD ENTRANCE	UG	UNDERGROUND
FL or F/L	FLOW LINE	USH	UNITED STATES HIGHWAY
FT	FOOT	V	VELOCITY OR DESIGN SPEED
HE	HIGHWAY EASEMENT	VC	VERTICAL CURVE
HMA	HOT MIX ASPHALT	WB	WESTBOUND
CWT	HUNDREDWEIGHT	YD	YARD

**GENERAL NOTES**

- NO TREES OR SHRUBS SHALL BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER.
- DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE SALVAGED TOPSOILED, FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.
- MATCH EXISTING DRIVEWAYS WITH IN-KIND MATERIALS.
- PAVING LIMITS ARE TO BE DETERMINED BY THE ENGINEER.
- TYPICAL SECTIONS SHOW THE GENERAL FEATURES THROUGHOUT THE PROJECT. PAVEMENT SLOPES, TERRACE SLOPES, ETC., MAY VARY WITHIN THE LIMITS OF THE SECTION.
- WHEN PORTIONS OF EXISTING ASPHALTIC SURFACES ARE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION, THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT JOINT THROUGH THE ASPHALTIC SURFACE SO THAT REMOVAL OF THE ASPHALT SHALL BE ACCOMPLISHED WITHOUT DAMAGE TO REMAINING PORTIONS. THE LOCATION OF SAW JOINTS AND THE AMOUNT REMOVED AT SIDE ROADS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- CROSS SLOPES AS SHOWN ON THE TYPICAL SECTION WILL VARY AT THE INTERSECTIONS.
- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- HMA PAVEMENT TO BE PLACED IN 1.5-INCH LOWER LIFT AND 1.75-INCH UPPER LIFT.
- APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO MILLED SURFACES AND 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.
- SURFACE WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.
- WHEN THE QUANTITY OF BASE AGGREGATE IS MEASURED FOR PAVEMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.
- EXISTING RIGHT OF WAY DEPICTED ON THE PLANS ARE BASED OFF OF PREVIOUS AS BUILTS. IF CONFLICTS ARE ANTICIPATED, THE CONTRACTOR SHALL FIELD VERIFY EXACT LIMITS AND NOTIFY THE ENGINEER.

**ORDER OF TYPICAL SECTION & DETAIL SHEETS**

1. PROJECT OVERVIEW
2. TYPICAL SECTIONS
3. CONSTRUCTION DETAILS
4. CURB RAMP DETAILS
5. ALIGNMENT DETAIL & TIES

AT&T LEGACY - COMMUNICATION LINE  
KENNETH NINE  
110 N MAIN ST  
CULVER, IN 46511  
(574) 904-6336  
KNINE@JMCEAINC.COM

BRIGHTSPEED - COMMUNICATION LINE  
BRIAN STELPLUGH  
333 NORTH FRONT STREET  
LA CROSSE, WI 54601  
(608) 796-5142  
BRIAN.STELPLUGH@BRIGHTSPEED.COM

DAIRYLAND POWER COOPERATIVE - ELECTRICITY  
MICHAEL LYDON  
P.O. BOX 817  
LA CROSSE, WI 54602-0817  
(608) 787-1381  
MICHAEL.LYDON@DAIRYLANDPOWER.COM

HIXTON WASTEWATER TREATMENT FACILITY - SEWER  
JIM SIMONSON  
145 E MAIN ST  
P.O. BOX 127  
HIXTON, WI 54635  
(715) 963-3732  
JIMSIMONSON@TCC.COOP

JACKSON ELECTRIC COOPERATIVE - ELECTRICITY  
ERIC STEIEN  
N6868 CO HWY F  
P.O. BOX 546  
BLACK RIVER FALLS, WI 54615  
(715) 284-5385  
ESTEIEN@JACKELEC.COM

NORTHERN NATURAL GAS COMPANY - GAS/PETROLEUM  
JASON GOODWIN  
4685 212TH STREET W  
FARMINGTON, MN 55024  
(612) 456-1711  
JASON.GOODWIN@NNGCO.COM

RIVERLAND ENERGY COOPERATIVE - ELECTRICITY  
TIM HOLTAN  
N28988 STATE ROAD 93  
ARCADIA WI 54612-0277  
(608) 323-3381  
THOLTAN@RIVERLANDENERGY.COM

TRI-COUNTY COMMUNICATIONS COOPERATIVE - COMMUNICATION LINE  
JAY KONSELA  
417 5TH AVE N  
P.O. BOX 578  
STRUM, WI 54770  
(715) 695-2691  
JKONSELA@TCCPRO.NET

VILLAGE OF HIXTON - WATER  
JIM SIMONSON  
145 E MAIN ST  
P.O. BOX 127  
HIXTON, WI 54635  
(715) 963-3732  
JIMSIMONSON@TCC.COOP

WE ENERGIES - GAS/PETROLEUM  
TRAVIS KAHL  
1921 8TH STREET SO  
WISCONSIN RAPIDS, WI 54494  
(715) 421-7256  
TRAVIS.KAHL@WECENERGYGROUP.COM

XCEL ENERGY - ELECTRICITY  
JORDAN JANDT  
3215 COMMERCE ST  
LA CROSSE, WI 54603  
(608) 789-3629  
JORDAN.R.JANDT@XCELENERGY.COM

**RUNOFF COEFFICIENT TABLE**

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

TOTAL PROJECT AREA = 8.70 ACRES  
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 6.38 ACRES

**WISDOT UTILITIES**

WISDOT - COMMUNICATION LINE  
JOHN MITTELSTADT  
433 W. ST. PAUL AVE.  
STE. 300  
MILWAUKEE, WI 53203-3007  
(608) 205-7859  
JOHN.MITTELSTADT@DOT.WI.GOV

**PROJECT CONTACTS**

WISDOT PROJECT MANAGER  
DANIEL RAMBO, PE  
718 W CLAIREMONT AVE  
EAU CLAIRE, WI 54701  
(715) 514-7255  
DANIEL.RAMBO@DOT.WI.US

DESIGN CONTACT  
WSP USA  
RYAN MCKANE, PE  
831 CRITTER COURT, SUITE 400  
ONALASKA, WI 54650  
(608) 385-5307  
RYAN.MCKANE@WSP.COM

WDNR: JACKSON COUNTY  
BRAD BETTHAUSER  
910 HIGHWAY 54 EAST  
BLACK RIVER FALLS, WI 54615  
(715) 213-9064  
BRADLEY.BETTHAUSER@WISCONSIN.GOV

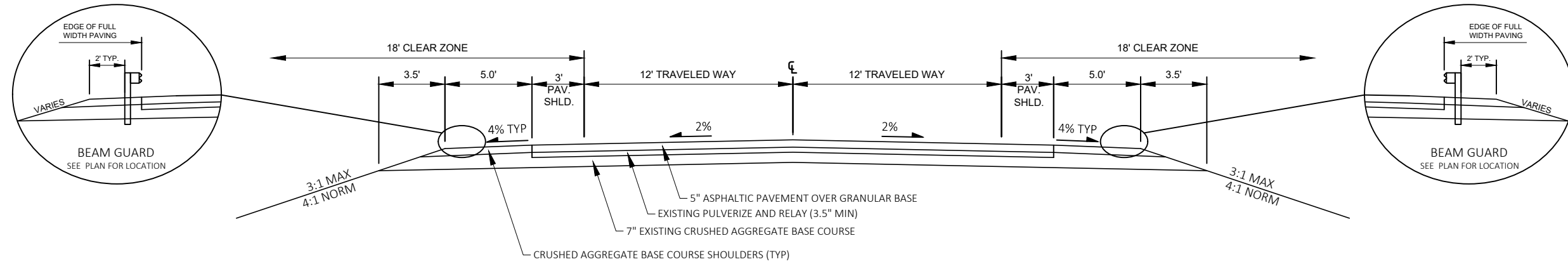


Dial 811 or (800) 242-8511  
www.DiggersHotline.com



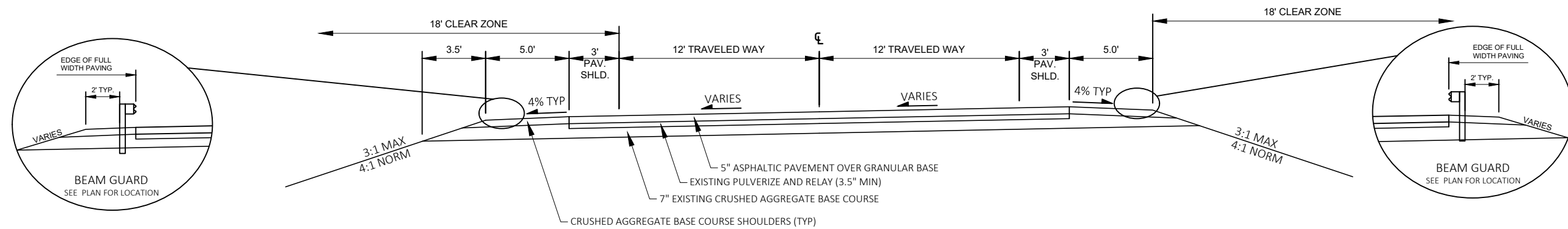






**TYPICAL EXISTING SECTION - STH 95**  
 STA. 241+16 - STA. 711+00

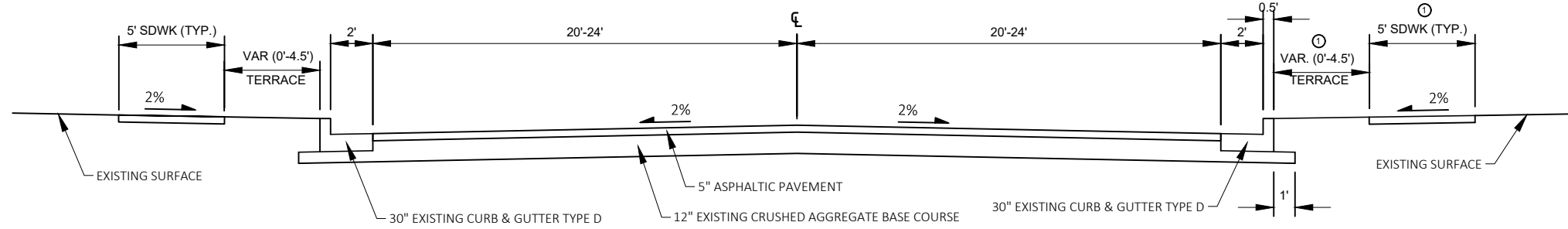
NOTE: EXCEPT AT THE FOLLOWING STATIONS



**TYPICAL EXISTING SECTION - STH 95**

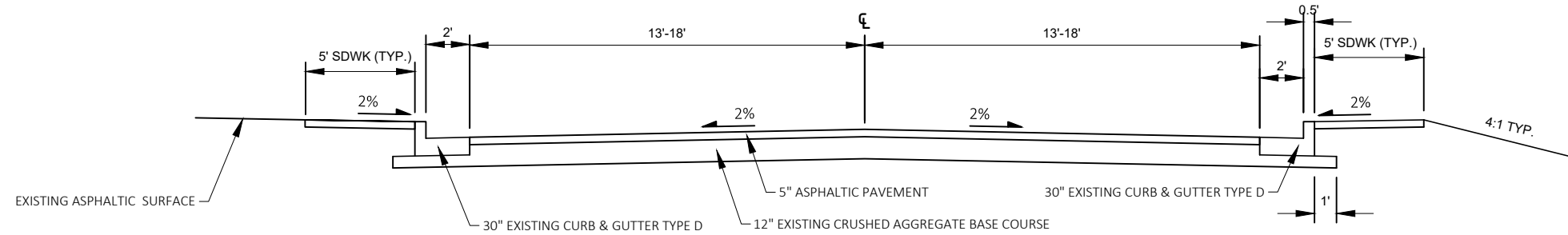
- STA. 241+30 - STA. 249+64
- STA. 281+88 - STA. 292+19
- STA. 344+82 - STA. 371+73
- STA. 388+11 - STA. 400+22
- STA. 469+18 - STA. 479+12
- STA. 492+99 - STA. 509+28
- STA. 542+07 - STA. 558+48
- STA. 605+86 - STA. 612+54
- STA. 622+67 - STA. 630+55
- STA. 683+84 - STA. 688+39
- STA. 692+25 - STA. 696+27



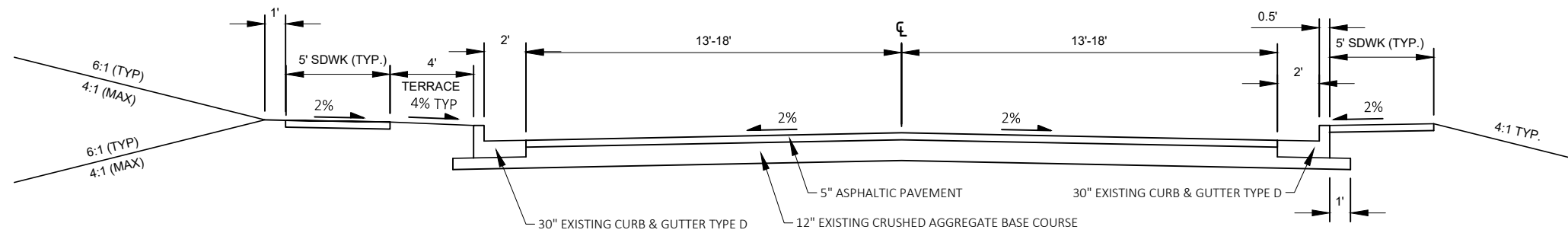


**TYPICAL EXISTING SECTION - STH 95**  
 STA. 711+00 - STA. 734+10.73

NOTES:  
 ① SEE PLAN & PROFILE FOR WIDTHS AND TAPERS

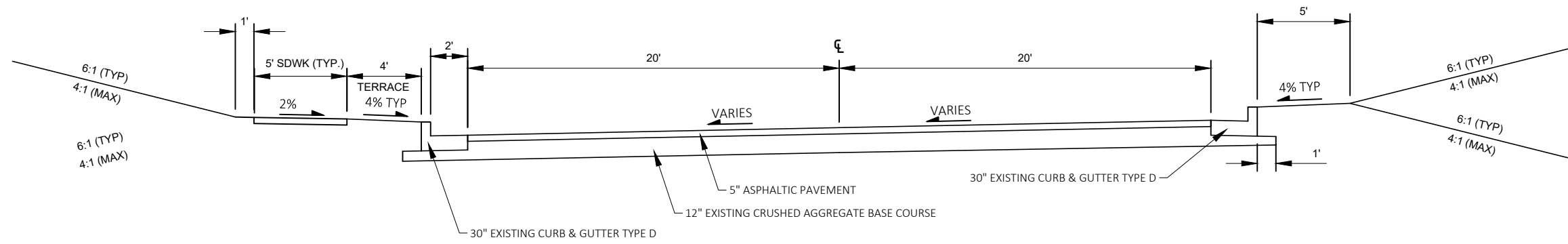


**TYPICAL EXISTING SECTION - STH 95**  
 STA. 734+10.73 - STA. 735+69.35

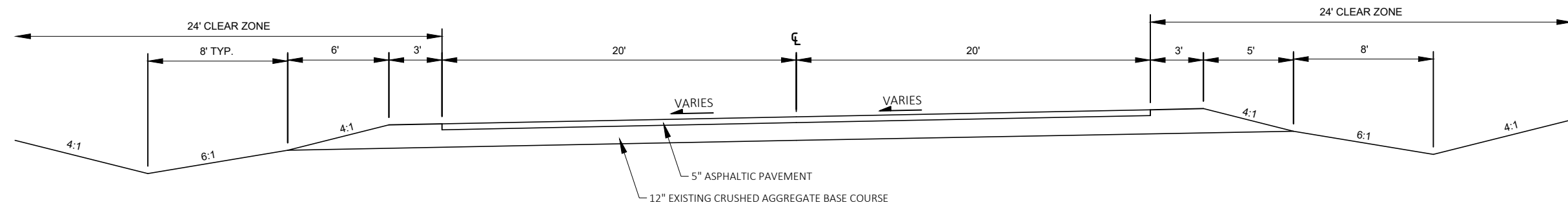


**TYPICAL EXISTING SECTION - STH 95**  
 STA. 737+99.44 - STA. 739+16.38



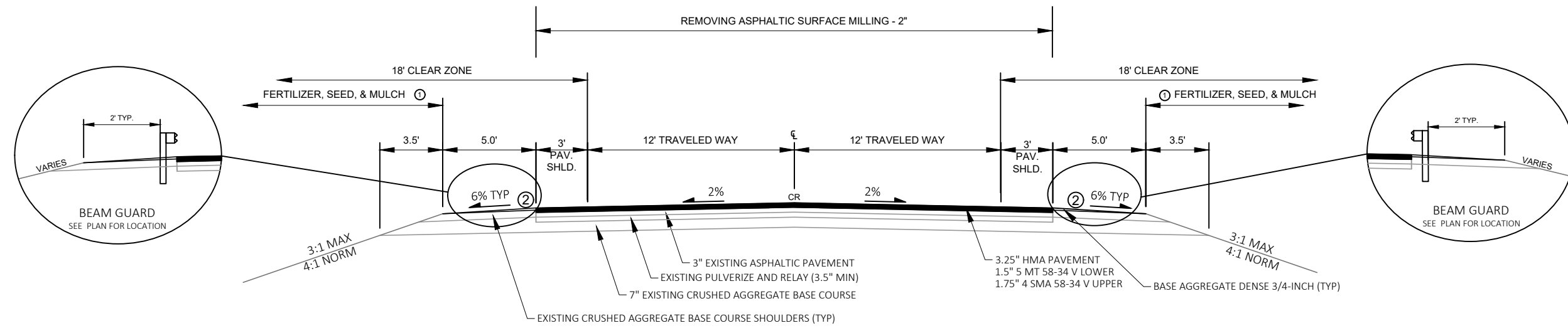


**TYPICAL EXISTING SECTION - STH 95**  
 STA. 739+16.38 - STA. 748+74.90



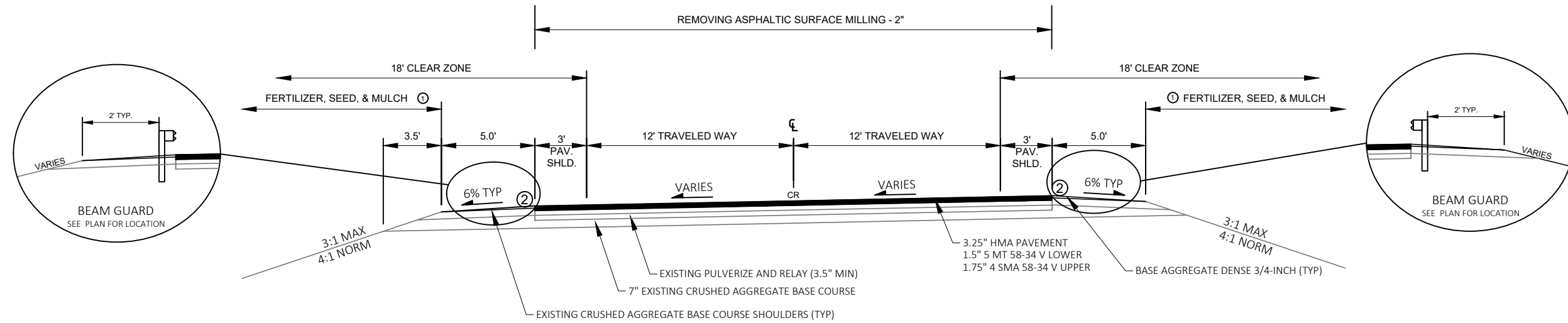
**TYPICAL EXISTING SECTION - STH 95**  
 STA. 748+74.90 - STA. 756+52





**TYPICAL PROPOSED SECTION - STH 95**  
 STA. 241+16 - STA. 711+00

NOTE: EXCEPT AT THE FOLLOWING STATIONS



**TYPICAL PROPOSED SECTION - STH 95**

- STA. 241+30 - STA. 249+64
- STA. 281+88 - STA. 292+19
- STA. 344+82 - STA. 371+73
- STA. 388+11 - STA. 400+22
- STA. 469+18 - STA. 479+12
- STA. 492+99 - STA. 509+28
- STA. 542+07 - STA. 558+48
- STA. 605+86 - STA. 612+54
- STA. 622+67 - STA. 630+55
- STA. 683+84 - STA. 688+39
- STA. 692+25 - STA. 696+27

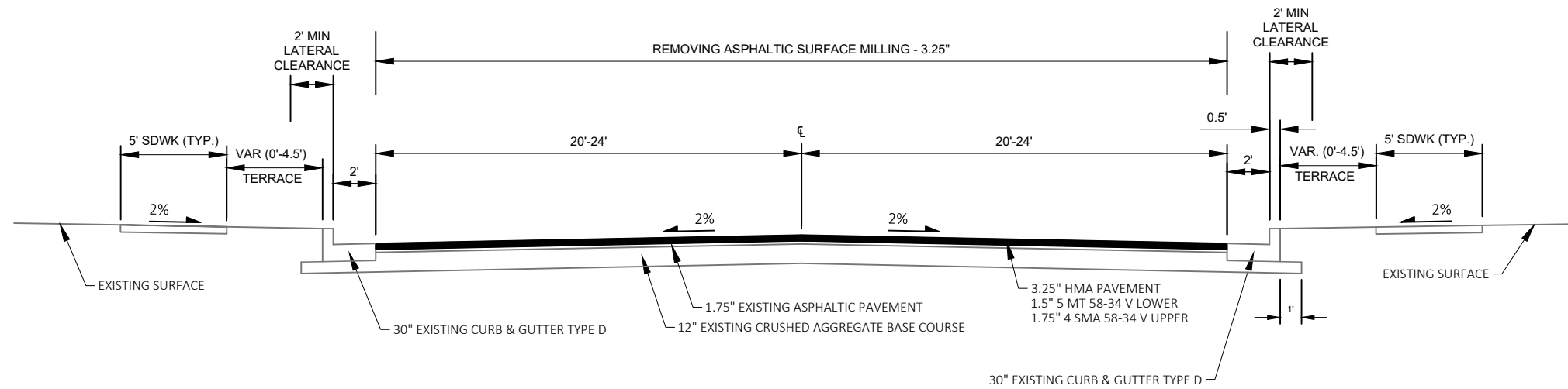
**NOTES:**

CR = CENTERLINE RUMBLE STRIPS

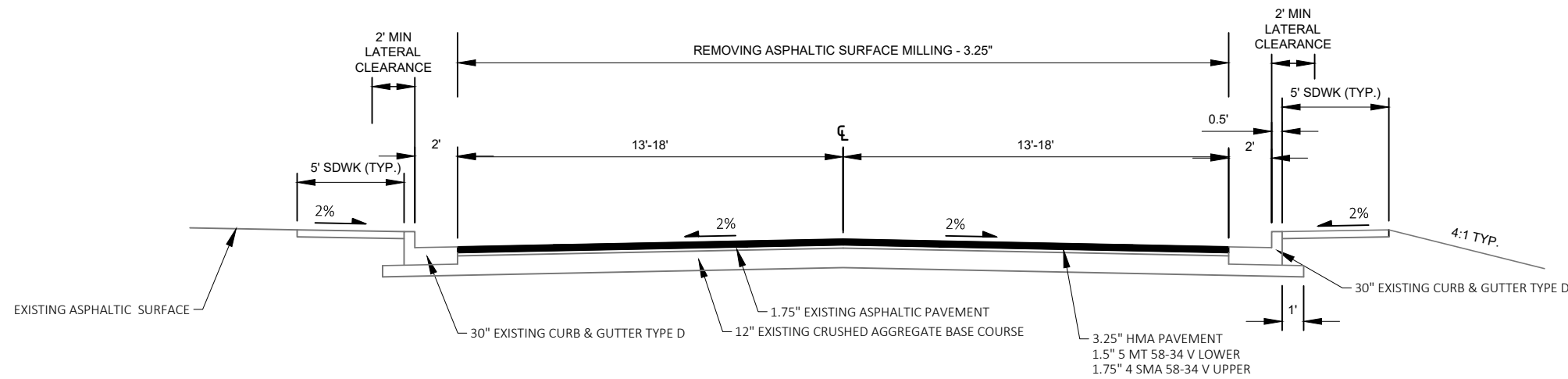
SEE PLAN SHEETS FOR SUPERELEVATION LOCATIONS

① RESTORATION ITEMS TO EXTEND 5-FT BEYOND DAYLIGHT OF SLOPE

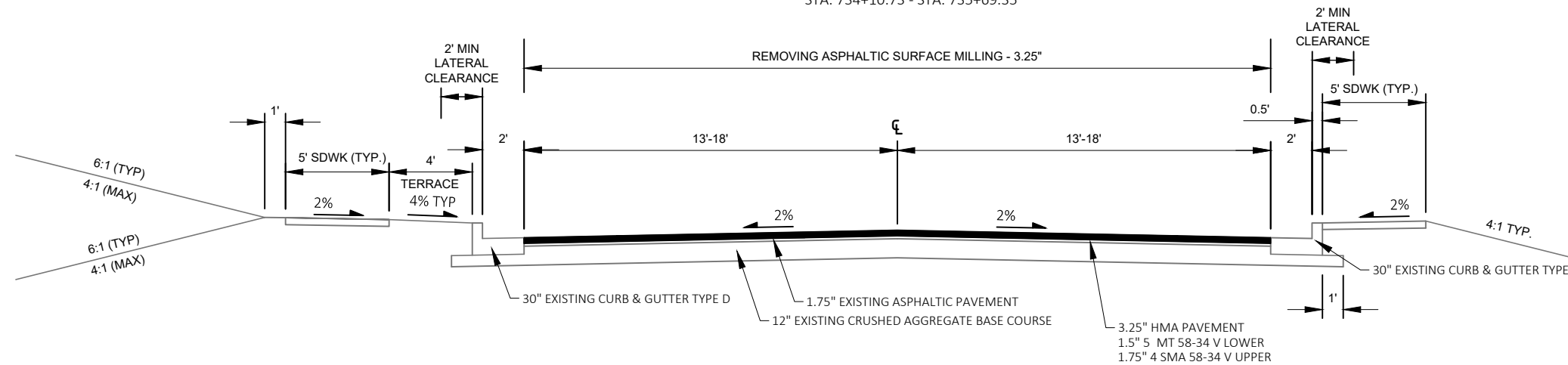
② ROUND SHOULDERS TO MATCH EXISTING SLOPES



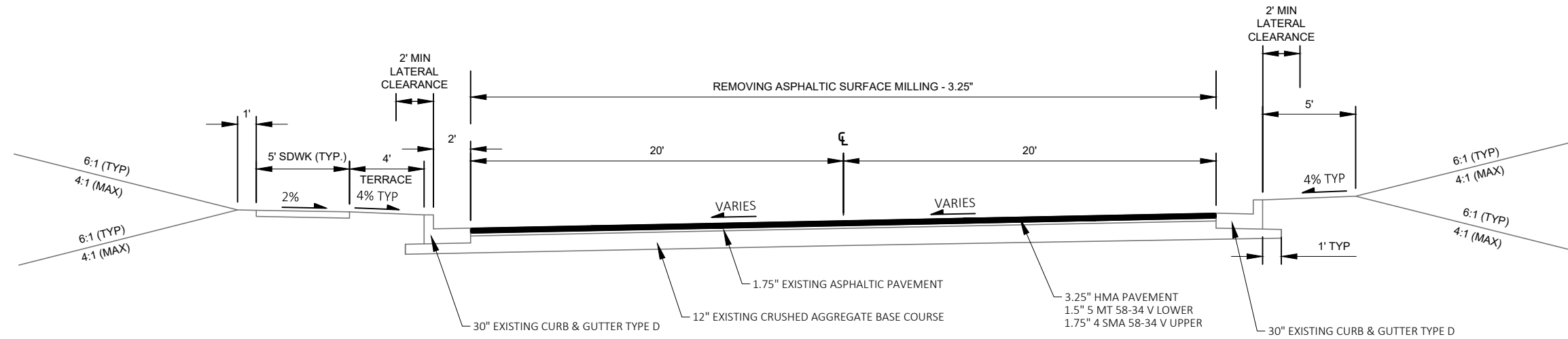
**TYPICAL PROPOSED SECTION - STH 95**  
 STA. 711+00 - STA. 734+10.73



**TYPICAL PROPOSED SECTION - STH 95**  
 STA. 734+10.73 - STA. 735+69.35

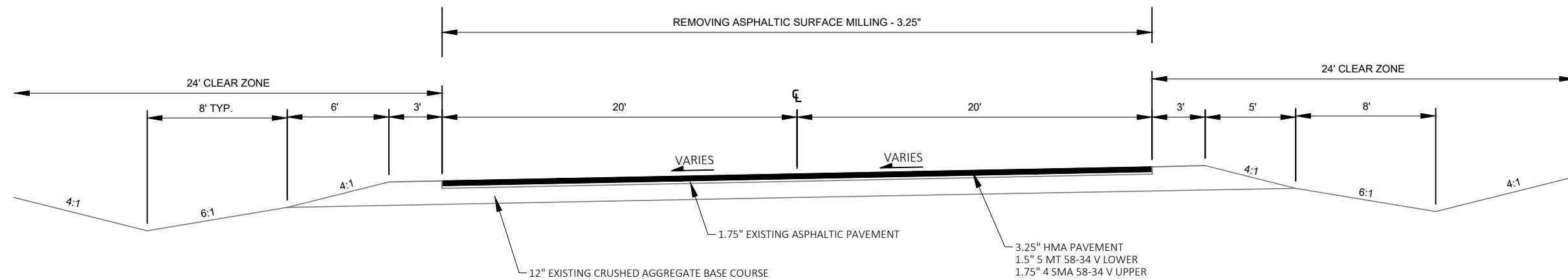


**TYPICAL PROPOSED SECTION - STH 95**  
 STA. 737+99.44 - STA. 739+16.38



**TYPICAL PROPOSED SECTION - STH 95**

STA. 739+16.38 - STA. 748+74.90

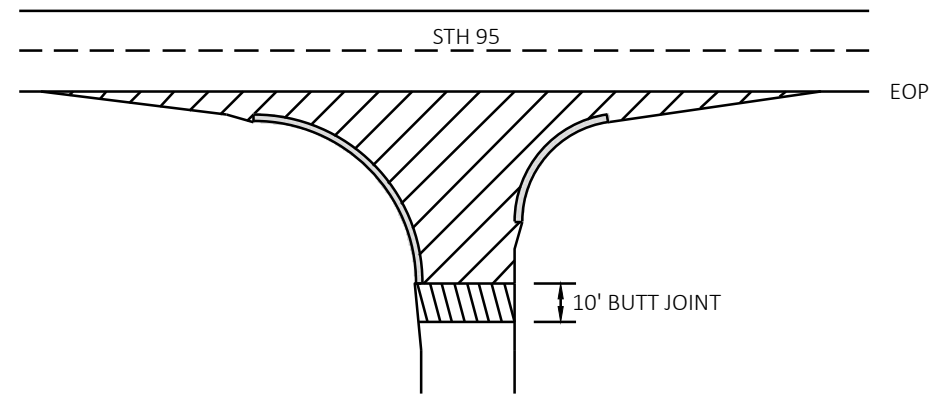


**TYPICAL PROPOSED SECTION - STH 95**

STA. 748+74.90 - STA. 756+52





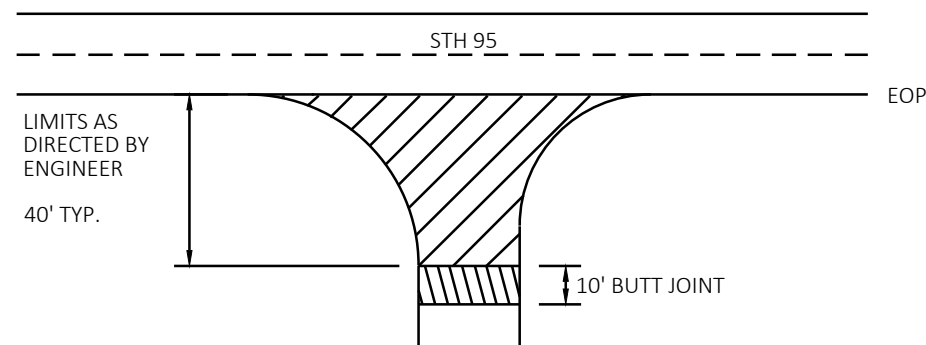


- REMOVING ASPHALTIC SURFACE MILLING - 2"
- REMOVING ASPHALTIC SURFACE BUTT JOINTS - 3.25" SEE BUTT JOINT DETAIL

NOTES:

1. SAWCUTS IN THESE LOCATIONS ARE INCIDENTAL TO REMOVING ASPHALTIC SURFACE BUTT JOINTS ITEM.
2. WHEN MATCHING TO AN UNPAVED SURFACE BUTT JOINT IS NOT REQUIRED.

SIDE ROADS  
WITH CURB AND GUTTER

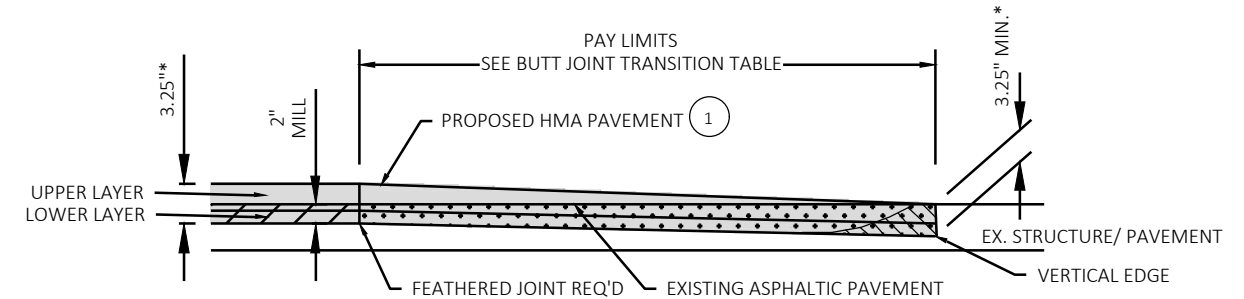


- REMOVING ASPHALTIC SURFACE MILLING - 2"
- REMOVING ASPHALTIC SURFACE BUTT JOINTS - 3.25" SEE BUTT JOINT DETAIL

NOTES:

1. SAWCUTS IN THESE LOCATIONS ARE INCIDENTAL TO REMOVING ASPHALTIC SURFACE BUTT JOINTS ITEM.
2. WHEN MATCHING TO AN UNPAVED SURFACE BUTT JOINT IS NOT REQUIRED.

SIDE ROADS  
WITHOUT CURB AND GUTTER



① SEE TYPICAL SECTIONS FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

- HMA PAVEMENT
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE BUTT JOINTS
- REMOVE ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE

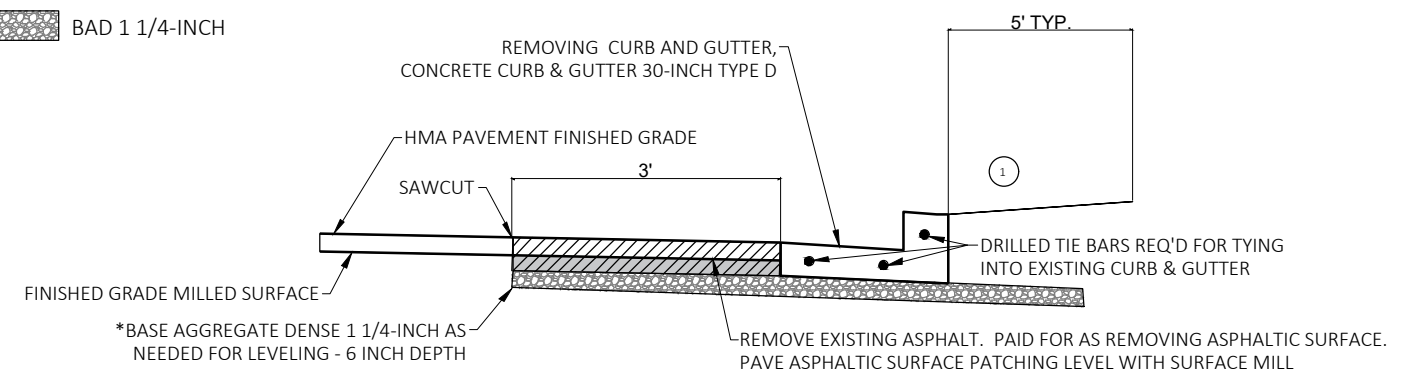
NOTE:  
SAWCUTS IN THESE LOCATIONS ARE INCIDENTAL TO REMOVING ASPHALTIC SURFACE BUTT JOINTS ITEM.  
\*PROPOSED TOTAL HMA OVERLAY THICKNESS

BUTT JOINT DETAIL FOR MILLED ASPHALTIC PAVEMENTS (PROFILE CHANGE)

Design Speed mph	Change in Profile Grade Percent	Transition Length Per Inch of Vertical Height Differential ft	Round-up 1"	New Profile								
				2.0"	2.5"	3.0"	3.5"	4.0"	4.5"	5.0"	5.5"	6.0"
20	1.2	6.94	10	20	25	30	35	40	45	50	55	60
30	1.0	8.33	10	20	25	30	35	40	45	50	55	60
40	0.8	10.42	15	30	38	45	53	60	68	75	83	90
45	0.7	11.90	15	30	38	45	53	60	68	75	83	90
50	0.6	13.89	20	40	50	60	70	80	90	100	110	120
60	0.4	20.83	25	50	63	75	88	100	113	125	138	150
65	0.3	27.78	30	60	75	90	105	120	135	150	165	180
70	0.2	41.67	45	90	113	135	158	180	203	225	248	270

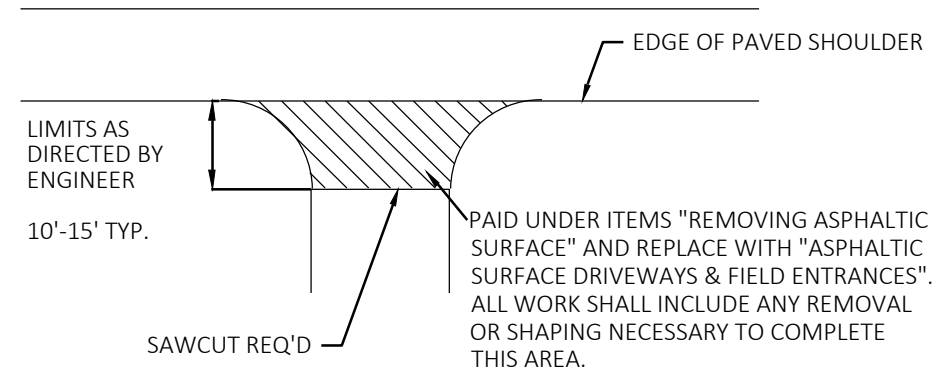
STH 95 RURAL DESIGN SPEED = 55 MPH (USE 60 MPH)  
STH 95 URBAN DESIGN SPEED = 30 MPH  
SIDEROAD DESIGN SPEED = N/A (SEE OTHER DETAIL)

- REMOVING ASPHALTIC SURFACE
- ASPHALTIC SURFACE PATCHING
- BAD 1 1/4-INCH

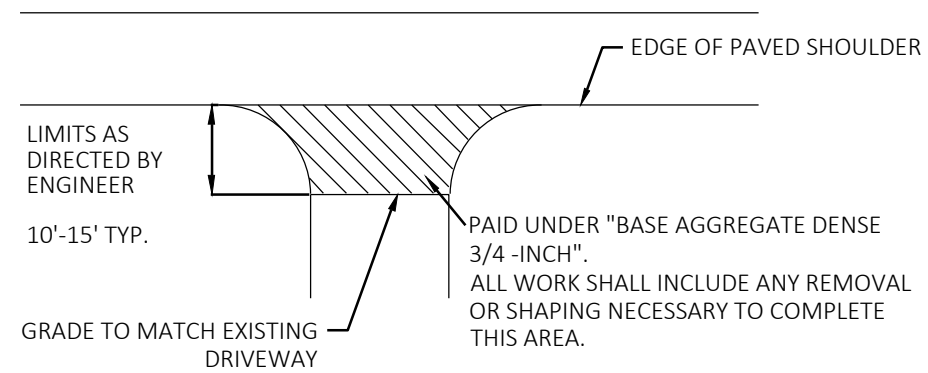


CURB & GUTTER REMOVAL AND REPLACE DETAIL

① SALVAGED TOPSOIL, EROSION MAT URBAN CLASS I TYPE A, FERTIZER TYPE B, SEEDING MIXTURE NO. 40 REQ'D

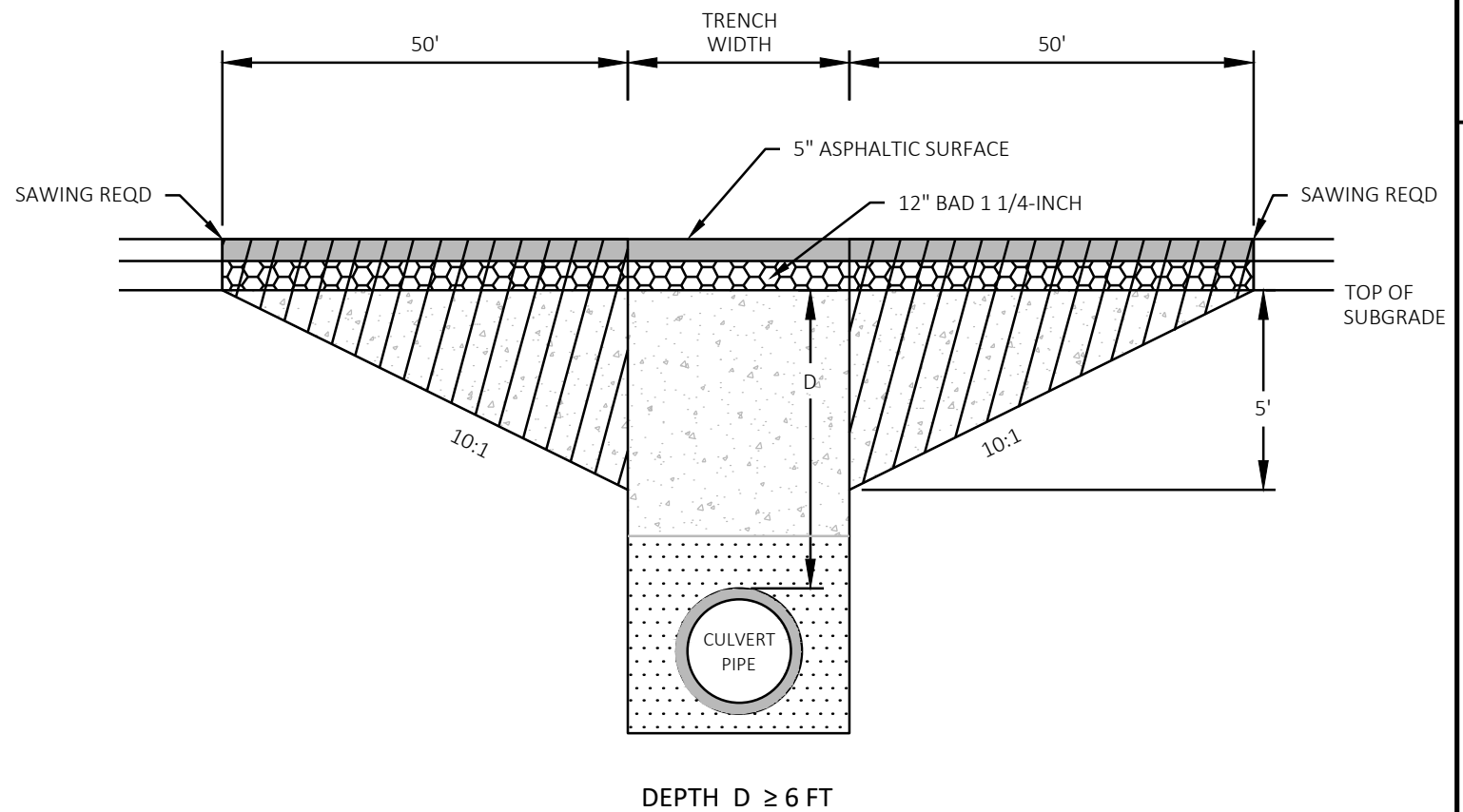
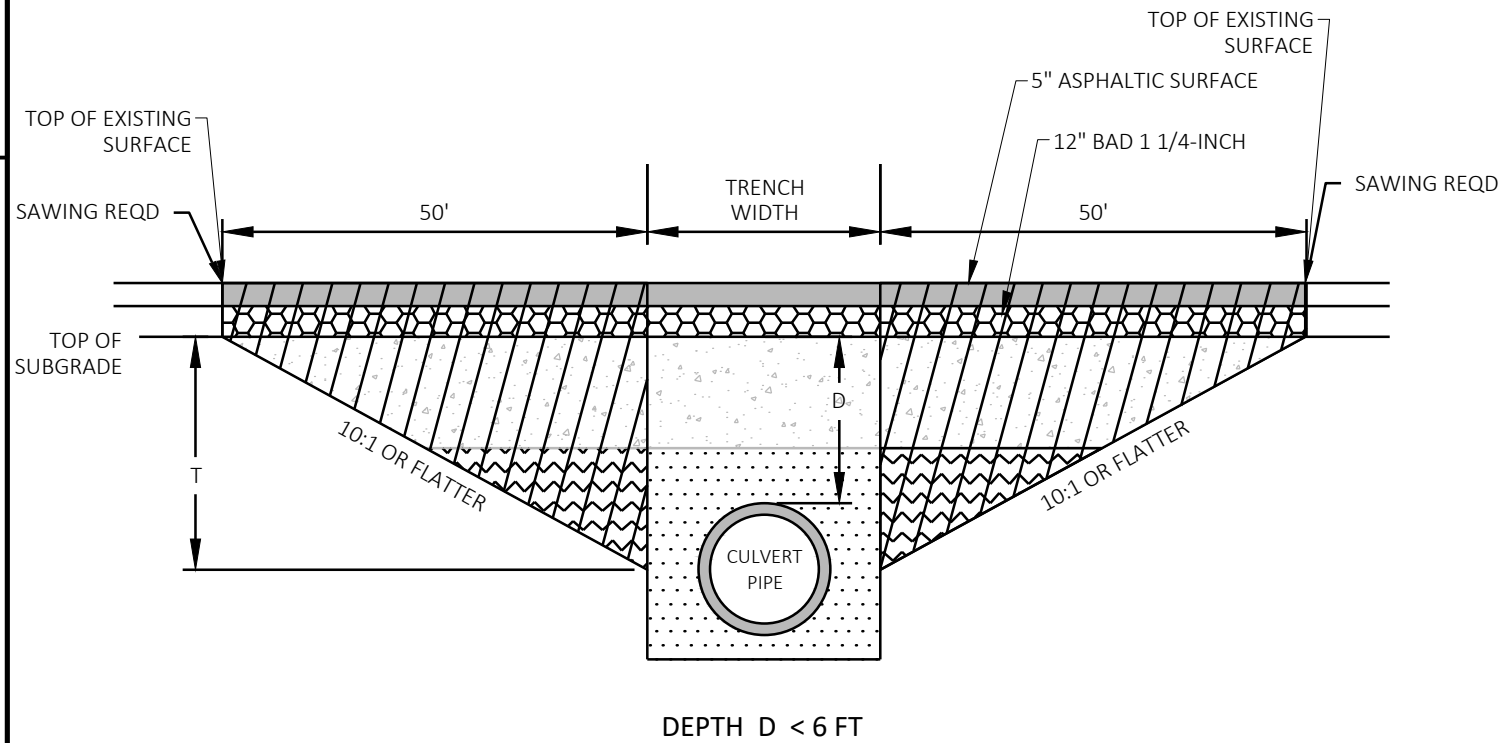


RURAL ASPHALT DRIVEWAY DETAIL



RURAL GRAVEL DRIVEWAY DETAIL





TRANSITION CUT DEPTH (T) = THE LESSER OF DEPTH TO CENTER OF PIPE OR 5 FT.  
DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.

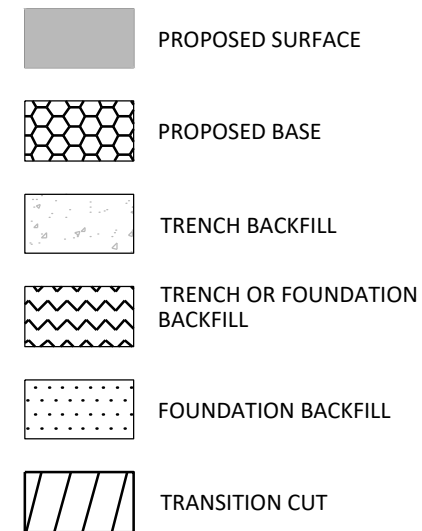
CULVERT INSTALLATION DETAIL

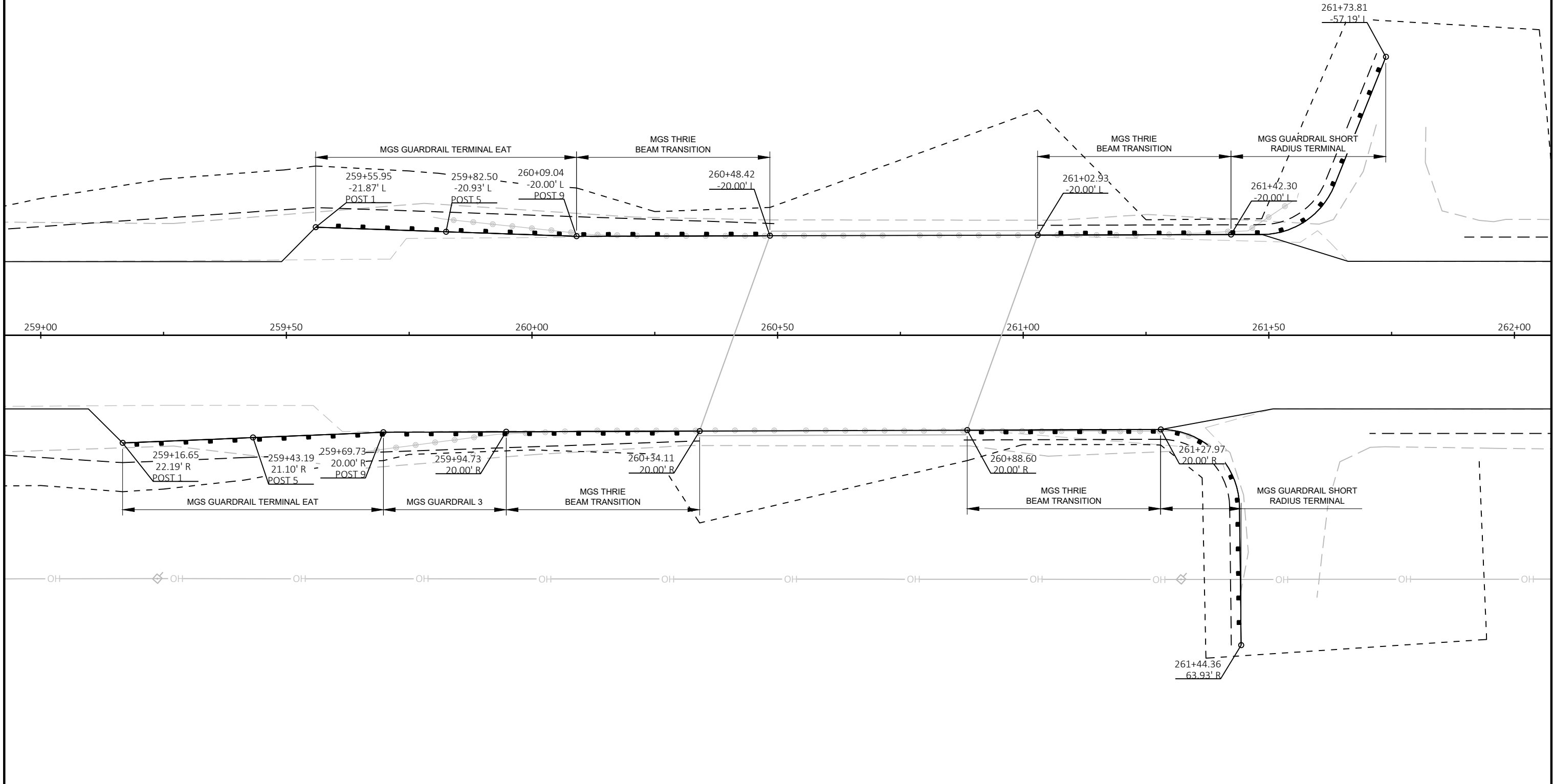
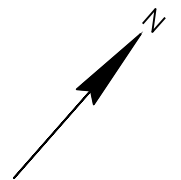
NOTES

- TRANSITION CUT IS PAID AS EXCAVATION COMMON.
- TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.
- PERFORM CULVERT PIPE INSTALLATION BEFORE MILLING AND PAVING.
- BACKFILL THE TRANSITION CUT AREAS WITH TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.
- PAVE THE 5" ASPHALTIC SURFACE IN TWO LIFTS (3" LOWER & 2" UPPER).

CULVERT PIPE TRANSITION

ROUTE	STA.	CL DEPTH	PIPE DIA. (IN)	REMARKS
STH 95	280+53	5.1 FT	36	CULVERT #270950030
STH 95	314+03/07	3.2/3.1 FT	HE 19x30	CULVERT #270950080
STH 95	318+66	6.1 FT	24	CULVERT #270950081
STH 95	323+16	3.6 FT	72	CULVERT #270950090
STH 95	682+96	4.2 FT	HE 29x45	CULVERT #270950550

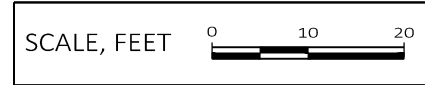
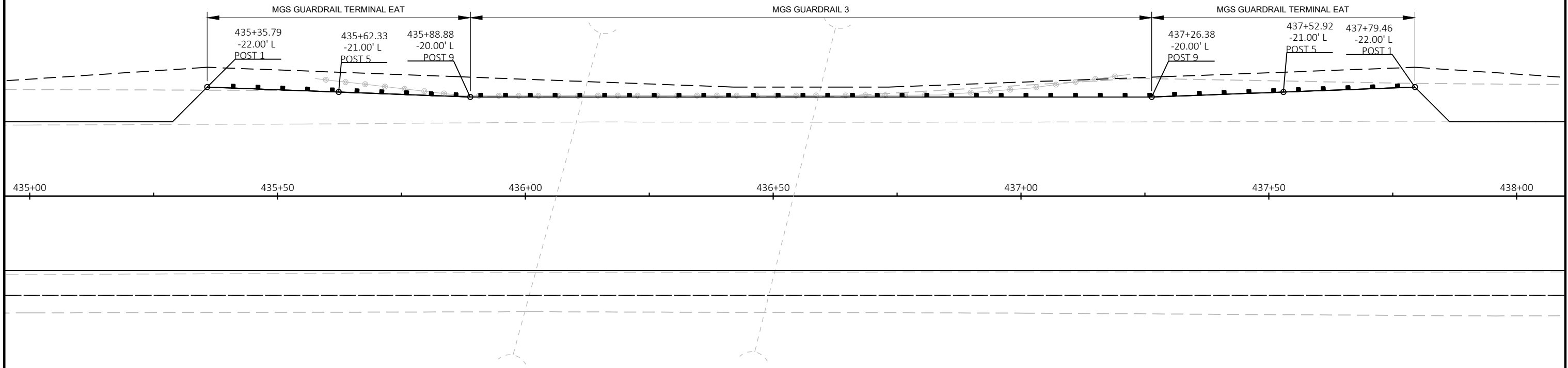
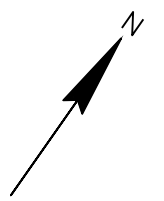


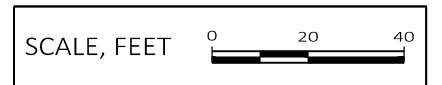
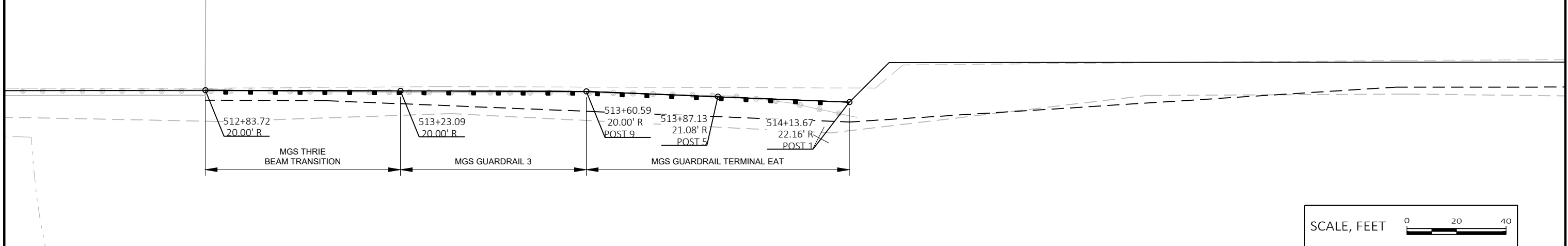
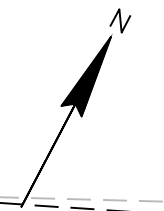
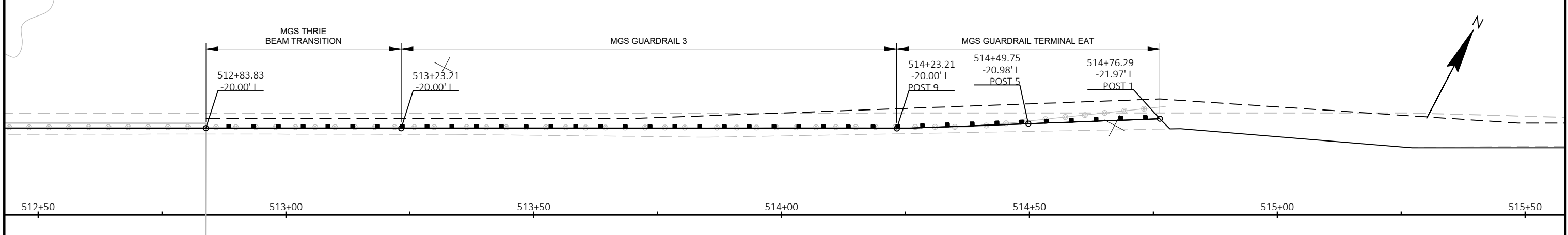
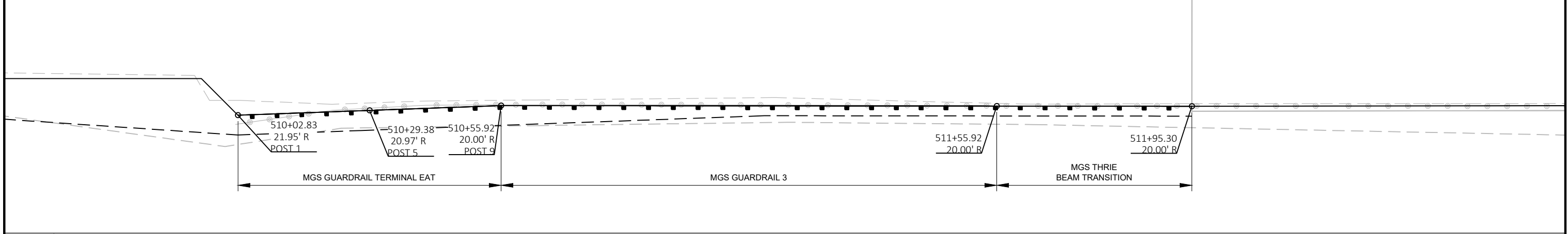
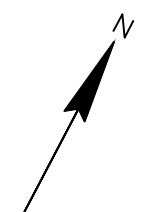
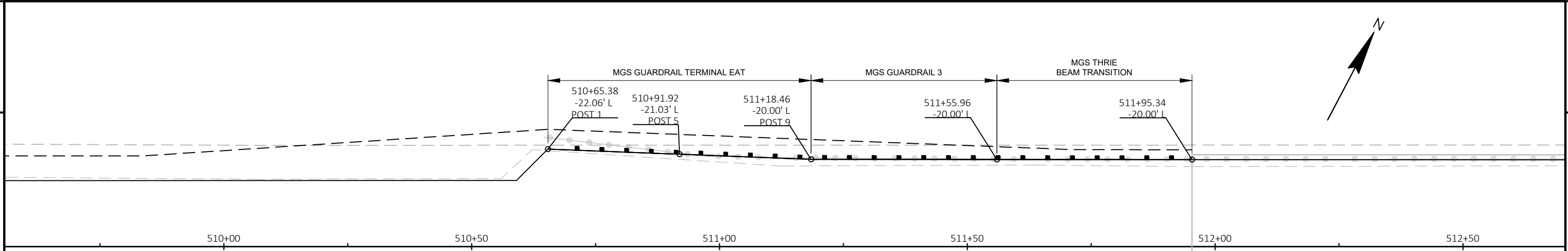


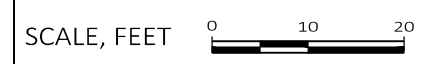
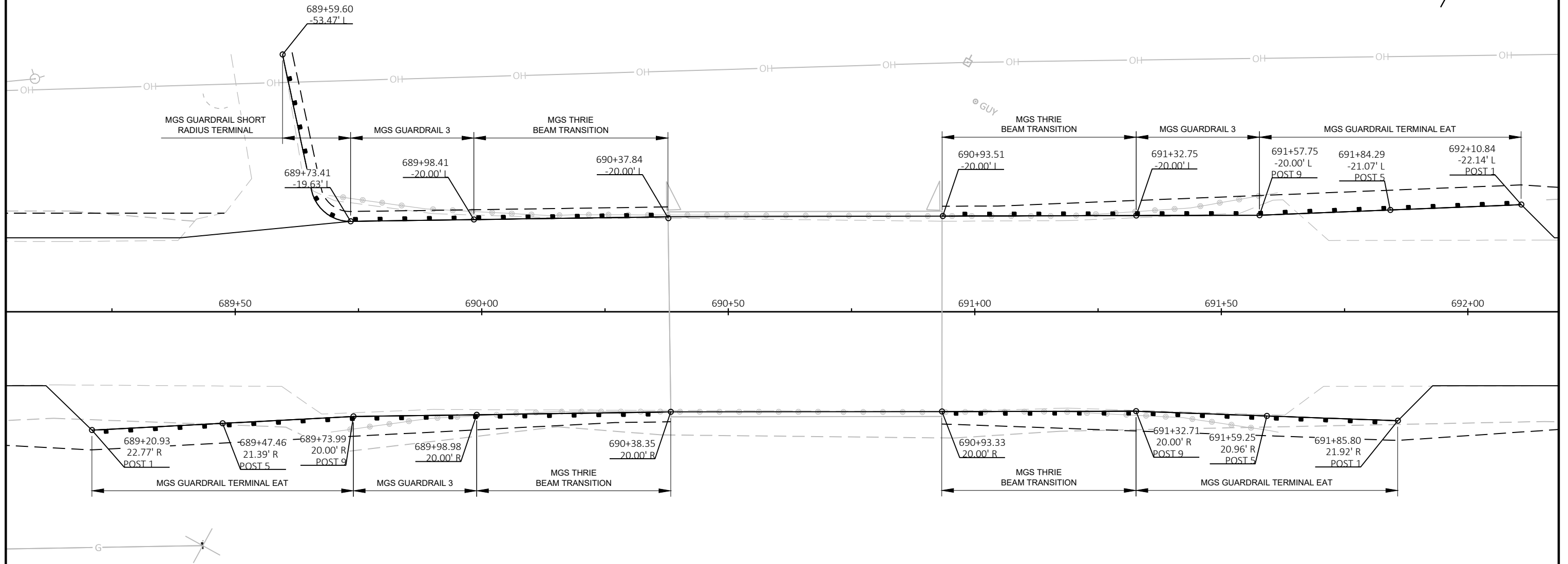
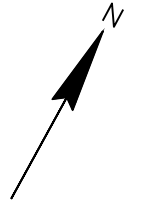
PROJECT NO: 7560-05-74	HWY: STH 95	COUNTY: JACKSON	CONSTRUCTION DETAILS-GUARDRAIL LAYOUT	SHEET	<b>E</b>
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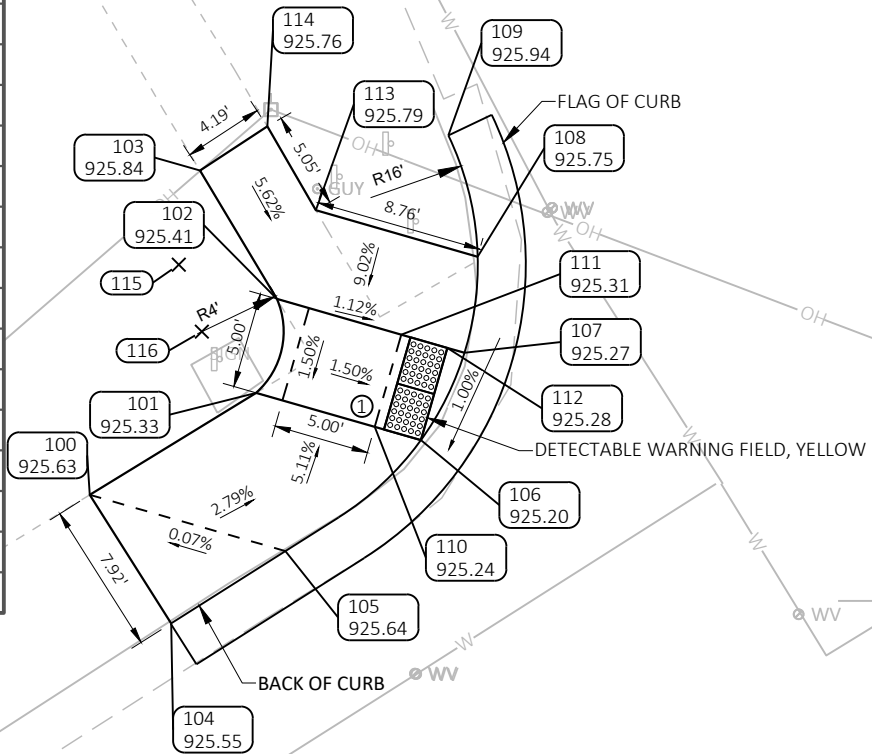




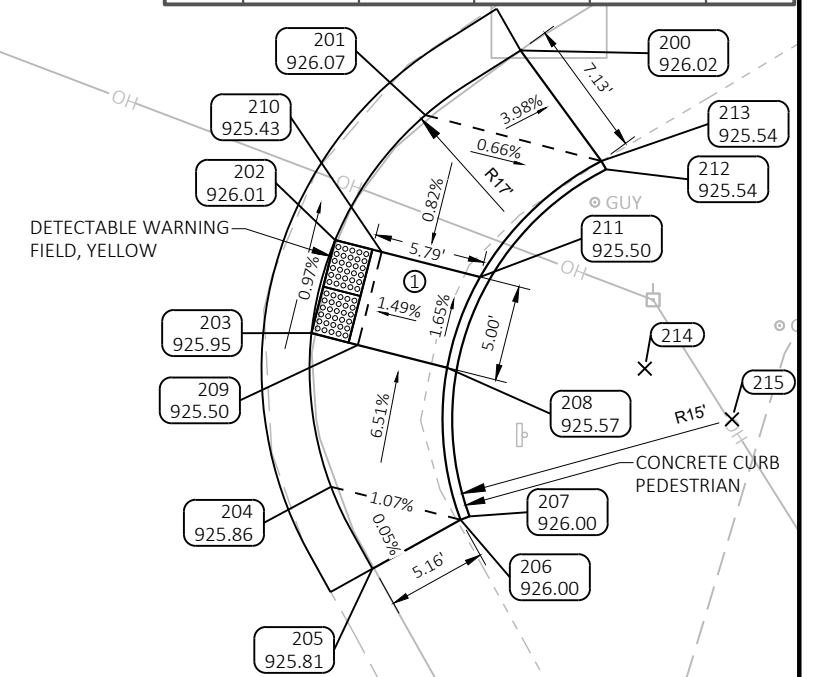


STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
100	733+65.45	-35.494 LT	215793.84	340944.34	
101	733+75.61	-35.422 LT	215799.15	340953.00	
102	733+79.11	-39.007 LT	215804.04	340954.08	
103	733+79.25	-46.796 LT	215810.73	340950.08	
104	733+65.50	-27.572 LT	215787.14	340948.57	
105	733+72.55	-27.623 LT	215790.91	340954.52	
106	733+81.59	-28.795 LT	215796.68	340961.58	
107	733+85.92	-31.456 LT	215801.23	340963.85	
108	733+89.15	-35.343 LT	215806.24	340964.54	
109	733+91.20	-41.506 LT	215812.55	340963.01	
110	733+79.92	-30.652 LT	215797.37	340959.18	
111	733+83.63	-34.001 LT	215802.18	340960.56	
112	733+85.30	-32.144 LT	215801.49	340962.96	
113	733+83.28	-41.851 LT	215808.66	340956.11	
114	733+83.44	-46.897 LT	215813.03	340953.58	
115	733+75.72	-43.217 LT	215805.82	340948.97	16
116	733+74.90	-39.625 LT	215802.34	340950.17	4

MAIN ST & STATE ST  
NW QUADRANT  
CURB RAMP TYPE 1/1A



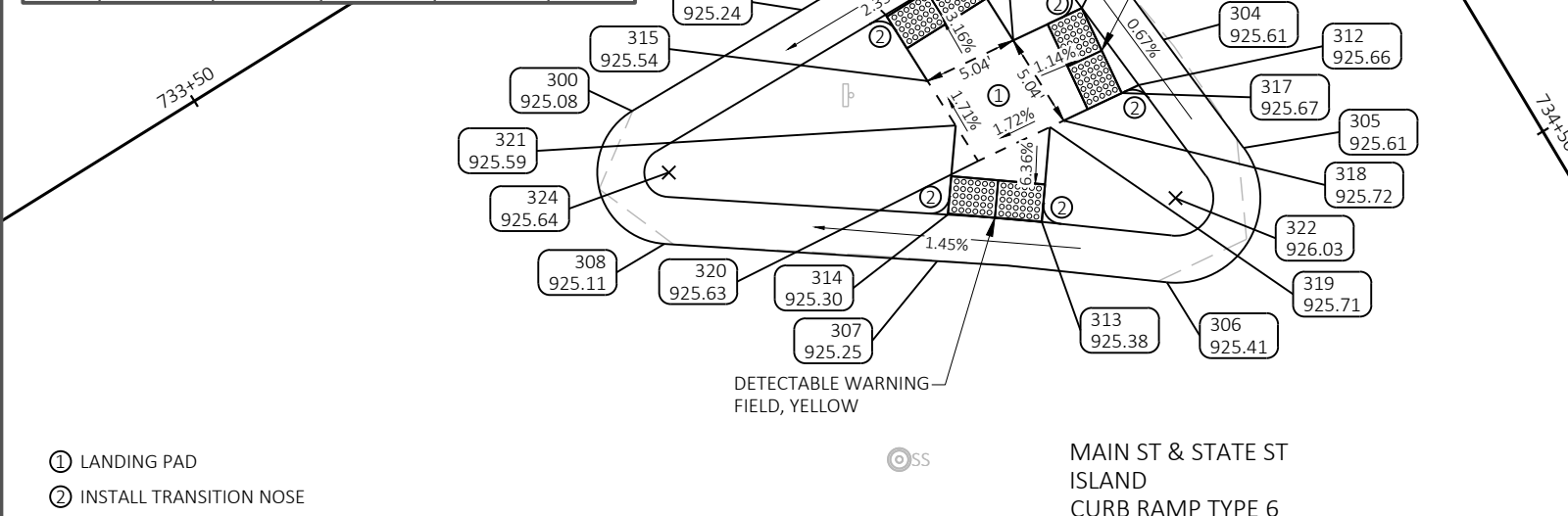
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
200	734+34.96	-41.242 LT	215787.97	341049.37	
201	734+35.31	-35.259 LT	215784.60	341044.41	
202	734+38.49	-27.891 LT	215778.10	341039.71	
203	734+42.02	-24.349 LT	215773.25	341038.48	
204	734+49.41	-21.128 LT	215765.25	341039.50	
205	734+54.18	-20.795 LT	215760.98	341041.66	
206	734+54.35	-26.039 LT	215763.53	341046.24	
207	734+54.44	-26.531 LT	215763.71	341046.71	
208	734+47.19	-29.496 LT	215771.45	341045.55	
209	734+43.79	-26.113 LT	215772.63	341040.90	
210	734+40.26	-29.655 LT	215777.48	341042.14	
211	734+44.01	-33.389 LT	215776.17	341047.26	
212	734+42.56	-41.904 LT	215781.78	341053.83	
213	734+42.06	-41.908 LT	215782.21	341053.58	
214	734+52.50	-38.317 LT	215771.40	341055.84	17
215	734+57.10	-40.859 LT	215768.76	341060.38	15



MAIN ST & STATE ST  
SE QUADRANT  
CURB RAMP TYPE 1A

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
300	733+69.46	12.751 RT	215755.01	340973.25	
301	733+79.96	12.952 RT	215760.39	340982.27	
302	733+90.45	13.152 RT	215765.76	340991.28	
303	734+28.36	15.517 RT	215764.57	340997.24	
304	734+35.48	14.811 RT	215758.81	341001.50	
305	734+42.61	14.105 RT	215753.05	341005.75	
306	734+46.66	21.270 RT	215745.90	341001.67	
307	733+79.01	28.100 RT	215747.03	340989.47	
308	733+67.18	19.653 RT	215747.94	340974.96	
309	733+83.61	15.522 RT	215760.14	340986.73	
310	733+88.61	15.617 RT	215762.70	340991.02	
311	734+31.81	17.687 RT	215760.49	340997.15	
312	734+36.89	17.184 RT	215756.39	341000.18	
313	734+40.49	25.339 RT	215749.11	340995.02	
314	733+80.80	26.304 RT	215749.49	340990.03	
315	733+83.64	19.693 RT	215756.61	340988.95	
316	733+88.64	20.272 RT	215758.76	340993.50	
317	734+36.79	18.176 RT	215755.96	340999.28	
318	734+36.46	21.571 RT	215754.50	340996.19	

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
319	734+36.39	22.379 RT	215754.16	340995.46	
320	733+83.67	24.730 RT	215752.35	340991.64	
321	733+83.65	22.496 RT	215754.24	340990.45	4.5
322	734+43.05	18.583 RT	215750.38	341002.13	4.5
323	733+90.37	17.679 RT	215761.88	340993.60	3.8
324	733+69.39	16.556 RT	215751.74	340975.20	

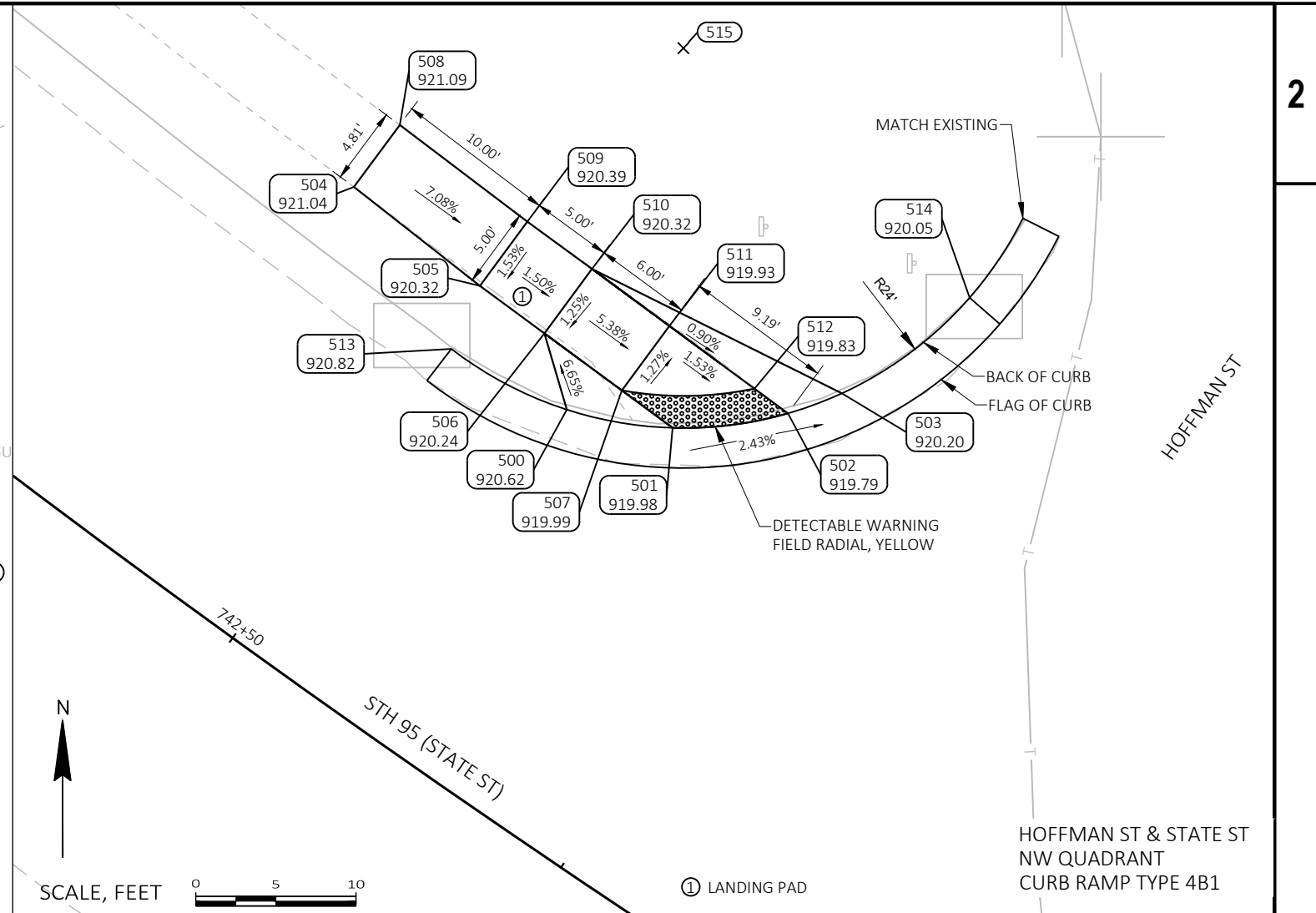
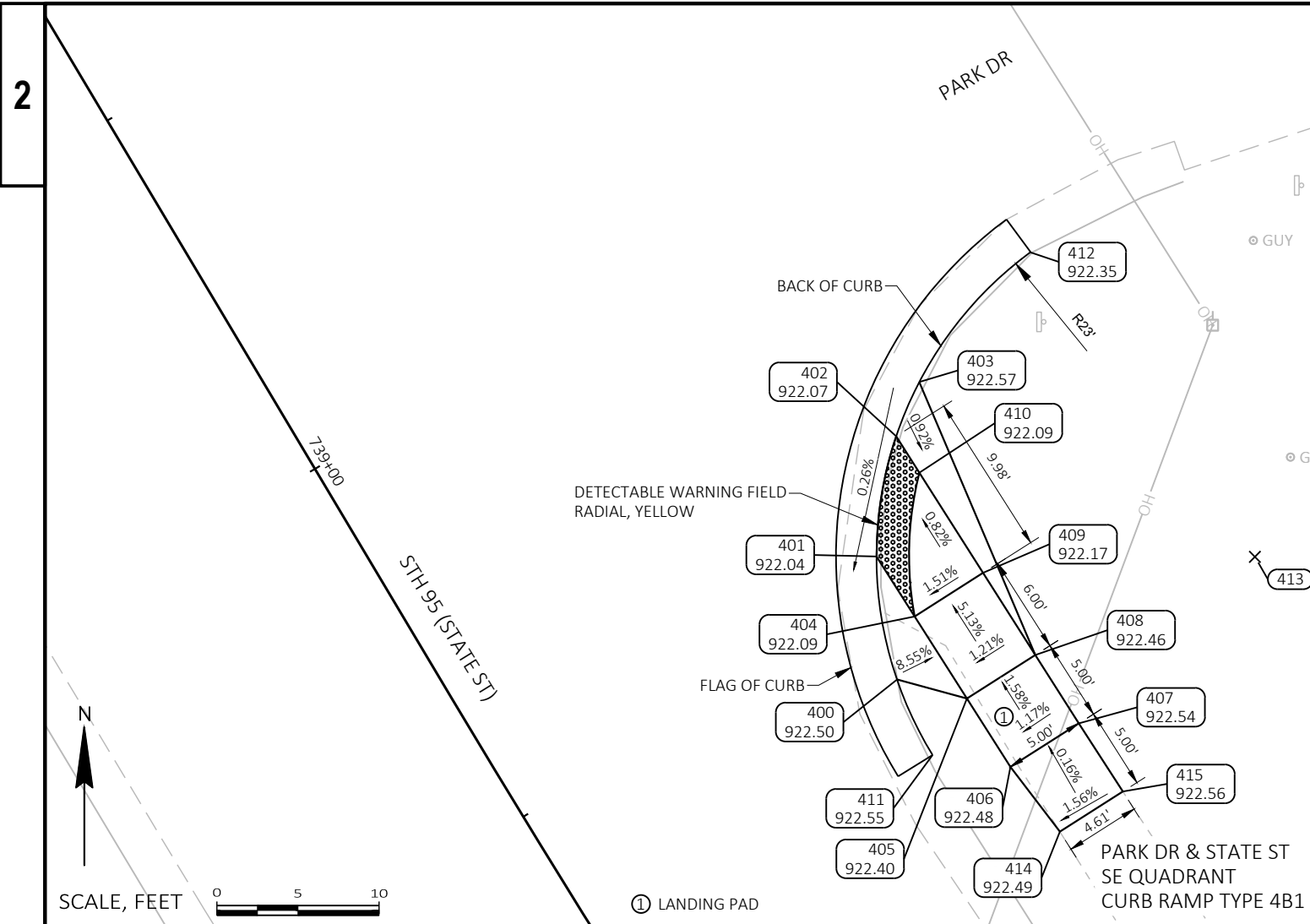


MAIN ST & STATE ST  
ISLAND  
CURB RAMP TYPE 6

- ① LANDING PAD
- ② INSTALL TRANSITION NOSE

SCALE, FEET





STATION & OFFSET TABLE

POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
400	739+29.94	-24.085 LT	215354.47	341288.06	
401	739+22.58	-26.947 LT	215362.04	341286.78	
402	739+16.65	-31.806 LT	215369.44	341287.99	
403	739+14.49	-34.743 LT	215372.79	341289.41	
404	739+27.11	-27.028 LT	215358.34	341289.13	
405	739+33.31	-27.100 LT	215353.28	341292.35	
406	739+38.48	-27.125 LT	215349.06	341295.03	
407	739+38.47	-32.125 LT	215351.75	341299.25	
408	739+33.27	-32.100 LT	215355.97	341296.57	
409	739+27.03	-32.027 LT	215361.03	341293.35	
410	739+19.41	-31.877 LT	215367.20	341289.42	
411	739+35.20	-23.460 LT	215349.80	341290.24	
412	739+11.10	-44.703 LT	215380.80	341296.23	
413	739+35.43	-46.790 LT	215362.02	341310.11	23
414	739+43.66	-27.550 LT	215345.08	341298.08	
415	739+43.68	-32.158 LT	215347.55	341301.97	

RADIAL TILE

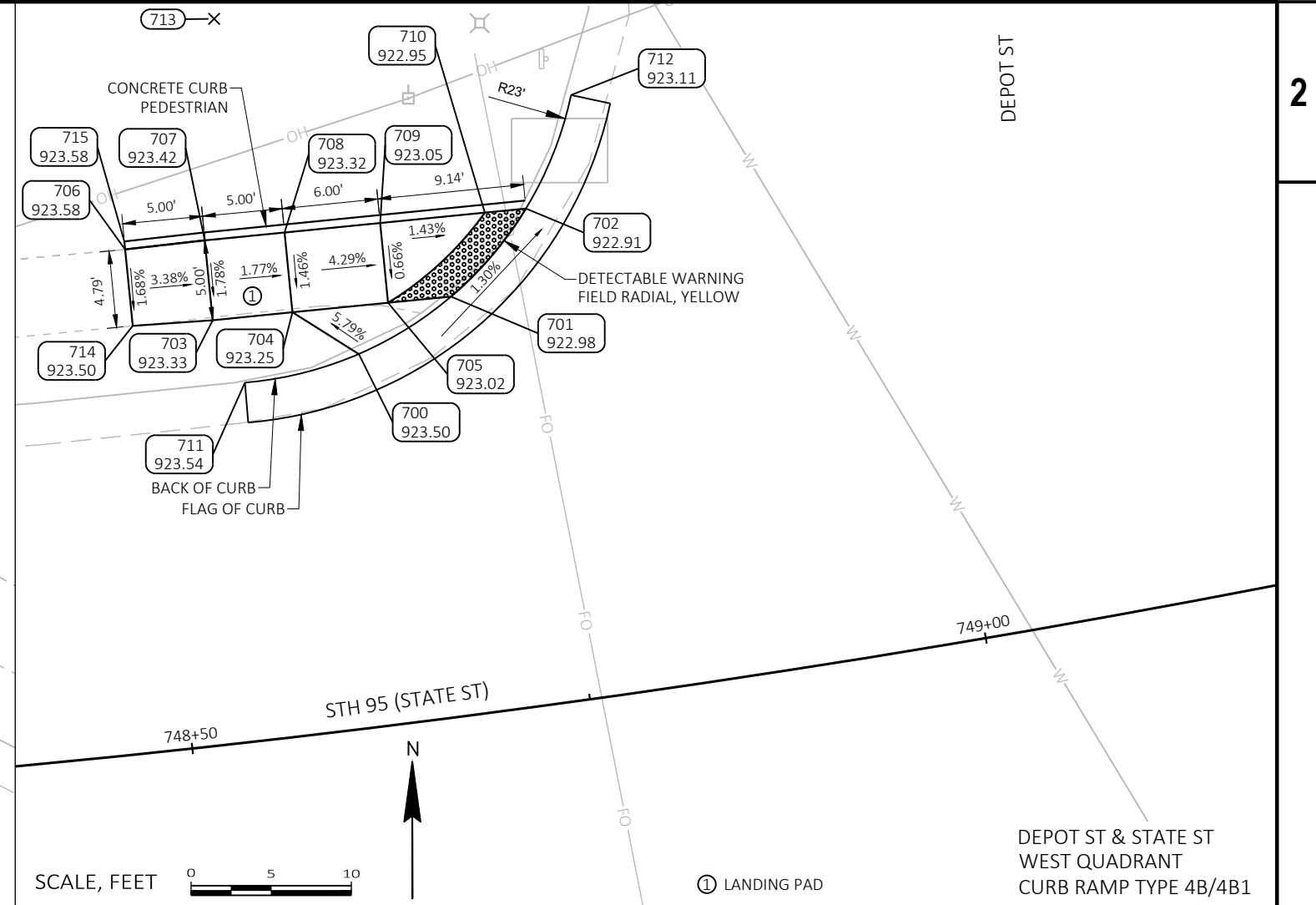
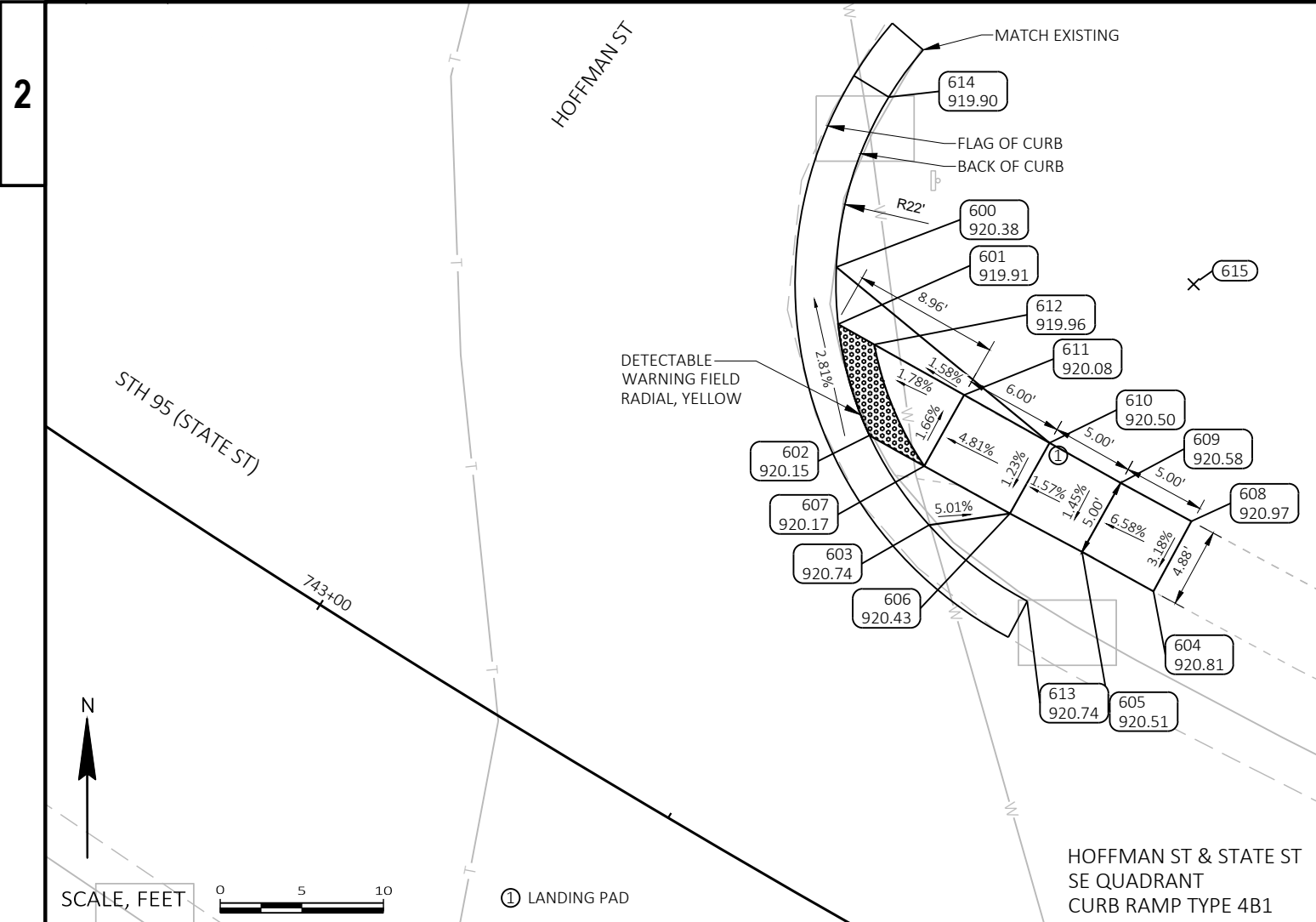
WARNING FIELD AREA (SF)	RADIUS AT BACK OF CURB (FT)	LONG CHORD			LANDING DISTANCE				
		POINT	-	POINT	LENGTH	POINT	-	POINT	LENGTH (FT)
16.28	23.33	401	-	402	7.54	402	-	409	9.97

STATION & OFFSET TABLE

POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
500	742+58.83	-23.716 LT	215123.31	341505.19	
501	742+65.07	-26.569 LT	215122.17	341511.78	
502	742+70.68	-31.400 LT	215123.08	341518.98	
503	742+72.84	-34.327 LT	215124.32	341522.35	
504	742+39.30	-27.182 LT	215137.21	341491.89	
505	742+49.63	-26.849 LT	215131.03	341499.76	
506	742+54.80	-26.787 LT	215128.07	341503.79	
507	742+61.01	-26.670 LT	215124.51	341508.62	
508	742+39.30	-31.991 LT	215141.07	341494.76	
509	742+49.68	-31.827 LT	215135.04	341502.71	
510	742+54.89	-31.786 LT	215132.09	341506.75	
511	742+61.13	-31.669 LT	215128.53	341511.58	
512	742+67.98	-31.487 LT	215124.62	341516.89	
513	742+50.52	-22.618 LT	215127.10	341497.98	
514	742+76.27	-43.744 LT	215130.29	341530.33	
515	742+51.33	-46.305 LT	215145.86	341512.46	24

RADIAL TILE

WARNING FIELD AREA (SF)	RADIUS AT BACK OF CURB (FT)	LONG CHORD			LANDING DISTANCE				
		POINT	-	POINT	LENGTH	POINT	-	POINT	LENGTH (FT)
15.48	23.7	501	-	502	7.28	502	-	511	9.19



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
600	743+16.34	-34.236 LT	215101.73	341557.36	
601	743+18.33	-31.295 LT	215098.22	341557.47	
602	743+23.66	-26.434 LT	215091.42	341559.39	
603	743+29.77	-23.555 LT	215085.93	341563.04	
604	743+44.16	-26.850 LT	215081.87	341576.78	
605	743+38.99	-26.805 LT	215084.28	341572.41	
606	743+33.83	-26.658 LT	215086.64	341568.00	
607	743+27.63	-26.529 LT	215089.54	341562.75	
608	743+44.09	-31.734 LT	215086.16	341579.11	
609	743+38.97	-31.656 LT	215088.51	341574.78	
610	743+33.77	-31.612 LT	215090.96	341570.42	
611	743+27.53	-31.517 LT	215093.90	341565.19	
612	743+20.96	-31.369 LT	215096.99	341559.68	
613	743+37.53	-22.530 LT	215081.27	341569.06	
614	743+13.55	-44.796 LT	215112.13	341560.57	
615	743+36.72	-44.433 LT	215100.68	341579.25	22

RADIAL TILE									
WARNING FIELD AREA (SF)	RADIUS AT BACK OF CURB (FT)	LONG CHORD			LANDING DISTANCE				
		POINT	-	POINT	LENGTH	POINT	-	POINT	LENGTH (FT)
15.09	21.92	601	-	602	7.11	601	-	611	8.85

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
700	748+63.35	-23.243 LT	214983.47	342061.82	
701	748+69.71	-26.065 LT	214987.06	342067.57	
702	748+75.27	-30.873 LT	214992.54	342072.25	
703	748+54.27	-26.416 LT	214985.58	342052.70	
704	748+59.43	-26.330 LT	214986.07	342057.67	
705	748+65.63	-26.185 LT	214986.67	342063.64	
706	748+49.14	-31.401 LT	214990.00	342047.24	
707	748+54.34	-31.415 LT	214990.56	342052.20	
708	748+59.54	-31.329 LT	214991.05	342057.18	
709	748+65.77	-31.183 LT	214991.64	342063.15	
710	748+72.59	-30.971 LT	214992.29	342069.68	
711	748+55.87	-22.316 LT	214981.68	342054.71	
712	748+79.22	-37.488 LT	214999.62	342075.06	
713	748+56.60	-45.085 LT	215004.38	342052.79	23
714	748+49.10	-26.608 LT	214985.23	342047.71	
715	748+49.14	-31.901 LT	214990.49	342047.19	

RADIAL TILE									
WARNING FIELD AREA (SF)	RADIUS AT BACK OF CURB (FT)	LONG CHORD			LANDING DISTANCE				
		POINT	-	POINT	LENGTH	POINT	-	POINT	LENGTH (FT)
15.41	22.78	701	-	702	7.24	702	-	709	9.1







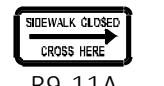
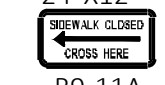
SCALE, FEET 0 25 50

**NOTES:**

1. STH 95 TO REMAIN OPEN FOR PEDESTRIAN TRAFFIC. USE TEMPORARY PEDESTRIAN SURFACE ITEMS, TEMPORARY CURB RAMPS, TEMPORARY PEDESTRIAN BARRICADE, AND TEMPORARY MARKING PAINT AS SPECIFIED. SEE SDD 15D30 TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION.
2. SIGNS TO BE PLACED ON TRAFFIC CONTROL BARRICADES TYPE II.
3. EXACT LOCATIONS TO BE DETERMINED BY ENGINEER IN FIELD.

**LEGEND**

-  TEMPORARY CURB RAMPS
-  TEMPORARY PEDESTRIAN SURFACE
-  WORK AREA

- |   |   |   |   |
|---|---|---|---|
| ① | <br><b>R9-9</b><br>24"X12" | ③ | <br><b>R9-11A</b><br>24"X12" |
| ② | <br><b>R9-11A</b><br>24"X12"   | ④ | "TEMPORARY MARKING CROSSWALK REMOVABLE TAPE 6-INCH" FOR TEMPORARY CROSSINGS                                       |





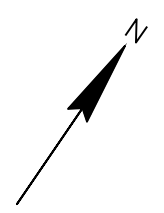
**NOTES:**

1. STH 95 TO REMAIN OPEN FOR PEDESTRIAN TRAFFIC. USE TEMPORARY PEDESTRIAN SURFACE ITEMS, TEMPORARY CURB RAMPS, TEMPORARY PEDESTRIAN BARRICADE, AND TEMPORARY MARKING PAINT AS SPECIFIED. SEE SDD 15D30 TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION.
2. SIGNS TO BE PLACED ON TRAFFIC CONTROL BARRICADES TYPE II.
3. EXACT LOCATIONS TO BE DETERMINED BY ENGINEER IN FIELD.

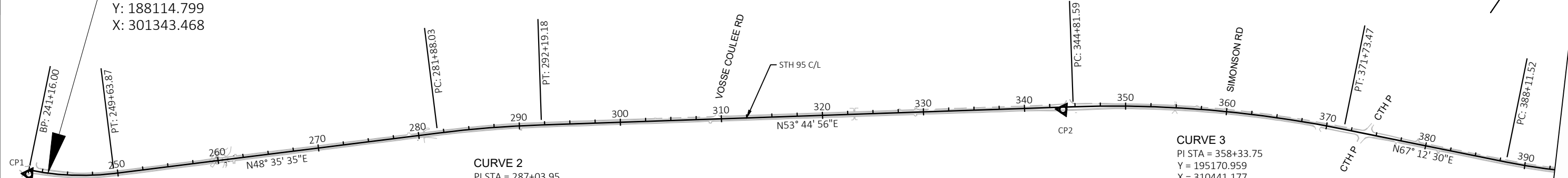
**LEGEND**

- TEMPORARY CURB RAMPS
- TEMPORARY PEDESTRIAN SURFACE
- WORK AREA

①		③	
②		④	"TEMPORARY MARKING CROSSWALK REMOVABLE TAPE 6-INCH" FOR TEMPORARY CROSSINGS



BEGIN PROJECT  
 STA 243+08  
 Y: 188114.799  
 X: 301343.468

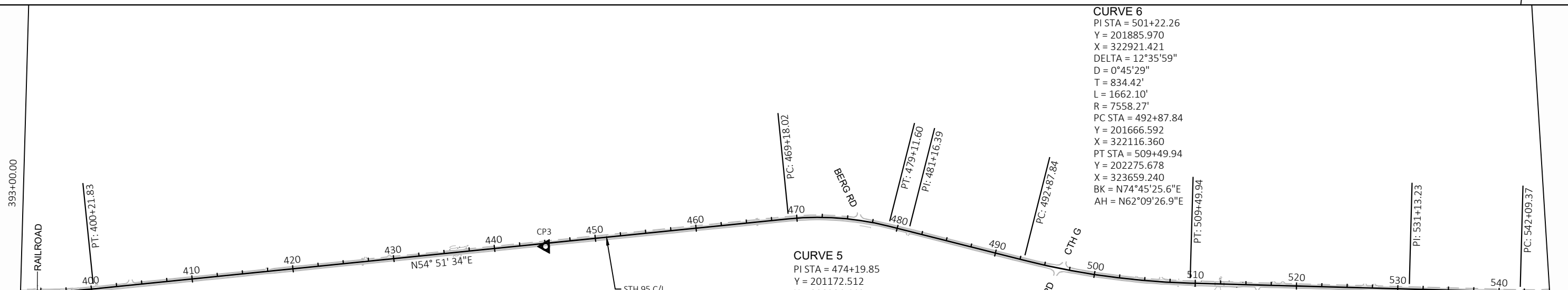


**CURVE 1**  
 PI STA = 245+50.58  
 Y = 188202.465  
 X = 301570.105  
 DELTA = 18°46'17"  
 D = 2°15'02"  
 T = 420.83'  
 L = 834.12'  
 R = 2546.00'  
 PC STA = 241+29.75  
 Y = 188040.499  
 X = 301181.690  
 PT STA = 249+63.87  
 Y = 188480.805  
 X = 301885.742  
 BK = N67°21'51.4"E  
 AH = N48°35'34.8"E

**CURVE 2**  
 PI STA = 287+03.95  
 Y = 190954.507  
 X = 304690.914  
 DELTA = 5°09'21"  
 D = 0°30'00"  
 T = 515.92'  
 L = 1031.15'  
 R = 11459.00'  
 PC STA = 281+88.03  
 Y = 190613.274  
 X = 304303.957  
 PT STA = 292+19.18  
 Y = 191259.585  
 X = 305106.970  
 BK = N48°35'34.8"E  
 AH = N53°44'55.7"E

**CURVE 3**  
 PI STA = 358+33.75  
 Y = 195170.959  
 X = 310441.177  
 DELTA = 13°27'35"  
 D = 0°30'00"  
 T = 1352.17'  
 L = 2691.89'  
 R = 11459.00'  
 PC STA = 344+81.59  
 Y = 194371.386  
 X = 309350.745  
 PT STA = 371+73.47  
 Y = 195694.762  
 X = 311687.768  
 BK = N53°44'55.7"E  
 AH = N67°12'30.3"E

**CURVE 6**  
 PI STA = 501+22.26  
 Y = 201885.970  
 X = 322921.421  
 DELTA = 12°35'59"  
 D = 0°45'29"  
 T = 834.42'  
 L = 1662.10'  
 R = 7558.27'  
 PC STA = 492+87.84  
 Y = 201666.592  
 X = 322116.360  
 PT STA = 509+49.94  
 Y = 202275.678  
 X = 323659.240  
 BK = N74°45'25.6"E  
 AH = N62°09'26.9"E



**CURVE 4**  
 PI STA = 394+19.03  
 Y = 196564.644  
 X = 313757.988  
 DELTA = 12°20'57"  
 D = 1°01'13"  
 T = 607.51'  
 L = 1210.32'  
 R = 5615.48'  
 PC STA = 388+11.52  
 Y = 196329.306  
 X = 313197.911  
 PT STA = 400+21.83  
 Y = 196914.319  
 X = 314254.775  
 BK = N67°12'30.3"E  
 AH = N54°51'33.7"E

**CURVE 5**  
 PI STA = 474+19.85  
 Y = 201172.512  
 X = 320304.443  
 DELTA = 19°52'17"  
 D = 2°00'00"  
 T = 501.83'  
 L = 993.59'  
 R = 2864.83'  
 PC STA = 469+18.02  
 Y = 200883.664  
 X = 319894.073  
 PT STA = 479+11.60  
 Y = 201304.672  
 X = 320788.561  
 BK = N54°51'33.7"E  
 AH = N74°43'50.9"E

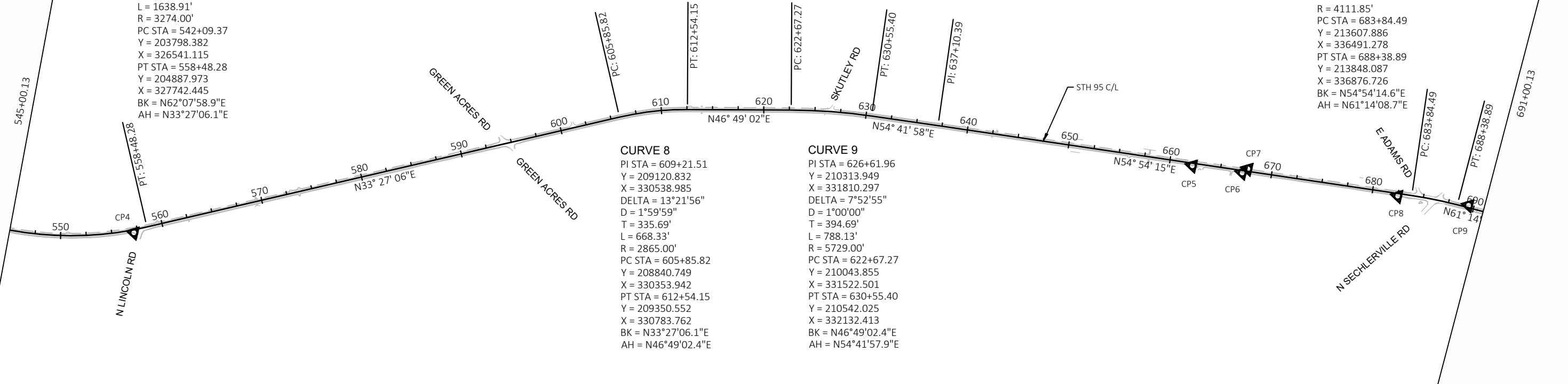


**CURVE 7**  
 PI STA = 550+46.37  
 Y = 204189.616  
 X = 327281.059  
 DELTA = 28°40'53"  
 D = 1°45'00"  
 T = 837.01'  
 L = 1638.91'  
 R = 3274.00'  
 PC STA = 542+09.37  
 Y = 203798.382  
 X = 326541.115  
 PT STA = 558+48.28  
 Y = 204887.973  
 X = 327742.445  
 BK = N62°07'58.9"E  
 AH = N33°27'06.1"E

**CURVE 10**  
 PI STA = 686+11.92  
 Y = 213738.646  
 X = 336677.359  
 DELTA = 6°19'54"  
 D = 1°23'36"  
 T = 227.43'  
 L = 454.40'  
 R = 4111.85'  
 PC STA = 683+84.49  
 Y = 213607.886  
 X = 336491.278  
 PT STA = 688+38.89  
 Y = 213848.087  
 X = 336876.726  
 BK = N54°54'14.6"E  
 AH = N61°14'08.7"E

**CURVE 8**  
 PI STA = 609+21.51  
 Y = 209120.832  
 X = 330538.985  
 DELTA = 13°21'56"  
 D = 1°59'59"  
 T = 335.69'  
 L = 668.33'  
 R = 2865.00'  
 PC STA = 605+85.82  
 Y = 208840.749  
 X = 330353.942  
 PT STA = 612+54.15  
 Y = 209350.552  
 X = 330783.762  
 BK = N33°27'06.1"E  
 AH = N46°49'02.4"E

**CURVE 9**  
 PI STA = 626+61.96  
 Y = 210313.949  
 X = 331810.297  
 DELTA = 7°52'55"  
 D = 1°00'00"  
 T = 394.69'  
 L = 788.13'  
 R = 5729.00'  
 PC STA = 622+67.27  
 Y = 210043.855  
 X = 331522.501  
 PT STA = 630+55.40  
 Y = 210542.025  
 X = 332132.413  
 BK = N46°49'02.4"E  
 AH = N54°41'57.9"E



**END PROJECT**  
 STA 756+52  
 Y: 215259.544  
 X: 342790.596

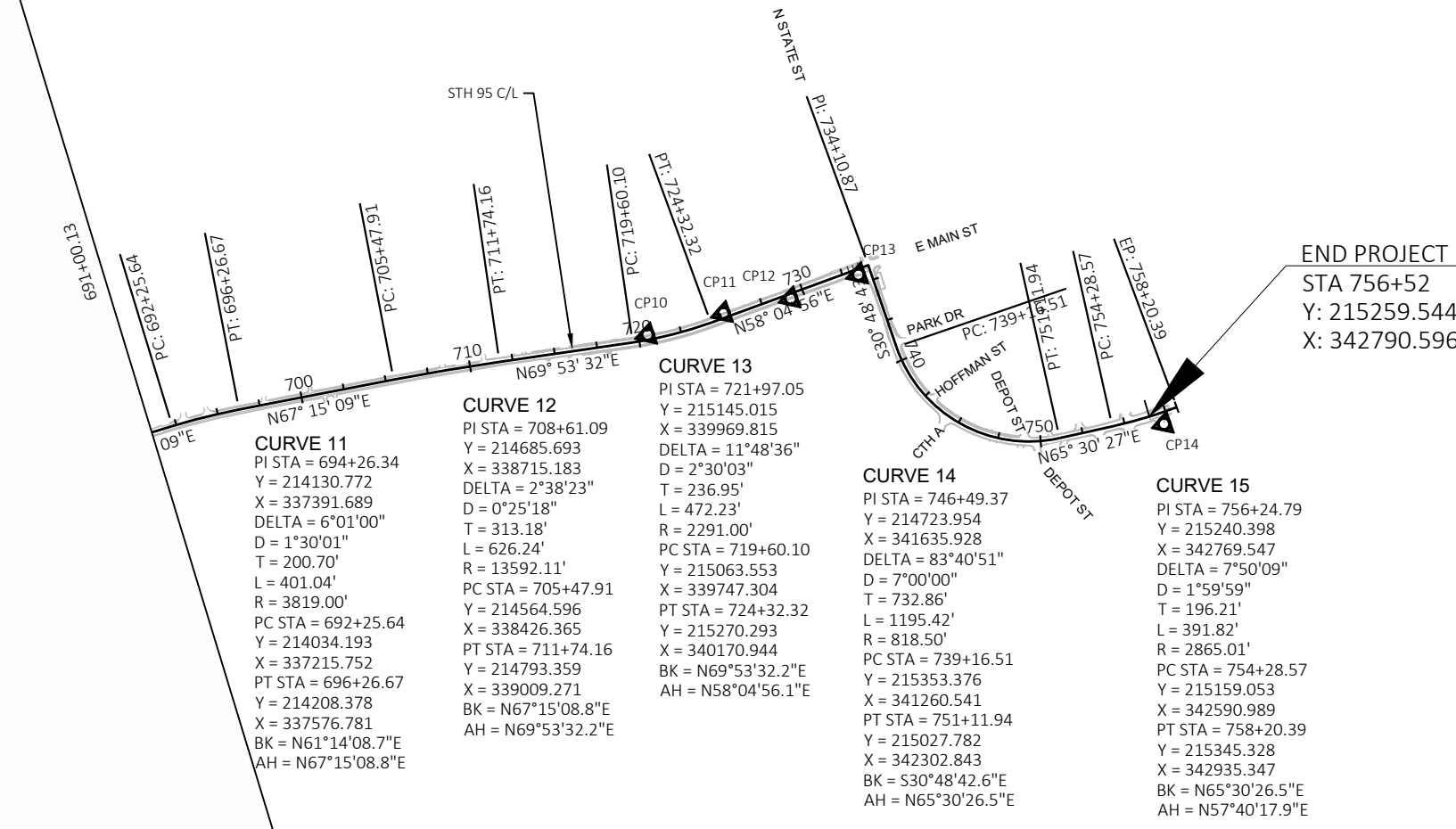
**CURVE 11**  
 PI STA = 694+26.34  
 Y = 214130.772  
 X = 337391.689  
 DELTA = 6°01'00"  
 D = 1°30'01"  
 T = 200.70'  
 L = 401.04'  
 R = 3819.00'  
 PC STA = 692+25.64  
 Y = 214034.193  
 X = 337215.752  
 PT STA = 696+26.67  
 Y = 214208.378  
 X = 337576.781  
 BK = N61°14'08.7"E  
 AH = N67°15'08.8"E

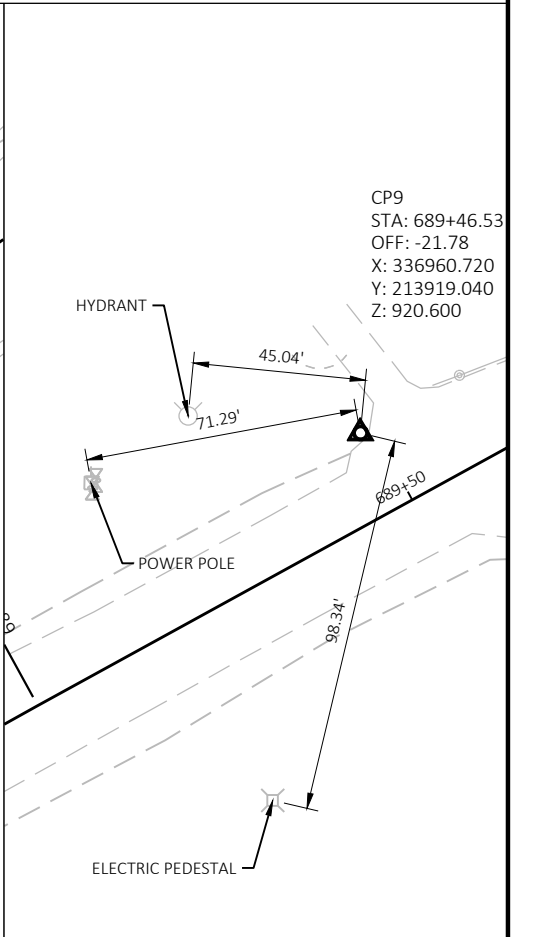
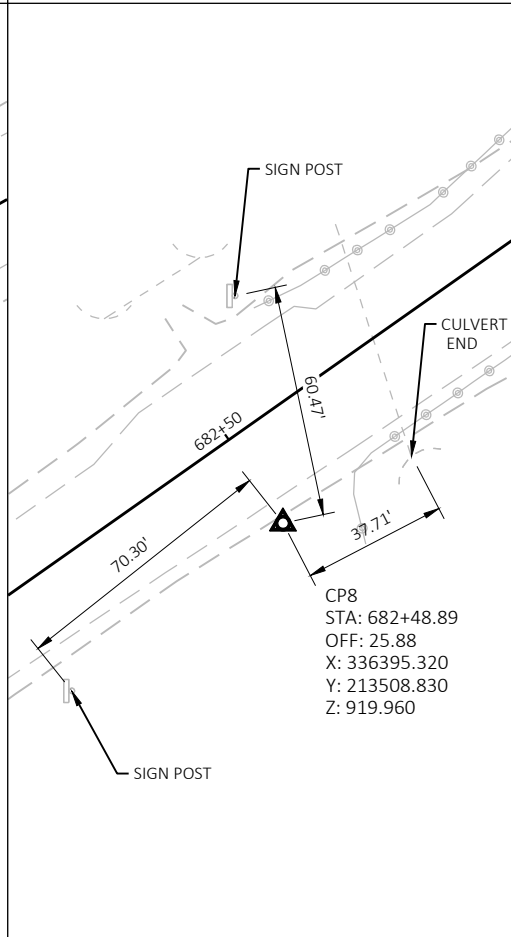
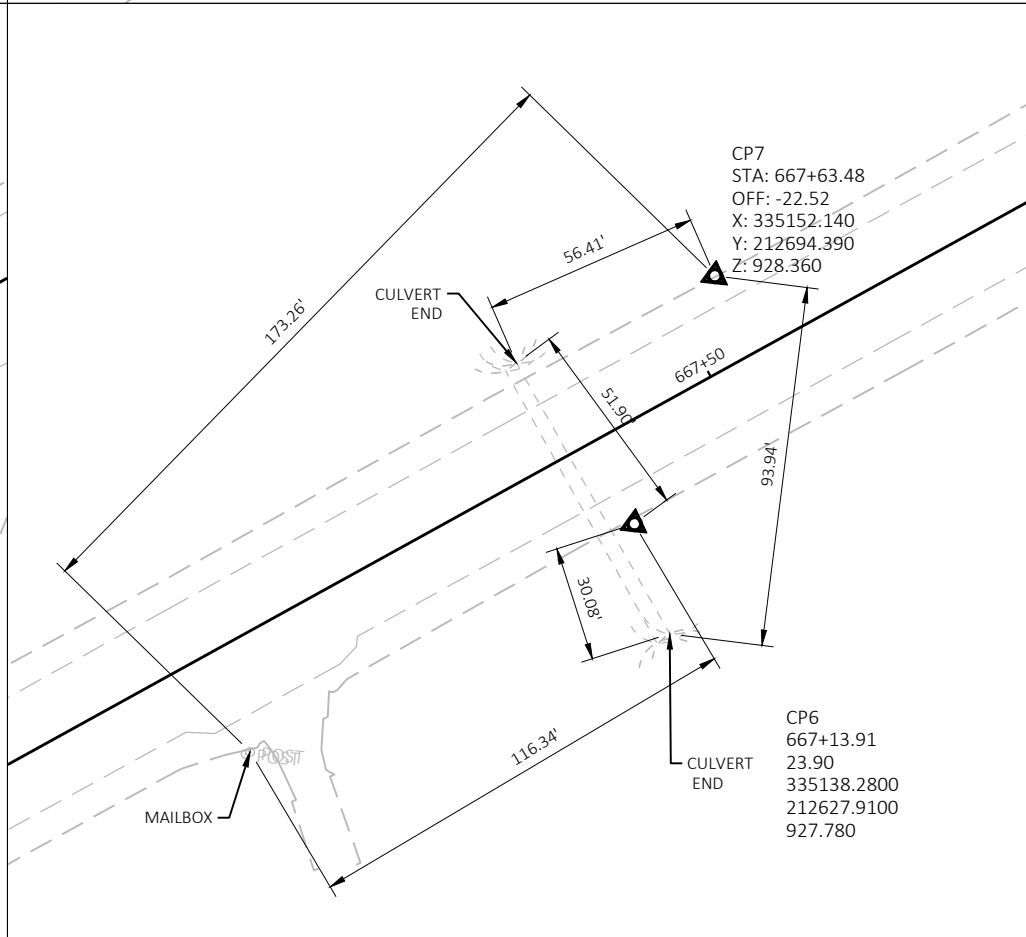
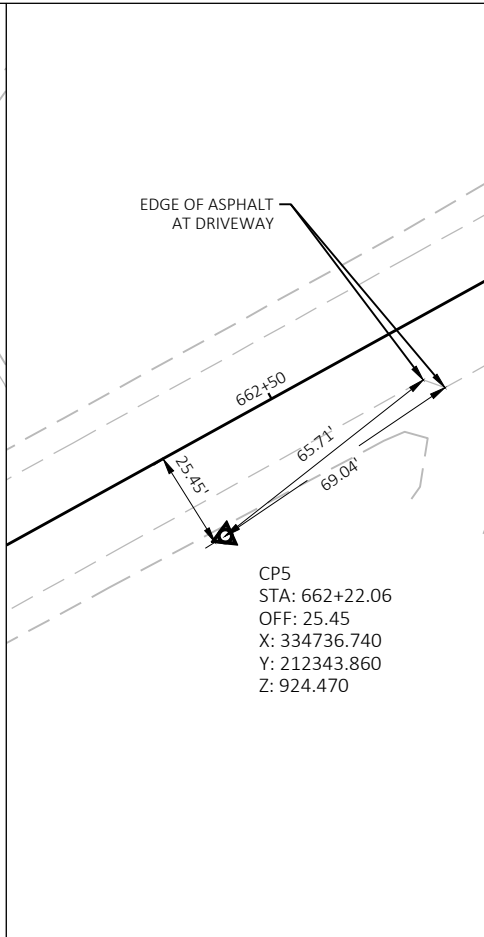
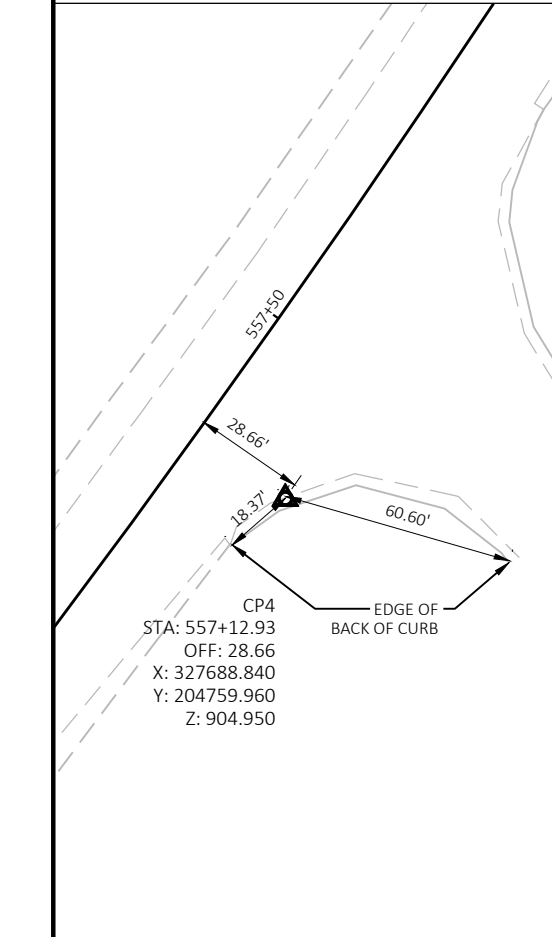
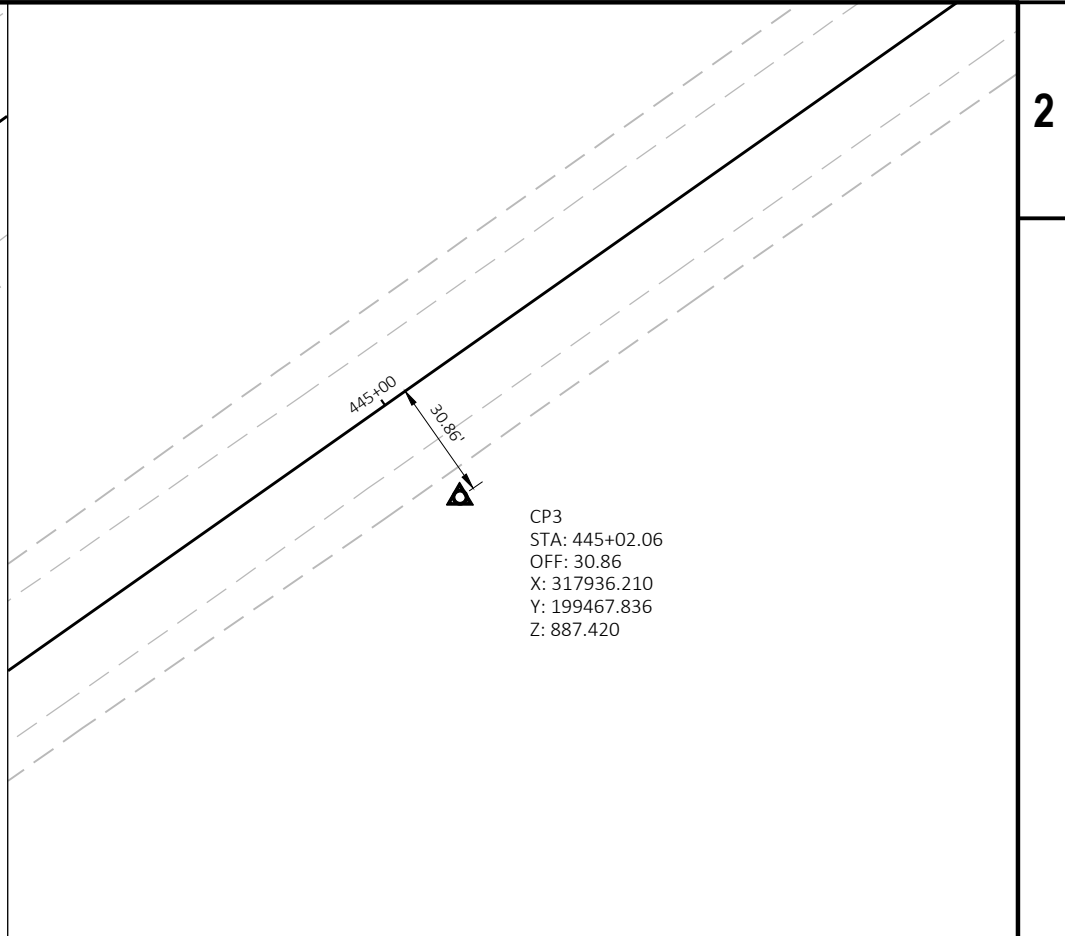
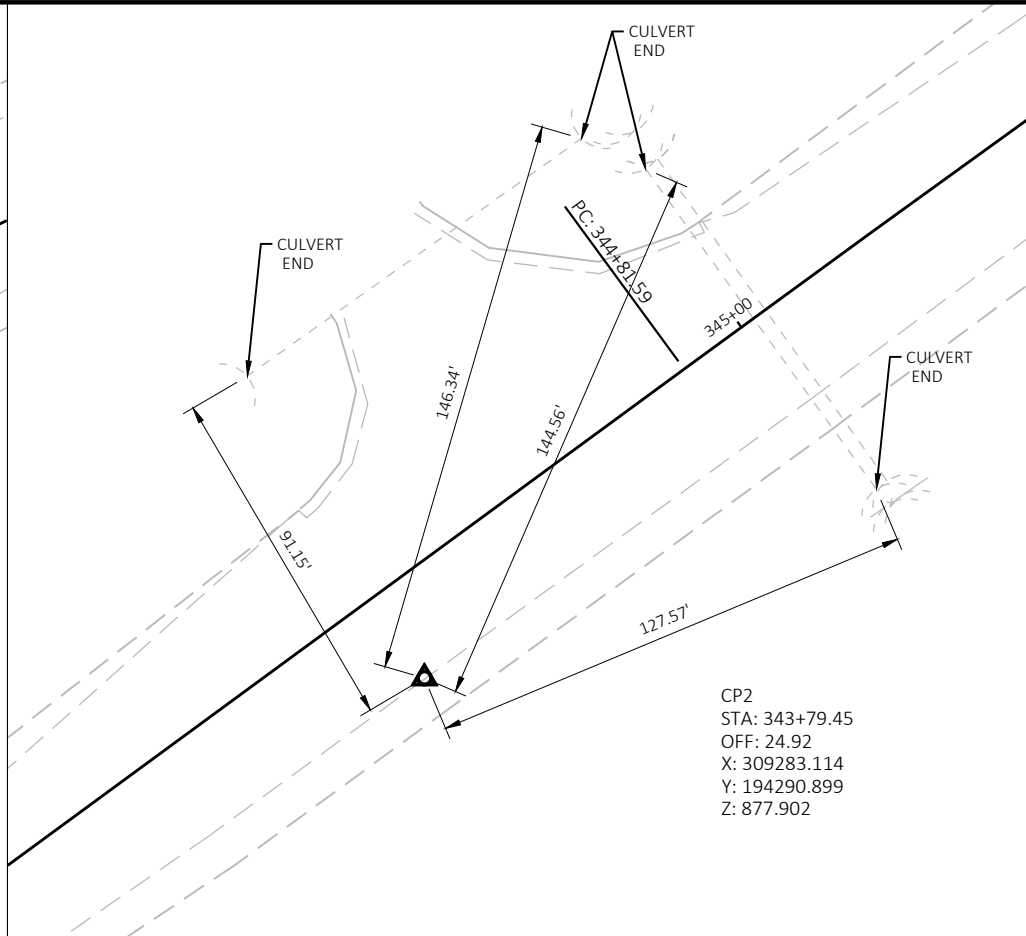
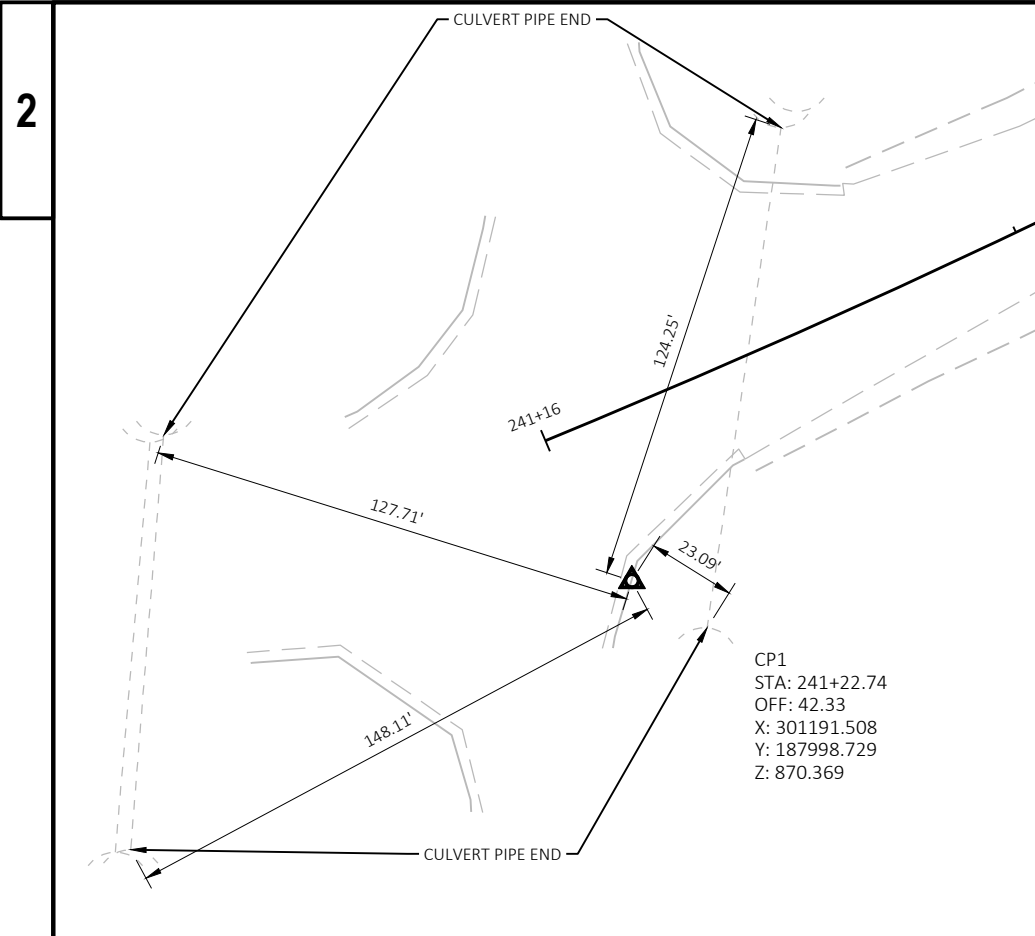
**CURVE 12**  
 PI STA = 708+61.09  
 Y = 214685.693  
 X = 338715.183  
 DELTA = 2°38'23"  
 D = 0°25'18"  
 T = 313.18'  
 L = 626.24'  
 R = 13592.11'  
 PC STA = 705+47.91  
 Y = 214564.596  
 X = 338426.365  
 PT STA = 711+74.16  
 Y = 214793.359  
 X = 339009.271  
 BK = N67°15'08.8"E  
 AH = N69°53'32.2"E

**CURVE 13**  
 PI STA = 721+97.05  
 Y = 215145.015  
 X = 339969.815  
 DELTA = 11°48'36"  
 D = 2°30'03"  
 T = 236.95'  
 L = 472.23'  
 R = 2291.00'  
 PC STA = 719+60.10  
 Y = 215063.553  
 X = 339747.304  
 PT STA = 724+32.32  
 Y = 215270.293  
 X = 340170.944  
 BK = N69°53'32.2"E  
 AH = N58°04'56.1"E

**CURVE 14**  
 PI STA = 746+49.37  
 Y = 214723.954  
 X = 341635.928  
 DELTA = 83°40'51"  
 D = 7°00'00"  
 T = 732.86'  
 L = 1195.42'  
 R = 818.50'  
 PC STA = 739+16.51  
 Y = 215353.376  
 X = 341260.541  
 PT STA = 751+11.94  
 Y = 215027.782  
 X = 342302.843  
 BK = S30°48'42.6"E  
 AH = N65°30'26.5"E

**CURVE 15**  
 PI STA = 756+24.79  
 Y = 215240.398  
 X = 342769.547  
 DELTA = 7°50'09"  
 D = 1°59'59"  
 T = 196.21'  
 L = 391.82'  
 R = 2865.01'  
 PC STA = 754+28.57  
 Y = 215159.053  
 X = 342590.989  
 PT STA = 758+20.39  
 Y = 215345.328  
 X = 342935.347  
 BK = N65°30'26.5"E  
 AH = N57°40'17.9"E





PROJECT NO: 7560-05-74

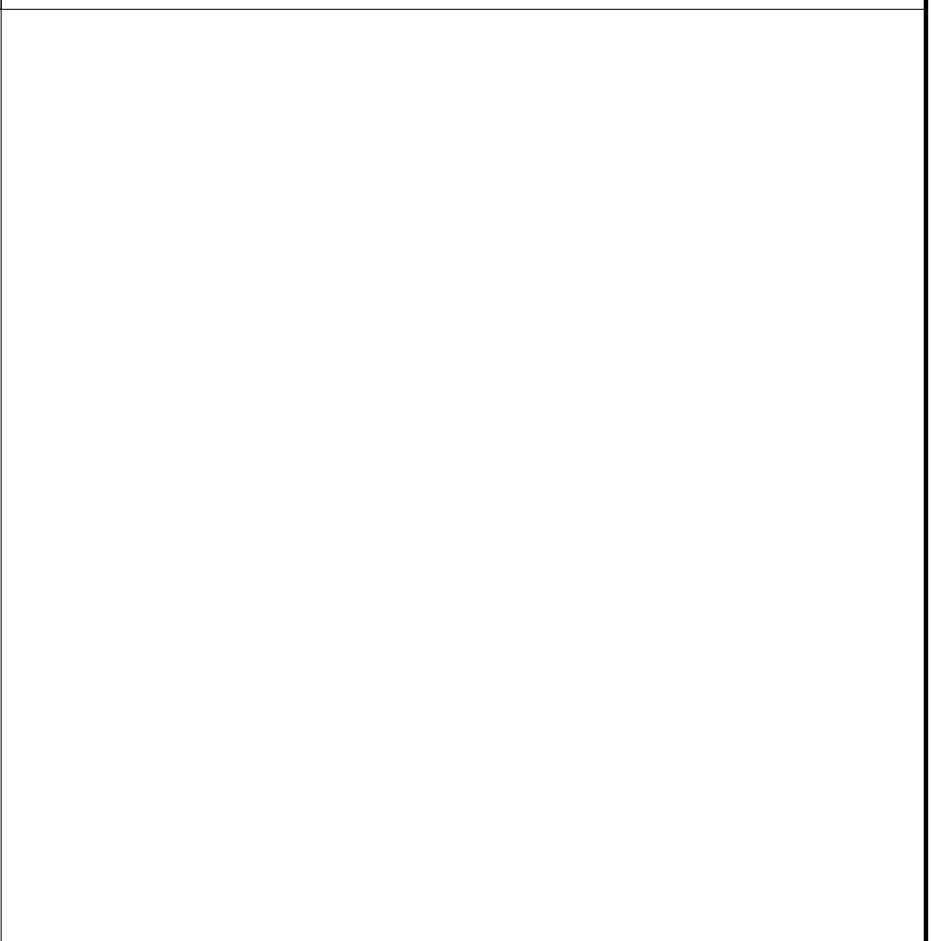
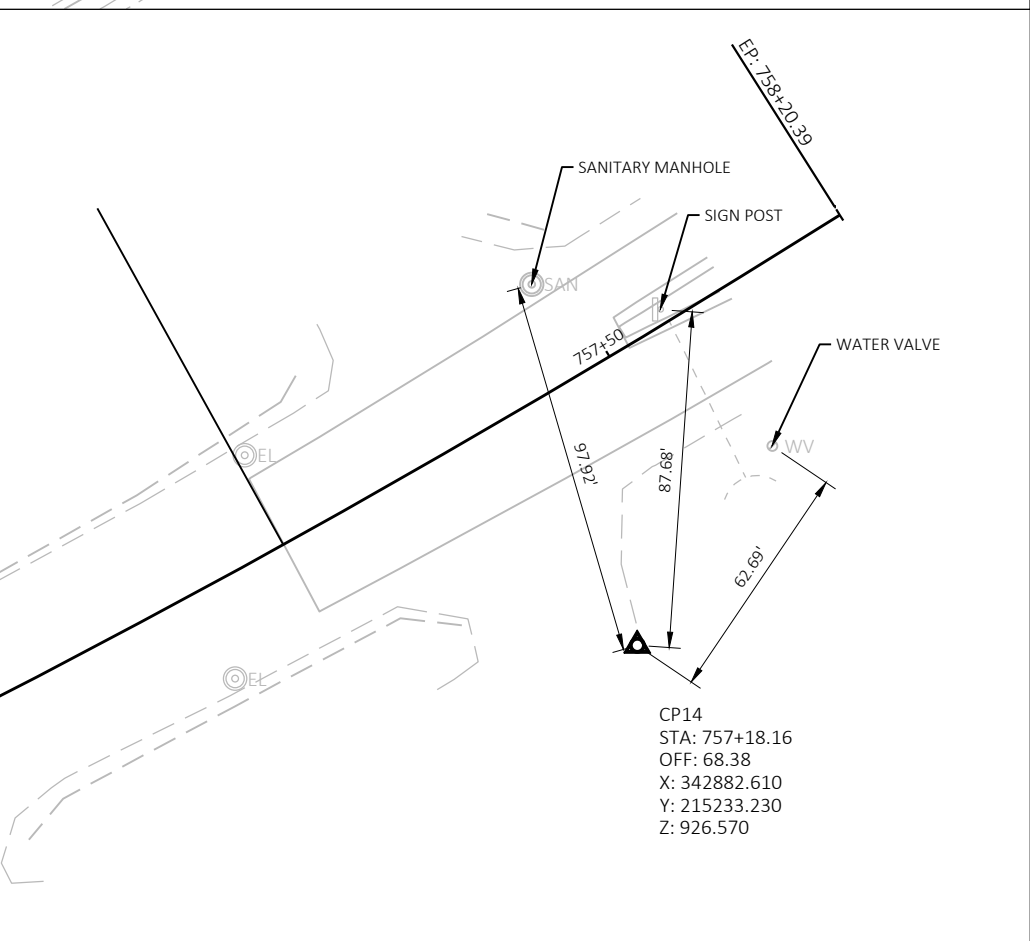
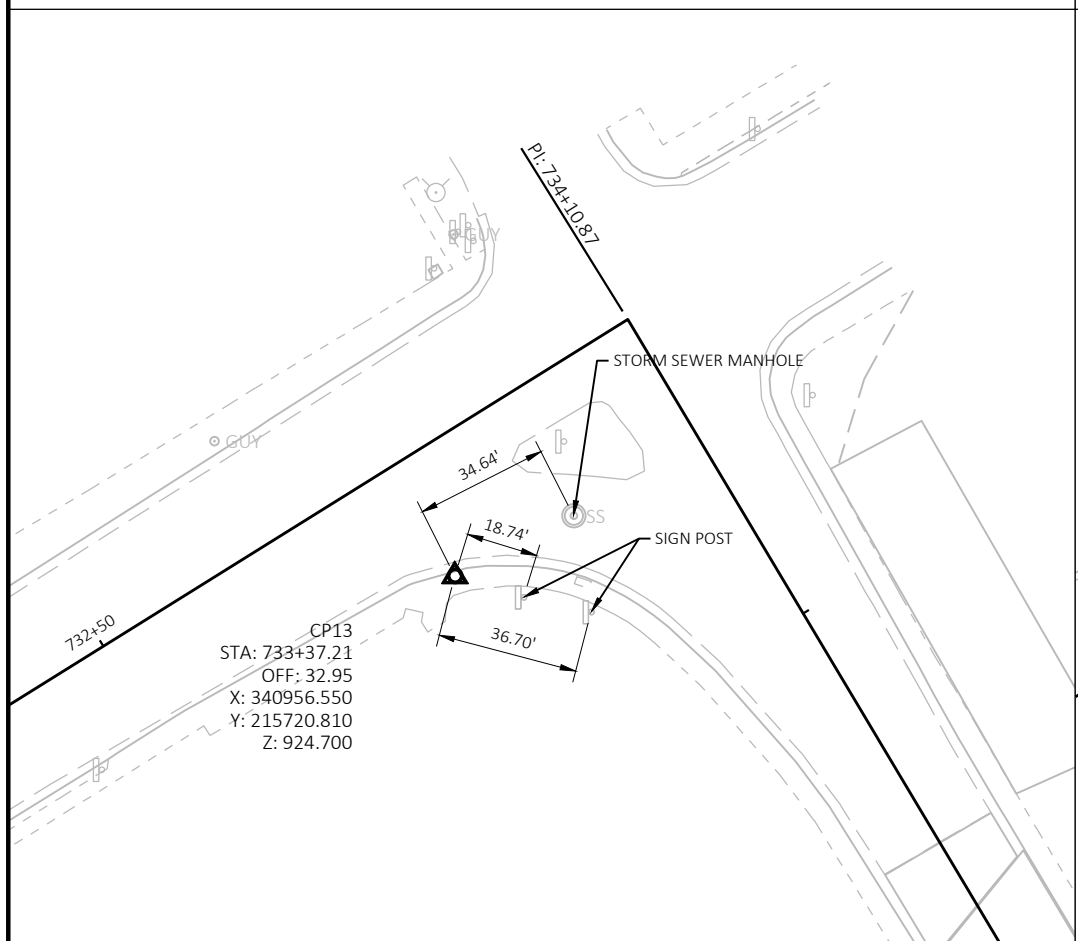
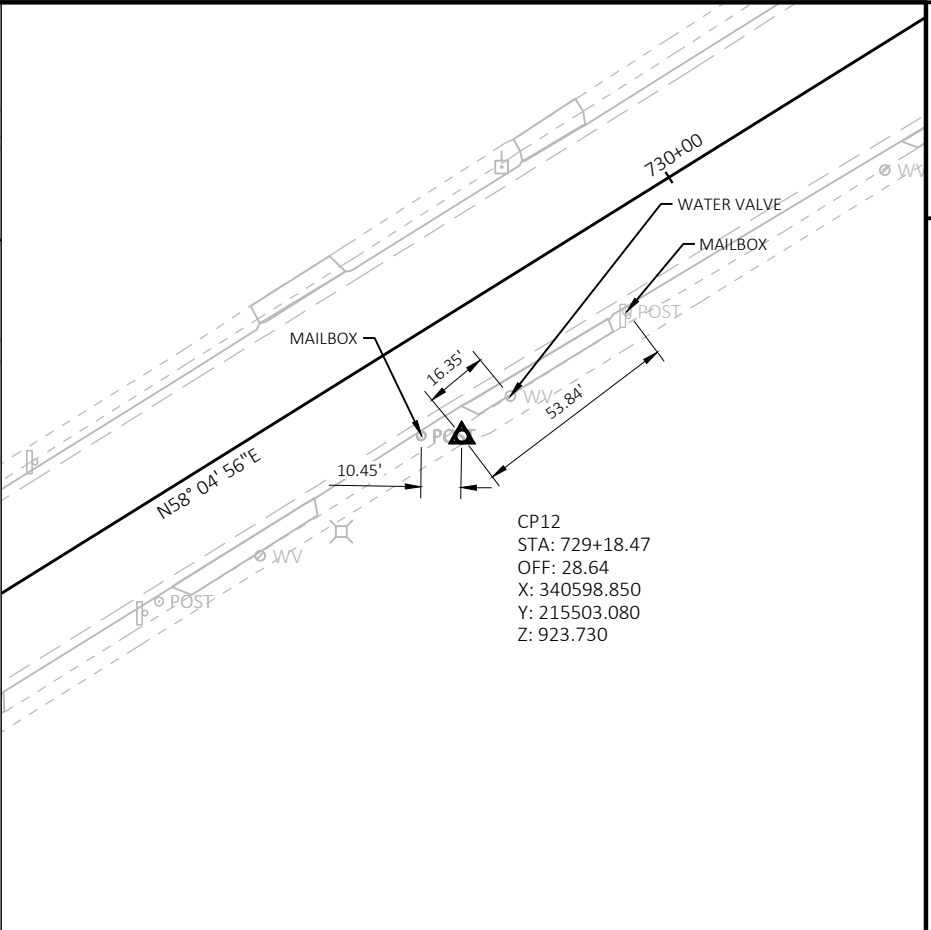
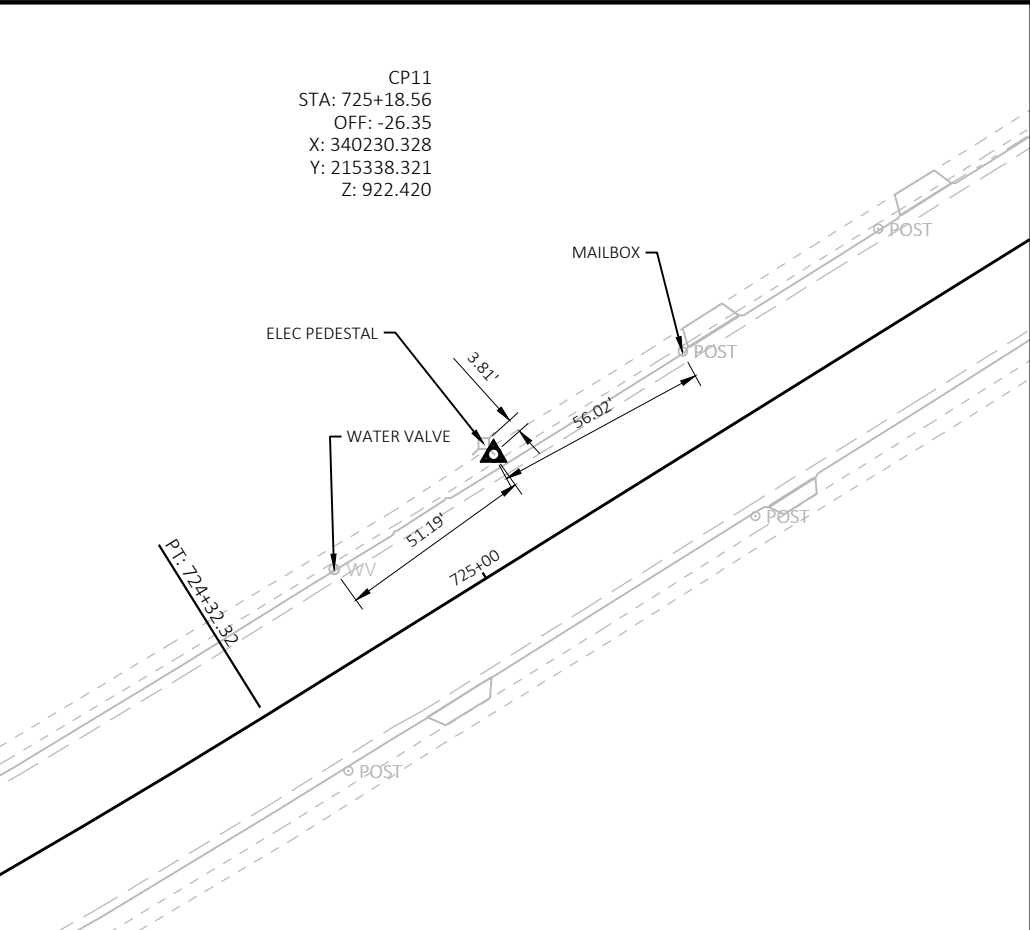
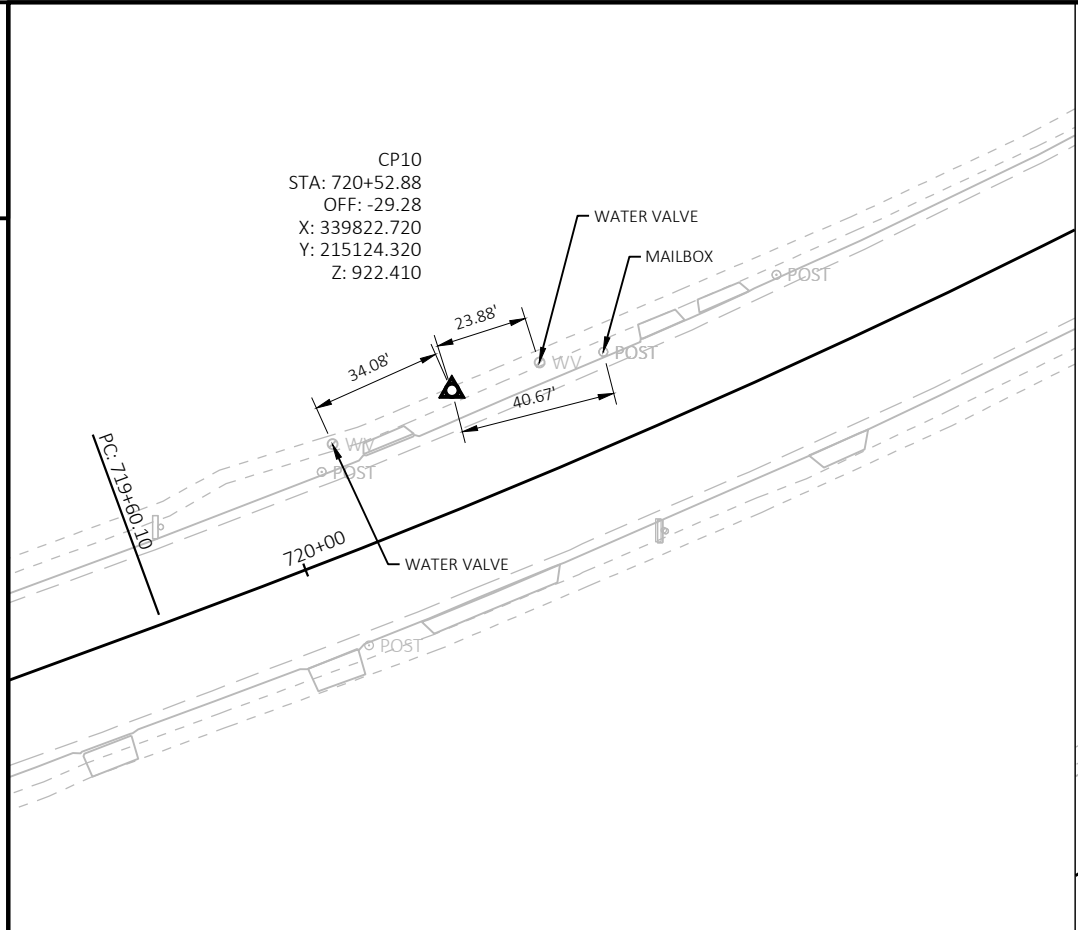
HWY: STH 95

COUNTY: JACKSON

ALIGNMENT DETAIL

SHEET

E



PROJECT NO: 7560-05-74	HWY: STH 95	COUNTY: JACKSON	ALIGNMENT DETAIL	SHEET	E
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Estimate Of Quantities

7560-05-74

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	5.000	5.000
0004	201.0205	Grubbing	STA	5.000	5.000
0006	203.0100	Removing Small Pipe Culverts	EACH	6.000	6.000
0008	204.0110	Removing Asphaltic Surface	SY	241.000	241.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	2,815.000	2,815.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	181,483.000	181,483.000
0014	204.0150	Removing Curb & Gutter	LF	294.000	294.000
0016	204.0155	Removing Concrete Sidewalk	SY	121.000	121.000
0018	205.0100	Excavation Common	CY	3,816.000	3,816.000
0020	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	6.000	6.000
0022	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 7560-05-74	EACH	1.000	1.000
0024	213.0100	Finishing Roadway (project) 01. 7560-05-74	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,932.000	3,932.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,137.000	2,137.000
0030	305.0500	Shaping Shoulders	STA	16.000	16.000
0032	416.0610	Drilled Tie Bars	EACH	36.000	36.000
0034	450.4000	HMA Cold Weather Paving	TON	500.000	500.000
0036	455.0605	Tack Coat	GAL	22,189.000	22,189.000
0038	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0040	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0042	460.2000	Incentive Density HMA Pavement	DOL	8,510.000	8,510.000
0044	460.2005	Incentive Density PWL HMA Pavement	DOL	11,390.000	11,390.000
0046	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	41,080.000	41,080.000
0048	460.2010	Incentive Air Voids HMA Pavement	DOL	15,000.000	15,000.000
0050	460.6645	HMA Pavement 5 MT 58-34 V	TON	15,462.000	15,462.000
0052	460.8644	HMA Pavement 4 SMA 58-34 V	TON	18,039.000	18,039.000
0054	460.9000.S	Material Transfer Vehicle	EACH	1.000	1.000
0056	465.0105	Asphaltic Surface	TON	1,788.000	1,788.000
0058	465.0110	Asphaltic Surface Patching	TON	320.000	320.000
0060	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	144.000	144.000
0062	465.0560	Asphaltic Rumble Strips, Centerline	LF	41,868.000	41,868.000
0064	504.0900	Concrete Masonry Endwalls	CY	10.000	10.000
0066	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	2.000	2.000
0068	520.1036	Apron Endwalls for Culvert Pipe 36-Inch	EACH	2.000	2.000
0070	520.3324	Culvert Pipe Class III-A 24-Inch	LF	74.000	74.000
0072	520.3336	Culvert Pipe Class III-A 36-Inch	LF	62.000	62.000
0074	520.8700	Cleaning Culvert Pipes	EACH	19.000	19.000
0076	520.9700.S	Culvert Pipe Liners (size) 01. 24-INCH	LF	70.000	70.000
0078	520.9700.S	Culvert Pipe Liners (size) 02. 36-INCH	LF	154.000	154.000
0080	520.9750.S	Cleaning Culvert Pipes for Liner Verification	EACH	3.000	3.000
0082	522.1500	Pipe Cattle Pass Reinforced Concrete	LF	60.000	60.000
0084	522.2329	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 29x45-Inch	LF	66.000	66.000
0086	522.2419	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	120.000	120.000
0088	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	4.000	4.000
0090	522.2629	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	EACH	2.000	2.000
0092	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	294.000	294.000
0094	601.0600	Concrete Curb Pedestrian	LF	43.000	43.000
0096	602.0405	Concrete Sidewalk 4-Inch	SF	1,293.000	1,293.000
0098	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	50.000	50.000

Estimate Of Quantities

7560-05-74

Line	Item	Item Description	Unit	Total	Qty
0100	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	65.000	65.000
0102	611.0430	Reconstructing Inlets	EACH	1.000	1.000
0104	611.0624	Inlet Covers Type H	EACH	1.000	1.000
0106	611.8115	Adjusting Inlet Covers	EACH	4.000	4.000
0108	611.8120.S	Cover Plates Temporary	EACH	1.000	1.000
0110	614.0920	Salvaged Rail	LF	1,843.000	1,843.000
0112	614.2300	MGS Guardrail 3	LF	646.800	646.800
0114	614.2350	MGS Guardrail Short Radius	LF	62.500	62.500
0116	614.2500	MGS Thrie Beam Transition	LF	630.400	630.400
0118	614.2610	MGS Guardrail Terminal EAT	EACH	15.000	15.000
0120	614.2630	MGS Guardrail Short Radius Terminal	EACH	3.000	3.000
0122	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7560-05-74	EACH	1.000	1.000
0124	619.1000	Mobilization	EACH	1.000	1.000
0126	624.0100	Water	MGAL	59.000	59.000
0128	625.0500	Salvaged Topsoil	SY	12,250.000	12,250.000
0130	627.0200	Mulching	SY	1,950.000	1,950.000
0132	628.1504	Silt Fence	LF	2,500.000	2,500.000
0134	628.1520	Silt Fence Maintenance	LF	2,500.000	2,500.000
0136	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0138	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0140	628.2002	Erosion Mat Class I Type A	SY	10,000.000	10,000.000
0142	628.2006	Erosion Mat Urban Class I Type A	SY	430.000	430.000
0144	628.7015	Inlet Protection Type C	EACH	26.000	26.000
0146	628.7504	Temporary Ditch Checks	LF	200.000	200.000
0148	628.7555	Culvert Pipe Checks	EACH	70.000	70.000
0150	629.0210	Fertilizer Type B	CWT	8.000	8.000
0152	630.0120	Seeding Mixture No. 20	LB	315.000	315.000
0154	630.0140	Seeding Mixture No. 40	LB	12.000	12.000
0156	630.0200	Seeding Temporary	LB	330.000	330.000
0158	633.5200	Markers Culvert End	EACH	12.000	12.000
0160	638.2102	Moving Signs Type II	EACH	19.000	19.000
0162	638.4000	Moving Small Sign Supports	EACH	19.000	19.000
0164	642.5001	Field Office Type B	EACH	1.000	1.000
0166	643.0300	Traffic Control Drums	DAY	1,945.000	1,945.000
0168	643.0410	Traffic Control Barricades Type II	DAY	70.000	70.000
0170	643.0715	Traffic Control Warning Lights Type C	DAY	375.000	375.000
0172	643.0900	Traffic Control Signs	DAY	2,526.000	2,526.000
0174	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0176	643.3165	Temporary Marking Line Paint 6-Inch	LF	81,903.000	81,903.000
0178	643.3350	Temporary Marking Crosswalk Removable Tape 6-inch	LF	298.000	298.000
0180	643.5000	Traffic Control	EACH	1.000	1.000
0182	644.1430	Temporary Pedestrian Surface Plate	SF	1,324.000	1,324.000
0184	644.1601	Temporary Pedestrian Curb Ramp	DAY	112.000	112.000
0186	644.1810	Temporary Pedestrian Barricade	LF	300.000	300.000
0188	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	129,579.000	129,579.000
0190	646.4820	Marking Line Same Day Epoxy 10-Inch	LF	963.000	963.000
0192	646.5020	Marking Arrow Epoxy	EACH	1.000	1.000
0194	646.5120	Marking Word Epoxy	EACH	1.000	1.000
0196	646.5320	Marking Railroad Crossing Epoxy	EACH	2.000	2.000



Estimate Of Quantities

7560-05-74

Line	Item	Item Description	Unit	Total	Qty
0198	646.6020	Marking Stop Line Epoxy 12-Inch	LF	73.000	73.000
0200	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	496.000	496.000
0202	646.8120	Marking Curb Epoxy	LF	56.000	56.000
0204	646.8220	Marking Island Nose Epoxy	EACH	3.000	3.000
0206	650.6000	Construction Staking Pipe Culverts	EACH	6.000	6.000
0208	650.8000	Construction Staking Resurfacing Reference	LF	51,344.000	51,344.000
0210	650.9000	Construction Staking Curb Ramps	EACH	9.000	9.000
0212	650.9500	Construction Staking Sidewalk (project) 01. 7560-05-74	EACH	1.000	1.000
0214	650.9911	Construction Staking Supplemental Control (project) 01. 7560-05-74	EACH	1.000	1.000
0216	690.0150	Sawing Asphalt	LF	500.000	500.000
0218	690.0250	Sawing Concrete	LF	25.000	25.000
0220	740.0440	Incentive IRI Ride	DOL	38,538.000	38,538.000
0222	SPV.0060	Special 01. Cleaning Ditch	EACH	15.000	15.000

**PAVEMENT REMOVAL SUMMARY**

CATEGORY	STATION	TO	STATION	LOCATION	REMOVING	REMOVING	REMOVING	REMARKS
					ASPHALTIC SURFACE	ASPHALTIC SURFACE JOINTS	ASPHALTIC SURFACE MILLING	
					204.0110 SY	204.0115 SY	204.0120 SY	
0010	243+08	-	243+58	STH 95	-	218	-	
0010	243+58	-	259+90	STH 95	-	-	5549	
0010	259+90	-	260+41	STH 95	-	225	-	
0010	260+95	-	261+46	STH 95	-	228	-	
0010	261+46	-	397+14	STH 95	-	-	46854	
0010	308+89	-	310+10	VOSSE COULEE RD	-	-	106	
0010	309+40	-	309+75	VOSSE COULEE RD	-	34	-	
0010	342+25	-	345+16	SIDE ROAD	-	-	393	
0010	344+21	-	344+53	SIDE ROAD	-	33	-	
0010	372+87	-	375+03	CTY P	-	-	617	
0010	373+36	-	374+42	CTY P	-	96	-	
0010	397+14	-	397+65	STH 95	-	212	-	
0010	398+07	-	398+58	STH 95	-	220	-	
0010	398+58	-	511+45	STH 95	-	-	37730	
0010	474+83	-	476+67	BERG RD	-	-	254	
0010	475+92	-	476+20	BERG RD	-	31	-	
0010	494+55	-	497+70	CTH G	-	-	823	
0010	496+10	-	497+01	CTH G	-	68	-	
0010	511+45	-	511+95	STH 95	-	213	-	
0010	512+83	-	513+34	STH 95	-	212	-	
0010	513+34	-	689+88	STH 95	-	-	59939	
0010	556+95	-	558+33	LINCOLN RD	-	-	329	
0010	557+40	-	557+80	LINCOLN RD	-	54	-	
0010	592+96	-	595+45	GREEN ACRES RD	-	-	654	
0010	593+97	-	595+18	GREEN ACRES RD	-	68	-	
0010	625+75	-	627+21	SKUTLEY RD	-	-	175	
0010	626+56	-	626+80	SKUTLEY RD	-	25	-	
0010	683+32	-	685+13	ADAMS RD	-	-	245	
0010	684+27	-	684+52	ADAMS RD	-	31	-	
0010	685+30	-	687+35	SECHLERVILLE RD	-	-	607	
0010	685+53	-	686+86	SECHLERVILLE RD	-	80	-	
0010	689+88	-	690+38	STH 95	-	218	-	
0010	690+93	-	691+44	STH 95	-	218	-	
0010	710+50	-	711+00	STH 95	-	191	-	
0010	691+44	-	711+00	STH 95	-	-	6542	
0010	711+00	-	735+69	STH 95	-	36	11450	
0010	737+99	-	756+52	STH 95	-	104	8474	
0010	738+75	-	739+09	PARK DR	-	-	134	
0010	742+79	-	743+11	HOFFMAN ST S	-	-	108	
0010	744+07	-	744+46	S STATE ST	-	-	251	
0010	748+81	-	749+27	DEPOT ST NORTH SIDE	-	-	102	
0010	749+60	-	749+94	DEPOT ST SOUTH SIDE	-	-	147	
0010	733+65	-	748+79	CURB REMOVAL AREAS	97	-	-	
0010				PROJECT LIMITS	144	-	-	DRI VEWAYS
<b>PROJECT TOTALS =</b>					<b>241</b>	<b>2,815</b>	<b>181,483</b>	

**CLEARING & GRUBBING**

CATEGORY	STATION	TO	STATION	LOCATION	CLEARING GRUBBING		REMARKS
					201.0105 STA	201.0205 STA	
0010	313+35	-	314+35	LT	1	1	CULVERT REPLACEMENT
0010	313+75	-	314+75	RT	1	1	CULVERT REPLACEMENT
0010	318+15	-	319+15	LT/RT	2	2	CULVERT REPLACEMENT
0010	682+60	-	683+60	RT	1	1	CULVERT REPLACEMENT
					<b>5</b>	<b>5</b>	

**TEMPORARY LANE SHIFT DURING CULVERT WORK**

CATEGORY	STATION	LOCATION	208.1500.S		REMARKS
			EACH		
0010	280+53	STH 95	1		
0010	314+03	STH 95	1		
0010	314+07	STH 95	1		
0010	318+66	STH 95	1		
0010	323+16	STH 95	1		
0010	682+96	STH 95	1		
<b>TOTAL</b>			<b>6</b>		

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION	LOCATION	305.0110 TON	REMARKS
0010	PROJECT LIMITS	STH 95	3,792	SHOULDERS
0010	PROJECT LIMITS	STH 95	140	DRIVEWAYS
PROJECT TOTAL =			<u>3,932</u>	

BASE AGGREGATE DENSE 1 1/4-INCH

CATEGORY	STATION TO	STATION	LOCATION	305.0120 TON	REMARKS
0010	280+01	- 281+06	STH 95	373	CULVERT REPLACEMENT
0010	313+37	- 314+74	STH 95	486	CULVERT REPLACEMENT
0010	318+14	- 319+18	STH 95	369	CULVERT REPLACEMENT
0010	322+61	- 323+71	STH 95	390	CULVERT REPLACEMENT
0010	682+37	- 683+55	STH 95	419	CULVERT REPLACEMENT
0010				100	UNDISTRIBUTED
PROJECT TOTALS =				<u>2,137</u>	

SHAPING SHOULDERS

CATEGORY	STATION TO	STATION	LOCATION	305.0500 STA
0010	748+75	- 756+52	END PROJECT	<u>16</u>
PROJECT TOTALS =				<u>16</u>

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/ UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL (8)	EXPANDED FILL (6) FACTOR 1.30	MASS ORDINATE +/- (7)	WASTE	
			CUT (2)	EBS EXCAVATION (3)							
DIVISION 1 SUBTOTAL	258+00	262+00	BEAMGUARD 1	0	0	0	0	22	29	-29	0
DIVISION 2 SUBTOTAL	280+00	281+00	CULVERT 1	748	0	0	748	85	111	638	638
DIVISION 3 SUBTOTAL	313+50	314+50	CULVERT 2	966	0	0	966	0	0	966	966
DIVISION 4 SUBTOTAL	318+50	319+00	CULVERT 3	449	0	0	449	0	0	449	449
DIVISION 5 SUBTOTAL	323+00	323+50	CULVERT 4	542	0	0	542	0	0	542	542
DIVISION 6 SUBTOTAL	394+50	401+00	BEAMGUARD 2	0	0	0	0	243	316	-316	0
DIVISION 7 SUBTOTAL	434+00	439+00	BEAMGUARD 3	0	0	0	0	103	134	-134	0
DIVISION 8 SUBTOTAL	509+00	516+00	BEAMGUARD 4	0	0	0	0	164	213	-213	0
DIVISION 9 SUBTOTAL	682+50	683+50	CULVERT 5	1,111	0	0	1,111	36	47	1,064	1,064
DIVISION 10 SUBTOTAL	687+50	693+00	BEAMGUARD 5	0	0	0	0	122	159	-159	0
GRAND TOTAL				3,816	0	0	3,816	775	1,008	2,809	3,659
TOTAL COMMON EXC				3,816							

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.
- (3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.
- (4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (6) EXPANDED FILL FACTOR = 1.3
- (7) 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.
- (8) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.
- (9) ALL QUANTITIES FROM THE ABOVE TABLE ARE IN CUBIC YARDS (CY) UNLESS NOTED OTHERWISE.

**CURB & GUTTER SUMMARY**

CATEGORY	STATION	TO	STATION	LOCATION	REMOVING CURB & GUTTER	CONCRETE CURB & GUTTER	DRI LLED	REMARKS
					204. 0150 LF	601. 0411 LF	416. 0610 EACH	
0010	733+65	-	733+91	NW STATE ST INTERSECTION	34	34	6	
0010	733+67	-	734+45	PORKCHOP ISLAND STATE ST	77	77	-	
0010	734+32	-	734+54	SE STATE ST INTERSECTION	33	33	6	
0010	739+11	-	739+35	PARK DRIVE SOUTH SIDE	36	36	6	
0010	742+43	-	742+76	HOFFMAN ST WEST SIDE	43	43	6	
0010	743+13	-	743+36	HOFFMAN ST EAST SIDE	41	41	6	
0010	748+55	-	748+79	DEPOT ST WEST SIDE	30	30	6	
<b>PROJECT TOTALS =</b>					<b>294</b>	<b>294</b>	<b>36</b>	

**RUMBLE STRIP SUMMARY**

CATEGORY	STATION	TO	STATION	LOCATION	ASPHALTIC RUMBLE STRIPS, CENTERLINE	REMARKS
					465. 0560 LF	
0010	243+08	-	711+00	STH 95 C/L	41,868	RURAL SECTION
<b>PROJECT TOTAL =</b>					<b>41,868</b>	

**SIDEWALK & CURB RAMPS SUMMARY**

CATEGORY	STATION	TO	STATION	LOCATION	REMOVING CONCRETE SIDEWALK	CONCRETE CURB PEDESTRIAN	CONCRETE SIDEWALK 4-INCH	CURB RAMP DETECTABLE WARNING FIELD YELLOW	CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW	CONSTRUCTION STAKING CURB RAMPS
					204. 0155 SY	601. 0600 LF	602. 0405 SF	602. 0505 SF	602. 0605 SF	650. 9000 EACH
0010	733+65	-	733+89	STATE ST INTERSECTION NW CORNER	23	-	225	10	-	1
0010	733+66	-	734+32	PORKCHOP ISLAND STATE ST	30	-	264	30	-	3
0010	734+33	-	734+54	SE STATE ST INTERSECTION	19	22	189	10	-	1
0010	739+14	-	739+44	PARK DRIVE SE CORNER	10	-	158	-	17	1
0010	742+39	-	742+73	HOFFMAN ST NW CORNER	16	-	177	-	16	1
0010	743+16	-	743+44	HOFFMAN ST SE CORNER	13	-	150	-	16	1
0010	748+50	-	748+76	DEPOT ST NE CORNER	10	21	130	-	16	1
<b>PROJECT TOTALS =</b>					<b>121</b>	<b>43</b>	<b>1,293</b>	<b>50</b>	<b>65</b>	<b>9</b>

**ASPHALT ITEMS SUMMARY**

CATEGORY	STATION	TO	STATION	LOCATION	HMA PAVEMENT	HMA PAVEMENT	HMA COLD	TACK COAT	ASPHALTIC	ASPHALTIC	ASPHALTIC SURFACE	COMMENTS
					5 MT 58-34 V	4 SMA 58-34 V	WEATHER PAVING		SURFACE	SURFACE PATCHING	DRIVEWAY AND FIELD ENTRANCES	
					460.6645	460.8644	450.4000	455.0605	465.0105	465.0110	465.0120	
					TON	TON	TON	GAL	TON	TON	TON	
0010	243+08	-	260+19	STH 95	504	588	-	719	-	-	-	
0010	260+96	-	397+65	STH 95	3973	4635	-	5676	-	-	-	
0010	280+01	-	281+06	STH 95	-	-	-	18	136	-	-	CULVERT 280+53
0010	313+37	-	314+74	STH 95	-	-	-	23	179	-	-	CULVERTS 314+03/07
0010	318+14	-	319+18	STH 95	-	-	-	18	135	-	-	CULVERT 318+66
0100	322+61	-	323+71	STH 95	-	-	-	19	144	-	-	CULVERT 323+16
0010	398+08	-	511+95	STH 95	3206	3740	-	4580	-	-	-	
0010	512+84	-	690+38	STH 95	5071	5917	-	7245	-	-	-	
0010	690+93	-	711+00	STH 95	568	663	-	812	-	-	-	
0010	711+00	-	735+69	STH 95	962	1123	-	1374	-	-	-	
0010	737+99	-	756+52	STH 95	712	831	425	1017	-	-	-	
0010	308+89	-	310+10	VOSSE COULEE RD	12	14	-	17	-	-	-	
0010	342+25	-	345+16	SIDE ROAD	36	42	-	52	-	-	-	
0010	372+87	-	375+03	CTY P	60	70	-	86	-	-	-	
0010	474+83	-	476+67	BERG RD	24	28	-	35	-	-	-	
0010	494+55	-	497+70	CTH G	75	88	-	107	-	-	-	
0010	556+95	-	558+33	LINCOLN RD	33	38	-	46	-	-	-	
0010	592+96	-	595+45	GREEN ACRES RD	61	71	-	87	-	-	-	
0010	625+75	-	627+21	SKUTLEY RD	17	20	-	24	-	-	-	
0010	682+37	-	683+55	STH 95	-	-	-	25	194	-	-	CULVERT 682+96
0010	683+32	-	685+13	ADAMS RD	24	28	-	34	-	-	-	
0010	685+30	-	687+35	SECHLI ERVILLE RD	58	68	-	83	-	-	-	
0010	738+75	-	739+09	PARK DR	12	14	14	17	-	-	-	
0010	742+79	-	743+11	HOFFMAN ST S	10	11	11	13	-	-	-	
0010	744+07	-	744+46	S STATE ST	22	25	25	31	-	-	-	
0010	748+81	-	749+27	DEPOT ST NORTH SIDE	9	10	10	13	-	-	-	
0010	749+60	-	749+94	DEPOT ST SOUTH SIDE	13	15	15	18	-	-	-	
0010	243+58	-	756+52	DRIVEWAYS	-	-	-	-	-	-	144	
0010	733+65	-	748+79	CURB REPLACEMENT AREAS	-	-	-	-	-	20	-	
0010	243+58	-	756+52	MI SC REPAIRS	-	-	-	-	1000	200	-	
0010	243+58	-	756+52	MI NOR REPAIRS	-	-	-	-	-	100	-	
					15,462	18,039	500	22,189	1,788	320	144	

**FOR INFORMATIONAL PURPOSES ONLY**

STATION	LOCATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR	
							MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
243+08	756+52	2-12FT DRIVING LANES	UPPER LAYER	HMA PAVEMENT 5 MT 58-34 V 4 SMA 58-34 V	13290	1.75"	QMP AS PER SS 460	INCENTIVE DENSITY HMA PAVEMENT 460.2000
243+08	756+52	2-12FT DRIVING LANES	LOWER LAYER	MILLED EXISTING HMA SURFACE	11390	1.5"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
243+08	756+52	2 PAVED SHOULDERS	UPPER LAYER	HMA PAVEMENT 5 MT 58-34 V 4 SMA 58-34 V	4208	1.75"	QMP AS PER SS 460	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
243+08	756+52	2 PAVED SHOULDERS	LOWER LAYER	MILLED EXISTING HMA SURFACE	3606	1.5"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE



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HMA PAVEMENT INCENTIVE SUMMARY

CATEGORY	LOCATION	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY
		460. 0105. S EACH	460. 0110. S EACH
0010	PROJECT LIMITS	2	2
		<u>2</u>	<u>2</u>

ADDITIONAL HMA PAVEMENT ITEMS

CATEGORY	LOCATION	PREPARE FOUNDATION FOR ASPHALTIC PAVING SPECIAL (PROJECT) 01. 7560-05-74	MATERIAL TRANSFER VEHICLE 211. 0101
		520. 8700. S EACH	460. 9000. S EACH
0010	STH 95	1	1
		<u>1</u>	<u>1</u>

CLEANING CULVERT PIPES

CATEGORY	STATION	LOCATION	520. 8700 EACH
0010	374+72	STH 95	1
0010	390+11	STH 95	1
0010	408+28	STH 95	1
0010	408+33	STH 95	1
0010	417+56	STH 95	1
0010	421+05	STH 95	1
0010	436+06	STH 95	1
0010	436+54	STH 95	1
0010	472+64	STH 95	1
0010	486+38	STH 95	1
0010	486+41	STH 95	1
0010	574+44	STH 95	1
0010	579+87	STH 95	1
0010	586+61	STH 95	1
0010	593+87	STH 95	1
0010	619+80	STH 95	1
0010	633+00	STH 95	1
0010	679+30	STH 95	1
0010	744+86	STH 95	1
PROJECT TOTALS =			<u>19</u>

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REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	203. 0100 EACH	REMARKS
0010	280+53	STH 95	1	
0010	314+03	STH 95	1	
0010	314+07	STH 95	1	
0010	318+66	STH 95	1	
0010	323+16	STH 95	1	
0010	682+96	STH 95	1	
	TOTAL		<u>6</u>	

CULVERT LINER SUMMARY

CATEGORY	STATION	LOCATION	CULVERT PIPE LINERS, 24-INCH	CULVERT PIPE LINERS, 36-INCH	CLEANING CULVERT PIPES FOR LINER VERIFICATION
			520. 9700. S. 01 LF	520. 9700. S. 02 LF	520. 9750. S EACH
0010	408+28	STH 95	-	77	1
0010	408+33	STH 95	-	77	1
0010	579+87	STH 95	70	-	1
			<u>70</u>	<u>154</u>	<u>3</u>

CULVERT SUMMARY

CATEGORY	STATION	LOCATION	CONCRETE MASONRY ENDWALLS	APRON ENDWALLS FOR CULVERT PIPE	APRON ENDWALLS FOR CULVERT PIPE	CULVERT PIPE CLASS III-A	CULVERT PIPE CLASS III-A	PIPE CATTLE PASS REINFORCED CONCRETE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	CONSTRUCTION STAKING PIPE CULVERTS	REMARKS
			504. 0900 CY	520. 1024 EACH	520. 1036 EACH	520. 3324 LF	520. 3336 LF	522. 1500 LF	522. 2329 LF	522. 2419 LF	522. 2619 EACH	522. 2629 EACH	650. 6000 EACH	
0010	280+53	STH 95	-	-	2	-	62	-	-	-	-	-	1	0.079" MIN THICKNESS FOR STEEL PIPE
0010	314+03	STH 95	-	-	-	-	-	-	-	60	2	-	1	
0010	314+07	STH 95	-	-	-	-	-	-	-	60	2	-	1	
0010	318+66	STH 95	-	2	-	74	-	-	-	-	-	-	1	0.064" MIN THICKNESS FOR STEEL PIPE
0010	323+16	STH 95	10	-	-	-	-	60	-	-	-	-	1	
0010	682+96	STH 95	-	-	-	-	-	-	66	-	-	2	1	
			<u>10</u>	<u>2</u>	<u>2</u>	<u>74</u>	<u>62</u>	<u>60</u>	<u>66</u>	<u>120</u>	<u>4</u>	<u>2</u>	<u>6</u>	

**STORM SEWER SUMMARY**

CATEGORY	STATION	LOCATION	611.0430	611.0624	611.8115	611.8120.S	RIM ELEVATION	REMARKS
			RECONSTRUCTING INLETS EACH	INLET COVERS TYPE H EACH	ADJUSTING INLET COVERS EACH	COVER PLATES TEMPORARY EACH		
0010	100+37M	LT	-	-	1	-		MAIN ST
0010	742+48	LT	1	1	-	1	920.24	HOFFMAN ST
0010	742+77	LT	-	-	1	-		HOFFMAN ST
0010	743+14	LT	-	-	1	-		HOFFMAN ST
0010	748+77	LT	-	-	1	-		DEPOT ST
<b>PROJECT TOTALS =</b>			<b>1</b>	<b>1</b>	<b>4</b>	<b>1</b>		

**WATER**

CATEGORY	LOCATION	624.0100	REMARKS
		MGAL	
0010	STH 80	59	3/4-IN
<b>PROJECT TOTAL =</b>		<b>59</b>	

**BEAM GUARD SUMMARY**

CATEGORY	STATION	TO	STATION	LOCATION	SALVAGED	MGS	MGS	MGS	MGS	MGS	REMARKS
					RAIL	GUARDRAIL 3	SHORT	THRIE	GUARDRAIL	GUARDRAIL	
					614.092	614.2300	614.2350	614.2500	614.2610	614.2630	
					LF	LF	LF	LF	EACH	EACH	
0010	259+56	-	260+48	LT	69	-	-	39.4	1	-	B-27-106
0010	261+03	-	261+74	LT	56	28.1	25	39.4	-	1	B-27-106
0010	259+17	-	260+34	RT	70	25	-	39.4	1	-	B-27-106
0010	260+89	-	261+44	RT	57	28.1	25	39.4	-	1	B-27-106
0010	396+72	-	397+65	LT	70	-	-	39.4	1	-	B-27-107
0010	398+07	-	399+25	LT	70	25	-	39.4	1	-	B-27-107
0010	396+48	-	397+65	RT	69	25	-	39.4	1	-	B-27-107
0010	398+07	-	398+99	RT	70	-	-	39.4	1	-	B-27-107
0010	435+36	-	437+79	LT	165	137.5	-	-	2	-	72-INCH CULVERT
0010	510+66	-	511+95	LT	132	37.5	-	39.4	1	-	B-27-108
0010	512+84	-	514+76	LT	194	100	-	39.4	1	-	B-27-108
0010	510+03	-	511+95	RT	194	100	-	39.4	1	-	B-27-108
0010	512+84	-	514+14	RT	132	37.5	-	39.4	1	-	B-27-108
0010	682+75	-	683+76	LT	102	-	-	-	-	-	CULVERT REPLACEMENT - REMOVAL ONLY
0010	682+63	-	683+66	RT	115	-	-	-	-	-	CULVERT REPLACEMENT - REMOVAL ONLY
0010	689+60	-	690+38	LT	70	53.1	12.5	39.4	-	1	B-27-144
0010	690+94	-	692+11	LT	69	25	-	39.4	1	-	B-27-144
0010	689+21	-	690+38	RT	70	25	-	39.4	1	-	B-27-144
0010	690+93	-	691+86	RT	69	-	-	39.4	1	-	B-27-144
<b>PROJECT TOTAL</b>					<b>1843</b>	<b>646.8</b>	<b>62.5</b>	<b>630.4</b>	<b>15</b>	<b>3</b>	

**EROSION CONTROL ITEMS**

CATEGORY	STATION	- STATION	LOCATION	SALVAGED	MULCHING	EROSION	EROSION MAT	FERTILIZER	SEEDING	SEEDING	TEMPORARY	REMARKS
				TOPSOIL	627. 0200	MAT CLASS	URBAN CLASS	TYPE B	MI XTURE	MI XTURE	SEEDING	
				625. 0500	627. 0200	1 TYPE A	1 TYPE A	TYPE B	NO. 20	NO. 40	630. 0200	
				SY	SY	628. 2002	628. 2006	629. 0210	630. 0120	630. 0140	630. 0200	
						SY	SY	CWT	LB	LB	LB	
0010	258+25	- 261+49	BRIDGE B-27-106	482	-	482	-	0.31	13.1	-	13.1	BEAMGUARD REPLACEMENT
0010	279+76	- 281+31	CULVERT 280+53	779	377	203	200	0.50	11.1	6.7	17.7	CULVERT REPLACEMENT
0010	313+12	- 314+99	CULVERTS 314+03/07	551	276	275	-	0.35	14.9	-	14.9	CULVERT REPLACEMENT
0010	317+89	- 319+43	CULVERT 318+66	716	373	343	-	0.46	19.4	-	19.4	CULVERT REPLACEMENT
0010	322+36	- 323+96	CULVERT 323+16	717	333	385	-	0.46	19.4	-	19.4	CULVERT REPLACEMENT
0010	395+42	- 400+25	BRIDGE B-27-107	1434	-	1434	-	0.91	38.8	-	38.8	BEAMGUARD REPLACEMENT
0010	434+46	- 438+69	CULVERTS 436+06/54	711	-	711	-	0.45	19.2	-	19.2	BEAMGUARD REPLACEMENT
0010	509+00	- 515+77	BRIDGE B-27-108	2925	-	2925	-	1.85	79.0	-	79.0	BEAMGUARD REPLACEMENT
0010	682+12	- 683+80	CULVERT 682+96	543	210	334	-	0.35	14.7	-	16.0	CULVERT REPLACEMENT
0010	688+21	- 692+65	BRIDGE B-27-144	977	-	977	-	0.62	26.4	-	26.4	BEAMGUARD REPLACEMENT
0010	733+65	- 748+79		-	-	-	144	0.10	-	2.6	2.4	CURB & GUTTER AND SIDEWALK REPLACEMENT
0010			PROJECT LIMITS	2415	381	1931	86	1.64	59.0	2.7	63.7	UNDISTRIBUTED
<b>PROJECT TOTALS =</b>				<b>12,250</b>	<b>1,950</b>	<b>10,000</b>	<b>430</b>	<b>8.0</b>	<b>315.0</b>	<b>12.0</b>	<b>330.0</b>	

NOTE: MULCHING TO BE PLACED IN LOCATIONS NOT RECEIVING EMAT WITH SLOPES FLATTER THAN 3:1.  
 NOTE: EMAT CLASS I TYPE A TO BE PLACED IN LOCATIONS WITH SLOPES 3:1 OR STEEPER.  
 NOTE: EMAT URBAN CLASS I TYPE A TO BE PLACED IN ALL URBAN/MOWABLE LAWN AREAS.

**MOBILIZATIONS EROSION CONTROL SUMMARY**

CATEGORY	LOCATION	MOBILIZATIONS	MOBILIZATIONS	REMARKS
		EROSION CONTROL	EMERGENCY EROSION CONTROL	
		628. 1905	628. 1910	
		EACH	EACH	
0010	PROJECT LIMITS	5	3	
<b>PROJECT TOTALS =</b>		<b>5</b>	<b>3</b>	

**SILT FENCE SUMMARY**

CATEGORY	LOCATION	SILT	SILT FENCE	REMARKS
		FENCE	MAINTENANCE	
		628. 1504	628. 1520	
		LF	LF	
0010	280+53	240	240	120 FT EACH SIDE OF CULVERT
0010	314+05	270	270	135 FT EACH SIDE OF CULVERT
0010	318+66	240	240	120 FT EACH SIDE OF CULVERT
0010	323+16	240	240	120 FT EACH SIDE OF CULVERT
0010	436+25	100	100	100 FT RT SIDE OF CULVERTS
0010	682+96	270	270	135 FT EACH SIDE OF CULVERT
0010	PROJECT LIMITS	690	690	CULVERT LINING, CLEANING, AND DITCHING LOCATIONS
0010	PROJECT LIMITS	450	450	UNDISTRIBUTED
<b>PROJECT TOTALS =</b>		<b>2500</b>	<b>2500</b>	

INLET PROTECTION TYPE C

CATEGORY	STATION	LOCATION	628. 7015		REMARKS
			EACH		
0010	713+22	LT	1		
0010	716+46	LT	1		
0010	717+76	LT & RT	2		
0010	721+66	LT & RT	2		
0010	724+59	LT & RT	2		
0010	731+12	LT & RT	2		
0010	734+10	LT	1		
0010	734+34	LT	1		
0010	735+79	LT	1		
0010	735+90	RT	1		
0010	738+31	RT	1		
0010	738+42	LT	1		
0010	742+49	LT	1		
0010	742+77	LT	1		
0010	743+01	RT	1		
0010	743+13	LT	1		
0010	743+41	LT	1		
0010	744+86	RT	1		
0010	746+70	LT	1		
0010	748+77	LT	1		
0010	749+23	LT	1		
0010	749+96	RT	1		

PROJECT TOTALS = 26

TEMPORARY DITCH CHECK

CATEGORY	STATION	LOCATION	628. 7504		REMARKS
			LF		
0010	274+63	LT & RT	20		
0010	280+53	LT	10		
0010	314+03	LT	10		
0010	318+66	LT	10		
0010	334+15	LT & RT	20		
0010	366+13	LT & RT	20		
0010	477+05	RT	10		
0010	491+99	LT & RT	20		
0010	650+80	LT & RT	20		
0010	657+92	LT	10		
0010	667+04	LT	10		
0010	PROJECT LIMITS		40		UNDISTRIBUTED

PROJECT TOTALS = 200

CULVERT PIPE CHECKS

CATEGORY	STATION	LOCATION	628. 7555		REMARKS
			EACH		
0010	274+63	STH 95	2		CLEANING DITCHES
0010	274+77	STH 95	2		CLEANING DITCHES
0010	280+53	STH 95	2		CULVERT REPLACEMENT
0010	314+03	STH 95	2		CULVERT REPLACEMENT
0010	314+07	STH 95	2		CULVERT REPLACEMENT
0010	318+66	STH 95	2		CULVERT REPLACEMENT
0010	323+16	STH 95	2		CULVERT REPLACEMENT
0010	334+15	STH 95	2		CLEANING DITCHES
0010	366+13	STH 95	2		CLEANING DITCHES
0010	366+17	STH 95	2		CLEANING DITCHES
0010	374+72	STH 95	2		CLEANING CULVERT
0010	390+11	STH 95	2		CLEANING CULVERT
0010	408+28	STH 95	2		CLEANING/LINING CULVERT
0010	408+33	STH 95	2		CLEANING/LINING CULVERT
0010	417+56	STH 95	2		CLEANING CULVERT
0010	421+05	STH 95	2		CLEANING CULVERT
0010	436+06	STH 95	2		CLEANING CULVERT
0010	436+54	STH 95	2		CLEANING CULVERT
0010	472+64	STH 95	2		CLEANING CULVERT
0010	477+05	STH 95	2		CLEANING DITCHES
0010	486+38	STH 95	2		CLEANING CULVERT
0010	486+41	STH 95	2		CLEANING CULVERT
0010	491+99	STH 95	2		CLEANING DITCHES
0010	574+44	STH 95	2		CLEANING CULVERT
0010	579+87	STH 95	2		CLEANING/LINING CULVERT
0010	586+61	STH 95	2		CLEANING CULVERT
0010	593+87	STH 95	2		CLEANING CULVERT
0010	619+80	STH 95	2		CLEANING CULVERT
0010	633+00	STH 95	2		CLEANING CULVERT
0010	650+80	STH 95	2		CLEANING DITCHES
0010	657+92	STH 95	2		CLEANING DITCHES
0010	667+04	STH 95	2		CLEANING DITCHES
0010	667+08	STH 95	2		CLEANING DITCHES
0010	679+30	STH 95	2		CLEANING CULVERT
0010	682+96	STH 95	2		CULVERT REPLACEMENT

70

3

3

MARKER CULVERT ENDS

CATEGORY	STATION	LOCATION	633. 5200 EACH	REMARKS
0010	280+53	STH 95	2	
0010	314+03	STH 95	2	
0010	314+07	STH 95	2	
0010	318+66	STH 95	2	
0010	323+16	STH 95	2	
0010	682+96	STH 95	2	
			<b>12</b>	

MOVING SIGN SUMMARY

CATEGORY	STATION	LOCATION	MOVING	MOVING	REMARKS
			SIGNS TYPE II 638. 2102	SMALL SIGN SUPPORTS 638. 4000	
			EACH	EACH	
0010	299+31	LT	1	1	NO PASSING ZONE
0010	335+80	LT	1	1	NO PASSING ZONE
0010	388+73	LT	1	1	NO PASSING ZONE
0010	405+91	RT	1	1	NO PASSING ZONE
0010	463+85	LT	1	1	NO PASSING ZONE
0010	486+01	RT	1	1	NO PASSING ZONE
0010	536+29	LT	1	1	NO PASSING ZONE
0010	564+67	RT	1	1	NO PASSING ZONE
0010	599+53	LT	1	1	NO PASSING ZONE
0010	616+55	RT	1	1	NO PASSING ZONE
0010	615+85	LT	1	1	NO PASSING ZONE
0010	635+00	RT	1	1	NO PASSING ZONE
0010	680+00	LT	1	1	NO PASSING ZONE
0010	702+00	RT	1	1	NO PASSING ZONE
0010	UNDI STRI BUTED		5	5	
<b>PROJECT TOTAL =</b>			<b>19</b>	<b>19</b>	

TRAFFIC CONTROL SUMMARY

CATEGORY	STATION TO STATION	LOCATION	TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES		TRAFFIC CONTROL WARNING LIGHTS		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL PCMS		TRAFFIC CONTROL EACH
			QTY	DAY	QTY	DAY	QTY	DAY	QTY	DAY	QTY	DAY	
			643. 0300	643. 0410	643. 0715	643. 0900	643. 1050	643. 5000					
0010	BOP - EOP	MAINLINE	-	-	-	-	-	-	750	2	28	-	
0010	733+00 - 749+00	SIDEWALK CLOSURES	5	70	5	70	-	-	9	126	-	-	
0010	BOP - EOP	SIDERoadS	-	-	-	-	-	-	1,650	-	-	-	
0010		UNDI STRI BUTED	-	1,875	-	-	-	375	-	-	-	1	
<b>PROJECT TOTAL =</b>			<b>1,945</b>	<b>70</b>	<b>375</b>	<b>2,526</b>	<b>28</b>	<b>1</b>					

TEMPORARY PEDESTRIAN ITEMS

CATEGORY	LOCATION	TEMPORARY	TEMPORARY	TEMPORARY
		PEDESTRIAN SURFACE PLATE	PEDESTRIAN CURB RAMP	PEDESTRIAN BARRICADE
		644. 1430 SF	644. 1601 DAY	644. 1810 LF
0010	N STATE ST (WEST)	126	14	-
0010	N STATE ST (EAST)	43	14	-
0010	E MAIN ST (NORTH)	-	14	-
0010	E MAIN ST (SOUTH)	172	14	-
0010	STH 95 & PARK ST (SOUTH)	369	28	-
0010	HOFFMAN ST (WEST)	216	14	-
0010	HOFFMAN ST (EAST)	225	14	-
0010	DEPOT ST (WEST)	-	-	-
0010	UNDI STRI BUTED	173	-	300
<b>PROJECT TOTALS =</b>		<b>1,324</b>	<b>112</b>	<b>300</b>

PAVEMENT MARKING LINE SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	MARKING LINE GROOVED				MARKING LINE SAME				TEMPORARY MARKING		TEMPORARY MARKING CROSSWALK		REMARKS	
					WET REF EPOXY 6-INCH		DAY EPOXY 10-INCH		LINE PAINT 6-INCH		REMOVABLE TAPE 6-INCH							
					646. 2040	LF	646. 4820	LF	643. 3165	LF	643. 3350	LF						
0010	243+08	-	245+68	STH 95 C/L		520	-	-	-	1,560	-	-	-	-	-	-	DOUBLE CENTERLINE - YELLOW	
0010	245+68	-	257+04	STH 95 C/L		1,420	-	-	-	3,681	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	257+04	-	299+31	STH 95 C/L		1,057	-	-	-	1017	-	-	-	-	-	-	DASHED CENTERLINE - YELLOW	
0010	299+31	-	305+52	STH 95 C/L		776	-	-	-	2,012	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	305+52	-	306+75	STH 95 C/L		31	-	-	-	30	-	-	-	-	-	-	DASHED CENTERLINE - YELLOW	
0010	306+75	-	315+94	STH 95 C/L		1,149	-	-	-	2,978	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	315+94	-	335+96	STH 95 C/L		501	-	-	-	483	-	-	-	-	-	-	DASHED CENTERLINE - YELLOW	
0010	335+96	-	344+32	STH 95 C/L		1,045	-	-	-	2,709	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	344+32	-	388+73	STH 95 C/L		1,110	-	-	-	1068	-	-	-	-	-	-	DASHED CENTERLINE - YELLOW	
0010	388+73	-	394+57	STH 95 C/L		730	-	-	-	1,892	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	394+57	-	394+75	STH 95 C/L		36	-	-	-	108	-	-	-	-	-	-	DOUBLE CENTERLINE - YELLOW	
0010	394+75	-	405+91	STH 95 C/L		1,395	-	-	-	3,616	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	405+91	-	463+83	STH 95 C/L		1,448	-	-	-	1392	-	-	-	-	-	-	DASHED CENTERLINE - YELLOW	
0010	463+83	-	473+61	STH 95 C/L		1,223	-	-	-	3,169	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	473+61	-	475+27	STH 95 C/L		332	-	-	-	996	-	-	-	-	-	-	DOUBLE CENTERLINE - YELLOW	
0010	475+27	-	486+01	STH 95 C/L		1,343	-	-	-	3,480	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	486+01	-	536+28	STH 95 C/L		1,257	-	-	-	1209	-	-	-	-	-	-	DASHED CENTERLINE - YELLOW	
0010	536+28	-	545+00	STH 95 C/L		1,090	-	-	-	2,825	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	545+00	-	552+00	STH 95 C/L		1400	-	-	-	4,200	-	-	-	-	-	-	DOUBLE CENTERLINE - YELLOW	
0010	552+00	-	564+67	STH 95 C/L		1,584	-	-	-	4,105	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	564+67	-	599+52	STH 95 C/L		871	-	-	-	837	-	-	-	-	-	-	DASHED CENTERLINE - YELLOW	
0010	599+52	-	609+22	STH 95 C/L		1,213	-	-	-	3,143	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	609+22	-	615+82	STH 95 C/L		825	-	-	-	2,138	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	615+82	-	616+56	STH 95 C/L		148	-	-	-	444	-	-	-	-	-	-	DOUBLE CENTERLINE - YELLOW	
0010	616+56	-	622+67	STH 95 C/L		764	-	-	-	1,980	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	622+67	-	630+55	STH 95 C/L		197	-	-	-	192	-	-	-	-	-	-	DASHED CENTERLINE - YELLOW	
0010	630+55	-	635+00	STH 95 C/L		556	-	-	-	1,442	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	635+00	-	680+00	STH 95 C/L		1,125	-	-	-	1080	-	-	-	-	-	-	DASHED CENTERLINE - YELLOW	
0010	680+00	-	690+94	STH 95 C/L		1,368	-	-	-	3,545	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	690+94	-	692+02	STH 95 C/L		216	-	-	-	648	-	-	-	-	-	-	DOUBLE CENTERLINE - YELLOW	
0010	692+02	-	702+00	STH 95 C/L		1,248	-	-	-	3,234	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	702+00	-	711+00	STH 95 C/L		225	-	-	-	216	-	-	-	-	-	-	DASHED CENTERLINE - YELLOW	
0010	711+00	-	726+12	STH 95 C/L		378	-	-	-	363	-	-	-	-	-	-	DASHED CENTERLINE - YELLOW	
0010	711+00	-	733+78	STH 95 C/L		2,848	-	-	-	7,381	-	-	-	-	-	-	SOLID/DASHED CENTERLINE - YELLOW	
0010	734+40	-	743+90	STH 95 C/L		1900	-	-	-	5,700	-	-	-	-	-	-	DOUBLE CENTERLINE - YELLOW	
0010	744+80	-	754+29	STH 95 C/L		1898	-	-	-	5,694	-	-	-	-	-	-	DOUBLE CENTERLINE - YELLOW	
0010	754+29	-	756+52	STH 95 C/L		446	-	-	-	1,338	-	-	-	-	-	-	DOUBLE CENTERLINE - YELLOW	
0010	243+08	-	243+98	RT TURN		-	90	-	-	-	-	-	-	-	-	-	WHI TE	
0010	243+08	-	372+87	LANE EDGE RT		12,979	-	-	-	-	-	-	-	-	-	-	WHI TE	
0010	243+08	-	343+79	LANE EDGE LT		9,814	-	-	-	-	-	-	-	-	-	-	WHI TE	
0010	345+07	-	346+99	RT TURN		-	192	-	-	-	-	-	-	-	-	-	WHI TE	
0010	345+07	-	373+57	LANE EDGE LT		2,856	-	-	-	-	-	-	-	-	-	-	WHI TE	
0010	371+73	-	372+88	RT TURN		-	115	-	-	-	-	-	-	-	-	-	WHI TE	
0010	374+36	-	594+06	LANE EDGE RT		21,979	-	-	-	-	-	-	-	-	-	-	WHI TE	
0010	374+81	-	376+35	RT TURN		-	154	-	-	-	-	-	-	-	-	-	WHI TE	
0010	374+82	-	593+71	LANE EDGE LT		21,884	-	-	-	-	-	-	-	-	-	-	WHI TE	
0010	595+04	-	684+08	LANE EDGE LT		8,909	-	-	-	-	-	-	-	-	-	-	WHI TE	
0010	595+45	-	685+32	LANE EDGE RT		8,982	-	-	-	-	-	-	-	-	-	-	WHI TE	
0010	685+14	-	686+07	LANE EDGE LT		96	-	-	-	-	-	-	-	-	-	-	WHI TE	
0010	686+61	-	714+45	LANE EDGE RT		2,782	-	-	-	-	-	-	-	-	-	-	WHI TE	
0010	686+99	-	711+00	LANE EDGE LT		2,404	-	-	-	-	-	-	-	-	-	-	WHI TE	
0010	729+67	-	733+79	RT TURN		-	412	-	-	-	-	-	-	-	-	-	WHI TE	
0010	750+40	-	756+52	LANE EDGE LT		610	-	-	-	-	-	-	-	-	-	-	WHI TE	
0010	750+40	-	756+52	LANE EDGE RT		615	-	-	-	-	-	-	-	-	-	-	WHI TE	
0010	733+94	-	734+11	N STATE ST		-	-	-	-	-	-	74	-	-	-	-	TEMPORARY CROSSWALK - SOLI D WHI TE	
0010	734+11	-	734+32	E MAIN ST		-	-	-	-	-	-	86	-	-	-	-	TEMPORARY CROSSWALK - SOLI D WHI TE	
0010	739+56	-	739+61	STH 95		-	-	-	-	-	-	80	-	-	-	-	TEMPORARY CROSSWALK - SOLI D WHI TE	
0010	742+79	-	743+11	HOFFMAN ST		-	-	-	-	-	-	58	-	-	-	-	TEMPORARY CROSSWALK - SOLI D WHI TE	
<b>PROJECT TOTALS =</b>					<b>129,579</b>	<b>963</b>	<b>81,903</b>	<b>298</b>										

NOTE: TEMP. MARKING LINE PAINT PLACED IN 3 APPLICATI ONS (MILLED, LOWER & FINAL LAYER)  
 TEMP. CROSSWALK MARKINGS ASSUME 3 APPLICATI ONS

**PAVEMENT MARKING SUMMARY**

CATEGORY	STATION	TO STATION	LOCATION	MARKING	MARKING	MARKING	MARKING	MARKING	MARKING	MARKING	REMARKS
				ARROW	WORD	RAILROAD	STOP LINE	CROSSWALK	ISLAND		
				EPOXY	EPOXY	EPOXY	EPOXY	EPOXY	EPOXY	EPOXY	
				646.5020	646.5120	646.5320	646.6020	646.7420	646.8120	646.8220	
				EACH	EACH	EACH	LF	LF	LF	EACH	
0010	386+81	- 394+31	SOUTH OF RR	-	-	1	-	-	-	-	
0010	394+95	- 402+45	NORTH OF RR	-	-	1	-	-	-	-	
0010	729+92	- 729+92	RT TURN	-	1	-	-	-	-	-	
0010	730+47	- 730+47	RT TURN	1	-	-	-	-	-	-	
0010	733+68	- 733+93	PORKCHOP ISLAND	-	-	-	-	-	56	3	
0010	733+78	- 100M+35	MAIN & STATE ST	-	-	-	54	-	-	-	3 STOP LINES AT INTERSECTION
0010	733+81	- 100M+31	MAIN & STATE ST	-	-	-	-	390	-	-	ALL CROSSWALKS AT INTERSECTION
0010	738+58	- 739+22	PARK DR	-	-	-	19	106	-	-	
<b>PROJECT TOTALS =</b>				<b>1</b>	<b>1</b>	<b>2</b>	<b>73</b>	<b>496</b>	<b>56</b>	<b>3</b>	

**CONSTRUCTION STAKING SUMMARY**

CATEGORY	STATION	TO STATION	LOCATION	RESURFACING	SIDEWALK	SUPPLEMENTAL
				REFERENCE	(PROJECT) 01.	CONTROL (PROJECT)
				650.8000	7560-05-74	01.7560-05-74
				LF	650.9500	650.9911
				EACH	EACH	EACH
0010	243+08	- 756+52	STH 95	51,344	1	1
<b>PROJECT TOTAL =</b>				<b>51,344</b>	<b>1</b>	<b>1</b>

**SAWING CONCRETE**

CATEGORY	LOCATION	690.0250	REMARKS
		LF	
0010	NW STATE ST INT	5	CURB & GUTTER
0010	SE STATE ST INT	5	CURB & GUTTER
0010	PARK DR	5	CURB & GUTTER
0010	HOFFMAN ST	5	CURB & GUTTER
0010	DEPOT ST	5	CURB & GUTTER
<b>PROJECT TOTAL =</b>		<b>25</b>	

**SAWING ASPHALT**

CATEGORY	STATION	LOCATION	690.0150	REMARKS
			LF	
	279+04	DRIVEWAY LT	20	
0010	313+37	STH 95	30	CULVERT REPLACEMENTS
0010	314+74	STH 95	30	CULVERT REPLACEMENTS
0010	318+14	STH 95	30	CULVERT REPLACEMENTS
0010	319+18	STH 95	30	CULVERT REPLACEMENTS
0010	322+61	STH 95	30	CULVERT REPLACEMENTS
0010	323+71	STH 95	30	CULVERT REPLACEMENTS
0010	344+43	DRIVEWAY LT	61	
0010	369+06	DRIVEWAY RT	53	
0010	377+05	DRIVEWAY RT	13	
0010	417+45	DRIVEWAY LT	21	
0010	601+24	DRIVEWAY LT	33	
0010	689+61	DRIVEWAY LT	12	
0010	693+00	DRIVEWAY LT	44	
0010	694+47	DRIVEWAY LT	35	
0010	697+80	DRIVEWAY LT	23	
0010	710+85	DRIVEWAY LT	25	
<b>PROJECT TOTAL =</b>			<b>500</b>	

**CLEANING DITCH**

CATEGORY	STATION	TO STATION	LOCATION	SPV.0060.01	REMARKS
				EACH	
0010	274+55	- 274+85	STH 95	2	2 CULVERTS
0010	334+00	- 334+30	STH 95	2	
0010	366+00	- 366+30	STH 95	2	2 CULVERTS
0010	476+90	- 477+20	STH 95	1	EB SIDE ONLY
0010	491+85	- 492+15	STH 95	2	
0010	650+65	- 650+95	STH 95	2	
0010	657+75	- 658+05	STH 95	2	
0010	666+90	- 667+20	STH 95	2	2 CULVERTS
<b>PROJECT TOTALS =</b>				<b>15</b>	

**TRANSPORTATION PROJECT PLAT NO: 7560-05-24 - 4.01**

THAT PART OF NE 1/4 OF THE NW 1/4 OF SECTION 35, TOWNSHIP 22 NORTH, RANGE 6 WEST TOWN OF CURRAN, JACKSON COUNTY, WISCONSIN.

RELOCATION ORDER STH 95 BLAIR-MERRILLAN (TREMPEALEAU/JACKSON CO LN TO IH 94) JACKSON COUNTY

TO PROPERLY ESTABLISH LAYOUT, WIDTH, 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:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISION OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO THE SHEET, RECORDED AS SHEET 2 OF 2.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), JACKSON COUNTY, NAD 83 (2011) U.S. 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 1" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED 10' OR TO THE COMPLETION OF THE PROJECT.

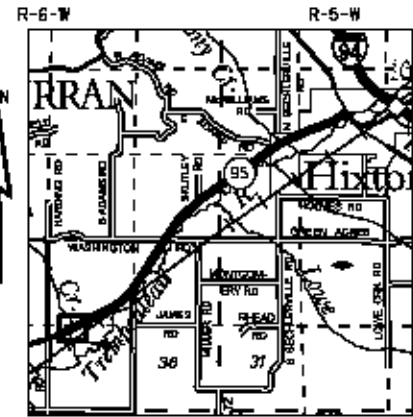
FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN THE VAN REGION IN CAJULAI, WI.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 95 ESTABLISHED FROM PREVIOUS PROJECTS PLAT W 50082 AND 7560-06-21.

Document Number: 418647  
 Vol: 27 Page: 17  
 Sheri Murg  
 Register of Deeds  
 Jackson County, WI  
 Recorded: 07/15/2022 10:06 AM  
 Recording Fee Paid: 25.00  
 Number of Pages: 2  
 \*ELECTRONICALLY RECORDED\*

RESERVED FOR REGISTER OF DEEDS  
 PROJECT NUMBER 7560-05-24-4.01  
 SHEET 1 OF 2

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	OWNER(S)	INTEREST REQUIRED	R/W NEW ACRES	R/W EXISTING	R/W TOTAL ACRES	TILE ACRES
1	AM SILICA LLC	TILE	-	-	-	0.029



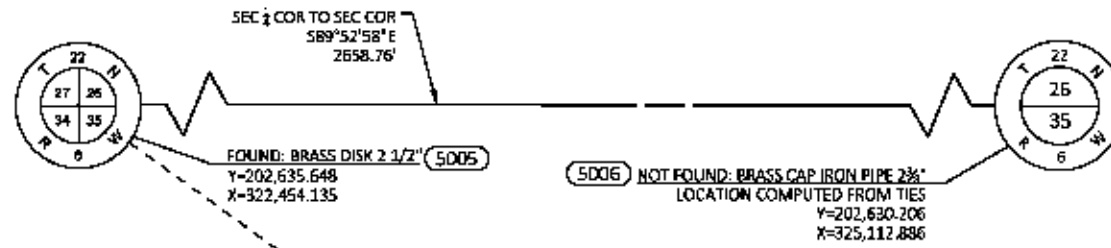
LAYOUT NOT TO SCALE

POINT	STATION	OFFSET	Y COORDS	X COORDS
T100	509+85.00	70.00'	202230.154	323722.931
T101	510+95.00	70.00'	202281.528	323820.197

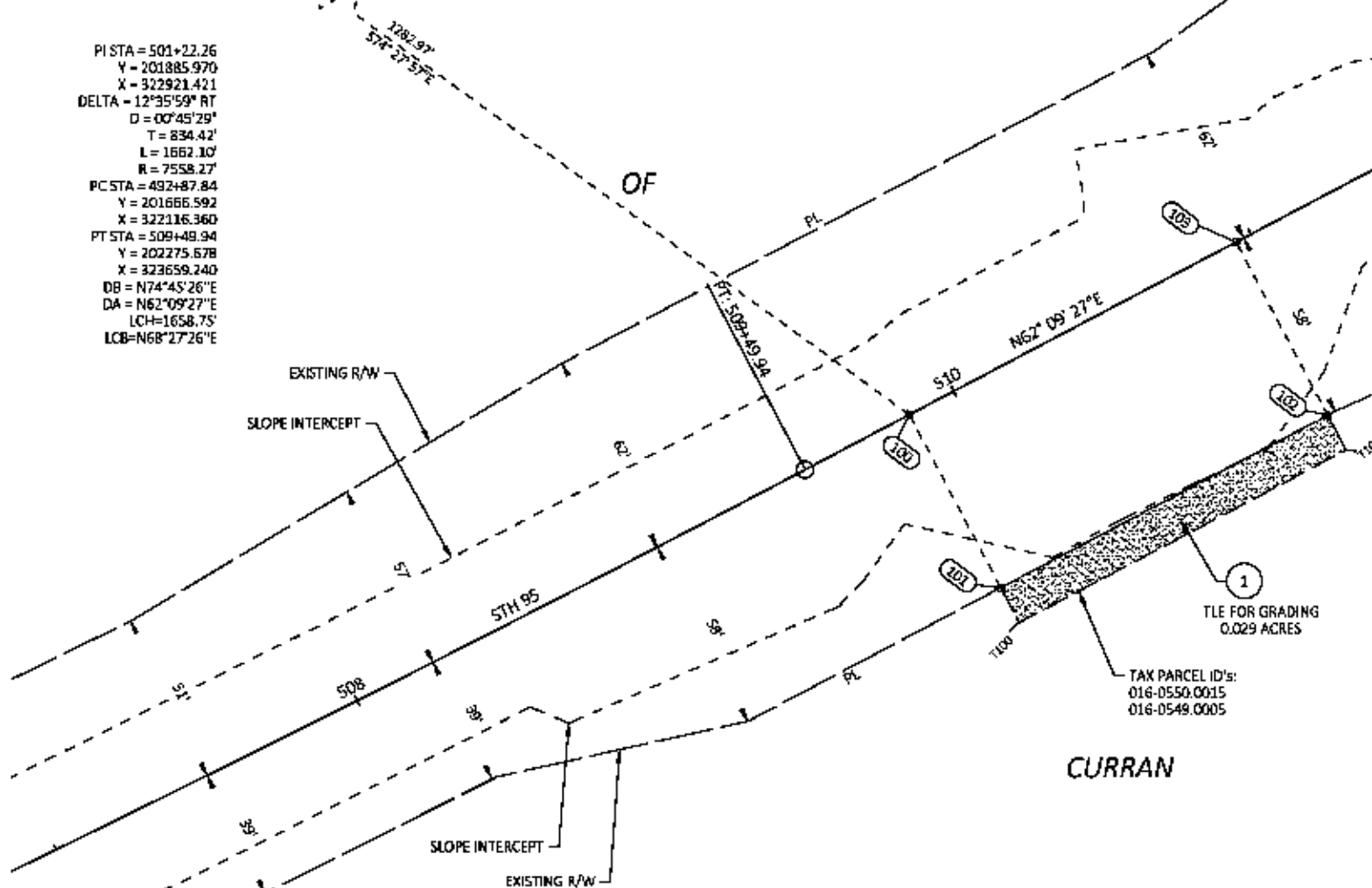
POINT	STATION	OFFSET	Y COORDS	X COORDS
100	509+85.00	0.00'	202292.051	323690.238
101	509+85.00	58.30'	202240.503	323717.465
102	510+95.00	58.30'	202291.876	323814.733
103	510+95.00	0.00'	202343.425	323787.504

POINT	POINT	COURSE	DISTANCE
5005	100	S74°27'57"E	1282.97'
100	101	S27°50'33"E	58.30'
101	102	N62°09'32"E	110.00'
102	103	N27°50'37"W	58.30'
103	100	S62°09'27"W	110.00'

TOWN  
 NE-NW  
 SECTION 35  
 T22N, R6W



PI STA = 501+22.26  
 Y = 201885.970  
 X = 322921.421  
 DELTA = 12°35'59" RT  
 D = 00°45'29"  
 T = 834.42'  
 L = 1662.10'  
 R = 7558.27'  
 PC STA = 492+87.84  
 Y = 201665.592  
 X = 322116.360  
 PT STA = 509+49.94  
 Y = 202275.678  
 X = 323659.240  
 DB = N74°45'26"E  
 DA = N62°09'27"E  
 LCH = 1658.75'  
 LCB = N68°27'26"E



TAX PARCEL ID'S:  
 016-0550.0015  
 016-0549.0005

SCALE, FEET 0 25 50

KNIGHT

I, STEVEN BARCZAK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.09 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.

SIGNATURE: *[Signature]* DATE: 07/14/2022

PRINT NAME: STEVEN BARCZAK  
 REGISTRATION NUMBER: S-2993-0008



THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION-EAU CLAIRE OFFICE  
 SIGNATURE: *[Signature]* DATE: 07/14/2022

PRINT NAME: HEATHER L. DRESEL



# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION TRANSPORTATION PROJECT PLAT TITLE SHEET

## 7560-05-24

### BLAIR - MERRILLAN

TREMPEALEAU/JACKSON CO LN TO IH 94

## STH 95 JACKSON COUNTY



#### CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		RAN MONUMENT (TO BE SET)	■
QUARTER LINE	---	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	□
SIXTEENTH LINE	---	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1/4" DIAMETER MAX)	IP
NEW REFERENCE LINE	---	SIXTEENTH CORNER MONUMENT		DI-I-PREMISE SIGN	
NEW R/W LINE	---	SIGN		COMPENSABLE	
EXISTING R/W OR HE LINE	---	ELECTRIC POLE		NON-COMPENSABLE	
PROPERTY LINE	---	TELEPHONE POLE			
LOT, TR & OTHER MINOR LINES	---	PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)			
SLOPE INTERCEPT	---	ACCESS RESTRICTED BY ACQUISITION			
CORPORATE LIMITS	---	NO ACCESS (BY STATUTORY AUTHORITY)			
UNDERGROUND FACILITY (COMMUNICATIONS, UTILITIES, ETC.)	---	ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
NEW R/W (FEE OR HE) (WATCHING WIRES BY OWNER)	---	NO ACCESS (NEW HIGHWAY)			
TEMPORARY LIMITED EASEMENT AREA	---	PARCEL NUMBER (25)		UTILITY NUMBER (40)	
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---	PARALLEL OFFSETS			
TRANSMISSION STRUCTURES	---				
BUILDING					
BRIDGE					

#### CONVENTIONAL ABBREVIATIONS

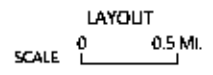
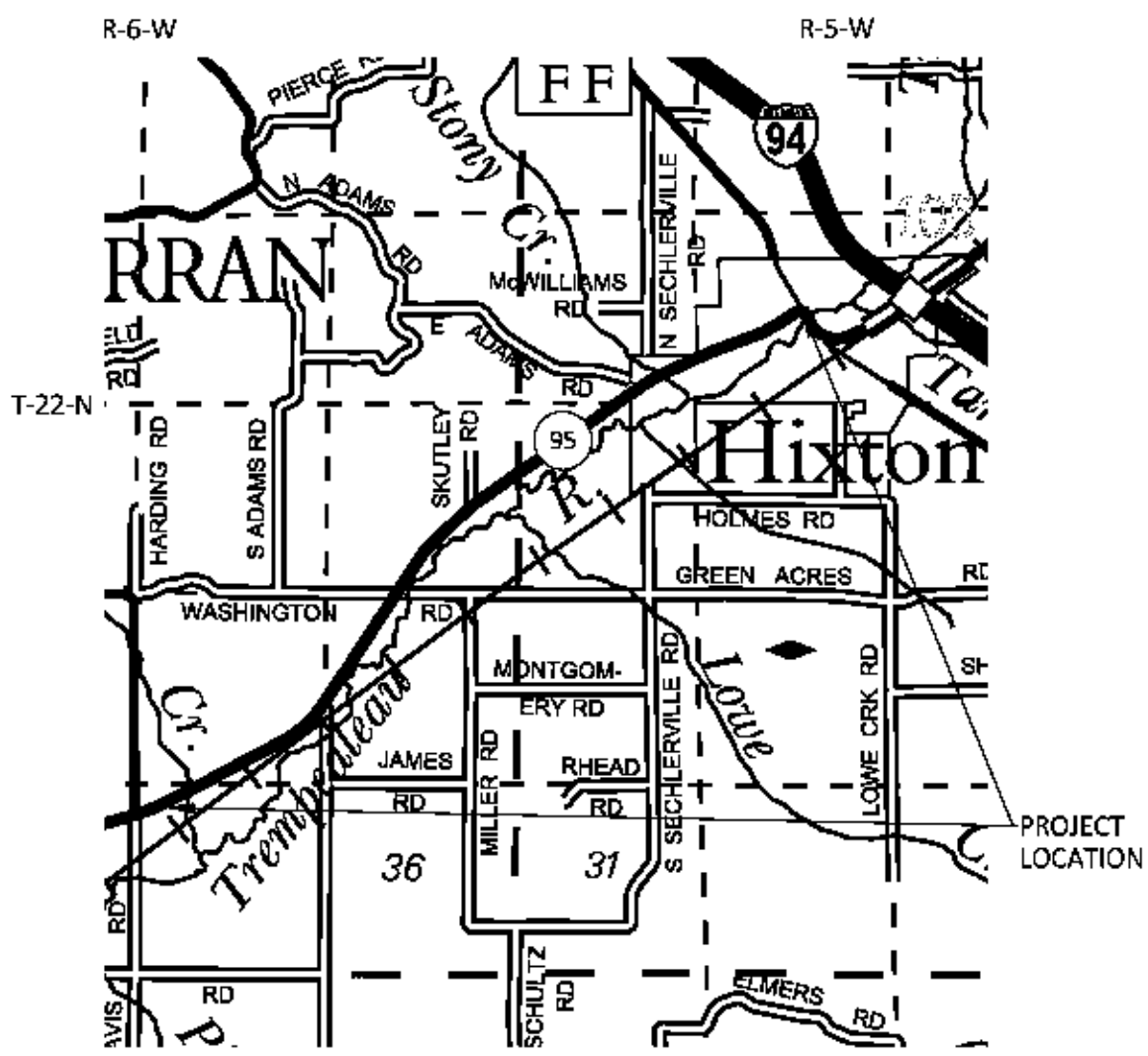
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORD VALUE	RV
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	REMAINING	REM
CERTIFIED SURVEY MAP	CSM	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
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	TRANSPORTATION PROJECT PLAT	TPP
HIGHWAY EASEMENT	HE	UNITED STATES HIGHWAY	USH
IDENTIFICATION	ID	VOLUME	V
LAND CONTRACT	LC		
LEFT	LT		
MEASURED VALUE	(M)		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NCS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

#### CURVE DATA

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

#### CONVENTIONAL UTILITY SYMBOLS

	WATER
	GAS
	TELEPHONE
	OVERHEAD TRANSMISSION LINES
	ELECTRIC CABLE TELEVISION
	FIBER OPTIC
	SANITARY SEWER
	STORM SEWER



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 7560-05-24.

#### NOTES:

- POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), JACKSON COUNTY, NAD 83 (2011) IN US SURVEY 1661. 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 4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.
- ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.
- RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.
- DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO 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 ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.
- FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN THE NW REGION IN EAU CLAIRE.
- PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.
- INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

PROJECT NUMBER 7560-05-24 - 4.01  
SHEET 2 OF 2  
AMENDMENT NO:

**TRANSPORTATION PROJECT PLAT NO: 7560-05-24 - 4.02**

THAT PART OF SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 18, TOWNSHIP 22 NORTH, RANGE 5 WEST VILLAGE OF HIXTON, JACKSON COUNTY, WISCONSIN.

RELOCATION ORDER STH 95 BLAIR-MERRILLAN (TREMPEALEAU/JACKSON CO LN TO IH 94) JACKSON COUNTY TO PROPERLY ESTABLISH, LAYOUT, 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 PROVISION 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	OWNER(S)	INTEREST REQUIRED	R/W NEW ACRES	R/W EXISTING	R/W TOTAL ACRES	TITLE ACRES
2	ANNETT TRAUTLEIN	FEE	0.003	-	0.003	-

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN JACKSON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 410047.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), JACKSON COUNTY, NAD 83 (2011) U.S. 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 4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED 98 OR TO THE COMPLETION OF THE PROJECT.

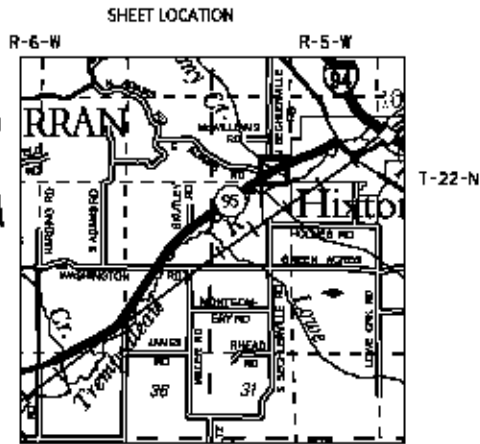
FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN THE NW REGION IN EAU CLAIRE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 95 ESTABLISHED FROM PREVIOUS PROJECTS PLAT W/ SC 5082 AND 7560 D6 21.

PROJECT BASELINE IS NOT CORRECT WITH EXISTING CENTERLINE OF STH 95.

Document Number: 410789  
 Plot Page:  
 Sheet Name:  
 Registrar of Deeds:  
 Jackson County, WI  
 Recorded: 09/26/2022 08:29 AM  
 Recording Fee Paid: 25.00  
 Number of Pages: 1  
 \*ELECTRONICALLY RECORDED\*

RESERVED FOR REGISTER OF DEEDS  
 PROJECT NUMBER 7560-05-24-4.02  
 AMENDMENT NO. \_\_\_\_\_



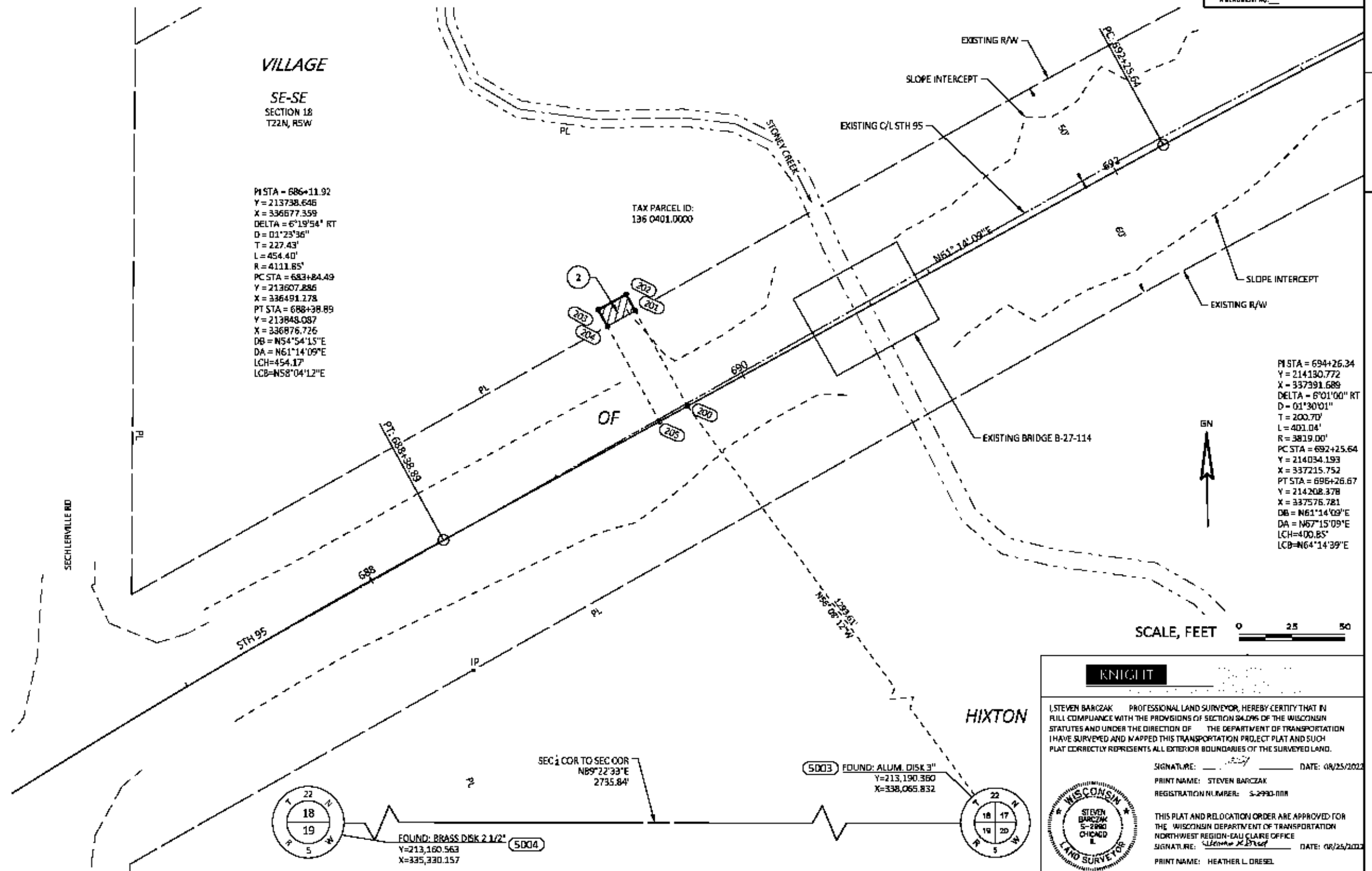
LAYOUT NOT TO SCALE

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y COORDS	X COORDS
200	689+70.00	0.00'	213911.178	336991.658
201	689+70.00	-51.25'	213956.114	336966.991
202	689+70.00	-60.00'	213963.775	336962.786
203	689+55.00	-60.00'	213956.557	336949.637
204	689+55.00	-51.09'	213948.749	336953.922
205	689+55.00	0.00'	213909.961	336978.510

COURSE TABLE			
POINT	POINT	COURSE	DISTANCE
200	201	N28°45'51"W	51.26'
201	202	N28°45'51"W	8.74'
202	203	S61°14'09"W	15.00'
203	204	S28°45'51"E	8.91'
204	205	S28°45'55"E	51.09'
205	200	N61°14'09"E	15.00'

PI STA = 686+11.92  
 Y = 213738.646  
 X = 336677.359  
 DELTA = 6°19'54" RT  
 D = 01°29'36"  
 T = 227.43'  
 L = 454.40'  
 R = 4111.85'  
 PC STA = 683+84.49  
 Y = 213607.886  
 X = 336491.278  
 PT STA = 688+38.89  
 Y = 213848.087  
 X = 336876.726  
 DB = N54°54'15"E  
 DA = N61°14'09"E  
 LCH = 454.17'  
 LCB = N58°04'12"E

PI STA = 694+26.34  
 Y = 214130.772  
 X = 337391.689  
 DELTA = 6°01'00" RT  
 D = 01°30'01"  
 T = 200.70'  
 L = 401.04'  
 R = 3819.00'  
 PC STA = 692+25.64  
 Y = 214034.193  
 X = 337215.752  
 PT STA = 696+26.67  
 Y = 214208.378  
 X = 337576.781  
 DB = N61°14'09"E  
 DA = N67°15'09"E  
 LCH = 400.85'  
 LCB = N64°14'39"E



**KNIGHT**

STEVEN BARCZAK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.09 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.

SIGNATURE: *[Signature]* DATE: 08/25/2022  
 PRINT NAME: STEVEN BARCZAK  
 REGISTRATION NUMBER: S-2993-0000

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION-EAU CLAIRE OFFICE

SIGNATURE: *[Signature]* DATE: 08/25/2022  
 PRINT NAME: HEATHER L. DRESEL

WISCONSIN LAND SURVEYOR  
 STEVEN BARCZAK  
 S-2993-0000

**TRANSPORTATION PROJECT PLAT NO: 7560-05-24 - 4.03**

THAT PART OF NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 17, TOWNSHIP 22 NORTH, RANGE 5 WEST VILLAGE OF HIXTON, JACKSON COUNTY, WISCONSIN.

RELOCATION ORDER STH 95 BLAIR-MERRILLAN (TREMPEALEAU/JACKSON CO LN TO IH 94) JACKSON COUNTY

TO PROPERLY ESTABLISH, LAYOUT, 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:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISION OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN JACKSON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 410047.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), JACKSON COUNTY, NAD 83 (2011) U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

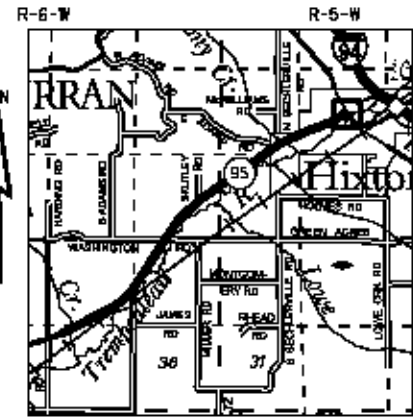
ALL NEW RIGHT OF WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED 98 OR TO THE COMPLETION OF THE PROJECT.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN THE NW REGION IN EAU CLAIRE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:  
EXISTING HIGHWAY RIGHT OF WAY FOR ST-195 ESTABLISHED FROM PREVIOUS PROJECTS PLAT WISC 5082 AND 7560 U6 21; PLAT OF SURVEY DATED MARCH 13, 2018 AND RECORDED IN VOLUME 1 PAGE 089; PLAT OF W. JAMESPORT, FILED FOR RECORD 16 ON OCTOBER 16, 1862.

Document Number: 418790  
Vol: Page:  
Sheri Berg  
Register of Deeds  
Jackson County, WI  
Recorded: 09/16/2022 08:28 AM  
Recording Fee Paid: 25.00  
Number of Pages: 3  
\*ELECTRONICALLY RECORDED\*

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	OWNER(S)	INTEREST REQUIRED	R/W NEW ACRES	R/W EXISTING	R/W TOTAL ACRES	TILE ACRES
3	RCD PROPERTIES INC.	TLE	-	-	-	0.004

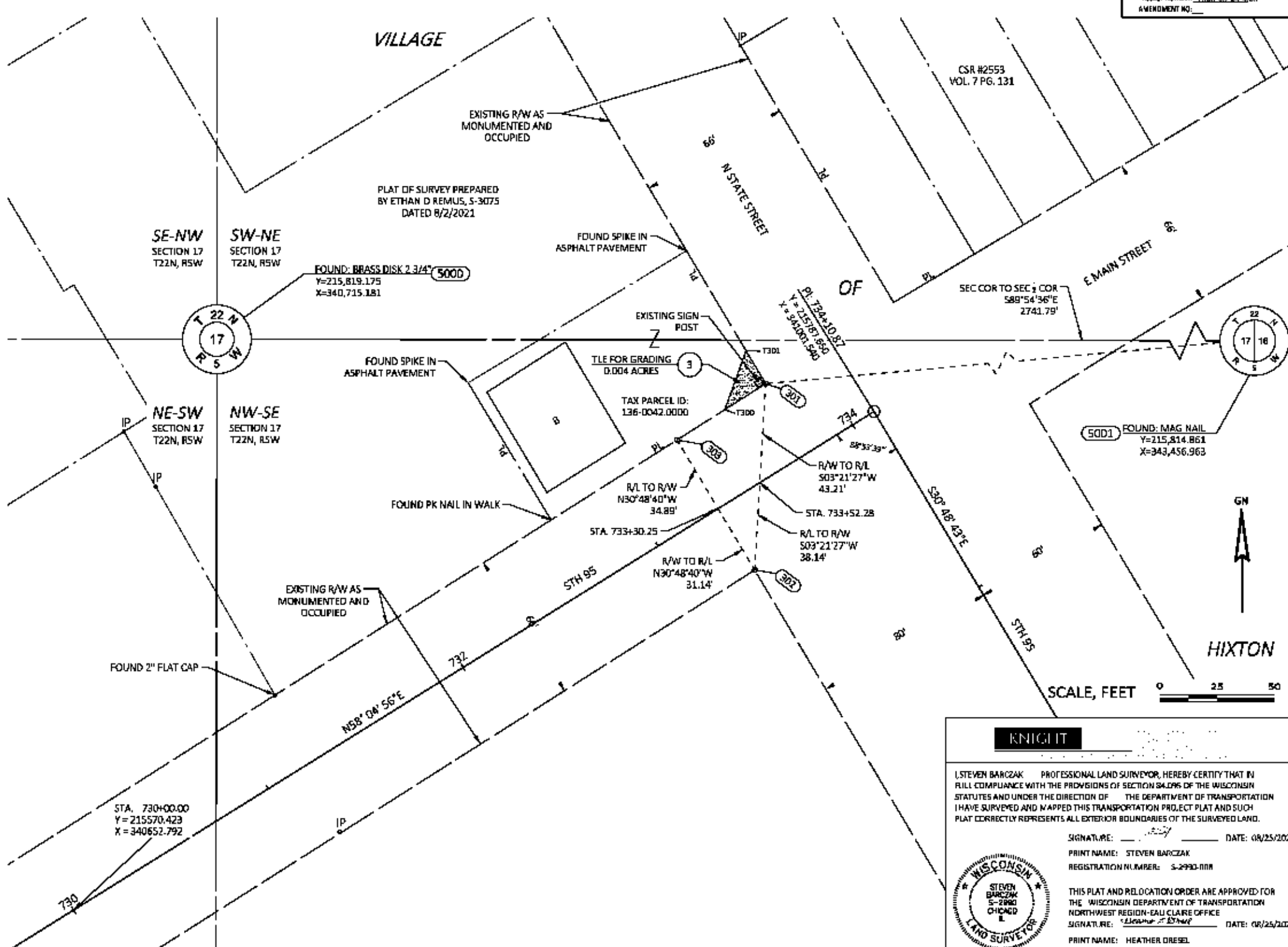


SHEET LOCATION  
LAYOUT NOT TO SCALE

TILE STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y COORDS	X COORDS
T300	733+56.16	-35.10'	215798.516	340936.549
T301	733+77.56	-51.96'	215814.142	340945.802

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	Y COORDS	X COORDS
301	733+77.23	-35.28'	215799.807	340954.337
302	733+30.25	31.13'	215718.601	340949.573
303	733+30.25	-34.89'	215775.308	340915.754

COURSE TABLE			
POINT	POINT	COURSE	DISTANCE
5001	301	S89°39'19"W	2502.67'
303	301	N57°35'09"E	45.70'



RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 7560-05-24-4.03  
AMENDMENT NO. \_\_\_\_\_

**KNIGHT**

STEVEN BARCZAK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.09 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.

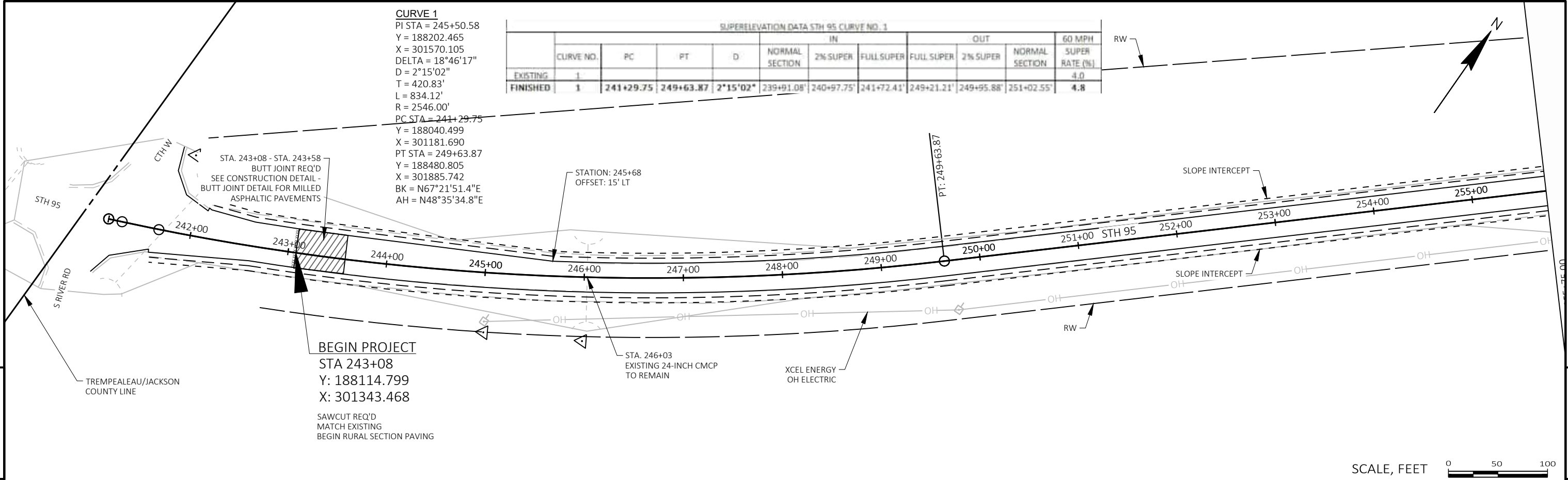
SIGNATURE: *[Signature]* DATE: 08/25/2022  
PRINT NAME: STEVEN BARCZAK  
REGISTRATION NUMBER: S-2993-0008

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION-EAU CLAIRE OFFICE  
SIGNATURE: *[Signature]* DATE: 08/25/2022  
PRINT NAME: HEATHER DRESEL

WISCONSIN LAND SURVEYOR

**CURVE 1**  
 PI STA = 245+50.58  
 Y = 188202.465  
 X = 301570.105  
 DELTA = 18°46'17"  
 D = 2°15'02"  
 T = 420.83'  
 L = 834.12'  
 R = 2546.00'  
 PC STA = 241+29.75  
 Y = 188040.499  
 X = 301181.690  
 PT STA = 249+63.87  
 Y = 188480.805  
 X = 301885.742  
 BK = N67°21'51.4"E  
 AH = N48°35'34.8"E

SUPERELEVATION DATA STH 95 CURVE NO. 1											
	CURVE NO.	PC	PT	D	NORMAL SECTION	IN	2% SUPER	FULL SUPER	FULL SUPER	OUT	60 MPH SUPER RATE (%)
EXISTING	1										4.0
FINISHED	1	241+29.75	249+63.87	2°15'02"	239+91.08'	240+97.75'	241+72.41'	249+21.21'	249+95.88'	251+02.55'	4.8



SCALE, FEET 0 50 100

5

5

**BEGIN PROJECT**  
 STA 243+08  
 Y: 188114.799  
 X: 301343.468  
 SAWCUT REQ'D  
 MATCH EXISTING  
 BEGIN RURAL SECTION PAVING

REMOVING GUARDRAIL - STA. 259+80 - 260+49 LT  
 MGS GUARDRAIL TERMINAL EAT  
 MGS THRIE BEAM TRANSITION

STA. 261+75  
 BASE AGG. FE

REMOVING GUARDRAIL STA. 261+03 - 261+56 LT  
 MGS THRIE BEAM TRANSITION  
 MGS GUARDRAIL SHORT RADIUS - 25 LF (RADIUS 16 FT)  
 MGS GUARDRAIL 3 - 28.1 LF  
 MGS SHORT RADIUS TERMINAL

STA. 259+90 - STA. 260+41  
 BUTT JOINT REQ'D  
 SEE CONSTRUCTION DETAIL -  
 BUTT JOINT DETAIL FOR MILLED  
 ASPHALTIC PAVEMENTS

REMOVING GUARDRAIL - STA. 259+65 - 260+34 RT  
 MGS GUARDRAIL TERMINAL EAT  
 MGS GUARDRAIL 3 - 25 LF  
 MGS THRIE BEAM TRANSITION

REMOVING GUARDRAIL - STA. 260+88 - 261+41 RT  
 MGS THRIE BEAM TRANSITION  
 MGS GUARDRAIL SHORT RADIUS - 25 LF (RADIUS 16 FT)  
 MGS GUARDRAIL 3 - 28.1 LF  
 MGS SHORT RADIUS TERMINAL

STA. 260+95 - STA. 261+46  
 BUTT JOINT REQ'D  
 SEE CONSTRUCTION DETAIL -  
 BUTT JOINT DETAIL FOR MILLED  
 ASPHALTIC PAVEMENTS

STA. 261+53  
 BASE AGG. FE

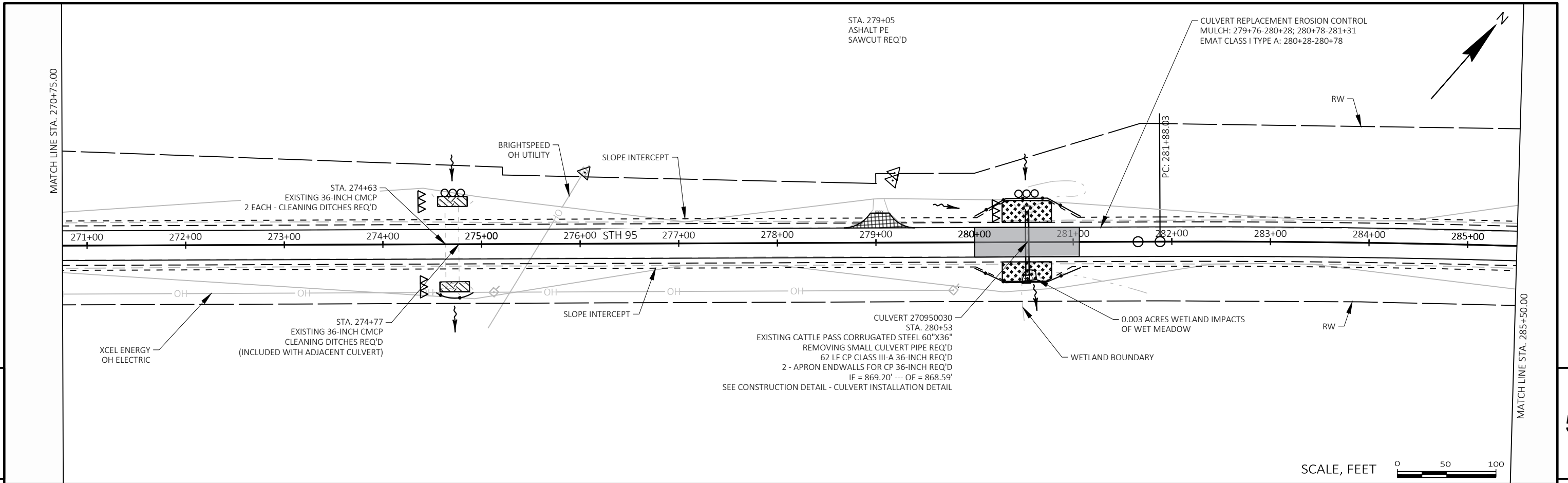
MATCH LINE STA. 255+75.00

MATCH LINE STA. 270+75.00

LEGEND	
	CLEANING DITCHES
	AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
	ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
	CULVERT REPLACEMENT
	BUTT JOINT
	EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	FLOW ARROW
	SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

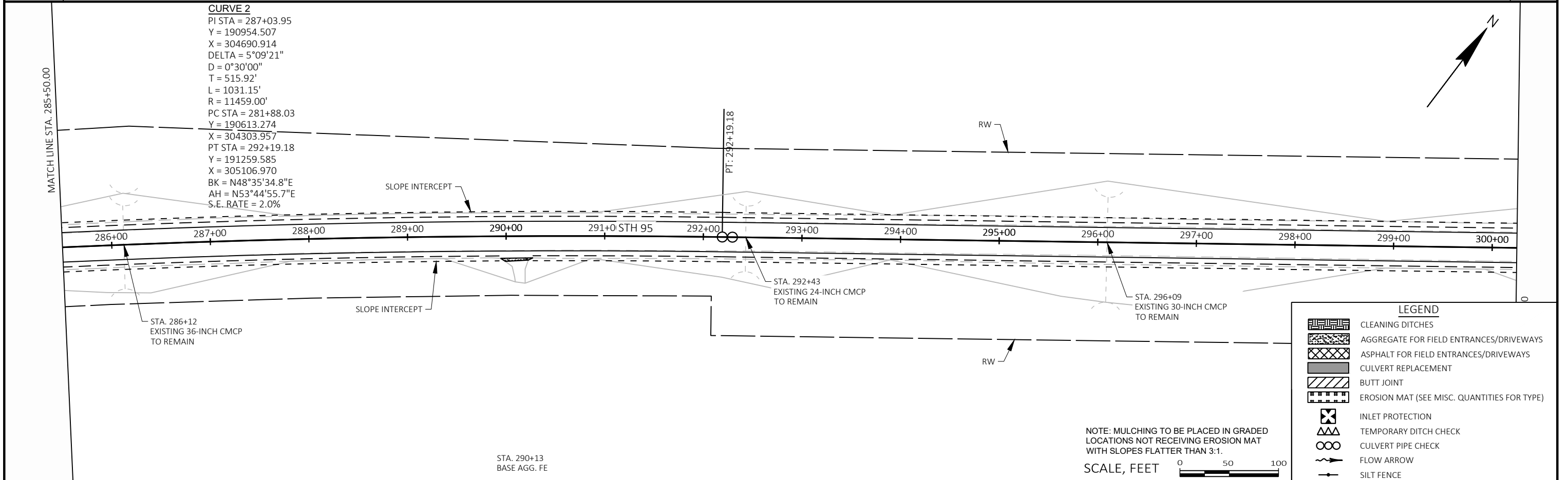
SCALE, FEET 0 50 100



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SCALE, FEET 0 50 100



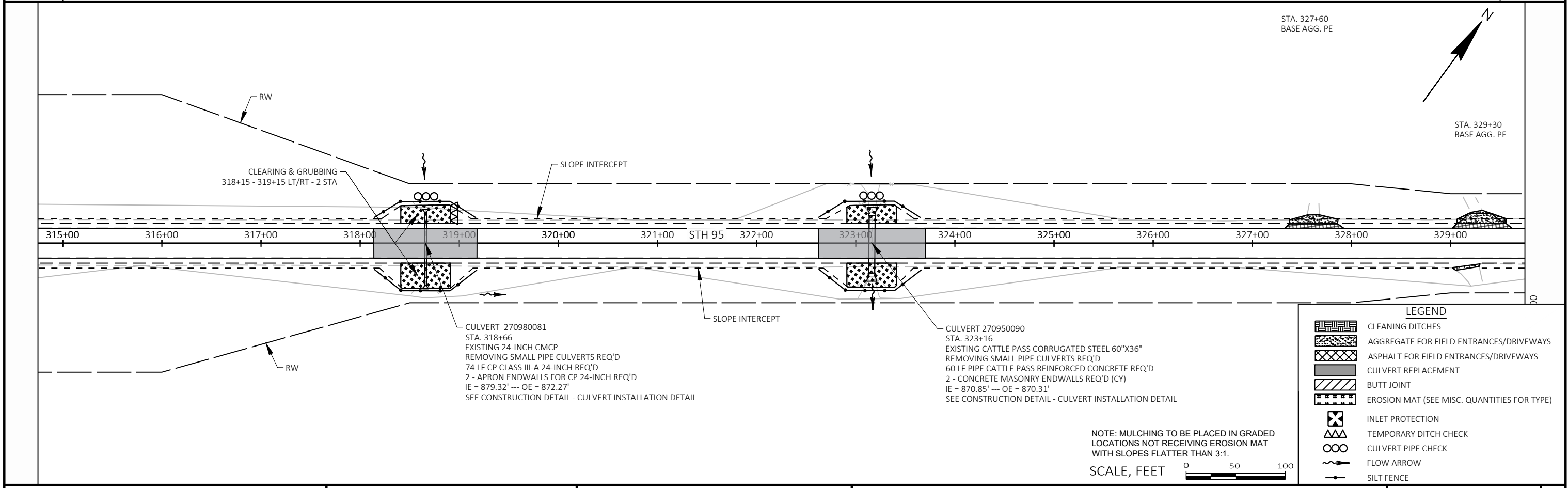
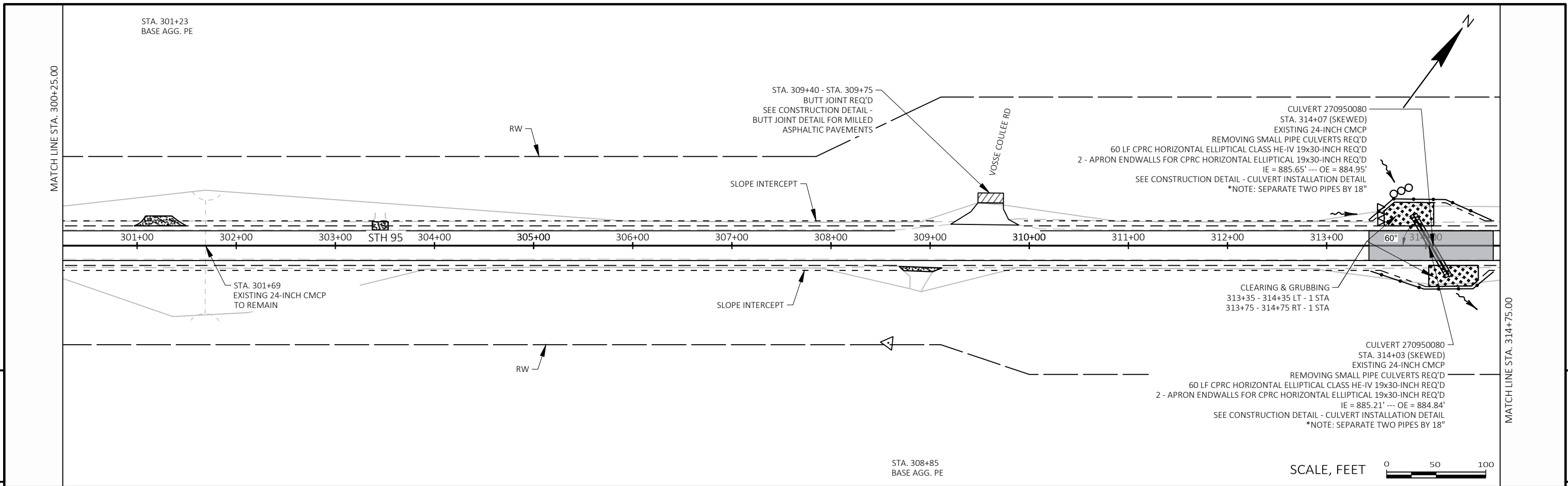
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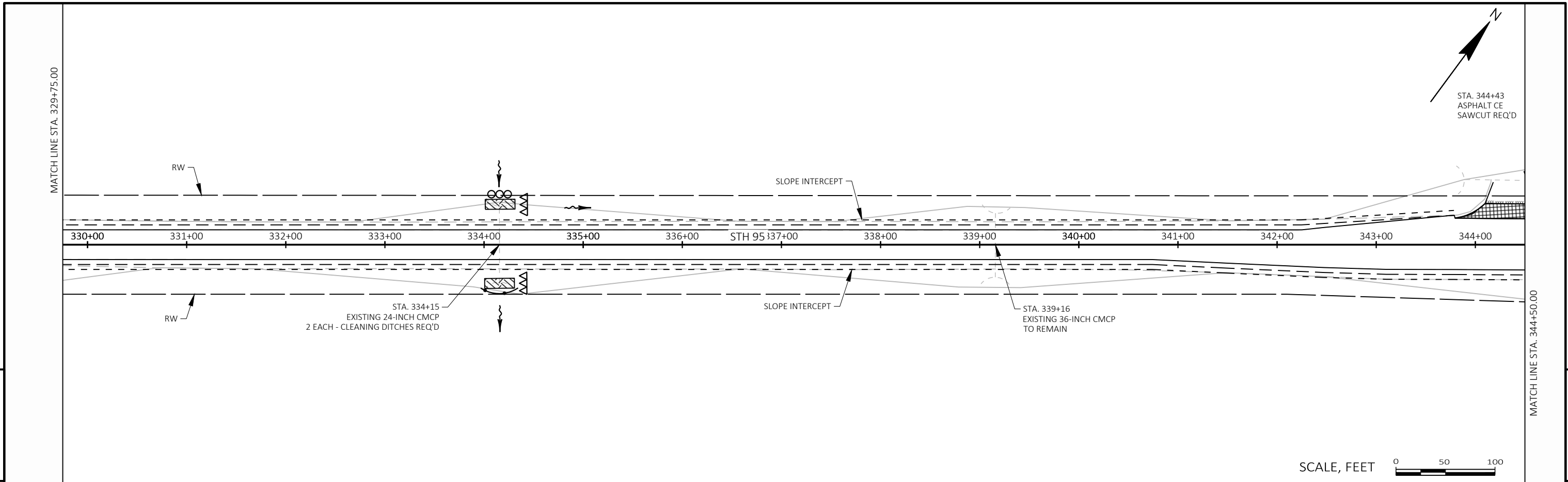
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SCALE, FEET 0 50 100

LEGEND	
	CLEANING DITCHES
	AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
	ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
	CULVERT REPLACEMENT
	BUTT JOINT
	EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	FLOW ARROW
	SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

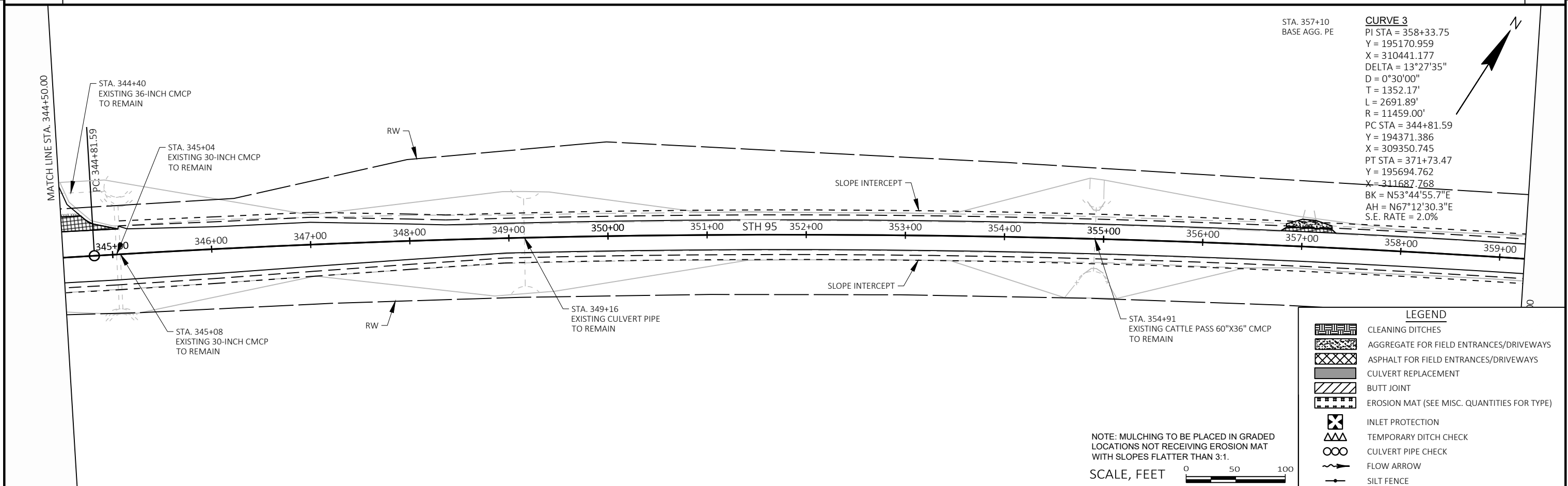




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SCALE, FEET 0 50 100



5

5

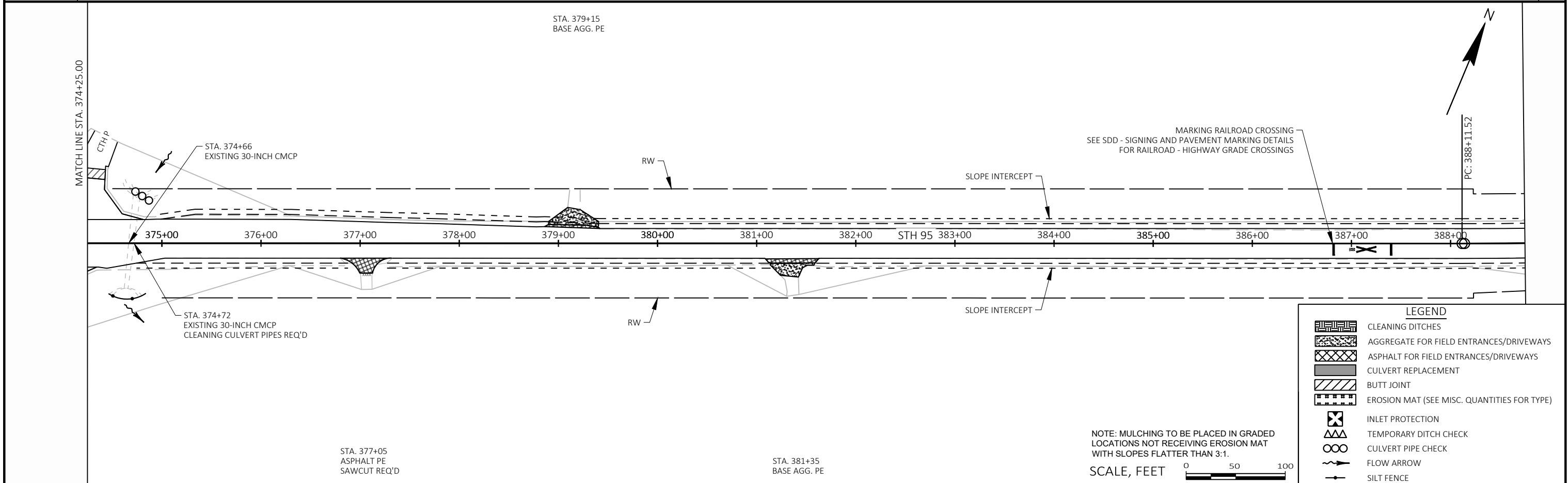
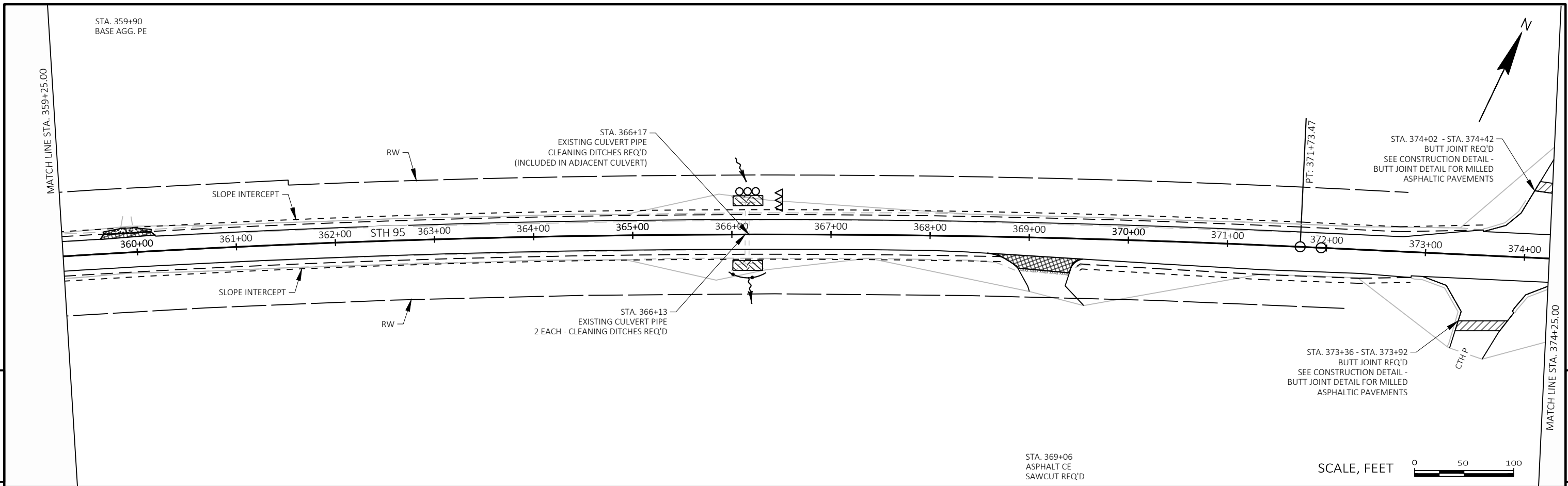
**LEGEND**

- CLEANING DITCHES
- AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
- ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
- CULVERT REPLACEMENT
- BUTT JOINT
- EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- FLOW ARROW
- SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

SCALE, FEET 0 50 100





**LEGEND**

	CLEANING DITCHES
	AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
	ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
	CULVERT REPLACEMENT
	BUTT JOINT
	EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	FLOW ARROW
	SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

SCALE, FEET 0 50 100

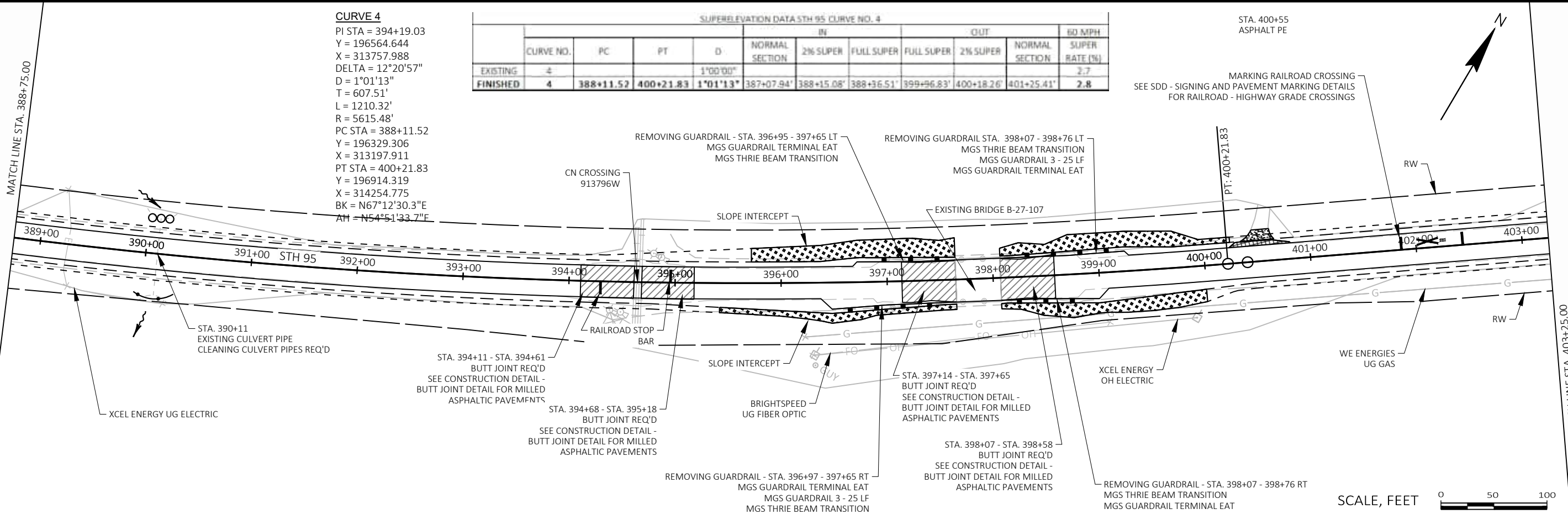


**CURVE 4**  
 PI STA = 394+19.03  
 Y = 196564.644  
 X = 313757.988  
 DELTA = 12°20'57"  
 D = 1°01'13"  
 T = 607.51'  
 L = 1210.32'  
 R = 5615.48'  
 PC STA = 388+11.52  
 Y = 196329.306  
 X = 313197.911  
 PT STA = 400+21.83  
 Y = 196914.319  
 X = 314254.775  
 BK = N67°12'30.3"E  
 AH = N54°51'33.7"E

SUPERELEVATION DATA STH 95 CURVE NO. 4											
	CURVE NO.	PC	PT	D	NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	BD MPH
EXISTING	4			1°00'00"							2.7
FINISHED	4	388+11.52	400+21.83	1°01'13"	387+07.94'	388+15.08'	388+36.51'	389+46.83'	400+18.20'	401+25.41'	2.8

STA. 400+55  
 ASPHALT PE

MARKING RAILROAD CROSSING  
 SEE SDD - SIGNING AND PAVEMENT MARKING DETAILS  
 FOR RAILROAD - HIGHWAY GRADE CROSSINGS



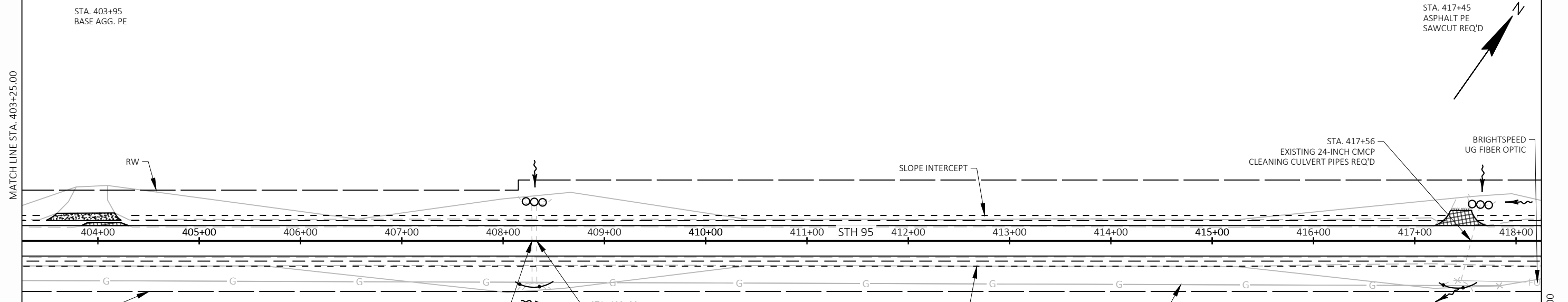
SCALE, FEET 0 50 100

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STA. 403+95  
 BASE AGG. PE

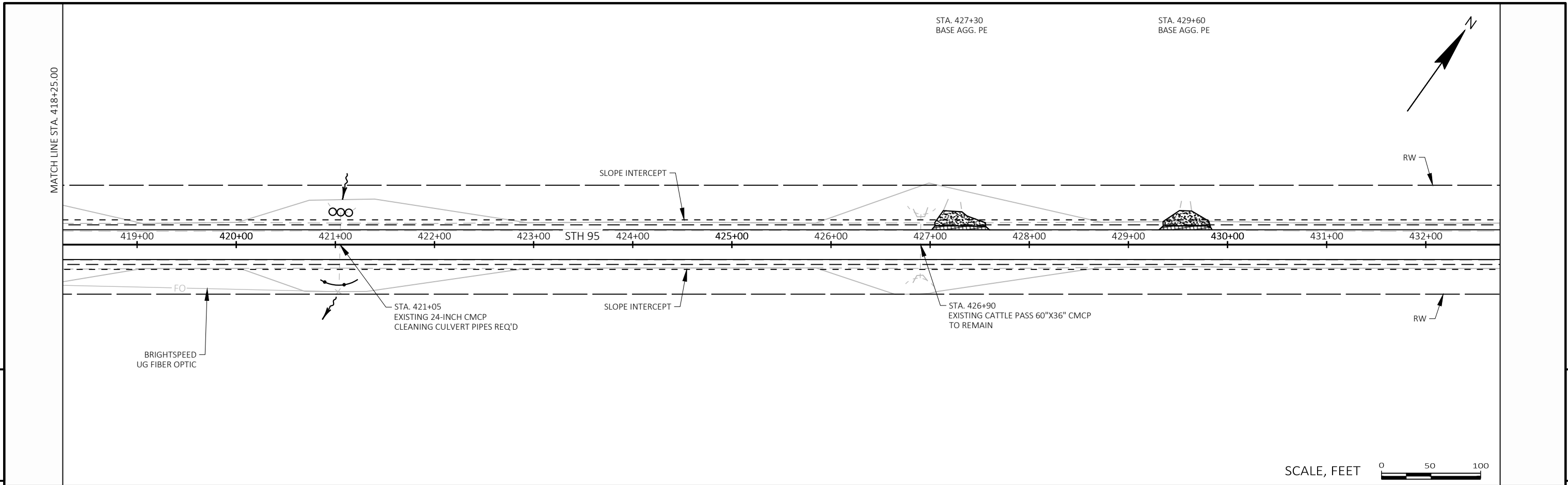
STA. 417+45  
 ASPHALT PE  
 SAWCUT REQ'D



NOTE: MULCHING TO BE PLACED IN GRADED  
 LOCATIONS NOT RECEIVING EROSION MAT  
 WITH SLOPES FLATTER THAN 3:1.

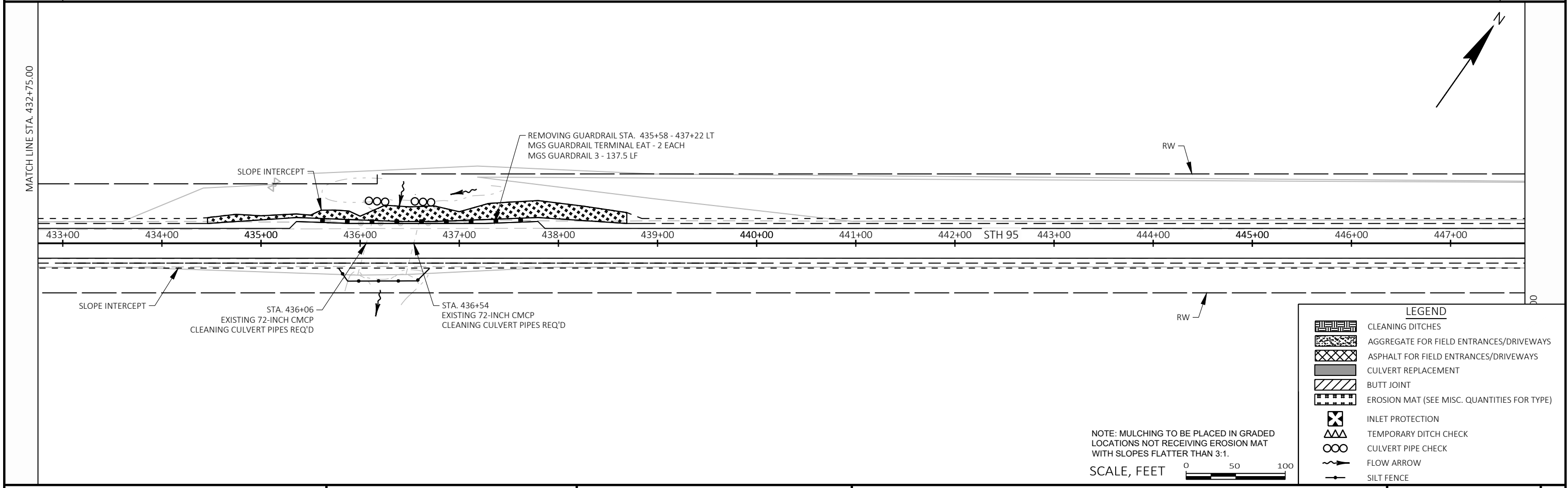
SCALE, FEET 0 50 100

LEGEND	
	CLEANING DITCHES
	AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
	ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
	CULVERT REPLACEMENT
	BUTT JOINT
	EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	FLOW ARROW
	SILT FENCE



5

5



**LEGEND**

- CLEANING DITCHES
- AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
- ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
- CULVERT REPLACEMENT
- BUTT JOINT
- EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- FLOW ARROW
- SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

SCALE, FEET

**LEGEND**

	CLEANING DITCHES
	AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
	ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
	CULVERT REPLACEMENT
	BUTT JOINT
	EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	FLOW ARROW
	SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

MATCH LINE STA. 447+75.00

MATCH LINE STA. 462+50.00

448+00 449+00 450+00 451+00 452+00 STH 95 453+00 454+00 455+00 456+00 457+00 458+00 459+00 460+00 461+00 462+00

5

5

SCALE, FEET 0 50 100

**SUPERELEVATION DATA STH 95 CURVE NO. 5**

	CURVE NO.	PC	PT	D	IN				OUT		60 MPH SUPER RATE (%)
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	
EXISTING	5			2°00'00"							4.5
FINISHED	5	469+18.02	479+11.60	2°00'00"	467+82.53'	468+89.49'	469+59.01'	478+70.61'	479+40.13'	480+47.09'	4.6

**CURVE 5** PI STA = 474+19.85  
 Y = 201172.512  
 X = 320304.443  
 DELTA = 19°52'17"  
 D = 2°00'00"  
 T = 501.83'  
 L = 993.59'  
 R = 2864.83'  
 PC STA = 469+18.02  
 Y = 200883.664  
 X = 319894.073  
 PT STA = 479+11.60  
 Y = 201304.672  
 X = 320788.561  
 BK = N54°51'33.7"E  
 AH = N74°43'50.9"E

STA. 475+92 - STA. 476+20  
 BUTT JOINT REQ'D  
 SEE CONSTRUCTION DETAIL -  
 BUTT JOINT DETAIL FOR MILLED  
 ASPHALTIC PAVEMENTS

MATCH LINE STA. 462+50.00

MATCH LINE STA. 477+25.00

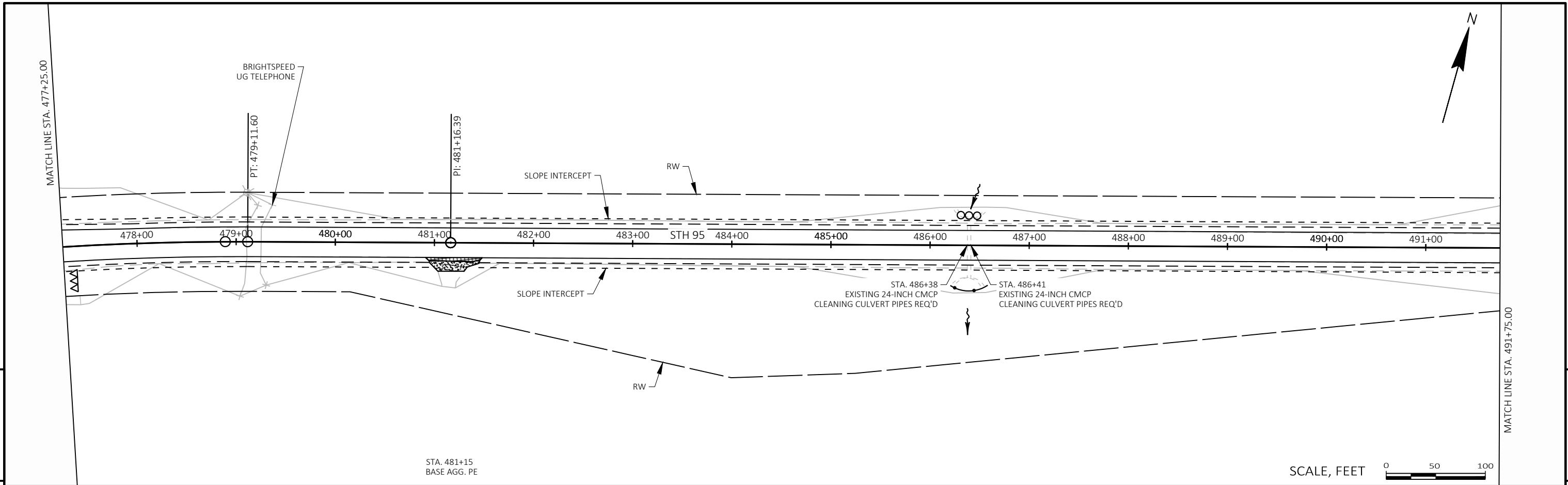
463+00 464+00 465+00 466+00 467+00 STH 95 468+00 469+00 470+00 471+00 472+00 473+00 474+00 475+00 476+00 477+00

STA. 466+05  
 EXISTING CATTLE PASS 60"x36" CMCP  
 TO REMAIN

STA. 472+64  
 EXISTING 24-INCH CMCP  
 CLEANING CULVERT PIPES REQ'D

STA. 477+05  
 EXISTING 24-INCH CMCP  
 1 EACH - CLEANING DITCHES REQ'D

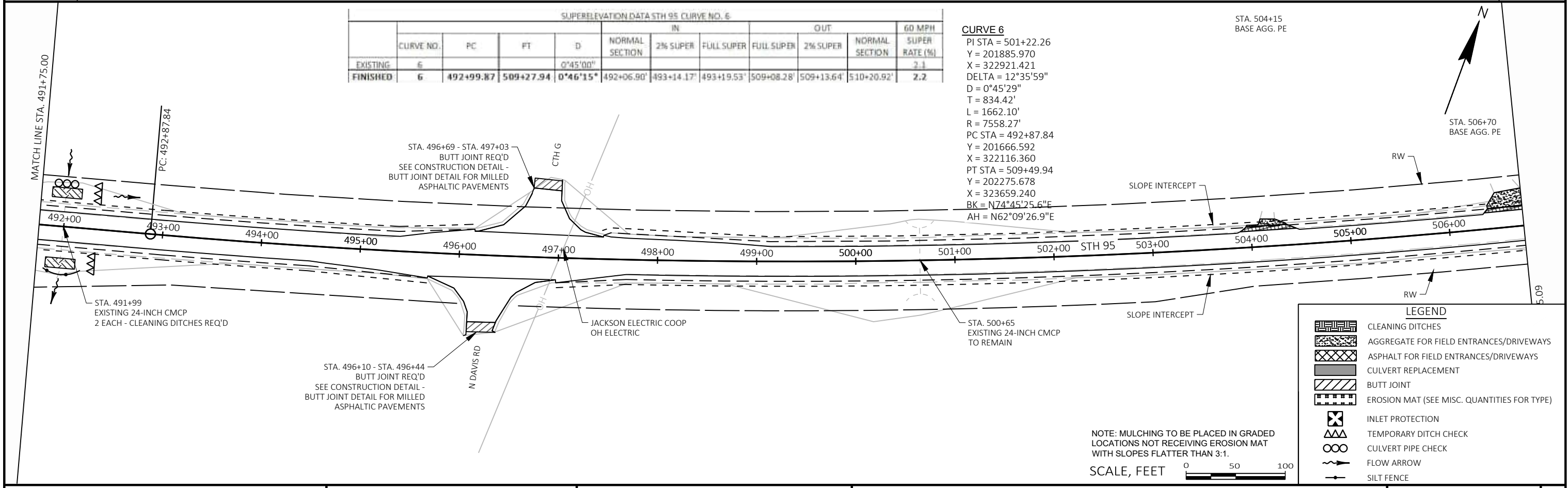
SCALE, FEET 0 50 100



**SUPERELEVATION DATA STH 95 CURVE NO. 6**

	CURVE NO.	PC	PT	D	NORMAL SECTION	IN			OUT		60 MPH SUPER RATE (%)
						2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	
EXISTING	6			0°45'00"							2.1
FINISHED	6	492+99.87	509+27.94	0°46'15"	492+06.90'	493+14.17'	493+19.53'	509+08.28'	509+13.64'	510+20.92'	2.2

**CURVE 6**  
 PI STA = 501+22.26  
 Y = 201885.970  
 X = 322921.421  
 DELTA = 12°35'59"  
 D = 0°45'29"  
 T = 834.42'  
 L = 1662.10'  
 R = 7558.27'  
 PC STA = 492+87.84  
 Y = 201666.592  
 X = 322116.360  
 PT STA = 509+49.94  
 Y = 202275.678  
 X = 323659.240  
 BK = N74°45'25.6"E  
 AH = N62°09'26.9"E

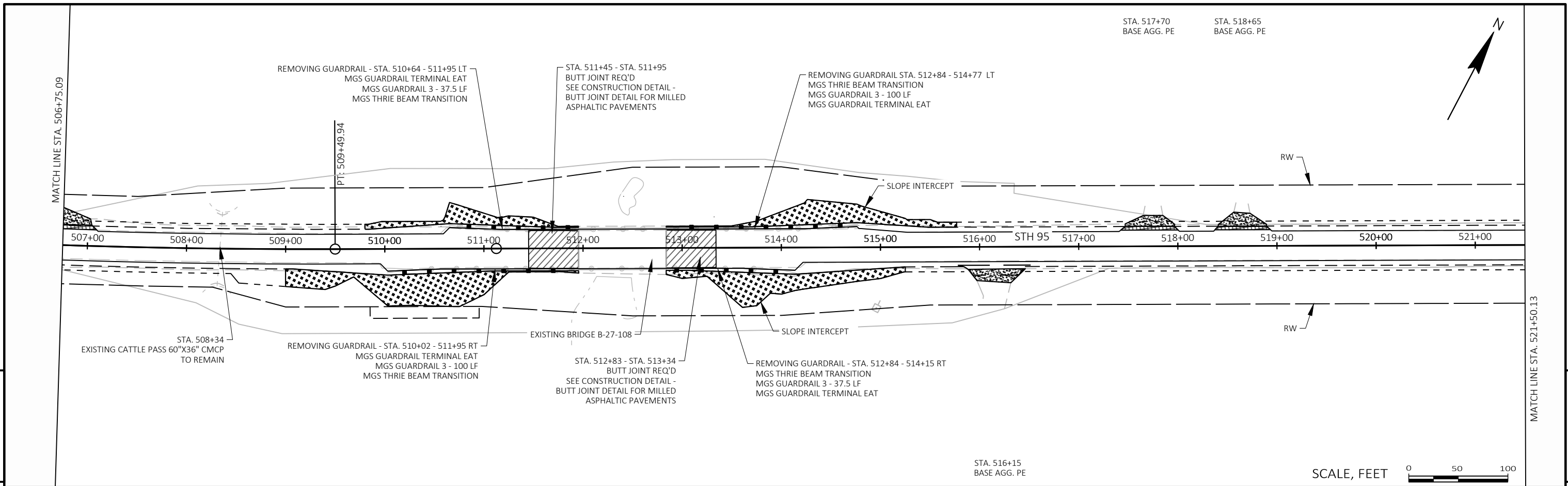


**LEGEND**

- CLEANING DITCHES
- AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
- ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
- CULVERT REPLACEMENT
- BUTT JOINT
- EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- FLOW ARROW
- SILT FENCE

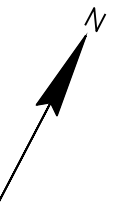
NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

SCALE, FEET 0 50 100



STA. 517+70  
BASE AGG. PE

STA. 518+65  
BASE AGG. PE



MATCH LINE STA. 506+75.09

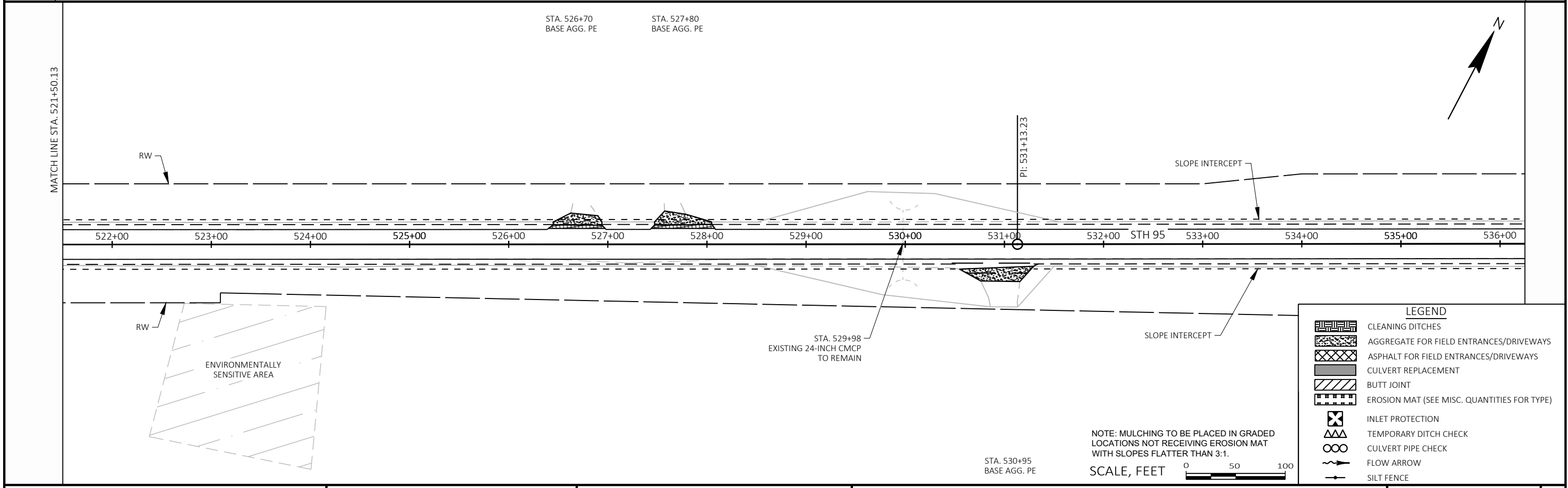
MATCH LINE STA. 521+50.13

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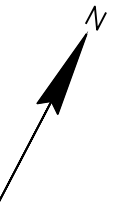
STA. 516+15  
BASE AGG. PE

SCALE, FEET



STA. 526+70  
BASE AGG. PE

STA. 527+80  
BASE AGG. PE



MATCH LINE STA. 521+50.13

STA. 530+95  
BASE AGG. PE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

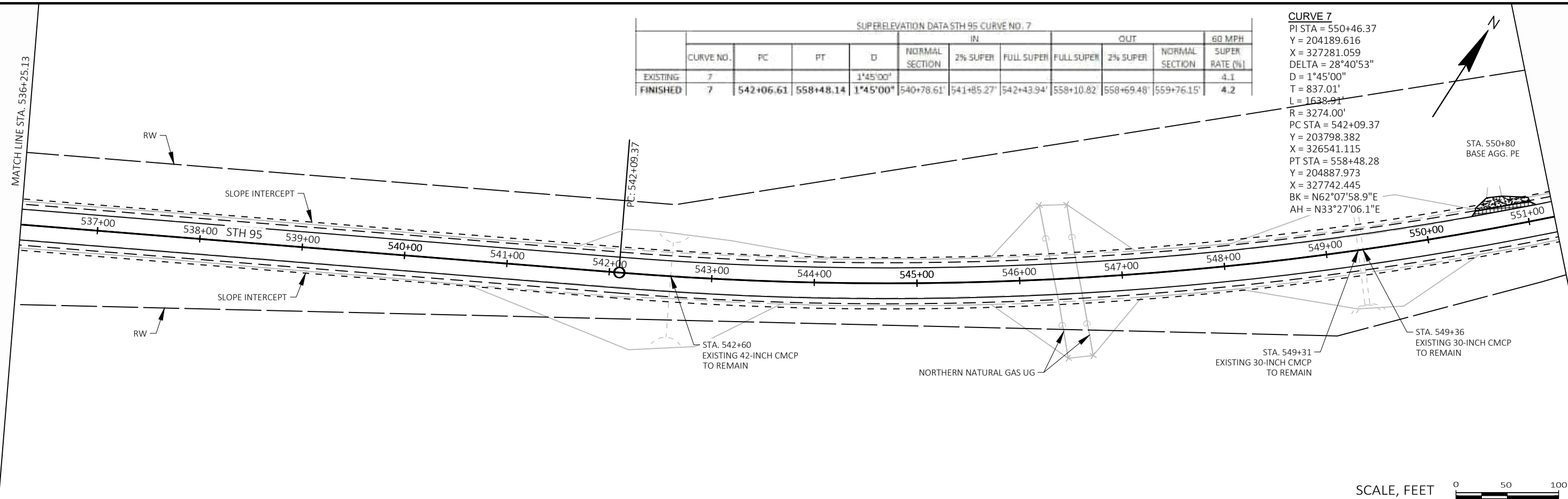
SCALE, FEET

LEGEND	
	CLEANING DITCHES
	AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
	ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
	CULVERT REPLACEMENT
	BUTT JOINT
	EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	FLOW ARROW
	SILT FENCE

PROJECT NO: 7560-05-74	HWY: STH 95	COUNTY: JACKSON	PLAN SHEETS	SHEET <b>E</b>
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SUPERELEVATION DATA STH 95 CURVE NO. 7											
	CURVE NO.	PC	PT	D	IN				OUT		60 MPH SUPER RATE (%)
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	
EXISTING	7			1°45'00"							4.1
FINISHED	7	542+06.61	558+48.14	1°45'00"	540+76.61	541+85.27	542+43.94	558+10.82	558+69.48	559+76.15	4.2

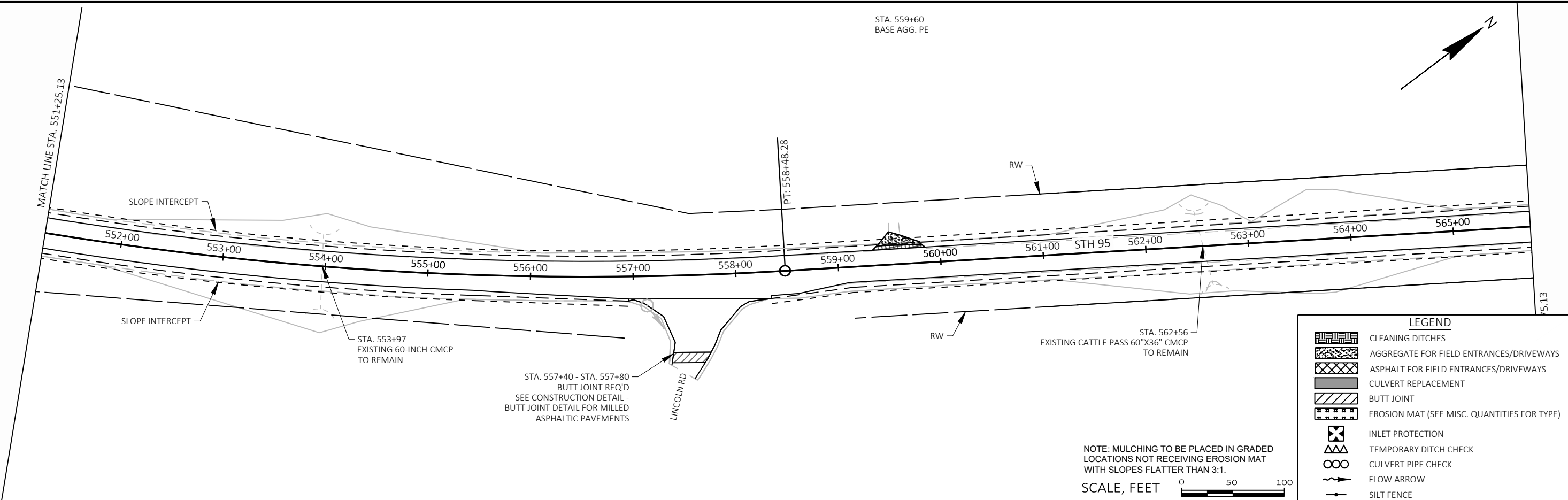
**CURVE 7**  
 PI STA = 550+46.37  
 Y = 204189.616  
 X = 327281.059  
 DELTA = 28°40'53"  
 D = 1°45'00"  
 T = 837.01'  
 L = 1638.91'  
 R = 3274.00'  
 PC STA = 542+09.37  
 Y = 203798.382  
 X = 326541.115  
 PT STA = 558+48.28  
 Y = 204887.973  
 X = 327742.445  
 BK = N62°07'58.9"E  
 AH = N33°27'06.1"E



SCALE, FEET 0 50 100

5

5



**LEGEND**

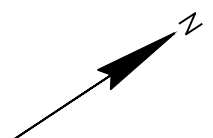
- CLEANING DITCHES
- AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
- ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
- CULVERT REPLACEMENT
- BUTT JOINT
- EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- FLOW ARROW
- SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

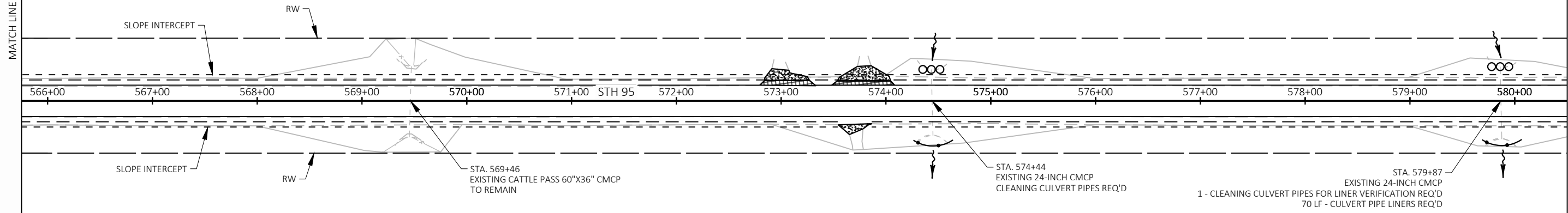
SCALE, FEET 0 50 100

STA. 573+05  
BASE AGG. PE

STA. 573+80  
BASE AGG. PE



MATCH LINE STA. 565+75.13



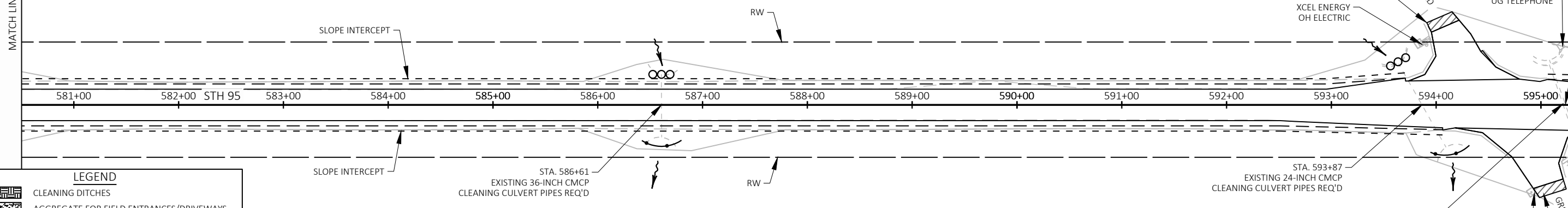
MATCH LINE STA. 580+50.13

5

5

SCALE, FEET

MATCH LINE STA. 580+50.13



MATCH LINE STA. 595+50.13

SCALE, FEET

**LEGEND**

- CLEANING DITCHES
- AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
- ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
- CULVERT REPLACEMENT
- BUTT JOINT
- EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- FLOW ARROW
- SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

PROJECT NO: 7560-05-74	HWY: STH 95	COUNTY: JACKSON	PLAN SHEETS	SHEET	<b>E</b>
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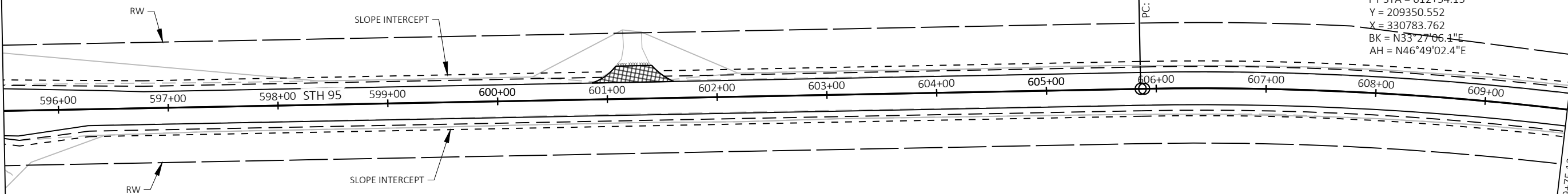
STA. 601+24  
ASPHALT PE  
SAWCUT REQ'D

SUPERELEVATION DATA STH 95 CURVE NO. 8											
	CURVE NO.	PC	PT	D	IN			OUT			60 MPH
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	8			2'00'00"							4.5
FINISHED	8	605+85.69	612+54.02	1'59'59"	604+50.21'	605+57.16'	606+26.68'	612+13.02'	612+82.54'	613+89.50'	4.6

**CURVE 8**  
 PI STA = 609+21.51  
 Y = 209120.832  
 X = 330538.985  
 DELTA = 13°21'56"  
 D = 1°59'59"  
 T = 335.69'  
 L = 668.33'  
 R = 2865.00'  
 PC STA = 605+85.82  
 Y = 208840.749  
 X = 330353.942  
 PT STA = 612+54.15  
 Y = 209350.552  
 X = 330783.762  
 BK = N33°27'06.4"E  
 AH = N46°49'02.4"E

MATCH LINE STA. 595+50.13

MATCH LINE STA. 609+75.13

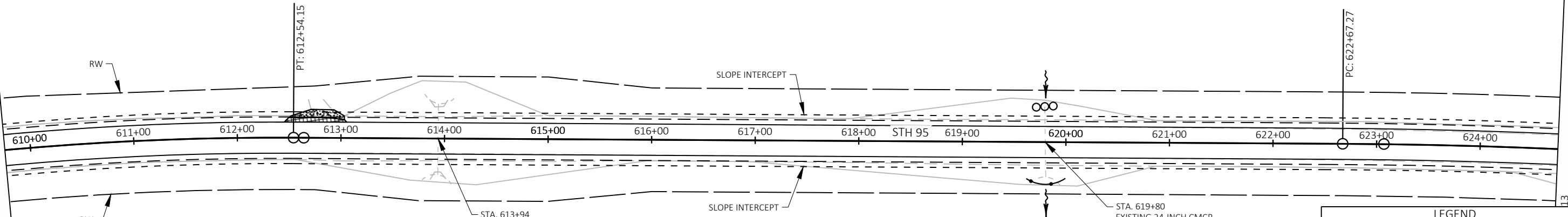


SCALE, FEET 0 50 100

STA. 612+75  
BASE AGG. PE

MATCH LINE STA. 609+75.13

13



NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

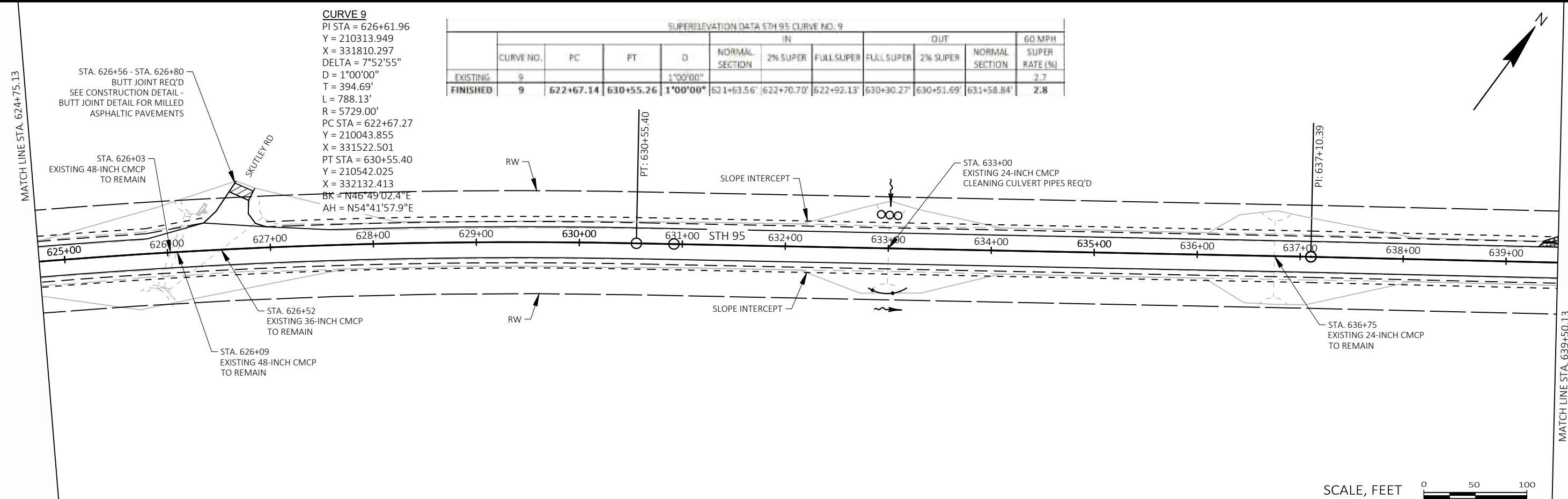
SCALE, FEET 0 50 100

LEGEND	
	CLEANING DITCHES
	AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
	ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
	CULVERT REPLACEMENT
	BUTT JOINT
	EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	FLOW ARROW
	SILT FENCE



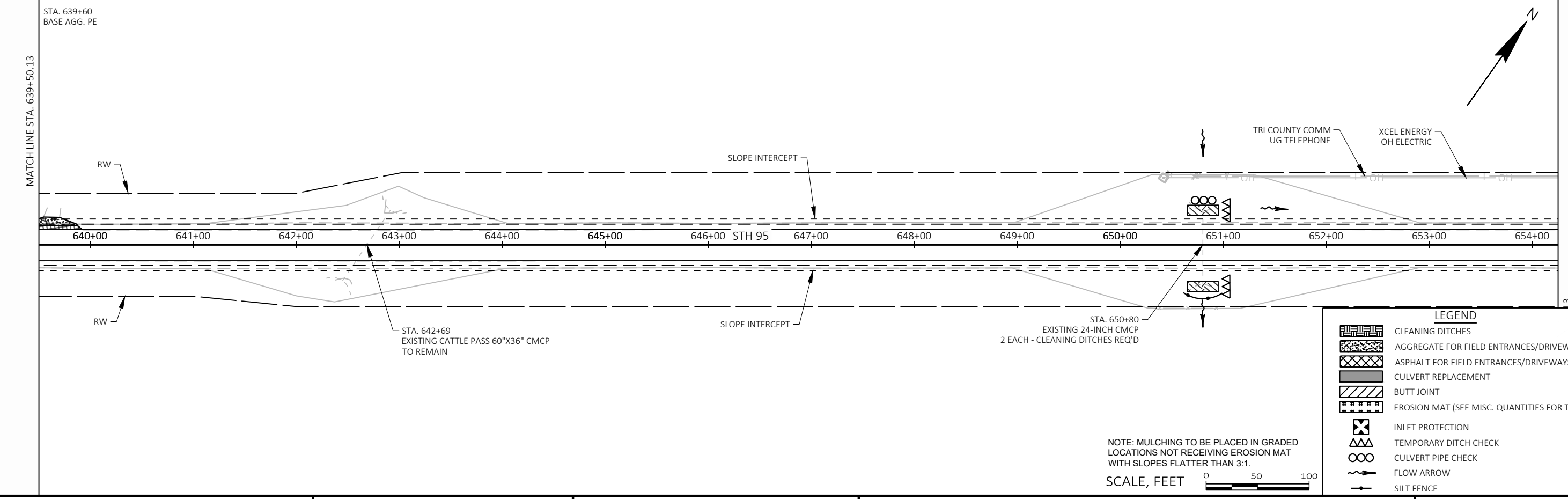
SUPERELEVATION DATA STH 95 CURVE NO. 9											
	CURVE NO.	PC	PT	D	NORMAL SECTION	IN 2% SUPER	FULL SUPER	FULL SUPER	OUT 2% SUPER	NORMAL SECTION	60 MPH SUPER RATE (%)
EXISTING	9			1'00'00"							2.7
FINISHED	9	622+67.14	630+55.26	1'00'00"	621+63.56	622+70.70'	622+92.13'	630+30.27'	630+51.69'	631+58.84'	2.8

**CURVE 9**  
 PI STA = 626+61.96  
 Y = 210313.949  
 X = 331810.297  
 DELTA = 7°52'55"  
 D = 1°00'00"  
 T = 394.69'  
 L = 788.13'  
 R = 5729.00'  
 PC STA = 622+67.27  
 Y = 210043.855  
 X = 331522.501  
 PT STA = 630+55.40  
 Y = 210542.025  
 X = 332132.413  
 BK = N46°49'02.4"E  
 AH = N54°41'57.9"E



5

5

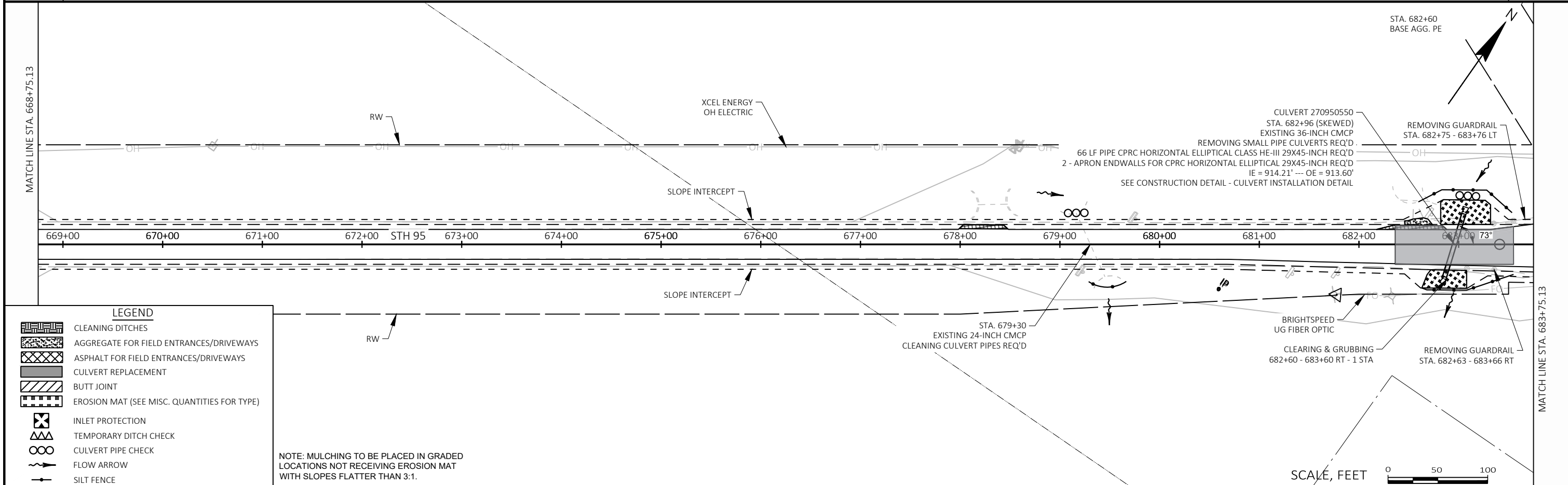
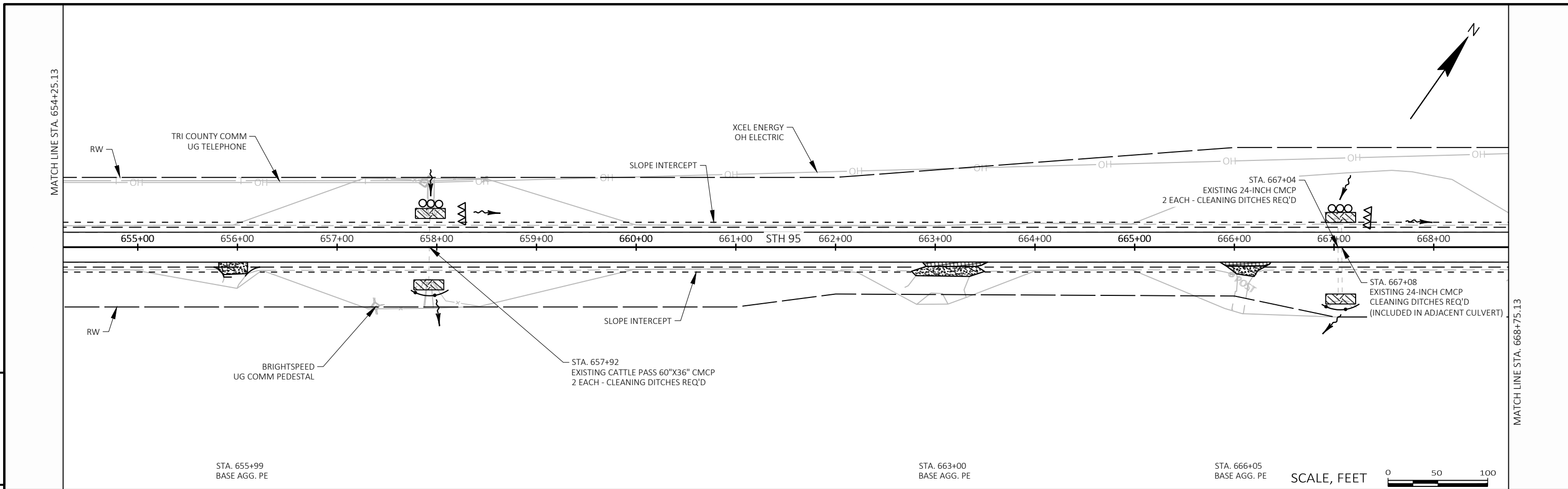


**LEGEND**

	CLEANING DITCHES
	AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
	ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
	CULVERT REPLACEMENT
	BUTT JOINT
	EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	FLOW ARROW
	SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

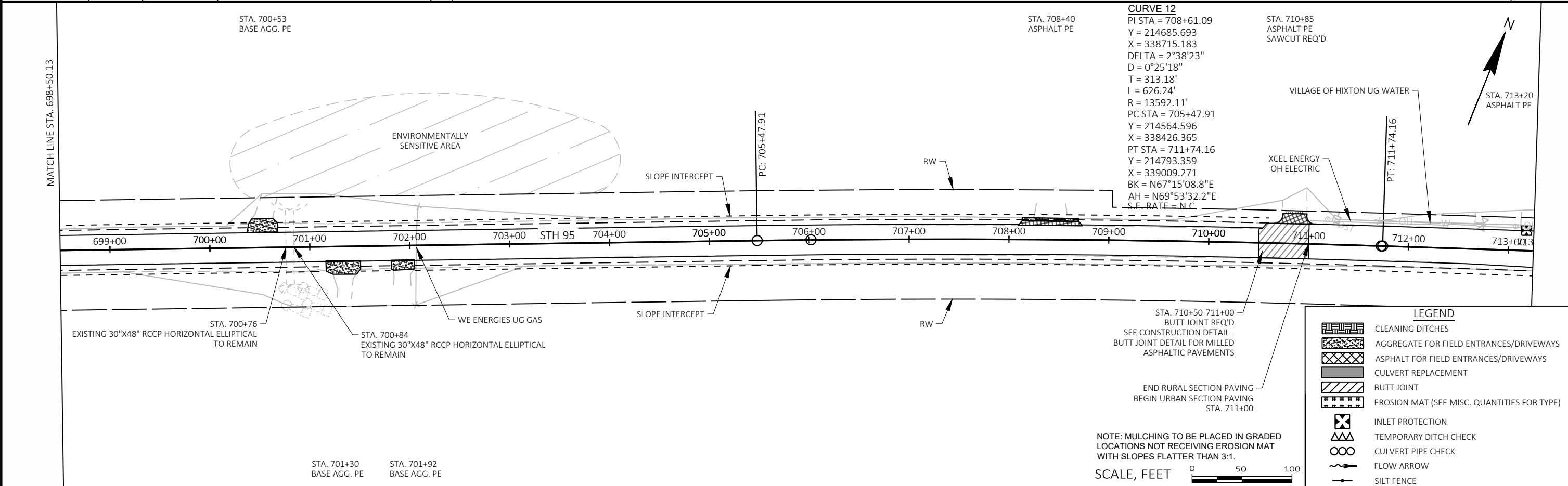
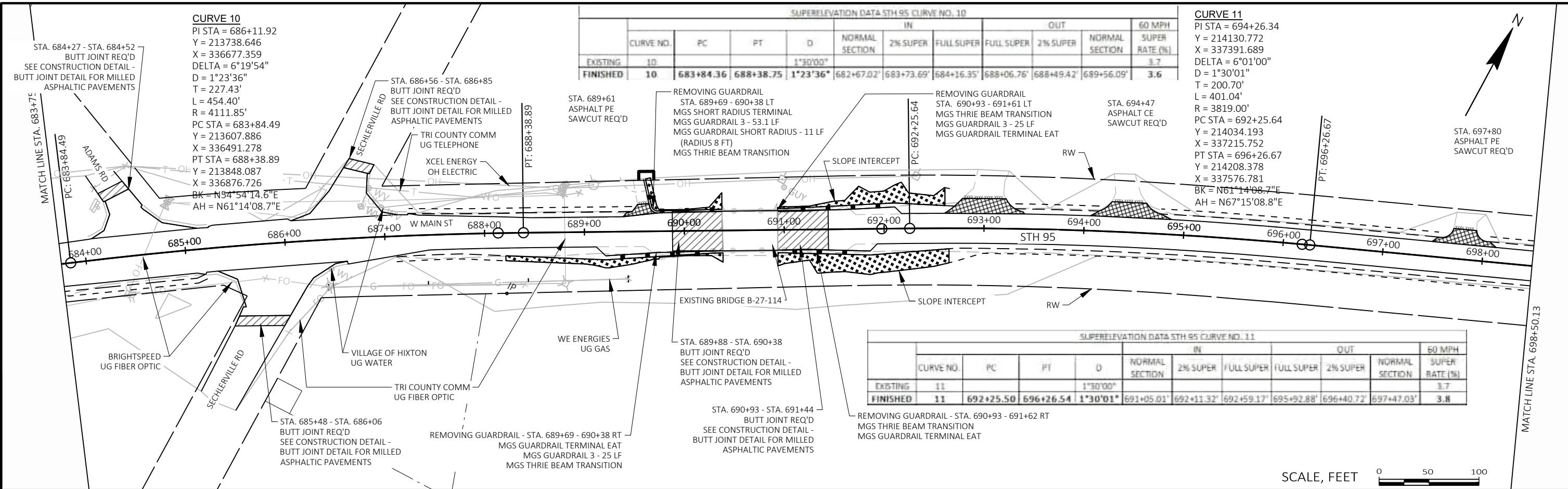
SCALE, FEET 0 50 100



**LEGEND**

	CLEANING DITCHES
	AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
	ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
	CULVERT REPLACEMENT
	BUTT JOINT
	EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	FLOW ARROW
	SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.



**LEGEND**

- CLEANING DITCHES
- AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
- ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
- CULVERT REPLACEMENT
- BUTT JOINT
- EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- FLOW ARROW
- SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

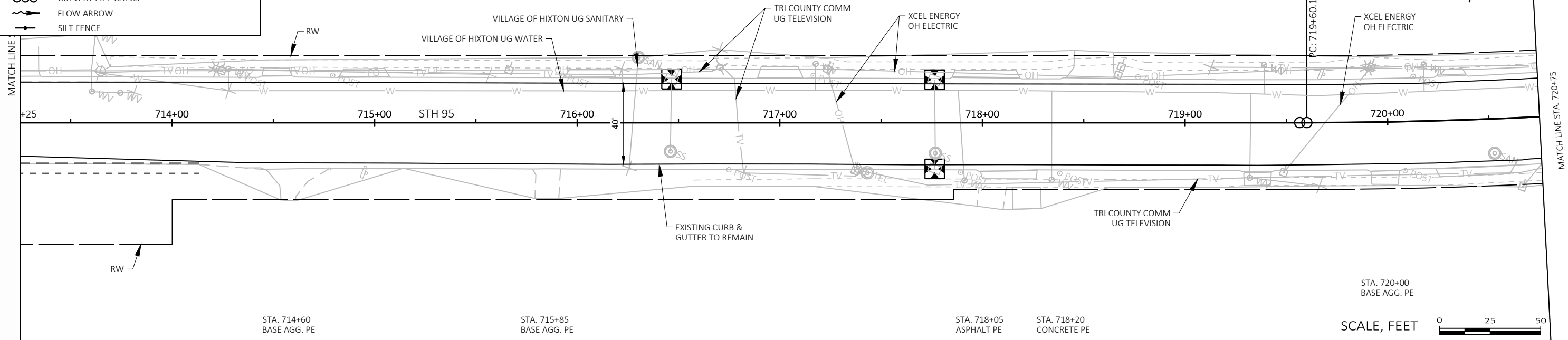
STA. 714+50 ASPHALT PE    STA. 714+95 ASPHALT PE

STA. 715+90 CONCRETE PE

STA. 717+00 ASPHALT PE

STA. 718+55 ASPHALT PE

STA. 720+25 ASPHALT PE



STA. 714+60 BASE AGG. PE

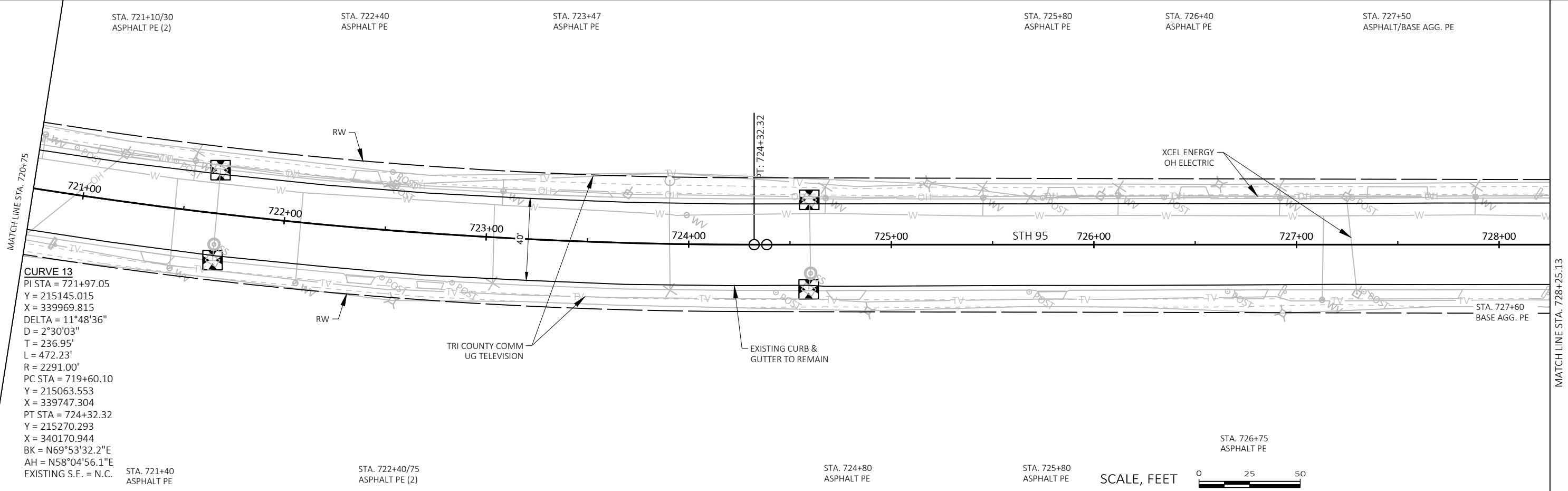
STA. 715+85 BASE AGG. PE

STA. 718+05 ASPHALT PE

STA. 718+20 CONCRETE PE

STA. 720+00 BASE AGG. PE

SCALE, FEET 0 25 50



STA. 721+10/30 ASPHALT PE (2)

STA. 722+40 ASPHALT PE

STA. 723+47 ASPHALT PE

STA. 725+80 ASPHALT PE

STA. 726+40 ASPHALT PE

STA. 727+50 ASPHALT/BASE AGG. PE

**CURVE 13**  
 PI STA = 721+97.05  
 Y = 215145.015  
 X = 339969.815  
 DELTA = 11°48'36"  
 D = 2°30'03"  
 T = 236.95'  
 L = 472.23'  
 R = 2291.00'  
 PC STA = 719+60.10  
 Y = 215063.553  
 X = 339747.304  
 PT STA = 724+32.32  
 Y = 215270.293  
 X = 340170.944  
 BK = N69°53'32.2"E  
 AH = N58°04'56.1"E  
 EXISTING S.E. = N.C.

STA. 721+40 ASPHALT PE

STA. 722+40/75 ASPHALT PE (2)

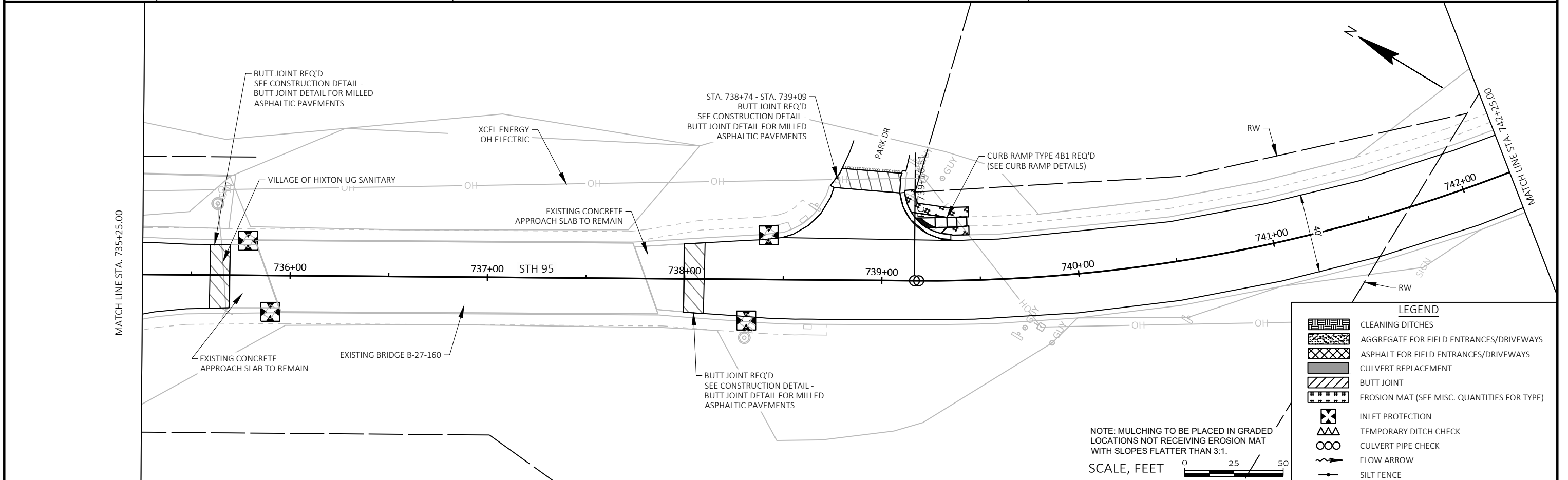
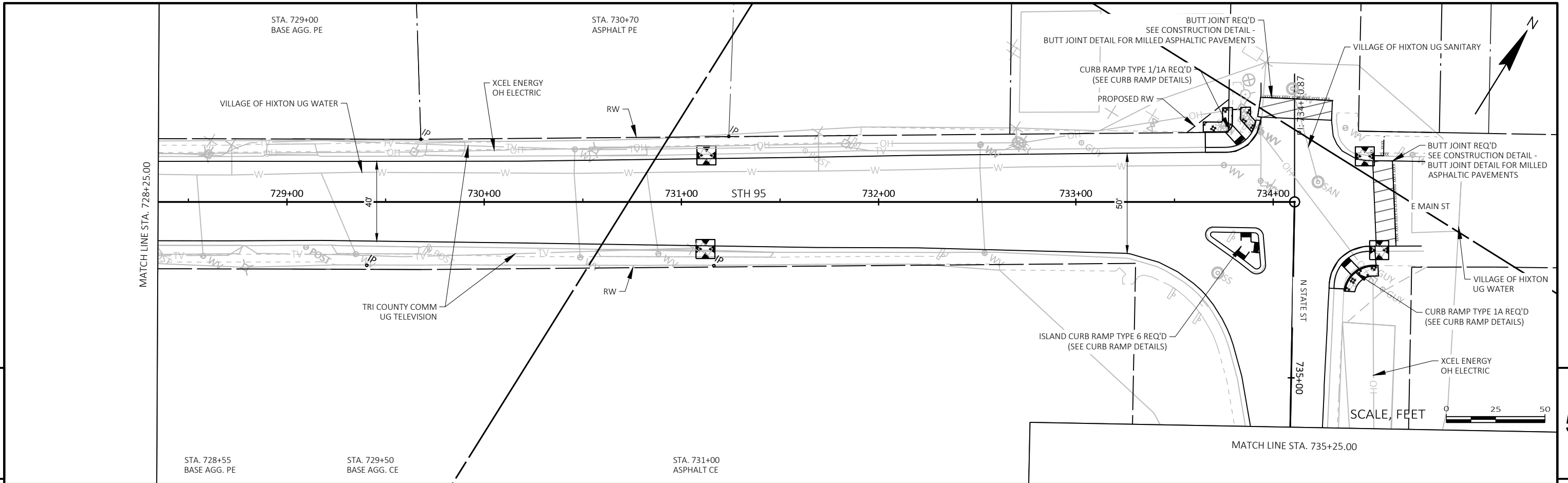
STA. 724+80 ASPHALT PE

STA. 725+80 ASPHALT PE

STA. 726+75 ASPHALT PE

SCALE, FEET 0 25 50

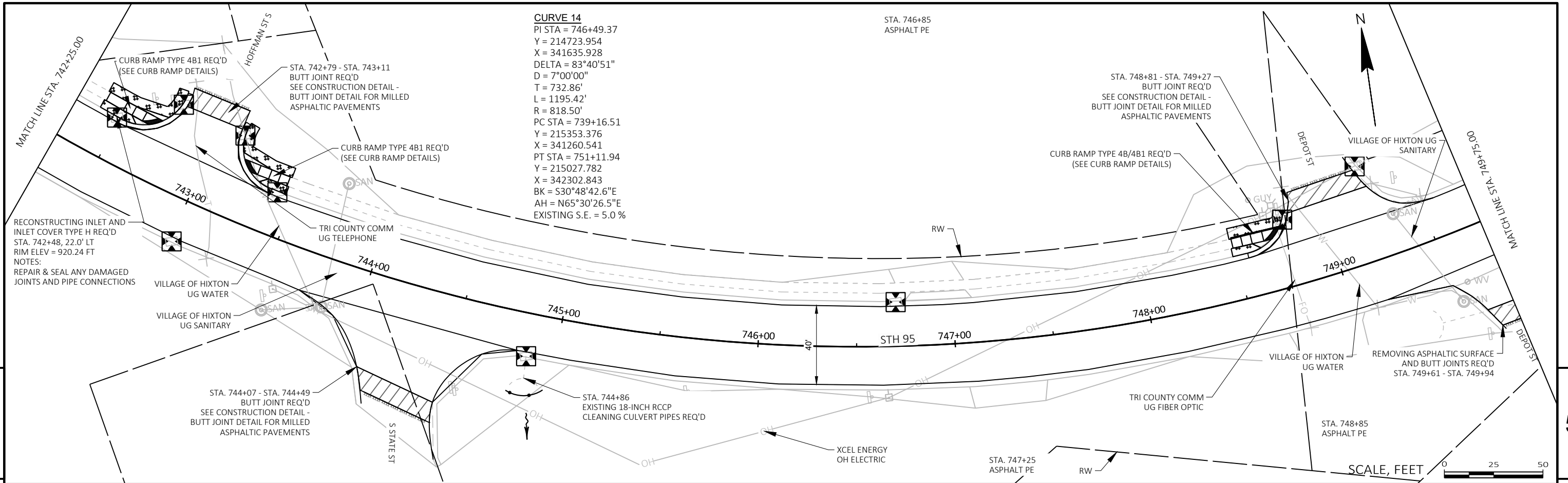
PROJECT NO: 7560-05-74	HWY: STH 95	COUNTY: JACKSON	PLAN SHEETS	SHEET	<b>E</b>
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LEGEND	
	CLEANING DITCHES
	AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
	ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
	CULVERT REPLACEMENT
	BUTT JOINT
	EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	FLOW ARROW
	SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.

SCALE, FEET



**CURVE 14**  
 PI STA = 746+49.37  
 Y = 214723.954  
 X = 341635.928  
 DELTA = 83°40'51"  
 D = 7°00'00"  
 T = 732.86'  
 L = 1195.42'  
 R = 818.50'  
 PC STA = 739+16.51  
 Y = 215353.376  
 X = 341260.541  
 PT STA = 751+11.94  
 Y = 215027.782  
 X = 342302.843  
 BK = S30°48'42.6"E  
 AH = N65°30'26.5"E  
 EXISTING S.E. = 5.0 %

**CURVE 15**  
 PI STA = 756+24.79  
 Y = 215240.398  
 X = 342769.547  
 DELTA = 7°50'09"  
 D = 1°59'59"  
 T = 196.21'  
 L = 391.82'  
 R = 2865.01'  
 PC STA = 754+28.57  
 Y = 215159.053  
 X = 342590.989  
 PT STA = 758+20.39  
 Y = 215345.328  
 X = 342935.347  
 BK = N65°30'26.5"E  
 AH = N57°40'17.9"E  
 EXISTING S.E. = 2.0%

**END PROJECT**  
 STA 756+52  
 Y: 215259.544  
 X: 342790.596  
 MATCH EXISTING  
 SAWCUT REQ'D

LEGEND	
	CLEANING DITCHES
	AGGREGATE FOR FIELD ENTRANCES/DRIVEWAYS
	ASPHALT FOR FIELD ENTRANCES/DRIVEWAYS
	CULVERT REPLACEMENT
	BUTT JOINT
	EROSION MAT (SEE MISC. QUANTITIES FOR TYPE)
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	FLOW ARROW
	SILT FENCE

NOTE: MULCHING TO BE PLACED IN GRADED LOCATIONS NOT RECEIVING EROSION MAT WITH SLOPES FLATTER THAN 3:1.  
 SCALE, FEET 0 25 50



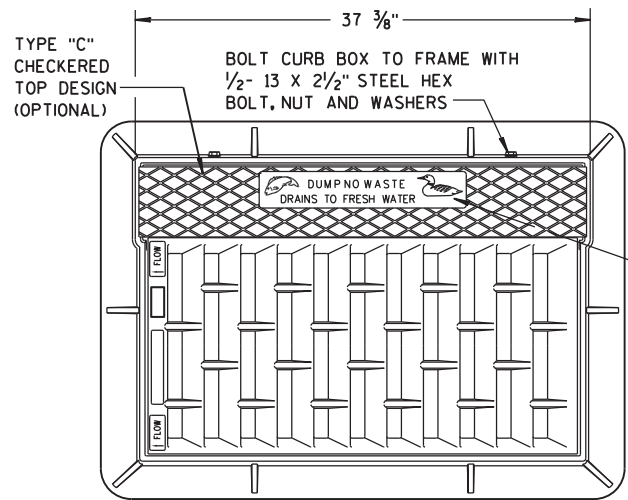
## Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLI CATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLI CATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
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 ELLI PTICAL PIPE
08F03-03	DETAILS FOR PIPE CATTLE PASS, CONCRETE ENDWALLS AND STEPS
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F08-02	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAIN S
11B02-02	CONCRETE MEDI AN NOSE
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRI VEWAYS, BRIDGES, RAI LROADS
13B01-11A	PAVEMENT DETAIL S FOR RAI LROAD APPROACH
13B01-11B	TYPICAL SECTI ONS FOR RAI LWAY APPROACH
13C19-03	HMA LONGI TUDI NAL JOI NTS
14B42-07A	MI DWEST GUARDRAI L SYSTEM (MGS) GUARDRAI L
14B42-07B	MI DWEST GUARDRAI L SYSTEM (MGS) GUARDRAI L
14B42-07C	MI DWEST GUARDRAI L SYSTEM (MGS) GUARDRAI L
14B42-07D	MI DWEST GUARDRAI L SYSTEM (MGS) GUARDRAI L
14B44-04A	MI DWEST GUARDRAI L SYSTEM ENERGY ABSORBI NG TERMI NAL (MGS)
14B44-04B	MI DWEST GUARDRAI L SYSTEM ENERGY ABSORBI NG TERMI NAL (MGS)
14B44-04C	MI DWEST GUARDRAI L SYSTEM ENERGY ABSORBI NG TERMI NAL (MGS)
14B45-05A	MI DWEST GUARDRAI L SYSTEM THRI E BEAM TRANSI TI ON (MGS)
14B45-05B	MI DWEST GUARDRAI L SYSTEM THRI E BEAM TRANSI TI ON (MGS)
14B45-05C	MI DWEST GUARDRAI L SYSTEM THRI E BEAM TRANSI TI ON (MGS)
14B45-05D	MI DWEST GUARDRAI L SYSTEM THRI E BEAM TRANSI TI ON (MGS)
14B45-05E	MI DWEST GUARDRAI L SYSTEM THRI E BEAM TRANSI TI ON (MGS)
14B45-05F	MI DWEST GUARDRAI L SYSTEM THRI E BEAM TRANSI TI ON (MGS)
14B45-05G	MI DWEST GUARDRAI L SYSTEM THRI E BEAM TRANSI TI ON (MGS)
14B45-05H	MI DWEST GUARDRAI L SYSTEM THRI E BEAM TRANSI TI ON (MGS)
14B45-05I	MI DWEST GUARDRAI L SYSTEM THRI E BEAM TRANSI TI ON (MGS)
14B45-05J	MI DWEST GUARDRAI L SYSTEM THRI E BEAM TRANSI TI ON (MGS)
14B45-05K	MI DWEST GUARDRAI L SYSTEM THRI E BEAM TRANSI TI ON (MGS)
14B45-05L	MI DWEST GUARDRAI L SYSTEM THRI E BEAM TRANSI TI ON (MGS)
14B53-02A	SHORT RADI US BEAM GUARD (MGS) SHORT RADI US TERMI NAL (MGS)
14B53-02B	SHORT RADI US BEAM GUARD (MGS) SHORT RADI US TERMI NAL (MGS)
14B53-02C	SHORT RADI US BEAM GUARD (MGS) SHORT RADI US TERMI NAL (MGS)
14B53-02D	SHORT RADI US BEAM GUARD (MGS) SHORT RADI US TERMI NAL (MGS)
14B53-02E	SHORT RADI US BEAM GUARD (MGS) SHORT RADI US TERMI NAL (MGS)
14B53-02F	SHORT RADI US BEAM GUARD (MGS) SHORT RADI US TERMI NAL (MGS)
14B53-02G	SHORT RADI US BEAM GUARD (MGS) SHORT RADI US TERMI NAL (MGS)
14B53-02H	SHORT RADI US BEAM GUARD (MGS) SHORT RADI US TERMI NAL (MGS)
14B53-02I	SHORT RADI US BEAM GUARD (MGS) SHORT RADI US TERMI NAL (MGS)
15A03-02A	FLEXI BLE MARKER POST FOR CULVERT END
15A03-02B	FLEXI BLE MARKER POST FOR CULVERT END
15C02-09A	BARRI CADES AND SIGNS FOR MAINLI NE CLOSURES
15C02-09B	BARRI CADES AND SIGNS FOR VARI OUS CLOSURES
15C03-05	BARRI CADES AND SIGNS FOR SI DEROAD CLOSURES
15C07-15B	PAVEMENT MARKI NG WORDS
15C07-15C	PAVEMENT MARKI NG ARROWS
15C08-23A	PERMANENT LONGI TUDI NAL PAVEMENT MARKI NGS
15C08-23B	TEMPORARY LONGI TUDI NAL PAVEMENT MARKI NG
15C08-23C	PAVEMENT MARKI NG (TURN LANES)
15C08-23D	PAVEMENT MARKI NG (TURN LANES)
15C09-13A	SIGNI NG AND PAVEMENT MARKI NG DETAIL S FOR RAI LROAD-HI GHWAY GRADE CROSSI NGS
15C11-10B	CHANNELI ZI NG DEVI CES DRUMS, CONES, BARRI CADES AND VERTI CAL PANELS
15C12-09A	TRAFFI C CONTROL FOR LANE CLOSURE WI TH FLAGGI NG OPERATI ON

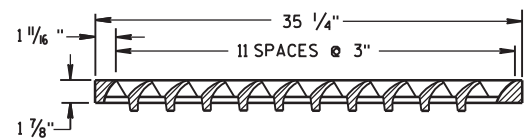
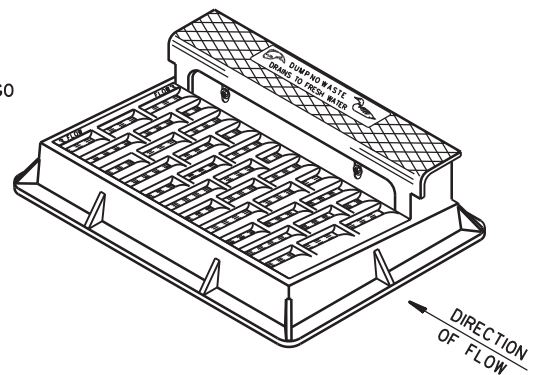


## Standard Detail Drawing List

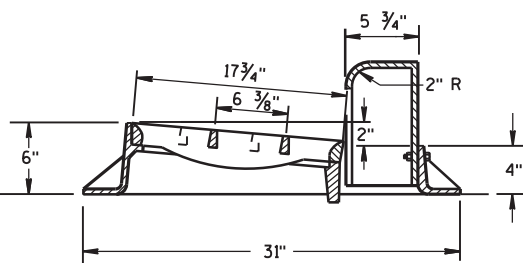
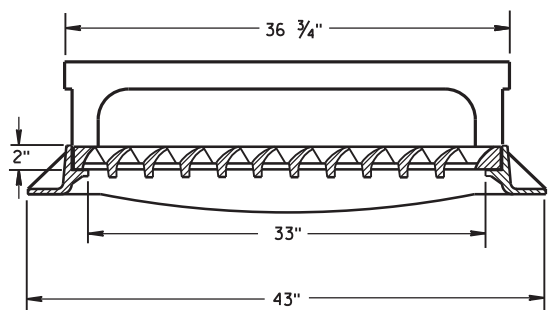
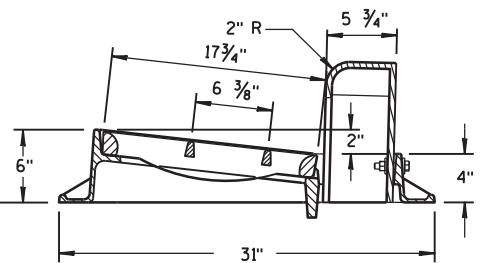
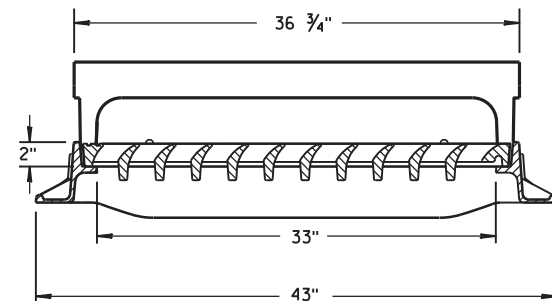
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C18-08B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION



**NOTE:  
GRATE IS REVERSIBLE.**

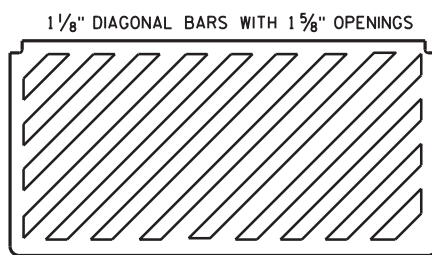


**NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"**

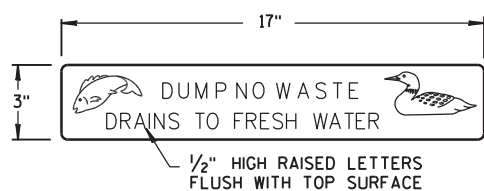


**TYPE "H"**

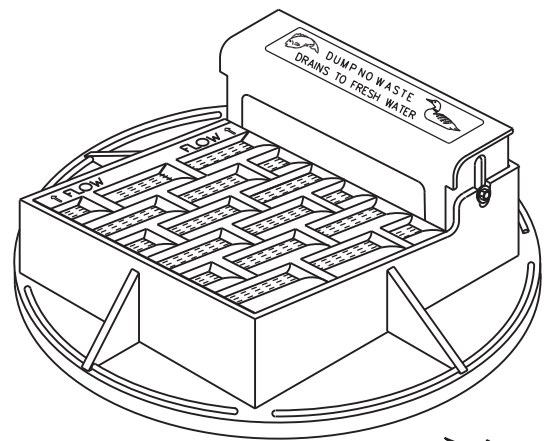
**NOTE: EITHER CASTING IS ACCEPTABLE**



**SPECIAL GRATE FOR  
TYPE "H" COVER**  
(MEASURES 35 1/4" X 17 3/4" X 2")  
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

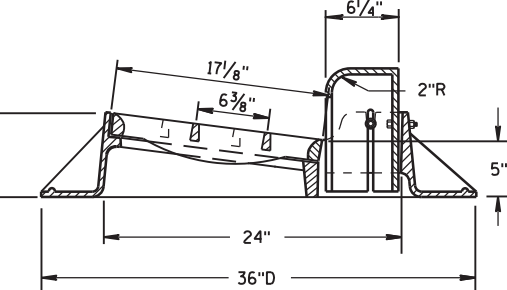
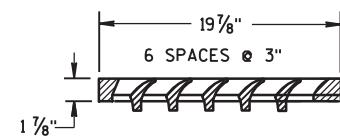
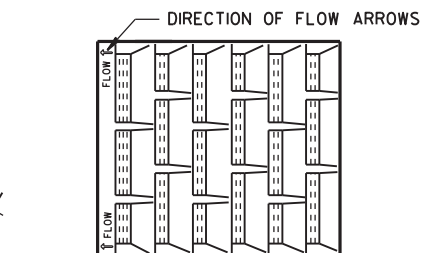
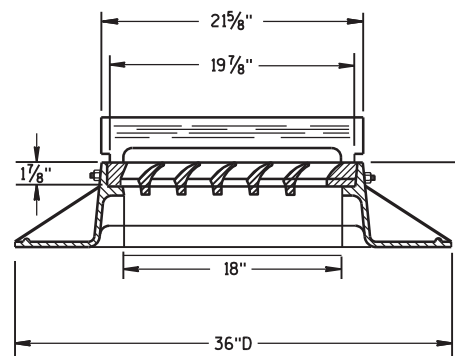


**LOGO DETAIL**

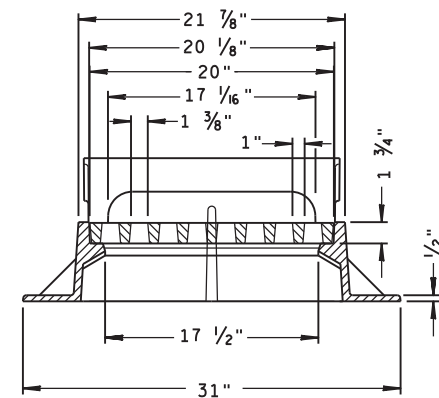
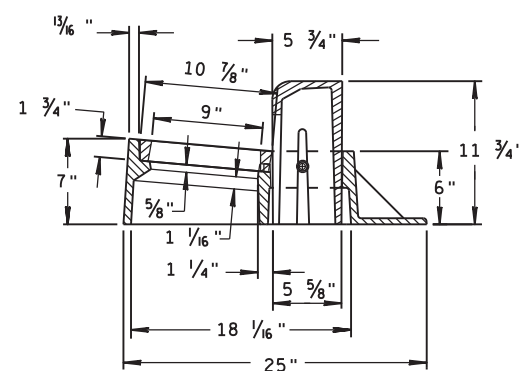


**NOTE: CURB BOX ADJUSTABLE 4" TO 9"**

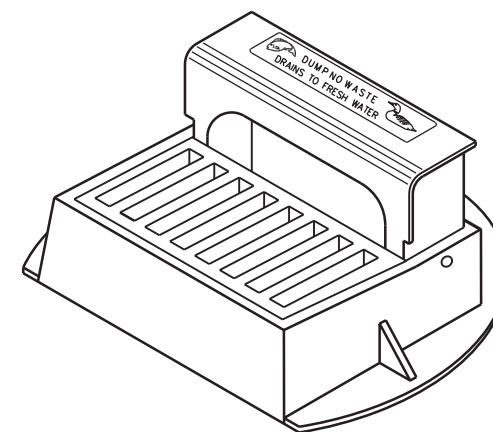
**NOTE:  
GRATE IS REVERSIBLE.**



**TYPE "A"**



**TYPE "Z"**



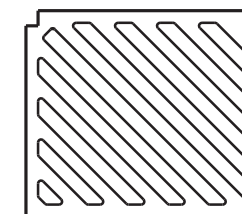
**GENERAL NOTES**

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.

1" DIAGONAL BARS WITH 1 1/2" OPENINGS

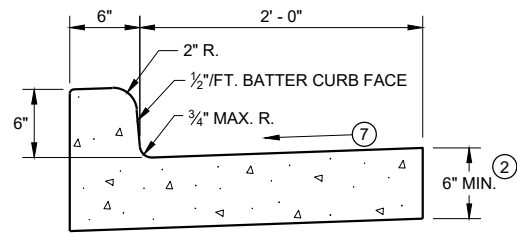


**SPECIAL GRATE FOR  
TYPE "A" COVER**  
(MEASURES 19 3/4" X 17" X 1 1/8")  
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

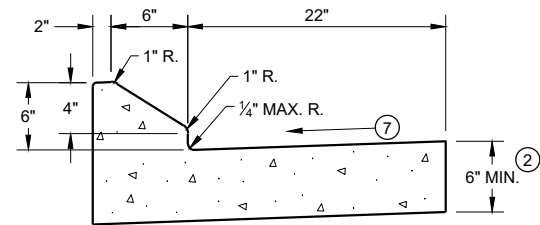
**INLET COVERS  
TYPE A, H, A-S, H-S & Z**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

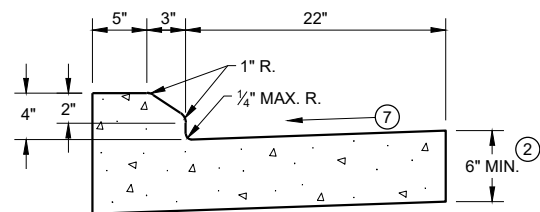
APPROVED  
DATE: 11-27-13  
DATE: /S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT ENGINEER  
FHWA



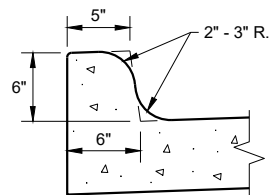
**TYPES A<sup>①</sup> & D**



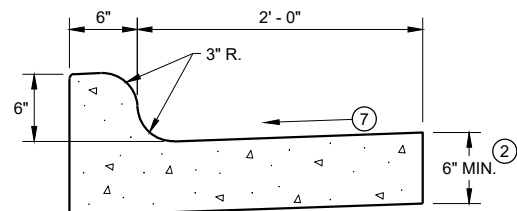
**6" SLOPED CURB TYPES G<sup>①</sup> & J**



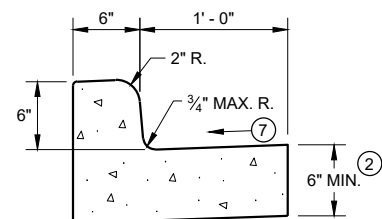
**4" SLOPED CURB TYPES G<sup>①</sup> & J**



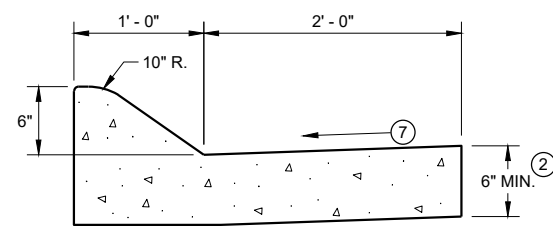
**TYPES K<sup>①</sup> & L**  
(OPTIONAL CURB SHAPE)



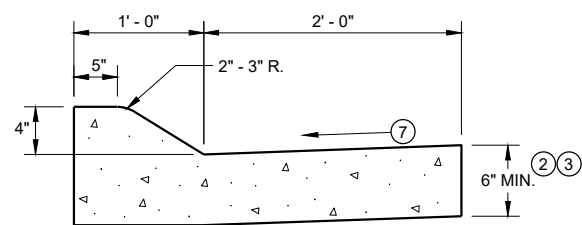
**TYPES K<sup>①</sup> & L**  
**CONCRETE CURB AND GUTTER 30"**



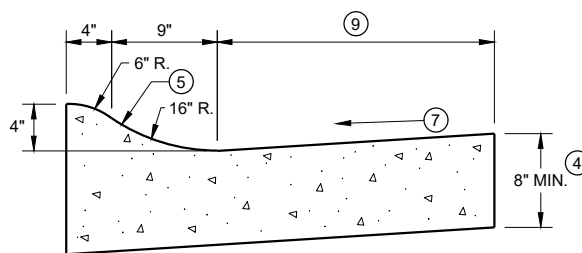
**TYPES A<sup>①</sup> & D**  
**CONCRETE CURB AND GUTTER 18"**



**6" SLOPED CURB TYPES A<sup>①</sup> & D**

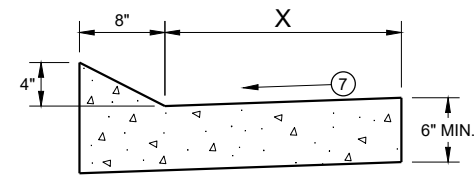


**4" SLOPED CURB TYPES A<sup>①</sup> & D**  
**CONCRETE CURB AND GUTTER 36"**



**4" SLOPED CURB TYPES R<sup>①</sup> & T**

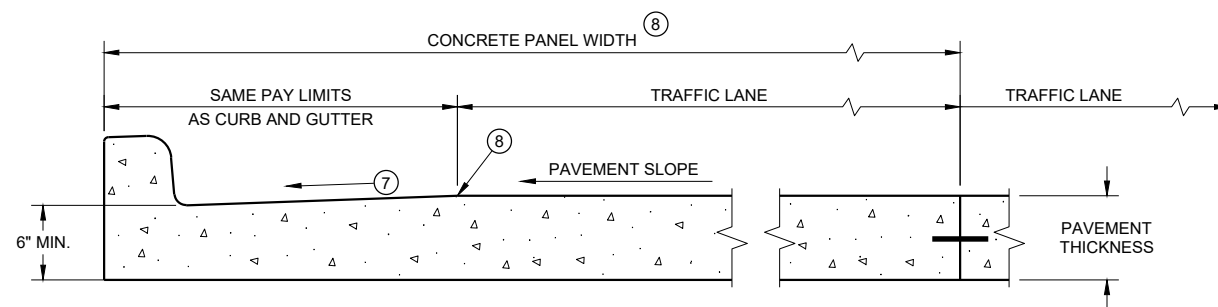
TBT & TBTT	X
30"	22"
36"	28"



**TYPES TBT & TBTT<sup>①</sup>**  
**CONCRETE CURB AND GUTTER**

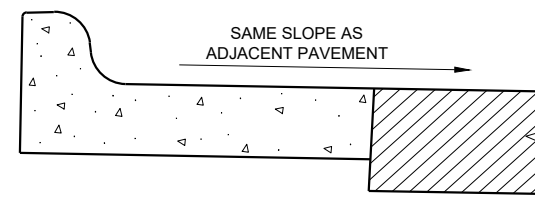
**PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE**

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<sup>⑥</sup>**  
(TYPICAL FOR ALL CURB & GUTTER TYPES)

**GENERAL NOTES**

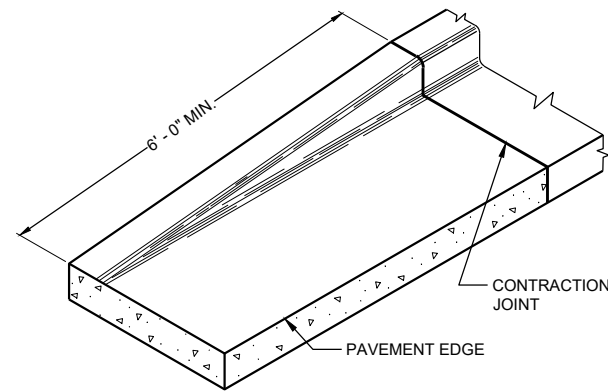
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

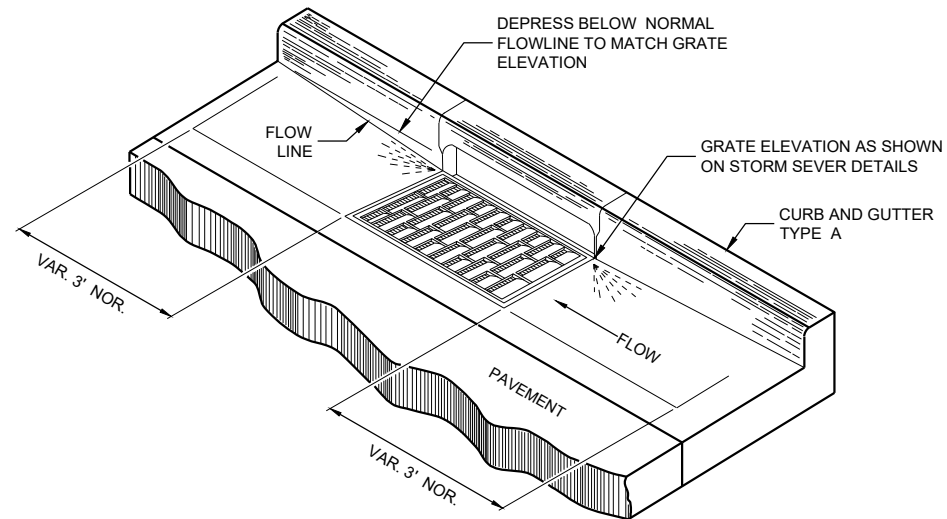
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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 CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES  
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES



**END SECTION CURB AND GUTTER**



**DETAIL OF CURB AND GUTTER AT INLETS**

(TYPICAL H INLET COVER SHOWN)

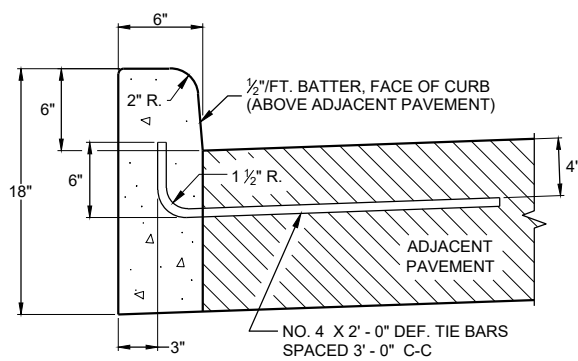
**GENERAL NOTES**

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

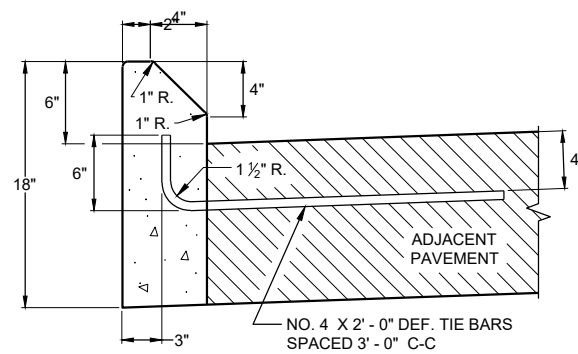
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

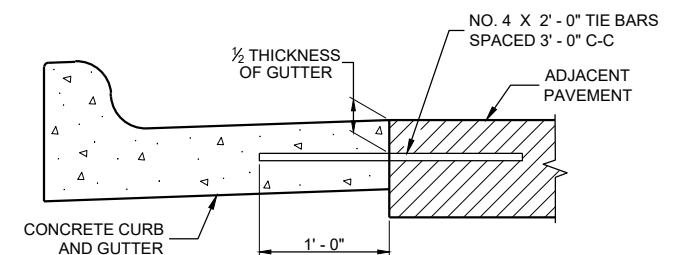
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL 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.



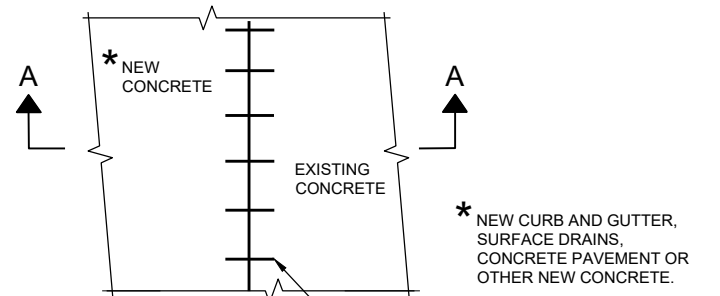
**TYPES A<sup>①</sup> & D**



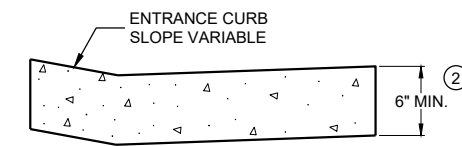
**TYPES G<sup>①</sup> & J  
CONCRETE CURB**



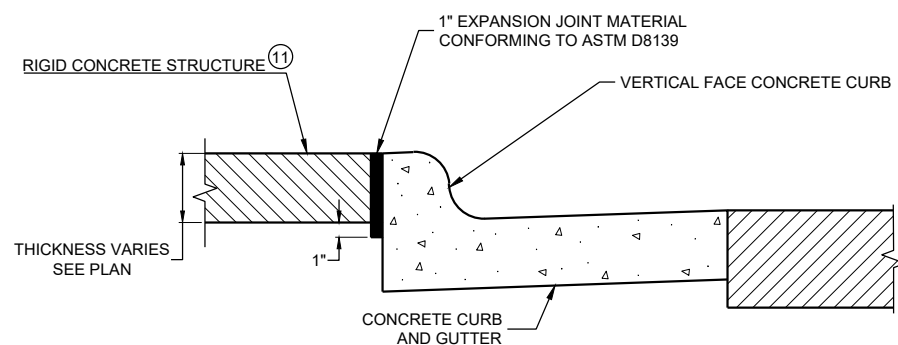
**TYPICAL TIE BAR LOCATION<sup>①</sup>**



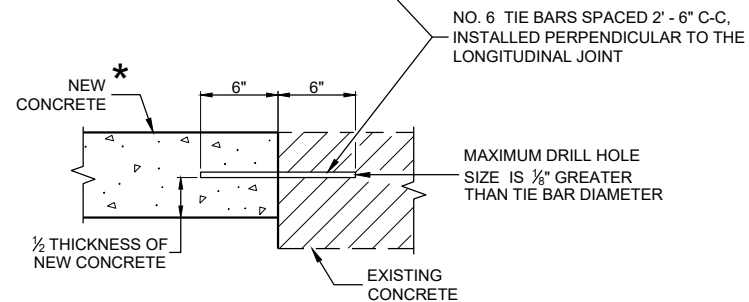
**PLAN VIEW**



**DRIVEWAY ENTRANCE CURB<sup>⑩</sup>  
(WHEN DIRECTED BY THE ENGINEER)**



**EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE<sup>⑪</sup>**



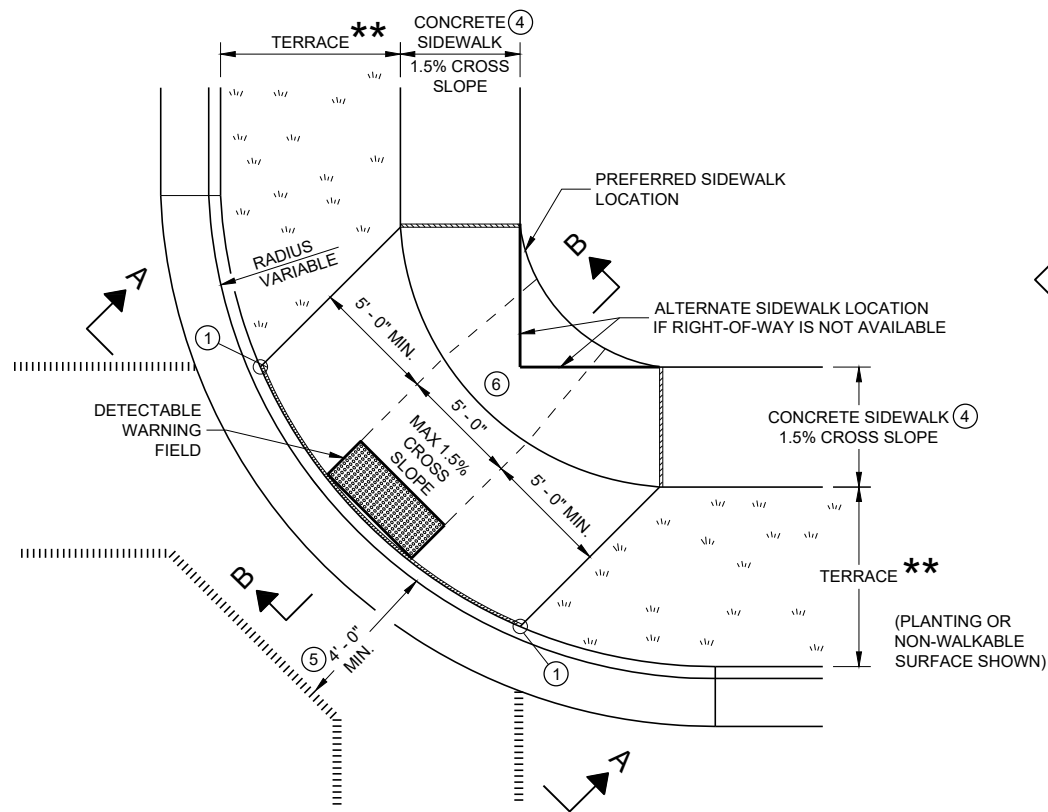
**SECTION A - A  
TIE BARS DRILLED INTO EXISTING PAVEMENT**

**CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS**

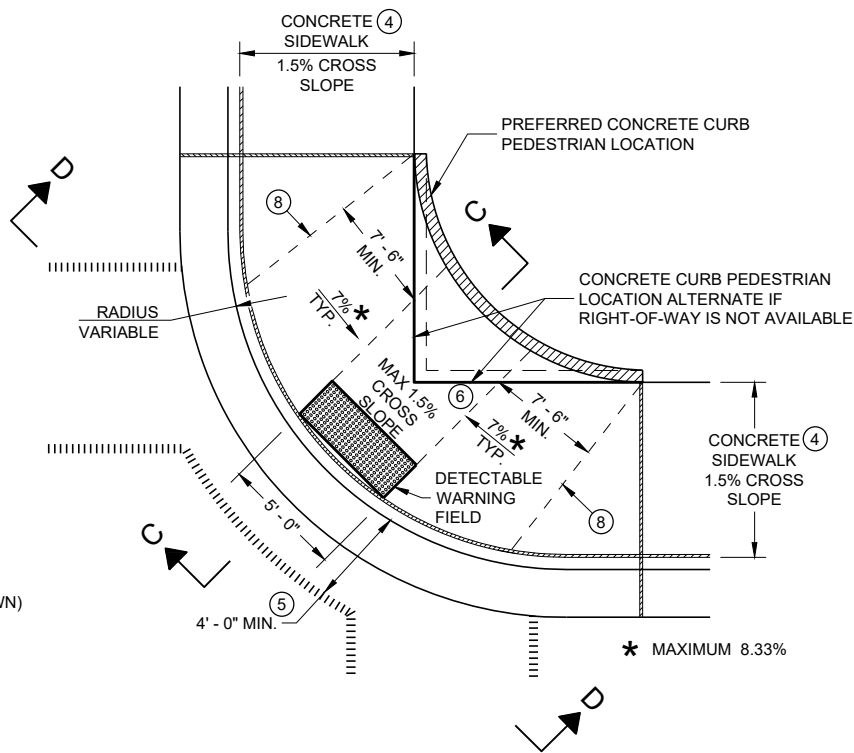
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

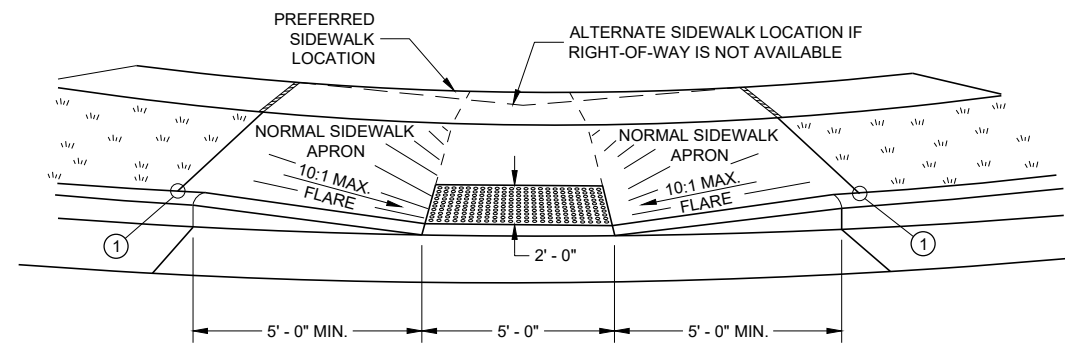
FHWA



**PLAN VIEW**  
**CURB RAMP TYPE 1**  
**(CENTER OF CORNER RADIUS)**

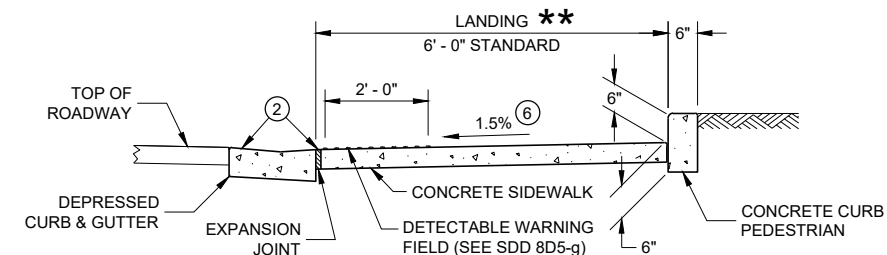


**PLAN VIEW**  
**CURB RAMP TYPE 1 - A**  
**(NO TERRACE)**



**VIEW A - A FOR TYPE 1**

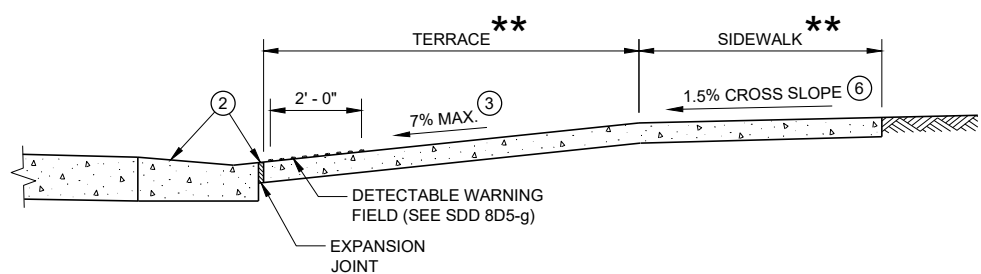
\*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS



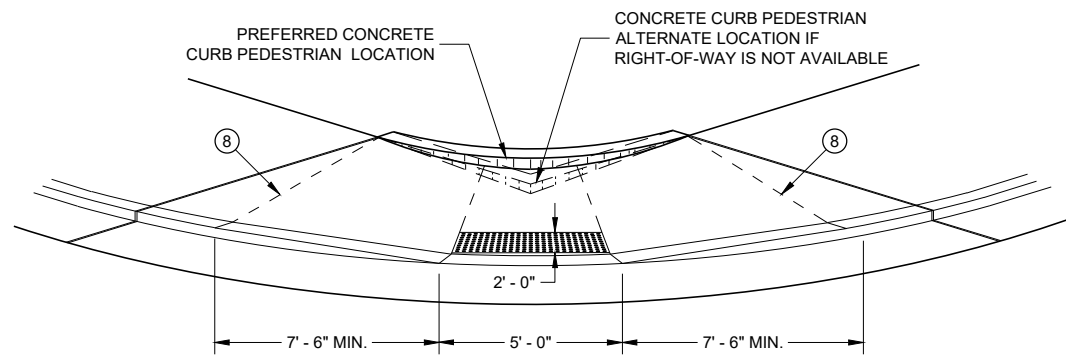
**SECTION C - C FOR TYPE 1 - A**

**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



**SECTION B - B FOR TYPE 1**



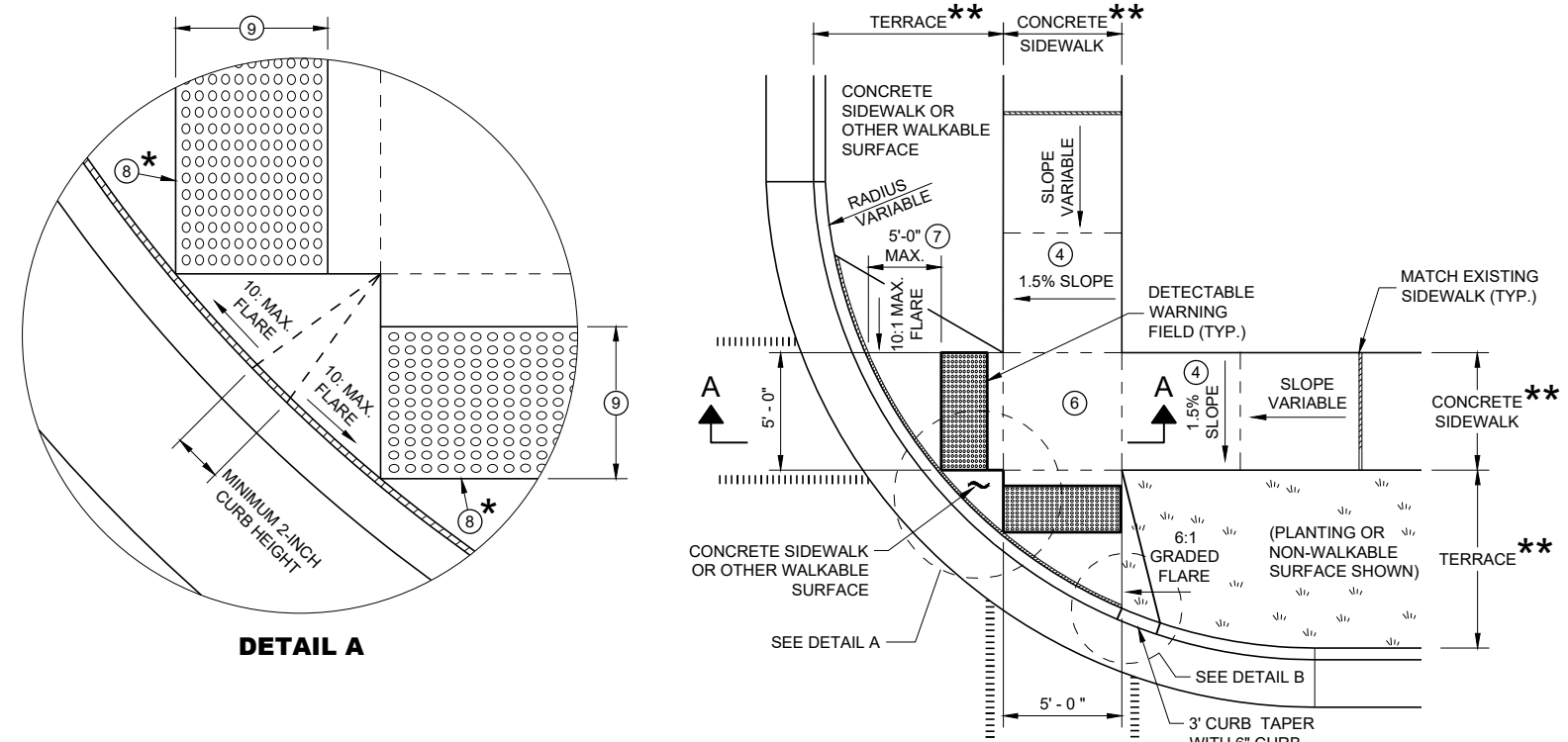
**VIEW D - D FOR TYPE 1 - A**

**GENERAL NOTES**

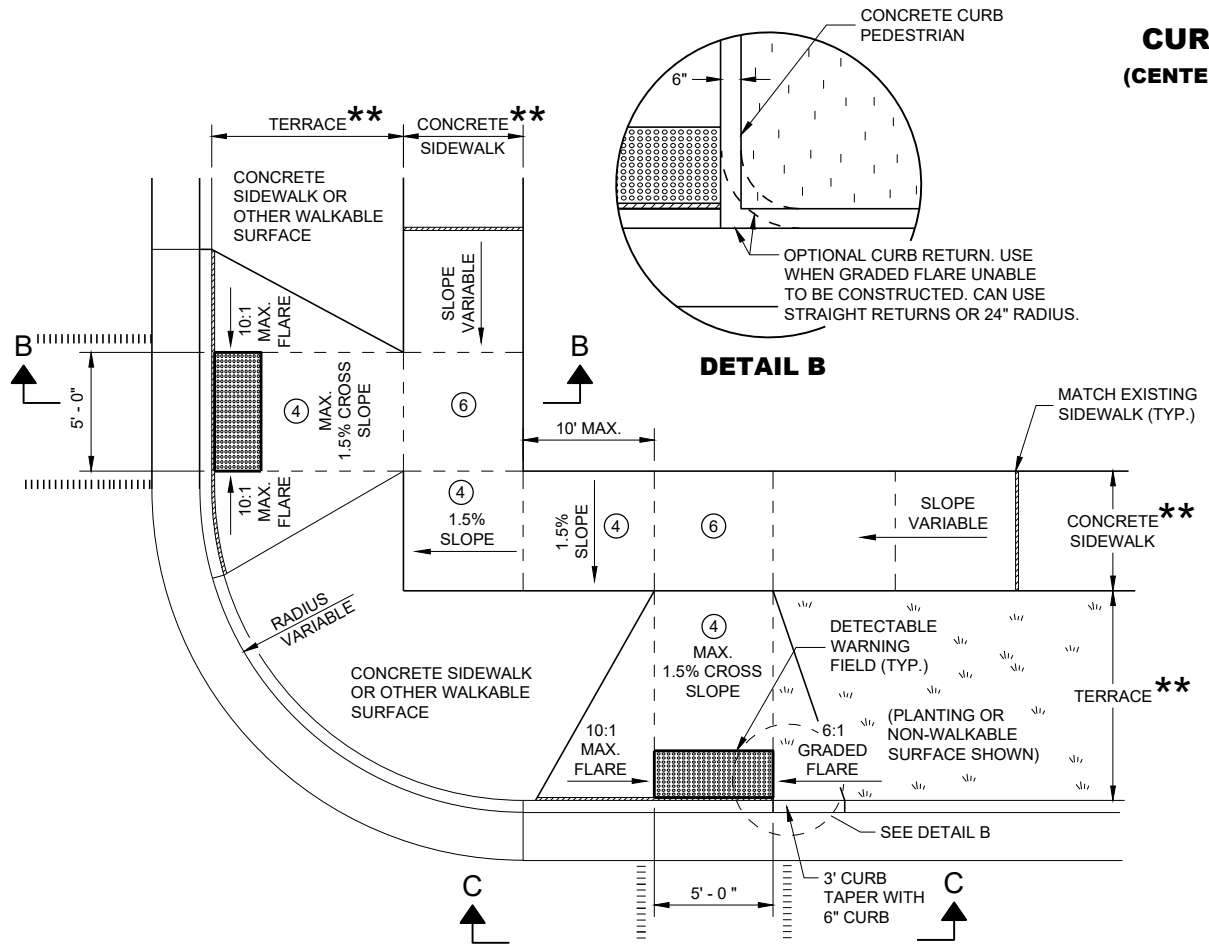
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.
- TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.
- DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.
- SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
  - ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
  - ③ MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
  - ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
  - ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
  - ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
  - ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

**CURB RAMPS**  
**TYPE 1 AND 1-A**

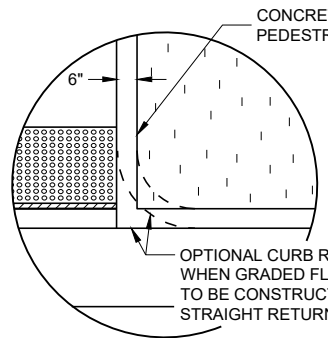
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**PLAN VIEW CURB RAMP TYPE 2 (CENTER OF CORNER RADIUS)**



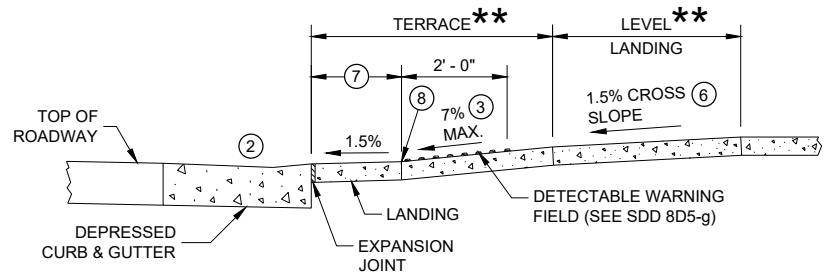
**PLAN VIEW CURB RAMP TYPE 3 (OUTSIDE OF CROSSWALK AREA)**



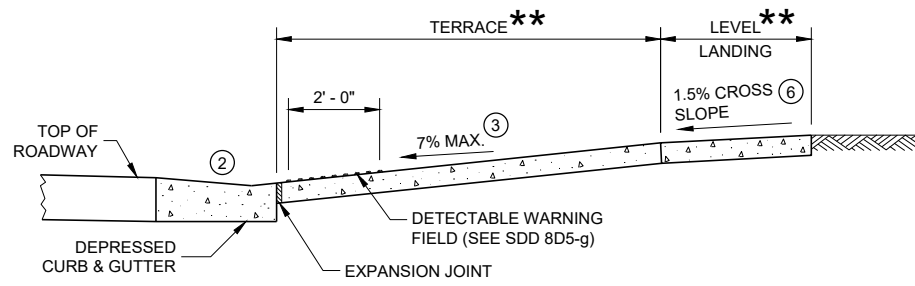
**DETAIL B**

**GENERAL NOTES**

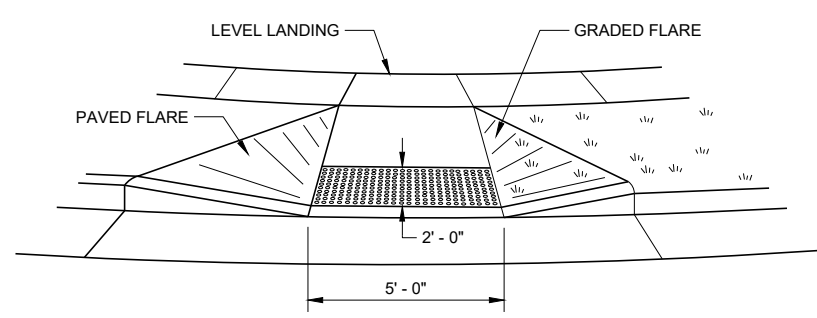
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN 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.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



**SECTION A - A FOR TYPE 2**



**SECTION B - B FOR TYPE 3**



**VIEW C - C FOR TYPE 3**

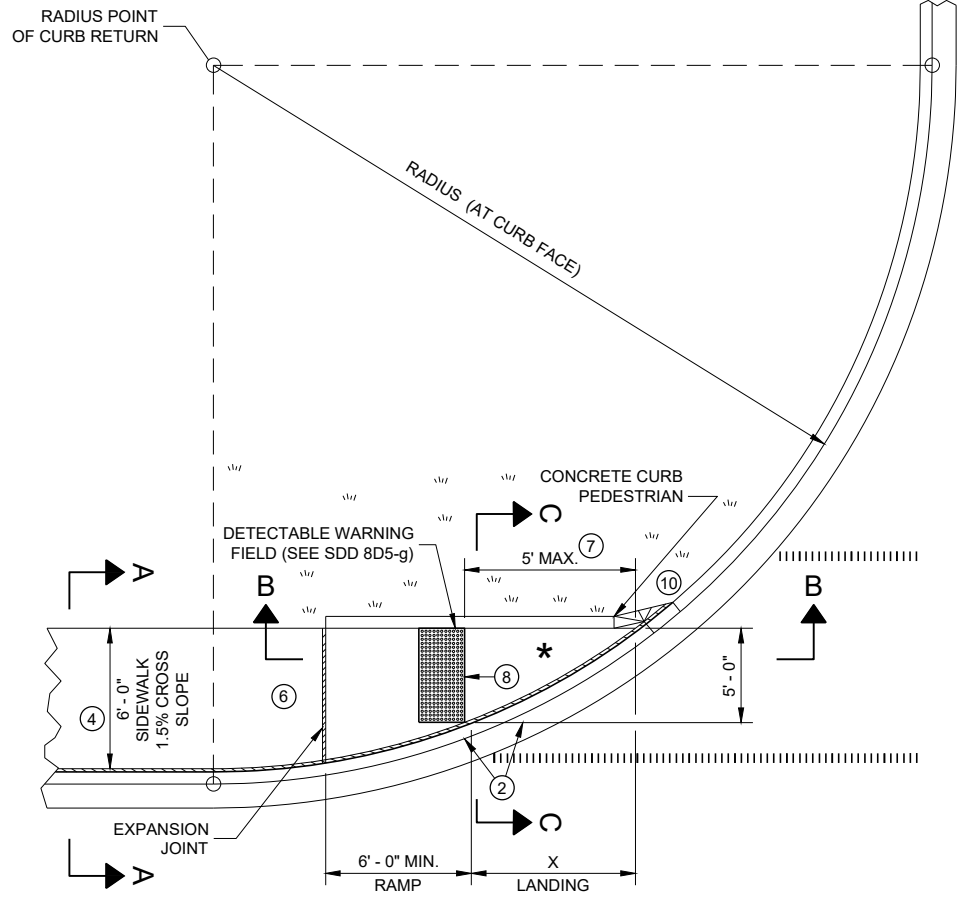
- \* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- \*\* WIDTH SHOWN ELSEWHERE IN THE PLANS

**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS  
TYPE 2 AND 3**

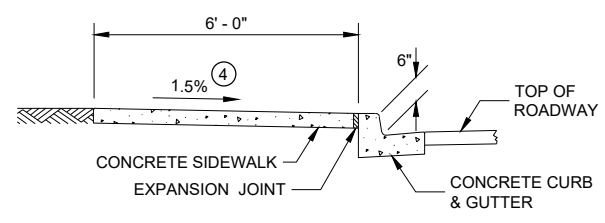
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**PLAN VIEW  
CURB RAMP TYPE 4A**

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



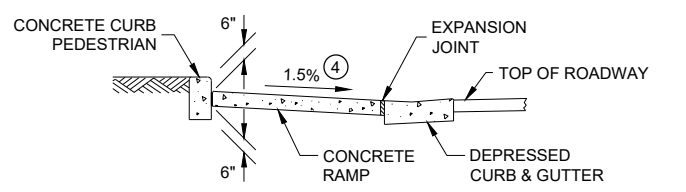
**SECTION A - A FOR TYPE 4A**

**GENERAL NOTES**

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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 FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- 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.

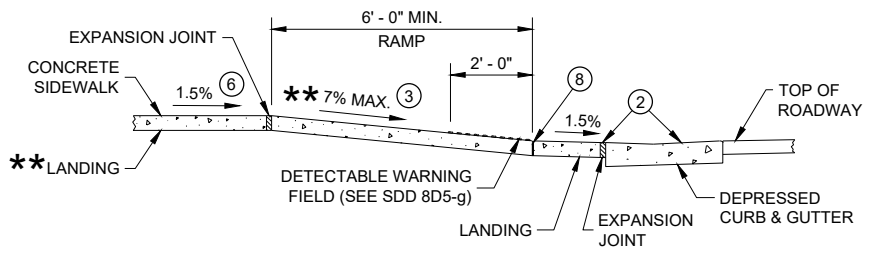
**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)



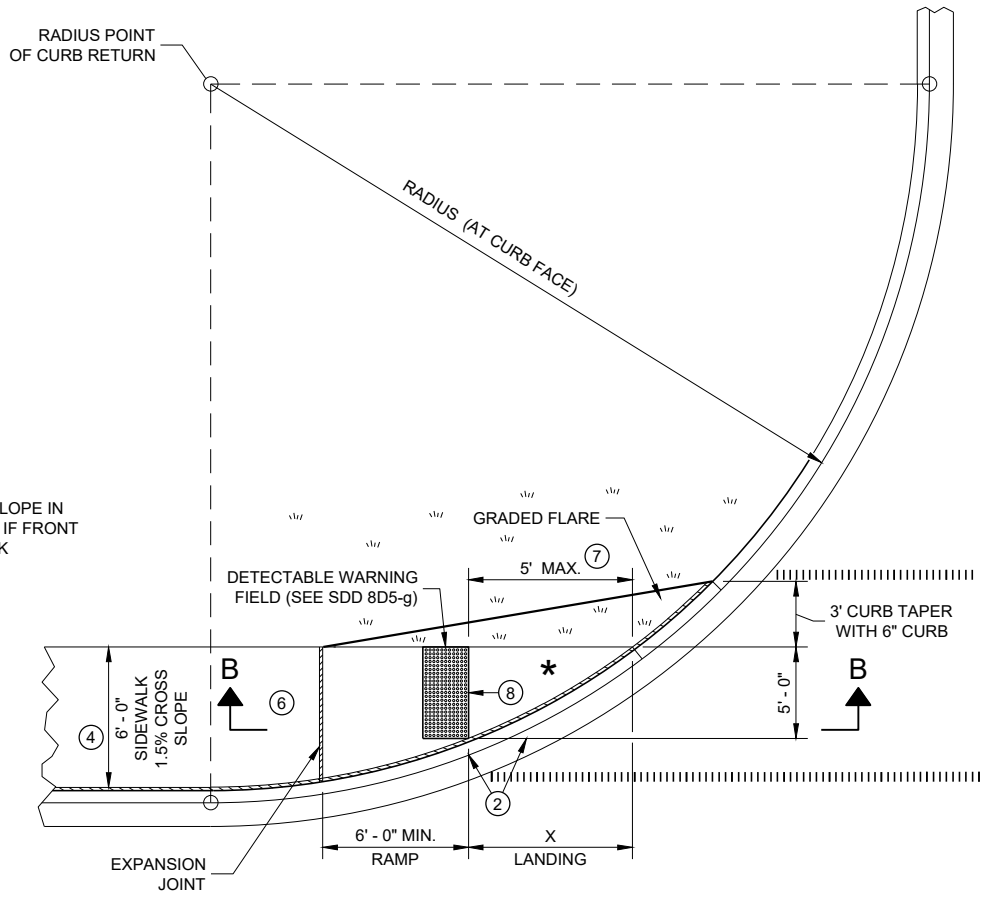
**SECTION C - C FOR TYPE 4A**

\* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

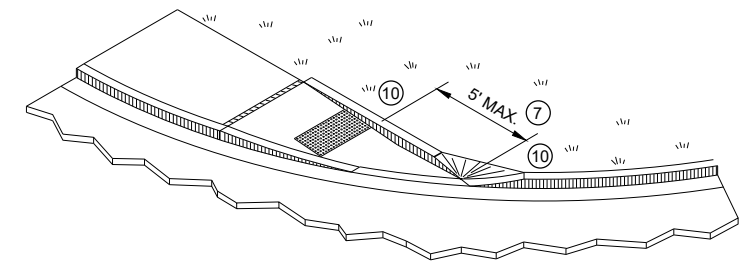


**SECTION B - B FOR  
TYPE 4A AND TYPE 4A1**

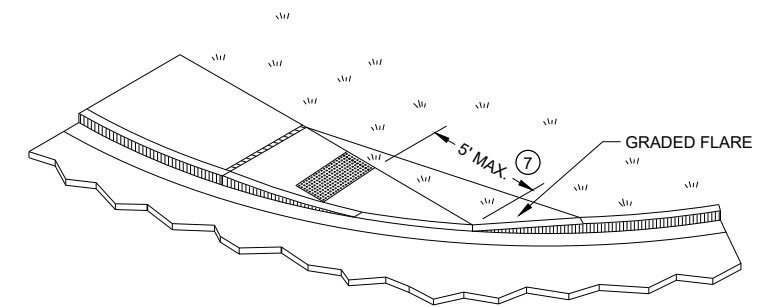
\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



**PLAN VIEW  
CURB RAMP TYPE 4A1**



**ISOMETRIC VIEW FOR TYPE 4A**

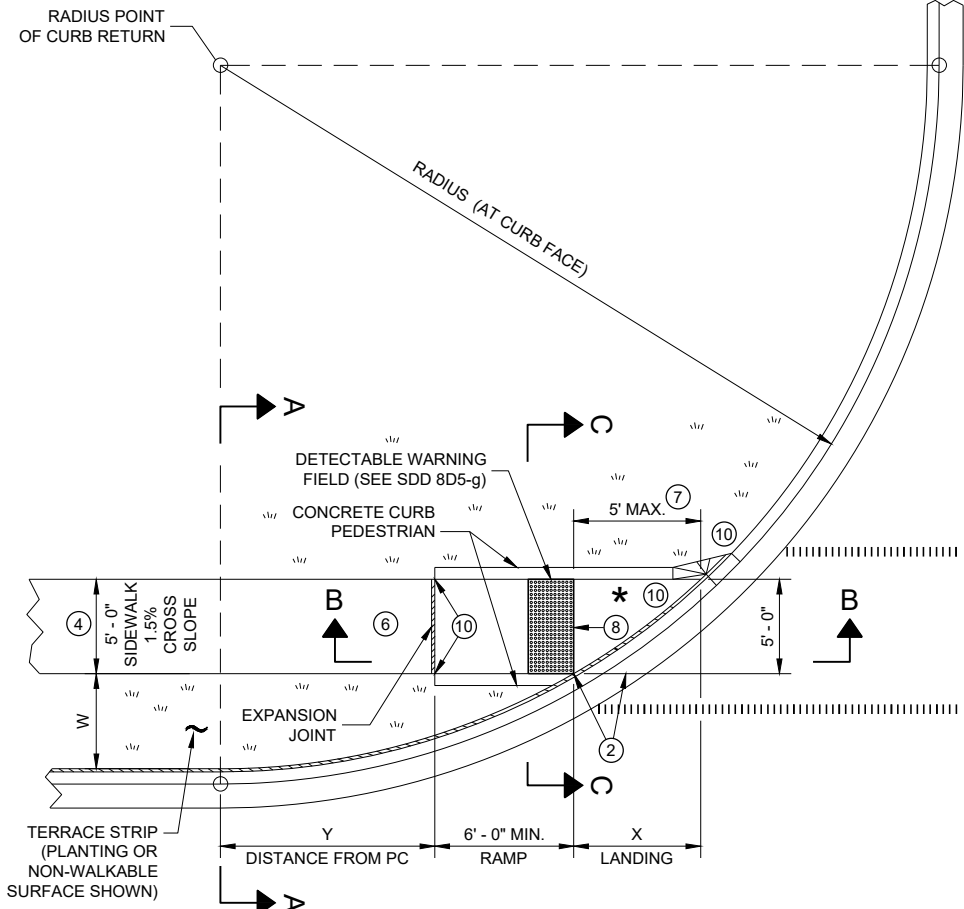


**ISOMETRIC VIEW FOR TYPE 4A1**

**CURB RAMPS  
TYPE 4A AND 4A1**

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**PLAN VIEW CURB RAMP TYPE 4B**

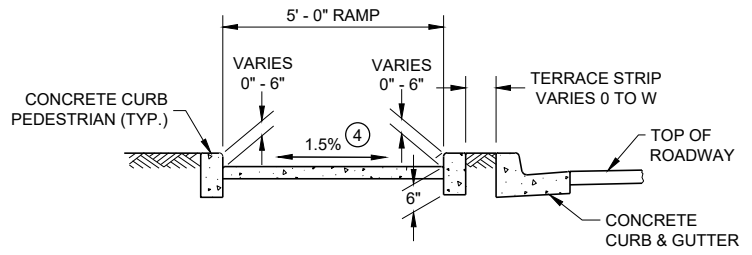
RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET	5' - 9 3/4"	3' - 6 1/2"	4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET			6' - 9 1/4"	7' - 11 1/4"	6' - 0 1/4"	9' - 8"	5' - 5"	11' - 1 3/4"	4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET									6' - 1 3/4"	15' - 8 1/2"	5' - 8"	17' - 2"	5' - 3"	18' - 5 3/4"	4' - 10 3/4"	19' - 8 1/4"
50 FEET															5' - 10 1/4"	23' - 2"

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

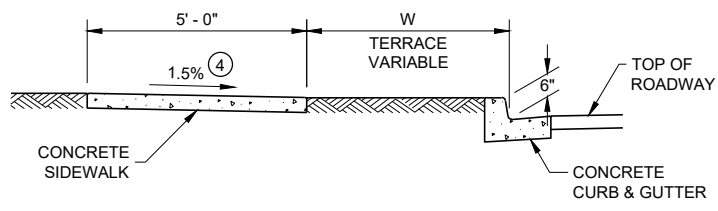
- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
  - CONTRACTION JOINT SIDEWALK
  - PAVEMENT MARKING CROSSWALK (WHITE)

**GENERAL NOTES**

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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 FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/2 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- 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.

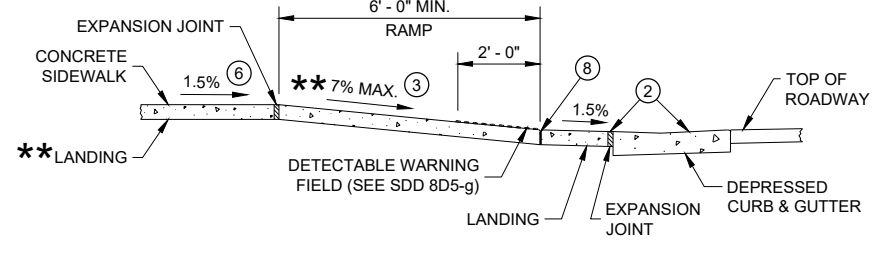


**SECTION C - C FOR TYPE 4B**



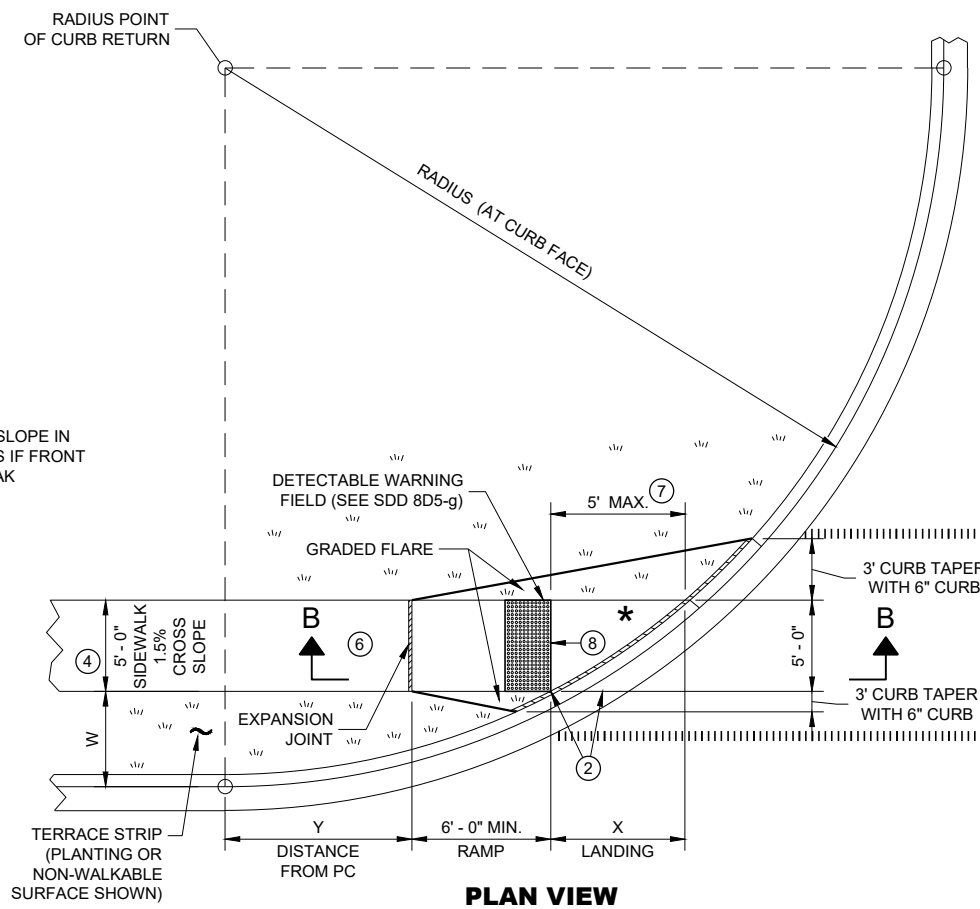
**SECTION A - A FOR TYPE 4B**

\* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

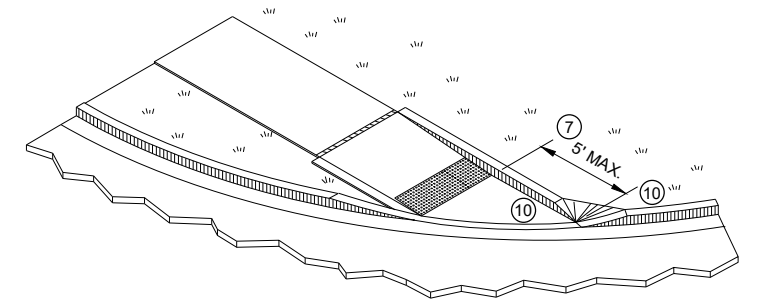


**SECTION B - B FOR TYPE 4B AND TYPE 4B1**

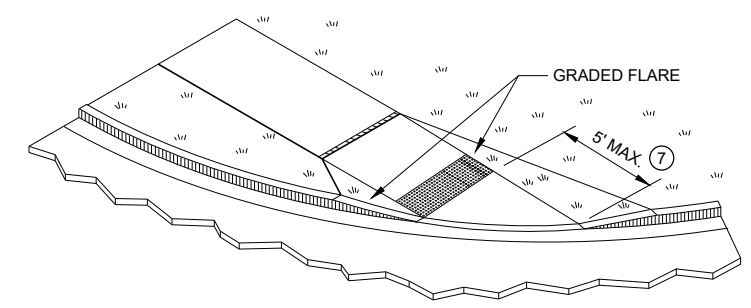
\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



**PLAN VIEW CURB RAMP TYPE 4B1**



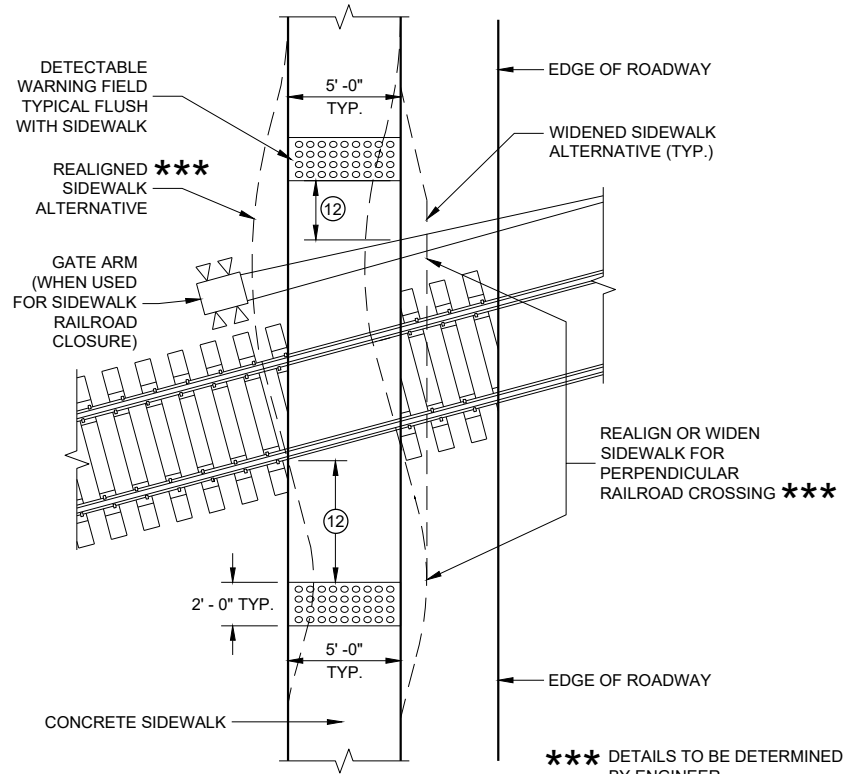
**ISOMETRIC VIEW FOR TYPE 4B**



**ISOMETRIC VIEW FOR TYPE 4B1**

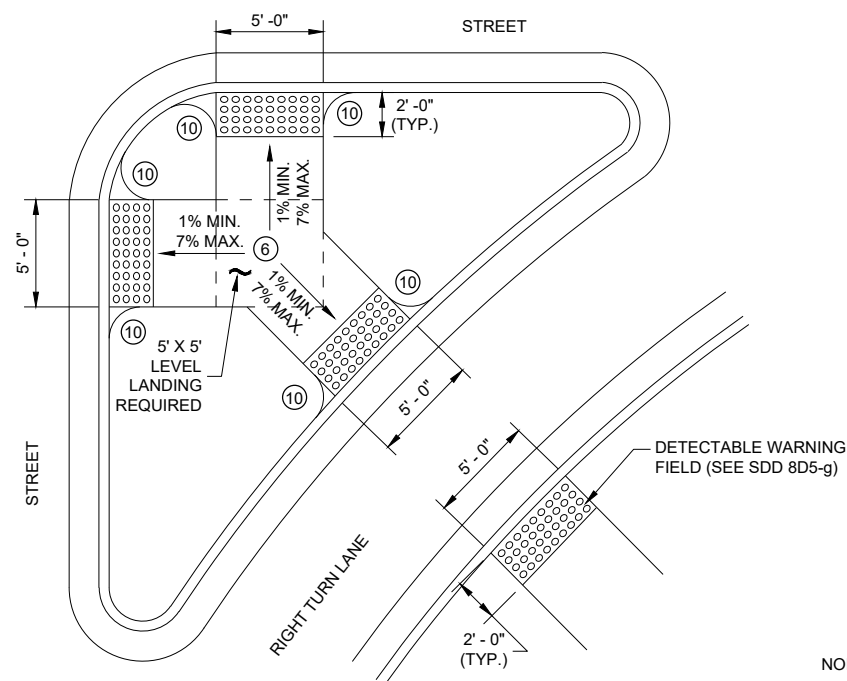
**CURB RAMPS TYPE 4B AND 4B1**

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 8**

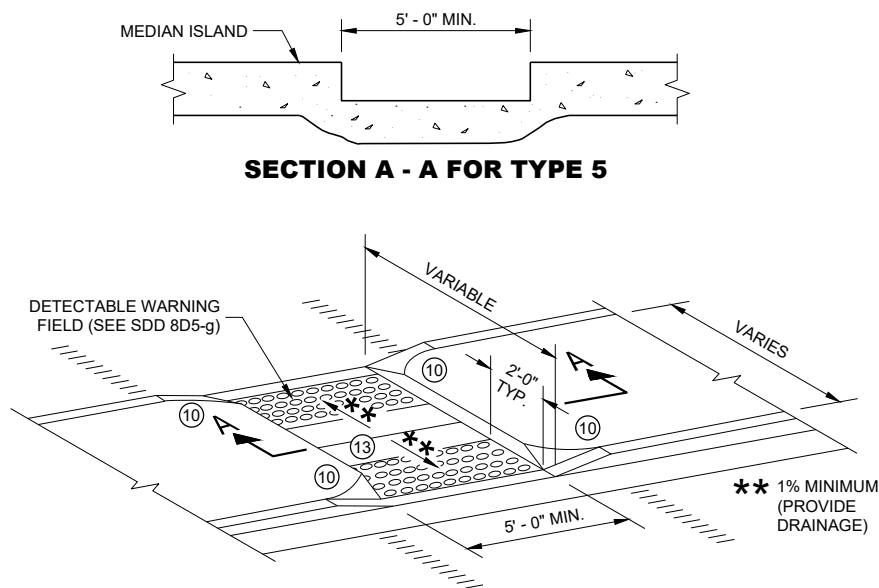
**DETECTABLE WARNINGS AT RAILROAD CROSSING**



**CURB RAMP TYPE 6**

**DETECTABLE WARNING AT ISLANDS**

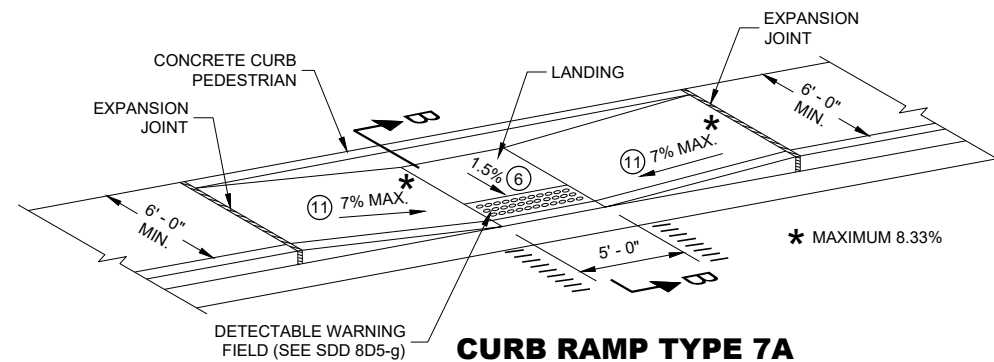
REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



**SECTION A - A FOR TYPE 5**

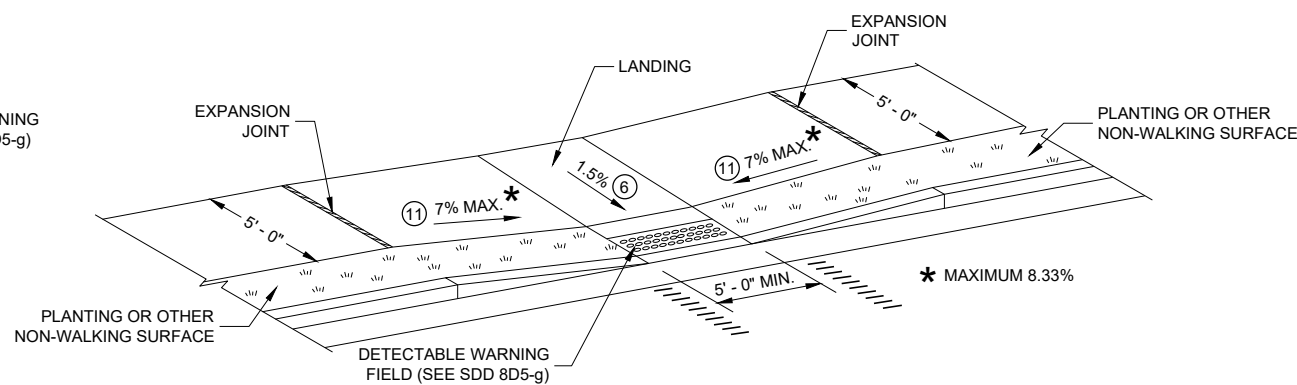
**CURB RAMP TYPE 5**

**MEDIAN ISLAND  
NON-ELEVATED PEDESTRIAN CROSSING**



**CURB RAMP TYPE 7A**

**MID BLOCK CROSSING**



**CURB RAMP TYPE 7B**

**MID BLOCK CROSSING**

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

**GENERAL NOTES**

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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.

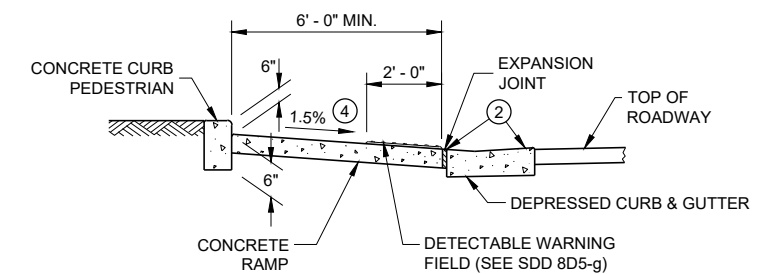
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

- (2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- (6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- (10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- (11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- (12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- (13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

**LEGEND**

- ===== 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)

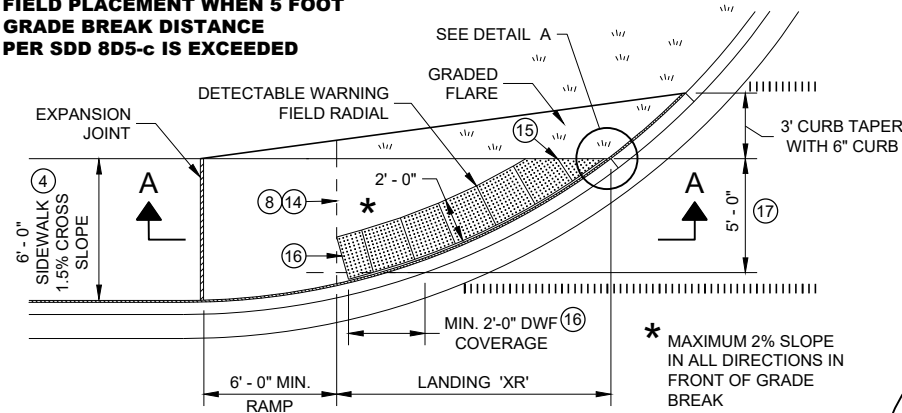


**SECTION B - B FOR TYPE 7A**

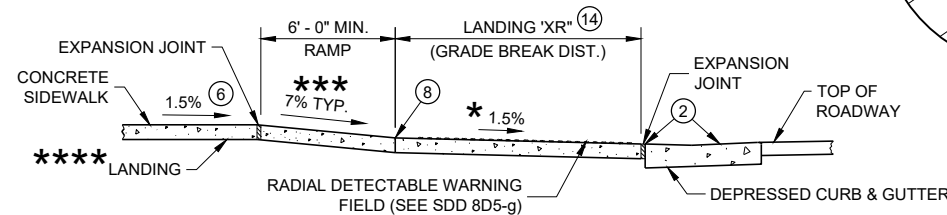
**CURB RAMPS  
TYPE 5, 6, 7A, 7B & 8**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED**



**PLAN VIEW CURB RAMP TYPE 4A1 (GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

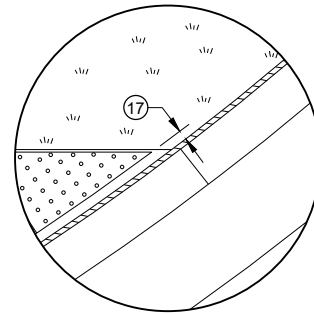


**SECTION A - A FOR TYPE 4A1**

\*\*\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

\*\*\* MAXIMUM 8.33%

- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
  - - - - - CONTRACTION JOINT SIDEWALK
  - ||||| PAVEMENT MARKING CROSSWALK (WHITE)



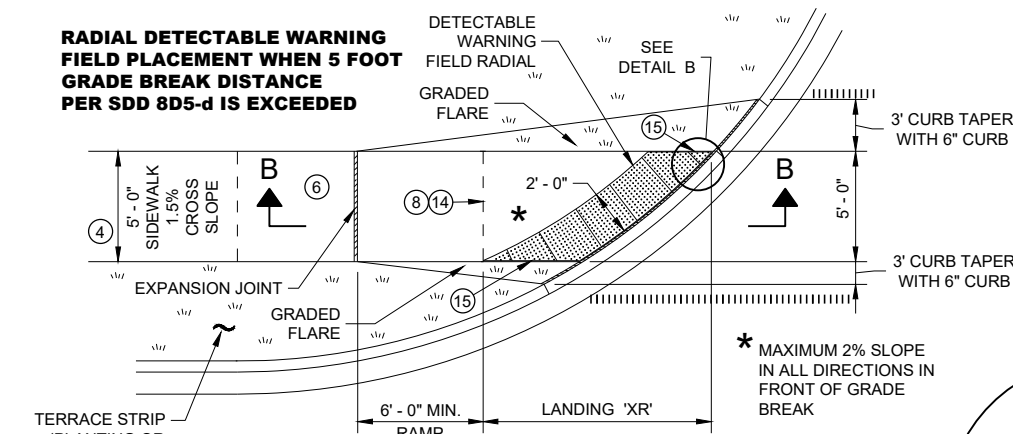
**DETAIL A**

**GENERAL NOTES**

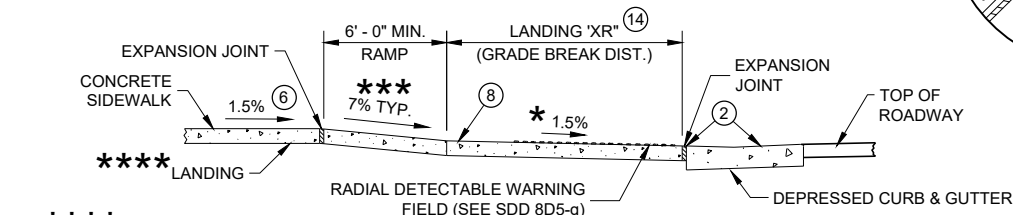
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE 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 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 AND 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 FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
  - 3 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
  - 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
  - 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
  - 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 1/8" 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 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

6

**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED**



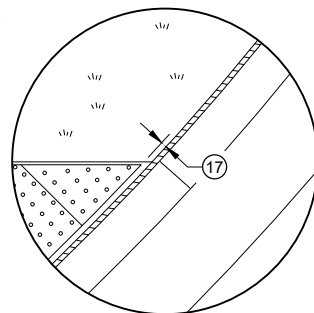
**PLAN VIEW CURB RAMP TYPE 4B1 (GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



**SECTION B - B FOR TYPE 4B1**

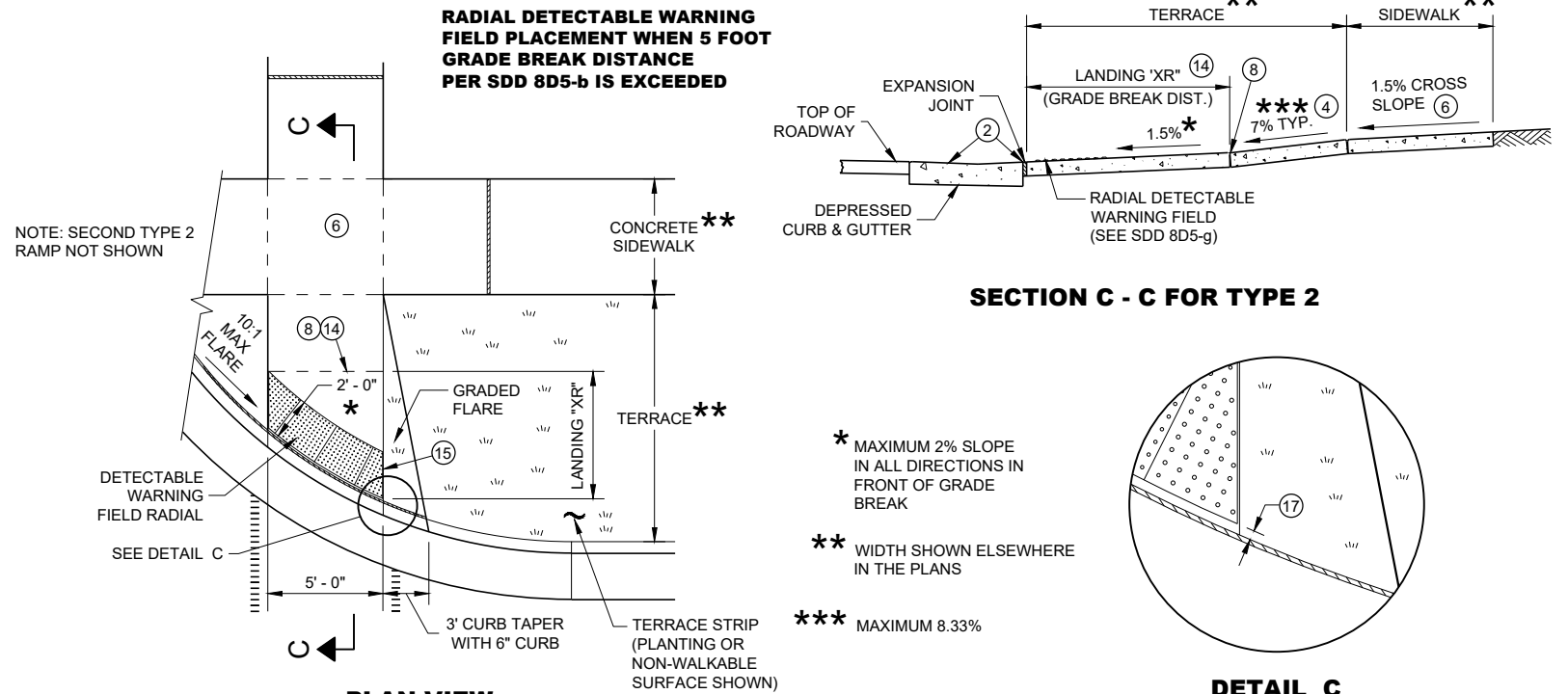
\*\*\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

\*\*\* MAXIMUM 8.33%



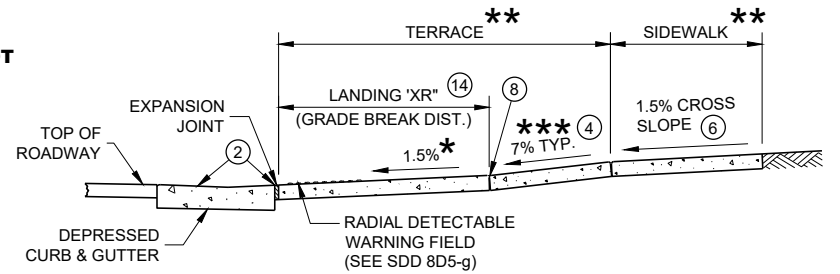
**DETAIL B**

**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED**



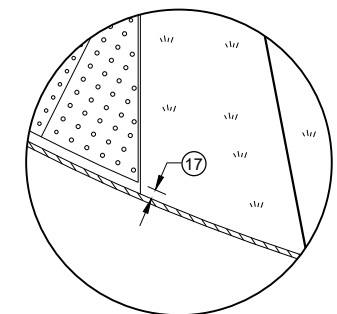
**PLAN VIEW CURB RAMP TYPE 2 (GRADE BREAK DISTANCE GREATER THAN 5 FEET) (ON LINE WITH SIDEWALK)**

NOTE: SECOND TYPE 2 RAMP NOT SHOWN



**SECTION C - C FOR TYPE 2**

- \* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- \*\* WIDTH SHOWN ELSEWHERE IN THE PLANS
- \*\*\* MAXIMUM 8.33%



**DETAIL C**

**CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS**

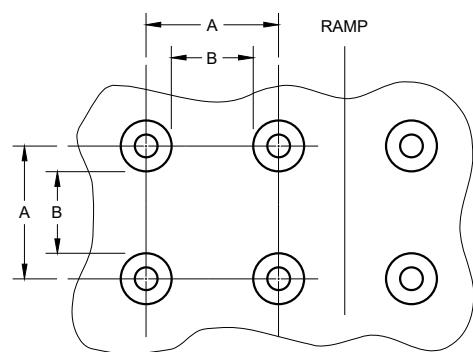
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20f

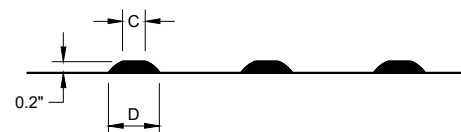
SDD 08D05 - 20f

	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.

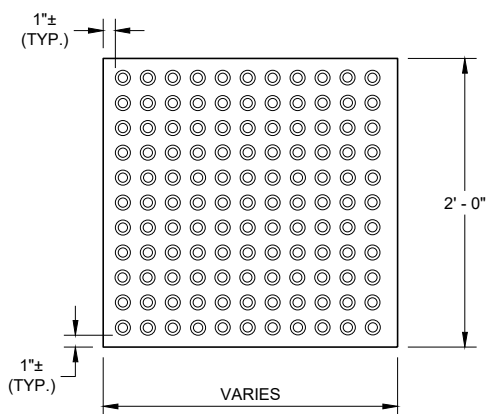


**PLAN VIEW**

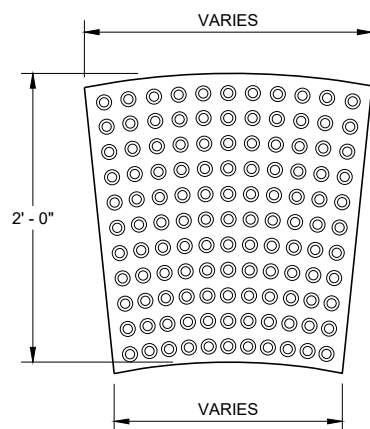


**ELEVATION VIEW**

**TRUNCATED DOMES  
DETECTABLE WARNING PATTERN DETAIL**

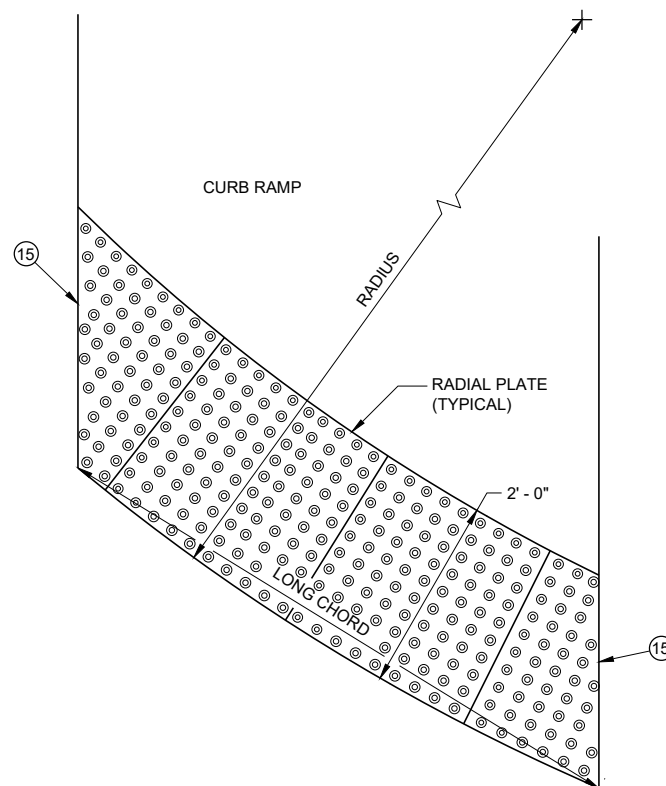


**RECTANGULAR  
PLATES**

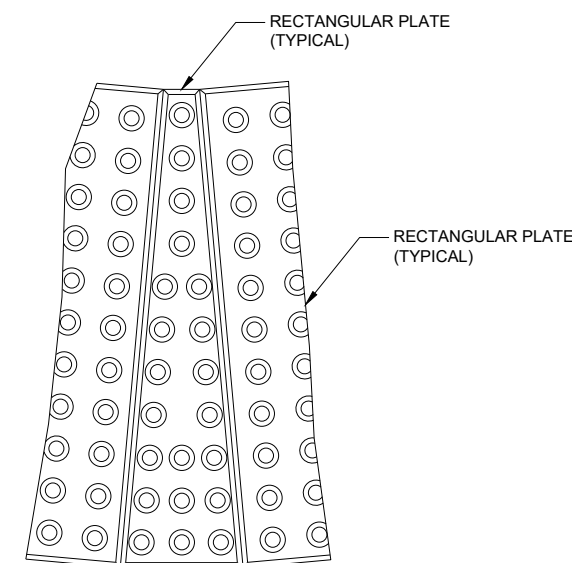


**RADIAL  
PLATES**

**PLAN VIEW  
DETECTABLE WARNING FIELDS (TYPICAL)**



**PLAN VIEW  
RADIAL DETECTABLE  
WARNING FIELD ATTRIBUTES**



**PLAN VIEW  
RADIAL WEDGE PLATE  
CONNECTION DETAIL**

**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 FIELD 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.

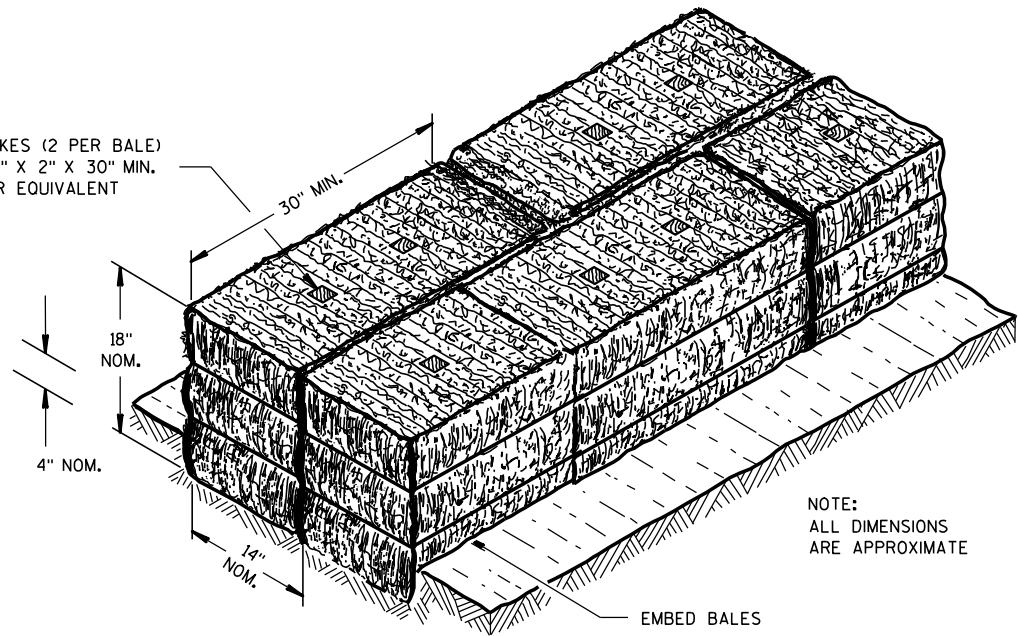
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

<b>CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	

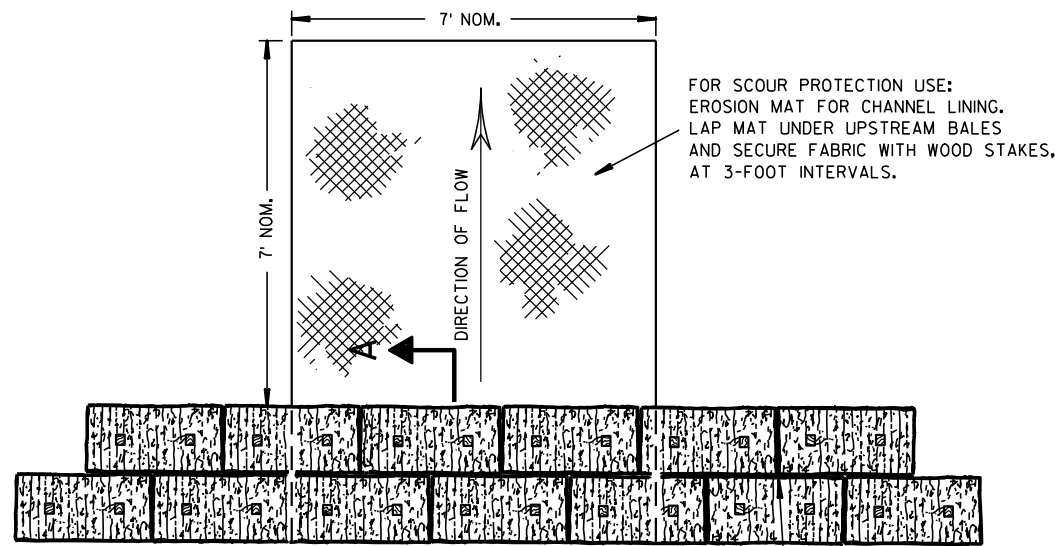
WOOD STAKES (2 PER BALE)  
NOMINAL 2" X 2" X 30" MIN.  
LENGTH OR EQUIVALENT



NOTE:  
ALL DIMENSIONS  
ARE APPROXIMATE

EMBED BALES

SECTION A-A

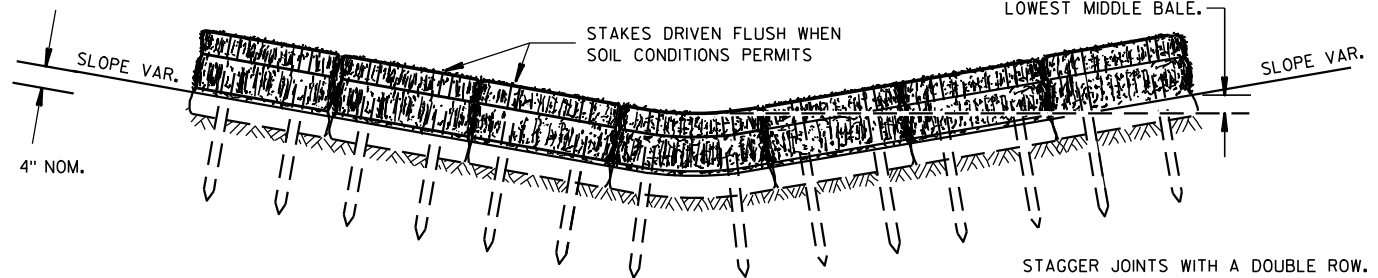


FOR SCOUR PROTECTION USE:  
EROSION MAT FOR CHANNEL LINING.  
LAP MAT UNDER UPSTREAM BALES  
AND SECURE FABRIC WITH WOOD STAKES,  
AT 3-FOOT INTERVALS.

STAGGER JOINTS BETWEEN ADJACENT  
ROWS OF BALES.

PLAN VIEW

BOTTOM ELEVATION OF END BALE SHALL  
BE EQUAL TO OR GREATER THAN TOP OF  
LOWEST MIDDLE BALE.



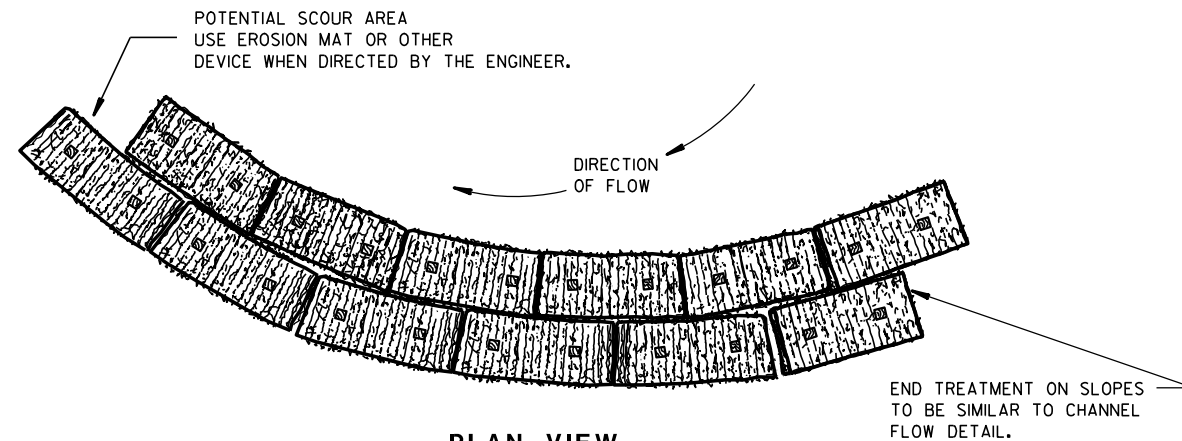
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

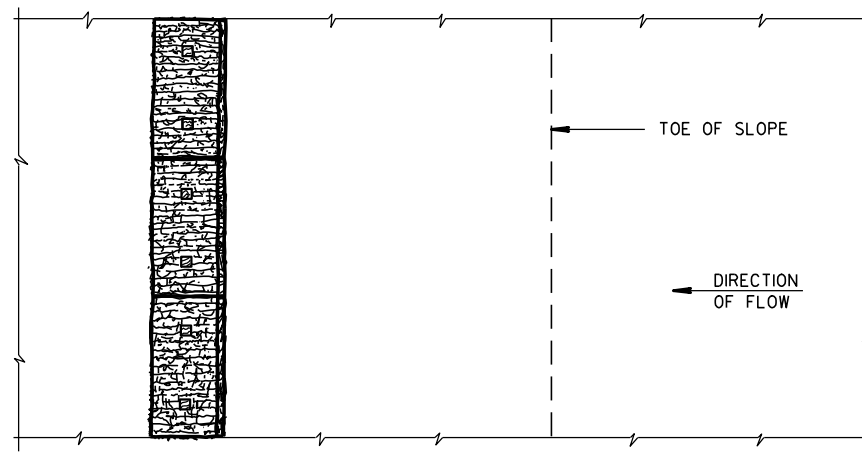
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

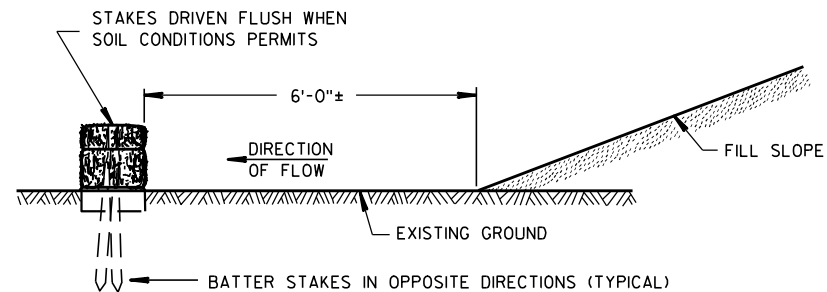


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF  
EROSION BALES / TEMPORARY  
DITCH CHECKS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE

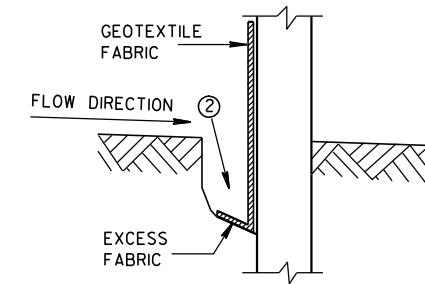


SITUATION 1 SITUATION 2  
PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

**GENERAL NOTES**

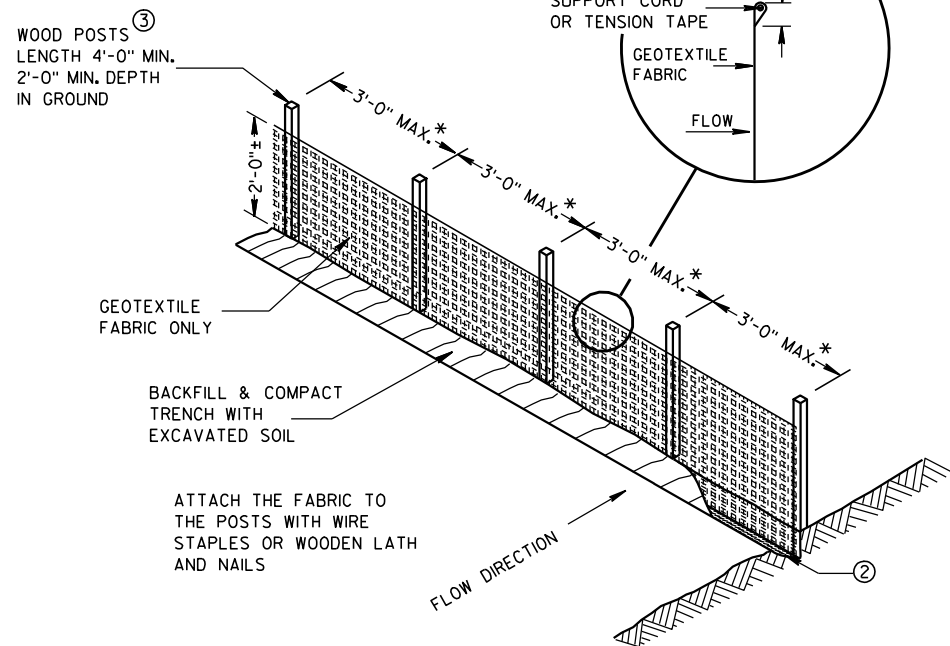
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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



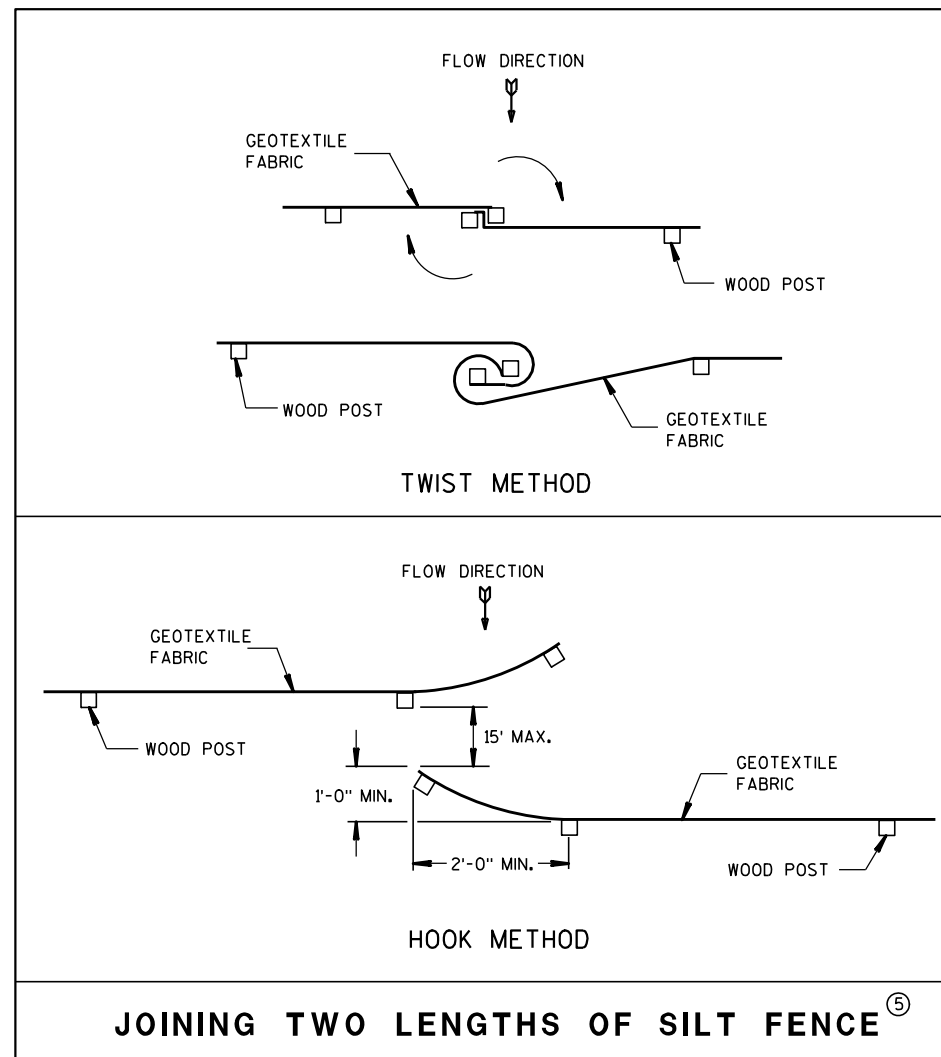
TRENCH DETAIL

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

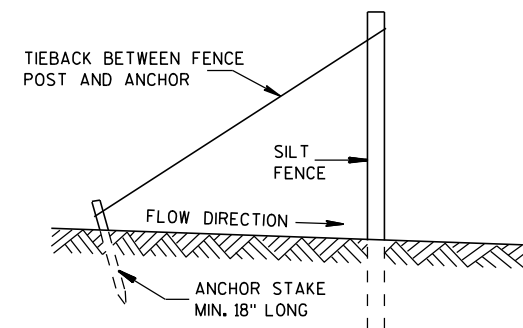


SILT FENCE

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



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

**SILT FENCE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

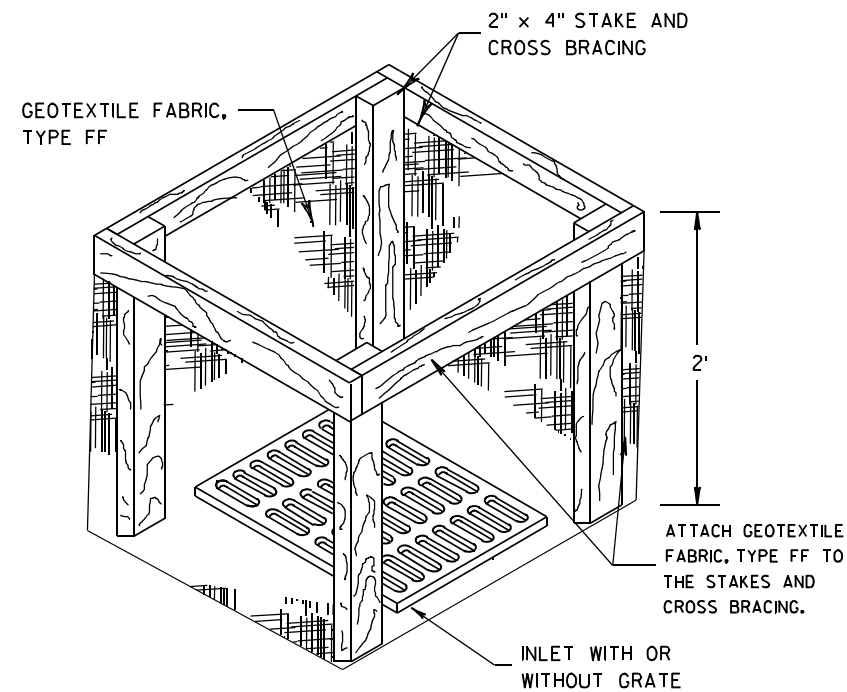
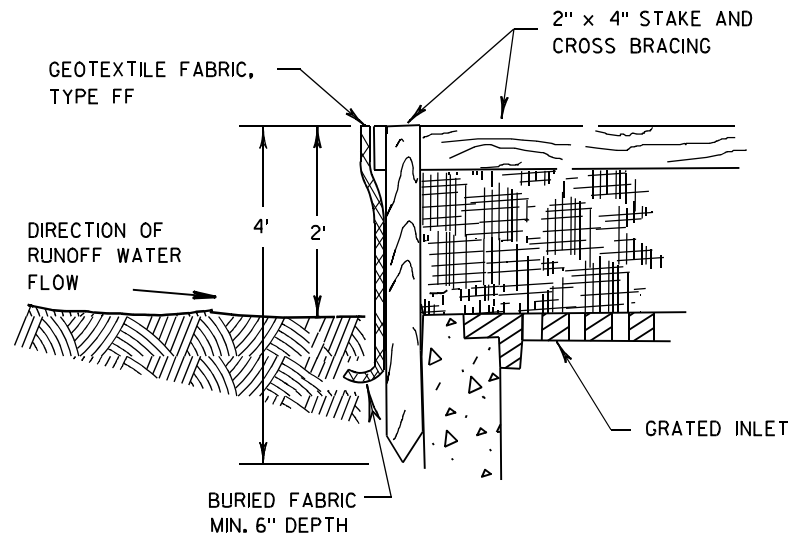
APPROVED

4-29-05

DATE

FHWA

/S/ Beth Cannestra  
CHIEF ROADWAY DEVELOPMENT ENGINEER



**INLET PROTECTION, TYPE A**

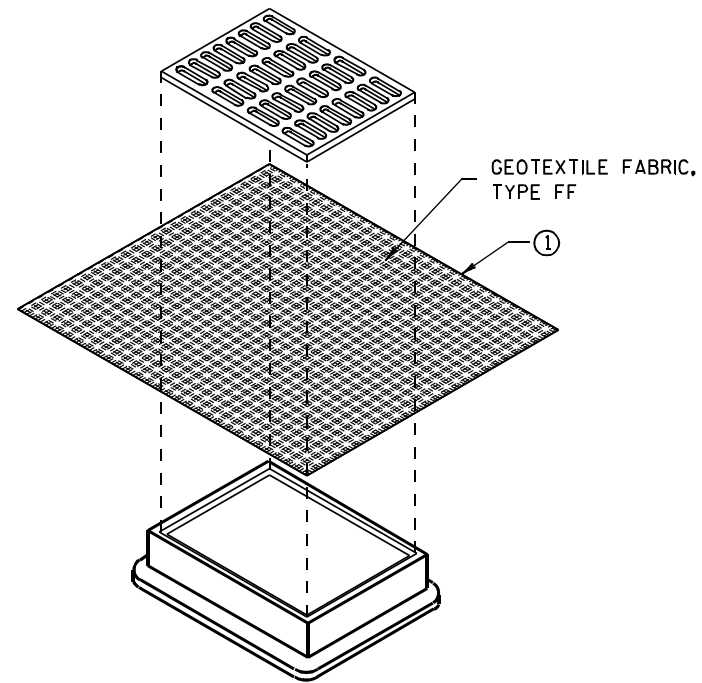
**GENERAL NOTES**

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.

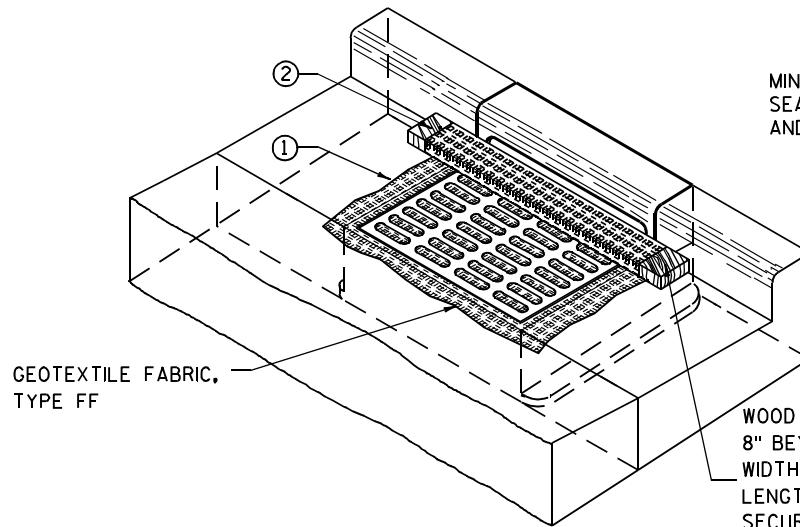
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



**INLET PROTECTION, TYPE B  
(WITHOUT CURB BOX)**

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



**INLET PROTECTION, TYPE C (WITH CURB BOX)**

**INSTALLATION NOTES**

**TYPE B & C**

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

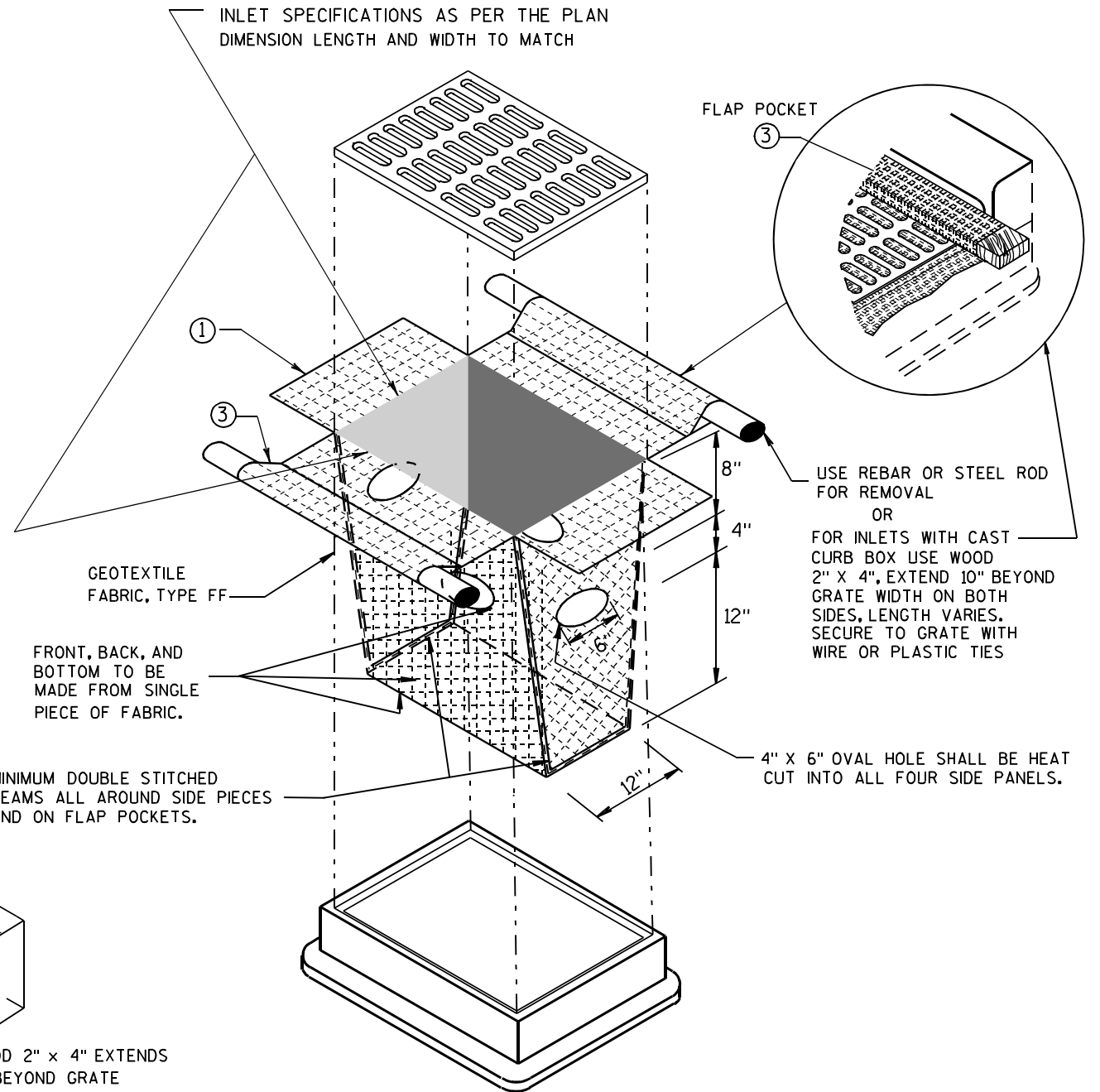
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**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.

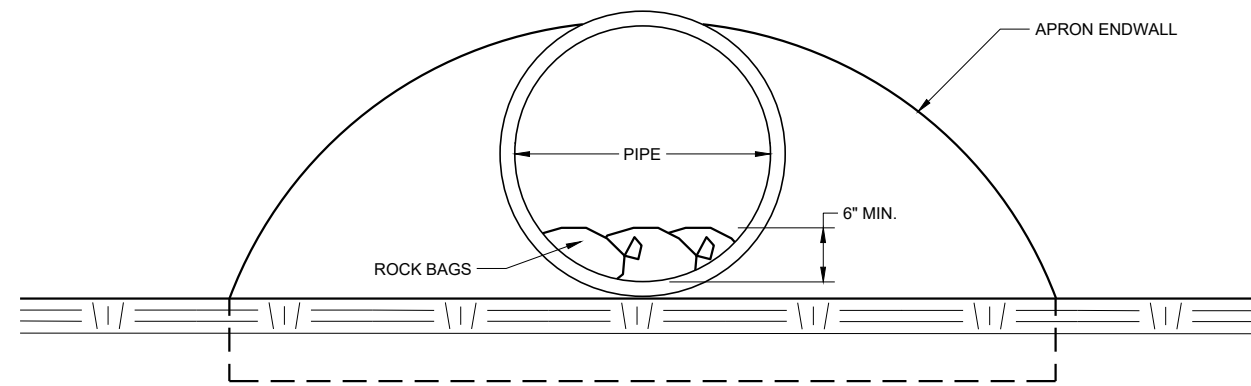


**INLET PROTECTION, TYPE D**

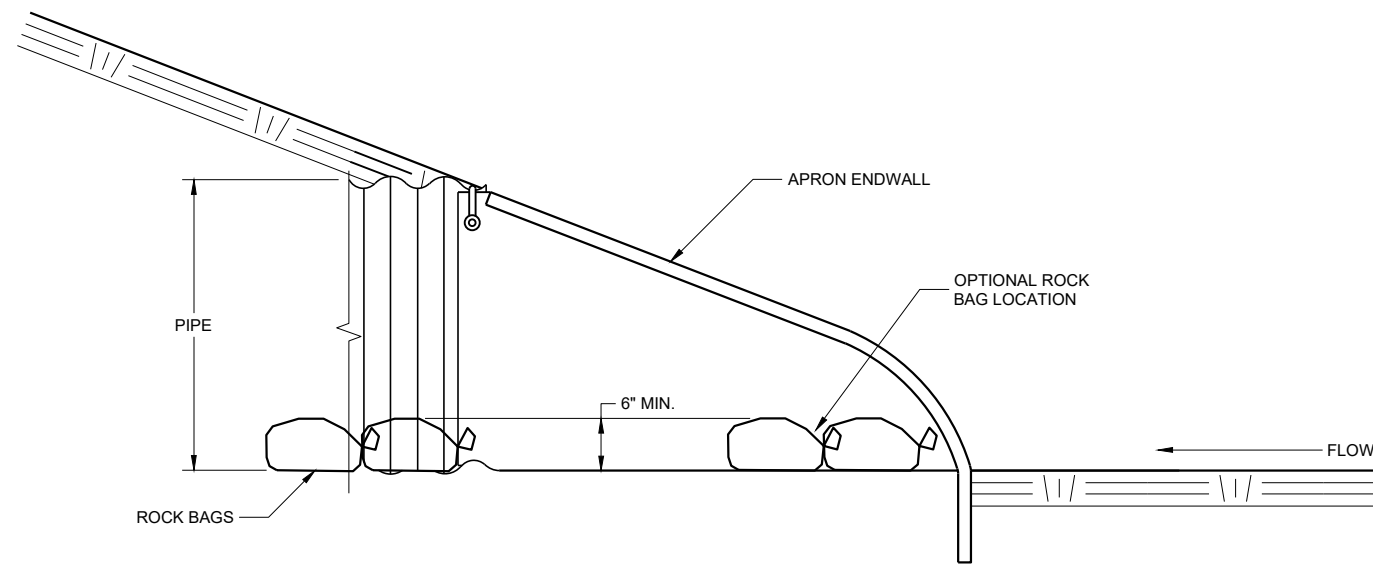
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

<b>INLET PROTECTION TYPE A, B, C, AND D</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE	/s/ Beth Conestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	





**END VIEW**



**SIDE VIEW**

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

**CULVERT PIPE CHECK**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

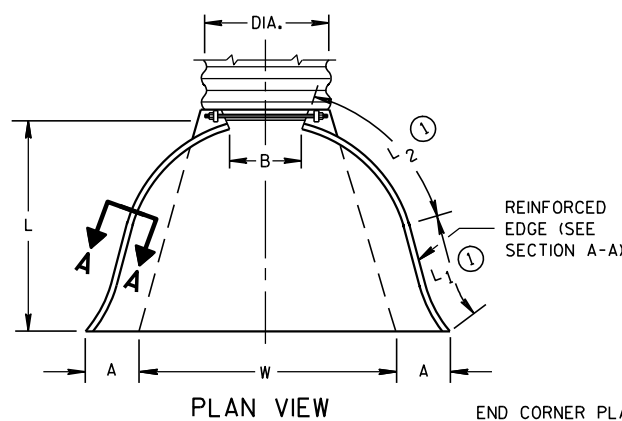
FHWA

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

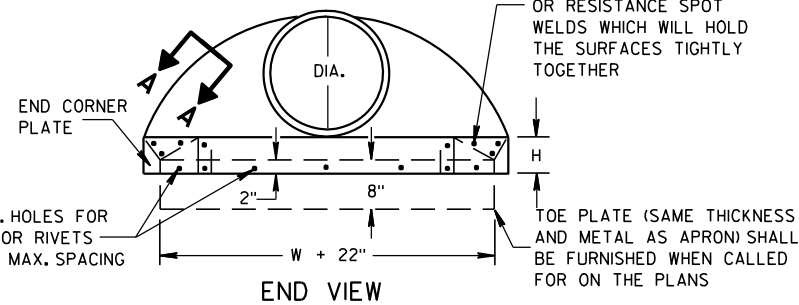
\* EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE APRON ENDWALLS									
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE	
	T	A	B	C	D	E	G		
12	2	4	24	48 1/8	72 1/8	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 1/2 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	

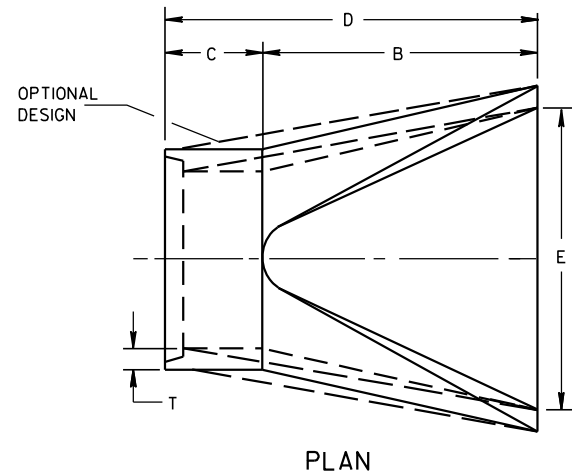
\* MINIMUM  
\*\* MAXIMUM



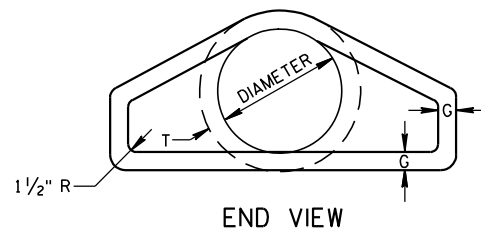
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



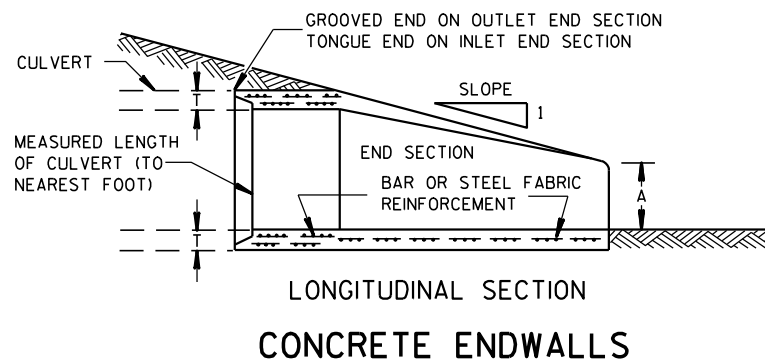
SIDE ELEVATION  
METAL ENDWALLS



PLAN

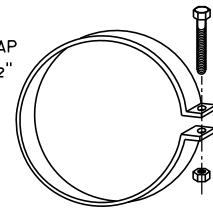


END VIEW

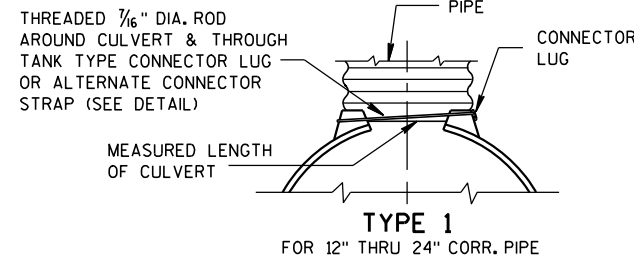


LONGITUDINAL SECTION  
CONCRETE ENDWALLS

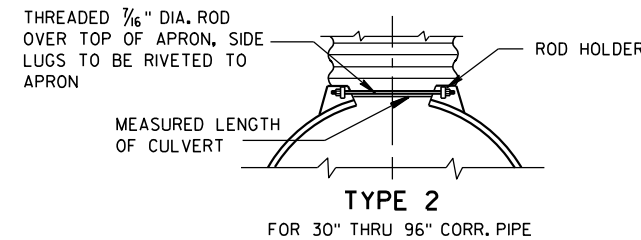
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



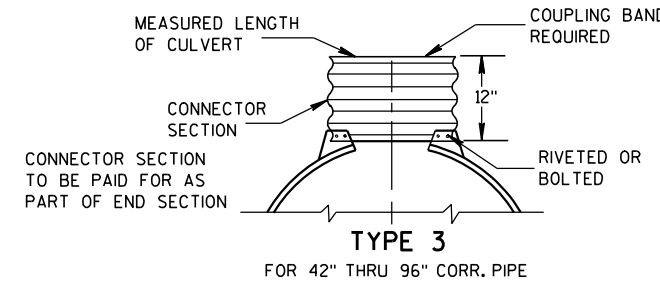
ALTERNATE FOR TYPE 1 CONNECTION  
END SECTION CONNECTOR STRAP



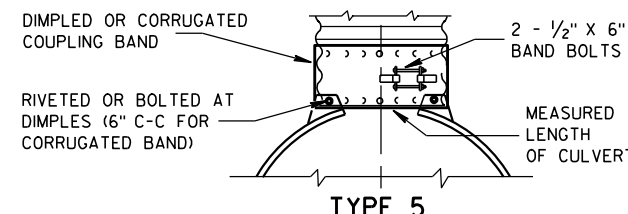
TYPE 1  
FOR 12" THRU 24" CORR. PIPE



TYPE 2  
FOR 30" THRU 96" CORR. PIPE



TYPE 3  
FOR 42" THRU 96" CORR. PIPE



ALTERNATE FOR:  
ALL SIZES CORRUGATED CIRCULAR PIPE

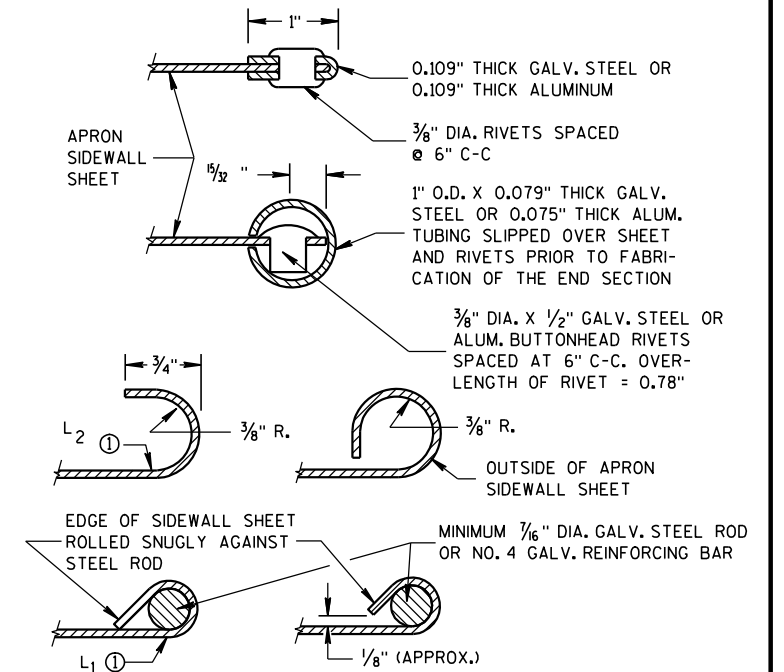
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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 VICE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

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

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

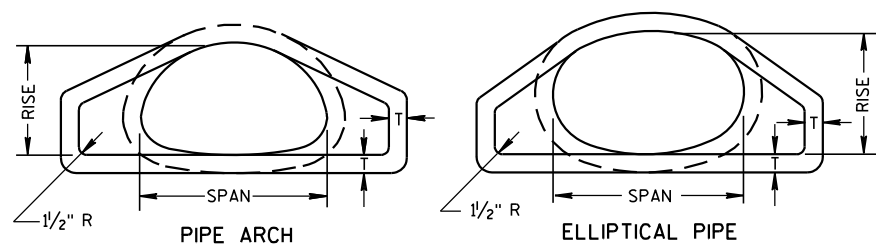
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

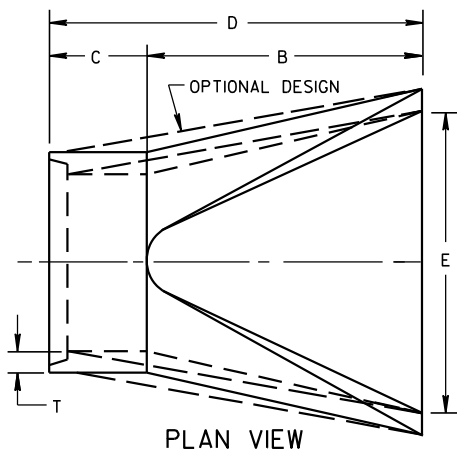
APRON ENDWALLS FOR  
CULVERT PIPE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

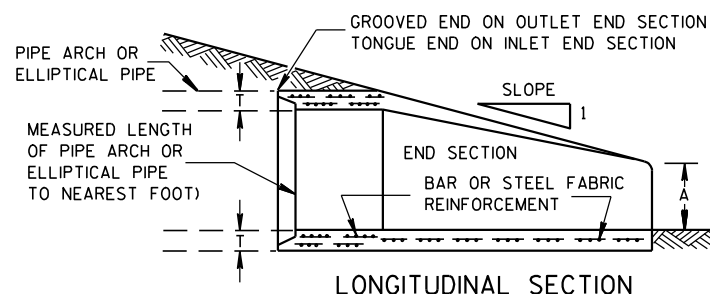
APPROVED  
11/30/94 DATE /S/ Rory L. Rhinesmith  
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER  
FHWA



END VIEW

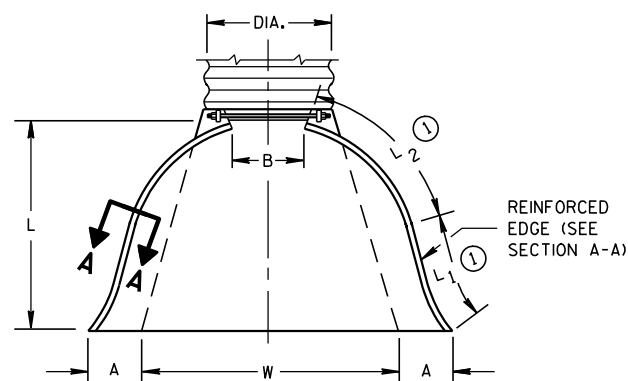


PLAN VIEW



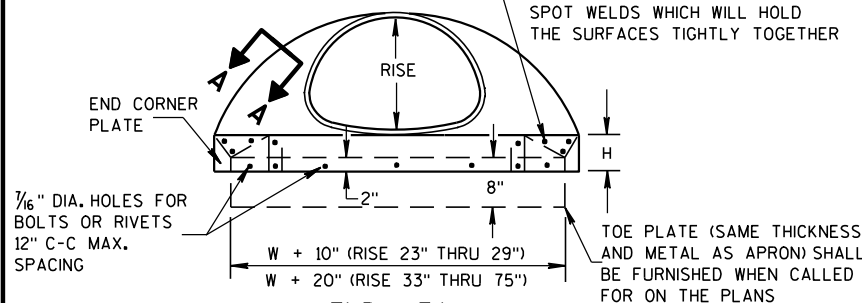
LONGITUDINAL SECTION

CONCRETE ENDWALLS

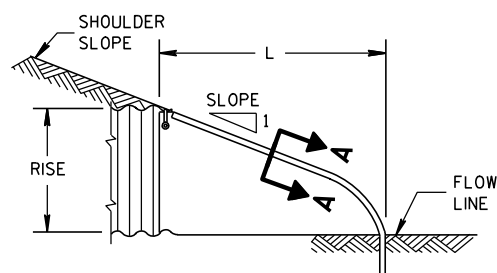


PLAN VIEW

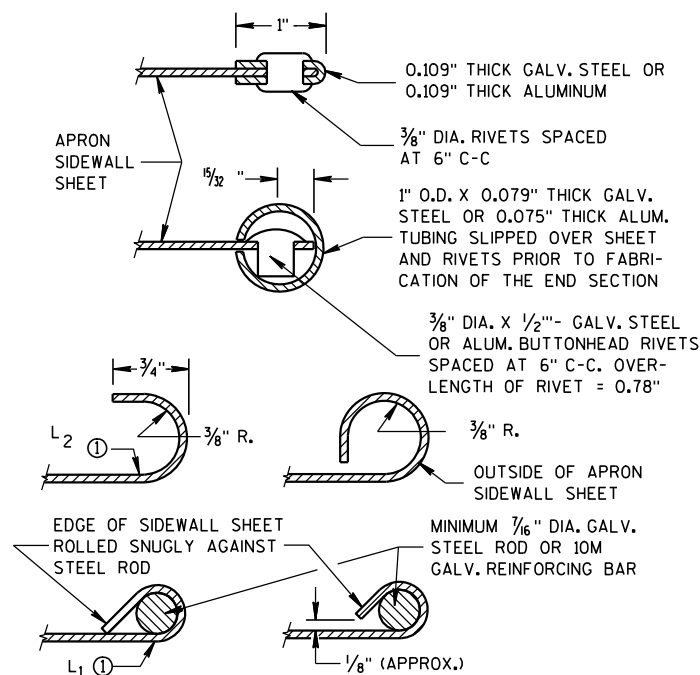
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



END VIEW



SIDE ELEVATION  
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	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 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	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 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	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 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	8 1/2	39	33	72	48	3 to 1	
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1	
36	44	27	4	11 1/8	60	36	96	72	3 to 1	
42	51	31	4 1/2	15 1/8	60	36	96	78	3 to 1	
48	58	36	5	21	60	36	96	84	3 to 1	
54	65	40	5 1/2	25 1/2	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	28 1/2	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	3 1/4	8 1/2	39	33	72	48	3 to 1	
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1	
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1	
42	53	34	5	15 3/4	60	36	96	78	2 1/2 to 1	
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1	
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1	
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1	

\*\*NOMINAL SIZE

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.

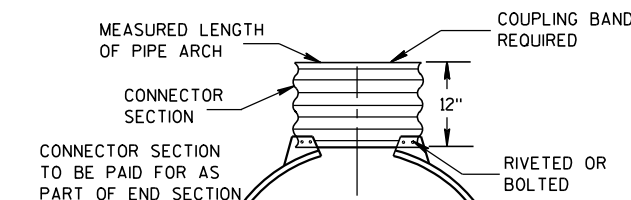
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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.



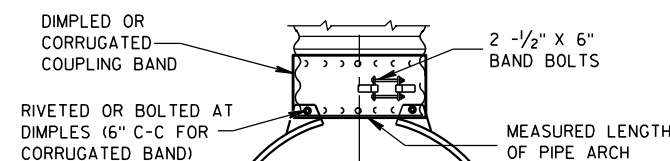
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:  
ALL SIZES CORRUGATED PIPE ARCHES

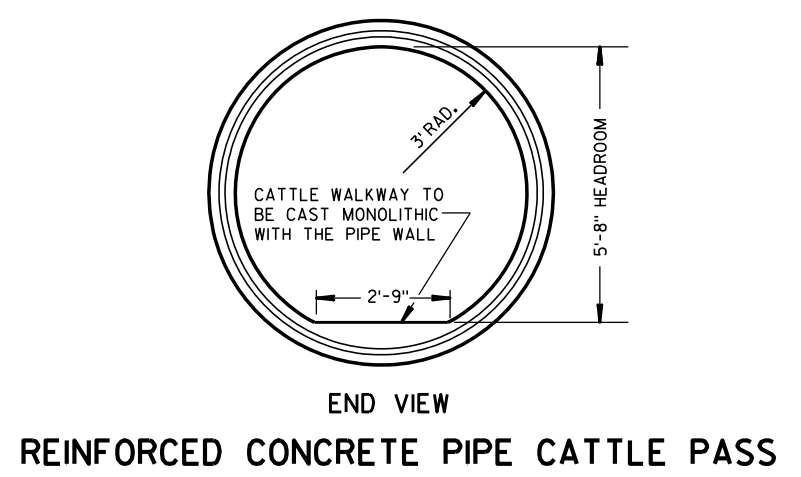
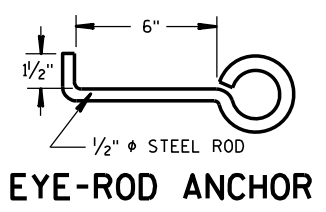
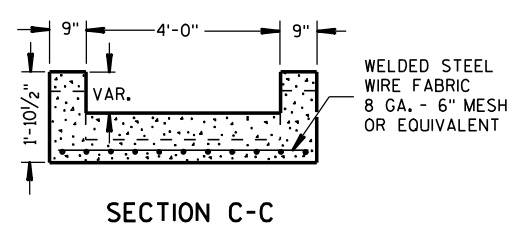
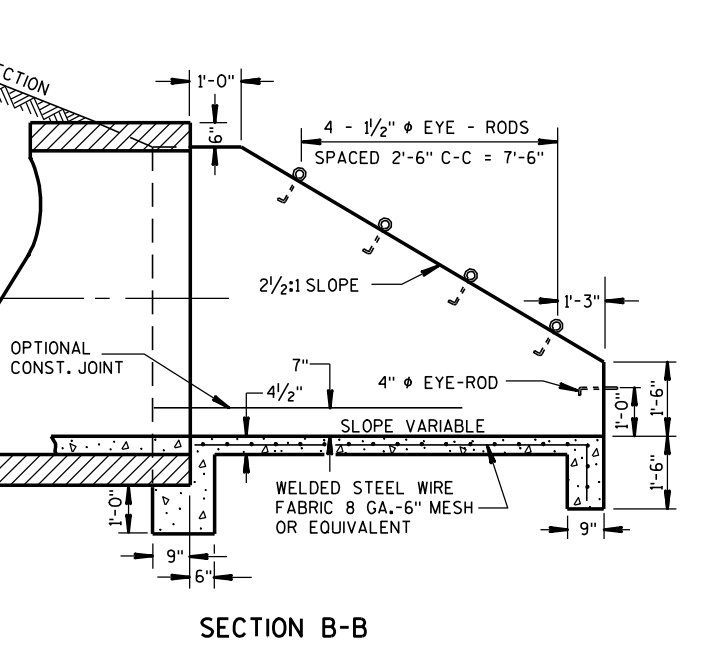
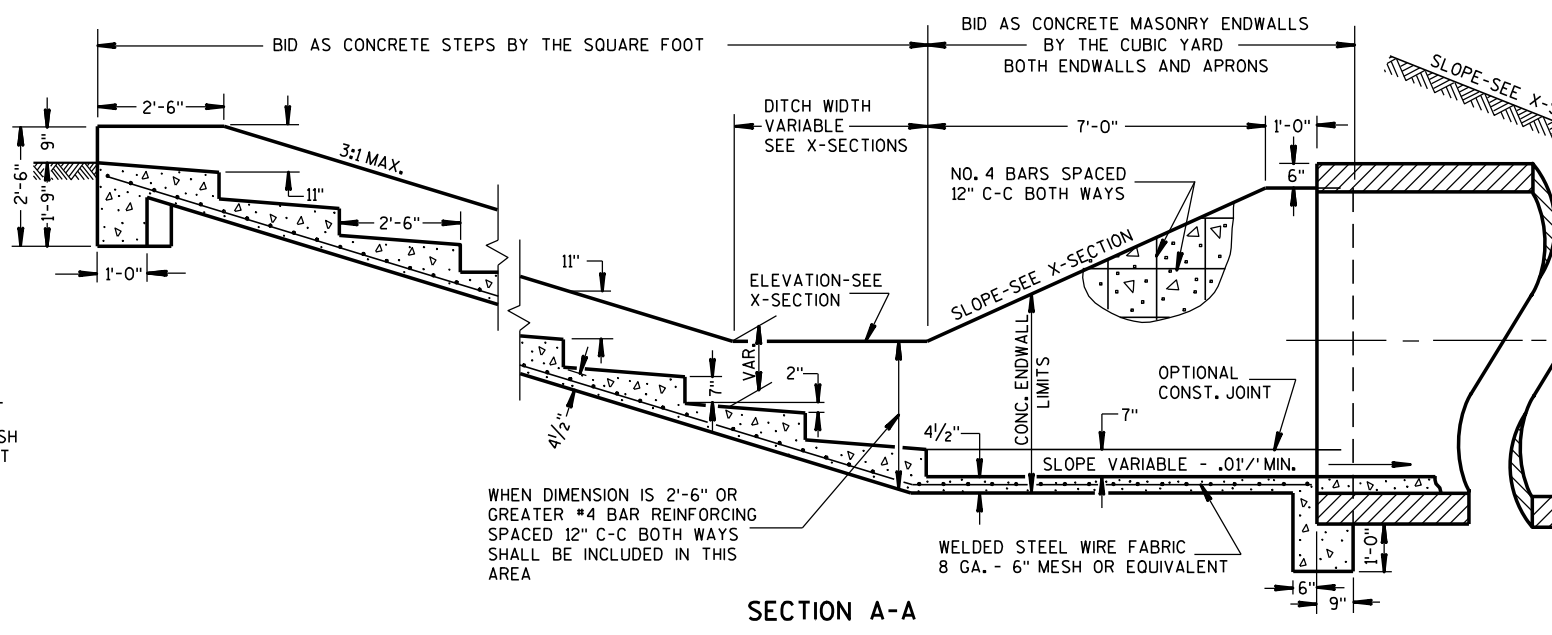
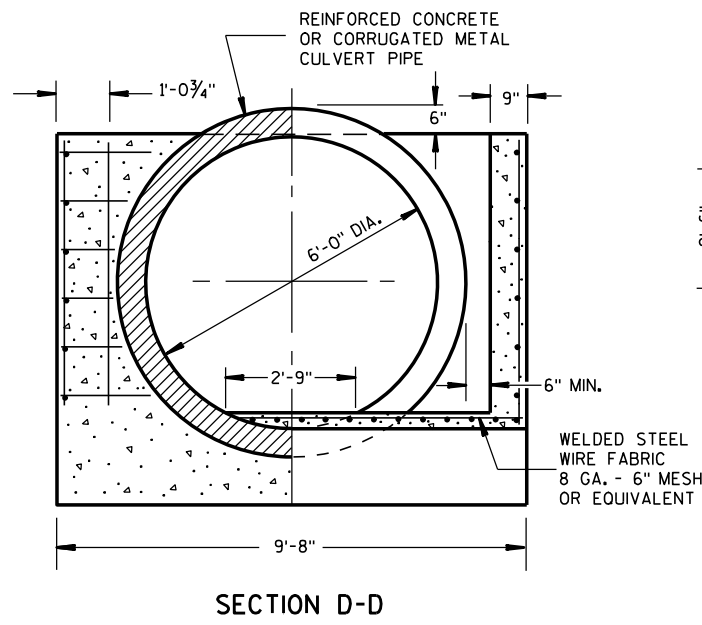
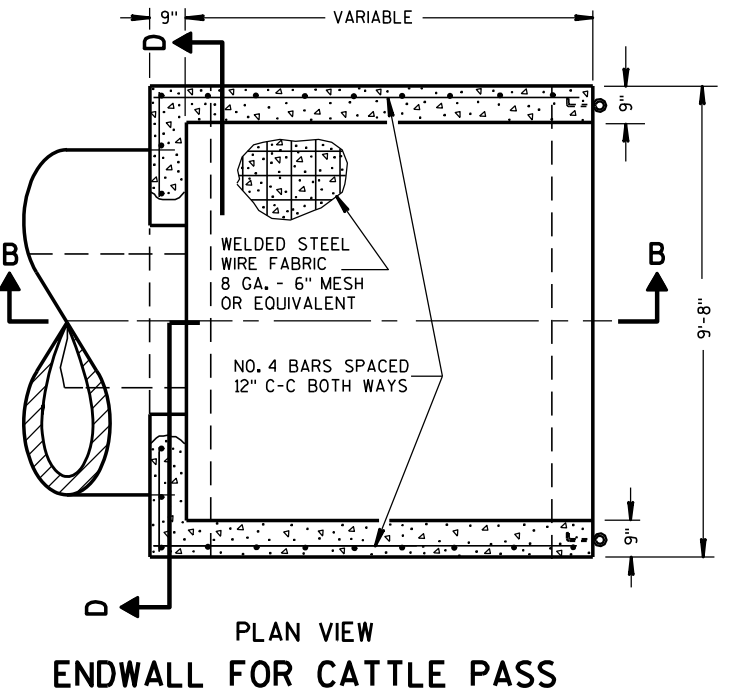
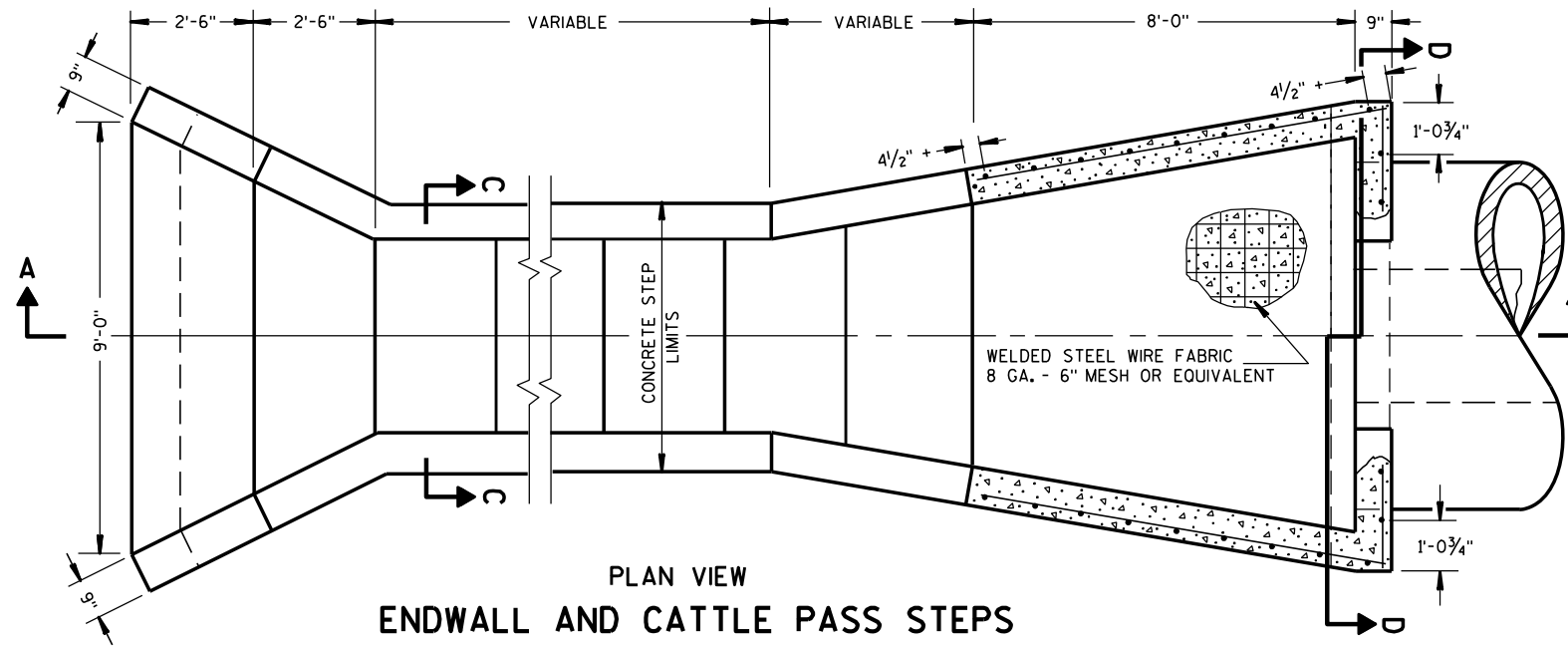
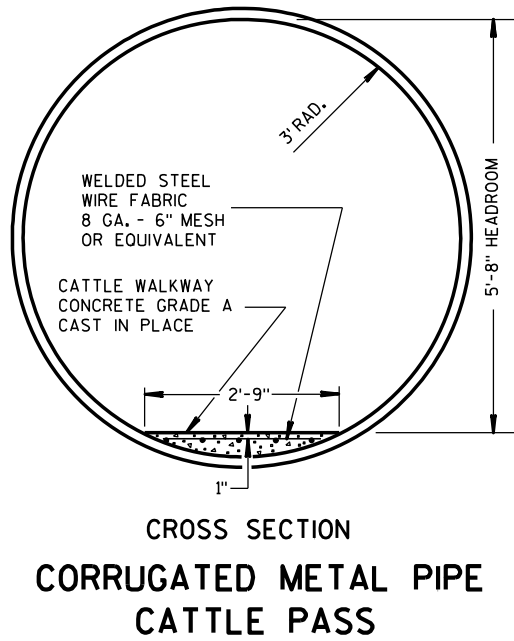
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

**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



**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 IN ENDWALLS AND CATTLE PASS STEPS SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.
- ALL STEEL REINFORCEMENT OR FABRIC USED AS SHOWN ABOVE SHALL BE INCIDENTAL TO THE BID ITEM OF WHICH IT IS AN INTEGRAL PART.
- EYE-RODS FOR FENCE CONNECTIONS SHALL BE PROVIDED BY THE CONTRACTOR AS AN INCIDENTAL TO THE BID ITEM OF CONCRETE MASONRY, ENDWALLS AND SHALL BE GALVANIZED.
- CONCRETE USED FOR THE CATTLE WALKWAY WITHIN THE PIPE SHALL BE INCIDENTAL TO THE BID ITEM OF PIPE CATTLE PASS.

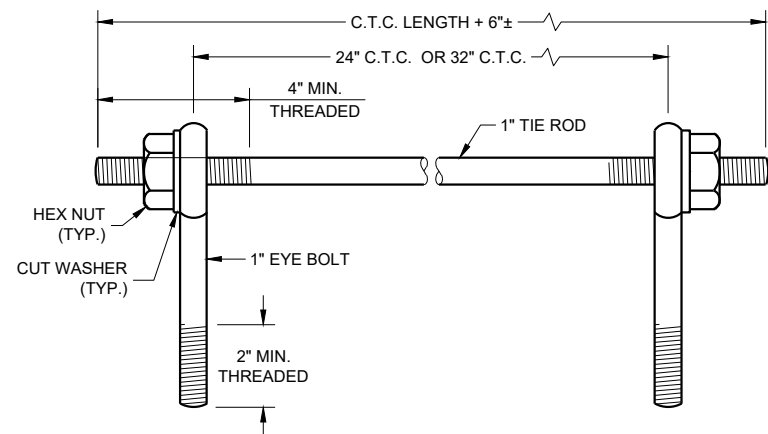
<b>DETAILS FOR PIPE CATTLE PASS, CONCRETE ENDWALL AND STEPS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/6/75 DATE	/S/ Harold Fleider STATE DESIGN ENGINEER FOR HWYS
FHWA	

6

6

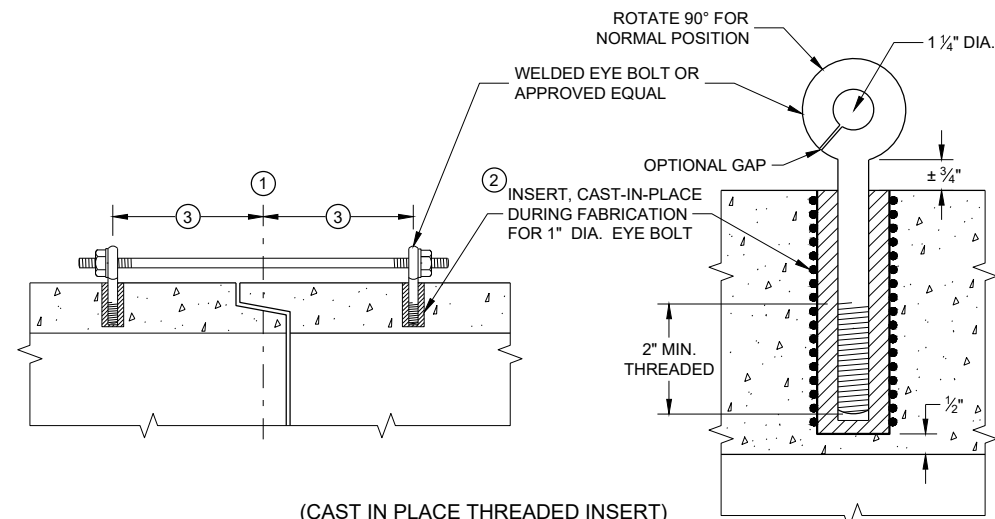
S.D.D. 8 F 3-3

S.D.D. 8 F 3-3



**EYE BOLTS AND TIE ROD**

**EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)**



(CAST IN PLACE THREADED INSERT)  
**LONGITUDINAL SECTIONS**

**GENERAL NOTES**

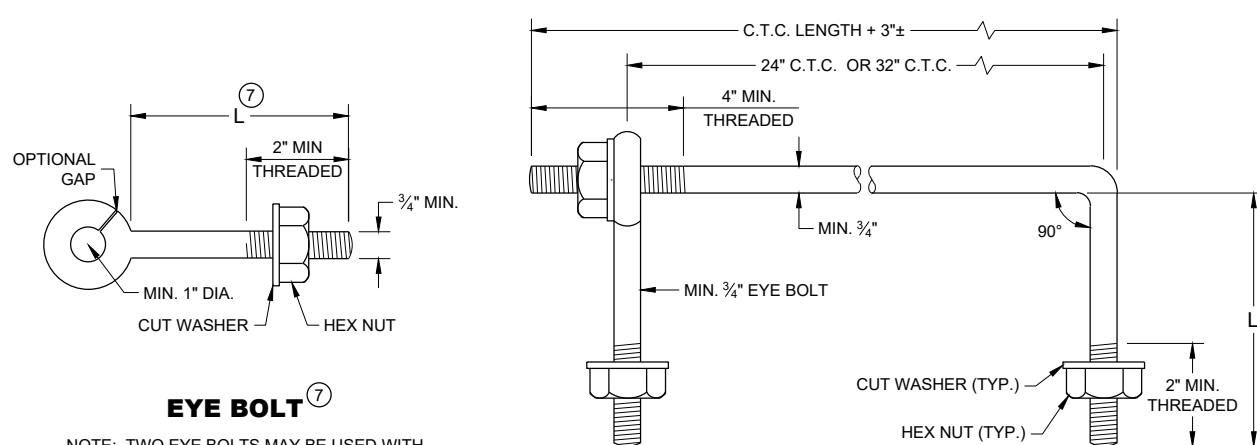
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

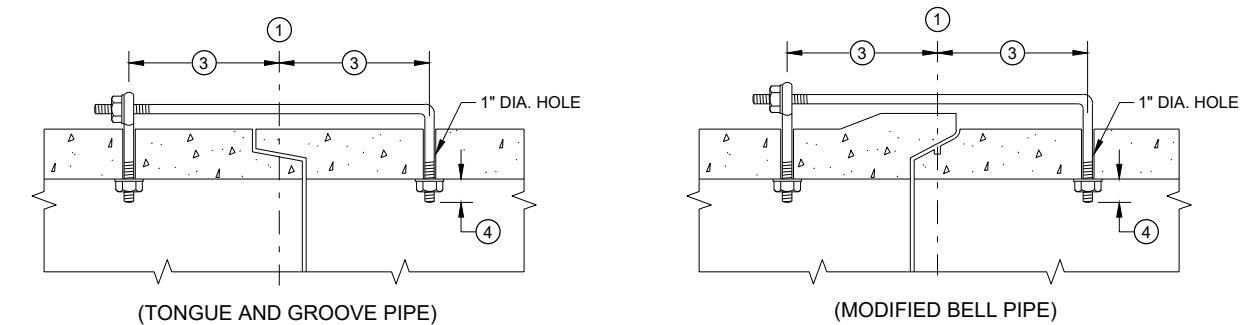
- ① CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- ⑦ EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.



**EYE BOLT** ⑦

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30\"/>

**EYE BOLT AND TIE ROD**



**LONGITUDINAL SECTION**

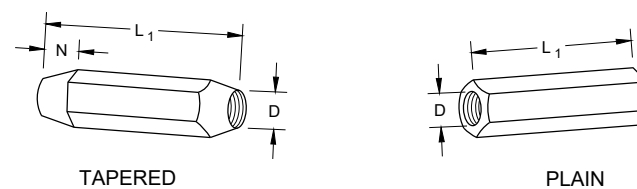
(JOINT TIES FOR 18\"/>

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

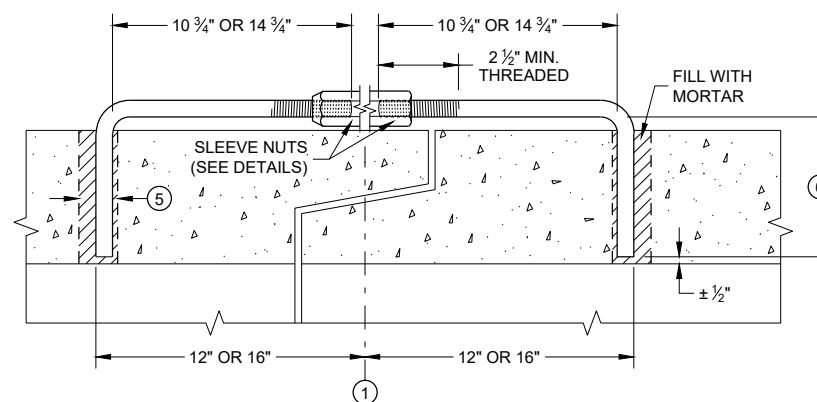
**ADJUSTABLE TIE ROD TABLE**

PIPE DIAMETER	TIE ROD DIAMETER	D	L <sub>1</sub>	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES

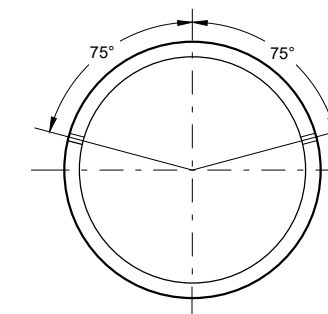


**RIGHT AND LEFT THREADS SLEEVE NUTS**



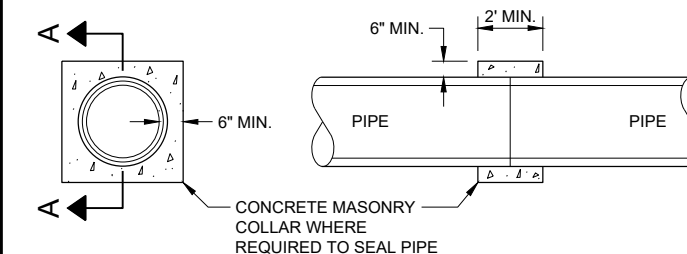
**LONGITUDINAL SECTION**

**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**



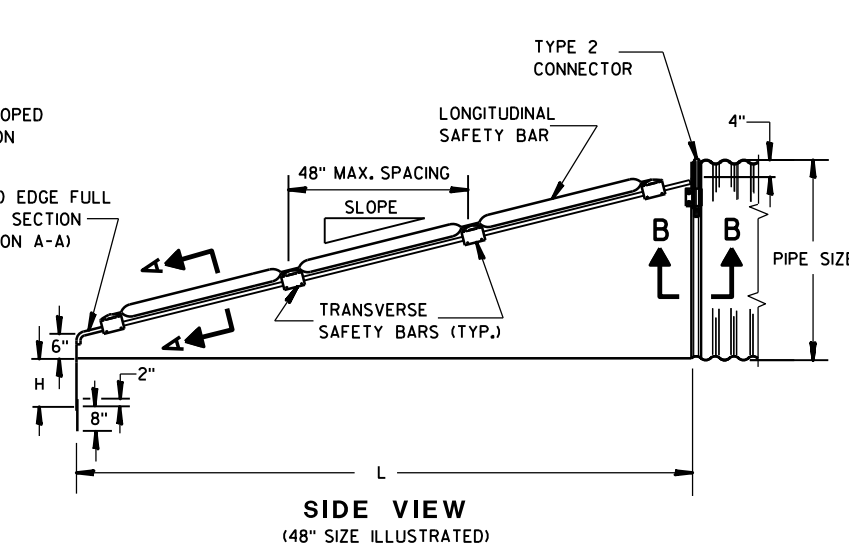
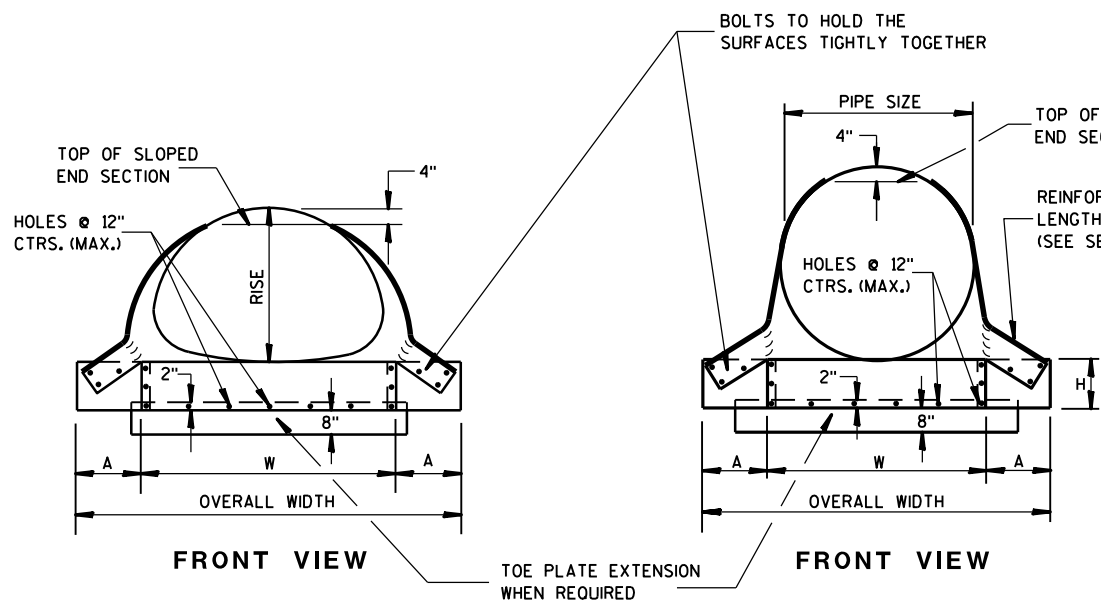
**SECTION A - A  
CONCRETE COLLAR DETAIL**

**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



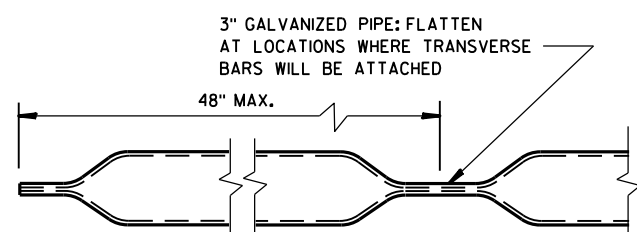
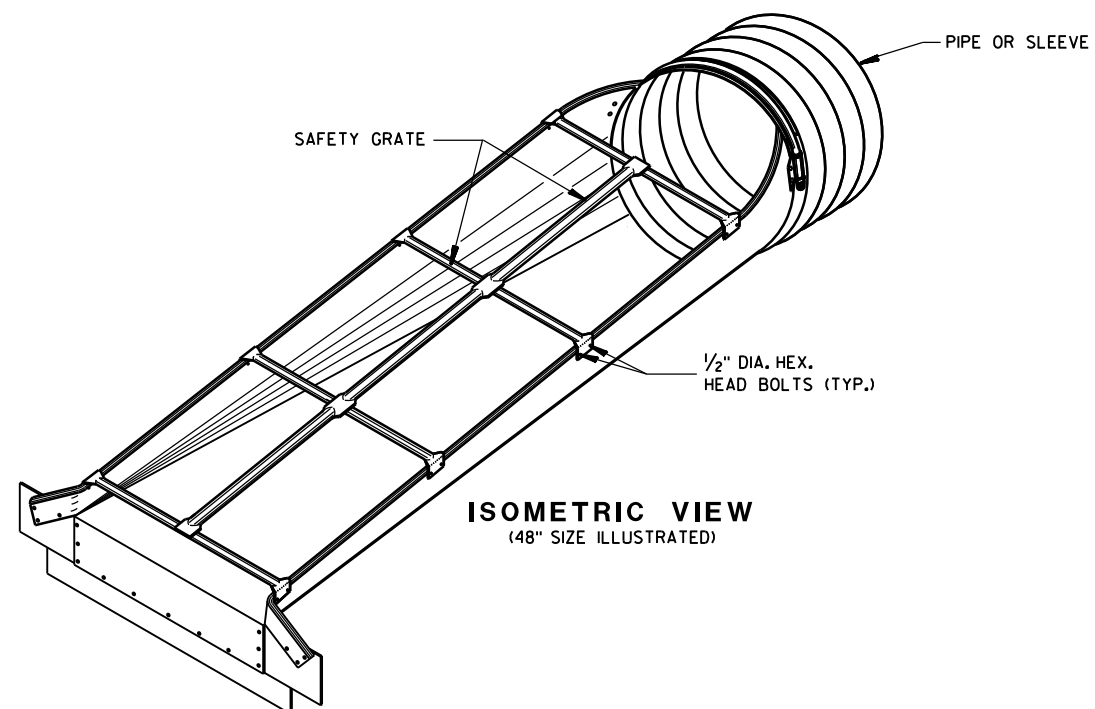
**GENERAL NOTES**

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.

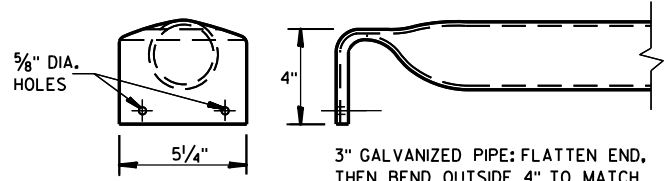
SAFETY GRATES SHALL BE FABRICATED FROM 3-INCH DIAMETER GALVANIZED PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL. THE LONGITUDINAL BAR SHALL BE WELDED TO THE TRANSVERSE BARS WHERE THE BARS CROSS. THE NUMBER OF TRANSVERSE BARS REQUIRED WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

SLOPED STEEL ENDWALLS LOCATED AT THE ENDS OF CONCRETE CULVERT PIPE SHALL BE FURNISHED WITH STEEL ADAPTER SLEEVES.

STEEL APRON ENDWALLS FOR CULVERT PIPE CROSS DRAINS										
PIPE DIA. (IN.)	MIN. THICK. IN.	GAGE	DIMENSIONS (inches)				L DIMENSIONS			
			A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
36	.109	12	12	9	42	66	4:1	104	6:1	156
42	.109	12	16	12	48	80	4:1	128	6:1	192
48	.109	12	16	12	54	86	4:1	152	6:1	228
54	.109	12	16	12	60	92	4:1	176	6:1	264
60	.109	12	16	12	66	98	4:1	200	6:1	300

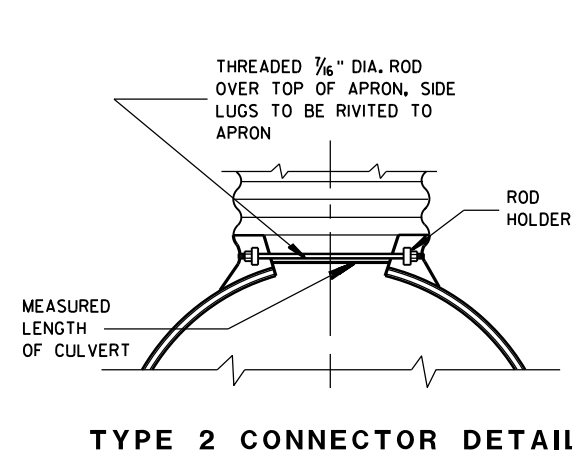


**LONGITUDINAL SAFETY BAR**

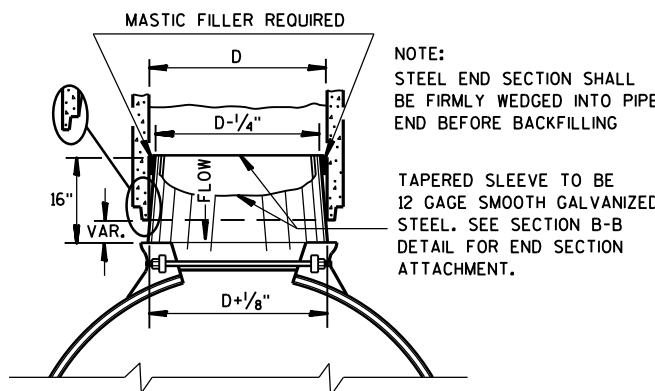


**TRANSVERSE SAFETY BAR**

STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED CROSS DRAINS												
EQUIV. DIA. (IN.)	INCHES		MIN. THICK. IN.	GAGE	DIMENSIONS (inches)				L DIMENSIONS			
	SPAN	RISE			A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138
48	57	38	.109	12	16	12	63	95	4:1	112	6:1	168
54	64	43	.109	12	16	12	70	102	4:1	132	6:1	198
60	71	47	.109	12	16	12	77	109	4:1	148	6:1	222



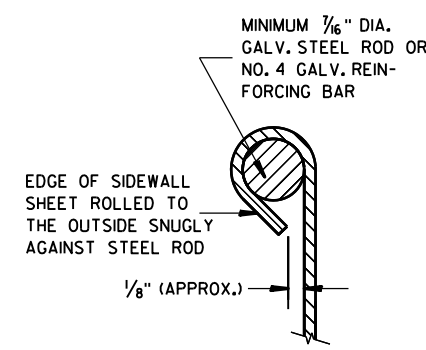
**TYPE 2 CONNECTOR DETAIL**



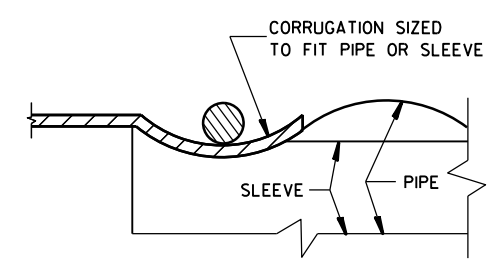
**STEEL ADAPTER SLEEVE FOR CONCRETE PIPE**

NOTE: STEEL END SECTION SHALL BE FIRMLY WEDGED INTO PIPE END BEFORE BACKFILLING

TAPERED SLEEVE TO BE 12 GAGE SMOOTH GALVANIZED STEEL. SEE SECTION B-B DETAIL FOR END SECTION ATTACHMENT.



**SECTION A-A**

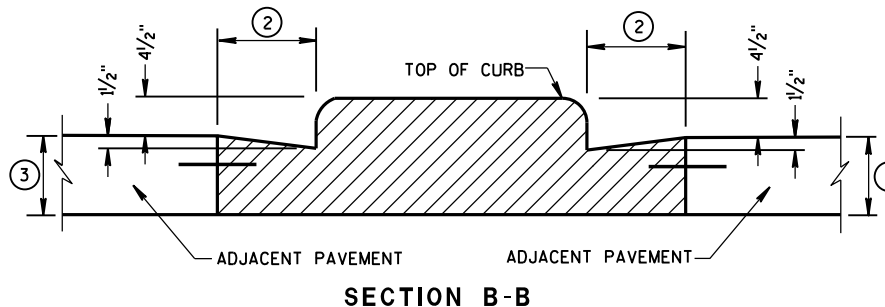
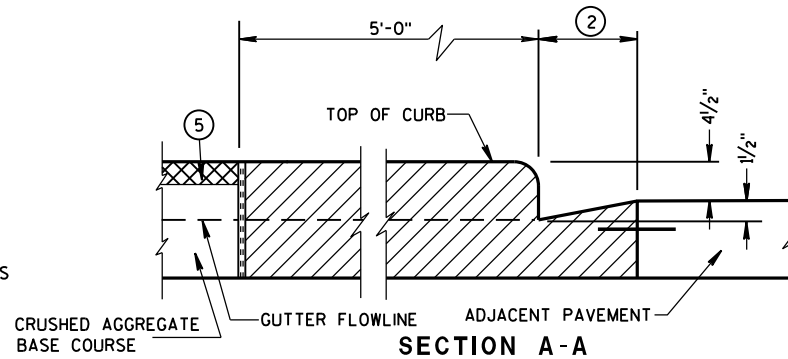
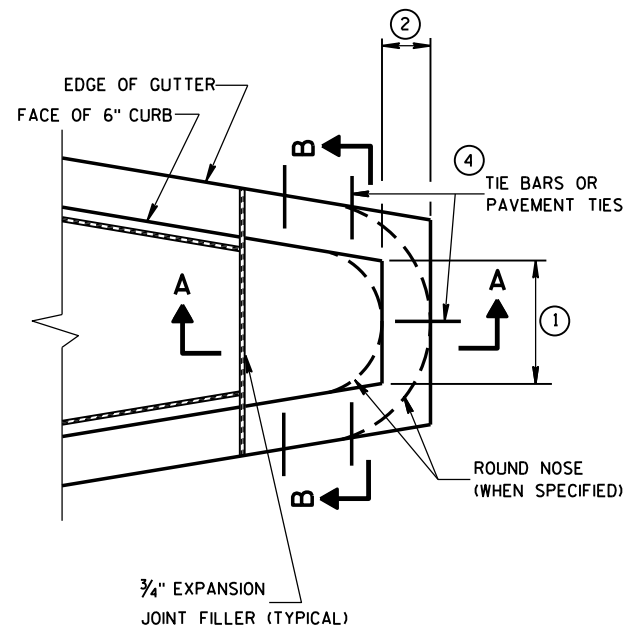
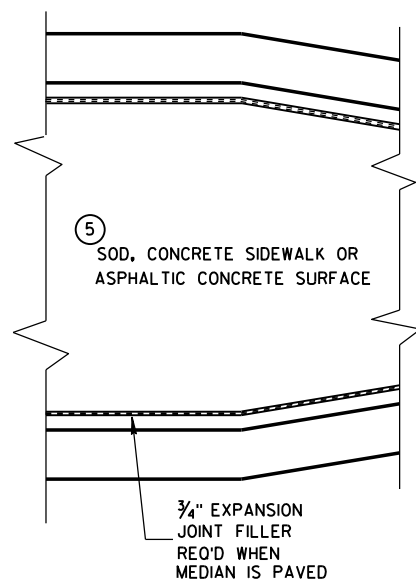


**SECTION B-B**

**STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE 6/5/2012 /S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT ENGINEER  
FHWA

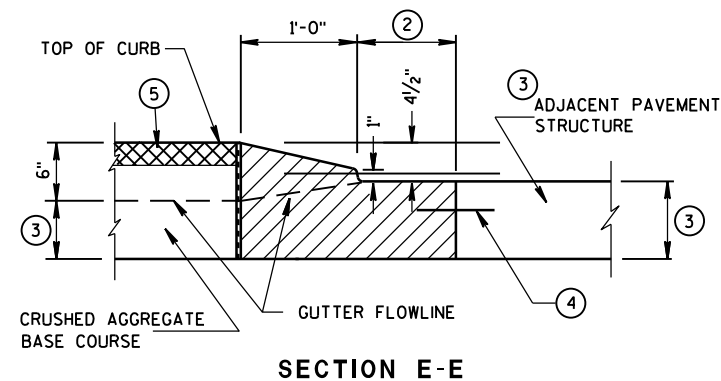
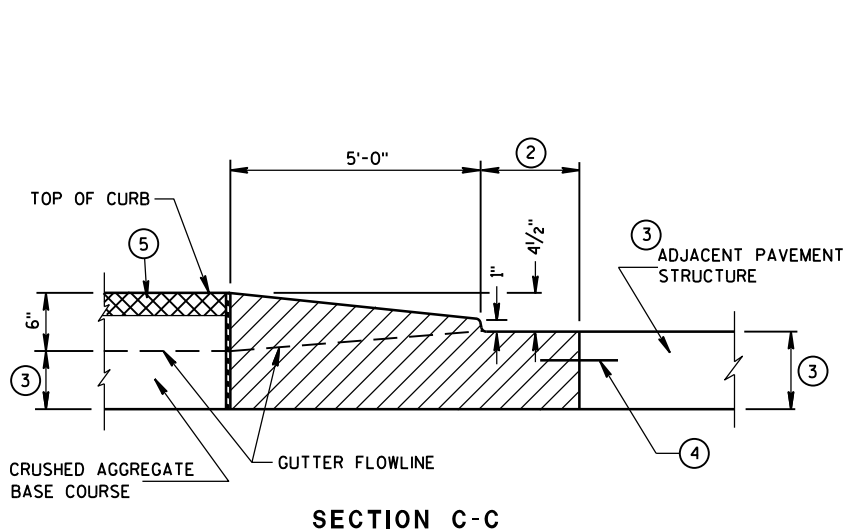
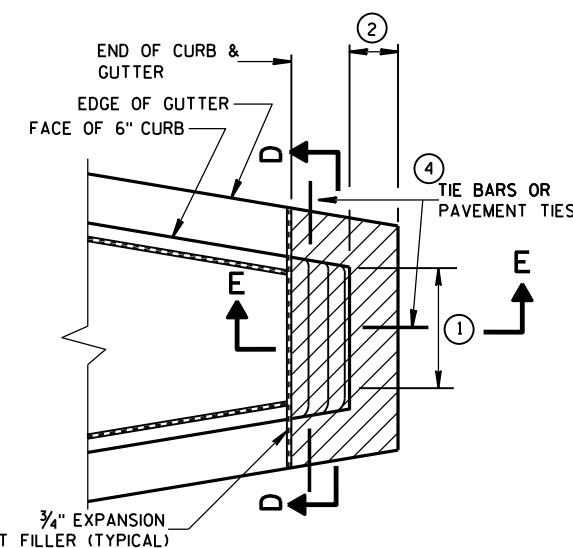


CONCRETE MEDIAN BLUNT NOSE DETAIL

**GENERAL NOTES**

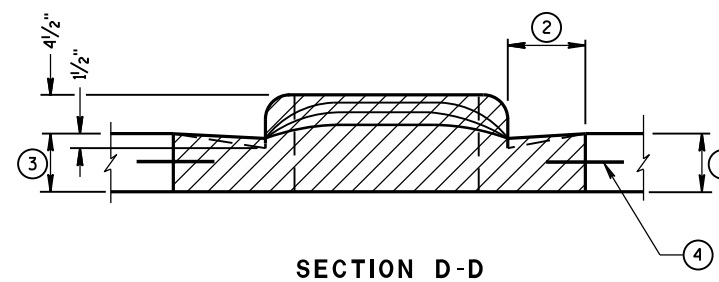
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- ② WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- ③ DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
  - (1) NEW OR EXISTING CONCRETE PAVEMENT.
  - (2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.
  - (3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.
- ④ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.
- PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.
- ⑤ SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



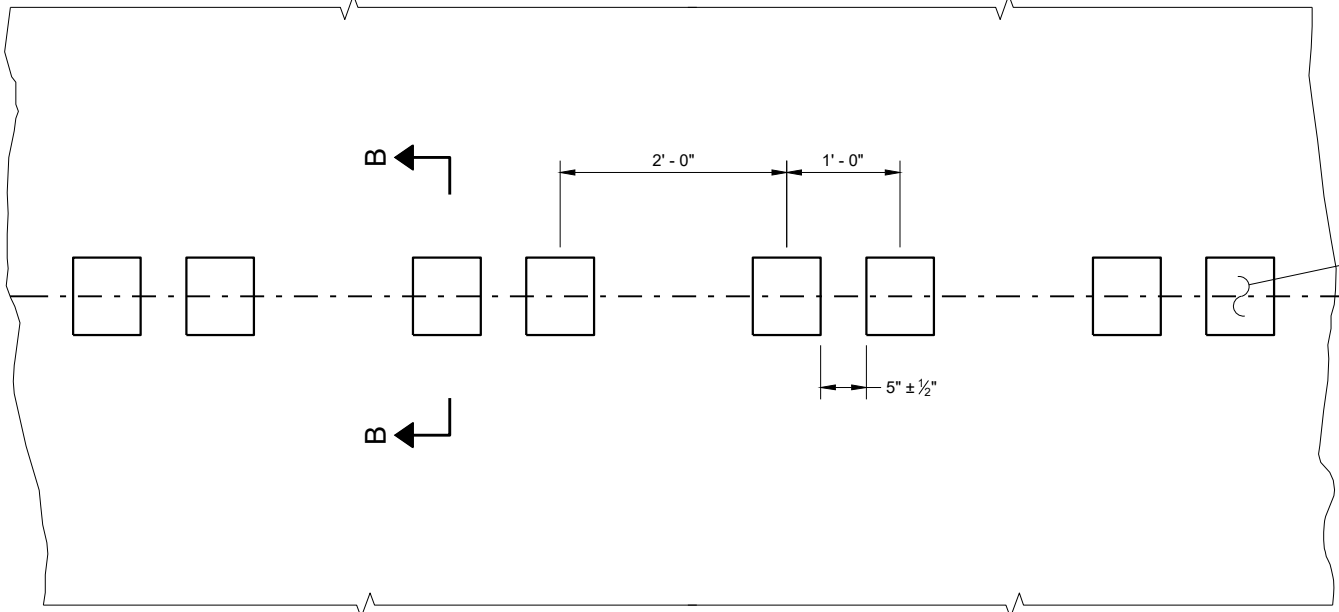
<b>CONCRETE MEDIAN NOSE</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



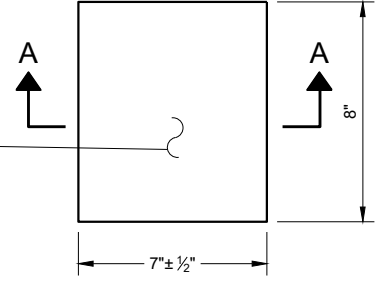
**GENERAL NOTES**

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

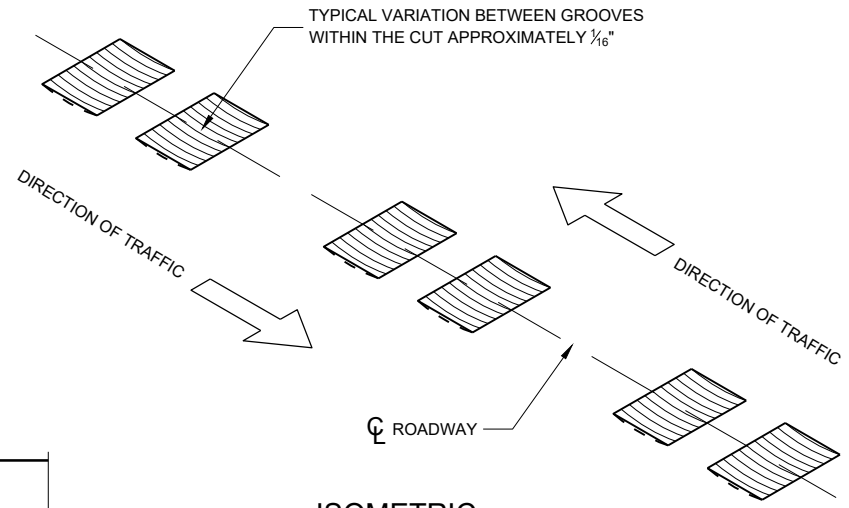
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



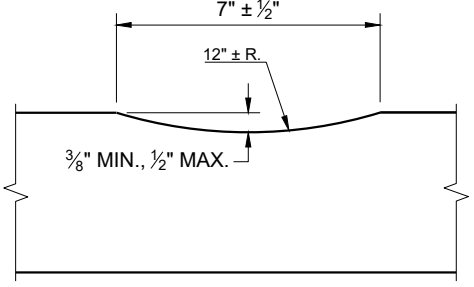
**PLAN DETAIL VIEW**



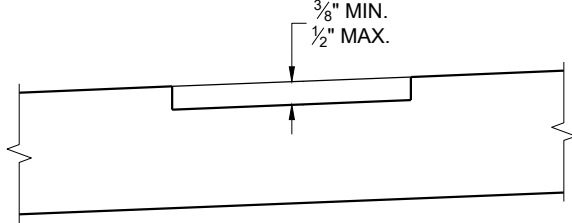
**PLAN VIEW (SINGLE GROOVE)**



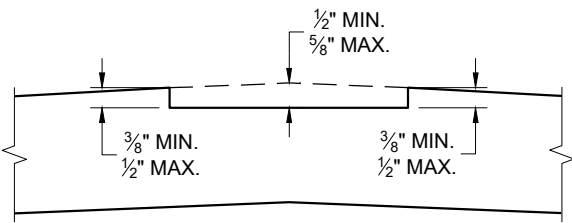
**ISOMETRIC**



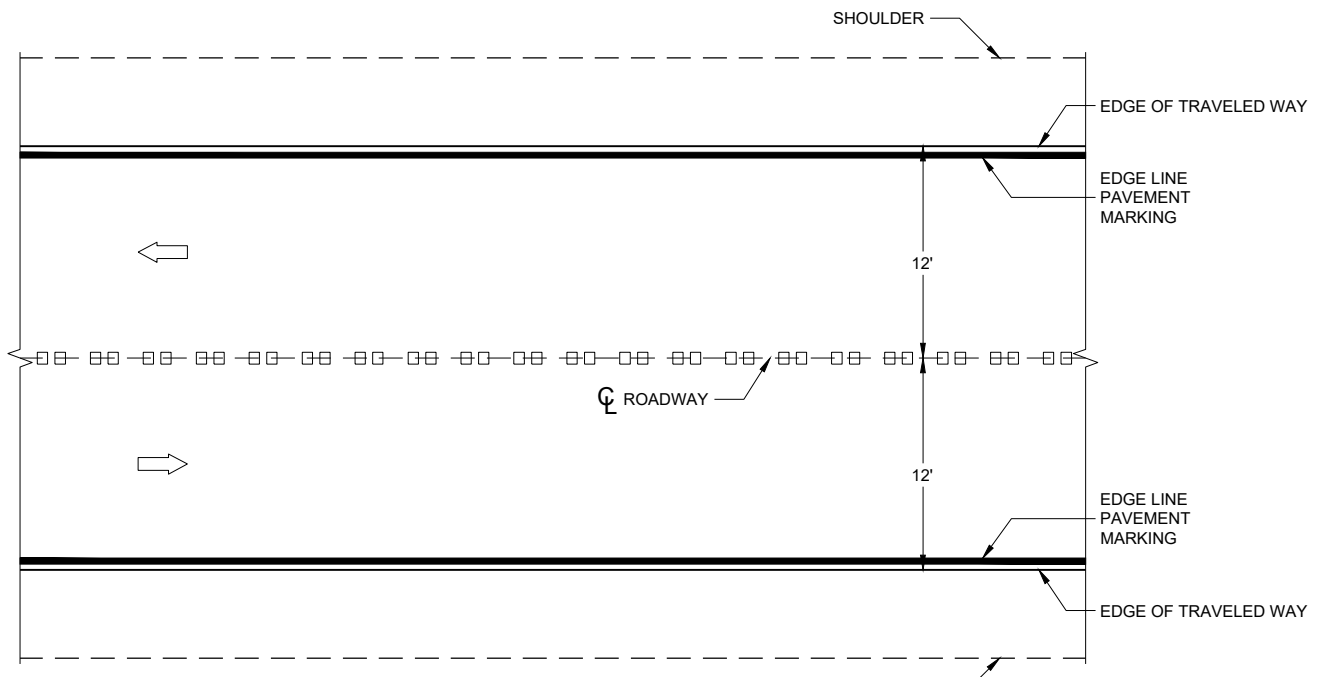
**SECTION A - A**



**SECTION B - B SUPERELEVATED ROADWAY**



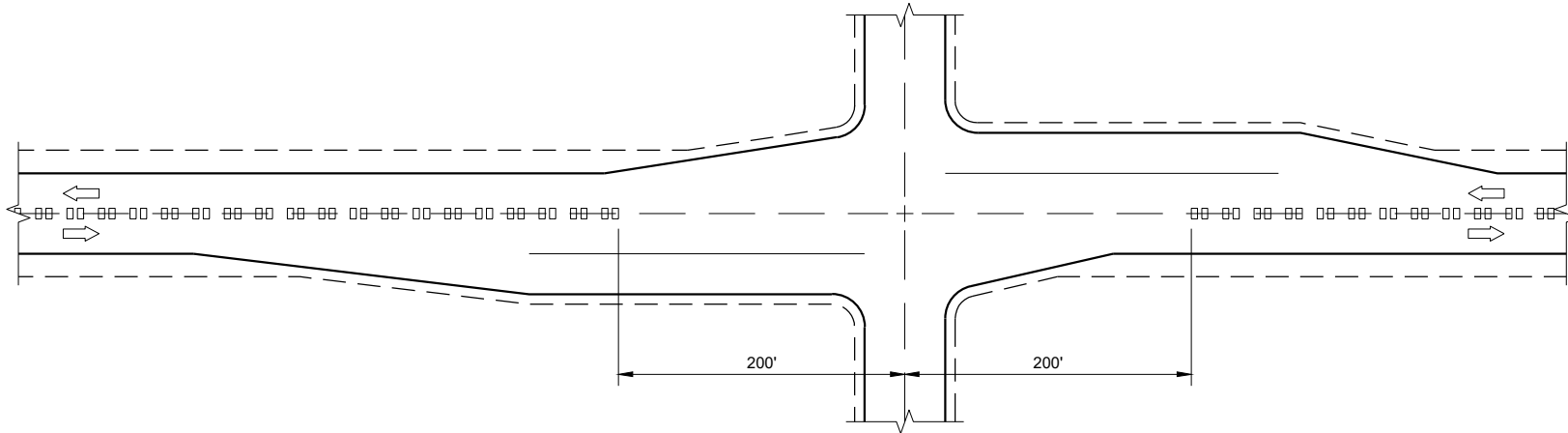
**SECTION B - B CROWNED ROADWAY**



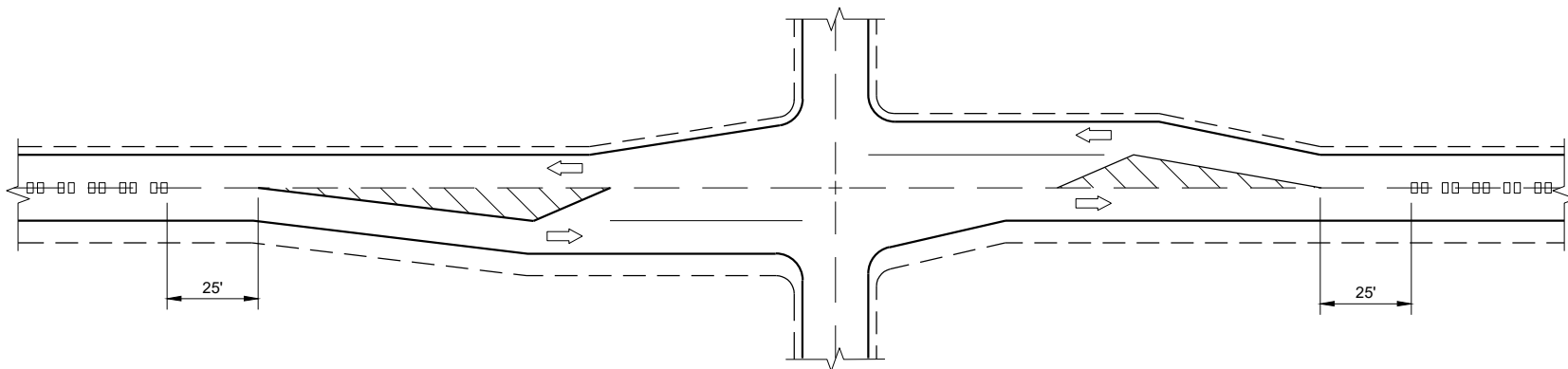
**PLAN VIEW**

**CENTERLINE RUMBLE STRIPS - ASPHALT**

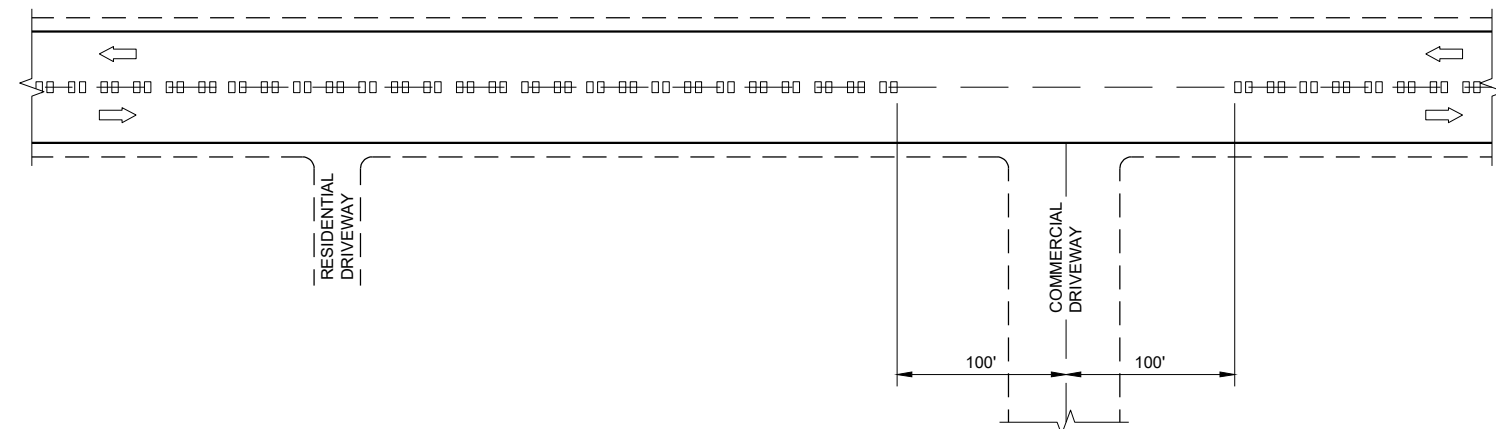
<b>CENTERLINE RUMBLE STRIPS - ASPHALT</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



**CENTERLINE GROOVES AT INTERSECTIONS**



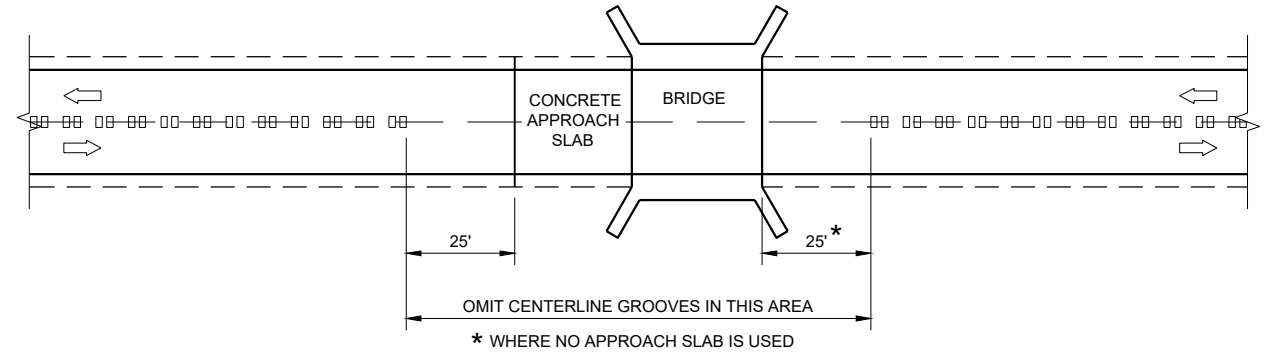
**CENTERLINE GROOVES AT INTERSECTIONS  
(WITH LEFT TURN LANES)**



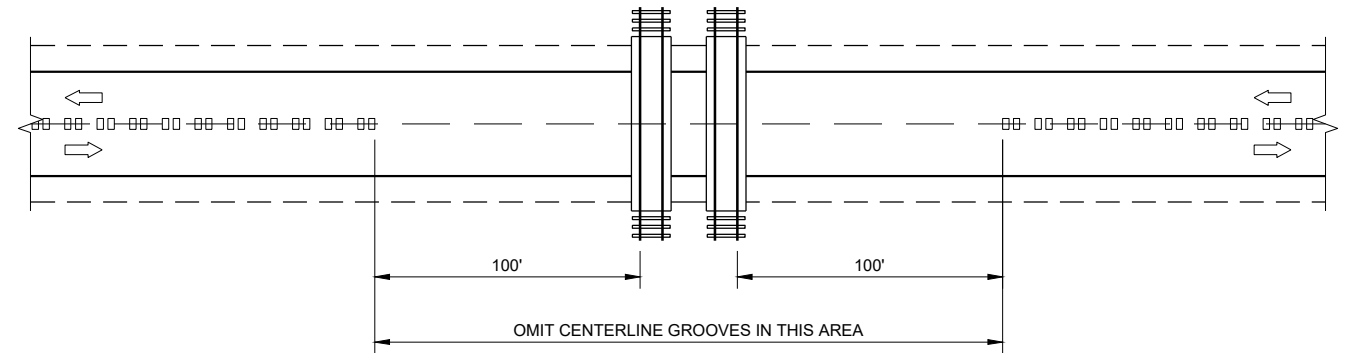
**CENTERLINE GROOVES AT DRIVEWAYS<sup>①</sup>**

**GENERAL NOTES**

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



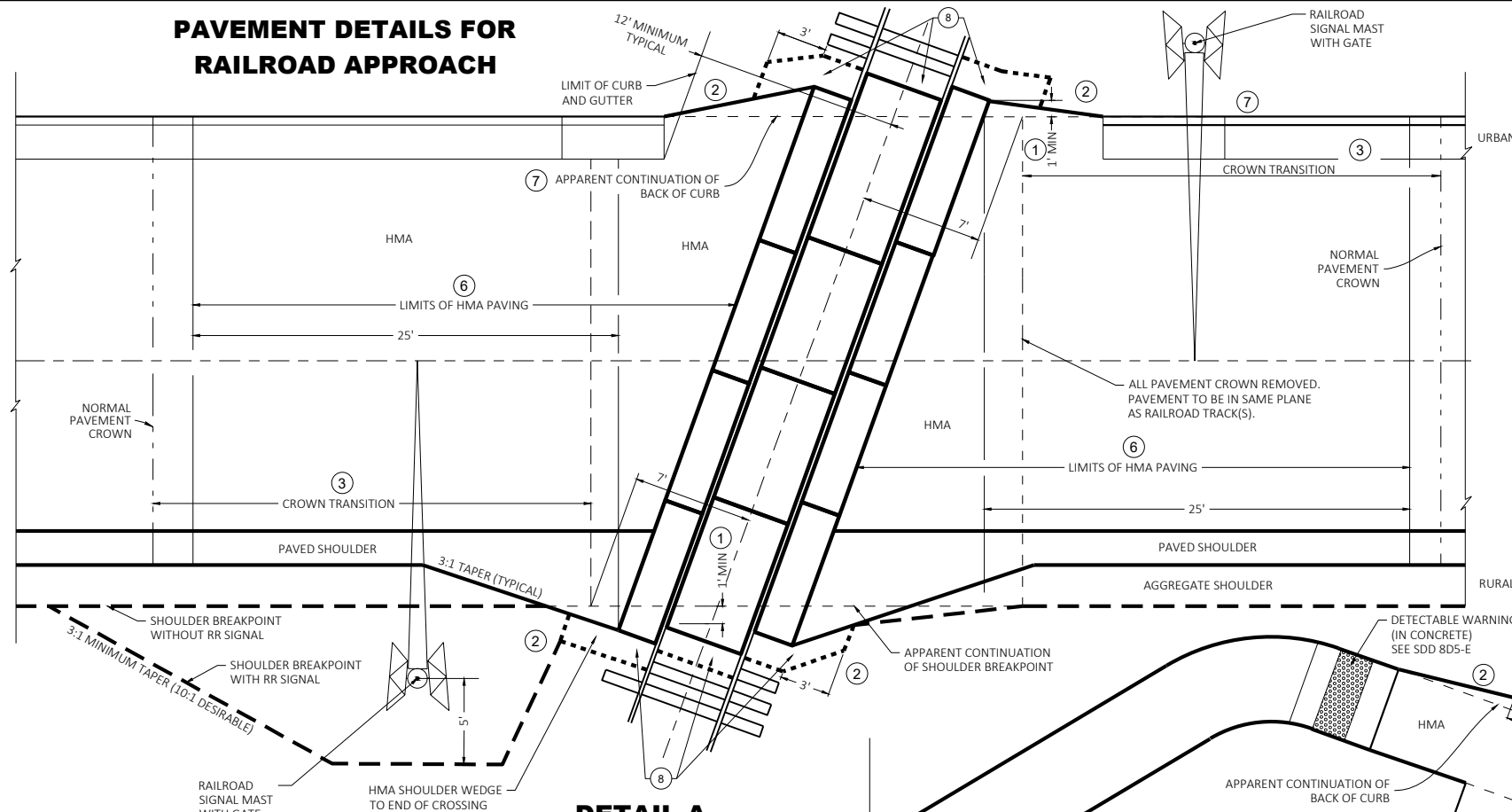
**CENTERLINE GROOVES AT BRIDGES**



**CENTERLINE GROOVES AT RAILROADS**

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

**PAVEMENT DETAILS FOR RAILROAD APPROACH**



**DETAIL A  
RAILROAD APPROACH**

**GENERAL NOTES**

PLANS AND SECTIONS ARE TYPICAL. DIMENSIONS VARY PER PROJECT.

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

CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS DIRECTED OTHERWISE. IF THE FINAL GRADES DON'T MATCH TO THE PLAN GRADES THEN GRADE ADJUSTMENTS WILL BE NECESSARY. CONFIRM NEW GRADES WITH PROJECT ENGINEER.

HMA PAVEMENT APPROACHES, HMA PAVEMENT CROSSING SURFACES, AND HMA FLANGWAY/FIELD FILLERS TO BE REPLACED BY ROADWAY CONTRACTOR UNLESS DIRECTED OTHERWISE BY THE PLANS, SPECIAL PROVISIONS, RAILROAD ENGINEER, OR PROJECT ENGINEER.

HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

WHEN THERE IS A SIDEWALK OR SHARED-USE PATH, ADD DETECTABLE WARNING FIELDS PER CURRENT STANDARD DETAIL DRAWING 8D5-E.

THE CROSSING SHALL NOT BE OPENED TO ANY TYPE OF TRAFFIC UNTIL IT IS FULLY PAVED AND COOLED SUFFICIENTLY UNLESS OTHERWISE APPROVED BY THE RAILROAD ENGINEER AND THE PROJECT ENGINEER.

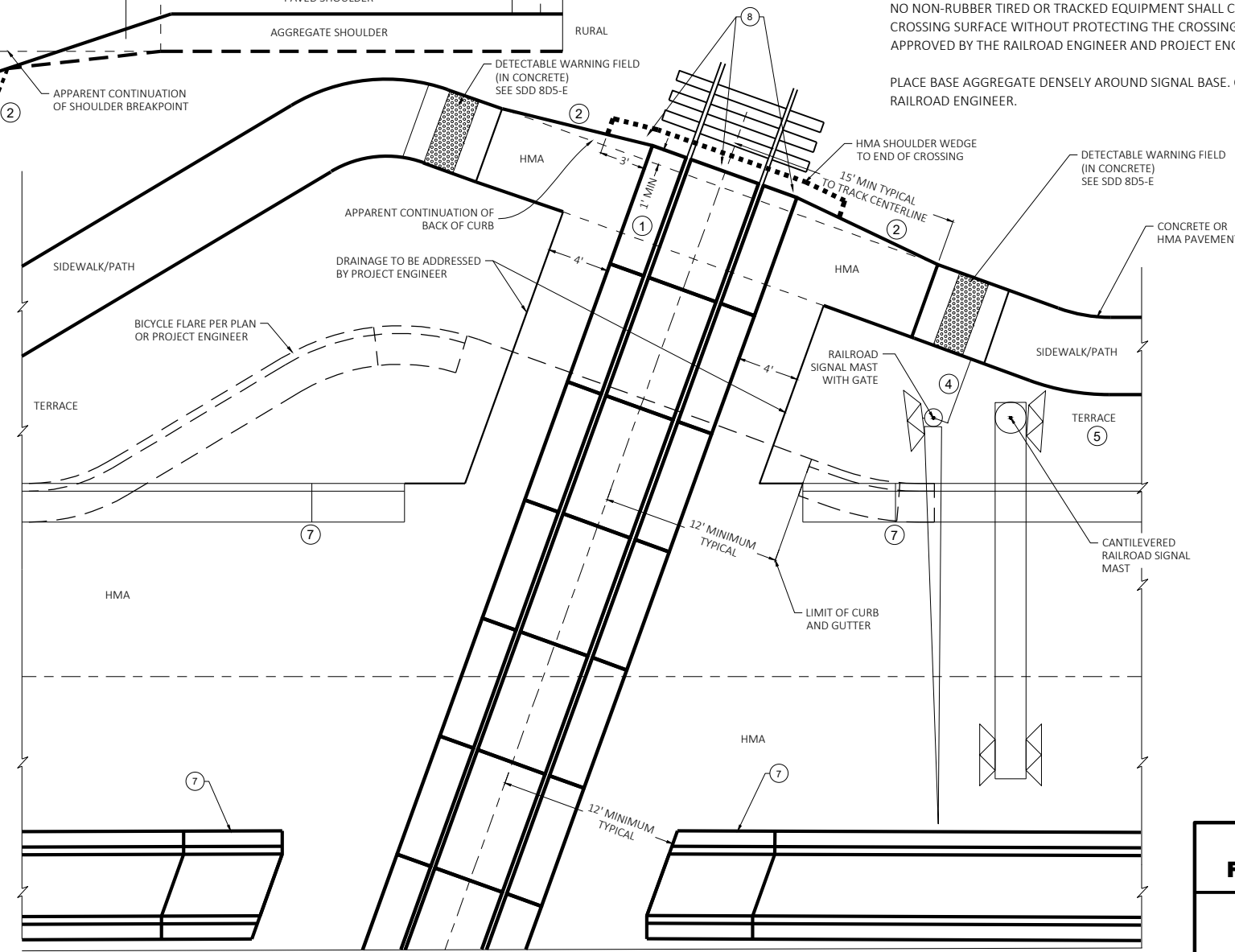
NO NON-RUBBER TIED OR TRACKED EQUIPMENT SHALL CROSS OR SIT ON THE CROSSING SURFACE WITHOUT PROTECTING THE CROSSING SURFACE WITH A METHOD APPROVED BY THE RAILROAD ENGINEER AND PROJECT ENGINEER.

PLACE BASE AGGREGATE DENSELY AROUND SIGNAL BASE. COORDINATE WITH THE RAILROAD ENGINEER.

6

**GENERAL NOTES CONTINUED**

- ① 1' MINIMUM CROSSING SURFACE COVERAGE PAST THE APPARENT CONTINUATION OF SHOULDER BREAKPOINT, BACK OF CURB, OR OUTSIDE EDGE OF SIDEWALK/PATH. INDIVIDUAL RAILROADS MAY HAVE DIFFERENT MINIMUM STANDARDS.
- ② HMA FLARE FROM OUTSIDE EDGE OF SIDEWALK/PATH, BACK OF CURB, OR AGGREGATE SHOULDER BREAKPOINT TO THE END OF CROSSING SURFACE MATERIAL.
- ③ CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.
- ④ NEAR EDGE OF PATH TO THE CENTER OF SIGNAL OR GATE MAST SHOULD BE A MINIMUM OF 5'-0". FOR SIDEWALK, THE NEAR EDGE SHOULD BE A MINIMUM OF 3'-0" TO THE CENTER OF SIGNAL OR GATE. NEAR EDGE OF SIDEWALK TO A NON-GATED MAST OR CANTILEVER SHOULD BE A MINIMUM OF 2'-6". SEE PLAN FOR RAILROAD SIGNAL AND GATE LOCATION IF THEY ARE NOT ALREADY INSTALLED.
- ⑤ TERRACE WIDTH VARIES. SEE PLAN FOR RAILROAD SIGNAL AND GATE LOCATIONS. PER PLAN OR PROJECT ENGINEER THE TERRACE AND SIDEWALK/PATH GRADES SHALL BE TRANSITIONED TO MATCH THE GRADE OF THE TRACK. FIELD FIT TO AVOID PONDING.
- ⑥ 25' MINIMUM HMA PAVING MEASURED PARALLEL TO THE ROAD OR 10' MINIMUM MEASURED PERPENDICULAR TO THE TRACK FROM THE EDGE OF THE CROSSING SURFACE, WHICHEVER IS GREATER.
- ⑦ REFERENCE SDD 8-D-01 END SECTION CURB AND GUTTER. MEDIAN END NEAR THE TRACK SHOULD BE PARALLEL TO THE TRACK. 6'-0" TAPER FOR A MEDIAN SHOULD BE REDUCED TO GET FULL HEIGHT CURB WHERE THE GATE COMES DOWN. DESIGN OPTION TO POUR MEDIAN TAPER IN ONE PIECE. BUILD PER PLAN UNLESS OTHERWISE APPROVED BY THE RAILROAD ENGINEER AND THE PROJECT ENGINEER.
- ⑧ IF METAL END PLATES ARE NOT INSTALLED BY THE RAILROAD THEN HMA PAVEMENT WEDGE SHALL BE PLACED AT THE END OF THE LAST PANEL TAPERED TO BACK EDGE OF NEXT TIE AND THOROUGHLY COMPACTED. SEE DETAIL G.



**DETAIL B  
MEDIAN AND SIDEWALK/SHARED-USE PATH APPROACH**

6

**PAVEMENT DETAILS FOR RAILROAD APPROACH**

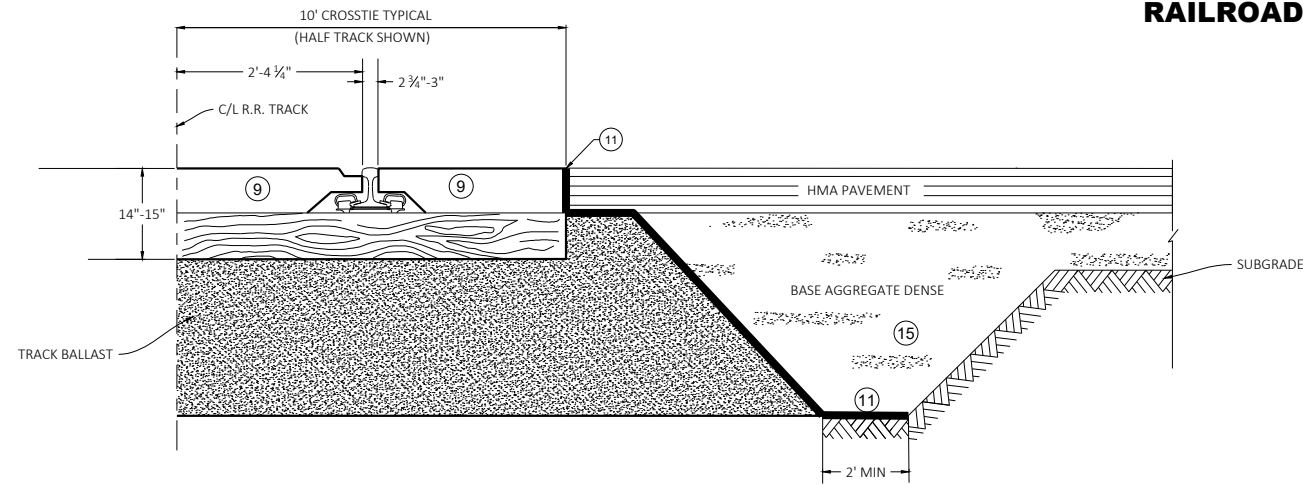
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023 /S/ Kristen Sommers  
DATE STATE RAILROAD ENGINEERING AND SAFETY SUPERVISOR  
FHWA

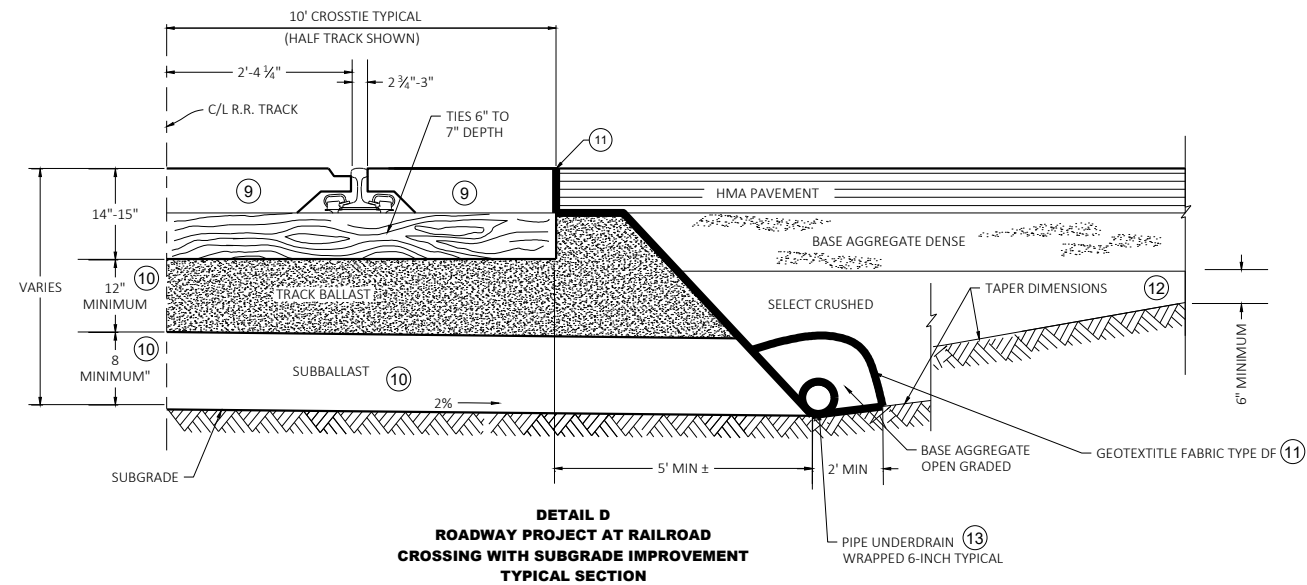
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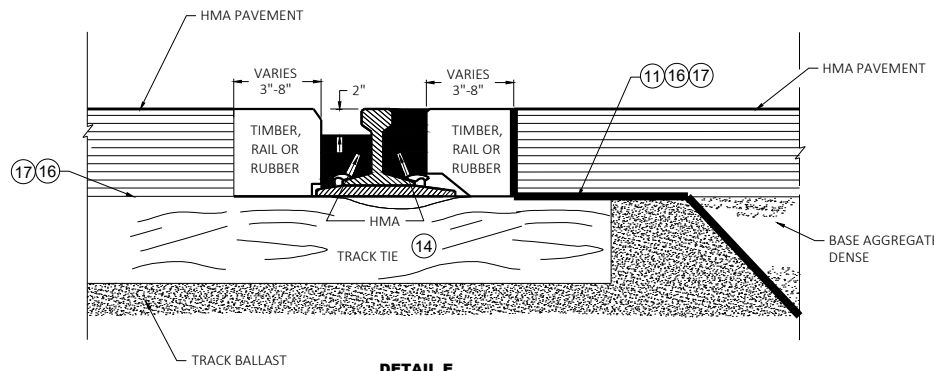
**TYPICAL SECTIONS FOR RAILROAD APPROACH**



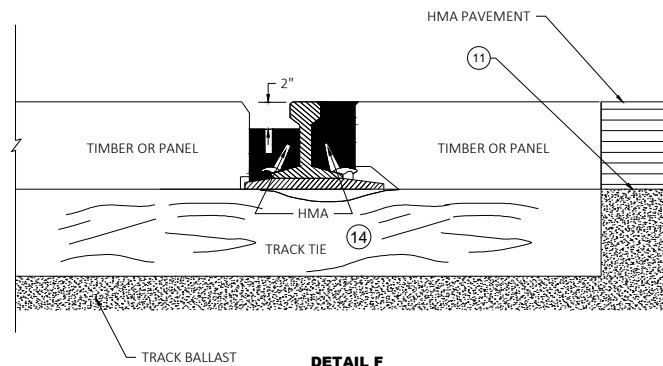
**DETAIL C**  
ROADWAY PROJECT AT RAILROAD  
CROSSING WITHOUT SUBGRADE IMPROVEMENT  
TYPICAL SECTION



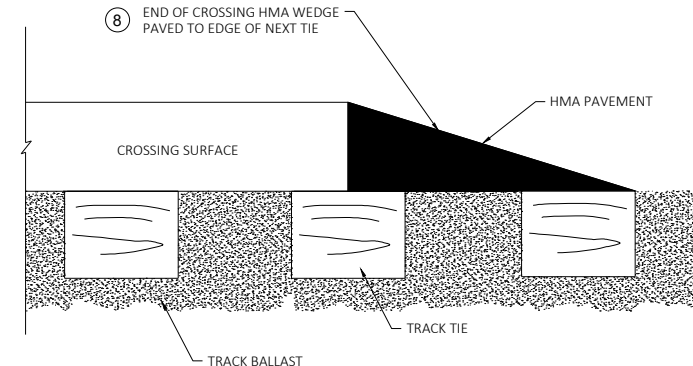
**DETAIL D**  
ROADWAY PROJECT AT RAILROAD  
CROSSING WITH SUBGRADE IMPROVEMENT  
TYPICAL SECTION



**DETAIL E**  
TIMBER, RAIL OR RUBBER SECTION  
HMA FLANGEWAY AND FIELD FILLERS



**DETAIL F**  
PANEL SECTION  
HMA FLANGEWAY AND FIELD FILLERS



**DETAIL G**  
END OF CROSSING HMA WEDGE

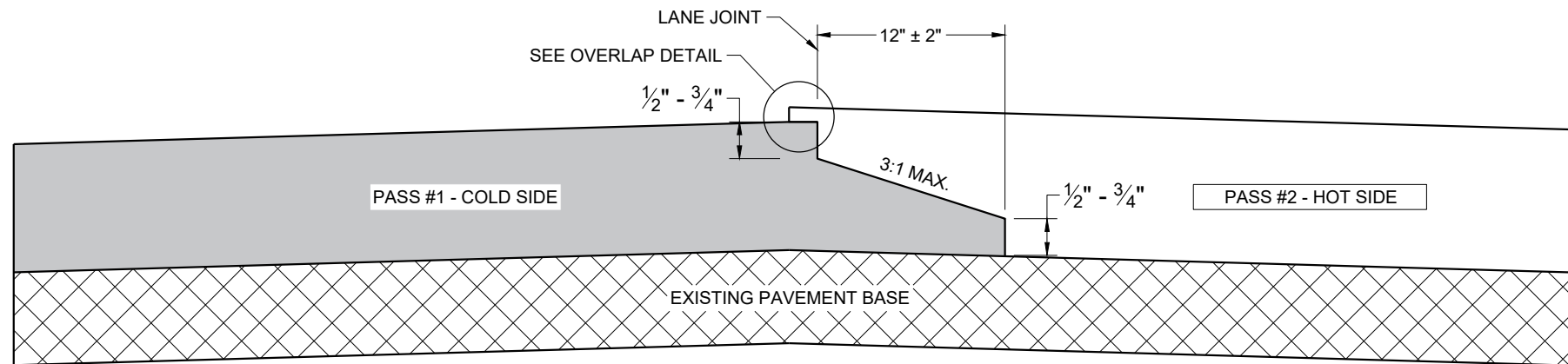
**GENERAL NOTES**

- 8 IF METAL END PLATES ARE NOT INSTALLED BY THE RAILROAD THEN HMA PAVEMENT WEDGE SHALL BE PLACED AT THE END OF THE LAST PANEL TAPERED TO BACK EDGE OF NEXT TIE AND THOROUGHLY COMPACTED. SEE DETAIL A AND B.
- 9 MATCH THE CROSSING TYPE THAT IS INSTALLED UNLESS OTHERWISE DIRECTED BY PROJECT ENGINEER.
- 10 TRACK BALLAST AND SUBBALLAST REQUIRED 12" AND 8" MINIMUM DEPTHS RESPECTIVELY. DIMENSION FROM BOTTOM OF TRACK TIE TO HIGH SIDE OF 2% SLOPE. THE 2% SLOPE IS REQUIRED ON RAILROAD SUBBALLAST. SEE PLAN FOR CROWN, MATERIAL THICKNESS, AND SLOPE DIRECTION. SUBBALLAST CAN BE HMA, 1 1/2" BASE AGGREGATE DENSE, SELECT CRUSHED, OR A COMBINATION OF THEM.
- 11 GEOTEXTILE FABRIC TYPE SAS PLACED IN ORDER TO PROVIDE STABILIZATION AND SEPARATION ON TOP OF THE TRACK BALLAST WHERE IT IS UNDER HMA PAVEMENT, BASE AGGREGATE DENSE OR SELECT CRUSHED MATERIAL AND THE FIELD SIDE BALLAST CRIBS. GEOTEXTILE FABRIC TYPE DF PLACED IN ORDER TO PROVIDE STABILIZATION AND SEPARATION UNDER AND AROUND THE PIPE UNDERDRAIN. PLACING GEOTEXTILE FABRIC OR GEOGRID UNDER THE SUBBALLAST IS OPTIONAL.
- 12 TAPER DIMENSIONS PROVIDED BY PLAN OR BY PROJECT ENGINEER.
- 13 IF SHOWN ON THE PLAN, TYPICAL 6-INCH PERFORATED PVC SCHEDULE 80 PIPE UNDERDRAIN TO BE PLACED ALONG THE TOE OF SLOPE, GRADED TO DRAIN AND DAYLIGHT OR INTO STORM SEWER. BASE AGGREGATE OPEN GRADED OVER PIPE UNDERDRAIN AND THEN WRAPPED IN GEOTEXTILE FABRIC TYPE DF SCHEDULE A IN ORDER TO STABILIZE AND SEPARATE FROM SELECT CRUSHED.
- 14 HMA FLANGEWAY AND FIELD FILLERS ARE TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR, WHEN NOT PROVIDED BY OTHERS AS PART OF THE CROSSING SURFACE MATERIAL. IF THE CROSSING SURFACE IS NOT BEING REPLACED, THEN REMOVE AND REPLACE THE HMA FLANGEWAY AND FIELD FILLERS AS DIRECTED BY THE RAILROAD OR PROJECT ENGINEER.
- 15 GRADE TO MATCH EXISTING OR PROPOSED TYPICAL SECTION OF ROADWAY. SEE PLAN OR PROJECT ENGINEER FOR MORE DETAIL. IF NOT NOTED OTHERWISE IN THE PLAN, BACKFILL ANY REMOVED BASE AND SUBGRADE WITH BASE AGGREGATE DENSE.
- 16 IF THE CROSSING IS NOT BEING REPLACED, REMOVE AND REPLACE HMA AS DIRECTED BY RAILROAD AND PROJECT ENGINEER. CARE MUST BE TAKEN TO NOT DAMAGE CROSSING PANELS, TIES, RAIL, PLATES AND SPIKES.
- 17 PLACE HMA FULL DEPTH. AGGREGATE IS NOT TO BE PLACED BETWEEN THE RAILROAD TIES AND THE HMA PAVEMENT.

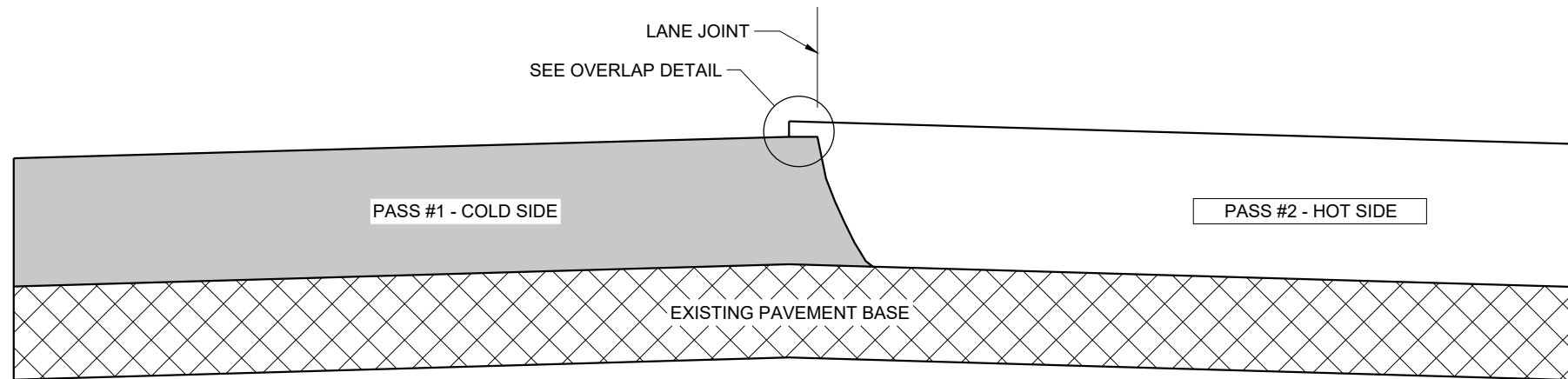
**TYPICAL SECTIONS FOR RAILWAY APPROACH**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

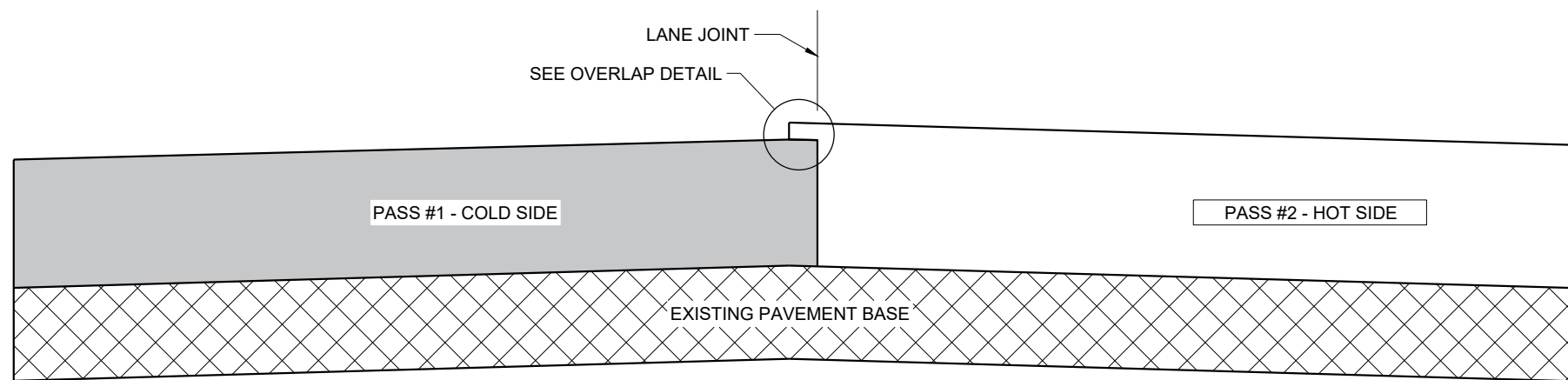
APPROVED  
DATE May 2023 /S/ Kristen Sommers  
STATE RAILROAD ENGINEERING AND SAFETY SUPERVISOR



**TYPICAL PAVEMENT CROSS SECTION  
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION  
VERTICAL JOINT**



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

**GENERAL NOTES**

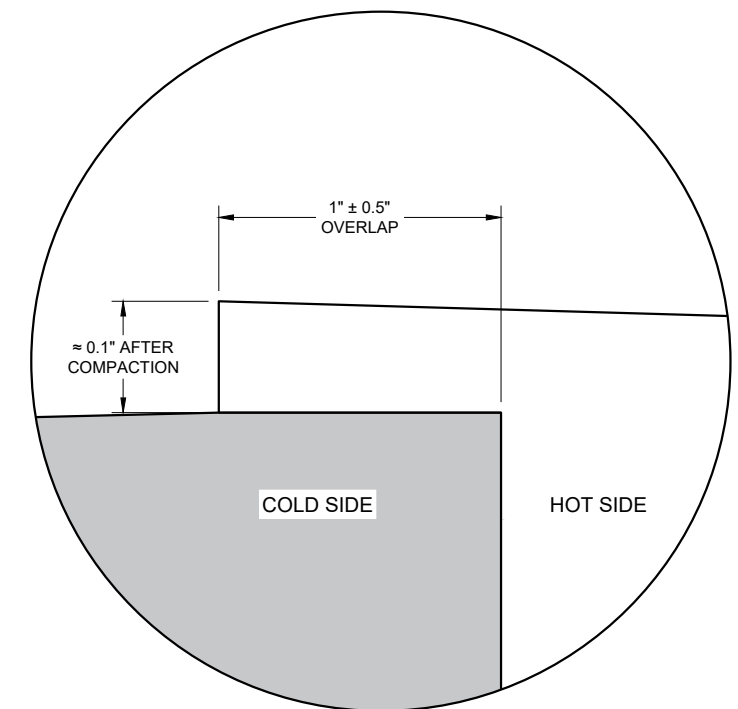
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



**OVERLAP DETAIL (TYPICAL)**

6

6

SDD 13C19 - 03

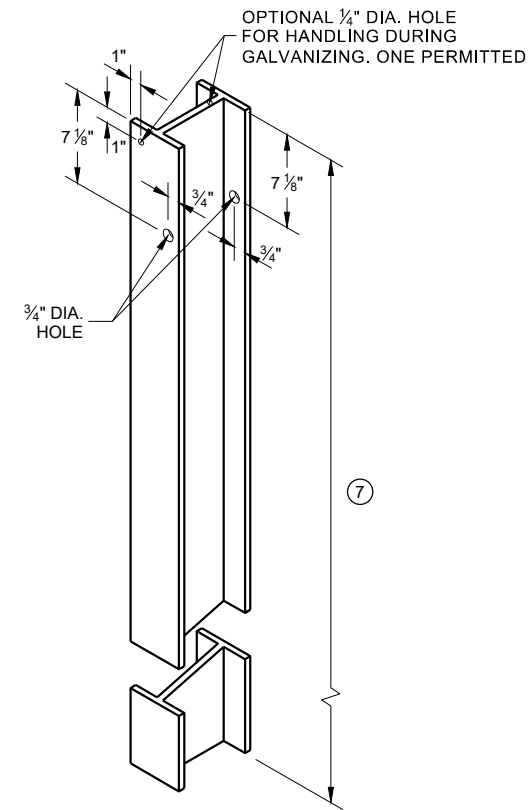
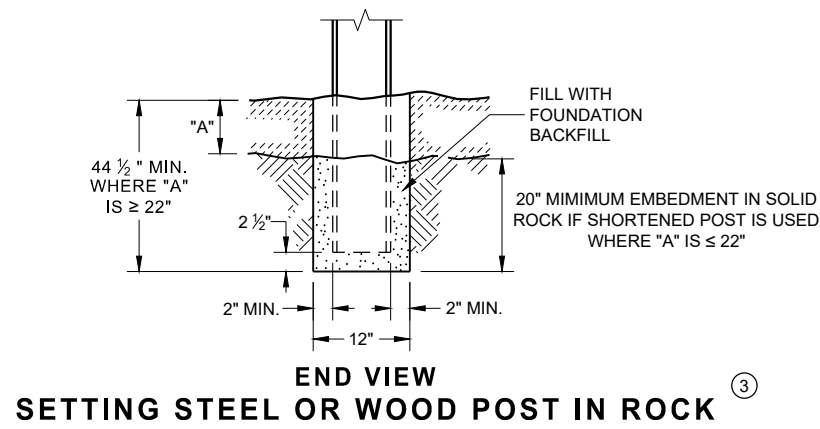
SDD 13C19 - 03

**HMA LONGITUDINAL JOINTS**

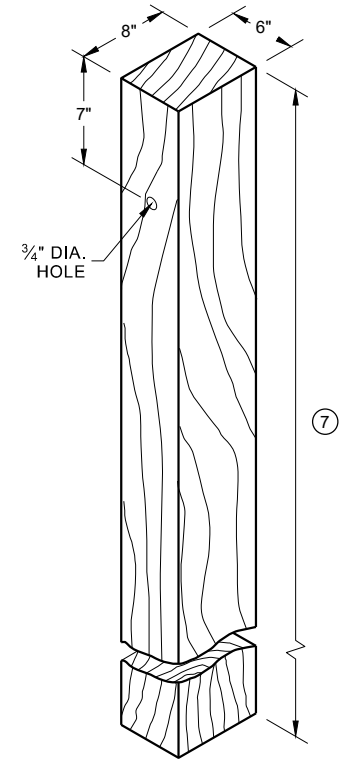
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

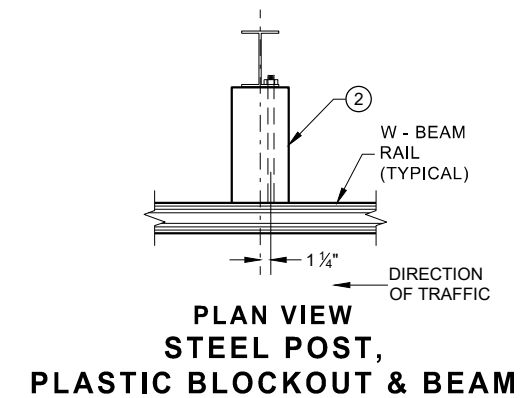
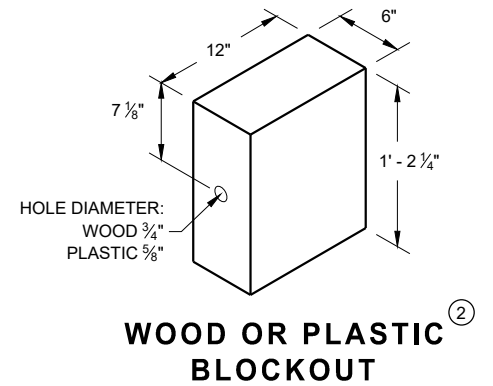
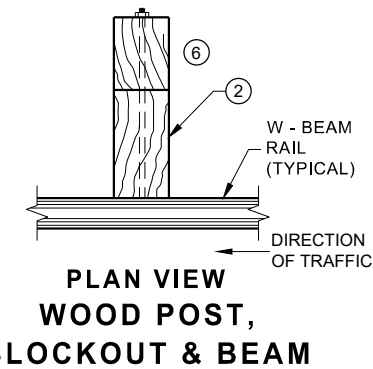
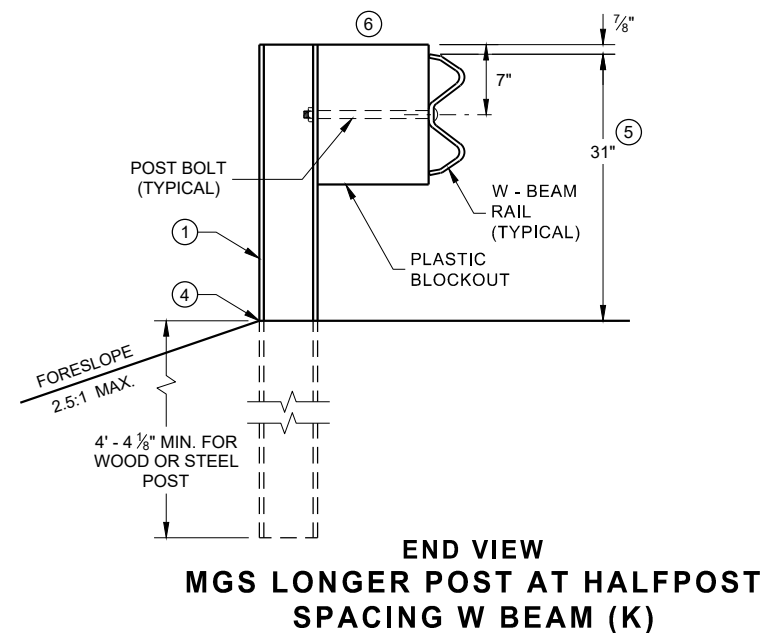
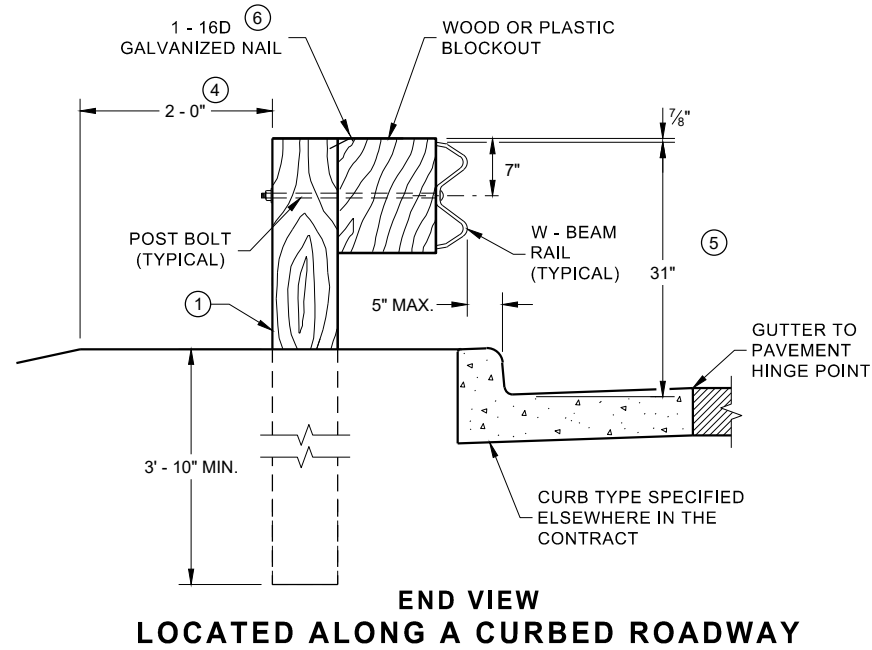
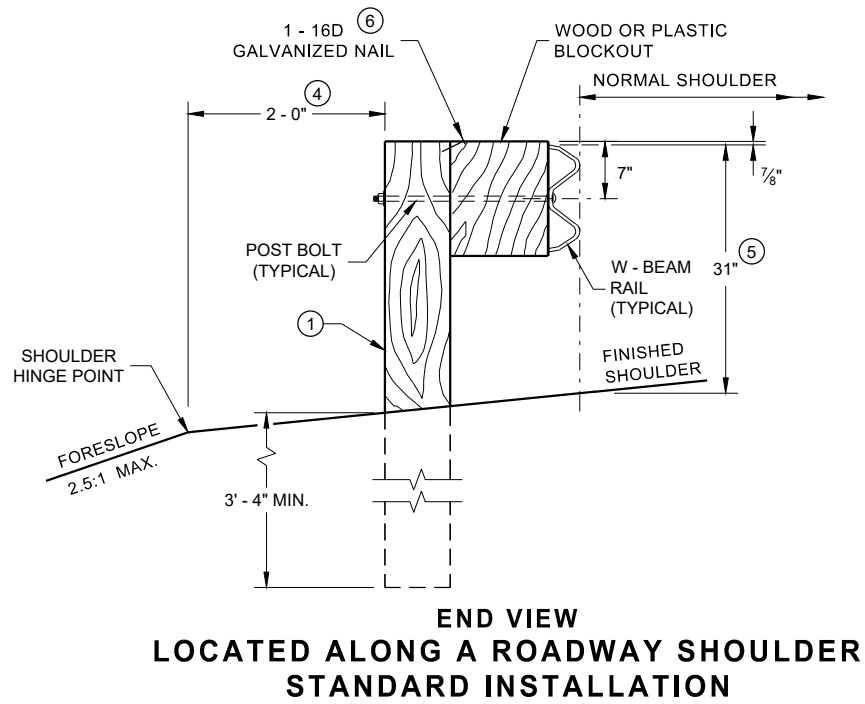
- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL.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



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

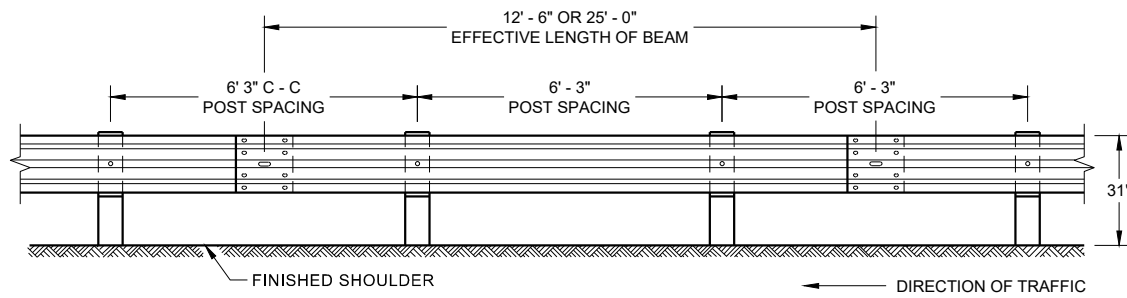


**WOOD POST (6" X 8") NOMINAL** ①

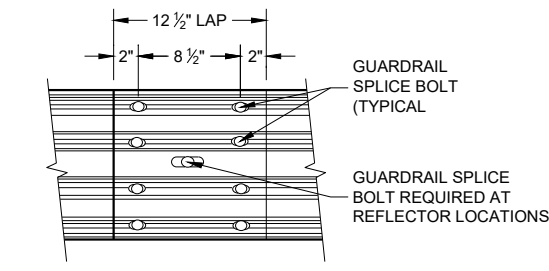


**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



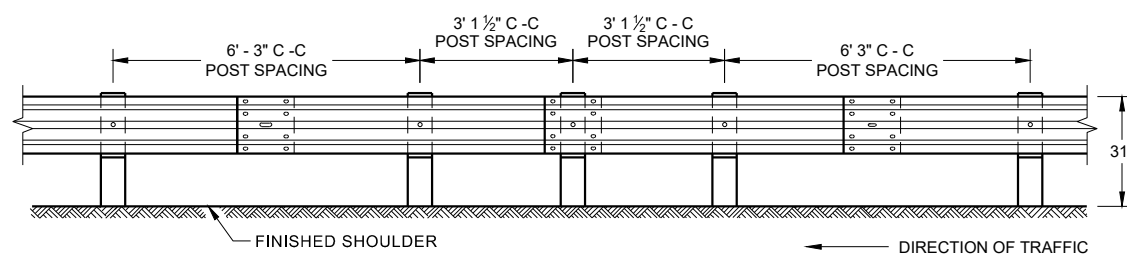
**FRONT VIEW  
POST SPACING STANDARD INSTALLATION**



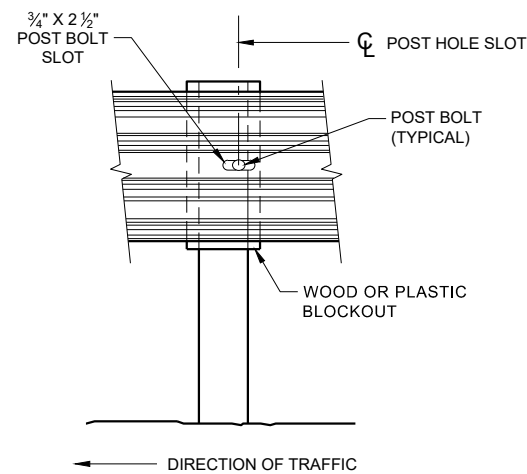
**FRONT VIEW  
MID-SPAN BEAM SPLICE**

**GENERAL NOTES**

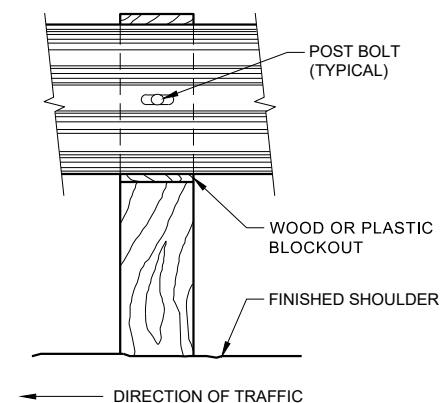
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
  - ⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER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



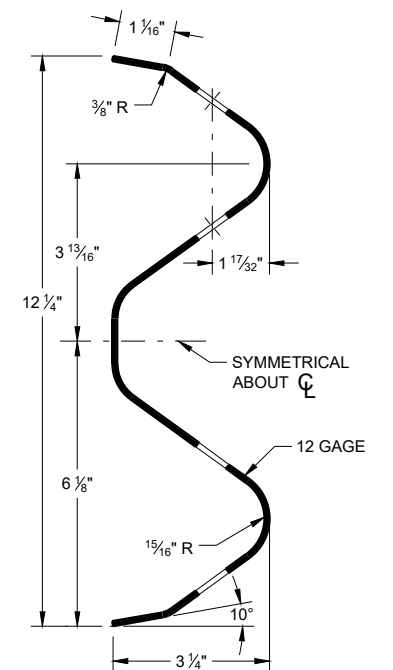
**FRONT VIEW  
HALF POST SPACING (HS) AND  
HALF POST SPACING WITH LONGER POSTS (K)**



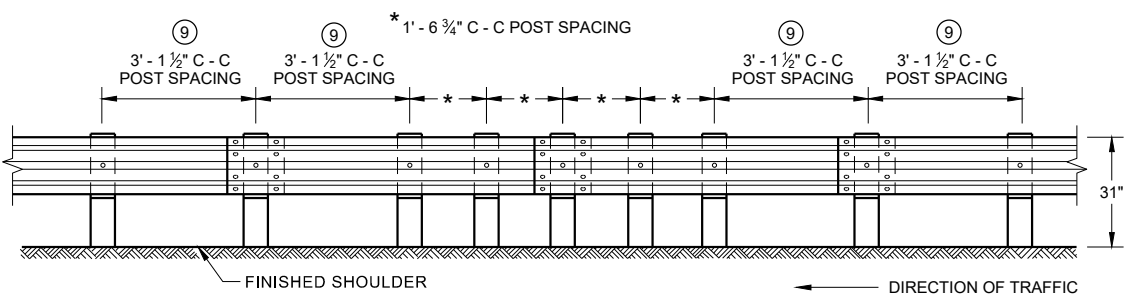
**FRONT VIEW AT STEEL POST**



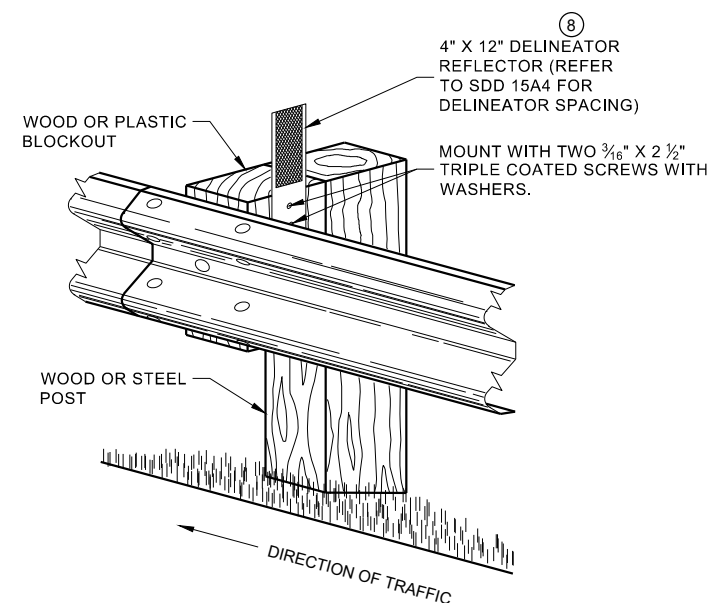
**FRONT VIEW AT WOOD POST**



**SECTION THRU W-BEAM RAIL**



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



**ONE SIDED REFLECTOR DETAIL  
AND TYPICAL INSTALLATION**

**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

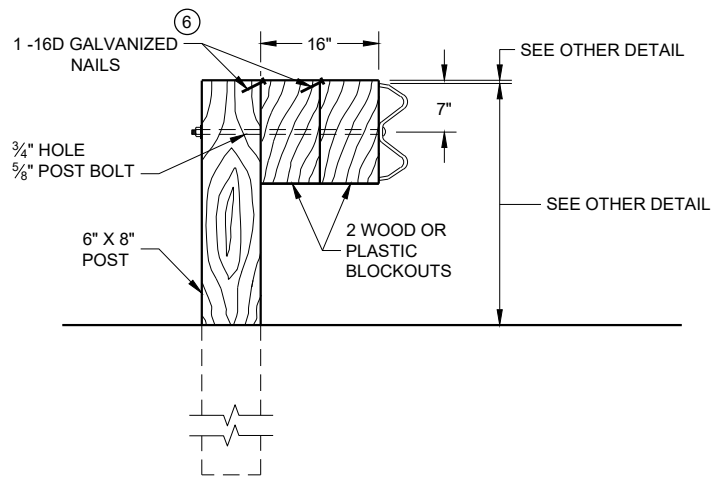
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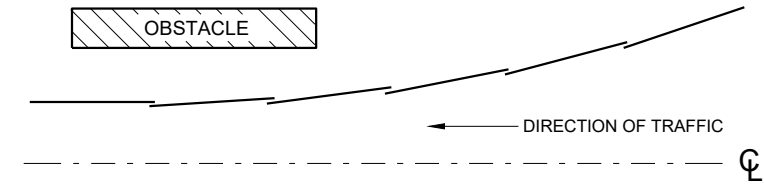
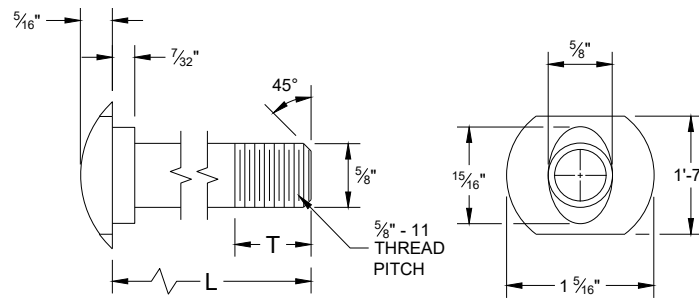


**DETAIL FOR 16" BLOCKOUT DEPTH**

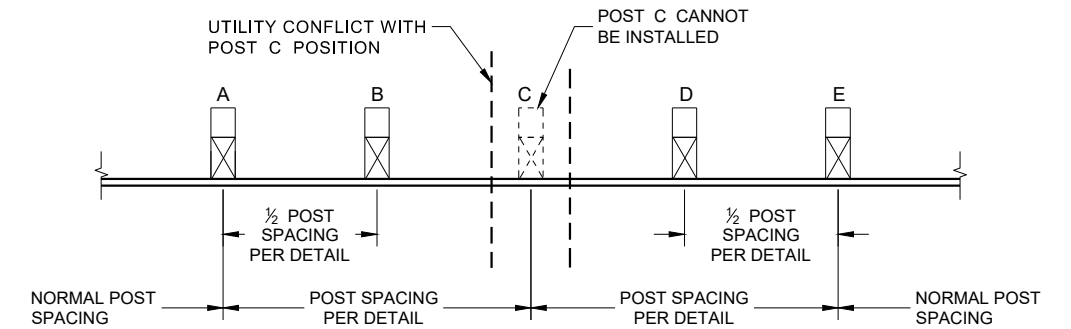
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

**NOTE:**

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



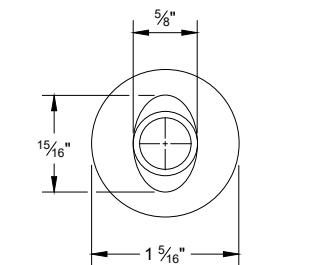
**PLAN VIEW  
BEAM LAPPING DETAIL**



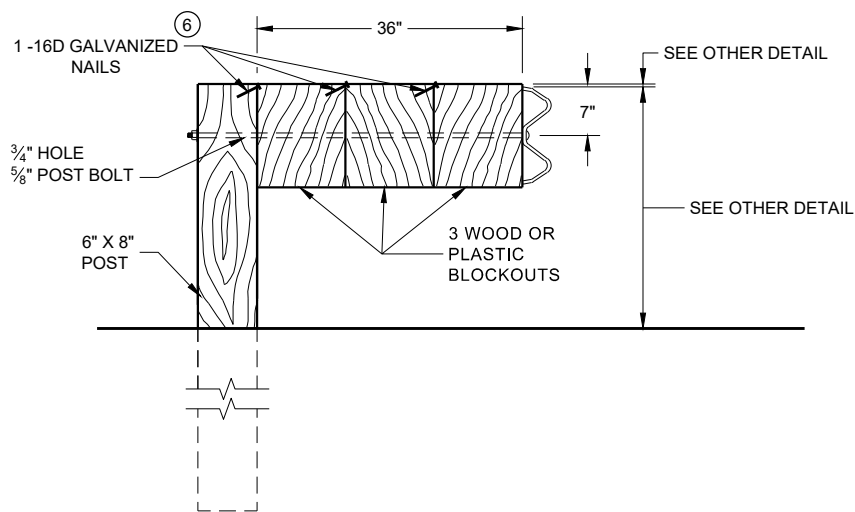
**POST DRIVING FOR CONTINUOUS  
UNDERGROUND OBSTRUCTION**

**POST BOLT TABLE**

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

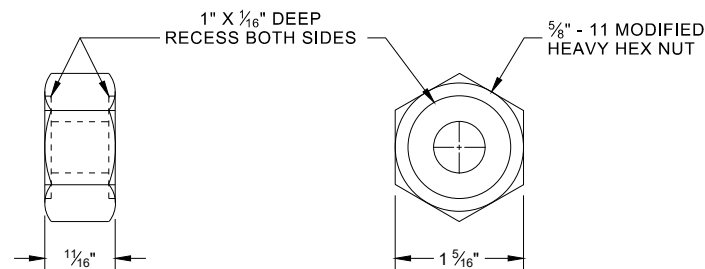


**ALTERNATE BOLT HEAD**

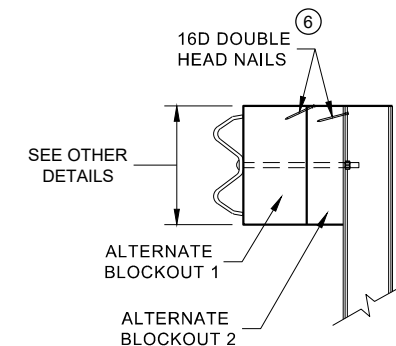


**DETAIL FOR 36" BLOCKOUT DEPTH**

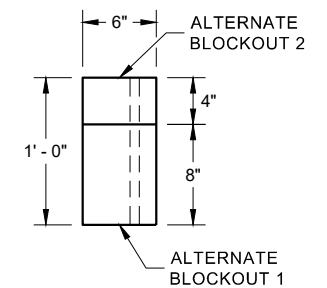
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.  
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE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



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



**SIDE VIEW**



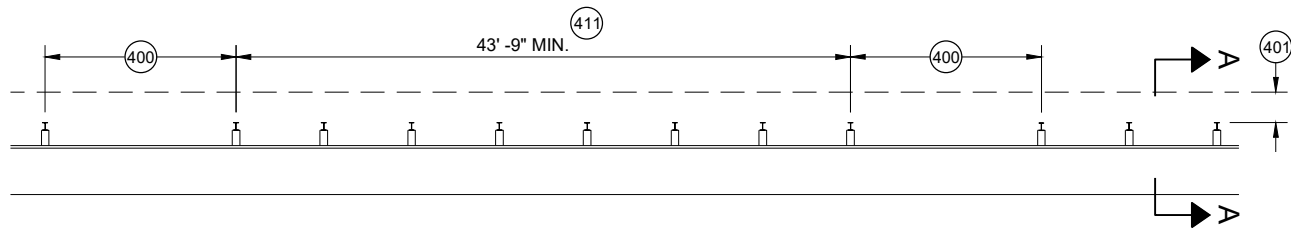
**PLAN VIEW**

**ALTERNATE WOOD  
BLOCKOUT DETAIL**

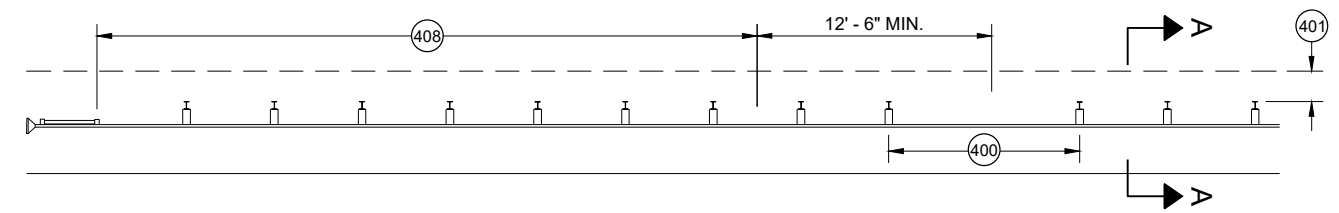
6 WHEN USING STEEL POST AND WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

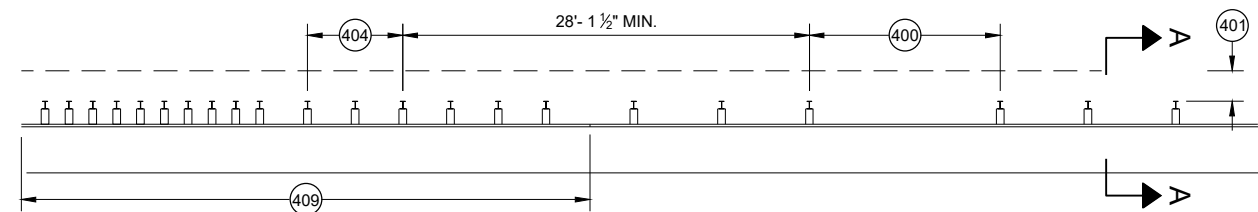
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



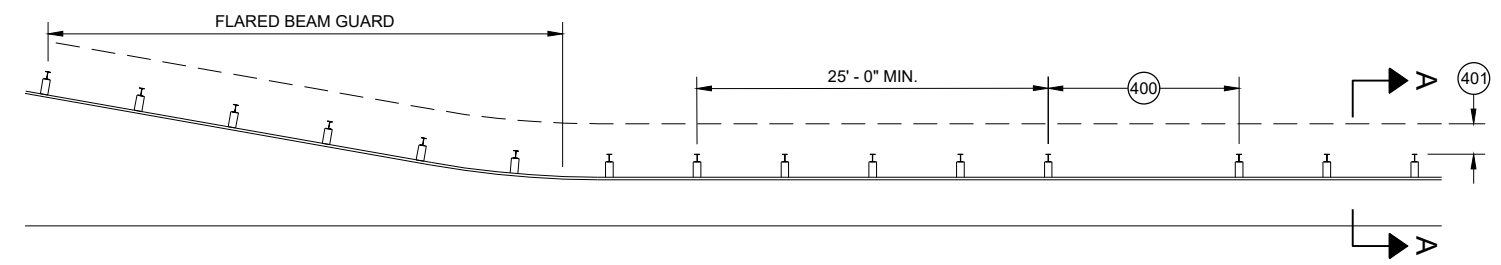
**MISSING POST IN MGS GUARDRAIL**



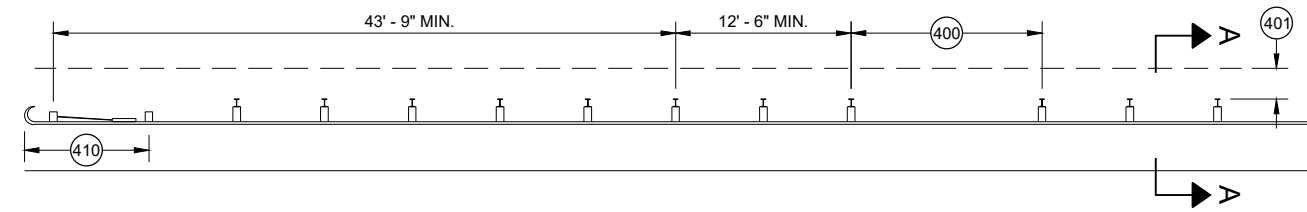
**MISSING POST IN MGS GUARDRAIL NEAR EAT**



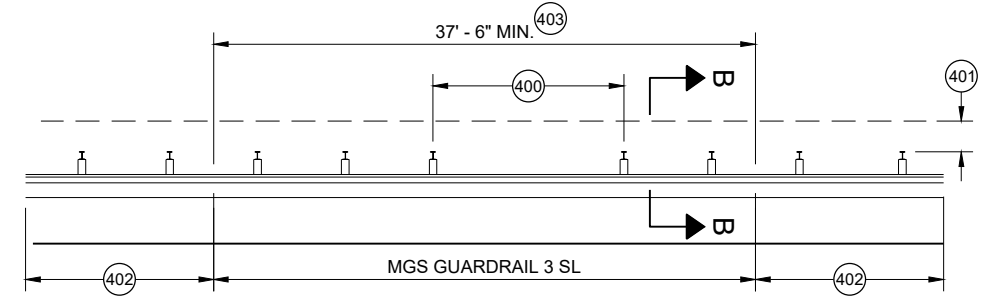
**MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION**



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

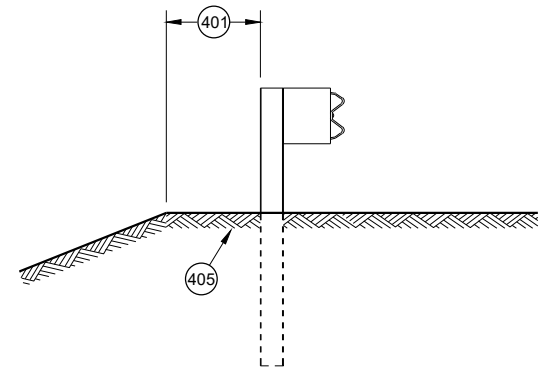


**MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL**

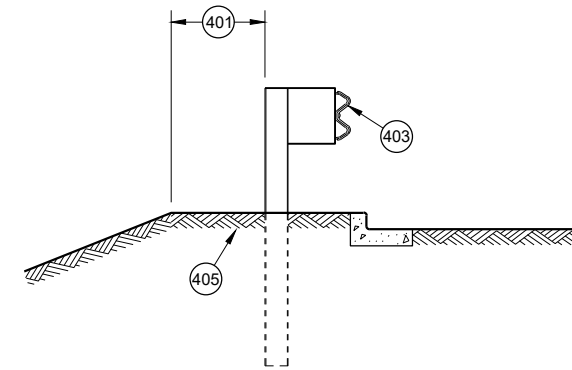


**MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)**

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



**SECTION A - A**



**SECTION B - B**

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

**GENERAL NOTES**

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

SEE SDD 14B42 FOR MORE INFORMATION.

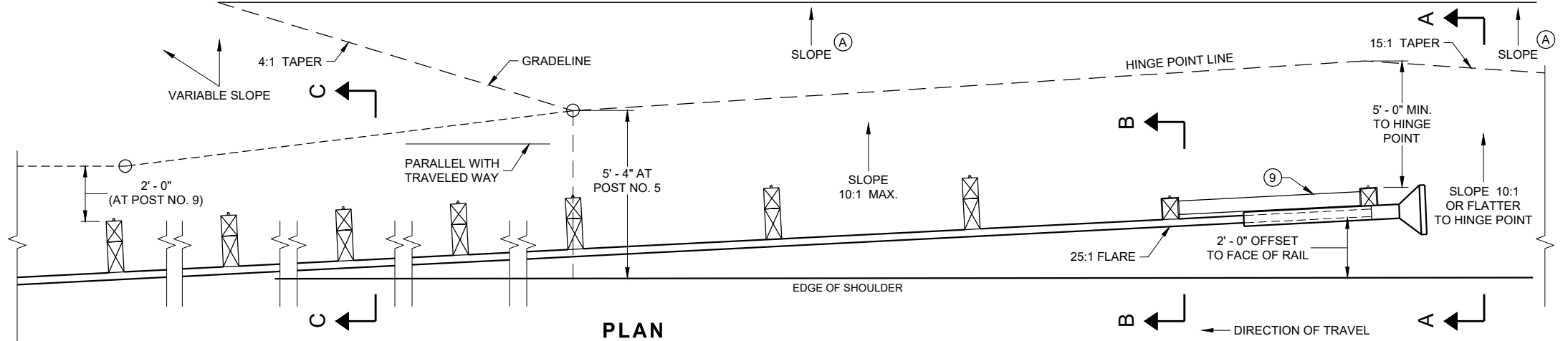
\* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

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

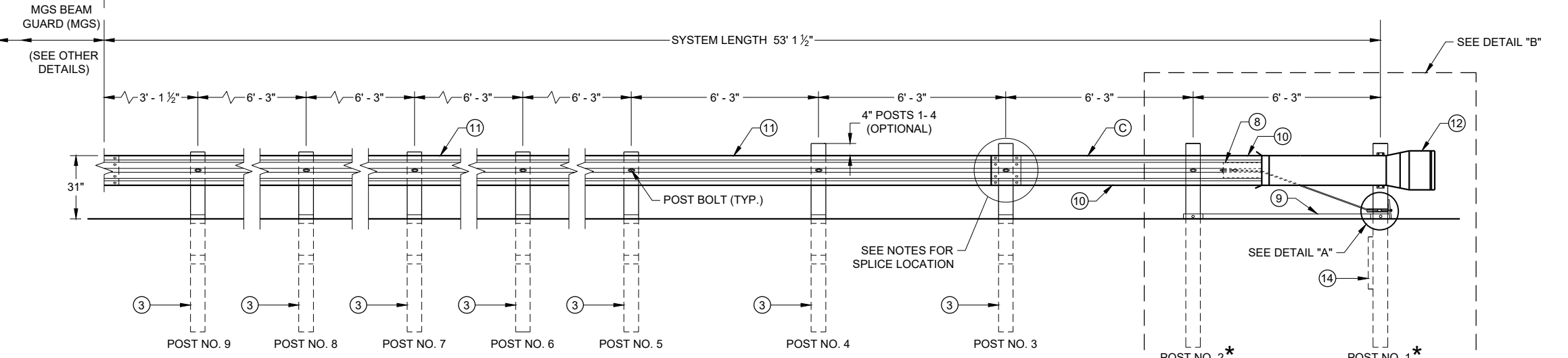
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

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

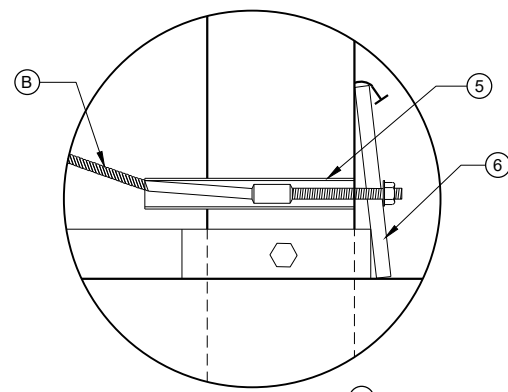
CLEAR ZONE LIMITS, EITHER AS SHOWN ELSEWHERE IN THE PLANS OR, IF NOT SHOWN ELSEWHERE IN THE PLANS, 15 FEET BEYOND THE HINGE POINT LINE



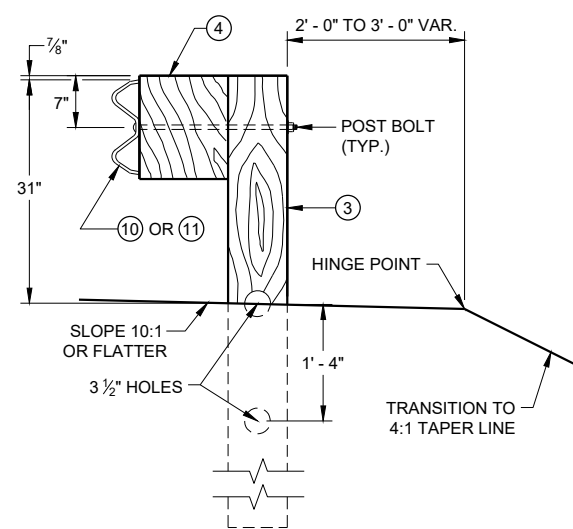
**PLAN**



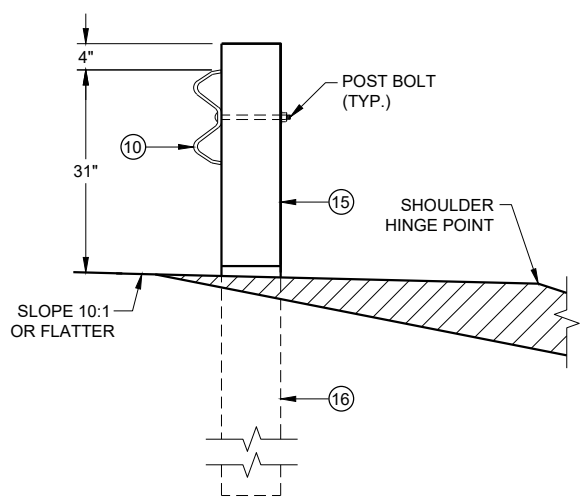
**ELEVATION**



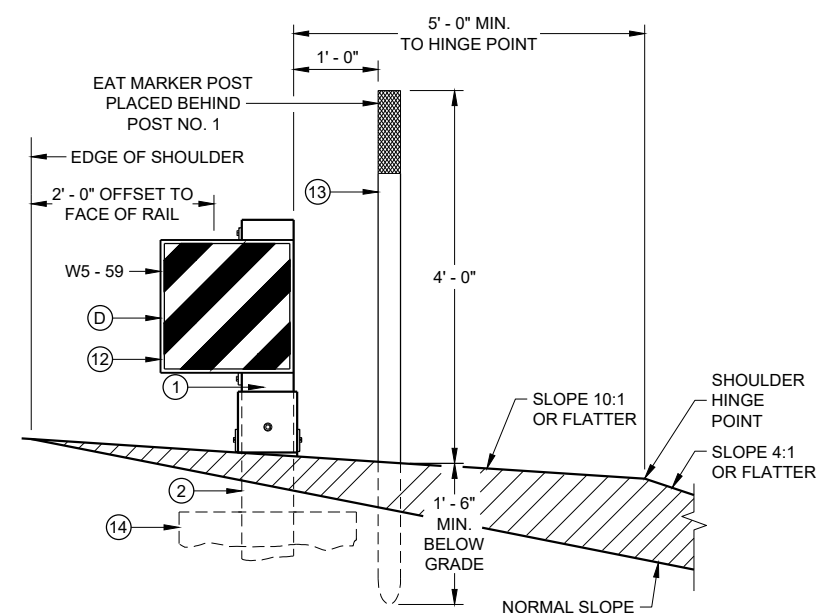
**DETAIL "A"**



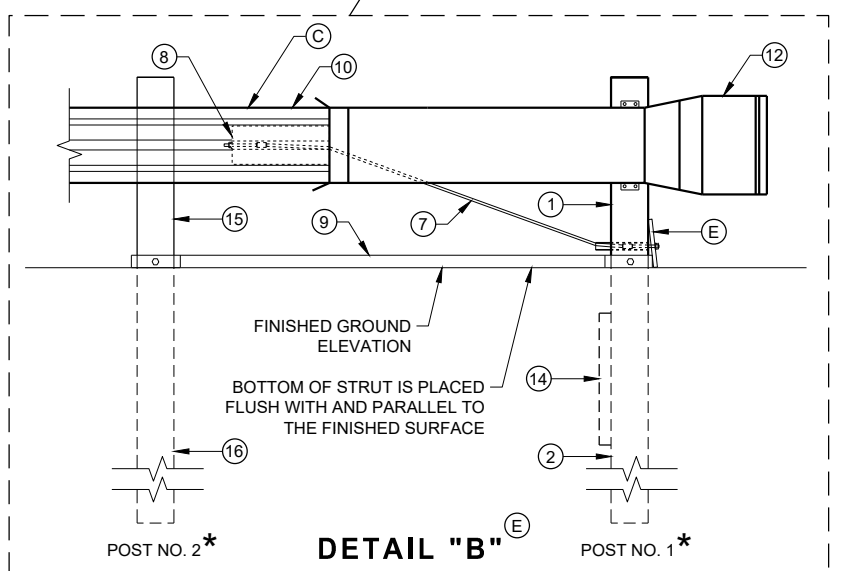
**SECTION C - C  
TYPICAL AT POST NOS. 3 - 9**



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



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



**DETAIL "B"**

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

6

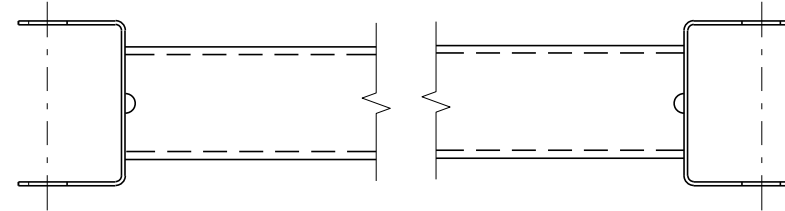
6

SDD 14B44 - 04a

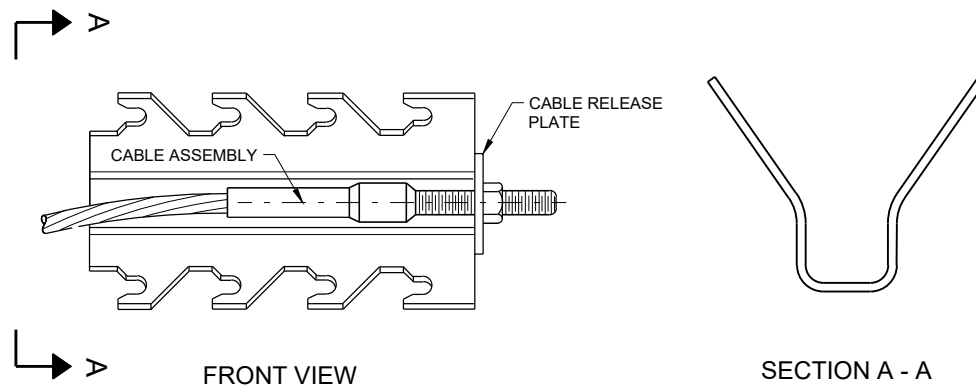
SDD 14B44 - 04a

**BILL OF MATERIALS**

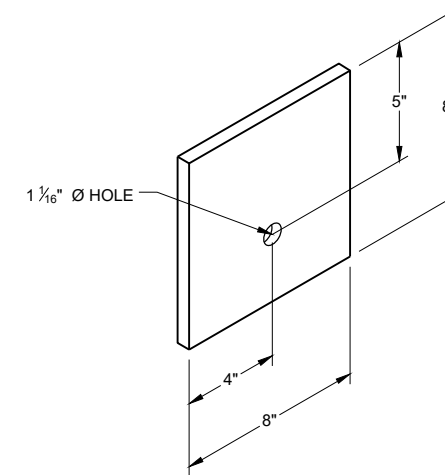
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL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



**GENERIC GROUND STRUT** ⑨ ⑤



**GENERIC ANCHOR CABLE BOX** ⑨ ⑤



**BEARING PLATE** ⑥ ⑤

6

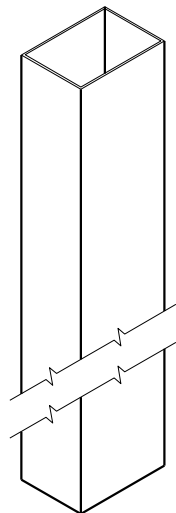
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SDD 14B44 - 04b

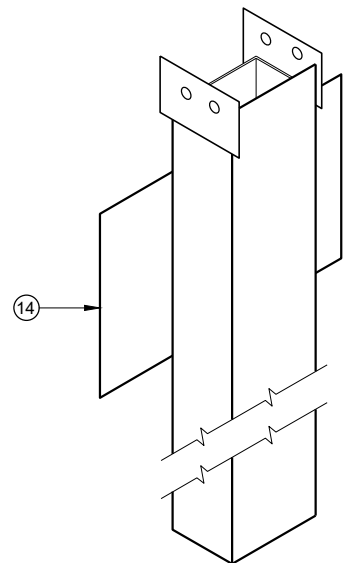
SDD 14B44 - 04b

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

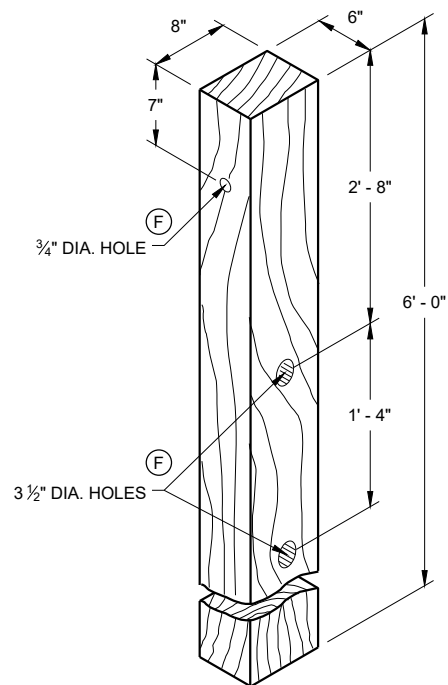
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



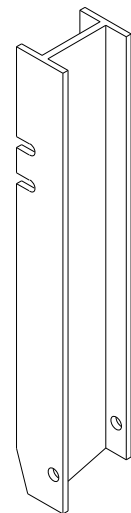
UPPER POST NO. 1 <sup>(1)</sup> (E)



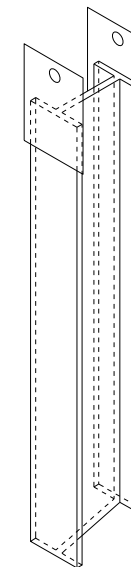
LOWER POST NO. 1 <sup>(2)</sup> (E)



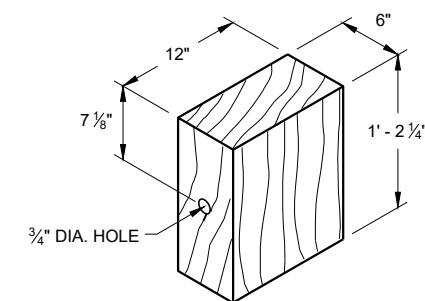
WOOD CRT POST <sup>(3)</sup> (E)  
POSTS NUMBER 3-9



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

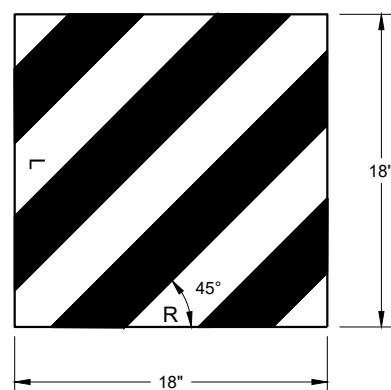


LOWER POST NO. 2 <sup>(16)</sup> (E)

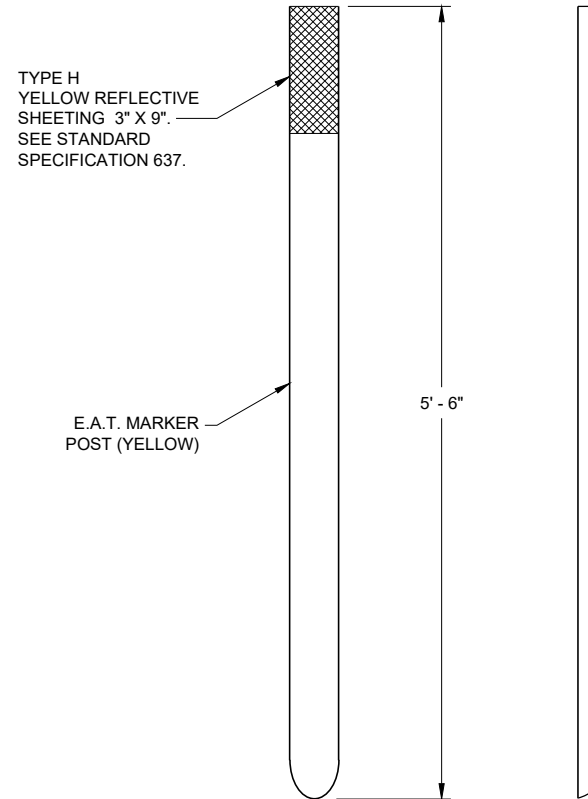


WOOD BLOCKOUT <sup>(4)</sup>  
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

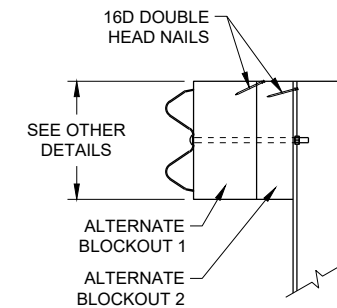
6



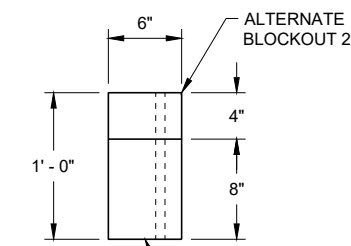
W5 - 59  
REFLECTIVE SHEETING DETAIL <sup>(E)</sup>



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



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

6

SDD 14B44 - 04c

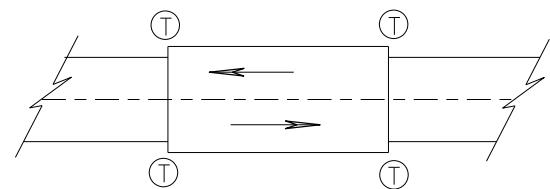
SDD 14B44 - 04c

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

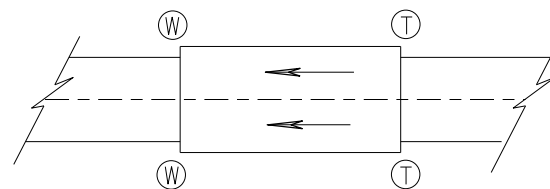
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

**GENERAL NOTES**

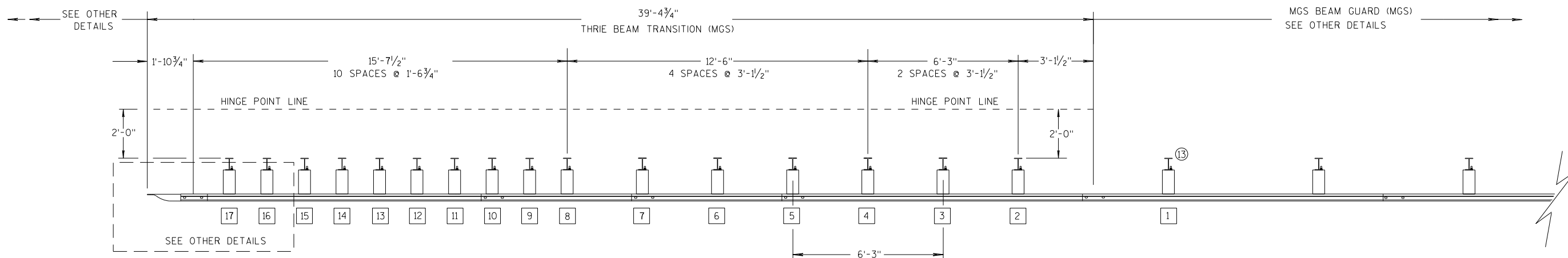
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

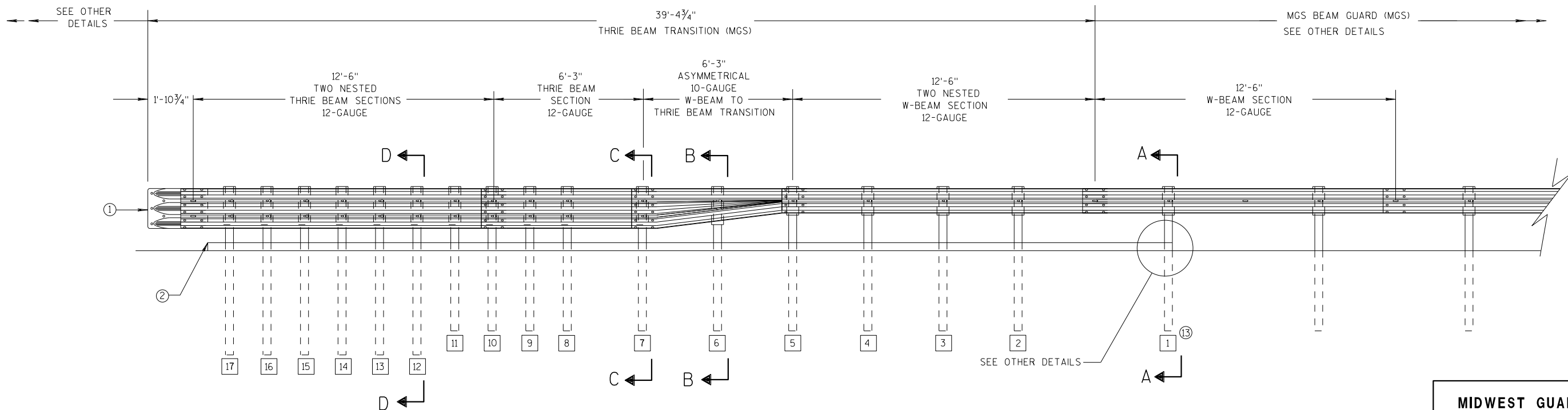
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

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



**PLAN VIEW**



**ELEVATION VIEW**

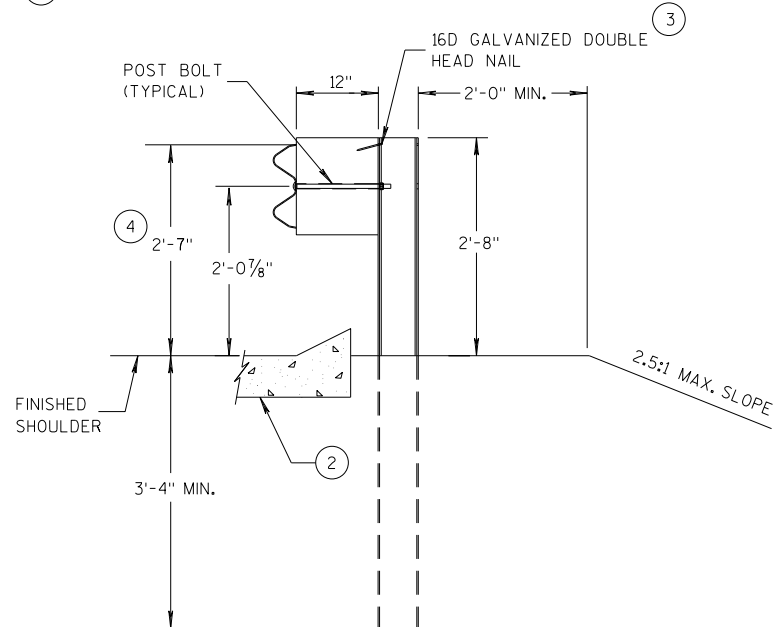
**MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION**

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

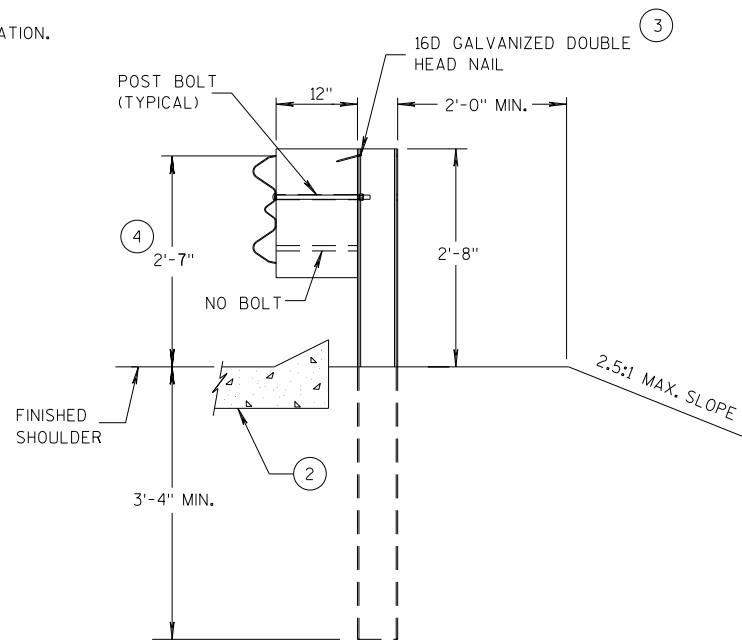
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

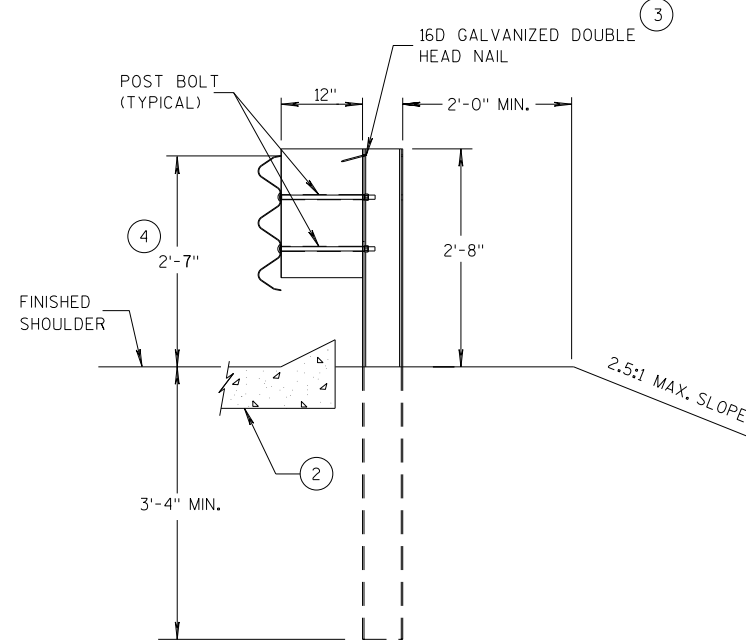
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ③ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ④ TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".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



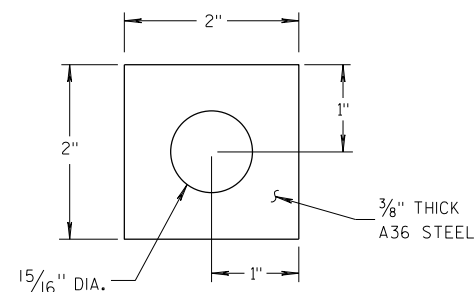
**SECTION A-A  
POSTS 1-5**



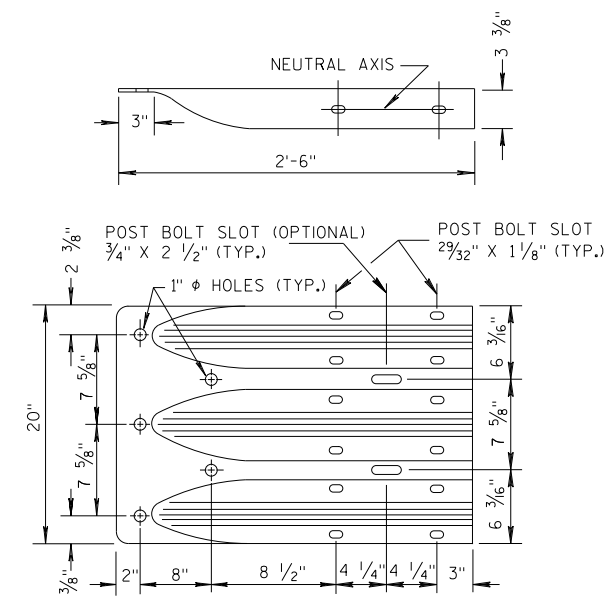
**SECTION B-B  
POST 6**



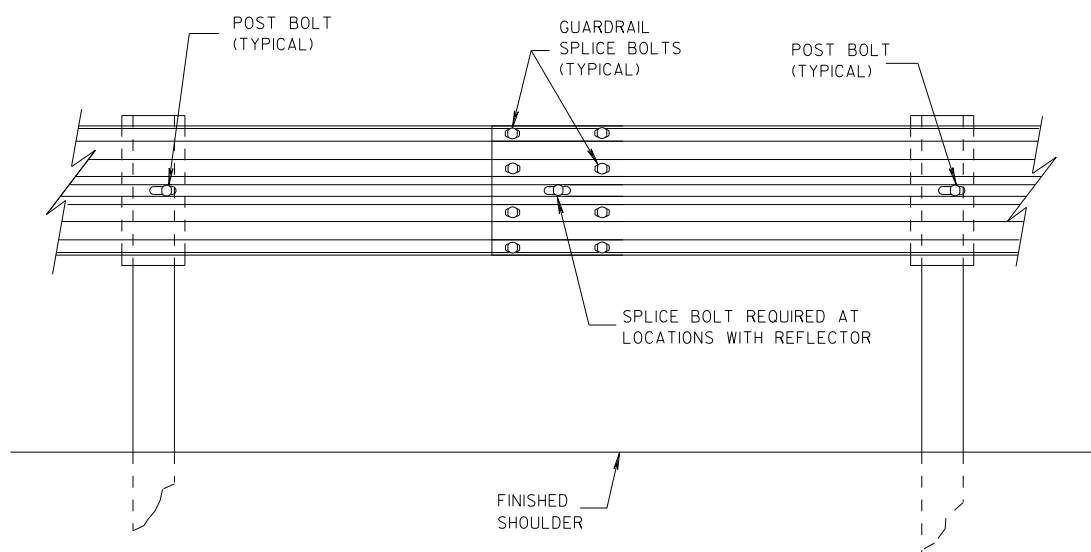
**SECTION C-C  
POSTS 7-11**



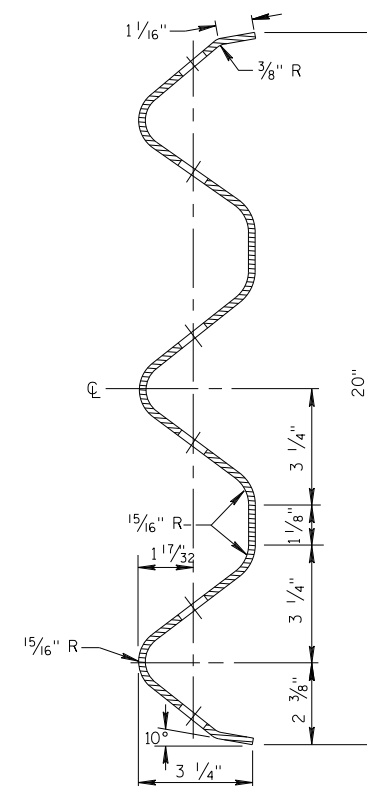
**PLATE WASHER DETAIL**



**THRIE BEAM  
TERMINAL CONNECTOR**



**SPLICE DETAIL**

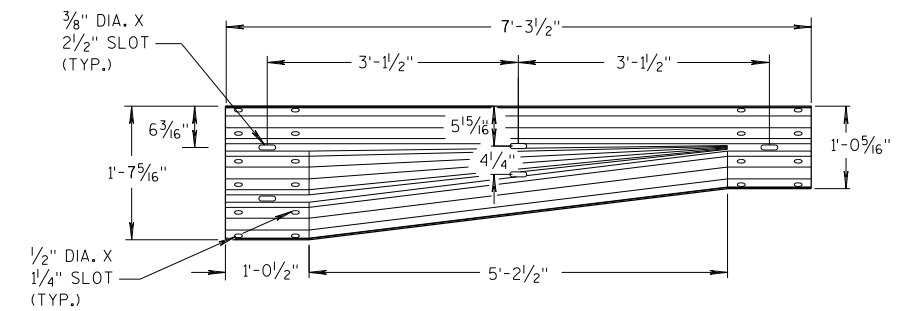


**SECTION THRU THRIE  
BEAM RAIL ELEMENT**

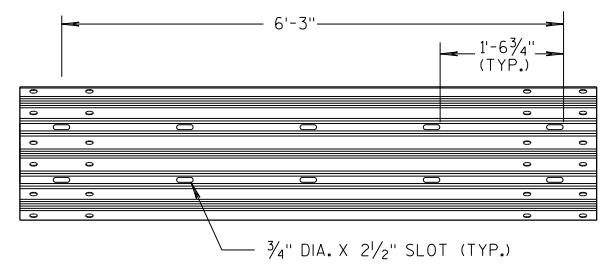
**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

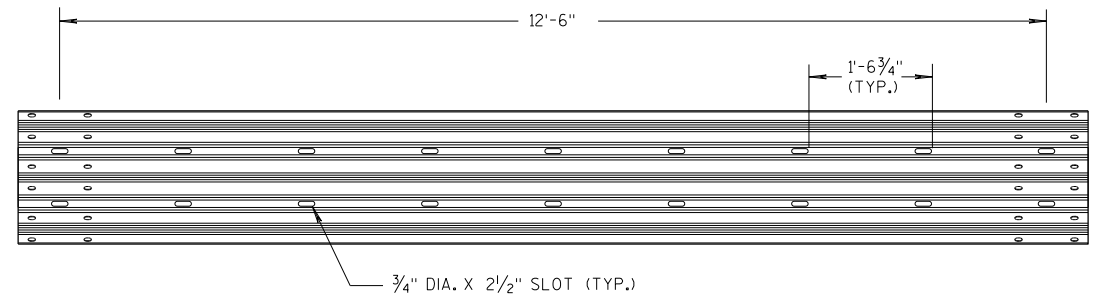




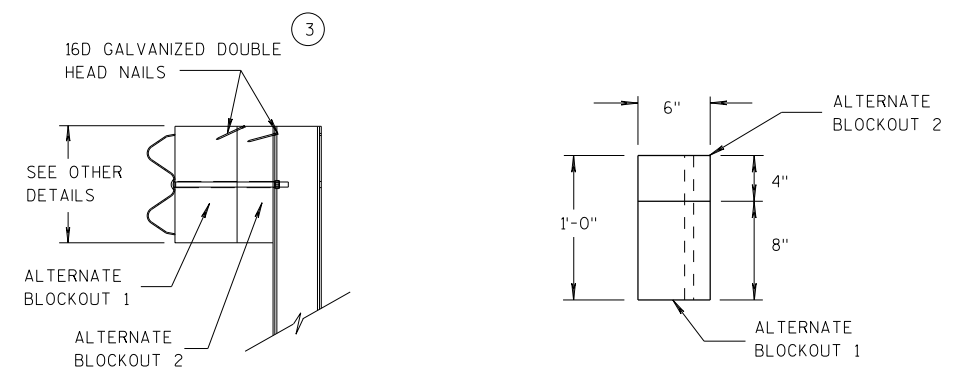
**W-BEAM TO THRIE BEAM TRANSITION SECTION**



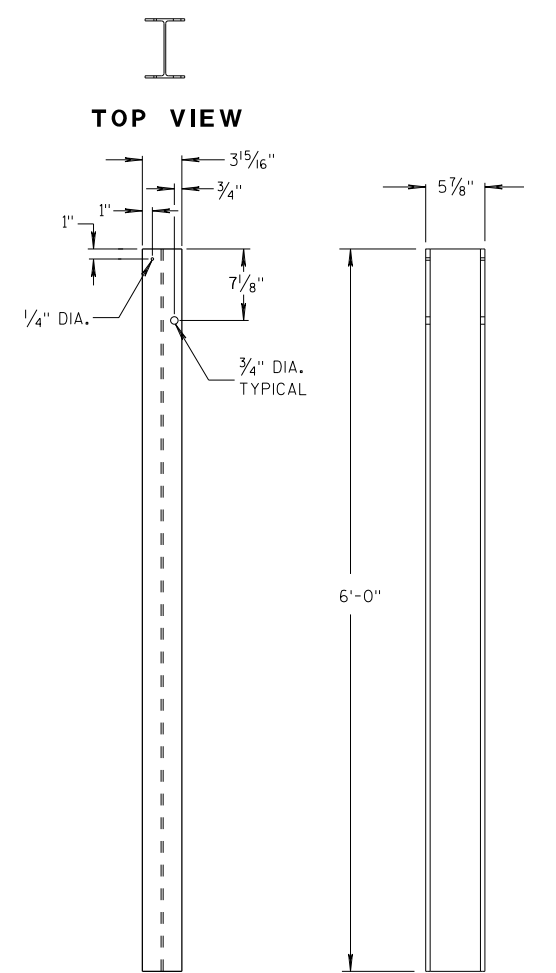
**6'-3\"/>**



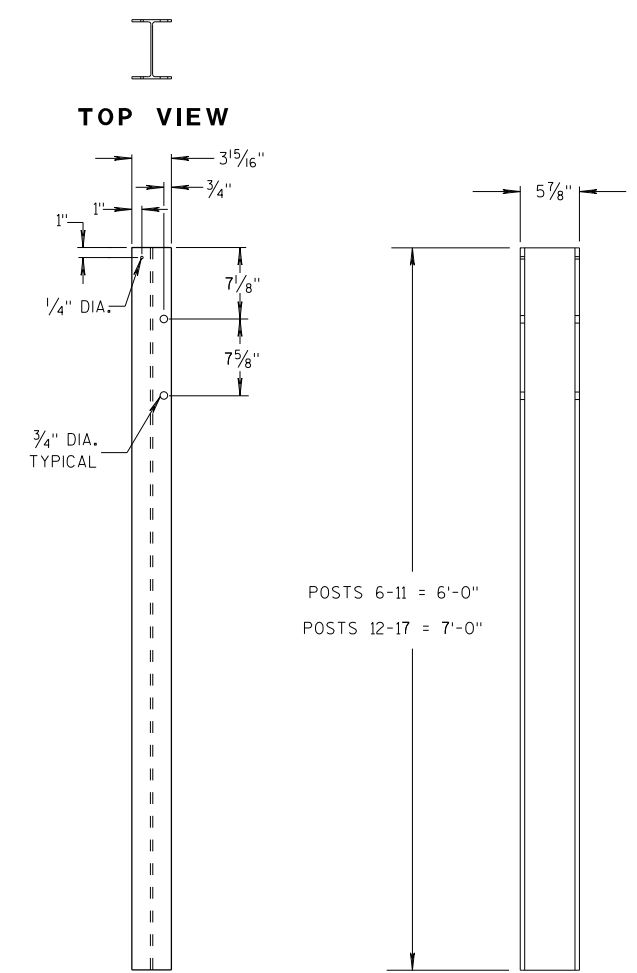
**12'-6\"/>**



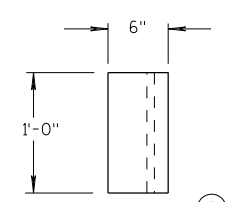
**ALTERNATE WOOD BLOCKOUT DETAIL**



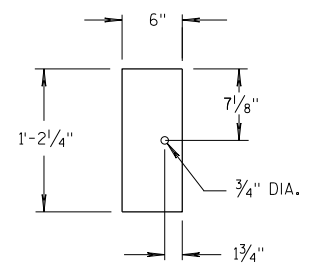
**STEEL POSTS 1-5**



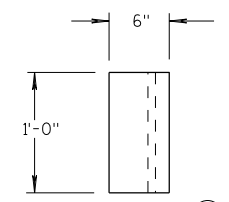
**STEEL POSTS 6-17**



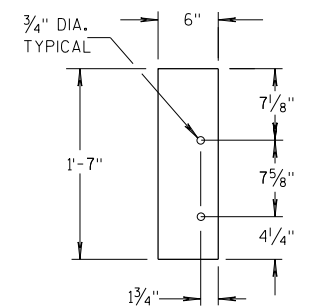
**BLOCKOUT POSTS 1-5 TOP VIEW**



**BLOCKOUT POSTS 1-5 FRONT VIEW**



**BLOCKOUT POSTS 6-17 TOP VIEW**



**BLOCKOUT POSTS 6-17 FRONT VIEW**

**GENERAL NOTES**

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

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

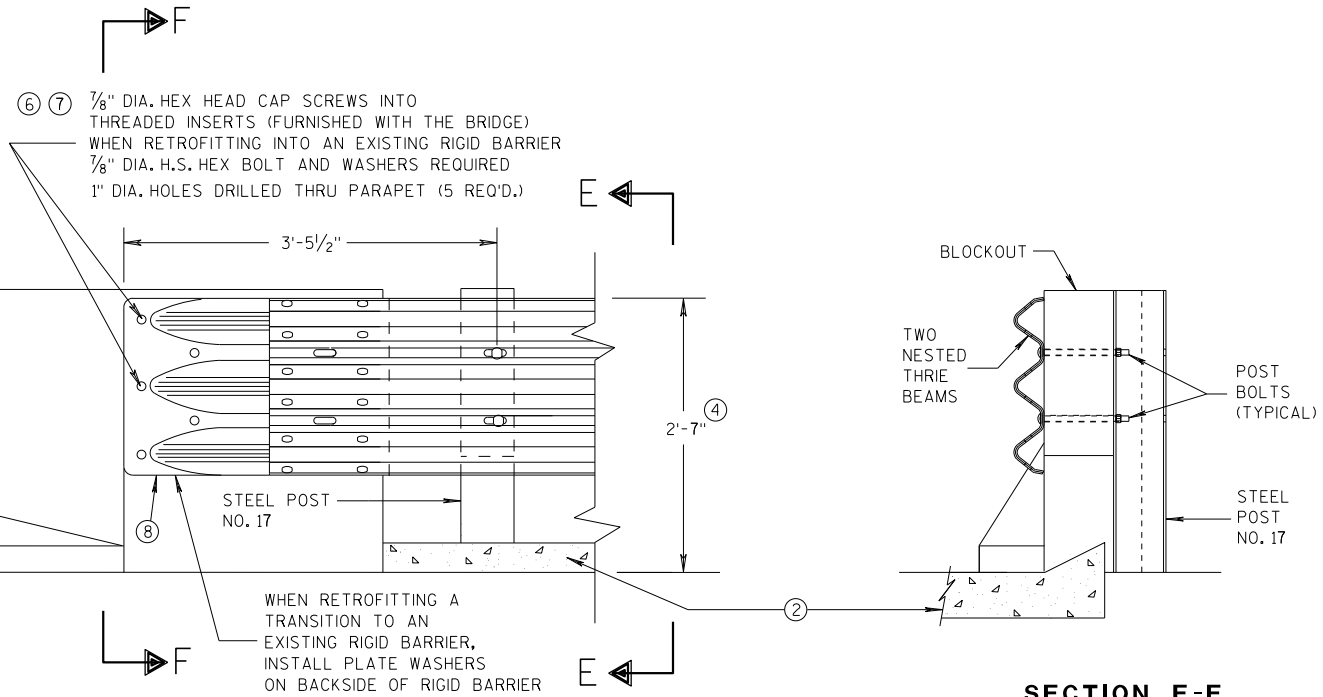
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

6

6

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

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



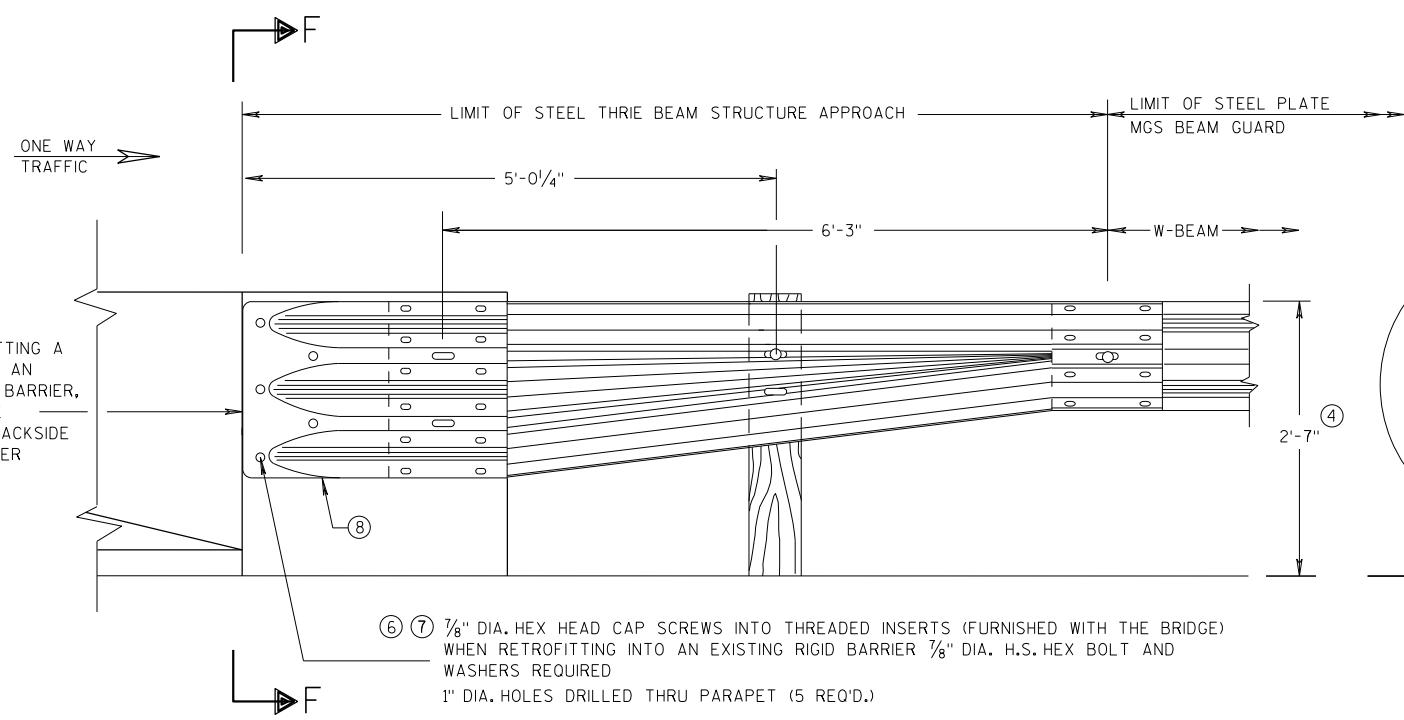
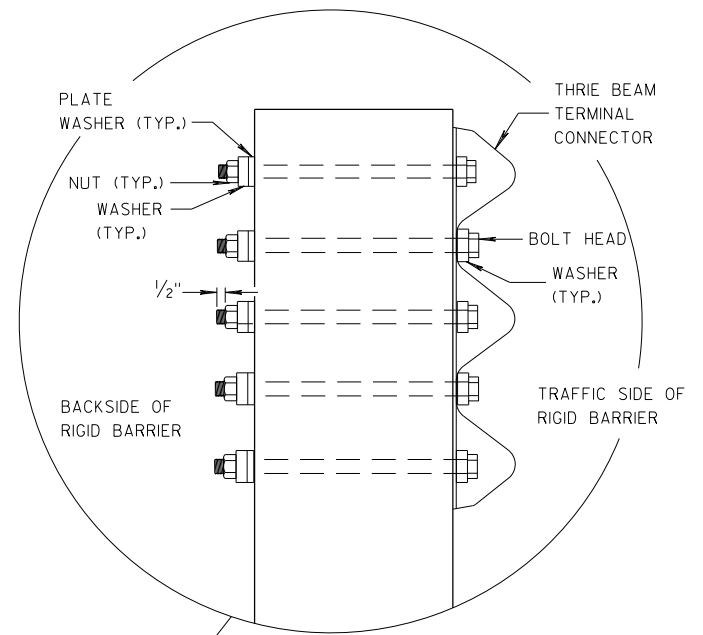
FRONT VIEW

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

SECTION E-E

**GENERAL NOTES**

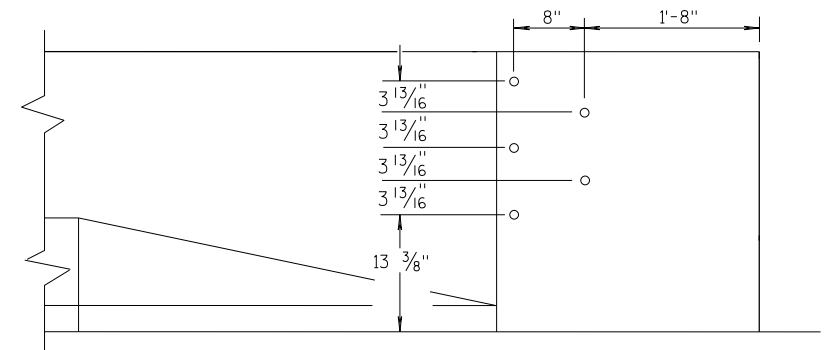
- THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.
- (2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- (4) TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- (6) DRILLING BOLT HOLES THROUGH THE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



FRONT VIEW

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

SECTION F-F



DRILL HOLE LOCATION

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

6

6

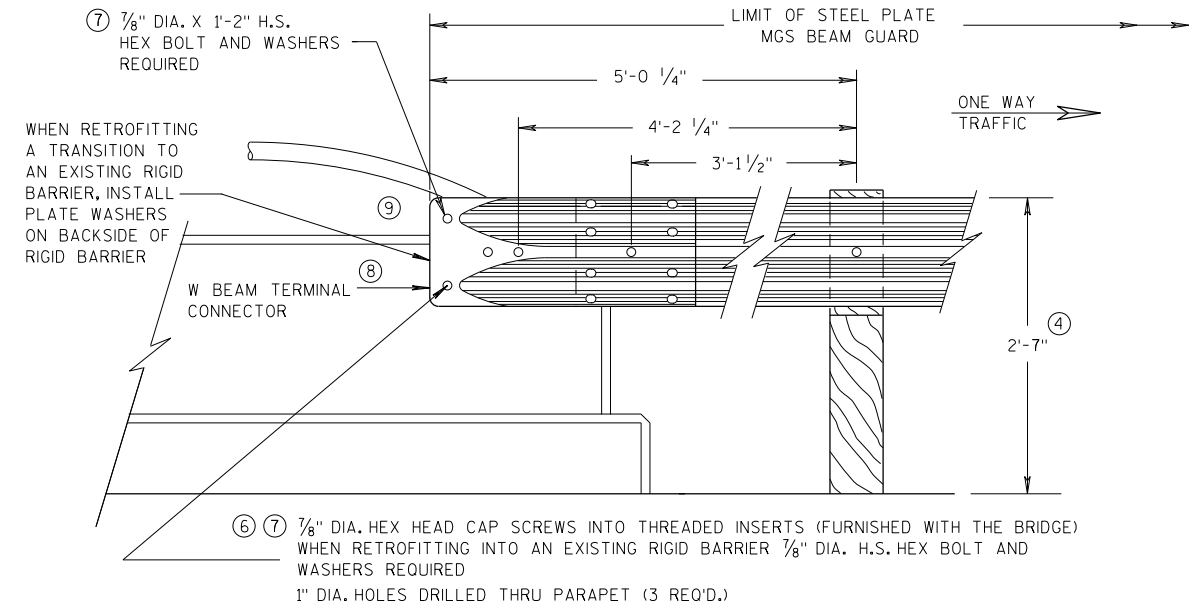
S.D.D. 14 B 45-5d

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

## GENERAL NOTES

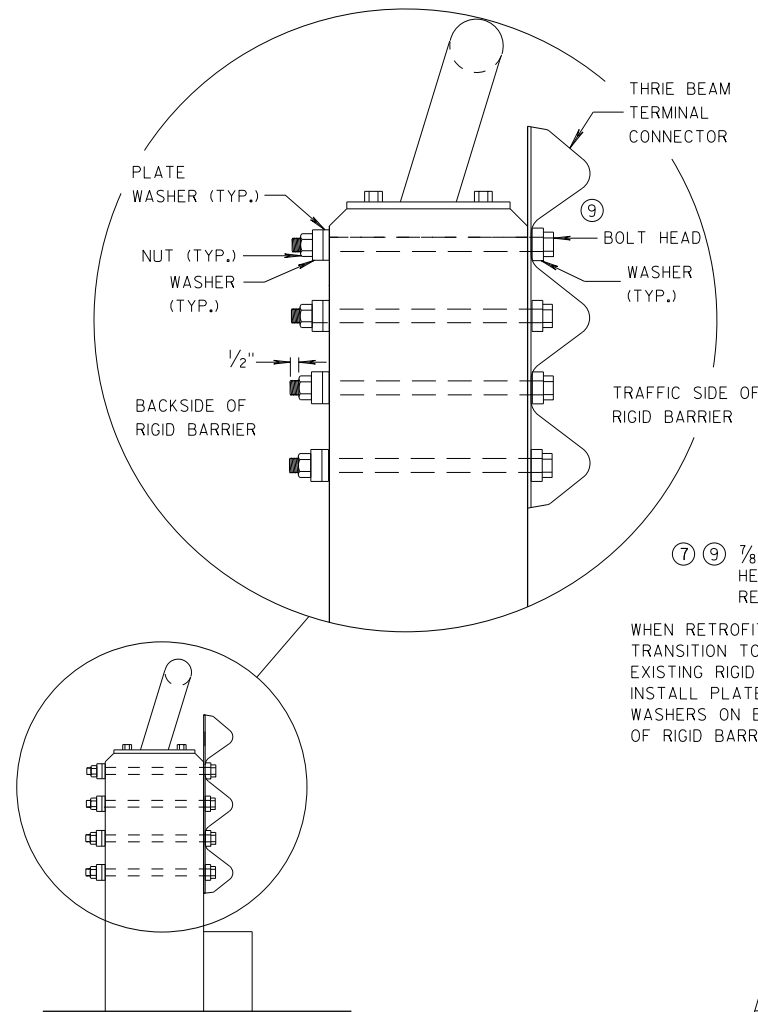
THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

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

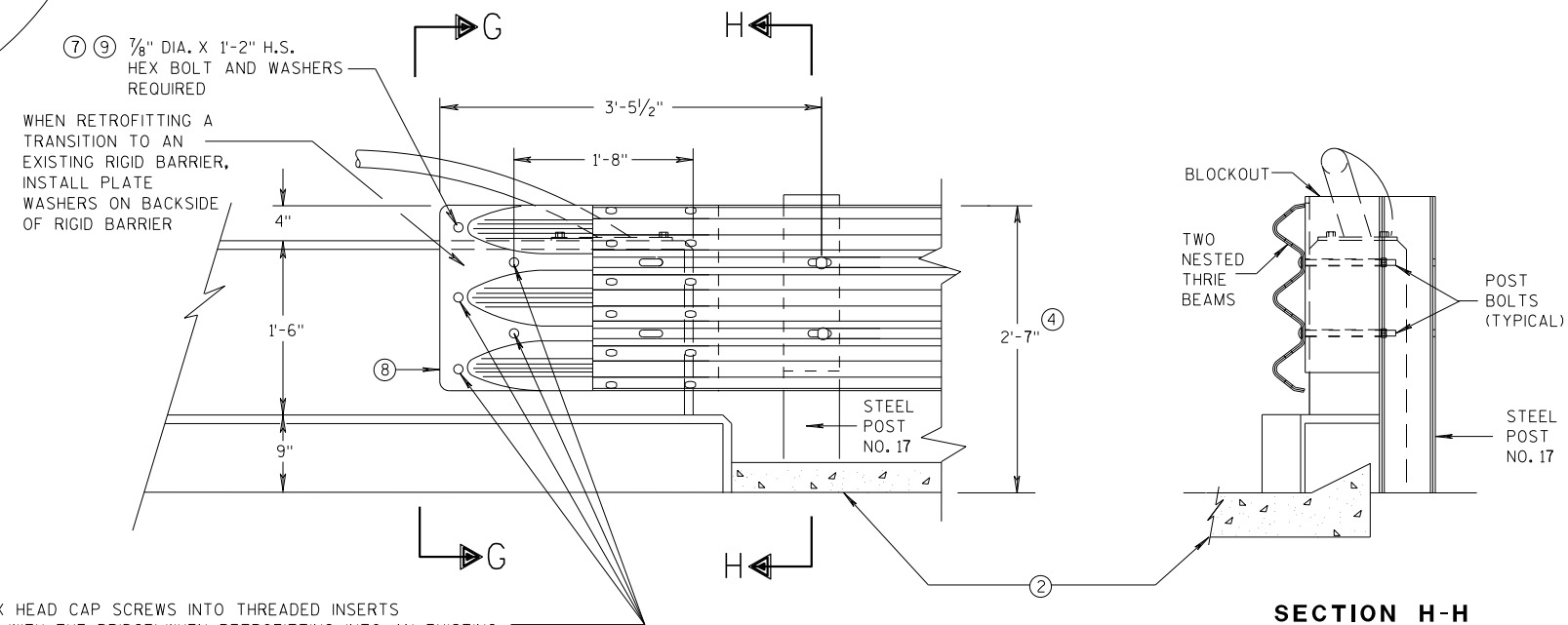


FRONT VIEW

### W BEAM CONNECTION TO VERTICAL FACE PARAPET (USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



SECTION G-G



FRONT VIEW

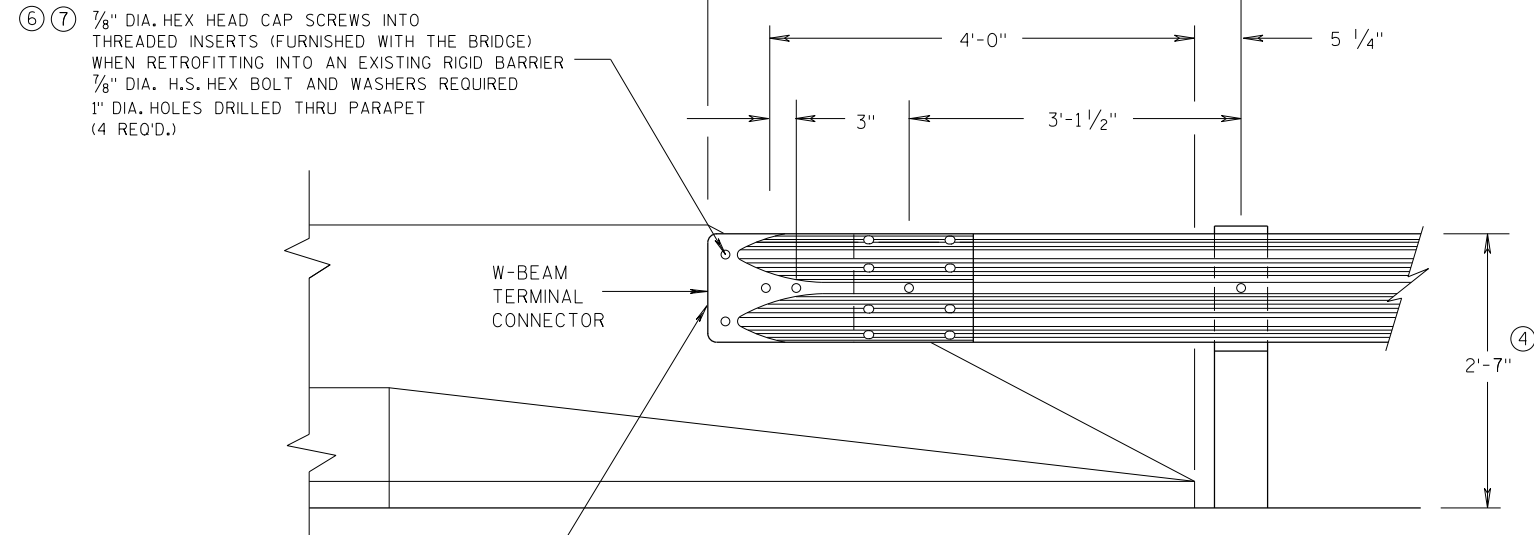
### THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
07/2018 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR

ONE WAY  
TRAFFIC



WHEN RETROFITTING A TRANSITION TO AN EXISTING RIGID BARRIER, INSTALL PLATE WASHERS ON BACKSIDE OF RIGID BARRIER.

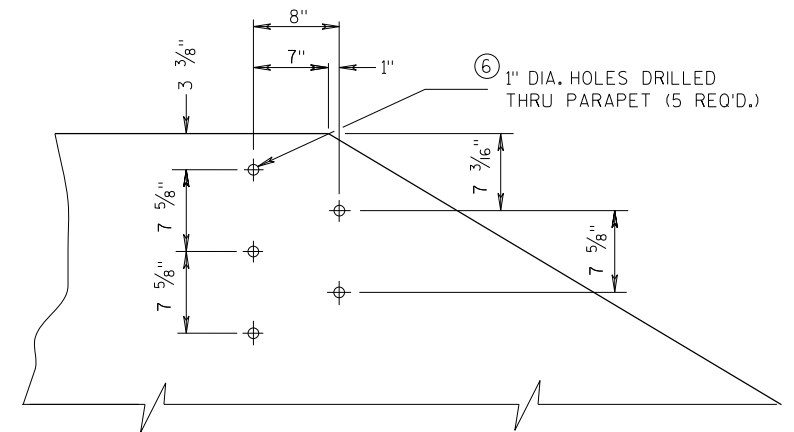
FRONT VIEW

**W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS**

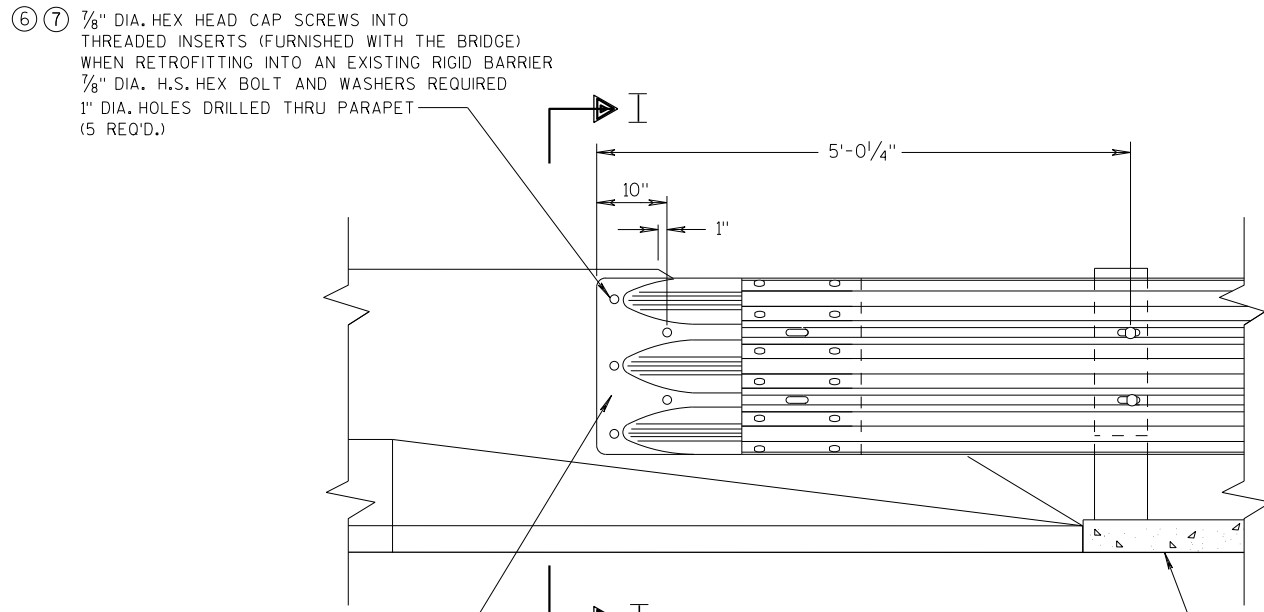
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

**GENERAL NOTES**

- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



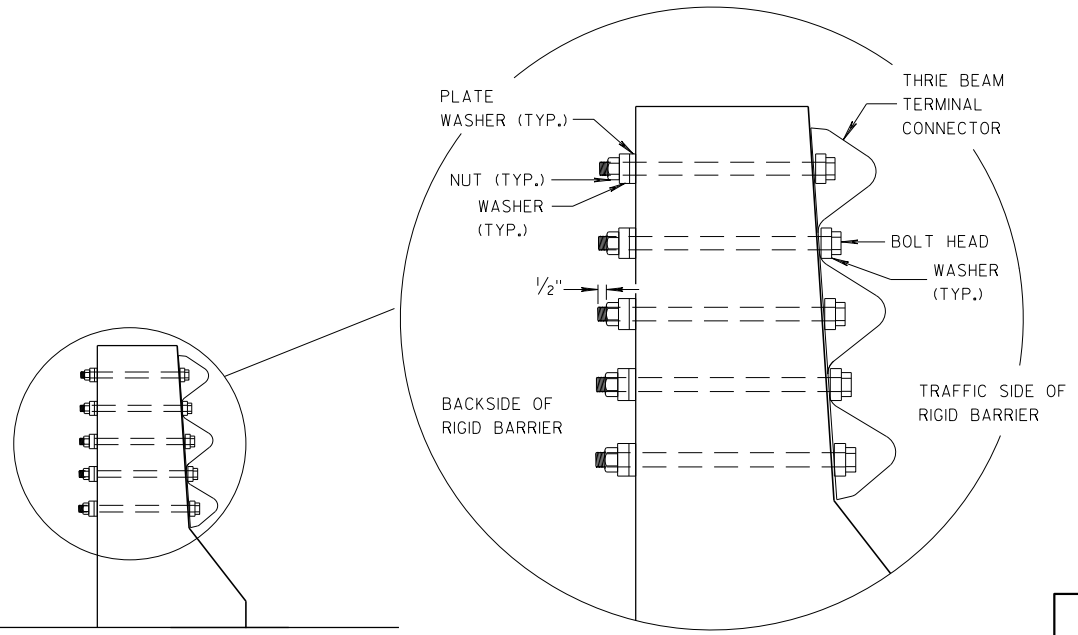
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



WHEN RETROFITTING A TRANSITION TO AN EXISTING RIGID BARRIER, INSTALL PLATE WASHERS ON BACKSIDE OF RIGID BARRIER.

FRONT VIEW

**THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS**

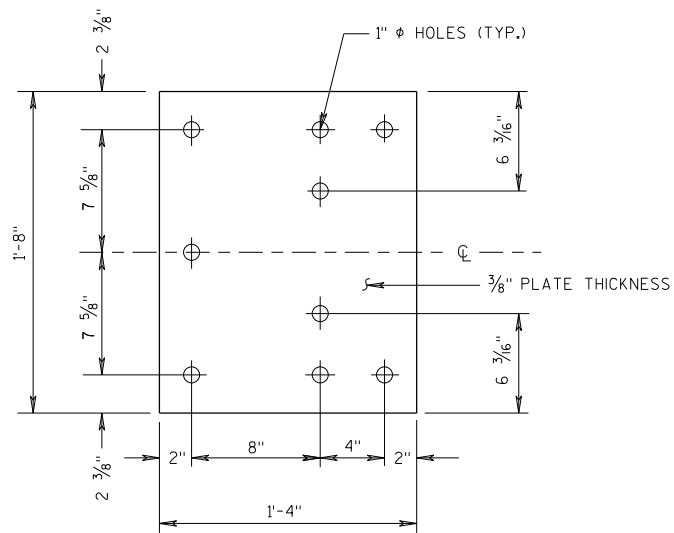


SECTION I-I

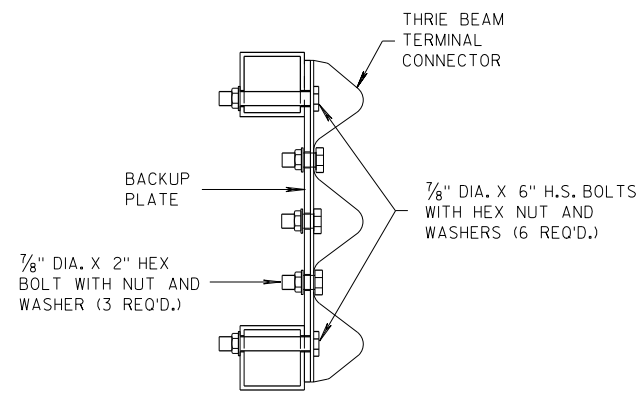
**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

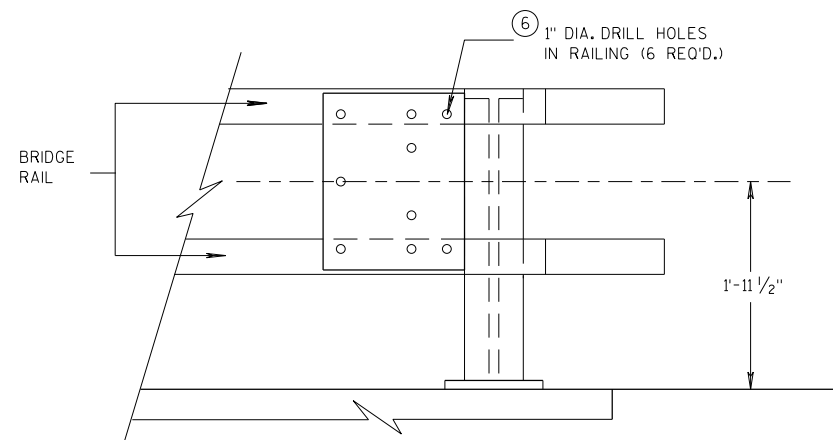
APPROVED  
DATE 07/2018 /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR  
FHWA



**BACK-UP PLATE DETAIL**



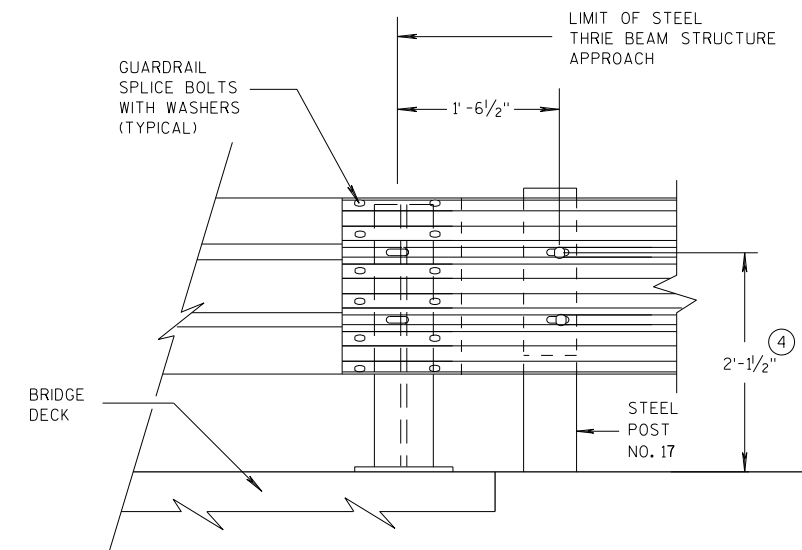
**SECTION J-J**



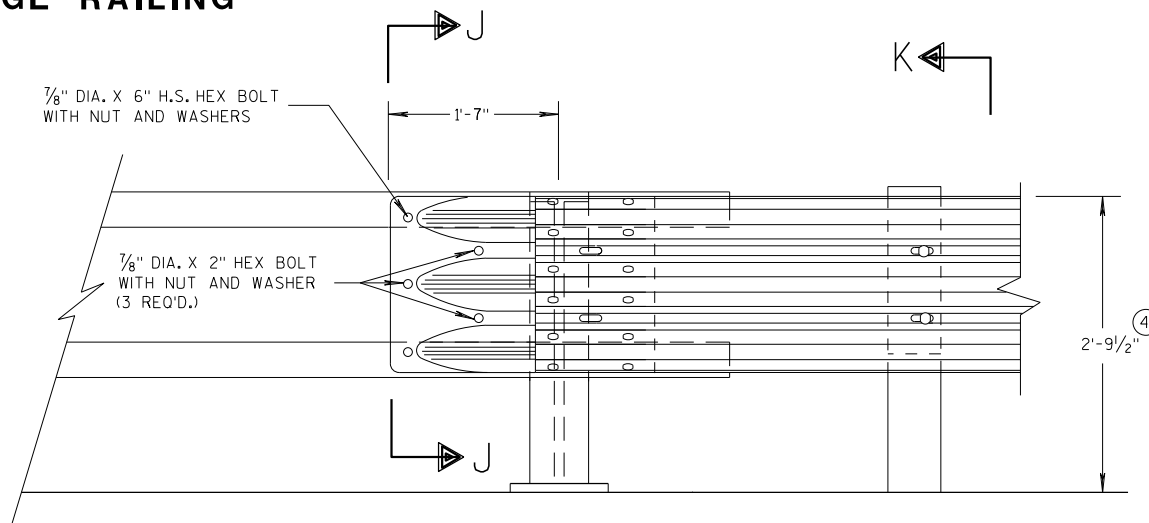
**BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING**

**GENERAL NOTES**

- ④ TOLERANCE FOR TOP OF BEAM IS  $\pm 1'$ .
- ⑥ DRILLING HOLES THROUGH THE PAPER, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

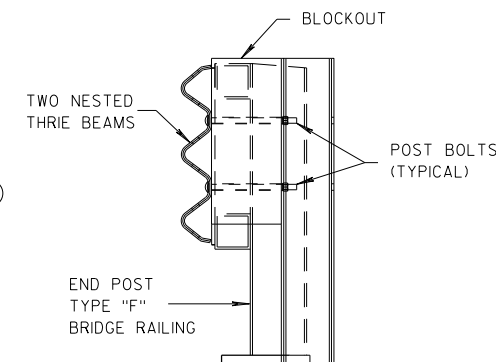


**FRONT VIEW  
THRIE BEAM CONNECTION TO  
STEEL RAILING TYPE "W"**



**FRONT VIEW**

**THRIE BEAM CONNECTION TO  
TUBULAR RAILING TYPE "F"**



**SECTION K-K**

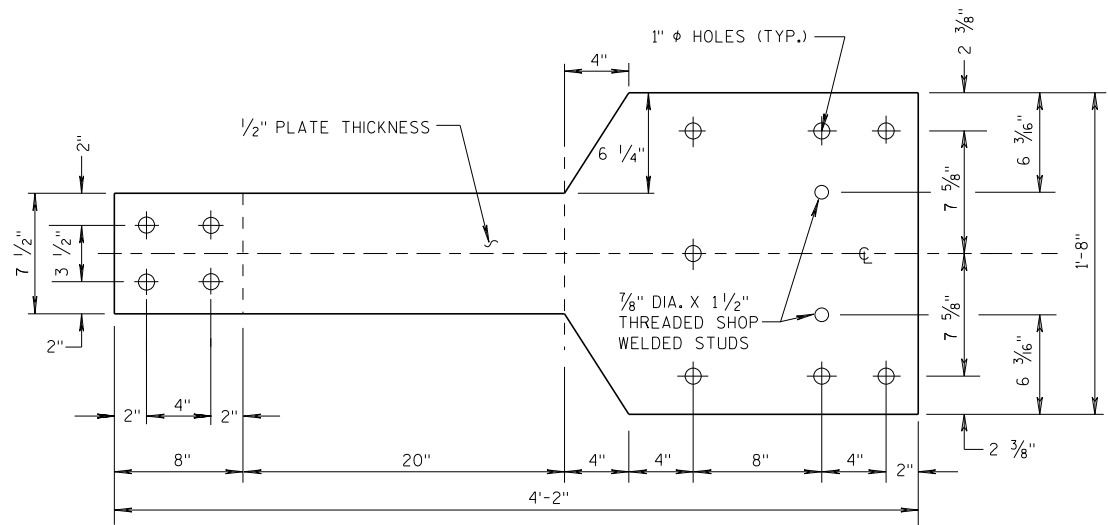
**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

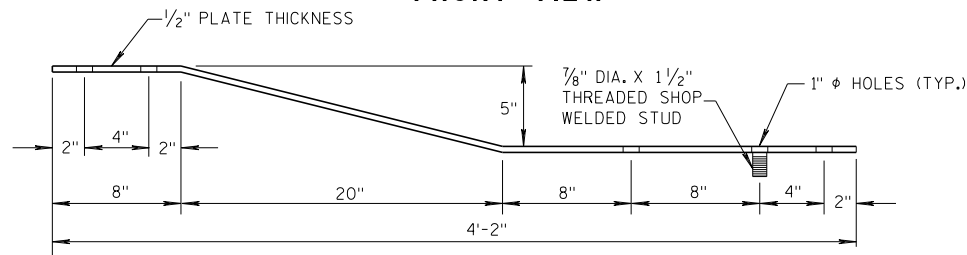
APPROVED  
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DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR

**GENERAL NOTES**

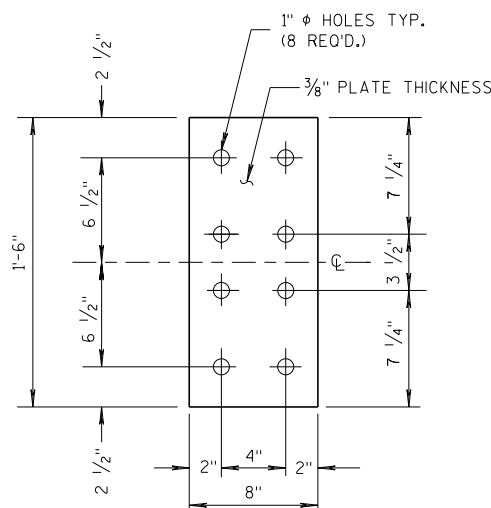
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



**FRONT VIEW**

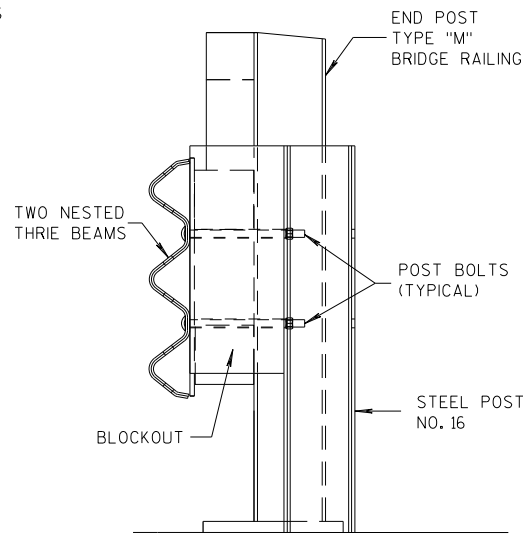


**PLAN VIEW  
BACK-UP PLATE DETAIL, TYPE "M"**

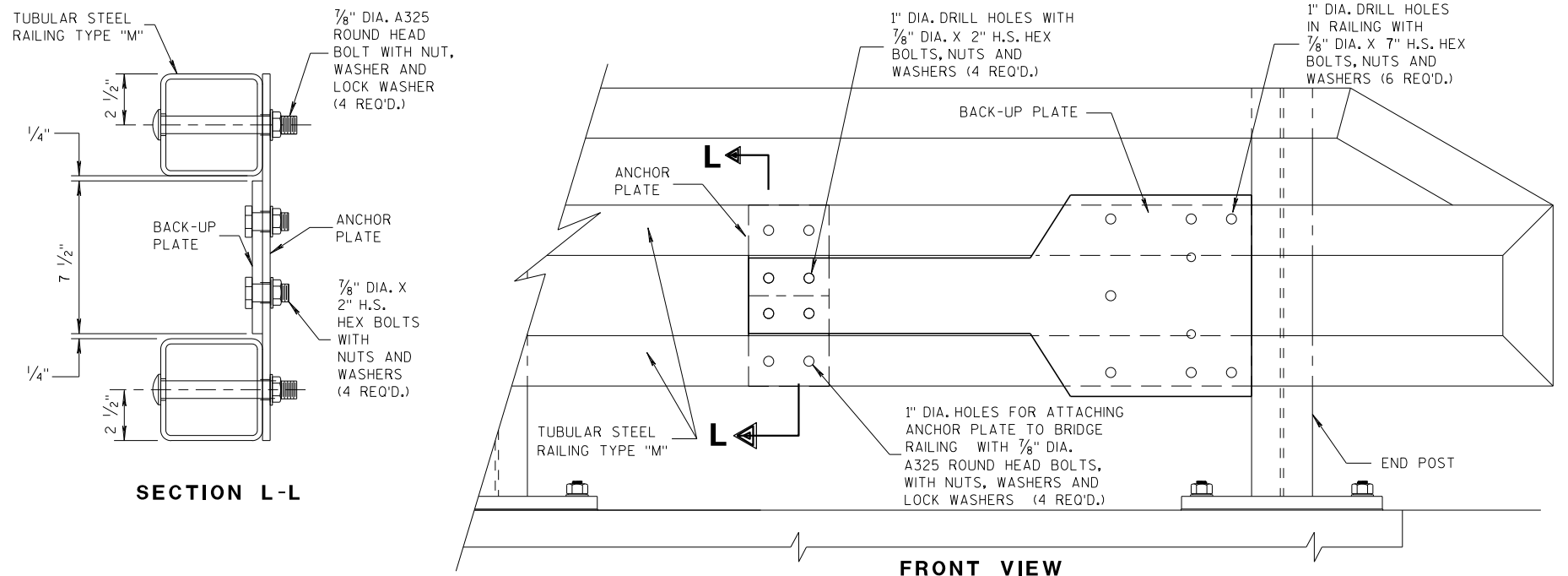


**FRONT VIEW**

**ANCHOR  
PLATE DETAIL,  
TYPE "M"**



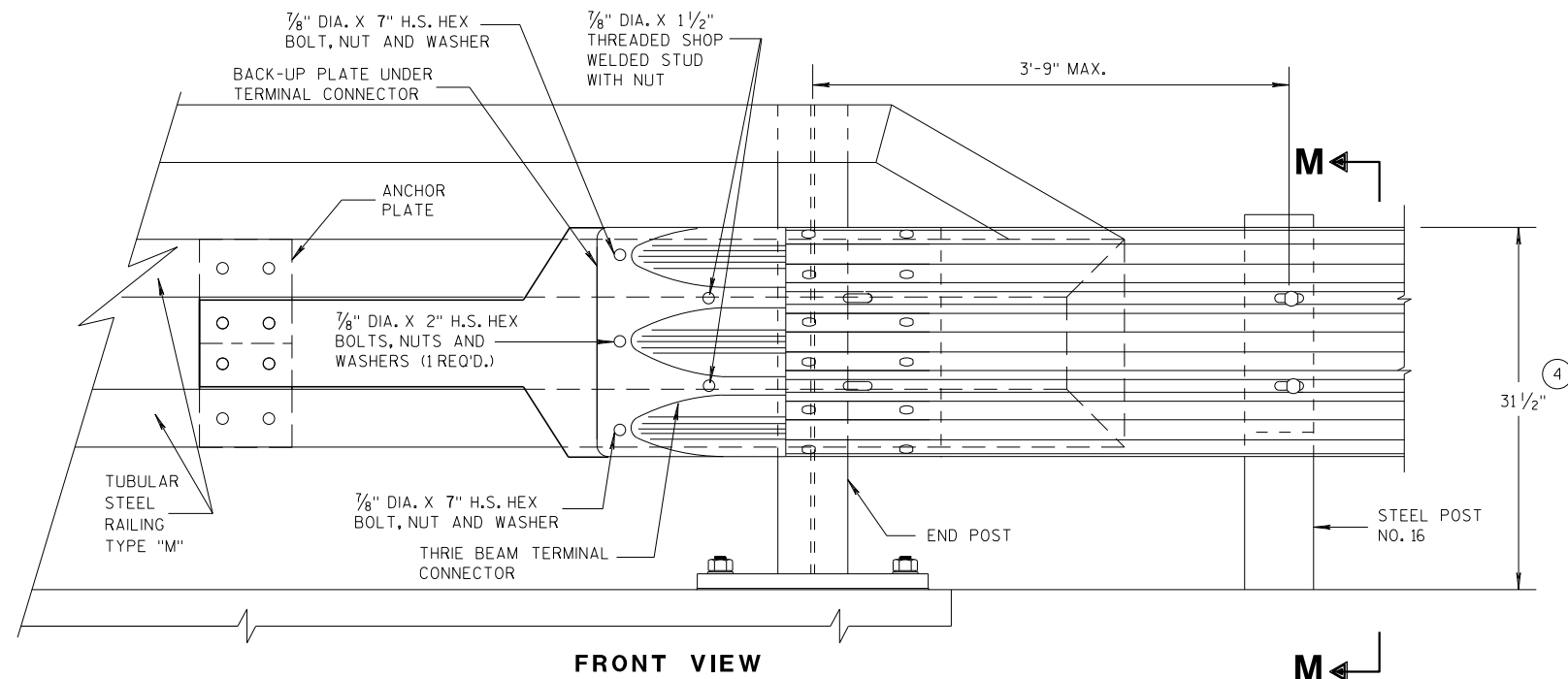
**SECTION M-M**



**SECTION L-L**

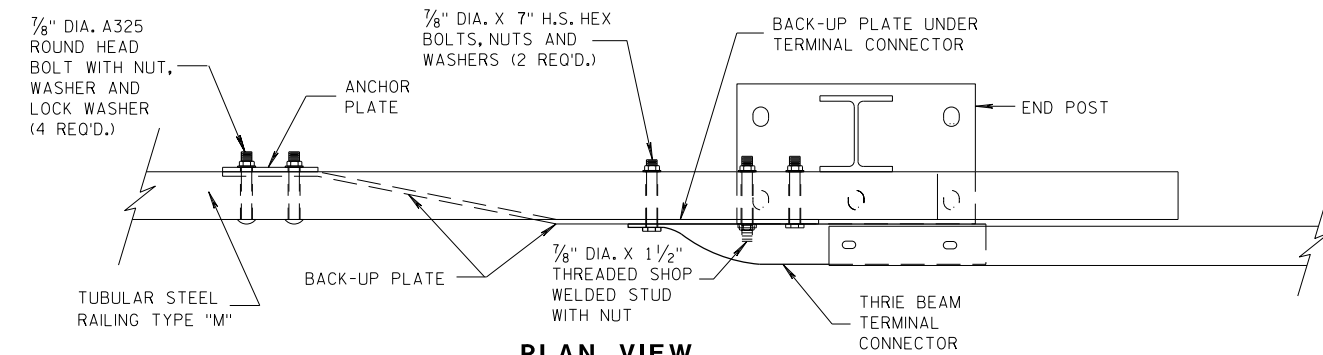
**FRONT VIEW**

**ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"**



**FRONT VIEW**

**M**



**PLAN VIEW**

**THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"**

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

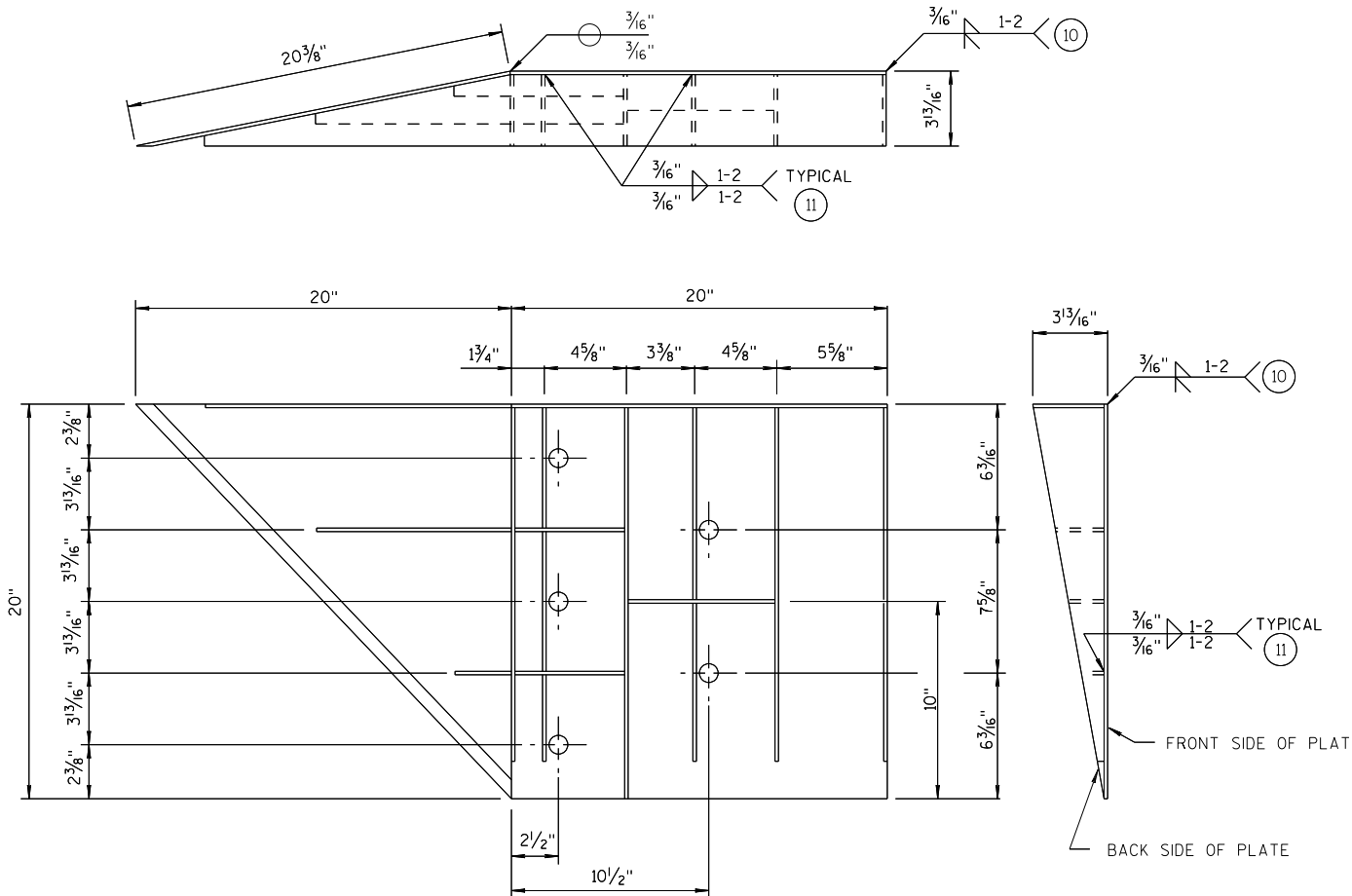
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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DATE 07/2018 /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR  
FHWA

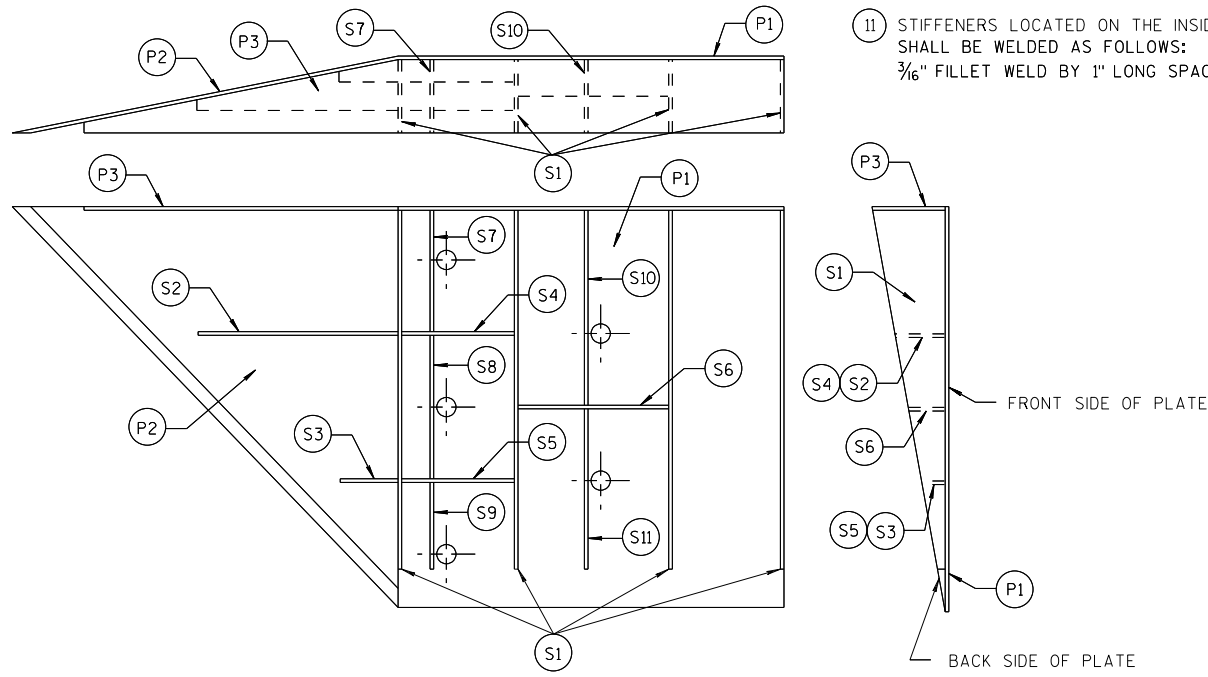
**GENERAL NOTES**

- 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 x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 3/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 1/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 3/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 3/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 3/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 3/16"	1/4"

**SINGLE SLOPE CONNECTION PLATE**

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

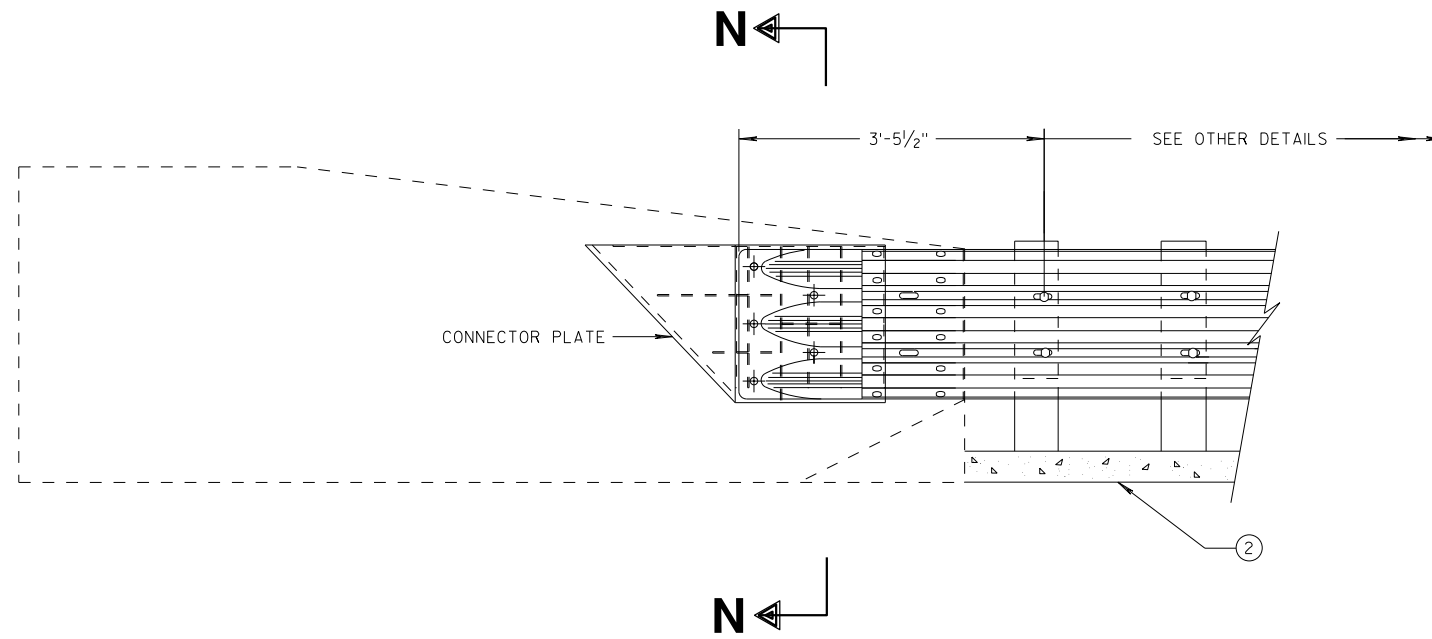


**GENERAL NOTES**

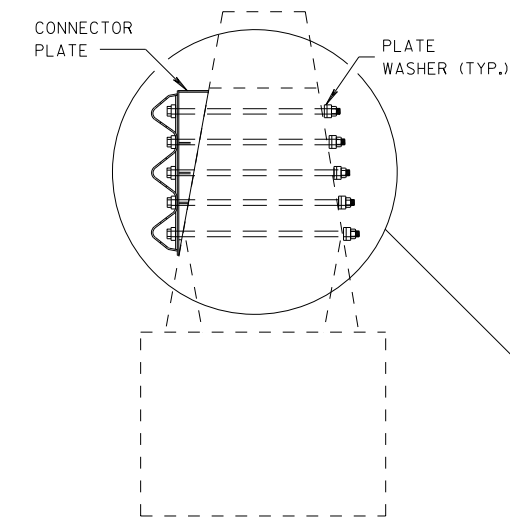
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

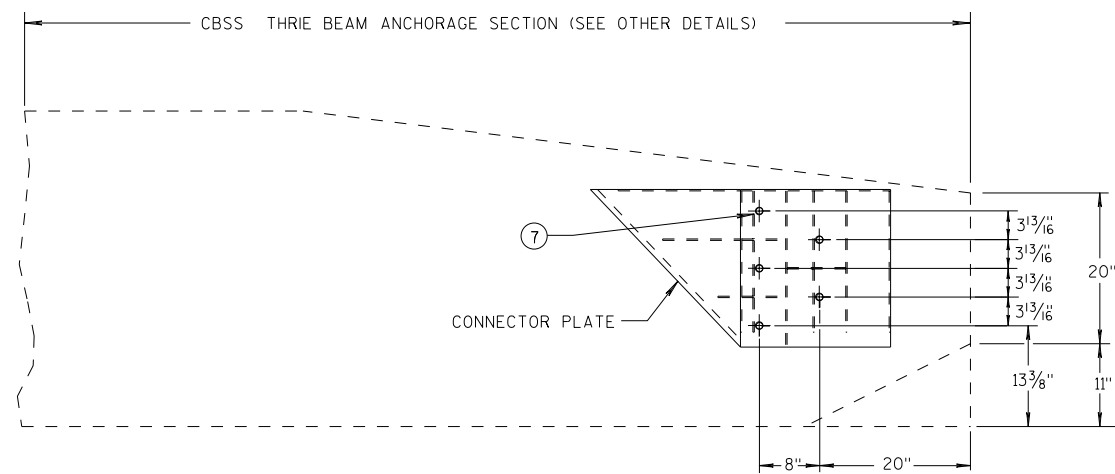
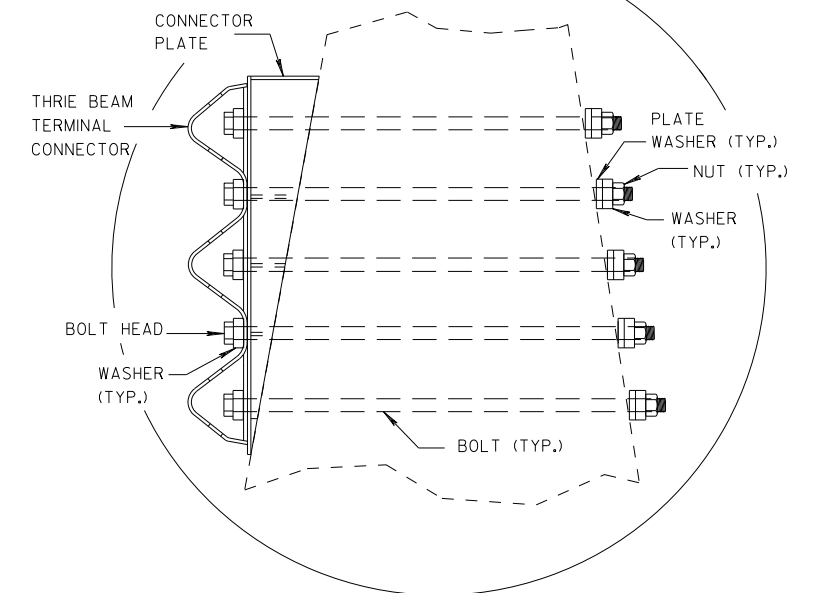
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTION PLATE. 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**

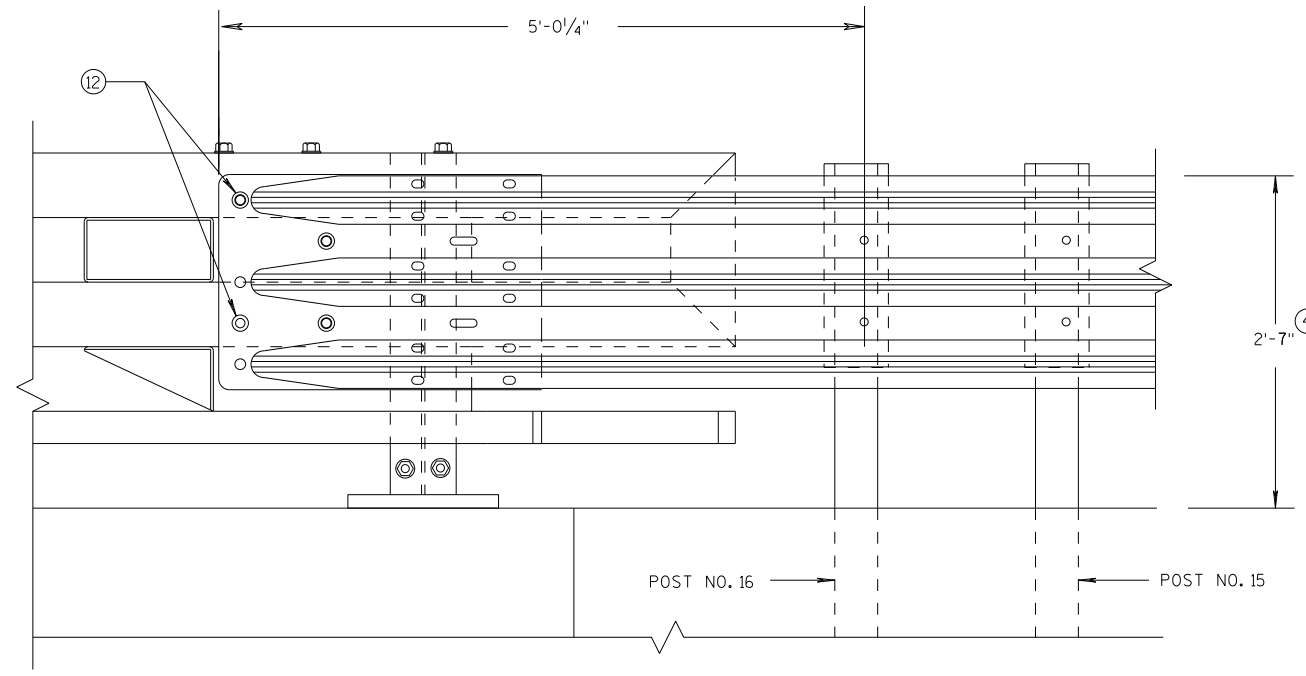


**SINGLE SLOPE CONNECTION PLATE PLACEMENT**

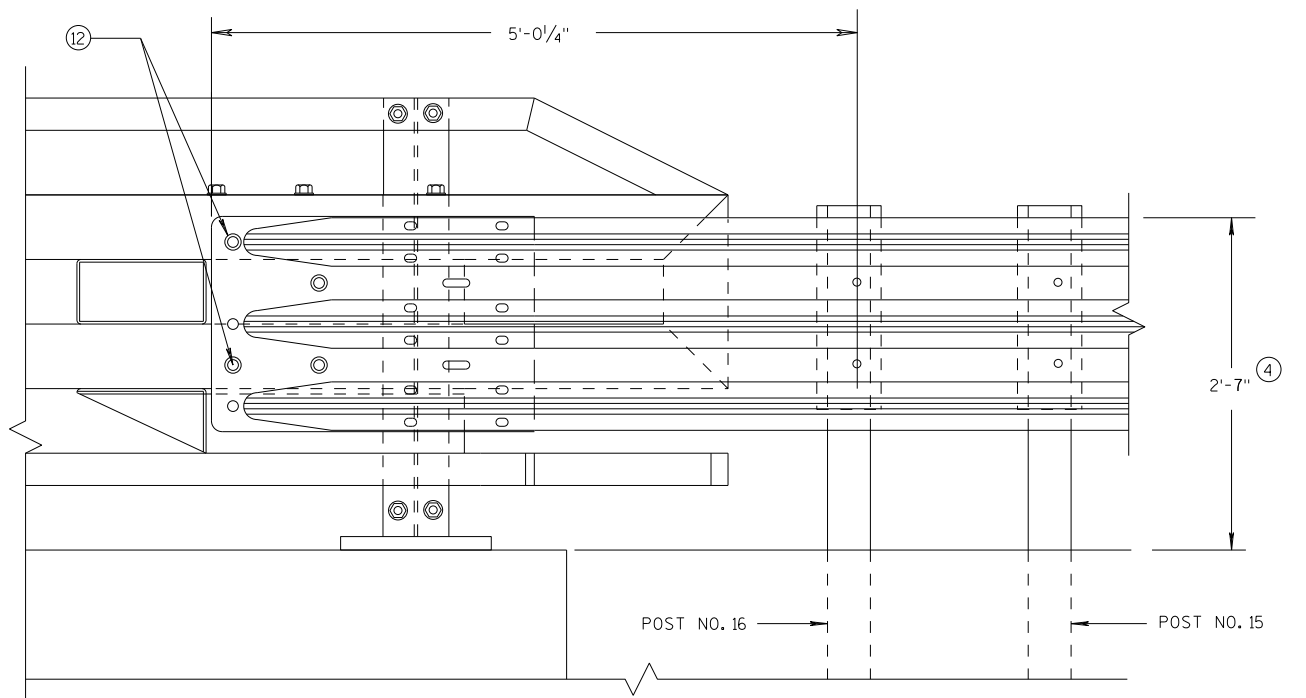
**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



**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 1/2-INCH BEYOND NUT.

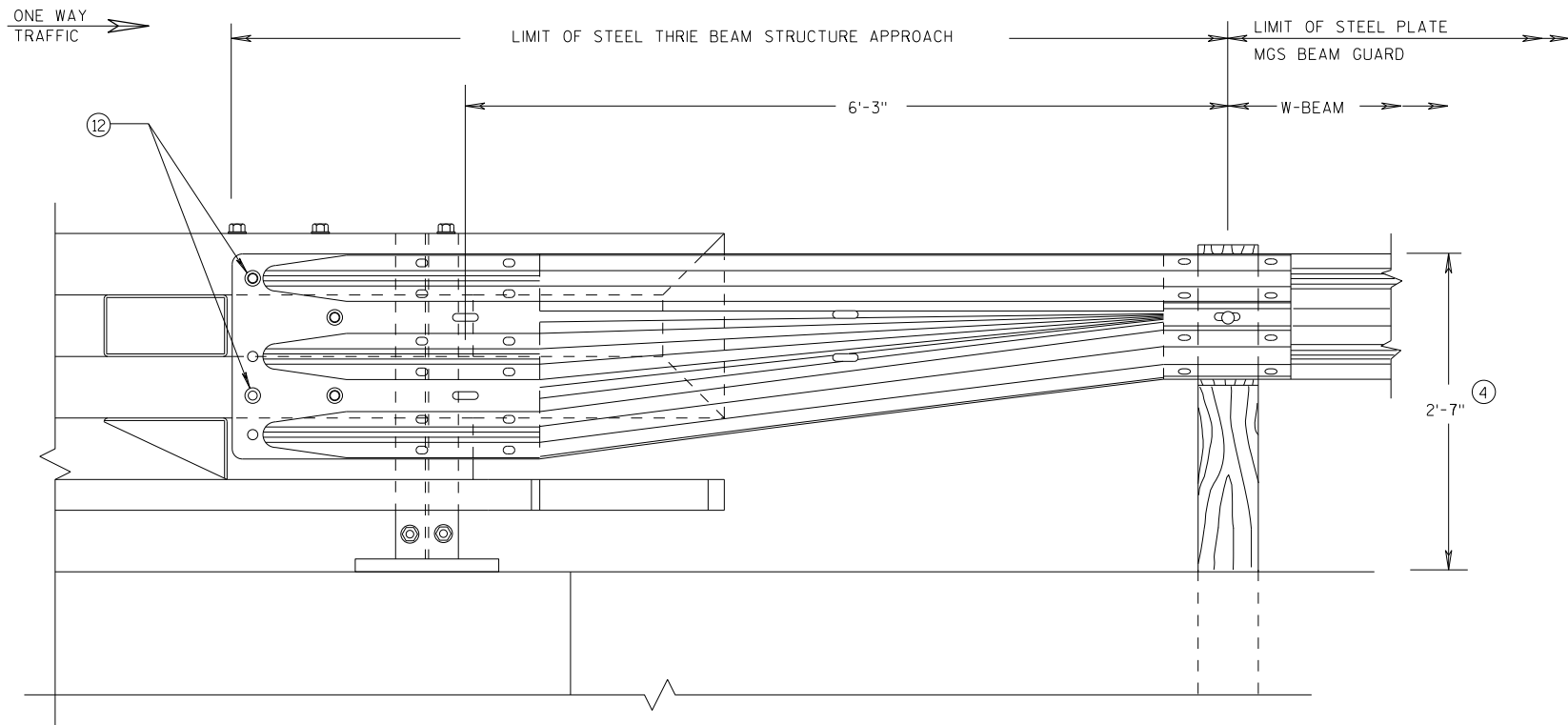
6

6

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

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

<b>MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

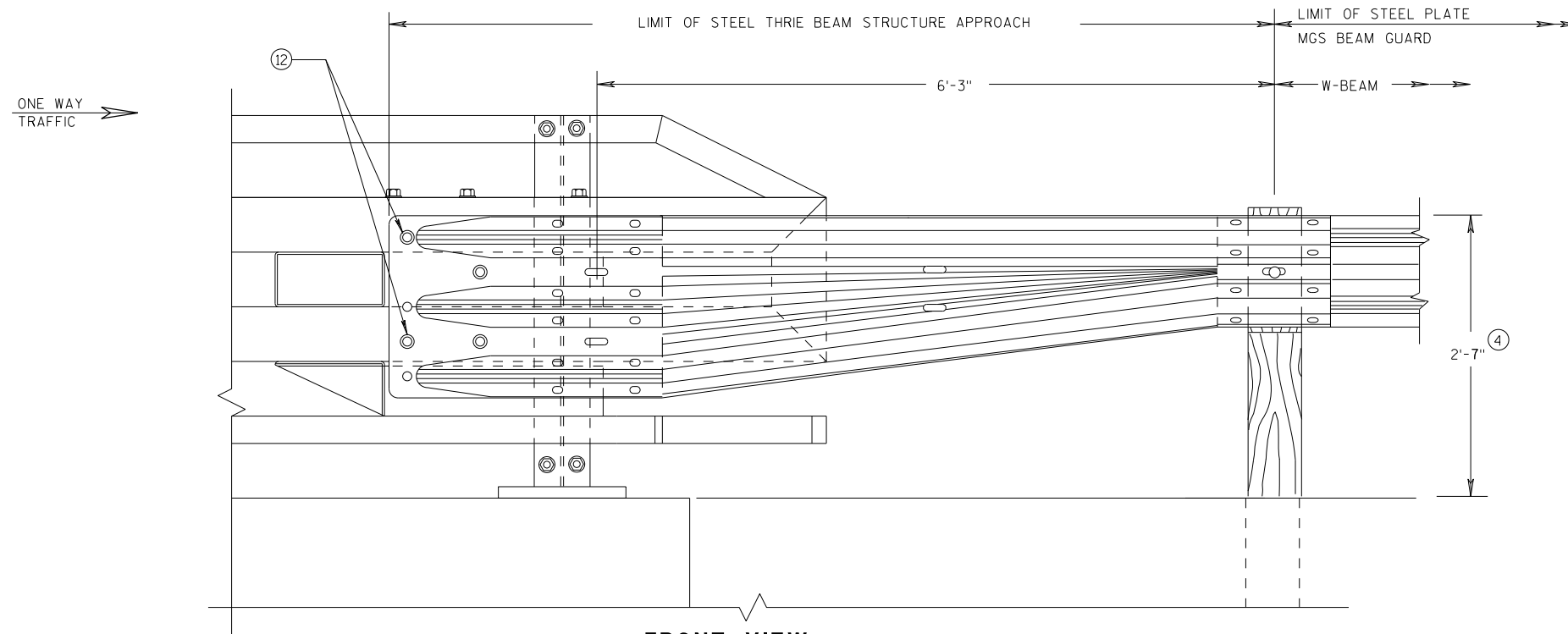


FRONT VIEW

**W BEAM TRANSITION AND  
CONNECTION TO BRIDGE RAILING TYPE "NY3"**  
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

**GENERAL NOTES**

- ④ TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- 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  $\frac{1}{2}$ -INCH BEYOND NUT.



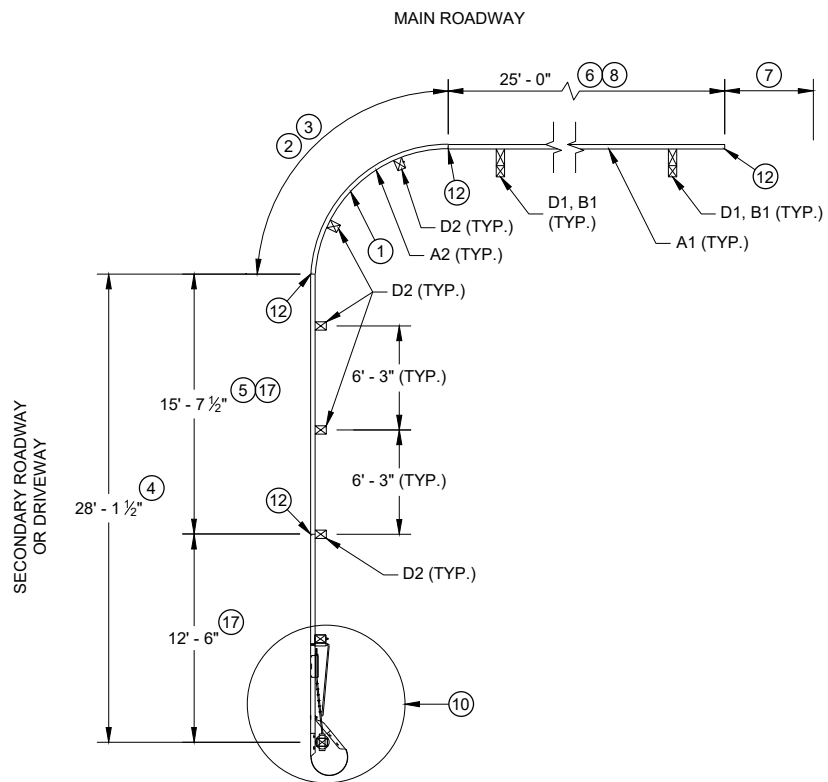
FRONT VIEW

**W BEAM TRANSITION AND  
CONNECTION TO BRIDGE RAILING TYPE "NY4"**  
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

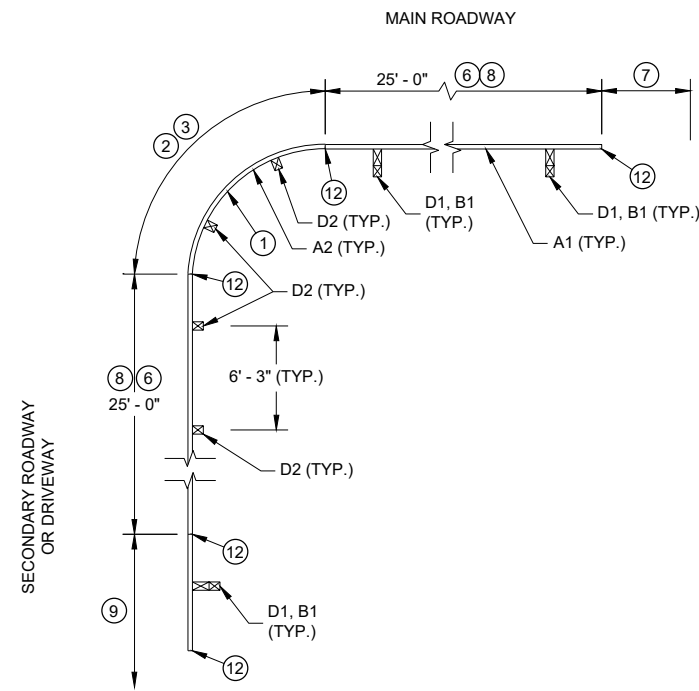
**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



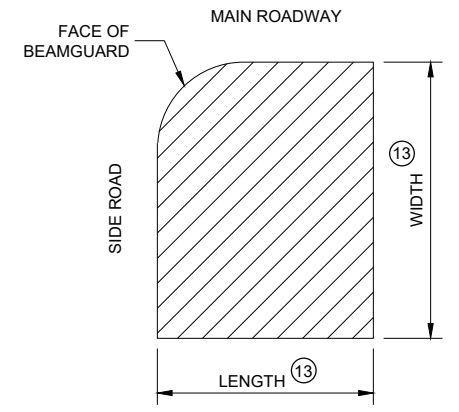
**PLAN VIEW**  
**SHORT RADIUS BEAM GUARD WITH**  
**SHORT RADIUS TERMINAL ON**  
**SECONDARY ROAD OR DRIVEWAY**



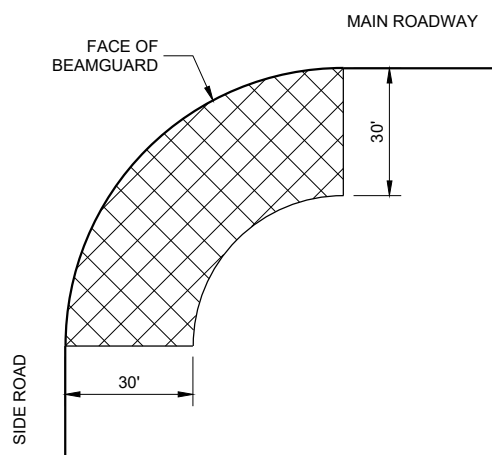
**PLAN VIEW**  
**SHORT RADIUS BEAM GUARD WITH**  
**EAT, ADDITIONAL BEAM GUARD**  
**OR**  
**TRANSITION TO RIGID BARRIER ON**  
**SECONDARY ROAD OR DRIVEWAY**

**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



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

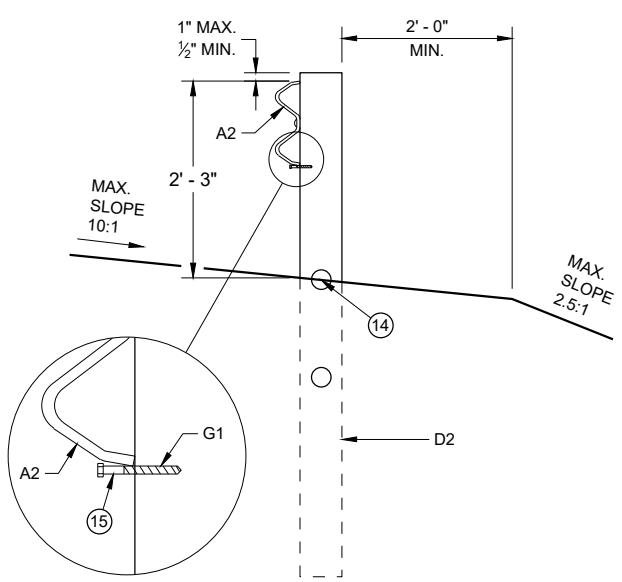


**AREA FREE OF FIXED**  
**OBJECTS FOR RADIUS**  
**GREATER THAN 32'**

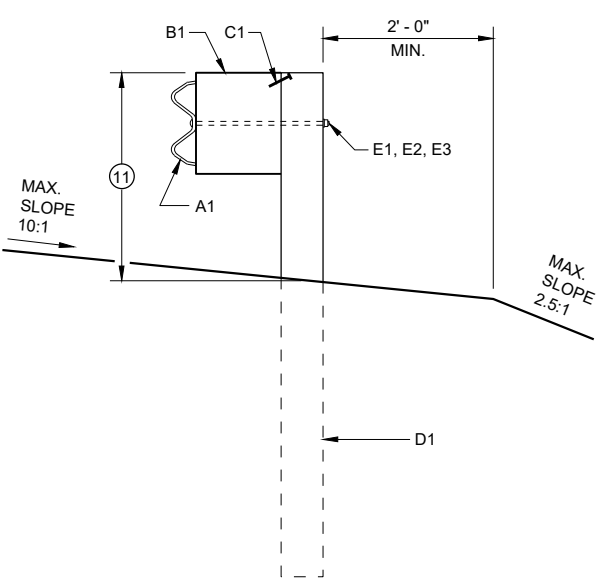
**GENERAL NOTES**

- 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.

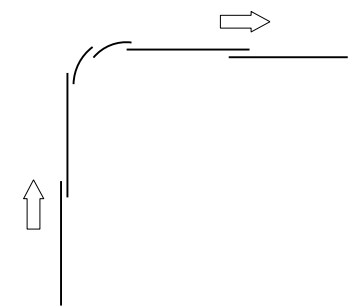
- (1) RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.
- (2) CONTROLLED RELEASE TERMINAL (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 (8).
- (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 1 5/8" 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).



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



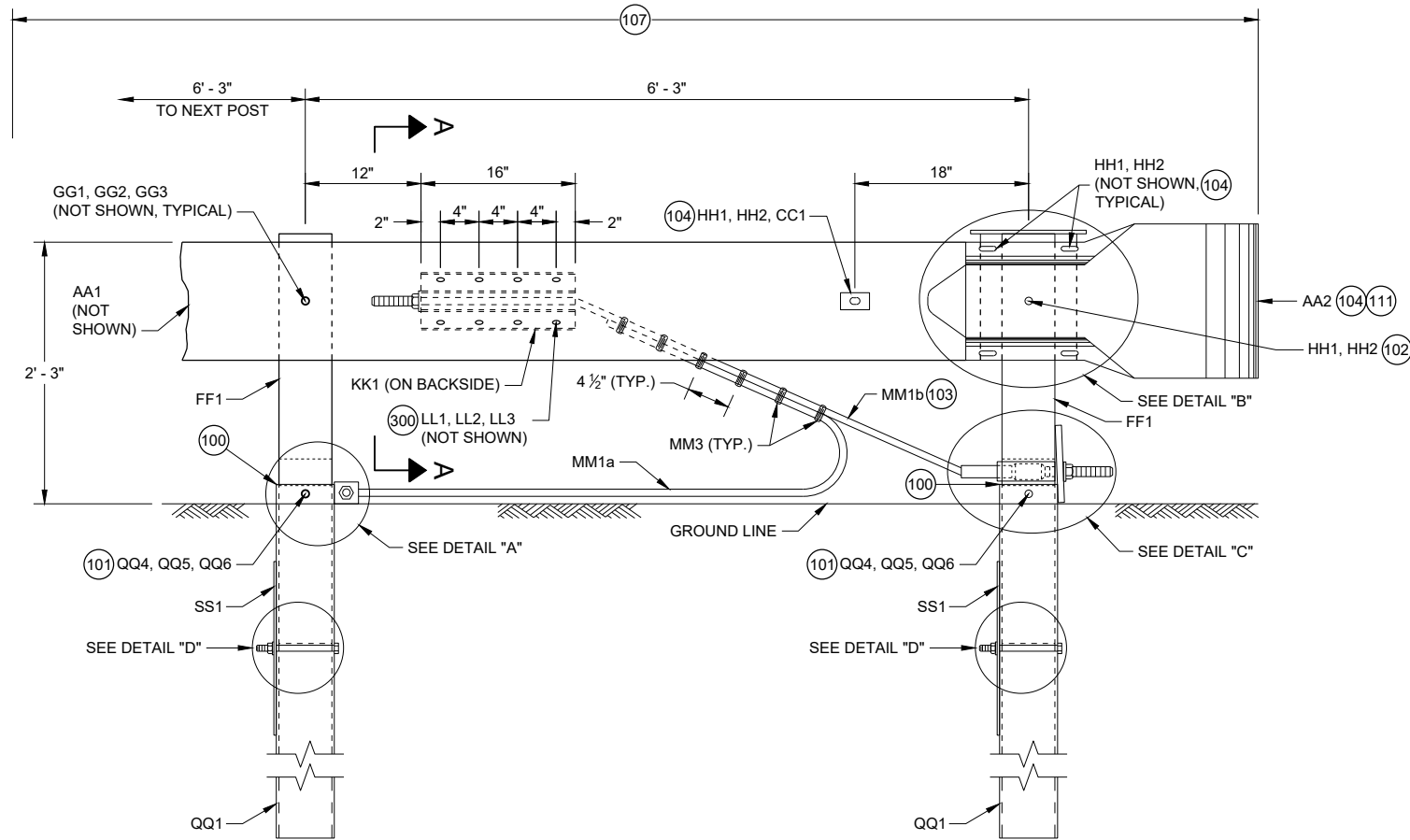
**BEAM GUARD POSTS**  
**IN HEIGHT TRANSITION**



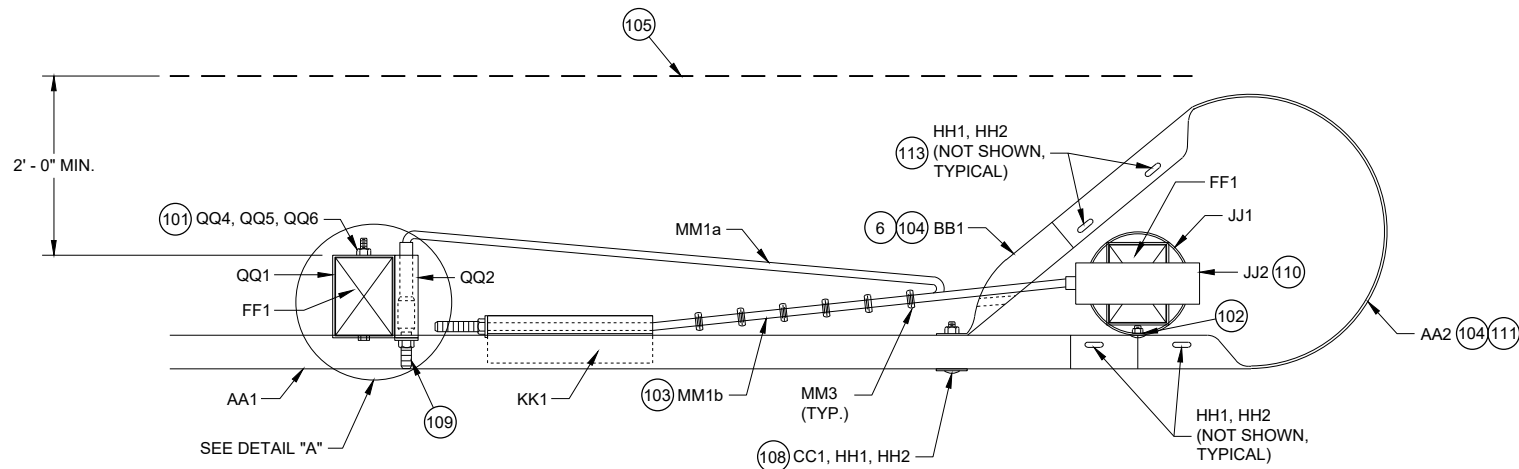
**LAP SPLICE DETAIL**

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

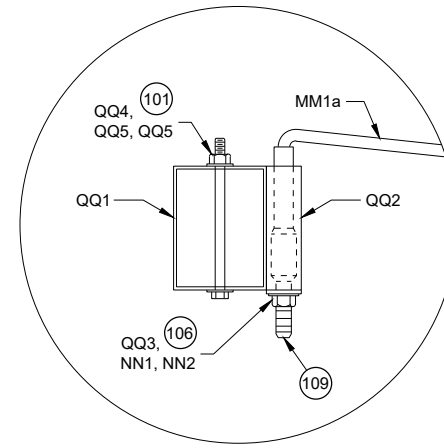
STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION



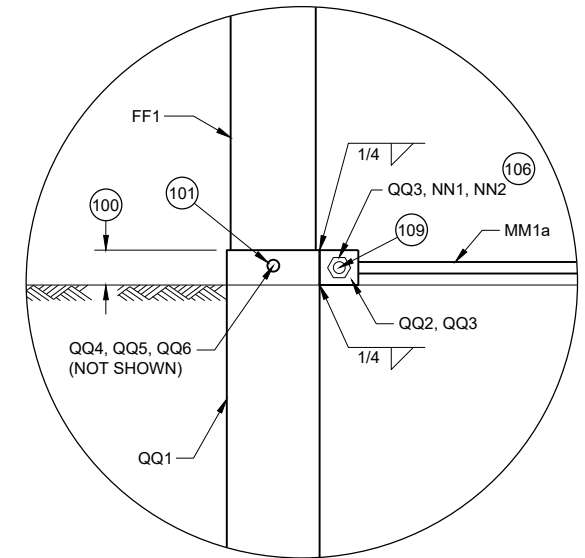
**PROFILE VIEW  
SHORT RADIUS TERMINAL**



**TOP VIEW  
SHORT RADIUS TERMINAL**



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



**PROFILE VIEW  
DETAIL "A"**

**GENERAL NOTES**

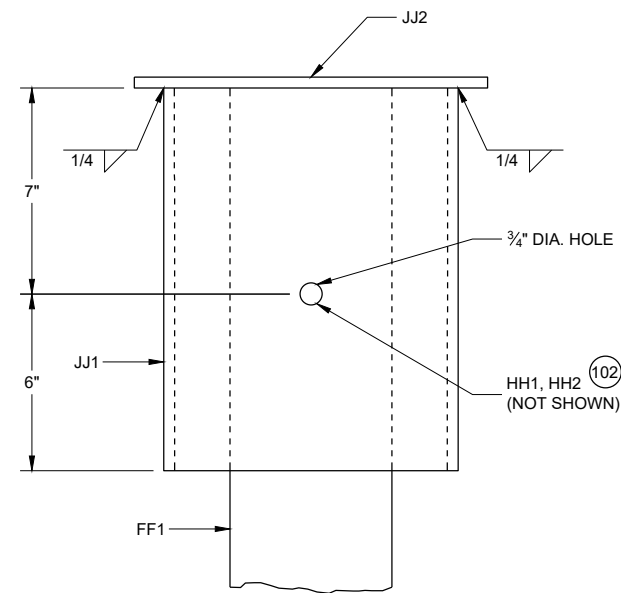
- 100 TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.
- 101 WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.
- 102 SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".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

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

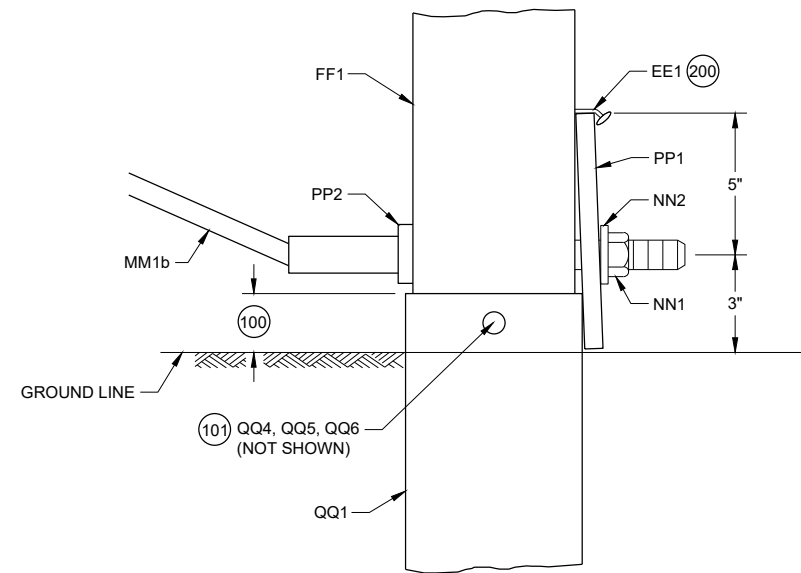
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

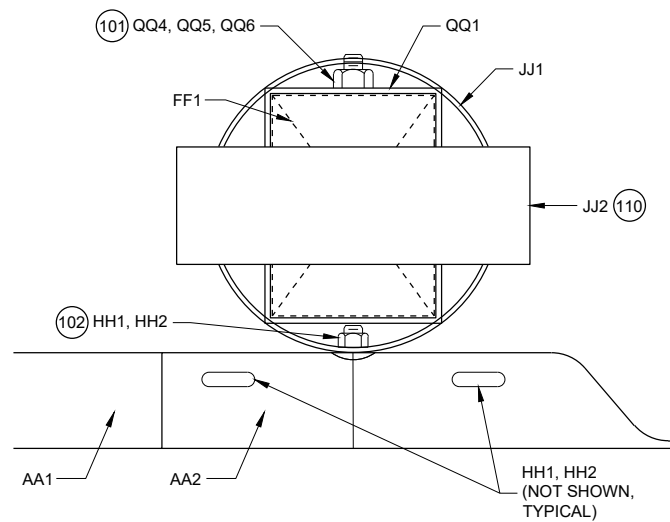
(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.



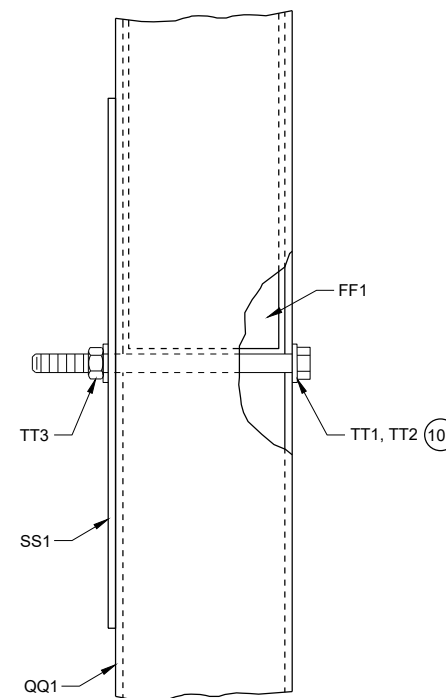
**PROFILE VIEW  
DETAIL "B"  
STEEL PIPE ASSEMBLY  
(BEAM GUARD AND W BEAM  
END SECTION NOT SHOWN)**



**PROFILE VIEW  
DETAIL "C"**



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



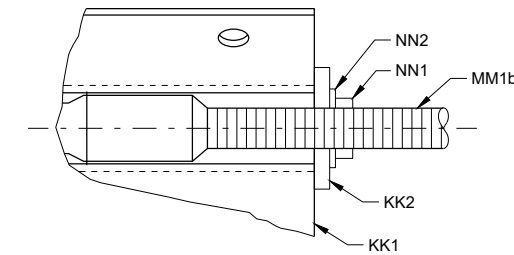
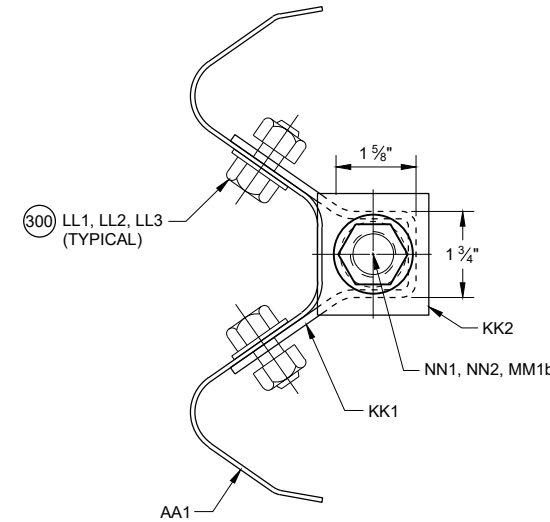
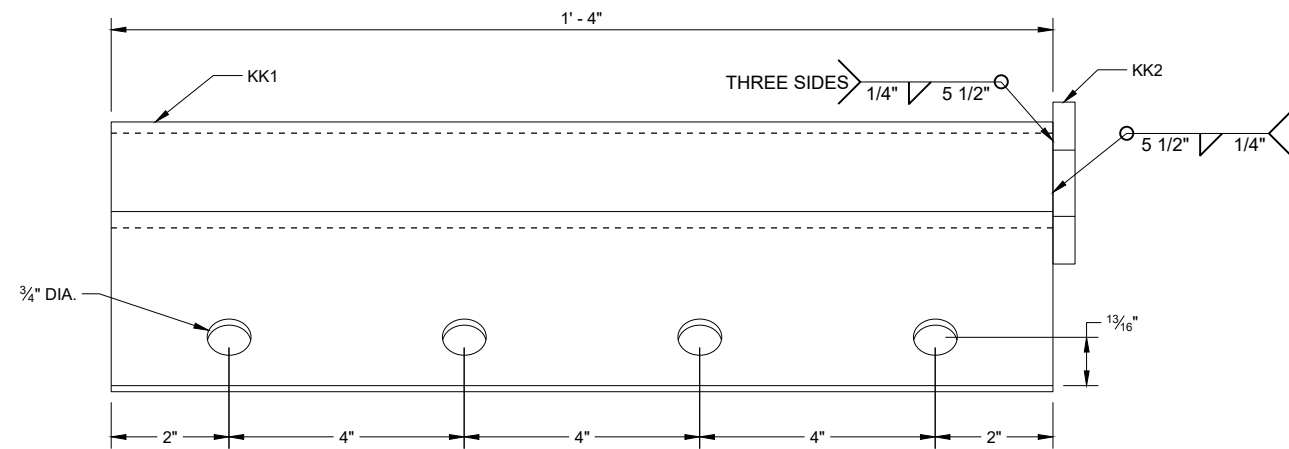
**PROFILE VIEW  
DETAIL "D"**

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

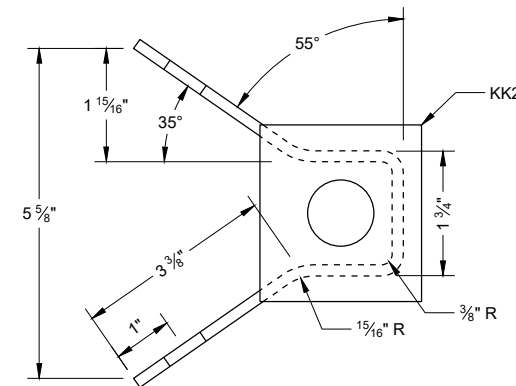
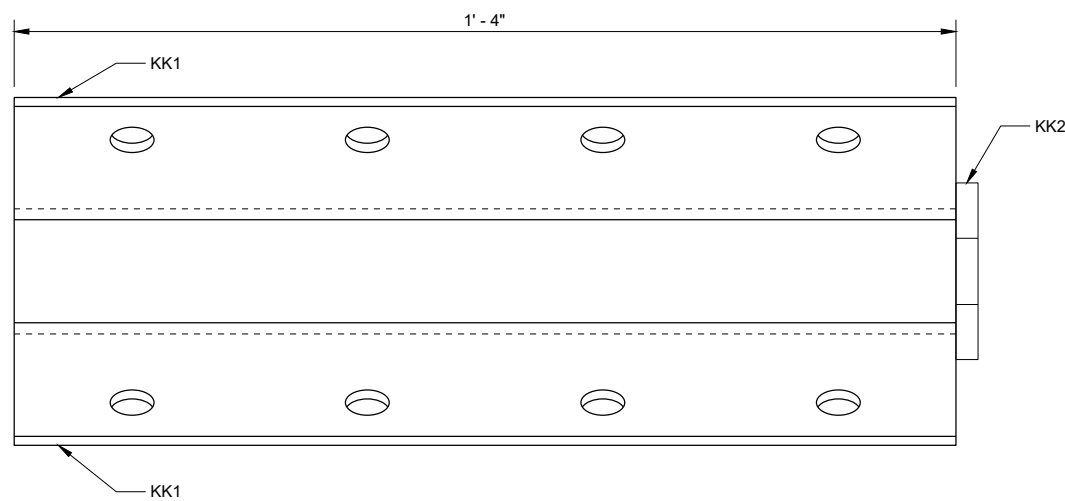
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

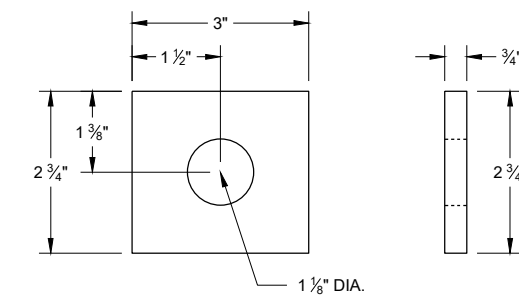
300 WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.



**SECTION A - A**



**ANCHOR BRACKET BEARING PLATE (KK2)**

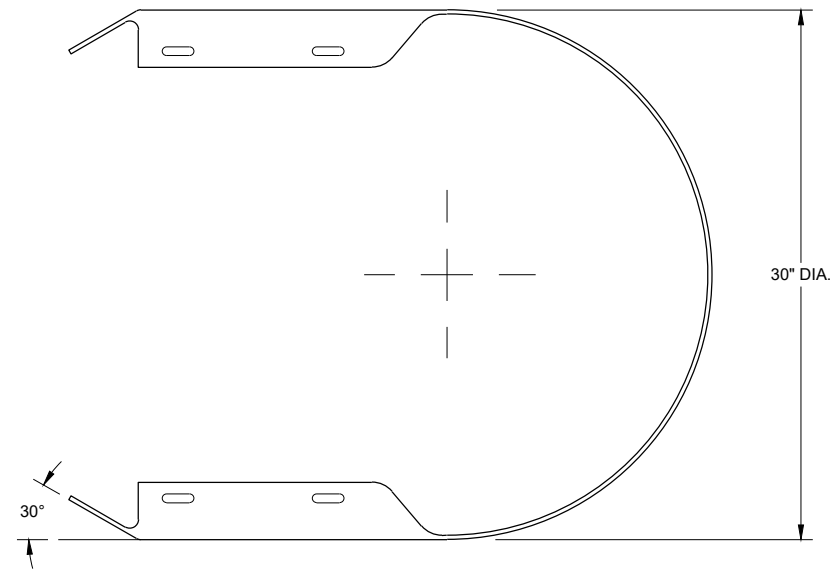


**ANCHOR BRACKET (KK1, KK2)**

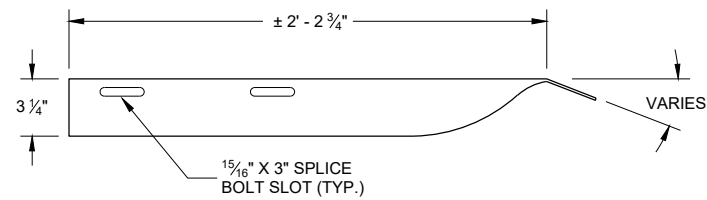
**SHORT RADIUS BEAM  
GUARD (MGS) SHORT  
RADIUS TERMINAL (MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





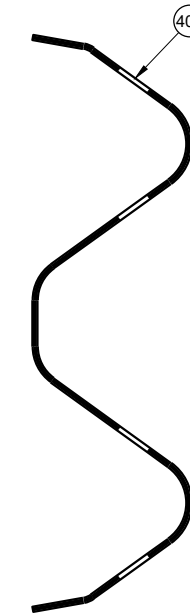
**TOP VIEW**



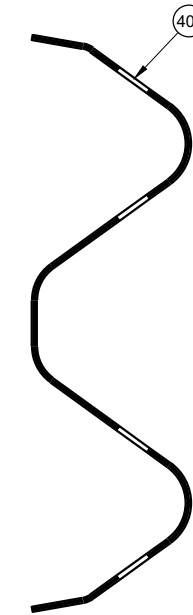
**TOP VIEW**

**GENERAL NOTES**

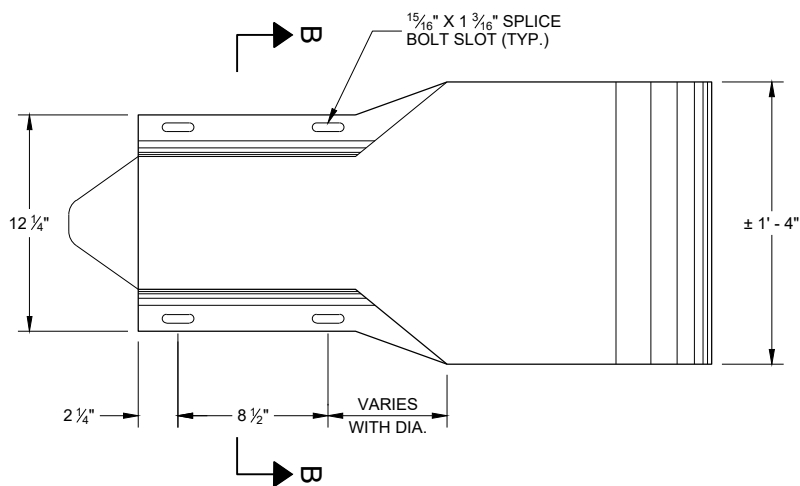
- (400) CROSS SECTION OF PART IS TO FIT OVER AA1 .
- (401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



**SECTION B - B**

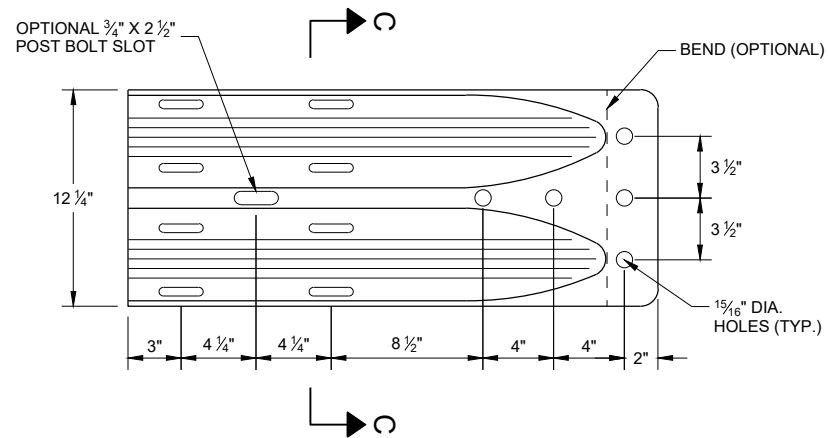


**SECTION C - C**



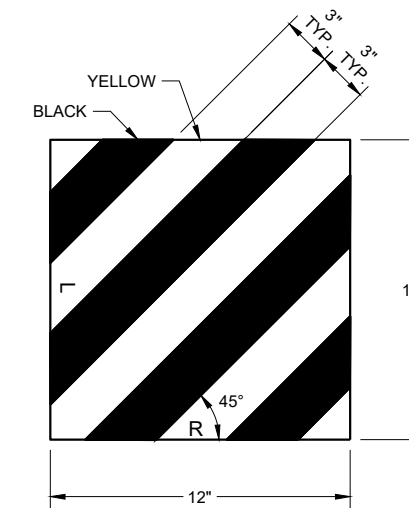
**PROFILE VIEW**

**W BEAM  
END SECTION BUFFER (AA2)**



**PROFILE VIEW**

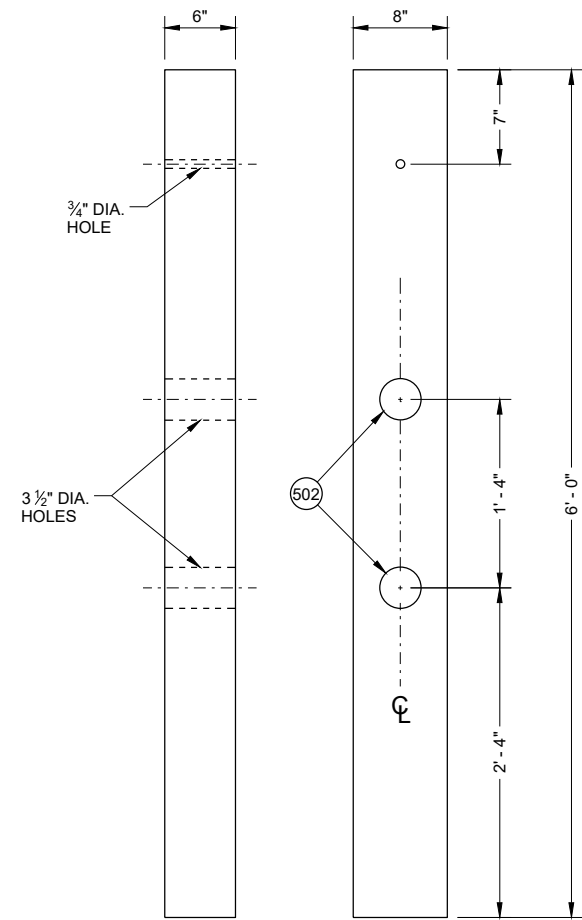
**W BEAM  
TERMINAL CONNECTOR (BB1)**



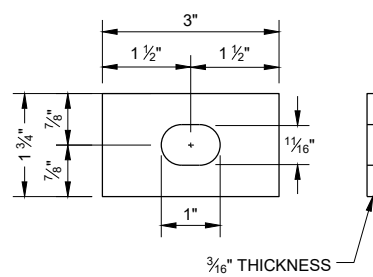
**REFLECTIVE SHEETING (UU1, UU2)**

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

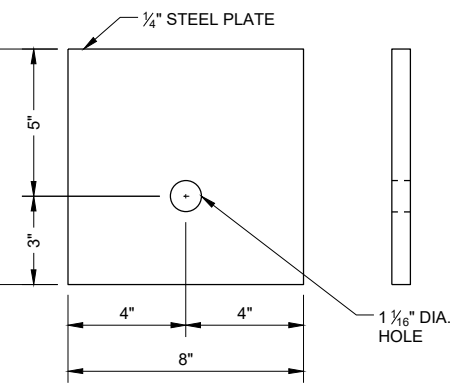
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



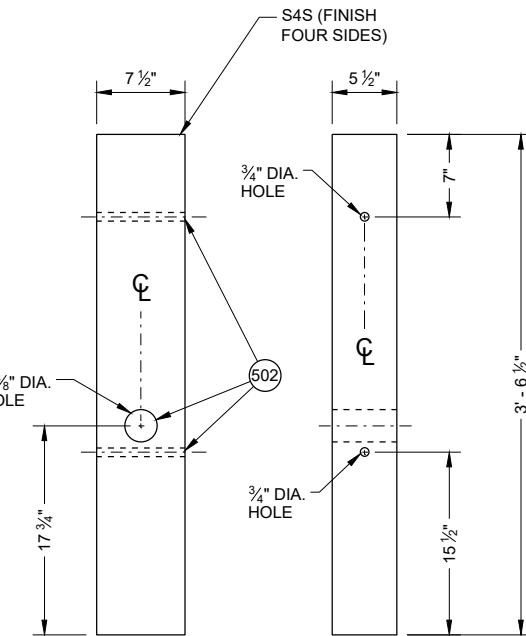
**FRONT VIEW SIDE VIEW  
CONTROLLED RELEASE  
POST (CRT) (DD2)**



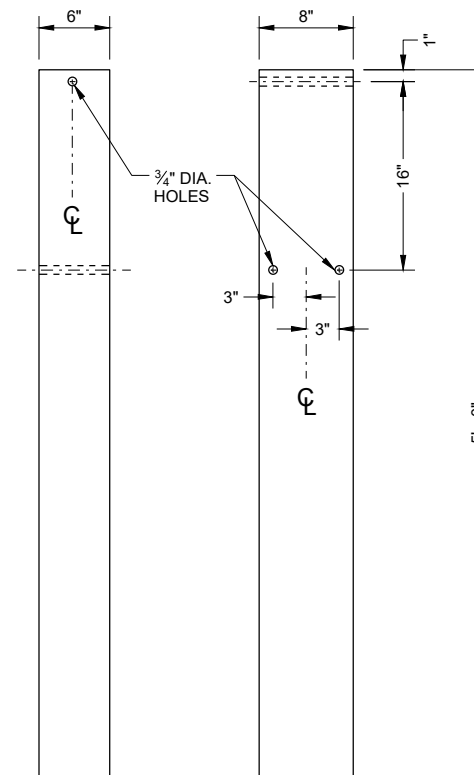
**RECTANGULAR PLATE  
WASHER (CC1)**



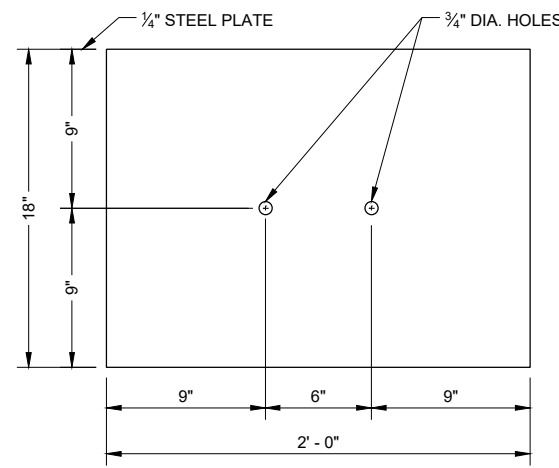
**BEARING PLATE (PP1)**



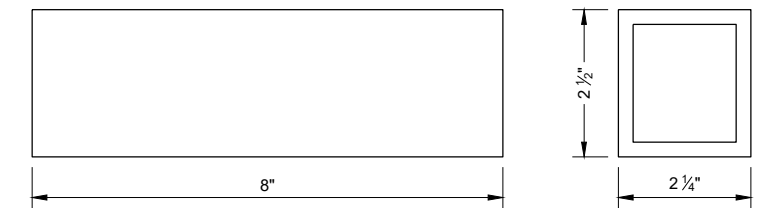
**FRONT VIEW SIDE VIEW  
WOOD BREAKAWAY POST (FF1)**



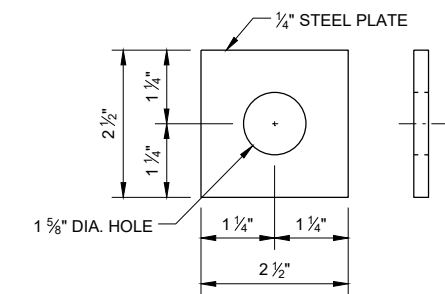
**FRONT VIEW SIDE VIEW  
FOUNDATION TUBE (QQ1)**



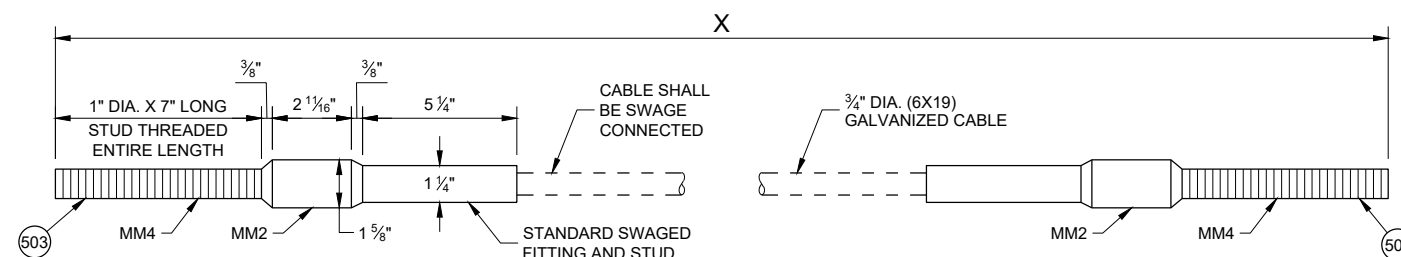
**SOIL PLATE (SS1)**



**FOUNDATION TUBE -  
ANCHOR CABLE TUBE (QQ2)**



**ANCHOR CABLE TUBE  
END PLATE (QQ3)**



**CABLE ASSEMBLY (MM1a, MM1b)**

**"X" LENGTH**

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

**GENERAL NOTES**

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

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)**

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

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

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SDD 14B53 - 02g

SDD 14B53 - 02g

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)**

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

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

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SDD 14B53 - 02h

SDD 14B53 - 02h

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)**

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

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

6

6

SDD 14B53 - 02i

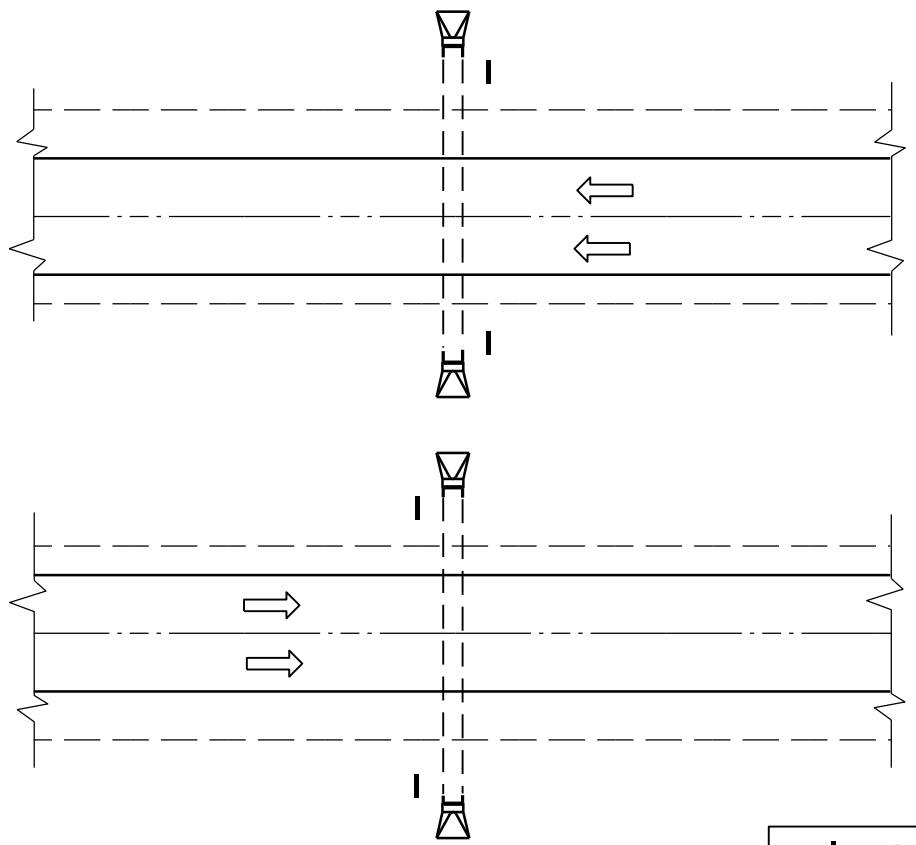
SDD 14B53 - 02i

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

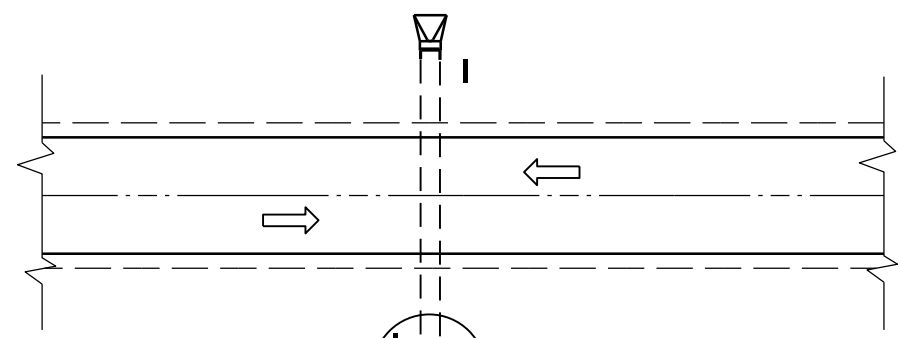
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2022 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

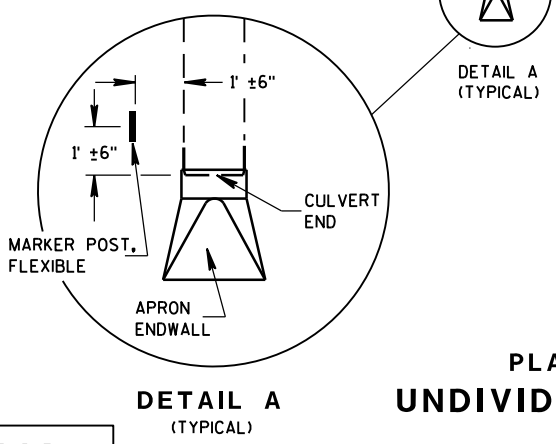
FHWA



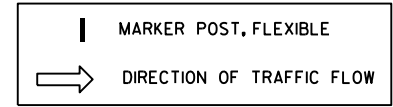
PLAN VIEW  
DIVIDED HIGHWAY



PLAN VIEW  
UNDIVIDED HIGHWAY



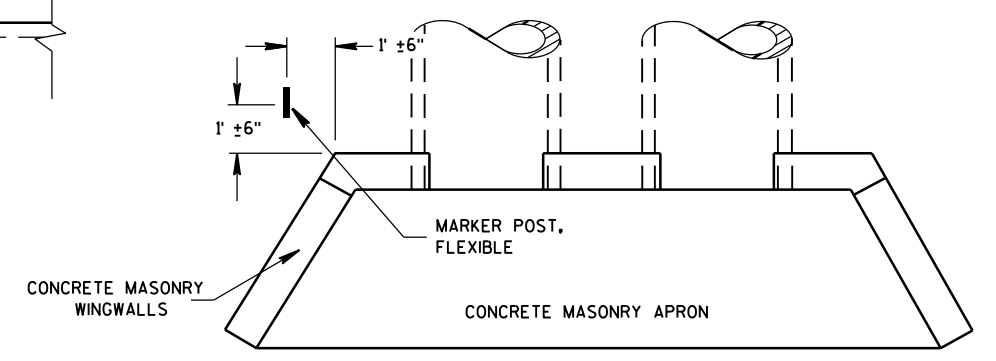
DETAIL A  
(TYPICAL)



FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

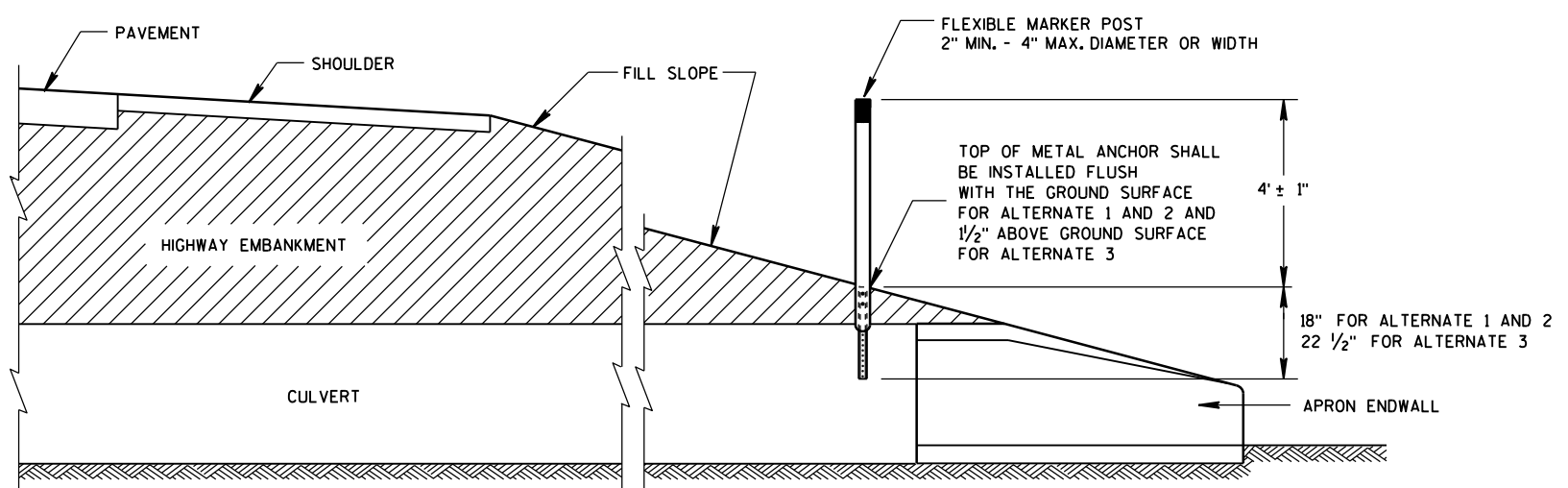
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW  
CONCRETE MASONRY ENDWALLS FOR  
CULVERT PIPE AND PIPE ARCH

6

6



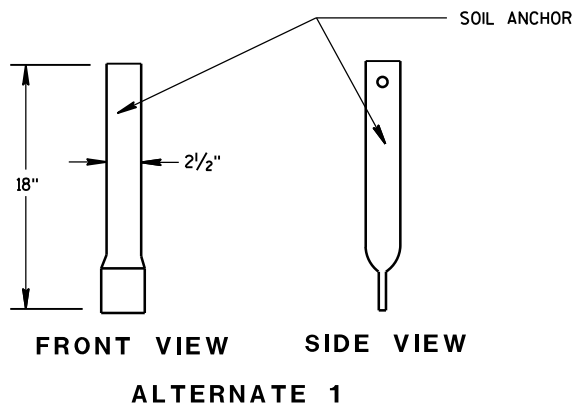
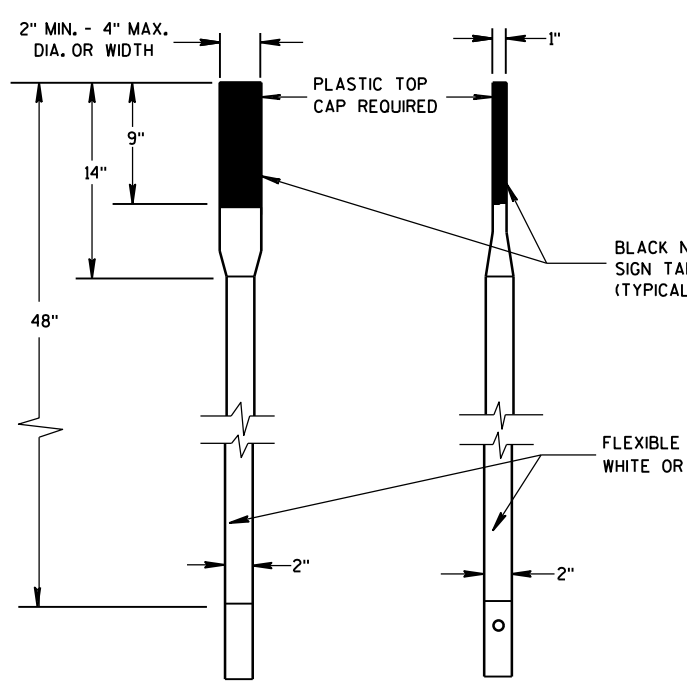
CROSS SECTION  
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST  
FOR CULVERT END

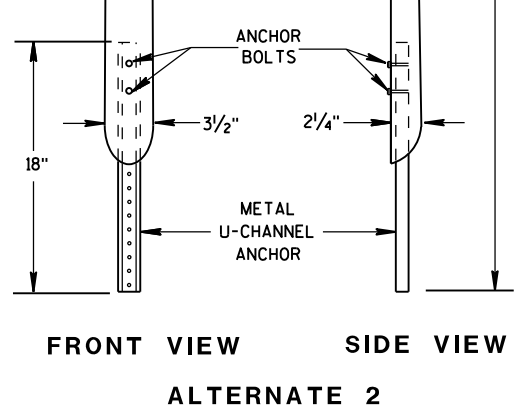
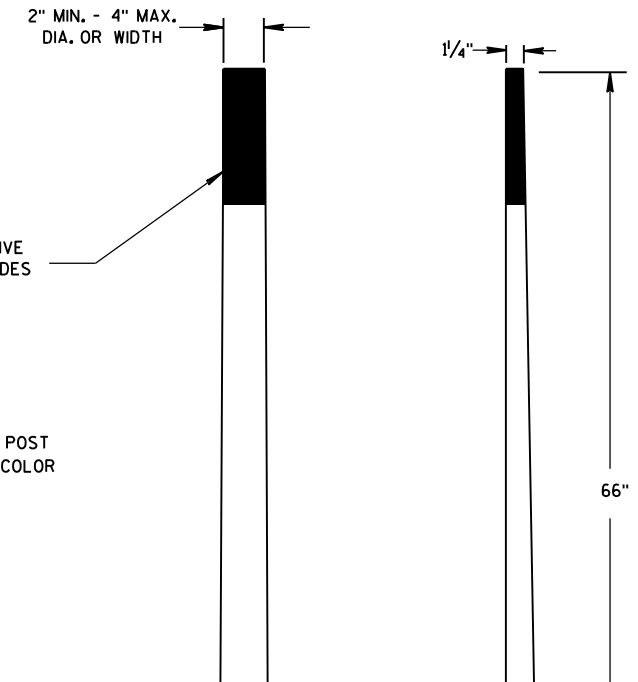
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

S.D.D. 15 A 3-2a

S.D.D. 15 A 3-2a

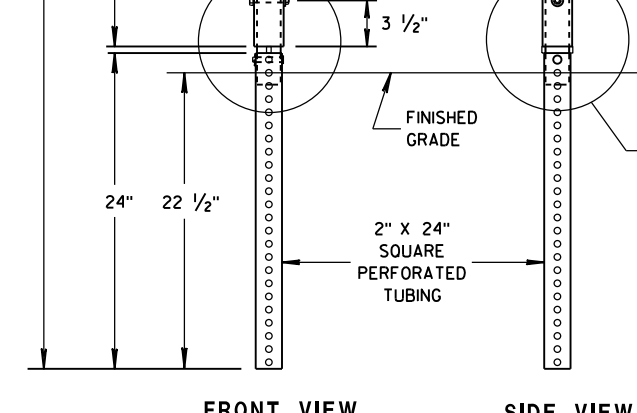
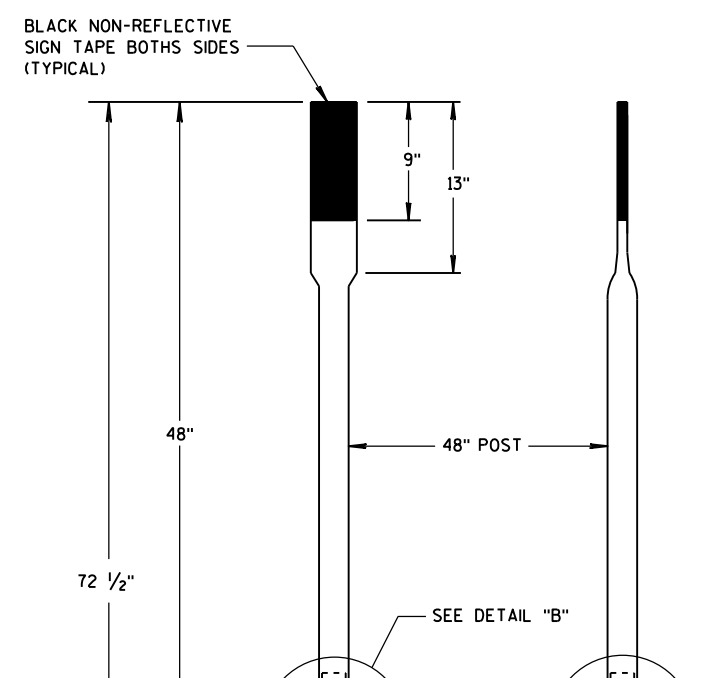


FRONT VIEW SIDE VIEW  
ALTERNATE 1

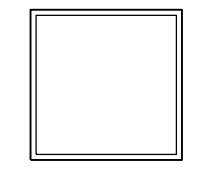


FRONT VIEW SIDE VIEW  
ALTERNATE 2

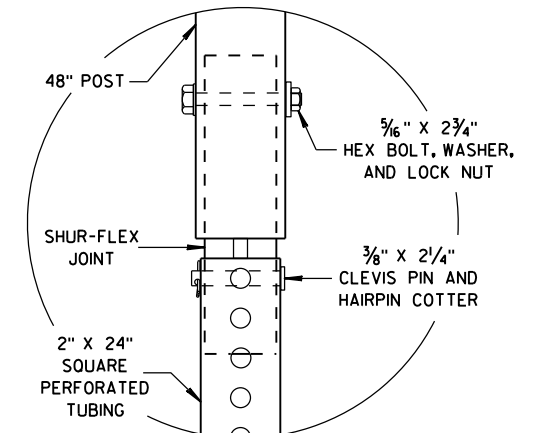
**FLEXIBLE MARKER POSTS**



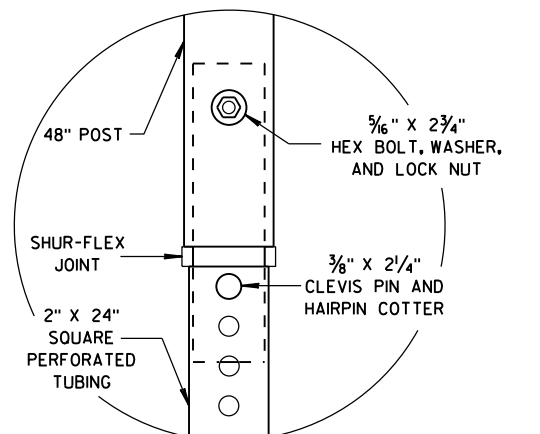
FRONT VIEW SIDE VIEW  
ALTERNATE 3



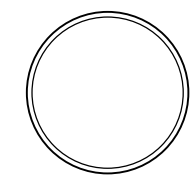
SECTION C-C



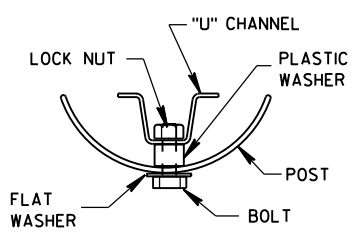
DETAIL B



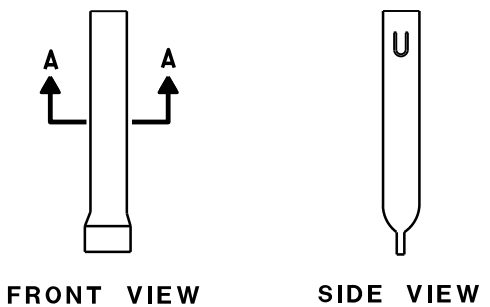
DETAIL C



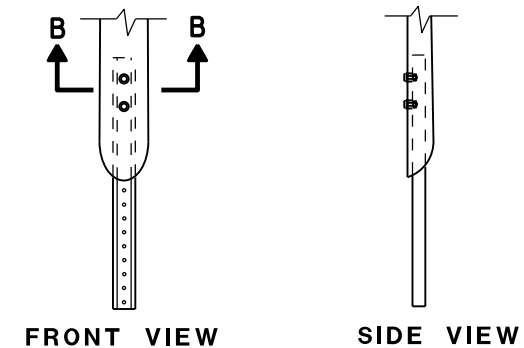
SECTION A-A



SECTION B-B

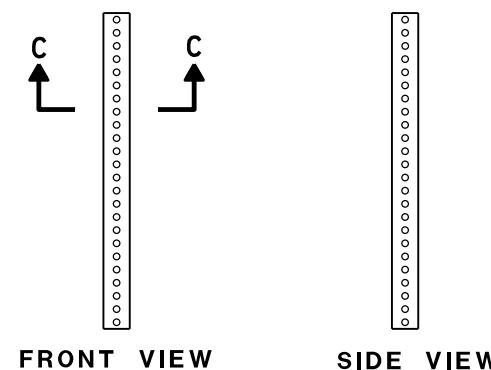


FRONT VIEW SIDE VIEW  
ALTERNATE 1



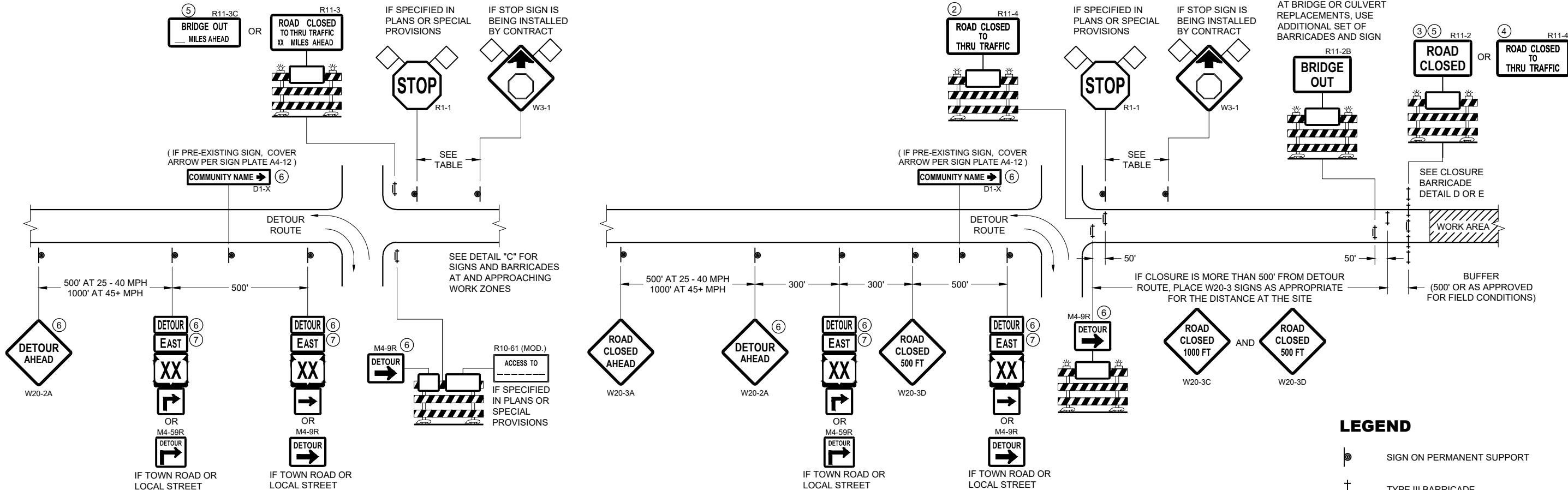
FRONT VIEW SIDE VIEW  
ALTERNATE 2

**FLEXIBLE MARKER POST ANCHORS**



FRONT VIEW SIDE VIEW  
ALTERNATE 3

<b>FLEXIBLE MARKER POST FOR CULVERT END</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



**DETAIL A  
MAINLINE CLOSURE WITH POSTED DETOUR**

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

**DETAIL B  
MAINLINE CLOSURE WITH POSTED DETOUR**

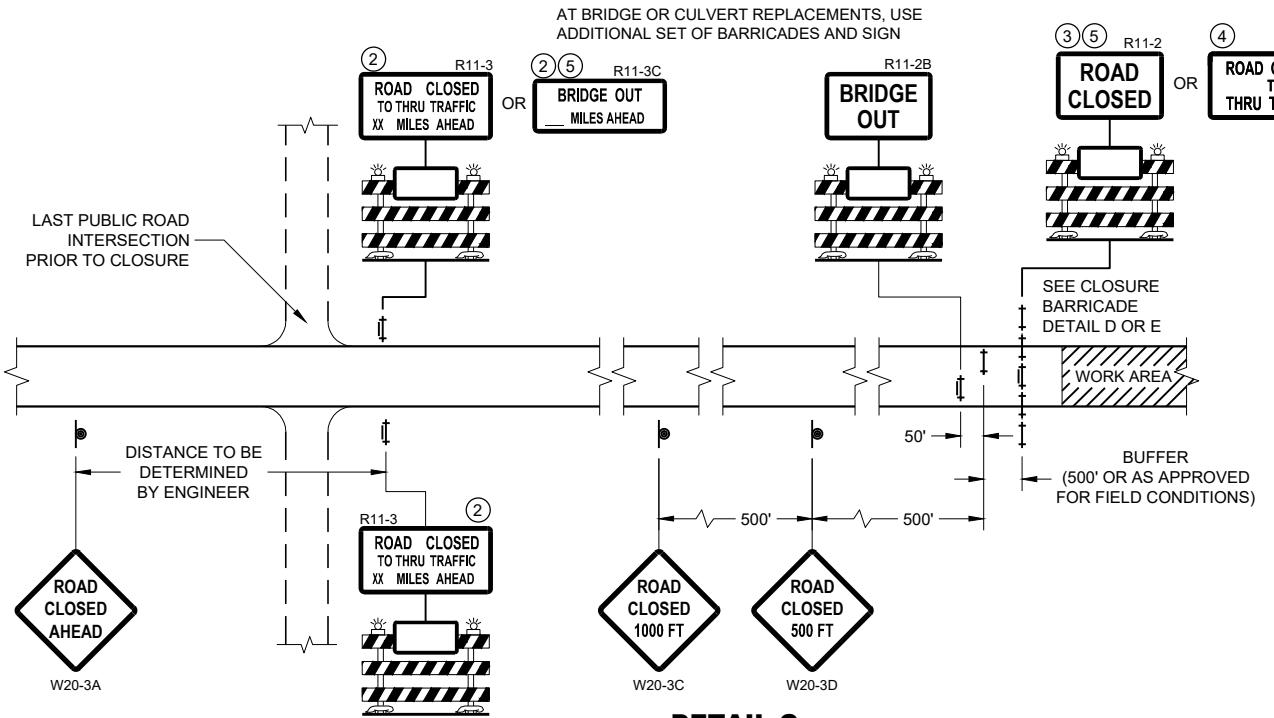
WORK ZONE LESS THAN 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- M4 - 8
- M3 - X
- M1 - 4 OR M1 - 6 OR M1 - 5A
- M05 - 1 OR M06 - 1

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

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



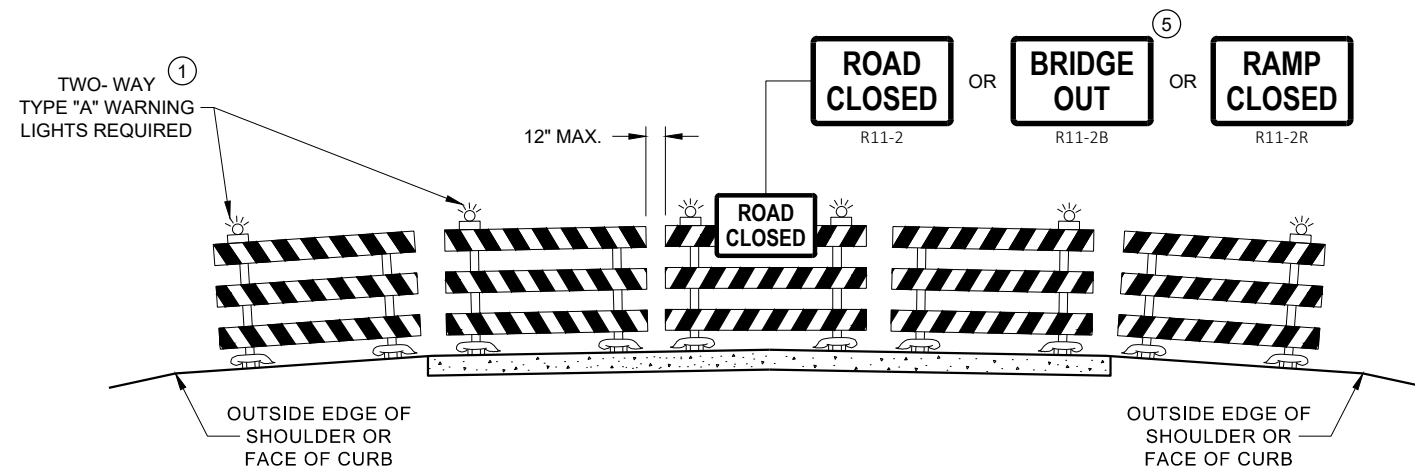
**DETAIL C  
MAINLINE CLOSURE, NO POSTED DETOUR**

**BARRICADES AND SIGNS  
FOR MAINLINE CLOSURES**

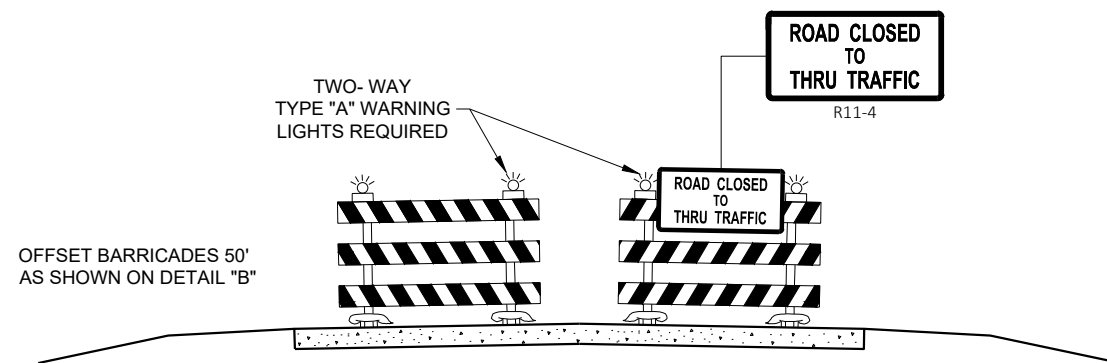
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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





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



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

SEE SDD 15C2 - SHEET "a" FOR LEGEND

**GENERAL NOTES**

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

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

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

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

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

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

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

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

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

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

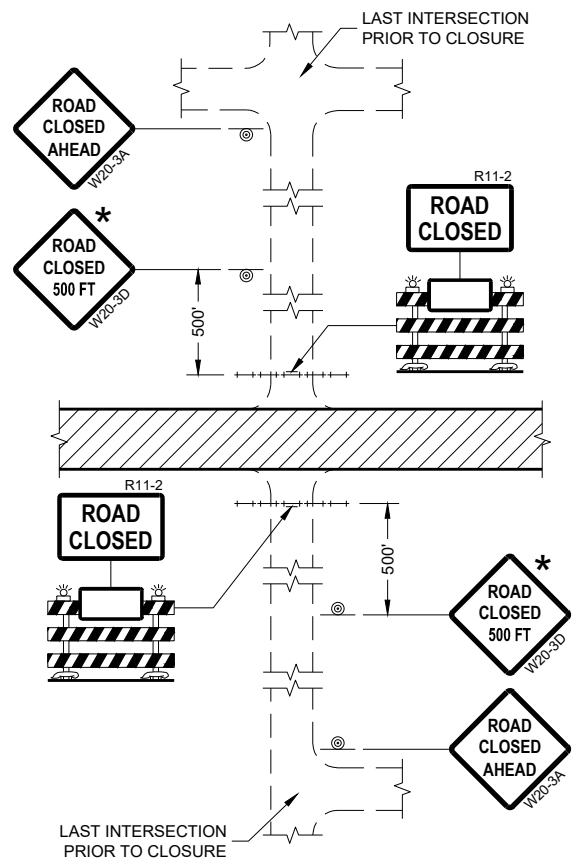
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24"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

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

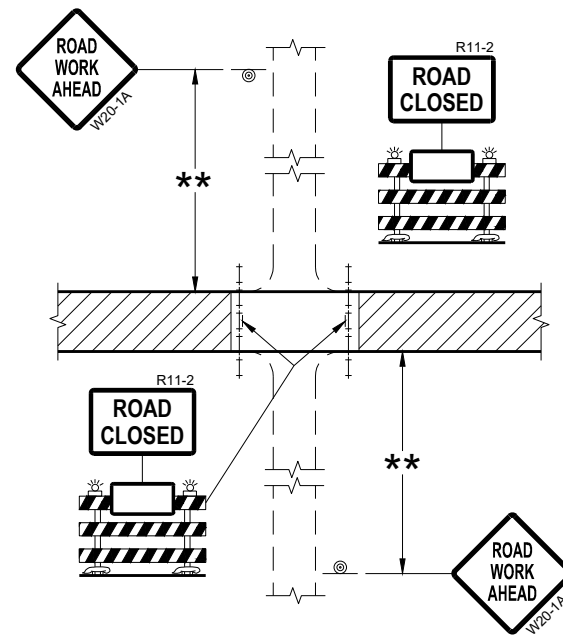
**BARRICADES AND SIGNS  
FOR  
VARIOUS CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

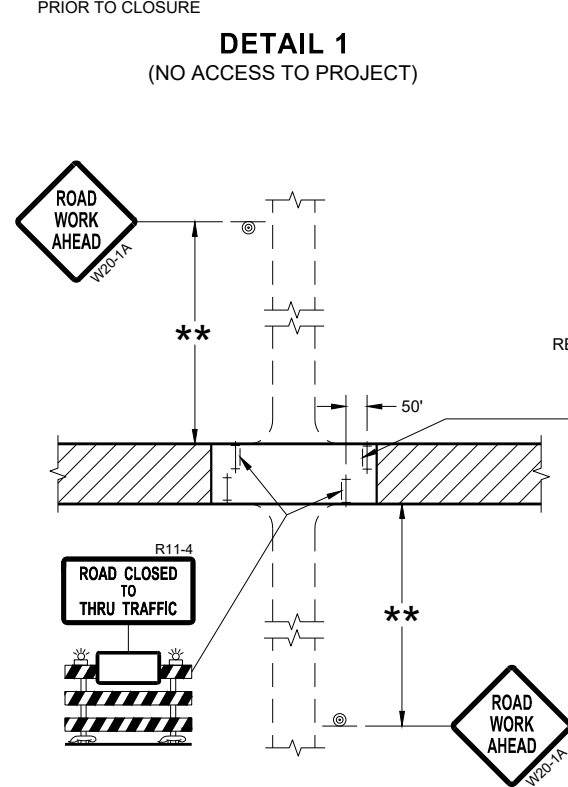
APPROVED  
May 2023 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER



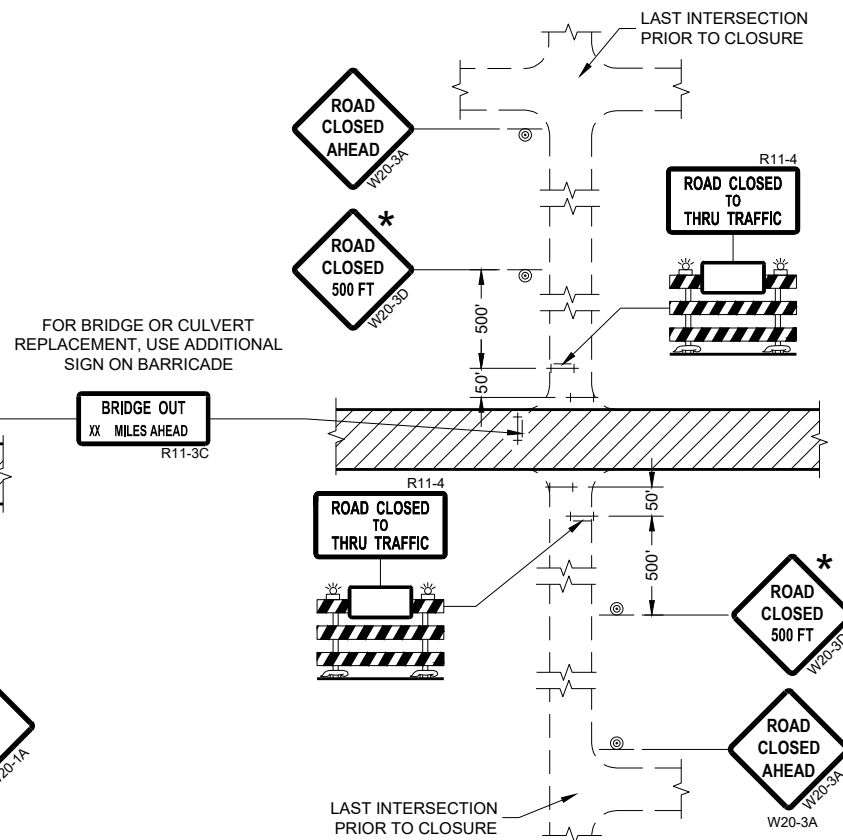
**DETAIL 1**  
(NO ACCESS TO PROJECT)



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



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



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

**GENERAL NOTES**

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

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

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

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

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

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

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

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

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

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

\* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

\*\* 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

**LEGEND**

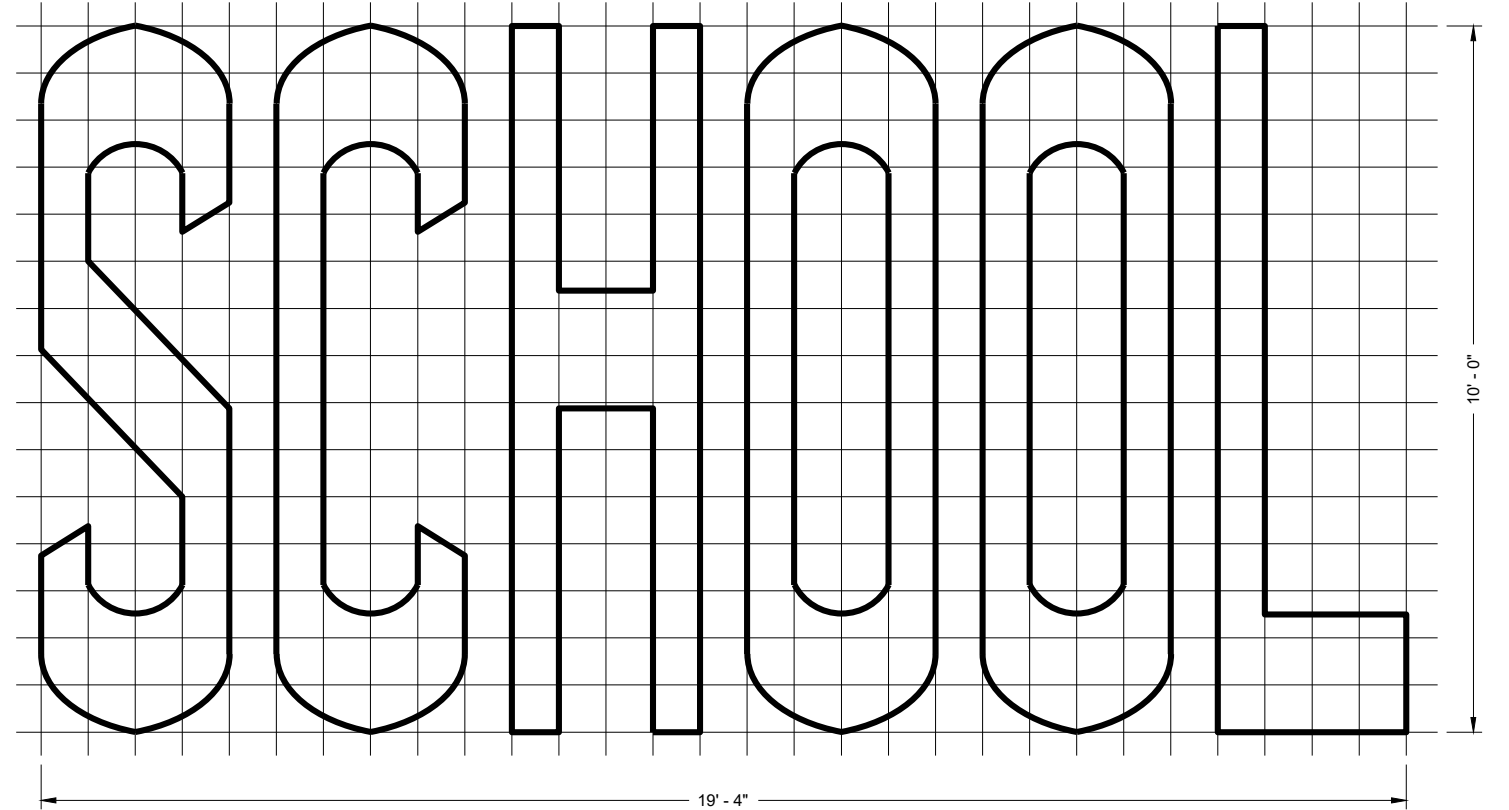
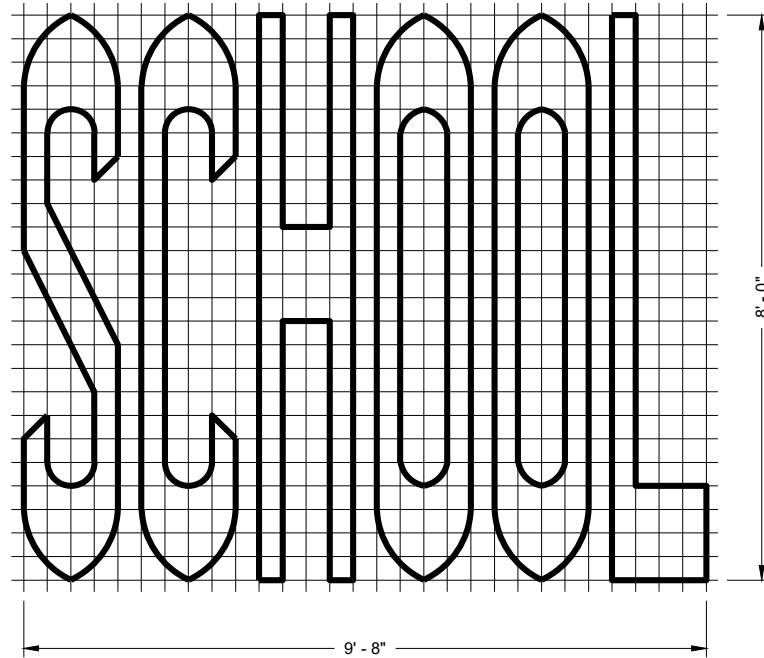
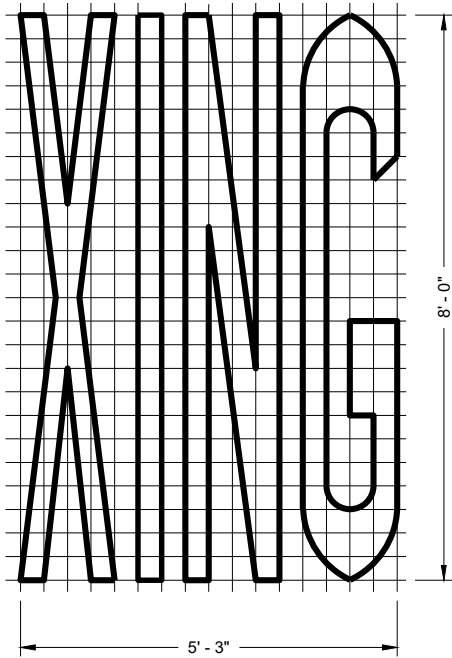
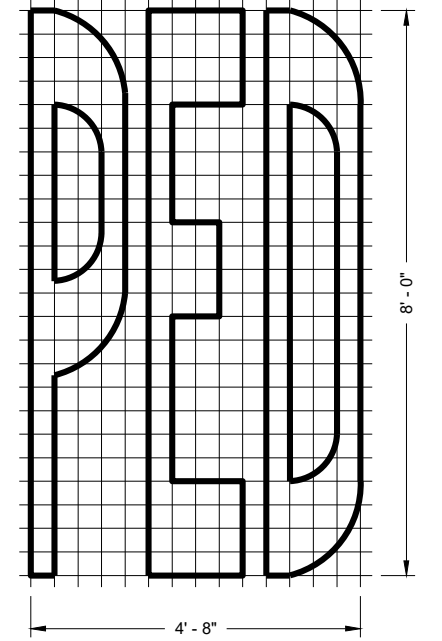
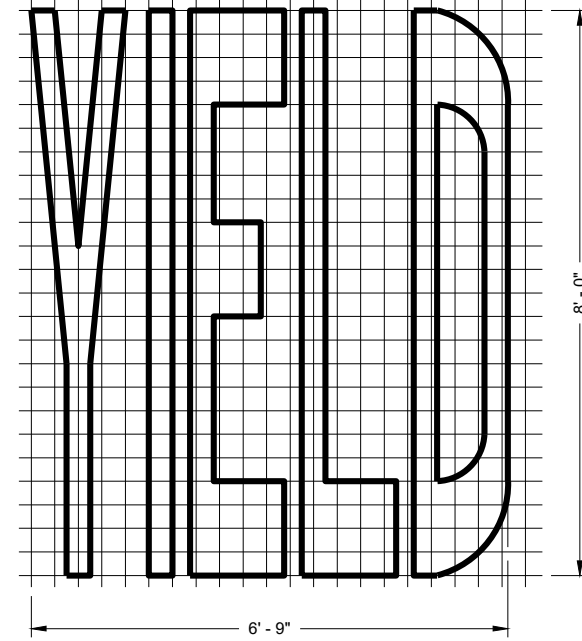
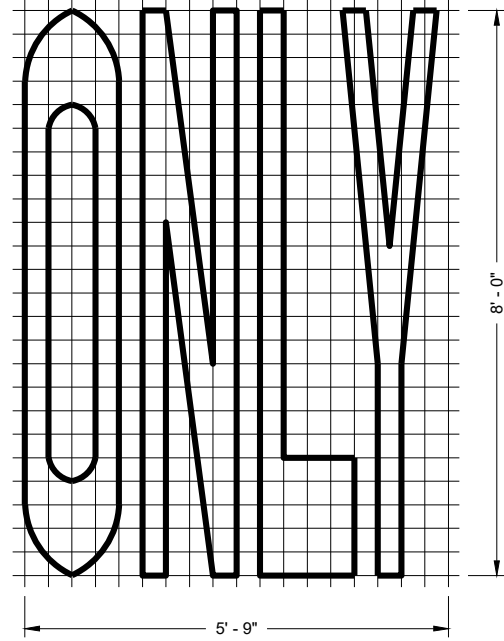
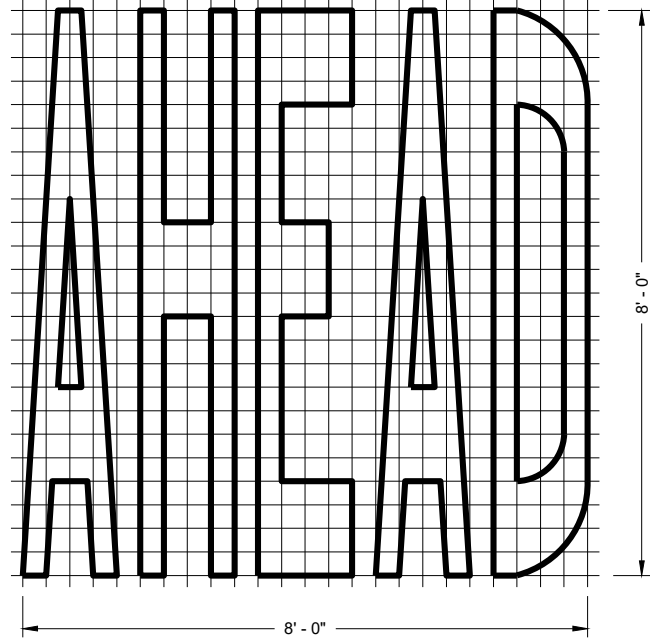
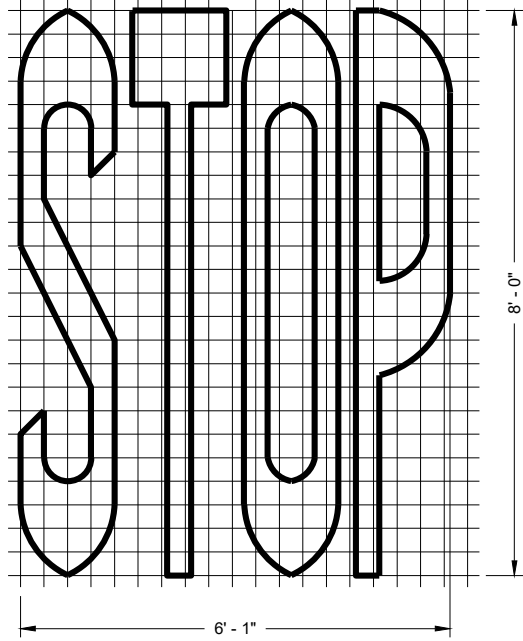
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

**BARRICADES AND SIGNS  
FOR  
SIDEROAD CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA



SINGLE LANE

TWO - LANE

**GENERAL NOTES**

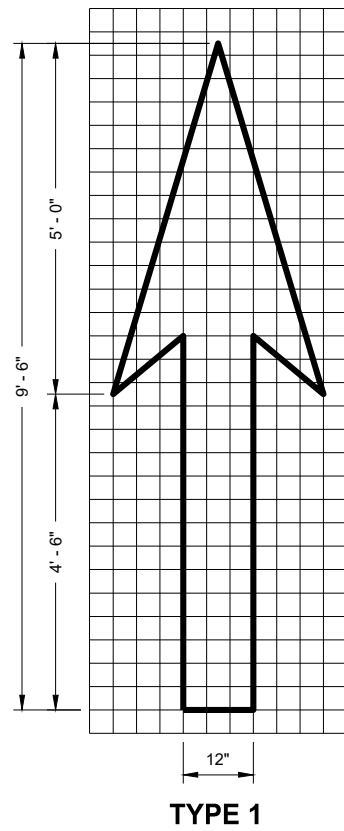
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

**PAVEMENT MARKING WORDS**

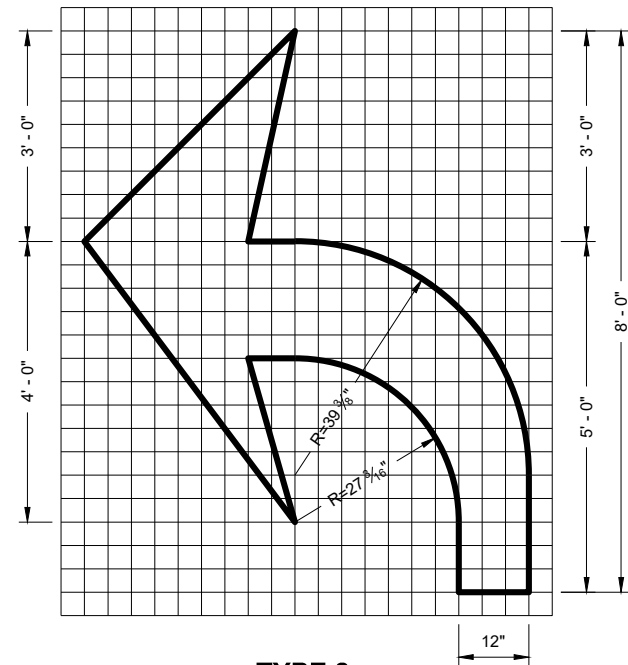
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

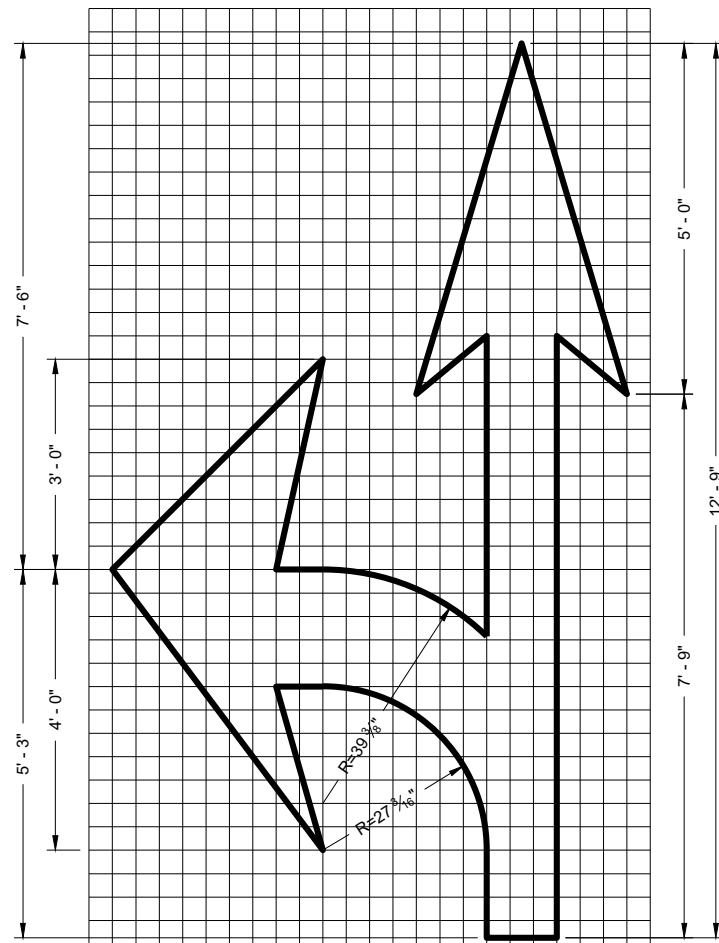
FHWA



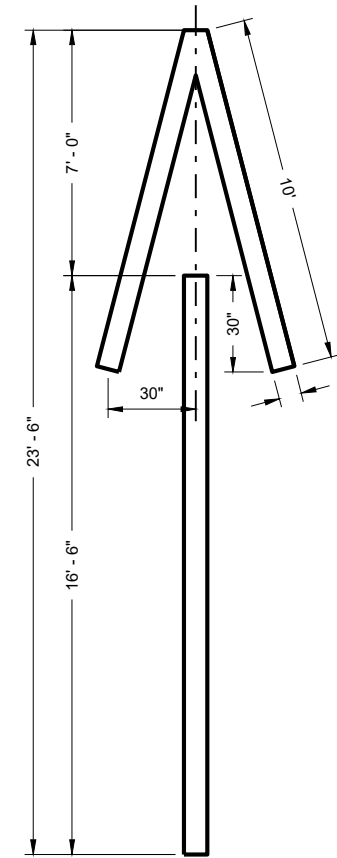
TYPE 1



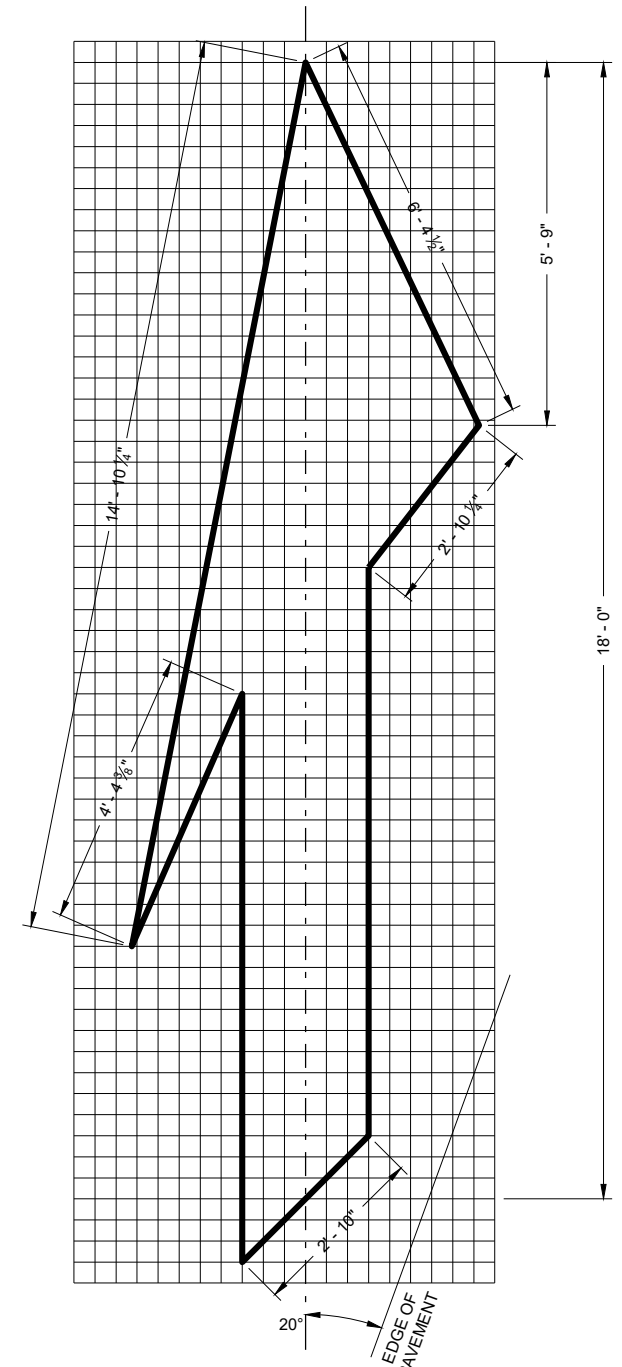
TYPE 2



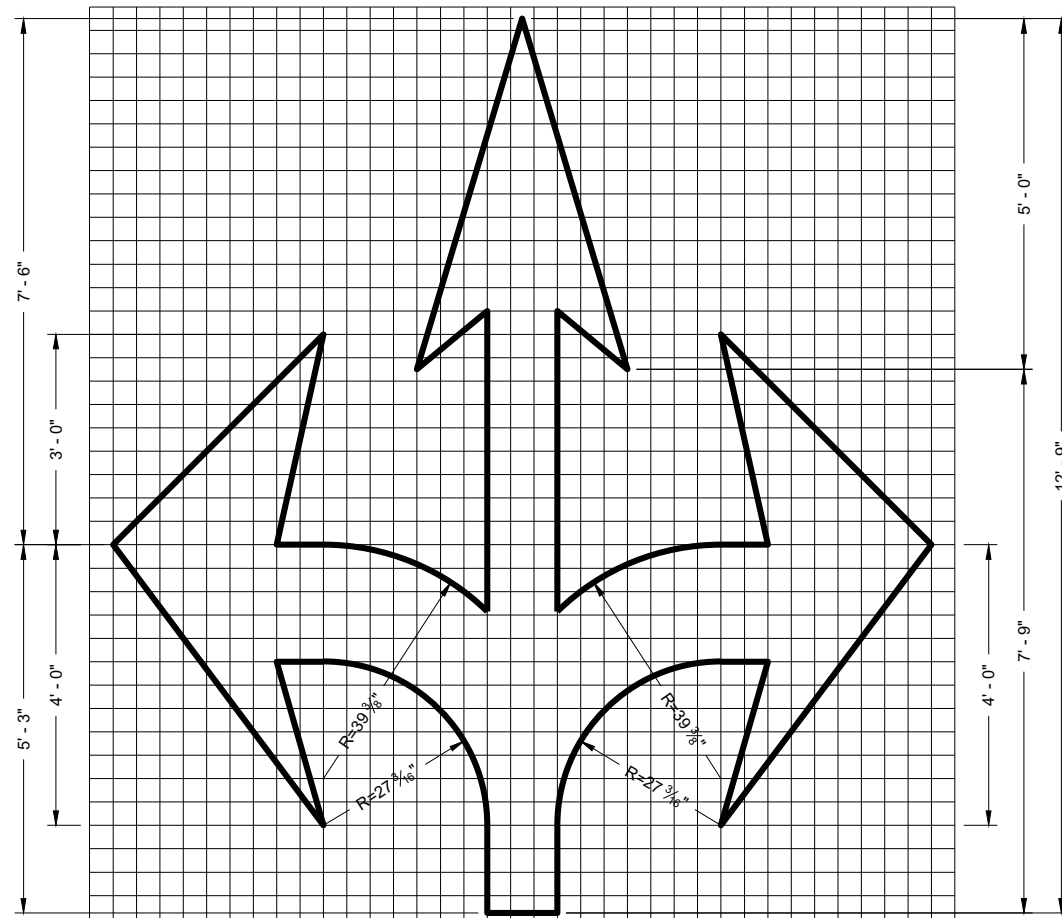
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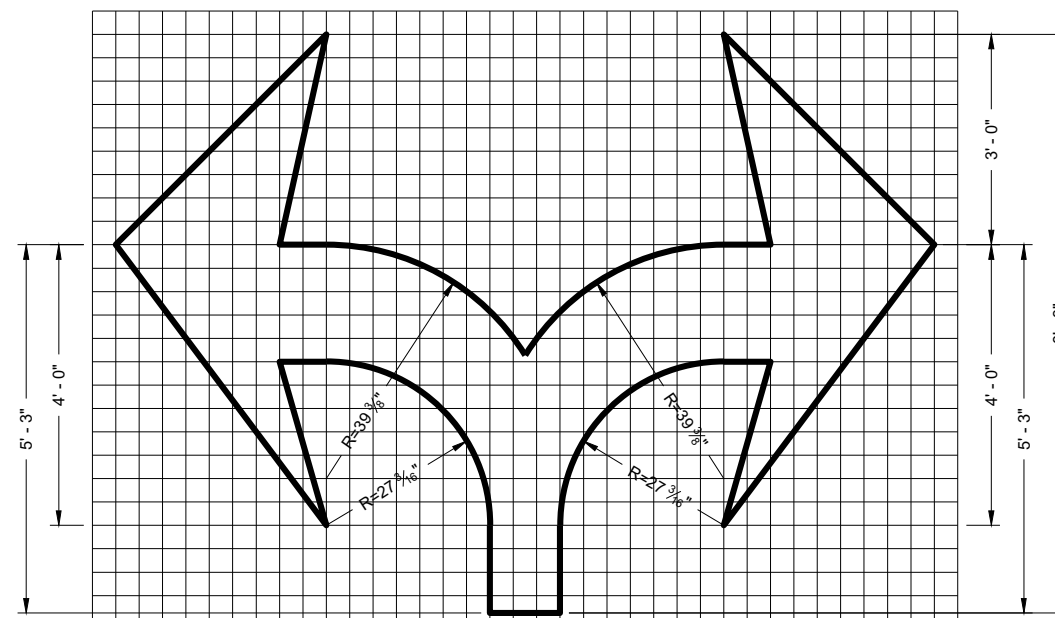
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

GENERAL NOTES

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

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2019

DATE

FHWA




/s/ Matthew Rauch  
STATE SIGNING AND MARKING  
ENGINEER

**GENERAL NOTES**

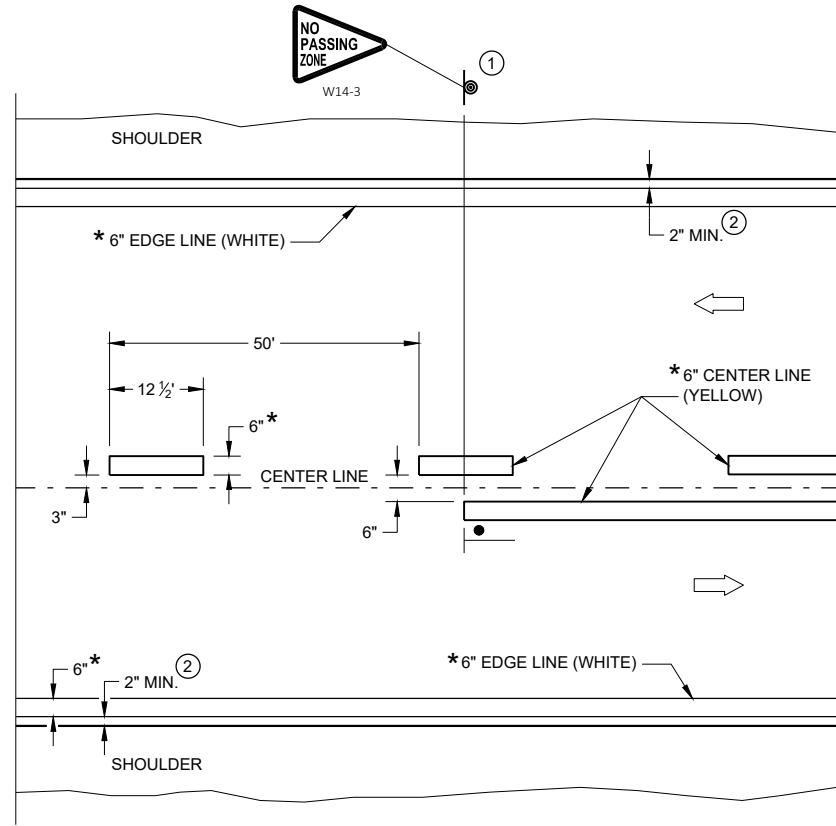
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

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

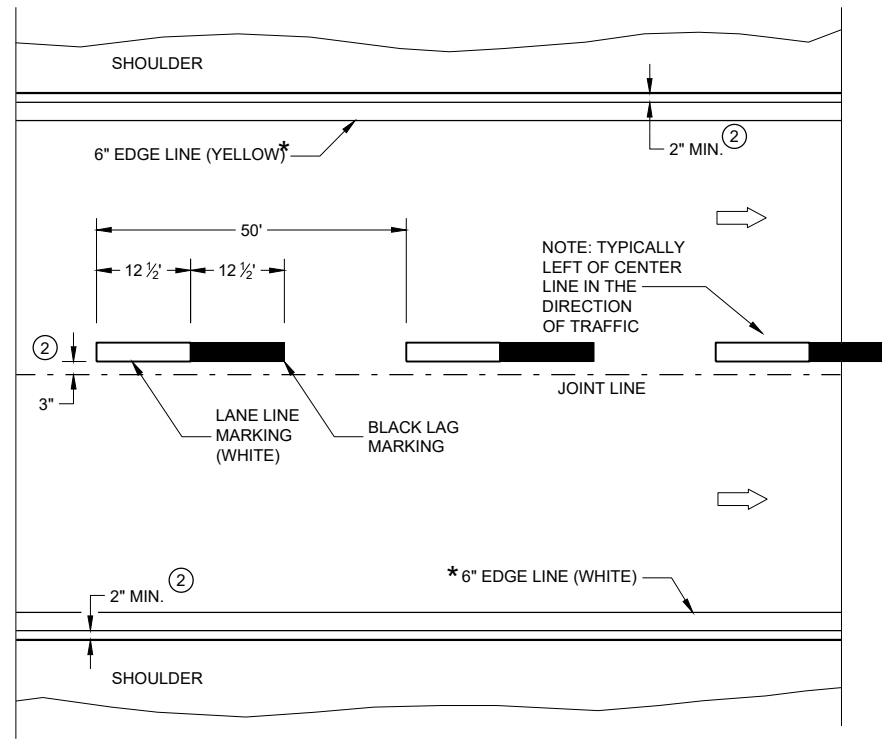
**LEGEND**

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

\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**

**PERMANENT PAVEMENT MARKING**

6

6

SDD 15C08-23a

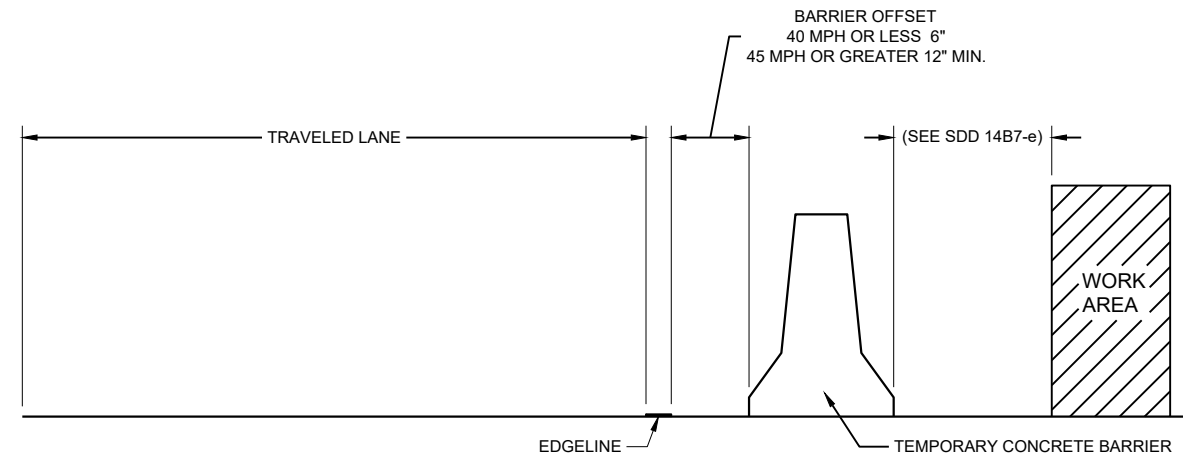
SDD 15C08-23a

**PERMANENT LONGITUDINAL PAVEMENT MARKINGS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA



**TEMPORARY BARRIER OFFSET FROM EDGELINE**

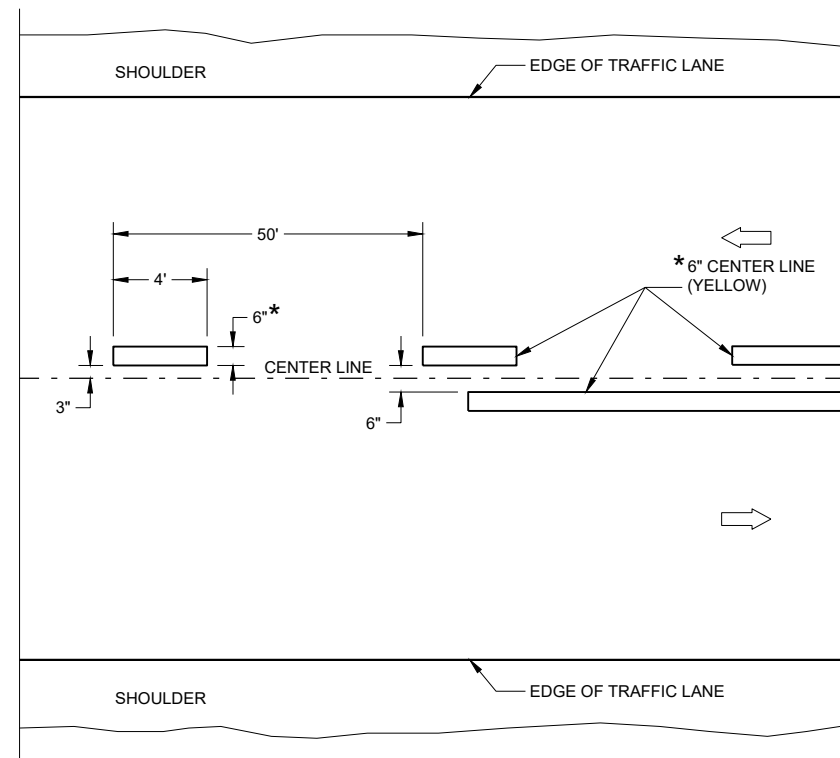
**GENERAL NOTES**

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

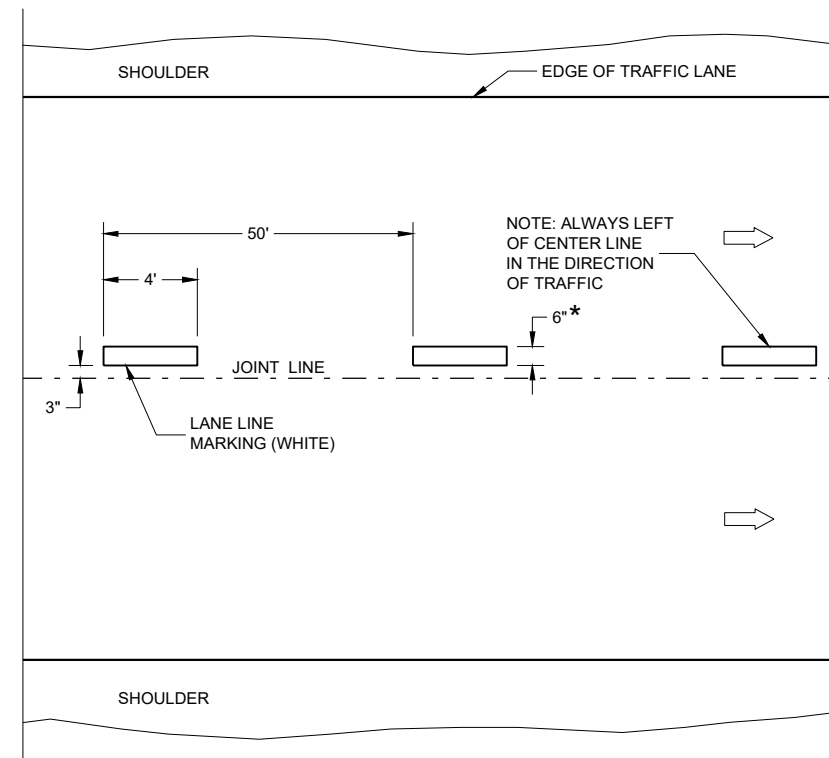
**LEGEND**

➡ DIRECTION OF TRAFFIC

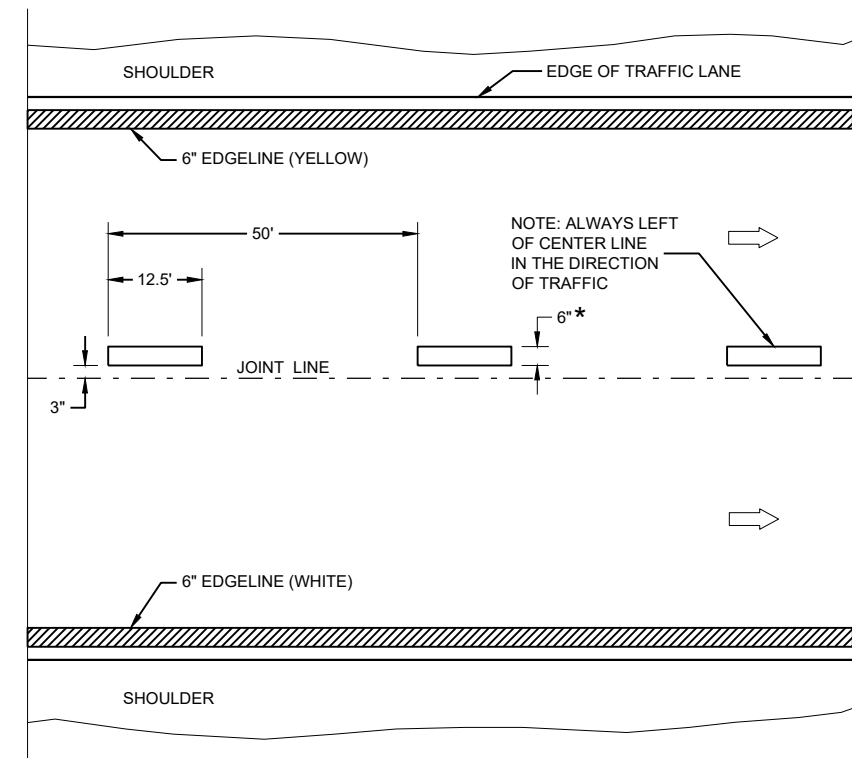
\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**



**FREEWAYS AND EXPRESSWAYS**

**TEMPORARY PAVEMENT MARKING**

**TEMPORARY LONGITUDINAL PAVEMENT MARKING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

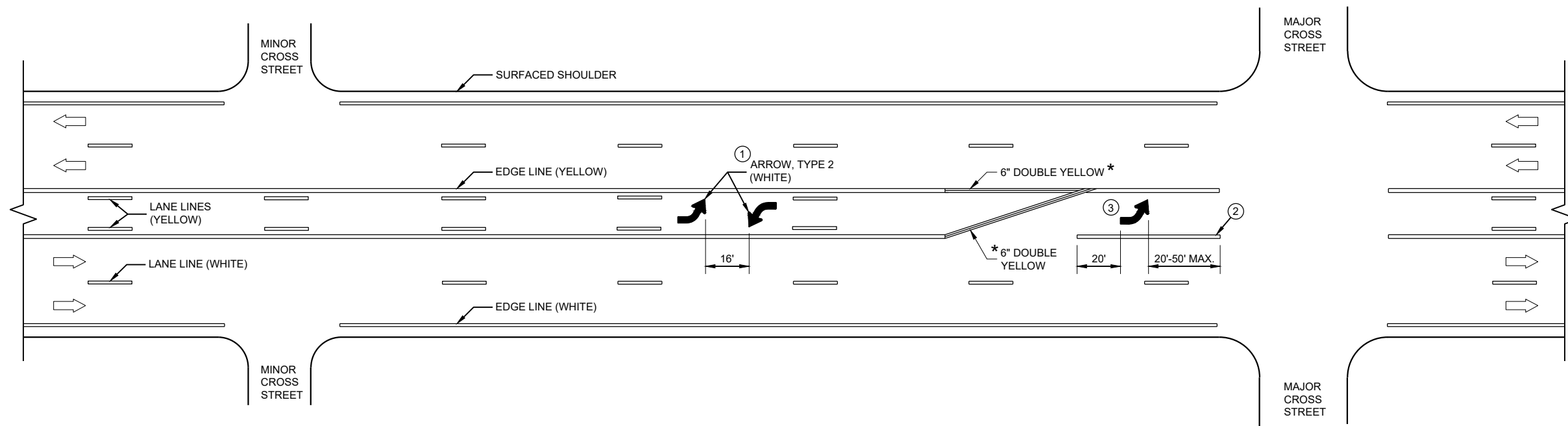
FHWA

**GENERAL NOTES**

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

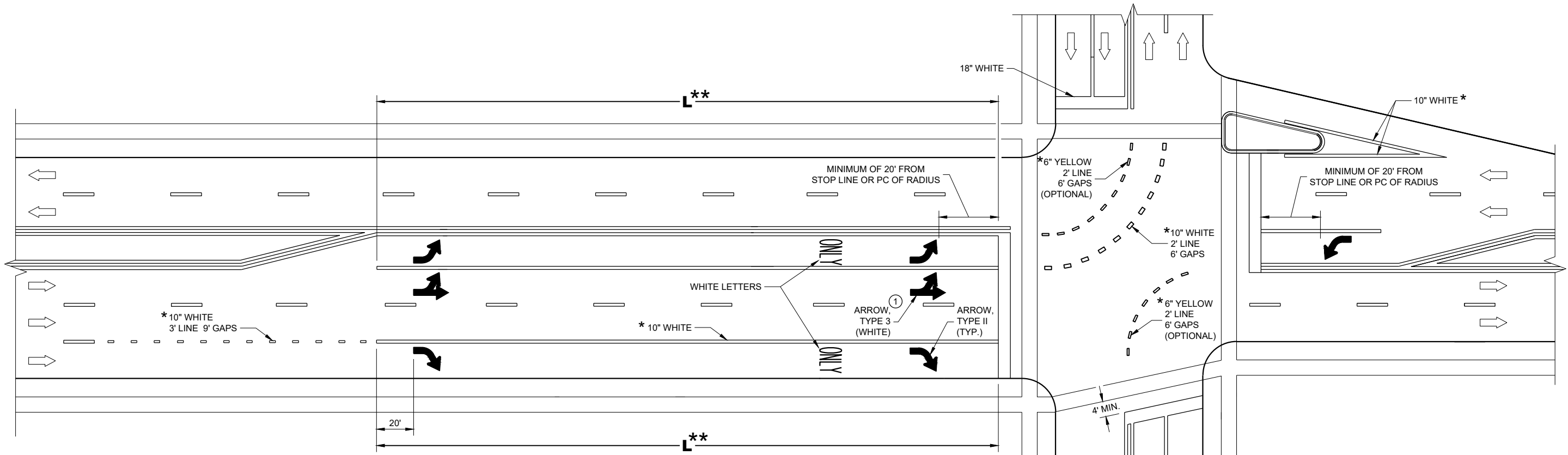
➡ DIRECTION OF TRAFFIC

\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



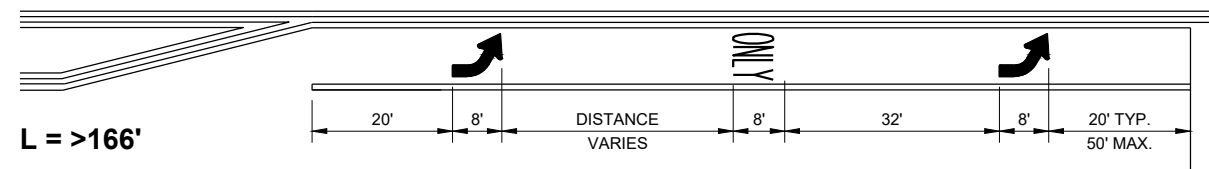
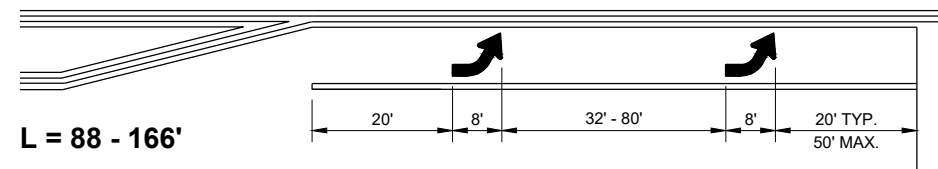
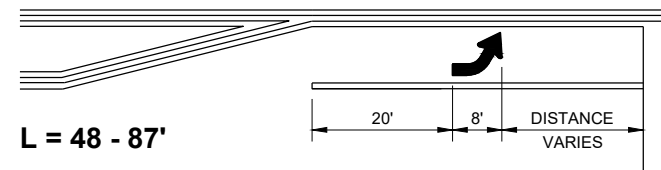
**TWO WAY LEFT TURN LANE**

<b>PAVEMENT MARKING (TURN LANES)</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



**TURN LANE OPTIONS**

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



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

**GENERAL NOTES**

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

➡ DIRECTION OF TRAFFIC

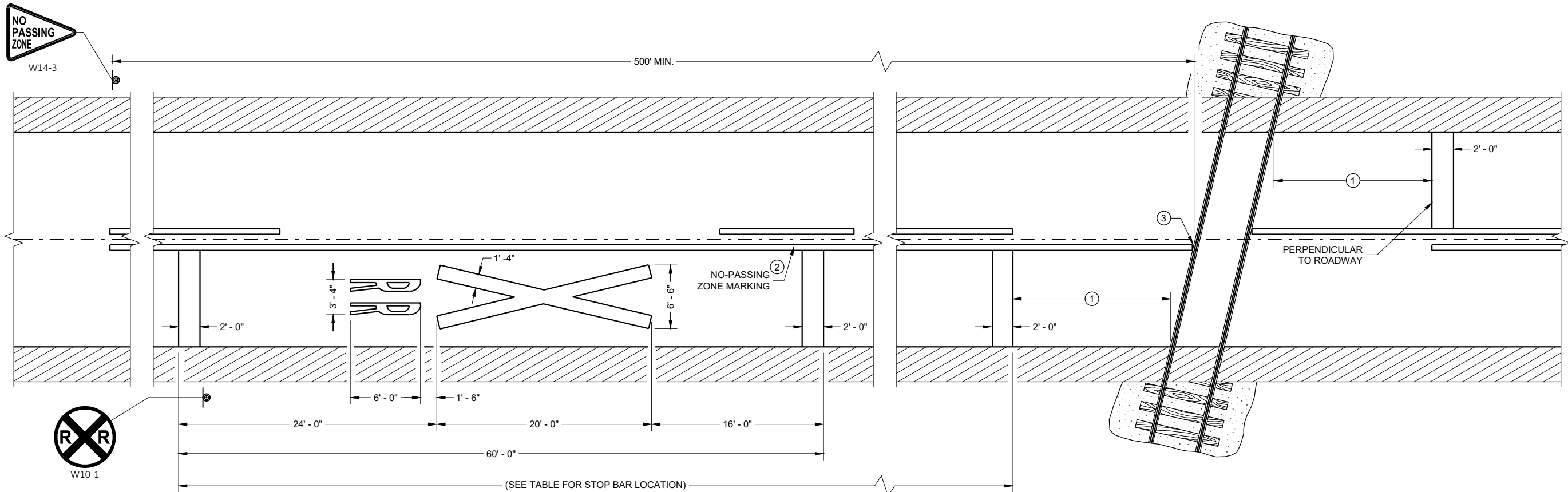
**L** = LENGTH OF TURN BAY

\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

**PAVEMENT MARKING (TURN LANES)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





**PAVEMENT MARKING**

**LEGEND**

⊙ SIGN ON PERMANENT SUPPORT

**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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

TRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

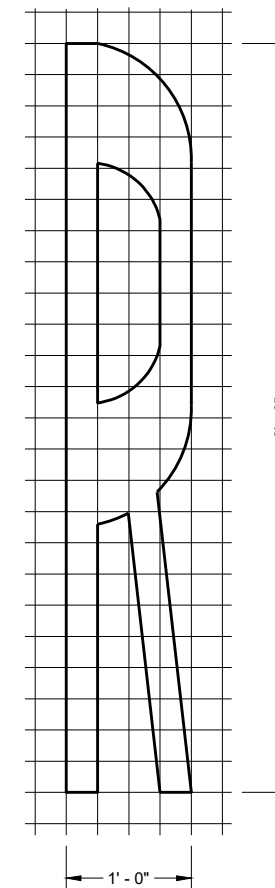
- ① PLACE STOP BAR APPROXIMATELY 8 FEET IN ADVANCE OF THE GATE (IF PRESENT), BUT NO CLOSER THAN 15 FEET IN ADVANCE OF THE NEAREST RAIL. FIELD-FIT STOP BAR TO MAXIMIZE VIEW OF APPROACHING TRAIN.
- ② 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ③ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

**DISTANCE TABLE**

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

POSTED SPEED (M.P.H.)	DIMENSION RANGE (FEET)
25	150* - 250'
30	200* - 300'
35	250* - 450'
40	300* - 500'
45	400* - 650'
50	550* - 800'
55	750* - 1000'
60	1000* - 1250'
65	1000* - 1250'

\* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSED PROXIMITY OF DRIVEWAYS, BRIDGES, SIDE ROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

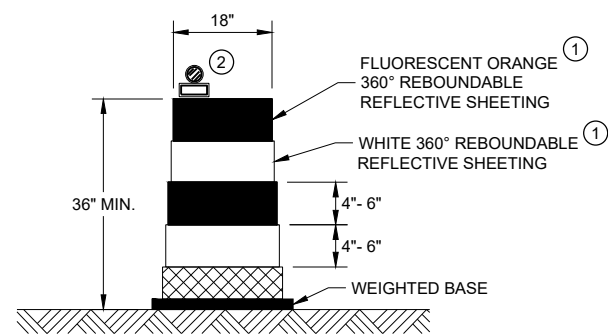


**SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS**

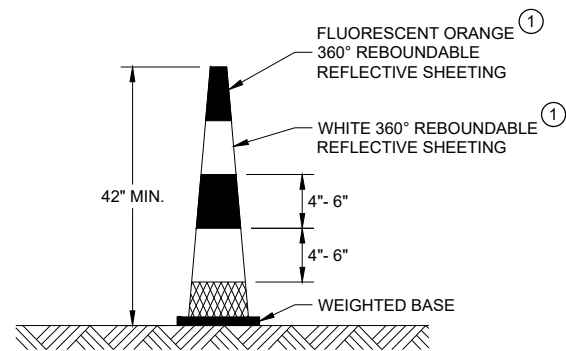
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

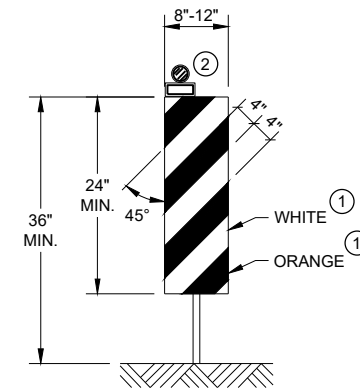
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**DRUM**  
BALLAST WIDTHS  
RANGE FROM 24"-36"



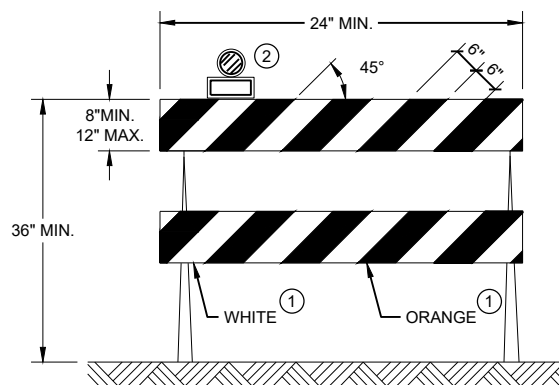
**42" CONE**  
DO NOT USE IN TAPERS  
½ SPACING OF DRUMS  
BALLAST WIDTHS  
RANGE FROM 14"-20"



**VERTICAL PANEL**  
THE STRIPES SHALL SLOPE DOWNWARD TO  
THE TRAFFIC SIDE FOR CHANNELIZATION.

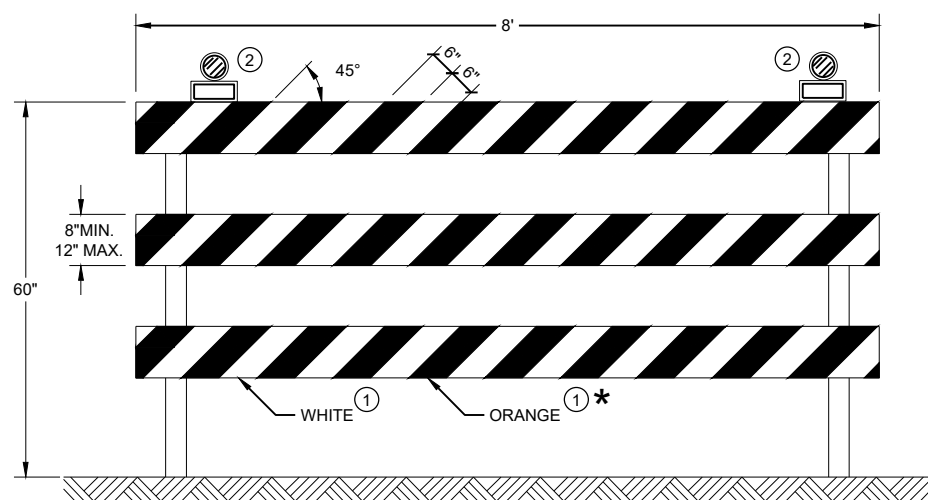
**GENERAL NOTES**

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



**TYPE II BARRICADE**

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








**TYPE III BARRICADE**

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

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

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

**LEGEND**

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

**GENERAL NOTES**

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

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

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

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

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

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

**FLAGGING**

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

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

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

**TEMPORARY PORTABLE RUMBLE STRIPS**

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

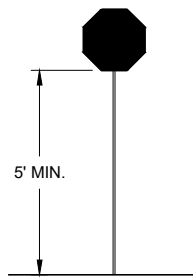
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



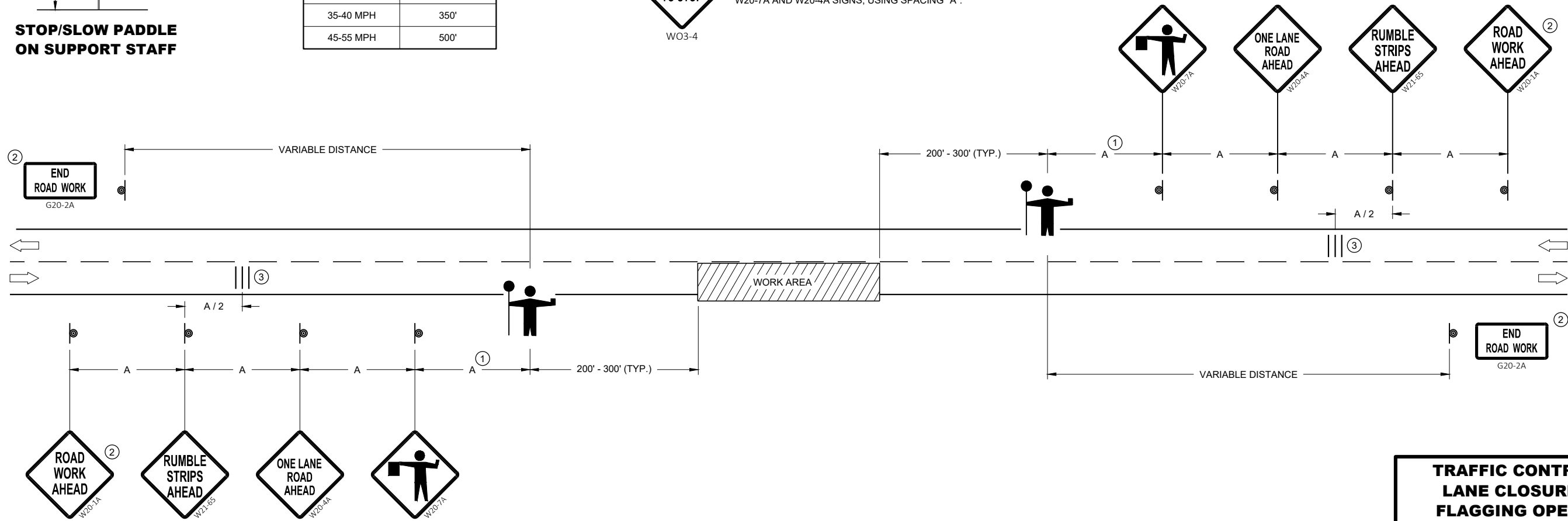
**STOP/SLOW PADDLE ON SUPPORT STAFF**

**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".










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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA

**GENERAL NOTES**

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL CONE 42-INCH
-  TRAFFIC CONTROL DRUM
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

**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**

IF THE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) STOPS WORKING, 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.

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.

- ① SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ② IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

**TEMPORARY PORTABLE RUMBLE STRIPS**

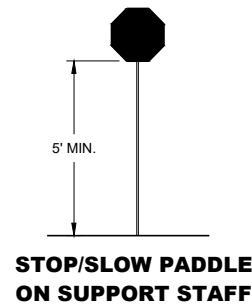
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

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

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

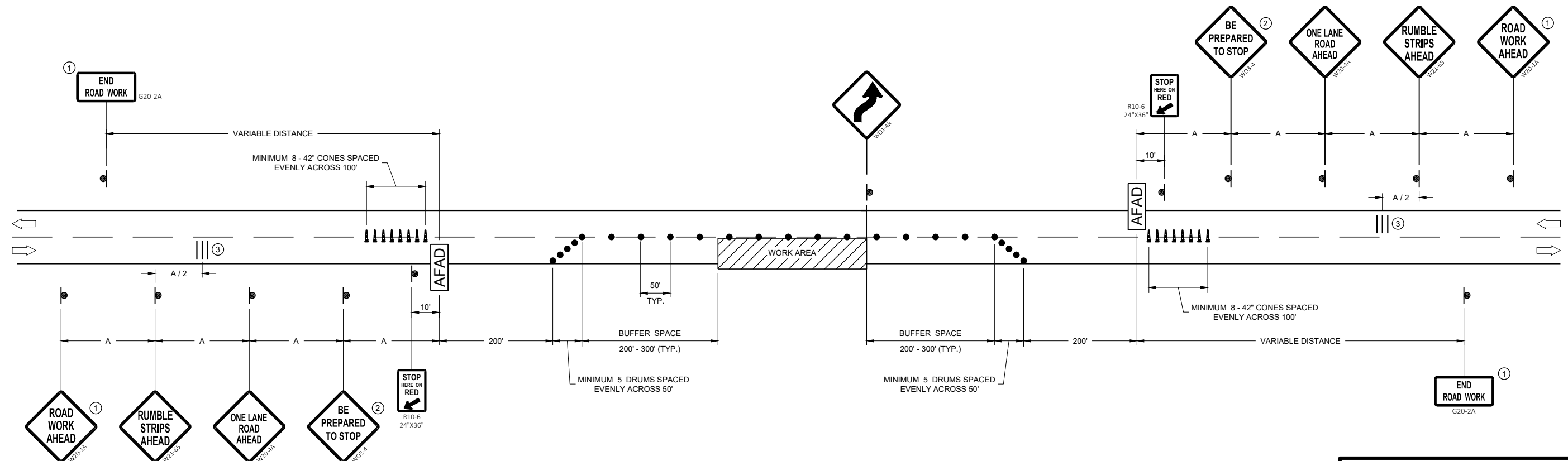
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

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



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

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



6

6

SDD 15C12 - 09b

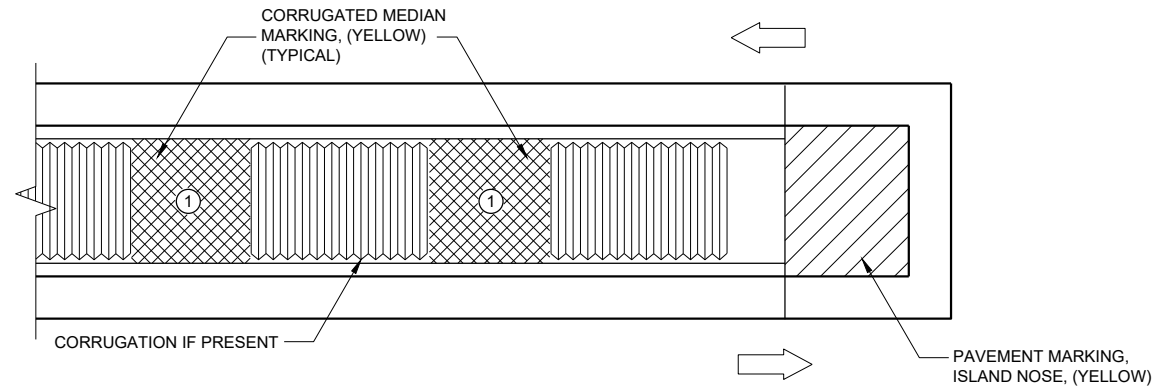
SDD 15C12 - 09b

**TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE**

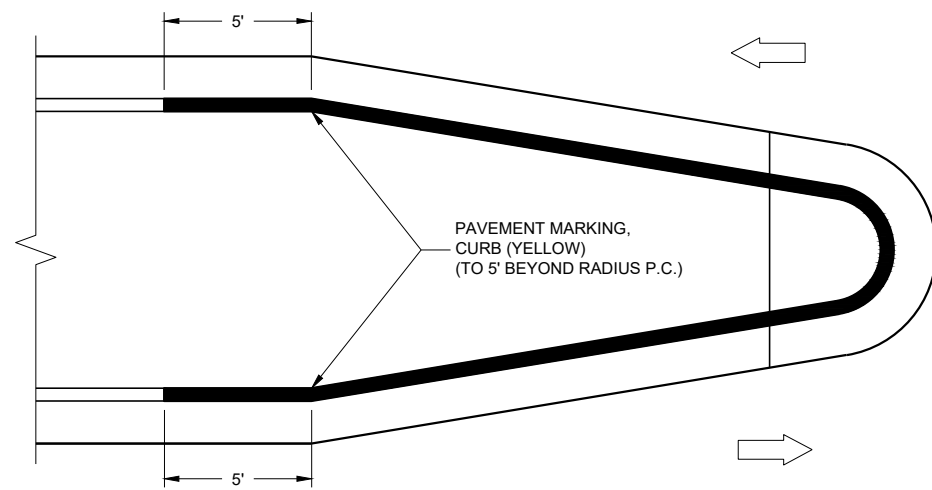
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

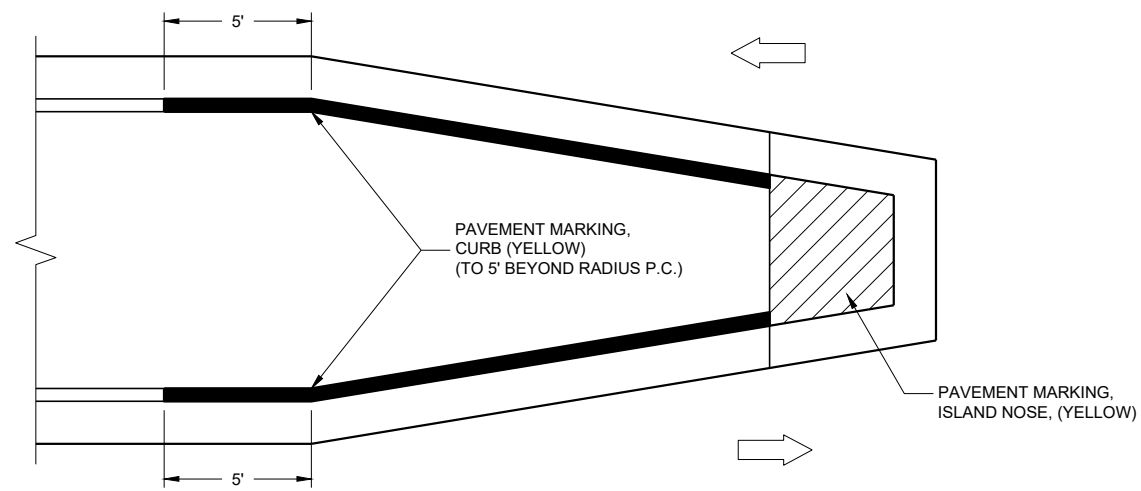
FHWA



**MEDIAN ISLAND WITH SQUARE BLUNT NOSE**



**MEDIAN ISLAND WITH ROUND BLUNT NOSE**







**MEDIAN ISLAND WITH SLOPED NOSE**

**TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS**

**GENERAL NOTES**

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

- ① APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

-  ISLAND NOSE MARKING
-  CURB MARKING
-  CORRUGATED MEDIAN MARKING
-  DIRECTION OF TRAVEL





**PAVEMENT MARKINGS,  
MEDIAN ISLAND NOSE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA

**LEGEND**

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

**GENERAL NOTES**

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

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

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

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

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

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

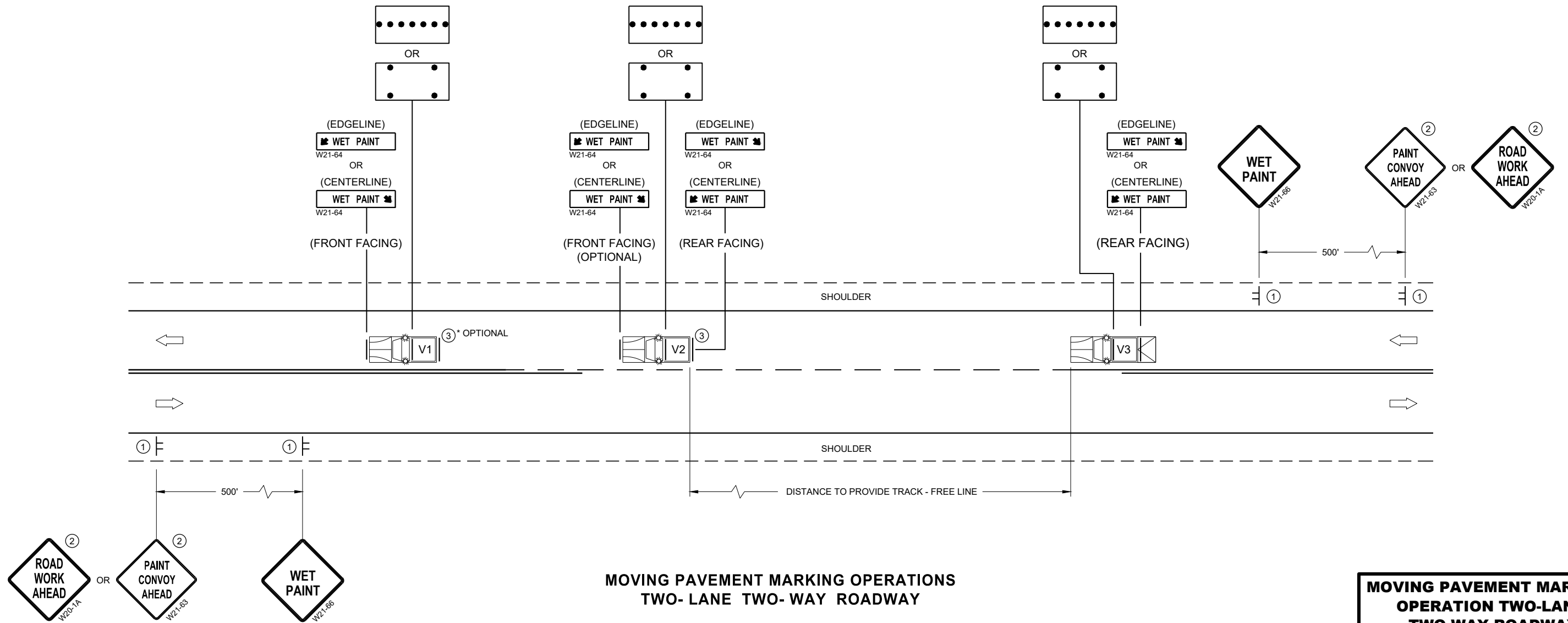
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

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

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

SDD 15C19-08a

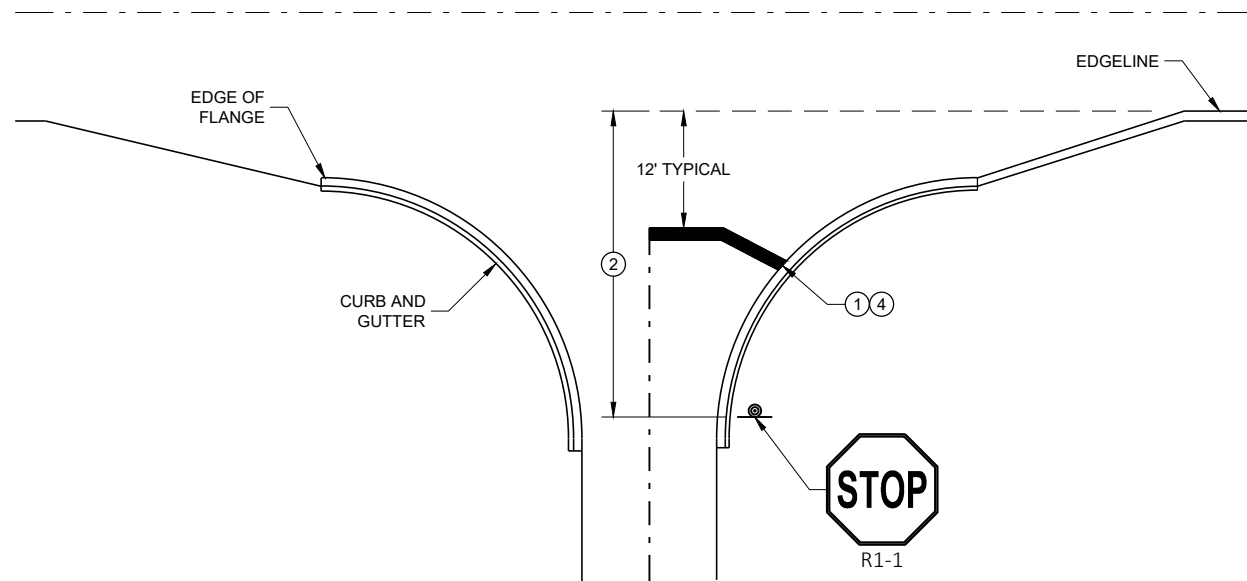
SDD 15C19-08a

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

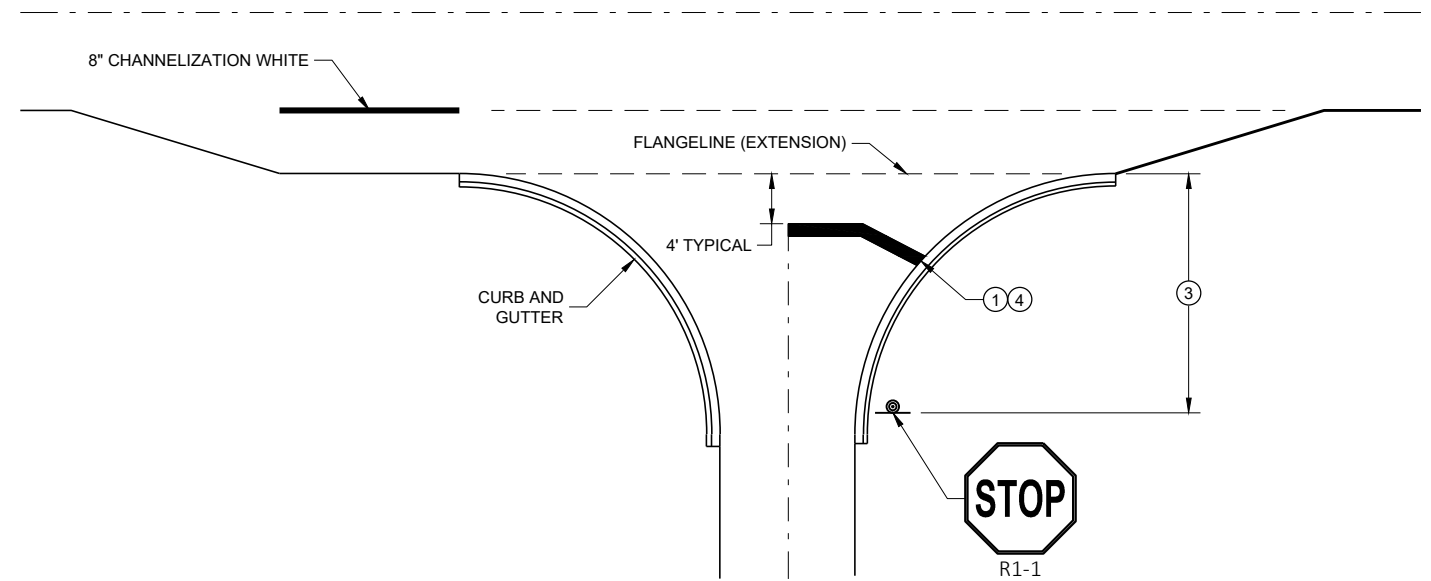
**GENERAL NOTES**

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

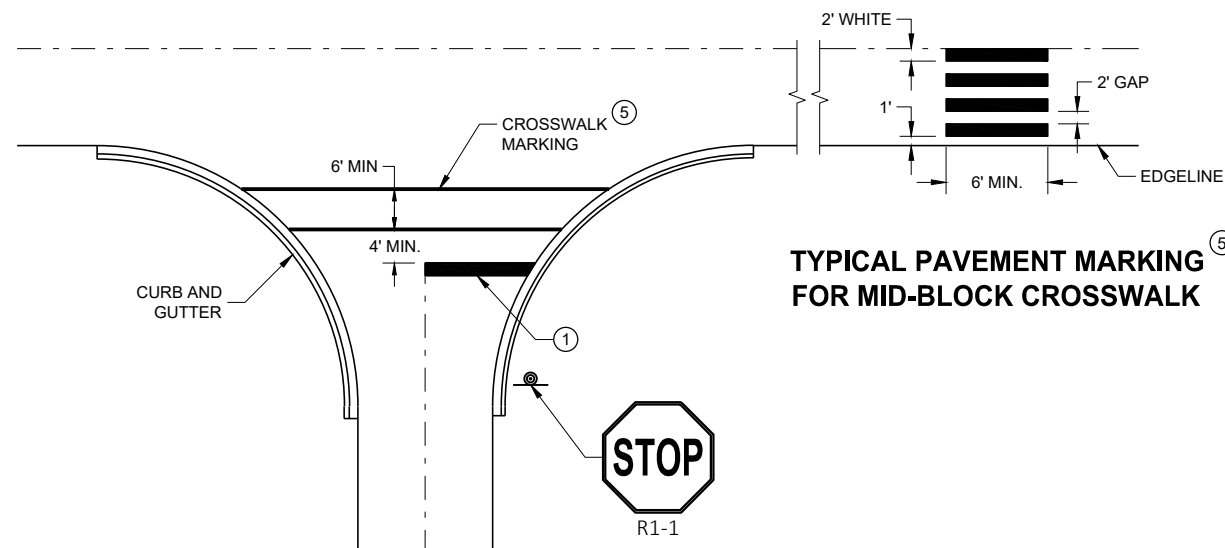
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE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



**TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER**

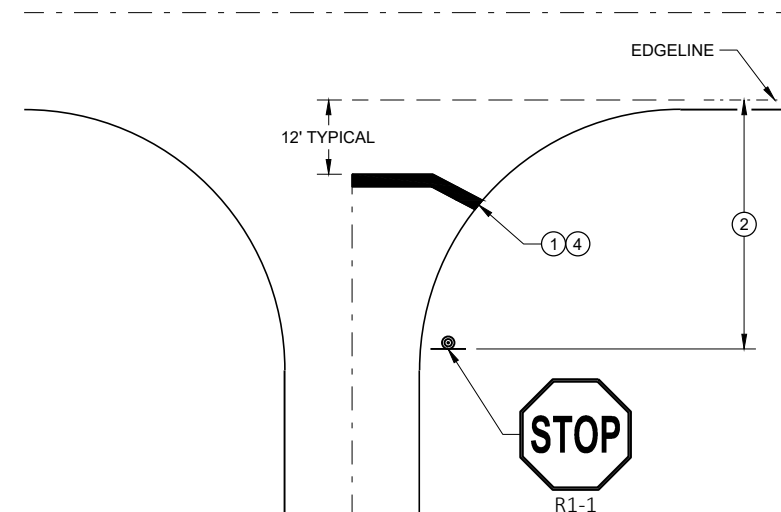


**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE**



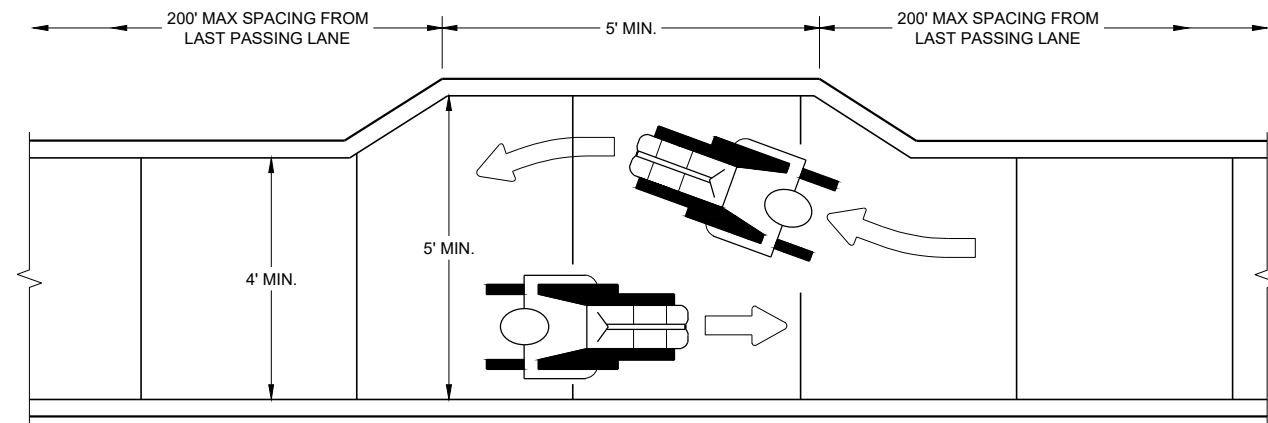
**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING**

**TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK**

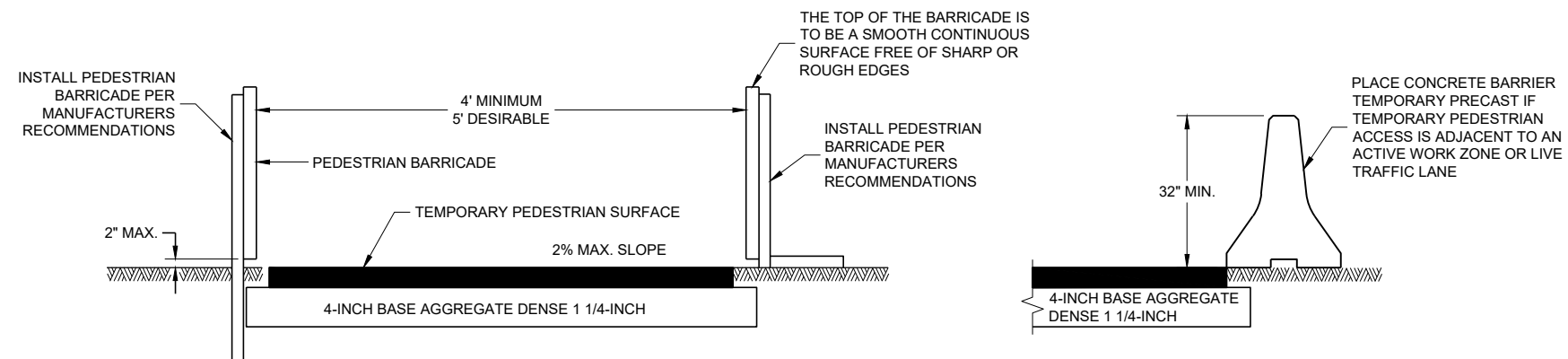


**TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER**

<b>STOP LINE AND CROSSWALK PAVEMENT MARKING</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/s/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



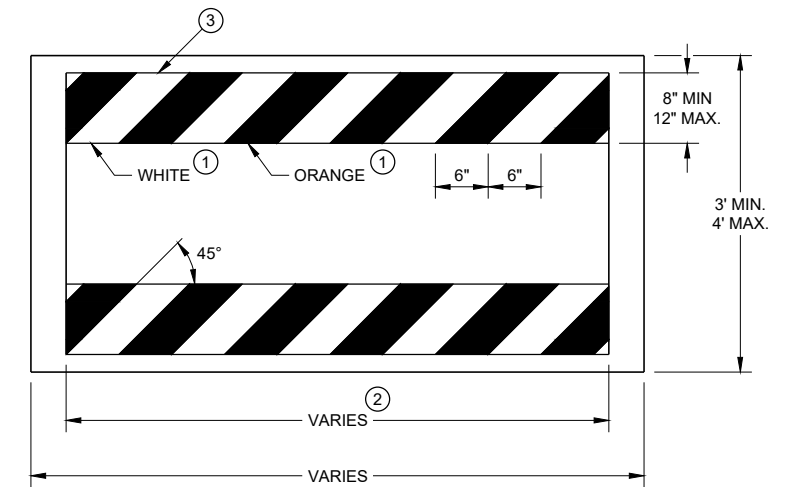
**NARROW SIDEWALK PASSING DETAIL**



**TEMPORARY PEDESTRIAN ACCESS**

**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.



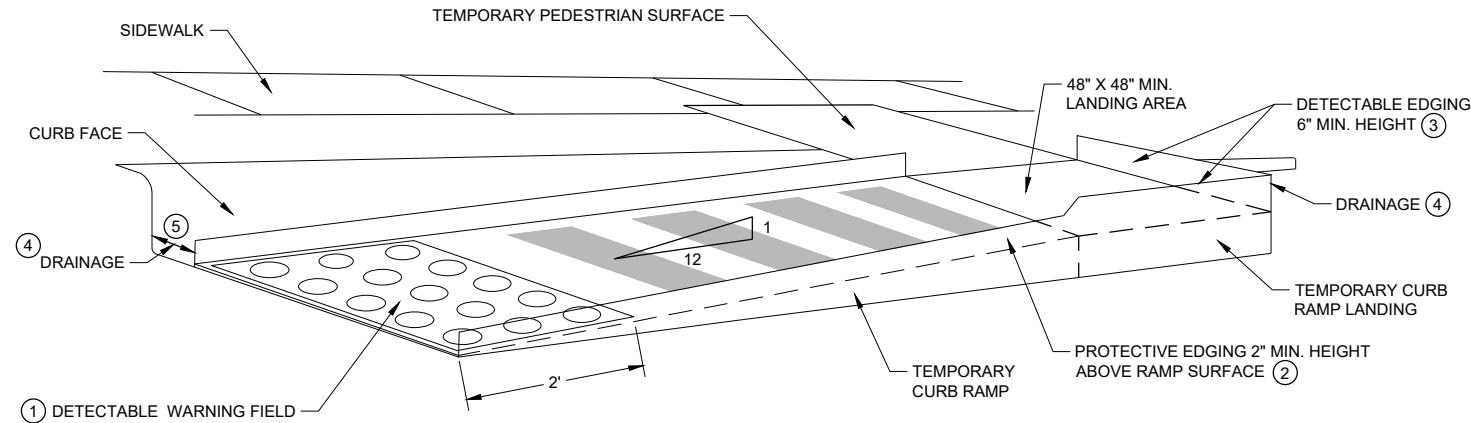
**TEMPORARY PEDESTRIAN BARRICADE\***



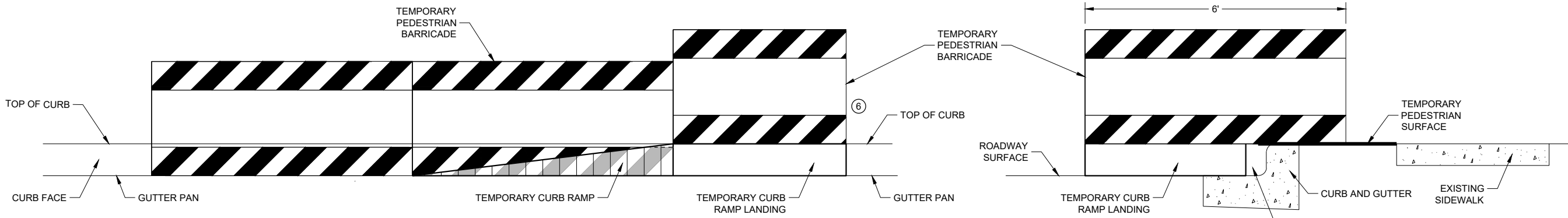
**GENERAL NOTES**

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.  
 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) 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 1/2" WIDTH.  
 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- 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.



**PERSPECTIVE VIEW**

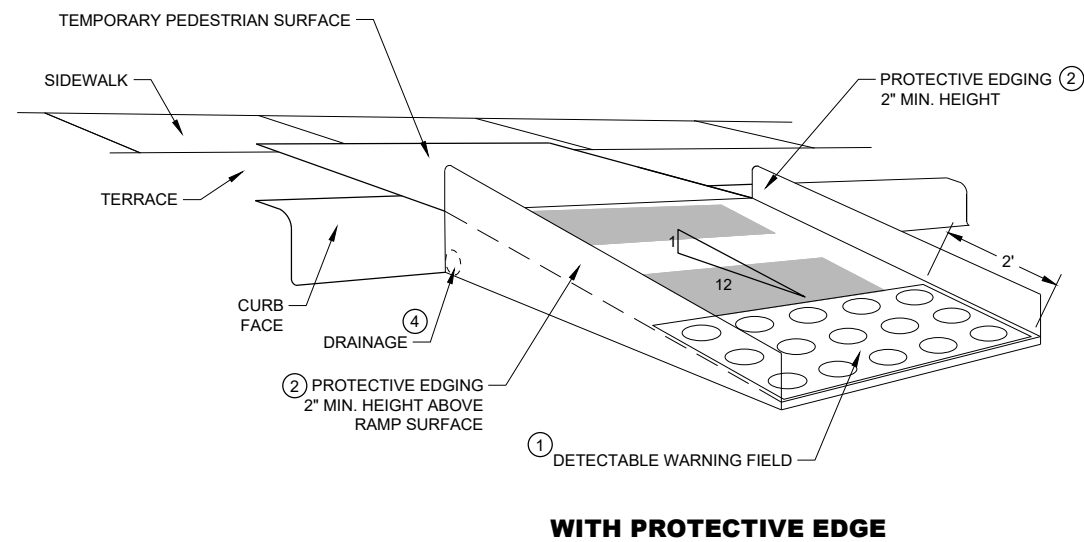
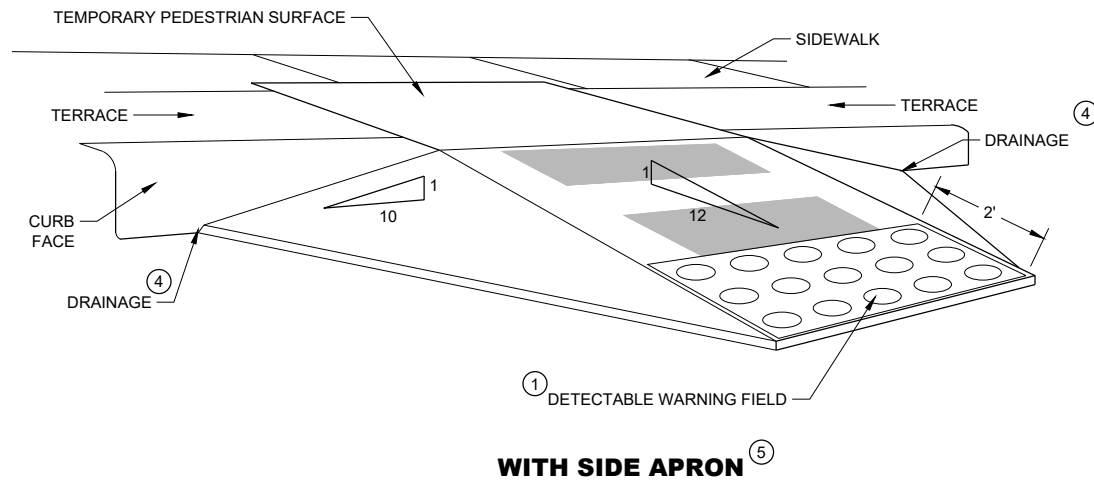


**FRONT VIEW**

**SIDE VIEW**

**TEMPORARY CURB RAMP PARALLEL TO CURB**

<p><b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b></p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>



**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 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

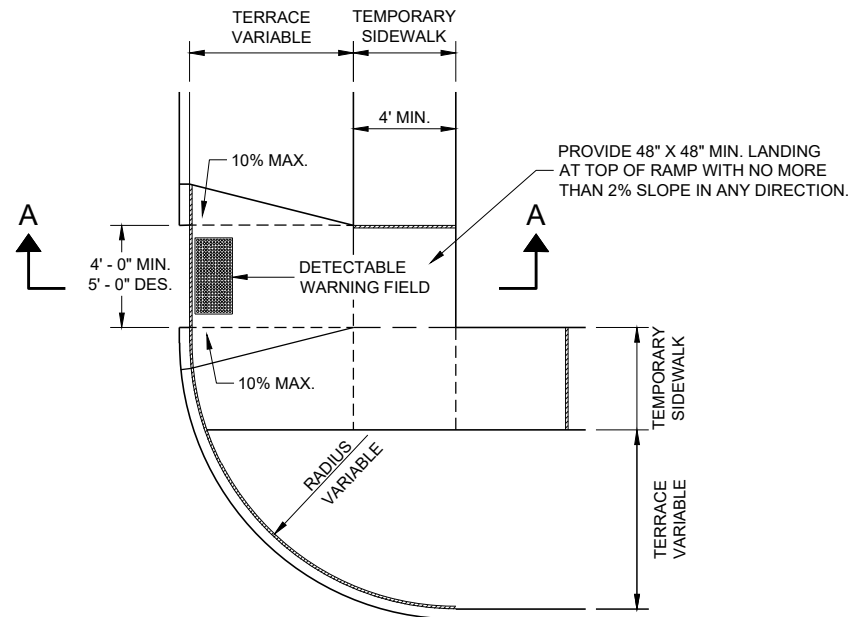
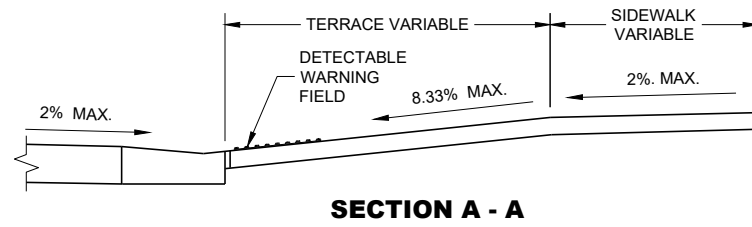
LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- 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.

**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.



**PLAN VIEW**  
**TEMPORARY TYPE 3 RAMP**  
 (OUTSIDE OF CROSSWALK AREA)

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SDD 15D30-09d

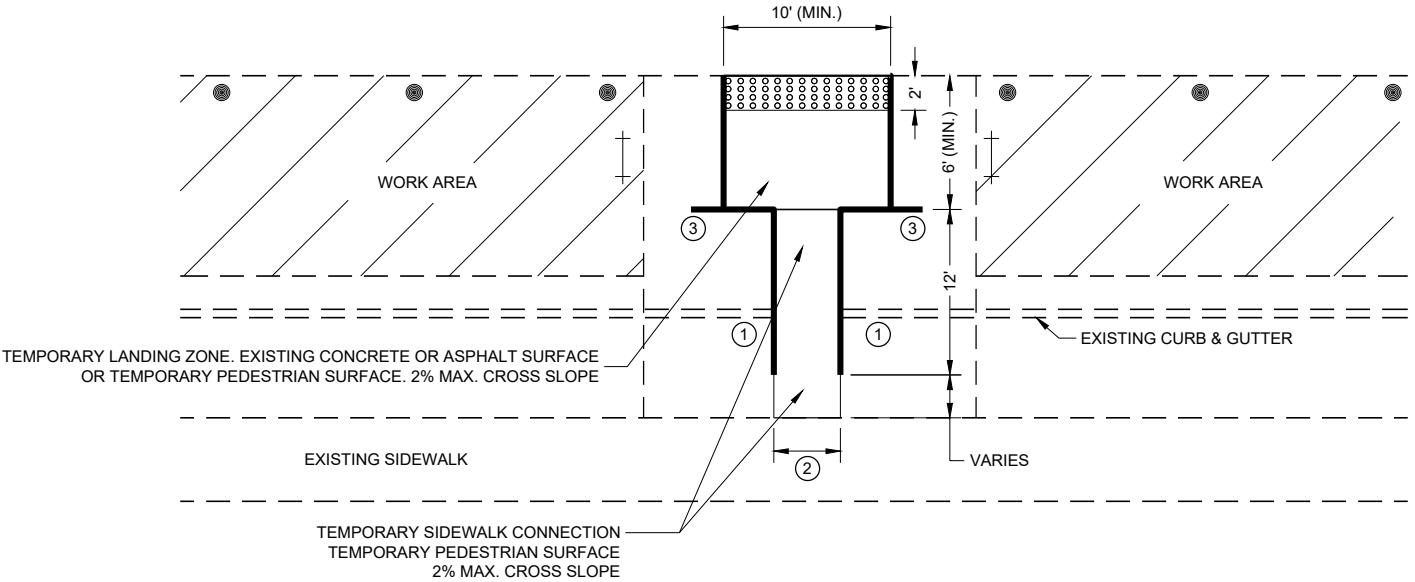
SDD 15D30-09d

<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

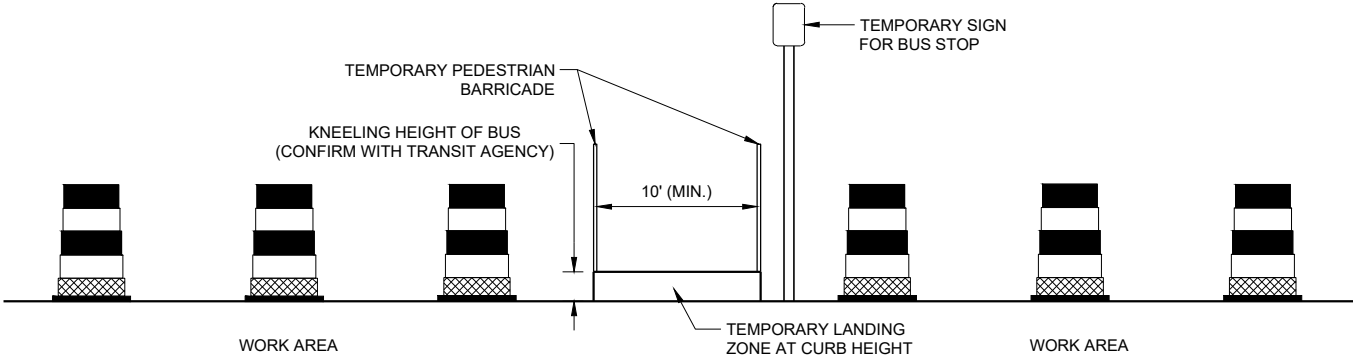
**GENERAL NOTES**

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
- 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 RAMP OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
- CURB RAMP AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

- ① DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ② 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.
- ③ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.



**PLAN VIEW**



**PROFILE VIEW  
TEMPORARY BUS STOP PAD**

**LEGEND**







- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY DETECTABLE WARNING FIELD
- WORK AREA

**TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION**

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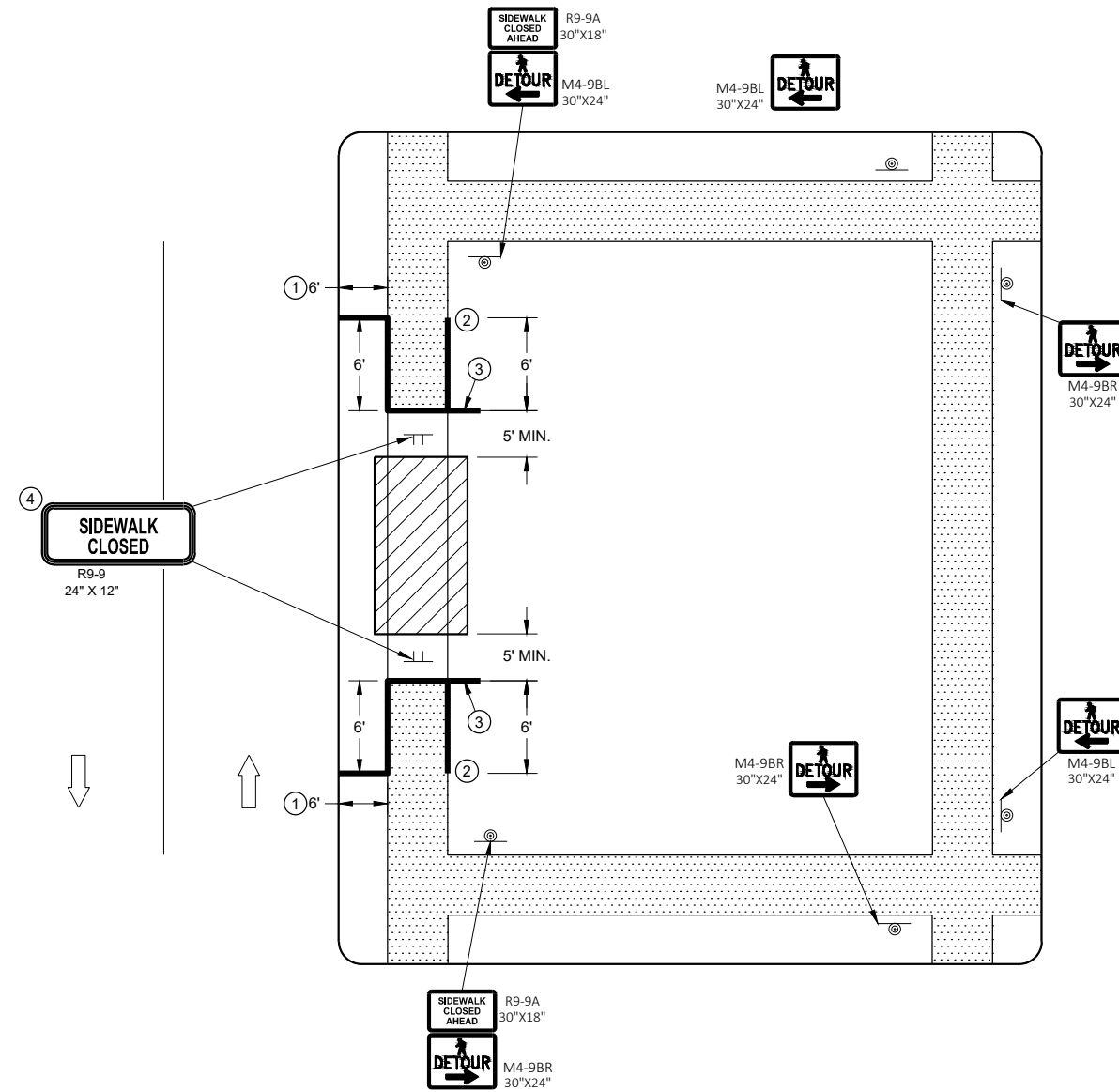
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**LEGEND**

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  UNDER PEDESTRIAN TRAFFIC
-  WORK AREA
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC

**GENERAL NOTES**








- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.
- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
  - ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
  - ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
  - ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



**SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE**

<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

**LEGEND**

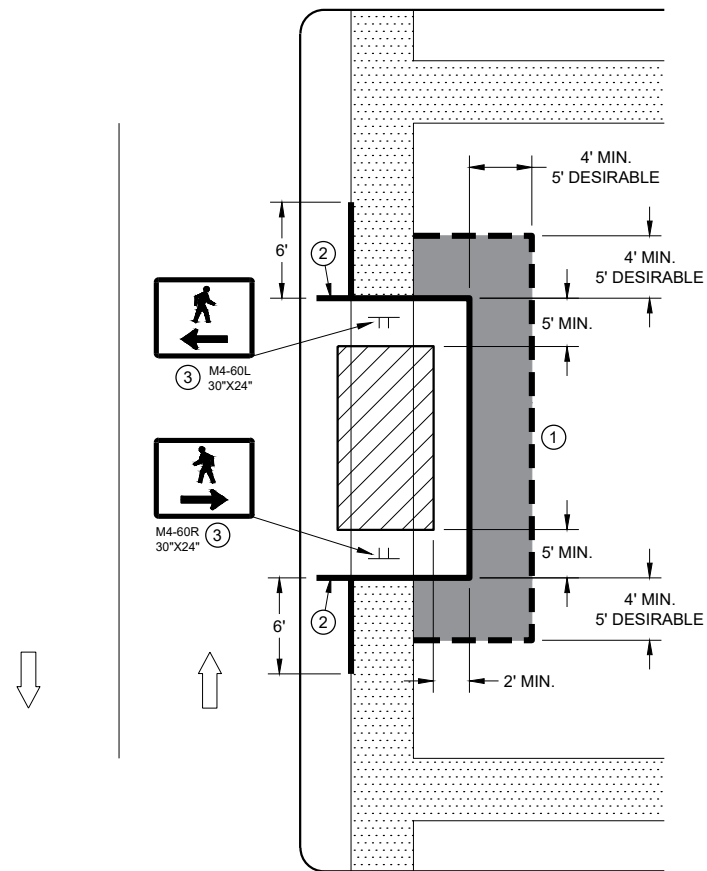
-  SIGN ON TEMPORARY SUPPORT
-  WORK AREA
-  UNDER PEDESTRIAN TRAFFIC
-  TEMPORARY PEDESTRIAN SURFACE
-  TEMPORARY PEDESTRIAN BARRICADE
-  OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC

**GENERAL NOTES**

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- ① USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
  - ② IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
  - ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

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








**SIDEWALK DIVERSION  
SINGLE SIDE**

SDD 15D30 - 09g

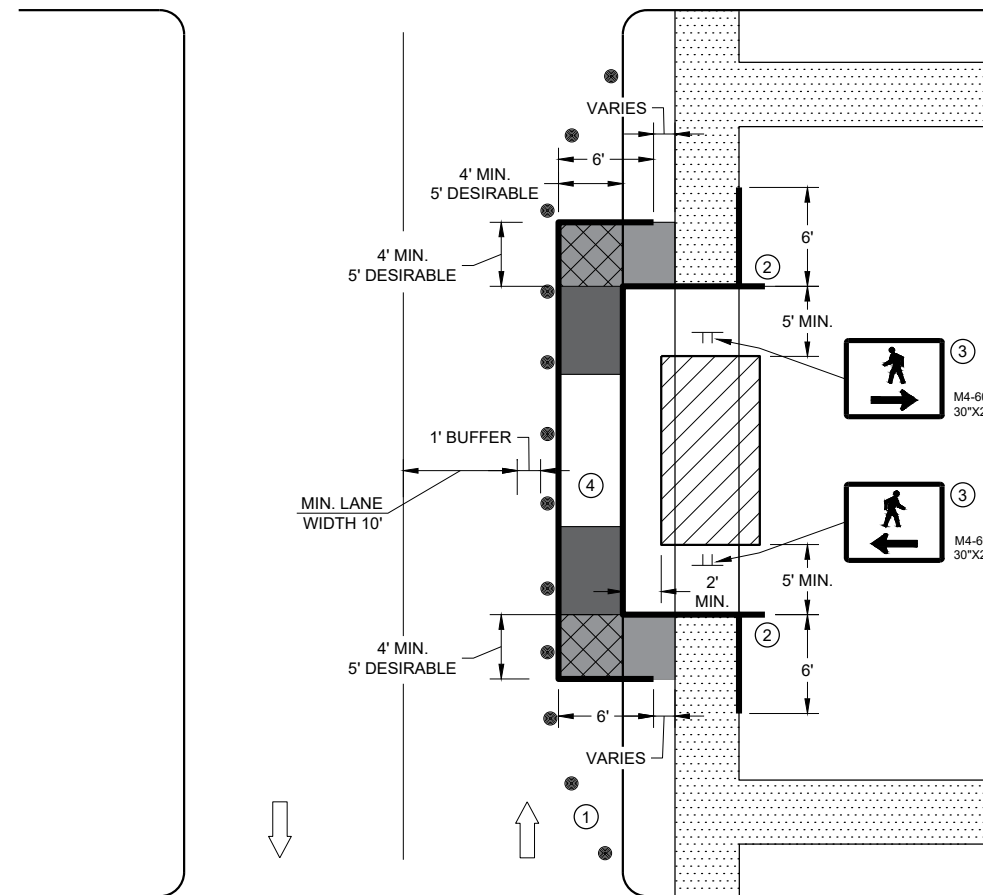
SDD 15D30 - 09g

**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.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- 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.



**SIDEWALK DIVERSION, SINGLE SIDE**

<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

6

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SDD 15D30 - 09h

SDD 15D30 - 09h

### 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.











SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

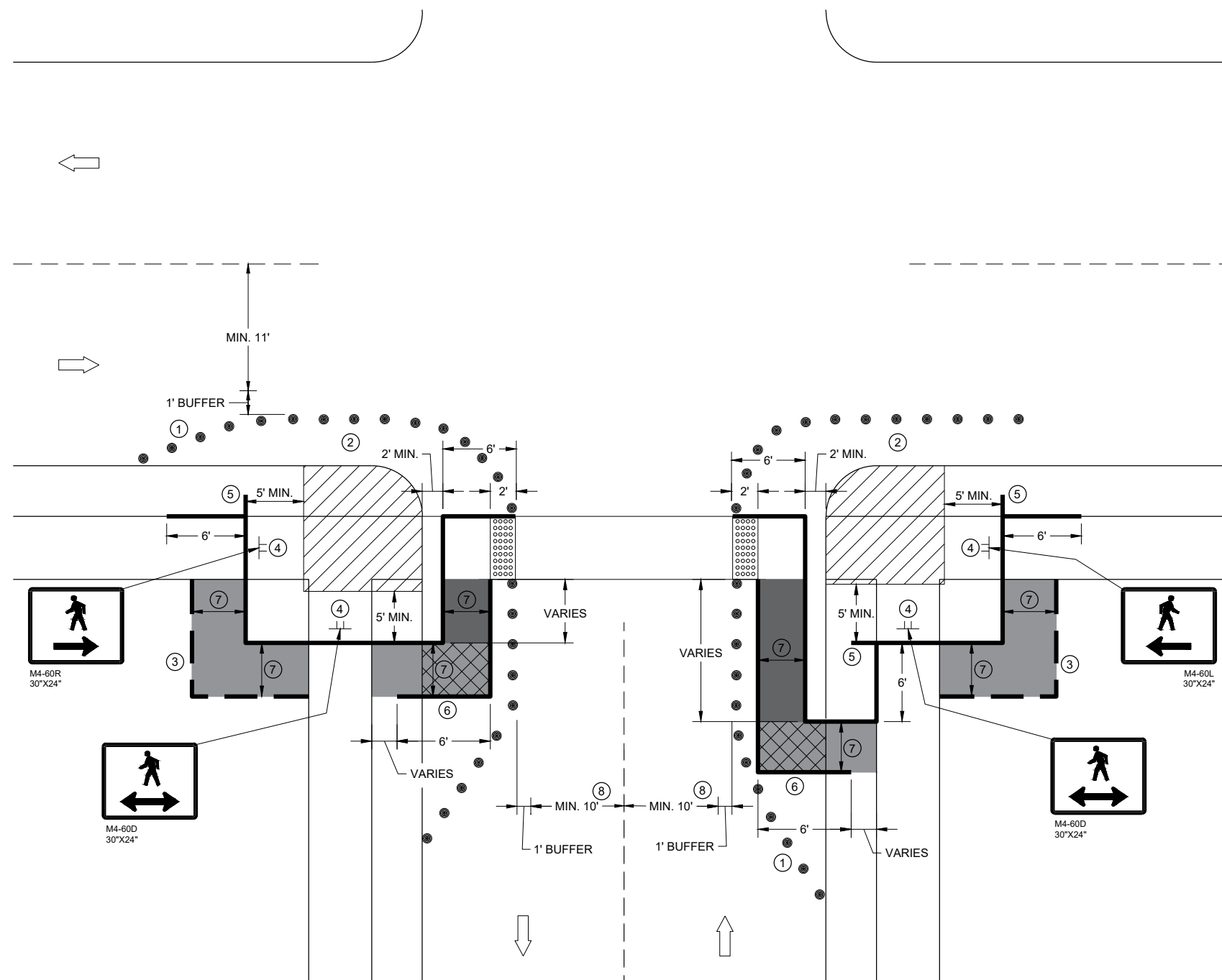
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

- 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.

### 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



**CURB RAMP PEDESTRIAN TRAFFIC CONTROL  
SIDEWALK ON SINGLE SIDE**

<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



**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.











SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

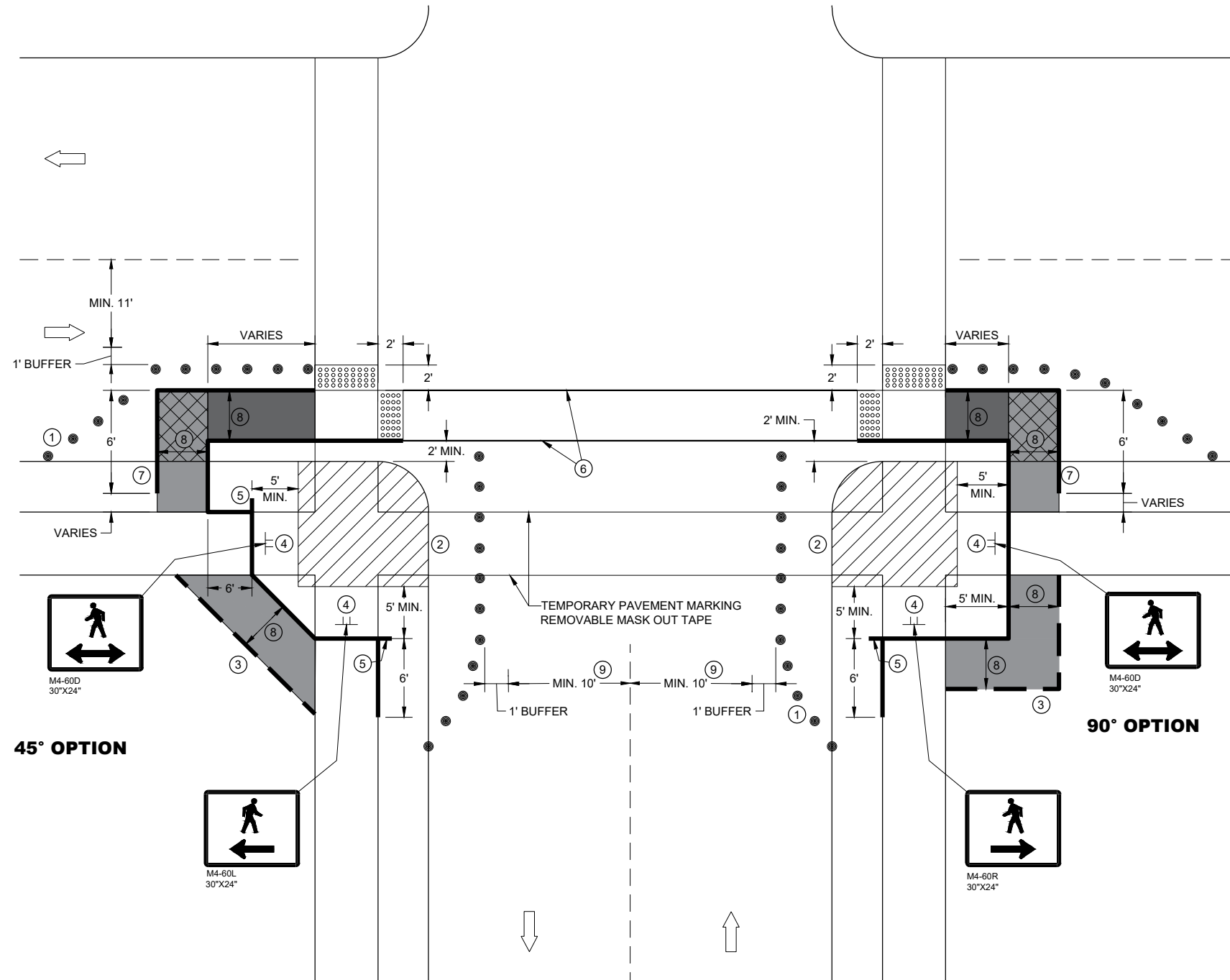
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

- 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 WHITE 6" TEMPORARY PAVEMENT MARKING
- ⑦ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- ⑧ 4 FEET MINIMUM, 5 FEET DESIRABLE
- ⑨ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

**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









**CURB RAMP PEDESTRIAN TRAFFIC CONTROL**

**TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION**

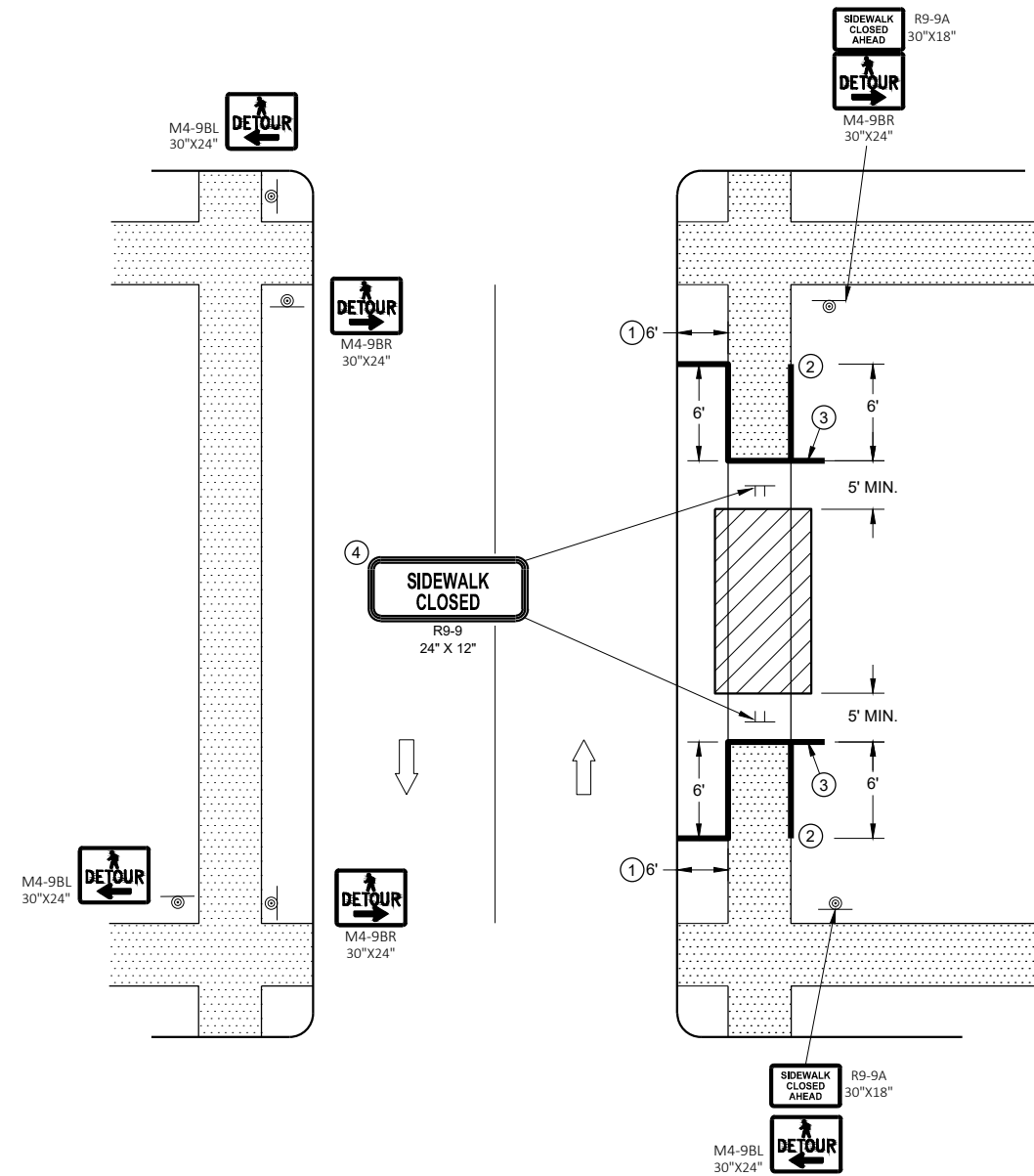
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**LEGEND**

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  UNDER PEDESTRIAN TRAFFIC
-  WORK AREA
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC

**GENERAL NOTES**

- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.
- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
  - ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
  - ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
  - ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



**SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES**

<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

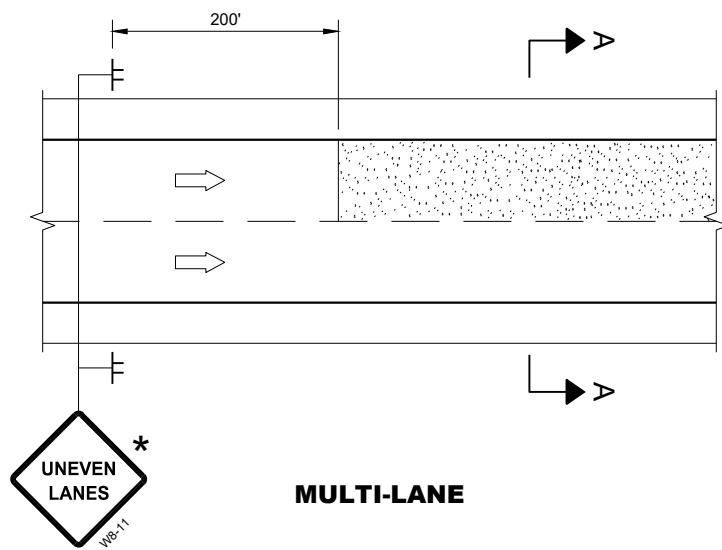
6

6

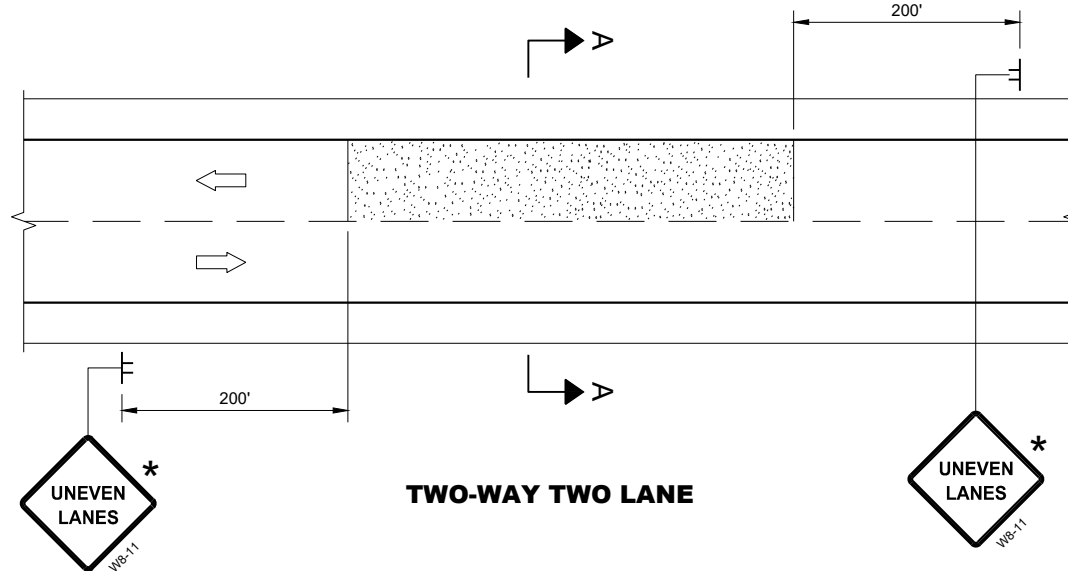
SDD 15D30 - 09k

SDD 15D30 - 09k

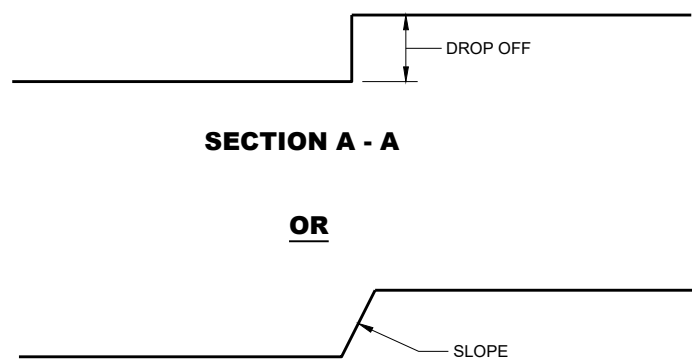




**MULTI-LANE**



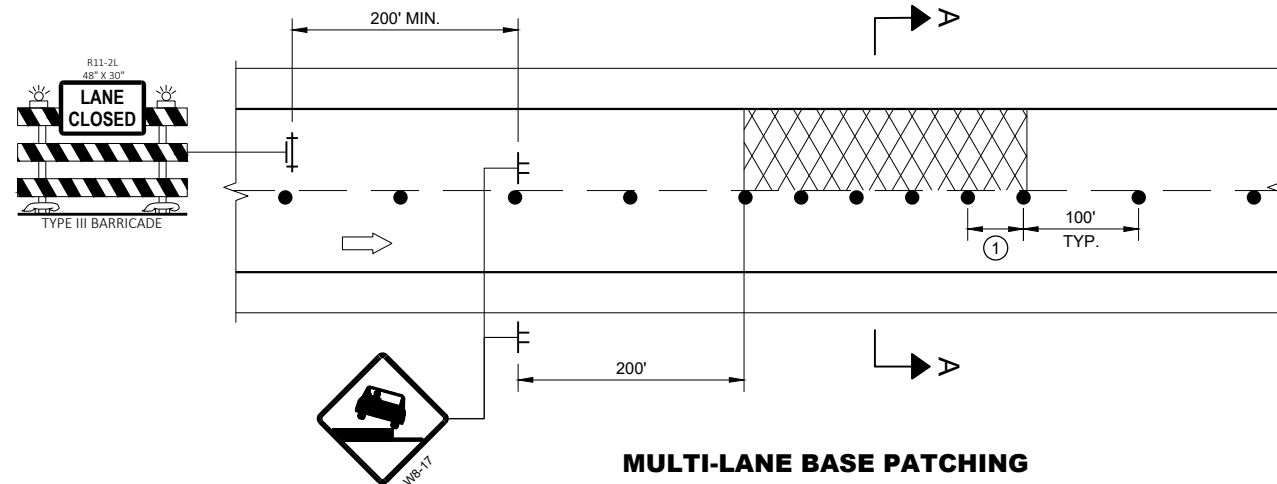
**TWO-WAY TWO LANE**



**SECTION A - A**

OR

**SECTION A - A**



**MULTI-LANE BASE PATCHING**

**ADJACENT LANE DROP-OFFS**

**GENERAL NOTES**

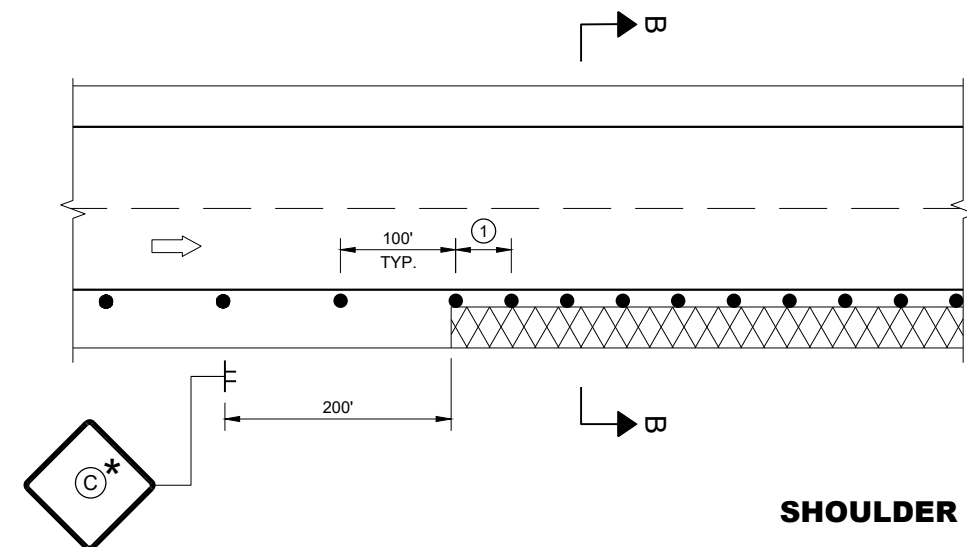
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- \* IF THE DROP-OFF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

**LEGEND**

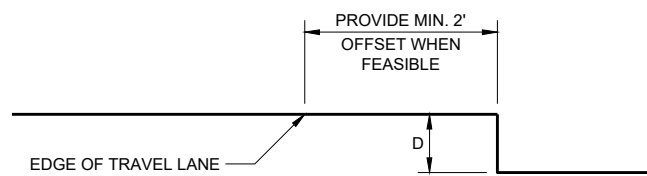
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

6



**SHOULDER DROP-OFFS**



**SECTION B - B**

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

SDD 15D39 - 02

SDD 15D39 - 02

**TRAFFIC CONTROL,  
DROP-OFF SIGNING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA

**GENERAL NOTES**

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

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

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

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

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

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

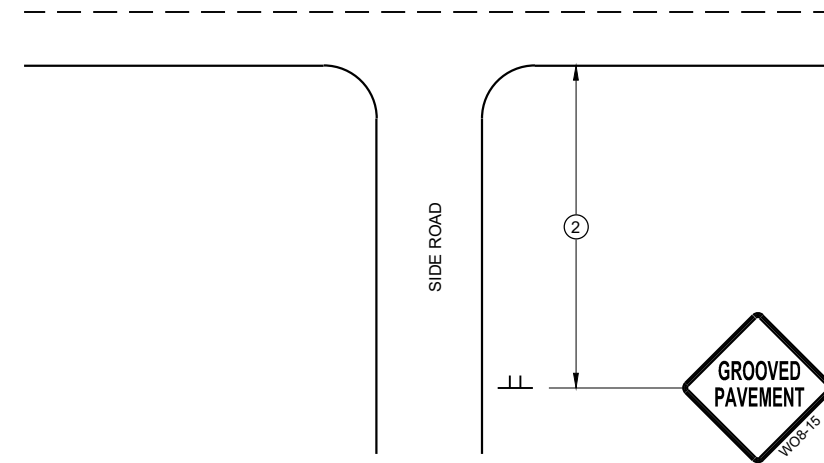
SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

- ① PLACE SIGNS 350' IN ADVANCE OF 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.

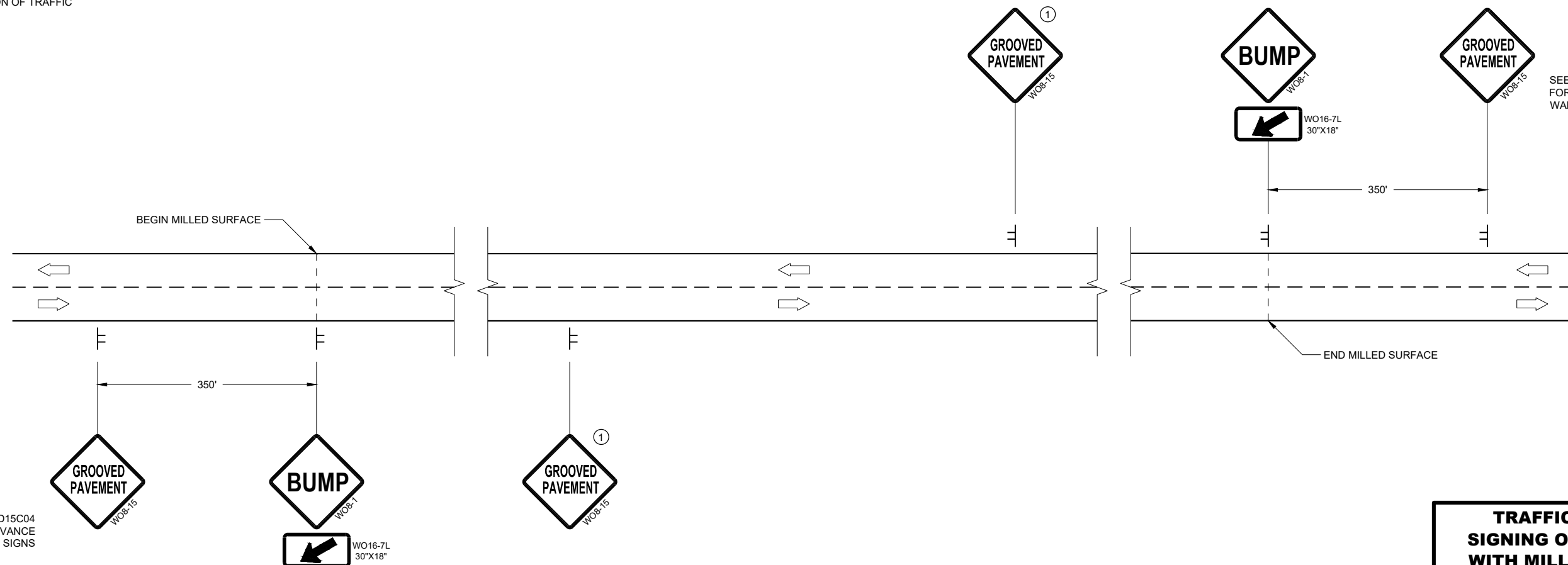
**LEGEND**

⌋ SIGN ON TEMPORARY SUPPORT

➡ DIRECTION OF TRAFFIC



**TYPICAL SIDE ROAD APPROACH SIGN DETAIL**



SEE SDD15C04 FOR ADVANCE WARNING SIGNS

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

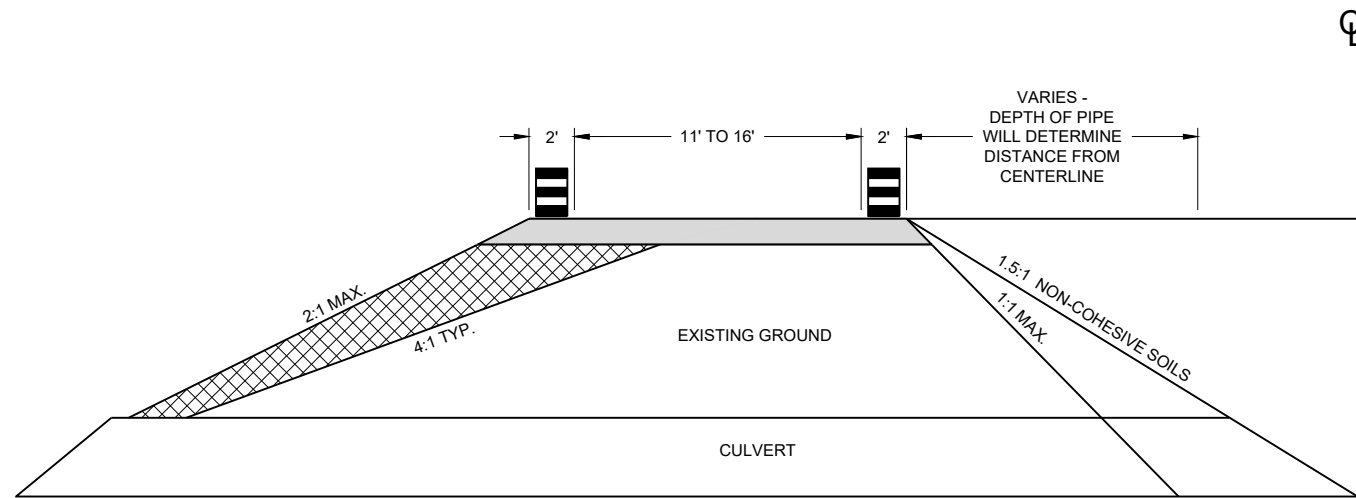
**DETAIL FOR SIGNING ON MILLED SURFACES**

**TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA



**CROSS SECTION**

**GENERAL NOTES**

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.  
 USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.






ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

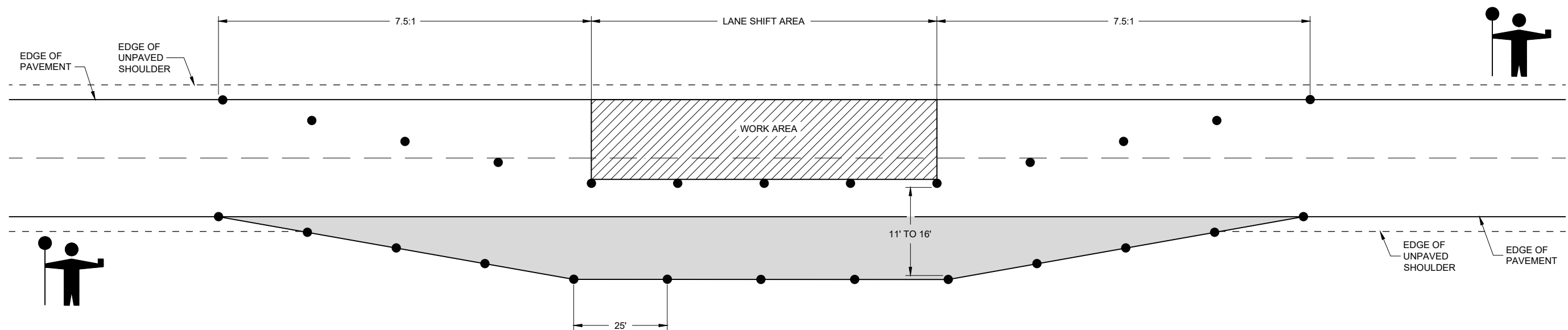
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

**LEGEND**

-  DRUM WITHOUT WARNING LIGHT
-  6" BASE AGGREGATE DENSE 1 1/2" - INCIDENTAL TO LANE SHIFT ITEM
-  FILL - INCIDENTAL TO LANE SHIFT ITEM
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



**LANE SHIFT IN FLAGGING OPERATION**

**TRAFFIC CONTROL,  
 TEMPORARY LANE SHIFT  
 DURING CULVERT WORK**

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

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

FHWA

6

6

SDD 15D48 - 01

SDD 15D48 - 01

**DIVISION 1 - ALIGNMENT - STH95**

STATION	REAL STATION	DISTANCE	AREA (SF)						INCREMENTAL VOL (CY) (UNADJUSTED)						CUMULATIVE VOL (CY)								
			CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT 1.00	EXPANDED FILL 1.30	EXPANDED MARSH BACKFILL 1.00	EXPANDED ROCK 1.00	EXPANDED EBS BACKFILL 1.00	REDUCED MARSH IN FILL 1.00	REDUCED EBS IN FILL 1.00	MASS ORDNATE	
																							NOTE 1
258+00	25800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
258+22.636	25822.64	22.64	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
258+50	25850.00	27.36	0.00	0.00	0.16	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
259+00	25900.00	50.00	0.00	0.00	3.54	0.00	0.00	0.00	0	0	3	0	0	0	0	4	0	0	0	0	0	0	-4
259+50	25950.00	50.00	0.00	0.00	6.56	0.00	0.00	0.00	0	0	9	0	0	0	0	16	0	0	0	0	0	0	-16
260+00	26000.00	50.00	0.00	0.00	1.97	0.00	0.00	0.00	0	0	8	0	0	0	0	26	0	0	0	0	0	0	-26
260+50	26050.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	2	0	0	0	0	29	0	0	0	0	0	0	-29
261+00	26100.00	50.00	0.00	0.00	0.01	0.00	0.00	0.00	0	0	0	0	0	0	0	29	0	0	0	0	0	0	-29
261+48.552	26148.55	48.55	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	29	0	0	0	0	0	0	-29
262+00	26200.00	51.45	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	29	0	0	0	0	0	0	-29

**DIVISION 2 - ALIGNMENT - STH95**

280+00	28000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	29	0	0	0	0	0	0	-29
280+53.35	28053.35	53.35	403.49	0.00	45.88	0.00	0.00	0.00	399	0	45	0	0	0	399	87	0	0	0	0	0	0	312
281+00	28100.00	46.65	0.00	0.00	0.00	0.00	0.00	0.00	349	0	40	0	0	0	748	139	0	0	0	0	0	0	609

**DIVISION 3 - ALIGNMENT - STH95**

313+50	31350.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	748	139	0	0	0	0	0	0	609
313+70	31370.00	20.00	306.47	0.00	0.00	0.00	0.00	0.00	114	0	0	0	0	0	862	139	0	0	0	0	0	0	723
314+40	31440.00	70.00	306.47	0.00	0.00	0.00	0.00	0.00	795	0	0	0	0	0	1,657	139	0	0	0	0	0	0	1,518
314+50	31450.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	57	0	0	0	0	0	1,714	139	0	0	0	0	0	0	1,575

**DIVISION 4 - ALIGNMENT - STH95**

318+50	31850.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	1,714	139	0	0	0	0	0	0	1,575
318+65.93	31865.93	15.93	485.60	0.00	0.27	0.00	0.00	0.00	143	0	0	0	0	0	1,857	139	0	0	0	0	0	0	1,718
319+00	31900.00	34.07	0.00	0.00	0.00	0.00	0.00	0.00	306	0	0	0	0	0	2,163	139	0	0	0	0	0	0	2,024

**DIVISION 5 - ALIGNMENT - STH95**

323+00	32300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	2,163	139	0	0	0	0	0	0	2,024
323+16.799	32316.80	16.80	585.29	0.00	0.00	0.00	0.00	0.00	182	0	0	0	0	0	2,345	139	0	0	0	0	0	0	2,206
323+50	32350.00	33.20	0.00	0.00	0.00	0.00	0.00	0.00	360	0	0	0	0	0	2,705	139	0	0	0	0	0	0	2,566

**DIVISION 6 - ALIGNMENT - STH95**

394+50	39450.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	2,705	139	0	0	0	0	0	0	2,566
394+77.972	39477.97	27.97	0.00	0.00	2.56	0.00	0.00	0.00	0	0	1	0	0	0	2,705	140	0	0	0	0	0	0	2,565
395+00	39500.00	22.03	0.00	0.00	2.13	0.00	0.00	0.00	0	0	2	0	0	0	2,705	143	0	0	0	0	0	0	2,562
395+50	39550.00	50.00	0.00	0.00	1.80	0.00	0.00	0.00	0	0	4	0	0	0	2,705	148	0	0	0	0	0	0	2,557
396+00	39600.00	50.00	0.00	0.00	3.18	0.00	0.00	0.00	0	0	5	0	0	0	2,705	155	0	0	0	0	0	0	2,550
396+50	39650.00	50.00	0.00	0.00	16.82	0.00	0.00	0.00	0	0	19	0	0	0	2,705	179	0	0	0	0	0	0	2,526
397+00	39700.00	50.00	0.00	0.00	15.16	0.00	0.00	0.00	0	0	30	0	0	0	2,705	218	0	0	0	0	0	0	2,487
397+50	39750.00	50.00	0.00	0.00	7.72	0.00	0.00	0.00	0	0	21	0	0	0	2,705	246	0	0	0	0	0	0	2,459
398+00	39800.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	7	0	0	0	2,705	255	0	0	0	0	0	0	2,450
398+50	39850.00	50.00	0.00	0.00	11.77	0.00	0.00	0.00	0	0	11	0	0	0	2,705	269	0	0	0	0	0	0	2,436
399+00	39900.00	50.00	0.00	0.00	29.84	0.00	0.00	0.00	0	0	39	0	0	0	2,705	320	0	0	0	0	0	0	2,385
399+50	39950.00	50.00	0.00	0.00	30.70	0.00	0.00	0.00	0	0	56	0	0	0	2,705	393	0	0	0	0	0	0	2,312
400+00	40000.00	50.00	0.00	0.00	9.85	0.00	0.00	0.00	0	0	38	0	0	0	2,705	442	0	0	0	0	0	0	2,263
400+47.631	40047.63	47.63	0.00	0.00	0.60	0.00	0.00	0.00	0	0	9	0	0	0	2,705	454	0	0	0	0	0	0	2,251
401+00	40100.00	52.37	0.00	0.00	0.00	0.00	0.00	0.00	0	0	1	0	0	0	2,705	455	0	0	0	0	0	0	2,250

**PROJECT NO: 7560-05-74**

**HWY: STH 95**

**COUNTY: JACKSON**

**EARTHWORK SUMMARY**

**SHEET NO:**

**E**

**DIVISION 7 - ALIGNMENT - STH95**

STATION	REAL STATION	DISTANCE	AREA (SF)						INCREMENTAL VOL (CY) (UNADJUSTED)						CUMULATIVE VOL (CY)								
			CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH	EXCROCK	EXC	EBS	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	EXPANDED FILL	EXPANDED MARSH BACKFILL	EXPANDED ROCK	EXPANDED EBS BACKFILL	REDUCED MARSH IN FILL	REDUCED EBS IN FILL	MASS ORDINATE
NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 4	NOTE 5	NOTE 6	NOTE 7	NOTE 8															
434+00	43400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	2,705	455	0	0	0	0	0	2,250	
434+46.134	43446.13	46.13	0.00	0.00	2.23	0.00	0.00	0.00	0	0	2	0	0	0	2,705	458	0	0	0	0	0	2,247	
434+50	43450.00	3.87	0.00	0.00	2.53	0.00	0.00	0.00	0	0	0	0	0	0	2,705	458	0	0	0	0	0	2,247	
435+00	43500.00	50.00	0.00	0.00	3.94	0.00	0.00	0.00	0	0	6	0	0	0	2,705	465	0	0	0	0	0	2,240	
435+50	43550.00	50.00	0.00	0.00	2.94	0.00	0.00	0.00	0	0	6	0	0	0	2,705	473	0	0	0	0	0	2,232	
436+00	43600.00	50.00	0.00	0.00	4.16	0.00	0.00	0.00	0	0	7	0	0	0	2,705	482	0	0	0	0	0	2,223	
436+50	43650.00	50.00	0.00	0.00	7.31	0.00	0.00	0.00	0	0	11	0	0	0	2,705	497	0	0	0	0	0	2,208	
437+00	43700.00	50.00	0.00	0.00	4.61	0.00	0.00	0.00	0	0	11	0	0	0	2,705	511	0	0	0	0	0	2,194	
437+50	43750.00	50.00	0.00	0.00	8.76	0.00	0.00	0.00	0	0	12	0	0	0	2,705	527	0	0	0	0	0	2,179	
438+00	43800.00	50.00	0.00	0.00	16.46	0.00	0.00	0.00	0	0	23	0	0	0	2,705	556	0	0	0	0	0	2,149	
438+50	43850.00	50.00	0.00	0.00	5.68	0.00	0.00	0.00	0	0	21	0	0	0	2,705	584	0	0	0	0	0	2,121	
438+69.12	43869.12	19.12	0.00	0.00	2.10	0.00	0.00	0.00	0	0	3	0	0	0	2,705	588	0	0	0	0	0	2,117	
439+00	43900.00	30.88	0.00	0.00	0.00	0.00	0.00	0.00	0	0	1	0	0	0	2,705	589	0	0	0	0	0	2,116	

**DIVISION 8 - ALIGNMENT - STH95**

509+00	50900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	2,705	589	0	0	0	0	0	2,116
509+39.799	50939.80	39.80	0.00	0.00	3.21	0.00	0.00	0.00	0	0	2	0	0	0	2,705	592	0	0	0	0	0	2,114
509+50	50950.00	10.20	0.00	0.00	2.58	0.00	0.00	0.00	0	0	1	0	0	0	2,705	593	0	0	0	0	0	2,112
510+00	51000.00	50.00	0.00	0.00	0.31	0.00	0.00	0.00	0	0	3	0	0	0	2,705	597	0	0	0	0	0	2,108
510+50	51050.00	50.00	0.00	0.00	18.36	0.00	0.00	0.00	0	0	17	0	0	0	2,705	619	0	0	0	0	0	2,086
511+00	51100.00	50.00	0.00	0.00	6.80	0.00	0.00	0.00	0	0	23	0	0	0	2,705	649	0	0	0	0	0	2,056
511+50	51150.00	50.00	0.00	0.00	1.89	0.00	0.00	0.00	0	0	8	0	0	0	2,705	659	0	0	0	0	0	2,046
512+00	51200.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	2	0	0	0	2,705	662	0	0	0	0	0	2,043
512+50	51250.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	2,705	662	0	0	0	0	0	2,043
513+00	51300.00	50.00	0.00	0.00	1.06	0.00	0.00	0.00	0	0	1	0	0	0	2,705	663	0	0	0	0	0	2,042
513+50	51350.00	50.00	0.00	0.00	2.08	0.00	0.00	0.00	0	0	3	0	0	0	2,705	667	0	0	0	0	0	2,038
514+00	51400.00	50.00	0.00	0.00	15.64	0.00	0.00	0.00	0	0	16	0	0	0	2,705	688	0	0	0	0	0	2,017
514+50	51450.00	50.00	0.00	0.00	27.27	0.00	0.00	0.00	0	0	40	0	0	0	2,705	740	0	0	0	0	0	1,965
515+00	51500.00	50.00	0.00	0.00	11.38	0.00	0.00	0.00	0	0	36	0	0	0	2,705	787	0	0	0	0	0	1,919
515+47.188	51547.19	47.19	0.00	0.00	0.75	0.00	0.00	0.00	0	0	11	0	0	0	2,705	801	0	0	0	0	0	1,904
516+00	51600.00	52.81	0.00	0.00	0.00	0.00	0.00	0.00	0	0	1	0	0	0	2,705	802	0	0	0	0	0	1,903

**DIVISION 9 - ALIGNMENT - STH95**

682+50	68250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	2,705	802	0	0	0	0	0	1,903
682+70	68270.00	20.00	413.82	0.00	0.00	0.00	0.00	0.00	153	0	0	0	0	0	2,858	802	0	0	0	0	0	2,056
683+15	68315.00	45.00	413.82	0.00	24.29	0.00	0.00	0.00	690	0	20	0	0	0	3,548	828	0	0	0	0	0	2,720
683+50	68350.00	35.00	0.00	0.00	0.00	0.00	0.00	0.00	268	0	16	0	0	0	3,816	849	0	0	0	0	0	2,967

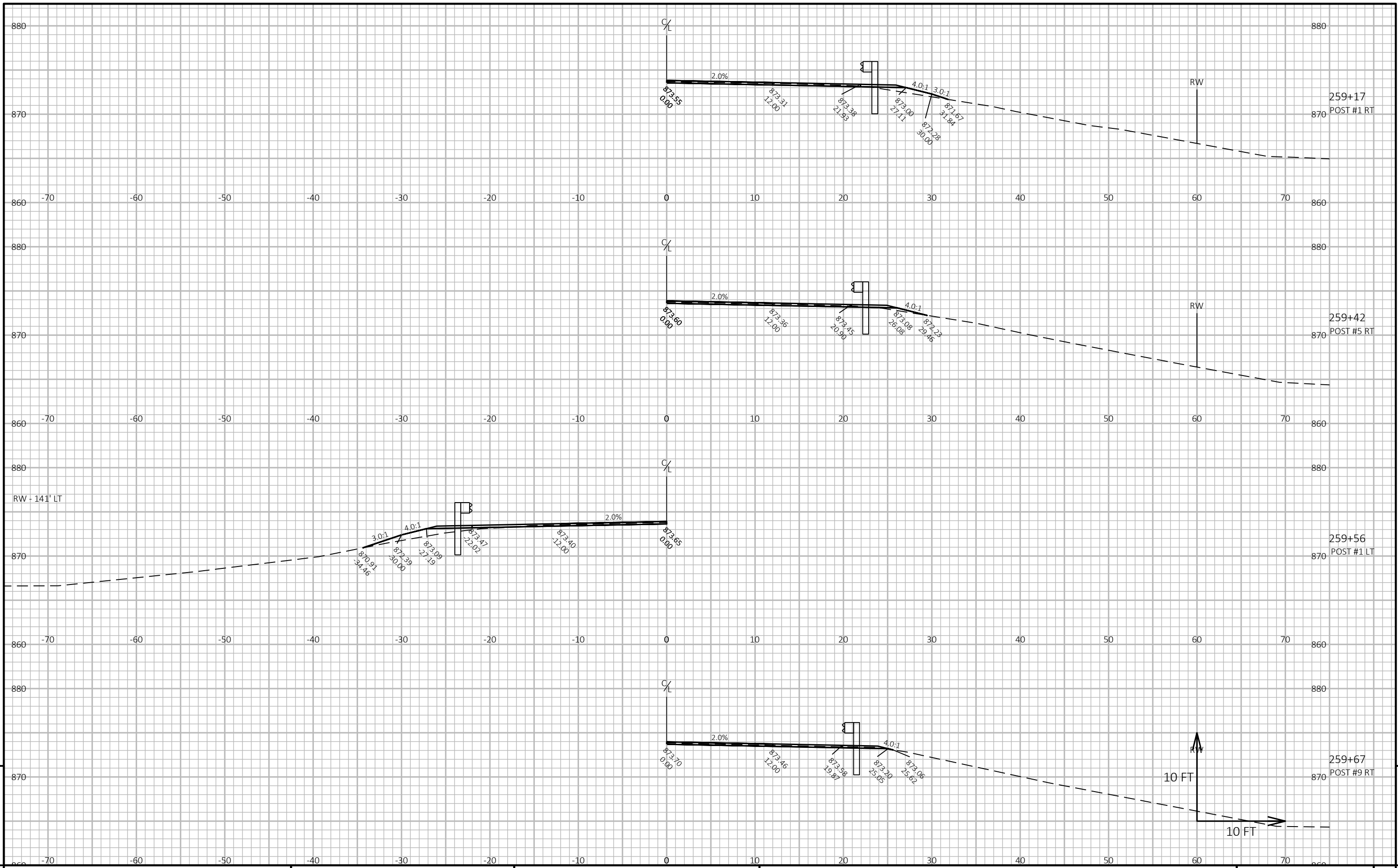


DIVISION 10 - ALIGNMENT - STH95

STATION	REAL STATION	DISTANCE	AREA (SF)						INCREMENTAL VOL (CY) (UNADJUSTED)						CUMULATIVE VOL (CY)								
			CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH	EXCROCK	EXC	EBS	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	EXPANDED FILL	EXPANDED MARSH BACKFILL	EXPANDED ROCK	EXPANDED EBS BACKFILL	REDUCED MARSH IN FILL	REDUCED EBS IN FILL	MASS ORDINATE
687+50	68750.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	3,816	849	0	0	0	0	0	2,967	
687+76.148	68776.15	26.15	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	3,816	849	0	0	0	0	0	2,967	
688+00	68800.00	23.85	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	3,816	849	0	0	0	0	0	2,967	
688+50	68850.00	50.00	0.00	0.00	2.08	0.00	0.00	0.00	0	0	2	0	0	0	3,816	852	0	0	0	0	0	2,965	
689+00	68900.00	50.00	0.00	0.00	4.10	0.00	0.00	0.00	0	0	6	0	0	0	3,816	859	0	0	0	0	0	2,957	
689+50	68950.00	50.00	0.00	0.00	2.15	0.00	0.00	0.00	0	0	6	0	0	0	3,816	867	0	0	0	0	0	2,949	
690+00	69000.00	50.00	0.00	0.00	0.02	0.00	0.00	0.00	0	0	2	0	0	0	3,816	870	0	0	0	0	0	2,946	
690+50	69050.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	3,816	870	0	0	0	0	0	2,946	
691+00	69100.00	50.00	0.00	0.00	3.99	0.00	0.00	0.00	0	0	4	0	0	0	3,816	875	0	0	0	0	0	2,941	
691+50	69150.00	50.00	0.00	0.00	10.51	0.00	0.00	0.00	0	0	13	0	0	0	3,816	892	0	0	0	0	0	2,924	
692+00	69200.00	50.00	0.00	0.00	33.38	0.00	0.00	0.00	0	0	41	0	0	0	3,816	945	0	0	0	0	0	2,871	
692+50	69250.00	50.00	0.00	0.00	11.45	0.00	0.00	0.00	0	0	42	0	0	0	3,816	1,000	0	0	0	0	0	2,816	
692+72.271	69272.27	22.27	0.00	0.00	1.32	0.00	0.00	0.00	0	0	5	0	0	0	3,816	1,006	0	0	0	0	0	2,810	
693+00	69300.00	27.73	0.00	0.00	0.00	0.00	0.00	0.00	0	0	1	0	0	0	3,816	1,008	0	0	0	0	0	2,809	

Notes:

- 1 - CUT CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
  - 2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL THIS DOES NOT SHOW UP IN CROSS SECTIONS
  - 3 - FILL DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
  - 4 - EXPANDED MARSH BACKFILL WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
  - 5 - EXPANDED EBS WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
  - 6 - REDUCED MARSH IN FILL REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL
  - 7 - REDUCED EBS IN FILL REDUCED EBS EXCAVATION THAT CAN BE USED IN FILL
  - 8 - MASS ORDINATE IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) \* FILL FACTOR)]
  - 8 - MASS ORDINATE IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) \* FILL FACTOR)]
  - 8 - MASS ORDINATE IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - EXPANDED ROCK) \* FILL FACTOR)]
  - 8 - MASS ORDINATE IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) \* FILL FACTOR)]
- NOTE 4 - SELECT ONE BASED ON INPUT DIALOG SELECTION  
 NOTE 5 - SELECT ONE BASED ON INPUT DIALOG SELECTION  
 NOTE 6 - IF EXCAVATED MARSH CAN BE USED IN FILL  
 NOTE 7 - IF EXCAVATED EBS CAN BE USED IN FILL  
 NOTE 8 - SELECT ONE BASED ON MASS HAUL INPUT DIALOG SELECTION. EBS AND MARSH EXC USED OUTSIDE 1:1 IN FILL SLOPES  
 EBS AND MARSH EXC USED OUTSIDE 1:1 IN FILL SLOPES  
 MARSH AND EBS ARE NOT USABLE OUTSIDE THE 1:1 SLOPES  
 MARSH AND EBS ARE NOT USABLE OUTSIDE THE 1:1 SLOPES



PROJECT NO: 7560-05-74

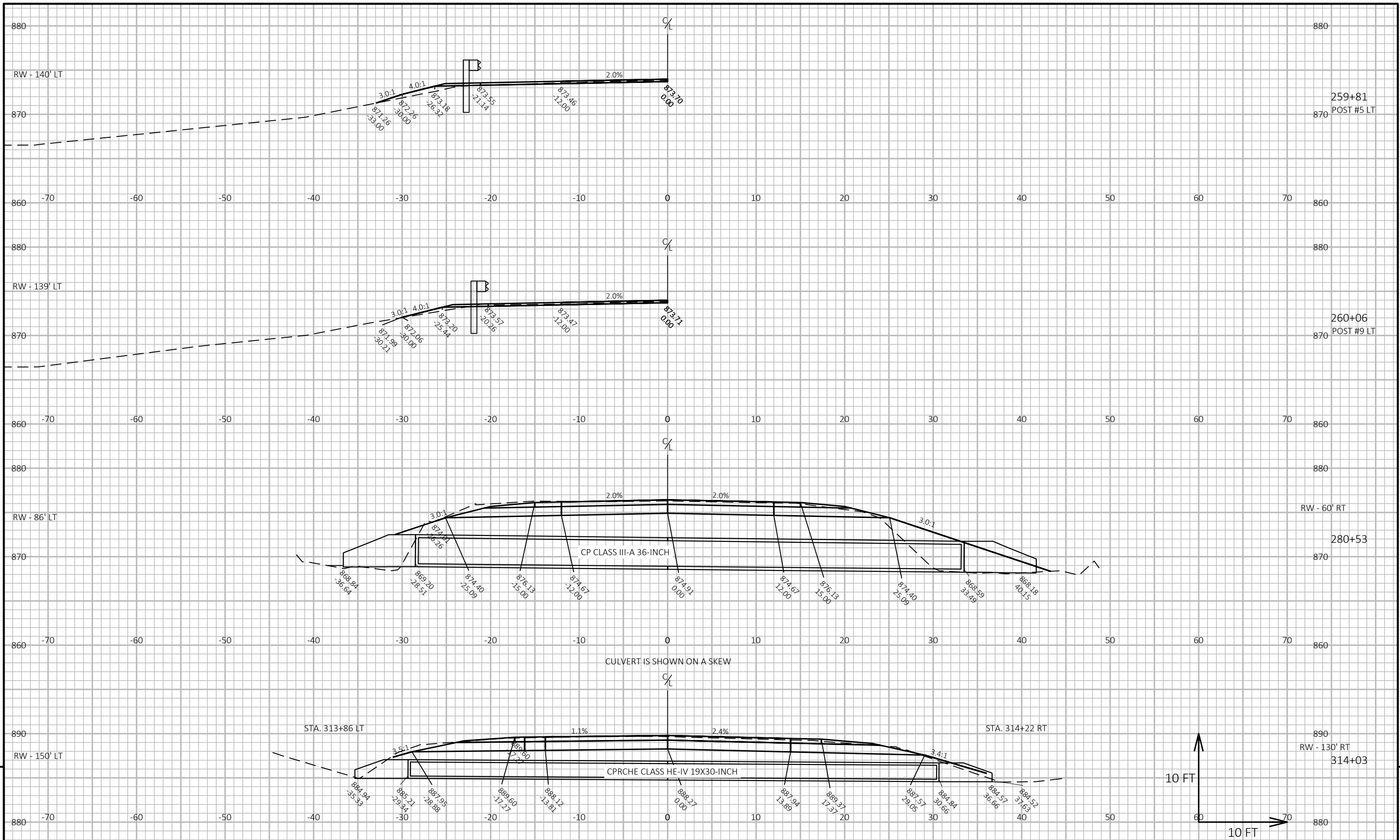
HWY: STH 95

COUNTY: JACKSON

CROSS SECTIONS

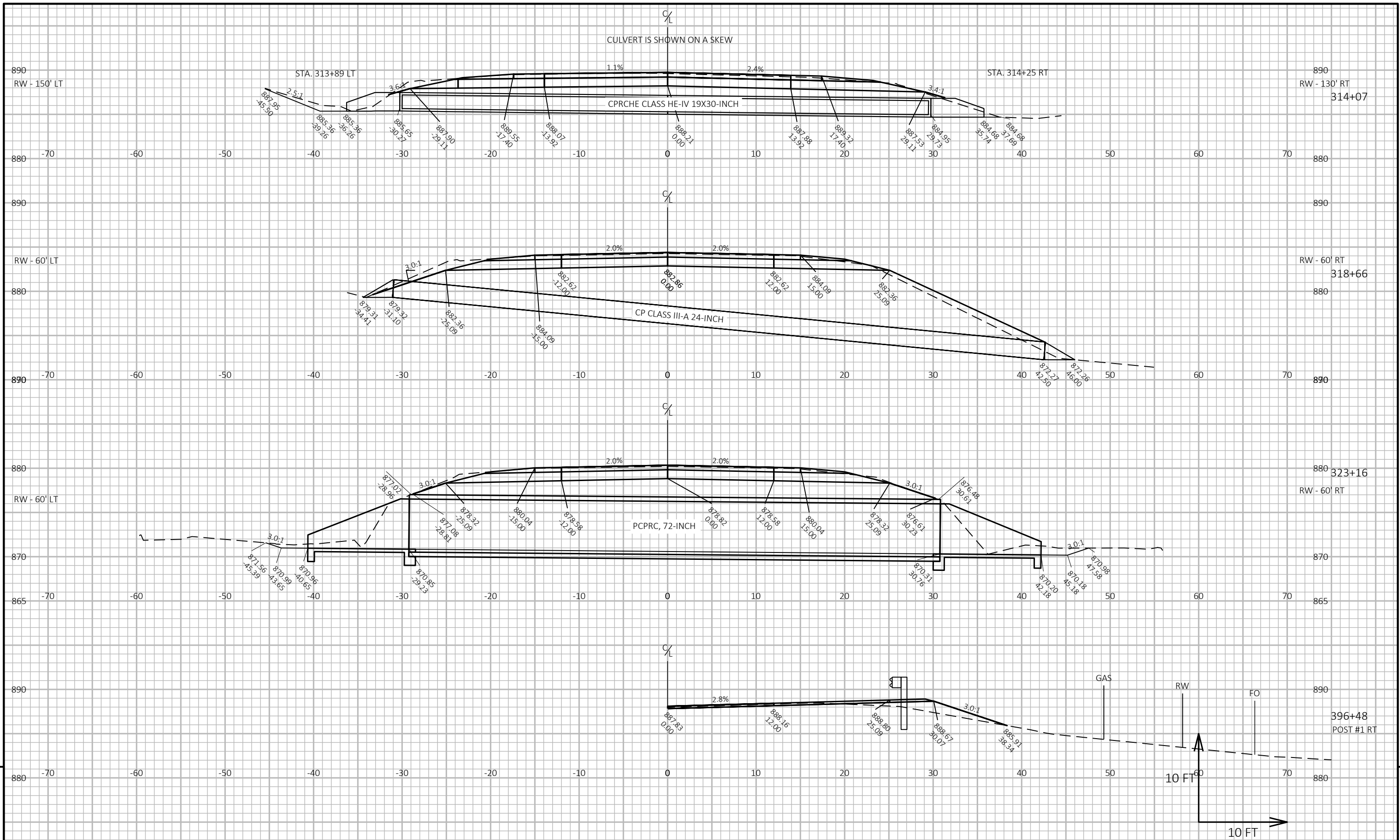
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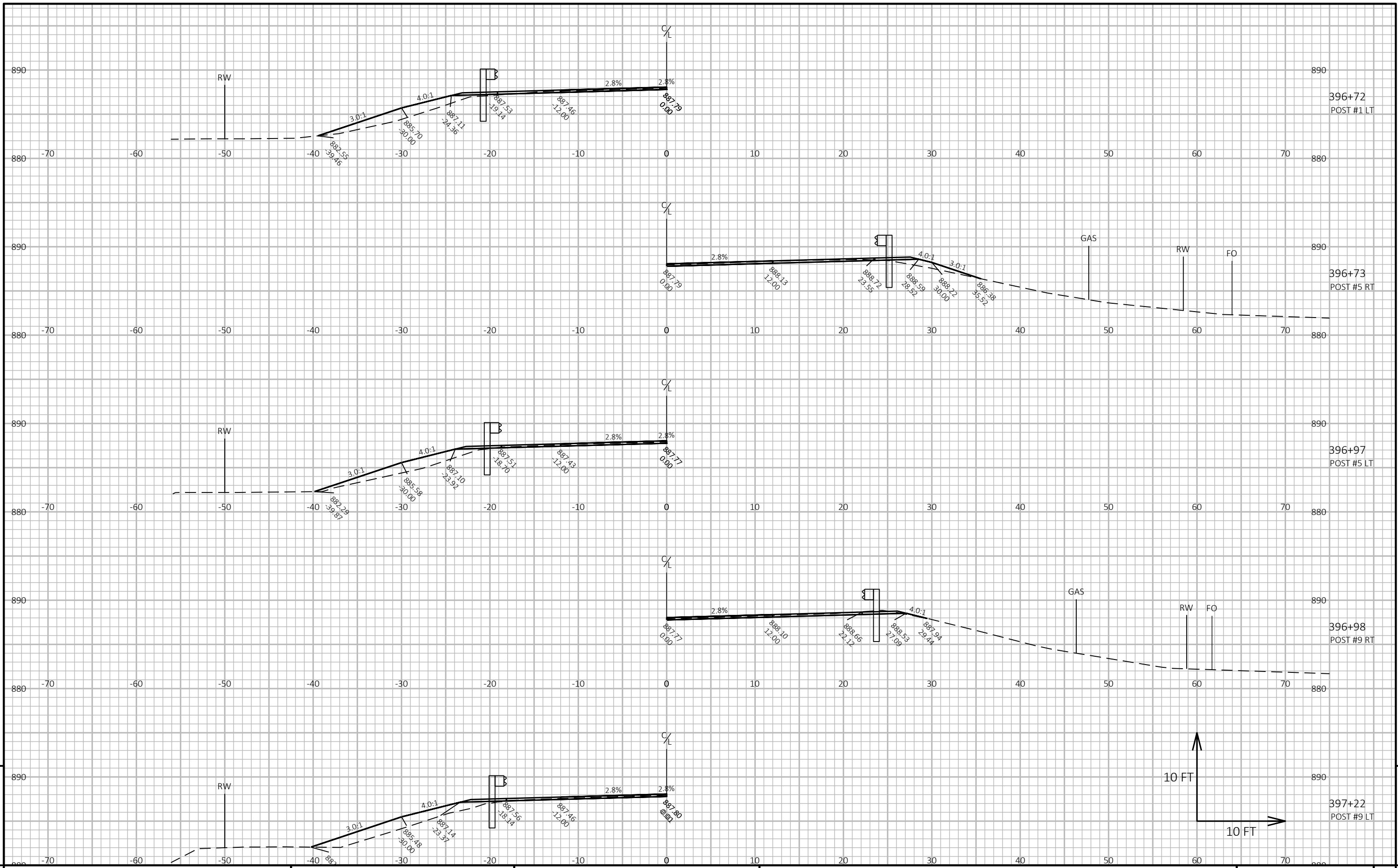
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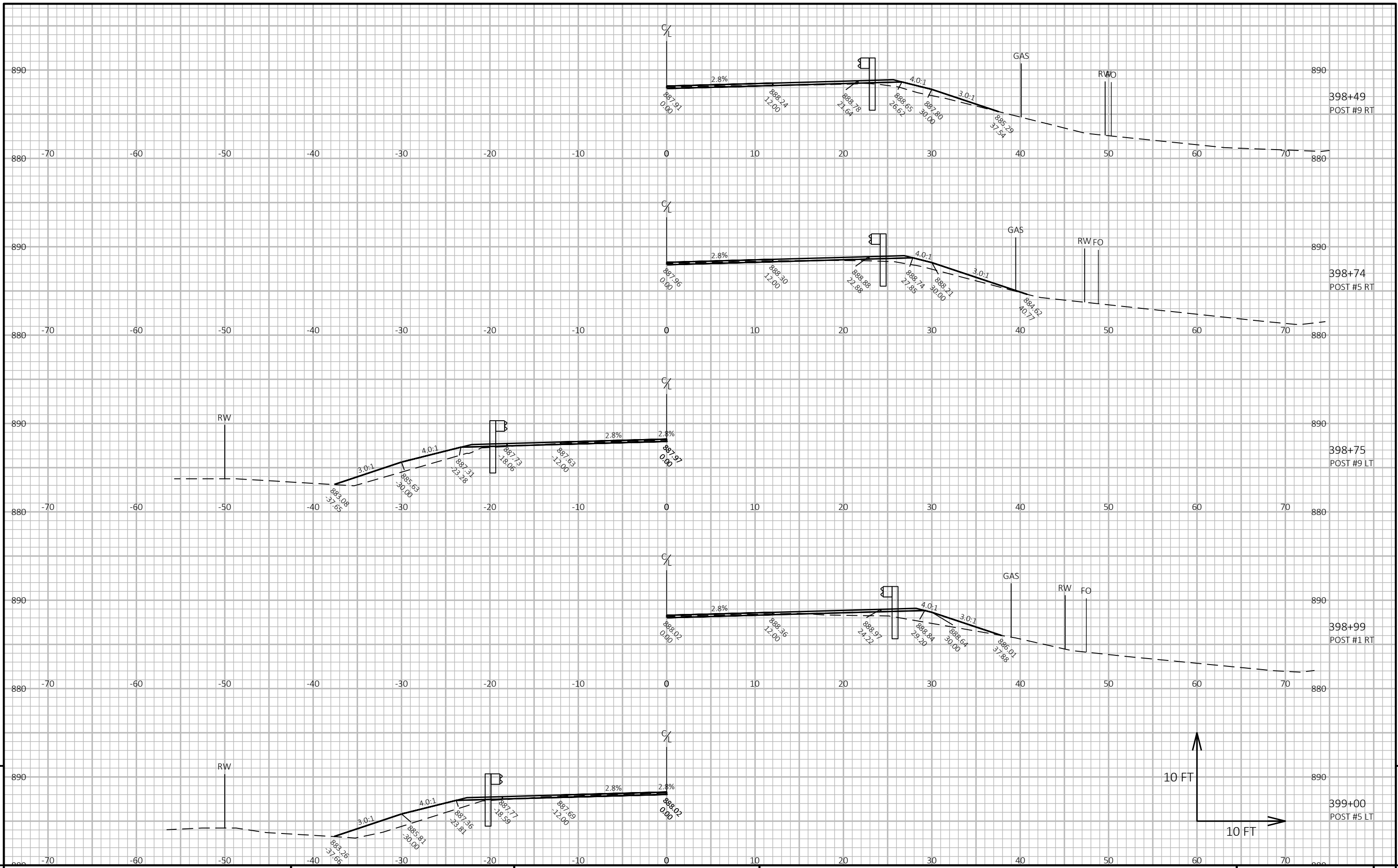
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9	PROJECT NO: 7560-05-74	HWY: STH 95	COUNTY: JACKSON	CROSS SECTIONS	SHEET	9
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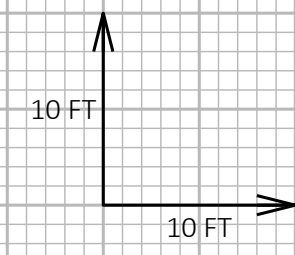
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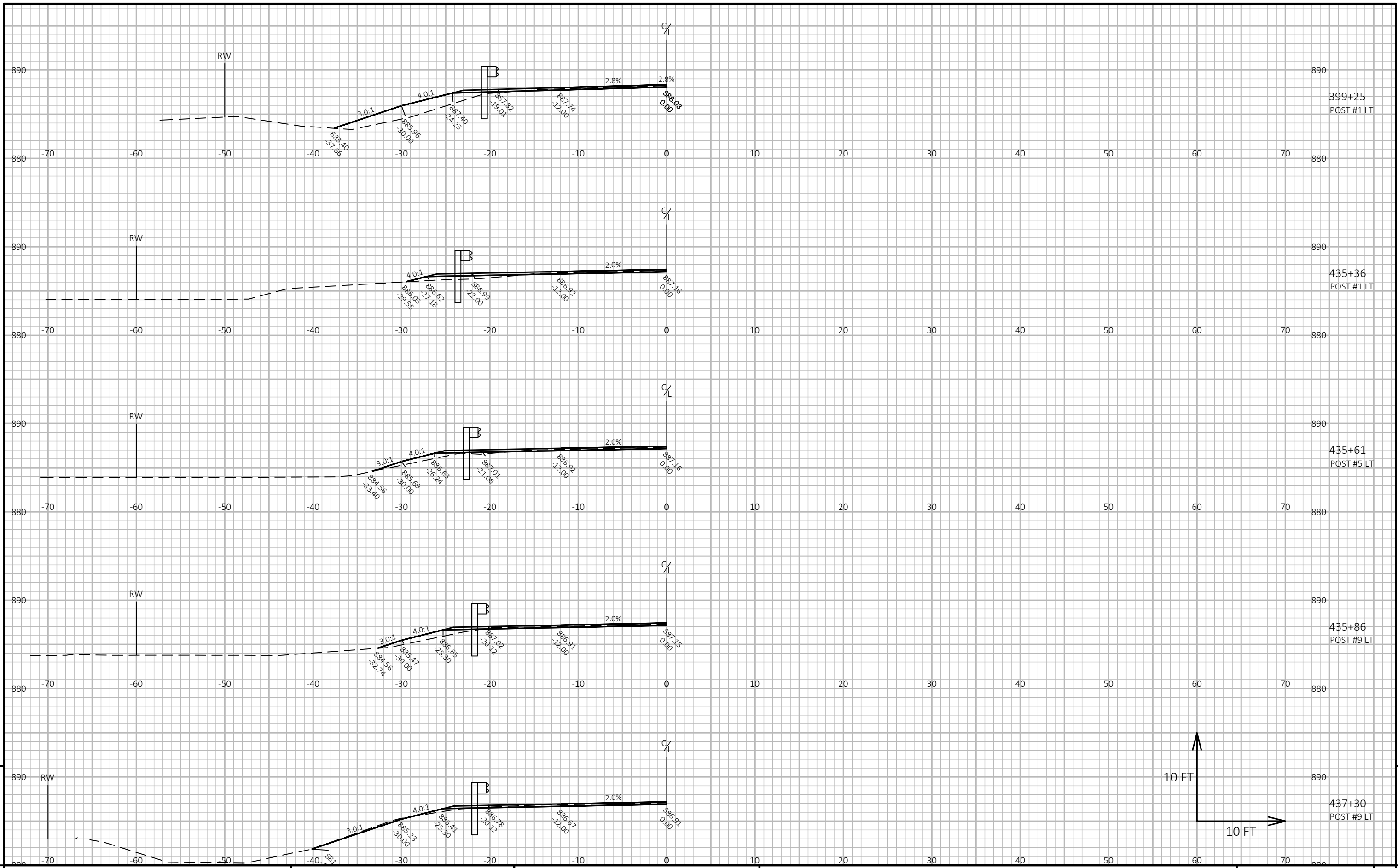


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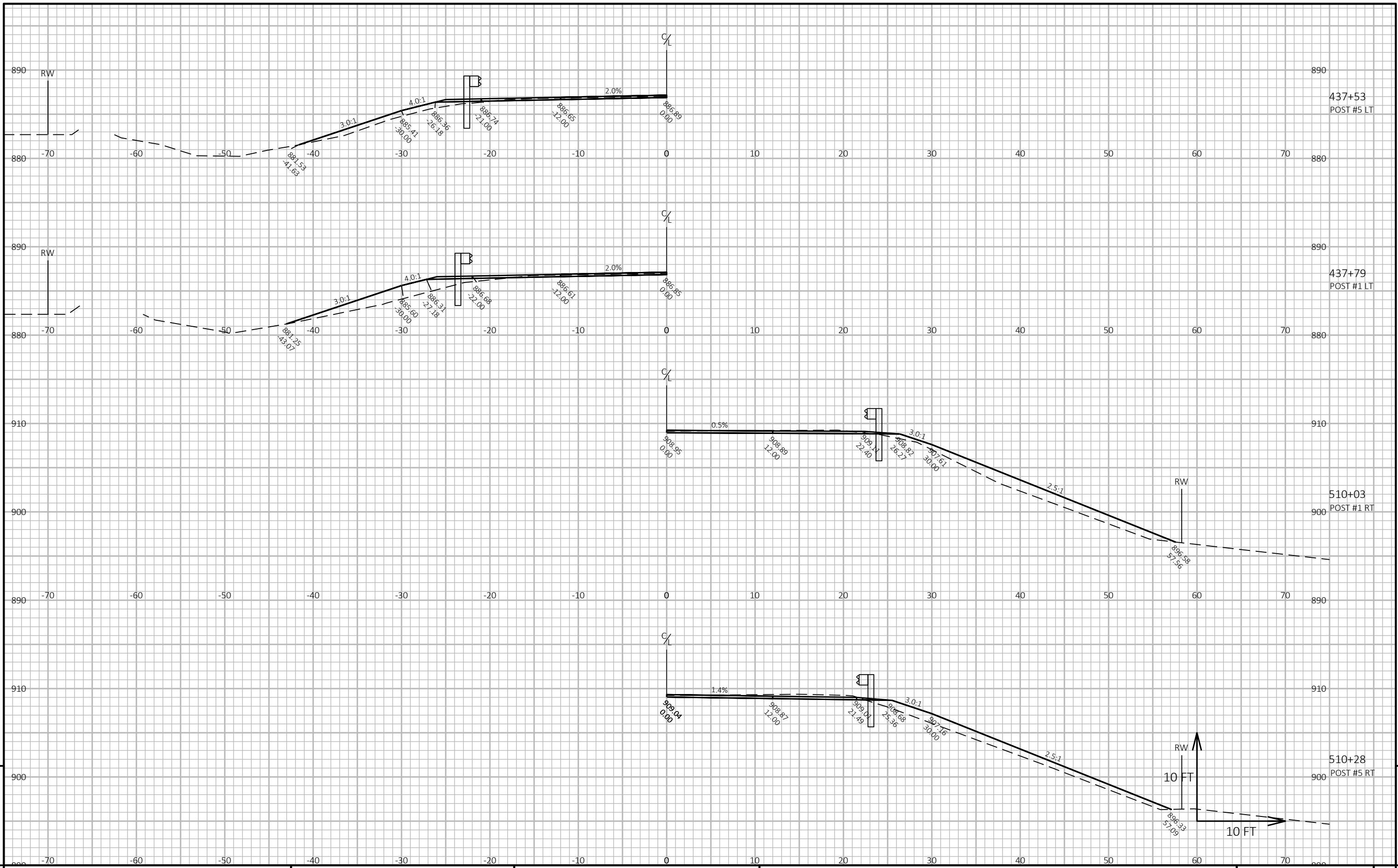


PROJECT NO: 7560-05-74      HWY: STH 95      COUNTY: JACKSON      CROSS SECTIONS      SHEET      E

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PROJECT NO: 7560-05-74

HWY: STH 95

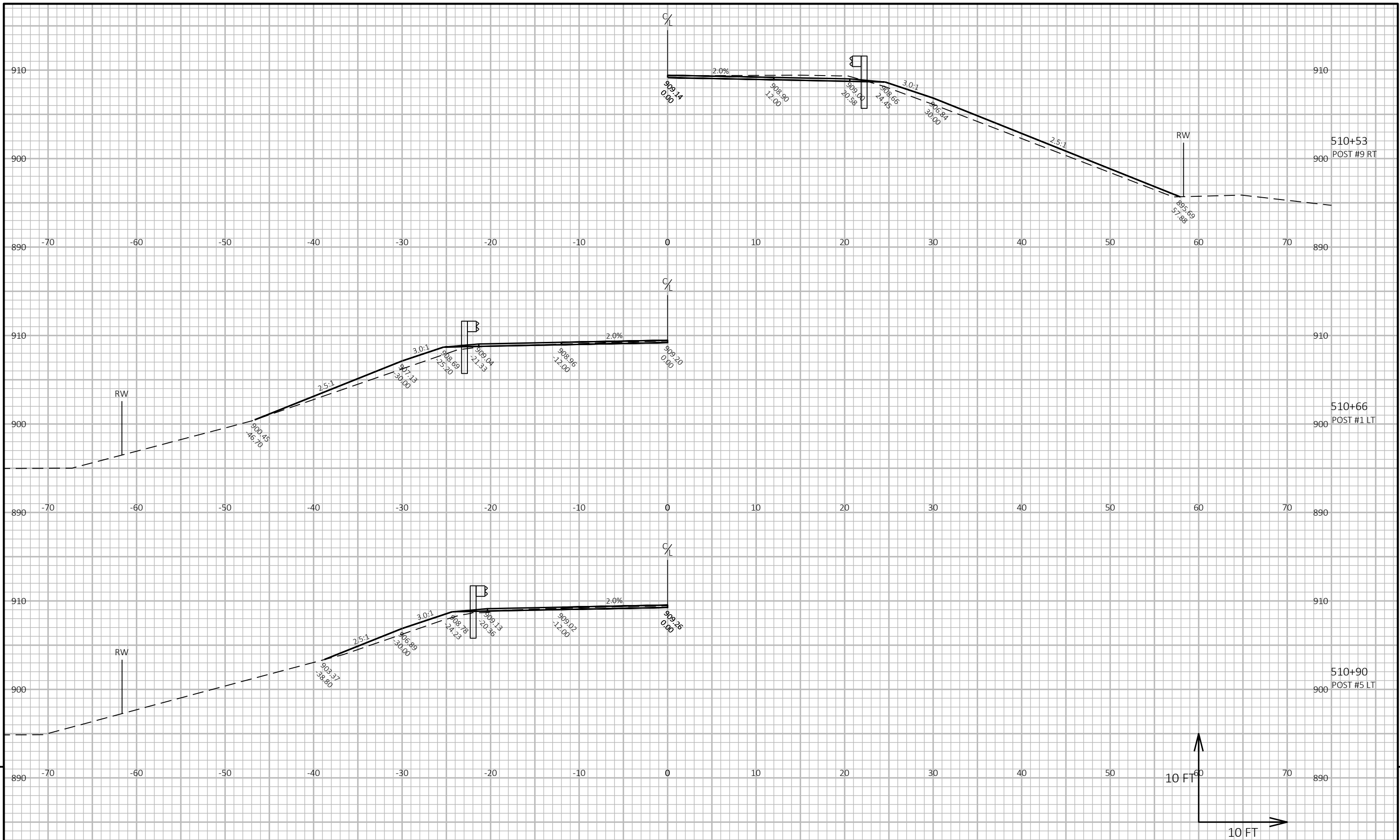
COUNTY: JACKSON

CROSS SECTIONS

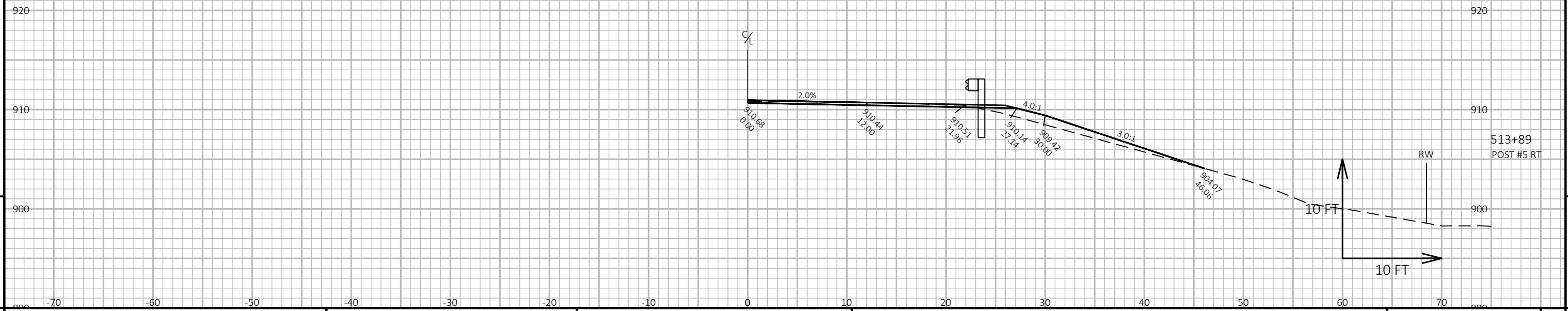
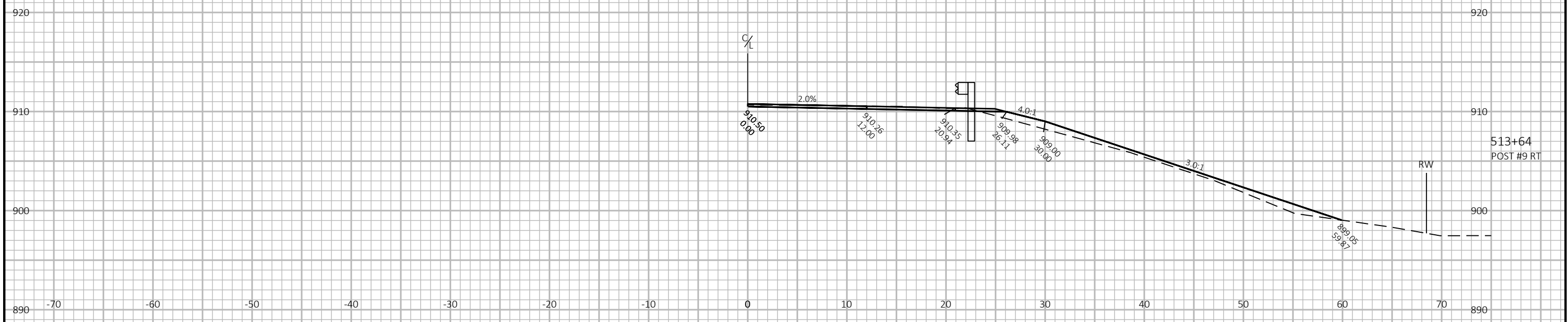
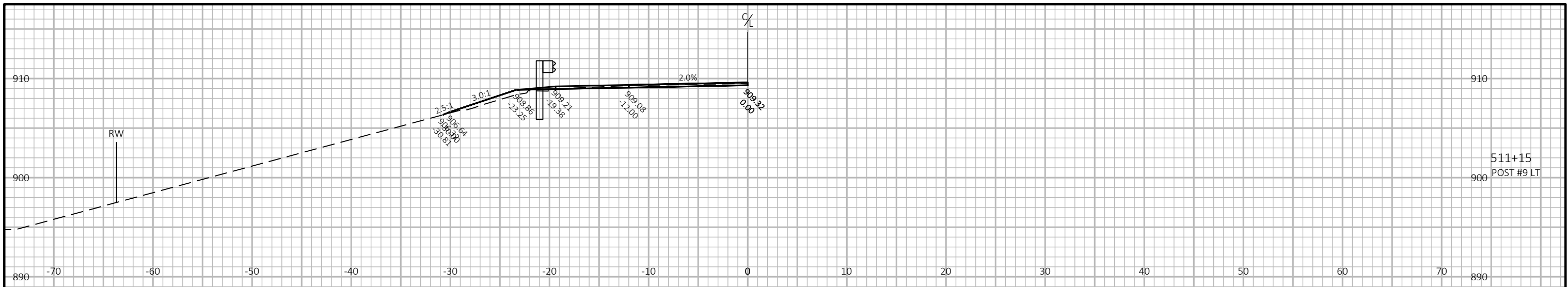
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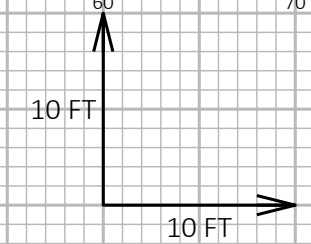
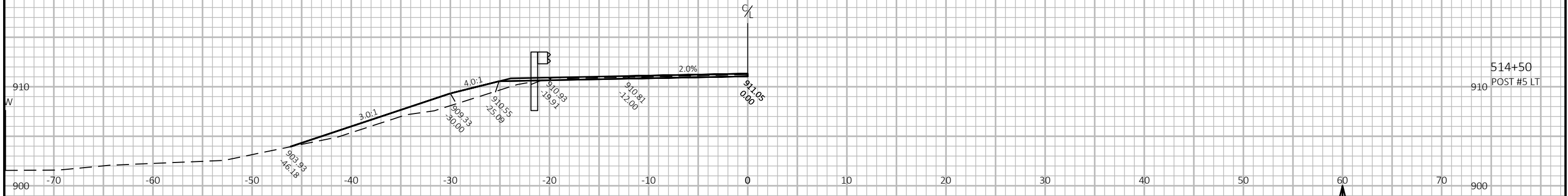
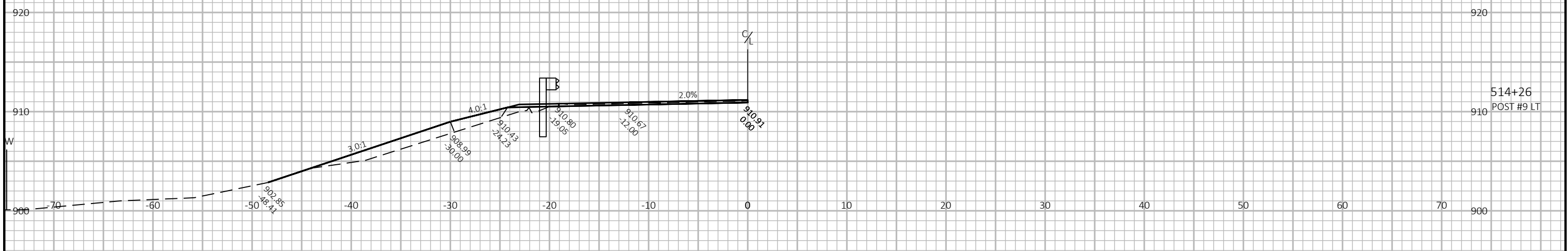
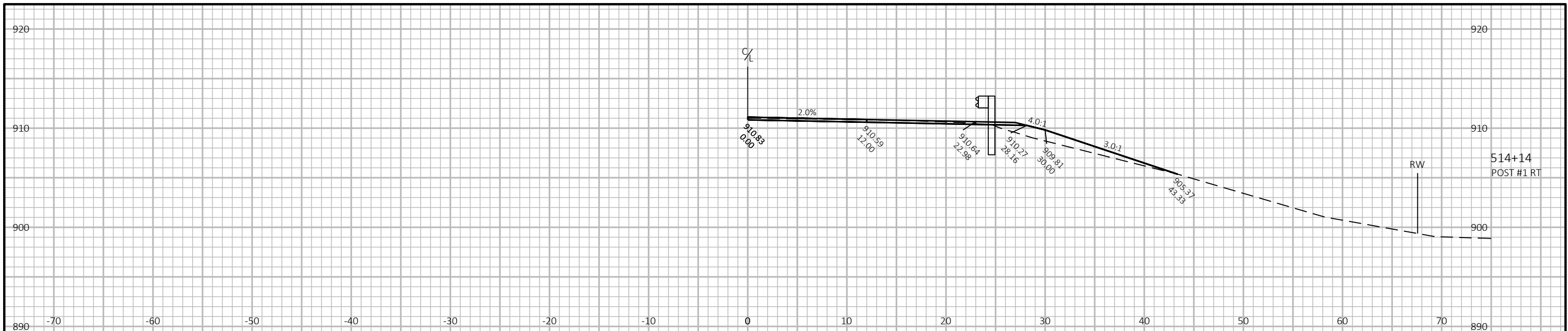
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PROJECT NO: 7560-05-74      HWY: STH 95      COUNTY: JACKSON      CROSS SECTIONS      SHEET      E

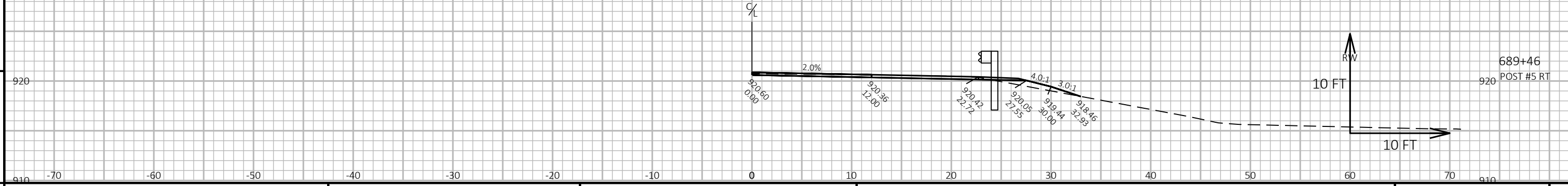
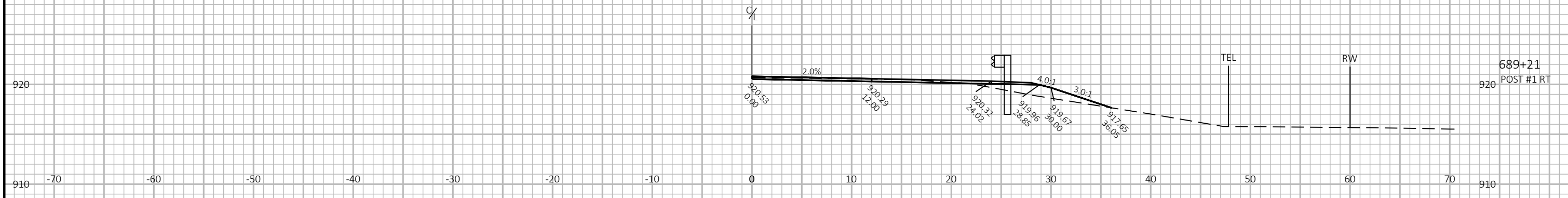
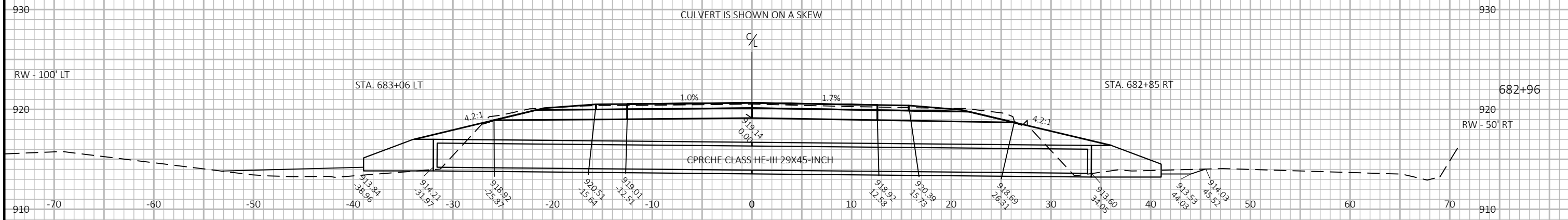
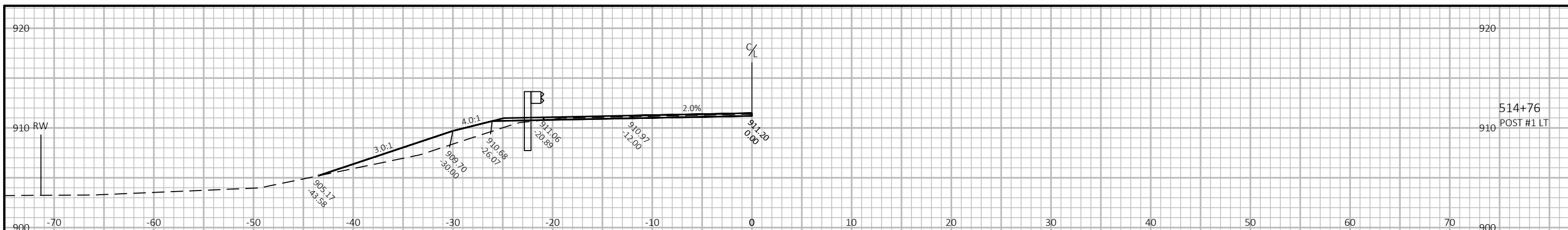
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LAYOUT NAME - 9

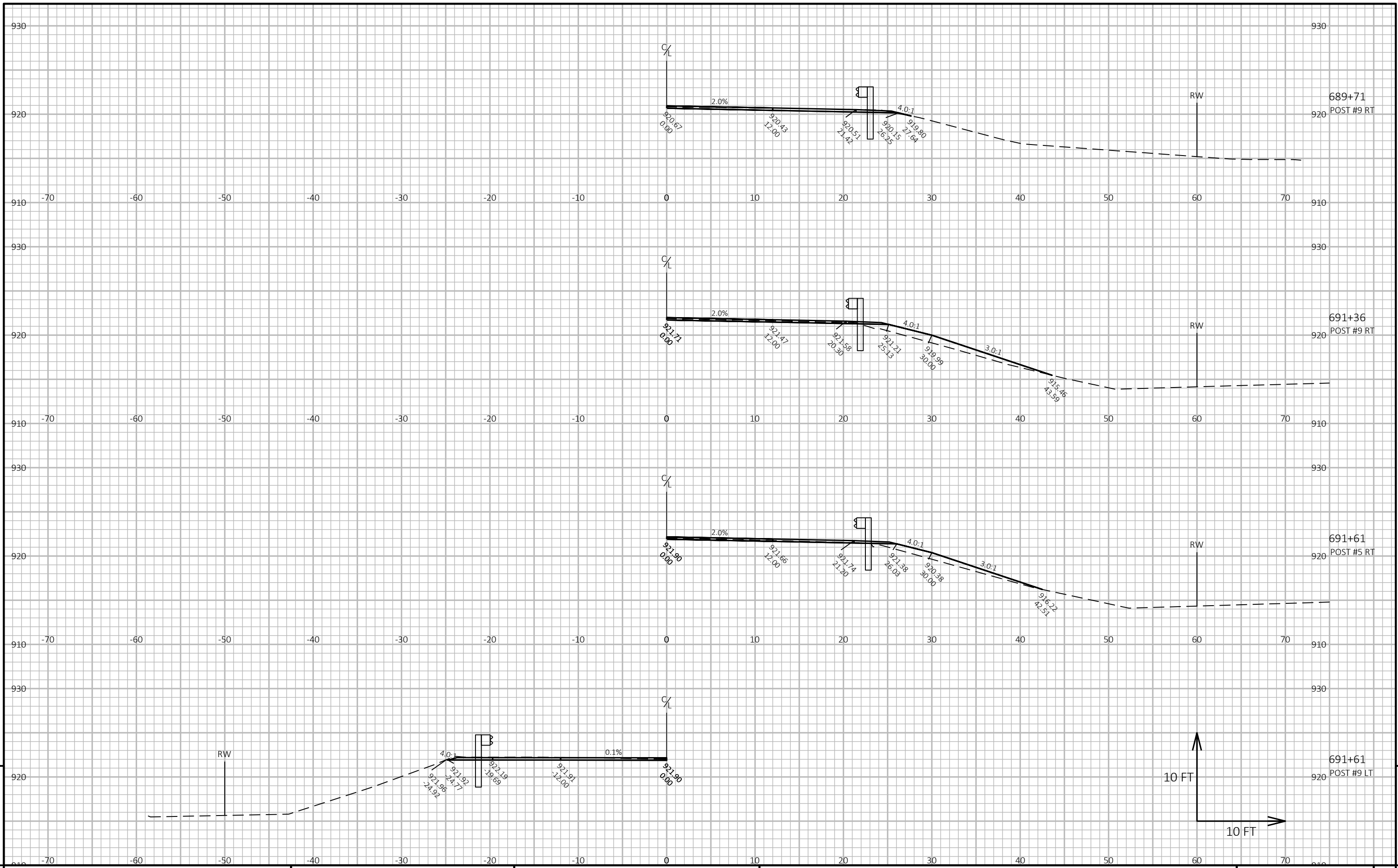


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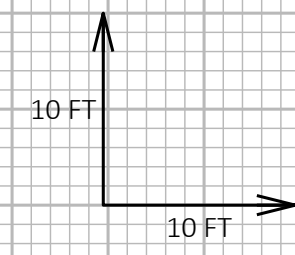
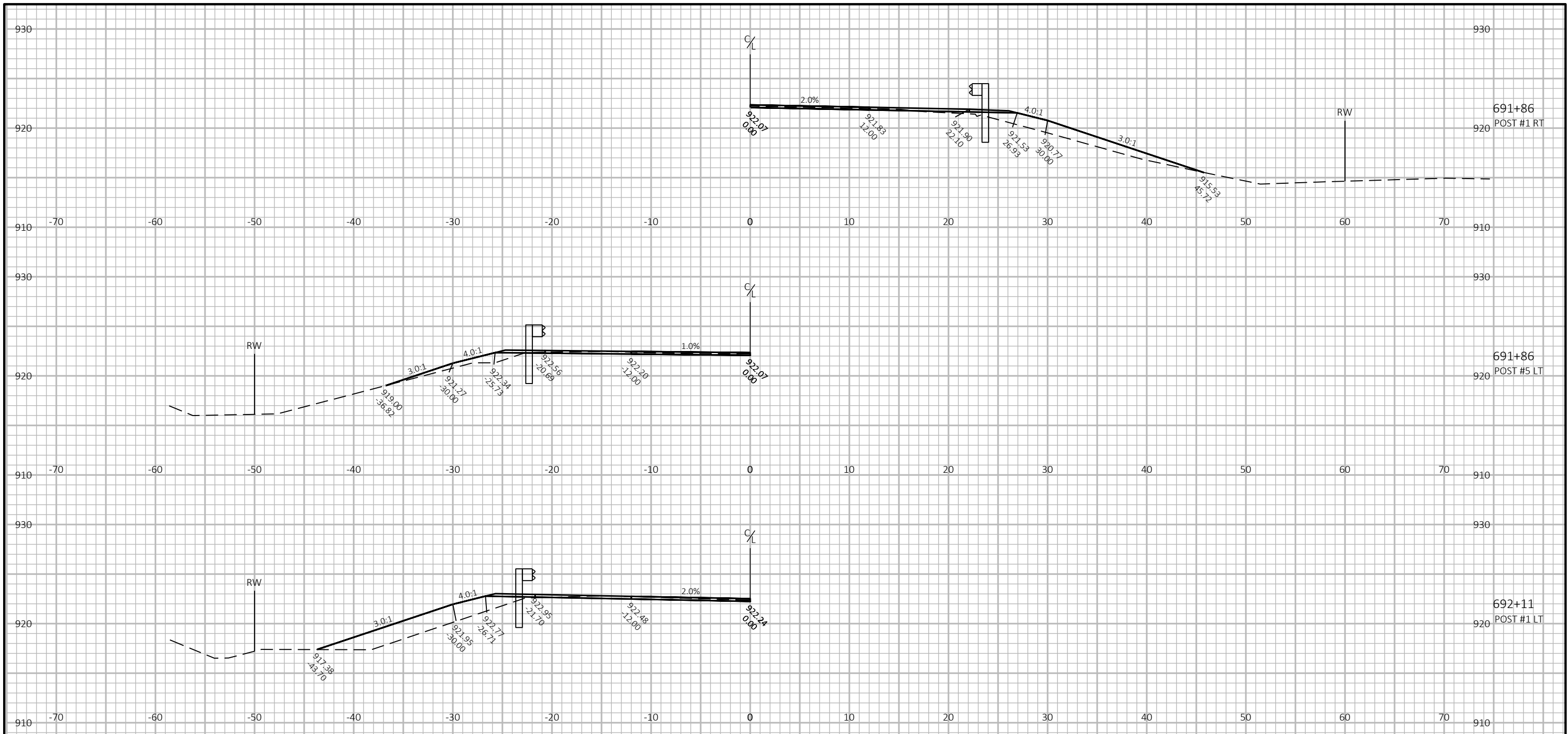
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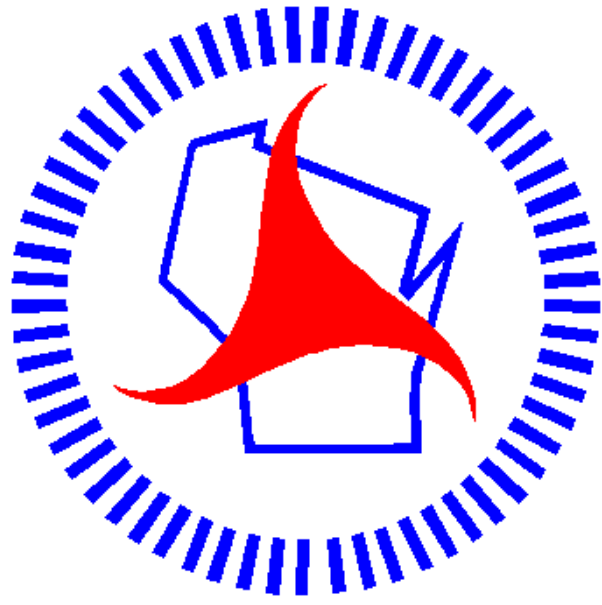
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LAYOUT NAME - 12



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